The City of Canton

Invitation to Bid
City of Canton, Ohio

Purchasing Department
218 Cleveland Ave. SW, 4th floor
Canton, Ohio 44702

STA 11th St NE Improvements, GP 1144, PID 90465

Item/Project

Engineering

Responsible Department

2:00 PM on May 16, 2023

Bids Due

NOTICE: See ODOT LPA Template, Page 3, Item #24, LPA PN 13 – 3/15/19
DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION PLAN AND GOOD FAITH EFFORTS

All Bidders **Shall** submit a DBE Utilization Plan before the time of the bid opening to the following website: **https://odot.formstack.com/forms/dbe_copy.**
The apparent low bidder **Must** complete all requirements set forth within the DBE AFFIRMATION within 5 days of the bid opening. See the following website: **https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe-resources.**
DBE Goal is 9%.
Should there be a discrepancy between City of Canton contract language and federal rules, federal rules shall take precedence.

Bid Proposal Submitted By:

Company Name

Street Address

City **State** **Zip**

Contact Person **Phone No.** **Email Address**

Table of Contents and Bidder's Checklist – STA 11th St NE Improvements

LEGAL NOTICE

INSTRUCTIONS TO BIDDERS

OWNER-CONTRACTOR AGREEMENT

BID GUARANTY AND CONTRACT BOND

BID FORM

MODIFIED GENERAL CONDITIONS (EJCDC)

CITY OF CANTON CODIFIED ORDINANCES

STATEMENT OF CLAIM FORM

CONTRACTOR'S PERSONAL PROPERTY TAX AFFIDAVIT

CONTRACTOR'S FINAL WAIVER & RELEASE AFFIDAVIT

PRE-BID SUBSTITUTION FORM

ODOT LPA TEMPLATE

ODOT CMS 100 (Modified)

Appendix A: Prevailing Wage Rates and Information
Appendix B: Specifications and Drawings
Appendix C: Water Pollution Control Loan Fund Requirements
Appendix D: Title VI Requirements

Bidder's Checklist: The completed Bid Form shall be accompanied by the following completed documents:

_____. **Pre-Bid Substitution, if any proposed substitutes have been pre-approved.**
_____ **Bid Guaranty and, if applicable Contract Bond**
_____ **Contractor's List of Subcontracted Work Categories**
_____ **A list identifying its DBE subcontractors and participation rates as a percentage of the Contract Price, and if the DBE participation goal has not been met, certification of good faith efforts to meet the DBE participation goal.**
_____ **If this project is funded in whole or part by the Ohio Public Works Commission, then certification of agreement and compliance with certain statements and covenants regarding Bidder's subscription to the State's Equal Employment Opportunity Requirements for State-assisted Construction Contracts.**

The City of Canton

LEGAL NOTICE:
Ordinance # 69/2022

The City of Canton, Ohio Director of Public Service will accept sealed bids on or before 2:00 PM local time on **Tuesday, May 16, 2023** for the purpose of securing bids for the STA 11th St SE Improvements, GP1144, PID 90465.

The City will disqualify any bid not received on or before 2:00 PM local time on **Tuesday, May 16, 2023**. Shortly after the deadline for the submission of bids, bids received on time will be publicly opened and read aloud. The Sixth Floor Room of Canton City Hall, 218 Cleveland Ave. SW, Canton, OH 44702 is the location for the Bid Opening.

Submit all bids to the City of Canton Purchasing Department, 218 Cleveland Avenue SW, Fourth Floor, Canton, Ohio 44702 according to the specifications and bid documents at the City of Canton Purchasing Department's website at https://cantonohio.gov/448/Purchasing-Procurement.

Each bid must contain the full name of every person or company participating in the bid.

A certified check, cashier's check or surety bond, in accordance with Section 153.54 of the Ohio Revised Code, must accompany the bid. This check or bond must be made payable to the City of Canton. Draw this check or bond from a solvent bank or bonding company satisfactory to the Director of Public Service as a guarantee the contract and its performance are properly secured if the bid is accepted. Said certified check or cashier's check shall be for ten percent (10%) of the total amount bid. Where a bid bond is used, it shall be in an amount of one hundred percent (100%) of the total amount of the bid. The City of Canton will only accept original checks and bid bonds. Therefore, if any company and/or bidder submits a copy of its security, the City will disqualify the bid. Bidders submitting a certified or cashier's check will be required to provide a surety bond in the amount of one hundred percent (100%) of the contract sum for faithful performance. The Director of Public Service reserves the right to waive any technical defects in any bid bond submitted so long as the bond is in substantial compliance with state law. Should any bid not be awarded or be rejected, such check or bond will be returned to the bidder or bidders after the execution of the contract. **INCLUDE THE CITY OF CANTON, THE OHIO DEPARTMENT OF TRANSPORTATION, AND THEIR AGENTS AS OBLIGEES ON ALL BONDS.**

Any bidder may withdraw his bid, by written request, at any time prior to the time set for the bid opening by following the instructions in the Invitation to Bid.

Only ODOT pre-qualified contractors are eligible to submit bids for this PROJECT. Prequalification status must be in force **at the time of bid, at the time of award, and through the life of the construction contract.** For work types that ODOT does not pre-qualify, the LPA must still select a qualified contractor. The "prime" contractor must perform no less than 30 percent of the total original contract price. Subcontractors are not subject to the pre-qualification requirement except as noted below.

The bidder must use the proposal blanks provided in the bid package for submitting bids. The City will not accept any other submittals.

The project shall be completed no later than 550 calendar days after date specified in Notice to Proceed

This project has a Disadvantaged Business Enterprise (DBE) goal of **9 %**. The contractor must provide a plan on how it will satisfy the DBE goal and proof of commitments from DBE subcontractors and suppliers before Canton will enter into an agreement with the contractor.

"Disadvantaged Business (DBE) Requirement. DBE participation goals (Subcontracts, materials, supplies) have been set on this project for those certified as DBE's in accordance with 49 CFR, Part 26, and qualified to bid with ODOT under Chapter 5525 of the Ohio Revised Code (O.R.C.)."
WAIVER PROCESS FOR DBE GOALS: ODOT LPA Template, Item 24, LPA PN 013 – 3/15/2019–DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION PLAN AND GOOD FAITH EFFORTS.

There will be no value engineering change proposals accepted on this project.

All steel and iron products must meet the federal requirements of ODOT LPA Template, Item 2.

The successful bidder must comply with all **Federal Davis-Bacon Prevailing Wage Rates**.
All companies must submit their Federal ID Number.

A Project Labor Agreement (PLA) is not required for this project
.
The estimated construction cost is $10,567,908.52 for this project.

The bidder is responsible for monitoring the City's website for any official addenda.

The Board of Control reserves the right to reject any or all bids and to accept the bid(s) deemed most beneficial to the City of Canton.

Please contact Katie Wise, Assistant Director of Purchasing at purchasing@cantonohio.gov if you have any questions regarding this bid.

By order of the Canton Director of Public Service: John M. Highman, Jr. Published in the Repository: April 24, 2023 and May 1, 2023 and May 8, 2023

INSTRUCTIONS TO BIDDERS

TABLE OF CONTENTS

A. BIDDER'S PLEDGE AND AGREEMENT 1

B. EXAMINATION OF CONTRACT DOCUMENTS AND SITE CONDITIONS AND RELIANCE UPON TECHNICAL DATA..... 1

C. OWNER & ENGINEER..... 2

D. PROJECT..... 2

E. WORK 2

F. ESTIMATE OF COST 3

G. CONTRACT DOCUMENTS..... 3

H. PREPARATION OF BIDS 3

I. METHOD OF AWARD..... 6

J. EXECUTION OF CONTRACT 6

K. SUBSTITUTIONS/NON-SPECIFIED PRODUCTS..... 7

L. ALTERNATES 8

M. UNIT PRICES..... 8

N. ADDENDA 8

O. INTERPRETATION..... 9

P. STATE SALES AND USE TAXES 9

Q. DATE FOR SUBSTANTIAL COMPLETION/DATE FOR FINAL COMPLETION/LIQUIDATED DAMAGES 10

R. OWNER'S RIGHT TO WAIVE DEFECTS AND IRREGULARITIES 10

S. MODIFICATION/WITHDRAWAL OF BIDS.....110

T. COMPLIANCE WITH APPLICABLE LAWS 111

U. FINDINGS FOR RECOVERY 122

V. PREVAILING WAGES.....122

W. DBE PARTICIPATION GOALS 122

X. OTHER LOCAL ORDINANCE REQUIREMENTS.....133

Y. OHIO PUBLIC WORKS COMMISSION FUNDING.....14

A. BIDDER'S PLEDGE AND AGREEMENT

1. Each Bidder acknowledges that this is a public project involving public funds and that the Owner expects and requires that each successful Bidder adhere to the highest ethical and performance standards. Each Bidder by submitting a bid pledges and agrees that (a) it will act at all times with absolute integrity and truthfulness in its dealings with the Owner and the Engineer, (b) it will use its best efforts to cooperate with the Owner and the Engineer and all other Contractors on the Project and at all times will act with professionalism and dignity in its dealings with the Owner, Engineer, and other Contractors, (c) it will assign only competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks that are assigned to him/her, and (d) it has read, understands and will comply with the terms of the Contract Documents.

B. EXAMINATION OF CONTRACT DOCUMENTS AND SITE CONDITIONS AND RELIANCE UPON TECHNICAL DATA

1. Each Bidder shall have a competent person carefully and diligently review each part of the Contract Documents, including the Divisions of the Specifications and parts of the Drawings that are not directly applicable to the Work on which the Bidder is submitting its bid. By submitting its bid, each Bidder represents and agrees, based upon its careful and diligent review of the Contract Documents, that it is not aware of any conflicts, inconsistencies, errors, or omissions in the Contract Documents for which it has not notified the Owner in writing at least ten (10) days prior to the bid opening. If there are any such conflicts, inconsistencies, errors, or omissions in the Contract Documents, the Bidder (i) will provide the labor, equipment, or materials of the better quality or greater quantity of Work and/or (ii) will comply with the more stringent requirements. The Bidder will not be entitled to any Change Order, additional compensation, or additional time on account of such conditions for any conflicts, inconsistencies, errors, or omissions that would have been discovered by such careful and diligent review, unless it has given prior written notice to the Owner.

2. Each Bidder shall have a competent person carefully and diligently inspect and examine the entire site and the surrounding area, including all parts of the site applicable to the Work for which it is submitting its bid, including location, condition, and layout of the site and the location of utilities, and carefully correlate the results of the inspection with the requirements of the Contract Documents. The Bidder's bid shall include all costs attributable to site and surrounding area conditions that would have been discovered by such careful and diligent inspection and examination of the site and the surrounding area, and the Bidder shall not be entitled to any Change Order, additional compensation, or additional time on account of such conditions.

3. The Bidder may rely upon the general accuracy of any technical data identified in the Owner-Contractor Agreement (e.g., any soils exploration reports, soil boring logs, site survey, or abatement reports) in preparing its bid, but such technical data are not part of the Contract Documents. Except for the limited reliance described in the preceding sentence, Bidder may not, if awarded a contract for the Work, rely upon or make any Claim against the Owner or Engineer, or any of their agents or employees, with respect to any of the following:

    a. the completeness of such reports and drawings for Bidder's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the successful Bidder and safety precautions and programs incident thereto; or

    b. any interpretation by the successful Bidder of or conclusion drawn from any technical data or any such other data, interpretations, opinions, or information.

For example, all interpolations and extrapolations of data performed by the Bidder to estimate locations or quantities of subsurface strata are independent factual assumptions, which Owner does not warrant.

4. Each Bidder will be deemed to have actual knowledge of all information provided or discussed at the pre-bid meeting.

C. OWNER & ENGINEER

1. The Owner is:

The City of Canton
218 Cleveland Avenue SW
Canton, OH 44702
Telephone: 330.489.3245
Fax: 330.489.3499

The Owner's Representative is:

Robert Sobnosky

2. The Design Engineer for the Project is:

Jeffrey Noble
AECOM
564 White Pond Dr., Akron, Ohip 44320

D. PROJECT

1. The Project and Work for the Project consists of all labor, materials, equipment, and services necessary for construction of the project identified as **STA 11th St SE Improvements, GP1244, PID 90465 Project** ("the Project"), all in accordance with the Drawings and Specifications prepared by the Engineer and/or Owner. The Project must be substantially complete by the Date for Substantial Completion set forth in Section Q below.

2. The Mayor **has** not determined that a Project Labor Agreement ("PLA") will advance the City's procurement interest in cost, efficiency, and quality while promoting labor-management stability as well as compliance with applicable legal requirements governing safety and health, equal employment opportunity, labor and employment standards, and other related matters. Any such PLA shall be negotiated by the Mayor of the Owner with the East Central Ohio Building and Construction Trades Council and its affiliated local unions, or said Council's successor. The successful Bidder shall comply with and adhere to all of the provisions of any PLA for the Project.

3. A pre-bid conference will be held at **NA on NA** at **NA**.

E. WORK

1. This Project includes **Road reconstruction, waterline, sanitary sewer, streetscape**, and the like as set forth in the Contract Documents.

2. Alternate No. 1 for this Project is **NA**.

3. Alternate No. 2 for this Project is **NA**.

4. Only one contract will be issued by the Owner for constructing the Project, the General Contract, which will cover all scopes of work necessary to construct the Project.

5. The Contractor awarded the General Contract (General Contractor) will be responsible for the performance and coordination of any and all subcontractors and suppliers either directly or indirectly contracted with the General Contractor.

6. Owner will provide Bidders access to the Project site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up, and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable laws, regulations and Owner's policies relative to excavation and utility locates. Bidders may contact **Robert Sobnosky,** The City of Canton, at **robert.sobnosky@cantonohio.gov** or **330-438-6931** if they have any interest in accessing the Project site, independent of any pre-bid meeting.

F. ESTIMATE OF COST

1. The total estimated construction cost for the Base Bid Work for the Project for which bids are being solicited at this time **10,567,908.52.**

   The estimated cost for Alternate 1 - **NA** is: **$-**.

   The estimated cost for Alternate 2 - **NA** is: **$-**.

G. CONTRACT DOCUMENTS

The Contract Documents consist of the documents listed in Section 1 of the Owner-Contractor Agreement.

Bidders may view and download copies of the Contract Documents from The City of Canton Purchasing web site at https://cantonohio.gov/448/Purchasing-Procurement, which is the only authorized source of the Contract Documents. The City of Canton's sourcing tool, Vendor Registry, will maintain the Bidder's list and will provide notice and copies of Addenda as issued. It is the responsibility of any person or organization interested in a hard copy of the Contract Documents to pay all costs associated with printing.

Bidders shall use complete sets of Contract Documents in preparing bids. Neither the Owner nor the Design Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.

The Owner, in making the Contract Documents available on the above terms, does so only for the purpose of obtaining bids on the Work and does not confer a license or grant for any other use.

H. PREPARATION OF BIDS

1. All bids must be submitted on the "Bid Form" furnished with the Contract Documents.

2. All blank spaces shall be filled in, in ink or typewritten, in words and figures, and in figures only where no space is provided for words, and signed by the Bidder. The wording on the Bid Form shall be used without change, alteration, or addition. Any change in the wording or omission of specified accompanying documents may cause the bid to be rejected. If there is an inconsistency or conflict in the Bid, the lowest amount shall control, whether expressed in numbers or words.

3. Bidders shall note receipt of Addenda on the Bid Form. If the Bidder fails to acknowledge receipt of each Addendum, the Bid shall be deemed non-responsive, unless the Bid

amount clearly and unambiguously reflects receipt of the Addendum or the Addendum involves only a matter of form and does not materially affect the price, quantity or quality of the Work to be performed.

4. Each Bidder shall submit **an original** of its bid to the Owner. The Bid Form shall be signed with the name typed or printed below the signature. A Bid shall not be submitted by facsimile transmission or any other electronic means. A Bidder that is a corporation shall sign its bid with the legal name of the corporation followed by the name of the state of incorporation and the legal signature of an officer authorized to bind the corporation to a contract.

5. Each Bid shall be enclosed in a sealed opaque envelope with the Bidder's name and the title of the Project printed in the upper left hand corner and addressed as follows:

The City of Canton
ATTN: Purchasing/Bids
218 Cleveland Avenue SW
Canton, OH 44702

Bids must be received at the designated location for the bid opening before 2:00 PM, local time, on May 16, 2023..

6. The completed Bid Form shall be accompanied by the following completed documents:

a. Pre-Bid Substitution, if any proposed substitutes have been pre-approved. (See Section K, below.)

b. Bid Guaranty and, if applicable Contract Bond (See Paragraph H.8, below.)

c. Contractor's Qualification Statement (See Paragraph I.4, below.)

d. Contractor's List of Subcontracted Work Categories (See Paragraph I.5, below.)

e. A list identifying its DBE subcontractors and participation rates as a percentage of the Contract Price, and if the DBE participation goal has not been met, certification of good faith efforts to meet the DBE participation goal. (See Section W, below.)

f. If this project is funded in whole or part by the Ohio Public Works Commission, then certification of agreement and compliance with certain statements and covenants regarding Bidder's subscription to the State's Equal Employment Opportunity Requirements for State-assisted Construction Contracts (See Section Y, below.)

g. From Appendix C, forms on pages C5, C8, C14 – C17, C24, C42.

7. The Bidder shall take the following precautions in preparing its bid:

a. Sign the bid and check to ensure all blank spaces have been filled in with requested information and that the specified accompanying documents (listed in Paragraph H.6 above) have been included in a sealed opaque envelope addressed as described in Paragraph H.5 above.

b. When the Bid Form provides for quoting either an addition or deduction for an Alternate item, indicate whether the sum named is an addition or deduction. If it is not indicated, it will be conclusively presumed that the amount is a deduction.

c. When the Bid Form provides for quoting a unit price, the Bidder should quote the unit price as set forth in the Contract Documents as described in Paragraph M.1 below.

d. When applicable, make sure that the Bid Guaranty is properly executed and signed by:

1) The Bidder
2) The Surety or Sureties

e. Make sure that the amount of the Bid Guaranty (if the Bid Guaranty is in the form of a certified check, letter of credit, or cashier's check) is for a specific sum in an amount as instructed in Paragraph H.8.a below. If the Bid Guaranty is in the form of the Bid Guaranty and Contract Bond, the amount may be left blank; if an amount is inserted, it must equal the total of the base bid and all add alternates included. If inserted, then the failure to state an amount equal to the total of the base bid and all add alternates shall make the bid non-responsive if the Owner selects alternates not included in the amount.

f. Make sure that the appropriate bid package and scope of work is inserted in the correct space on the Bid Guaranty and Contract Bond Form. Failure to include work covered by the bid submitted may make the bid non-responsive.

8. Bonds and Guarantees

a. Bid Guaranty: Bidder shall furnish a Bid Guaranty, as prescribed in Sections 153.54, 153.57, and 153.571 of the Ohio Revised Code, in the form of either: (1) a bond for the full amount of the bid in the form of the Bid Guaranty and Contract Bond included in the Contract Documents; or (2) a certified check, cashier's check, or irrevocable letter of credit in a form satisfactory to the Owner in an amount equal to 10% of the bid. Bid amount shall be the total of all sums bid, including all add alternatives, but excluding all deduct alternatives. **NOTE: AIA or EJCDC Bid Bond forms are not acceptable.**

b. Contract Bond: The successful Bidder, who, as a Bid Guaranty, submits a certified check, cashier's check, or irrevocable letter of credit in an amount equal to 10% of the bid, shall furnish a Contract Bond in the form included in the Contract Documents in an amount equal to 100% of the Contract Sum. **NOTE: AIA or EJCDC Bond forms are not acceptable.**

c. The bond must be issued by a surety company authorized by the Ohio Department of Insurance to transact business in the State of Ohio and acceptable to the Owner. The bond must be issued by a surety capable of demonstrating a record of competent underwriting, efficient management, adequate reserves, and sound investments. These criteria will be deemed to be met if the surety currently has an A.M. Best Company Policyholders Rating of "A-" or better and has or exceeds the

Best Financial Size Category of Class VI. Other sureties may be acceptable to the Owner, in its sole discretion.

d. All bonds shall be signed by an authorized agent of an acceptable surety and by the Bidder.

e. Surety bonds shall be supported by credentials showing the Power of Attorney of the agent, a certificate showing the legal right of the Surety Company to do business in the State of Ohio, and a financial statement of the Surety.

f. The Bid Guaranty, as applicable, shall be in the name of or payable to the order of the Owner and the Ohio Department of Transportation.

g. The name and address of the Surety and the name and address of the Surety's Agent must be typed or printed on each bond.

9. Permits

a. Owner has obtained, or will obtain the following permits for the Project, as applicable:

NA

b. Contractor shall secure and pay for all other permits necessary to complete the Project. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

I. METHOD OF AWARD

1. All bids shall remain open for acceptance for sixty (60) days following the day of the bid opening, but the Owner may, in its sole discretion, release any bid and return the Bid Guaranty prior to that date. The Bid Guaranty shall be subject to forfeiture, as provided in the Ohio Revised Code, if a bid is withdrawn during the period when bids are being held.

~~2.~~ The Owner reserves the right to reject any, part of any, or all bids and to waive any informalities and irregularities. The Bidder expressly acknowledges this right of the Owner to reject any or all bids or to reject any incomplete or irregular bid. Bidders must furnish all information requested on the Bid Form. Failure to do so may result in disqualification of the bid.

3. Additional Post-Bid Submittals

a) Affidavit as to Personal Property Taxes. The successful Bidder shall submit, prior to the time of the entry into the Contract, an affidavit in the form required by Section 5719.042, Ohio Revised Code, regarding the status of the Bidder's personal property taxes. A copy of the affidavit form is included with the Contract Documents.

4. The Owner reserves the right to disqualify bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices on the part of the Bidder.

5. Award of Contract. The award of the Contract will only be made pursuant to approval of the City's Board of Control.

J. EXECUTION OF CONTRACT

1. Within the time designated by the Owner after award of the Contract, the successful Bidder shall execute and deliver to the Owner the required number of copies of the Owner-Contractor Agreement, in the form included in the Contract Documents, and all accompanying documents requested, including, but not limited to, a Contract Bond (if applicable), insurance certificates, and a valid Workers' Compensation Certificate. The successful Bidder shall have no property interest or rights under the Owner-Contractor Agreement until the Agreement is executed by the Owner.

K. SUBSTITUTIONS/NON-SPECIFIED PRODUCTS

1. Certain brands of material or apparatus may be specified. Should this be the case, each bid will be based on these brands, which may be referred to in the Contract Documents as Standards. The use of another brand (referred to as a substitution or proposed equal in the Contract Documents, when a bidder or the contractor seeks to have a different brand of material or apparatus than that specified approved by the Owner of use in the Project) may be requested as provided herein. Substitutions, however, will not be considered in determining the lowest and best bid.

2. The products specified in the Contract Documents establish a standard of required function, dimension, appearance, and quality.

3. Bidders wishing to obtain approval to bid non-specified products shall submit written requests to the Owner a minimum of seven (7) working days before the bid date and hour. To facilitate the submission of requests, a Substitution Form is included in the Contract Documents. The Bidder shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution, including the name of the proposed manufacturer and/or product and a complete description of the product including the manufacturer's name and model number or system proposed, drawings, product literature, performance and test data, color selections or limitations, and any other information necessary for evaluation. Include a statement including any changes in other materials, equipment, or other work that would be required if the proposed product is incorporated in the work. The burden of proof of the merit of the proposed product is on the proposer. The Owner's decision on approval of a proposed product will be final.

   The following will be cause for rejection of a proposed substitution:

   a. Requests submitted by subcontractors, material suppliers, and individuals other than Bidders;

   b. Requests submitted without adequate documentation;

   c. Requests received after the specified cut-off date;

   d. Requests, which in the sole discretion of the Owner, do not offer a sufficient benefit to the Project.

4. When the Owner approves a product submission before receipt of bids, the approval will be included in an Addendum, and Bidders may include the pricing of this product in their bid. Bidders shall not rely on approvals made in any other manner.

5. In proposing a non-specified product or a substitution, the Bidder represents and warrants that each proposed product will not result in any changes to the Project, including changes to the Work or other contractors, or any decrease in the performance of any equipment or systems to be installed in the Project and agrees to pay any

additional costs incurred by the Owner and the Owner's consultants as a result of a non-specified or substitute product that is accepted.

6. If an addendum is issued approving a substitution for a specified Standard, any Bidder proposed to use said substitution must indicate so with its Bid, using the form provided.

7. Following the award of the Contract, there shall be no substitution for specified products, except pursuant to a Change Order. The Owner in its sole discretion may decline to consider a substitution for a Change Order.

8. The Owner reserves the right to value engineer any item within the specifications if it is deemed to be in the best interest of the Owner.

L. ALTERNATES

1. The Owner may request bids on alternates. At the time of awarding the Contract, the Owner will select or reject alternates as it determines is in its best interest. A Bidder's failure to include on its Bid Form the cost of an alternate selected by the Owner and applicable to the Bidder's work shall render the bid non-responsive and be grounds for the rejection of the bid. Otherwise, the failure to include the cost of an alternate will not be deemed material.

2. The Bidder acknowledges that although there is an estimate for the cost of the Project, the market conditions may and frequently do result in the estimate being different from the sum of the bids received, either higher or lower. The Bidder understands that the Owner may include alternates, which may include deduct alternates as well as add alternates, to give it flexibility to build the Project with the funds available. The Bidder further understands and acknowledges that use of add and deduct alternates is a long held customary practice in the construction industry in the State of Ohio. The Bidder also acknowledges that the Owner will not make a decision about the alternates on which to base the award of contracts until the bids are received, and the Owner can compare its available funds with the base bids and the cost or savings from selecting different alternates. The Bidder understands that the award to the Bidder submitting the lowest and best bid will be based on the base bid plus selected alternates, and may result in an award to a Bidder other than the Bidder that submitted the lowest base bid.

M. UNIT PRICES

1. Where unit prices are requested in the Bid Form the Bidder should quote a unit price. Unless otherwise expressly provided in the Contract Documents, such unit prices shall include all labor, materials, and services necessary for the timely and proper installation of the item for which the unit prices are requested. The unit prices quoted in the bid shall be the basis for any Change Orders entered into under the Owner-Contractor Agreement, unless the Owner determines that the use of such unit prices will cause substantial inequity to either the Contractor or the Owner.

N. ADDENDA

1. All questions should be submitted in writing at least five (5) business days prior to the bid opening. **This is May 9, 2023 at 2:00 PM** Owner reserves the right to issue Addenda changing, altering, or supplementing the Contract Documents prior to the time set for receiving bids. The Owner will issue the Addenda to clarify bidders' questions and/or to change, alter, or supplement the Contract Documents.

2. Any explanation, interpretation, correction, or modification of the Contract Documents will be issued in writing in the form of an Addendum, which shall be the only means

considered binding; explanations, interpretations, etc., made by any other means shall NOT be legally binding. All Addenda shall become a part of the Contract Documents.

3. All Addenda will be issued, except as hereafter provided, via the current City bid tool at least seventy-two (72) hours prior to the published time for the opening of bids, excluding Saturdays, Sundays, and legal holidays. If any Addendum is issued within such seventy-two (72) hour period, then the time for opening of bids shall be extended one (1) week with no further advertising of bids required.

4. Copies of each Addendum will be posted via the Owner's current bid tool and it is the responsibility of the bidder or any other interested party to check the bid tool for any updates or addenda. Receipt of Addenda shall be indicated by Bidders in the space provided on the Bid Form. Bidders are responsible for acquiring issued Addenda in time to incorporate them into their bid. Bidders should check the Owner's bid tool prior to the bid opening to verify the number of Addenda issued.

5. Each Bidder shall carefully read and review the Contract Documents and immediately bring to the attention of the Owner any error, omission, inconsistency, or ambiguity therein.

6. If a Bidder fails to indicate receipt of all Addenda through the last Addendum issued by the Owner on its Bid Form, the bid of such Bidder will be deemed to be responsive only if:

   a. The bid received clearly indicates that the Bidder received the Addendum, such as where the Addendum added another item to be bid upon and the Bidder submitted a bid on that item; or

   b. The Addendum involves only a matter of form or is one which has either no effect or has merely a trivial or negligible effect on price, quantity, quality, or delivery of the item bid upon.

O. INTERPRETATION

1. If a Bidder contemplating submitting a bid for the proposed Project is in doubt as to the true meaning of any part of the Contract Documents, it may submit a written request for an interpretation thereof to the Owner at purchasing@cantonohio.gov. Requests received fewer than 5 days prior to bid opening may not be answered. Any interpretation of the proposed documents will be made by Addendum only and will be made available by the City's web tool. The Owner will not be responsible for any other explanation or interpretation of the proposed documents.

2. In interpreting the Contract Documents, words describing materials that have a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with the well-known meaning recognized by the trade.

3. Bidders are responsible for notifying the Owner in a timely manner of any ambiguities, inconsistencies, errors, or omissions in the Contract Documents. The Bidder shall not, at any time after the execution of the Contract, be compensated for a claim alleging insufficient data, incomplete Contract Documents, or incorrectly assumed conditions regarding the nature or character of the Work, if no request was made by the Bidder prior to the bid opening.

P. STATE SALES AND USE TAXES

1. The Owner is a political subdivision of the State of Ohio and is exempt from taxation under the Ohio Sales Tax and Use Tax Laws. Building materials that the successful

Bidder purchases for incorporation into the Project will be exempt from state sales and use taxes if the successful Bidder provides a properly completed Ohio Department of Taxation Construction Contract Exemption Certificate to the vendors or suppliers when the materials are acquired. The Owner will execute properly completed certificates on request.

Q. DATE FOR SUBSTANTIAL COMPLETION/DATE FOR FINAL COMPLETION/LIQUIDATED DAMAGES

1. Dates for Substantial Completion. The Contract Time shall run from the date of the Notice to Proceed or if there is no Notice to Proceed from the Effective Date of the Owner-Contractor Agreement. The Date for Substantial Completion and the Contract Time may be extended only by Change Order. **By submitting its Bid, each Bidder agrees that the period for performing its Work is reasonable.**

   a. Date for Overall Project Substantial Completion. The successful Bidder shall have all of its Work on the Project Substantially Complete (as Substantial Completion is defined in the Contract Documents) by the following date as applicable to the Bidder's scope of work.

      Date for Substantial Completion (aka Contract Time) expressed as calendar days from Notice to Proceed:

      550 calendar days

2. Liquidated Damages.

   a. Overall Project Substantial Completion. If the successful Bidder does not have its Work Substantially Complete by its Date for Substantial Completion or Finally Complete within thirty (30) calendar days of achieving Substantial Completion, whichever may be applicable, the successful Bidder shall pay the Owner and the Owner may set off from amounts otherwise due the successful Bidder Liquidated Damages. The daily amounts of Liquidated Damages for Overall Project Substantial Completion are set forth in the tables included in the Owner-Contractor Agreement. The total amount of Liquidated Damages will be calculated based on the total number of calendar days beyond the Date for Substantial Completion that the Bidder's Work is not Substantially Complete or to the extent that its Work is not Finally Complete more than thirty (30) calendar days after the Substantial Completion of its Work, i.e., number of late days times the per diem rate(s) for Liquidated Damages in the tables.

3. The Bidder acknowledges and agrees, by submitting its bid for the Work and entering into a Contract with the Owner, that such amounts of Liquidated Damages represent a reasonable estimate of the actual damages for loss of or interference with the intended use of the Project that the Owner would incur if the Bidder's Work is not Substantially Complete by its Date for Substantial Completion and/or not Finally Complete by thirty (30) days of the Date of Substantial Completion. The Bidder further acknowledges, agrees and understands that it may seek an extension of the Contract Time (and its Date for Substantial Completion) to avoid or reduce Liquidated Damages by properly following the Claim procedures in the Contract Documents.

R. OWNER'S RIGHT TO WAIVE DEFECTS AND IRREGULARITIES

1. The Owner reserves the right to waive any and all irregularities provided that the defects and irregularities do not affect the amount of the bid in any material respect or otherwise give the Bidder a competitive advantage.

S. MODIFICATION/WITHDRAWAL OF BIDS

1. Modification. A Bidder may modify its bid by written communication to the Owner at any time prior to the scheduled closing time for receipt of bids, provided such written communication is received by Owner prior to the bid deadline. The written communication shall not reveal the bid price, but should provide the addition or subtraction or other modification so that the final prices or terms will not be known until the sealed bid is opened. If the Bidder's written instructions with the change in bid reveal the bid amount in any way prior to the bid opening, the bid may be rejected as non-responsive.

2. Withdrawal Prior to Bid Deadline. A Bidder may withdraw its bid at any time for any reason prior to the bid deadline for the opening of bids established in the Legal Notice. The request to withdraw shall be made in writing to and received by the Owner prior to the time of the bid opening.

3. Withdrawal after Bid Deadline.

   a. All bids shall remain valid and open for acceptance for a period of at least 60 days after the bid opening; provided, however, that a Bidder may withdraw its bid from consideration after the bid deadline when all of the following apply:

      (1) the price bid was substantially lower than the other bids;

      (2) the reason for the bid being substantially lower was a clerical mistake, rather than a mistake in judgment, and was due to an unintentional and substantial error in arithmetic or an unintentional omission of a substantial quantity of work, labor, or material;

      (3) the bid was submitted in good faith; and

      (4) the Bidder provides written notice to the Owner within two (2) business days after the bid opening for which the right to withdraw is claimed.

   b. No bid may be withdrawn under this provision if the result would be the awarding of the contract on another bid for the bid package from which the Bidder is withdrawing its bid to the same Bidder.

   c. If a bid is withdrawn under this provision, the Owner may award the Contract to another Bidder determined by the Owner to be the lowest and best bidder or the Owner may reject all bids and advertise for other bids. In the event the Owner advertises for other bids, the withdrawing Bidder shall pay the costs incurred in connection with the rebidding by the Owner, including the cost of printing new Contract Documents, required advertising, and printing and mailing notices to prospective bidders, if the Owner finds that such costs would not have been incurred but for such withdrawal.

T. COMPLIANCE WITH APPLICABLE LAWS

1. By submitting a bid for Work on the Project, the Bidder acknowledges that it is in compliance with applicable federal, state, and local laws and regulations, including, but not limited to, the following:

   a. Equal Employment Opportunity/Nondiscrimination. The Bidder agrees that if it is awarded a contract that in the hiring of employees for performance of work under the contract or any subcontract, neither it nor any subcontractor, or any person acting on its behalf or its subcontractor's behalf, by reason of race, creed, sex,

disability as defined in Section 4112.01 of the Ohio Revised Code, or color, shall discriminate against any citizen of the state in the employment of labor or workers who are qualified and available to perform work to which the employment relates. The Bidder further agrees that neither it nor any subcontractor or any person on its behalf or on behalf of any subcontractor, in any manner, shall discriminate against or intimidate any employees hired for the performance of the work under the contract on account of race, creed, sex, disability as defined in Section 4112.01 of the Ohio Revised Code, or color.

b. Ethics Laws. The Bidder represents that it is familiar with all applicable ethics law requirements, including without limitation Sections 102.04 and 3517.13 of the Ohio Revised Code, and certifies that it is in compliance with such requirements.

U. FINDINGS FOR RECOVERY

1. By submitting its bid, each Bidder certifies for reliance of the Owner that it has no unresolved finding for recovery against it issued by the Auditor of the State of Ohio on or after January 1, 2001, except as permitted by Section 9.24 (F) of the Ohio Revised Code.

V. PREVAILING WAGES

1. The Davis-Bacon Act shall be applicable to the wages.

W. DBE PARTICIPATION GOALS

1. Owner has established the following Disadvantaged Business Enterprise ("DBE") participation goal for the Project as a percentage of the Contract Price:

   9%

2. Any Minority Business Enterprise ("MBE") or Woman-Owned Business Enterprise ("WBE") proposed to count towards the DBE participation goal must first be certified at bid time as an MBE or WBE under the Ohio Department of Administrative Services MBE Cross Certification Program (which includes MBEs and WBEs certified by the City of Canton), or certified as a DBE under Ohio's Unified Certification Program administered by the Ohio Department of Transportation.

3. **Documentation of DBE Participation. Each Bidder must submit with its bid a list identifying its DBE subcontractors and participation rates as a percentage of the Contract Price.**

4. **Certification of Good Faith Efforts. If a Bidder has not met the DBE participation goal, it must attach to its bid, a narrative (which may include exhibits) demonstrating the good faith efforts made by the Bidder to secure DBE participation in the Project. Good faith efforts include:**

   - **Conducting outreach and recruiting activities;**
   - **Informing DBEs of the opportunity to participate in the Project at least 30 calendar days before the bid closes;**
   - **Considering subcontracting with a consortium of DBEs; and**
   - **Using the services and assistance of the Small Business Administration and Minority Development Agency of the U.S. Department of Commerce.**

Owner, in its sole discretion, will be the sole evaluator of whether any particular Bidders' efforts sufficiently demonstrate good faith efforts for securing DBE participation.

5. Challenges to Owner's Discretion. If any Bidder directly challenges, or indirectly challenges through contribution of money or other resources to a third party, Owner's discretion in determining any Bidder's compliance with the DBE goal stated in these Instructions to Bidders, or good faith efforts pertaining to same, that Bidder agrees to indemnify Owner for all claims, costs, losses and damages, including attorney and consultant fees, arising out of such challenge, should there be an adjudication by a court of competent jurisdiction that the Owner did not abuse its discretion in making its determination.

6. Failure to Comply. If a Bidder is awarded a contract for the Project, and later fails to fulfill its stated DBE participation goals, that Bidder agrees to indemnify Owner for all claims, costs, losses and damages, including attorney and consultant fees, arising out of such failure. That Bidder also agrees to cooperate with all reasonable requests to determine actual DBE participation, including but not limited to certifying actual participation and providing documentation in support of same.

X. OTHER LOCAL ORDINANCE REQUIREMENTS

1. Each Bidder, by the act of submitting its bid agrees to withhold all City income taxes due or payable under Chapter 182 of the Codified Ordinances of the City of Canton for wages, salaries, fees, and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income taxes due for services performed under this Agreement. Bidder agrees with the Owner regarding the manner of withholding of City income taxes as provided in Section 718.011(F) of the Ohio Revised Code. Municipal income tax withholding provisions of Section 718.011(B)(1) and 718.011(D) of the Ohio Revised Code shall not apply to qualifying wages paid to employees for work done or services performed or rendered inside the City or on City property. Each Bidder agrees to withhold income tax for the City from employees' qualifying wages earned inside the City or on City property, beginning with the first day of work done or services performed or rendered inside the City.

2. Each Bidder, by the act of submitting its bid agrees as follows during the performance of the Agreement:

   a. The Contractor shall not discriminate against any employee or applicant for employment because of race, age, handicap, religion, color, sex, national origin, sexual orientation, or gender identity. The Contractor shall take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to race, religion, color, sex, national origin, military status, sexual orientation, or gender identity. As used herein, the word "treated" shall mean and include without limitation the following: recruited, whether by advertising or other means; compensation, whether in the form of rates or pay or other forms of compensation; selected for training, including apprenticeship; promoted; demoted; upgraded; downgraded; transferred; laid off; and terminated. The Contractor agrees to and shall post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officers setting forth the provisions of this nondiscrimination clause.

   b. The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, age, handicap, religion, color, sex, national origin, military status, sexual orientation, or gender identity.

c. The Contractor shall send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice advising the labor union or workers' representative of the Contractor's commitments under the equal opportunity clause of the Owner; and it shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d. The Contractor shall submit in writing to the Owner its affirmative action plan, and each subcontractor and supplier of equipment or supplies shall submit to the Contractor its affirmative action plan. The responsibility for securing these affirmative action plans falls upon the Contractor and shall be on file at the office of the Contractor. The Contractor shall furnish all information and reports required by the Owner or its representative pursuant to the Contract Documents, and shall permit access to its books, records, and accounts by the contracting agency of the Owner and by the Executive Secretary of the Owner for purposes of investigation to ascertain compliance with the program.

e. The Contractor shall take such action with respect to any subcontractor as the Owner may direct as a means of enforcing the provisions of this equal opportunity clause, including penalties and sanctions for noncompliance; provided, however, that in the event the Contractor becomes involved in or is threatened with litigation as is necessary to protect the interests of the Owner and to effectuate the Owner's equal opportunity program and, in the case of contracts receiving Federal assistance, the Contractor or the Owner may request the United States to enter into such litigation to protect the interests of the United States.

f. The Contractor shall file and shall cause its subcontractors, if any, to file compliance reports with the Owner in the form and to the extent prescribed by the Owner or its representative. Compliance reports filed at such times as directed shall contain information as to the employment practices, policies, programs, and statistics of the Contractor and its subcontractors.

g. The Contractor shall include the provisions of this equal employment opportunity clause in every subcontract or purchase order, so that such provisions will be binding upon each subcontractor or vendor.

h. Refusal by the Contractor or subcontractor to comply with any portion of this program as herein stated and described will subject the offending party to any or all of the following penalties:

(1) Withholding of all future payments under the involved public contract to the Contractor in violation, until it is determined that the Contractor or subcontractor is in compliance with the provisions of the Agreement.

(2) Refusal of all future bids for any public contract with the Owner or any of its departments or divisions, until such time as the Contractor or subcontractor demonstrates that it has established and shall carry out the policies of the program as herein outlined.

(3) Cancellation of the public contract and declaration of forfeiture of the performance bond.

(4) In cases is which there is substantial or material violation or the threat of substantial or material violation of the compliance procedure or as may be provided by contract, appropriate proceedings may be brought to

enforce these provisions, including enjoining within applicable laws of contractors, subcontractors, or other organizations, individuals, or groups who prevent, directly or indirectly, or seek to prevent, directly or indirectly, compliance with the policy as herein outlined.

2. Prevailing Wages are required for this Project (See Appendix A).

END OF INSTRUCTIONS TO BIDDERS

OWNER-CONTRACTOR AGREEMENT

[Where Engineer is a Third Party Hired by Owner and Engineer Has Construction Administration Duties]

Owner:
The City of Canton
218 Cleveland Avenue SW
Canton, OH 44702
Telephone: 330.489.3283

Contract: _____
Ordinance: 69/2022
Alternates: _____

Contractor:
_____
_____
_____
Telephone: _____
Fax:

Project:
STA 11th St SE Improvements, GP1144, PID 90465

This document is an agreement between the Owner and the Contractor for the Work described in the Contract Documents related to the Contract identified above for the Project defined above and is effective as of the date the Agreement is signed by the Owner (the "Effective Date").

The Owner and the Contractor agree as set forth in the following sections:

1. CONTRACT DOCUMENTS. The Contract Documents consist of the following documents:

A. Legal Notice;
B. Instructions to Bidders;
C. Bid Form;
D. Owner-Contractor Agreement;
E. General Conditions of the Contract for Construction (EJCDC C-700), as modified;
F. Supplementary Conditions (when applicable);
G. Drawings;
H. Specifications;
I. Project Labor Agreement (if applicable)
J. Addenda issued;
K. Contractor's Personal Property Tax Affidavit (O.R.C. 5719.042);
L. Statement of Claim Form; and
M. Modifications issued after the execution of the contract, including:
   i. A Change Order;
   ii. A Work Change Directive; or,
   iii. A written order for a minor change of the Work issued by the Owner or Engineer in accordance with the General Conditions.

N. **x** When this line is checked by the Owner, e.g. with an "X" or other mark, the State of Ohio Department of Transportation, Construction and Material Specifications, effective as of January 1, 2019, will be a Contract Document, but only as modified by ODOT LPA Template..
O. Project Labor Agreement (if applicable)

1.1 Notwithstanding anything in the Contract Documents to the contrary, in the event of any inconsistency, the provisions of this Agreement shall control over any other Contract Document, proposal, document, or other attachment. In the event inconsistencies, conflicts, or ambiguities between or among the Contract Documents

are discovered after execution of the Agreement, Contractor shall provide the better quality or greater quantity of Work or comply with the more stringent requirements.

Note: **Non-Contract Documents**. The following are the reports and tests of subsurface conditions at or contiguous to the Site, if any, that the Engineer has used in preparing the Contract Documents. These are not Contract Documents. Geotechnical data is not a warranty of subsurface conditions and is not to be relied upon as a complete representation of all possible soil conditions. It is possible that there may be other reports, and/or tests of subsurface conditions at or contiguous to the Site not prepared by or on behalf of Owner. The Owner makes no representation about such reports and/or tests, assuming they exist. Additional information, if needed by Contractor for geotechnical data or site survey, shall be obtained by the Contractor at no additional cost to Owner. The General Conditions, as modified, contain additional terms related to these reports and tests.

Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings listed below, and except for such reliance on "technical data," Contractor shall not rely upon or make any claim against Owner or Engineer with respect to: (1) the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or (2) other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or (3) any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information. For example, all interpolations and extrapolations of data performed by Contractor to estimate locations or quantities of subsurface strata are independent factual assumptions which Owner does not warrant. (Not applicable, if none are listed).

NA

Note: **Non-Contract Documents**. The following are those reports and drawings related to any Hazardous Conditions at the Site, if any. These are not Contract Documents. The General Conditions, as modified, contain additional terms related to these reports and drawings. (None if none are listed).

NA

2. ENGINEER RELATIONSHIP. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Engineer and the Contractor or any Subcontractor or Material Supplier to the Project. The Engineer, however, shall be entitled to performance of the obligations of the Contractor intended for its benefit and to enforcement of such obligations, but nothing contained herein shall be deemed to give the Contractor or any third party any claim or right of action against the Engineer that does not otherwise exist without regard to this Contract. The Contractor and its Subcontractors shall not be deemed to be beneficiaries of any of the acts or services of the Engineer that are performed for the sole benefit of the Owner. The Contractor shall forward all communications to the Owner through the Engineer and hereby acknowledges and agrees that any instructions, reviews, advice, approvals, orders, or directives that are rendered to it by the Engineer are specifically authorized and directed by the Owner to the Contractor through the Engineer acting on behalf of the Owner.

Engineer will be performing construction administration duties as identified in the General Conditions, including, but not limited to: reviewing Applications for Payment, Change Proposals, Claims, and Shop Drawings; measuring Work quantities; and issuing Work Change Directives.

2.1 The Engineer is:
Anser Advisory
200 6th Street NW
Canton, Ohio 44702

3. TIME FOR COMPLETION AND PROJECT COORDINATION.

3.1 DATE OF COMMENCEMENT. The date of commencement of the Work shall be the date identified in the Notice to Proceed issued by the Owner, or by the Owner through the Engineer, to the Contractor, or if there is no Notice to Proceed, the Effective Date of this Agreement.

3.2 DATE OF SUBSTANTIAL COMPLETION. The Project and Work for the Project consists of all labor, materials, equipment, and services necessary for construction of the Project, all in accordance with the Drawings and Specifications prepared by the Owner or Engineer. The Contractor shall achieve Substantial Completion of its Work on the Project, as defined in the General Conditions, within **550 calendar days** of the Notice to Proceed D ("Date of Substantial Completion"). Substantial Completion is the time at which the Work has progressed to the point where the Work is sufficiently complete, in accordance with the Contract Documents, so that the Work can be utilized for the purposes for which it is intended.

3.2.1 DATE OF FINAL COMPLETION. The Contractor shall achieve Final Completion of its Work on the Project, as defined in the General Conditions, within **30 calendar days** of the Date of Substantial Completion ("Date of Final Completion"). Final Completion shall mean that the Work is complete in accordance with the Contract Documents and the Contractor has submitted to the Owner or Engineer all documents required to be submitted to the Owner or Engineer for final payment.

3.2.2 UTILITIES AND OPERATIONS. Contractor shall not interrupt utilities to facilities or existing operations without prior written notice and approval by Owner.

3.2.3 SHUTDOWN DATES. Due to events scheduled by the Owner and/or other Owner considerations, Contractor will not be able to perform Work on the Project on the following dates (there are no shutdown dates if none are listed): NA

Contractor's Construction Schedule for performing the Work shall account for Contractor not being able to perform Work on these dates and the contractual dates for Substantial Completion and Final Completion will not be changed due to Contractor not being able to perform Work on these dates.

3.3 CONSTRUCTION SCHEDULE. The Construction Schedule shall be developed by the Contractor as provided in the Contract Documents.

3.4 LIQUIDATED DAMAGES. If the Contractor does not have its Work on the Project Substantially Complete by the specified Date for Substantial Completion or Finally Complete by the Date of Final Completion, the Contractor shall pay the Owner (and the Owner may set off from sums coming due the Contractor) Liquidated Damages in the per diem amounts as set forth in the following tables, whichever may be applicable. "Contract Amount" of the Work will be determined by totaling the cost of all line items of Work.

LIQUIDATED DAMAGES – DATE FOR SUBSTANTIAL COMPLETION OF OVERALL PROJECT

Original Contract Amount	Dollars Per Day
$1.00 to $500,000.00	$ 750.00
$500,000.01 to $2,000,000.00	$ 1,000.00
$2,000,000.01 to $10,000,000.00	$ 1,300.00
$10,000,000.01 to $50,000,000.00	$ 2,000.00
$50,000,000.01 and greater	$ 2,500.00

LIQUIDATED DAMAGES – FINAL COMPLETION

Original Contract Amount	Dollars Per Day
$1.00 to $500,000.00	$ 200.00
$500,000.01 to $2,000,000.00	$ 250.00
$2,000,000.01 to $10,000,000.00	$ 325.00
$10,000,000.01 to $50,000,000.00	$ 500.00
$50,000,000.01 and greater	$ 625.00

LIQUIDATED DAMAGES FOR SUBSTANTIAL COMPLETION FOR ANY INTERIM MILESTONE SCOPE WILL BE $1,000 PER DAY FOR EACH DAY OF UNEXCUSED DELAY BEYOND THE MILESTONE.

The Contractor acknowledges that such amounts of Liquidated Damages represent a reasonable estimate of the actual damages for loss of or interference with the intended use of the Project that the Owner would incur if the Contractor's Work is not Substantially Complete by its Date for Substantial Completion or Finally Complete by the required date for Final Completion.

4. CONTRACT SUM (also called Contract Price). The Contract Sum to be paid by the Owner to the Contractor, as provided herein, for the satisfactory performance and completion of the Work and all of the duties, obligations, and responsibilities of the Contractor under this Agreement and the other Contract Documents is **$*******, subject to adjustment as set forth in the Contract Documents. The Contract Sum includes Allowances, Accepted Alternates, and all federal, state, county, municipal, and other taxes imposed by law, including but not limited to any sales, use, commercial activity, and personal property taxes payable by or levied against the Contractor on account of the Work or the materials incorporated into the Work. The Contractor will pay any such taxes. The Contract Sum includes the following:

4.1 Base Bid Amount: **$**_____ (Lump Sum Bid); and

4.2 Accepted Alternates, included in the Contract Sum:

Alternate No.	Description	Amount
1	NA	NA
2	NA	NA

4.3 Allowances included in the Contract Sum:

Allowance Description	Amount
Allowance #1: NA	NA
Allowance #2: NA	NA

4.4 If after Substantial Completion of its Work, the Contractor fails to submit its final payment application with all the documents required to be submitted with such application within ninety (90) days after written notice to do so from the Owner and without prejudice to any other rights and remedies the Owner may have available to it, the balance of the Contract Sum shall become the Owner's sole and exclusive property, and the Contractor shall have no further interest in or right to such balance.

5. GENERAL.

5.1 MODIFICATION. No modification or waiver of any of the terms of this Agreement or of any other Contract Documents will be effective against a party unless set forth in writing and signed by or

on behalf of a party. In the case of the Owner, the person executing the modification or waiver must have express authority to execute the Modification on behalf of the Owner pursuant to a resolution that is duly adopted by the Owner. Under no circumstances will forbearance, including the failure or repeated failure to insist upon compliance with the terms of the Contract Documents, constitute the waiver or modification of any such terms. The parties acknowledge that no person has authority to modify this Agreement or the other Contract Documents or to waive any of its or their terms, except as expressly provided in this section.

5.2 ASSIGNMENT. The Contractor may not assign this Agreement without the written consent of the Owner, which the Owner may withhold in its sole discretion.

5.3 LAW AND JURISDICTION. All questions regarding the validity, intention, or meaning of this Agreement or any modifications of it relating to the rights and obligation of the parties will be construed and resolved under the laws of the State of Ohio. Any suit, which may be brought to enforce any provision of this Agreement or any remedy with respect hereto, shall be brought in the Common Pleas Court of the county in which the Project is located and each party hereby expressly consents to the exclusive jurisdiction of such court to the exclusion of any other court, including any U.S. District Court or any other federal court.

5.4 CONSTRUCTION. The parties acknowledge that each party has reviewed this Agreement and the other Contract Documents and entered into this Agreement as a free and voluntary act. Accordingly, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party will not be employed in the interpretation of this Agreement, the other Contract Documents, or any amendments or exhibits to it or them.

5.5 APPROVALS. Except as expressly provided herein, the approvals and determinations of the Owner and Engineer will be subject to the sole discretion of the respective party and be valid and binding on the Contractor, provided only that they be made in good faith, i.e., honestly. If the Contractor challenges any such approval or determination, the Contractor has the burden of proving that it was not made in good faith by clear and convincing evidence.

5.6 PARTIAL INVALIDITY. If any term or provision of this Agreement is found to be illegal, unenforceable, or in violation of any laws, statutes, ordinances, or regulations of any public authority having jurisdiction, then, notwithstanding such term or provision, this Agreement will remain in full force and effect and such term will be deemed stricken; provided this Agreement will be interpreted, when possible, so as to reflect the intentions of the parties as indicated by any such stricken term or provision.

5.7 COMPLIANCE WITH LAWS AND REGULATIONS. The Contractor, at its expense, will comply with all applicable federal, state, and local laws, rules, and regulations applicable to the Work, including but not limited to Chapter 4115 of the Ohio Revised Code and Sections 153.59 and 153.60 of the Ohio Revised Code, which prohibit discrimination in the hiring and treatment of employees, with respect to which the Contractor agrees to comply and to require its subcontractors to comply.

5.7.1 NON-DISCRIMINATION. Contractor agrees:

.1 That in the hiring of employees for the performance of Work under this Agreement or in any subcontract, neither the Contractor, subcontractor, or any person acting on behalf of either of them, shall by reason of race, creed, sex, disability as defined in Section 4112.01 of the Ohio Revised Code, or color discriminate against any citizen of the state in the employment of labor or workers who are qualified and available to perform the Work to which the employment relates.

.2 That neither the Contractor, subcontractor, nor any person acting on behalf of either of them shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work under this Agreement on account of race, creed, sex, disability as defined in Section 4112.01 of the Ohio Revised Code, or color.

.3 That there shall be deducted from the amount payable to the Contractor by the Owner under this Agreement a forfeiture of twenty-five dollars ($25.00) as required

by Ohio Revised Code Section 153.60 for each person who is discriminated against or intimidated in violation of this Agreement.

.4 That this Agreement may be canceled or terminated by the Owner and all money to become due hereunder may be forfeited for a second or subsequent violation of the terms of this section of this Agreement.

5.7.2 PREVAILING WAGE RATES. The Contractor and its subcontractors, regardless of tier, shall strictly comply with their obligation, if any, to pay their employees working on the Project site at the applicable prevailing wage rates for the type of work, including any changes thereto, pursuant to Ohio Revised Code Chapter 4115 or Davis Bacon rates and requirements.

5.7.3 ETHICS. By signing and entering into this agreement with the Owner, the Contractor represents that it is familiar with all applicable ethics law requirements, including without limitation Sections 102.04 and 3517.13 of the Ohio Revised Code, and certifies that it is in compliance with such requirements. The Contractor understands that failure to comply with the ethics laws is, in itself, grounds for termination of this contract and may result in the loss of other contracts with the Owner.

5.8 JOB MEETINGS. The Contractor or one of its representatives with authority to bind the Contractor will attend all job meetings. The Owner anticipates that job meetings will be scheduled on a weekly basis during construction or as needed. The Contractor will ensure that its Subcontractors also hold regular job meetings at which safety issues and job matters are discussed as these relate to the Work being performed. Job meetings include, but are not limited to, pre-construction meetings, weekly job meetings, weekly safety tool box meetings, and monthly safety meetings.

5.9 PROPERTY TAX AFFIDAVIT. The Contractor's affidavit given under Section 5719.024, Ohio Revised Code, is incorporated herein.

5.10 WARRANTIES. Notwithstanding anything to the contrary in the Contract Documents, including the Project Manual and Specifications, no warranties by Contractor shall be limited to any time shorter than the statute of limitations for written contracts in Ohio.

5.11 CONTRACTOR ATTESTATIONS.

.1 Contractor attests that it has not scaled these contract documents to determine quantities for bids, as Contractor has field verified and taken its own dimensions to determine the quantities for its bid.

.2 Contractor agrees that all the scales noted on the drawings are correct; so as to give it an "intent" of what is to be bid. Contractor has not relied on any other dimensions than what are noted in text and dimension lines.

.3 Contractor has thoroughly read the Contract Documents and has asked any and all questions it has on the intent of the scope of work, or supposed errors and omissions contained in these drawings, during the bid process and prior to signing this Agreement.

.4 Contractor will not be asserting a claim for additional time or money associated with the three issues listed above.

.5 Contractor believes it has accurately interpreted the Contract Documents and has asked for clarification and received satisfactory response for all items not thoroughly addressed or appeared to be conflicting in the Contract Documents and has found all stipulations and requirements contained in this Agreement are as stated in the bid specifications and are enforceable according to Ohio Law, including but not limited to the Owner's right of offset, and the Owner's right to assess liquidated damages for work not completed according to the milestones listed on the project schedule contained in the Contract Documents.

6.12 ENTIRE AGREEMENT. This Agreement and the other Contract Documents constitute the entire agreement among the parties with respect to their subject matter and will supersede all prior

and contemporaneous, oral or written, agreements, negotiations, communications, representations, and understandings with respect to such subject matter, and no person is justified in relying on such agreements, negotiations, communications, representations, or understandings.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their properly authorized representatives and agree that this Agreement is effective as of the date first set forth above.

Owner: **The City of Canton**	Contractor: _____
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

CERTIFICATE
(Section 5705.41, R.C.)

The undersigned, fiscal officer of the Owner, certifies that the moneys required to pay that part of the Contract Sum coming due during the current fiscal year, under the Agreement to which this Certificate is attached have been lawfully appropriated for such purpose and are in the appropriate account of the Owner, or in the process of collection to the credit of the appropriate account or fund, free from any previous encumbrances. Moneys due in excess of the Contract Sum shall require an additional and separate Fiscal Officer's Certificate.

DATED: _____

_____
Fiscal Officer

The City of Canton

BID GUARANTY AND CONTRACT BOND

(O.R.C. § 153.571)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned _____ _____ ("Contractor") as principal and _____ _____ as surety are hereby held and firmly bound unto the **City of Canton and ODOT** as obligee in the penal sum of the dollar amount of the bid submitted by the principal to the obligee on _____, 20__, to undertake the construction of the STA 11th St SE Improvements, GP 1144, PID 90465 **Project** ("Project"). The penal sum referred to herein shall be the dollar amount of the principal's bid to the obligee, incorporating any additive or deductive Alternates made by the principal on the date referred to above to the obligee, which are accepted by the obligee. In no case shall the penal sum exceed the amount of _____ Dollars ($_____). (If the foregoing blank is not filled in, the penal sum will be the full amount of the principal's bid, including add Alternates. Alternatively, if the blank is filled in the amount stated must not be less than the full amount of the bid including add Alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

Signed this _____ day of _____, 20__.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas the above named principal has submitted a bid for work on the Project.

Now, therefore, if the obligee accepts the bid of the principal and the principal fails to enter into a proper contract in accordance with the bid, plans, details, specifications, and bills of material; and in the event the principal pays to the obligee the difference not to exceed ten percent (10%) of the penalty hereof between the amount specified in the bid and such larger amount for which the obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the obligee does not award the contract to the next lowest bidder and resubmits the project for bidding, the principal pays to the obligee the difference not-to-exceed ten percent (10%) of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission, of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect; if the obligee accepts the bid of the principal and the principal within ten (10) days after the awarding of the contract enters into a proper contract in accordance with the bid, plans, details, specifications, and bills of material, which said contract is made a part of this bond the same as though set forth herein.

Now also, if the said principal shall well and faithfully do and perform the things agreed by said principal to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; and surety shall indemnify the obligee against all damage suffered by failure of the principal to perform the contract according to its provisions and in accordance with the plans, details, specifications, and bills of material therefor and to pay all lawful claims of subcontractors, materialmen, and laborers for labor performed or material furnished in carrying forward, performing, or completing the contract and surety further agrees and assents that this undertaking is for the benefit of any subcontractor, materialman, or laborer having a just claim, as well as for the obligee; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of the said contract or in or to the plans or specifications therefore shall in any wise affect the

obligations of said surety on its bond, and does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

Signed and sealed this _____ day of _____, 20__.

_____
PRINCIPAL

By: _____

Printed Name & Title: _____

_____
SURETY

By: _____

Printed Name & Title: _____

_____

Surety's Address: _____

_____

Surety's Telephone Number: _____

Surety's Fax Number: _____

_____
SURETY'S AGENT

Surety's Agent's Address: _____

_____

Surety's Agent's Telephone Number: _____

Surety's Agent's Fax Number: _____

NOTE: The Contract Bond form that follows is to be used ONLY by a bidder that is awarded a contract and submits a form of bid guaranty other than the combined Bid Guaranty and Contract Bond with its bid. If a bidder submits a combined Bid Guaranty and Contract Bond, then the bid guaranty becomes the contract bond when the contract is awarded.

AIA and EJCDC Bid Bond or Payment and Performance Bond forms are not acceptable for this Project.

The City of Canton

CONTRACT BOND
(O.R.C. § 153.57)

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned ("Contractor"), as principal, and _____, as surety, are hereby held and firmly bound unto the **City of Canton** ("Owner") **and ODOT** as oblige, in the penal sum of _____ _____ Dollars ($_____ _____), for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas, the above-named principal did on the _____ day of _____, 20__, enter into a contract with the Owner for construction of the STA 11th St SE Improvements, GP1144, PID 90465 **Project** ("Project"), which said contract is made a part of this bond the same as though set forth herein:

Now, if the said Contractor shall well and faithfully do and perform the things agreed by the Contractor to be done and performed according to the terms of said contract; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions, or additions in or to the terms of the said contract or in or to the plans or specifications therefore shall in any wise affect the obligations of said surety on its bond, and does hereby waive notice of any such modifications, omissions or additions to the terms of the contract or to the work or to the specifications.

Signed and sealed this _____ day of _____, 20__.

_____ (PRINCIPAL)

By: _____

Printed Name & Title: _____

_____

_____ (SURETY)

By: _____

Printed Name & Title: _____

_____

Surety's Address: _____

_____

Surety's Telephone Number: _____

Surety's Fax Number: _____

_____
NAME OF SURETY'S AGENT

Surety's Agent's Address: _____

_____

Surety's Agent's Telephone Number: _____

Surety's Agent's Fax Number: _____

BID FORM

1.01 BID SUBMITTED BY:

_____
(Contractor)

Date bid submitted: _____

1.02 DELIVER TO:

The City of Canton
ATTN: **Purchasing/Bids**
218 Cleveland Avenue SW
Canton, OH 44702

1.03 Having carefully reviewed the Instructions to Bidders, Drawings, Specifications and other Contract Documents for the Project titled STA 11th St Imorovements **Project** including having also received, read, and taken into account the following Addenda:

Addendum No.	Dated
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

and likewise having inspected the site and the conditions affecting and governing the Project, the undersigned hereby proposes to furnish all materials and to perform all labor, as specified and described in the said Specifications and/or as shown on the said Drawings for all Work necessary to complete the Project on a timely basis and in accordance with the Contract Documents regardless of whether expressly provided for in such Specifications and Drawings.

1.04 Before completing the Bid Form, the undersigned represents that it has carefully reviewed the Legal Notice to Bidders, Instructions to Bidders, this Bid Form, Form of Bid Guaranty and Contract Bond, Contractor's Affidavit (O.R.C. 5719.042), Owner-Contractor Agreement, General Conditions of the Contract (EJCDC C-700) (as modified for the Project), Drawings, Project Specifications, and other Contract Documents. Failure to comply with provisions of the Contract Documents may be cause for disqualification of the bid.

1.05 BONDS AND CONTRACT: If the undersigned is notified of bid acceptance, it agrees to furnish required bonds as indicated in the Instructions to Bidders.

1.06 COMPLETION OF WORK: In submitting a bid, the undersigned agrees to execute the Owner-Contractor Agreement in the form included in the Contract Documents and to complete its Work as required by the Contract Documents.

NOTE A: The wording of the Bid Form shall be used throughout, without change, alteration, or addition. Any change may cause it to be rejected.

NOTE B: Bidder is cautioned to bid only on the Brands or Standards specified.

NOTE C: If there is an inconsistency or conflict in the Bid amount, the lowest amount shall control, whether expressed in numbers or words.

2.01 BID:

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Include the cost of all labor and material for the contract listed below. Bidder is to fill in all blanks related to the Bid Package for which a bid is being submitted. If no bid is submitted for an item, leave the item blank or insert "NO BID" in the blank. For alternate items, indicate whether the amount stated is in addition to or a deduction from the base bid amount (if there is no indication whether the amount for an alternate is an addition or a deduction, the amount shall be a deduction).

2.02 Bidder will complete the Work in accordance with the Contract Documents for the prices set forth in the attached Bid Schedule.

3.01 INSTRUCTIONS FOR SIGNING

A. The person signing for a sole proprietorship must be the sole proprietor or his authorized representative. The name of the sole proprietor must be shown below.

B. The person signing for a partnership must be a partner or his authorized representative.

C. The person signing for a corporation must be the president, vice president or other authorized representative; or he must show authority, by affidavit, to bind the corporation.

D. The person signing for some other legal entity must show his authority, by affidavit, to bind the legal entity.

4.01 BIDDER CERTIFICATIONS. The Bidder hereby acknowledges that the following representations in this bid are material and not mere recitals:

1. **The Bidder acknowledges that this is a public project involving public funds, and that the Owner expects and requires that each successful Bidder adhere to the highest ethical and performance standards. The Bidder by submitting its bid pledges and agrees that (a) it will act at all times with absolute integrity and truthfulness in its dealings with the Owner and the Design Professional, (b) it will use its best efforts to cooperate with the Owner and the Design Professional and all other Contractors on the Project and at all times will act with professionalism and dignity in its dealings with the Owner, Design Professional and other Contractors, (c) it will assign only competent supervisors and workers to the Project, each of whom is fully qualified to perform the tasks that are assigned to him/her, and (d) it has read, understands and will comply with the terms of the Contract Documents.**

2. The Bidder represents that it has had a competent person carefully and diligently review each part of the Contract Documents, including any Divisions of the Specifications and parts of the Drawings that are not directly applicable to the Work on which the Bidder is submitting its bid. By submitting its bid, each Bidder represents and agrees, based upon its careful and diligent review of the Contract Documents, that it is not aware of any conflicts, inconsistencies, errors or omissions in the Contract Documents for which it has not notified the Owner in writing at least ten (10) days prior to the bid opening. If there are any such conflicts, inconsistencies, errors or omissions in the Contract Documents, the Bidder (i) will provide the labor, equipment or materials of the better quality or greater quantity of Work; and/or (ii) will comply with the more stringent requirements. The Bidder will not be entitled to any additional compensation for any conflicts, inconsistencies, errors or omissions that would have been discovered by such careful and diligent review, unless it has given such prior written notice to Owner.

3. The Bidder represents that it has had a competent person carefully and diligently inspect and examine the entire site for the Project and the surrounding area, including all parts of the site applicable to the Work for which it is submitting its bid, and carefully correlate the results of the inspection with the requirements of the Contract Documents. The Bidder agrees that its bid shall include all costs attributable to site and surrounding area conditions that would have been discovered by such careful and diligent inspection and examination of the site and the

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surrounding area, and the Bidder shall not be entitled to any Change Order, additional compensation, or additional time on account of conditions that could have been discovered by such an investigation.

4. The Bidder represents, understands and agrees that a) the Claim procedures in the General Conditions as modified for the Project are material terms of the Contract Documents, b) if it has a Claim, it will have its personnel provide complete and accurate information to complete and submit the Statement of Claim form on a timely basis, c) the proper completion and timely submission of a Statement of Claim form is a condition precedent to any change in the Contract Sum or the Contract Time(s), and d) the proper and timely submission of the Statement of Claim form provides the Owner with necessary information so that the Owner may investigate the Claim and mitigate its damages.

5. The Bidder represents that the bid contains the name of every person interested therein and is based upon the Standards specified by the Contract Documents.

6. The Bidder and each person signing on behalf of the Bidder certifies, and in the case of a bid by joint venture, each member thereof certifies as to such member's entity, under penalty of perjury, that to the best of the undersigned's knowledge and belief: (a) the Base Bid, any Unit Prices and any Alternate bid in the bid have been arrived at independently without collusion, consultation, communication or agreement, or for the purpose of restricting competition as to any matter relating to such Base Bid, Unit Prices or Alternate bid with any other Bidder; (b) unless otherwise required by law, the Base Bid, any Unit Prices and any Alternate bid in the bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder prior to the bid opening, directly or indirectly, to any other Bidder who would have any interest in the Base Bid, Unit Prices or Alternate bid; (c) no attempt has been made or will be made by the Bidder to induce any other Person to submit or not to submit a bid for the purpose of restricting competition; and (d) the statements made in this Bid Form are true and correct.

7. The Bidder will execute the form of Owner/Contractor Agreement in the form included with the Contract Documents, if a Contract is awarded on the basis of this bid, and if the Bidder does not execute the Contract Form for any reason, other than as authorized by law, the Bidder and the Bidder's Surety are liable to the Owner.

8. The Bidder certifies that the upon the award of a Contract, the Contractor will ensure that all of the Contractor's employees, while working on the Project site, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

9. The Bidder agrees to furnish any information requested by the Owner's authorized representative to evaluate that the Bidder has submitted the lowest and best bid and that the bid is responsive to the specifications.

10. The Bidder certifies that it has no unresolved findings for recovery issued by the Auditor of State.

11. The Bidder certifies that it is aware of and in compliance with the requirements of Ohio Revised Code Section 3517.13 regarding campaign contributions.

LEGAL NAME OF BIDDER: _____

BIDDER IS (check one): __ sole proprietor __ partnership __ corporation __ other legal entity

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NAME & TITLE OF PERSON LEGALLY AUTHORIZED TO BIND BIDDER TO A CONTRACT:

_____
Name Title

DATE SIGNED: _____

SIGNATURE: _____

ADDRESS: _____

_____

TELEPHONE: _____

FAX: _____

FEDERAL TAX I.D. # _____

When the Bidder is a partnership or a joint venture, state name and address of each partner in the partnership or participant in the joint venture below:

_____ _____

_____ _____

Name

_____

Address

_____ _____

_____ _____

Name

_____

Address

_____ _____

_____ _____

Name

_____

Address

_____ _____

_____ _____

Name

_____

Address

_____ _____

_____ _____

Name

_____

Address

END OF SECTION

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

MODIFIED STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

[Where Third Party Engineer Performs Construction Administration Duties]

Prepared by

EJCDC®
ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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ASCE
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To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

Page

ARTICLE 1 – Definitions and Terminology 1

1.01 Defined Terms 1

1.02 Terminology 5

ARTICLE 2 – Preliminary Matters 6

2.01 Delivery of Bonds and Evidence of Insurance 6

2.02 Copies of Documents 6

2.03 Before Starting Construction 7

2.04 Preconstruction Conference; Designation of Authorized Representatives 7

2.05 Initial Acceptance of Schedules 7

2.06 Electronic Transmittals 8

ARTICLE 3 – Documents: Intent, Requirements, Reuse 8

3.01 Intent 8

3.02 Reference Standards 8

3.03 Reporting and Resolving Discrepancies 9

3.04 Requirements of the Contract Documents 10

3.05 Reuse of Documents 10

ARTICLE 4 – Commencement and Progress of the Work 10

4.01 Commencement of Contract Times; Notice to Proceed 10

4.02 Starting the Work 10

4.03 Reference Points 11

4.04 Progress Schedule 11

4.05 Delays in Contractor's Progress 12

ARTICLE 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions 13

5.01 Availability of Lands 13

5.02 Use of Site and Other Areas 13

5.03 Subsurface and Physical Conditions 14

5.04 Differing Subsurface or Physical Conditions 15

5.05 Underground Facilities 16

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5.06 Hazardous Environmental Conditions at Site 18

ARTICLE 6 – Bonds and Insurance 20

6.01 Performance, Payment, and Other Bonds 20

6.02 Insurance—General Provisions 21

6.03 Contractor's Insurance 22

6.04 Property Insurance 25

6.05 Waiver of Rights 27

6.06 Receipt and Application of Property Insurance Proceeds 28

ARTICLE 7 – Contractor's Responsibilities 28

7.01 Supervision and Superintendence 28

7.02 Labor; Working Hours 29

7.03 Services, Materials, and Equipment 29

7.04 "Or Equals" 29

7.05 Substitutes 30

7.06 Concerning Subcontractors, Suppliers, and Others 32

7.07 Patent Fees and Royalties 33

7.08 Permits 34

7.09 Taxes 34

7.10 Laws and Regulations 34

7.11 Record Documents 35

7.12 Safety and Protection 35

7.13 Safety Representative 36

7.14 Hazard Communication Programs 36

7.15 Emergencies 36

7.16 Shop Drawings, Samples, and Other Submittals 37

7.17 Contractor's General Warranty and Guarantee 39

7.18 Indemnification 40

7.19 Delegation of Professional Design Services 40

ARTICLE 8 – Other Work at the Site 41

8.01 Other Work 41

8.02 Coordination 41

8.03 Legal Relationships 41

ARTICLE 9 – Owner's Responsibilities 42

9.01 Communications to Contractor 42

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9.02 Replacement of Engineer 42

9.03 Furnish Data 42

9.04 Pay When Due 42

9.05 Lands and Easements; Reports, Tests, and Drawings 42

9.06 Insurance 42

9.07 Change Orders 42

9.08 Inspections, Tests, and Approvals 43

9.09 Limitations on Owner's Responsibilities 43

9.10 Undisclosed Hazardous Environmental Condition 43

9.11 Evidence of Financial Arrangements 43

9.12 Safety Programs 43

ARTICLE 10 – Engineer's Status During Construction 43

10.01 Owner's Representative 43

10.02 Visits to Site 43

10.03 Project Representative 44

10.04 Rejecting Defective Work 45

10.05 Shop Drawings, Change Orders and Payments 45

10.06 Determinations for Unit Price Work 45

10.07 Decisions on Requirements of Contract Documents and Acceptability of Work 45

10.08 Limitations on Engineer's Authority and Responsibilities 45

10.09 Compliance with Safety Program 46

ARTICLE 11 – Amending the Contract Documents; Changes in the Work 46

11.01 Amending and Supplementing Contract Documents 46

11.02 Owner-Authorized Changes in the Work 47

11.03 Unauthorized Changes in the Work 47

11.04 Change of Contract Price 47

11.05 Change of Contract Times 48

11.06 Change Proposals 49

11.07 Execution of Change Orders 49

11.08 Notification to Surety 50

ARTICLE 12 – Claims 50

12.01 Claims 50

ARTICLE 13 – Cost of the Work; Allowances 51

13.01 Cost of the Work 51

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13.02 Allowances 54

13.03 Unit Price Work 55

ARTICLE 14 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work 55

14.01 Access to Work 55

14.02 Tests, Inspections, and Approvals 55

14.03 Defective Work 57

14.04 Acceptance of Defective Work 57

14.05 Uncovering Work 58

14.06 Owner May Stop the Work 58

14.07 Owner May Correct Defective Work 58

ARTICLE 15 – Payments to Contractor; Set-Offs; Completion; Correction Period 59

15.01 Progress Payments 59

15.02 Contractor's Warranty of Title 63

15.03 Substantial Completion 63

15.04 Partial Use or Occupancy 64

15.05 Final Inspection 65

15.06 Final Payment 65

15.07 Waiver of Claims 66

15.08 Correction Period 67

ARTICLE 16 – Suspension of Work and Termination 67

16.01 Owner May Suspend Work 67

16.02 Owner May Terminate for Cause 68

16.03 Owner May Terminate For Convenience 69

16.04 Contractor May Stop Work or Terminate 69

ARTICLE 17 – Final Resolution of Disputes 70

17.01 Methods and Procedures 70

ARTICLE 18 – Miscellaneous 70

18.01 Giving Notice 70

18.02 Computation of Times 70

18.03 Cumulative Remedies 70

18.04 Limitation of Damages 71

18.05 No Waiver 71

18.06 Survival of Obligations 71

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18.07 Controlling Law 71

18.08 Headings 71

18.09 Equal Employment Opportunity and Non-Discrimination. 71

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters or with all capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement or Owner-Contractor Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

6. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Owner concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

7. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with any procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times, or both; contesting Owner's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Owner has declined to address. A demand for money or services by a third party is not a Claim.

8. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic

Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

9. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

10. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract. Only printed or hard copies of the items in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

11. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 13.03 in the case of Unit Price Work).

12. *Contract Times*—The number of days or the dates stated in the Agreement by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work so that it is ready for final payment.

13. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work and has entered into the Agreement.

14. *Cost of the Work*—See Paragraph 13.01 for definition.

15. *Design Professional*- architects; civil, structural, mechanical, electrical, plumbing, and heating, ventilating, air conditioning, and other engineers; interior designers; landscape architects; and others whose services have traditionally been considered "professional" activities, require licensing or registration by the state, or otherwise require the knowledge and application of design principles appropriate to the project at hand.

16. *Drawings*—The part of the Contract Documents prepared or approved by the Engineer that graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

17. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed by the Owner.

18. *Engineer*—The individual or entity named identified in the Agreement.

19. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

20. *General Requirements*—Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

21. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to

industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

22. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, *statutes*, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

23. *Liens*—Charges, security interests, or *encumbrances* upon Contract-related funds, real property, or personal property.

24. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an *intermediate* completion date or by a time prior to Substantial Completion of all the Work.

25. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

26. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor may start to perform the Work. *Owner*—The individual or entity with which *Contractor* has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract. The Owner is the City of Canton.

27. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times. The Progress Schedule is sometimes called the Construction Schedule.

28. *Project*—*The* total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

29. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing *the* Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

30. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

31. *Samples*—Physical examples of materials, equipment, or workmanship that are *representative* of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

32. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

33. *Schedule of Values*—For non unit price items, a schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

34. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or *information* that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

35. *Site*—Lands or areas indicated in the *Contract* Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

36. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the *Work*, and certain administrative requirements and procedural matters applicable to the Work.

37. *Subcontractor*—An individual or entity having a *direct* contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

38. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof. Substantial Completion is further defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide Owner the full time, uninterrupted, and continuous beneficial operation of the Work; ii) all required functional, performance, and acceptance or startup testing has been successfully demonstrated for all components, devices, equipment, and instrumentation and control; and (iii) all traffic control and safety devices are in place and operational to the satisfaction of Engineer in accordance with the requirements of the Specifications.

39. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

40. *Supplementary Conditions*—The part of the Contract Documents that amends or supplements these General Conditions.

41. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

42. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

43. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing

such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

44. *Unit Price Work*—Work to be paid for on the basis of unit prices.

45. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

46. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to respond to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. Intent of Certain Terms or Adjectives:

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. Day:

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective:

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:

    a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. Furnish, Install, Perform, Provide:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor's Insurance*: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured identified in the Modified General Conditions Owner-approved copies of certificates of insurance, copies of endorsements, and other evidence of insurance which either of them or any additional insured may reasonably request, which Contractor is required to purchase and maintain in accordance with Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor one fully executed Agreement in electronic format.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. for Work items not covered by unit prices, a preliminary Schedule of Values which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices shall be broken down into labor & materials. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work. The total of the Schedule of Values prepared for the Work items not covered by unit prices, as required by these Modified General Conditions, shall not exceed the Bid submitted for said Work, unless such amount is adjusted as provided in the Contract Documents.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer and Owner.

1. The Construction/Progress Schedule shall be prepared as provided in the Contract Documents.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. For non-unit price Work, Contractor's Schedule of Values will be acceptable to Owner and Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work. Such prices shall be broken down into labor & materials. Once approved by the Owner and Engineer, the Contractor will not change the allocation of the Contract Price to the component parts of the Work without the Owner and Engineer's written approval. The Owner and/or Engineer thereafter may from time to time require the Contractor to adjust such schedule if the Owner and/or Engineer determines it to be in any way unreasonable or inaccurate. The Contractor then shall adjust the schedule of values as required by the Owner and/or Engineer within ten (10) days.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to

assign to Owner, Engineer, or any of Owner's officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies:

1. *Contractor's Verification of Figures and Field Measurements*: In addition to its obligations under the Instructions to Bidders, before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Owner, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof or Contractor failed to perform its obligations under the Instructions to Bidders.

4. In addition to its obligations under the Instructions to Bidders, if Contractor proceeds with work that Contractor had actual knowledge or should have known that a conflict, error, ambiguity, or discrepancy existed as indicated above, correction or work constructed without notification to Engineer shall be at Contractor's expense, (except in an emergency as authorized by Paragraph 7.15).

B. Resolving Discrepancies:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

   a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

   b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

2. Within the Contract Documents, requirements of the Agreement shall take precedence over the Modified General Conditions, which shall take precedence over the Specifications, which shall take precedence over the Drawings.

3. Within a particular Contract Document, figure dimensions on Drawings shall take precedence over general Drawings. Specific instructions or specifications shall take precedence over the general instructions or specifications.

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by filing a Claim.

C. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run in accordance with Section 3 of the Agreement.

4.02 *Starting the Work*

A. Contractor may start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in the Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by Professional Surveyor (P.S.) registered in the state of Ohio. Contractor is referred to the General Requirements for additional requirements for laying out the Work.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Construction Schedule established in accordance with the Contract Documents.

1. **The Date for Substantial Completion shall be changed or modified only by Change Order, other Modification, or a Claim that is Finally Resolved, regardless of the date in the Construction Schedule.**

2. The float in the Construction Schedule and any updates to it shall belong to the Owner. Float shall mean the amount of time by which activities may be delayed without affecting the Contract Date for Substantial Completion.

3. The Contractor's obligation to furnish scheduling information is a material term of its Contact. If the Contractor fails to furnish requested scheduling information in writing within five (5) days of a request for such information from the Engineer or Owner, the Contractor shall pay and the Owner may withhold from the Contractor Liquidated Damages at the rate of Fifty Dollars ($50.00) a day for each calendar day thereafter that the Contractor fails to furnish the requested information.

B. **THE PERIODS OF TIME IN THE PROJECT CONSTRUCTION SCHEDULE ARE OF THE ESSENCE TO THIS CONTRACT. THE CONTRACTOR SHALL PROSECUTE ITS WORK IN ACCORDANCE WITH THE CURRENT PROJECT CONSTRUCTION SCHEDULE.**

1. **Notice of Delays.** As a condition precedent to any increase in the Contract Price and/or Contract Times, the Contractor shall give the Owner and the Engineer verbal notice of any delay affecting its Work within two (2) business days of the commencement of the delay. In addition and also as a condition precedent to any increase in the Contract Price and/or Contract Times, the Contractor shall give the Owner and Engineer written notice of the delay within ten (10) business days of the commencement of the delay with specific recommendations about how to minimize the effect of the delay. The written notice of the delay shall conspicuously state that it is a **"NOTICE OF DELAY."** A notice of delay shall not constitute the submission of a Claim. Contract Times shall only be changed as provided in the Agreement. The Contractor acknowledges and agrees that these notice provisions are material terms of the Contract Documents and give the Owner the opportunity to take action to minimize the cost and/or effect of delays.

4.05 *Delays in Contractor's Progress*

A. Excusable, Compensable Delays. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Non-Excusable Delays. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. Excusable, Non-Compensable Delays. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph; it being understood and agreed that the Contractor has included in the Contract Price a contingency for the risk of such delays. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
2. weather conditions as provided in Paragraph 4.05.H;
3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

H. Weather Delays. When the Contractor is prevented from completing any part of the Work on the critical path within the Contract Time due to weather conditions, if a Claim is made as provided for in these Modified General Conditions, the Contract Time will be extended by one (1) day for each

work day lost due to weather that delays Work on the critical path in excess of those in the following table:

Month	Number of Workdays Lost Due To Weather
January	8
February	8
March	7
April	6
May	5
June	4
July	4
August	4
September	5
October	6
November	6
December	6

I. A work day will be lost due to weather only when weather conditions reduce production by more than 50 percent on Work on the critical path. Production shall be measured by hours worked. The Contractor shall have the burden of establishing that weather conditions reduced the production by more than 50 percent on Work on the critical path.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a Notice of Commencement prepared for the Project, conforming to the provisions of Ohio Revised Code Section 1311.252.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. Limitation on Use of Site and Other Areas:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of

the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, alleged to have been caused by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

~~C.~~ *Cleaning*: See ODOT CMS 104.04.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Agreement identifies:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

4. It is possible that there may be other reports, and/or tests of subsurface conditions at or contiguous to the Site not prepared by or on behalf of Owner. The Owner makes no representation about such reports and/or tests, assuming they exist.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data contained in such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or

Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information. For example, interpolations and extrapolations of Technical Data performed by Contractor to estimate locations or quantities of subsurface strata are independent factual assumptions which Owner does not warrant.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
2. is of such a nature as to require a change in the Drawings or Specifications; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor, as a condition precedent to any increase in the Contract Price and/or an extension of the Contract Times shall, within 48 hours after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding determine conditions for the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition and indicating whether any change in

the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. Possible Price and Times Adjustments:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
    a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
    b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and
    c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
    a. Contractor knew or should have known of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
    b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
    c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, or by others. Unless it is otherwise expressly provided elsewhere in these Modified General Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

    a. protecting all Underground Facilities in a manner at least as cautious and protective of safety and of underground facilities as those methods identified in Ohio Revised Code Sections 3781.25 and 3781.30;

    b. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

    c. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; and determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. Possible Price and Times Adjustments:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

    a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

    b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Agreement identifies:

1. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Contract Documents with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a Contract Bond in the amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. Such bond shall be in the form that meets the requirements of the Ohio Revised Code. If the Contractor submitted a combined Bid Guaranty and Contract Bond with its bid for the Work, that form of Bond shall satisfy the Contractor's requirement to provide a Contract Bond. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury and meet the other requirements of the Contract Documents. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

G. *Material Default or Termination.* If the Owner notifies the Contractor's surety that the Contractor is in material default, the surety will complete its investigation of the claimed material default within 21 days. The surety is advised to start looking for a replacement contractor upon notice of material default. As part of its investigation, the surety shall promptly visit the offices of the Contractor, Engineer, and Owner to inspect and copy the available Project records. The Owner, Engineer, and Contractor, upon written request by the surety, shall make such records available during regular business hours for such inspection and copying. The Owner and Engineer's making such records available as provided herein shall satisfy the Owner's obligation to the surety to furnish documents for the investigation. The surety will provide the Owner with the results of its investigation, including any written reports or documents.

If the Owner terminates the Contract and the surety proposes to take over the Work, the surety shall do so no later than the expiration of the 21-day investigation period or 10 days

after the date the Owner terminates the Contract, whichever is later. If the Owner terminates the Contract, and the surety proposes to provide a replacement contractor, the replacement contractor shall not be the Contractor or a contractor comprised of mostly Contractor's employees, unless the Owner agrees in writing. In the event the Surety takes over the Project, the surety's obligation shall not be limited to the penal sum of the Bond.

If the surety does not propose an acceptable contractor as required by this Paragraph 6.01.G, the Owner may complete the Work by such means as it deems appropriate. In the event the Owner agrees to accept a replacement contractor, the replacement contractor shall furnish its own bond for the replacement contractor's scope of work, and neither the Contractor nor the surety shall be relieved of their obligations under the Contract Documents.

This Paragraph 6.01.G is in addition to any other rights of the Owner under the Contract Documents and is not intended to create any rights of the surety, including but not limited to the right to take over the Contractor's obligations.

In the event of the Contractor's termination and if the surety does not takeover the Work as provided in this Paragraph 6.01.G, the Owner may take possession of and use all materials, facilities, and equipment at the Project Site or stored off-site for which Owner has paid in whole or in part.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Contract Documents.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Modified General Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Modified General Conditions, or elsewhere in the Contract Documents), 3 certificates of insurance, copies of endorsements, or when specifically requested by the Owner, 3 certified copies of the insurance policies and a receipt evidencing full payment on the premiums, and other evidence of insurance requested by Owner establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Modified General Conditions, or elsewhere in the Contract Documents), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and

documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner to demand such certificates or other evidence of full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. By requiring such insurance and insurance limits herein, Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract Documents.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
2. claims for damages insured by reasonably available personal injury liability coverage.

3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:

   a. Such insurance shall be maintained for three years after final payment.

   b. Contractor shall furnish Owner and each other additional insured (as identified in these Modified General Conditions or elsewhere in the Contract Documents) evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.

3. Broad form property damage coverage.

4. Severability of interest.

5. Underground, explosion, and collapse coverage.

6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Modified General Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance

afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.
2. be written for not less than the limits of liability provided in this Article and in the Modified General Conditions, or required by Laws or Regulations, whichever is greater:
    a. Commercial General Liability ("CGL"): Bodily injury (including death and emotional distress) and property damage with limits of $1,000,000 each occurrence and $2,000,000 aggregate. CGL shall include: (i) Premises-Operation, (ii) Explosion and Collapse Hazard, (iii) Underground Hazard, (iv) Independent Contractors' Protective, (v) Broad Form Property Damage, including Completed Operations, (vi) Contractual Liability, (vii) Products and Completed Operations, (viii) Personal/Advertising Injury, (ix) Stopgap liability with Ohio Intentional Tort endorsement for $1,000,000 limit, and (x) per project aggregate endorsement.
    b. Automobile Liability, covering all owned, non-owned, and hired vehicles used in connection with the Work: Bodily injury (including death and emotional distress) and property damage with a combined single limit of $1,000,000 per person and $1,000,000 each accident.
    c. Such policies shall be supplemented by an umbrella policy, also written on an occurrence basis, to provide additional protection to provide coverage in the total amount of $1,000,000 for each occurrence and $1,000,000 aggregate for contracts with Contract Price of $250,000 or less; $2,000,000 each occurrence and $2,000,000 aggregate for contracts with a Contract Price greater than $250,000 but less than or equal to $500,000; $3,000,000 each occurrence and $3,000,000 aggregate for contracts with a Contract Price greater than $500,000 but less than or equal to $1,000,000; and $5,000,000 each occurrence and $5,000,000 aggregate for contracts with a Contract Price greater than $1,000,000.
3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 30 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective

Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
6. include products and completed operations insurance.
7. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 5.02 and 7.18.
8. with respect to products and completed operations insurance remain in effect for at least two years after final payment.
    a. Contractor shall furnish Owner and each other additional insured identified in these Modified General Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

K. The following provisions shall also apply to the insurance provided by the Contractor:

1. Contractor's insurance shall be primary and non-contributory.
2. Insurance policies shall be written on an occurrence basis only.
3. The Contractor shall require all Subcontractors to provide Workers' Compensation, CGL, and Automobile Liability Insurance with the same minimum limits specified herein, unless the Owner agrees to a lesser amount.
4. Owner shall be named as a certificate holder on the policies of insurance maintained by Contractor. The Contractor shall provide each additional insured with a certificate of insurance.
5. The additional insured endorsement shall be ISO 20 10 10 01 and CG 20 37 10 01 or their equivalents so that Completed Operations liability extends to the additional insured after the completion of the Project.

6.04 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Contract Documents, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Contract Documents or required by Laws and Regulations). This insurance shall:

1. include the Owner, Engineer, and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Contract Documents to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding sections in the Contract Documents, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Contract Documents. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
6. extend to cover damage or loss to insured property while in transit.
7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
8. allow for the waiver of the insurer's subrogation rights, as set forth below.
9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
10. not include a co-insurance clause.
11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
12. include performance/hot testing and start-up.
13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or

materially changed or renewal refused until at least 30 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.05 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Modified General Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Modified General Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the

Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, Shut Down Dates as defined in the Agreement, or any City-recognized holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, Shut Down Dates as defined in the Agreement, or legal holidays only with Owner's written consent, which will not be unreasonably withheld. Contractor (and Subcontractor) regular working hours consist of 8 up to 10 working hours within an 11-hour period between 7:00 a.m. and 6:00 p.m., on a regularly scheduled basis, excluding Saturday, Sunday, and holidays. Overtime work is work in excess of 40 hours per week. Contractor must receive advanced written approval from the Owner prior to performing work on weekends or City Holidays. Approval of such weekend and/or holiday work is in the Owner's sole discretion.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. Contractor warrants that all materials and equipment are suitable and fit for the intended use of such materials and equipment and are free from defects in material, workmanship, or design. The foregoing applies whether the materials or equipment are specified in the Contract Documents.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Substitutions prior to the receipt of bids shall be governed by the Instructions to Bidders. Substitutions after the entry into the Agreement shall be governed by these Modified General Conditions. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

    a. in the exercise of reasonable judgment Engineer determines that:

        1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

        2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

        3) it has a proven record of performance and availability of responsive service; and

        4) it is not objectionable to Owner.

    b. Contractor certifies that, if approved and incorporated into the Work:

        1) there will be no increase in cost to the Owner or increase in Contract Times; and

        2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an

acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

   a. shall certify that the proposed substitute item will:

      1) perform adequately the functions and achieve the results called for by the general design,

      2) be similar in substance to that specified, and

      3) be suited to the same use as that specified.

   b. will state:

      1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

      2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

      3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

   c. will identify:

      1) all variations of the proposed substitute item from that specified, and

      2) available engineering, sales, maintenance, repair, and replacement services.

   d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed

or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract Documents to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, Contractor shall not be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the

performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Responsibility for permits will be established by the Instructions to Bidders.

B. A copy of each permit obtained by Owner is available at Owner's office. Contractor shall examine the permits and conform to the requirements contained therein, and such requirements are hereby made part of these Contract Documents as though the same were set forth herein. Failure to examine the permit(s) will not relieve Contractor from compliance with the requirements stated therein.

7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

B. Materials purchased for use or consumption in connection with the proposed Work will be exempt from the State of Ohio Sales Tax, as provided in Section 5739.02 of the Ohio Revised Code, and also from the State of Ohio Use Tax, as provided in Section 5741.01 of the Ohio Revised Code. A Construction Tax Exempt Certificate is included with the Bid Documents.

C. Purchases by the Contractor of expendable items, such as form lumber, tools, oil, greases, fuel, or equipment rentals, are subject to the application of Ohio Sales or Use Taxes.

D. Contractor shall withhold any income taxes due to the Owner for wages, salaries, and commissions paid to its employees for work done under this Agreement and further agrees that any of its subcontractors shall, by the terms of its subcontract, be required to withhold any such income taxes due for work performed under this Agreement.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on

sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal.

D. Prevailing Wage Rates. If indicated in the Agreement or Instructions to Bidders, each laborer, worker, or mechanic employed by Contractor, Subcontractor, or other persons performing Work on the Project shall be paid not less than the applicable prevailing rate of wages pursuant to Ohio Revised Code Chapter 4115.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site two printed record copies of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. The Contractor shall deliver these record documents, samples, and shop drawings to the Engineer, no later than the date for Substantial Completion, for the Engineer's review and transmittal to the Owner.

7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Contract Documents identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

B. Contractor shall keep at the Site at all times during the progress of the Work as required by law a competent person to comply with OSHA trenching and excavation requirements. The competent person shall be one who is capable of identifying existing and predictable hazards in the surrounding, or working conditions that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. Shop Drawing and Sample Submittal Requirements:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

   a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

   b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

   c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

   d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. Shop Drawings:

   a. Contractor shall submit the number of copies required in the Specifications.

   b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. Samples:

   a. Contractor shall submit the number of Samples required in the Specifications.

   b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. Resubmittal Procedures:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than the number of submittal reviews specified in Paragraph 15.01.E.4 of these Modified General Conditions. Engineer will record Engineer's time for reviewing a subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time in accordance with Paragraph 15.01.E.4. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal;

6. the issuance of a notice of acceptability by Engineer;

7. any inspection, test, or approval by others; or

8. any correction of defective Work by Owner.

D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

E. Upon final payment, the Contractor must assign and transfer to Owner all guarantees, warranties, and agreements from and with all contractors, subcontractors, vendors, suppliers, and manufacturers regarding their performance, quality of workmanship, or quality of materials supplied in connection with the work. Contractor represents and warrants that all such guarantees, warranties, and agreements will be in place and enforceable by the Owner in accordance with their terms. The Owner, however, will not assume through any assignment or transfer required under this subparagraph any of the Contractor's payment obligations to any entities.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims (whether alleged or proven), demands, costs, losses, and damages, including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs, arising out of or relating to the performance of the Work or any breach of Contractor's obligations under the Contract Documents, including but not limited to the breach of any warranty provided in the Contract Documents.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the Owner will provide for the coordination of the work at the Site in the Contract Documents.

8.03 *Legal Relationships*

A. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

B. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify Owner and Engineer as required under Paragraph 7.18.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

A. Except as otherwise provided in these Modified General Conditions, Owner shall issue all communications to Contractor through Engineer or the Resident Project Representative.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The Engineer's duties and responsibilities during the construction period are in addition to the duties and responsibilities of the Owner's Representative, as referenced in the Agreement. The duties and responsibilities and the limitations of authority of Engineer as a representative of the Owner during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and

observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. Owner may furnish a Resident Project Representative to assist Engineer at the Site, assist Engineer in providing more extensive observation of the progress and quality of the Work, and assist in carrying out the Engineer's other responsibilities under the Contract Documents and its agreement with the Owner

B. The duties and responsibilities of the Resident Project Representative may include, but not be limited to, the following:

1. Review schedules and amendment thereto.
2. Attend conferences and meetings with Contractor.
3. Serve as liaison between Owner, Engineer, and Contractor.
4. Conduct on-site observation of the work.
5. Observe tests, equipment, and system startups.
6. Report to Engineer and Owner when clarifications and interpretations of the Contract Documents are needed. Consider, evaluate, and report to Engineer and Owner, Contractor's requests for modification.
7. Maintain orderly records, keep a daily log (when on a part-time basis, keep log for days visiting site).
8. Before project completion, prepare final list of items to be completed or corrected and make recommendations to Owner concerning acceptance of the Work.
9. Review Payment Applications from Contractor.

C. The Resident Project Representative shall not:

1. Authorize any deviation from the Contract Documents or substitutions of materials or equipment, unless authorized by Owner.
2. Undertake any of the responsibilities of Contractor, Subcontractor, or Contractor's superintendent.
3. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction.
4. Advise on, issue directions regarding, or assume control over safety precautions and programs in connection with the Work.

5. Accept shop drawing or sample submittals from anyone other than Contractor.
6. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
7. Authorize Owner to occupy the Project in whole or in part.
8. Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by Engineer.

10.04 *Rejecting Defective Work*

A. Owner has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

B. Unit Price Work for which a typical cross section or other detail from the Contract Documents applies shall be paid only up to the quantity determined by using the dimensions provided in the typical cross section or other detail. By way of example, this provision means that if a typical trench width detail in the Drawings shows a maximum width of 30 inches, all pay quantities associated with the actual work of constructing the detail shall be calculated using a trench width not greater than 30 inches. This means that the actual pay quantity could also be less than that based upon a 30 inch wide trench, if the actual trench width is smaller and otherwise in conformance with the Contract Documents, but the Contractor would not be paid more if the actual trench width exceeds 30 inches. Contractor is responsible for determining what actual trench width may be required due to field conditions and applicable laws and regulations existing at the time of its bid.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise

such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

   a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations. The agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including but not limited to, all direct, indirect, and cumulative costs associated with such change and any and all adjustments to the Contract Sum and the Date for Substantial Completion.

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of Work Change Directive, a Claim may be made therefor as provided in Article 12.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or]

2. where the parties do reach a mutual agreement to a lump sum, then by that mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows, and is the maximum total allowable amount:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for

Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change. Failure to provide notice to the surety of any such change shall not exonerate the surety from its obligations under the bond.

ARTICLE 12 – CLAIMS

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Contractor of Engineer's decisions regarding Change Proposals;

2. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: As a condition precedent to a change in the Contract Price or the Contract Terms, for each Claim the Contractor shall deliver a fully completed Statement of Claim Form, a copy of which form is a Contract Document, to the Engineer and the Owner, within 21 days of the start of the underlying cause of the Claim. The Contractor shall be responsible for substantiating its Claim. The Contractor's failure to deliver a fully completed Statement of Claim form shall be an irrevocable waiver of Contractor's right to any form of additional compensation, be it in time or money, arising out of the Claim or the circumstances underlying the Claim. Further, Contractor's obligation to deliver a fully completed Statement of Claim form within such 21 day period is a material term of the Contract Documents and provides the Owner with the opportunity to mitigate its damages.

C. *Review and Resolution*: Engineer will review each Claim and, within 45 days after receipt of the Statement of Claim Form, take one of the following actions in writing:

1. deny the Claim in whole or in part;

2. approve the Claim, or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial. In the event the Engineer does not take action on a Claim within said 45 days, the Claim shall be denied.

D. *Final and Binding Results*: Engineer's written action under Paragraph 12.01.C or denial pursuant to Paragraphs 12.01.C.3 or 12.01.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invokes the dispute resolution procedures set forth in Article 17.

E. *False or Fraudulent Claim.* The Contractor shall not knowingly present or cause to be presented to the Owner a false or fraudulent Claim. Knowingly shall have the same meaning as in Section 3729(b) USC of the Federal False Claims Act. If the Contractor knowingly presents or causes to be presented a false or fraudulent Claim, then the Contractor shall be liable to the Owner for the same civil penalty and damages as the United States Government would be entitled to recover under such Section 3729(a) USC and shall also indemnify and hold the Owner harmless from all costs and expenses, including Owner's attorneys' and consultants' fees and expenses incurred in investigating and defending against such Claim and in pursuing the collection of such penalty, damages, and fees and expenses.

F. *Claim Documentation*. Within ten (10) days of written request from the Owner, Contractor shall make available to Owner or its representative any books, records, or other documents in its possession or to which it has access, including but not limited to Contractor's daily logs/reports, original estimates of Work and applicable agreements, correspondence with subcontractors and suppliers, internal correspondence (including e-mail), accounting records, and other information from which the Contractor's records, and other information from which the Contractor's costs may be derived. To the extent permitted by law, the Owner shall keep the Project accounting records and estimate for the Project confidential. As requested by the Owner, the Contractor shall provide such documents and information in paper copies and/or computer format (including the format of the Contractor's accounting software and/or ASCII format). The Contractor's provision of the requested documents and information shall be a condition precedent to any further proceeding under the Contract Documents or to payment of an Application for Payment.

G. Failure to provide the requested documents shall be a material breach of the Contract, and Contractor shall indemnify Owner for all of Owner's costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to Contractor's failure to comply with this provision. If the Contractor fails to provide the requested documents, the Contractor shall be precluded from presenting such documents in any subsequent dispute resolution proceedings, if the data was reasonably available at the time of the request.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Construction Equipment and Machinery

        1) Rentals of all construction equipment and machinery, and the parts thereof in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements.

The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor and used on the Work will be paid at a rate shown for such equipment in the latest edition of the Associated Equipment Distributors' rental rate manual. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than $1,000 will be considered small tools. Costs for equipment and machinery owned by Contractor for which Contractor is seeking monetary compensation due to the equipment and machinery being idled through no cause of Contractor will be paid at half of the Associated Equipment Distributors' rate.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Fees for permits and licenses.

f. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

g. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

h. The cost of utilities, fuel, and sanitary facilities at the Site.

i. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

j. The portion of the costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain, that can be attributed to this Contract.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph

13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. .

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. All Work is subject to testing to indicate compliance with Contract Document requirements. Duplicate copies of test results required shall be submitted to Engineer. Testing laboratories used by Contractor are subject to the approval of Owner. Tests and inspection of work may be conducted by Owner or an independent laboratory employed by Owner. Tests may also be performed in the field by Engineer as a basis for acceptance of the Work. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required

inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests. Samples required for testing shall be furnished by Contractor at no cost to Owner. In the event that completed Work does not conform to specification requirements during the initial test, the Work shall be corrected and retested for conformance. The entire cost of retesting completed Work shall be borne by Contractor. This shall include the extra cost for inspection to Owner which will be deducted from the final amount due Contractor.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
3. by manufacturers of equipment furnished under the Contract Documents;
4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer. Tests required by the Contract Documents to be performed by Contractor that require test certificates to be submitted to Owner and Engineer for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required, testing laboratories or agencies shall meet the following applicable requirements:

a. "Recommended Requirements for Independent Laboratory Qualification," published by the American Council of Independent Laboratories.

b. Basic requirements of ASTM E329, "Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials used in Construction" as applicable.

c. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Institute of Standards and Technology or accepted values of natural physical constants.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Owner or Engineer, Contractor shall, if requested by Owner or Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Owner and Engineer timely notice of Contractor's intention to cover the same and Owner and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work and so as not to delay the Project, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Owner or Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance

of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, fails to comply with any requirements of the Contract Documents, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within two (2) business days of a written notice from Owner or Engineer, or such longer time as may be stated in such notice, to correct, or take reasonable steps to commence to correct, defective Work, or to remove and replace, or take reasonable steps to remove and replace, rejected Work in accordance with Paragraph 14.03.D or as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may correct or remedy any such deficiency. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor all the costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in

exercising the rights and remedies under this Paragraph 14.07. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

B. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. The Engineer-approved version of the Application for Payment form, which includes information on completed Schedule of Values items, is to be used by the Contractor when making an Application for Progress Payment. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. Applications for Payments:

1. At least by the 20th day of the month (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application, and any other supporting documentation required by the Contract Documents or by the Engineer. The Application for Payment will be in the form and submitted with the number of copies of it and all related documents as required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include Contractor's Affidavit with List of Subcontractors and Suppliers with Amounts Withheld; including a certification that Contractor has paid all of its subcontractors and suppliers who were due to be paid with the proceeds of the prior Application for Payment, all using the form provided by Owner and included in the Project Manual.

3. *Retainage.* Partial payments to Contractor for labor performed shall be made at the rate of 92 percent of the amount invoiced through the Application for Payment that shows the total

Contract Completion at 50 percent or greater, pursuant to Ohio Revised Code Section 153.14. After the Contract is 50 percent complete as evidenced by payments in the amount of at least 50 percent of the Contract Price to Contractor, no additional funds shall be retained from payments for labor.

4. Contractor shall submit one original (unless a different quantity is otherwise agreed upon) on 8-1/2 by 11 paper of each lien waiver submitted.

5. Contractor shall submit six copies (unless a different quantity is otherwise agreed upon) of each pay request for approval.

6. No advanced payment for shop drawing preparation will be made. Shop drawing costs will be paid when equipment and materials are delivered and suitably stored on the site.

7. All stored equipment and materials for which payment is requested shall have five copies (unless a different quantity is otherwise agreed upon) of invoices included with the pay request. Equipment shall be identified thoroughly on the invoices, including serial numbers.

8. Payment for the stored equipment and material which are on the site shall not exceed the invoiced amount for each item, less the Contract retainage. The overhead and profit for the stored items shall not be invoiced until the item is installed.

9. Payment for off-site storage is normally reserved for sensitive or very large pieces of equipment that in Engineer's opinion would not be practical to have stored on the site. Payment for off-site stored items shall be limited to 75% of the invoiced value of the item, less Contract retainage. Contractor shall reimburse Owner the Cost of inspecting off-site stored items. When off-site storage is approved, Contractor shall provide Insurance Certificates and Document of Ownership to Owner.

C. Review of Applications:

1. Engineer will, within 10 working days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

    a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

    b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

    a. to supervise, direct, or control the Work, or

    b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

    c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

    d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

    e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

    a. the Work is defective, requiring correction or replacement;

    b. the Contract Price has been reduced by Change Orders;

    c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

    d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

    e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents; or

    f. the Contractor is in default of any other Agreement it has with the Owner.

D. Payment Becomes Due:

1. Thirty days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due,

and when due will be submitted to the appropriate funding sources for processing (up to 90 days) and payment to contractor.

E. Reductions in Payment by Owner:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

   a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

   b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

   c. Contractor has failed to provide and maintain required bonds or insurance;

   d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

   e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

   f. the Work is defective, requiring correction or replacement;

   g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

   h. the Contract Price has been reduced by Change Orders;

   i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

   j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

   k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

   l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

4. Items entitling Owner to retain set-offs from the amount recommended include, but are not limited, to the following:

    a. Owner compensation to Engineer at an average rate of $200 per each extra personnel hour for labor plus expenses, if applicable, because of the following Contractor-caused events:

        1) Return visits to manufacturing facilities to witness factory testing or retesting;

        2) Submittal review in excess of two reviews by Engineer for substantially the same Submittal, in accordance with Paragraph 7.16.E of these Modified General Conditions;

        3) Evaluation of proposed substitutes and in making changes to Contract Documents occasioned thereby, in accordance with Paragraph 7.05 of these Modified General Conditions; and

        4) Overtime worked by Contractor necessitating Engineer or anyone else to work overtime in accordance with Paragraph 7.02 of these Modified General Conditions.

    b. Liability for liquidated damages incurred by Owner as set forth in the Contract Documents.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

G. *Time for Completion of Items on Tentative List and Remedies.* The time fixed by the Engineer for the completion of all items on the list accompanying the tentative certificate of Substantial Completion shall not be greater than thirty (30) days. The Contractor shall complete all items on the list within such 30-day period. If the Contractor fails to do so, the Owner in its discretion may perform the Work by itself or others and the cost thereof shall be charged to the Contractor. The Contractor irrevocably designates the Owner as the Contractor's attorney-in-fact to execute a Change Order deducting such cost from the balance of the Contract Price and also any additional costs or expenses incurred by the Owner arising out of or related to the failure of the Contractor to complete such items, including but not limited to attorneys', consultants', and Engineer's fees. The Contractor's warranties under the Contract Documents shall remain in full force and effect and cover any remedial Work, even if performed by others. If more than one inspection by the Engineer for purposes of evaluating corrected Work is required, it will be performed at the Contractor's expense.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and

Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. Owner may at any time request Contractor in writing to permit Owner to take over operation of any part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer, and within a reasonable time thereafter, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the list of items to be completed or corrected and will deliver such lists to Owner and Contractor together with a written recommendation as to the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties, and guarantees for that part of the Work which will become binding upon Owner and Contractor at the time when Owner takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

5. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. Application for Payment:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents;

   b. consent of the surety, if any, to final payment;

   c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

   d. a list of all disputes that Contractor believes are unsettled; and

e. a Contractor's Waiver and Release Agreement for itself as of the date of Final Application for Payment and Subcontractors-Suppliers Waiver and Release Agreements for each of its Subcontractors and Suppliers as of the date of the Final Application for Payment.

3. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

4. If Contractor is required to pay prevailing wages, prior to final payment and in accordance with ORC 4115.05, Contractor and its Subcontractors shall each file with Owner an affidavit certifying their compliance with ORC 4115.03 to ORC 4115.16 regarding wages.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and will be submitted to appropriate funding sources for processing (up to 90 days) and paid to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;
2. correct such defective Work;
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or limitation upon, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) three business days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

Such termination shall be effective as of the date stated in the termination notice provided to Contractor.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within three business days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

16.03 *Owner May Terminate For Convenience*

A. Upon three business days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. Such termination shall be effective as of the date stated in the written notice. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including compensation as set forth in the schedule of values or Bid Form in the case of unit prices;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

C. Contractor shall require similar provisions contained in Paragraph 16.03 in each of its subcontracts to protect Contractor from claims by Subcontractors arising from the Owner's termination for convenience, or to minimize claims by such subcontractors. The remedy provided to Contractor under this Paragraph 16.03 shall be the Contractor's sole remedy in the event of termination for convenience by Owner.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 90 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 90 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

A. *Litigation, Settlement, Methods, and Procedures.*

1. Any dispute, claim, or other matter not settled by negotiation or mediation, shall be determined by the Court of Common Pleas for Stark County, Ohio, which shall be exclusive venue and jurisdiction over such matters and claims, to the exclusion of any other court, including any U.S. District Court.

2. In addition to Owner's entitlement to attorneys' fees set forth elsewhere in the Contract Documents, in the event that Contractor files a Claim or files an action against Owner, Owner shall be entitled to make an offer of settlement of the Claim to Contractor at any time up to the date of trial. Such offer of settlement shall not be admissible into evidence at the litigation except on the issue of entitlement to recovery of attorneys' fees, costs, and expenses. If at any stage of the litigation, including any appeals, Contractor's claim is dismissed or found to be without merit, or if the damages awarded to Contractor on its claim do not exceed Owner's offer of settlement, Contractor shall be liable to Owner and shall reimburse Owner for all attorneys' fees, costs, and expenses incurred by Owner from the date of the offer of settlement until the date of the final adjudication and resolution of Contractor's claim.

ARTICLE 18 – MISCELLANEOUS

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the State of Ohio.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

18.09 *Equal Employment Opportunity and Non-Discrimination.*

A. The Contractor shall comply with, and shall require all Subcontractors of any tier to comply with, the applicable equal employment opportunity and non-discrimination statute and regulations of the State of Ohio.

City of Canton Codified Ordinances

Bidders shall take notice that they are to comply with the Codified Ordinances of the City of Canton, including but not limited to, the following:

1. Chapter 105.02 – Public Paving Time Restrictions.

All City public paving contracts shall include a provision for liquidated damages in order to provide the City reasonable compensation for actual damages due to a failure to ensure that asphalt paving take place on the City's road surfaces from May 1st to October 1st; and/or during optimal climatic conditions that are conducive to the best mix compacting and long term durability of the pavement, according to the highest and best practices of the asphalt paving industry.

(Ord. 270-2014. Passed 12-29-14.)

2. Chapter 105.15 – City Income Tax

a. No person, partnership, corporation or unincorporated association may be awarded a contract with the City under Sections 105.09 or 105.10, unless the bidder is paid in full or is current and not otherwise delinquent in the payment of City income taxes, including any obligation to pay taxes withheld from employees under Section 182.05 and any payment on net profits under Section 182.06.

b. Falsification of any information related to or any post-contractual violation of the requirement to pay City income taxes set forth in subsection (a) shall constitute cause for the rescission of the balance of the contract at the City's discretion.

c. No partnership, corporation or unincorporated association which has as one of its partners, shareholders or owners a person who is a twenty percent (20%) or greater equity owner in such partnership, corporation or unincorporated association and who is delinquent in the payment of City income taxes as set forth in subsection (a), may be awarded a contract with the City under Sections 105.09 or 105.10.

d. A person who is a twenty percent (20%) or greater equity owner in any partnership, corporation or unincorporated association which is delinquent in the payment of City income taxes as set forth in subsection (a) may not be awarded a contract with the City under Sections 105.09 or 105.10.

e. A contract awarded under Sections 105.09 or 105.10 for a public improvement project, services other than personal or professional services, and personal or professional services shall not be binding or valid unless such contract contains the following provisions:

Said _____ hereby further agrees to withhold all City income taxes due or payable under Chapter 182 of the Codified Ordinances for wages, salaries, fees and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income taxes due for services performed under this contract. Furthermore, any person, firm or agency that has a contract or agreement with the City shall be subject to City income tax whether a resident or nonresident in the City, and whether the work being done is in the City or out of the City. In addition to the tax withheld for employees, the net profits on the contract shall be subject to City income tax.

(Ord. 238-2015. Passed 11-30-15.)

3. Chapter 182.30 – Contract Provisions

a. No contract on behalf of the City under Sections 105.09 or 105.10 of the Codified Ordinances of Canton for a public improvement project, services other than personal or professional services, and personal or professional services shall be binding or valid unless such contract contains the following provisions:

Said _____ hereby further agrees to withhold all City income taxes due or payable under Chapter 182 of the Codified Ordinances for wages, salaries, fees and commissions paid to its employees and further agrees that any of its subcontractors shall be required to agree to withhold any such City income taxes due for services performed under this contract. Furthermore, any person, firm or agency that has a contract or agreement with the City shall be subject to City income tax whether a resident or nonresident in the City, and whether the work being done is in the City or out of the City. In addition to the tax withheld for employees, the net profits on the contract shall be subject to City income tax.

b. By entering into contract with the City of Canton _____ agrees with the City regarding the manner of withholding of City income taxes as provided in Section 718.011(F) of the Ohio Revised Code.
   i. Municipal income tax withholding provisions of Sections 718.011(B)(1) and 718.011(D) ORC shall not apply to qualifying wages paid to employees for work done or services performed or rendered inside the City or on City property.
   ii. _____ agrees to withhold income tax for the City from employees' qualifying wages earned inside the City or on City property, beginning with the first day of work done or services performed or rendered inside the City.

(Ord. 238-2015. Passed 11-30-15.)

(Ord. 179-74. Passed 6-17-74.)

STATEMENT OF CLAIM FORM
Claim No. ___ for Contractor

1. Name of Contractor: _____

2. Date written claim given:_____.

3. Contractor's representative to contact regarding the claim:

   Name:_____ Title: _____
   Telephone No. _____ (office) FAX No. _____

   E-mail: _____

4. General description of claim:

_____

5. Contract Documents. If the claim is based upon any part or provision in the Contract Documents, including but not limited to pages in the Drawings and/or paragraphs in the Specifications, Owner-Contractor Agreement, General Conditions or Supplementary General Conditions, state upon which parts or provisions the claim is based:

_____

6. Delay claims:

   6.1 Date delay commenced: _____
   6.2 Duration of the delay: _____
   6.3 Apparent cause of the delay and part of critical path affected:

_____

   6.4 Impact of the delay and recommendations for minimizing such impact:

_____

7. Additional compensation. Set forth in detail all additional compensation to which the Contractor believes it is entitled with respect to this claim:

_____

8. Instructions for Completing the Statement of Claim Form ("Instructions"). The Instructions are incorporated in this Form.

9. Truth of Claim. By submitting this claim, the Contractor and its representative certify that after conscientious and thorough review and to the best of his or her knowledge and belief a) the Contractor has complied fully with the Instructions, b) the information in this State of Claim is accurate, c) the Contractor is entitled to recover the compensation in paragraph 7, and d) the Contractor has not knowingly presented a false or fraudulent claim. The Contractor by its authorized representative must acknowledge this Statement of Claim before a notary public.

CONTRACTOR: _____

By: _____

Name and Title:_____

Date: _____

CONTRACTOR'S ACKNOWLEDGMENT

State of _____,

County of _____, ss:

_____ first being sworn, states that after conscientious and thorough review, the statements made in attached Statement of Claim Form are complete and true to the best of his or her knowledge and belief.

_____

Sworn to before me a notary public by _____ on _____ __, 20__.

_____
Notary Public

WHEN COMPLETED, FORWARD A COPY OF THIS NOTICE AND STATEMENT OF CLAIM FORM TO THE OWNER AND ENGINEER.

INSTRUCTIONS FOR COMPLETING THE STATEMENT OF CLAIM FORM

1. Completing the Statement of Claim Form ("Claim Form") is a material term of the Contract. The Claim Form tells the Owner and Design Professional that the Contractor is making a Claim and that they need to act promptly to mitigate the effects of the occurrence giving rise to the Claim. The Claim Form also provides them with information so that they can mitigate such effects. The Contractor acknowledges that constructive knowledge of the conditions giving rise to the Claim through job meetings, correspondence, site observations, etc. is inadequate notice, because knowledge of these conditions does not tell the Owner and Engineer that the Contractor will be making a Claim and most often is incomplete.

2. If the space provided in the Claim Form is insufficient, the Contractor, as necessary to provide complete and detailed information, must attach pages to the Claim Form with the required information.

3. Paragraph 4. The Contractor must state what it wants, *i.e.*, time and/or compensation, and the reason why it is entitled to time and/or compensation.

4. Paragraph 5. The Contractor must identify the exact provisions of the Contract Documents it is relying on in making its Claim. For example, if the Claim is for a change in the scope of the Contractor's Work, the Contractor must identify the specific provisions of the Specifications, and the Plan sheets and details that provide the basis for the scope change.

5. Paragraph 6. This paragraph applies to delay claims, including delays that the Contractor believes result in constructive acceleration. The Contractor must identify the cause of the delay, party or parties responsible, and what the party did or did not do that caused the delay, *i.e.*, specific work activities. The Contractor acknowledges that general statements are not sufficient, and do not provide the Owner with sufficient information to exercise the remedies available to the Owner or to mitigate the effects of the delay.

   For example, if the Contractor claims a slow response time on submittals caused a delay, the Contractor must identify the specific submittals, all relevant dates, and then show on the applicable schedule, by circling or highlighting, the activities immediately affected by the delays. Also for example, if the Contractor claims it was delayed by another Contractor, the Contractor must identify the delaying Contractor, specifically what the delaying Contractor did or did not do that caused the delay, and then show the applicable schedule, by circling or highlighting, the activities immediately affected by the delays. Further by example, if the Contractor seeks an extension of time for unusually severe weather, the Contractor must submit comparative weather data along with a record of the actual weather at the job site and job site conditions.

6. Paragraph 6.4. Time is of the essence under the Contract Documents. If there is a delay, it is important to know what can be done to minimize the impact of the delay. It therefore is important that the Contractor provide specific recommendations on how to do so.

7. Paragraph 7. The Contractor must provide a specific and detailed breakdown of the additional compensation it seeks to recover. For future compensation, the Contractor shall provide its best estimate of such compensation.

8. Paragraph 8 and Acknowledgment. By submitting this Claim, the Contractor and its representative certify that after conscientious and thorough review and to the best of his or her knowledge and belief a) the Contractor has complied fully with the Instructions, b) the information in this Claim Form is accurate, c) the Contractor is entitled to recover the compensation in paragraph 7, and d) the

Contractor has not knowingly presented a false or fraudulent claim. The Contractor by its authorized representative must acknowledge this Statement of Claim before a notary public.

End of Instructions

The City of Canton

CONTRACTOR'S PERSONAL PROPERTY TAX AFFIDAVIT

(O.R.C. § 5719.042)

State of Ohio
County of _____, ss:

_____, being first duly sworn, deposes and says that he is the
(Name)

_____ of _____ with offices located at
(Title) (Contractor)

_____, and as its duly
(Address of Contractor)

authorized representative, states that effective this _____ day of _____, 20___,

_____
(Name of Contractor)

( ) is charged with delinquent personal property taxes on the general list of personal property as set forth below:

County	Amount (includes total amount due, plus penalties and interest thereon)
Stark	$_____

( ) is not charged with delinquent personal property taxes on the general list of personal property in Stark County.

_____

_____
(Affiant)

Sworn to and subscribed before me by the above-named affiant this _____ day of _____, 20__.

_____
(Notary Public)

My commission expires

_____, 20__

CONTRACTOR'S FINAL WAIVER & RELEASE AFFIDAVIT
("AFFIDAVIT")

Project: STA 11th St SE Improvements, GP1144, PID 90645

In consideration for payment received from the City of Canton (the "City") in the amount requested in Contractor's Final Application for Payment to the City, the receipt of which is hereby acknowledged, the undersigned Contractor hereby waives and releases any rights it has or may have to any and all types of claims relating to the Project, including without limitation claims of payment, Mechanic's Lien, stop notice, equitable lien, labor and material bond, breach of contract or unjust enrichment, or any other claim against the City, for any labor, materials, or equipment the undersigned may have delivered or provided to the Project, except for any Claims the undersigned has made by properly and timely submitting a Statement of Claim form. The undersigned further certifies that this Affidavit covers claims by all contractors, subcontractors, and suppliers who may have provided any labor, material, or equipment to the Project through the undersigned or at the undersigned's request. The undersigned acknowledges that all such contractors, subcontractors, sub-subcontractors and suppliers have signed an affidavit in the form of this Affidavit releasing any and all claims against the City, except for any Claims the undersigned has made by properly and timely submitting a written statement of its Claim. The undersigned hereby represents and warrants that it has paid any and all welfare, pension, vacation or other contributions required to be paid on account of the employment by the undersigned of any laborers on the Project.

This Affidavit is for the benefit of, and may be relied upon by the City. The undersigned hereby agrees to indemnify, defend and hold harmless each of the foregoing, the Project, work of improvement, and real property from any and all claims, or liens that are or should have been released in accordance with this Affidavit.

_____
Company Name

_____
Authorized Signature (Company Officer)

_____
Title

_____
Date

State of: _____ County of _____

Subscribed and sworn to before me this _____

day of _____

Notary Public: _____

My Commission Expires: _____

CITY OF CANTON
STA 11th St SE Improvements Project

PRE-BID SUBSTITUTION FORM

1. Note. Certain brands of material or apparatus are specified. Each bid will be based on these brands, which may be referred to in the Contract Documents as Standards. The use of another brand (referred to as a substitution or proposed equal in the Contract Documents, when a bidder or the contractor seeks to have a different brand of material or apparatus than that specified approved by the Owner for use in the Project) may be requested as provided in the Instructions to Bidders. Substitutions, however, unless approved and issued in an Addendum, will not be considered in determining which bidder to award the contract to.

2. The detailed procedures for submitting substitutions are set forth in Paragraph K of the Instructions to Bidders.

Specification Section	Brand or Name Specified	Proposed Substitution

ODOT's LPA Template (ODOT Spec Book and LPA Spec Book)
Required Contract Provisions.

1. ODOT'S 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND ITS SUPPLEMENTS

With the exception of Section 100 "General Provisions" included in the matrix below, ODOT's Construction and Material Specifications (CM&S) and its supplements are hereby incorporated by reference, in their entirety, as if rewritten herein. **The incorporation of this document by reference does not interfere with the order of precedence set forth in Section 105.04 of the CMS Manual.**

In accordance with the Locally Administrated Transportation Projects Manual of Procedures (LATPM), when bidding this project, the Contractor should replace the terms "the Department", "the Engineer", "the DCE" and "the DCA" with the term "the Local Public Agency (LPA)." Furthermore, nothing in this document is intended to alter the LPA's adherence to Ohio Revised Code, local ordinance or other applicable requirements which are properly established.

Excluded 2019 Specifications			
Section102.01	Section 103.01	Section 105.19	
Section 102.03	Section 103.02	Section 107.04	
Section 102.06	Section 103.04	Section 107.13	
Section 102.09	Section 103.05	Section 108.01	
Section 102.10	Section 103.06	Section 108.02(B)	
Section 102.11	Section 103.07	Section 108.02(E)	
Section 102.13	Section 104.02(A)	Section 108.02(G)	
Section 102.14	Section 105.05	Section 108.08	
Section 102.17			

2. STEEL AND IRON PRODUCTS MADE IN THE UNITED STATES

Furnish steel and iron products that are made in the United States according to the applicable provisions of Federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC 153.011 and 5525.21. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States. Both the State and Federal requirements contained in (A.) and (B.) of this section apply to this contract.

A. Federal Requirements. All steel or iron products incorporated permanently into the Work must be made of steel or iron produced in the United States and all subsequent manufacturing must be performed in the United States. Manufacturing is any process that modifies the chemical content; physical shape or size; or final finish of a product. Manufacturing begins with the initial melting and mixing and continues through the bending and coating stages. If a domestic product is taken out of the United States for any process, it becomes a foreign source material.

Not all manufactured products (i.e., traffic signal heads, bridge bearing pads, pre-cast concrete items, etc.) used in the project are required to be produced in the United States.

All "construction materials" are to be manufactured in the United States - meaning that all manufacturing processes for the construction materials must have occurred in the United States.

"Construction materials" includes an article, material, or supply other than an item primarily comprised of iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives, and materials that consist primarily of:

- non-ferrous metals; (i.e., aluminum, copper, brass, etc.)
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

Items that consist of two or more of the listed materials that have been combined through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

B. State Requirements. All steel products used in the Work for load-bearing structural purposes must be made from steel produced in the United States. State requirements do not apply to iron.

C. Exceptions. ODOT may grant specific written permission to use foreign steel or iron products in bridge construction and foreign iron products in any type of construction. ODOT may grant such exceptions under either of the following conditions:

1. The cost of products to be used does not exceed 0.1 percent of the total Contract cost, or $2,500, whichever is greater. The cost is the value of the product as delivered to the project.

2. The specified products are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet the requirements of the Contract Documents. ODOT may require the Contractor to obtain letters from three different suppliers documenting the unavailability of a product from a domestic source if the shortage is not previously established.

D. Proof of Domestic Origin. Furnish documentation to the Engineer showing the domestic origin of all steel and iron products covered by this section before they are incorporated into the Work. Products without a traceable domestic origin will be treated as a non-domestic product.

3. CERTIFICATION AGAINST DEBARMENT AND SUSPENSION

The bidder hereby certifies by signing this proposal that, except as noted below, under penalty of perjury and under other such penalties as the laws of this state and the United States of America provide, that the company or any person associated there with in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds is **not** currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal agency; that the company or any person associated therewith in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds has **not** been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three (3) years; that the company or any person associated therewith in the capacity of owner, partner, director, manager, auditor, or any position involving the administration of federal funds does **not** have a proposed debarment pending; that the company or any person associated there with in the capacity of owner, partner, director, officer, principal investigator has **not** been indicted, convicted, or had a civil judgment rendered against the company, or themselves by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

If there are exceptions to any of the above clauses, please include a statement with the bid package detailing these exceptions.

Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, initiating agency and dates of action. Providing false information may result in criminal prosecution or administrative sanctions. Execution of this proposal on the signature portion thereof shall also constitute signature of this certification as permitted by Title 28 United States Code, Section 1746.

4. PREQUALIFICATION

Only pre-qualified contractors are eligible to submit bids for this PROJECT. Pre-qualification status must be in force **at the time of bid, at the time of award, and through the life of the construction contract.** For work types that ODOT does not pre-qualify, the LPA must still select a qualified contractor. Subcontractors are not subject to the pre-qualification requirement. The "prime" contractor must perform no less than 30 percent of the total original contract price.

5. PN 033 - 4/18/2008- AS PER PLAN DESIGNATION

(Not required by FHWA, but strongly suggested if As Per Plan is used by the LPA)
For the last several years the "As Per Plan" designation has been added to some item descriptions in the proposal to assist the Contractors to easily identify standard items that have been altered by plan notes.

The "As Per Plan" designation has proven to be a very useful tool for the Contractors. However, its use was never intended to relieve the Contractors of their responsibility to read, bid and construct all items in accordance with all governing plan notes. Therefore, the absence of an "As Per Plan" designation on some item descriptions in the proposal for which there are clear and controlling plan notes does not relieve the Contractors of the responsibility to read, bid and construct those particular items in accordance with the governing plan notes.

Be advised that the item descriptions in the bidding proposal must be read or interpreted with the governing plan notes and the Construction and Material Specification Manual. A claim based upon an "order of precedence" basis will be denied. In the event that a conflict, either real or perceived, exists between the item description and the governing plan note, the Contractors are to request clarification through the pre-bid process.

6. FEDERALLY REQUIRED EEO CERTIFICATION FORM

The bidder hereby certifies that he **has** ...., **has not** ...., participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that he **has** ...., **has not** ...., filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements. ***The Bidder must circle the appropriate "has or has not" above.***

7. PN 017 - 10/15/2004 - FEDERALLY REQUIRED EEO CERTIFICATION CLAUSE

The Federally Required EEO Certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontractors which are subject to the equal

opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

8. PN 026 - 10/15/2004 - CERTIFICATION OF NONSEGREGATED FACILITIES

(a) Certification of Non-segregated Facilities, as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities (for a Federal-aid highway construction contract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity clause).

(b) Bidders are cautioned as follows: By signing this bid, the bidder has agreed to the provisions of the "Certification of Non-segregated Facilities" in this proposal. This certification provides that the bidder does not maintain or provide for his employees' facilities which are segregated on a basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the bidder will not maintain such segregated facilities.

(c) Bidders receiving Federal-aid highway construction contract awards exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause, will be required to provide for the forwarding of the following notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply agreements exceed $10,000 and are not exempt from the provisions of the Equal Opportunity clause.

"Notice to Prospective Subcontractors and Material Suppliers of Requirement for Certification of Non-segregated Facilities" -

(a) A Certification of Non-segregated Facilities as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, which is included in the proposal, or attached hereto, must be submitted by each subcontractor and material supplier prior to the award of the subcontract or consummation of a material supply agreement if such subcontract or agreement exceeds $10,000 and is not exempt from the provisions of the Equal Opportunity clause.

(b) Subcontractors and material suppliers are cautioned as follows: By signing the subcontract or entering into a material supply agreement, the subcontractor or material supplier will be deemed to have signed and agreed to the provisions of the "Certification of Non-segregated Facilities" in the subcontract or material supply agreement. This certification provides that the subcontractor or material supplier does not maintain or provide for his employees' facilities which are segregated on the basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the subcontractor or material supplier will not maintain such segregated facilities.

(c) Subcontractors or material suppliers receiving subcontract awards or material supply agreements exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause will be required to provide for the forwarding of this notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply

agreements exceed $10,000 and are not exempt from the provisions of the Equal Opportunity clause.

9. PN 003 - 10/15/2004 - TITLE VI RELATED STATUTES NON-DISCRIMINATION STATEMENT

The LPA, under Title VI of the Civil Rights Act and related statutes, ensures that no person in the LPA, shall on the grounds of race, color, national origin, sex, disability or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

10. CERTIFICATION OF COMPLIANCE WITH AFFIRMATIVE ACTION PROGRAMS

In accordance with Ohio Administrative Code §9.47, before any Contract is awarded, the LPA will require the Bidder to furnish a valid Certificate of Compliance with Affirmative Action Programs, issued by the State EEO Coordinator dated prior to the date fixed for the opening of bids.

11. PN 020 – 11/21/2011 - NOTICE OF REQUIREMENT OF AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

The Bidder's attention is called to the affirmative action obligations required by the specifications set forth in 23 CFR Part 230, 41 CFR Part 60, Executive Order 11246, Section 503, and the affirmative action provisions of Vietnam Era Veterans' Readjustment Assistance Act (VEVRAA) of 1974.

Utilization goals applicable to the project, expressed in percentages, for minority and female participation for each construction craft can be found on ODOT's website at **http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/default.aspx.** These goals are based on 2000 census data and represent the area, per craft, minority and female availability pool.

Minority and female utilization obligations by craft per county (applicable to project):
http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/CountyAvailability-ByTrade.pdf

Statewide utilization obligations by craft (applicable to the Contractor's statewide workforce):
http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/StatewideAverages-ByTrade.pdf

Effective 11/21/2011 the New Hire Definition will be as follows:
An individual who has a break in service (not on an employer's payroll) for a period of 12 months or longer and the person affected is not a salaried employee but belongs to a union craft. Individuals compensated for training or incidental work which does not cause a break in unemployment compensation, i.e., paid by voucher check or petty cash, are considered new hires if the individual's break in service is 12 months or longer.

The time frame for a new hire shall be associated with the first project worked for that contractor regardless of whether it is public or private. When reporting new hires, the contractor shall identify that employee as a new hire on that specific project only. Subsequent work, barring a break in service of 12 months or more, would not qualify the employee as a new hire for that contractor.

The Contractor's compliance shall be based on the implementation of affirmative action obligations required by the specifications set forth in 23 CFR Part 230, and its good faith efforts to meet these obligations. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and females on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the affirmative action obligations shall be a violation of the contract and regulations in 23 CFR Part 230. The good faith efforts put forth by the contractor will be measured against the total work hours performed. Under FHWA, ODOT is the authority tasked with ensuring that the contractor adheres to the aforementioned regulations. In addition to complying with the Required Contract Provisions as outlined in the attached subcontract agreement the Contractor shall provide immediate written notification to the ODOT and the Prime Contractor when referral practices of the union or unions with which the Contractor has a collective bargaining agreement impede the company's efforts to meet its equal opportunity obligations.

The Office of Federal Contract Compliance Programs (OFCCP) administers and enforces equal employment opportunity laws that apply to Federal government contractors and subcontractors supplying goods and services, including construction, to the Federal Government under 41 CFR Part 60, Executive Order 11246, Section 503, and the affirmative action provisions of VEVRAA. The OFCCP monitors compliance with these laws primarily through compliance evaluations, during which a compliance officer examines the contractor's affirmative action efforts and employment practices. Under Executive Order 11246, the OFCCP may perform contract compliance reviews on contractors involved with federally funded ODOT projects.

Requirements for affirmative action obligations governing OFCCP contract compliance reviews are those listed in the Construction Contractors Technical Assistance Guide.
https://www.dol.gov/sites/dolgov/files/OFCCP/Construction/508_cctag_12032020.pdf

The Department of Administrative Services (DAS), Equal Opportunity Division, is responsible for ensuring state contractors implement and adhere to the State of Ohio's affirmative action program pursuant to Ohio Administrative Code (OAC) 123:2-3-02. Specifically, this unit's responsibilities include the issuance of certificates of compliance under ORC 9.47 and 153.08, conducting project site visits and compliance reviews (desk audits) to ensure contractors utilize minorities and women in the construction trades, as well as maintaining a working environment free of discrimination, harassment and intimidation. The DAS may perform contract compliance reviews on contractors involved with state funded ODOT projects. Requirements for affirmative action obligations governing DAS contract compliance reviews are those listed in the O.A.C. for the Metropolitan Statistical Area in which a project is located.
http://das.ohio.gov/Divisions/EqualOpportunity/ConstructionCompliance.aspx

All prime and subcontractors regardless on the number of employees or the state contract amount are required to submit monthly utilization reports (Input Form 29) to Ohio Department of Administrative Services covering the contractor's total workforce within the state of Ohio. The reports must be filed electronically by the 10th of each month, beginning with the contract award and continuing until the contractor or subcontractor completes performance of the state contract.
http://das.ohio.gov/Divisions/EqualOpportunity/InputForm29.aspx

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs, 200 N. High Street, Room 409, Columbus, Ohio 43215, within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor, estimated dollar amount of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the subcontract is to be performed.

12. PN 029 - 10/15/2004 - ON-THE JOB TRAINING (OJT) PILOT PROGRAM

The requirements of this Training Special Provision supersede subparagraph 7b of the Special Provision entitled Special Employment Opportunity Responsibilities and implements 23 U.S.C. 140(a).

The following must be included as part of the Contractor's equal employment opportunity affirmative action training program:

The Contractor must provide on-the-job training aimed at developing full journey persons in the type or job classification in which they work.

The contractor is not required to have a specific number of trainees assigned to this project. The number of trainees will be distributed among the work classifications on the basis of the Contractor's needs and the availability of the journey persons in the various classifications. The Contractor will be credited for each trainee employed by him or her who is currently enrolled or becomes enrolled in an approved program.

Training and upgrading of minorities and women toward journey person status is a primary objective of this Training Special Provision. Accordingly, the Contractor must make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and will not be used, to discriminate against any applicant for training, regardless of whether the applicant is a member of a minority group or not.

No employee will be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journey person status or in which he or she has been employed as a journey person. The Contractor must satisfy this requirement by including appropriate questions in the employee's application or by other suitable means. Regardless of the method used, the Contractor's records must document the findings in each case.

The minimum length and type of training for each classification will be established in the training program selected by the Contractor.

No payment by the LPA will be made to the Contractor for providing this training. However, if the Contractor fails to provide adequate training and cannot show good faith efforts on its part to provide adequate training, it will be subject to a formal compliance review to determine the Contractor's efforts in meeting the EEO laws and regulations.

The Contractor must provide the following reports:

1. CR1 Report Click Here for copy of CR1 Report

   A. To be completed on each trainee
   B. To be filled out at the start of training and finish of training or at the end of the year, whichever comes first
   C. To be submitted to the ODOT District in which the Contractor's home office is located.

2. Tracking will be on an annual basis. The Contractor must submit the subsequent CR1 to the ODOT District in which the Contractors home office is located.

The prime or subcontractor conducting the training must be involved in at least one Federal project per calendar year in order to get FHWA training credit. Participation in the OJT Program is not project or contract specific.

All Contractors are encouraged to participate in the OJT program. Such a program will be considered when examining the contractor's Good Faith Efforts toward meeting its contractual affirmative action obligations.

All Contractors shall submit their own Training Program or Apprenticeship Certificate, for approval, to the ODOT District in which the company's home office is located.

All OJT Trainees must have the appropriate certification. Apprenticeship Certificates can be obtained from the State of Ohio, Bureau of Apprenticeship and Training. The union apprenticeship agreement is not acceptable verification of an apprentice's enrollment in a union sponsored training program. A copy of the Apprenticeship Certificate along with a statement indicating the number of months/years the employee has been in the apprenticeship program must be submitted to the ODOT EEO Coordinator in the company's home district and to the prevailing wage coordinator in the district responsible for the project within 90 days of the apprentice beginning work on the project.

13. PN 059 - 10/15/2004 - WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:
* An existing published wage determination
* A survey underlying a wage determination
* A Wage and Hour Division letter setting forth a position on a wage determination matter
* A conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response for this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determination
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N.W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (see 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U. S Department of Labor
200 Constitution Avenue, N.W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requester considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

14. PN 061 –10/22/2012- WAGE SCALE ON ALL FEDERAL-AID PROJECTS

The wage rates for this project were determined by the Secretary of Labor in accordance with Federal-Aid requirements. LPA must formally incorporate into contract documents.

Contractors shall use only the classifications and wage rates set forth in the United States Department of Labor (USDOL) wage decision found at website noted below on payrolls submitted to the District Office. Additionally, please note that the wage modification in effect at the time of the project sale date, shall be used by all contractors.

This USDOL wage decision may be viewed, by accessing the United States Department of Labor (USDOL) website at:

beta.SAM.gov

This contract requires the payment of the total of the basic hourly rates plus the fringe benefits payments for each classification in accordance with the following regulations which by reference are made part of this contract:

1) The U.S. Department of Labor Regulations, Title 29, Subtitle A, Part 5, Sections 5.5, 5.31, and 5.32, most recent revision at contract execution.

2) Form FHWA-1273 (most recent revision at contract execution) Part IV. Payment of Predetermined Minimum Wage and Part V. Statements and Payrolls.

The failure to pay prevailing wages to all laborers and mechanics employed on this project, shall be considered a breach of contract. Such a failure may result in the termination of the contract and debarment.

The Contractor and all subcontractors shall pay all wages and fringe benefits by company check. All payroll records and canceled pay checks shall be maintained for at least three years after final acceptance as defined in Section 109.12 of the Ohio Department of Transportation Construction and Materials Specifications. The Contractor's and all subcontractor's payroll records and canceled pay checks shall be made available for inspection by the Department and the U.S. Department of Labor, upon request, anytime during the life of the contract, and for three years thereafter by the U.S. Department of Labor. Additionally, the Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job.

The wage and fringe rates determined for this project shall be posted by the Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers.

The Contractor and all subcontractors shall submit to the District Construction Office, certified payrolls each week beginning three weeks after the start of work. These payrolls shall be on a Form A-87 or equivalent and shall show the following:

1) Employee name, address, classification, and hours worked.

2) The basic hourly and overtime rate paid, total pay, and the manner in which fringe benefit payments have been irrevocably made.
3) The project number and pay week dates.
4) Original signature of a company officer on the certification statement.

Click for Form A-87 then scroll down page to Pre-Uniform Guidance and click "Timecard Example A-87 Compliant".

Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted for all apprentices working on this project.

Please be aware that it is ultimately the responsibility of the Contractor to ensure that all laws relating to prevailing wages in the USDOL Regulations, Title 29, parts 1 and 5, are strictly adhered to by all subcontractors on the project.

If the Contractor or any subcontractor fails to comply with any of the provisions contained in this proposal note, the Department may terminate the contract, debar the Contractor or Subcontractor and/or withhold or suspend pay estimates after written notice and a reasonable opportunity to comply has been provided.

The applicable wage and fringe rates for this project are to be incorporated in their entirety as an attachment to the executed contract.

15. LIMITATION ON USE OF CONTRACT FUNDS FOR LOBBYING

1. The prospective bidder certifies, by signing and submitting this bid proposal, to the best of his or her knowledge and belief, that:

   (a.) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

   (b.) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. This certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective bidder also agrees by submitting his or her bid proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

16. PN 045 - 10/15/2004 - NON -COLLUSION AFFIDAVIT

In accordance with Title 23 United States Code, Section 112 and Ohio Revised Code, Chapter 1331 et. seq: and Sections 2921.11 and 2921.13, the bidder hereby states, under penalty of perjury and under other such penalties as the law provides, that he or his agents or employees have not entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal. Execution of this proposal on the signature portion thereof shall also constitute signature of this Non-Collusion Affidavit as permitted by title 28 United States Code, Section 1746.

REPORTING BID RIGGING

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the “hotline” to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially, and caller anonymity will be respected.

17. PN 014 - 10/15/2004 - DRUG-FREE WORKPLACE

The prime contractor agrees to comply with all applicable state and federal laws regarding drug-free workplace. The prime contractor shall make a good faith effort to ensure that all its employees, while working on this project, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

The prime contractor shall also require that this contractual obligation be placed in all subcontractor and materialman contracts that it enters into and further requires that all subcontractors and materialmen place the same contractual obligations in each of their lower tier contracts.

18. PN 034 - 05/25/2011 – DRUG FREE SAFETY PROGRAM

During the life of this project, the Contractor and all its Subcontractors, that provide labor on the Project site, must be enrolled in and remain in good standing in the Ohio Bureau of Worker’s Compensation (“OBWC”) Drug-Free Safety Program (“DFSP”) or a comparable program approved by the OBWC.

In addition to being enrolled in and in good standing in an OBWC-approved DFSP or a comparable Drug Free Workplace Program (“DFWP”) approved by the OBWC, the LPA requires each Contractor and Subcontractor that provides labor, to subject its employees who perform labor on the project site to random drug testing of 5 percent of its employees. The random drug testing percentage must also include the on-site supervisors of the Contractors and Subcontractors. Upon request, the Contractor and Subcontractor shall provide evidence of required testing to the LPA.

Each Subcontractor shall require all lower-tier Subcontractors that provides labor on the project site with whom the Subcontractor is in contract for the Work to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to a lower-tier Subcontractor providing labor at the Site.

The LPA will declare a bid non-responsive and ineligible for award if the Contractor is not enrolled and in good standing in the Ohio Bureau of Workers' Compensation's DFSP Discount Program or a similar program approved by the Bureau of Workers' Compensation within 8 days of the bid opening. Furthermore, the LPA will deny all requests to sublet when the subcontractor does not comply with the provisions of this proposal note.

Failure of the Contractor to require a Subcontractor to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to the time that the Subcontractor provides labor at the Site, shall result in the Contractor being found in breach of the Contract and that breach shall be used in the responsibility analysis of that Contractor or the Subcontractor who was not enrolled in a program for future contracts with the State for five years after the date of the breach.

19. OHIO WORKERS'COMPENSATION COVERAGE

The Contractor must secure and maintain valid Ohio workers' compensation coverage until the project has been finally accepted by the Ohio Department of Transportation. A certificate of coverage evidencing valid workers' compensation coverage must be submitted to the LPA before the contract will be executed by the LPA.

The Contractor must immediately notify the LPA, in writing, if it or any subcontractor fails or refuses to renew their workers' compensation coverage. Furthermore, the Contractor must notify the LPA, in writing, if it's or any of its subcontractor's workers' compensation policies are canceled, terminated or lapse.

The failure to maintain valid workers' compensation coverage shall be considered a breach of contract which may result in the Contractor or subcontractor being removed from the project, withholding of pay estimates and/or termination of the contract.

20. PN 038 - 10/15/2004 - UNRESOLVED FINDING FOR RECOVERY

The Contractor affirmatively represents to the LPA that it is not subject to a finding for recovery under Ohio Revised Code §9.24, or that it has taken the appropriate remedial steps required under §9.24 or otherwise qualifies under that section. The Contractor agrees that if this representation is deemed to be false, the contract shall be void ab initio as between the parties to this contract, and any funds paid by the state hereunder shall be immediately repaid to the LPA, or an action for recovery may be immediately commenced by the LPA and/or for recovery of said funds.

21. PN 039 - 10/15/2004 - ASSIGNMENT OF ANTITRUST CLAIMS IN STATE CONTRACT LANGUAGE

The Contractor should recognize that in actual economic practice, overcharges resulting from antitrust violations are usually borne by ODOT and/or the LPA. As consideration for the Award of the Contract and intent to be legally bound, the Contractor acting herein by and through the person signing this contract on behalf of the Contractor as a duly authorized agent, hereby assigns, sells, conveys, and transfers to ODOT and/or the LPA any and all right, title and interest to any and all claims and causes of action the Contractor now has or hereafter requires under state or federal antitrust laws provided that the claims or causes of action related to the goods or services that are the subject to the contract. In addition, the Contractor warrants and represents that it will require any and all of its subcontractors and first tier suppliers to assign any and all federal and state antitrust claims and causes of action to ODOT and/or the LPA. The provisions of this article shall become effective at the time the LPA executes this contract without further acknowledgment by any of the parties.

All contracting entities shall assign their rights and responsibilities to ODOT and/or the LPA for all antitrust claims and causes of action regarding subcontractors.

22. PN 024 – 04/21/2006 – US ARMY CORPS OF ENGINEERS AND OHIO ENVIRONMENTAL PROTECTION AGENCY PERMITS

The above referenced permits are incorporated and made a part of this contract as special provisions incorporated herein. Therefore, in the event that the Contractor or its agents refuse or fail to adhere to the requirements of the US Army Corps of Engineers 404 Permit, and/or the Ohio Environmental Protection Agency's 401 Water Quality Certification and an assessment or fine, is made or levied against the Ohio Department of Transportation, the Contractor shall reimburse the Department within thirty (30) calendar days of the notice of assessment or fine or the Department may withhold the amount of the fine from the Contractor's next pay estimate. All money collected or withheld from the Contractor shall be delivered to the permitting agencies issuing the assessment or fine.

These fines are not to be construed as a penalty but are liquidated damages to recover costs assessed against the Department due to the Contractor's refusal or failure to comply with the permits.

23. PN 007 – 1/31/2021- DBE TRUCKING

The Code of Federal Regulations Title 49, Section 26.55(d)(4)(5)(6) governs trucking operations.

The Disadvantaged Business Enterprise (DBE) trucking firm must be able to quote and negotiate its own prices. The DBE trucking firm must also provide a quote for each project that the firm is to be utilized toward the project DBE goal.

The DBE will be responsible for the management and supervision of their trucking operation on each contract. A DBE is not performing a CUF if the contract exists for the purpose of creating the appearance of DBE participation.

The DBE must own and operate at least one fully licensed, insured, and operational truck used on the contract.

The DBE receives credit for the total value of the transportation services the DBE provides on the contract using trucks the DBE owns, insures, and operates using drivers it employs (not 1099/independent contractors).

The DBE may lease trucks on a long-term basis (a year or more) and receive full DBE credit as long as employees of the DBE operate the truck.

A lease must indicate that the DBE has exclusive use of and control over the truck, including responsibility of maintenance and insurance. This does not preclude the leased truck from working for others during the term of the lease with the DBEs consent, as long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the DBEs name and identification number as well.

The DBE must carry a copy of the lease agreement in the leased truck when working onsite.
Truck Monitoring:

Credit for expenditures with DBEs for materials or supplies toward the DBE goal is described as follows:

1. A DBE firm may be a regular dealer in bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business if the

firm both owns and operates distribution equipment for the products. Any supplementing of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

2. When the materials or supplies are obtained from a DBE MSV (Materials and Supplies Vendor) manufacturer the prime contractor may receive credit for 100 percent of the cost of the materials or supplies toward the DBE goal. For purposes of this section, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

3. When the materials or supplies are purchased from a DBE MSV regular dealer or supplier the prime contractor may receive credit for up to 60 percent of the cost of the materials or supplies toward the DBE goal. For purposes of this section, a regular dealer or supplier is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

In the past, 60% of the cost of materials and supplies purchased from a DBE MSV (100% from a DBE MSV manufacturer) would usually be counted toward DBE goals. Effective September 1, 2018:

- o Prime contractors must obtain information about the method of procurement for each item to be procured from a DBE MSV. The DBE Affirmation Form has been modified to accommodate this information.

- o To be eligible to receive 100% credit toward DBE goals for a materials and supplies subcontract:
  - The DBE MSV must be certified with the correct (manufacturer) NAICS code for
  - the item
  - The DBE MSV must be certified with the correct descriptor for the item
  - The role the DBE MSV will play on the specific procurement in question must be
  - consistent with the manufacture of the item, as indicated by the information
    - provided by the DBE MSV

- o To be eligible to receive 60% credit toward DBE goals for a materials and supplies subcontract:
  - The DBE MSV must be certified with the correct (wholesale or retail) NAICS code for the item
  - The DBE MSV must be certified with the correct descriptor for the item
  - The role the DBE MSV will play on the specific procurement in question must be
    consistent with the regular sale or lease of the item, as indicated by the information provided by the DBE MSV
  - The item must not be drop-shipped

- o The above scenario applies to both bulk items (petroleum products, steel, cement, gravel, stone, asphalt, and others that ODOT may consider to be bulk items) and non-bulk items. For bulk items, there is an additional scenario whereby a contract with a DBE MSV could receive 60% credit. To be eligible to receive 60% credit toward DBE goals for a bulk item materials and supplies subcontract:
  - The DBE MSV must be certified with the correct (wholesale or retail and
    - trucking) NAICS codes for the item
  - The DBE MSV must be certified with the correct descriptor for the item

- The role the DBE MSV will play on the specific procurement in question must be
    - consistent with the regular sale or lease of the item, as indicated by the
    - information provided by the DBE MSV
- The DBE MSV must deliver the bulk item from a non-DBE vendor to the prime

contractor using distribution equipment that it both owns (or for which it has a long-term (1 year or more) lease) and operates with its regular (not ad hoc) employees.

- If not eligible for 100% or 60% credit, an item may still be eligible for credit toward DBE goals, but only for the fee or commission the DBE MSV receives for its services, and only if the following additional criteria are met:
    - The DBE MSV must be certified with NAICS code 425120 Wholesale Trade Agents
        - and Brokers
    - The DBE MSV must convincingly explain how the prime contractor benefits by

transacting business with it rather than directly with the non-DBE vendor from which the DBE MSV is re-selling.

- The usual good faith efforts process applies.
- All credit toward DBE goals is conditional. Actual credit will be determined based upon

invoices, receipts, and/or transportation documents/bills of lading, which must be submitted to ODOT as they are received throughout the course of the project.

Y. DBE TRUCKING DISCLOSURE AFFIDAVIT

In order to ensure that Prime Contractors are monitoring DBE trucking/hauling operations on projects with federal funding, prime contractors must complete the DBE Trucking Disclosure Affidavits Section ("Affidavit") when completing and submitting the Prompt Payment Spreadsheet for reimbursement. The Affidavit will be completed by the Prime on the Prompt Payment Spreadsheet and once submitted will be routed to the project's SharePoint site. This information will be used to affirm DBE and non-DBE trucking utilized by each DBE firm performing those duties during the previous month. The LPA/ODOT will monitor trucking with the following requirements for all Local-let projects:

- Prime Contractors will be required to provide a master list of all anticipated DBE trucking firms to the District Construction Monitor (DCM) at the time of the Pre-Construction Meeting.

- If no DBE trucking is anticipated on a project, the Prime will check the box "No Anticipated DBE Trucking Affidavit" on the first submittal of the Prompt Payment Spreadsheet. If DBE trucking/hauling does occur, the Prime must notify the LPA within seven (7) days of the DBE trucking activity. The Prime will then complete the Affidavits as required below on each Prompt Payment Spreadsheet.

- Prime Contractors will be required to complete the Affidavit disclosing the DBE trucking operations when completing the new Prompt Payment Spreadsheet. the previous month. The Prime will Complete the Trucking Affidavit section on the Prompt Payment Spreadsheet on each reimbursement submittal. The Prime Contractor will select one of the following options on the Trucking Affidavit section of the form.

- ☐ The DBE firm performed trucking by utilizing their own equipment and workforce and/or work was subcontracted to another DBE (i.e., only trucking that can be counted for DBE participation was utilized).
    - No other information is required. The Prime will sign and submit the Affidavit.
- ☐ The DBE firm utilized DBE & Non-DBE trucking.
    - If selected, the Prime will provide a list of non-DBE trucking that was utilized (i.e., not all trucking will earn DBE credit).
- ☐ No trucking was performed.
    - No other information is required. The Prime will sign and submit the Affidavit.

- The DCM will perform a check of the Affidavit when reviewing the Prompt Payment Spreadsheet when submitted for reimbursement. The LPA and/or Compliance Managers will follow up on any red flags. For example, if the LPA compares information collected during the CUF process with the affidavit and sees any discrepancies.

- Trucking will continue to be monitored at project sites by construction field staff and the LPAs.

Z. SANCTIONS AND ADMINISTRATIVE REMEDIES

AA.

Failure by the prime contractor to follow the DBE Trucking Disclosure Affidavit requirements may result in the issuance of sanctions as follows:

- **1st Level Occurrence: The Department will issue a Letter of Reprimand to the contractor (applies if there is a failure to submit the Affidavits and/or the Affidavits are not submitted timely; if the prime completes the No Anticipated DBE Trucking Affidavit, utilizes DBE trucking, and does not notify the LPA within seven days of the activity).**
- **2nd Level Occurrence: The Department may withhold an estimate in the amount due to the DBE trucking firm that the Affidavit was not submitted for (applies if there is a failure to submit the Affidavits and/or the Affidavits are not submitted timely; if the prime completes the No Anticipated DBE Trucking Affidavit, utilizes DBE trucking, and does not notify the LPA within seven days of the activity).**
- **3rd Level Occurrence: If a pattern of not submitting the Affidavit(s) persists or the Contractor has falsified, misrepresented, or withheld information, ODOT can pursue other remedies available by law including suspension, revocation, and/or debarment.**

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- The Contractor's past project practices
- The magnitude and the type of offense
- The degree of the Contractor's culpability
- Any steps taken to rectify
- The Contractor's record of performance on other projects; and

- The number of times the Contractor has been previously sanctioned by ODOT.

DBE MSV DIRECTORY - http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/DBE-Directory.aspx (select MSV only)

DBE AFFIRMATION FORM - The new DBE Affirmation Form is now available at http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/Resources.aspx.

Opening Prompt Payment (PP) Spreadsheet (Trucking Affidavit Section on PP Spreadsheet) through GoFormz:

1. Obtain a MyODOT account
    a. Click Link
    b. Click "Launch MyODOT"
    c. Click: "Click Here"
    d. Complete Account Application under "Request an Account"
2. Getting GoFormz Access
    a. Email GoFormz.Help@dot.ohio.gov put Create GoFormz Account in the subject line
    b. Login for GoFormz will be emailed back
    c. Click www.goformz.com

Addition guidance can be found by Click Here

24. PN 013 – 03/15/2019 - DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION PLAN AND GOOD FAITH EFFORTS

Guidance for Bidders – Federally Funded Projects with a DBE Goal*, to ensure compliance with the requirements outlined in PN 013* Click Link **LPA+DBE+Procedure.pdf (ohio.gov)**

DBE UTILIZATION PLAN

All Bidders shall submit a DBE Utilization Plan at the time of bid setting forth specific information demonstrating how the Bidder will achieve the DBE goal. By submitting a DBE Utilization Plan, the Bidder is affirming that they will be using the DBE firms identified in the Utilization Plan to meet the DBE contract goal. The DBE Utilization Plan shall be submitted with Formstack at time of bid submission. Any bids received without electronic submission of the DBE Utilization Plan at or before bid time, will be deemed unresponsive. **Bidders shall submit their DBE Utilization Plans via: https://odot.formstack.com/forms/dbe_copy.** This file contains the current list of certified DBEs and is updated regularly. The DBE Utilization Plan must be filled out completely and submitted prior to bid opening.

The DBE Utilization Plan shall include the following information:

1) The names and addresses of the certified DBE firm(s) that will be used to meet the DBE goal
2) A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract
3) Whether the DBE firm(s) being used to meet the goal will be utilized as a subcontractor, regular dealer, manufacturer, consultant, or other capacity
4) The dollar amount of the participation of each DBE firm used to meet the DBE goal.

PROJECTS AWARDED ON ALTERNATES

In the event the project is awarded on alternates which increases or decreases the total dollar amount of the bid, a revision to the DBE Utilization Plan and DBE Affirmation Form(s) shall be submitted and approved by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days after the notification of the alternates.

DBE AFFIRMATION

The Apparent Low Bidder shall ensure the DBE firms being utilized to meet the DBE goal affirm their participation in the bid within five (5) calendar days after the bid opening to ODOT. The contract dollar amount(s) and/or DBE firm(s) included in the Apparent Low Bidder's DBE Utilization Plan must match the contract dollar amount(s) and/or DBE firm(s) included on the DBE Affirmation Form(s). If the contract dollar amount(s) and/or DBE firm(s) do not match, the Apparent Low Bidder shall utilize the Request to Terminate/Substitute DBE Form located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources (form name is DBE Termination Form) and submit for review and approval by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall utilize the DBE Affirmation Form located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources. You will then need to click the link of the webpage "DBE Affirmation Form (PN 013) – Projects sold after September 1, 2018, or thereafter. The DBE Affirmation Form will be utilized as written confirmation from each listed DBE firm that it is participating in the contract in the type and amount of work provided in the Bidder's DBE Utilization Plan. The Apparent Low Bidder shall submit a separate DBE Affirmation Form for each DBE it is utilizing for the DBE goal and their Good Faith Efforts package if they were not able to attain the DBE Goal via DBE participation.

All other Bidders shall submit a DBE Affirmation Form(s) if notified that the information is required in order for ODOT to complete its assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required DBE Affirmation Forms to ODOT. Notification will be by email.

In the event a DBE firm fails to confirm the information contained in the DBE Affirmation Form within five (5) calendar days of bid opening, the Apparent Low Bidder shall submit a Request to Terminate/Substitute DBE Form, as set forth herein. The Request to Terminate/Substitute DBE Form shall be submitted within five (5) calendar days after bid opening in order for the Apparent Low Bidder to still be considered for contract award. The Apparent Low Bidder shall include as its reason for termination the DBE firm's failure to provide a timely affirmation and should include all efforts the Apparent Low Bidder made to obtain the affirmation from the DBE firm and shall attach proof of these efforts, if available. If the Apparent Low Bidder intends to replace the DBE Firm, it shall include the replacement firm's information on the form. In the event the Apparent Low Bidder is unable to affirm a DBE firm included in its original DBE Utilization Plan at bid submission and it results in a goal shortfall, Good Faith Efforts (GFE's) must be submitted by the fifth calendar day after bid opening. All GFE documentation submitted for consideration should demonstrate the efforts the Bidder made

prior to the time of bid submission to secure sufficient DBE participation on the project to meet the DBE goal although the Bidder was unable to do so. A DBE firm's failure to timely confirm information contained in the DBE Affirmation Form will be considered as good cause to terminate the DBE firm and will also be considered a part of the Apparent Low Bidder's Good Faith Efforts in meeting the goal.

DBE BIDDERS

In the event that the Bidder is also a certified DBE firm, the Bidder is required to complete a DBE Utilization Plan as set forth above. In this instance, however, the certified DBE Bidder would not need to submit a DBE Affirmation Form for the work it is planning to self-perform in order to meet the goal. ODOT will consider the submission of the bid as the certified DBE Bidder's written confirmation that it is participating in the contract. However, a DBE Affirmation Form must be submitted for all other DBE firms that are being utilized toward the DBE goal.

JOINT VENTURES

In the event that the Bidder is a Joint Venture, the Joint Venture will only be considered a Certified DBE firm if the Joint Venture itself has been certified. The Joint Venture may, however, utilize a Certified DBE firm that is also a partner in the Joint Venture as part of its DBE Utilization Plan. The Certified DBE Firm/Joint Venture Partner, however, does not need to submit a DBE Affirmation Form for any work that the Certified DBE Firm/Joint Venture Partner is going to perform to meet the goal. ODOT will consider submission of the Joint Venture's bid as the Certified DBE Firm/Joint Venture Partner's confirmation that it is participating in the contract.

GOOD FAITH EFFORTS

In the event that the DBE contract goal established by ODOT is not met, the Apparent Low Bidder shall demonstrate that it made adequate good faith efforts to meet the goal, even though it did not succeed in obtaining enough DBE participation to do so.

If the Apparent Low Bidder does not meet the goal at bid time, the Apparent Low Bidder shall submit its Good Faith Efforts (GFE's) documentation within five (5) calendar days of the bid opening. Submission of DBE affirmation(s) with additional participation sufficient to the meet the DBE contract goal does not cure the Apparent Low Bidder's failure to meet the goal at bid time or eliminate the Apparent Low Bidder's responsibility of submitting GFE's within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall demonstrate its GFE's by submitting the following information within five (5) calendar days after the bid opening:

(1) All written quotes received from certified DBE firms
(2) All written (including email) communications between the Apparent Low Bidder and DBE firms
(3) All written solicitations to DBE firms, even if unsuccessful
(4) Copies of each non-DBE quote when a non-DBE was selected over a DBE for work on the contract
(5) Phone logs of communications with DBE firms.

The Apparent Low Bidder shall utilize the Pre-Bid GFE Template to document their GFE's. This template and supporting documentation shall be sent along with any DBE Affirmation Forms within five (5) calendar days of bid opening. ODOT has provided Good Faith Efforts Guidance located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources

All other Bidders shall submit documentation of GFE's if notified that the information is required in order for ODOT to complete its bid assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required GFE documentation. Notification will be by phone or email.

ODOT shall utilize the guidance set forth in 49 CFR §26.53 Appendix A in determining whether the Bidder has made adequate good faith efforts to meet the goal.

ADMINISTRATIVE RECONSIDERATION

ODOT will review the GFE documentation and issue a written determination on whether adequate GFE's have been demonstrated prior to contract award. If ODOT determines that the Apparent Low Bidder has failed to demonstrate adequate GFE's to meet the goal, the Apparent Low Bidder will have an opportunity for administrative reconsideration prior to the contract being awarded.

As part of this reconsideration, the Apparent Low Bidder may provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. Such written documentation or argument must be provided to ODOT, attention to the Office of Chief Legal Counsel, 1980 West Broad Street, MS 1500, Columbus, Ohio 43223 (with copy to the Office of Contract Sales, MS 4110), within two (2) business days of ODOT's written determination that GFE's were not adequately demonstrated. The Apparent Low Bidder may also include in their written documentation a request for an in-person meeting to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. ODOT's Office of Chief Legal Counsel will respond to the Apparent Low Bidder within five (5) business days of receiving written documentation or holding the in-person meeting.

ODOT will send the Apparent Low Bidder a written decision on reconsideration explaining the basis for finding that the Apparent Low Bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the United States Department of Transportation.

TERMINATION OR REPLACEMENT OF A DBE

By submitting a DBE Utilization Plan, the Bidder is committing to use the DBE firms identified in the plan. The Apparent Low Bidder/Awarded Contractor shall utilize the specific DBEs listed in the DBE Utilization Plan to perform the work and supply the materials for which each is listed unless the Apparent Low Bidder/Awarded Contractor obtains written consent as provided in this paragraph. In order to request termination or substitution of a DBE firm, the Apparent Low Bidder/Awarded Contractor shall utilize the Request to Terminate/Substitute DBE Form located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources. Once on the webpage, scroll down to the form named "DBE Termination Form (PN013)

This termination/replacement procedure applies only to DBE firms, or the amount of work being utilized to meet the goal.

Without ODOT's written consent to terminate/replace a DBE firm being utilized to meet the goal, the Awarded Contractor shall not be entitled to any payment for DBE listed work or material unless it is performed or supplied by the listed DBE.

GOOD CAUSE

ODOT may provide written consent to terminate a DBE only if it agrees, for reasons stated in a concurrence document, that the Apparent Low Bidder/Awarded Contractor has good cause to terminate the DBE firm.

For purposes of this paragraph, good cause to terminate a DBE includes the following circumstances:

1) The listed DBE firm fails or refuses to provide the required DBE Affirmation Form or to execute a written contract
2) The listed DBE firm fails or refuses to perform the work of its subcontract in a manner consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE firm to perform its work on the subcontract results from the bad faith or discriminatory action of the awarded contractor
3) The listed DBE firm fails or refuses to meet the awarded contractor's reasonable, nondiscriminatory bond requirements.
4) The listed DBE firm becomes bankrupt, insolvent, or exhibits credit unworthiness
5) The listed DBE firm is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law
6) ODOT has determined that the listed DBE firm is not a responsible contractor
7) The listed DBE firm voluntarily withdraws from the project and provides to you written notice of its withdrawal
8) The listed DBE is ineligible to receive DBE credit for the type of work required
9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract; and
10) Other documented good cause that ODOT determines compels the termination of the DBE firm. Provided, that good cause does not exist if the awarded contractor seeks to terminate a DBE it relied upon to obtain the contract so that the awarded contractor can self-perform the work for which the DBE contractor was engaged or so that the awarded contractor can substitute another DBE or non-DBE contractor after contract award.

REPLACEMENT

When a DBE firm is terminated or fails to complete its work on the contract for any reason the Awarded Contractor must make GFEs to find another DBE firm to replace the original DBE. These GFEs shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. The GFEs shall be documented by the Awarded Contractor. If ODOT requests documentation under this provision, the Awarded Contractor shall submit the documentation within seven (7) calendar days, which may be extended for an additional seven (7) calendar days if necessary, at the request of the contractor, and ODOT shall provide a written determination to the contractor stating whether or not GFEs have been demonstrated.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions and substitutions of DBE firms put forward by Bidders in the DBE Utilization Plan.

ADDITION

In the event additional DBE participation is required for the project, the Awarded Contractor shall utilize the DBE Affirmation Form located at https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources. The DBE Affirmation Form, "DBE Affirmation Form (PN013) – Projects sold on September 1, 2018, or thereafter", will be utilized as written confirmation from each DBE firm that it is participating in the contract in the kind and amount of work on the project.

WRITTEN NOTICE TO DBE

Before transmitting to ODOT its request to terminate and/or substitute a DBE firm, the Apparent Low Bidder/Awarded Contractor must give notice in writing to the DBE firm, with a copy to ODOT, of its intent to request to terminate and/or substitute, and the reason(s) for the request.

The Apparent Low Bidder/Awarded Contractor must give the DBE five (5) calendar days to respond to the notice, advising ODOT and the Apparent Low Bidder/Awarded Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why ODOT should not approve the Apparent Low Bidder/Awarded Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), ODOT may provide a response period shorter than five (5) days.

GOAL ATTAINMENT POST AWARD

The Awarded Contractor shall make available upon request a copy of all DBE subcontracts. The Awarded Contractor shall ensure that all subcontracts or agreements with DBEs require that the subcontract and all lower tier subcontractors be performed in accordance with this Proposal Note.

Approval of a DBE Utilization Plan does not ensure approval of C-92 Requests to Sublet, nor does approval of a DBE Utilization Plan indicate that the DBE goal has been met. ODOT will monitor goal attainment throughout the life of the project. It is the responsibility of the Awarded Contractor to advise ODOT of any changes to the DBE Utilization plan throughout the life of the project. The DBE goal of a project is stated as a percentage of the contract. In the event the contract amount increases or decreases, the actual dollar amount of the DBE goal for the project may increase or decrease accordingly.

SANCTIONS AND ADMINISTRATIVE REMEDIES

PRE-BID

Failure by the Apparent Low Bidder to do any of the following shall result in the bid being rejected in accordance with ORC §5525.08:

1) Failure to submit a complete DBE Utilization Plan at the time of bid

2) Failure to submit DBE Affirmation Form(s) and/or failure to submit Request to Terminate/Substitute DBE Form(s) as required by this Proposal Note; and
   Failure to meet the goal and/or failure to demonstrate GFEs to meet the goal as required by this Proposal Note.

POST-BID Failure by the Awarded Contractor to carry out the requirements of this Proposal Note, including the submission of adequate good faith efforts to meet the goal for a project, is a material breach of the contract and may result in the issuance of sanctions as follows:

1st Tier:	Letter of Reprimand
2nd Tier:	Damages equivalent to the DBE shortfall
3rd Tier:	If a pattern of paying damages persists or the Contractor has falsified, misrepresented, or withheld information, ODOT can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects including, but not limited to:
  - annual DBE participation

- annual DBE participation on projects without goals
- the number of complaints ODOT has received regarding the Contractor
- the number of times the Contractor has been previously sanctioned by ODOT

25. PN - 031 – 9/1/2020 – Local-let Construction Projects

The U.S. Department of Transportation's (DOT's) rules related to Disadvantaged Business Enterprises are published in the Code of Federal Regulations (CFR), 49 CFR Part 26. Within 49 CFR Part 26, 49 CFR 26.29 lays out the prompt payment requirements that apply to ODOT (the Department), it's subrecipients (LPA's), and, by extension, both Prime Contractors and Subcontractors (including non-DBEs). The 49 CFR 26.29 requirements apply only to federally funded contracts (i.e., contracts with DOT financial assistance). The Prime Contractor must comply with this Proposal Note and the Department's prompt payment requirements as published in 107.21 of the Construction and Materials Specifications (C&MS).

The Department will monitor payments made by Prime Contractors and Subcontractors for compliance with this Proposal Note, C&MS 107.21 and, where applicable, 49 CFR 26.29. To facilitate this monitoring, the Department requires prime contractors to report their payments to all subcontractors with the submission of each invoice. The payment data reported must include any retainage withheld and any previously withheld retainage released. All such reporting must take place through a web-based submission on GoFormz. Invoices will not be approved and processed for payment unless this reporting form has been submitted and received by the Department.

The Prime Contractor must report the following information:

1.) The name of the payee
2.) The dollar amount of the payment to the payee
3.) The date the payee was paid
4.) The amount of retainage withheld (if any).

The Prime Contractor must sign each reported payment and submit to ODOT via the GoFormz website.

If the Prime Contractor fails to submit the aforementioned documentation with each invoice, they will be determined to be non-compliant, and invoices will not be processed for payment.

Payees must verify each payment reported by the payer within 30 days of the payment being signed by the payer. This verification must include:

1.) Whether the payment was received, and if so, whether it was as expected or not
2.) The dollar amount of the payment received
3.) The date the payment was received

SANCTIONS AND ADMINISTRATIVE REMEDIES

Failure by the prime contractor to follow Prompt Payment requirements may result in the issuance of sanctions as follows:

1st Tier: Letter of Reprimand

2nd Tier: Damages equivalent to the daily liquidated damages amount found in section 108.07 for each incident of non-compliance

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented, or withheld information, ODOT can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects
- the number of times the Contractor has been previously sanctioned by ODOT.

26. WAIVER OF CM&S 614.03

ODOT's 2019 Construction and Material Specifications section 614.03, third paragraph, does not apply to any project which is not physically located on the National Highway System (NHS), and/or does not impact NHS traffic in any way.

27. ODOT AS OBLIGEE ON BOND

The contractor shall furnish a performance and payment bond in an amount at least equal to 100 percent of the estimate as security for the faithful performance of its contract. In addition to the project Owner, ODOT shall be named as an oblige.

28. NON-DISCRIMINATION PROVISIONS

1) **Compliance with Regulations:** The CONTRACTOR will comply with the regulations relative to nondiscrimination in Federally-assisted programs of the United States Department of Transportation (hereinafter "U.S. DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

In addition, the CONTRACTOR will comply with the provisions of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, FHWA Guidance, and any other Federal, State, and/or local laws, rules and/or regulations (hereinafter referred to as "ADA/504").

(2) **Nondiscrimination:** The CONTRACTOR, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, or disability, in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The CONTRACTOR will not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations, as well as the ADA/504 regulations.

(3) **Solicitations for Contractors or Subcontractors, including Procurement of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the CONTRACTOR for work to be performed under a contract or subcontract, including procurements of materials or leases of equipment, each potential subcontractor, or supplier will be notified by the CONTRACTOR of the CONTRACTOR's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, or disability.

(4) **Information and Reports:** The CONTRACTOR will provide all information and reports required by the Regulations or directives issued pursuant thereto, and will permit access to its books,

records, accounts, other sources of information, and its facilities as may be determined by the STATE or the Federal Highway Administration (hereinafter "FHWA") to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, the CONTRACTOR will so certify to the STATE or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.

(5) **Sanctions for Noncompliance:** In the event of the CONTRACTOR's noncompliance with the nondiscrimination provisions of this contract, the LPA will impose such contract sanctions as it or STATE / FHWA may determine to be appropriate, including, but not limited to:

(a) Withholding of payments to the CONTRACTOR under the contract until the CONTRACTOR complies, and/or

(b) Cancellation, termination, or suspension of the contract, in whole or in part.

(6) **Incorporation of Provisions:** The CONTRACTOR will include the provisions of paragraphs (1) through (5) above in every contract or subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The CONTRACTOR will take such action with respect to any subcontractor procurement as the LPA or STATE / FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that, in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor, or supplier as a result of such direction, the CONTRACTOR may request the LPA / STATE to enter into such litigation to protect the interests of the LPA and the STATE, and, in addition, the LPA / STATE may request the United States to enter into such litigation to protect the interests of the United States.

29. PN 095 – 03/30/2020 Potential Impacts and Delays Due to COVID-19

In an effort to anticipate the potential impacts to the Project caused by the COVID-19 threat and in following direction from the Governor and other authorities, the Contractor is on notice of the need to comply with all federal, state, and local orders generated to prevent the spread of contagious or infectious diseases, including the Stay-at-Home Order from the Ohio Director of Health dated March 22, 2020, and subsequent orders, located through the following website:
https://coronavirus.ohio.gov/wps/portal/gov/covid-19/home
Contractor is on notice that the Project is considered essential, and that the contractor and his employees, subcontractors and suppliers are considered essential businesses and performing essential functions as defined under the Stay-at-Home Order.

Notwithstanding any other provisions of the contract documents, in the event of project delay or impacts to performance due to a voluntary or mandatory COVID-19 virus Directives, Orders, quarantine or closure directed by government authorities, either party may, by providing notice to the other party as required under CMS 108.02(F), extend the Completion Date for a period of up to thirty (30) days. Extensions under this paragraph shall be considered an excusable, non-compensable delay in accordance with CMS 108.06(B). If any portion of the Work is still not able to be performed upon the expiration of the extension, either party may provide notice to the other party requesting a termination for convenience under 108.09. The termination for convenience remains at the sole discretion of the LPA's Person in Responsible Charge in conjunction with the Office of Local Programs.

The Contractor and LPA will exercise best efforts to utilize remote services to perform Work that otherwise cannot be performed in person due to a voluntary or mandatory COVID19 virus quarantine, closure, or impact as directed by Stay-at-Home Order.

Impacts to the Project generated by the Stay-at-Home Order shall not be considered an "issue" under 108.02 (F) for Projects sold after the date of this Note. Contractors are on notice that their bids should

include any impacts they foresee or should have reasonably foreseen due to the Stay-at-Home Order or existing or reasonably foreseeable orders by any other federal, state or local official.
If any emergency order or declaration of any government official is lifted at any time, the LPA will provide written notice to the Contractor that this Note shall be considered void thirty (30) days after receipt of the written notice. If the Stay-at-Home Order from the Ohio Director of Health dated March 22, 2020, is lifted at any time, this Note shall be considered null and void thirty (30) days after the lifting of those orders.

30. PN 015 – 04/17/2020 - CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

The required contract provisions for federal-aid construction contracts are hereby incorporated by reference as if rewritten herein. The current version of Form FHWA-1273 (available at https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf) shall be physically incorporated in all contracts, subcontracts, and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreement for supplies or services related to a construction contract). The prime contractor shall be responsible for ensuring that the FHWA-1273 is physically incorporated into all lower-tier subcontracts.

SANCTIONS AND ADMINISTRATIVE REMEDIES

Failure by the prime contractor to include the provisions of FHWA-1273 in their contract or in their lower-tier subcontracts may result in the issuance of sanctions as follows:

1st Tier: Letter of Reprimand

2nd Tier: Damages equivalent to the daily liquidated damages amount found in section 108.07 for each incident of non-compliance

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented, or withheld information, the LPA can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects; and
- the number of times the Contractor has been previously sanctioned by the LPA.

31. **PN 032 – 01/31/2021 – C92s Required on - Local-let Construction Projects**

State and Federal law requires that all contractors and subcontractors participating on state or federally funded projects be evidenced in writing and in conformity with all applicable state and federal laws and regulations.

Effective immediately, all projects advertising after 2/1/2021, will require that a Request to Sublet (C92) form is completed for each subcontractor working on the project prior to the start of work.

A template for this form may be found and submit via the GoFormz website located at www.goformz.com.

32. REQUIRED CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS (Electronic Form FHWA 1273 – July 5, 2022) (SEE NEXT PAGE)

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement, or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor, or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor, or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts, and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments
(2) Assessing sanctions
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination, and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed, or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal- aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the

Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

PROPOSAL NOTE 100

STATE OF OHIO DEPARTMENT OF TRANSPORTATION
COLUMBUS, OHIO

LPA CONSTRUCTION AND MATERIAL SPECIFICATIONS
07/16/2021

An Equal Opportunity Employer

Local Public Agency:
City of Canton

Date:
November 2, 2022

Table of Contents

100 GENERAL PROVISIONS **18**

101 DEFINITIONS AND TERMS *18*

102 BIDDING REQUIREMENTS AND CONDITIONS *26*

103 AWARD AND EXECUTION OF CONTRACT *31*

104 SCOPE OF WORK *31*

105 CONTROL OF WORK *34*

106 CONTROL OF MATERIAL *41*

107 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC *43*

108 PROSECUTION AND PROGRESS *55*

109 ACCEPTANCE, MEASUREMENT, AND PAYMENT *61*

BB. 100 GENERAL PROVISIONS

1. 101 DEFINITIONS AND TERMS

101.01 General. These Construction and Material Specifications are written to the Bidder before award of the Contract and to the Contractor after award of the Contract. The sentences that direct the Contractor to perform Work are written as commands. For example, a requirement to provide coldweather protection would be expressed as, "Provide cold-weather protection for concrete," rather than "The Contractor shall provide cold-weather protection for concrete." In the imperative mood, the subject "the Bidder" or "the Contractor" is understood.

All requirements to be performed by others have been written in the active voice. Sentences written in the active voice identify the party responsible for performing the action. For example, "The Engineer will determine the density of the compacted material." Certain requirements of the Contractor may also be written in the active voice, rather than the active voice and imperative mood, if the sentence includes requirements for others in addition to the Contractor. For example, "After the Contractor provides initial written notice, the Engineer will revise the Contract as specified in 104.02."

Sentences that define terms, describe a product or desired result, or describe a condition that may exist are written in indicative mood. These types of sentences use verbs requiring no action. For example, "The characteristics of the soils actually encountered in the subgrade may affect the quality of the cement and depth of treatment necessary."

101.02 Abbreviations. The following abbreviations, when used in the Contract Documents, represent the full text shown.

AAN American Association of Nurserymen
AASHTO American Association of State Highway and Transportation Officials
AC Asphalt Cement (pavement), Alternating Current (traffic)
ACBFS Air Cooled Blast Furnace Slag (aggregate)
ACI American Concrete Institute
ACIA Asynchronous Communications Interface Adapter (traffic controller)
ADT Average Daily Traffic
ADTT Average Daily Truck Traffic
AIC Amps Interrupting Capacity
AISC American Institute of Steel Construction
AISI American Iron and Steel Institute
ANFO Ammonium Nitrate and Fuel Oil
ANSI American National Standards Institute
AOS Apparent Opening Size (fabric)
AREA American Railway Engineering Association
AMRL AASHTO Material Reference Library
ASCE American Society of Civil Engineers
ASLA American Society of Landscape Architects
ASME American Society of Mechanical Engineers
ASTM American Society for Testing and Materials
AWG American Wire Gauge

AWPA American Wood Preservers' Association
AWS American Welding Society
AWWA American Water Works Association
BBR Bending Beam Rheometer (asphalt binder test)
BMP Best Management Practice (erosion)
BOF Basic Oxygen Furnace (aggregate)
BSG Bulk Specific Gravity
BTEX Benzene, toluene, ethyl benzene, and xylene (a soil test)
BUSTR Bureau of Underground Storage Tank Regulations (Division of Fire Marshal)
C&MS Construction and Material Specifications
CAPWAP Case Pile Wave Analysis Program
CBAE Cut Back Asphalt Emulsion
CCRL Cement and Concrete Reference Laboratory CCS Crushed Carbonate Stone
CECI Contactors Erosion Control Inspector
CFR Code of Federal Regulations
CIE Commission Internationale d'Eclairage (illumination)
CPE Construction Project Engineer (LPA Local-let Project specific)
CPESC Certified Professional in Erosion and Sediment Control
CRS Cationic Rapid Set (asphalt emulsion) CRSI Concrete Reinforcing Steel Institute
CSS Cationic Slow Set (asphalt emulsion)
CVN Charpy V-notch (steel test) CWT Hundred Weight (100 lbs)
DC Direct Current
DCA ~~District Construction Administrator~~ Owner
DCE District Construction Engineer
DDD ~~District Deputy Director~~ Owner
DET ~~District Engineer of Tests~~ Owner
DGE ~~District Geotechnical Engineer~~ Owner
DLS Data Logging System (traffic markings) DNR Department of Natural Resources
DRC Dry Rodded Condition (asphalt aggregate test)
DSR Dynamic Shear Rheometer (asphalt binder test)
DZA Deficient Zone Average (concrete test)
EAF Electric Arc Furnace
EDA Earth Disturbing Activity EEI Edison Electric Institute
EIA Electronic Industries Alliance
EPA Environmental Protection Agency
EQS Exceptional Quality Solids (compost)
FAA Fine Aggregate Angularity (asphalt aggregate)

FCM Fracture Critical Member (steel test)
FEMA Federal Emergency Management Agency
FHWA Federal Highway Administration, Department of Transportation FRP Fiber Reinforced Polymer
FSS Federal Specifications and Standards, General Services Administration GGBFS Ground Granulated Blast Furnace Slag
GS Granulated Slag
HDPE High Density Polyethylene
HMWM High Molecular Weight Methacrylate
ICEA Insulated Cable Engineers Association
IEEE Institute of Electrical and Electronic Engineers
IES Illuminating Engineering Society
IMSA International Municipal Signal Association
IPCEA Insulated Power Cable Engineers Association
IPS International Pipe Standard ISSA International Slurry Seal Association
ITE Institute of Transportation Engineers ITS Intelligent Transportation System
IZEU Inorganic Zinc Epoxy Urethane
JMF Job Mix Formula LED Light Emitting Diode
LPA Local Public Agency
LWT Loaded Wheel Test (asphalt test) MBF Thousand Board Feet (wood)
MC Medium Cure (asphalt emulsion)
MCB Microchannel Bus (traffic controller)
MOV Metal Oxide Varistor (traffic controller)
MPI Magnetic Particle Inspection (steel test)
MSG Maximum Specific Gravity (asphalt)
MTD Maximum Theoretical Density (asphalt)
NACE National Association of Corrosion Engineers
NCHRP National Cooperative Highway Research Program
NEMA National Electrical Manufacturers Association
NHI National Highway Institute
NIST National Institute of Standards and Technology
NOI Notice of Intent
NPDES National Pollutant Discharge Elimination System
OAC Ohio Administrative Code
ODOT Ohio Department of Transportation
OEPA Ohio Environmental Protection Agency OH Open Hearth (aggregate)
OHWM Ordinary High Water Mark
OMM Office of Materials Management (the Central Office Laboratory)

OMUTCD Ohio Manual of Uniform Traffic Control Devices
ORC Ohio Revised Code
ORDC Ohio Rail Development Commission
OSHA Occupational Safety and Health Administration
OTO Office of Traffic Operations
OWPCA Ohio Water Pollution Control Act
OZEU Organic Zinc Epoxy Urethane
PAT Project Average Thickness
(concrete test)
PAV Pressure Aging Vessel (asphalt binder test)
PB Polybutylene (conduit)
PCC Portland Cement Concrete
PCS Petroleum Contaminated Soil
PDA Pile Dynamic Analysis (steel piling)
PE Polyethylene (conduit)
PG Performance Grade (asphalt binder grading system)
pH Potential of Hydrogen
PLS Pure Live Seed
PRC Person in Responsible Charge (representation of the Local Public Agency)
PVC Polyvinyl chloride
QA Quality Assurance
QC Quality Control
QCFS Quality Control Fabricator Specialist (structures)
QCP Quality Control Program, or Plan, or Points (steel test)
QPL Qualified Products List
RAP Reclaimed Asphalt Pavement
RAS Reclaimed Asphalt Shingles
RC Rapid Cure (asphalt emulsion)
REA Rural Electrification Act
RFI Radio Frequency Interference (traffic controller)
RH Relative Humidity
RMS Root Mean Square (traffic controller)
RPCC Recycled Portland Cement Concrete
RPM Raised Pavement Marker (traffic)
RS Rapid Set (asphalt emulsion)
RTFO Rolling Thin-Film Oven (asphalt binder
test) RUS Rural Utilities Service
SAE Society of Automotive Engineers
SBA Styrene Butadiene
Amine SBR Styrene
Butadiene Rubber
SBS Styrene Butadiene Styrene
SCD Standard Construction Drawing
SDS Safety Data Sheets
SF Standard Fabricated members (structures)

SI International System of Units (Metric)
SM AASHTOWare Project Sitemanager ™ SMA Stone Matrix Asphalt
SPD Surge Protection Device (traffic controller)
SPST Single Pole / Single Throw (traffic controller)
SS Slow Set (asphalt emulsion)
SSD Saturated Surface Dry (aggregate)
SSPC Society for Protective Coatings
SWPPP Storm Water Pollution Prevention Plan
TAP Traffic Authorized Product
TCE Trichloroethylene
TMPTA Tri-methyolpropane Tri-acrylate (paint)
TNP Total Neutralizing Power
TODS Tourist-Oriented Directional Signs
TSEC Temporary Sediment and Erosion Control TSR Tensile Strength Ratio (asphalt mix test) UF Unique Fabricated members (structures) UL Underwriters' Laboratories, Inc.
USACE United States Army Corps of Engineers
USC United States Code
VA Verification Acceptance
VAC Volts Alternating Current
VCA Volume of Coarse Aggregate (asphalt mix test)
VECP Value Engineering Change Proposal
VMA Voids in the Mineral Aggregate
VME VersaModule Eurocard (traffic controller)
WDT Watchdog Timer
WEAP Wave Equation Analysis (steel piling)
WPS Welding Procedure Specification (steel test)
WZRPM Work Zone Raised Pavement Marker (traffic)
XCU Explosion, Collapse and Underground

101.03 Definitions. The following terms or pronouns, when used in the Contract Documents, are defined as follows:

Advertisement. The public announcement, as required by law, inviting Bids for Work to be performed or materials to be furnished.

Award. The written acceptance by the PRC and/or CPE of a Bid.

Bid. The offer of a Bidder, on the prescribed form properly signed and guaranteed, to perform the Work and to furnish the labor and materials at the prices quoted.

Bid Documents. The Bid Documents include the Invitation for Bids, Addenda, Proposal, , contract form and required bonds, Specifications, Supplemental Specifications, Special Provisions, general and detailed plans, Plan notes, standard construction drawings identified in the Plans, notice to Contractor, and any other document designated by the LPA as a Bid Document, all of which constitute one instrument.

Bidder. An individual, firm, or corporation submitting a Bid for the advertised Work, acting directly or through the duly authorized representative, and qualified as provided in the ORC 5525.02 to 5525.09.

Bridge. A structure, including supports, erected over a depression or an obstruction, such as water, a highway, or a railway, and having a track or passageway for carrying traffic or other moving loads and having a length measured along the center of roadway of 10 feet (3.048 m) or more between undercopings of abutments or extreme limits of openings for multiple boxes.

A. Length. The length of a bridge structure is the over-all length measured along the centerline of the roadway surface.

B. Roadway Width. The clear width measured at right angles to the longitudinal centerline of the bridge between the bottom of curbs or guard timbers or, in the case of multiple heights of curbs, between the bottoms of the lower risers. For curb widths of 1 foot (0.3 m) or less, the roadway width is measured between parapets or railings.

Calendar Day or Day. Every day shown on the calendar.

Certified Test Data. A test report from a manufacturer's or an independent laboratory approved by the Director listing actual test results of samples tested for compliance with specified Department and/or LPA requirements. The LPA will accept certified test data from manufacturers' laboratories if their products have been used satisfactorily on prior Department contracts and their test data has been confirmed. Include a statement that the test data furnished is representative of the material furnished to a Department project or to a supplier. The report is identified by number or date and identifies the LPA project or supplier to which the material is shipped. Submit reports signed by a person having legal authority to act for the manufacturer or independent laboratory.

Change Order. A written order issued by the PRC and/or CPE to the Contractor, covering changes to the terms and conditions, plans and/or quantities, within or beyond the scope of the Contract and establishing the basis of payment and time adjustments for the work affected by the changes.

Completion Date. The date, as shown in the Contract Documents, on which the Work contemplated shall be completed.

Construction Limits. These limits must encompass all Work. This includes removals, room for construction equipment to complete work, site access, etc.

Construction Project Engineer. Designee by the LPA to serve as the main contact for the Contractor, ODOT, FHWA, and any other agencies having an interest in the Project. The CPE is someone who is tasked with managing a Local-let LPA contract who is either a Professional Engineer or is working under the purview of a Professional Engineer.

Contract. The written agreement between the LPA and the Contractor setting forth the obligations of the parties, including, but not limited to, the performance of the Work and the basis of payment.

Contract Item (Pay Item). A specifically described unit of Work for which a price is provided in the Contract.

County. The designated county in which the Work specified is to be done.

Culvert. Any structure not classified as a Bridge that provides an opening under the roadway.

Department. Owner.

Director. Owner's Representative.

District Testing. The Departments district testing laboratories.

Engineered Drawings. A type of Working Drawing that requires the practice of engineering as defined in ORC 4733.01(E). Examples of Engineered Drawings include: Excavation Bracing Plans, Demolition Plans, Erection Plans, Falsework Plans, Cofferdam Plans, Causeway Plans, Jacking and Temporary Support Plans, Plans for Heavy Equipment on Structures, Plans for structures for Maintaining Traffic, and Corrective Work Plans.

Equipment. All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the Work.

Extra Work Contract. A Contract concerning the performance of Work or furnishing of materials involving Extra Work. Such Extra Work may be performed at agreed prices or on a force account basis. **Fabricator.** The individual, firm, or corporation that fabricates structural metals or prestressed concrete members as an agent of the Contractor.

Final Inspector.. Owner.

Inspector. The Engineer's authorized representative assigned to make detailed inspections of Contract performance.

Invitation for Bids. The invitation for Proposals for all Work on which Bids are required. Such Proposal will indicate with reasonable accuracy the quantity and location of the Work to be done or the character and quality of the material to be furnished and the time and place of the opening of Proposals.

Local. The LPA responsible for managing the construction contract and acting through its authorized representative.

Materials. Any materials or products specified for use in the construction of the Project and its appurtenances.

Partnering. A collaborative process for project cooperation and communication meant to achieve effective and efficient contract performance and completion of the Project within budget, on schedule, safely and with requisite quality in accordance with the contract.

Person in Responsible Charge (PRC). Serves as the agency contact for all issues or inquiries and ensures that all applicable state and federal regulations are followed on the project

Plans. The drawings, standard construction drawings and supplemental drawings provided by the Department that show the location, character, dimensions, and details of the Work.

Professional Landscape Architect. A landscape architect registered with the Ohio Landscape Architects Board to practice landscape architecture in the State of Ohio.

Profile Grade. The trace of a vertical plane intersecting the top surface of the proposed wearing surface, usually along the longitudinal centerline of the roadbed. Profile grade means either elevation or gradient of such trace according to the context.

Project Limits. Project limits are points on the mainline centerline of construction where the proposed improvement, as described in the project description on the Title Sheet (excluding incidental construction), begins and ends

Project Right-of-Way. That portion of the Right-of-Way between the beginning and end of the Project.

Project. The specific section of the highway or route together with all appurtenances and/or Work to be performed thereon under the Contract.

Proposal. The approved form on which the LPA requires Bids to be prepared and submitted for the Work.

Reasonably Close Conformity. Reasonably close conformity means compliance with reasonable and customary manufacturing and construction tolerances where working tolerances are not specified. Where working tolerances are specified, reasonably close conformity means compliance with such working tolerances. Without detracting from the complete and absolute discretion of the Engineer to insist upon such tolerances as establishing reasonably close conformity, the Engineer may accept variations beyond such tolerances as reasonably close conformity where they will not materially affect the value or utility of the Work and the interests of the LPA.

Registered Engineer. An engineer registered with the Ohio State Board of Registration for Professional Engineers and Surveyors to practice professional engineering in the State of Ohio

Registered Surveyor. A surveyor registered with the Ohio State Board of Registration for Professional Engineers and Surveyors to practice professional surveying in the State of Ohio.

Right-of-Way. A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to a highway.

Road. A general term denoting a public way for purposes of vehicular travel, including the entire area within the Right-of-Way, as defined in the ORC.

Roadbed. The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulder.

Roadside. The areas between the outside edges of the shoulders and the Right-of-Way boundaries. Unpaved median areas between inside shoulders of divided highways and infield areas of interchanges are included.

Roadside Development. Those items necessary to the highway that provide for the preservation of landscape materials and features; the rehabilitation and protection against erosion of all areas disturbed by construction through seeding, sodding, mulching, and the placing of other ground covers; such suitable planting; and other improvements as may increase the effectiveness and enhance the appearance of the highway.

Roadway. The portion of a highway within limits of construction.

Shoulder. The portion of the roadway contiguous to the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

Sidewalk. That portion of the roadway primarily constructed for the use of pedestrians.

Special Provisions. Additions and revisions to the standard and Supplemental Specifications covering conditions peculiar to an individual Project.

Specifications. The directions, provisions, and requirements contained herein as supplemented by the Supplemental Specifications and Special Provisions.

State. Owner.

Street. A general term denoting a public way for purpose of vehicular travel, including the entire area within the Right-of-Way.

Structures. Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other features that may be encountered in the Work and not otherwise classed herein.

Subgrade. The portion of a Roadbed upon which the pavement structure and shoulders are constructed.

Substructure. All of that part of the structure below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with backwalls and wings.

Superintendent. The Contractor's authorized representative in responsible charge of the Work.

Superstructure. The entire structure except the Substructure.

Supplement. A list of requirements for fabrication plants, methods of test, or other miscellaneous requirements that are maintained on file in the Office of the Director.

Supplemental Agreement. A written agreement executed by the Contractor and by the PRC and/or CPE covering necessary alterations.

Supplemental Specifications. Detailed specifications supplemental to or superseding these Specifications.

Surety. The corporation, partnership, or individual, other than the Contractor, executing a bond furnished by the Contractor.

Titles (or Headings). The titles or headings of the sections and subsections herein are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

Waters of the United States. Waters that are under the jurisdiction of the Corps of Engineers under the Clean Water Act as defined by 33 CFR Ch. II Part 328, which as applied to Ohio means: the Ohio River and Lake Erie and any other river, stream, creek, lake, pond, or wetland that drains directly or indirectly into the Ohio River or Lake Erie.

Work Limits. Work Limits are the extreme limits of the contractor's responsibility on a project, including all temporary and incidental construction, with the exception of work zone traffic control devices required for maintenance of traffic.

Workday. A calendar day that the Contractor normally works.

Working Drawings. Contractor submitted drawings for work, not otherwise defined in the Bid Documents, and require LPA acceptance. Examples of Working Drawings include: Engineered Drawings, installation plans, certified drawings, and any other supplementary plans or similar data that the Contractor is required to submit for acceptance.

101.04 Interpretations. In order to avoid cumbersome and confusing repetition of expressions in these Specifications, it is provided that whenever anything is, or is to be, done, if, as, or, when, or where "contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected, or condemned," it shall be understood as if the expression were followed by the words "by the Engineer" or "to the Engineer."

2. 102 BIDDING REQUIREMENTS AND CONDITIONS

102.01 Prequalification of Bidders. A Bidder must be prequalified by the Department according to ORC Chapter 5525 and the rules and regulations governing prequalification in order to submit a Bid. Upon request, the Department will provide a prequalification application, applicable rules and regulations, and other relevant information. For prospective Bidders that are not yet prequalified, furnish the Department with a properly completed prequalification application at least 30 days before the date specified for the receipt of Bids. The prequalification certificate is the Bidder's license to Bid and perform construction for the Department.

Subcontractors are not subject to the prequalification requirement unless otherwise specified by the LPA. The Prime Contractor will perform no less than 30 percent of the total original contract price unless a greater percentage is specified.

For foreign Contractors, refer to ORC 5525.18 and Ohio Administrative Rule 5501:2-3-07.

102.02 Contents of Bid Documents. .Use the Proposal to prepare and submit Bids for the Work.

Upon request, the LPA will provide Bid Documents that include or reference the following:

A. Location and description of the Project.

B. Estimate of quantities and description of the Work.

C. Time to complete the Work.

D. Amount of the Proposal Guaranty.

E. LPA's deadline for receiving a completed Bid.

F. Schedule of contract items.

G. Standard Specifications, Special Provisions, Supplemental Specifications, and the Plans.

H. Proposal.

102.03 Issuance of Proposals.

A. General. Upon request, the LPA will provide applicable rates and other relevant information for obtaining bidding information and submitting a Bid.

B. LPA Will Not Issue. The LPA may refuse to sell or issue Bid Documents to a prospective Bidder for any of the following reasons:

1. The prospective Bidder owes the LPA for previously issued plans.
2. The prospective Bidder has defaulted on previous contracts.
3. The prospective Bidder is debarred from bidding on and receiving Department contracts.
4. The prospective Bidder is currently in the debarment process.

102.04 Interpretation of Quantities in Proposal. See Modified General Conditions, paragraph 13.03.B.

102.05 Examination of Bid Documents and Project Site and Submission of Prebid Questions. See Page ITB-1, paragraphs A and B

102.06 Preparation of Bids. See Instructions to Bidders, page ITB-3, paragraph H.

102.07 Duty to Notify of Errors in Bid Documents. Notify the LPA of errors and omissions in the Bid Documents. The Contractor's duty to disclose errors and omissions is not only a bidding requirement but is also a legal requirement that cannot be ignored.

Failure to provide the required notification prior to the opening of bids shall constitute a waiver by the Contractor and does not obligate the LPA for any costs based upon any apparent or patent ambiguity arising from insufficient data or obvious errors in the Bid documents. Knowingly withholding information regarding an error or omission in the Bid Documents, or intentionally misrepresenting an item of Work for financial or competitive gain may result in civil or criminal penalties in excess of the value of the item bid.

102.08 Unbalanced Bidding. Bid all items correctly and price each quantity as indicated in the Bid Documents. The LPA will reject a Mathematically Unbalanced Bid if the Bid is also Materially Unbalanced. A Mathematically Unbalanced Bid is a Bid containing lump sum or unit price items that do not include reasonable labor, equipment, and material costs plus a reasonable proportionate share of the Bidder's overhead costs, other indirect costs, and anticipated profit. A Materially Unbalanced Bid is when the LPA determines that an award to the Bidder submitting a Mathematically Unbalanced Bid will not result in the lowest ultimate cost to the LPA.

102.09 Proposal Guaranty.

See Instruction to Bidders, page ITB-5, paragraphs 7.e and 8.a,and Bid Guarantee and Contract Bond, pages BGCB-1 and BGCB-2.

102.10 Delivery of Bid.

See Instructions to Bidders, page ITB-3, parapraph H.

102.11 Withdrawal of Bids.

See Instructions to Bidders, page ITB-15, paragraph S.3.

102.12 Combination Proposals. The LPA may elect to issue Bid Documents for projects in combination or separately, so that Bids may be submitted either on the combination or on separate units of the combination. The LPA reserves the right to make awards on combination Bids or separate Bids to the best advantage of the LPA. The LPA will not consider combination Bids, other than those it specifically identifies in the Bid Documents. The LPA will write separate Contracts for each individual Project included in the combination.

102.13 Public Opening of Bids. The LPA will publicly open Bids at the time and place indicated in the notice to Contractors. The LPA will announce the total Bid amount for each Bid.

Bidders or their authorized agent and other interested persons are invited to the opening.

The LPA may postpone the receipt of Bid time or the opening of Bids time. If the LPA changes the hour or the date of the receipt of Bids or the opening of Bids, it will issue an addendum or public notice to notify prospective Bidders.

102.14 Disqualification of Bidders.

. The Department will declare a Bid non-responsive and ineligible for award when any of the following occur:

A. The Bidder lacks sufficient prequalification work types or dollars to be eligible for award.

B. The Bidder fails to furnish the required Proposal Guaranty in the proper form and amount.

C. The Bid contains unauthorized alterations or omissions.

D. The Bid contains conditions or qualifications not provided for in the Bid Documents.

E. The Proposal is not prepared as specified.

F. A single entity, under the same name or different names, or affiliated entities submits more than one Bid for the same Project.

G. The Bidder fails to submit a unit price for each contract item listed, except for lump sum items where the Bidder may show a price in the "Bid Amount" column for that item.

H. The Bidder fails to submit a lump sum price where required.

I. . The Bidder is debarred from submitting Bids.

J. The Bidder has defaulted, has had a Contract terminated for cause by the Department, has either agreed not to Bid or has had debarment proceedings initiated against the Bidder's company and/or its key personnel.

K. The Bidder submits its Bid or Proposal Guaranty on forms other than those provided by the Department.

L. The Bidder submits a Materially Unbalanced Bid as defined by 102.08.

M. The Bidder fails to acknowledge addenda.

N. The Department finds evidence of collusion.

O. Any other omission, error, or act that, in the judgment of the Department, renders the Bidder's bid non-responsive.

102.15 Material Guaranty.

See Modified General Conditions, page 26, paragraph 7.03.B.

102.16 Certificate of Compliance with Affirmative Action Programs. Before any Contract is awarded, the LPA will require the Bidder to furnish a valid Certificate of Compliance with Affirmative Action Programs, issued by the State EEO Coordinator.

102.17 Drug-Free Safety Program. During the life of this project, the Contractor and all its Subcontractors, that provide labor on the Project site, must be enrolled in and remain in good standing in the Ohio Bureau of Worker's Compensation ("OBWC") Drug-Free Safety Program ("DFSP") or a comparable program approved by the OBWC.

In addition to being enrolled in and in good standing in an OBWC-approved DFSP or a comparable program approved by the OBWC, the LPA requires each Contractor and Subcontractor that provides labor, to subject its employees who perform labor on the project site to random drug testing of 5 percent of its employees. The random drug testing percentage must also include the on-site supervisors of the Contractors and Subcontractors. Upon request, the Contractor and Subcontractor shall provide evidence of required testing to the LPA.

Each Subcontractor shall require all lower-tier Subcontractors that provides labor on the project site with whom the Subcontractor is in contract for the Work to be enrolled in and be in good standing in the OBWC-approved DFSP prior to a lower-tier Subcontractor providing labor at the Site.

The LPA will declare a bid non-responsive and ineligible for award if the Contractor is not enrolled and in good standing in the Ohio Bureau of Workers' Compensation's Drug-Free Safety Program (DFSP) Discount Program or a similar program approved by the Bureau of Workers' Compensation within 8 days of the bid opening. Furthermore, the LPA will deny all requests to sublet when the subcontractor does not comply with the provisions of this section.

Failure of the Contractor to require a Subcontractor to be enrolled in and be in good standing in the an OBWC-approved DFSP prior to the time that the Subcontractor provides labor at the Site, shall result in the Contractor being found in breach of the Contract and that breach shall be

used in the responsibility analysis of that Contractor or the Subcontractor who was not enrolled in a program for future contracts with the State for five years after the date of the breach.

3. 103 AWARD AND EXECUTION OF CONTRACT

103.01 Consideration of Proposals. See Modified General Conditions paragraph 13.03.A

The LPA may reject any or all Bids, waive technicalities, or advertise for new Bids without liability to the LPA.

103.02Award of Contract.

See Instructions to Bidders, page ITB-6, paragraph I.

103.03 Cancellation of Award. The LPA may cancel a Contract award at any time before all parties sign the Contract without liability to the LPA.

103.05 Requirement of Contract Bond. The contractor shall furnish a performance and payment bond in an amount at least equal to 100 percent of the estimate as security for the faithful performance of its contract. In addition to the project Owner, ODOT shall be named as an obligee. Furnish Contract Bonds within 10 days after receiving notice of award.

103.06 Execution of Contract.

. See Instructions to Bidders, page ITB-11, paragraph J.1

103.07 Failure to Execute Contract. If the successful Bidder fails to sign the Contract and furnish the Contract Bonds, the LPA will have just cause to cancel the award. The LPA may award the Contract to the next lowest responsive Bidder, re-advertise the Work, or take any other action decided by the PRC and/or CPE.

4. 104 SCOPE OF WORK

104.01 Intent of the Contract Documents. See Modified General Conditions paragraph 3.01.B.

104.02 Revisions to the Contract Documents.

A. General. The LPA reserves the right to revise the Contract Documents at any time. Such revisions do not invalidate the Contract or release the Surety, and the Contractor agrees to perform the Work as revised.

The provisions of this section are subject to the limitation of the ORC.

B. Differing Site Conditions. See Modified General Conditions paragraph 5.04.

C. Suspension of Work. See Modified General Conditions paragraph 16.01.

D. Significant Changes in Character of the Work. The Engineer may increase or decrease quantities and alter the Work as necessary to complete the Project. The Engineer will make appropriate adjustments according to Modified General Conditions, page 10, paragraph 4.05

and Modified General Conditions page 40, paragraph 11.04, if such alterations significantly change the character of the Work.

If the Contractor disagrees as to whether an alteration constitutes a significant change, use the notification procedures specified in 108.02.F.

The term “significant change” is defined as follows:

1. when the character of the Work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
2. when the product of the quantity in excess of the estimated quantity of a contract item and the unit price exceeds the limits set forth in Table 104.02-1.

1) TABLE 104.02-1

Contract Price	Contract Limits
Up to $500,000	$25,000
$500,001 to $2,000,000	5% of Total Contract Price
Over $2,000,000	$100,000

A quantity underrun is defined as follows:

a. the estimated quantity of a contract item exceeds four units (this minimum quantity does not apply to pavement markings measured in units of miles), and
b. the decrease in quantity of any unit price Contract Item exceeds 25 percent of the estimated quantity, and
c. the total of all such adjustments for all Contract Items is more than $400.

Then after the determination of final quantities according the Engineer will adjust the unit prices for the affected Contract item by multiplying the bid unit price by the factor obtained from Table 104.02-2.

2) TABLE 104.02-2

% Decrease	Factor	% Decrease	Factor
25	1.08	57	1.33
26 to 27	1.09	58	1.35
28 to 29	1.10	59	1.36
30 to 31	1.11	60	1.38
32 to 33	1.12	61	1.39
34 to 35	1.13	62	1.41
36	1.14	63	1.43
37 to 38	1.15	64	1.44
39	1.16	65	1.46
40 to 41	1.17	66	1.49
42	1.18	67	1.51
43	1.19	68	1.53
44 to 45	1.20	69	1.56
46	1.21	70	1.58
47	1.22	71	1.61
48	1.23	72	1.64
49	1.24	73	1.68
50	1.25	74	1.71
51	1.26	75	1.75
52	1.27	76	1.79
53	1.28	77	1.84
54	1.29	78	1.89
55	1.31	79	1.94
56	1.32	80 and over	2.00

When the increase in quantity or decrease in quantity of any unit price contract item does not exceed the limits set forth in Tables 104.02-1 and 104.02-2, the change is considered a minor change.

The Department will pay for minor changes in the Work at the unit bid price.

E. 635.109(a)(3) Eliminated Items.

The LPA may partially or completely eliminate contract items.

The LPA will only make an adjustment to compensate the Contractor for the reasonable cost incurred in preparation to perform significantly changed work as set forth in 104.02.D or work completely eliminated prior to the date of the Engineer's written order to significantly change or completely eliminate the Work. The adjustment will be determined according to 109.04 and 109.05. Such payment will not exceed the price of the Contract Item.

The LPA will not seek a savings for maintaining traffic, mobilization, and construction layout stakes items for Eliminated Items of Work, unless there is a significant change.

F. Extra Work. Perform Extra Work as directed by the Engineer. The LPA will pay for Extra Work as specified in 109.05. Time extensions, if warranted, will be determined according to 108.06.

G. Unilateral Authority to Pay. The LPA has unilateral authority to pay the Contractor sums it determines to be due to the Contractor for work performed on the project. This unilateral authority to pay by the LPA does not preclude or limit the rights of the LPA and the Contractor to negotiate and agree to the amounts to be paid to the Contractor.

104.03 Rights in and Use of Materials Found on the Work. Upon obtaining the Engineer's approval, the Contractor may use material, such as stone, gravel, or sand, found in the plan excavation for another Contract Item. The LPA will pay for both the excavation of the material under the corresponding Contract Item and for the placement of the excavated material under the Contract Item(s) for which the excavated material is used. Excavate or remove material only from within the grading limits, as indicated by the slope and grade lines.

Obtain written permission from the Engineer according to 107.11.A.

104.04 Cleaning Up. Maintain the Project in a presentable condition. Remove all rubbish, layout stakes, sediment control devices as directed by the Engineer, excess material, temporary structures, and equipment, including stream channels and banks within the Right-of-Way at drainage structures, and all borrow and waste areas, storage sites, temporary plant sites, haul roads, and other ground occupied by the Contractor in connection with the Work. Establish suitable vegetative cover in these areas by seeding and mulching according to Item 659, except for cultivated fields. Leave the Project site in an acceptable condition as determined by the Engineer. The cost of cleanup is incidental to all contract items. The LPA may withhold 10 percent of the Bid amount for the mobilization contract item, if included, until performance under this section is complete. See 624.04.

5. 105 CONTROL OF WORK

105.01 Authority of the Engineer. The Engineer will decide questions concerning all of the following:

A. The quality and acceptability of Materials furnished.

B. The quantity of Work performed.

C. The Contractor's rate of progress.

D. The interpretation of the Contract Documents.

E. Acceptable fulfillment of the Contract.

F. Contractor compensation.

The Engineer may suspend all or part of the Work when the Contractor fails to correct conditions that are unsafe for the workers or the general public, fails to comply with the Contract Documents, or fails to comply with the Engineer's orders. The Engineer may suspend the Work due to adverse weather conditions, conditions considered adverse to the prosecution of the Work, or other conditions or reasons in the public interest.

The Engineer's acceptance does not constitute a waiver of the LPA's right to pursue any and all legal remedies for defective work or work performed by the Contractor in an un-workmanlike manner.

105.02 Plans and Working Drawings. The Plans show details of structures, the lines and grades, typical cross-sections of the Roadway, and the location and design of structures. Keep at least one set of Plans at the Project at all times.

Prepare working drawings when required by the Contract Documents and after verifying applicable field and plan elevations, dimensions, and geometries. Where Work consists of repairs, extension, or alteration of existing structures, take measurements of existing structures to accurately join old and new Work.

Unless otherwise indicated, the LPA will review working drawing submittals to ensure conformance with the Contract and to provide the Contractor a written response to document the results of its review as follows:

A. "ACCEPTED." The LPA accepts the submittal for construction, fabrication, or manufacture.

B. "ACCEPTED AS NOTED." The LPA accepts the submittal for construction, fabrication, or manufacture, subject to the Contractor's compliance with all LPA comments or corrections to the submittal. If also marked "RESUBMIT," the LPA still accepts the submittal, but requires the Contractor to provide a corrected submittal to the LPA.

C. "NOT ACCEPTED." The LPA does not accept the submittal. The submittal does not conform to Contract requirements. Do not begin construction, fabrication, or manufacture of Work included in the submittal. Revise the submittal to comply with LPA comments or corrections and Contract requirements and provide the revised submittal to the LPA for another review.

"Accepted" and "Accepted as Noted" Working Drawings are Contract Documents as defined in 101.03. The LPA's acceptance will not relieve the Contractor of responsibility to complete the Work according to the Contract nor relieve a signatory engineer's responsibility as defined by OAC 473323. Include the cost of furnishing Working Drawings in the cost of the Work they cover.

105.03 Conformity with Contract Documents. Perform all Work and furnish all Materials in reasonably close conformity with the lines, grades, cross-sections, dimensions, and material requirements as shown on the Plans and as specified.

If the PRC and/or CPE determines the Work is not in reasonably close conformity with the Contract Documents and determines the Contractor produced reasonably acceptable Work, the PRC and/or CPE may accept the Work based on engineering judgment. The PRC and/or CPE will document the basis of acceptance in a Change Order that provides for an appropriate adjustment to the Contract Price of the accepted Work or Materials. If the PRC and/or CPE determines the Work is not in reasonably close conformity with the Contract Documents and determines the Work is inferior or unsatisfactory, remove, replace, or otherwise correct the Work at no expense to the LPA.

105.04

See Owner Contractor Agreement, page OCA-1, paragraph 1.1.

105.05 Cooperation by Contractor.

See Modified general Conditions, page 36, paragraph 8.0.

105.06 Superintendent. Provide a Superintendent for the Project that is available and responsive at all times and is responsible for all aspects of the Work, irrespective of the amount of subcontract Work. The Superintendent must be capable of reading and understanding the Contract Documents and experienced in the type of Work being performed. The Superintendent shall receive instructions from the Engineer or the Engineer's authorized representatives. The Superintendent shall promptly execute the Engineer's orders or directions and promptly supply the required materials, equipment, tools, labor, and incidentals.

105.07 Cooperation with Utilities. Unless otherwise provided for by the Contract Documents, the LPA will direct the utility owners to relocate or adjust water lines, gas lines, wire lines, service connections, water and gas meter boxes, water and gas valve boxes, light standards, cableways, signals, and all other utility appurtenances within the limits of the proposed construction at no cost to the Contractor.

If the Contractor is directed by a utility company to perform any work not specifically contained in this note, the LPA will not compensate the Contractor for this work unless the LPA approves the request in writing before the work begins. If the work is not preapproved by the LPA, the Contractor will be responsible for obtaining reimbursement for its work from the utility company which directed the Contractor to perform the work.

In the event that the Contractor requests that additional work, not specifically contained in this note, be performed by a utility company, the Contractor will be responsible for reimbursing the utility company for the additional work unless the LPA has agreed in writing to pay for the additional work before the work begins.

The Contract Documents will indicate various utility items and indicate a time frame or date when the LPA expects the owners to complete utility relocation or adjustment. Provide utility owners adjusting facilities during construction with adequate notification of the scheduled Work to prevent conflict with the Contractor's schedule of operations.

When bidding, consider all permanent and temporary utility appurtenances in present and relocated positions as shown in the Contract Documents.

According to ORC 153.64 and at least 2 Workdays prior to commencing construction operations in an area that may affect underground utilities shown on the Plans, notify the Engineer, the registered utility protection service, and the owners that are not members of the registered utility protection service.

The owner of the underground utility shall, within 48 hours, excluding Saturdays, Sundays, and legal holidays, after notice is received, start staking, marking, or otherwise designating the location, course,

±2 feet (±0.6 m), together with the approximate depth of the underground utilities in the construction area.

If the utility owners fail to relocate or adjust utilities as provided for in the Contract Documents and the Contractor sustains losses that could not have been avoided by the judicious handling of forces, equipment, and plant, or by reasonable revisions to the schedule of operations, then the Engineer will adjust the Contract according to 108.06 and 109.05.

105.08 Cooperation Between Contractors. At any time, the LPA may contract for other work on or near the Project.

Separate Contractors working within the limits of the Project shall conduct their work without interfering with or hindering the progress or completion of Work being performed by other Contractors and shall cooperate with each other as directed by the Engineer.

105.09 Authority and Duties of the Inspector. Inspectors are authorized to inspect the Work and the preparation, fabrication, or manufacture of materials. Inspectors are not authorized to alter or waive requirements of the Contract Documents. Inspectors are authorized to notify the Contractor of Work that does not conform to the Contract; reject materials that do not conform to Specification requirements; and until the issue is decided by the Engineer, suspend portions of the Work if there is a question regarding the Contract Documents, use of unapproved material, or safety. Inspectors are not obligated or authorized to provide direction, superintendence, or guidance to the Contractor, its crew, its subcontractors, or suppliers to accomplish the Work.

Any action or inaction of the Inspector does not constitute a waiver of the LPA's right to pursue any and all legal remedies for defective work or work performed by the Contractor in an un-workmanlike manner.

105.10 Inspection of Work. The Engineer may inspect materials and the Work. Provide the Engineer or the Engineer's representative access to the Work, information, and assistance necessary to conduct a complete inspection. Notify the Engineer at least 24 hours prior to all required inspections.

When directed by the Engineer, remove or uncover completed Work to allow inspection. After the Engineer's inspection, restore the Work according to the requirements of the Contract Documents. If the inspected Work conformed to the requirements of the Contract Documents, the LPA will pay for uncovering or removing and restoring the Work as Extra Work according to 109.05. If the inspected Work did not conform to the Contract Documents, the LPA will not pay for uncovering or removing and restoring the Work.

The LPA shall have the discretion to dictate the level of inspection for any item of work. The Contractor bears sole responsibility for the quality of work and compliance with the contract regardless of the LPA's level of inspection.

The LPA's failure to identify defective Work or material shall not, in any way, prevent later rejection when defective Work or material is discovered, or obligate the LPA to grant acceptance under 109.11 or 109.12.

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work. This inspection will not make other government agencies or railroad corporations a party to the Contract and will not interfere with the rights of the Contractor or LPA.

105.11 Removal of Defective and Unauthorized Work. Work that does not conform to the requirements of the Contract is defective.

Unless the LPA formally accepts defective Work according to 105.03, immediately remove and replace defective Work.

Unauthorized Work is Work done contrary to the instructions of the Engineer, beyond the plan lines, or any extra work done without the LPA's permission. The LPA will not pay for unauthorized Work. The Engineer may order the Contractor to remove or replace unauthorized Work at no expense to the LPA.

If the Contractor fails to comply with the Engineer's orders under the provisions of this subsection, the PRC and/or CPE may correct or remove and replace defective or unauthorized Work and deduct the costs from the Contract Price.

Load Restrictions. Comply with all legal load restrictions when hauling materials on public roads.

Operate equipment of a weight or so loaded as to not cause damage to structures, to the roadway, or to other types of construction. Comply with subsection 501.05.B.6 for allowed loads on bridges.

Do not use off road vehicles on bases or pavements unless permitted by the PRC and/or CPE in writing.

Do not haul on concrete pavement, base, or structures before the expiration of the curing period.

Do not exceed the legal load limits in this section unless permitted by the PRC and / or CPE in writing.

105.13 Haul Roads. Prior to hauling equipment or materials, provide written notification to the Engineer of the specific roads or streets on the haul route. If the haul route includes roads and streets that are not under the jurisdiction and control of the LPA and the PRC determines that LPA controlled roads are not available or practical for a haul route, the Contractor may use local roads and streets that are not restricted by local authorities. If the PRC determines that LPA controlled roads are available and practical for a haul route, revise the proposed haul route provided in the original written notification and resubmit to the PRC.

If the Engineer determines that haul route roads were properly used during construction to haul equipment and materials and that the haul route roads were damaged, then the Engineer may order the Contractor to perform immediate and practical repairs to ensure reasonably normal traveling conditions. The Engineer will pay for repairs according to applicable provisions of 109.04 and 109.05.

The Contractor shall not file a claim for delays or other impacts to the Work caused by disputes with the local authorities regarding the use of local roads or streets as haul routes. The Contractor shall save the LPA harmless for any closures or hauling restrictions outside the Project limits beyond the control of the LPA.

105.14 Maintenance During Construction. Maintain the Work during construction and until Final Inspector accepts the work under 109.12, except for portions of the Work accepted under 109.11. The Contractor is responsible for damage done by its equipment.

Maintain the previous courses or subgrade during all construction operations, when placing a course upon other courses of embankment, base, subgrade, concrete or asphalt pavement, or other similar items previously constructed. This maintenance includes, but is not limited to draining, re-compacting, re-grading, or if destroyed, the removal of Work previously accepted by the LPA.

Maintain the Post Construction Storm Water Best Management Practice (BMP) features. Prevent sediment laden surface water from coming in contact with the BMP features during construction.

Maintain the Work during construction and before acceptance of the Work under 109.12, except for portions of the Work accepted under 109.11. The LPA will not provide additional compensation for maintenance work.

105.15 Failure to Maintain Roadway or Structure. If the Contractor, at any time, fails to comply with the provisions of 105.14, the Engineer will immediately notify the Contractor of such noncompliance. If the Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the Engineer may immediately proceed to maintain the Project, and deduct the entire cost of this maintenance from monies due or to become due the Contractor on the Contract.

105.16 Borrow and Waste Areas. Prior to beginning borrow or wasting operations, obtain the Engineer's written approval of a detailed operation plan that addresses the following concerns: **A**. Control of drainage water.

B. Cleanup, shaping, and restoration of disturbed areas.

C. Disposal of regulated materials.

D. Avoidance of regulated areas.

E. Excavation and filling of waste and borrow areas.

F. Saving of topsoil.

G. Temporary Sediment and Erosion Control BMPs required for compliance under the Clean Water Act, Ohio Water Pollution Control Act, (OWPCA) (ORC Chapter 6111) and the NPDES permit.

Perform all engineering necessary to ensure long term stability of all side slopes and foundations of all borrow and waste areas. Furnish a certification by a Registered Engineer attesting to the stability of all borrow and waste areas. All damage resulting from the instability of borrow and waste areas, the removal of borrow materials, the placement of waste materials, or the hauling of material to and from these areas is the sole responsibility of the Contractor. Repairs to approved haul roads will be made in accordance with 105.13.

Perform all engineering, including any field investigation, necessary to ensure long term stability of all side slopes and foundations of all borrow and waste areas.

Ensure that all side slopes of all waste areas do not reduce horizontal sight distance as defined by the current version of the Department's *Location and Design Manual*.

Have the proposed borrow and waste areas reviewed by an environmental consultant that is prequalified by the Department for ecological work. Have the environmental consultant certify that the proposed borrow and waste operations will not impact the "Waters of the United States" or an isolated wetland. If consultant certification is not provided, obtain the 404/401 permits necessary to perform the operations as proposed. Have the environmental consultant certify that the work conforms to the requirements of the permit(s). Provide all documentation submitted to obtain the appropriate permit(s) and a copy of the permit(s) to the District's Office of Environmental Services.

If burning is permitted under the OAC-3745-19 and ORC 1503.18, submit a copy of the Ohio EPA permit and the Ohio DNR permit to the Engineer and copies of all information used to obtain the permit. Prior to the disposal of waste materials, submit to the LPA an executed copy of the Contract or permission statement from the property owner. The Contract or permission statement must indicate that the waste materials are not the property of the LPA. Further, it must expressly state that the LPA is not a party to the Contract or permission statement and that the Contractor and property owner will hold the LPA harmless from claims that may arise from their contract or permission statement.

Restoration of all borrow or waste areas includes cleanup, shaping, replacement of topsoil, and establishment of vegetative cover by seeding and mulching according to 104.04 and Item 659. Ensure the restored area is well drained unless approval is given by the Engineer to convert a pit area into a pond or lake, in which case confine restoration measures to the disturbed areas above the anticipated normal water level.

For waste sites shown on the plan, the plan will indicate if the clearances have or have not been obtained for the project right-of-way locations. No extension of time or additional

compensation will be paid for any delays due to not having the written permit(s) to waste in a floodplain.

The allowed use of Project Right-of-Way and other LPA property for borrow and waste is detailed in 104.03 and 107.11.

Borrow and Waste Area shall adhere to 107.10.

The cost of work described herein is incidental to the Contract, unless included under another item of work.

105.17 Construction and Demolition Debris. OAC-3745-37, OAC-3745-400, and ORC Chapter 3714 regulates the use and disposal of construction and demolition debris. Notify the local Board of Health or the local Ohio EPA office 7 days before placing Clean Hard Fill off the Right-ofWay. Submit copies of this notification to the Engineer.

Legally dispose of debris containing wood, road metal, or plaster at a licensed construction and demolition debris site.

Under the regulations cited above the disposal of brush, trees, stumps, tree trimmings, branches, weeds, leaves, grass, shrubbery, yard trimmings, crop residue, and other plant matter is restricted. If allowed by the Contract Documents, the Contractor may waste brush, trees, stumps, tree trimming, branches, weeds, leaves, grass, shrubbery, yard trimmings, crop residue, and other plant matter within the Right-of-Way. Otherwise, submit a plan and any required permits to legally dispose of these materials off the Right-of-Way to the Engineer. Provide all documents submitted to obtain this permit to the Engineer.

If the Project contains garbage or solid and hazardous waste, the Contract Documents will detail the removal of these items.

When wasting PCC, mix the PCC with at least 30 percent natural soil to construct an inner core in the waste area. Cover this inner core with 3 feet (1.0 m) of natural soil on the top and 8 feet (2.4 m) on the side slopes. Place and compact the material according to 203.06.D to prevent future settlement and sliding.

Clean Hard Fill consisting of reinforced or non-reinforced concrete, asphalt concrete, brick, block, tile or stone that is free of all steel as per 703.16 shall be managed in one or more of the following ways:

A. Recycled into a usable construction material.

B. Disposed in licensed construction and demolition debris facility.

C. Used in legitimate fill operations on the site of generation according to 105.16.

D. Used in legitimate fill operations on a site other than the site of generation to bring a site up to grade.

A Beneficial Reuse Certification form needs to be properly executed by the Recipient prior to any material leaving the project.

105.18 Acceptance. The LPA will accept Work according to 109.12 or completed sections of the Project according to 109.11.

105.19 Value Engineering Change Proposals. Value Engineering Change Proposals are not permitted in this Contract.

6. 106 CONTROL OF MATERIAL

106.01 Source of Supply and Quality Requirements. Notify the Engineer of the proposed sources of supply before the delivery of materials. The Engineer may approve materials at the source of supply before delivery. If the proposed sources of supply cannot produce the specified material, then furnish materials from alternate sources without adjustment to the Contract Price or Completion Date.

106.02 Samples, Tests, and Cited Specifications. The Engineer will inspect and determine whether the materials comply with the specified requirements before they are incorporated into the Work. The LPA may sample and test materials or require certifications. Unless specified, the LPA will pay for and test materials according to AASHTO, ASTM, or the methods on file in the office of the Engineer. A qualified representative of the LPA will take test samples according to LPA procedures. Read any reference to other specifications or testing methods to mean the version in effect at the pertinent Project Advertisement date. All materials being used are subject to inspection, test, or rejection at any time before their incorporation into the Work. The LPA will furnish copies of the tests to the Contractor's representative upon request. Furnish the required samples and specified material certifications at no expense to the LPA other than provided in 109.03.

Equip all transports and distributors hauling asphalt material with an approved submerged asphalt material sampling device.

106.03 Small Quantities and Materials for Temporary Application. The Engineer may accept small quantities and materials for temporary application that are not intended for permanent incorporation in the Work. The Engineer may accept these small quantities and materials for temporary application in either of the following cases:

A. Where similar materials from the same source have recently been approved.

B. Where the materials, in the judgment of the Engineer, will serve the intended purpose.

106.04 Plant Sampling and Testing Plan. The Engineer may undertake the inspection of materials at the source.

In the event plant sampling and testing is undertaken, the Contractor and its material provider shall meet the following conditions:

A. Cooperate and assist the Engineer with the inspection of materials. Provide full entry to the Engineer at all times to such parts of the plant as may concern the manufacture or production of the materials being furnished. Agree to all documentation and inspection requirements of the TE-24 plant sampling and testing plan.

B. If required by the Engineer, arrange for the inspector to use an approved building on site. The building should be located near the plant and independent of any building used by the material producer.

C. Maintain and provide adequate safety measures at the plant at all times.

The LPA reserves the right to retest all materials that have been tested and accepted at the source of supply before their incorporation into the Work. After the approved materials have been delivered to the site, the LPA may reject all materials that when retested do not meet the requirements of the Contract Documents.

106.05 Storage of Materials. Properly store all materials to ensure the preservation of their quality and fitness for the Work. The Engineer may re-inspect stored materials before their incorporation into the Work, even though they were approved before

storage. Locate stored materials to facilitate their prompt inspection. The Contractor may use approved portions of the Project Rightof-Way for storage; however, if any additional space is required, the Contractor must provide it at the Contractor's expense. Do not use private property for storage purposes without written permission from the owner or lessee. If requested by the Engineer, furnish copies of the written permission. Restore all storage sites to their original condition at no expense to the LPA. The Contractor and property owner will hold the LPA harmless from claims that may arise from their contract or permission statement. This subsection does not apply to the stripping and storing of topsoil, or to other materials salvaged from the Work.

Areas used to Store Materials shall conform to 107.10.

106.06 Handling Materials. Handle all materials in such manner as to preserve their quality and fitness for the Work. Transport aggregates from the storage site to the project site in vehicles constructed to prevent loss or segregation of materials after loading and measuring. Ensure that there are no inconsistencies in the quantities of materials loaded for delivery and the quantities actually received at the place of operations.

106.07 Unacceptable Materials. Unacceptable materials are all materials not conforming to the requirements of these Specifications at the time they are used. Immediately remove all unacceptable materials from the project site unless otherwise instructed by the PRC and/or CPE. The PRC and/or CPE will determine if unacceptable materials may remain conforming to Supplement 1102. The PRC and/or CPE must approve the use of previously identified unacceptable materials that have been corrected or repaired. If the Contractor fails to comply immediately with any order of the PRC and/or CPE made under the provisions of this subsection, the PRC and/or CPE will have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due or to become due to the Contractor.

106.08 LPA-Furnished Material. Furnish all materials required to complete the Work, except when otherwise provided in the Proposal.

The LPA will deliver the LPA-furnished materials to the Contractor at the points specified in the Contract Documents.

Include the cost of handling and placing of all LPA-furnished materials in the contract price for the contract item for which they are used.

The LPA will hold the Contractor responsible for all material upon delivery of the materials to the Project site. The LPA will make deductions from any monies due the Contractor to make good any shortages and deficiencies, for any cause whatsoever, and for any damage that may occur after such delivery, and for any demurrage charges.

106.09 Steel Products Made in the United States. Furnish steel products that are made in the United

States according to the applicable provisions of State of Ohio laws, ORC 153.011 and 5525.21. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States.

A. State Requirements. All steel products used in the Work for load-bearing structural purposes must be made from steel produced in the United States. State requirements do not apply to iron.

B. Execptions. The Director may grant specific written permission to use foreign steel products in bridge construction. The Director may grant such expections under either of the following conditions:

1. The cost for each contract item used does not excee 0.1 percent of the total contract cost, or $2,500, whichever is greater. For the purposes of this section, the cost is the value of the steel product as delivered to the project.
2. The Director determines that specified steel materials are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet contract requirements.

C. Proof of Domestic Origin. Furnish documentation to the Engineer showing the domestic origin of all steel products covered by this section, before they are incorporated into the Work. Products without a traceable domestic origin will be treated as a non-domestic product.

106.10 Qualified Products List. The LPA may use Qualified Product Lists (QPL) for approval of manufactured materials. The Office of Materials Management (OMM) will maintain the QPL and the standard procedure for the QPL process. Inclusion of a material onto the QPL will be determined by OMM with support from other Department offices. To be kept on the QPL, manufacturers must recertify their material according to the Department's standard procedure by January 1 of each year. When a material requires QPL acceptance, only provide materials listed on the QPL at the time of delivery of the material to the project. Provide the Engineer documentation according to the Department's standard procedure that, at the time of delivery, the material provided is on the QPL.

106.11 Maritime Transportation. On federal-aid projects, ensure that project-specific materials or equipment transported by ocean vessel are in compliance with 46 CFR 381 and the Cargo Preference Act. Transport at least 50% of any equipment or materials on privately owned United Statesflag commercial vessels, if available.

106.12 Traffic Authorized Product. The LPA may use Traffic Authorized Product (TAP) List for approval of products used in Intelligent Transportation Systems (ITS) or Traffic Signal Systems. The ODOT Office of Traffic Operations will maintain the TAP and the standard procedure for the TAP process. Inclusion of a product onto the TAP will be determined by Office of Traffic Operations with support from other Department offices. To be kept on the TAP, manufacturers must recertify their product according to the Department's standard procedure by February 28 of each year. When a product requires TAP acceptance, only provide products listed on the TAP at the time of delivery of the product to the project. Provide the Engineer documentation according to the LPA's standard procedure that, at the time of delivery, the material provided is on the TAP.

7. 107 LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107.01 Laws to be Observed. Stay fully informed of all Federal and State laws, all local laws, ordinances, and regulations, and all orders and decrees of authorities having any jurisdiction or authority that affect those engaged or employed on the Work, or that affect the

conduct of the Work. Observe and comply with all such laws, ordinances, regulations, orders, and decrees. The Contractor shall protect and indemnify the State, respective Local and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees, subcontractors, or agents.

The Contractor, under Title VI of the Civil Rights Act and related statutes, agrees that in the hiring of employees for the performance of Work under this Contract or any subcontract hereunder, neither the Contractor, the subcontractor, nor any person acting on behalf of such Contractor or subcontractor shall, by reasons of race, religion, color, sex, national origin, disability or age, discriminate against any citizen of the United States in the employment of labor or workers, who is qualified and available to perform the Work to which the employment relates.

Neither the Contractor, the subcontractor, nor any person on their behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of Work under this Contract on account of race, religion, color, sex, national origin, disability or age.

Comply with OAC-4123:1-3, entitled "Specific Safety Requirements of the Industrial Commission of Ohio Relating to Construction," as amended, and with the Federal Occupational Safety and Health Act of 1970 and Code of Federal Regulations, Title 29, Chapter XVII, Part 1926 and as amended.

107.02 Permits, Licenses, and Taxes. Procure all permits and licenses; pay all charges, fees, and taxes; and provide all notices necessary and incidental to the due and lawful prosecution of the Work.

107.03 Patented Devices, Materials, and Processes. Before employing any design, device, material, or process covered by letters of patent or copyright, provide for its use by suitable legal agreement with the patentee or owner. The Contractor and the Surety shall indemnify and save harmless the State, respective Local, any affected third party, or political subdivision from any and all claims for infringement of patented design, device, material, process, or any trademark or copyright, and shall indemnify the State for any costs, expenses, and damages that it may be obliged to pay by reason of any infringement, at any time during the prosecution or after the completion of the Work.

107.04 Restoration of Surfaces Opened by Permit.

Contractor shall obtain a Road Opening Permit from the City for any work performed on City property outside the construction limits of the project.

107.05 Federal-Aid Provisions. When the United States Government pays for all or any portion of the Project's cost, the Work is subject to the inspection of the appropriate Federal agency.

Such inspections will not make the Federal Government a party to this Contract. The inspections will in no way interfere with the rights of either party to the Contract.

107.06 Sanitary Provisions. Provide and maintain sanitary accommodations in a neat condition for the use of employees and LPA representatives that comply with the requirements of the State and local Boards of Health, or of other authorities having jurisdiction over the Project.

107.07 Public Convenience and Safety. At all times, ensure that the Work interferes as little as possible with the traffic. Provide for the safety and convenience of the general public and the

residents along the highway and the protection of persons and property. Do not close any highways or streets unless specifically allowed by the Contract.

Any illegal drugs, drug paraphernalia, mobile drug labs or dumps, weapons or firearms found on the Project Right of Way shall be considered a potential crime scene and shall not be handled or moved. Immediately notify law enforcement and the Project Engineer.

107.08 Bridges Over Navigable Waters. Conduct all Work on navigable waters so that it does not interfere with free navigation of the waterways and that it does not alter the existing navigable depths, except as allowed by permit issued by the U.S. Coast Guard. Work within the flood plain of a navigable stream may require a permit from the U.S. Army Corps of Engineers. If an U.S. Army Corps of Engineers permit is required, provide all documentation submitted to obtain the permit(s) and a copy of the permit(s) to the LPA.

107.09 Use of Explosives. When the use of explosives is necessary for the prosecution of the Work, exercise the utmost care not to endanger life or property, including new Work. The Contractor is responsible for all damage resulting from the use of explosives.

Obtain written permission to perform in-stream blasting from the Chief of the Division of Wildlife, Ohio DNR according to ORC 1533.58. Provide the Engineer with all documentation submitted to obtain this permit and with a copy of the permit.

The Contractor agrees, warrants, and certifies that it will observe State laws and local ordinances and regulations relative to the use and storing of explosives kept on the Project site.

Perform all blasting operations according to Item 208.

107.10 Protection and Restoration of Property. The Contractor is responsible for the preservation of all public and private property impacted by the Contractor's operations.

The Contractor is responsible for all damage or injury to property, during the prosecution of the Work, resulting from any act, omission, neglect, defective work or materials, or misconduct in the manner or method of executing the Work. The Contractor will remain responsible for all damage and injury to property until the Project is accepted under Modified General Conditions, pages 53 through 56, paragraphs 15.03, 15.05, and 15.06, except for portions of the Work accepted under Modified General Conditions, page 54, paragraph 15.04.

If the Contractor causes any direct or indirect damage or injury to public or private property by any act, omission, neglect, or misconduct in the execution or the non-execution of the Work, then it must restore, at its own expense, the property to a condition similar or equal to that existing before the damage or injury.

If mail boxes, road, or street name signs and supports interfere with the Work, then remove and erect them in a temporary location during construction in a manner satisfactory to and as directed by the Engineer. After completion of the Work and before final acceptance of the Project, erect the mailboxes, road, or street name signs and supports in their permanent locations according to the plans unless otherwise directed by the Engineer. Consider the cost of this Work as incidental to the affected items.

Cooperate with the Engineer in protecting and preserving survey monuments that are affected by the Work. At the beginning of the Work, verify the position of all survey monuments in the area to be improved, according to 623. If survey monuments not shown in the Contract Documents are unexpectedly encountered, then protect, reference, and preserve them in the same manner as survey monuments that are shown in the Contract Documents.

Do not create staging areas, store materials and equipment, or borrow or waste materials in areas labeled as an environmental resources areas in the Contract Documents. All properties to be utilized by the Contractor outside the project Work Limits must be cleared for all

environmental resource impacts prior to the beginning of work. Environmental resources include but may not be limited to:

1. Cultural Resources

a. Buildings, structures, objects, and sites eligible for or listed on the National Register of Historic Places

b. Historic or prehistoric human remains, cemeteries, and/or burial sites (pursuant with ORC 2909.05 and 2927.11

2. Ecological Resources

a. Wetlands

b. Streams

c. Wooded areas with trees to be removed in excess of 8 inches diameter at breast height

3. Public Lands

a. Lands meeting the criteria of 49 U.S.C. 303, 23 CFR 771.I35: 4(f).

b. Lands meeting the criteria of 16 U.S.C. 4601-4, 36 CFR 59.1: 6(f).

4. FEMA Mapped 100 year Floodplains

5. Hazardous Waste Areas

Except for locations utilized specifically for:

1. Parking of equipment between workdays for maintenance type projects:
2. Reuse of Clean Hard Fill as described in CA-EW-20 (ODOT Beneficial Reuse Form). Prior to transferring Clean Hard Fill from the project, fully execute form CA-EW-20 and provide appropriate documentation to the Engineer as described for each reuse option.

All areas proposed to be utilized by the Contractor outside the project construction limits and not described above shall be reviewed by environmental Contractor(s) that are prequalified by the Department for each environmental resource. Exception (1.) noted above only applies to projects with "maintenance" in the project description. Have the consultant(s) certify that the proposed site to be utilized for the Contractor will not impact:

1. Cultural Resources
2. Ecological Resources
3. Public Lands
4. FEMA Mapped 100 year Floodplains
5. Hazardous Waste Areas

Provide all documentation and the consultant certification to the District Office of Environmental Services with a copy to the Engineer.

Should the areas proposed for use by the Contractor outside the project right of way limits contain environmental resources the Contractor is responsible to the LPA for all environmental clearances and permits prior to the beginning of work.

107.11 **Contractor's Use of the Project Right-of-Way or Other LPA-Owned Property.**

A. Disposal of Waste Material and Construction Debris and Excavation of Borrow on the Project Right-of-Way or on Other LPA-Owned Property. Dispose of waste material according to 105.16 and dispose of construction debris according to 105.17. In addition to the rights granted in 104.03, the Contractor's use of the Project Right-of-Way or other LPA-owned property for the disposal of waste material and construction debris and excavation of borrow material is restricted as follows:

1. If the Contract Documents identify locations for the disposal of waste material and construction debris or excavation of borrow material within the Project Right-of-Way or on other LPAowned property, then only perform these operations in these designated locations.
2. If the Contract Documents do not identify locations for the disposal of waste material and construction debris or excavation of borrow material within the Project Right-of-Way or on other LPAowned property, then do not Bid assuming that the LPA will make such locations available.

If the Contractor's request to use locations within the Project Right-of-Way or on other LPAowned property is approved by the Engineer, then the LPA may allow the Contractor to dispose of waste material and construction debris or excavate borrow material for a fee of $0.50 per cubic yard.

B. Contractor's Use of Portable Plants Within the Project Right-of-Way or on Other LPAOwned Property. The Contractor's use of portable plants within the Project Right-of-Way or on other LPA-owned property is limited as follows:

1. If the Contract Documents identify locations within the Project Right-of-Way or on other LPA-owned property to place a portable plant, then only place a portable plant in these designated locations subject to the requirements of 107.11.C.
2. If the Contract Documents do not identify locations within the Project Right-of-Way or on other LPA-owned property to place a portable plant, then do not bid assuming that the LPA will make such locations available.

C. Placement of a Portable Plant within the Project Right-of-Way or on Other LPA-Owned Property. To place a portable plant within the Project Right-of-Way or on other LPA-owned property, comply with the following requirements:

1. Local noise ordinances.
2. Obtain any necessary EPA permits for the operation of the plant. Provide the LPA with a copy of the information submitted to obtain the permit and a copy of the permit.
3. Provide the Engineer written certification that the plant will supply material only for the Project for which it was approved. Do not use the plant to supply any other project or to sell materials commercially.
4. Submit a traffic control plan to the Engineer for approval that details the anticipated truck movements and provides acceptable protection, warning, and guidance to motorists, pedestrians, and the workers.

D. Equipment Storage and Staging. The Contractor may use, fee-free, any portion of the Project within the Project Right-of-Way for staging, equipment storage, or an office site with the

approval of the Engineer, provided such usages do not interfere with the Work and are not prohibited by the Contract Documents. Do not bid in anticipation of using any properties within the Project Right-ofWay or LPA-owned property outside the Project Right-of-Way for equipment storage or staging.

E. Equipment Removal and Site Restoration. Remove all Contractor equipment and completely restore all utilized sites used as required by 104.04 before Final Acceptance as provided in, Modified General Conditions, pages 53 through 56, paragraphs 15.03, 15.05, and 15.06.

107.12 Responsibility for Damage Claims and Liability Insurance. The Contractor shall indemnify and save harmless the State and all of its representatives, municipalities, counties, public utilities, any affected railroad or railway company, and any fee owner from whom a temporary Rightof-Way was acquired for the Project from all suits, actions, claims, damages, or costs of any character brought on account of any injuries or damages sustained by any person or property on account of any negligent act or omission by the Contractor or its subcontractors or agents in the prosecution or safeguarding of the Work.

The Contractor shall procure and maintain insurance for liability for damages imposed by law and assumed under this Contract, of the kinds and in the amounts hereinafter provided from insurance companies authorized to do business in the State by the Ohio Department of Insurance. The cost of insurance is incidental to all contract items. Before the execution of the Contract by the PRC , furnish to the LPA a certificate or certificates of insurance in the form satisfactory to the LPA demonstrating compliance with this subsection. Provide an insurance certificate or certificates that show that the Contractor's liability and auto policies coverage are not reduced, restricted, or canceled until 30 days written notice has been given to the LPA by the insurer.

. Upon request, the Contractor shall furnish the LPA with a certified copy of each policy, including the provisions establishing premiums.

The types and minimum limits of insurance are as follows:

A. Workers' Compensation Insurance. Comply with all provisions of the laws and rules of the Ohio Bureau of Workers' Compensation covering all operations under Contract with the LPA whether performed by it or its subcontractors. In addition, if a portion of the Work is performed from a barge or ship or requires unloading material from a barge or ship on a navigable waterway of the United States, it is the responsibility of the Contractor to arrange coverage for that portion of the Work under the Longshore and Harborworkers' Compensation Act [33 USC Section 901 *et seq.*] and the Jones Act [5 USC Section 751 *et seq.*] and provide proof of coverage to the Department.

B. Commercial General Liability Insurance. The minimum limits for liability insurance are as follows:

General Aggregate Limit	$2,000,000
Products - Completed Operations Aggregate Limit	$2,000,000
Personal and Advertising Injury Limit	$1,000,000
Each Occurrence Limit	$1,000,000

Obtain the above minimum coverages through primary insurance or any combination of primary and umbrella insurance. In addition, the LPA will require the General Aggregate Limit on a per project basis.

Ensure that the Commercial General Liability Insurance policy names the State of Ohio, Local Public Agency, its officers, agents, and employees as additional insureds with all rights to due notices in the manner set out above. Obtain Explosion, Collapse, and Underground (XCU) coverage at the same limits as the commercial general liability insurance policy. In addition, if blasting is to be performed, obtain XCU coverage providing a minimum Aggregate Limit of $5,000,000 and Each Occurrence Limit of $1,000,000. Submit proof of insurance, endorsements, and attachments to the Engineer prior to starting the Work.

C. Comprehensive Automobile Liability Insurance. The Comprehensive Automobile Liability policy shall cover owned, non-owned, and hired vehicles with minimum limits as follows:

Bodily Injury and Property Damage Liability Limit	
Each Occurrence	$1,000,000

Insurance coverage in the minimum amounts set forth neither relieves the Contractor from liability in excess of such coverage, nor precludes the LPA from taking such other actions as are available to it under any other provisions of this Contract or otherwise in law.

Clearly set forth all exclusions and deductible clauses in all proof of insurance submitted to the LPA. The Contractor is responsible for the deductible limit of the policy and all exclusions consistent with the risks it assumes under this Contract and as imposed by law.

If the Contractor provides evidence of insurance in the form of certificates of insurance, valid for a period of time less than the period during which the Contractor is required by terms of this Contract, then the LPA will accept the certificates, but the Contractor is obligated to renew its insurance policies as necessary. Provide new certificates of insurance from time to time, so that the LPA is continuously in possession of evidence that the Contractor's insurance is according to the foregoing provisions.

If the Contractor fails or refuses to renew its insurance policies or the policies are canceled or terminated, or if aggregate limits have been impaired by claims so that the amount available is under the minimum aggregate required, or modified so that the insurance does not meet the requirements of 107.12.C, the LPA may refuse to make payment of any further monies due under this Contract or refuse to make payment of monies due or coming due under other contracts between the Contractor and the LPA. The LPA in its sole discretion may use monies retained pursuant to this subsection to renew or increase the Contractor's insurance as necessary for the periods and amounts referred to above. Alternatively, should the Contractor fail to comply with these requirements, the LPA may default the Contractor and call upon the Contractor's Surety to remedy any deficiencies. During any period when the required insurance is not in effect, the Engineer may suspend performance of the Contract. If the Contract is so suspended, the Contractor is not entitled to additional compensation or an extension of time on account thereof.

Nothing in the Contract Documents and insurance requirements is intended to create in the public or any member thereof a third party beneficiary hereunder, nor is any term and condition or other provision of the Contract intended to establish a standard of care owed to the public or any member thereof.

107.13 Reporting, Investigating, and Resolving Motorist Damage Claims.

Reporting, Investigating, and Resolving Motorist Damage Claims. The Contractor and the Department are required to report, investigate, and resolve motorist damage claims according to 107.10 and 107.12 and as follows. When a motorist reports damage to its vehicle either verbally or in writing to the Contractor, the Contractor shall within 3 days make and file a written report to the Owner and also file a report with the its insurance carrier. In the event that the Owner directly receives the motorist's claim, the Owner shall within 3 days send the claim report to the Contractor. In the event the Contractor has not agreed to resolve the motorist claim, the Owner, who, as a co-insured party, may then contact the Contractor's insurance company and request that the insurance company investigate and resolve the claim. If the Contractor or their insurance company does not resolve the claim in a timely manner, the may advise the motorist of the option of pursuing the claim in the Court of Common Pleas for Stark County Ohio. In the event of a lawsuit filed against the of Claims by the motorist, the Owner, as co-insured party, may request the Contractor's insurance company to defend this lawsuit and hold the Owner ~~Department~~ harmless according to 107.12. If the lawsuit claim amount is $2,500 or less and the Owner determines that the Contractor is responsible for the claimed damages then the Owner, may, after notifying the Contractor, determine that it would be in the best interest of the Owner to settle the claim. Any settlement amount including court costs may be assessed to the Contractor and deducted from the project. The Engineer will notify the Contractor prior to executing the deduction.

107.14 Opening Sections of Project to Traffic. The Engineer may order the Contractor to open a section of the Work to the safe use of traffic at any time. The LPA will make an adjustment according to Modified General Conditions, page 41, paragraph 11.05. and 109.05 to compensate the Contractor for the added costs and delay, if any, resulting from such an opening.

107.15 Contractor's Responsibility for Work. Until the Final Inspector accepts the Work at Final Completion, the Contractor is responsible for the Project and will take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the Work. Rebuild, repair, restore, and make good all injuries or damages to any portion of the Work occasioned by any of the above causes before final acceptance. Bear the expense of the repairs except when damage to the Work was due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor. Unforeseeable causes include but are not restricted to; (a) earthquake, floods, tornados, high winds, lightning or other catastrophes proclaimed a disaster or emergency, (b) slides, (c) civil disturbances, or (d) governmental acts.

In the event that the Engineer determines that damage to completed permanent items of Work results from traffic using a substantially completed section of Roadway, the LPA may

compensate the Contractor for repair of the damage as authorized by Change Order. Additionally, if traffic permanently damages beyond use and of the following temporary maintenance of traffic items, the LPA may compensate the Contractor for replacement of the item as authorized by Change Order:

1. Arrow board.
2. Work zone signal, pole, or controller.
3. Lighting unit or pole.
4. Changeable message sign.
5. Work Zone Impact Attenuator
6. Truck Mounted Impact Attenuator
7. Digital Speed Limit Sign Assembly

To receive compensation for the damage to permanent items of Work or temporary maintenance of traffic items names above, the Contractor must first meet the following requirements.

A. Notify the Engineer of each occurrence of damage in writing within 10 Calendar Days.

B. Contact the local law enforcement agency to determine if the accident was investigated and a report filed. If an accident report was filed, obtain the report and notify the motorist, and copy their insurance company, via certified mail informing both that the motorist is responsible for the cost of damage repairs. If the motorist does not respond within 30 days, make a second attempt to contact the motorist and copy the insurance company via certified mail.

C. If no response is received from the motorist or insurance company within 30 days of the motorist receipt of the second notice, send a letter to the Engineer within eighteen months of the event and include documentation of good faith effort to seek recovery from responsible parties.

D. The LPA will make an adjustment according to Modified General Conditions, page 10, paragraph 4.05 and Modified General Conditions, page 40, paragraph 11.04.C, and page 43, paragraph 13.01 to compensate the Contractor for the added costs and delays, if any, resulting from the repair or replacement of damaged Work.

If there is no accident report on file and no means of identifying the responsible motorist, the Contractor may likewise be compensated to repair the damaged Work.

In case of suspension of Work by the Contractor or under the provisions of 105.01, the Contractor is responsible for the Project and shall take necessary precautions to prevent damage to the Project; provide for normal drainage; and erect any necessary temporary structures, signs, or other facilities at its expense. During such period of suspension of Work, properly and continuously maintain in an acceptable growing condition all living material in newly established plantings, seedings, and soddings furnished under the Contract, and take adequate precautions to protect new tree growth and other important vegetative growth against injury.

The Engineer may direct the Contractor to remove graffiti any time during the Work. The LPA will make an adjustment according to Modified General Conditions, page 10, paragraph 4.05 and Modified General Conditions, page 40, paragraph 11.04.C, and page 43, paragraph 13.01 to compensate the Contractor for the added costs and delays, if any, resulting from all ordered graffiti removal.

107.16 Contractor's Responsibility for Utility Property and Services. At points where the Contractor's operations are adjacent to properties of railway, cable, telephone, and power companies, or are adjacent to other property, and any damage to their property may result in considerable expense, loss, or inconvenience, do not commence with the operation until all arrangements necessary for the protection of the property have been made.

Cooperate with the owners of any underground or overhead utility lines in their removal and rearrangement operations to ensure these operations progress in a reasonable manner, that duplication of rearrangement Work may be reduced to a minimum, and that services rendered by those parties will not be unnecessarily interrupted.

In the event interruption to underground or overhead utility services results from an accidental breakage or from being exposed or unsupported, immediately alert the occupants of nearby premises as to any emergency that the accidental breakage may create at or near such premises. Then notify the Engineer and the owner or operator of the utility facility of the disruption and cooperate with the said utility owner or operator in the restoration of service. If water service is interrupted, perform the repair work continuously until the service is restored unless the repair work is performed by the local governmental authority. Do not begin Work around fire hydrants until the local fire authority approves provisions for continued service.

107.17 Furnishing Right-of-Way. The LPA is responsible for securing all necessary Right-ofWay in advance of construction. The Bid Documents will indicate any exceptions. The LPA will notify all prospective Bidders in writing before the date scheduled for receipt of Bids regarding the specific dates certain parcels will be made available to the Contractor.

107.18 No Waiver of Legal Rights. The following LPA actions do not waive the LPA's rights or powers under the Contract, or any right to damages herein provided:

A. Inspection by the Engineer or by any of Engineer's duly authorized representatives.

B. Any order, measurements, or certificate by the PRC and/or CPE, or LPA representatives.

C. Any order by the PRC and/or CPE or LPA representatives for the payments of money or the withholding of money.

D. Acceptance of any Work.

E. Any extension of time.

F. Any possession taken by the LPA or its duly authorized representatives.

The LPA will not consider any waiver of a breach of this Contract to be a waiver of any other subsequent breach.

107.19 Environmental Protection. Comply with all Federal, State, and local laws and regulations controlling pollution of the environment. Avoid polluting streams, lakes, ponds, and reservoirs with fuels, oils, bitumens, chemicals, sediments, or other harmful materials, and

avoid polluting the atmosphere with particulate and gaseous matter. Owner has not acquired any permits unless expressly provided for in the contract documents.

By execution of this contract, the Contractor, will be deemed to have stipulated as follows:

A. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

B. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

C. That the firm shall promptly notify the LPA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

D. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

Fording of streams is prohibited. Causeways for stream and river crossings or for Work below a bridge are permitted provided:

A. The causeway complies with the requirements of the 404 Permit the LPA obtained for the Project.

B. The Contractor obtains a 404 Permit from the U.S. Army Corps of Engineers if the LPA has not obtained such a permit. Obtain the 404 Permit prior to beginning construction of the causeway. The LPA does not guarantee that the Contractor will be able to obtain a 404 Permit.

Comply with all current provisions of the Ohio Water Pollution Control Act (OWPCA), (ORC Chapter 6111). The LPA will obtain a storm water permit under the OWPCA provisions when the plan work acreage requires a permit. Apply for a permit to cover operations outside the Project limits shown on the plans as required by the OWPCA provisions. When the LPA has not applied for a permit on the Project and a permit is required under the provisions of the OWPCA because of the total area of the Contractor's work, apply for, obtain, and comply with the required permit for both the Work within Project limits and the Contractor's work.

The LPA has obtained the required permits from the U.S. Army Corps of Engineers and Ohio EPA for Work in the "Waters of the United States" and isolated wetlands under ORC Chapter 6111. Comply with the requirements of these permits.

When equipment is working next to a stream, lake, pond, or reservoir, appropriate spill response equipment is required. Do not stockpile fine material next to a stream, lake, pond, or reservoir.

Take precautions to avoid demolition debris and discharges associated with the excavation and hauling of material from entering the stream. Remove any material that does fall into the stream as soon as possible.

When excavating in or adjacent to streams, separate such areas from the main stream by a dike or barrier to keep sediment from entering the stream. Take care during the construction and removal of such barriers to minimize sediment entering the stream.

Contain, collect, characterize and legally dispose of all liquid waste and sludge generated during the work. Do not mix wastes with storm water. Do not discharge any liquid waste without the appropriate regulatory permits. Manage liquid waste and sludge in accordance with ORC Chapter 6111 and all other laws, regulations, permits and local ordinances relating to this waste. Liquid waste management is incidental to the Work unless otherwise specified in the contract.

Control the fugitive dust generated by the Work according to OAC-3745-17-07(B), OAC-3745-1708, OAC-3745-15-07, and OAC-3745-17-03 and local ordinances and regulations. Prior to the initiation of abrasive coating removal, pavement cutting or any other construction operation that generates dust, demonstrate to the Engineer that construction related dust will be controlled with appropriate Reasonable Available Control Measures (RACM) as described in OEPA Engineering Guide #57.

In addition, use dust control measures when fugitive dust creates unsafe conditions as determined by the Engineer. Perform this work without additional compensation except for Item 616.

Perform open burning according to 105.16.

107.20 Civil Rights. Comply with Federal, State, and local laws, rules, and regulations that prohibit unlawful employment practices including that of discrimination because of race, religion, color, sex, national origin, disability or age and that define actions required for Affirmative Action and Disadvantaged Business Enterprise (DBE) programs.

107.21 Prompt Payment. In accordance with ORC 4113.61, make payment to each subcontractor and supplier within 10 Calendar Days after receipt of payment from either the Department or LPA for Work performed or materials delivered or incorporated into the Project, provided that the pay estimate prepared by the Engineer includes Work performed or materials delivered or incorporated into the public improvement by the subcontractor or supplier. Contractors are prohibited from holding retainage from subcontractors that can provide a bond. For unbonded subcontractors and suppliers, promptly release any retainage held, as set forth in any subcontractor or supplier agreement, 30 days after the work is satisfactory completed. For the purposes of this section, satisfactory completed will be interpreted as when the subcontractor has completed all physical work and submitted any necessary documentation required by the specifications and the LPA. No subcontract provision shall permit the Contractor to delay subcontractor's retainage payments until the Project's final payment.

Also require that this contractual obligation be placed in all subcontractor and supplier contracts that it enters into and further require that all subcontractor and suppliers place the same payment obligation in each of their lower tier contracts. If the Contractor, subcontractors, or supplier subject to this provision fail to comply with the 10 Calendar Day requirement, the offending party shall pay, in addition to the payment due, interest in the amount of 18 percent per annum of the payment due, beginning on the eleventh Calendar Day following the receipt of payment from either the Department or LPA and ending on the date of full payment of the payment due plus interest.

Repeated failures to pay subcontractors and suppliers timely pursuant to this subsection will result in a finding by the LPA that the Contractor is in breach of Contract and subject to all legal consequences that such a finding entails. Further, repeated failures to pay timely pursuant to this

subsection will result in a lower evaluation score for the Contractor and those subcontractors who are subject to evaluation by the Department.

107.22 Unmanned Aircraft Systems. If the project requires or anticipates the use of Unmanned Aircraft Systems within LPA Right of Way, the Contractor will follow proper risk assessment and federal regulations in accordance with Supplement 1132.

8. 108 PROSECUTION AND PROGRESS

108.01 Subletting of the Contract. Perform Work amounting to not less than 30 percent of the Contract Price with its own organization. The phrase "its own organization" includes only workers employed and paid directly, inclusive of employees who are employed by a lease agreement acceptable to the LPA, and equipment owned or rented with or without operators by the Contractor. The phrase does not include employees or equipment of a subcontractor, assignee, or agent of the Contractor. Provide ODOT Division of Opportunity, Diversity, and Inclusion with a copy of all Disadvantaged Business Enterprise subcontracts.

The Contractor's percentage of the total Contract Price includes the cost of materials and manufactured products purchased by the Contractor, but not the cost of materials and manufactured products purchased by subcontractors.

The PRC or CPE will calculate the Contractor's percentage based on the quantities shown in the Proposal and the unit prices of the contract items to be performed by the Contractor's organization. If the Contractor performs only a portion of a contract item, then the PRC or CPE will determine the proportional value administratively on the same basis. The PRC or CPE will follow this procedure even when the part not subcontracted consists only of the procurement of materials. However, if a firm both sells the materials to the Contractor and performs the Work of incorporating the materials into the Project, then the PRC or CPE will consider these two phases in combination and as a single subcontract. If an affiliate of the firm either sells the materials or performs the Work, the LPA may refuse approval. An affiliate is one who has some common ownership or other close relation to said firm.

Use actual subcontract prices for calculating compliance with any Disadvantaged Business Enterprise (DBE) percentage subcontracting obligations. If only a part of a contract item is sublet, then determine its proportional value administratively on the same basis. The PRC and/or CPE will follow this procedure even when the part not sublet consists only of procuring materials. However, if a firm both sells the materials to the Contractor and performs the work of incorporating the materials into the Project, then the LPA will consider these two phases in combination and as a single subcontract. If an affiliate of the firm either sells the materials or performs the Work, the LPA may refuse approval.

108.02 Preconstruction Meeting.

Meet with the Engineer for a Preconstruction Meeting before beginning the Work. At or before the meeting, submit the initial progress schedule to the PRC. Prepare the schedule according to 108.03.

Furnish a list of proposed subcontractors and material suppliers at or before the Preconstruction Meeting. If the Contractor fails to provide the required submissions at or before the Preconstruction Meeting, the Engineer may order the meeting suspended until they are furnished. Do not begin the Work until the meeting is reconvened and concluded or the Engineer gives specific written permission to proceed.

C. **Progress Meetings.** Hold monthly Progress Meetings unless the frequency is otherwise determined at the Preconstruction Meeting. Coordinate with the Engineer to determine agenda topics prior to each meeting. The purpose of Progress Meetings is to keep open communication between the Contractor and the Engineer. The senior personnel team is encouraged to participate in all Progress Meetings. Include Partnering as an agenda item at the Progress Meetings.

D. **Post-milestone Meeting.** In conjunction with the PRC and/or CPE, determine whether the Postmilestone Meeting will be conducted as part of the Progress Meeting or as a separate meeting for multiyear, multi-phase, or projects with critical items of work or milestone dates. Consider discussing and updating items from the Initial Partnering Session in addition to items specific to the Project. All stakeholders should be invited to attend.

E. **Partnering Monitoring.**

Not used.

F. **Mitigation and Notice.** Mitigation of any issue, whether caused by the LPA, Contractor, third party or an intervening event, is a shared contract and legal requirement. Mitigation efforts include, but are not limited to, re-sequencing work activities, acceleration, and substitution of materials. The Contractor and Engineer must explore and discuss potential mitigation efforts in a timely manner.

1. **Contractor Initial Oral Notification.** Provide immediate oral notification to the PRC and/or CPE upon discovering a circumstance that may require a revision to the Contract Documents or may result in a dispute. Upon notification, the Engineer will attempt to resolve the identified issue as quickly as possible.
2. **Contractor Written Early Notice.** If the PRC and/or CPE has not resolved the identified issue within two (2) working days after receipt of oral notification, provide written notice to the PRC and/or CPE of any circumstance that may require a revision to the Contract Documents or may result in a dispute. This early notice must be given by the end of the second working day following the occurrence of the circumstance.

The PRC and/or CPE and Contractor shall maintain records of labor, equipment, and materials used on the disputed work or made necessary by the circumstance. Such records will begin when early notice is received by the PRC and/or CPE. Tracking such information is not an acknowledgement that the LPA accepts responsibility for payment for this disputed work.

If an issue is not resolved through the initial mitigation efforts, either abandon or escalate to the Dispute and Administrative Claims Process defined in 108.02.G.

G. **Dispute Resolution and Administrative Claims Process.** Whenever an issue is elevated to a dispute, the parties shall exhaust the LPA's Dispute Resolution and Administrative Claim process set forth below as a condition precedent to filing an action in the Ohio Court of Claims. The following procedures do not otherwise compromise the Contractor's right to seek relief in any Ohio Court with legal jurisdiction.

All parties to the dispute must adhere to the Dispute Resolution and Administrative Claim process. Do not contact LPA personnel who are to be involved in higher tiers until a decision

has been issued by the previous tier. LPA personnel involved in higher steps reviews will not consider a dispute until the previous tier has properly reviewed the dispute and issued a decision.
Failure to meet any of the timeframes outlined below or to request an extension will terminate further review of the dispute and serve as a waiver of the Contractor's right to file a claim. Disputes and claims by subcontractors and suppliers may be pursued by the Contractor on behalf of subcontractors or suppliers. Disputes and claims by subcontractors and suppliers against the LPA but not supported by the Contractor will not be reviewed by the LPA. Disputes and claims of subcontractors and suppliers against the Contractor will not be reviewed by the LPA.
Continue with all Work during the Dispute Resolution and Administrative Claims process, including that which is in dispute. The LPA will continue to pay for Work.
The LPA will not make the adjustments allowed by 104.02.B, 104.02.C, and 104.02.D if the Contractor did not give notice as specified in 108.02.F.1 and 108.02.F.2. This provision does not apply to adjustments provided in Table 104.02-2. See Modified General Conditions, page 42, Article 12, and page 59, Article 17.

108.03 Prosecution and Progress. Start the Work according to 108.02. Notify the Engineer at least 24 hours before starting the Work. If the prosecution of the Work is suspended, notify the Engineer a minimum of 24 hours in advance of resuming operations.

Pursue the Work diligently and continuously as to complete the Project by the Completion Date. **A.** Progress Schedule.

1. General. Furnish a bar chart progress schedule to the PRC and/or CPE for review at or before the Preconstruction Meeting. The Engineer will review the schedule and within 14 calendar days of receipt, will either accept the schedule or provide the Contractor with comments. Acceptance of the schedule does not revise the Contract Documents. Provide clarification or any needed additional information within 10 days of a written request by the Engineer. The LPA will withhold Estimates until the Engineer accepts the schedule. The Engineer will not measure or pay for the preparation of the schedule and schedule updates directly, but the cost of preparing and updating the schedule is incidental to all Contract Items.

a. Include the following Administrative Identifier Information:
   (1) Project Number
   (2) County
   (3) Route Number
   (5) PID Number
   (8) Completion Date
   (9) Contractor's Name
   (10) Contractor's Dated Signature
   (11) LPA's Dated Acceptance Signature

Provide a working day schedule that shows the various activities of Work in sufficient detail to demonstrate a reasonable and workable plan to complete the Project by the Completion Date. Show the order and the sequence for accomplishing the Work. Describe all activities in sufficient detail so that the Engineer can readily identify the Work and measure the progress of each activity. The bar chart schedule must reflect the scope of work, required phasing, maintenance of traffic requirements, interim completion dates, the Completion Date, and other project milestones established in the Contract Documents. Include activities for submittals,

working and shop drawing preparation, submittal review time for the LPA, material procurement and fabrication, and the delivery of materials, plant, and equipment, and other similar activities. The schedule must be detailed on letter or legal sized paper.

b. Activity requirements are discussed in further detail as follows:

(1) Activity Description. Assign each activity an unambiguous descriptive word or phrase. For example, use "Excavate Area A," not "Start Excavation."

(2) Activity Original Duration. Indicate a planned duration in calendar days for each activity. Do not exceed a duration of 20 working days for any activity unless approved by the Engineer. Do not represent the maintenance of traffic, erosion control, and other similar items as single activities extending to the Completion Date. Break these Contract Items into component activities in order to meet the duration requirements of this paragraph.

2. **Early Completion Schedule.** An Early Completion Schedule is defined as a baseline schedule or update schedule which anticipates completion of all work prior to the Completion Date established by the contract documents and the Contractor submits as an Early Completion Schedule. In the event that an Early Completion Schedule is accepted, the Engineer will initiate a change order amending the Completion Date to the finish date shown on the accepted Early Completion Schedule. The amended Completion Date will be effective upon execution of that change order and all contract provisions concerning the Completion Date such as incentives, disincentives, excusable delays, compensable delays, and liquidated damages will be measured against the amended Completion Date. The Contractor may elect not to execute the change order amending the Completion Date; however, in so doing, the Contractor waives its rights to delay damages in meeting the projected early Completion Date.

3. **Updated Progress Schedule.** Submit an updated progress schedule when ordered by the Engineer. The Engineer may request an updated progress schedule when progress on the work has fallen more than 14 calendar days behind the latest accepted progress schedule. Information in the updated schedule must include a "% work completed" value for each activity.

4. **Recovery Schedule.** If the progress schedule projects a finish date for the Project more than 14 calendar days later than the Completion Date, submit a revised schedule showing a plan to finish by the Completion Date. The LPA will withhold Estimates until the Engineer accepts the revised schedule. The Engineer will use the schedule to evaluate time extensions and associated costs requested by the Contractor.

108.04 Limitation of Operations. Limit operations to prevent unnecessary inconvenience to the traveling public. If the Engineer concludes that the extent of the Contractor's Work unnecessarily inconveniences the public or concludes limiting operations are necessary to protect the existing or new construction from damage, the Engineer will require the Contractor to finish portions of Work in progress before starting new Work.

108.05 Character of Workers Methods and Equipment. Provide personnel with sufficient skills and experience to perform assigned tasks.

Ensure that no debarred individuals listed on the Federal website: https://www.sam.gov/SAM/pages/public/samStatusTracker.jsf or State debarment list at the website: http://www.dot.state.oh.us/divisions/contractadmin/Pages/default.aspx act in any ownership, leadership, managerial, or other similar position that could influence the operations of an entity doing business with the LPA.

If the Engineer gives written notification that specific Contractor or subcontractor personnel are improperly performing the Work, intemperate, disorderly, or creating a hostile work environment, remove the identified personnel from the Project. Do not allow removed personnel to return to the Project without the Engineer's approval.

The Engineer may suspend the Work by written notice under this subsection for the following reasons:

A. The Contractor does not furnish sufficient skilled and experienced personnel to complete the Project by the Completion Date.

B. The Contractor does not remove personnel from the Project as directed in writing by the Engineer.

Use equipment of sufficient size and mechanical condition to complete the Project by the Completion Date. Ensure that the equipment does not harm the roadway, adjacent property, other highways, workers, or the public.

If the Contract Documents do not prescribe the methods and equipment required to accomplish the Work, determine the methods or equipment necessary to complete the Work according to the Contract. If the Contract Documents specify methods and equipment to perform the Work, use such methods and equipment, unless others are authorized by the Engineer. Obtain the Engineer's written approval before substituting alternate methods or equipment. To obtain the Engineer's approval, submit a written description of the alternate methods and equipment proposed and an explanation of the reasons for making the change. The Engineer's approval of the substitute methods and equipment does not relieve the Contractor of the obligation to produce Work according to 105.03. If after trial use of the substituted methods or equipment, the Engineer determines that the Work does not conform to the Contract Documents, then complete the remaining Work using the specified methods and equipment. Remove all deficient Work and replace it according to the Contract Documents, or take such other corrective action as directed by the Engineer. The Engineer's authorization to substitute alternate methods and equipment will not change the basis of payment for the construction items involved or the Contract Time.

108.06 Determining a Time Extension to the Completion Date and Payment for Excusable Delays.

See Modified General Conditions, page 4.05, page 10.

108.07 Failure to Complete on Time.

A.If the Contractor fails to complete the Work by the Completion Date, then the PRC and/or CPE, if satisfied that the Contractor is making reasonable progress, and deems it in the best interest of the public, may allow the Contractor to continue in control of the Work. The LPA will pay the Contractor for Work performed on the Project less any liquidated damages incurred.

If the Work is not completed by the Completion Date and the PRC and/or CPE permits the Contractor to remain in control, prosecute the Work at as many different places, at such times, and with such forces as the PRC requests. Provide a written plan for the completion of the Work.

For each calendar day that Work remains uncompleted after the Completion Date, the LPA will deduct the sum specified herein from any money due the Contractor, not as a penalty, but as liquidated damages. The Director will adjust the Completion Date or other contractually mandated dates for delays specified in Modified General Conditions, page 10, paragraph 4.05.C,and Modified General Conditions, page 10, paragraph 4.05.A.

Permitting the Contractor to continue and complete the Work or any part of the Work after the Completion Date, or after extensions to the Completion Date, will in no way operate as a waiver on the part of the LPA of any of its rights under the Contract.

Provided the project is available for use as intended by the Contract and the Work remaining will not impact traffic, the Contractor may submit a request that the LPA suspend the assessment of liquidated damages for a stated period of time. For the limited purposes of assessing liquidated damages, the closing of a shoulder is not considered an impact upon traffic. Submit this request within 30 days of the assessment of the liquidated damages. In addition to the written plan required to remain in control of the Work as stated above, this request should include at a minimum the Work left to be completed, the reason(s) the Work is incomplete or on hold, as well as, methods, resources and timelines for pursuing the same. This will define diligent pursuit of the work. Once accepted, and provided both of the following criteria are met, the LPA may suspend the assessment of liquidated damages: **A**. The Contractor is diligently pursuing the remaining Work.

B. Necessary items are completed and operational to provide an appropriate level of safety to the traveling public. These items include but are not limited to signs, pavement markings, guardrail, attenuators, signals and RPM's.

C. The Work remaining will not interfere with the intended use of the project and will not impact traffic. For the limited purposes of assessing liquidate damages, the closing of a shoulder is not considered an impact upon traffic.

D. See Owner Contract Agreement, page OCA-3, paragraph 3.4.

1) 108.08 Unsatisfactory Progress and Default of Contractor. The PRC and/or CPE will notify the Contractor in writing of unsatisfactory progress for any of the following reasons:

A. The Contractor has not commenced the Work by the dates established in the schedule.

B. The Contractor does not proceed with the Work in a manner necessary for completion of the Project by the Completion Date.

C. The Contractor is performing the Work improperly.

D. The Contractor abandons, fails, or refuses to complete the Work.

E. Any other reason the PRC and/or CPE believes jeopardizes completion of the Work by the Completion Date.

If the Contractor does not respond to the satisfaction of the PRC and/or CPE, the PRC and/or CPE may declare the Contractor in default and may notify the Contractor and Surety that the responsibility to complete the Work is transferred to the Surety. Upon receipt of this notification, the Contractor's right to control and supervise the Work will immediately cease. The defaulted Contractor will not be compensated for costs resulting from the default and is not eligible to be retained by the Surety to complete the Work. If it is determined that the LPA's default of the Contractor according to 108.08 is wrongful, then the default will revert to a termination of the Contract according to 108.09.

108.09 Termination of the Contract for Convenience of the LPA. The PRC and/or CPE may terminate the Contract at any time for the convenience of the LPA. The LPA will compensate the Contractor according to Modified General Conditions page 43, paragraph 13.01, page 40, paragraph 11.04.C, and page 58, paragraph 16.03 for termination of the Contract for the convenience of the LPA.

108.10 Payroll Records. Keep payroll records as specified in ORC 4115.07 or as required by Federal law.

Authorized representatives of the PRC and/or CPE may inspect the certified payroll and other payroll records. Upon completion of the Work and before receiving the final estimate and when required by ORC 4115.07, submit an affidavit stating that wages have been paid according to the minimum rates specified in the Contract Documents.

9. 109 ACCEPTANCE, MEASUREMENT, AND PAYMENT

109.01 Measurement of Quantities. The LPA will measure the quantities of Work and calculate payments based on the method of measurement and basis of payment provisions provided in these Specifications. When the following units of measure are specified, the LPA will measure quantities as described below unless otherwise specified in the Contract Documents. The accuracy of individual pay item estimate payments will be one decimal more accurate than the unit of measure denoted for the pay item.

Lump Sum. Not measured. Describes payment as reimbursement for all resources necessary to complete the Work. When a complete structure or structural unit is specified as the unit of measurement, the unit will include all necessary fittings and accessories.

Each. Measured by the number of individual items of Work completed.

Foot (Meter). Measured parallel to the longitudinal base or foundation upon which items are placed, or along the longitudinal surface of the item. Measured vertically to the nearest 0.1 foot (0.01 m), with a minimum vertical measurement of 1 foot (0.10 m), at each unit.

Square Yard or Square Foot (Square Meter). Measured by a two-dimensional area method on the surface of the item.

M Square Feet. One thousand square feet.

Cubic Yard (Cubic Meter). Measured by a three-dimensional volume method. Measure all "loose material" or material "measured in the vehicle" by the cubic yard (cubic meter). Haul material "measured in the vehicle" in approved vehicles and measure in the vehicle at the point of delivery. For this purpose, use approved vehicles of any type or size satisfactory to the Engineer, provided the vehicle's bed is of such type that the actual contents are readily and

accurately determined. Unless all approved vehicles on a job are of uniform capacity, each approved vehicle must bear a legible identification mark indicating the specific approved capacity. The Inspector may reject all loads not hauled in such approved vehicles.

Cubic Yard (Cubic Meter) for Asphalt Concrete. Measure as specified in 401.21.

Acre (Hectare). Measured by a two-dimensional area method on the surface to the nearest 0.1 acre (0.05 ha).

Pound (Kilogram). Measured by actual item net weight avoirdupois (mass).

Ton (Metric Ton). The term "ton" means the short ton consisting of 2000 pounds avoirdupois. The term "metric ton" means 1000 kilograms. Weigh all materials that are proportioned by weight on accurate and approved scales that are operated by competent, qualified personnel at locations approved by the Engineer. However, car weights will not be acceptable for materials to be passed through mixing plants. If trucks are used to haul material being paid for by weight, weigh the empty truck at least once daily and as the Engineer directs and only if the weight of the truck is used in determining the ticket weight. Place a plainly legible identification mark on each truck bearing the weight of the truck.

For Work on a tonnage basis, file with the Engineer receipted freight bills for railroad shipments and certified weight-bills when materials are received by any other method, showing the actual tonnage used. For Work on a volume basis, itemize evidence of the volume used.

Gallon (Liter). Measured by actual item liquid volume. The Department will measure the following materials by the gallon (liter) at the following temperatures:

Temperatures	Items
60 °F (16 °C)	Creosote for Priming Coat, Creosote Oil, Creosote Solutions for Timber Preservatives, Asphalt Primer for Water-proofing, and Liquefier
100 °F (38 °C)	RC, MC Asphalt Emulsions, CBAE, Primer 20, and Primer 100
300 °F (149 °C)	Asphalt Binder

Measure tank car outage of asphalt material at its destination before any material has been removed from the tank car according to Supplement 1060.

Convert the net weight of asphalt material shipments to gallons (liters) at the specified pay temperature according to Supplement 1060.

Convert the gallons (liters) at the measured temperature to gallons (liters) of asphalt material at the specified pay temperature according to Supplement 1060.

M Gallon. One thousand gallons.

Thousand Board Feet, MBF (Cubic Meter). Measure timber by MBF (cubic meter) actually incorporated in the structure. Base the measurement on nominal widths, thicknesses, and the extreme length of each piece.

Standard Manufactured Items. When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by size, unit weight, section dimensions, etc., such identification will be to nominal weights or dimensions set by the industry.

109.02 Measurement Units. The Department will measure using either English or metric units as indicated in the Contract Documents. Use the Tables 109.02-1 and 109.02-2 to convert units when required. If Tables 109.02-1 and 109.02-2 do not provide a required factor, then use the appropriate factor provided in the IEEE/ASTM SI 10.

TABLE 109.02-1 ENGLISH TO SI (METRIC) CONVERSION FACTORS

Symbol	When You Know	Multiply By	To Find	Symbol
Length				
mil	mils	25.4	micrometers	µm
in	inches	25.4	millimeters	mm
ft	feet	0.3048	meters	m
yd	yards	0.9144	meters	m
mi	miles	1.609347	kilometers	km
Area				
in^2	square inches	645.16	square millimeters	mm^2
ft^2	square feet	0.09290304	square meters	m^2
yd^2	square yards	0.8361274	square meters	m^2
ac	acres	0.4046873	hectares	ha
ac	acres	4046.873	square meters	m^2
mi^2	square miles	2.589998	square kilometers	km^2
Volume				
fl oz	fluid ounces	29.57353	milliliters	mL
gal	gallons	3.785412	liters	L
ft^3	cubic feet	0.02831685	cubic meters	m^3
yd^3	cubic yards	0.7645549	cubic meters	m^3
Mass				
oz	ounces	28.34952	grams	g
lb	pounds	0.4535924	kilograms	kg
T	2000 pounds	0.9071847	metric tons	t
Temperature				
°F	Fahrenheit	C = (F-32)/1.8	Celsius	°C
Illumination				
fc	foot-candles	10.76391	lux	lx
fl	foot-lamberts	3.426259	candelas per square meter	cd/m^2
Force and Pressure or Stress				
lbf·ft	pounds-force foot	1.355818	newton meter	N·m
lbf	pounds force	4.448222	newtons	N
lbf/ft^2 (psf)	pounds force per square foot	47.88026	pascals	Pa
lbf/in^2 (psi)	pounds force per square inch	0.006894757	megapascals	MPa

1) TABLE 109.02-2 SI (METRIC) TO ENGLISH CONVERSION FACTORS

Symbol	When You Know	Multiply By	To Find	Symbol
Length				

µm	micrometers	0.03937	mils	mil
mm	millimeters	0.03937	inches	in
m	meters	3.28084	feet	ft
m	meters	1.093613	yards	yd
km	kilometers	0.62137	miles	mi
Area				
mm^2	square millimeters	0.00155	square inches	in^2
m^2	square meters	10.76391	square feet	ft^2
m^2	square meters	1.19599	square yards	yd^2
ha	hectares	2.4710437	acres	ac
m^2	square meters	0.000247	acres	ac
km^2	square kilometers	0.3861	square miles	mi^2
Volume				
mL	milliliters	0.033814	fluid ounces	fl oz
L	liters	0.264172	gallons	gal
m^3	cubic meters	35.31466	cubic feet	ft^3
m^3	cubic meters	1.30795	cubic yard	yd^3
Mass				
g	grams	0.035274	ounces	oz
kg	kilograms	2.204622	pounds	lb
t	metric tons	1.1023114	2000 pounds	T
Temperature				
°C	Celsius	F = 1.8C + 32	Fahrenheit	°F
Illumination				
lx	lux	0.09290304	foot-candles	fc
cd/m^2	candelas per square meter	0.29186352	foot-lamberts	fl
Force and Pressure or Stress				
N·m	newton meters	0.7375621	pounds-foot force	lbf ft
N	newtons	0.22480892	pound force	lbf
Pa	pascals	0.02088543	pounds force per square foot	lbf/ft^2 (psf)
MPa	megapascals	145.03774	pounds force per square inch	lbf/in^2 (psi)

109.03 Scope of Payment. Payment of the Contract Price is full compensation for all resources necessary to complete the Contract Item and maintain the Work. Assume liability for risk, loss, damage, or expense resulting from the Work. The Contract Price and Contract Time shall only be changed by written Change Order or as determined by the LPA in writing in accordance with the contract documents.

109.04 Compensation for Altered Quantities, Eliminated Items or Termination of the Contract for Convenience of the LPA. If the agreed quantities of contract items vary from the

quantities in the Contract, the LPA will make payment at the original Contract unit prices for the agreed quantities of Work.

A. If an item is eliminated in accordance with 104.02.E or the contract is terminated in accordance with 108.09 the LPA will pay the following in addition to that provided by 104.02.D:

1. Restocking charges supported by paid invoices and an additional 5 percent markup on the compensation for overhead and profit.
2. The cost of material transferred to the LPA in lieu of restocking or disposal. The allowed compensation is the paid invoice cost plus 15 percent markup, but no more than the unit bid price for the reference number involved.
3. Hauling costs, if not included in restocking charges, for returned material and for material delivered to the LPA.

B. If the project is terminated for convenience of the LPA, the LPA will negotiate compensation with the Contractor for actual costs incurred as a result of the termination.

109.05 Changes and Extra Work.

A. General. If the LPA revises the Contract under: 104.02, 105.13, 107.10, 107.14, 107.15, 109.06, or 109.07, the Department will pay for changes and Extra Work with a Change Order using the sequence specified in Modified General Conditions, page 43, paragraph 13.01.

In establishing the method of payment for contract changes or extra work orders, force account procedures shall only be used when strictly necessary, such as when agreement cannot be reached with the Contractor on the price of a new work item, or when the extent of work is unknown or is of such character that a price cannot be determined to a reasonable degree of accuracy. The reason or reasons for using force account procedures shall be documented.

Unless otherwise stated in 109.05, the compensation provided in Modified General Conditions, page 43, paragraph 13.01 constitutes payment in full for all changes and Extra Work completed by original Contract Price, agreed unit price, agreed lump sum price, and for work performed on a force account basis, including:

1. Administration.
2. Superintendence.
3. Project and field office overhead.
4. Home office overhead.
5. Use of tools and equipment for which no rental is allowed.
6. Profit.
7. Taxes other than sales tax.
8. Premiums on insurance including additional premiums for Commercial General Liability Insurance required by 107.12.B and any additional coverage carried by the Contractor or subcontractor, excluding pollution and railroad General Liability Insurance. The LPA will pay the Contractor's pollution and railroad liability insurance premiums, if required by the contract, by a separate Change Order for the cost of the premium without any markup. When the Contractors or subcontractors basic rate for General Commercial Liability Insurance required by 107.12.B is greater than 5 percent of payroll, the LPA will pay

directly without markup the portion of the premium in excess of 5 percent and provide copies of paid premiums.

Sales tax will not be allowed on any item for which tax exemption was obtained.

B. Negotiated Prices. Negotiated prices for changes and Extra Work shall be comparable to prices that would have resulted from a competitive bid contract. The Engineer and Contractor will negotiate agreed unit or lump sum prices using one or more of the following methods:

1. Original Contract prices for similar work but adjusted for:
   a. increased or decreased material costs specified in 109.05.C.3.
   b. increased or decreased labor costs specified in 109.05.C.2
   c. increased or decreased equipment costs specified in 109.05.C.4

   Adjustments of these prices for inflation or markup for subcontractor work is not allowed.

2. State-wide average unit price awarded for the item, LPA average unit price awarded for the item, or items as listed in the Department's annual "Summary of Contracts Awarded." These prices may be adjusted for inflation using factors issued by the Office of Construction Administration. No markup for subcontractor work is allowed.
3. Average price awarded on three different projects of similar work and quantity. These prices may be adjusted for inflation using factors issued by the Office of Construction Administration. No markup for subcontractor work is allowed.
4. Prices computed by the Office of Estimating.
5. Cost analysis of labor, material, equipment, and markups as allowed in 109.05.C.
6. For the cost of compensable delays as defined in 108.06, prepare a cost analysis as allowed by 109.05.D.

Provide proposed pricing and cost justification for changes or Extra Work within 5 business days after the LPA's request. The LPA will respond within 5 business days after receipt of the Contractor's proposal. The LPA and the Contractor can mutually agree to extend these 5-day time limits.

If the LPA negotiates with the Contractor but does not agree on a price adjustment, the Engineer may direct the Contractor to perform all or part of the revised Work under force account.

C. Force Account.

1. General. The Engineer may direct the Contractor to perform the revised Work under force account. Submit a written proposal and estimated costs for the Work, including the planned equipment, materials, labor, and a work schedule.

The LPA will pay the Contractor as specified in 109.05.C as full compensation for performing the force account Work. The Project and Contractor personnel will document the labor and equipment used on the force account work on a Daily Force Account Record. At the end of each Workday, the Project and Contractor personnel will compare and sign the Daily Force Account Record. The LPA will make no force account payment before the Contractor submits an itemized statement of the costs for that work.

The Engineer will examine and, if found to be acceptable, approve all rates and costs submitted by the Contractor.

Provide the following content in itemized statements for all force account work:

a. Name, classification, date, daily hours, total hours, rate, and amount for all labor.

b. Designation, dates, daily hours, total hours of actual operation and idle time, Blue Book rate with reference or category, and amount for each unit of equipment and the applicable Blue Book hourly operating cost for each unit of equipment and invoices for all rental equipment. The designation includes the manufacturer's name or trademark, model number, and year of manufacture.

c. Quantities of materials and prices.

d. Transportation charges on materials, free on board (F.O.B.) at the job site.

e. Cost of workers' compensation insurance premiums, all applicable insurance premiums, unemployment insurance contributions, and social security tax and fees or dues required by a collective bargaining agreement. Express each of these items of cost as a percentage of payroll, except fees or dues, which should be expressed as a cost per hour.

f. Documentation showing payment for all surveying, professional, or similar specialized Work not normally a part of an LPA contract.

g. If materials are taken from Contractor's stock and original receipted invoices for the materials and transportation charges do not exist, provide an affidavit and certify all of the following:

(1) The materials were taken from the Contractor's stock.

(2) The quantity shown was actually used for the force account work.

(3) The price and transportation costs represent the actual cost to the Contractor.

h. Documentation showing payment to trucking firms and owner-operators. Submit documentation showing owner-operations status. When the trucking is subject to prevailing wage, submit payroll and equipment usage records according to 109.05.C.1.a, 109.05.C.1.b, and 109.05.C.1.e.

i. Provide "receipted invoices" for all costs substantiated by an invoice.

If only part of the expenditure represented by an invoice is applicable to force account work, or if the invoice represents expenditure for more than one item of work, clearly indicate the actual amount of expenditure applicable to each item of work.

2. Labor. The LPA will pay the wages and fringe benefits currently in effect for each hour the Work is performed by all labor employed in the Work and all foremen in direct charge of the specific operation. The LPA will pay an additional 38 percent markup on these wages and benefits. "Fringe benefits" are the actual costs paid to, or on behalf of, workmen by reason of health and welfare benefits, pension fund benefits, or other benefits, when such amounts are required by prevailing wage laws or by a collective bargaining agreement or other employment contracts generally applicable to the classes of labor employed on the Project.

The LPA will pay the actual itemized cost, without markup, of the following payroll taxes and legally required insurances:

a. Social Security Tax.

b. Medicare Tax.

c. Ohio Workers' Compensation Premiums.

d. State and Federal Unemployment Insurance.

e. Longshore and Harborworkers' Compensation Insurance for work from a barge or ship, or unloading material from a barge or ship.

Provide itemized statements in addition to the documentation requirements for all labor

including the name, classification, date, daily hours, total hours, rate, and amount. If any person is paid more than the one rate, a separate listing shall be made for that person for each rate paid. Provide itemized statements for Ohio Workers' Compensation insurance premiums, all applicable insurance premiums, State and Federal Unemployment Insurance contributions, and Social Security Tax and fees or dues required by a collective bargaining agreement. Express each of these items of cost as a percentage of payroll, except fees or dues, which shall be expressed as a cost per hour.

Instead of itemizing the cost of Social Security Tax, Ohio Workers' Compensation, and State and Federal Unemployment Insurance, the Contractor may elect to receive as compensation for these payroll taxes and premiums, an amount equal to 22 percent of the paid wages. If the Contractor pays fringes directly to the worker in lieu of paying into a fringe benefit program, then the LPA will treat these fringe payments as paid wages when calculating the allowed 22 percent compensation.

The LPA will pay, without markup, the actual itemized cost of fees and dues paid to labor unions or to business associations when they are based on payroll hours and required by a collective bargaining agreement.

The LPA will not pay for wages or benefits for personnel connected with the Contractor's forces above the classification of foreman that have only general supervisory responsibility for the force account work.

If the foreman or timekeeper is employed partly on force account work and partly on other work, the Contractor shall prorate the number of hours between the force and non-force account work according to the number of people on each task as shown on payrolls.

The LPA will pay the prevailing wage and fringe rates that apply to the Project for the classifications required for Extra Work. The Contractor must provide payroll records for pay rates higher than the prevailing wages and establish that the higher than prevailing rates are paid for original Contract Work. The LPA will pay for foremen and time keepers not covered by prevailing wages not more than the salaried rate they receive when engaged in original Contract Work.

The LPA will pay actual costs for subsistence and travel allowances when such payments are required by the collective bargaining agreement or other employment contracts applicable to the classes of labor employed on the Project. The LPA will not pay a percent markup on these costs.

3. **Materials.** The LPA will pay the Contractor's actual invoice costs, including applicable taxes and actual freight charges, for Engineer approved materials the Contractor uses in force account Work. The LPA will pay an additional 15 percent markup on these costs.

Freight or hauling costs charged to the Contractor and not included in unit prices shall be itemized and supported by invoices. The cost of owned or rented equipment used to haul materials to the project is not part of the materials cost. Such equipment, when used for hauling materials, shall be listed under cost of equipment.

Provide itemized statements in addition to the documentation requirements for all equipment including the quantity and price of each material and transportation charges free on board (F.O.B.) at the job site. Attach invoices to support the quantities of materials used, unit prices paid and transportation charges. If the Contractor uses materials from the Contractor's stock and original receipted invoices for the materials and transportation charges do not exist, the Department and the Contractor will agree on a price that represents the actual cost to the Contractor. Provide an affidavit and certify all of the following:

a. The materials were taken from the Contractor's stock.

b. The quantity shown was actually used for the force account work.

c. The price and transportation costs represent the actual cost to the Contractor.

Do not incorporate materials into the Work without a price agreement.

4. Equipment.

a. **General.** The LPA will pay the Contractor's costs for equipment the Engineer deems necessary to perform the force account work for the time directed by the Engineer or until the Contractor completes the force account Work, whichever happens first. The LPA will pay the Contractor the established rates for equipment only during the hours that it is operated, except as otherwise allowed elsewhere in these Specifications. The LPA will pay for non-operating hours at the idle equipment rate as specified in 109.05.C.4.c. Report equipment hours to the nearest 1/2 hour. The established equipment rates in these Specifications include compensation for overhead and profit except as otherwise specified.

The LPA will pay for use of Contractor-owned equipment the Engineer approves for force account Work at established rates. The LPA will pay the rates, as modified in 109.05.C.4.b, given in the Equipment Watch Cost Recovery (formerly Rental Rate Blue Book), by EquipmentWatch, a division of Penton Business Media, Inc.

Provide, and the Engineer will confirm, the manufacturer's ratings and manufacturer-approved modifications required to classify equipment for rental rate determination. For equipment with no direct power unit, use a unit of at least the minimum recommended manufacturer's rating.

The LPA will not pay rental for small tools or equipment that show a daily rate less than $5.00 or for unlisted equipment that has a value of less than $400.

Tool trucks will be allowed for compensation if they are used at the force account site. Only the tools used from the tool truck will be allowed for compensation. Tools in the tool truck that are not used in the force account work will not be compensated. A tool trailer that remains at the Contractor's office or yard will not be allowed on the force account work. Tool trailers that are taken to the force account site will be allowed for compensation along with the tools used on the force account work that were taken from the trailer.

Treat traffic control devices used in Maintaining Traffic and owned by the Contractor as owned equipment. Allowed rates for common traffic control devices and concrete barrier that are not listed in the Blue Book will be as determined by the LPA.

Use Engineer approved equipment in good working condition and providing normal
output or production. The Engineer may reject equipment not in good working condition or not properly sized for efficient performance of the Work.

For each piece of equipment used, whether owned or rented, provide the Engineer with
the following information:

(1) Manufacturer's name or trademark.
(2) Equipment type.
(3) Year of manufacture.
(4) Model number.
(5) Type of fuel used.
(6) Horsepower rating.
(7) Attachments required, together with their size or capacity.
(8) All further information necessary to determine the proper rate.
(9) Dates, daily hours, total hours of actual operation and idle time,
(10) Blue Book rate with reference or category,
(11) Amount
(12) Applicable Blue Book hourly operating cost (13) Invoices for all rental equipment.

b. Hourly Owned Equipment Rates. The base rate for the machine and attachments represent the major cost of equipment ownership, such as depreciation, interest, taxes, insurance, storage, and major repairs. The hourly operating rate represents the major costs of equipment operation, such as fuel and oil lubrication, field repairs, tires, expendable parts, and supplies.

For all equipment used on force account work, determine, and have the LPA confirm, the
hourly owned equipment rates as follows:

$$HOER = [RAF \times ARA \times (R / 176)] + HOC$$

Where:

HOER = hourly owned equipment rate
RAF = regional adjustment factor shown in the Blue Book
ARA = age rate adjustment factor shown in the Blue Book
R = current Blue Book monthly rate
HOC = estimated hourly operating cost shown in the Blue Book

However, compensation for equipment normally used on a 24 hours per day basis will
not exceed the monthly rate plus adjustments and operating costs.

The rate adjustment factor assigned to any attachment will be the yearly factor as determined for the base equipment.

When multiple attachments are included with the rental equipment, only the attachment

having the highest rental rate will be eligible for payment, provided that the attachment has been approved by the Engineer as being necessary to the force account Work.

When a piece of owned equipment is not listed in the Blue Book, use the rate for similar equipment found in the Blue Book or use 6 percent of the purchase price as the monthly rate (*R*) and add the hourly operating rate found in the Blue Book for similar equipment of the same horsepower.

For equipment brought to the Project exclusively for force account work and on the Project for less than a month, multiply the monthly rate (*R*) by the factor listed below:

2) TABLE 109.05-1

Working Hours	Factor
Less than or equal to 8.0	2.00
8.1 to 175.9	2.048 - (hours/168)
176 or greater	1.00

The term "WORKING HOURS," as used in Table 109.05-1, includes only those hours the equipment is actually in operation performing force account work; apply the factor, as determined above, to these actual working hours only. Calculate compensation for any idle time according to 109.05.C.4.c without application of the factor.

The LPA will pay as working equipment for the entire Workday equipment used intermittently during the Workday. The following criteria qualify for intermittently used equipment:

(1) Equipment dedicated to the force account exclusively all day and not used on bid work.

(2) Equipment works before and after the intermittent idle period and its total working time during the Workday is at least 2 hours.

Equipment that is captive to the force account work (i.e. it must remain at the force account site), but does not qualify for intermittently used owned equipment, is paid as idle equipment according to 109.05.C.4.c. for the time it is not working.

c. Hourly Idle Equipment Rate. For equipment that is in operational condition, on site, and necessary for force account Work, but is idle, the LPA will pay an hourly idle equipment rate. The procedure to determine the hourly idle equipment rate for Contractor owned equipment is as follows:

$$HIER = RAF \times ARA \times (R / 176) \times (1/2)$$

Where:

HIER = Hourly idle equipment rate.
RAF = Regional adjustment factor shown in the Blue Book.
ARA = Age rate adjustment factor shown in the Blue Book.
R = Current Blue Book monthly rate.

If rented equipment necessary for force account work is idle, the LPA will pay the Contractor for the actual invoiced rates prorated for the duration of the idle period. The actual

invoiced rates must be reasonably in line with the Blue Book rates and approved by the Engineer. The LPA will pay a 15 percent markup for overhead and profit for the actual invoiced rates during the idle period.

The LPA will not pay idle owned equipment costs for more than 8 hours in a 24-hour day or 40 hours in a week.

The LPA will not pay for inoperable equipment.

The Engineer may order specific equipment to the site up to 5 days before its planned usage. If this equipment is not used for other work, the LPA will pay for it as idle equipment until used.

The LPA will pay for the cost of idle owned or rented equipment when the Work was suspended for the convenience of the State. The LPA will not pay the cost of idle equipment when the Work was suspended by the Contractor for the Contractor's own reasons.

The LPA will only pay for the number of Calendar Days during the existence of the suspension. The LPA will not compensate the Contractor for days that the Engineer determined were lost to weather.

The LPA will only pay for equipment physically located at the Project site that was received to prosecute the scheduled work during the delay.

Compensation for idle equipment will stop at the completion of the force account Work or at the end of the suspension of Work.

d. Rented Equipment. The LPA will pay a 15 percent markup for overhead and profit for all rented equipment, its corresponding Blue Book hourly operating costs, and State and Local sales taxes.

(1) Equipment Rented Solely for Force Account Work. If the Contractor rents or leases equipment from a third party exclusively for force account Work, the LPA will pay the actual invoiced amount. The actual invoiced rates must be reasonably in line with the Blue Book and approved by the Engineer. The LPA will pay a 15 percent markup for overhead and profit for all rented equipment paid for by the actual invoices. Add the Blue Book hourly operating cost to the marked up actual invoiced rates.

(2) Equipment Rented for Original Contract Work, but Used for Force Account Work. If the Contractor uses rented equipment currently on the Project for original Contract Work to perform force account Work, then determine the hourly outside-rented equipment rate as follows:

$$HRER = (HRI \times 115\%) + HOC$$

Where:

HRER = hourly rented equipment rate

HRI = hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account work. Use a monthly invoice rate

divided by 176, a weekly invoice rate divided by 40, or a daily invoice rate divided by 8.

HOC = hourly operating cost shown in the Blue Book

The LPA will not compensate for rental rates that exceed the Blue Book rates unless approved in advance of the Work by the Engineer.

e. **Moving of Equipment.** The LPA will also pay for the time required to move needed equipment to the location of the force account work and to return it to its original location. The LPA will pay for loading and transportation costs instead of moving time if equipment is moved by means other than its own power. Moving time back to the original location or loading and transportation costs will not be allowed if the equipment is used at the site of the force account work on contract items or related work.

The LPA will consider the actual cost of transferring the equipment to the Project and returning it to the original location as an additional expense and pay for it as specified, for equipment moved on the Project exclusively for force account work.

The Engineer will confirm the original location of the equipment before the Contractor moves and uses it for force account work.

If the equipment is transported by a common carrier, the allowance is the invoiced amount paid for the freight plus 15 percent. However, if the Contractor's forces transport the equipment, the allowable compensation will be Blue Book rate of the hauling unit and hourly Blue Book operating cost plus the driver's wages and the cost of loading and unloading the equipment calculated according to 109.05.C.2.

5. **Foreman's Transportation.** The LPA will pay the Blue Book rate for every hour the foreman's truck is on the force account site or moving to or from the site. This rate includes equipment cost, fuel and lubricants, overhead, profit, and mobile phone or two-way radios.

6. **Subcontract Work.** For Work performed by an approved subcontractor, the LPA will pay an amount to cover administrative costs of 8% on the first $10,000 of work and 5% for work in excess of $10,000 as provided in 109.05.C.4 through 109.05.C.5. No additional mark-up is allowed for work of a sub-subcontractor or trucking services employed by a subcontractor.

7. **Final Adjustment to Premium for Contract Bonds.** The final bond premium amount for the payment and performance bonds will be computed based on the actual final contract value. For the purpose of computing a bond premium adjustment the actual final contract value is defined as the whole sum of money, excluding any bond premium adjustment, which is passed from the LPA to the Contractor as a result of the completion of the Work. If the actual final contract value is different from the original contract value, the premium shall be adjusted accordingly; either by refund of part of the original bond premium by the Contractor if the original contract value is larger than the actual final contract value; or by payment of additional bond premium by the LPA if the original contract value is smaller than the actual final contract value. Additional payment by the LPA or refund by the Contractor will be based on the difference between the invoiced bond premium for the original contract value and the invoiced bond premium for the actual final contract value without any markup. A final bond premium adjustment will not be made when the actual final contract value differs from the original contract value by less than $ 40,000.00.

8. **Trucking.**

   a. Trucking firms and owner operators not subject to prevailing wage will be paid at the invoiced cost plus 8% on the first $10,000 of trucking and 5% for trucking in excess of $10,000 to cover administrative costs.

   b. Trucking that is subject to the prevailing wage law will be compensated according to 109.05.C.1, 109.05.C.2, 109.05.C.4, 109.05.C.6, and 109.05.C.10.

   Provide documentation showing payment to trucking firms and owner-operators and owner operations status. When the trucking is subject to prevailing wage, submit payroll and equipment usage records according to 109.05.C.2 and 109.05.C.4.

9. **Professional and Specialized Work.** The following work, when performed by a firm hired by the Contractor, is paid at the reasonable and fair market invoiced cost plus 8% on the first $10,000 of work and 5% for work in excess of $10,000.

   a. Surveying.

   b. Engineering design.

   c. Specialized work that is not normally part of a LPA Contract and is not normally subject to prevailing wage.

   d. Installation, periodic maintenance, and removal of traffic control devices under Item 614 performed by a traffic control service or rental company, provided the workers are not on the Project full-time. Maintenance of Traffic services performed by LEO.

   e. Other professional or specialized work not contemplated at the time of Bid. Provide documentation showing payment for professional and specialized Work.

10. **Payment for Force Account Work.** Submit an analysis of estimated cost prepared in accordance with 109.05.C for work that will be performed on a force account basis. Attach an original affidavit to the analysis stating:

"Labor rates shown are the actual rates paid for labor, unit prices for materials and rates for owned and rented equipment have been estimated on the basis they are not in excess of those charged in the area in which the work will be performed."

The Engineer will process an Estimated Cost of Force Account (ECFA) if the amount of the force account work is likely to be greater than $100,000 and is expected to take more than two weeks to complete. The Engineer will process an Actual Cost of Force Account (ACFA) to make any necessary adjustment between the ECFA and the final itemized costs for the force account work.

For force account work estimated to be less than $100,000 and anticipated to require less than two weeks to perform, the Engineer will process an Actual Cost of Force Account (ACFA) at the conclusion of the work.

Submit biweekly itemized statement of costs prepared from the Daily Force Account Records to the Engineer as the work is being performed. The Engineer will process estimates as the force account work is performed. Payment will only be made upon receipt of the Contractor's itemized statement of costs.

Upon conclusion of the work performed by an ECFA or work performed by an ACFA submit an itemized statement of the actual costs prepared from the Daily Force Account Record Submit a compact disk (CD), labeled with the Contractor's name and the project number, and a

hard copy of the "Electronic Force Account." An "Electronic Force Account" template can be downloaded from the following website:

www.dot.state.oh.us/divisions/constructionmgt/admin/pages/default.aspx

The Engineer may approve an alternative electronic template provided all calculations and printouts are equivalent to those generated by the "Electronic Force Account" template.

Attach an original affidavit to the hard copy stating:

"The name, classification, total hours worked and rates paid each person listed on the Summary of Actual Cost are substantiated by actual records of persons employed on the force account work. All unit prices for materials and rates for owned and rented equipment listed on the Summary of Actual Costs are substantiated by actual records of materials and equipment actually used in performance of the force account work and the price of any owned equipment not previously agreed upon does not exceed prices charged for similar equipment in the area in which the work was performed."

Daily Force Account Records signed by both the LPA and Contractor will govern over other LPA and Contractor records subject to the following:

a. When the Contractor is subject to a Union Contract that requires a minimum number of paid hours, the compensation will be for the verified contract minimum hours.

b. Material quantity disagreements will be resolved by field measurements of the installed quantities or the Engineer's estimate of the amount of temporary or un-measurable material used. The Engineer may also review and consider the Contractor's material invoices and material certifications to make the final determination.

In the event the Contractor declines to sign the Daily Force Account Record, the LPA's records shall govern. Any resulting dispute must be pursued in accordance with 108.02.G.

D. Delay Costs.

1. **General.** If the LPA agrees that it has caused a delay, the LPA will pay for the costs specified in 109.05.D as allowed by 108.06.D, unless these costs have been previously paid as listed in 109.05.B or 109.05.C. Such payment constitutes full compensation for any and all delay costs

The LPA will make no payment for delays occurring during the period from December 1 to April 30 unless the Contractor's approved progress schedule depicts critical Work occurring throughout this period.

The LPA will not pay for delay costs until the Contractor submits an itemized statement of those costs. Provide the content specified in 109.05.C.1, for the applicable items in this statement and as follows:

a. Proof of cost of Superintendent, or other project staff salaries, wages, and payroll taxes and insurance.

b. Proof of cost of office rent, utilities, land rent, and office supplies.

c. Proof of escalated cost for labor and material.

d. Proof of material storage costs.

2. **Allowable Delay Costs**

a. **Extended Labor.** Compute labor costs during delays as specified in 109.05.C.4 for all non-salaried personnel remaining on the Project as required under collective bargaining agreements or for other Engineer-approved reasons.

b. **Escalated Labor.** To receive payment for escalated labor costs, demonstrate that the LPA-caused delay forced the Work to be performed during a period when labor costs were higher than planned at the time of Bid. Provide adequate support documentation for the costs, allowances, and benefits specified in 109.05.C.4.

c. **Idle Equipment or Equipment Demobilization.** The LPA will pay the Contractor according to 109.05.C.4.c for idle equipment, other than small tools, that must remain on the Project during the delays. The LPA will pay the Contractor's transportation costs to remove and return equipment not required on the Project during the delays. No other equipment costs are recoverable as a result of delay.

d. **Material Escalation or Material Storage.** The LPA will pay the Contractor for increased material costs or material storage costs due to the delay. Obtain the Engineer's approval before storing materials due to a delay. Payment will be based upon the accepted quantity of work performed during the period for which escalated costs have been approved.

e. **Field Overhead.** The LPA will pay any Contractor or subcontractor for field overhead costs which include the cost of supervision, field office and office supplies, and utilities for which payment is not provided for in 109.05.D.2.f, during a delay period provided all of the following criteria are met:

(1) The Contractor or subcontractor has incurred an excusable, compensable delay that delays the Work at least 10 Calendar Days beyond the original Completion Date. These days are cumulative throughout the project.

(2) The delay for which payment of field overhead is sought is only due to delays defined in 108.06.D.2, 108.06.D.3, 108.06.D.5 or for delays due to revised Work as specified in 104.02.B or 104.02.F.

The LPA will pay the salary and fringes plus a 5 percent markup for field personnel identified in Table 109.05-4.

3) TABLE 109.05-4

Original Contract Amount	Field Personnel
Up to $5,000,000	One Superintendent
$5,000,001 to $50,000,000	One Superintendent, One Assistant Superintendent or One Engineer, One Clerk
Over $50,000,000	One Superintendent, One Assistant Superintendent, One Engineer, One Clerk

Superintendent's transportation is compensable at the same rate allowed for foreman's transportation in Section 109.05.C.5, which includes the cost of mobile communication devices. The allowed hours are when the superintendent is at the project site.

Superintendent's subsistence, provided this is the company's terms of compensation to such employees, as documented by the Contractor's written company policy or contracts with their employees.

The Contractor's or subcontractor's field office costs include field office trailers, tool trailers, office equipment rental, temporary toilets, and other incidental facilities and supplies. Compute these costs on a Calendar Day basis. Owned trailers are paid at the Blue Book rate. Rented trailers are paid at the invoiced cost plus a 15 percent markup. Rented office space, toilets, and office equipment are allowed a 5 percent markup. Purchased office supplies are allowed a 5 percent markup.

Office utilities include, but are not limited to, telephone, electric, water, and natural gas. Compute these costs on a Calendar Day basis and allow a 5 percent markup.

f. **Home Office Overhead.**

Subject to current Ohio law.

g. Subsistence and Travel Allowance. The LPA will pay costs for subsistence and travel allowances for labor that must remain on the Project during the delays, when such payments are required by the collective bargaining agreement or other employment contracts applicable to the classes of labor employed on the project. Overnight lodging will be reimbursed if the person is at a location greater than forty-five miles from their residence up to a maximum of $106 per day. Meals and incidental expenses will reimbursed up to a maximum of $56 per day. The LPA will not pay a percent markup on these costs.

E. Changes in Materials. Changes in material specifications that result in increased cost to the Contractor are compensated by lump sum adjustment to the reference number. The allowed compensation is equal to the invoice supported material cost increase plus 15 percent markup for profit and overhead.

Material cost savings resulting from a specification change shall be credited to the project by a lump sum adjustment to the reference number plus a 15 percent markup if the originally specified material has not been ordered.

If the original material was ordered before the Contractor was informed of the change, the savings markup allowed is 2.5 percent in order to exclude profit on the original bid price and pay only for incurred overhead.

109.06 Directed Acceleration. The PRC and/or CPE may order the Contractor to accelerate the Work to avoid delay costs or to complete the Project early. The PRC and/or CPE and the Contractor will negotiate acceleration costs.

109.07 Inefficiency. The LPA will compensate the Contractor for inefficiency or loss of productivity resulting from 104.02 Revisions to the Contract Documents. Use the Measured Mile analysis comparing the productivity of work impacted by a change to the productivity of similar work performed under un-impacted conditions to prove and quantify the inefficiency.

109.08 Unrecoverable Costs. The Contractor is not entitled to additional compensation for costs not specifically allowed or provided for in 109.05 including, but not limited to, the following: **A**. Loss of anticipated profit.

B. Consequential damages, including loss of bonding capacity, loss of bidding opportunities, insolvency, and the effects of force account work on other projects, or business interruption. **C**. Indirect costs.

D. Attorney's fees, claim preparation expenses, and the costs of litigation.

109.09 Estimates. If satisfactory progress is being made, the Contractor will receive monthly payments equaling the Work and materials in place. The monthly payment is approximate, and all partial estimates and payments are subject to correction in the Final Estimate and payment. Payment for Work and materials shall not, in any way, prevent later rejection when defective Work or material is discovered, or constitute acceptance under 109.11 or 109.12. Any pay item deficient in material approval can be withheld for payment on an estimate.

Except for estimates generated during Project finalization, the LPA will not pay an estimate until the Contractor certifies to the Engineer that the work for which payment is being made was performed in accordance with the contract. Certification will be made on forms provided by the LPA.

The LPA may pay estimates twice each month if the Engineer concludes the amount of work performed is sufficient.

No estimate or payment shall be construed as acceptance of defective Work or improper materials.

The LPA will not pay the adjusted final estimate until the Contractor remedies all defective Work and accepted Work damaged by the Contractor's operations.

Interest will be paid in accordance with ORC 126.30 when warranted.

109.10 Payment for Delivered Materials. The LPA will pay, up to 75 percent of the applicable contract item, for the invoiced cost of the delivered and approved materials before they are incorporated in the Work, if the approved materials are delivered, accepted, and properly stored on the project or stored in acceptable storage places in the vicinity of the Project.

The LPA will pay for the cost of approved materials before they are incorporated in the Work when asked by the Contractor, if the Engineer determines that it is not practical to deliver the material to the Project site. This provision applies only to bulky materials that are durable in nature and represent a significant portion of the project cost, such as aggregates, steel, and precast concrete. The Department will pay for un-fabricated structural steel if the following requirements are met:

A. The Contractor has provided both the Engineer and the Office of Materials Management an itemized invoice from the steel mill for the steel for which reimbursement is requested

B. Project structural Steel design plans are complete with no forthcoming revisions. For design build projects, Contractor accepted show drawings per 501.04, will need to be provided.

C Contractor accepted certified test data for all steel in question along with mill shipping notices have been received by the Office of Materials Management per 501.06.

D. The steel is properly stored to allow inspection by the Office of Materials Management. It shall also be properly set apart from other material and identified as belonging to ODOT.

E. The Contractor will provide the Engineer a written statement that under 106, the Contractor is responsible for the steel that has been paid for until the actual steel is erected and accepted in the field.

F. Payment shall only be authorized after all the aforementioned documentation has been received by the Office of Materials Management and the steel has been inspected by the Office of Materials Management to verify that all steel listed in the itemized invoice has been received by the fabricator and properly stored. The amount to be paid shall be equivalent to the itemized invoice from the steel mill, but shall not exceed 50% of the bid price for the structural steel.

The LPA will not pay delivered materials on small warehouse items or for plant materials.

109.11 Partial Acceptance. Upon completion of a portion of the Work, the Contractor may request acceptance of a completed portion of the Work.

A. An inspection may be performed on a completed portion of the project roadway section provided:

1. All safety items are in place including permanent pavement markings.
2. Traffic is in its final pattern.
3. A completed portion of the project constitutes a completed geographic section of the project or a direction of traffic on a divided highway.
4. Is in accordance with other contract provisions.

B. An inspection may be performed on a completed bridge provided:

1. All work on the bridge and approaches are complete, including all safety items and permanent pavement markings.
2. The Contractor will not return to the bridge for any work except as allowed in 4.
3. Traffic is in its final pattern.
4. Painting of structural steel is either completed or scheduled to be performed.
5. Is in accordance with other contract provisions.

The Final Inspector will grant written partial acceptance for that portion of the Work or reject the Contractor's request. Such written partial acceptance will designate what portion of the Work is accepted, the date of acceptance, and the warranty provisions started by the partial acceptance.

Partial acceptance will relieve the Contractor of maintenance responsibility for the designated portion of the Work. This does not relieve the Contractor of responsibility to correct defective Work or repair damage caused by the Contractor or waive any other remedy to which the LPA is entitled at law or in equity.

109.12 Final Acceptance.

A. Final Inspection. The Department will perform a Final Inspection for the sole purpose of relieving the Contractor of maintenance responsibility for the Work.

The Final Inspection shall be a limited visual review of the Work and shall only serve as the LPA's verification that the Work appears substantially complete. Final Inspection does not waive any available rights or remedies of the LPA, nor divest the Contractor of any responsibility for compliance with the contract or liability for damages.

Notify the Engineer when the Project is complete and all of the Engineer's punch list items are complete. If the Engineer agrees the Project is complete, then within 10 business days the District Final Inspector will inspect the Work and categorize it as one of the following:

1. Unacceptable or not complete.
2. Substantially complete with punch list items found by the Final Inspector.
3. Substantially complete.

If the Final Inspector finds the Work substantially complete or substantially complete with punch list items, then the Contractor's maintenance responsibilities end on the day of the Final Inspection, except for any maintenance related to unfinished punch list items. This does not relieve the Contractor of responsibility to correct defective Work or repair damage caused by the Contractor or waive any other remedy to which the LPA is entitled at law or in equity. The Final Inspector will issue a Final Inspection Report that will document the findings of the inspection and start any warranty period.

B. Punch List. The Final Inspector will issue to the Contractor a written punch list of work required as a condition of acceptance. For project involving multiple public agencies, the Final Inspector will receive and compile punch lists from all agencies that have authority to provide one prior to issuing the Department's punch list. The Final Inspector's punch list will stipulate a reasonable time to complete the required Work. Failure of the Contractor to complete the punch list items by the stipulated time will result in the assessment of fifty percent of the Liquidated Damages according to 108.07 for each Calendar Day for every day beyond the stipulated time the punch list work remains incomplete and beyond the revised Completion Date.

C. Finalization.The Contractor shall accept the final quantities as determined by the Engineer or provide a written notice indicating the reason for disagreement within 30 Calendar Days of receiving the Engineer's list of final quantities. The prescribed 30 Calendar Day period can be modified by mutual agreement of the Contractor and the PRC and/or CPE. If no notice of disagreement is received, then the final payment will be based on the Engineer's list of final quantities.

Supply all documents necessary for Project finalization within 60 Calendar Days from the date that the Work is physically complete. These documents include:

1. Delinquent material certifications.
2. Delinquent certified payrolls or required revised payrolls.
3. Wage affidavit required by ORC Chapter 4115 on projects without any Federal funding.
4. Delinquent force account records.
5. If applicable, DBE affidavits.
6. Any other document required to complete finalization of the project.

Failure to submit these acceptably completed documents will result in an administrative fee of $100 per Calendar Day for every day that any of the required documents remain delinquent, starting 30 Calendar Days after receipt of written notification from the Engineer of a document deficiency. **D. Final Payment.** Final payment is based on:

1. The agreed final quantities or as determined by the Engineer if agreement is not possible, no compensation for unauthorized work is allowed.
2. Finding of substantial completion by the Final Inspector.
3. Receipt of acceptable finalization documents.
4. Contractor certification that the Work was performed in accordance with the contract.

E. Completion of Contract and Continuation of Contractor's Responsibility. The Contract is complete, except for items covered by the required bonds, when the Contractor receives final payment. The PRC or if applicable, the CPE, will issue a letter confirming completion of the

contract, noting any exception as provided in Items 659 and 661 and any warranty. Neither Completion of the Contract nor substantial completion relieves the Contractor of any responsibilities to properly perform or correct the Work or to repair damage or waives any remedies to which the LPA is entitled at law or in equity.

(SAMPLE COPY)
Waste Disposal Agreement for Projects in the City of Canton

Items 1, 3 - 9 are optional and discretionary to the undersigned

THIS WASTE AGREEMENT, made this _____ day of _____ 20___ , by and between _____ (called "Contractor"), and _____ of _____ (called "Land Owner"), concerning a certain construction contract between the Contractor and _____ in the City of Canton, OH for the _____ (project), as follows:

1. MANNER OF WASTING: Land Owner grants to Contractor the exclusive right to place dirt, earth, rock, topsoil, subsurface, unsuitable and/or other excess material (called "waste material") upon the area described in the following paragraph without requirement, limit, or restriction as to depth, amount, manner, or time.
2. WASTE AREA: The property upon which Contractor is permitted to place material is commonly known as _____ (address).
3. TITLE TO WASTE AREA: The Land Owner warrants that it has title to and the right to contract for placement of waste material in said area and agrees to defend and indemnify Contractor against any claim, suit, or damage arising out of such title or right to contract.
4. ACCESS AND USE: Land Owner hereby grants Contractor the right of ingress and egress to the waste area in locations to be selected by Contractor for all purposes necessary to the complete fulfillment of this agreement, and the right of quiet enjoyment in the intended use of such area.
5. PAYMENT: Contractor agrees to pay and Land Owner agrees to accept as full and final compensation for all rights granted and covenants contained herein and all claims of every nature the sum of _____ payable _____ .
6. BASIS OF MEASUREMENTS: It is mutually agreed that measurement of the amount of materials wasted, where required, shall be made on the following basis: _____ and said measurement shall be binding upon the parties hereto for all purposes.
7. DAMAGES: Land Owner hereby waives any and all claims for damage to the waste area and to the area of ingress and egress except as specifically noted herein.
8. RELEASE: Upon receipt of final payment hereunder, and provided all terms of this agreement have been fulfilled, Land Owner hereby releases Contractor from further liability of any kind or nature hereunder.

WITNESSES:

_____

_____

_____

CONTRACTOR:

_____
Authorized Signature & Title

LANDOWNER:

_____
Signature

9. ENTIRE AGREEMENT: It is agreed that the terms and conditions of this agreement are fully covered in the foregoing, and that any oral or written statements made by either party, or agents claiming to represent either party, not set forth herein, are not binding on the parties and are not considered as part of this Agreement.
10. DISCLAIMER: The City of Canton is not a party to the here above agreement. The Contractor and Landowner shall indemnify and save harmless the City of Canton from any claim that may arise from the here above agreement. The waste material is the property of the Contractor, not the City of Canton.

Appendix A

PREVAILING WAGE PROJECT FORMS & REQUIREMENTS FOR CONTRACTORS

This is a **Davis Bacon** Prevailing Wage Project and I will need documentation from all contractors/subcontractors working on this project. The required documentation must be submitted for each contractor prior to them beginning their work on the project. I am including copies of forms and documents I will need from you and all subcontractors. Please pass all this information on to all subcontractors. I will contact you for anything that I need from a subcontractor.

Contractor Profile Form: Must be submitted to the Prevailing Wage Coordinator (PWC) on or before the date your company starts work under the contract. This requirement applies to all contractors/subcontractors. The form submitted **must be** the **original signed document**.

Employee Payroll Authorization Form: This form must be completed on company letterhead for each employee that works on the job site. This form is required for BOTH union and non-union companies. The submitted forms **must be** the **original signed document with INK signature.**

Notification to Employee form- if your company is a **non-union company** you **must provide a completed Notification form to each employee working on this site and provide the PWC a copy** (wage and fringe benefit amounts on Notification must match amounts listed on payrolls), the form must have the Prevailing Wage Coordinator information, if you are a **union company** you need to send the PWC **a copy of the contract/agreement your company has with the local Trade Union(s)**.

Payroll Dates form- Must be submitted to the Prevailing Wage Coordinator (PWC) on or before the date your company starts work under the contract. This requirement applies to all contractors/subcontractors.

Certified Payroll- The **first certified payroll** must be sent to the Prevailing Wage Coordinator **within two weeks of 1st pay period on the job**, all payrolls after the first payroll must be sent **weekly** to the Prevailing Wage Coordinator. **ALL CERTIFIED PAYROLLS SUBMITTED MUST HAVE ORIGINAL INK SIGNATURE.** If paying Fringe Benefits in "cash", include the payment of fringes in the base Rate of Pay. If paying Fringe Benefits into bona fide "plans, Funds or Programs" –list the amounts paid into each plan/program on the certified payroll. If the payroll form you use does not have sections for Fringe Benefits, you must provide the information in the remarks section on the payroll or as an attachment to the certified payroll. Any payroll form/document the contractor uses must provide all the required information as listed on the WH 347 payroll form. (**You must provide the original signed documents to the Prevailing Wage Coordinator** before you will receive your final payment)

Affidavit of Compliance- When each contractor/subcontractor has completed their work on site they are required to submit a Final Affidavit of Compliance with original INK signatures before

they receive their final payment and any retainer. **(Must send Prevailing Wage Coordinator original signed document)**

Apprentices- Any/all apprentices working on this project must be registered with the State of Ohio Apprenticeship Council or the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training (BAT), apprentices on site cannot exceed allowable ratios of apprentices/trainees to journeymen specified in the approved program. Contractors/subs must provide the Prevailing Wage Coordinator a copy of the Apprenticeship Agreement for each apprentice on the project with the first payroll on which they appear. You must provide the apprentice level/year, i.e. 1, 2, 3, etc. and percent of Journeyman's pay rate on the certified payrolls.

Subcontractors- If any subcontractors will be used during this project a list of subcontractors including their name, address, and phone number must be provided to the Prevailing Wage Coordinator by the primary contractor.

If you have any questions or need more information, please contact me.

Cheryl Southwell
218 Cleveland Ave SW 4th Floor
Canton, Ohio 44702
330-438-4183 Office
330-489-3499 Fax
cheryl.southwell@cantonohio.gov

CONTRACTOR PROFILE FORM

(If additional space is needed, please attach a separate sheet.)

Project Name: _____ Project No. _____

Contractor/Business Name: _____

Business Address: _____

Telephone: (____) _____-_____ Fax: (____) _____-_____

Federal Tax ID #: _____ State Tax ID #:_____

Our contract is with _____in the amount of $_____

for _____.
(identify specific work to be performed)

Will any work be subcontracted out? Yes _____ No _____

If yes, to whom? _____
(Please attach additional sheets if multiple subcontractors)

Person(s) authorized to sign (certify) Payroll reports: 1) _____

2) _____

Identify work classification(s), base wage payment and total wage for each individual performing work on the project site. Attach additional sheets if necessary.

Work Classification from wage decision (include group number, if applicable)	**Base Rate of Pay**	**Fringe**	**Total Wage (including Fringe)**

The fringe benefit payment will be (check A, B or C below):

(A) _____ paid to a Union benefit plan (or plans) in the amounts indicated below:

Complete chart below or attach schedule of fringe benefits.

Benefit	**Amount**
Vacation and Holiday	
Union Dues	
Health and Welfare Benefits	
Pension	
Annuity	
Other (Identify)	

Benefit funds are deposited into accounts maintained by: _____

Address: _____

Telephone: (____) _____-_____ Acct. #: (____) _____-_____

(B) _____ paid directly (with the pay check) to each worker in the amount of $_____

(C) _____ paid to an unfunded benefit plan (or plans) in the amounts indicated below:
*****If requested, copies of benefit plans to be submitted for review/approval.*****

Benefit	Amount
Pension	
Medical	
Dental	
Other (Identify)	

Benefit funds are deposited into accounts maintained by: _____

Address: _____

Telephone: (____) _____-_____ Acct. #: _____

Apprenticeship Program: _____

Your company is: _____ union _____ non-union

Your company pays all employees: _____ weekly _____ bi-weekly

Is this a sole proprietorship or partnership business? Yes _____ No _____

Caucasian Owned – WBE _____ MBE _____

_____
Owner/Principal Officer Name (Please Print)

_____ _____
Signature Date

COMPANY LETTERHEAD

PROJECT NAME: _____

PROJECT NUMBER: _____

EMPLOYEE NAME: _____

PAYROLL DEDUCTION AUTHORIZATION:

I, _____, hereby authorize _____
(employee name) (name of employer/company)

to deduct $ _____ from my paycheck.
(amount)

This deduction is for: (*must check appropriate item(s)*

_____ Loan Repayment _____ Retirement _____ Profit Sharing

_____ Advance _____ Savings Bonds _____ Charitable Donations

_____ Insurance Premiums _____ Other: _____

This deduction is to be made:

_____ One time only _____ weekly _____ monthly

_____ times over _____ weeks _____ Other: _____

Employee's Signature:_____ Date:_____

(You may make payroll deductions as permitted by DOL regulations 29CFR Part 3. These regulations prohibit the employer from requiring employees to "kick-back" (i.e. give up or return to the employer) any of their earnings other than those defined.)

(You need to submit this documentation only one time per employee, unless changes in deduction amount or duration take place.)

PREVAILING WAGE NOTIFICATION to EMPLOYEE

Project Name:	Job Number:
Contractor:	
Project Location	
Jobsite posting of Prevailing Wage rates located:	

Prevailing Wage Coordinator	Employee
Name:	Name:
Street: 218 Cleveland Ave SW	Street:
City: Canton	City:
State/Zip: Ohio 44702	State/Zip:
Phone:	Phone:

You will be performing work on this project that falls under these classifications. You will be paid the appropriate rate for the type of work you are performing.

Classification Be Specific: Laborer I (II, III) Operating Engineer I (II, III)	**Prevailing Wage Rate Total Package**	**Minus your fringe benefits**	**Your hourly base rate**

Hourly fringe benefits paid on your behalf by this Company:

Fringe	**Amount**	**Fringe**	**Amount**
Health Insurance		Vacation	
Life Insurance		Holiday	
Pension		Sick Pay	
Bonus		Training	
Other/ Cash		**Total Hourly Fringes**	

Contractor's Signature :	Date:
Employee's Signature :	Date:

PAYROLL DATES

PREVAILING WAGE LAW

Instructions to the Contractor: Please read the following and provide the required information noted on this form. This document must be submitted to the Prevailing Wage Coordinator for the Public Authority on or before your company starts any work under a contract for a public improvement. This requirement is also applicable to your subcontractors. Please make a copy of this document available to them. The prevailing wage laws states that contractors are responsible for the actions of their subcontractors.

_____ will begin performance under contract on

(Name of Contractor)

the _____ project on _____

(Name of Project and Location) (Start Date)

and will conclude work on said project on _____

(Ending Date, If Known)

In accordance with section 4115.071(C) of the Ohio Revised Code; listing of payroll dates, I hereby submit the following schedule of dates that my company is required to pay wages to it's workers while on this project. (NOTE: If the life of the project is expected to be over (3) three months in length, provide only the days of the week your pay period starts and ends, plus the day you pay your workers)

_____ _____ _____

_____ _____ _____

_____ _____ _____

Day Pay Period Starts: _____

Day Pay Period Ends: _____

Day that Workers are Paid: _____

I acknowledge that I am required by section 4115.071(C) of the Ohio Revised Code that I must submit a copy of my company's certified payroll records for this project to the Prevailing Wage Coordinator of the Public Authority within two weeks of the initial pay date listed above. I further acknowledge that I am responsible to collect and submit my subcontractors prevailing wage documents, including their certified payroll records in accordance with law.

_____ _____ _____

Contractor Signature Date

_____

Company Name & Address

Example

PAYROLL DATES

Example

PREVAILING WAGE LAW

Instructions to the Contractor: Please read the following and provide the required information noted on this form. This document must be submitted to the Prevailing Wage Coordinator for the Public Authority on or before your company starts any work under a contract for a public improvement. This requirement is also applicable to your subcontractors. Please make a copy of this document available to them. The prevailing wage laws states that contractors are responsible for the actions of their subcontractors.

Donald P. Albrecht Inc. will begin performance under contract on
(Name of Contractor)

the Mahoning Road Economic Development project on 9/24/12
(Name of Project and Location) (Start Date)

and will conclude work on said project on 10/26/12
(Ending Date, If Known)

In accordance with section 4115.071(C) of the Ohio Revised Code; listing of payroll dates, I hereby submit the following schedule of dates that my company is required to pay wages to it's workers while on this project. (NOTE: If the life of the project is expected to be over (3) three months in length, provide only the days of the week your pay period starts and ends, plus the day you pay your workers)

9/29/12	10/5/12	10/12/12
10/19/12	10/26/12	11/2/12
11/9/12		

Day Pay Period Starts: Sunday
Day Pay Period Ends: Saturday
Day that Workers are Paid: Friday

I acknowledge that I am required by section 4115.071(C) of the Ohio Revised Code that I must submit a copy of my company's certified payroll records for this project to the Prevailing Wage Coordinator of the Public Authority within two weeks of the initial pay date listed above. I further acknowledge that I am responsible to collect and submit my subcontractors prevailing wage documents, including their certified payroll records in accordance with law.

Contractor Signature

Donald P. Albrecht Inc.

9/19/12
Date

1025 Brook Ave. N.W.
Massillon, Ohio 44646
Company Name & Address

U.S. Department of Labor
Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

U.S. Wage and Hour Division
Rev. Dec. 2008
OMB No.: 1235-0008
Expires: 01/31/2015

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐ | ADDRESS

PAYROLL NO | FOR WEEK ENDING | PROJECT AND LOCATION | PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT OR ST	(4) DAY AND DATE — HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS — FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____, that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,
all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

Wage and Hour Division (WHD)

Instructions For Completing Payroll Form, WH-347

- WH-347 (PDF)
  OMB Control No. 1235-0008, Expires 01/31/2015.

General: Form WH-347has been made available for the convenience of contractors and subcontractors required by their Federal or Federally-aided construction-type contracts and subcontracts to submit weekly payrolls. Properly filled out, this form will satisfy the requirements of Regulations, Parts 3 and 5 (29 C.F.R., Subtitle A), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related Acts.

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Under the Davis-Bacon and related Acts, the contractor is required to pay not less than prevailing wage, including fringe benefits, as predetermined by the Department of Labor. The contractor's obligation to pay fringe benefits may be met either by payment of the fringe benefits to bona fide benefit plans, funds or programs or by making payments to the covered workers (laborers and mechanics) as cash in lieu of fringe benefits.

This payroll provides for the contractor to show on the face of the payroll all monies to each worker, whether as basic rates or as cash in lieu of fringe benefits, and provides for the contractor's representation in the statement of compliance on the payroll (as shown on page 2) that he/she is paying for fringe benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.

Address: Fill in your firm's address.

Payroll No.: Beginning with the number "1", list the payroll number for the submission.

For Week Ending: List the workweek ending date.

Project and Location: Self-explanatory.

Project or Contract No.: Self-explanatory.

Column 1 - Name and Individual Identifying Number of Worker: Enter each worker's full name and an individual identifying number (e.g., last four digits of worker's social security number) on each weekly payroll submitted.

Column 2 - No. of Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement of Regulations, Part 3 and 5.

Column 3 - Work Classifications: List classification descriptive of work actually performed by each laborer or mechanic. Consult classification and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. An individual may be shown as having worked in more than one classification provided an accurate breakdown or hours worked in each classification is maintained and shown on the submitted payroll by use of separate entries.

Column 4 - Hours worked: List the day and date and straight time and overtime hours worked in the applicable boxes. On all contracts subject to the Contract Work Hours Standard Act, enter hours worked in excess of 40 hours a week as "overtime".

Column 5 - Total: Self-explanatory

Column 6 - Rate of Pay (Including Fringe Benefits): In the "straight time" box for each worker, list the actual hourly

rate paid for straight time worked, plus cash paid in lieu of fringe benefits paid. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate. For example, "$12.25/.40" would reflect a $12.25 base hourly rate plus $0.40 for fringe benefits. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. When overtime is worked, show the overtime hourly rate paid plus any cash in lieu of fringe benefits paid in the "overtime" box for each worker; otherwise, you may skip this box. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standard Act of 1962 if the prime contract exceeds $100,000. In addition to paying no less than the predetermined rate for the classification which an individual works, the contractor must pay amounts predetermined as fringe benefits in the wage decision made part of the contract to approved fringe benefit plans, funds or programs or shall pay as cash in lieu of fringe benefits. See "FRINGE BENEFITS" below.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of a worker's weekly wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the Federal or Federally assisted project and then the gross amount earned during the week on all projects, thus "$163.00/$420.00" would reflect the earnings of a worker who earned $163.00 on a Federally assisted construction project during a week in which $420.00 was earned on all work.

Column 8 - Deductions: Five columns are provided for showing deductions made. If more than five deduction are involved, use the first four columns and show the balance deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deduction(s) contained in the "Other" column. All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 C.F.R., Part 3. If an individual worked on other jobs in addition to this project, show actual deductions from his/her weekly gross wage, and indicate that deductions are based on his gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Totals - Space has been left at the bottom of the columns so that totals may be shown if the contractor so desires.

Statement Required by Regulations, Parts 3 and 5: While the "statement of compliance" need not be notarized, the statement (on page 2 of the payroll form) is subject to the penalties provided by 18 U.S.C. § 1001, namely, a fine, possible imprisonment of not more than 5 years, or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

Items 1and 2: Space has been provided between items (1) and (2) of the statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "*See* Deductions column in this payroll." *See* "FRINGE BENEFITS" below for instructions concerning filling out paragraph 4 of the statement.

Item 4 FRINGE BENEFITS - Contractors who pay all required fringe benefits: If paying all fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor, show the basic cash hourly rate and overtime rate paid to each worker on the face of the payroll and check paragraph 4(a) of the statement on page 2 of the WH-347 payroll form to indicate the payment. Note any exceptions in section 4(c).

Contractors who pay no fringe benefits: If not paying all fringe benefits to approved plans, funds, or programs in amounts of at least those that were determined in the applicable wage decision of the Secretary of Labor, pay any remaining fringe benefit amount to each laborer and mechanic and insert in the "straight time" of the "Rate of Pay" column of the payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the application wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, check paragraph 4(b) of the statement on page 2 the payroll form to indicate the payment of fringe benefits in cash directly to the workers. Note any exceptions in section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the covered worker as cash in lieu of fringe benefits. Enter any exceptions to section 4(a) or 4(b) in section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid each worker as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor must pay an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in section 4(c) to each such individual for all hours worked (unless otherwise provided by applicable wage determination) on the Federal or Federally assisted project. Enter the rate paid and amount of cash paid in lieu of fringe benefits per hour in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Public Burden Statement: We estimate that it will take an average of 55 minutes to complete this collection of information, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W.,Washington, D.C. 20210.

Note: In order to view, fill out, and print PDF forms, you need Adobe® Acrobat® Reader® version 5 or later, which you may download for free at www.adobe.com/products/acrobat/readstep2.html. To save the completed forms on your workstation, you need to use the "Save As" method to save the file.
For example, move your mouse curser over the PDF link and click on your "RIGHT" mouse button. This will cause a menu to be displayed, from which you will select the proper save option -- depending upon which browser you are using:

- For Microsoft IE users, select "Save Target As"
- For Netscape Navigator users, select "Save Link As"

Once you've selected the proper save option for your browser, and have saved the file to a location you specified, go to your program menu and start the Adobe Acrobat® Reader. Once open, locate the PDF file you saved and open it directly in Acrobat®.

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Affidavit of Compliance

PREVAILING WAGES

I,_____

(Name of Person Signing Affidavit / Title)

do hereby certify that the wages paid to all employees of

_____

(Company Name)

for all hours worked on the

_____

(Project Name and Location)

project, during the period from _____to_____ are in

(Project Dates)

compliance with prevailing wage requirements of the contract between

_____and the City of Canton, Ohio.

I further certify that no rebates or deductions have or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

_____

(Signature of Officer or Agent)

Sworn to and subscribed in my presence this _____ day of _____, 20_____.

_____

(Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the contractor or subcontractor who supervises the payment of employees. This affidavit must be submitted before the surety is released or the final payment due under the terms of the contract is made.

Appendix A

"General Decision Number: OH20230001 04/14/2023

Superseded General Decision Number: OH20220001

State: Ohio

Construction Types: Heavy and Highway

Counties: Ohio Statewide.

Heavy and Highway Construction Projects

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the

Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2023
1	02/03/2023
2	03/03/2023
3	04/14/2023

* BROH0001-001 06/01/2022

DEFIANCE, FULTON (Excluding Fulton, Amboy & Swan Creek Townships), HENRY (Excluding Monroe, Bartlow, Liberty, Washington, Richfield, Marion, Damascus & Townships & that part of Harrison Township outside corporate limits of city of Napoleon), PAULDING, PUTNAM and WILLIAMS COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

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* BROH0001-004 06/01/2022

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 31.40	18.55

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* BROH0003-002 06/01/2022

FULTON (Townships of Amboy, Swan Creek & Fulton), HENRY (Townships of Washington, Damascus, Richfield, Bartlow, Liberty, Harrison, Monroe, & Marion), LUCAS and WOOD (Townships of Perrysburg, Ross, Lake, Troy, Freedom, Montgomery, Webster, Center, Portage, Middleton, Plain, Liberty, Henry, Washington, Weston, Milton, Jackson & Grand Rapids) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

BROH0005-003 06/01/2020

CUYAHOGA, LORAIN & MEDINA (Hinckley, Granger, Brunswick, Liverpool, Montville, York, Homer, Harrisville, Chatham, Litchfield & Spencer Townships and the city of Medina)

	Rates	Fringes
BRICKLAYER		
BRICKLAYERS; CAULKERS; CLEANERS; POINTERS; & STONEMASONS	$ 36.64	17.13
SANDBLASTERS	$ 36.39	17.13
SEWER BRICKLAYERS & STACK BUILDERS	$ 36.64	17.13
SWING SCAFFOLDS	$ 37.14	17.13

* BROH0006-005 06/01/2022

CARROLL, COLUMBIANA (Knox, Butler, West & Hanover Townships), STARK & TUSCARAWAS

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

* BROH0007-002 06/01/2022

LAWRENCE

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

* BROH0007-005 06/01/2022

PORTAGE & SUMMIT

	Rates	Fringes
BRICKLAYER	$ 31.40	18.55

BROH0007-010 06/01/2017

PORTAGE & SUMMIT

	Rates	Fringes
MASON - STONE	$ 28.65	14.55

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* BROH0008-001 06/01/2022

COLUMBIANA (Salem, Perry, Fairfield, Center, Elk Run, Middleton, & Unity Townships and the city of New Waterford), MAHONING & TRUMBULL

	Rates	Fringes
BRICKLAYER	$ 31.40	18.55

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* BROH0009-002 06/01/2022

BELMONT & MONROE COUNTIES and the Townships of Warren & Mt. Pleasant and the Village of Dillonvale in JEFFERSON COUNTY

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55
Refractory	$ 31.45	19.01

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* BROH0010-002 06/01/2022

COLUMBIANA (St. Clair, Madison, Wayne, Franklin, Washington, Yellow Creek & Liverpool Townships) & JEFFERSON (Brush Creek & Saline Townships)

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

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* BROH0014-002 06/01/2022

HARRISON & JEFFERSON (Except Mt. Pleasant, Warren, Brush Creek, Saline & Salineville Townships & the Village of Dillonvale)

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

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* BROH0016-002 06/01/2022

ASHTABULA, GEAUGA, and LAKE COUNTIES

	Rates	Fringes

Bricklayer, Stonemason.....$ 31.40 18.55

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* BROH0018-002 06/01/2022

BROWN, BUTLER, CLERMONT, HAMILTON, PREBLE (Gasper, Dixon, Israel, Lanier, Somers & Gratis Townships) & WARREN COUNTIES:

	Rates	Fringes
Bricklayer, Stonemason.....	$ 31.40	18.55

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* BROH0022-004 06/01/2022

CHAMPAIGN, CLARK, CLINTON, DARKE, GREENE, HIGHLAND, LOGAN, MIAMI, MONTGOMERY, PREBLE (Jackson, Monroe, Harrison, Twin, Jefferson & Washington Townships) and SHELBY COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	$ 31.40	18.55

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* BROH0032-001 06/01/2022

GALLIA & MEIGS

	Rates	Fringes
Bricklayer, Stonemason.....	$ 31.40	18.55

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* BROH0035-002 06/01/2022

ALLEN, AUGLAIZE, MERCER and VAN WERT COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	$ 31.40	18.55

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* BROH0039-002 06/01/2022

ADAMS & SCIOTO

	Rates	Fringes
Bricklayer, Stonemason.....	$ 31.40	18.55

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* BROH0040-003 06/01/2022

ASHLAND, CRAWFORD, HARDIN, HOLMES, MARION, MORROW, RICHLAND,

WAYNE and WYANDOT (Except Crawford, Ridge, Richland & Tymochtee Townships) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 32.49	23.43

FOOTNOTE: Layout Man and Sawman rate: $1.00 per hour above journeyman rate.
Free standing stack work ground level to top of stack; Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: $1.50 per hour above journeyman rate.
""Hot"" work: $2.50 above journeyman rate.

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* BROH0044-002 06/01/2022

	Rates	Fringes
Bricklayer, Stonemason COSHOCTON, FAIRFIELD, GUERNSEY, HOCKING, KNOX, KICKING, MORGAN, MUSKINGUM, NOBLE (Beaver, Buffalo, Seneca & Wayne Townships) & PERRY COUNTIES:	$ 31.40	18.55

BROH0045-002 06/01/2021

FAYETTE, JACKSON, PIKE, ROSS and VINTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 30.40	17.66

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* BROH0046-002 06/01/2022

ERIE, HANCOCK, HURON, OTTAWA, SANDUSKY, SENECA, WOOD (Perry & Bloom Townships) and WYANDOT (Tymochtee, Crawford, Ridge & Richland Townships) COUNTIES & the Islands of Lake Erie north of Sandusky

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

FOOTNOTE: Layout Man and Sawman rate: $1.00 per hour above journeyman rate.
Free standing stack work ground level to top of stack; Sandblasting and laying of carbon masonry material in swing stage and/or scaffold; Ramming and spading of plastics and gunniting: $1.50 per hour above journeyman rate.
""Hot"" work: $2.50 above journeyman rate.

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* BROH0052-001 06/01/2022

ATHENS COUNTY

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

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* BROH0052-003 06/01/2022

NOBLE (Brookfield, Noble, Center, Sharon, Olive, Enoch, Stock, Jackson, Jefferson & Elk Townships) and WASHINGTON COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

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* BROH0055-003 06/01/2022

DELAWARE, FRANKLIN, MADISON, PICKAWAY and UNION COUNTIES

	Rates	Fringes
Bricklayer, Stonemason	$ 31.40	18.55

CARP0003-004 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
CARPENTER	$ 26.20	17.42

CARP0069-003 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
CARPENTER	$ 25.98	15.98

CARP0069-006 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes
CARPENTER	$ 24.04	15.29

CARP0171-002 05/01/2019

BELMONT, COLUMBIANA, HARRISON, JEFFERSON & MONROE

	Rates	Fringes
CARPENTER	$ 27.37	20.02

CARP0200-002 05/01/2021

ADAMS, ATHENS, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GALLIA, GUERNSEY, HIGHLAND, HOCKING, JACKSON, LAWRENCE, LICKING, MADISON, MARION, MEIGS, MORGAN, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE, ROSS, SCIOTO, UNION, VINTON and WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 30.28	20.08
Diver	$ 39.41	10.40
PILEDRIVERMAN	$ 30.28	20.08

CARP0248-005 07/01/2008

LUCAS & WOOD

	Rates	Fringes
CARPENTER	$ 27.27	14.58

CARP0248-008 07/01/2008

	Rates	Fringes
CARPENTER		
DEFIANCE, FULTON, HANCOCK, HENRY, PAULDING & WILLIAMS COUNTIES	$ 23.71	13.28

CARP0254-002 05/01/2017

ASHTABULA, CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
CARPENTER	$ 32.40	16.97

CARP0372-002 05/01/2016

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM & VAN WERT

	Rates	Fringes
CARPENTER	$ 24.54	18.21

CARP0639-003 05/01/2017

MEDINA, PORTAGE & SUMMIT

	Rates	Fringes
CARPENTER	$ 30.42	16.99

CARP0735-002 05/01/2019

ASHLAND, ERIE, HURON, LORAIN & RICHLAND

	Rates	Fringes
CARPENTER	$ 26.30	17.91

CARP1311-001 05/01/2017

BROWN, BUTLER, CHAMPAIGN, CLARK, CLERMONT, CLINTON, DARKE, GREENE, HAMILTON, LOGAN, MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN

	Rates	Fringes
Carpenter & Piledrivermen	$ 29.34	15.95
Diver	$ 40.58	9.69

CARP1393-002 07/01/2008

CRAWFORD, DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes

Piledrivermen & Diver's Tender...$ 27.30 16.05

DIVERS - $250.00 per day

CARP1393-003 07/01/2008

ALLEN, AUGLAIZE, HARDIN, MERCER, PUTNAM, VAN WERT & WYANDOT

	Rates	Fringes
Piledrivermen & Diver's Tender	$ 25.15	15.92

DIVERS - $250.00 per day

CARP1871-006 05/01/2017

BELMONT, HARRISON, & MONROE

	Rates	Fringes
Diver, Wet	$ 48.11	17.33
Piledrivermen; Diver, Dry	$ 32.07	17.33

CARP1871-008 05/01/2017

ASHLAND, ASHTABULA, CUYAHOGA, ERIE, GEAUGA, HURON, LAKE, LORAIN, MEDINA, PORTAGE, RICHLAND & SUMMIT

	Rates	Fringes
Diver, Wet	$ 45.80	18.84
Piledrivermen; Diver, Dry	$ 30.53	18.84

CARP1871-014 05/01/2017

CARROLL, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
Diver, Wet	$ 38.34	16.95
Piledrivermen; Diver, Dry	$ 25.56	16.95

CARP1871-015 05/01/2017

COSHOCTON, HOLMES, KNOX & MORROW

	Rates	Fringes

Diver, Wet	$ 37.34	16.07
Piledrivermen; Diver, Dry	$ 24.89	16.07

CARP1871-017 05/01/2017

MAHONING & TRUMBULL

	Rates	Fringes
Diver, Wet	$ 40.65	17.62
Piledrivermen; Diver, Dry	$ 27.10	17.62

CARP2235-012 01/01/2014

COLUMBIANA & JEFFERSON

	Rates	Fringes
PILEDRIVERMAN	$ 31.74	16.41

CARP2239-001 07/01/2008

CRAWFORD, OTTAWA, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
CARPENTER	$ 23.71	13.28

ELEC0008-002 05/23/2022

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
CABLE SPLICER	$ 38.98	18.96
ELECTRICIAN	$ 44.79	4.5%+21.61

ELEC0032-003 12/05/2022

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Ridgeland, Ridge & Salem Townships)

	Rates	Fringes
ELECTRICIAN	$ 34.67	21.48

ELEC0038-002 04/25/2022

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &
LORAIN (Columbia Township)

	Rates	Fringes
ELECTRICIAN		
Excluding Sound & Communications Work	$ 40.88	22.75

FOOTNOTES;
a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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ELEC0038-008 04/25/2022

CUYAHOGA, GEAUGA (Bainbridge, Chester & Russell Townships) &
LORAIN (Columbia Township)

	Rates	Fringes
Sound & Communication Technician		
Communications Technician	$ 29.30	13.29
Installer Technician	$ 28.05	13.25

FOOTNOTES;
a. 6 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; & Christmas Day
b. 1 week's paid vacation for 1 year's service; 2 weeks' paid vacation for 2 or more years' service

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ELEC0064-003 11/28/2022

COLUMBIANA (Butler, Fairfield, Perry, Salem & Unity Townships)
MAHONING (Austintown, Beaver, Berlin, Boardman, Canfield,
Ellsworth, Coitsville, Goshen, Green, Jackson, Poland,
Springfield & Youngstown Townships), & TRUMBULL (Hubbard &
Liberty Townships)

	Rates	Fringes

ELECTRICIAN.....$ 36.10 18.91

ELEC0071-001 01/01/2019

ASHLAND, CHAMPAIGN, CLARK, COSHOCTON, CRAWFORD, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, GUERNSEY, HIGHLAND, HOCKING, JACKSON (Coal, Jackson, Liberty, Milton, Washington & Wellston Townships), KNOX, LICKING, MADISON, MARION, MONROE, MORGAN, MORROW, MUSKINGUM, NOBLE, PERRY, PICKAWAY, PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, Peepee, Perry & Seal Townships), RICHLAND, ROSS, TUSCARAWAS (Auburn, Bucks, Clay, Jefferson, Oxford, Perry, Salem, Rush, Washington & York Townships), UNION, VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships), and WASHINGTON COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operators	$ 33.62	13.40
Groundmen	$ 24.17	11.32
Linemen & Cable Splicers	$ 38.27	14.42

ELEC0071-004 01/01/2019

AUGLAIZE, CLINTON, DARKE, GREENE, LOGAN, MERCER, MIAMI, MONTGOMERY, PREBLE, and SHELBY COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 33.62	13.40
Groundman	$ 24.17	11.32
Lineman & Cable Splicers	$ 38.27	14.42

ELEC0071-005 12/31/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE & LORAIN

	Rates	Fringes
LINE CONSTRUCTION: Equipment Operator		
DOT/Traffic Signal & Highway Lighting Projects	$ 32.44	14.10
Municipal Power/Transit Projects	$ 40.10	16.42
LINE CONSTRUCTION: Groundman		
DOT/Traffic Signal &		

Highway Lighting Projects	$ 25.06	12.26
Municipal Power/Transit Projects	$ 31.19	14.11
LINE CONSTRUCTION:		
Linemen/Cable Splicer		
DOT/Traffic Signal & Highway Lighting Projects	$ 36.13	15.03
Municipal Power/Transit Projects	$ 44.56	17.58

ELEC0071-008 01/01/2019

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 33.62	13.40
Groundman	$ 24.17	11.32
Lineman & Cable Splicers	$ 38.27	14.42

ELEC0071-010 01/01/2019

BELMONT, CARROLL, HARRISON, HOLMES, JEFFERSON, MEDINA, PORTAGE, STARK, SUMMIT, and WAYNE COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 33.62	13.40
Groundman	$ 24.17	11.32
Lineman & Cable Splicers	$ 38.27	14.42

ELEC0071-013 01/01/2019

BROWN, BUTLER, CLERMONT, HAMILTON, and WARREN COUNTIES

	Rates	Fringes
Line Construction		
Equipment Operator	$ 33.62	13.40
Groundman	$ 24.17	11.32
Lineman & Cable Splicers	$ 38.27	14.42

ELEC0071-014 01/01/2019

ADAMS, ATHENS, GALLIA, JACKSON (Bloomfield, Franklin, Hamilton, Lick, Jefferson, Scioto & Madison Townships), LAWRENCE, MEIGS, PIKE (Camp Creek, Marion, Newton, Scioto, Sunfish & Union

Townships), SCIOTO & VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships)

	Rates	Fringes
Line Construction		
Equipment Operator	$ 33.62	13.40
Groundman	$ 24.17	11.32
Lineman & Cable Splicers	$ 38.27	14.42

ELEC0082-002 12/05/2022

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
ELECTRICIAN	$ 34.25	21.26

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* ELEC0082-006 11/28/2022

CLINTON, DARKE, GREENE, MIAMI, MONTGOMERY, PREBLE & WARREN (Wayne, Clear Creek & Franklin Townships)

	Rates	Fringes
Sound & Communication Technician		
Cable Puller	$ 13.10 **	4.76
Installer/Technician	$ 26.20	13.89

ELEC0129-003 02/27/2023

LORAIN (Except Columbia Township) & MEDINA (Litchfield & Liverpool Townships)

	Rates	Fringes
ELECTRICIAN	$ 39.30	18.30

ELEC0129-004 02/27/2023

ERIE & HURON (Lyme, Ridgefield, Norwalk, Townsend, Wakeman, Sherman, Peru, Bronson, Hartland, Clarksfield, Norwich, Greenfield, Fairfield, Fitchville & New London Townships)

	Rates	Fringes
ELECTRICIAN	$ 39.30	18.30

ELEC0141-003 09/01/2019

BELMONT COUNTY

	Rates	Fringes
CABLE SPLICER	$ 30.63	25.87
ELECTRICIAN	$ 30.38	25.87

ELEC0212-003 11/26/2018

BROWN, CLERMONT & HAMILTON

	Rates	Fringes
Sound & Communication Technician	$ 24.35	10.99

ELEC0212-005 06/06/2022

BROWN, CLERMONT, and HAMILTON COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 33.29	21.15

ELEC0245-001 08/29/2022

ALLEN, HARDIN, VAN WERT & WYANDOT (Crawford, Jackson, Marseilles, Mifflin, Richland, Ridge & Salem Townships)

	Rates	Fringes
Line Construction		
Equipment Operator	$ 32.37	26.5%+7.25
Groundman Truck Driver	$ 19.35	7.00+27.25%
Lineman	$ 44.22	7.00+27.25%

FOOTNOTE: a. Half day's Paid Holiday: The last 4 hours of the workday prior to Christmas or New Year's Day

ELEC0245-003 08/29/2022

DEFIANCE, FULTON, HANCOCK, HENRY, HURON, LUCAS, OTTAWA,
PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS, and WOOD COUNTIES

	Rates	Fringes
Line Construction		
Cable Splicer	$ 50.85	7.00+27.25%
Groundman/Truck Driver	$ 19.35	7.00+27.25%
Heli-arc Welding	$ 40.76	7.00+27.25%
Lineman	$ 44.22	7.00+27.25%
Operator - Class 1	$ 35.38	7.00+27.25%
Operator - Class 2	$ 28.32	7.00+27.25%
Traffic Signal & Lighting Technician	$ 39.80	7.00+27.25%

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0245-004 08/29/2022

ERIE COUNTY

	Rates	Fringes
Line Construction		
Cable Splicer	$ 49.14	26.75%+6.75
Cablesplicer	$ 50.85	7.00+27.25%
Groundman/Truck Driver	$ 19.35	7.00+27.25%
Lineman	$ 44.22	7.00+27.25%
Operator - Class 1	$ 35.38	7.00+27.25%
Operator - Class 2	$ 28.32	7.00+27.25%

FOOTNOTE: a. 6 Observed Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; & Christmas Day. Employees who work on a holiday shall be paid at a rate of double their applicable classified straight-time rates for the work performed on such holiday.

ELEC0246-001 10/31/2022

	Rates	Fringes
ELECTRICIAN	$ 40.50	84%+36.47

FOOTNOTE: a. 1 1/2 Paid Holidays: The last scheduled workday prior to Christmas & 4 hours on Good Friday.

ELEC0306-005 05/28/2018

MEDINA (Brunswick, Chatham, Granger, Guilford, Harrisville, Hinckley, Homer, Lafayette, Medina, Montville, Sharon, Spencer, Wadsworth, Westfield & York Townships), PORTAGE (Atwater, Aurora, Brimfield, Deerfield, Franklin, Mantua, Randolph, Ravenna, Rootstown, Shalersville, Streetsboro & Suffield Townships), SUMMIT & WAYNE (Baughman, Canaan, Chester, Chippewa, Congress, Green, Milton, & Wayne Townships)

	Rates	Fringes
CABLE SPLICER	$ 36.87	16.56
ELECTRICIAN	$ 34.54	5%+18.06

ELEC0317-002 05/30/2022

GALLIA & LAWRENCE

	Rates	Fringes
CABLE SPLICER	$ 32.68	18.13
ELECTRICIAN	$ 35.85	28.25

ELEC0540-005 12/27/2021

CARROLL (Northern half, including Fox, Harrison, Rose & Washington Townhships), COLUMBIANA (Knox Township), HOLMES, MAHONING (Smith Township), STARK, TUSCARAWAS (North of Auburn, Clay, Rush & York Townships), and WAYNE (South of Baughman, Chester, Green & Wayne Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 35.28	22.63

ELEC0573-003 11/28/2022

ASHTABULA (Colebrook, Wayne, Williamsfield, Orwell & Windsor Townships), GEAUGA (Auburn, Middlefield, Parkman & Troy Townships), MAHONING (Milton Township), PORTAGE (Charlestown, Edinburg, Freedom, Hiram, Nelson, Palmyra, Paris & Windham Townships), and TRUMBULL (Except Liberty & Hubbard Townships)

	Rates	Fringes
ELECTRICIAN	$ 38.70	20.94

ELEC0575-001 11/21/2022

ADAMS, FAYETTE, HIGHLAND, HOCKING, JACKSON (Bloomfield, Franklin, Hamilton, Jefferson, Lick, Madison, Scioto, Coal, Jackson, Liberty, Milton & Washington Townships), PICKAWAY (Deer Creek, Perry, Pickaway, Salt Creek & Wayne Townships), PIKE (Beaver, Benton, Jackson, Mifflin, Pebble, PeePee, Perry, Seal, Camp Creek, Newton, Scioto, Sunfish, Union & Marion Townships), ROSS, SCIOTO & VINTON (Clinton, Eagle, Elk, Harrison, Jackson, Richland & Swan Townships)

	Rates	Fringes
ELECTRICIAN	$ 36.00	21.14

ELEC0648-001 08/29/2022

BUTLER and WARREN COUNTIES (Deerfield, Hamilton, Harlan, Massie, Salem, Turtle Creek, Union & Washington Townships)

	Rates	Fringes
CABLE SPLICER	$ 30.50	18.23
ELECTRICIAN	$ 33.00	21.44

ELEC0673-004 01/01/2023

ASHTABULA (Excluding Orwell, Colebrook, Williamsfield, Wayne & Windsor Townships), GEAUGA (Burton, Chardon, Claridon, Hambden, Huntsburg, Montville, Munson, Newbury & Thompson Townships) and LAKE COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 33.81	21.47
ELECTRICIAN	$ 35.15	23.41

ELEC0683-002 05/30/2022

CHAMPAIGN, CLARK, DELAWARE, FAIRFIELD, FRANKLIN, MADISON, PICKAWAY (Circleville, Darby, Harrison, Jackson, Madison, Monroe, Muhlenberg, Scioto, Walnut & Washington Townships), and

UNION COUNTIES

	Rates	Fringes
CABLE SPLICER	$ 37.50	23.15
ELECTRICIAN	$ 36.50	23.15

ELEC0688-003 05/30/2022

ASHLAND, CRAWFORD, HURON (Richmond, New Haven, Ripley & Greenwich Townships), KNOX (Liberty, Clinton, Union, Howard, Monroe, Middleberry, Morris, Wayne, Berlin, Pike, Brown & Jefferson Townships), MARION, MORROW, RICHLAND and WYANDOT (Sycamore, Crane, Eden, Pitt, Antrim & Tymochtee Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 32.30	21.83

ELEC0972-002 06/01/2021

ATHENS, MEIGS, MONROE, MORGAN, NOBLE, VINTON (Brown, Knox, Madison, Vinton & Wilkesville Townships), and WASHINGTON COUNITES

	Rates	Fringes
CABLE SPLICER	$ 37.35	27.81
ELECTRICIAN	$ 34.30	27.62

ELEC1105-001 05/30/2022

COSHOCTON, GUERNSEY, KNOX (Jackson, Clay, Morgan, Miller, Milford, Hilliar, Butler, Harrison, Pleasant & College Townships), LICKING, MUSKINGUM, PERRY, and TUSCARAWAS (Auburn, York, Clay, Jefferson, Rush, Oxford, Washington, Salem, Perry & Bucks Townships) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 35.25	22.18

ENGI0018-003 05/01/2019

ASHTABULA, CUYAHOGA, ERIE, GEAUGA, LAKE, LORAIN, MEDINA,

PORTAGE, and SUMMIT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 38.63	15.20
GROUP 2	$ 38.53	15.20
GROUP 3	$ 37.49	15.20
GROUP 4	$ 36.27	15.20
GROUP 5	$ 30.98	15.20
GROUP 6	$ 38.88	15.20
GROUP 7	$ 39.13	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24"" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; Wheel Excavator; and Asphalt Plant Engineer (Cleveland District Only).

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48""; Bulldozer; Endloader; Horizontal Directional Drill (Over 50,000 ft lbs thrust); Hydro Milling Machine; Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications);

Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24"" wide & under); Vermeer type Concrete Saw; and Maintenance Operators (Portage and Summit Counties Only).

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer (Portage and Summit Counties Only); Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4"" & over discharge); Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); Welding Machines; and Railroad Tie Inserter/Remover; Articulating/straight bed end dumps if assigned (minus $4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48"" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Forklift; Form Trencher; Hydro Hammer expect masonary; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum Fireperson (Asphalt Plant); Generator; Masonry Fork Lift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4"" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0018-004 05/01/2019

ADAMS, ALLEN, ASHLAND, ATHENS, AUGLAIZE, BELMONT, BROWN, BUTLER, CARROLL, CHAMPAIGN, CLARK, CLERMONT, CLINTON, COSHOCTON, CRAWFORD, DARKE, DEFIANCE, DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, FULTON, GALLIA, GREENE, GUERNSEY, HAMILTON, HANCOCK, HARDIN, HARRISON, HENRY, HIGHLAND, HOCKING, HOLMES, HURON, JACKSON, JEFFERSON, KNOX, LAWRENCE, LICKING, LOGAN, LUCAS, MADISON, MARION, MEIGS, MERCER, MIAMI, MONROE, MONTGOMERY, MORGAN, MORROW, MUSKINGUM, NOBLE, OTTAWA, PAULDING, PERRY, PICKAWAY, PIKE, PREBLE, PUTNAM, RICHLAND, ROSS, SANDUSKY, SCIOTO, SENECA, SHELBY, STARK, TUSCARAWAS, UNION, VAN WERT, VINTON, WARREN, WASHINGTON, WAYNE, WILLIAMS, WOOD, and YANDOT COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
GROUP 1	$ 37.14	15.20
GROUP 2	$ 37.02	15.20
GROUP 3	$ 35.98	15.20
GROUP 4	$ 34.80	15.20
GROUP 5	$ 29.34	15.20
GROUP 6	$ 37.39	15.20
GROUP 7	$ 37.64	15.20

OPERATING ENGINEER CLASSIFICATIONS

GROUP 1 - Air Compressor on Steel Erection; Barrier Moving Machine; Boiler Operator on Compressor or Generator when mounted on a Rig; Cableway; Combination Concrete Mixer & Tower; Concrete Plant (over 4 yd. Capacity); Concrete Pump; Crane (All Types, Including Boom Truck, Cherry Picker); Crane-Compact, Track or Rubber over 4,000 lbs. capacity; Cranes-Self Erecting, Stationary, Track or Truck (All Configurations); Derrick; Dragline; Dredge (Dipper, Clam or Suction); Elevating Grader or Euclid Loader; Floating Equipment (All Types); Gradall; Helicopter Crew (Operator-Hoist or Winch); Hoe (all types); Hoisting Engine on Shaft or Tunnel Work; Hydraulic Gantry (Lifting System); Industrial-Type Tractor; Jet Engine Dryer (D8 or D9) Diesel Tractor; Locomotive (Standard Gauge); Maintenance Operator Class A; Mixer, Paving (Single or Double Drum); Mucking Machine; Multiple Scraper; Piledriving Machine (All Types); Power Shovel; Prentice Loader; Quad 9 (Double Pusher); Rail Tamper (with auto lifting & aligning device); Refrigerating Machine (Freezer

Operation); Rotary Drill, on Caisson work; Rough Terrain Fork Lift with Winch/Hoist; Side-Boom; Slip-Form Paver; Tower Derrick; Tree Shredder; Trench Machine (Over 24"" wide); Truck Mounted Concrete Pump; Tug Boat; Tunnel Machine and/or Mining Machine; and Wheel Excavator.

GROUP 2 - Asphalt Paver; Automatic Subgrader Machine, Self-Propelled (CMI Type); Bobcat Type and/or Skid Steer Loader with Hoe Attachment Greater than 7,000 lbs.; Boring Machine More than 48""; Bulldozer; Endloader; Hydro Milling Machine; Horizontal Directional Drill (over 50,000 ft. lbs. thrust);Kolman-type Loader (production type-Dirt); Lead Greaseman; Lighting & Traffic Signal Installation Equipment (includes all groups or classifications); Material Transfer Equipment (Shuttle Buggy) Asphalt; Pettibone-Rail Equipment; Power Grader; Power Scraper; Push Cat; Rotomill (all), Grinders & Planers of All types; Trench Machine (24"" wide & under); and Vermeer type Concrete Saw.

GROUP 3 - A-Frame; Air Compressor on Tunnel Work (low pressure); Asphalt Plant Engineer; Bobcat-type and/or Skid Steer Loader with or without Attachments; Highway Drills (all types); Locomotive (narrow gauge); Material Hoist/Elevator; Mixer, Concrete (more than one bag capacity); Mixer, one bag capacity (Side Loader); Power Boiler (Over 15 lbs. Pressure) Pump Operator installing & operating Well Points; Pump (4"" & over discharge); Railroad Tie Inserter/Remover; Roller, Asphalt; Rotovator (lime soil stabilizer); Switch & Tie Tampers (without lifting & aligning device); Utility Operator (Small equipment); and Welding Machines; Artiaculating/straight bed end dumps if assigned (minus $4.00 per hour.

GROUP 4 - Backfiller; Ballast Re-locator; Bars, Joint & Mesh Installing Machine; Batch Plant; Boring Machine Operator (48"" or less); Bull Floats; Burlap & Curing Machine; Concrete Plant (capacity 4 yd. & under); Concrete Saw (Multiple); Conveyor (Highway); Crusher; Deckhand; Farm-type Tractor with attachments (highway); Finishing Machine; Fireperson, Floating Equipment (all types); Fork Lift; Form Trencher; Hydro Hammer expect masonary; Hydro Seeder; Pavement Breaker; Plant Mixer; Post Driver; Post Hole Digger (Power Auger); Power Brush Burner; Power Form Handling Equipment; Road Widening Trencher; Roller (Brick, Grade & Macadam); Self-Propelled Power Spreader; Self-Propelled Power Subgrader; Steam Fireperson; Tractor (Pulling Sheepfoot, Roller or Grader); and Vibratory Compactor with Integral Power.

GROUP 5 - Compressor (Portable, Sewer, Heavy & Highway); Drum

Fireperson (Asphalt Plant); Generator; Masonary Forklift; Inboard-Outboard Motor Boat Launch; Oil Heater (asphalt plant); Oiler/Helper; Power Driven Heater; Power Sweeper & Scrubber; Pump (under 4"" discharge); Signalperson; Tire Repairperson; VAC/ALLS; Cranes - Compact, track or rubber under 4,000 pound capacity; fueling and greasing; and Chainmen.

GROUP 6 - Master Mechanic & Boom from 150 to 180.

GROUP 7 - Boom from 180 and over.

ENGI0066-023 06/01/2017

COLUMBIANA, MAHONING & TRUMBULL COUNTIES

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - A & B	$ 39.23	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - A & B	$ 38.90	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - A & B	$ 34.64	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - A & B	$ 30.70	19.66
ASBESTOS; HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - A & B	$ 27.30	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 1 - C & D	$ 35.96	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 2 - C & D	$ 35.66	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 3 - C & D	$ 31.76	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 4 - C & D	$ 28.14	19.66
HAZARDOUS/TOXIC WASTE PROJECTS		
GROUP 5 - C & D	$ 25.03	19.66

ALL OTHER WORK		
GROUP 1.....	$ 32.69	19.66
ALL OTHER WORK		
GROUP 2.....	$ 32.42	19.66
ALL OTHER WORK		
GROUP 3.....	$ 28.87	19.66
ALL OTHER WORK		
GROUP 4.....	$ 25.58	19.66
ALL OTHER WORK		
GROUP 5.....	$ 22.75	19.66

GROUP 1 - Rig, Pile Driver or Caisson Type; & Rig, Pile Hydraulic Unit Attached

GROUP 2 - Asphalt Heater Planer; Backfiller with Drag Attachment; Backhoe; Backhoe with Shear attached; Backhoe-Rear Pivotal Swing; Batch Plant-Central Mix Concrete; Batch Plant, Portable concrete; Berm Builder-Automatic; Boat Derrick; Boat-Tug; Boring Machine Attached to Tractor; Bullclam; Bulldozer; C.M.I. Road Builder & Similar Type; Cable Placer & Layer; Carrier-Straddle; Carryall-Scraper or Scoop; Chicago Boom; Compactor with Blade Attached; Concrete Saw (Vermeer or similar type); Concrete Spreader Finisher; Combination, Bidwell Machine; Crane; Crane-Electric Overhead; Crane-Rough Terrain; Crane-Side Boom; Crane-Truck; Crane-Tower; Derrick-Boom; Derrick-Car; Digger-Wheel (Not trencher or road widener); Double Nine; Drag Line; Dredge; Drill-Kenny or Similar Type; Easy Pour Median Barrier Machine (or similar type); Electromatic; Frankie Pile; Gradall; Grader; Gurry; Self-Propelled; Heavy Equipment Robotics Operator/Mechanic; Hoist-Monorail; Hoist-Stationary & Mobile Tractor; Hoist, 2 or 3 drum; Horizontal Directional Drill Operator; Jackall; Jumbo Machine; Kocal & Kuhlman; Land-Seagoing Vehicle; Loader, Elevating; Loader, Front End; Loader, Skid Steer; Locomotive; Mechanic/Welder; Metro Chip Harvester with Boom; Mucking Machine; Paver-Asphalt Finishing Machine; Paver-Road Concrete; Paver-Slip Form (C.M.I. or similar); Place Crete Machine with Boom; Post Driver (Carrier mounted); Power Driven Hydraulic Pump & Jack (When used in Slip Form or Lift Slab Construction); Pump Crete Machine; Regulator-Ballast; Hydraulic Power Unit not attached to Rig for Pile Drillings; Rigs-Drilling; Roto Mill or similar Full Lane (8' Wide & Over); Roto Mill or similar type (Under 8'); Shovel; Slip Form Curb Machine; Speedwing; Spikemaster; Stonecrusher; Tie Puller & Loader; Tie Tamper; Tractor-Double Boom; Tractor with Attachments; Truck-Boom; Truck-Tire; Trench Machine; Tunnel Machine (Mark 21 Java or similar); & Whirley (or similar type)

GROUP 3 - Asphalt Plant; Bending Machine (Pipeline or similar type); Boring machine, Motor Driven; Chip Harvester without Boom; Cleaning Machine, Pipeline Type; Coating Machine, Pipeline Type; Compactor; Concrete Belt Placer; Concrete Finisher; Concrete Planer or Asphalt; Concrete Spreader; Elevator; Fork Lift (Home building only); Fork lift & Lulls; Fork Lift Walk Behind (Hoisting over 1 buck high); Form Line Machine; Grease Truck operator; Grout Pump; Gunnite Machine; Horizontal Directional Drill Locator; Single Drum Hoist with or without Tower; Huck Bolting Machine; Hydraulic Scaffold (Hoisting building materials); Paving Breaker (Self-propelled or Ridden); Pipe Dream; Pot Fireperson (Power Agitated); Refrigeration Plant; Road Widener; Roller; Sasgen Derrick; Seeding Machine; Soil Stabilizer (Pump type); Spray Cure Machine, Self-Propelled; Straw Blower Machine; Sub-Grader; Tube Finisher or Broom C.M.I. or similar type; & Tugger Hoist

GROUP 4 - Air Curtain Destructor & Similar Type; Batch Plant-Job Related; Boiler Operator; Compressor; Conveyor; Curb Builder, self-propelled; Drill Wagon; Generator Set; Generator-Steam; Heater-Portable Power; Hydraulic Manipulator Crane; Jack-Hydraulic Power driven; Jack-Hydraulic (Railroad); Ladavator; Minor Machine Operator; Mixer-Concrete; Mulching Machine; Pin Puller; Power Broom; Pulverizer; Pump; Road Finishing Machine (Pull Type); Saw-Concrete-Self-Propelled (Highway Work); Signal Person; Spray Cure Machine-Motor Powered; Stump Cutter; Tractor; Trencher Form; Water Blaster; Steam Jenny; Syphon; Vibrator-Gasoline; & Welding Machine

GROUP 5 - Brakeperson; Fireperson; & Oiler

IRON0017-002 05/01/2022

ASHTABULA (North of Route 6, starting at the Geauga County Line, proceeding east to State Route 45), CUYAHOGA, ERIE (Eastern 2/3), GEAUGA, HURON (East of a line drawn from the north border through Monroeville & Willard), LAKE, LORAIN, MEDINA (North of Old Rte. #224), PORTAGE (West of a line from Middlefield to Shalersville to Deerfield), and SUMMIT (North of Old Rte. #224, including city limits of Barberton) COUNTIES

	Rates	Fringes
IRONWORKER		
Ornamental, Reinforcing, &		

Structural.....$ 34.33		27.51

IRON0017-010 05/01/2022

ASHTABULA (Eastern part from Lake Erie on the north to route #322 on the south to include Conneaut, Kingsville, Sheffield, Denmark, Dorset, Cherry Valley, Wayne, Monroe, Pierpont, Richmond, Andover & Williamsfield Townships)

	Rates	Fringes
IRONWORKER		
Structural, including metal building erection & Reinforcing.....$ 34.33		27.51

IRON0044-001 06/01/2022

ADAMS (Western Part), BROWN, BUTLER (Southern Part), CLERMONT, CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) and WARREN (South of a line drawn from Blanchester through Morrow to the west county line) COUNTIES

	Rates	Fringes
IRONWORKER, REINFORCING.....$ 32.37		22.30
Beyond 30-mile radius of Hamilton County Courthouse..$ 28.67		21.20
Up to & including 30-mile radius of Hamilton County Courthouse.....$ 27.60		20.70

IRON0044-002 06/01/2022

CLINTON (South of a line drawn from Blanchester to Lynchburg), HAMILTON, HIGHLAND (Excluding eastern one-fifth & portion of county inside lines drawn from Marshall to Lynchburg from the northern county line through E. Monroe to Marshall) & WARREN (South of a line drawn from Blanchester through Morrow to the west county line)

	Rates	Fringes
IRONWORKER		

Fence Erector	$ 30.28	22.30
Ornamental; Structural	$ 31.87	22.30

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* IRON0055-003 07/01/2022

CRAWFORD (Area Between lines drawn from where Hwy #598 & #30 meet through N. Liberty to the northern border & from said Hwy junction point due west to the border), DEFIANCE (S. of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), ERIE (Western 1/3), FULTON, HANCOCK, HARDIN (North of a line drawn from Maysville to a point 4 miles south of the northern line on the eastern line), HENRY, HURON (West of a line drawn from the northern border through Monroeville & Willard), LUCAS, OTTAWA, PUTNAM (East of a line drawn from the northern border down through Miller City to where #696 meets the southern border), SANDUSKY, SENECA, WILLIAMS (East of a line drawn from Pioneer through Stryker to the southern border), WOOD & WYANDOT (North of Rte. #30)

	Rates	Fringes
IRONWORKER		
Fence Erector	$ 24.60	22.87
Flat Road Mesh	$ 29.77	21.30
Tunnels & Caissons Under Pressure	$ 29.77	21.30
All Other Work	$ 31.25	26.90

IRON0147-002 06/01/2022

ALLEN (Northern half), DEFIANCE (Northern part, excluding south of a line drawn from where Rte. #66 meets the northern line through Independence to the eastern county border), MERCER (Northern half), PAULDING, PUTNAM (Western part, excluding east of a line drawn from the northern border down through Miller City to where #696 meets the southern border), VAN WERT, and WILLIAMS (Western part, excluding east of a line drawn from Pioneer through Stryker to the southern border) COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.20	28.47

IRON0172-002 06/01/2022

CHAMPAIGN (Eastern one-third), CLARK (Eastern one-fourth), COSHOCTON (West of a line beginning at the northwestern county

line going through Walhonding & Tunnel Hill to the southern county line), CRAWFORD (South of Rte. #30), DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, HARDIN (Excluding a line drawn from Roundhead to Maysville), HIGHLAND (Eastern one-fifth), HOCKING, JACKSON (Northern half), KNOX, LICKING, LOGAN (Eastern one-third), MADISON, MARION, MORROW, MUSKINGUM (West of a line starting at Adams Mill going to Adamsville & going from Adamsville through Blue Rock to the southern border), PERRY, PICKAWAY, PIKE (Northern half), ROSS, UNION, VINTON and WYANDOT (South of Rte. #30) COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.27	21.20

IRON0207-004 06/01/2022

ASHTABULA (Southern part starting at the Geauga County line), COLUMBIANA (E. of a line from Damascus to Highlandtown), MAHONING (N. of Old Route #224), PORTAGE (E. of a line from Middlefield to Shalersville to Deerfield) & TRUMBULL

	Rates	Fringes
IRONWORKER		
Layout; Sheeter	$ 32.92	26.26
Ornamental; Reinforcing; Structural	$ 31.92	26.26
Ornamental; Reinforcing	$ 28.92	25.61

IRON0290-002 06/01/2022

ALLEN (Southern half), AUGLAIZE, BUTLER (North of a line drawn from east to the west county line going through Oxford, Darrtown & Woodsdale), CHAMPAIGN (Excluding east of a line drawn from Catawla to the point where #68 intersects the northern county line), CLARK (Western two-thirds), CLINTON (Excluding south of a line drawn from Blanchester to Lynchburg), DARKE, GREENE, HIGHLAND (Inside lines drawn from Marshall to Lynchburg & from the northern county line through East Monroe to Marshall), LOGAN (West of a line drawn from West Liberty to where the northern county line meets the western county line of Hardin), MERCER (Southern half), MIAMI, MONTGOMERY, PREBLE, SHELBY & WARREN (Excluding south of a line drawn from Blanchester through Morrow to the western county line) COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.59	23.85

IRON0549-003 12/01/2022

BELMONT, GUERNSEY, HARRISON, JEFFERSON, MONROE & MUSKINGUM (Excluding portion west of a line starting at Adams Mill going to Adamsville and going from Adamsville through Blue Rock to the south border)

	Rates	Fringes
IRONWORKER	$ 35.19	25.66

IRON0550-004 05/01/2022

ASHLAND, CARROLL, COLUMBIANA (W. of a line from Damascus to Highlandtown), COSHOCTON (E. of a line beginning at NW Co. line going through Walhonding & Tunnel Hill to the South Co. line), HOLMES, HURON (S. of Old Rte. #224), MAHONING (S. of Old Rte. #224), MEDINA (S. of Old Rte. #224), PORTAGE (S. of Old Rte. #224), RICHLAND, STARK, SUMMIT (S. of Old Rte. #224, Excluding city limits of Barberton), TUSCARAWAS, & WAYNE

	Rates	Fringes
Ironworkers:Structural, Ornamental and Reinforcing	$ 30.97	21.69

IRON0769-004 06/01/2022

ADAMS (Eastern Half), GALLIA, JACKSON (Southern Half), LAWRENCE & SCIOTO

	Rates	Fringes
IRONWORKER	$ 33.71	27.69

IRON0787-003 06/01/2022

ATHENS, MEIGS, MORGAN, NOBLE, and WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.50	23.75

LABO0265-008 05/01/2022

	Rates	Fringes
LABORER		
ASHTABULA, ERIE, HURON, LORAIN, LUCAS, MAHONING, MEDINA, OTTAWA, PORTAGE, SANDUSKY, STARK, SUMMIT, TRUMBULL & WOOD COUNTIES		
GROUP 1	$ 34.95	12.10
GROUP 2	$ 35.12	12.10
GROUP 3	$ 35.45	12.10
GROUP 4	$ 35.90	12.10
CUYAHOGA AND GEAUGA COUNTIES ONLY: SEWAGE PLANTS, WASTE PLANTS, WATER TREATMENT FACILITIES, PUMPING STATIONS, & ETHANOL PLANTS		
CONSTRUCTION	$ 37.56	12.10
CUYAHOGA, GEAUGA & LAKE COUNTIES		
GROUP 1	$ 36.18	12.10
GROUP 2	$ 36.35	12.10
GROUP 3	$ 36.68	12.10
GROUP 4	$ 37.13	12.10
REMAINING COUNTIES OF OHIO		
GROUP 1	$ 34.52	12.10
GROUP 2	$ 34.69	12.10
GROUP 3	$ 35.02	12.10
GROUP 4	$ 35.47	12.10

LABORER CLASSIFICATIONS

GROUP 1 - Asphalt Laborer; Carpenter Tender; Concrete Curing Applicator; Dump Man (Batch Truck); Guardrail and Fence Installer; Joint Setter; Laborer (Construction); Landscape Laborer; Mesh Handlers & Placer; Right-of-way Laborer; Riprap Laborer & Grouter; Scaffold Erector; Seal Coating; Surface Treatment or Road Mix Laborer; Sign Installer; Slurry Seal; Utility Man; Bridge Man; Handyman; Waterproofing Laborer; Flagperson; Hazardous Waste (level D); Diver Tender; Zone Person & Traffic Control

GROUP 2 - Asphalt Raker; Concrete Puddler; Kettle Man Pipeline); Machine Driven Tools (Gas, Electric, Air); Mason Tender; Brick Paver; Mortar Mixer; Power Buggy or Power Wheelbarrow; Paint Striper; Sheeting & Shoring Man; Surface Grinder Man; Plastic Fusing Machine Operator; Pug Mill

Operator; & Vacuum Devices (wet or dry); Rodding Machine Operator; Diver; Screwman or Paver; Screed Person; Water Blast, Hand Held Wand; Pumps 4"" & Under (Gas, Air or Electric) & Hazardous Waste (level C); Air Track and Wagon Drill; Bottom Person; Cofferdam (below 25 ft. deep); Concrete Saw Person; Cutting with Burning Torch; Form Setter; Hand Spiker (Railroad); Pipelayer; Tunnel Laborer (without air) & Caisson; Underground Person (working in Sewer and Waterline, Cleaning, Repairing & Reconditioning); Sandblaster Nozzle Person; & Hazardous Waste (level B)

GROUP 3 - Blaster; Mucker; Powder Person; Top Lander; Wrencher (Mechanical Joints & Utility Pipeline); Yarner; Hazardous Waste (level A); Concrete Specialist; Concrete Crew in Tunnels (With Air-pressurized - $1.00 premium); Curb Setter & Cutter; Grade Checker; Utility Pipeline Tapper; Waterline; and Caulker

GROUP 4 - Miner (With Air-pressurized - $1.00 premium); & Gunite Nozzle Person

TUNNEL LABORER WITH AIR-PRESSURIZED ADD $1.00 TO BASE RATE

SIGNAL PERSON WILL RECEIVE THE RATE EQUAL TO THE RATE PAID THE LABORER CLASSIFICATION FOR WHICH HE OR SHE IS SIGNALING.

PAIN0006-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN, PORTAGE (N. of the East-West Turnpike) & SUMMIT (N. of the East-West Turnpike)

	Rates	Fringes
PAINTER		
COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS		
GROUP 1	$ 27.90	16.16
GROUP 2	$ 28.30	16.16
GROUP 3	$ 28.60	16.16
GROUP 4	$ 34.16	16.16
COMMERCIAL REPAINT		
GROUP 1	$ 26.40	16.16
GROUP 2	$ 26.80	16.16
GROUP 3	$ 27.10	16.16

PAINTER CLASSIFICATIONS - COMMERCIAL NEW WORK; REMODELING; & RENOVATIONS

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting; Closed Steel Above 55 feet; Bridges & Open Structural Steel; Tanks - Water Towers; Bridge Painters; Bridge Riggers; Containment Builders

GROUP 4 - Bridge Blaster

PAINTER CLASSIFICATIONS - COMMERCIAL REPAINT

GROUP 1 - Brush; & Roller

GROUP 2 - Sandblasting & Buffing

GROUP 3 - Spray Painting

PAIN0007-002 07/01/2021

FULTON, HENRY, LUCAS, OTTAWA (Excluding Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genova) & WOOD

	Rates	Fringes
PAINTER		
NEW COMMERCIAL WORK		
GROUP 1	$ 28.74	18.77
GROUP 2	$ 28.74	18.77
GROUP 3	$ 28.74	18.77
GROUP 4	$ 28.74	18.77
GROUP 5	$ 28.74	18.77
GROUP 6	$ 28.74	18.77
GROUP 7	$ 28.74	18.77
GROUP 8	$ 28.74	18.77
GROUP 9	$ 28.74	18.77

REPAINT IS 90% OF JR

PAINTER CLASSIFICATIONS

GROUP 1 - Brush; Spray & Sandblasting Pot Tender

GROUP 2 - Refineries & Refinery Tanks; Surfaces 30 ft. or over where material is applied to or labor performed on above ground level (exterior), floor level (interior)

GROUP 3 - Swing Stage & Chair

GROUP 4 - Lead Abatement

GROUP 5 - All Methods of Spray

GROUP 6 - Solvent-Based Catalized Epoxy Materials of 2 or More Component Materials, to include Solvent-Based Conversion Varnish (excluding water based)

GROUP 7 - Spray Solvent Based Material; Sand & Abrasive Blasting

GROUP 8 - Towers; Tanks; Bridges; Stacks Over 30 Feet

GROUP 9 - Epoxy Spray (excluding water based)

PAIN0012-008 05/01/2019

BUTLER COUNTY

	Rates	Fringes
PAINTER		
GROUP 1	$ 21.95	10.20
GROUP 2	$ 25.30	10.20
GROUP 3	$ 25.80	10.20
GROUP 4	$ 26.05	10.20
GROUP 5	$ 26.30	10.20

PAINTER CLASSIFICATIONS

GROUP 1: Bridge Equipment Tender; Bridge/Containment Builder

GROUP 2: Brush & Roller

GROUP 3: Spray

GROUP 4: Sandblasting; & Waterblasting

GROUP 5: Elevated Tanks; Steeplejack Work; Bridge; & Lead Abatement

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PAIN0012-010 05/01/2019

BROWN, CLERMONT, CLINTON, HAMILTON & WARREN

	Rates	Fringes
PAINTER		
HEAVY & HIGHWAY BRIDGES-GUARDRAILS-LIGHTPOLES-STRIPING		
Bridge Equipment Tender and Containment Builder	$ 21.95	10.20
Bridges when highest point of clearance is 60 feet or more; & Lead Abatement Projects	$ 26.30	10.20
Brush & Roller	$ 25.30	10.20
Sandblasting & Hopper Tender; Water Blasting	$ 26.05	10.20
Spray	$ 25.80	10.20

PAIN0093-001 12/01/2022

ATHENS, GUERNSEY, HOCKING, MONROE, MORGAN, NOBLE and WASHINGTON COUNTIES

	Rates	Fringes
PAINTER		
Bridges; Locks; Dams; Tension Towers; & Energized Substations	$ 34.81	22.47
Power Generating Facilities.	$ 31.66	22.47

PAIN0249-002 06/01/2020

CLARK, DARKE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
PAINTER		
GROUP 1 - Brush & Roller	$ 24.17	11.22
GROUP 2 - Swing, Scaffold Bridges; Structural Steel; Open Acid Tank; High Tension Electrical Equipment; & Hot Pipes	$ 24.17	11.22
GROUP 3 - Spray; Sandblast; Steamclean; Lead Abatement	$ 24.92	11.22
GROUP 4 - Steeplejack Work	$ 25.12	11.22
GROUP 5 - Coal Tar	$ 25.67	11.22
GROUP 6 - Bridge Equipment		

Tender & or Containment Builder	$ 32.88	11.22
GROUP 7 - Tanks, Stacks & Towers	$ 27.81	11.22
GROUP 8 - Bridge Blaster, Rigger	$ 35.88	11.22

PAIN0356-002 09/01/2009

KNOX, LICKING, MUSKINGUM, and PERRY

	Rates	Fringes
PAINTER		
Bridge Equipment Tenders and Containment Builders	$ 27.93	7.25
Bridges; Blasters; andRiggers	$ 34.60	7.25
Brush and Roller	$ 20.93	7.25
Sandblasting; Steam Cleaning; Waterblasting; and Hazardous Work	$ 25.82	7.25
Spray	$ 21.40	7.25
Structural Steel and Swing Stage	$ 25.42	7.25
Tanks; Stacks; and Towers	$ 28.63	7.25

PAIN0438-002 12/01/2021

BELMONT, HARRISON and JEFFERSON COUNTIES

	Rates	Fringes
PAINTER		
Bridges, Locks, Dams, Tension Towers & Energized Substations	$ 34.44	18.19
Power Generating Facilities	$ 32.29	18.19

PAIN0476-001 06/01/2021

COLUMBIANA, MAHONING, and TRUMBULL COUNITES

	Rates	Fringes
PAINTER		
GROUP 1	$ 25.79	15.81
GROUP 2	$ 33.10	15.81
GROUP 3	$ 26.00	15.81
GROUP 4	$ 27.12	15.81

GROUP 5	$ 27.79	15.81
GROUP 6	$ 26.69	15.81
GROUP 7	$ 27.79	15.81

PAINTER CLASSIFICATIONS:

GROUP 1: Painters, Brush & Roller

GROUP 2: Bridges

GROUP 3: Structural Steel

GROUP 4: Spray, Except Bar Joist/Deck

GROUP 5: Epoxy/Mastic; Spray- Bar Joist/Deck; Working Above 50 Feet; and Swingstages

GROUP 6: Tanks; Sandblasting

GROUP 7: Towers; Stacks

PAIN0555-002 06/01/2021

ADAMS, HIGHLAND, JACKSON, PIKE & SCIOTO

	Rates	Fringes
PAINTER		
GROUP 1	$ 31.95	17.05
GROUP 2	$ 33.47	17.05
GROUP 3	$ 34.99	17.05
GROUP 4	$ 37.97	17.05

PAINTER CLASSIFICATIONS

GROUP 1 - Containment Builder

GROUP 2 - Brush; Roller; Power Tools, Under 40 feet

GROUP 3 - Sand Blasting; Spray; Steam Cleaning; Pressure Washing; Epoxy & Two Component Materials; Lead Abatement; Hazardous Waste; Toxic Materials; Bulk & Storage Tanks of 25,000 Gallon Capacity or More; Elevated Tanks

GROUP 4 - Stacks; Bridges

PAIN0639-001 05/01/2011

	Rates	Fringes
Sign Painter & Erector	$ 20.61	3.50+a+b+c

FOOTNOTES: a. 7 Paid Holidays: New Year's Day; Memorial Day; July 4th; Labor Day; Thanksgiving Day; Christmas Day & 1 Floating Day
b. Vacation Pay: After 1 year's service - 5 days' paid vacation; After 2, but less than 10 years' service - 10 days' paid vacation; After 10, but less than 20 years' service - 15 days' paid vacation; After 20 years' service - 20 days' paid vacation
c. Funeral leave up to 3 days maximum paid leave for death of mother, father, brother, sister, spouse, child, mother-in-law, father-in-law, grandparent and inlaw provided employee attends funeral

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PAIN0788-002 06/01/2022

ASHLAND, CRAWFORD, ERIE, HANCOCK, HURON, MARION, MORROW, OTTAWA (Allen, Bay, Bono, Catawba Island, Clay Center, Curtice, Danbury, Eagle Beach, Elliston, Elmore, Erie, Fishback, Gem Beach & Genoa), RICHLAND, SANDUSKY, SENECA & WYANDOT

	Rates	Fringes
PAINTER		
Brush & Roller	$ 25.08	16.72
Structural Steel	$ 26.68	16.72

WINTER REPAINT: Between December 1 to March 31 - 90%JR

$.50 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

While working swingstage, boatswain chair, needle beam and horizontal cable. While operating sprayguns, sandblasting, cobblasting and high pressure waterblasting (4000psi).

$1.00 PER HOUR SHALL BE ADDED TO THE RATE OF PAY FOR THE CLASSIFICATION OF WORK:

For the application of catalized epoxy, including latex epoxy that is deemed hazardous, lead abatement, or for work or material where special precautions beyond normal work duties must be taken. For working on stacks, tanks, and towers over 40 feet in height.

PAIN0813-005 12/01/2008

GALLIA, LAWRENCE, MEIGS & VINTON

	Rates	Fringes
PAINTER		
Base Rate	$ 24.83	10.00
Bridges, Locks, Dams & Tension Towers	$ 27.83	10.00

PAIN0841-001 06/01/2018

MEDINA, PORTAGE (South of and including Ohio Turnpike), and SUMMIT (South of and including Ohio Turnpike) COUNTIES

	Rates	Fringes
Painters:		
GROUP 1	$ 25.75	14.35
GROUP 2	$ 26.40	14.35
GROUP 3	$ 26.50	14.35
GROUP 4	$ 26.60	14.35
GROUP 5	$ 27.00	14.35
GROUP 6	$ 39.20	11.75
GROUP 7	$ 27.00	14.35

PAINTER CLASSIFICATIONS:

GROUP 1 - Brush, Roller & Paperhanger

GROUP 2 - Epoxy Application

GROUP 3 - Swing Scaffold, Bosum Chair, & Window Jack

GROUP 4 - Spray Gun Operator of Any & All Coatings

GROUP 5 - Sandblast, Painting of Standpipes, etc. from Scaffolds, Bridge Work and/or Open Structural Steel, Standpipes and/or Water Towers

GROUP 6 - Public & Commerce Transportation, Steel or Galvanized, Bridges, Tunnels & Related Support Items (concrete)

GROUP 7 - Synthetic Exterior, Drywall Finisher and/or Taper, Drywall Finisher and Follow-up Man Using Automatic Tools

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PAIN0841-002 06/01/2022

CARROLL, COSHOCTON, HOLMES, STARK, TUSCARAWAS & WAYNE

	Rates	Fringes
PAINTER		
Bridges; Towers, Poles & Stacks; Sandblasting Steel; Structural Steel & Metalizing	$ 23.50	15.45
Brush & Roller	$ 28.18	15.45
Spray; Tank Interior & Exterior	$ 23.50	15.45

PAIN1020-002 06/01/2022

ALLEN, AUGLAIZE, CHAMPAIGN, DEFIANCE, HARDIN, LOGAN, MERCER, PAULDING, PUTNAM, SHELBY, VAN WERT, and WILLIAMS COUNTIES

	Rates	Fringes
PAINTER		
Brush & Roller	$ 26.20	15.00
Drywall Finishing & Taping	$ 24.90	15.00
Lead Abatement	$ 27.95	15.00
Spray, Sandblasting Pressure Cleaning, & Refinery	$ 26.95	15.00
Swing Stage, Chair, Spiders, & Cherry Pickers	$ 25.47	15.00
Wallcoverings	$ 23.80	15.00

All surfaces 40 ft. or over where material is applied to or labor performed on, above ground level (exterior), floor level (interior) - $.50 premium

Applying Coal Tar Products - $1.00 premium

PAIN1275-002 06/01/2020

DELAWARE, FAIRFIELD, FAYETTE, FRANKLIN, MADISON, PICKAWAY, ROSS & UNION

	Rates	Fringes

PAINTER

Bridges	$ 34.64	14.40
Brush; Roller	$ 25.16	14.40
Sandblasting; Steamcleaning; Waterblasting (3500 PSI or Over)& Hazardous Work	$ 25.86	14.40
Spray	$ 25.66	14.40
Stacks; Tanks; & Towers	$ 28.67	14.40
Structural Steel & Swing Stage	$ 25.46	14.40

PLAS0109-001 05/01/2018

MEDINA, PORTAGE, STARK, and SUMMIT COUNTIES

	Rates	Fringes
PLASTERER	$ 28.86	17.11

PLAS0109-003 05/01/2018

CARROLL, HOLMES, TUSCARAWAS, and WAYNE COUNTIES

	Rates	Fringes
PLASTERER	$ 28.21	17.11

PLAS0132-002 06/01/2022

BROWN, BUTLER, CLERMONT, HAMILTON, HIGHLAND, WARREN COUNTIES

	Rates	Fringes
PLASTERER	$ 29.25	14.69

PLAS0404-002 05/01/2018

ASHTABULA, CUYAHOGA, GEAUGA, AND LAKE COUNTIES

	Rates	Fringes
PLASTERER	$ 29.63	17.11

PLAS0404-003 05/01/2018

LORAIN COUNTY

	Rates	Fringes

PLASTERER.....$ 28.86 17.11

PLAS0526-022 05/01/2018

COLUMBIANA, MAHONING, and TRUMBULL COUNTIES

	Rates	Fringes
PLASTERER	$ 28.86	17.11

PLAS0526-023 05/01/2018

BELMONT, HARRISON, and JEFFERSON COUNTIES

	Rates	Fringes
PLASTERER	$ 28.21	17.11

PLAS0886-001 05/01/2018

FULTON, HANCOCK, HENRY, LUCAS, PUTNAM, and WOOD COUNTIES

	Rates	Fringes
PLASTERER	$ 29.63	17.11

PLAS0886-003 05/01/2018

DEFIANCE, ERIE, HURON, OTTAWA, PAULDING, SANDUSKY, and SENECA COUNTIES

	Rates	Fringes
PLASTERER	$ 28.86	17.11

PLAS0886-004 05/01/2018

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, and VAN WERT COUNTIES

	Rates	Fringes
PLASTERER	$ 28.21	17.11

PLUM0042-002 07/01/2022

ASHLAND, CRAWFORD, ERIE, HURON, KNOX, LORAIN, MORROW, RICHLAND & WYANDOT

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 34.42	25.47

PLUM0050-002 07/04/2022

DEFIANCE, FULTON, HANCOCK, HENRY, LUCAS, OTTAWA, PAULDING, PUTNAM, SANDUSKY, SENECA, WILLIAMS & WOOD

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 44.60	28.51

PLUM0055-003 05/01/2022

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, MEDINA (N. of Rte. #18 & Smith Road) & SUMMIT (N. of Rte. #303, including the corporate limits of the city of Hudson)

	Rates	Fringes
PLUMBER	$ 40.00	28.43

PLUM0083-001 07/01/2017

BELMONT & MONROE (North of Rte. #78)

	Rates	Fringes
Plumber and Steamfitter	$ 32.16	31.51

PLUM0094-002 05/01/2022

CARROLL (Northen Half), STARK, and WAYNE COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 36.83	22.99

PLUM0120-002 05/02/2022

ASHTABULA, CUYAHOGA, GEAUGA, LAKE, LORAIN (the C.E.I. Power House in Avon Lake), MEDINA (N. of Rte. #18) & SUMMIT (N. of #303)

	Rates	Fringes
PIPEFITTER	$ 44.07	28.34

PLUM0162-002 06/01/2022

CHAMPAIGN, CLARK, CLINTON, DARKE, FAYETTE, GREENE, MIAMI, MONTGOMERY & PREBLE

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 36.47	26.80

PLUM0168-002 06/01/2022

MEIGS, MONROE (South of Rte. #78), MORGAN (South of Rte. #78) & WASHINGTON

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 38.02	34.09

PLUM0189-002 06/01/2022

DELAWARE, FAIRFIELD, FRANKLIN, HOCKING, LICKING, MADISON, MARION, PERRY, PICKAWAY, ROSS & UNION

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 43.25	26.94

PLUM0219-002 06/01/2022

MEDINA (Rte. #18 from eastern edge of Medina Co., west to eastern corporate limits of the city of Medina, & on the county road from the west corporate limits of Medina running due west to and through community of Risley to the western edge of Medina County - All territory south of this line), PORTAGE, and SUMMIT (S. of Rte. #303) COUNTIES

	Rates	Fringes
Plumber and Steamfitter	$ 41.22	26.64

PLUM0392-002 06/01/2022

BROWN, BUTLER, CLERMONT, HAMILTON & WARREN

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 36.71	24.89

PLUM0396-001 06/01/2022

COLUMBIANA (Excluding Washington & Yellow Creek Townships & Liverpool Twp. - Secs. 35 & 36 - West of County Road #427), MAHONING and TRUMBULL COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 36.00	27.91

PLUM0495-002 06/01/2022

CARROLL (Rose, Monroe, Union, Lee, Orange, Perry & Loudon Townships), COLUMBIANA (Washington & Yellow Creek Townships & Liverpool Township, Secs. 35 & 36, West of County Rd. #427), COSHOCTON, GUERNSEY, HARRISON, HOLMES, JEFFERSON, MORGAN (South to State Rte. #78 & from McConnelsville west on State Rte. #37 to the Perry County line), MUSKINGUM, NOBLE, and TUSCARAWAS COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 31.24	34.34

PLUM0577-002 06/01/2022

ADAMS, ATHENS, GALLIA, HIGHLAND, JACKSON, LAWRENCE, PIKE, SCIOTO & VINTON

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 37.56	25.73

PLUM0776-002 07/01/2022

ALLEN, AUGLAIZE, HARDIN, LOGAN, MERCER, SHELBY and VAN WERT COUNTIES

	Rates	Fringes
Plumber, Pipefitter, Steamfitter	$ 39.33	27.68

TEAM0377-003 05/01/2021

STATEWIDE, EXCEPT CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 29.74	15.70
GROUP 2	$ 30.16	15.70

TRUCK DRIVER CLASSIFICATIONS

GROUP 1 - Asphalt Distributor; Batch; 4- Wheel Service; 4-Wheel Dump; Oil Distributor & Tandem

GROUP 2 - Tractor-Trailer Combination: Fuel; Pole Trailer; Ready Mix; Semi-Tractor; & Asphalt Oil Spraybar Man When Operated From Cab; 5 Axles & Over; Belly Dump; End Dump; Articulated Dump; Heavy Duty Equipment; Low Boy; & Truck Mechanic

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TEAM0436-002 05/01/2021

CUYAHOGA, GEAUGA & LAKE

	Rates	Fringes
TRUCK DRIVER		
GROUP 1	$ 30.65	16.95
GROUP 2	$ 31.15	16.95

GROUP 1: Straight & Dump, Straight Fuel

GROUP 2: Semi Fuel, Semi Tractor, Euclids, Darts, Tank, Asphalt Spreaders, Low Boys, Carry-All, Tourna-Rockers, Hi-Lifts, Extra Long Trailers, Semi-Pole Trailers, Double Hook-Up Tractor Trailers including Team Track & Railroad Siding, Semi-Tractor & Tri-Axle Trailer, Tandem Tractor & Tandem Trailer, Tag Along Trailer, Expandable Trailer or Towing Requiring Road Permits, Ready-Mix (Agitator or Non-Agitator), Bulk Concrete Driver, Dry Batch Truck, Articulated End Dump

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($16.20) or 13658 ($12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date

for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the

interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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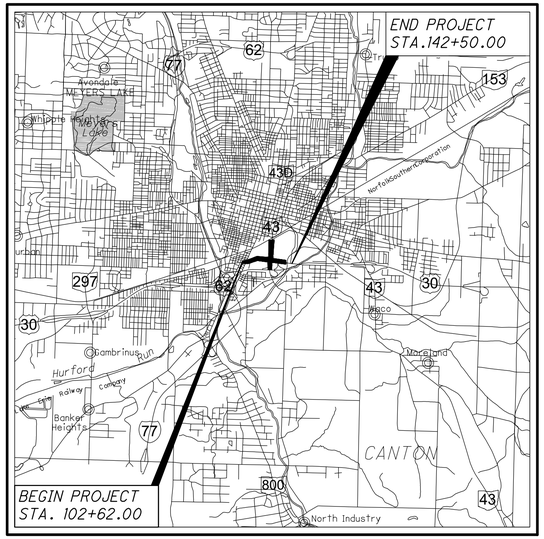
END OF GENERAL DECISIO"

APPENDIX B



LOCATION MAP

LATITUDE: N40°47'22" LONGITUDE: W81°22'36"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED

INTERSTATE HIGHWAY

FEDERAL ROUTES

STATE ROUTES

COUNTY & TOWNSHIP ROADS

OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2023)	*12,830*
DESIGN YEAR ADT (2043)	*13,320*
DESIGN HOURLY VOLUME (2043)	*1,332*
DIRECTIONAL DISTRIBUTION	*0.70*
TRUCKS (24 HOUR B&C)	*10%*
DESIGN SPEED	*35 MPH*
LEGAL SPEED	*35 MPH*

DESIGN FUNCTIONAL CLASSIFICATION:
05 MAJOR COLLECTOR ROAD (URBAN)

NHS PROJECT *NO*

DESIGN EXCEPTIONS

NONE

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:

AECOM

AKRON CINCINNATI CLEVELAND COLUMBUS
564 WHITE POND DRIVE AKRON, OHIO 44320-1100
(330) 836-9111

CITY OF CANTON
ENGINEERING DEPARTMENT

STA - 11TH STREET SE IMPROVEMENTS

CITY OF CANTON
STARK COUNTY

TITLE SHEET	*1*
SCHEMATIC PLAN	*2*
CONTROL POINTS AND CENTERLINE DATA	*3*
ROUNDABOUT GEOMETRIC DATA	*4-5*
TYPICAL SECTIONS	*6-18*
GENERAL NOTES	*19-23C*
PLAN VIEW LEGEND	*24*
MAINTENANCE OF TRAFFIC	*25A-33*
GENERAL SUMMARY	*34-37, 37A*
SUBSUMMARIES	*38-45*
PROJECT SITE PLAN	*46*
PLAN AND PROFILE - 11TH STREET SE	*47-64A*
CROSS SECTIONS - 11TH STREET SE	*65-104*
PLAN AND PROFILE - MARKET AVENUE S	*105-108*
CROSS SECTIONS - MARKET AVENUE S	*109-127*
PLAN AND PROFILE - CHERRY AVENUE SE	*128A-131*
CROSS SECTIONS - CHERRY AVENUE SE	*132-149*
HOUSEL AVENUE SE PROFILE	*150*
ROUNDABOUT PROFILES	*151*
ROUNDABOUT DETAILS	*152*
SPLITTER ISLAND DETAILS	*153-154*
INTERSECTION DETAILS	*155-157*
DRIVE DETAILS	*158*
DRIVE PROFILES	*159-167*
DRAINAGE PROFILES	*168-170*
DRAINAGE DETAILS	*170A-170D*
WATER WORK	*171-185*
MISCELLANEOUS DETAILS	*186-194*
NOT USED	*195-197*
TRAFFIC CONTROL	*198-220*
SIGNAL PLANS	*221-242*
LIGHTING AND LANDSCAPING	*243-268*
RIGHT OF WAY	*269-302*

PROJECT DESCRIPTION

IMPROVEMENTS CONSIST OF A ROUNDABOUT AT THE INTERSECTION OF 11TH STREET SE/MARKET AVENUE S, STREETSCAPING WITH TREES, UPGRADED PEDESTRIAN LIGHTING, UPGRADED SIGNALS, ADA IMPROVEMENTS AT CROSSWALKS, BRICK INTERSECTION, A SHARED-USE PATH AND BIKE LANES THAT ALIGN WITH THE CITY'S MASTER BIKE ROUTES. 11TH STREET SE WILL ALSO BE REALIGNED TO ELIMINATE THE SUBSTANDARD DEFLECTION IN THE EXISTING ALIGNMENT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*5.97 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*0.67 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*6.64 ACRES*

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

SANITARY SEWER 'PERMIT TO INSTALL' APPROVED BY THE OHIO EPA PURSUANT TO LETTER DATED _____.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 25-32, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____

DATE 3/31/23 *JAMES J BENEKOS, P.E., P.S., CANTON CITY ENGINEER*

ENGINEERS SEAL

STATE OF OHIO
JEFFREY ALAN NOBLE
E-62195
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Jeffrey A. Noble

DATE: 11/11/2022

CITY OF CANTON STANDARD CONSTRUCTION DRAWINGS		*ODOT STANDARD CONSTRUCTION DRAWINGS*				*ODOT SUPPLEMENTAL SPECIFICATIONS*	
CE-1	*3/12*	*I-2A*	*7/16/21*	*MT-105.10*	*1/17/20*	*800*	*4/15/22*
CE-10	*1/12*					*832*	*10/19/18*
CE-11	*1/12*	*DM-1.2*	*7/16/21*	*TC-41.20*	*10/18/13*	*895*	*4/18/14*
CE-12	*12/8/17*			*TC-41.30*	*10/18/13*	*995*	*7/17/15*
CE-13	*4/15*	*BP-3.1*	*1/17/20*	*TC-41.50*	*10/18/13*		
CE-18	*1/12*			*TC-42.20*	*10/18/13*		
CE-21	*11/11*	*HL-10.11*	*1/15/21*	*TC-52.10*	*10/18/13*		
CE-27	*8/15/17*	*HL-10.12*	*1/20/17*	*TC-52.20*	*1/15/21*	*CANTON SUPPLEMENTAL SPECIFICATIONS*	
CE-28	*8/15/17*	*HL-30.11*	*1/15/21*	*TC-71.10*	*7/16/21*		
CE-30	*11/20/19*	*HL-30.22*	*1/15/21*	*TC-81.22*	*7/16/21*		
CE-31	*11/20/19*	*HL-30.31*	*4/17/20*	*TC-82.10*	*7/19/19*	*SS01-00*	*5/12/20*
CE-33	*1/15*	*HL-60.11*	*7/21/17*	*TC-83.10*	*1/17/20*	*SS03-00*	*7/18/08*
CE-34	*11/20/19*	*HL-60.12*	*7/16/21*	*TC-85.10*	*4/17/20*	*SS04-01*	*4/01*
CE-40	*2/26/19*						
CE-42	*2/26/19*	*MT-97.10*	*4/19/19*				
CE-43	*12/17*	*MT-99.20*	*4/19/19*				
		MT-101.60	*1/17/20*				

FEDERAL PROJECT NO. **E110 (520)**

PID NO. **90465**

GENERAL PROJECT NO. **G.P. 1144**

RAILROAD INVOLVEMENT **WHEELING & LAKE ERIE**

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

1 / 302

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NOTES

FOR CONTROL POINT TABLE, SEE SHEET 3.

FOR CENTERLINE CURVE DATA, SEE SHEET 3.

FOR INTERSECTION CENTERLINE ANGLES, SEE INTERSECTION DETAILS, SHEETS 155 - 157.

LEGEND

Ⓜ EXISTING MONUMENT

CP 100 ▲ CONTROL POINT

(#) CURVE NUMBER

END WORK STA. 28+55.43

BEGIN WORK STA. 6+58.54

NORFOLK SOUTHERN RAILROAD

℄ CONST. MARKET AVENUE S

N 24°27'26" E

MARKET AVENUE S

STA 109+87.51 ℄ CONST. 11TH STREET SE =
STA 1+73.19 ℄ CONST. HOUSEL AVENUE SE =

END WORK STA. 64+41.99

SR 43 CHERRY AVENUE SE

℄ CONST. & RW CHERRY AVENUE SE

℄ CONST. MADISON COURT SE

MADISON COURT SE

END WORK STA. 10+75

BEGIN PROJECT STA. 101+89.81

CLEVELAND AVENUE SW

N 21°50'05" E

S 85°32'34" E

℄ CONST. 11TH STREET SE

11TH STREET SE

℄ CONST. 11TH STREET SE

NAVARRE ROAD SW

N 84°20'39" E

N 76°12'38" E

S 83°05'51" E

S 83°05'51" E

℄ CONST. HOUSEL AVENUE SE

CONSTRUCTION LIMITS

RAMP TO US-30 WB

SR-43 NB RAMP FROM US-30 WB

WHEELING AND LAKE ERIE RAILROAD

N 410805.602
E 2282120.388

END PROJECT END WORK STA. 142+50

STA 59+99.47 ℄ CONST. & RW CHERRY AVE SE =
STA 122+78.54 ℄ CONST. 11TH STREET SE

STA 137+07.82 ℄ CONST. 11TH STREET SE =
STA 10+00.00 ℄ CONST. MADISON COURT SE

N 24°30'52" E

STA 18+94.63 ℄ CONST. MARKET AVENUE S =
STA 106+25.20 ℄ CONST. 11TH STREET SE

BEGIN WORK STA. 13+18.39

BEGIN WORK STA. 43+00

DESIGN SPEED BY STREET	
STREET NAME	DESIGN SPEED (MPH)
MARKET AVENUE S	35
11TH STREET SE	35
CHERRY AVENUE SE	35

HORIZONTAL SCALE IN FEET
0 75 150 300

CALCULATED JPK
CHECKED JES

SCHEMATIC PLAN

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

2
302

c:\pwworking\aecom_ds20_na_2019\brittney.crandall@aecom.com\dms20667\17790_GB001.dwg 22-Feb-23 2:51 PM

PROPOSED CENTERLINE CURVE DATA

CURVE	ALIGNMENT	P.I.			DELTA	Dc	R	T	L	E	eMAX	P.C. OR P.R.C.			P.T. OR P.R.C.		
		STA.	NORTHING	EASTING								STA.	NORTHING	EASTING	STA.	NORTHING	EASTING
1	℄ CONST. 11TH STREET SE	103+39.97	410,895.709	2,278,791.974	16° 58′ 07″ (LT)	10° 59′ 50″	521.00′	77.72′	154.30′	5.77′		102+62.25	410,888.05	2,278,714.63	104+16.55	410,925.61	2,278,863.71
2	℄ CONST. 11TH STREET SE	104+76.76	410,948.768	2,278,919.287	27° 04′ 55″(RT)	22° 55′ 06″	150.00′	60.21′	118.17′	7.15′		104+16.55	410,925.61	2,278,863.71	105+34.71	410,944.09	2,278,979.31
3	℄ CONST. 11TH STREET SE	106+65.27	410,933.943	2,279,109.475	5° 35′ 44″ (RT)	11° 27′ 33″	500.00′	24.44′	48.83′	0.6′		106+40.84	410,935.84	2,279,085.11	106+89.67	410,929.68	2,279,133.54
4	℄ CONST. 11TH STREET SE	107+59.34	410,917.516	2,279,202.135	20° 41′ 32″ (LT)	17° 21′ 44″	330.00′	69.67′	137.32′	15.78′		106+89.67	410,929.68	2,279,133.54	108+26.99	410,934.12	2,279,269.80
5	℄ CONST. 11TH STREET SE	114+35.45	411,079.153	2,279,860.722	20° 41′ 32″ (RT)	6° 00′ 00″	954.93′	174.33′	344.87′	15.78′		112+61.12	411,037.60	2,279,691.41	116+05.99	411,058.20	2,280,033.79
6	℄ CONST. HOUSEL AVENUE SE	1+11.21	410,911.061	2,279,444.218	37° 48′ 36″ (LT)	69° 01′ 52″	83.00′	28.43′	54.77′	4.73′		0+82.78	410,884.52	2,279,434.03	1+37.55	410,938.27	2,279,436.00
7	℄ CONST. MARKET AVENUE S	17+56.03	410,805.322	2,279,009.469	15° 56′ 53″ (LT)	17° 31′ 18″	327.00′	45.81′	91.02′	3.19		17+10.23	410,763.65	2,278,990.46	18+01.25	410,850.62	2,279,016.29
8	℄ CONST. MARKET AVENUE S	18+24.51	410,873.618	2,279,019.757	13° 16′ 06″ (RT)	28° 38′ 52″	200.00′	23.26′	46.32′	1.35		18+01.25	410,850.62	2,279,016.29	18+47.56	410,895.21	2,279,028.41
9	℄ CONST. MARKET AVENUE S	20+48.07	411,081.332	2,279,102.983	16° 08′ 12″ (RT)	12° 52′ 32″	445.00′	63.08′	125.33′	4.45		19+84.99	411,022.78	2,279,079.52	21+10.32	411,131.06	2,279,141.80
10	℄ CONST. MARKET AVENUE S	21+72.52	411,180.068	2,279,180.068	13° 30′ 51″ (LT)	10° 54′ 49″	525.00′	62.20′	123.83′	3.67′		21+10.32	411,131.06	2,279,141.80	22+34.15	411,236.72	2,279,205.82
11	℄ CONST. & RW CHERRY AVENUE SE	52+68.23	410,232.361	2,280,611.635	30° 50′ 21″ (LT)	4° 00′ 00″	1,432.35′	395.06′	770.96′	53.48′		48+73.17	409,871.35	2,280,772.09	56+44.12	410,624.58	2,280,658.93

CONTROL POINTS

POINT NO.	NORTHING	EASTING	ELEVATION	STATION/OFFSET	DESCRIPTION
1	410986.903	2281121.007	1032.025	126+93.89, 59.88′ LT. 11TH STREET SE	5/8″ CAPPED REBAR SET
2	410792.414	2280755.813	1030.127	123+54.72, 117.09′ RT. 11TH STREET SE	5/8″ CAPPED REBAR SET
3	411146.528	2280185.984	1028.944	117+46.46, 105.98′ LT. 11TH STREET SE	5/8″ CAPPED REBAR SET
4	410888.325	2279476.298	1032.291	110+16.62, 93.70′ RT. 11TH STREET SE	5/8″ CAPPED REBAR SET
5	410880.617	2279084.954	1034.233	106+45.48, 55.05′ RT. 11TH STREET SE	5/8″ CAPPED REBAR SET
6	411389.259	2279241.237	1031.882	23+87.66, 30.92′ LT. MARKET AVENUE S	5/8″ CAPPED REBAR SET
7	411950.725	2279576.778	1037.124	30+37.67, 17.41′ RT. MARKET AVENUE S	5/8″ CAPPED REBAR SET
8	412229.282	2280475.089			8″ MAG NAIL SET
9	410956.546	2279044.323	1033.633	105+98.56, 17.47′ LT. 11TH STREET SE	5/8″ CAPPED REBAR SET
10	410854.545	2278651.795	1032.676	101+96.41, 27.15′ RT. 11TH STREET SE	8″ MAG NAIL SET
11	410956.827	2278837.527	1033.514	104+03.41, 38.74′ LT. 11TH STREET SE	8″ MAG NAIL SET
12	410574.683	2278875.652	1032.726	14+90.66, 26.06′ LT. MARKET AVENUE S	8″ MAG NAIL SET
13	410844.67	2281504.66	1031.507	130+91.86, 35.21′ RT. 11TH STREET SE	8″ MAG NAIL SET
14	410787.315	2281845.528	1030.177	134+37.15, 51.19′ RT. 11TH STREET SE	5/8″ CAPPED REBAR SET

CALCULATED JPK
CHECKED JES

CONTROL POINTS AND CENTERLINE DATA

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

3
302

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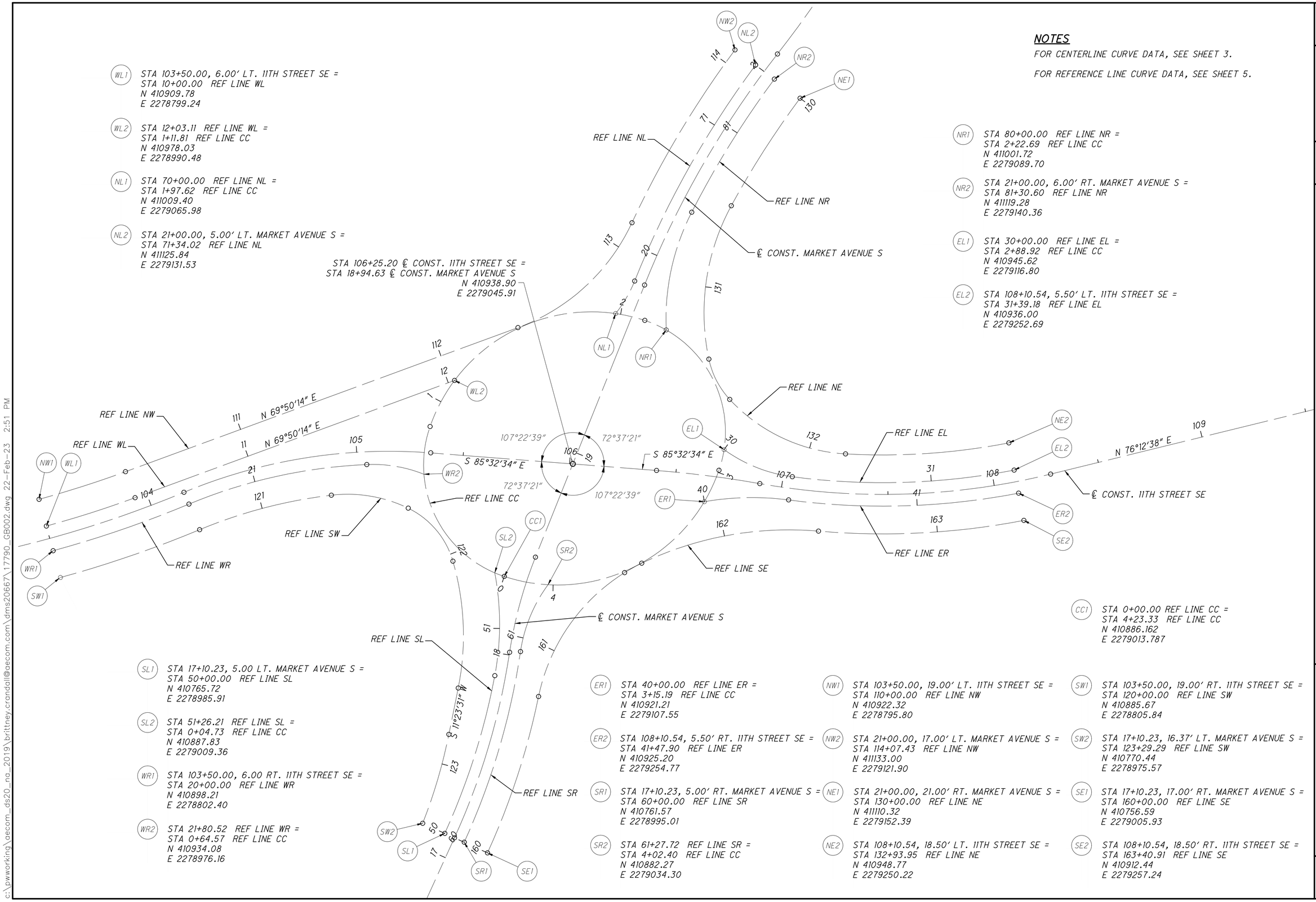

NOTES

FOR CENTERLINE CURVE DATA, SEE SHEET 3.

FOR REFERENCE LINE CURVE DATA, SEE SHEET 5.

WL1 STA 103+50.00, 6.00' LT. 11TH STREET SE =
STA 10+00.00 REF LINE WL
N 410909.78
E 2278799.24

WL2 STA 12+03.11 REF LINE WL =
STA 1+11.81 REF LINE CC
N 410978.03
E 2278990.48

NL1 STA 70+00.00 REF LINE NL =
STA 1+97.62 REF LINE CC
N 411009.40
E 2279065.98

NL2 STA 21+00.00, 5.00' LT. MARKET AVENUE S =
STA 71+34.02 REF LINE NL
N 411125.84
E 2279131.53

STA 106+25.20 ℄ CONST. 11TH STREET SE =
STA 18+94.63 ℄ CONST. MARKET AVENUE S
N 410938.90
E 2279045.91

NR1 STA 80+00.00 REF LINE NR =
STA 2+22.69 REF LINE CC
N 411001.72
E 2279089.70

NR2 STA 21+00.00, 6.00' RT. MARKET AVENUE S =
STA 81+30.60 REF LINE NR
N 411119.28
E 2279140.36

EL1 STA 30+00.00 REF LINE EL =
STA 2+88.92 REF LINE CC
N 410945.62
E 2279116.80

EL2 STA 108+10.54, 5.50' LT. 11TH STREET SE =
STA 31+39.18 REF LINE EL
N 410936.00
E 2279252.69

SL1 STA 17+10.23, 5.00 LT. MARKET AVENUE S =
STA 50+00.00 REF LINE SL
N 410765.72
E 2278985.91

SL2 STA 51+26.21 REF LINE SL =
STA 0+04.73 REF LINE CC
N 410887.83
E 2279009.36

WR1 STA 103+50.00, 6.00 RT. 11TH STREET SE =
STA 20+00.00 REF LINE WR
N 410898.21
E 2278802.40

WR2 STA 21+80.52 REF LINE WR =
STA 0+64.57 REF LINE CC
N 410934.08
E 2278976.16

ER1 STA 40+00.00 REF LINE ER =
STA 3+15.19 REF LINE CC
N 410921.21
E 2279107.55

ER2 STA 108+10.54, 5.50' RT. 11TH STREET SE =
STA 41+47.90 REF LINE ER
N 410925.20
E 2279254.77

SR1 STA 17+10.23, 5.00' RT. MARKET AVENUE S =
STA 60+00.00 REF LINE SR
N 410761.57
E 2278995.01

SR2 STA 61+27.72 REF LINE SR =
STA 4+02.40 REF LINE CC
N 410882.27
E 2279034.30

NW1 STA 103+50.00, 19.00' LT. 11TH STREET SE =
STA 110+00.00 REF LINE NW
N 410922.32
E 2278795.80

NW2 STA 21+00.00, 17.00' LT. MARKET AVENUE S =
STA 114+07.43 REF LINE NW
N 411133.00
E 2279121.90

NE1 STA 21+00.00, 21.00' RT. MARKET AVENUE S =
STA 130+00.00 REF LINE NE
N 411110.32
E 2279152.39

NE2 STA 108+10.54, 18.50' LT. 11TH STREET SE =
STA 132+93.95 REF LINE NE
N 410948.77
E 2279250.22

SW1 STA 103+50.00, 19.00' RT. 11TH STREET SE =
STA 120+00.00 REF LINE SW
N 410885.67
E 2278805.84

SW2 STA 17+10.23, 16.37' LT. MARKET AVENUE S =
STA 123+29.29 REF LINE SW
N 410770.44
E 2278975.57

SE1 STA 17+10.23, 17.00' RT. MARKET AVENUE S =
STA 160+00.00 REF LINE SE
N 410756.59
E 2279005.93

SE2 STA 108+10.54, 18.50' RT. 11TH STREET SE =
STA 163+40.91 REF LINE SE
N 410912.44
E 2279257.24

CC1 STA 0+00.00 REF LINE CC =
STA 4+23.33 REF LINE CC
N 410886.162
E 2279013.787

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

ROUNDABOUT GEOMETRIC LAYOUT

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

REFERENCE LINE CURVE DATA

REF. LINE	P.I.			DELTA	Dc	TANGENT LENGTH (FT)	ARC LENGTH (FT)	RADIUS (FT)	BEGIN CURVE	END CURVE
	STA.	NORTHING	EASTING							
CC	0+55.87	410,903.640	2,278,960.722	90°53′ 55″ (RT)	104°10 27″	55.87′	87.26	55.00	0+00.00	0+87.26
	1+66.01	410,030.831	2,279,004.838	89°06′ 05″ (RT)	71°37′ 11″	78.76′	124.41	80.00	0+87.26	2+11.67
	2+67.53	410,988.715	2,279,132.705	90°53′ 55″ (RT)	104°10′ 27″	55.87′	87.26	55.00	2+11.67	2+98.92
	3+77.68	410,861.524	2,279,088.589	89°06′ 05″ (RT)	71°37′ 11″	78.76′	124.41	80.00	2+98.92	4+23.33
	10+21.84	410,915.546	2,278,820.300	04°51′ 23″ (RT)	11°07′ 31″	21.84	43.65	515.00	10+00.00	10+43.65
WR	20+33.70	410,907.103	2,278,834.911	07°19′ 06″ (LT)	10°52′ 19″	33.70	67.31	527.00	20+00.00	20+67.31
	21+10.67	410,936.747	2,278,906.038	20°09′ 02″ (RT)	23°28′ 55″	43.35	85.81	244.00	20+67.31	21+53.13
	21+85.60	410,940.020	2,278,981.792	53°05′ 18″ (RT)	88°08′ 50″	32.47	60.23	65.00	21+53.13	22+13.35
EL	30+03.71	410,937.717	2,279,112.129	55°38′ 14″	81°51′ 04″	36.94	67.97	70.00	29+66.77	30+34.75
	30+87.42	410,926.011	2,279,200.969	18°26′ 22″	17°39′ 24″	52.67	104.43	324.50	30+34.75	31+39.18
ER	40+00.32	410,927.558	2,279,105.298	35°53′ 23″	44°04′ 25″	42.10	81.43	130.00	39+58.22	40+39.65
	40+94.25	410,914.845	2,279,201.162	18°29′ 14″	17°04′ 40″	54.60	108.25	335.50	40+39.65	41+47.90
SL	50+39.06	410,801.259	2,279,002.121	13°49′ 58″	17°47′ 37″	39.06	77.74	322.00	50+00.00	50+77.74
	51+21.54	410,882.681	2,279,017.479	37°14′ 19″	44°04′ 25″	43.80	84.49	130.00	50+77.74	51+62.23
SR	60+47.06	410,804.390	2,279,014.540	16°08′ 10″	17°15′ 28″	47.06	93.50	332.00	60+00.00	60+93.50
	61+32.70	410,889.733	2,279,027.109	58°29′ 58″	81°51′ 04″	39.20	71.47	70.00	60+93.50	61+64.97
NL	69+92.81	410,997.901	2,279,064.168	51°17′ 00″	95°29′ 35″	28.80	53.70	60.00	69+64.01	70+17.71
	70+76.19	411,078.919	2,279,096.630	14°48′ 31″	12°43′ 57″	58.48	116.31	450.00	70+17.71	71+34.02
NR	80+13.79	411,013.122	2,279,079.263	48°08′ 46″	52°05′ 13″	49.14	92.43	110.00	79+64.65	80+57.08
	80+93.93	411,089.709	2,279,118.365	09°35′ 46″	13°03′ 46″	36.85	73.53	439.00	80+57.08	81+30.60
NW	110+21.29	410,927.939	2,278,816.336	04°51′ 23″	11°24′ 49″	21.29	42.55	110.00	110+00.00	110+42.55
	112+77.71	411,016.334	2,279,057.070	44°54′ 56″	60°18′ 41″	39.27	74.47	95.00	112+38.44	113+12.92
	113+60.34	411,094.952	2,279,093.600	11°43′ 17″	12°24′ 06″	47.42	94.51	462.00	113+12.92	114+07.43
SW	119+89.60	410,877.081	2,278,796.667	16°58′ 07″	10°36′ 37″	80.55	159.93	540.00	119+09.05	120+68.97
	121+01.20	410,920.468	2,278,900.771	15°53′ 10″	24°48′ 12″	32.23	64.05	231.00	120+68.97	121+33.02
	121+52.05	410,926.482	2,278,951.674	32°37′ 48″	88°08′ 50″	19.03	37.02	65.00	121+33.02	121+70.04
	121+87.83	410,910.406	2,278,984.794	47°57′ 10″	143°14′ 22″	17.79	33.48	40.00	121+70.04	122+03.52
	122+34.16	410,863.887	2,278,998.270	27°32′ 51″	45°50′ 12″	30.64	60.10	125.00	122+03.52	122+63.62
	123+07.59	410,790.743	2,278,983.532	10°00′ 44″	23°00′ 37″	21.81	43.51	249.00	122+85.78	123+29.29
NE	130+29.99	411,086.263	2,279,134.497	08°05′ 26″	13°30′ 47″	29.99	59.87	424.00	130+00.00	130+59.87
	130+98.58	411,025.922	2,279,101.662	40°28′ 31″	54°34′ 03″	38.71	74.18	105.00	130+59.87	131+34.05
	131+45.09	410,977.246	2,279,111.940	30°51′ 16″	143°14′ 22″	11.04	21.54	40.00	131+34.05	131+55.59
	131+87.92	410,945.414	2,279,141.392	44°00′ 29″	71°37′ 11″	32.33	61.45	80.00	131+55.59	132+17.03
	132+55.69	410,941.433	2,279,212.265	14°08′ 53″	18°23′ 37″	38.66	76.92	311.50	132+17.03	132+93.95
SE	160+38.79	410,791.889	2,279,022.028	12°52′ 07″	16°39′ 21″	38.79	77.26	344.00	160+00.00	160+77.26
	161+15.69	410,867.522	2,279,037.616	46°14′ 31″	63°39′ 43″	38.43	72.64	90.00	160+77.26	161+49.90
	161+54.48	410,890.386	2,279,074.047	06°33′ 34″	71°37′ 11″	4.58	9.16	80.00	161+49.90	161+59.06
	162+02.69	410,911.186	2,279,117.551	30°30′ 37″	35°48′ 36″	43.64	85.20	160.00	161+59.06	162+44.26
	169+92.90	410,903.212	2,279,209.481	15°53′ 26″	16°26′ 26″	48.64	96.65	348.50	162+44.26	163+40.91

CALCULATED JPK
CHECKED JES

ROUNDABOUT GEOMETRIC LAYOUT

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

5
302

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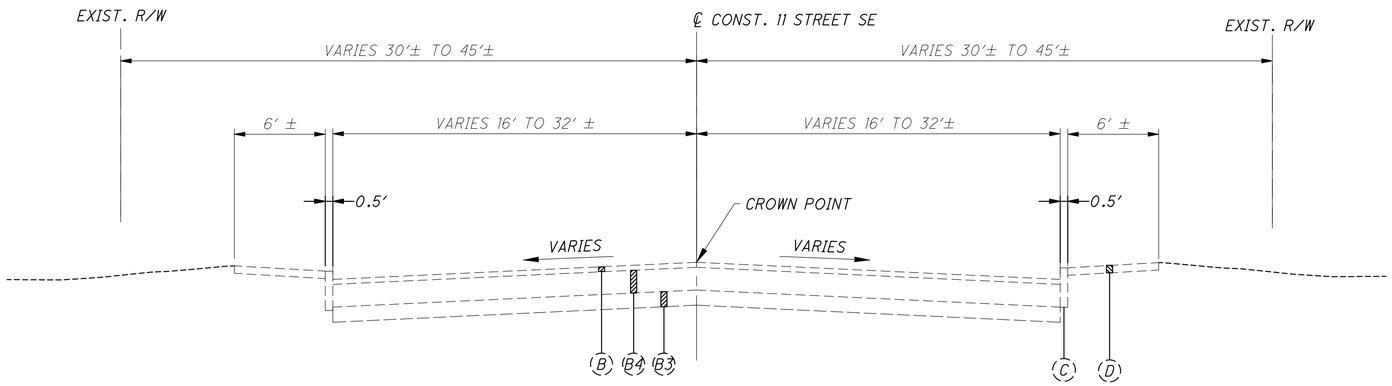
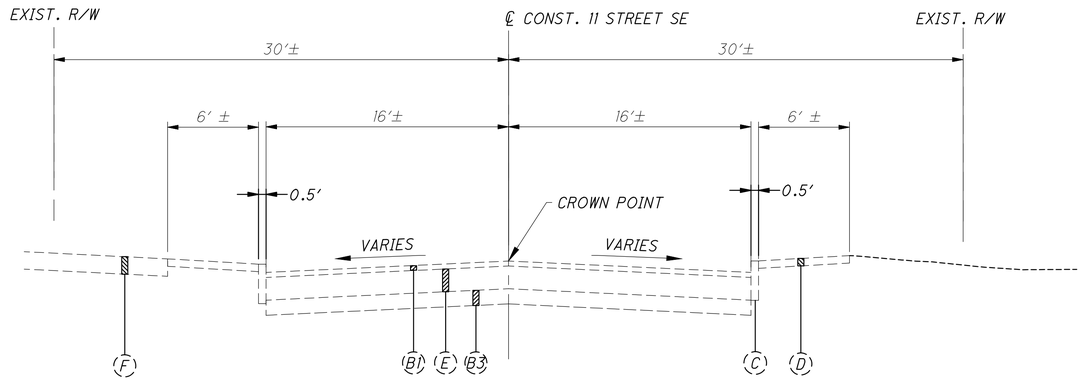
EXISTING LEGEND

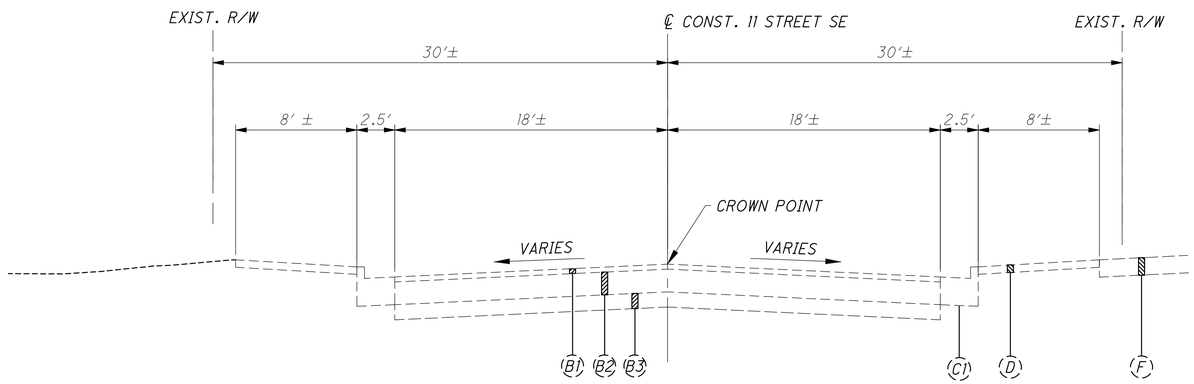
- (A) BRICK [T=4"±]
- (A1) SAND BASE [T=2"]
- (B) ASPHALT PAVEMENT [T=1 ½" TO 2 ½"±]
- (B1) ASPHALT PAVEMENT [T=3"]
- (B2) ASPHALT BASE [T=8"]
- (B3) AGGREGATE BASE
- (B4) REINFORCED CONCRETE PAVEMENT [T=9"]
- (C) CONCRETE CURB
- (C1) CONCRETE CURB AND GUTTER
- (D) CONCRETE SIDEWALK
- (E) CONCRETE PAVEMENT [T=9"±]
- (E1) CONCRETE PAVEMENT [T=5"±]
- (F) ASPHALT PAVEMENT, DEPTH UNKNOWN



11TH STREET SE
STA. 115+75 TO STA. 120+00



11TH STREET SE
STA. 106+50 TO STA. 115+75



11TH STREET SE
STA. 101+75.00 TO STA. 106+50

CALCULATED JPK
CHECKED AMP

EXISTING TYPICAL SECTIONS - 11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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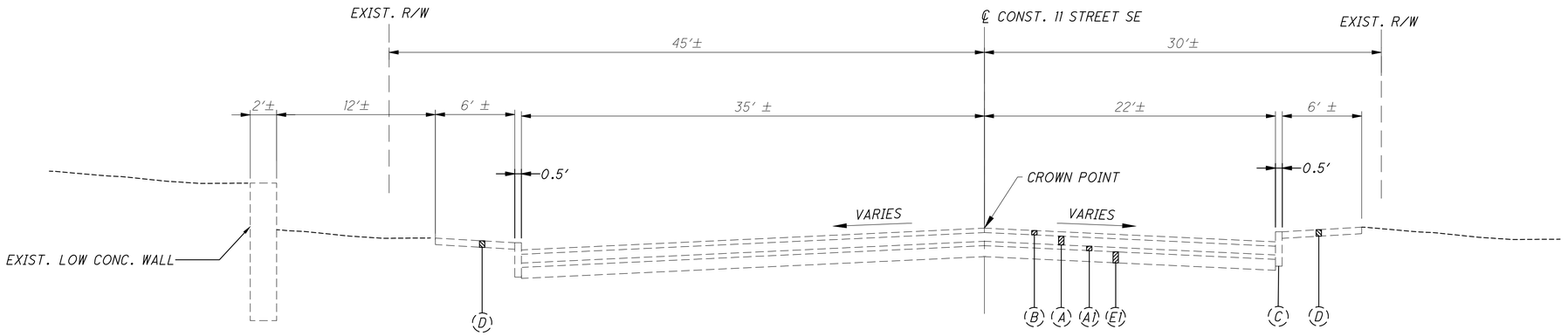
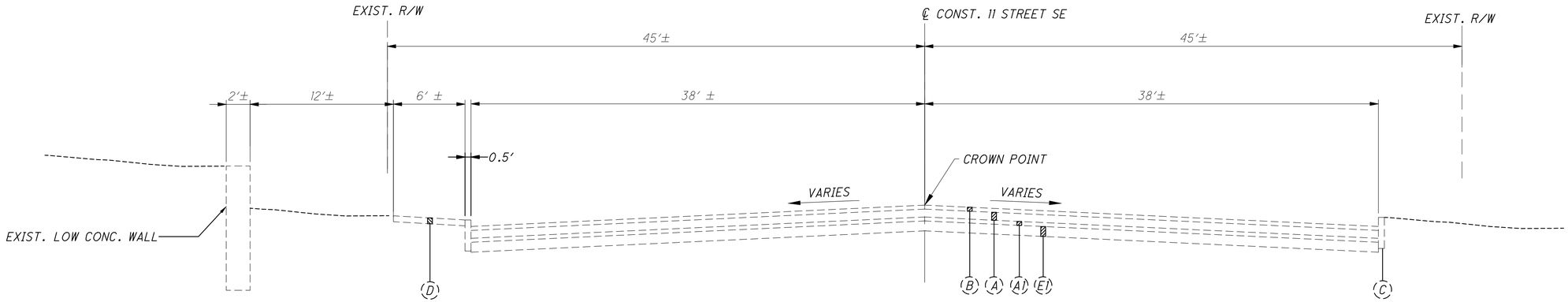
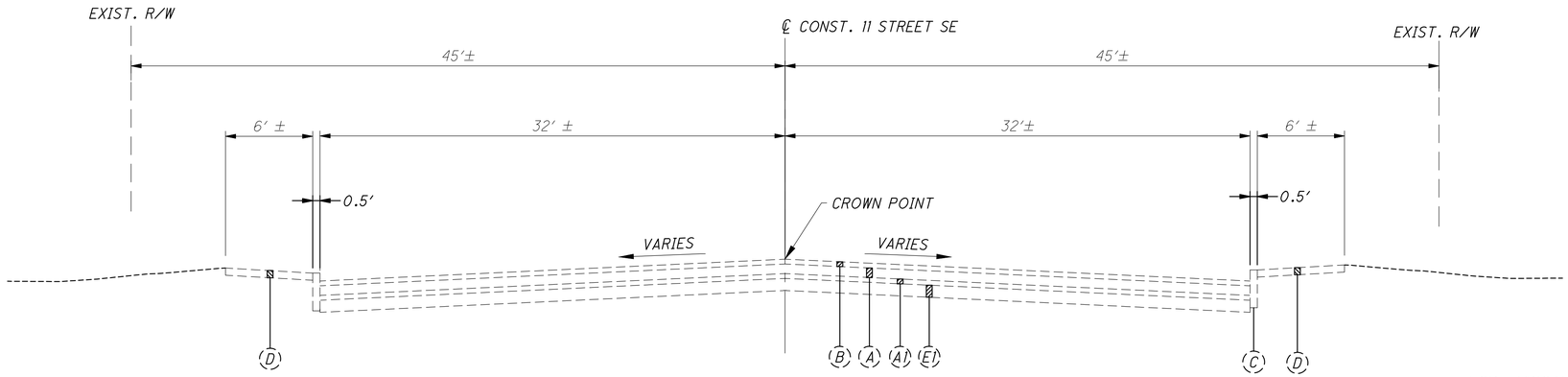


11TH STREET SE
STA. 128+00 TO STA. 132+25



11TH STREET SE
STA. 123+00 TO STA. 128+00



11TH STREET SE
STA. 120+00 TO STA. 123+00

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6.

CALCULATED JPK
CHECKED AMP

EXISTING TYPICAL SECTIONS - 11TH STREET SE

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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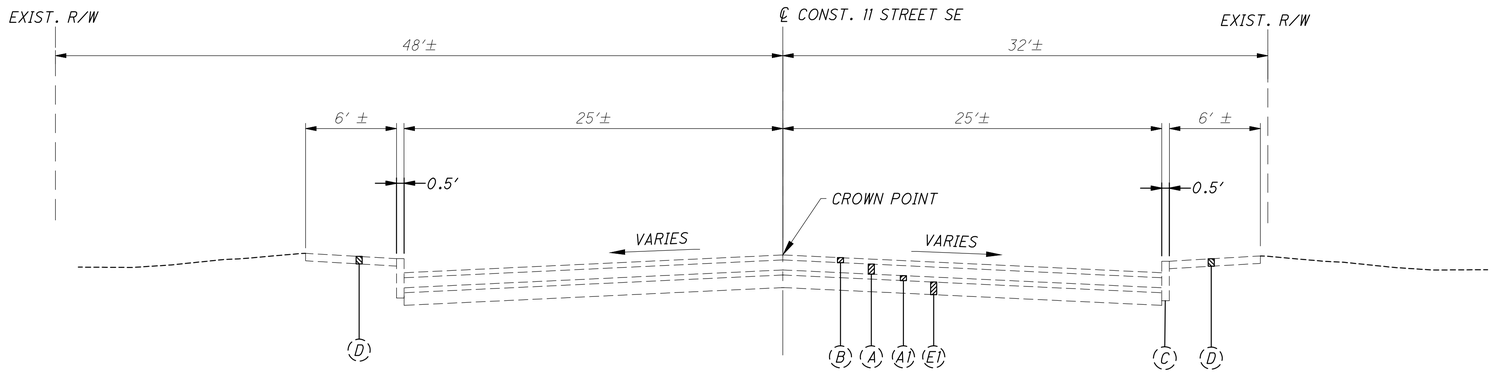
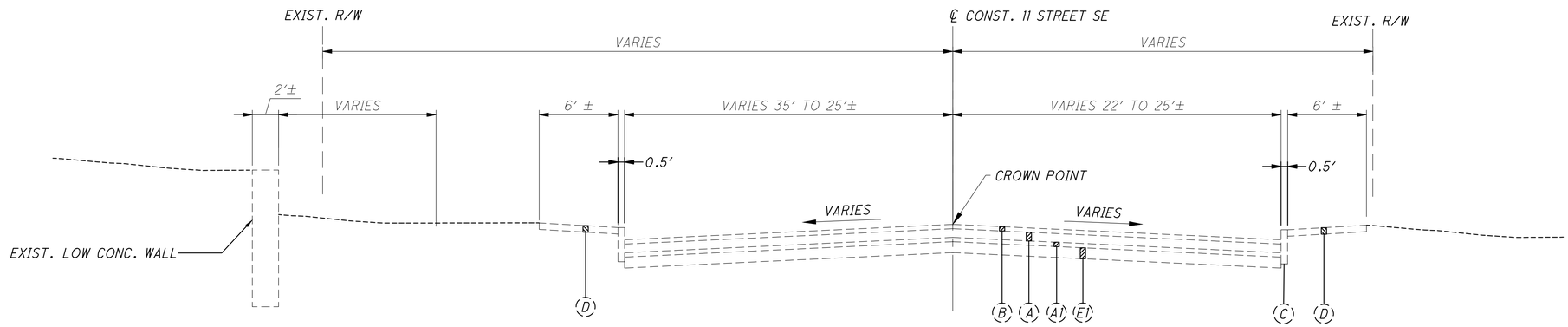


11TH STREET SE
STA. 134+50 TO STA. 137+50



11TH STREET SE
STA. 132+25 TO STA. 134+50

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6.

CALCULATED JPV
CHECKED JAN

EXISTING TYPICAL SECTIONS - 11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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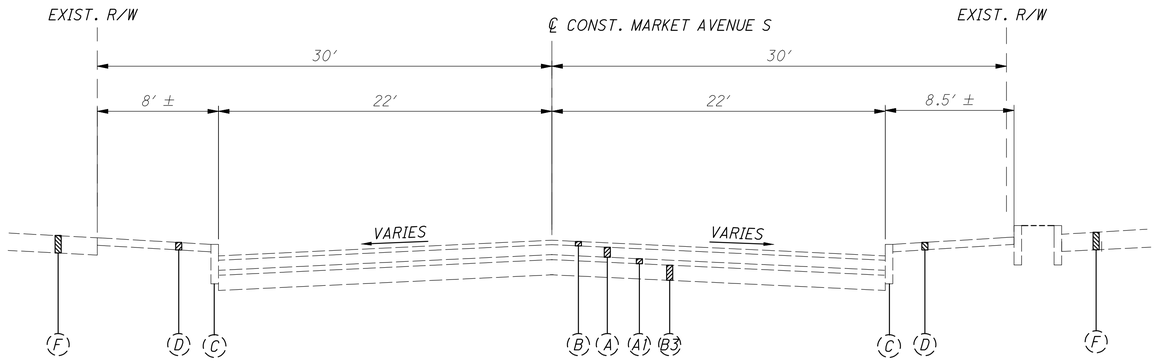
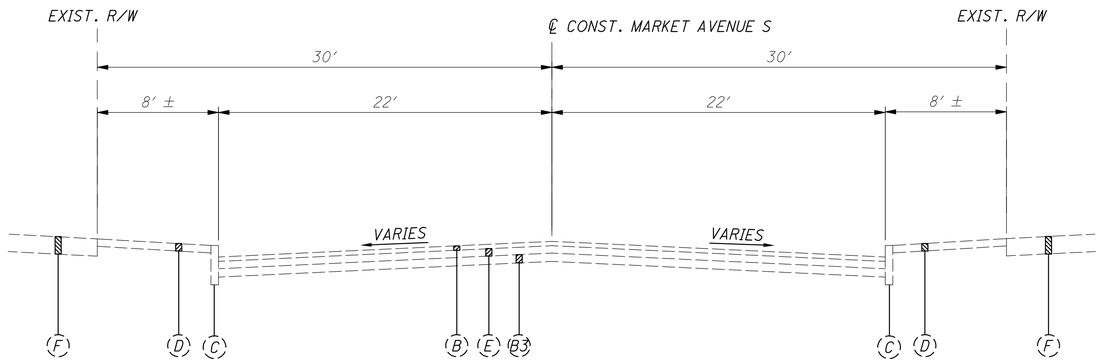


MARKET AVENUE S
STA. 23+00.00 TO STA. 28+95.00



MARKET AVENUE S
STA. 14+00.00 TO STA. 23+00.00

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6.

CALCULATED JPK
CHECKED AMP

EXISTING TYPICAL SECTIONS - MARKET AVENUE S

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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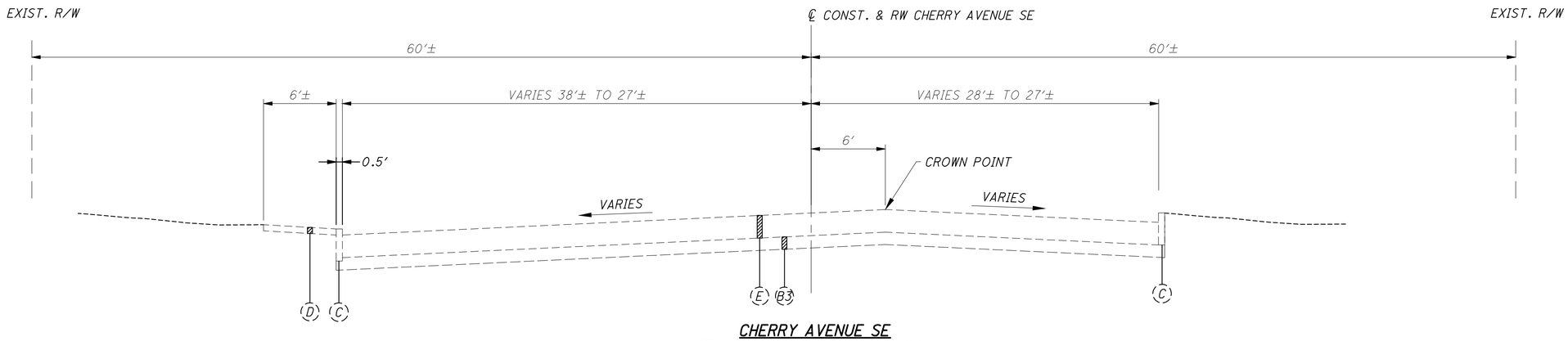
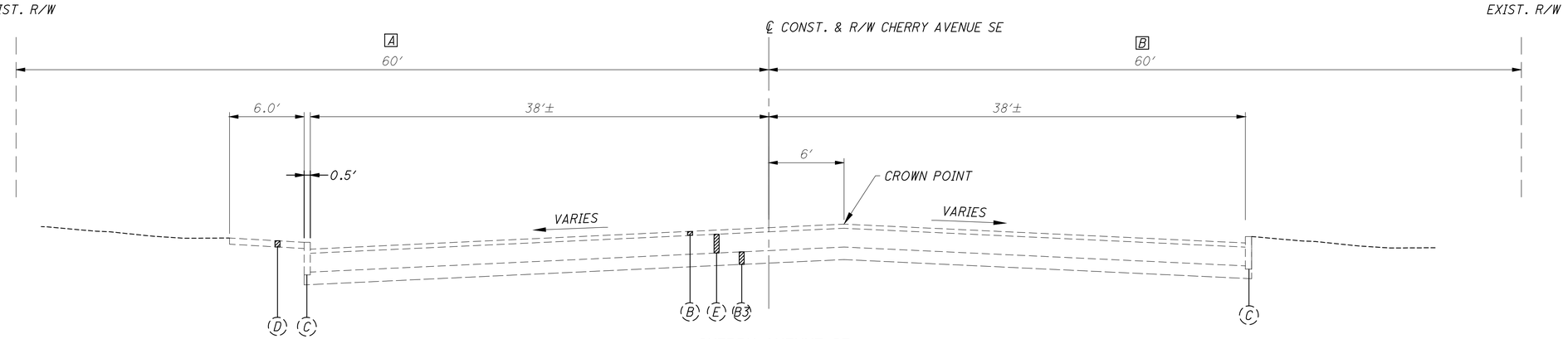


CHERRY AVENUE SE
STA. 64+39.00 TO STA. 65+09.00



CHERRY AVENUE SE
STA. 47+00.00 TO STA. 64+39.00

[A] VARIES - 45′± TO 60′ STA 58+80 TO STA 63+00

[B] VARIES - 46′± TO 60′ STA 60+75 TO STA 63+00

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6.

CALCULATED JPK
CHECKED AMP

EXISTING TYPICAL SECTIONS - CHERRY AVENUE SE

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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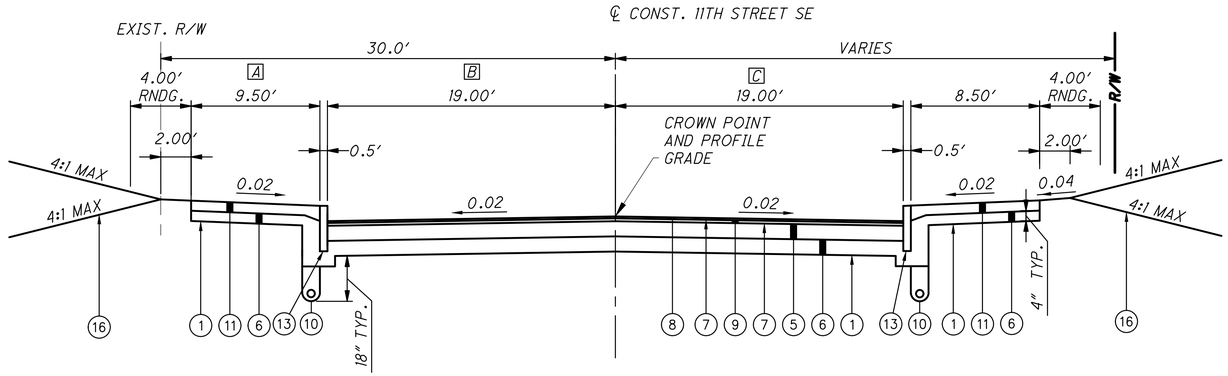
PROPOSED LEGEND

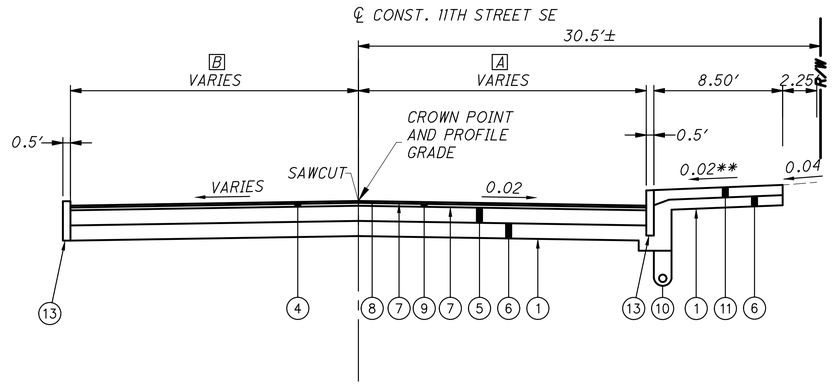
(1) ITEM 204 - SUBGRADE COMPACTION
(2) ITEM 204 - EXCAVATION OF SUBGRADE (T=36")
(3) ITEM 203 - GRANULAR MATERIAL, TYPE B, 703.16C
(4) ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE [T=3"]
(5) ITEM 301 - ASPHALT CONCRETE BASE, PG64-22, (449) (T=6")
(6) ITEM 304 - AGGREGATE BASE (T=6", UNLESS OTHERWISE SHOWN)
(7) ITEM 407 - TACK COAT
(8) ITEM 424 - FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A, (449) [T=3/4"]
(9) ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449) [T=2 1/4"]
(10) ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
(11) ITEM 608 - 5" CONCRETE WALK, AS PER PLAN (CITY OF CANTON SCD NO. 29)
(11A) ITEM 608 - WALKWAY MISC.: BRICK WALKWAY PAVERS
(12) ITEM 608 - WALKWAY MISC.: CONCRETE BASE [T=3"]
(13) ITEM 609 - CURB, MISC.: CONCRETE CURB, CANTON TYPE 1
(13A) ITEM 609 - CURB, MISC.: CONCRETE CURB, CANTON TYPE 1 - 18"X18"
(14) ITEM 609 - CURB, TYPE 3-B, AS PER PLAN (SEE DETAIL ON SHEET 14)
(15) ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P
(16) ITEM 659 - SEEDING AND MULCHING, CLASS 1
(17) ITEM SPECIAL - ROADWAY BRICK PAVERS
(18) ITEM SPECIAL - 1 INCH COMPACTED SAND BASE, 703.02
(19) ITEM 305 - CONCRETE BASE [T=6"]



11TH STREET SE

STA. 102+85.00 TO STA. 104+18.34

A VARIES - 8.76' @ STA 102+85.00 TO 9.50' @ STA 102+90.00
9.50' @ STA. 102+90.00 TO STA. 104+18.34
B VARIES - 19.36' @ STA 102+85.00 TO 19.00' @ STA 102+90.00,
19.00' STA 102+90.00 TO STA 103+94.16
19.00' @ STA 103+94.16 TO 18.46' @ STA 104+18.34
C VARIES - 19.33' @ STA 102+85.00 TO 19.00' @ STA 103+12.00



11TH STREET SE

STA. 101+75.00 TO STA. 102+85.00

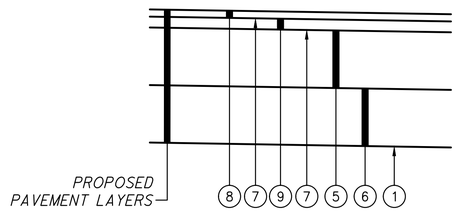
A VARIES - 20.17' @ STA 102+62.00 TO 19.33' @ STA 102+85.00

B VARIES - 28.55' @ STA 102+62.00 TO 19.36' @ STA 102+85.00

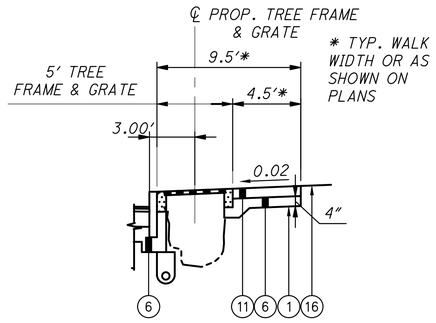
** WALK CROSS SLOPE SHALL VARY TO MATCH EXISTING AT THE EX. R/W AND TO PROVIDE POSITIVE DRAINAGE AS DIRECTED BY THE ENGINEER

NOTES:

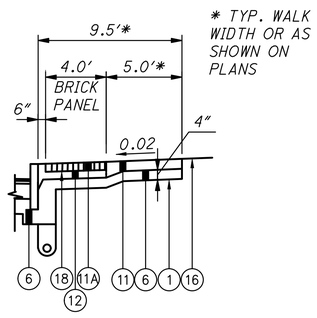
1. IN PAVEMENT WIDENING SECTIONS WITH EXISTING ASPHALT SURFACE OVER BRICK OR CONCRETE BASE PAVEMENT, MATCH THE TOP ELEVATION OF THE EXISTING BASE MATERIAL WITH THE TOP ELEVATION OF THE PROPOSED BASE MATERIAL.
2. FOR SUBGRADE TREATMENT SEE SHEETS 12 AND 19.
3. FOR LOCATIONS OF PROPOSED STREETSCAPE ITEMS IN DETAILS A & B BELOW (TREE PLANTING FRAME & GRATE AND BRICK SIDEWALK PANELS) SEE LIGHTING PLAN SHEETS.



PAVEMENT BUILD-UP DETAIL (TYP.)
NOT TO SCALE



DETAIL A
FOR TREE FRAME & GRATE
DETAILS SEE CITY OF CANTON
SCD NO. 43



DETAIL B
BRICK PAVER SIDEWALK PANELS
SEE CITY OF CANTON SCD NO. 40
(LOCATIONS SHOWN ON PLANS)

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - 11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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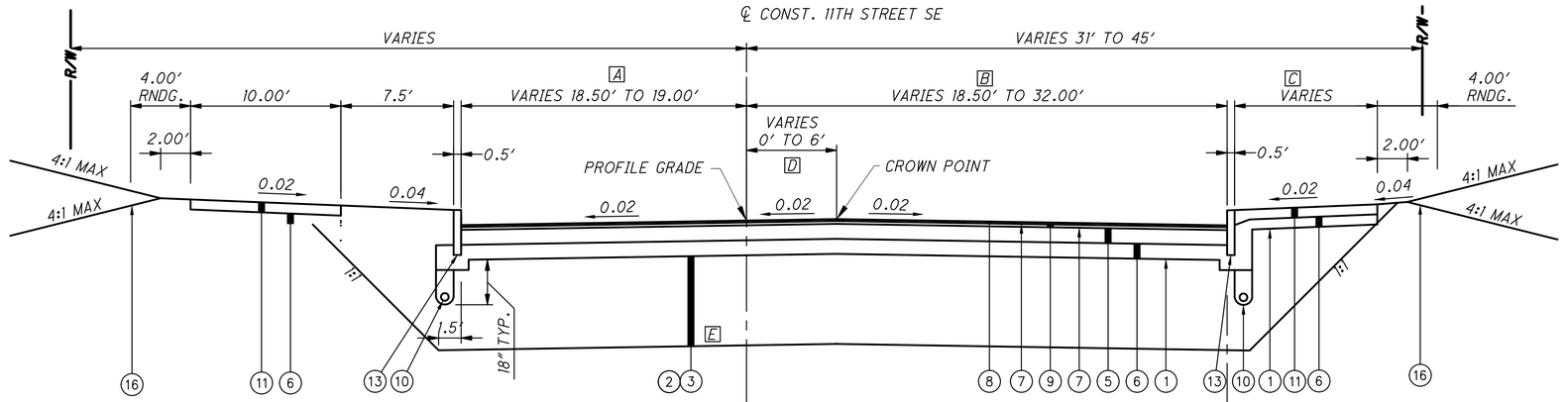


11TH STREET SE

STA. 107+75.18 TO STA. 121+93.68

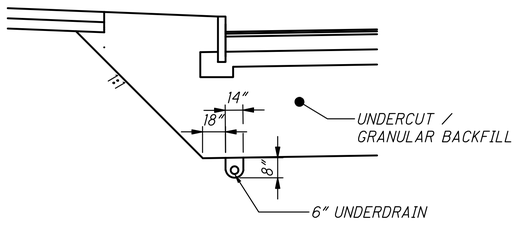
A VARIES - 18.50' @ STA 118+39.13 TO 19.00' @ STA 119+43.13

B VARIES - 18.50' @ STA 116+10.00 TO 32.00' @ STA 116+60.00

C VARIES - 9.5' FROM STA 107+75.18 TO STA 109+87.51
9.0' FROM STA 118+23.00 TO STA 121+93.68

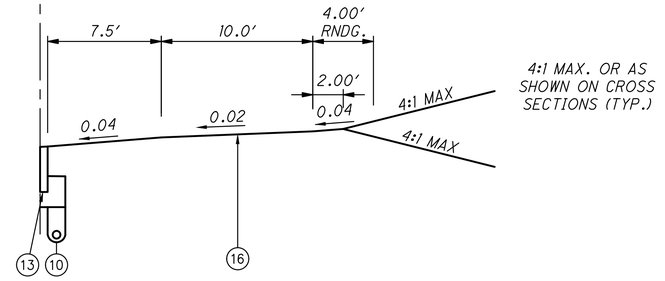
D VARIES - 0.00' @ STA 116+75.00 TO 6.00' @ STA 117+75.00

E APPLIES TO STA. 110+00.00 TO STA. 111+50.00

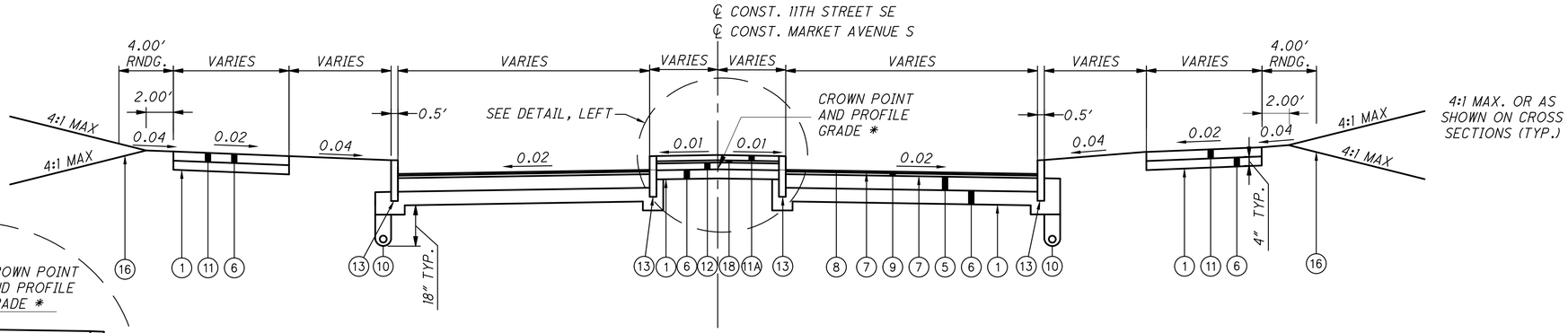


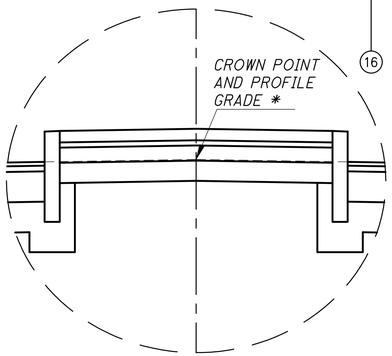
DETAIL

ITEM 605 - 6" PIPE UNDERDRAINS IN UNDERCUT AREAS
NTS



STA. 109+87.51 TO STA. 118+23.00





DETAIL

CROWN POINT LOCATION AT SPLITTER ISLANDS

ROUNDABOUT SPLITTER ISLANDS

11TH STREET SE - STA. 104+18.34 - STA 105+30.03

11TH STREET SE - STA. 105+30.03 - STA 106+71.87 - SEE ROUNDABOUT SECTION ON SHEET 14

11TH STREET SE - STA. 106+71.87 - STA 107+75.18

MARKET AVENUE S - STA 17+31.24 - STA 18+32.96

MARKET AVENUE S - STA 18+32.96 - STA 19+71.08 - SEE ROUNDABOUT SECTION ON SHEET 14

MARKET AVENUE S - STA. 19+71.08 - STA 20+74.72

FOR VARYING WIDTHS SEE ROUNDABOUT INTERSECTION DETAIL

FOR OUTSIDE TRUCK APRON DETAIL SEE SHEET 14.

* PROFILE GRADE IS LOCATED AT THE PROJECTED CROWN POINT OF THE INTERSECTION OF THE ASPHALT SURFACE WITH THE CENTERLINE OF CONSTRUCTION.

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

11TH STREET SE AND MARKET AVENUE S

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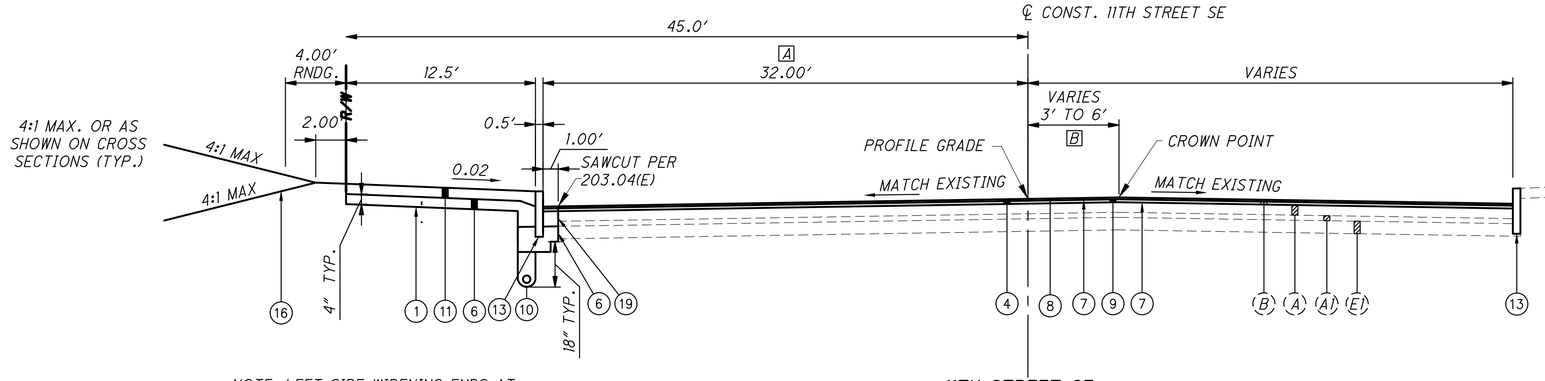


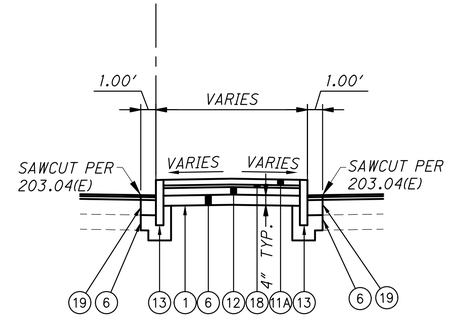
NOTE: LEFT SIDE WIDENING ENDS AT MADISON COURT SE

11TH STREET SE

STA. 123+71.23 TO STA. 137+50.00

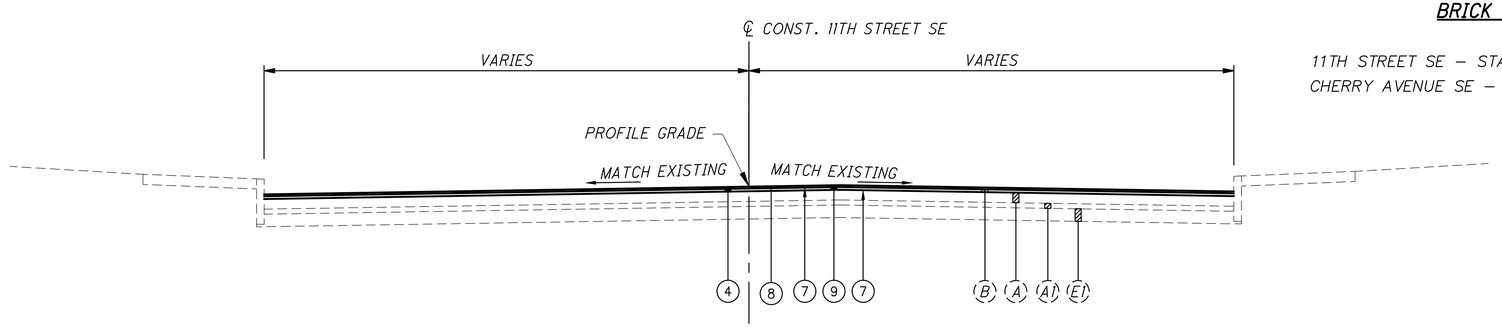
A VARIES - 32.00' @ STA 132+12.00 TO 11.00' @ STA 134+37.00
11.00' @ STA 134+37.00 TO 9.16' @ STA 136+13.14

B VARIES - 6.00' @ STA 127+70.00 TO 3.00' @ STA 131+50.00
3.00' @ STA 134+37.00 TO 5.00' @ STA 136+28.00



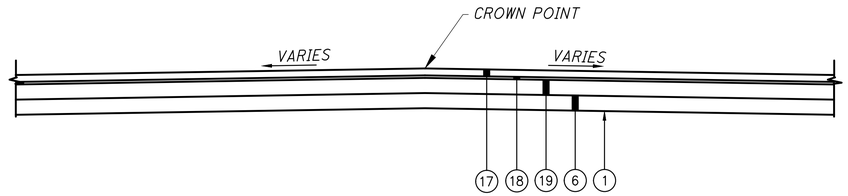
BRICK TRAFFIC ISLAND DETAIL

11TH STREET SE – STA. 123+10.06 TO STA. 123+78.25
CHERRY AVENUE SE – STA 59+01.08 TO STA 59+67.48



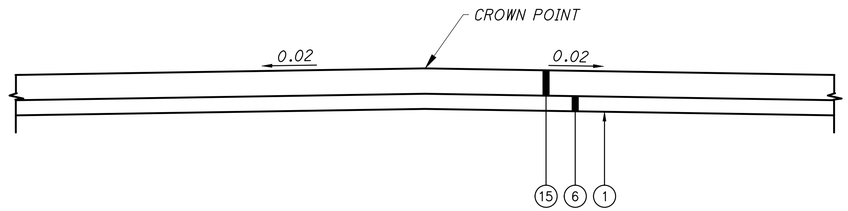
11TH STREET SE

STA. 137+50.00 TO STA. 142+50.00



11TH STREET SE / CHERRY AVENUE SE INTERSECTION BRICK PAVEMENT

11TH STREET SE – STA. 122+05.68 TO STA. 123+59.23
CHERRY AVENUE SE – STA 59+48.84 TO STA 60+58.96



CONCRETE CROSSWALK/HEADER BUILD-UP

SEE CITY OF CANTON SCD NO. 41
11TH STREET SE – STA 121+93.68 TO STA 122+05.68
11TH STREET SE – STA 123+59.23 TO 123+71.23
CHERRY AVENUE SE – STA 59+36.81 TO 59+48.81
CHERRY AVENUE SE – STA 60+58.46 TO STA 60+70.46

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - 11TH STREET SE

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

13
302

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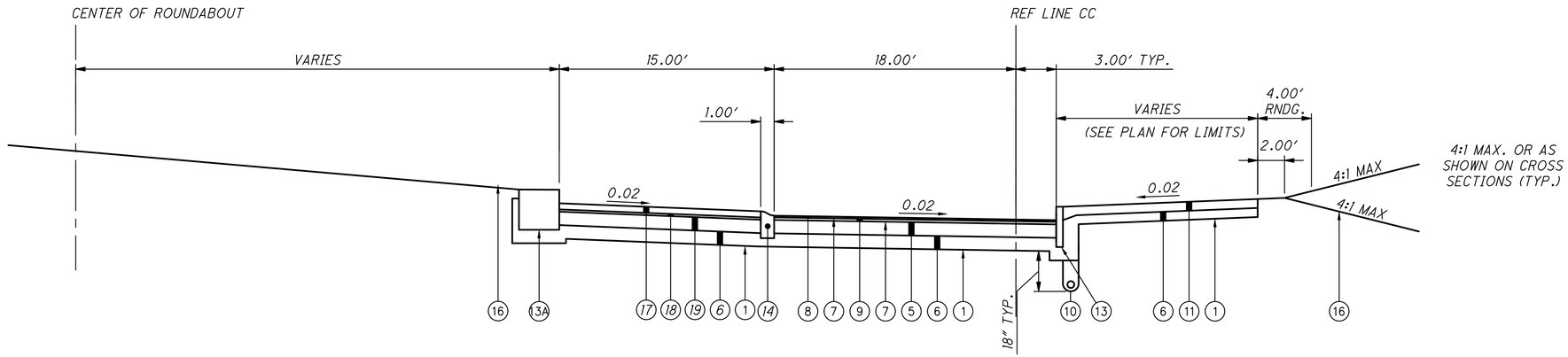
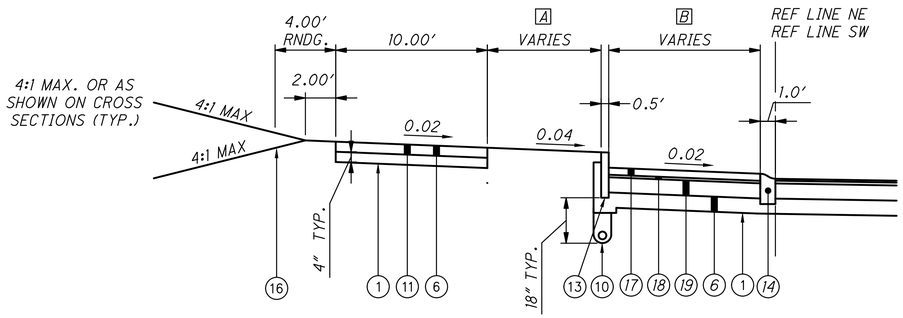


ROUNDABOUT SECTION
11TH STREET SE AND MARKET AVENUE S



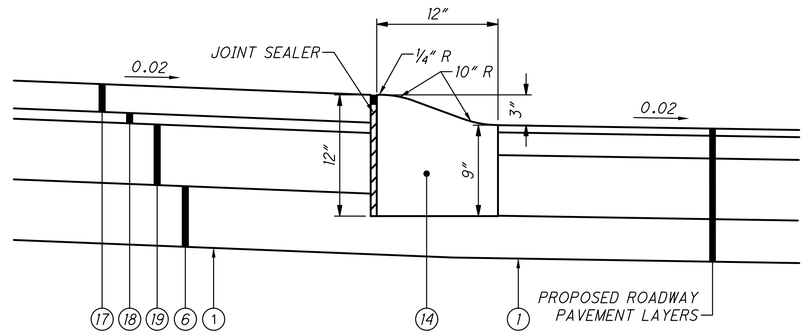
ROUNDABOUT OUTSIDE TRUCK APRON SECTION
11TH STREET SE AND MARKET AVENUE S

SW QUADRANT – STA. 121+02.23 TO STA. 122+75.00 – REF LINE SW (MIRROR IMAGE)

- A MIN. 2.50' – MAX. 4.00'
- B MIN. 2.00' – MAX. 8.00'

NE QUADRANT – STA. 130+49.48 TO STA. 132+39.52 – REF LINE NE

- A MIN. 6.00' – MAX. 34.13'
- B 5.00' TYPICAL



CURB, TYPE 3-B, AS PER PLAN
NOT TO SCALE

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - 11TH STREET SE / ROUNDABOUT

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

14
302

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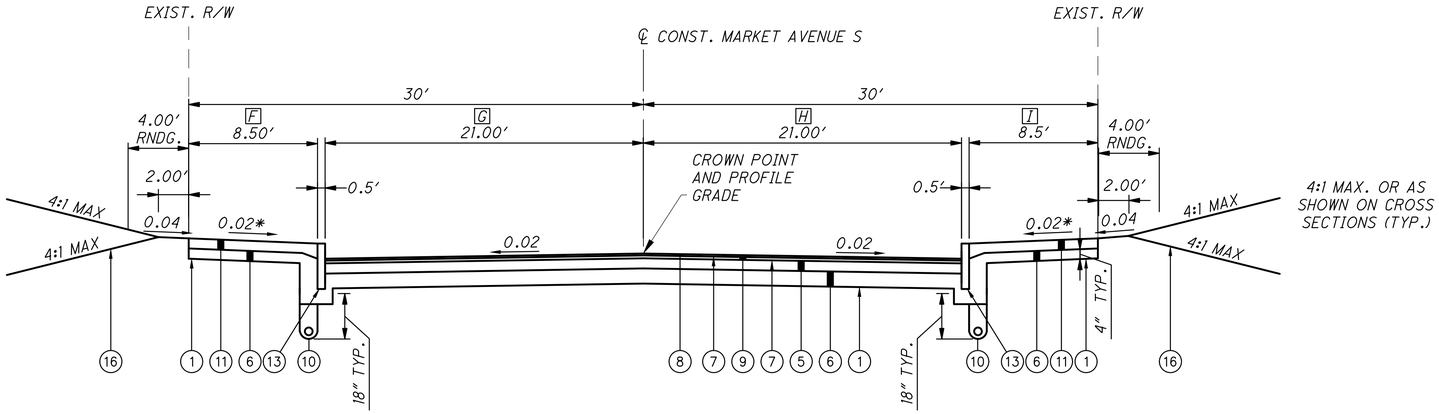


MARKET AVENUE S

STA. 16+40.00 TO STA. 17+31.24

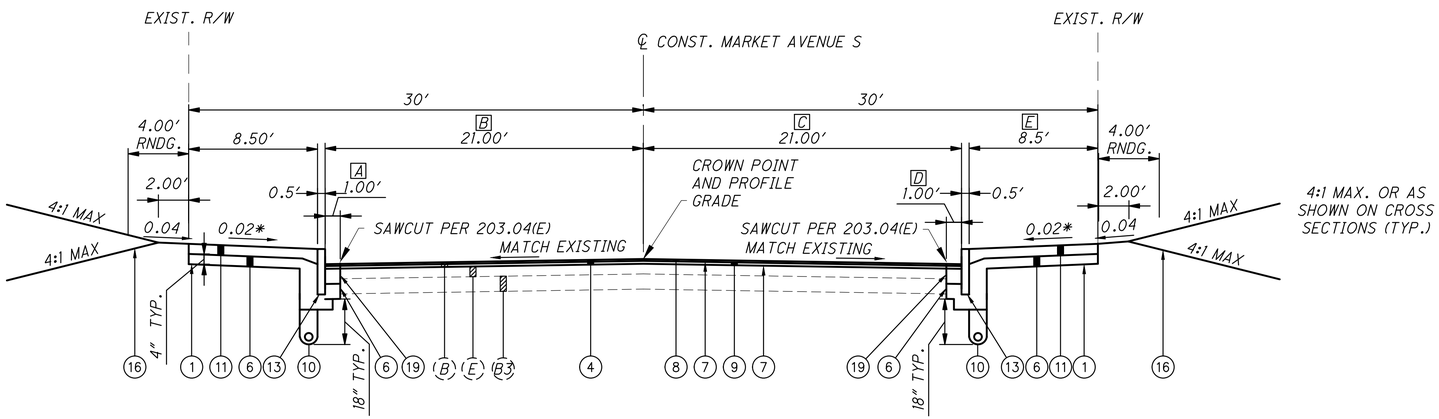
F VARIES - 8.50′ @ STA 16+85.00 TO 13.53′ @ STA 17+10.00
10.00′ STA 17+10.00 O STA 17+31.24

G VARIES - 21.00′ @ STA 16+85.00 TO 16.35′ @ STA 17+10.00
16.35′ @ STA 17+10.00 TO 17.61′ @ STA 17+31.24

H VARIES - 21.00′ @ STA 16+40.00 TO STA 16+46.00
21.00′ @ STA 16+46.00 TO 17.00′ @ STA 16+86.00

I VARIES - 8.50′ @ STA 16+46.00 TO 12.50′ @ STA 16+86.00
12.50′ @ STA 16+86.00 TO 13.24′ @ STA 17+31.24

* WALK CROSS SLOPE SHALL VARY TO MATCH EXISTING AT THE EX. R/W AND TO PROVIDE POSITIVE DRAINAGE AS DIRECTED BY THE ENGINEER



MARKET AVENUE S

STA. 14+19.00 TO STA. 16+40.00

A VARIES - 2.20′ @ STA 14+19.00 TO 1.00′ @ STA 14+44.00

B VARIES - 22.20′ @ STA 14+19.00 TO 21.00′ @ STA 14+44.00

C VARIES - 21.96′ @ STA 14+19.00 TO 21.00′ @ STA 14+44.00

D VARIES - 1.96′ @ STA 14+19.00 TO 1.00′ @ STA 14+44.00

E VARIES - 5.98′ @ STA 14+19.00 TO 8.50′ @ STA 14+44.00

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - MARKET AVENUE S

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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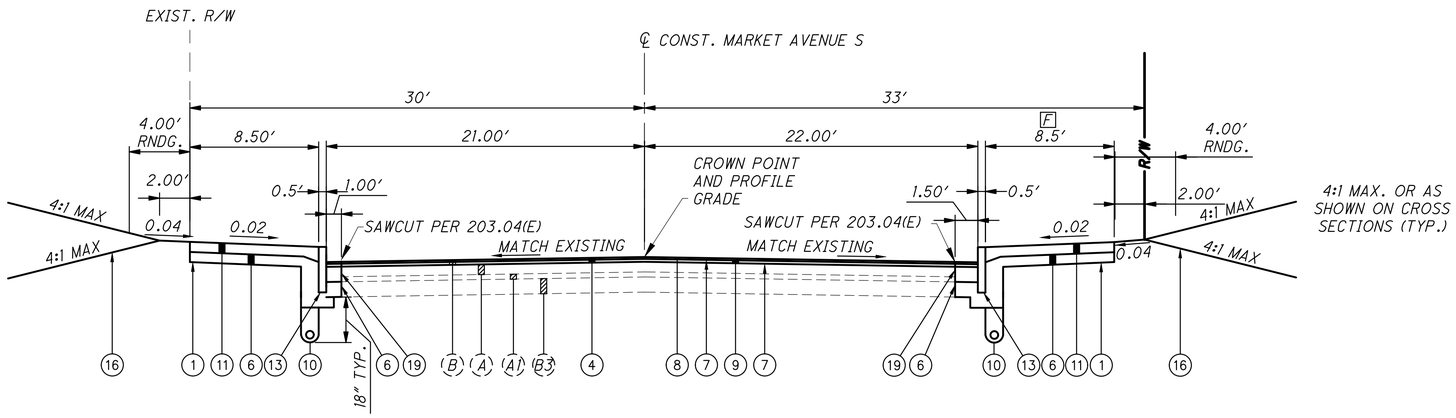
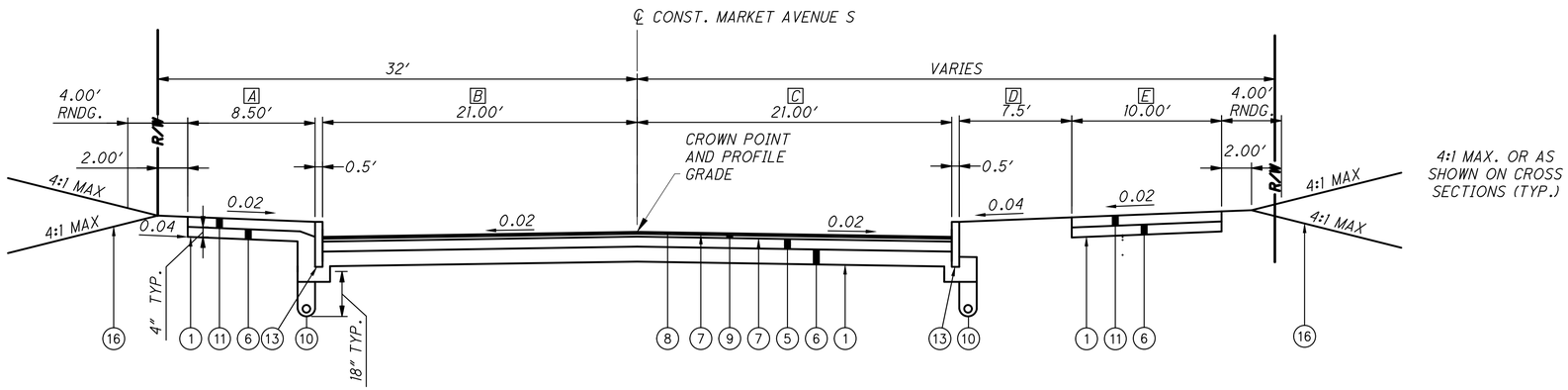


MARKET AVENUE S

STA. 22+35.00 TO STA. 23+06.00

F VARIES - 9.54′ @ STA 22+35.00 TO 8.50′ @ STA 22+49.85



MARKET AVENUE S

STA. 20+74.72 TO STA. 22+35.00

A VARIES - 9.50′ @ STA 20+77.52 TO 8.50′ @ STA 20+86.59

B VARIES - 17.00′ @ STA 20+77.52 TO 21.00′ @ STA 21+06.04

C VARIES - 21.00′ @ STA 21+12.02 TO 22.00′ @ STA 22+38.39

D VARIES - 7.67′ @ STA 20+74.72 TO 7.50′ @ STA 20+80.88
7.50′ @ STA 21+90.78 TO 0.00′ @ STA 22+23.23

E VARIES - 10.00′ @ STA 22+23.23 TO 9.54′ @ STA 22+35.00

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - MARKET AVENUE S

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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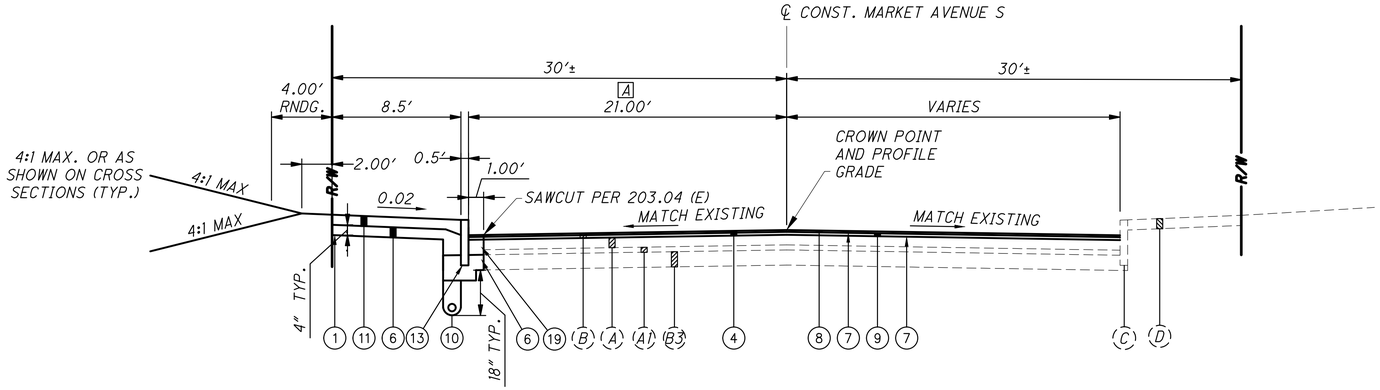

NOTE: WIDENING, SIDEWALK AND CURB REPLACEMENT END AT BUCKEYE PLACE SW.

MARKET AVENUE S

STA. 23+06.00 TO STA. 28+55.43

A MATCH EX. FROM BUCKEYE PLACE SW TO STA 28+55.43

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - MARKET AVENUE S

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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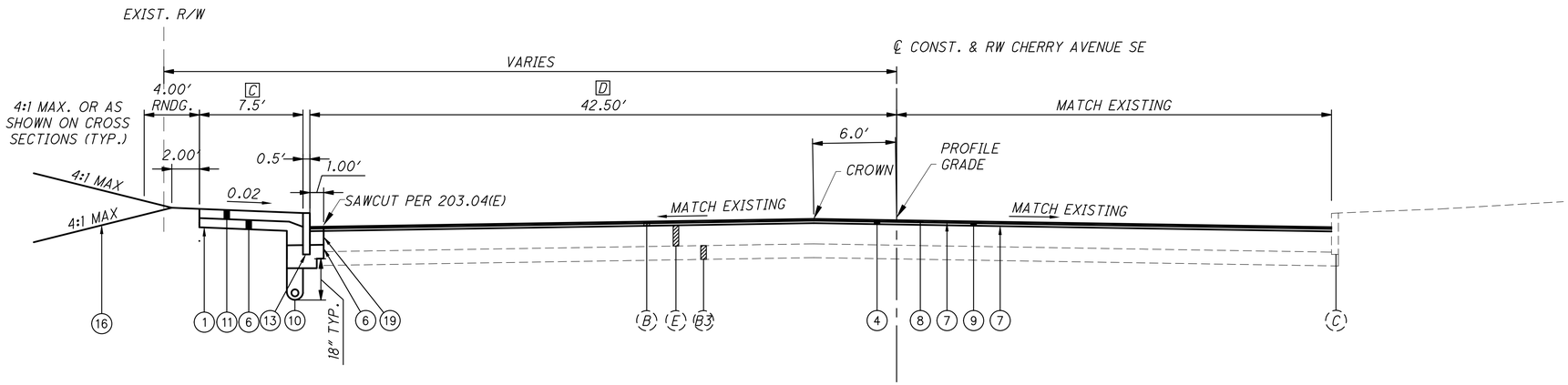
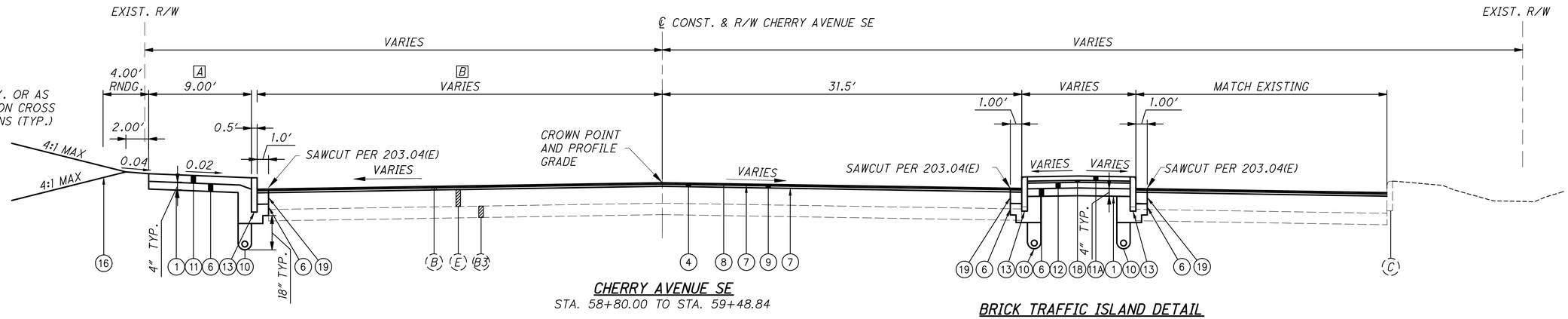


C VARIES - 17.50' @ STA 60+92.97 TO 7.50' @ STA 61+45.58
7.50' FROM STA. 61+45.58 TO STA. 64+41.99

D VARIES - 42.50' FROM STA. 60+70.46 TO STA. 64+11.39
42.50' @ STA 64+11.39 TO 37.44' @ STA 64+40.93

CHERRY AVENUE SE
STA. 60+70.46 TO STA. 64+41.99

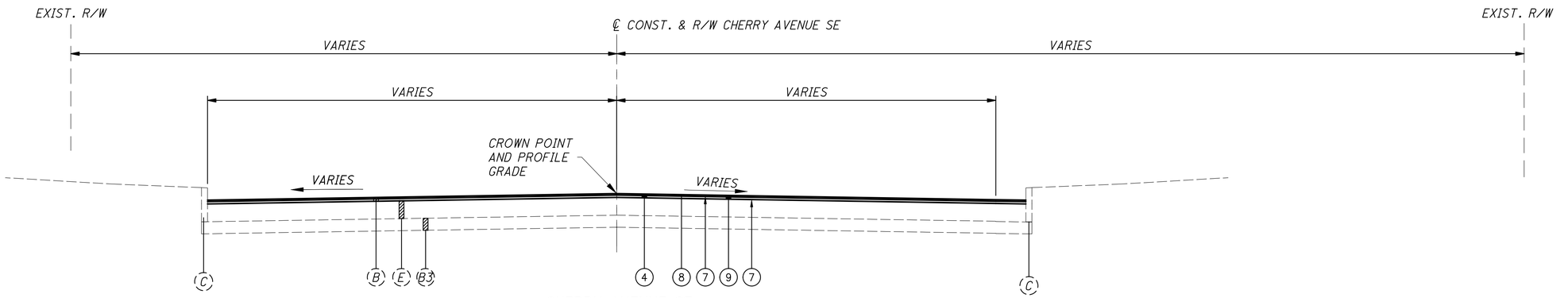


CHERRY AVENUE SE
STA. 58+80.00 TO STA. 59+48.84

BRICK TRAFFIC ISLAND DETAIL
CHERRY AVENUE SE – STA 59+01.08 TO STA 59+67.48

A VARIES – 5.81' @ STA 58+80.00 TO 9.00' @ STA 59+15.00

B VARIES – 35.50' TO 46.51'



CHERRY AVENUE SE
STA. 43+00.00 TO STA. 58+80.00

FOR TYPICAL SECTION EXISTING LEGEND SEE SHEET 6, FOR PROPOSED LEGEND AND NOTES SEE SHEET 11.

CALCULATED JPK
CHECKED AMP

TYPICAL SECTIONS - CHERRY AVENUE SE

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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GENERAL

ROUNDING
THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES
LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

NATURAL GAS DIST./TRANS.
DOMINION EAST OHIO GAS
320 SPRINGSIDE DR.
AKRON, OHIO 44333
330-664-2541
ATTN: KEVIN BIRT
RELOCATION@DOM.COM
EMERGENCY NO.
1-800-521-4400

CABLE TV
SPECTRUM
ATTN: COREY RICHARDSON
530 S. MAIN STREET,
SUITE 1751
AKRON, OHIO 44311
(330) 490-2506

SANITARY AND STORM SEWER
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
ATTN: JAMES BENEKOS
330-489-3381

TRAFFIC INTERCONNECT
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
ATTN: NICK LOUKAS
330-489-3381

TELEPHONE
AT&T
50 W. BOWERY STREET
FLOOR 6
AKRON, OHIO 44308
ATTN: STEVE HYLTON
330-384-3055
EMERGENCY NO. - 24 HRS
1-800-572-4545 OPTION #4

ELECTRIC
AMERICAN ELECTRIC POWER
301 CLEVELAND AVE. SW
P.O. BOX 24400
CANTON, OHIO 44701-4400
330-438-7739
ATTN: KEITH SCHALMO
330-438-7999

AEP TRANSMISSION
8600 SMITHS MILL RD
NEW ALBANY, OH 43054
ATTN: MICHAEL D. CARR
380-205-5072

WATER
CANTON WATER DEPT.
2664 HARRISBURG RD. N.E.
CANTON, OHIO 44708
ATTN: BRENT BURRIER OR
LEWI MILLER
330-489-3310

THE CITY ENGINEER'S OFFICE IS TO BE CONTACTED DIRECTLY FOR SANITARY AND STORM SEWER AND TRAFFIC INTERCONNECT FACILITIES LOCATION: 330-489-3381

WORK ADJACENT TO DOMINION EAST OHIO PIPELINE(S)
IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DOMINION'S PIPELINE(S), IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P. (SAFE EXCAVATION & SHORING). ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DOMINION EAST OHIO'S (DEO) EXISTING PIPELINE(S) AND ALL OTHER IMPROVEMENTS. EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY (PIPELINES, ETC.) OR APPURTENANCE (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION TEST STATION WIRES & DEVICES, VALVE BOXES, ETC.). DEO FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL DEO EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE AND IN WORKING ORDER. THE CROSSING OF DEO'S PIPELINE WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING DEO FACILITY. PLEASE CONTACT DOMINION'S CORROSION DEPARTMENT: DAVE CUTLIP (330-266-2121), RICK MCDONALD (330-266-2122), OR AL HUMRICHOUSER (330-478-3757).

DEO = THE EAST OHIO GAS COMPANY, DBA DOMINION EAST OHIO, 1-800-362-7557.

COORDINATION OF WORK WITH UTILITY COMPANIES
RELOCATION OF EXISTING OVERHEAD AND UNDERGROUND FACILITIES BY THE AFFECTED UTILITY OWNERS IS REQUIRED FOR COMPLETION OF THE WORK. IF EXISTING UTILITY FACILITIES ARE NOT CLEARED FROM THE CONSTRUCTION AREA AT THE TIME OF CONTRACT AWARD AND NOTICE TO PROCEED, THE CONTRACTOR WILL BE REQUIRED TO COORDINATE THIS WORK WITH THAT OF THE AFFECTED UTILITY OWNERS AND SHALL REFLECT THIS IN THE SCHEDULE, MAINTENANCE OF TRAFFIC PLANS, AND UNIT COSTS.

SURVEY PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 3 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL
POSITIONING METHOD: STATIC
MONUMENT TYPE: TYPE A

VERTICAL POSITIONING
ORTHOMETRIC HEIGHT DATUM: NAVD88 2012

HORIZONTAL POSITIONING
REFERENCE FRAME: NAD83 (CORS2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO NORTH ZONE (3401)
COMBINED SCALE FACTOR: 0.99990679
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH ODOT CMS 623.

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR:
1 METER = 3.28083333333 U.S. SURVEY FEET.

WORK LIMITS
THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITEM 204 - PROOF ROLLING
THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING	7	HOURS

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING
CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).

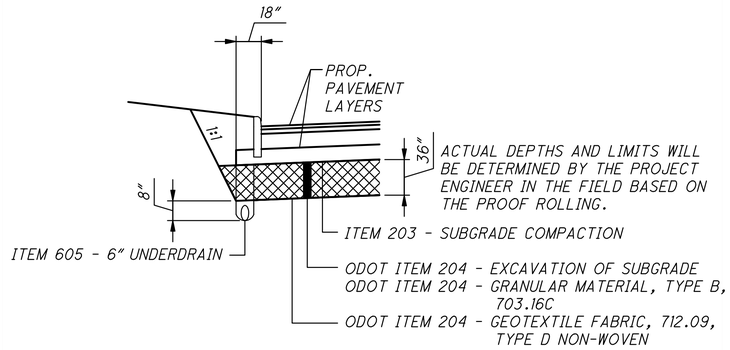
   IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.
3. COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.
4. EXCAVATION OF UNSTABLE SUBGRADE IS ANTICIPATED TO BE REQUIRED FOR APPROXIMATELY 30% OF THE FULL-DEPTH PAVEMENT AREAS WITHIN THE PROJECT LIMITS. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

   PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.
5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO THE DETAIL BELOW. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.
7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

   THE QUANTITY FOR EXCAVATING THE UNSUITABLE SUBGRADE IS PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ODOT ITEM 204 - EXCAVATION OF SUBGRADE	584 CY
ODOT ITEM 204 - GRANULAR MATERIAL, TYPE B, 703.16C	1761 CY
ODOT ITEM 204 - GEOTEXTILE FABRIC, 712.09, TYPE D NON-WOVEN	534 SY



EXCAVATE AND REPLACE DETAIL

CALCULATED JPK CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING AND MULCHING
THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659 - SOIL ANALYSIS TEST	2	EACH
ITEM 659 - TOPSOIL	1258	CY
ITEM 659 - REPAIR SEEDING AND MULCHING	567	SY
ITEM 659 - INTER-SEEDING	567	SY
ITEM 659 - COMMERCIAL FERTILIZER	1.53	TON
ITEM 659 - LIME	2.34	ACRE
ITEM 659 - WATER	62	M GAL

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

PAVEMENT

PART-WIDTH CONSTRUCTION
IF THE CONTRACTOR ELECTS TO BUILD FULL-DEPTH REPLACEMENT SECTIONS OF THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXTREME CARE SHALL BE TAKEN TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LONGITUDINAL JOINTS SHALL BE LAPPED AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

DRAINAGE

ITEM 611 - CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN
ITEM 611 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN
THE WORK ITEMS ABOVE SHALL BE PERFORMED AND PAID FOR IN ACCORDANCE WITH ODOT ITEM 611, EXCEPT THAT ALL ADJUSTMENTS TO GRADE SHALL INCLUDE NEW CASTINGS AND FRAMES. PAYMENT FOR THE NEW CASTINGS AND FRAMES IS TO BE INCLUDED IN THE UNIT COST PER EACH CATCH BASIN OR MANHOLE ADJUSTED TO GRADE. REFER TO CITY OF CANTON STANDARD DRAWING NO. 13 FOR MANHOLE ADJUSTMENTS.

ENVIRONMENTAL

ENVIRONMENTAL STUDIES INDICATED THAT PETROLEUM CONTAMINATED SOILS (PCS) [AND UST] WILL BE ENCOUNTERED DURING EXCAVATIONS WITHIN THE PROJECT LIMITS AT RMR SITE NO. RMR-008 (219 NAVARRE ROAD SW). ENVIRONMENTAL STUDIES ARE AVAILABLE AT THE CITY OF CANTON ENGINEERING DEPARTMENT. THE CONTRACTOR MUST DETERMINE THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT FOR THOSE WHO CONDUCT WORK WITHIN THE LIMITS OF THE PCS.

ALL EXCAVATED PCS THAT CANNOT BE REUSED AS PROJECT FILL PER CMS 203.03(J)., SHALL BE MANAGED AND DISPOSED OF AT A LICENSED LANDFILL. THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED PCS INTO TRUCKS FOR TRANSPORT AND DISPOSAL. AS AN ALTERNATE, THE ENGINEER MAY PERMIT THE CONTRACTOR TO TEMPORARILY STOCKPILE THE EXCAVATED PCS ON AN IMPERMEABLE MEMBRANE, IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE STOCKPILE SHOULD BE SURROUNDED BY STRAW BALES TO REDUCE RUNOFF. THE CONTRACTOR WILL PROVIDE COMPLETED LOG FORMS AND MANIFESTS FOR TRANSPORT AND DISPOSAL TO THE ENGINEER FOR SIGNATURE. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TESTING THAT THE LANDFILL MAY REQUIRE FOR DISPOSAL.

IF THE EXCAVATIONS WITHIN THE PCS REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, THE CONTRACTOR SHALL DEWATER, CONTAINERIZE AND DISPOSE OF THE WATERS BY A METHOD APPROVED OF BY THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS NEEDED TO STORE, TRANSPORT AND DISPOSE OF WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TESTING REQUIRED FOR DISPOSAL. ALL EXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL IN ACCORDANCE WITH PROJECT PLANS, APPLICABLE ODOT SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROPERLY MANAGE, STORE (IF NECESSARY), TEST FOR DISPOSAL, TRANSPORT AND DISPOSE OF REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS OR FEES WITHIN THE IDENTIFIED LIMITS.

ALSO ENVIRONMENTAL STUDIES INDICATED THAT SOLID WASTE WILL BE ENCOUNTERED DURING EXCAVATIONS WITHIN THE PROJECT LIMITS AT RMR SITE NO.S RMR-010 (104 NAVARRE ROAD SW); RMR-016 (220 11TH STREET, MARKET AVENUE S); RMR-024/025/026 (101 11TH STREET, CHERRY STREET). ENVIRONMENTAL STUDIES ARE AVAILABLE AT THE CITY OF CANTON ENGINEERING DEPARTMENT. THE CONTRACTOR MUST DETERMINE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT FOR THOSE WHO CONDUCT WORK WITHIN THE LIMITS OF SOLID WASTE.

ALL EXCAVATED SOLID WASTE THAT CANNOT BE REUSED AS PROJECT FILL SHALL BE MANAGED AND DISPOSED OF AT A LICENSED LANDFILL. THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED SOLID WASTE INTO TRUCKS FOR TRANSPORT AND DISPOSAL. AS AN ALTERNATE, THE ENGINEER MAY PERMIT THE CONTRACTOR TO TEMPORARILY STOCKPILE THE EXCAVATED SOLID WASTE ON AN IMPERMEABLE MEMBRANE, IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE STOCKPILE SHOULD BE SURROUNDED BY STRAW BALES TO REDUCE RUNOFF. THE CONTRACTOR WILL PROVIDE COMPLETED LOG FORMS AND MANIFESTS FOR TRANSPORT AND DISPOSAL TO THE ENGINEER FOR SIGNATURE. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TESTING THAT THE LANDFILL MAY REQUIRE FOR DISPOSAL. IF EXCAVATIONS WITHIN THE SOLID WASTE AREA REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, THE CONTRACTOR SHALL DEWATER, CONTAINERIZE AND DISPOSE OF WATERS BY A METHOD APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS NEEDED TO STORE, TRANSPORT AND DISPOSE OF WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TESTING REQUIRED FOR DISPOSAL.

ALL EXCAVATED AREAS SHALL BE BACKFILLED WITH SUITABLE MATERIAL IN ACCORDANCE WITH PROJECT PLANS, APPLICABLE ODOT SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROPERLY MANAGE, STORE (IF NECESSARY), TEST FOR DISPOSAL, TRANSPORT AND DISPOSE OF REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS OR FEES WITHIN THE IDENTIFIED LIMITS.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICE BID. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

(690 65000) ITEM SPECIAL - WORK INVOLVING NON-REGULATED MATERIALS
50 TON

(690 65016) ITEM SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOILS
2,521 TON

(690 65010) ITEM SPECIAL - WORK INVOLVING SOLID WASTE
50 TON

(690 65022) ITEM SPECIAL - WORK INVOLVING NON-REGULATED WATER
1,000 GALLON

(690 65024) ITEM SPECIAL - WORK INVOLVING REGULATED WATER
1,000 GALLON

CALCULATED JPK
CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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CALCULATED
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GENERAL NOTES

CITY OF CANTON GENERAL NOTES

I. PRECONSTRUCTION INCIDENTALS

(A) PROJECT SPECIFICATIONS/REQUIREMENTS:

ALL WORK REQUIRED TO COMPLETE THIS IMPROVEMENT SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATIONS/REQUIREMENTS OF THE CITY OF CANTON AND THE LATEST EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, EXCEPT AS HEREIN AMENDED. IN THE CASE OF A CONFLICT BETWEEN THE CITY OF CANTON AND THE OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATIONS/REQUIREMENTS, THE CITY OF CANTON REQUIREMENTS WILL TAKE PRECEDENCE, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.

THE DEVELOPER/CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

(B) ADMINISTRATIVE REQUIREMENTS:

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE DEVELOPER/CONTRACTOR SHALL DESIGNATE TO THE CITY AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS, AND SUBMITTALS PERTINENT TO THE PROJECT.

(C) PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING WITH THE DEVELOPER, CONTRACTOR, REPRESENTATIVES OF ALL UTILITY COMPANIES, THE CITY OF CANTON ENGINEERING DEPARTMENT AND THE CITY OF CANTON WATER DEPARTMENT IS REQUIRED FOR THIS PROJECT PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY.

THE CITY ENGINEER WILL CONTACT THE CONTRACTOR TO ARRANGE A MEETING DATE. THE CITY ENGINEER WILL CONTACT THE ABOVE AGENCIES TO CONFIRM THE MEETING DATE.

IF THE PROPOSED PROJECT LAND-DISTURBANCE AREA IS ONE (1) OR MORE ACRES, A SEPARATE PRE-CONSTRUCTION MEETING IS ALSO REQUIRED. THIS MEETING SHALL OCCUR ON-SITE BETWEEN THE CONTRACTOR AND THE STARK SOIL & WATER CONSERVATION DISTRICT (SWCD). THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THIS MEETING. NO LAND-DISTURBANCE ACTIVITIES SHALL START UNTIL SAID MEETING HAS OCCURRED AND APPROVAL HAS BEEN GRANTED BY STARK SWCD.

(D) PROJECT SAFETY:

THE CONTRACTOR SHALL MAINTAIN A SAFE WORKING ENVIRONMENT AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. APPROPRIATE BARRICADES, WARNING LIGHTS, SIGNS, FENCING, ETC. SHALL BE ERECTED AROUND THE CONSTRUCTION AREA DURING ALL NON-WORKING HOURS TO ALERT PERSONS OF THE POTENTIAL DANGER ASSOCIATED WITH THE AREA UNDER CONSTRUCTION AS WELL AS TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL TO THE CONSTRUCTION SITE/AREA. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE GENERAL PUBLIC AS WELL AS ALL CONSTRUCTION PERSONNEL. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING AND CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

(E) UNDERGROUND UTILITIES:

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED BY FIELD OBSERVATIONS, FROM EXISTING RECORDS, AND/OR FROM THE OWNERS OF THE RESPECTIVE UTILITIES. THE INFORMATION AS SHOWN IS BELIEVED TO BE CORRECT; HOWEVER, THE COMPLETENESS AND ACCURACY OF THIS INFORMATION CANNOT BE GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT ALL THE VARIOUS UTILITY COMPANIES (PUBLIC AND PRIVATE) TO VERIFY THE EXISTENCE, LIMITS AND/OR LOCATION OF ANY UTILITIES WHICH MAY BE ALONG THE ROUTE OR WITHIN THE VICINITY OF THIS IMPROVEMENT.

(H) EXPLORATORY BORINGS:

EXPLORATORY SOIL BORING INFORMATION IS NOT THE RESPONSIBILITY OF THE CITY OF CANTON. IT IS THE DEVELOPER/CONTRACTOR RESPONSIBILITY TO REVIEW ANY AND ALL INFORMATION AVAILABLE. IF DEVELOPER/CONTRACTOR REQUESTS TO DRILL AND OR EXCAVATE WITHIN THE CITY'S R/W, THE DEVELOPER/CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 3 WORKING DAYS PRIOR TO THIS WORK. THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATION, AS SPECIFIED, ALL TRAFFIC CONTROL, PREMIUM BACKFILL, AND COMPACTION AND RESTORATION, AS NECESSARY.

(I) CONTINGENCY QUANTITIES:

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE DEVELOPER/CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE DEVELOPER/CONTRACTOR AND THE ENGINEER.

II. CONSTRUCTION INCIDENTALS

(A) PLAN DISCREPANCIES:

ANY DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE SAME.

FAILURE BY THE DEVELOPER/CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

(B) VERIFICATION OF UNDERGROUND UTILITIES:

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE AS WELL AS THE ACTUAL LOCATION, ALIGNMENT, AND ELEVATIONS OF ALL EXISTING UTILITIES/FACILITIES WITHIN AND/OR ADJACENT TO THE GENERAL LIMITS OF THESE IMPROVEMENTS INCLUDING WATERLINES, SANITARY AND STORM SEWERS, GAS LINES, COMMUNICATION LINES/BANKS, ELECTRIC LINES, ETC. THIS MAY REQUIRE EXPLORATORY EXCAVATIONS TO BE PERFORMED BY THE CONTRACTOR FOR WHICH HE WILL NOT BE REIMBURSED. THE CONTRACTOR SHALL NOT ASSUME THAT EXISTING UTILITIES/CONDUITS WERE INSTALLED AT TYPICAL/STANDARD DEPTHS OR AT UNIFORM SLOPES/GRADES/DEPTHS BETWEEN ACCESS POINTS (CATCH BASINS, MANHOLES, JUNCTION CHAMBERS, ETC.)

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT.

(C) PROTECTION OF UTILITIES:

THE DEVELOPER/CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS AS APPROVED BY THE OWNERS OF THE UTILITY AND THE CITY ENGINEER.

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO CLOSELY COORDINATE THEIR WORK WITH ALL UTILITY COMPANIES; ANY POTENTIAL DELAYS WILL NOT BE THE RESPONSIBILITY OF THE CITY.

THE CONTRACTOR SHOULD EXPECT AT A MINIMUM ONE SANITARY SEWER LATERAL, ONE ROOF DRAIN, ONE WATER SERVICE, AND ONE GAS SERVICE FOR EACH LOT. ANY OF THE ABOVE UTILITIES DAMAGED DUE TO THE CONTRACTOR'S WORK SHALL BE RESTORED TO THE UTILITY OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(D) MAINTENANCE OF UTILITY SERVICES:

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN UTILITY SERVICES AT ALL TIMES.

WATER SERVICE MAY BE INTERRUPTED FOR LIMITED PERIODS (4 HOURS MAXIMUM) DURING CONNECTION BETWEEN EXISTING WATER LINES AND RELOCATED/NEW WATER MAINS WHICH CANNOT BE COMPLETED OTHERWISE. NO SHUT DOWN SHALL OCCUR WITHOUT WRITTEN PERMISSION OF THE CITY OF CANTON WATER DEPARTMENT. PROPERTY OWNERS AFFECTED BY APPROVED INTERRUPTED SERVICE SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR.

STORM SEWER AND SANITARY SEWER SERVICES SHALL BE MAINTAINED WITHOUT INTERRUPTION, UNLESS APPROVED BY THE CITY ENGINEER.

IN THE EVENT THAT CONSTRUCTION DISRUPTS THE FLOW OF A SANITARY SEWER, THE CONTRACTOR SHALL IMMEDIATELY RECTIFY THE DISRUPTED SEWER BY EITHER TEMPORARILY FLUMING WITH MATERIALS ACCEPTABLE TO THE ENGINEER OR BYPASSING WITH PUMPS. COST OF MAINTAINING AND REPAIR OF SANITARY SEWERS DISTURBED BY CONSTRUCTION SHALL BE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIFICATIONS.

(E) CONSTRUCTION NOISE:

CONSTRUCTION NOISE ASSOCIATED WITH ANY IMPROVEMENT PROJECT SHALL BE LIMITED TO LEVELS COMMENSURABLE WITH ADJOINING LAND AND THEIR ASSOCIATED USAGE AS DETERMINED BY THE CITY ENGINEER. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICES SHALL NOT BE OPERATED BETWEEN THE HOURS OF 7:00 P.M. AND 7:00 A.M. UNLESS AUTHORIZED BY THE CITY ENGINEER.

(F) OPEN TRENCH CONSTRUCTION:

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION/TRENCHING PRACTICES FOR THE PROPOSED IMPROVEMENT, OR AS FURTHER SHOWN ON THE PLANS AND SPECIFICATIONS.

THE DEVELOPER/CONTRACTOR SHALL FOLLOW ALL APPLICABLE LOCAL AND STATE SAFETY REGULATIONS, INCLUDING CODE OF FEDERAL REGULATIONS, PART 1926 (SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION), SUBPART P (EXCAVATIONS), FOR ALL APPLICABLE REQUIREMENTS AND RESPONSIBILITIES.

PRIOR TO COMMENCING CONSTRUCTION, THE DEVELOPER/CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

(G) TRENCH CLOSING AND TEMPORARY TOPPING:

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE THE NECESSARY LEVELS OF PROTECTION AND SAFEGUARDING OF ALL OPEN TRENCHES, WHEN WORK IS EITHER COMPLETED AT THE END OF THE DAY OR SUSPENDED FOR ANY OTHER REASON.

FOR TRENCH SURFACE REQUIREMENTS, REFER TO NOTE 4 ON CITY STANDARD DRAWING NO. 19.

FOR TRENCH SURFACE REQUIREMENTS, REFER TO THE MISCELLANEOUS DETAILS.

(H) DUST CONTROL:

THE DEVELOPER/CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL.

(I) TESTING OF UTILITIES:

REFER TO SECTION V. SANITARY SEWERS/STORM SEWERS &
SECTION VIII. WATER MAIN/SERVICES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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II. CONSTRUCTION INCIDENTALS (continued)

(J) PRESERVATION AND RESTORATION OF DISTURBED FEATURES:

EXISTING DRIVES, BERMS, LAWNS, PAVEMENTS, CURBS, SIDEWALKS, SIGNS, MAILBOXES, FENCES, RETAINING WALLS, LANDSCAPING ITEMS, OR OTHER APPURTENANCES DISTURBED DURING CONSTRUCTION BUT NOT SPECIFICALLY DESIGNATED FOR REMOVAL/REPLACEMENT SHALL BE RESTORED BY THE DEVELOPER/CONTRACTOR AT HIS EXPENSE TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO DISTURBANCE AND TO THE COMPLETE SATISFACTION OF THE CITY ENGINEER.

RESTORATION OF EXISTING ROADWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY, TOWNSHIP, COUNTY, AND/OR OTHER AGENCIES HAVING AUTHORITY. COST FOR THE RESTORATION OF THESE ITEMS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR, UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIFICATIONS. NO PUBLIC ROADWAY SHALL BE DISTURBED WITHOUT PRIOR WRITTEN APPROVAL FROM THE GOVERNING AGENCY AND ACQUISITION OF NECESSARY PERMITS.

(K) SALVAGED CASTINGS:

WHEN DIRECTED BY THE CITY ENGINEER, ALL METAL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED ON SITE OR DELIVERED TO A LOCATION DESIGNATED BY THE CITY ENGINEER.

(L) PLUG EXISTING CONDUIT:

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT TO BE ABANDONED.

BULKHEADS SHALL CONSIST OF BRICK AND/OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

PAYMENT FOR PLUGGING OF EXISTING CONDUIT FOR ABANDONMENT SHALL BE INCLUDED IN THE UNIT BID OF THE VARIOUS ITEMS OF THE PROJECT.

(M) CONSTRUCTION LAYOUT:

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT UTILIZING PERTINENT PLAN DATA. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR STAKING HORIZONTAL OR VERTICAL CONTROL. CONSTRUCTION LAYOUT SHALL BE IN ACCORDANCE WITH ODOT 623 CONSTRUCTION LAYOUT STAKES.

AT THE CITY ENGINEER'S REQUEST, THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

(N) EXISTING MONUMENTATION:

THE CONTRACTOR SHALL PRESERVE ALL CORNERSTONES, IRON PINS, CONCRETE MONUMENTS AND/OR ANY TYPE OF LAND MONUMENT. THE CONTRACTOR SHALL HAVE ALL MONUMENTS IN THE PROXIMITY OF THE WORK REFERENCED. THE CONTRACTOR SHALL REPLACE/RESET ANY DISTURBED OR DAMAGED MONUMENTS AND SHALL FURNISH A CERTIFICATION BY A REGISTERED SURVEYOR THAT THE MONUMENTS HAVE BEEN RESTORED.

(O) ELEVATION DATUM:

ALL ELEVATIONS ARE BASED ON THE **NAVD 1988 DATUM**.

(P) DEWATERING OPERATIONS:

WHEN DEEMED NECESSARY, THE DEVELOPER/CONTRACTOR MAY INSTALL DEWATERING EQUIPMENT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

THE PROPOSED LOCATION OF WELL POINTS, HEADER PIPE, ELECTRICAL DISTRIBUTION, GENERATORS AND DISCHARGE PIPES, ETC. SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR.

THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS FOR THE INSTALLATION AND SUBSEQUENT REMOVAL OF DEWATERING EQUIPMENT AS WELL AS PROPER WATER DISCHARGE PROCEDURES AS MAY BE REQUIRED PER STATE AND LOCAL GOVERNING AGENCIES.

INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING GROUNDING AND PROTECTION SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR.

DEVELOPER/CONTRACTOR SHALL PROVIDE ALL COMBUSTIBLE ENGINE DRIVEN GENERATORS WITH "HOSPITAL GRADE" MUFFLERS. MUFFLERS SHALL BE RATED, AT A MAXIMUM OF 67 dB AT 23 FEET AWAY RUNNING FULL LOAD.

(Q) INSPECTION:

FOLLOWING THE PRE-CONSTRUCTION MEETING(S) AND ESTABLISHMENT OF AN APPROVED SCHEDULE, THE CONTRACTOR SHALL GIVE A MINIMUM 48 HOUR NOTICE BEFORE STARTING ANY WORK ON THIS PROJECT AND SHALL KEEP THE CITY INFORMED OF HIS/HER CONSTRUCTION SCHEDULE. ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CANTON OR THEIR DESIGNATED REPRESENTATIVE. NO WORK SHALL BE PERFORMED WITHOUT AN AUTHORIZED INSPECTOR PRESENT, UNLESS OTHERWISE APPROVED.

(R) FIELD OFFICE:

IF A PAY ITEM IS PROVIDED, THE DEVELOPER/CONTRACTOR SHALL PROVIDE A FIELD OFFICE IN ACCORDANCE WITH ODOT 619. THE FIELD OFFICE SHALL BE TYPE 'B', UNLESS OTHERWISE SPECIFIED.

ARCHAEOLOGICAL DISCOVERIES

CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE (O.R.C.) SECTION 149.53 TO NOTIFY OHIO'S STATE HISTORIC PRESERVATION OFFICE (SHPO), AND TO COOPERATE WITH THAT OFFICE IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND MITIGATION EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA.

CONTACT: OHIO STATE HISTORIC PRESERVATION OFFICE
DIANA WELLING, RESOURCE PROTECTION & REVIEW DEPARTMENT MANAGER
PHONE: 1-614-298-2000
EMAIL: DWELLING@OHIOHISTORY.ORG

PROHIBITED CONSTRUCTION ACTIVITIES (WPCLF REQUIREMENTS)

1. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER;

2. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS;

3. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS;

4. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE;

5. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO;

6. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM;

7. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA;

8. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS;

9. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT;

10. DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, RILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI- PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION;

11. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES;

12. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER;

13. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OR 8:00 AM AND 5:00 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS; AND

14. CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER, AND CLOSING CLEAR ACCESS:
- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;
- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR
- BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

III. EARTHWORK / SITE WORK

(A) EASEMENTS AND RIGHT-OF WAY:

THE DEVELOPER/CONTRACTOR SHALL STAY WITHIN THE DESIGNATED PROPERTIES, EASEMENTS, AND/OR RIGHT-OF-WAY PROVIDED FOR THE PROJECT AT ALL TIMES. NO MATERIAL SHALL BE STORED NOR ANY WORK PERFORMED ON PRIVATE PROPERTY UNLESS OTHERWISE APPROVED. DISTURBANCE OF EXISTING FEATURES AND/OR IMPROVEMENTS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND AS APPROVED BY THE CITY ENGINEER/PROPERTY OWNER.

(B) SUITABILITY OF SITE:

THE CITY OF CANTON SHALL NOT BE RESPONSIBLE FOR THE TYPE AND/OR SUITABILITY OF THE MATERIAL UNDERLYING THE PROJECT SITE. THE DEVELOPER/CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE DEVELOPER/CONTRACTOR SHALL PERFORM ANY INVESTIGATIONS AND/OR TESTING NECESSARY TO ADEQUATELY DETERMINE/ESTIMATE TO THEIR SATISFACTION ALL SITE CONDITIONS WHICH COULD AFFECT THE PERFORMANCE OF THE PROPOSED IMPROVEMENTS. THIS COULD INCLUDE, BUT NOT BE LIMITED TO, UNSUITABLE AND/OR UNSTABLE SOIL/SUBSURFACE CONDITIONS, ROCK, WATER (PERCHED OR FREE), SPRINGS, ETC.

(C) REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE DEVELOPER/CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY UNTIL SUCH CONDITIONS ARE CORRECTED AND APPROVED BY THE PROJECT ENGINEER.

THIS WORK SHALL BE INCLUDED IN THE BID PRICE FOR THE UTILITY UNLESS THE PLANS ALLOW FOR A CONTINGENCY ITEM FOR REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL. IF SO, THE CITY WILL DOCUMENT THE LOCATION OF SUCH AREAS FOR FINAL QUANTITY TABULATION.

IV. ROADWAY / DRIVE APPROACHES / WALK / CURB

(A) RESTRICTED WORK SCHEDULE:

NO CONCRETE FINISH WORK OR PERMANENT ASPHALT SHALL BE PLACED FROM NOVEMBER 15TH TO APRIL 15TH UNLESS WRITTEN APPROVAL IS GRANTED BY THE CITY ENGINEER.

(B) ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF ASPHALT OR CONCRETE. WORK SHALL NOT PROCEED UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE CITY ENGINEER.

V. SANITARY SEWERS / STORM SEWERS

SANITARY SEWER AND DRAINAGE STRUCTURE GENERAL NOTES

ALL SANITARY SEWER CONDUIT AND SANITARY MANHOLES SHALL BE CONSTRUCTED ACCORDING TO ODOT 611 WITH THE FOLLOWING AS PER PLAN MODIFICATIONS, AS APPLICABLE. ALL COSTS ASSOCIATED WITH THE FOLLOWING AS PER PLAN MODIFICATIONS SHALL BE INCLUDED IN THE APPLICABLE CONDUIT OR DRAINAGE STRUCTURE PAY ITEM UNLESS A SEPARATE PAY ITEM IS DESCRIBED AND PROVIDED.

UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR SHOWN IN THE PLANS, THE ONLY ACCEPTABLE PIPE MATERIALS ARE AS FOLLOWS:
1. POLYVINYL CHLORIDE (PVC) SOLID WALL PIPE (707.45)
2. POLYVINYL CHLORIDE LARGE-DIAMETER SOLID WALL PIPE (707.48)
3. VITRIFIED CLAY PIPE (VCP) - EXTRA STRENGTH ONLY (706.08)
4. FIBER GLASS REINFORCED POLYMER MORTAR (FRPM) PIPE (707.75)
   - MIMIMUM PIPE STIFFNESS: 36 PSI

PVC CONDUIT SHALL BE A MINIMUM WALL THICKNESS BASED ON DEPTH TO INVERT AS DEFINED IN THE FOLLOWING:

PIPE DEPTH TO INVERT	MINIMUM SDR
12' OR LESS	SDR 35
12'-24'	SDR 26
24' AND GREATER	SDR 21

CALCULATED JPK
CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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V. SANITARY SEWERS / STORM SEWERS (continued)

WHEN REQUIRED SDR PARAMETERS CHANGE BETWEEN MANHOLES DUE TO DEPTH, THE MORE STRINGENT (LARGER WALL THICKNESS) SHALL BE UTILIZED FOR THE ENTIRE LENGTH OR AN APPROVED TRANSITION COUPLER SPECIFICALLY MADE FOR PVC PIPE OF TWO DIFFERENT SDR'S SHALL BE PROVIDED. ALL COSTS, REGARDLESS OF REQUIRED WALL THICKNESS, SHALL BE INCLUDED IN THE APPLICABLE LINEAR FOOT COST.

THE FOLLOWING PIPE MATERIALS SHALL ONLY BE UTILIZED WHEN APPROVED BY THE CITY ENGINEER OR SPECIFICALLY CALLED FOR IN THE PLANS.

1. DUCTILE IRON PIPE - SANITARY (748.01) WITH THE CLASSIFICATION NOTED ON THE PLANS AND THE FOLLOWING REQUIREMENTS / MODIFICATIONS:
   - LINING FOR ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE POLYAMINE CERAMIC EPOXY.
   - ALL DUCTILE IRON PIPE SHALL HAVE AN ASPHALTIC EXTERIOR COATING APPLIED AT THE POINT OF MANUFACTURE.
   - ALL DUCTILE IRON PIPE, INCLUDING FITTINGS AND APPARATUS BURIED UNDERGROUND, SHALL BE ENCASED WITH 8 MIL. POLYETHYLENE FILM CONFORMING TO ODOT 748.07.

2. REINFORCED CONCRETE PIPE (RCP), EPOXY COATED (706.03) WITH THE WALL TYPE NOTED ON THE PLANS AND THE FOLLOWING REQUIREMENTS / MODIFICATIONS:
   - CONCRETE USED TO CONSTRUCT SANITARY CONDUIT SHALL BE PROVIDED WITH AN APPROVED CORROSION INHIBITING ADMIXTURE (PER THE ODOT QUALIFIED PRODUCT LIST, SPEC REFERENCE 515.15) AT THE APPROVED DOSAGE.
   - DOCUMENT THE APPROVED DOSAGE INCORPORATED INTO EACH BATCH OF CONCRETE.

3. POLYVINYL CHLORIDE (PVC) PIPE CONFORMING TO AWWA C900 (748.02)
   - MINIMUM PRESSURE CLASS: 165 PSI (DR 25)

4. HIGH DENSITY POLYPROPYLENE (HDPP) TRIPLE WALL PIPE (707.69)

PIPE MATERIALS MUST MEET THE FOLLOWING MINIMUM REQUIREMENTS, AS APPLICABLE:

MATERIAL	SIZE	PIPE MATERIAL SPECIFICATION	JOINT SPECIFICATION	BEDDING CLASSIFICATION /INSTALLATION SPECIFICATION
PVC	4"-15"	ASTM D3034	ASTM D3212	ASTM D2321
PVC	18"-36"	ASTM F679	ASTM D3212	ASTM D2321
PVC	4"-12"	AWWA C900	ASTM D3139	ASTM D2321
VCP	4"-42"	ASTM C700	ASTM C425	ASTM C12
DUCTILE IRON	4"-64"	ASTM A746	AWWA C111	AWWA C600
HDPP	30"-60"	ASTM F2764	ASTM D3212	ASTM D2321
RCP	12"-144"	ASTM C76	ASTM C443	ASTM C12
FRMP	30"-60"	ASTM 3262	ASTM D4161	ASTM D3839

PIPES ONE SIZE LARGER THAN THE SPECIFIED CONDUIT TYPE SHALL ONLY BE USED WITH THE APPROVAL OF THE CITY ENGINEER.

CONDUIT INCLUDES GRAVITY SANITARY SEWER MAINS AND SANITARY LATERALS. SANITARY CONDUITS SHALL BE CLASSIFIED AS TYPE B AND TYPE C ONLY.

THE CONTRACTOR SHALL FURNISH AN INSTALLATION PLAN AS PER ODOT 611 THAT CONFORMS WITH THE FOLLOWING CITY OF CANTON SPECIFICATIONS FOR ALLOWABLE BEDDING AND BACKFILL IN SANITARY SEWER TRENCHES:

BEDDING AND STRUCTURAL BACKFILL - FURNISH MATERIALS CONFORMING TO:

ODOT 703.11 TYPE 3 (AKA AASHTO M43 SIZE NO 57 OR 67) EXCEPT NO SAND, AIR-COOLED BLAST FURNACE SLAG, OR RECYCLED PORTLAND CEMENT CONCRETE ALLOWED.

FINAL BACKFILL - FURNISH MATERIALS CONFORMING TO:

GRANULAR STRUCTURAL BACKFILL - 703.11, TYPE 2 ONLY WITH THE FOLLOWING MODIFICATIONS: CRUSHED CARBONATE STONE OR GRAVEL ONLY EXCEPT NO SAND, AIR-COOLED BLAST FURNACE SLAG, OR RECYCLED PORTLAND CEMENT CONCRETE ALLOWED; OR

ITEM 304 - 703.17 WITH THE FOLLOWING MODIFICATIONS: CRUSHED CARBONATE STONE OR CRUSHED GRAVEL ONLY EXCEPT NO CRUSHED AIR-COOLED BLAST FURNACE SLAG OR STEEL SLAG ALLOWED; OR

ITEM 411 - 703.18 AS APPLICABLE TO ITEM 411 WITH THE FOLLOWING MODIFICATIONS: CRUSHED CARBONATE STONE OR GRAVEL ONLY EXCEPT NO AIR-COOLED BLAST FURNACE SLAG, GRANULATED SLAG, OPEN HEARTH SLAG, BASIC OXYGEN FURNACE SLAG, ELECTRIC ARC FURNACE SLAG, RECYCLED PORTLAND CEMENT CONCRETE, OR RECLAIMED ASPHALT PAVEMENT ALLOWED; OR

ITEM 613 LOW STRENGTH MORTAR BACKFILL - ALLOWABLE ONLY UNDER SPECIAL CIRCUMSTANCES AS APPROVED BY THE CITY ENGINEER.

FINAL BACKFILL COMPACTION DENSITY SHALL BE A MINIMUM OF 98%.

BACKFILL MATERIAL WITHIN FOUR (4) FEET OF THE FINISHED SURFACE SHALL BE FREE OF SAND, RECYCLED PORTLAND CEMENT CONCRETE, OR SLAG OF ANY FORM.

CENTER PIPE, MANHOLES, AND OTHER STRUCTURES HORIZONTALLY WITHIN THE BEDDING AREA.

MINIMUM BEDDING AND STRUCTURAL BACKFILL WIDTHS AND CORRESPONDING DEPTH BELOW / HEIGHT ABOVE THE PIPE SHALL BE AS STATED IN THE FOLLOWING TABLE:

CONDUIT TYPE	MINIMUM WIDTH	MAXIMUM WIDTH	BEDDING DEPTH BELOW BOTTOM OF PIPE	STRUCTURAL BACKFILL HEIGHT ABOVE TOP OF PIPE
FLEXIBLE CONDUIT*	PIPE I.D. x 1.25 + 1'-0"	PIPE O.D. + 2'-0"	6"	12"
RIGID CONDUIT*	PIPE I.D. x 1.33	PIPE O.D. + 2'-0"	3"	1"

* - FLEXIBLE AND RIGID CONDUIT PER TYPE B AND/OR TYPE C AS APPLICABLE IN 611.02.B.

THE DIMENSIONS NOTED ABOVE SHALL PROVIDE THE BASIS FOR MINIMUM AND MAXIMUM PAY LIMITS WHEN APPLICABLE, HOWEVER, BEDDING AND STRUCTURAL BACKFILL MATERIAL SHALL EXTEND THE FULL WIDTH OF THE EXCAVATED TRENCH REGARDLESS OF THE MAXIMUM WIDTHS NOTED ABOVE. ADDITIONAL WIDTH OF BEDDED MATERIAL SHALL BE INCLUDED IN THE COST OF THE APPLICABLE 611 CONDUIT PAY ITEM.

WHERE WATER IS ENCOUNTERED IN THE TRENCH, REMOVE IT DURING PIPE-LAYING OPERATIONS AND MAINTAIN THE TRENCH WATER FREE UNTIL THE ENDS OF THE PIPE ARE SEALED AND PROVISIONS ARE MADE TO PREVENT FLOATING OF THE PIPE. DO NOT ALLOW TRENCH WATER OR OTHER DELETERIOUS MATERIALS TO ENTER THE PIPE AT ANY TIME. ALL WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A SILT BAG PRIOR TO DISCHARGE TO A STORM SEWER CONVEYANCE SYSTEM. WATER REMOVED FROM THE TRENCH SHALL NOT DISCHARGE TO THE SANITARY SEWER. ALL ASSOCIATED COSTS ARE TO BE INCLUDED IN THE UNIT PRICE COST OF THE CONDUIT AND / OR STRUCTURE.

AS NOTED, CONTRACTOR IS REQUIRED TO MAINTAIN FLOWS AND DRAINAGE AT ALL TIMES. REFER TO ADDITIONAL SANITARY SEWER BYPASS PUMPING REQUIREMENTS UNDER ITEM 690 - SPECIAL.

WHEN JOINING CONDUITS, PROVIDE RESILIENT, DURABLE, AND FLEXIBLE COUPLERS WITH STAINLESS STEEL SHIELDS AND CLAMPS WHICH ARE MANUFACTURED SPECIFICALLY FOR THE PIPE MATERIALS AND SIZES BEING JOINED.

CONCRETE MASONRY COLLARS ARE ONLY PERMITTED FOR REINFORCED CONCRETE PIPE AND ONLY WHEN APPROVED BY THE CITY ENGINEER OR SPECIFICALLY CALLED FOR IN THE PLANS.

FOR RIGID CONDUIT, PROVIDE ONLY RESILIENT, DURABLE, AND FLEXIBLE JOINTS AND TEST EACH JOINT PER ASTM C969.

FOR FLEXIBLE CONDUIT PROVIDE ONLY COUPLING BANDS WITH STAINLESS STEEL SHIELDS AND CLAMPS. ACCEPTABLE COUPLING BAND PRODUCTS INCLUDE FERNCO STRONG BACK RC SERIES, FERNCO 5000 RC SERIES, OR APPROVED EQUAL.

ALL NEW SANITARY MANHOLES SHALL BE REINFORCED PRECAST CONCRETE PER ASTM C-478 WITH JOINT SPECIFICATIONS PER ASTM C-443. FOLLOW ODOT STANDARD CONSTRUCTION DRAWING MH-3 WITH MODIFICATIONS AS NOTED IN CITY OF CANTON STANDARD DRAWING NO. 10, UNLESS NOTED OTHERWISE IN THE PLANS. PRECAST CONCRETE SUPPLIERS SHALL BE APPROVED BY THE CITY ENGINEER.

RECONSTRUCTION OF EXISTING SANITARY MANHOLES OR STRUCTURES SHALL FOLLOW CITY OF CANTON STANDARD DRAWINGS FOR MANHOLES, MANHOLE COVERS, MANHOLE ADJUSTMENTS, OR OTHER CITY OF CANTON STANDARDS, UNLESS NOTED OTHERWISE IN THE PLANS OR AS DIRECTED BY THE CITY ENGINEER.

PROVIDE REMOTE INSPECTIONS FOR ALL NEW SANITARY SEWER MAINS. IF DEBRIS HAS TO BE REMOVED IN ACCORDANCE WITH 107.19, THE CITY OF CANTON MAY REQUIRE, AT THE CITY'S SOLE DISCRETION, ANOTHER REMOTE INSPECTION AT NO ADDITIONAL COST TO THE CITY OF CANTON.

ALL FLEXIBLE CONDUITS SHALL BE DEFLECTION TESTED. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. PERFORM A MANDREL TEST UTILIZING EQUIPMENT ACCORDING TO ODOT SS 902.03 AND CRAWLER MOUNTED CAMERA UTILIZING EQUIPMENT ACCORDING TO ODOT SS 902.01 WITH CRACK AND DEFECT MEASURING CAPABILITIES ACCORDING TO ODOT SS 902.02 C. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES. CRAWLER MOUNTED CAMERA WITH LASER PROFILING IN LIEU OF MANDREL TESTS AND CRAWLER MOUNTED CAMERA INSPECTION SHALL ONLY BE PERFORMED WITH THE APPROVAL OF THE CANTON CITY ENGINEER.

THE FOLLOWING MODIFICATIONS SHALL APPLY TO SS902.03:

TABLE 902.03 - SUMMARY OF MANDREL EFFECTIVE DIAMETER SIZES SHALL BE BASED ON 5% DEFLECTION. THE TABLE SHALL BE ADJUSTED ACCORDINGLY BASED ON THE AVERAGE INSIDE DIAMETER OF THE PIPE BEING TESTED AND AS APPROVED BY THE CANTON CITY ENGINEER.

PLASTIC CONDUIT - REPLACE THE LAST TWO LISTED REQUIREMENTS IN TABLE 611.13 WITH THE FOLLOWING:

REPAIR OR REPLACE CONDUIT IF PERFORMANCE INSPECTION PER 611.12 INDICATES A DEFLECTION > 5.0%

REPLACE CONDUIT IF THE PERFORMANCE INSPECTION PER 611.12 INDICATES A DEFLECTION > 7.5%

ADDITIONAL TESTING REQUIREMENTS

SANITARY MANHOLES - PER CITY OF CANTON STANDARD DRAWING NO. 10, SHALL BE TESTED ACCORDING TO CANTON SUPPLEMENTAL SPECIFICATION 04-01 STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE TEST AND CONFORM TO THE TEST PROCEDURES DESCRIBED IN ASTM C 1244.

SANITARY CONDUITS - IN ADDITION TO ANY TESTING REQUIREMENTS NOTED HEREIN OR ON THE PLANS, ALL NEW SANITARY SEWERS (INCLUDING LATERALS) SHALL BE AIR TESTED IN ACCORDANCE WITH THE FOLLOWING STANDARDS, AS APPLICABLE:

ASTM F 1417 - TEST METHOD FOR INSTALLATION ACCEPTANCE OF PLASTIC GRAVITY SEWER LINES USING LOW-PRESSURE AIR. REFER TO CITY OF CANTON SUPPLEMENTAL SPECIFICATION SS 03-00: TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESSURE, THERMOPLASTIC SEWER PIPE (7/18/2008)

ASTM C 828 - PRACTICE FOR LOW-PRESSURE AIR TEST OF VITRIFIED CLAY PIPE LINES.

ASTM C 924 - PRACTICE FOR TESTING CONCRETE SEWER LINES BY LOW-PRESSURE AIR TEST METHOD.

HYDROSTATIC TEST IN LIEU OF AIR TESTING MUST BE APPROVED BY THE CITY ENGINEER AND SHALL NOT EXCEED 100 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY FOR ANY SECTION OF THE SYSTEM BEING TESTED.

THE REQUIREMENTS NOTED ABOVE MUST BE SPECIFICALLY IDENTIFIED IN THE INSTALLATION PLAN AND SHOP DRAWINGS, AS APPLICABLE. ANY DEVIATIONS TO THESE REQUIREMENTS MUST BE APPROVED BY THE CITY ENGINEER.

REGULATORY REQUIREMENTS

SANITARY SEWERS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN, MEASURED FROM THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. IN LOCATIONS WHERE AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN CANNOT BE MAINTAINED, WATERTIGHT SANITARY CONDUIT SHALL BE INSTALLED. THE WATERTIGHT SANITARY CONDUIT SHALL BE PVC PIPE CONFORMING TO AWWA C900 (748.02) WITH JOINTS AND FITTINGS CONFORMING TO ASTM D3139 AND BEDDING CLASSIFACTION AND INSTALLATION SPECIFICATIONS PER ASTM D2321.

CALCULATED JPK
CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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V. SANITARY SEWERS / STORM SEWERS (continued)

SANITARY SEWERS CROSSING WATER MAINS SHALL BE LAID TO A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE DISPOSAL SYSTEM ARE PROHIBITED.

STORM SEWER AND DRAINAGE STRUCTURE GENERAL NOTES

ALL STORM PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES CONSTRUCTED AS PART OF THE PROJECT SHALL CONFORM WITH ODOT 611 WITH THE FOLLOWING MODIFICATIONS:

UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR SHOWN IN THE PLANS, ALL TYPE A, TYPE B, TYPE C, TYPE D, TYPE E, AND TYPE F STORM CONDUITS SHALL BE CORRUGATED POLYETHYLENE SMOOTH LINED PIPE (707.33).

CATCH BASINS AND MANHOLES WITHIN CITY RIGHT-OF-WAY SHALL BE CONSTRUCTED PER APPLICABLE CITY ENGINEERING STANDARD DRAWINGS.

THE CONTRACTOR SHALL FURNISH AN INSTALLATION PLAN AS PER ODOT 611 THAT CONFORMS WITH THE FOLLOWING CITY OF CANTON SPECIFICATIONS FOR ALLOWABLE BEDDING AND BACKFILL IN STORM SEWER TRENCHES:

BEDDING AND STRUCTURAL BACKFILL - FURNISH MATERIALS CONFORMING TO:

ODOT 703.11 TYPE 3 (AKA AASHTO M43 SIZE NO 57 OR 67) EXCEPT NO SAND, AIR-COOLED BLAST FURNACE SLAG, OR RECYCLED PORTLAND CEMENT CONCRETE ALLOWED.

FINAL BACKFILL - FURNISH MATERIALS CONFORMING TO:

GRANULAR STRUCTURAL BACKFILL - 703.11, TYPE 2 ONLY WITH THE FOLLOWING MODIFICATIONS: CRUSHED CARBONATE STONE OR GRAVEL ONLY EXCEPT NO SAND, AIR-COOLED BLAST FURNACE SLAG, OR RECYCLED PORTLAND CEMENT CONCRETE ALLOWED; OR

ITEM 304 - 703.17 WITH THE FOLLOWING MODIFICATIONS: CRUSHED CARBONATE STONE OR CRUSHED GRAVEL ONLY EXCEPT NO CRUSHED AIR-COOLED BLAST FURNACE SLAG OR STEEL SLAG ALLOWED; OR

ITEM 411 - 703.18 AS APPLICABLE TO ITEM 411 WITH THE FOLLOWING MODIFICATIONS: CRUSHED CARBONATE STONE OR GRAVEL ONLY EXCEPT NO AIR-COOLED BLAST FURNACE SLAG, GRANULATED SLAG, OPEN HEARTH SLAG, BASIC OXYGEN FURNACE SLAG, ELECTRIC ARC FURNACE SLAG, RECYCLED PORTLAND CEMENT CONCRETE, OR RECLAIMED ASPHALT PAVEMENT ALLOWED; OR

ITEM 613 LOW STRENGTH MORTAR BACKFILL - ALLOWABLE ONLY UNDER SPECIAL CIRCUMSTANCES AS APPROVED BY THE CITY ENGINEER.

FINAL BACKFILL COMPACTION DENSITY SHALL BE A MINIMUM OF 98%.

BACKFILL MATERIAL WITHIN FOUR (4) FEET OF THE FINISHED SURFACE SHALL BE FREE OF SAND, RECYCLED PORTLAND CEMENT CONCRETE, OR SLAG OF ANY FORM.

UNRECORDED SANITARY AND STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ANY UNRECORDED SANITARY AND STORM WATER DRAINAGE ENCOUNTERED AS DIRECTED BY THE CITY ENGINEER.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO INSTALL THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT OR EXISTING APPURTENANCE TO BE CONNECTED DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 ITEM OR AS OTHERWISE DIRECTED BY THE CITY ENGINEER.

VI. STORM WATER AND EROSION CONTROL:

NPDES CONSTRUCTION STORM WATER PERMIT

THIS PROJECT'S PROPOSED EARTH-DISTURBANCE IS ONE (1) OR MORE ACRES. THEREFORE, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION STORM WATER PERMIT IS REQUIRED FROM OHIO EPA. THE CONTRACTOR SHALL OBTAIN CO-PERMITTEE COVERAGE FROM OHIO EPA AND SHALL COORDINATE WITH THE CITY OF CANTON AND/OR STARK SWCD AS DIRECTED FOR ANY ADDITIONAL RELATED REQUIREMENTS. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE NPDES CONSTRUCTION STORM WATER PERMIT, THE CURRENT OHIO EPA RAINWATER AND LAND DEVELOPMENT MANUAL, THE CURRENT CITY OF CANTON STORM WATER MANAGEMENT MANUAL, AND THE CURRENT STARK COUNTY STORMWATER QUALITY REGULATIONS.

STORM WATER POLLUTION PREVENTION

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE PROPER MANAGEMENT OF EROSION, SEDIMENT, AND OTHER CONSTRUCTION POLLUTANTS FROM THE PROJECT SITE.

THE CONTRACTOR SHALL UTILIZE BEST MANAGEMENT PRACTICES (BMPs) AS NECESSARY OR AS DIRECTED BY THE CITY TO CONTROL SEDIMENT, EROSION, AND OTHER CONSTRUCTION-RELATED POLLUTANTS ON THE SITE AND TO PREVENT THE DISCHARGE OF POLLUTANTS FROM ENTERING DRAINAGE SYSTEMS, STREETS, AND ADJACENT PROPERTIES. UNLESS SEPARATE PAY ITEMS ARE PROVIDED, THE USE OF BMPs ARE CONSIDERED INCIDENTAL TO THE PROJECT.

UPON DISCOVERY OF ANY HAZARDOUS MATERIALS ENTERING ANY STORM DRAINAGE SYSTEMS, THE CONTRACTOR SHALL CALL 911 IMMEDIATELY AND SUBSEQUENTLY NOTIFY THE CITY'S PROJECT REPRESENTATIVE.

STORM WATER PRECONSTRUCTION MEETING

A SEPARATE PRECONSTRUCTION MEETING SHALL OCCUR ON-SITE BETWEEN THE CONTRACTOR AND THE STARK SOIL & WATER CONSERVATION DISTRICT (SWCD). THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING THIS MEETING. NO LAND-DISTURBANCE ACTIVITIES SHALL START UNTIL SAID MEETING HAS OCCURRED AND APPROVAL HAS BEEN GRANTED BY STARK SWCD.

INSPECTIONS FOR COMPLIANCE WITH STORM WATER REGULATIONS

THIS PROJECT IS SUBJECT TO INSPECTION BY THE CITY OF CANTON AND/OR ITS AUTHORIZED REPRESENTATIVES (I.E. STARK SWCD) TO ENSURE COMPLIANCE WITH PERMIT AND STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS AND LOCAL STORM WATER QUALITY REGULATIONS.

THE CONTRACTOR AND HIS REPRESENTATIVES SHALL COMPLY WITH ALL REQUIREMENTS AND CONDITIONS OF THE APPROVED STORM WATER POLLUTION PREVENTION PLAN AS WELL AS ANY ASSOCIATED ORDERS BY REGULATORY AGENCIES. PAYMENT OF ANY FEES/FINES ASSOCIATED WITH NON-COMPLIANCE BY THE CONTRACTOR ARE THE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE PAID BY THE CITY OF CANTON.

CONTINUATION OF STORM SEWER SERVICE

STORM SEWERS SHALL BE MAINTAINED WITHOUT INTERRUPTION UNLESS APPROVED BY THE CITY ENGINEER.

REVIEW OF STORM DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY, REPRESENTATIVES OF THE CITY AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE CITY.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE CITY.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTION PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT AS DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT ODOT 611 CONDUIT ITEMS, AS APPLICABLE. IF A PAY ITEM IS NOT AVAILABLE, THE WORK IS CONSIDERED INCIDENTAL TO THE PROJECT.

VII. TRAFFIC:

(A) MAINTAINING TRAFFIC:

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT AS DESCRIBED IN THESE PLANS AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION MANUAL OF CONSTRUCTION AND MATERIALS SPECIFICATIONS ITEM 614 MAINTAINING TRAFFIC. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND REMOVE ALL SIGNS, FLAGS, FLAGMEN, WATCHMEN, BARRICADES, SIGN SUPPORTS, CONES, BARRELS, AND INCIDENTALS IN CONFORMANCE WITH THE MOST RECENT REVISIONS OF THE CURRENT EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. INTERFERENCE WITH VEHICULAR TRAFFIC SHALL BE KEPT TO A MINIMUM AT ALL TIMES. ALL OPEN TRENCHES AND EXCAVATIONS SHALL BE PROTECTED WITH DRUMS, BARRICADES, OR BARRIERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES.

ANY TEMPORARY ROADWAY CLOSING MUST BE APPROVED IN WRITING BY THE CITY TRAFFIC ENGINEER AND ANY OTHER PUBLIC AGENCY HAVING JURISDICICTION. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEER AT LEAST 72 HOURS IN ADVANCE OF ANY SUCH CLOSINGS FOR PUBLICATION AND EMERGENCY AGENCY NOTIFICATION.

(B) RESIDENTIAL AND BUSINESS AREAS:

THE CONTRACTOR SHALL MAINTAIN ACCESS TO LOCAL RESIDENCES AND BUSINESSES DURING CONSTRUCTION. IN THE EVENT A DRIVE ACCESS NEEDS TO BE CLOSED, THE CONTRACTOR SHALL GIVE NOTICE OF CLOSURE AND DURATION TO THE PROPERTY OWNER 24 HOURS IN ADVANCE. CONTRACTOR SHALL ARRANGE FOR ALTERNATE PARKING AND REASONABLE ACCESS FOR THOSE PROPERTY OWNERS AFFECTED BY DRIVE CLOSURES.

(C) EXISTING STREET NAME AND TRAFFIC CONTROL SIGNS:

WHERE WORK REQUIRES THE MOVEMENT OF EXISTING SIGNS (STOP SIGNS, SPEED LIMIT SIGNS, NO PARKING SIGNS, ETC.). THE CONTRACTOR IS REQUIRED TO MAINTAIN THE FUNCTION OF ALL TRAFFIC CONTROL SIGNS. ALL SIGNS REMOVED BY THE CONTRACTOR SHALL BE STORED ON SITE AND REINSTALLED BY THE CONTRACTOR.

(D) NEW STREET NAME & TRAFFIC CONTROL SIGNS:

ALL STREET NAME AND TRAFFIC CONTROL SIGNS SHALL COME COMPLETE AND BE MADE IN ACCORDANCE WITH THE CITY OF CANTON SIGN AND PAINT DEPARTMENT SPECIFICATIONS. GENERALLY, ALL SIGNS SHALL HAVE HI-INTENSITY SHEETING AND BE MADE WITH .080 50/52 ALUMINUM. STREET NAME SIGNS SHALL BE MADE WITH WHITE UPPER AND LOWER CASE LETTERING ON GREEN BACKGROUND USING 9" BLANKS, BE DOUBLED SIDED W/RADIUS CORNERS AND HAVE 6" NAME AND 3" SUFFIXES. ALL SIGN RELATED HARDWARE IS TO BE INCLUDED, SUCH AS 6" HEAVY DUTY U-CHANNEL CAPS AND STREET NAME CROSSES.

FOR SUBDIVISION DEVELOPMENTS, ALL PERMANENT STREET NAME SIGNS AND TRAFFIC CONTROL SIGNS SHALL BE FURNISHED AND INSTALLED BY THE DEVELOPER/CONTRACTOR.

(E) EXISTING TRAFFIC SIGNALS:

WHERE WORK REQUIRES INTERFERENCE WITH EXISTING SIGNALIZATION IN THE INTERSECTIONS, ALL WORK SHALL BE COORDINATED THROUGH THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ALTER ANY SIGNALIZATION WITHOUT THE CITY ENGINEER'S AUTHORIZATION.

(F) NEW TRAFFIC SIGNALIZATION:

ALL NEW OR MODIFIED TRAFFIC SIGNALIZATION AT INTERSECTIONS SHALL BE IN ACCORDANCE WITH CITY TRAFFIC ENGINEERING TRAFFIC CONTROL GENERAL NOTES AND ODOT SPECIFICATIONS; WITH SPECIAL EMPHASIS ON ODOT ITEMS 625, 632, 633, 732, AND 733 WHICH DEALS WITH TRAFFIC CONTROL.

VIII. WATER MAIN / SERVICES:

1. ALL WATER MAINS, SERVICES AND APPURTENANCES SHALL BE DESIGNED AND CONSTRUCTED ACCORDING TO THE CITY OF CANTON WATER DEPARTMENT REQUIREMENTS AND SPECIFICATIONS IN EFFECT AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL (EXCEPT THE CITY WILL PROVIDE THE PIPE AND FITTINGS), EXCAVATION, BEDDING, BACKFILL, AND OTHER ITEMS NECESSARY FOR THE RELOCATION AND INSTALLATION OF THE WATER MAINS, SERVICES, AND APPURTENANCES. THESE COSTS SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL THE ITEMS IN THE PROPOSAL.

2. MAINS - WATER MAINS PROVIDED BY THE CITY WILL BE CLASS 52 (8" AND UNDER), CLASS 53 (12") OR CLASS 54 (OVER 12") DUCTILE IRON, MEETING AWWA C151 WITH PUSH JOINTS. THE OUTSIDE SURFACE OF ALL DUCTILE IRON PIPE, FITTINGS AND APPURTENANCES SHALL BE SHOP COATED WITH EITHER ASPHALTIC MATERIAL. IF THE COATING MATERIAL IS FOUND TO BE DAMAGED PRIOR TO THE PIPE TRENCH BEING BACKFILLED, THE CONTRACTOR SHALL PROVIDE AN ADDITIONAL APPROVED MATERIAL AS REQUIRED TO REPAIR AS DIRECTED. THE CONTRACTOR SHALL HAVE SUFFICIENT COATING MATERIALS AVAILABLE AT THE JOB SITE PRIOR TO LAYING THE PIPE. THE INTERIOR OF ALL PIPES AND FITTINGS SHALL BE LINED WITH CEMENT MORTAR AND SEAL COATED IN COMPLETE CONFORMANCE WITH AWWA C104, OR THE LATEST REVISION.

CALCULATED JPK CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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VIII. WATER MAIN / SERVICES (continued):

3. ALL DUCTILE IRON PIPE PROVIDED BY THE CITY, INCLUDING FITTINGS, BENDS, TEES, VALVES AND APPURTENANCES BURIED UNDERGROUND, SHALL BE ENCASED WITH 8 MIL. POLYETHYLENE FILM CONFORMING TO AWWA C105.

4. PLASTIC PIPE LARGER THAN 2" SHALL BE JM EAGLE, ULTRA BLUE PVCO AWWA C909 PRESSURE PIPE, PRESSURE CLASS 235, OR APPROVED EQUAL AND INSTALLED PER MANUFACTURER RECOMMENDATION.

5. WHEN PLASTIC PIPE IS USED, A TRACER WIRE SHALL BE INSTALLED ON TOP OF THE PIPE.
   A. THE TRACER WIRE SHALL BE #14 AWG COPPER CLAD STEEL WIRE WITH 30 MILS OF HIGH-DENSITY POLYETHYLENE (HDPE) INSULATION.
   B. THE TRACER WIRE SHALL BE INSTALLED IN A CONTINUOUS FASHION WITH THE WIRE ON TOP OF THE WATER MAIN AND SECURE TO THE MAIN EVERY FIVE (5) FEET WITH TAPE.
   C. THE TRACER WIRE SHALL BE BROUGHT TO THE SURFACE AT EVERY VALVE BOX AND/OR AS CALLED OUT IN THE DRAWINGS. TRACER WIRE SHALL BE BROUGHT TO THE SURFACE AT LEAST EVERY ONE THOUSAND (1,000) FEET.
   D. IF THE WIRE COATING GETS DAMAGED, REPAIR DAMAGED COATING WITH ELECTRICAL TAPE.
   E. THE TRACER WIRE SHALL PASS A CONTINUITY TEST BEFORE THE WATERLINE INSTALLATION IS ACCEPTED.

6. THE MINIMUM COVER OVER WATER MAINS SHALL BE 4'-6" FROM GROUND SURFACE TO THE BARREL OF THE PIPE.

7. PIPE LENGTHS MAY BE DEFLECTED AT THE JOINT, IF REQUIRED, AT ONE-HALF THE DEGREE RECOMMENDED BY THE MANUFACTURER.

8. FITTINGS PROVIDED BY THE CITY WILL BE DUCTILE IRON AND BE RATED FOR 250 PSI WORKING PRESSURE IN ACCORDANCE WITH AWWA C110 OR AWWA C153. FITTINGS SHALL INCLUDE, BUT NOT LIMITED TO BENDS, TEES, SLEEVES, COUPLINGS, CROSSES, REDUCERS AND CAPS.

9. ANY FITTINGS OR VALVES ADJACENT TO A TEE OR CROSS SHALL BE ANCHORED TO THE TEE OR CROSS WITH EITHER THE USE OF AN ANCHOR TEE OR ANCHOR CROSS AND/OR ANCHOR COUPLINGS.

10. VALVES (PROVIDED BY THE CITY) - THE ITEMS COVERED BY THIS SPECIFICATION SHALL MEET ALL APPLICABLE AWWA C509 OR C515 STANDARDS AND THE FOLLOWING: ALL VALVES SHALL BE NON-RISING STEM, IRON BODY, RESILIENT WEDGE DISC. THE DESIGN OF THE THRUST COLLAR SHALL BE SUCH THAT THE THRUST COLLAR IS SEALED FROM LINE PRESSURE BY MEANS OF AN "O" RING SEAL. ALL VALVES SHALL BE FURNISHED WITH A TWO (2) INCH SQUARE OPERATING NUT, OPEN RIGHT. ALL VALVES SHALL BE FURNISHED WITH MECHANICAL JOINT END CONNECTIONS. THE STEM SHALL BE PROTECTED FROM EXTERNAL GRIT BY A WEATHER SHIELD AND AN UPPER "O" RING. STEM SHALL BE LUBRICATED. GATE COATING SHALL HAVE A MINIMUM THICKNESS OF 10 MILS. VALVE SHALL BE TESTED AT THE RATED WORKING PRESSURE OF 250 PSI WITH NO LEAKAGE. SHELL TEST OF 500 PSI SHALL BE APPLIED TO BODY WITH VALVE IN THE OPEN POSITION WITH NO LEAKAGE THROUGH THE METAL, STEM SEALS OR JOINTS. VALVE MUST HAVE TRADITIONAL STUFFING BOX. ALL BOLTING MATERIAL IN THE THRUST COLLAR AND BONNET SHALL BE #316 SS BOLTS. ALL VALVES WITH ACCESSORIES PACK (FLANGES, RUBBERS, NUTS, BOLTS)

11. ALL VALVE BOXES PROVIDED BY THE CITY WILL BE HEAVY DUTY, THREE (3) PIECE SCREW TYPE, WITH "WATER" LIDS.

12. FLUSHING AND DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH AWWA C651.

13. ALL WATER LINE PRESSURE TESTING SHALL CONFORM TO AWWA C600.

14. WATER MAINS SHALL BE INSTALLED AND BACKFILLED PER O.D.O.T. ITEM 638.

15. WATER LINES LOCATED WITHIN THE LIMITS OF OR WITHIN A 1/2 TO 1 SLOPE OF EXISTING AND/OR PROPOSED ROADWAYS, PARKING AREAS, BUILDINGS, SIDEWALKS, AND/OR DRIVES SHALL BE INSTALLED AS TYPE B CONDUITS. ALL OTHER WATER MAINS SHALL BE INSTALLED AS TYPE C CONDUITS. BEDDING SHALL BE AS SPECIFIED, EXCEPT THAT SLAG WILL NOT BE PERMITTED.

16. ALL FITTINGS (BENDS, TEES, VALVES, DEAD ENDS, ETC.) SHALL BE RESTRAINED UTILIZING MEGALUGS, FIELD LOK GASKETS OR APPROVED EQUAL. POURED-IN-PLACE CONCRETE THRUST BLOCKS MAY ALSO BE REQUIRED AT/FOR EACH FITTING. THIS BLOCKING SHALL BE CAREFULLY PLACED TO ENSURE IT IS POSITIONED PROPERLY TO WITHSTAND THE RESULTANT FORCES AT EACH FITTING AND SHALL BEAR ON STABLE UNDISTURBED GROUND CAPABLE OF WITHSTANDING THE POTENTIAL LOADING. WHEN DIRECTED BY THE CITY, TIE RODS ARE TO BE 3/4 INCH DIAMETER. TWO TIE RODS ARE REQUIRED FOR AN 8 INCH PIPE, AND FOUR TIE RODS ARE REQUIRED FOR 12 INCH AND GREATER PIPE. THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE FITTINGS.

17. IN ADDITION TO THE RESTRAINT OF ALL BENDS, FITTINGS, TEES, VALVES, DEAD ENDS, ETC. THE CONTRACTOR SHALL ALSO SECURE/RESTRAIN ALL JOINTS FOR AT LEAST THREE (3) PIPE JOINTS (50 LF MIN.) BEYOND EACH DEAD END, BEND, FITTING, VALVE, TEE, ETC. UTILIZING MEGALUGS, FIELD LOK GASKETS, OR APPROVED EQUALS.

18. THE CONTRACTOR SHALL PROVIDE 18" VERTICAL CLEARANCE BETWEEN PROPOSED WATERLINES AND ANY SANITARY OR STORM SEWERS. WHEN 18" CLEARANCE CANNOT BE OBTAINED:
   - FOR STORM SEWERS, CONCRETE ENCASE THE STORM SEWER PIPE, 6 FT. ON EACH SIDE OF WATER MAIN.
   - FOR SANITARY SEWERS, REPLACE THE SANITARY SEWER PIPE WITH PVC C900 PIPE, 10 FT. ON EACH SIDE OF THE WATER MAIN. APPROVED COUPLINGS SHALL BE USED TO TIE ONTO THE EXISTING SEWER.

   THE CONTRACTOR SHALL MAINTAIN TEN (10) FOOT HORIZONTAL CLEARANCE BETWEEN WATERLINES/SERVICES AND SANITARY OR STORM SEWERS.

19. HYDRANTS - THE FIRE HYDRANT SETTING SHALL INCLUDE THE HYDRANT, ANCHOR TEE, VALVE, VALVE BOX, 6 INCH DUCTILE IRON (CLASS 52) PIPING AND ALL FITTINGS NEEDED FOR PROPER INSTALLATION TO FINAL GRADE. FIRE HYDRANTS SHALL BE MUELLER A423 MEETING THE CITY OF CANTON WATER DEPARTMENT STANDARDS AND REQUIREMENTS. ALL COSTS FOR THE 6" PIPING ASSOCIATED WITH THE INSTALLATION OF FIRE HYDRANTS SHALL BE INCLUDED WITH THE FIRE HYDRANT PAY ITEM. ALL HYDRANTS SHALL BE INSTALLED WITH THE PUMPER NOZZLE FACING THE STREET. ALL FIRE HYDRANT THREADS SHALL BE LUBRICATED WITH A FOOD GRADE LUBRICANT AND OPERATED UPON INSTALLATION.

20. CUT-IN SLEEVES FOR TIE-IN TO EXISTING WATER MAINS SHALL BE SMITH BLAIR 441 SLEEVES WITH #316 SS BOLTS.

21. ALL WATER TAPS AND SERVICES MUST BE INSTALLED BEFORE ANY PAVEMENT FOR THE PROPOSED ROADWAY HAS BEEN PLACED. THE CONTRACTOR SHALL MAKE ALL SERVICE TAPS ON THE WATER MAIN.

22. PRIOR TO MAKING THE TAP, THE CONTRACTOR SHALL EXPOSE THE EXISTING CURB BOX AND VERIFY THE SIZE OF THE WATER SERVICE LINE ON THE OWNER'S SIDE. THE PROPOSED TAP AND SERVICE SHALL MATCH THE SIZE OF THE OWNER'S SERVICE LINE, WITH 1" BEING A MINIMUM. AN EXISTING 1¼" SERVICE SHALL BE REPLACED WITH A 1½" SERVICE AND TAP.

23. THE PROPOSED WATER SERVICES AND TAPS SHALL BE 1" UNLESS NOTED OTHERWISE ON THE PLANS OR DETERMINED OTHERWISE PER PREVIOUS NOTE.

24. PAYMENT FOR THE SERVICES INCLUDES ALL LABOR AND MATERIALS NECESSARY FOR LOCATING THE WATER MAIN, TAP AND CORPORATION STOP INSTALLATION, SERVICE LINE INSTALLATION, CURB STOP AND ROADWAY BOX INSTALLATION, CONNECTION FROM CORPORATION STOP TO CURB STOP, AND CONNECTION TO THE OWNER'S SIDE SERVICE LINE. EXCAVATION, BEDDING, BACKFILL, AND COMPACTION ARE CONSIDERED INCIDENTAL TO THE SERVICE ITEMS IN THE PROPOSAL AND NO ADDITIONAL COMPENSATION WILL BE MADE FOR SUCH ITEMS.

25. THE CONTRACTOR MAY ELECT TO OPEN CUT OR PUSH/BORE THE SERVICES. THE CHOSEN METHOD OF INSTALLATION IS CONSIDERED MEANS AND METHODS OF THE CONTRACTOR AND SHALL BE ACCOUNTED FOR IN THE BID ITEM(S) FOR THE SERVICES.

26. THE CONTRACTOR SHALL TAKE ANY AND ALL NECESSARY PRECAUTIONS TO PROTECT AND MAINTAIN IN SERVICE, ANY EXISTING WATER MAINS AND/OR SERVICES EXPOSED DURING CONSTRUCTION. IF THE CONTRACTOR BREAKS A WATER MAIN AND/OR SERVICE, HE SHALL BE RESPONSIBLE TO REPAIR THE BREAK, AT HIS OWN EXPENSE, AND WILL NOT BE COMPENSATED FOR ANY DOWNTIME.

27. ANY WATER SERVICE LINE THAT IS BROKEN, CUT OR OTHERWISE DAMAGED, SHALL BE REPLACED FROM THE CORPORATION STOP TO THE CURB STOP WITH A SINGLE PIECE OF HDPE TUBING, CTS, PE4710. NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED.

28. SERVICE BRANCHES WILL BE INSTALLED AS PER O.D.O.T ITEM 638.16, WITH THE FOLLOWING EXCEPTIONS:
   1. WHEN A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING OR SHORTENING ON THE PROPERTY SIDE ON THE SERVICE STOP, IT SHALL BE REPLACED WITH NEW MATERIALS FROM THE CORPORATION STOP TO THE SERVICE STOP.

29. IN A STREET IMPROVEMENT, NO EXISTING WATER CURB BOX WILL BE LEFT IN THE PAVEMENT, CURB AND GUTTER OR SIDEWALK. THE CURB BOX WILL BE MOVED TO A SUITABLE LOCATION DETERMINED BY THE CANTON WATER DEPARTMENT. WHEN THE CURB BOX IS MOVED, ALL NEW MATERIAL WILL BE USED FROM THE CORPORATION STOP TO THE CURB STOP WHICH IS A SINGLE PIECE OF HDPE TUBING CTS, PE4710. NO SPLICING OF THE SERVICE LINE WILL BE PERMITTED. A NEW TAP (CORPORATION STOP) AND CURB STOP AND BOX MAY ALSO BE REQUIRED. THE DETERMINATION WILL BE MADE BY THE CANTON WATER DEPARTMENT.

30. POLYETHYLENE WATER MAIN AND SERVICE TUBING 2" AND UNDER SHALL BE COPPER TUBE SIZE, SDR 9, WITH A MINIMUM PRESSURE CLASS OF 200 PSI AND MEET STANDARDS ASTM-D2737 PE4710 AND AWWA C901. THE ACCEPTABLE TUBING IS CP CHEM PERFORMANCE PIPE DRISCOPLEX 5100-ULTRA-LINE, CHARTER PLASTICS INC. BLUE ICE, ENDOT ENDOPURE AND ADS POLYFLEX.

31. REGARDLESS OF THE SERVICE LINE SIZE, THE WATER SERVICE FROM THE CURB BOX TO THE FACILITY, MUST BE INSTALLED BY A CITY OF CANTON LICENSED PLUMBER. A CITY OF CANTON PLUMBING PERMIT MUST BE ISSUED TO THE PLUMBER INSTALLING THE SERVICE LINE BEFORE THE WATER SERVICE CAN BE INSTALLED.

32. THE PROPOSED FACILITIES SHALL MAINTAIN A MINIMUM 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

33. A MINIMUM PRESSURE OF 20 PSI AT GROUND LEVEL SHALL BE MAINTAINED AT ALL POINTS IN THE DISTRIBUTION SYSTEM UNDER ALL CONDITIONS OF FLOW.

34. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.

35. ALL WATER MAINS WILL BE INSTALLED UNDER THE PAVEMENT WITH A MINIMUM OF FEET FROM THE EDGE OF PAVEMENT OR THE CURB AND/OR GUTTER. IN EXISTING STREETS, A SAW CUT WILL BE MADE TO ENSURE A CLEAN EDGE.

36. WHEN AN EXISTING WATER MAIN MUST BE SHUT DOWN TO PERFORM REQUIRED WORK, THE CONTRACTOR SHALL NOTIFY THE PROPERTIES TO BE AFFECTED A MINIMUM OF 24 HOURS IN ADVANCE OF SAID SHUT DOWN. THE WORK WILL BE SCHEDULED AND COORDINATED TO MINIMIZE THE TIME THE MAIN IS OUT OF SERVICE.

37. THE CONTRACTOR SHALL NOTIFY THE CITY 48 HOURS IN ADVANCE OF ANY SHUT DOWN OF AN EXISTING MAIN. THE CONTRACTOR WILL NOT OPERATE ANY VALVES. VALVES WILL BE OPERATED BY CANTON WATER DEPARTMENT PERSONNEL ONLY. VALVES DAMAGED BY THE CONTRACTOR'S OPERATION WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

38. ALL VALVE BOXES WILL BE ADJUSTED TO FINAL GRADE OF SURROUNDING PAVEMENT OR FINISHED SURFACE TREATMENTS WHEN THE PROJECT IS COMPLETED.

39. ANY DIGGING WITHIN THE RIGHT-OF-WAY OF ANY STREET REQUIRES A ROAD OPENING PERMIT. PLEASE CONTACT THE APPROPRIATE GOVERNMENTAL ENTITY FOR INFORMATION REGARDING THE PERMITTING PROCESS AND/OR FEES DUE.

40. THE CONTRACTOR SHALL REPLACE ANY TRAFFIC SIGNAL LOOP DETECTOR WIRE DAMAGED DURING THE WATERLINE INSTALLATION. THIS COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL ITEMS IN THE PROPOSAL.

41. THE CONTRACTOR SHALL REPLACE ANY ROADWAY PAVEMENT MARKINGS DAMAGED OR REMOVED DURING THIS PROJECT. THE PAVEMENT MARKINGS SHALL BE PER THE GOVERNING AUTHORITY'S SPECIFICATIONS. THIS COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL ITEMS IN THE PROPOSAL.

42. THE CONTRACTOR SHALL REPLACE ANY PRIVATE IRRIGATION SYSTEMS AND/OR UNDERGROUND ELECTRIC FENCES THAT ARE DAMAGED OR REMOVED DURING THE WATERLINE CONSTRUCTION. THIS COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR ALL ITEMS IN THE PROPOSAL.

43. VALVES THAT ARE CALLED OUT TO BE ABANDONED SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO ABANDON EXISTING WATER VALVES. THIS ITEM SHALL ALSO INCLUDE ANY NECESSARY EXCAVATION AND BACKFILL REQUIRED. VALVES SHALL BE CLOSED AND HAVE THE TOP 6" OF THE CASTING REMOVED. VALVES IN PAVEMENT SHALL BE FILLED WITH CONCRETE WITH THE TOP 6" MATCHING THE EXISTING PAVEMENT COMPOSITION. VALVES IN YARD AREA SHALL BE FILLED WITH SAND.

44. FIRE HYDRANTS THAT ARE CALLED OUT TO BE REMOVED SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO REMOVE THE FIRE HYDRANT, HYDRANT VALVE AND PLUG THE HYDRANT TEE.

45. FOR WATERLINES CALLED OUT TO BE ABANDONED, THE CONTRACTOR SHALL PLUG AND ABANDON THE EXISTING WATERLINE WITH A DUCTILE IRON PLUG OR AS DIRECTED BY THE CANTON WATER DEPARTMENT.

46. REMOVAL OF ANY EXISTING THRUST BLOCKS WILL BE CONSIDERED INCIDENTAL TO THE OVERALL PROJECT COST.

WATER WORK, AS PER PLAN:

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, AND INCIDENTALS NECESSARY FOR THE INSTALLATION OF THE CANTON WATER-SUPPLIED WATERLINE MATERIALS AS DETAILED IN THE PLANS. PAYMENT SHALL NOT INCLUDE THE PURCHASE OF THESE WATERLINE MATERIALS. THE CONTRACTOR SHALL SCHEDULE, WITH A MINIMUM OF TWO (2) WORKING DAYS ADVANCE NOTICE, A PICK-UP FROM CANTON WATER OF THESE WATERLINE MATERIALS. THE CITY WILL NOT BE RESPONSIBLE FOR DELAYS IN MATERIAL DELIVERY OR AVAILABILITY AS A RESULT OF THE MANUFACTURER/SUPPLIER AND SUCH DELAYS WILL BE CONSIDERED EXCUSABLE, NON-COMPENSABLE.

CONTRACTOR SHALL PROVIDE THE CITY WITH THEIR MATERIAL TAKE-OFFS FOR THE WATERLINE MATERIAL PRIOR TO THE PRE-CONSTRUCTION MEETING TO COMPARE WITH THE CITY AND HELP REMEDY ANY DISCREPANCIES.

CONTRACTOR SHALL PROTECT MATERIALS DURING HANDLING AND APPLICATION TO PREVENT DAMAGE. INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE CANTON DEPARTMENT SPECIFICATIONS.

PAYMENT FOR THE INSTALLATION OF THE WATERLINE MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EACH APPLICABLE PAY ITEM. ALL UNUSED MATERIALS SHALL BE RETURNED TO THE CANTON WATER DEPARTMENT.

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GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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IX. POST CONSTRUCTION INCIDENTALS

(A) AS-BUILT DRAWINGS:

AS-BUILT REPRODUCIBLE MYLARS SHALL BE PROVIDED TO THE CITY OF CANTON BY THE DESIGN ENGINEER AT THE COMPLETION OF THE PROJECT. AS-BUILT INFORMATION CONSISTS OF POST-CONSTRUCTION FIELD SURVEY DATA OF THE LOCATION, FLOWLINE ELEVATIONS, AND TOP-OF-GRATE/RIM ELEVATIONS FOR ALL STORM AND SANITARY STRUCTURES CONSTRUCTED AND/OR IMPACTED BY THE PROJECT.

FOR PRIVATE PROJECTS, THE CONSTRUCTION BOND WILL NOT BE RELEASED UNTIL THE AS-BUILT DRAWINGS HAVE BEEN ACCEPTED.

(B) PROPOSED MONUMENTATION:

THE DEVELOPER'S/CONTRACTOR'S SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.

(C) RELEASE OF RETAINER/BONDS:

PRIOR TO THE RELEASE OF RETAINER/CONSTRUCTION BOND BY THE CITY OF CANTON, THE CONTRACTOR SHALL HAVE COMPLETED THE ENGINEER'S PROJECT PUNCHLIST AND SUBMIT FINAL WAIVER OF LIEN, IN ACCORDANCE WITH CITY SS 01-00.

X. ADDITIONAL AS PER PLAN NOTES:

ITEM 202 - ABANDON MISC.: SANITARY MANHOLE, AS PER PLAN
THIS ITEM SHALL CONSIST OF ABANDONING SANITARY SEWER MANHOLES AT LOCATIONS SHOWN IN THE PLANS. REMOVE THE UPPER PORTION OF CONCRETE AND/OR MASONRY MANHOLES INCLUDING TOP SLAB, CONE, FRAME, GRATE, COVER, GRADE RINGS, ETC., AS APPLICABLE, TO A MINIMUM DEPTH OF 4 FEET BELOW FINAL GRADE.

BULKHEAD ALL PIPE PENETRATIONS WITHIN THE MANHOLE. BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

FILL MANHOLES WITH ODOT 613 - LOW STRENGTH MORTAR TO THE BOTTOM OF PROPOSED PAVEMENT. IN UNPAVED AREAS, FILL WITH ODOT 613 - LOW STRENGTH MORTAR TO A DEPTH 12" BELOW FINAL GRADE.

ALL COSTS SHALL BE INCLUDED WITH UNIT PRICE BID (EACH) FOR ITEM 202 - ABANDON MISC.: SANITARY MANHOLE.

ITEM 202 - PLUG 8" AND SMALLER SANITARY CONDUIT, AS PER PLAN
THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT TO BE ABANDONED, FOR CONDUITS 8" AND SMALLER.

BULKHEADS SHALL CONSIST OF BRICK AND/OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

ITEM 202 - ABANDON MISC.: BULKHEAD, GROUT AND ABANDON SANITARY SEWER CONDUIT, AS PER PLAN
THIS ITEM SHALL CONSIST OF THE ABANDONMENT OF VARIOUS SIZED SANITARY SEWER CONDUITS AT LOCATIONS SHOWN IN THE PLANS WITH CONSTRUCTION OF BULKHEADS IN THE EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH FILLED AND PLUGGED CONDUITS TO BE PAID SHALL BE THE NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

ITEM 609 - CURB, MISC.: CONCRETE CURB, CANTON TYPE 1

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE CITY OF CANTON STANDARD CONSTRUCTION DRAWINGS CE 30.

ITEM 611 -CONDUIT

THIS ITEM SHALL CONSIST OF CONSTRUCTING AND TESTING CONDUIT OF THE SIZE AND TYPE AT THE LOCATIONS, GRADES, AND ELEVATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH "SANITARY SEWER AND DRAINAGE STRUCTURE GENERAL NOTES"

SURFACE RESTORATION WITHIN NON-PAVEMENT AREAS SHALL CONSIST OF ITEM 659-TOPSOIL AND ITEM 659-SEEDING AND MULCHING WITHIN THE DISTURBED AREA AND THE COST SHALL BE INCIDENTAL TO THE COST OF THE CONDUIT.

ITEM 611 - MANHOLE, COMPLETE, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING AND TESTING SANITARY MANHOLES OF THE SIZE AND AT THE LOCATIONS AND ELEVATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH "SANITARY SEWERS AND DRAINAGE STRUCTURES GENERAL NOTES".

ITEM 611 - MANHOLE WITH OUTSIDE DROP CONNECTION, COMPLETE, AS PER PLAN

THIS ITEM SHALL CONSIST OF CONSTRUCTING AND TESTING NEW SANITARY MANHOLES WITH DROP CONNECTIONS OF THE SIZE AND AT THE LOCATIONS AND ELEVATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH "SANITARY SEWERS AND DRAINAGE STRUCTURES GENERAL NOTES" AND CITY STANDARD DRAWING NO. 10 FOR ADDITIONAL DETAILS.

ITEM 611 - 4" SANITARY LATERAL RECONNECTED, COMPLETE, AS PER PLAN

THIS ITEM SHALL CONSIST OF RECONNECTING 4" SANITARY LATERALS AT LOCATIONS AND ELEVATIONS SHOWN IN THE PLANS. THIS SHALL INCLUDE ALL BENDS, FITTINGS AND COUPLINGS NECESSARY TO COMPLETE IN PLACE AND SHALL BE IN ACCORDANCE WITH "SANITARY SEWERS AND DRAINAGE STRUCTURES GENERAL NOTES".

THE EXISTING LATERAL SHALL BE REPLACED FROM UNDISTURBED SOIL AT THE EDGE OF THE EXCAVATION TO THE WYE AT THE MAIN LINE GRAVITY SEWER. SLOPE OF LATERALS AT THE POINT OF CONNECTION WITH THE MAINLINE SEWER SHALL BE NO LESS THAN ⅛" PER FOOT (1%) AND NO MORE THAN 12" PER FOOT (45°).

SANITARY WYES SHALL MATCH THE MATERIAL COMPOSITION OF THE MAINLINE GRAVITY SEWER.

LATERALS MUST BE LAID IN A MANNER TO MINIMIZE USE OF BENDS. HOWEVER, WHEN NECESSARY, USE TWO 45° BENDS IN LIEU OF 90° BENDS.

THE FOLLOWING INDIVIDUAL COMPONENTS ARE INCLUDED AS SEPARATE BID ITEMS ASSOCIATED WITH THIS ITEM:

SANITARY WYE (SIZES AS NOTED IN THE PLANS)

ANY ADDITIONAL BENDS, FITTINGS, REDUCERS, COUPLINGS, PIPE, BEDDING, BACKFILL, ETC. NECESSARY TO COMPLETE THE LATERAL RECONNECTION SHALL BE CONSIDERED INCIDENTAL TO THE "ITEM 611 - 4" SANITARY LATERAL RECONNECTED, COMPLETE, AS PER PLAN" COST.

ITEM 611 - RECONSTRUCTION TO GRADE (SANITARY MANHOLE), AS PER PLAN

RECONSTRUCTION TO GRADE OF EXISTING SANITARY MANHOLES SHALL FOLLOW CITY OF CANTON STANDARD DRAWINGS FOR MANHOLES, MANHOLE COVERS, MANHOLE ADJUSTMENTS, OR OTHER CITY OF CANTON STANDARDS, UNLESS NOTED OTHERWISE IN THE PLANS OR AS DIRECTED BY THE CITY ENGINEER.

ITEM 611 - RECONSTRUCTION TO GRADE (SANITARY LAMPHOLE), AS PER PLAN

RECONSTRUCTION TO GRADE OF EXISTING SANITARY MANHOLES SHALL FOLLOW CITY OF CANTON STANDARD DRAWINGS FOR MANHOLES, MANHOLE COVERS, MANHOLE ADJUSTMENTS, OR OTHER CITY OF CANTON STANDARDS, UNLESS NOTED OTHERWISE IN THE PLANS OR AS DIRECTED BY THE CITY ENGINEER.

ITEM 611 - CONDUIT, TYPE B, PVC PER AWWA C900 (748.02) PIPE AND FITTINGS, AS PER PLAN

THIS ITEM SHALL BE PROVIDED AS DIRECTED OR IN LOCATIONS NOTED IN THE PLANS AND SHALL CONSIST OF THE SIZES NOTED ON THE PLANS. ALL PIPE SHALL CONFORM TO THE REQUIREMENTS NOTED IN THE SANITARY GENERAL NOTES FOR LOCATIONS WHERE THE REGULATORY REQUIREMENT OF AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN CANNOT BE MAINTAINED.

ITEM 638 - X" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN

WATER MAIN SHALL BE IN ACCORDANCE WITH SECTION VIII. WATER MAIN/SERVICES OF THE GENERAL NOTES. THE CITY WILL SUPPLY THE PIPE, VALVES, FITTINGS, AND HYDRANTS.

ITEM 638 - X" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN

WATER MAIN SHALL BE IN ACCORDANCE WITH SECTION VIII. WATER MAIN/SERVICES OF THE GENERAL NOTES. THE CITY WILL SUPPLY THE PIPE, VALVES, FITTINGS, AND HYDRANTS.

ITEM 638 - X" GATE VALVE AND VALVE BOX, AS PER PLAN

WATER MAIN SHALL BE IN ACCORDANCE WITH SECTION VIII. WATER MAIN/SERVICES OF THE GENERAL NOTES. THE CITY WILL SUPPLY THE PIPE, VALVES, FITTINGS, AND HYDRANTS.

ITEM 690 - SPECIAL - SANITARY SEWER BYPASS PUMPING, AS PER PLAN

THE CONTRACTOR SHALL PROVIDE TEMPORARY BYPASS PUMPING WITHIN THE LIMITS OF THE SEWER REPLACEMENT / IMPROVEMENT AREA SHOWN ON THE PLANS

UNDER THIS ITEM, THE CONTRACTOR IS REQUIRED TO FURNISH ALL LABOR, MATERIALS, MAINTENANCE, ETC. TO IMPLEMENT A TEMPORARY BYPASS PUMPING SYSTEM FOR THE PURPOSE OF DIVERTING THE EXISTING FLOW WHENEVER FLOW IN ANY SEWER IS DISRUPTED BY THE REPLACEMENT OR CONSTRUCTION OF NEW SEWER SEGMENTS, LATERALS, MANHOLES, OR ASSOCIATED ACTIVITIES FOR THE DURATION OF THE SAID WORK.

THE BYPASS PUMPING SYSTEM MUST REMAIN OPERATIONAL UNTIL THE WORK IS COMPLETE, WHICH INCLUDES POST-CONSTRUCTION INSPECTION TO VERIFY COMPLETION AND QUALITY OF WORK.

THE TEMPORARY BYPASS PUMPING SYSTEM SHALL BE SIZED TO HANDLE FULL PIPE FLOW CONDITIONS.

THE SURCHARGE OF THE SEWERS SHALL NOT BE ALLOWED DUE TO INSUFFICIENT PUMPING OR NON-FUNCTIONING EQUIPMENT. THE CONTRACTOR MUST ALSO BE AWARE THAT ADJACENT SEWERS MAY NOT BE AVAILABLE FOR BYPASS DISCHARGE DUE TO SURCHARGED CONDITIONS IN THOSE SEWERS DURING HEAVY RAINS. NO FLOW MONITORING DATA IS AVAILABLE FOR THIS PROJECT AREA. THE DESIGN, INSTALLATION, AND OPERATION OF THE TEMPORARY BYPASS PUMPING SYSTEM SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

THE CONTRACTOR SHALL DEMONSTRATE OR EMPLOY THE SERVICES OF A VENDOR WHO CAN DEMONSTRATE TO THE CITY ENGINEER THAT THE CONTRACTOR OR VENDOR SPECIALIZES IN THE DESIGN AND OPERATION OF TEMPORARY BYPASS PUMPING SYSTEMS. THE CONTRACTOR/VENDOR SHALL PROVIDE AT LEAST THREE (3) REFERENCES OF PROJECTS OF A SIMILAR SIZE AND COMPLEXITY AS THIS PROJECT PERFORMED BY THEIR WITHIN THE PAST FOUR YEARS.

BYPASS PUMPING PLAN ITEMS:

THE CONTRACTOR SHALL PREPARE AN INDIVIDUAL TEMPORARY BYPASS PUMPING PLAN WITH ASSOCIATED SCHEDULE FOR EACH AREA REQUIRING BYPASS PUMPING AND SUBMIT THREE (3) COPIES TO THE CITY ENGINEER FOR APPROVAL. NO WORK SHALL BE PERFORMED PRIOR TO OBTAINING APPROVAL OF THE SUBMITTED PLANS AND SCHEDULE. THE PLANS SHALL INCLUDE BUT NOT BE LIMITED TO THE DETAILS OF THE FOLLOWING:

1. STAGING AREAS FOR PUMPS
2. SEWER PLUGGING METHOD AND TYPES OF PLUGS
3. SIZE AND LOCATION OF MANHOLES OR ACCESS POINTS FOR SUCTION AND DISCHARGE HOSE OR PIPING
4. SIZE OF PIPELINE OR CONVEYANCE SYSTEM TO BE BYPASSED
5. NUMBER, SIZE, MATERIAL, LOCATION AND METHOD OF INSTALLATION OF SUCTION PIPING
6. NUMBER, SIZE, MATERIAL, LOCATION AND METHOD OF INSTALLATION AND LOCATION OF INSTALLATION OF DISCHARGE PIPING
7. BYPASS PUMP SIZES, CAPACITY, NUMBER OF EACH SIZE TO BE ON SITE AND POWER REQUIREMENTS, INCLUDING BACK-UP PUMPS TO PRIMARY PUMPS.
8. CALCULATIONS OF STATIC LIFT, FRICTION LOSSES, AND FLOW VELOCITY (PUMP CURVES SHOWING PUMP OPERATING RANGE SHALL BE SUBMITTED)
9. STANDBY POWER GENERATOR SIZE, LOCATION
10. DOWNSTREAM DISCHARGE PLAN
11. METHOD OF PROTECTING DISCHARGE MANHOLES OR STRUCTURES FROM EROSION AND DAMAGE
12. THRUST AND RESTRAINT BLOCK SIZES AND LOCATIONS
13. SECTIONS SHOWING SUCTION AND DISCHARGE PIPE DEPTH, EMBEDMENT, SELECT FILL, AND SPECIAL BACKFILL
14. METHOD OF NOISE CONTROL FOR EACH PUMP AND / OR GENERATOR. PUMPS AND GENERATORS SHALL BE CRITICALLY SILENCED. NOISE FROM THE PUMP AND / OR GENERATOR OPERATION SHALL NOT EXCEED 70 DECIBELS AT A DISTANCE OF 30 FEET FROM THE EQUIPMENT.
15. ANY TEMPORARY PIPE SUPPORTS AND ANCHORING REQUIREMENTS
16. DESIGN PLANS AND COMPUTATION FOR ACCESS TO BYPASS PUMPING LOCATIONS
17. CALCULATIONS FOR SELECTION OF BYPASS PUMPING PIPE SIZE
18. RECOMMENDED SEQUENCE OF OPERATIONS
19. SCHEDULE FOR INSTALLATION OF AND MAINTENANCE OF BYPASS SUCTION AND PUMPING LINES
20. PLAN THAT SHOWS THE LOCATION OF BYPASS PUMPING LINES

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GENERAL NOTES

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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ADDITIONAL AS PER PLAN NOTES (continued):

21. MAINTENANCE OF TRAFFIC DETAILS FOR BYPASS PIPING LOCATED WITHIN ROADWAYS AND DRIVEWAYS. SEE "BYPASS PUMPING MAINTENANCE OF TRAFFIC" BELOW FOR MORE DETAILS.
22. CONTINGENCY PLAN TO PROVIDE ADEQUATE MAINTENANCE OF FLOWS IN ORDER TO PREVENT SURCHARGING AND DAMAGE DURING HIGH FLOWS. THE CONTINGENCY PLAN SHALL INCLUDE PROCEDURES AND ESTIMATED DURATIONS TO REMOVE BYPASS PUMPING EQUIPMENT AND RELATED ITEMS IN ORDER TO OPEN THE AFFECTED SEWERS BACK UP TO CONVEYING FLOW WHEN REQUIRED TO PREVENT DAMAGE DURING HIGH FLOW EVENTS. THE CITY WILL NOT BE RESPONSIBLE FOR DAMAGES DUE TO HIGH FLOWS.
23. BYPASS PUMPING PLAN SUBMITTED FOR REVIEW AND APPROVAL SHALL BE STAMPED BY AN OHIO LICENSED P.E.

IMPACT ON EXISTING SYSTEM AND / OR PROPERTY

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO SAFELY CONVEY THE SEWAGE PAST THE SEWER INSTALLATION / IMPROVEMENT AREA. THE CONTRACTOR WILL NOT BE PERMITTED TO STOP OR IMPEDE THE MAIN FLOWS UNDER ANY CIRCUMSTANCES.

THE CONTRACTOR SHALL DIVERT THE FLOW AROUND THE WORK AREA IN A MANNER THAT WILL NOT CAUSE DAMAGE TO, OR SURCHARGE THE CITY'S SEWER SYSTEM AND WILL PROTECT PUBLIC AND PRIVATE PROPERTY FROM DAMAGE AND FLOODING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PHYSICAL DAMAGE AND / OR FLOODING TO THE CITY'S SEWER SYSTEM AND PUBLIC AND PRIVATE PROPERTY CAUSED BY HUMAN OR MECHANICAL FAILURE.

BACKUP EQUIPMENT

THE CONTRACTOR SHALL HAVE A BACKUP PUMP ON SITE AT ALL TIMES FOR ALL PUMPS INCLUDED IN THE BYPASS SYSTEM. THE CONTRACTOR SHALL HAVE A BACKUP POWER SYSTEM IN PLACE AND OPERATIONAL AT ALL TIMES DURING THE BYPASS PUMPING.

ALTERNATIVE ROUTING

THE CONTRACTOR MAY REQUEST ALTERNATE ROUTING OR METHODS OF CONTROLLING SEWAGE, BUT SHALL SUBMIT THEIR RECOMMENDATIONS TO THE CITY ENGINEER IN WRITING COMPLETE WITH SKETCHES OR DRAWINGS SHOWING LOCATIONS OF THE BYPASS SEWER AND CONSTRUCTION PROCEDURES FOR CROSSING STREETS, EXCAVATIONS FOR BENCHING ALONG WITH SUPPORT METHODS, ALL REQUIRED PERMIT INFORMATION, APPLICATIONS, FEES, ETC. THE CITY ENGINEER WILL REVIEW THE REQUESTED ALTERNATIVE ROUTING TO DETERMINE THAT THE RECEIVING SEWERS CAN ACCEPT THE FLOW AND THAT NO ACCESS OR STREET INTERFERENCE IS CREATED. THE CITY RESERVES THE RIGHT TO REJECT ANY, AND ALL, ALTERNATIVE ROUTING REQUESTS OR OTHER METHODS IN LIEU OF BYPASS PUMPING AT THE CITY'S SOLE DISCRETION.

OPERATION REQUIREMENTS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING THE BYPASS PUMPING OPERATIONS AND LEVELS IN TRIBUTARY SEWERS THAT ARE PLUGGED AND / OR USED FOR DIVERSION, IN ORDER TO PREVENT FLOODING OF CUSTOMERS AND BUILDINGS UPSTREAM FROM THE SEWER SECTIONS BEING INSTALLED / IMPROVED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL DAMAGE TO HEALTH AND / OR PROPERTY DUE TO HIGH FLOWS, INSUFFICIENT / MALFUNCTIONING EQUIPMENT, TEMPORARY BLOCKAGES, ETC. FOR THE DURATION OF THE CONTRACT.

THE TEMPORARY BYPASS PUMPING SYSTEM SHALL BE LOCATED WITHIN THE CITY'S RIGHT-OF-WAY AND EASEMENTS.

THE BYPASS PUMPING SYSTEM DESIGN AND INSTALLATION SHALL MEET THE REQUIREMENTS OF ALL CODES AND REGULATORY AGENCIES HAVING JURISDICTION. THE CONTRACTOR SHALL PROTECT WATER RESOURCES, WETLANDS, AND OTHER NATURAL RESOURCES.

THE CONTRACTOR SHALL NOTIFY THE CITY AND AFFECTED PROPERTY OWNERS SURROUNDING THE PROJECT LIMITS OF THE SHORT-TERM INTERRUPTIONS TO SEWAGE SERVICE AND THE NOISE ASSOCIATED WITH THE BYPASS PUMPING OPERATION AT LEAST 72 HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO THE START OF THE BYPASS PUMPING. THE NOTICE SHALL CLEARLY STATE THE APPROXIMATE TIME WHEN SEWAGE CANNOT BE RECEIVED BY THE COLLECTION SYSTEM AS WELL AS WHEN THE SEWER WILL BE AVAILABLE AGAIN FOR RECEIVING SEWAGE, AND THE PURPOSE OF THE WORK. IT SHALL ALSO ADVISE ALL AFFECTED CUSTOMERS AGAINST WATER USAGE UNTIL THE SANITARY SEWER LINE IS PLACED BACK IN SERVICE, AND SHALL CLEARLY STATE THE POTENTIAL CONSEQUENCES OF THE USE OF RESIDENTIAL WATER AND WASTEWATER GENERATING FACILITIES DURING THE TIME WHEN THE BUILDING SEWER SERVICE WILL BE OUT OF SERVICE (I.E. SEWER BACK-UP).

PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT BYPASS PUMPING AND FLOW CONTROL OPERATIONS SHALL NOT CAUSE FLOODING, OVERFLOWS, BASEMENT BACKUPS OR DAMAGE TO PUBLIC OR PRIVATE PROPERTIES. IN THE EVENT FLOODING, OVERFLOWS, BASEMENT BACKUPS OR DAMAGE OCCURS, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER IMMEDIATELY AND MAKE PROVISIONS TO CORRECT SUCH DAMAGE AT NO ADDITIONAL COST TO THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO PUBLIC OR PRIVATE PROPERTY, FLOODING AND OVERFLOWS FROM THE SEWER SYSTEM AND VIOLATIONS RESULTING IN FINES AS A RESULT OF THE BYPASS OPERATION.

BYPASS PUMPING OPERATIONS SHALL BE SHUT DOWN AND WASTEWATER FLOWS FROM ALL SEWERS AND LATERALS SHALL BE DIRECTED INTO THE NEWLY INSTALLED AND APPROVED SEWERS AND EXISTING SEWERS AT THE END OF THE WORKDAY, UNLESS APPROVED BY THE CITY ENGINEER.

UNDER NO CIRCUMSTANCES WILL THE DISCHARGE OR DUMPING OF WASTEWATER ONTO PRIVATE PROPERTY, INTO STORM SEWERS, DRAINAGE COURSES, BODIES OF WATER, WETLANDS, ONTO THE GROUND, OR ONTO CITY STREETS BE ALLOWED. RAW WASTEWATER SPILLAGE SHALL BE CLEANED AND DISINFECTED BY THE CONTRACTOR USING MEANS, METHODS, AND DISINFECTANTS APPROVED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY.

UNDER NO CIRCUMSTANCES WILL BYPASS PUMPING BE PERMITTED AT TIMES OTHER THAN AND DURING THE HOURS OF TYPICAL WORKDAY. THE CONTRACTOR / VENDOR WILL NOT BE PERMITTED TO RUN BYPASS PUMPS OVERNIGHT UNLESS APPROVED BY THE CITY ENGINEER.

PUMPS SHALL BE FULLY AUTOMATIC, SELF PRIMING SOLIDS HANDLING TYPE AND SUITABLE FOR WASTEWATER FLOW OPERATIONS. ALL SUCTION AND DISCHARGE PIPING SHALL BE FREE OF LEAKS.

BYPASS PUMPING MAINTENANCE OF TRAFFIC

THE BYPASS PUMPING SYSTEM SHALL NOT INTERRUPT THE FLOW OF TRAFFIC IN EITHER DIRECTION INCLUDING ACCESS FOR MAIL, SCHOOL, POLICE, FIRE, AND EMERGENCY VEHICLES, AND SHALL ALLOW ACCESS AT ALL TIMES TO ALL RESIDENTIAL AND BUSINESS DRIVEWAYS AND SIDE STREETS WITHIN THE BYPASS LIMITS. TEMPORARY BYPASS LINES SHALL BE BURIED OR CONVEYED VIA ROAD RAMPS RATED FOR LOCAL TRAFFIC WHERE CROSSING PRIVATE ACCESS DRIVES OR PUBLIC STREETS AND SHALL EITHER HAVE TEMPORARY PAVEMENT OR BE SECURELY PLATED (IF APPROVED BY THE CITY OF CANTON). THE CONTRACTOR SHALL PREPARE AND SUBMIT A PROPOSED MAINTENANCE OF TRAFFIC PLAN THAT WILL BE FOLLOWED DURING THE INSTALLATION OF THE PUMPING SYSTEM FOR THE CITY ENGINEER'S APPROVAL.

TESTING

THE CONTRACTOR SHALL PERFORM LEAKAGE AND PRESSURE TESTS OF THE BYPASS PUMPING SYSTEM PIPING ONCE FULLY ASSEMBLED AT THE PROJECT SITE USING CLEAN WATER PRIOR TO BRINGING BYPASS SYSTEM ON LINE. THE CITY ENGINEER SHALL BE GIVEN 24 HOURS NOTICE PRIOR TO TESTING.

INSPECTION

THE CONTRACTOR AND VENDOR SHALL INSPECT THE BYPASS PUMPING SYSTEM ON A CONTINUOUS BASIS TO ENSURE THE SYSTEM IS WORKING CORRECTLY.

MAINTENANCE SERVICE

THE CONTRACTOR SHALL ENSURE THE TEMPORARY BYPASS PUMPING SYSTEM IS PROPERLY MAINTAINED AND A RESPONSIBLE OPERATOR SHALL BE ON SITE AT ALL TIMES WHEN PUMPS ARE OPERATING. THE CONTRACTOR SHALL MONITOR PUMP FUEL LEVELS, AND MAKE ARRANGEMENTS FOR TIMELY REFUELING.

EXTRA MATERIALS

SPARE PARTS FOR PUMPS, PIPING, AND GENERATORS SHALL BE KEPT ON SITE. ADEQUATE EQUIPMENT FOR HOISTING FOR EACH PUMP AND ACCESSORIES SHALL BE MAINTAINED ON THE SITE.

PRECAUTIONS

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY EXISTING UTILITIES IN THE AREA SELECTED FOR THE BYPASS PIPELINES. THE CONTRACTOR SHALL LOCATE THE BYPASS PIPELINES TO MINIMIZE ANY DISTURBANCE TO EXISTING UTILITIES AND SHALL OBTAIN APPROVAL OF THE PIPELINE LOCATIONS FROM THE CITY ENGINEER. ANY COSTS ASSOCIATED WITH RELOCATING UTILITIES AND OBTAINING ALL APPROVALS SHALL BE PAID BY THE CONTRACTOR.

DURING ALL BYPASS PUMPING OPERATIONS, THE CONTRACTOR SHALL PROTECT THE CITY'S SEWER SYSTEM (MANHOLES, CONVEYANCE SYSTEM, ETC.) AS APPLICABLE FROM DAMAGE INFLICTED BY ANY EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY PHYSICAL DAMAGE TO THE CITY'S SEWER SYSTEM CAUSED BY HUMAN OR MECHANICAL FAILURE.

INSTALLATION AND REMOVAL

THE CONTRACTOR SHALL REMOVE MANHOLE SECTIONS OR MAKE CONNECTIONS TO THE EXISTING CONVEYANCE SYSTEM AND CONSTRUCT TEMPORARY BYPASS PUMPING STRUCTURES AS SPECIFIED IN THE TEMPORARY BYPASS PUMPING PLAN APPROVED BY THE CITY ENGINEER. WHEN REQUIRED, THE CONTRACTOR SHALL ALSO BYPASS LATERALS BY PUMPING FROM A CLEANOUT. IF A NEW CLEANOUT IS REQUIRED IT SHALL BE INSTALLED PER CITY STANDARD DRAWING.

PLUGGING OR BLOCKING OF FLOWS SHALL INCORPORATE A PRIMARY AND SECONDARY PLUGGING DEVICE. WHEN PLUGGING OR BLOCKING IS NO LONGER NEEDED FOR PERFORMANCE AND ACCEPTANCE OR WORK, IT IS TO BE REMOVED IN A MANNER THAT PERMITS THE SEWAGE FLOW TO SLOWLY RETURN TO NORMAL WITHOUT SURGE, TO PREVENT SURCHARGING OR CAUSING OTHER MAJOR DISTURBANCES DOWNSTREAM.

AFTER ALL CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED THE CONTRACTOR SHALL PURGE THE BYPASS SEWER SYSTEM OF ALL SEWAGE BEFORE DISCONNECTING THE PUMPS AND PIPING WITH WATER. ALL WATER USED FOR PURGING THE BYPASS SYSTEM SHALL EITHER BE COLLECTED AND DISPOSED OF OFFSITE OR ROUTED INTO THE SANITARY SEWER. UNDER NO CIRCUMSTANCES WILL THE DUMPING OF RAW SEWAGE ON PRIVATE PROPERTY, STREETS AND ROADS BE ALLOWED DUE TO PURGING THE SYSTEM.

WHEN WORKING INSIDE MANHOLE OR SANITARY SEWER, THE CONTRACTOR SHALL EXERCISE CAUTION AND COMPLY WITH OSHA REQUIREMENTS WHEN WORKING IN THE PRESENCE OF SEWER GASES, COMBUSTIBLE OR OXYGEN-DEFICIENT ATMOSPHERES, AND CONFINED SPACES.

SITE RESTORATION

THE CONTRACTOR SHALL BE AWARE OF THE CONDITIONS AT EACH SITE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO TREES, SHRUBBERY, WETLANDS, LANDSCAPING, STRUCTURES, FENCES, MAILBOXES, DRIVEWAYS, CURBS, SIDEWALKS, PAVEMENTS, ETC. THE CONTRACTOR SHALL VIDEOTAPE ALL RIGHT-OF-WAY AREAS PRIOR TO USE. ALL PRE-CONSTRUCTION CONDITIONS SHALL BE FULLY RESTORED AS CLOSE OR BETTER TO ITS ORIGINAL CONDITION AS PRACTICABLE.

METHOD OF PAYMENT

ALL LABOR, MATERIALS, EQUIPMENT, PIPING, UTILITY CONNECTIONS, MAINTENANCE OF TRAFFIC, PERMIT FEES, TESTING, INSPECTION, MISCELLANEOUS ITEMS, AND RESTORATION COSTS AS REQUIRED FOR THE CONSTRUCTION, OPERATION, AND REMOVAL OF A FULLY OPERATIONAL TEMPORARY BYPASS PUMPING SYSTEM SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR APPLICABLE "ITEM 690-SPECIAL-SANITARY SEWER BYPASS PUMPING" PAY ITEM BASED ON THE LARGEST DOWNSTREAM PIPE DIAMETER. IF MULTIPLE BYPASS PUMP SETUPS ARE REQUIRED FOR ANY SANITARY SEWER BYPASS PUMPING PAY ITEM, ALL COSTS FOR EACH SETUP SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR THE APPLICABLE PAY ITEM. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 690 - SPECIAL - SANITARY SEWER BYPASS PUMPING, AS PER PLAN 1 LUMP SUM

ODOT ITEM 832 - STORM WATER POLLUTION PREVENTION PLAN, AS PER PLAN:

THIS ITEM SHALL INCLUDE ALL APPLICABLE REQUIREMENTS FOR STORM WATER POLLUTION PREVENTION PLAN (SWP3) IN THE CURRENT ODOT SUPPLEMENTAL SPECIFICATION 832 WITH THE FOLLOWING MODIFICATIONS:

1] THE SWP3 MUST BE REVIEWED AND APPROVED BY THE STARK SOIL & WATER CONSERVATION DISTRICT (SWCD). THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE SWP3 TO STARK SWCD AND FOR ALL RELATED COORDINATION. UPON APPROVAL BY STARK SWCD, THE CONTRACTOR SHALL SUBMIT A COPY OF THE APPROVED SWP3 TO THE CITY OF CANTON.

2] THE CONTRACTOR SHALL PAY ALL REVIEW AND INSPECTION FEES AS REQUIRED BY STARK SOIL & WATER CONSERVATION DISTRICT (330-451-SOIL) AS PART OF THIS ITEM. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FEES AMOUNTS PRIOR TO BID.

3] THE CONTRACTOR SHALL PROVIDE STORM WATER POLLUTION PREVENTION PLAN INSPECTIONS REQUIRED BY ODOT SUPPLEMENTAL SPECIFICATION 832 AS PART OF THIS ITEM.

4] THE STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE PER ODOT SUPPLEMENTAL SPECIFICATION 832 IS NOT REQUIRED FOR THIS PROJECT.

ALL WORK DESCRIBED IN THIS NOTE SHALL BE INCLUDED IN ITEM 832- STORM WATER POLLUTION PREVENTION PLAN, AS PER PLAN. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 832 - STORM WATER POLLUTION PREVENTION PLAN, AS PER PLAN 1 LUMP SUM

CALCULATED JPK CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SUPPLEMENTAL SPECIFICATION 01-00 - PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS FOR ALL PUBLIC WORK PROJECTS AND SUBDIVISION DEVELOPMENTS (LATEST REVISION 5/12/2020):

PROJECT SUBMITTALS: THE FOLLOWING LISTED ITEMS ARE THE FULL RESPONSIBILITY OF THE CONTRACTOR. THESE ITEMS BECOME PART OF THE ADMINISTRATIVE DUTIES IMPOSED UPON THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING ALL DETAIL ITEMS PRIOR TO THE CONTRACT NOTICE OF COMMENCEMENT, OR AS DIRECTED BY THE CITY'S PROJECT MANAGER. A TYPEWRITTEN LETTER SHALL ACCOMPANY ALL ITEMS, ON COMPANY LETTERHEAD; CLEARLY DESCRIBE EACH ITEM SUBMITTED. IF CONTRACTOR ELECTS TO FAX ANY DOCUMENTATION DUE TO EXPEDIENCY, THE CONTRACTOR WILL BE RESPONSIBLE FOR SUBMITTING HARD COPY FOR PROJECT DOCUMENTATION. THE CITY WILL REJECT ANY INFORMATION NOT CLEARLY LEGIBLE. SUBMIT FOUR COPIES OF THE PROJECT SUBMITTALS.

CONTRACTOR WILL CLEARLY AFFIX A LABEL OR STAMP IDENTIFYING THE SUBMITTAL AND ITS STATUS FOR PROJECT REVIEW. ALL ACTIONS OTHER THAN "NO EXCEPTION TAKEN" WILL REQUIRE SUPPORTING NOTATION OR INFORMATION FOR PROJECT REVIEW.

ALLOW AT LEAST 10 BUSINESS DAYS FOR CITY'S REVIEW AND EXECUTION. THE CITY PROJECT MANAGER SHALL ASSIST THE CONTRACTOR WITH ANY QUESTIONS OR CLARIFICATION DURING THIS PROCESS TO ENSURE TIMELY RESPONSE TO THE CONTRACTOR.

UNLESS SEPARATE PAY ITEMS ARE PROVIDED, THE FOLLOWING ARE INCIDENTAL OBLIGATIONS OF THE CONTRACTOR:

1. SHOP DRAWINGS
2. PRECONSTRUCTION VIDEO
3. PROGRESS SCHEDULE
4. RELEASE STATEMENT FOR DISPOSAL OF EXCAVATED MATERIAL
5. MAINTENANCE OF TRAFFIC PLAN
6. CONTRACTOR AND SUBCONTRACTOR EMERGENCY CONTACT LIST
7. STATEMENTS OF FINAL COMPLIANCE

SHOP DRAWINGS
UPON WRITTEN REQUEST FROM THE ENGINEER, THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS, ACCEPTABLE CATALOG DATA, SPECIFICATION AND MATERIAL CERTIFICATIONS FOR ALL MATERIALS AND/OR EQUIPMENT SPECIALIZED OR REQUIRED FOR THE PROPER COMPLETION OF THE WORK.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS IN NOT LESS THAN FOUR (4) HARD COPIES TO THE ENGINEER OR ONE (1) DIGITAL SUBMITTAL IS ACCEPTABLE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS IN PROPER SEQUENCE OF CONSTRUCTION TO CAUSE NO DELAY IN THE WORK. THE ENGINEER WILL HAVE TEN (10) BUSINESS DAYS TO REVIEW SUBMITTALS. THE CONTRACTOR'S FAILURE TO TRANSMIT APPROPRIATE SUBMITTALS TO THE ENGINEER SUFFICIENTLY IN ADVANCE OF WORK SHALL NOT BE GROUNDS FOR TIME EXTENSION. NO WORK SHALL BE PERFORMED REQUIRING SHOP DRAWINGS UNTIL SAME THE ENGINEER HAS APPROVED THESE SHOP DRAWINGS.

LABEL EACH SHOP DRAWING WITH THE FOLLOWING:
1. PROJECT NAME
2. NAME OF CONTRACTOR
3. NAME OF SUBCONTRACTOR (IF APPLICABLE)
4. NAME AND ADDRESS OF SUPPLIER AND/OR MANUFACTURER
5. LOG REFERENCE NUMBER

THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND APPROVING ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. THE ENGINEER'S REVIEW DOES NOT MAKE HIM RESPONSIBLE FOR THE ACCURACY OF SAID DRAWINGS.

PRECONSTRUCTION VIDEO:
PRIOR TO ACTUAL CONSTRUCTION, THE CONTRACTOR SHALL TAKE VIDEO RECORDING OF THE ENTIRE LENGTH AND WIDTH OF THE WORK SITE. THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DEPARTMENT PRIOR TO SCHEDULING THE VIDEO RECORDING OF THE SITE. A REPRESENTATIVE OF THE ENGINEERING DEPARTMENT SHALL BE PRESENT WHEN THE RECORDING THIS VIDEO. THE VIDEO AND AUDIO RECORDINGS SHALL BE ON DVD OR PRE-APPROVED ALTERNATIVE FOR REPLAY. CONTRACTOR MUST SUBMIT ALTERNATIVE MEDIUM TO THE ENGINEER AND APPROVAL RECEIVED PRIOR TO SCHEDULING. THE VIDEO PORTION SHALL HAVE CONTINUOUS TIME AND DATE INCORPORATED INTO IT, LOCATIONS AND PERSON(S) DOING THE WORK. AUDIO COMMENTS DURING THE RECORDING MUST ADDRESS EACH ITEM IN THE FIELD OF VIEW AS IT MAY PERTAIN TO THE PROJECT CONSTRUCTION. THE RECORDING TECHNICIAN WILL NEED TO BECOME FAMILIAR WITH THE PROJECT PLANS TO KNOW WHAT SUBJECT MATTER IS PERTINENT. FURTHER, CONTRACTOR MUST INCORPORATE A POST RECORDING REVIEW AND AUDIO COMMENTS INTO THE RECORDING. SUBMITTED COPIES OF ALL RECORDINGS ARE THE PROPERTY OF THE ENGINEER. CONTRACTOR MUST SUBMIT THE RECORDING AND BE ACCEPTED IN FULL BY THE ENGINEERING DEPARTMENT PRIOR TO THE START OF CONSTRUCTION.

PROGRESS SCHEDULE:
REFER TO G.C. 2.03 & 4.04

THE CONTRACTOR SHALL PROVIDE TO THE CITY A PROGRESS SCHEDULE, WHICH SHALL MEET THE FOLLOWING REQUIREMENTS AND / OR INCLUDE THE FOLLOWING ITEMS:

1. GRAPHICAL FORMAT IN CRITICAL PATH METHOD (CPM) FORMAT, UNLESS AGREED OTHERWISE BY THE CITY ENGINEER.

2. 11" X 17" (MINIMUM) FORMAT

3. ALL WORK ACTIVITIES RELATIVE TO THE PROJECT

4. ACTIVITIES AND RATE OF EXPECTED PROGRESS TO SECURE SUBSTANTIAL COMPLETION AS SET FORTH IN THE CONTRACT.

5. ALL MILESTONES AND SUBSTANTIAL / FINAL COMPLETION DATES.

SCHEDULES SHALL BE UPDATED, AT A MINIMUM, EVERY 30 DAYS, OR AS AGREED TO BY THE CITY'S PROJECT MANAGER.

RELEASE STATEMENT FOR DISPOSAL OF EXCAVATED MATERIALS
THE CONTRACTOR SHALL PROVIDE TO THE CITY A WRITTEN CONSENT STATEMENT FROM ALL PROPERTY OWNERS WHOSE PROPERTY IS A LANDFILL DEPOSITORY FOR ALL SURPLUS OR UNSUITABLE EXCAVATED MATERIAL FROM THE PROJECT SITE.
THE CONTRACTOR SHALL FOLLOW ODOT 105.16 FOR SPECIFIC GUIDELINES AND NAME THE "CITY OF CANTON" IN LIEU OF "THE DEPARTMENT" ON ALL FORWARDED DOCUMENTS. THE CITY REQUIRES A CONTRACT OR PERMIT THAT CONTAINS THE LANGUAGE STATING THAT THE CITY IS NOT PARTY TO THE CONTRACT OR PERMIT, THE MATERIAL IS NOT THE CITY'S, AND THAT THE CONTRACTOR AND THE PROPERTY OWNER WILL HOLD THE CITY HARMLESS FROM CLAIMS THAT MAY ARISE FROM THIS CONTRACT OR PERMIT.

A SAMPLE COPY CAN BE REQUESTED FROM THE CANTON CITY ENGINEER FOR REFERENCING PURPOSES.

MAINTENANCE OF TRAFFIC PLAN:
CONTRACTOR SHALL SUBMIT A GRAPHICAL PRESENTATION OR WRITTEN DOCUMENT DETAILING THE SIGNAGE TO BE USED AND ITS LOCATION FOR MAINTENANCE OF TRAFFIC. IF TRAFFIC CONTROL WILL BE PERFORMED IN STAGES, SUBMIT A PLAN FOR EACH STAGE. ANY PROPOSED DETOURS SHOULD BE APPROVED BY THE ENGINEER PRIOR TO PLAN SUBMISSION.

CONTRACTOR AND SUBCONTRACTOR EMERGENCY CONTACT LIST: CONTRACTOR SHALL SUBMIT TO THE ENGINEER, PRIOR TO COMMENCING CONSTRUCTION, A COMPLETE LIST OF THE CONTRACTOR'S PERSONNEL ASSOCIATED WITH THE PROJECT. LIST SHOULD INCLUDE NAME, TITLE, AND EMERGENCY CONTACT PHONE NUMBERS FOR EACH INDIVIDUAL.

STATEMENTS OF FINAL COMPLIANCE:
THE CONTRACTOR SHALL SUBMIT TO THE CITY THE FOLLOWING DOCUMENTATION, IN ADDITION TO THE PROJECT'S GENERAL CONDITIONS. ALL SUBMITTALS SHALL BE COMPLETED AND APPROVED PRIOR TO THE RELEASE OF THE FINAL RETAINER.

CERTIFICATES OF SUBSTANTIAL AND FINAL COMPLETION: CONTRACTOR SHALL SUBMIT IN WRITING, THE DATE ON WHICH WORK IS SUBSTANTIALLY COMPLETED AND UPON FINAL COMPLETION. ANY DEVIATION FROM THE STATED CONTRACT COMPLETION DATE TO WHAT IS BEING SUBMITTED SHALL BE EXPLAINED FURTHER BY THE CONTRACTOR. THE CITY, AT THEIR DISCRETION, WILL FURTHER REVIEW THIS SUBJECT, AS NEEDED.

FINAL WAIVER OF LIEN: CONTRACTOR SHALL FURNISH A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH CONTRACTOR BY ANY PARTY DURING THE CONTRACT PERIOD. THE INFORMATION SHALL INCLUDE THE NAME OF CLAIMANT; DATE FILED WITH CONTRACTOR; NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING THE CLAIM; HOW THE CLAIM WAS RESOLVED; IF CLAIM WAS NOT RESOLVED FOR THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION. IF THERE WERE NO DAMAGE CLAIMS FILED WITH THE CONTRACTOR, THEN THIS SHALL BE SO STATED IN THE REPORT.

ENTIRE AGREEMENT:
IT IS AGREED THAT THE TERMS AND CONDITIONS OF THIS AGREEMENT ARE FULLY COVERED IN THE FOREGOING, AND THAT ANY ORAL OR WRITTEN STATEMENTS MADE BY EITHER PARTY, OR AGENTS CLAIMING TO REPRESENT EITHER PARTY, NOT SET FORTH HEREIN, ARE NOT BINDING ON THE PARTIES AND ARE NOT CONSIDERED AS PART OF THIS AGREEMENT.

DISCLAIMER:
THE CITY OF CANTON IS NOT A PARTY TO THE HERE ABOVE AGREEMENT. THE CONTRACTOR AND LANDOWNER SHALL INDEMNIFY AND SAVE HARMLESS THE CITY OF CANTON FROM ANY CLAIM THAT MAY ARISE FROM THE HERE ABOVE AGREEMENT. THE WASTE MATERIAL IS THE PROPERTY OF THE CONTRACTOR, NOT THE CITY OF CANTON.

SUPPLEMENTAL SPECIFICATION 03-00: TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESSURE, THERMOPLASTIC SEWER PIPE SEPTEMBER, 2000 WITH REVISIONS 7/18/08

DESCRIPTION
THIS ITEM SHALL CONSIST OF FURNISHING ALL LABOR, MATERIAL AND EQUIPMENT TO COMPLETE THIS TEST FOR APPROVAL BY THE CITY.

THE COST FOR ALL WORK RELATED TO THIS ITEM SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE NEW SEWER. NO SEPARATE PAYMENT WILL BE MADE BY THE CITY.

ALL MAIN LINES AND LATERALS SHALL BE TESTED FOR AIR LEAKS AND THEIR ASSOCIATED LEVEL OF ACCEPTANCE.

AIR TESTING OF NEW MAIN LINE AND LATERALS MAY BE DONE AT ANY TIME DURING THE INSTALLATION OF THE NEW SEWERS, FOLLOWING THE INITIAL BEDDING, BACKFILLING AND SECURING ARE COMPLETED.

HOWEVER, IN THE EVENT DEFLECTION TESTING REQUIRES A REPAIR OR REPLACEMENT OF NEW SEWER, THE CONTRACTOR SHALL BE OBLIGATED TO RE-AIR TEST THE REPAIRED SECTION OF THE SEWER.

EQUIPMENT/SAFETY
PLUG DESIGN: EITHER MECHANICAL OR PNEUMATIC PLUGS MAY BE USED. ALL PLUGS SHALL BE DESIGNED TO RESIST INTERNAL TESTING PRESSURES WITHOUT THE AID OF EXTERNAL BRACING OR BLOCKING. HOWEVER, THE CONTRACTOR SHOULD INTERNALLY RESTRAIN OR EXTERNALLY BRACE THE PLUGS TO THE MANHOLE WALL AS AN ADDED SAFETY PRECAUTION THROUGHOUT THE TEST.

SINGULAR CONTROL PANEL: TO FACILITATE TEST VERIFICATION BY THE CITY, ALL AIR USED SHALL PASS THROUGH A SINGLE, ABOVE GROUND CONTROL PANEL.

EQUIPMENT CONTROLS: THE ABOVE GROUND AIR CONTROL EQUIPMENT SHALL INCLUDE A SHUT-OFF VALVE, PRESSURE REGULATING VALVE, PRESSURE RELIEF VALVE, IN-PUT PRESSURE GAUGE AND A CONTINUOUS MONITORING PRESSURE GAUGE HAVING A PRESSURE RANGE FROM 0 TO AT LEAST 10 PSI. THE CONTINUOUS MONITORING GAUGE SHALL BE NO LESS THAN 4 INCHES IN DIAMETER WITH MINIMUM DIVISIONS OF 0.10 PSI AND AN ACCURACY OF +/-0.04 PSI.

SEPARATE HOSES: TWO SEPARATE HOSES SHALL BE USED TO: (1) CONNECT THE CONTROL PANEL TO THE SEALED LINE FOR INTRODUCING LOW-PRESSURE AIR, AND (2) A SEPARATE HOSE CONNECTION FOR CONSTANT MONITORING OF AIR PRESSURE BUILD-UP IN THE LINE. THIS REQUIREMENT GREATLY DIMINISHES ANY CHANCE FOR OVER-PRESSURIZING THE LINE.

PNEUMATIC PLUGS: IF PNEUMATIC PLUGS ARE UTILIZED, A SEPARATE HOSE SHALL ALSO BE REQUIRED TO INFLATE THE PNEUMATIC PLUGS FROM THE ABOVE GROUND CONTROL PANEL.

AIR SOURCE: AS APPROVED BY THE CITY.

TESTING FOR LEAKS.
THE CONTRACTOR SHALL ARRANGE WITH THE CITY'S PROJECT REPRESENTATIVE AT LEAST 48 HOURS IN ADVANCE TO THE COMMENCEMENT OF TEST.

THE CONTRACTOR SHALL ASSIGN PERSONNEL OR FIRM FAMILIAR WITH TESTING PROCEDURES AND THEIR REQUIREMENTS SET FORTH.

THE CONTRACTOR AND CITY'S PROJECT REPRESENTATIVE SHALL BE PRESENT AT ALL TIMES DURING THE TESTING PROCEDURE. ALL TESTING RESULTS SHALL BE DOCUMENTED AND RECORDED, AT THE TIME OF TEST, ON THE CITY'S APPROVED TEST FORM.

AFTER BACKFILLING, AIR TESTS SHALL BE CONDUCTED BETWEEN TWO CONSECUTIVE MANHOLES.

EACH END OF THE SECTION TO BE TESTED AND ALL PIPE OUTLETS IN THE SECTION SHALL BE PLUGGED WITH APPROVED TEST PLUGS. ONE PLUG USED AT A MANHOLE SHALL HAVE AN INLET TAP OR OTHER PROVISION FOR CONNECTING AN AIR HOSE FROM THE AIR SUPPLY EQUIPMENT. THE EQUIPMENT SHALL INCLUDE VALVES TO CONTROL THE RATE AT WHICH AIR FLOWS INTO THE TEST SECTION AND PRESSURE GAUGES WITH MINIMUM GRADUATIONS OF 0.1 PSI AND AN ACCURACY OF +/- 0.04 PSI TO MONITOR THE AIR PRESSURE WITHIN THE TEST SECTION.

AIR PRESSURE SHALL BE APPLIED SLOWLY TO THE TEST SECTION UNTIL THE PRESSURE REACHES 4.0 PSI, PLUS AN ADJUSTMENT OF 0.433 PSI FOR EACH FOOT OF GROUND WATER ABOVE THE CROWN OF THE PIPE BEING TESTED. INTERNAL AIR PRESSURE, INCLUDING ADJUSTMENT FOR GROUND WATER, SHOULD NEVER EXCEED 5.0 PSI.

WHEN THE PRESSURE REACHES 4.0 PSI, PLUS ADJUSTMENT FOR GROUND WATER, THE AIR SUPPLY SHALL BE THROTTLED SO THAT THE INTERNAL PRESSURE IS MAINTAINED BETWEEN 4.0 AND 3.5 PSI FOR AT LEAST TWO MINUTES TO PERMIT TEMPERATURE STABILIZATION. WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE 3.5 PSI, THE AIR SUPPLY SHALL BE DISCONNECTED AND A STOP WATCH STARTED AND ALLOWED TO RUN UNTIL THE PRESSURE HAS DROPPED 1.0 PSI

CALCULATED JPK
CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SUPPLEMENTAL SPECIFICATION 03-00: TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESSURE, THERMOPLASTIC SEWER PIPE SEPTEMBER, 2000 WITH REVISIONS 7/18/08 (continued):

THE PERMISSIBLE TIME ALLOCATED FOR THE 1.0 PSI PRESSURE DROP SHALL BE CALCULATED ON THE BASIS OF THE DIAMETER AND LENGTH OF MAIN SEWER TESTED AND NO ADJUSTMENT SHALL BE MADE FOR SERVICE CONNECTIONS INCLUDED IN THE TEST SECTION. THE AIR TEST FOR A SECTION SHALL BE CONSIDERED ACCEPTABLE IF THE TIME ELAPSED FOR THE 1.0 PSI PRESSURE DROP IS EQUAL TO OR GREATER THAN THE TIME INDICATED, AND SHALL BE CONSIDERED UNACCEPTABLE IF THE ELAPSED TIME IS LESS THAN THAT INDICATED IN THE FOLLOWING TABLE:

MINIMUM HOLDING TIME IN MINUTES:SECONDS REQUIRED FOR 1.0 PSI PRESSURE DROP **								
PIPE DIAMETER	LENGTH OF MAIN LINE TESTED *							
	100'	150'	200'	250'	300'	350'	400'	450'
4"	3:46	3:46	3:46	3:46	3:46	3:46	3:42	3:46
6"	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8"	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10"	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12"	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15"	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18"	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21"	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24"	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27"	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48

* INTERPOLATE TIME FOR INTERMEDIATE LENGTHS.

** IF THE TEST SECTION FAILS AND SERVICE CONNECTIONS WERE INCLUDED IN THE TEST, RE-COMPUTE TEST TIME TO INCLUDE SERVICE CONNECTIONS IN ACCORDANCE WITH 9.6 OF ASTM F1417.

CORRECTING OR REPAIRING.
IF AIR TESTING PROCEDURE FAILS FOR ANY REASON, BASED ON LIMITATION PREVIOUSLY SET FORTH, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY PROJECT REPRESENTATIVE.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORRECTIVE PROCEDURES, METHODS AND OPERATIONAL TECHNIQUES. FOLLOWING CORRECTIONAL PROCEDURE, AS APPROVED BY THE CITY, THE CONTRACTOR SHALL BE OBLIGATED TO RETEST THE SECTION OF PIPE, AS PREVIOUSLY TESTED. IF REPAIR NECESSITATED A REPLACEMENT OF PIPE, THE CITY RESERVES THE RIGHT TO RETEST THE SAID SECTION, 30 DAYS FOLLOWING THIS REPAIR. ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY FOR CORRECTING ANY NEW SECTION OF SEWER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

BASIS OF ACCEPTANCE
IN ORDER FOR THE CITY TO CONSIDER A SYSTEM, IN PART OR WHOLE, APPROVED IN THIS TESTING PROCEDURE, ALL AIR TESTING METHODS, AS APPROVED, SHALL BE PROOFED FROM MANHOLE STRUCTURE TO MANHOLE STRUCTURE.

REFERENCE MATERIAL
THE CITY MAY REFERENCE UNI-BELL PVC PIPE ASSOCIATION, UNI-B-6-90 FOR SUPPLEMENTAL INFORMATION.

SUPPLEMENTAL SPECIFICATION 04-01: STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE TEST (APRIL 2001)

SCOPE:
THIS TEST METHOD COVERS PROCEDURES FOR TESTING PRECAST CONCRETE MANHOLE SECTIONS WHEN USING THE VACUUM TEST METHOD TO DEMONSTRATE THE INTEGRITY OF THE INSTALLED MATERIALS AND THE CONSTRUCTION PROCEDURES. THIS TEST METHOD IS USED FOR TESTING CONCRETE MANHOLE SECTIONS UTILIZING MORTAR, MASTIC, OR GASKETED JOINTS.

THIS TEST METHOD IS INTENDED TO BE USED AS A PRELIMINARY TEST TO ENABLE THE INSTALLER TO DEMONSTRATE THE CONDITION OF THE CONCRETE MANHOLES PRIOR TO BACKFILL. IT MAY ALSO BE USED TO TEST MANHOLES AFTER BACKFILLING; HOWEVER, TESTING SHOULD BE CORRELATED WITH THE CONNECTOR SUPPLIER.

THIS STANDARD DOES NOT PURPORT TO ADDRESS ALL OF THE SAFETY PROBLEMS, IF ANY, ASSOCIATED WITH ITS USE. IT IS THE RESPONSIBILITY OF THE USER OF THIS STANDARD TO ESTABLISH APPROPRIATE SAFETY AND HEALTH PRACTICES AND DETERMINE THE APPLICABILITY OF REGULATORY LIMITATIONS PRIOR TO USE.

DESCRIPTION:
SEE ASTM C 1244

ABANDON MISC: MONITORING WELL

THE CONTRACTOR MUST EXECUTE THE ABANDONMENT OF MONITORING WELLS WHICH INTERFERE WITH THE PROJECT. CONTRACTOR MUST COORDINATE THE WELL ABANDONMENT WITH THE ODNR AND PROVIDE DOCUMENTATION TO ODNR [AND COPY THE CITY] REQUIRED, IE. THE WELL SEALING REPORT. NOTE, THE WELLS WERE INSTALLED BY BROWNFIELD RESTORATION GROUP AND APPLICABLE INFORMATION REGARDING THE WELLS MAY BE OBTAINED FROM THEM.

THE PROJECT INCLUDES A PAY ITEM FOR THE ABANDONMENT OF MONITORING WELLS.

CALCULATED JPK
CHECKED JES

GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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LINE STYLE LEGEND

- CONSTRUCTION LIMITS
- EXISTING ELECTRIC
- EXISTING FENCE OR GATE
- EXISTING FIBER OPTIC
- EXISTING DEO GAS
- EXISTING GUARDRAIL
- EXISTING SANITARY
- EXISTING STORM SEWER
- EXISTING STORM SEWER TO BE REMOVED
- EXISTING TELEPHONE
- EXISTING WATERLINE
- PROPERTY LINE
- PROPOSED WATER LINE
- PROPOSED DEO GAS (BY OTHERS)
- EXISTING RIGHT-OF-WAY
- EXISTING UTILITY EASEMENT
- EXISTING STANDARD HIGHWAY EASEMENT
- PROPOSED RIGHT OF WAY
- PROPOSED SEWER EASEMENT
- PROPOSED TEMPORARY EASEMENT

QUANTITY BALLOON LEGEND

- DX — DRAINAGE ITEM
- DRX — DRIVEWAY
- RX — REMOVAL ITEM
- SX — SANITARY SEWER ITEM
- UDX — UNDERDRAIN ITEM
- WX — WATER WORK ITEM

ITEM LEGEND

- EXISTING UTILITY POLE - TO BE REMOVED/RELOCATED (BY OTHERS)
- APPROXIMATE LOCATION OF PROPOSED UTILITY POLE (BY OTHERS)
- LIGHT POLE, SEE LIGHTING PLANS
- CONTROL CENTER, SEE LIGHTING PLANS
- PULL BOX, SEE LIGHTING PLANS
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- PROPOSED SIGNAL POLE

HATCH PATTERN LEGEND

- ITEM SPECIAL - ROADWAY BRICK PAVERS
- ITEM 608 - WALKWAY MISC.: BRICK WALKWAY PAVERS
- LIMITS OF PAVEMENT REMOVAL
- LIMITS OF PAVEMENT PLANING AND RESURFACING
- PIPE ABANDONED

ABBREVIATIONS

TBR = TO BE REMOVED

ATG = ADJUSTED TO GRADE

TBA = TO BE ABANDONED

CALCULATED JPK
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PLAN VIEW LEGEND

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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GENERAL

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

TRAFFIC CONTROL DEVICES

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE ERECTED AND MAINTAINED IN COMPLIANCE WITH THE STATE OF OHIO "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" CURRENT EDITION, LATEST REVISION. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES FOR PROVIDING AND MAINTAINING LIGHTS, SIGNS, AND BARRICADES FOR THE MAINTENANCE OF TRAFFIC AND SAFETY OF THE WORK AT THE LOCATIONS SHOWN ON THESE PLANS OR AS DIRECTED BY THE DEPUTY DIRECTOR. ANY REPAIRS TO TRAFFIC CONTROL DEVICES SHALL BE PERFORMED WITHIN 4 HOURS OF NOTIFICATION.

DETOUR SIGNING

THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN SIGNS, SIGN SUPPORTS AND TYPE III BARRICADES AS DETAILED IN THE OMUTCD, AT THE LOCATIONS GIVEN ON THE DETOUR PLAN SHEETS UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE MANUAL, THE DEPUTY DIRECTOR MAY SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS.

EQUIPMENT STORAGE AND STAGING AREA

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE PROJECT DEPUTY DIRECTOR THE LOCATION OR LOCATIONS THAT THE CONTRACTOR INTENDS TO USE FOR PARKING PRIVATE VEHICLES, EQUIPMENT AND MATERIAL STORAGE AND/OR STAGING AREA. THESE LOCATIONS SHALL BE APPROVED BY THE PROJECT DEPUTY DIRECTOR.

TEMPORARY DRAINAGE

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ADEQUATE DRAINAGE OF THE TRAVELLED ROADWAYS DURING ALL PHASES OF CONSTRUCTION BY USING DITCHES, EXISTING DRAINAGE FACILITIES, TEMPORARY DRAINAGE FACILITIES, AND PERMANENT DRAINAGE FACILITIES.

INSTALLATION AND RESETTING OF CONSTRUCTION PHASES

WHEN CHANGING FROM ONE PHASE TO ANOTHER, THE CONTRACTOR SHALL INSTALL AND RESET ALL TRAFFIC CONTROL DEVICES ONLY BETWEEN THE HOURS OF 10 P.M. AND 6 A.M.

TEMPORARY PAVEMENT MARKINGS

ALL TEMPORARY PAVEMENT MARKINGS TO BE APPLIED TO FINAL SURFACES SHALL BE CLASS III ONLY. TEMPORARY MARKINGS APPLIED TO UNFINISHED SURFACES MAY BE PAINT OR TAPE.

UTILITY WORK

EXCAVATIONS MADE FOR CONDUIT OR UTILITIES RESULTING IN OPEN TRENCHES SHALL BE ADEQUATELY MAINTAINED AND PROTECTED AT ALL TIMES. THE USE OF METAL PLATES OVER OPEN TRENCHES IS ONLY PERMITTED IMMEDIATELY AFTER THE EXCAVATION IN ORDER TO MAINTAIN THE ROADWAY LANES TO TRAFFIC AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE DEPUTY DIRECTOR. UPON COMPLETING THE SUBSURFACE CONNECTIONS, THE OPENING SHALL BE RETURNED TO THE ROADWAY SURFACE LEVEL WITH APPROVED BACKFILL MATERIAL.

NIGHT WORK

UNLESS OTHERWISE REQUIRED BY SPECIFIC PLAN NOTE, NO WORK SHALL BE DONE BETWEEN THE HOURS OF 9 P.M. AND 7 A.M. UNLESS WRITTEN APPROVAL BY THE PROJECT DEPUTY DIRECTOR HAS BEEN RECEIVED. THE CONTRACTOR'S REQUEST FOR USE OF NIGHT WORK SHALL INCLUDE THE TYPE OF WORK TO BE DONE, THE DURATION OF THE WORK, LOCATION OF THE INTENDED WORK, AND THE CONTRACTOR'S TEMPORARY LIGHTING PLAN. TEMPORARY LIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE SUCH THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE HIGHWAY. TO ENSURE THE ADEQUACY OF THE LIGHT PLACEMENT, THE CONTRACTOR AND THE PROJECT DEPUTY DIRECTOR SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE DEPUTY DIRECTOR BEFORE WORK PROCEEDS. ALL TEMPORARY LIGHTING REQUIRED FOR NIGHT WORK SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATIONS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

A. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

B. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE CITY AND THE DEPUTY DIRECTOR SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE DEPUTY DIRECTOR WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE DEPUTY DIRECTOR WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE DEPUTY DIRECTOR MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR THE CITY OF FAIRLAWN FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE DEPUTY DIRECTOR, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE DEPUTY DIRECTOR WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUMP PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

USE OF TRAFFIC CONES

CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION MORE THAN ONE-HALF HOUR BEFORE SUNRISE OR HALF-HOUR AFTER SUNSET. ALL NIGHTTIME LANE RESTRICTIONS OR LANE REDUCTIONS SHALL REQUIRE DRUMS AT A MAXIMUM SPACING OF 50 FT.

CROSSCUTS FOR DRAINAGE AND UTILITIES

WHEN INSTALLING DRAINAGE AND UTILITY CONDUITS ACROSS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION.

ALTERNATE MAINTENANCE OF TRAFFIC PLANS

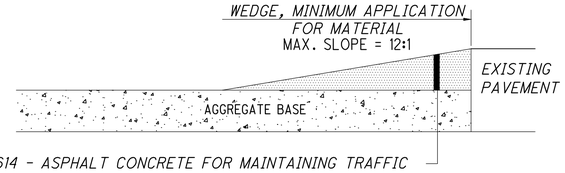
IF THE CONTRACTOR SO ELECTS, THE CONTRACTOR MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE DIRECTOR.

TEMPORARY RAMPING OF VERTICAL SURFACES AT DRIVEWAYS

IN ORDER TO PROVIDE FOR LOCAL ACCESS DURING NORMAL BUSINESS HOURS, LONGITUDINAL VERTICAL FACES ABUTTING DRIVES SHALL BE TEMPORARILY RAMPED AS DETAILED BELOW. TRANSVERSE VERTICAL FACES SHALL BE TEMPORARILY RAMPED A MINIMUM OF TEN FEET IN LENGTH AND TRAFFIC SHALL BE WARNED WITH W8-1 "BUMP" SIGNS IN ADVANCE OF THE RAMPED AREAS. THE GRADE BREAK SHALL NOT EXCEED A MAXIMUM OF 8% AT EITHER END OF THE WEDGE.

ALL TEMPORARY RAMPING SHALL BE INSTALLED, AT THE DIRECTION OF THE DEPUTY DIRECTOR, USING ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	100	CU YD



CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES EXCEPT AS NOTED HEREIN, BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TRAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

DURING PRE-PHASE, ESTABLISH THE DETOUR USED FOR PHASE 1 AS SHOWN ON SHEET 26.

DURING PHASE 1, 11TH STREET SE AND MARKET AVENUE INTERSECTION MAY BE CLOSED FOR A PERIOD NOT TO EXCEED 120 CALENDAR DAYS AS SHOWN ON SHEET 26. THE ROUNDABOUT WILL BE CONSTRUCTED ALONG WITH THE FULL PAVEMENT SECTIONS ON MARKET AVENUE AND 11TH STREET SE FROM THE BEGIN PROJECT TO STA. 109+50 AND PORTIONS OF 11TH STREET SE TO CHERRY AVENUE. COMPLETE ALL WATER AND SANITARY RELOCATIONS.

DURING PHASE 2A, MAINTAIN TWO-WAY TRAFFIC ON EXISTING PAVEMENT WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. CONSTRUCT 11TH STREET SE FROM STA 109+50 TO CHERRY AVENUE SE EASTBOUND.

DURING PHASE 2B, MAINTAIN TWO-WAY TRAFFIC ON NEW PAVEMENT CONSTRUCTED IN PHASE 2A WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. CONSTRUCT 11TH STREET SE FROM STA. 109+50 TO CHERRY AVENUE SE WESTBOUND.

DURING PHASE 2C, AS PER MT-99.20 REPAINT WORK ZONE AS PER PAVEMENT MARKING PLANS ON SHEETS 212-216A.

DURING PHASE 3, 11TH STREET SE AND CHERRY AVENUE INTERSECTION MAYBE BE CLOSED FOR A PERIOD NOT TO EXCEED 30 CALENDAR DAYS AS SHOWN ON SHEET 27. CONSTRUCT 11TH STREET SE AND CHERRY AVENUE INTERSECTION.

DURING PHASE 4A, MAINTAIN TRAFFIC WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. CONSTRUCT MARKET STREET RESURFACING SECTIONS.

DURING PHASE 4B, MAINTAIN TRAFFIC WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. CONSTRUCT 11TH STREET SE AND CHERRY AVENUE RESURFACING SECTIONS.

DURING PHASE 4C, AS PER MT-99.20 REPAINT WORK ZONE AS PER PAVEMENT MARKING PLANS ON SHEETS 212-216A.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE CITY. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE CITY, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP &	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
ROAD	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
CLOSURES	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE CITY FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410, TRAFFIC COMPACTED SURFACE, TYPE C	150 CU. YD.
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	400 CU. YD.
ITEM 616, WATER	50 M. GAL.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE DEPUTY DIRECTOR. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER	100 M. GAL.

WORK ZONE MARKINGS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE DEPUTY DIRECTOR FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614, WORK ZONE CENTER LINE, CLASS I, 642 PAINT	0.85 MILE
ITEM 614, WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	0.75 MILE
ITEM 614, WORK ZONE DOTTED LINE, CLASS I, 642 PAINT	598 FT
ITEM 614, WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	158 FT
ITEM 614, WORK ZONE ARROW, CLASS I, 642 PAINT	4 EACH

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE DEPUTY DIRECTOR SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE DEPUTY DIRECTOR BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE DEPUTY DIRECTOR. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE DEPUTY DIRECTOR, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE DEPUTY DIRECTOR SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN 4 HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT DEPUTY DIRECTOR TO A DESIGNATED PHONE.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE DEPUTY DIRECTOR. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN 72 SIGN MONTH
ASSUMING 4 PCMS SIGNS FOR 18 MONTHS

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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ITEM 614, BUSINESS ENTRANCE SIGN, AS PER PLAN

EACH COMMERCIAL DRIVEWAY SHALL HAVE A GROUND MOUNTED SIGN WHICH IDENTIFIES THE BUSINESS. ONLY ONE SIGN PER BUSINESS SHALL BE PERMITTED. THE SIGN SHALL BE 48-INCH X 36-INCH IN SIZE WITH TYPE G OR TYPE H ORANGE RETROREFLECTIVE SHEETING AS DETAILED BELOW. THE SIGN LEGEND SHALL BE PLACED ON BOTH SIDES OF THE SIGN (BACK TO BACK). THE CONTRACTOR SHALL CONTACT EACH EFFECTED BUSINESS TO REQUEST THE MESSAGE, AND IT SHALL BE THE RESPONSIBILITY OF EACH BUSINESS TO FURNISH THE MESSAGE, EITHER BY NAME OR LOGO (NOT BOTH) TO THE CONTRACTOR TO PLACE ON THE SIGN.

THE SIGN SHALL BE MOUNTED ON TWO #3 POSTS OR ON TEMPORARY POSTS IN ACCORDANCE WITH SCD MT-105.10 AND IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE SIGN SHALL BE CLEARLY VISIBLE AND SHALL CLEARLY IDENTIFY THE LOCATION OF THE DRIVEWAY. THE SIGN SHOULD BE POSITIONED AT 90° TO THE DIRECTION(S) OF TRAFFIC. THE SIGN MAY NEED TO BE MOVED FOR EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.

PAYMENT FOR ALL COSTS ASSOCIATED WITH MANUFACTURING, MOUNTING, RELOCATING, AND REMOVING THE SIGN, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 614-BUSINESS ENTRANCE SIGN, AS PER PLAN.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS ITEM.

ITEM 614, BUSINESS ENTRANCE SIGN, AS PER PLAN 11 EACH

48" X 36"
0.875" BORDER
0.625" INDENT
BLACK ON ORANGE

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE DEPUTY DIRECTOR:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION OR AT THE POINT OF ROAD CLOSURE, AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE DEPUTY DIRECTOR SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE DEPUTY DIRECTOR. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 400 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT DEPUTY DIRECTOR IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT DEPUTY DIRECTOR TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT DEPUTY DIRECTOR PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT DEPUTY DIRECTOR.

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT DEPUTY DIRECTOR USING THE NOTIFICATION TIME TABLE.

CALCULATED
CHECKED

MAINTENANCE OF TRAFFIC NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

25C
302

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SUGGESTED SEQUENCE OF CONSTRUCTION		
PHASE/STAGE	CONSTRUCTION ACTIVITY	MAINTENANCE OF TRAFFIC
PRE-PHASE 1	NONE	ESTABLISH DETOUR
PHASE 1	CONSTRUCT ROUNDABOUT. CONSTRUCT FULL-DEPTH PAVEMENT SECTIONS ON MARKET AVENUE AND ON 11TH STREET FROM BEGIN PROJECT TO STA. 109+50 AND PORTIONS OF 11TH STREET TO CHERRY AVENUE WHILE MAINTAINING ACCESS TO HOUSEL AVENUE SE, NAVARRE ROAD SE, AND EFFINGER PLACE SE AND LOCAL DRIVEWAYS AND COMPLETE ALL WATER AND SANITARY RELOACTIONS.	DETOUR MARKET AVENUE S / 11TH STREET SE INTERSECTION (120 DAY LIMIT)
PHASE 2A	CONSTRUCT 11TH STREET SE FROM STA. 109+50 TO CHERRY AVENUE SE EASTBOUND.	MAINTAIN TWO-WAY TRAFFIC ON EXISTING PAVEMENT WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES TO PRIVATE DRIVES AND BUSINESSES.
PHASE 2B	CONSTRUCT 11TH STREET SE FROM STA. 109+50 TO CHERRY AVENUE SE WESTBOUND.	MAINTAIN TWO-WAY TRAFFIC ON NEW PAVEMENT CONSTRUCTED IN PHASE 2A WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES TO PRIVATE DRIVES AND BUSINESSES.
PHASE 2C	REPAINT WORK ZONE AS PER PAVEMENT MARKING PLANS.	AS PER MT-99.20
PHASE 3	CONSTRUCT 11TH STREET SE & CHERRY AVENUE INTERSECTION.	DETOUR 11TH STREET SE/CHERRY AVENUE INTERSECTION (30 DAY LIMIT)
PHASE 4A	CONSTRUCT MARKET STREET RESURFACING SECTIONS.	MAINTAIN TRAFFIC WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES TO PRIVATE DRIVES AND BUSINESSES.
PHASE 4B	CONSTRUCT 11TH STREET SE AND CHERRY AVENUE RESURFACING SECTIONS.	MAINTAIN TRAFFIC WITH USE OF PART WIDTH CONSTRUCTION AND FLAGGERS. ACCESS SHALL BE MAINTAINED AT ALL TIMES TO PRIVATE DRIVES AND BUSINESSES.
PHASE 4C	REPAINT WORK ZONE AS PER PAVEMENT MARKING PLANS.	AS PER MT-99.20

NOTE:
THE CONTRACTOR MAY PROPOSE ALTERNATIVE MOT AND SEQUENCES OF CONSTRUCTION. SUBJECT TO THE ENGINEER'S APPROVAL.

CALCULATED JPK
CHECKED JES

MAINTENANCE OF TRAFFIC NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

25
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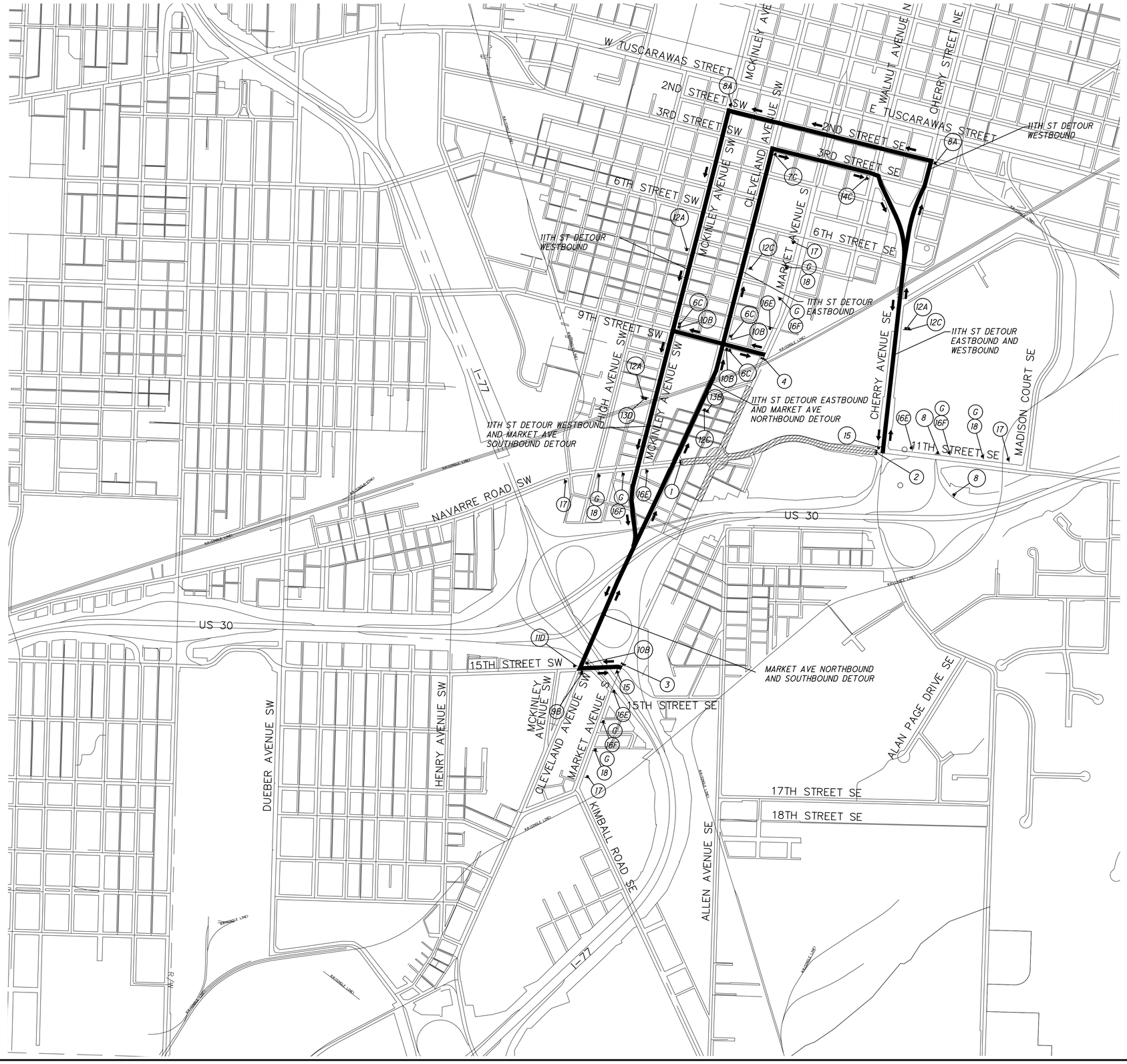

LEGEND

- WORK AREA
- DETOUR ROUTE
- TRAFFIC DIRECTION
- TYPE III BARRICADE

HORIZONTAL SCALE IN FEET: 0, 250, 500, 1000

CALCULATED TKJ | CHECKED JES

(1) R11-2-60
ROAD CLOSED
DETOUR
M4-10L-48 MOUNTED ON TYPE III BARRICADE

(2) R11-3A-60
ROAD CLOSED 0.25 MILES AHEAD LOCAL TRAFFIC ONLY
DETOUR
M4-10R-48 MOUNTED ON TYPE III BARRICADE

(3) R11-3A-60
ROAD CLOSED 0.3 MILES AHEAD LOCAL TRAFFIC ONLY
DETOUR
M4-10L-48 MOUNTED ON TYPE III BARRICADE

(5) R11-3A-60
ROAD CLOSED 0.1 MILES AHEAD LOCAL TRAFFIC ONLY
DETOUR
M4-10R-48 MOUNTED ON TYPE III BARRICADE

(6) M4-8-12
DETOUR
11TH STREET
D3-1-12
M6-3-12

(7) M4-8-12
DETOUR
11TH STREET
D3-1-12
M4-1-12

(8) M4-8-12
DETOUR
11TH STREET
D3-1-12
M4-1-12

(9) M4-8-12
DETOUR
MARKET AVE
D3-1-12
M6-3-12

(10) M4-8-12
DETOUR
MARKET AVE
D3-1-12
M4-1-12

(11) M4-8-12
DETOUR
MARKET AVE
D3-1-12
M4-1-12

(12) M4-8-12
DETOUR
11TH STREET
D3-1-12

(13) M4-8-12
DETOUR
MARKET AVE
D3-1-12

(14) M4-8-12
DETOUR
MARKET AVE
D3-1-12
M5-2-12

(15) END DETOUR
M4-8-12

(A) WEST
M4-8-12

(B) NORTH
M3-8-24

(C) EAST
M3-2-24

(D) SOUTH
M4-3-24

(16) ROAD CLOSED AHEAD
W20-3-48

(17) DETOUR AHEAD
W20-3-48

(E) 500 FEET
W16-2-30

(F) 1000 FEET
W16-2-30

(G) TYPE A WARNING LIGHT

(18) ROAD WORK AHEAD
W20-1-48

DETOUR - 120 DAY LIMIT

MAINTENANCE OF TRAFFIC PHASE 1 DETOUR MAP

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

26 / 302

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LEGEND

- WORK AREA
- DETOUR ROUTE
- TRAFFIC DIRECTION
- TYPE III BARRICADE

(1) R11-3A-60
ROAD CLOSED
0.2 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR
M4-10L-48 MOUNTED ON TYPE III BARRICADE

(2) R11-3A-60
ROAD CLOSED
0.55 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR
M4-10R-48 MOUNTED ON TYPE III BARRICADE

(3) R11-3A-60
ROAD CLOSED
0.3 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR
M4-10L-48 MOUNTED ON TYPE III BARRICADE

(5) R11-3A-60 R11-3A-60
ROAD CLOSED
0.25 MILES AHEAD
LOCAL TRAFFIC ONLY
ACCESS TO US 30 WB OPEN
DETOUR
M4-10R-48 MOUNTED ON TYPE III BARRICADE

(6) M4-8-12
DETOUR
CHERRY AVE
D3-1-12
M6-3-12

(7) M4-8-12
DETOUR
CHERRY AVE
D3-1-12
M4-1-12

(8) M4-8-12
DETOUR
CHERRY AVE
D3-1-12
M4-1-12

(9) M4-8-12
DETOUR
11TH STREET
D3-1-12
M6-3-12

(10) M4-8-12
DETOUR
11TH STREET
D3-1-12
M4-1-12

(11) M4-8-12
DETOUR
11TH STREET
D3-1-12
M4-1-12

(12) M4-8-12
DETOUR
11TH STREET
D3-1-12

(13) M4-8-12
DETOUR
CHERRY AVE
D3-1-12

(14) M4-8-12
DETOUR
CHERRY AVE
D3-1-12
M5-2-12

(15) END DETOUR
M4-8-12

(A) WEST
M4-8-12

(B) NORTH
M3-8-24

(C) EAST
M3-2-24

(D) SOUTH
M4-3-24

(16) ROAD CLOSED AHEAD
W20-3-48

(17) DETOUR AHEAD
W20-3-48

(E) 500 FEET
W16-2-30

(F) 1000 FEET
W16-2-30

(G) TYPE A WARNING LIGHT

(18) ROAD WORK AHEAD
W20-1-48

(19) R11-2-60
ROAD CLOSED
MOUNTED ON TYPE III BARRICADE

DETOUR - 30 DAY LIMIT

HORIZONTAL SCALE IN FEET
0 250 500 1000

CALCULATED TKI
CHECKED JES

MAINTENANCE OF TRAFFIC PHASE 3 DETOUR MAP

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

27
302

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TRAFFIC DIRECTION

WORK AREA

WZ–DY WORK ZONE DOUBLE YELLOW

WZ–EL WORK ZONE EDGE LINE (WHITE), 4"

WZ–TL WORK ZONE TRANSVERSE / DIAGONAL LINE (YELLOW)

WZ–CB WORK ZONE CENTER LINE, DOUBLE, BROKEN AND SOLID

WZ–LA WORK ZONE LANE ARROW

SCHAUER PLACE SW

COURT AVENUE SW

CLEVELAND AVENUE S

BORNIQUE PLACE SW

℄ CONST. MARKET AVENUE S

MARKET AVENUE SE

MATCH LINE STA. 22+50 SEE SHEET 33

50' TAPER

MAINTAIN 2-WAY TRAFFIC ON EXISTING PAVEMENT

129' TAPER (11:1)

PROVIDE PERMANENT PAVEMENT MARKINGS WITHIN LIMITS OF SPLITTER ISLANDS OF ROUNDABOUT

℄ CONST. 11TH STREET SE

11TH STREET SE

MATCH LINE STA. 109+50 SEE SHEET 29 AND SHEET 30

102' TAPER (11:1)

NAVARRE ROAD SE

BEGIN PROJECT STA. 101+89.81

BEGIN WORK STA. 101+75.00

NAVARRE ROAD SW

8.5' CONC. WALK

CLEVELAND AVENUE S

COURT AVE. SW

WHERRY PLACE SW

WAGNER PLACE SW

MARKET AVE. S

SOUTH LEG CONSTRUCTED DURING PHASE 1 DETOUR

BEGIN WORK STA. 13+18.39

HOUSEL AVE.

EFFINGER PLACE SE

HORIZONTAL SCALE IN FEET

0 20 40 80

CALCULATED TKI

CHECKED JES

MAINTENANCE OF TRAFFIC PHASE 2A & 2B

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

28
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TRAFFIC DIRECTION

WORK AREA

WZ–DY WORK ZONE DOUBLE YELLOW

WZ–EL WORK ZONE EDGE LINE (WHITE), 4"

MAINTAIN 2-WAY TRAFFIC ON EXISTING PAVEMENT

DRUMS AT 10'

11TH STREET SE

16'

14'

WZ–DY

TAPER AND SIGN ACCORDING TO ODOT STD DWG MT-95.31, MT-95.32

50' TAPER

+03

+53

+01

WZ–EL

MATCH LINE STA. 109+50 SEE SHEET 28

WORK AREA

℄ CONST. 11TH STREET SE

HOUSEL AVENUE SE

318 11TH ST. SE

332 11TH

MATCH LINE STA. 120+00 SEE SHEET 31

UPON COMPLETION OF WORK ON EASTBOUND SIDE, MAINTAIN 2-WAY TRAFFIC ON NEW PAVEMENT AND COMPLETE CONSTRUCTION ON WESTBOUND SIDE.

N

0 20 40 80 HORIZONTAL SCALE IN FEET

CALCULATED TKJ

CHECKED JES

MAINTENANCE OF TRAFFIC PHASE 2A

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

29 / 302

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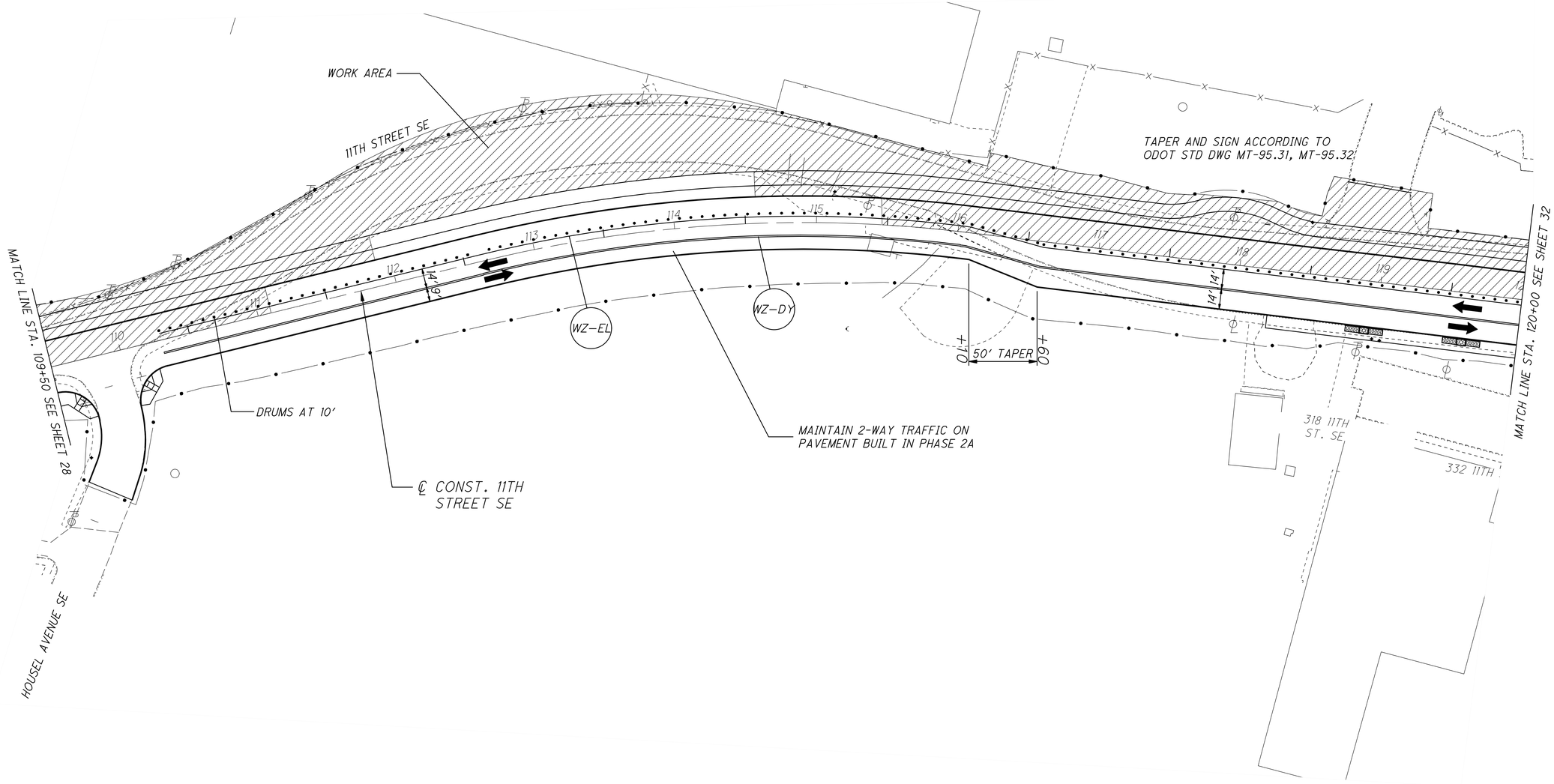
TRAFFIC DIRECTION

WORK AREA

WZ–DY WORK ZONE DOUBLE YELLOW

WZ–EL WORK ZONE EDGE LINE (WHITE), 4"



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED TKJ
CHECKED JES

MAINTENANCE OF TRAFFIC PHASE 2B

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

30
302

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TRAFFIC DIRECTION

WORK AREA

WZ–DL WORK ZONE DOTTED LINE, 4"

WZ–DY WORK ZONE DOUBLE YELLOW

WZ–EL WORK ZONE EDGE LINE (WHITE), 4"

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED TKJ
CHECKED JES

END WORK STA. 64+41.99

CHERRY AVENUE SE

℄ CONST. & R/W CHERRY AVENUE SE

MAINTAIN 2-WAY TRAFFIC ON EXISTING PAVEMENT

TAPER AND SIGN ACCORDING TO ODOT STD DWG MT-95.31, MT-95.32

CONTRACTOR TO ADJUST SIGNAL HEAD FOR EB 11TH STREET TRAFFIC TO ALIGN WITH TEMPORARY LANES COST INCLUDED IN LUMP SUM FOR ITEM 614 - MAINTAINING TRAFFIC

℄ CONST. 11TH STREET SE

WZ–EL WZ–DY WZ–DL

MATCH LINE STA. 120+00 SEE SHEET 29

±49' RT Sta. 59+99.47

201' TAPER (11:1)

DRUMS AT 10'

TYPE 3 BARRICADE

WORK AREA

REX AVENUE SE

CHERRY AVENUE SE

ROAD CLOSED AHEAD — 500 FEET — W20–3–48 W16–2–30 STA 125+80, 38' LT.

TYPE A WARNING LIGHT

ROAD CLOSED AHEAD — 1000 FEET — W20–3–48 W16–2–30 STA 130+80, 38' LT.

TYPE A WARNING LIGHT

ROAD CLOSED AHEAD — W20–1–48 STA 125+80, 38' LT.

END ROADWORK G20–2–48 STA 125+80, 46' RT.

US 30 WB ON-RAMP

US 30 WB OFF-RAMP

65 64 63 62 61 60 59 58 (TAD) 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 126 125 124 123 122 121 120 119 118 117 116 115 114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 136

MAINTENANCE OF TRAFFIC PHASE 2A

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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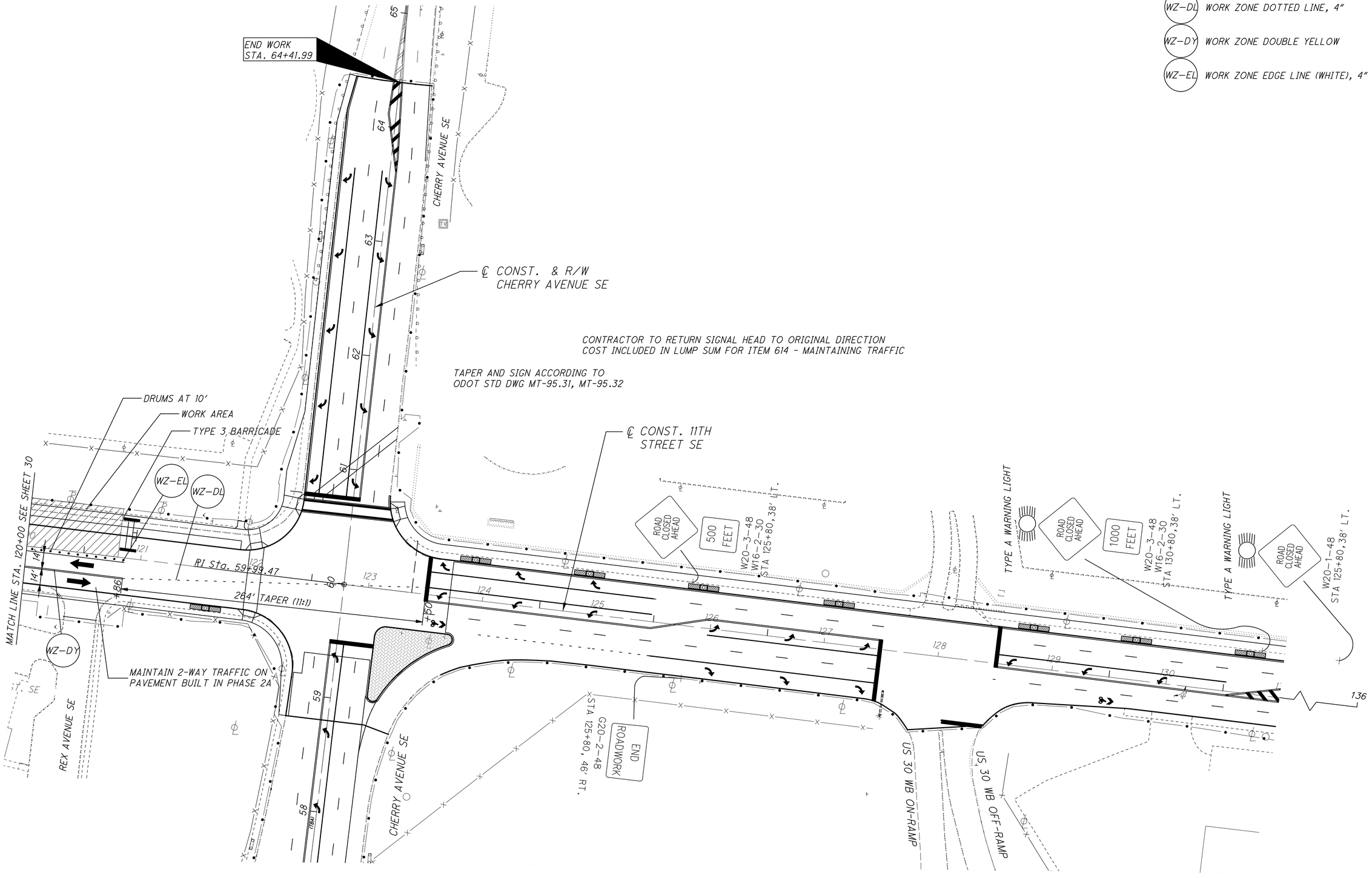

MAINTENANCE OF TRAFFIC PHASE 2B

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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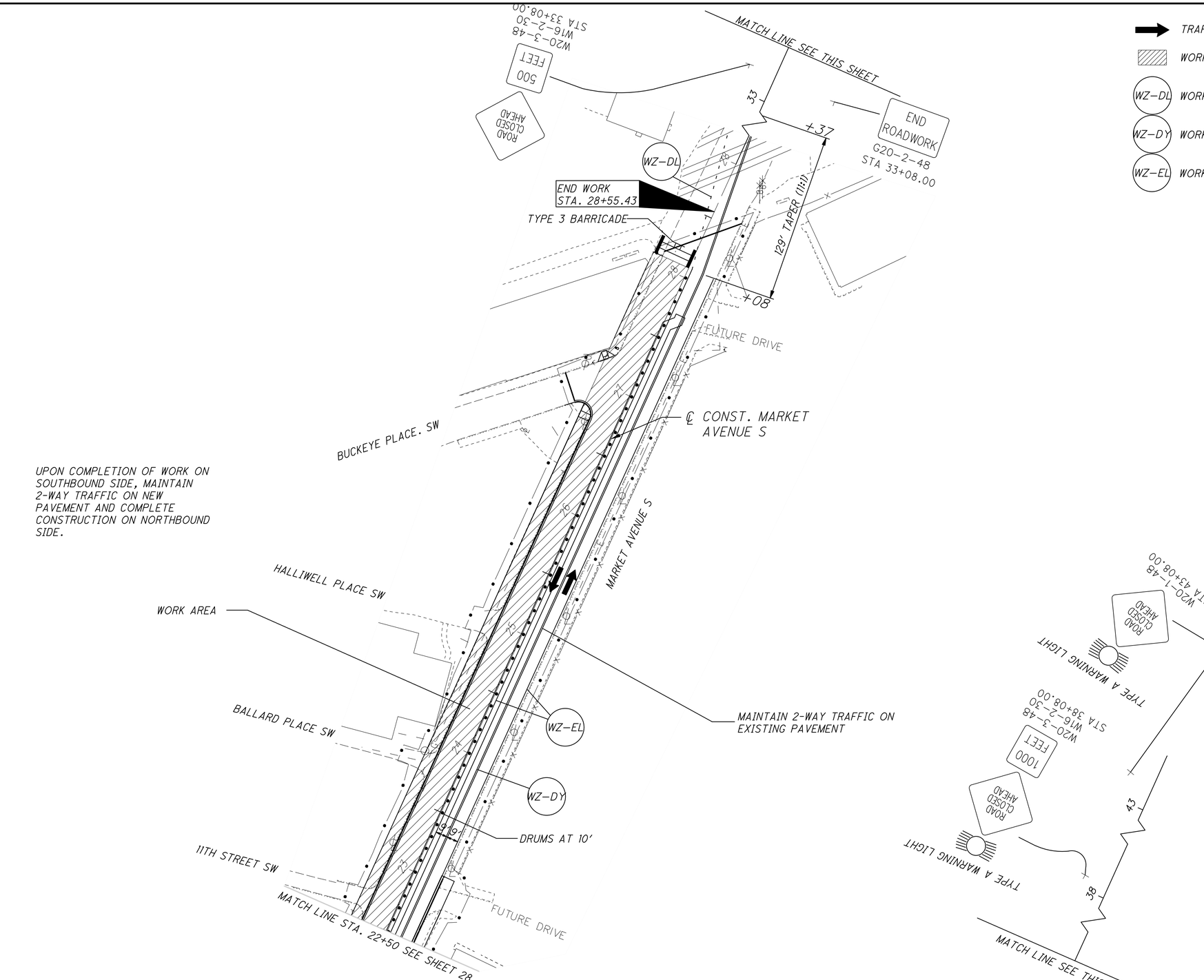

CALCULATED TKJ
CHECKED JES

MAINTENANCE OF TRAFFIC PHASE 2A & 2B

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

33
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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
19	20	39	40	41	42	43	45	46				OFFICE CALC							
																		ROADWAY	
														201	11000	LS		CLEARING AND GRUBBING	
												15,069		202	23000	15,069	SY	PAVEMENT REMOVED	
												50,324		202	30000	50,324	SF	WALK REMOVED	
		72												202	30800	72	SY	TRAFFIC ISLAND REMOVED	
		8,172												202	32000	8,172	FT	CURB REMOVED	
		663												202	32500	663	FT	CURB AND GUTTER REMOVED	
							1,599							202	34900	1,599	FT	PIPE REMOVED	
		715	325	341	26									202	35100	1,407	FT	PIPE REMOVED, 24" AND UNDER	
		66												202	38000	66	FT	GUARDRAIL REMOVED	
			2				21							202	58000	23	EACH	MANHOLE REMOVED	
		16	11	14	7									202	58100	48	EACH	CATCH BASIN REMOVED	
												1		202	66500	1	EACH	UNDERGROUND STORAGE TANK REMOVED	
		644												202	75000	644	FT	FENCE REMOVED	
		1												202	98100	1	EACH	REMOVAL MISC.: BILLBOARD REMOVED	
						27								202	75610	27	EACH	VALVE BOX REMOVED	
							15							202	98600	15	EACH	ABANDON MISC.: MANHOLE ABANDONED IN PLACE	23
							4,714							202	98700	4,714	FT	ABANDON MISC.: PIPE ABANDONED IN PLACE	
							12							202	98600	12	EACH	ABANDON MISC.: PLUG 8" AND SMALLER SANITARY CONDUIT, AS PER PLAN	23
							1							202	98600	1	EACH	ABANDON MISC.:LAMPHOLE	
							2							202	98600	2	EACH	ABANDON MISC.: BULKHEAD, GROUT AND ABANDON SANITARY SEWER, AS PER PLAN	23
		1												202	98600	1	EACH	ABANDON MISC.:MONITORING WELL	23C
												3,022		203	10000	3,022	CY	EXCAVATION	
												4,278		203	20000	4,278	CY	EMBANKMENT	
1,761														203	35110	1,761	CY	GRANULAR MATERIAL, TYPE B, 703.16C	
												17,322		204	10000	17,322	SY	SUBGRADE COMPACTION	
584														204	13000	584	CY	EXCAVATION OF SUBGRADE	
7														204	45000	7	HOUR	PROOF ROLLING	
534														204	50000	534	SY	GEOTEXTILE FABRIC, 712.09, TYPE D NON-WOVEN	
												62,518		608	12000	62,518	SF	5" CONCRETE WALK	
		3,994												608	52000	3,994	SF	CURB RAMP	
												4,538		608	98000	4,538	SF	WALKWAY, MISC.: BRICK WALKWAY PAVERS	
												4,538		608	98000	4,538	SF	WALKWAY, MISC.: CONCRETE BASE	
												2,521		SPECIAL	69065016	2,521	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	20
												22,297		SPECIAL	69098200	22,297	SF	1 INCH COMPACTED SAND BASE, 703.02	
												17,760		SPECIAL	69098200	17,760	SF	ROADWAY BRICK PAVERS	
												50		SPECIAL	69065000	50	TON	WORK INVOLVING NON-REGULATED MATERIALS	20
												50		SPECIAL	69065010	50	TON	WORK INVOLVING SOLID WASTE	20
												1,000		SPECIAL	69065022	1,000	GAL	WORK INVOLVING NON-REGULATED WATER	20
												1,000		SPECIAL	69065024	1,000	GAL	WORK INVOLVING REGULATED WATER	20
																		EROSION CONTROL	
	2													659	00100	2	EACH	SOIL ANALYSIS TEST	
	1,258													659	00300	1,258	CY	TOPSOIL	
												11,333		659	00500	11,333	SY	SEEDING AND MULCHING, CLASS 1	
	567													659	14000	567	SY	REPAIR SEEDING AND MULCHING	
	567													659	15000	567	SY	INTER-SEEDING	
	1.53													659	20000	1.53	TON	COMMERCIAL FERTILIZER	
	2.34													659	31000	2.34	ACRE	LIME	
	62													659	35000	62	MGAL	WATER	
								LS						832	15001	LS		STORM WATER POLLUTION PREVENTION PLAN, AS PER PLAN	23A
								LS						832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
								LS						832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
								58,000						832	30000	58,000	EACH	EROSION CONTROL	

CALCULATED JPK
CHECKED JES

GENERAL SUMMARY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SHEET NUM.												PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
40	41	42	45								OFFICE CALC							
																	DRAINAGE	
											6,629		605	14020	6,629	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
											540		611	00510	540	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
24													611	00900	24	FT	6" CONDUIT, TYPE B, 707.45	
5	5												611	01800	10	FT	8" CONDUIT, TYPE B , 707.45	
180	9												611	04400	189	FT	12" CONDUIT, TYPE B, 706.02	
748	207	10											611	04400	965	FT	12" CONDUIT, TYPE B, 707.33	
105													611	05900	105	FT	15" CONDUIT, TYPE B, 706.02	
29	389	16											611	05900	434	FT	15" CONDUIT, TYPE B, 707.33	
33	101												611	07400	134	FT	18" CONDUIT, TYPE B, 706.02	
59													611	10400	59	FT	24" CONDUIT, TYPE B, 706.02	
16													611	22400	16	FT	54" CONDUIT, TYPE B, 706.02	
	1												611	98370	1	EACH	CATCH BASIN, NO. 6	
5	7	9											611	98631	21	EACH	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	21
		2											611	98870	2	EACH	INLET, NO. 2-A-12	
12	15	12											611	99655	39	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	21
26	17	2											611	99900	45	EACH	DRAINAGE STRUCTURE, MISC.: CITY OF CANTON CURB INLET CATCH BASIN	21
4	2												611	99900	6	EACH	DRAINAGE STRUCTURE, MISC.: CITY OF CANTON MANHOLE	21
LS													611	99920	LS		DRAINAGE STRUCTURE, MISC.: JUNCTION CHAMBER	170A
	1												611	99582	1	EACH	MANHOLE, NO. 3 WITH 90" BASE I.D. AND 8" WEIR	
	1												611	99584	1	EACH	MANHOLE, NO. 3 WITH 96" BASE I.D. AND 9" WEIR	
	1												611	99621	1	EACH	MANHOLE, NO. 5, AS PER PLAN	170B
	1												895	10020	1	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2	
	1												895	10030	1	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 3	
																	PAVEMENT	
											30,577		254	01000	30,577	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
											1,936		301	56000	1,936	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
											3,894		304	20000	3,894	CY	AGGREGATE BASE	
											1,974		305	10010	1,974	SY	6" CONCRETE BASE, CLASS QC 1P	
											5,063		407	10000	5,063	GAL	TACK COAT	
											59		407	20000	59	GAL	NON-TRACKING TACK COAT	
											879		424	13100	879	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A, (449)	
											2,637		441	70300	2,637	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
											18		441	70500	18	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
											10		441	70700	10	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	
											359		452	14010	359	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
											707		609	22001	707	FT	CURB, TYPE 3-B, AS PER PLAN	14
											10,597		609	98000	10,597	FT	CURB, MISC.: CONCRETE CURB, CANTON TYPE 1	23
											216		609	98000	216	FT	CURB, MISC.: CONCRETE CURB, CANTON TYPE 1 - 18" X 18"	14
																	SANITARY SEWER	
			9										611	00101	9	FT	4" CONDUIT, TYPE B, AS PER PLAN	23
			66										611	97400	66	FT	CONDUIT, MISC.: 4" SANITARY LATERAL RECONNECTED, COMPLETE, AS PER PLAN	23
			152										611	00901	152	FT	6" CONDUIT, TYPE B, AS PER PLAN	23
			1,014										611	01801	1,014	FT	8" CONDUIT, TYPE B, AS PER PLAN	23
			108										611	01801	108	FT	8" CONDUIT, TYPE B, AS PER PLAN, 748.02	23
			1,223										611	04401	1,223	FT	12" CONDUIT, TYPE B, AS PER PLAN	23
			10										611	07401	10	FT	18" CONDUIT, TYPE B, AS PER PLAN	23
			71										611	08901	71	FT	21" CONDUIT, TYPE B, AS PER PLAN	23
			2,571										611	13401	2,571	FT	30" CONDUIT, TYPE B, AS PER PLAN	23
			6										611	99655	6	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	23
			33										611	99900	33	EACH	DRAINAGE STRUCTURE, MISC.: CITY OF CANTON MANHOLE, AS PER PLAN	23
			1										611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.: MANHOLE WITH OUTSIDE DROP CONNECTION, COMPLETE, AS PER PLAN	23
			1										611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.: SANITARY CLEANOUT	
			18										611	99900	18	EACH	DRAINAGE STRUCTURE, MISC.: SANITARY WYE	23
			1										611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.: 21" COUPLER, AS PER PLAN	45
													SPECIAL	69021000	LS		SANITARY SEWER BYPASS PUMPING, AS PER PLAN	23

CALCULATED JPK
CHECKED JES

GENERAL SUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
203	209	210	211	249	43							OFFICE CALC							
																		WATER WORK	
					328									638	00601	328	FT	6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	22
					293									638	01201	293	FT	8" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	22
					19									638	01805	19	FT	10" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	22
					3,165									638	02405	3,165	FT	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	22
					3									638	07801	3	EACH	6" GATE VALVE AND VALVE BOX, AS PER PLAN	22
					2									638	07901	2	EACH	8" GATE VALVE AND VALVE BOX, AS PER PLAN	22
					1									638	08001	1	EACH	10" GATE VALVE AND VALVE BOX, AS PER PLAN	22
					8									638	08101	8	EACH	12" GATE VALVE AND VALVE BOX, AS PER PLAN	22
					7									638	10201	7	EACH	6" FIRE HYDRANT, AS PER PLAN	22
					7									638	10480	7	EACH	FIRE HYDRANT REMOVED	
					10									638	10800	10	EACH	VALVE BOX ADJUSTED TO GRADE	
					115									SPECIAL	63820772	115	FT	1" HDPE WATER SERVICE LINE AND APPURTENANCES , CITY OF CANTON STANDARD, AS PER PLAN	22
					73									SPECIAL	63820776	73	FT	1 1/2" HDPE WATER SERVICE LINE AND APPURTENANCES , CITY OF CANTON STANDARD, AS PER PLAN	22
					46									SPECIAL	63820780	46	FT	2" HDPE WATER SERVICE LINE AND APPURTENANCES , CITY OF CANTON STANDARD, AS PER PLAN	22
					1									SPECIAL	63820876	1	EACH	CUT AND PLUG EXISTING 4" WATER LINE	21
					5									SPECIAL	63820878	5	EACH	CUT AND PLUG EXISTING 6" WATER LINE	21
					3									SPECIAL	63820880	3	EACH	CUT AND PLUG EXISTING 8" WATER LINE	21
					2									SPECIAL	63820882	2	EACH	CUT AND PLUG EXISTING 10" WATER LINE	21
					2									SPECIAL	63820884	2	EACH	CUT AND PLUG EXISTING 12" WATER LINE	21
					LS									638	98100	LS		WATER WORK, MISC.: CONNECTION FOR EX. 30" CONCRETE PIPE AND PR. 12" DIP	21
																		LIGHTING	
				300										625	00450	300	EACH	CONNECTION, FUSED PULL APART	
				100										625	00460	100	EACH	CONNECTION, UNFUSED PULL APART	
				92										625	10481	92	EACH	LIGHT POLE, DECORATIVE, AS PER PLAN	243
				92										625	14600	92	EACH	LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP	243
				46,000										625	22990	46,000	FT	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	
				12,360										625	23410	12,360	FT	NO. 12 AWG POLE AND BRACKET CABLE	
				8,749										625	25402	8,749	FT	CONDUIT, 2", 725.05	
				1,466										625	25403	1,466	FT	CONDUIT, 2", 725.05, AS PER PLAN	243
				89										625	25902	89	FT	CONDUIT, JACKED OR DRILLED, 725.04 ,2"	
				8										625	26251	8	EACH	LUMINAIRE, CONVENTIONAL, AS PER PLAN	243
				184										625	27551	184	EACH	LUMINAIRE, DECORATIVE, AS PER PLAN	243
				9,453										625	29000	9,453	FT	TRENCH	
				38										625	31600	38	EACH	PULL BOX, MISC.: 725.06 (17" X 30")	243
				92										625	32000	92	EACH	GROUND ROD	
				2										625	34001	2	EACH	POWER SERVICE, AS PER PLAN	243
				9,453										625	36010	9,453	FT	UNDERGROUND WARNING/MARKING TAPE	
				LS										SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	243
				22										625	75400	22	EACH	LIGHT POLE REMOVED	
				22										625	75500	22	EACH	LIGHT POLE FOUNDATION REMOVED	
				32										625	75506	32	EACH	LUMINAIRE REMOVED	
				1										625	75510	1	EACH	POWER SERVICE REMOVED	
				32										625	75800	32	EACH	DISCONNECT CIRCUIT	
				2										625	76000	2	EACH	ARC FLASH CALCULATIONS AND LABEL (CC)	243
																		TRAFFIC CONTROL	
	220.7	117												630	02100	337.7	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
	329.8	184.1	15											630	03100	528.9	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
		14.3	26.1											630	08520	40.4	FT	STREET NAME SIGN SUPPORT, NO. 3 POST	
	8	3	1											630	08600	12	EACH	SIGN POST REFLECTOR	
6	9	25	7											630	79500	47	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
	308	271.1	45.8											630	80100	624.9	SF	SIGN, FLAT SHEET	
		2	4											630	80500	6	EACH	SIGN, DOUBLE FACED, STREET NAME	
53														630	84900	53	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
3														630	85100	3	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
33														630	86002	33	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	

* WATERLINE MATERIALS FURNISHED BY THE CANTON WATER DEPARTMENT AND INSTALLED BY THE CONTRACTOR. SEE PLAN NOTE ON SHEET 22.

CALCULATED JPK
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GENERAL SUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
229	234	242	217	218	219	220						OFFICE CALC							
														630	87400	3	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
														630	87500	22	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	
														630	87520	4	EACH	REMOVAL OF POLE MOUNTED SIGN AND REERECTION	
														630	89704	1	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-16.21	
			0.34	0.01										644	00104	0.35	MILE	EDGE LINE, 6"	
				0.51	0.1	0.49								644	00200	1.1	MILE	LANE LINE, 4"	
			0.36	0.78	0.31	0.44								644	00300	1.89	MILE	CENTER LINE	
				2,710	220	667								644	00400	3,597	FT	CHANNELIZING LINE, 8"	
				147	232									644	00500	379	FT	STOP LINE	
				95	515	34								644	00620	644	FT	CROSSWALK LINE, 12"	
			124		46									644	00621	170	FT	CROSSWALK LINE, 12", AS PER PLAN	211
			270		245	387								644	00700	902	FT	TRANSVERSE/DIAGONAL LINE	
					25									644	00900	25	SF	ISLAND MARKING	
					5	3								644	01000	8	EACH	RAILROAD SYMBOL MARKING	
			12	12	36	9								644	01300	69	EACH	LANE ARROW	
			141											644	01510	141	FT	DOTTED LINE, 6"	
					150									644	01514	150	FT	DOTTED LINE, 8"	
				137										644	01520	137	FT	DOTTED LINE, 12"	
				5		5								644	01630	10	EACH	BIKE LANE SYMBOL MARKING	
				1	3									644	19000	4	EACH	SHARED LANE MARKING	
				72										644	20800	72	FT	YIELD LINE	
																		TRAFFIC SIGNALS	
55	23													625	25402	78	FT	CONDUIT, 2", 725.05	
92														625	25403	92	FT	CONDUIT, 2", 725.05, AS PER PLAN	222
81	46	2,036												625	25502	2,163	FT	CONDUIT, 3", 725.05	
427	371													625	25503	798	FT	CONDUIT, 3", 725.05, AS PER PLAN	222
427	371	617												625	25603	1,415	FT	CONDUIT, 4", 725.05, AS PER PLAN	222
554	430	101												625	29000	1,085	FT	TRENCH	
6	3													625	31600	9	EACH	PULL BOX, MISC.: 725.06 (17" X 30")	222
1	1	16												625	31600	18	EACH	PULL BOX, MISC.: 725.06 (36" X 36")	222
6	4													625	32000	10	EACH	GROUND ROD	
554	430	101												625	36010	1,085	FT	UNDERGROUND WARNING/MARKING TAPE	
1	1													625	76000	2	EACH	ARC FLASH CALCULATIONS AND LABEL	221
7	4													630	79101	11	EACH	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	221
41.5	23													630	80100	64.5	SF	SIGN, FLAT SHEET	
3	7													632	05007	10	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	222
7	2													632	05087	9	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	222
4	2													632	20731	6	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	222
10	9													632	25000	19	EACH	COVERING OF VEHICULAR SIGNAL HEAD	221
4	2													632	25010	6	EACH	COVERING OF PEDESTRIAN SIGNAL HEAD	
4	2													632	26001	6	EACH	PEDESTRIAN PUSHBUTTON, AS PER PLAN	222
2,387	1,639													632	40700	4,026	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
4	4													632	64011	8	EACH	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	223
2														632	64021	2	EACH	PEDESTAL FOUNDATION, AS PER PLAN	223
296	76													632	68101	372	FT	POWER CABLE, 1 CONDUCTOR, NO. 6 AWG, AS PER PLAN	221
1	1													632	70001	2	EACH	POWER SERVICE, AS PER PLAN	221
	1													632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2	223
3	3													632	81700	6	EACH	COMBINATION SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12	223
1														632	81700	1	EACH	COMBINATION SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14	223
2														632	90010	2	EACH	PEDESTAL, MISC.: NOSTALGIA PEDESTAL 8'	223
1	1													632	90101	2	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	221
1	1													633	67100	2	EACH	CABINET FOUNDATION	
1	1													633	67200	2	EACH	CONTROLLER WORK PAD	
1	1													633	75001	2	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	222
1	1													633	99000	2	EACH	CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1	224

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GENERAL SUMMARY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
25A	25B	25C	229	234	262	263	242				OFFICE CALC								
							3,081							804	20050	3,081	FT	FIBER OPTIC CABLE, ARMORED, 48 FIBER	
							4							804	30010	4	EACH	FAN-OUT KIT, 12 FIBER	
							2							804	32010	2	EACH	DROP CABLE, 12 FIBER	
							4							804	33990	4	EACH	FIBER OPTIC PATCH CORD, 1 FIBER	
							2							804	34022	2	EACH	FIBER TERMINATION PANEL, 24 FIBER	
							24							804	35000	24	EACH	FUSION SPLICE	
							2							804	37000	2	EACH	SPLICE ENCLOSURE, BUTT STYLE	
							4							804	37500	4	EACH	FIBER OPTIC CONNECTOR	
							LS							804	37700	LS		FIBER OPTIC CABLE TESTING	
							2							804	38000	2	EACH	FIBER OPTIC CABLE MODEM	
			1	1										809	60040	2	EACH	CCTV IP-CAMERA SYSTEM, QUAD MULTI-VIEW FIXED WITH PTZ	
			1	1										809	69200	2	EACH	EMERGENCY VEHICLE PREEMPTION	223
			4	4										809	69210	8	EACH	PREEMPT RECEIVING UNIT	224
			830	780										809	69220	1,610	FT	PREEMPT DETECTOR CABLE	224
			1	1										809	69230	2	EACH	PREEMPT PHASE SELECTOR	224
			1	1										816	30001	2	EACH	VIDEO DETECTION SYSTEM, AS PER PLAN	223
																		LANDSCAPING	
						150								203	20000	150	CY	EMBANKMENT	
						2								203	98600	2	EACH	ROADWAY, MISC.: FLAGPOLE, 30' HEIGHT	263
						1								203	98600	1	EACH	ROADWAY, MISC.: FLAGPOLE, 35' HEIGHT	263
						16								203	98600	16	EACH	ROADWAY, MISC.:LANDSCAPE BOULDER	263
						130								203	98300	130	FT	ROADWAY, MISC.:METAL EDGER	263
						55								653	10001	55	CY	TOPSOIL FURNISHED AND PLACED, AS PER PLAN	263
						20								661	00501	20	CY	MULCH, AS PER PLAN	263
					140									661	14000	140	EACH	PERENNIALS(PANICUM VIRGATUM 'SHENANDOAH')	
					130									661	14000	130	EACH	PERENNIALS(PENNISETUM ALOPECUROIDES 'LITTLE BUNNY')	
					180									661	14000	180	EACH	PERENNIALS (SPOROBOLUS HETEROLEPIS)	
					4									661	40141	4	EACH	DECIDUOUS TREE, 4" CALIPER, AS PER PLAN (QUERCUS ROBUR 'FASTIGIATA')	263
						27								661	99900	27	EACH	PLANTING, MISC.: TREE FRAME AND GRATE	263
						350								661	99930	350	SY	PLANTING, MISC.: SUBGRADE TILLING	263
						350								661	99930	350	SY	PLANTING, MISC.: WEED BARRIER MAT	263
																		MAINTENANCE OF TRAFFIC	
	150													410	13000	150	CY	TRAFFIC COMPACTED SURFACE, TYPE C	25B
100	400													614	13000	500	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	25A
	72													614	18601	72	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	25B
		11												614	40051	11	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN	25C
		400												614	11110	400	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	25C
	0.85													614	21100	0.85	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	25B
	0.75													614	22100	0.75	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	25B
	598													614	24200	598	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT	25B
	4													614	30200	4	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT	25B
	158													614	25200	158	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	25B
	150													616	10000	150	MGAL	WATER	25B
											LS			614	11000	LS		MAINTAINING TRAFFIC	
											24			619	16010	24	MNTH	FIELD OFFICE, TYPE B	
											LS			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	

CALCULATED JPK
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GENERAL SUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

37A
302

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REF NO.	SHEET NO.	STATION TO STATION					202	202	202	202	202	202	202		202		608		202								
							CATCH BASIN REMOVED	TRAFFIC ISLAND REMOVED	CURB REMOVED	CURB AND GUTTER REMOVED	PIPE REMOVED, 24" AND UNDER	GUARDRAIL REMOVED	FENCE REMOVED		REMOVAL MISC.:BILLBOARD REMOVED		CURB RAMP		ABANDON MISC.:MONITORING WELL								
							EACH	SY	FT	FT	FT	FT	FT		EACH		SF		EACH								
			TO																								
R-1	49	106+73.00				LT.		72																			
		11th Street/Market Ave																									
R-2	49	19+12.59		26+78.13		LT.			808																		
R-3	49	18+14.19		14+19.00		RT.			376																		
		Market Ave/11th Street																									
R-4	49	23+06.00		122+30.00		LT.			1803																		
R-5	49	14+19.00		122+30.00		RT.			2122																		
		11th Street/Cherry Ave																									
R-6	57	122+30.00		64+39.64		LT.			378																		
R-7	57	122+30.00		58+80.00		RT.			78																		
		Cherry Ave/11th Street																									
R-8	57	60+80.66		136+73.76		LT.			1381																		
		11th Street																									
R-9	63	137+29.59		137+60.23		LT.			39																		
R-10	63	137+48.06		137+60.23		RT.			12																		
		11th Street/Market Ave																									
R-11	47	102+62.00		19+12.59		LT.				334																	
R-12	47	102+62.00		18+14.19		RT.				329																	
		Market Ave																									
R-13		NOT USED																									
R-14		NOT USED																									
R-15		NOT USED					1				10																
		11th Street																									
R-16	51	109+45.45		110+57.62		RT./LT.	1				113																
R-17	51	110+54.83		110+57.62		LT.	2				32																
R-18	51	112+06.91		113+01.13		LT.	1				97																
R-19	53	113+01.13		113+93.61		LT.	1				98																
R-20	53	113+74.26		113+93.61		LT.	1				49																
R-21	53	114+83.98		115+08.99		LT.	1				27																
R-22	53	115+08.99		115+94.30		LT.	1				88																
R-23	55	117+81.92				LT.	1				9																
R-24	55	117+80.54				RT.	1				5																
R-25	55	119+26.17		119+73.72		LT.	1				53																
R-26	57	121+87.04		122+31.63		LT.	1				69																
R-27	61	134+04.59				LT.	1				14																
		11th Street																									
R-28	49	106+46.84		106+60.88		RT.						16															
R-29	53	113+46.37		113+91.96		LT.						50															
		11th Street																									
R-30	47	102+62.00		103+27.85		LT.							70														
R-31	49	106+83.32		109+56.57		LT.							298														
		Market Ave																									
R-32	49	19+74.70		20+25.84		LT.							112														
R-33	107	21+23.51		22+79.65		RT.							164														
		11th Street																									
R-34	51	110+43				RT.									1												
R-35	49	103+82.41		104+31.55		RT./LT.	2				51																
R-36	57	123+71.23	RT	127+81.42		RT			422																		
R-37	58	128+46.14	RT	134+57.61		RT			621																		
R-38	63	134+81.84	RT	137+50.00		RT			132																		
R-39	53	113+69.28	LT																1								
TOTALS CARRIED TO NEXT SHEET							16	72	8172	663	715	66	644		1				1								

CALCULATED JPK
CHECKED JES

ROADWAY SUBSUMMARY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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REF NO.	SHEET NO.	STATION TO STATION			202 CATCH BASIN REMOVED EACH	202 TRAFFIC ISLAND REMOVED SY	202 CURB REMOVED FT	202 CURB AND GUTTER REMOVED FT	202 PIPE REMOVED, 24" AND UNDER FT	202 GUARDRAIL REMOVED FT	202 FENCE REMOVED FT		202 REMOVAL MISC.;BILLBOARD REMOVED EACH		608 CURB RAMP SF									
		TO																						
		11th Street																						
CR-1	49	105+01.47	RT.												325									
CR-2	49	105+7.00	RT./LT.												376									
CR-3	49	105+11.76	LT.												130									
CR-4	49	106+93.88	RT.												135									
CR-5	49	106+94.13	RT./LT.												118									
CR-6	49	106+98.97	LT.												176									
CR-7	51	109+67.59	RT.												78									
CR-8	51	110+11.43	RT.												78									
CR-9	57	121+99.68	LT.												212									
CR-10	57	121+99.68	RT.												118									
CR-11	57	123+12.25	LT.												172									
CR-12	63	134+55.00	LT.												150									
CR-13	63	134+79.00	LT.												150									
CR-14	63	136+51.18	LT.												61									
CR-15	63	137+30.16	LT.												43									
CR-16	63	137+54.00	LT.												43									
CR-17	63	137+54.00	RT.												45									
		Market Ave																						
CR-18	105	16+53.86	RT.												225									
CR-19	105	16+97.33	LT.												200									
CR-20	49	18+11.21	RT.												85									
CR-21	49	18+11.50	RT./LT.												95									
CR-22	49	18+15.26	LT.												254									
CR-23	49	19+92.88	RT./LT.												131									
CR-24	49	19+95.05	LT.												130									
CR-25	49	19+99.89	RT.												177									
CR-26	49	20+98.63	LT.												150									
CR-27	108	26+74.44	LT.												84									
CR-28	108	27+18.68	LT.												53									
SUBTOTAL FROM PREVIOUS SHEET					16	72	6997	663	715	66	644		1											
TOTALS CARRIED TO GENERAL SUMMARY					16	72	6997	663	715	66	644		1		3994									

CALCULATED JPK
CHECKED JES

ROADWAY SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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REF NO.	SHEET NO.	STATION TO STATION				202 PIPE REMOVED, 24" AND UNDER (FT)	202 CATCH BASIN REMOVED (EACH)	202 MANHOLE REMOVED (EACH)	611 6" CONDUIT, TYPE B, 707.45 (FT)	611 12" CONDUIT, TYPE B, 706.02 (FT)	611 12" CONDUIT, TYPE B, 707.33 (FT)	611 15" CONDUIT, TYPE B, 706.02 (FT)	611 15" CONDUIT, TYPE B, 707.33 (FT)	611 18" CONDUIT, TYPE B, 707.33 (FT)	611 24" CONDUIT, TYPE B, 706.02 (FT)	611 DRAINAGE STRUCTURE, MISC.:JUNCTION CHAMBER (LS)	611 54" CONDUIT, TYPE B, 706.02 (FT)	611 8" CONDUIT, TYPE B, 707.45 (FT)	611 CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN (EACH)	611 MANHOLE ADJUSTED TO GRADE, AS PER PLAN (EACH)	611 DRAINAGE STRUCTURE, MISC.:CITY OF CANTON CURB INLET CATCH BASIN (EACH)	611 DRAINAGE STRUCTURE, MISC.:CITY OF CANTON MANHOLE (EACH)
			TO																			
		11TH STREET																				
D-1	47	102+84.83		102+89.03	LT.	5	1						5								1	
D-1A	47	103+22.05			LT.															1		
D-1B	47	102+12.64			LT.															1		
D-2	49	103+82.99			RT.	20	1		17			5									1	
D-3	49	103+82.41		104+10.96	LT.	35					35									1		
D-4	49	104+10.96		104+14.93	LT.	5					5										1	
D-5	49	103+82.99		104+34.94	RT.						52										1	
D-6	49	107+75.07			LT./RT.						38										1	
D-7	49	106+79.64		107+74.92	LT.						98										1	
D-7A	51	109+71.93			RT.														1			
D-7B	51	110+00.88			RT.														1			
D-8	51	110+52.47			RT.															1		
D-9	51	111+14.00			LT./RT.					37											1	
D-10	51	110+52.47		111+14.00	LT.					65											1	
D-11	53	114+50.00		116+25.00	RT.						172										1	
D-12	53	114+50.00			LT./RT.					37											1	
D-13	53	115+69.99			LT.	30		1														
D-13A	53	115+82.99			LT.	21	1		7				14									1
D-14	53	115+82.99		115+94.30	LT.															1		
D-15	55	116+25.00		117+25.00	RT.							100									1	
D-16	55	116+25.00			LT./RT.					41											1	
D-17	55	117+25.00			RT.						12										1	
D-18	55	117+25.00			LT./RT.						39										1	
D-18A	55	117+25.00		117+45.00	RT.									20								1
D-19	55	117+77.27			RT.			1								LS	16					
D-20	55	117+79.54			RT.															1		
D-21	55	117+81.62			LT.															1		
D-22	55	117+63.00		117+70.00	RT.						14										1	
D-22A	55	117+70.00		117+77.27	RT.									13								1
D-23	55	117+63.00		117+81.62	LT.						19										1	
D-24	55	119+16.16		119+19.13	RT.	10	1				5							5			1	
D-25	55	119+26.17			LT.															1		
D-26	55	119+26.17		119+75.00	LT.						50										1	
D-27	55	120+39.58		120+71.07	RT.	32	1				31										1	
D-28	55	120+48.56			LT.															1		
D-29	55	120+69.03		120+71.07	RT.	5	1						5								1	
D-30	57	120+71.07		121+38.00	RT.	68	1				68										1	
D-31	57	121+85.00		122+31.63	LT.						80										1	
D-32	57	122+82.45			RT.															1		
D-33	57	122+84.18			LT.															1		
D-34	57	123+58.48		123+67.78	LT.	5	1						5								1	
D-35	57	125+21.71			RT.														1			
D-36	57	125+23.00			LT.	10	1				10										1	
D-37	59	126+83.33			RT.														1			
D-38	59	126+83.02			LT.	10	1				10										1	
D-38A	59	127+40.02			LT.															1		
D-38B	59	127+48.96			LT.														1			
D-38C	59	127+40.02		127+59.00	LT./RT.	59									59							1
D-39	59	128+52.99			LT.	10	1				10										1	
TOTALS CARRIED TO SHEET GENERAL SUMMARY						325	11	2	24	180	748	105	29	33	59	LS	16	5	5	12	26	4

CALCULATED JPK
CHECKED JES

DRAINAGE SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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REF NO.	SHEET NO.	STATION TO STATION	202 PIPE REMOVED, 24" AND UNDER (FT)	202 CATCH BASIN REMOVED (EACH)	611 12" CONDUIT, TYPE B, 706.02 (FT)	611 12" CONDUIT, TYPE B, 707.33 (FT)	611 15" CONDUIT, TYPE B, 707.33 (FT)	611 18" CONDUIT, TYPE B, 707.33 (FT)	611 MANHOLE, NO. 5, AS PER PLAN (EACH)	611 8" CONDUIT, TYPE B, 707.45 (FT)	611 CATCH BASIN, NO. 6 (EACH)	611 CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN (EACH)	611 MANHOLE ADJUSTED TO GRADE, AS PER PLAN (EACH)	611 DRAINAGE STRUCTURE, MISC.:CITY OF CANTON CURB INLET CATCH BASIN (EACH)	611 DRAINAGE STRUCTURE, MISC.:CITY OF CANTON MANHOLE (EACH)	611 MANHOLE, NO. 3 WITH 90° BASE I.D. AND 8" WEIR (EACH)	611 MANHOLE, NO. 3 WITH 96" BASE I.D. AND 9" WEIR (EACH)	895 MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2 (EACH)	895 MANUFACTURED WATER QUALITY STRUCTURE, TYPE 3 (EACH)						
		TO																								
D-40	59	128+88.89 RT.										1														
D-41	61	130+08.76 RT.										1														
D-42	61	130+08.29 LT.	10	1		10								1												
D-43	61	131+53.53 RT.											1													
D-44	61	131+81.56 RT.											1													
D-44A	61	131+95.39 LT.											1													
D-45	61	132+54.29 LT.	9	1	9									1												
D-46	61	133+70.02 RT.										1														
D-47	61	133+70.15 RT.											1													
D-48	61	134+14.44 134+14.76 LT.					21							1												
D-49	63	134+32.17 RT.										1														
D-50	63	134+41.25 RT.											1													
D-48A	63	134+33.00 LT.							1																	
D-51	63	135+02.12 RT.											1													
D-52	63	135+07.77 RT.										1														
D-53	63	135+25.00 LT.				11								1												
D-54	63	135+35.95 LT.		1									1													
D-55	63	136+59.82 LT.											1													
D-56	63	136+59.13 LT.	5	1			5							1												
D-57	63	137+13.37 LT.											1													
D-58	63	137+22.78 LT.											1													
D-59	63	137+44.00 LT.										1														
WQ-1	51	111+00.00 LT.					30										1		1							
WQ-2	55	117+45.00 RT.						65										1		1						
R-35	49	103+83.26 104+31.54 LT.	40	2																						
R-36	49	106+54.94 RT.	92	1																						
		MARKET AVE																								
D-60	105	14+39.58 LT.											1													
D-61	105	15+36.95 LT.											1													
D-62	105	15+56.95 15+64.12 LT.	8	1			8							1												
D-63	105	15+67.34 15+69.00 RT.	5	1			5							1												
D-64	49	17+34.39 LT./RT.				35								1												
D-65	49	15+69.00 17+34.99 RT.					167							1												
D-66	49	19+80.64 20+62.99 RT.	76	1		85									1											
D-67	49	20+61.59 LT./RT.				23								1												
D-68	49	20+61.98 RT.											1													
D-69	49	20+62.99 RT.	39				15							1												
D-70	107	21+64.97 LT.				8								1												
D-71	107	21+59.90 21+65.00 LT.	10					10							1											
D-72	107	21+64.99 LT./RT.				35								1												
D-73	107	22+50.04 22+67.00 LT.		1			17							1												
D-74	107	22+65.23 LT.	5	1				5			1															
D-75	107	22+67.00 LT.	16					16					1													
D-76	107	22+64.98 LT./RT.					40							1												
D-77	107	22+67.00 22+83.53 LT.	21	1			16			5				1												
D-78	107	22+64.98 23+30.01 RT.					65					1														
D-79	108	25+15.99 LT.	5	1				5						1												
D-80	108	25+15.07 LT.											1													
TOTALS CARRIED TO SHEET GENERAL SUMMARY			341	14	9	207	389	101	1	5	1	7	15	17	2	1	1	1	1							

CALCULATED JPK
CHECKED JES

DRAINAGE SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

41
302

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REF NO.	SHEET NO.	STATION TO STATION	202 PIPE REMOVED, 24" AND UNDER FT	202 CATCH BASIN REMOVED EACH	611 12" CONDUIT, TYPE B, 707.33 FT	611 15" CONDUIT, TYPE B, 707.33 FT	611 INLET, NO. 2-A-12 EACH	611 CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN EACH	611 MANHOLE ADJUSTED TO GRADE, AS PER PLAN EACH	611 DRAINAGE STRUCTURE, MISC.:CITY OF CANTON CURB INLET CATCH BASIN EACH
D-80A	108	25+31.96 RT.						1		
D-81	108	26+78.94 LT.							1	
D-82	108	27+11.89 LT.							1	
D-82A	108	27+15.62 LT.						1		
D-83	108	27+66.96 LT.	6	1		6				1
D-84	108	27+65.75 LT.							1	
D-84A	108	27+71.44 RT.						1		
D-84B	108	28+15.36 LT.							1	
R-37	49	20+52.18 LT.		1						
R-38	49	20+63.70 RT.		1						
R-39	107	22+57.14 LT.		1						
		CHERRY AVE								
D-85	130	56+67.70 RT.						1		
D-85A	130	56+25.35 RT.							1	
D-86	130	56+95.90 LT.						1		
D-87	130	57+55.31 LT.						1		
D-88	57	58+05.66 RT.							1	
D-89	57	59+14.03 LT.	10	1		10				1
D-90	57	59+10.58 / 59+13.63 LT./RT.							1	
D-91	57	59+08.74 RT.						1		
D-92	57	60+84.09 LT.	5	1	5		1			
D-93	57	60+84.82 RT.							1	
D-94	57	60+84.56 RT.	5	1	5		1			
D-95	128	50+45.11 RT.						1		
D-95A	128	50+60.16 RT.							1	
D-96	128	47+29.75 LT.						1		
D-96A	128	47+16.27 RT.							1	
D-96B	128	48+36.10 RT.							1	
D-96C	128	48+59.29 LT.							1	
TOTALS CARRIED TO GENERAL SUMMARY			26	7	10	16	2	9	12	2

CALCULATED JPK
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DRAINAGE SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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REF NO.	SHEET NO.	STATION TO STATION						202	638	638	638	638	638	638	638	638	638	638	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	638
					TO			VALVE BOX REMOVED	6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	8" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	10" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	6" GATE VALVE AND VALVE BOX, AS PER PLAN	8" GATE VALVE AND VALVE BOX, AS PER PLAN	10" GATE VALVE AND VALVE BOX, AS PER PLAN	12" GATE VALVE AND VALVE BOX, AS PER PLAN	6" FIRE HYDRANT, AS PER PLAN	FIRE HYDRANT REMOVED	VALVE BOX ADJUSTED TO GRADE	1" POLYETHYLENE WATER SERVICE LINEAND APPURTENANCES, CITY OF CANTON STANDARD, AS PER PLAN	1 1/2" POLYETHYLENE WATER SERVICE LINEAND APPURTENANCES, CITY OF CANTON STANDARD, AS PER PLAN	2" POLYETHYLENE WATER SERVICE LINEAND APPURTENANCES, CITY OF CANTON STANDARD, AS PER PLAN	CUT AND PLUG EXISTING 4" WATER LINE	CUT AND PLUG EXISTING 6" WATER LINE	CUT AND PLUG EXISTING 8" WATER LINE	CUT AND PLUG EXISTING 10" WATER LINE	CUT AND PLUG EXISTING 12" WATER LINE	WATER WORK, MISC.: CONNECTION FOR EX. 30" CONCRETE PIPE AND PR. 12" DIP
								EACH	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	LS
		11th Street																									
W1	171	102+01	LT.		106+20	RT.		2															1				
W1A	171	101+89	RT.		103+75	RT.						193				1											
W2	171	103+74	RT.																	23							
W2A	173	103+88	LT.					1																			
W3	173	103+91	RT.		104+06	LT.			59								1										
W3A	173	104+32	LT.															1									
W4	173	103+75	RT.		108+25	LT.						448															
W7	173	105+47	RT.		105+55	RT.		1												39							
W8	173	106+06	RT.		106+10	RT.							1			1											
W8A	173	106+11	RT.		109+51	RT.																	1				
		Market Ave																									
W9	173	17+05	LT.		18+44	RT.			142																		
W9A	173	17+05	LT.		22+93	RT.		5															1				
W9B	173	16+57	RT.																1								
W9C	173	16+76	RT.																1								
W9D	173	16+95	LT.																1								
		11th Street																									
W10	173	106+69	RT.																	16							
W11	173	107+01	RT.		107+10	RT.										3											
W12	175	108+25	RT.		112+75	RT.						450															
W13	175	109+51	RT.		110+38	RT.																			1		
W13A	175	110+38	RT.		111+54	LT.																				1	
W14	175	110+10	RT.		110+62	RT.			6								1	1									
W14A	175	112+44	LT.															1									
W15	177	112+75	RT.		116+25	RT.						348															
W16	177	114+64	RT.		114+70	LT.				38				1			1										
W17	177	115+11	LT.		115+16	LT.		2																			
W17A	177	115+87	LT.					2																			
W18	179	116+92	RT.						16								1										
W19	179	116+25	RT.		120+75	RT.						451				1											
W19A	179	118+04	RT.																1	14							
W20	179	118+94	RT.		119+10	RT.															13						
W20A	179	MARKET			120+48	LT.		1															1				
W21	181	120+75	RT.		124+20	LT.						359				1											
W21A	181	122+10	LT.															1									
W22	181	122+48	RT.		123+19	LT.				255				1													
W23	181	122+48	RT.		123+15	LT.																				1	
W23A	181	123+19	LT.		123+23	LT.		1																		1	
W24	181	MARKET			124+20	LT.		1																			1
		Market Ave																									
W25	173	18+90	RT.		21+00	RT.						242															
W26	173	20+37	LT.		20+40	RT.		1												34							
W27	173	20+64	RT.		20+70	RT.			20								1	1									
W28	184	21+00	RT.		25+00	RT.						407															
W29	184	22+51	LT.		22+52	RT.														27							
W30	184	22+66	LT.		22+70	RT.															33						
W31	184	22+93	RT.		25+57	RT.		4															1				
W32	184	23+31	RT.						22								1	1									
W33	184	24+19	LT./RT.						40				2							35							LS
W34	185	23+25	RT.		25+47	RT.		1																			1
W35	185	25+00	RT.		27+63	RT.						267															
W36	185	25+47	RT.		27+63	RT.		4																		1	
W37	185	27+29	LT.		27+52	RT.		1			19				1											1	
W38	185	27+52	RT.													1											
W39	185	27+54	RT.						23								1	1	1								
W40	185	28+23	RT.		28+40	RT.													5								
TOTALS CARRIED TO GENERAL SUMMARY								27	328	293	19	3165	3	2	1	8	7	7	10	115	73	46	1	5	3	2	2	LS

CALCULATED JPK
CHECKED JES

WATER WORK SUBSUMMARY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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REF NO.	SHEET NO.	STATION TO STATION						202 ABANDON MISC.:PLUG 8" AND SMALLER SANITARY CONDUIT, AS PER PLAN EACH	202 PIPE REMOVED FT	202 MANHOLE REMOVED EACH	611 4" CONDUIT, TYPE B, AS PER PLAN FT	611 6" CONDUIT, TYPE B, AS PER PLAN FT	611 8" CONDUIT, TYPE B, AS PER PLAN FT	611 12" CONDUIT, TYPE B, AS PER PLAN FT	611 18" CONDUIT, TYPE B, AS PER PLAN FT	611 21" CONDUIT, TYPE B, AS PER PLAN FT	611 30" CONDUIT, TYPE B, AS PER PLAN FT	202 ABANDON MISC.: LAMPHOLE EACH	611 MANHOLE ADJUSTED TO GRADE, AS PER PLAN EACH	611 DRAINAGE STRUCTURE, MISC.:CITY OF CANTON MANHOLE AS PER PLAN EACH	202 ABANDON MISC.: SANITARY MANHOLE, AS PER PLAN EACH	202 ABANDON MISC.; PIPE ABANDONED IN PLACE FT	611 DRAINAGE STRUCTURE, MISC.:MANHOLE WITH OUTSIDE DROP CONNECTION, COMPLETE, AS PER PLAN EACH	611 CONDUIT, MISC.:4" SANITARY LATERAL RECONNECTED, COMPLETE, AS PER PLAN FT	202 ABANDON MISC.:BULKHEAD, GROUT AND ABANDON SANITARY SEWER, AS PER PLAN EACH	611 8" CONDUIT, TYPE B, AS PER PLAN, 748.02 FT	611 DRAINAGE STRUCTURE, MISC.: SANITARY CLEANOUT EACH	611 DRAINAGE STRUCTURE, MISC.: 21" COUPLER, AS PER PLAN EACH
			TO																									
		11th Street																										
S1	47	102+05.00	LT.		103+55.00	RT.							151							1								
S2	47	103+55.00	RT.		104+25.00	RT.							71							1								
S3	49	103+77.00	RT.		104+25.00	LT.			8	1												1	61					
S3A	49	103+77.00	RT.						8				8							1								
S3B	49	104+25.00	LT.						8				30							1								
S3C	49	104+25.00	RT.		106+75.00	LT.							248							1								
S4	49	106+75.00	LT.		109+90.00	LT.								306						1								
S5	51	109+88.11	RT.		109+90.00	LT.												83						1				
S6	51	109+88.11	RT.		110+44.41	RT.				1																		
S7	51	110+44.41	RT.		110+75.14	LT.		2	10	1													50					
S7A	51	110+75.14	LT.		111+13.90	LT.		1														1	63					
S7B	51	111+13.90	LT.		112+03.69	LT.		1															128					
S7C	51	109+90.00	LT.		112+00.00	LT.												210				1						
S8	53	112+00.00	LT.		114+30.00	LT.												231				1						
S8A	53	114+30.00	LT.		115+95.00	LT.												166				1						
S9	53	115+52.65	LT.																	1								
S10	53	115+94.50	LT.		115+95.00	LT.			8	1				26								1						
S10A	55	115+95.00	LT.		117+65.00	RT.			71								71	171				1						1
S10B	55	117+63.66	RT.		119+43.72	RT.		1											1				185					
S10C	53	115+94.50	LT.		116+10.27	LT.			16	1																		
S11	55	116+10.27	LT.		117+63.66	RT.			49	1													160			2		
S11A	55	117+65.00	RT.		118+00.00	RT.												35				1			24			
S12	55	118+00.00	RT.		120+42.84	RT.		1	5	1			39					243				1			26		1	
S12A	57	120+42.84	RT.		121+70.00	RT.												127				1						
S12B	55	120+42.66	LT.		121+93.21	LT.																	1	151				
S12C	57	121+70.00	RT.		122+10.00	LT.												51				1						
S13	57	122+77.35	RT.					1															1	182				
S13A	57	123+43.47	LT.		125+13.87	RT.																	1	170				
S14	57	125+13.87	RT.																				2	277				
S14A	57	122+10.00	LT.		125+14.41	LT.		2										304				1						
S15	59	125+41.41	LT.		127+35.00	LT.												221				1						
S15A	59	125+13.87	RT.		126+76.46	RT.																	1	163				
S16	61	129+86.75	RT.		55+28.64	RT.				1														873				
S16A	61	127+35.00	LT.		129+86.52	LT.			10				10					252				1						
S17	61	129+86.75	RT.		130+38.45	LT.			10															91				
S18	61	129+86.52	LT.		131+71.38	LT.			25				25					185				1						
S18A	61	129+86.75	RT.		131+74.16	RT.				1														194				
S19	61	130+38.45	LT.		132+26.36	LT.																	1	187				
S20	61	131+74.16	RT.		133+59.34	RT.																	1	185				
S21	63	132+26.36	LT.		134+33.02	LT.			15	1			5			10		30				1		207				
S21A	63	133+59.34	RT.		134+33.00	RT.			5				26									1		74				
S21B	63	131+71.38	LT.		134+33.01	LT.												262				1						
S22	63	135+21.86	RT.		137+28.23	LT.			236	1			236									1						
S23	63	135+43.14	LT.							1																		
S24	63	137+28.23	LT.						20	1												1						
TOTAL CARRIED TO NEXT SHEET								9	504	13	0	35	814	332	10	71	2571	1	1	24	9	3401	1	50	2	0	1	1

CALCULATED JPK
CHECKED JES

SANITARY SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

44
302

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SANITARY SUBSUMMARY

CALCULATED JPK
CHECKED JES

							202	202	202	611	611	611	611	611	611	611		611	611	202	202	611	611	202	611	611	611
							ABANDON MISC.:PLUG 8" AND SMALLER SANITARY CONDUIT, AS PER PLAN	PIPE REMOVED	MANHOLE REMOVED	4" CONDUIT, TYPE B	6" CONDUIT, TYPE B	8" CONDUIT, TYPE B	12" CONDUIT, TYPE B	18" CONDUIT, TYPE B	21" CONDUIT, TYPE B	30" CONDUIT, TYPE B	ABANDON MISC.: LAMPHOLE	MANHOLE ADJUSTED TO GRADE	DRAINAGE STRUCTURE, MISC.:CITY OF CANTON MANHOLE AS PER PLAN	ABANDON MISC.: MANHOLE ABANDONED IN PLACE	ABANDON MISC.; PIPE ABANDONED IN PLACE	DRAINAGE STRUCTURE, MISC.:MANHOLE WITH OUTSIDE DROP CONNECTION, COMPLETE, AS PER PLAN	CONDUIT, MISC.:4" SANITARY LATERAL RECONNECTED, COMPLETE, AS PER PLAN	ABANDON MISC.:BULKHEAD, GROUT AND ABANDON SANITARY SEWER, AS PER PLAN	8" CONDUIT, TYPE B, AS PER PLAN, 748.02	DRAINAGE STRUCTURE, MISC.:SANITARY CLEANOUT	DRAINAGE STRUCTURE, MISC.: 21" COUPLER, AS PER PLAN
							EACH	FT	EACH	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	FT	EACH	FT	EACH	FT	EACH	EACH
		Market Ave																									
S25	105	14+50.00	LT.		15+50.49	LT.		108	1										1							108		
S25A	105	14+50.00	LT.					15				15							1									
S25B	49	15+50.49	LT.		17+02.68	LT.		160	1			160							1				8					
S26	49	17+02.68	LT.		18+18.30	RT.		34	1												80							
S26A	49	17+02.68	LT.		18+18.80	RT.		17		9	117								1									
S27	49	19+22.74	RT.		21+18.69	LT.		93	1												101							
S28	49	20+25.00	RT.		106+75.00	LT.							104						1									
S29	103	21+18.69	LT.		22+94.27	LT.		174	1																			
S30	103	20+25.00	LT.		22+94.27	LT.							268						1									
S31	103	22+94.27	LT.		23+03.44	RT.	2												1		44							
S32	107	23+03.44	RT.		24+93.24	LT.	1	149	1												58							
S32A	107	22+99.27	LT.		24+98.74	LT.							204						1				8					
S32B	107	24+98.39	LT.		24+98.74	LT.		25				25							1									
S33	108	24+93.24	LT.		26+89.36	LT.		196	1																			
S34	108	24+98.74	LT.		28+03.78	LT.		124	1				315						1									
		Cherry Ave																										
S35		NOT USED																										
S36	128	48+37.25	LT.															1										
S37	128	48+36.10	RT.															1										
S38	128	48+59.29	LT.															1										
S39	128	50+02.10	LT.																	1								
S40	128	50+36.45	LT.		52+61.20	RT.														1	30							
S41	128	50+60.16	RT.															1			220							
S42	129	52+61.20	RT.		55+28.64	LT.														1	225							
S43	129	55+28.64	LT.		56+35.05	LT.														1	267							
S44	130	56+35.05	LT.		58+76.41	LT.														1	107							
S45	130	58+16.41	LT.																	1	181							
SUBTOTALS FROM PREVIOUS SHEET							9	504	13	0	35	814	332	10	71	2571	1	1	24	9	3401	1	50	2	0		
TOTALS CARRIED TO GENERAL SUMMARY							12	1599	21	9	152	1014	1223	10	71	2571	1	6	33	15	4714	1	66	2	108	1	1

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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PROJECT DESCRIPTION:
IMPROVEMENTS WILL INCLUDE THE INSTALLATION OF A ROUNDABOUT AT THE INTERSECTION OF 11TH STREET SE /MARKET AVENUE S, STREETSCAPING WITH TREES, UPGRADED PEDESTRIAN LIGHTING, UPGRADED SIGNALS, ADA IMPROVEMENTS AT CROSSWALKS, BRICK INTERSECTION, A SHARED-USE PATH AND BIKE LANES THAT ALIGN WITH THE CITY'S MASTER BIKE ROUTES, 11TH STREET SE WILL ALSO BE REALIGNED TO ELIMINATE THE SUBSTANDARD DEFLECTION IN THE EXISTING ALIGNMENT.

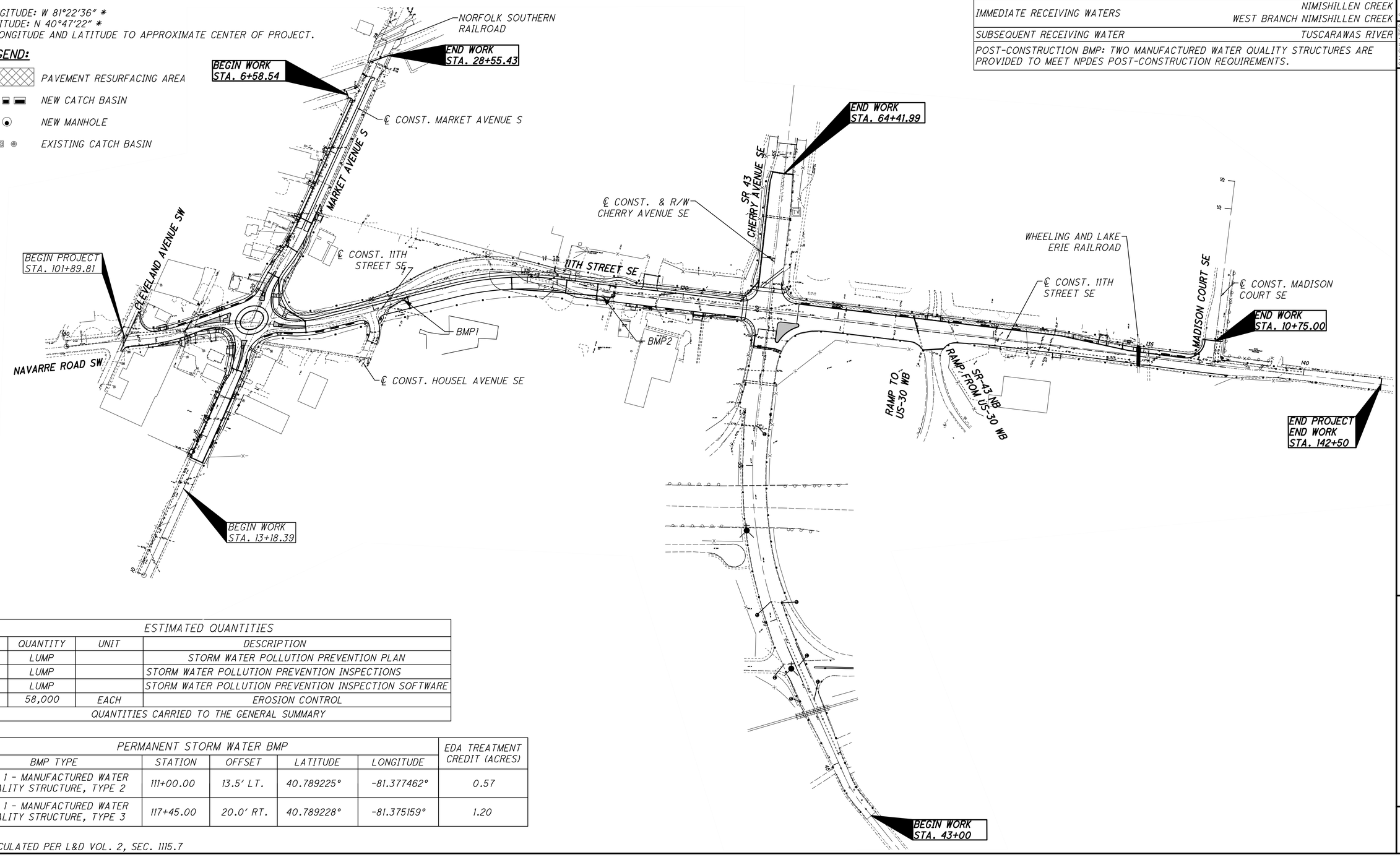
USGS QUADRANT: KENT QUADRANGLE
KENT, OHIO

LONGITUDE: W 81°22'36" *
LATITUDE: N 40°47'22" *
* LONGITUDE AND LATITUDE TO APPROXIMATE CENTER OF PROJECT.

LEGEND:

- PAVEMENT RESURFACING AREA
- NEW CATCH BASIN
- NEW MANHOLE
- EXISTING CATCH BASIN

PROJECT DATA	
TOTAL AREA (RIGHT OF WAY)	10.25 ACRES
PROJECT EARTH DISTURBED AREA	5.97 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.67 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA	6.64 ACRES
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	15.79 ACRES
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	15.95 ACRES
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.71
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.76
IMMEDIATE RECEIVING WATERS	NIMISHILLEN CREEK WEST BRANCH NIMISHILLEN CREEK
SUBSEQUENT RECEIVING WATER	TUSCARAWAS RIVER
POST-CONSTRUCTION BMP: TWO MANUFACTURED WATER QUALITY STRUCTURES ARE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS.	



ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
832	LUMP		STORM WATER POLLUTION PREVENTION PLAN
832	LUMP		STORM WATER POLLUTION PREVENTION INSPECTIONS
832	LUMP		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE
832	58,000	EACH	EROSION CONTROL
QUANTITIES CARRIED TO THE GENERAL SUMMARY			

PERMANENT STORM WATER BMP					EDA TREATMENT CREDIT (ACRES)
BMP TYPE	STATION	OFFSET	LATITUDE	LONGITUDE	
BMP 1 - MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2	111+00.00	13.5' LT.	40.789225°	-81.377462°	0.57
BMP 1 - MANUFACTURED WATER QUALITY STRUCTURE, TYPE 3	117+45.00	20.0' RT.	40.789228°	-81.375159°	1.20

* CALCULATED PER L&D VOL. 2, SEC. 1115.7

HORIZONTAL SCALE IN FEET
0 75 150 300
CALCULATED JPK
CHECKED AMP

PROJECT SITE PLAN

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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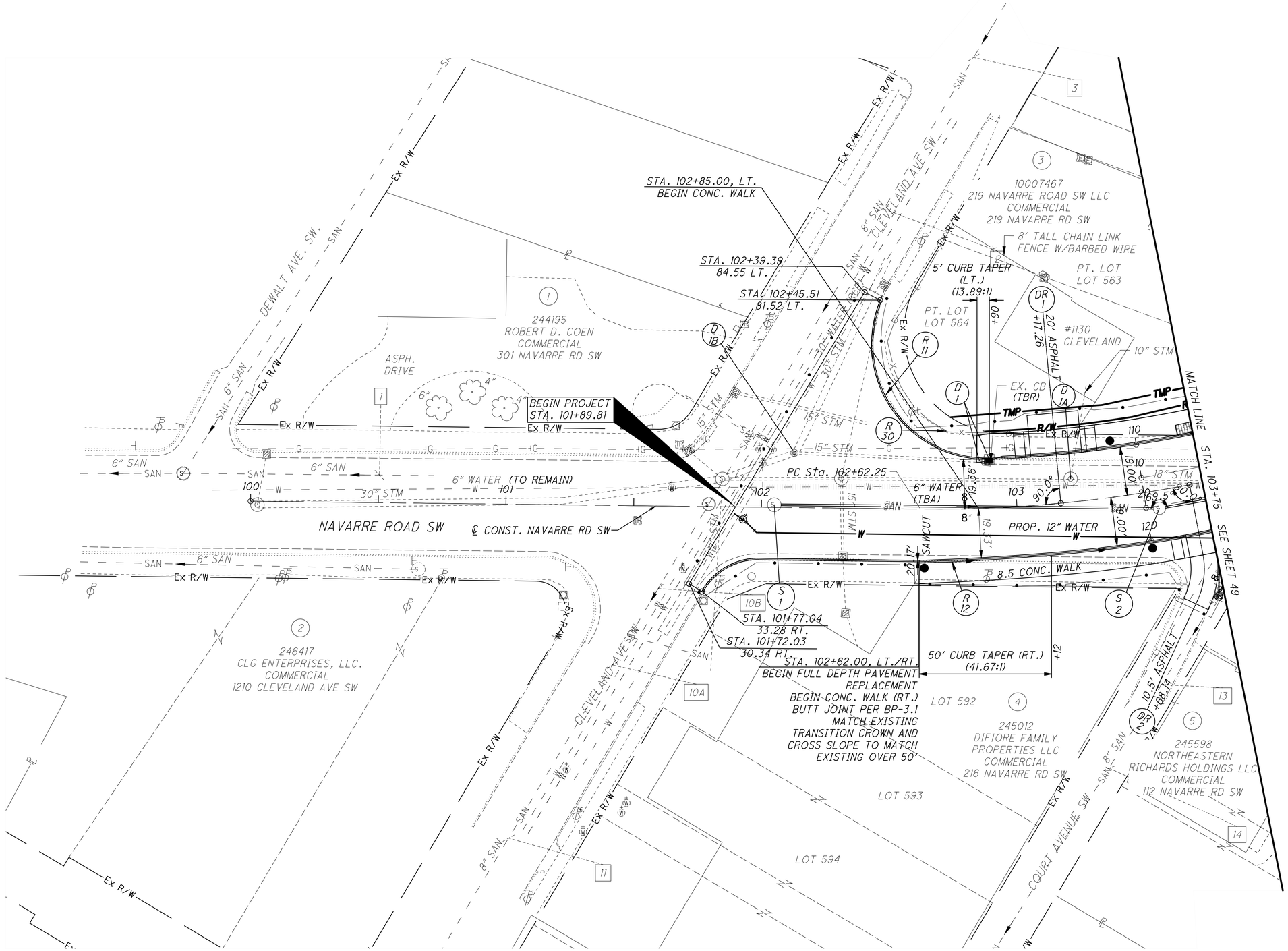

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE PROFILE, SEE SHEET 48.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

SANITARY LATERAL CONNECTIONS:

1 - 301 NAVARRE RD SW
2 - 1130 CLEVELAND AVE SW
3 - 219 NAVARRE RD SW
10A - 216 NAVARRE RD SW (#1)
10B - 216 NAVARRE RD SW (#2)
11 - 216 NAVARRE RD SW (#3)
13 - 112 NAVARRE RD SW
14 - 1213 MARKET AVE SW

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
BEGINNING TO STA. 103+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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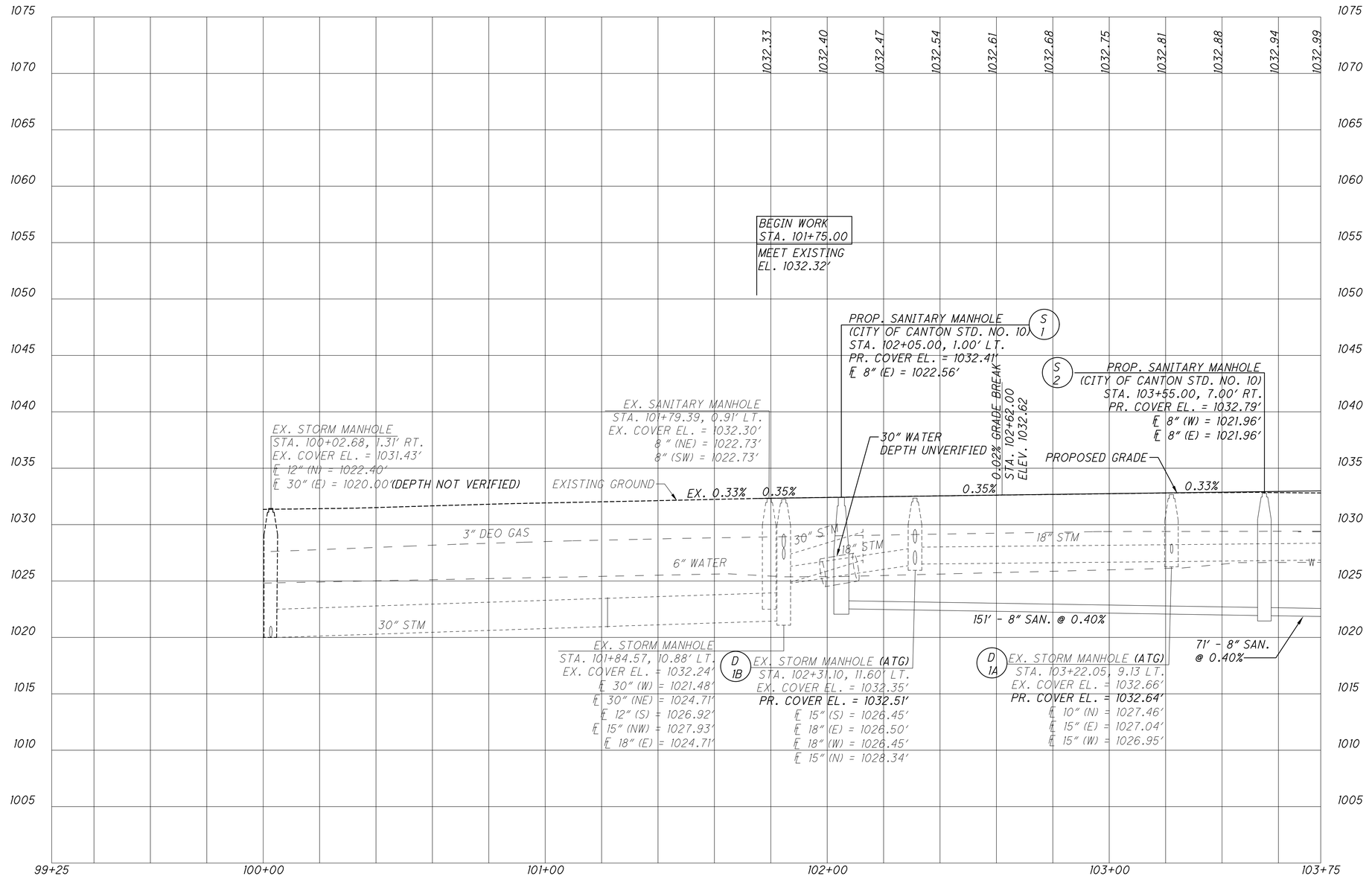

CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
BEGINNING TO STA. 103+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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BENCHMARK TBM #7
CHISELED SQUARE ON 18" CONC. FOUNDATION FOR LIGHT POLE, SOUTH OF 11TH ST., 34' EAST OF ℄ OF MARKET AVENUE STA. 17+17, 32' RT.
ELEV. 1036.05

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR ROUNDABOUT GEOMETRIC DETAILS, SEE SHEETS 4-5.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR MARKET AVENUE S PROFILE, SEE SHEET 106.

FOR MARKET AVENUE S CROSS SECTIONS, SEE SHEETS 109-127.

FOR ROUNDABOUT INSCRIBED CIRCLE PROFILE, SEE SHEET 151.

FOR INTERSECTION DETAILS, SEE SHEETS 155-157.

FOR 11TH STREET SE PROFILE, SEE SHEET 50.

FOR ROUNDABOUT AND SPLITTER ISLAND DETAILS, SEE SHEETS 152-154.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

FOR PROFILE FROM S3B TO S3C, SEE SHEET 68 (CROSS SECTION 104+00).

SANITARY LATERAL CONNECTIONS:

4 - 108 BORNIQUE PL SW
12 - 104 NAVARRE RD SW
16 - 1200 MARKET AVE S

◇ - PIPE IDENTIFIED IN DRAINAGE STRUCTURE SURVEY, BUT LOCATION AND DISCHARGE SOURCE (IF ANY) IS UNKNOWN

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
STA. 103+75.00 TO STA. 108+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

49
302

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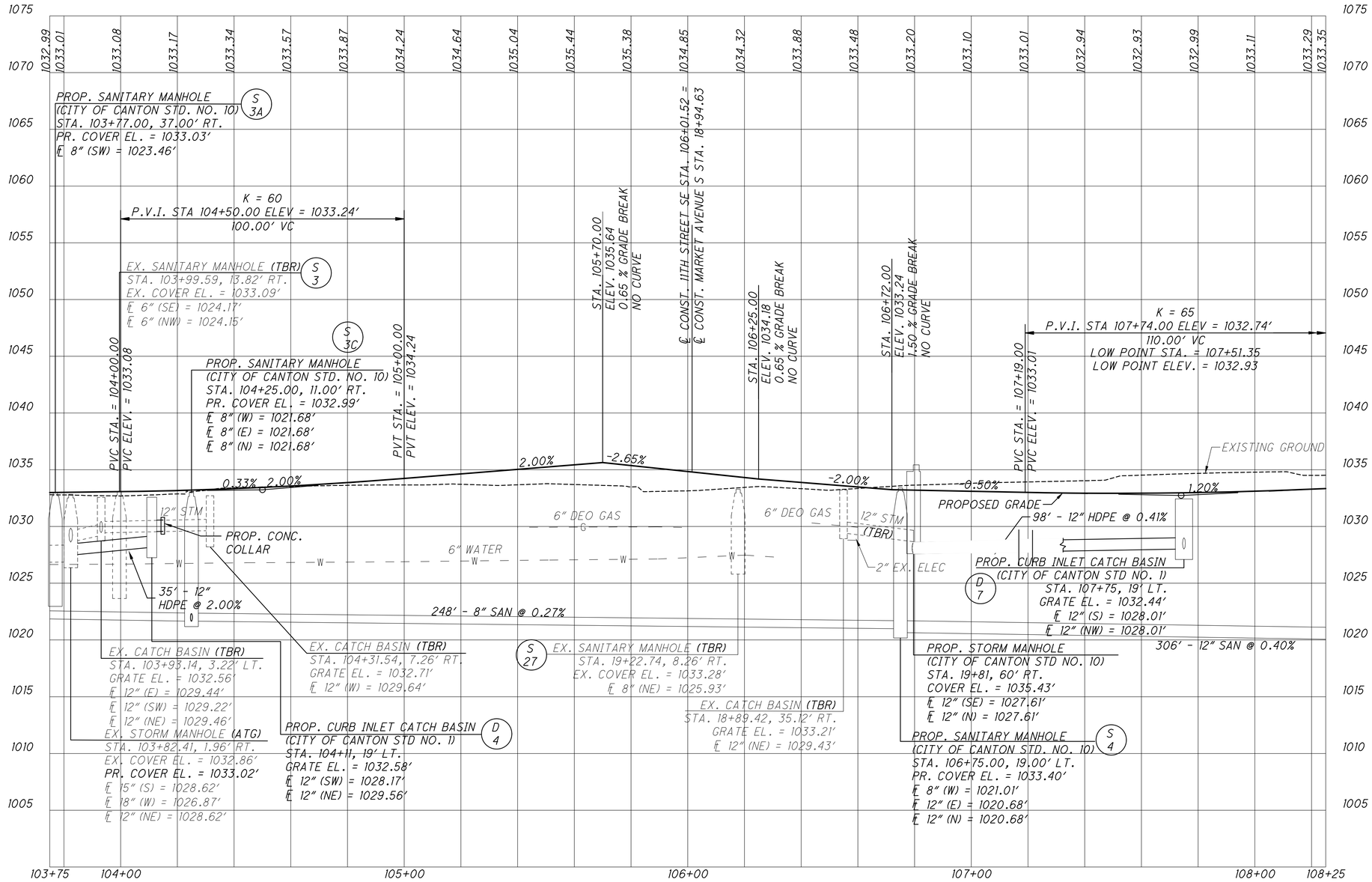

CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
STA. 103+75.00 TO STA. 108+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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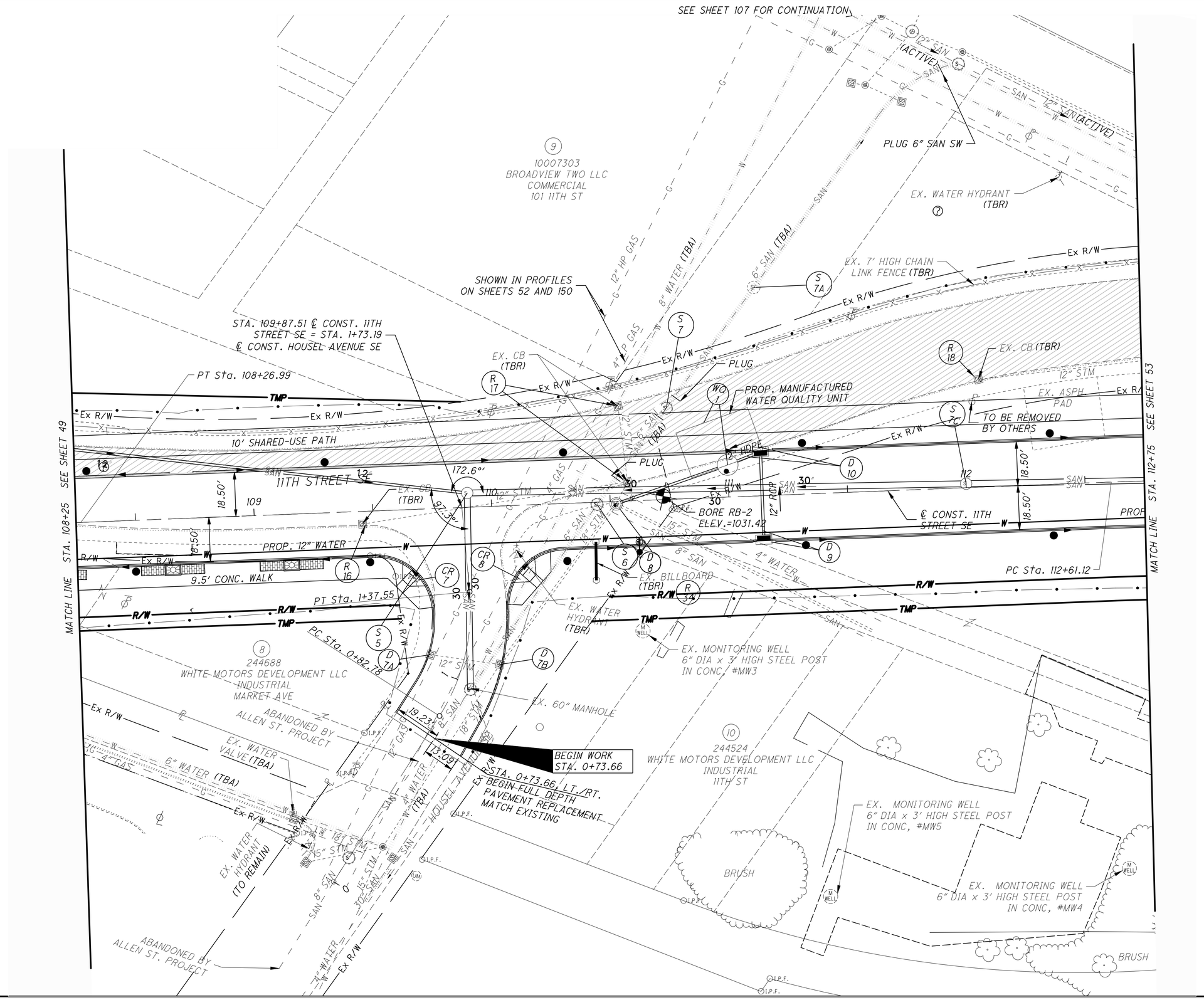

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR HOUSEL AVENUE SE PROFILE, SEE SHEET 150.

FOR INTERSECTION DETAILS, SEE SHEETS 155-157.

FOR 11TH STREET SE PROFILE, SEE SHEET 52.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
STA. 108+25.00 TO STA. 112+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

51
302

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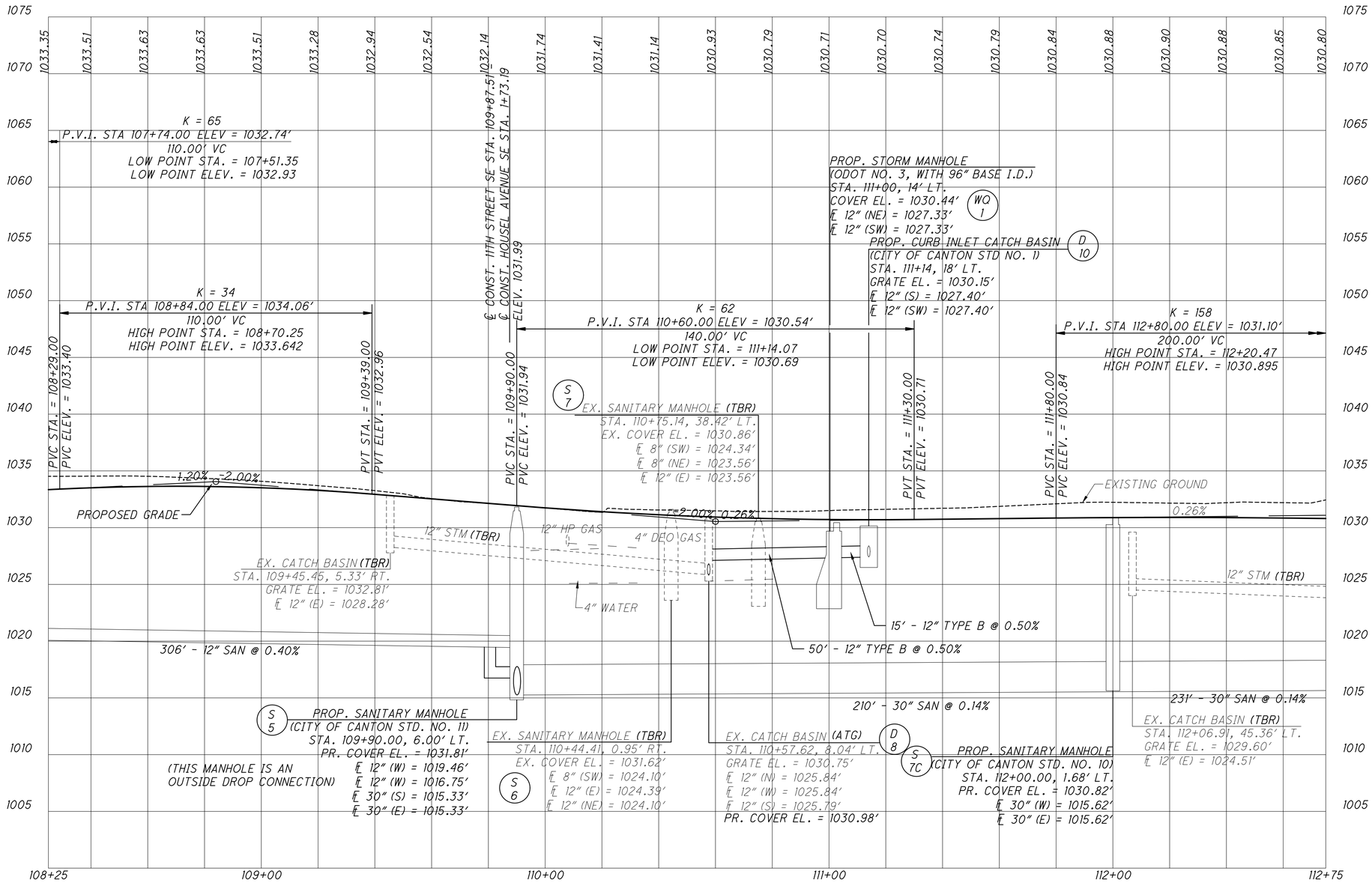

CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
STA. 108+25.00 TO STA. 112+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

52
302

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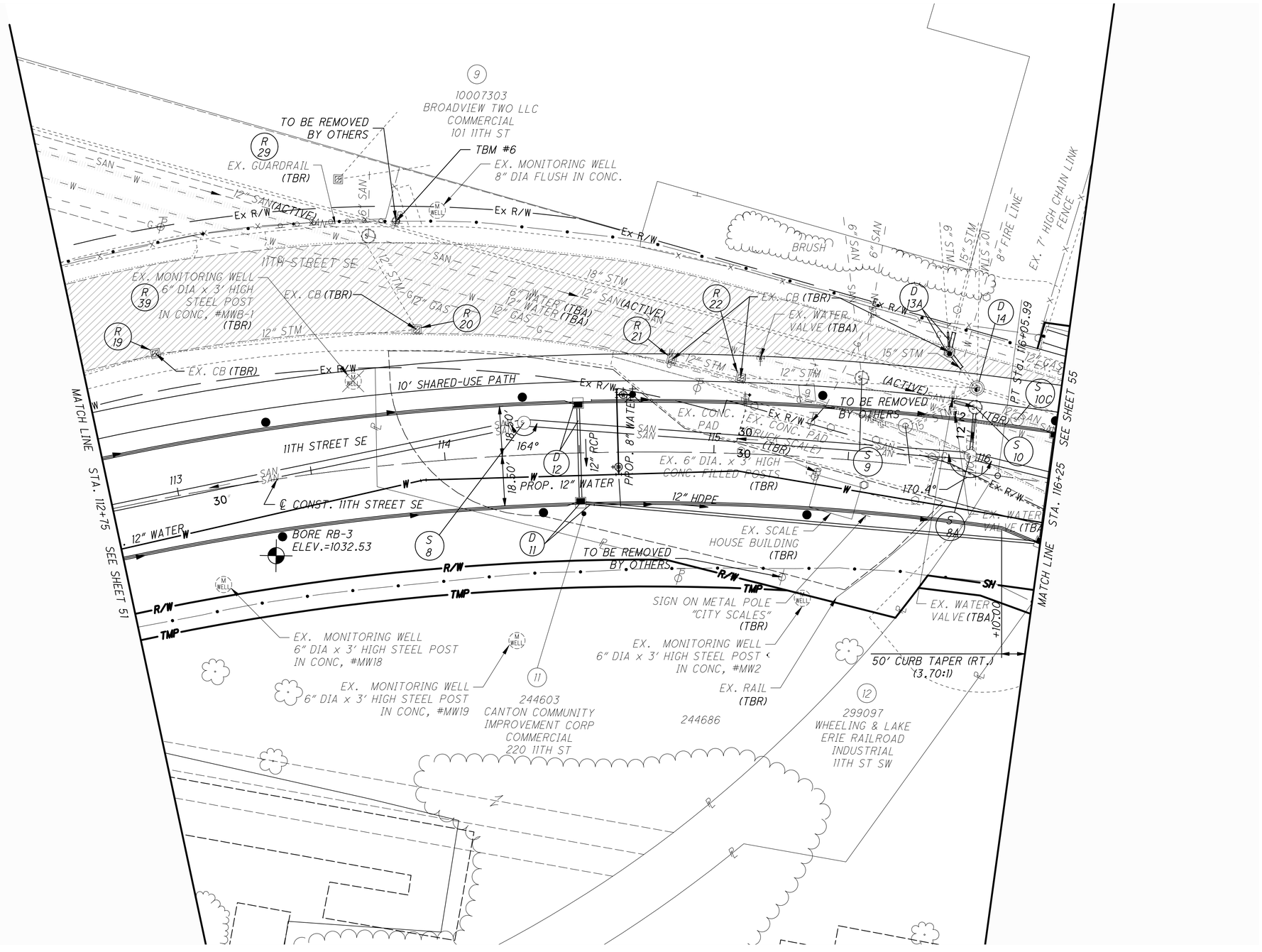

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR 11TH STREET SE PROFILE, SEE SHEET 54.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

SANITARY LATERAL CONNECTIONS:

9 - 240 11TH ST SE (SCALE BUILDING)
- TO BE REMOVED/PLUGGED

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
STA. 112+75.00 TO STA. 116+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

53
302

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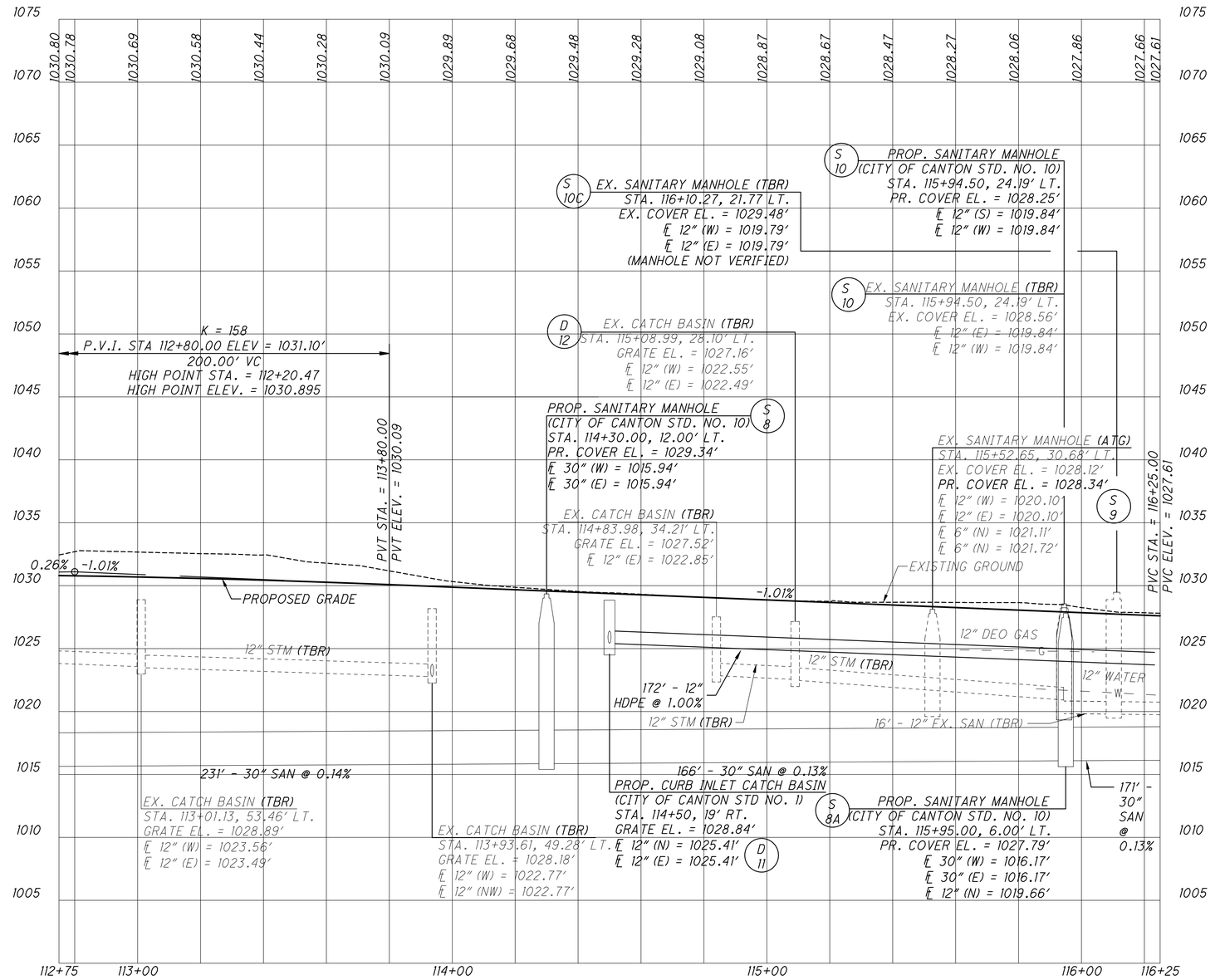

CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
STA. 112+75.00 TO STA. 116+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

54
302

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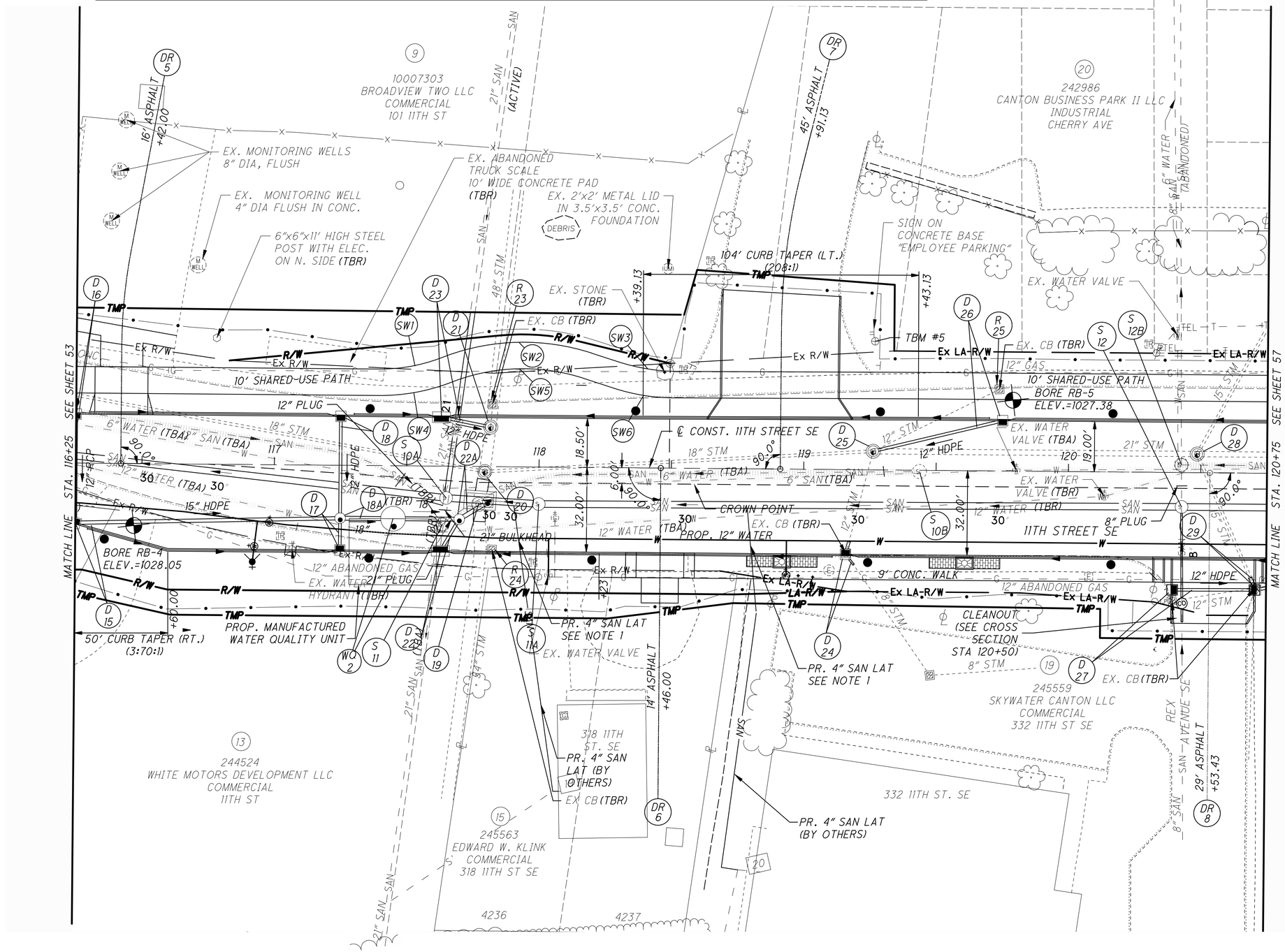
CURVE	P.I.		DELTA	Dc	TANGENT LENGTH (FT)	ARC LENGTH (FT)	RADIUS (FT)	P.C.		P.T.	
	STA.	OFFSET						STA.	OFFSET	STA.	OFFSET
SW1	117+50.86	36.50' LT	20°36'48"	89°31'29"	11.64'	23.03'	64'	117+39.22	36.50' LT	117+61.76	40.60' LT
SW2	117+91.87	51.93' LT	38°09'21"	68°12'33"	29.05'	55.94'	84'	117+64.68	41.70' LT	118+19.57	43.17' LT
SW3	118+40.65	36.51' LT	17°49'01"	77°25'36"	11.60'	23.01'	74'	118+29.59	40.00' LT	118+52.25	36.56' LT
SW4	117+52.68	26.50' LT	20°36'48"	77°25'36"	13.46'	26.62'	74'	117+39.22	26.50' LT	117+65.28	31.24' LT
SW5	117+92.16	41.35' LT	38°09'21"	77°25'36"	25.59'	49.28'	74'	117+68.20	32.34' LT	118+16.56	33.63' LT
SW6	118+39.13	26.50' LT	17°49'01"	77°25'36"	11.60'	23.01'	74'	118+28.07	30.00' LT	118+50.73	26.56' LT



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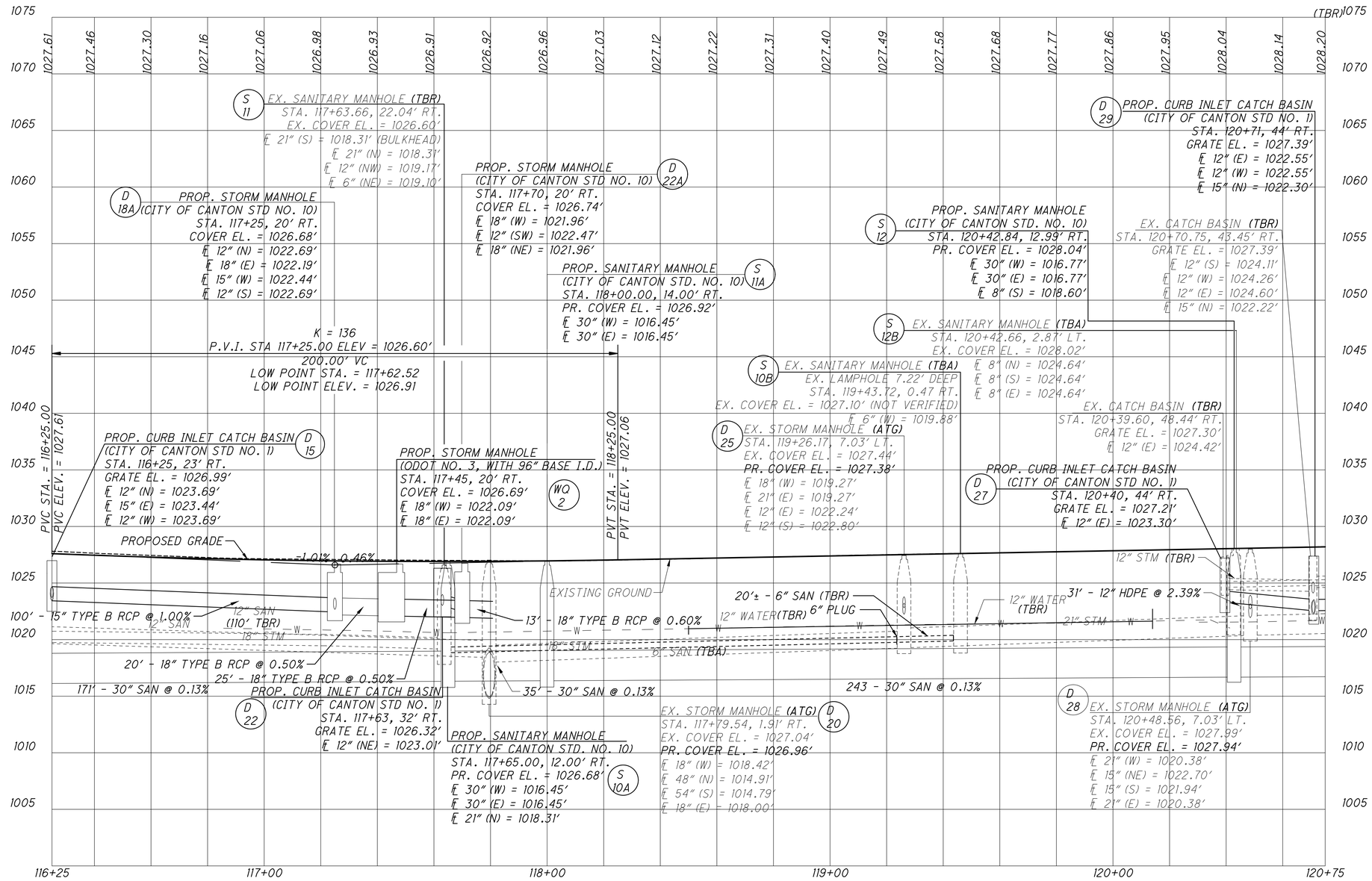

CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
STA. 116+25.00 TO STA. 120+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

56
302

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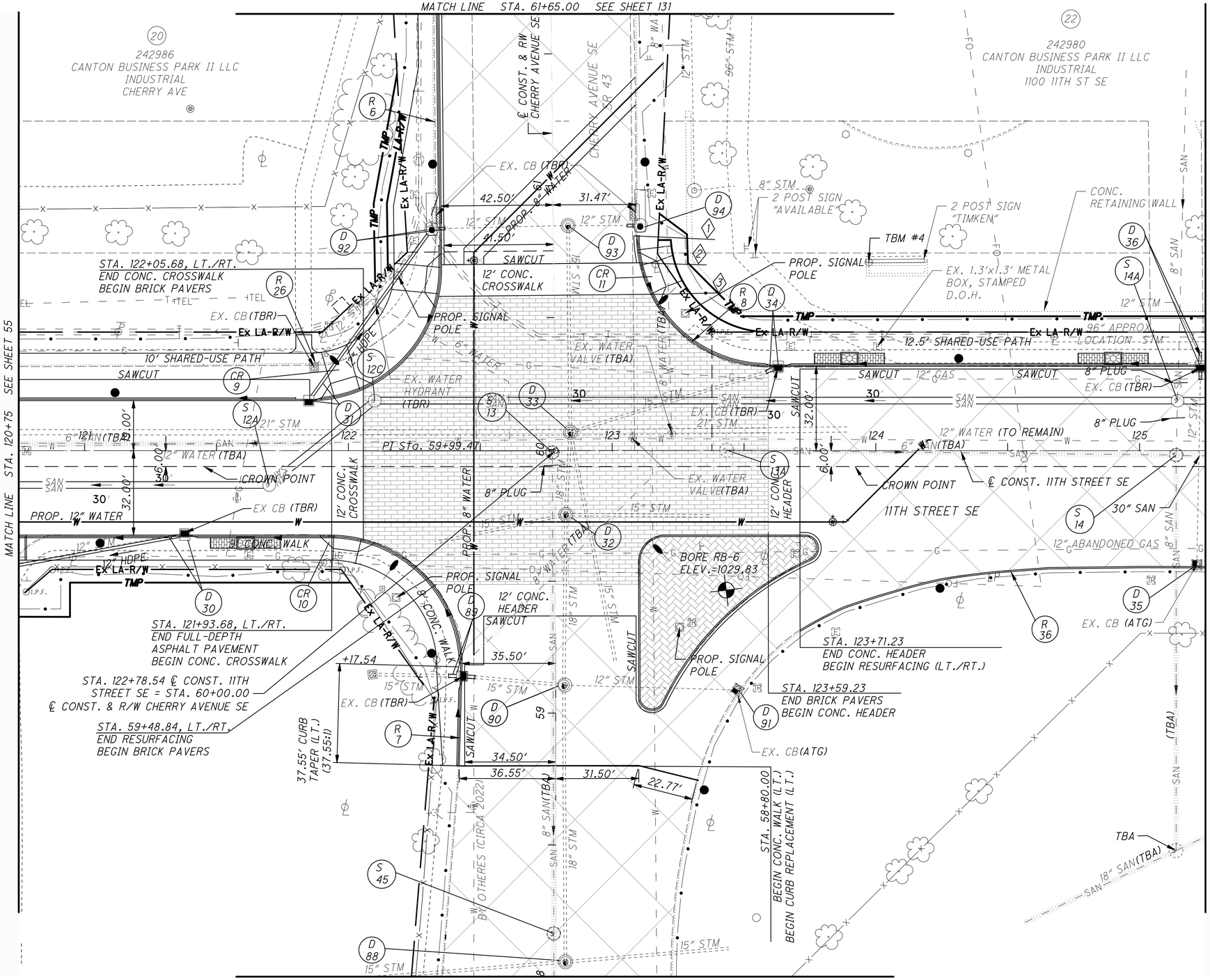

BENCHMARK TBM #4
CHISELED SQUARE ON S.W. CORNER OF CONC. FOUNDATION OF TIMKEN SIGN, 138' N.E. OF CHERRY AVE. SE & 11TH ST. SE INTERSECTION
STA. 123+97, 71' LT.
ELEV. 1032.44

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR INTERSECTION DETAILS, SEE SHEETS 155-157.

FOR 11TH STREET SE PROFILE, SEE SHEET 58.

FOR CHERRY AVENUE SE PLAN AND PROFILE, SEE SHEETS 128-131

FOR PLAN VIEW LEGEND, SEE SHEET 24.

1. STA. 60+80.69, LT.
   END PROP. CONC. CURB (RT.)
2. STA. 60+70.46, LT./RT.
   BEGIN RESURFACING
   END CONC. CROSSWALK
   BEGIN PROP. CONC. CURB (RT.)
3. STA. 60+58.46, LT./RT.
   BEGIN CONC. CROSSWALK (RT.)
   END BRICK PAVERS
4. PIPE IDENTIFIED IN STRUCTURE, DIP INFORMATION, BUT LOCATION UNKNOWN

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
STA. 120+75.00 TO STA. 125+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

57
302

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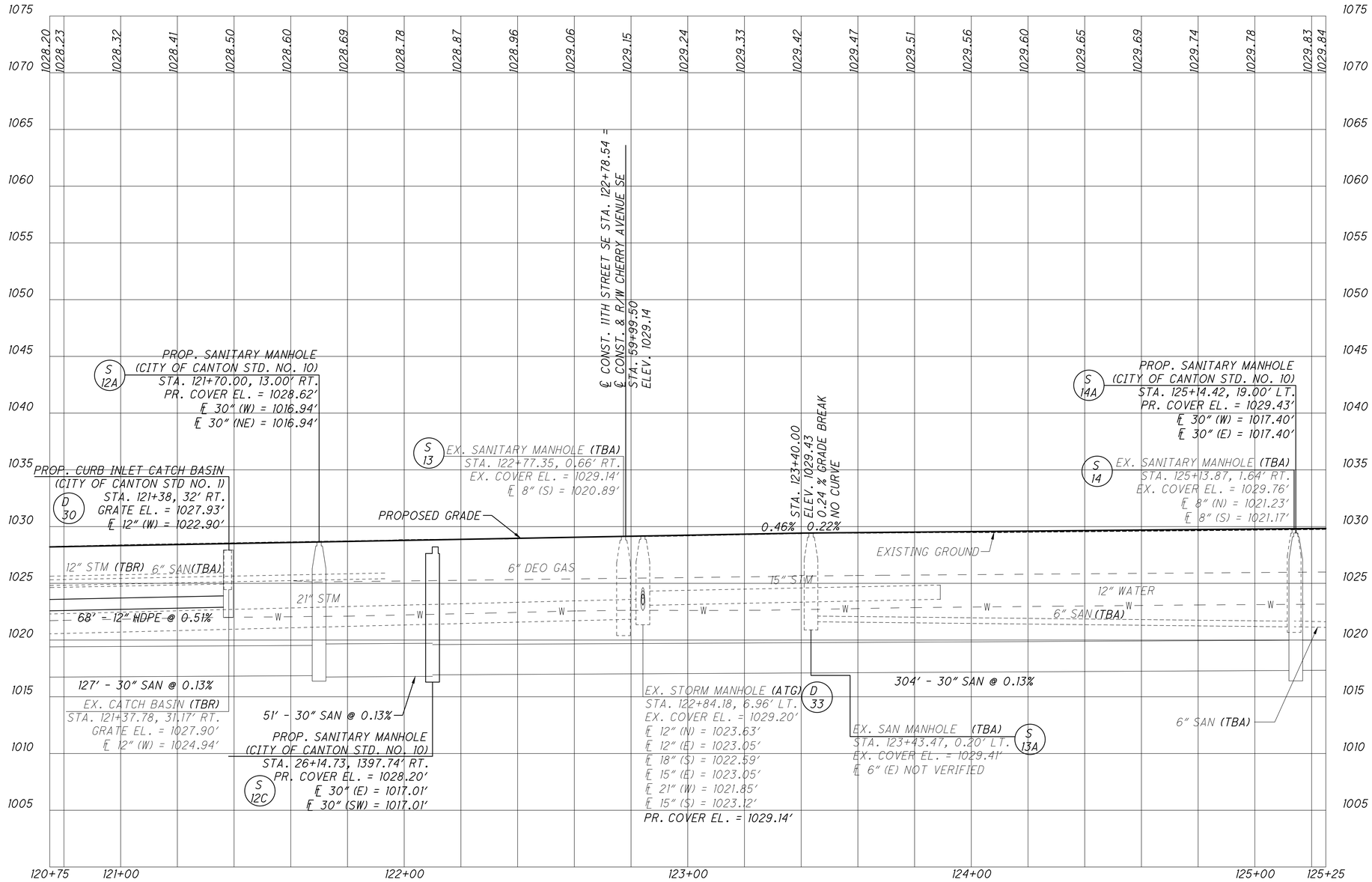

PROFILE - 11TH STREET SE
STA. 120+75.00 TO STA. 125+25.00

CALCULATED JPK
CHECKED JES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

58
302

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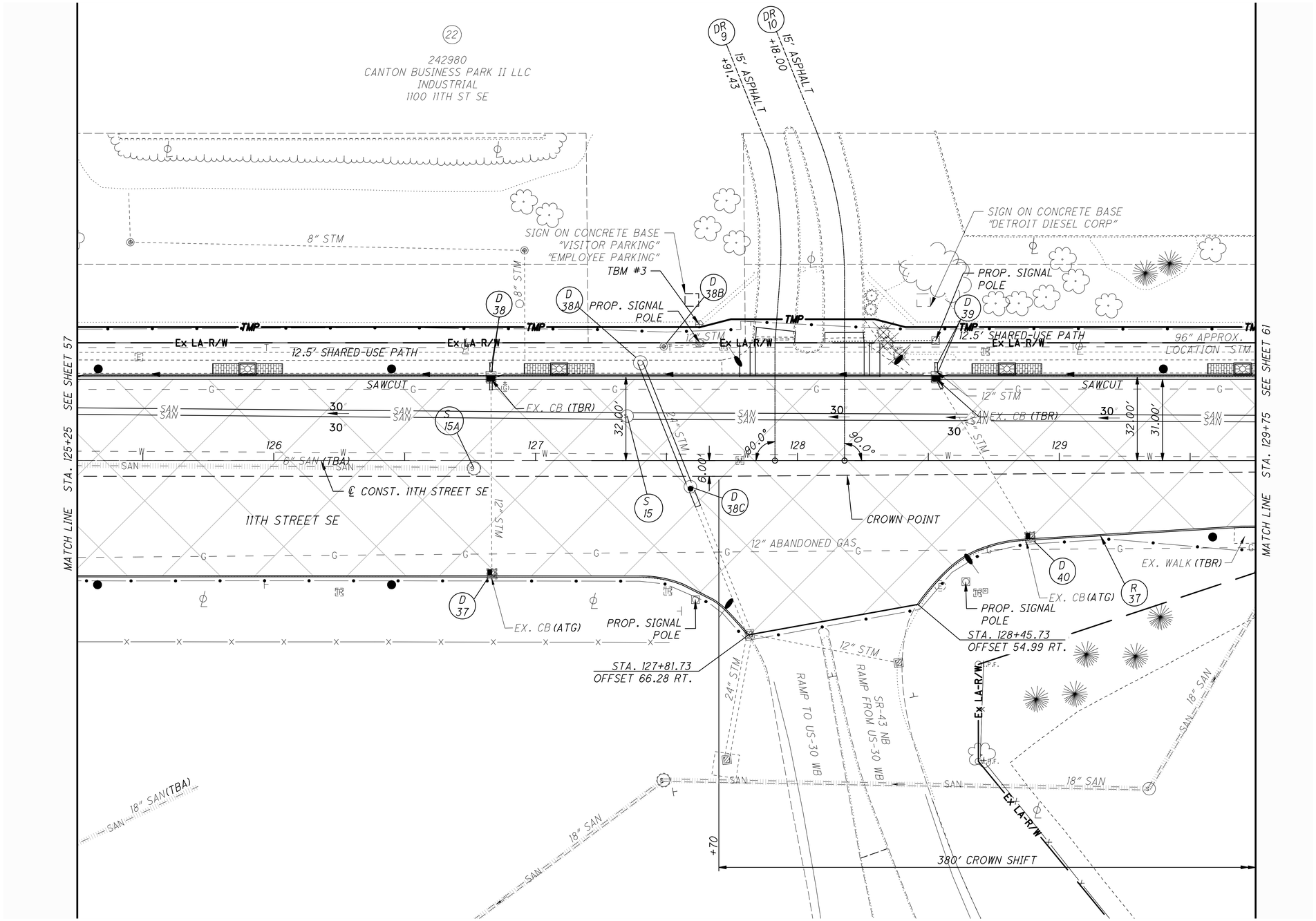

BENCHMARK TBM #3
CHISELED SQUARE AT ANGLE POINT ON RETAINING WALL, 43' W OF ℄ ASPH. DRIVE TO TIMKEN PARKING LOT, 58' N OF ℄ OF 11TH STREET SE
STA. 127+62, 52' LT.
ELEV. 1031.97

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR 11TH STREET SE PROFILE, SEE SHEET 60.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET
STA. 125+25.00 TO STA. 129+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

59
302

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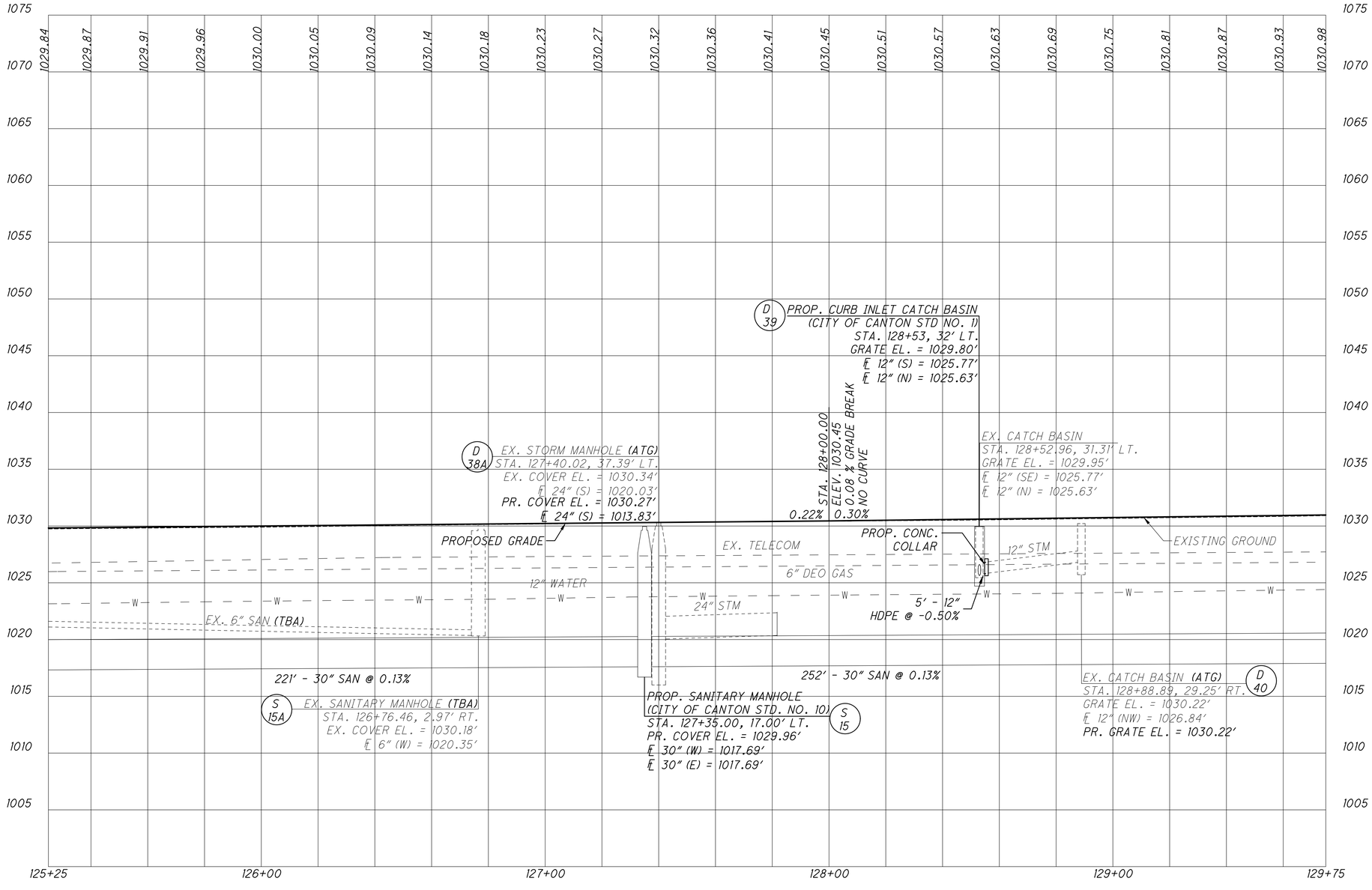

CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
STA. 125+25.00 TO STA. 129+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

60
302

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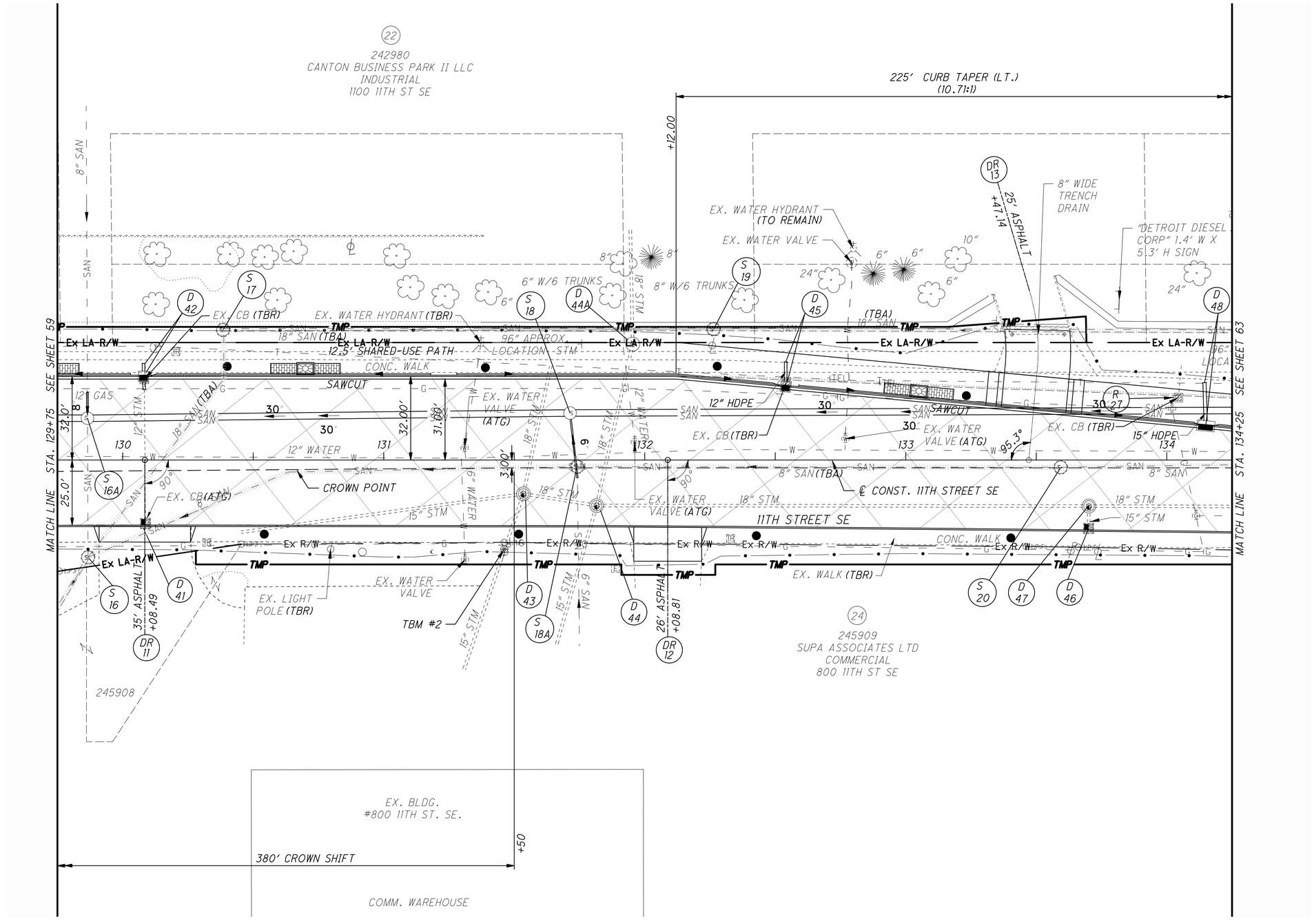

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
STA. 129+75.00 TO STA. 134+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

61
302

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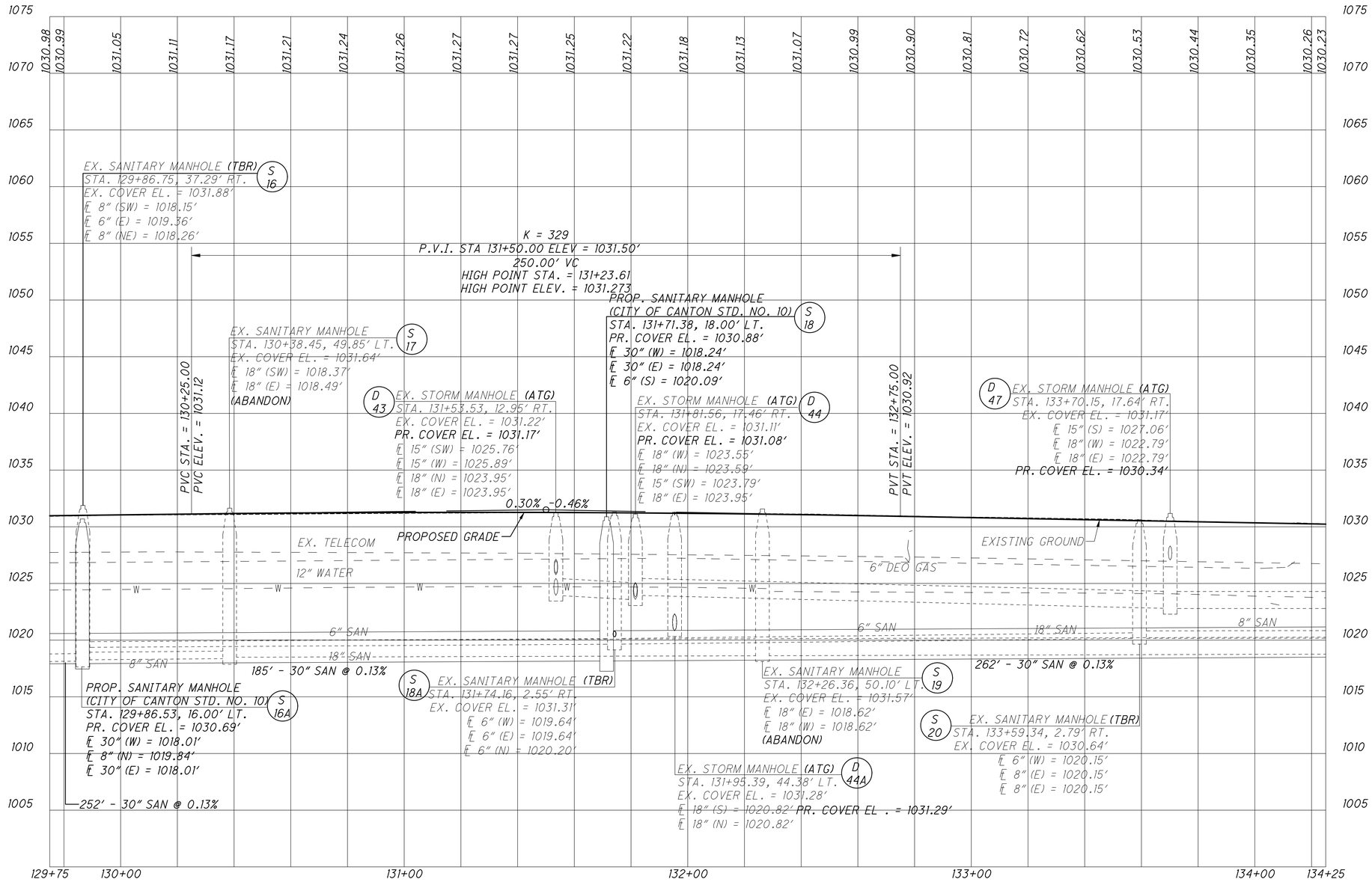

PROFILE - 11TH STREET SE
STA. 129+75.00 TO STA. 134+25.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

CALCULATED JPK
CHECKED JES

62
302

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BENCHMARK TBM #10
CHISELED "X" IN NORTHERLY BOLT, 44' SOUTH OF ℄ OF 11TH STREET SE & 32' EAST OF ℄ OF MADISON COURT SE
STA. 137+40, 47' RT.
ELEV. 1031.37

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR 11TH STREET SE PROFILE, SEE SHEET 64.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

SEE SHEET 99 FOR SANITARY PROFILE S-21A TO S-21.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN - 11TH STREET SE
STA. 134+25.00 TO STA. 138+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

63
302

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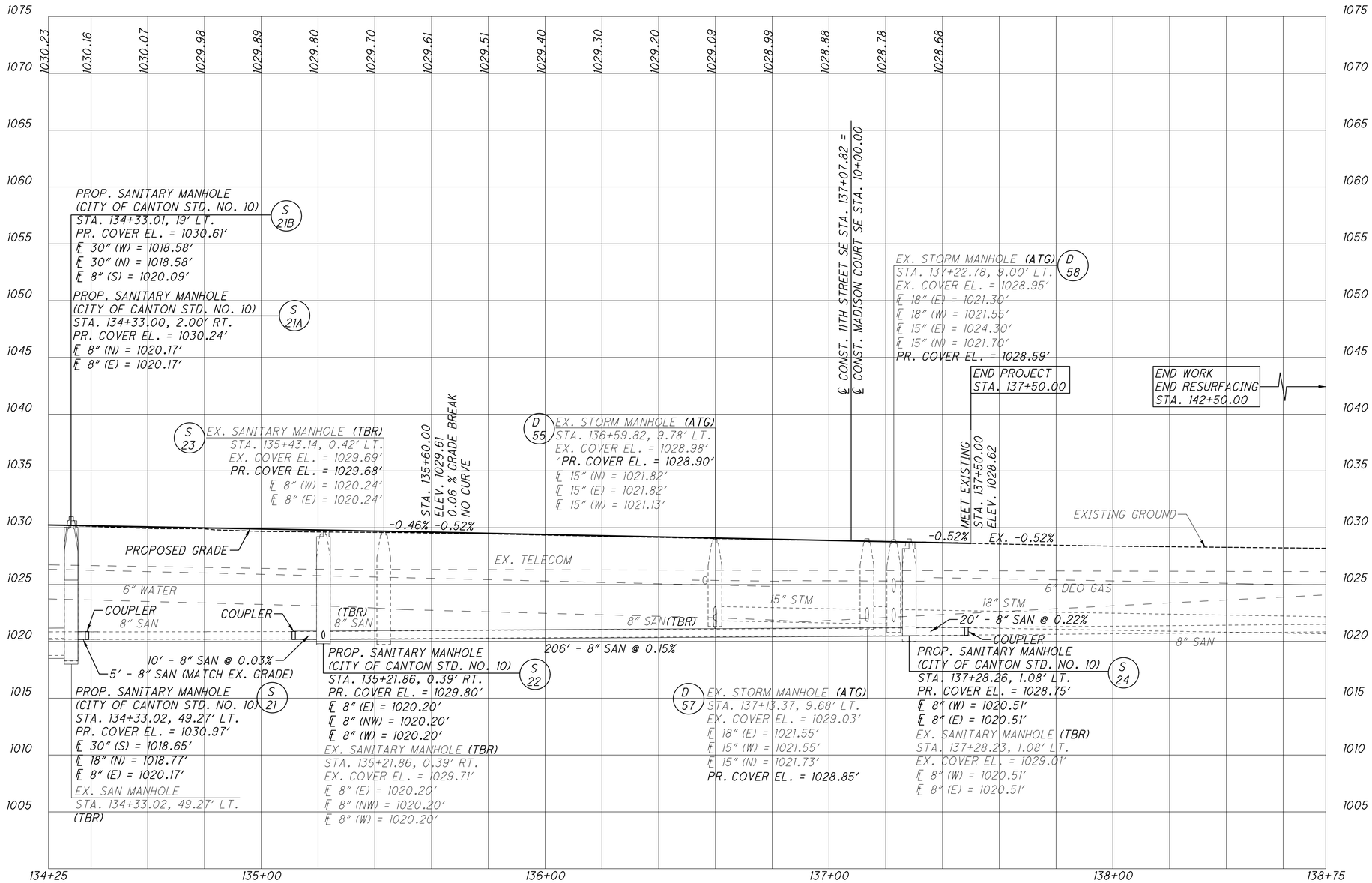

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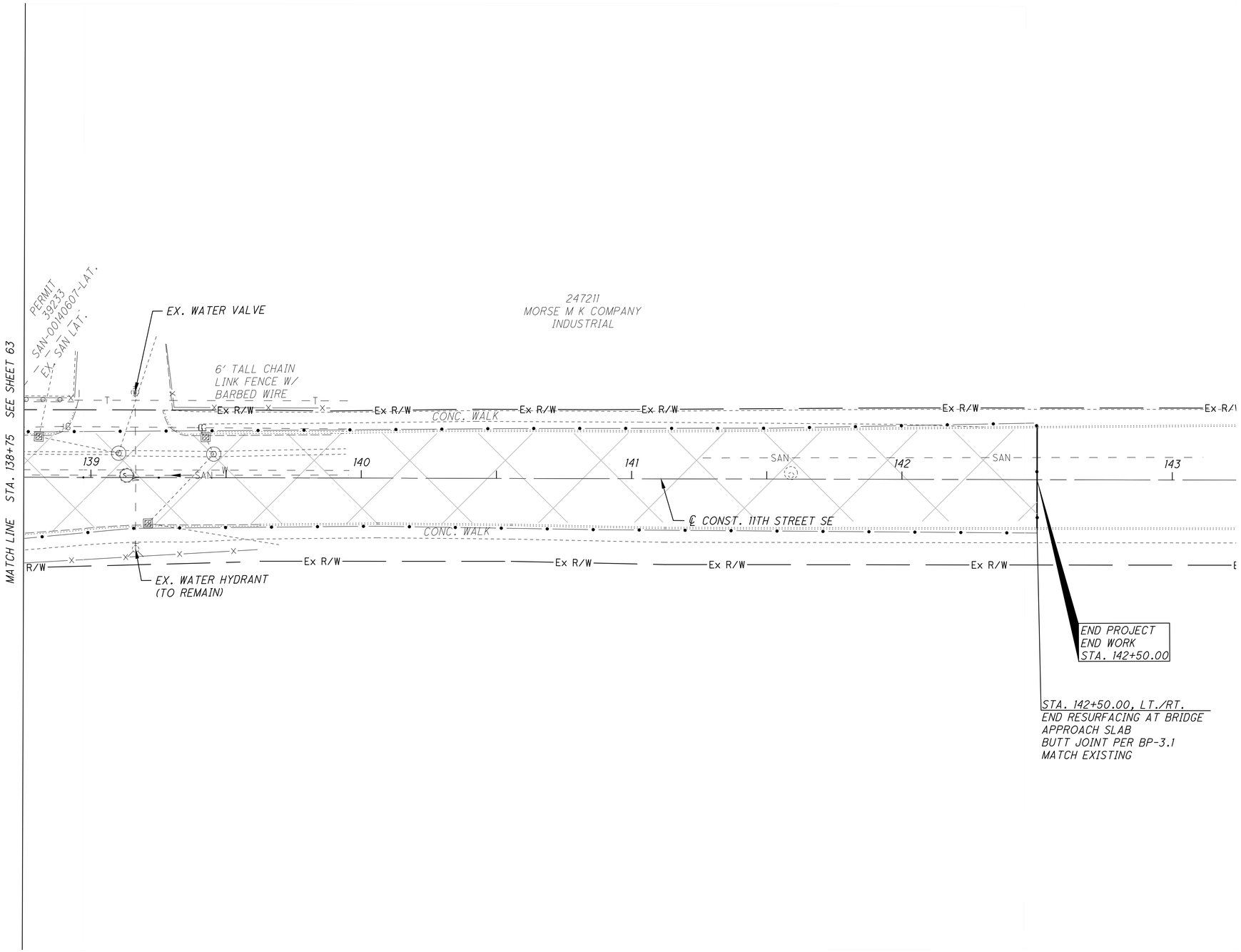
CALCULATED JPK
CHECKED JES

PROFILE - 11TH STREET SE
STA. 134+25.00 TO STA. 138+75.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)



NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR 11TH STREET SE CROSS SECTIONS, SEE SHEETS 65-104.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED CALCULATED
CHECKED CHECKED

PLAN - 11TH STREET SE
STA. 138+75.00 TO END

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

64A
302

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

- EXISTING PAVEMENT REMOVAL
- UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 100+50.00 TO STA. 101+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

65
302

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SEEDING	
END WIDTH	SQ. YDS.

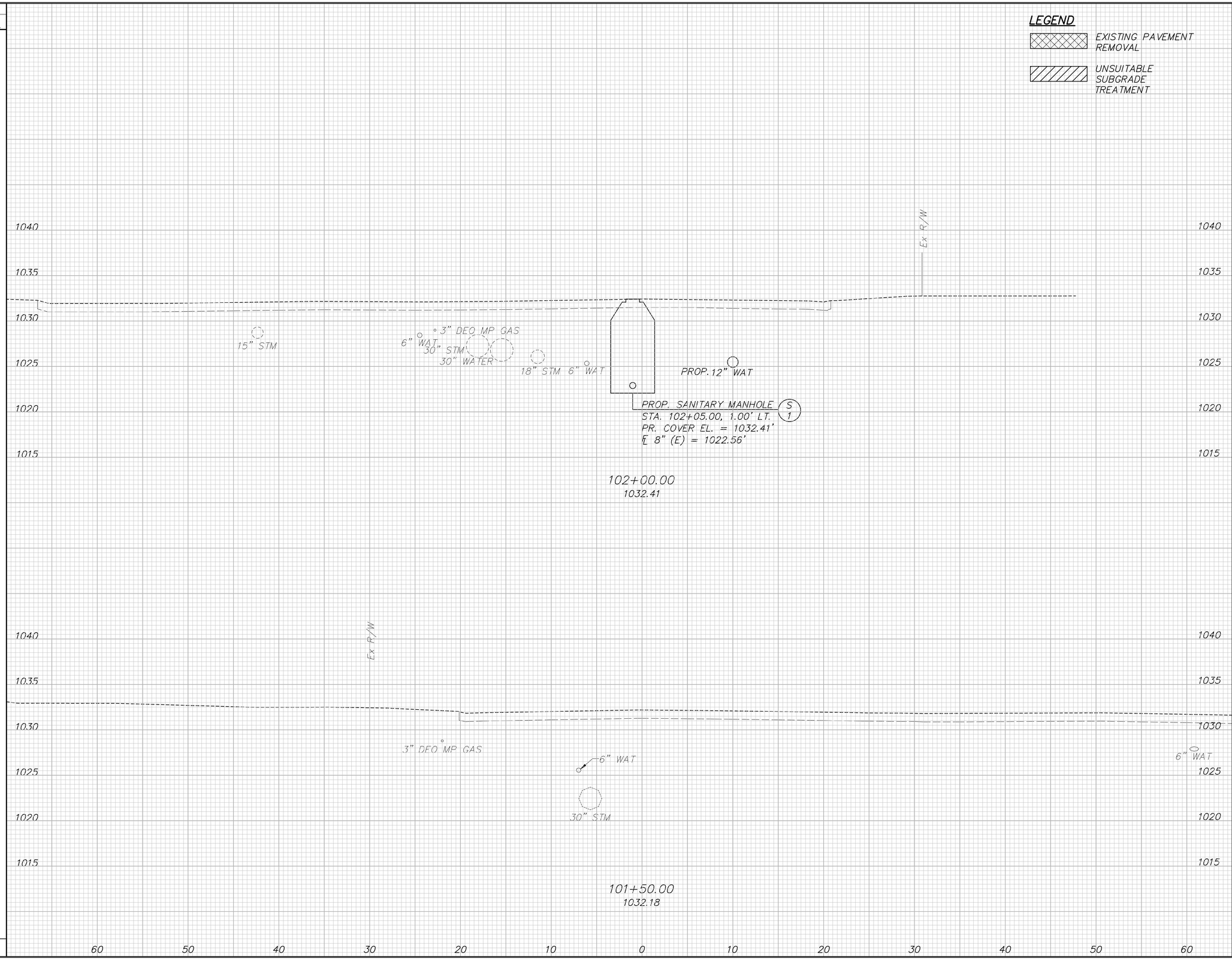
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 101+50.00 TO STA. 102+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

66
302

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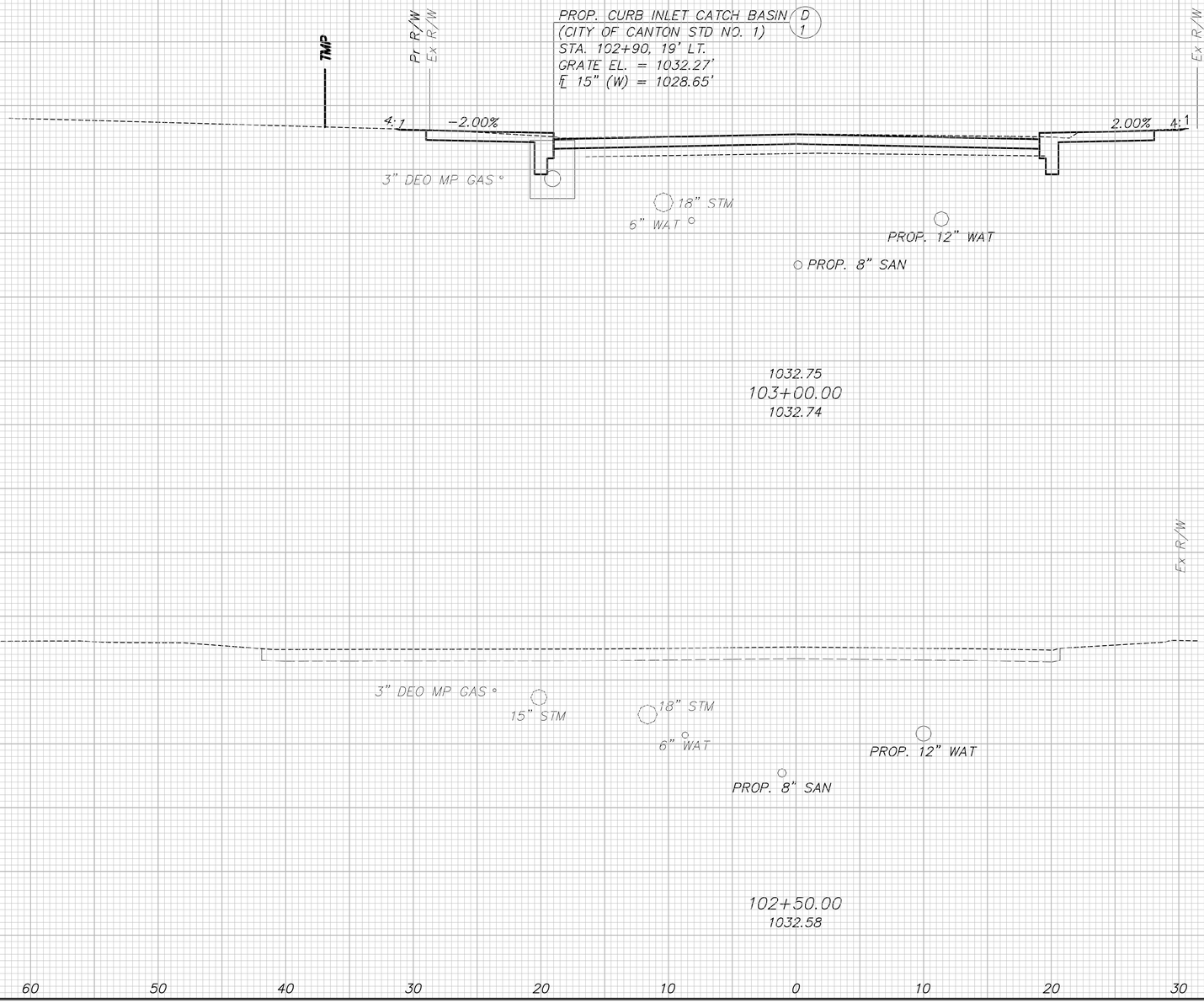
SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
JPK	JES

CROSS SECTIONS - 11TH STREET SE
STA. 102+50.00 TO STA. 103+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

67
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

- EXISTING PAVEMENT REMOVAL
- UNSUITABLE SUBGRADE TREATMENT

(S 3B) PROP. SANITARY MANHOLE
STA. 104+25.00, 11.00' LT.
PR. COVER EL. = 1032.92'
℄ 8" (S) = 1021.90'
℄ 8" (NE) = 1023.56'

(S 3C) PROP. SANITARY MANHOLE
STA. 104+25.00, 11.00' RT.
PR. COVER EL. = 1032.99'
℄ 8" (W) = 1021.68'
℄ 8" (E) = 1021.68'
℄ 8" (N) = 1021.68'

PROP. CURB INLET CATCH BASIN (D 2)
(CITY OF CANTON STD NO. 1)
STA. 103+83, 19' RT.
GRATE EL. = 1032.47'
℄ 12" (E) = 1029.13'
℄ 15" (N) = 1029.13'
℄ 6" (S) = 1029.68'

SEE DRIVE PROFILE SHEET 161

TMP
Pr. R/W
Ex. R/W
Ex. R/W
Ex. R/W

4:1 −2.00%
2.00% 4:1

35' – 12" HDPE @ 2.00%
12" STM (TBR)
EX. TELECOM
12" STM
15" STM
6" STM
5' – 12" HDPE @ 0.40%
6" WAT
17' – 6" HDPE @ 0.50%
PROP. 12" WAT
5' – 15" RCP @ 3.00%

(D 4) PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 104+11, 19' LT.
GRATE EL. = 1032.58'
℄ 12" (SW) = 1028.17'
℄ 12" (NE) = 1029.56'

22' – 8" SAN @ 1.00%

EX. CATCH BASIN (TBR)
STA. 103+93.14, 3.22' LT.
GRATE EL. = 1032.56'
℄ 12" (E) = 1029.44'
℄ 12" (SW) = 1029.22'
℄ 12" (NE) = 1029.46'

EX. STORM MANHOLE (ATG) (D 3)
STA. 103+82.41, 1.96' RT.
EX. COVER EL. = 1032.86'
PR. COVER EL. = 1032.98'
℄ 15" (S) = 1028.62'
℄ 18" (W) = 1026.87'
℄ 12" (NE) = 1028.62'

EX. SANITARY MANHOLE (TBR) (S 3)
STA. 103+99.59, 13.82' RT.
EX. COVER EL. = 1033.09
℄ 8" (NE) = 1023.56'
℄ 8" (SW) = 1023.46'
℄ 6" (SE) = 1024.17'
℄ 6" (NW) = 1024.15'

EX. CATCH BASIN (TBR)
STA. 103+83.26, 33.99' RT.
GRATE EL. = 1032.61'
℄ 15" (N) = 1029.58'
℄ 6" (S) = 1029.76'

1033.08
104+00.00
1032.69

1050 1045 1040 1035 1030 1025 1020 1015 1010

3" DEO MP GAS
18" STM
6" WAT
PROP. 12" WAT
PROP. 8" SAN
EX. TELECOM

1032.91
103+50.00
1032.86

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 103+50.00 TO STA. 104+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

68
302

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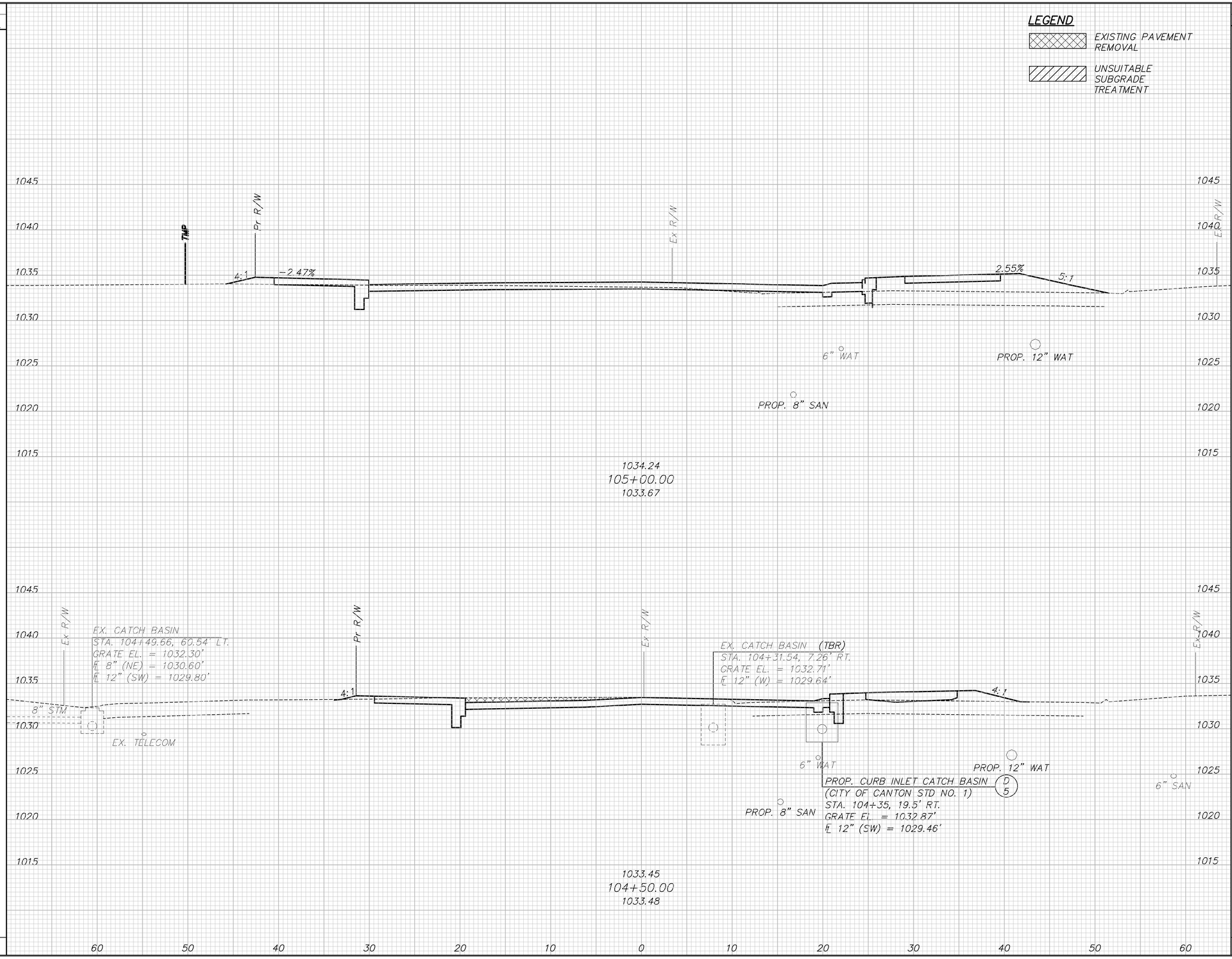
SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 104+50.00 TO STA.105+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

69
302

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SEEDING	
END WIDTH	SQ. YDS.

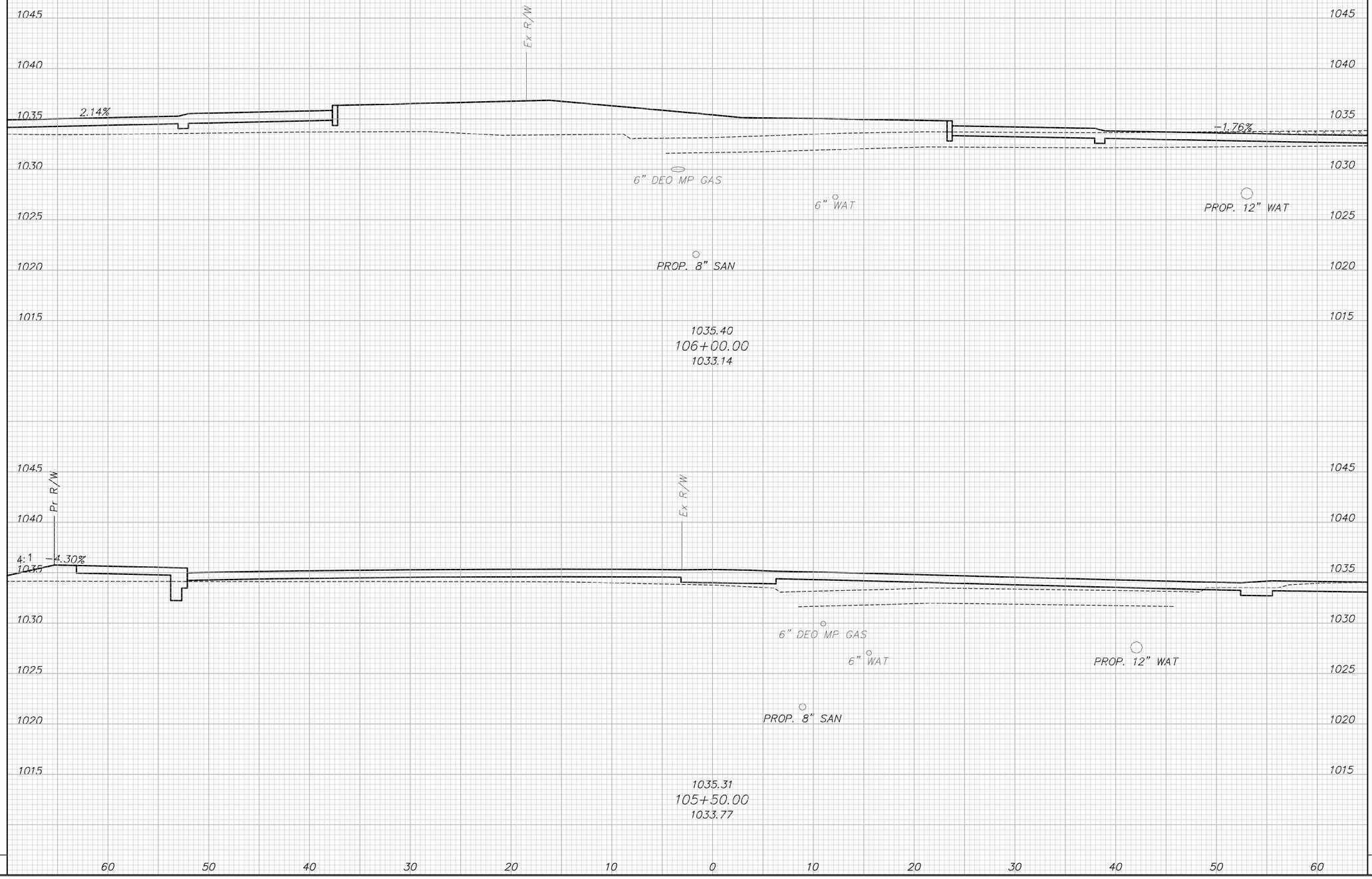
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 105+50.00 TO STA. 106+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

70
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

1045 1040 1035 1030 1025 1020 1015

Ex R/W

Pr. R/W

2.00%

4:1

4" DEO MP GAS

PROP. 12" STM

PROP. 12" SAN

PROP. 12" WAT

6" WAT

1033.10
107+00.00
1033.81

Ex R/W

2.00%

4:1

4" DEO MP GAS

6" DEO MP GAS

EX. ELEC

6" WAT

PROP. 12" WAT

6" WAT

104'– 12" SAN @ 0.40%

PROP. SANITARY MANHOLE (S 4)
STA. 106+75.00, 19.00' LT.
PR. COVER EL. = 1033.40'
℄ 12" (N) = 1020.68'
℄ 8" (W) = 1020.68'
℄ 12" (E) = 1020.68'

1033.69
106+50.00
1033.20

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 106+50.00 TO STA. 107+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

71
302

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SEEDING	
END WIDTH	SQ. YDS.

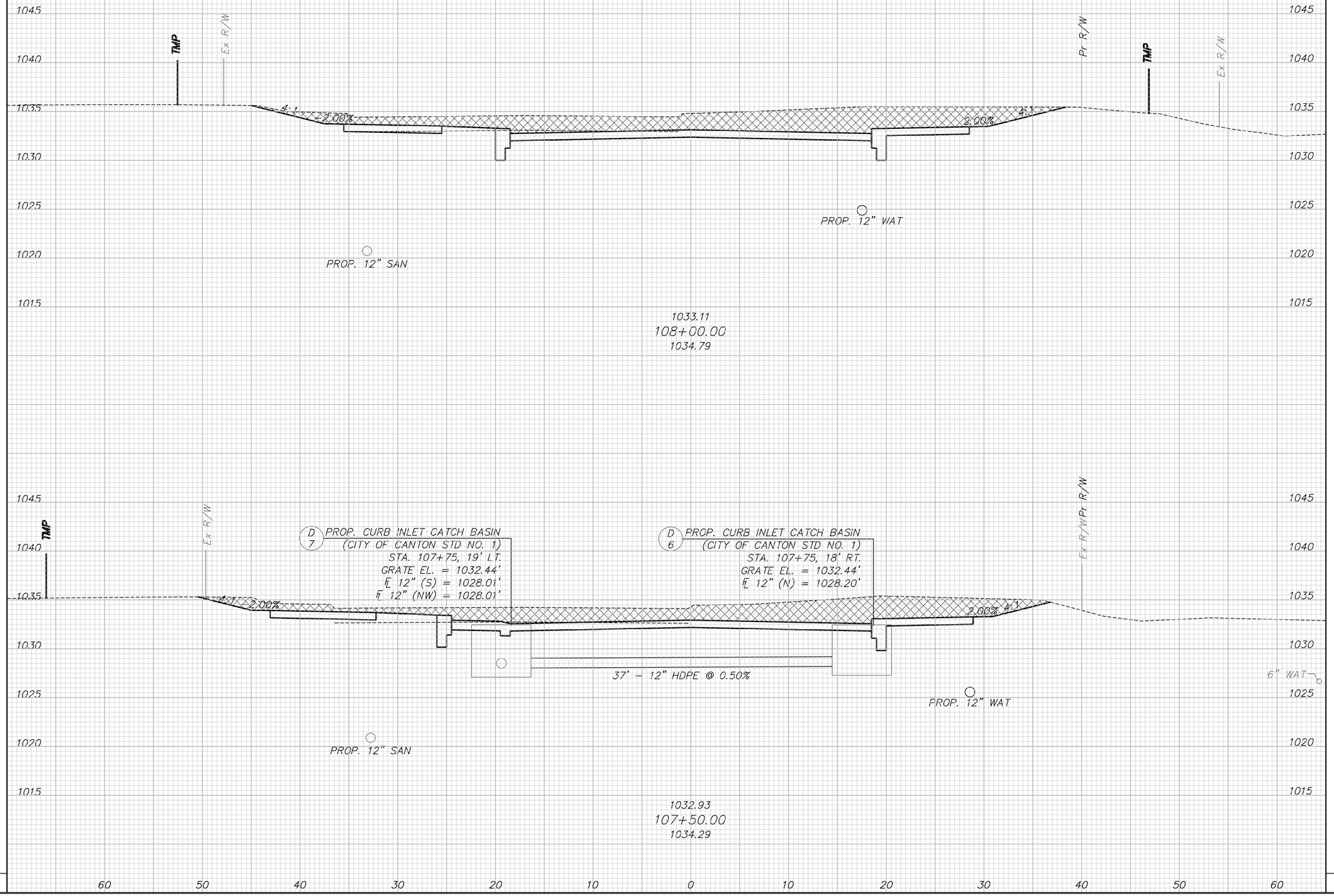
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 107+50.00 TO STA. 108+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

72
302

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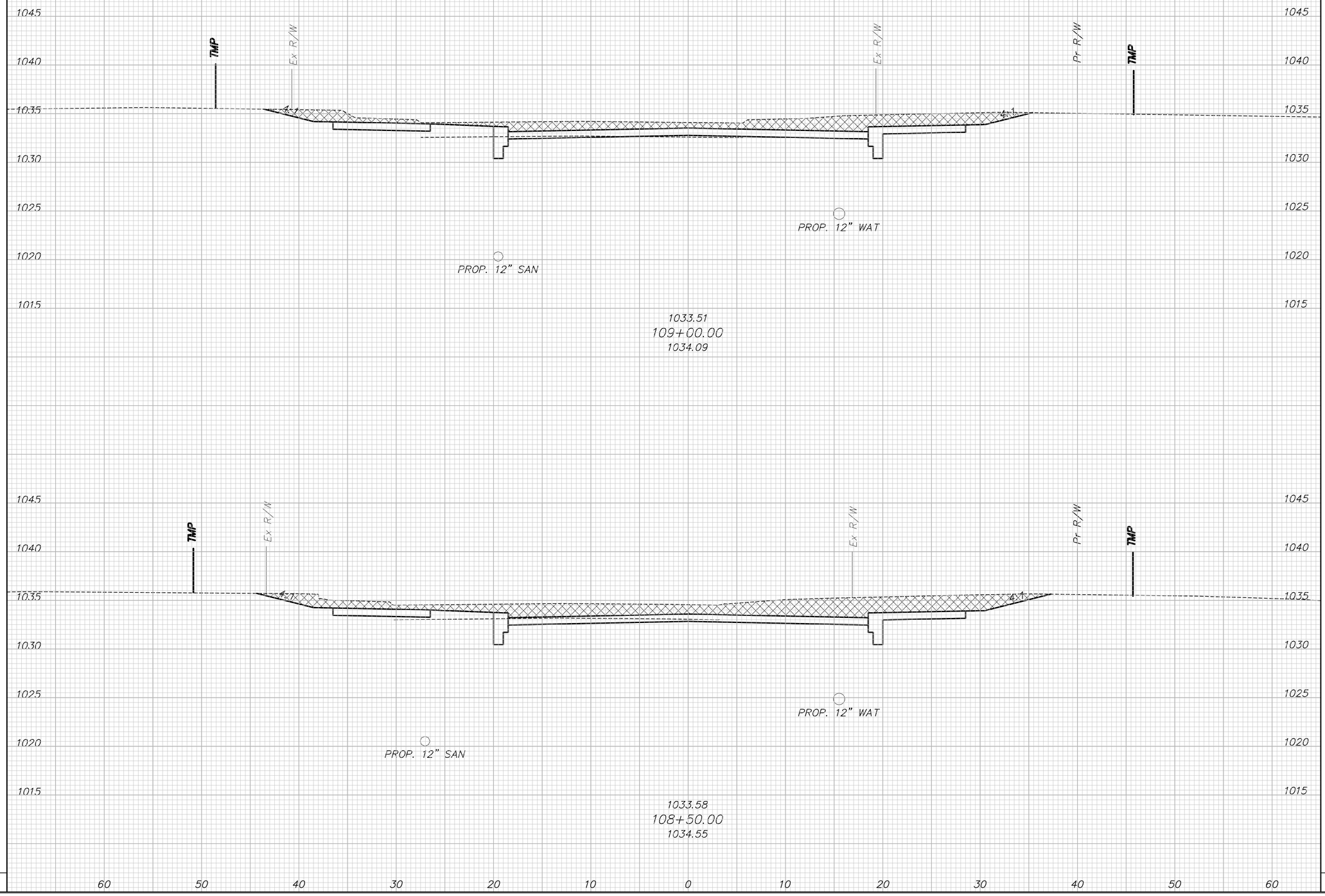
SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 108+50.00 TO STA. 109+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

73
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

PROP. SANITARY MANHOLE S 5
STA. 109+90.00, 6.00' LT.
PR. COVER = 1031.82'
℄ 30" (S) = 1015.33'
℄ 12" (W) = 1019.46'
℄ 30" (E) = 1015.33'

EX.. SANITARY MANHOLE
STA. 109+88.13, 76.70' RT.
EX. COVER = 1031.06'
EX. ℄ 8" (N) = 1024.71'
EX. ℄ 8" (E) = 1025.25'
EX. ℄ 8" (S) = 1024.71'
EX. ℄ 30" (S) = 1015.22' (ESTIMATED)
PROP. ℄ 30" (N) = 1015.22'

Ex R/W
Pr R/W
12:1
(TBR)12" DEO MP GAS
PROP. 12" WAT
4" DEO MP GAS
6" WAT
4" WAT
8" SAN
EX. 30" SAN
83' - 30" SAN @ 0.13%
1031.74
110+00.00
1031.73

TMP
Ex R/W
4:1 - 2.06%
Ex R/W
1.79%4:1
Pr R/W
TMP
12" STM (TBR)
PROP. 12" WAT
PROP. 12" SAN
1032.74
109+50.00
1032.99

1045
1040
1035
1030
1025
1020
1015

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 109+50.00 TO STA. 110+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

74
302

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SEEDING	
END WIDTH	SQ. YDS.

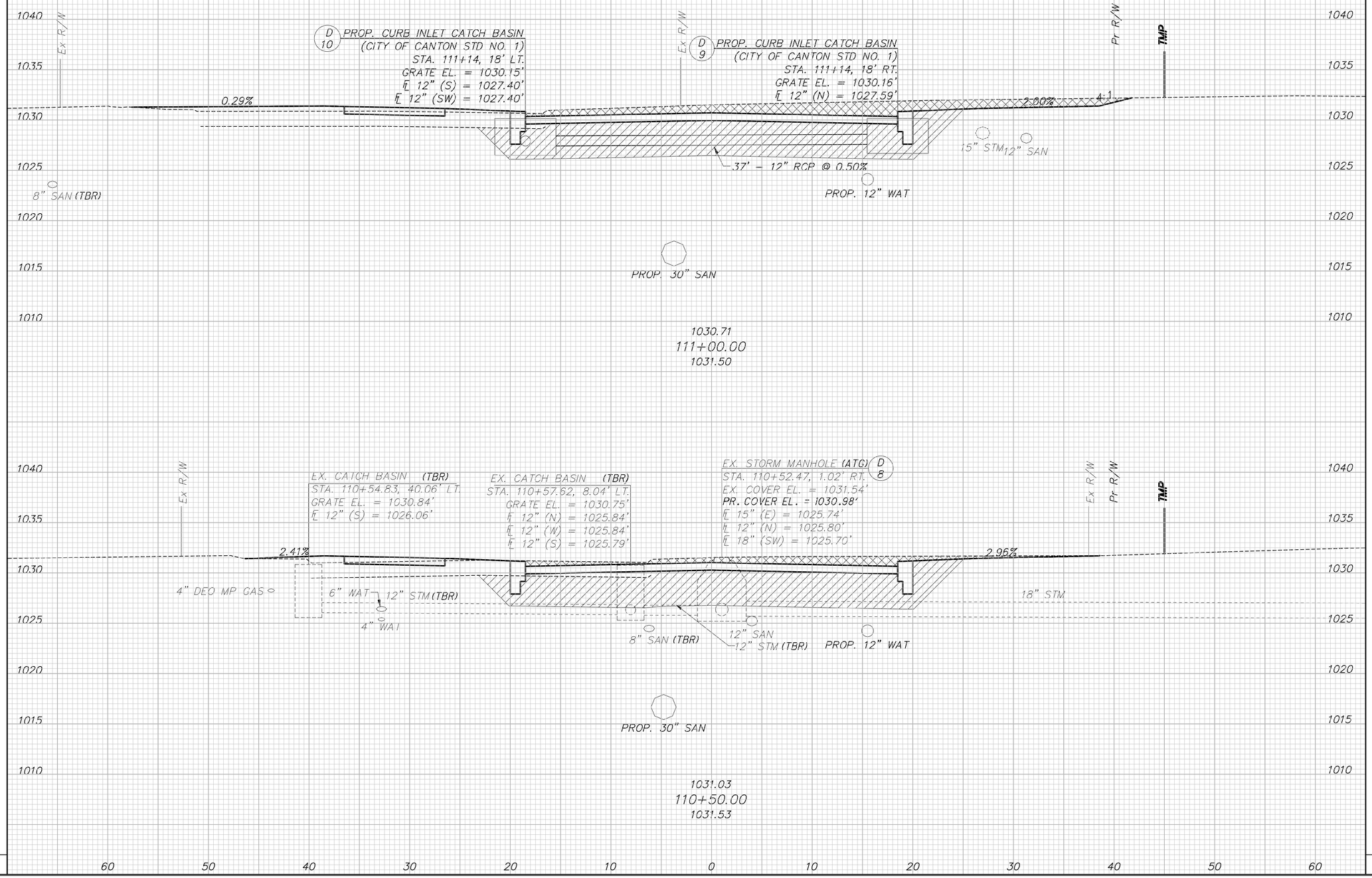
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 110+50.00 TO STA. 111+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

75
302

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SEEDING	
END WIDTH	SQ. YDS.

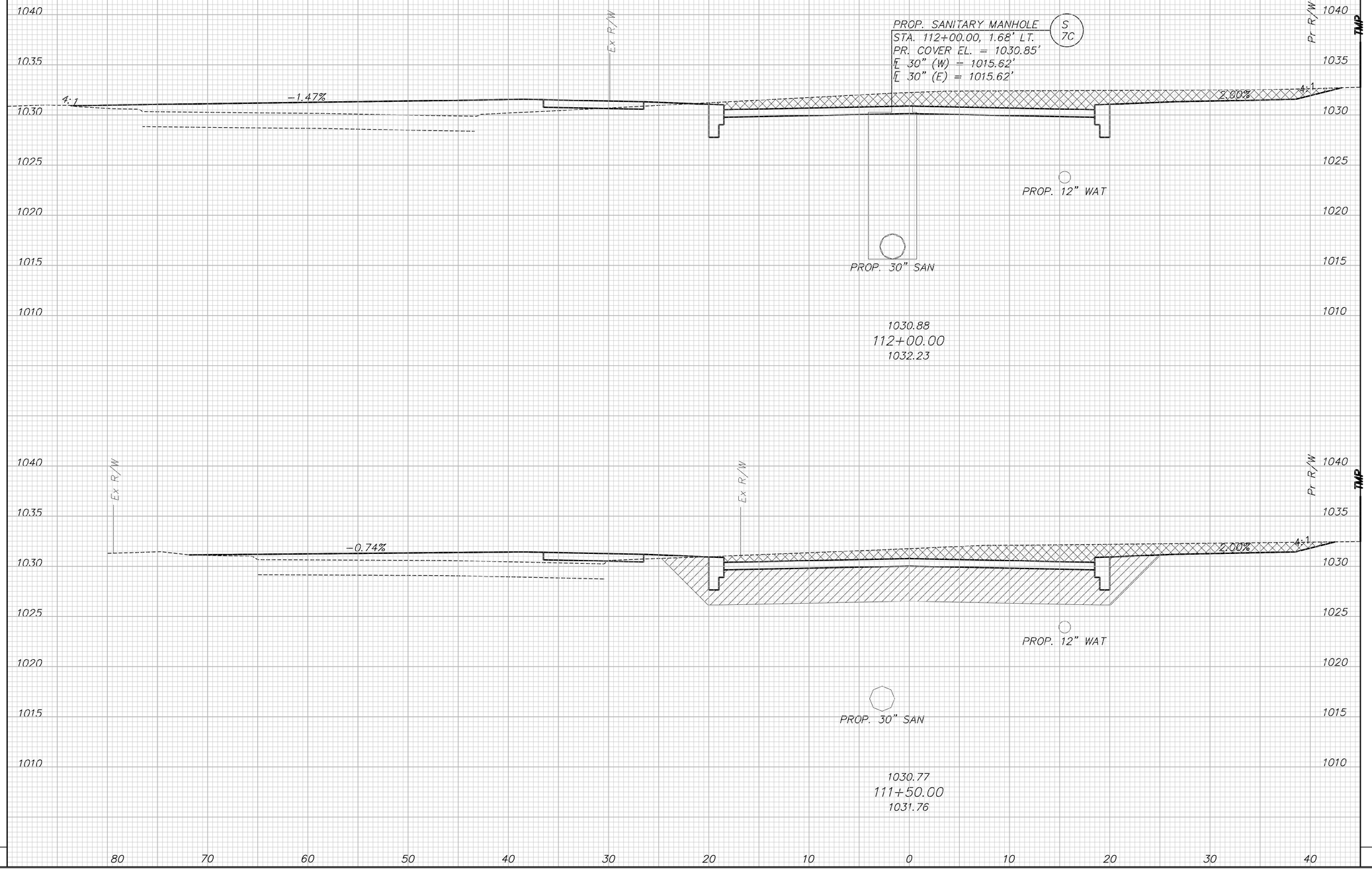
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 111+50.00 TO STA. 112+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

76
302

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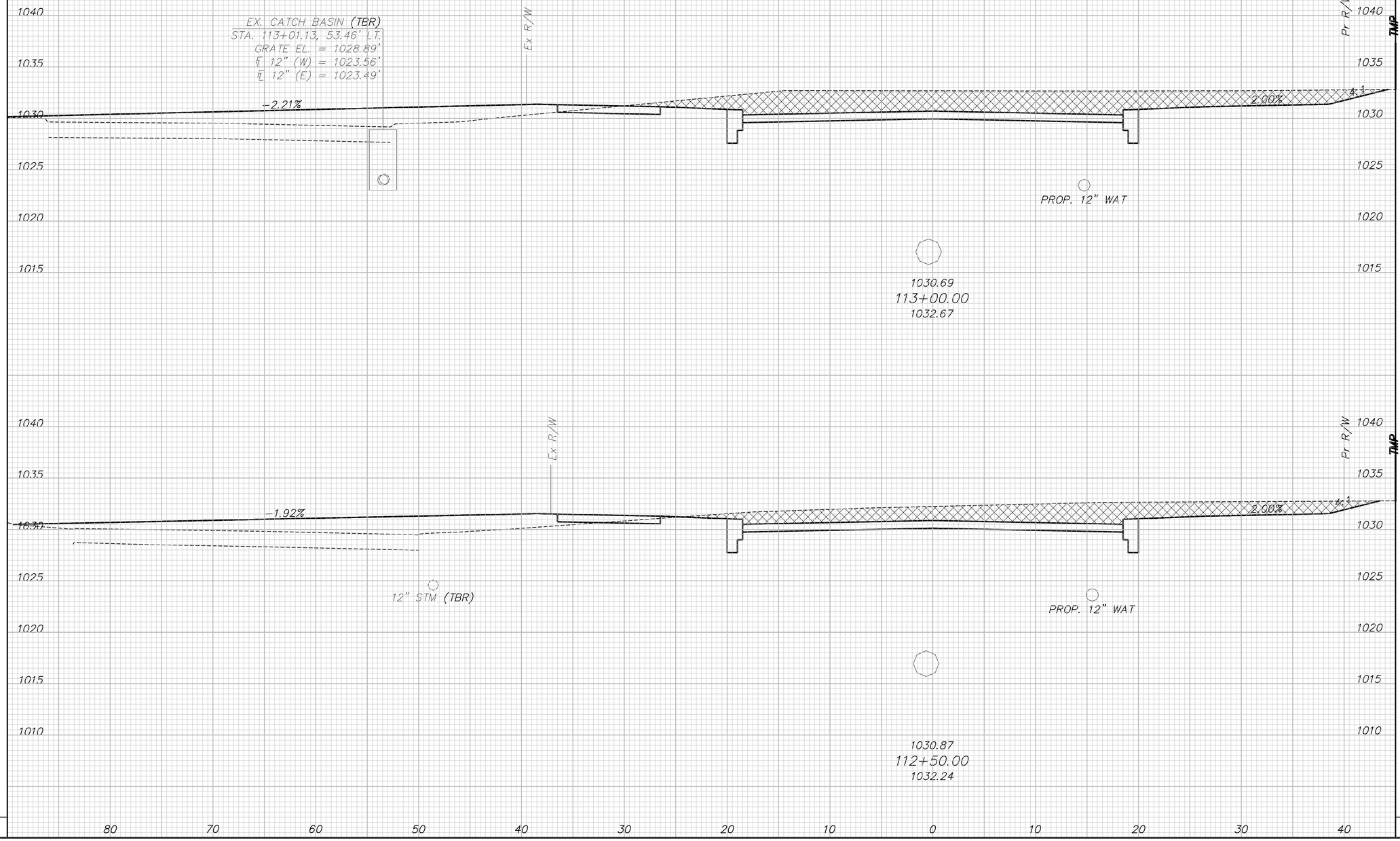
SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 112+50.00 TO STA. 113+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

77
302

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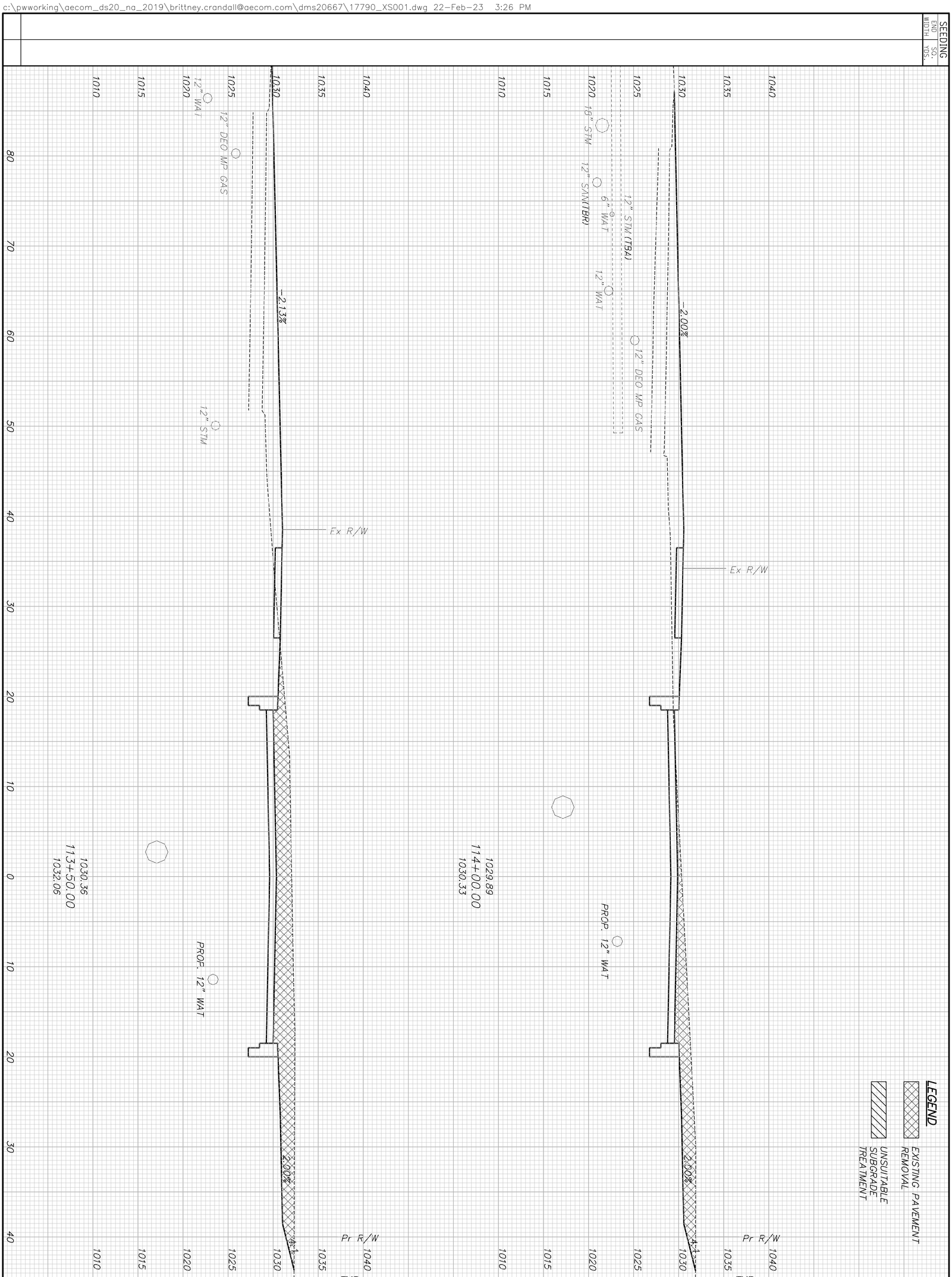


END AREA CUT | FILL
VOLUME CUT | FILL

78
302

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

CROSS SECTIONS - 11TH STREET SE
STA. 113+50.00 TO STA. 114+00.00

CALCULATED JPK
CHECKED JES

SEEDING	
END WIDTH	SQ. YDS.

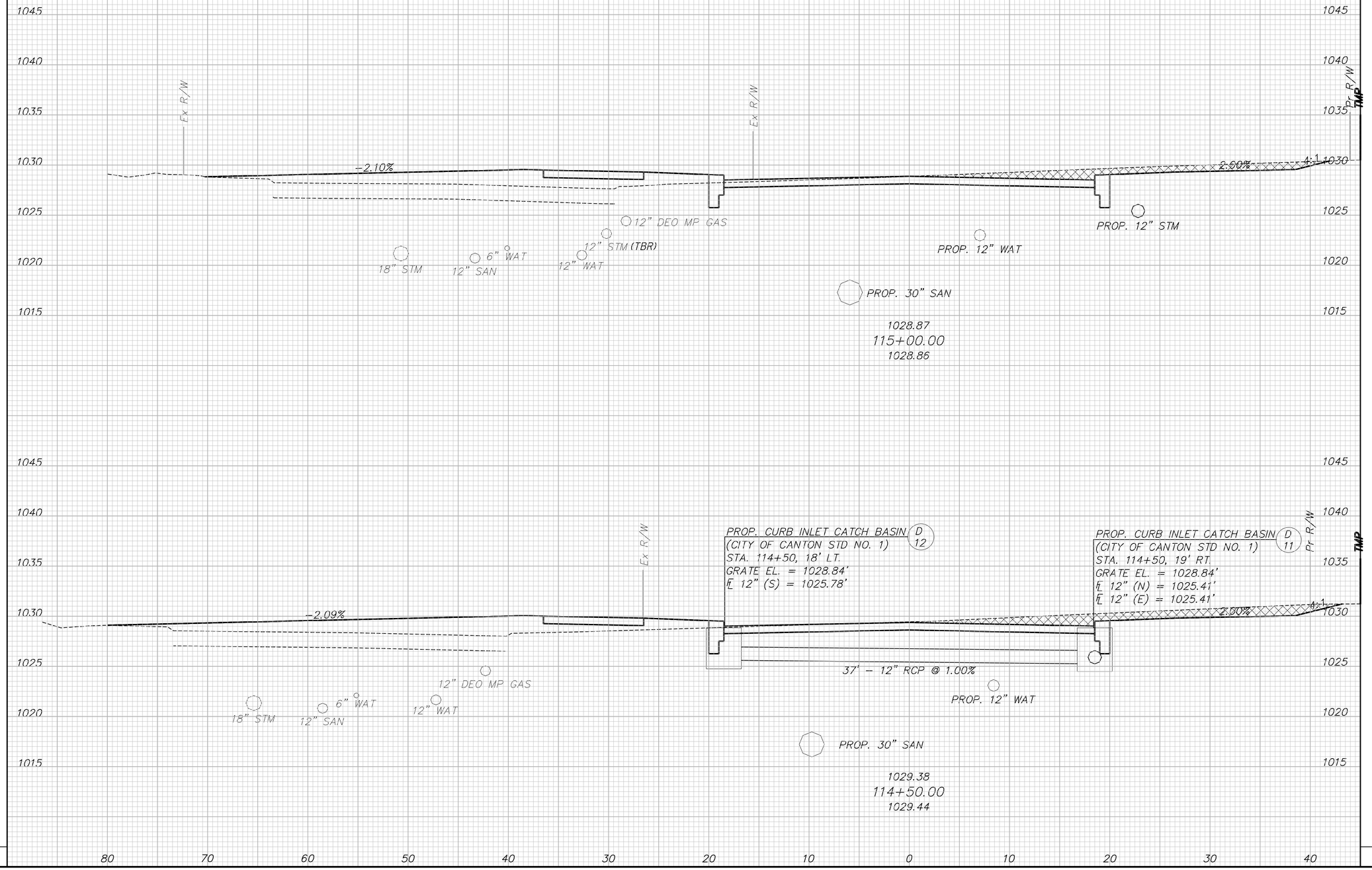
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 114+50.00 TO STA. 115+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

PROP. STORM MANHOLE (CITY OF CANTON STD NO. 10) D 13A
STA. 115+82.99, 43.42' LT.
COVER EL. = 1028.56'
℄ 6" (N) = 1024.13'
℄ 15" (N) = 1024.92'
℄ 15" (SE) = 1023.08'

EX. CATCH BASIN (TBR) D 13A
STA. 115+82.99, 43.42' LT.
GRATE EL. = 1028.56'
℄ 6" (N) = 1024.13'
℄ 15" (N) = 1024.92'
℄ 15" (SE) = 1023.08'

PROP. SANITARY MANHOLE S 10
STA. 115+94.50, 24.19' LT.
PR. COVER EL. = 1028.25'
℄ 12" (S) = 1019.84'
℄ 12" (W) = 1019.84'

EX. SANITARY MANHOLE (TBR)
STA. 115+94.50, 24.19' LT.
EX. COVER EL. = 1028.56'
℄ 12" (E) = 1019.84'
℄ 12" (W) = 1019.84'

PROP. SANITARY MANHOLE S 8A
STA. 115+95.00, 6.00' LT.
PR. COVER EL. = 1027.79'
℄ 30" (W) = 1016.17'
℄ 30" (E) = 1016.17'
℄ 12" (N) = 1019.66'

EX. STORM MANHOLE (ATC) D 14
STA. 115+94.30, 31.34' LT.
EX. COVER EL. = 1028.47'
PR. COVER EL. = 1028.44'
℄ 18" (SW) = 1022.30'
℄ 18" (E) = 1019.89'
℄ 12" (W) = 1020.92'
℄ 15" (NW) = 1022.18'
℄ 10" (N) = 1020.68'
℄ 10" (S) = 1020.68'
℄ 18" (W) = 1020.12'

EX. SANITARY MANHOLE (ATC) S 9
STA. 115+52.65, 30.68' LT.
EX. COVER EL. = 1028.12'
PR. COVER EL. = 1028.85'
℄ 12" (W) = 1020.10'
℄ 12" (E) = 1020.10'
℄ 6" (N) = 1021.11'
℄ 6" (N) = 1021.72'

EX. STORM MANHOLE (TBR) D 13
STA. 115+69.99, 14.48' LT.
EX. COVER EL. = 1028.06'
℄ 18" (NE) = 1022.45'

1040 / 1035 / 1030 / 1025 / 1020 / 1015 / 1010

Ex R/W — Ex R/W — Ex R/W — Pr R/W — TMP

2.68% — 2.74% — 4:1

15" STM — 3" DEO MP GAS — 6" STM — 10" STM — 15" STM — 6" WAT — 10" STM — 12" WAT — 12" DEO MP GAS — PROP. 12" STM — PROP. 12" WAT

7' – 15" HDPE @ 0.50%
7' – 6" HDPE @ 0.50%
7' – 15" HDPE @ 5.34%
18' – 12" SAN @ 1.00%

1027.86
116+00.00
1028.26

-1.08% — 2.90% — 4:1

6" SAN — 3" DEO MP GAS — 6" SAN — 18" STM — 6" WAT — 12" STM(TBA) — 12" WAT — 12" DEO MP GAS — 18" STM(TBR) — PROP. 12" WAT — PROP. 12" STM — PROP. 30" SAN

1028.37
115+50.00
1028.68

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 115+50.00 TO STA. 116+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

80
302

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SEEDING	
END WIDTH	SQ. YDS.

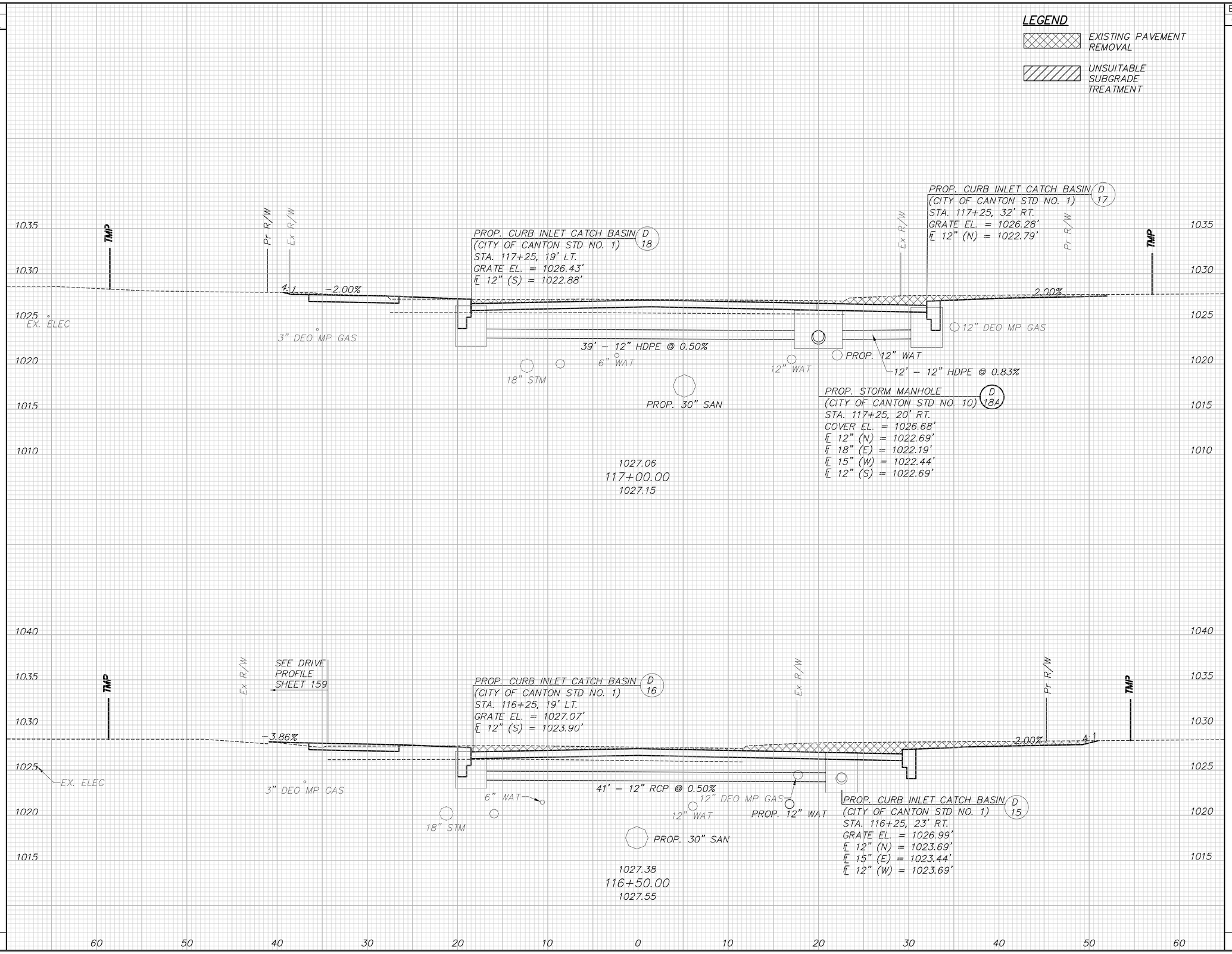
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 116+50.00 TO STA. 117+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

81
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

TMP

Pr R/W

Ex R/W

EX. CATCH BASIN (TBR)
STA. 117+82.26, 23.55' LT.
GRATE EL. = 1026.38'
℄ 12" (S) = 1022.10'

EX. STORM MANHOLE (ATG) D 20
STA. 117+79.54, 1.91' RT.
EX. COVER EL. = 1027.04'
PR. COVER EL. = 1026.96'
℄ 18" (W) = 1018.42'
℄ 48" (N) = 1014.91'
℄ 54" (S) = 1014.79'
℄ 18" (E) = 1018.00'

EX. CATCH BASIN (TBR)
STA. 117+82.45 31.32' RT.
GRATE EL. = 1026.25'
℄ 12" (W) = 1022.19'

+2.00%

-0.41%

2.00%

-2.20%

3" DEO MP GAS

12" STM (TBR)

6" WAT

PROP. 12" WAT

12" WAT

12" DEO MP GAS

48" STM

48" STM

54" STM

54" STM

D 21 EX. STORM MANHOLE (ATG)
STA. 117+81.62, 14.93' LT.
EX. COVER EL. = 1026.73'
PR. COVER EL. = 1026.63'
℄ 48" (S) = 1014.59'
℄ 12" (N) = 1021.84'
℄ 48" (N) = 1014.59'

1026.96
118+00.00
1026.96

EX. STORM MANHOLE (TBR) D 19
STA. 117+77.27, 14.30' RT.
EX. COVER EL. = 1026.82'
℄ 54" (N) = 1014.81'
℄ 54" (S) = 1014.81'
℄ 6" (NE) = 1019.64'
℄ 6" (W) = 1019.64'
SEE SHEET 170A FOR JUNCTION CHAMBER DETAILS

PROP. CURB INLET CATCH BASIN D 23
(CITY OF CANTON STD NO. 1)
STA. 117+63, 19' LT.
GRATE EL. = 1026.37'
℄ 12" (E) = 1022.39'

D 22 PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 117+63, 32' RT.
GRATE EL. = 1026.32'
℄ 12" (NE) = 1023.01'

2.22%

2.14%

EX. ELEC

3" DEO MP GAS

19' - 12" HDPE @ 0.50%

6" WAT

PROP. 12" WAT

12" DEO MP GAS

21" SAN

71' - 21" SAN (MATCH EX. SLOPE)

21" SAN (TBR)

12" WAT

21" SAN (TBA)

21" SAN (TBR)

21" COUPLER

21" PLUG

S 10A PROP. SANITARY MANHOLE
STA. 117+65.00, 12.00' RT.
PR. COVER EL. = 1026.89'
℄ 30" (W) = 1016.41'
℄ 30" (E) = 1016.41'
℄ 21" (N) = 1018.31'

1026.92
117+50.00
1027.03

EX. SANITARY MANHOLE (TBR) S 11
STA. 117+63.66, 22.04' RT.
EX. COVER EL. = 1026.60'
℄ 21" (S) = 1018.31'
℄ 21" (N) = 1018.31'
℄ 12" (NW) = 1019.17'

1035 1030 1025 1020 1015 1010

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 117+50.00 TO STA. 118+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

82
302

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SEEDING	
END WIDTH	SQ. YDS.

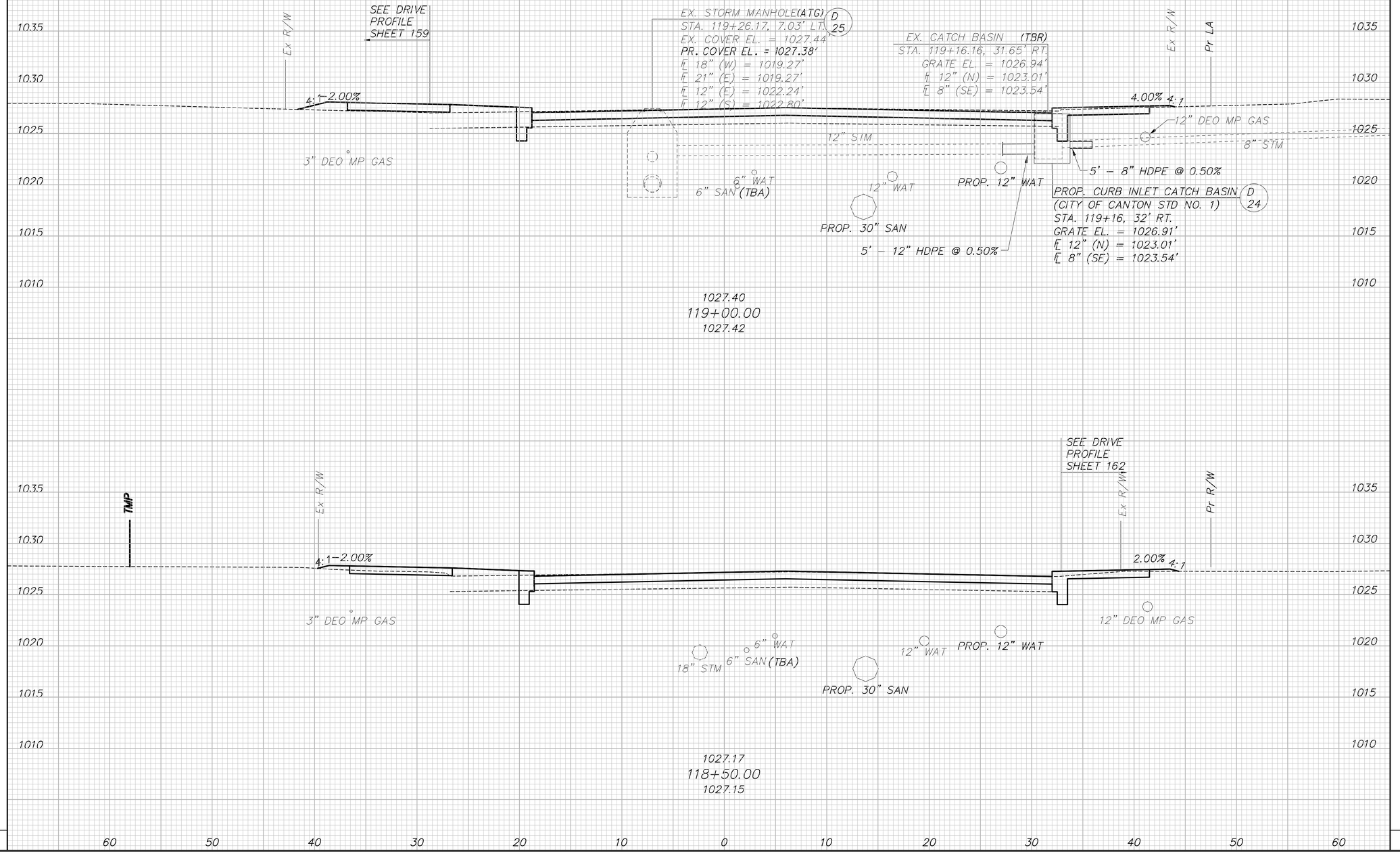
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 118+50.00 TO STA. 119+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

83
302

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SEEDING	
END WIDTH	SQ. YDS.

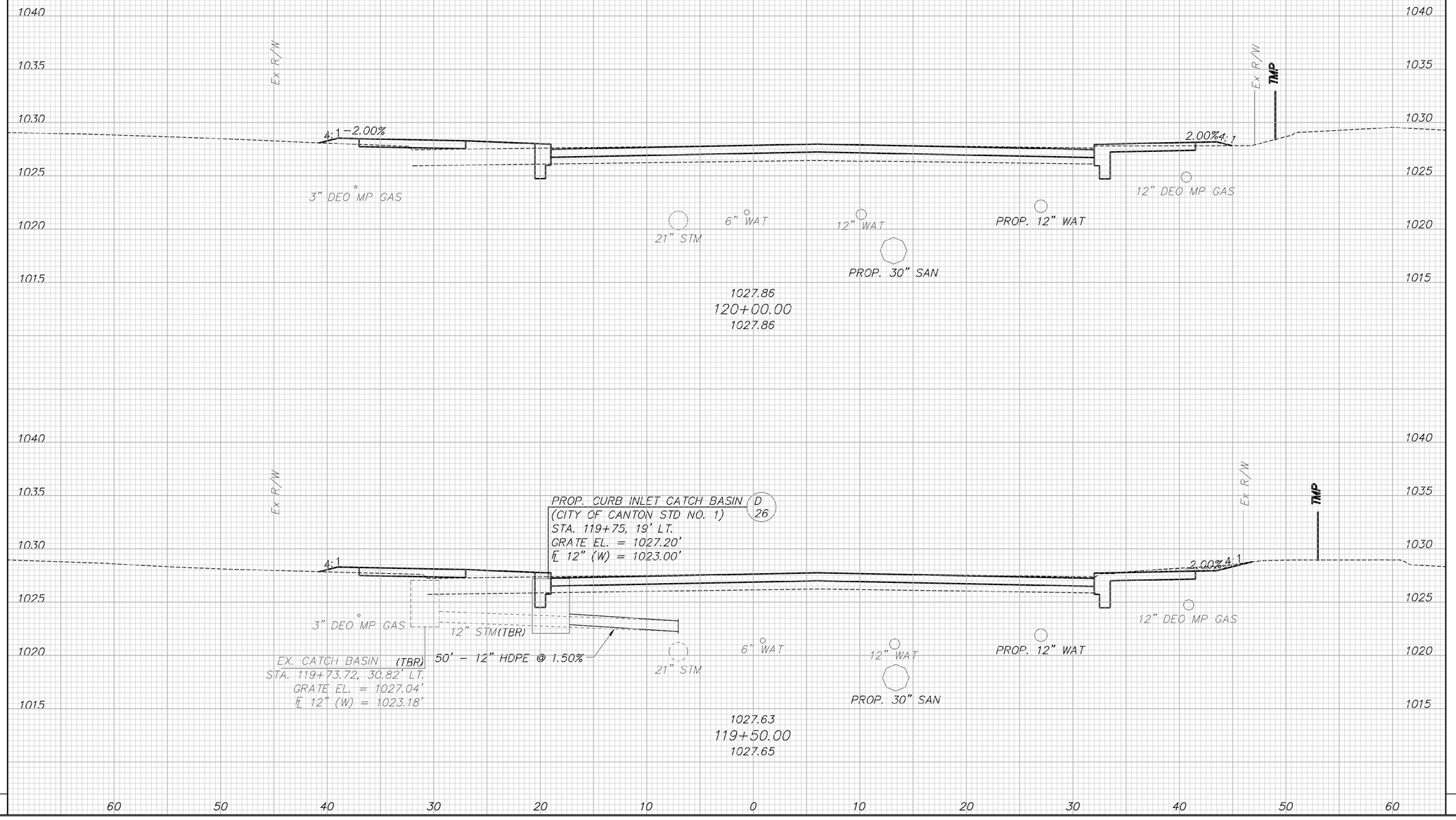
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 119+50.00 TO STA. 120+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

84
302

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SEEDING	
END WIDTH	SQ. YDS.

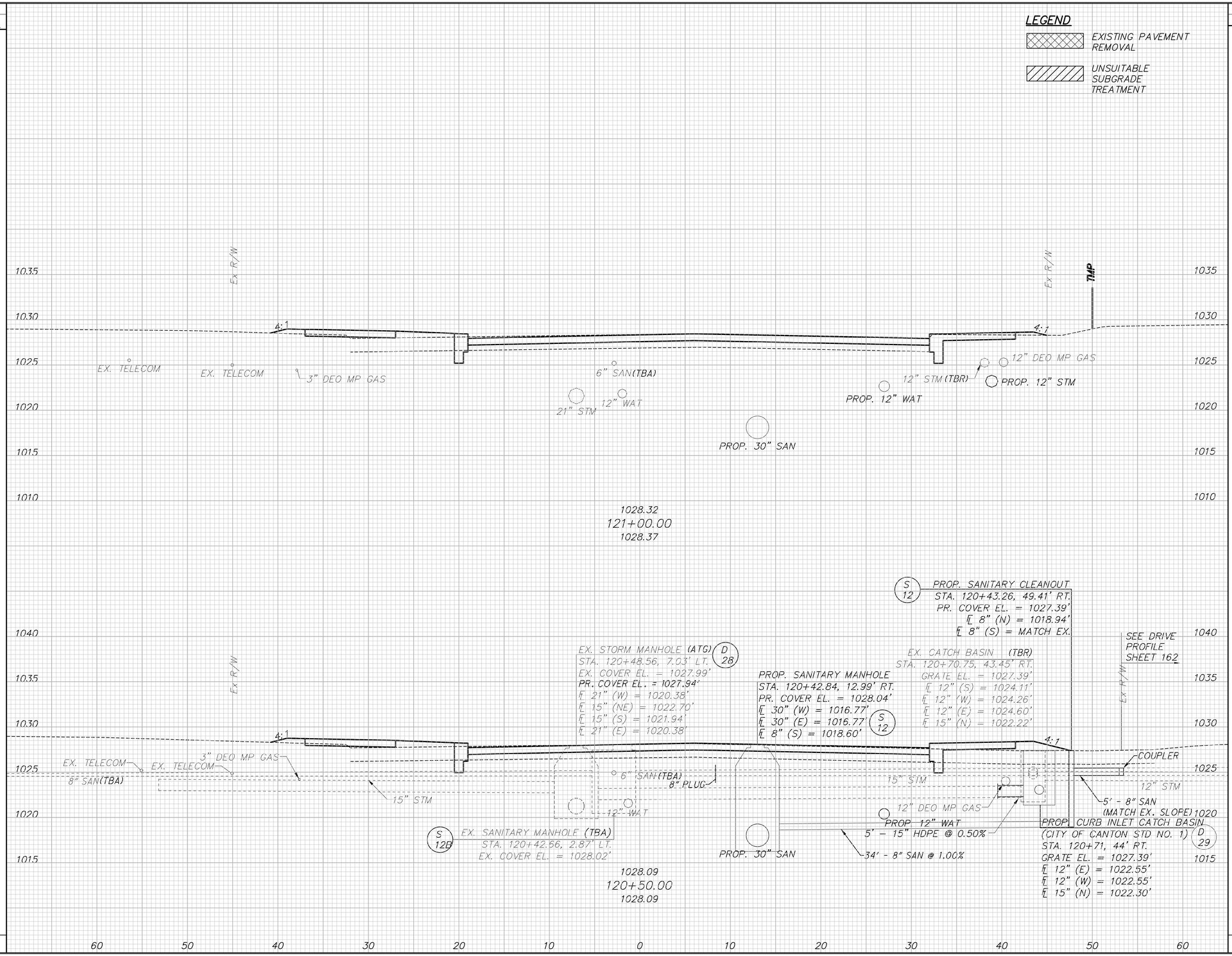
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 120+50.00 TO STA. 121+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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SEEDING	
END WIDTH	SQ. YDS.

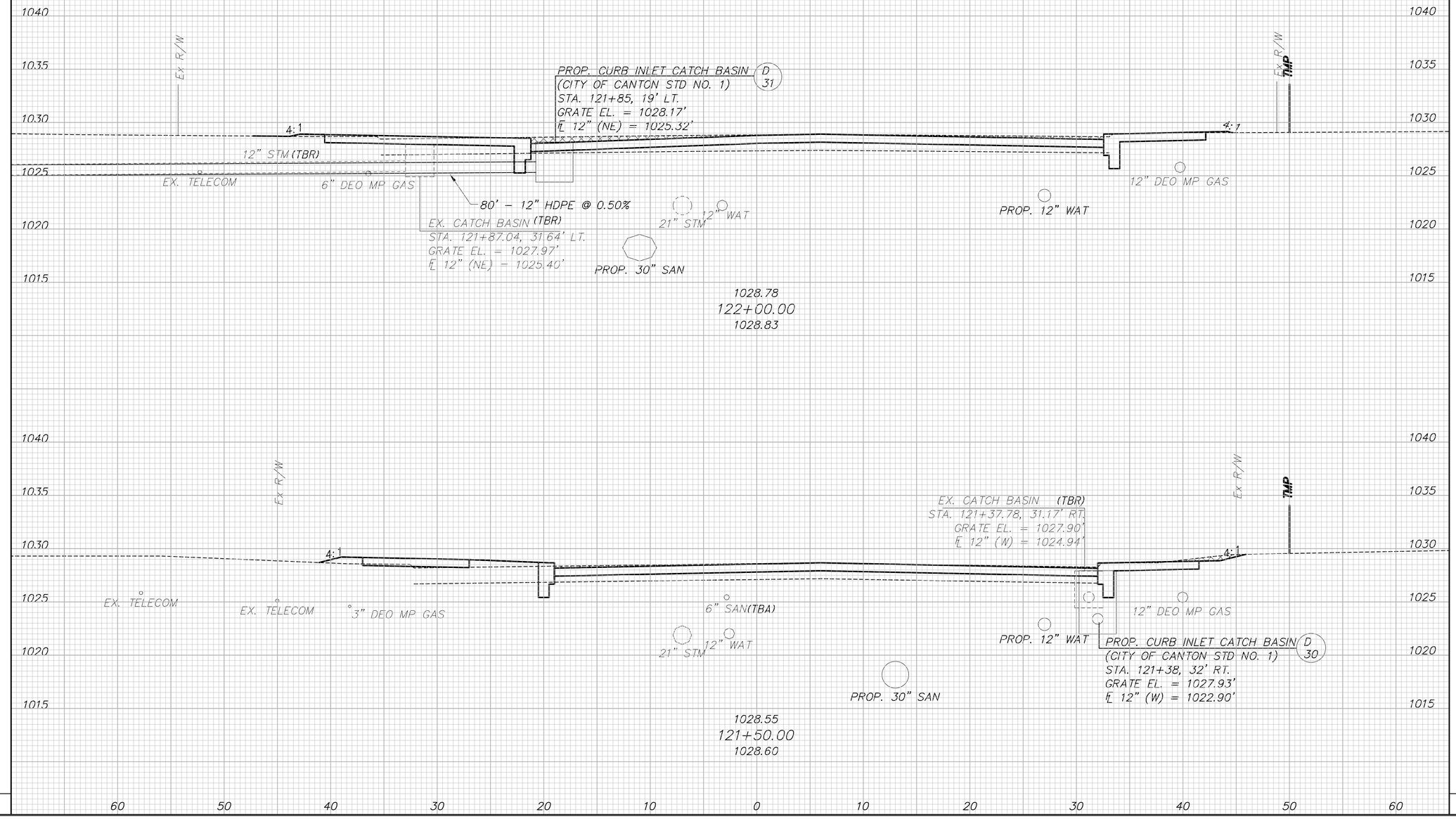
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE STA. 121+50.00 TO STA. 122+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

1040
1035
1030
1025
1020
1015
1010

EX. TELECOM
6" DEO MP GAS
12" STM
15" STM
12" WAT
PROP. 30" SAN
15" STM
PROP. 12" WAT
12" DEO MP GAS

1029.24
123+00.00
1029.19

EX. TELECOM
6" DEO MP GAS
6" WAT
21" STM
12" WAT
PROP. 30" SAN
PROP. 12" WAT
15" STM
12" DEO MP GAS

1029.01
122+50.00
1029.01

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 122+50.00 TO STA. 123+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

87
302

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 123+50.00 TO STA. 124+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

88
302

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SEEDING	
END WIDTH	SQ. YDS.

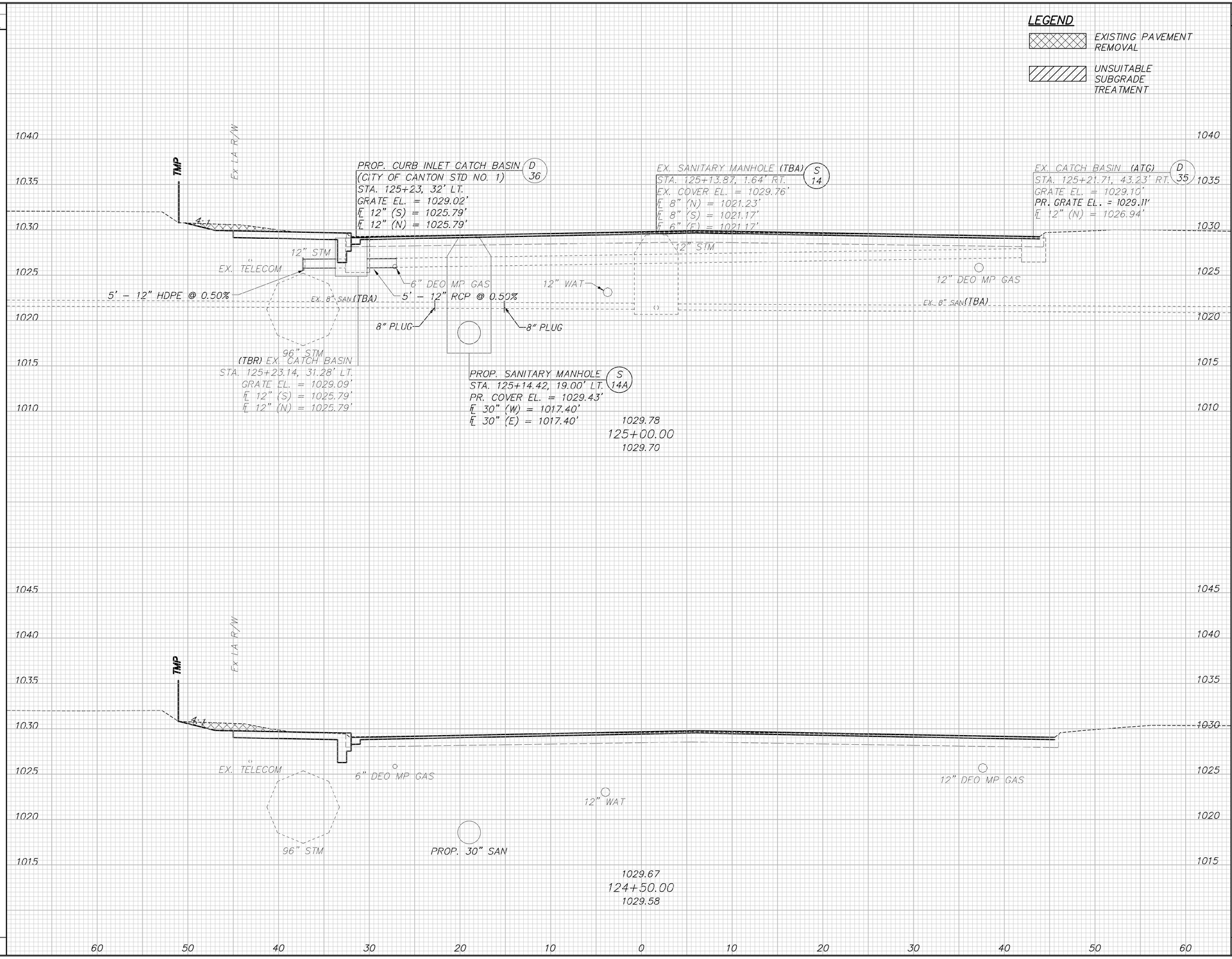
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 124+50.00 TO STA. 125+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

89
302

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SEEDING	
END WIDTH	SQ. YDS.

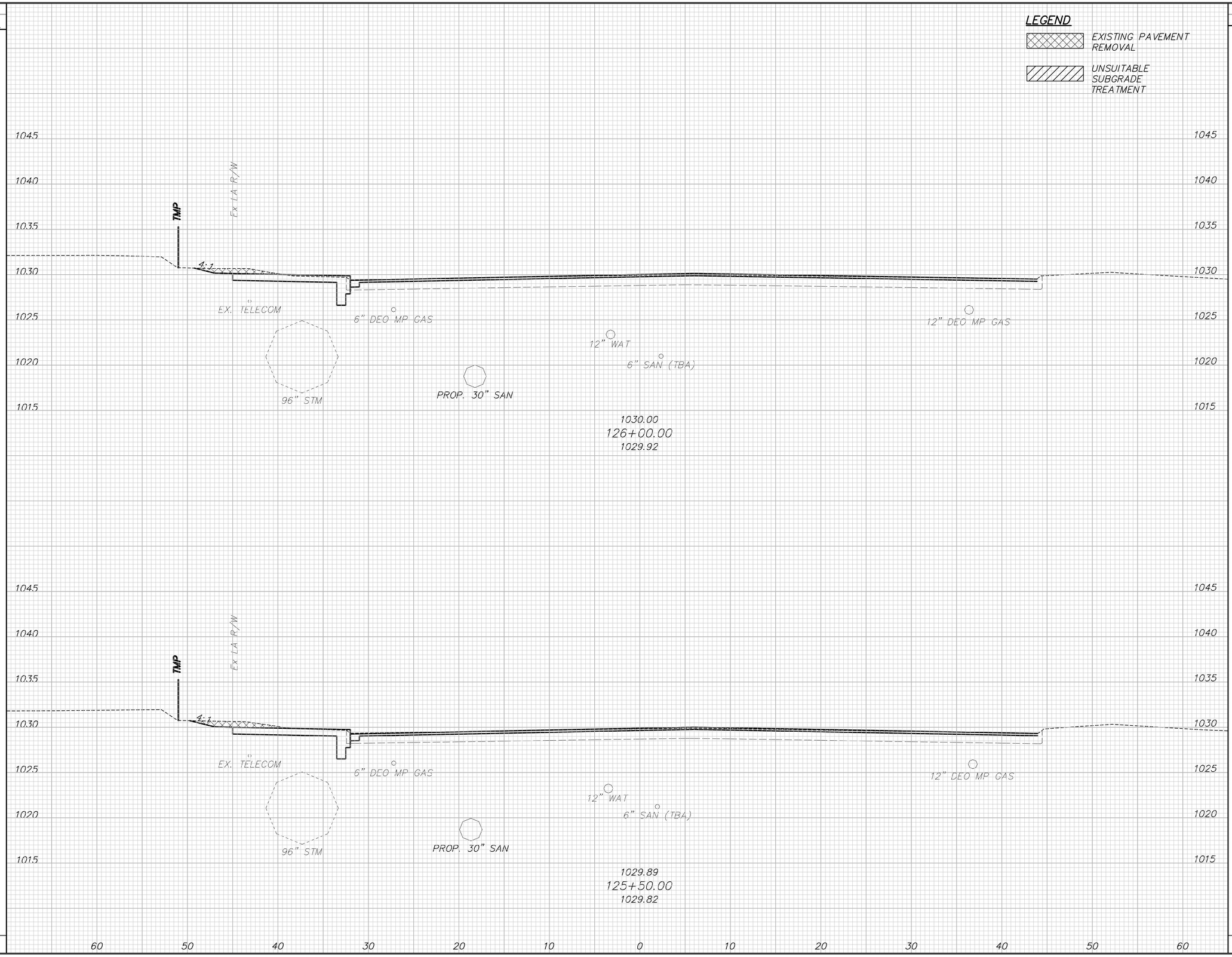
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 125+50.00 TO STA. 126+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

90
302

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SEEDING	
END WIDTH	SQ. YDS.

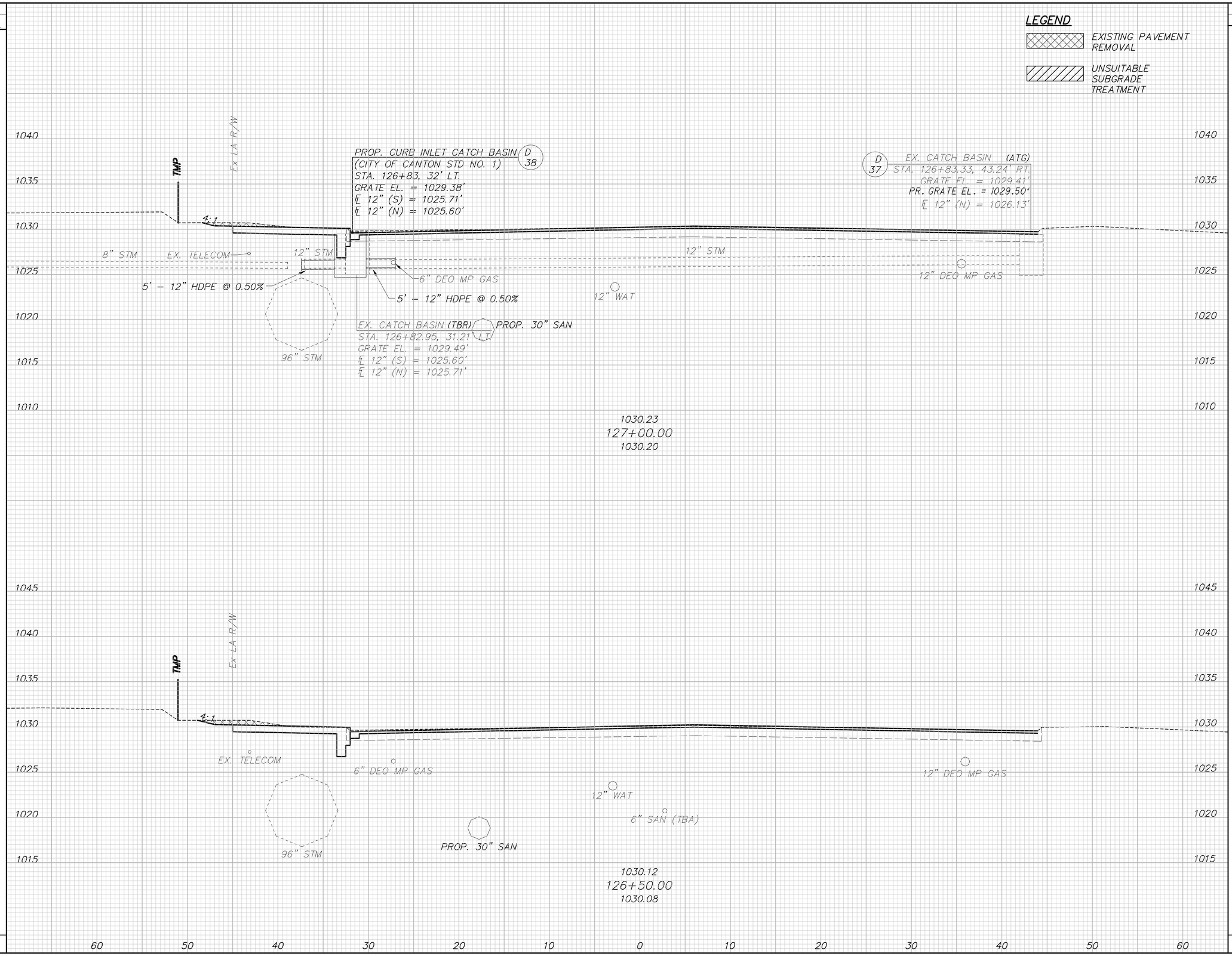
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 126+50.00 TO STA. 127+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

1045
1040
1035
1030
1025
1020
1015

TMP

EX. LA R/W

SEE DRIVE PROFILE SHEET 160

4:1

-1.60%

EX. TELECOM

6" DEO MP GAS

12" DEO MP GAS

12" WAT

PROP. 30" SAN

96" STM

1030.45
128+00.00
1030.44

1040
1035
1030
1025
1020
1015
1010

TMP

EX LA R/W

EX. STORM MANHOLE (ATG) (D 38A)
STA. 127+40.02, 37.39' LT.
EX. COVER EL. = 1030.34'
fL 24" (S) = 1020.03' (PLUG)
PR. GRATE EL. = 1030.27'
fL 24" (S) = 1013.83'

4:1

1.94%

EX. TELECOM

6" DEO MP GAS

12" DEO MP GAS

24" STM (TBR)

12" WAT

24" STM

(D 38B) EX. CATCH BASIN (ATG)
STA. 127+48.96, 43.55' LT.
GRATE EL. = 1030.28'
fL 12" (E) = 1022.45'
PR. GRATE EL. = 1030.42'

CORE AND BOOT

12" MIN

PROP. 30" SAN

8' - 24" RCP @ 0.5%

96" STM

51' - 24" RCP @ 1.00%

PROP. STORM MANHOLE (D 38C)
(CITY OF CANTON STD NO. 10)
STA. 127+59, 10' RT.
COVER EL. = 1030.40'
fL 24" (S) = 1020.2'±
fL 24" (N) = 1014.34'

1030.34
127+50.00
1030.35

60 50 40 30 20 10 0 10 20 30 40 50 60

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 127+50.00 TO STA. 128+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

92
302

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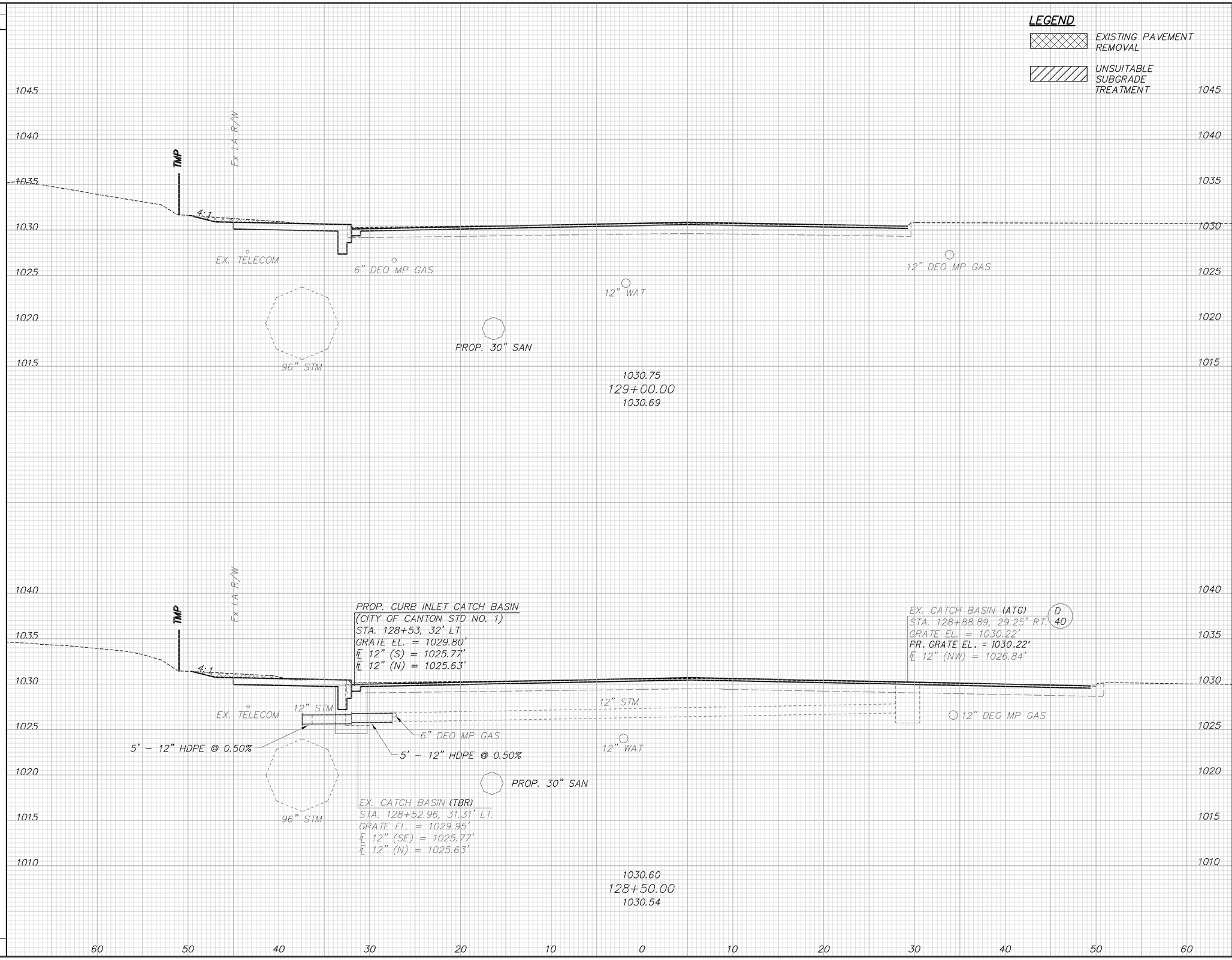
SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 128+50.00 TO STA. 129+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

- EXISTING PAVEMENT REMOVAL
- UNSUITABLE SUBGRADE TREATMENT

S 17
EX. SANITARY MANHOLE
STA. 130+38.45, 49.85' LT.
EX. COVER EL. = 1031.64'
℄ 18" (SW) = 1018.37'
℄ 18" (E) = 1018.49'
℄ 8" (W) = 1019.20'

TMP

Ex LA R/W

4:1

EX. TELECOM

12" STM

96" STM

PROP. CURB INLET CATCH BASIN D 42
(CITY OF CANTON STD NO. 1)
STA. 130+08, 32' LT.
GRATE EL. = 1030.25'
℄ 12" (N) = 1024.35'
℄ 12" (S) = 1024.46'

EX. CATCH BASIN (TBR)
STA. 130+08.29, 30.94' LT.
GRATE EL. = 1030.20'
℄ 12" (S) = 1024.46'
℄ 12" (N) = 1024.35'

6" DEO MP GAS

5' – 12" HDPE @ –0.50%

5' – 12" HDPE @ 0.50%

COUPLER

18" SAN TO BE ABANDONED

PROP. SANITARY MANHOLE S 16A
STA. 129+86.53, 16.00' LT.
PR. COVER EL. = 1030.69'
℄ 30" (W) = 1018.01'
℄ 8" (N) = 1019.84'
℄ 30" (E) = 1018.01'

10' – 8" SAN @ 0.50%

1031.05
130+00.00
1031.03

D 41 EX. CATCH BASIN (ATG)
STA. 130+08.76, 24.30' RT.
GRATE EL. = 1030.57'
℄ 12" (N) = 1026.95'
PR. GRATE EL. = 1030.58'

12" STM

12" WAT

18" SAN (TBA)

12" DEO MP GAS

Ex LA R/W

EX. SANITARY MANHOLE
STA. 129+86.75, 37.29' RT.
EX. COVER EL. = 1031.88'
℄ 18" (SW) = 1018.15'
℄ 8" (N) = 1019.36'
℄ 18" (NE) = 1018.26'
(TO BE REMOVED)
S 16

18" SAN

1045 1040 1035 1030 1025 1020 1015 1010

TMP
Ex LA R/W
4:1
EX. TELECOM
6" DEO MP GAS
12" WAT
12" DEO MP GAS
96" STM
PROP. 30" SAN
Ex LA R/W

1030.90
129+50.00
1030.84

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 129+50.00 TO STA. 130+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

94
302

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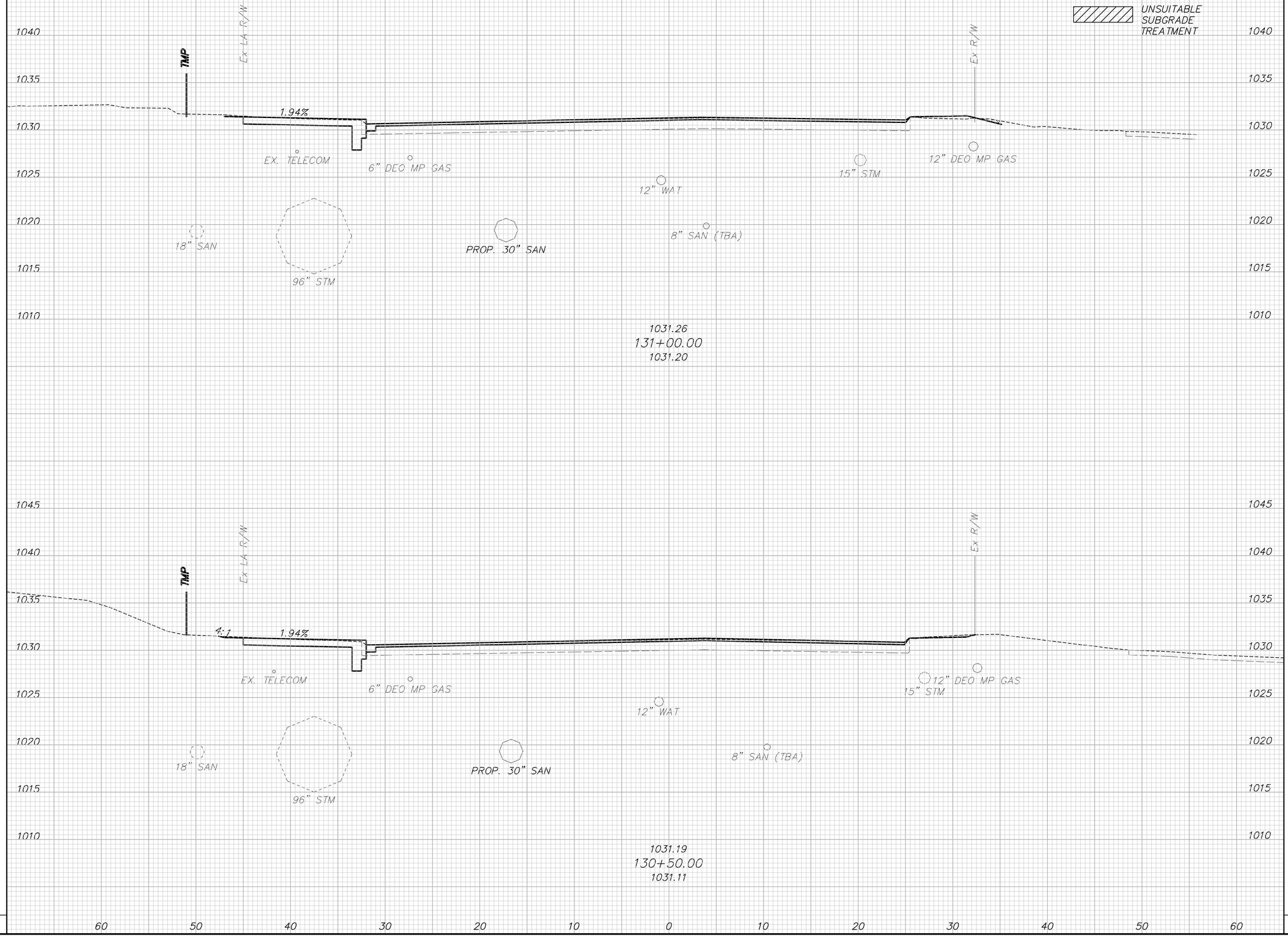
SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 130+50.00 TO STA. 131+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

95
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

EX. SANITARY MANHOLE (S 19)
STA. 132+26.36, 50.10' LT.
EX. COVER EL. = 1031.57'
℄ 18" (E) = 1018.62'
℄ 18" (W) = 1018.62'
(TO BE ABANDONED IN PLACE)

EX. STORM MANHOLE (ATG) (D 44A)
STA. 131+95.39, 44.38' LT.
EX. COVER EL. = 1031.28'
℄ 18" (S) = 1020.82'
℄ 18" (N) = 1020.82'
PR. COVER EL. = 1031.29'

EX. STORM MANHOLE (ATG) (D 44)
STA. 131+81.56, 17.46' RT.
EX. COVER EL. = 1031.11'
PR. COVER EL. = 1031.08'
℄ 18" (W) = 1023.55'
℄ 18" (N) = 1023.59'
℄ 15" (SW) = 1023.79'
℄ 18" (E) = 1023.95'

Ex LT R/W
Ex R/W
TMP
94:1
1.94%
EX. TELECOM
6" DEQ MP GAS
12" WAT
18" STM
15" STM
12" DEQ MP GAS
8" SAN
PROP. 30" SAN
1031.18
132+00.00
1031.21

EX. SANITARY MANHOLE (TBR) (S 18A)
STA. 131+74.16, 2.55' RT.
EX. COVER EL. = 1031.31'
℄ 8" (W) = 1019.64'
℄ 8" (E) = 1019.64'
℄ 6" (N) = 1020.20'

EX. STORM MANHOLE (ATG) (D 43)
STA. 131+53.53, 12.95' RT.
EX. COVER EL. = 1031.22'
PR. COVER EL. = 1031.17'
℄ 15" (SW) = 1025.76'
℄ 15" (W) = 1025.89'
℄ 18" (N) = 1023.95'
℄ 18" (E) = 1023.95'

4:1
1.94%
6" SAN
18" SAN
25' – 6" SAN @ 0.76%
COUPLER

PROP. SANITARY MANHOLE (S 18)
STA. 131+71.38, 18.00' LT.
PR. COVER EL. = 1030.88'
℄ 30" (W) = 1018.24'
℄ 30" (E) = 1018.24'
℄ 6" (S) = 1020.09'

1031.26
131+50.00
1031.25

1040 1035 1030 1025 1020 1015 1010

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 131+50.00 TO STA. 132+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

96
302

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SEEDING	
END WIDTH	SQ. YDS.

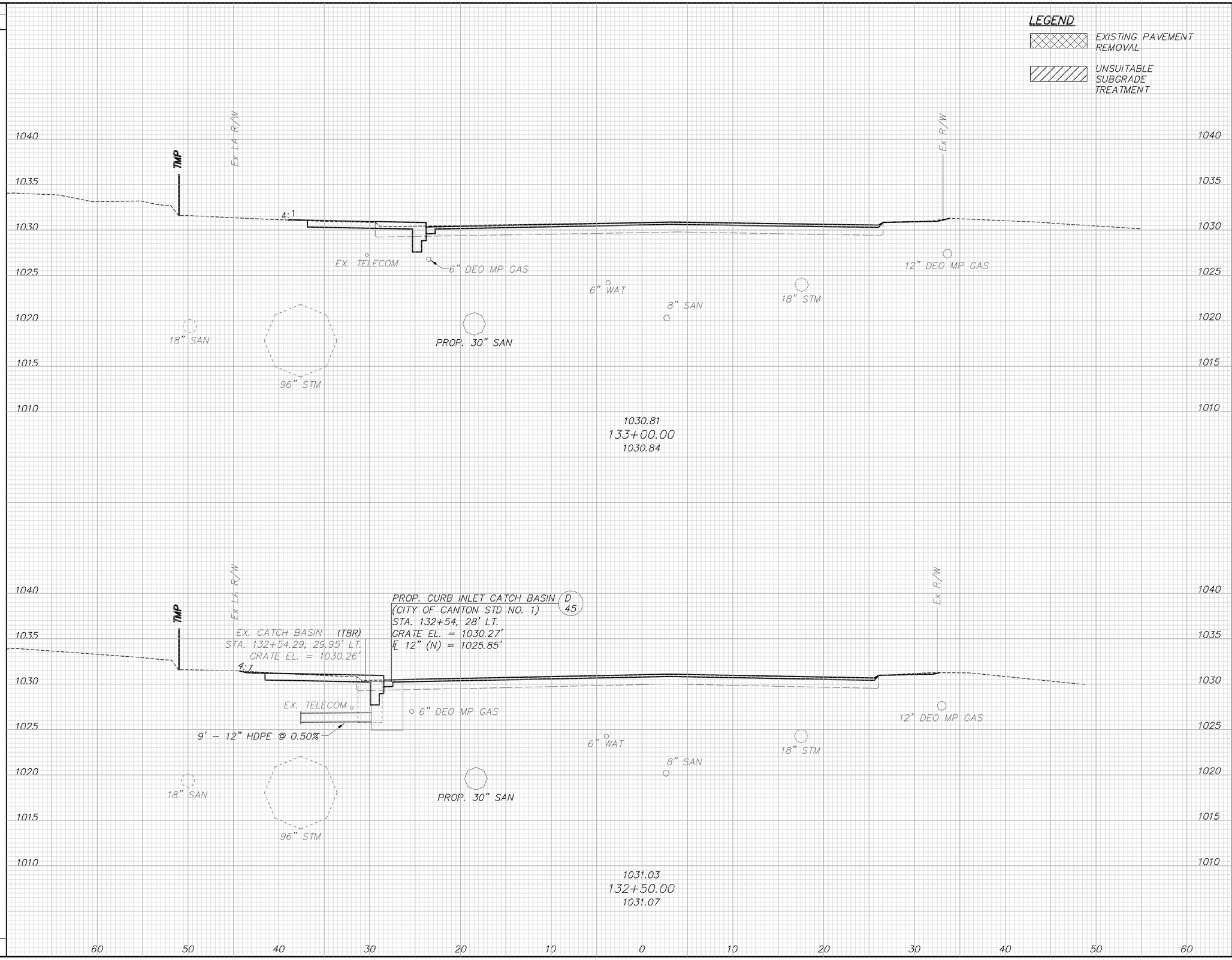
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - 11TH STREET SE
STA. 132+50.00 TO STA. 133+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

97
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

Ex LA R/W

EX. CATCH BASIN (TBR)
STA. 134+01.44, 23.89' LT.
GRATE EL. = 1029.35'
℄ 15" (N) = 1026.75'

4:1

PROP. CURB INLET CATCH BASIN (D 48)
(CITY OF CANTON STD NO. 1)
STA. 134+15, 13' LT.
GRATE EL. = 1029.85'
℄ 15" (N) = 1026.80'

Ex R/W

EX. TELECOM

17' – 15" HDPE @ 0.50%

6" DEO MP GAS

6" WAT

8" SAN

8" SAN

18" STM

12" DEO MP GAS

18" SAN

PROP. 30" SAN

1030.35
134+00.00
1030.34

1040 1035 1030 1025 1020 1015 1010

SEE DRIVE PROFILE SHEET 164

Ex LA R/W

(S 20) EX. SANITARY MANHOLE (TBA)
STA. 133+59.34, 2.79' RT.
EX. COVER EL. = 1030.64'
PR. COVER EL. = 1030.59'
℄ 8" (W) = 1020.15'
℄ 8" (E) = 1020.15'
℄ 8" (E) = 1020.15'

(D 46) EX. CATCH BASIN (ATG)
STA. 133+70.02, 26.23' RT.
GRATE EL. = 1029.96'
PR. GRATE EL. = 1030.04'
℄ 15" (N) = 1027.06'

Ex R/W

4:1

15" STM

EX. TELECOM

6" DEO MP GAS

6" WAT

12" DEO MP GAS

18" SAN

PROP. 30" SAN

EX. STORM MANHOLE (ATG) (D 47)
STA. 133+70.15, 17.64' RT.
EX. COVER EL. = 1031.17'
PR. COVER EL. 1030.34'
℄ 15" (S) = 1027.06'
℄ 18" (W) = 1022.79'
℄ 18" (E) = 1022.79'

1030.58
133+50.00
1030.65

1040 1035 1030 1025 1020 1015 1010

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 133+50.00 TO STA. 134+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

98
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

EX. CATCH BASIN (ATG) D 52
STA. 135+07.72, 27.67' RT.
GRATE EL. = 1028.70'
PR. GRATE EL. = 1028.73'
℄ 15" (NE) = 1025.50'

Ex R/W

D 53 PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 135+25, 10' LT.
GRATE EL. = 1029.40'
℄ 15" (E) = 1024.88'

PROP. SANITARY MANHOLE S 22
(CITY OF CANTON STD. NO. 10)
STA. 135+21.86, 0.39' RT.
PR. COVER EL. = 1029.80'
℄ 8" (E) = 1020.20'
℄ 8" (NW) = 1020.20'
℄ 8" (W) = 1020.20'

4:1 2.00%

2.31% 4:1

EX. TELECOM

6" WAT

12" DEO MP GAS

COUPLER

8" SAN

20' – 8" SAN @ 0.00%

96" STORM

EX. STORM MANHOLE (ATG) D 51
STA. 135+02.12, 13.69' RT.
EX. COVER EL. = 1029.31'
PR. COVER EL. = 1029.53'
℄ 15" (W) = 1023.16'
℄ 96" (N) = 1012.66'
℄ 96" (S) = 1012.66'

1029.89
135+00.00
1029.68

D 50 EX. STORM MANHOLE (ATG)
STA. 134+41.25, 17.84' RT.
EX. COVER EL. = 1029.63'
PR. COVER EL. = 1029.82'
℄ 18" (W) = 1022.79'

S 21 PROP. SANITARY MANHOLE
STA. 134+33.02, 49.27' LT.
PR. COVER EL. = 1030.97'
℄ 30" (S) = 1018.65'
℄ 18" (N) = 1018.77'
℄ 8" (E) = 1020.17'
(REMOVE EX. MANHOLE)

S 21A PROP. SANITARY MANHOLE
STA. 134+33.00, 2.00' RT.
PR. COVER EL. = 1030.24'
℄ 8" (N) = 1020.17'
℄ 8" (E) = 1020.17'

MANHOLE, NO. 5, AS PER PLAN
SEE SHEET 170B FOR DETAILS

4:1 2.00%

2.00% 4:1

EX. TELECOM

6" WAT

COUPLER

10' – 18" SAN @ 0.40%

30' – 30" SAN @ 0.20%

21' – 8" SAN @ 0.38%

96" STM

PROP. SANITARY MANHOLE S 21B
STA. 134+33.01, 19.00' LT.
PR. COVER EL. = 1030.61'
℄ 30" (W) = 1018.59'
℄ 30" (N) = 1018.59'
℄ 8" (S) = 1020.09'

1030.12
134+50.00
1030.02

12" DEO MP GAS

15" STM

EX. CATCH BASIN (ATG) D 49
STA. 134+32.17, 26.60' RT.
GRATE EL. = 1029.14'
PR. GRATE EL. = 1029.49'
℄ 15" (E) = 1025.60'

1050 1045 1040 1035 1030 1025 1020 1015 1010 1005 1000 995

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 134+50.00 TO STA. 135+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

99
302

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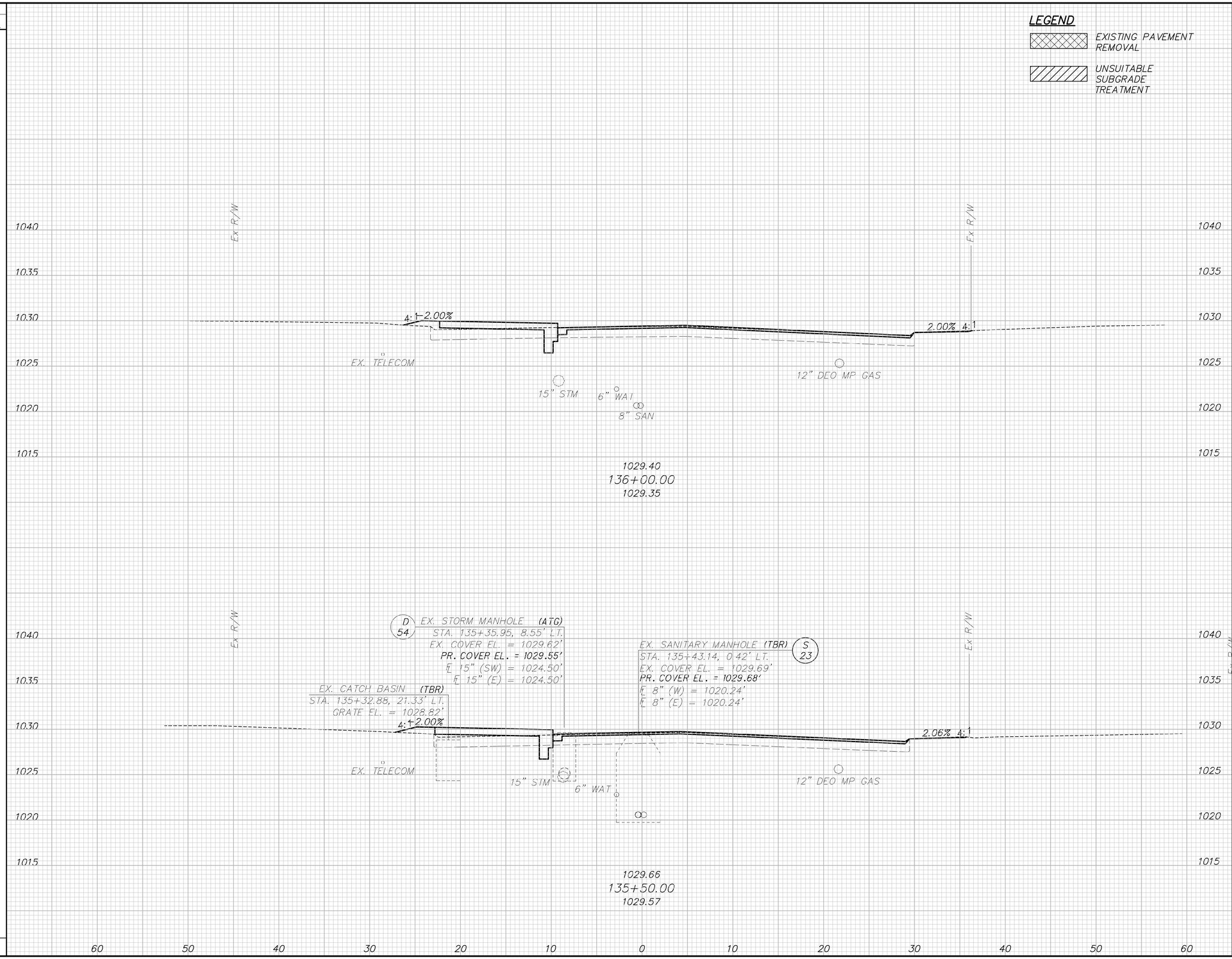
SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 135+50.00 TO STA. 136+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

100
302

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SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

EX. STORM MANHOLE (ATG) D 57
STA. 137+13.37, 9.68' LT.
EX. COVER EL. = 1029.03'
℄ 18" (E) = 1021.55'
℄ 15" (W) = 1021.55'
℄ 15" (N) = 1021.73'
PR. COVER EL. = 1028.85'

EX. R/W

2.00% 4:1

EX. TELECOM
6" DEO MP GAS
15" STM
6" WAT
8" SAN

1028.88
137+00.00
1028.90

PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 136+59, 30' LT.
GRATE EL. = 1028.41'
℄ 15" (S) = 1024.44'
D 56

EX. STORM MANHOLE (ATG) D 55
STA. 136+59.82, 9.78' LT.
EX. COVER EL. = 1028.98'
PR. COVER EL. = 1028.90'
℄ 15" (N) = 1021.82'
℄ 15" (E) = 1021.82'
℄ 15" (W) = 1021.13'

4:1
1.94%
2.00% 4:1
EX. TELECOM
15" STM
EX. CATCH BASIN (TBR)
STA. 136+59.04, 31.15' LT.
GRATE EL. = 1028.46'
℄ 15" (S) = 1024.44'
5' – 15" HDPE @ 15.80%
12" DEO MP GAS
6" WAT
15" STM 8" SAN

1029.14
136+50.00
1029.09

10.35 1035
10.30 1030
1025
1020
1015

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - 11TH STREET SE
STA. 136+50.00 TO STA. 137+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

101
302

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

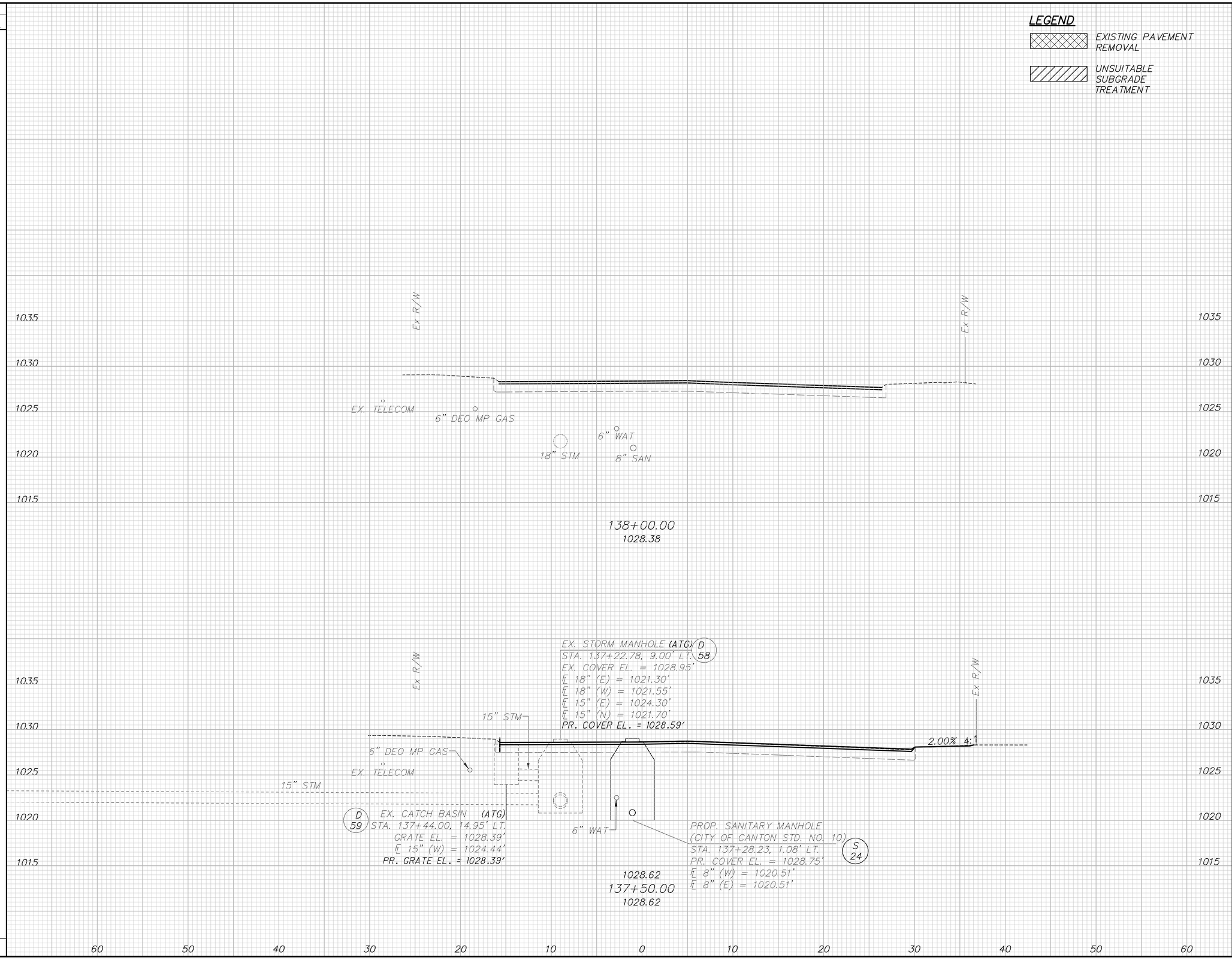
EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES



CROSS SECTIONS - 11TH STREET SE
STA. 137+50.00 TO STA. 138+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

102
302

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE
STA. 138+50.00 TO STA. 139+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

103
302

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SEEDING	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - 11TH STREET SE

STA. 139+50.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

104
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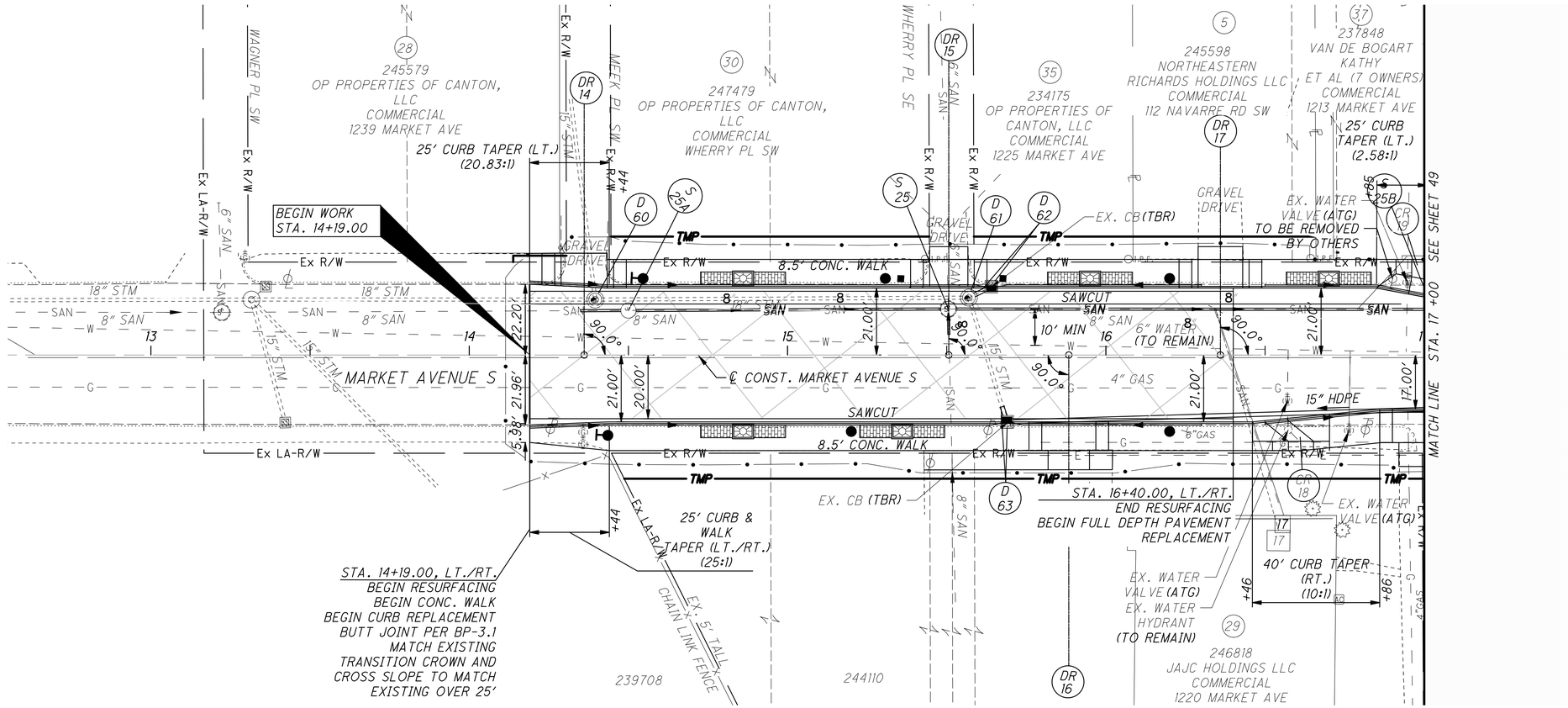

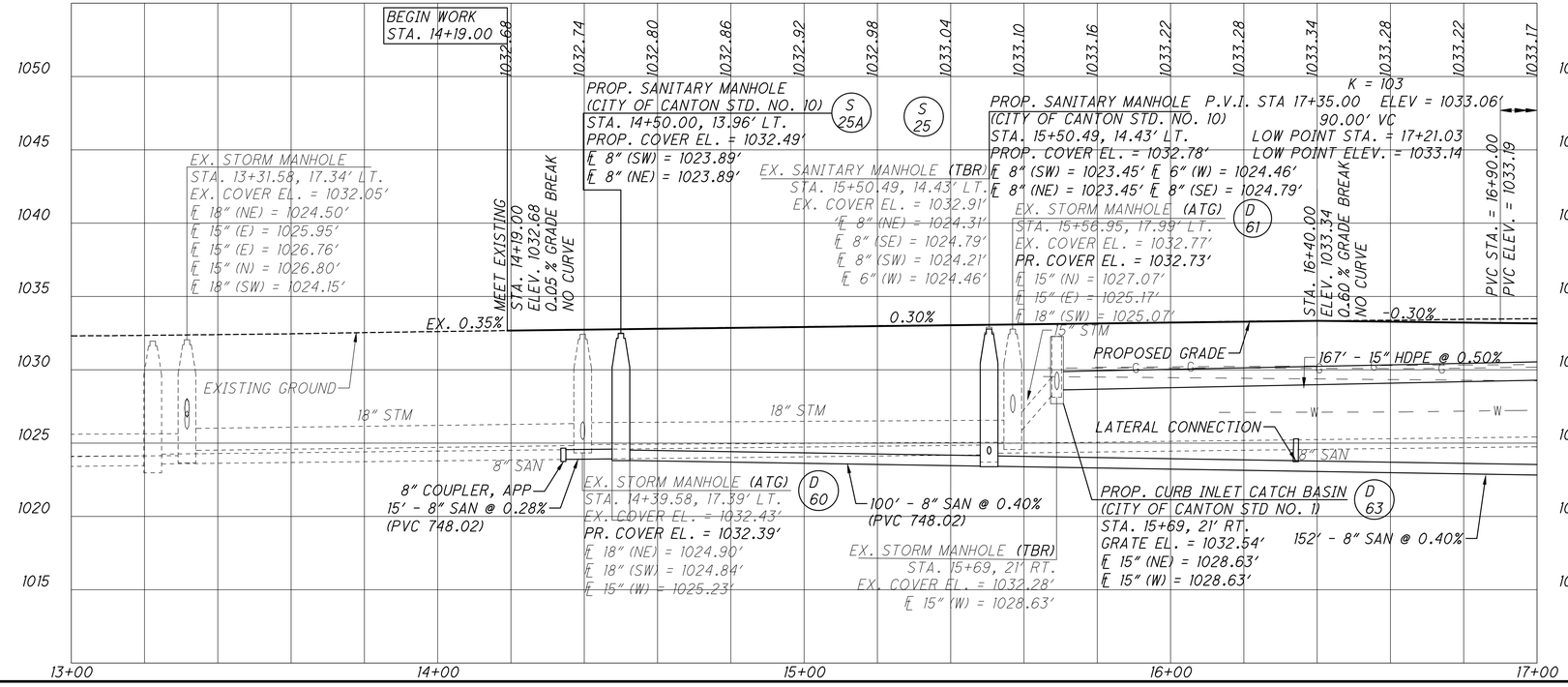

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR MARKET AVENUE S CROSS SECTIONS, SEE SHEETS 109-127.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

SANITARY LATERAL CONNECTIONS:
17 - 1220 MARKET AVE S

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN AND PROFILE - MARKET AVENUE S BEGINNING TO STA. 17+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

105
302

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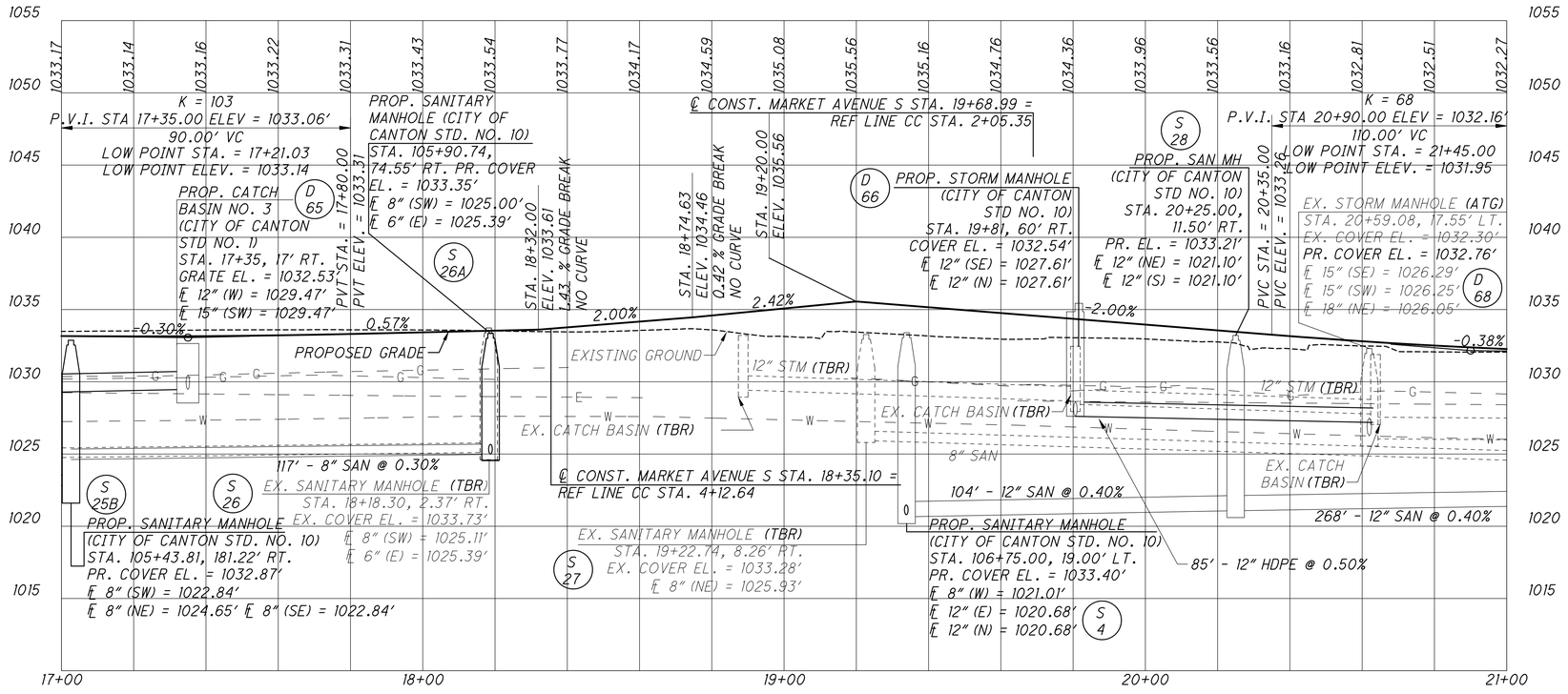

CALCULATED JPK
CHECKED JES

PROFILE - MARKET AVENUE S
STA. 17+00.00 TO STA. 21+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

106
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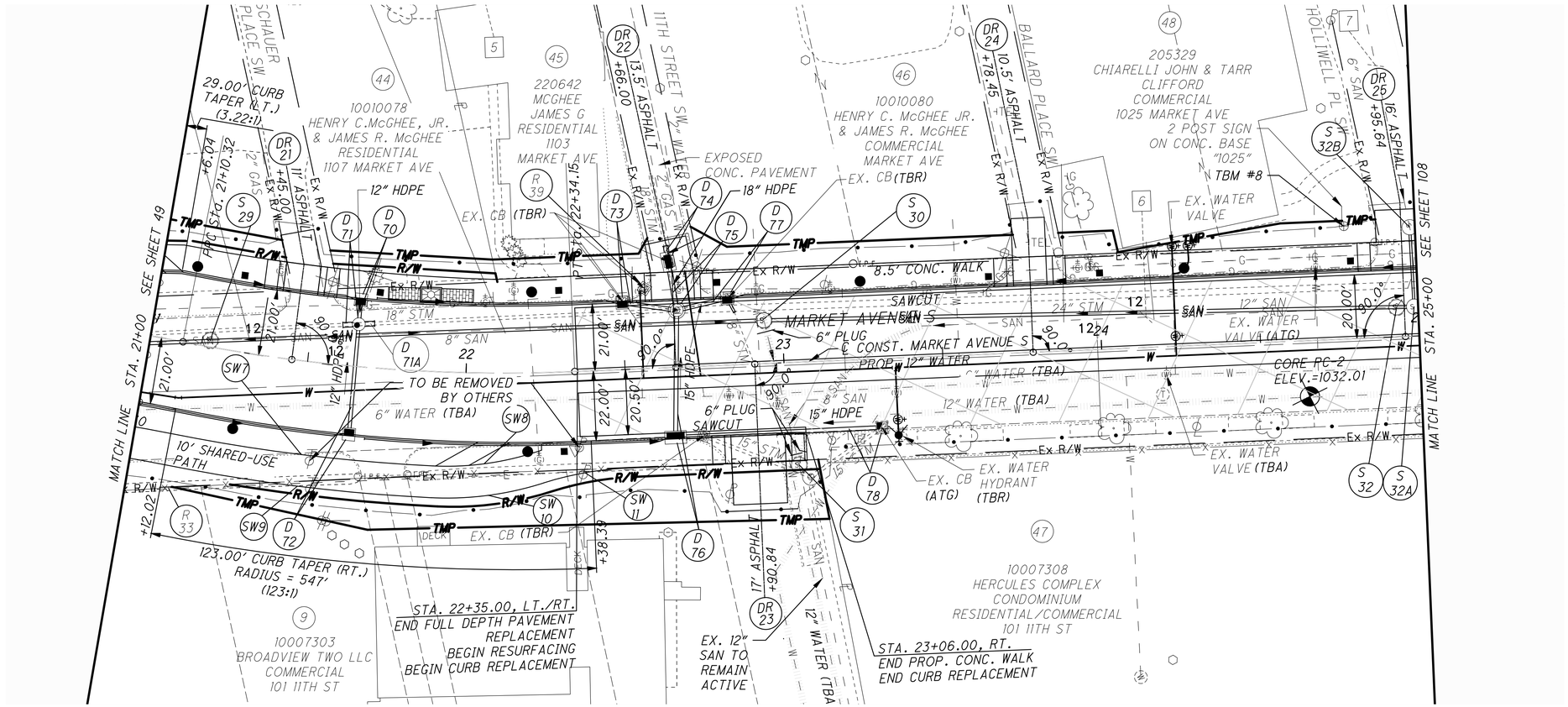

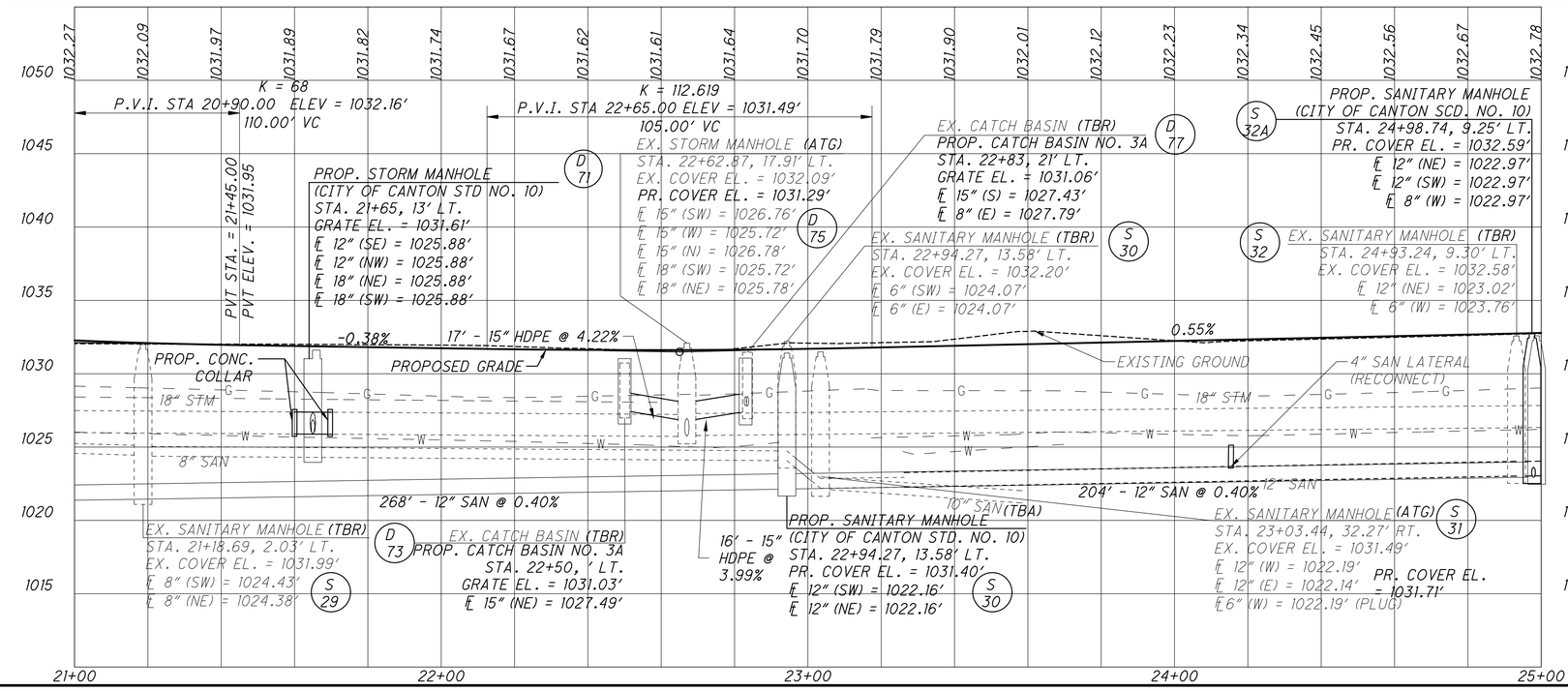

BENCHMARK TBM #8
CHISELED SQUARE ON N.E. CORNER OF CONCRETE FOUNDATION FOR SIGN, 36' W. OF ℄ MARKET AVENUE, 19' S. OF ℄ HALLIWELL PLACE SW
STA. 24+78, 35' LT.
ELEV. 1032.88

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR MARKET AVENUE S CROSS SECTIONS, SEE SHEETS 109-127.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

SANITARY LATERAL CONNECTIONS:
5 - 1103 MARKET AVE S*
6 - 1025 MARKET AVE S
7 - 925 MARKET AVE S
* CONNECTED TO COURT AVE SW

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN AND PROFILE - MARKET AVENUE S STA. 21+00.00 TO STA. 25+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

107
302

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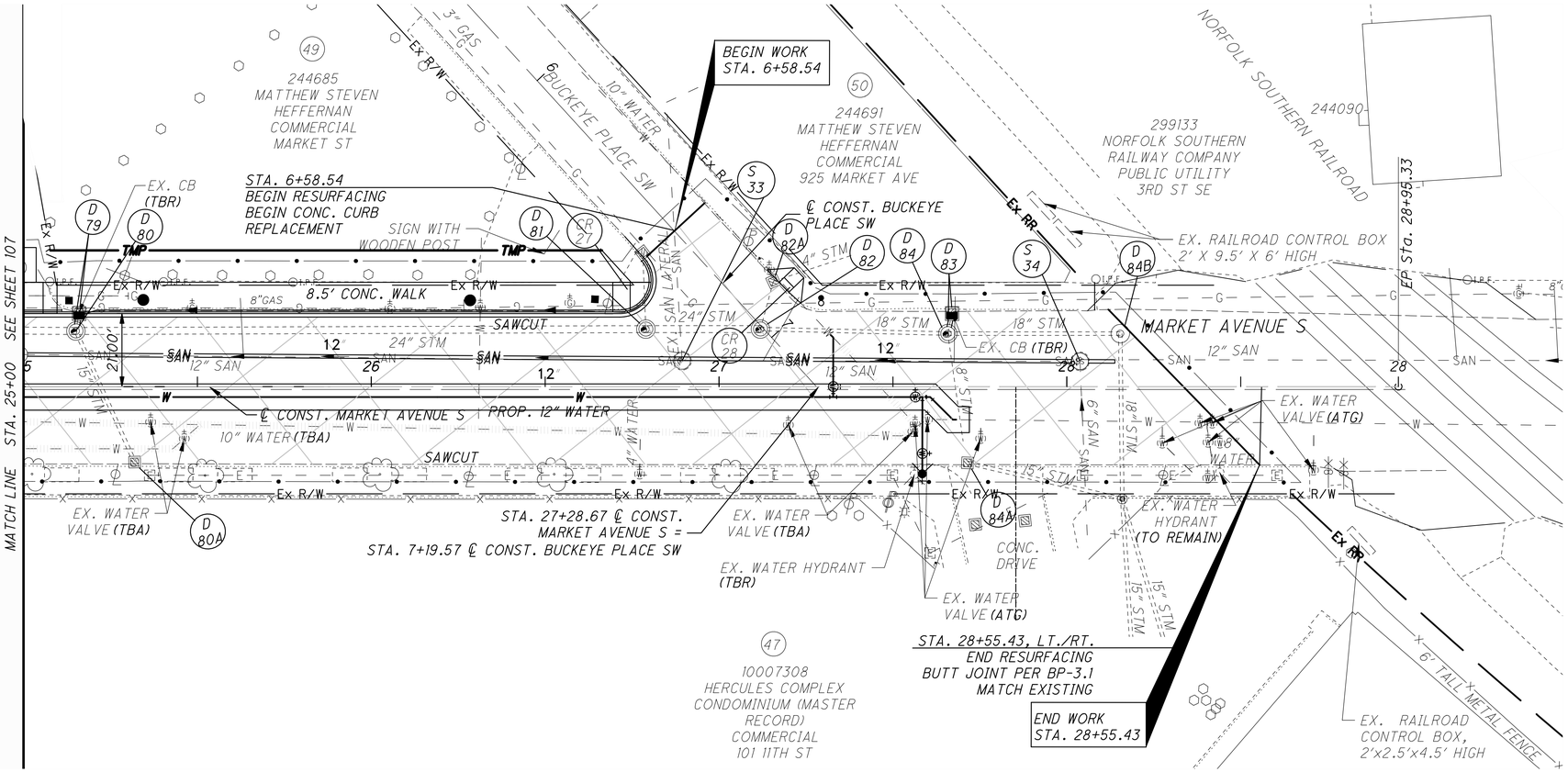

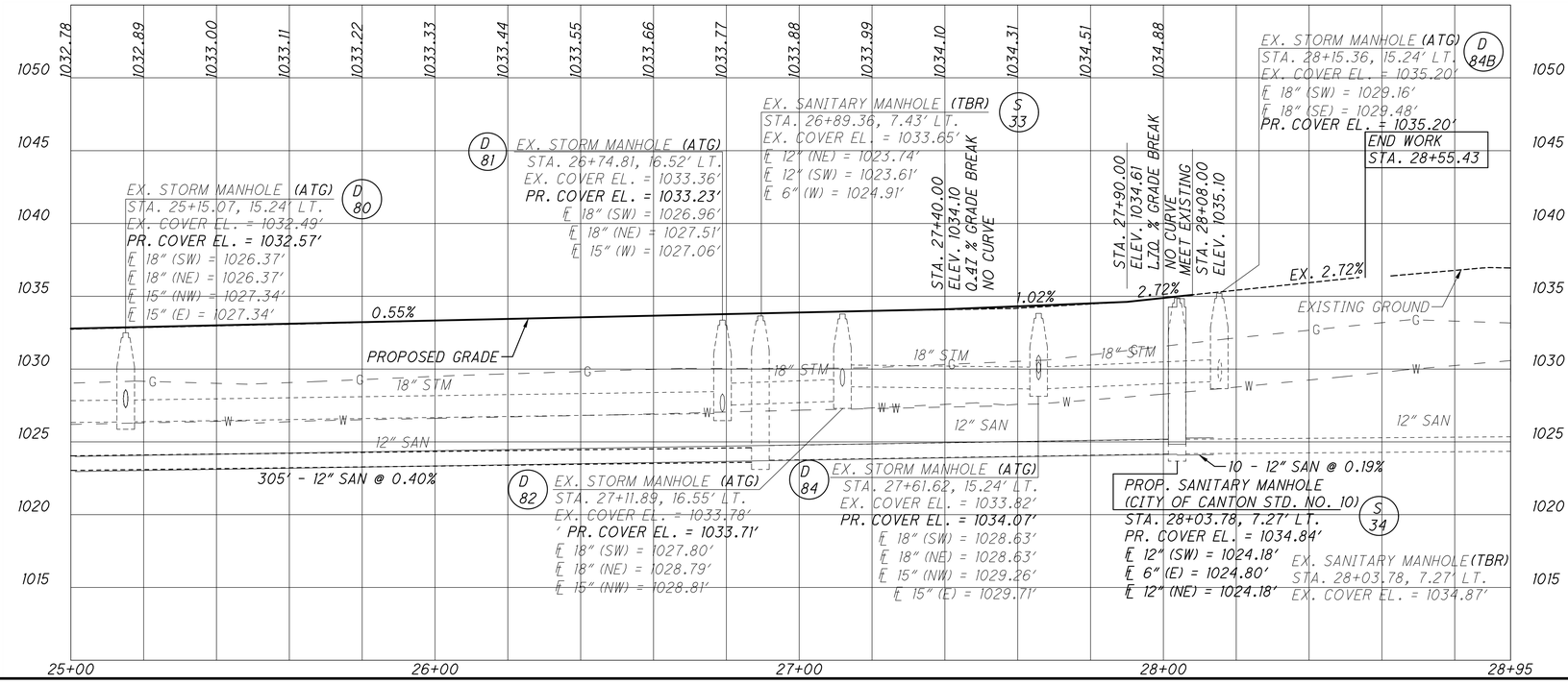

NOTES:

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR MARKET AVENUE S CROSS SECTIONS, SEE SHEETS 109-127.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN AND PROFILE - MARKET AVENUE S
STA. 25+00.00 TO ENDING

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

108
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

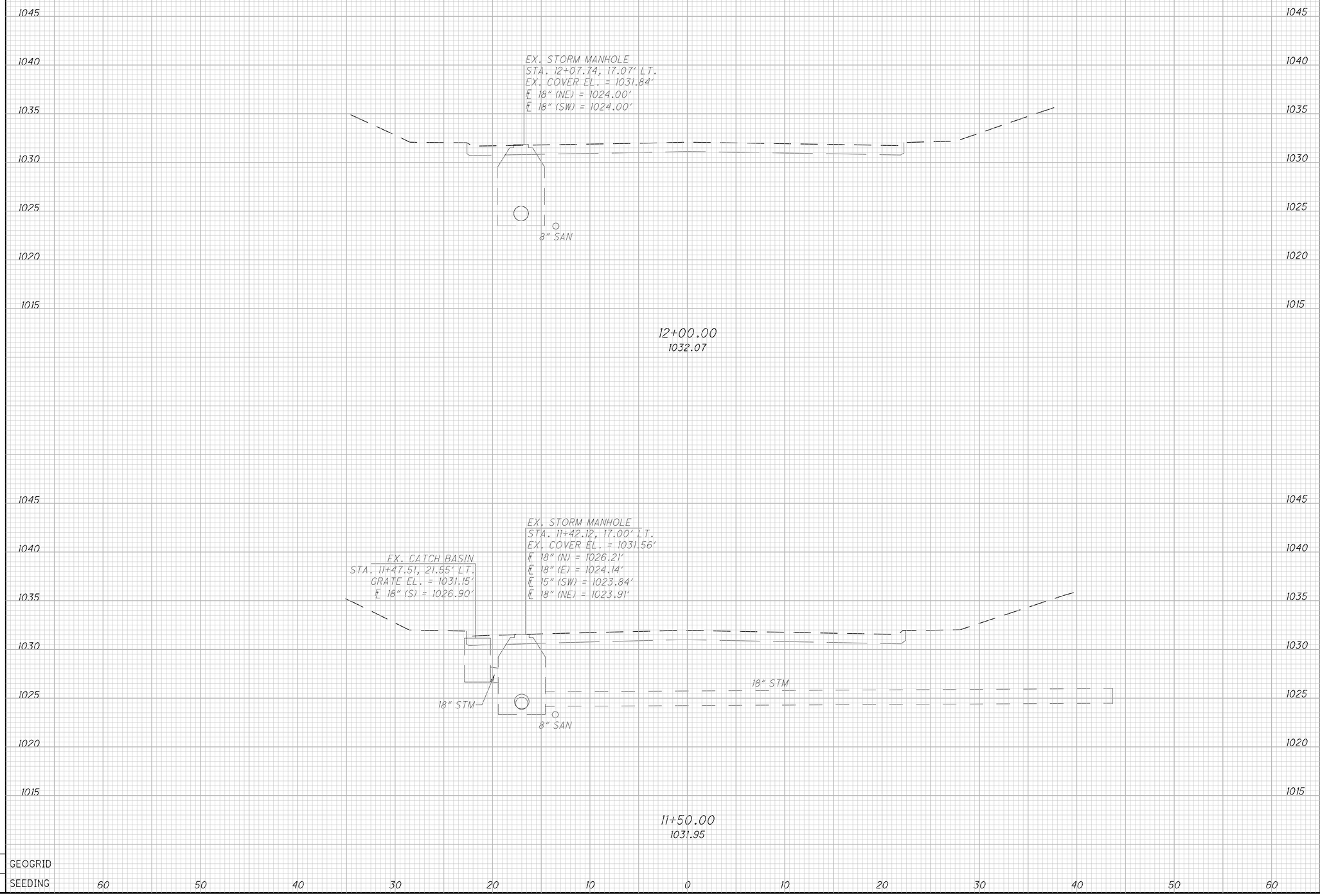
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - MARKET AVENUE S STA. 11+50.00 TO STA. 12+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

110
302

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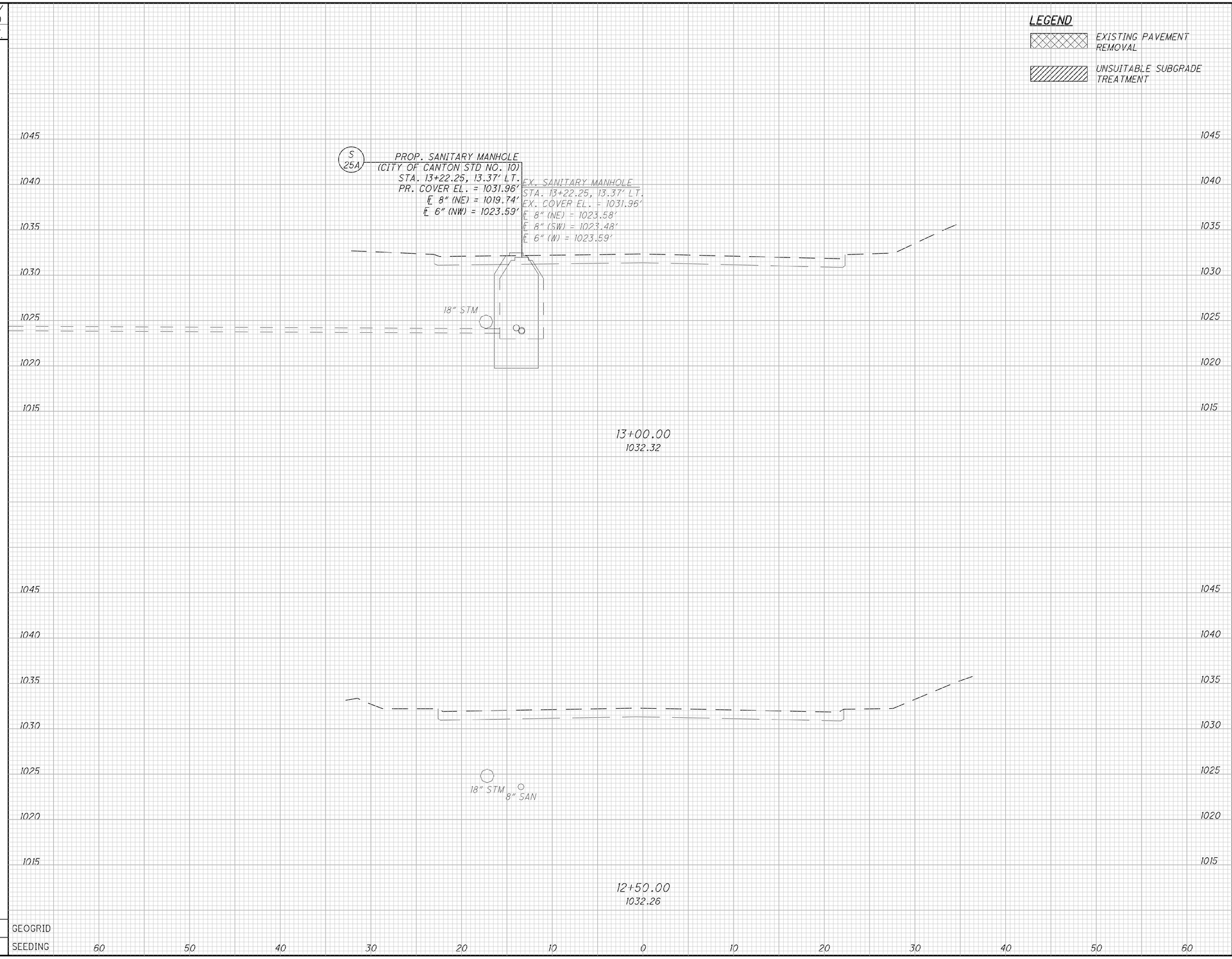
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
	GEOGRID
	SEEDING



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
JPK	JES

CROSS SECTIONS - MARKET AVENUE S
STA. 12+50.00 TO STA. 13+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - MARKET AVENUE S
STA. 13+50.00 TO STA. 14+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

112
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

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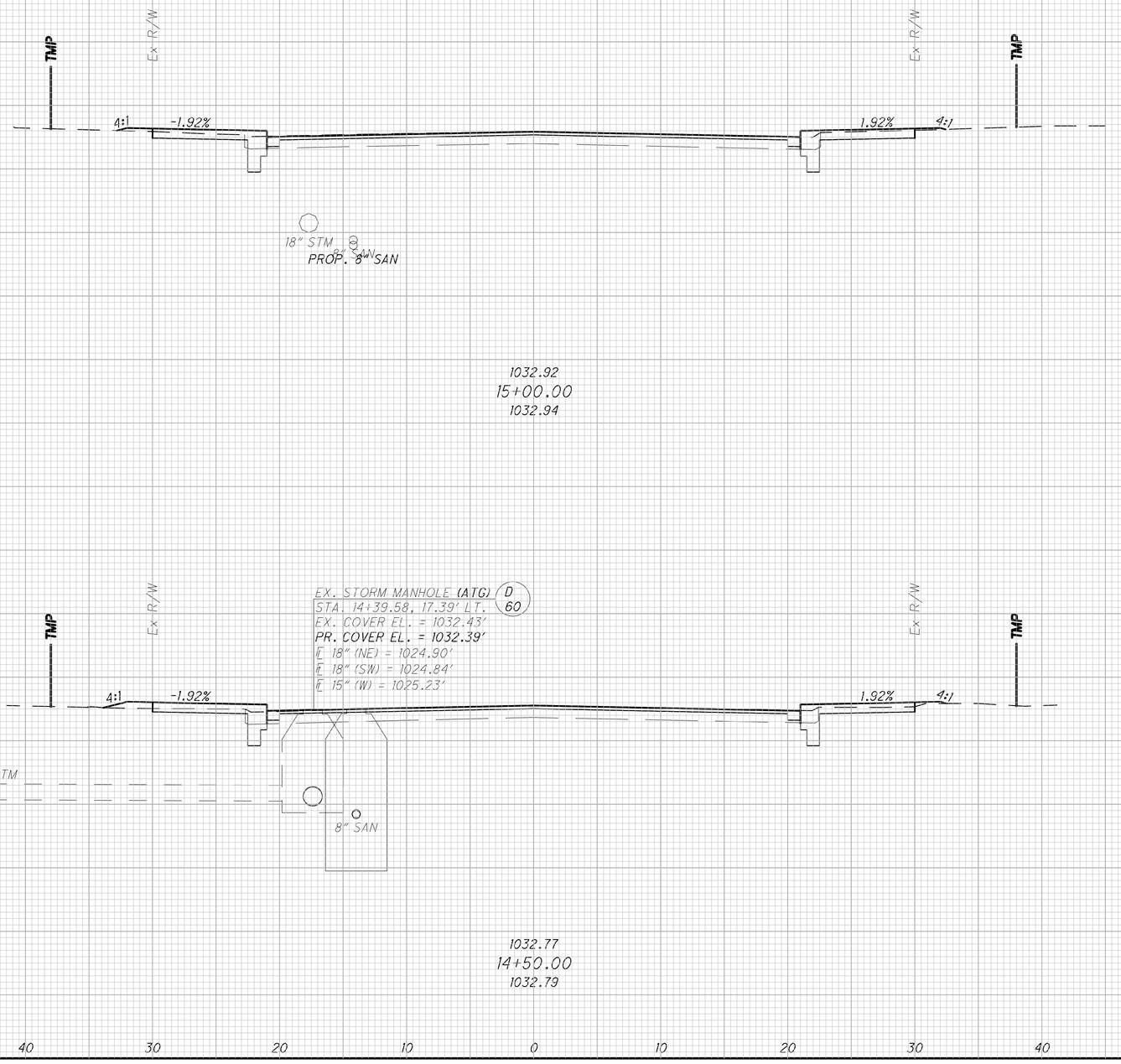
LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



END AREA		VOLUME	
CUT	FILL	CUT	FILL

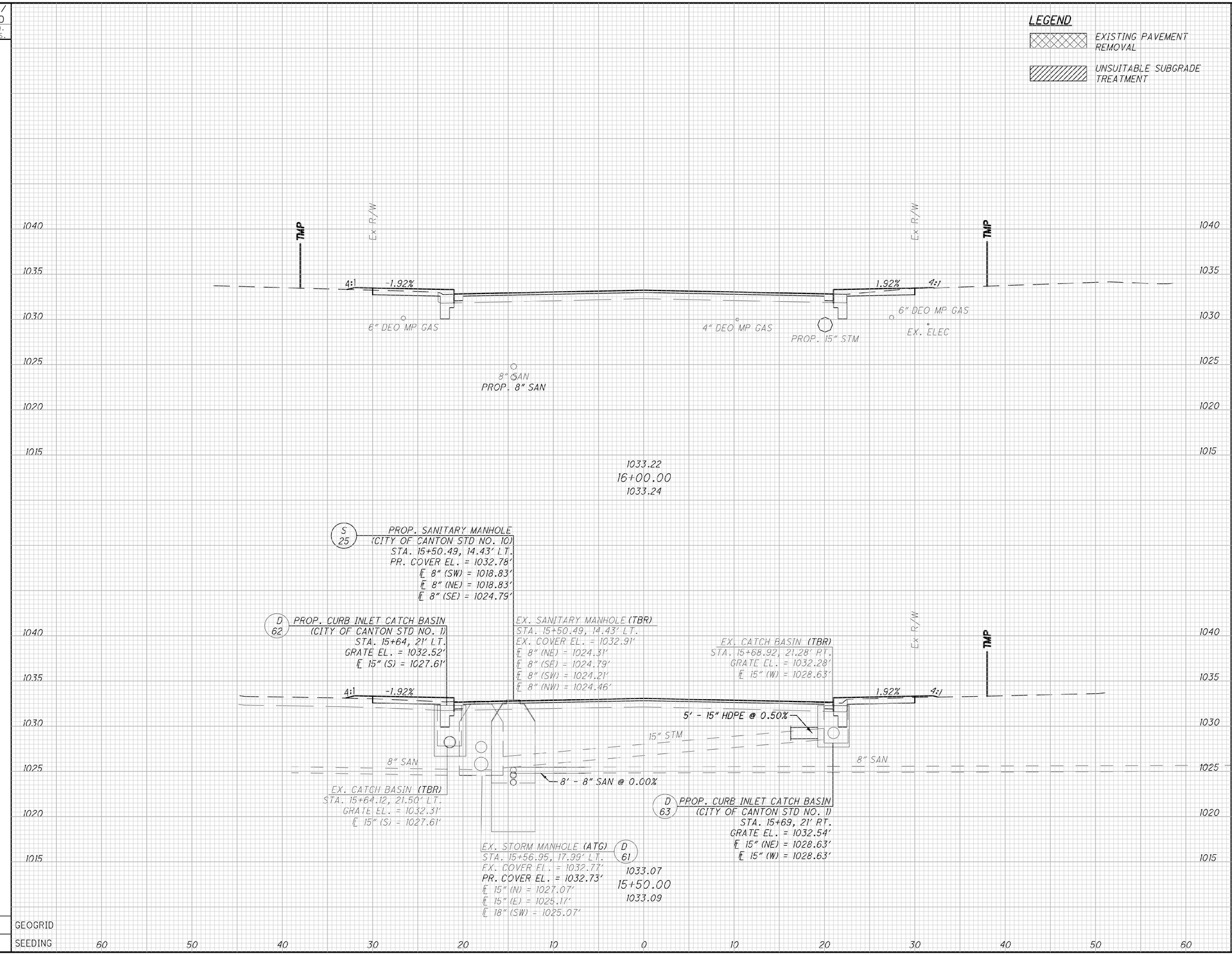
CALCULATED JPK

CHECKED JES

CROSS SECTIONS - MARKET AVENUE S
STA. 14+50.00 TO STA. 15+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

CROSS SECTIONS - MARKET AVENUE S
STA. 15+50.00 TO STA. 16+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

114
302

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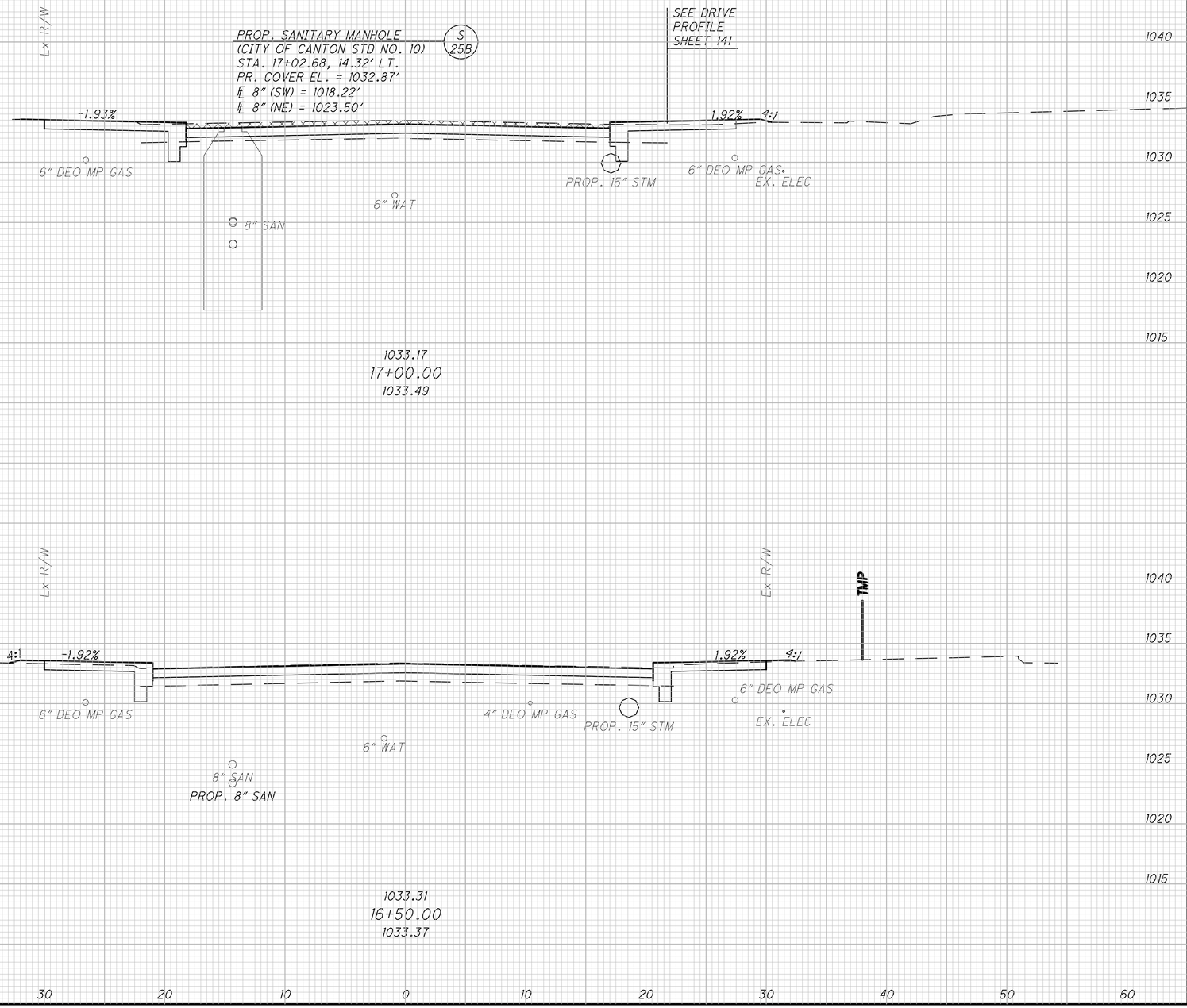
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

CROSS SECTIONS - MARKET AVENUE S
STA. 16+50.00 TO STA. 17+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

115
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

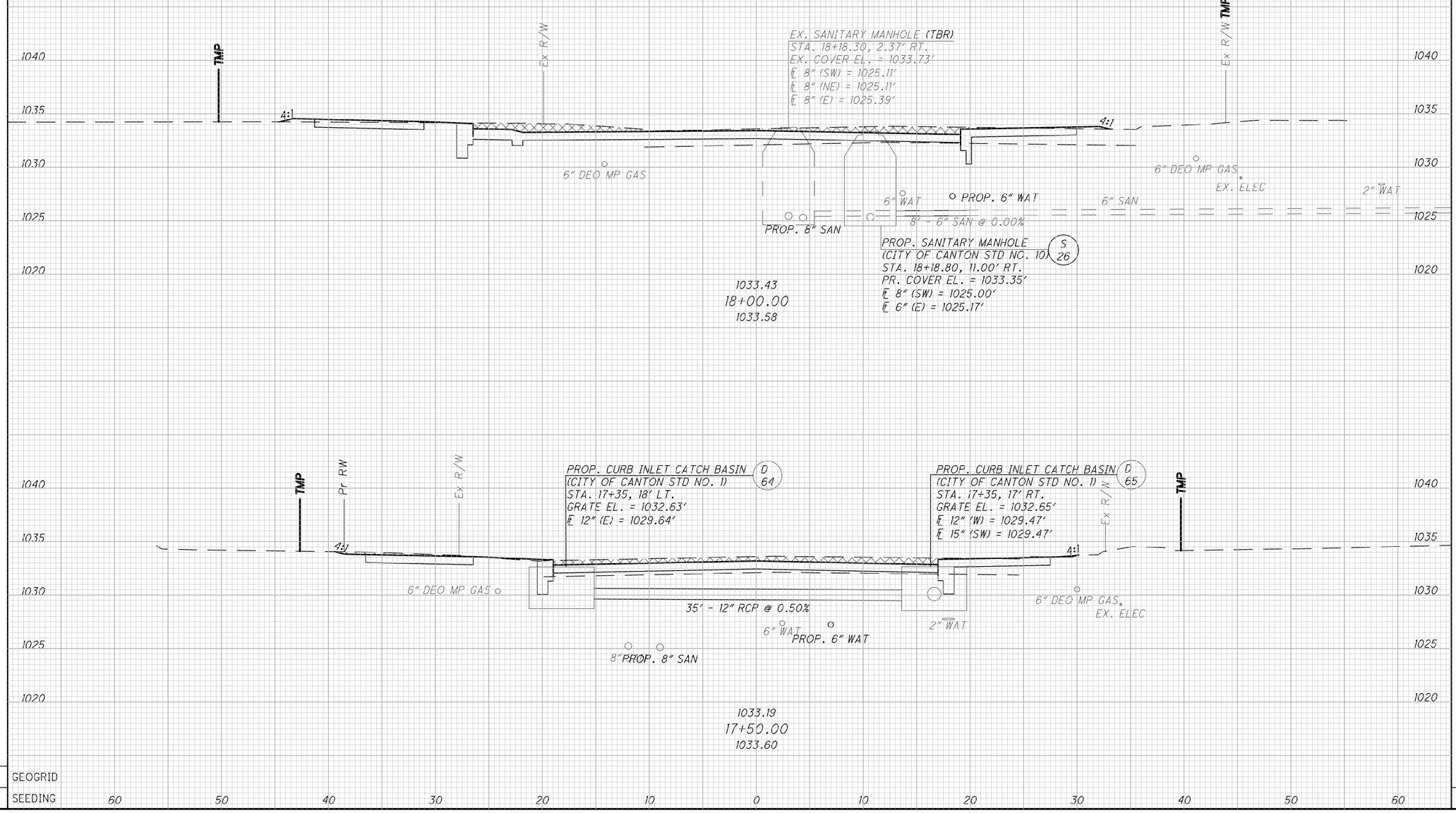
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - MARKET AVENUE S STA. 17+50.00 TO STA. 18+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

1045 1040 1035 1030 1025 1020

Ex R/W

6" DEO MP GAS

6" WAT

PROP. 8" SAN

1035.66

19+00.00

1033.14

6" DEO MP GAS

EX. ELEC

12" STM (TBR)

1040 1035 1030 1025 1020

1.55%

5:1

6" DEO MP GAS

6" WAT

PROP. 6" WAT

EX. ELEC

1033.92

18+50.00

1033.47

	GEOGRID
	SEEDING

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - MARKET AVENUE S STA. 18+50.00 TO STA. 19+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

1040 1035 1030 1025 1020 1015

TMP
Pr R/W
Ex R/W
4:1
-1.92%
2.00%
6" DEO MP GAS
18" STM
8" SAN
PROP. 12" SAN
PROP. 12" WAT
6" WAT
EX. ELEC

1031.74
22+00.00
1031.95

PROP. CURB INLET CATCH BASIN (CITY OF CANTON STD NO. 1) D 70
STA. 21+65, 21' LT.
GRATE EL. = 1031.28'
℄ 12" (SE) = 1025.96'

PROP. STORM MANHOLE (CITY OF CANTON STD NO. 10) D 71
STA. 21+65, 13' LT.
COVER EL. = 1031.61'
℄ 12" (SE) = 1025.88'
℄ 12" (NW) = 1025.88'
℄ 18" (NE) = 1025.88'
℄ 18" (SW) = 1025.88'

SEE DRIVE PROFILE SHEET 165

6" DEO MP GAS
8' - 12" HDPE @ 1.00%
8" SAN
PROP. 12" SAN
35' - 12" HDPE @ 1.00%
6" WAT
PROP. 12" WAT

D 72 PROP. CURB INLET CATCH BASIN (CITY OF CANTON STD NO. 1)
STA. 21+65, 21' RT.
GRATE EL. = 1031.28'
℄ 12" (NW) = 1026.23'

EX. SANITARY MANHOLE (TBR)
STA. 21+18.69, 2.03' LT.
EX. COVER EL. = 1031.99'
℄ 8" (SW) = 1024.43'
℄ 8" (NE) = 1024.38'

1031.93
21+50.00
1032.02

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - MARKET AVENUE S
STA. 21+50.00 TO STA. 22+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

120
302

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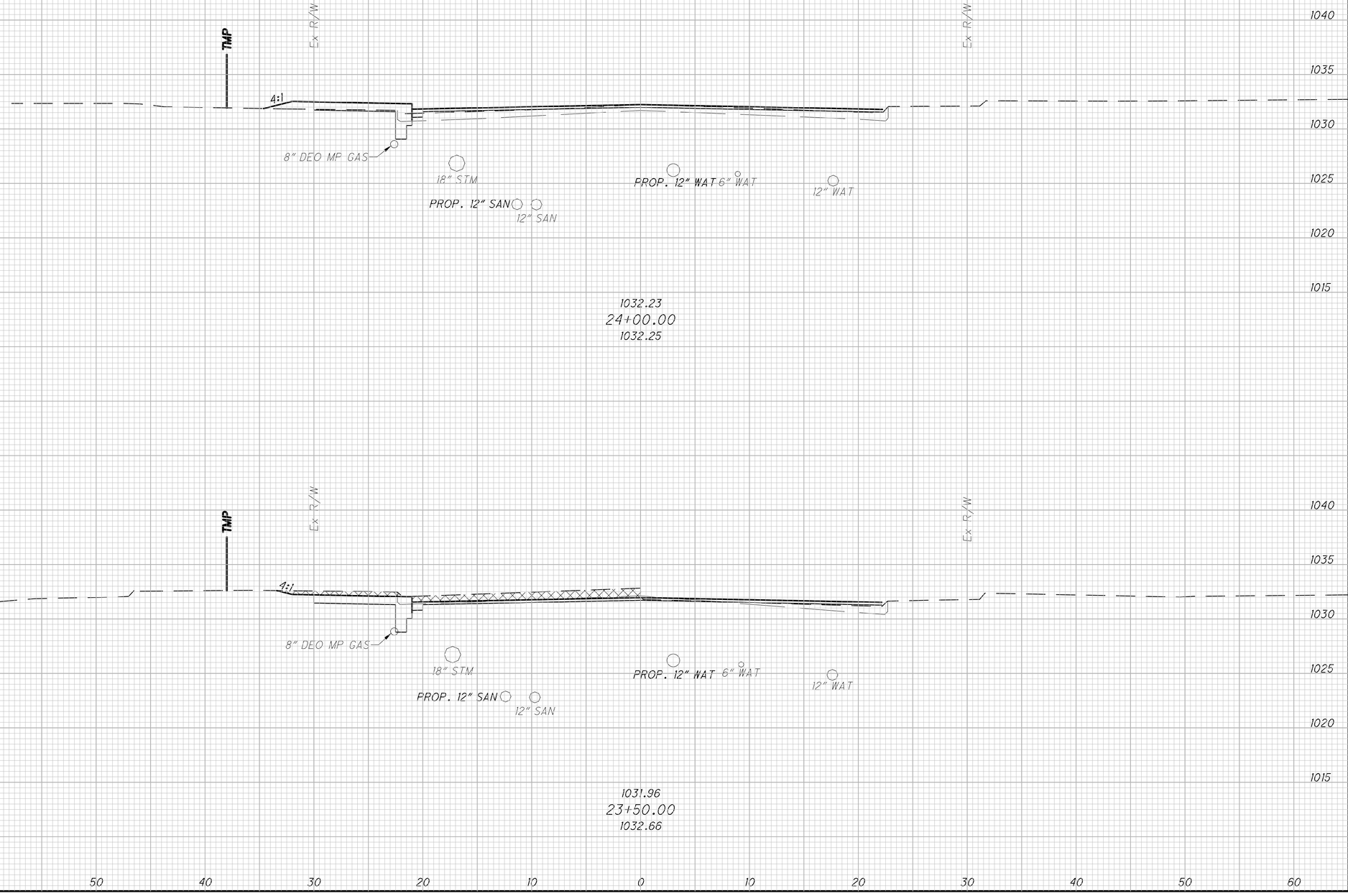
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



GEOGRID
SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - MARKET AVENUE S
STA. 23+50.00 TO STA. 24+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

122
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

D 84B (ATG) EX. STORM MANHOLE
STA. 28+15.36, 15.24' LT.
EX. COVER EL. = 1035.20'
E 18" (SW) = 1029.16'
E 15" (SE) = 1029.48'
PR. COVER EL. = 1035.20'

Ex R/W

EX. SANITARY MANHOLE (ATG)
STA. 28+03.78, 7.27' LT.
EX. COVER EL. = 1034.87'
PR. COVER EL. = 1034.82'
E 12" (NE) = 1024.18'
E 6" (E) = 1024.80'
E 12" (SW) = 1024.18'

Ex R/W

EX. CATCH BASIN
STA. 28+15.92, 32.29' RT.
GRATE EL. = 1034.41'
E 15" (E) = 1029.81'
E 15" (E) = 1029.87'
E 15" (SW) = 1029.85'

8" DEO MP GAS
15" STM
10" WAT
8" SAN
15" STM
15" STM

1045 1040 1035 1030 1025 1020 1015

1034.88
28+00.00
1034.89

PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 27+67, 21' LT.
GRATE EL. = 1033.79'
E 15" (SE) = 1029.09'

Ex R/W

EX. STORM MANHOLE (ATG) D 84
STA. 27+65.75, 15.24' LT.
EX. COVER EL. = 1033.82'
PR. COVER EL. = 1034.07'
E 18" (SW) = 1028.63'
E 18" (NE) = 1028.63'
E 15" (NW) = 1029.26'
E 15" (E) = 1029.71'

D 84A (ATG) EX. CATCH BASIN
STA. 27+71.44, 21.93' RT.
GRATE EL. = 1033.71'
E 15" (NE) = 1030.63'
PR. GRATE EL. = 1033.81'

Ex R/W

EX. CATCH BASIN
STA. 27+87.96, 38.53' RT.
GRATE EL. = 1034.41'

8" DEO MP GAS
15" STM
15" STM
PROP. 12" WAT
10" WAT
10" WAT
6' - 15" HDPE @ 0.00%
PROP. 12" SAN
12" SAN
15" STM (TBR)

EX. CATCH BASIN (TBR)
STA. 27+66.96, 21.25' LT.
GRATE EL. = 1033.20'
E 15" (SE) = 1029.09'

EX. CATCH BASIN
STA. 27+73.66, 39.63' RT.
GRATE EL. = 1033.96'

1040 1035 1030 1025 1020 1015

1034.21
27+50.00
1034.13

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - MARKET AVENUE S
STA. 27+50.00 TO STA. 28+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

126
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - MARKET AVENUE S

STA. 28+50.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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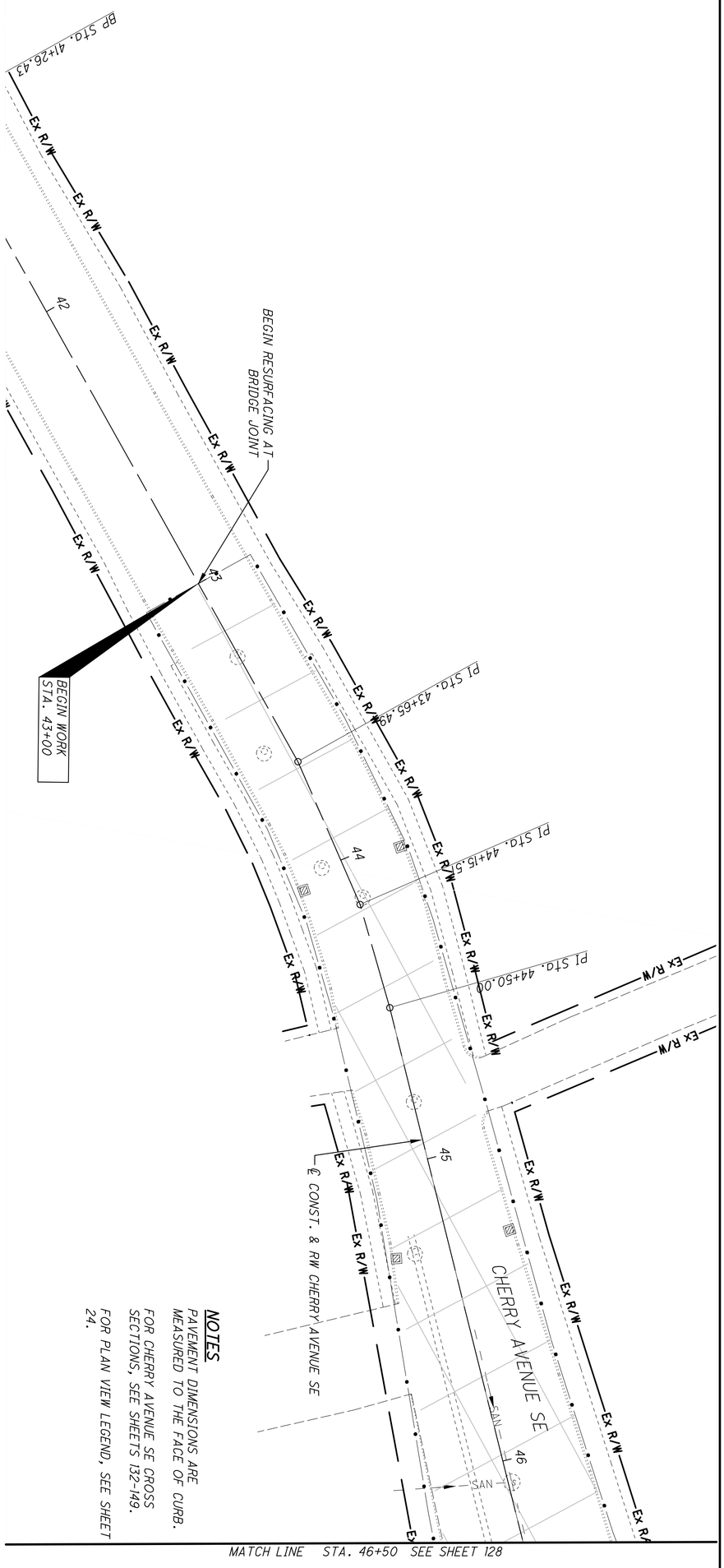

NOTES

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR CHERRY AVENUE SE CROSS SECTIONS, SEE SHEETS 132-149.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

128A / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PLAN AND PROFILE - CHERRY AVENUE SE BEGINNING TO STA. 46+50.00	CALCULATED SDM / CHECKED JES	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

MATCH LINE STA. 46+50 SEE SHEET 120A

MATCH LINE STA. 52+00 SEE SHEET 129

CHERRY AVENUE SE

14TH ST. SW

Ex RR

Ex LA-R/W

Ex R/W

PC Sta. 48+13.16

℄ CONST. & RW CHERRY AVENUE SE

18" PLUG

18" STM

24" STM

8" SAN

18" SAN (TBA)

6" SAN (TBA)

D 96C

D 96

D 96A

D 96B

D 95

D 95A

S 35

S 36

S 37

S 38

S 39

S 40

S 41

47

48

49

50

51

NOTES

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR CHERRY AVENUE SE CROSS SECTIONS, SEE SHEETS 132-149.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

BEGIN WORK
BEGIN RESURFACING
STA. 43+00

STA 47+06.61

EX. STORM MANHOLE
STA. 47+16.27, 10.48' RT.
EX. COVER EL. = 1027.28'
*INVERT INFORMATION NOT AVAILABLE

EX. STORM MANHOLE (ATG)
STA. 48+36.10, 10.68' RT.
EX. COVER EL. = 1027.83'
*INVERT INFORMATION NOT AVAILABLE

EX. SANITARY MANHOLE (ATG)
STA. 48+37.25, 0.68' LT.
EX. COVER EL. = 1028.03'
PR. COVER EL. = 1028.03'
*INVERT INFORMATION NOT AVAILABLE

EX. STORM MANHOLE (ATG)
STA. 48+59.29, 30.90' LT.
EX. COVER EL. = 1028.46'
*INVERT INFORMATION NOT AVAILABLE

SSD = 715.42'
K = 185.206
P.V.I. STA 49+40.00 ELEV = 1028.65'
200.00' VC

PR. COVER EL. = 1028.92'

EX. SANITARY MANHOLE (TBA)
STA. 50+02.10, 15.93' LT.
EX. COVER EL. = 1028.92'
*INVERT INFORMATION NOT AVAILABLE

EX. SANITARY MANHOLE (TBA)
STA. 50+36.45, 9.26' LT.
EX. COVER EL. = 1028.40'
*INVERT INFORMATION NOT AVAILABLE

EX. STORM MANHOLE (ATG)
STA. 50+60.16, 0.18' RT.
EX. COVER EL. = 1027.95'
*INVERT INFORMATION NOT AVAILABLE

0.58%

-0.50%

1027.39 1027.50 1027.62 1027.73 1027.85 1027.96 1028.08 1028.18 1028.27 1028.33 1028.37 1028.38 1028.38 1028.35 1028.31 1028.24 1028.15 1028.05 1027.95 1027.85 1027.95 1028.06 1028.17 1028.27 1028.38

1027.00 1027.06 1027.26 1027.29 1027.43 1027.63 1027.76 1027.84 1027.91 1027.98 1028.03 1028.09 1028.16 1028.26 1028.35 1028.38 1028.39 1028.39 1028.30 1028.20 1028.08 1027.94 1027.82 1027.85 1027.87 1027.89 1028.01 1028.11 1028.22

1050 1045 1040 1035 1030 1025 1020 1015

46+50 47+00 48+00 49+00 50+00 51+00 52+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SDM
CHECKED JES

PLAN AND PROFILE - CHERRY AVENUE SE
STA. 46+50.00 TO STA. 52+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

128
302

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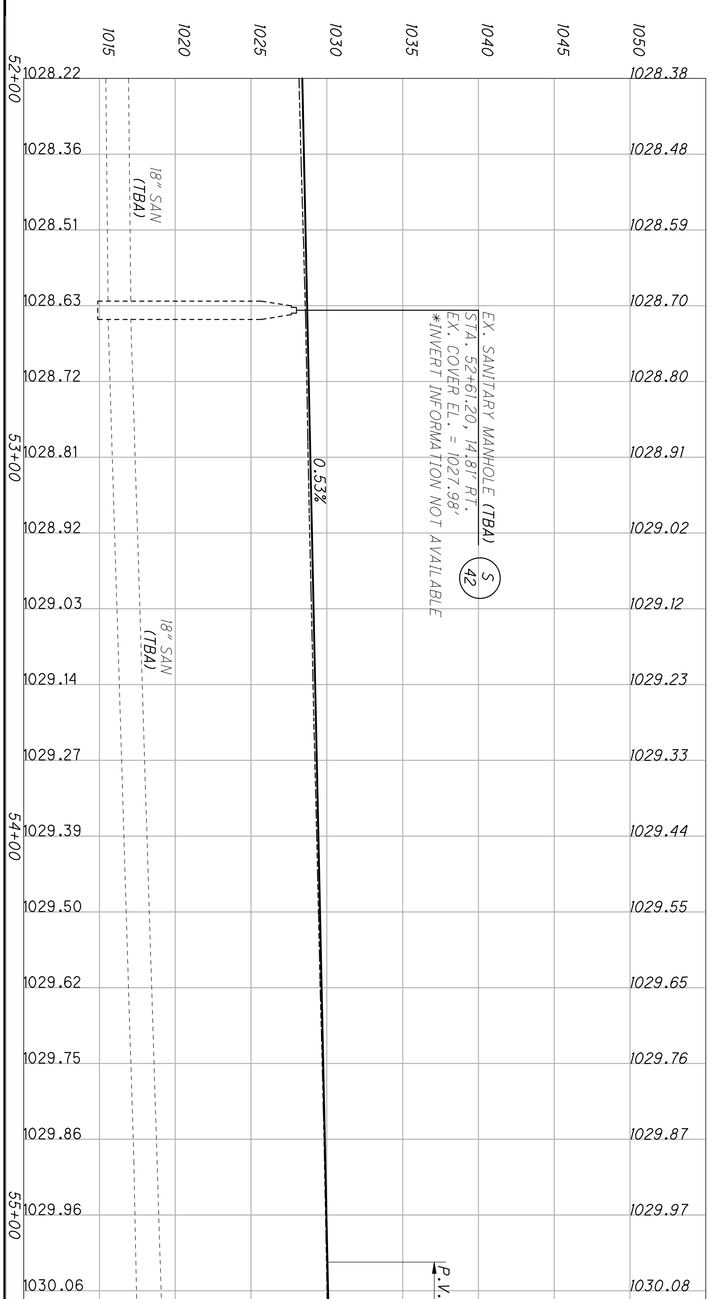

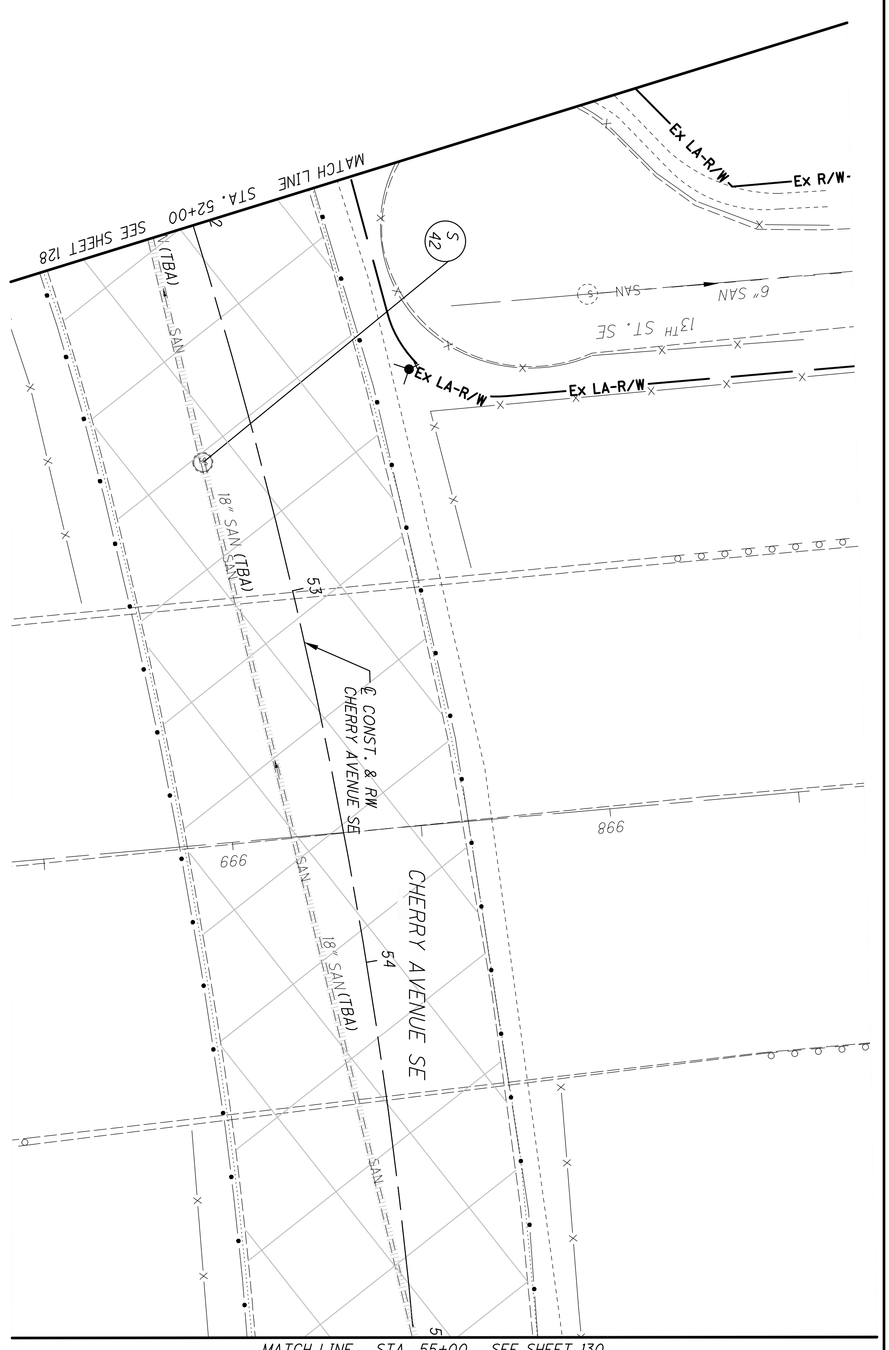

NOTES

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR CHERRY AVENUE SE CROSS SECTIONS, SEE SHEETS 132-149.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

129 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PLAN AND PROFILE - CHERRY AVENUE SE STA. 52+00.00 TO STA. 56+00.00	CALCULATED SDM / CHECKED JES	0 10 20 40 HORIZONTAL SCALE IN FEET

NOTES

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR CHERRY AVENUE SE CROSS SECTIONS, SEE SHEETS 132-149.

FOR INTERSECTION DETAILS, SEE SHEETS 155-157.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN AND PROFILE - CHERRY AVENUE SE
STA. 56+00.00 TO STA. 61+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

130
302

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NOTES

PAVEMENT DIMENSIONS ARE MEASURED TO THE FACE OF CURB.

FOR CHERRY AVENUE SE CROSS SECTIONS, SEE SHEETS 132-149.

FOR PLAN VIEW LEGEND, SEE SHEET 24.

MATCH LINE STA. 60+00 SEE SHEET 130

242986
CANTON BUSINESS PARK II LLC
INDUSTRIAL
CHERRY AVE

242980
CANTON BUSINESS PARK II LLC
INDUSTRIAL
1100 11TH ST SE

CHERRY AVENUE SE SR 43

℄ CONST. & R/W
CHERRY AVENUE SE

7.5' CONC. WALK

SAWCUT

12' CONC. CROSSWALK

PROP. SIGNAL POLE

EX. OVERHEAD TRUSS SIGN

6" WATER W/ 19"x19" ENCASEMENT

42.02' WALK TAPER (LT.) (28.59:1)

29.54' CURB TAPER (LT.) (5.84:1)

END WORK
STA. 64+41.99

STA. 64+39.67
END RESURFACING (LT./RT.)
END CONC. WALK (LT.)
END CURB REPLACEMENT (LT.)
BUTT JOINT PER BP-3.1
MATCH EXISTING CONCRETE PAVEMENT

EX. CTVA PLASTIC BOX, 3'x1.5'x1.5' HIGH

96" APPROX. LOCATION STM

EX. WATER HYDRANT (TBR)

EX. WATER VALVE (TBA)

EX. WATER VALVE

EX. CB (TBR)

PROP. 8" WATER

8" WATER (TBA)

12" STM

8" STM

96" STM

2 POST SIGN "AVAILABLE"

SAWCUT 32.00'

41.50'

42.50'

31.47'

31.26'

28.06'

37.44'

6.03'

+00

+11.39

+40.93

+41.99

K = 59
P.V.I. STA 61+15.25
ELEV = 1028.81'
200.00' VC
LOW POINT
STA. = 60+35.76
LOW POINT
ELEV. = 1029.12

PVT STA. = 62+15.25
PVT ELEV. = 1031.87

3.06%

EX. STORM MANHOLE (ATG)
STA. 60+84.82, 5.58' RT.
EX. COVER EL. = 1029.28'

EX. STORM MANHOLE (ATG)
STA. 122+84.18, 6.96' LT.
EX. COVER EL. = 1029.20'

15" STM

1029.21 1029.15 1029.13 1029.17 1029.29 1029.48 1029.73 1030.05 1030.44 1030.55 1030.90 1031.42 1032.02 1032.63 1033.24 1033.85 1034.46 1035.08 1035.69 1036.30 1036.92 1037.53 1038.14 1038.75

1029.21 1029.15 1029.13 1029.17 1029.29 1029.48 1029.73 1030.05 1030.44 1030.90 1031.37 1031.89 1032.48 1033.11 1033.72 1034.35 1034.99 1035.64 1036.27 1036.86 1037.47 1038.08 1038.76 1039.48 1040.18 1040.85

1050 1045 1040 1035 1030 1025 1020 1015

60+00 61+00 62+00 63+00 64+00 65+00

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

PLAN AND PROFILE - CHERRY AVENUE SE
STA. 61+00.00 TO END

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

131
302

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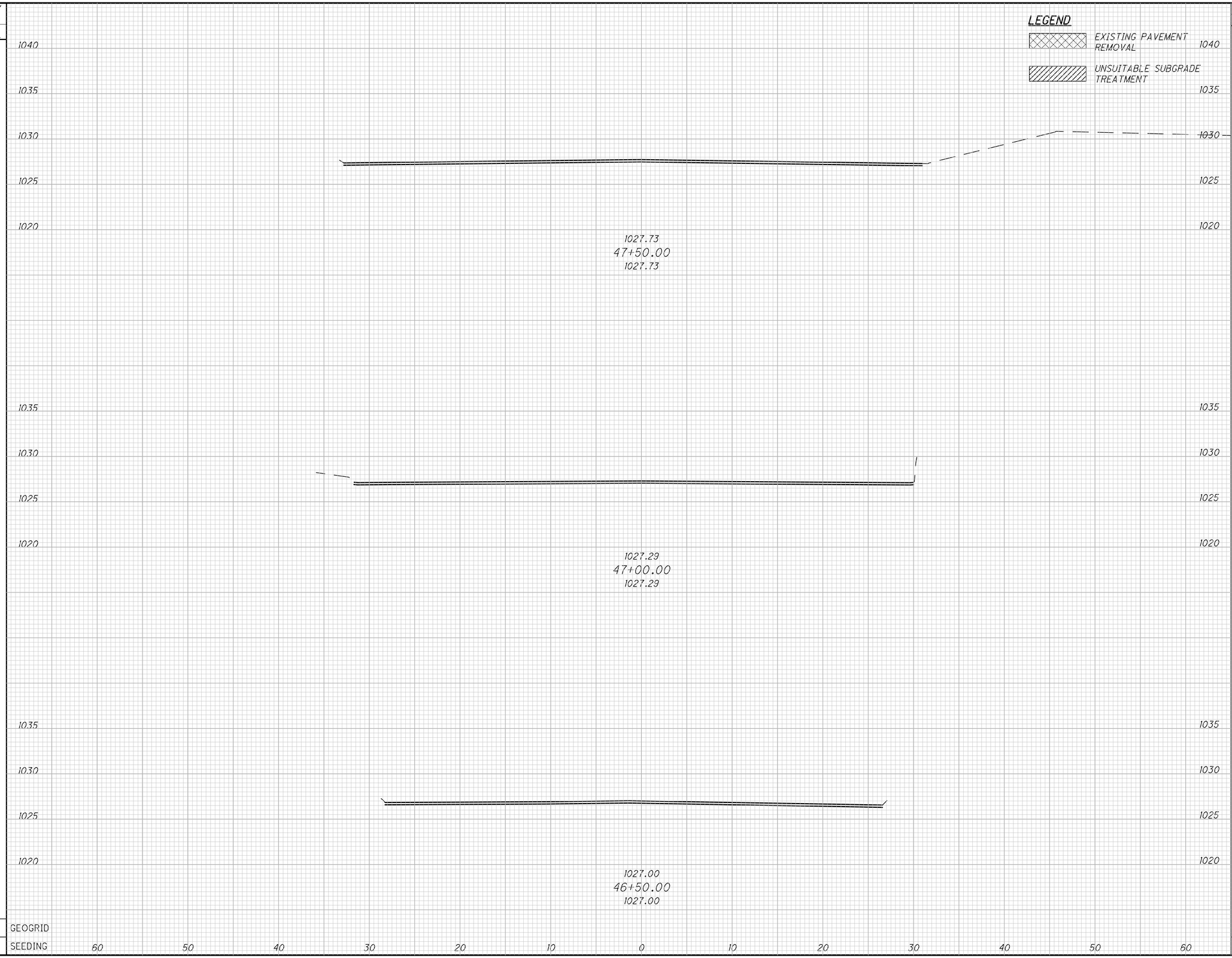
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
JPK	JES

CROSS SECTIONS - CHERRY AVENUE SE
STA. 46+50.00 TO STA. 47+50.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

132
302

GEOGRID
SEEDING

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SEEDING/ GEOGRID END WIDTH	SEEDING/ GEOGRID SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

GEOGRID

SEEDING

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - CHERRY AVENUE SE STA. 48+00.00 TO STA. 49+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

133
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

1035
1030
1025
1020

1028.22
52+00.00
1028.22

1027.95
51+50.00
1027.95

1027.85
51+00.00
1027.85

60 50 40 30 20 10 0 10 20 30 40 50 60

GEOGRID
SEEDING

CROSS SECTIONS - CHERRY AVENUE SE
STA. 51+00.00 TO STA. 52+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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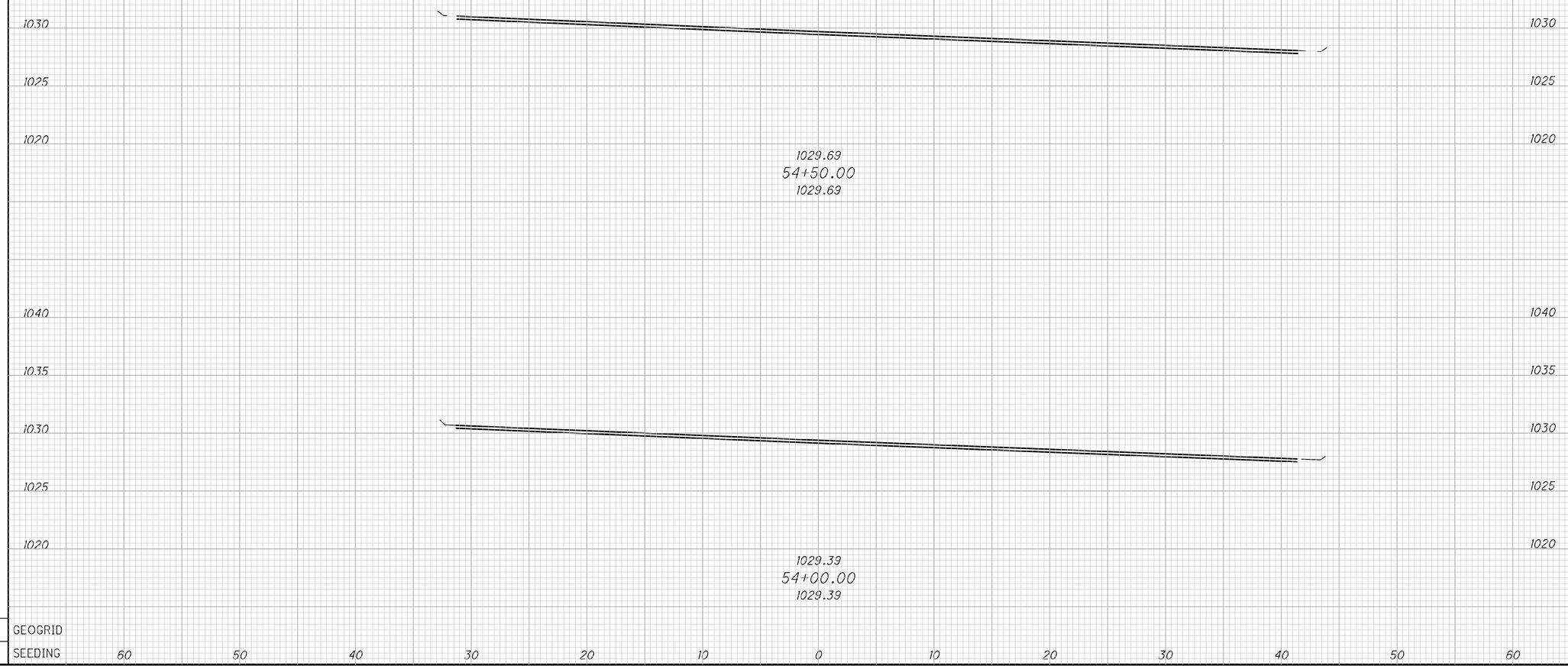
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



GEOGRID

SEEDING

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES

CROSS SECTIONS - CHERRY AVENUE SE STA. 54+00.00 TO STA. 54+50.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

137 / 302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

LEGEND

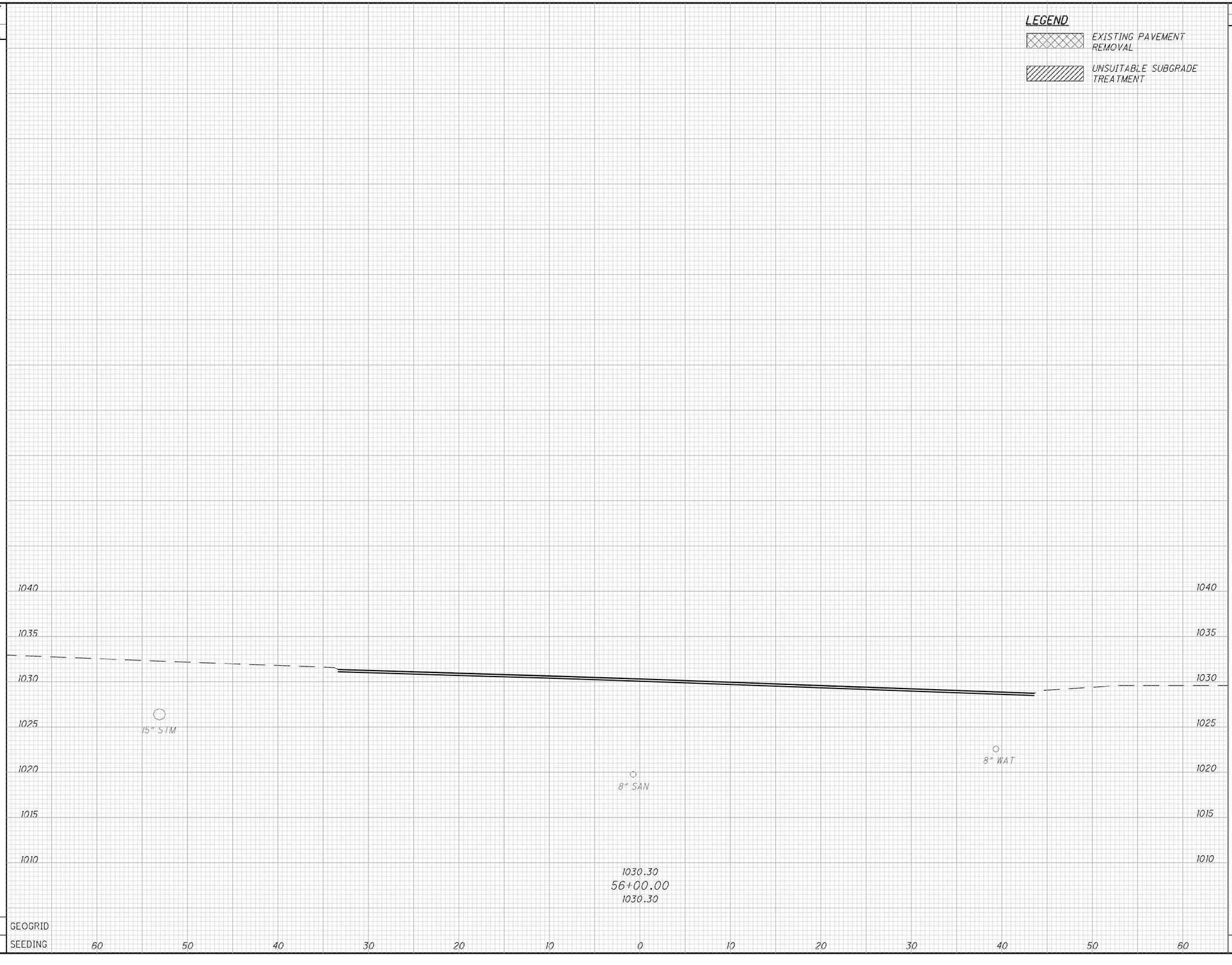
EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK

CHECKED JES



CROSS SECTIONS - CHERRY AVENUE SE

STA. 56+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

EX. LT. R/W

EX. CATCH BASIN (ATG) D 86
STA. 56+95.90, 56.73' LT.
GRATE EL. = 1029.32'
E 12" (N) = 1024.00'
E 6" (W) = 1024.20'
E 12" (S) = 1023.97'
PR. GRATE EL. = 1029.58'

6" STM

8" WAT

8" SAN

1030.21
57+00.00
1030.21

EX. SANITARY MANHOLE (ATG) S 44
STA. 56+35.05, 0.13' LT.
EX. COVER EL. = 1030.26'
E 8" (N) = 1019.70'
E 8" (S) = 1019.70'
PR. COVER EL. = 1030.31'

D 85 (ATG) EX. CATCH BASIN
STA. 56+69.38, 46.62' RT.
GRATE EL. = 1029.23'
PR. GRATE EL. = 1028.80'

8" WAT

EX. STORM MANHOLE
STA. 56+25.12, 42.58' LT.
EX. COVER EL. = 1031.74'
E 12" (N) = 1023.61'
E 15" (SW) = 1024.93'
E 15" (E) = 1022.59'
E 15" (N) = 1025.14'
E 15" (E) = 1020.70'
E 18" (W) = 1020.70'

1030.28
56+50.00
1030.28

1040 1035 1030 1025 1020 1015

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - CHERRY AVENUE SE
STA. 56+50.00 TO STA. 57+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

140
302

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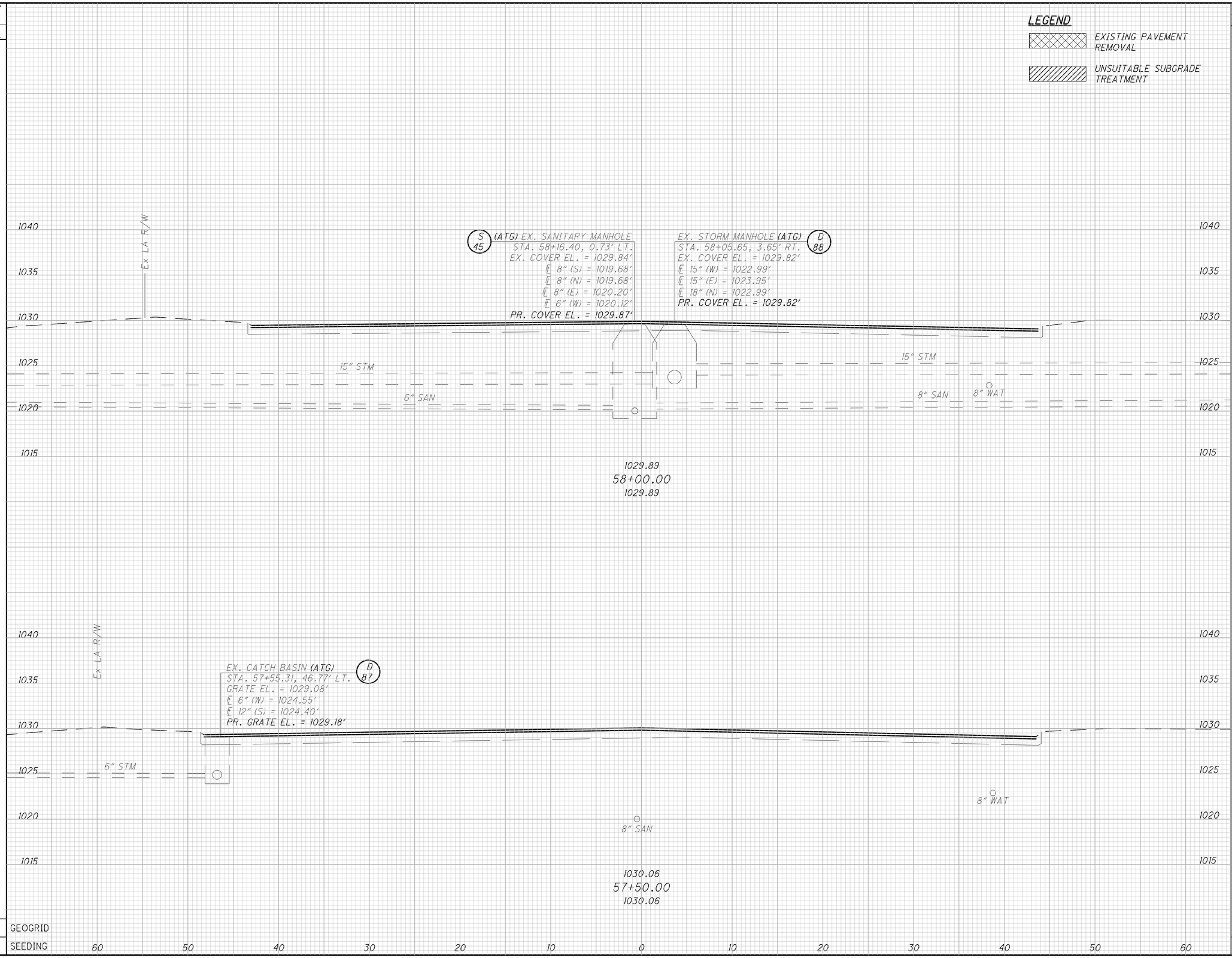
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

CROSS SECTIONS - CHERRY AVENUE SE
STA. 57+50.00 TO STA. 58+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

141
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

S 10 EX. SANITARY MANHOLE (ATG)
STA. 59+98.81, 1.20' LT.
EX. COVER EL. = 1029.14'
PR. COVER EL. = 1028.98'
℄ 8" (S) = 1020.89'

21" STM

EX. STORM MANHOLE (ATG)
STA. 60+06.37, 5.71' RT.
EX. COVER EL. = 1029.20'
PR. COVER EL. = 1029.14'
℄ 12" (N) = 1023.63'
℄ 12" (E) = 1023.05'
℄ 18" (S) = 1022.59'
℄ 15" (E) = 1023.05'
℄ 21" (W) = 1021.85'
℄ 15" (S) = 1023.12'
D 33

12" STM

8" WAT

15" STM

1029.21
60+00.00
1029.12

EX. STORM MANHOLE (ATG) D 32
STA. 59+75.28, 3.90' RT.
EX. COVER EL. = 1029.19'
PR. COVER EL. = 1029.14'
℄ 18" (N) = 1022.28'
℄ 15" (E) = 1023.71'
℄ 15" (W) = 1022.44'
℄ 18" (S) = 1022.10'

15" STM

15" STM

8" WAT

8" SAN

1029.39
59+50.00
1029.29

10.35 1035
10.30 1030
1025 1025
1020 1020
1015 1015

GEOGRID
SEEDING

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - CHERRY AVENUE SE
STA. 59+50.00 TO STA. 60+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

143
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

PROP. CURB INLET CATCH BASIN (D 92)
(CITY OF CANTON STD NO. 1)
STA. 60+84, 46' LT.
GRATE EL. = 1029.20'
℄ 12" (E) = 1024.53'
℄ 12" (SW) = 1024.92'

EX. PVMT INLET (TBR)
STA. 60+84.08, 46.07' LT.
EX. COVER EL. = 1029.20'
℄ 12" (E) = 1024.53'
℄ 12" (SW) = 1024.92'

EX. STORM MANHOLE (ATG) (D 93)
STA. 60+84.82, 5.58' RT.
EX. COVER EL. = 1029.27'
PR. COVER EL. = 1029.19'
℄ 12" (W) = 1024.26'
℄ 12" (S) = 1023.69'
℄ 12" (E) = 1024.75'

PROP. CURB INLET CATCH BASIN (D 94)
(CITY OF CANTON STD NO. 1)
STA. 60+85, 33' RT.
GRATE EL. 1029.29'
℄ 12" (W) = 1025.27'

EX. PVMT INLET (TBR)
STA. 60+84.55, 32.95' RT.
GRATE EL. = 1029.29'
℄ 12" (W) = 1025.27'

EX. STORM MANHOLE
STA. 60+97.64, 53.62' RT.
EX. COVER EL. = 1031.90'
℄ 12" (N) = 1023.93'
℄ 8" (E) = 1026.91'

TMP
Pr R/W
Ex LA R/W
Ex R/W
Pr LA R/W
4:1
12" STM (TBR)
12" STM
8" STM
5' - 12" HDPE @ 0.50%
80' - 12" HDPE @ 0.50%
5' - 12" HDPE @ 1.90%
EX. TELECOM
8" WAT
6" WAT
12" STM
1029.48
61+00.00
1029.52
1029.14
60+50.00
1029.14
1040
1035
1030
1025
1020
1015
60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - CHERRY AVENUE SE
STA. 60+50.00 TO STA. 61+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

144
302

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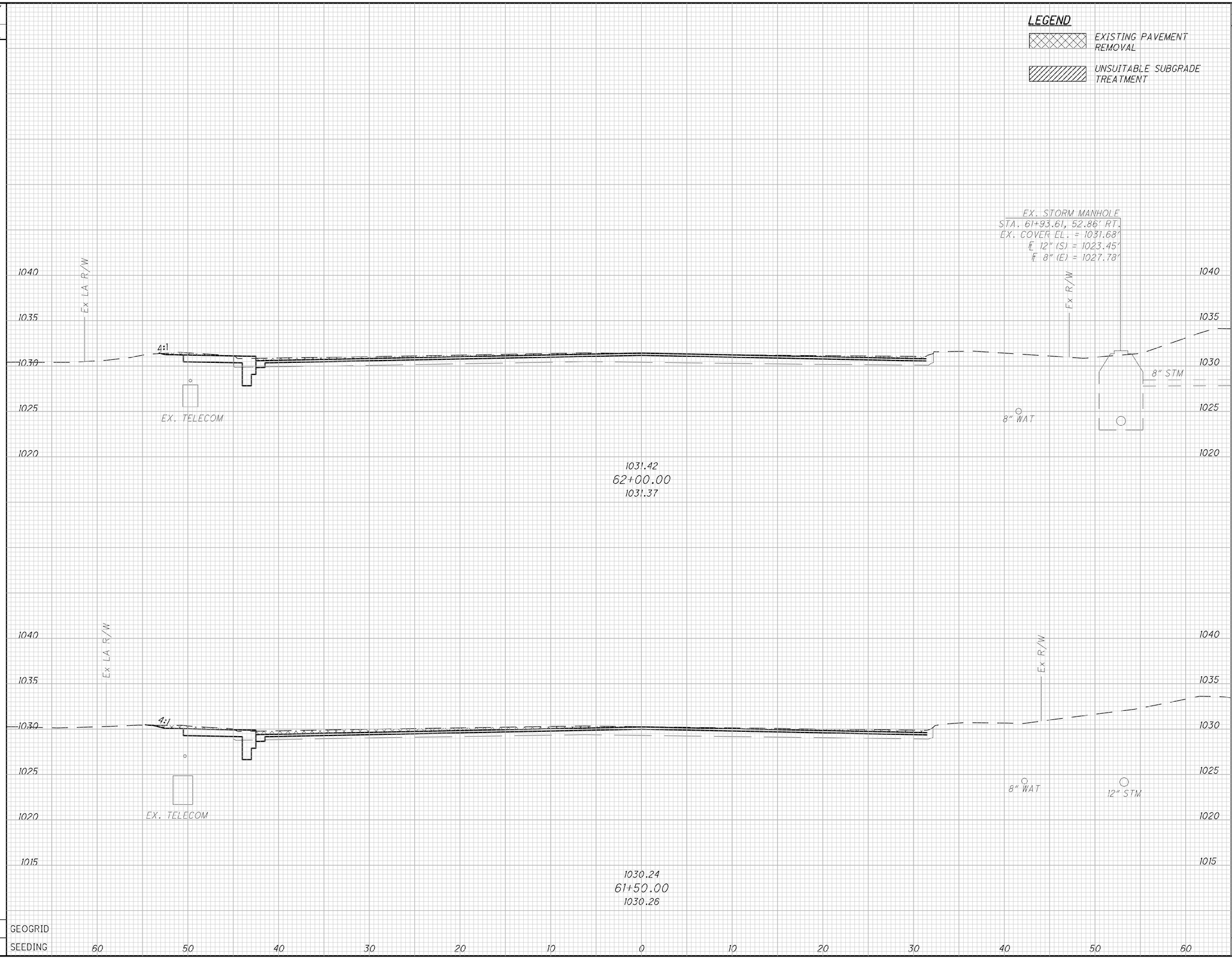
SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED	CHECKED
JPK	JES

CROSS SECTIONS - CHERRY AVENUE SE
STA. 61+50.00 TO STA. 62+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

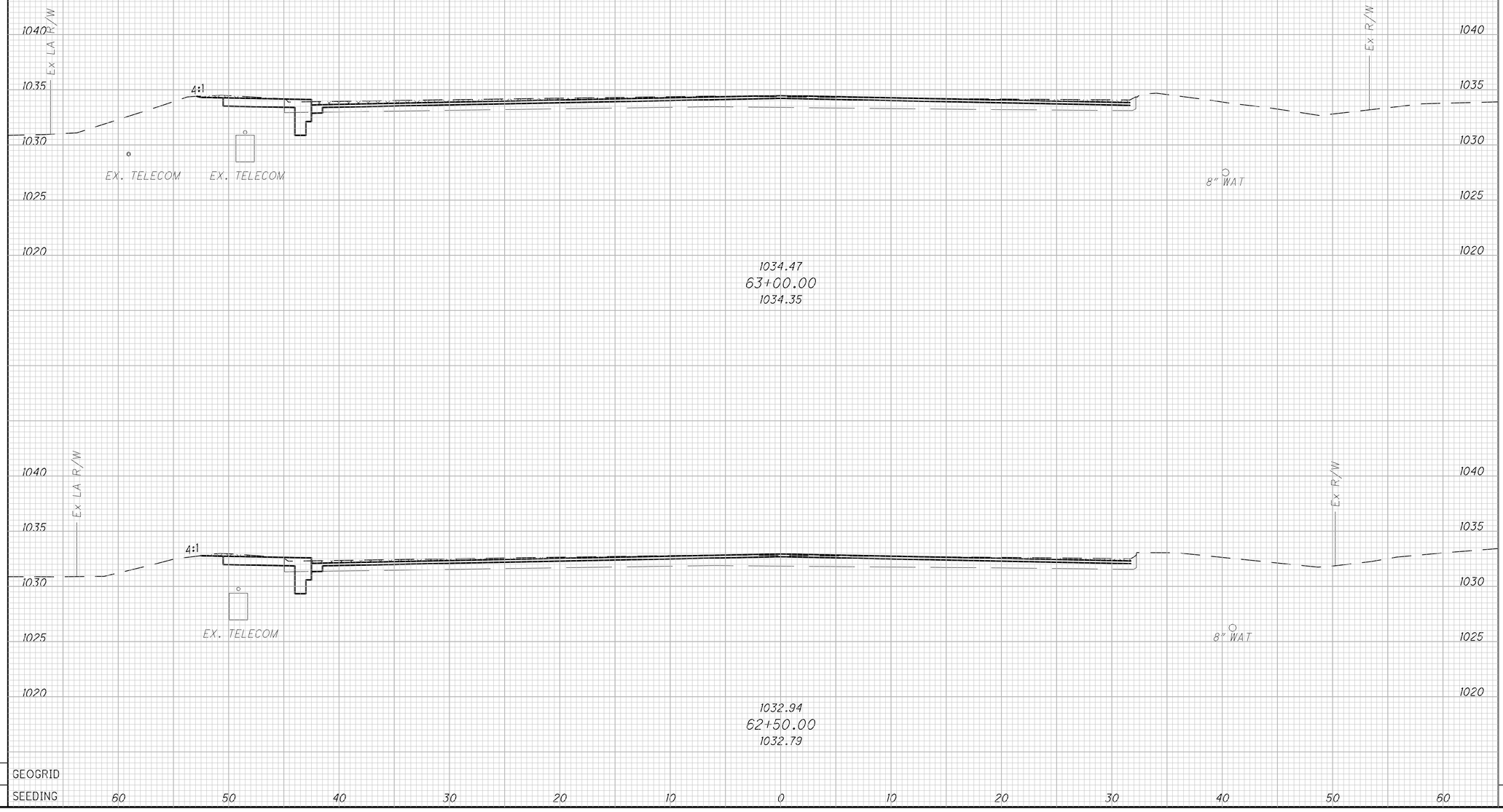
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT



CROSS SECTIONS - CHERRY AVENUE SE
STA. 62+50.00 TO STA. 63+00.00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

146
302

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SEEDING/ GEOGRID	
END WIDTH	SQ. YDS.
GEOGRID	
SEEDING	

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JPK
CHECKED JES

LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END WORK
STA. 64+41.99

1037.53
64+00.00
1037.47

1036.00
63+50.00
1035.96

4:1

EX. LA R/W

EX. TELECOM

EX. TELECOM

8" WAT

EX. TELECOM

EX R/W

1045
1040
1035
1030
1025
1020

60 50 40 30 20 10 0 10 20 30 40 50 60

CROSS SECTIONS - CHERRY AVENUE SE
STA. 63+50.00 TO STA. 64+00.00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

147
302

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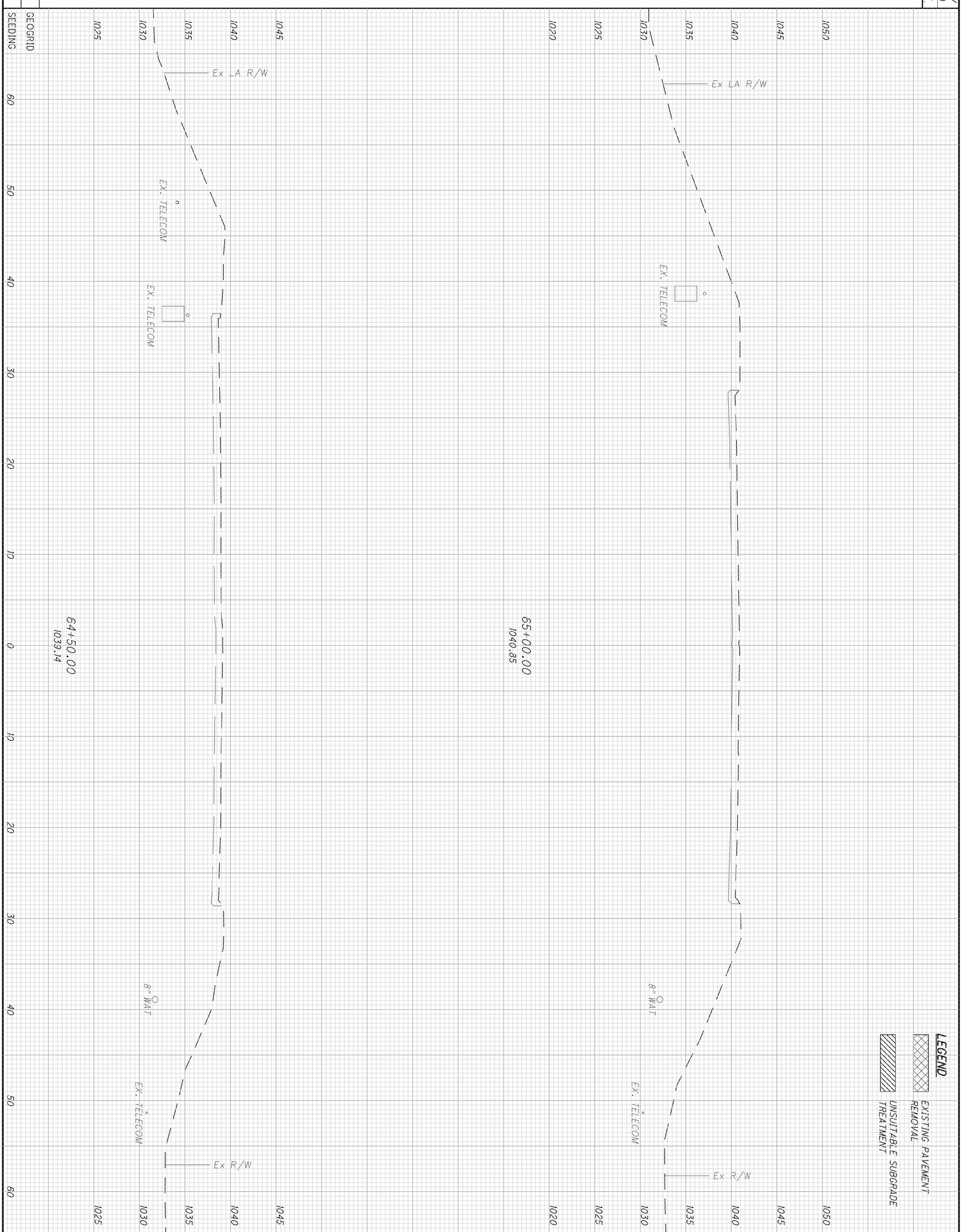
SEEDING/GEOGRID

END WIDTH | SQ. YDS.



LEGEND

EXISTING PAVEMENT REMOVAL

UNSUITABLE SUBGRADE TREATMENT

END AREA: CUT | FILL

VOLUME: CUT | FILL

148
302

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

CROSS SECTIONS - CHERRY AVENUE SE
STA. 64+50.00 TO STA. 65+00.00

CALCULATED JPK

CHECKED JES

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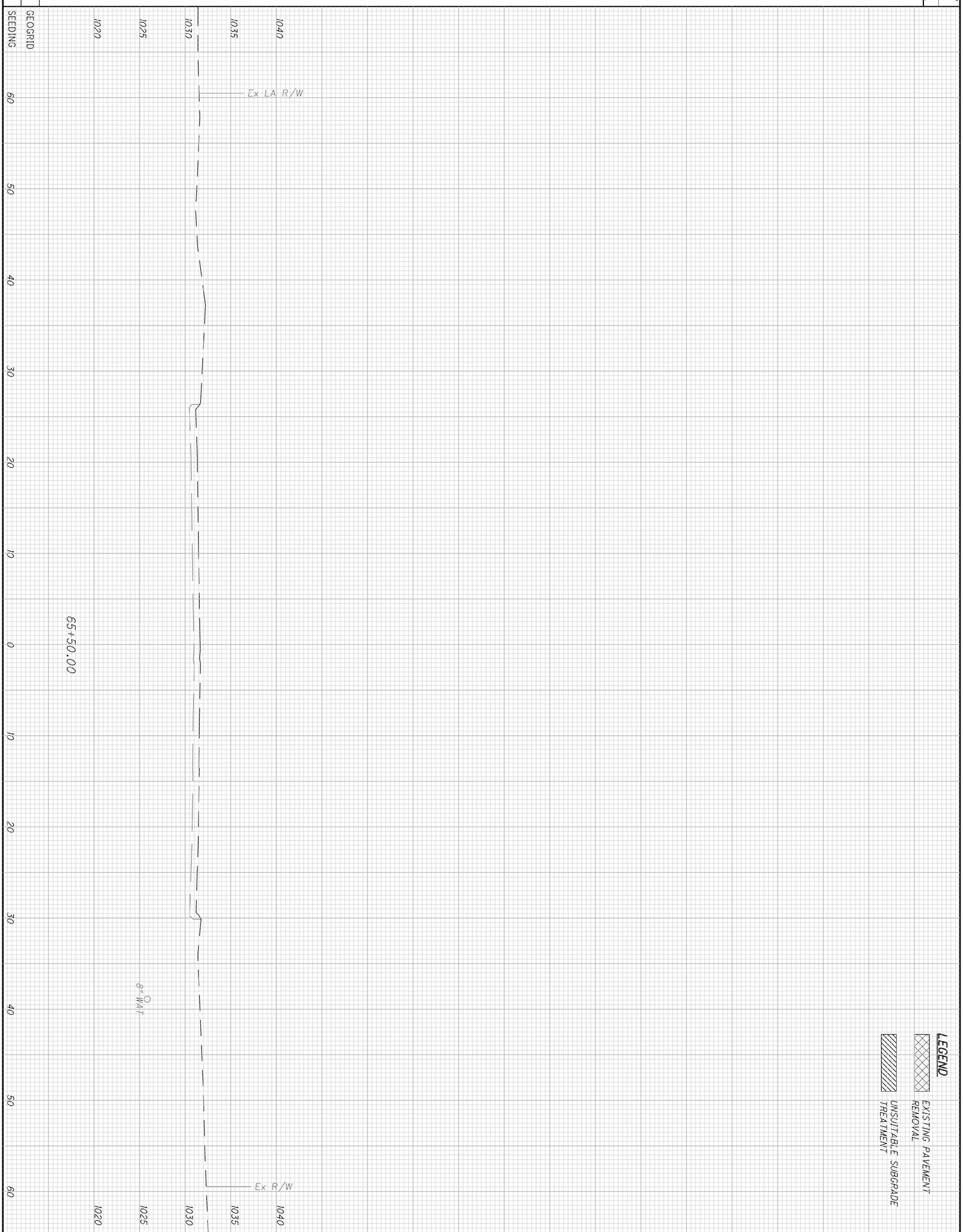
SEEDING/GEOGRID

END AREA: CUT | FILL

VOLUME: CUT | FILL



149/302

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

CROSS SECTIONS - CHERRY AVENUE SE
STA. 65+50.00

CALCULATED: JPK

CHECKED: JES

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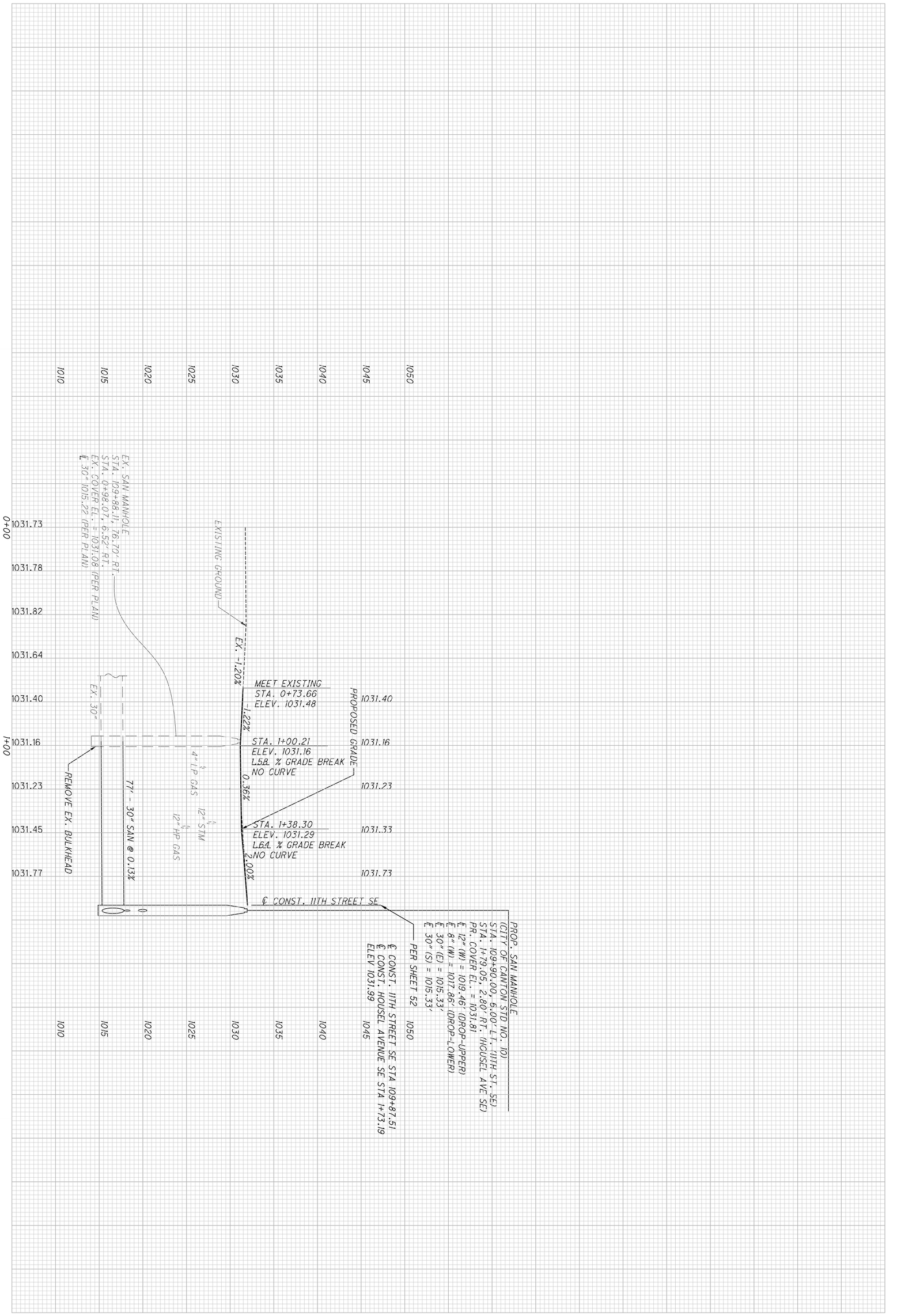

150 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PROFILE - HOUSEL AVENUE SE	CALCULATED JPK / CHECKED JES

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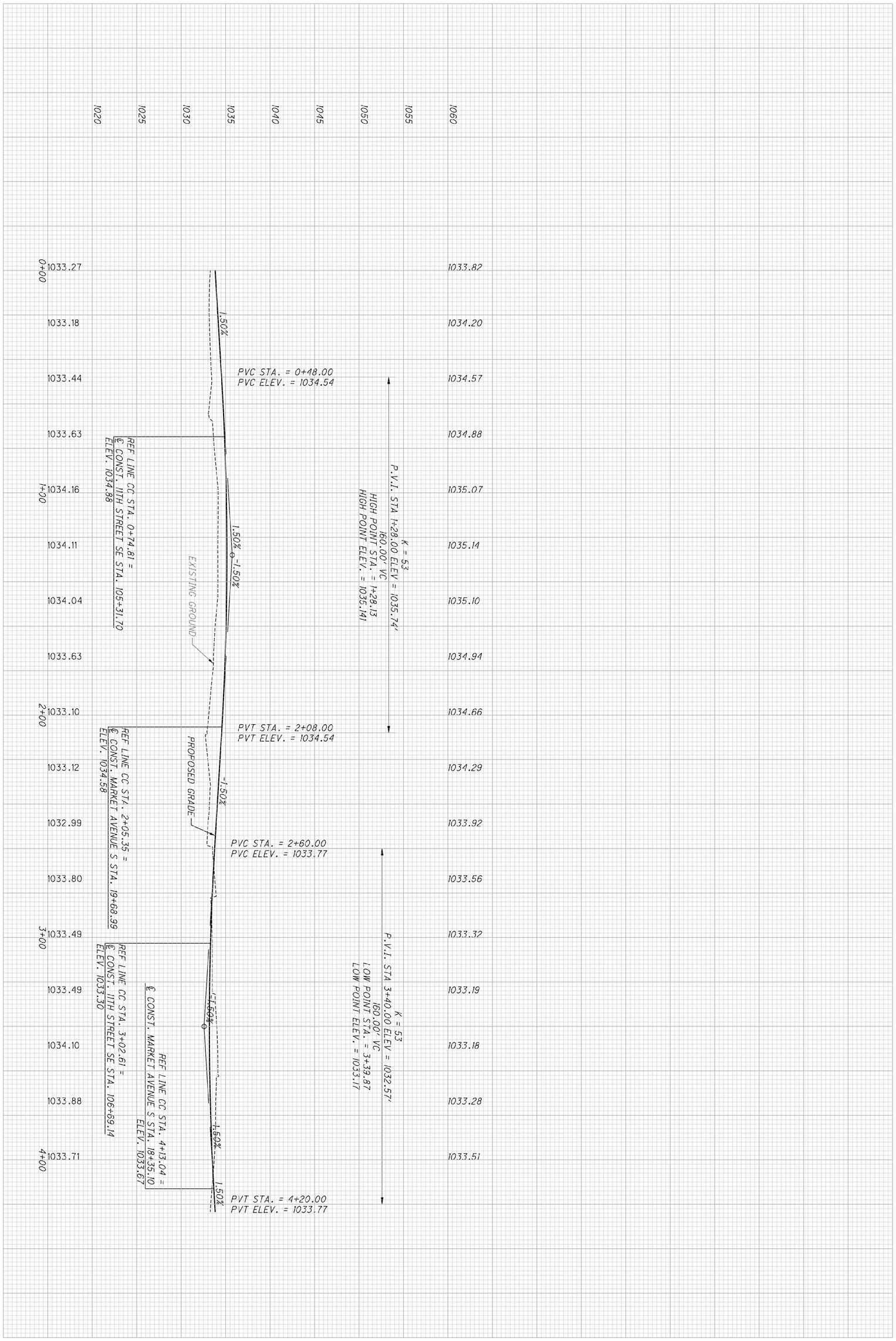

151 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PROFILE - ROUNDABOUT REFERENCE LINE CC	CALCULATED JPK / CHECKED JES

D-67
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 20+61.00, 16.98' LT
GRATE EL. = 1032.22'

D-68
PROP. PRECAST STORM MANHOLE
(CITY OF CANTON STD NO. 10)
STA. 20+61.98, 5.76' RT
COVER EL. = 1032.30'

D-69
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 20+63.00, 21.00' RT
GRATE EL. = 1032.22'

D-4
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 104+11.00, 18.74' LT
GRATE EL. = 1032.58'

D-3
PROP. PRECAST STORM MANHOLE
(CITY OF CANTON STD NO. 10)
STA. 103+82.41, 1.96' LT
COVER EL. = 1032.98'

D-66
PROP. PRECAST STORM MANHOLE
(CITY OF CANTON STD NO. 10)
STA. 19+80.64, 60.25' RT
COVER EL. = 1032.45'

D-7
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 107+51.00, 18.50' LT
GRATE EL. = 1032.39'

D-2
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 103+83.00, 19.00' RT
GRATE EL. = 1032.47'

D-5
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 104+35.00, 19.50' RT
GRATE EL. = 1032.90'

D-64
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 17+35.00, 17.86' LT
GRATE EL. = 1032.53'

D-65
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 17+35.00, 17.00' RT
GRATE EL. = 1032.53'

D-6
PROP. CURB INLET CATCH BASIN
(CITY OF CANTON STD NO. 1)
STA. 107+51.00, 18.50' RT
GRATE EL. = 1032.39'

REF LINE NL
REF LINE NR
REF LINE NW
REF LINE NE
REF LINE EL
REF LINE WL
REF LINE WR
REF LINE SW
REF LINE SE
REF LINE ER
REF LINE SR

NOTES

FOR REFERENCE LINE CURVE DATA, SEE SHEET 5.

FOR CENTERLINE CURVE DATA, SEE SHEET 3.

ALL ELEVATIONS AT 10' INTERVAL UNLESS OTHERWISE NOTED.

ALL ELEVATIONS ALONG THE CURB ARE ℄ ELEVATIONS. ADD 6-INCHES IN AREAS OF FULL HEIGHT CURB AND 1-INCH IN AREAS OF DROP CURB TO OBTAIN TOP OF CURB ELEVATIONS AT FACE OF CURB

CENTERLINE ELEVATIONS ARE AT 25' INTERVALS, UNLESS OTHERWISE NOTED

ALL STATIONING SHOWN IS ALONG THE CENTERLINE OF CONSTRUCTION

(A) STA. 106+01.52 ℄ CONST. 11TH STREET SE =
STA. 18+94.63 ℄ CONST. MARKET AVENUE S

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

ROUNDABOUT DETAILS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

152
302

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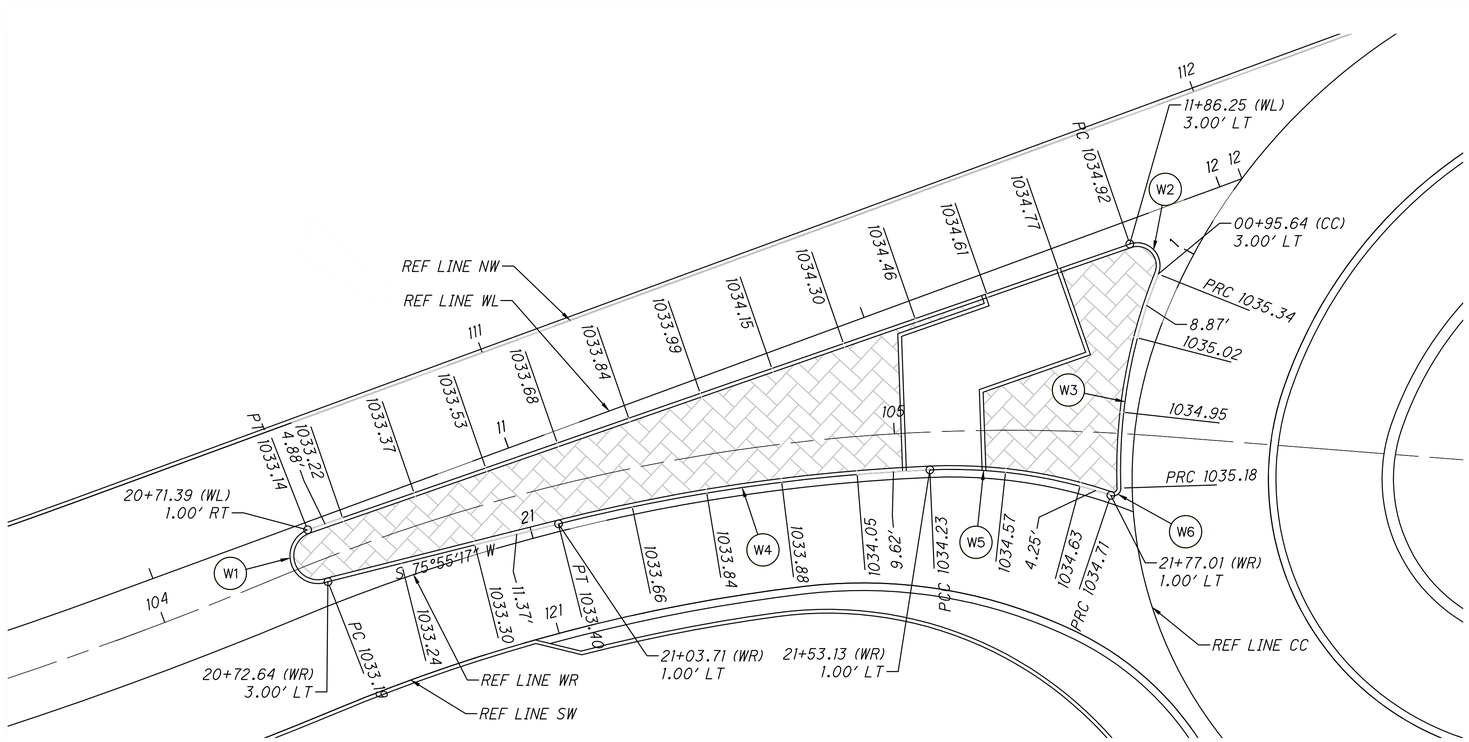
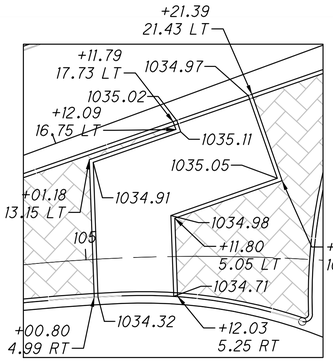




CURB RAMP DETAIL

NOTES:

FOR REFERENCE LINE CURVE DATA, SEE SHEET 5.

FOR CENTERLINE CURVE DATA, SEE SHEET 3.

ALL ELEVATIONS AT 10' INTERVAL UNLESS OTHERWISE NOTED.

ALL ELEVATIONS AT FACE OF CURB UNLESS OTHERWISE NOTED.

WEST ISLAND

W1 CURVE DATA
D = 180° 00' 00"
R = 3.673
T = INFINITY'
L = 11.54'

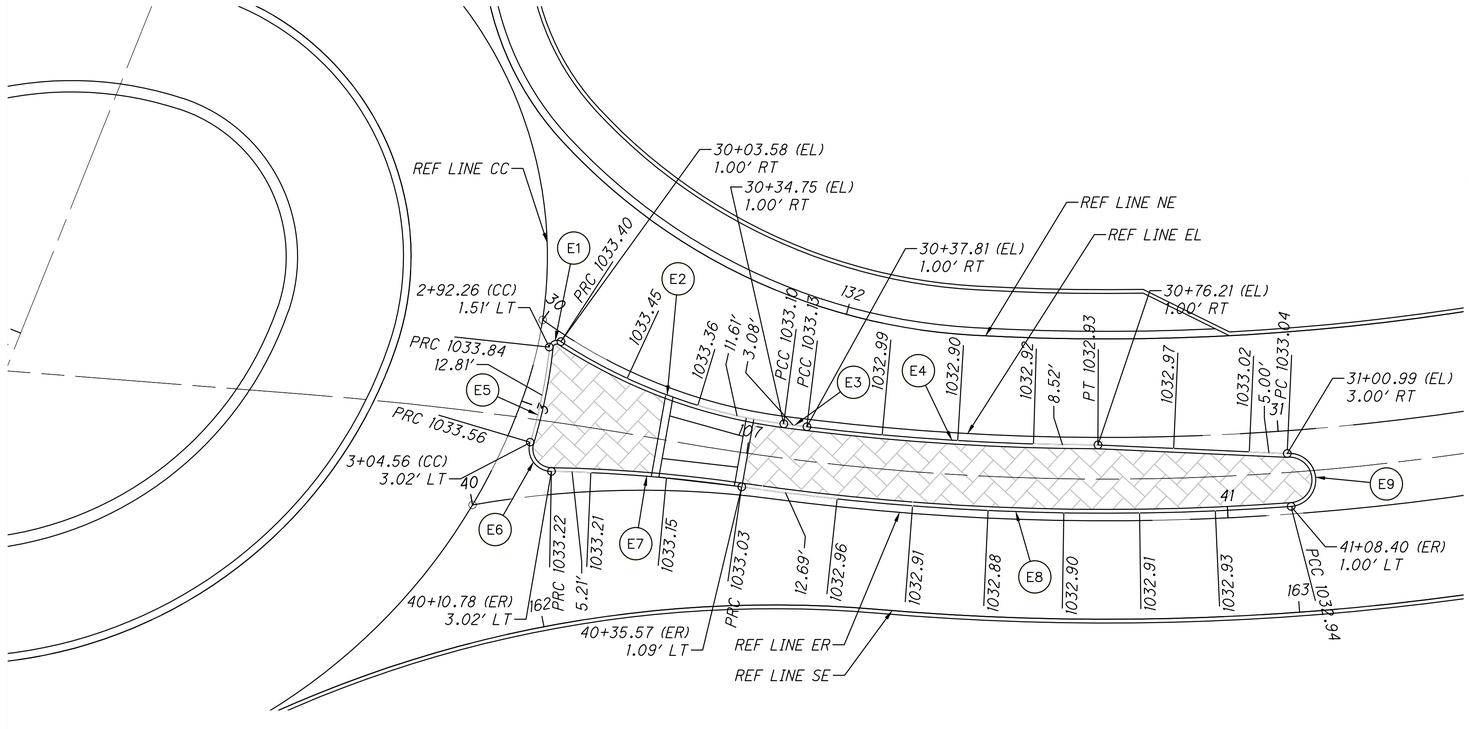
W2 CURVE DATA
D = 130° 51' 20"
R = 3.000
T = 6.56'
L = 6.85'

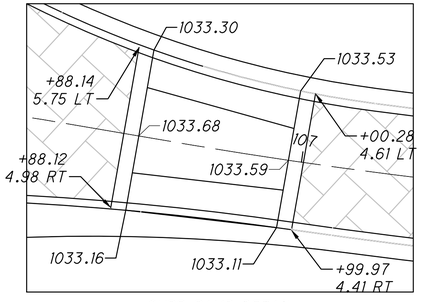
W3 CURVE DATA
D = 23° 38' 16"
R = 70.000
T = 14.65'
L = 28.88'

W4 CURVE DATA
D = 11° 36' 17"
R = 245.000
T = 24.90'
L = 49.62'

W5 CURVE DATA
D = 21° 03' 14"
R = 66.000
T = 12.26'
L = 24.25'

W6 CURVE DATA
D = 110° 26' 15"
R = 1.000
T = 1.44'
L = 1.93'





CURB RAMP DETAIL

EAST ISLAND

E1 CURVE DATA
D = 116° 51' 56"
R = 1.000
T = 1.63'
L = 2.04'

E2 CURVE DATA
D = 25° 30' 40"
R = 71.000
T = 16.07'
L = 31.61'

E3 CURVE DATA
D = 0° 32' 29"
R = 325.500
T = 1.54'
L = 3.08'

E4 CURVE DATA
D = 6° 46' 47"
R = 325.500
T = 19.28'
L = 38.52'

E5 CURVE DATA
D = 10° 29' 10"
R = 70.000
T = 6.42'
L = 12.81'

E6 CURVE DATA
D = 105° 35' 44"
R = 3.000
T = 3.95'
L = 5.53'

E7 CURVE DATA
D = 7° 13' 15"
R = 200.000
T = 12.62'
L = 25.21'

E8 CURVE DATA
D = 12° 27' 08"
R = 334.500
T = 36.49'
L = 72.70'

E9 CURVE DATA
D = 180° 00' 00"
R = 3.500
T = INFINITY'
L = 11.00'

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED JPK
CHECKED JES

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

SPLITTER ISLAND DETAILS - EAST AND WEST

153
302

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NOTES:

FOR REFERENCE LINE CURVE DATA, SEE SHEET 5.

FOR CENTERLINE CURVE DATA, SEE SHEET 3.

ALL ELEVATIONS AT 10' INTERVAL UNLESS OTHERWISE NOTED.

ALL ELEVATIONS AT FACE OF CURB UNLESS OTHERWISE NOTED.

NORTH ISLAND

N1 CURVE DATA
D = 180° 00' 00"
R = 3.500
T = INFINITY'
L = 11.00'

N2 CURVE DATA
D = 7° 08' 10"
R = 440.000
T = 27.44'
L = 54.80'

N3 CURVE DATA
D = 4° 42' 31"
R = 449.000
T = 18.46'
L = 36.90'

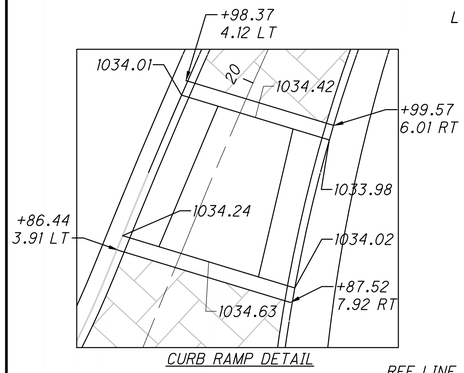
N4 CURVE DATA
D = 22° 31' 04"
R = 100.000
T = 19.91'
L = 39.30'

N5 CURVE DATA
D = 13° 17' 16"
R = 61.000
T = 7.11'
L = 14.15'

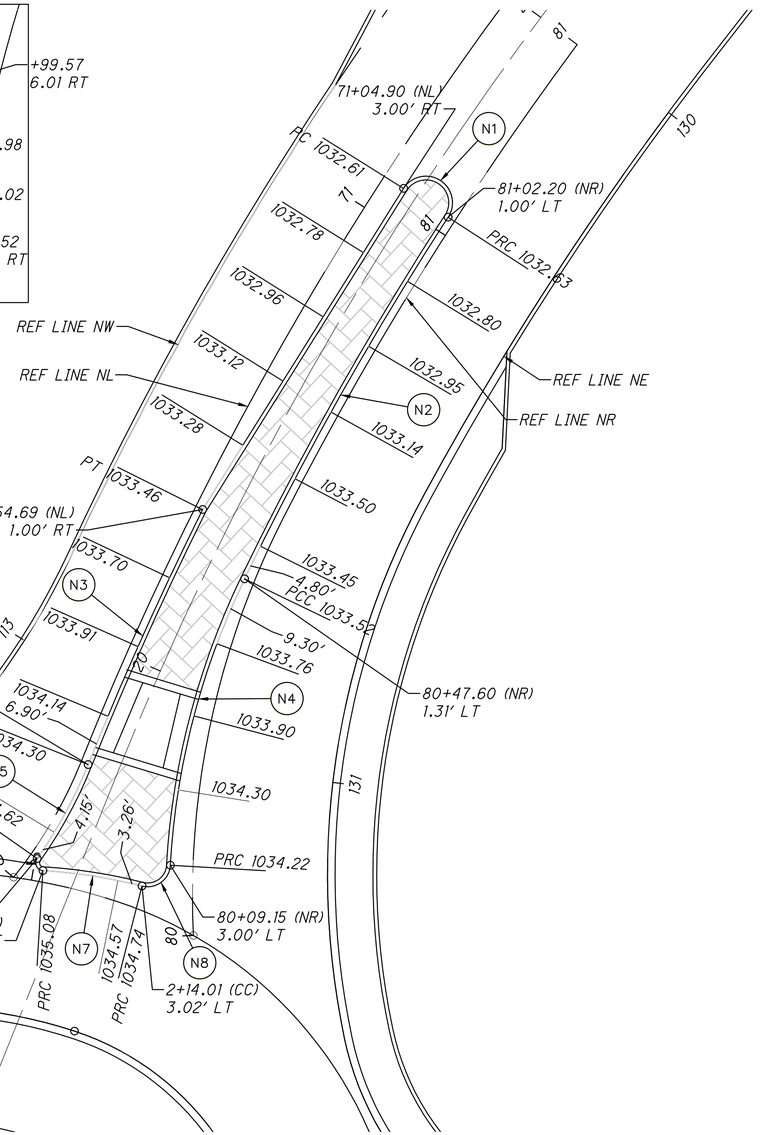
N6 CURVE DATA
D = 121° 39' 20"
R = 1.000
T = 1.79'
L = 2.12'

N7 CURVE DATA
D = 10° 51' 12"
R = 70.000
T = 6.65'
L = 13.26'

N8 CURVE DATA
D = 101° 02' 17"
R = 3.000
T = 3.64'
L = 5.29'



CURB RAMP DETAIL



SOUTH ISLAND

S1 CURVE DATA
D = 96° 49' 54"
R = 3.000
T = 3.38'
L = 5.07'

S2 CURVE DATA
D = 11° 01' 57"
R = 70.000
T = 6.76'
L = 13.48'

S3 CURVE DATA
D = 127° 10' 13"
R = 1.000
T = 2.01'
L = 2.22'

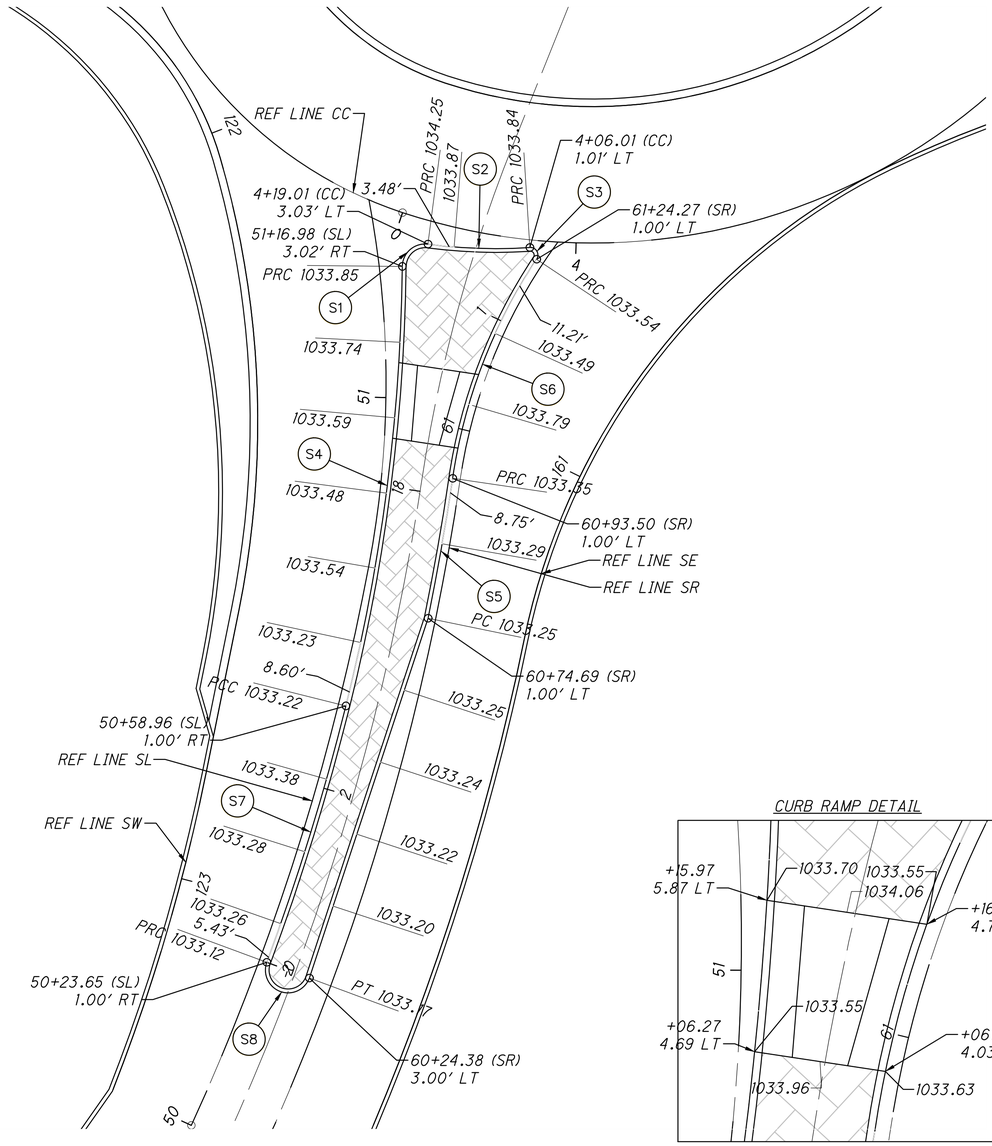
S4 CURVE DATA
D = 13° 25' 51"
R = 250.000
T = 29.44'
L = 58.60'

S5 CURVE DATA
D = 3° 14' 44"
R = 331.000
T = 9.38'
L = 18.75'

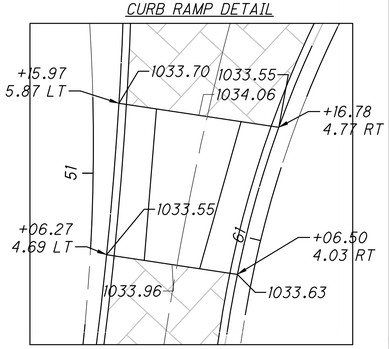
S6 CURVE DATA
D = 25° 10' 58"
R = 71.000
T = 15.86'
L = 31.21'

S7 CURVE DATA
D = 6° 17' 02"
R = 323.000
T = 17.73'
L = 35.43'

S8 CURVE DATA
D = 180° 00' 00"
R = 3.000
T = INFINITY'
L = 9.42'



CURB RAMP DETAIL



HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED JPK
CHECKED JES

SPLITTER ISLAND DETAILS - NORTH AND SOUTH

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

154
302

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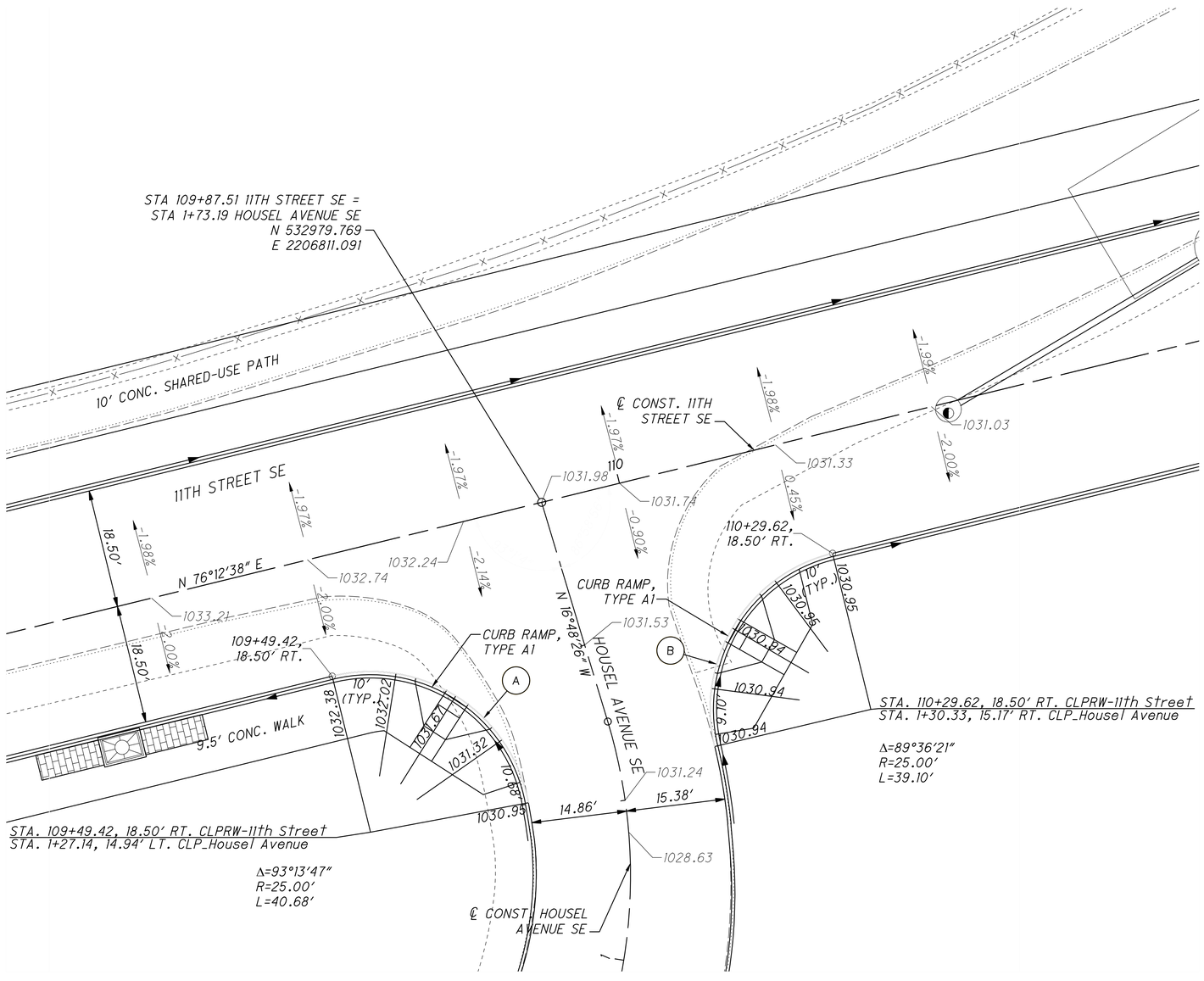
NOTES

PAVEMENT AND ROADWAY DIMENSIONS ARE MEASURED TO THE FACE OF THE CURB

ALL ELEVATIONS ALONG THE CURB ARE ℄ ELEVATIONS. ADD 6-INCHES IN AREAS OF FULL HEIGHT CURB AND 1-INCH IN AREAS OF DROP CURB TO OBTAIN TOP OF CURB ELEVATIONS AT FACE OF CURB

CENTERLINE ELEVATIONS ARE AT 25' INTERVALS, UNLESS OTHERWISE NOTED

ALL STATIONING SHOWN IS ALONG THE CENTERLINE OF CONSTRUCTION

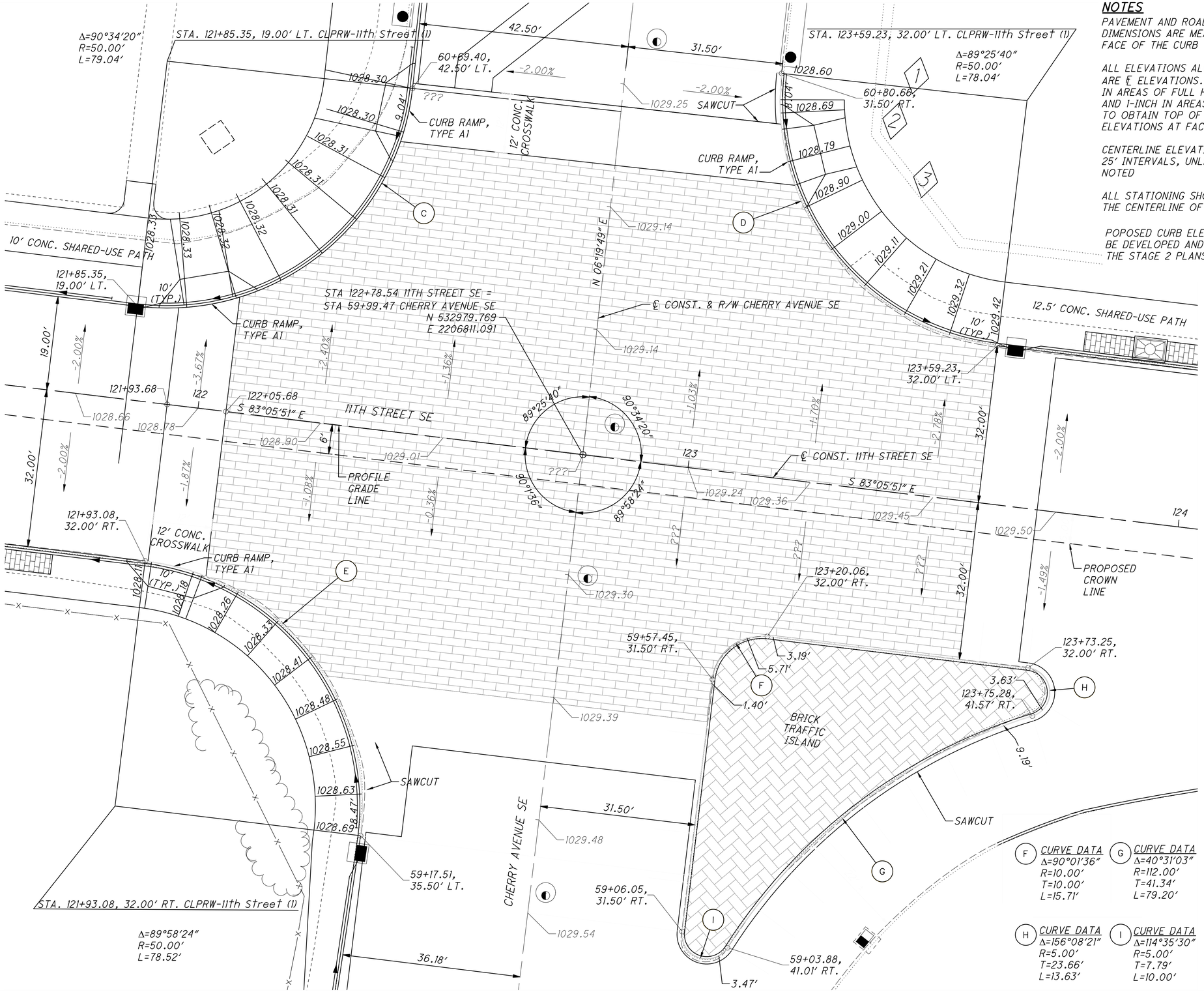


HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED JPK
CHECKED JES

INTERSECTION DETAIL
11TH STREET SE AND HOUSEL AVENUE SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)



NOTES

PAVEMENT AND ROADWAY DIMENSIONS ARE MEASURED TO THE FACE OF THE CURB

ALL ELEVATIONS ALONG THE CURB ARE ℄ ELEVATIONS. ADD 6-INCHES IN AREAS OF FULL HEIGHT CURB AND 1-INCH IN AREAS OF DROP CURB TO OBTAIN TOP OF CURB ELEVATIONS AT FACE OF CURB

CENTERLINE ELEVATIONS ARE AT 25' INTERVALS, UNLESS OTHERWISE NOTED

ALL STATIONING SHOWN IS ALONG THE CENTERLINE OF CONSTRUCTION.

POPOSED CURB ELEVATIONS WILL BE DEVELOPED AND INCLUDED WITH THE STAGE 2 PLANS.

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED JPK
CHECKED JES

INTERSECTION DETAIL
11TH STREET SE AND CHERRY AVENUE SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

156
302

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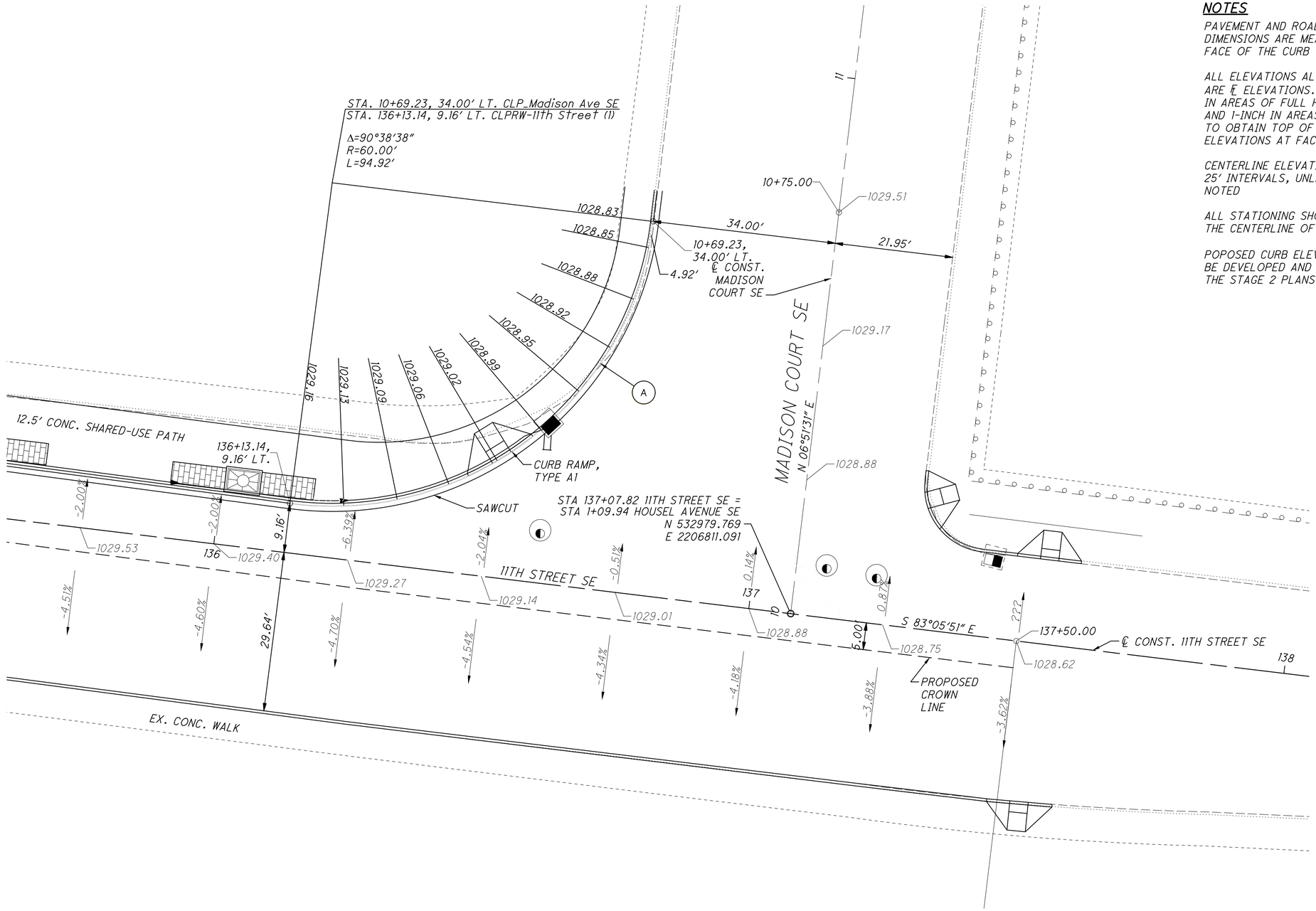

NOTES

PAVEMENT AND ROADWAY DIMENSIONS ARE MEASURED TO THE FACE OF THE CURB

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CENTERLINE ELEVATIONS ARE AT 25' INTERVALS, UNLESS OTHERWISE NOTED

ALL STATIONING SHOWN IS ALONG THE CENTERLINE OF CONSTRUCTION.

POPOSED CURB ELEVATIONS WILL BE DEVELOPED AND INCLUDED WITH THE STAGE 2 PLANS.

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED JPK
CHECKED JES

INTERSECTION DETAIL
11TH STREET SE AND MADISON COURT SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

157
302

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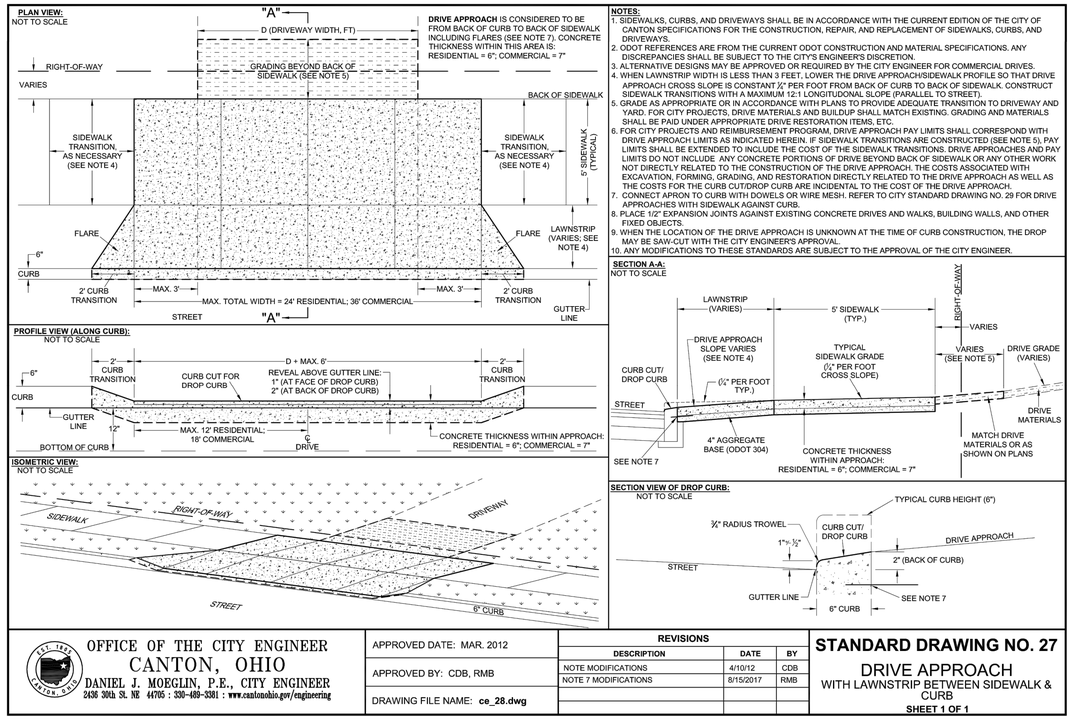


OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 : 330-489-3381 : www.cantonohio.gov/engineering

APPROVED DATE: MAR. 2012

APPROVED BY: CDB, RMB

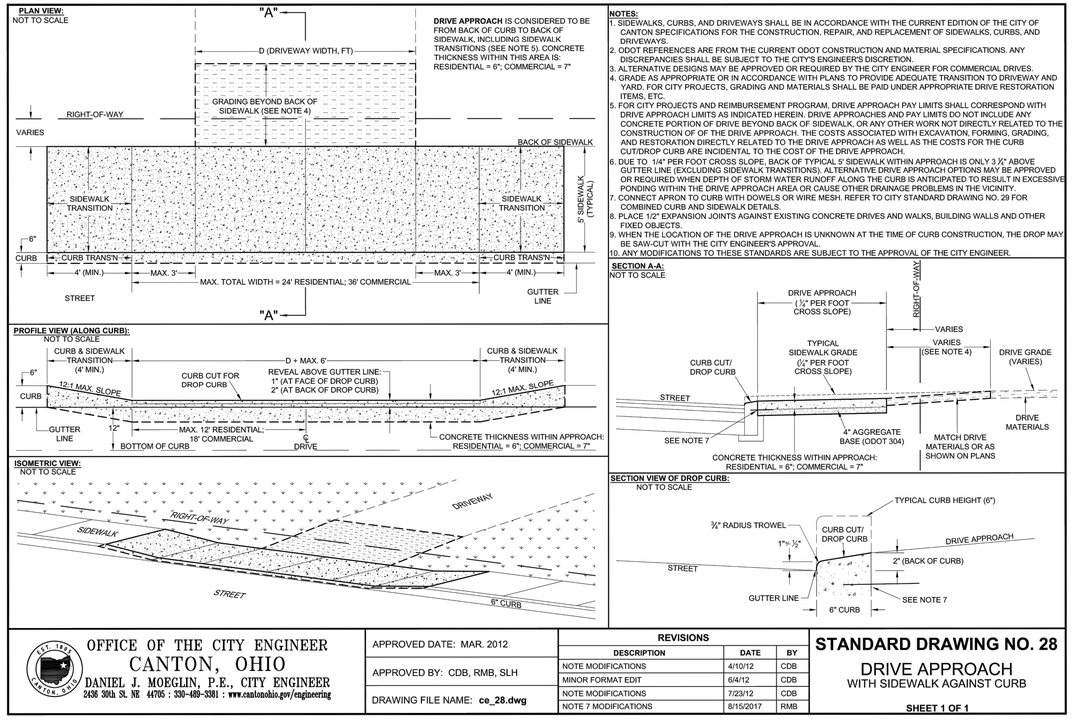
DRAWING FILE NAME: **ce_28.dwg**

REVISIONS		
DESCRIPTION	DATE	BY
NOTE MODIFICATIONS	4/10/12	CDB
NOTE 7 MODIFICATIONS	8/15/2017	RMB

STANDARD DRAWING NO. 27

DRIVE APPROACH
WITH LAWNSTRIP BETWEEN SIDEWALK & CURB

SHEET 1 OF 1



OFFICE OF THE CITY ENGINEER
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APPROVED DATE: MAR. 2012

APPROVED BY: CDB, RMB, SLH

DRAWING FILE NAME: **ce_28.dwg**

REVISIONS		
DESCRIPTION	DATE	BY
NOTE MODIFICATIONS	4/10/12	CDB
MINOR FORMAT EDIT	6/4/12	CDB
NOTE MODIFICATIONS	7/23/12	CDB
NOTE 7 MODIFICATIONS	8/15/2017	RMB

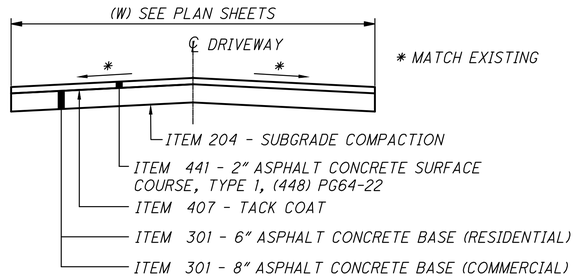
STANDARD DRAWING NO. 28

DRIVE APPROACH
WITH SIDEWALK AGAINST CURB

SHEET 1 OF 1

CONCRETE DRIVE

COMMERCIAL AGGREGATE DRIVE



ASPHALT DRIVE

CALCULATED JPK
CHECKED JES

DRIVE DETAILS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

158
302

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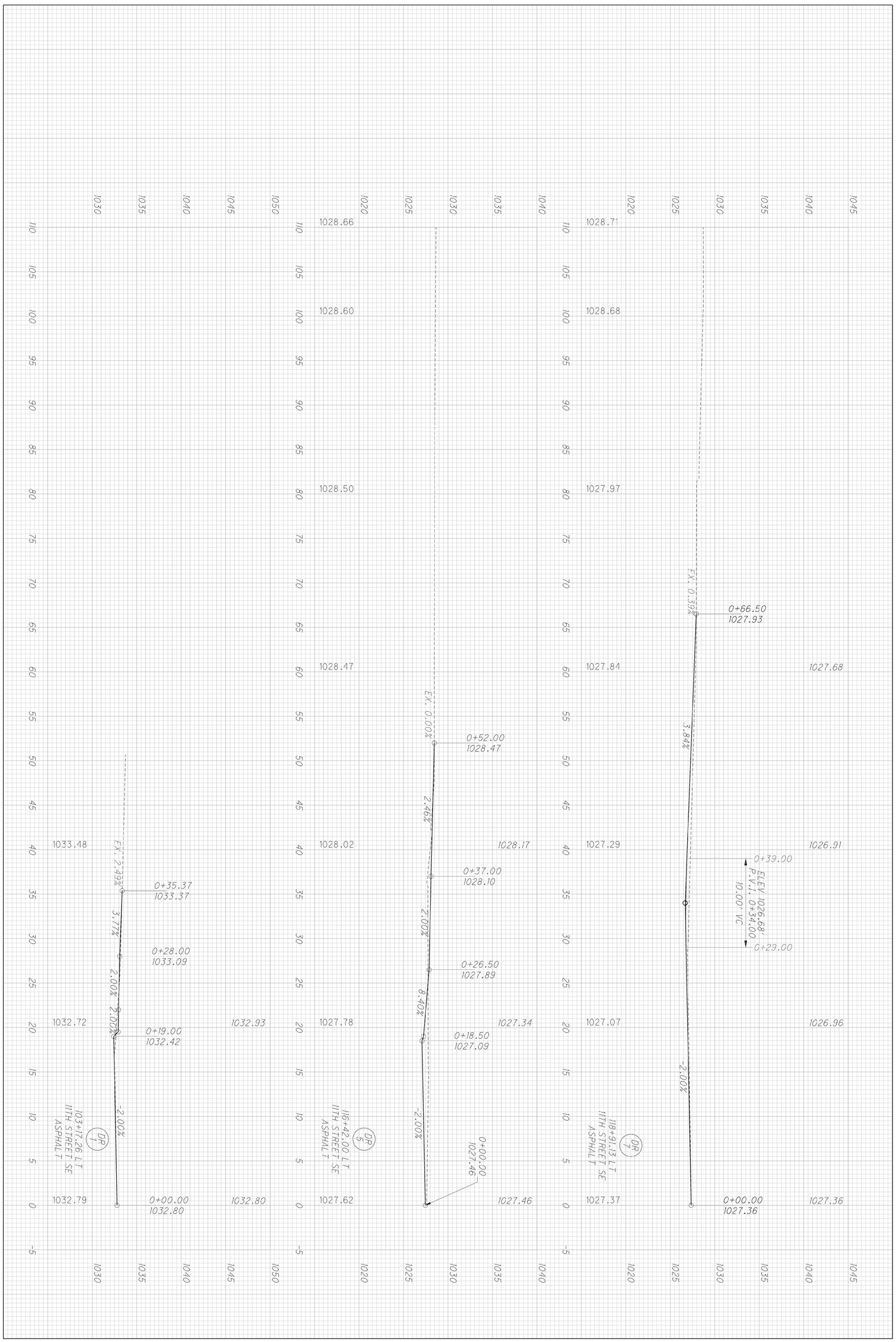

159
302

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

DRIVE PROFILES - 11TH STREET SE - LEFT

CALCULATED JPK
CHECKED JES

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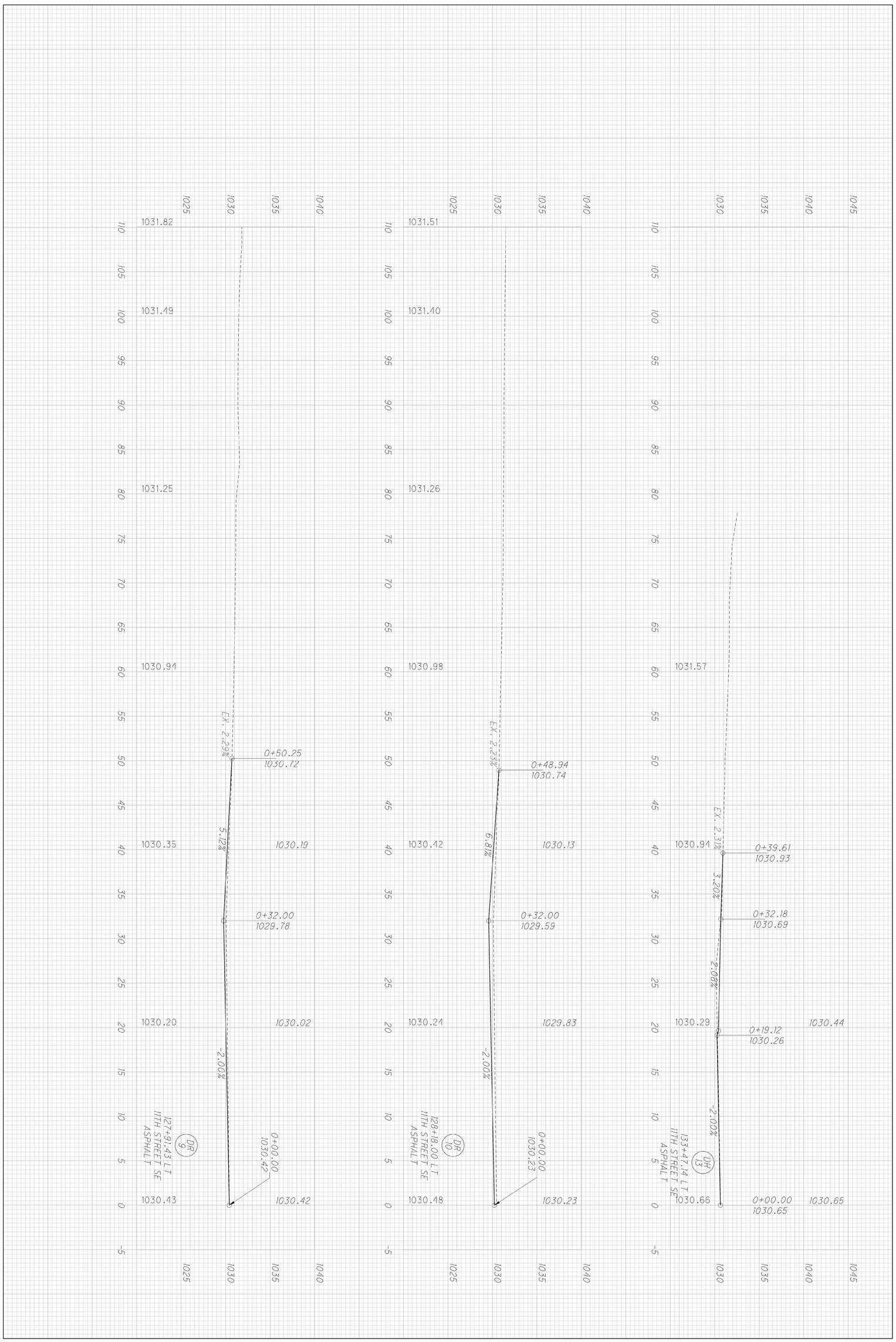

160 / 302	**STA - 11TH STREET SE IMPROVEMENTS (PID 90465)**	**DRIVE PROFILES - 11TH STREET SE - LEFT**

CALCULATED JPK
CHECKED JES

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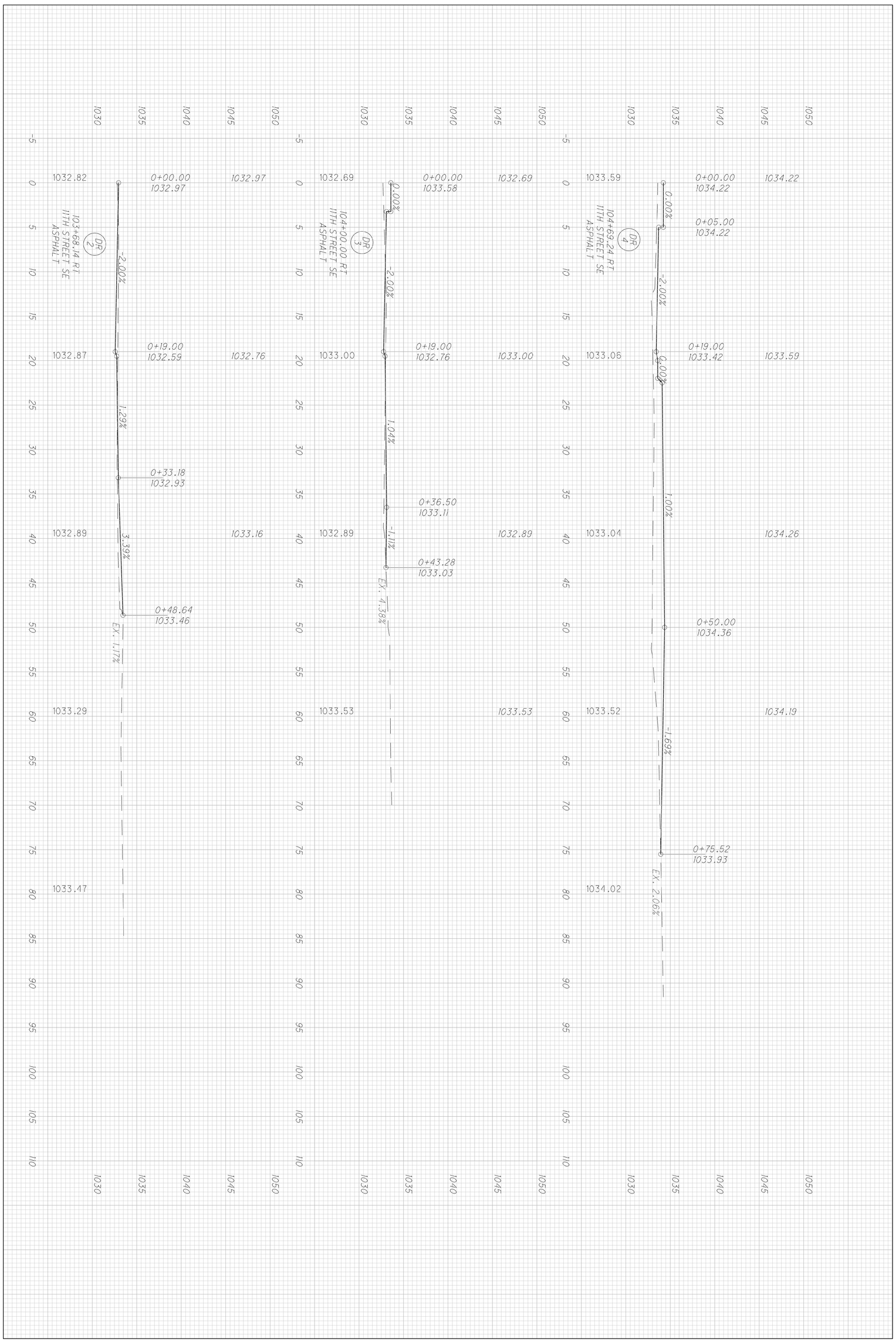

161 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - 11TH STREET SE - RIGHT	CALCULATED JPK / CHECKED JES

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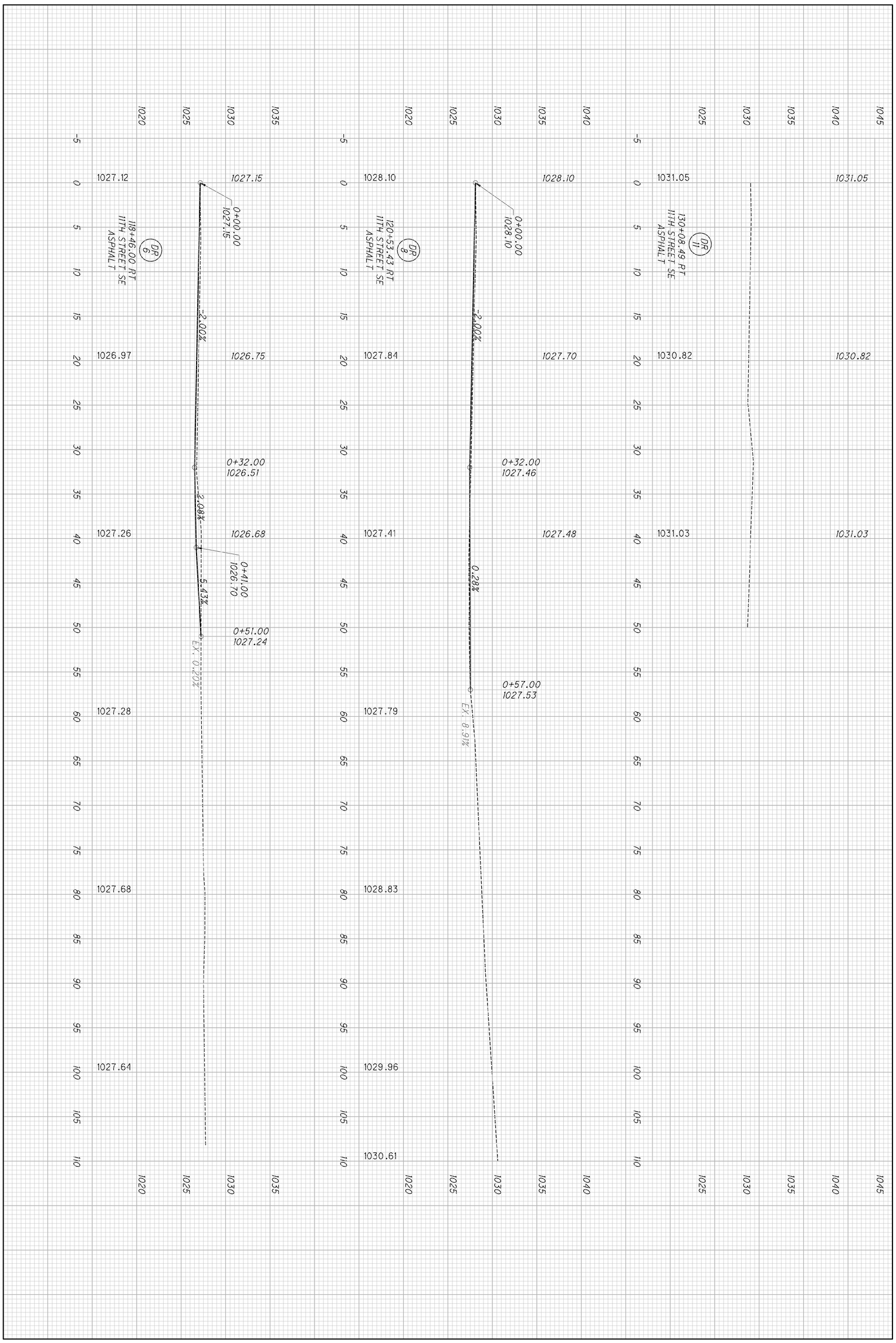

162 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - 11TH STREET SE - RIGHT	CALCULATED JPK CHECKED JES

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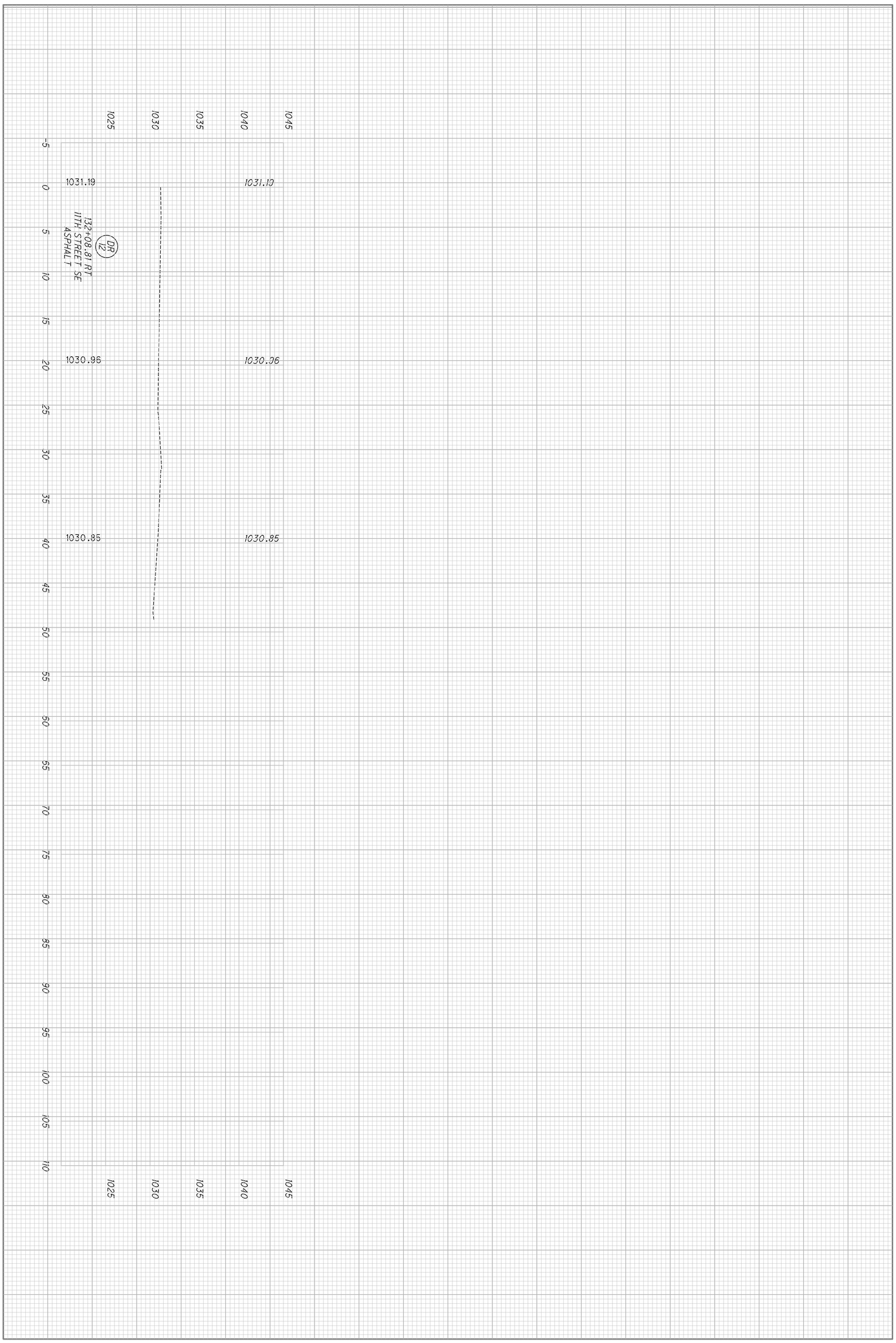

163 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - 11TH STREET SE - RIGHT	CALCULATED JPK / CHECKED JES

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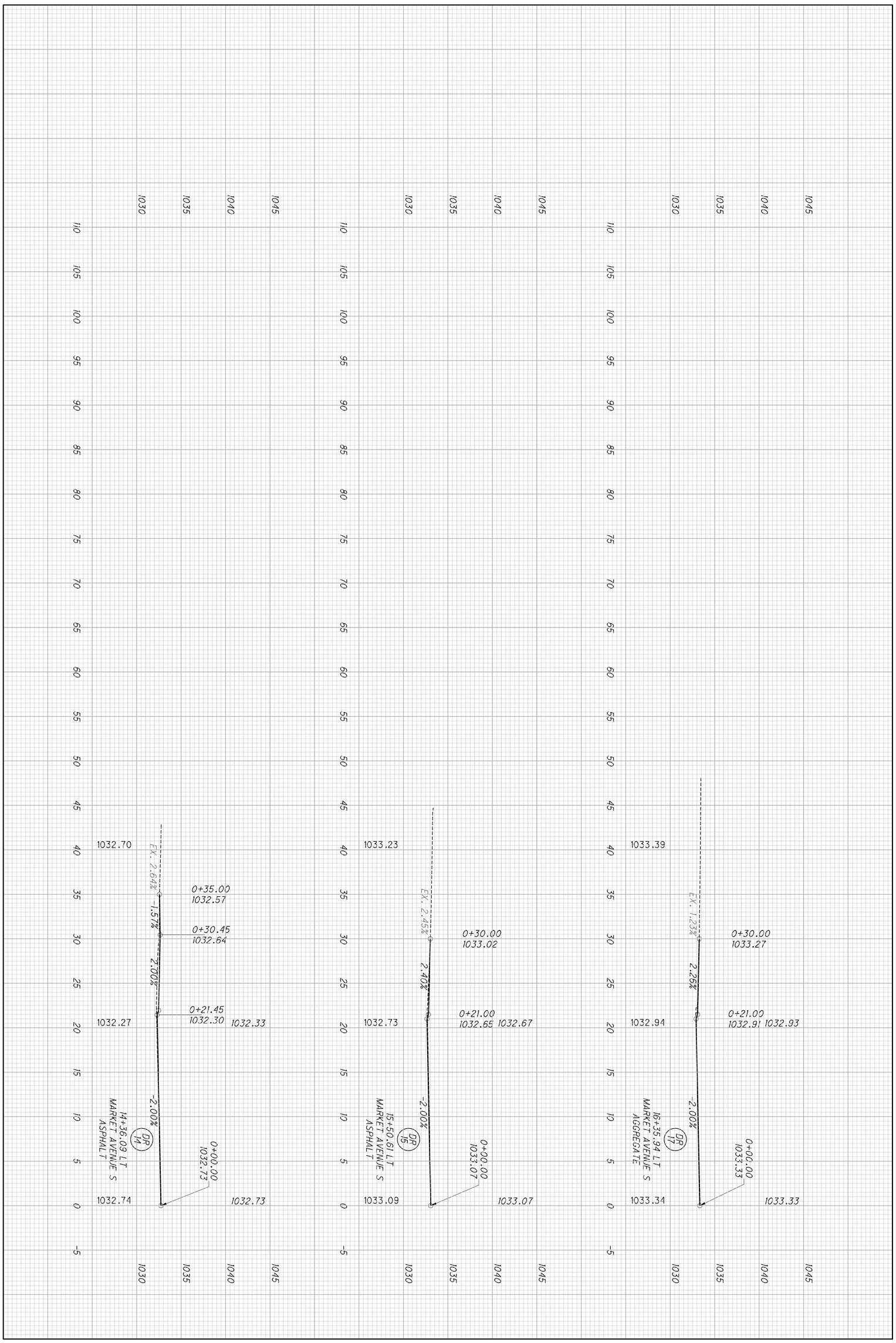

164 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - MARKET AVENUE S - LEFT	CALCULATED JPK / CHECKED JES

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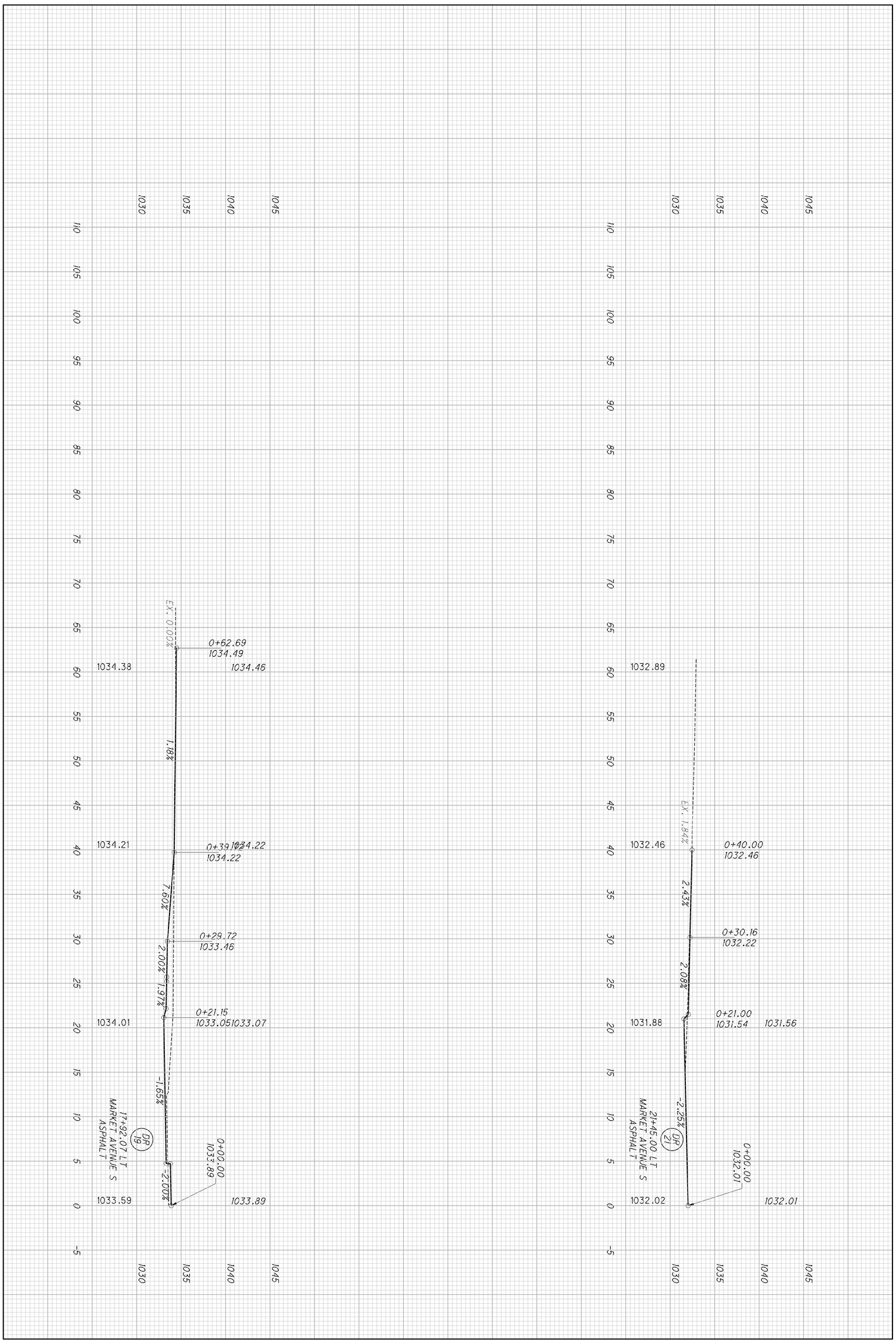

165 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - MARKET AVENUE S - LEFT	CALCULATED JPK / CHECKED JES

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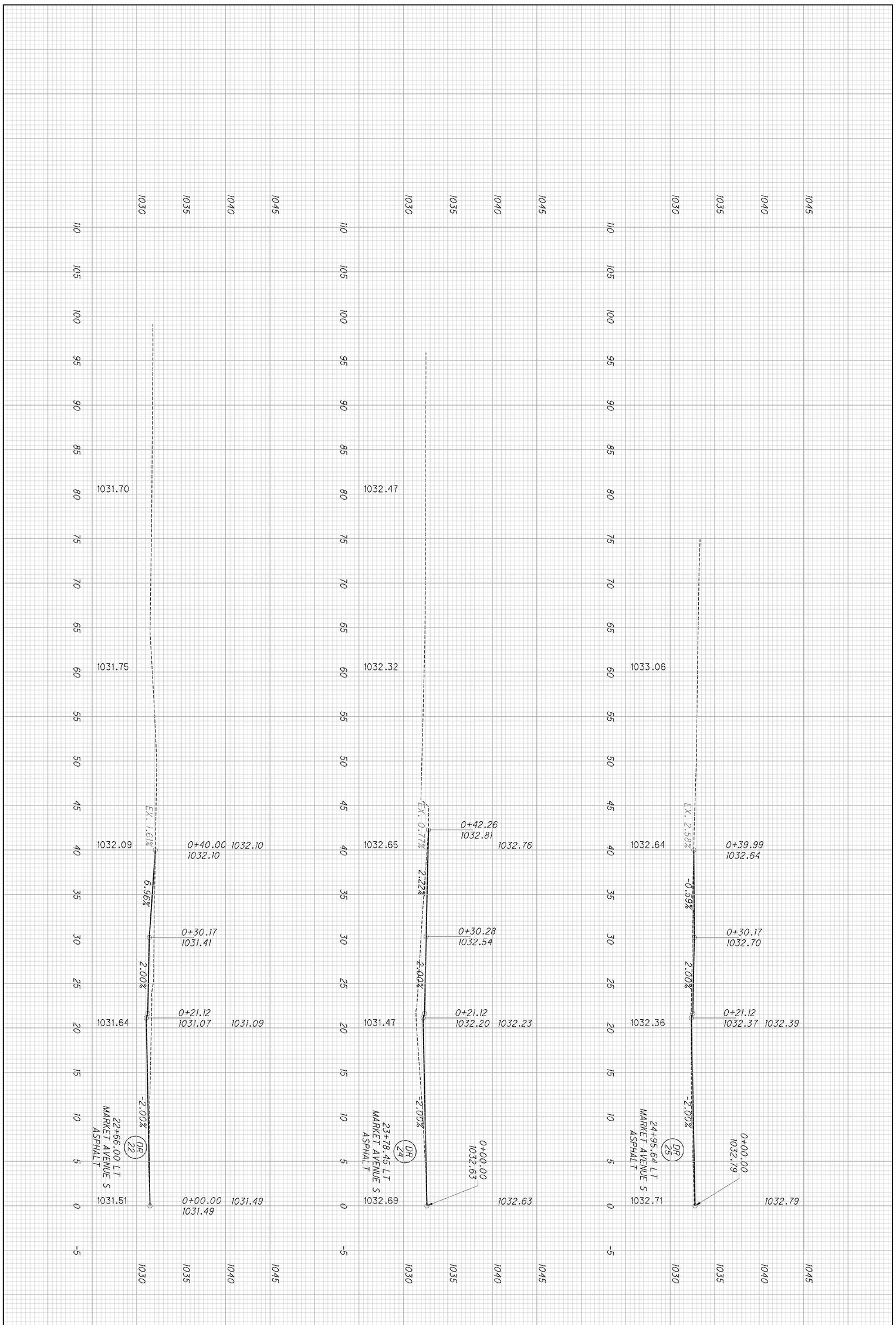

166 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - MARKET AVENUE S - LEFT	CALCULATED JPK / CHECKED JES

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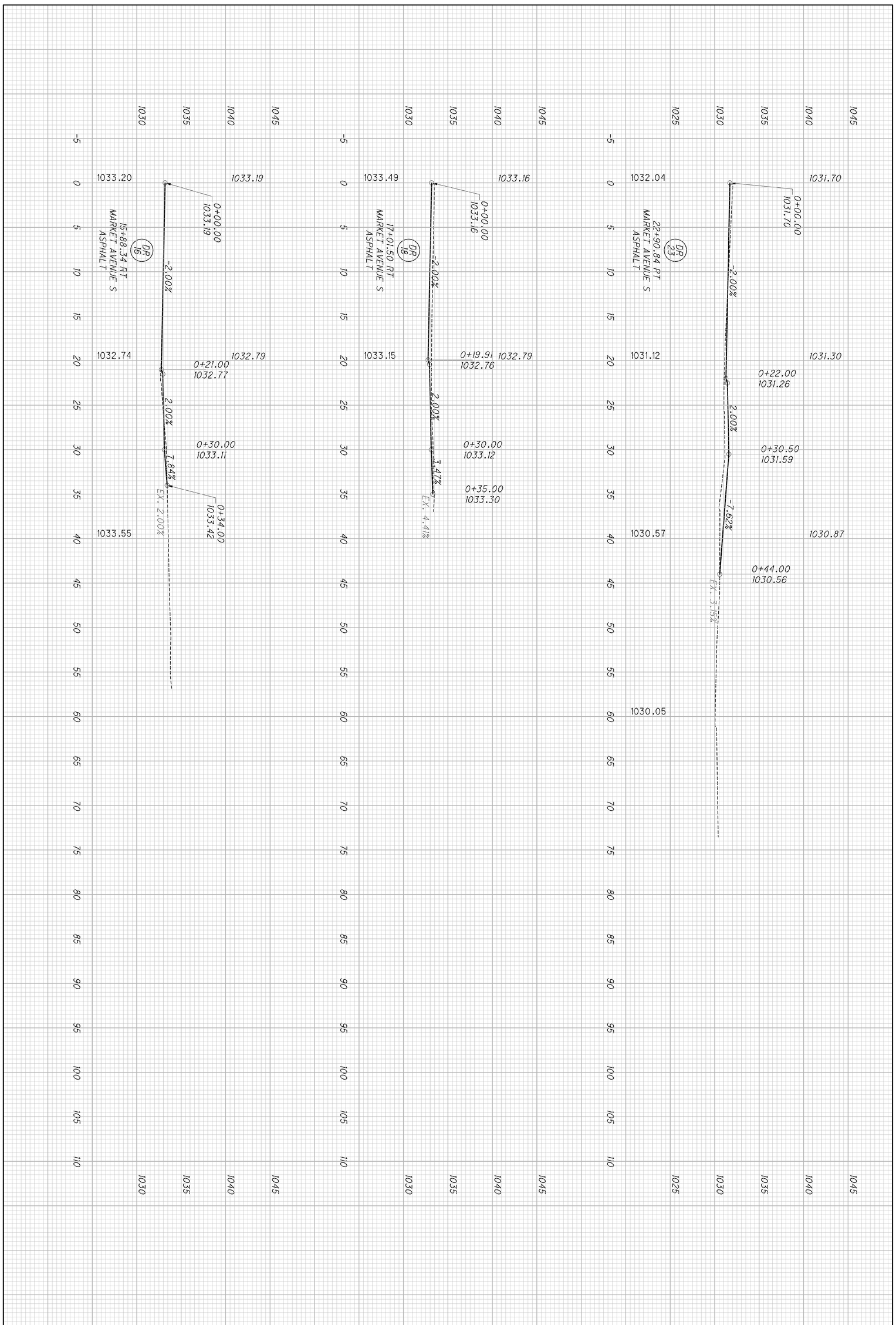
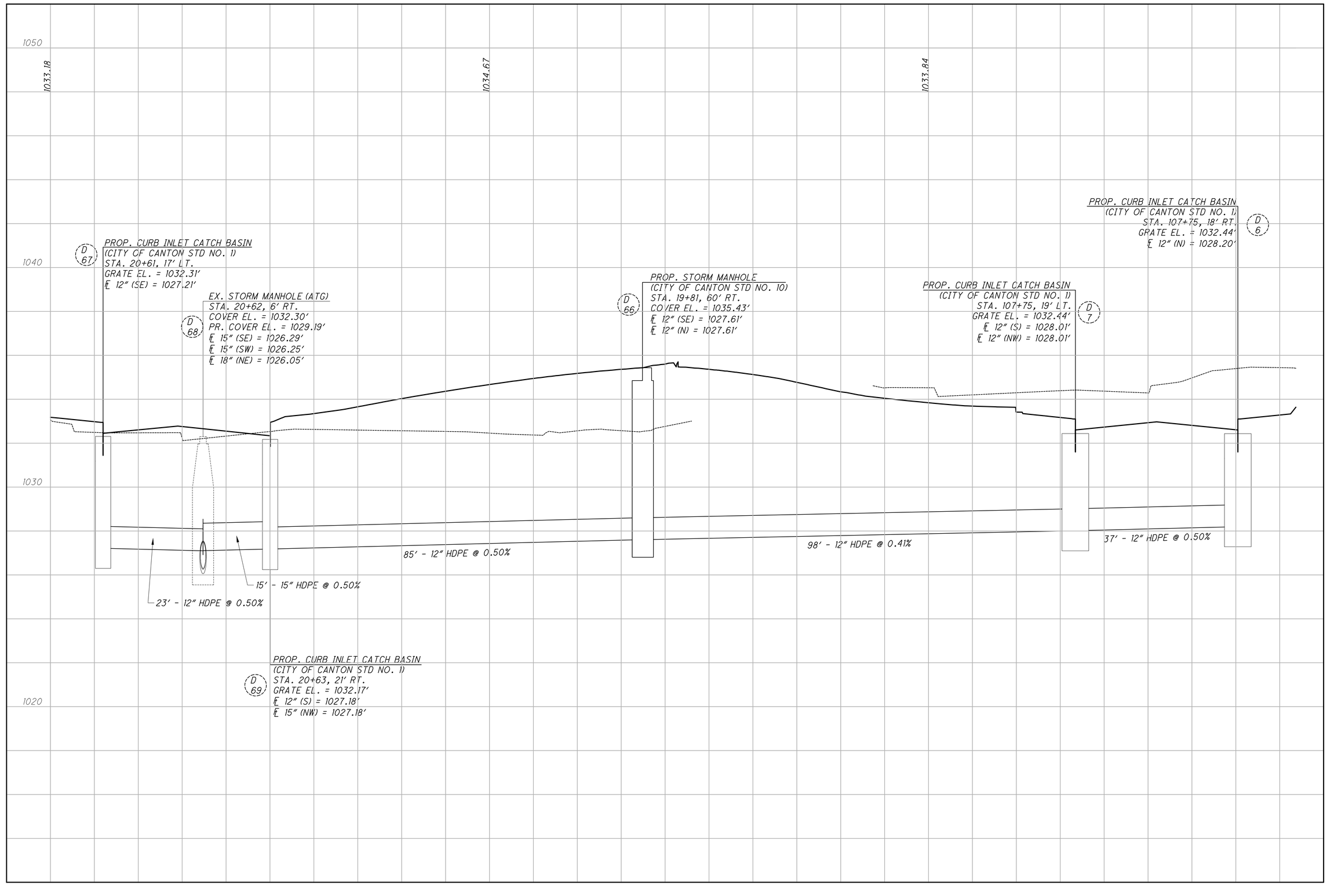


167/302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	DRIVE PROFILES - MARKET AVENUE S - RIGHT	CALCULATED JPK / CHECKED JES



STORM SEWER PROFILE - D6 TO D67

CALCULATED JES
CHECKED MAW

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

168
302

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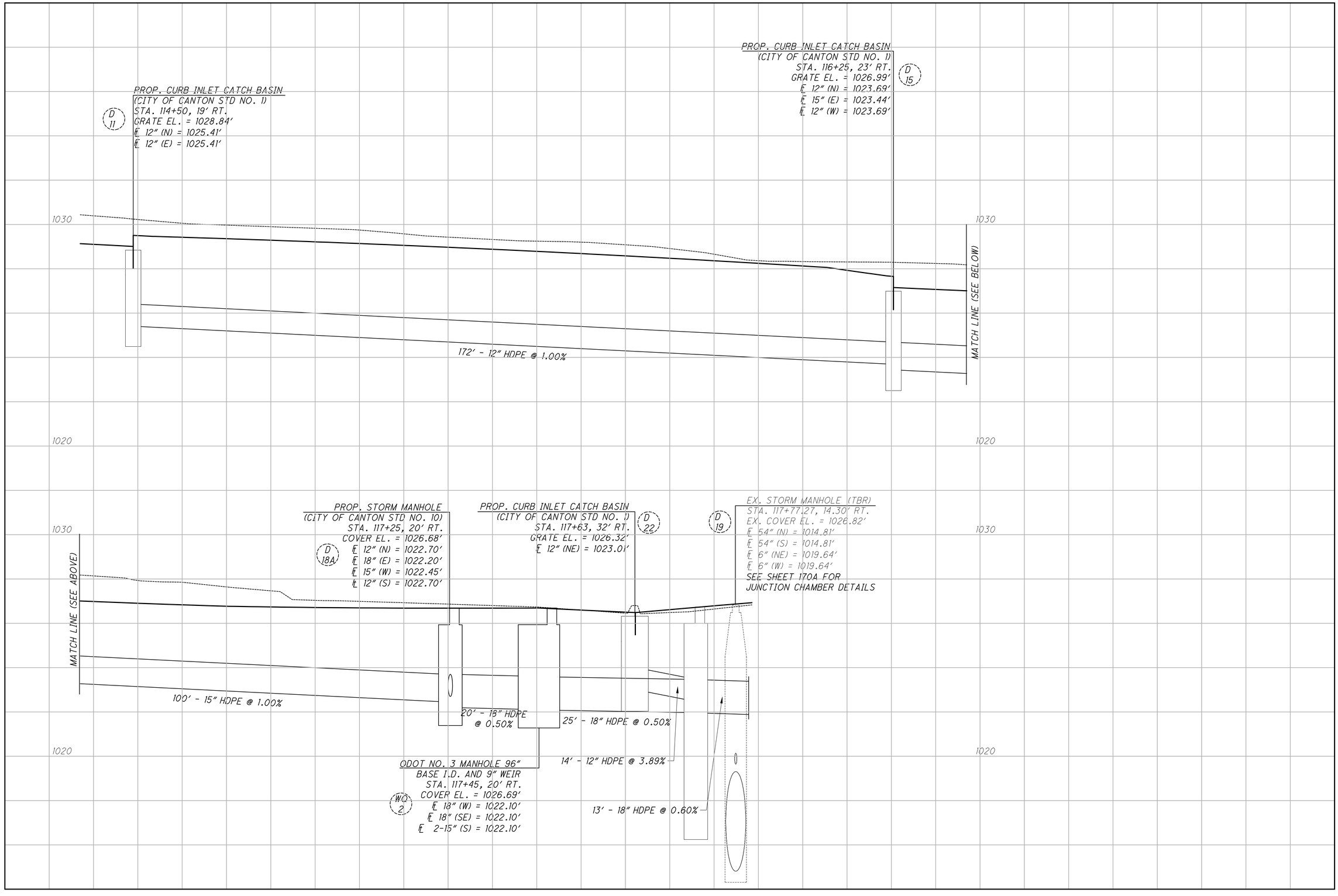

STORM SEWER PROFILE - D11 TO D22

CALCULATED JES
CHECKED MAW

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

169
302

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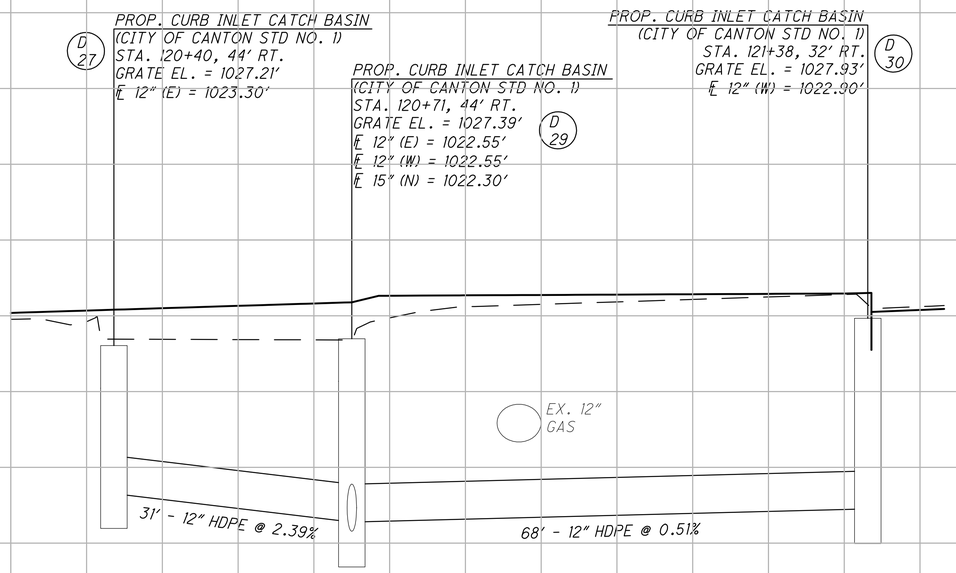

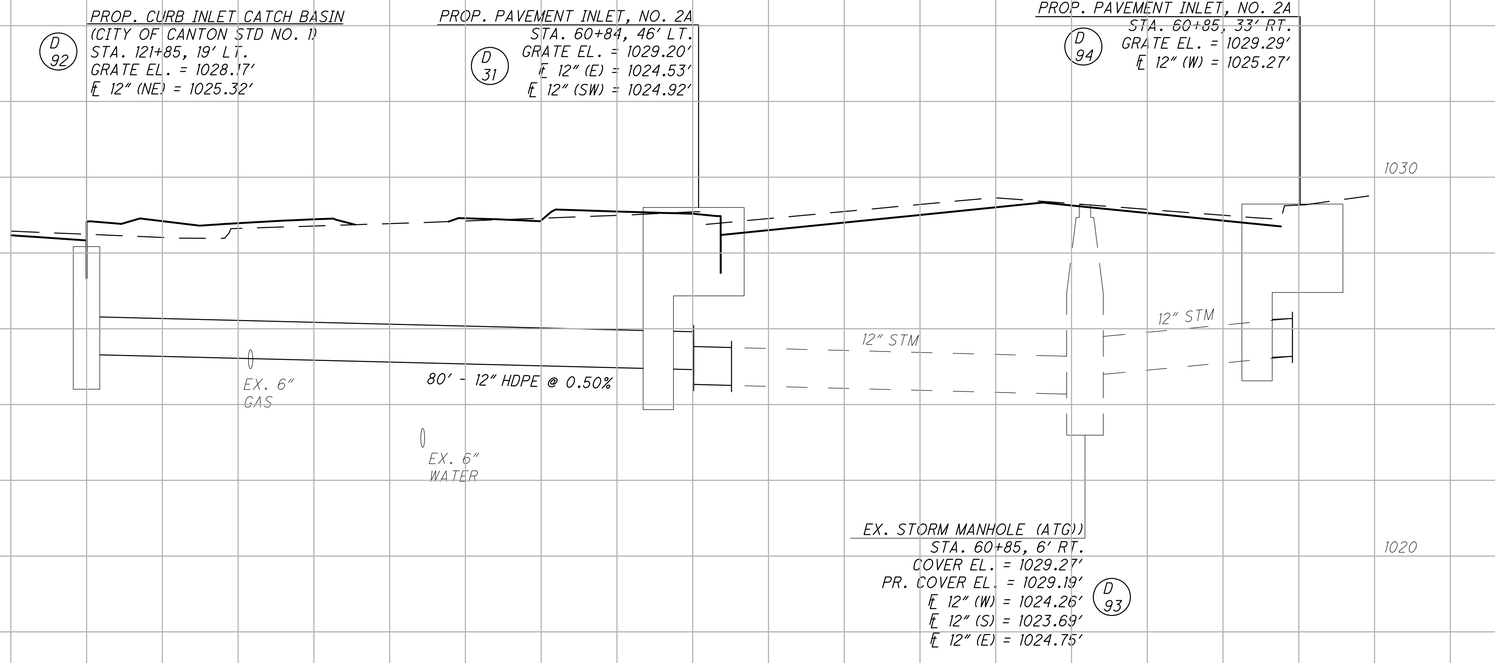

CALCULATED JES
CHECKED MAW

STORM SEWER PROFILES - D27 TO D30 & D31 TO D94

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

170
302

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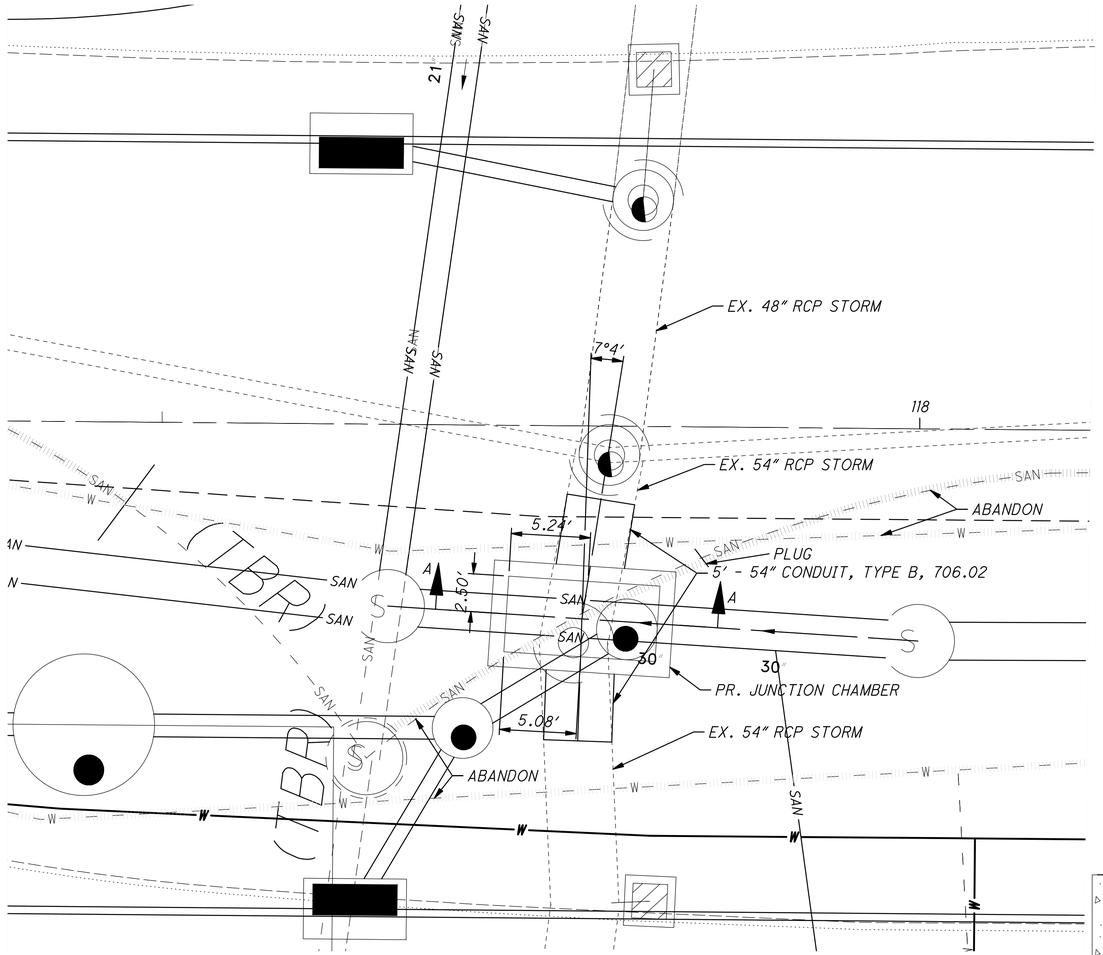
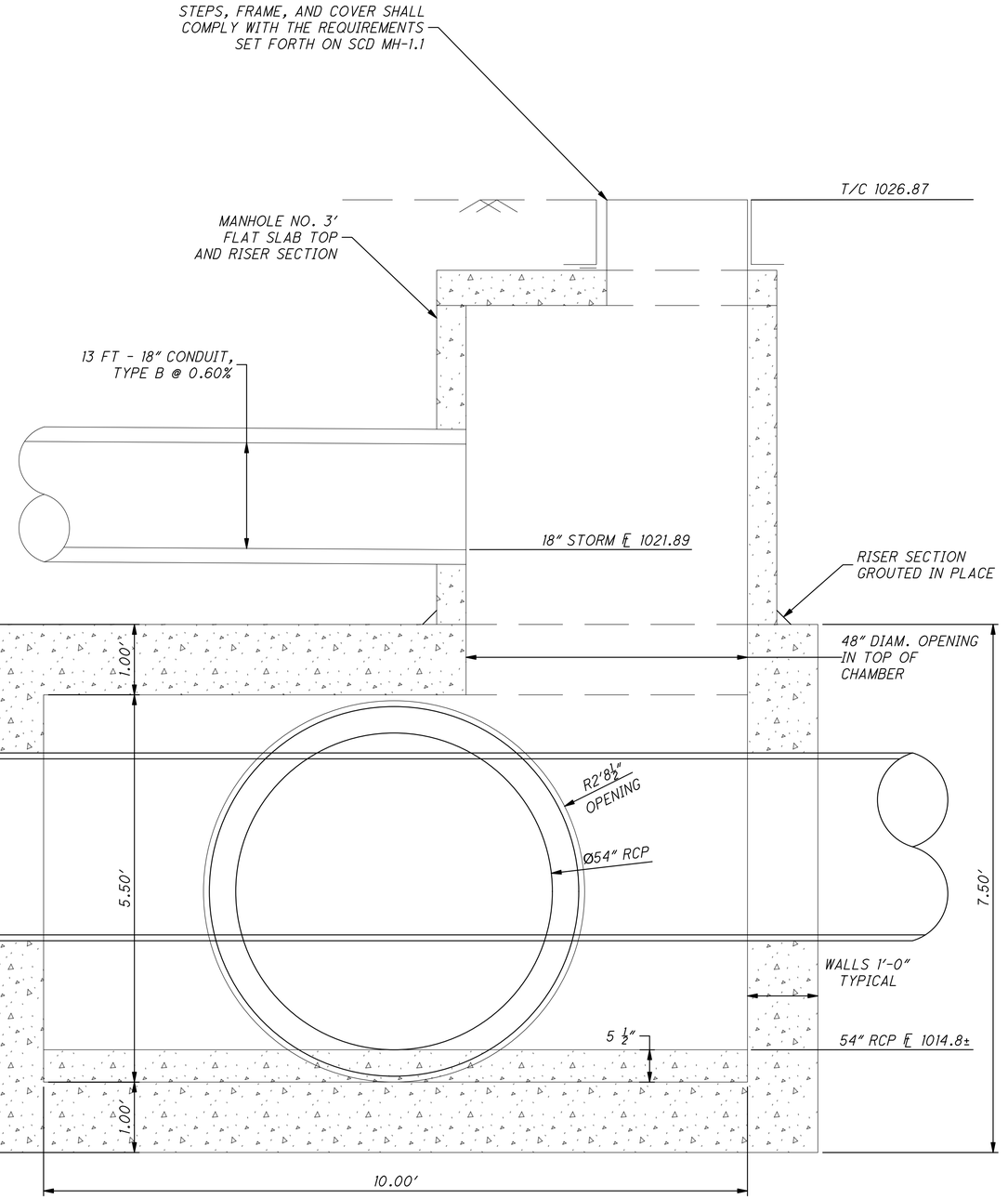


ITEM 611 - DRAINAGE STRCUTRUE, MISC.: JUNCTION CHAMBER (PLAN)

NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

PROPOSED JUNCTION CHAMBER IS DEPICTED AS PRE-CAST CONCRETE. A CAST-IN-PLACE STRUCTURE IS ALSO ACCEPTABLE.



ITEM 611 - DRAINAGE STRCUTRUE, MISC.: JUNCTION CHAMBER (SECTION A-A)

HORIZONTAL SCALE IN FEET
0 2.5 5 10
CALCULATED -
CHECKED JLN

DRAINAGE DETAILS
STA. 117+78.50 JUNCTION CHAMBER

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

170A
302

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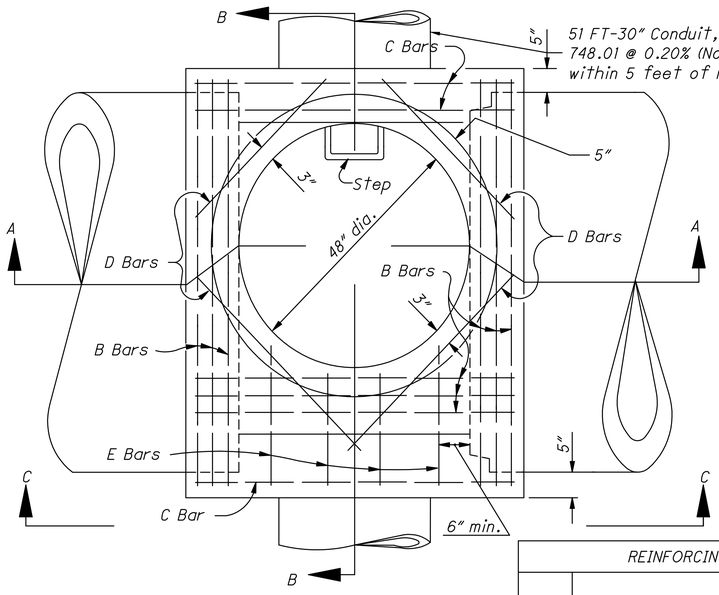


PLAN VIEW

NOTES

MANHOLE: Manhole No. 5 consists of a base or bottom as detailed here and other manhole components as detailed or specified on

Instead of the tongue and groove junction between the riser and the base, the base may have a flat surface and the riser may have a square end set in a bed of mortar on the base.

OPENINGS: Provide prefabricated openings for 42" and under inlet and outlet sewer pipes in the riser section unless the base is built to an elevation 2" above the manhole top of the inlet and outlet pipes.

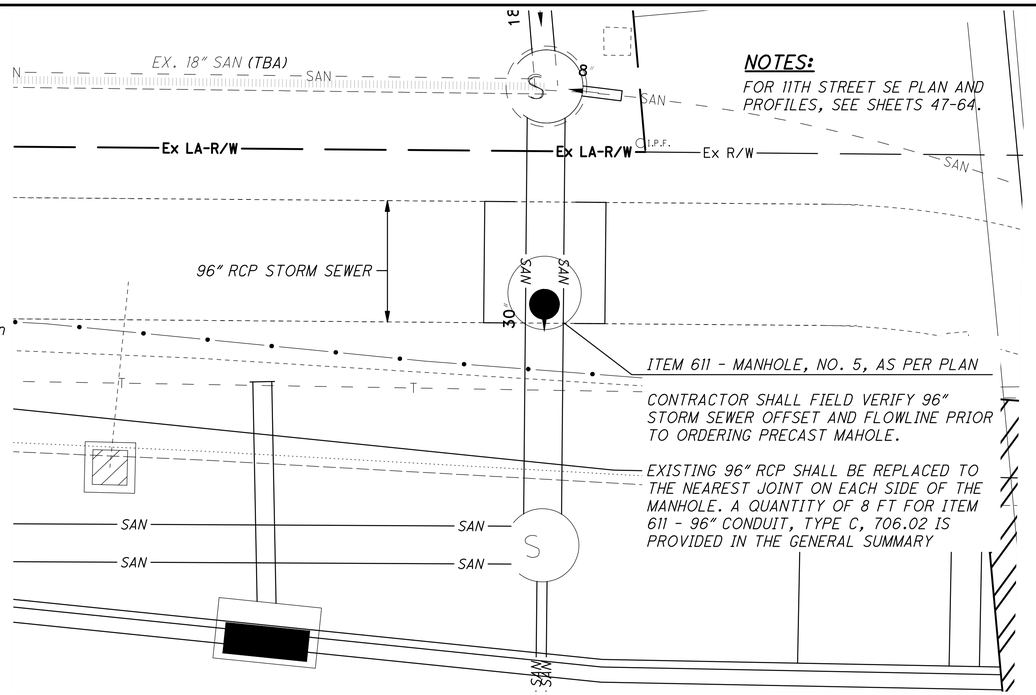
CONCRETE: Use 4000 psi compressive strength concrete for the bases or meet the requirements of CMS 706.13. The bases may be precast or cast-in-place. If precast, provide a base on sewers 42" and under with sufficient steel reinforcement to permit shipping and placement without damage to the base. Reinforce the base on sewers 48" and over as shown.

STEPS: Provide steps that meet the requirements set forth on SCD MH-1.

T = Wall thickness of intercepting sewer pipe

REINFORCING STEEL LIST		
BAR	SPACING	BAR SIZES FOR SEWERS 84" to 96"
A	12" c/c both ways	#7
B	3" c/c both ways	#7
C	as shown	#7
D	as shown	#5
E	12" c/c	#5
F	as shown	#7

Included for estimating purposes only. The cost of furnishing and placing all reinforcing steel is included in Item 611 for payment.



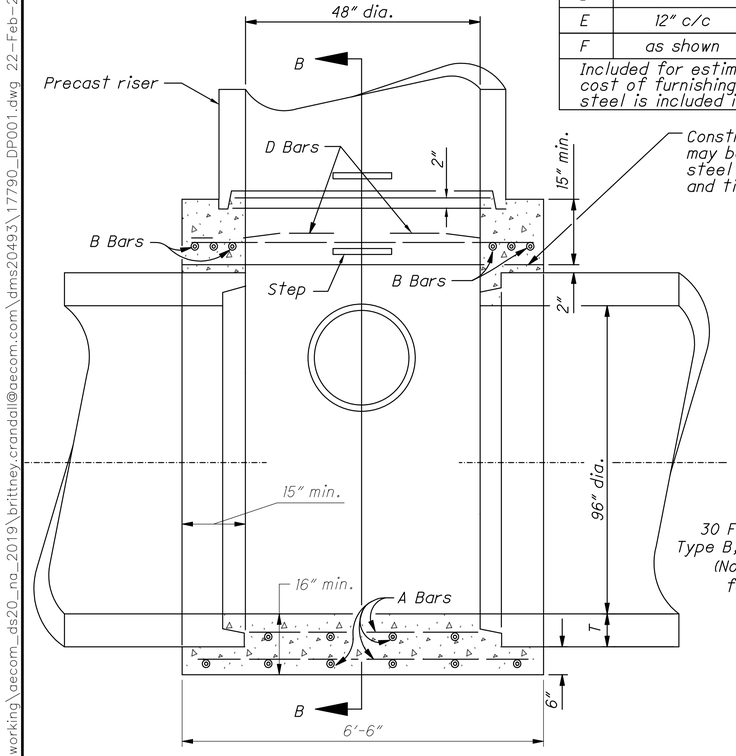
NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

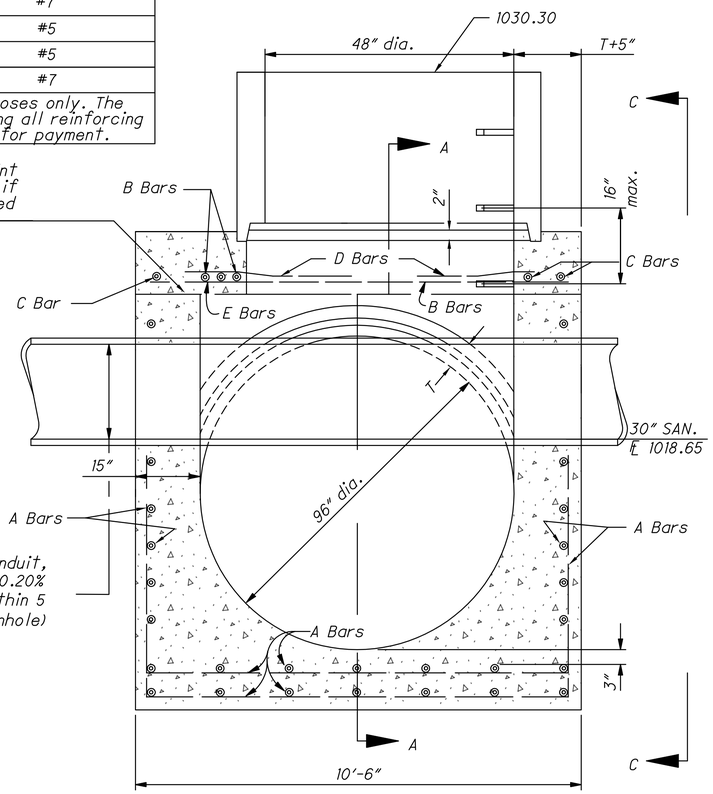
CONTRACTOR SHALL FIELD VERIFY 96" STORM SEWER OFFSET AND FLOWLINE PRIOR TO ORDERING PRECAST MAHOLE.

EXISTING 96" RCP SHALL BE REPLACED TO THE NEAREST JOINT ON EACH SIDE OF THE MANHOLE. A QUANTITY OF 8 FT FOR ITEM 611 - 96" CONDUIT, TYPE C, 706.02 IS PROVIDED IN THE GENERAL SUMMARY

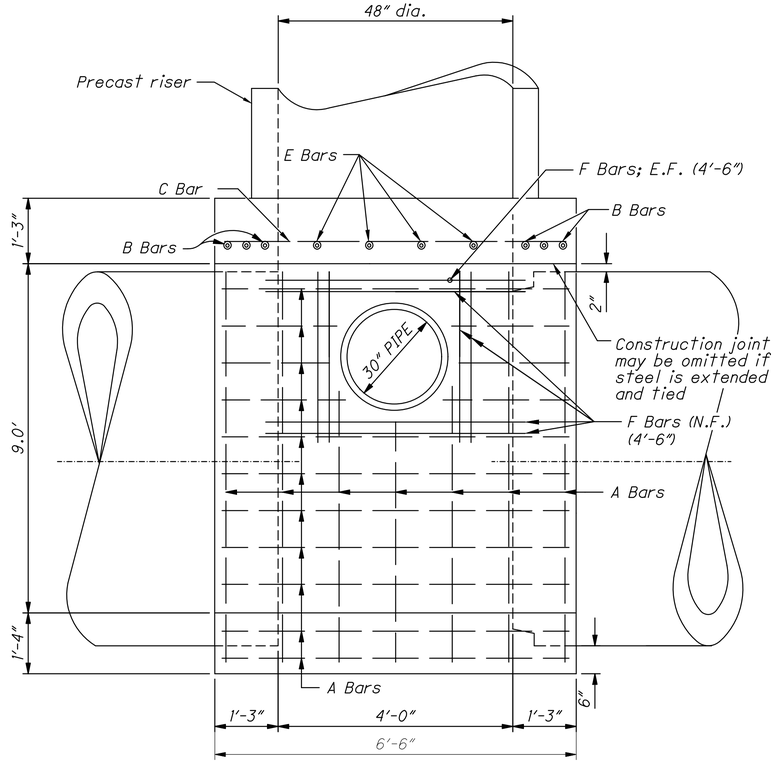
NOTE
- Cut A Bars to clear 30" pipe.
- Replace cut A Bars W/F as shown



SECTION A-A



SECTION B-B



SECTION C-C

DRAINAGE DETAILS
MANHOLE, NO. 5, AS PER PLAN

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

170B
302

HORIZONTAL SCALE IN FEET
0 2.5 5 10

CALCULATED -
CHECKED JLN

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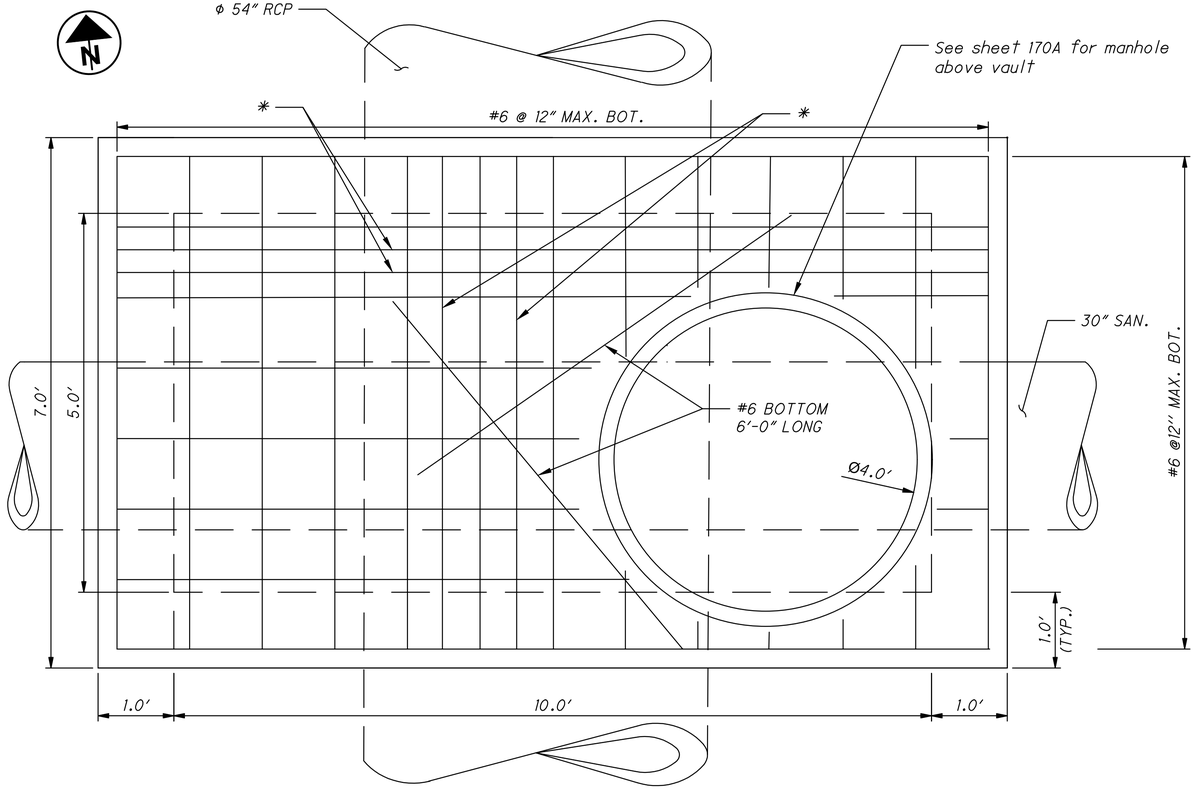
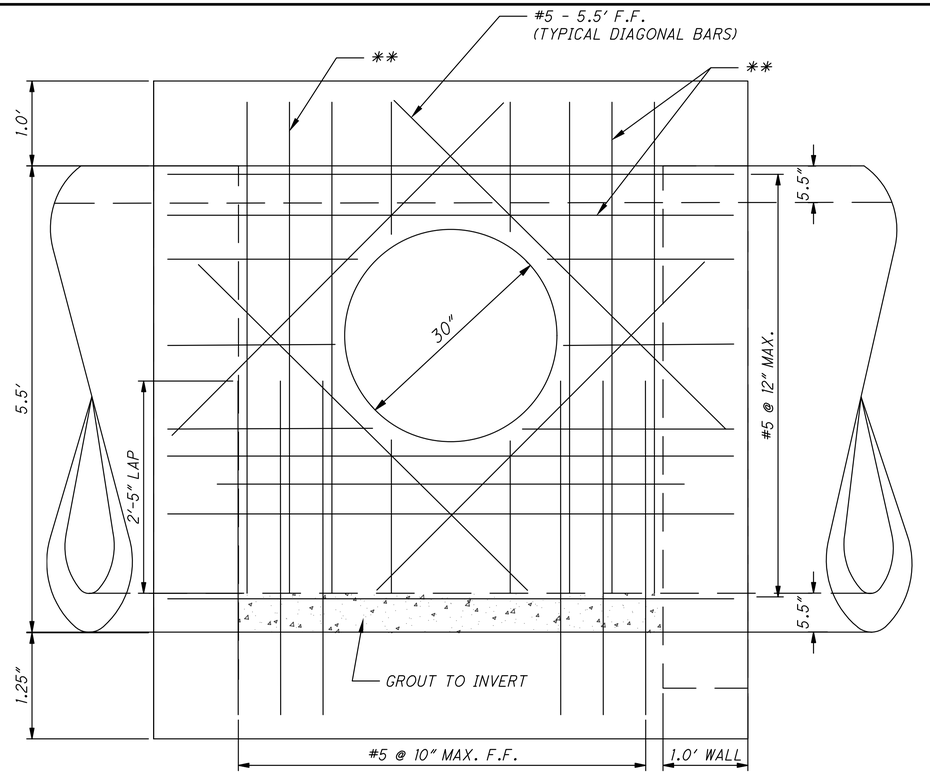


#6 BOT SLAB IN ADDITION TO #6 @ 12"

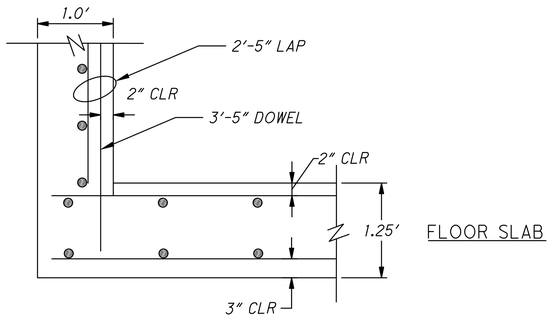
PLAN VIEW (TOP SLAB)

(THIS DETAIL FORMS PART OF THE JUNCTION BOX)

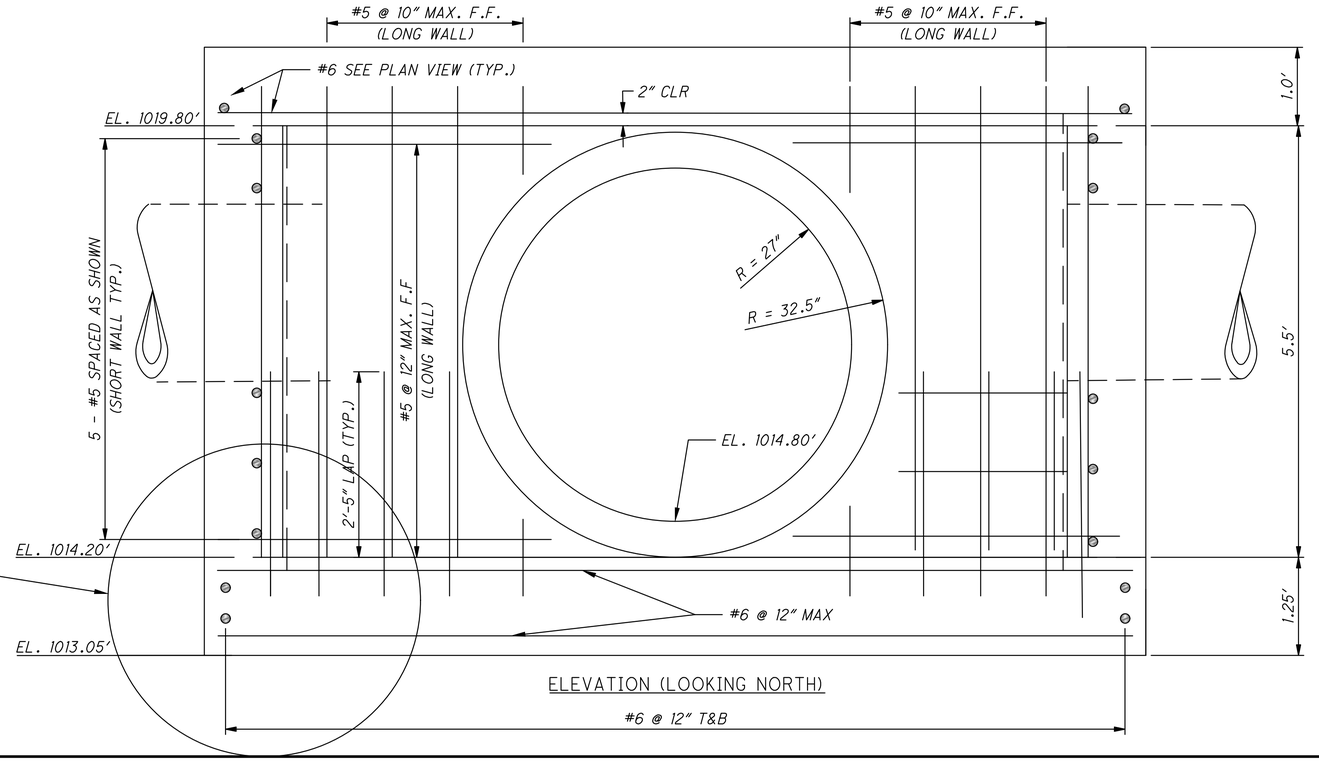


ELEVATION (LOOKING WEST)

** (#5 FF ADDITIONAL TO #5 @ 10" OR #5 @ 12")



DETAIL A



ELEVATION (LOOKING NORTH)

NOTES:

1. Limit backfill to 3' above invert of 54" pipe until top slab is placed.
2. #5 lap= 2'-5". Cut no 5 bars to clear 30" pipe.

Place additional #5's as shown to replace bars cut.

CALCULATED JTH CHECKED HER

DRAINAGE DETAILS
STA. 117+78.50 JUNCTION BOX

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

170C 302

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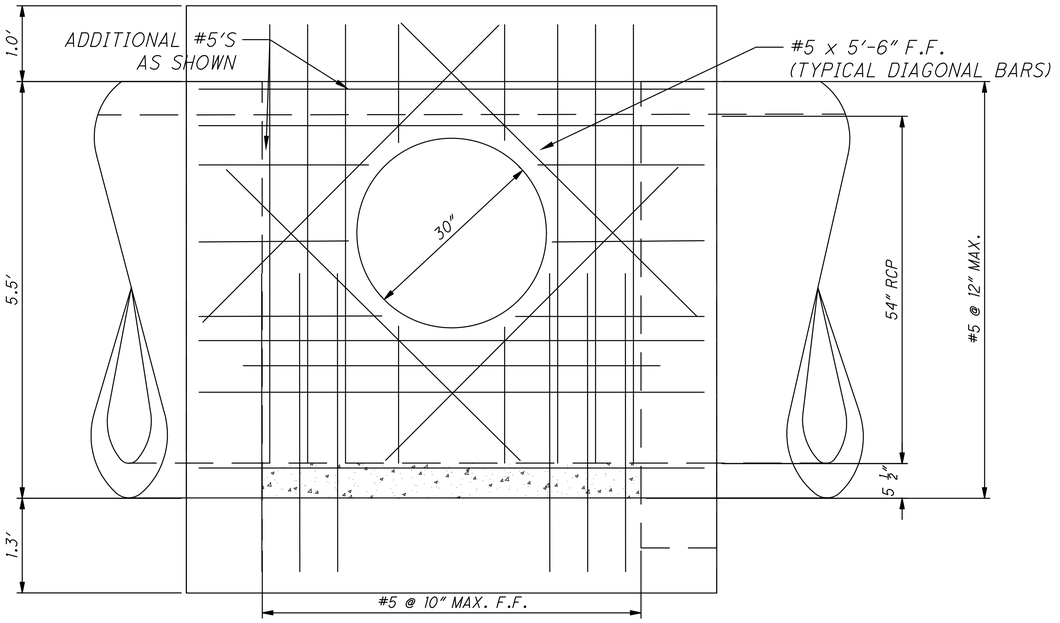
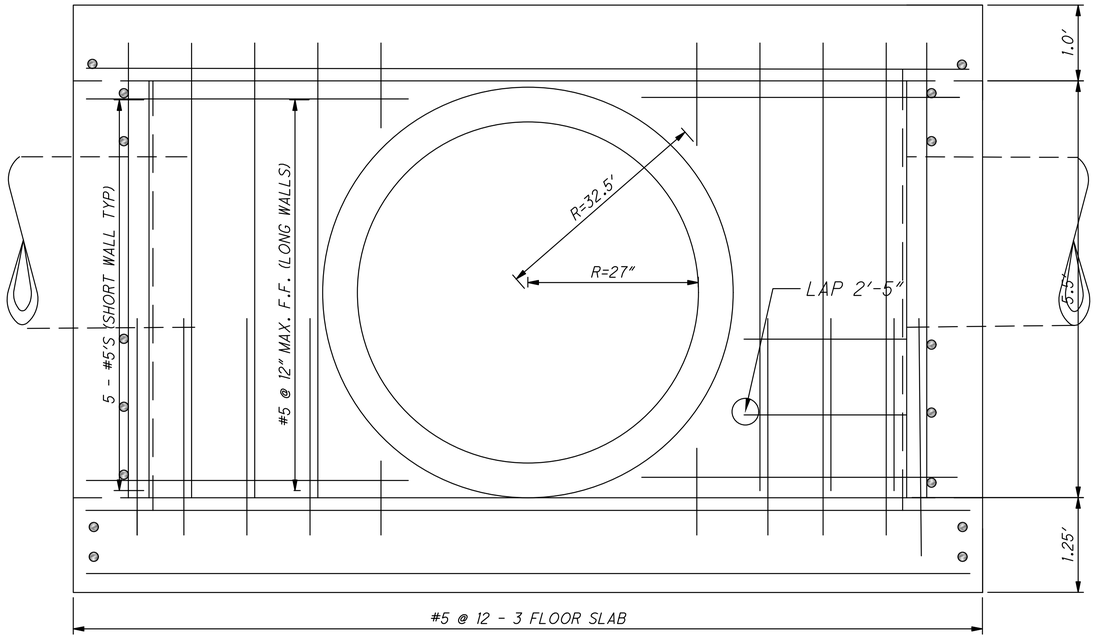
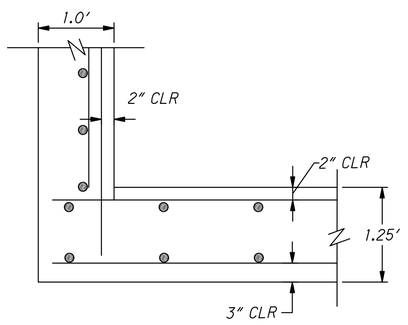




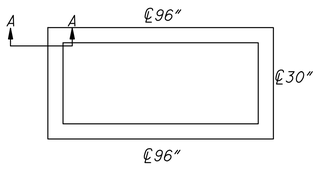
ELEVATION (FLOOR SLAB)

1. Limit backfill to 3' above invert until top slab is placed.
2. #5 lap= 2'-5". Cut no 5 bars to clear 30" pipe.

Place additional #5's as shown to replace bars cut.



PART SECTION A-A



CALCULATED -
CHECKED JLN

DRAINAGE DETAILS MANHOLE, NO. 5, AS PER PLAN

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

170D
302

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NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

WATERLINE NOTES (30" RCP WATER):

1. THE CONTRACTOR SHALL SUBCONTRACT THE 12" TAP INTO THE EXISTING 30" CONCRETE WATER MAIN TO RANGELINE, OR APPROVED EQUAL. THE CONTRACTOR SHALL CONTACT SCOTT NOONAN WITH RANGELINE AT 419-806-6547.
2. THE CONTRACTOR SHALL CONTACT SCOTT NOONAN WITH RANGELINE TO SCHEDULE THE TAPPING SLEEVE AND VALVE INSTALLATION. THE CONTRACTOR SHALL ALSO COORDINATE THIS WORK WITH THE CANTON WATER DEPARTMENT.
3. THE TAPPING SLEEVE SHALL BE WRAPPED WITH POLYETHYLENE AND CONCRETE ENCASED.
4. FOR BIDDING PURPOSES, RANGELINE'S SCOPE SHALL ONLY CONSIST OF INSTALLING THE SLEEVE, MAKING THE TAP, AND INSTALLING THE VALVE. ALL OTHER WORK WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

CUT AND PLUG EXISTING 6"

+98.12
10.00 Rt
45° BEND

CONNECT PROP. 12" WATER MAIN TO EXISTING 30" RCP WATER MAIN
REMOVE CASING PIPE AS NECESSARY FOR CONNECTION
(SEE NOTES ON THIS SHEET)

6" WATER (TO REMAIN)

6" WATER (TBA)

PROP. 12" WATER

MATCH LINE STA. 103+75

SEE SHEET 173

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

WATER WORK PLAN - 11TH STREET SE
BEGINNING TO STA. 103+75

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

171
302

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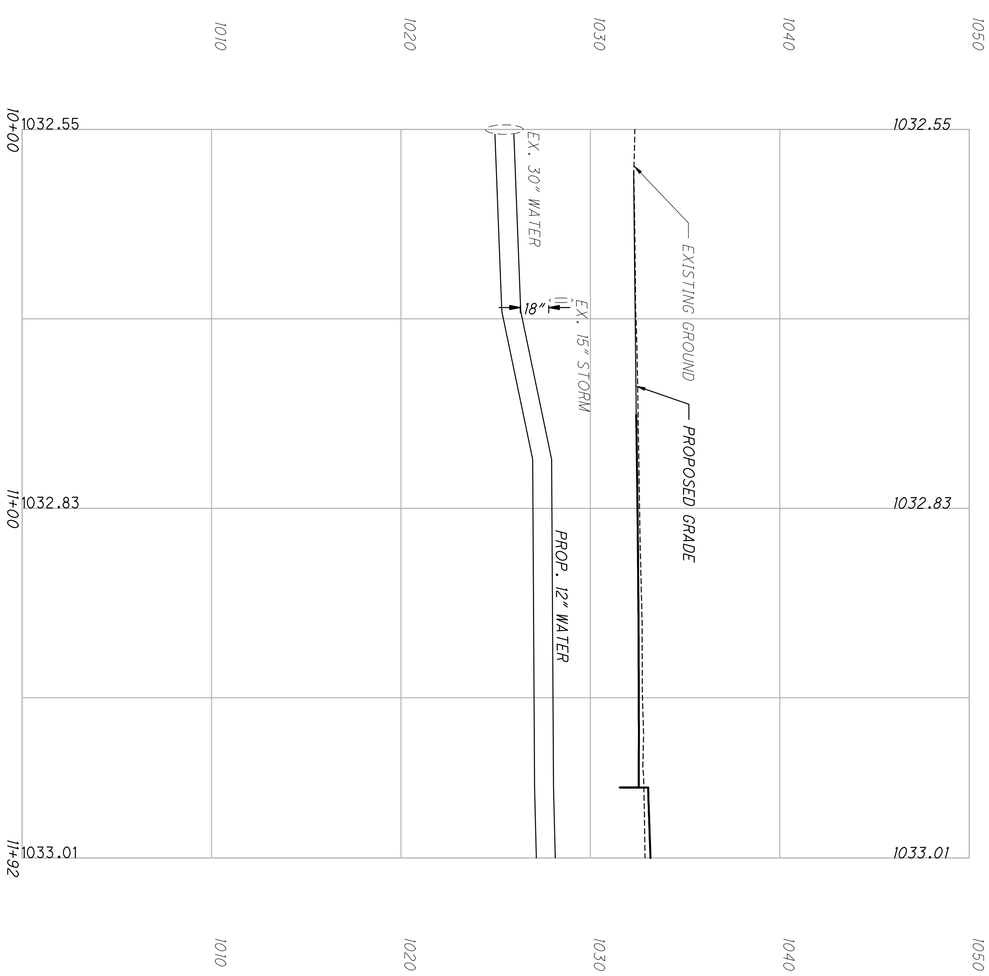

172 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PROFILE - 11TH STREET SE BEGINNING TO STA. 103+75	CALCULATED JPK / CHECKED JES

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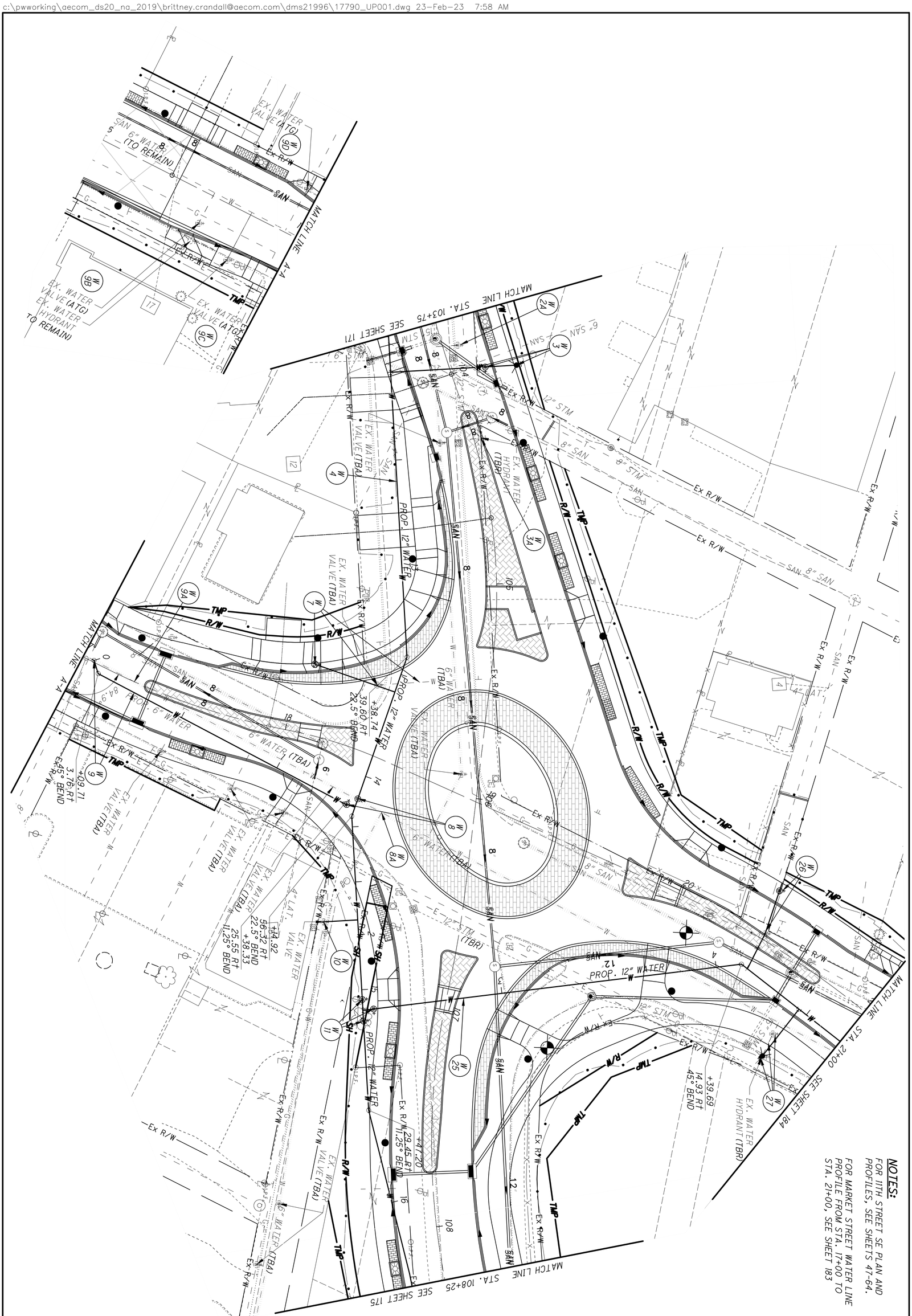

NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

FOR MARKET STREET WATER LINE PROFILE FROM STA. 17+00 TO STA. 21+00, SEE SHEET 183

302 (173)	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PLAN - 11TH STREET SE STA. 103+75 TO STA. 108+25	CALCULATED JPK / CHECKED JES	HORIZONTAL SCALE IN FEET (0, 10, 20, 40)

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174 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PROFILE - 11TH STREET SE STA. 103+75 TO STA. 108+25	CALCULATED JPK / CHECKED JES

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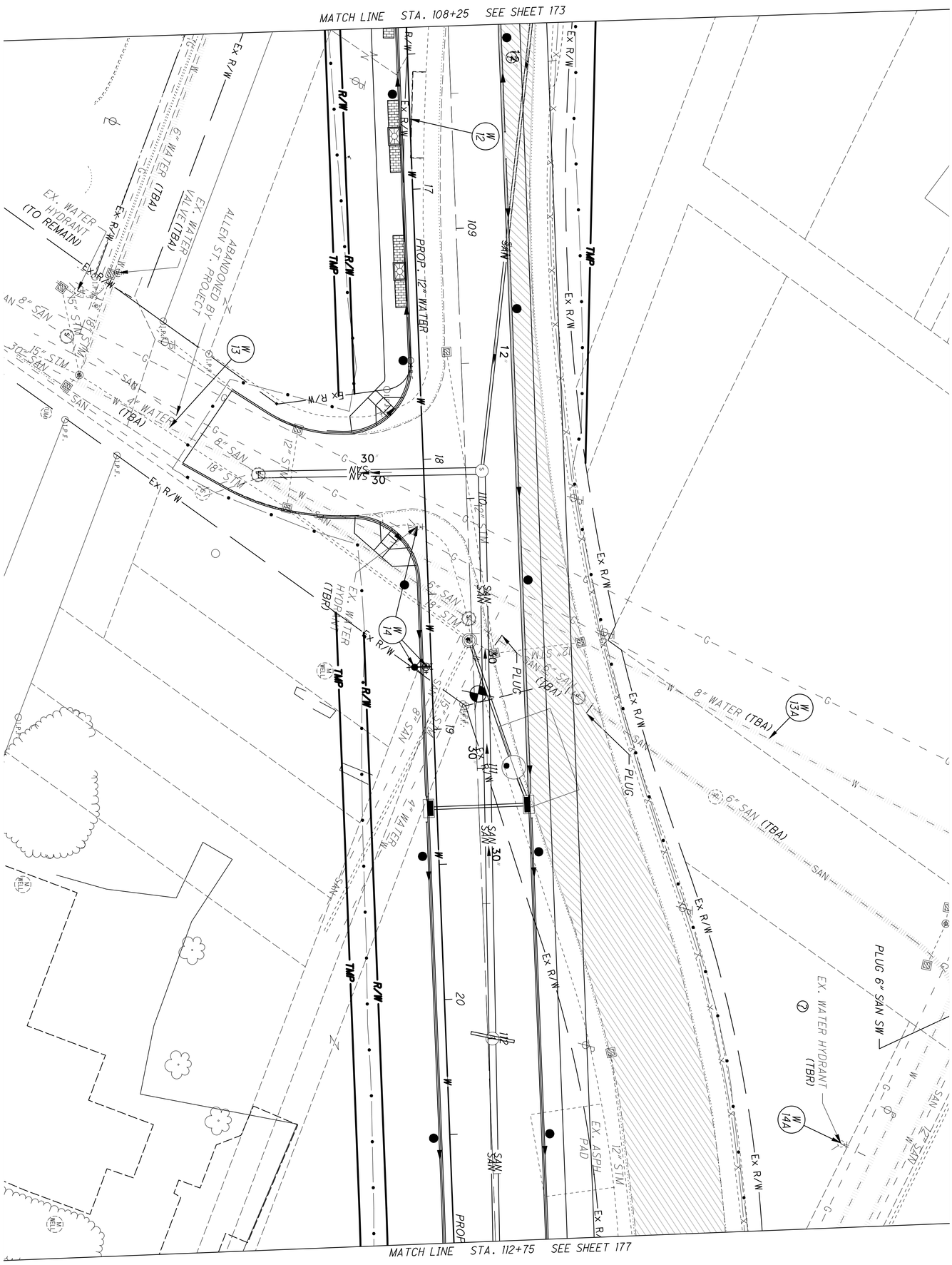

NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

302 / 179	**STA - 11TH STREET SE IMPROVEMENTS (PID 90465)**	**WATER WORK PLAN - 11TH STREET SE STA. 108+25 TO 112+75**	CALCULATED JPK / CHECKED JES	0 10 20 40 HORIZONTAL SCALE IN FEET	N

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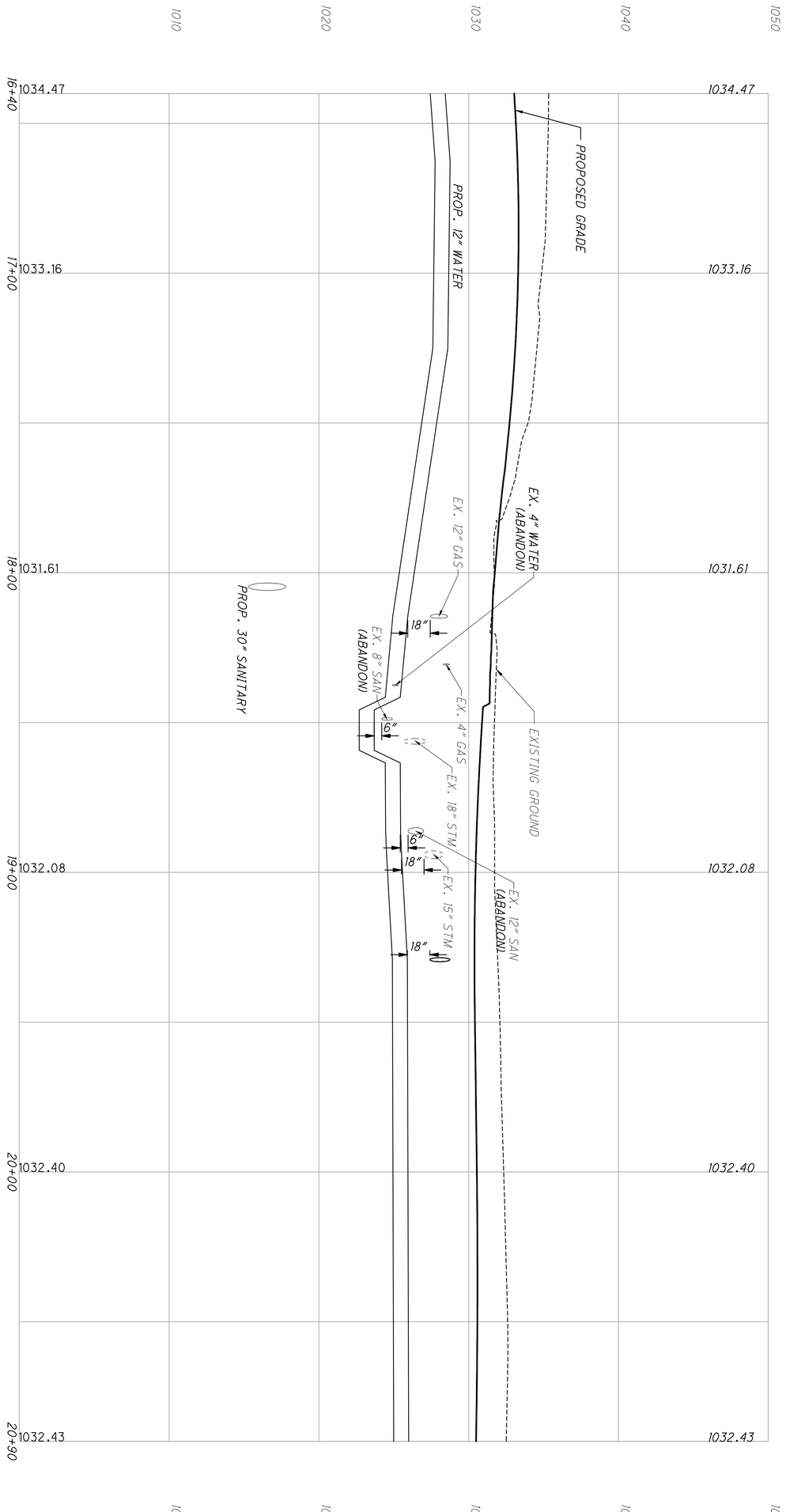

302 / 176	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	**WATER WORK PROFILE - 11TH STREET SE STA. 108+25 TO STA. 112+75**	CALCULATED JPK / CHECKED JES

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NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

302 / 177	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PLAN - 11TH STREET SE STA. 112+75 TO 116+25	CALCULATED JPK / CHECKED JES	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

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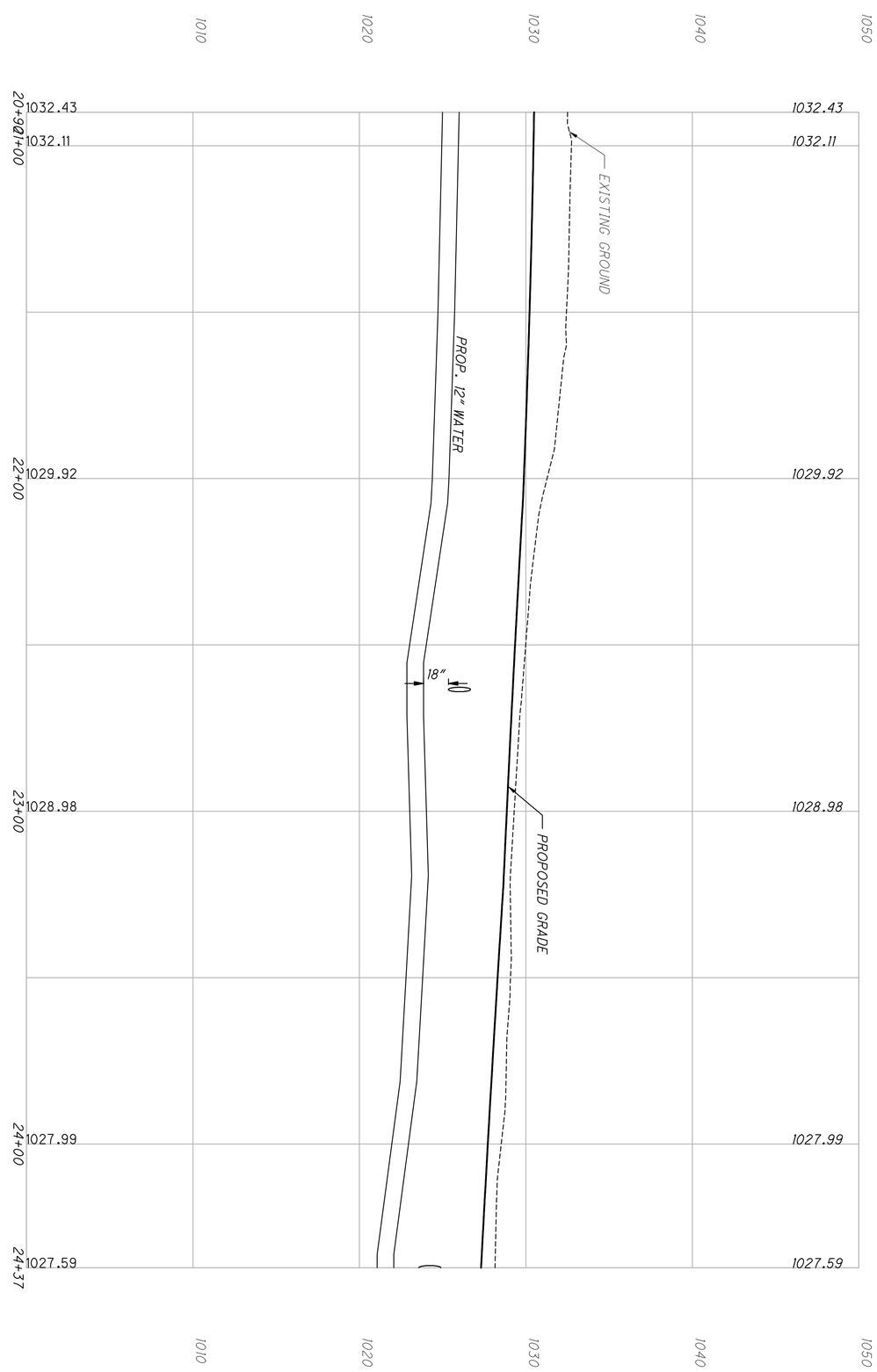

178 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	**WATER WORK PROFILE - 11TH STREET SE STA. 112+75 TO STA. 116+25**

CALCULATED JPK
CHECKED JES

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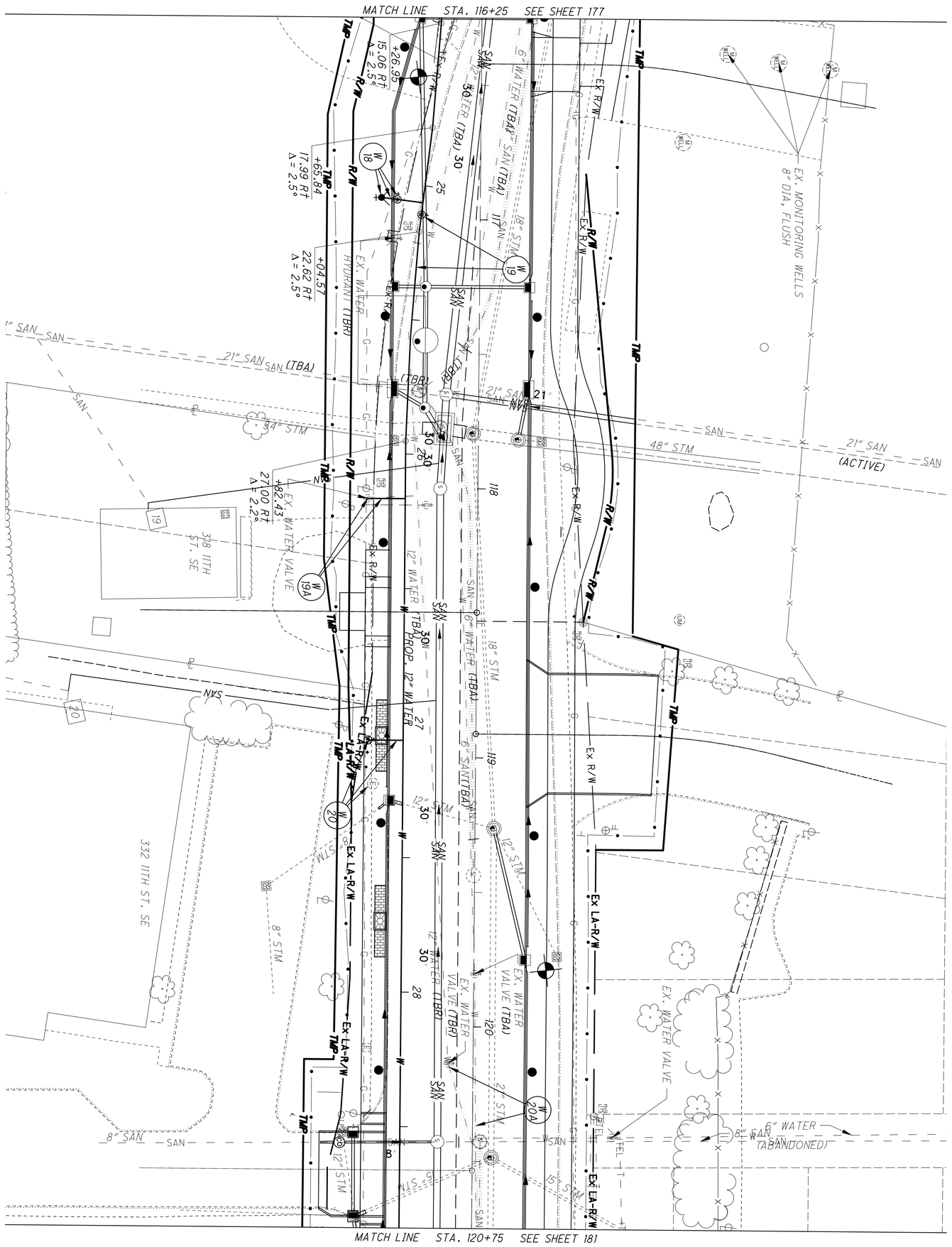

NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

WATER WORK PLAN - 11TH STREET SE STA. 116+25 TO 120+75

CALCULATED JPK
CHECKED JES

HORIZONTAL SCALE IN FEET
0 10 20 40

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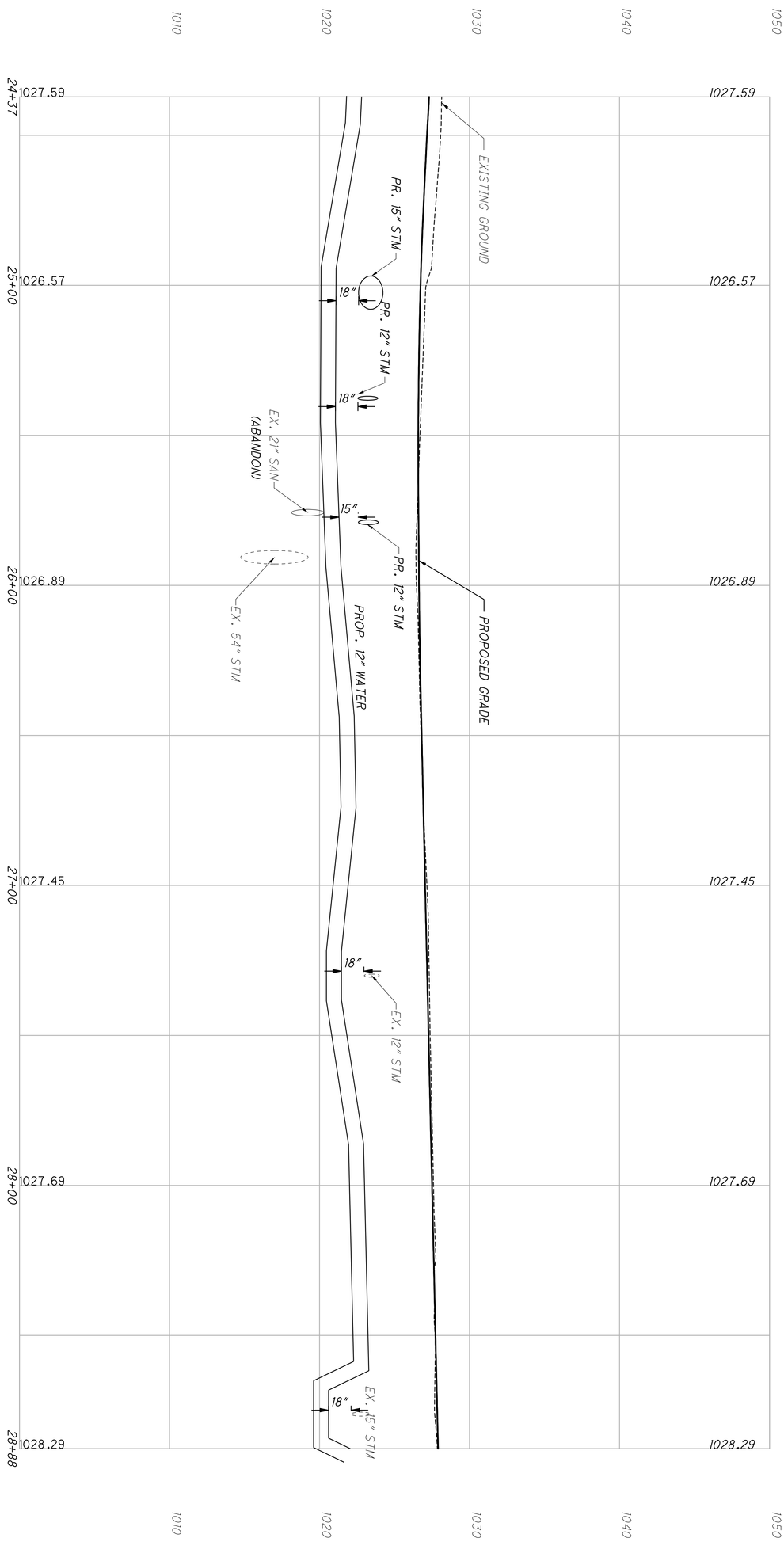
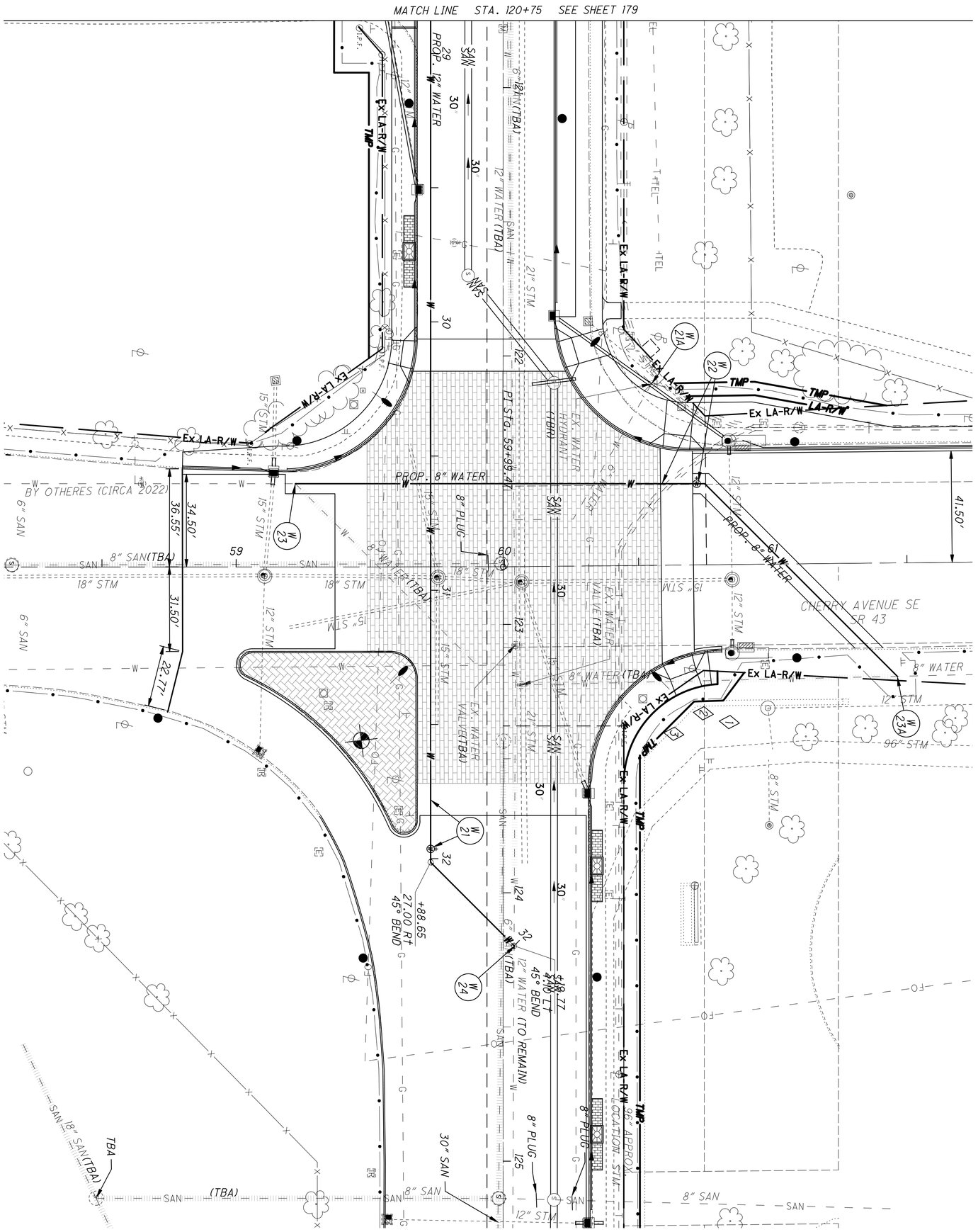


180 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PROFILE - 11TH STREET SE STA. 116+25 TO STA. 120+75	CALCULATED JPK / CHECKED JES



NOTES:

FOR 11TH STREET SE PLAN AND PROFILES, SEE SHEETS 47-64.

181 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PLAN - 11TH STREET SE STA. 120+75 TO 125+25	CALCULATED JPK / CHECKED JES	0 10 20 40 HORIZONTAL SCALE IN FEET

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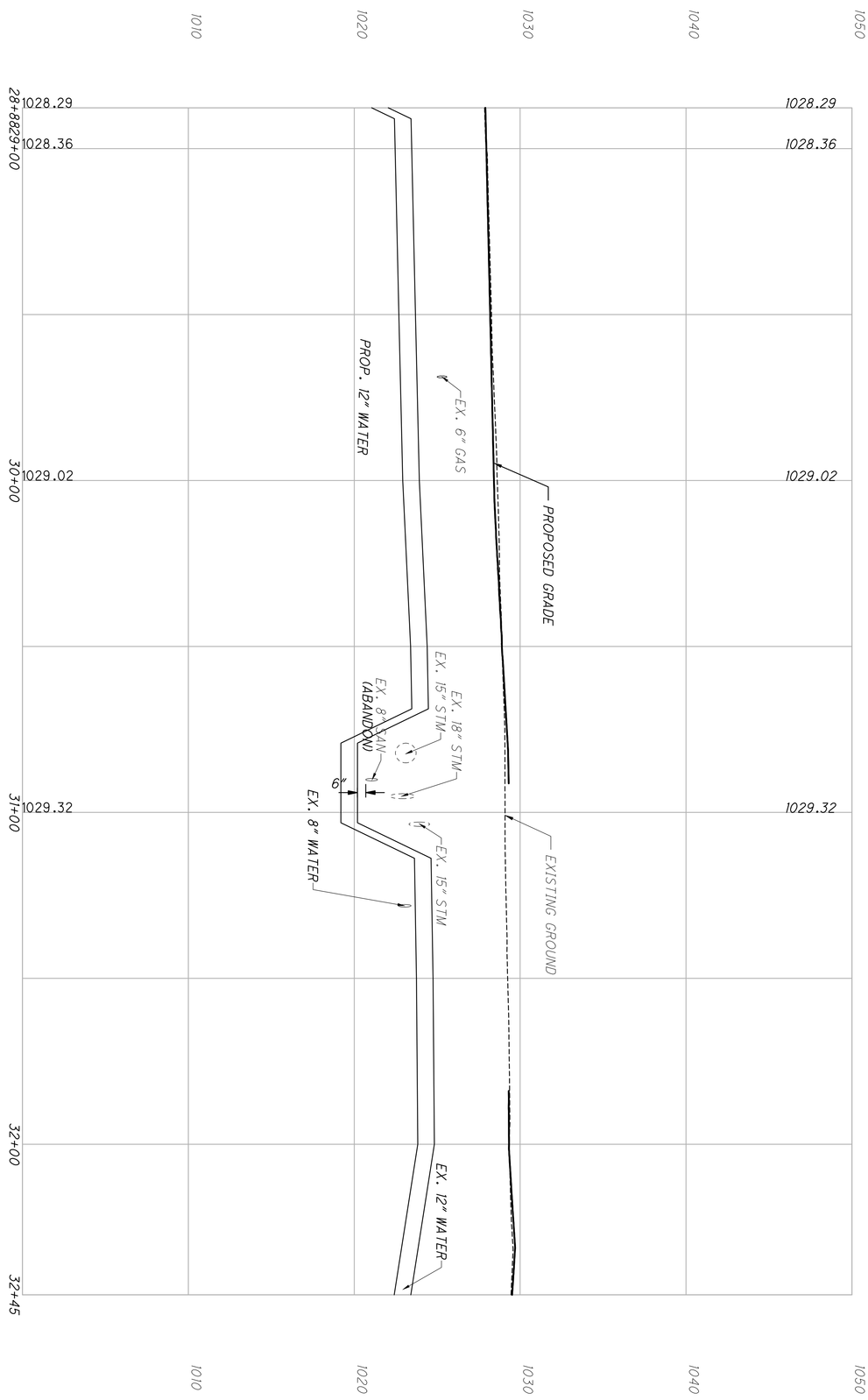

302 / 182	**STA - 11TH STREET SE IMPROVEMENTS (PID 90465)**	**WATER WORK PROFILE - 11TH STREET SE STA. 120+75 TO STA. 125+25**

CALCULATED JPK
CHECKED JES

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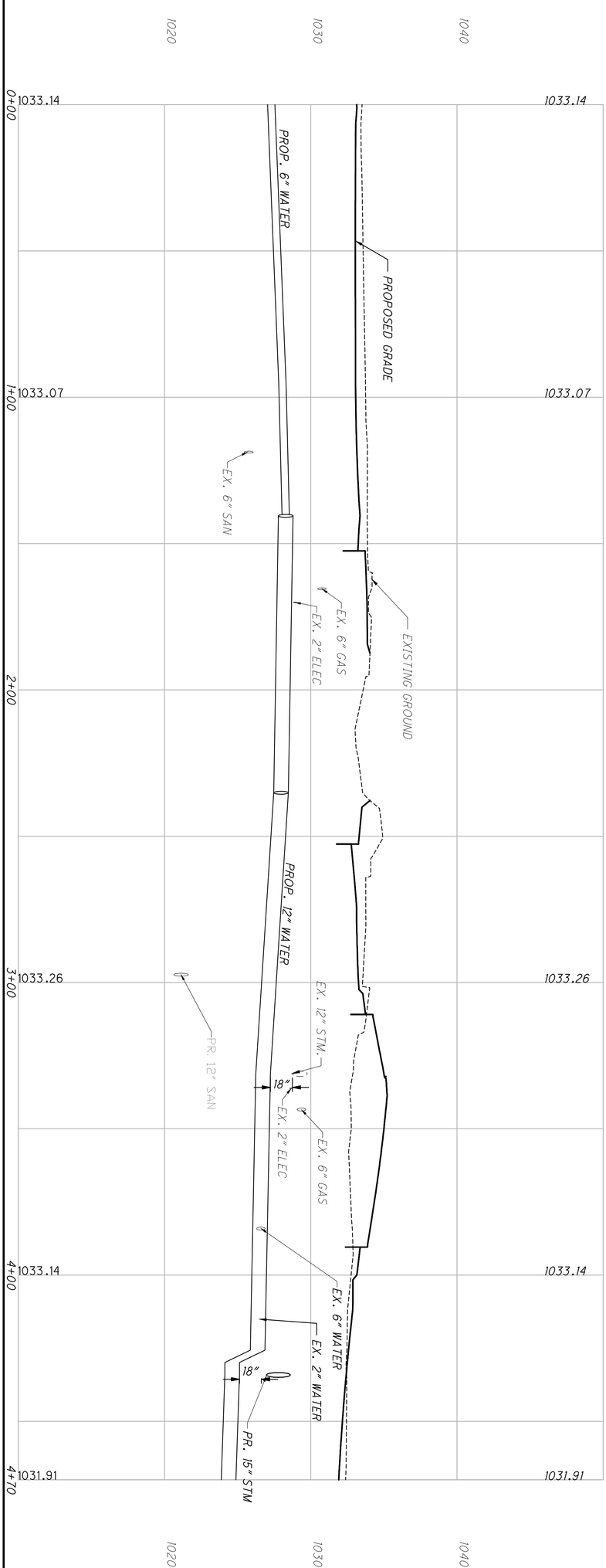


NOTES:

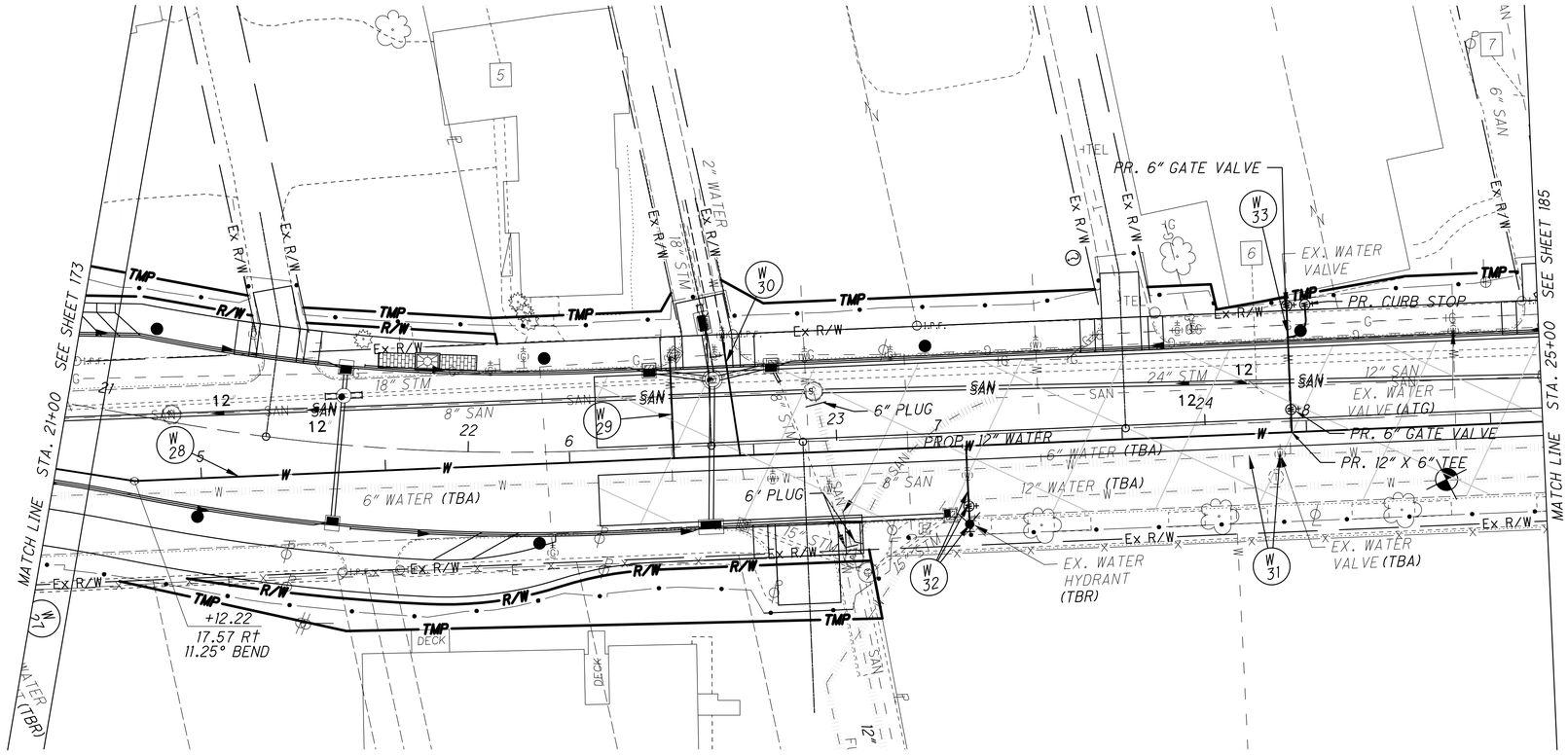
FOR MARKET AVENUE S PLAN AND PROFILES, SEE SHEETS 105-108.

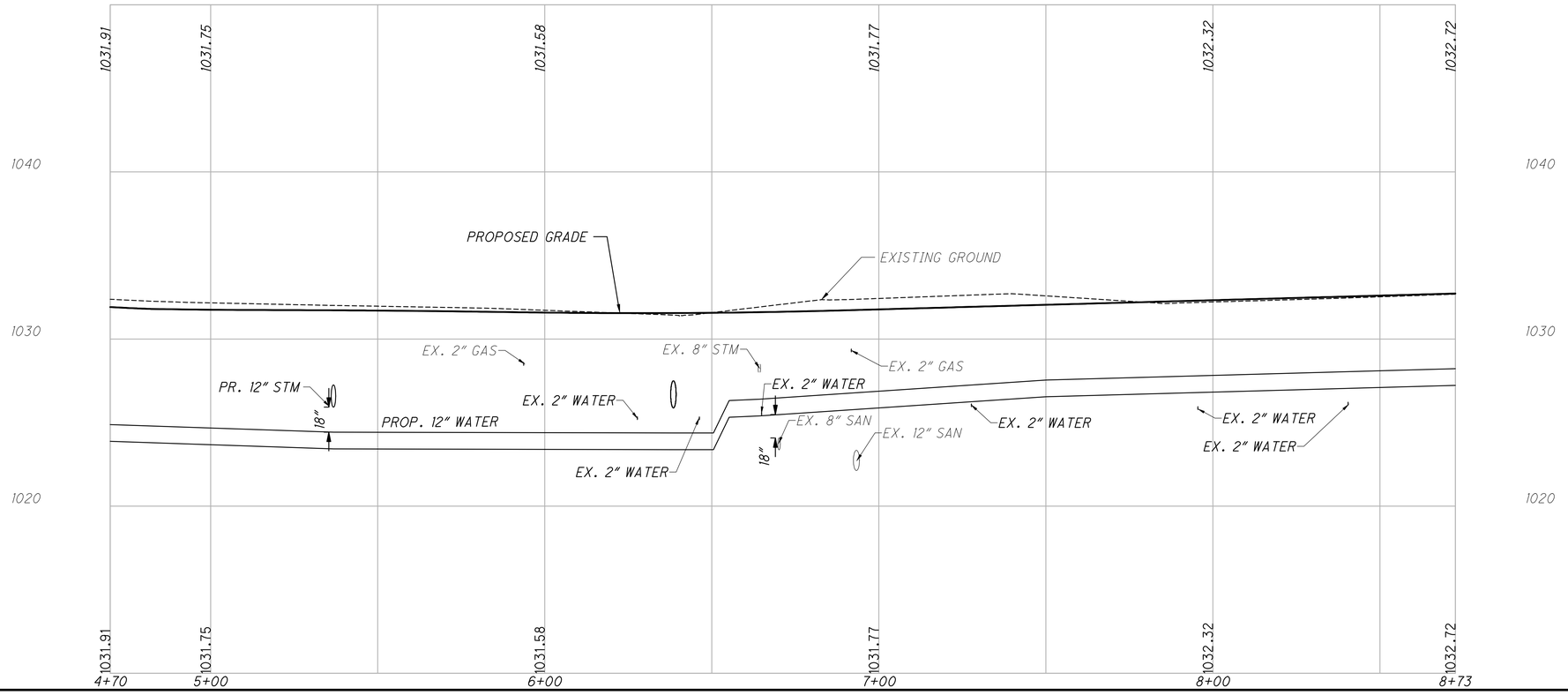
FOR MARKET AVENUE S WATER LINE PLAN VIEW FROM STA. 17+00 TO 21+00, SEE SHEET 173

302 (183)	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	WATER WORK PROFILE - MARKET AVENUE S STA. 17+00 TO STA. 21+00	CALCULATED JPK / CHECKED JES	0 20 / 10 40 HORIZONTAL SCALE IN FEET	N

NOTES:

FOR MARKET AVENUE S PLAN AND PROFILES, SEE SHEETS 105-108.





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HORIZONTAL SCALE IN FEET
0 10 20 40

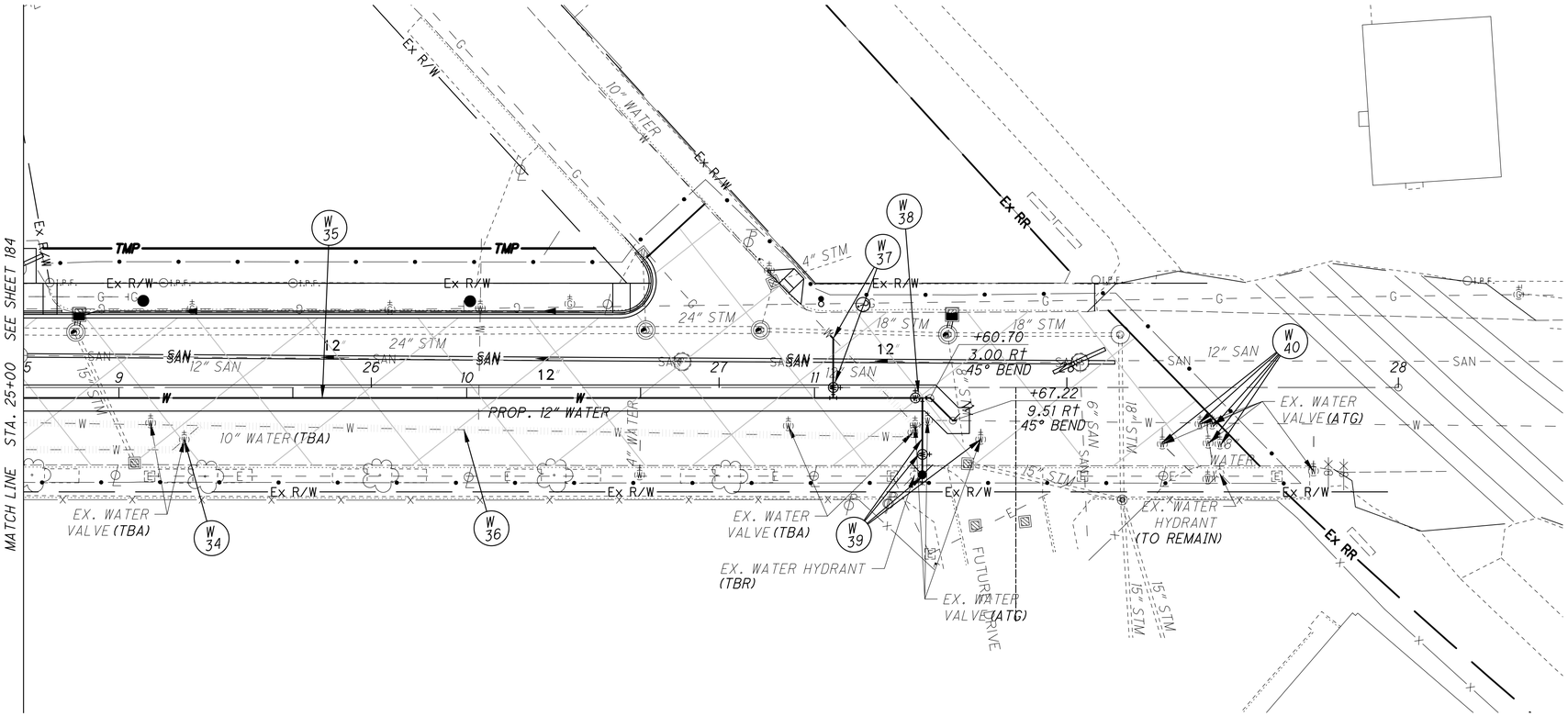
CALCULATED JPK
CHECKED JES

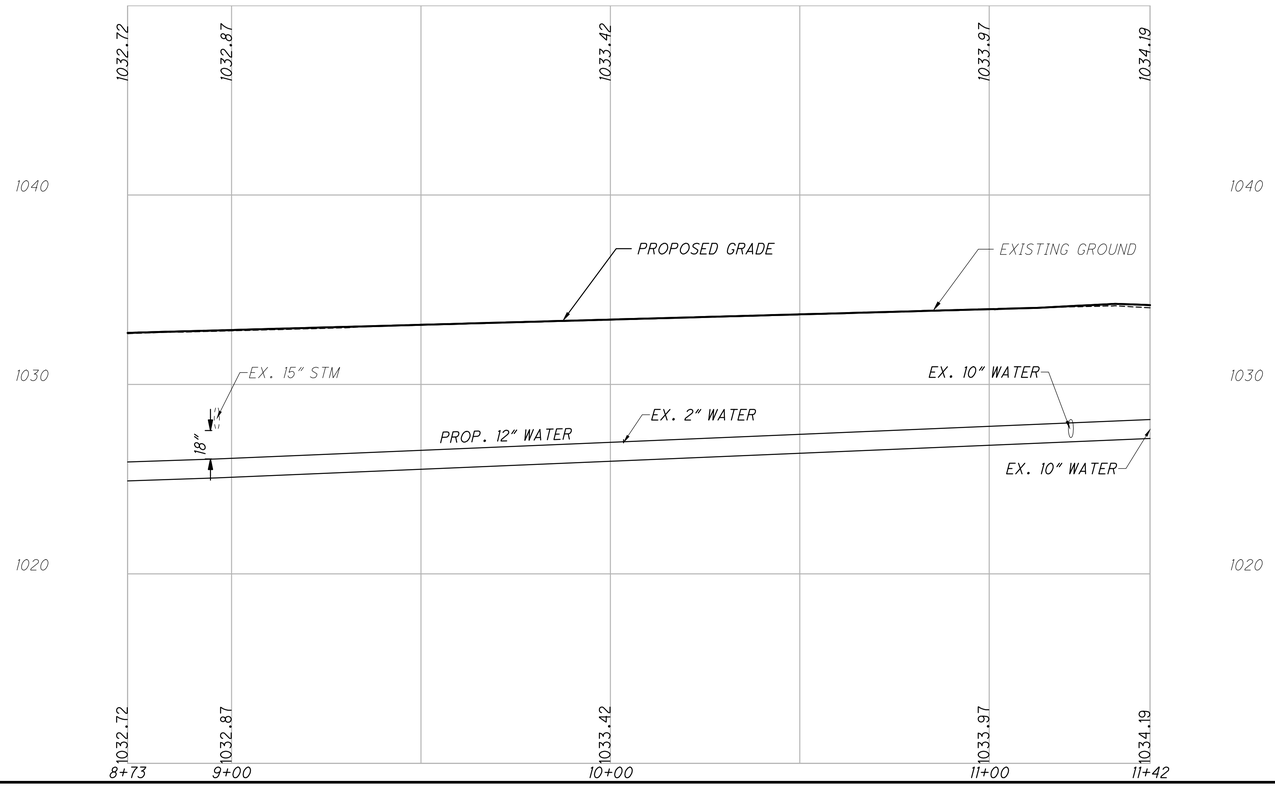
WATER WORK PLAN AND PROFILE
MARKET AVENUE S STA. 21+00 TO STA. 25+00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

NOTES:

FOR MARKET AVENUE S PLAN AND PROFILES, SEE SHEETS 105-108.





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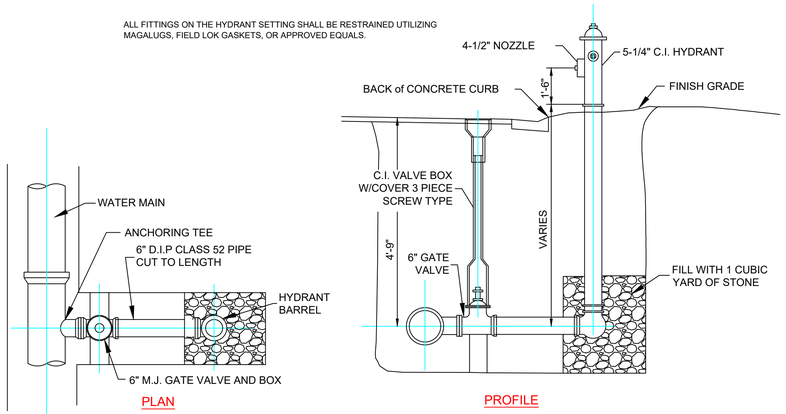
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED JPK
CHECKED JES

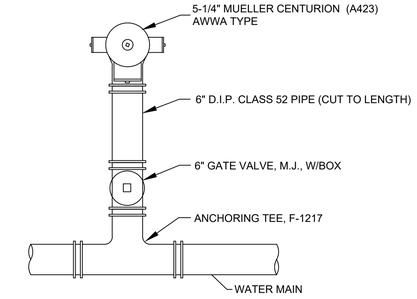
WATER WORK PLAN AND PROFILE
MARKET AVENUE S STA. 25+00 TO STA. 28+50

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

ALL FITTINGS ON THE HYDRANT SETTING SHALL BE RESTRAINED UTILIZING MAGALUGS, FIELD LOK GASKETS, OR APPROVED EQUALS.



HYDRANT SETTING
(C71)
REV 4/6/1989



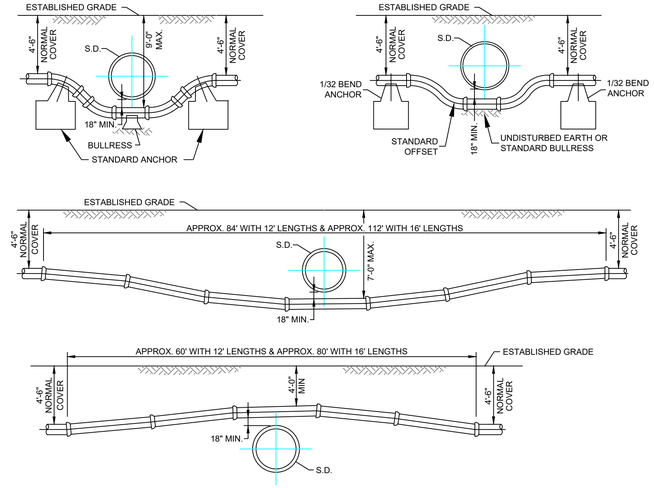
HYDRANT SETTINGS CONSIST OF HYDRANT, VALVE, VALVE BOX, FITTINGS AND MATERIALS SHOWN OR SPECIFIED WHICH ARE NEEDED FOR PROPER INSTALLATION.

SEE SPECIFICATIONS FOR MORE INFORMATION ABOUT MATERIALS, SETTING HYDRANTS AND DRAINAGE REQUIREMENTS.

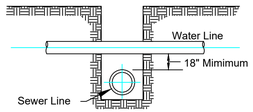
IF RESTRAINED JOINT FITTINGS CANNOT BE USED, (2) TIE RODS AND (4) EYE BOLTS WITH NUTS AND WASHERS MUST BE USED.

FIGURES SUCH AS F-1217 INDICATE CLOW CORPORATION STYLES. USE THIS BRAND OR APPROVED EQUAL.

ALL HYDRANTS ARE TO BE INSTALLED WITH THE PUMPER NOZZLE FACING THE STREET.



WATER MAIN CROSSING STORM DRAIN
(C187)
REV 10/22/2013

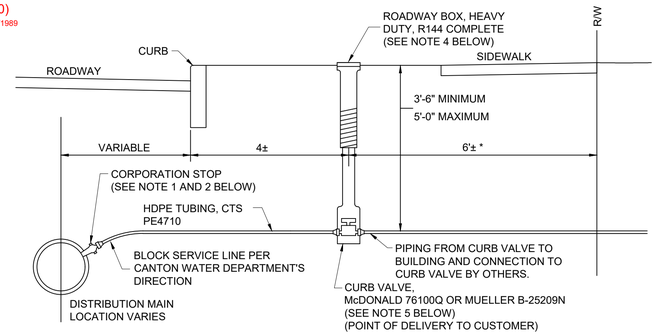


NOTES:
1. If joint on water main is within limits of sewer trench, install mechanical bell joint clamp
2. If clearance is less than 18":
   - For Storm sewers, concrete encase the storm sewer pipe, 6 ft. on each side of water main.
   - For Sanitary sewers, replace the sanitary sewer pipe with PVC C900 pipe, 10 ft. on each side of water main. Approved couplings shall be used to tie onto the existing sewer.

   Cost for the above shall be included in the unit prices bid for all items in the proposal.
3. In no case shall the sewer pipe contact any water main, service line or appurtenance.

VERTICAL WATER MAIN CLEARANCE
(C186)
REV 5/26/1994

HYDRANT CONNECTION
(C70)
REV 4/5/1989



NOTES:
1.) A 1" SERVICE ON A 6" OR 8" MAIN SHALL CONSIST OF A 3/4" TAP WITH A 3/4" X 1" CORP.

2.) CORPORATION STOP AND ASSEMBLY SHALL BE AS FOLLOWS:

3/4" X 1" CORP. STOP ON DIP (6" AND 8" MAINS):
INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION.
3/4" X 1" CORP. STOP ON PVC C909 (6" AND 8" MAINS):
INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION AND A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).
1" CORP. STOP ON DIP (MAINS 12" AND UP):
INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION.
1" CORP. STOP ON PVC C909 (MAINS 12" AND UP):
INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION AND A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).
1 ½" CORP. STOP (ALL MAIN SIZES):
INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION AND A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).
1 ½" X 2" CORP. STOP (ALL MAIN SIZES):
INSTALL AT THE 2:00 POSITION, A MUELLER B-25008 CORPORATION STOP WITH A COMPRESSION CONNECTION AND A FORD, STAINLESS STEEL, EPOXY COATED TAPPING SADDLE (FC202 STYLE).

3.) A SERVICE CLAMP MUST BE USED WHEN THE MAIN SIZE IS 2 INCH OR SMALLER.

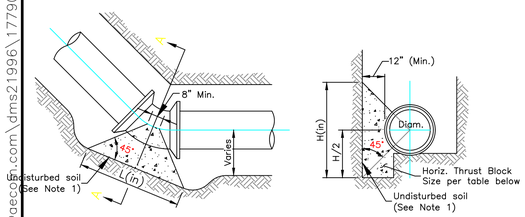
4.) HEAVY DUTY VALVE BOXES, COMPLETE, MUST BE USED IN PLACE OF ROADWAY BOXES WHEN THE CURB VALVE IS LOCATED IN ROADWAYS OR ASPHALT DRIVES.

5.) WHEN CONNECTING A NEW 1" SERVICE TO AN EXISTING 3/4" SERVICE, THE CURB VALVE SIZE SHALL BE A 1" X 3/4" REDUCING CURB VALVE.

6.) BRASS REDUCING BUSHINGS OR SWIVEL ELLS WILL NOT BE ALLOWED.

7.) APPROVED EQUALS MAY BE USED IN PLACE OF SPECIFIED ITEMS.

TYPICAL WATER SERVICE
(C94)
REV 4/12/2021

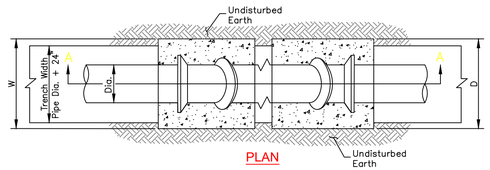


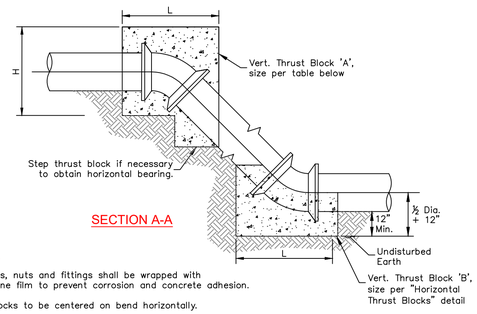
NOTES:

1. Thrust blocks shall be placed against undisturbed soil. Where it is not possible, the fill between the bearing surface and undisturbed soil must be compacted to at least 90% Standard Proctor density.
2. Pipe, bolts, nuts and fittings shall be wrapped with polyethylene film to prevent corrosion and concrete adhesion.
3. All joints to be Megalugged.

SIZE OF PIPE	DEGREE OF BEND							
	11 ¼°		22 ½°		45°		90°	
	L	H	L	H	L	H	L	H
6"	16	8	16	10	24	14	32	18
8"	16	10	21	14	31	18	44	24
12"	21	16	32	20	48	26	66	36
16"	29	20	42	28	66	34	90	46
20"	37	24	50	36	73	48	107	60
24"	46	28	64	40	93	54	128	72

HORIZONTAL THRUST BLOCKS
(C130)
REV 3/7/2016





NOTES:

Pipe, bolts, nuts and fittings shall be wrapped with polyethylene film to prevent corrosion and concrete adhesion.

Thrust blocks to be centered on bend horizontally.

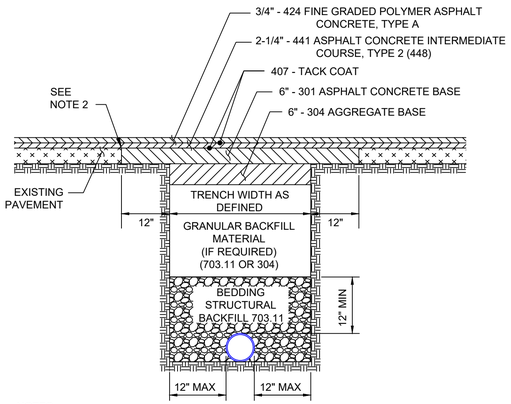
Thrust block 'A' shall be off centered on bend vertically to shift the majority of the block above the fitting.

All joints to be Megalugged.

Concrete thrust blocks to be placed on all vertical bends.

SIZE OF PIPE	DEGREE OF BEND											
	11 ¼°				22 ½°				45°			
	L	W	H	V (cy)	L	W	H	V (cy)	L	W	H	V (cy)
6"	12	48	18	0.2	15	43	36	0.5	28	55	24	0.8
8"	12	63	24	0.4	18	57	34	0.7	36	57	33	1.4
12"	20	54	36	0.8	37	62	37	1.7	48	62	51	3.1
16"	31	65	38	1.6	55	65	39	3.0	65	65	65	5.6
20"	40	56	50	2.4	57	66	59	4.8	82	74	68	8.8
24"	48	60	60	3.5	67	72	66	6.9	91	91	72	12.7

CONCRETE THRUST BLOCKS FOR VERTICAL BENDS ON WATER MAINS
(POURED IN PLACE, CLASS C)
(C147)
REV 4/22/2015



NOTES:
1. NO FOUNDRY SAND OR SLAG IS PERMITTED. ALTERNATE BACKFILL MATERIAL PERMITTED ONLY IF APPROVED BY CITY ENGINEER.
2. SAW CUT EXISTING PAVEMENT, SEAL JOINT PER ODOT ITEM 423 - CRACK SEALING, TYPE IV. INCLUDE COST IN BID PRICE FOR THE PROPOSED PAVEMENT.
3. IF ADJACENT PAVEMENT IS DAMAGED OR UNDERMINED DURING CONSTRUCTION, ADDITIONAL PAVEMENT SHALL BE SAW CUT AND REMOVED OR MILLED IN ORDER TO PROVIDE A SOUND PAVEMENT EDGE AT NO ADDITIONAL COST TO THE PROJECT.
4. IN THE EVENT THAT THE SAW CUT WOULD LIE WITHIN 3 FEET OF THE EDGE OF PAVEMENT OR FACE OF CURB, THE PAVEMENT REPLACEMENT SHALL EXTEND TO THE EDGE OF PAVEMENT OF FACE OF CURB.

PAY LIMITS - TRENCH & ROADWAY DETAIL FOR D.I.P.

CALCULATED JPK
CHECKED JES

WATER WORK DETAILS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

186
302

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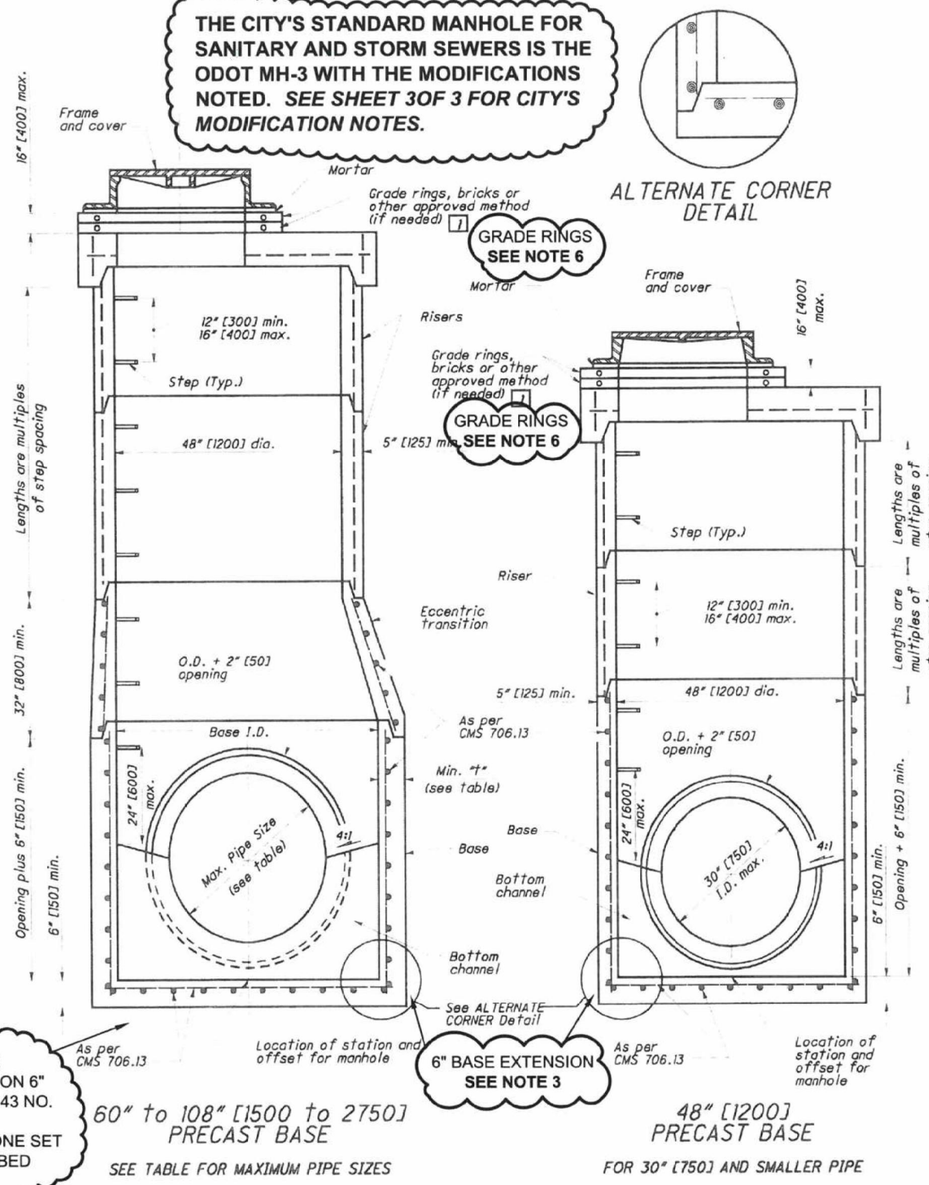
THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED. *SEE SHEET 3OF 3 FOR CITY'S MODIFICATION NOTES.*



SECTION VIEWS OF REINFORCED PRECAST MANHOLES

NOTES

GENERAL: With normal soil and site conditions, this standard precast manhole may be used for any required manhole depth. Sections of the precast manhole shall be cast and assembled with either all tongue or all groove ends up. Lift holes may be provided in each section for handling. Handling device for the flat slab shall be left in place. SEE NOTE 1

TOP: This section shall be ~~a flat slab, unless~~ an eccentric cone ~~as specified.~~ SEE NOTE 2

TRANSITION (OR REDUCER): This section can be ~~either~~ eccentric cone ~~or flat slab.~~ SEE NOTE 2

BASE: Manhole No. 3 is shown with a monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Openings for inlet and outlet pipes shall be provided, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete, precast in the base or field constructed as shown on SCD **MH-1.1 and MH-3.1.** SEE NOTE 3

RISER SECTIONS: Openings for 18" [450] and smaller inlet pipes may be either prefabricated, or cut in the field provided the sides of the pipe at the springline do not project into the manhole. SEE NOTE 4

CONNECTIONS: Connections between precast manhole sections, and pipes on sanitary sewers, may be sealed with resilient connectors conforming to ASTM C 923. SEE NOTE 4

JOINT SEAL: Seal between precast manhole sections on sanitary sewers shall be resilient and flexible gasket joints per CMS 706.11.

OPENINGS: The maximum pipe opening shall be the O.D. of the pipe being supplied plus 2" [50] when fabricated or field cuts. Fill any voids per CMS 601. SEE NOTE 4

MATERIALS: Materials for bases and other precast sections, including reinforcement not specified hereon, shall comply with the requirements of CMS 706.13.

DROP PIPE: When specified on the plans, drop pipe shall be constructed ~~as shown on SCD MH-3.1.~~ SEE NOTE 4

STEPS, FRAMES AND COVERS: ~~Shall comply with the requirements set forth on SCD MH-1.1.~~ SEE NOTE 5

TOP SLAB REBAR: Reinforcing steel used within the top slab shall be epoxy coated.

LEGEND

[1] Reconstruction to grade only. Approved materials are kept on file by the Office of Materials Management.

MAXIMUM PIPE SIZES

BASE I.D.	MIN. "t"	MAX. PIPE SIZE
60" [1500]	5" [125]	36" [900]
72" [1800]	6" [150]	48" [1200]
84" [2100]	7" [175]	54" [1350]
90" [2250]	7½" [190]	60" [1500]
96" [2400]	8" [200]	66" [1650]
108" [2750]	9" [230]	72" [1800]

7-20-01
7-19-02
7-15-05
1-20-06

J. Stains

ALL METRIC DIMENSIONS [ ] IN BRACKETS ( ) ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

OFFICE OF STRUCTURAL ENGINEERING

MANHOLE No. 3

MH-1.2

1/2

CALCULATED

CHECKED

CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

187/302

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	CDB
MODIFIED GRADE RING NOTE 6	09/23/2020	RMB
TITLE BLOCK REVISION	02/26/2021	GML

STANDARD DRAWING NO. 10

PRECAST STORM OR SANITARY MANHOLE

CE_10_20210226.DWG

1 OF 3

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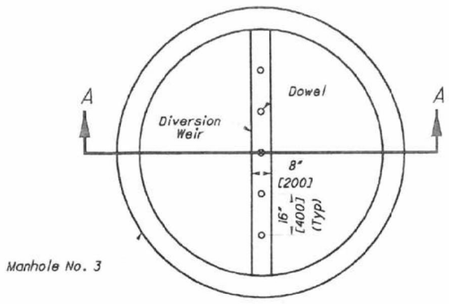
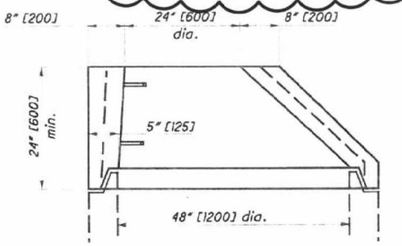


MANHOLE NO. 3 W/ ___" BASE I.D. AND ___" WEIR

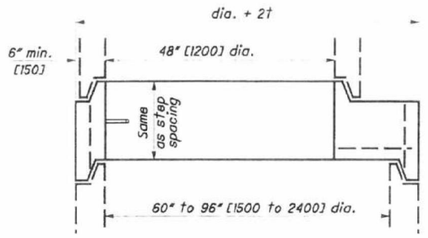
(NTS)

ECCENTRIC CONE IS STANDARD FOR CITY OF CANTON
SEE NOTE 2



ALTERNATE ECCENTRIC CONE TOP

~~(Only if specified)~~



FLAT SLAB TRANSITION

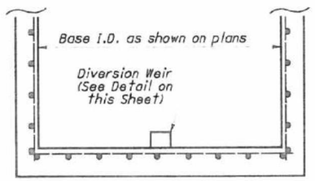
ONLY IF SPECIFIED
SEE NOTE 2

NOTES

MANHOLE NO. 3 W/___" BASE I.D. AND ___" DIVERSION WEIR: Furnish manhole base with precast diversion weir or construct diversion weir from Structure Concrete, Class C or Brick and Masonry Units conforming to CMS 604. A bottom channel section for the manhole is not required when a diversion weir is specified on the plans.

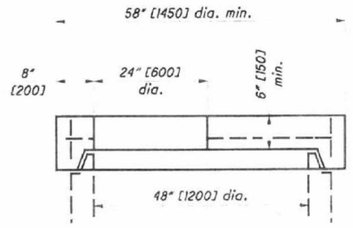
Place diversion weir perpendicular to flow of inflowing trunk sewer. Dowel concrete or masonry units into the base of the manhole to a depth of 3" [75] using epoxy coated #4 reinforcing bars. Start dowels at the center of the diversion weir and space 16" [400] on center across the entire weir.

All materials and labor, including excavation and backfill, shall be paid for at the contract price for **ITEM 604 - MANHOLE NO. 3 WITH ___" BASE I.D. AND ___" DIVERSION WEIR.**



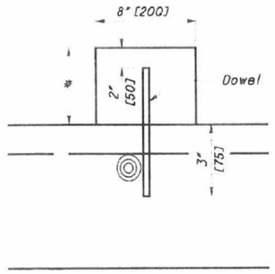
SECTION A-A

(NTS)



FLAT SLAB TOP

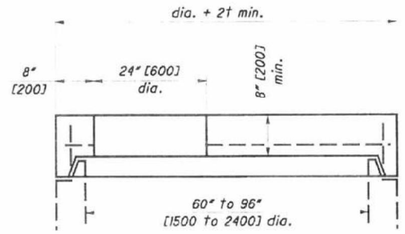
ONLY IF SPECIFIED
SEE NOTE 2



* Furnish weir height as shown in plans.

DIVERSION WEIR DETAIL

(NTS)



FLAT SLAB TOP

ONLY IF SPECIFIED
SEE NOTE 2

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED. ***SEE SHEET 3OF 3 FOR CITY'S MODIFICATION NOTES.***

OFFICE OF STRUCTURAL ENGINEERING

ALL METRIC DIMENSIONS ( ) ARE IN BRACKETS [ ] ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

J. Stains

7-20-01
7-19-02
7-15-06
7-20-06

MANHOLE No. 3

MH-1.2

2/2

CALCULATED

CHECKED

CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

188/302

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	RMB
TITLE BLOCK REVISION	02/26/2021	GML

STANDARD DRAWING NO. 10

PRECAST STORM OR SANITARY MANHOLE

CE_10_20210226.DWG

2 OF 3

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CANTON CONSTRUCTION STANDARDS NOTES FOR MODIFIED ODOT MANHOLE 3 (SCD MH-1.2)

NOTE 1. LIFT HOLES INSIDE THE MANHOLES MUST BE SEALED WITH GROUT.

NOTE 2. TOP AND TRANSITION SECTIONS MUST BE ECCENTRIC CONE ONLY. USE FLAT SLAB FOR SHALLOW MANHOLE APPLICATIONS OR SPECIAL CIRCUMSTANCES AS DIRECTED BY THE CITY.

NOTE 3. 6" EXTENDED BASE IS STANDARD FOR ALL SANITARY AND STORM MANHOLES. SET MANHOLE BASE ON 6" OF AASHTO M 43 NO. 56, 57, OR 62 CRUSHED STONE SET ON UNDISTURBED EARTH.

NOTE 4. PIPE CONNECTIONS INTO THE MANHOLES MUST NOT EXTEND INTO THE MANHOLE MORE THAN 2" AT THE SIDES OF THE PIPE AT THE SPRING-LINE OF SAID PIPE.

SANITARY CONNECTIONS
SANITARY SEWER PIPE INLETS, WITH FLOWLINES MORE THAN 2' HIGHER THAN THE CHANNEL BENCH MUST BE OUTSIDE DROP CONNECTIONS. DROP CONNECTIONS MUST BE FABRICATED AND CAST INTEGRALLY WITH THE MANHOLE SECTIONS OR INSTALLED PER CITY STANDARD DWG. 11, OUTSIDE DROP CONNECTION FOR SANITARY MANHOLES. NO INSIDE DROPS PERMITTED FOR PRIVATE SEWER CONNECTIONS. INSIDE DROP FOR CITY-OWNED SEWERS ARE SUBJECT TO THE CITY ENGINEER'S APPROVAL.

SANITARY PIPE INLETS MUST BE FLUMED OVER THE BENCH, DIRECTING FLOW INTO THE CHANNEL, USING CONCRETE AND/OR CLAY SEWER BRICK AND MORTAR.

CAST OPENINGS MUST BE THE OUTSIDE DIAMETER OF THE PIPE PLUS 2 INCHES WITH A BUTYL RUBBER A-LOK, X-CEL GASKET, OR APPROVED EQUAL.

CORED OPENINGS MUST BE MACHINE CORED, THE OPENING SHALL BE PER PIPE-TO-MANHOLE CONNECTOR SPECS. USE "KOR-N-SEAL" FLEXIBLE PIPE-TO-MANHOLE CONNECTOR WITH STAINLESS WEDGE ASSEMBLY OR APPROVED EQUAL CONFORMING TO ASTM C-923.

STORM CONNECTION
OPENINGS FOR STORM PIPE INLETS MAY BE CAST OR MACHINE CORED. OPENINGS SHALL NOT EXCEED THE O.D. OF PIPE + 2". MAKE WATER-TIGHT JOINTS WITH NON-SHRINK CEMENT OR CLASS 'C' CONCRETE APPLIED FROM INSIDE AND OUTSIDE OF MANHOLE.

NOTE 5. STEPS SHALL BE 1/2" STEEL REINFORCED POLYPROPYLENE STEPS 12" W X 5-3/4" BY AMERICAN STEP CO., INC. OR APPROVED EQUAL, MEETING ASTM 478.

FRAMES AND COVER SHALL CONFORM WITH CITY OF CANTON STD. DWG. NO. 12.

NOTE 6. GRADE RINGS FOR NEW MANHOLES MAY BE PRECAST CONCRETE, RUBBER COMPOSITE, OR *CLAY BRICK AND MORTAR. CONCRETE BRICK IS NOT PERMITTED. *CLAY BRICK AND MORTAR IS NOT PERMITTED WITH SANITARY MANHOLES.

HEIGHT OF GRADE RINGS COLLECTIVELY SHALL NOT EXCEED 12".

PRECAST CONCRETE GRADE RINGS MUST BE REINFORCED CLASS 'C' CONCRETE AND CONNECTED USING TWO CONCENTRIC RINGS OF 1/2" TO 1" BEADS OF BUTYL RUBBER SEALANT CON-SEAL OR APPROVED EQUAL. SEAL OUTSIDE JOINTS WITH 1/2" NON SHRINK CEMENT PLASTER.

RUBBER COMPOSITE GRADE RINGS MUST BE "INFRA-RISER" BY EJIW OR APPROVED EQUAL, AND CONNECTED USING TWO PARALLEL BEADS OF POLY-SEALANT ADHESIVE PER MANUFACTURER RECOMMENDATION. RUBBER COMPOSITE GRADE RINGS HEIGHT MUST NOT EXCEED 3" AND MUST BE PLACED DIRECTLY UNDER MANHOLE FRAME.

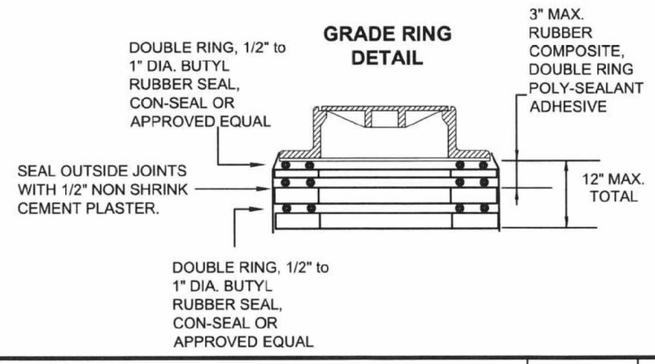
BRICK AND MORTAR RINGS MUST BE BELDEN BRICK, FINE GRIND, ASTM C32-90, OR APPROVED EQUAL WITH HIGH STRENGTH, AIR ENTRAINED, MORTAR. SEAL OUTSIDE JOINTS WITH 1/2" NON SHRINK CEMENT PLASTER. *CLAY BRICK AND MORTAR IS NOT PERMITTED WITH SANITARY MANHOLES.

USE TWO PARALLEL 3/4" BEADS OF BUTYL RUBBER SEALANT CON-SEAL OR APPROVED EQUAL, BETWEEN GRADE RINGS OF DIFFERENT MATERIAL AND BETWEEN GRADE RINGS AND MANHOLE FRAME.

NOTE 7. FOR BACKFILL MATERIAL AND COMPACTION, AND ROCK EXCAVATION, IF APPLICABLE, REFER TO CITY STD.DWG. NO. 19.

NOTE 8. SANITARY MANHOLES TO BE TESTED ACCORDING TO CITY ENGINEER'S SPECIFICATION 04-01 (NEGATIVE AIR PRESSURE TEST).

GRADE RING DETAIL



OPTIONAL MANHOLE BID ITEMS

ITEM	QTY.	UNIT	DESCRIPTION OPTION "A"
604		V.F.	MH WATERPROOFING, COAL TAR, A.P.P.

IF REQUESTED BY THE CITY ENGINEER, OR SPECIFIED IN THE PLAN, THE CONTRACTOR SHALL PROVIDE UNIT PRICE FOR WATERPROOFING THE EXTERIOR OF DESIGNATED MANHOLES. THIS ITEM IS "CITY OPTIONAL" AND THE PRICE IS PAID PER VERTICAL FOOT OF EACH MANHOLE WATERPROOFED AS DIRECTED BY THE ENGINEER. THIS OPTION IS A CONTINGENCY BID ITEM UNLESS SPECIFIED OTHERWISE.

APPLY IN THE FIELD A COAL TAR EPOXY TO THE OUTSIDE OF THE MANHOLE PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS FROM THE TOP OF THE EXTENDED BASE TO THE BOTTOM OF THE MANHOLE COVER CASTING.

ITEM	QTY.	UNIT	DESCRIPTION OPTION "B"
604		EACH	NEW MH, POLYMER LINING, A.P.P.
604		V.F.	EXISTING MH, POLYMER LINING, A.P.P.

IF REQUESTED BY THE CITY ENGINEER, OR SPECIFIED IN THE PLAN, THE CONTRACTOR SHALL PROVIDE UNIT PRICE FOR CORROSION RESISTANT POLYMER LININGS AS DESIGNATED. THIS ITEM IS "CITY OPTIONAL" AND THE PRICE IS PAID PER VERTICAL FOOT OR PER EACH MANHOLE LINED AS DIRECTED BY THE ENGINEER. THE UNIT COST FOR THIS ITEM INCLUDES ALL COSTS FOR LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED FOR SUPPLYING AND INSTALLING THE LININGS INCLUDING THE COST FOR BYPASSING EXISTING SEWER FLOWS FOR THE DURATION OF THE INSTALLATION AND CURING TIME AS SPECIFIED. THIS OPTION IS INCLUDED AS A CONTINGENCY BID ITEM. UNLESS SPECIFIED OTHERWISE.

APPLY IN THE FIELD A CORROSION RESISTANT POLYMER LINING (PLASITE 5371 BY CARBOLINE OR APPROVED EQUAL) TO THE INSIDE OF THE NEW OR EXISTING MANHOLE PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. APPLY FROM THE TOP OF THE BENCH TO THE BOTTOM OF THE MANHOLE COVER CASTING.

FOR EXISTING MANHOLES, PRIOR TO POLYMER LINING APPLICATION, RESTORE INSIDE WALLS AS PER LINING MANUFACTURERER'S RECOMMENDATIONS OR AS DIRECTED BY THE CITY ENGINEER.

THE CITY'S STANDARD MANHOLE FOR SANITARY AND STORM SEWERS IS THE ODOT MH-3 WITH THE MODIFICATIONS NOTED.

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	RMB
MODIFIED NOTE 4 & 6	09/23/2021	RMB
TITLE BLOCK REVISION	02/26/2021	GML

STANDARD DRAWING NO. 10
PRECAST STORM OR SANITARY MANHOLE
CE_10_20210226.DWG

3 OF 3

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CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

189
302

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NOTES:

1. DROP CONNECTIONS INSTALLED WITH NEW MANHOLE STRUCTURES MUST BE CAST INTEGRAL WITH PRECAST CONCRETE MANHOLES.

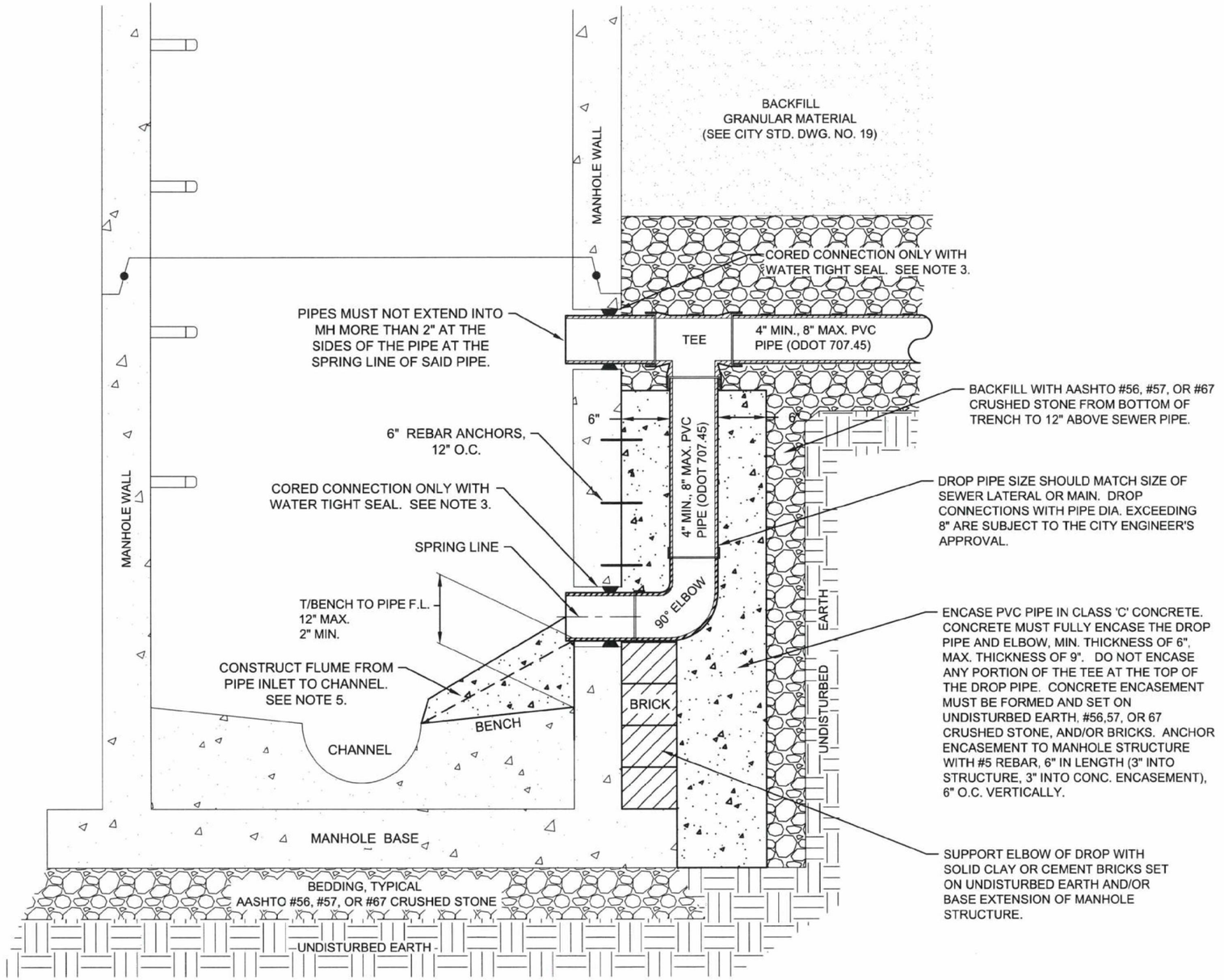
2. DROP CONNECTIONS INSIDE MANHOLE STRUCTURES ARE NOT PERMITTED FOR SANITARY SEWER LATERALS. DROP CONNECTIONS INSIDE MANHOLE STRUCTURES FOR SANITARY SEWER MAINS ARE SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.

3. CORED OPENINGS MUST BE MACHINE CORED, THE OPENING SHALL BE PER PIPE-TO-MANHOLE CONNECTOR SPECS. USE "KOR-N-SEAL" FLEXIBLE PIPE-TO-MANHOLE CONNECTOR WITH STAINLESS WEDGE ASSEMBLY OR APPROVED EQUAL CONFORMING TO ASTM C-930 OR ASTM C-923.

4. PIPE CONNECTIONS INTO THE MANHOLE MUST NOT EXTEND INTO THE MANHOLE MORE THAN 2" AT THE SIDES OF THE PIPE AT THE SPRING-LINE OF SAID PIPE. PIPE CONNECTIONS ARE NOT PERMITTED WITHIN 3" OF JOINTS BETWEEN MANHOLE RISER SECTIONS.

5. SANITARY PIPE INLETS MUST BE FLUMED OVER THE BENCH, DIRECTING FLOW INTO THE CHANNEL, USING CONCRETE AND/OR CLAY SEWER BRICK AND MORTAR.

6. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.



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DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	RMB
TITLE BLOCK REVISION	FEB 2021	GML

STANDARD DRAWING NO. 11

OUTSIDE DROP CONNECTION FOR SANITARY MANHOLE

CE_11_20210224.DWG

1 OF 1

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CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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NOTES:

1. COVER AND FRAME TO BE CAST OF GRAY IRON IN COMPLIANCE WITH ASTM SPEC. ASTM A-48 CLASS 35 AND AASHTO M 306. CASTINGS SHALL BE OF THE HEAVY DUTY RATING.

2. SANITARY MANHOLE COVER/FRAME
   -EAST JORDAN 1850 B VENTED COVER (PRODUCT NO. 185026) AND 1850 FRAME.
   -NEENAH R-1654 FRAME AND VENTED COVER.
   -OR EQUAL APPROVED BY CITY ENGINEER.

   STORM MANHOLE COVER/FRAME
   -EAST JORDAN 1850 M GRATED COVER AND 1850 FRAME.
   -NEENAH R-1654 FRAME AND GRATED COVER.
   -**USE THE VENTED COVER WITH CITY LOGO WITHIN CROSSWALKS.**

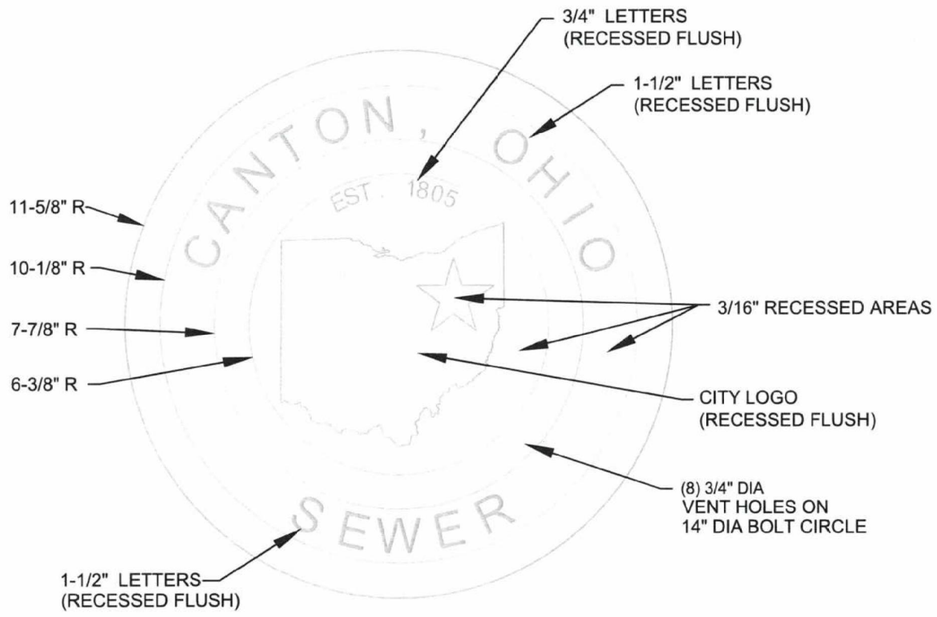
3. MACHINE BEARING SURFACES BETWEEN LID AND FRAME.

4. CONTACT CITY ENGINEER FOR CAD DRAWING OF CITY LOGO.

5. CASTINGS ARE NOT REQUIRED TO BE PAINTED.

6. **ALTERNATE FRAMES**, SUITABLE WITH EJ 1850 COVER, FOR USE AS DIRECTED BY THE CITY ENGINEER:
   EAST JORDAN 2015 (10-1/2" FRAME HEIGHT)
   EAST JORDAN 1622 (5" FRAME HEIGHT, OR FLAT IF FRAME IS INVERTED)

TOP OF SANITARY SEWER MANHOLE COVER
(SEE NOTE 2 FOR STORM SEWER COVER)



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OFFICE OF THE CITY ENGINEER
CANTON, OHIO
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2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	CDB
MH COVER CITY LOGO	02/28/2014	RMB
NOTE 2 REVISED, ADD GRATED COVER	01/17/2015	RMB
REMOVED OLD CITY LOGO COVER	12/08/2017	RMB
TITLE BLOCK REVISION	02/26/2021	GML

STANDARD DRAWING NO. 12
MANHOLE COVER

CE_12_20210226.DWG

1 OF 1

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CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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1. CUT AND REMOVE THE ASPHALT PAVEMENT, AROUND THE EXISTING MANHOLE CASTING, IN A CIRCULAR FASHION WITH A MINIMUM DIAMETER OF 54" AND CENTERED ABOUT THE FRAME. DISPOSE OF ALL ASPHALT, CONCRETE, BRICK AND ROAD DEBRIS.

2. REMOVE THE CASTING (MANHOLE RIM AND COVER) FROM THE TOP OF THE MANHOLE. INSPECT THE RIM AND COVER FOR DEFECTS. IF DEFECTS ARE PRESENT, REPLACE WITH NEW RIM/COVER AS NEEDED. IF DEFECTS ARE NOT PRESENT, CLEAN & RETAIN FOR USE IN RECONSTRUCTION.

3. <u>CONCRETE MANHOLE</u>
REMOVE ALL ADJUSTING RINGS TO THE TOP OF THE CONCRETE CONE. DISPOSE OF THIS MATERIAL
<u>MASONRY MANHOLE</u>
REMOVE MASONRY TO THE LEVEL SPECIFIED IN FIG. 2.M. DISPOSE OF THIS MATERIAL.

4. REMOVE ALL AGGREGATE AROUND THE MANHOLE THAT HAS BEEN EXPOSED BY THE ASPHALT REMOVAL AND DISPOSE OF THIS AGGREGATE. THE AGGREGATE MUST BE REMOVED TO A MINIMUM OF 3" BELOW THE LEVEL OF THE TOP OF THE CONCRETE CONE/REMAINING MASONRY.

5. <u>CONCRETE MANHOLE</u>
CLEAN AND INSPECT THE TOP SURFACE OF THE CONCRETE CONE SECTION. THE SURFACE SHOULD BE SMOOTH AND FREE OF BUMPS AND PITS THAT MAY PREVENT A GOOD WATER TIGHT SEAL. GRIND THE SURFACE AS NEEDED TO REMOVE PROTRUSIONS. UTILIZE COMPRESSED AIR TO BLOW DUST AND DEBRIS FROM THE SURFACE AFTER GRINDING. UTILIZE A HYDRAULIC CEMENT, ACCORDING TO MANUFACTURERS RECOMMENDATIONS, TO FILL IN DEPRESSIONS.
<u>MASONRY MANHOLE</u>
CLEAN AND INSPECT THE TOP SURFACE OF THE MASONRY. THE SURFACE MUST BE STRUCTURALLY SOUND. UTILIZE COMPRESSED AIR TO BLOW DUST AND DEBRIS FROM THE SURFACE. THE ENGINEER SHALL INSPECT THE MASONRY MANHOLE FOR STRUCTURAL INTEGRITY.

6. BRING THE AREA AROUND THE CONE/MASONRY BACK TO FLUSH WITH THE TOP OF THE MASONRY USING ODOT 703.01 #57 AGGREGATE.

Existing Manhole (Sectional View)

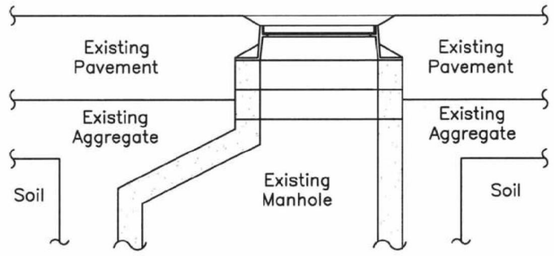

FIG. 1.C

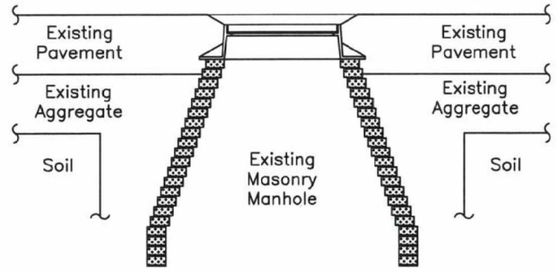

FIG. 1.M

Legend

= Concrete

= Masonry

Chimney Removed (Sectional View)

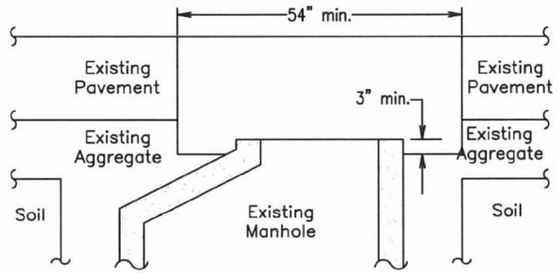

FIG. 2.C

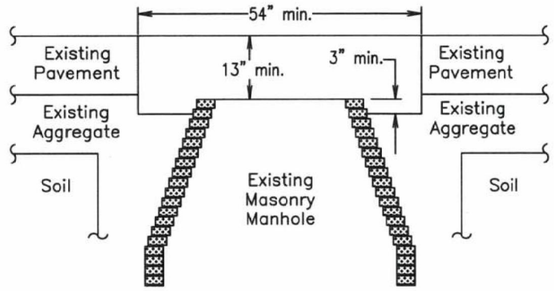

FIG. 2.M

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DESCRIPTION	DATE	BY
CAD DRAWING	APRIL 2015	RMB
TITLE BLOCK REVISION	02/26/2021	RMB

STANDARD DRAWING NO. 13
MANHOLE ADJUSTMENTS
CE_13_20210226.DWG

1 OF 2

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CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

192
302

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7. APPLY MORTAR TO THE TOP OF THE MASONRY AND IMMEDIATELY INSTALL A CONCRETE COLLAR/ADJUSTING RING (2" MIN. THICKNESS) ON TOP OF THE MORTAR. THE CONCRETE COLLAR/ADJUSTING RING MUST HAVE AN INSIDE DIAMETER OF 24 INCHES. THE OUTSIDE DIAMETER MUST BE SUCH THAT THERE IS A MINIMUM OF 3 INCHES OF THE CONCRETE COLLAR/ADJUSTING RING BEARING ON MASONRY ALL THE WAY AROUND THE MANHOLE. (MASONRY MANHOLES ONLY)

8. A PVC PIPE SHALL BE USED AS A CHIMNEY LINER (SEE CHIMNEY LINER SPECIFICATIONS) AND MUST BE CUT TO THE EXACT PROFILE OF THE ROAD IN ALL DIRECTIONS SUCH THAT WHEN THE MANHOLE RIM AND COVER ARE RESTING ON TOP OF THE LINER, THE TOP OF THE CASTING SHALL BE EXACTLY 0.25" BELOW FLUSH WITH THE PAVEMENT SURFACE IN ALL DIRECTIONS.

9. THE LINER SHALL BE MARKED IN SUCH A WAY, UPON COMPLETION OF THE CUTTING PROCESS, THAT ROTATION DOES NOT OCCUR, WHICH COULD BE DETRIMENTAL TO THE END PRODUCT. THE TOP AND/OR BOTTOM OF THE LINER SHALL ALSO BE MARKED TO PREVENT THE LINER FROM BEING INSTALLED UP SIDE DOWN, WHICH COULD BE DETRIMENTAL TO THE END PRODUCT.

10. APPLY A LIBERAL AMOUNT OF SEALANT TO THE BOTTOM OF THE LINER AND SET IN PLACE ON TOP OF THE CONCRETE COLLAR/ADJUSTING RING WHILE MAKING SURE IT IS PROPERLY ALIGNED. THIS WILL CREATE A WATER TIGHT SEAL BETWEEN THE LINER AND THE CONCRETE COLLAR/ADJUSTING RING.

11. APPLY A LIBERAL AMOUNT OF SEALANT TO THE TOP OF THE LINER. SET THE MANHOLE RIM CASTING ON THE LINER WHILE MAKING SURE IT IS PROPERLY ALIGNED. THIS WILL CREATE A WATER TIGHT SEAL BETWEEN THE LINER AND THE MANHOLE RIM CASTING.

12. PLACE THE MANHOLE LID ON THE RIM CASTING TO LESSEN THE POSSIBILITY OF DEBRIS ENTERING THE MANHOLE.

13. PLACE EPOXY COATED #3 REBARS AS SHOWN IN FIG. 3.C & 3.M. THE CIRCULAR SHAPED REBARS SHALL HAVE A 6" MINIMUM OVERLAP.

14. APPLY WATERSTOP AS SHOWN IN FIG. 3.C & 3.M AND SPECIFIED IN THIS STANDARD DRAWING. THIS WILL ADD AN ADDITIONAL WATER TIGHT SEAL WHERE THE LINER MEETS THE CONCRETE COLLAR/ADJUSTING RING.

15. UTILIZE ODOT–CLASS C CONCRETE WITH BLACK DYE TO CAST A CONCRETE COLLAR AROUND THE RIM CASTING AND LINER. THE SURFACE OF THE CONCRETE SHALL BE FINISHED FROM FLUSH WITH THE PAVEMENT TO FLUSH WITH THE RIM CASTING. THE EDGE OF THE CONCRETE SHALL BE ROUNDED (1/4" RADIUS) WHERE IT MEETS THE ASPHALT. THIS WILL CREATE A SMALL GROOVE FOR A JOINT SEALER AT THIS LOCATION.

16. FILL THE GROOVE WITH A COLD POUR CRACK SEALER. THIS WILL PREVENT WATER FROM ENTERING THE CIRCULAR SEAM WHERE THE CONCRETE COLLAR MEETS THE ASPHALT.

17. APPLY AN ACRYLIC POLYMER CONCRETE CURING AND SEALING COMPOUND TO THE SURFACE OF THE CONCRETE COLLAR.

18. BARRICADE THE AREA AROUND THE CONCRETE TO PROTECT IT UNTIL THE CONCRETE ATTAINS A MODULUS OF RUPTURE OF 400 POUNDS PER SQUARE INCH. A CHEMICAL ADMIXTURE THAT ACTS AS A CONCRETE ACCELERATOR MAY BE USED TO SPEED UP THE PROCESS IF THE ROADWAY NEEDS TO BE OPENED SOONER.

19. IN ORDER TO MINIMIZE INCONVENIENCE TO MOTORISTS, THE CONTRACTOR PERFORMING THE WORK DESCRIBED IN THIS SPECIFICATION MUST BE CAPABLE OF PERFORMING ALL OF BOTH STEPS OF THIS SPECIFICATION IN 1.5 HOURS OR LESS.

20. THE CONTRACTOR SHALL WARRANT THE RECONSTRUCTED MANHOLE CHIMNEY TO BE LEAK FREE AND STRUCTURALLY SOUND FOR A MINIMUM OF 5 YEARS FROM THE DATE OF RECONSTRUCTION.

Chimney Reconstruction (Sectional View)

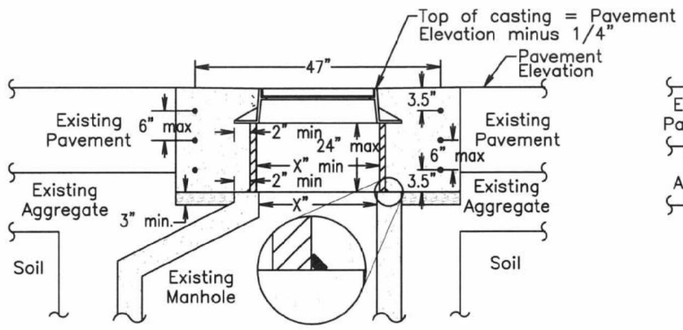

FIG. 3.C

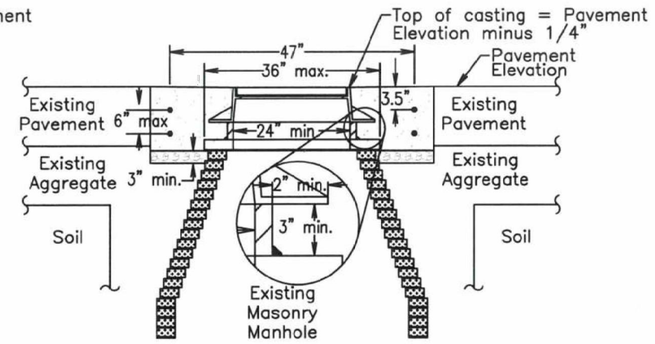

FIG. 3.M

Legend

- = Concrete
- • = Epoxy Coated #3 Rebar
- = PVC pipe
- = ODOT #57 Aggregate
- = Waterstop
- = Masonry

CHIMNEY LINER SPECIFICATIONS:

THE CHIMNEY LINER MUST BE MADE FROM POLYVINYL CHLORIDE COMPOUNDS WHICH COMPLY WITH THE REQUIREMENTS FOR A MINIMUM CELL CLASSIFICATION OF 12364 AS DEFINED BY ASTM D–1784.

THE CHIMNEY LINER MUST ALSO MEET ALL THE FOLLOWING PHYSICAL REQUIREMENTS:

PIPE STIFFNESS – MINIMUM PIPE STIFFNESS SHALL BE 46 PSI WHEN TESTED IN ACCORDANCE WITH ASTM D–2412

IMPACT RESISTANCE – NO VISUAL CRACKING OR SPLITTING OF THE WATERWAY WALL SHALL BE EVIDENCED WHEN TESTED IN ACCORDANCE WITH ASTM D–2444 WITH A 20 LB. WEIGHT, TUP B, FLAT PLATE HOLDER B TO A LEVEL OF 220 FT. LBS.

FUSION QUALITY – THERE SHALL BE NO SIGN OF FLAKING OR DISINTEGRATION WHEN IMMERSED IN ANHYDROUS ACETONE FOR 20 MINUTES AS DESCRIBED IN ASTM D–2152.

DUCTILITY – THERE SHALL BE NO EVIDENCE OF CRACKING OR SPLITTING WHEN PIPE IS FLATTENED IN A CIRCUMFERENTIAL ORIENTATION BETWEEN TWO FLAT PLATES BY SIXTY PERCENT (60%) OF THE ORIGINAL DIAMETER.

AIR TIGHTNESS – EACH LENGTH OF PIPE SHALL PASS A FACTORY 3.5 PSI AIR TEST AS DESCRIBED IN ASTM F–1803.

WATERSTOP SPECIFICATIONS:

THE WATERSTOP MUST MEET ALL OF THE FOLLOWING PHYSICAL REQUIREMENTS:

SPECIFIC GRAVITY – SHALL BE 1.55 +/– 5% WHEN TESTED IN ACCORDANCE WITH ASTM D–71.

VOLATILE MATTER – SHALL NOT EXCEED 1% WHEN TESTED IN ACCORDANCE WITH ASTM D–6.

APPLICATION TEMPERATURE – MUST BE ABLE TO BE APPLIED FROM –10 DEGREES F TO 125 DEGREES F AS A MINIMUM.

SERVICE TEMPERATURE – MUST BE ABLE TO FUNCTION PROPERLY IN SERVICE FROM –30 DEGREES F TO 180 DEGREES F AS A MINIMUM.

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DESCRIPTION	DATE	BY
CAD DRAWING	APRIL 2015	RMB
TITLE BLOCK REVISION	02 26/2021	RMB

STANDARD DRAWING NO. 13
MANHOLE ADJUSTMENTS
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2 OF 2

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CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

193
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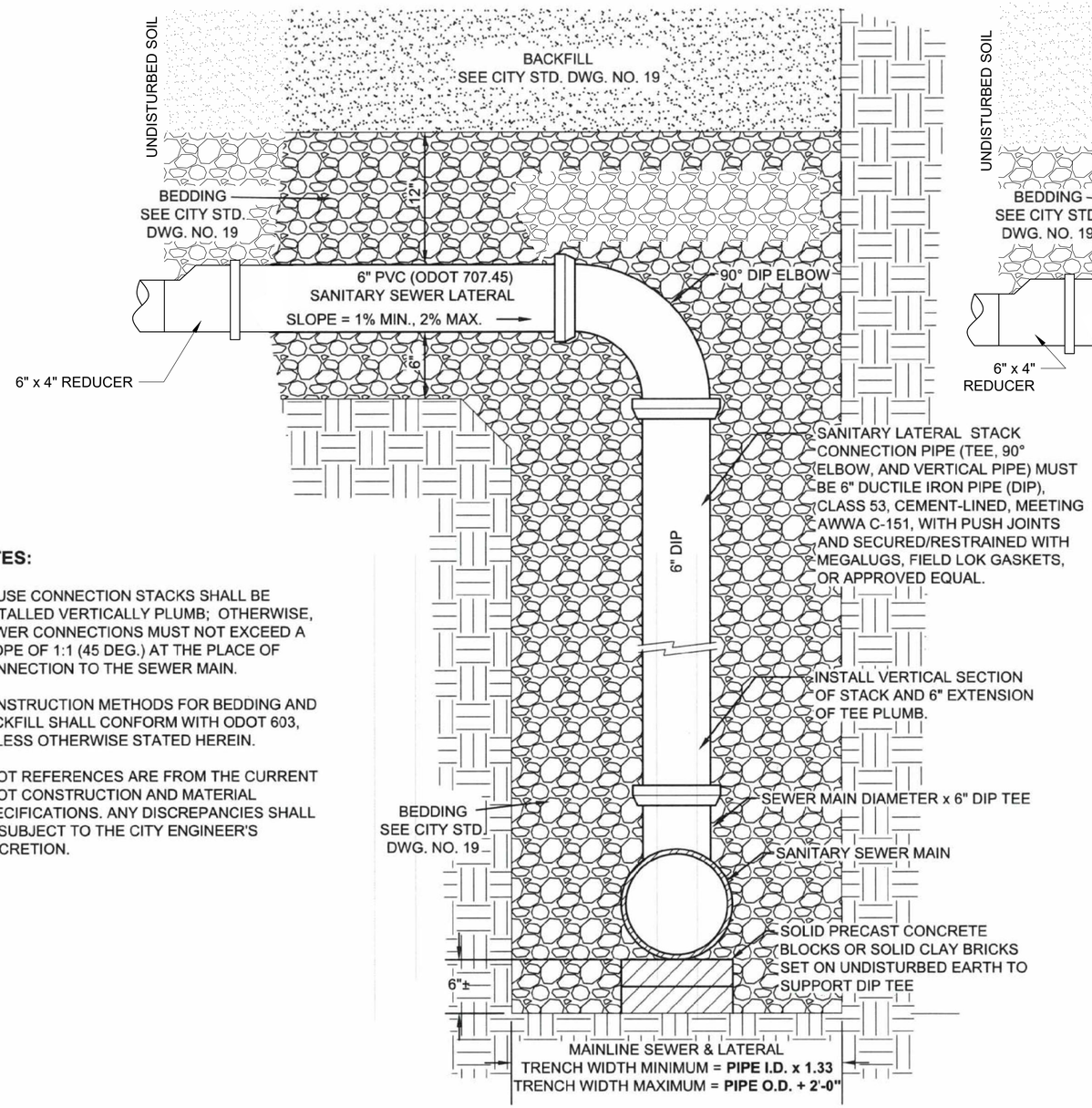
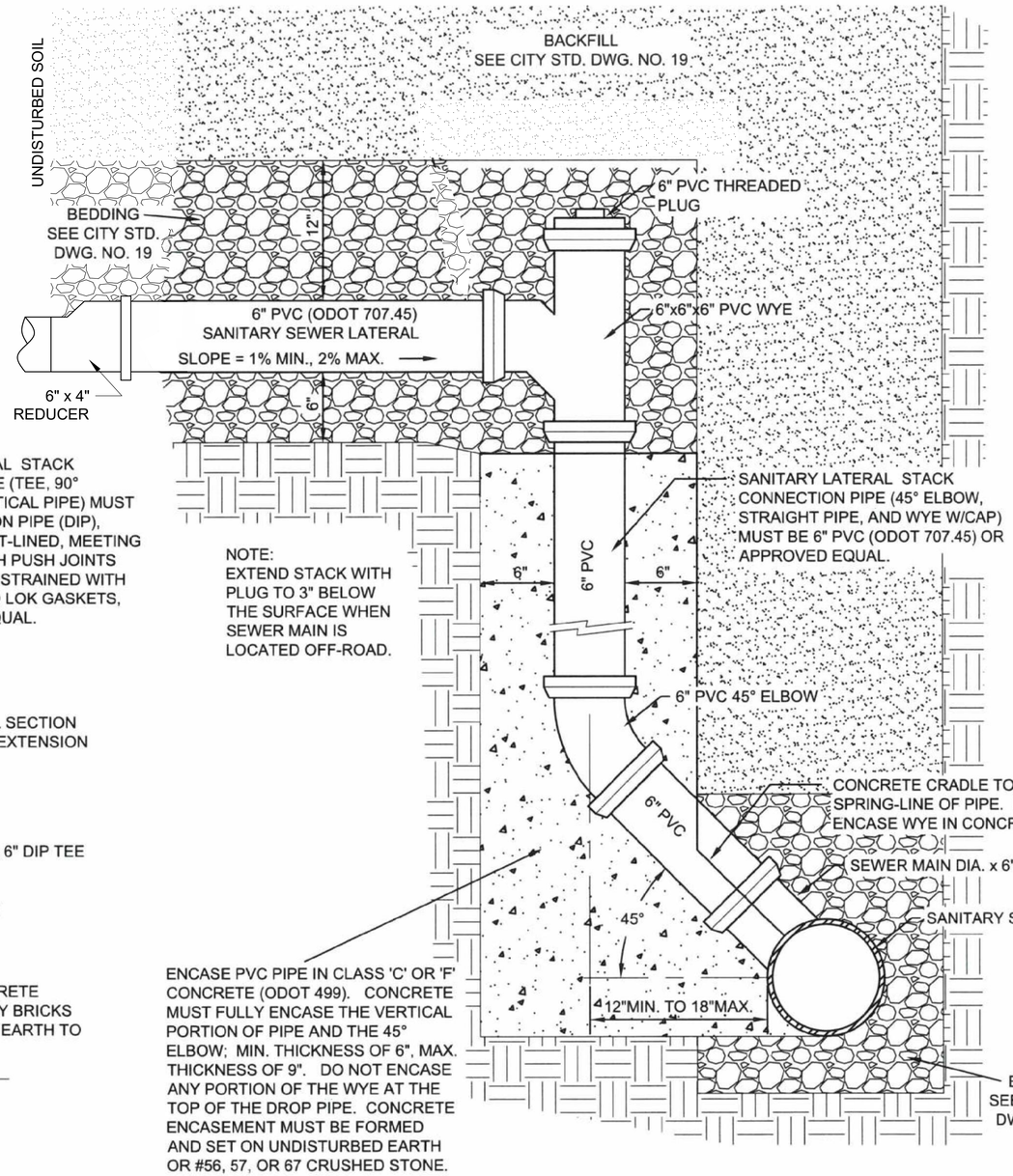
HOUSE CONNECTION STACK, OPTION 1



HOUSE CONNECTION STACK, OPTION 2



NOTE:
EXTEND STACK WITH PLUG TO 3" BELOW THE SURFACE WHEN SEWER MAIN IS LOCATED OFF-ROAD.

ENCASE PVC PIPE IN CLASS 'C' OR 'F' CONCRETE (ODOT 499). CONCRETE MUST FULLY ENCASE THE VERTICAL PORTION OF PIPE AND THE 45° ELBOW; MIN. THICKNESS OF 6", MAX. THICKNESS OF 9". DO NOT ENCASE ANY PORTION OF THE WYE AT THE TOP OF THE DROP PIPE. CONCRETE ENCASEMENT MUST BE FORMED AND SET ON UNDISTURBED EARTH OR #56, 57, OR 67 CRUSHED STONE.

NOTES:

1. HOUSE CONNECTION STACKS SHALL BE INSTALLED VERTICALLY PLUMB; OTHERWISE, SEWER CONNECTIONS MUST NOT EXCEED A SLOPE OF 1:1 (45 DEG.) AT THE PLACE OF CONNECTION TO THE SEWER MAIN.
2. CONSTRUCTION METHODS FOR BEDDING AND BACKFILL SHALL CONFORM WITH ODOT 603, UNLESS OTHERWISE STATED HEREIN.
3. ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

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DESCRIPTION	DATE	BY
CAD DRAWING	JAN 2012	RMB
TITLE BLOCK REVISION	2/24/2021	RMB

STANDARD DRAWING NO. 18

HOUSE CONNECTION STACK

AS PER PLAN

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1 OF 1

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CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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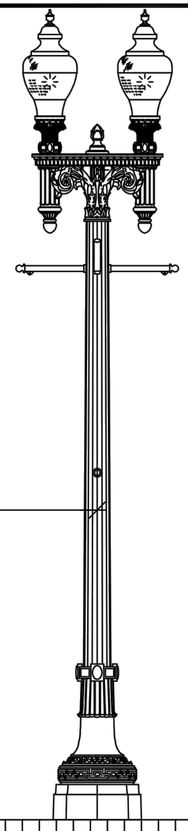
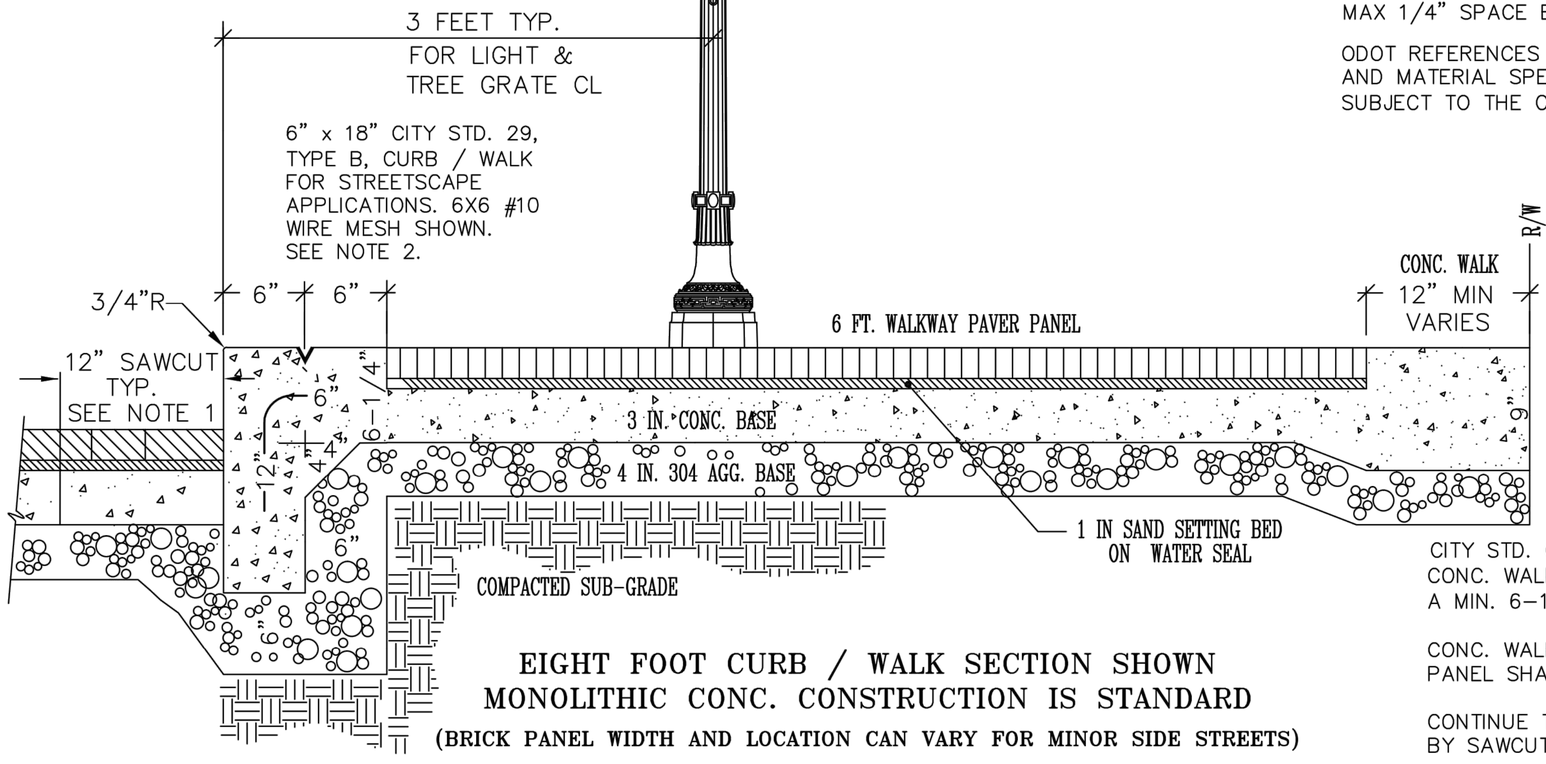
NOTE 1: WHEN ASPHALT OVERLAYS BRICK, REPLACE CONCRETE BASE COURSE TO THE TOP OF THE EX. BRICK. FINISH FACE OF CURB TO THE TOP OF BRICK ELEVATION. PLACE EXPANSION JOINT BETWEEN CONC. ROAD BASE AND CURB. CITY REPLACES ASPHALT SURFACE ON PERMITTED PRIVATE PROJECTS ONLY.

NOTE 2: FOR SLIP FORM CONSTRUCTION USING CITY STD. 30 OR ODOT TYPE 6 CURB, USE 9 IN. #3 DOWELS 3 IN INTO CURB AND EXTENDING 6 IN. INTO CONC. WALK, SPACED 2 FT ON CENTER IN LIEU OF MESH. SEE CITY STANDARD DRAWING 29, TYPE A, FOR DETAIL.



INSTALL POLE WITH FLAGPOLE HOLDER FACING AND PERPENDICULAR TO THE ROADWAY AND THE LUMINAIRES IN–LINE WITH AND PARALLEL TO THE ROADWAY. POLE AND LUMINAIRES ARE SHOWN IN THIS DRAWING 90° FROM TYPICAL POSITION.



EIGHT FOOT CURB / WALK SECTION SHOWN
MONOLITHIC CONC. CONSTRUCTION IS STANDARD
(BRICK PANEL WIDTH AND LOCATION CAN VARY FOR MINOR SIDE STREETS)

4X8 BRICK PAVER, 2 1/4" THICK – PAWNEE PAVER BY BELDEN BRICK – TERRA COTTA RANGE EXCLUDED. USE PERPENDICULAR HERRINGBONE PATTERN.

SWEEP JOINTS WITH DRY MIXTURE OF POLYMERIC SAND Techni–Seal OR APPROVED EQUAL. USE PLATE TAMPER WITH RUBBER MAT OR OTHER PROTECTION FOR BRICK. REMOVE EXCESS AND MOISTEN TO SET JOINT SEALANT SAND.

1" MAX COMPACTED CONCRETE SAND ODOT 703.02 (ASTM C 33) SETTING BED.

USE INTERIOR FORMING PINS FOR WEEP HOLES ON DOWNSLOPE SIDES AND INTERIOR CORNERS. MAX 4 FT. CENTERS. – COVER W/ FILTER FABRIC.

CONCRETE WALKS AND PAVER BASE IS TO BE CLASS "C" ODOT 608. NO EXPANSION JOINTS ARE TO BE PLACED AGAINST BRICK PAVER SECTIONS. MAX 1/4" SPACE BETWEEN BRICK AND CONCRETE.

ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

CONCRETE WALK EXPANSION JOINT – 1/2" CLOSED CELL EXPANSION JOINT FILLER TO BE SEALTIGHT CERAMAR WITH 1/2" PEEL STRIP OR EQUAL. PLACE EXP. JOINTS AGAINST BUILDINGS, STRUCTURAL FOUNDATIONS, AND 60FT O.C. IN WALK, TYP. SEAL EXPANSION JOINTS WITH POLYURETHANE ELASTOMERIC SEALANT TREMCO THC 900/901 OR EQUAL.

TYPICAL TOOLED AND CUT CONTROL JOINT, 1/4 DEPTH OF SLAB

CITY STD. CONC. WALK (COMMERCIAL) IS 5 IN. THICK. CONC. WALK WITHIN 6 IN. OF BRICK PANEL SHALL BE A MIN. 6–1/4" THICK.

CONC. WALK WITHIN 12 IN. OF R/W AND NEXT TO BRICK PANEL SHALL BE A MIN. 9 IN. THICK.

CONTINUE TRANSVERSE WALK CONTROL JOINTS BY SAWCUTTING ACROSS BRICK CONC. BASE.

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

DESCRIPTION	DATE	BY
CAD DRAWING	FEB 2012	JTD
REVISED JOINT NO TIES AND BRICK BOX	02/26/2019	RMB
TITLE BLOCK REVISION	03/02/2021	GML

STANDARD DRAWING NO. 40
TYPICAL STREETSCAPE CORRIDOR
CE_40_20210302.DWG

1 OF 1

CALCULATED | CHECKED

CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

194A
302

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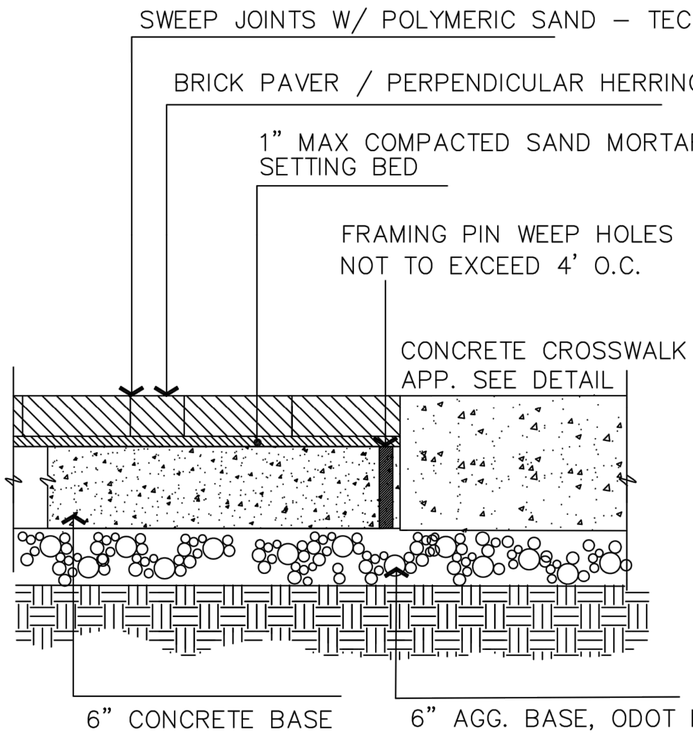
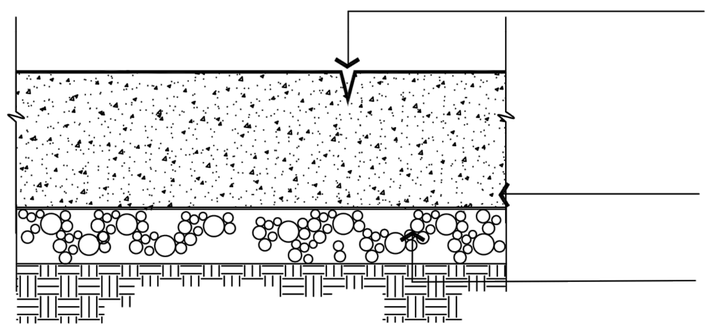


NOTE: NO FOUNDRY SAND OR SLAG IS PERMITTED IN AGGREGATE BASE (304).

CROSSWALK DETAIL



TYPICAL TOOLED AND CUT CONTROL JOINT 1/4 DEPTH OF SLAB – SPACING OF JOINTS TO BE 4' O.C. ALIGN CONCRETE CROSSWALK AND CONCRETE WALK JOINTS.

EXPANSION JOINTS – 1/2" CLOSED CELL EXPANSION JOINT FILLER TO BE SEALTIGHT CERAMAR OR EQUAL – 60FT O.C. TYPICAL. SEAL EXPANSION JOINTS WITH POLYURETHANE ELASTOMERIC SEALANT TYP. TREMCO THC 900/901 OR EQUAL.

10" ITEM 452 PLAIN PORTLAND CEMENT CLASS C (LIMESTONE) CONCRETE PAVEMENT

COMPACTED AGGREGATE BASE ODOT ITEM 304, 6" TYP.

BRICK PAVER, 4"X8"X2 3/4" THICK – ROADWAY PAVER BY BELDEN BRICK – CRABAPPLE PAVER, CRESTLINE SERIES.

USE PERPENDICULAR HERRINGBONE PATTERN IN INTERSECTION.

SWEEP JOINTS WITH DRY MIXTURE OF POLYMERIC SAND Techni–Seal OR APPROVED EQUAL. USE PLATE TAMPER WITH RUBBER MAT OR OTHER PROTECTION FOR BRICK. REMOVE EXCESS AND MOISTEN TO SET JOINT SEALANT SAND.

1" MAX COMPACTED CONCRETE SAND ODOT 703.02 (ASTM C 33) SETTING BED W/ MORTAR.

USE INTERIOR FORMING PINS FOR WEEP HOLES ON DOWNSLOPE SIDES AND INTERIOR CORNERS. MAX 4 FT. CENTERS. – COVER W/ FILTER FABRIC.

CONCRETE CROSSWALK AND PAVER BASE IS TO BE CLASS "C" ODOT 499.03 – HIGH EARLY. NO EXPANSION JOINTS ARE TO BE PLACED AGAINST BRICK PAVER SECTIONS.

MAX 1/4" SPACE BETWEEN BRICK AND CONCRETE. PROVIDE 1/4" RADIUS ON ALL SLAB EDGES.

ODOT REFERENCES ARE FROM THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS. ANY DISCREPANCIES SHALL BE SUBJECT TO THE CITY ENGINEER'S DISCRETION.

ALL CONCRETE CONSTRUCTION TO CONFORM TO CURRENT CITY OF CANTON SPECIFICATIONS FOR CONSTRUCTION, REPAIR AND REPLACEMENT OF SIDEWALKS, CURBS AND DRIVEWAYS.

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 330-489-3381 www.cantonohio.gov/engineering

DESCRIPTION	DATE	BY
CAD DRAWING	FEB 2012	JTD
REVISED JOINT NOTES	02/26/2019	RMB
TITLE BLOCK REVISION	03/03/2021	GML

STANDARD DRAWING NO. 41

ROADWAY BRICK & CROSSWALK PAVEMENT DETAILS

CE_41_20210303.DWG

1 OF 1

CALCULATED | CHECKED

CITY OF CANTON STANDARD DRAWINGS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

194B
302

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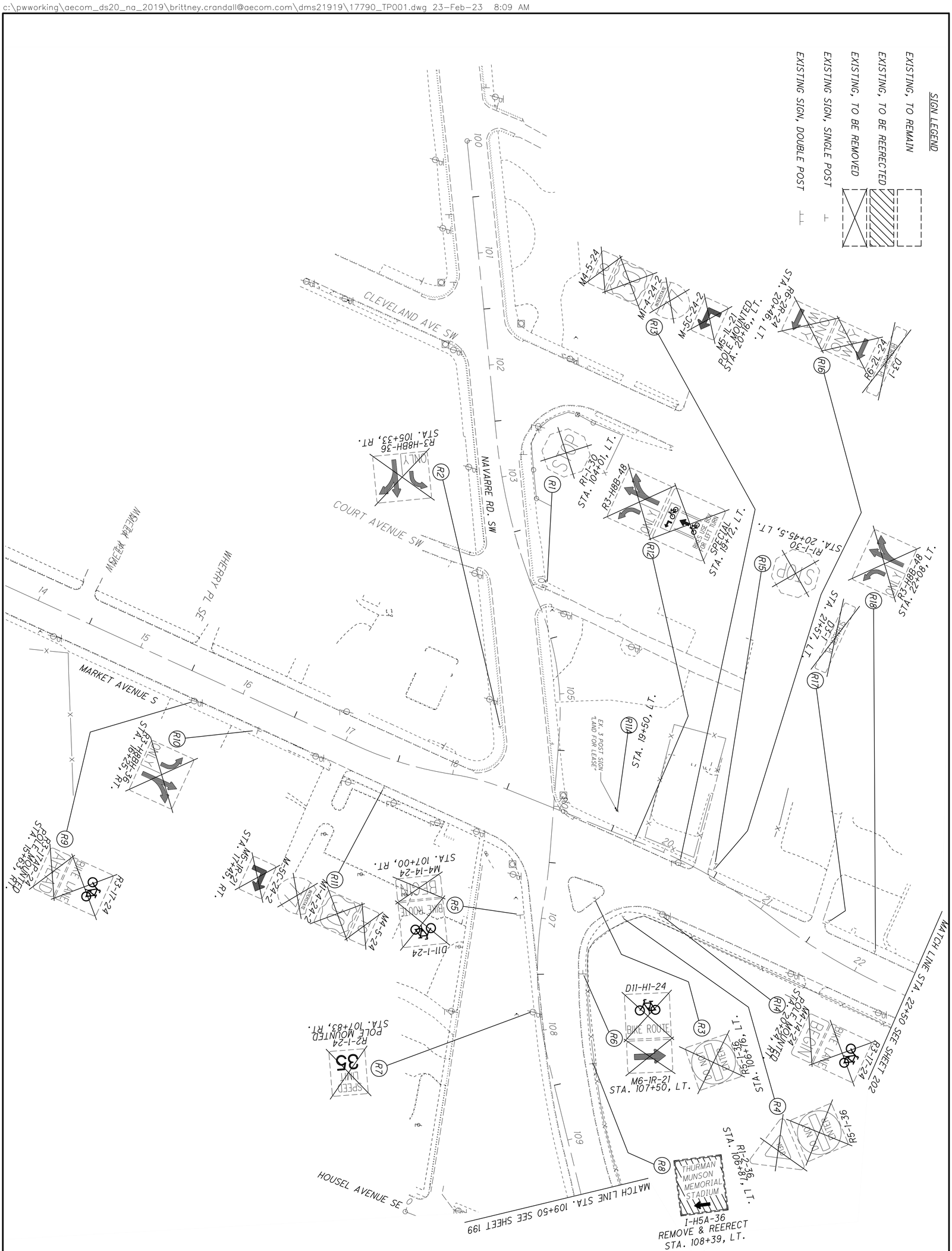

198 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	EXISTING SIGNING PLAN - 11TH STREET SE BEGINNING TO STA. 109+50	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET

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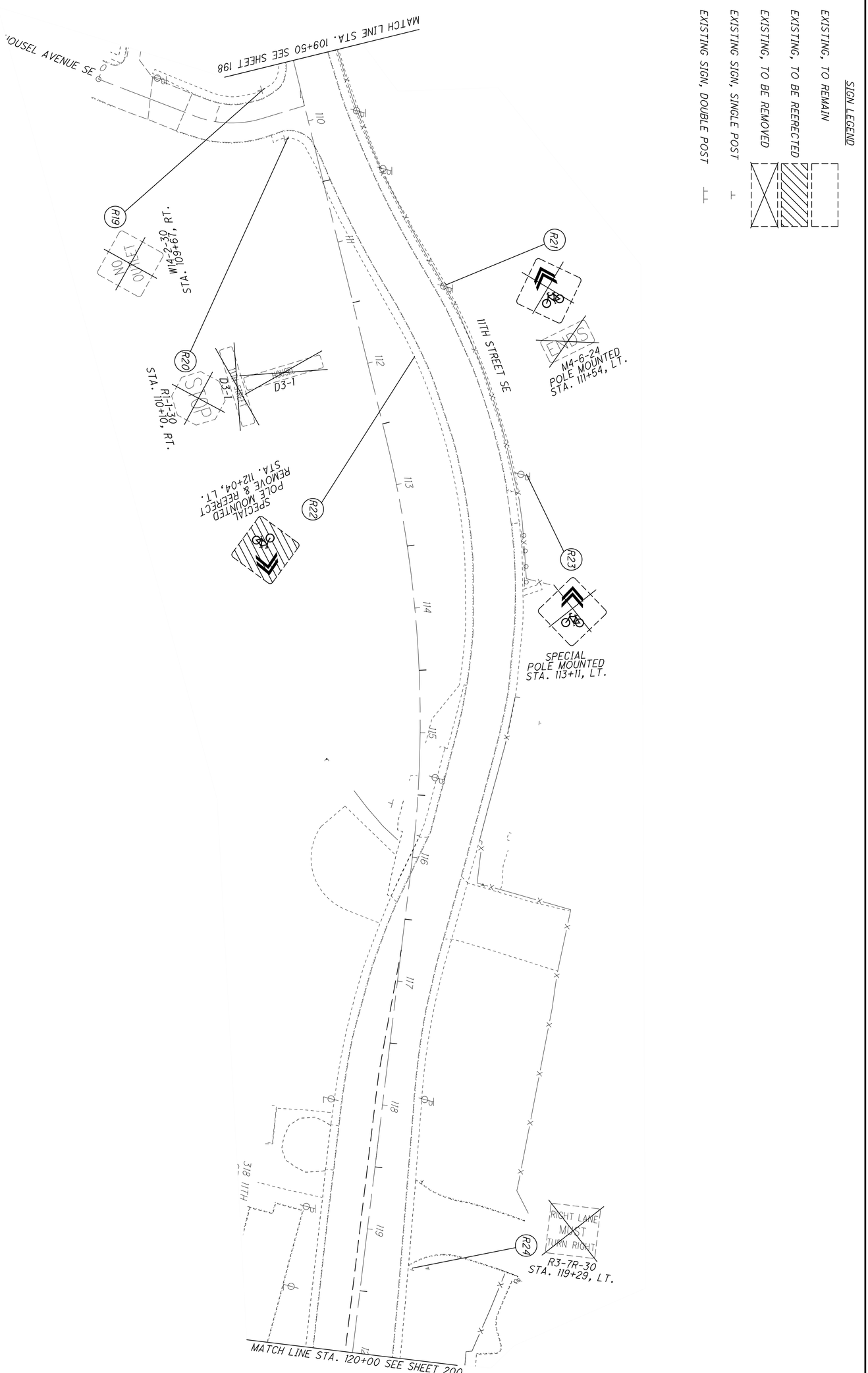

199 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	EXISTING SIGNING PLAN - 11TH STREET SE STA. 109+50 TO STA. 120+00	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET

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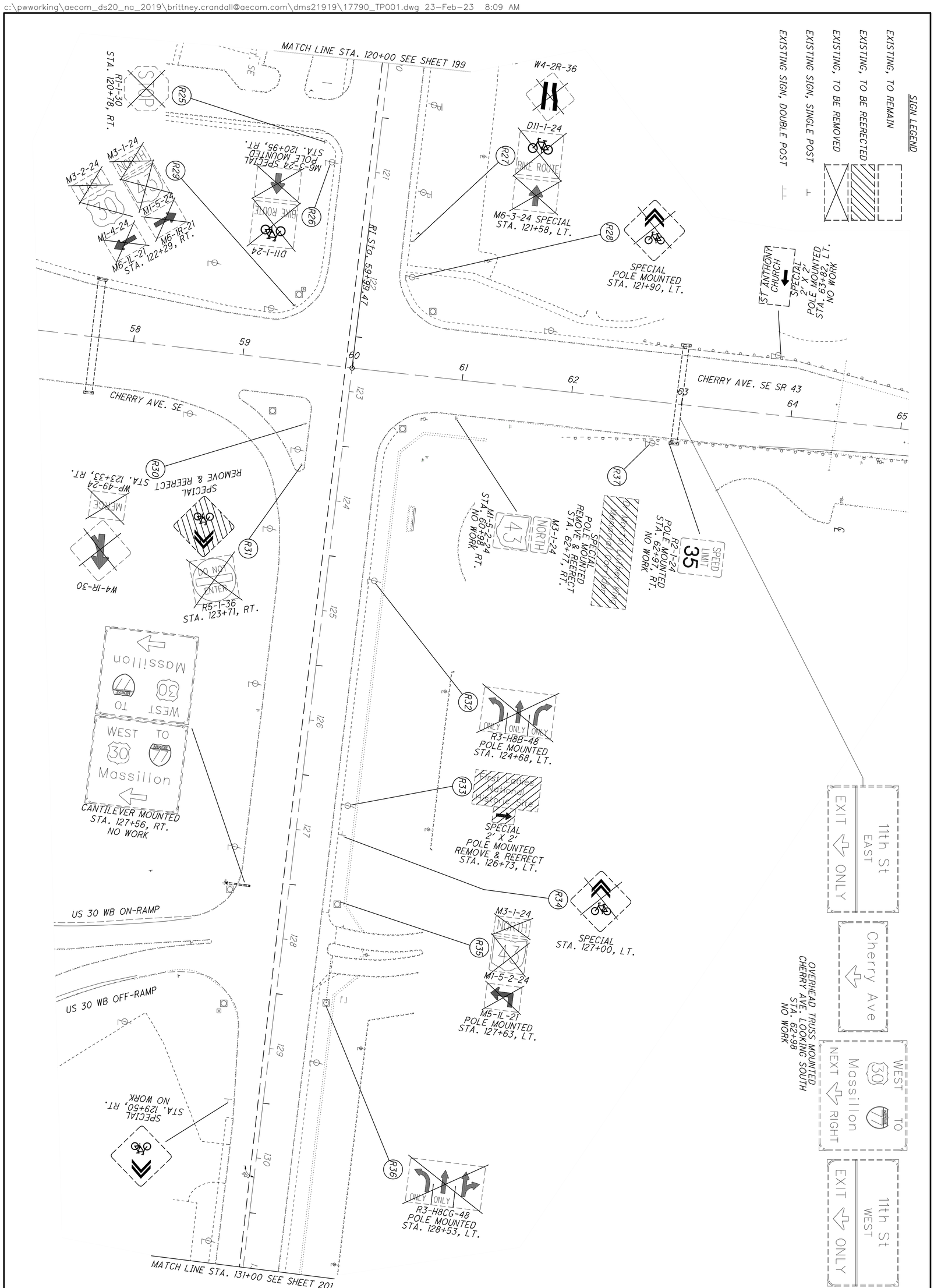

200 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	EXISTING SIGNING PLAN - 11TH STREET SE STA. 120+00 TO STA. 131+00	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET

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SIGN LEGEND

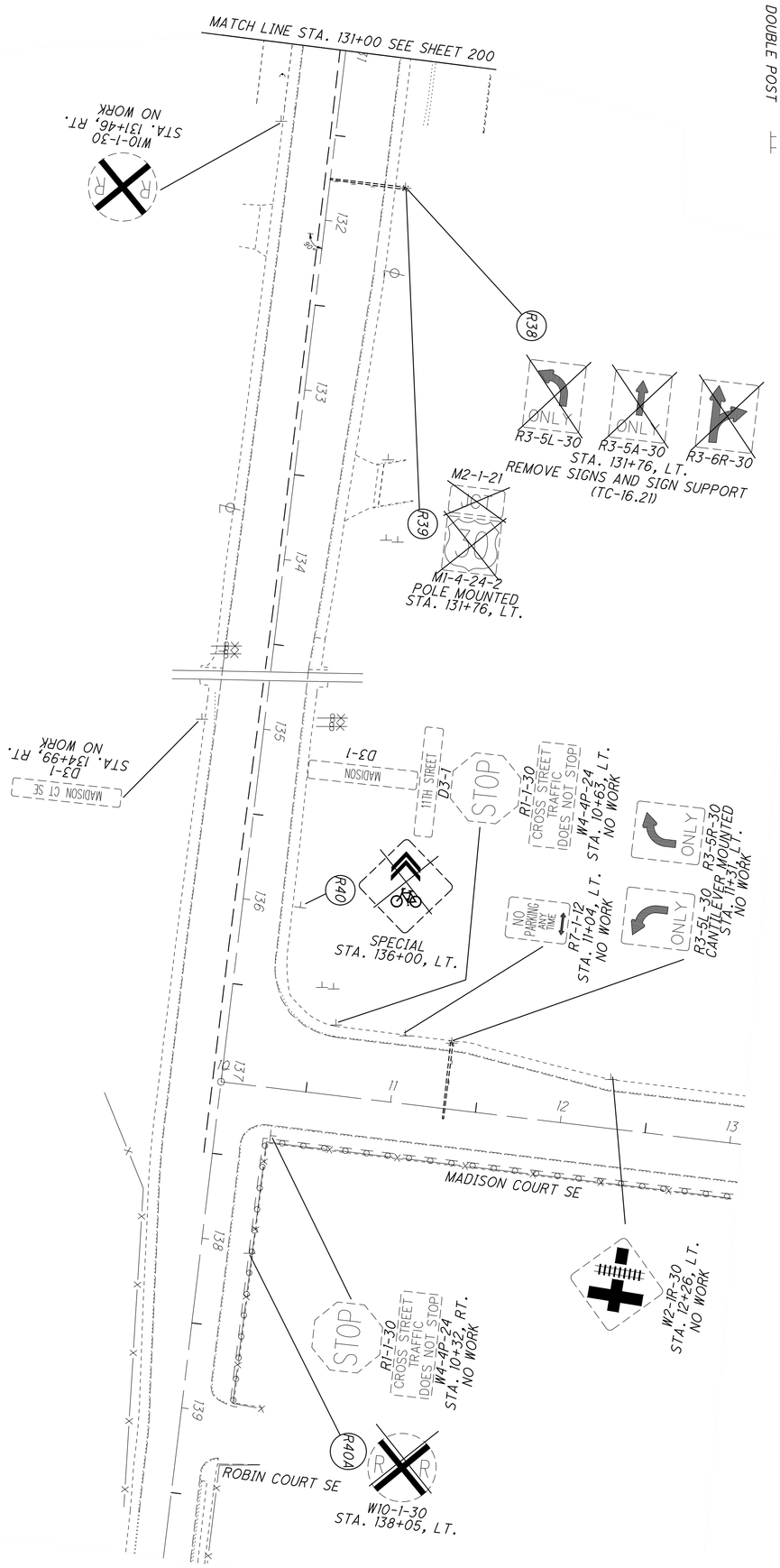
EXISTING, TO REMAIN

EXISTING, TO BE REERECTED

EXISTING, TO BE REMOVED

EXISTING SIGN, SINGLE POST

EXISTING SIGN, DOUBLE POST



201 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	EXISTING SIGNING PLAN - 11TH STREET SE STA. 131+00 TO ENDING	CALCULATED TKI / CHECKED JMB	0 40 / 20 80 HORIZONTAL SCALE IN FEET	N

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SIGN LEGEND

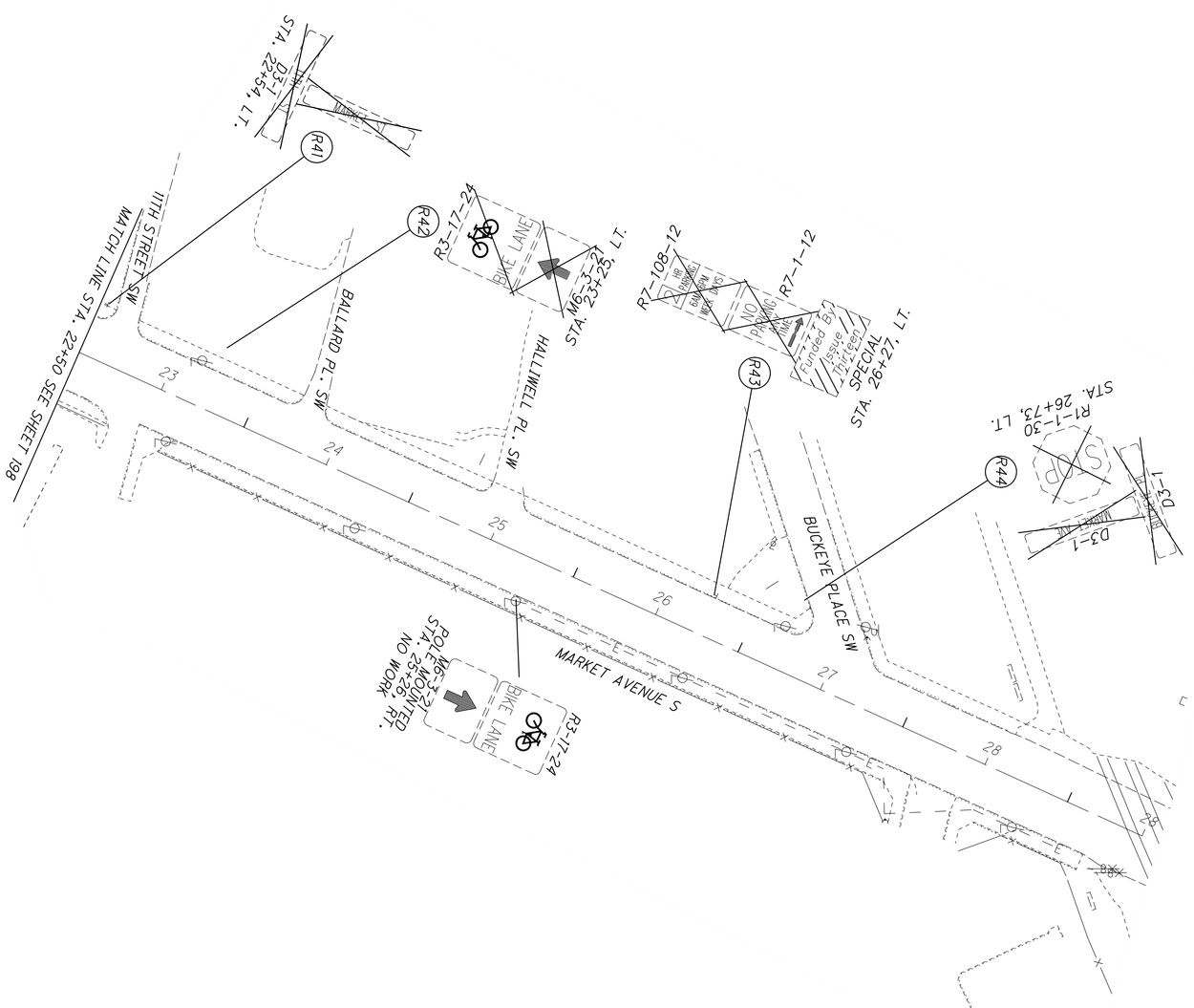
EXISTING, TO REMAIN

EXISTING, TO BE REERECTED

EXISTING, TO BE REMOVED

EXISTING SIGN, SINGLE POST

EXISTING SIGN, DOUBLE POST



202 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	EXISTING SIGNING PLAN - MARKET AVENUE S STA. 22+50 TO ENDING	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET	N

REF NO.	SHEET NO.	ROADWAY	STATION			630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF POLE MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-16.21 EACH
R1	198	11TH ST SE	104+10	LT			1		1				
R2	198	11TH ST SE	105+33	RT			1		1				
R3	198	11TH ST SE	106+76	LT			1		1				
R4	198	11TH ST SE	106+87	LT			2		1				
R5	198	11TH ST SE	107+00	RT			2		1				
R6	198	11TH ST SE	107+50	LT			2		1				
R7	198	11TH ST SE	107+83	RT							1		
R8	198	11TH ST SE	108+39	LT		1		1	1				
R9	198	MARKET AVE S	15+63	RT							2		
R10	198	MARKET AVE S	16+25	RT			1		1				
R11	198	MARKET AVE S	17+45	RT			4		1				
R11A	198	MARKET AVE S	19+50	LT			1		3				
R12	198	MARKET AVE S	19+72	LT			2		1				
R13	198	MARKET AVE S	20+16	LT							4		
R14	198	MARKET AVE S	20+24	RT							2		
R15	198	MARKET AVE S	20+45	LT			1		1				
R16	198	MARKET AVE S	20+46	LT			3		1				
R17	198	MARKET AVE S	21+57	LT			1		1				
R18	198	MARKET AVE S	22+08	LT			1		1				
R19	199	11TH ST SE	109+67	RT			1		1				
R20	199	11TH ST SE	110+10	RT			3		1				
R21	199	11TH ST SE	111+54	LT							2		
R22	199	11TH ST SE	112+04	LT		1						1	
R23	199	11TH ST SE	113+11	LT							1		
R24	199	11TH ST SE	119+29	LT			1		1				
R25	200	11TH ST SE	120+78	RT			1		1				
R26	200	11TH ST SE	120+95	RT							2		
R27	200	11TH ST SE	121+58	LT			3		1				
R28	200	11TH ST SE	121+90	LT							1		
R29	200	11TH ST SE	122+29	RT			6		2				
R30	200	11TH ST SE	123+33	RT			2		1				
R31	200	11TH ST SE	123+71	RT			1	1	1				
R32	200	11TH ST SE	124+68	LT							1		
R33	200	11TH ST SE	126+73	LT		2						2	
R34	200	11TH ST SE	127+00	LT			1		1				
R35	200	11TH ST SE	127+63	LT							3		
R36	200	11TH ST SE	128+53	LT							1		
R37	200	CHERRY AVE SE	62+77	RT		1						1	
R38	201	11TH ST SE	131+76	LT						3			1
R39	201	11TH ST SE	131+76	LT							2		
R40	201	11TH ST SE	136+00	LT			1		1				
R40A	201	11TH ST SE	136+00	LT			1		1				
R41	202	MARKET AVE S	22+54	LT			2		1				
R42	202	MARKET AVE S	23+25	LT			2		1				
R43	202	MARKET AVE S	26+27	LT		1	2	1	1				
R44	202	MARKET AVE S	26+73	LT			3		1				
TOTALS CARRIED TO GENERAL SUMMARY						6	53	3	33	3	22	4	1

CALCULATED CX
CHECKED VMN

EXISTIING SIGNING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

203
302

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SIGN LEGEND

- NEW
- EXISTING, TO REMAIN
- EXISTING, TO BE REERECTED
- EXISTING, TO BE REMOVED
- EXISTING SIGN, SINGLE POST
- EXISTING SIGN, DOUBLE POST
- PROPOSED SIGN, SINGLE POST
- PROPOSED SIGN, DOUBLE POST

MATCH LINE STA. 22+50 SEE SHEET 208

MATCH LINE STA. 109+50 SEE SHEET 205

NAVARRE RD. SW

NAVARRE RD. SE

11TH STREET SE

MARKET AVENUE S

CLEVELAND AVE.

WHERRY PL SE

MEEK PL SW

THURMAN MUNSON MEMORIAL STADIUM

1 W2-6-30 — W13-1P-18 — STA. 102+12, RT

2 R3-9CP-30 — R3-9B-24 — STA. 103+00, RT

3 R3-9DP-30 — R3-9B-24 — POLE MOUNTED — STA. 103+40, LT

4 R4-7-24 — STA. 104+25, LT

5 D3-H6-72 — STA. 105+26, LT

6 STA. 104+93, RT

7 STA. 105+20, LT

8 STA. 105+25, RT

9 D3-H6-72 — NAVARRE RD — STA. 105+26, LT

10 STA. 105+26, RT

11 STA. 105+71, RT

12 STA. 105+90, LT

13 STA. 106+09, RT

14 STA. 106+35, LT

15 STA. 106+76, LT

16 M1-1-24 — M6-2R-21 — 11TH STREET SE — D3-H6-72 — STA. 106+77, RT

17 STA. 106+80, LT

18 STA. 106+84, RT

19 STA. 107+08, LT

20 R4-7-24 — STA. 107+75, LT

21 D1-H1-72 — SPEED LIMIT 35 — POLE MOUNTED — STA. 108+48, RT

22 W3-2-30 — POLE MOUNTED — STA. 109+31, LT

23 R3-17AP-24 — BIKE LANE AHEAD — STA. 13+00, RT

24 R8-3-24 — R3-17-24 — BIKE LANE — POLE MOUNTED — STA. 14+44, RT

25 R3-17-24 — BIKE LANE END — R3-17BP-24 — POLE MOUNTED — STA. 14+55, LT

26 R3-9CP-30 — BEGIN CENTER LANE ONLY — R3-9B-24 — STA. 14+70, RT

27 R3-9DP-30 — CENTER LANE END — R3-9B-24 — STA. 14+70, LT

28 W2-6-30 — W13-1P-18 — STA. 15+66, RT

29 W3-2-30 — STA. 16+20, RT

30 R4-7-24 — STA. 17+36, LT

31 STA. 18+00, RT

32 STA. 18+21, LT

33 D3-H6-72 — MARKET AVE S — STA. 18+29, LT

34 STA. 18+28, RT

35 STA. 18+30, RT

36 STA. 19+74, LT

37 STA. 19+75, LT

38 D3-H6-72 — MARKET AVE S — STA. 19+75, RT

39 STA. 19+93, RT

40 STA. 20+06, LT

41 R4-7-24 — STA. 20+69, RT

42 W3-2-30 — POLE MOUNTED — STA. 21+69, RT

43 R3-9B-24 — CENTER LANE ONLY — POLE MOUNTED — STA. 22+19, RT

44 R3-9B-24 — CENTER LANE ONLY — POLE MOUNTED — STA. 22+21, LT

45 W13-1P-18 — 20 MPH — STA. 22+48, LT

R8 — R1-2-36 — YIELD — STA. 108+30, LT — REMOVE & REERECT — POLE MOUNTED

M4-5-24 — TO — M1-1-24 — 30 — 177 — STA. 108+31, RT

W11-15-30 — W16-7PL-24

R6-4A-48

HORIZONTAL SCALE IN FEET: 0, 20, 40, 80

CALCULATED TKI — CHECKED JMB

PROPOSED SIGNING PLAN - 11TH STREET SE BEGINNING TO STA. 109+50

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

204 / 302

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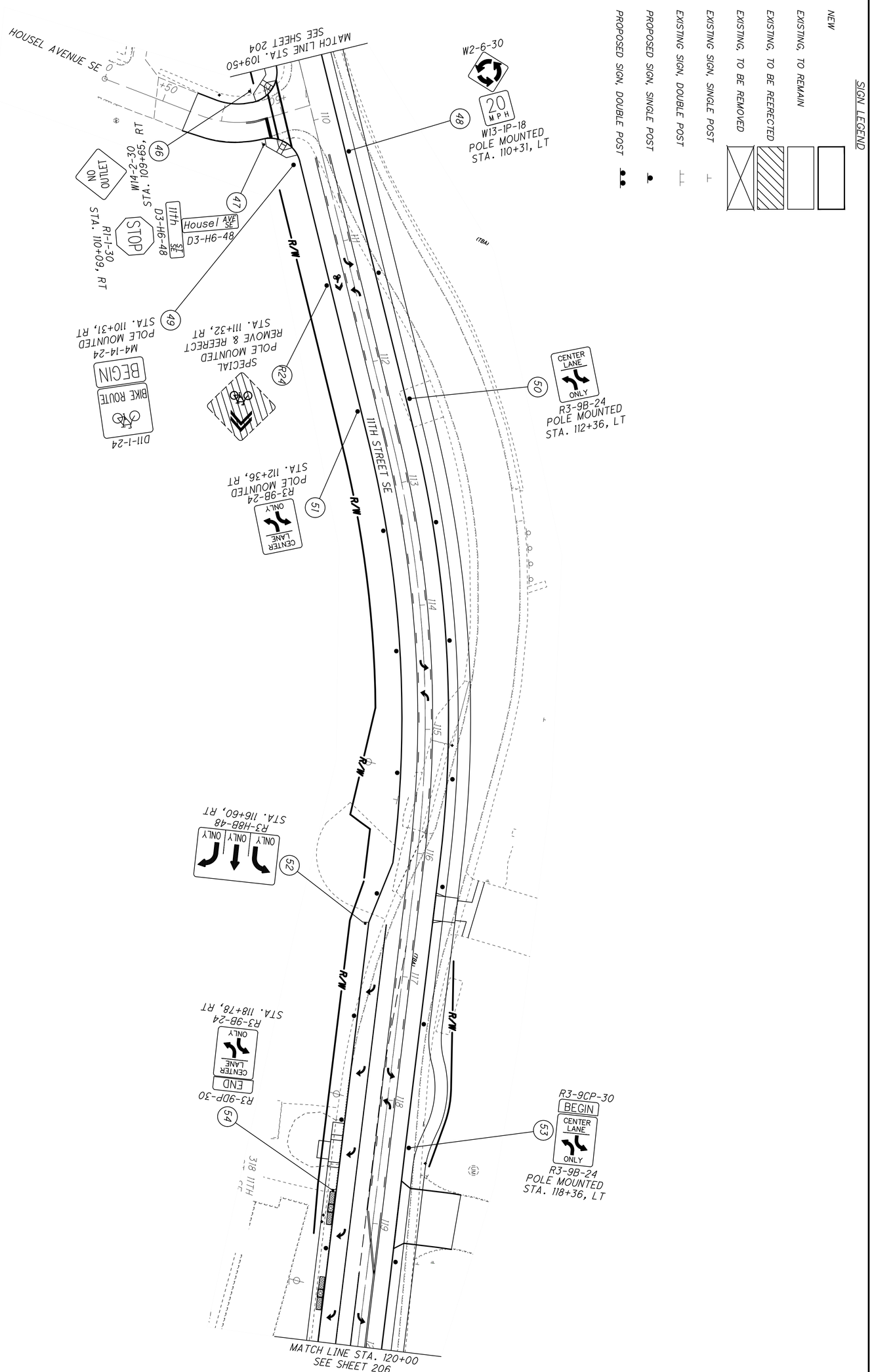

205 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PROPOSED SIGNING PLAN - 11TH STREET SE STA. 109+50 TO STA. 120+00	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET

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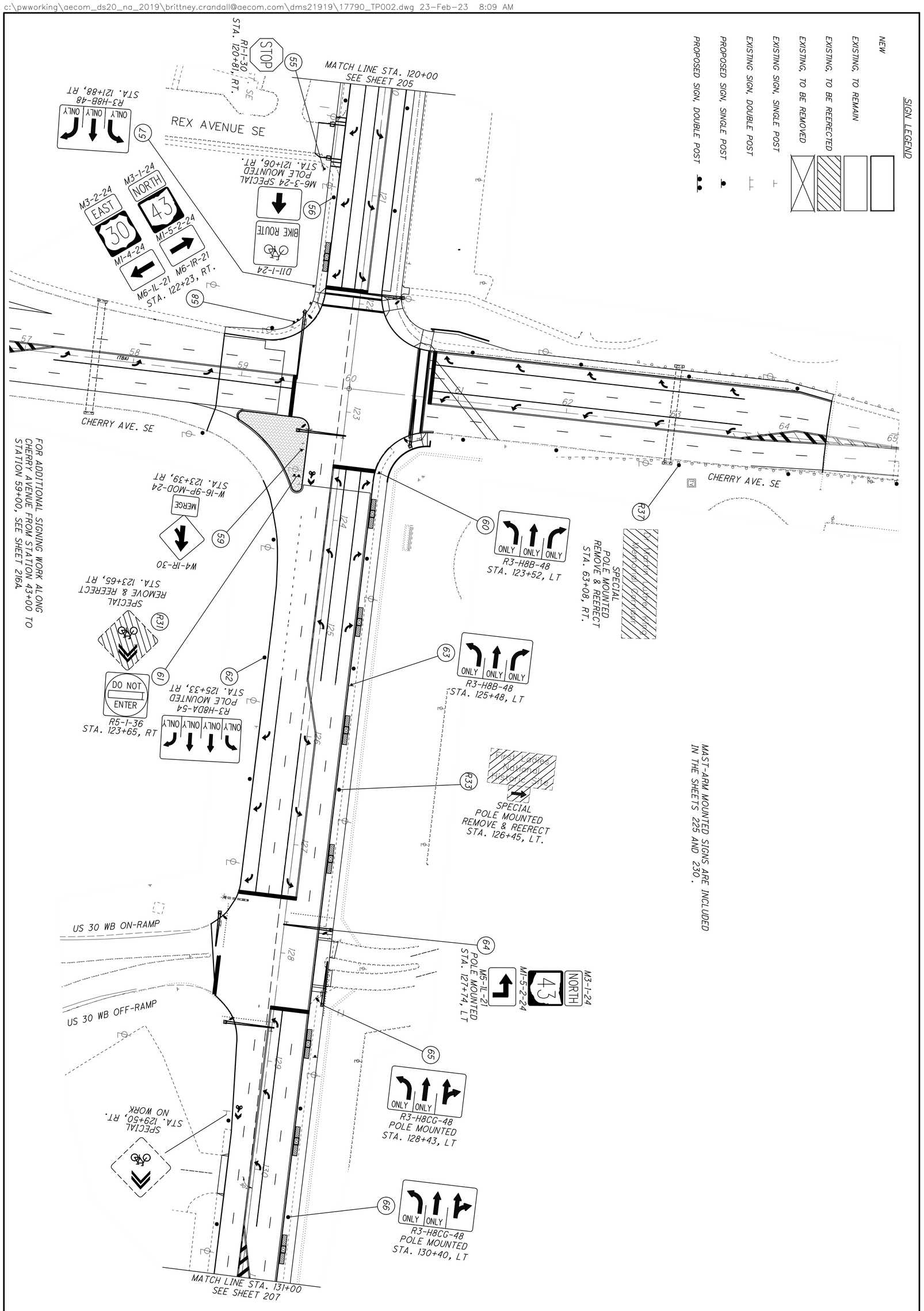

206 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PROPOSED SIGNING PLAN - 11TH STREET SE STA. 120+00 TO STA. 131+00	CALCULATED TKI / CHECKED JMB	0 40 / 20 80 HORIZONTAL SCALE IN FEET	N

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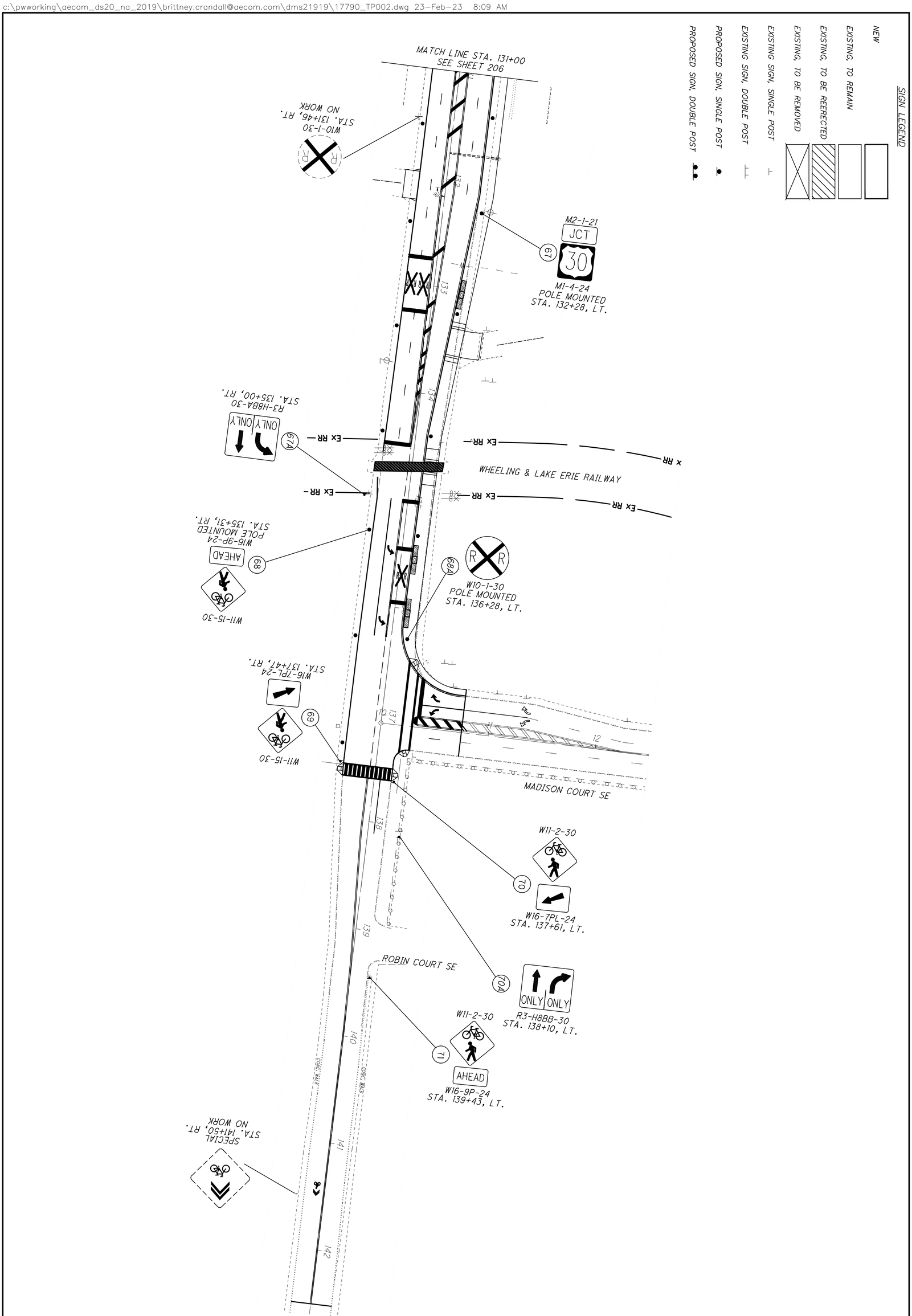

207 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PROPOSED SIGNING PLAN - 11TH STREET SE STA. 131+00 TO ENDING	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET

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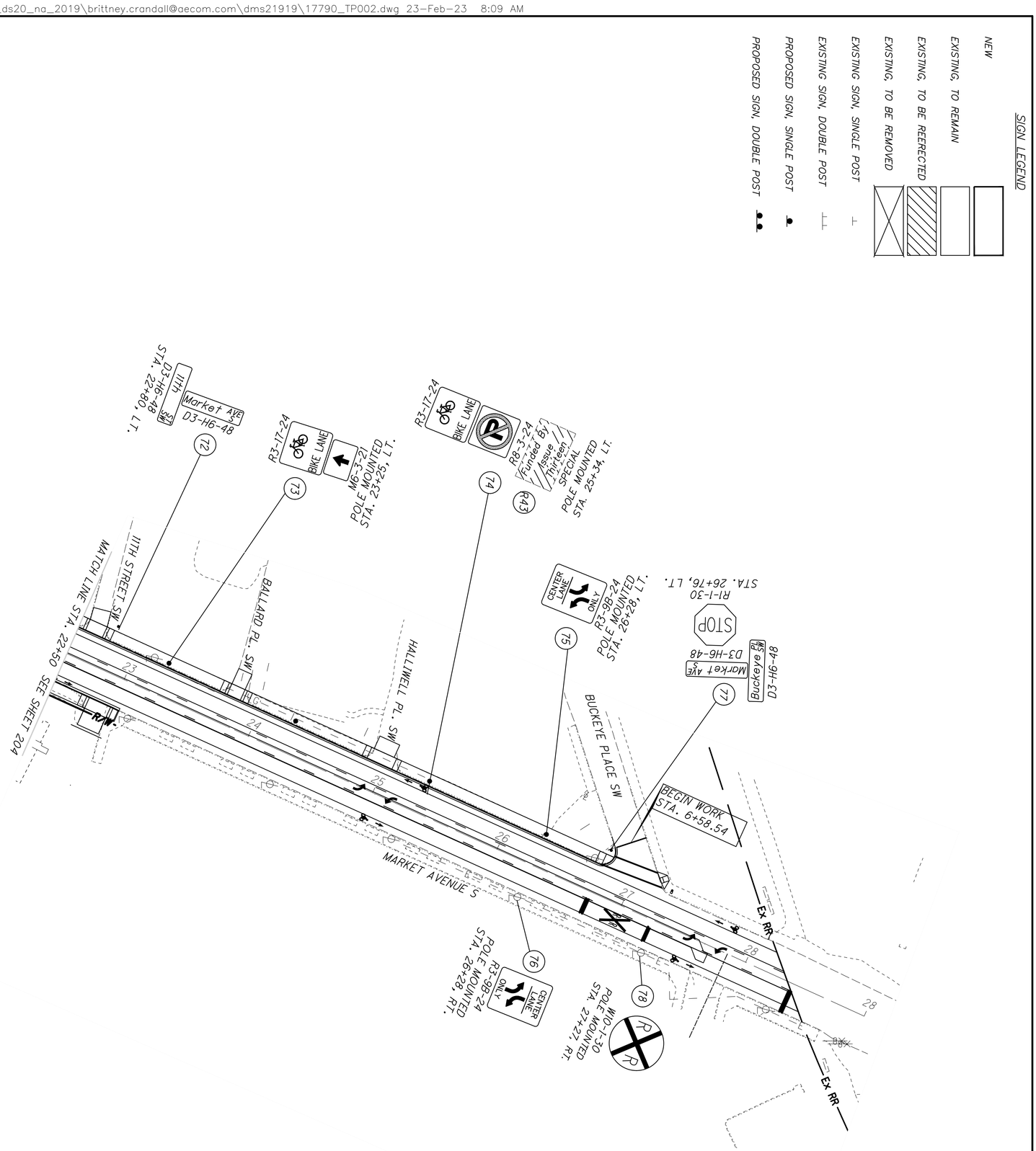

208 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PROPOSED SIGNING PLAN - MARKET AVENUE S STA. 22+50 TO ENDING	CALCULATED TKI / CHECKED JMB	0 20 40 80 HORIZONTAL SCALE IN FEET	N

REF NO.	SHEET NO.	ROADWAY	STATION		SIGN CODE	SIGN SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 STREET NAME SIGN SUPPORT, NO. 3 POST FT	630 SIGN POST REFLECTOR EACH	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED EACH	630 SIGN, FLAT SHEET SF	630 SIGN, DOUBLE FACED, STREET NAME EACH
1	204	11TH ST SE	102+12	RT	W2-6-30	30X30		15.5				6.3	
					W13-1P-18	18X18						2.3	
2	204	11TH ST SE	103+00	RT	R3-9CP-30	30X12		14.5				2.5	
					R3-9B-24	24X36						6	
3	204	11TH ST SE	103+40	LT	R3-9DP-30	30X12					1	2.5	
					R3-9B-24	24X36					1	6	
4	204	11TH ST SE	103+50	RT	W2-6-30	30X30					1	6.3	
5	204	11TH ST SE	104+25	LT	R4-7-24	24X30	13					6	
6	204	11TH ST SE	104+93	RT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
7	204	11TH ST SE	105+20	LT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
8	204	11TH ST SE	105+25	RT	R1-2-36	36X36X36		13.5		1		9	
9	204	11TH ST SE	105+26	LT	D3-H6-72	72X12	23					6	
10	204	11TH ST SE	105+26	RT	R1-2-36	36X36X36		13.5		1		9	
11	204	11TH ST SE	105+71	RT	R6-4A-48	48X24	25					8	
12	204	11TH ST SE	105+90	LT	R6-4A-48	48X24	25					8	
13	204	11TH ST SE	106+09	RT	R6-4A-48	48X24	25					8	
14	204	11TH ST SE	106+35	LT	R6-4A-48	48X24	25					8	
15	204	11TH ST SE	106+76	LT	R1-2-36	36X36X36		13.5		1		9	
16	204	11TH ST SE	106+77	RT	D3-H6-72	72X12		28.3				6	
					M4-5-24	24X12						2	
					M1-4-24	24X24						4	
					M1-1-24	24X12						4	
					M6-2R-21	21X15						2.2	
17	204	11TH ST SE	106+80	LT	R1-2-36	36X36X36		13.5		1		9	
18	204	11TH ST SE	106+84	RT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
19	204	11TH ST SE	107+08	LT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
20	204	11TH ST SE	107+75	LT	R4-7-24	24X30	13					6	
21	204	11TH ST SE	108+48	RT	R2-1-24	24X30					1	6	
22	204	11TH ST SE	109+31	LT	W2-6-30	30X30					1	6.3	
23	204	MARKET AVE S	13+00	RT	R3-17-24	24X18	12.7					3	
					R3-17AP-24	24X8						1.3	
24	204	MARKET AVE S	14+44	RT	R3-17-24	24X18					1	3	
					R8-3-24	24X24					1	4	
25	204	MARKET AVE S	14+55	LT	R3-17-24	24X18					1	3	
					R3-17BP-24	24X8					1	1.3	
26	204	MARKET AVE S	14+70	RT	R3-9CP-30	30X12		14.5				2.5	
					R3-9B-24	24X36						6	
27	204	MARKET AVE S	14+70	LT	R3-9DP-30	30X12		14.5				2.5	
					R3-9B-24	24X36						6	
28	204	MARKET AVE S	15+66	RT	W2-6-30	30X30		15.5				6.3	
					W13-1P-18	18X18						2.3	
29	204	MARKET AVE S	16+20	RT	W2-6-30	30X30		14				6.3	
30	204	MARKET AVE S	17+36	LT	R4-7-24	24X30	13					6	
31	204	MARKET AVE S	18+00	RT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
32	204	MARKET AVE S	18+21	LT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
33	204	MARKET AVE S	18+28	RT	R1-2-36	36X36X36		13.5		1		9	
34	204	MARKET AVE S	18+29	LT	D3-H6-72	72X12	23					6	
35	204	MARKET AVE S	18+30	RT	R1-2-36	36X36X36		13.5		1		9	
36	204	MARKET AVE S	19+74	LT	R1-2-36	36X36X36		13.5		1		9	
37	204	MARKET AVE S	19+75	LT	R1-2-36	36X36X36		13.5		1		9	
38	204	MARKET AVE S	19+75	RT	D3-H6-72	72X12	23					6	
39	204	MARKET AVE S	19+93	RT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
TOTALS CARRIED TO GENERAL SUMMARY							220.7	329.8	0.0	8	9	308.0	0

CALCULATED CX
CHECKED VMN

PROPOSED SIGNING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

209
302

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REF NO.	SHEET NO.	ROADWAY	STATION		SIGN CODE	SIGN SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 2 POST FT	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 STREET NAME SIGN SUPPORT, NO. 3 POST FT	630 SIGN POST REFLECTOR EACH	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED EACH	630 SIGN, FLAT SHEET SF	630 SIGN, DOUBLE FACED, STREET NAME EACH
40	204	MARKET AVE S	20+06	LT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
41	204	MARKET AVE S	20+69	RT	R4-7-24	24X30	13					6	
42	204	MARKET AVE S	21+69	RT	W2-6-30	30X30		14				6.3	
43	204	MARKET AVE S	22+19	RT	R3-9B-24	24X36					1	6	
44	204	MARKET AVE S	22+21	LT	R3-9B-24	24X36					1	6	
45	204	MARKET AVE S	22+48	LT	W2-6-30	30X30		15.5				6.3	
					W13-1P-18	18X18						2.3	
46	204	11TH ST SE	109+65	RT	W14-2-30	30X30		14				6.3	
47	205	11TH ST SE	110+09	RT	R1-1-30	30X30			14.3	1		6.3	
					D3-H6-48	48X8							1
					D3-H6-48	48X8							1
48	205	11TH ST SE	110+31	LT	W2-6-30	30X30					1	6.3	
					W13-1P-18	18X18					1	2.3	
49	205	11TH ST SE	110+31	RT	D11-1-24	24X18					1	3	
					M4-14-24	24X12					1	2	
50	205	11TH ST SE	112+36	LT	R3-9B-24	24X36					1	6	
51	205	11TH ST SE	112+36	RT	R3-9B-24	24X36					1	6	
52	205	11TH ST SE	116+60	RT	R3-H8B-48	48X30	26					10	
53	205	11TH ST SE	118+36	LT	R3-9CP-30	30X12					1	2.5	
					R3-9B-24	24X36					1	6	
54	205	11TH ST SE	118+78	RT	R3-9DP-30	30X12		14.5				2.5	
					R3-9B-24	24X36						6	
55	206	11TH ST SE	120+81	RT	R1-1-30	30X30		13		1		6.3	
56	206	11TH ST SE	121+06	RT	D11-1-24	24X18					1	3	
					M6-3-21	21X15					1	2.2	
57	206	11TH ST SE	121+88	RT	R3-H8B-48	48X30	26					10	
58	206	11TH ST SE	122+23	RT	M3-2-24	24X12		14.8				2	
					M1-4-24	24X24						4	
					M6-1L-21	21X15						2.2	
					M3-1-24	24X12		14.8				2	
					M1-5-2-24	24X24						4	
					M6-1R-21	21X15						2.2	
59	206	11TH ST SE	123+39	RT	W4-1R-30	30X30		14				6.3	
					W16-9P-24	24X12						2	
60	206	11TH ST SE	123+52	LT	R3-H8B-48	48X30	26					10	
61	206	11TH ST SE	123+65	RT	R5-1-36	36X36		13.5		1		9	
62	206	11TH ST SE	125+33	RT	R3-H8DA-54	54X30					1	11.3	
63	206	11TH ST SE	125+48	LT	R3-H8B-48	48X30	26					10	
64	206	11TH ST SE	127+74	LT	M3-1-24	24X12					1	2	
					M1-5-2-24	24X24					1	4	
					M5-1L-21	21X15					1	2.2	
65	206	11TH ST SE	128+43	LT	R3-H8B-48	48X30					1	10	
66	206	11TH ST SE	130+40	LT	R3-H8B-48	48X30					1	10	
67	207	11TH ST SE	132+28	LT	M2-1-21	21X15					1	2.2	
					M1-4-24	24X24					1	4	
67A	207	11TH ST SE	135+00	RT	R3-H8BA-30	30X30		13				6.3	
68	207	11TH ST SE	135+31	RT	W11-15-30	30X30					1	6.3	
					W16-9P-24	24X12					1	2	
68A	207	11TH ST SE	136+28	LT	W10-1-30	30X30					1	6.3	
69	207	11TH ST SE	137+47	RT	W11-15-30	30X30					1	6.3	
					W16-7PL-24	24X12					1	2	
70	207	11TH ST SE	137+61	LT	W11-15-30	30X30		15				6.3	
					W16-7PL-24	24X12						2	
70A	207	11TH ST SE	138+10	LT	R3-H8BB-30	30X30		13				6.3	
71	207	11TH ST SE	139+43	LT	W11-15-30	30X30		15				6.3	
					W16-9P-24	24X12						2	
TOTALS CARRIED TO GENERAL SUMMARY							117.0	184.1	14.3	3	25	271.1	2

CALCULATED CX
CHECKED VMN

PROPOSED SIGNING SUBSUMMARY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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PROPOSED SIGNING SUBSUMMARY

REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 STREET NAME SIGN SUPPORT, NO. 3 POST	630 SIGN POST REFLECTOR	630 SIGN SUPPORT ASSEMBLY, POLE MOUNTED	630 SIGN, FLAT SHEET	630 SIGN, DOUBLE FACED, STREET NAME
							FT	FT	FT	EACH	EACH	SF	EACH
72	208	MARKET AVE S	22+80	LT	D3-H6-48	48X8			11.8				1
					D3-H6-48	48X8							1
73	208	MARKET AVE S	23+25	LT	R3-17-24	24X18					1	3	
					M6-3-21	21X15					1	2.2	
74	208	MARKET AVE S	25+34	LT	R3-17-24	24X18					1	3	
					R8-3-24	24X24					1	4	
75	208	MARKET AVE S	26+28	LT	R3-9B-24	24X36					1	6	
76	208	MARKET AVE S	26+28	RT	R3-9B-24	24X36					1	6	
77	208	MARKET AVE S	26+76	LT	R1-1-30	30X30			14.3	1		6.3	
					D3-H6-48	48X8							1
					D3-H6-48	48X8							1
78	208	MARKET AVE S	27+27	RT	W10-1-30	30X30					1	6.3	
79	216A	CHERRY AVE SE	52+75	LT	W4-2-36	36X36		15				9	
TOTALS CARRIED TO GENERAL SUMMARY							0.0	15.0	26.1	1	7	45.8	4

CALCULATED CX
CHECKED VMN

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

211
302

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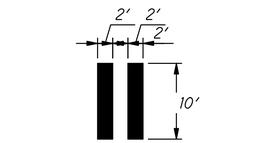
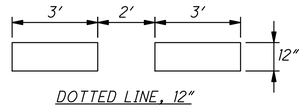
PAVEMENT MARKING LEGEND (644)

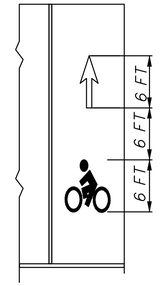
EW	EDGE LINE, 6", WHITE	CW1	CROSSWALK LINE (10' PARALLEL, 24" WHITE, 2' GAP)
EY	EDGE LINE, 6", YELLOW	TY	TRANSVERSE/DIAGONAL LINE, YELLOW
LL	LANE LINE, 4"	IM	ISLAND MARKING, YELLOW
CS	CENTER LINE, DOUBLE, SOLID	RR	RAILROAD SYMBOL MARKING
CB	CENTER LINE, DOUBLE, BROKEN AND SOLID	A	LANE ARROW
S	STOP LINE	DL	DOTTED LINE, 12" WHITE (3' LINE, 2' GAP)
CH	CHANNELIZING LINE, 8"	DT	DOTTED LINE, 6"
YL	YIELD LINE, 2' X 3' (1' GAP), WHITE	DT1	DOTTED LINE, 8"
CW	CROSSWALK LINE	BL	BIKE LANE SYMBOL MARKING
IM	ISLAND MARKING, YELLOW	SH	SHARED LANE SYMBOL MARKING



CROSSWALK LINE, AS PER PLAN
(CW1)



DOTTED LINE, 12"
(DL)
(NOT TO SCALE)



MARKINGS FOR BICYCLE LANE

MATCH LINE STA. 22+50 SEE SHEET 216

MARKET AVENUE S

CONST. 11TH STREET SE

11TH STREET SE

MATCH LINE STA. 109+50 SEE SHEET 213

NAVARRE RD. SW

NAVARRE RD. SE

CLEVELAND AVE. S

BEGIN WORK MEET EXISTING PAVEMENT MARKINGS STA. 101+75

BEGIN WORK MEET EXISTING PAVEMENT MARKINGS STA. 14+19

CONST. MARKET AVENUE S

MARKET AVENUE S

N

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED TKJ
CHECKED JMB

PAVEMENT MARKING PLAN - 11TH STREET SE
BEGINNING TO STA. 109+50

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

212
302

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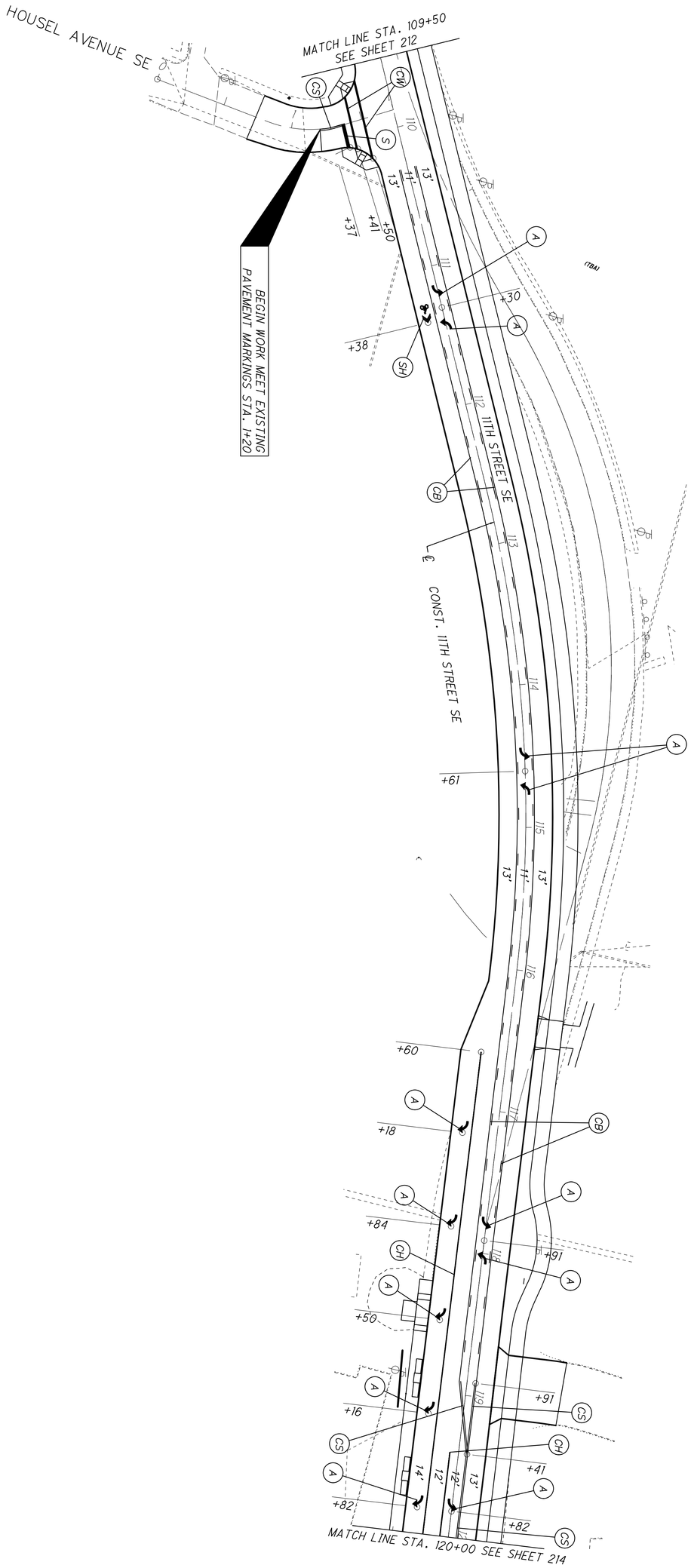

FOR PAVEMENT MARKING LEGEND, SEE SHEET 212.

213
302

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

PAVEMENT MARKING PLAN - 11TH STREET SE STA. 109+50 TO STA. 120+00

CALCULATED TKI
CHECKED JMB

0 20 40 80
HORIZONTAL SCALE IN FEET

N

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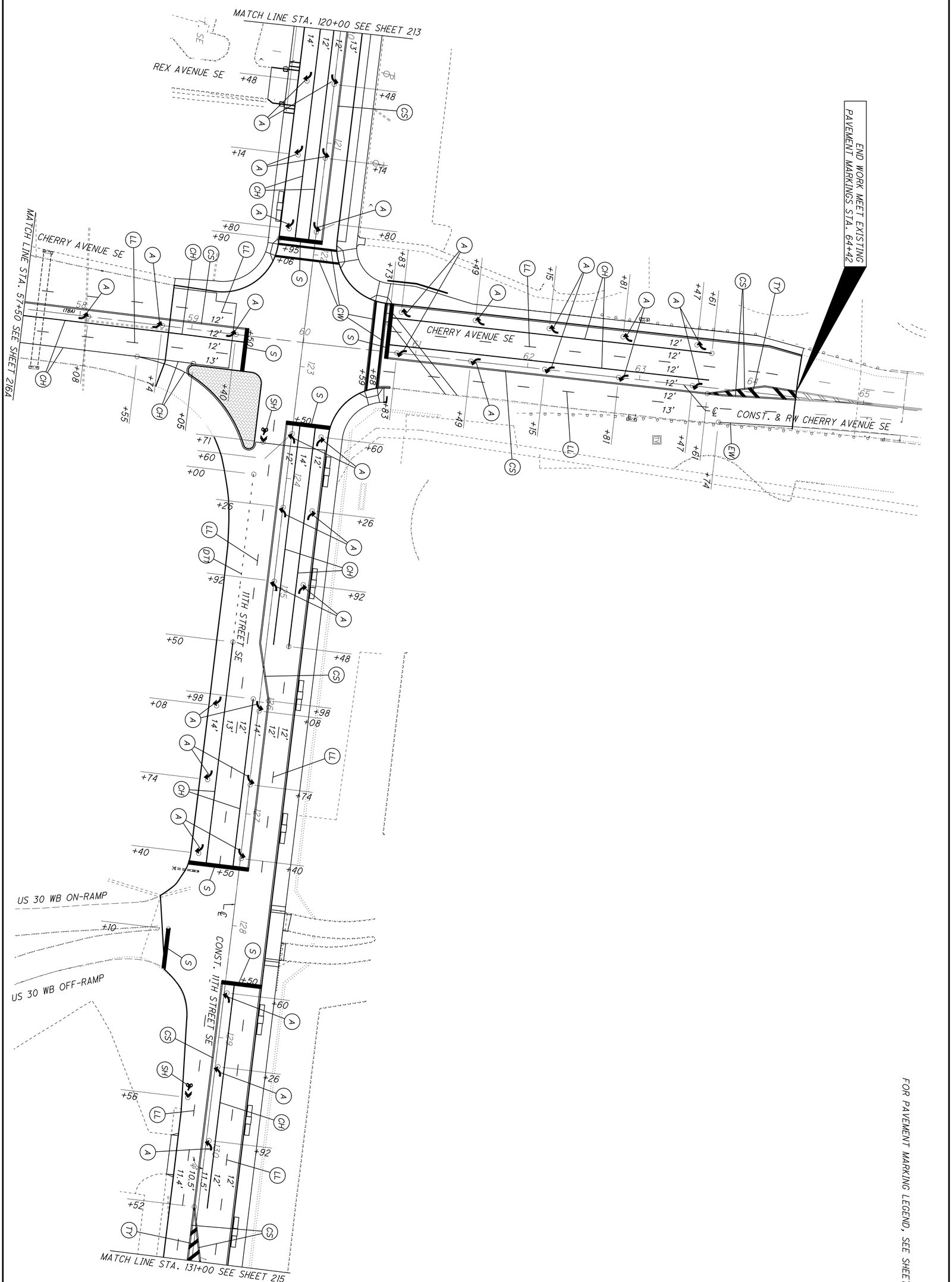

FOR PAVEMENT MARKING LEGEND, SEE SHEET 212.

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

PAVEMENT MARKING PLAN - 11TH STREET SE STA. 120+00 TO STA. 131+00

CALCULATED TKI
CHECKED JMB

0 20 40 80
HORIZONTAL SCALE IN FEET

N

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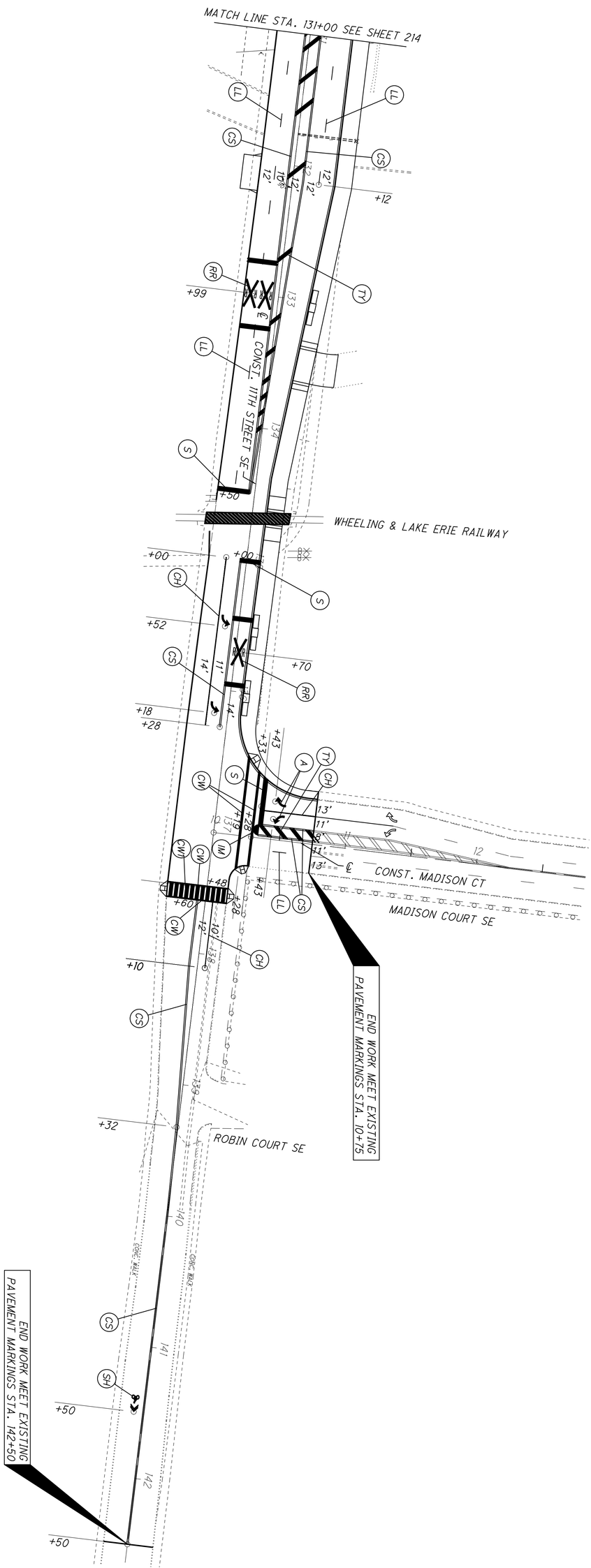

FOR PAVEMENT MARKING LEGEND, SEE SHEET 212.

215 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PAVEMENT MARKING PLAN - 11TH STREET SE STA. 131+00 TO ENDING	CALCULATED TKI / CHECKED JMB	0 40 / 20 80 HORIZONTAL SCALE IN FEET	N

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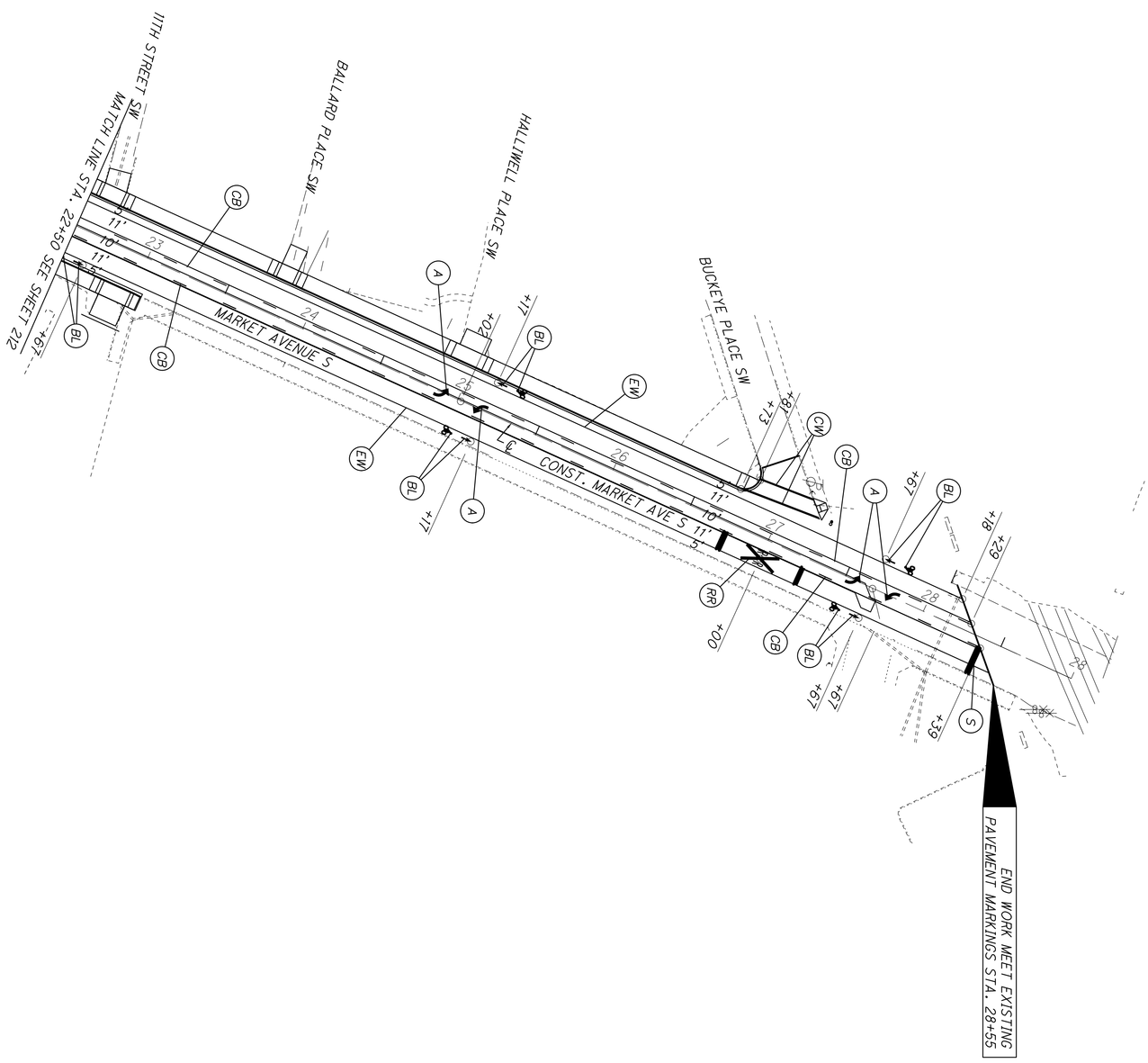
FOR PAVEMENT MARKING LEGEND, SEE SHEET 212.



216 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PAVEMENT MARKING PLAN - MARKET AVENUE S STA. 22+50 TO ENDING	CALCULATED TKI / CHECKED JMB	0 40 / 20 80 HORIZONTAL SCALE IN FEET	N

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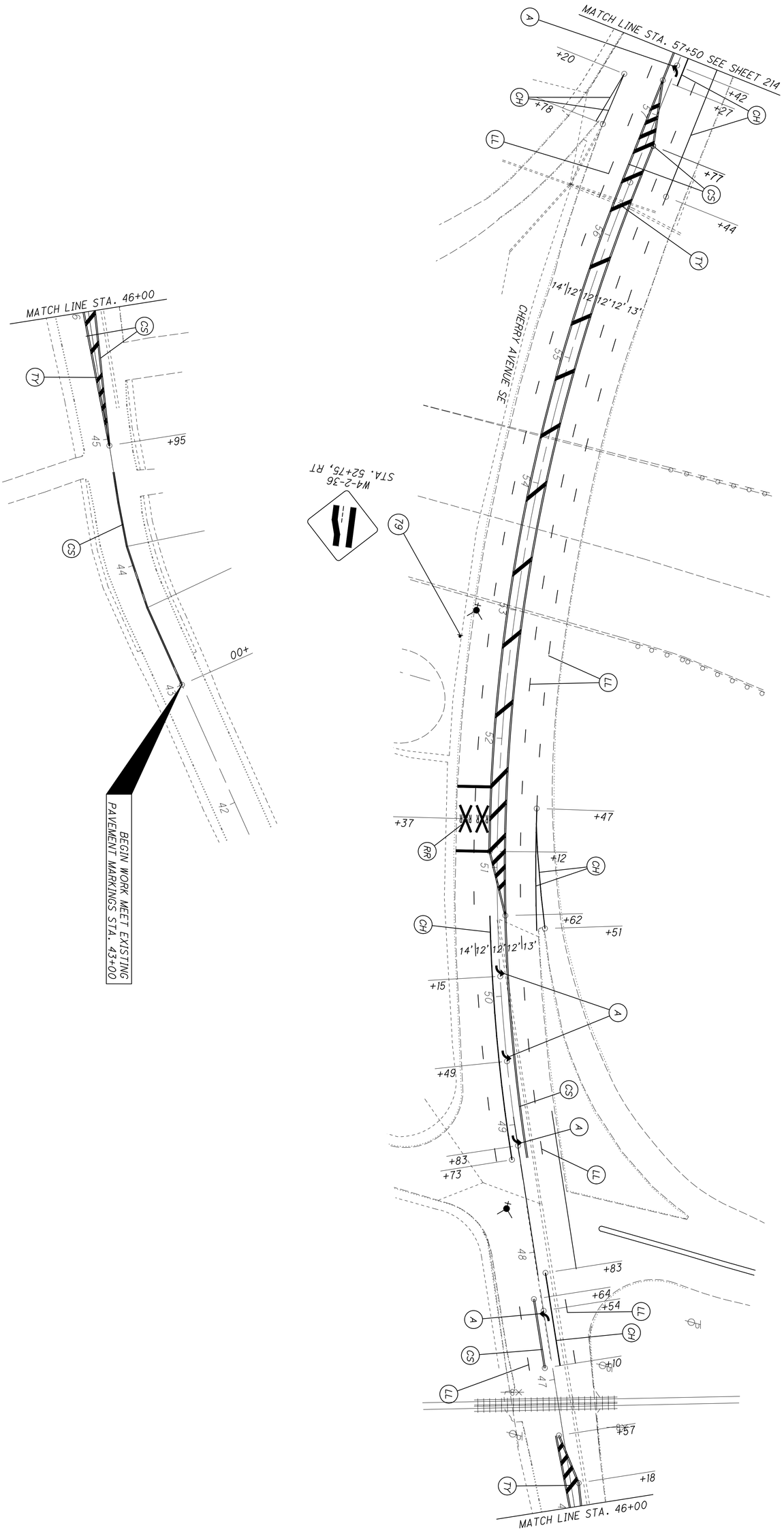

FOR PAVEMENT MARKING LEGEND, SEE SHEET 212.

216A / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	PAVEMENT MARKING PLAN - CHERRY AVENUE SE STA. 57+50 TO ENDING	CALCULATED CX / CHECKED JAN	0 40 / 20 80 HORIZONTAL SCALE IN FEET

REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				644 EDGE LINE, 6" MILE	644 LANE LINE, 4" MILE	644 CENTER LINE MILE	644 CHANNELIZING LINE, 8" FT	644 STOP LINE FT	644 CROSSWALK LINE, 12" FT	644 CROSSWALK LINE, 12", AS PER PLAN FT	644 TRANSVERSE/DIAGONAL LINE FT	644 ISLAND MARKING SF	644 RAILROAD SYMBOL MARKING EACH	644 LANE ARROW EACH	644 DOTTED LINE, 6" FT	644 DOTTED LINE, 8" FT	644 DOTTED LINE, 12" FT	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 YIELD LINE FT
EW	212	MARKET AVE S	14+19	RT		16+46	0.04																
EW	212	MARKET AVE S	14+19	LT		16+85	0.05																
EW	212	11TH ST SE	105+33	RT		105+44	0.01																
EW	212	11TH ST SE	105+70	RT		105+95	0.01																
EW	212	11TH ST SE	106+64	RT		106+70	0.01																
EW	212	11TH ST SE	106+16	LT		106+40	0.01																
EW	212	MARKET AVE S	22+04	RT		22+50	0.01																
EW	212	MARKET AVE S	21+06	LT		22+50	0.03																
EY	212	MARKET AVE S	17+32	RT		105+95	0.02																
EY	212	MARKET AVE S	17+34	LT		105+70	0.02																
EY	212	11TH ST SE	106+40	LT		20+71	0.02																
EY	212	11TH ST SE	106+16	LT		20+71	0.02																
EY	212	11TH ST SE	104+22	LT		105+44	0.03																
EY	212	11TH ST SE	104+22	RT		105+33	0.02																
EY	212	11TH ST SE	106+70	LT		107+72	0.02																
EY	212	11TH ST SE	106+64	RT		107+72	0.02																
CS	212	MARKET AVE S	14+19	LT		14+69			0.01														
CS	212	MARKET AVE S	14+19	RT		14+69			0.01														
CB	212	MARKET AVE S	14+69	LT		17+10			0.05														
CB	212	MARKET AVE S	14+69	RT		17+10			0.05														
CS	212	MARKET AVE S	17+10	LT		17+34			0.01														
CS	212	MARKET AVE S	17+10	RT		17+32			0.01														
CS	212	MARKET AVE S	20+71	LT		21+10			0.01														
CS	212	MARKET AVE S	20+71	RT		21+10			0.01														
CB	212	MARKET AVE S	21+10	LT		22+50			0.03														
CB	212	MARKET AVE S	21+10	RT		22+50			0.03														
CS	212	11TH ST SE	102+00	LT		102+96			0.02														
CS	212	11TH ST SE	102+00	RT		102+96			0.02														
CB	212	11TH ST SE	102+96	LT		104+22			0.02														
CB	212	11TH ST SE	102+96	RT		104+22			0.02														
CS	212	11TH ST SE	107+72	LT		108+27			0.01														
CS	212	11TH ST SE	107+72	RT		108+27			0.01														
CB	212	11TH ST SE	108+27	LT		109+50			0.02														
CB	212	11TH ST SE	108+27	RT		109+50			0.02														
CW1	212	MARKET AVE S	18+16	LT									20										
CW1	212	MARKET AVE S	18+17	RT									14										
CW1	212	MARKET AVE S	18+88	LT									14										
CW1	212	MARKET AVE S	18+88	RT									18										
CW1	212	11TH ST SE	105+01	RT									15										
CW1	212	11TH ST SE	105+12	LT									14										
CW1	212	11TH ST SE	106+89	RT									14										
CW1	212	11TH ST SE	106+90	LT									15										
TY	212	MARKET AVE S	14+19	LT		14+69								26									
TY	212	MARKET AVE S	17+10	LT		17+34								30									
TY	212	MARKET AVE S	20+71	LT		21+10								48									
TY	212	11TH ST SE	102+00	LT		102+96								102									
TY	212	11TH ST SE	107+72	LT		108+27								64									
A	212	MARKET AVE S	15+65	CL													2						
A	212	MARKET AVE S	22+35	CL													2						
A	212	11TH ST SE	103+61	CL													2						
A	212	11TH ST SE	108+88	CL													2						
A	212	11TH ST SE	105+43	LT													1						
A	212	11TH ST SE	105+91	RT													1						
A	212	11TH ST SE	106+64	LT													1						
A	212	11TH ST SE	106+17	LT													1						
DT	212	MARKET AVE S	16+46	RT		16+86												40					
DT	212	MARKET AVE S	16+85	LT		17+10												25					
DT	212	MARKET AVE S	20+78	LT		21+06												28					
DT	212	MARKET AVE S	21+56	RT		22+04												48					
TOTALS CARRIED TO GENERAL SUMMARY							0.34	0.00	0.36	0	0	0	124	270	0	0	12	141	0	0	0	0	0

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PAVEMENT MARKING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

217
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				644 EDGE LINE, 6" MILE	644 LANE LINE, 4" MILE	644 CENTER LINE MILE	644 CHANNELIZING LINE, 8" FT	644 STOP LINE FT	644 CROSSWALK LINE, 12" FT	644 CROSSWALK LINE, 12", AS PER PLAN FT	644 TRANSVERSE/DIAGONAL LINE FT	644 ISLAND MARKING SF	644 RAILROAD SYMBOL MARKING EACH	644 LANE ARROW EACH	644 DOTTED LINE, 6" FT	644 DOTTED LINE, 8" FT	644 DOTTED LINE, 12" FT	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 YIELD LINE FT
DL	212	11TH ST SE	105+33	RT		105+42															28			
DL	212	11TH ST SE	105+95	RT		106+32															38			
DL	212	11TH ST SE	106+70	LT		106+63															32			
DL	212	11TH ST SE	106+16	RT		105+78															39			
BL	212	MARKET AVE S	14+40	RT																		1		
BL	212	MARKET AVE S	14+65	LT																		1		
BL	212	MARKET AVE S	16+40	RT																		1		
BL	212	MARKET AVE S	16+65	LT																		1		
BL	212	MARKET AVE S	22+30	LT																		1		
YL	212	11TH ST SE	105+33	RT																				16
YL	212	11TH ST SE	105+95	RT																				18
YL	212	11TH ST SE	106+70	LT																				19
YL	212	11TH ST SE	106+16	RT																				19
CB	213	11TH ST SE	109+50	LT		118+91			0.18															
CB	213	11TH ST SE	109+50	RT		118+91			0.18															
CS	213	11TH ST SE	118+91	LT		119+41			0.01															
CS	213	11TH ST SE	118+91	RT		119+41			0.01															
CS	213	11TH ST SE	119+41	RT		120+00			0.01															
CS	213	HOUSEL AVE SE	1+20	CL		1+37			0.01															
CH	213	11TH ST SE	116+60	RT		120+00				340														
CH	213	11TH ST SE	119+41	RT		120+00				59														
S	213	HOUSEL AVE SE	1+37	RT							17													
CW	213	HOUSEL AVE SE	1+41	LT	RT							38												
CW	213	HOUSEL AVE SE	1+50	LT	RT							57												
A	213	11TH ST SE	111+30	CL													2							
A	213	11TH ST SE	114+61	CL													2							
A	213	11TH ST SE	117+91	CL													2							
A	213	11TH ST SE	117+18	RT													1							
A	213	11TH ST SE	117+84	RT													1							
A	213	11TH ST SE	118+50	RT													1							
A	213	11TH ST SE	119+16	RT													1							
A	213	11TH ST SE	119+82	RT													1							
A	213	11TH ST SE	119+82	CL													1							
SH	213	11TH ST SE	111+38	RT																			1	
EW	214	CHERRY AVE SE	63+74	RT		64+42	0.01																	
LL	214	11TH ST SE	123+50	RT		131+00		0.14																
LL	214	11TH ST SE	125+48	LT		131+00		0.11																
LL	214	CHERRY AVE SE	57+50	LT		64+42		0.13																
LL	214	CHERRY AVE SE	57+50	RT		64+42		0.13																
CS	214	11TH ST SE	120+00	LT		130+52			0.2															
CS	214	11TH ST SE	130+52	LT		131+00			0.01															
CS	214	11TH ST SE	130+52	RT		131+00			0.01															
CS	214	CHERRY AVE SE	57+50	LT		63+61			0.12															
CS	214	CHERRY AVE SE	63+61	LT		64+42			0.02															
CS	214	CHERRY AVE SE	63+61	RT		64+42			0.02															
CH	214	11TH ST SE	120+00	RT		121+90				190														
CH	214	11TH ST SE	120+00	RT		121+90				190														
CH	214	11TH ST SE	123+50	LT		125+48				198														
CH	214	11TH ST SE	123+50	LT		125+48				198														
CH	214	11TH ST SE	125+50	RT		127+50				200														
CH	214	11TH ST SE	125+98	RT		127+50				152														
CH	214	11TH ST SE	128+50	LT		130+52				202														
CH	214	CHERRY AVE SE	57+50	RT		59+05				155														
CH	214	CHERRY AVE SE	58+55	RT		59+05				50														
CH	214	CHERRY AVE SE	57+50	RT		59+50				200														
CH	214	CHERRY AVE SE	60+73	LT		63+61				288														
CH	214	CHERRY AVE SE	60+73	LT		63+61				288														
S	214	11TH ST SE	121+90	RT							38													
S	214	11TH ST SE	123+50	LT							39													
S	214	11TH ST SE	127+50	RT							53													
TOTALS CARRIED TO GENERAL SUMMARY							0.01	0.51	0.78	2710	147	95	0	0	0	0	12	0	0	137	5	1	72	

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PAVEMENT MARKING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

218
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				644 EDGE LINE, 6" MILE	644 LANE LINE, 4" MILE	644 CENTER LINE MILE	644 CHANNELIZING LINE, 8" FT	644 STOP LINE FT	644 CROSSWALK LINE, 12" FT	644 CROSSWALK LINE, 12", AS PER PLAN FT	644 TRANSVERSE/DIAGONAL LINE FT	644 ISLAND MARKING SF	644 RAILROAD SYMBOL MARKING EACH	644 LANE ARROW EACH	644 DOTTED LINE, 6" FT	644 DOTTED LINE, 8" FT	644 DOTTED LINE, 12" FT	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 YIELD LINE FT
S	214	11TH ST SE	128+50	LT							35													
S	214	CHERRY AVE SE	59+50	RT							38													
S	214	CHERRY AVE SE	60+73	LT							48													
S	214	11TH ST SE	128+10	RT							36													
CW	214	11TH ST SE	121+95	LT	RT							52												
CW	214	11TH ST SE	122+06	LT	RT							57												
CW	214	CHERRY AVE SE	60+59	LT	RT							80												
CW	214	CHERRY AVE SE	60+68	LT	RT							76												
TY	214	11TH ST SE	130+52	RT		131+00								30										
TY	214	CHERRY AVE SE	63+61	RT		64+42								54										
A	214	11TH ST SE	120+48	RT													2							
A	214	11TH ST SE	121+14	RT													2							
A	214	11TH ST SE	121+80	RT													2							
A	214	11TH ST SE	123+60	LT													2							
A	214	11TH ST SE	124+26	LT													2							
A	214	11TH ST SE	124+92	LT													2							
A	214	11TH ST SE	126+08	RT													2							
A	214	11TH ST SE	126+74	RT													2							
A	214	11TH ST SE	127+40	RT													2							
A	214	11TH ST SE	128+60	LT													1							
A	214	11TH ST SE	129+26	LT													1							
A	214	11TH ST SE	129+92	LT													1							
A	214	CHERRY AVE SE	58+08	CL													1							
A	214	CHERRY AVE SE	58+74	CL													1							
A	214	CHERRY AVE SE	59+40	CL													1							
A	214	CHERRY AVE SE	60+83	LT													2							
A	214	CHERRY AVE SE	61+49	LT													2							
A	214	CHERRY AVE SE	62+15	LT													2							
A	214	CHERRY AVE SE	62+81	LT													2							
A	214	CHERRY AVE SE	63+47	LT													2							
DT1	214	11TH ST SE	124+00	RT		125+50													150					
SH	214	11TH ST SE	123+71	RT																		1		
SH	214	11TH ST SE	129+56	RT																		1		
LL	215	11TH ST SE	131+00	LT		132+12		0.02																
LL	215	11TH ST SE	131+00	RT		134+50		0.07																
LL	215	MADISON COURT SE	10+33	RT		10+75		0.01																
CS	215	11TH ST SE	131+00	LT		142+50			0.22															
CS	215	11TH ST SE	131+00	RT		134+50			0.07															
CS	215	MADISON COURT SE	10+33	LT		10+75			0.01															
CS	215	MADISON COURT SE	10+33	LT		10+75			0.01															
CH	215	11TH ST SE	135+00	RT		136+28				128														
CH	215	11TH ST SE	137+60	LT		138+10				50														
CH	215	MADISON COURT SE	10+33	LT		10+75				42														
S	215	11TH ST SE	134+50	RT							24													
S	215	11TH ST SE	135+00	LT							15													
S	215	MADISON COURT SE	10+33	LT							36													
CW	215	11TH ST SE	137+48	LT	LR							46												
CW	215	11TH ST SE	137+60	LT	LR							46												
CW1	215	11TH ST SE	137+48	LT	LR								46											
CW	215	MADISON COURT SE	10+19	LT	RT							86												
CW	215	MADISON COURT SE	10+28	LT	RT							72												
TY	215	11TH ST SE	131+00	RT		134+50								119										
TY	215	MADISON COURT SE	10+33	LT		10+75								42										
IM	215	MADISON COURT SE	10+33	LT											25.1									
RR	215	11TH ST SE	132+99	RT												2								
RR	215	11TH ST SE	135+70	LT												1								
A	215	11TH ST SE	135+52	RT												1								
A	215	11TH ST SE	136+18	RT												1								
A	215	MADISON COURT SE	10+43	LT													2							
SH	215	11TH ST SE	141+50	RT																		1		
TOTALS CARRIED TO GENERAL SUMMARY							0.00	0.10	0.31	220	232	515	46	245	25	5	36	0	150	0	0	3	0	

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STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

219
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				644 EDGE LINE, 6" MILE	644 LANE LINE, 4" MILE	644 CENTER LINE MILE	644 CHANNELIZING LINE, 8" FT	644 STOP LINE FT	644 CROSSWALK LINE, 12" FT	644 CROSSWALK LINE, 12", AS PER PLAN FT	644 TRANSVERSE/DIAGONAL LINE FT	644 ISLAND MARKING SF	644 RAILROAD SYMBOL MARKING EACH	644 LANE ARROW EACH	644 DOTTED LINE, 6" FT	644 DOTTED LINE, 8" FT	644 DOTTED LINE, 12" FT	644 BIKE LANE SYMBOL MARKING EACH	644 SHARED LANE MARKING EACH	644 YIELD LINE FT
EW	216	MARKET AVE S	22+50	LT		28+18	0.11																
EW	216	MARKET AVE S	22+50	RT		28+55	0.11																
CB	216	MARKET AVE S	22+50	LT		28+29			0.11														
CB	216	MARKET AVE S	22+50	RT		28+39			0.11														
S	216	MARKET AVE S	28+39	RT							17												
CW	216	MARKET AVE S	26+73	LT								50											
CW	216	MARKET AVE S	26+81	LT								34											
RR	216	MARKET AVE S	27+00	RT												1							
A	216	MARKET AVE S	25+02	CL													2						
A	216	MARKET AVE S	27+67	CL													2						
BL	216	MARKET AVE S	22+67	RT																	1		
BL	216	MARKET AVE S	25+17	LT																	1		
BL	216	MARKET AVE S	25+17	RT																	1		
BL	216	MARKET AVE S	27+67	LT																	1		
BL	216	MARKET AVE S	27+67	RT																	1		
LL	216A	CHERRY AVE SE	47+10	LT		57+50		0.2															
LL	216A	CHERRY AVE SE	47+10	RT		57+50		0.2															
LL	216A	CHERRY AVE SE	51+47	RT		56+44		0.09															
CS	216A	CHERRY AVE SE	43+00	LR		57+50			0.28														
CS	216A	CHERRY AVE SE	44+95	RT		46+57			0.03														
CS	216A	CHERRY AVE SE	50+62	LT		57+27			0.13														
CH	216A	CHERRY AVE SE	47+10	RT		47+83				73													
CH	216A	CHERRY AVE SE	48+73	LT		50+62				189													
CH	216A	CHERRY AVE SE	50+51	RT		51+47				96													
CH	216A	CHERRY AVE SE	50+51	RT		51+47				96													
CH	216A	CHERRY AVE SE	56+44	RT		57+50				106													
CH	216A	CHERRY AVE SE	57+27	LT		57+50				23													
CH	216A	CHERRY AVE SE	56+78	LT		57+20				42													
CH	216A	CHERRY AVE SE	56+78	LT		57+20				42													
TY	216A	CHERRY AVE SE	44+95	LR		46+57								75									
TY	216A	CHERRY AVE SE	50+62	LR		57+27								312									
RR	216A	CHERRY AVE SE	51+37	LT												2							
A	216A	CHERRY AVE SE	47+54	CL													1						
A	216A	CHERRY AVE SE	48+83	CL													1						
A	216A	CHERRY AVE SE	49+49	CL													1						
A	216A	CHERRY AVE SE	50+15	CL													1						
A	216A	CHERRY AVE SE	57+42	CL													1						
TOTALS CARRIED TO GENERAL SUMMARY							0.00	0.49	0.44	667	0	34	0	387	0	3	9	0	0	0	5	0	0

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STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

220
302

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GENERAL

SCOPE

THESE NOTES AND SPECIFICATIONS SUPPLEMENT THE STATE OF OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS AND THE SUPPLEMENTAL SPECIFICATIONS NOTES ON THE TITLE SHEET. THE WORK TO BE PERFORMED BY THE CONTRACTOR IN CONNECTION WITH FURNISHING LABOR, SUPPLIES, EQUIPMENT, MATERIALS, AND PERFORMING ALL OPERATIONS NECESSARY FOR THE ACCEPTABLE INSTALLATION OF THE TRAFFIC CONTROL DEVICES, SHALL BE IN STRICT ACCORDANCE WITH THESE PLANS, NOTES AND SPECIFICATIONS. THESE NOTES, SCHEDULES AND DRAWINGS ARE INTENDED TO PROVIDE ALL MATERIAL AND LABOR REQUIRED TO FURNISH AND INSTALL A COMPLETE TRAFFIC CONTROL SYSTEM.

GUARANTEE:

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 180 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY.

EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR. THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/INTERCONNECT EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE CITY OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT. THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM AMERICAN ELECTRIC POWER AT THE LOCATIONS INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

AMERICAN ELECTRIC POWER
301 CLEVELAND AVENUE SW
P.O BOX 24400
CANTON, OH 44701-4400
PHONE: 330-438-7739
ATTN: MICHAEL ALLMAN
330-438-7999

VEHICULAR SIGNAL HEAD VERTICAL CLEARANCES

PRIOR TO ACCEPTANCE BY THE CITY, PROVIDE DOCUMENTATION TO THE PROJECT ENGINEER SHOWING THE ACTUAL MEASURED VERTICAL CLEARANCES OF ALL VEHICULAR SIGNAL HEADS.

SHOULD THE VERTICAL CLEARANCE OF ANY VEHICULAR SIGNAL HEAD BE LESS THAN THE ALLOWED MINIMUM, ADJUST EACH NON-CONFORMING SIGNAL HEAD UNTIL THE MINIMUM CLEARANCE CRITERION IS MET, AND RE-DOCUMENT THE MEASUREMENT.

THE COSTS ASSOCIATED WITH MEASURING THE VERTICAL CLEARANCES ARE INCIDENTAL TO THE PROJECT, AND ANY COSTS FOR ADJUSTMENTS WILL BE BORNE BY THE CONTRACTOR.

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND CITY TRAFFIC ENGINEER WITH 72 HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION

BEFORE ANY WORK IS STARTED REPRESENTATIVES OF THE CITY, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING SIGNAL/FLASHER INSTALLATIONS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING SIGNAL/FLASHER SHALL BE MADE BY THE CITY'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL ITEMS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE CITY, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

AFTER THE REPORT HAS BEEN SIGNED BY ALL PARTIES, THE SIGNAL INSTALLATION SHALL BE TURNED OVER TO THE CONTRACTOR, WHO SHALL THEN BE REQUIRED TO MAINTAIN THE TRAFFIC SIGNAL INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

A. EXISTING SIGNAL INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS INCLUDING DAMAGE DUE TO UTILITY RELOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION AT AN INTERSECTION FROM THE TIME THE INSTALLATION IS FIRST DISTURBED, WHETHER FROM UTILITY WORK OR FROM THE CONTRACTOR.

B. NEW OR REUSED SIGNAL INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE THE MAINTAINING AGENCY AND THE PROJECT ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE (1) OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, SEVEN (7) DAYS A WEEK.

THE CONTRACTOR SHALL HAVE THE MALFUNCTION CORRECTED AND/OR REPAIRED TO THE SATISFACTION OF THE ENGINEER WITHIN EIGHT HOURS OF THE NOTIFICATION ON OR LIQUIDATED DAMAGES OF $500 PER HOUR SHALL BE ASSESSED THE CONTRACTOR.

ALL LAMP OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT (8) HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGES.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE PROJECT ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN EIGHT (8) HOURS AFTER THE CONTRACTOR IS NOTIFIED OF THE OUTAGE.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED EIGHT (8) HOUR PERIOD. AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE (1) LOCATION. WHERE MORE THAN ONE (1) OUTAGE OCCURS AT ANY ONE (1) LOCATION, THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

MAINTENANCE OF TRAFFIC SIGNAL INSTALLATION (continued)

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY DAMAGES FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGES AS PER 107.15.

WHERE THE CONTRACTOR HAS FAILED TO OR CANNOT RESPOND TO AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE. THE PROJECT ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE CITY OF CANTON FOR POLICE SERVICES AND MAINTENANCE SERVICES BY CITY FORCES SHALL BE DEDUCTED FROM MONEYS DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15. IN ADDITION TO THESE BILLINGS, THE CONTRACTOR SHALL BE ASSESSED LIQUIDATED DAMAGES OF 3500/HOUR FOR EACH HOUR BEYOND THE ALLOWED EIGHT-HOUR PERIOD THAT THE SIGNAL IS INOPERATIVE.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICES ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A MUTUALLY ACCEPTABLE AGREEMENT WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE.

THE CONTRACTOR SHALL INFORM THE PROJECT ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE DUE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM.

WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED FOUR (4) HOURS FOR INSTALLATIONS UTILIZING NEW FOUNDATIONS AND EIGHT (8) HOURS FOR INSTALLATIONS UTILIZING EXISTING FOUNDATIONS AND NO OUTAGE TIME PERIOD SHALL INCLUDE THE HOURS OF 6:00 AM TO 8:00 AM AND 4:00 PM TO 6:00 PM. ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED, AS DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING. 1). TIME OF NOTIFICATION OF MALFUNCTION, 2). TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION; 1). ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED; 4). A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE; AND 5). TIME OF COMPLETION OF REPAIR AND SYSTEM RESTORED TO FULL SERVICE. A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 625 ARC FLASH CALCULATIONS AND LABEL

THIS ITEM OF WORK SHALL CONSIST OF PERFORMIMG ARC FLASH CALCULATIONS AND APPLYING AN EXTERNAL LABEL AS DESCRIBED IN SUPPLEMENTAL SPECIFICATION 825. THIS WORK SHALL BE PERFORMED FOR DISCONNECT SWITCH, SIGNAL CABINET, AND UPS ENCLOSURE. THE LABEL USED SHALL BE ODOT VERSION A (PREFERRED).

METHOD OF MEASUREMENT SHALL BE PER 825.06.

ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 630.06, SIGNS SHALL BE RIGID MOUNTED ON MAST ARMS AS DETAILED ON TC-16.22. THE CENTER OF THE SIGN SHALL BE EQUAL TO THE CENTER OF THE MAST ARM.

ALL LABOR, MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE PER EACH ITEM 630 - SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN.

ITEM 632 - REMOVAL OF TRAFFIC SIGNAL INSTALLATION AS PER PLAN

THE REMOVAL AT THE FOLLOWING THREE INTERSECTIONS SHALL CONSIST OF VEHICULAR SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS, CONTROLLER WITH CABINET, TRAFFIC POLES AND PEDESTALS, FOUNDATIONS, PULL BOXES, MESSENGER WIRE, SIGNAL CABLE, CONDUIT RISER, MISCELLANEOUS ATTACHMENTS, POLE AND MAST ARM MOUNTED SIGNS, AND ALL OTHER PORTIONS OF A TRAFFIC SIGNAL INSTALLATION PER SECTION 632.26 UNLESS OTHERWISE STATED ON THE INTERSECTION PLAN SHEET.

INTERSECTION TRAFFIC SIGNAL REMOVAL INCLUDES:
11TH STREET SE AND MARKET AVENUE S
11TH STREET SE AND CHERRY AVENUE SE
11TH STREET SE AND US 30 ON/OFF RAMPS

UNLESS OTHERWISE DESIGNATED, ALL TRAFFIC POLES AND ARMS REMOVED SHALL BE DELIVERED TO THE CITY OF CANTON TRAFFIC SIGN AND PAINT DEPARTMENT AT 2506 CLEVELAND AVENUE S.W., CANTON, OHIO.

IN ADDITION. UNLESS OTHERWISE DESIGNATED. ALL OTHER ITEMS REMOVED, VEHICULAR SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTON, EXCEPT MESSENGER WIRE AND SIGNAL CABLES SHALL BE DELIVERED TO THE CITY OF CANTON TRAFFIC SIGNAL DEPARTMENT AT 2436-30TH STREET N.E., CANTON, OHIO.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF MESSENGER WIRE, SIGNAL CABLES, AND ANY OTHER TRAFFIC SIGNAL ITEMS DESIGNATED BY THE ENGINEER.

ITEM 632 - POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL BE AS PER ODOT SPECIFICATION 652 AND ODOT STANDARD CONSTRUCTION DRAWING TC-83.20.

ELECTRIC POWER SHALL BE SUPPLIED BY AMERICAN ELECTRIC POWER (AEP). POWER SERVICE IS TO BE UNMETERED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120 VOLTS, EXCEPT WHERE DECORATIVE SIGNAL SUPPORTS WITH ORNAMENTAL LUMINAIRE WHICH REQUIRES 240V OR 208V. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE CITY OF CANTON.

ITEM 632 - POWER CABLE 1 CONDUCTOR NO 6 AWG, AS PER PLAN

POWER CABLE SHALL BE 1 CONDUCTOR, NO. 6 AWG STRANDED, COPPER, TYPE UF, 600 VOLT.

ITEM 632 - COVERING OF VEHICULAR SIGNAL HEAD

COVER VEHICULAR SIGNAL HEADS IF ERECTED AT INTERSECTIONS WHERE TRAFFIC IS MAINTAINED BEFORE ENERGIZING THE SIGNALS. USE A STURDY OPAQUE COVERING MATERIAL SPECIFICALLY MADE FOR USE WITH TRAFFIC SIGNALS, AND ENSURE THAT THE COLOR OF THE COVER IS DIFFERENT THAN THE SIGNAL HEAD, TAN OR BEIGE, SO THAT IT IS CLEAR TO DRIVERS THE HEADS ARE COVERED, NOT DARK. USE A METHOD OF COVERING TO COVER ATTACHMENT AND MATERIALS, INCLUDING BACKPLATES, AS APPROVED BY THE ENGINEER. COVERS ARE TO BE FREE OF TEXT, PICTURES, OR ANY TYPE OF ADVERTISING. MAINTAIN COVERS, AND REMOVE THEM WHEN DIRECTED BY THE ENGINEER.

CALCULATED CX CHECKED VMN

TRAFFIC SIGNAL GENERAL NOTES
11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

221
302

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GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
a. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
b. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
c. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
d. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINT, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
e. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
f. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS
a. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
b. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
c. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
d. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3. WIRE FOR GROUNDING AND BONDING
a. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.a.I ABOVE.
III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.a.I ABOVE.
IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.
b. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH A MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE A MINIMUM SIZE 4 AWG.

4. GROUND ROD
a. A 3/4 INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
b. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

GROUNDING AND BONDING (continued)

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.
a. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
b. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT.
ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

ITEM 632 - PEDESTRIAN SIGNAL HEAD (LED), COUNTDOWN, TYPE D2 AS PER PLAN

IN ADDITION TO THE REQUIREMENT OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

A. LED, LIGHT EMITTING DIODE, SIGNAL LAMP UNITS SHALL MEET THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 872. ALL LAMP UNITS SHALL BE THE 16 INCH SIZE AND A SINGLE UNIT.
B. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
C. ALL LAMP UNITS SHALL BE PROVIDED WITH QUICK COUPLERS FOR SIDE OF POLE MOUNTING OR WITH TOP OF PEDESTAL MOUNTING HARDWARE, AS SPECIFIED IN THE PLANS.
D. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL (BLACK) RATHER THAN PAINTING.

THE CONTRACTOR SHALL PROVIDE THE CITY, IN WRITING, THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP AND DATE OF MANUFACTURER FOR ALL LED UNITS TO BE USED IN THE TRAFFIC PEDESTRIAN HEADS PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES. THE INFORMATION SHALL BE SENT TO THE FOLLOWING LOCATION:

TRAFFIC ENGINEERING DEPARTMENT
2436 - 30TH STREET N.E.
CANTON, OHIO 44705

CITY WILL MEASURE "PEDESTRIAN SIGNAL HEAD WITH LED LAMPS, COUNTDOWN, TYPE D2, AS PER PLAN" BY THE NUMBER OF COMPLETE UNITS FURNISHED AND INSTALLED, AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE, CLOSURE CAPS, AND LAMPS AS ALL PROPOSED CONNECTIONS SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA PEDESTAL SHALL NOT BE PERMITTED.

ITEM 632 - VEHICULAR SIGNAL HEAD (LED), BY TYPE, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 632 AND 732, THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

A. VEHICULAR SIGNAL HEADS SHALL BE FREE SWINGING.
B. ALL UPPER SIGNAL SUPPORT HARDWARE AND PIPING UP TO AND INCLUDING THE WIRE INLET FITTING SHALL BE FERROUS METAL FOR SIGNAL DISPLAYS OF TWO OR MORE SECTIONS.
C. THE ENTRANCE FITTING SHALL BE OF THE TRI-STUD DESIGN WITH SERRATED RINGS IN ORDER TO ACHIEVE POSITIVE LOCKING.
D. VEHICULAR SIGNAL HEADS SHALL BE PROVIDED WITH A PIVOT AND LOCK BALANCE ADJUSTER. ALL BALANCE ADJUSTERS SHALL HAVE A MINIMUM THREE-QUARTER INCH (19 MILLIMETER) EYE BOLT AND THREE-QUARTER INCH (19 MILLIMETER) WIDE SLOT. EYE BOLTS ARE CAST FROM Z16 STAINLESS STEEL ANO PROVIDED WITH A SATIN FINISH. THREE-QUARTER INCH (19 MILLIMETER) BODY HALVES ARE CAST FROM A MINIMUM 65-45-12 DUCTILE IRON AND PROVIDED WITH A BRIGHT ZINC FINISH (ZN1).
E. ALL LAMP UNITS SHALL BE THE 12-INCH (300 MILLIMETER) SIZE AND BE EQUIPPED WITH 12"X11" CUTAWAY VISORS. UNLESS OTHERWISE NOTED IN THE PLANS.
F. SIGNAL HEADS AND VISORS SHALL BE CONSTRUCTED OF POLYCARBONATE PLASTIC AND MEET ITE SPECIFICATIONS.
G. PIPE, SPACERS AND FITTINGS CONSTRUCTED OF ALUMINUM.
H. PROPER EXTERIOR COLORS SHALL BE OBTAINED BY USE OF COLORED PLASTIC MATERIAL RATHER THAN PAINTING. ALL EXTERIOR COLOR SHALL BE FEDERAL HIGHWAY BLACK AT INTERSECTIONS THAT CONTAIN NOSTALGIA SIGNAL SUPPORTS AND PEDESTALS.

THE CONTRACTOR SHALL PROVIDE THE CITY, IN WRITING, THE LED MANUFACTURER NAME, SERIAL NUMBER, PART NUMBER, DESCRIPTION OF LAMP, AND DATE OF MANUFACTURER FOR ALL LED UNITS TO BE USED IN THE TRAFFIC VEHICULAR SIGNAL HEADS PRIOR TO INSTALLATION, FOR ACCEPTANCE AND WARRANTY PURPOSES. THE INFORMATION SHALL BE SENT TO THE FOLLOWING LOCATION:

TRAFFIC ENGINEERING DEPARTMENT
2436 - 30TH STREET N.E.
CANTON, OHIO 44705

CITY WILL MEASURE "VEHICULAR SIGNAL HEAD (LED), BY TYPE, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN" BY THE NUMBER OF COMPLETE UNITS FURNISHED AND INSTALLED, AND WILL INCLUDE ALL SUPPORT AND MOUNTING HARDWARE, CLOSURE CAPS, AND LAMPS AS ALL PROPOSED CONNECTIONS SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA SIGNAL POLES SHALL NOT BE PERMITTED.

ITEM 632 - PEDESTRIAN PUSHBUTTON, AS PER PLAN

PEDESTRIAN PUSHBUTTON SHALL BE AMERICAS WITH DISABILITIES ACT (ADA) COMPLIANT AND FREEZE PROOF. IN ORDER TO CONFORM TO ADA. THE REQUIREMENTS OF 632.09 AND 732.06 ARE MODIFIED AS FOLLOWS:

A. THE MAXIMUM FORCE REQUIRED TO OPERATE THE PUSHBUTTON SHALL BE FIVE (5) POUNDS PER FOOT.
B. THE PUSHBUTTON SHALL BE RAISED OR FLUSH AND SHALL BE A MINIMUM OF TWO (2) INCHES AT THE SMALLEST DIMENSION.

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF C&MS 633 AND 733, POLE ATTACHMENT HARDWARE WILL BE INCLUDED FOR POLE-MOUNTED CABINETS, AND A CABINET RISER (8 INCH MINIMUM) AND ANCHOR BOLTS WILL BE PROVIDED FOR BASE-MOUNTED CABINETS. BEFORE PERFORMING THE WORK, THE CONTRACTOR, THE CITY TRAFFIC ENGINEER AND THE PROJECT ENGINEER WILL PERFORM A SITE INSPECTION TO ESTABLISH THE LOCATION OF THE UPS CABINET AND FOUNDATION.

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY-DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERNAL SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG, AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSES OVER THE POWER CORD.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

THIS ITEM SHALL INCLUDE A RED LED STATUS INDICATOR LAMP TO ALLOW MAINTENANCE PERSONNEL AND LAW ENFORCEMENT TO QUICKLY ASSESS WHETHER A TRAFFIC SIGNAL CABINET IS BEING POWERED BY A UPS. THE LED HOUSING SHALL BE NEMA 4X, IP65 OR IP66, RATED FOR OUTDOOR USE AND BE TAMPER/ SHATTER RESISTANT. IT SHALL BE A DOMED ENCLOSURE CONTAINING A RED LENS WITH LED THAT IS VISIBLE FROM 100 FOOT MINIMUM. THE ENCLOSURE AND LED MODULE SHOULD BE PLACED AND CENTERED ON THE TOP SURFACE OF THE UPS CABINET AND SEALED FROM WATER INTRUSION. IT SHOULD BE WIRED USING MINIMUM 20GA STRANDED, INSULATED HOOKUP WIRE TO THE STATUS RELAY OUTPUTS OF THE UPS. THE WIRES SHALL BE TERMINATED BY LUGS AT THE DISPLAY END AND PERMANENTLY LABELED "BACKUP POWER STATUS DISPLAY," WITH WIRE POLARITY INDICATED. THE RED LED SHALL ONLY ILLUMINATE TO INDICATE THE CABINET IS OPERATING UNDER UPS BACKUP POWER (THE "BACKUP" OPERATING CONDITION). THIS ITEM INCLUDES PROGRAMMING THE UPS STATUS RELAY OUTPUTS TO PRODUCE THE LAMP STATUS DISPLAYS. THESE STATUS DISPLAYS WILL BE SOLID 100% DUTY CYCLE (NOT FLASHING) DISPLAYS. THE OPERATING VOLTAGE OF THE LED LAMP SHALL BE 120V AC UNLESS OTHERWISE INDICATED.

ITEM 625 - PULL BOX, MISC.: 725.06. (BY SIZE)

PULL BOXES SHALL BE MANUFACTURED BY CARSON BROOKS (MODEL #1324 AND #1730). QUAZITE (MODEL #PG1324BA1 B/PG1324HA44 AND #PO1730BA18/PC17SOHA44), OR SYNERTECH (MODEL RSJ 324 HBBOA1B AND #S1730 HBBOA18), OR APPROVED EQUAL. ALL PULL BOXES SHALL INCLUDE A POLYMER CONCRETE RING AND COVER TYPE, OR EQUAL, AND SHALL BE MARKED "TRAFFIC". THE PULL BOX SHALL BE FIBERGLASS REINFORCED POLYESTER, OR EQUAL, WITH INSERTS AND SHALL BE 18" IN DEPTH. EACH PULL BOX SHALL INCLUDE TWO (2) STAINLESS STEEL HEX BOLTS. EACH PULL BOX AND COVER SHALL HAVE A MINIMUM LOAD RATING OF 20,000 POUNDS CAPACITY IN ACCORDANCE WITH THE WESTERN UNDERGROUND COMMITTEE GUIDE 3.6. UNDERDRAINS SHALL NOT BE INSTALLED IN PULL BOXES.

ITEM 625 - CONDUIT, (BY SIZE) 725.05, AS PER PLAN

ALL CONDUITS AND FITTINGS SHALL BE TYPE EB, SCHEDULE 40 PVC ENCASED IN CONCRETE. ALL CONDUITS SHALL HAVE PULL WIRE. ALL CONDUITS ENTERING A PULL BOX, POLE, ETC. SHALL NOT EXTEND MORE THAN 1" BEYOND ENTERING THE PULL BOX, POLE, ETC.

CALCULATED CX CHECKED VMN

TRAFFIC SIGNAL GENERAL NOTES
11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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ITEM 632 - COMBINATION SIGNAL SUPPORT MISC.: NOSTALGIA SIGNAL SUPPORT (BY TYPE)

NOSTALGIA SIGNAL SUPPORTS (MAST ARM POLES AND ARMS) SHALL BE PACIFIC FAMILY 50312GF SERIES (SEE DETAILS ON SHEETS 235 AND 236) AND MANUFACTURED BY:

UNION METAL CORPORATION
1432 MAPLE AVENUE N.E.
P.O. BOX 9920 CANTON, OH. 44711
PHONE: 330-456-7653

THE CONTRACTOR SHALL FURNISH AND INSTALL NOSTALGIA SIGNAL SUPPORTS AS PER PLANS. ALL HARDWARE INCLUDING LUMINARIE BRACKET ARM AND RELATED EQUIPMENT SHALL BE INCLUDED WITH THIS ITEM.

THE MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION TO THE CITY THAT THE ACCEPTED POLE, ARM, LUMINAIRE, AND DECORATIVE SHROUD, IS OR WILL BECOME A STOCK ITEM. READILY AVAILABLE WITH REPLACEMENT PARTS FOR MINIMUM TEN (10) YEAR PERIOD. ALL MATERIAL SUPPLIES SHALL BE WARRANTED BY THE MANUFACTURER FOR 5 YEARS AFTER DELIVERY AGAINST FAULTY MATERIALS AND WORKMANSHIP. THE POLE TOP SHALL BE MECHANICALLY ATTACHED TO THE TOP OF THE POLE SHAFT TO PROVIDE ACCESS FOR WIRING SIGNALS SECURED BY A J - HOOK WIRE SUPPORT. AN OPTIONAL OUTLET FRAME SHALL BE INTEGRALLY WELDED INTO THE POLE SHAFT TO ACCOMMODATE A 20A - 125V GFCI DUPLEX RECEPTACLE WHICH IS ALSO INCLUDED. THE RECEPTACLE COVER SHALL BE WEATHER WHILE IN USE AND PAINTED TO MATCH POLE. THE MAST ARM SHALL BE DRILLED IN THE FIELD 1' FROM REQUIRED SIGNAL LOCATIONS. TWO (2) RUBBER GROMMETS SHALL BE FURNISHED WITH EACH MAST ARM SIGNAL HANGER CLAMPS SHALL BE SUPPLIED BY THE SIGNAL SUPPLIER OR MANUFACTURER, AS REQUIRED. A PERMANENT LEGIBLE MARKING INDICATION SHALL BE INCLUDED ON EACH SIGNAL SUPPORT AND ARM. THE FOLLOWING INDICATIONS SHALL BE REQUIRED AS A MINIMUM:

A. POLE INDICATIONS MONTH/DATE OF FABRICATION; POLE GAUGE; BOTTOM DIAMETER; POLE HEIGHT; BOLT CIRCLE; ANCHOR BOLT DIAMETER; FLANGE BOLT DIAMETER. AND INTERSECTION LOCATION INCLUDING CORNER QUADRANT.
B. ARM INDICATIONS MONTH/DATE OF FABRICATION; ARM GAUGE; ARM DIAMETER, ARM LENGTH; CONNECTING FLANGE BOLT DIAMETER; AND INTERSECTION LOCATION INCLUDING CORNER QUADRANT.

THE ORNAMENTAL BASE SHALL BE UNION METAL BASE LANCASTER. THE FOUNDATION SURFACE SHALL BE LEVEL IN ORDER TO ACCEPT THE BASE ASSEMBLY. ALL PROPOSED EXTERIOR CONNECTIONS (PEDESTRIAN SIGNAL HEADS, SCHOOL SPEED LIMIT SIGNS, ETC.) TO NOSTALGIA SIGNAL POLES SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA SIGNAL POLES SHALL NOT BE PERMITTED.

ITEM 632 - PEDESTAL MISC.: NOSTALGIA PEDESTAL 8'

NOSTALGIA PEDESTALS SHALL BE PACIFIC FAMILY P2000G SERIES (SEE DETAILS ON SHEET 237) AND MANUFACTURED BY:

UNION METAL CORPORATION
1432 MAPLE AVENUE N.E.
P.O. BOX 9920 CANTON, OH 44711
PHONE: 330-456-7653

THE CONTRACTOR SHALL FURNISH AND INSTALL NOSTALGIA PEDESTALS AS PER PLANS. PEDESTAL SHALL INCLUDE HANDHOLE, CHAIN, AND COVER. ALL HARDWARE SHALL BE INCLUDED WITH THIS ITEM. THE ENTIRE ASSEMBLY SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF AASHTO. A STEEL FABRICATION TENON SHALL BE WELDED TO THE TOP OF THE SHAFT AND SIZED TO ACCEPT PEDESTRIANS SIGNALS AS REQUIRED. THE ORNAMENTAL BASE SHALL BE UNION METAL CORPORATION BASE NO. 74 AND SHALL BE LEVEL IN ORDER TO ACCEPT THE BASE ASSEMBLY AND SHALL BE AT LEAST AS LARGE AS THE BOTTOM DIMENSION OF THE ORNAMENTAL BASE CASTING. ALL PROPOSED EXTERIOR CONNECTIONS (PEDESTRIAN PUSHBUTTONS, ETC.) TO NOSTALGIA PEDESTALS SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE NOSTALGIA PEDESTALS SHALL NOT BE PERMITTED.

ITEM 632 - SIGNAL SUPPORT FOUNDATION, AS PER PLAN

THIS PROJECT REQUIRES CONSTRUCTION OF SIGNAL SUPPORT FOUNDATIONS IN LOCATIONS WHICH CONTAIN NUMEROUS EXISTING UNDERGROUND UTILITIES. ORDERS FOR SIGNAL POLES AND MAST ARMS SHALL BE PLACED SYSTEMATICALLY AFTER THEIR RESPECTIVE FOUNDATIONS HAVE BEEN CONSTRUCTED. FOUNDATIONS THAT HAVE BEEN CONSTRUCTED SHALL BE PROTECTED AS PER SECTION 107.07 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. WITHIN TWO (2) WEEKS OF RECEIVING A SIGNED CONTRACT, THE CONTRACTOR SHALL LAYOUT THE PERIMETER OF EACH FOUNDATION THEN CONTACT OUPS AND ODOT (330-297-0801, EXT 298). A MEETING BETWEEN THE CONTRACTOR, ENGINEER AND A REPRESENTATIVE FROM THE CITY OF CANTON WILL BE HELD ON SITE NO LATER THAN TWO (2) WEEKS AFTER THE OUPS NOTIFICATION. BASED UPON THE PRIORITIES DETERMINED AT THIS MEETING, THE CONTRACTOR WILL CONSTRUCT FOUNDATIONS BEGINNING WITH THE HIGHEST PRIORITY FIRST.

IF A UTILITY OR OTHER CONFLICT EXISTS WHICH REQUIRES THAT A SIGNAL SUPPORT BE CONSTRUCTED AT A LOCATION OTHER THAN WHAT IS INDICATED IN THE PLAN, THE ENGINEER SHALL DETERMINE WHETHER THE SPECIFIED MAST ARM LENGTH IS APPROPRIATE. IF A LONGER ARM IS REQUIRED. WITHIN TEN (10) WORKING DAYS, THE CONTRACTOR WILL BE PROVIDED WITH REVISED POLE AND ARM DATA. THE CONTRACTOR SHALL NOT ORDER THE POLES PRIOR TO RECEIVING THIS DATA. SUPPORT FOUNDATION LOCATIONS SHALL BE ADJUSTED ONLY WHEN APPROVED BY THE ENGINEER. THE CONTRACTOR IS ADVISED TO LOCATE AND CONSTRUCT THE SIGNAL SUPPORT FOUNDATIONS AS SOON AS POSSIBLE IN ORDER TO PROVIDE AMPLE LEAD TIME TO ORDER THE SIGNAL SUPPORTS AND THEIR ASSOCIATED MAST ARMS. ALL FOUNDATIONS SHALL BE HAND EXCAVATED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. NO TIME EXTENSIONS SHALL BE GRANTED FOR DELAYS WHICH ARE CAUSED BY THE CONTRACTOR'S FAILURE TO PLAN FOUNDATION WORK AS SOON AS POSSIBLE IN THE CONTRACTORS' PROGRESS SCHEDULE.

PAYMENT FOR ITEM 632 - SIGNAL SUPPORT SUPPORT FOUNDATION, AS PER PLAN SHALL BE MADE AT THE UNIT CONTRACT PRICE BID PER EACH. PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY TO EXCAVATE AND BUILD THE FOUNDATION SYSTEM, COMPLETE IN PLACE AND ACCEPTED.

BECAUSE OF THE RECOGNIZED TIME DELAY BETWEEN THE CONSTRUCTION OF THE FOUNDATIONS AND THE DELIVERY OF THE SIGNAL SUPPORTS AND/OR PEDESTALS FROM THE MANUFACTURER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE MEW CONSTRUCTED FOUNDATIONS BY A DEVICE SUCH AS A WOODEN BOX IN ACCORDANCE WITH ODOT SECTION 107.07. THE TYPE OF PROTECTIVE DEVICE SHALL BE APPROVED BY CITY PRIOR TO ITS APPLICATION IN THE FIELD. TRAFFIC CONES SHALL NOT BE ACCEPTABLE. PROTECTIVE DEVICES CAN BE REUSED IF THEY ARE NO LONGER NEEDED AT A PREVIOUS INTERSECTION AND THEY MEET ODOT SECTION 107.07.

FOUNDATIONS FOR NOSTALGIA SIGNAL SUPPORTS SHALL BE CONSTRUCTED AS PER DETAILS ON SHEET 238 .

ITEM 632 - PEDESTAL FOUNDATION, AS PER PLAN

FOUNDATIONS FOR NOSTALGIA PEDESTALS SHALL BE CONSTRUCTED AS PER DETAILS ON SHEET 238 .

NOSTALGIA SIGNAL SUPPORT AND PEDESTAL AND DECORATIVE LIGHT POLE PAINTING

NOSTALGIA SIGNAL SUPPORT, ARMS, AND LUMINAIRE BRACKETS SHALL BE POWDER COATED. THE FOLLOWING SHALL APPLY:

A. BLASTING:
ALL THREADS SHALL BE PROTECTED FROM DAMAGE DURING BLASTING PROCESS.
PREPARATION-STEEL, BLAST TO SSPC-SP6.
PREPARATION-ALUMINUM AND GALVANIZED, BLAST TO SSPC-SP7.
B. POWDER COATING:
POWDER FINISH 3-5 MIL BOTH INSIDE AND OUTSIDE OF POLES AND ALL SURFACES OF PARTS WITH TIGER DRYLAC SUPER DURABLE SERIES 38.
C. POWDER BAKING:
BAKE PART PER POWDER MANUFACTURER'S RECOMMENDATIONS. GALVANIZED PARTS SHALL BE PRE-BAKED TO ENSURE ALL GASSES ARE RELEASED FROM THE GALVANIZED SURFACE BEFORE POWDER COATING AFTER WHICH THE TOP COAT SHALL BE APPLIED.
D. COLOR:
THE COLOR OF THE POLES SHALL BE CBD GREEN (COLOR AND FORMULA IS ON FILE AT THE MIDWEST TANK SERVICES CO., INC., CANTON, OH).
E. FINAL INSPECTION:
ALL PRODUCTS SHALL RECEIVE A FINAL INSPECTION BEFORE PACKAGING. A MIL THICKNESS OF 3-5 SHALL BE VERIFIED AND DOCUMENTED.
F. WARRANTY:
MANUFACTURER SHALL PROVIDE A FIVE (5) YEAR MATERIALS PERFORMANCE GUARANTEE FROM PEELING AND/OR 8 DELTA E MAXIMUM COLOR CHANGE WHEN MEASURED IN ACCORDANCE WITH ASTM E 1349, CHALKING <8, AND GLOSS RETENTION >30%.

THE COST FOR NOSTALGIA SIGNAL SUPPORT AND PEDESTAL AND DECORATIVE LIGHT POLE PAINTING SHALL BE INCLUDED IN AND INCIDENTAL TO THE NOSTALGIA SIGNAL SUPPORT AND PEDESTAL BID ITEMS (BID ITEMS 632).

ITEM 816 - VIDEO DETECTION SYSTEM, AS PER PLAN

THIS ITEM OF WORK SHALL MEET STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) SUPPLEMENTAL SPECIFICATION 816, VIDEO DETECTION SYSTEM. IN ADDITION TO THE REQUIREMENTS OF ODOT'S SUPPLEMENTAL SPECIFICATION 907 THE FOLLOWING REQUIREMENTS SHALL ALSO APPLY:

THE NECESSARY VIDEO DETECTION CAMERAS MUST PROVIDE A COMMUNICATIONS INTERFACE THAT FULLY SUPPORTS AN ETHERNET IEEE 802.3 COMPLIANT 10/100 BASE T AUTO SENSING PORT FOR ADVANCED SYSTEMS COMMUNICATIONS. THE ETHERNET PORT SHALL PROVIDE AN UPSTREAM CONNECTION TO OTHER ETHERNET DEVICES IN THE CABINET. AN INDUSTRY STANDARD RJ-45 TYPE CONNECTOR SHALL BE INCLUDED THAT SUPPORTS A SIMPLE CASTE PATCH CABLE INTERFACE.

ITEM 809 - EMERGENCY VEHICLE PREEMPTION

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPTION EQUIPMENT IN THE LOCATIONS AND LOCAL CONTROLLERS AS SHOWN IN THE PLANS. THE PREEMPTION SHALL CONFORM TO ODOT SUPPLEMENTAL SPECIFICATION 809 AND SHALL UTILIZE COMMUNICATIONS TO IDENTIFY THE PRESENCE OF AN EMERGENCY PRIORITY VEHICLE. IT SHALL CAUSE THE TRAFFIC SIGNAL CONTROLLER TO SELECT A PRE-PROGRAMMED PREEMPTION PLAN THAT WILL DISPLAY AND HOLD THE DESIRED SIGNAL PHASE FOR THE DIRECTION OF THE EMERGENCY VEHICLE.

THE COMMUNICATIONS MEDIUM SHALL EMPLOY SOUND DETECTION TECHNIQUES TO DETERMINE AND LOG THE PRESENCE OF THE EMERGENCY VEHICLE. THE SYSTEM SHALL DETECT THE PRESENCE OF THE VEHICLE THROUGH AN EMITTING DEVICE LOCATED ON THE EMERGENCY VEHICLE. THE SYSTEM SHALL ACTIVATE THE PREEMPTION SEQUENCE BY APPLYING A SIGNAL TO ONE OF THE CONTROLLER'S PREEMPT DISCRETE INPUTS. THE SYSTEM SHALL BE COMPLETELY COMPATIBLE WITH THE CONTROLLER.

THE EQUIPMENT SHALL BE SHELF OR RACK MOUNTED AND EASILY REMOVABLE AND REPLACEABLE WITHIN THE CABINET. SUPPLY EQUIPMENT COMPLETELY WIRED IN THE CONTROLLER CABINET AND TESTED. THE SYSTEM SHALL BE CAPABLE OF PREEMPTING AND RECEIVING PRIORITY FOR EACH APPROACH TO THE INTERSECTION. IT SHALL BE POSSIBLE TO DETECT THE EMERGENCY VEHICLE AT LEAST 2000 FEET FROM THE INTERSECTION IN AN 80DB-A NOISE ENVIRONMENT.

ALL PREEMPTION PLANS SHOULD BE PROGRAMMED TO PREVENT THE YELLOW TRAP, UNLESS AS DIRECTED BY THE DISTRICT TRAFFIC ENGINEER. YELLOW TRAP PREVENT WILL FORCE THE TRANSITION THROUGH YELLOW CHANGE AND RED CLEARANCE FOR RESOLUTION OF YELLOW TRAP IF ANY PHASE OPPOSING THE PREEMPTION CLEARANCE PHASE(S) IS ACTIVE AND DISPLAYING A GREEN OR FLASHING YELLOW ARROW INDICATION WHEN THE PREEMPTION PLAN IS ACTIVATED AND THE PREEMPTION CLEARANCE PHASE(S) ARE GREEN.

SUPPLY EACH INTERSECTION SHOWN IN THE PLANS WITH THE FOLLOWING COMPONENTS, EACH BID SEPARATELY:
1. PREEMPT RECEIVING UNIT.
2. PREEMPT DETECTOR CABLE.
3. PREEMPT PHASE SELECTOR ASSEMBLY AND INTERFACE WIRING PANEL.
4. CONFIRMATION LIGHT.

THE CONTRACTOR SHALL INVENTORY THE ABOVE EMERGENCY VEHICLES TO DETERMINE COMPATIBILITY OF THE SIRENS WITH THE SYSTEM. EACH VEHICLE THAT IS DETERMINED TO BE NOT COMPATIBLE SHALL BE SUPPLIED WITH NEW SIRENS AT COST INCIDENTAL TO THE SYSTEM.

THE CITY SHALL BE SUPPLIED WITH SOFTWARE REQUIRED TO CALIBRATE, LOG, AND OPERATE THE SYSTEM. TWO OPERATING AND INSTRUCTION MANUALS SHALL BE SUPPLIED WITH THE SOFTWARE.

THE CONTRACTOR SHALL THOROUGHLY TEST THE INSTALLED SYSTEM. AS A MINIMUM, THE CONTRACTOR SHALL VERIFY THAT ALL CONNECTIONS ARE PROPERLY MADE TO THE CONTROLLER CABINETS. THE CONTRACTOR SHALL CHECK THAT THE RANGE SETTING IS PROPER FOR EACH INTERSECTION. THE CONTRACTOR SHALL DETERMINE THAT ALL PHASE SELECTORS ARE SELECTING THE PROPER PHASE AND TIMING ACCURATELY. THE CONTRACTOR SHALL VERIFY THAT ALL VEHICLE EMITTERS ARE BEING PROPERLY DETECTED.

IF THE PROPOSED PREEMPT SYSTEM IS NOT COMPATIBLE WITH THE EXISTING SYSTEM, THE CONTRACTOR SHALL PROVIDE TRAINING FOR UP TO FIFTEEN (15) PERSONS IN THE OPERATION OF THE SYSTEM. IT SHALL BE PROVIDED WITHIN 48 HOURS OF THE INSTALLATION OF THE SYSTEM. IT SHALL CONSIST OF HANDS-ON INSTRUCTION FOR A MINIMUM OF SIXTEEN (16) HOURS. THE CONTRACTOR SHALL PROVIDE TRAINING FOR UP TO FOUR (4) PERSONS IN THE INSTALLATION AND MAINTENANCE OF THE SYSTEM. IT SHALL CONSIST OF A MINIMUM OF EIGHT (8) HOURS OF INSTRUCTION. TRAINING SHALL BE SUPPLIED WITHIN SEVEN (7) DAYS OF THE INSTALLATION OF THE ALL TRAINING SHALL BE HELD IN A CITY SUPPLIED LOCATION. TRAINING SHALL BE CONDUCTED BY SOMEONE WHO HAS PERFORMED THIS WITHIN THE LAST YEAR AND DOES IT ON A REGULAR BASIS. THE COST OF TRAINING, INCLUDING COURSE MATERIAL, TRAVEL SUBSISTENCE AND RELATED COSTS, SHALL BE ENTIRELY BORNE BY THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE PREEMPTION EQUIPMENT.

PAYMENT FOR ITEM 809 PREEMPTION SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH PREEMPTION IN PLACE AND FULLY OPERATIONAL AS SHOWN IN THE PLANS, EXCEPT FOR THOSE ITEMS BID SEPARATELY.

CALCULATED CX CHECKED VMN

TRAFFIC SIGNAL GENERAL NOTES
11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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302

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ITEM 809 PREEMPTION RECEIVING UNIT

RECEIVING UNITS SHALL CONSIST OF A LIGHTWEIGHT, WEATHERPROOF AND DIRECTIONAL ASSEMBLY. EACH RECEIVING UNIT SHALL BE 360 DEGREE ADJUSTABLE. THE RECEIVING UNIT SHALL BE CAPABLE OF SENDING THE PROPER ELECTRICAL SIGNAL TO THE TRAFFIC SIGNAL CONTROLLER VIA THE PREEMPTION DETECTOR CABLE. RECEIVING UNITS SHALL BE SUPPLIED WITH MAST ARM MOUNTING HARDWARE AS SHOWN IN THE PLANS.

FURNISH PREEMPTION RECEIVING UNITS WITH 60-MONTH WARRANTIES OR FOR THE MANUFACTURER'S STANDARD WARRANTY WHICHEVER IS GREATER. ENSURE THAT THE WARRANTY PERIOD BEGINS ON THE DATE OF SHIPMENT TO THE PROJECT. ENSURE THAT EACH UNIT HAS A PERMANENT LABEL OR STAMP INDICATING THE DATE OF SHIPMENT.

PAYMENT FOR ITEM 809 PREEMPTION RECEIVING UNIT SHALL BE AT THE CONTRACT UNIT FOR EACH RECEIVING UNIT IN PLACE, COMPLETELY INSTALLED AT THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

ITEM 809 PREEMPTION DETECTOR CABLE

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPTION DETECTOR HOME RUN CABLE IN THE LOCATIONS SHOWN IN THE PLANS. IT SHALL CONNECT THE PREEMPT RECEIVING UNITS TO THE PHASE SELECTORS IN THE LOCAL CONTROLLER CABINET.

PREEMPTION DETECTOR CABLE SHALL CONFORM TO ODOT SPECIFICATION 632. ONLY ONE EXTERNAL SPLICE SHALL BE PERMITTED BETWEEN PREEMPTION RECEIVER UNIT AND CONTROLLER CABINET. THIS SPLICE SHALL MEET THE REQUIREMENTS OF C&MS 632.23 USING A WATERPROOF SPLICE KIT. THE CABLE SHALL BE APPROVED FOR BOTH OVERHEAD AND UNDERGROUND USE. THE JACKET SHALL WITHSTAND EXPOSURE TO SUNLIGHT AND ATMOSPHERIC TEMPERATURES AND STRESSES REASONABLY EXPECTED IN NORMAL INSTALLATIONS.

PAYMENT FOR ITEM 809 PREEMPTION DETECTOR CABLE SHALL BE MADE AT THE CONTRACT UNIT PRICE PER FOOT FOR THE CABLE FURNISHED, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

ITEM 809 PREEMPT PHASE SELECTOR

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPT PHASE SELECTORS INCLUDING WIRING INTERFACE PANELS IN THE LOCAL CONTROLLER CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE PREEMPT PHASE SELECTORS COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

THIS ITEM SHALL INCLUDE THE EXTRA CABINET SPACE NECESSARY TO BE LOCATED IN THE LOCAL CONTROLLER CABINETS WHERE INDICATED IN THE PLANS. THE PHASE SELECTORS SHALL CONSIST OF A MODULE OR MODULES THAT WILL PROVIDE THE NECESSARY INPUTS TO THE CONTROLLER. PHASE SELECTORS SHALL BE SUPPLIED WITH SUFFICIENT QUANTITIES OF CHANNELS TO PROVIDE PREEMPTION FOR ALL APPROACHES TO THE INTERSECTION SEPARATELY. POWER SHALL BE OBTAINED FROM THE PHASE SELECTOR OR PHASE SELECTOR POWER SUPPLY AND NOT FROM THE LOCAL CONTROLLER TIMER.

THE PHASE SELECTORS SHALL HAVE FRONT PANEL INDICATORS FOR ACTIVE PREEMPT CHANNEL STATUS. IT SHALL HAVE TEST SWITCHES TO ACTIVATE ALL PREEMPT CHANNELS.

FURNISH PREEMPT PHASE SELECTORS WITH 60-MONTH WARRANTIES OR FOR THE MANUFACTURER'S STANDARD WARRANTY WHICHEVER IS GREATER. ENSURE THAT THE WARRANTY PERIOD BEGINS ON THE DATE OF SHIPMENT TO THE PROJECT. ENSURE THAT EACH UNIT HAS A PERMANENT LABEL OR STAMP INDICATING THE DATE OF SHIPMENT.

PAYMENT FOR ITEM 809 PREEMPT PHASE SELECTOR SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH PHASE SELECTOR IN PLACE, COMPLETELY INSTALLED IN THE LOCAL CONTROLLER SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

ITEM 633 - CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TSI

THE CONTROLLER UNIT PROVIDED IN THIS PROJECT SHALL BE THE MOST CURRENT MODEL OF AN ECONOLITE COBALT MANUFACTURED BY:

ECONOLITE CONTROL PRODUCTS
1250 N. TUSTIN AVENUE
ANAHEIM, CA 92807
PHONE: 800-225-6480

MANUFACTURER GUARANTEES OR WARRANTIES ON ALL INSTALLED TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE TRANSFERRED TO THE CITY OF CANTON TRAFFIC SIGNAL DEPARTMENT FOR ACCEPTANCE OF THE EQUIPMENT.

PAYMENT SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TESTING, CERTIFICATIONS, AND OTHER INCIDENTALS NECESSARY TO FURNISH THE CONTROLLER COMPLETE, INCLUDING ALL CONNECTIONS MADE AND WIRING COMPLETE, TESTED, AND ACCEPTED.

THE CONTROLLER ASSEMBLY AND CABINET SHALL INCLUDE A NEMA TS2 TYPE 2 CONTROLLER AND A NEMA TS2 TYPE 16 MALFUNCTION MANAGEMENT UNIT (MMU) COMPLETE IN A NEMA TSI CABINET ASSEMBLY. IN ADDITION, THE CONTROLLER ASSEMBLY AND CABINET SHALL CONFORM TO ODOT SPECIFICATION 633. THE CONTROLLER SHALL BE CAPABLE OF AN ADDITIONAL 12 STANDARD OVERLAPS BY ASSIGNING EACH PHASE OUTPUT TO AN OVERLAP. ALL EQUIPMENT SHALL BE IP ADDRESSABLE IF AVAILABLE.

THE CONTROLLER SHALL INCLUDE TIME-OF-DAY AND COORDINATION CAPABILITIES. IN ADDITION, THE CONTROLLER SHALL INCLUDE PREEMPTION CAPABILITIES INCLUDING SIX (6) RAILROAD, FIRE, AND EMERGENCY VEHICLE HIGH-PRIORITY PREEMPTORS AND FOUR (4) LOW-PRIORITY BUS-PREEMPTORS. CONTROLLER SHALL BE PROGRAMMABLE TO ALLOW FOR FLASHING "DON'T WALK" THROUGH THE YELLOW SIGNAL PHASE. THE CABINET SHALL BE WIRED FOR MONITORING EACH APPROACH SEPARATELY. ALL VEHICLE SIGNAL CIRCUITS SHALL BE ISOLATED (SPLITTING THE HEADS FOR PREEMPTION PURPOSES).

THE MMU SHALL PASS ALL TESTS AS PERFORMED BY AN AUTOMATIC MONITOR TESTER. TEST RESULTS SHALL BE PRINTED AND SUPPLIED WITH EACH CABINET. THE POLICE PANEL SHALL HAVE SWITCH ACCESS FOR SIGNAL ON/OFF, FLASH CONTROL, AUTOMATIC/MANUAL TRANSFER, AND MANUAL PUSHBUTTON WITH TEN (10) FEET COILED HAND CORD.

TECHNICIAN SWITCH PANEL SHALL BE MOUNTED ON THE INSIDE OF THE MAIN CABINET DOOR AND SHALL HAVE SWITCH ACCESS FOR STOP TIME ON/OFF, FLASH CONTROL, TIMER POWER ON/OFF, DETECTOR TEST, MOMENTARY PUSHBUTTON.

THE CABINET SHALL BE ALUMINUM, WITH A NATURAL SATIN FINISH OUTSIDE WITH A PAINTED SEMI-GLOSS WHITE ENAMEL FINISH INSIDE. THE CABINETS SHALL COMPLY WITH THE REQUIREMENTS OF 733.03 (SECTION A).

WIRE CONNECTIONS TO THE BACKPANEL SHALL BE MADE WITH CRIMP TERMINALS AND THREADED FASTENERS. SOLDER CONNECTIONS MAY BE USED ON THE BACKSIDE OF A PANEL THAT UTILIZES FEED-THRU STYLE TERMINAL BLOCKS. PRINTED CIRCUIT BOARDS SHALL NOT BE USED ON ANY PART OF THE TERMINALS AND FACILITIES PROVIDED WITHIN THE CABINET. ALL WIRES FASTENED TO THE LOAD SWITCH, FLASHER AND FLASH TRANSFER RELAY SOCKETS SHALL BE SOLDERED IN PLACE. A GOOD MECHANICAL CONNECTION MUST BE MADE PRIOR TO SOLDERING. ALL WIRING OF HARNESSES AND INTERPANEL WIRING, INCLUDING WIRING TO THE POLICE PANEL SHALL BE PROTECTED WITH A NYLON MESH OR "SNAKE SKIN". ANY EXPOSED WIRES, OR THE USE OF CABLE TIES TO HOLD THE WIRE BUNDLES TOGETHER SHALL NOT BE ALLOWED. FOR EASE OF MAINTENANCE, ALL HARNESSES SHALL BE OF SUFFICIENT LENGTH TO PLACE THE EQUIPMENT ON TOP OF THE CABINET AND BE OPERATIONAL.

A COLOR-CODED WIRING SYSTEM SHALL BE USED THROUGHOUT THE WIRING OF THE CABINET. ALL SYSTEMS FUNCTIONS OF THE CONTROLLER SHALL BE TERMINATED ON A SINGLE PANEL. WIRING COLOR-CODE SHALL BE AS FOLLOWS:

A. BLUE CONTROLLER UNIT
B. VIOLET MMU
C. RED RED LOAD SWITCH OUTPUT
D. YELLOW YELLOW LOAD SWITCH OUTPUT
E. BROWN GREEN LOAD SWITCH OUTPUT
F. BLACK AC LINE POWER
G. WHITE AC NEUTRAL
H. GREEN EARTH GROUND
I. GRAY LOGIC GROUND
J. ORANGE FLASH PROGRAMMING

ITEM 633 - CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TSI (continued)

TWO (2) SETS OF CABINET WIRING DIAGRAMS, SERVICE MANUALS, PROGRAMMING AND MAINTENANCE INSTRUCTIONS SHALL BE FURNISHED FOR EACH CABINET AND EQUIPMENT ITEM.

THE CABINET WIRING DIAGRAMS SHALL BE SUPPLIED IN A CLEAR PLASTIC POUCH FASTENEND TO THE INSIDE OF THE CONTROLLER CABINET.

ALTERNATE BID ITEM

ITEM 816 - VIDEO DETECTION SYSTEM, AS PER PLAN

THE VIDEO DETECTION SYSTEM PROVIDED IN THIS PROJECT SHALL BE GRIDSMART BELL CAMERA MANUFACTURED BY:

GRIDSMART TECHNOLOGIES, INC.
10545 HARDIN VALLEY ROAD,
KNOXVILLE, TN 37932
PHONE: 866-652-5347

CALCULATED CX | CHECKED VMN

TRAFFIC SIGNAL GENERAL NOTES
11TH STREET SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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PULL BOX CHART

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	122+01	LT	45′	17X30
PB-2	123+30	LT	58′	17X30
PB-3	122+08	RT	46′	17X30
PB-4	122+25	RT	55′	36X36
PB-5	123+25	RT	37′	17X30
PB-6	121+99	LT	48′	17X30
PB-7	122+09	RT	50′	17X30

PP-2 PEDESTAL, 8′
STA. 122+16, 70′ LT.

4′-POWER CONDUIT, 2″
2-1/C NO. 10 AWG

30′-CONDUIT, 2″
1-7/C NO.14 AWG

PS
STA. 121+96, 47′ LT

PB-1

13′-CONDUIT, 3″
3-7/C NO.14 AWG
1-VIDEO CABLE
1-PREEMPT DET CABLE

PB-6
(POWER)

SP-1 COMBINATION SIGNAL POLE
NOSTALGIA, 41′ ARM
WITH VIDEO DETECTION CAMERA
STA. 121+90, 39′ LT.

92′-TRAFFIC CONDUIT, 4″
92′-CONDUIT (POWER), 2″
92′-CONDUIT, 3″ (EMPTY)
(ENCASED IN CONCRETE)*
89′-CONDUIT, 4″
4-7/C NO.14 AWG
1-VIDEO CABLE
1-PREEMPT DET CABLE

132′-TRAFFIC CONDUIT, 4″
132′-CONDUIT, 3″ (EMPTY)
(ENCASED IN CONCRETE)*

COMBINATION SIGNAL POLE SP-3
NOSTALGIA, 43′ ARM
STA. 123+24, 62′ LT.

7′-CONDUIT, 3″,
3-7/C NO.14 AWG
1-VIDEO CABLE
1-PREEMPT DET CABLE

100′-TRAFFIC CONDUIT, 4″
100′-CONDUIT, 3″ (EMPTY)
(ENCASED IN CONCRETE)*
3-7/C NO.14 AWG
1-VIDEO CABLE
1-PREEMPT DET CABLE

PB-2

11TH STREET SE

CHERRY AVENUE SE

VDZ 1A

VDZ 8B

VDZ 8A

VDZ 3A

VDZ 7A

VDZ 4A

VDZ 4B

VDZ 5A

Ex LA-R/W

TMP

8" SAN

1A, 3A, 5A, 7A

4A, 6B, 8A

2A, 2B, 6A

PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)

R10-3E-9

R10-3E-9

PP-1 PEDESTAL, 8′
STA. 122+05, 44′ RT.

4′-CONDUIT, 2″
1-7/C NO.14 AWG

PB-3

PB-7 (POWER)

SP-2 COMBINATION SIGNAL POLE
NOSTALGIA, 62′ ARM
WITH PTZ CAMERA
STA. 122+13, 49′ RT.

17′-POWER CONDUIT, 2″
2-1/C NO. 10 AWG

14′-CONDUIT, 3″
2-7/C NO.14 AWG
1-PREEMPT DET CABLE

23′-CONDUIT, 3″
5-7/C NO.14 AWG
1-VIDEO CABLE
1-PREEMPT DET CABLE

C-1 CONTROLLER WITH UPS
AND WORKPAD
STA. 122+24, 63′ RT.

PB-4

PB-5

6′-CONDUIT, 3″
2-7/C NO.14 AWG
1-VIDEO CABLE
1-PREEMPT DET CABLE

COMBINATION SIGNAL POLE SP-4
NOSTALGIA, 44′ ARM
WITH VIDEO DETECTION CAMERA
STA. 123+22, 42′ RT.

103′-TRAFFIC CONDUIT, 4″
103′-CONDUIT, 3″ (EMPTY)
(ENCASED IN CONCRETE)*
5-7/C NO.14 AWG
2-VIDEO CABLES
2-PREEMPT DET CABLES

9′-CONDUIT, 2-3″
12-7/C NO.14 AWG
3-VIDEO CABLES
4-PREEMPT DET CABLES

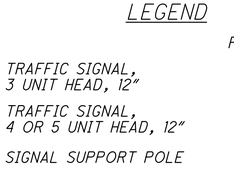
ONLY
R3-5L-30
S1 S2

ONLY
R3-5R-30
S3

S4 S5 11th St SE
D3-1-48

(SEE SHEET 230
FOR DETAILS)

Cherry Ave SE
D3-1-66
S6 S7



LEGEND

	PROP
TRAFFIC SIGNAL, 3 UNIT HEAD, 12″	
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12″	
SIGNAL SUPPORT POLE	
PEDESTRIAN SIGNAL	
PEDESTRIAN PUSH BUTTON	
PEDESTAL SUPPORT	
CONTROLLER CABINET AND WORK PAD	
TRAFFIC PULL BOX, 725.06	
VIDEO DETECTION ZONE	
VIDEO DETECTION CAMERA	
PTZ CAMERA	
PREEMPTION RECEIVING UNIT	
LUMINAIRE BRACKET ARM	
POWER SERVICE/ CONTROL CENTER	

NOTES:

ALL CONDUIT (725.05) SHALL BE PROVIDED WITH PULL STRING.

* SHARE TRENCH WITH LIGHTING.

THE CONTRACTOR SHOULD INSTALL TWO VIDEO DETECTION CAMERAS AT MANUFACTURE'S RECOMMENDED LOCATIONS.

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HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED CX
CHECKED VMN

SIGNAL PLAN
11TH STREET SE AND CHERRY AVENUE SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

225
302

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SIGNAL TIMING CHART

INTERSECTION: 11TH STREET SE AND CHERRY AVENUE SE MAINTAINING AGENCY: CITY OF CANTON									
START UP START IN: 2+6 TIME FOR FLASH, ALL RED: 9, 6 FIRST PHASE(S): 2+6 COLOR DISPLAYED: GREEN			DUAL ENTRY: YES		PHASES: 2 & 6 AND 4 & 8				
			REST IN RED:		RING 1 -			RING 2 -	
			OVERLAP			A	B	C	D
			PHASES			5	7	3	-
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.						
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			SBLT	NB	WBLT	EB	NBLT	SB	EBLT	WB
MINIMUM GREEN (INITIAL)		(SEC.)	7	20	7	10	7	20	7	10
ADDED INITIAL		*(SEC./ACTUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP)		(SEC.)	3	3	3	-	3	3	3	-
TIME BEFORE REDUCTION		*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	30	15	45	15	30	15	45
MAXIMUM GREEN II		(SEC.)			-	-	-	-		
YELLOW CHANGE		(SEC.)	3.4	4.4	3.2	4.1	3.4	4.4	3.2	4.1
ALL RED CLEARANCE		(SEC.)	2.3	1.0	2.0	1.1	2.3	1.0	2.0	1.1
DELAYED GREEN (LPI)*		(SEC.)	-	-	-	-	-	-	-	-
WALK		(SEC.)	-	13	-	-	-	-	-	14
PEDESTRIAN CLEARANCE		(SEC.)	-	13	-	-	-	-	-	19
RECALL	MAXIMUM	(ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	MINIMUM	(ON/OFF)	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
	PEDESTRIAN	(ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
MEMORY		(ON/OFF)	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

*VOLUME DENSITY CONTROLS

NOTES:

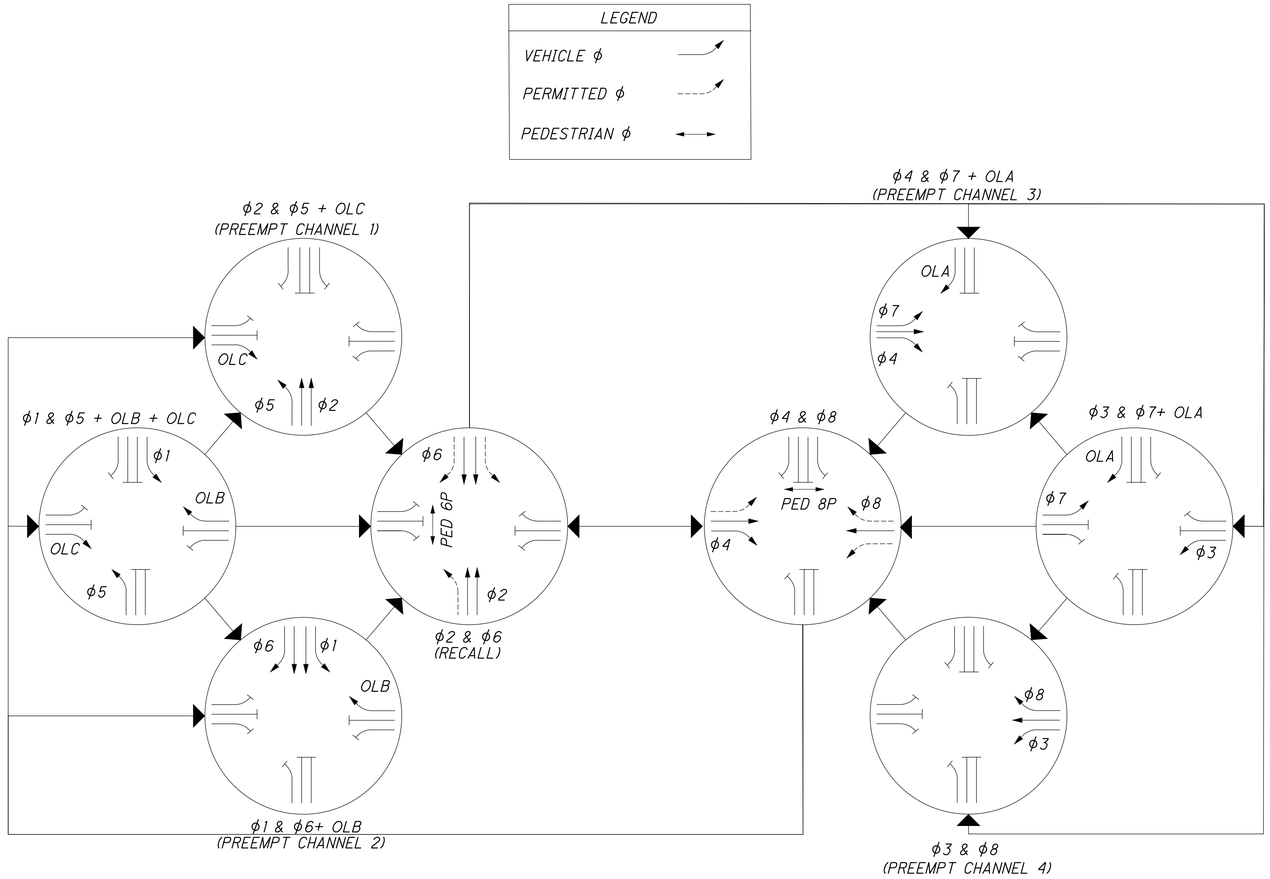
- ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHOULD HAVE MIN RECALL ACTIVE TO REST IN GREEN.
- FOR PROTECTED/PERMISSIVE PHASES, IMPLEMENT CALL OMITS TO AVOID YELLOW BALL TRAP.
- ENABLE ϕ1, 3 & ϕ5, 7 DETECTOR SWITCHING TO ALLOW ϕ1 & ϕ5 TO EXTEND ϕ2 & ϕ6 OR ϕ3 & ϕ7 TO EXTEND ϕ4 & ϕ8, RESPECTIVELY, WHEN ALLOCATED GREEN TIME FOR LEFT TURN PHASES ARE EXHAUSTED.
- COUNTDOWN PEDESTRIAN SIGNALS SHALL GO TO ZERO ON YELLOW PER OMUTCD FIGURE 4E-2.
- ALL DETECTOR DELAYS AND EXTENSIONS SHALL BE PLACED IN THE CONTROLLER.

PREEMPT CHANNELS

CHANNEL 1 = ϕ2 (NORTHBOUND ONLY)
CHANNEL 2 = ϕ6 (SOUTHBOUND ONLY)
CHANNEL 3 = ϕ4 (EASTBOUND ONLY)
CHANNEL 4 = ϕ8 (WESTBOUND ONLY)

PREEMPT NOTES:
1. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
2. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
3. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE ϕ2+6.
4. IF PREEMPT PHASES = RETURN PHASES ϕ2+6 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

PHASING DIAGRAM



TRAFFIC SIGNAL DETECTION CHART

DETECTION ZONE	MOVEMENT	WIDTH (FT)	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DELAY INHIBIT PHASE	PURPOSE	DETECTION ZONE LENGTH (FT)
VDZ 7A	EBLT	6	0	3	-	STOP-LINE	20
VDZ 4A	EB	6	0	3	-	STOP-LINE	20
VDZ 4B	EB	6	0	3	-	STOP-LINE	20
VDZ 3A	WBLT	6	0	3	-	STOP-LINE	20
VDZ 8A	WB	6	0	3	-	STOP-LINE	20
VDZ 8B	WB	6	0	3	-	STOP-LINE	20
VDZ 5A	NBLT	6	0	3	-	STOP-LINE	20
VDZ 1A	SBLT	6	0	3	-	STOP-LINE	20

NOTE: ALL DETECTORS ZONES SHALL BE SET TO PRESENCE.
ALL DELAYS ARE SET IN CONTROLLER.

HORIZONTAL SCALE IN FEET
0

CALCULATED CX
CHECKED VMN

SIGNAL PLAN
11TH STREET SE AND CHERRY AVENUE SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

226
302

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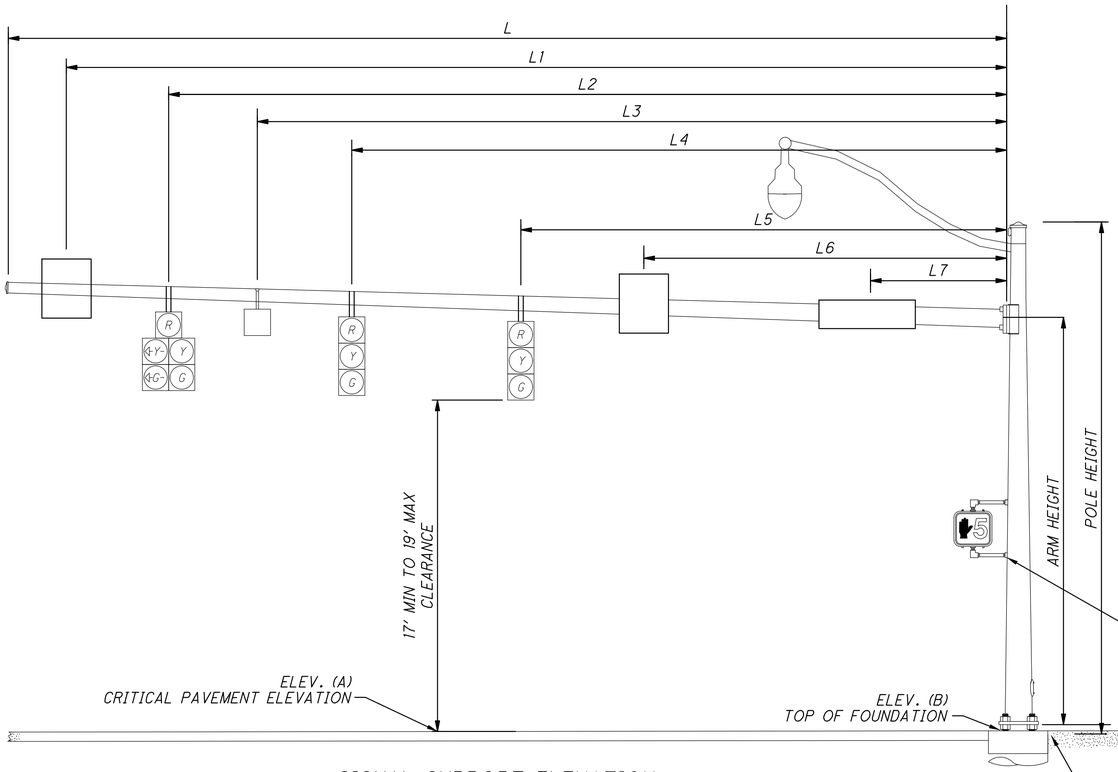
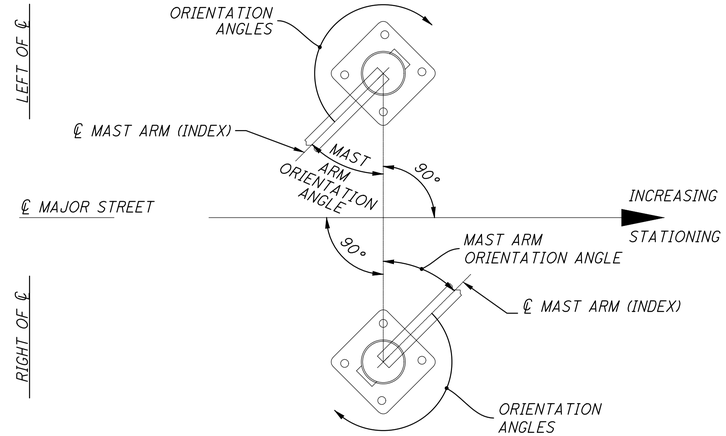


SIGNAL SUPPORT ELEVATION

(TYPICAL)



POLE ORIENTATION

MAST ARM TABLE

(NOSTALGIA SIGNAL SUPPORT)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS											ORIENTATION ANGLES FROM MAST ARM								
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	L5	L6	L7	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	LUMINAIRE BRACKET ARM	HANDHOLE	CABLE ENTRANCE 12" FROM TOP
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
SP-1	121+90	39' LT	1028.52	1028.85	TC-81.22	12	26	21.75	41	38.5	33	27	19	-	13	7	0	-	270	0	-	-	45	180	-
SP-2	122+13	49' RT	1029.30	1029.28	TC-81.22	14	30	21.75	62	-	59	53	47	35	-	10	90	-	90	90	-	-	45	180	-
SP-3	123+24	62' LT	1029.09	1029.47	TC-81.22	12	26	21.75	43	-	40	34	28	16	-	10	90	-	-	-	-	-	45	180	-
SP-4	123+22	42' RT	1029.29	1029.50	TC-81.22	12	26	21.75	44	41.5	36	30	24	-	-	10	0	-	-	-	-	-	45	180	-

SEE SHEET 235 FOR POLE HEIGHT AND ARM HEIGHT DETAILS)

HORIZONTAL SCALE IN FEET

CALCULATED CX CHECKED VMN

SIGNAL PLAN
11TH STREET SE AND CHERRY AVENUE SE
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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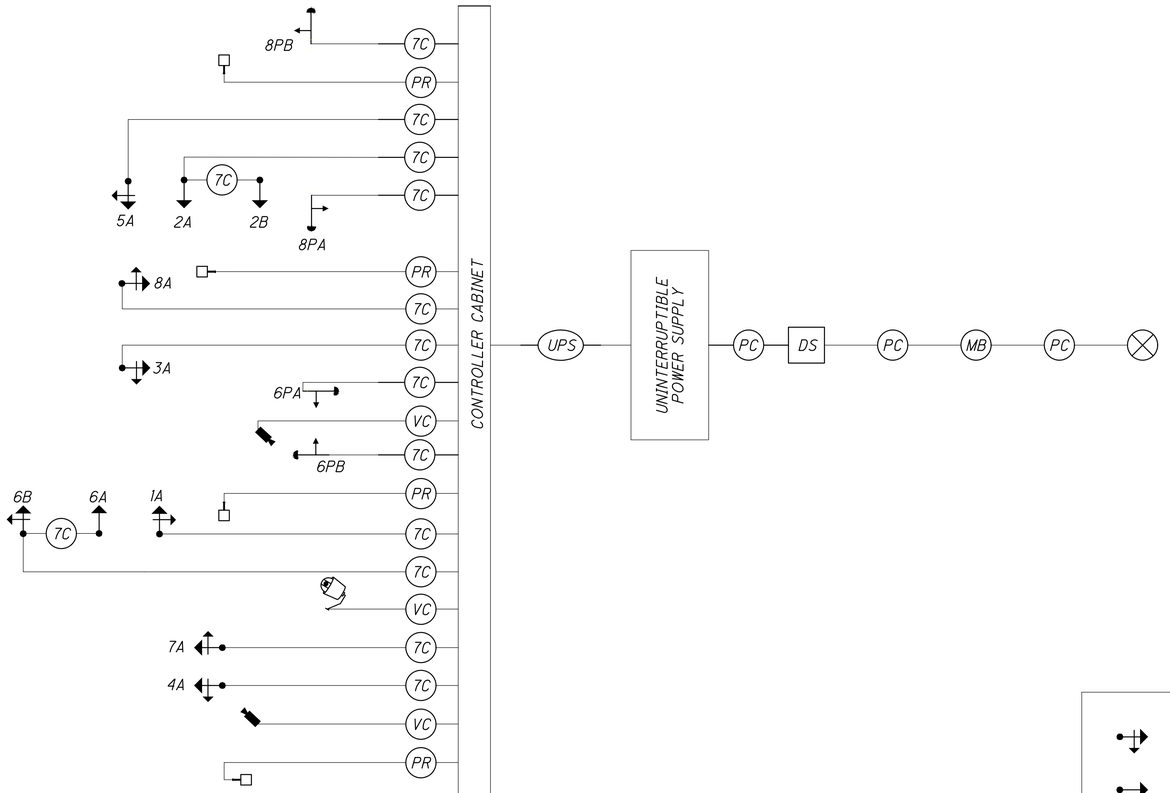
WIRING DIAGRAM



FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
4A (EB TH/RT)	R	ϕ 4R	R	6A (SB TH)	R	ϕ 6R	Y
	Y	ϕ 4Y			Y	ϕ 6Y	
	G	ϕ 4G			G	ϕ 6G	
	~~Y~~ ►	ϕ OLC Y	OUT				
	~~G~~ ►	ϕ OLC G					
7A (EB LT/TH)	R	ϕ 4R	R	6B (SB TH/RT)	R	ϕ 6R	Y
	Y	ϕ 4Y			Y	ϕ 6Y	
	G	ϕ 4G			G	ϕ 6G	
	◄ ~~Y~~	ϕ 7Y	OUT		~~Y~~ ►	ϕ OLA Y	OUT
	◄ ~~G~~	ϕ 7G			~~G~~ ►	ϕ OLA G	
8A (WB TH/RT)	R	ϕ 8R	R	1A (SB LT/TH)	R	ϕ 6R	Y
	Y	ϕ 8Y			Y	ϕ 6Y	
	G	ϕ 8G			G	ϕ 6G	
	~~Y~~ ►	ϕ OLB Y	OUT		◄ ~~Y~~	ϕ 1Y	OUT
	~~G~~ ►	ϕ OLB G			◄ ~~G~~	ϕ 1G	
3A (WB LT/TH)	R	ϕ 8R		OVERLAPS			
	Y	ϕ 8Y	R	OLA A	~~Y~~ ►	ϕ 7Y	OUT
	G	ϕ 8G			~~G~~ ►	ϕ 7G	
	◄ ~~Y~~	ϕ 3Y	OUT	OLA B	~~Y~~ ►	ϕ 1Y	OUT
	◄ ~~G~~	ϕ 3G			~~G~~ ►	ϕ 1G	
2A,2B (NB TH)	R	ϕ 2R	Y	OLA C	~~Y~~ ►	ϕ 5Y	OUT
	Y	ϕ 2Y			~~G~~ ►	ϕ 5G	
	G	ϕ 2G		PEDESTRIAN MOVEMENTS			
				PED 8P (NORTH)	W	ϕ 8W	OUT
5A (NB LT/TH)	R	ϕ 2R	Y		FDW	ϕ 8FDW	
	Y	ϕ 2Y			DW	ϕ 8DW	
	G	ϕ 2G		PED 6P (WEST)	W	ϕ 6W	OUT
	◄ ~~Y~~	ϕ 5Y	OUT		FDW	ϕ 6FDW	
	◄ ~~G~~	ϕ 5G			DW	ϕ 6DW	

LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	7C	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		POWER SOURCE
	PEDESTRIAN SIGNAL	PC	POWER CABLE, 2 CONDUCTOR, NO. 10 AWG
	PEDESTRIAN PUSH BUTTON	MB	METER BASE
	VIDEO DETECTION CAMERA	DS	DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	PTZ OR GRIDSMART CAMERA	UPS	UNINTERRUPTIBLE POWER SUPPLY CABLE
	PREEMPTION RECEIVING UNIT	PR	PREEMPTION CABLE

HORIZONTAL SCALE IN FEET
0

CALCULATED CX
CHECKED VMN

SIGNAL PLAN
11TH STREET SE AND CHERRY AVENUE SE

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

228
302

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| SHEET NO. | REFERENCE NO. | STATION FROM | STATION TO | SIDE | 625 CONDUIT, 2", 725.05 FT | 625 CONDUIT, 2", 725.05, AS PER PLAN FT | 625 CONDUIT, 3", 725.05 FT | 625 CONDUIT, 3", 725.05, AS PER PLAN FT | 625 CONDUIT, 4", 725.05, AS PER PLAN FT | 625 TRENCH FT | 625 PULL BOX, MISC.: 725.06 (17" X 30") EACH | 625 PULL BOX, MISC.: 725.06 (36" X 36") EACH | 625 GROUND ROD EACH | 625 UNDERGROUND WARNING/MARKING TAPE FT | 625 ARC FLASH CALCULATIONS AND LABEL EACH | 630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN EACH | 630 SIGN, FLAT SHEET SF | 632 VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN EACH | 632 VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN EACH | 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN EACH | 632 COVERING OF VEHICULAR SIGNAL HEAD EACH | 632 COVERING OF PEDESTRIAN SIGNAL HEAD EACH | 632 PEDESTRIAN PUSHBUTTON, AS PER PLAN EACH | 632 SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG FT | 632 SIGNAL SUPPORT FOUNDATION, AS PER PLAN EACH | 632 PEDESTAL FOUNDATION, AS PER PLAN EACH | 632 POWER CABLE, 1 CONDUCTOR, NO. 6 AWG, AS PER PLAN FT | 632 POWER SERVICE, AS PER PLAN EACH | 632 COMBINATION SIGNAL SUPPORT, MISC.:NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12 EACH | 632 COMBINATION SIGNAL SUPPORT, MISC.:NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14 EACH | 632 PEDESTAL, MISC.:NOSTALGIA PEDESTAL 8' EACH | 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN EACH | 633 CABINET FOUNDATION EACH | 633 CONTROLLER WORK PAD EACH | 633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN EACH | 633 CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1 EACH | 809 CCTV IP-CAMERA SYSTEM, QUAD MULTI-VIEW FIXED WITH PTZ EACH | 809 EMERGENCY VEHICLE PREEMPTION EACH | 809 PREEMPTION RECEIVING UNIT EACH | 809 PREEMPTION DETECTOR CABLE FT | 809 PREEMPTION PHASE SELECTOR EACH | 816 VIDEO DETECTION SYSTEM, AS PER PLAN EACH |
|---|---|---

NOTES:

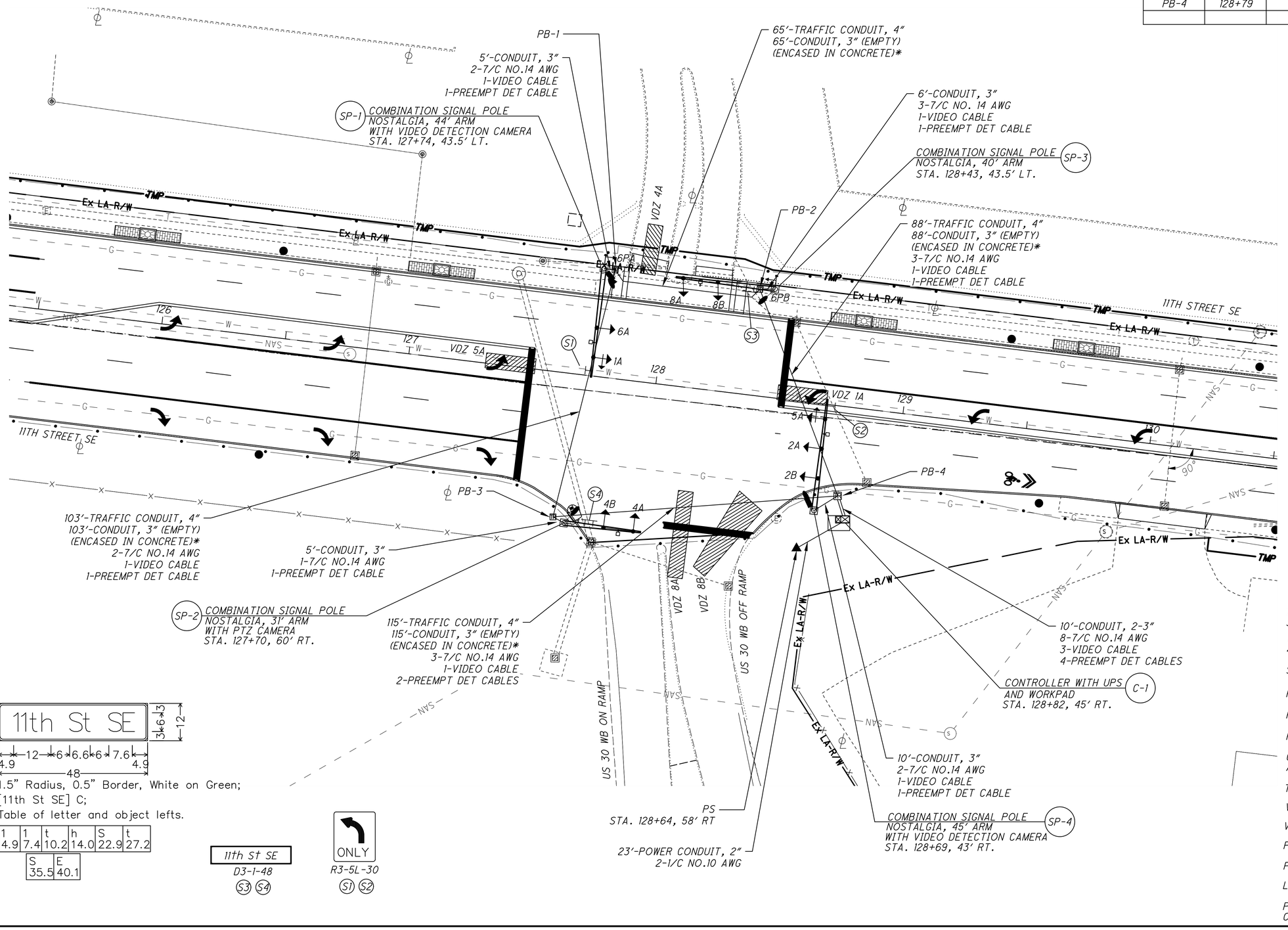
ALL CONDUIT (725.05) SHALL BE PROVIDED WITH PULL STRING.

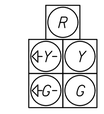
* SHARE TRENCH WITH LIGHTING.

THE CONTRACTOR SHOULD INSTALL TWO VIDEO DETECTION CAMERAS AT MANUFACTURE'S RECOMMENDED LOCATIONS.

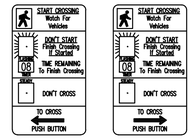
PULL BOX CHART

PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	127+78	LT	43	17X30
PB-2	128+37	LT	43	17X30
PB-3	127+65	RT	58	17X30
PB-4	128+79	RT	42	36X36





PEDESTRIAN HEADS
(LED, COUNTDOWN,
TYPE D2)



1.5" Radius, 0.5" Border, White on Green;
[11th St SE] C;
Table of letter and object lefts.

1	1	t	h	S	t	
4.9	7.4	10.2	14.0	22.9	27.2	
S	E					
35.5	40.1					

D3-1-48
(S3) (S4)

R3-5L-30
(S1) (S2)

LEGEND

	PROP
TRAFFIC SIGNAL, 3 UNIT HEAD, 12"	
TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	
SIGNAL SUPPORT POLE	
PEDESTRIAN SIGNAL	
PEDESTRIAN PUSH BUTTON	
PEDESTAL SUPPORT	
CONTROLLER CABINET AND WORK PAD	
TRAFFIC PULL BOX, 725.06	
VIDEO DETECTION ZONE	
VIDEO DETECTION CAMERA	
PTZ CAMERA	
PREEMPTION RECEIVING UNIT	
LUMINAIRE BRACKET ARM	
POWER SERVICE/ CONTROL CENTER	

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED CX
CHECKED VMN

SIGNAL PLAN
SE AND US 30 ON/OFF RAMPS
11TH STREET SE
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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SIGNAL TIMING CHART

INTERSECTION: 11TH STREET SE AND US 30 ON/OFF RAMPS MAINTAINING AGENCY: CITY OF CANTON									
START UP START IN: 2+6 TIME FOR FLASH, ALL RED: 9, 6 FIRST PHASE(S): 2+6 COLOR DISPLAYED: GREEN			DUAL ENTRY: YES REST IN RED:			PHASES: 2 & 6 AND 4 & 8 RING 1 -			RING 2 -
			OVERLAP			A	B	C	D
			PHASES			1	3	-	-
INTERVAL OR FEATURE			CONTROLLER MOVEMENT NO.						
INTERSECTION MOVEMENT (PHASE)			1	2	3	4	5	6	7	8
DIRECTION			WBLT	EB	-	SB	EBLT	WB	-	NB
MINIMUM GREEN (INITIAL)		(SEC.)	7	20	-	10	7	20	-	10
ADDED INITIAL		*(SEC./ACTUATION)	-	-	-	-	-	-	-	-
MAXIMUM INITIAL		(SEC.)	-	-	-	-	-	-	-	-
PASSAGE TIME (PRESET GAP)		(SEC.)	3	-	-	3	3	-	-	3
TIME BEFORE REDUCTION		*(SEC.)	-	-	-	-	-	-	-	-
MINIMUM GAP		*(SEC.)	-	-	-	-	-	-	-	-
TIME TO REDUCE		*(SEC.)	-	-	-	-	-	-	-	-
MAXIMUM GREEN I		(SEC.)	15	45	-	30	15	45	-	30
MAXIMUM GREEN II		(SEC.)	-	-	-	-				
YELLOW CHANGE		(SEC.)	3.2	4.1	-	4.9	3.2	4.1	-	3.6
ALL RED CLEARANCE		(SEC.)	1.9	1.0	-	1.7	1.9	1.0	-	1.9
DELAYED GREEN (LPI)*		(SEC.)	-	-	-	-	-	-	-	-
WALK		(SEC.)	-	-	-	-	-	7	-	13
PEDESTRIAN CLEARANCE		(SEC.)	-	-	-	-	-	15	-	13
RECALL	MAXIMUM	(ON/OFF)	OFF	OFF	-	OFF	OFF	OFF	-	OFF
	MINIMUM	(ON/OFF)	OFF	ON	-	OFF	OFF	ON	-	OFF
	PEDESTRIAN	(ON/OFF)	OFF	ON	-	OFF	OFF	ON	-	OFF
MEMORY		(ON/OFF)	OFF	OFF	-	OFF	OFF	OFF	-	OFF

*VOLUME DENSITY CONTROLS

NOTES:

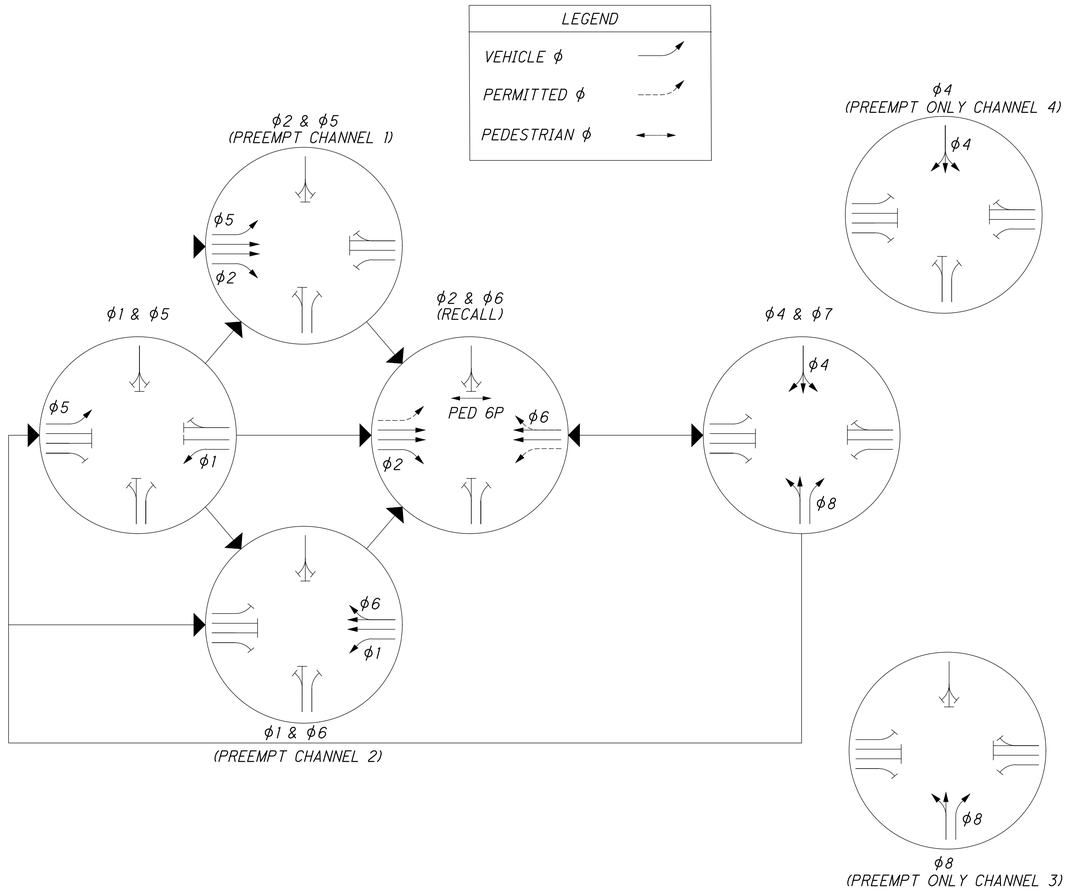
- ALL MOVEMENTS SHALL BE ACTUATED. THE PRIMARY THRU MOVEMENT SHOULD HAVE MIN RECALL ACTIVE TO REST IN GREEN.
- FOR PROTECTED/PERMISSIVE PHASES, IMPLEMENT CALL OMITS TO AVOID YELLOW BALL TRAP.
- ENABLE ϕ1, 3 & ϕ5, 7 DETECTOR SWITCHING TO ALLOW ϕ1 & ϕ5 TO EXTEND ϕ2 & ϕ6 OR ϕ3 & ϕ7 TO EXTEND ϕ4 & ϕ8, RESPECTIVELY, WHEN ALLOCATED GREEN TIME FOR LEFT TURN PHASES ARE EXHAUSTED.
- COUNTDOWN PEDESTRIAN SIGNALS SHALL GO TO ZERO ON YELLOW PER OMUTCD FIGURE 4E-2.
- ALL DETECTOR DELAYS AND EXTENSIONS SHALL BE PLACED IN THE CONTROLLER.

PREEMPT CHANNELS

CHANNEL 1 = ϕ2 (EASTBOUND ONLY) CHANNEL 3 = ϕ8 (NORTHBOUND ONLY)
CHANNEL 2 = ϕ6 (WESTBOUND ONLY) CHANNEL 4 = ϕ4 (SOUTHBOUND ONLY)

PREEMPT NOTES:
1. IF PHASE ACTIVE CONFLICTS WITH PREEMPT PHASE CALLED, IT SHALL IMMEDIATELY TIME ITS YELLOW AND ALL RED CLEARANCES.
2. IF ACTIVE PHASE = THE PREEMPT PHASE, THEN THE PHASE SHALL HOLD FOR THE DURATION OF THE PREEMPT SIGNAL.
3. AFTER RELEASE FROM PREEMPT, YELLOW AND ALL RED CLEARANCE SHALL BE DISPLAYED AND RETURN PHASE SHALL BE ϕ2+6.
4. IF PREEMPT PHASES = RETURN PHASES ϕ2+6 THEN YELLOW AND ALL RED CLEARANCE AFTER PREEMPT SHALL NOT BE DISPLAYED.

PHASING DIAGRAM



TRAFFIC SIGNAL DETECTION CHART

DETECTION ZONE	MOVEMENT	WIDTH (FT)	DELAY PROGRAMMED IN CONTROLLER (SEC)	EXTENSION PROGRAMMED IN CONTROLLER (SEC)	DELAY INHIBIT PHASE	PURPOSE	DETECTION ZONE LENGTH (FT)
VDZ 5A	EBLT	6	0	3	-	STOP-LINE	20
VDZ 4A	SB	6	0	3	-	STOP-LINE	20
VDZ 1A	WBLT	6	0	3	-	STOP-LINE	20
VDZ 8A	NB/NBLT	6	0	3	-	STOP-LINE	35
VDZ 8B	NBRT	6 TO 12	10	3	8	STOP-LINE	35

NOTE: ALL DETECTORS ZONES SHALL BE SET TO PRESENCE.
ALL DELAYS ARE SET IN CONTROLLER.

HORIZONTAL SCALE IN FEET
0
CALCULATED CX
CHECKED VMN

SIGNAL PLAN
11TH STREET SE AND US 30 ON/OFF RAMPS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

231
302

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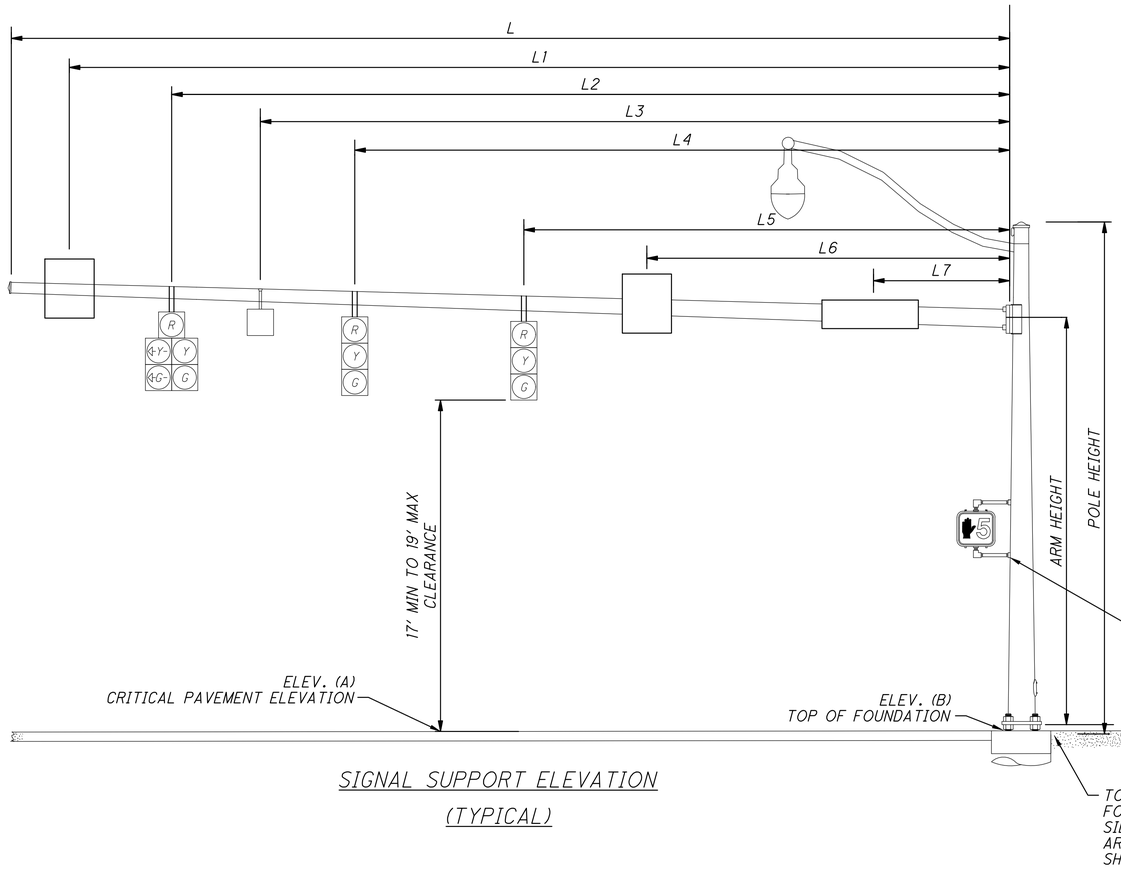
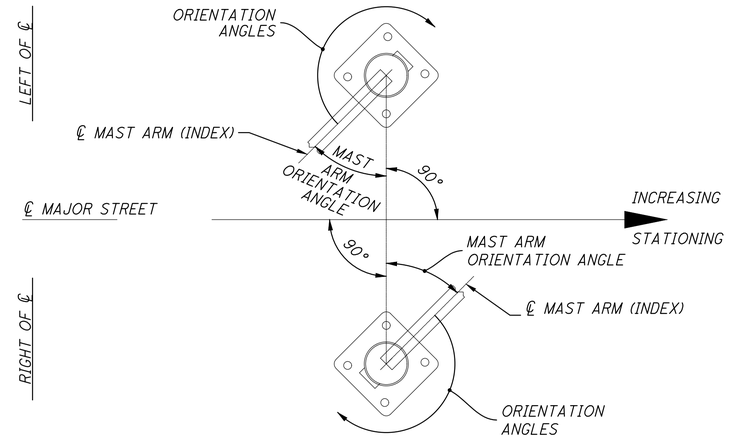


SIGNAL SUPPORT ELEVATION

(TYPICAL)



POLE ORIENTATION

MAST ARM TABLE

(NOSTALGIA SIGNAL SUPPORT)

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGNAL SUPPORT DETAILS												ORIENTATION ANGLES FROM MAST ARM								
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L	L1	L2	L3	L4	L5	L6	L7	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PEDESTRIAN PUSH BUTTON	POWER SERVICE	SIGNAL CABINET	LUMINAIRE BRACKET ARM	HANDHOLE	CABLE ENTRANCE 12" FROM TOP
							FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
SP-1	127+74	43.5' LT	1030.17	1030.35	TC-81.22	12	26	21.75	44	41.5	36	30	24	-	-	-	0	-	180	180	-	-	45	180	-
SP-2	127+70	60' RT	1029.76	1029.80	TC-81.22	2	30	21.75	31	-	28	22	16	-	-	10	90	-	-	-	-	-	45	180	-
SP-3	128+43	43.5' LT	1030.52	1030.59	TC-81.22	12	26	21.75	40	-	37	31	23	-	-	10	90	-	90	90	-	-	45	180	-
SP-4	128+69	43' RT	1030.75	1030.60	TC-81.22	12	26	21.75	45	42.5	37	31	25	13	-	-	0	-	-	-	-	-	45	180	-

SEE SHEET 235 FOR POLE HEIGHT AND ARM HEIGHT DETAILS)

HORIZONTAL SCALE IN FEET

CALCULATED CX CHECKED VMN

SIGNAL PLAN
11TH STREET SE AND US 30 ON/OFF RAMPS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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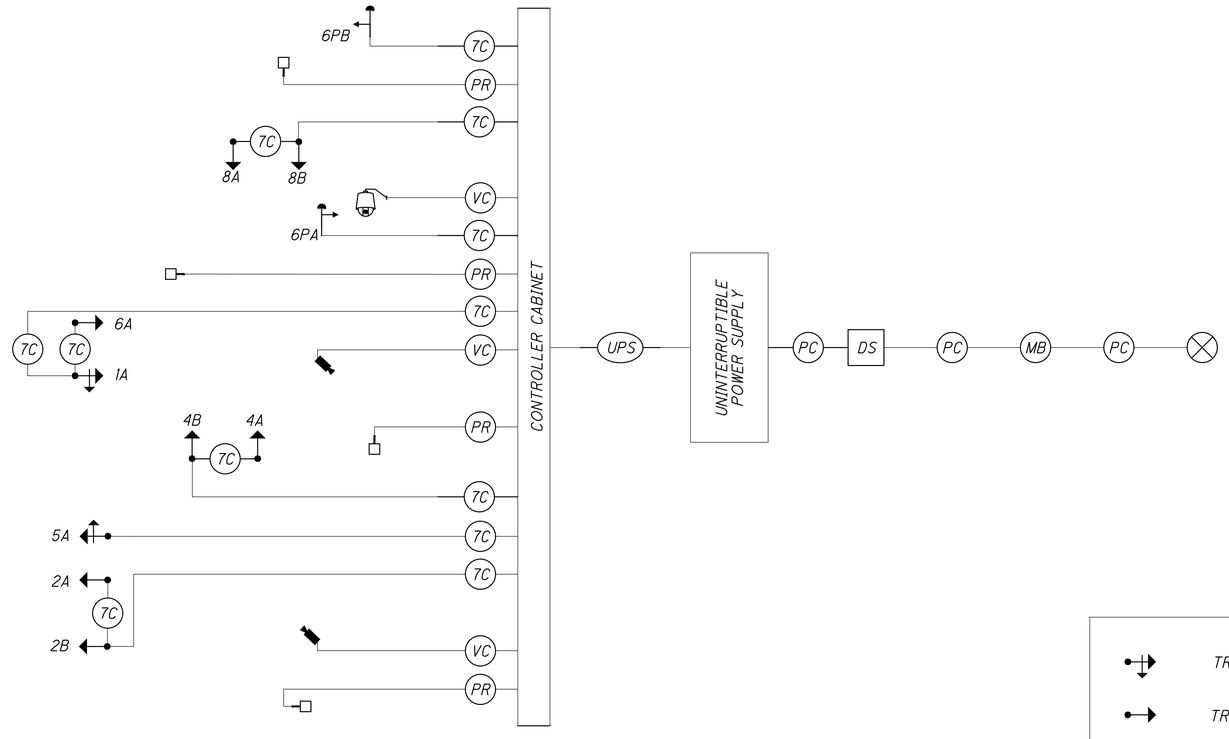
FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH	SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
2A, 2B (EB TH)	R	ϕ 2R	Y	8A, 8B (NB)	R	ϕ 8R	R
	Y	ϕ 2Y			Y	ϕ 8Y	
	G	ϕ 2G			G	ϕ 8G	
5A (EB LT/TH)	R	ϕ 2R	Y	4A, 4B (SB)	R	ϕ 4R	R
	Y	ϕ 2Y			Y	ϕ 4Y	
	G	ϕ 2G			G	ϕ 4G	
	~~Y~~	ϕ 5Y	OUT				
	~~G~~	ϕ 5G					
6A (WB TH)	R	ϕ 6R	Y				
	Y	ϕ 6Y					
	G	ϕ 6G					
1A (WB LT/TH)	R	ϕ 6R	Y	PEDESTRIAN MOVEMENTS			
	Y	ϕ 6Y		PED 6P (NORTH)	W	ϕ 6W	OUT
	G	ϕ 6G			FDW	ϕ 6FDW	
	~~Y~~	ϕ 1Y	OUT		DW	ϕ 6DW	
	~~G~~	ϕ 1G					

WIRING DIAGRAM



LEGEND

	TRAFFIC SIGNAL, 4 OR 5 UNIT HEAD, 12"	7C	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
	TRAFFIC SIGNAL, 2 UNIT, 3 UNIT, OR PHB HEAD 12"		POWER SOURCE
	PEDESTRIAN SIGNAL	PC	POWER CABLE, 2 CONDUCTOR, NO. 10 AWG
	PEDESTRIAN PUSH BUTTON	MB	METER BASE
	VIDEO DETECTION CAMERA	DS	DUAL LIGHTING/SIGNAL DISCONNECT SWITCH
	PTZ OR GRIDSMART CAMERA	UPS	UNINTERRUPTIBLE POWER SUPPLY CABLE
	PREEMPTION RECEIVING UNIT	PR	PREEMPTION CABLE

HORIZONTAL SCALE IN FEET
0

CALCULATED TKI
CHECKED JMB

SIGNAL PLAN
11TH STREET SE AND US 30 ON/OFF RAMPS
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

233
302

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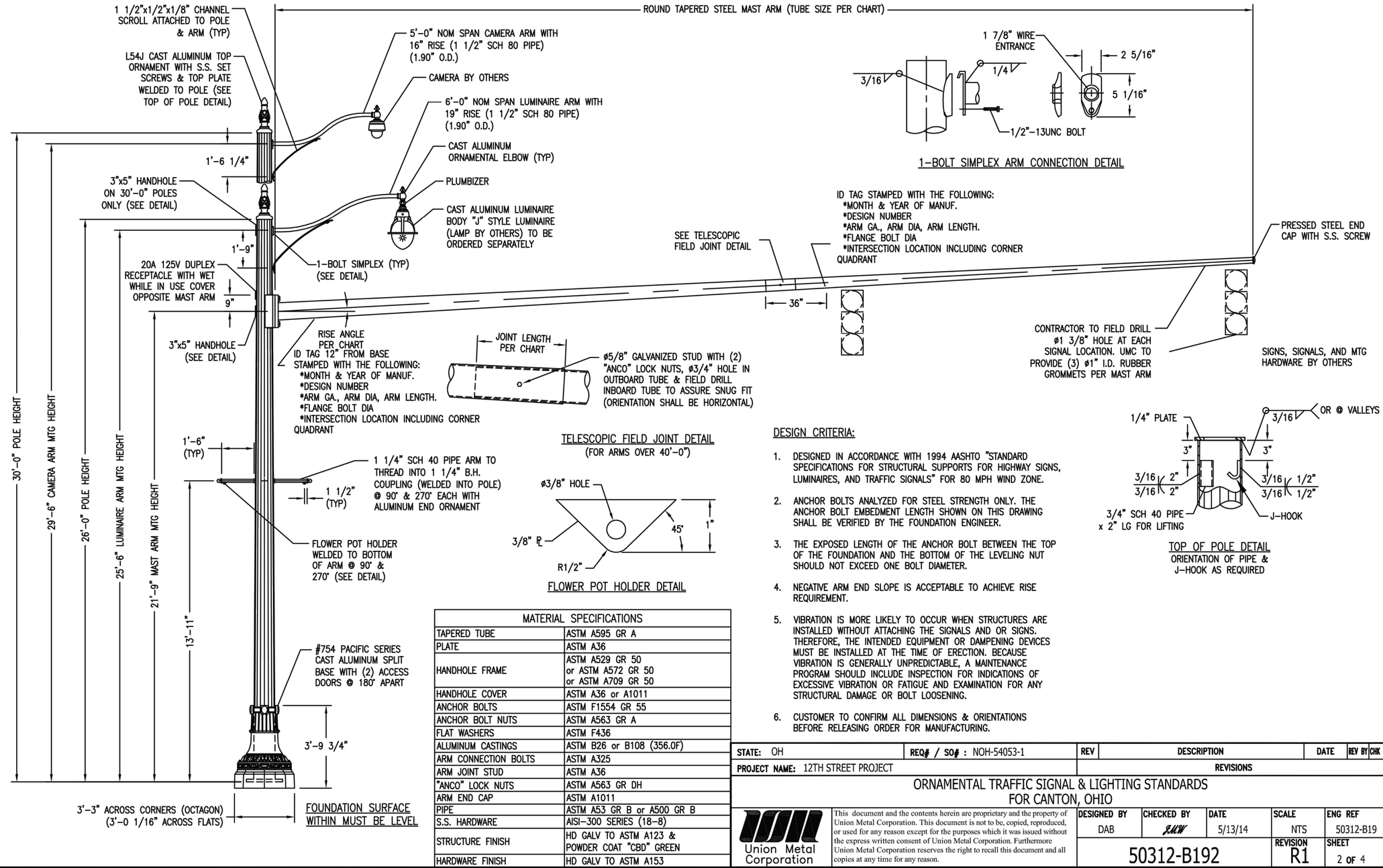
TRAFFIC SIGNAL SUBSUMMARY
11TH STREET SE AND US 30 ON/OFF RAMPS

CALCULATED CX
CHECKED VMN

| SHEET NO. | REFERENCE NO. | STATION FROM | STATION TO | SIDE | 625 CONDUIT, 2", 725.05 | 625 CONDUIT, 3", 725.05 | 625 CONDUIT, 3", 725.05, AS PER PLAN | 625 CONDUIT, 4", 725.05, AS PER PLAN | 625 TRENCH | 625 PULL BOX, MISC.: 725.06 (17" X 30") | 625 PULL BOX, MISC.: 725.06 (36" X 36") | 625 GROUND ROD | 625 UNDERGROUND WARNING/MARKING TAPE | 625 ARC FLASH CALCULATIONS AND LABEL | 630 SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN | 630 SIGN, FLAT SHEET | 632 VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN | 632 VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN | 632 PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN | 632 COVERING OF VEHICULAR SIGNAL HEAD | 632 COVERING OF PEDESTRIAN SIGNAL HEAD | 632 PEDESTRIAN PUSHBUTTON, AS PER PLAN | 632 SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG | 632 SIGNAL SUPPORT FOUNDATION, AS PER PLAN | 632 POWER CABLE, 1 CONDUCTOR, NO. 6 AWG, AS PER PLAN | 632 POWER SERVICE, AS PER PLAN | 632 COMBINATION SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2 | 632 COMBINATION SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12 | 632 REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN | 633 CABINET FOUNDATION | 633 CONTROLLER WORK PAD | 633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN | 633 CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1 | 809 CCTV IP-CAMERA SYSTEM, QUAD MULTI-VIEW FIXED WITH PTZ | 809 EMERGENCY VEHICLE PREEMPTION | 809 PREEMPTION RECEIVING UNIT | 809 PREEMPTION DETECTOR CABLE | 809 PREEMPTION PHASE SELECTOR | 816 VIDEO DETECTION SYSTEM, AS PER PLAN |
|---|---|---



MATERIAL SPECIFICATIONS	
TAPERED TUBE	ASTM A595 GR A
PLATE	ASTM A36
HANDHOLE FRAME	ASTM A529 GR 50 or ASTM A572 GR 50 or ASTM A709 GR 50
HANDHOLE COVER	ASTM A36 or A1011
ANCHOR BOLTS	ASTM F1554 GR 55
ANCHOR BOLT NUTS	ASTM A563 GR A
FLAT WASHERS	ASTM F436
ALUMINUM CASTINGS	ASTM B26 or B108 (356.0F)
ARM CONNECTION BOLTS	ASTM A325
ARM JOINT STUD	ASTM A36
"ANCO" LOCK NUTS	ASTM A563 GR DH
ARM END CAP	ASTM A1011
PIPE	ASTM A53 GR B or A500 GR B
S.S. HARDWARE	AISI-300 SERIES (18-8)
STRUCTURE FINISH	HD GALV TO ASTM A123 & POWDER COAT "CBD" GREEN
HARDWARE FINISH	HD GALV TO ASTM A153

DESIGN CRITERIA:

1. DESIGNED IN ACCORDANCE WITH 1994 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" FOR 80 MPH WIND ZONE.
2. ANCHOR BOLTS ANALYZED FOR STEEL STRENGTH ONLY. THE ANCHOR BOLT EMBEDMENT LENGTH SHOWN ON THIS DRAWING SHALL BE VERIFIED BY THE FOUNDATION ENGINEER.
3. THE EXPOSED LENGTH OF THE ANCHOR BOLT BETWEEN THE TOP OF THE FOUNDATION AND THE BOTTOM OF THE LEVELING NUT SHOULD NOT EXCEED ONE BOLT DIAMETER.
4. NEGATIVE ARM END SLOPE IS ACCEPTABLE TO ACHIEVE RISE REQUIREMENT.
5. VIBRATION IS MORE LIKELY TO OCCUR WHEN STRUCTURES ARE INSTALLED WITHOUT ATTACHING THE SIGNALS AND OR SIGNS. THEREFORE, THE INTENDED EQUIPMENT OR DAMPENING DEVICES MUST BE INSTALLED AT THE TIME OF ERECTION. BECAUSE VIBRATION IS GENERALLY UNPREDICTABLE, A MAINTENANCE PROGRAM SHOULD INCLUDE INSPECTION FOR INDICATIONS OF EXCESSIVE VIBRATION OR FATIGUE AND EXAMINATION FOR ANY STRUCTURAL DAMAGE OR BOLT LOOSENING.
6. CUSTOMER TO CONFIRM ALL DIMENSIONS & ORIENTATIONS BEFORE RELEASING ORDER FOR MANUFACTURING.

STATE: OH	REQ# / SO# : NOH-54053-1
PROJECT NAME: 12TH STREET PROJECT	

REV	DESCRIPTION	DATE	REV BY	CHK BY
	REVISIONS			

ORNAMENTAL TRAFFIC SIGNAL & LIGHTING STANDARDS FOR CANTON, OHIO

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DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
DAB	JMW	5/13/14	NTS	50312-B19

50312-B192	REVISION R1	SHEET 2 OF 4

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 : 330-489-3381 : www.cantonohio.gov/engineering

APPROVED DATE: APRIL 2012

APPROVED BY: EEM

DRAWING FILE NAME: **ce_61-65_LIGHTPOLES.dwg**

REVISIONS		
DESCRIPTION	DATE	BY
INSERTED UM DRAWING 50312-B192	4/17/15	EGM

STANDARD DRAWING NO. 61

NOSTALGIC POLE FOUNDATION & WIRING DIAGRAM

SHEET 1 OF 5

CALCULATED | CHECKED

LIGHTING DETAILS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

235
302

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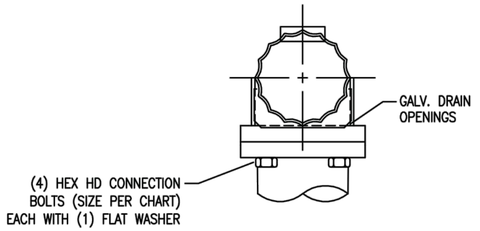
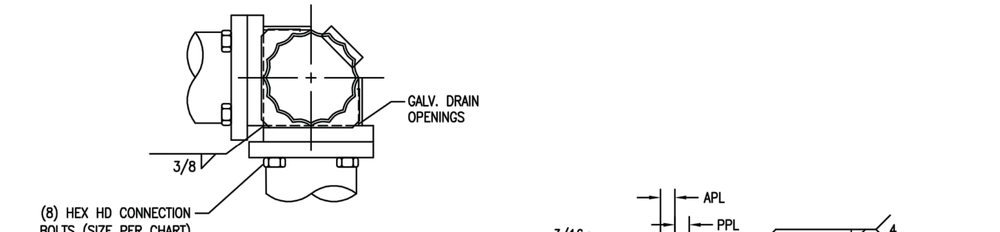
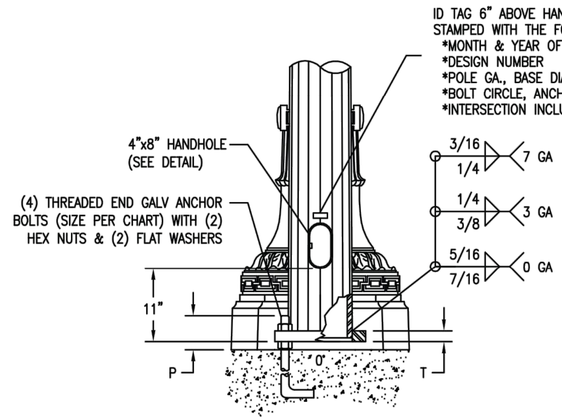


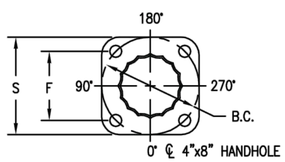
SINGLE MAST ARM CONNECTION DETAIL



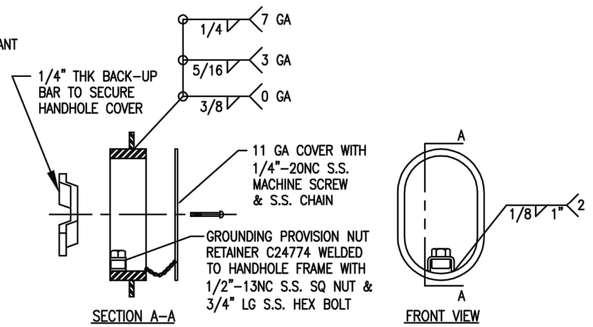
DUAL MAST ARM CONNECTION DETAIL



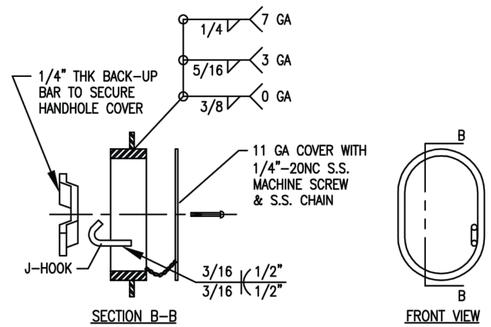
BASE CONNECTION DETAIL



BASE PLATE DETAIL
FOR ORIENTATIONS OF MAST ARMS/LUMINAIRE ARMS/CAMERA ARMS, SEE CHART ON SHEET 1



4"x8" HANDHOLE FRAME DETAIL



3"x5" HANDHOLE FRAME DETAIL

STATE: OH	REQ# / SO# : NOH-54053-1	REV	DESCRIPTION	DATE	REV BY	CHK BY
PROJECT NAME: 12TH STREET PROJECT			REVISIONS			

ORNAMENTAL TRAFFIC SIGNAL & LIGHTING STANDARDS FOR CANTON, OHIO

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DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
DAB	SMW	5/13/14	NTS	50312-B19

50312-B192 | REVISION R1 | SHEET 3 OF 4

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 : 330-489-3381 : www.cantonohio.gov/engineering

APPROVED DATE: APRIL 2012

APPROVED BY: EEM

DRAWING FILE NAME: **ce_61-65_LIGHTPOLES.dwg**

REVISIONS

DESCRIPTION	DATE	BY
INSERTED UM DRAWING 50312-B192	4/17/15	EGM

STANDARD DRAWING NO. 62

NOSTALGIC POLE FOUNDATION & WIRING DIAGRAM

SHEET 2 OF 5

CALCULATED | CHECKED

LIGHTING DETAILS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

236
302

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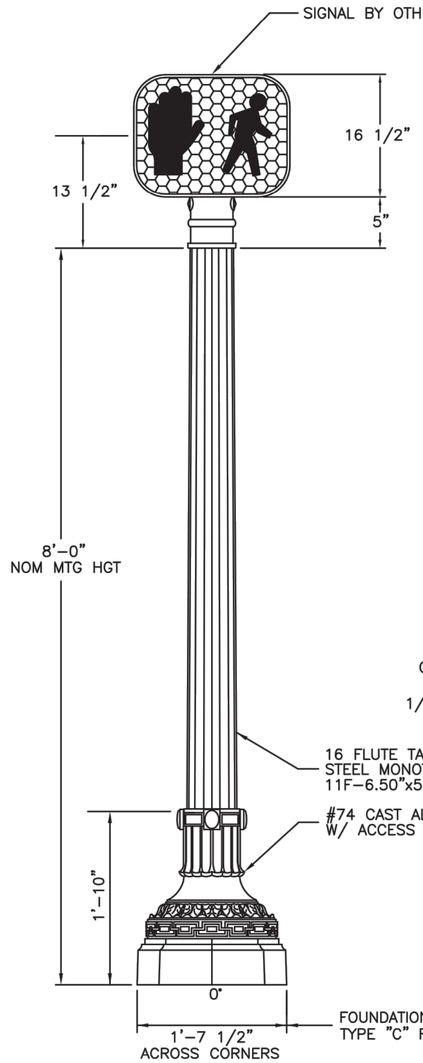
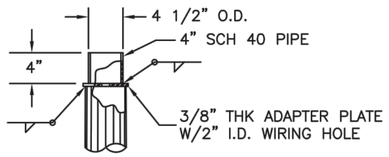
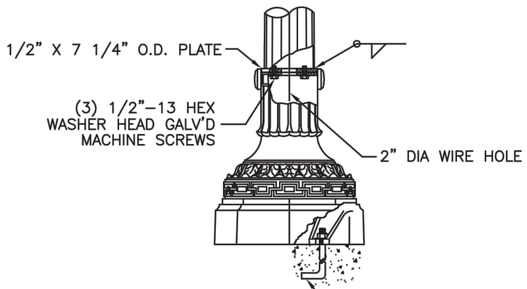
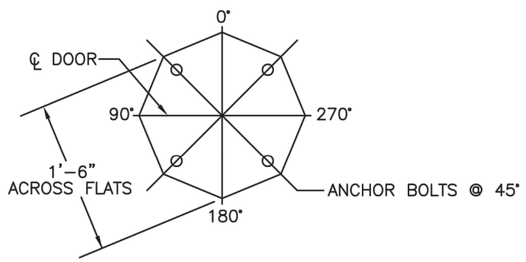




TENON DETAIL



BASE DETAIL



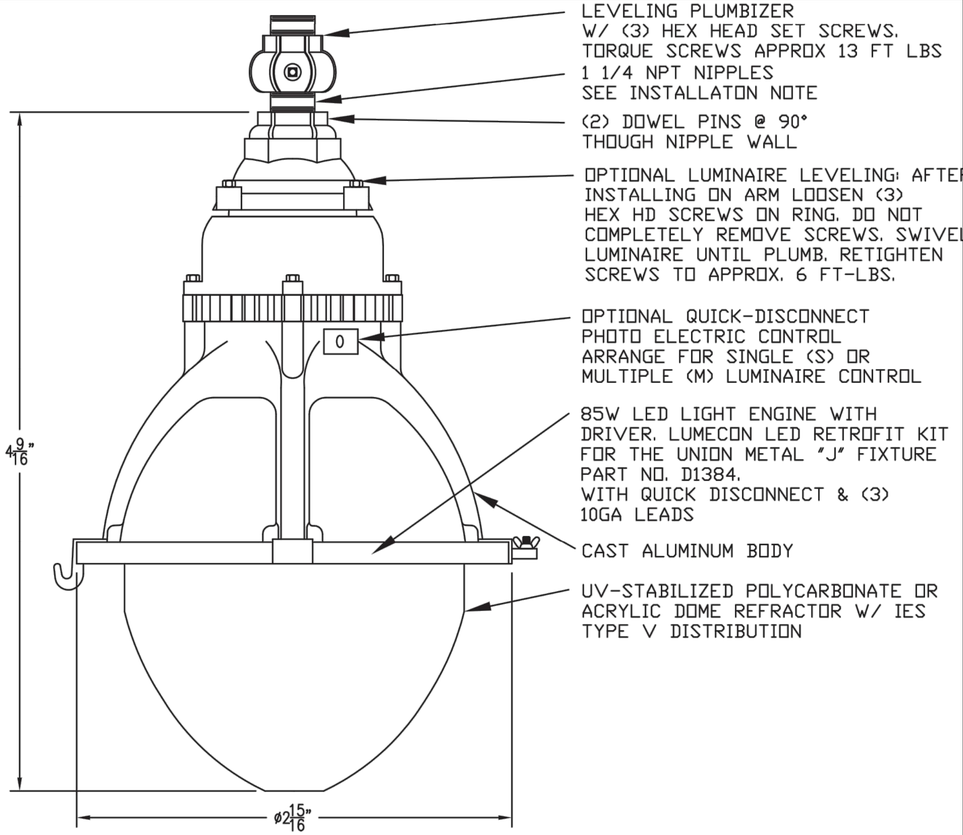
ORNAMENTAL PEDESTRIAN POLE
DESIGNED FOR CANTON, OHIO
U.M.C. DESIGN NO. P2000-74-B9-Y1

LOF ____ ENG.REF.#_____
REQ.# 0329-40-98 S.O.#_____ CAD# 0329C98

Union Metal CORPORATION

DRAWN WJC
DATE 4/24/98
CHECKED GMP

DRAWING NO.
N2000-74-B9



INSTALLATION NOTE:

USE PIPE SEALANT ON ALL PIPE THREADS BEFORE ASS'Y. THE THREADS SHOULD ENGAGE 3-4 TURNS BY HAND AND AN ADDITIONAL 2-4 TURNS WITH A WRENCH TO ENSURE A SECURE CONNECTION. TORQUE SHOULD INCREASE GRADUALLY WHILE TIGHTENING WITH A WRENCH. DO NOT OVER TIGHTEN, A MINIMUM OF 2 THREADS SHOULD BE VISIBLE AFTER TIGHTENING. IF TORQUE INCREASES SUDDENLY OR BOTTOMS OUT WHILE TIGHTENING, DO NOT INSTALL LUMINAIRE. CONSULT FACTORY BEFORE PROCEEDING.

DESIGN NUMBER	PEC OPTION
NLJ1-110-A14-Y1	MULTIPLE
NLJ1-110-A14-Y2	NONE
NLJ1-110-A14-Y3	SINGLE

WEIGHT 40 LBS. MAX. EPA 1.2 SQ. FT.

STATE: OHIO | REQ# / SO# : NOH54508

PROJECT NAME: CITY OF CANTON STANDARD LED

"J" STYLE LUMINAIRE WITH 110 TYPE GLOBE AND LUMECON LED PENDANT

REV	DESCRIPTION	DATE	REV BY	CHK

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DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
MB	MRB	7/15/14	1:5	NLJ1-110-A2

NLJ1-110-A14 | REVISION R0 | SHEET 1 OF 1

CALCULATED | CHECKED

LIGHTING DETAILS

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 : 330-489-3381 : www.cantonohio.gov/engineering

APPROVED DATE: APRIL 2012

APPROVED BY: EEM

DRAWING FILE NAME:
ce_61-65_LIGHTPOLES.dwg

REVISIONS

DESCRIPTION	DATE	BY
INSERTED UM DRAWING NLJ1-110-A14	4/17/15	EGM
NEW LED RETROFIT KIT SPEC.	8/26/16	EEM

STANDARD DRAWING NO. 64

NOSTALGIC POLE FOUNDATION & WIRING DIAGRAM

SHEET 4 OF 5

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

237
302

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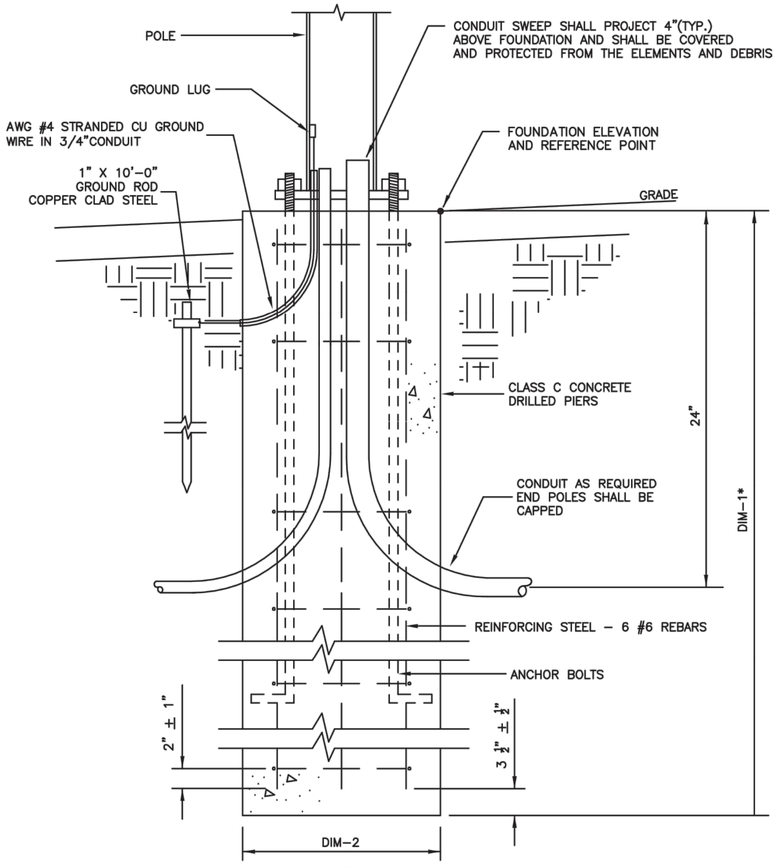


NOSTALGIC FOUNDATION DETAIL

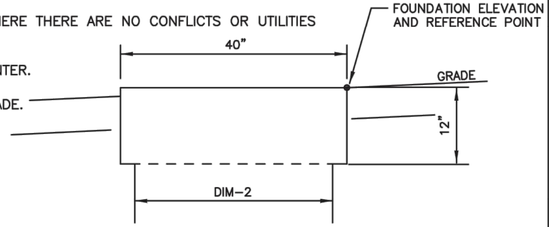
NO SCALE

NOTES:

1. ALL FOUNDATIONS SHALL BE DRILLED PIERS TO AVOID DISTURBING SURROUNDING SOIL. A TEMPORARY STEEL CASING MAY BE REQUIRED. IF UTILITIES OR ANOTHER CONFLICT IS IN CLOSE PROXIMITY TO THE FOUNDATION, THEN THOSE FOUNDATIONS MAY HAVE TO BE EXCAVATED BY HAND.
2. PRE-CAST LIGHT POLE FOUNDATIONS, 30" X 72", WILL BE PERMITTED AT LOCATIONS WHERE THERE ARE NO CONFLICTS OR UTILITIES PROHIBITING PLACEMENT.
3. ANCHOR BOLT PATTERN SHALL BE PROVIDED BY POLE MANUFACTURER (U.M.C.).
4. REINFORCING STEEL SHALL BE ASSEMBLED IN CAGES USING #4 TIES AT 24" (MAX.) CENTER.
5. FOUNDATION TOP SHALL BE ROUND AND LEVEL TO ACCOMMODATE DECORATIVE BASE.
6. TOP OF FOUNDATION SHALL BE AT LEAST 1" ABOVE PROJECTED FINISHED SIDEWALK GRADE.

FOUNDATION	DIM-1*	DIM-2
SIGNAL (16" BOLT CIRCLE)	9'-0"	36"
SIGNAL (>16" BOLT CIRCLE)	11'-0"	36"
LUMINARIES	6'-0"	30"
PEDESTRIAN	4'-0"	24"

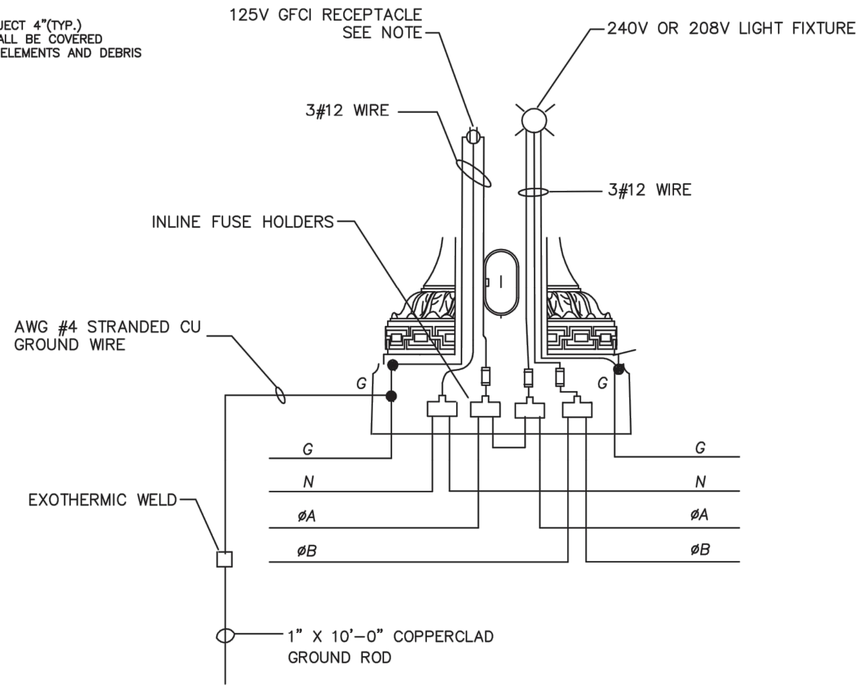
* MINIMUM DEPTH MAY VERY BASED ON SOIL CONDITION.



FOUNDATION CAP DETAIL

CAP FOR SIGNAL POLE WITH >16" BOLT CIRCLE. CAP IS NECESSARY TO ACCOMODATE DECORATIVE BASE.

CONDUIT SWEEP SHALL PROJECT 4"(TYP.) ABOVE FOUNDATION AND SHALL BE COVERED AND PROTECTED FROM THE ELEMENTS AND DEBRIS



POLE WIRING DIAGRAM

NO SCALE

NOTE:

1. THE COST FOR WIRING TO ALL NOSTALGIA LUMINARIES AND RECEPTACLES SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS. ALL WIRING IN POLES AND CONDUITS TO LIGHTS AND RECEPTACLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

2. ALL WIRING INTO EACH NOSTALGIA POLE BASE SHALL BE NO. 6 AWG WIRE AND CONNECTED TO IN-LINE FUSE HOLDERS. THE COST FOR THIS WIRE SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS.

3. IN-LINE FUSE HOLDERS SHALL BE BUSSMAN (HEB-AW-RYC). INSTALL FUSES IN PHASE LINES AND SOLID LINK IN NEUTRAL (HET-AW-RYC) FOR GROUND USE SPLIT BOLT CONNECTOR. COPPER GROUND CABLE SHALL BE EXOTHERMICALLY WELDED TO THE GROUND ROD. RUN CABLE FREE END THROUGH 3/4" EMT AND CONNECTED AS SHOWN IN THE POLE WIRING DIAGRAM. THE COST FOR THE IN-LINE FUSE HOLDERS AND ALL RELATED ITEMS SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS.

4. THE POLE RECEPTACLE SHALL BE ALTERNATELY WIRED TO PHASE A AND PHASE B AS SHOWN IN THE POLE WIRING DIAGRAM.

5. FOR LIGHTS, USE 5 AMP FUSES. FOR RECEPTACLES, USE 10 AMP FUSES. AMP RATINGS SHALL BE BASED UPON 75 DEGREE C RATINGS.

6. UNLESS OTHERWISE NOTED IN THESE PLANS, ALL WIRING SHALL BE MINIMUM NO. 12 AWG, COPPER, 600 VOLT RATED WITH THE EXCEPTION OF NO. 14 AWG, COPPER SHALL BE PERMISSIBLE FOR CONTROL CIRCUITRY. THE FOLLOWING SHALL APPLY TO ALL WIRING:

A. ALL WIRING SHALL BE STRANDED "XHHN/XHWN".
B. UNDERGROUND BRANCH CIRCUIT WIRING SHALL BE "XHHW".

7. CONDUCTORS SHALL BE PULLED FROM LIGHT POLE TO LIGHT POLE AND FROM LIGHTING CONTROL PANEL TO LIGHT POLE WITHOUT SPLICES.

OFFICE OF THE CITY ENGINEER
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2436 30th St. NE 44705 : 330-489-3381 : www.cantonohio.gov/engineering

APPROVED DATE: MARCH 2014

APPROVED BY: EEM

DRAWING FILE NAME:
ce_61-65_LIGHTPOLES.dwg

REVISIONS		
DESCRIPTION	DATE	BY
MODIFIED DIMS AND OTHER CHANGES	4/29/14	NJL
MODIFIED FOUNDATION NOTES	2/21/17	EGM

STANDARD DRAWING NO. 65

NOSTALGIC POLE FOUNDATION & WIRING DIAGRAM

SHEET 5 OF 5

CALCULATED | CHECKED

LIGHTING DETAILS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

238
302

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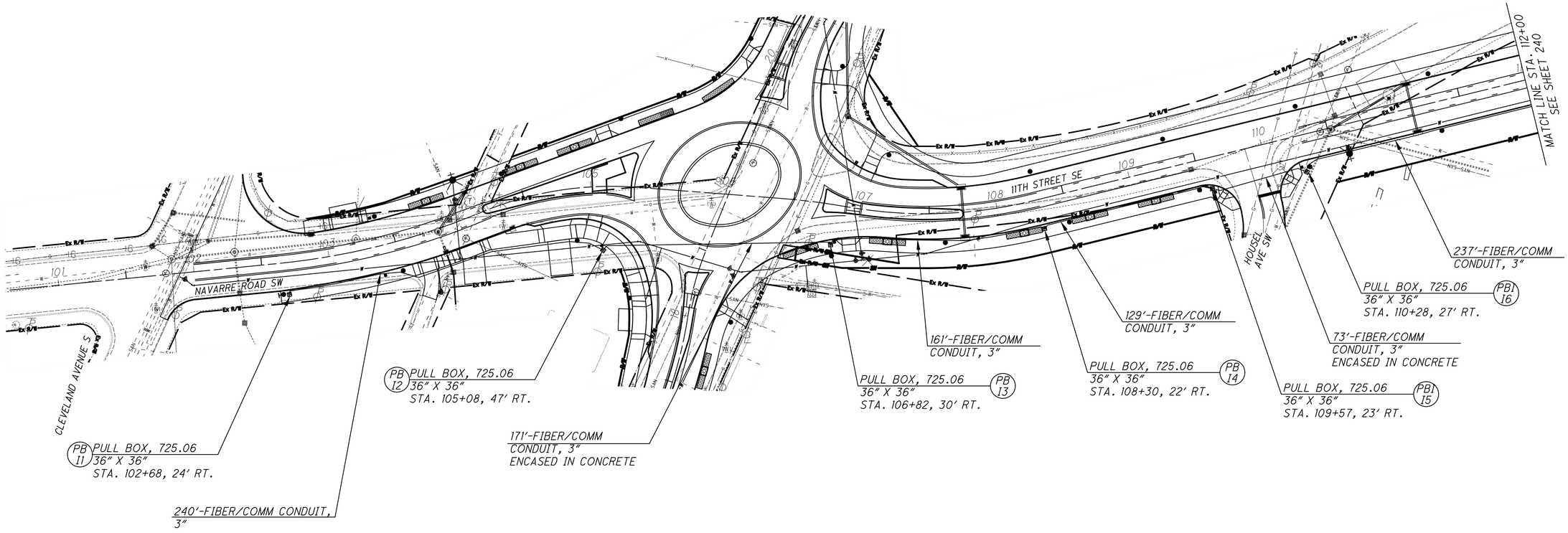
LEGEND

- TR — TRAFFIC INTERCONNECT PULL BOX, 36"X36", 725.06
- —— CONDUIT (ALL CONDUIT LABELED IN INTERCONNECT PLANS (EXCEPT AS NOTED) CONTAIN FIBER OPTIC CABLE, ARMORED, 48 FIBER. INTERCONNECT CONDUIT SHALL SHARE SAME TRENCH AS LIGHTING CONDUIT.)
- CONTROLLER CABINET AND WORK PAD



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX
CHECKED VMN

INTERCONNECT PLAN
11TH STREET SE - BEGINNING TO STA. 112+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

239
302

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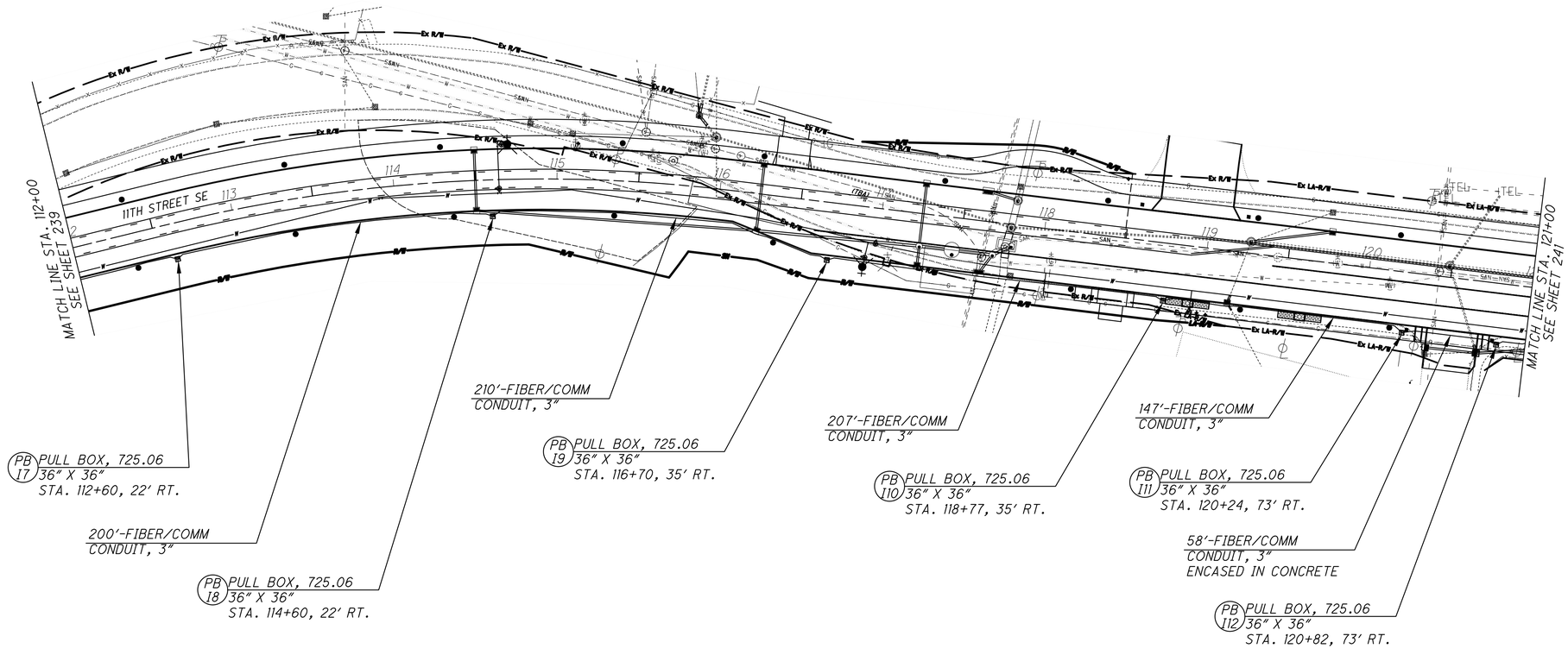
LEGEND

- TRAFFIC INTERCONNECT PULL BOX, 36"X36", 725.06
- CONDUIT (ALL CONDUIT LABELED IN INTERCONNECT PLANS (EXCEPT AS NOTED) CONTAIN FIBER OPTIC CABLE, ARMORED, 48 FIBER. INTERCONNECT CONDUIT SHALL SHARE SAME TRENCH AS LIGHTING CONDUIT.)
- CONTROLLER CABINET AND WORK PAD



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX
CHECKED VMN

INTERCONNECT PLAN
11TH STREET SE - STA. 112+00 TO STA. 121+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

240
302

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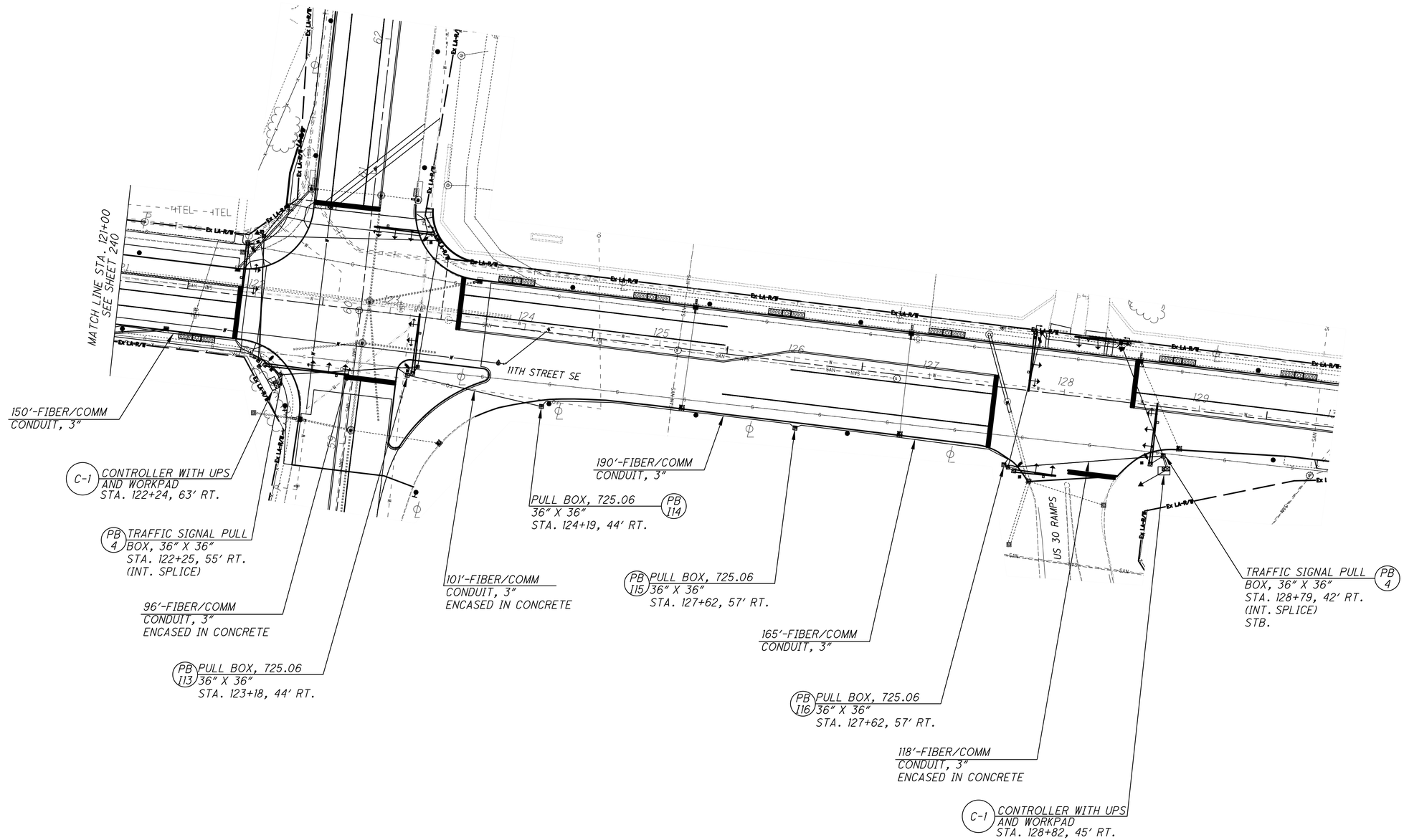
LEGEND

- TRAFFIC INTERCONNECT PULL BOX, 36"X36", 725.06
- CONDUIT (ALL CONDUIT LABELED IN INTERCONNECT PLANS (EXCEPT AS NOTED) CONTAIN FIBER OPTIC CABLE, ARMORED, 48 FIBER. INTERCONNECT CONDUIT SHALL SHARE SAME TRENCH AS LIGHTING CONDUIT.)
- CONTROLLER CABINET AND WORK PAD



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX
CHECKED VMN

INTERCONNECT PLAN
11TH STREET SE - STA. 121+00 TO STA. 130+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

241
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INTERCONNECT SUBSUMMARY

SHEET NO.	REFERENCE NO.	STATION		SIDE	625	625	625	625	625	804	804	804	804	804	804	804	804	804	804
					CONDUIT, 3", 725.05	CONDUIT, 4", 725.05, AS PER PLAN	TRENCH	PULL BOX, MISC.: 725.06 (36" X 36")	UNDERGROUND WARNING/MARKING TAPE	FIBER OPTIC CABLE, ARMORED, 48 FIBER	FAN-OUT KIT, 12 FIBER	DROP CABLE, 12 FIBER	FIBER OPTIC PATCH CORD, 1 FIBER	FIBER TERMINATION PANEL, 24 FIBER	FUSION SPLICE	SPLICE ENCLOSURE, BUTT STYLE	FIBER OPTIC CONNECTOR	FIBER OPTIC CABLE TESTING	FIBER OPTIC CABLE MODEM
		FROM	TO		FT	FT	FT	EACH	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	LUMP	EACH
239	PB-I1	102+68	105+08	RT	240			1		245									
	PB-I2	105+08	106+82	RT		171		1		176									
	PB-I3	106+82	108+30	RT	161			1		166									
	PB-I4	108+30	109+57	RT	129			1		134									
	PB-I5	109+57	110+28	RT		73		1		78									
	PB-I6	110+28	112+60	RT	237			1		242									
240	PB-I7	112+60	114+60	RT	200			1		205									
	PB-I8	114+60	116+70	RT	210			1		215									
	PB-I9	116+70	118+77	RT	207			1		212									
	PB-I10	118+77	120+24	RT	147			1		152									
	PB-I11	120+24	120+82	RT		58		1		63									
	PB-I12	120+82	122+25	RT	150			1		155									
241	PB-4 TO CONTROLLER	122+25	122+24	RT						178	2	1	2	1	12	1	2		1
	PB-4	122+25	123+18	RT		96				101									
	PB-I13	123+18	124+19	RT		101	101	1	101	106									
	PB-I14	124+19	126+06	RT	190			1		195									
	PB-I15	126+06	127+62	RT	165			1		170									
	PB-I16	127+62	128+79	RT		118		1		123									
	PB-4 TO CONTROLLER	128+79	128+82	RT						165	2	1	2	1	12	1	2	LS	1
TOTALS CARRIED TO GENERAL SUMMARY					2036	617	101	16	101	3081	4	2	4	2	24	2	4	LS	2

CALCULATED CX
CHECKED VMN

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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LIGHTING GENERAL

SPECIFICATIONS

THESE NOTES ARE SUPPLEMENTAL TO ITEMS 625 AND 725 OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS. REFERENCE SHALL BE MADE TO STANDARD CONSTRUCTION DRAWINGS LISTED ON THE TITLE SHEET OF THESE PLANS.

ITEM 625 - POWER SERVICE, AS PER PLAN

POWER SERVICE SHALL BE AS PER ODOT SPECIFICATION 632 AND CITY OF CANTON STANDARDS. ELECTRIC POWER SHALL BE SUPPLIED BY AMERICAN ELECTRIC POWER.

AMERICAN ELECTRIC POWER (AEP)
301 CLEVELAND AVE. SW, BOX 24400
CANTON, OHIO 44701-4400
330-438-7739
ATTN: KEITH SCHALMO (330-438-7999)

POWER SERVICE IS TO BE METERED. THE SERVICE PEDESTAL SHALL BE MILBANK MODEL #CP3B51115AAOSP10. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT THE POWER COMPANY FOR THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS.

THE PROJECT WILL RECEIVE 120 VOLT/240 VOLT THREE-WIRE SECONDARY SERVICE FROM AMERICAN ELECTRIC POWER.

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - LUMINAIRE, DECORATIVE, AS PER PLAN

THE LUMINAIRES SHALL BE UNION METAL DESIGN (#NL318R-3) AND SHALL BE FURNISHED PREWIRED AND MANUFACTURED AS DETAILED ON THE CITY OF CANTON STANDARDS CONSTRUCTION DRAWING NO. 63. THE CONTRACTOR SHALL VERIFY WITH CITY FOR THE CURRENT CITY STANDARD FOR THIS ITEM. THIS ITEM SHALL INCLUDE THE LED LAMP AS DETAILED ON THE STANDARD DRAWING NO. 63.

BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PRICE PER EACH ITEM 625 - LUMINAIRE, DECORATIVE, AS PER PLAN, WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS (TWO LUMINAIRES), EQUIPMENT, INSTALLATION AND INCIDENTALS.

ITEM 625 - LUMINAIRE, CONVENTIONAL, AS PER PLAN

LUMINAIRES ON THE TRAFFIC SIGNAL BRACKET ARMS SHALL BE UNION METAL CAST ALUMINUM BODY "J" STYLE AND SHALL BE FURNISHED PREWIRED AND MANUFACTURED AS DETAILED ON THE CITY OF CANTON STANDARDS CONSTRUCTION DRAWING NO. 61. THE CONTRACTOR SHALL VERIFY WITH CITY FOR THE CURRENT CITY STANDARD FOR THIS ITEM. THIS ITEM SHALL INCLUDE THE LED LAMP AS DETAILED ON THE STANDARD DRAWING NO. 64.

BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PRICE PER EACH ITEM 625 - LUMINAIRE, CONVENTIONAL, AS PER PLAN, WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, INSTALLATION AND INCIDENTALS.

ITEM 625 - LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP

FOUNDATIONS SHALL BE 30 IN. X 6 FT. AS DETAILED ON THE CITY OF CANTON STANDARDS CONSTRUCTION DRAWING NO. 65. EXCAVATION AND EMBANKMENT SHALL BE AN INCIDENTAL COST TO THE PAY ITEM.

PAYMENT SHALL BE MADE AT THE UNIT PRICE BID FOR EACH ITEM 625, LIGHT POLE FOUNDATION, MISC.: 30" X 5' DEEP, WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT TO COMPLETE THIS WORK.

ITEM 625 - PULL BOX, MISC.: 725.06 (17" X 30")

PULL BOXES SHALL BE MANUFACTURED BY CARSON BROOKS, QUAZITE OR SYNERTECH OR APPROVED EQUAL. ALL PULL BOXES SHALL INCLUDE A POLYMER CONCRETE RING AND COVER TYPE, OR EQUAL, AND SHALL BE MARKED "ELECTRIC". THE PULL BOX SHALL BE FIBERGLASS REINFORCED POLYSTER, OR EQUAL, WITH INSERTS AND SHALL BE 18" IN DEPTH. EACH PULL BOX SHALL INCLUDE TWO (2) STAINLESS STEEL HEX BOLTS. EACH PULL BOX AND COVER SHALL HAVE A MINIMUM LOAD RATING OF 20,000 POUNDS CAPACITY IN ACCORDANCE WITH THE WESTERN UNDERGROUND COMMITTEE GUIDE 3.6. UNDERDRAINS SHALL NOT BE INSTALLED IN PULL BOXES.

ITEM SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF CITY, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY CITY'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF CITY, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

ITEM 625 - ARC FLASH CALCULATIONS AND LABEL (CC)

THE CONTRACTOR SHALL SATISFY THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 825 FOR EACH OF THE NEW LIGHTING CONTROL CENTER INDICATED IN THE PLANS. THE CONTRACTOR MAY BE ABLE TO OBTAIN LABELS FOR ODOT MAINTAINED INSTALLATIONS FROM THE ODOT SIGN SHOP, 1606 WEST BROAD STREET, COLUMBUS, OH 43223. FOR NON-ODOT MAINTAINED INSTALLATIONS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE LABEL MADE FROM "ENGINEER GRADE" SIGN SHEETING OR AN EQUIVALENT COMMERCIAL LABEL MATERIAL.

THE ODOT OFFICE OF ROADWAY ENGINEERING HAS AN EXCEL SPREADSHEET, AVAILABLE UPON REQUEST, TO ASSIST WITH MAKING AND DOCUMENTING THE REQUIRED CALCULATIONS.

METHOD OF MEASUREMENT SHALL BE PER 825.06. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE SUMMARY.

ITEM 625 ARC FLASH CALCULATION AND LABEL (CC) - EACH

ITEM 625 - LIGHT POLE, DECORATIVE, AS PER PLAN

NOSTALGIA LIGHT POLES SHALL BE UNION METAL PACIFIC FAMILY SERIES (VERIFY WITH CITY FOR CURRENT STANDARD DESIGN).

UNION METAL CORPORATION
1432 MAPLE AVENUE N.E.
P.O. BOX 9920
CANTON, OH 44711
PHONE: 330-456-7653

THE CONTRACTOR SHALL FURNISH AND INSTALL DECORATIVE LIGHT POLES, AS PER PLAN. POLES SHALL INCLUDE HANDHOLE, CHAIN, AND COVER. ALL HARDWARE INCLUDING BRACKET ARMS AND RELATED EQUIPMENT SHALL BE INCLUDED WITH THIS ITEM. THE ENTIRE ASSEMBLY SHALL BE INCLUDED WITH THIS ITEM. THE ENTIRE ASSEMBLY SHALL BE DESIGNED TO MEET THE REQUIREMENTS OF AASHTO. THE ORNAMENTAL BASE SHALL BE UNION METAL CORPORATION BASE NO. 74 AND SHALL BE LEVEL IN ORDER TO ACCEPT THE BASE ASSEMBLY AND SHALL BE AT LEAST AS LARGE AS THE BOTTOM DIMENSION OF THE ORNAMENTAL BASE CASTING. ALL PROPOSED EXTERIOR CONNECTIONS (PEDESTRIAN SIGNAL HEADS, SIGNS, ETC.) TO DECORATIVE LIGHT POLES SHALL BE FIELD DRILLED. BANDING OR STRAPPING ON THE DECORATIVE LIGHT POLES SHALL NOT BE PERMITTED. A PERMANENT LEGIBLE MARKING INDICATION SHALL BE INCLUDED ON EACH DECORATIVE LUMINAIRE SUPPORT. THE FOLLOWING INDICATION SHALL BE REQUIRED AS A MINIMUM:

A. POLE INDICATIONS, MONTH/DATE OF FABRICATION, POLE GAUGE, BOTTOM DIAMETER, POLE HEIGHT, BOLT CIRCLE, ANCHOR BOLT DIAMETER, FLANGE BOLT DIAMETER, AND INTERSECTION LOCATION INCLUDING CORNER QUADRANT.

EACH POLE SHALL INCLUDE AN OUTLET FRAME INTEGRALLY WELDED INTO THE TOP OF THE SHAFT TO ACCOMMODATE A DUPLEX 20A-125V, GFI RECEPTACLE PROVIDED WITH THE POLE. A WEATHERPROOF COVER PAINTED TO MATCH THE POLE SHALL ALSO BE PROVIDED.

EACH POLE SHALL INCLUDE PROVISIONS FOR AN ALUMINUM FLAG HOLDER BRACKET, FLOWER HOLDER AND BANNER ARMS.

BASIS OF PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH ITEM 625 - LIGHT POLE, DECORATIVE, AS PER PLAN, WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, INSTALLATION, ANCHOR BOLTS, COVER BASE, PAINTING, AND INCIDENTALS.

NOSTALGIA SIGNAL SUPPORT AND PEDESTAL AND DECORATIVE LIGHT POLE PAINTING

LUMINAIRE POLE AND BRACKETS SHALL BE PAINTED (SURFACE PREPARATION, PRIMER APPLICATION, AND FINISH COATING OF GALVANIZED SUBSTRATES). THE FOLLOWING SHALL APPLY:

A. SURFACE PREPARATION:
PRE CLEAN SUBSTRATES SSPC-SP-1 SOLVENT CLEANING SPECIFICATION, PREPARE GALVANIZED SUBSTRATES BY ABRASIVE BLASTING TO SSPC-SP-7. BRUSH-OFF BLAST CLEANING SPECIFICATION.

B. COLOR:
THE COLOR OF THE POLES SHALL BE CBD GREEN (COLOR AND FORMULA IS ON FILE AT THE MIDWEST TANK SERVICES CO. INC., CANTON, OH).

C. MATERIALS:
PRIMER-APPLY ONE (1) COAT OF POLYAMIDE UNIVERSAL EPOXY PRIMER-LIGHT GRAY AT A DRY FILM THICKNESS OF 2.0-4.0 MILS.
IST INTERMEDIATE-APPLY ONE (1) COAT OF HIGH BUILD EPOXY-BUFF COLOR AT A DRY FILM THICKNESS OF 4.0-8.0 MILS
2ND INTERMEDIATE- APPLY ONE (1) COAT OF ALIPHATIC ACRYLIC URETHANE-CBD GREEN AT A DRY FILM THICKNESS OF 2.0-3.0 MILS.
FINISH-APPLY ONE (1) COAT OF ALIPHATIC URETHANE-CLEAR AT A DRY FILM THICKNESS OF 2.0-3.0 MILS

D. APPLICATION:
APPLICATION(S) OF COATING(S) SHALL BE BY SPRAY METHOD ONLY BY INDUSTRY STANDARDS OF GOOD WORKMANSHIP AND PRACTICES.

E. INSPECTIONS:
INSPECTION OF APPLIED COATINGS SHALL BE IN ACCORDANCE WITH THE SOCIETY FOR PROTECTIVE COATINGS (SSPC) PAINT APPLICATION STANDARD NO. 2. MEASUREMENT OF DRY COATING THICKNESS WITH MAGNETIC GAGES (SSPC-PA2).

F. WARRANTY:
COATING MANUFACTURER SHALL PROVIDE A TEN YEAR (10 YEAR) MATERIALS PERFORMANCE GUARANTEE.

THE COST FOR NOSTALGIA DECORATIVE LIGHT POLE PAINTING SHOULD BE INCLUDED IN AND INCIDENTAL TO ITEM 625 - LIGHT POLE, DECORATIVE, AS PER PLAN.

ITEM 625 - CONDUIT, 2", 725.05, AS PER PLAN

ALL CONDUITS AND FITTINGS SHALL BE TYPE EB, SCHEDULE 40 PVC ENCASED IN CONCRETE. ALL CONDUITS SHALL HAVE PULL WIRE. ALL CONDUITS ENTERING A PULL BOX, POLE, ETC. SHALL NOT EXTEND MORE THAN 1" BEYOND ENTERING THE PULL BOX, POLE, ETC.

CALCULATED CX
CHECKED JAN

LIGHTING GENERAL NOTES

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN EACH	625 LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP EACH	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 2", 725.05 FT	625 CONDUIT, 2", 725.05, AS PER PLAN FT	625 CONDUIT, JACKED OR DRILLED, 725.04 ,2" FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN EACH	625 TRENCH FT	625 PULL BOX, MISC.: 725.06 (17" X 30") EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	SPECIAL MAINTAIN EXISTING LIGHTING LS	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 POWER SERVICE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	625 ARC FLASH CALCULATIONS AND LABEL (CC) EACH
			WHOLE PROJECT																				1						
AC-1	250	MARKET AVE	14+55	LT			3	1	1	1		120					2			1									
			14+55	LT		15+31					320		70					70				70								
AC-2	250	MARKET AVE	15+31	LT			3	1	1	1		120					2			1									
			15+31	LT		15+36					60		5					5				5								
PB-A9	250	MARKET AVE	15+36	LT															1										
			15+36	LT		15+68					168			32				32				32								
PB-A8	250	MARKET AVE	15+68	LT															1										
			15+68	LT		16+20					248		52					52				52								
AC-3	250	MARKET AVE	16+20	LT			3	1	1	1		120					2			1									
			16+20	LT		17+21					444		101					101				101								
AC-4	250	MARKET AVE	17+21	LT			3	1	1	1		120					2			1									
			17+21	LT		18+06					380		85					85				85								
AC-5	250	MARKET AVE	18+06	LT			3	1	1	1		120					2			1									
			18+06	LT		105+07					220		45					45				45								
PB-A7	250	11TH ST SE	105+07	RT															1										
			105+07	RT		104+85					116		19					19				19								
AC-6	250	11TH ST SE	104+85	RT			3	1	1	1		120					2			1									
			104+85	RT		103+50					572		133					133				133								
AC-7	250	11TH ST SE	103+50	RT			3	1	1	1		120					2			1									
			103+50	RT		103+37					192		14					14				14								
PB-A6	250	11TH ST SE	103+37	RT															1										
			103+37	RT		102+64					348		77					77				77								
			103+37	RT		103+36					216			44				44				44								
AC-8	250	11TH ST SE	102+64	LT			3	1	1	1		120					2			1									
PB-A5	250	11TH ST SE	103+36	LT															1										
			103+36	LT		103+40					56		4					4				4								
AC-9	250	11TH ST SE	103+40	LT			3	1	1	1		120					2			1									
			103+40	LT		104+31					432		98					98				98								
AC-10	250	11TH ST SE	104+31	LT			3	1	1	1		120					2			1									
			104+31	LT		105+21					440		100					100				100								
AC-11	250	11TH ST SE	105+21	LT			3	1	1	1		120					2			1									
			105+21	LT		20+06					500		115					115				115								
AC-12	250	MARKET AVE	20+06	LT			3	1	1	1		120					2			1									
			20+06	LT		21+10					500		115					115				115								
AC-13	250	MARKET AVE	21+10	LT			3	1	1	1		120					2			1									
			21+10	LT		21+26					104		16					16				16								
PB-A4	250	MARKET AVE	21+26	LT															1										
			21+26	LT		21+71					212			43				43				43								
PB-A3	250	MARKET AVE	21+71	LT															1										
			21+71	LT		22+21					232		48					48				48								
AC-14	250	MARKET AVE	22+21	LT			3	1	1	1		120					2			1									
			22+21	LT		22+30					76		9					9				9								
PB-A2	250	MARKET AVE	22+30	LT															1										
			22+30	LT		22+30					488			51				51				51								
AD-1	250	MARKET AVE	14+44	RT			3	1	1	1		120					2			1									
			14+44	RT		15+20					376		84					84				84								
AD-2	250	MARKET AVE	15+20	RT			3	1	1	1		120					2			1									
			15+20	RT		16+20					440		100					100				100								
AD-3	250	MARKET AVE	16+20	RT			3	1	1	1		120					2			1									
			16+20	RT		17+21					448		102					102				102								
AD-4	250	MARKET AVE	17+21	RT			3	1	1	1		120					2			1									
			17+21	RT		18+00					416		94					94				94								
AD-5	250	MARKET AVE	18+00	RT			3	1	1	1		120					2			1									
			18+00	RT		106+84					412		93					93				93								
AD-6	250	11TH ST SE	106+84	RT			3	1	1	1		120					2			1									
			106+84	RT		106+84					84		11					11				11								
TOTALS CARRIED TO 249							60	20	20	20	8500	2400	1590	170	0	0	40	1760	8	20	0	1760	1	0	0	0	0	0	0

CALCULATED CX
CHECKED JAN

LIGHTING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

244
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN EACH	625 LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP EACH	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 2", 725.05 FT	625 CONDUIT, 2", 725.05, AS PER PLAN FT	625 CONDUIT, JACKED OR DRILLED, 725.04 .2" FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN EACH	625 TRENCH FT	625 PULL BOX, MISC.: 725.06 (17" X 30") EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	SPECIAL MAINTAIN EXISTING LIGHTING	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 POWER SERVICE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	625 ARC FLASH CALCULATIONS AND LABEL (CC) EACH
PB-A10	250	11TH ST SE	106+84	RT															1										
			106+84	RT		106+90					284			61				61				61							
			106+84	RT		105+07								170				170				170							
			106+84	RT		107+61							83					83				83							
PB-A11	250	11TH ST SE	106+90	RT															1										
			106+90	RT		107+16					136		24					24				24							
			106+90	RT		108+30							136					136				136							
			106+90	LT		CENTER OF RAB							68					68				68							
AD-7	250	11TH ST SE	107+16	LT			3	1	1	1		120					2			1									
			107+16	LT		20+16					336		74					74				74							
AD-8	250	MARKET AVE	20+16	RT			3	1	1	1		120					2			1									
			20+16	RT		21+30					484		111					111				111							
AD-9	250	MARKET AVE	21+30	RT			3	1	1	1		120					2			1									
			21+30	RT		22+19					412		93					93				93							
AD-10	250	MARKET AVE	22+19	RT			3	1	1	1		120					2			1									
			22+19	RT		22+30					88		12					12				12							
PB-A1	250	MARKET AVE	22+30	RT															1										
			22+30	RT		22+33					228		4					4				4							
PB-A17	254	MARKET AVE	26+64	LT															1										
			26+64	LT		26+28							36					36				36							
AB-4	254	MARKET AVE	26+28	LT			3	1	1	1		120					2			1									
			26+28	LT		25+34					416		94					94				94							
AB-3	254	MARKET AVE	25+34	LT			3	1	1	1		120					2			1									
			25+34	LT		25+13					124		21					21				21							
PB-A16	254	MARKET AVE	25+13	LT															1										
			25+13	LT		24+79					176			34				34				34							
PB-A15	254	MARKET AVE	24+79	LT															1										
			24+79	LT		24+27					248		52					52				52							
AB-2	254	MARKET AVE	24+27	LT			3	1	1	1		120					2			1									
			24+27	LT		24+00					148		27					27				27							
PB-A14	254	MARKET AVE	24+00	LT															1										
			24+00	LT		23+65					180			35				35				35							
PB-A13	254	MARKET AVE	23+65	LT															1										
			23+65	LT		23+25					200		40					40				40							
AB-1	254	MARKET AVE	23+25	LT			3	1	1	1		120					2			1									
			23+25	LT		22+80					220		45					45				45							
PB-A12	254	MARKET AVE	22+80	LT															1										
			22+80	LT		22+30					240			50				50				50							
BA-1	250	11TH ST SE	108+30	LT			3	1	1	1		120					2			1									
			108+30	LT		109+31					440		100					100				100							
BA-2	250	11TH ST SE	109+31	LT			3	1	1	1		120					2			1									
			109+31	LT		110+31					440		100					100				100							
BA-3	251	11TH ST SE	110+31	LT			3	1	1	1		120					2			1									
			110+31	LT		111+32					444		101					101				101							
BA-4	251	11TH ST SE	111+32	LT			3	1	1	1		120					2			1									
			111+32	LT		112+36					456		104					104				104							
BA-5	251	11TH ST SE	112+36	LT			3	1	1	1		120					2			1									
			112+36	LT		113+36					448		102					102				102							
BA-6	251	11TH ST SE	113+36	LT			3	1	1	1		120					2			1									
			113+36	LT		114+30					424		96					96				96							
BA-7	251	11TH ST SE	114+30	LT			3	1	1	1		120					2			1									
			114+30	LT		115+39					488		112					112				112							
BA-8	251	11TH ST SE	115+39	LT			3	1	1	1		120					2			1									
			115+39	LT		116+25					388		87					87				87							
BA-9	251	11TH ST SE	116+25	LT			3	1	1	1		120					2			1									
			116+25	LT		117+36					488		112					112				112							
BA-10	251	11TH ST SE	117+36	LT			3	1	1	1		120					2			1									
			117+36	LT		118+36					440		100					100				100							
TOTALS CARRIED TO 249							54	18	18	18	8376	2160	1934	350	0	0	36	2284	9	18	0	2284	0	0	0	0	0	0	0

CALCULATED CX CHECKED JAN

LIGHTING SUBSUMMARY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

245 302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN EACH	625 LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP EACH	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 2", 725.05 FT	625 CONDUIT, 2", 725.05, AS PER PLAN FT	625 CONDUIT, JACKED OR DRILLED, 725.04 ,2" FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN EACH	625 TRENCH FT	625 PULL BOX, MISC.: 725.06 (17" X 30") EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	SPECIAL MAINTAIN EXISTING LIGHTING LS	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 POWER SERVICE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	625 ARC FLASH CALCULATIONS AND LABEL (CC) EACH
BA-11	251	11TH ST SE	118+36	LT			3	1	1	1		120					2			1									
			118+36	LT		118+57					124		21					21				21								
PB-B3	251	11TH ST SE	118+57	LT															1										
			118+57	LT		119+23					300			65				65				65								
PB-B2	251	11TH ST SE	119+23	LT															1										
			119+23	LT		119+29					64		6					6				6								
BA-12	251	11TH ST SE	119+29	LT			3	1	1	1		120					2			1									
			119+29	LT		120+17					392		88					88				88								
BA-13	252	11TH ST SE	120+17	LT			3	1	1	1		120					2			1									
			120+17	LT		121+12					420		95					95				95								
BA-14	252	11TH ST SE	121+12	LT			3	1	1	1		120					2			1									
			121+12	LT		121+90					408		92					92				92								
BA-15	252	11TH ST SE	121+90	LT			3	1				165				1													
			121+90	LT		121+97					72		8					8				8								
PB-B1	252	11TH ST SE	121+97	LT															1										
			121+97	LT		121+96					368		8					8				8								
PS-B	252	11TH ST SE	121+96	LT																	1								1
BB-1	250	11TH ST SE	107+61	RT			3	1	1	1		120					2			1									
			107+61	RT		108+48					412		93					93				93								
BB-2	250	11TH ST SE	108+48	RT			3	1	1	1		120					2			1									
			108+48	RT		109+49					436		99					99				99								
BB-3	251	11TH ST SE	109+49	RT			3	1	1	1		120					2			1									
			109+49	RT		109+59					88		12					12				12								
PB-B8	251	11TH ST SE	109+59	RT															1										
			109+59	RT		110+25					304			66				66				66								
PB-B7	251	11TH ST SE	110+25	RT															1										
			110+25	RT		110+31					64		6					6				6								
BB-4	251	11TH ST SE	110+31	RT			3	1	1	1		120					2			1									
			110+31	RT		111+32					444		101					101				101								
BB-5	251	11TH ST SE	111+32	RT			3	1	1	1		120					2			1									
			111+32	RT		112+36					456		104					104				104								
BB-6	251	11TH ST SE	112+36	RT			3	1	1	1		120					2			1									
			112+36	RT		113+36					432		98					98				98								
BB-7	251	11TH ST SE	113+36	RT			3	1	1	1		120					2			1									
			113+36	RT		114+36					432		98					98				98								
BB-8	251	11TH ST SE	114+36	RT			3	1	1	1		120					2			1									
			114+36	RT		115+36					432		98					98				98								
BB-9	251	11TH ST SE	115+36	RT			3	1	1	1		120					2			1									
			115+36	RT		116+36					440		100					100				100								
BB-10	251	11TH ST SE	116+36	RT			3	1	1	1		120					2			1									
			116+36	RT		117+36					444		101					101				101								
BB-11	251	11TH ST SE	117+36	RT			3	1	1	1		120					2			1									
			117+36	RT		118+20					380		85					85				85								
BB-12	251	11TH ST SE	118+20	RT			3	1	1	1		120					2			1									
			118+20	RT		119+24					456		104					104				104								
BB-13	251	11TH ST SE	119+24	RT			3	1	1	1		120					2			1									
			119+24	RT		120+16					408		92					92				92								
BB-14	252	11TH ST SE	120+16	RT			3	1	1	1		120					2			1									
			120+16	RT		120+27					84		11					11				11								
PB-B6	252	11TH ST SE	120+27	RT															1										
			120+27	RT		120+80					252			53				53				53								
PB-B5	252	11TH ST SE	120+80	RT															1										
			120+80	RT		121+06					144		26					26				26								
BB-15	252	11TH ST SE	121+06	RT			3	1	1	1		120					2			1									
			121+06	RT		122+13					520		120					120				120								
BB-16	252	11TH ST SE	122+13	RT			3	1				165				1													
			122+13	RT		122+18					64		6					6				6								
TOTALS CARRIED TO 249							63	21	19	19	8840	2610	1672	184	0	2	38	1856	7	19	1	1856	0	0	0	0	0	0	1

CALCULATED CX
CHECKED JAN

LIGHTING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

246
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN EACH	625 LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP EACH	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 2", 725.05 FT	625 CONDUIT, 2", 725.05, AS PER PLAN FT	625 CONDUIT, JACKED OR DRILLED, 725.04 ,2" FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN EACH	625 TRENCH FT	625 PULL BOX, MISC.: 725.06 (17" X 30") EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	SPECIAL MAINTAIN EXISTING LIGHTING LS	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 POWER SERVICE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	625 ARC FLASH CALCULATIONS AND LABEL (CC) EACH
BB-17	252	CHERRY AVE	59+23	LT			3	1	1	1		120					2			1									
			59+23	LT		122+18					180		35					35				35								
BB-18	252	11TH ST SE	123+22	RT			3	1				165				1													
			123+22	RT		123+18					56		4					4				4								
PB-B12	252	11TH ST SE	123+18	RT															1										
			123+18	RT		122+18					440			100															
PB-B4	252	11TH ST SE	122+18	RT															1										
			122+18	RT		121+97					420			95															
PB-B9	252	CHERRY AVE	65+14	LT															1										
			65+14	LT		EX LIGHT					520																		
			65+14	LT		65+08					64		6					6				6								
BC-5	252	CHERRY AVE	65+08	LT			3	1	1	1		120					2			1									
			65+08	LT		64+08					452		103					103				103								
BC-4	252	CHERRY AVE	64+08	LT			3	1	1	1		120					2			1									
			64+08	LT		63+08					440		100					100				100								
BC-3	252	CHERRY AVE	63+08	LT			3	1	1	1		120					2			1									
			63+08	LT		62+09					440		100					100				100								
BC-2	252	CHERRY AVE	62+09	LT			3	1	1	1		120					2			1									
			62+09	LT		61+09					440		100					100				100								
BC-1	252	CHERRY AVE	61+09	LT			3	1	1	1		120					2			1									
			61+09	LT		121+97					364		81					81				81								
PB-B10	252	CHERRY AVE	65+14	RT															1										
			65+14	RT		EX LIGHT					520																		
			65+14	RT		65+08					64		6					6				6								
BD-6	252	CHERRY AVE	65+08	RT			3	1	1	1		120					2			1									
			65+08	RT		64+08					440		100					100				100								
BD-5	252	CHERRY AVE	64+08	RT			3	1	1	1		120					2			1									
			64+08	RT		63+08					440		100					100				100								
BD-4	252	CHERRY AVE	63+08	RT			3	1	1	1		120					2			1									
			63+08	RT		61+95					500		115					115				115								
BD-3	252	CHERRY AVE	61+95	RT			3	1	1	1		120					2			1									
			61+95	RT		61+09					388		87					87				87								
BD-2	252	CHERRY AVE	61+09	RT			3	1	1	1		120					2			1									
			61+09	RT		123+24					244		51					51				51								
BD-1	252	11TH ST SE	123+24	LT			3	1				165				1													
			123+24	LT		124+24					68		7					7				7								
PB-B11	252	11TH ST SE	123+24	LT															1										
			123+24	LT		121+97					548			127															
			123+24	LT		124+31							116					116				116								
			123+24	LT		123+18								96															
CA-1	252	11TH ST SE	124+31	LT			3	1	1	1		120					2			1									
			124+31	LT		125+33					448		102					102				102								
CA-2	252	11TH ST SE	125+33	LT			3	1	1	1		120					2			1									
			125+33	LT		126+45					488		112					112				112								
CA-3	252	11TH ST SE	126+45	LT			3	1	1	1		120					2			1									
			126+45	LT		127+74					580		135					135				135								
CA-4	252	11TH ST SE	127+74	LT			3	1				165				1													
			127+74	LT		127+73					56		4					4				4								
PB-C3	252	11TH ST SE	127+73	LT															1										
			127+73	LT		128+37					296			64															
PB-C2	252	11TH ST SE	128+37	LT															1										
			128+37	LT		128+63					768			86															
CB-1	252	CHERRY AVE	58+71	RT			3	1	1	1		120					2			1									
			58+71	RT		124+24					552		128					128				128								
TOTALS CARRIED TO 249							54	18	15	15	10216	2295	1592	568	0	3	30	1592	7	15	0	1592	0	0	0	0	0	0	0

CALCULATED CX
CHECKED JAN

LIGHTING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

247
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN EACH	625 LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP EACH	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 2", 725.05 FT	625 CONDUIT, 2", 725.05, AS PER PLAN FT	625 CONDUIT, JACKED OR DRILLED, 725.04 ,2" FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN EACH	625 TRENCH FT	625 PULL BOX, MISC.: 725.06 (17" X 30") EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	SPECIAL MAINTAIN EXISTING LIGHTING LS	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 POWER SERVICE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	625 ARC FLASH CALCULATIONS AND LABEL (CC) EACH
CB-2	252	11TH ST SE	124+24	RT			3	1	1	1		120					2			1									
			124+24	RT		125+33					476		109					109				109								
CB-3	252	11TH ST SE	125+33	RT			3	1	1	1		120					2			1									
			125+33	RT		126+45					488		112					112				112								
CB-4	252	11TH ST SE	126+45	RT			3	1	1	1		120					2			1									
			126+45	RT		127+70					556		129					129				129								
CB-5	252	11TH ST SE	127+70	RT			3	1				165				1													
			127+70	RT		127+75					64		6					6				6								
PB-C4	252	11TH ST SE	127+75	RT															1										
			127+75	RT		128+63					404			91															
			127+75	RT		127+73								103															
PB-C1	252	11TH ST SE	128+63	RT															1										
			128+63	RT		128+64					464		14					14				14								
PS-C	252	11TH ST SE	128+64	RT																	1								1
PB-C9	253	11TH ST SE	136+33	LT															1										
			136+33	LT		136+28							6					6				6								
CC-9	253	11TH ST SE	136+28	LT			3	1	1	1		120					2			1									
			136+28	LT		135+32					424		96					96				96								
CC-8	253	11TH ST SE	135+32	LT			3	1	1	1		120					2			1									
			135+32	LT		134+87					220		45					45				45								
PB-C8	253	11TH ST SE	134+87	LT															1										
			134+87	LT		134+46					204				41														
PB-C7	253	11TH ST SE	134+46	LT															1										
			134+46	LT		134+39					68		7					7				7								
CC-7	253	11TH ST SE	134+39	LT			3	1	1	1		120					2			1									
			134+39	LT		133+23					504		116					116				116								
CC-6	253	11TH ST SE	133+23	LT			3	1	1	1		120					2			1									
			133+23	LT		132+28					424		96					96				96								
CC-5	253	11TH ST SE	132+28	LT			3	1	1	1		120					2			1									
			132+28	LT		131+39					396		89					89				89								
CC-4	253	11TH ST SE	131+39	LT			3	1	1	1		120					2			1									
			131+39	LT		130+40					436		99					99				99								
CC-3	253	11TH ST SE	130+40	LT			3	1	1	1		120					2			1									
			130+40	LT		129+40					440		100					100				100								
CC-2	252	11TH ST SE	129+40	LT			3	1	1	1		120					2			1									
			129+40	LT		128+43					452		103					103				103								
CC-1	252	11TH ST SE	128+43	LT			3	1				165				1													
			128+43	LT		128+37					68		7					7				7								
CD-10	253	11TH ST SE	137+30	RT			3	1	1	1		120					2			1									
			137+30	RT		136+50					440		100					100				100								
CD-9	253	11TH ST SE	136+30	RT			3	1	1	1		120					2			1									
			136+30	RT		135+31					436		99					99				99								
CD-8	253	11TH ST SE	135+31	RT			3	1	1	1		120					2			1									
			135+31	RT		134+93					192		38					38				38								
PB-C6	253	11TH ST SE	134+93	RT															1										
			134+93	RT		134+45					232				48														
PB-C5	253	11TH ST SE	134+45	RT															1										
			134+45	RT		134+39					68		7					7				7								
CD-7	253	11TH ST SE	134+39	RT			3	1	1	1		120					2			1									
			134+39	RT		133+40					436		99					99				99								
CD-6	253	11TH ST SE	133+40	RT			3	1	1	1		120					2			1									
			133+40	RT		132+43					432		98					98				98								
CD-5	253	11TH ST SE	132+43	RT			3	1	1	1		120					2			1									
			132+43	RT		131+52					404		91					91				91								
CD-4	253	11TH ST SE	131+52	RT			3	1	1	1		120					2			1									
			131+52	RT		130+54					432		98					98				98								
TOTALS CARRIED TO 249							60	20	18	18	9160	2490	1764	194	89	2	36	1764	7	18	1	1764	0	0	0	0	0	0	1

CALCULATED CX
CHECKED JAN

LIGHTING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

248
302

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REF NO.	SHEET NO.	ROADWAY	STATION TO STATION				625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 LIGHT POLE, DECORATIVE, AS PER PLAN EACH	625 LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP EACH	625 NO. 6 AWG 600 VOLT DISTRIBUTION CABLE FT	625 NO. 12 AWG POLE AND BRACKET CABLE FT	625 CONDUIT, 2", 725.05 FT	625 CONDUIT, 2", 725.05, AS PER PLAN FT	625 CONDUIT, JACKED OR DRILLED, 725.04 .2" FT	625 LUMINAIRE, CONVENTIONAL, AS PER PLAN EACH	625 LUMINAIRE, DECORATIVE, AS PER PLAN EACH	625 TRENCH FT	625 PULL BOX, MISC.: 725.06 (17" X 30") EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 UNDERGROUND WARNING/MARKING TAPE FT	SPECIAL MAINTAIN EXISTING LIGHTING LS	625 LIGHT POLE REMOVED EACH	625 LIGHT POLE FOUNDATION REMOVED EACH	625 LUMINAIRE REMOVED EACH	625 POWER SERVICE REMOVED EACH	625 DISCONNECT CIRCUIT EACH	625 ARC FLASH CALCULATIONS AND LABEL (CC) EACH
CD-3	253	11TH ST SE	130+54	RT			3	1	1	1		120					2			1									
			130+54	RT		129+59					424		96					96				96								
CD-2	252	11TH ST SE	129+59	RT			3	1	1	1		120					2			1									
			129+59	RT		128+69					420		95					95				95								
CD-1	252	11TH ST SE	128+69	RT			3	1				165				1													
			128+69	RT		128+63					64		6					6				6								
RM-1	250	MARKET AVE	15+63	RT																						1		1	
RM-2	250	MARKET AVE	16+90	LT																				1	1	1		1	
RM-3	250	MARKET AVE	20+16	LT																				1	1	1		1	
RM-4	250	MARKET AVE	21+54	RT																						1		1	
RM-5	250	11TH ST SE	102+87	RT																						1		1	
RM-6	250	11TH ST SE	104+79	RT																						1		1	
RM-7	250	11TH ST SE	107+83	RT																						1		1	
RM-8	250	11TH ST SE	110+01	LT																						1		1	
RM-9	250	11TH ST SE	112+04	LT																						1		1	
RM-10	250	11TH ST SE	113+11	LT																						1		1	
RM-11	250	11TH ST SE	115+35	LT																						1		1	
RM-12	251	11TH ST SE	118+00	RT																				1	1	1		1	
RM-13	252	11TH ST SE	120+95	RT																				1	1	1		1	
RM-14	252	11TH ST SE	121+90	LT																				1	1	1		1	
RM-15	252	11TH ST SE	123+17	LT																				1	1	1		1	
RM-16	252	11TH ST SE	123+58	RT																				1	1	1		1	
RM-17	252	11TH ST SE	124+32	RT																				1	1	1		1	
RM-18	252	11TH ST SE	124+68	LT																				1	1	1		1	
RM-19	252	11TH ST SE	125+73	RT																				1	1	1		1	
RM-20	252	11TH ST SE	126+73	LT																				1	1	1		1	
RM-21	252	11TH ST SE	127+22	RT																				1	1	1		1	
RM-22	252	11TH ST SE	129+08	LT																				1	1	1		1	
RM-23	252	CHERRY AVE	58+58	RT																				1	1	1		1	
RM-24	252	CHERRY AVE	59+20	LT																				1	1	1		1	
RM-25	252	CHERRY AVE	61+75	LT																				1	1	1		1	
RM-26	252	CHERRY AVE	62+77	RT																				1	1	1		1	
RM-27	252	CHERRY AVE	63+82	LT																				1	1	1		1	
RM-28	252	CHERRY AVE	64+85	RT																				1	1	1		1	
RM-29	253	11TH ST SE	130+80	RT																				1	1	1		1	
RM-30	253	11TH ST SE	132+26	LT																				1	1	1		1	
RM-31	253	11TH ST SE	133+74	RT																				1	1	1		1	
RM-32	253	11TH ST SE	135+61	RT																						1		1	
RM-LCC	251	11TH ST SE	121+93	RT																							1		
TOTALS CARRIED TO 249							9	3	2	2	908	405	197	0	0	1	4	197	0	2	0	197	0	22	22	32	1	32	0

TOTALS CARRIED FROM 244	60	20	20	20	8500	2400	1590	170	0	0	40	1760	8	20	0	1760	1	0	0	0	0	0	0
TOTALS CARRIED FROM 245	54	18	18	18	8376	2160	1934	350	0	0	36	2284	9	18	0	2284	0	0	0	0	0	0	0
TOTALS CARRIED FROM 246	63	21	19	19	8840	2610	1672	184	0	2	38	1856	7	19	1	1856	0	0	0	0	0	0	1
TOTALS CARRIED FROM 247	54	18	15	15	10216	2295	1592	568	0	3	30	1592	7	15	0	1592	0	0	0	0	0	0	0
TOTALS CARRIED FROM 248	60	20	18	18	9160	2490	1764	194	89	2	36	1764	7	18	1	1764	0	0	0	0	0	0	1
TOTALS CARRIED FROM THIS SHEET	9	3	2	2	908	405	197	0	0	1	4	197	0	2	0	197	0	22	22	32	1	32	0
TOTALS CARRIED TO GENERAL SUMMARY	300	100	92	92	46000	12360	8749	1466	89	8	184	9453	38	92	2	9453	1	22	22	32	1	32	2

CALCULATED CX
CHECKED JAN

LIGHTING SUBSUMMARY

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

249
302

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LEGEND

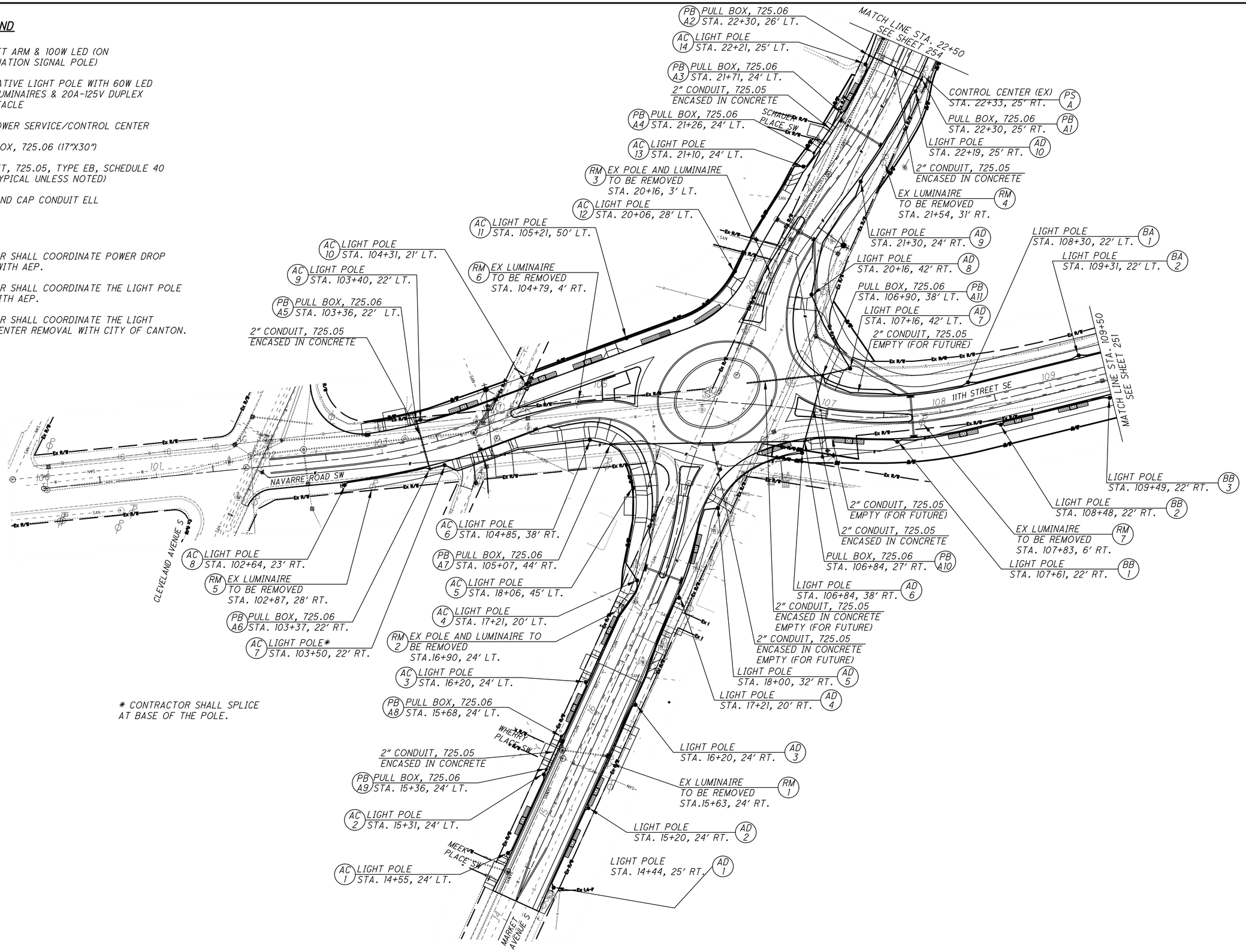
- BRACKET ARM & 100W LED (ON COMBINATION SIGNAL POLE)
- DECORATIVE LIGHT POLE WITH 60W LED TWIN LUMINAIRES & 20A-125V DUPLEX RECEPTACLE
- NEW POWER SERVICE/CONTROL CENTER
- PULL BOX, 725.06 (17"X30")
- CONDUIT, 725.05, TYPE EB, SCHEDULE 40 PVC (TYPICAL UNLESS NOTED)
- STUB AND CAP CONDUIT ELL

NOTE:

CONTRACTOR SHALL COORDINATE POWER DROP LOCATION WITH AEP.

CONTRACTOR SHALL COORDINATE THE LIGHT POLE REMOVAL WITH AEP.

CONTRACTOR SHALL COORDINATE THE LIGHT CONTROL CENTER REMOVAL WITH CITY OF CANTON.



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX CHECKED JAN

LIGHTING PLAN
11TH STREET SE - BEGINNING TO STA. 109+50

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

250/302

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LEGEND

- BRACKET ARM & 100W LED (ON COMBINATION SIGNAL POLE)
- DECORATIVE LIGHT POLE WITH 60W LED TWIN LUMINAIRES & 20A-125V DUPLEX RECEPTACLE
- NEW POWER SERVICE/CONTROL CENTER
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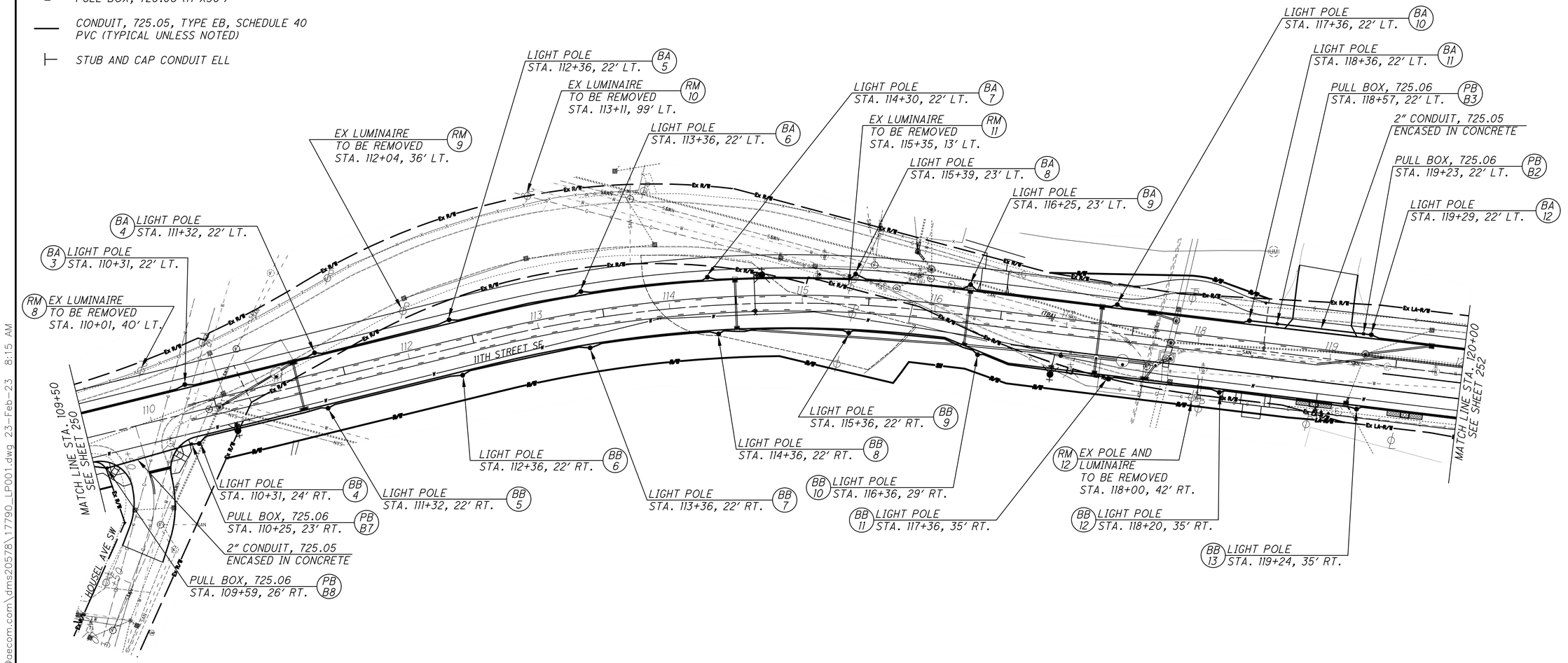
- CONDUIT, 725.05, TYPE EB, SCHEDULE 40 PVC (TYPICAL UNLESS NOTED)
- STUB AND CAP CONDUIT ELL



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX
CHECKED JAN

LIGHTING PLAN
11TH STREET SE - STA. 109+50 TO STA. 120+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

251
302

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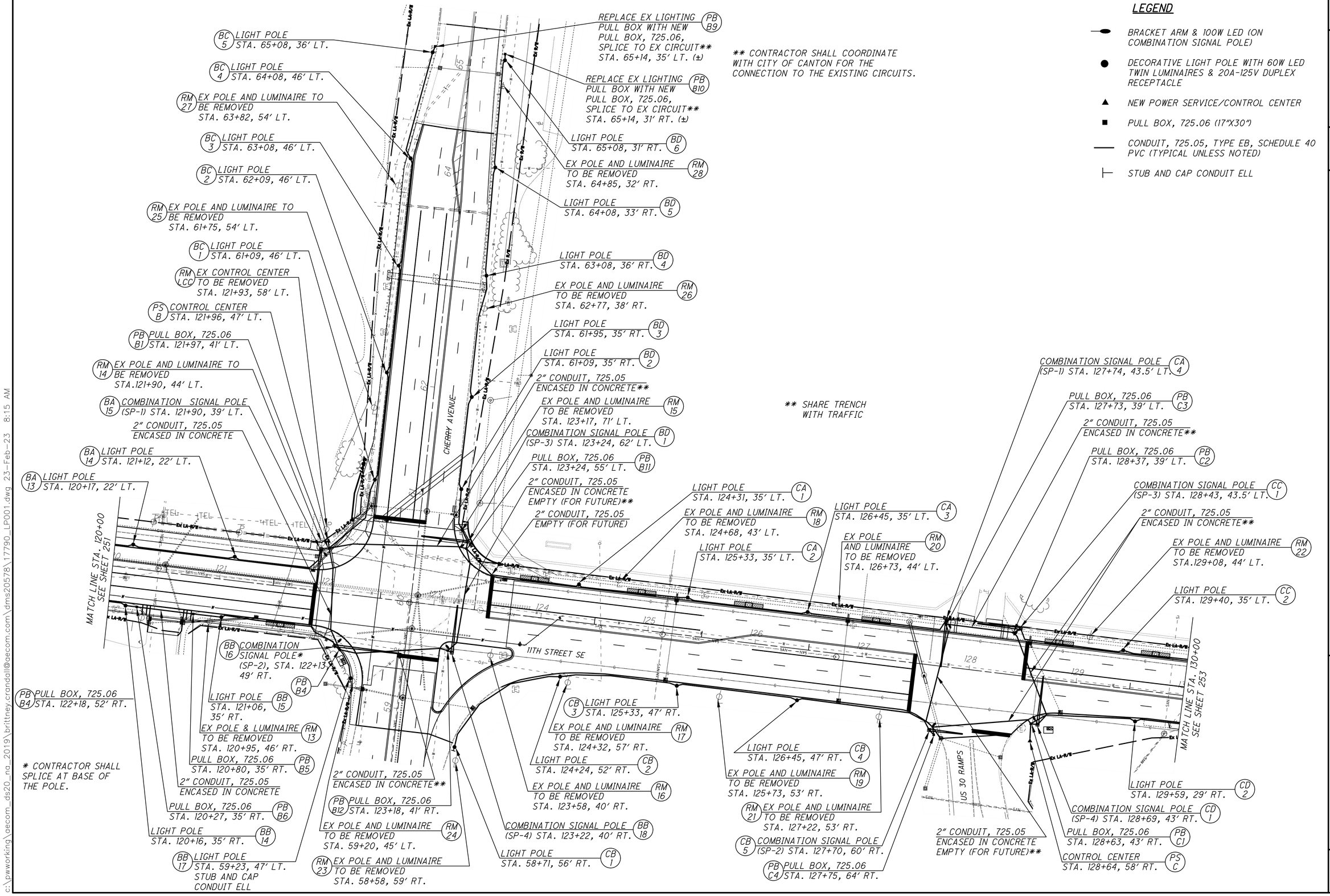
LEGEND
BRACKET ARM & 100W LED (ON COMBINATION SIGNAL POLE)
DECORATIVE LIGHT POLE WITH 60W LED TWIN LUMINAIRES & 20A-125V DUPLEX RECEPTACLE
NEW POWER SERVICE/CONTROL CENTER
PULL BOX, 725.06 (17"X30")
CONDUIT, 725.05, TYPE EB, SCHEDULE 40 PVC (TYPICAL UNLESS NOTED)
STUB AND CAP CONDUIT ELL
** CONTRACTOR SHALL COORDINATE WITH CITY OF CANTON FOR THE CONNECTION TO THE EXISTING CIRCUITS.
** SHARE TRENCH WITH TRAFFIC
* CONTRACTOR SHALL SPLICE AT BASE OF THE POLE.
BC 5 LIGHT POLE STA. 65+08, 36' LT.
BC 4 LIGHT POLE STA. 64+08, 46' LT.
RM 27 EX POLE AND LUMINAIRE TO BE REMOVED STA. 63+82, 54' LT.
BC 3 LIGHT POLE STA. 63+08, 46' LT.
BC 2 LIGHT POLE STA. 62+09, 46' LT.
RM 25 EX POLE AND LUMINAIRE TO BE REMOVED STA. 61+75, 54' LT.
BC 1 LIGHT POLE STA. 61+09, 46' LT.
RM LCC EX CONTROL CENTER TO BE REMOVED STA. 121+93, 58' LT.
PS B CONTROL CENTER STA. 121+96, 47' LT.
PB B1 PULL BOX, 725.06 STA. 121+97, 41' LT.
RM 14 EX POLE AND LUMINAIRE TO BE REMOVED STA.121+90, 44' LT.
BA 15 COMBINATION SIGNAL POLE (SP-1) STA. 121+90, 39' LT.
2" CONDUIT, 725.05 ENCASED IN CONCRETE
BA 14 LIGHT POLE STA. 121+12, 22' LT.
BA 13 LIGHT POLE STA. 120+17, 22' LT.
MATCH LINE STA. 120+00 SEE SHEET 251
REPLACE EX LIGHTING PULL BOX WITH NEW PULL BOX, 725.06, SPLICE TO EX CIRCUIT** STA. 65+14, 35' LT. (±) PB B9
REPLACE EX LIGHTING PULL BOX WITH NEW PULL BOX, 725.06, SPLICE TO EX CIRCUIT** STA. 65+14, 31' RT. (±) PB B10
LIGHT POLE STA. 65+08, 31' RT. BD 6
EX POLE AND LUMINAIRE TO BE REMOVED STA. 64+85, 32' RT. RM 28
LIGHT POLE STA. 64+08, 33' RT. BD 5
LIGHT POLE STA. 63+08, 36' RT. BD 4
EX POLE AND LUMINAIRE TO BE REMOVED STA. 62+77, 38' RT. RM 26
LIGHT POLE STA. 61+95, 35' RT. BD 3
LIGHT POLE STA. 61+09, 35' RT. BD 2
2" CONDUIT, 725.05 ENCASED IN CONCRETE**
EX POLE AND LUMINAIRE TO BE REMOVED STA. 123+17, 71' LT. RM 15
COMBINATION SIGNAL POLE (SP-3) STA. 123+24, 62' LT. BD 1
PULL BOX, 725.06 STA. 123+24, 55' LT. PB B11
2" CONDUIT, 725.05 ENCASED IN CONCRETE EMPTY (FOR FUTURE)**
2" CONDUIT, 725.05 EMPTY (FOR FUTURE)
CHERRY AVENUE
11TH STREET SE
BB 16 COMBINATION SIGNAL POLE* (SP-2), STA. 122+13, 49' RT.
PB B4 PULL BOX, 725.06 STA. 122+18, 52' RT.
LIGHT POLE STA. 121+06, 35' RT. BB 15
EX POLE & LUMINAIRE TO BE REMOVED STA. 120+95, 46' RT. RM 13
PULL BOX, 725.06 STA. 120+80, 35' RT. PB B5
2" CONDUIT, 725.05 ENCASED IN CONCRETE
PULL BOX, 725.06 STA. 120+27, 35' RT. PB B6
LIGHT POLE STA. 120+16, 35' RT. BB 14
BB 17 LIGHT POLE STA. 59+23, 47' LT. STUB AND CAP CONDUIT ELL
2" CONDUIT, 725.05 ENCASED IN CONCRETE**
PB B12 PULL BOX, 725.06 STA. 123+18, 41' RT.
EX POLE AND LUMINAIRE TO BE REMOVED STA. 59+20, 45' LT. RM 24
RM 23 EX POLE AND LUMINAIRE TO BE REMOVED STA. 58+58, 59' RT.
COMBINATION SIGNAL POLE (SP-4) STA. 123+22, 40' RT. BB 18
LIGHT POLE STA. 58+71, 56' RT. CB 1
CB 3 LIGHT POLE STA. 125+33, 47' RT.
EX POLE AND LUMINAIRE TO BE REMOVED STA. 124+32, 57' RT. RM 17
LIGHT POLE STA. 124+24, 52' RT. CB 2
EX POLE AND LUMINAIRE TO BE REMOVED STA. 123+58, 40' RT. RM 16
LIGHT POLE STA. 124+31, 35' LT. CA 1
EX POLE AND LUMINAIRE TO BE REMOVED STA. 124+68, 43' LT. RM 18
LIGHT POLE STA. 125+33, 35' LT. CA 2
LIGHT POLE STA. 126+45, 35' LT. CA 3
EX POLE AND LUMINAIRE TO BE REMOVED STA. 126+73, 44' LT. RM 20
LIGHT POLE STA. 126+45, 47' RT. CB 4
EX POLE AND LUMINAIRE TO BE REMOVED STA. 125+73, 53' RT. RM 19
RM 21 EX POLE AND LUMINAIRE TO BE REMOVED STA. 127+22, 53' RT.
CB 5 COMBINATION SIGNAL POLE (SP-2) STA. 127+70, 60' RT.
PB C4 PULL BOX, 725.06 STA. 127+75, 64' RT.
US 30 RAMPS
2" CONDUIT, 725.05 ENCASED IN CONCRETE EMPTY (FOR FUTURE)**
COMBINATION SIGNAL POLE (SP-1) STA. 127+74, 43.5' LT. CA 4
PULL BOX, 725.06 STA. 127+73, 39' LT. PB C3
2" CONDUIT, 725.05 ENCASED IN CONCRETE**
PULL BOX, 725.06 STA. 128+37, 39' LT. PB C2
COMBINATION SIGNAL POLE (SP-3) STA. 128+43, 43.5' LT. CC 1
2" CONDUIT, 725.05 ENCASED IN CONCRETE**
EX POLE AND LUMINAIRE TO BE REMOVED STA.129+08, 44' LT. RM 22
LIGHT POLE STA. 129+40, 35' LT. CC 2
MATCH LINE STA. 130+00 SEE SHEET 253
LIGHT POLE STA. 129+59, 29' RT. CD 2
COMBINATION SIGNAL POLE (SP-4) STA. 128+69, 43' RT. CD 1
PULL BOX, 725.06 STA. 128+63, 43' RT. PB C1
CONTROL CENTER STA. 128+64, 58' RT. PS C
HORIZONTAL SCALE IN FEET
0 20 40 80
CALCULATED CX
CHECKED JAN
LIGHTING PLAN
STA. 120+00 TO STA. 130+00
STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)
11TH STREET SE - STA. 130+00
252
302
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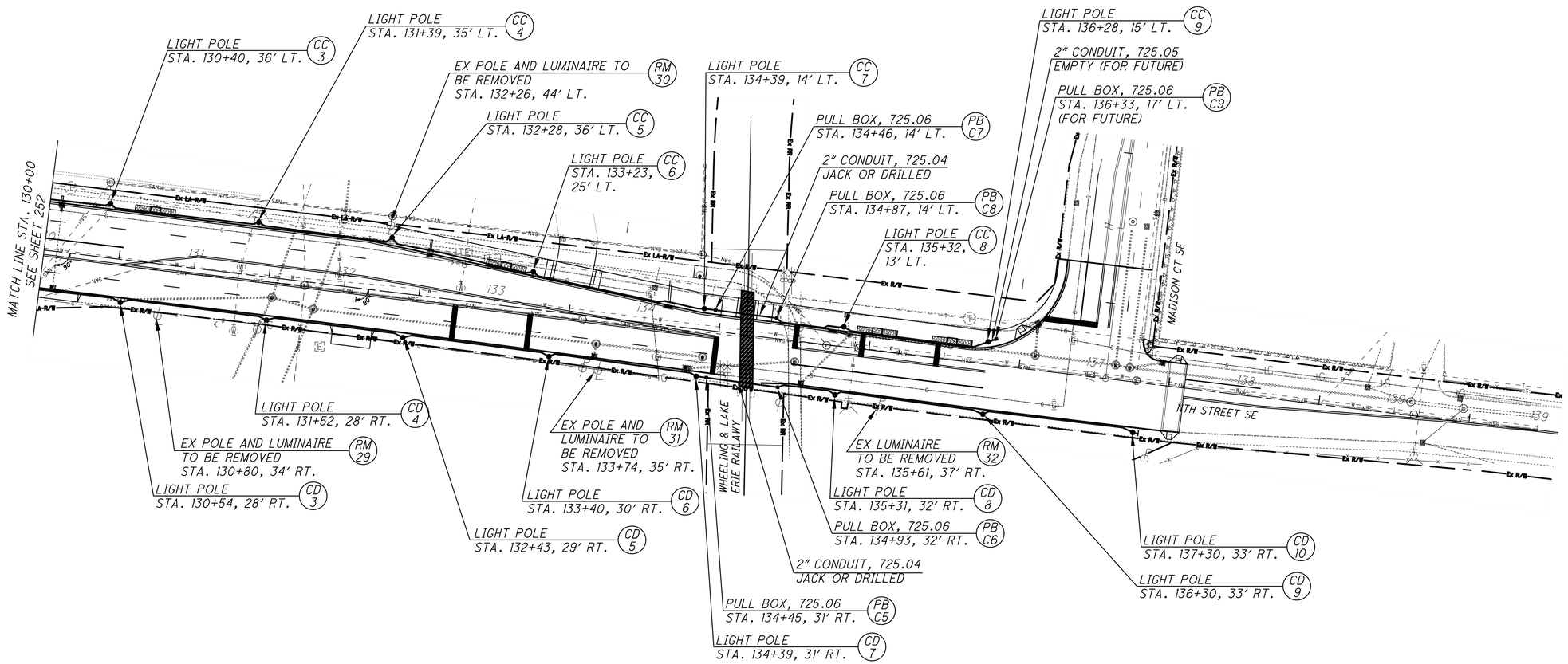
LEGEND

- BRACKET ARM & 100W LED (ON COMBINATION SIGNAL POLE)
- DECORATIVE LIGHT POLE WITH 60W LED TWIN LUMINAIRES & 20A-125V DUPLEX RECEPTACLE
- NEW POWER SERVICE/CONTROL CENTER
- PULL BOX, 725.06 (17"X30")
- CONDUIT, 725.05, TYPE EB, SCHEDULE 40 PVC (TYPICAL UNLESS NOTED)
- STUB AND CAP CONDUIT ELL



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX
CHECKED JAN

LIGHTING PLAN
11TH STREET SE - STA. 130+00 TO ENDING

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

253
302

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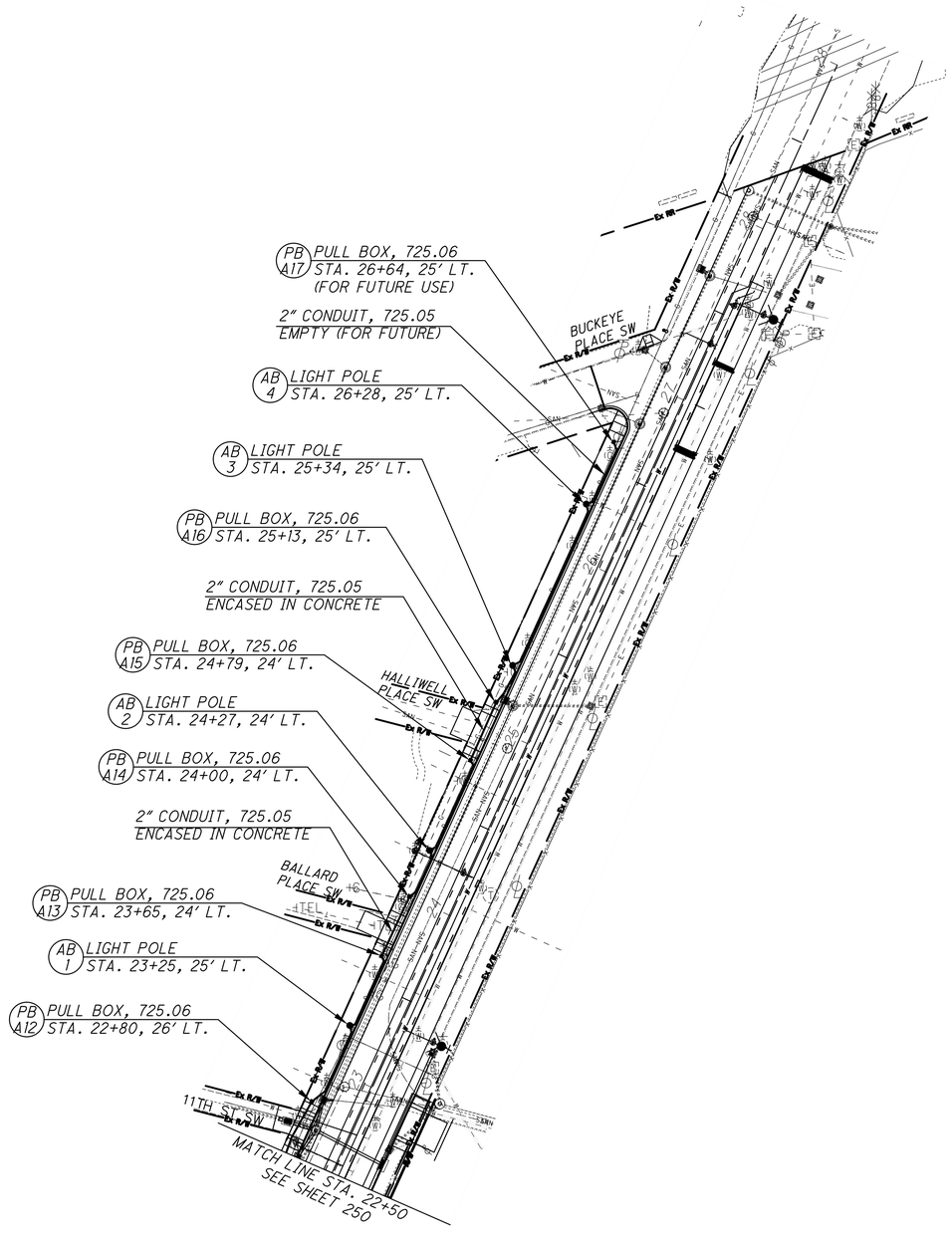
LEGEND

- BRACKET ARM & 100W LED (ON COMBINATION SIGNAL POLE)
- DECORATIVE LIGHT POLE WITH 60W LED TWIN LUMINAIRES & 20A-125V DUPLEX RECEPTACLE
- NEW POWER SERVICE/CONTROL CENTER
- PULL BOX, 725.06 (17"X30")
- CONDUIT, 725.05, TYPE EB, SCHEDULE 40 PVC (TYPICAL UNLESS NOTED)
- STUB AND CAP CONDUIT ELL



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED CX
CHECKED JAN

LIGHTING PLAN
MARKET AVENUE S - STA. 22+50 TO ENDING

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

254
302

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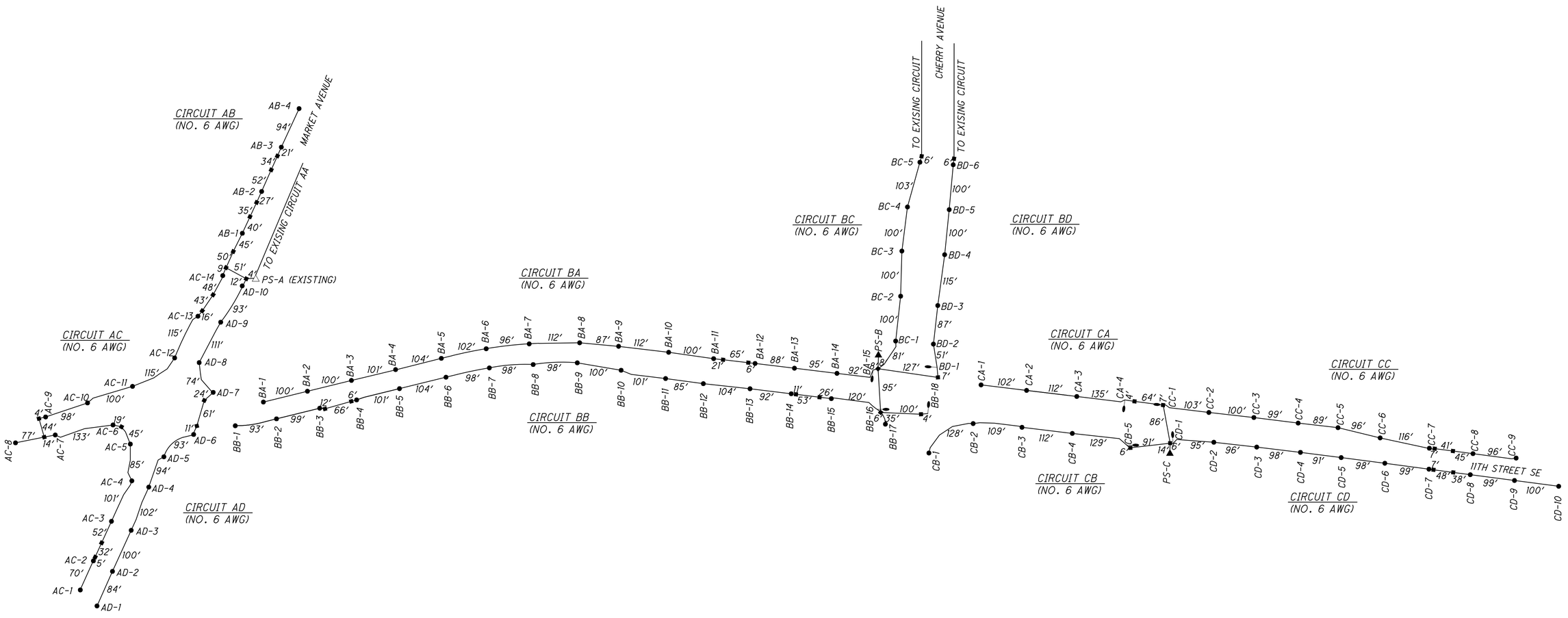
LEGEND

- BRACKET ARM & 100W LED (ON SIGNAL POLE)
- DECORATIVE LIGHT POLE WITH 60W LED TWIN LUMINAIRES & 20A-125V DUPLEX RECEPTACLE
- ▲ NEW POWER SERVICE/CONTROL CENTER
- ■ PULL BOX, 725.06 (17"X30")

POWER SERVICE DATA									
POWER SERVICE	LINE VOLTAGE (VOLTS)	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CABLE (AWG)	ENCLOSURE RATING (AMPS)	CIRCUIT NUMBER	CIRCUIT LOAD (AMPS)	CIRCUIT FUSE SIZE (AMPS)	CIRCUIT CABLE SIZE (AWG)	MAINTAINING AGENCY
PS-A (EX.)	240	5.30	#2	120	A (EX)	3.9	40	6	CITY OF CANTON
					B	2.6	40	6	
					C	9.1	40	6	
					D	6.5	40	6	
PS-B	240	10.60	#2	120	A	9.64	40	6	
					B	11.48	40	6	
					C	11.26	40	6 & 4 (EX)	
					D	11.8	40	6 & 4 (EX)	
PS-C	240	4.26	#2	120	A	2.49	40	6	
					B	3.14	40	6	
					C	5.74	40	6	
					D	6.39	40	6	



HORIZONTAL SCALE IN FEET
0

CALCULATED CX
CHECKED JAN

LIGHTING CIRCUIT DIAGRAM

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

255
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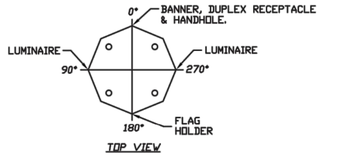
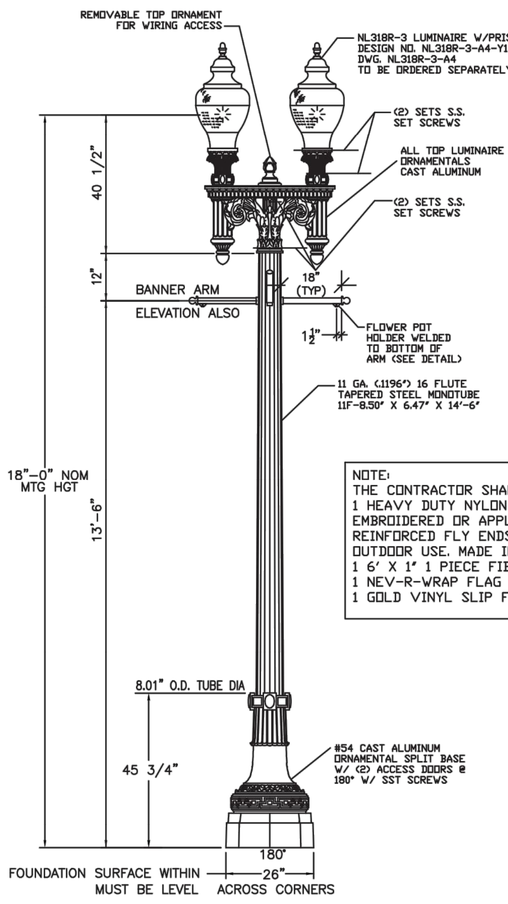
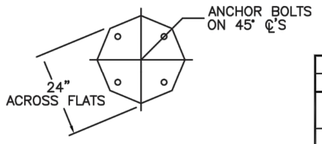


TOP VIEW

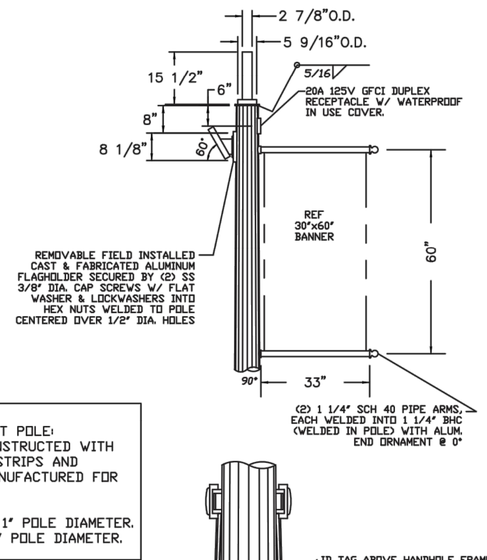


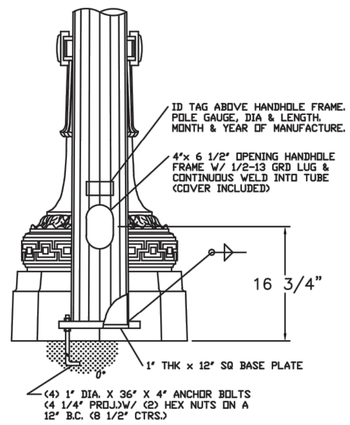


NOTE:
THE CONTRACTOR SHALL PROVIDE PER LIGHT POLE:
1 HEAVY DUTY NYLON 3' X 5' US FLAG CONSTRUCTED WITH EMBROIDERED OR APPLIQUED STARS, SEWN STRIPS AND REINFORCED FLY ENDS. MADE OF NYLON, MANUFACTURED FOR OUTDOOR USE. MADE IN THE USA.
1 6' X 1" 1 PIECE FIBER GLASS POLE.
1 NEV-R-WRAP FLAG UNFURLER THAT FITS 1" POLE DIAMETER.
1 GOLD VINYL SLIP FIT BALL THAT FITS 1" POLE DIAMETER.

MATERIAL SPECIFICATIONS	
MONOTUBE	EQUAL TO ASTM-A595 GR A
PLATES	ASTM-A36
TUBING	ASTM-A513
PIPE	ASTM-A53 GRB, A501
ALUM CASTINGS	ASTM B26 356.0
HANDHOLE FRAME	ASTM-A529 GR50/A709 GR50
HANDHOLE COVER	CI010 STEEL
ALUM PLATE, PIPE	ASTM B209,210,221,241 6061, 6063
ANCHOR BOLTS	ASTM-F1554 GR55
ANCHOR BOLT NUTS	ASTM-A563 GRA
FLAT WASHERS	ASTM-F436
SST HARDWARE	AISI-300 SERIES (18-8)
HARDWARE FINISH	GALVANIZED ASTM-A153
STRUCTURE FINISH	GALVANIZED ASTM-A123
FINISH	POWDER OVER GALV. CANTON CBD GREEN

STRUCTURE DESIGNED IN ACCORDANCE WITH 1994 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY TRAFFIC SIGNS, LUMINAIRES & TRAFFIC SIGNALS FOR 90 MPH WIND ZONE.





NOTES:
1. HD GALV & POWDER COATED FINISH, CITY OF CANTON CBD GREEN.

STATE: OHIO	REQ# / SO# : NOH54053	REV	DESCRIPTION	DATE	REV BY	CHK BY
PROJECT NAME:			REVISIONS			

DESIGN_NUMBER_B2473-54-B37-Y1

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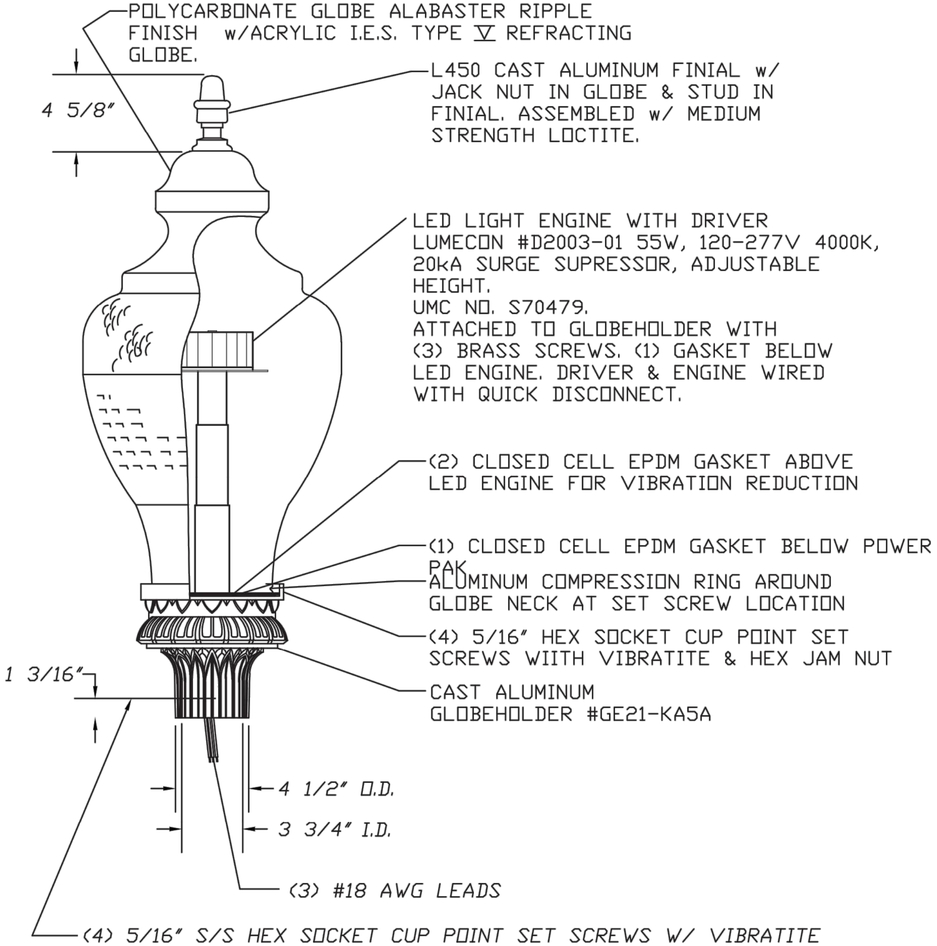
DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
DGNR	CHKR	DATE	NONE	N2473-54-B35
N2473-54-B37			REVISION REV	SHEET SHT OF SHTS



NOTES:
1. GLOBEHOLDER & FINIAL POWDER COATED CITY OF CANTON CBD GREEN.
2. GLOBE STREET SIDE POSITIONED BETWEEN TWO LED BARS. STREET SIDE OF LUMINAIRE MARKED ON OUTSIDE OF GLOBEHOLDER.

		R1	5/16" SET SCREWS WAS 1/4". VIBRATITE WAS NYLOCK	3/10/15	MB	MB
STATE: OHIO	REQ# / SO# : NOH54508	REV	DESCRIPTION	DATE	REV BY	CHK BY
PROJECT NAME:			REVISIONS			

NOSTALGIA_LUMINAIRE_NL318R_WITH_LED_&_GE21_KA5A_GLOBEHOLDER
DESIGN_NUMBER_NL318R-3-A4-Y1

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DESIGNED BY	CHECKED BY	DATE	SCALE	ENG REF
-	–	-	NONE	NL318R-3-A3
NL318R-3-A4			REVISION -	SHEET - OF -

OFFICE OF THE CITY ENGINEER
CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th St. NE 44705 : 330-489-3381 : www.cantonohio.gov/engineering

APPROVED DATE: MARCH 2014

APPROVED BY: EEM

DRAWING FILE NAME:
ce_61-65_LIGHTPOLES.dwg

REVISIONS		
DESCRIPTION	DATE	BY
INSERTED UM DRAWINGS	4/17/15	EGM
N2473-54-B37 & NL318R-3-A4		
FLOWER POT HOLDERS ADDED	8/23/16	EGM
LED ENGINE UPDATE	7/6/2018	RMB

STANDARD DRAWING NO. 63

NOSTALGIA LIGHT POLE & LUMINAIRE

SHEET 3 OF 5

CALCULATED | CHECKED

LIGHTING DETAILS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

256
302

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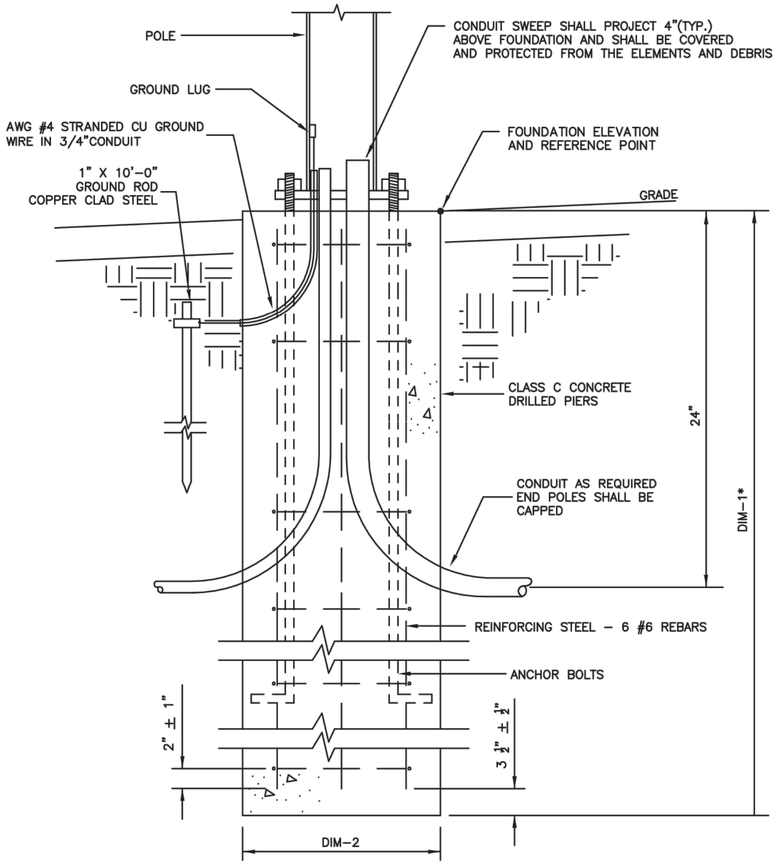


NOSTALGIC FOUNDATION DETAIL

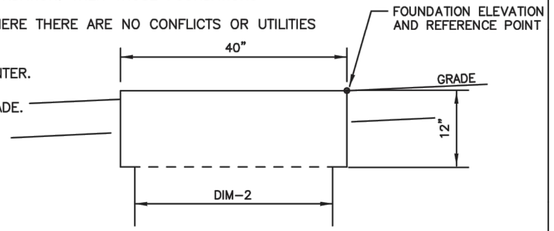
NO SCALE

NOTES:

1. ALL FOUNDATIONS SHALL BE DRILLED PIERS TO AVOID DISTURBING SURROUNDING SOIL. A TEMPORARY STEEL CASING MAY BE REQUIRED. IF UTILITIES OR ANOTHER CONFLICT IS IN CLOSE PROXIMITY TO THE FOUNDATION, THEN THOSE FOUNDATIONS MAY HAVE TO BE EXCAVATED BY HAND.
2. PRE-CAST LIGHT POLE FOUNDATIONS, 30" X 72", WILL BE PERMITTED AT LOCATIONS WHERE THERE ARE NO CONFLICTS OR UTILITIES PROHIBITING PLACEMENT.
3. ANCHOR BOLT PATTERN SHALL BE PROVIDED BY POLE MANUFACTURER (U.M.C.).
4. REINFORCING STEEL SHALL BE ASSEMBLED IN CAGES USING #4 TIES AT 24" (MAX.) CENTER.
5. FOUNDATION TOP SHALL BE ROUND AND LEVEL TO ACCOMMODATE DECORATIVE BASE.
6. TOP OF FOUNDATION SHALL BE AT LEAST 1" ABOVE PROJECTED FINISHED SIDEWALK GRADE.

FOUNDATION	DIM-1*	DIM-2
SIGNAL (16" BOLT CIRCLE)	9'-0"	36"
SIGNAL (>16" BOLT CIRCLE)	11'-0"	36"
LUMINARIES	6'-0"	30"
PEDESTRIAN	4'-0"	24"

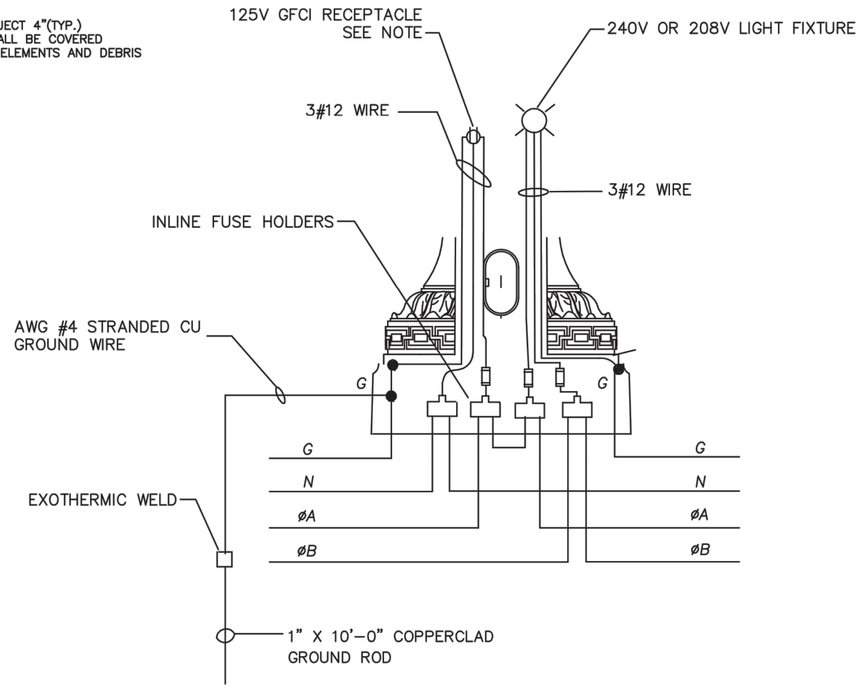
* MINIMUM DEPTH MAY VERY BASED ON SOIL CONDITION.



FOUNDATION CAP DETAIL

CAP FOR SIGNAL POLE WITH >16" BOLT CIRCLE. CAP IS NECESSARY TO ACCOMODATE DECORATIVE BASE.

CONDUIT SWEEP SHALL PROJECT 4"(TYP.) ABOVE FOUNDATION AND SHALL BE COVERED AND PROTECTED FROM THE ELEMENTS AND DEBRIS



POLE WIRING DIAGRAM

NO SCALE

NOTE:

1. THE COST FOR WIRING TO ALL NOSTALGIA LUMINARIES AND RECEPTACLES SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS. ALL WIRING IN POLES AND CONDUITS TO LIGHTS AND RECEPTACLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

2. ALL WIRING INTO EACH NOSTALGIA POLE BASE SHALL BE NO. 6 AWG WIRE AND CONNECTED TO IN-LINE FUSE HOLDERS. THE COST FOR THIS WIRE SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS.

3. IN-LINE FUSE HOLDERS SHALL BE BUSSMAN (HEB-AW-RYC). INSTALL FUSES IN PHASE LINES AND SOLID LINK IN NEUTRAL (HET-AW-RYC) FOR GROUND USE SPLIT BOLT CONNECTOR. COPPER GROUND CABLE SHALL BE EXOTHERMICALLY WELDED TO THE GROUND ROD. RUN CABLE FREE END THROUGH 3/4" EMT AND CONNECTED AS SHOWN IN THE POLE WIRING DIAGRAM. THE COST FOR THE IN-LINE FUSE HOLDERS AND ALL RELATED ITEMS SHALL BE INCIDENTAL TO THE NOSTALGIA BID ITEMS.

4. THE POLE RECEPTACLE SHALL BE ALTERNATELY WIRED TO PHASE A AND PHASE B AS SHOWN IN THE POLE WIRING DIAGRAM.

5. FOR LIGHTS, USE 5 AMP FUSES. FOR RECEPTACLES, USE 10 AMP FUSES. AMP RATINGS SHALL BE BASED UPON 75 DEGREE C RATINGS.

6. UNLESS OTHERWISE NOTED IN THESE PLANS, ALL WIRING SHALL BE MINIMUM NO. 12 AWG, COPPER, 600 VOLT RATED WITH THE EXCEPTION OF NO. 14 AWG, COPPER SHALL BE PERMISSIBLE FOR CONTROL CIRCUITRY. THE FOLLOWING SHALL APPLY TO ALL WIRING:

A. ALL WIRING SHALL BE STRANDED "XHHN/XHWN".
B. UNDERGROUND BRANCH CIRCUIT WIRING SHALL BE "XHHW".

7. CONDUCTORS SHALL BE PULLED FROM LIGHT POLE TO LIGHT POLE AND FROM LIGHTING CONTROL PANEL TO LIGHT POLE WITHOUT SPLICES.

OFFICE OF THE CITY ENGINEER
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APPROVED DATE: MARCH 2014

APPROVED BY: EEM

DRAWING FILE NAME:
ce_61-65_LIGHTPOLES.dwg

REVISIONS

DESCRIPTION	DATE	BY
MODIFIED DIMS AND OTHER CHANGES	4/29/14	NJL
MODIFIED FOUNDATION NOTES	2/21/17	EGM

STANDARD DRAWING NO. 65

NOSTALGIC POLE FOUNDATION & WIRING DIAGRAM

SHEET 5 OF 5

CALCULATED | CHECKED

LIGHTING DETAILS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

257
302

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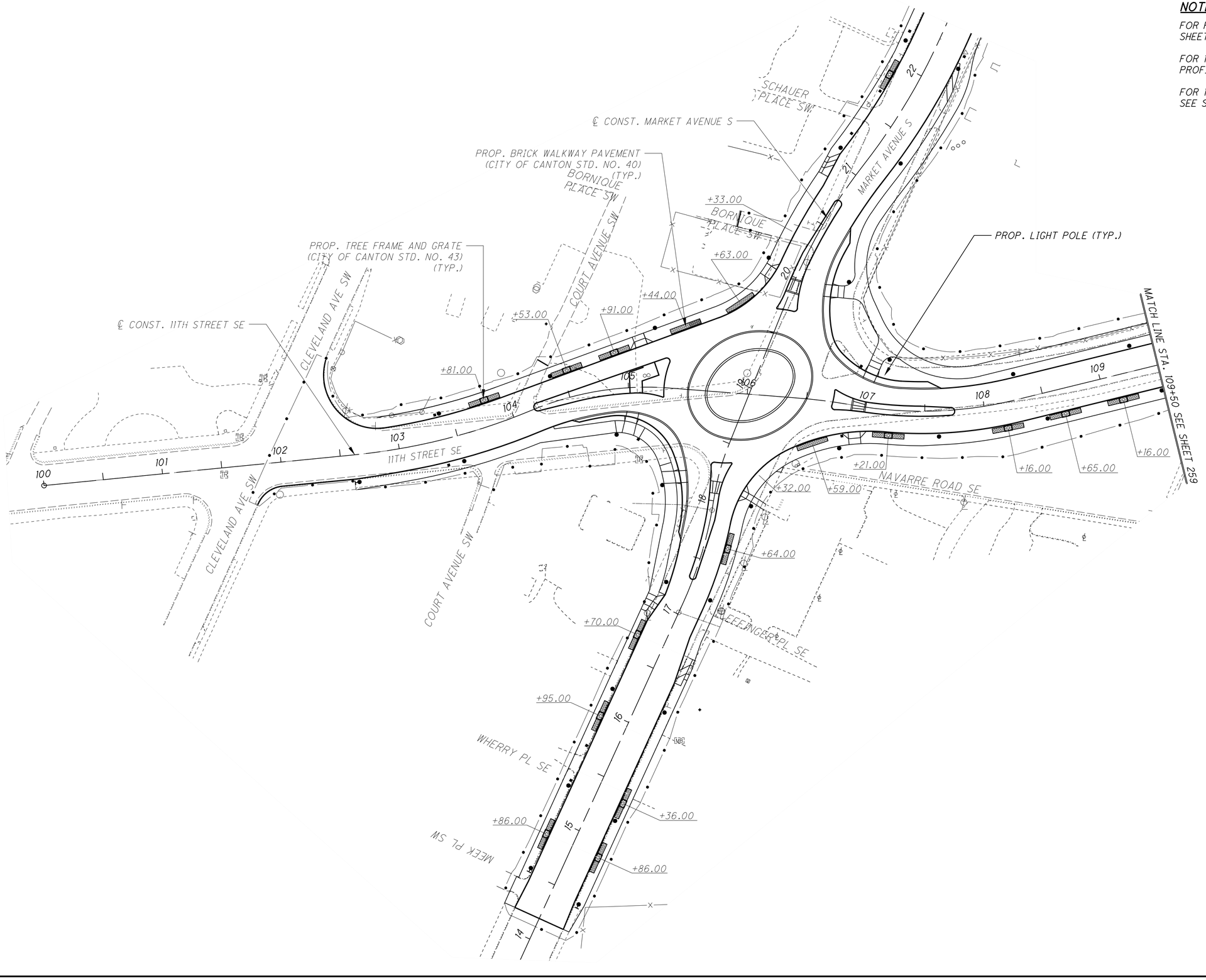
NOTES:

FOR PLAN VIEW LEGEND, SEE SHEET 24.

FOR 11TH STREET SE PLAN AND PROFILE, SEE SHEETS 47-64.

FOR 11TH STREET SE LIGHTING, SEE SHEETS 243-257.



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SDM CHECKED

LANDSCAPING PLAN
11TH STREET SE - BEGINNING TO STA. 109+50

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

258
302

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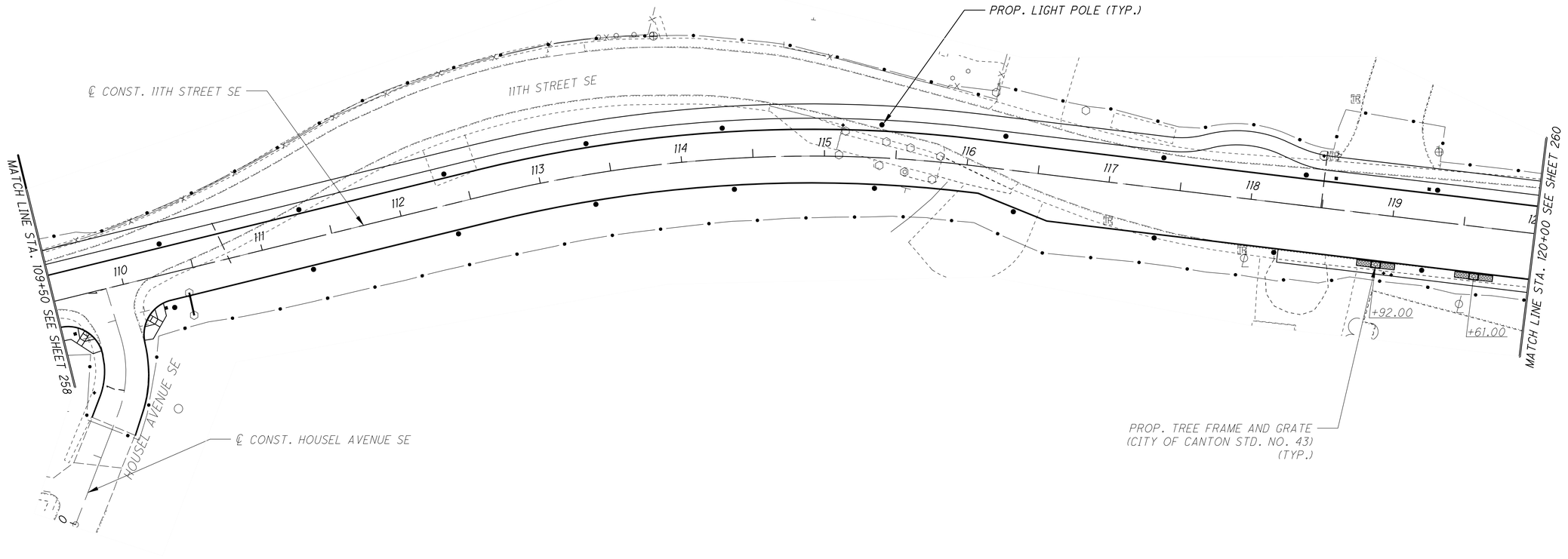
NOTES:

FOR PLAN VIEW LEGEND, SEE SHEET 24.

FOR 11TH STREET SE PLAN AND PROFILE, SEE SHEETS 47-64.

FOR 11TH STREET SE LIGHTING, SEE SHEETS 243-257.



HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SDM
CHECKED

LANDSCAPING PLAN
11TH STREET SE - STA. 109+50 TO STA. 120+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

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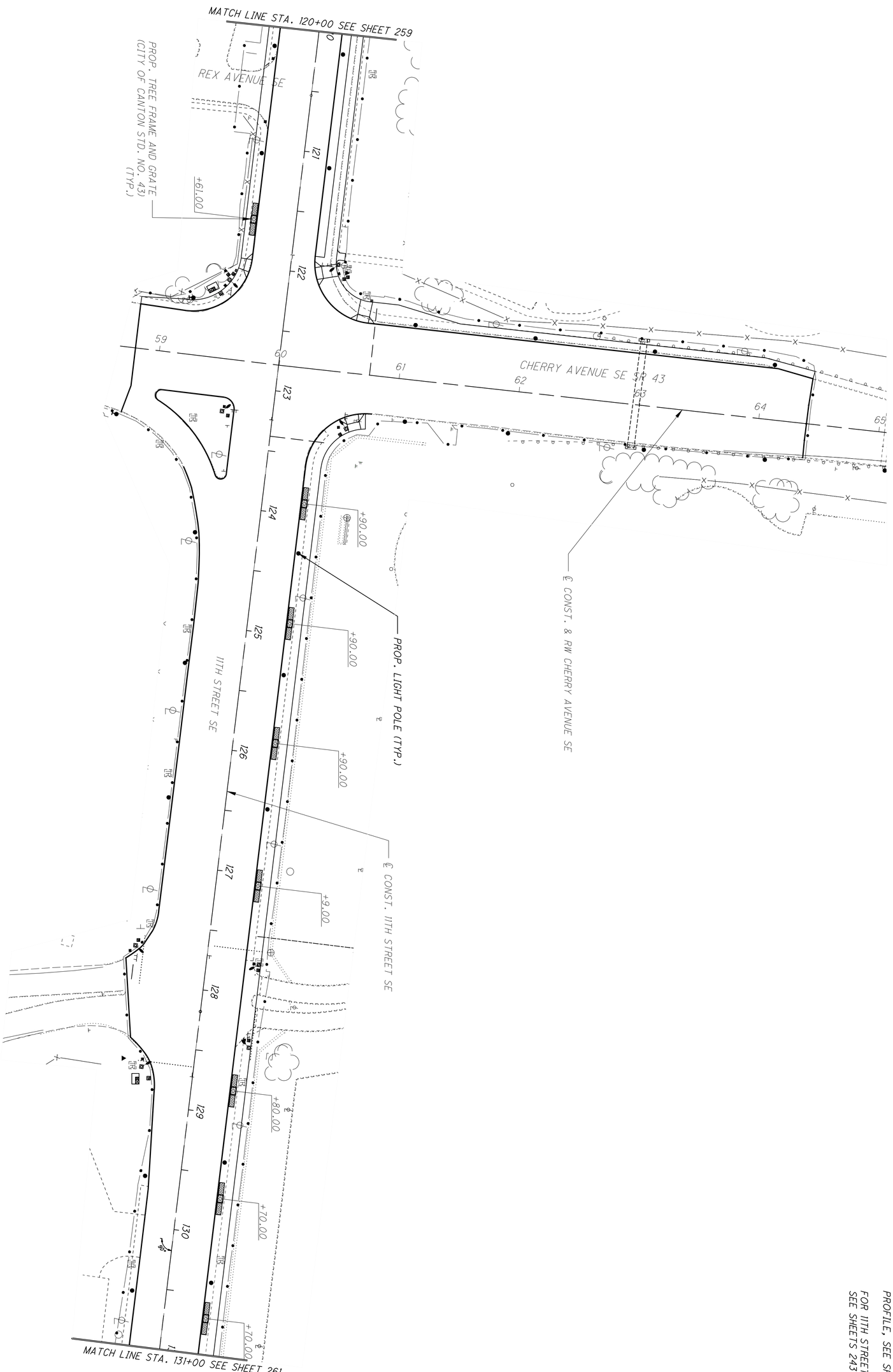


NOTES:

FOR PLAN VIEW LEGEND, SEE SHEET 24.

FOR 11TH STREET SE PLAN AND PROFILE, SEE SHEETS 47-64.

FOR 11TH STREET SE LIGHTING, SEE SHEETS 243-257.

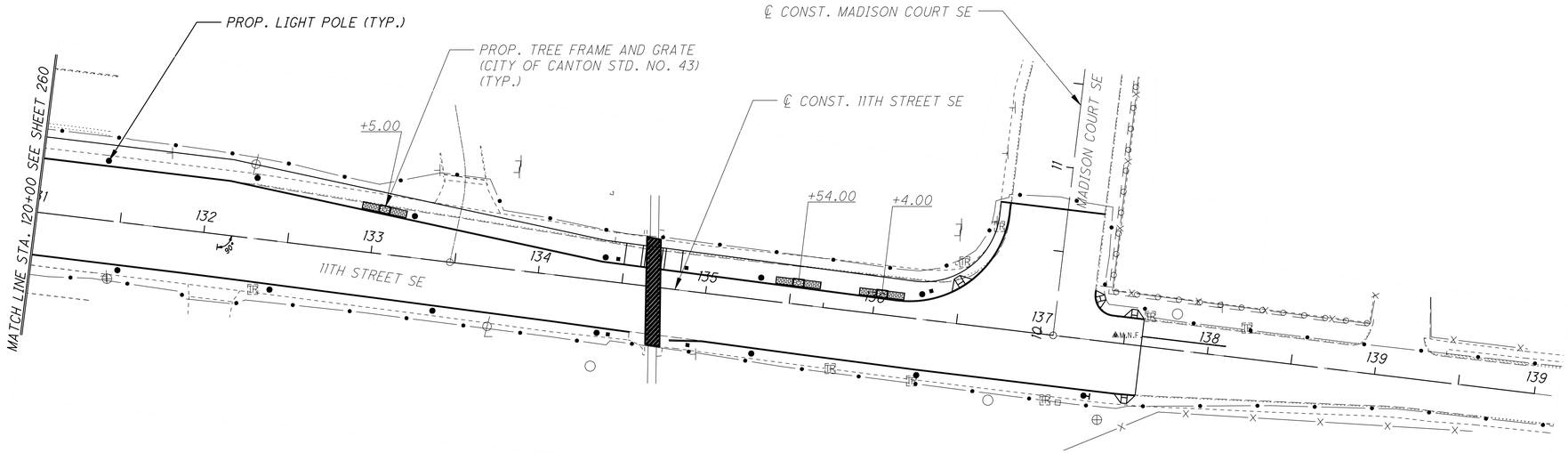
260 / 302	STA - 11TH STREET SE IMPROVEMENTS (PID 90465)	LANDSCAPING PLAN 11TH STREET SE - STA. 120+00 TO STA. 131+00	CALCULATED SDM / CHECKED	0 40 / 20 80 HORIZONTAL SCALE IN FEET

NOTES:

FOR PLAN VIEW LEGEND, SEE SHEET 24.

FOR 11TH STREET SE PLAN AND PROFILE, SEE SHEETS 47-64.

FOR 11TH STREET SE LIGHTING, SEE SHEETS 243-257.



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HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SDM
CHECKED

LANDSCAPING PLAN
11TH STREET SE - STA. 131+00 TO ENDING

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

TREE SCHEDULE						
KEY	QTY	DESCRIPTION	COMMON NAME	SIZE	CONTAINER	NOTES
QR	4	ITEM 661 - DECIDUOUS TREE (QUERCUS ROBUR 'FASTIGIATA'), 4" CALIPER, AS PER PLAN	UPRIGHT ENGLISH OAK	3" CAL.	B&B	SINGLE STEM, STRAIGHT TRUNK, FULL CROWN, WELL MATCHED SPECIMENS

SHRUB/PERENNIAL SCHEDULE					
KEY	QTY	DESCRIPTION	COMMON NAME	SIZE	NOTES
PA	130	ITEM 661 - PERENNIALS; (PENNISETUM ALOPECUROIDES 'LITTLE BUNNY')	LITTLE BUNNY DWARF FOUNTAIN GRASS	#2 CONT. 10-12" HT.	24" SPACING
SH	180	ITEM 661 - PERENNIALS (SPOROBOLUS HETEROLEPIS)	PRAIRIE DROPSEED	#2 CONT. 24" HT.	24" SPACING
PV	140	ITEM 661 - PERENNIALS; (PANICUM VIRGATUM 'SHENANDOAH')	SHENANDOAH SWITCH GRASS	#2 CONT. 48" HT.	24" SPACING

LANDSCAPE PLANS LEGEND

EXISTING TREES

ITEM 661 - DECIDUOUS TREE, 4" CALIPER, AS PER PLAN

ITEM 661 - PERENNIAL ORNAMENTAL GRASSES

ITEM 203 - ROADWAY MISC.; FLAGPOLE 30' & 35' HEIGHT

2 / JV — PLANT QUANTITY / PLANT SYMBOL

LANDSCAPE PLANTING NOTES

1. LOCATE AND VERIFY THE EXISTENCE OF ALL UTILITIES PRIOR TO STARTING WORK. KEEP DISTURBANCE OF ALL AREAS TO A MINIMUM.
2. DO NOT PARK, STORE, OR OPERATE EQUIPMENT OR MATERIALS WITHIN THE DRIP-LINE OF ANY EXISTING TREES OR OPEN/LANDSCAPED AREAS ON SITE.
3. FOR ALL DISTURBED AREAS NOT DESIGNATED FOR LANDSCAPE PLANT MATERIALS, PROVIDE TOPSOIL AND TURF SEED. PLACE 4" TOPSOIL IN ALL AREAS WHERE NO TOPOIL EXISTS TO MEET FINISH GRADE (PROVIDE 6" TOPSOIL WITHIN ROUNDABOUT).
4. AVOID OVER-SEEDING OR SPRAYING ONTO ADJACENT SURFACES. CLEAN AND REMOVE ALL OVER-SEEDING ONTO THESE AREAS.
5. DO NOT INSTALL PLANT MATERIAL BEFORE COMPLETION AND APPROVAL OF ROUGH GRADING. PLANT MATERIALS INSTALLED WITHOUT APPROVAL ARE AT THE CONTRACTOR'S RISK.
6. SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING PLANS AS SHOWN.
7. PROVIDE BALLED AND BURLAPPED OR CONTAINER GROWN PLANTS AS SPECIFIED. CONTAINER GROWN STOCK WILL NOT BE ACCEPTED IF IT IS ROOT BOUND. REMOVE ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETIC OR PLASTICS AT TIME OF PLANTING. INSTALL ALL PLANTS TO THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE BEFORE DIGGING.
8. REMOVE THE CONTAINER AND CUT THE BALL VERTICALLY THROUGH THE SURFACE IN TWO LOCATIONS FOR CONTAINER GROWN STOCK.
9. SPRAY ALL PLANTS WITH AN ANTIDESSICANT WITHIN 24 HOURS OF PLANTING, AND AT THE BEGINNING OF THEIR FIRST WINTER.
10. INSTALL ALL PLANTS ACCORDING TO DETAILS AND CONTRACT SPECIFICATIONS.
11. MULCH ALL PLANTING BEDS PER PLANTING SPECIFICATIONS UNLESS SPECIFICALLY NOTED ON PLANS AS GRAVEL OR RIVER STONE MULCH.
12. TREE STAKING IS REQUIRED FOR MEDIAN TREES ONLY. STAKE REMAINING TREES ONLY IF WARRANTED BY SITE CONDITIONS AS NECESSARY TO ESTABLISH HEALTHY, STABLE TREES. REMOVE ALL TREE STAKING AT THE END OF THE WARRANTY PERIOD.

N

0 20 40 80 HORIZONTAL SCALE IN FEET

CALCULATED SDM CHECKED

LANDSCAPING NOTES

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

262 / 302

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LANDSCAPE GENERAL NOTES

ITEM 203 – EMBANKMENT

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 203 – EMBANKMENT – 150 CY

ITEM 653 – TOPSOIL FURNISHED AND PLACED, AS PER PLAN

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS, AND ODOT 661, 653, AND 203. THIS ITEM INCLUDES THE PREPARATION AND INSTALLATION OF TOPSOIL FOR LANDSCAPED AREAS. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS REQUIRED FOR EXCAVATION, SITE PREPARATION, EMBANKMENT, AND ANY OTHER INCIDENTAL WORK RELATING TO THE INSTALLATION OF TOPSOIL, AS PER PLAN. THIS WORK SHALL BE COORDINATED WITH THE HARDSCAPE AND LANDSCAPE INSTALLATION.

TOPSOIL SHALL BE FURNISHED AND PLACED TO A DEPTH OF 4 INCHES. PLANTING BACKFILL MATERIAL (TOPSOIL) SHALL CONSIST OF NATURAL LOAM TOPSOIL WITH THE ADDITION OF HUMUS ONLY, AND NO OTHER SOIL TYPE, SUCH AS A SAND OR CLAY SOIL TYPE, SHALL BE ACCEPTED. TOPSOIL MUST BE FREE FROM SUBSOIL, OBTAINED FROM AN AREA WHICH HAS NEVER BEEN STRIPPED. IT SHALL BE REMOVED TO A DEPTH OF ONE (1) FOOT, OR LESS IF SUBSOIL IS ENCOUNTERED. TOPSOIL SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARDPAN, SODS, PARTIALLY DISINTEGRATED STONE, LIME, CEMENT, ASHES, SLAG, CONCRETE, TAR RESIDUES, TARRED PAPER, BOARDS, CHIPS, STICKS OR ANY OTHER UNDESIRABLE MATERIAL. IF A TRUCKLOAD OF TOPSOIL IS CONSIDERED BY THE AGENCY TO CONTAIN TOO MUCH UNDESIRABLE MATERIAL TO BE CORRECTED ON THE SITE, THE ENTIRE TRUCK LOAD SHALL BE REJECTED. NO TOPSOIL SHALL BE DELIVERED IN A FROZEN OR MUDDY CONDITION. TOPSOIL SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

1. ORGANIC MATTER. MUST BE BETWEEN SEVEN PERCENT (7%) AND TWELVE PERCENT (12%) (NOT TO EXCEED 14%) BY WEIGHT, AS DETERMINED BY THE DRY COMBUSTION METHOD FOR TOTAL CARBON AND ORGANIC CARBON (USING A MULTIPLYING FACTOR OF 2 AS DESCRIBED IN METHODS OF SOIL ANALYSIS, #9, PART 2, 2ND ED. PUBLISHED BY THE AMERICAN SOCIETY OF AGRONOMY. THE ORGANIC CONTENT SHALL NOT EXCEED FOURTEEN PERCENT (14%).
2. PH RANGE. SHALL BE 6.0 TO 7.0 INCLUSIVE.
3. SIEVE ANALYSIS (BY WASH TEST, ASTM DESIGNATION C–117). PASSING 2" SIEVE (100%); PASSING 1" SIEVE (95% TO 100%); PASSING #4 SIEVE (90% TO 100%); PASSING #100 SIEVE (30% TO 60%).
4. THE TEST METHOD TO MEASURE THE CLAY CONTENT OF THE SOIL SHALL BE ASTM D 422.

THIS ITEM WILL BE PAID FOR ON A PER CUBIC YARD BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 653 – TOPSOIL FURNISHED AND PLACED, AS PER PLAN – 55 CY

ITEM 661 – PLANTING, MISC.: PEA GRAVEL MULCH

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS, AND ODOT 661 AND 653. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS FOR CLEAN AND WASHED PEA GRAVEL MULCH.

CONTRACTOR IS REQUIRED TO PROVIDE A 1 GALLON SAMPLE OF GRAVEL MULCH FOR APPROVAL BY DEPUTY DIRECTOR PRIOR TO PROCEEDING WITH INSTALLATION.

THE GRAVEL MULCH SHALL BE BETWEEN 1/4" TO 1/2" IN DIAMETER WITH SMOOTH EDGES ON ALL SIDES. THE MULCH SHOULD BE WASHED CLEAN AND FREE OF VEGETATION, SILT, OR MISCELLANEOUS DEBRIS. THE MULCH SHALL BE UNIFORMLY APPLIED AT A THREE (3) INCH DEPTH IN THE AREAS SHOWN ON PLANS. THE COLOR SHALL BE A BROWN/TAN BLEND.

THIS ITEM BE PAID ON A SQUARE YARD BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 661 – PLANTING, MISC.: PEA GRAVEL MULCH – 18 CY

ITEM 661 – PLANTING, MISC.: WEED BARRIER MAT

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS, AND ODOT 661. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS FOR WEED BARRIER MAT.

WEED BARRIER MAT SHALL BE UV STABILIZED, PERMEABLE TO AIR AND WATER AND A MINIMUM WEIGHT OF 2 OZ/SQ. YD. WEED BARRIER MAT SHALL PROVIDE WEED CONTROL AND BE GUARANTEED BY MANUFACTURER TO LAST FOR 15 YEARS IN EXPOSED CONDITIONS. WEED BARRIER MAT SHALL BE STAPLED TO SOIL AS PER MANUFACTURER'S DIRECTIONS WITH MULCH PLACED ON TOP OF WEED BARRIER MAT. CONTRACTOR TO SUBMIT SAMPLE AND MANUFACTURER'S LITERATURE TO PROJECT DEPUTY DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

THIS ITEM BE PAID ON A SQUARE YARD BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 661 – PLANTING, MISC.: WEED BARRIER MAT – 350 SY

ITEM 661 – PLANTING, MISC.: SUBGRADE TILLING

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS, AND ODOT 659.01 FOR SITE PREPARATION AND 661. THIS ITEM INCLUDES THE SUBGRADE PREPARATION OF LANDSCAPE BED AREAS. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS REQUIRED SITE PREPARATION AND ANY OTHER INCIDENTAL WORK RELATING TO THE INSTALLATION OF SUBGRADE TILLING.

PRIOR TO INSTALLATION OF TOPSOIL, WEED BARRIER MAT, AND MULCH, CONTRACTOR TO THOROUGHLY TILL SUBGRADE TO A DEPTH OF 12 INCHES USING A PLOW, DISC, OR ROTOTILLER.

THE PAYMENT FOR THE ITEM SHALL BE ON SQUARE YARD BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 661 – PLANTING, MISC.: SUBGRADE TILLING – 350 SY

ITEM 661 – MULCH, AS PER PLAN

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS, AND ODOT 661.11. THIS ITEM INCLUDES ALL MULCH FOR LANDSCAPE BED AREAS. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR, AND MATERIALS MULCH INSTALLATION.

HARDWOOD MULCH SHALL BE FINE, TRIPLE SHREDDED ORGANIC HARDWOOD, FREE OF WEED SEEDS, ROOTS, OR ANY OTHER SUBSTANCE NOT CONSISTING OF EITHER HOLE OR BRANCH WOOD AND BARK. THE MULCH SHALL BE UNIFORMLY APPLIED AT FOUR (4) INCH DEPTH IN PLANTING AREAS SHOWN ON THE PLANS. DO NOT FERTILIZE. CONTRACTOR TO SUBMIT SAMPLE TO PROJECT DEPUTY DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

THE PAYMENT FOR THE ITEM SHALL BE ON CUBIC YARD BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 661 – MULCH, AS PER PLAN – 20 CY

ITEM 203 – ROADWAY, MISC.: FLAGPOLE, 30' HEIGHT

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND NOTES. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR, AND MATERIAL FOR SHOP DRAWINGS, SUBMITTALS, SITE PREPARATION, EXCAVATION, FOUNDATION CONSTRUCTION, ATTACHMENT, AND ANY OTHER INCIDENTAL WORK RELATING TO THE INSTALLATION OF THE FLAGPOLES. CONTRACTOR TO SUBMIT SHOP DRAWING TO PROJECT DEPUTY DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

THE PAYMENT FOR THE ITEM SHALL BE ON A PER EACH BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 203 – ROADWAY, MISC.: FLAGPOLE, 30' HEIGHT – 2 EA

ITEM 203 – ROADWAY, MISC.: FLAGPOLE, 35' HEIGHT

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND NOTES. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR, AND MATERIAL FOR SHOP DRAWINGS, SUBMITTALS, SITE PREPARATION, EXCAVATION, FOUNDATION CONSTRUCTION, ATTACHMENT, AND ANY OTHER INCIDENTAL WORK RELATING TO THE INSTALLATION OF THE FLAGPOLES. CONTRACTOR TO SUBMIT SHOP DRAWING TO PROJECT DEPUTY DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

THE PAYMENT FOR THE ITEM SHALL BE ON A PER EACH BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 203 – ROADWAY, MISC.: FLAGPOLE, 35' HEIGHT – 1 EA

ITEM 203 – ROADWAY, MISC.: LANDSCAPE BOULDER

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND NOTES. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR, AND MATERIAL FOR SHOP DRAWINGS, SUBMITTALS, SITE PREPARATION, EXCAVATION, FOUNDATION CONSTRUCTION, ATTACHMENT, AND ANY OTHER INCIDENTAL WORK RELATING TO THE INSTALLATION OF THE LANDSCAPE BOULDER. CONTRACTOR TO SUBMIT SHOP DRAWING TO PROJECT DEPUTY DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

THE PAYMENT FOR THE ITEM SHALL BE ON A PER EACH BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 203 – ROADWAY, MISC.: LANDSCAPE BOULDER – 16 EA

ITEM 203 – ROADWAY, MISC.: METAL EDGER

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE DRAWINGS AND NOTES. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR, AND MATERIAL FOR SHOP DRAWINGS, SUBMITTALS, SITE PREPARATION, EXCAVATION, FOUNDATION CONSTRUCTION, ATTACHMENT, AND ANY OTHER INCIDENTAL WORK RELATING TO THE INSTALLATION OF THE METAL EDGER. CONTRACTOR TO SUBMIT SHOP DRAWING TO PROJECT DEPUTY DIRECTOR FOR APPROVAL PRIOR TO INSTALLATION.

THE PAYMENT FOR THE ITEM SHALL BE ON A PER EACH BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE FOLLOWING WORK:

ITEM 203 – ROADWAY, MISC.: METAL EDGER – 130 LF

ITEM 661 – DECIDUOUS TREE, 4" CALIPER, AS PER PLAN

CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR INSTALLATION OF THE 4" CALIPER TREE PER THE PLANS AND AS PER ITEM 661. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS INCLUDING EXCAVATION, SOIL PREPARATION, PLANTING BACKFILL, LEAF COMPOST, FERTILIZER, WEED BARRIER MAT, TREE STAKING, 12 MONTH WARRANTY, AND OTHER INCIDENTAL WORK RELATING TO THE COMPLETE INSTALLATION, THIS ITEM WILL BE PAID ON A PER EACH BASIS.

ITEM 661 – PERENNIALS, NO. 2 CONT., AS PER PLAN

CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR INSTALLATION OF THE PERENNIALS PER THE PLANS AND AS PER ITEM 661. PAYMENT FOR THIS ITEM INCLUDES ALL EQUIPMENT, LABOR AND MATERIALS INCLUDING EXCAVATION, SOIL PREPARATION, PLANTING BACKFILL, LEAF COMPOST, FERTILIZER, WEED BARRIER MAT, STABILIZATION, 12 MONTH WARRANTY, AND OTHER INCIDENTAL WORK RELATING TO THE COMPLETE INSTALLATION, THIS ITEM WILL BE PAID ON A PER EACH BASIS.

ITEM 661 – PLANTING, MISC.: TREE FRAME AND GRATE

THIS ITEM SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE CITY OF CANTON STANDARD CONSTRUCTION DRAWING CE 43. THIS ITEM INCLUDES THE CONCRETE COLLAR SUPPORTING THE FRAME/GRATE.

THE PAYMENT FOR THE ITEM SHALL BE ON EACH BASIS. THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 661 – PLANTING, MISC.: TREE FRAME AND GRATE

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PEA GRAVEL MULCH

4'x3'x1' LIMESTONE OUTCROPPING STONES

SPOROBOLUS HETEROLEPIS

PANICUM VIRGATUM 'SHENANDOAH'

QUERCUS ROBAR 'FASTIGIATA'

PENNISETUM ALOPECUROIDES

19

106

107

N

0 4 8 16
HORIZONTAL SCALE IN FEET

CALCULATED SDM CHECKED

PLANTING PLAN

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

264
302

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NOTES:

1. EACH GROUP OF BOULDERS SHOULD BE EVENLY SPACED AROUND THE ROUNDABOUT.
2. FINAL LOCATION OF BOULDER GROUPINGS SHOULD BE STAKED AND APPROVED BY OWNER PRIOR TO INSTALLATION.

HORIZONTAL SCALE IN FEET
0 4 8 16

CALCULATED SDM
CHECKED

MATERIALS AND LAYOUT PLAN

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

265
302

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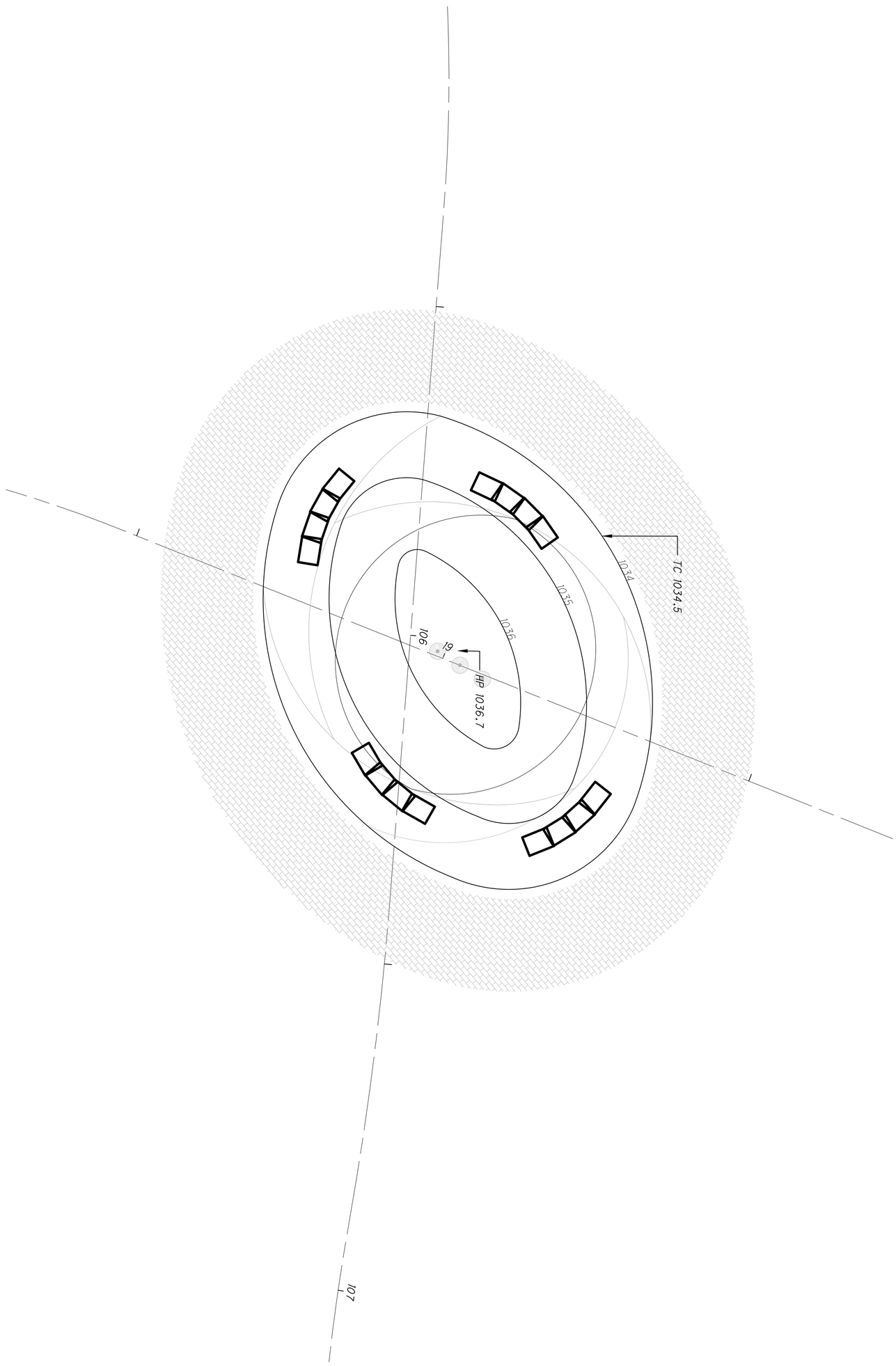


STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

GRADING PLAN

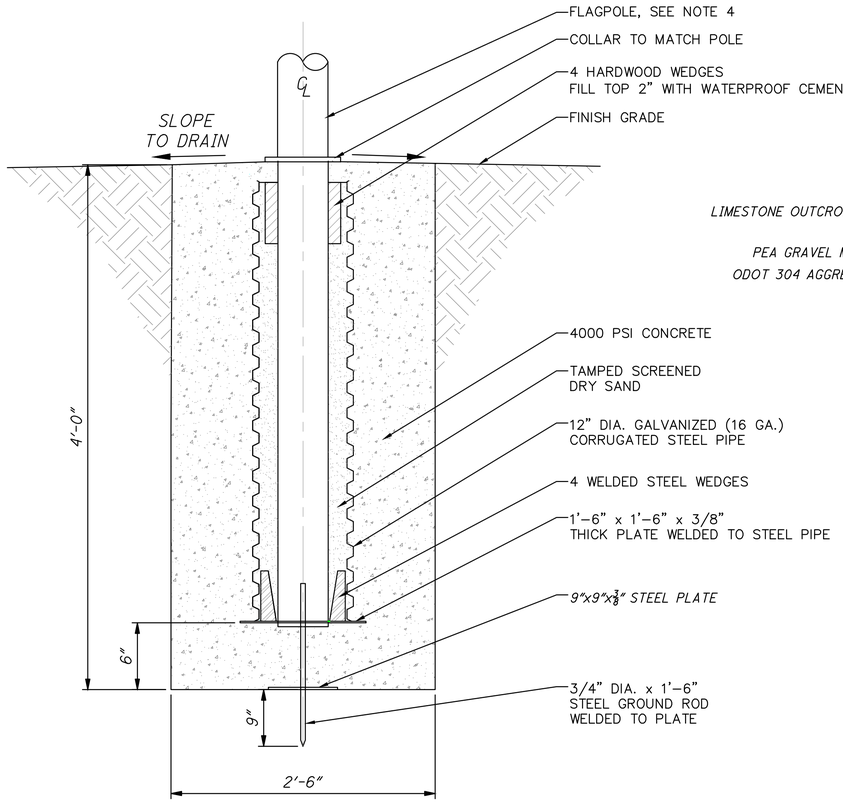
CALCULATED SDM
CHECKED

0 4 8 16
HORIZONTAL SCALE IN FEET

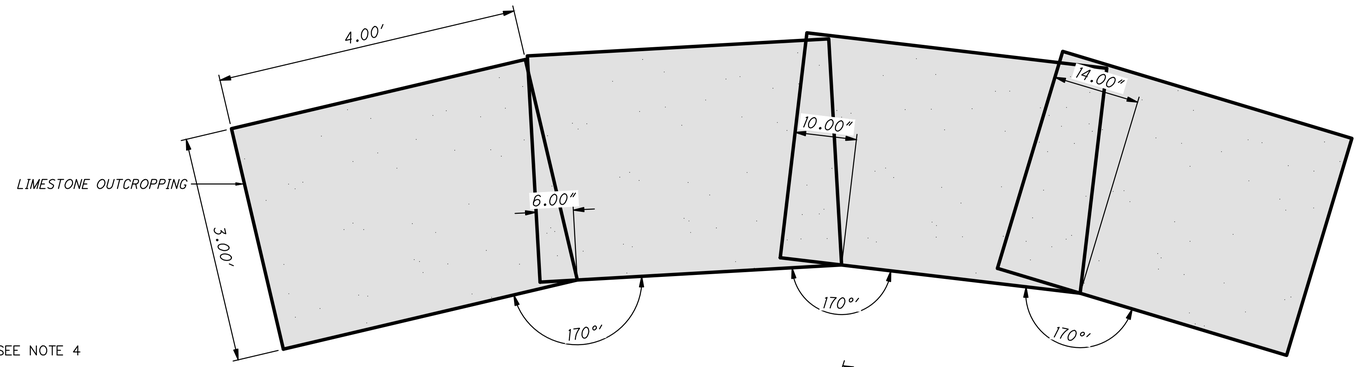
N

FLAGPOLE NOTES:

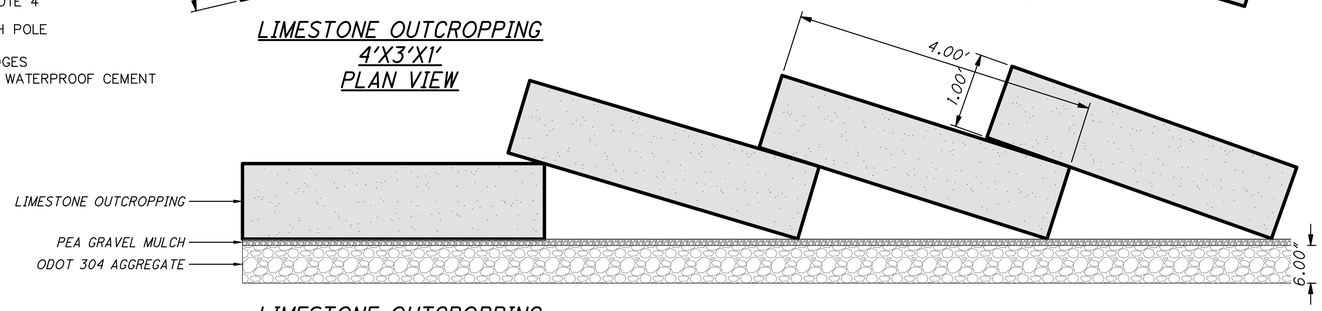
1. SET FLAGPOLE IN COMPLETELY DRY CONDITIONS AND IN ONE CONTINUOUS OPERATION TO AVOID THE INTRODUCTION OF MOISTURE.
2. COORDINATE FINAL DIMENSIONS WITH FLAG POLE MANUFACTURER.
3. CONTRACTOR TO PROVIDE OWNER WITH ONE FLAG FOR EACH POLE. FLAG TYPE TO BE SELECTED BY OWNER.
4. FLAGPOLE SHALL MEET THE FOLLOWING CRITERIA:
   POLE HEIGHT: (2) 30' HT. AND (1) 35' HT.
   POLE BASE DIAMETER: 6"
   POLE WALL THICKNESS: .156"
   POLE MATERIAL/FINISH: ALUMINUM/DARK BRONZE ANODIZED
   TOP: GOLD ANODIZED BALL
   MECHANISM: INTERNAL PULLY SYSTEM WITH LOCKING OPTION
   TRUCK: CAST ALUMINUM, REVOLVING, NON-FOULING INTERNAL HALYARD



ITEM 203 - ROADWAY MISC.;
FLAGPOLE, 30' & 35' HEIGHT



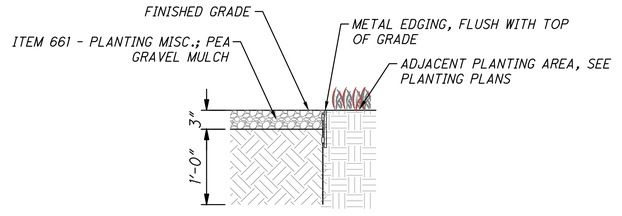
LIMESTONE OUTCROPPING
4'X3'X1'
PLAN VIEW



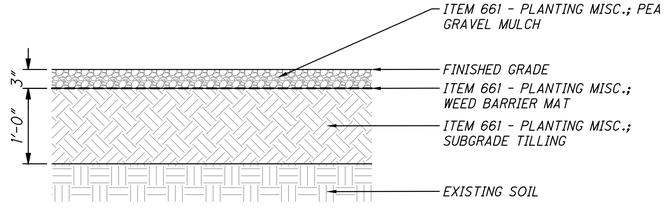
LIMESTONE OUTCROPPING
4'X3'X1'
SECTION CUT

CONCRETE EDGER NOTES:

1. PROVIDE EXPANSION JOINTS WITH JOINT SEALANT MATERIAL AND BACKER ROD AT 30' MAX SPACING ALONG LENGTH OF CONCRETE EDGER.
2. PROVIDE SAWN CONTRACTION JOINTS AT 10' MAX SPACING ALONG LENGTH OF CONCRETE EDGER.



ITEM 661 - PLANTING MISC.,
METAL EDGING



ITEM 661 - PLANTING MISC.,
PEA GRAVEL MULCH

N

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SDM CHECKED

LANDSCAPING DETAILS

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

267
302

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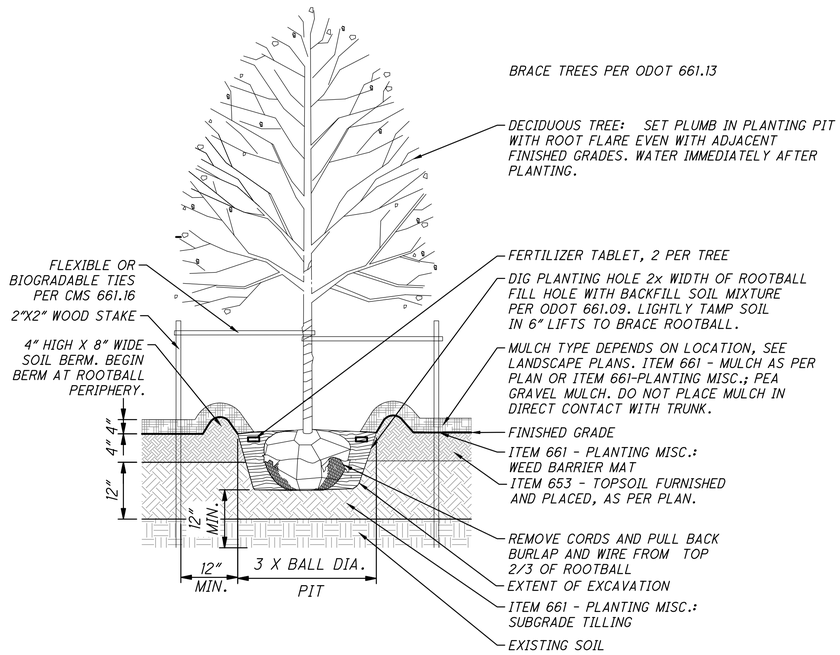
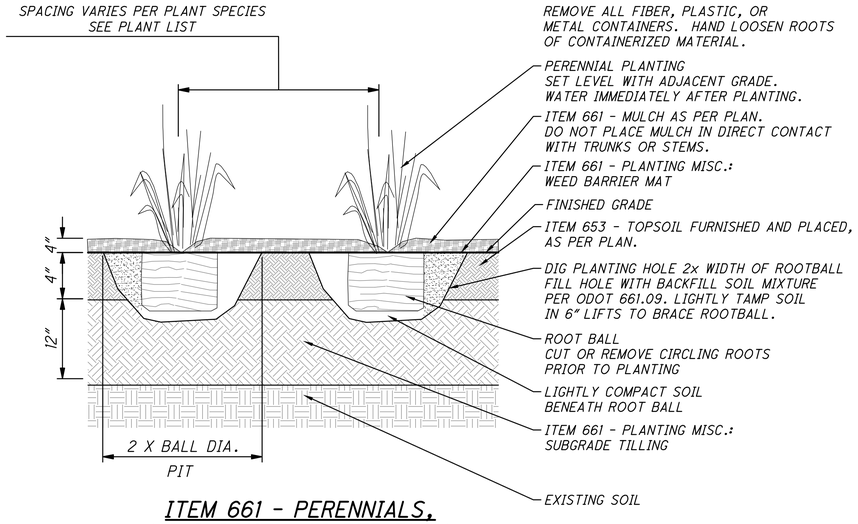


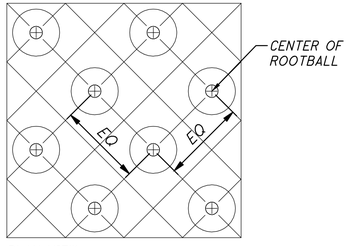
ITEM 661 - DECIDUOUS TREE,
4" CALIPER, AS PER PLAN



ITEM 661 - PERENNIALS,
NO 2 CONT., AS PER PLAN

PLANT SHRUBS AND PERENNIALS IN STAGGERED SPACING AS SHOWN.

SPACING VARIES PER SPECIES. SEE PLANT LIST.



PLAN VIEW

SHRUB/PERENNIAL
LAYOUT DETAIL

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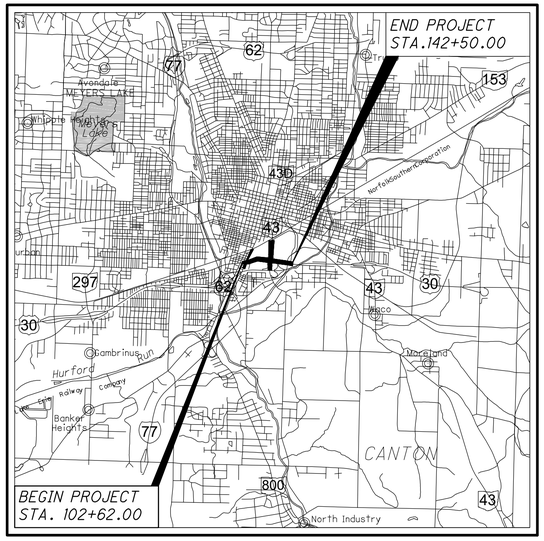
CALCULATED SDM
CHECKED

LANDSCAPING DETAILS

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

RIGHT OF WAY LEGEND SHEET
STA - 11TH STREET SE IMPROVEMENTS

CITY OF CANTON
STARK COUNTY, OHIO



LOCATION MAP

LATITUDE: N40°47'22" LONGITUDE: W81°22'36"

SCALE IN MILES
0 1 2 3 4

N

PROJECT DESCRIPTION

IMPROVEMENTS CONSIST OF A ROUNDABOUT AT THE INTERSECTION OF 11TH STREET/MARKET AVENUE, STREETSCAPING WITH TREES, UPGRADED PEDESTRIAN LIGHTING, UPGRADED SIGNALS, ADA IMPROVEMENTS AT CROSSWALKS, BRICK INTERSECTION, A SHARED-USE PATH AND BIKE LANES THAT ALIGN WITH THE CITY'S MASTER BIKE ROUTES. 11TH STREET WILL ALSO BE REALIGNED TO ELIMINATE THE SUBSTANDARD DEFLECTION IN THE EXISTING ALIGNMENT.

PLANS PREPARED BY:

FIRM NAME: AECOM

PLANS PREPARED BY: JOHN P. KALENTERIDES

FIELD REVIEW BY: DAN STANKAVICH
DATE COMPLETED: 04/28/21

OWNERSHIP VERIFIED BY: DAN STANKAVICH
DATE COMPLETED: 04/28/21

DATE COMPLETED: 04/28/21

TYPES OF TITLE LEGEND:
WD = WARRANTY DEED
T = TEMPORARY EASEMENT
WL = WARRANTY LIMITED ACCESS
SH = STANDARD HIGHWAY EASEMENT

PROJECT CONTROL
STATE PLANE GRID NORTH ZONE NAD83 (2011)
PROJECT ADJUSTMENT FACTOR : 0.99989102

INDEX OF SHEETS:

RW LEGEND SHEET	1
CENTERLINE PLAT	2-3
PROPERTY MAP	4-5
SUMMARY OF ADDITIONAL R/W	6-8
RIGHT OF WAY TOPO SHEETS	9-33
RIGHT OF WAY BOUNDARY SHEETS	10-34

SHEET SCALES
PROPERTY MAP SHEETS 4 & 5: 1" = 100'
RW BOUNDARY & TOPO SHEETS 9-34: 1"=20'

STRUCTURE KEY
- RESIDENTIAL
- COMMERCIAL
- OUT-BUILDING

NATURAL GAS DIST./TRANS.
DOMINION EAST OHIO GAS
320 SPRINGSIDE DR.
AKRON, OHIO 44333
330-664-2638
ATTN: MICAH RISACHER
RELOCATION@DOM.COM
EMERGENCY NO.
1-800-521-4400

CABLE TV
SPECTRUM
ATTN: RON ICKES
530 S. MAIN STREET,
SUITE 1751
AKRON, OHIO 44311
(216) 392-7964

TELEPHONE
AT&T
50 W. BOWERY STREET
FLOOR 6
AKRON, OHIO 44308
ATTN: STEVE HYLTON
330-384-3055
EMERGENCY NO. - 24 HRS
1-800-572-4545 OPTION #4

ELECTRIC
AMERICAN ELECTRIC POWER
301 CLEVELAND AVE. SW
P.O. BOX 24400
CANTON, OHIO 44701-4400
330-438-7739
ATTN: KEITH SCHALMO
330-438-7720

TRAFFIC INTERCONNECT
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
ATTN: NICK LOUKAS
330-489-3381

SANITARY AND STORM SEWER
CITY ENGINEER'S OFFICE
2436-30TH ST. N.E.
CANTON, OHIO 44705
ATTN: DAN MOEGLIN
330-489-3381

WATER
CANTON WATER DEPT.
2664 HARRISBURG RD. N.E.
CANTON, OHIO 44708
ATTN: BRENT BURRIER OR
LEWI MILLER
330-489-3310

NOTE:
THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

THE CITY ENGINEER'S OFFICE IS TO BE CONTACTED DIRECTLY FOR SANITARY AND STORM SEWER AND TRAFFIC INTERCONNECT FACILITIES LOCATION: 330-489-3381

CONVENTIONAL SYMBOLS

- County Line
- Township Line
- Section Line
- Corporation Line
- Fence Line (Ex) (Pr)
- Center Line
- Right of Way (Ex)
- Right of Way (Pr) R/W
- Standard Highway Ease. (Ex)
- Standard Highway Ease. (Pr)
- Temporary Right of Way
- Sewer Ease. (Pr)
- Slope Ease. (Ex)
- Guardrail (Ex) (Pr)
- Construction Limits
- Edge of Pavement (Ex)
- Edge of Pavement (Pr)
- Edge of Shoulder (Ex)
- Edge of Shoulder (Pr)
- Ditch / Creek (Ex)
- Ditch / Creek (Pr)
- Ownership Hook Symbol , Example
- Property Line Symbol , Example PL
- Break Line Symbol , Example
- Tree (Pr), Tree (Ex), Shrub (Ex)
- Tree (Remove), Shrub (Remove)
- Evergreen (Ex), Stump
- Evergreen (Remove), Stump (Remove)
- Wetland (Pr), Grass (Pr), Aerial Target
- Post (Ex), Mailbox (Ex) MB, Mailbox (Pr) MB
- Light (Ex), Telephone Marker (Ex) TEL
- Fire Hydrant (Ex), Water Meter (Ex) WM
- Water Valve (Ex), Utility Valve Unknown (Ex.) U
- Telephone Pole (Ex), Power Pole (Ex) P
- Light Pole (Ex)

I, Dan Stankavich, P. S. have conducted a survey of the existing centerline and property lines for this project for the City of Canton in November of 2009 thru July of 2012. The results of that survey are contained herein.

As a part of this work I have set the monuments at the proposed Property corners, Section Corners and other points as shown herein, prior to construction. However, Item 604 Monument Assemblies, Item 604 Reference Monuments and Centerline Monuments shall be that may called for, will be installed by the construction contractor as specified in the plans. All Centerline Monuments, and Right of Way Monuments set and/or reset by the contractor's surveyor will include a cap as per Standard Construction Drawing RM-1.1 and bear the surveyor's Ohio registration number and/or name or company name. This work will be done in accordance with OAC 4733-37 as cited below.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted.

The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Dan Stankavich, Professional Land Surveyor 7122

Date: APRIL 29, 2021

SURVEYOR'S SEAL

STATE OF OHIO
DAN STANKAVICH
7122
REGISTERED
PROFESSIONAL SURVEYOR

FEDERAL PROJECT NO. E110 (520)
PID NO. 90465
CALCULATED JPK
CHECKED DS

RIGHT OF WAY LEGEND SHEET
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

1 / 34

269 / 302

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STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

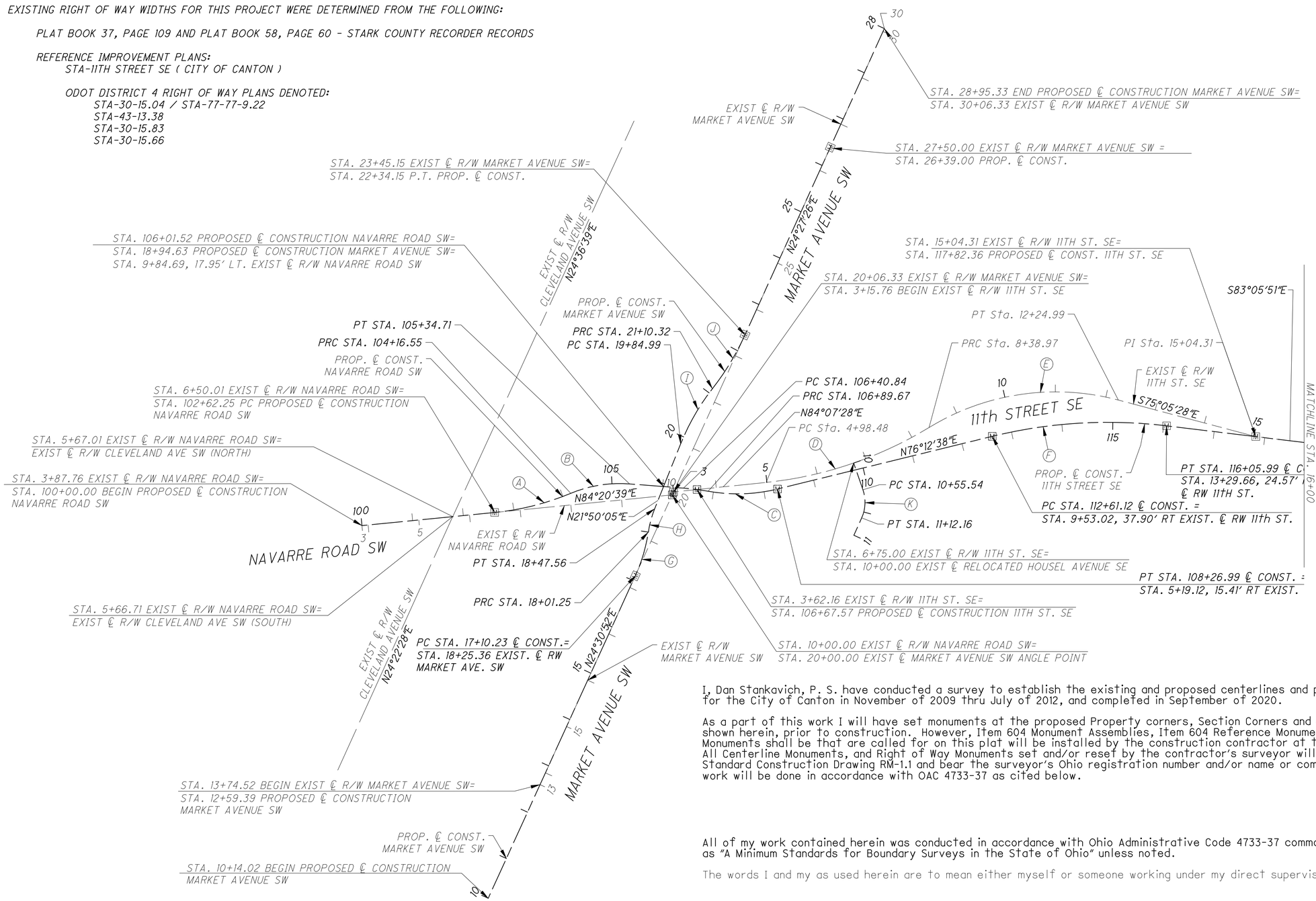
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

EXISTING RIGHT OF WAY WIDTHS FOR THIS PROJECT WERE DETERMINED FROM THE FOLLOWING:

PLAT BOOK 37, PAGE 109 AND PLAT BOOK 58, PAGE 60 - STARK COUNTY RECORDER RECORDS

REFERENCE IMPROVEMENT PLANS:
STA-11TH STREET SE (CITY OF CANTON)

ODOT DISTRICT 4 RIGHT OF WAY PLANS DENOTED:
STA-30-15.04 / STA-77-77-9.22
STA-43-13.38
STA-30-15.83
STA-30-15.66



MONUMENT LEGEND

- [M] EXISTING MONUMENT FOUND
- ○I.P.F. EXISTING IRON PIN FOUND
- [M] MONUMENT TO BE SET

BASIS OF BEARING
BEARINGS BASE OFF OF THE OHIO STATE PLANE COORDINATE GROUND SYSTEM, NORTH ZONE, NAD 83 (CORS2011)

I, Dan Stankavich, P. S. have conducted a survey to establish the existing and proposed centerlines and property lines for this project for the City of Canton in November of 2009 thru July of 2012, and completed in September of 2020.

As a part of this work I will have set monuments at the proposed Property corners, Section Corners and other points as shown herein, prior to construction. However, Item 604 Monument Assemblies, Item 604 Reference Monuments and Centerline Monuments shall be that are called for on this plat will be installed by the construction contractor at the locations specified on this plat. All Centerline Monuments, and Right of Way Monuments set and/or reset by the contractor's surveyor will include a cap as per Standard Construction Drawing RM-1.1 and bear the surveyor's Ohio registration number and/or name or company name. This work will be done in accordance with OAC 4733-37 as cited below.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 commonly known as "A Minimum Standards for Boundary Surveys in the State of Ohio" unless noted.

The words I and my as used herein are to mean either myself or someone working under my direct supervision.

Dan Stankavich, Professional Land Surveyor 7122

Date: *APRIL 29, 2021*

SURVEYOR'S SEAL

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

CENTERLINE PLAT SHEET 1 OF 2

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

2 / 34

270 / 302

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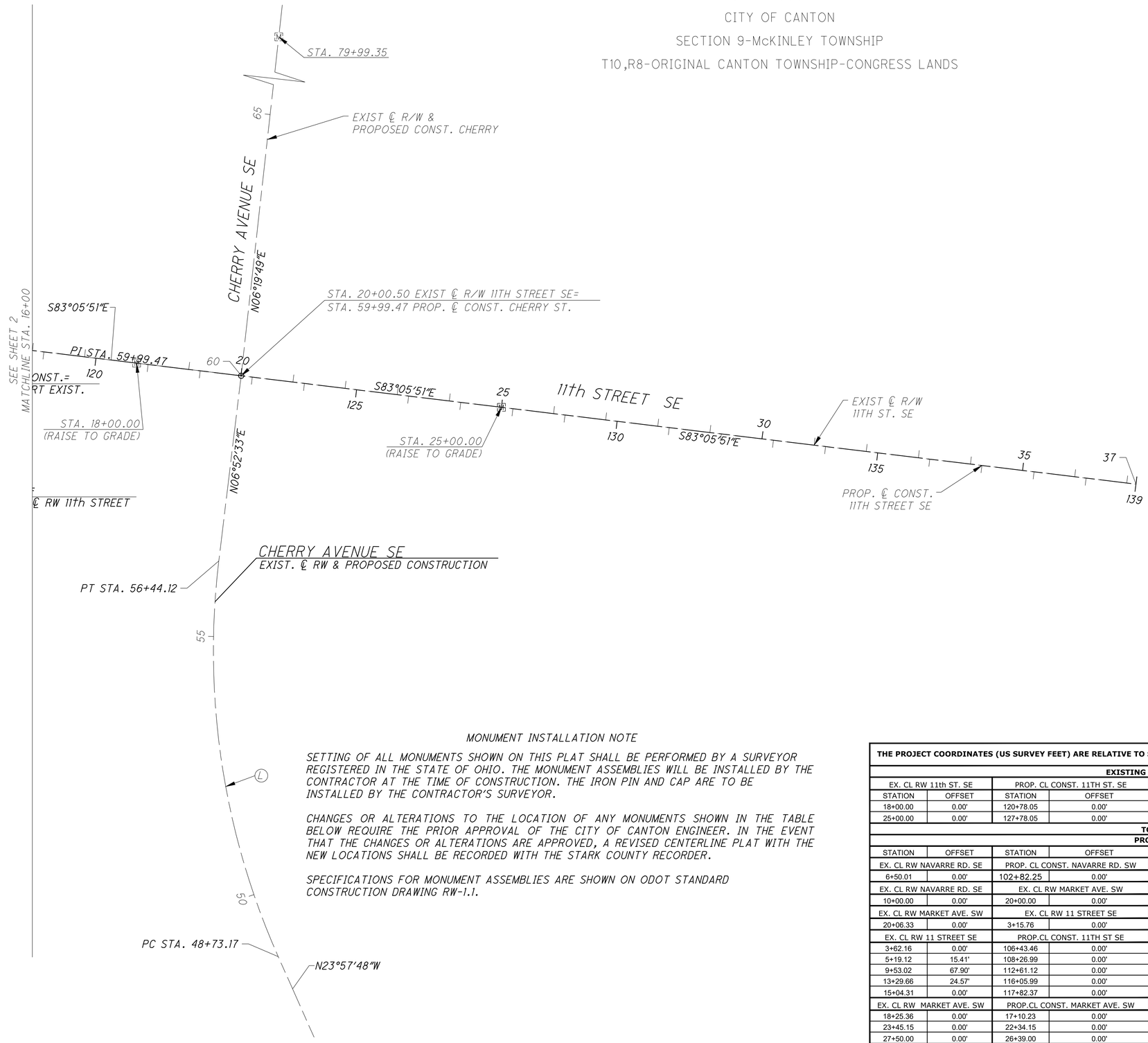
STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



Ⓐ PROP. ℄ OF CONST. NAVARRE ROAD SW
CURVE DATA
P.I. STA. 103+39.97
Δ = 16° 58' 07"
Dc = 10° 59' 50"
R = 521.00'
T = 77.72'
L = 154.30'
E = 5.76'
C = 153.74'
CB = N75°51'35"E

Ⓑ PROP. ℄ OF CONST. NAVARRE ROAD SW
CURVE DATA
P.I. STA. 104+76.76
Δ = 27° 04' 55"
Dc = 22° 55' 06"
R = 250.00'
T = 60.21'
L = 118.17'
E = 7.15'
C = 117.07'
CB = N80°54'59"E

Ⓒ PROP. ℄ OF CONST. 11TH STREET SE
CURVE DATA
P.I. STA. 107+59.34
Δ = 23° 50' 33"
Dc = 17° 21' 44"
R = 330.00'
T = 69.67'
L = 137.32'
E = 7.27'
C = 136.33'
CB = N88°07'54"E

Ⓓ ℄ EX. R/W 11TH STREET SE
CURVE DATA
P.I. STA. 6+71.60
Δ = 25° 32' 15"
Dc = 7° 30' 00"
R = 763.94'
T = 173.12'
L = 340.50'
E = 19.37'
C = 337.69'
CB = N71°21'21"E

Ⓔ ℄ EX. R/W 11TH STREET SE
CURVE DATA
P.I. STA. 10+43.23
Δ = 46° 19' 19"
Dc = 12° 00' 00"
R = 477.46'
T = 204.25'
L = 386.01'
E = 41.85'
C = 375.59'
CB = N81°44'53"E

Ⓕ PROP. ℄ OF CONST. 11TH STREET SE
CURVE DATA
P.I. STA. 114+35.45
Δ = 20° 41' 32"
Dc = 6° 00' 00"
R = 954.93'
T = 174.33'
L = 344.87'
E = 15.78'
C = 343.00'
CB = N86°33'23"E

Ⓖ PROP. ℄ OF CONST. MARKET STREET
CURVE DATA
P.I. STA. 17+56.03
Δ = 15° 56' 53"
Dc = 17° 31' 18"
R = 327.00'
T = 45.81'
L = 91.02'
E = 3.19'
C = 90.72'
CB = N16°32'25"E

Ⓗ PROP. ℄ OF CONST. MARKET STREET
CURVE DATA
P.I. STA. 18+24.51
Δ = 13° 16' 06"
Dc = 28° 38' 52"
R = 200.00'
T = 23.26'
L = 46.32'
E = 1.35'
C = 46.21'
CB = N15°12'02"E

Ⓘ PROP. ℄ OF CONST. MARKET STREET
CURVE DATA
P.I. STA. 20+48.07
Δ = 16° 08' 12"
Dc = 12° 52' 32"
R = 445.00'
T = 63.08'
L = 125.33'
E = 4.45'
C = 124.92'
CB = N29°54'11"E

Ⓙ PROP. ℄ OF CONST. MARKET STREET
CURVE DATA
P.I. STA. 21+72.52
Δ = 13° 30' 51"
Dc = 10° 54' 49"
R = 525.00'
T = 62.20'
L = 123.83'
E = 3.67'
C = 123.54'
CB = N31°12'52"E

Ⓚ ℄ EX. R/W HOUSEL AVENUE SE
CURVE DATA
P.I. STA. 10+85.28
Δ = 43° 15' 15"
Dc = 76° 23' 40"
R = 75.00'
T = 29.74'
L = 56.62'
E = 5.68'
C = 55.28'
CB = S02°30'44"W

Ⓛ ℄ EX. R/W CHERRY AVENUE
CURVE DATA
P.I. STA. 52+68.23
Δ = 30° 50' 21"
Dc = 4° 00' 00"
R = 1,432.35'
T = 395.06'
L = 770.96'
E = 53.48'
C = 761.68'
CB = N08°32'37"W

MONUMENT INSTALLATION NOTE

SETTING OF ALL MONUMENTS SHOWN ON THIS PLAT SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE MONUMENT ASSEMBLIES WILL BE INSTALLED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. THE IRON PIN AND CAP ARE TO BE INSTALLED BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THE TABLE BELOW REQUIRE THE PRIOR APPROVAL OF THE CITY OF CANTON ENGINEER. IN THE EVENT THAT THE CHANGES OR ALTERATIONS ARE APPROVED, A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED WITH THE STARK COUNTY RECORDER.

SPECIFICATIONS FOR MONUMENT ASSEMBLIES ARE SHOWN ON ODOT STANDARD CONSTRUCTION DRAWING RW-1.1.

THE PROJECT COORDINATES (US SURVEY FEET) ARE RELATIVE TO STATE PLANE GROUND COORDINATES (US SURVEY FEET) BY A COMBINED SCALE FACTOR OF 0.99990679

EXISTING MONUMENTS TO BE RECONSTRUCTED TO GRADE

EX. CL RW 11th ST. SE		PROP. CL CONST. 11TH ST. SE					
STATION	OFFSET	STATION	OFFSET		LOCATION	NORTHING	EASTING	NO.
18+00.00	0.00'	120+78.05	0.00'	POT	EX. R/W 11TH ST. SE/ PROP CL CONST.	411001.47	2280502.43	1
25+00.00	0.00'	127+78.05	0.00'	POT	EX. R/W 11TH ST. SE/ PROP CL CONST.	410917.34	2281197.36	1
TOTAL CARRIED TO GENERAL SUMMARY								**2**

PROPOSED MONUMENT ASSEMBLIES, TYPE C

STATION	OFFSET	STATION	OFFSET	LOCATION	NORTHING	EASTING	NO.
EX. CL RW NAVARRE RD. SE		PROP. CL CONST. NAVARRE RD. SW					
6+50.01	0.00'	102+82.25	0.00'	POT - EX. CL RW NAVARRRE RD. SW & PC - PROP. CL CONST.	410888.05	2278714.63	1
EX. CL RW NAVARRE RD. SE		EX. CL RW MARKET AVE. SW					
10+00.00	0.00'	20+00.00	0.00'	EX. CL R/W NAVARRE ROAD SW & PI EX. CL RW MARKET AVE. SW	410922.54	2279062.93	1
EX. CL RW MARKET AVE. SW		EX. CL RW 11 STREET SE					
20+06.33	0.00'	3+15.76	0.00'	EX. CL RW MARKET AVE SW - BEGIN EX. CL RW 11 STREET SE	410928.30	2279065.55	1
EX. CL RW 11 STREET SE		PROP.CL CONST. 11TH ST SE					
3+62.16	0.00'	106+43.46	0.00'	INTERSECT EX. R/W & PROP. CL CONSTRUCTION	410933.05	2279111.70	1
5+19.12	15.41'	108+26.99	0.00'	PT PROP. CL CONSTRUCTION	410934.12	2279269.80	1
9+53.02	67.90'	112+61.12	0.00'	PC. PROP. CL CONSTRUCTION	411037.60	2279691.41	1
13+29.66	24.57'	116+05.99	0.00'	PT PROP. CL CONSTRUCTION	411058.20	2280033.79	1
15+04.31	0.00'	117+82.37	0.00'	INTERSECT EX. R/W & PROP. CL CONSTRUCTION	411037.01	2280208.88	1
EX. CL RW MARKET AVE. SW		PROP.CL CONST. MARKET AVE. SW					
18+25.36	0.00'	17+10.23	0.00'	EX. CL R/W MARKET AVE. SW / PC PROP. CL CONSTRUCTION	410763.65	2278990.46	1
23+45.15	0.00'	22+34.15	0.00'	EX. CL R/W MARKET AVE. SW / PT PROP. CL CONSTRUCTION	411236.72	2279205.82	1
27+50.00	0.00'	26+39.00	0.00'	POT - EX CL RW MARKET AVE. SW / PROP. CL CONST.	411605.25	2279373.44	1
TOTAL CARRIED TO GENERAL SUMMARY							**11**

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

CENTERLINE PLAT SHEET 2 OF 2

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

3 / 34

271 / 302

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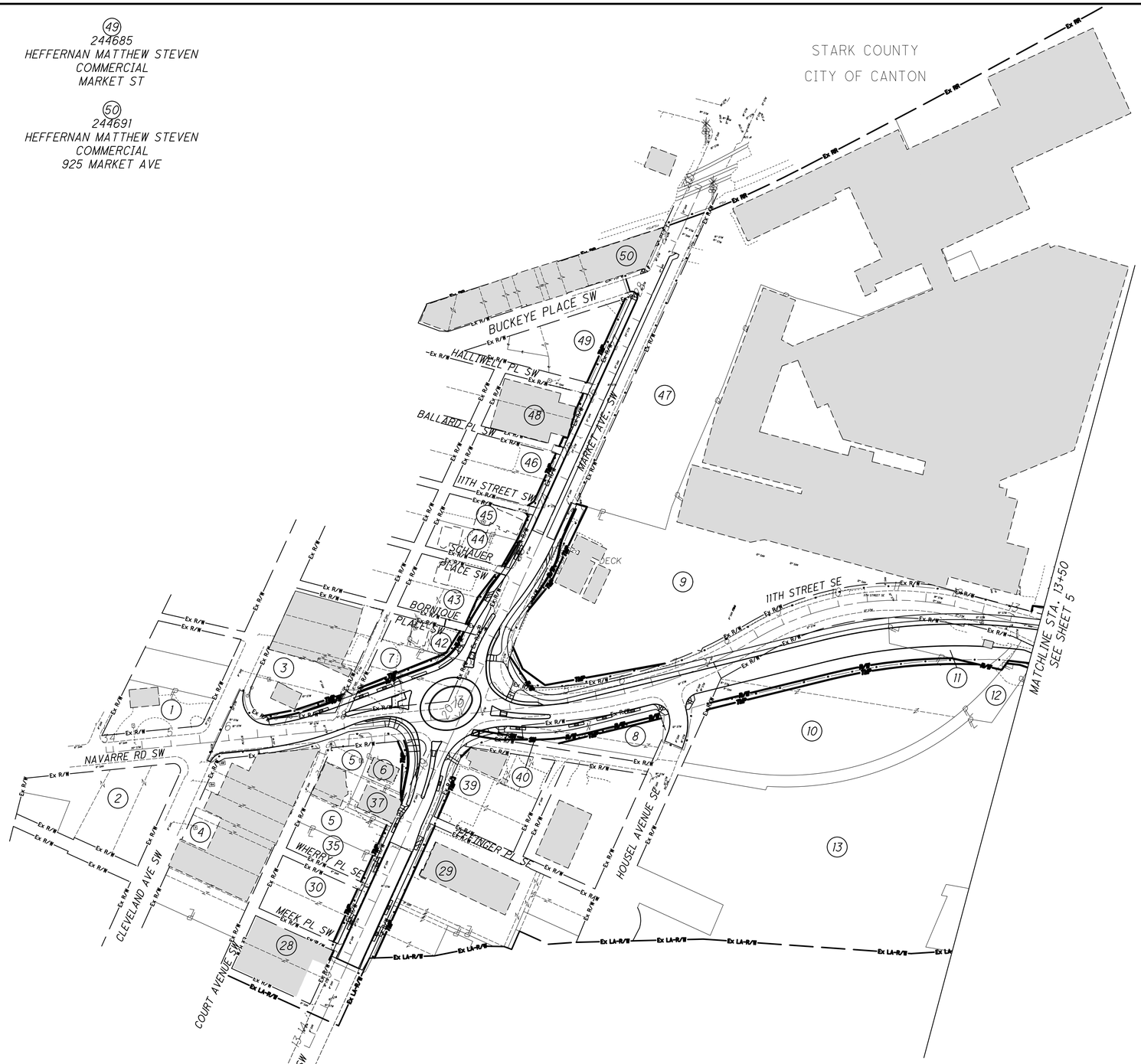

(49)
244685
HEFFERNAN MATTHEW STEVEN
COMMERCIAL
MARKET ST

(50)
244691
HEFFERNAN MATTHEW STEVEN
COMMERCIAL
925 MARKET AVE

(1)
244195
ROBERT D. COEN
COMMERCIAL
301 NAVARRE RD SW

(2)
246417
CLG ENTERPRISES, LLC.
COMMERCIAL
1210 CLEVELAND AVE. SW

(3)
10007467
219 NAVARRE ROAD SW LLC
COMMERCIAL
219 NAVARRE RD SW

(4)
245012
DIFIORE FAMILY
PROPERTIES LLC
COMMERCIAL
216 NAVARRE RD SW

(5)
245598
NORTHEASTERN RICHARDS
HOLDINGS LLC
COMMERCIAL
112 NAVARRE RD SW

(6)
244191
SIPASAK PROPERTIES LLC
COMMERCIAL
104 NAVARRE RD SW

(7)
10007468
219 NAVARRE ROAD SW LLC
COMMERCIAL
219 NAVARRE RD SW

(8)
244688
WHITE MOTORS DEVELOPMENT LLC
INDUSTRIAL
MARKET AVE

(9)
10007303
BROADVIEW TWO LLC
COMMERCIAL
101 11TH ST

(10)
244524
WHITE MOTORS DEVELOPMENT LLC
INDUSTRIAL
11TH ST

(11)
244603
CANTON COMMUNITY IMPROVEMENT CORP
COMMERCIAL
220 11TH ST

(12)
299097
WHEELING & LAKE ERIE RAILWAY
COMPANY
11TH ST SW

(13)
244524
WHITE MOTORS DEVELOPMENT LLC
COMMERCIAL
11TH ST

(28)
245579
OP PROPERTIES OF CANTON LLC
COMMERCIAL
1239 MARKET AVE

(29)
246818
JAJC HOLDINGS LLC
COMMERCIAL
1220 MARKET AVE

(30)
247479
OP PROPERTIES OF CANTON LLC
COMMERCIAL
WHERRY PL SW

(37)
237848
VAN DE BOGART KATHY
ET AL (7 OWNERS)
COMMERCIAL
1213 MARKET AVE

(39)
284095
HANNAHS HOUSE 119
COMMERCIAL
MARKET AVE

(40)
299096
WHEELING & LAKE ERIE RAILWAY
COMPANY
INDUSTRIAL
1200 MARKET AVE

(42)
204697
MILLER JOHN C
COMMERCIAL
MARKET AVE

(43)
10010081
HENRY C. McGHEE
JAMES R. McGHEE
RESIDENTIAL
110 SCHAUERS PL SW

(44)
10010078
MCGHEE HENRY C. JR
& JAMES R.
RESIDENTIAL
1107 MARKET AVE

(45)
220642
MCGHEE JAMES G
RESIDENTIAL
1103 MARKET AVE

(46)
10010080
MCGHEE HENRY C. JR.
JAMES R.
COMMERCIAL
MARKET AVE

(47)
10007308
HERCULES COMPLEX
CONDOMINIUM (MASTER RECORD)
COMMERCIAL
101 11TH ST

(48)
205329
CHIARELLI JOHN & TARR CLIFFORD
COMMERCIAL
1025 MARKET AVE

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		DATE

HORIZONTAL SCALE IN FEET
0 50 100 200

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

PROPERTY MAP

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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STARK COUNTY
CITY OF CANTON

(23)
NO VALID PPN
WHEELING &
LAKE ERIE RAILWAY
COMPANY

(25)
299245
WHEELING &
LAKE ERIE RAILWAY
COMPANY

(26)
242049
CANTON BUSINESS PARK II LLC
INDUSTRIAL

(27)
242035
RDM SPRING REALTY LTD, LLC
INDUSTRIAL/VACANT
11TH ST SE

(9)
10007303
BROADVIEW TWO LLC
COMMERCIAL
101 11TH ST

(20)
242986
CANTON BUSINESS PARK II LLC
INDUSTRIAL
CHERRY AVE

CHERRY AVENUE SE US-43

(22)
242980
CANTON BUSINESS PARK II LLC
INDUSTRIAL
1100 11TH ST SE

SEE SHEET 4
MATCHLINE STA. 13+50

11TH STREET SE

318 11TH ST. SE
332 11TH ST. SE

REX AVENUE SE

(19)
245559
SKYWATER CANTON LLC
COMMERCIAL
332 11TH ST SE

CHERRY AVENUE SE

US 30 WB ON RAMP

US 30 WB OFF RAMP

(24)
245909
SUPA ASSOCIATES LTD
COMMERCIAL
800 11TH ST SE

MADISON COURT SE

EX. WATER

HORIZONTAL SCALE IN FEET
0 50 100 200

R/W DESIGNER JPK
R/W REVIEWER DS

PID NO. 90465

PROPERTY MAP

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

5 / 34

273
302

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		DATE

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TOTAL NUMBER OF :

31 OWNERSHIPS 1 TOTAL TAKES

53 PARCELS 1 OWNERSHIPS W/ STRUCTURES INVOLVED

NET RESIDUE = AUDITOR'S RECORD AREA - NET TAKE

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF CITY OF CANTON UNLESS OTHERWISE SHOWN.

PARCEL NO.	OWNER	SHEET NUMBER	OFFICIAL RECORD BOOK	OFFICIAL RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED INSTRUMENT NO.
1	Robert D. Coen	9,10	3782	736	244195	0.249	0.000								NO TAKE	
2	CLG Enterprises, LLC	9,10	201407090025436		246417	0.597	0.000								NO TAKE	
	an Ohio Limited Liability Company															
3-WD	219 Navarre Rd, S.W., L.L.C.	9,10	200305190046141		10007467	0.781	0.000	0.025	0.000	0.025		0.756			TAKE 21 L.F. 8' HIGH CHAIN LINK FENCE &	
	an Ohio Limited Liability Company														26' GATE & GATE POSTS	
3-T		9,10					0.020	0.020	0.000	0.020					GRADE & RECONNECT DRIVE	
4	DiFiore Family Properties LLC	9,10	201305140024004		245012	1.057	0.000								NO TAKE	
5-T	Northeastern Richards Holdings, LLC	29,30	200712310067633		245598	0.384	0.000	0.011	0.000	0.011					GRADE & RECONNECT DRIVE	
	an Ohio Limited Liability Company															
6-WD	Sipasak Properties, LLC, an Ohio Corporation	11,12	201008190031741		244191	0.160	0.000	0.043	0.000	0.043			0.117			
6-T								0.016	0.000	0.016					DRIVE & PARKING LOT RECONSTRUCTION	
7-WD	219 Navarre Rd, S.W., L.L.C.	11,12	200301230006689		10007468	0.323	0.000	0.221	0.000	0.221		0.102				
	an Ohio Limited Liability Company		201009210036675													
7-T		11,12						0.029	0.000	0.029					GRADE & SEED	
8-WD	White Motors Development LLC	11 - 14	200606080034818		244688	0.300	0.000	0.130	0.000	0.130			0.17			
8-T		11 - 14						0.028	0.000	0.028					GRADE & SEED	
9-WD1	Broadview Two LLC	31,32	201612220051924		10007303	22.350	0.000	0.022	0.000	0.022						
9-WD2	an Ohio Limited Liability Company	11,12						0.019	0.000	0.019						
9-WD3		17,18						0.030	0.000	0.030						
	TOTAL 9-WD1, 2 & 3					22.350	0.000	0.071	0.000	0.071		22.279				
	.															
9-T1		31,32						0.047	0.000	0.047					GRADE & RECONNECT DRIVE-TAKE 170 L.F. FENCE/GATE	
9-T2		11 - 14						0.056	0.000	0.056					GRADE & SEED	
9-T3		17,18						0.074	0.000	0.074					GRADE & RECONNECT DRIVE	
10-WD	White Motors Development LLC	13 - 16	200605080034818		244686	0.980	0.000	0.465	0.000	0.465			0.515			
			200602100007893		244524	6.210	0.000	0.046	0.000	0.046			6.164			
	TOTAL 10-WD					7.190		0.511	0.000	0.511			6.679			
10-T		13 - 16			244686			0.103	0.000	0.103					GRADE & SEED	
					244524			0.000	0.000	0.000						
	TOTAL 10-T							0.103	0.000	0.103						
11-WD	Canton Community Improvement Corp	15 - 18	1232	975	244603	0.285	0.000	0.285	0.000	0.285	Y		0		TOTAL TAKE - TAKE SCALE & SCALE OFFICE	
	(TOTAL TAKE)															
12-SH	The Wheeling & Lake Erie Railway Company	17,18	OR 998	464	299097	0.430	0.000	0.031	0.000	0.031			0.399			
12-T		17,18						0.006	0.000	0.006					GRADE & SEED	
13-WD	White Motors Development LLC	17,18	200602100007893		244524	6.210	0.000	0.061	0.000	0.061			6.149			
13-T		17,18						0.033	0.000	0.033					GRADE & SEED	
14	NOT USED															
15-WD	Edward W. Klink	17,18	201212190058251		245563	0.300	0.000	0.019	0.000	0.019			0.281			
15-T		17,18	OR 199600943					0.017	0.000	0.017					GRADE & RECONNECT DRIVE	

80% FEDERAL, 20% LOCAL

NOTE: ALL TEMPORARY PARCELS TO BE OF 30 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

* DENOTES RIGHT OF WAY ENCROACHMENT

(c) = CALCULATED AREA

TYPES OF TITLE LEGEND:
WD = WARRANTY DEED
WL = WARRANTY DEED WITH LIMITATION OF ACCESS
T = TEMPORARY EASEMENT

REV. BY	DATE	DESCRIPTION
JLN	6/10/22	PARCEL 6-WD TAKE AREA AND NET RESIDUE REVISED
JLN	6/10/22	PARCEL 11-WD RECORD AND TAKE AREAS REVISED
DATE COMPLETED		DATE

FEDERAL PROJECT NO. E110 (520)

PID NO. 90465

STATE JOB NO. 440749

R/W DESIGNER DPP

R/W REVIEWER DS

SUMMARY OF ADDITIONAL RIGHT OF WAY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

6 / 34

274 / 302

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NET RESIDUE = AUDITOR'S RECORD AREA - NET TAKE

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NUMBER	OFFICIAL RECORD BOOK	OFFICIAL RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED INSTRUMENT NO.
16-18	NOT USED															
19-WL	Skywater Canton LLC	17,18	OR 2000012124		245559	4.330	0.000	0.004	0.000	0.004			4.326			
19-T		17 - 20						0.051	0.000	0.051					GRADE & RECONNECT DRIVE	
20-WL	Canton Business Park II LLC	19,20	201205080020281		242986	6.990	0.000	0.006	0.000	0.006			6.984			
20-T1		17,18						0.055	0.000	0.055					GRADE & RECONNECT DRIVE	
20-T2		19,20						0.008	0.000	0.008					GRADE & SEED	
21	NOT USED															
22-WL	Canton Business Park II LLC	19,20	201205080020281		242980	37.490	0.000	0.004	0.000	0.004		37.486				
22-T		19 - 26						0.155	0.000	0.155					GRADE & RECONNECT 2 DRIVES	
23	The Wheeling & Lake Erie Railway Company	25,26	3952	529	NONE ASSIGNED	0.503(D)	0.000								NO TAKE	
24-T	Supa Associates LTD	23-28	201101180002186		245908	0.050	0.000	0.002	0.000	0.002					GRADE, SEED, RECONNECT DRIVE & REMOVE	
					245909	2.810	0.000	0.072	0.000	0.072					STREET LIGHTING	
	TOTAL 24-T					2.860	0.000	0.074	0.000	0.074						
25	Wheeling & Lake Erie Railway Company	25-28	3952	529	299245	2.230	0.000								NO TAKE	
26-T	Canton Business Park II LLC	25-28	201205080020281		242049	0.970	0.000	0.008	0.000	0.008					GRADE & SEED	
27-T	RDM Spring Realty LTD LLC	25-28	OR 1997031451		242035	0.043	0.000	0.025	0.000	0.025					GRADE & SEED	
28-T	OP Properties of Canton, LLC	29-30	200512090082495		245579	0.344	0.000	0.001	0.000	0.001					RECONNECT SIDEWALK	
29-T	JAJC Holdings, LLC	11,12 &	201310020048829		239708	0.057	0.000	0.009	0.000	0.009					GRADE, RECONNECT DRIVE & PARKING LOT	
	an Ohio Limited Liablity Company	29-30	201310020048830		244110	0.110	0.000	0.010	0.000	0.010						
					246818	0.870	0.000	0.027	0.000	0.027						
	TOTAL 29-T							0.046	0.000	0.046						
30-T	OP Properties of Canton, LLC	29,30	200512090082495		247479	0.344	0.000	0.018	0.000	0.018					GRADE & SEED	
31-34	NOT USED															
35-T	OP Properties of Canton, LLC	29,30	201108220033283		234175	0.172	0.000	0.009	0.000	0.009					GRADE & SEED	
36	NOT USED															
37-WD	Van De Bogart Kathy (1/12), Richard Scott(1/12)	11,12	201801300003519		237848	0.177	0.000	0.001	0.000	0.001						
	Edward Scott(1/12),Eugene Scott (1/12)															
	Robert(1/12), Rodney Scott(1/12)															
	Andy H. Sullivan(1/2)		OR 1997020873													
37-T		11,12						0.001	0.000	0.001					RECONNECT DRIVE	
38	NOT USED															
39-T1	Community Restoration Centers, Inc. of	11,12	201903150008779		284097	0.172	0.000	0.008	0.000	0.008						
	Stark County, an Ohio Corporation				284095	0.172	0.000	0.003	0.000	0.003						
	TOTAL 39-T1							0.011	0.000	0.011					RECONNECT PARKING LOT	
39-T2		11,12			284094	0.083	0.000	0.002	0.000	0.002					GRADE	
					284096	0.039	0.000									
					284098	0.060	0.000									
40-SH	The Wheeling & Lake Erie Railway Company	11,12	OR 998	464	299096	0.070	0.003	0.015	0.000	0.015			0.055			
41	NOT USED															

80% FEDERAL, 20% LOCAL

NOTE: ALL TEMPORARY PARCELS TO BE OF 30 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

* DENOTES RIGHT OF WAY ENCROACHMENT

(c) = CALCULATED AREA

TYPES OF TITLE LEGEND:
WD = WARRANTY DEED
WL = WARRANTY DEED WITH LIMITATION OF ACCESS
T = TEMPORARY EASEMENT

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		DATE

FEDERAL PROJECT NO. E110 (520)
PID NO. 90465
STATE JOB NO. 440749
R/W DESIGNER DPP
R/W REVIEWER DS

SUMMARY OF ADDITIONAL RIGHT OF WAY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

7 / 34

275
302

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NET RESIDUE = AUDITOR'S RECORD AREA - NET TAKE

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NUMBER	OFFICIAL RECORD BOOK	OFFICIAL RECORD PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED INSTRUMENT NO.
42-WD	John C. Miller AKA John C. Miller, Jr.	11,12	200809180041648		204697	0.085	0.000	0.031	0.000	0.031					TAKE 118 LF CH. LNK.FENCE & POSTS	
			200301240007081		229761	0.039	0.000	0.000	0.000	0.000						
	TOTAL 42-WD							0.031	0.000	0.031						
42-T		11,12						0.009	0.000	0.009					GRADE & RECONNECT PARKING LOT	
43-WD	Henry C. McGhee, Jr.	31,32	201606390024988		10010081	0.278	0.000	0.042	0.000	0.042		0.236				
	James R. McGhee		201711090048062													
			201803010007607		10010217	0.044	0.000	0.000	0.000	0.000		0.044				
			201803150009653													
	TOTAL 43-WD					0.322	0.000	0.042	0.000	0.042		0.280				
43-T		31,32						0.015	0.000	0.015					GRADE & SEED	
44-WD	Henry C. McGhee, Jr.	31,32	201606390024988		10010078	0.172	0.000	0.006	0.000	0.006		0.164				
	James R. McGhee		201711090048062													
44-T		31,32						0.005	0.000	0.005					GRADE & SEED	
45-T	McGhee James G.	31,32	NO RECORD FOUND		220642	0.172	0.000	0.008	0.000	0.008					GRADE & SEED	
46-T	Henry C. McGhee, Jr.	31,32	201606390024988		10010080	0.344	0.000	0.019	0.000	0.019					GRADE & SEED	
	James R. McGhee		201711090048062													
	TOTAL 46-T															
47	Hercules Complex Condominium	31 - 34	201512170050621		10007308	3.660	0.000								NO TAKE	
48-T	John Chiarelli & Clifford Tarr	31 - 34	201210120046710		205329	0.344	0.000	0.014	0.000	0.014					GRADE & SEED	
49-T	Matthew Steven Heffernan	33 - 34	201610250043115		244685	0.297	0.000	0.037	0.000	0.037					GRADE & RECONNECT PARKING LOT	
					243376	0.031	0.000									
	TOTAL 49-T															
50	Matthew Steven Heffernan	33 - 34	201610250043115		242552	0.320	0.000								NO TAKE	
					244691	0.218	0.000									

TYPE FUND: 80% FEDERAL, 20% LOCAL

NOTE: ALL TEMPORARY PARCELS TO BE OF 30 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

* DENOTES RIGHT OF WAY ENCROACHMENT

(c) = CALCULATED AREA

TYPES OF TITLE LEGEND:
WD = WARRANTY DEED
WL = WARRANTY DEED WITH LIMITATION OF ACCESS
T = TEMPORARY EASEMENT

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

FEDERAL PROJECT NO. E110 (520)
PID NO. 90465
STATE JOB NO. 440749
R/W DESIGNER DPP
R/W REVIEWER DS

SUMMARY OF ADDITIONAL RIGHT OF WAY

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

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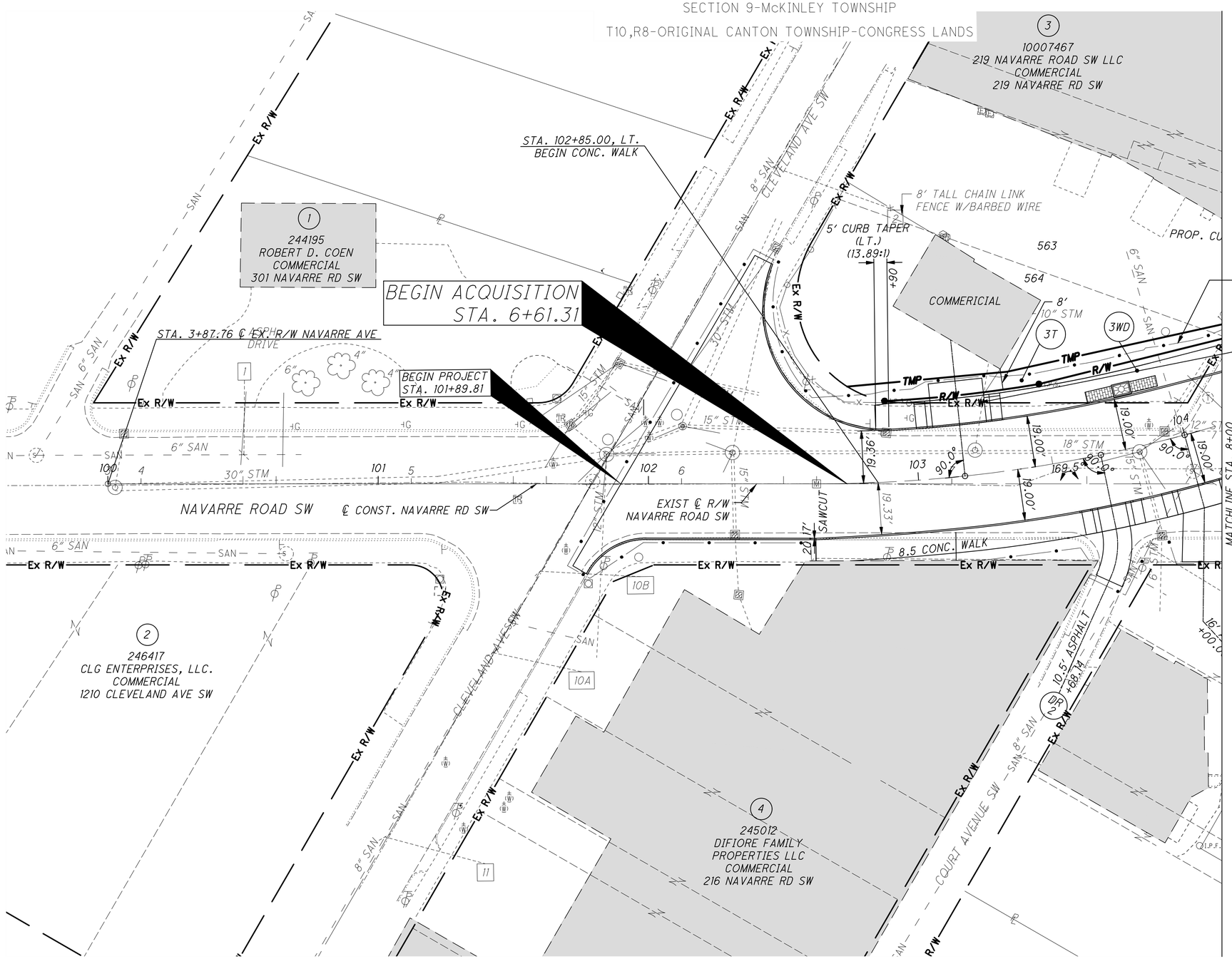
STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	*DATE*	

R/W DESIGNER JPK
R/W REVIEWER DS

PID NO. 90465

HORIZONTAL SCALE IN FEET
0 10 20 40

RIGHT OF WAY TOPO SHEET
11TH STREET SE - BEGINNING TO STA. 8+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

9 / 34

277
302

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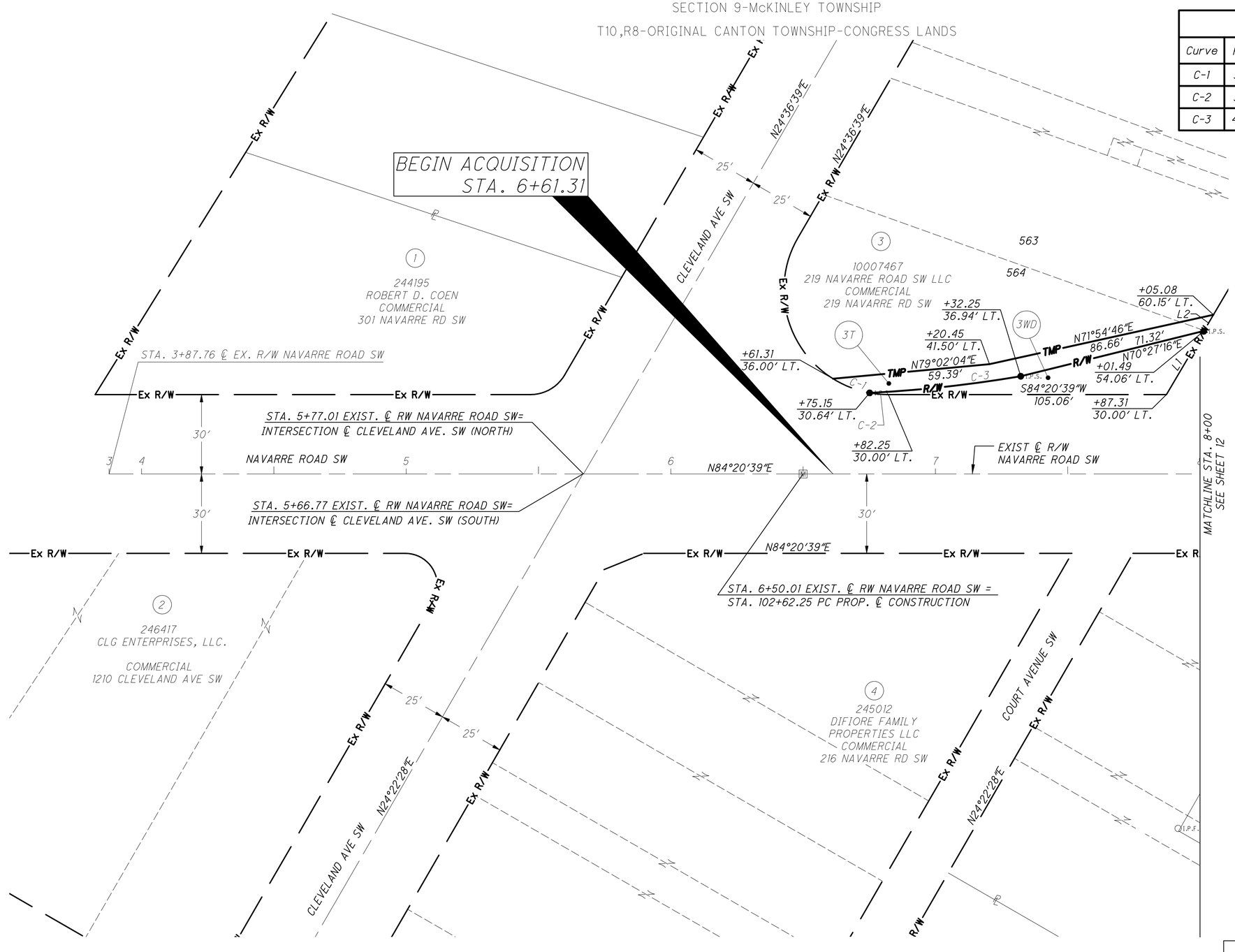
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-1	39.50'	21°38'42"	14.92'	7.55'	14.83'	N74°28'24"W
C-2	39.50'	10°21'36"	7.14'	3.58'	7.13'	S89°31'27"W
C-3	491.00'	6°42'28"	57.48'	28.77'	57.45'	N78°03'19"E

Right of Way Line Table		
Line #	Bearing	Distance
L1	S24°51'05"W	27.92'
L2	S24°51'05"W	7.08'

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - BEGINNING TO STA. 8+00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

10 / 34

278 / 302

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		DATE

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STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

[A] = STA. 10+00.00 ℄ EX. R/W NAVARRE RD. SW = STA. 20+00.00 ℄ EX. R/W MARKET AVE
[B] = STA. 3+15.76 ℄ EX. R/W 11TH ST. SE = STA. 20+06.33 ℄ EX. R/W MARKET AVE
[C] = STA. 10+00.00 ℄ EX. R/W NAVARRE RD. SW = STA. 20+00.00 ℄ EX. R/W MARKET AVE
* = EX. R/W ENCROACHMENTS TO BE REMOVED

7
10007468
219 NAVARRE ROAD SW LLC
COMMERCIAL
219 NAVARRE RD SW

42
204697
JOHN C. MILLER, JR.
RESIDENTIAL
108 BORNIQUE PL SW
229761

4
2 STORY BRICK
GRAVEL
42T
42WD
7T
7WD
557
VACANT
GRAVEL & ASPH. DRIVE
TAKE
(TBR)
REF LINE WL
CONSTRUCTION LIMITS
9.5' CONC. WALK
558
REF LINE WR
105
REF LINE SW
REF LINE CC
REF LINE NL
REF LINE NE
REF LINE EL
REF LINE ER
REF LINE SL
REF LINE SR
PC Sta. 19+84.59
PT Sta. 18+47.56
SEE SHEET 9 MATCHLINE STA. 8+00
MATCH LINE STA. 18+00 SEE SHEET 29
SEE SHEET 31 MATCH LINE STA. 21+50
SEE SHEET 13 MATCHLINE STA. 5+00
REMOVE 118' LINEAR FEET OF 8' HIGH CHAIN LINK FENCE & POSTS
COURT AVENUE SW
Ex R/W
TMP
R/W
8" STM
8" SAN
12" STM
10' CONC. WALK
10' SHARED-USE PATH
11TH STREET SE
108
EXIST ℄ R/W 11TH STREET SE
EXIST ℄ R/W MARKET AVE
℄ CONST. 11TH STREET SE
℄ CONST. MARKET AVENUE S
EXIST ℄ R/W NAVARRE ROAD SW
NAVARRE ROAD SE
EX. GUARDRAIL (TBR)
EX. WALK (TBR)
CONSTRUCTION LIMITS
PT. O.L. 32 (TBR)
*1780' LINEAR FEET 7' HIGH CHAIN LINK BARBED WIRE FENCE
9
10007303
BROADVIEW TWO LLC
COMMERCIAL
101 11TH ST
9T-2
9WD-2
8WD
8
244688
WHITE MOTORS DEVELOPMENT LLC INDUSTRIAL
MARKET AVE
8T
40
299096
WHEELING & LAKE ERIE RAILWAY
INDUSTRIAL
MARKET AVE
40SH
5
245598
NORTHEASTERN RICHARDS HOLDINGS LLC
COMMERCIAL
112 NAVARRE RD SW
6
244191
SIPASAK PROPERTIES, LLC.
COMMERCIAL
104 NAVARRE RD SW
6T
6WD
37
237848
VAN DE BOGART KATHY ET AL (7 OWNERS)
COMMERCIAL
1213 MARKET AVE
37T
37WD
VACANT BRICK
PT. 580
PT. 579
39
284095
COMMUNITY RESTORATION CENTERS, INC. OF STARK COUNTY
COMMERCIAL
1200 MARKET AVE
39T-1
39T-2
3 STORY BRICK
2657
GRAVEL LANDSCAPE BED
2658
SAVE LIGHT POLES
ASPHALT PARKING LOT
STA. 106+35.20 ℄ CONST. 11TH STREET SE = STA. 18+94.63 ℄ CONST. MARKET AVENUE S
29
29T
2659
246618
JAJC HOLDINGS LLC
COMMERCIAL
1220 MARKET AVE
EFFINGER PL SE
JAJC 01150
DR 9
DR 3
DR 58
DR 59
16' ASPHALT
12' ASPHALT
CONC. WALK
90.0°
84.9°
PT. 1497
PT. 1498
EXIST ℄ R/W 39556 11TH STREET SE

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

P1D NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
11TH STREET SE - STA. 8+00 TO STA. 5+00
STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

11 / 34
279 / 302

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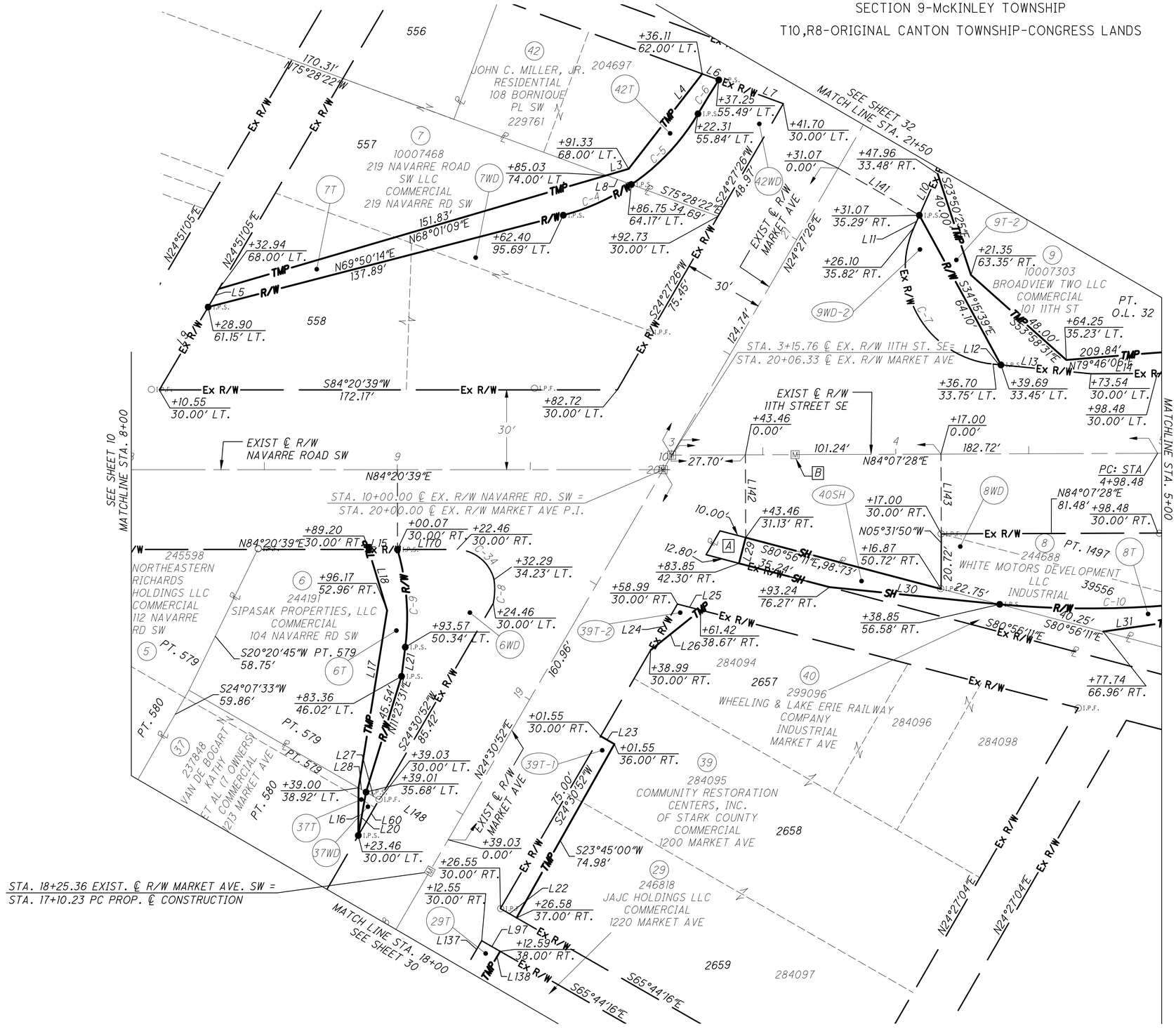
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-4	83.00′	19°29′30″	28.24′	14.26′	28.10′	N60°05′30″E
C-5	83.00′	25°25′26″	36.83′	18.72′	36.53′	N37°38′02″E
C-6	474.00′	1°48′23″	14.94′	7.47′	14.94′	N25°49′30″E
C-7	36.50′	108°54′14″	69.38′	51.08′	59.40′	N35°42′02″W
C-8	27.50′	18°37′07″	8.94′	4.51′	8.90′	S03°51′08″E
C-9	90.00′	23°36′45″	37.09′	18.81′	36.83′	N10°13′14″W
C-10	370.00′	13°22′51″	86.41′	43.40′	86.21′	S82°54′00″W
C-34	15.00′	73°30′52″	19.25′	11.20′	17.95′	S56°29′37″E

Right of Way Line Table		
Line #	Bearing	Distance
L3	N68°01′09″E	8.71′
L4	N32°05′20″E	45.18′
L5	N24°51′05″E	7.95′
L6	S75°26′44″E	6.61′
L7	S75°26′44″E	25.87′
L8	N75°28′22″W	9.98′
L9	N24°51′05″E	36.16′
L10	N18°21′48″E	16.99′
L11	N18°21′48″E	5.00′
L12	S89°56′35″W	3.00′
L13	S89°56′35″W	34.02′
L14	N84°07′28″E	24.94′
L15	N84°20′39″E	10.87′
L16	N05°21′37″W	17.92′
L17	N03°29′38″E	67.52′
L18	N22°33′35″W	24.00′
L20	N04°27′11″E	16.55′
L21	N01°35′09″E	11.09′
L22	N65°44′16″W	7.00′
L23	S65°29′08″E	6.00′

Right of Way Line Table		
Line #	Bearing	Distance
L24	N24°30′52″E	20.00′
L25	S81°07′44″E	9.00′
L26	S45°38′34″W	24.04′
L27	S65°43′25″E	5.68′
L28	N65°43′25″W	3.25′
L29	N09°03′49″E	10.00′
L30	N89°53′13″W	64.27′
L31	N76°17′45″E	181.74′
L60	N24°30′52″E	15.57′
L97	S65°44′16″E	8.00′
L137	N24°30′52″E	254.69′
L138	N24°30′52″E	250.72′
L141	S65°32′34″E	35.29′
L142	S05°52′32″E	31.13′
L143	S05°52′32″E	30.00′
L148	N65°29′08″W	30.00′
L170	N84°20′39″E	22.40′

[A] = EXISTING STANDARD HIGHWAY EASEMENT TO CITY OF CANTON REC. IMAGE 201111170046438

[B] = STA. 3+62.16 EXIST. ℄ RW 11th STREET SE = STA. 106+67.57 INTERSECT. PROP. ℄ CONSTRUCTION 11TH ST. SE

REV. BY	DATE	DESCRIPTION
JLN	6/10/22	PARCEL 6-WD BOUNDARY REVISED
DATE COMPLETED		DATE

HORIZONTAL SCALE IN FEET 0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
STA - 11TH STREET SE IMPROVEMENTS (PID 90465) 11TH STREET SE - STA. 8+00 TO STA. 5+00

12/34

280/302

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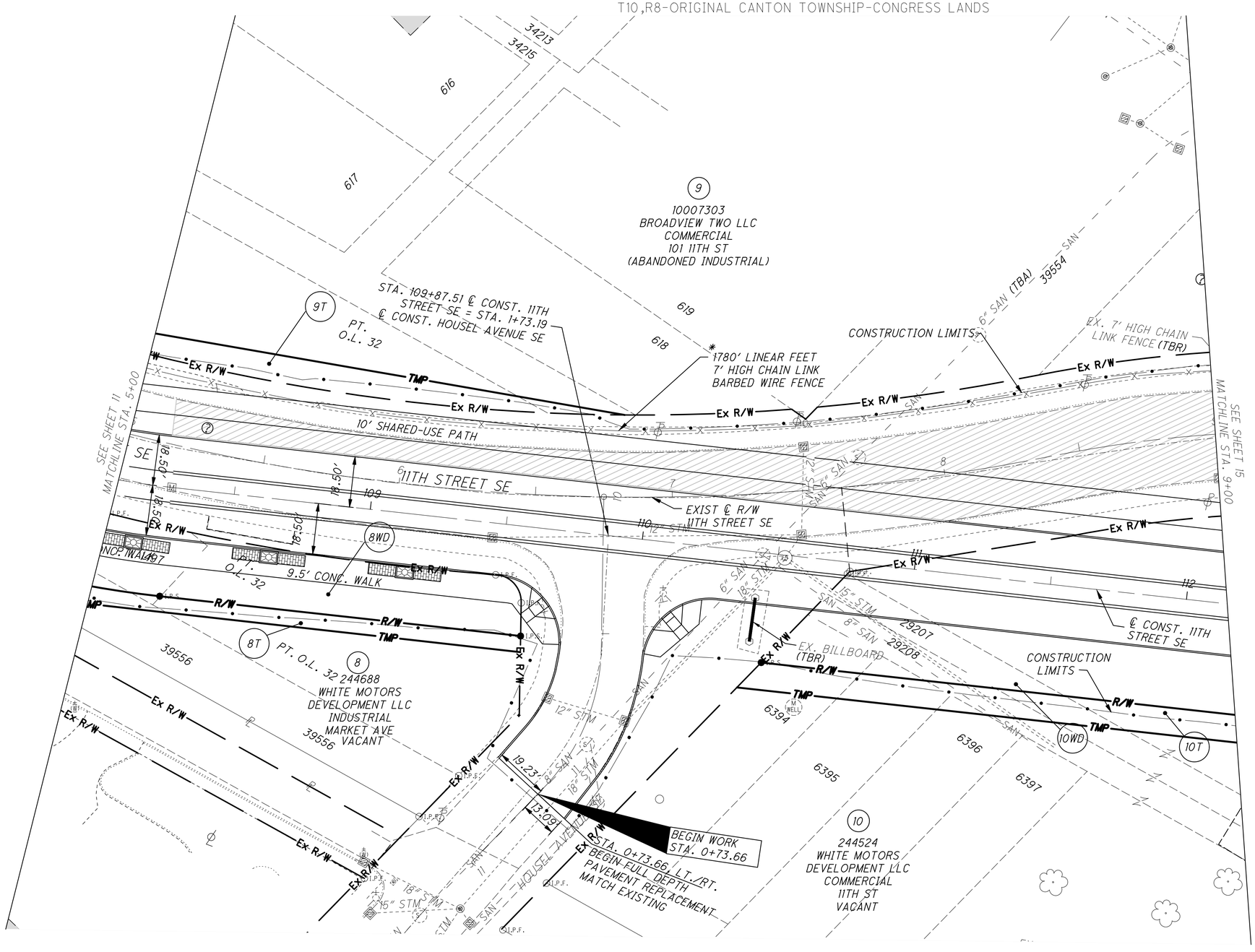
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



* = EX. R/W ENCROACHMENTS TO BE REMOVED

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		*DATE*

HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

PID NO. 90465

R/W DESIGNER JPK

R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

11TH STREET SE - STA. 5+00 TO STA. 9+00

13 / 34

281 / 302

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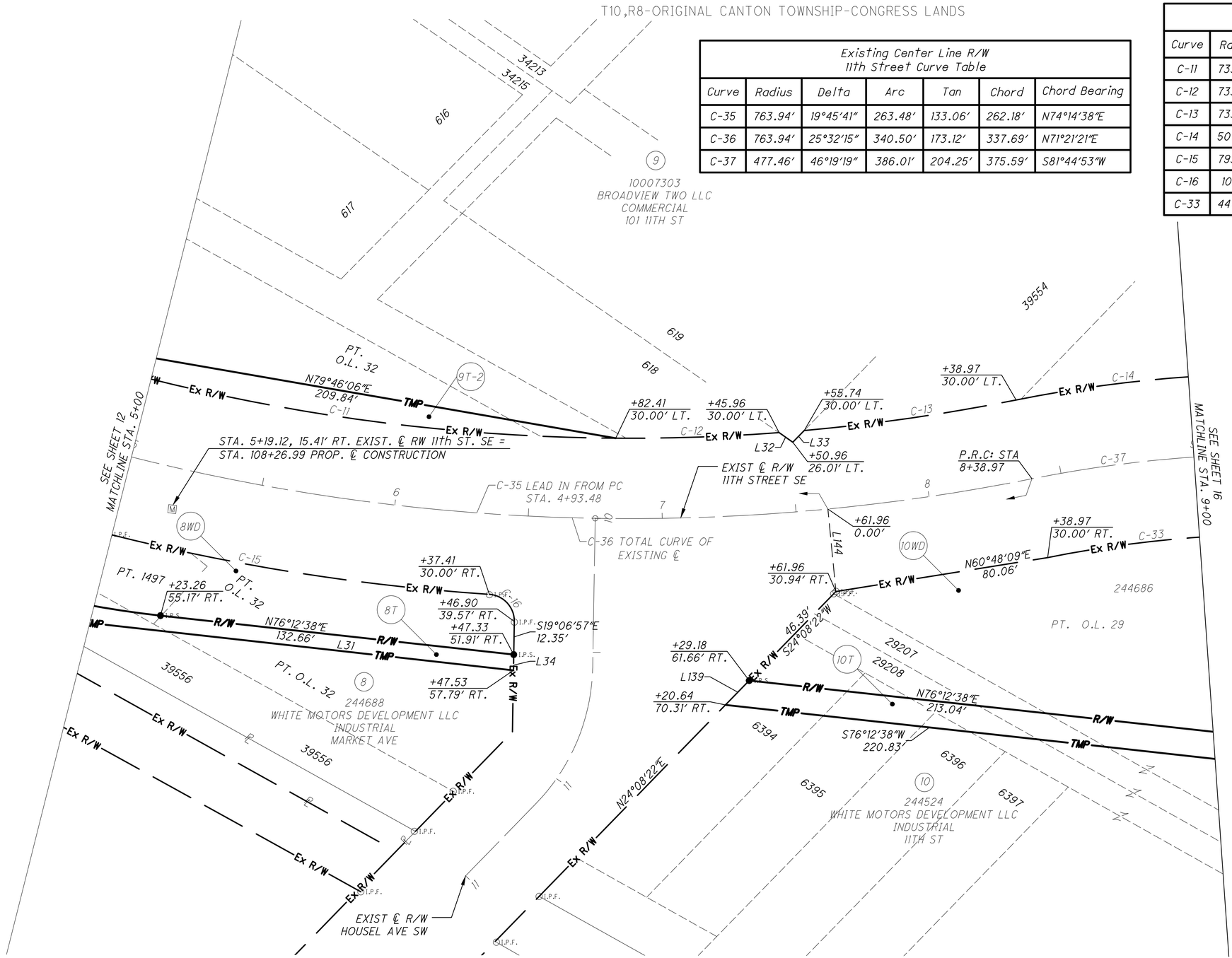
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

Existing Center Line R/W 11th Street Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-35	763.94'	19°45'41"	263.48'	133.06'	262.18'	N74°14'38"E
C-36	763.94'	25°32'15"	340.50'	173.12'	337.69'	N71°21'21"E
C-37	477.46'	46°19'19"	386.01'	204.25'	375.59'	S81°44'53"W

Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-11	733.94'	13°47'42"	176.71'	88.78'	176.28'	S77°13'37"W
C-12	733.94'	4°45'58"	61.05'	30.54'	61.03'	N67°56'47"E
C-13	733.94'	6°14'34"	79.97'	40.02'	79.93'	N61°42'30"E
C-14	507.46'	38°16'20"	338.97'	176.08'	332.70'	S77°43'23"W
C-15	793.94'	10°25'11"	144.39'	72.39'	144.19'	N78°54'53"E
C-16	10.00'	87°10'46"	15.22'	9.52'	13.79'	S62°42'20"E
C-33	447.46'	29°33'52"	230.89'	118.08'	228.33'	S73°22'09"W

Right of Way Line Table		
Line #	Bearing	Distance
L31	N76°17'45"E	181.74'
L32	N75°00'45"W	6.25'
L33	S24°07'15"W	6.09'
L34	S19°06'57"E	5.89'
L139	S24°08'22"W	12.68'
L144	N25°38'13"W	30.94'



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 5+00 TO STA. 9+00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

14 / 34

282
302

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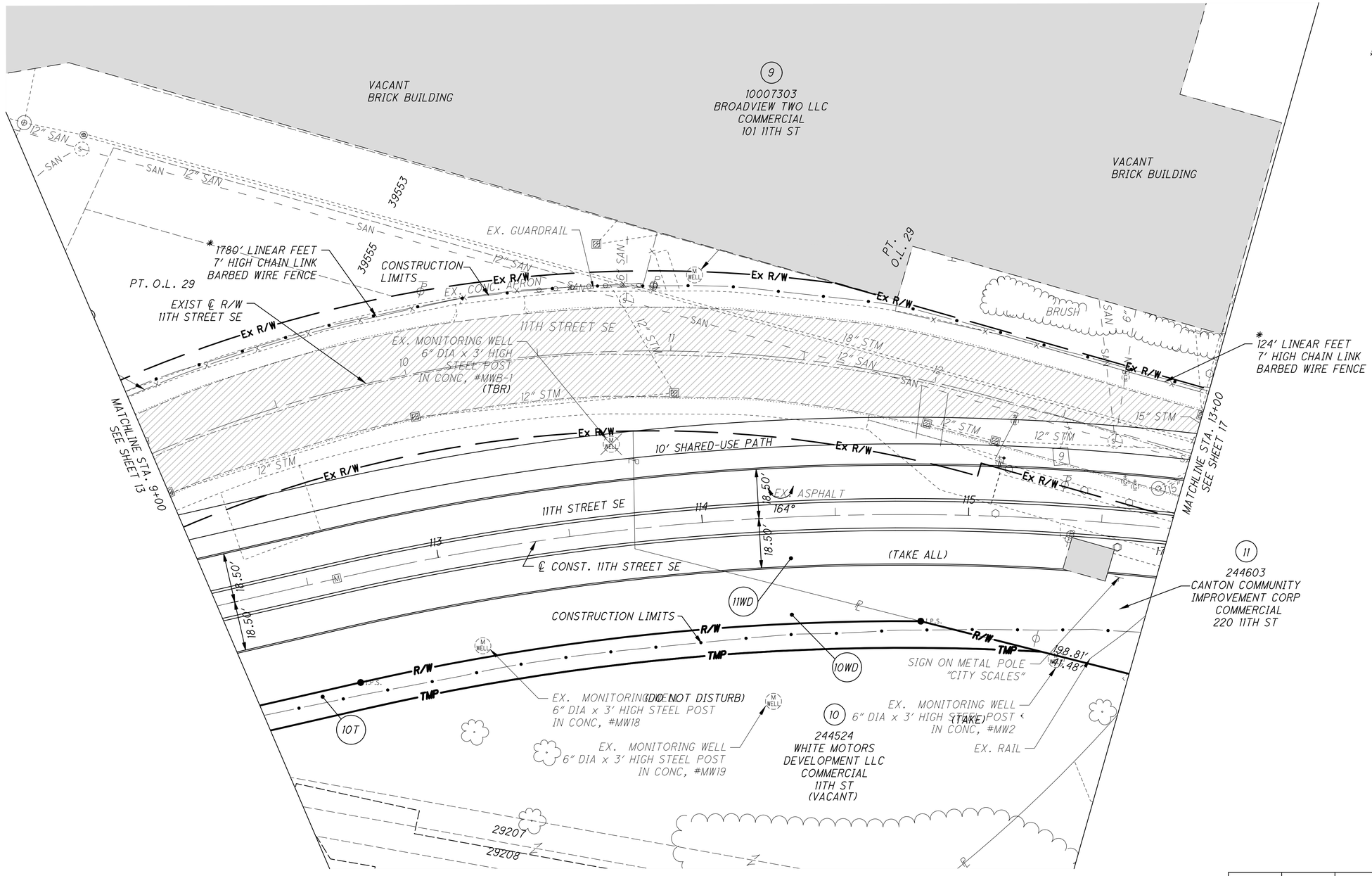
STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

P1D NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
11TH STREET SE - STA. 9+00 TO STA. 13+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

15 / 34

283
302

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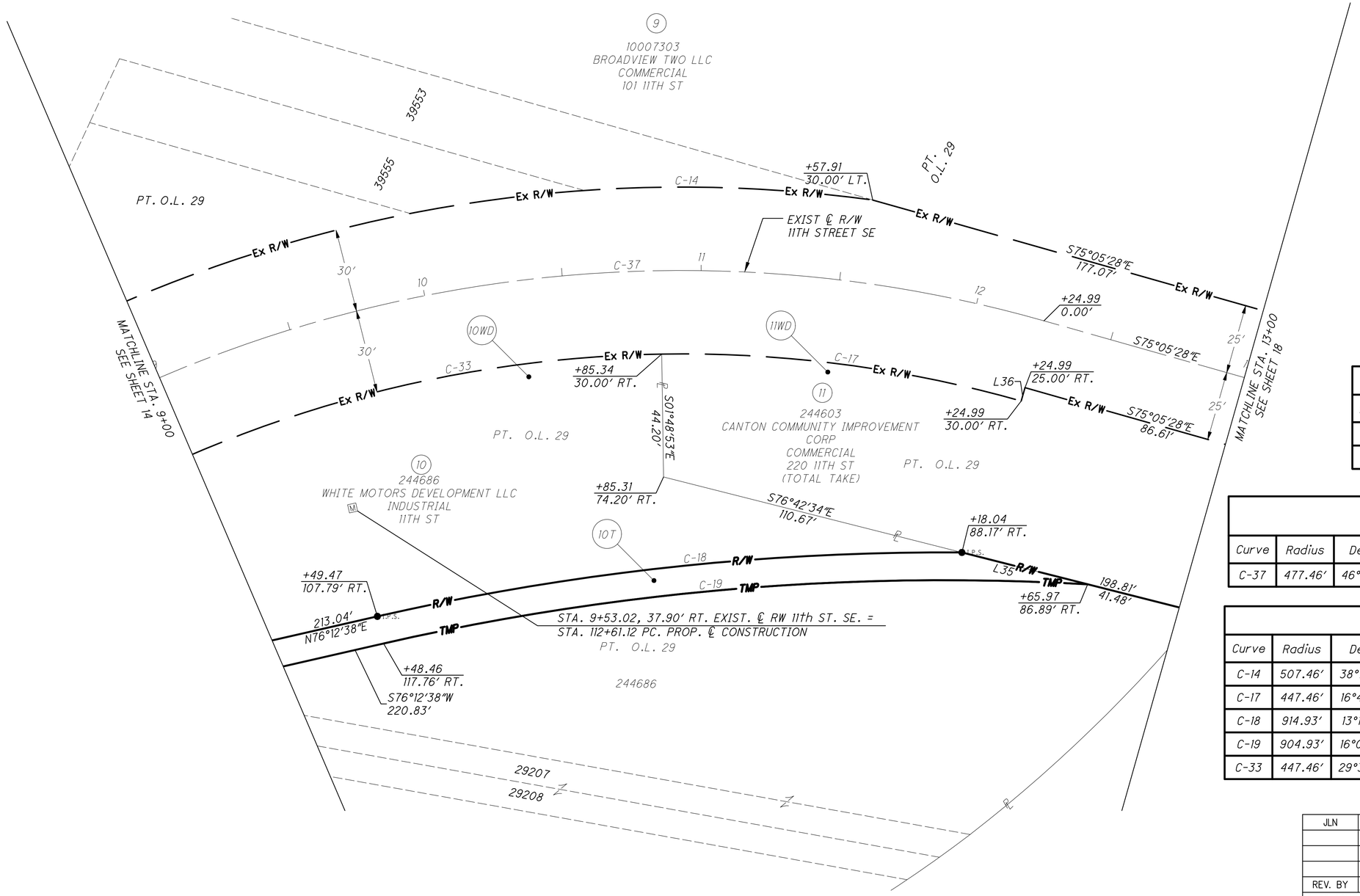
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



Right of Way Line Table		
Line #	Bearing	Distance
L35	S76°42'34"E	46.66'
L36	N14°54'32"E	5.00'

Existing Center Line R/W 11th Street Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-37	477.46'	46°19'19"	386.01'	204.25'	375.59'	S81°44'53"W

Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-14	507.46'	38°16'20"	338.97'	176.08'	332.70'	S77°43'23"W
C-17	447.46'	16°45'27"	130.87'	65.91'	130.40'	S83°28'12"E
C-18	914.93'	13°16'26"	211.97'	106.46'	211.49'	S82°50'51"W
C-19	904.93'	16°08'39"	254.98'	128.34'	254.14'	S84°16'57"W
C-33	447.46'	29°33'52"	230.89'	118.08'	228.33'	S73°22'09"W

REV. BY	DATE	DESCRIPTION
JLN	6/10/22	REV. CH. BRG. C-17 & PARCEL 11 DIM.
DATE COMPLETED		DATE

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 9+00 TO STA. 13+00
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

16 / 34

284
302

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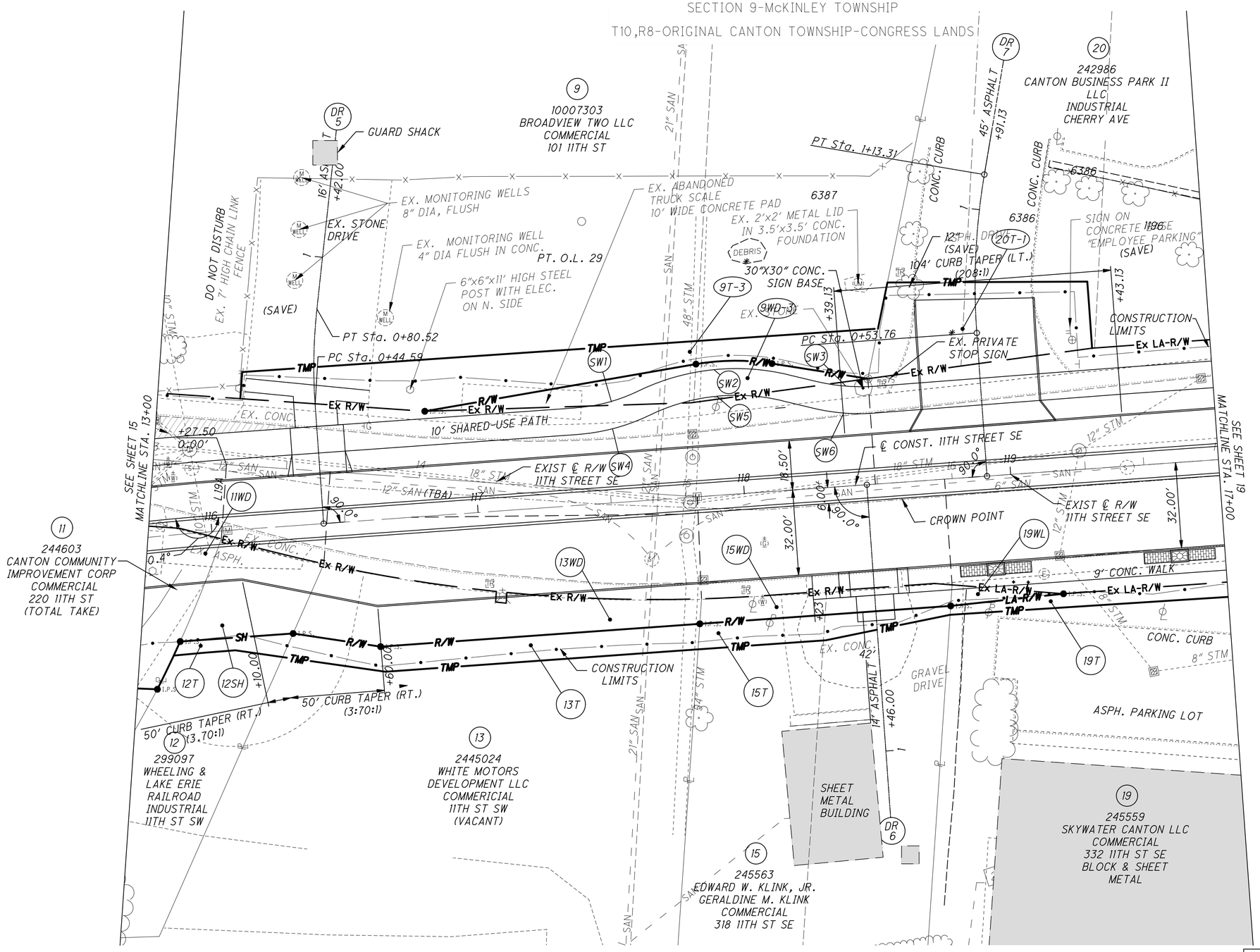
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



* = EX. R/W ENCROACHMENTS TO BE REMOVED

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
STA - 11TH STREET SE - STA. 13+00 TO STA. 17+00
IMPROVEMENTS (PID 90465) 11TH STREET SE

17 / 34

285 / 302

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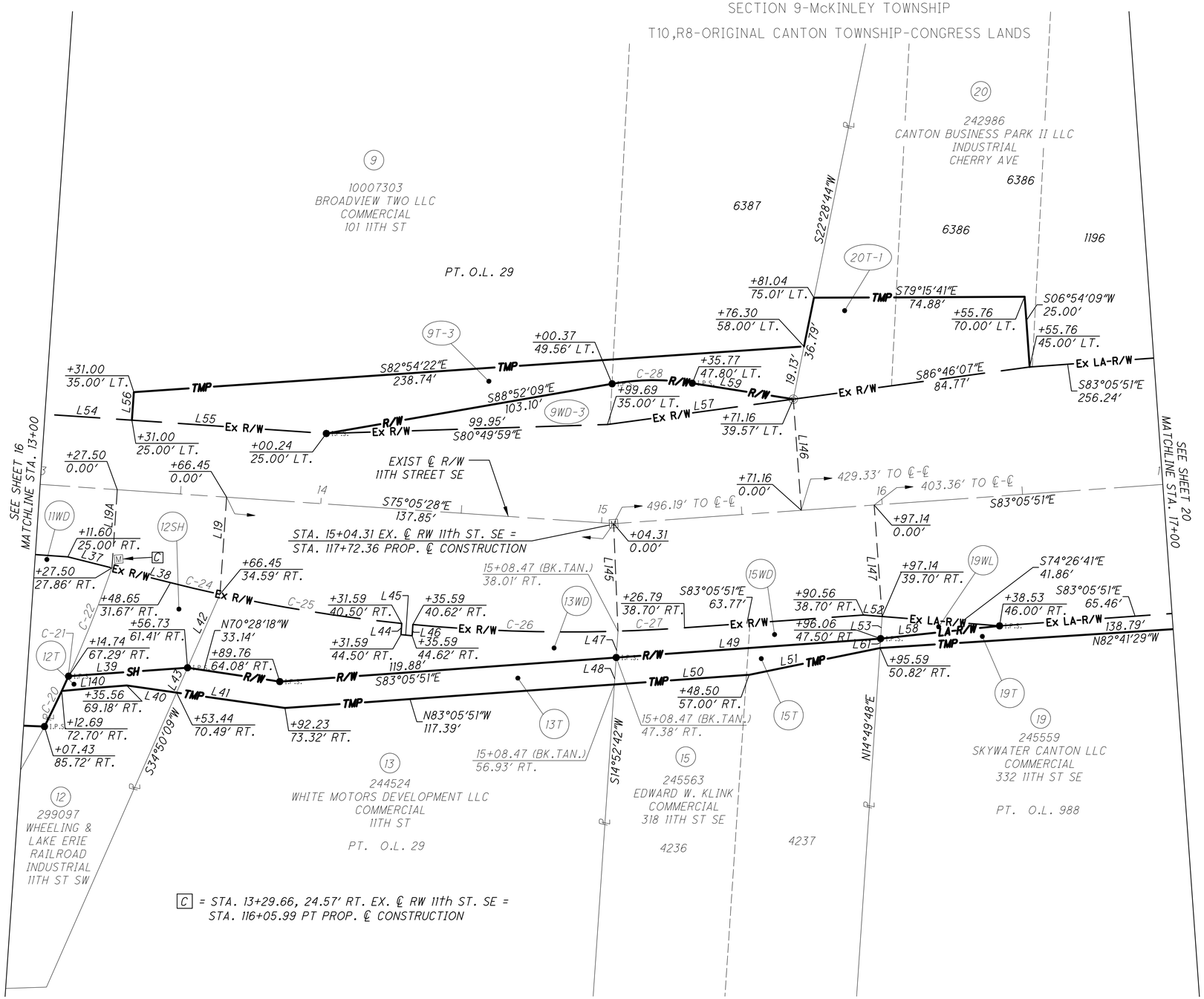
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



[C] = STA. 13+29.66, 24.57' RT. EX. ℄ RW 11th ST. SE = STA. 116+05.99 PT PROP. ℄ CONSTRUCTION

Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-20	471.60'	7°26'45"	61.29'	30.69'	61.24'	S34°02'42"W
C-21	471.60'	0°42'10"	5.79'	2.89'	5.79'	N35°42'37"E
C-22	471.60'	5°02'12"	41.46'	20.74'	41.44'	N32°50'26"E
C-24	579.57'	1°47'02"	18.05'	9.02'	18.05'	S65°46'54"E
C-25	579.57'	6°28'08"	65.43'	32.75'	65.40'	S69°54'29"E
C-26	579.57'	7°12'50"	72.97'	36.53'	72.92'	S77°08'42"E
C-27	579.57'	2°20'22"	23.67'	11.83'	23.66'	S81°55'18"E
C-28	87.00'	18°51'33"	28.64'	14.45'	28.51'	S79°26'23"E

Right of Way Line Table		
Line #	Bearing	Distance
L19	N14°54'32"E	34.59'
L19A	S14°54'32"W	27.87'
L37	S64°53'08"E	16.16'
L38	S64°53'08"E	21.49'
L39	S83°04'03"E	42.40'
L40	N70°54'25"W	17.93'
L41	N70°54'25"W	38.89'
L42	N34°50'09"E	28.53'
L43	N34°50'09"E	9.65'
L44	S14°54'32"W	4.00'
L45	S73°22'40"E	4.00'
L46	N14°54'32"E	4.00'
L47	N14°52'42"E	9.38'
L48	N14°52'42"E	9.59'
L49	S83°05'51"E	94.23'
L50	N83°05'51"W	48.00'
L51	S89°25'39"W	47.50'
L52	S74°26'41"E	6.66'
L53	N14°49'48"E	7.87'
L54	S75°05'28"E	177.07'
L55	N75°05'28"W	69.24'

Right of Way Line Table		
Line #	Bearing	Distance
L56	N14°54'32"E	10.00'
L57	S86°46'07"E	66.69'
L58	S85°07'13"E	42.50'
L59	S70°00'37"E	36.34'
L61	N14°49'48"E	3.35'
L140	N83°50'58"W	23.14'
L145	S08°40'08"W	38.23'
L146	N06°54'09"E	39.57'
L147	S06°54'09"W	39.70'

REV. BY	DATE	DESCRIPTION
JLN	6/10/22	REVISE PARCEL 11 DIMENSIONS
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
STA - 11TH STREET SE IMPROVEMENTS (PID 90465) 11TH STREET SE - STA. 13+00 TO STA. 17+00

18 / 34

286 / 302

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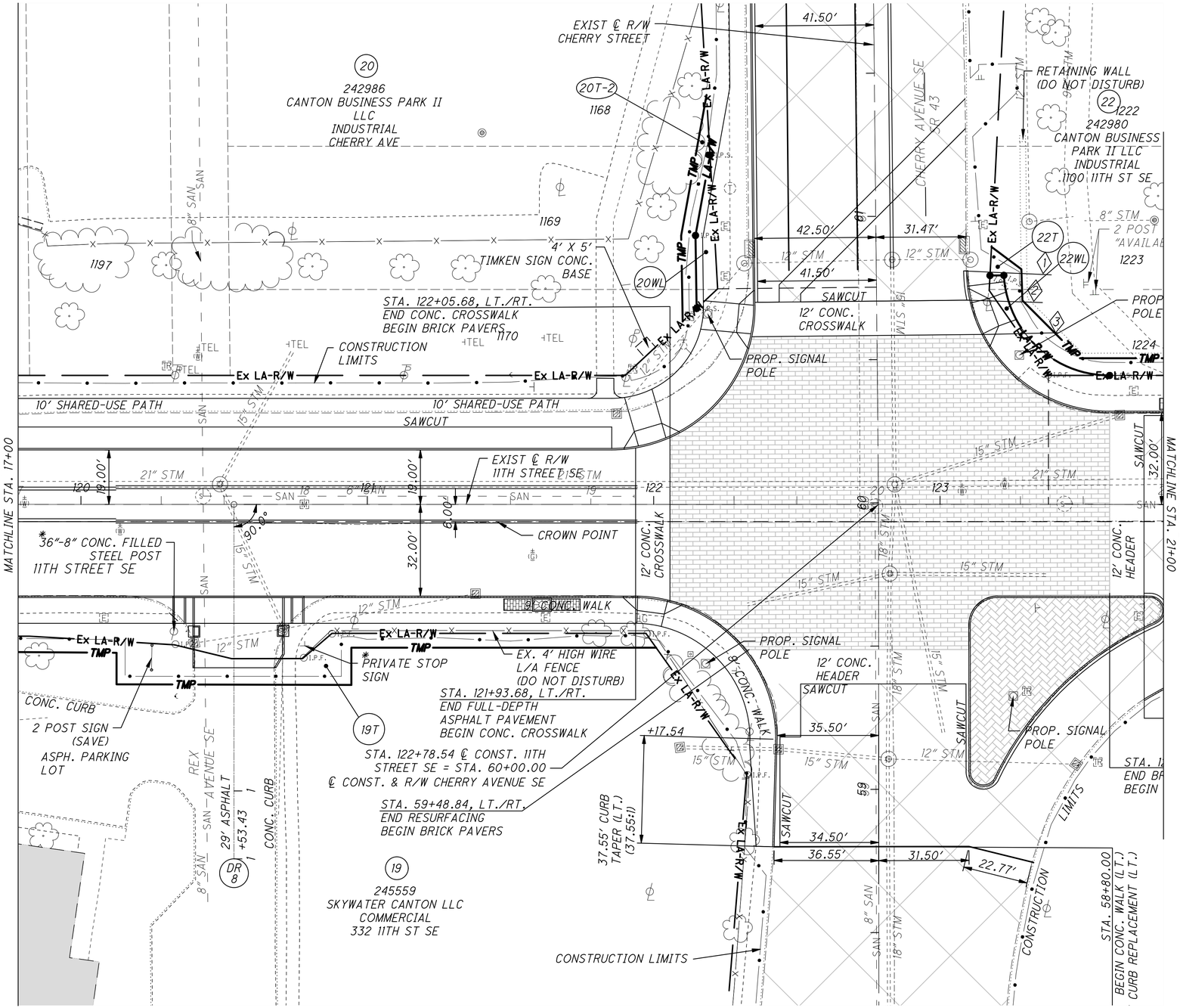
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



* = EX. R/W ENCROACHMENTS TO BE REMOVED

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	*DATE*	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
STA - 11TH STREET SE IMPROVEMENTS (PID 90465) 11TH STREET SE - STA. 17+00 TO STA. 21+00

19 / 34

287 / 302

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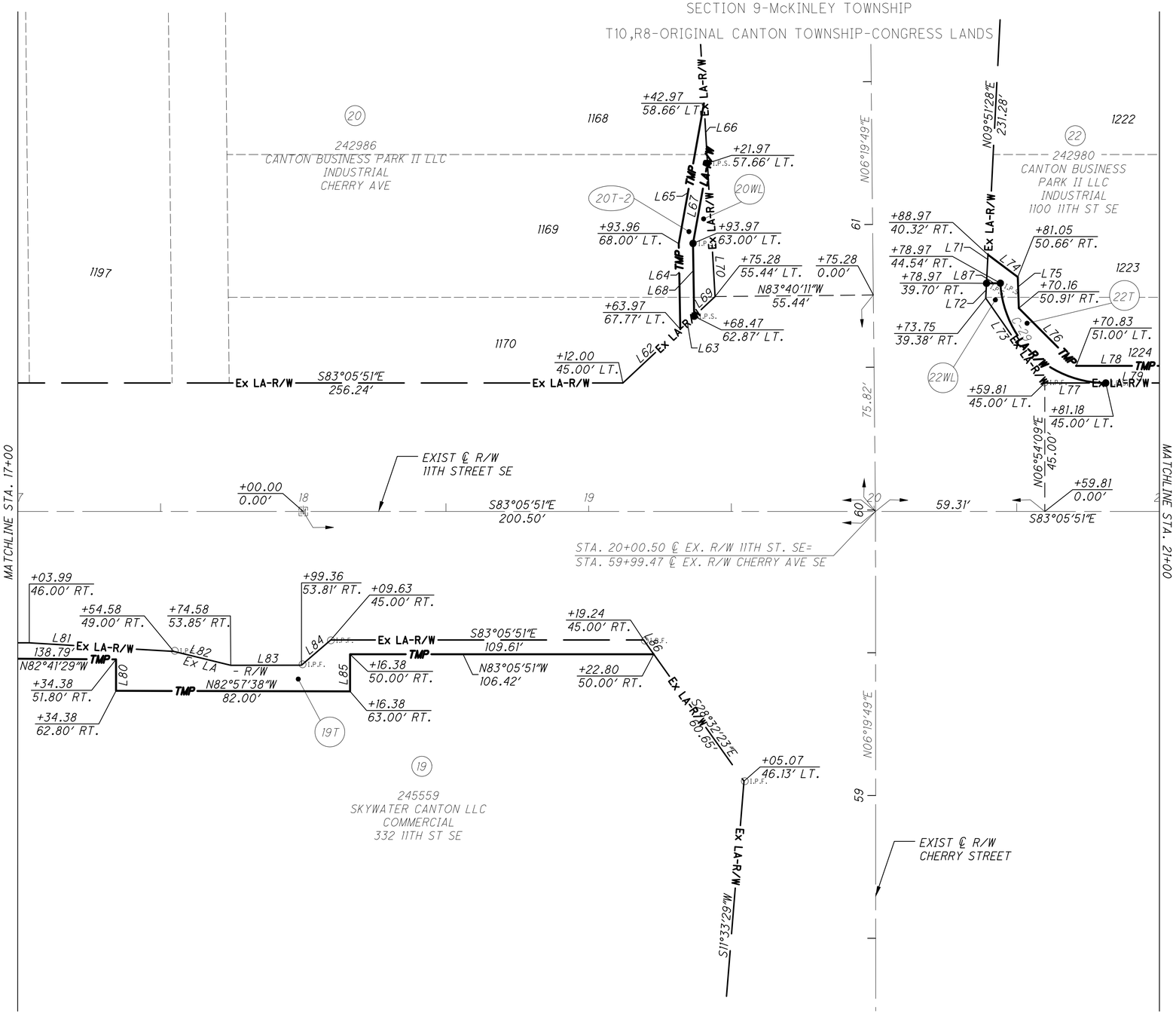
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-29	37.00'	86°48'36"	56.06'	35.00'	50.85'	S39°41'34"E

Right of Way Line Table		
Line #	Bearing	Distance
L62	N53°46'13"E	44.26'
L63	N53°46'13"E	6.65'
L64	N05°53'15"E	29.99'
L65	N17°06'57"E	49.89'
L66	S03°36'28"W	21.02'
L67	S17°06'59"W	28.51'
L68	N06°02'12"E	25.50'
L69	S53°46'13"W	10.08'
L70	S03°36'28"W	46.74'
L71	N09°51'28"E	10.02'
L72	N09°51'28"E	5.22'
L73	N27°57'59"W	36.17'
L74	S46°14'21"E	13.02'
L75	S04°59'00"W	10.90'
L76	S38°00'27"E	28.52'
L77	S83°05'51"E	21.37'
L78	S83°05'51"E	414.10'
L79	S83°05'51"E	1010.00'
L80	N06°54'09"E	11.00'
L81	S79°42'04"E	50.68'

Right of Way Line Table		
Line #	Bearing	Distance
L82	S69°29'13"E	20.58'
L83	S83°10'22"E	24.78'
L84	N56°16'01"E	13.53'
L85	S06°54'09"W	13.00'
L86	S28°32'23"E	6.14'
L87	N83°40'11"W	4.84'

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 17+00 TO STA. 21+00
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

REV. BY	DATE	DESCRIPTION

DATE COMPLETED DATE

20/34
288/302

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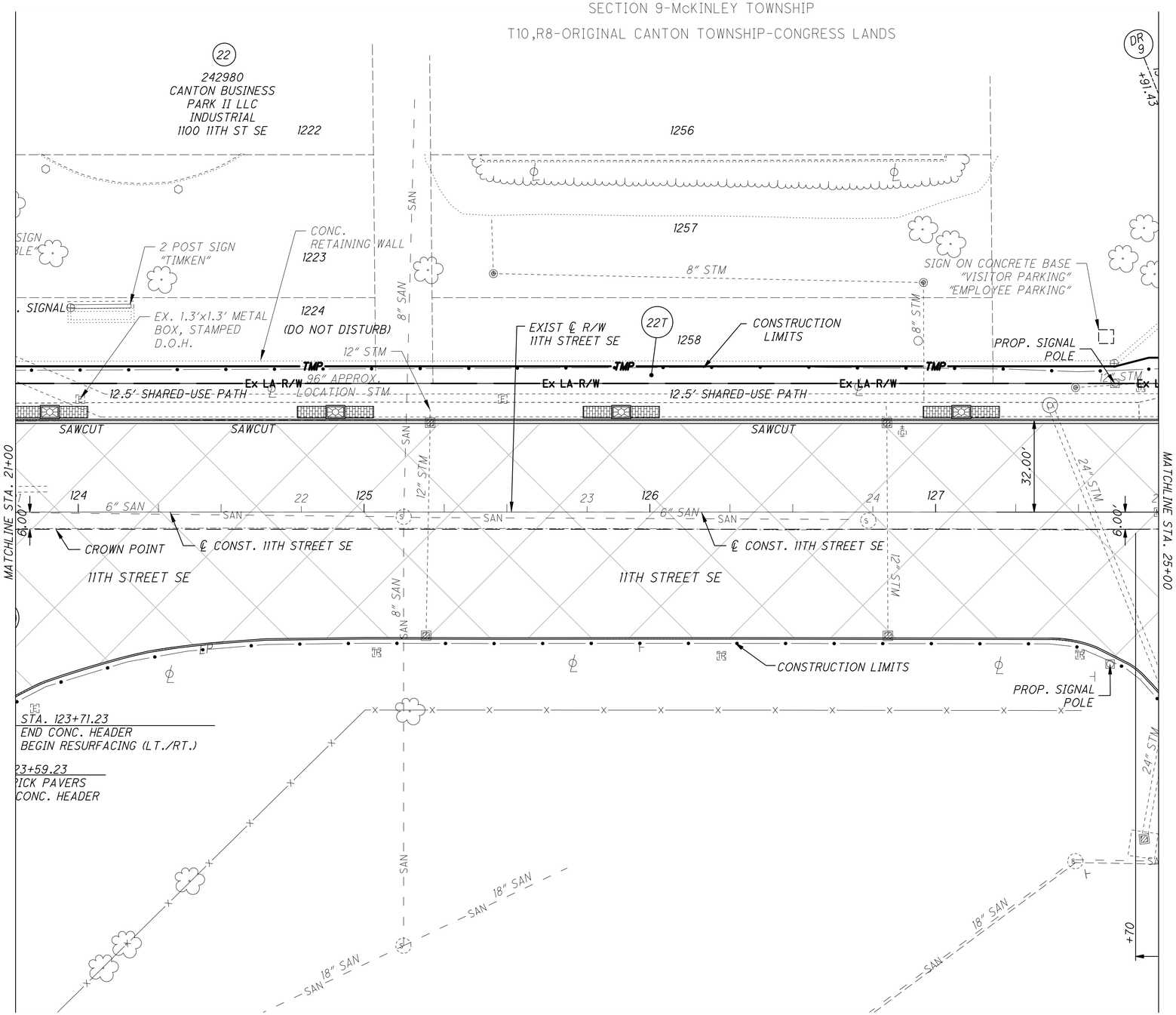
STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
11TH STREET SE - STA. 21+00 TO STA. 25+00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

21/34

289
302

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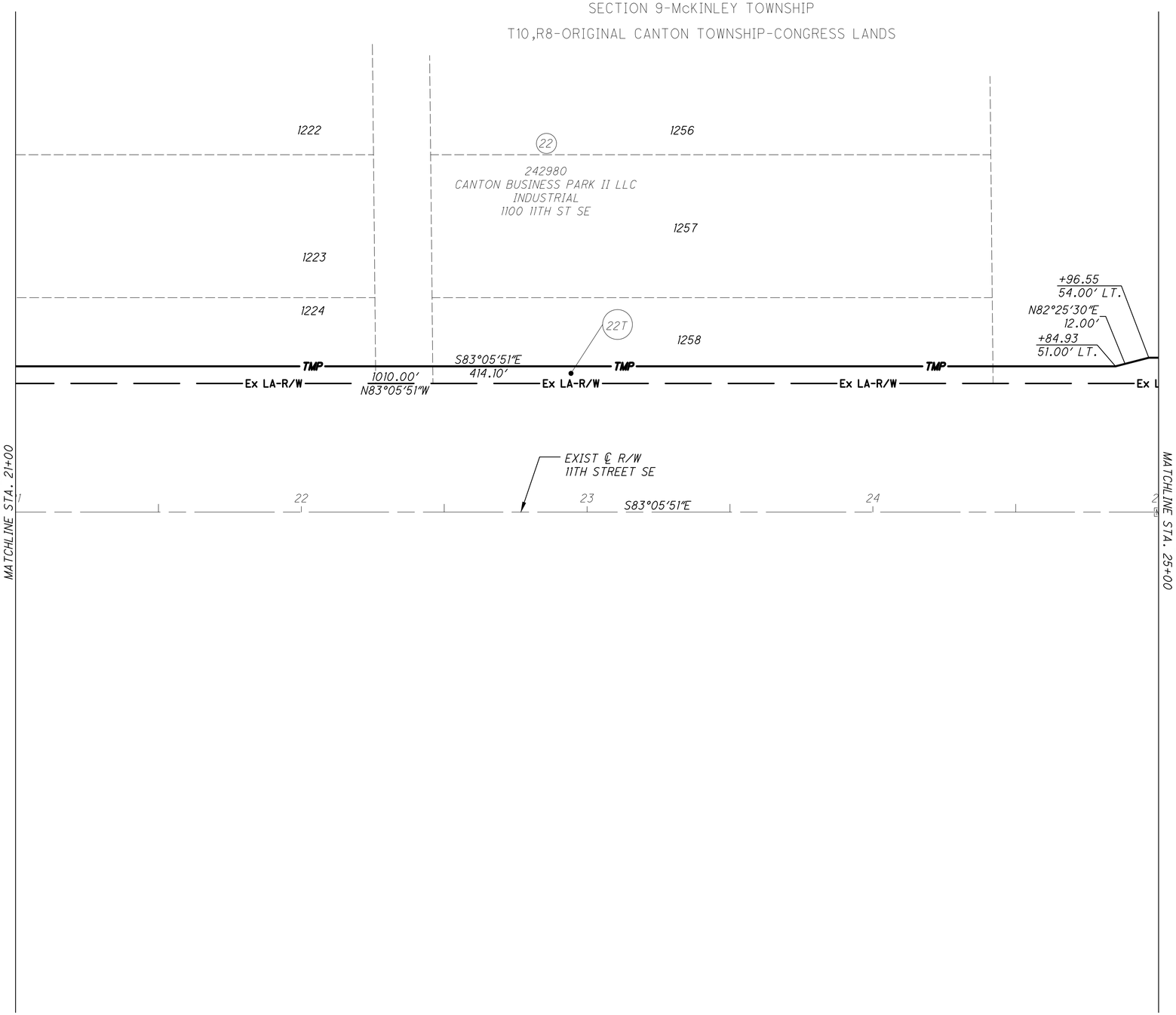
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 21+00 TO STA. 25+00

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

22 / 34

290
302

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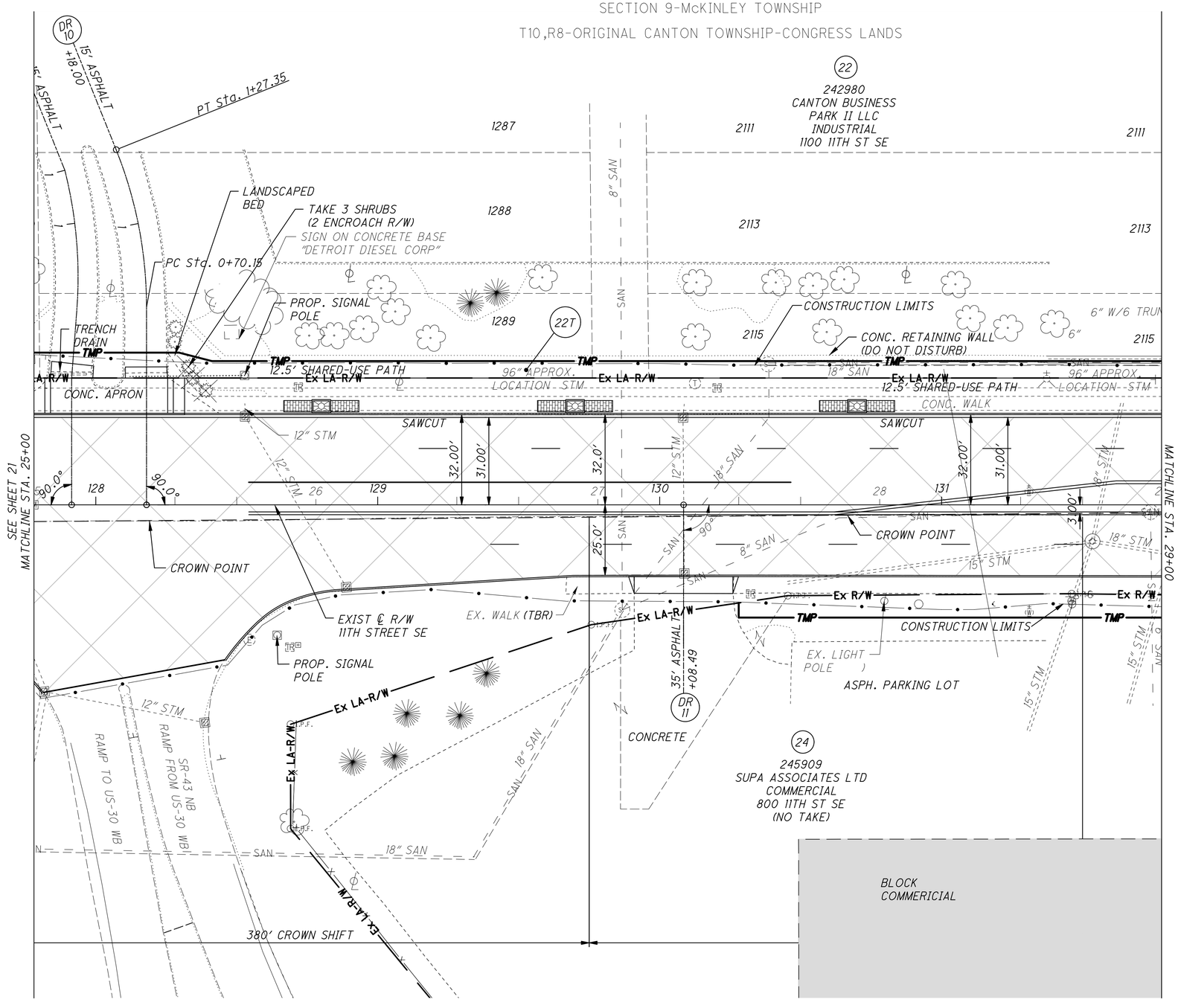
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
11TH STREET SE - STA. 25+00 TO STA. 29+00
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

23 / 34

291 / 302

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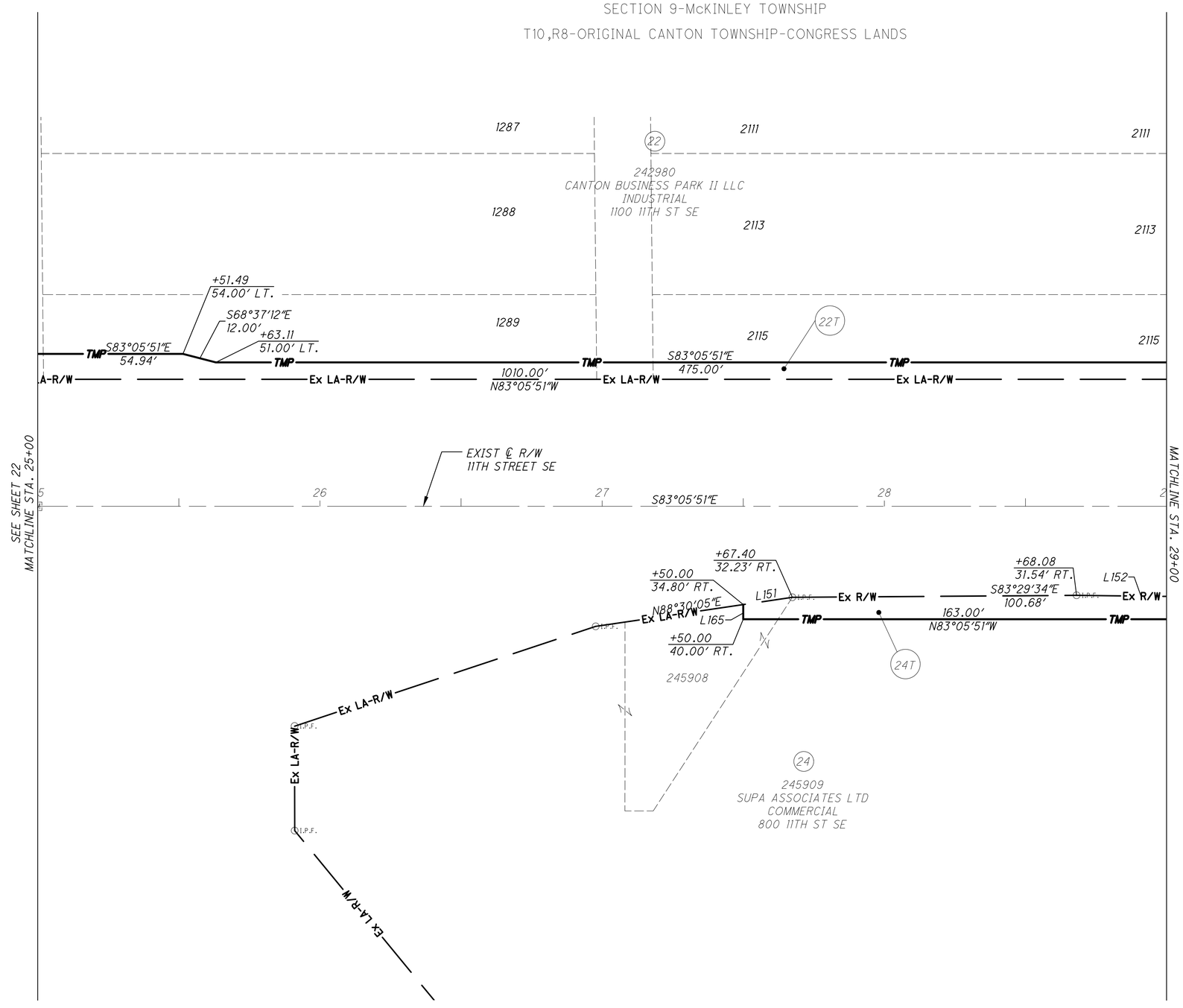
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

Right of Way Line Table		
Line #	Bearing	Distance
L151	N88°30'05"E	17.59'
L152	S82°26'59"E	50.02'
L165	S06°54'09"W	5.20'



REV. BY	DATE	DESCRIPTION
DATE COMPLETED		DATE

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 25+00 TO STA. 29+00

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

24 / 34

292 / 302

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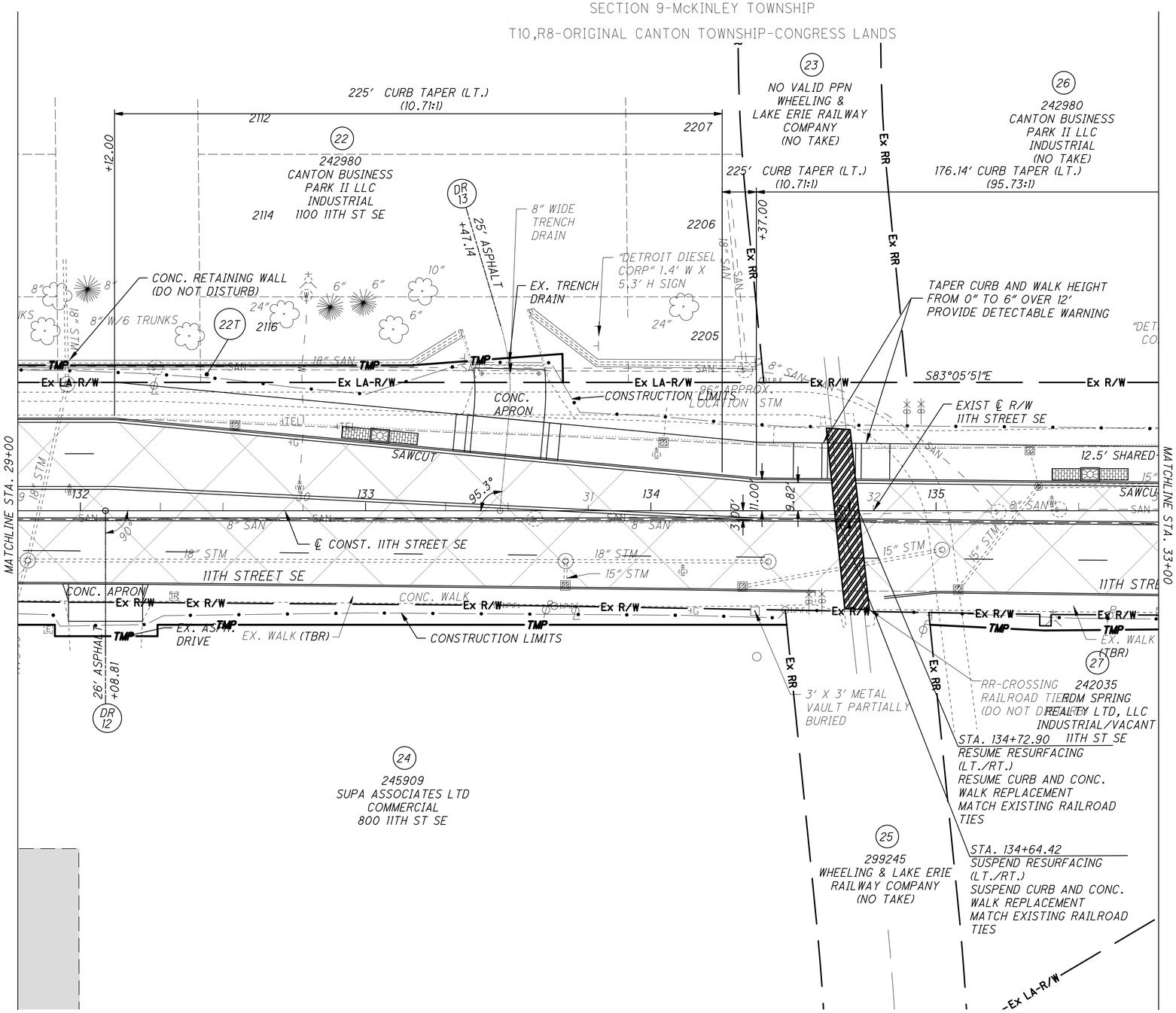
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
STA - 11TH STREET SE IMPROVEMENTS (PID 90465) 11TH STREET SE - STA. 29+00 TO STA. 33+00

25 / 34

293 / 302

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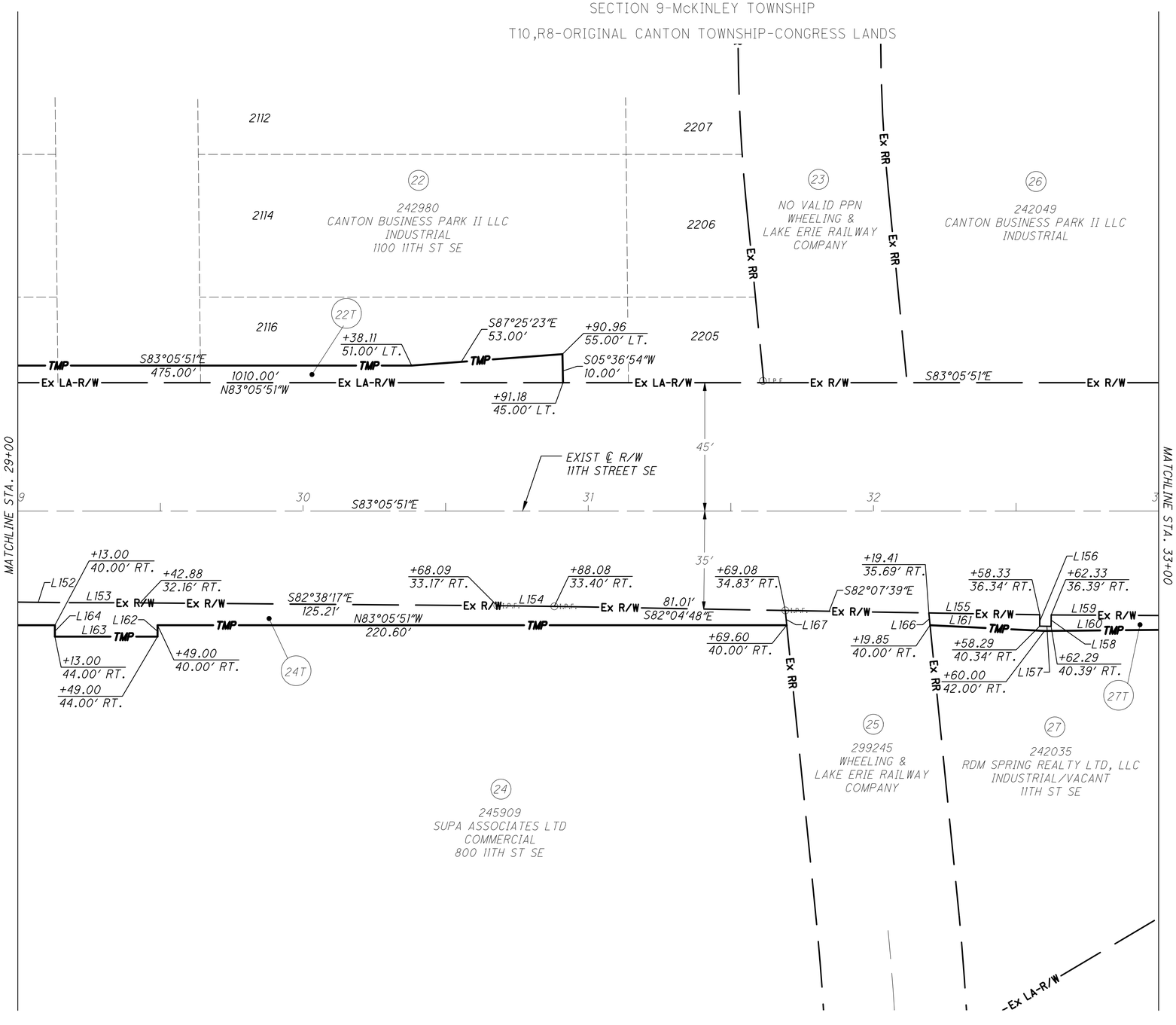
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



Right of Way Line Table		
Line #	Bearing	Distance
L152	S82°26'59"E	50.02'
L153	S82°57'48"E	24.79'
L154	S82°26'20"E	19.99'
L155	S82°07'39"E	38.92'
L156	N07°29'48"E	4.00'
L157	N82°30'12"W	4.00'
L158	S07°29'48"W	4.00'
L159	S82°47'27"E	81.02'
L160	S83°38'06"E	213.22'
L161	S80°14'45"E	40.20'
L162	S06°54'09"W	4.00'
L163	S83°05'51"E	36.00'
L164	S06°54'09"W	4.00'
L166	N01°10'46"E	4.34'
L167	S01°10'46"W	5.19'

REV. BY	DATE	DESCRIPTION
DATE COMPLETED		DATE

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 29+00 TO STA. 33+00
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

26 / 34

294
302

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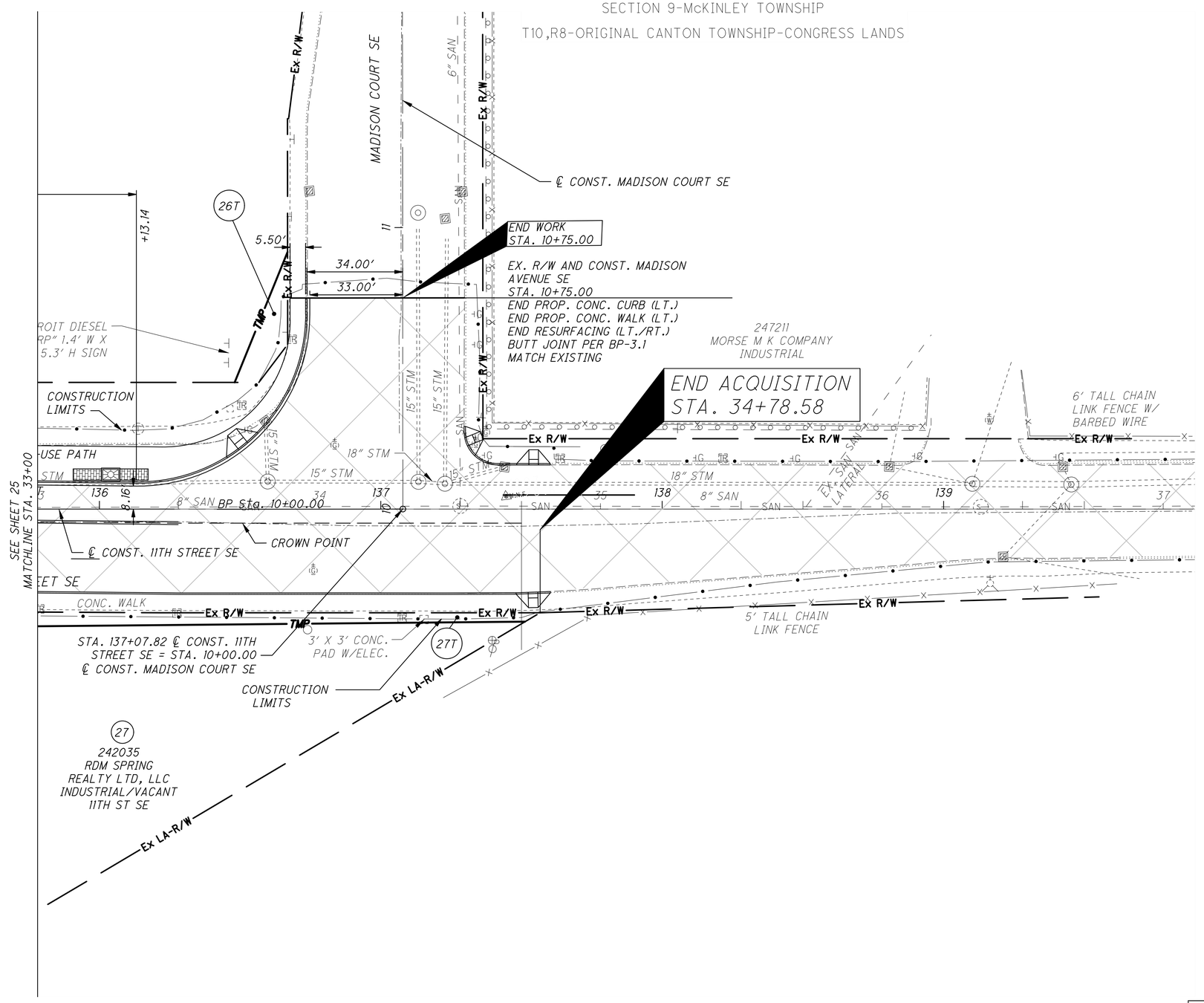
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
11TH STREET SE - STA. 33+00 TO END

STA - 11TH STREET SE
IMPROVEMENTS (PID 90465)

27 / 34

295
302

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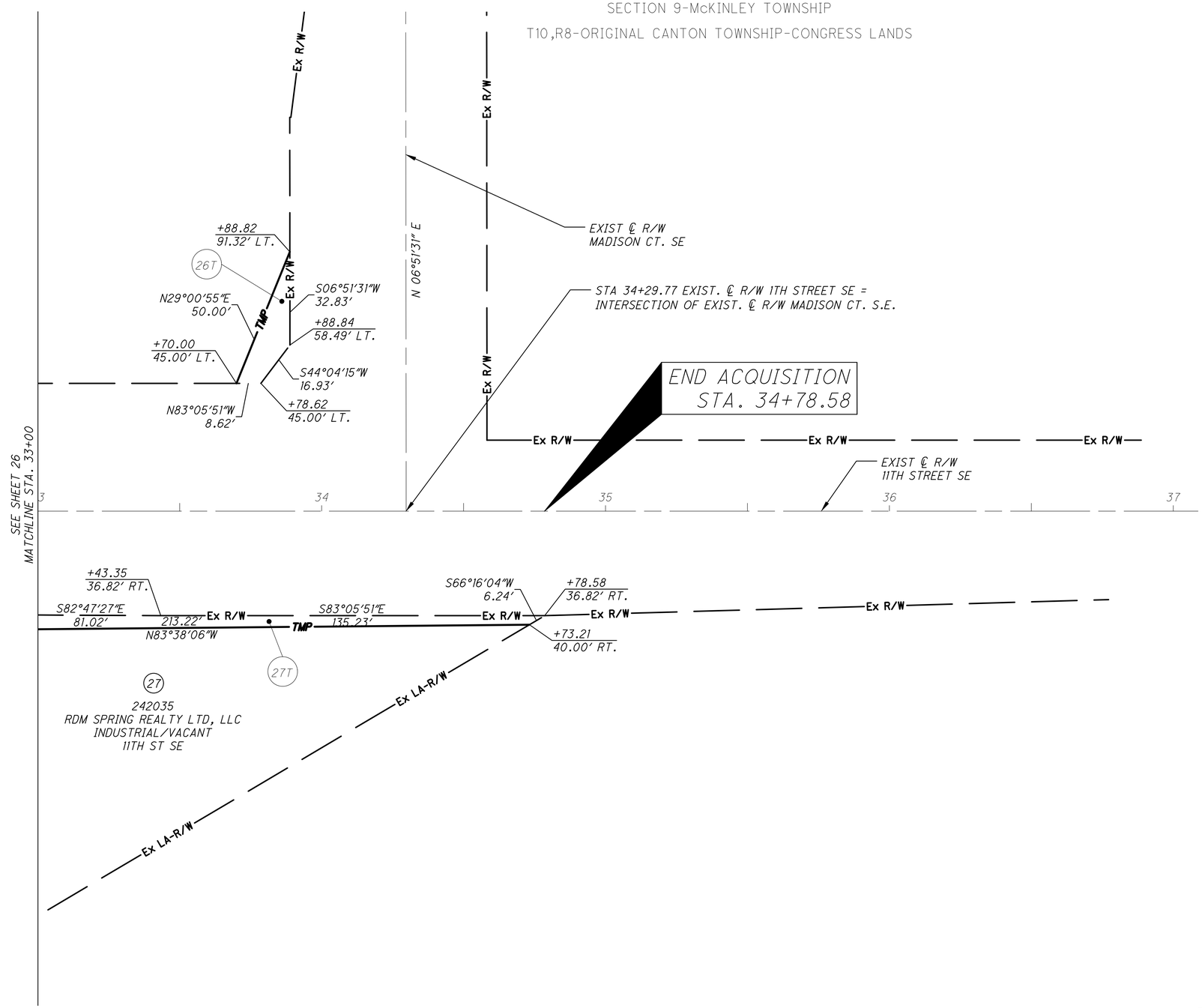
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
11TH STREET SE - STA. 33+00 TO END

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

28 / 34

296 / 302

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STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

COURT AVENUE SW

Ex R/W
Ex LA-R/W

586
585
584
583
582
581

28
245579
OP PROPERTIES OF CANTON, LLC
COMMERCIAL
1239 MARKET AVE

STORAGE YARD

30
247479
OP PROPERTIES OF CANTON, LLC
COMMERCIAL
WHERRY PL SW

35
234175
OP PROPERTIES OF CANTON, LLC
COMMERCIAL
1225 MARKET AVE
(VACANT)

5
245598
NORTHEASTERN RICHARDS HOLDING LLC
COMMERCIAL
112 NAVARRE RD SW

GRAVEL PARKING LOT

VACANT BLOCK BUILDING

WHERRY PL SE

WEEK PL SW

DR 14
DR 15
DR 16
DR 17
DR 2

BEGIN ACQUISITION
STA. 15+27.00

LOADING DOCK

IN WORK
+19.00

28T
30T
29T
35T
5T

CONSRUCTION LIMITS

TMP

GRAVEL DRIVE

8.5' CONC. WALK

SAWCUT

10' MIN

18" STM
8" SAN
15" STM

MARKET AVENUE S

℄ CONST. MARKET AVENUE S

℄ EXIST R/W MARKET AVENUE SW

SEE SHEET 11
MATCHLINE STA. 18+00

STA. 13+74.52 ℄ EX. R/W MARKET AVE

STA. 14+19.00, LT./RT.
BEGIN RESURFACING
BEGIN CONC. WALK
BEGIN CURB REPLACEMENT
BUTT JOINT PER BP-3.1
MATCH EXISTING
TRANSITION CROWN AND
CROSS SLOPE TO MATCH
EXISTING OVER 25'

25' CURB & WALK TAPER (LT./RT.)
PT 1502
(25')

PT 1498
CONSTRUCTION LIMITS

EX. 5' CHAIN LINK L/A FENCE

EX. 5' TALL CHAIN LINK FENCE

STA. 16+40.00, LT./RT.
END RESURFACING

BEGIN FULL D

PT 6377

APER

40100
40099

281888
STATE OF OHIO DEPT OF TRANSPORTATION
EXEMPT
US30 OH
PCL 1183-ER
DV 3789, PG. 1

ASPH. PARKING LOT

29
246818
JAJC HOLDINGS LLC
COMMERCIAL
1220 MARKET AVE

SHEET METAL

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
MARKET AVE SW - BEGINNING TO STA. 18+00
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

29 / 34

297
302

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HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

S24°22'28"W 100.00'

N24°22'28"E

Ex R/W

Ex LA-R/W

MEEK PL. SW

WHERRY PL. SE

586 | 585 | 584 | 583 | 582 | 581

S65°37'32"E 149.00'

N65°37'32"W 149.24'

S65°37'32"E 149.27'

S65°37'32"E 2.00'

(28) 245579
OP PROPERTIES OF CANTON, LLC
COMMERCIAL
1239 MARKET AVE

(30) 247479
OP PROPERTIES OF CANTON, LLC
COMMERCIAL
WHERRY PL SW

(35) 234175
OP PROPERTIES OF CANTON, LLC
COMMERCIAL
1225 MARKET AVE

(5) 245598
NORTHEASTERN RICHARDS HOLDINGS LLC
COMMERCIAL
112 NAVARRE RD SW

+43.71 32.00' LT.
+27.00 32.00' LT.
28T
L149
L150
+27.00 30.00' LT.
S24°30'52"W 16.71'
+43.71 30.00' LT.

+57.69 38.00' LT.
TMP
N24°30'52"E 100.00'
S24°30'52"W 100.00'
+57.71 30.00' LT.
30T
+57.71 30.00' LT.
+57.69 38.00' LT.
L88
L90

+71.69 38.00' LT.
+21.69 38.00' LT.
L136
L91
L92
L95
+21.71 30.00' LT.
35T
+71.71 30.00' LT.
5T
L94
+79.13 38.00' LT.
+79.16 30.00' LT.
L93

13 | 14 | 15 | 16 | 17

MARKET AVENUE SW

EXIST ℄ R/W MARKET AVE SW

30'

STA. 13+74.52 ℄ EX. R/W MARKET AVE

BEGIN ACQUISITION
STA. 15+27.00

+57.86 30.00' RT.
29T
L96
+61.87 38.00' RT.
N24°30'52"E 254.69'
S24°30'52"W 250.72'
TMP

PT 802
239708

PT 1498
244110

40100
40099

PT 6377
(29) 246818
JAJC HOLDINGS LLC
COMMERCIAL
1220 MARKET AVE

281888
STATE OF OHIO-DEPT OF TRANSPORTATION
EXEMPT
US 30 OH
PCL 1183-ER
DV 3789, PG.1

SEE SHEET 12
MATCHLINE STA. 18+00

Right of Way Line Table		
Line #	Bearing	Distance
L88	N65°37'32"W	8.00'
L89	S65°37'32"E	8.00'
L90	N65°37'32"W	8.00'
L91	N24°30'52"E	50.00'
L92	N24°30'52"E	57.44'
L93	S65°43'25"E	8.00'
L94	N24°30'52"E	57.45'
L95	N24°30'52"E	50.00'
L96	S87°54'38"W	8.95'
L136	S65°37'32"E	8.00'
L149	N65°29'08"W	2.00'
L150	N24°30'52"E	16.71'

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
MARKET AVENUE S - BEGINNING TO STA. 18+00
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

30 / 34

298 / 302

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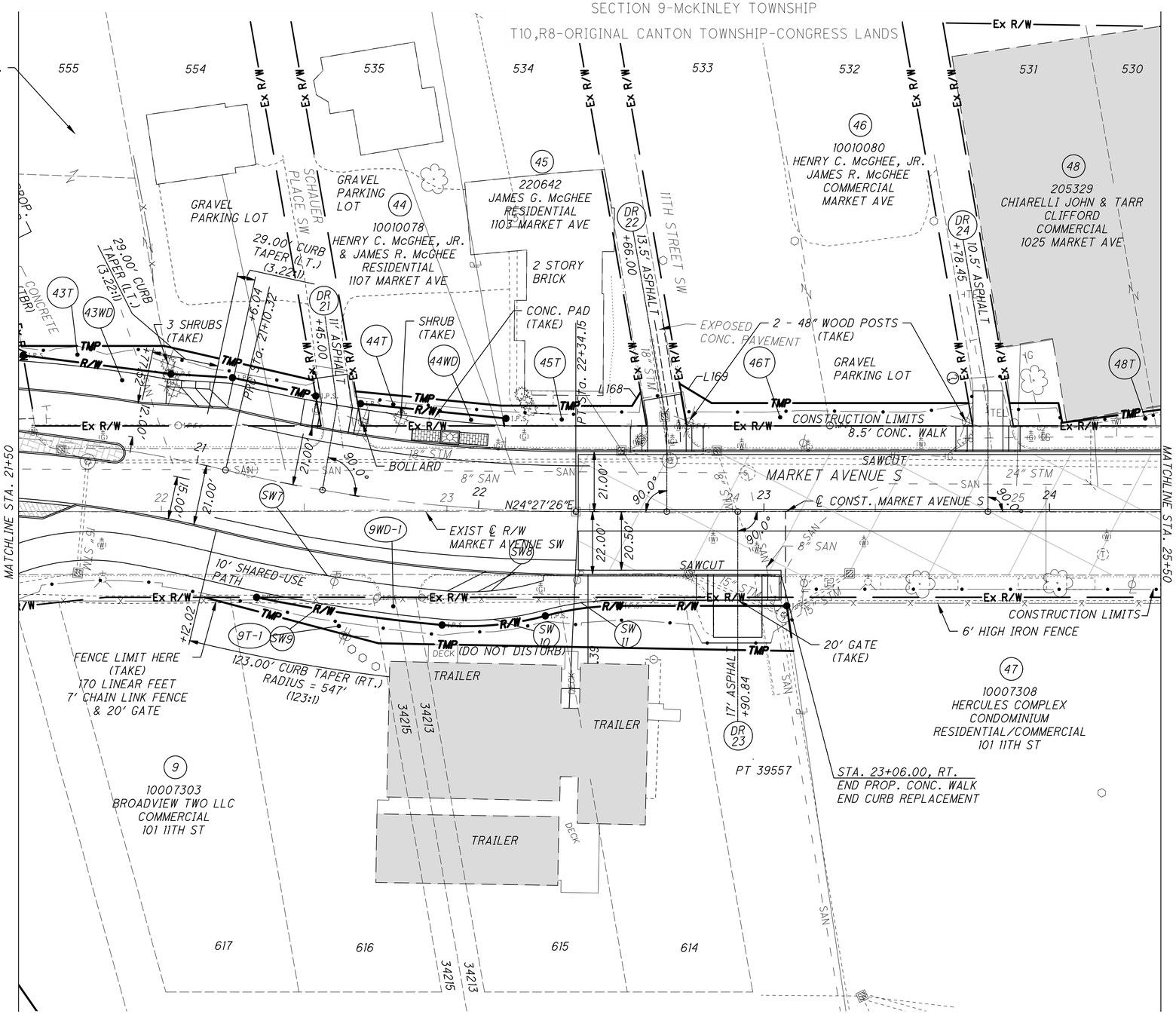
STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

P.I.D. NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
MARKET AVE SW - STA. 21+50 TO STA. 25+50
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

31 / 34

299 / 302

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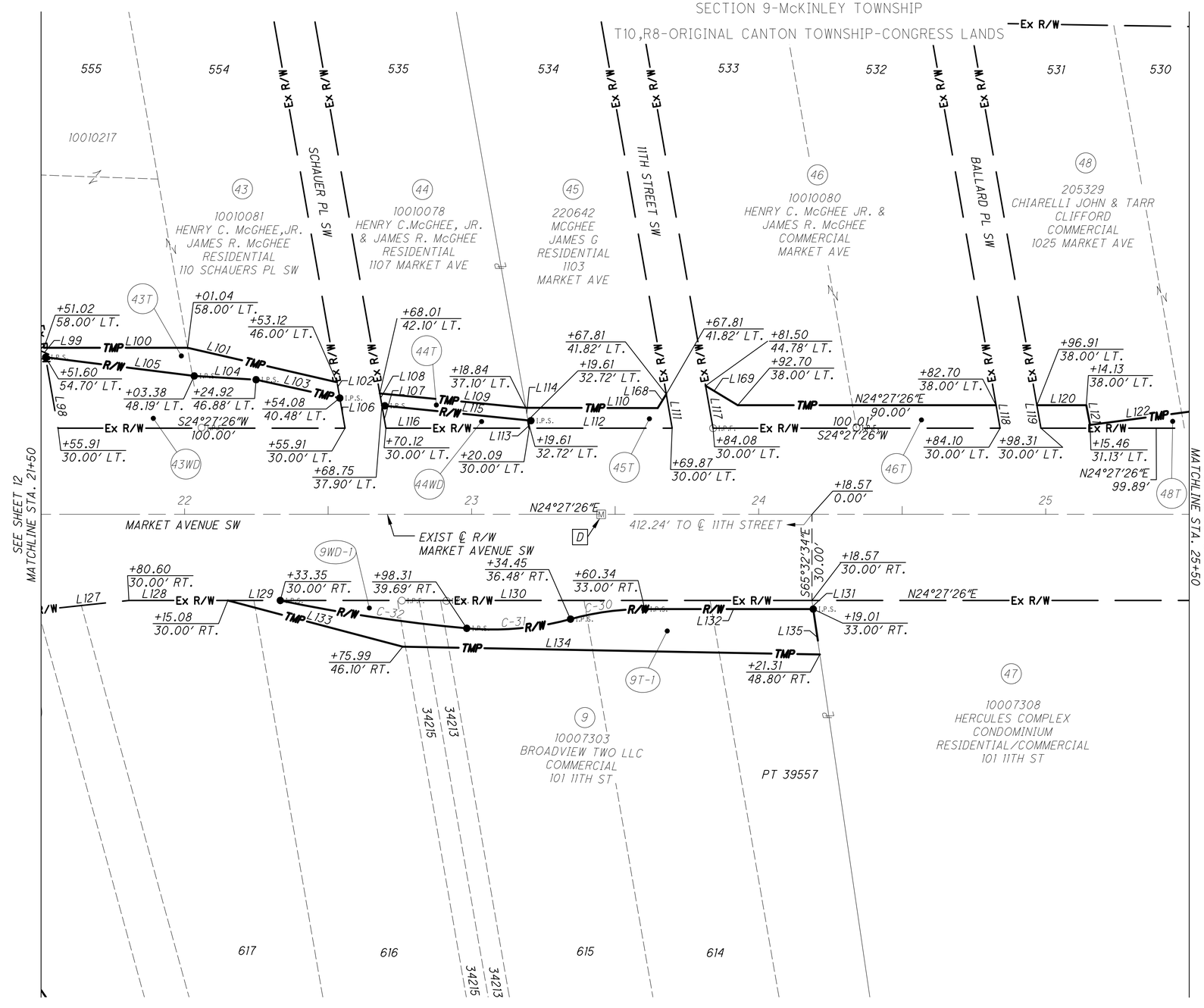
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS



D = STA. 23+45.15 EXIST. ℄ R/W MARKET AVE. SW = STA. 22+34.15 PT PROP. ℄ CONSTRUCTION

Right of Way Curve Table						
Curve	Radius	Delta	Arc	Tan	Chord	Chord Bearing
C-30	98.00'	15°19'21"	26.21'	13.18'	26.13'	S16°47'46"W
C-31	102.00'	20°29'28"	36.48'	18.44'	36.28'	S19°22'50"W
C-32	567.00'	6°38'24"	65.71'	32.89'	65.67'	S32°56'46"W

Right of Way Line Table		
Line #	Bearing	Distance
L98	N75°26'44"W	25.07'
L99	N75°26'44"W	3.35'
L100	N24°27'26"E	50.02'
L101	N37°25'59"E	53.44'
L102	S75°26'44"E	5.60'
L103	N36°50'13"E	29.86'
L104	N27°55'35"E	21.58'
L105	N31°37'15"E	52.18'
L106	S75°26'44"E	10.64'
L107	N75°26'44"W	8.02'
L108	N75°26'44"W	4.26'
L109	N30°04'18"E	51.08'
L110	N24°34'26"E	46.00'
L111	S75°26'44"E	12.00'
L112	N24°27'26"E	49.78'
L113	S75°28'22"E	2.76'
L114	S75°28'22"E	4.45'
L115	N30°16'38"E	51.13'
L116	S24°27'26"W	49.96'
L117	N75°26'44"W	15.00'

Right of Way Line Table		
Line #	Bearing	Distance
L118	N75°26'44"W	8.12'
L119	N75°26'44"W	8.12'
L120	N24°27'26"E	17.22'
L121	S76°26'28"E	7.00'
L122	N16°49'55"E	51.80'
L127	N18°21'48"E	32.82'
L128	N24°27'26"E	34.48'
L129	N24°27'26"E	18.27'
L130	N24°27'26"E	185.22'
L131	S73°50'46"E	3.03'
L132	N24°27'26"E	58.66'
L133	S39°15'46"W	63.00'
L134	S25°31'20"W	145.35'
L135	S73°50'46"E	15.97'
L168	N33°53'58"W	5.65'
L169	N55°38'19"E	13.09'

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
MARKET AVENUE S - STA. 21+50 TO STA. 25+50
STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

32/34

300/302

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

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STARK COUNTY

CITY OF CANTON

SECTION 9-McKINLEY TOWNSHIP

T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

530

503

(50)
244691
MATTHEW STEVEN
HEFFERNAN
COMMERCIAL
MARKET ST

299133
NORFOLK SOUTHERN
RAILWAY COMPANY
PUBLIC UTILITY
3RD ST SE

NORFOLK SOUTHERN RAILROAD

(49)
244685
MATTHEW STEVEN
HEFFERNAN
COMMERCIAL
MARKET ST

ASPH. PARKING LOT

BOLLARDS

HALLIWELL PLACE SW

6" SAN

7

DR 25

16' ASPHALT

+95.64

6 BUCKEYE PLACE SW

(48)
205329
CHIARELLI JOHN & TARR
CLIFFORD
COMMERCIAL
1025 MARKET AVE

CONC. WALK

(48T)

(DO NOT DISTURB)

RAN OVER BOLLARD
(TAKE)

STA. 6+58.54
BEGIN RESURFACING
BEGIN CONC. CURB
REPLACEMENT

7 BOLLARDS (SAVE)

(49T)

SIGN WITH
WOODEN POST

SAVE

CONSTRUCTION LIMITS

8.5' CONC. WALK

EX. RAILROAD CONTROL BOX
2' X 9.5' X 6' HIGH

SAWCUT

24" STM

18" STM

MARKET AVENUE S

12" SAN

20.00'

90.0°

27.00'

15" STM

℄ CONST. MARKET AVENUE S

SAWCUT

CONSTRUCTION LIMITS

EXIST ℄ R/W
MARKET AVENUE SW

STA. 27+28.67 ℄ CONST.
MARKET AVENUE
=
STA. 7+19.57 ℄ CONST. BUCKEYE PLACE SW

END ACQUISITION
STA. 27+84.51

CONC.
DRIVE

STA. 28+55.43, LT./RT.
END RESURFACING
BUTT JOINT PER BP-3.1
MATCH EXISTING

END WORK
STA. 28+55.43

(47)
10007308
HERCULES COMPLEX
CONDOMINIUM
RESIDENTIAL/COMMERCIAL
101 11TH ST

SEE SHEET 31
MATCHLINE STA. 25+50

Ex R/W

Ex RR

TMP

REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

P.I.D. NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY TOPO SHEET
MARKET AVE SW - STA. 25+50 TO END

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

33/34

301
302

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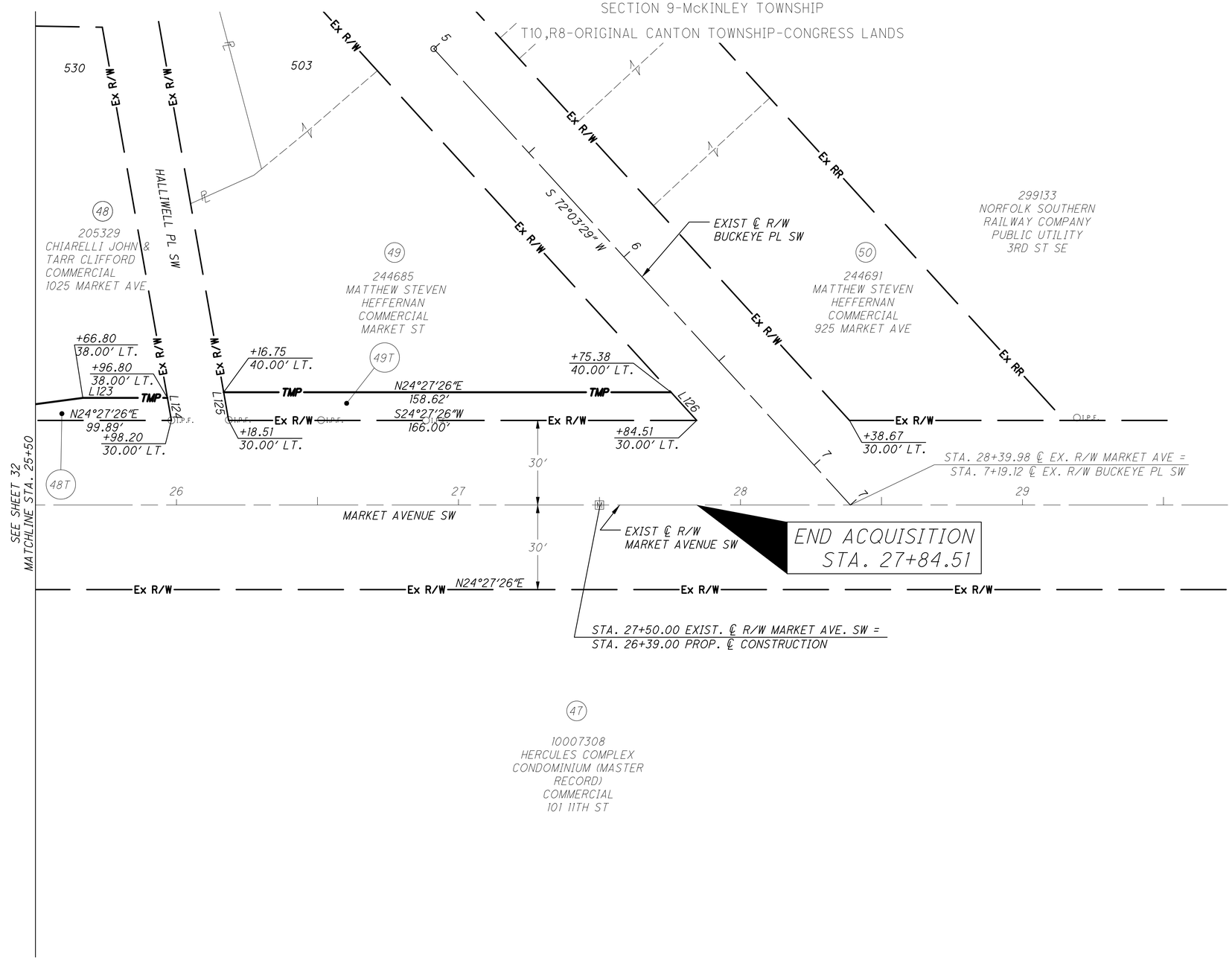
HORIZONTAL SCALE, 1" = 20'

STARK COUNTY
CITY OF CANTON
SECTION 9-McKINLEY TOWNSHIP
T10,R8-ORIGINAL CANTON TOWNSHIP-CONGRESS LANDS

Right of Way Line Table		
Line #	Bearing	Distance
L123	N24°27'26"E	30.00'
L124	S75°30'00"E	8.12'
L125	N75°30'00"W	10.15'
L126	N72°03'29"E	13.54'



REV. BY	DATE	DESCRIPTION
DATE COMPLETED	DATE	

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 90465

R/W DESIGNER JPK
R/W REVIEWER DS

RIGHT OF WAY BOUNDARY SHEET
MARKET AVENUE S - STA. 25+50 TO END

STA - 11TH STREET SE IMPROVEMENTS (PID 90465)

34 / 34

302
302

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Water Pollution Control Loan Fund Requirements

All bidders shall take notice that this project will be funded in part with Water Pollution Control Loan Funds (WPCLF) and Canton Sewer funds. Thus, all bidders will be required to comply with all WPCLF requirements including those outlined below for the sanitary portions of the project. In the event that there is a discrepancy between these and any other requirements in this invitation to bid, the most stringent requirement shall apply.

Davis-Bacon Wage Rates - Refer to: ITB-12, Item V

Small Businesses In Rural Areas (SBRA) - Refer to: Legal Notice

Supplemental Insurance Provisions - Refer to: EJCDC General Conditions - Article 6

Materials Testing - Refer to: EJCDC General Conditions 14.02

Payment Methods - Refer to: Bid Form (pages BF-1 to BF-20)

Prohibited Construction Activities - Refer to: General Notes (Plan Sheet 21)

Continuous Treatment Provisions C-1

Local Protest Procedure C-1

Violating Facilities: C-1

WPCLF Change Order C-2

Contractor Equal Employment Opportunity (EEO) Certification - Refer to: ITB-11, Item T C-4

Certification Regarding Debarment, Suspension, and Other Responsibility Matters C-6

Disadvantaged Business Enterprises (DBE) Utilization C-9

American Iron and Steel C-24

Continuous Treatment Provisions

Federal regulations prohibit by-passing of any sewage during construction operations. The Contractor will be responsible for providing any required temporary pumping facilities, piping, etc., necessary to complete the project without any plant or collection system by-passing and continuous treatment must be provided at the same level during construction as existed prior to construction.

Unless otherwise previously or subsequently specified, the Contractor shall procure and pay for all permits, licenses, and approvals necessary for the execution of his Contract.

The Contractor shall comply with all laws, ordinances, rules, orders, and regulations relating to the performance of the work required to complete their Contract.

Local Protest Procedure

A protest based upon an alleged violation of the procurement requirement may be filed against the OWNER's procurement action by a party with an adversely affected direct financial interest. The protest shall be filed with the Mayor. The OWNER shall determine the protest. The OWNER may request additional information or a hearing in order to resolve the protest.

A protest shall be filed as early as possible during the procurement process, but must be received by the OWNER no later than one week after the basis of the protest is known or should have been known, whichever is earlier. If the protest is mailed, the protester bears the risk of nondelivery with in the required time period.

A protest must clearly present the procurement requirement being protested, the facts which support the protest, and any other information necessary to support the protest.

Violating Facilities Clause

The Contractor agrees to comply with all applicable standards, orders or requirements under Section 306 of the Clean Air Act, 42 USC 1857 (h), Section 508 of the Clean Water Act, 33 USC 1368, Executive Order 11738, and EPA regulations, 40 CFR Part 32, which prohibits the use under non-exempt Federal contracts, grants, or loans of facilities included on the EPA List of Violating Facilities.

CHANGE ORDER INSTRUCTIONS:

All Change Orders for this work, regardless of costs and whether Water Pollution Control Loan Fund (WPCLF) or Water Supply Revolving Loan Account (WSRLA) funding will be used to finance the changes, must be submitted to Ohio EPA for review.

Changes Requiring Prior Approval

Any change which substantially modifies the Project Facilities as specified in the Ohio EPA approved Facilities Plan and Final Permit to Install or Final Plan Approval (when applicable) or alters the direct or indirect impact of the Project Facilities upon the environment must be incorporated into a Change Order. One copy of the Change Order prior to execution is to be submitted to Ohio EPA for review and prior approval of the acceptability of the change. "Prior to execution" means before the Change Order is signed by the Owner.

Ohio EPA will review the Change Order and inform the Owner of the technical, environmental and operational acceptability of the change, and give the Owner permission to proceed with the proposed work.

All Other Changes

Change Orders not requiring prior approval as described above must be submitted to Ohio EPA within one (1) month of the time at which they are approved by the Owner. All change orders must be submitted electronically to dedicated change order email addresses for WPCLF and WSRLA projects.

Change Order Approval Process

After the Change Order is executed, one (1) copy of the Change Order, including the supporting documentation, is to be sent electronically to Ohio EPA for final review.

> The dedicated e-mail address for the electronic submittal of WPCLF Change Orders is EPAWPCLFCO@epa.ohio.gov.
>
> The dedicated e-mail address for the electronic submittal of WSRLA Change Orders is EPAWSRLACO@epa.ohio.gov.

After the Change Order is accepted and eligible costs determined, Ohio EPA will issue a letter informing the Owner and authorizing OWDA to disburse funds from Project Contingency for the work. The OEPA letter will be sent electronically along with a PDF of the WPCLF/WSRLA Change Order form which will be signed by all parties including Ohio EPA and OWDA.

Payments for Change Order Work

The Owner is precluded from submitting to the OWDA payment requests for Eligible Project Costs associated with the Change Orders until such time as the Ohio EPA's approval of the Change Orders has been obtained.

State of Ohio

WATER POLLUTION CONTROL LOAN FUND (WPCLF) /
WATER SUPPLY REVOLVING LOAN ACCOUNT (WSRLA)

CONTRACT CHANGE ORDER

RECIPIENT_____ CHANGE ORDER NBR _____

LOAN NUMBER_____ CONTRACT _____

OWDA PROJECT No. _____ DATE _____

Description of Change:

The time provided for completion in the contract for the above items is (increased/decreased) by ____ calendar days.

RECOMMENDED BY: _____ DATE: _____
(Engineer)

APPROVED BY: _____ DATE: _____
(Recipient)

ACCEPTED BY: _____ DATE: _____
(Contractor)

_____
(Company)

Original Contract Amt		
Previous Changes (+ / --)		
This Change (+ / --)		
Adjusted Contract Amt		

OWDA APPROVAL

The above proposal is hereby accepted and I recommend that it be approved and made a part of the contract noted above. The approval does not constitute an increase in the total loan amount, but represents approval for the work.

Ohio EPA Acceptance

Date

Chief Engineer

Date

Equal Employment Opportunity (EEO) Requirements

The Contractor's EEO Certification Form provided on the following page must be:

(1) included in the contract documents and

(2) referenced in the Instructions to Bidders, informing bidders that the form must be completed and submitted with their bid.

NOTE: If the loan applicant has its own EEO requirements, local procedures and forms may be substituted for the EPA form.

Contractor Equal Employment Opportunity Certification

During the performance of this contract, the undersigned agrees as follows:

1. The undersigned will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The undersigned will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The undersigned agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this equal opportunity (federally assisted construction) clause.

2. The undersigned will, in all solicitations or advertisements for employees placed by or on behalf of the undersigned, state the all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

3. The undersigned will send to each labor union or representative of workers, with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the undersigned's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The undersigned will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The undersigned will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and relevant orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the undersigned's non-compliance with the equal opportunity (federally assisted construction) clause of this contract of with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and the undersigned may be declared ineligible for further Government contracts of federally assisted construction contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as provided by law.

7. The undersigned will include this equal opportunity (federally assisted construction) clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No 11246 of September 24, 1965, so that such provision will be binding upon each subcontract or vender. The undersigned will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for non compliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor, as a result of such direction by the administering agency the undersigned may request the United States to enter into such litigation to protect the interest of the United States.

_____

(Signature) (Date)

_____

(Name and Title of Signer, Please type)

_____

(Firm Name)

Debarment Requirements

The Certification Regarding Debarment, Suspension, and Other Responsibility Matters form included on the following page must be:

(1) included in the contract documents and

(2) referenced in the Instructions to Bidders, informing bidders that the form must be completed and submitted with their bid.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters
INSTRUCTIONS

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program or a subagreement thereunder for $25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or subagreement participant thereunder must complete the attached certification provide an explanation why they cannot. For further details, see the regulation 40 CFR 32.510, Participants' responsibilities.

Go to https://sam.gov/content/exclusions to search for excluded parties. The record includes information regarding entities debarred, suspended, proposed for debarment, excluded or disqualified under the nonprocurement common rule, or otherwise declared ineligible from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits. This information may include names, addresses, DUNS numbers, Social Security Numbers, Employer Identification Numbers or other Taxpayer Identification Numbers, if available and deemed appropriate and permissible to publish by the agency taking the action.

Where To Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to Ohio EPA.

A prospective prime contractor must submit a complete certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a complete certification or explanation to the prime contractor for the project.

Applicants may reproduce these materials as needed and provide them to their prospective prime contractor, who, in turn, may reproduce and provide them to prospective subcontractors.

Additional copies / assistance may be requested from:

Ohio EPA
Division of Environmental and Financial Assistance
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2798
defamail@epa.ohio.gov

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal of State antitrust statues or commission if embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification;

(d) Have not within a three year period preceding this application / proposal had one or more public transactions (Federal, State, or local) terminated for cause or default; and

(e) Will not utilize a subcontractor or supplier who is unable to certify (a) through (d) above.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to 5 years, or both.

_____

Type Name & Title of Authorized Representative

_____

Signature of Authorized Representative

_____

Date

☐ I am unable to certify to the above statements. My explanation is attached.

Disadvantaged Business Enterprises (DBE) Utilization

USEPA has a program to encourage the participation of disadvantaged businesses in the construction activities funded by the Clean Water and Drinking Water SRF's. "DBE" is an all inclusive term that includes Minority Business Enterprises (MBE), Women Business Enterprises (WBE), Small Business Enterprises (SBE), Small Business in Rural Areas (SBRA), HUBZone Small Business, Labor Surplus Area Firms (LSAF), and other entities defined as socially and/or economically disadvantaged. While the WPCLF and WSRLA strongly encourage participation by all disadvantaged groups, specific participation goals are negotiated with USEPA only for Minority Business Enterprises and Women's Business Enterprises.

Goals

As a condition of receiving capitalization grants from U.S. EPA for the Water Pollution Control Loan Fund (WPCLF) and the Water Supply Revolving Loan Account (WSRLA), the Ohio EPA negotiates "fair share" Disadvantaged Business Enterprises (DBE) objectives with U.S. EPA. The current negotiated goals for construction related activities are 1.3% of all contracts to MBEs and 1.0% of all contracts to WBEs.

DBE Certification

Under the DBE program, qualified DBE's are those that have been certified as an MBE or WBE. Certifications can be obtained from a federal agency such as the Small Business Administration or the Department of Transportation or by an approved State agency. The Unified Certification Program (UCP) administered by the Ohio Department of Transportation (ODOT) can provide the necessary DBE certifications. Information on the UCP can be found at http://www.ohioucp.org as well as the ODOT website www.dot.state.oh.us/divisions/equalopportunity/pages/dbe.aspx.

DBE Qualifications

To qualify for MBE certification, businesses must be 51 percent owned and controlled by a U.S. citizen and Ohio resident belonging to an African American, Native American, Hispanic, or Asian American ethnic group. In addition, the business must be in operation for at least one year prior to submitting an application. For DBE status, a business must be at least 51 percent owned by a socially and economically disadvantaged person who participates in the daily operations of the business. This person must be a woman or of African-American, Hispanic, Native American, Asian American ethnicity.

Program Requirements

To comply with DBE program requirements the WPCLF/WSRLA loan recipient must do the following:

1. Create and maintain a bidder's list (see description below)

2. Include contract conditions applicable to the DBE program in all procurement contracts entered into by the Borrower for all WPCLF and WSRLA projects. These conditions are listed below.
3. Follow, document, and maintain documentation of good faith efforts on the part of prime contractors to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project.
4. Review the Form 6100-3 and 6100-4 submittals provided by bidders on the project for completeness and obtain any additional information necessary to verify the certification status of all proposed subcontractors.
5. Obtain documentation of the good faith efforts of the prime contractor if the prime contractor does not meet the MBE or WBE goal.
6. Obtain a written confirmation from any prime contractor states that they will not meet the MBE and WBE goals because they will not be entering into any agreements for goods or services with any company, firm, joint venture, or individual.
7. Submit the following to the Ohio EPA/DEFA as part of the bid package upon which the WPCLF/WSRLA loan amount is determined:
   - Form 6100-3 from each subcontractor
   - Form 6100-4 from each prime contractor
   - a copy of the Good Faith Efforts documentation from any prime contractors that will not meet the MBE and WBE goals,
   - if any of the prime contractors will not meet the MBE and WBE goals because they will not be entering into any agreements for goods or services with any company, firm, joint venture, or individual, a copy of the written confirmation from that prime contractor
8. Report MBE/WBE accomplishments on Form 5700-52A annually (within 15 days after October 1st).

NOTE: It is up to the WPCLF/WSRLA loan recipient whether or not to require completion and submission of Forms 6100-3 and 6100-4 from all bidders with the bid proposal or to accept completion and submission from the successful bidder(s) only at some time after bids are received. Regardless of whether the forms are completed and submitted with the bids or at some later time once the successful bidders are identified, completed forms are to be submitted to Ohio EPA with the bid package.

To comply with DBE program requirements all prime contractors must do the following:

1. Follow, document, and maintain documentation of their good faith efforts.
2. Complete and submit **Form 6100-4 DBE Subcontractor Utilization Summary** as part of the bid proposal package to the loan recipient.
3. Have its Disadvantaged Business Enterprise subcontractors complete **Form 6100-3 DBE Subcontractor Proposed Performance Form** and submit those as part of the bid proposal package to the loan recipient.
4. Provide **Form 6100-2 DBE Subcontractor Actual Participation Form** to all of its Disadvantaged Business Enterprise subcontractors for completion at the end of the work.
5. During construction, provide the data necessary so that the loan recipient can report MBE/WBE accomplishments on Form 5700-52A annually (within 15 days after October 1st).

Bidders List

The Borrower must create, maintain, and use a bidders list for purposes of soliciting both MBE/WBEs and non-MBE/WBEs during procurement of construction, equipment, supplies, and services. This list shall include:

1. Entity's name with point of contact;
2. Entity's mailing address, telephone number, and e-mail address;
3. The procurement on which the entity bid or quoted, and when; and
4. Entity's status as an MBE/WBE or non-MBE/WBE.

Borrowers that receive less than $250,000 or less in any one fiscal year can be exempt from maintaining a Bidders List.

The Bidders List shall be maintained until the project period has expired and the Borrower is no longer receiving EPA funding. The Bidders List must include all firms that bid on the prime contracts, or bid or gave a quote on subcontracts, including both MBE/WBEs and non-MBE/WBEs.

Required Contract Conditions

The DBE Specification language and instructions to the bidders and Forms 6100-2, 6100-3 and 6100-4 must be included in the contract documents and referenced in the Instructions to Bidders, informing bidders that the forms must be completed and submitted with their bid for all WPCLF and WSRLA projects:

1. The prime contractor must pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the owner.
2. The prime contractor must notify the owner in writing prior to the termination of any Disadvantage Business Enterprise subcontractor for convenience by the prime contractor.
3. If a Disadvantage Business Enterprise contractor fails to complete work under the subcontract for any reason, the prime contractor must employ the six Good Faith Efforts (listed below) if soliciting a replacement contractor.
4. The prime contractor must employ the six Good Faith Efforts even if the prime contractor has achieved its fair share objectives.
5. An owner must ensure that each procurement contract it awards contains the following terms and conditions:

   The contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

Good Faith Efforts

Borrowers and their prime contractors must follow, document, and maintain documentation of their good faith efforts as listed below to ensure that Disadvantaged Business Enterprises (DBEs) have the opportunity to participate in the project by increasing DBE awareness of procurement efforts and outreach.

1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including DBEs on solicitation lists and soliciting them whenever they are potential sources.
2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitation for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
3. Consider in the contracting process whether firms competing for large contracts could be subcontracted with DBEs. This will include dividing total requirements when economically feasible into smaller tasks or quantities to permit participation by DBEs in the competitive process.
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce.
6. If the prime contractor awards subcontracts, require the prime contractor to take the steps in numbers 1 through 5 above.

DBE Forms

Form 6100-3 – Each prime contractor must have its DBE subcontractors complete **Form 6100-3 DBE Subcontractor Proposed Performance Form**. This form gives the DBE subcontractor the opportunity to report the scope and cost of the subcontract and it should be forwarded to the Prime Contractor along with the DBE's quote. Each subcontractor completes one Form 6100-3. The Borrower must submit all Form 6100-3 forms to the Ohio EPA/DEFA as part of the bid package upon which the WPCLF/WSRLA loan amount is determined.

Form 6100-4 – Each prime contractor must complete and submit **Form 6100-4 DBE Subcontractor Utilization Summary** as part of the prime contractor's bid proposal package to the Borrower. This form summarizes the Prime Contractor's intended use of identified DBE(s) and the estimated dollar amount of each subcontract. Only one Form 6100-4 form is required from each Prime Contractor. The Borrower must submit this form to the Ohio EPA/DEFA as part of the bid package upon which the WPCLF/WSRLA loan amount is determined.

Form 6100-2 - The prime contractor must provide **Form 6100-2 DBE Subcontractor Actual Participation Form** to all of its Disadvantaged Business Enterprise subcontractors.

Reporting During Construction – Form 5700-52A

The purpose of MBE/WBE reporting is to monitor the grant recipient's accomplishments in utilizing MBEs and WBEs; and adherence to the good faith efforts (i.e., outreach to MBEs, WBEs, and other DBEs); and progress in achieving MBE and WBE Goals. During the progress of the construction project, the loan recipient must complete & submit Form 5700-52A annually (**within 15 days after October 1st**). If there were no MBEs or WBEs utilized, or no procurement expenditures of any kind were made during the reporting period, a "negative report" is still required.

Reports are to be sent to:

Florel Fraser, Ohio EPA – DEFA
P.O. Box 1049
Columbus, OH 43216-1049
E-mail address: Florel.Fraser@epa.ohio.gov
Phone: 1-614-644-3636

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

This form is intended to capture the DBE[1] subcontractor's[2] description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name	Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
Address		
Telephone No.	Email Address	
Prime Contractor Name	Issuing/Funding Entity:	

Contract Item Number	**Description of Work Submitted to the Prime Contractor Involving Construction, Services , Equipment or Supplies**	**Price of Work Submitted to the Prime Contractor**
DBE Certified By: ◯ ODOT ◯ DAS/EDGE ◯ Other: _____	Meets/ exceeds EPA certification standards? ◯ YES ◯ NO ◯ Unknown	

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

FORM 6100-3 (DBE Subcontractor Performance Form)

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 I.

Prime Contractor Signature	Print Name
Title	**Date**

Subcontractor Signature	Print Name
Title	**Date**

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE[1] subcontractors[2] and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
Address		
Telephone No.	Email Address	
Issuing/Funding Entity:		

I have identified potential DBE certified subcontractors	___YES	___NO
If yes, please complete the table below. If no, please explain:		

Subcontractor Name/ Company Name	**Company Address/ Phone/ Email**	**Est. Dollar Amt.**	**Currently DBE Certified?**

Continue on back if needed

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 I.

Prime Contractor Signature	**Print Name**
Title	**Date**

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE[1] subcontractor[2] the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name	Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact
Address		
Telephone No.	Email Address	
Prime Contractor Name	Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services , Equipment or Supplies	Amount Received by Prime Contractor

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

Please use the space below to report any concerns regarding the above EPA-funded project:

Subcontractor Signature	Print Name
Title	**Date**

ALERT

"Total Procurement" fields and "MBE/WBE Combined Procurement" fields located in section 4B of this form should include Federal funds provided under the assistance agreement, recipient matching funds, and funds from other sources that are included in the assistance agreement.

Due to process time of Paperwork Reduction Act procedures, EPA is not able to update the EPA Form 5700-52A immediately to reflect this clarification.

If EPA grant recipients have questions about EPA Form 5700-52A, please work with your respective Grants Specialist or DBE Coordinator.

OMB CONTROL NO. 2030-0020
APPROVAL EXPIRES 06/30/2024

U.S. ENVIRONMENTAL PROTECTION AGENCY MBE/WBE UTILIZATION UNDER FEDERAL GRANTS AND COOPERATIVE AGREEMENTS

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2030-0020). Responses to this collection of information are required to obtain an assistance agreement (40 CFR Part 30, 40 CFR Part 31, and 40 CFR Part 33 for awards made prior to December 26, 2014, and 2 CFR 200, 2 CFR 1500, and 40 CFR Part 33 for awards made after December 26, 2014). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 1 hour per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

1A. REPORTING PERIOD	1B. REPORT TYPE
October 1, – September 30,	☐ Annual ☐ Final Report (Project completed)

1C: Revision of a Prior Year Report? ◯ No ◯ Yes
If yes, what reporting period is being revised and briefly describe the changes made. **Note:** The revised report will replace the associated original report in its entirety.

2A. RECIPIENT UNIQUE ENTITY IDENTIFIER

2B. RECIPENT REPORTING CONTACT

Name:

Email:

Phone:

3. FEDERAL AWARD IDENTIFICATION NUMBER (FAIN)
(For SRF state recipients, please include all numbers for all open assistance agreements being reported on this form.

4A. If NO procurements were made this reporting period (by the recipient, sub-recipient(s), loan recipient(s), and prime contractor(s)), **CHECK and SKIP to Block No. 6**. (Procurements are all expenditures through contract, order, purchase, lease or barter of supplies, equipment, construction, or services needed to complete Federal assistance programs.)

☐

4B. Total Procurements & MBE/WBE Accomplishments This Reporting Period (in dollars)

	Construction	Non-Construction	Total
Total Procurement:	$ _____	$ _____	$ _____
MBE/WBE Combined Procurement:	$ _____	$ _____	$ _____

5A. Good Faith Efforts: If procurements were made, indicate whether your organization has followed the six Good Faith efforts found in 40 CFR Part 33, Subpart C, 40 CFR 33.501 and 2 CFR 200.321.

☐ Yes, my organization has implemented and documented each of the six Good Faith Efforts on the procurements made during this reporting period.

☐ No, my organization has not implemented and documented each of the six Good Faith Efforts on the procurements made during this reporting period.

5B. If procurements were made, but no MBE/WBE procurements are being reported, then check the applicable box(es) for the reason(s) why no MBE/WBE procurements were made.

☐ No MBE/WBE(s) applied ☐ No MBE/WBE(s) were qualified

☐ Other:

6. NAME OF RECIPIENT'S AUTHORIZED REPRESENTATIVE	TITLE
7. SIGNATURE OF RECIPIENT'S AUTHORIZED REPRESENTATIVE	DATE

EPA FORM 5700-52A available electronically at: https://www.epa.gov/grants/epa-form-5700-52a-united-states-environmental-protection-agency-minority-business

Instructions:

A. General Instructions:

MBE/WBE utilization is based on 40 CFR Part 33 and 2 CFR Parts 200 and 1500. The reporting requirement reflects the change in the reporting threshold described in Recipient/ Applicant Information Notice-2018-G04 issued by EPA's Office of Grants and Debarment on September 7, 2018 (https://www.epa.gov/grants/rain-2018-g04). EPA Form 5700-52A must be completed annually by recipients of financial assistance agreements where the combined total of funds budgeted for procuring supplies, equipment, construction and services exceeds the current Simplified Acquisition Threshold as set by the Federal Acquisition Regulation at 48 CFR Subpart 2.1. This reporting requirement applies to all new and existing awards and voids all previous reporting requirements.

In determining whether the threshold is exceeded for a particular assistance agreement, the analysis must focus on funds budgeted for procurement under the supplies, equipment, construction, services or "other" categories, and include funds budgeted for procurement under sub- awards or loans.

Reporting will also be required in cases where the details of the budgets of sub-awards/loans are not clear at the time of the grant awards and the combined total of the procurement and sub-awards and/or loans exceeds the Simplified Acquisition Threshold.

For example, if the Simplified Acquisition Threshold is $250,000, then if a recipient has $300,000 budgeted under procurement, then completion of this report is required.

When reporting is required, all procurement actions are reportable, not just the portion which exceeds the Simplified Acquisition Threshold.

If at the time of award the budgeted funds exceed the Simplified Acquisition Threshold but actual expenditures fall below, a report is still required.

If at the time of award, the combined total of funds budgeted for procurements in any category is less than or equal to the Simplified Acquisition Threshold and is maintained below the threshold, no DBE report is required to be submitted.

Recipients are required to report 30 days after the end of each federal fiscal year (i.e. October 30th), per the terms and conditions of the financial assistance agreement.

Final reports are due October 30th or 120 days after the end of the project period, whichever comes first.

MBE/WBE program requirements, including reporting, are material terms and conditions of the financial assistance agreement. Failure to comply may lead to termination of the financial assistance agreement which is then reported to the OMB-designated integrity and performance system accessible through SAM (currently FAPIIS) pursuant to 2 CFR 200.339(b).

B. Submission:

Recipients must submit completed forms to the point of contact associated with the awarding office for the applicable assistance agreement.
Information on specific points of contact for EPA's Headquarters and ten Regional Offices is located at:

https://www.epa.gov/grants/frequently-asked-questions-disadvantaged-business-enterprises

Questions regarding the completion of this form should be directed to the DBE Coordinator associated with the awarding office for the applicable assistance agreement. A list of the DBE Coordinators for each awarding office can be located here:

https://www.epa.gov/grants/epa-dbe-program-coordinators

c. Instructions:

1A. Specify Federal fiscal year this report covers. The Federal fiscal year runs from October 1st through September 30th (**e.g. November 29, 2020 falls within Federal fiscal year 2021**)

1B. Specify report type. Check the annual reporting box if this is an annual report. If it is a final report, check the final report box to indicate if the project is completed.

1C. Indicate if this is a revision to a previous year and provide a brief description of the revision you are making including what reporting period is being revised. The revised report will replace the associated original report in its entirety.

2A. Provide your organization's Unique Entity Identifier. More information about Unique Entity Identifier, including its meaning, can be found in 2 CFR Part 25.

2B. Identify the name and contact information for the person located within the recipient organization that can be contacted if questions arise from this report.

3. Provide the Federal Award Identification Number (FAIN) assigned by EPA. A separate report must be submitted for each Assistance Agreement.

*For SRF recipients: In box 3 list numbers for ALL OPEN Assistance Agreements being reported on this form.

4A. Self-explanatory. **Note:** Procurement means expenditures under the supplies, equipment, construction, services or "other" categories, and include funds expended for procurement under sub-awards or loans.

4B. Provide the total dollar amount (in dollars) of **ALL** procurements awarded this reporting period by construction, non-construction, and grand total by the recipient, sub-recipients, and SRF loan recipients, **including** MBE/WBE expenditures, not just the portion which exceeds the threshold. For example: Actual dollars for procurement from the procuring office; actual contracts let from the contracts office; actual goods, services, supplies, etc., from other sources including the central purchasing/ procurement centers).

Provide the total dollar amount (in dollars) of MBE/ WBE procurements **ONLY** awarded this reporting period by construction, non-construction, and grand total by the recipient, sub-recipients, SRF loan recipients, and prime contractors not just the portion which exceeds the threshold.

***For SRF recipients only**: In 4B, please enter the total annual procurement amount under all of your SRF Assistance Agreements. The figure reported in this section is **not** directly tied to an individual Assistance Agreement identification number. **(SRF state recipients report state procurements in this section)**

5A. Self-explanatory.

5B. If procurements were made during this reporting period, but no procurements with MBE(s) or WBE(s) are being reported, then select the reason why. If "Other" is chosen, please fill in with the reason.

6. Self-explanatory.

7. Self-explanatory.

**This data is requested to comply with provisions mandated by: statute or regulations (40 CFR Part 33 and/or 2 CFR Parts 200 and 1500); OMB Circulars; or added by EPA to ensure sound and effective assistance management. Accurate, complete data are required to obtain funding, while no pledge of confidentiality is provided.

AMERICAN IRON AND STEEL ACKNOWLEDGEMENT

The Contractor acknowledges to and for the benefit of the City of _____ ("Purchaser") and the State of Ohio (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

_____ _____

Signature Date

_____

Name and Title of Authorized Signatory, Please Print or Type

_____

Bidder's Firm

☐ Check here if the WPCLF or WSRLA applicant will be requesting an individual waiver for non-American made iron and steel products. Please note that the waiver box does not need to be marked for nationwide waivers.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 20 2014

OFFICE OF WATER

MEMORANDUM

SUBJECT: Implementation of American Iron and Steel provisions of P.L. 113-76, Consolidated Appropriations Act, 2014

FROM: Andrew D. Sawyers, Director
Office of Wastewater Management (4201M)

Peter C. Grevatt, Director
Office of Ground Water and Drinking Water (4601M)

TO: Water Management Division Directors
Regions I - X

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel (AIS)" requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use iron and steel products that are produced in the United States for projects for the construction, alteration, maintenance, or repair of a public water system or treatment works if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Federal Fiscal Year 2014.

Section 436 also sets forth certain circumstances under which EPA may waive the AIS requirement. Furthermore, the Act specifically exempts projects where engineering plans and specifications were approved by a State agency prior to January 17, 2014.

The approach described below explains how EPA will implement the AIS requirement. The first section is in the form of questions and answers that address the types of projects that must comply with the AIS requirement, the types of products covered by the AIS requirement, and compliance. The second section is a step-by-step process for requesting waivers and the circumstances under which waivers may be granted.

Implementation

The Act states:

Sec. 436. (a)(1) None of the funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12) shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States.

(2) In this section, the term ''iron and steel products'' means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

(b) Subsection (a) shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency (in this section referred to as the ''Administrator'') finds that—

(1) applying subsection (a) would be inconsistent with the public interest;

(2) iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(3) inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

(c) If the Administrator receives a request for a waiver under this section, the Administrator shall make available to the public on an informal basis a copy of the request and information available to the Administrator concerning the request, and shall allow for informal public input on the request for at least 15 days prior to making a finding based on the request. The Administrator shall make the request and accompanying information available by electronic means, including on the official public Internet Web site of the Environmental Protection Agency.

(d) This section shall be applied in a manner consistent with United States obligations under international agreements.

(e) The Administrator may retain up to 0.25 percent of the funds appropriated in this Act for the Clean and Drinking Water State Revolving Funds for carrying out

the provisions described in subsection (a)(1) for management and oversight of the requirements of this section.

(f) This section does not apply with respect to a project if a State agency approves the engineering plans and specifications for the project, in that agency's capacity to approve such plans and specifications prior to a project requesting bids, prior to the date of the enactment of this Act.

The following questions and answers provide guidance for implementing and complying with the AIS requirements:

Project Coverage

1) What classes of projects are covered by the AIS requirement?

All treatment works projects funded by a CWSRF assistance agreement, and all public water system projects funded by a DWSRF assistance agreement, from the date of enactment through the end of Federal Fiscal Year 2014, are covered. The AIS requirements apply to the entirety of the project, no matter when construction begins or ends. Additionally, the AIS requirements apply to all parts of the project, no matter the source of funding.

2) Does the AIS requirement apply to nonpoint source projects or national estuary projects?

No. Congress did not include an AIS requirement for nonpoint source and national estuary projects unless the project can also be classified as a 'treatment works' as defined by section 212 of the Clean Water Act.

3) Are any projects for the construction, alteration, maintenance, or repair of a public water system or treatment works excluded from the AIS requirement?

Any project, whether a treatment works project or a public water system project, for which engineering plans and specifications were approved by the responsible state agency prior to January 17, 2014, is excluded from the AIS requirements.

4) What if the project does not have approved engineering plans and specifications but has signed an assistance agreement with a CWSRF or DWSRF program prior to January 17, 2014?

The AIS requirements do not apply to any project for which an assistance agreement was signed prior to January 17, 2014.

5) What if the project does not have approved engineering plans and specifications, but bids were advertised prior to January 17, 2014 and an assistance agreement was signed after January 17, 2014?

If the project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the approval date for purposes of the exemption in section 436(f).

6) What if the assistance agreement that was signed prior to January 17, 2014, only funded a part of the overall project, where the remainder of the project will be funded later with another SRF loan?

If the original assistance agreement funded any construction of the project, the date of the original assistance agreement counts for purposes of the exemption. If the original assistance agreement was only for planning and design, the date of that assistance agreement will count for purposes of the exemption only if there is a written commitment or expectation on the part of the assistance recipient to fund the remainder of the project with SRF funds.

7) What if the assistance agreement that was signed prior to January 17, 2014, funded the first phase of a multi-phase project, where the remaining phases will be funded by SRF assistance in the future?

In such a case, the phases of the project will be considered a single project if all construction necessary to complete the building or work, regardless of the number of contracts or assistance agreements involved, are closely related in purpose, time and place. However, there are many situations in which major construction activities are clearly undertaken in phases that are distinct in purpose, time, or place. In the case of distinct phases, projects with engineering plans and specifications approval or assistance agreements signed prior to January 17, 2014 would be excluded from AIS requirements while those approved/signed on January 17, 2014, or later would be covered by the AIS requirements.

8) What if a project has split funding from a non-SRF source?

Many States intend to fund projects with "split" funding, from the SRF program and from State or other programs. Based on the Act language in section 436, which requires that American iron and steel products be used in any project for the construction, alteration, maintenance, or repair of a public water system or treatment works receiving SRF funding between and including January 17, 2014 and September 30, 2014, any project that is funded in whole or in part with such funds must comply with the AIS requirement. A "project" consists of all construction necessary to complete the building or work regardless of the number of contracts or assistance agreements involved so long as all contracts and assistance agreements awarded are closely related in purpose, time and place. This precludes the intentional splitting of SRF projects into separate and smaller contracts or assistance agreements to avoid AIS coverage on some portion of a larger project, particularly where the activities are integrally and proximately related to the whole. However, there are many situations in which major construction activities are clearly undertaken in separate phases that are distinct in purpose, time, or place, in which

case, separate contracts or assistance agreement for SRF and State or other funding would carry separate requirements.

9) What about refinancing?

If a project began construction, financed from a non-SRF source, prior to January 17, 2014, but is refinanced through an SRF assistance agreement executed on or after January 17, 2014 and prior to October 1, 2014, AIS requirements will apply to all construction that occurs on or after January 17, 2014, through completion of construction, unless, as is likely, engineering plans and specifications were approved by a responsible state agency prior to January 17, 2014. There is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to January 17, 2014.

10) Do the AIS requirements apply to any other EPA programs, besides the SRF program, such as the Tribal Set-aside grants or grants to the Territories and DC?

No, the AIS requirement only applies to funds made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j–12)

Covered Iron and Steel Products

11) What is an iron or steel product?

For purposes of the CWSRF and DWSRF projects that must comply with the AIS requirement, an iron or steel product is one of the following made primarily of iron or steel that is permanently incorporated into the public water system or treatment works:

Lined or unlined pipes or fittings;
Manhole Covers;
Municipal Castings (defined in more detail below);
Hydrants;
Tanks;
Flanges;
Pipe clamps and restraints;
Valves;
Structural steel (defined in more detail below);
Reinforced precast concrete; and
Construction materials (defined in more detail below).

12) What does the term 'primarily iron or steel' mean?

'Primarily iron or steel' places constraints on the list of products above. For one of the listed products to be considered subject to the AIS requirements, it must be made of greater than 50% iron or steel, measured by cost. The cost should be based on the material costs.

13) Can you provide an example of how to perform a cost determination?

For example, the iron portion of a fire hydrant would likely be the bonnet, body and shoe, and the cost then would include the pouring and casting to create those components. The other material costs would include non-iron and steel internal workings of the fire hydrant (i.e., stem, coupling, valve, seals, etc). However, the assembly of the internal workings into the hydrant body would not be included in this cost calculation. If one of the listed products is not made primarily of iron or steel, United States (US) provenance is not required. An exception to this definition is reinforced precast concrete, which is addressed in a later question.

14) If a product is composed of more than 50% iron or steel, but is not listed in the above list of items, must the item be produced in the US? Alternatively, must the iron or steel in such a product be produced in the US?

The answer to both question is no. Only items on the above list must be produced in the US. Additionally, the iron or steel in a non-listed item can be sourced from outside the US.

15) What is the definition of steel?

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel and other specialty steels.

16) What does 'produced in the United States' mean?

Production in the United States of the iron or steel products used in the project requires that all manufacturing processes, including application of coatings, must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives. All manufacturing processes includes processes such as melting, refining, forming, rolling, drawing, finishing, fabricating and coating. Further, if a domestic iron and steel product is taken out of the US for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone and iron and steel scrap are not covered by the AIS requirement, and the material(s), if any, being applied as a coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-US sources. For example, for products such as valves and hydrants, the individual non-iron and steel components

do not have to be of domestic origin.

17) Are the raw materials used in the production of iron or steel required to come from US sources?

No. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-US sources.

18) If an above listed item is primarily made of iron or steel, but is only at the construction site temporarily, must such an item be produced in the US?

No. Only the above listed products made primarily of iron or steel, permanently incorporated into the project must be produced in the US. For example trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel.

19) What is the definition of 'municipal castings'?

Municipal castings are cast iron or steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and surface infrastructure. They are typically made of grey or ductile iron, or steel. Examples of municipal castings are:

Access Hatches;
Ballast Screen;
Benches (Iron or Steel);
Bollards;
Cast Bases;
Cast Iron Hinged Hatches, Square and Rectangular;
Cast Iron Riser Rings;
Catch Basin Inlet;
Cleanout/Monument Boxes;
Construction Covers and Frames;
Curb and Corner Guards;
Curb Openings;
Detectable Warning Plates;
Downspout Shoes (Boot, Inlet);
Drainage Grates, Frames and Curb Inlets;
Inlets;
Junction Boxes;
Lampposts;
Manhole Covers, Rings and Frames, Risers;

Meter Boxes;
Service Boxes;
Steel Hinged Hatches, Square and Rectangular;
Steel Riser Rings;
Trash receptacles;
Tree Grates;
Tree Guards;
Trench Grates; and
Valve Boxes, Covers and Risers.

20) What is 'structural steel'?

Structural steel is rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I-beams, channels, angles, tees and zees. Other shapes include H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

21) What is a 'construction material' for purposes of the AIS requirement?

Construction materials are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not including mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered "structural steel". This includes, but is not limited to, the following products: wire rod, bar, angles, concrete reinforcing bar, wire, wire cloth, wire rope and cables, tubing, framing, joists, trusses, fasteners (i.e., nuts and bolts), welding rods, decking, grating, railings, stairs, access ramps, fire escapes, ladders, wall panels, dome structures, roofing, ductwork, surface drains, cable hanging systems, manhole steps, fencing and fence tubing, guardrails, doors, and stationary screens.

22) What is not considered a 'construction material' for purposes of the AIS requirement?

Mechanical and electrical components, equipment and systems are not considered construction materials. Mechanical equipment is typically that which has motorized parts and/or is powered by a motor. Electrical equipment is typically any machine powered by electricity and includes components that are part of the electrical distribution system.

The following examples (including their appurtenances necessary for their intended use and operation) are NOT considered construction materials: pumps, motors, gear reducers, drives (including variable frequency drives (VFDs)), electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators), mixers, gates, motorized screens (such as traveling screens), blowers/aeration equipment, compressors, meters, sensors, controls and switches, supervisory control and data acquisition (SCADA), membrane bioreactor systems, membrane filtration systems, filters, clarifiers and clarifier mechanisms, rakes, grinders, disinfection systems, presses (including belt presses), conveyors, cranes, HVAC (excluding ductwork), water heaters,

heat exchangers, generators, cabinetry and housings (such as electrical boxes/enclosures), lighting fixtures, electrical conduit, emergency life systems, metal office furniture, shelving, laboratory equipment, analytical instrumentation, and dewatering equipment.

23) If the iron or steel is produced in the US, may other steps in the manufacturing process take place outside of the US, such as assembly?

No. Production in the US of the iron or steel used in a listed product requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives.

24) What processes must occur in the US to be compliant with the AIS requirement for reinforced precast concrete?

While reinforced precast concrete may not be at least 50% iron or steel, in this particular case, the reinforcing bar and wire must be produced in the US and meet the same standards as for any other iron or steel product. Additionally, the casting of the concrete product must take place in the US. The cement and other raw materials used in concrete production are not required to be of domestic origin.

If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered to be a construction material and must be produced in the US.

Compliance

25) How should an assistance recipient document compliance with the AIS requirement?

In order to ensure compliance with the AIS requirement, specific AIS contract language must be included in each contract, starting with the assistance agreement, all the way down to the purchase agreements. Sample language for assistance agreements and contracts can be found in Appendix 3 and 4.

EPA recommends the use of a step certification process, similar to one used by the Federal Highway Administration. The step certification process is a method to ensure that producers adhere to the AIS requirement and assistance recipients can verify that products comply with the AIS requirement. The process also establishes accountability and better enables States to take enforcement actions against violators.

Step certification creates a paper trail which documents the location of the manufacturing process involved with the production of steel and iron materials. A step certification is a process under which each handler (supplier, fabricator, manufacturer,

processor, etc) of the iron and steel products certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin. A certification can be quite simple. Typically, it includes the name of the manufacturer, the location of the manufacturing facility where the product or process took place (not its headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Attached, as Appendix 5, are sample certifications. These certifications should be collected and maintained by assistance recipients.

Alternatively, the final manufacturer that delivers the iron or steel product to the worksite, vendor, or contractor, may provide a certification asserting that all manufacturing processes occurred in the US. While this type of certification may be acceptable, it may not provide the same degree of assurance. Additional documentation may be needed if the certification is lacking important information. Step certification is the best practice.

26) How should a State ensure assistance recipients are complying with the AIS requirement?

In order to ensure compliance with the AIS requirement, States SRF programs must include specific AIS contract language in the assistance agreement. Sample language for assistance agreements can be found in Appendix 3.

States should also, as a best practice, conduct site visits of projects during construction and review documentation demonstrating proof of compliance which the assistance recipient has gathered.

27) What happens if a State or EPA finds a non-compliant iron and/or steel product permanently incorporated in the project?

If a potentially non-compliant product is identified, the State should notify the assistance recipient of the apparent unauthorized use of the non-domestic component, including a proposed corrective action, and should be given the opportunity to reply. If unauthorized use is confirmed, the State can take one or more of the following actions: request a waiver where appropriate; require the removal of the non-domestic item; or withhold payment for all or part of the project. Only EPA can issue waivers to authorize the use of a non-domestic item. EPA may use remedies available to it under the Clean Water Act, the Safe Drinking Water Act, and 40 CFR part 31 grant regulations, in the event of a violation of a grant term and condition.

It is recommended that the State work collaboratively with EPA to determine the appropriate corrective action, especially in cases where the State is the one who identifies the item in noncompliance or there is a disagreement with the assistance recipient.

If fraud, waste, abuse, or any violation of the law is suspected, the Office of Inspector General (OIG) should be contacted immediately. The OIG can be reached at 1-888-546-8740 or OIG_Hotline@epa.gov. More information can be found at this website: http://www.epa.gov/oig/hotline.htm.

28) How do international trade agreements affect the implementation of the AIS requirements?

The AIS provision applies in a manner consistent with United States obligations under international agreements. Typically, these obligations only apply to direct procurement by the entities that are signatories to such agreements. In general, SRF assistance recipients are not signatories to such agreements, so these agreements have no impact on this AIS provision. In the few instances where such an agreement applies to a municipality, that municipality is under the obligation to determine its applicability and requirements and document the actions taken to comply for the State.

Waiver Process

The statute permits EPA to issue waivers for a case or category of cases where EPA finds (1) that applying these requirements would be inconsistent with the public interest; (2) iron and steel products are not produced in the US in sufficient and reasonably available quantities and of a satisfactory quality; or (3) inclusion of iron and steel products produced in the US will increase the cost of the overall project by more than 25 percent.

In order to implement the AIS requirements, EPA has developed an approach to allow for effective and efficient implementation of the waiver process to allow projects to proceed in a timely manner. The framework described below will allow States, on behalf of the assistance recipients, to apply for waivers of the AIS requirement directly to EPA Headquarters. Only waiver requests received from states will be considered. Pursuant to the Act, EPA has the responsibility to make findings as to the issuance of waivers to the AIS requirements.

Definitions

The following terms are critical to the interpretation and implementation of the AIS requirements and apply to the process described in this memorandum:

Reasonably Available Quantity: The quantity of iron or steel products is available or will be available at the time needed and place needed, and in the proper form or specification as specified in the project plans and design.

Satisfactory Quality: The quality of iron or steel products, as specified in the project plans and designs.

Assistance Recipient: A borrower or grantee that receives funding from a State CWSRF or DWSRF program.

Step-By-Step Waiver Process

Application by Assistance Recipient

Each local entity that receives SRF water infrastructure financial assistance is required by section 436 of the Act to use American made iron and steel products in the construction of its project. However, the recipient may request a waiver. Until a waiver is granted by EPA, the AIS requirement stands, except as noted above with respect to municipalities covered by international agreements.

The waiver process begins with the SRF assistance recipient. In order to fulfill the AIS requirement, the assistance recipient must in good faith design the project (where applicable) and solicit bids for construction with American made iron and steel products. It is essential that the assistance recipient include the AIS terms in any request for proposals or solicitations for bids, and in all contracts (see Appendix 3 for sample construction contract language). The assistance recipient may receive a waiver at any point before, during, or after the bid process, if one or more of three conditions is met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Proper and sufficient documentation must be provided by the assistance recipient. A checklist detailing the types of information required for a waiver to be processed is attached as Appendix 1.

Additionally, it is strongly encouraged that assistance recipients hold pre-bid conferences with potential bidders. A pre-bid conference can help to identify iron and steel products needed to complete the project as described in the plans and specifications that may not be available from domestic sources. It may also identify the need to seek a waiver prior to bid, and can help inform the recipient on compliance options.

In order to apply for a project waiver, the assistance recipient should email the request in the form of a Word document (.doc) to the State SRF program. It is strongly recommended that the State designate a single person for all AIS communications. The State SRF designee will review the application for the waiver and determine whether the necessary information has been included. Once the waiver application is complete, the State designee will forward the application to the EPA for review.

Evaluation by EPA

After receiving an application for waiver of the AIS requirements, EPA Headquarters will publish the request on its website for 15 days and receive informal comment. EPA Headquarters will then use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to

determine whether or not to grant the waiver.

In the event that EPA finds that adequate documentation and justification has been submitted, the Administrator may grant a waiver to the assistance recipient. EPA will notify the State designee that a waiver request has been approved or denied as soon as such a decision has been made. Granting such a waiver is a three-step process:

1. Posting – After receiving an application for a waiver, EPA is required to publish the application and all material submitted with the application on EPA's website for 15 days. During that period, the public will have the opportunity to review the request and provide informal comment to EPA. The website can be found at: http://water.epa.gov/grants_funding/aisrequirement.cfm

2. Evaluation – After receiving an application for waiver of the AIS requirements, EPA Headquarters will use the checklist in Appendix 2 to determine whether the application properly and adequately documents and justifies the statutory basis cited for the waiver – that it is quantitatively and qualitatively sufficient – and to determine whether or not to grant the waiver.

3. Signature of waiver approval by the Administrator or another agency official with delegated authority – As soon as the waiver is signed and dated, EPA will notify the State SRF program, and post the signed waiver on our website. The assistance recipient should keep a copy of the signed waiver in its project files.

Public Interest Waivers

EPA has the authority to issue public interest waivers. Evaluation of a public interest waiver request may be more complicated than that of other waiver requests so they may take more time than other waiver requests for a decision to be made. An example of a public interest waiver that might be issued could be for a community that has standardized on a particular type or manufacturer of a valve because of its performance to meet their specifications. Switching to an alternative valve may require staff to be trained on the new equipment and additional spare parts would need to be purchased and stocked, existing valves may need to be unnecessarily replaced, and portions of the system may need to be redesigned. Therefore, requiring the community to install an alternative valve would be inconsistent with public interest.

EPA also has the authority to issue a public interest waiver that covers categories of products that might apply to all projects.

EPA reserves the right to issue national waivers that may apply to particular classes of assistance recipients, particular classes of projects, or particular categories of iron or steel products. EPA may develop national or (US geographic) regional categorical waivers through the identification of similar circumstances in the detailed justifications presented to EPA in a waiver request or requests. EPA may issue a national waiver based on policy decisions regarding the public's interest or a determination that a particular item is not produced domestically in reasonably available quantities or of a sufficient quality. In such cases, EPA may determine it is necessary to issue a national waiver.

If you have any questions concerning the contents of this memorandum, you may contact us, or have your staff contact Jordan Dorfman, Attorney-Advisor, State Revolving Fund Branch, Municipal Support Division, at dorfman.jordan@epa.gov or (202) 564-0614 or Kiri Anderer, Environmental Engineer, Infrastructure Branch, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Attachments

Appendix 1: Information Checklist for Waiver Request

The purpose of this checklist is to help ensure that all appropriate and necessary information is submitted to EPA. EPA recommends that States review this checklist carefully and provide all appropriate information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

Items	✓	Notes
General • Waiver request includes the following information: — Description of the foreign and domestic construction materials — Unit of measure — Quantity — Price — Time of delivery or availability — Location of the construction project — Name and address of the proposed supplier — A detailed justification for the use of foreign construction materials • Waiver request was submitted according to the instructions in the memorandum • Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with the prime contractor		
Cost Waiver Requests • Waiver request includes the following information: — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers		
Availability Waiver Requests • Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested: — Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials — Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers. — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials • Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought • Has the State received other waiver requests for the materials described in this waiver request, for comparable projects?		

Appendix 2: HQ Review Checklist for Waiver Request

Instructions: To be completed by EPA. Review all waiver requests using the questions in the checklist, and mark the appropriate box as Yes, No or N/A. Marks that fall inside the shaded boxes may be grounds for denying the waiver. If none of your review markings fall into a shaded box, the waiver is eligible for approval if it indicates that one or more of the following conditions applies to the domestic product for which the waiver is sought:

1. The iron and/or steel products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
2. The inclusion of iron and/or steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

Review Items	Yes	No	N/A	Comments
Cost Waiver Requests • Does the waiver request include the following information? — Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products — Relevant excerpts from the bid documents used by the contractors to complete the comparison — A sufficient number of bid documents or pricing information from domestic sources to constitute a reasonable survey of the market • Does the Total Domestic Project exceed the Total Foreign Project Cost by more than 25%?				
Availability Waiver Requests • Does the waiver request include supporting documentation sufficient to show the availability, quantity, and/or quality of the iron and/or steel product for which the waiver is requested? — Supplier information or other documentation indicating availability/delivery date for materials — Project schedule — Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of materials • Does supporting documentation provide sufficient evidence that the contractors made a reasonable effort to locate domestic suppliers of materials, such as a description of the process for identifying suppliers and a list of contacted suppliers? • Based on the materials delivery/availability date indicated in the supporting documentation, will the materials be unavailable when they are needed according to the project schedule? (By item, list schedule date and domestic delivery quote date or other relevant information) • Is EPA aware of any other evidence indicating the non-availability of the materials for which the waiver is requested? Examples include: — Multiple waiver requests for the materials described in this waiver request, for comparable projects in the same State — Multiple waiver requests for the materials described in this waiver request, for comparable projects in other States — Correspondence with construction trade associations indicating the non-availability of the materials • Are the available domestic materials indicated in the bid documents of inadequate quality compared those required by the project plans, specifications, and/or permits?				

Appendix 3: Example Loan Agreement Language

ALL ASSISTANCE AGREEMENT MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN SRF ASSISTANCE AGREEMENTS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE LAW:

Comply with all federal requirements applicable to the Loan (including those imposed by the 2014 Appropriations Act and related SRF Policy Guidelines) which the Participant understands includes, among other, requirements that all of the iron and steel products used in the Project are to be produced in the United States ("American Iron and Steel Requirement") unless (i) the Participant has requested and obtained a waiver from the Agency pertaining to the Project or (ii) the Finance Authority has otherwise advised the Participant in writing that the American Iron and Steel Requirement is not applicable to the Project.

Comply with all record keeping and reporting requirements under the Clean Water Act/Safe Drinking Water Act, including any reports required by a Federal agency or the Finance Authority such as performance indicators of program deliverables, information on costs and project progress. The Participant understands that (i) each contract and subcontract related to the Project is subject to audit by appropriate federal and state entities and (ii) failure to comply with the Clean Water Act/Safe Drinking Water Act and this Agreement may be a default hereunder that results in a repayment of the Loan in advance of the maturity of the Bonds and/or other remedial actions.

Appendix 4: Sample Construction Contract Language

ALL CONTRACTS MUST HAVE A CLAUSE REQUIRING COMPLIANCE WITH THE AIS REQUIREMENT. THIS IS AN EXAMPLE OF WHAT COULD BE INCLUDED IN ALL CONTRACTS IN PROJECTS THAT USE SRF FUNDS. EPA MAKES NO CLAIMS REGARDING THE LEGALITY OF THIS CLAUSE WITH RESPECT TO STATE OR LOCAL LAW:

The Contractor acknowledges to and for the benefit of the City of _ ("Purchaser") and the

_ (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the Clean Water State Revolving Fund and/or Drinking Water State Revolving Fund that have statutory requirements commonly known as "American Iron and Steel;" that requires all of the iron and steel products used in the project to be produced in the United States ("American Iron and Steel Requirement") including iron and steel products provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the American Iron and Steel Requirement, (b) all of the iron and steel products used in the project will be and/or have been produced in the United States in a manner that complies with the American Iron and Steel Requirement, unless a waiver of the requirement is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the American Iron and Steel Requirement, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Appendix 5: Sample Certifications

The following information is provided as a sample letter of **step** certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Step Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project is in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:

_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

The following information is provided as a sample letter of certification for AIS compliance. Documentation must be provided on company letterhead.

Date

Company Name

Company Address

City, State Zip

Subject: American Iron and Steel Certification for Project (XXXXXXXXXX)

I, (company representative), certify that the following products and/or materials shipped/provided to the subject project are in full compliance with the American Iron and Steel requirement as mandated in EPA's State Revolving Fund Programs.

Item, Products and/or Materials:

1. Xxxx
2. Xxxx
3. Xxxx

Such process took place at the following location:

_____

If any of the above compliance statements change while providing material to this project we will immediately notify the prime contractor and the engineer.

Signed by company representative

American Iron & Steel (AIS) Requirement of the Consolidated Appropriations Act of 2014 (Public Law 113-76)

Q&A Part 2

PRODUCT QUESTIONS

1. **Q: Do all fasteners qualify for de minimis exemption?**

   A: No. There is no broad exemption for fasteners from the American Iron and Steel (AIS) requirements. Significant fasteners used in SRF projects are not subject to the de minimis waiver for projects and must comply with the AIS requirements. Significant fasteners include fasteners produced to industry standards (e.g., ASTM standards) and/or project specifications, special ordered or those of high value. When bulk purchase of unknown-origin fasteners that are of incidental use and small value are used on a project, they may fall under the national de minimis waiver for projects. The list of potential items could be varied, such as big-box/hardware-store-variety screws, nails, and staples. The key characteristics of the items that may qualify for the de minimis waiver would be items that are incidental to the project purpose (such as drywall screws) and not significant in value or purpose (such as common nails or brads).

   EPA also clarifies that minor components of two listed products – valves and hydrants -- may not need to meet the AIS requirements if the minor components compromise a very small quantity of minor, low-cost fasteners that are of unknown origin.

2. **Q: Does PCCP pipe have to be domestically produced?**

   A: Yes. Pre-stressed concrete cylinder pipe (PCCP) or other similar concrete cylinder pipes would be comparable to pre-cast concrete which is specifically listed in the Consolidated Appropriations Act of 2014 as a product subject to the AIS requirement.

3. **Q: If the iron or steel is made from recycled metals will the vendor/supplier have to provide a certification document certifying that the recycled metals are domestically produced?**

   A: No. Recycled source materials used in the production of iron and steel products do not have to come from the U.S. Iron or steel scrap, for instance, are considered raw materials that may come from anywhere. While certification is not required for the raw material, EPA does recommend that additional final processing of iron and steel be certified to have occurred in the U.S.

4. **Q: Do tanks used for filtration systems, if delivered to the construction site separately and then filled with filtration media onsite, have to be domestically produced?**

A: No. Tanks that are specifically designed to be filters, or as parts of a filtration system, do not have to be domestically produced because these parts are no longer simply tanks, even if the filter media has not been installed and will be installed at the project site, as is customary to do for shipping purposes. These parts have only one purpose which is to be housing for filters and cannot be used in another fashion.

5. **Q: Can a recipient use non-domestic flanged pipe?**

   A: No. While the Consolidated Appropriations Act of 2014 does not specifically mention flanged pipe, since it does mention both pipe and flanges, both products would need to be domestically produced. Therefore, flanged pipe would also need to be domestically produced.

6. **Q: Can a recipient use non-domestic couplings, expansion joints, and other similar pipe connectors?**

   A: No. These products would be considered specialty fittings, due to their additional functionality, but still categorized under the larger "fitting" categorization. Fittings are defined as a material that joins pipes together or connects to a pipe (AWWA, The Drinking Water Dictionary, 2000). Therefore, these products must comply with the AIS requirements and be produced domestically.

7. **Q: Can a recipient use non-domestic service saddles and tapping sleeves?**

   A: No. These products are necessary for pipe repair, to tap a water main, or to install a service or house connection. Therefore, they are included under the larger "pipe restraint" category which is a specifically identified product subject to the domestic preference in the Consolidated Appropriations Act of 2014.

8. **Q: The AIS guidance does not appear to cover reused items (i.e., existing pipe fittings, used storage tanks, reusing existing valves). How should reused items be addressed?**

   A: The AIS guidance does not address reuse of items. Reuse of items that would otherwise be covered by AIS is acceptable provided that the item(s) was originally purchased prior to January 17, 2014, the reused item(s) is not substantially altered from original form/function, and any restoration work that may be required does not include the replacement or addition of foreign iron or steel replacement parts. EPA recommends keeping a log of these reused items by including them on the assistance recipient's de minimis list, and stating therein that these items are reused products. The donation of new items (such as a manufacturer waiving cost for certain delivered items because of concerns regarding the origin of a new product) is not, however, considered reuse.

9. **Q: What does "time needed" mean in the AIS guidance, in reference to the definition of "Reasonably Available Quantity"?**

A: For considering whether a product would meet reasonably available quantity, "time needed" is based on the construction schedule. If the item is delayed and there is substantial impact on the overall construction schedule, this would not be according to the "time needed."

10. **Q: If a product is not specifically included on the list of AIS covered products, must it comply with AIS?**

    A: Possibly. The AIS requirements include a list of specifically covered products, one of which is construction materials, a broad category of potential products. For construction materials, EPA's AIS guidance includes a set of example items that it considers construction materials composed primarily of iron and steel and covered by the Act. This example list in the guidance is not an all-inclusive list of potential construction materials. However, the guidance also includes a list of items that EPA specifically does not consider construction materials, generally those of electrical or complex-mechanical nature. If a product is similar to the ones in the non-construction material list (and it is also not specifically listed by the Act), it is not a construction material. For all other items specifically included in the Act, coverage is generally self-evident.

11. **Q: If a listed iron and steel product is used as a part for an assembled product that is non-domestic, do the AIS requirements apply?**

    A: AIS requirements only apply to the final product as delivered to the work site and incorporated into the project. Other assemblies, such as a pumping assembly or a reverse osmosis package plant, are distinct products not listed and do not need to be made in the U.S. or composed of all U.S. parts. Therefore, for the case of a non-covered product used in a larger non-domestic assembly, the components, even if specifically listed in the Consolidated Appropriations Act, do not have to be domestically produced.

12. **Q: Is cast iron excluded from the AIS requirements?**

    A: No. Cast iron products that fall under the definition of iron and steel products must comply with the AIS requirements.

13. **Q: The guidance states that "construction materials" do not include mechanical equipment, but then identifies ductwork as a construction material. Please clarify.**

    A: Ductwork is not mechanical equipment, therefore it is considered a "construction material" and must comply with the AIS requirements.

14. **Q: Do "meters" mentioned in EPA's guidance as non-construction materials include both flow meters and water meters?**

    A: Yes. "Meters" includes any type of meter, including: flow meters, wholesale meters, and water meters/service connections.

15. Q: Must coiled steel be domestic?

A: Yes. Coiled steel is an intermediate product used in the production of steel pipe and must come from a U.S. source or subject to a waiver in order to comply with the AIS requirements.

16. Q: Are pig iron, direct reduced iron (DRI), and ingot considered raw materials?

A: No. These are considered intermediate products used in the production of iron or steel and must come from a U.S. source or subject to a waiver in order to comply with the AIS requirements.

17. Q: Can assistance recipients rely on a marking that reads, "Made in the USA," as evidence that all processes took place in the U.S.?

A: No. This designation is not consistent with our requirements that all manufacturing processes of iron and steel products must take place in the U.S.

18. Q: When determining what constitutes a product made "primarily" of iron or steel, who makes this determination?

A: The manufacturer will show if its product qualifies as primarily made of iron or steel. The recipient should expect the manufacturer to provide documentation/ certification that its product is AIS compliant.

19. Q: Do aerators need to be produced domestically in order to comply with AIS?

A: No. Aerators, similar to pumps, are mechanical equipment that do not need to meet the AIS requirements. "Blowers/aeration equipment, compressors" are listed in EPA's guidance as non-construction materials.

20. Q: Are Sluice and Slide Gates considered valves?

A: No. Valves are products that are generally encased / enclosed with a body, bonnet, and stem. Examples include enclosed butterfly, ball, globe, piston, check, wedge, and gate valves. Furthermore, "gates" (meaning sluice, slide or weir gates) are listed in EPA's guidance as non-construction materials.

AIS PROCESS QUESTIONS

21. Q: Will notices of waiver applications be published in the federal register?

A: No. Applications for waivers will be published on EPA's website (http://water.epa.gov/grants_funding/aisrequirement.cfm**).** EPA will provide 15 days for open public comment, as noted on the website.

22. Q: Will states be collecting the step certification paper trail, as presented in the AIS guidance?

A. No. Assistance recipients must maintain documentation of compliance with AIS. EPA recommends use of the step certification process. This process is a best practice and traces all manufacturing of iron and steel products to the U.S. If the process is used, the state does not have to collect the documentation. The documents must be kept by the assistance recipient and reviewed by the state during project reviews.

23. Q: Why is it considered a best practice for states to conduct site visits, when it is the assistance recipient's responsibility to meet the AIS requirements?

A: It is both the assistance recipient's and the state's responsibility to ensure compliance with the AIS requirements. The state is the recipient of a federal grant and must comply with all grant conditions, including a condition requiring that the AIS requirements be adhered to. Therefore, it is recommended that states conduct site visits of projects during construction and review documentation demonstrating the assistance recipient's proof of compliance.

24. Q: Please further define the state's role in the waiver process.

A: The state's role in the waiver process is to review any waiver requests submitted to the state in order to ensure that all necessary information has been provided by the assistance recipient prior to forwarding the request to EPA. If a state finds the request lacking, the state should work with the assistance recipient to help obtain complete information.

25. Q: How much time does EPA have to evaluate the waiver during the evaluation step?

A: At a minimum, EPA is required to provide 15 days for open public comment. There is no specific deadline or time limit for EPA to review waiver requests. Each waiver request will come with its own specific details and circumstances and may require a different amount of time for review and analysis. For example, public interest waivers in general may take longer to review than availability waivers which are typically more straightforward. However, EPA understands that construction may be delayed while waiting for a waiver and will make every effort to review and issue decisions on waiver requests in a timely manner.

PROJECT QUESTIONS

26. Q: What if a project is funded by another funding entity (i.e., United States Department of Agriculture – Rural Development) where AIS is not required and begins construction after January 17, 2014 but then applies to the SRF to refinance the project? Are they ineligible?

A: The project is not ineligible. AIS requirements will apply to any construction that occurs after the assistance agreement is signed, through the end of construction. If construction is complete, there is no retroactive application of the AIS requirements.

27. **Q: If the assistance recipient can demonstrate through market research that the AIS requirement will exceed the 25 percent cost threshold, is the entire project exempt from the AIS requirement?**

    A: If the waiver application shows that the inclusion of American iron and steel products causes the entire cost of the project to increase by more the 25 percent, a waiver may be granted for the entirety of the project.

28. **Q: Can the recipient use non-SRF funds to pay for the non-compliant item.**

    A: No. It is not an acceptable to use non-SRF funds to pay for a non-compliant item. The Consolidated Appropriations Act of 2014 requires that all iron and steel products, no matter the source of funding, must be made in the U.S. if SRF funds are used in the project.

29. **Q: What constitutes "satisfactory quality" as defined in the AIS guidance, in reference to the availability waiver process.**

    A: "Satisfactory quality" means the product meets the project design specifications. A waiver may be granted if a recipient determines that the project plans and design would be compromised because there are no American made products available that meet the project design specifications.

30. **Q: The guidance states that the AIS requirement applies to any project "funded in whole or in part" by an SRF. Where is this in the Act?**

    A: The Act states that, "None of the funds made available by a … [State SRF program] … shall be used for a project for the construction, alteration, maintenance, or repair of a public water system or treatment works unless all of the iron and steel products used in the project are produced in the United States." This sentence clearly states that no SRF program may use its funds for a project unless all of the iron and steel products used in the project are made in the U.S. This is true even if only $1 of SRF funding is used in the project.

31. **Q: There is always an expectation on the part of an assistance recipient that the construction phase of a planning and/or design only loan will be funded through the SRF. If the original planning and/or design only loan was executed prior to a January 17, 2014, does this mean the entire project will be exempt from the AIS requirement?**

    A: If the original loan includes construction, and was executed prior to January 17, 2014, then the AIS provision does not apply to the project. If the original loan was only for planning and/or design, then a written commitment or documented "expectation" is needed to show exemption from the

requirements. Appearance on a priority list in an Intended Use Plan along with written reasonable assurance from the state that the recipient will receive SRF funding for project construction could provide sufficient evidence of "expectation of funding".

32. **Q: What if there has been a change order or redesign requiring new plans and specifications to be approved and they were approved after January 17, 2014: does the project now have to comply with AIS?**

    A: In most cases, no. Change orders are typically small enough changes that the original plan and specification date will still hold true. For example, if a pipe alignment has to be changed for a block or two due to unforeseen conditions, but new plans and specifications had to be submitted for this section of the project, then that could be considered a minor change. However, if there has been a major redesign, perhaps the whole project had to be redesigned starting from scratch, then the new plans and specification approval date would apply.

33. **Q: What if the bids on a project with plans and specifications approved before January 17, 2014 but the loan is signed after January 17, 2014 come in low, and there is significant funding remaining in the loan agreement, so the community designs a second project with the remaining funds: does that project have to comply with the AIS requirements?**

    A: If the second project is closely related in purpose, place and time to the first project, then the second project would be exempt from the AIS requirements. It is the assistance recipient's responsibility (with state oversight) to show that a project is closely related, or not, in purpose, place and time.

34. **Q: What if the assistance agreement was signed after January 17, 2014, state approval of plans for the first phase of the project was in place prior to January 17, 2014, but state approval of the plans for the second phase of the project was received after January 17, 2014?**

    A: In such a case, the AIS provision would not apply to the first phase of the project. If the second phase of the project is considered the same project as the first phase, due to its close relation in purpose, place and time, the entire project may be exempt. It is the assistance recipient's responsibility (with state oversight) to show that phases of a project is closely related, or not, in purpose, place and time.

35. **Q: Do products purchased through procurement-only contracts have to be comply with AIS?**

    A: Yes. For projects funded by SRF, the products procured under any form of contract must comply with AIS. A procurement-only contract generally involves the bulk purchase of common items (such as pipe, concrete, and/or pumps) of independent timing from a set of planned projects. If products which are purchased through a procurement-only contract are being installed under another contract, the procurement-only contract would probably not be considered a separate project in purpose, place and time; and therefore, would have to comply with the AIS requirements.

March 2015

American Iron & Steel Requirement for the Clean Water and Drinking Water State Revolving Funds

Q&A Part 3

*For CWSRF and DWSRF: On **January 17, 2014**, Public Law 113-76, the "Consolidated Appropriations Act, 2014," was enacted and included an American Iron and Steel requirement for the Clean Water and Drinking Water State Revolving Fund programs through the end of fiscal year 2014. Since then, the AIS requirement has continued for both programs, but through different statutes, with a few changes as described in the questions and answers provided below.*

*For CWSRF: On **June 10, 2014**, the Water Resources Reform and Development Act amended the Clean Water Act to include permanent requirements for the use of AIS products in CWSRF assistance agreements. Section 608 of the CWA now contains requirements for AIS that repeat those of the Consolidated Appropriations Act, 2014. All CWSRF assistance agreements must comply with Section 608 of the CWA for implementation of the permanent AIS requirement.*

*For DWSRF: On **December 16, 2014**, the President signed Public Law 113- 235, the "Consolidated and Further Continuing Appropriations Act, 2015," which provides fiscal year 2015 full-year appropriations through September 30, 2015. This law continues the requirement for the use of AIS products in DWSRF assistance agreements through September 30, 2015.*

CWSRF PROGRAM

1. **Q: The Water Resources Reform and Development Act amended the Clean Water Act to include permanent requirements for the use of AIS for CWSRF funded assistance agreements. Does the CWA include an exemption for plans and specifications approved prior to the enactment of the legislation similar to the exemption included in the Consolidated Appropriations Act (CAA) 2014?**

   A: Yes. The WRRDA amendment to the CWA, which included AIS requirements, included a similar exemption as the CAA 2014. For any CWSRF assistance agreement signed on or after October 1, 2014, if the plans and specifications were approved prior to June 10, 2014 (the enactment of WRRDA), then the project is exempt from AIS requirements. For assistance agreements signed prior to October 1, 2014, the previous dates in the CAA 2014 apply (see March 20, 2014, AIS guidance document).

   If a project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the plans and specifications approval date for purposes of this exemption in Section 608 (f).

   The following table summarizes AIS exemptions based on the plans and specifications approval date for CWSRF funded projects.

CWSRF AIS Project Exemption Based on Plans and Specifications Approval Date		
Assistance Agreement Signed:	Exempt from AIS if Plans and Specifications Were Approved Before:	Basis for Exemption:
1/17/2014 through 9/30/2014	4/15/2014	• Consolidated Appropriations Act 2014 • National waiver signed 4/15/2014*
On or after 10/1/2014	6/10/2014	• Clean Water Act Section 608

** To be covered by the national waiver, the plans and specifications had to be submitted to the state prior to 1/17/2014*

2. **Q: Does the AIS requirement apply to refinanced CWSRF projects?**

   A: Yes, in some cases. If a project began construction, financed from a non-CWSRF source prior to June 10, 2014, but is refinanced through a CWSRF assistance agreement executed on or after October 1, 2014, AIS requirements will apply to all construction that occurs on or after June 10, 2014, through completion of construction, unless engineering plans and specifications were approved by the responsible state agency prior to June 10, 2014. For CWSRF projects funded on or after October 1, 2014, there is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to June 10, 2014.

DWSRF PROGRAM

3. **Q: The Consolidated and Further Continuing Appropriations Act 2015 continues the AIS requirements for DWSRF funded assistance agreements. Does the Act include an exemption for plans and specifications approved prior to the enactment of the legislation, similar to the exemption included in the Consolidated Appropriations Act (CAA) 2014?**

   A: Yes. The Consolidated and Further Continuing Appropriations Act 2015 includes a similar exemption as the CAA 2014. For any assistance agreement signed on or after December 16, 2014 (the enactment of the Act), if the plans and specifications were approved prior to December 16, 2014, then the project is exempt from the AIS requirements. For assistance agreements signed prior to December 16, 2014, the previous dates in the CAA 2014 apply (see March 20, 2014 AIS guidance document).

   If a project does not require approved engineering plans and specifications, the bid advertisement date will count in lieu of the plans and specifications approval date for purposes of the exemption in Section 424(f).

4. Q: Do DWSRF assistance agreements signed during the time period between September 30, 2014, and December 16, 2014, still have to comply with the AIS requirements?

A: Yes. The Continuing Appropriations Resolution 2015 was signed on September 19, 2014, which extended funding for the DWSRF with the same conditions that were made applicable by the language in the Fiscal Year 2014 appropriations, including the requirement for the use of American Iron and Steel products in projects receiving financial assistance from the DWSRF. Therefore, all assistance agreements starting October 1, 2014, through the enactment of the Consolidated and Further Continuing Appropriations Act 2015 (signed December 16, 2014), must include the AIS requirements. However, if the plans and specifications for any of these projects were approved prior to April 15, 2014 (the date the national waiver was signed), then the project is exempt from the AIS requirements.

The following table summarizes AIS exemptions based on the plans and specifications approval date for DWSRF funded projects.

DWSRF AIS Project Exemption Based on Plans and Specifications Approval Date		
Assistance Agreement Signed:	Exempt from AIS if Plans and Specifications Were Approved Before:	Basis for Exemption:
1/17/2014 through 9/30/2014	4/15/2014	• Consolidated Appropriations Act 2014 • National waiver signed 4/15/2014*
10/1/2014 through 12/15/2014	4/15/2014	• Continuing Appropriations Resolution 2015 (continued CAA 2014 requirements)** • National waiver signed 4/15/2014*
12/16/2014 through 9/30/2015	12/16/2014	• Consolidated and Further Continuing Appropriations Act 2015

** To be covered by the national waiver, the plans and specifications had to be submitted to the state prior to 1/17/2014*

*** Following the first continuing resolution, there were two additional CRs to fill the gap between 12/11/2014 and 12/16/2014*

5. Q: Does the AIS requirement apply to refinanced DWSRF projects?

A: Yes, in some cases. If a project began construction, financed from a non-DWSRF source prior to December 16, 2014, but is refinanced through a DWSRF assistance agreement executed on or after December 16, 2014, AIS requirements will apply to all construction that occurs on or after December 16, 2014, through completion of construction, unless engineering plans and

specifications were approved by the responsible state agency prior to December 16, 2014. For DWSRF projects funded on or after December 16, 2014, there is no retroactive application of the AIS requirements where a refinancing occurs for a project that has completed construction prior to December 16, 2014.

BOTH CWSRF AND DWSRF PROGRAMS

6. **Q: If a coating is applied to the external surface of a domestic iron or steel component, and the application takes place outside of the United States, would the product be compliant under the AIS requirements?**

   A: Yes. The product would still be considered a compliant product under AIS requirements. Any coating processes that are applied to the external surface of iron and steel components that would otherwise be AIS compliant would not disqualify the product from meeting the AIS requirements regardless of where the coating processes occur, provided that final assembly of the product occurs in the United States.

   The exemption above only applies to coatings on the *external surface* of iron and steel components. It does not apply to coatings or linings on internal surfaces of iron and steel products, such as the lining of lined pipes. All manufacturing processes for lined pipes, including the application of pipe lining, must occur in the United States for the product to be compliant with AIS requirements.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF WATER

DECISION MEMORANDUM

SUBJECT: De Minimis Waiver of Section 436 of P.L. 113-76, Consolidated Appropriations Act (CAA), 2014

FROM: Nancy K. Stoner
Acting Assistant Administrator

The EPA is hereby granting a nationwide waiver pursuant to the "American Iron and Steel (AIS)" requirements of P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), section 436 under the authority of Section 436(b)(**1**) (public interest waiver) for de minimis incidental components of eligible water infrastructure projects. This action permits the use of products when they occur in de minimis incidental components of such projects funded by the Act that may otherwise be prohibited under section 436(a). Funds used for such de minimis incidental components cumulatively may comprise no more than a total of 5 percent of the total cost of the materials used in and incorporated into a project; the cost of an individual item may not exceed **1** percent of the total cost of the materials used in and incorporated into a project.

P.L. 113-76, Consolidated Appropriations Act, 2014 (Act), includes an "American Iron and Steel" (AIS) requirement in section 436 that requires Clean Water State Revolving Loan Fund (CWSRF) and Drinking Water State Revolving Loan Fund (DWSRF) assistance recipients to use specific domestic iron and steel products that are produced in the United States if the project is funded through an assistance agreement executed beginning January 17, 2014 (enactment of the Act), through the end of Fiscal Year 2014, unless the agency determines it necessary to waive this requirement based on findings set forth in Section 436(b). The Act states, "[the requirements] shall not apply in any case or category of cases in which the Administrator of the Environmental Protection Agency...finds that- (1) applying subsection (a) would be inconsistent with the public interest" 436(b)**(1)**.

In implementing section 436 of the Act, the EPA must ensure that the section's requirements are applied consistent with congressional intent in adopting this section and in the broader context of the purposes, objectives, and other provisions applicable to projects funded under the SRF. Water infrastructure projects typically contain a relatively small number of high-cost components incorporated into the project. In bid solicitations for a project, these high-cost components are generally described in detail via project specific technical specifications. For these major components, utility owners and their contractors are generally familiar with the conditions of availability, the potential alternatives for each detailed specification, the approximate cost, and the country of manufacture of the available components.

Every water infrastructure project also involves the use of thousands of miscellaneous, generally low-cost components that are essential for, but incidental to, the construction and are incorporated into the physical structure of the project. For many of these incidental components, the country of manufacture and the availability of alternatives is not always readily or reasonably identifiable prior to procurement in the normal course of business; for other incidental components, the country of manufacture may be known but the miscellaneous character in conjunction with the low cost, individually and (in total) as typically procured in bulk, mark them as properly incidental. Examples of incidental components could include small washers, screws, fasteners (i.e., nuts and bolts), miscellaneous wire, comer bead, ancillary tube, etc. Examples of items that are clearly not incidental include significant process fittings (i.e., tees, elbows, flanges, and brackets), distribution system fittings and valves, force main valves, pipes for sewer collection and/or water distribution, treatment and storage tanks, large structural support structures, etc.

The EPA undertook multiple inquiries to identify the approximate scope of de minimis incidental components within water infrastructure projects during the implementation of the American Reinvestment and Recovery Act (ARRA) and its requirements (Buy American provisions, specifically). The inquiries and research conducted in 2009 applies suitably for the case today. In 2009, the EPA consulted informally with many major associations representing equipment manufacturers and suppliers, construction contractors, consulting engineers, and water and wastewater utilities, and performed targeted interviews with several well-established water infrastructure contractors and firms who work in a variety of project sizes, and regional and demographic settings to ask the following questions:

- What percentage of total project costs were consumables or incidental costs?

- What percentage of materials costs were consumables or incidental costs?

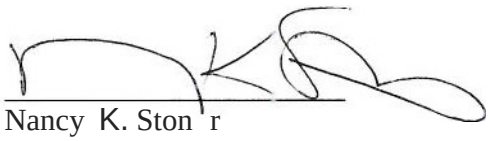
- Did these percentages vary by type of project (drinking water vs. wastewater treatment plant vs. pipe)?

The responses were consistent across the variety of settings and project types, and indicated that the percentage of total costs for drinking water or wastewater infrastructure projects represented by these incidental components is generally not in excess of 5 percent of the total cost of the materials used in and incorporated into a project. In drafting this waiver, the EPA has considered the de minimis proportion of project costs generally represented by each individual type of these incidental components within the many types of such components comprising those percentages, the fact that these types of incidental components are obtained by contractors in many different ways from many different sources, and the disproportionate cost and delay that would be imposed on projects if the EPA did not issue this waiver.

Assistance recipients who wish to use this waiver should in consultation with their contractors determine the items to be covered by this waiver and must retain relevant documentation (i.e., invoices) as to those items in their project files.

If you have any questions concerning the contents of this memorandum, please contact Timothy Connor, Chemical Engineer, Municipal Support Division, at connor.timothy@epa.gov or (202) 566-1059 or Kirsten Anderer, Environmental Engineer, Drinking Water Protection Division, at anderer.kirsten@epa.gov or (202) 564-3134.

Issued on: APR 15 2014

Approved by: 

Nancy K. Stoner
Acting Assistant Administrator

Ohio Water Pollution Control Loan Fund
Use of American Iron and Steel - De Minimis Final Utilization and Certification Form

The Consolidated Appropriations Act of 2014 (P.L. 113-76) Section 436 requires the use of American & Steel in SRF-funded projects. Under the authority of Section 436(b)(1), the EPA has issued a public interest waiver for De Minimis incidental components. The assistance recipient wishing to use this waiver should consult with their contractor(s) to maintain an itemized list of components covered under De Minimis. At the conclusion of the project, this form must be completed and retained in the assistance recipient's project files and a copy provided to DEFA. Please print clearly or type.

Project Name:_____ Loan Agrmt #: _____

NOTE: The De Minimis waiver is only applicable to the cost of materials for the entire project. Do not include other project costs (labor, installation costs, etc.) in the "Total Cost of Materials". The cost of a material must include delivery to the site and any applicable tax. Must have sufficient documentation to support all costs included in this calculation.

Funds used for de minimis incidental components cumulatively may comprise no more than a total of 5 percent of the total cost of the materials used in and incorporated into a project; the cost of an individual item may not exceed 1 percent of the total cost of the materials used in and incorporated into a project.

Total Cost of Materials: | 5% Limit: | 1% limit:

Manufacturer & Component Description	Part/Model #	Quantity (if applicable)	Cost per Unit (if applicable)	Component's Total Cost	How is Cost Documented?*

Use additional sheets as necessary

Total De Minimis Cost of Components:

If approaching the 5% or 1% limits, contact DEFA immediately

* Documentation must demonstrate confirmation of the components' actual costs (invoice, etc.).

Completed by:

Name: _____ Title: _____

Signature: _____ Date: _____

Appendix D

Code of Federal Regulations

Title 45 - Public Welfare

Volume: 4
Date: 2010-10-01
Original Date: 2010-10-01
Title: Section 2543.87 - Byrd anti-lobbying amendment.
Context: Title 45 - Public Welfare. Subtitle B - Regulations Relating to Public Welfare (Continued). CHAPTER XXV - CORPORATION FOR NATIONAL AND COMMUNITY SERVICE. PART 2543 - GRANTS AND AGREEMENTS WITH INSTITUTIONS OF HIGHER EDUCATION, HOSPITALS, AND OTHER NON-PROFIT ORGANIZATIONS. Subpart E - Statutory Compliance.

§ 2543.87 Byrd anti-lobbying amendment.

Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

Appendix D

ODOT Office of Local Programs
Notice to the Industry

In December 2014, a compliance review of ODOT's Disadvantaged Business Enterprise (DBE) Program was conducted by the Federal Highway Administrations (FHWA's) Office of Civil Rights. A subsequent review was conducted in June 2015. The purpose of the reviews was to determine ODOT's compliance with the DBE program regulations found in 49 CFR Part 26.

In the end, it was determined that the ODOT DBE Program was noncompliant with Federal regulations. A total of 32 areas were identified in which the Department was deficient in implementing the Federal requirements; 7 of these were directly related to the Local Let program.

As a result of those findings, ODOT and FHWA entered into a Conciliation Agreement in September 2015 to address those areas of noncompliance in ODOT's DBE program. Since the inception of this agreement, the Office of Local Programs has played an integral part in addressing specific deficiencies related to the Local Let program and has worked to develop solutions to ensure compliance.

Following, are the programmatic and process changes that have been or will be implemented by ODOT's Office of Local Programs to address these seven areas.

PN007

This Note is a Local-let specific version of the ODOT-let PN 007 that was drafted in December of 2019. Requirements to monitor DBE Trucking have been updated to a monthly process that will be completed as part of the Trucking Affidavit Section on the new Prompt Payment Spreadsheet (*see PN31 Prompt Payment guidance below*). The Prime Contractor will be required to monitor trucking firms being used on the project and make appropriate selections on the Affidavit section of the Prompt Payment Spreadsheet.

Training and Guidance for this process can be located at:
https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/local-programs/resources/prompt-pay

PN13

A Local-let specific version of PN 13 was finalized and added to the Bid Doc Template in March of 2019. This proposal note outlines the requirements for identifying DBEs pre-award who will be utilized to meet the established project goals through the Utilization and Affirmation processes. This Proposal Note also provides defining criteria for Good Faith Efforts, termination, and the replacement of DBE firms.

Good Faith Efforts, termination, and replacement guidance may be located at:
https://www.transportation.ohio.gov/wps/portal/gov/odot/programs/business-economic-opportunity/dbe/dbe-resources

For reference purposes, the Local-let Bid Doc Template may be found in the Forms/Bid Preparation Section at the following web page address:
https://www.transportation.ohio.gov/wps/portal/gov/odot/working/publications/local-let-manual

PN31

This Proposal Note was developed to outline the new comprehensive Prompt Payment and Commercially Useful Function (CUF) Procedures via the GoFormz platform. A template for this form may be found and submitted via the GoFormz website located at www.goformz.com (*see detailed directions for creating an account below*).

The Code of Federal Regulations (CFR), 49 CFR Part 26. Within 49 CFR Part 26, 49 CFR 26.29 define the prompt payment requirements that apply to ODOT (the Department), its subrecipients (LPA's), and, by extension, both Prime Contractors and Subcontractors (including non-DBEs). The Prime Contractor must comply with this Proposal Note and the Department's prompt payment requirements as published in Section 107.21 of the Construction and Materials Specifications (C&MS).

Additionally, ODOT will monitor payments made by Prime Contractors and Subcontractors for compliance with this Proposal Note, C&MS 107.21 and, where applicable, 49 CFR 26.29. To facilitate this monitoring, the Department requires prime contractors to report their payments to all subcontractors with the submission of each invoice. The payment data reported must include any retainage withheld and any previously withheld retainage released. All such reporting will take place through a web-based submission on a customized version of ODOT's GoForms, which will be directly routed to a project specific folder on a SharePoint site created by each district.

Invoices will not be approved and processed for payment unless this reporting form has been submitted and received by the Department.

To obtain a GoFormz account, you must first register and obtain a MyODOT account. To do this, please click Link and follow directions outlined on the website. Two process flowcharts linked below have also been provided to assist in better understanding this process.

https://www.transportation.ohio.gov/static/Working/data-tools/PromptPay/Visio-LPA-LocalPublicAgency-access-GoFormz-SharePoint.pdf

https://www.transportation.ohio.gov/static/Working/data-tools/PromptPay/Visio-LPA-PrimeContractoraccess-GoFormz.pdf

Once a MyODOT account has been set up, the account holder will need to email: GoFormz.Help@dot.ohio.gov

- In the Subject Line type Create GoFormz Account;
- After, a Login for Goformz will be emailed back to the sender, then
- Click www.goformz.com to access GoFormz and set up your account

You may access online training for Prompt Payment and CUF on the Local Programs LTAP page at the following web address:

http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP/Pages/Ohio_LTAP_eLearning.aspx

Additionally, a very beneficial GoFormz training/ YouTube webinar recording can be found at:

https://youtu.be/hes_7zi2n2U

PN32

To ensure compliance with State and Federal laws which require all contractors and subcontractors to be documented in writing and in conformity with all applicable laws and regulations, the Department will require that a C92 form be completed for each subcontractor and material supplier working on the project prior to their starting work via electronic C92 GoFormz (*process to access GoFormz described above*) which will automatically be uploaded to the respective District SharePoint site. This requirement will go into effect immediately for all Local-let projects advertising after 1/31/2021.

Additionally, this requirement allows the Department to accurately and fully track DBE participation, both race-neutral and race-conscious. This is necessary for semi-annual reporting to FHWA.

District LPA staff will grant SharePoint access to the appropriate LPA personnel enabling them to view and monitor project documentation. The Project Engineer or LPA Designee will be required to verify that a C92 GoFormz has been submitted for each subcontractor working on the project, and this requirement will also be routinely monitored by the District Construction Monitor to ensure compliance.

PN126

This Proposal Note must be used on all Local-let Design Build projects using the 2019 C&MS. The note revises Section 100 – General Provisions of the ODOT 2019 C&MS to be specific for LPAs. PN126 closely resembles the same note used on ODOT-let Design Build projects. The major update is the Prime Contractor's contractual obligation to make payment to each consultant, subcontractor, and supplier within 10 Calendar Days after receipt of payment from either the Department or LPA. Also, the Prime Contractor shall ensure this contractual obligation is placed in all consultants, subconsultants, subcontractor and supplier contracts that it enters into and further require that all consultants, subconsultants subcontractor and suppliers place the same payment obligation in each of their lower tier contracts.

For reference purposes, the Local-let Design Build Bid Doc Template may be found in the Forms/Bid Preparation Section at the following web page address:

https://www.transportation.ohio.gov/wps/portal/gov/odot/working/publications/local-let-manual

Commercially Useful Function (CUF) Training

Training for CUF and Prompt Payment is located at the following web address:

http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/LTAP/Pages/Ohio_LTAP_eLearning.aspx

Additional Updates to the LATP Manual of Procedures – Construction Chapter

Clarification on Retainage Requirements

In accordance with Article XVIII, Section 3 of the Ohio Constitution, and Ohio's home rule law, the Department allows LPA program recipients the full flexibility to withhold retainage from the prime in strict accordance with sections 153.12 and 153.14 of the Revised Code, and pursuant to 49 CFR 26.29(b)(3).

Should an LPA exercise its option to retain funds, it must be done so in strict accordance with the rules outlined above. Additionally, LPAs who choose to do so, shall monitor the return of retainage and may withhold retainage by selecting one of three specified methods outlined in 49 CFR 26.29(b)(3):

> **(1)** LPA may decline to hold retainage from prime contractors and prohibit prime contractors from holding retainage from sub-contractors.
>
> **(2)** LPA may decline to hold retainage from prime contractors and require a contract clause obligating prime contractors to make prompt and full payment of any retainage kept by prime contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed.
>
> **(3)** LPA may hold retainage from prime contractors and provide for prompt and regular incremental acceptances of portions of the prime contract, pay retainage to prime contractors based on these acceptances, and require a contract clause obligating the prime contractor to pay all retainage owed to the subcontractor for satisfactory completion of the accepted work within 30 days after your payment to the prime contractor.

FHWA Form 1273

A process has been outlined in the Construction Chapter of the LPA Manual of Procedures to ensure that the FHWA Form 1273 is physically incorporated into all Local-let construction contract and subcontract agreements (excluding purchase orders, rental agreements and other agreements for supplies or services). The LPA will be required to collect all contracts, subcontracts, and lower-tier contracts on the project from the Prime Contractor to verify Form FHWA-1273 has been physically incorporated. The LPA must then affirm the physical incorporation of Form FHWA-1273 by completing Appendix M – Form FHWA-1273 Subcontract Agreement Check.

The Construction Chapter of the LPA Manual of Procedures may be found at the following web page address: https://www.transportation.ohio.gov/wps/portal/gov/odot/working/publications/local-let-manual

Ensuring Continued Compliance

Moving forward, ODOT has committed to meet required corrective actions outlined in the Conciliation Agreement and ensuring that the Local-let Program is compliant with the DBE program requirements and regulations.

If there are any additional questions or comments, please do not hesitate to contact any of the individuals listed below.

Contact Information:

Any questions regarding the update outlined above should be directed to the following:

Office of Local Programs:

Jeff Peyton: 614-466-2032

Jeff Shaner: 614-644-6394

All questions regarding the **GoFormz** application can be directed to the following email address GoFormz.Help@dot.ohio.gov or the Admin Owners below.

GoFormz Admin Owners:

Janet Treadway: 614-466-7514

Tia Williams-Hayes: 614-644-6463

Appendix D

Code of Federal Regulations

Title 2 - Grants and Agreements

Volume: 1
Date: 2015-01-01
Original Date: 2015-01-01
Title: Section Â§ 200.322 - Procurement of recovered materials.
Context: Title 2 - Grants and Agreements. Subtitle A - Office of Management and Budget Guidance for Grants and Agreements. CHAPTER II - OFFICE OF MANAGEMENT AND BUDGET GUIDANCE. - Reserved. PART 200 - UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS FOR FEDERAL AWARDS. Subpart D - Post Federal Award Requirements. - Procurement Standards.

§ 200.322 Procurement of recovered materials.

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

[78 FR 78608, Dec. 26, 2013, as amended at 79 FR 75885, Dec. 19, 2014]

Appendix D

Prohibition on Covered Telecommunications and Video Surveillance Services or Equipment

Grants and Loans

This document is designed to address common questions regarding the Office of Management and Budget's (OMB) implementation of section 889(b) of the National Defense Authorization Act (NDAA) of Fiscal Year 2019, Pub. L. No. 115—232, for grants and loans through the updates to section 200.216 of Title 2 of the Code of Federal Regulations (2 CFR).

Table of Contents

Q-1. What are "covered telecommunications equipment or services"? 1
Q-2. How do you know if an entity has been added to the list of covered entities? 1
Q-3. What is the covered foreign country? 1
Q-4. Can this prohibition be waived for grants and loans? 1
Q-5. Is it mandatory to include a specific provision in Federal awards and notices of funding opportunity issued on or after August 13, 2020? 1
Q-6. Does the Section 889 prohibition apply to existing Federal awards as of August 13, 2020? 1
Q-7. Will this prohibition impact fixed amount awards where payment is based upon the achievement of milestones and not based on actual costs? 1
Q-8. Can a Federal award be provided to a recipient when they use covered telecommunications equipment or services? 2
Q-9. Do existing Federal awards need to be amended to include the provision after August 13, 2020? 2
Q-10. If a Federal award issued prior to August 13, 2020 is amended for non-financial purposes (i.e., no cost extension or scope), does the amendment need to include this prohibition? 2
Q-11. If a Federal award issued prior to August 13, 2020 is amended for the purposes of adding supplemental funds, does the amendment need to include this prohibition? 2
Q-12. Can a Federal award be used to procure goods or services, unrelated to prohibited services or equipment, with an entity that uses such equipment and services? 2
Q-13. Do recipients need to certify that goods or services procured under a Federal award are not for covered telecommunications equipment or services? 2
Q-14. Can recipients use the costs associated with covered telecommunications equipment or services or equipment to meet their cost sharing or match requirements? 2
Q-15. Can recipients use program income generated by a Federal award to cover the costs associated with covered telecommunications equipment or equipment? 2
Q-16. Will this prohibition impact awards that use the de minimis indirect cost rate, as the 10% is based on modified total direct costs (MTDC) and not specific indirect costs elements? 3
Q-17. When a recipient normally charges prohibited services or equipment through their indirect cost pool, can a Federal award cover the same recipient's indirect costs? 3
Q-18. How will covered telecommunications equipment or services as a new unallowable expense be implemented for indirect cost rates? 3
Q-19. How will Federal agencies identify covered telecommunications and video surveillance services or equipment as unallowable costs in the negotiation and random audit selection of indirect costs? 3
Q-20. What are the Federal awarding agencies' responsibilities to monitor adherence to this provision? 4
Q-21. How should a Federal awarding agency handle a recipient that procured covered telecommunications equipment or services or equipment under a Federal award? 4

Q-1. What are "covered telecommunications equipment or services"?

Section 889 of the NDAA of 2019 defines "covered telecommunications equipment or services" to mean telecommunications and video surveillance equipment or services produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

"Covered telecommunications equipment or services" also includes telecommunications or video surveillance equipment or services provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity that is owned or controlled by the government of a covered foreign country. Additional entities identified as covered entities will be identified as described in Q-2.

Q-2. How do you know if an entity has been added to the list of covered entities?

Entities added to this list will be incorporated into the excluded parties list in the System for Award Management (SAM) (www.sam.gov). When a user conducts a search of the excluded parties list, a record will appear describing the nature of the exclusion for any entity identified as covered by this prohibition.

Q-3. What is the covered foreign country?

The People's Republic of China.

Q-4. Can this prohibition be waived for grants and loans?

Unlike Federal procurement, the prohibition cannot be waived for Federal assistance such as grants and loans.

Q-5. Is it mandatory to include a specific provision in Federal awards and notices of funding opportunity issued on or after August 13, 2020?

The Federal awarding agency must take positive steps to ensure that recipients are aware of the requirements associated with this provision as of August 13, 2020. While referencing 2 CFR Part 200 may likely suffice, including a specific provision may be a best practice in order to ensure clarity, especially because this is a new requirement.

Q-6. Does the Section 889 prohibition apply to existing Federal awards as of August 13, 2020?

Yes. The section 889 prohibition on covered telecommunications and video surveillance services or equipment is effective on all expenditures charged to Federal awards as of August 13, 2020.

Q-7. Will this prohibition impact fixed amount awards where payment is based upon the achievement of milestones and not based on actual costs?

Yes, the prohibition on covered telecommunications and video surveillance services or equipment applies and the recipient's budget must not include the cost of covered telecommunications and video surveillance services or equipment in their fixed amount award.

Q-8. Can a Federal award be provided to a recipient when they use covered telecommunications equipment or services?

Yes, as long as the Federal award does not pay for the covered telecommunications and video surveillance services or equipment that the recipient uses. If the Federal agency suspects that the goods and services being procured under the award may in fact be prohibited, it must take appropriate action, consistent with its policies and procedures, and in accordance with the guidance in 2 CFR Part 200.

Q-9. Do existing Federal awards need to be amended to include the provision after August 13, 2020?

This prohibition applies to existing Federal awards. Federal awarding agencies must ensure that recipients are aware of this prohibition and determine if an amendment is needed on a case by case basis.

Q-10. If a Federal award issued prior to August 13, 2020 is amended for non-financial purposes (i.e., no cost extension or scope), does the amendment need to include this prohibition?

This prohibition applies to existing Federal awards. Federal awarding agencies must ensure that recipients are aware of this prohibition and determine if an amendment is needed on a case by case basis.

Q-11. If a Federal award issued prior to August 13, 2020 is amended for the purposes of adding supplemental funds, does the amendment need to include this prohibition?

This prohibition applies to existing Federal awards. Federal awarding agencies must ensure that recipients are aware of this prohibition and determine if an amendment is needed on a case by case basis.

Q-12. Can a Federal award be used to procure goods or services, unrelated to prohibited services or equipment, from an entity that uses such equipment and services?

Yes.

Q-13. Do recipients need to certify that goods or services procured under a Federal award are not for covered telecommunications equipment or services?

Yes, when the recipient signs an award agreement they are certifying that they will comply with all applicable laws, rules, and regulations, including the prohibition on covered telecommunications equipment and services. If the Federal agency suspects that the goods and services being procured under the award may in fact be prohibited, it must follow its own policies and procedures to take appropriate action that aligns with the guidance in 2 CFR Part 200. OMB is separately evaluating the certifications and representations statement in SAM and will make any necessary updates.

Q-14. Can recipients use the costs associated with covered telecommunications equipment or services or equipment to meet their cost sharing or match requirements?

No, such costs are unallowable costs.

Q-15. Can recipients use program income generated by a Federal award to cover the costs associated with covered telecommunications equipment or equipment?

No. Program income must be used for allowable costs in accordance with 2 CFR §200.307.

Q-16. Will this prohibition impact awards that use the de minimis indirect cost rate, as the 10% is based on modified total direct costs (MTDC) and not specific indirect costs elements?

No, the prohibition on covered telecommunications and video surveillance services or equipment does not affect a non-Federal entity's use of the de minimis indirect cost rate; however, the non-Federal entity must review its costs used to determine its de minimis indirect cost rate to ensure that unallowable costs are not included in the calculation. The MTDC cannot include unallowable costs in its calculation of the de minimis indirect cost rate.

Q-17. When a recipient normally charges prohibited services or equipment through their indirect cost pool, can a Federal award cover the same recipient's indirect costs?

No, like other unallowable costs, covered telecommunications and video surveillance services or equipment costs must not be charged either directly or indirectly to Federal awards. The recipient must separately negotiate an indirect cost rate for their Federal awards that excludes these costs from the indirect cost pool and base amount chargeable to its Federal award(s).

Q-18. How will covered telecommunications equipment or services as a new unallowable expense be implemented for indirect cost rates?

Federally approved indirect cost rate agreements generally do not need to be reopened or amended, but may need to be adjusted in accordance with 2 CFR § 200.411. The non-Federal entity must review its current indirect cost rate proposal or previously negotiated rate to ensure that it does not include expenses associated with covered telecommunications equipment or services because the non-Federal entity must certify that the costs included in its proposal are allowable.[1]

- If a non-Federal entity has not included the covered telecommunications equipment or services, then it should include a statement with each indirect cost proposal affirming that it has not included any costs described in 2 CFR §200.216.

- If a non-Federal entity finds that it has included the covered telecommunications equipment or services in an indirect cost proposal currently under review or a previously negotiated rate, then it should immediately contact the cognizant agency for indirect costs to revise the indirect cost proposal or negotiated rate.

Q-19. How will Federal agencies identify covered telecommunications and video surveillance services or equipment as unallowable costs in the negotiation and random audit selection of indirect costs?

Federal agencies must adapt their policies and procedures to review the costs associated with the prohibited telecommunications and video surveillance services or equipment. 2 CFR Part 200 requires the recipient to certify that all costs within the negotiated indirect cost rate are allowable in accordance with 2 CFR Part 200, Subpart E (Cost Principles). The covered telecommunications and video surveillance services or equipment mentioned in Sec. 889 of the NDAA of 2019 are considered unallowable under 2 CFR Part 200, Subpart E (Cost Principles).

[1] 2 C.F.R. Part 200, Appendix III (F), Certification; Appendix IV (D), Certification of Indirect (F&A) Costs; Appendix VII (D.3), Required Certification.

Q-20. What are the Federal awarding agencies' responsibilities to monitor adherence to this provision?

Federal awarding agencies are responsible for the implementation of this provision, as they are for the other compliance requirements in 2 CFR Part 200, and must incorporate oversight of this provision into their existing the monitoring and compliance oversight of Federal awards. Adherence to these new requirements will also be reviewed for costs incurred on or after August 13, 2020 in future Single Audits and other audits of recipient spending.

Q-21. How should a Federal awarding agency handle a recipient that procured covered telecommunications equipment or services or equipment under a Federal award?

If a recipient procures covered technology under a Federal award, the Federal awarding agency must follow its policies and procedures associated with monitoring Federal awards and, when appropriate, pursue remedies for noncompliance, which must align with the guidance provided in 2 CFR Part 200.

SAM.GOV

Exclusion Search Results 17 Total Results

Filtered by:

Keyword	Status
Hangzhou Hytera Huawei Zhejiang ZTE dahua	Active
	Inactive

Dr. Zhiwei Wang ● Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: HEALTH AND HUMAN SERVICES, DEPARTMENT OF

Activation Date: Jul 21, 2020

Classification: Individual

Termination Date: Jul 20, 2030

HANGZHOU HONGYAN TRADING CO., LTD ● Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: OFFICE OF FOREIGN ASSETS CONTROL

Activation Date:

Classification: Special Entity Designation

Termination Date: Indefinite

ZTE Corporation ● Active

DUNS **Unique Entity ID:** 654608660

SAM **Unique Entity ID:** HWEKRJ3F3N29

Excluding Agency: GENERAL SERVICES ADMINISTRATION

Activation Date: Dec 13, 2019

Classification: Firm

Termination Date: Indefinite

Huawei Investment & Holding Co., Ltd. ● Active

DUNS **Unique Entity ID:** 544957314

SAM **Unique Entity ID:** Y3NYMV2P5446

Excluding Agency: GENERAL SERVICES ADMINISTRATION

Activation Date: Dec 13, 2019

Classification: Firm

Termination Date: Indefinite

Hangzhou Hikvision Digital Technology Co., Ltd. ● Active

DUNS **Unique Entity ID:** 545259848

SAM **Unique Entity ID:** L78SCHFL4JN8

Excluding Agency: GENERAL SERVICES ADMINISTRATION

Activation Date: Dec 13, 2019

Classification: Firm

Termination Date: Indefinite

Hytera Communications Corporation Limited ● Active

DUNS **Unique Entity ID:** 654702463

SAM **Unique Entity ID:** DUKCMD4EJJG8

Excluding Agency: GENERAL SERVICES ADMINISTRATION

Activation Date: Dec 13, 2019

Classification: Firm

Termination Date: Indefinite

Zhejiang Dahua Technology Co., Ltd. ● Active

DUNS **Unique Entity ID:** 545242687

SAM **Unique Entity ID:** ED47N4Z1K8S9

Excluding Agency: GENERAL SERVICES ADMINISTRATION

Activation Date: Dec 13, 2019

Classification:

Termination Date:

Firm

Indefinite

HONGYUAN MARINE CO LTD Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: OFFICE OF FOREIGN ASSETS CONTROL

Classification: Special Entity Designation

Activation Date: Jan 10, 2020

Termination Date: Indefinite

Zhongli DING Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: OFFICE OF FOREIGN ASSETS CONTROL

Classification: Individual

Activation Date: Dec 07, 2020

Termination Date: Indefinite

SHANGHAI GANG QUAN TRADE CO. Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: OFFICE OF FOREIGN ASSETS CONTROL

Classification: Special Entity Designation

Activation Date: May 17, 2017

Termination Date: Indefinite

SHANGHAI NORTH TRANSWAY INTERNATIONAL TRADING CO. Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: OFFICE OF FOREIGN ASSETS CONTROL

Classification: Special Entity Designation

Activation Date: May 17, 2017

Termination Date: Indefinite

Yueyue SHEN Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency: OFFICE OF FOREIGN ASSETS CONTROL

Classification: Individual

Activation Date: Dec 07, 2020

Termination Date: Indefinite

Huawei Technologies Co., Ltd. Active

DUNS **Unique Entity ID:** 654292358

SAM **Unique Entity ID:** DCAMUHE5N6W1

Excluding Agency: DEPT OF THE AIR FORCE

Classification: Firm

Activation Date: Feb 21, 2019

Termination Date: Indefinite

Huawei Device Co., Ltd. Active

DUNS **Unique Entity ID:** 421306185

SAM **Unique Entity ID:** JKTPF89M9P73

Excluding Agency: DEPT OF THE AIR FORCE

Classification: Firm

Activation Date: Feb 21, 2019

Termination Date: Indefinite

HUAWEI DEVICE USA INC. Active

DUNS **Unique Entity ID:** 078284967

SAM **Unique Entity ID:** LCF7TMLFD2J2

Excluding Agency: DEPT OF THE AIR FORCE

Classification: Firm

Activation Date: Feb 21, 2019

Termination Date: Indefinite

Zuoyou LIN Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency:
OFFICE OF FOREIGN ASSETS CONTROL

Classification:
Individual

Activation Date:
Sep 03, 2020

Termination Date:
Indefinite

Daniel Y. HE Active

DUNS **Unique Entity ID:**

SAM **Unique Entity ID:**

Excluding Agency:
OFFICE OF FOREIGN ASSETS CONTROL

Classification:
Individual

Activation Date:
Oct 19, 2020

Termination Date:
Indefinite

Appendix D

2022

Title VI Plan

CITY OF CANTON OHIO

Table of Contents

Introduction…… 3

Assurances…… 4

Policy Statement and Notice to the Public…… 5

Overview of Agency and Title VI Coordinator…… 6

Training…… 7

Complaint Procedure…… 8

Data Collection and Analysis…… 9

Public Involvement and Language Assistance…… 10

Appendix A …… 13

Appendix B …… 14

Appendix C ……15

Appendix D ……17

Appendix E ……18

Introduction

[The City of Canton receives federal funding through the Ohio Department of Transportation (ODOT), and as a requirement to receive funding, must adhere to Title VI of the Civil Rights Act of 1964.
Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, and national origin in programs and activities of any entity that receives federal financial assistance.

Specifically, Title VI provides: “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” (42 USC 2000d)

In addition to adhering to Title VI, our agency complies with other related nondiscrimination statutes in the delivery of our programs and services that provide protections based on disability, age, sex, and low-income status.

Assurances

The City of Canton acknowledges that it is a sub-recipient of federal funds through the Ohio Department of Transportation (ODOT).

As such, City of Canton understands it must comply with Title VI of the Civil Rights Act of 1964 (Title VI) and related statutes, Title 49 of the Code of Federal Regulations (CFR) Part 21 and 23 CFR Part 200, to ensure that no person on the ground of race, color, or national origin, is excluded from participation in, denied the benefits of, or otherwise subjected to discrimination under any of its programs, services or activities.

I am authorized to sign this assurance on behalf of City of Canton. By signing this assurance, City of Canton agrees to comply with Title VI and related nondiscrimination statutes.

Policy Statement and Notice to the Public

Policy Statement

It is the policy of City of Canton to assure nondiscrimination in compliance with Title VI and related nondiscrimination statutes in the delivery of its programs, services and activities. City of Canton provides the notice below to the public to inform them of their rights under Title VI. The notice is placed on the City's website.

Rights of The Public

The City of Canton operates its programs and services without regard to race, color, national origin, sex, age, disability, or low-income status in accordance with Title VI of the Civil Rights Act of 1964 and its related statutes. Any person who believes she or he has been aggrieved by any unlawful discriminatory practice under Title VI may file a complaint with the City of Canton.

For more information on City of Canton's Title VI/Nondiscrimination Program and the procedures to file a complaint, contact Andrea Perry, Safety Director, (330-438-3303, or andrea.perry@cantonohio.gov.) You may also visit our administrative office at 218 Cleveland Avenue SW, 8th Floor, Canton OH 44702. For more information, visit https://www.cantonohio.gov.

A complaint may be filed directly with the Ohio Department of Transportation online at http://www.dot.state.oh.us/Divisions/ODI/EqualOpportunity/Pages/TitleVI.aspx or by using the following contact information: Ohio Department of Transportation, Office of Equal Opportunity, 1980 West Broad Street, Mail Stop 3270, Columbus, Ohio 43223; 614.466.3264; Toll-Free: 1.877.845.5058; Ohio Relay Service: 1.800.750.0750.

A complaint may be filed directly with the Federal Highway Administration online at https://www.fhwa.dot.gov/civilrights/file/titlevi.cfm or by using the following contact information: Federal Highway Administration, Office of Civil Rights, 1200 New Jersey Avenue, SE, 8th Floor E81-105, Washington, D.C. 20590; 202.366.0693; FHWA.TitleVIcomplaints@dot.gov.

Overview of Agency and Title VI Coordinator

Overview of Agency

The City of Canton is a city organized under the statues of the Ohio Revised Code. Canton provides the services and infrastructure required by businesses and private citizens.

Canton's city government is comprised of an elected mayor and nine elected council persons. The mayor has four cabinet officials. Each of the numerous departments reports to one of the cabinet officials.

Title VI is coordinated by the Safety Director, who is also one of the four cabinet members.

Title VI Coordinator: Andrea Perry, Safety Director; Contact Information:

- andrea.perry@cantonohio.gov.)
- 330-438-3303
- 218 Cleveland Avenue SW, 8th Floor, Canton OH 44702

Specific responsibilities include:

- Administer, coordinate and Implement the Title VI Program plan and distribute internally and externally via website and update annually as required.
- Ensure that Assurances are being used in contracts for federal projects.
- Attend Title VI training.
- Collect public involvement data.
- Review written Title VI complaints and ensure every effort is made to resolve complaints informally at the local or regional level and review and update the City's Title VI plan and procedures as required.
- Implement a plan that provides training to City Staff on the basic requirements of the Title VI implementation plan.

Training

Staff for the City will be provided training on the requirements of Title VI. Considering the relatively small size of the City of Canton and limited financial resources, current training may be limited to web access to this document and it's attachments, ODOT/LTAP provided live or recorded webinars, or ODOT/FHWA in-person training. A log showing the names of all Staff that have been made aware of this document (sign off that they have read the document) will be kept. A list of training by individual staff members will be kept. All new employees will be required to receive the same training.

Complaint Procedure

Any person who believes that he or she has been excluded from participation in or has been denied the benefits or services of any of our programs or activities based on race, color, national origin, sex, age, disability, or income status may file a complaint of discrimination under Title VI, other nondiscrimination statutes, and executive orders. A complaint must be filed no later than 180 days after the date of the last instance of alleged discrimination.

A person can file a formal complaint, by accessing City of Canton's complaint form located at www.cantonohio.gov or mail in a written complaint to:

218 Cleveland Avenue SW, 8th Floor, Canton OH 44702

City of Canton also accepts complaints in alternate formats including by telephone and in-person.

Additionally, a complaint may be filed directly with the Ohio Department of Transportation online at http://www.dot.state.oh.us/Divisions/ODI/EqualOpportunity/Pages/TitleVI.aspx or by using the following contact information: Ohio Department of Transportation, Office of Equal Opportunity, 1980 West Broad Street, Mail Stop 3270, Columbus, Ohio 43223; 614.466.3264; Toll-Free: 1.877.845.5058; Ohio Relay Service: 1.800.750.0750.

Further, a complaint may be filed directly with the Federal Highway Administration online at https://www.fhwa.dot.gov/civilrights/file/titlevi.cfm or by using the following contact information: Federal Highway Administration, Office of Civil Rights, 1200 New Jersey Avenue, SE, 8th Floor E81-105, Washington, D.C. 20590; 202.366.0693; FHWA.TitleVIcomplaints@dot.gov.

The following information must be included when filing a complaint:

- Complainant's contact information
- Basis of complaint (e.g. race, color, national origin)
- Person and/or agency alleged to have discriminated
- Date(s) the alleged discrimination occurred
- Explanation of what happened

(Once the formal complaint is received, the City of Canton will send an acknowledgement letter within 10 business days, and then forward to ODOT for further review.

City of Canton maintains a list of any complaints filed against our agency) that allege discrimination based on race, color, national origin, sex,age, disability, or low-income status as it relates to our programs and services whether initially filed with our agency, with ODOT or FHWA, or with another entity (e.g. – Court of Common Pleas.

Data Collection and Analysis

City of Canton has developed procedures for collecting and analyzing data of the participants and beneficiaries of our programs and services we provide. We review this data to identify any indicators of potential discrimination whether intentional or a result of disparate impact.

Public Involvement and Language Assistance

Public Involvement

A voluntary public involvement survey, if applicable, may be used to collect information regarding persons affected by proposed projects. The survey permits respondents to remain anonymous, while voluntarily answering questions regarding their gender, ethnicity, race, age, sex, disability status, and household income. This voluntary public involvement survey is available at all public hearings and meetings. Once the survey data has been collected, it will be reviewed and then the survey will be placed in a file for future reference. In the case enough surveys are collected over time to show a significant increase in LEP populations, the City may consider changes to their LEP policy. Completed surveys shall be retained for a period of three years from the date of the meeting and/or completion of the related project, if applicable.

Limited English Proficiency (LEP)

On August 11, 2000, President Clinton signed Executive Order 13166, entitled 'Improving Access to Services for Persons with Limited English Proficiency.' The Executive Order requires Federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency (LEP), and develop and implement a system to provide those services so LEP persons can have meaningful access to them. (This order applies to all) state (and local agencies which receive federal funds.) The guidance of this order outlines the following four factors to conduct an LEP assessment.

1) Determine the number or proportion of LEP persons served or likely to be encountered in the eligible service population
2) Assess the frequency with which LEP individuals come in contact with your programs, activities or services
3) Consider the nature and importance of the programs, activities or services provided
4) Evaluate the resources available and associated costs of providing interpretation and translation services

Summary of the Four Factor Analysis

Factor 1- The number and proportion of LEP persons eligible to be served or likely to be encountered by the City can only be estimated until the actual number of persons who can speak English less than "very well" are documented as needing assistance by City Staff . With this Title VI Plan being in early development stages and considered a document that may need regular updates, US Census Bureau information is being used at this time. The total population is provided below to shown general

distribution of race and ethnicity in the community. The estimated number of persons that may not speak English “very well” is following in the US Census Bureau 2006-2010 American Community Survey.

The U.S. Census Bureau provides statistics from 2010 for the City of Canton as follows:

Total population = 74,451

Population by Ethnicity: Hispanic or Latino = 1,805. Non Hispanic or Latino = 72,646

Population by Race:

White = 53,150 African American = 16,854, Asian = 193, American Indiana or Alaska Native = 372, Native Hawaiian and Pacific Islander = 0, Other = 431, Identified by two or more = 3,451.

The US Census Bureau 2006-2010 American Community Survey 5-Year Estimates under SELECTED SOCIAL CHARACTERISTICS estimates the number of people in Canton who speak a language other than English to be 2,945 with those speaking English less than “very well” estimated at 1.0% or approximately 983 individuals who may be considered limited in English proficiency.

Factor 1(continued)- According to the census numbers above there may be up to 983 individuals who live in the City of Canton that *may* be considered as LEP. Based on actual contact between City Staff and the community there have been very few requests from anyone in the service area asking the City to provide language translation services. Therefore, the LEP population is probably even less than the estimate shown above.

Factor 2- The frequency with which LEP individuals come into contact with the program, activity or service:

Due to the infrequent requests for translation services, there appears to be a minimal need for translation services from the City. This may be attributed to the high percentage of younger people (87.6% for ages up to 17) who are available as family members for translation services.

Factor 3. The nature and importance of the program, activity, or service provided by the program:

If at any time a LEP individual requests translation services that are considered important such that denial or delay of access or services or information could have serious or even life-threatening implications, the City will provide, upon request, services to assist the LEP population including translation of vital City documents and interpretation services.

Factor 4. The resources available to the City and costs:

The City of Canton currently has several staff members who are bilingual in English and Spanish and are available to translate requests from the Hispanic population on a day to day basis. The City also provides many of their outreach services in the predominate languages of the community, English and Spanish. In addition, certified translation services are available through LanguageLine Solutions, a telephone translation service that is accessible for phone line translations services 24 hours a day. These are services the City provides upon request as discussed in factor 3 above.

Summary of LEP Accommodation Plan ·

- The City of Canton strives to serve its population to the best of its ability and will provide upon request, services to assist the LEP population including translation of vital documents and interpretation services deemed necessary to provide meaningful access to City services.
    - A U.S. Census Bureau "I Speak" card is available as part of this document, on the City's webpage, and at the City Engineering Office, Building A, 2436 36th St NW, Canton Ohio 44702. This card allows LEP individuals to communicate their preferred language to City Staff. Staff members can access a translation service called Language Line, phone number 1-800-752-6096. Other translation services may be used as determined by the City.
- For language translation requests from the Hispanic or Latino community the City has several staff members who are bilingual and are available to provide translation services on a day to day basis. ·

Appendix A

Appendix A – Assurances

As part of its assurance to comply with Title VI, as provided by DOT Order 1050.2A, City of Canton includes the following nondiscrimination language in its bid documents and contracts.

For bid documents

City of Canton in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, all bidders including disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, disability, low-income status, or limited English proficiency in consideration for an award.

For contracts

Insert the clauses of Appendix A and Appendix E.

For real estate instruments

[Insert Appendix B into deeds transferring United States property *(*Appendix B only applies to direct transfers from the United States and is rarely used.)*]

[Insert Appendix C into instruments transferring real property]

[Insert Appendix D into instruments for the construction, use, or access to real property]

APPENDIX B

This is applicable when acquiring federally owned land

The following clauses shall be included in any and all deeds effecting or recording the transfer of real property, structures or improvements thereon, or interest therein from the United States.

(GRANTING CLAUSE)

NOW, THEREFORE, the Department of Transportation, as authorized by law, and upon the condition that the **City of City of Canton, Ohio** will accept Title to the lands and maintain the project constructed thereon, in accordance with (Name of Appropriate Legislative Authority), the Regulations for the Administration of the Federal Aid Transportation Program and the policies and procedures prescribed by ODOT or FHWA of the Department of Transportation and, also in accordance with and in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter referred to as the Regulations) pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. .2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **City of Canton, Ohio** all the right, Title and interest of the Department of Transportation in and to said lands described in Exhibit "A" attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto **City of Canton, Ohio** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and shall be binding on the **City of Canton, Ohio,** its successors and assigns.

The **City of Canton, Ohio**, in consideration or the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person shall on the grounds of race, color, or national origin, he excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on over or under such lands hereby conveyed [,] [and)* (2) that the **City of Canton, Ohio** shall use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Sub-Title A, Office of the Secretary, Part 21, Nondiscrimination in federally assisted programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended [,] and (3) that in the event of breach of any of the above-mentioned nondiscrimination conditions, the Department shall have a right to reenter said lands and facilities on said land, and the above described land and facilities shall thereon revert to and vest in and become the absolute property of the Department of Transportation and its assigns as such interest existed prior to this instruction.*

* Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to effectuate the purposes of Title VI of the Civil Rights Act of 1964.

APPENDIX C

If land is acquired through the federal highway program

and the City sells or leases the property to another entity Appendix C is applicable

The following clauses shall be included in all deeds, licenses, leases, permits, or similar instruments entered into by the **City of Canton, Ohio** pursuant to Assurance 7.

The (grantee, licensee, lessee, permittee, etc., as appropriate) for himself, his heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that in the event facilities are constructed, maintained, or otherwise operated on the said property described in this (deed, license, lease, permit, etc.) for a purpose for which a Department of Transportation program or activity is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permitee, etc.) shall maintain and operate such facilities and services in compliance with all other requirements imposed pursuant to Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations may be amended.
[Include in licenses, leases, permits, etc.]*

That in the event of breach of any of the above nondiscrimination covenants, **City of Canton, Ohio** shall have the right to terminate the [license, lease, permit, etc.] and to re-enter and repossess said land and the facilities thereon, and hold the same as if said [licenses, lease, permit, etc.] had never been made or issued.
[Include in deed.]*

That in the event of breach of any of the above nondiscrimination covenants, the **City of Canton, Ohio** shall have the right to reenter said lands and facilities thereon, and the above described lands and facilities shall thereupon revert to and vest in and become the absolute property of the **City of Canton, Ohio** and its assigns.

The following shall be included in all deeds, licenses, leases, permits, or similar agreements entered into by the **City of Canton, Ohio** pursuant to the provisions of Assurance 7.

The (grantee, licensee, lessee, permitee, etc., as appropriate) for himself, his personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds, and leases add "as a covenant running with the land") that (1) no person on the ground of race, color. or national origin shall be excluded from participation in, denied the benefits of, or he otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over or under such land and the furnishing of services thereon, no person on the ground of, race, color, or national origin shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permitee, etc.) shall use the premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations. Department of Transportation, Sub-Title A, Office of the Secretary. Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation - Effectuation of Title VI of the Civil Rights Act of 1964), and as said Regulations may be amended.
[Include in licenses, leases, permits, etc.]*

* Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to effectuate the purposes of Title VI of the Civil Rights Act of 1964.

That in the event of breach of any of the above nondiscrimination covenants, **City of Canton, Ohio** shall have the right to terminate the [license, lease, permit, etc.] and to reenter and repossess said land and the facilities thereon, and hold the same as if said [license, lease, permit, etc.] had never been made or issued.

[Include in deeds]*

That in the event of breach of any of the above nondiscrimination covenants, **City of Canton, Ohio** shall have the right to reenter said land and facilities there-on, and the above described lands and facilities shall thereupon revert to and vest in and become the absolute property of **City of Canton, Ohio** and its assigns.

* Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to effectuate the purposes of Title VI of the Civil Rights Act of 1964.

APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into *by pursuant to the provisions of assurance 7(6*

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, (***Title of Recipient***) will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, (***Title of Recipient***) will there upon revert to and vest in and become the absolute property of (***Title of Recipient***) and its assigns.*

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

APPENDIX E

During the performance ofthis contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred toas the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C.§ 2000d *et seq.,* 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C.§ 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.),* (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C.§ 794 *et seq.),* as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.),* (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC§ 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 - 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to

  ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

PID 90465, 11th St SE Realignment and streetscape, GP1144

Proposal Page

REF	ITEM	DESCRIPTION	QTY	UNIT	Labor Unit Cost	Material Unit Cost	Total Unit Cost	Total Item Cost
		ROADWAY						
1	201E11000	CLEARING AND GRUBBING	1	LS				
2	202E23000	PAVEMENT REMOVED	15,069	SY				
3	202E30000	WALK REMOVED	50,324	SF				
4	202E30800	TRAFFIC ISLAND REMOVED	72	SY				
5	202E32000	CURB REMOVED	8,172	FT				
6	202E32500	CURB AND GUTTER REMOVED	663	FT				
7	202E34900	PIPE REMOVED	1,599	FT				
8	202E35100	PIPE REMOVED, 24" AND UNDER	1,407	FT				
9	202E38000	GUARDRAIL REMOVED	66	FT				
10	202E58000	MANHOLE REMOVED	23	EACH				
11	202E58100	CATCH BASIN REMOVED	48	EACH				
12	202E66500	UNDERGROUND STORAGE TANK REMOVED	1	EACH				

13	202E75000	FENCE REMOVED	644	FT				
14	202E98100	REMOVAL MISC.:BILLBOARD REMOVED	1	EACH				
15	202E75610	VALVE BOX REMOVED	27	EACH				
16	202E98600	ABANDON MISC.: MANHOLE ABANDONED IN PLACE	15	EACH				
17	202E98700	ABANDON MISC.:PIPE ABANDONED IN PLACE	4,714	FT				
18	202E98600	ABANDON MISC.: PLUG 8" AND SMALLER SANITARY CONDUIT, AS PER PLAN	12	EACH				
19	202E98600	ABANDON MISC.: LAMPHOLE	1	EACH				
20	202E98600	ABANDON MISC.: BULKHEAD, GROUT AND ABANDON SANITARY SEWER, AS PER PLAN	2	EACH				
21	202E98600	ABANDON MISC.: MONITORING WELL	1	EACH				
22	203E10000	EXCAVATION	3,022	CY				
23	203E20000	EMBANKMENT	4,278	CY				
24	203E35110	GRANULAR MATERIAL, TYPE B, 703.16C	1,761	CY				
25	204E10000	SUBGRADE COMPACTION	17,322	SY				
26	204E13000	EXCAVATION OF SUBGRADE	584	CY				
27	204E45000	PROOF ROLLING	7	HOUR				

28	204E50000	GEOTEXTILE FABRIC, 712.09, TYPE D NON-WOVEN	534	SY				
29	608E10000	5" CONCRETE WALK	62,518	SF				
30	608E52000	CURB RAMP	3,994	SF				
31	608E98000	WALKWAY, MISC.:BRICK WALKWAY PAVERS	4,538	SF				
32	608E98000	WALKWAY, MISC.:CONCRETE BASE	4,538	SF				
33	690E65016	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	2,521	TON				
34	690E98200	1 INCH COMPACTED SAND BASE, 703.02	22,297	SF				
35	690E98200	ROADWAY BRICK PAVERS	17,760	SF				
36	690E65024	WORK INVOLVING REGULATED WATER	1,000	GAL				
37	690E65022	WORK INVOLVING NON-REGULATED WATER	1,000	GAL				
38	690E65010	WORK INVOLVING SOLID WASTE	50	TON				
39	690E65000	WORK INVOLVING NON-REGULATED MATERIALS	50	TON				
EROSION CONTROL								
39	659E00100	SOIL ANALYSIS TEST	2	EACH				
40	659E00300	TOPSOIL	1,258	CY				

41	659E00500	SEEDING AND MULCHING, CLASS 1	11,333	SY				
42	659E14000	REPAIR SEEDING AND MULCHING	567	SY				
43	659E15000	INTER-SEEDING	567	SY				
44	659E20000	COMMERCIAL FERTILIZER	2	TON				
45	659E31000	LIME	2	ACRE				
46	659E35000	WATER	62	MGAL				
47	832E15000	STORM WATER POLLUTION PREVENTION PLAN	1	LS				
48	832E15002	STORM WATER POLLUTION PREVENTION INSPECTIONS	1	LS				
49	832E15010	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	1	LS				
50	832E30000	EROSION CONTROL	102,375	EACH				
		DRAINAGE						
51	605E14020	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	6,629	FT				
52	611E00510	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	540	FT				
53	611E00900	6" CONDUIT, TYPE B, 707.45	24	FT				
54	611E01800	8" CONDUIT, TYPE B , 707.45	10	FT				

55	611E04400	12" CONDUIT, TYPE B, 706.02	189	FT				
56	611E04400	12" CONDUIT, TYPE B, 707.33	965	FT				
57	611E05900	15" CONDUIT, TYPE B, 706.02	105	FT				
58	611E05900	15" CONDUIT, TYPE B, 707.33	434	FT				
59	611E07400	18" CONDUIT, TYPE B, 706.02	134	FT				
60	611E10400	24" CONDUIT, TYPE B, 706.02	59	FT				
61	611E22400	54" CONDUIT, TYPE B, 706.02	16	FT				
62	611E98370	CATCH BASIN, NO. 6	1	EACH				
63	611E98631	CATCH BASIN ADJUSTED TO GRADE, AS PER PLAN	21	EACH				
64	611E98870	INLET, NO. 2-A-12	2	EACH				
65	611E99655	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	39	EACH				
66	611E99900	DRAINAGE STRUCTURE, MISC.:CITY OF CANTON CURB INLET CATCH BASIN	45	EACH				
67	611E99900	DRAINAGE STRUCTURE, MISC.:CITY OF CANTON MANHOLE	6	EACH				
68	611E99920	DRAINAGE STRUCTURE, MISC.: JUNCTION CHAMBER	1	LS				
69	611E99582	MANHOLE, NO. 3 WITH 90" BASE I.D. AND 8" WEIR	1	EACH				

70	611E99584	MANHOLE, NO. 3 WITH 96" BASE I.D. AND 9" WEIR	1	EACH				
71	611E99621	MANHOLE, NO. 5, AS PER PLAN	1	EACH				
72	895E10020	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 2	1	EACH				
73	895E10030	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 3	1	EACH				
		PAVEMENT						
74	254E01000	PAVEMENT PLANING, ASPHALT CONCRETE	30,577	SY				
75	301E46000	ASPHALT CONCRETE BASE, PG64-22	1,936	CY				
76	304E20000	AGGREGATE BASE	3,849	CY				
77	305E10010	6" CONCRETE BASE, CLASS QC 1P	1,974	SY				
78	407E10000	TACK COAT	5,063	GAL				
79	407E20000	NON-TRACKING TACK COAT	59	GAL				
80	424E10000	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	879	CY				
81	441E70300	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	2,637	CY				
82	441E70500	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	18	CY				
83	441E70700	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)	10	CY				

84	452E14010	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	359	SY				
85	609E22001	CURB, TYPE 3-B, AS PER PLAN	707	FT				
86	609E98000	CURB, MISC.:CONCRETE CURB, CANTON TYPE 1	10,597	FT				
87	609E98000	CURB, MISC.:CONCRETE CURB, CANTON TYPE 1 - 18" X 18"	216	FT				
		SANITARY SEWER						
88	611E00100	4" CONDUIT, TYPE B	9	FT				
89	611E97400	4" SANITARY LATERAL RECONNECTED, COMPLETE, AS PER PLAN	66	FT				
90	611E00900	6" CONDUIT, TYPE B	152	FT				
91	611E01800	8" CONDUIT, TYPE B	1,014	FT				
92	611E01801	8" CONDUIT, TYPE B, AS PER PLAN, 748.02	108	FT				
93	611E04400	12" CONDUIT, TYPE B	1,223	FT				
94	611E07400	18" CONDUIT, TYPE B	10	FT				
95	611E08900	21" CONDUIT, TYPE B	71	FT				
96	611E13400	30" CONDUIT, TYPE B	2,571	FT				
97	611E99654	MANHOLE ADJUSTED TO GRADE	6	EACH				

98	611E99900	DRAINAGE STRUCTURE, MISC.:CITY OF CANTON MANHOLE	33	EACH				
99	611E99900	MANHOLE WITH OUTSIDE DROP CONNECTION, COMPLETE, AS PER PLAN	1	EACH				
100	611E99900	DRAINAGE STRUCTURE, MISC.: SANITARY CLEANOUT	1	EACH				
101	611E99900	DRAINAGE STRUCTURE, MISC.: SANITARY WYE	18	EACH				
102	611E99900	DRAINAGE STRUCTURE, MISC.: 21" COUPLER, AS PER PLAN	1	EACH				
103	690E21000	SANITARY SEWER BYPASS PUMPING, AS PER PLAN	1	LS				
		WATER WORK						
104	638E00600	6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	328	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
105	638E01200	8" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	293	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
106	638E01804	10" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	19	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
107	638E02404	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS, AS PER PLAN	3,165	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
108	638E07800	6" GATE VALVE AND VALVE BOX, AS PER PLAN	3	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
109	638E07900	8" GATE VALVE AND VALVE BOX, AS PER PLAN	2	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
110	638E08000	10" GATE VALVE AND VALVE BOX, AS PER PLAN	1	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
111	638E08100	12" GATE VALVE AND VALVE BOX, AS PER PLAN	8	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS

112	638E10200	6" FIRE HYDRANT	7	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
113	638E10480	FIRE HYDRANT REMOVED	7	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
114	638E10800	VALVE BOX ADJUSTED TO GRADE	10	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
115	638E20772	1" POLYETHYLENE WATER SERVICE LINE , CITY OF CANTON STANDARD, AS PER PLAN	115	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
116	638E20776	1 1/2" POLYETHYLENE WATER SERVICE LINE , CITY OF CANTON STANDARD, AS PER PLAN	73	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
117	638E20780	2" POLYETHYLENE WATER SERVICE LINE , CITY OF CANTON STANDARD, AS PER PLAN	46	FT	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
118	638E20876	CUT AND PLUG EXISTING 4" WATER LINE	1	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
119	638E20878	CUT AND PLUG EXISTING 6" WATER LINE	5	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
120	638E20880	CUT AND PLUG EXISTING 8" WATER LINE	3	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
121	638E20882	CUT AND PLUG EXISTING 10" WATER LINE	2	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
122	638E20884	CUT AND PLUG EXISTING 12" WATER LINE	2	EACH	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
123	638E98100	CONNECTION FOR EX. 30" CONCRETE PIPE AND PR. 12" DIP	1	LS	BY OTHERS	BY OTHERS	BY OTHERS	BY OTHERS
		LIGHTING						
121	625E00450	CONNECTION, FUSED PULL APART	300	EACH				
122	625E00460	CONNECTION, UNFUSED PULL APART	100	EACH				

123	625E10481	LIGHT POLE, DECORATIVE, AS PER PLAN	92	EACH				
124	625E14600	LIGHT POLE FOUNDATION, MISC.: 30" X 6' DEEP	92	EACH				
125	625E22990	NO. 6 AWG 600 VOLT DISTRIBUTION CABLE	46,000	FT				
126	625E23410	NO. 12 AWG POLE AND BRACKET CABLE	12,360	FT				
127	625E25402	CONDUIT, 2", 725.05	8,749	FT				
128	625E25403	CONDUIT, 2", 725.05, AS PER PLAN	1,466	FT				
129	625E25902	CONDUIT, JACKED OR DRILLED, 725.04 ,2"	89	FT				
130	625E26251	LUMINAIRE, CONVENTIONAL, AS PER PLAN	8	EACH				
131	625E27551	LUMINAIRE, DECORATIVE, AS PER PLAN	184	EACH				
132	625E29000	TRENCH	9,453	FT				
133	625E31600	PULL BOX, MISC.: 725.06 (17" X 30")	38	EACH				
134	625E32000	GROUND ROD	92	EACH				
135	625E34001	POWER SERVICE, AS PER PLAN	2	EACH				
136	625E36010	UNDERGROUND WARNING/MARKING TAPE	9,453	FT				
137	625E40000	MAINTAIN EXISTING LIGHTING	1	LS				

138	625E75400	LIGHT POLE REMOVED	22	EACH				
139	625E75500	LIGHT POLE FOUNDATION REMOVED	22	EACH				
140	625E75506	LUMINAIRE REMOVED	32	EACH				
141	625E75510	POWER SERVICE REMOVED	1	EACH				
142	625E75800	DISCONNECT CIRCUIT	32	EACH				
143	625E76000	ARC FLASH CALCULATIONS AND LABEL (CC)	2	EACH				
		TRAFFIC CONTROL						
144	630E02100	GROUND MOUNTED SUPPORT, NO. 2 POST	337.7	FT				
145	630E03100	GROUND MOUNTED SUPPORT, NO. 3 POST	528.9	FT				
146	630E08520	STREET NAME SIGN SUPPORT, NO. 3 POST	40.4	FT				
147	630E08600	SIGN POST REFLECTOR	12	EACH				
148	630E79500	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	47	EACH				
149	630E80100	SIGN, FLAT SHEET	625	SF				
150	630E80500	SIGN, DOUBLE FACED, STREET NAME	6	EACH				
151	630E84900	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	53	EACH				

152	630E85100	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	3	EACH				
153	630E86002	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	33	EACH				
154	630E87400	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	3	EACH				
155	630E87500	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	22	EACH				
156	630E87520	REMOVAL OF POLE MOUNTED SIGN AND REERECTION	4	EACH				
157	630E89704	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL, TYPE TC-16.21	1	EACH				
158	644E00104	EDGE LINE, 6"	0.35	MILE				
159	644E00200	LANE LINE, 4"	1.10	MILE				
160	644E00300	CENTER LINE	1.89	MILE				
161	644E00400	CHANNELIZING LINE, 8"	3,597	FT				
162	644E00500	STOP LINE	379	FT				
163	644E00600	ITEM CODE DOES NOT EXIST IN ITEM MASTER	644	LS				
164	644E00601	ITEM CODE DOES NOT EXIST IN ITEM MASTER	170	LS				
165	644E00700	TRANSVERSE/DIAGONAL LINE	902	FT				
166	644E00900	ISLAND MARKING	25	SF				

167	644E01000	RAILROAD SYMBOL MARKING	8	EACH				
168	644E01300	LANE ARROW	69	EACH				
169	644E01510	DOTTED LINE, 6"	141	FT				
170	644E01514	DOTTED LINE, 8"	150	FT				
171	644E01520	DOTTED LINE, 12"	137	FT				
172	644E01630	BIKE LANE SYMBOL MARKING	10	EACH				
173	644E19000	SHARED LANE MARKING	4	EACH				
174	644E20800	YIELD LINE	72	FT				
		TRAFFIC SIGNALS						
175	625E25402	CONDUIT, 2", 725.05	78	FT				
176	625E25403	CONDUIT, 2", 725.05, AS PER PLAN	92	FT				
177	625E25502	CONDUIT, 3", 725.05	2,163	FT				
178	625E25503	CONDUIT, 3", 725.05, AS PER PLAN	798	FT				
179	625E25603	CONDUIT, 4", 725.05, AS PER PLAN	1,415	FT				
180	625E29000	TRENCH	1,085	FT				

181	625E31600	PULL BOX, MISC.: 725.06 (17" X 30")	9	EACH				
182	625E31600	PULL BOX, MISC.: 725.06 (36" X 36")	18	EACH				
183	625E32000	GROUND ROD	10	EACH				
184	625E36010	UNDERGROUND WARNING/MARKING TAPE	1,085	FT				
185	625E76000	ARC FLASH CALCULATIONS AND LABEL	2	EACH				
186	630E79101	SIGN HANGER ASSEMBLY, MAST ARM, AS PER PLAN	11	EACH				
187	630E80100	SIGN, FLAT SHEET	65	SF				
188	632E05007	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	10	EACH				
189	632E05087	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE, AS PER PLAN	9	EACH				
190	632E20731	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	6	EACH				
191	632E25000	COVERING OF VEHICULAR SIGNAL HEAD	19	EACH				
192	632E25010	COVERING OF PEDESTRIAN SIGNAL HEAD	6	EACH				
193	632E26000	PEDESTRIAN PUSHBUTTON	6	EACH				
194	632E40700	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	4,026	FT				
195	632E64011	SIGNAL SUPPORT FOUNDATION, AS PER PLAN	8	EACH				

196	632E64021	PEDESTAL FOUNDATION, AS PER PLAN	2	EACH				
197	632E68101	POWER CABLE, 1 CONDUCTOR, NO. 6 AWG, AS PER PLAN	372	FT				
198	632E70001	POWER SERVICE, AS PER PLAN	2	EACH				
199	632E81700	COMBINATION SIGNAL SUPPORT, MISC.: NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 2	1	EACH				
200	632E81700	COMBINATION SIGNAL SUPPORT, MISC.:NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12	6	EACH				
201	632E81700	COMBINATION SIGNAL SUPPORT, MISC.:NOSTALGIA SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 14	1	EACH				
202	632E90010	PEDESTAL, MISC.:NOSTALGIA PEDESTAL 8'	2	EACH				
203	632E90101	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN	2	EACH				
204	633E67100	CABINET FOUNDATION	2	EACH				
205	633E67200	CONTROLLER WORK PAD	2	EACH				
206	633E75001	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	2	EACH				
207	633E99000	CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS1	2	EACH				
208	804E20050	FIBER OPTIC CABLE, ARMORED, 48 FIBER	3,081	FT				
209	804E30010	FAN-OUT KIT, 12 FIBER	4	EACH				
210	804E32010	DROP CABLE, 12 FIBER	2	EACH				

211	804E33990	FIBER OPTIC PATCH CORD, 1 FIBER	4	EACH				
212	804E34022	FIBER TERMINATION PANEL, 24 FIBER	2	EACH				
213	804E35000	FUSION SPLICE	24	EACH				
214	804E37000	SPLICE ENCLOSURE, BUTT STYLE	2	EACH				
215	804E37500	FIBER OPTIC CONNECTOR	4	EACH				
216	804E37700	FIBER OPTIC CABLE TESTING	1	LS				
217	804E38000	FIBER OPTIC CABLE MODEM	2	EACH				
218	809E60040	CCTV IP-CAMERA SYSTEM, QUAD MULTI-VIEW FIXED WITH PTZ	2	EACH				
219	809E69200	EMERGENCY VEHICLE PREEMPTION	2	EACH				
220	809E69210	PREEMPT RECEIVING UNIT	8	EACH				
221	809E69220	PREEMPT DETECTOR CABLE	1,610	FT				
222	809E69230	PREEMPT PHASE SELECTOR	2	EACH				
223	816E30000	VIDEO DETECTION SYSTEM	2	EACH				
		LANDSCAPING						
224	203E20000	EMBANKMENT	150	CY				

225	203E98600	ROADWAY, MISC.:FLAGPOLE, 30' HEIGHT	2	EACH				
226	203E98600	ROADWAY, MISC.:FLAGPOLE, 35' HEIGHT	1	EACH				
227	203E98600	ROADWAY, MISC.:LANDSCAPE BOULDER	16	EACH				
228	203E98300	ROADWAY, MISC.:METAL EDGER	130	FT				
229	653E10001	TOPSOIL FURNISHED AND PLACED, AS PER PLAN	55	CY				
230	661E00501	MULCH, AS PER PLAN	20	CY				
231	661E14000	PERENNIALS(PANICUM VIRGATUM 'SHENANDOAH')	140	EACH				
232	661E14000	PERENNIALS(PENNISETUM ALOPECUROIDES 'LITTLE BUNNY')	130	EACH				
233	661E14000	PERENNIALS(SPOROBOLUS HETEROLEPIS)	180	EACH				
234	661E40141	DECIDUOUS TREE, 4" CALIPER, AS PER PLAN(QUERCUS ROBUR 'FASTIGIATA')	4	EACH				
235	661E99900	PLANTING, MISC.:TREE FRAME AND GRATE	27	EACH				
236	661E99930	PLANTING, MISC.:SUBGRADE TILLING	350	SY				
237	661E99930	PLANTING, MISC.:WEED BARRIER MAT	350	SY				
		MAINTENANCE OF TRAFFIC						
238	410E13000	TRAFFIC COMPACTED SURFACE, TYPE 3	150	CY				

239	614E13000	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	500	CY				
240	614E18601	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	72	SNMT				
241	614E40051	BUSINESS ENTRANCE SIGN, AS PER PLAN	11	EACH				
242	614E11110	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	400	HOUR				
243	614E21100	WORK ZONE CENTER LINE, CLASS I, 642 PAINT	1	MILE				
244	614E22100	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT	1	MILE				
245	614E24200	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT	598	FT				
246	614E30200	WORK ZONE ARROW, CLASS I, 642 PAINT	4	EACH				
247	614E25200	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT	158	FT				
248	616E10000	WATER	150	MGAL				
		INCIDENTALS						
249	614E11000	MAINTAINING TRAFFIC	1	LS				
250	619E16010	FIELD OFFICE, TYPE B	24	MNTH				
251	623E10000	CONSTRUCTION LAYOUT STAKES AND SURVEYING	1	LS				
252	624E10000	MOBILIZATION	1	LS				
							Total	

Base Bid Price in Figures _____

Base Bid Price in Words _____

We (I), the below signed hereby propose to furnish the following article(s) and/or service(s) at the price(s) and terms stated subject to all instructions, conditions, specifications, and all attachments hereto. We (I) have read all attachments including the specifications and fully understand what is required.

Base Bid Prices are for Informational Purposes Only.

Total Unit Prices Will Govern

Signature Page

STA 11th St SE Improvements Project, GP1144, PID 90465

To the Director of Public Service of the City of Canton:

The undersigned, having carefully examined the complete invitation to bid, herewith proposes to furnish all of the goods and/or services contained within the bid for **STA 11th St SE Improvements Project, GP1144, PID 90465** in accordance with all specifications on file to the satisfaction of the Director of Public Service of said City.

The bidder hereby agrees that the Director of Public Service has the right to reject any and all bids and to accept the bid(s) deemed most beneficial to the City of Canton.

The bidder herewith encloses a _____**(Bid Bond, Certified/Cashier's Check)** in the sum of $ _____ dollars made payable to the CITY OF CANTON as a guaranty that if awarded the contract _____ will enter into contract therefore, within the prescribed time of ten (10) days from the date of service of notice of award, otherwise such bond or checks shall become the property of said City.

The bidder acknowledges receipt of Addenda Numbers: _____

SIGNATURE OF BIDDER: _____

NOTE: If bidder is a corporation, set forth the legal name of the corporation, together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If bidder is a partnership, set forth the name of the firm, together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Please have this page Notarized.