# STA-13th Street NW Request for Qualifications The City of Canton

# Addendum 1

# City of Canton, Ohio

Purchasing Department 218 Cleveland Ave. SW, 4<sup>th</sup> floor Canton, Ohio 44702

Contact Person	Phone No.	Email Address
City	State	Zip
Street Address		
Company Name		
Qı	ualifications Submitted By:	
Qualifications Due On o	or Before	
April 4, 2020 at 4:00 PM lo	ocal time	
Engineering  Responsible Departmen	nt .	
Item/Project		
STA-13th Street NW Request for (	Qualifications	
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# STA-13th Street NW Request for Qualifications The City of Canton

1. Conceptual plans and drawings are provided for informational purposes.

**End of Addendum** 



PORTION TO BE IMPROVED

DESIGN DESIGNATION

CURRENT A.D.T. (2019) = 15,800DESIGN YEAR A.D.T. (2039) = 15.800DESIGN SPEED = 35 MPH

LEGAL SPEED = 35 MPH

FUNCTIONAL CLASSIFICATION = PRINCIPAL ARTERIAL

## UNDERGROUND UTILITIES TWO WORKING DAYS **BEFORE YOU DIG** CALL 1-800-362-2764(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY

PLAN PREPARED BY:

OFFICE OF THE CITY ENGINEER CANTON, OHIO

DANIEL J. MOEGLIN, P.E., CITY ENGINEER 2436 30th STREET N.E. 44705 (330)489-3381

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ENGINEERS SEAL:	ENGINEERS SEAL:	1
NICHOLAS LOUKAS E-69140 SIGNED:  OATE: 02-25-2020	ANTHONY MICHAEL PISANELLI E-81796  SIGNED: Anthory Disault DATE: 02-18-2020	1
SHEETS: 1-8. 10-16	SHEETS: 9. 12	-

# CITY OF CANTON **13TH STREET NW** RECONSTRUCTION G.P. 1248 PID 104873

**CANTON, OHIO** 

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CANTON STANDARD CONST. DWGS.	<b>APPENDIX</b>

## PROJECT DESCRIPTION

THE PROJECT SHALL CONSIST OF REMOVAL OF EXISTING CONCRETE ROADWAY AND CONSTRUCTION OF A NEW ASPHALT ROADWAY. ROADWAY WORK INCLUDES NEW CURBS. CATCH BASIN RECONSTRUCTIONS, CASTING ADJUSTMENTS. NEW SIDEWALK AND STREETSCAPING (DECORATIVE STREET LIGHTS, TREE GRATES, BRICK BOXES) ON THE SOUTH SIDE OF THE ROAD. THE PROJECT ALSO INCLUDES SANITARY SEWER WORK WHICH CONSISTS OF A NEW 8" DIAMETER GRAVITY SEWER AND REPLACEMENT 10" DIAMETER FORCE

PROJECT EARTH DISTURBED AREA: 2.66 ACRES ESTIMATED CONTRACTOR EARTH DISTRUBED AREA: 0.25 ACRES NOTICE OF INTENT EARTH DISTURBED AREA: 4.90 ACRES

## 2019 SPECIFICATIONS

SUPPLEMENTAL

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO. DEPARTMENT OF TRANSPORTATION AND THE CITY OF CANTON, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

> CITY OF CANTON, OHIO MAYOR THOMAS M. BERNABEI

DIRECTOR OF PUBLIC SERVICE JOHN HIGHMAN

DIRECTOR OF PUBLIC SAFETY ANDREA PERRY

WARD COUNCIL MEMBER GREG HAWK, WARD 1

CITY CIVIL ENGINEER DANIEL J. MOEGLIN, P.E.

STANDARD CONSTRUCTION DRAWINGS **SPECIFICATIONS** ODOT ODOT CANTON ODOT BP-3.1 10/18/19 MT-95.31 7/19/19 832 10/19/18 STD. DWG. 1 MT-95.32 4/19/19 STD. DWG. 10 APP 907 10/18/19 HL-30.22 1/17/14 MT-95.41 7/21/17 STD. DWG. 11 MT-95.50 7/21/17 STD. DWG. 12 TC-41.20 10/18/13 MT-99.20 4/19/19 STD. DWG. 13 TC-71.10 1/19/18 MT-101.90 7/21/17 STD. DWG. 18 CANTON MT-105.10 7/19/13 STD. DWG. 19 SS-01 STD. DWG. 20 SS-02-00 STD. DWG. 27 SS-03-00 SS-04-01 STD. DWG. 29 STD. DWG. 30 STD. DWG. 40 STD. DWG. 41 STD. DWG. 42 SPECIAL STD. DWG. 43 **PROVISIONS** STD. DWG. 62 STD. DWG. 63

> STD, DWG, 64 STD. DWG. 65

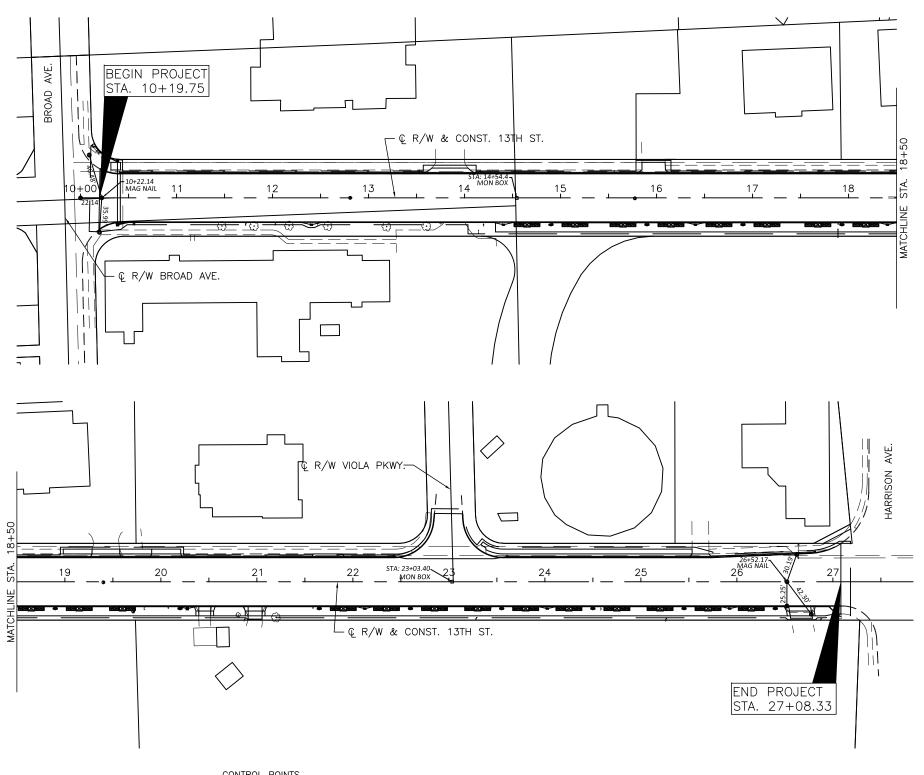
CITY ENGINEER, CITY OF CANTON

E OF THE CITY ENGINEER
CANTON, OHIO
BL.J. MOEGLIN, P.E., CITY ENGINEER
5. 30th STREET NE. 44705 (330)489-3361

RECONSTRUCTION MN STREET 13TH

104873 PID

INVOLVEMENT RAILROAD



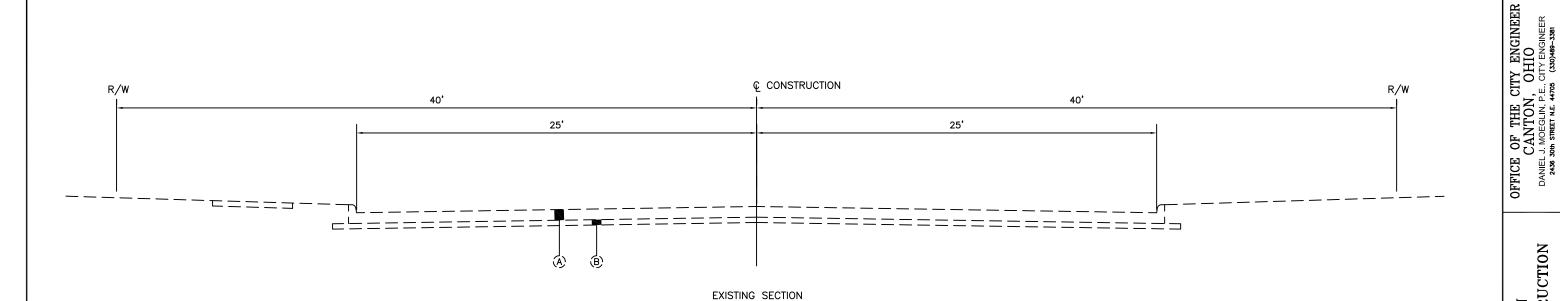
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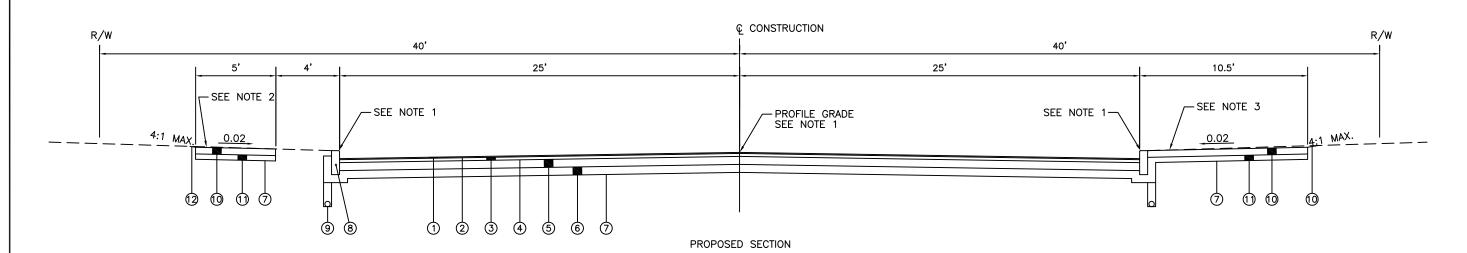
1. THE BEARING OF THE CENTERLINE OF 13TH ST. COINCIDES WITH THE EXISTING CENTER PAVEMENT JOINT.

2. STATIONING IS TIED TO PK NAILS LOCATED ALONG THE CENTER JOINT.

CONTR	OL POINTS			
ID	NORTHING	EASTING	ELEV.	DESCRIPTION
BM1	419114.304	2272994.365	1103.09	BM -CHISLED X ON THE SOUTH BONET BOLT ON A FH LOCATED ON THE NW CORNER OF 13 ST & VIOLA PKWY
BM2	418978.685	2273416.565	1104.08	BM -NE CORNER OF A CONC. PAD FOR A TRANSFORMER LOCATED ON THE SW CORNER OF 13TH ST & HARRISON AVE
вм3	419031.651	2272717.192	1095.53	BM -BENCH TIE APPROX. 1' UP THE NORTH SIDE OF A PP ID#AEP 795A3-268 LOCATED ON THE SOUTH SIDE OF 13TH ST. 285 FT WEST OF VIOLA PKWY.
CP1	419361.657	2273038.306	1111.04	CNPT -5/8IN X 30IN IRON REBAR W/ RED GPD CAP
CP2	419010.300	2273000.592	1098.30	CNPT -5/8IN X 30IN IRON REBAR W/ RED GPD CAP
CP3	419096.215	2272681.909	1095.06	CNPT -5/8IN X 30IN IRON REBAR W/ RED GPD CAP
CP4	419039.358	2273525.636	1105.24	CNPT -8IN MAGS
CP5	419010.344	2272724.712	1092.52	CNPT -8IN MAGS

ATE:3/22/19	DRAWN BY: NJL	REVISIONS				CERTOR OF THE CITY PAINTERD
SCALE:	APPROVED BY:	DESCRIPTION	DATE	₩	SCHEMATIC PLAN	OFFICE OF THE CITE ENGINEER
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UEET 2 OF 18	FILE NAME: 13th Ct Schematic			Τ		2436 30th STREET N.E. 44705 (330)489-3381
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## <u>LEGEND</u>

- 1 424 3/4" FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A
- 3 441 2 1/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
- 407 TACK COAT FOR INTERMEDIATE COURSE
- 5 301 6" ASPHALT CONCRETE BASE, PG 64-22
- 6 304 6" AGGREGATE BASE
- 7 204 SUBGRADE COMPACTION
- 8 609 CURB, MISC.: CANTON CITY STANDARD
- 9 605 4" BASE PIPE UNDERDRAINS WITH FABRIC
- 10 608 5" CONCRETE WALK
- 1 304 4" AGGREGATE BASE
- 659 SEEDING AND MULCHING
- (A) EXISTING 8" REINFOCRED CONCRETE PAVEMENT
- (B) EXISTING 4" AGGREGATE BASE

- NOTES:

  1. PROPOSED ELEVATIONS SHALL MATCH EXISTING. THE CONTRACTOR SHALL DETERMINE EXISTING ELEVATIONS VIA SURVEY PRIOR TO REMOVAL.
- 2. REPLACE EXISTING WALK WHERE SHOWN IN PLANS. INSTALL NEW WALK BETWEEN STA. 23+33 AND STA. 25+53.
- 3. REFER TO STREETSCAPE PLAN AND CANTON CITY STANDARD DRAWINGS 40–43 FOR TREE GRATE AND BRICK BOX DETAILS.

DATE: 3/13/19	DRAWN BY: NJL	REVISIONS	
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V. SCALE: N/A	FIELD BOOK:		
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SHEEL 3 OF 18	FILE NAME: 15th St 1yp Sect		

TYPICAL SECTION ST. NW RECONSTRUCTION

13TH

THE DEVELOPER/CONTRACTOR SHALL COMPLY WITH THE CITY OF CANTON SUPPLEMENTAL SPECIFICATION 01-00 PROJECT DOCUMENTATION AND SUBMITTAL REQUIREMENTS.

## ADMINISTRATIVE REQUIREMENTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COMPLYING WITH ALL THE ADMINISTRATIVE DUTIES HEREIN CONTAINED.

THE CONTRACTOR SHALL DESIGNATE TO THE CITY AN EMPLOYEE RESPONSIBLE FOR CORRESPONDENCE, NOTIFICATIONS, AND SUBMITTALS PERTINENT TO THE PROJECT.

## PRECONSTRUCTION MEETING:

A PRECONSTRUCTION MEETING WITH THE 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.

## 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.

## 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.

## **UTILITY NOTIFICATION:**

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING OPERATIONS ON THIS PROJECT, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER, THE REGISTERED UTILITY PROTECTION AGENCY/SERVICE, AND THE OWNERS OF ANY OTHER UTILITIES (PUBLIC AND/OR PRIVATE) THAT MAY HAVE UTILITY LINES OR FACILITIES WITHIN THE VICINITY OF THIS PROJECT BUT WHO ARE NOT MEMBERS OF THE REGISTERED UTILITY PROTECTION SERVICE. THE OWNERS OF ANY UNDERGROUND UTILITY FACILITY SHALL, WITHIN 48 HOURS AFTER NOTICE IS RECEIVED, EXCLUDING SATURDAYS, SUNDAYS AND OTHER LEGAL HOLIDAYS; STAKE, MARK OR OTHERWISE DESIGNATE THE EXISTENCE AND/OR LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING AND/OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO WORKING DAYS AHEAD OF THE PLANNED CONSTRUCTION.

OHIO UTILITIES PROTECTION SERVICE: 1-800-362-2764 (CONTACT NON-MEMBERS DIRECTLY).

THE PRIMARY UTILITIES WITHIN THE CITY OF CANTON AREA:

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

COMMUNICATIONS CABLE CHARTER (SPECTRUM) 5520 WHIPPLE AVE N.W. NORTH CANTON, OHIO 44720 330-633-9203 ext. 216-555-4261 ATTN: MIKE MEYER 216-618-2528(CELL)

SANITARY AND STORM SEWER CITY ENGINEER'S OFFICE 2436-30TH ST. N.E. CANTON, OHIO 44705 ATTN: DAN MOEGLIN 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 WEST BOWERY STREET
AKRON, OHIO 44308
ATTN: STEVE HYLTON
330-384-3055
EMERGENCY NO. – 24 HRS
1-800-572-4545 OPTION#4

ELECTRIC

AMERICAN ELECTRIC POWER

AMERICAN ELECTRIC POWER

DO BOX 24400

CANTON, OHIO 44701-4400

330-438-7739

ATTN: MICHAEL ALLMAN

330-312-6981 (CELL)

ATTN: KEITH SCHALMO

330-438-7720

EMERGENCY NO.

1-800-672-2017

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.

[UTILITY CONTACTS LAST UPDATED 1/11/2018]

## EXPLORATORY BORINGS:

EXPLORATORY SOIL BORING INFORMATION IS NOT THE RESPONSIBILITY OF THE CITY OF CANTON. IT IS THE 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 CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AT LEAST 3 WORKING DAYS PRIOR TO THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY NOTIFICATION, AS SPECIFIED, ALL TRAFFIC CONTROL, PREMIUM BACKFILL, AND COMPACTION AND RESTORATION, AS NECESSARY.

## **CONTINGENCY QUANTITIES:**

WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY QUANTITIES ARE TO BE PERFORMED ONLY UNDER DIRECTION OF THE CITY ENGINEER. THE 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 CONTRACTOR AND THE ENGINEER.

## PROJECT SCHEDULE AND COMPLETION:

THE WORK EMBRACED IN THIS CONTRACT SHALL BE COMPLETE 180 CALENDAR DAYS AFTER THE NOTICE PROCEED (NTP). IF WEATHER CONDITIONS DO NOT ALLOW FOR THE PLACEMENT OF THE 424 ASPHALT SURFACE COURSE, THE ASPHALT SURFACE COURSE AND FINAL CASTING ADJUSTMENTS MAY BE PERFORMED AFTER THE WINTER SHUTDOWN, BY MAY 31, 2021. (SEE MAINTENANCE OF TRAFFIC NOTES)

WORK SHALL BE SUSPENDED AUGUST 2-9, 2020 AND SEPTEMBER 16-19, 2020. DURING SUSPENSION PERIODS, THE ROADWAY AND SIDEWALKS MUST BE FULLY OPEN TO TRAFFIC AND CLEAR OF DEBRIS/CONSTRUCTION MATERIALS AND EQUIPMENT. ALL DISTURBED HARD SURFACES WHICH HAVE NOT BEEN PERMANENTLY RESTORED, SHALL BE TEMPORARILY RESTORED WITH ASPHALT OR CONCRETE.

## II. CONSTRUCTION INCIDENTALS

## 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 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

## **VERIFICATION OF UNDERGROUND UTILITIES:**

THE 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.

## PROTECTION OF UTILITIES:

THE 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 ENCINCER

THE 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.

## 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.

## **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.

## **OPEN TRENCH CONSTRUCTION:**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION/TRENCHING PRACTICES FOR THE PROPOSED IMPROVEMENT, OR AS FURTHER SHOWN ON THE PLANS AND SPECIFICATIONS.

THE 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 CONTRACTOR SHALL NOTIFY THE CITY ENGINEER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.

## TRENCH CLOSING AND TEMPORARY TOPPING:

THE 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.

## **DUST CONTROL:**

THE 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.

## 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 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 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.

## 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.

## **CONSTRUCTION LAYOUT:**

THE 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 AND SURVEYING

IN ADDITION TO THE REQUIREMENTS OF 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PERFORM A PRE—CONSTRUCTION SURVEY TO ESTABLISH THE EXISTING ROADWAY AND CURB ELEVATIONS (SEE TYPICAL SECTION NOTES). THE PRE—CONSTRUCTION SURVEY DATA COLLECTED SHALL BE SUFFICIENT FOR THE CONTRACTOR TO LAYOUT THE PROPOSED CURB AND PAVEMENT WITHIN 0.02'± TOLERANCE OF THE EXISTING CURB AND PAVEMENT. THE CONTRACTOR MUST USE BEST JUDGEMENT AND/OR SEEK ENGINEER'S CONCURRENCE TO NOT PERPETUATE OBVIOUS SETTLEMENTS OR HEAVES FROM THE FXISTING PAVEMENT.

COST FOR THE PRELIMINARY SURVEY SHALL BE INCLUDED IN 623 CONSTRUCTION LAYOUT STAKES AND SURVEYING.

AT THE CITY ENGINEER'S REQUEST, THE CONTRACTOR SHALL MAKE AVAILABLE ALL SURVEY FIELD NOTES FOR REVIEW.

## **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.

## **ELEVATION DATUM:**

ALL ELEVATIONS ARE TO BE DETERMINED BY CONTRACTOR LAYOUT.

## **DEWATERING OPERATIONS:**

WHEN DEEMED NECESSARY, THE 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 CONTRACTOR.

THE 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 CONTRACTOR.

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.

## **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.

## III. EARTHWORK / SITE WORK

### EASEMENTS AND RIGHT-OF WAY:

THE 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.

### 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 CONTRACTOR MUST APPRAISE THEMSELVES OF ANY EXISTING SITE CONDITIONS WHICH MAY AFFECT THEIR BID OR THE PERFORMANCE OF THE REQUIRED WORK. THE 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.

REFER TO CITY STANDARD DRAWING NO. 19 FOR ADDITIONAL DETAILS.

## REMOVAL/REPLACEMENT OF UNSUITABLE MATERIAL:

THE DEVELOPER/CONTRACTOR SHALL UNDERCUT AND REPLACE UNSUITABLE MATERIAL ENCOUNTERED DURING INSTALLATION OF THE PROPOSED UTILITIES AND ROADWAY IN ACCORDANCE WITH CITY STANDARD DRAWING NO. 19.

## IV. ROADWAY / DRIVE APPROACHES / WALK / CURB

## PAVEMENT STANDARDS:

PAVEMENTS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE CITY STANDARD DRAWINGS AND SPECIFICATIONS (LISTED BELOW) AND ODOT SPECIFICATIONS, UNLESS SPECIFIED OTHERWISE ON THE PLANS

## CITY STANDARD DRAWING NO .:

DRIVEWAYS, CURBS, AND PAVEMENT

- 27 "DRIVE APPROACH WITH LAWNSTRIP BETWEEN SIDEWALK & CURB"
- 28 "DRIVE APPROACH WITH SIDEWALK AGAINST CURB"
- 29 "COMBINED CURB & WALK"
- 30 "CONCRETE CURB AND COMBINED CURB & GUTTER"
- 31 "BRICK PAVEMENT REPAIR & REPLACEMENT OVER TRENCHES/ALONG CURB"
- 32 "TYPICAL SÉCTION LOCAL STREET"
- 33 "WHEELCHAIR RAMP"
- 34 "PAVEMENT TRANSITION, BRICK-ASPHALT"\_CITY STREETSCAPE
- 40 "TYPICAL STREETSCAPE CORRIDOR"
- 41 "ROADWAY BRICK & CROSSWALK PAVEMENT DETAILS"
  42 "STREETSCAPE CONCRETE WALK PAVEMENT DETAILS"
- 44 "CONCRETE WALK OVER VAULT CONSTRUCTION DETAILS"
- 45 "BRICK WALK OVER VAULT CONSTRUCTION DETAILS"

## CITY SPECIFICATIONS:

"CITY OF CANTON SPECIFICATIONS FOR THE CONSTRUCTION, REPAIR, AND REPLACEMENT OF SIDEWALKS, CURBS, AND DRIVEWAYS"

## 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.

## ASPHALT/CONCRETE:

IT SHALL BE THE RESPONSIBILITY OF THE 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.

## ITEM 608, 5" CONCRETE WALK, AS PER PLAN

ALL PROVISIONS OF ODOT CMS 608 SHALL APPLY WITH THE ADDITION THAT THE WALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWINGS NOS. 40 AND 42. THIS WORK SHALL INCLUDE THICKER CONCRETE BETWEEN THE WALK AND THE BACK OF THE BRICK PAVERS.

## ITEM 609 - CURB TYPE 6, AS PER PLAN

ALL PROVISIONS OF ODOT CMS 609 SHALL APPLY WITH THE ADDITION THAT THE CURB SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWINGS NO. 29 AND NO. 40.

## V. SANITARY SEWERS / STORM SEWERS

#### SEWER STANDARDS:

ALL SANITARY/STORM SEWER CONDUITS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO APPLICABLE CITY STANDARD DRAWINGS AND SPECIFICATIONS (LISTED BELOW) AND ODOT SPECIFICATIONS EFFECTIVE AT THE TIME OF CONSTRUCTION, UNLESS SPECIFIED OTHERWISE ON THE PLANS. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE DISPOSAL SYSTEM ARE PROHIBITED.

## CITY STANDARD DRAWING NO .:

## CATCH BASINS

- 1 "CURB INLET CATCH BASIN"
- 2 "CURB INLET WATER QUALITY CATCH BASIN"
- 3 "HILLSIDE CURB INLET CATCH BASIN"
- 4 "SQUARE-TOP CATCH BASIN"
- 5 "SQUARE-TOP WATER QUALITY CATCH BASIN"

### MANHOLES

- 10 "PRECAST STORM OR SANITARY MANHOLE"
- 11 "OUTSIDE DROP CONNECTION FOR SANITARY MANHOLE"
- 12 "MANHOLE COVER"
- 13 "MANHOLE ADJUSTMENTS"

## CONDUITS AND TRENCHES

- 18 "HOUSE CONNECTION STACK"
  19 "UTILITY TRENCH REQUIREMENTS"
- 20 "SANITARY SEWERS AND LATERALS"
- 21 "CONCRETE ENCASEMENT DETAIL"
- 22 "DOWNSPOUT OUTLET (NON-CURBED STREET)
- 23 "DOWNSPOUT OUTLET (CURBED STREET)
- 24 "GROUNDWATER DRAIN LINE CONNECTION"

DRIVEWAYS, CURBS, AND PAVEMENT 32 "TYPICAL SECTION — LOCAL STREET"

## ITEM 611 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN:

MANHOLE ADJUSTMENTS SHALL BE PERFORMED BY ONE OF THE FOILOWING METHODS:

METHOD A — AFTER THE SURFACE COURSE ASPHALT IS PLACED. ADJUSTMENTS SHALL BE MADE AS PER CITY OF CANTON STANDARD DRAWING #13. THIS ITEM SHALL INCLUDE ALL MATERIALS REQUIRED AS PER THE STANDARD DRAWING.

METHOD B — PRIOR TO THE PLACEMENT OF THE INTERMEDIATE ASPHALT COURSE. CONCRETE SHALL NOT BE USED TO BACKFILL AROUND THE CASTING IN ORDER TO PREVENT REFLECTIVE CRACKING.

THIS ITEM SHALL INCLUDE THE REPLACEMENT OF THE EXISTING CASTING. SEWER CASTINGS SHALL COMPLY WITH CITY OF CANTON STANDARD DRAWING #12. PAYMENT FOR THE CASTING WILL BE INCLUDED WITH THIS ITEM.

## ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER

IN ADDITION TO THE REQUIREMENTS IN 611 OF THE CMS, THIS ITEM SHALL INCLUDE THE REPLACEMENT OF THE EXISTING CASTING. THE NEW CASTING SHALL COMPLY WITH CITY OF CANTON STANDARD DRAWING #1. PAYMENT FOR THE CASTING WILL BE INCLUDED WITH THIS ITEM.

## FORCE MAIN:

ITEM 611 — CONDUIT, MISC.: 10" FORCE MAIN, CONCRETE LINED DUCTILE IRON PIPE, AWWA C151

THIS ITEM SHALL CONSIST OF CONSTRUCTING AND TESTING A 10" FORCE MAIN, CONCRETE LINED DUCTILE IRON PIPE, AWWA C151, AT THE LOCATIONS, GRADES, AND ELEVATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH CITY OF CANTON SPECIFICATIONS, STANDARDS, DETAILS, AND NOTES. THE 10" FORCE MAIN SHALL BE TESTED IN ACCORDANCE WITH AWWA C600.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER FOOT.

## ITEM 611 - CONDUIT, MISC.: (BY SIZE) DEZURIK ECCENTRIC PLUG VALVE W/ H.D. VALVE BOX

THIS ITEM SHALL CONSIST OF PROVIDING AND INSTALLING A DUZURIK ECCENTRIC PLUG VALVE W/ H.D. VALVE BOX AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE PLANS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH.

## ITEM 611 - CONDUIT. MISC.: 6" DEZURIK ECCENTRIC THREADED PLUG VALVE W/ H.D. VALVE BOX

THIS ITEM SHALL CONSIST OF PROVIDING AND INSTALLING A 6" DUZURIK ECCENTRIC PLUG VALVE W/ H.D. VALVE BOX AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE PLANS. ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY TO REMOVE AND RE—INSTALL THE TOP OF THE MANHOLE SHALL BE INCIDENTAL TO THIS ITEM.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH

## <u>ITEM SPECIAL - CONNECTION TO EXISTING LIFT STATION FORCE MAIN DISCHARGE</u>

THIS ITEM SHALL CONSIST OF CONNECTING THE PROPOSED FORCE MAIN TO THE DISCHARGE PIPING OF THE EXISTING LIFT STATION PER THE CONSTRUCTION NOTES AND DETAILS PROVIDED ON THE SANITARY SEWER PLAN SHEETS. THE LUMP SUM CONTRACT PRICE SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY TO CONSTRUCT THE CONNECTION.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT LUMP SUM PRICE BID.

## ITEM SPECIAL - CONNECTION TO THE EXISTING 10" SANITARY FORCE MAIN

THIS ITEM SHALL CONSIST OF CONNECTING THE PROPOSED FORCE MAIN TO THE EXISTING FORCE MAIN PER THE CONSTRUCTION NOTES AND DETAILS PROVIDED ON THE SANITARY SEWER PLAN SHEETS. THE LUMP SUM CONTRACT PRICE SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY TO CONSTRUCT THE CONNECTION

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT LUMP SUM PRICE BID.

## <u>ITEM SPECIAL - BYPASS PUMPING</u>

THIS ITEM SHALL CONSIST OF BYPASS PUMPING OF THE EXISTING LIFT STATION DISCHARGE PER THE CONSTRUCTION NOTES AND DETAILS PROVIDED ON THE SANITARY SEWER PLAN SHEETS. THE LUMP SUM CONTRACT PRICE SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY TO PERFORM BYPASS PUMPING.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT LUMP SUM PRICE BID

## ITEM SPECIAL - ABANDON EXISTING 10" SANITARY FORCE MAIN

THIS ITEM SHALL CONSIST OF ABANDONING THE EXISTING 10" SANITARY FORCE MAIN PER THE CONSTRUCTION NOTES AND DETAILS PROVIDED ON THE SANITARY SEWER PLAN SHEETS. THE LUMP SUM CONTRACT PRICE SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY TO ABANDON THE EXISTING 10" SANITARY FORCE MAIN.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT LUMP SUM PRICE BID

## ITEM 611 — MANHOLE, MISC.: CITY OF CANTON SCD NO.10 PRECAST SANITARY MANHOLE

THIS ITEM SHALL CONSIST OF CONSTRUCTING AND TESTING SANITARY MANHOLES AT THE LOCATIONS AND ELEVATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH CITY OF CANTON SPECIFICATIONS, STANDARDS, DETAILS, AND NOTES. SANTIARY MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ASTM C1244 PER CITY OF CANTON SUPPLEMENTAL SPECIFICATION 04-01 - STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH

## ITEM 611 - CONDUIT, MISC.: 8" CONDUIT, TYPE B, PVC SDR-35

THIS ITEM SHALL CONSIST OF CONSTRUCTING AND TESTING AN 8" CONDUIT, TYPE B, PVC SDR-35, AT THE LOCATIONS, GRADES, AND ELEVATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH CITY OF CANTON SPECIFICATIONS, STANDARDS, DETAILS, AND NOTES. THE 8" CONDUIT SHALL BE TESTED IN ACCORDANCE WITH CITY OF CANTON SUPPLEMENTAL SPECIFICATION 02-00 - TESTING FOR EXCESSIVE DEFLECTION FOR NON-PRESSURE THERMOPLASTIC SEWER PIPE (LASER PROFILING PER ODOT 611.12.B MAY BE PROVIDED AS AN ALTERNATIVE). THE 8" CONDUIT SHALL ALSO BE TESTED IN ACCORDANCE WITH CITY OF CANTON SUPPLEMENTAL SPECIFICATION 03-00 - TESTING PRACTICES FOR LOW-PRESSURE AIR TESTING OF INSTALLED, NON-PRESSURE, THERMOPLASTIC SEWER PIPE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER FOOT.

### ITEM 611 - CONDUIT, MISC.: SEWER TELEVISING INSPECTION AND DOCUMENTATION, 8" DIA.

GRAVITY SANITARY SEWERS CONSTRUCTED WITH THIS PROJECT SHALL BE TELEVISED BY THE CONTRACTOR IN ACCORDANCE WITH ODOT ITEM 611.12, SECTION B. ANY OTHER APPLICABLE CITY OF CANTON STANDARDS, DETAILS, AND NOTES SHALL ALSO APPLY.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER FOOT

## ITEM SPECIAL - CORE EXISTING LIFT STATION WET WELL

THIS ITEM SHALL CONSIST OF CORING INTO THE EXISTING LIFT STATION WET WELL. THE CONNECTION SHALL BE MADE PER THE CONSTRUCTION NOTES AND DETAILS PROVIDED ON THE SANITARY SEWER PLAN SHEETS. THE LUMP SUM CONTRACT PRICE SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY TO CONSTRUCT THE CONNECTION.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE CONTRACT LUMP SUM PRICE BID.

## VI. STORM WATER POLLUTION PREVENTION:

## FOR PROJECTS ONE (1) ACRE OR MORE OF TOTAL LAND-DISTURBANCE:

THE CONTRACTOR SHALL APPLY FOR AND OBTAIN AN OHIO EPA NPDES PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. SAID PERMIT REQUIRES THE PREPARATION AND IMPLEMENTATION OF A STORM WATER POLLUTION PREVENTION PLAN (SWP3) TO ADDRESS CONSTRUCTION SITE STORM WATER RUNOFF AS WELL AS POST-CONSTRUCTION STORM WATER MANAGEMENT. THE SWP3 MUST BE REVIEWED AND APPROVED BY THE STARK COUNTY SOIL & WATER CONSERVATION DISTRICT (SWCD)

THE CONTRACTOR AND HIS REPRESENTATIVES SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE PERMIT AS WELL AS THE SWP3. ALL ACTIVITIES AND PRACTICES SHALL ALSO COMPLY WITH THE CURRENT EDITIONS OF THE CITY OF CANTON STORM WATER MANAGEMENT MANUAL AND THE OHIO DEPARTMENT OF NATURAL RESOURCES' RAINWATER AND LAND DEVELOPMENT MANUAL, AS APPLICABLE. SUCH PROJECTS ARE ALSO SUBJECT TO INSPECTION BY THE CITY OF CANTON AND/OR ITS AUTHORIZED REPRESENTATIVES (I.E. STARK SWCD) TO ENSURE COMPLIANCE WITH PERMIT AND SWP3 REQUIREMENTS AND LOCAL STORM WATER QUALITY REGULATIONS.

A PRE-CONSTRUCTION MEETING INITIATED BY THE CONTRACTOR IS REQUIRED ON-SITE WITH THE STARK SWCD PRIOR TO ANY LAND-DISTURBING ACTIVITIES. THE CONTRACTOR SHALL ABIDE BY ALL ORDERS ISSUED BY THE CITY AND/OR STARK SWCD PURSUANT TO INSPECTION OF THE PROJECT SITE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO SUBMIT CO-PERMITTEE APPLICATION TO OHIO EPA PRIOR TO BEGINNING WORK ON THE PROJECT. AS APPLICABLE, THE CONTRACTOR SHALL OBTAIN A COPY OF THE SWP3 AND FAMILIARIZE HIMSELF WITH IT, IMPLEMENTING ALL ITEMS AND ABIDING BY ALL PERMIT REQUIREMENTS AND REGULATIONS.

## POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN LITHIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

## MANUFACTURED WATER QUALITY STRUCTURE

THIS PLAN UTILIZES MANUFACTURED WATER QUALITY STRUCTURES FOR WATER QUALITY TREATMENT. AREAS HAVE BEEN SHOWN IN THE PLANS FOR PLACEMENT OF AN OFF-LINE SYSTEM. PAYMENT FOR THESE DEVICES SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR ITEM 895, MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4.

## VII. TRAFFIC:

## 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.

## 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

## VIII. STREETSCAPE / LIGHTING / CONDUIT SYSTEM

## ITEM SPECIAL, BRICK WALKWAY PAVERS

BRICK PAVERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWING NO. 40.

PAYMENT OF ITEM SPECIAL, BRICK PAVERS SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF BRICK WALKWAY PAVERS AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT TO COMPLETE THE BRICK PAVERS, SETTING SAND, SEALANT, AND JOINT SAND IN ACCORDANCE WITH CITY STANDARDS.

## ITEM SPECIAL, TREE FRAME AND GRATE

SPECIFICATIONS OF THE TREE FRAMES, GRATES, AND CONSTRUCTION OF THE CONCRETE COLLARS SHALL BE IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWING NO. 43. CONCRETE SHALL BE PER ODOT 499, CLASS C WITH LIMESTONE AGGREGATE.

PAYMENT OF ITEM SPECIAL, TREE FRAME AND GRATE SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS TO COMPLETE THE CONCRETE COLLAR, TREE FRAMES, GRATES, AND EXCAVATION OF THE

## ITEM 608, WALKWAY MISC.: CONCRETE BASE

ALL PROVISIONS OF ODOT CMS 608 SHALL APPLY WITH THE ADDITION THAT THE WALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF CANTON STANDARD DRAWING NO. 40. THIS ITEM INCLUDES THE 3 INCH CONCRETE BASE CONSTRUCTED UNDER THE BRICK WALKWAY PAVERS AND THE 6 INCH WIDE CONCRETE HEADER BETWEEN THE ROADWAY CURB AND BRICK PAVERS.

PAYMENT OF ITEM 608, WALKWAY MISC .: CONCRETE BASE SHALL BE MADE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS TO CONSTRUCT THE CONCRETE BASE AND HEADER

## ITEM 625 - CONDUIT, 725.05, 2", AS PER PLAN

ALL CONDUITS AND FITTINGS SHALL BE TYPE EB, SCHEDULE 40 PVC. 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.

### ITEM 625 - PULL BOX, MISC.: 725.06, (BY SIZE)

PULL BOXES SHALL BE MANUFACTURED BY CARSON BROOKS, QUAZITE. SYNERTECH. OR APPROVED EQUAL. ALL PULL BOXES SHALL INCLUDE A POLYMER CONCRETE RING AND COVER TYPE, OR EQUAL, AND SHALL BE MARKED "TRAFFIC" OR "LIGHTING" AS APPLICABLE. 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.

CONDUITS ENTERING TRAFFIC/INTERCONNECT PULL BOXES SHALL NOT HAVE VERTICAL SWEEPS.

### ITEM 625 - LIGHT POLE FOUNDATION, AS PER PLAN

LIGHT POLE FOUNDATIONS SHALL BE CONSTRUCTED AS PER CITY OF CANTON STANDARD DRAWINGS.

## GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

- ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT 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 GROUNDINGS 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 POINTS, 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 USES 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 DEBUGGED AT ALL TERMINATION POINTS.
- C. BOTH ENDS OF METALLIC CONDUITS 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

3. WIRE FOR GROUNDINGS AND BONDING
A. USE INSULATED, STRANDED 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. 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.

## 4. GROUND ROD

- A. A ¾ 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, STRANDED COPPER.

5. POWER SERVICE AND MAIN PEDESTAL

- A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE MAIN PEDESTAL NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOÙS, ÚNSPLICED 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.

  I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT 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.

6. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

## IX. POST CONSTRUCTION INCIDENTALS

## 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.

## **PROPOSED MONUMENTATION:**

THE CONTRACTOR'S SURVEYOR SHALL NOTIFY THE CITY ENGINEER IN WRITING UPON THE COMPLETION OF MONUMENTS BEING SET AS PER PLAN OR RECORD PLAT.

## 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.

CITY ENGINEER

V, OHIO
P.E., CITY ENGINEER CANTON, LJ. MOEGLIN, P.E., OFFICE DANIEL 2436

## **MAINTAINING TRAFFIC:**

THE CONTRACTOR SHALL MAINTAIN TRAFFIC ADJACENT TO AND THROUGH THE PROJECT AS DESCRIBED BELOW 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 AND THE FOLLOWING:

- 1. THE CONTRACTOR MUST MAINTAIN TWO—WAY TRAFFIC ON 13TH ST. AT ALL TIMES. DURING WORKING HOURS, IF ONE LANE IN EACH DIRECTION CAN NOT BE MAINTAINED, FLAGGERS MAY BE USED. DURING NON—WORKING HOURS, A MINIMUM OF ONE TEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON 13TH ST. ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT AT ALL TIMES.
- 2. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE—HALF HOUR AFTER SUNSET OR ONE—HALF HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS AT A MINIMUM SPACING OF FIFTY (50) FEET.
- 3. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, AND SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.
- 4. ONLY DURING OFF-PEAK PERIODS (I.E. ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.
- 5. IN ADDITION TO THE REQUIREMENTS OF 614 WORK ZONE PAVEMENT MARKINGS (<614.11>), AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL LANE, CENTER, STOP OR CHANNELIZING LANES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PAVEMENT PLACING OPERATIONS. QUANTITIES FOR SUCH PLACEMENT ARE CARRIED AS PART OF THE ITEMS LISTED UNDER 614 WORK ZONE PAVEMENT MARKINGS.
- 8. A QUANTITY OF <u>200</u> CU. YD. OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS, AND OTHER LOCATIONS PRIOR TO RESURFACING, AS DIRECTED BY THE ENGINEER.
- 9. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.
- 10. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR EMERGENCY AND FIRE DEPARTMENT VEHICLES.
- 11. 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.

## TEMPORARY TRAFFIC CONTROL PLAN:

THE CONTRACTOR SHALL DEVELOP A TEMPORARY TRAFFIC CONTROL PLAN FOR THE PROJECT. THE PLAN MUST TAKE INTO ACCOUNT THE PREVIOUS STIPULATIONS. THE PLAN MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

SPECIAL CARE MUST BE TAKEN AT THE EASTERN TRANSITION (HARRISON AVE.).

PAYMENT FOR ALL ITEMS NOT OTHERWISE ACCOUNTED FOR IN THE PLANS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

## WINTER SHUTDOWN PERIOD:

IF FINAL PAVING IS NOT PERFORMED PRIOR TO THE WINTER SHUTDOWN PERIOD, THE CONTRACTOR SHALL WEDGE/RAMP AROUND ALL CASTINGS TO ALLOW FOR SNOW PLOWING.

PAYMENT SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

### TRAFFIC CONTROL INSPECTOR:

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND THE CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE SERVICES OF THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

## TRAFFIC SIGNALS:

THE TEMPORARY TRAFFIC CONTROL PLAN WILL LIKELY REQUIRE MODIFICATIONS TO THE TRAFFIC SIGNAL OPERATIONS AT THE EASTERN AND WESTERN TERMINI. THE CONTRACTOR SHALL COORDINATE WITH CITY OF CANTON TRAFFIC ENGINEERING AND TRAFFC SIGNAL AND LIGHTING DIVISIONS TO FACILITATE THE CHANGES. CITY PERSONNEL WILL MAKE NECESSARY CHANGES TO THE DETECTION ZONES, SIGNAL PHASINGS, AND SIGNAL TIMINGS AS NECESSARY.

## <u>ITEM 614 — LAW ENFORCEMENT OFFICER WITH PARTOL CAR FOR ASSISTANCE:</u>

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LAW ENFORCEMENT OFFICER (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 CONTROLLING TRAFFIC AS DIRECTED BY THE ENGINEER FOR THE FOLLOWING TASKS:

1. 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.

LAW ENFORCEMENT OFFICERS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICAL PARTOL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

CITY OF CANTON POLICE DEPARTMENT 221 THIRD STREET S.W. CANTON, OHIO 44702 330-489-3111

LAW ENFORCEMENT OFFICERS 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. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR <u>80</u> HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO AT HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

## CONTRACTOR'S EQUIPMENT — OPERATION AND STORAGE:

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY NOT BE PARKED ON CLEVELAND AVENUE, BUT MAY BE PARKED ON SIDE STREETS, WITH THE ENGINEER'S APPROVAL, WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG A SIDE STREET, ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORAGE AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER HAS BEEN GRANTED.

OFFICE OF THE CITY ENGINEER CANTON, OHIO
DANIEL J. MOEGLIN, P.E., CITY ENGINEER
2436 30th STREET NE. 44705 (330)469-3381

MAINTENANCE OF TRAFFIC

13TH STREET NW RECONSTRUCTION

	7	9	10	11	12	13	14	15	16	17	18	ITEI	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SE SHI
																ROADWAY	
			2746	2840	3097	1542						202	23000	10225	SY	PAVEMENT REMOVED	+
			339	150	167	0						202	30000	656	SF	WALK REMOVED	+
			861	1000	1026	519						202	32000	3406	FT	CURB REMOVED	
			4	9	27	11		112	230			203	10000	393	CY	EXCAVATION	
			2407	2778	3013	1499		438	902			204	10000	11037	SY	SUBGRADE COMPACTION	_
			63	0	0	65						252	01500	128	FT	FULL DEPTH PAVEMENT SAWING	+
			80	150	747	517		3218	6941			608	12000	11653	SF	5" CONCRETE WALK, AS PER PLAN	+ ;
				150	/ - /	317		720	1170			608	98000	1890	SF	WALKWAY MISC.: CONCRETE BASE	+ 7
								720	1170			SPE		1890	SF	BRICK WALKWAY PAVERS	1 6
								8	13			SPE		21	EACH	TREE FRAME AND GRATE	- 6
																	1
			861	1000	1026	519						609	26001	3406	FT	CURB TYPE 6, AS PER PLAN	+ :
			861	1000	1026	519						605	06020	3406	FT	4" BASE PIPE UNDREDRAINS WITH FABRIC WRAP	+
			372	111	117	57		93	189			659	10000	939	SY	SEEDING AND MULCHING	+
			- 0,2		- ' ' '	0,			100				10000	555			
																PAVEMENT	
			401	463	502	250						30	46000	1616	CY	ASPHALT CONCRETE BASE, PG64-22	
$\overline{}$			405	472	520	261		48	98			304	20000	1804	CY	AGGREGATE BASE	_
			241	278	302	150						407	10000	971	GAL	TACK COAT	+
			241 50	278 58	302 63	150 31						407	14000 10000	971 202	GAL CY	TACK COAT FOR INTERMEDIATE COURSE FINE GRADED POLYMER ASPHALT CONCRETE, TYPE A	+
+			150	174	189	94						424	50300	607	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	+
			100	.,,	100	<u> </u>								1 007	<u> </u>	AND THE CONONCIE WILLIAMS COOKSET, THE 2, (110)	1
			29	61	93	47						452	11010	230	SY	7" NON-REINFORCED CONCRETE PAVEMENT, QC1	
																OFWED 0	
												61.	00074	1.4	FAOU	SEWERS	
			3	6 4	2 2	2						61	98634 99655	14	EACH EACH	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN MANHOLE ADJUSTED TO GRADE, AS PER PLAN	
												01	33000	1,	LACIT	MANITOLE ADDOSTED TO GRADE, AS TER TEAR	+
					50							61	10400	50	FT	24" CONDUIT, TYPE B	
					1							61	99586	1	EACH	MANHOLE, NO. 3 W/108" BASE I.D. & 12" WEIR	
$\bot$					1							895	10040	1	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4	1
-										700			07100	700	-	CONDUIT MICO. 10" FORCE MAIN CONORETE LINED DUCTUE IDON DIES MAIN COSC	+
										700 1		61	97400	700	FT EACH	CONDUIT, MISC.: 10" FORCE MAIN, CONCRETE LINED DUCTILE IRON PIPE, AWWA C150 CONDUIT, MISC.: 6" DEZURIK ECCENTRIC PLUG VALVE W/ H.D. VALVE BOX	1 5
<del>     </del>										3		61	97200 97200	3	EACH	CONDUIT, MISC.: 6 DEZURIK ECCENTRIC PLUG VALVE W/ H.D. VALVE BOX  CONDUIT, MISC.: 10" DEZURIK ECCENTRIC PLUG VALVE W/ H.D. VALVE BOX	+ :
<del>-   -  </del>										1		61	97200	1	EACH	CONDUIT, MISC.: 10 DEZURIK ECCENTRIC PLOG VALVE W/ H.D. VALVE BOX  CONDUIT, MISC.: 6" DEZURIK ECCENTRIC THREADED PLUG VALVE W/ H.D. VALVE BOX	+ :
											375	61	97400	375	FT	CONDUIT, MISC.: 8" CONDUIT, TYPE B, PVC SDR-35	1
											375	61	97400	375	FT	CONDUIT, MISC.: SEWER TELEVISING INSPECTION AND DOCUMENTATION, 8" DIA.	
											3	61	99690	3	EACH	MANHOLE, MISC.: CITY OF CANTON SCD NO.10 PRECAST SANITARY MANHOLE	
																STORM WATER POLLUTION PREVENTION	
												832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
		18500										832	30000	18500	EACH	EROSION CONTROL	+
		10000										002		10000	LACIT		+
																LIGHTING AND TRAFFIC SIGNAL	
								1422	1693			625	25408	3115	FT	CONDUIT, 2", 725.051	
								908	852			625	25504	1760	FT	CONDUIT, 3", 725.051	
$\perp$							<u> </u>	2	3			625	31600	5	EACH	PULL BOX, MISC.: 725.06, 13"X24"	
								5	3			625	31600	8	EACH	PULL BOX, MISC.: 725.06, 17"X30"	1
								4	8			625 625	31600 32001	12	EACH EACH	PULL BOX, MISC.: 725.06, 36"X36"  GROUND ROD, AS PER PLAN	+
+								4	8			625	14501	12	EACH	LIGHT POLE FOUNDATION. AS PER PLAN	+
								•					1,5501	1-	2.011	The state of the s	1
																TRAFFIC CONTROL	
							4					630	85100	4	EACH	REMOVAL OF GROUND MOUNTER SIGN AND REERECTION	+
							0.61					644	00200	0.61	MILE	LANE LINE, 4"	1
+							0.61					644	00200	0.81	MILE	CENTER LINE	+
+							220					644	00400	220	FT	CHANNELIZING LINE, 6"	+
							66					644	00500	66	FT	STOP LINE	
							1					644	01100	1	EACH	SCHOOL SYMBOL MARKING, 72"	
$\Box$							6					644	01300	6	EACH	LANE ARROW	$\perp$
																MAINTENANCE OF TRAFFIC	+
												61	11000	LINE		MAINTENANCE OF TRAFFIC	_
	160											614	11000	LUMP 160	HOUR	MAINTAINING TRAFFIC  LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	+
<del>-   -  </del>	200											614	13000	200	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	+
													12000	1			
				i	I	I	ı l		I					1		MISCELLANEOUS	1
																MISCELLAINEOUS	
												623 624	10000	LUMP LUMP		CONSTRUCTION LAYOUT STAKING MOBILIZATION	

OFFICE OF THE CITY ENGINEER CANTON, OHIO
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2438 30th STREET NE. 44705 (330)489-3381

GENERAL SUMMARY
13TH STREET NW RECONSTRUCTION

DATE BY

NOTES:
1. THE BEARING OF THE CENTERLINE OF 13TH ST. COINCIDES WITH THE

EXISTING CENTER PAVEMENT JOINT. 2. STATIONING IS TIED TO PK NAILS LOCATED ALONG THE CENTER JOINT.

PK NAILS TO BE SET PRIOR TO STAGE 3 PLANS. LOCATIONS AND TIE—IN WILL BE SHOWN ON SCHEMATIC.

PROJECT DESCRIPTION:
IMPROVEMENTS WILL INCLUDE PAVEMENT REPLACEMENT, STREETSCAPING, LIGHTING, AND SIDEWALK REPLACEMENT.

USGS QUADRANT: NORTH CANTON QUADRANGLE NORTH CANTON, OHIO

LONGITUDE: W 81°24'06" \* LATITUDE: N 40°48'42" \*

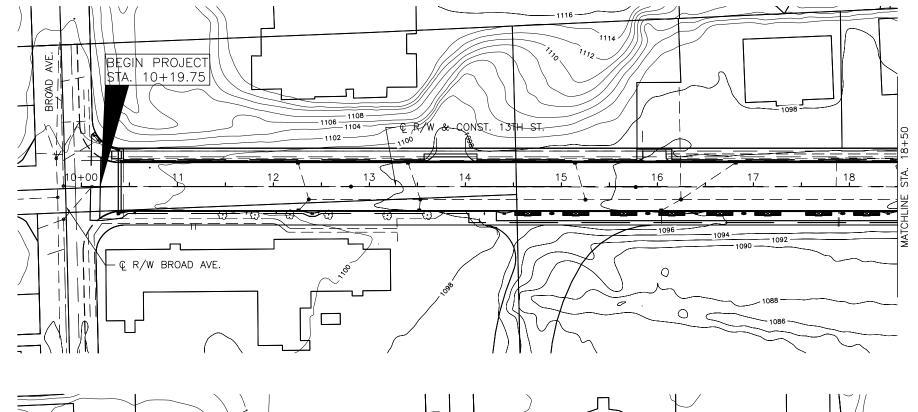
\* LONGITUDE AND LATITUDE TO APPROXIMATE CENTER OF PROJECT.

## LEGEND:

■ ■ NEW CATCH BASIN

NEW MANHOLE

EXISTING CATCH BASIN



1/0 <sub>Q</sub>	W VIOLA PKWY.	HARRISON AVE.
19 20 21 20 21	22 24	25 — 26 27
	BMP-1 MANUFACTURED WATER 10 10 10 10 10 10 10 10 10 10 10 10 10	END PROJECT 8TA. 27+08.33

		EST	IMATED QUANTITIES
ITEM	QUANTITY	UNIT	DESCRIPTION
832	LUMP		STORM WATER POLLUTION PREVENTION PLAN
832	18,500	EACH	EROSION CONTROL
	Q	UANTITIES CA	RRIED TO THE GENERAL SUMMARY

PERMA	NENT STO	RM WATER	ВМР		EDA TREATMENT
BMP TYPE	STATION	OFFSET	LATITUDE	LONGITUDE	CREDIT (ACRES)
BMP 1 — MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4	21+38.98	13.17'RT.	40.811601°	-81.400460°	0.79
			TREATM	ENT REQUIRED*	0.53

\* CALCULATED PER L&D VOL. 2, SEC. 1115.7

						0
PROJECT DATA						Project
TOTAL AREA (RIGHT OF WAY)	3.20	ACRES	J.N	.: B.:		₹
PROJECT EARTH DISTURBED AREA	2.66	ACRES	BY: 1			13th
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.25	ACRES		S		NAME:
NOTICE OF INTENT EARTH DISTURBED AREA	4.90	ACRES	DRAWN	APPROVED	FIELD	FIEN
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION	N SITE 2.23	ACRES		4		<u>.</u>
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION	ON SITE 2.52	ACRES				
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.	5-0.9				
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SIT	Ε	0.68				
IMMEDIATE RECEIVING WATERS		TBROOK C POND	0/20			OF 18
SUBSEQUENT RECEIVING WATER WE	ST BRANCH NIMISHILLEN	CREEK	/30	SCALE:		6
POST-CONSTRUCTION BMP: A MANUFACTURED WATE PROVIDED TO MEET NPDES POST-CONSTRUCTION RE		IS	DATE:	H. SC	V. SC.	SHEET

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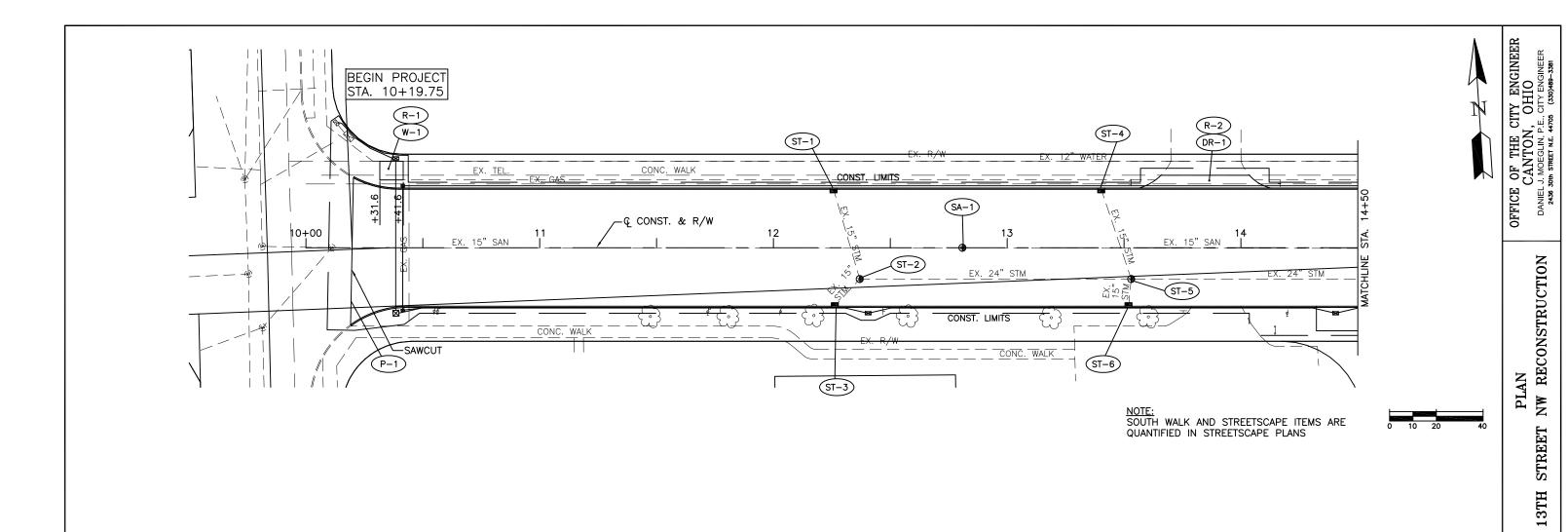
SITE PLAN RECONSTRUCTION

N

STREET

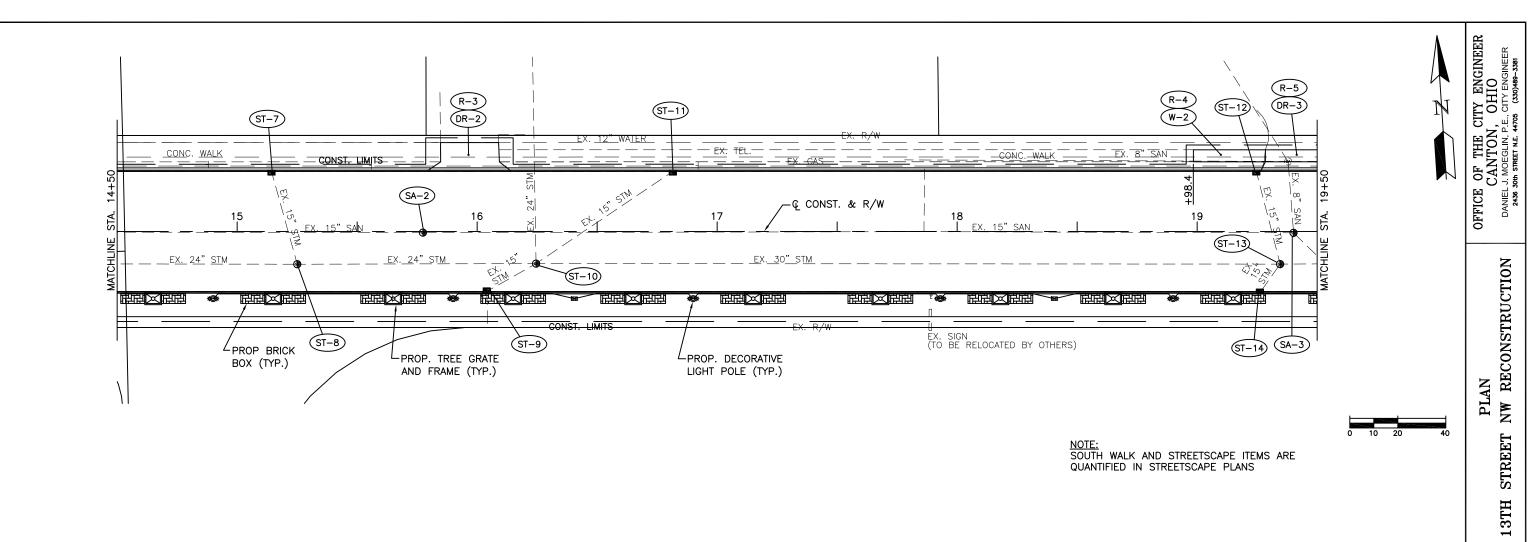
13TH

PROJECT



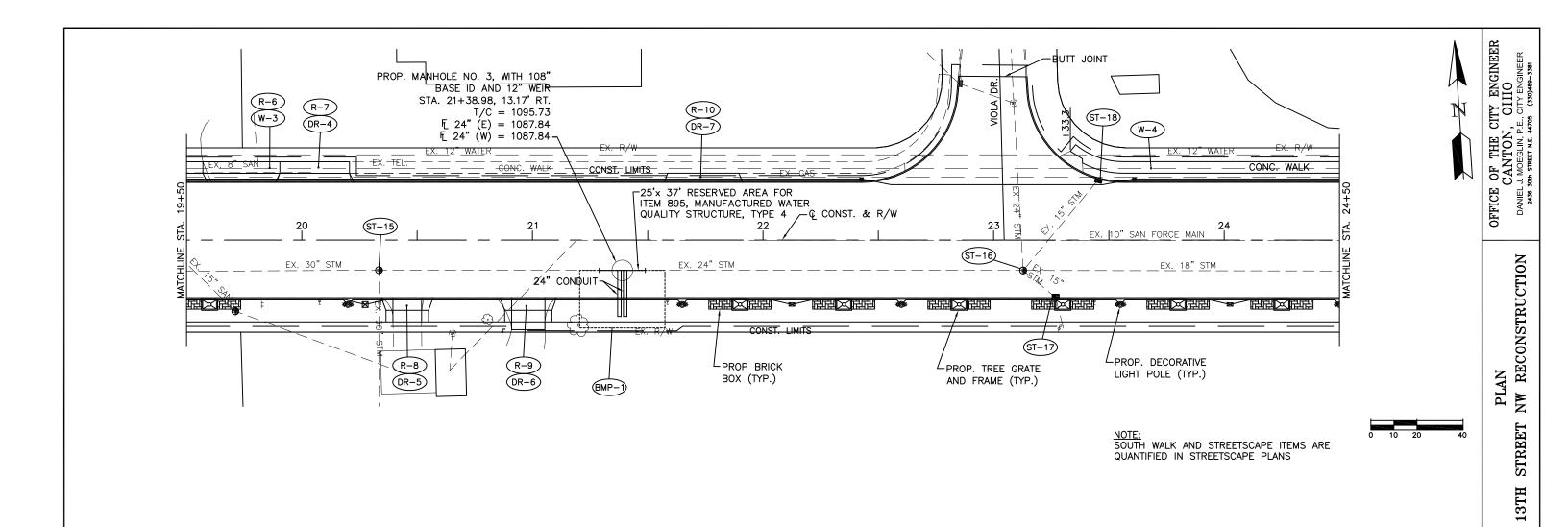
						204	301	304	407	407	441	424	202	202	605	609	638
			DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	SUBGRADE COMPACTION  A 9	ASPH. CONC. BASE (6") 6*A 12*27	AGGREGATE BASE (6") 6*A 12*27	TACK COAT (0.10 GAL/SY) 0.10*A 9	TACK COAT FOR INTERM. COURSE (0.10 GAL/SY) 0.10*A 9	ASPH. CONC. INTERM. COURSE (2 ‡") 2.25*A 12*27	FINE GRADED POLYMER A.C., TYPE A (\$") 0.75*A 12*27	PAVEMENT REMOVED	CURB REMOVED	4" BASE PIPE UNDERDRAINS WITH FABRIC	CURB TYPE 6, AS PER PLAN	SEEDING AND MULCHING
			FT	FT	SQ FT	SQ YD	CU YD	CU YD	GAL	GAL	CU YD	CU YD	SQ YD	FT	FT	FT	SQ YD
10+19.	75 TO	10+43.59	23.84	56.4	1345	149	25	25	15	15	9	3	149	48	48	48	11
10+43.	59 TO	14+50	406.41	50	20321	2258	376	376	226	226	141	47	2258	813	813	813	361
		TOTALS CA	RRIED TO	L GENERAL :	I SUMMARY	2407	401	401	241	241	150	50	2407	861	861	861	372

	202	202	203	252	304	608	452	611	611	$\vdash$
REFERENCE	PAVEMENT REMOVED	WALK REMOVED	EXCAVATION	FULL DEPTH PAVEMENT SAWING	AGGREGATE BASE	5" CONCRETE WALK, AS PER PLAN	7" NON-REINFORCED CONCRETE PAVEMENT, QC1	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	REVISIONS
	SQ YD	SQ FT	CU YD	FT	CU YD	SQ FT	SQ YD	EACH	EACH	
R-1		80								
R-2	29									
DR-1			3		3		29			
W-1			1		1	80				
P-1				63						
SA-1									1	
ST-1								1		DRAWN BY: NJL
ST-2								'	1	⊭ٰ
ST-2 ST-3								1		l z
ST-4								1		I≹
ST-5									1	5
ST-6								1		
										7/15
TOTALS CARRIED TO GENERAL SUMMARY	339	339	4	63	4	80	29	4	3	DATE:3/22/19



						204	301	304	407	407	441	424	202	202	605	609	638
			DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	SUBGRADE COMPACTION A 9	ASPH. CONC. BASE (6") 6*A 12*27	AGGREGATE BASE (6") 6*A 12*27	TACK COAT (0.10 GAL/SY) 0.10*A 9	TACK COAT FOR INTERM. COURSE (0.10 GAL/SY) 0.10*A	ASPH. CONC. INTERM. COURSE (2 ‡") 2.25*A 12*27	FINE GRADED POLYMER A.C., TYPE A (\$") 0.75*A 12*27	PAVEMENT REMOVED	CURB REMOVED	4" BASE PIPE UNDERDRAINS WITH FABRIC	CURB TYPE 6, AS PER PLAN	SEEDING AND MULCHING
			FT	FT	SQ FT	SQ YD	CU YD	CU YD	GAL	GAL	CU YD	CU YD	SQ YD	FT	FT	FT	SQ YD
14+50	TO	19+50	500	50	25000	2778	463	463	278	278	174	58	2778	1000	1000	1000	111
		TOTALS CA	rried to	GENERAL S	SUMMARY	2778	463	463	278	278	174	58	2778	1000	1000	1000	111

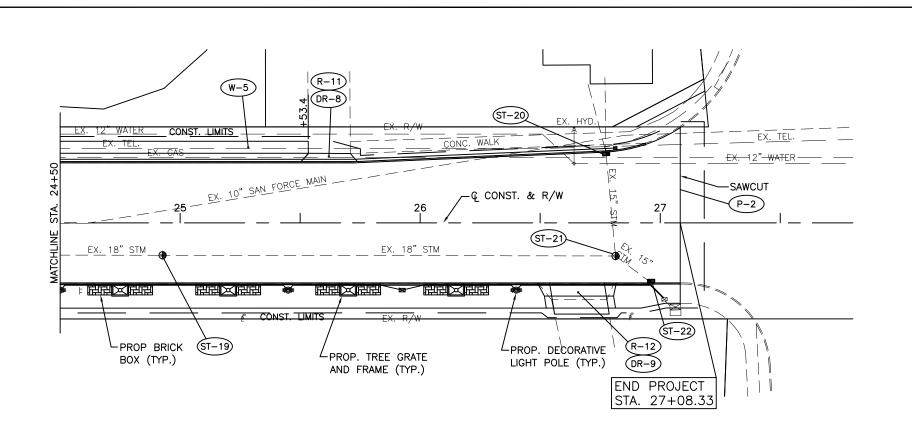
	202	202	203	252	304	608	452	611	611	
REFERENCE	PAVEMENT REMOVED	WALK REMOVED	EXCAVATION	FULL DEPTH PAVEMENT SAWING	AGGREGATE BASE	5" CONCRETE WALK, AS PER PLAN	7" NON-REINFORCED CONCRETE PAVEMENT, QC1	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	REVISIONS
	SQ YD	SQ FT	CU YD	FT	CU YD	SQ FT	SQ YD	EACH	EACH	
R-3	33									
R-4		150								
R-5	29									
DR-2			4		4		33			
DR-3			3		3		28			
W-2			2		2	150				
SA-2									1	
SA-3									1	ر ا
ST-7								1		∺
ST-8								1		Z
ST-8 ST-9								1		DRAWN BY: NJL
ST-10									1	∣⋷
ST-11								1		
ST-12								1		
ST-13									1	
ST-14								1	· ·	
										19
										2
TOTALS CARRIED TO GENERAL SUMMARY	62	150	9	0	9	150	61	6	4	DATE:3/22/19



				204	301	304	407	407	441	424	202	202	605	609	638
	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	SUBGRADE COMPACTION  A  9	ASPH. CONC. BASE (6") 6*A 12*27	AGGREGATE BASE (6") 6*A 12*27	TACK COAT (0.10 GAL/SY) 0.10*A 9	TACK COAT FOR INTERM. COURSE (0.10 GAL/SY) 0.10*A	ASPH. CONC. INTERM. COURSE (2 ‡") 2.25*A 12*27	FINE GRADED POLYMER A.C., TYPE A (\$") 0.75*A 12*27	PAVEMENT REMOVED	CURB REMOVED	4" BASE PIPE UNDERDRAINS WITH FABRIC	CURB TYPE 6, AS PER PLAN	SEEDING AND MULCHING
	FT	FT	SQ FT	SQ YD	CU YD	CU YD	GAL	GAL	CU YD	CU YD	SQ YD	FT	FT	FT	SQ YD
19+50 TO 24+50	500	50	25000	2778	463	463	278	278	174	58	2778	886	886	886	86
VIOLA DR.			2118	235	39	39	24	24	15	5	235	140	140	140	31
TOTALS C	ARRIED TO	GENERAL S	SUMMARY	3013	502	502	302	302	189	63	3013	1026	1026	1026	117

	611	611	895
REFERENCE	24" CONDUIT, TYPE B	MANHOLE, NO. 3 W/108" BASE I.D. & 12" WEIR	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 4
	FT	EACH	EACH
BMP-1	50	1	1
TOTALS CARRIED TO GENERAL SUMMARY	50	1	1

										, [
	202	202	203	252	304	608	452	611	611	
REFERENCE	PAVEMENT REMOVED	WALK REMOVED	EXCAVATION	FULL DEPTH PAVEMENT SAWING	AGGREGATE BASE	5" CONCRETE WALK, AS PER PLAN	7" NON-REINFORCED CONCRETE PAVEMENT, QC1	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	_
	SQ YD	SQ FT	CU YD	FT	CU YD	SQ FT	SQ YD	EACH	EACH	
R-6		167								
R-7	29									
R-8	15									1
R-9	27									1
R-10	13									1
										1
DR-4			3		3		29			1 [
DR-5			2		2		22			1
DR-6			3		3		29			1
DR-7			1		1		13			1
										1
W-3			2		2	167				1
W-4			16		7	580				
ST-15									1	
ST-16									1	1
ST-17								1		1
ST-18								1		1
										1
										1
										1
										1 I
										1 I
TOTALS CARRIED TO GENERAL SUMMARY	84	167	27	0	18	747	93	2	2	



NOTE: SOUTH WALK AND STREETSCAPE ITEMS ARE QUANTIFIED IN STREETSCAPE PLANS



CITY ENGINEER

N, OHIO
P.E., CITY ENGINEER

OFFICE OF THE CITY CANTON, C CANTON, C DANIEL J. MOEGLIN, P.E., C 2438 30th STREET NE. 44705

DANIEL 2436 3

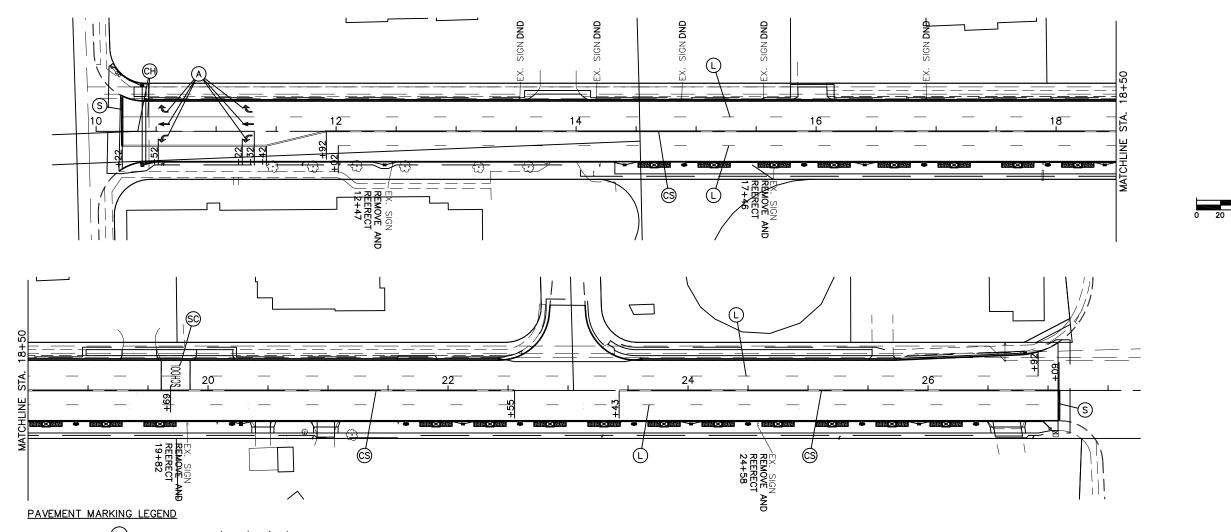
PLAN NW RECONSTRUCTION

STREET

13TH

						204	301	304	407	407	441	424	202	202	605	609	638
			DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW	SUBGRADE COMPACTION  A 9	ASPH. CONC. BASE (6") 6*A 12*27	AGGREGATE BASE (6") 6*A 12*27	TACK COAT (0.10 GAL/SY) 0.10*A 9	TACK COAT FOR INTERM. COURSE (0.10 GAL/SY) 0.10*A 9	ASPH. CONC. INTERM. COURSE (2 ‡") 2.25*A 12*27	FINE GRADED POLYMER A.C., TYPE A (\$") 0.75*A 12*27	PAVEMENT REMOVED	CURB REMOVED	4" BASE PIPE UNDERDRAINS WITH FABRIC	CURB TYPE 6, AS PER PLAN	SEEDING AND MULCHING
			FT	FT	SQ FT	SQ YD	CU YD	CU YD	GAL	GAL	CU YD	CU YD	SQ YD	FT	FT	FT	SQ YD
24+50	TO	25+72.43	122.43	50	6122	680	113	113	68	68	43	14	680	245	245	245	27
25+72.4	3 TO	26+76.28	103.85	52.5	5452	606	101	101	61	61	38	13	606	208	208	208	23
26+76.2	3 TO	27+08.33	32.05	59.8	1917	213	36	36	21	21	13	4	213	66	66	66	7
		TOTALS CAL	RRIED TO	GENERAL S	SUMMARY	1499	250	250	150	150	94	31	1499	519	519	519	57

										· L
	202	202	203	252	304	608	452	611	611	
REFERENCE	PAVEMENT REMOVED	WALK REMOVED	EXCAVATION	FULL DEPTH PAVEMENT SAWING	AGGREGATE BASE	5" CONCRETE WALK, AS PER PLAN	7" NON-REINFORCED CONCRETE PAVEMENT, QC1	CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	SNOISIONS
	SQ YD	SQ FT	CU YD	FT	CU YD	SQ FT	SQ YD	EACH	EACH	
R-11	8									
R-12	35									
DD 0										
DR-8 DR-9			1 4		1 4		8 39			
DR-9			4		4		39			
W-5			6		6	517				⊢
<del>"                                    </del>			<u> </u>			017				
P-2				65						
ST-19									1	<sub>=</sub>
ST-20 ST-21								1		DRAWN BY: N.I.
ST-21									1	&
ST-22								1		3
										8
										F
										٥
										2
TOTALS CARRIED TO GENERAL SUMMARY	43	0	11	65	11	517	47	2	2	DATE: 3 /22 /10



CS CENTER LINE, DOUBLE, SOLID

TW) TRANSVERSE LINE, (WHITE), 12' C/C

L LANE LINE

(RR) RAILROAD SYMBOL MARKING

(A) LANE ARROW

CH CHANNELIZING LINE

SC SCHOOL SYMBOL MARKING, 72 INCH

S STOP LINE
CW CROSSWALK LINE

	CENTE	R LINE		
FROM	то	TOTAL MILES		COMMENTS
10+22	27+09	0.32		
	RRIED TO SUMMARY	0.32		
	LANE	LINE		
FROM	то	TOTAL MILES		COMMENTS
10+22	27+09	0.32	WESTBOUND	
12+02	27+09	0.29	EASTBOUND	
	RRIED TO SUMMARY	0.61		

AUXILIARY													
LOCATION	CHANNEL LINE	STOP LINE	TRANS DIAGONA		CROSS WALK	LANE ARROWS				SYMBOL RXR	MARKINGS SCHOOL	COMMENTS	
LOCATION	LINE	LINE	WHITE	YELLOW	LINES	LEFT	THRU	RIGHT	COMBIN.	] KAK	72"	COMMENTS	
	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH		
10+22		41											
10+22 TO 11+32	220												
10+52						1	1	1					
11+22						1	1	1					
19+69											1		
27+09		25											
TOTALS CARRIED TO GENERAL SUMMARY	220	66	0	0	0	2	2	2	0	0	1		

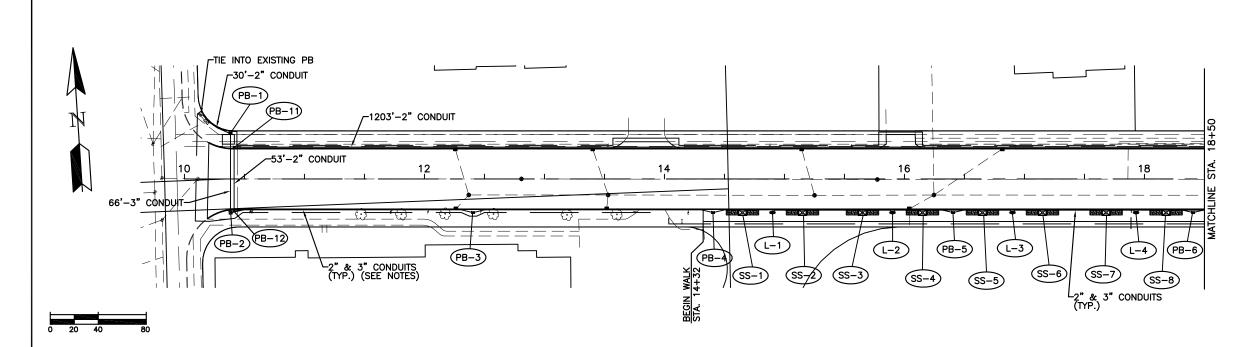
SIGN SUBSUMM	MARY
	630
	REMOVAL OF GROUND MOUNTED SIGN AND REFRECTION
LOCATION	EACH
12+47	1
17+46	1
19+82	1
24+58	1
TOTALS CARRIED TO GENERAL SUMMARY	4

CITY ENGINEER

V, OHIO
P.E., CITY ENGINEER

OFFICE OF THE CITY CANTON, (
DANIEL J. MOEGLIN, P.E., C
2438 30th STREET NE. 44705

SIGNING AND PAVEMENT MARKINGS 13TH STREET NW RECONSTRUCTION

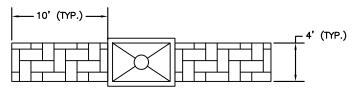


- NOTES:

  1. LONGITUDINAL CONDUITS SHALL BE PLACED DIRECTLY BEHIND THE CURB AND HAVE 12" MINIMUM OF COVER.

  2. 2" LIGHTING CONDUIT ON NORTH SIDE OF 13TH ST. SHALL BE CONTINUOUS BETWEEN PULL BOXES AND IS FOR FUTURE USE.

  3. 2" LICHTING CONDUIT ON SOUTH.
- 3. 2" LIGHTING CONDUIT ON SOUTH SIDE OF 13TH ST. SHALL RUN BETWEEN LIGHT POLE FOUNDATIONS WITH THE EXCEPTION OF THE CONDUIT WEST OF L-1. THIS CONDUIT SHALL BE CONTINUOUS BETWEEN L-1 AND PB-12 FOR FUTURE USE.
- 4. 3" INTERCONNECT CONDUIT SHALL RUN BETWEEN PULL BOXES. ALL SWEEPS SHALL BE GRADUAL (157.5" MAX. BEND).



BRICK BOX AND TREE GRATE DETAIL NOTE: SEE CITY OF CANTON STANDARD DRAWINGS 40-43 FOR ADDITIONAL DETAILS

	MARY				
			625	625	625
REF.	LOCA	TION	CONDUIT, 3", 725.051	PULL BOX, MISC.: 725.06, 17" x 30"	PULL BOX, MISC.: 725.06, 36" × 36"
	FROM	TO	FT	EACH	EACH
	10+13	10+38	30		
PB-1	10+38			1	
	10+38 LT	10+38 RT	66		
PB-2	10+38				1
	10+38	12+40	202		
PB-3	12+40			1	
	12+40	14+40	200		
PB-4	14+40			1	
	14+40	16+40	200		
PB-5	16+40			1	
	16+40	18+40	200		
PB-6	18+40			1	
	18+40	18+50	10		
TOTALS C	ARRIED TO SUMMARY	GENERAL	908	5	1

LIGHTING SUBSUMMARY										
			625	625	625 625					
REF.	LOCA	ATION	CONDUIT, 2", 725.051	PULL BOX, MISC.: 725.06, 13" x 24"	LIGHT POLE FOUNDATION, AS PER PLAN	GROUND ROD, AS PER PLAN				
	FROM	TO	FT	EACH	EACH	EACH				
PB-11	10+41	10+41		1						
	10+41	18+50	809							
	10+41 LT	10+41 RT	53							
PB-12	10+41			1						
	10+41	14+90	200							
L-1	14+90				1	1				
	14+90	15+90	100							
L-2	15+90				1	1				
	15+90	16+90	100							
L-3	16+90				1	1				
	16+90	17+93	103							
L-4	17+93				1	1				
	17+93 18-		57							
TOTALS C	ARRIED TO SUMMARY	GENERAL	1422	2	4	4				

					SIDEWALK A	AND STREE	TSCAPE SU	JBSUMMAR'	Y				
						203	204	304	638	608	608	SPEC	SPEC
REF.	LOCA	ATION	LENGTH	МІРТН	AREA	EXCAVATION	SUBGRADE COMPACTION	AGGREGATE BASE	SEEDING AND MULCHING	5" CONCRETE WALK, AS PER PLAN	WALKWAY, MISC.: CONCRETE BASE	BRICK WALKWAY PAVERS	TREE FRAME AND GRATE
	FROM	TO	FT	FT	SQ FT	CU YD	SQ YD	CU YD	SQ YD	SQ FT	SQ FT	SQ FT	EACH
	14+32	14+51.5	19.5	10	195	5.4	21.7	2.4	4.3	195			
	14+51.5	14+78.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	14+78.5	15+01.5	23	10	230	6.4	25.6	2.8	5.1	230			
	15+01.5	15+28.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	15+28.5	15+51.5	23	10	230	6.4	25.6	2.8	5.1	230			
	15+51.5	15+78.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	15+78.5	16+01.5	23	10	230	6.4	25.6	2.8	5.1	230			
	16+01.5	16+28.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	16+28.5	16+51.5	23	10	230	6.4	25.6	2.8	5.1	230			
	16+51.5	16+78.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	16+78.5	17+01.5	23	10	230	6.4	25.6	2.8	5.1	230			
	17+01.5	17+28.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	17+28.5	17+54.5	26	10	260	7.2	28.9	3.2	5.8	260			
	17+54.5	17+81.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	17+81.5	18+04.5	23	10	230	6.4	25.6	2.8	5.1	230			
	18+04.5	18+31.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	18+31.5	18+50	19.5	10	195	5.4	21.7	2.4	4.3	195			
SS-1	14+65					2.8	10	1.1			90	90	1
SS-2	15+15					2.8	10	1.1			90	90	1
SS-3	15+65					2.8	10	1.1			90	90	1
SS-4	16+15					2.8	10	1.1			90	90	1
SS-5	16+65					2.8	10	1.1			90	90	1
SS-6	17+15					2.8	10	1.1			90	90	1
SS-7	17+68					2.8	10	1.1			90	90	1
SS-8	18+18					2.8	10	1.1			90	90	1
TOTALS	CARRIED TO	CENEDAL											
TOTALS C	SUMMARY	GENERAL				112	438	48	93	3218	720	720	8

CIDEWALK AND CEDETCOADE CUDCUMMADY

NOTES:

1. LONGITUDINAL CONDUITS SHALL BE PLACED DIRECTLY BEHIND THE CURB AND HAVE 12" MINIMUM OF COVER.

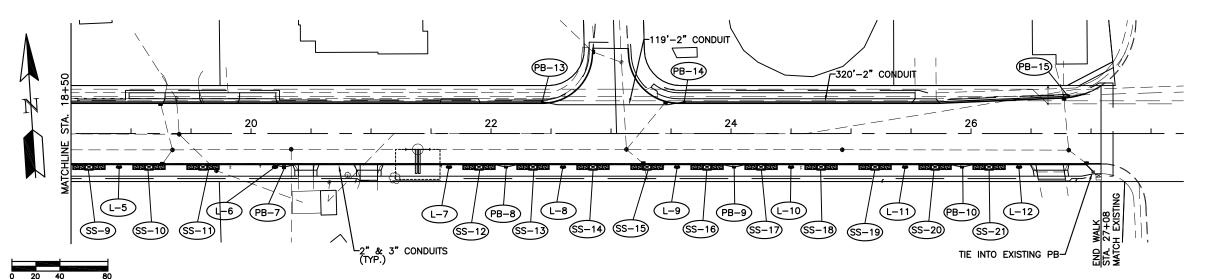
2. 2" LIGHTING CONDUIT ON NORTH SIDE OF 13TH ST. SHALL BE CONTINUOUS BETWEEN PULL BOXES AND IS FOR FUTURE USE.

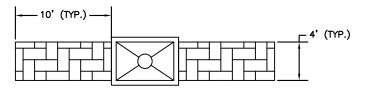
- AND IS FOR FUTURE USE.

  2" LIGHTING CONDUIT ON SOUTH
  SIDE OF 13TH ST. SHALL RUN
  BETWEEN LIGHT POLE FOUNDATIONS
  WITH THE EXCEPTION OF THE
  CONDUIT WEST OF L-1. THIS
  CONDUIT SHALL BE CONTINUOUS
  BETWEEN L-1 AND PB-12 FOR
  FUTURE USE.

  3" INTERCONNECT CONDUIT SHALL
- 3" INTERCONNECT CONDUIT SHALL RUN BETWEEN PULL BOXES. ALL SWEEPS SHALL BE GRADUAL (157.5" MAX. BEND).

203 204 304 638 608 608 SPEC SPEC





BRICK BOX AND TREE GRATE DETAIL NOTE: SEE CITY OF CANTON STANDARD DRAWINGS 40-43 FOR ADDITIONAL DETAILS

	TRAF	FIC SIGNAL	SUBSUM	MARY			
			625	625	625		
REF.	LOCA	ATION	CONDUIT, 3", 725.051	PULL BOX, MISC.: 725.06, 17" x 30"	PULL BOX, MISC.: 725.06, 36" x 36"		
	FROM	TO	FĪ	EACH	EACH		
	18+50	20+27	177				
PB-7	20+27				1		
	20+27	22+12	185				
PB-8	22+12			1			
	22+12	24+02	190				
PB-9	24+02			1			
	24+02	25+92	190				
PB-10	25+92			1			
	25+92	27+02	110				
TOTALS C	ARRIED TO SUMMARY	GENERAL	852	3	1		

		LIGHTI	NG SUBSUI	MMARY		
			625	625	625	625
REF.	LOCA	NTION	CONDUIT, 2", 725.051	PULL BOX, MISC.: 725.06, 13" x 24"	LIGHT POLE FOUNDATION, AS PER PLAN	GROUND ROD, AS PER PLAN
	FROM	TO	FT	EACH	EACH	EACH
	18+50	22+42	402			
PB-13	22+42			1		
	22+42	23+61	119			
PB-14	23+61			1		
	23+61	26+81	320			
PB-15	26+81			1		
	18+50	18+90	40			
L-5	18+90				1	1
	18+90	20+20	130			
L-6	20+20				1	1
	20+20	21+65	145			
L-7	21+65				1	1
	21+65	22+60	95			
L-8	22+60				1	1
	22+60	23+55	95			
L-9	23+55				1	1
	23+55	24+50	95			
L-10	24+50				1	1
	24+50	25+45	95			
L-11	25+45				1	1
	25+45	26+40	95			
L-12	26+40				1	1
	26+40	27+02	62			
TOTALS C	ARRIED TO SUMMARY	GENERAL	1693	3	8	8

REF.	LOCA	ATION	LENGTH	МІВТН	AREA	EXCAVATION	SUBGRADE COMPACTION	AGGREGATE BASE	SEEDING AND MULCHING	5" CONCRETE WALK, AS PER PLAN	WALKWAY, MISC.: CONCRETE BASE	BRICK WALKWAY PAVERS	TREE FRAME AND GRATE
	FROM	то	FT	FT	SQ FT	CU YD	SQ YD	CU YD	SQ YD	SQ FT	SQ FT	SQ FT	EACH
	18+50	18+51.5	1.5	10	15	0.4	1.7	0.2	0.3	15			
	18+51.5	18+78.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	18+78.5	19+01.5	23	10	230	6.4	25.6	2.8	5.1	230			
	19+01.5	19+28.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	19+28.5	19+46.5	18	10	180	5	20	2.2	4	180			
	19+46.5	19+73.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	19+73.5	21+76.5	203	10	2030	56.4	225.6	25.1	45.1	2030			
	21+76.5	22+03.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	22+03.5	22+21.5	18	10	180	5	20	2.2	4	180			
	22+21.5	22+48.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	22+48.5	22+71.5	23	10	230	6.4	25.6	2.8	5.1	230			
	22+71.5	22+98.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	22+98.5	23+16.5	18	10	180	5	20	2.2	4	180			<del></del>
	23+16.5	23+43.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			<del></del>
	23+43.5 23+66.5	23+66.5	23 27	10 5.5	230 148.5	6.4	25.6 16.5	2.8 1.8	5.1 6	230 148.5			<del></del>
	23+66.5	23+93.5	18	10	180	4.1 5	20	2.2	4	180			<del></del>
	24+11.5	24+11.5 24+38.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			<del></del>
	24+38.5	24+61.5	23	10	230	6.4	25.6	2.8	5.1	230			$\overline{}$
	24+61.5	24+88.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	24+88.5	25+06.5	18	10	180	5	20	2.2	4	180			
	25+06.5	25+33.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	25+33.5	25+56.5	23	10	230	6.4	25.6	2.8	5.1	230			
	25+56.5	25+83.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	25+83.5	26+01.5	18	10	180	5	20	2.2	4	180			
	26+01.5	26+28.5	27	5.5	148.5	4.1	16.5	1.8	6	148.5			
	26+28.5	27+02	73.5	10	735	20.4	81.7	9.1	16.3	735			
SS-9	18+65					2.8	10	1.1			90	90	1
SS-10	19+15					2.8	10	1.1			90	90	1
SS-11	19+60					2.8	10	1.1			90	90	1
SS-12	21+90					2.8	10	1.1			90	90	1
SS-13	22+35					2.8	10	1.1			90	90	1
SS-14	22+85					2.8	10	1.1			90	90	1
SS-15	23+30					2.8	10	1.1			90	90	1
SS-16	23+80					2.8	10	1.1			90	90	1
SS-17	24+25					2.8	10	1.1			90	90	1
SS-18	24+75					2.8	10	1.1			90	90	1 1
SS-19	25+20					2.8	10	1.1			90	90	1
SS-20	25+70					2.8	10	1.1			90	90	1
SS-21	26+15					2.8	10	1.1			90	90	1
TOTALS CARRIED TO GENERAL SUMMARY					230	902	98	189	6941	1170	1170	13	

SIDEWALK AND STREETSCAPE SUBSUMMARY

