



City of Wentzville
Kimberly Butts, Director of Procurement
310 West Pearce Boulevard
Wentzville, Missouri 63385
(636) 639-2005

Invitation for Bids

IFB #16-542

ROTARY PARK RESTROOMS REBID & GRINDER LIFT STATION PROJECT

Date Bid Issued: November 4, 2016

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BID NOTICE
IFB 16-542

November 4, 2016

The City of Wentzville (the “City”) is requesting sealed bids from qualified contractors for:
Rotary Park Restrooms Rebid & Grinder Lift Station Project.

The Rotary Park Restrooms Rebid and Grinder Lift Station Project (“Project”) shall consist of the construction of the building and site at Rotary Park, along with the Grinder Lift Station and other incidental items and work described in the Project Manual or reasonably inferable therefrom. The Grinder Lift Station shall in general consist of 432 linear feet of 6” sanitary lateral, 598 linear feet of 2” force main, and one (1) duplex grinder pump lift station to service the restroom facility.

PRE-BID MEETING:

A non-mandatory pre-bid meeting will be held at City Hall, 310 W. Pearce Blvd., Wentzville, MO 63385 at 9:30 am on November 10, 2016.

Sealed bids will be accepted by the City of Wentzville Procurement Department, City Hall, 310 W. Pearce Blvd, Wentzville, MO 63385 until 2:00 pm (local time) on November 22, 2016. Bids will be opened and read aloud.

Bid documents and plans are available on the City’s Bid Opportunities website http://www.wentzvillemo.org/departments/procurement/current_bidding_opportunities.php . You will be required to create a free log-in with Vendor Registry in order to download the bid documents and plans.

A set of the bid documents and plans are available for public inspection at Wentzville City Hall, 310 W. Pearce Blvd., Wentzville, MO 63385.

All questions regarding this project shall be submitted to Jill Schmitz, Procurement Specialist at Jill.Schmitz@wentzvillemo.org and be in writing by end of business day November 16, 2016.

The City reserves the right to reject any or all bids, or portions thereof, to waive technicalities or deficiencies in any or all the bids. The City of Wentzville reserves the right to cancel this IFB in part or in its entirety. This IFB does not commit the City of Wentzville to award a contract or to pay any costs to bidders in preparation of their bid.

The successful bidder shall be required to comply in all respects with the State Statutory provisions concerning the payment of prevailing wages on Public Works, Section 290.262 RSMo and shall pay to all workmen performing the work under the Contract not less than the prevailing hourly rate of wages as determined by the Department of Labor and Industrial Relations of the State of Missouri.

The City of Wentzville hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this solicitation, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

City of Wentzville
Kimberly Butts, CPPO, CPSM
Director of Procurement

INFORMATION FOR BIDDERS

1. **Background and Funding:** The Rotary Park Restroom Rebid and Grinder Lift Station Project shall include the construction of a restroom addition to the existing building and the construction of a new Grinder Lift Station at Rotary Park.

Job Site Location: 2577 W. Meyer Road, Wentzville, MO 63385

This project is fully funded through City of Wentzville funding.

2. **Questions and Addendums:** All questions must be submitted in writing via email to Jill Schmitz, Procurement Specialist at Jill.Schmitz@wentzvillemo.org with the project name in the subject line before time and date indicated. No verbal interpretation will be recognized; any and all such interpretations shall be confirmed in an addendum to the bid by the City.

Addendums will be posted on the City's website at: http://www.wentzvillemo.org/departments/procurement/current_bidding_opportunities.php.

Bidders are responsible for checking the City's website for the issuance of any addendums. The Bidding Opportunities website shall be the official site for information as related to this IFB.

To ensure fair consideration for all bidders, the City prohibits communication to or with any City department(s), board member(s), or employee(s) during the submission process, except as provided above. Additionally, the City prohibits communications initiated by a bidder to the City official(s) or employee(s) evaluating or considering the bids prior to the time an award decision is made. Any communication between Bidder and the City will be initiated by the appropriate City official(s) or employee(s) in order to obtain information or clarification needed to develop a proper, accurate evaluation of the bid. Such communications initiated by a bidder may be grounds for disqualifying the offending bidder from consideration for award of the bid and/or any future bid(s).

3. **Sealed Bids Required:** No type of electronic submittal (fax, email, etc.) of bids will be accepted. The sealed envelope shall be clearly marked with the IFB number and title, and Bidder Name on the outside of envelope.

4. **Bidder Documentation:** All responses, inquiries, or correspondence relating to, or in reference to, this Invitation for Bid, and all reports, charts, displays, schedules, exhibits and other documentation by the Bidder shall become the property of the City when received. All bids submitted shall also become the property of the City. If any proprietary information is contained in the bid, it should be clearly identified. Marking the entire bid as proprietary will be neither accepted nor honored. If a request is made to view a Bidder's bid submission, the City will comply according to Missouri Sunshine Law.

5. **Bid Opening:** Bids will be publicly opened and read aloud on the date and time and at the location indicated. The Bidder is solely responsible for insuring its bid is received at the time, date, and location specified. The bid opening is public and anyone may attend.

6. **Examination of Bid/Contract Documents and Site of Work:** The Bidder is expected to carefully examine the site of proposed work, the specifications, and the Bid/Contract documents before submitting a bid. The submission of a bid shall be considered prima facie evidence that the Bidder has made such examination and is satisfied to the conditions to be encountered in performing the work and as to the requirements of the Bid/Contract

documents. Differing site conditions from the bid documents may not be used for justification of a change order.

7. Product Substitutions: Requests for product substitutions will not be considered during bidding. If Contractor's bid includes substitutions it shall be at the Contractor's risk and responsibility to demonstrate that the substitution is a "functional equivalent" product during submittal reviews. During the review process, if substituted products are determined not to be functionally equivalent, Contractor shall provide products as specified at no additional cost to the City.

8. Laws to be Observed: The Contractor shall at all times observe and comply with all Federal and State laws, all local laws, ordinances, and regulations existing at the time of or enacted subsequent to the execution of the contract which, if in any manner, affect the execution of the work.

9. Taxes: This project is exempt from all sales taxes for construction materials and supplies used directly in fulfilling contract requirements. Sales tax shall not be included into the price(s) for this project. The contractor shall follow the regulations as outlined in Section 144.062 RSMo Construction Materials Exemption Allowed.

10. Prevailing Wage: The successful Bidder shall be required to comply in all respects with State Wage Rates, including applicable statutory provisions concerning payment of prevailing wages on public works projects, Sections 290.210 through 290.340 RSMo as currently amended, and shall pay to all workmen performing under work contract not less than prevailing hourly rate of wages as determined by the Department of Labor and Industrial Relations of the State of Missouri

As such, the bid for this project shall be based upon the required payment by the Contractor for wages for each craft or type of workmen required to execute the Contract. A schedule of such prevailing hourly rate of wages as determined by the Department of Labor and Industrial Relations of Missouri, pursuant to said statutory provisions is attached hereto and made a part of this Contract.

11. OSHA Required Training: Pursuant to Section 292.675 RSMo, Contractor shall require all on-site employees to complete the ten-hour training program as required under Section 292.675 RSMo. This program shall be provided by Contractor and shall be a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for Contractor's on-site employees which includes a course in construction safety and health approved by OSHA or a similar program approved by the Missouri Department of Labor and Industrial Relations ("MoDOLIR") which is at least as stringent as an approved OSHA program. All employees are required to complete the program within sixty days of beginning work under this Agreement. Contractor shall further require all subcontractors under Contractor to provide the ten-hour training program required under Section 292.675 RSMo. to such subcontractors' on-site employees. On-site employees who have previously completed such ten-hour training program must hold documentation of prior completion of the program.

12. Equal Employment Opportunity: The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or disability. Such action shall include, but not be limited to, the following: employment,

upgrading, demotion, or transfer; recruitment; advertising; layoff or termination; rates of pay or other forms of compensation; and selection of training, including apprenticeship. The Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or disability. The Contractor shall incorporate the foregoing requirements of this paragraph in all of its subcontracts for work performed under the terms and conditions of this Contract. A breach of this provision may be grounds for termination of this Contract.

13. References: The City may request references from any bidder.

14. Method of Award: The solicitation shall be awarded to the lowest, responsive, responsible bidder. The City reserves the right, in its sole discretion, to reject any or all bids, or portions thereof, to waive technicalities or deficiencies in any or all the bids.

The responsiveness of the bidder shall be determined by the City based whether their bid fully conforms in all material respects to the solicitation and all of its requirements, including all form and substance.

The responsibility of the bidder shall be determined by the City based on, but not limited to, whether the bidder is capable of meeting all of the requirements of the solicitation and subsequent contract; possesses full capability, including financial and technical, to perform as contractually required; and the quality and performance of previous contracts or services.

15. Notice of Intent to Award: The successful bidder will receive a Notice of Intent to Award listing documentation that the bidder is required to submit, which includes but is not limited to the following:

- City-Contractor Agreement (*sample included with this solicitation*)
- Affidavit of Participation in Federal Work Authorization Form (*sample included with this solicitation*)
- E-Verify Memorandum of Understanding (*showing electronic signatures of Contractor and Homeland Security*)
- Insurance
- Bonds

16. Performance Bond: If the Contractor's Bid is in excess of \$50,000.00, the Contractor shall also furnish within ten (10) days of notification of contract award a satisfactory Performance Bond in the full amount of the Bid based on the bid quantities listed on the Pricing Form. The Performance Bond furnished shall guarantee the faithful performance of the Work and warrant the Work for the guaranty period established in this City-Contractor Agreement.

17. Payment Bond: If the Contractor's Bid is in excess of \$50,000, the Contractor shall furnish within ten (10) days of notification of contract award a satisfactory Payment Bond in the full amount of the Contract Sum. The Payment Bond furnished shall meet all requirements of Section 107.170 of the Revised Statutes of Missouri, as amended, and shall guarantee the payment of any and all materials, incorporated, consumed or used in connection with the construction of such work, and all insurance premiums, both for compensation, and for all other kinds of insurance, said work, and for all labor performed in such work whether by subcontractor or otherwise, including payment of prevailing wage requirements of the State of Missouri.

18. Bond Premiums: The premiums on all the bonds shall be paid by the Contractor.

19. Transient Employers: Every transient employer, as define in Section 285.230 RSMo., shall post in a prominent and easily accessible place at the work site a clearly legible copy of the following: (1) the notice of registration for employer withholding issued to such transient employer by the director of revenue; (2) proof of coverage for workers' compensation insurance signed by the transient employer and verified by the department of revenue through the records of the division of workers' compensation insurances signed by the transient employer and verified by the department of revenue through the records of the division of workers' compensation; and (3) the notice of registration for unemployment insurance issued to such transient employer by the division of employment security. Any transient employer failing to comply with these requirements shall, under Section 285.234 RSMo., be liable for penalty of \$500 per day until the notices required by this section are posted as required by statute.

20. Notice to Proceed: Upon submittal and acceptance of all items as outlined in the Notice of Award, the successful bidder will receive Notice to Proceed and will be required to attend a Pre-Construction Meeting prior to beginning work.

The City will issue the Contractor a tax exemption letter and a project exemption certificate. These documents are to be given to the contractor's suppliers and used only for the specific project identified and will expire on the date indicated unless renewed by the City.



EXHIBIT A PRICING FORM

For: IFB #16-542– Rotary Park Restrooms Rebid & Grinder Lift Station Project

To: Procurement Department
City of Wentzville
310 W. Pearce Blvd.
Wentzville, MO 63385

Pursuant to and in compliance with your Invitation for Bid, the Information for Bidders, Contract Document and Specifications and other documents relating thereto, the undersigned Bidder hereby proposes and agrees/guarantees that:

1. They have visited and examined the project site(s) and have carefully examined the Contract Documents and Specifications and any and all Addenda, as indicated below.
2. If this Invitation for Bid is accepted, to furnish all tools, equipment, labor, materials, supplies, and services to construct the project in strict conformance with the Contract Documents and Specifications, within the time set forth therein, for the price indicated in this Exhibit A Pricing Form). These prices are to cover all expenses incurred in performing the work required under the Agreement of Services, of which this Pricing Form is a part.
3. If awarded the Contract for the above work, they will have a maximum of ten (10) calendar days; excluding holidays from the date of the Notice of Intent to Award letter to submit supportive documentation as outlined in the notification letter. Failure to complete the outlined requirements within such timeframe shall be subject to forfeiture of the subject contract.
4. Time is of the essence. The Contractor will commence construction of the work promptly upon receipt of the Notice to Proceed, after the Pre-Construction Meeting, and will complete the project without delay in accordance with the Contract Documents and Specifications.
5. If the Bid is accepted, the Contractor will substantially complete (make available for use) the said work within one hundred fifty (150) calendar days after receiving the Notice to Proceed, and that should they fail to complete the work in the time specified or such additional time as may be allowed by the Engineer under the Contract, the amount of liquidated damages to be recovered shall be per the City-Contractor Agreement.
6. The Bid is firm for 90 days from the bid opening date.
7. Bidder understands and will comply with all terms and conditions of these Bid Documents, the City-Contractor Agreement, and the Contract Documents and Specifications and any subsequent award or contract.
8. Bid bond required if total bid price exceeds \$50,000.00: The bid bond (5% of bid amount) submitted with this Bid is from a surety that is authorized to do business in the State of Missouri and is authorized to issue bonds in the State of Missouri.

Bidder Name: _____

Exhibit A - Pricing Form (Continued)

Rotary Park Restroom Rebid and Grinder Lift Station Bid

In response to the Invitation for Bids for IFB#16-542, and in accordance with the Instructions to Bidders and other Bidding Documents, the undersigned Bidder declares that he has had an opportunity to examine the site of the Work and has carefully examined the Contract Documents therefore, including the Addenda identified below, and on the basis thereof, and being fully familiar with the local conditions affecting the Work, and upon written notice of award of contract, acknowledges and agrees to provide all labor, material, equipment, tools, management and supervision, safety and technical services, insurance, bonds and incidentals necessary or required for the faithful performance of the Contract Work in accordance **with the specifications and plans for the restrooms prepared by Cochran, and the specifications and plans for the Grinder Lift Station provided by the City of Wentzville** in a safe, timely and workmanlike manner for the following Bid Price indicated in the Itemized Bid Form below:

<i>Item No.</i>	<i>Estimated Quantity</i>	<i>Unit</i>	<i>Description</i>	<i>Unit Price</i>	<i>Total Price</i>
<u>Grinder Lift Station Bid</u>					
1	1	LS	Mobilization (JSP-1)		
2	1	LS	Sediment and Erosion Control (JSP-2)		
3	1	LS	Excavation (JSP-3)		
4	1	LS	Embankment (JSP-4)		
5	1	LS	Single Phase Electric Power Supply for Grinder Lift Station (JSP-5)		
6	1	LS	Grinder Lift Station (JSP-6)		
7	1	LS	External Sanitary Piping (JSP-7)		
8	1	LS	Site Restoration (JSP-8)		
		SUBTOTAL GRINDER LIFT STATION BID (Items 1 thru 8)			
<u>Restroom Building and Associated Sitework Bid</u>					
9	1	LS	Restroom Building Addition		
10	1	LS	Storm drainage and downspout leaders		
11	1	LS	Water lateral from water main to building, including the meter and tap		
12	1	LS	Mobilization, Sediment and Erosion Control, Excavation, External Sanitary Piping, Site Restoration required for the Restroom Building (See Sheet C1)		
		SUBTOTAL RESTROOM BUILDING (Items 9 thru 12)			

Bidder Name: _____

Exhibit A - Pricing Form (Continued)

Total Bid Price (Items 1 thru 12) (numerical): \$ _____

Total Bid Price (Items 1 thru 12) (written in words): _____

Unit Based Pricing

<i>Item No.</i>	<i>Unit</i>	<i>Description</i>	<i>Unit Price</i>
1	CY	Excavation Class "A" (in excess of 5 CY)	

Indicate below all Addenda received on which your bid is based:

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

The Contractor understands and agrees that by signing the Invitation for Bid the Bidder is certifying that Contractor employs only personnel authorized to work in the United States in accordance with applicable federal and state laws. This certification applies to State of Missouri Immigration Alien Laws and statutes required local government(s) to have proof of a person's lawful presence within the United States before distributing "Public Benefits" (contracts, purchase orders, etc.) to that Bidder.

Legal Company Name: _____

Indicate whether () Individual; () Partnership; () Corporation, () LLC
Incorporated in the State of _____.

Authorized Signature: _____

Name (Printed): _____

Title: _____

Business Address: _____

City: _____

State: _____ Zip: _____

Telephone No: _____ Fax No: _____

State Charter #: _____

Bidder Name: _____

Exhibit A - Pricing Form (Continued)

Email address: _____

ATTEST: _____
Title Dated

Attach Corporate Seal, if Applicable

Enclosures: Exhibit A – Pricing Form
Exhibit B – Subcontractor Form
Exhibit C – Non-Collusive Affidavit
Bid Security of 5% of Bid Amount if Bid Amount exceeds \$50,000



**EXHIBIT C
AFFIDAVIT OF NON-COLLUSION (PRIME BIDDER)**

State of _____)
S.S.

County of _____)

_____, being first duly sworn, deposes and says that:

1. They are the (owner, partner, officer, representative, or agent) of _____
_____, the Bidder that has submitted the attached Bid;

2. They are fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

3. Such bid is genuine and is not a collusive or sham bid; and that all statements made and fact set out in the Invitation for Bid are true and correct;

4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest including this affidavit, has in any way colluded, considered, connived, or agreed, directly or indirectly with any other bidder, firm, or person, to submit a sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract; or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm, or person to fix the price or prices in the attached Bid or of any other bidder, or to fix the overhead, profit, or cost element of the Bid price of the other bidder, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of Wentzville or any person interested in the Proposed Contact.

5. The price or prices quoted in the attached Bid are fair and proper, and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit; and

6. They further certify that bidder is not financially interested in or financially affiliated with any other Bidder on this project.

Signed: _____

Title:

Subscribed and sworn to before me this _____ day of _____, 2016.

Notary Public

My Commission expires: _____



Presented as Sample Enclosure
CITY - CONTRACTOR AGREEMENT
#16-542

ROTARY PARK RESTROOMS REBID AND GRINDER LIFT STATION PROJECT

This CITY-CONTRACTOR AGREEMENT (this “Agreement”), is made and entered into as of this ____ day of _____, 2016, by and between _____, a _____ having a principal office at _____ (the “Contractor”), and the City of Wentzville, a Missouri municipal corporation located in St. Charles County (the “City”). *All capitalized terms used and not defined herein shall have the meanings ascribed to them in the Contract Documents (as hereinafter defined).*

RECITALS

- A. In response to Invitation for Bid #16-542 for Rotary Park Restrooms Rebid & Grinder Lift Station, the Contractor has submitted a certain bid in accordance with the Bid Documents to perform the Services.
- B. After due consideration, the City has accepted the bid of the Contractor and the parties hereto desire to enter into this Agreement whereby the Contractor shall undertake the performance of the Services in accordance with the Contract Documents and the City shall pay the Contractor as hereinafter specified.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and of the mutual promises hereinafter set forth the City and the Contractor hereby agree as follows:

- 1. **Contract Documents:** This Agreement shall consist of:
 - 1. Invitation for Bids
 - 2. Any addendums issued to the bid
 - 3. Bid and Pricing Form – Exhibit A (submitted by Contractor)
 - 4. Subcontractor Form – Exhibit B
 - 5. Affidavit of Non-Collusion – Exhibit C
 - 6. Supplementary Construction Details – Exhibit D
 - 7. Submittal Schedule – Exhibit E
 - 8. Restroom Drawings
 - 9. Grinder Lift Station Drawings
 - 10. E-Verify Memorandum of Understanding with Electronic Signatures
 - 11. Affidavit of Participation in Federal Work Authorization Program Form
 - 12. Certificate of Insurance (submitted by Contractor)
 - 13. City-Contractor Agreement (executed by City and Contractor)
 - 14. Terms and Conditions
 - 15. General Conditions

- 16. Notice of Award (issued by City)
- 17. Notice to Proceed (issued by City)

and shall also include any exhibits to the above documents, any addenda issued prior to receipt of bids, any duly-issued modifications, and all other documents contained or specified within the specifications, details or job special provisions, as such may be on file in the Office of the Procurement Department and Office of the City Clerk of Wentzville, Missouri (all of the foregoing collectively referred to as the "Contract Documents" are hereby incorporated in this Agreement by reference).

- 2. **Coordination of Contract Documents:** The Contract Documents are intended to be complimentary and to describe and provide for a complete Work. In case of conflict or inconsistency among the Contract Documents, the governing ranking will be:
 - (a) Plans for Construction
 - (b) City of Wentzville Standard Specifications and Construction Details, most current effective date
 - (c) Exhibit A Pricing Sheet, Bid Items and/or Quantities

In case of conflict or inconsistency, calculated dimensions will govern over scaled dimensions. In the instance when any provision(s) of the Contract Documents not explicitly listed above conflict, the provision(s) most advantageous to the City shall govern.

All contractors, including subcontractors, shall not take advantage of any apparent error or omission in the Contract Documents. If an error or omission is discovered, the Engineer shall be notified promptly and prior to commencement of work related to said error or omission so corrections and interpretations necessary to fulfill the intent of the Contract can be made. A failure to give notice prior to commencement of work related to said error or omission shall render the effects of any error or omission non-compensable and any delay non-excusable.

- 3. **Payment:** Contractor shall be paid for the quantities placed based on a percent complete per the amount quoted of each amount on the Pricing Form Exhibit A. The Contractor shall submit all invoices complete with necessary supporting documentation and partial lien waivers to indicate the percentage complete of each sum amount to the City. The City shall make payment within 30 days of receipt of an invoice after satisfactory performance of the delivery and receipt of the services as shown on the Pricing Form Exhibit A. Final determination of percentage complete will be made by the Engineer. Invoices shall be submitted no more than once a month except for the final payment. Payment Terms: net 30 days. Remit Address is Accounts Payable, 5 W. Pearce Blvd., Wentzville, MO 63385.
- 4. **Prompt Payment:** All public works contracts shall provide for prompt payment by the City to the Contractor (as well as prompt payment by the Contractor to the subcontractor and material supplier) unless contrary to any federal funding requirements, per RSMo 34.057.
- 5. **The Work/Contract Sum.** The Contractor shall furnish all labor, materials, tools, equipment and services, and perform and complete the Work required for the Project in accordance with this Agreement which shall include provision of every item specified in the Contract Documents necessary to complete the Project as designed.

The Contract Sum is \$ insert dollar amount (and spell out dollar amount), which shall include all compensation to Contractor due for the Work, which shall include all such work within the Base Bid and additionally all such Work within selected Alternate Bids. Any additional Work not within the Base Bid and Alternate Bids that is hereinafter approved by the City in writing shall be incorporated into the contract pursuant to a Change Order.

6. **Time of Completion:** Contractor shall commence work under this Agreement as specified in the Notice to Proceed and shall fully complete all items of the Work within the time set forth in the Contract Documents. The parties understand that time is of the essence and that the rate of progress and prompt completion are essential conditions, and that in the event the Work is not fully completed within the period provided herein, the Contractor shall pay to the City the sums provided in the Contract Documents.
7. **Guaranty:** The Contractor hereby expressly guarantees the aforesaid Work as to workmanship and quality of materials used in connection herewith for a term of one (1) year, commencing on the date of Final Acceptance by the City, and binds itself, its successors or assigns, to make all repairs or replacements which may become necessary within said period due to construction defects and nonconformity with the Contract Documents. Whenever notified by the City that said repairs or replacements are required, the Contractor shall at once make the same as directed at its own expense. If the Contractor does not proceed with such repairs or replacements within five (5) days after receipt of written notice, the City may use (and the Contractor agrees and consents to such use) the Maintenance Bond, according to the terms thereof, to make any necessary repairs or replacements to any portion of the Work. Upon expiration of the one (1) year guaranty period, the City shall release the Maintenance Bond, less any amounts reasonably necessary to remedy any of the Contractor's performance and/or maintenance obligations under this Agreement that may still be outstanding at the time of expiration of the guaranty period.
8. **Performance Bond:** If the Contractor's Bid is in excess of \$50,000, the Contractor shall furnish within ten (10) calendar days of notification of contract award a satisfactory Performance Bond in the full amount of the Bid based on the bid quantities listed on the Pricing Form. The Performance Bond furnished shall guarantee the faithful performance of this Contract.
9. **Payment Bond:** If the Contractor's Bid is in excess of \$50,000, the Contractor shall furnish within ten (10) calendar days of notification of contract award a satisfactory Payment Bond in the full amount of the Contract Sum. The Payment Bond furnished shall meet all requirements of Section 107.170 of the Revised Statutes of Missouri, as amended, and shall guarantee the payment of any and all materials, incorporated, consumed or used in connection with the construction of such work, and all insurance premiums, both for compensation, and for all other kinds of insurance, said work, and for all labor performed in such work whether by subcontractor or otherwise, including payment of prevailing wage requirements of the State of Missouri.
10. **Maintenance Bond:** Upon Final Acceptance the Contractor shall furnish a satisfactory Maintenance Bond in the amount of 10% of the final Contract Sum after any and all Change Orders and/or formal amendments. The Maintenance Bond shall be in full force for a one (1) year guarantee period from the date of Final

Acceptance. The submitted Maintenance Bond shall be substantially in the form of the "Form of Maintenance Bond" included within the Bid Documents.

11. **Independent Contractor.** The Contractor shall be and operate as an independent Contractor in the performance of this Agreement. The Contractor shall have complete charge of the personnel engaged in the performance of the Services, and all persons employed by the Contractor shall be employees of said Contractor and not employees of the City in any respect.
12. **Contractor's Liability Insurance.** The Contractor shall obtain and maintain during the term of the Project and the City Contractor Agreement the insurance coverage's at least equal to the coverage's set forth in this paragraph 12, and as further provided in the Terms and Conditions, and General Conditions, but no event less than the individual and combined sovereign immunity limits established by Section 537.610 RSMo Insurance policies providing required coverage's shall be with companies licensed to do business in the State of Missouri and rated no less than AA by Best or equivalent. All costs of obtaining and maintaining insurance coverage's are included in the Bid Amount and no additional payment will be made therefor by the City:

Comprehensive General Liability Insurance (including coverage for Bodily Injury and Property Damage)	\$1,000,000 per occurrence \$2,735,000 aggregate
Comprehensive Automobile Liability Insurance (including coverage for Bodily Injury and Property Damage)	\$1,000,000 per occurrence
Employer's Liability	\$1,000,000 bodily injury by accident (each accident) \$1,000,000 bodily injury by disease (each employee) \$1,000,000 bodily injury policy limit

In addition, the Contractor and all subcontractors shall provide Worker's Compensation Insurance in at least statutory amounts for all workers employed at the Project site.

The Contractor shall also provide a policy of Builder's Risk Insurance in the amount of 100% of the complete insurable value of the Project, which policy shall protect the Contractor and the City, as their respective interests shall appear.

Before commencing any work, the Contractor shall provide to the City certificates of insurance evidencing the issuance and maintenance in force of the coverage's required by this paragraph 11. Each such certificate shall show the City, and such other governmental agencies as may be required by the City to be insured by underlying grant or contract relating to the Project, as an additional insured, on a primary and non-contributory basis, and shall bear an endorsement precluding cancellation of or change in coverage without at least thirty (30) days written notice to the City.

The City may waive any insurance coverage's or amounts required by this paragraph

12 when the City deems such waiver to be in the interest of the public health, safety, and general welfare.

13. **Indemnification:** To the fullest extent permitted by law, the Contractor agrees to defend with counsel approved by the City, and indemnify and hold harmless the City, its officers, engineers, representatives, agents and employees from and against any and all liabilities, damages, losses, claims or suit, including costs and attorneys' fees, for or on account of any kind of injury to person, bodily or otherwise, or death, or damage to or destruction of property, or money damages, or trespass, or any other circumstances, sustained by the City or others, arising from the Contractor's breach of the Contract or out of services or products provided by the Contractor or its subcontractors under the terms of this agreement. The Contractor shall not be liable for any loss or damage attributable solely to the negligence of the City. To the extent required to enforce this provision, the Contractor agrees that this indemnification requires the Contractor to obtain insurance in amounts specified in the Contract Documents and that the Contractor has had the opportunity to recover the costs of such insurance in the compensation set forth in this Agreement.

In any and all claims against the City or any of its agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any one of them or anyone for whose acts any of them may be liable, this indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.

14. **Attorney Fees' and Costs:** The Contractor shall reimburse to the City any costs and attorneys' fees that the City may reasonably incur in pursuit of any remedies at law or equity or enforcement of any rights established in this Agreement, which may result from the Contractor's breach of the Agreement, the Contractor's failure to perform any obligation or requirement contained herein, or the City's enforcement of this Agreement.
15. **Liquidated Damages:** The Contractor agrees and acknowledges that time is of the essence and that absence of reasonable progress and delay in the project becoming Available for Use, in Project Closeout, and in Final Acceptance will inconvenience the public and increase administrative costs of the City, the costs of which the Contractor and the City are incapable of ascertaining at this time. Should the Contractor, or in the case of Contractor's default, the surety, fail to complete the Work and/or receive Final Acceptance within the times stipulated in this Agreement, or within such extensions of time as may be allowed by the City in the manner set forth in the Contract Documents, the Contractor (or surety, as applicable) shall pay to the City as liquidated damages, and not as a penalty, the sum of **Five Hundred Dollars (\$500.00)** for each calendar day of delay past the allotted calendar days to achieve Available for Use (Substantial Completion) as notified by the City, plus **Two Hundred Dollars (\$200.00)** for each calendar day of delay past the allotted calendar days to achieve Final Acceptance as notified by the City, as indicated in General Conditions (sections 8.01.4 and 9.05.2). In the sole discretion of the City, the amount of the liquidated damages may be deducted from any money due the Contractor under this Agreement. Permitting the Contractor to finish the Work or any part thereof after the expiration of the time for completion or any approved extension,

shall in no way operate as a waiver of the City of any of rights under this Agreement.

16. **Termination:** The City shall have the right to terminate this Agreement at any time for any reason by giving the Contractor written notice to such effect. The City shall pay to the Contractor in full satisfaction and discharge of all amounts owing to the Contractor under this Agreement an amount equal to the cost of all Services performed by the Contractor up to such termination date, less all amounts previously paid to the Contractor on account of this Agreement Price. The Contractor shall submit to the City its statement for the aforesaid amount, in such reasonable detail as the City shall request, within thirty (30) days after such date of termination. The City shall not be liable to the Contractor for any damages on account of such termination for loss of anticipated future profits with respect to the remainder of the Services.
17. **Compliance with Federal, State and Local Law:** The Contractor shall comply with all applicable federal, state and local law requirements for performance under this Agreement. The Contractor shall abide by all health and environmental requirements imposed by law in performance of its duties.
18. **Prevailing Wage:** The Contractor shall be required to comply with all applicable provisions concerning the payment of prevailing wages on public works projects, as provided in the General Conditions. A copy of the applicable Annual Wage Order and Incremental Increases for each occupational title required under this project is included in the Bid Documents and the Contract Documents.
19. **OSHA Required Training:** Pursuant to Section 292.675 RSMo, Contractor shall require all on-site employees to complete the ten-hour training program as required under Section 292.675 RSMo. This program shall be provided by Contractor and shall be a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for Contractor's on-site employees which includes a course in construction safety and health approved by OSHA or a similar program approved by the Missouri Department of Labor and Industrial Relations ("MoDOLIR") which is at least as stringent as an approved OSHA program. All employees are required to complete the program within sixty days of beginning work under this Agreement. Contractor shall further require all subcontractors under Contractor to provide the ten-hour training program required under Section 292.675 RSMo. to such subcontractors' on-site employees. On-site employees who have previously completed such ten-hour training program must hold documentation of prior completion of the program.

Notice is hereby given to Contractor that it shall be subject to the penalties set forth in Section 292.675 RSMo and such penalties shall be forfeited to the City pursuant to such Section. Penalties for non-compliance include contractor forfeiture to the City in the amount of \$2,500, plus \$100 per contractor and subcontractor employee for each calendar day such employee is employed beyond the elapsed time period for required program completion under 292.675 RSMO. MoDOLIR shall investigate any claim of violation of Section 292.675 RSMo. Upon City's receipt of notification from MoDOLIR of violations of 292.675 by Contractor and a determination by MoDOLIR that penalties shall be assessed for such violations, the City shall withhold and retain from the contract all sums and amounts due and owing to the City as a result of any violation of Section 292.675 RSMo. All words in this paragraph shall have the

definitions as provided in Section 292.675 RSMo.

20. **Taxes:** The City is exempt from federal excise tax and Missouri sales tax and the Contractor shall not charge the same to the City and shall comply in all respects with the Special Sales Tax Provisions of the General Conditions.
21. **Other Representations, Warranties and Other Covenants by the Contractor:** The Contractor represents and warrants that the Contractor has been engaged in such work as is required for the Services and has provided services such as the ones to be performed under this Agreement to other municipalities and/or private enterprises and that the Contractor has sufficient expertise, knowledge, information and data, and engages sufficient personnel to perform the Contractor's obligations under this Agreement. The Contractor further represents and warrants that the Contractor is an equal opportunity employer. The Contractor agrees that the Contractor shall not use in any form or medium the name of the City for any advertising unless the Contractor receives the prior written consent of the City.
22. **Amendment; Waiver:** The City may add, delete, or amend services. No amendment, modification or waiver of any provision of this Agreement shall be effective unless in writing signed by an authorized representative of the party against whom such provision as amended or modified or such waiver is sought to be enforced. Failure to insist upon strict compliance with any of the terms or conditions of the Agreement shall not be deemed a waiver of such term or condition.
23. **Accounting.** During the period of this Agreement, the Contractor shall maintain books of accounts of its expenses and charges in connection with this Agreement in accordance with generally accepted accounting principles and practices. The City shall at reasonable times have access to these books and accounts to the extent required to verify all invoices submitted hereunder by the Contractor.
24. **Compliance with State Immigration Statutes.** As a condition for the award of this Agreement, the Contractor shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the Services. The Contractor shall also sign an Affidavit of Participation in Federal Work Authorization Program affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the Services.
25. **Governing/Choice of Law; Jurisdiction.** This Agreement shall be governed by and construed and interpreted in accordance with the internal laws of the State of Missouri, without regard to its principles of conflict of laws, and shall be deemed to be executed and performed in the County of St. Charles, Missouri. Any legal action arising out of, or relating to this agreement, shall be governed by the laws of the State of Missouri, and the parties agree to the exclusive jurisdiction and venue over them by a court of competent jurisdiction located in the County of St. Charles, Missouri, or the U.S. District Court for the Eastern District of Missouri.
26. **Headings:** The paragraph and section headings contained herein are for convenience only and are not intended to limit, vary, define or expand the content thereof.
27. **Representations.** Contractor agrees that it has not relied on any representations or warranties of the City, oral or written, other than expressly identified in this

Agreement. The parties agree this Agreement represents the entire agreement between the parties.

- 28. **Severability:** The invalidity or unenforceability of any portion or provision of this Agreement shall not affect the validity or enforceability of any other portion or provision of this Agreement, which shall remain in full force and effect to the maximum extent permitted by law.
- 29. **Counterparts:** This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall constitute one and the same agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed as of the day and year first above written.

CONTRACTOR

CITY OF WENTZVILLE, MISSOURI

Signature

Nickolas Guccione, Mayor

Title

ATTEST:

Address

City, State, Zip

City Clerk

Date

Date

TERMS AND CONDITIONS

Independent Contractor. The Contractor shall be and operate as an independent Contractor in the performance of this Agreement. The Contractor shall have complete charge of the personnel engaged in the performance of the Services, and all persons employed by the Contractor shall be employees of said Contractor and not employees of the City in any respect.

Compliance with Laws. The Contractor shall comply with all applicable City ordinances and other laws and regulations, Federal, State, and any political subdivision thereof, including but not limited to, unemployment and workers' compensation, occupational safety, equal employment and affirmative action and wage and price laws insofar as applicable to the performance of this Agreement. In the event of a conflict between laws, codes and regulations of various governmental entities having jurisdiction over the Services, the Contractor shall notify the City of the nature and impact of such conflict.

Subcontracts. The Contractor shall not subcontract any of the Services to be performed by it hereunder without the express written consent of the City, except as provided herein. In the event Contractor utilizes a subcontractor, the Contractor shall ensure that any agreement between Contractor and such subcontractor complies with all requirements imposed for such agreement by federal, state, and local law. In addition, this Agreement shall not be assigned by the Contractor.

If the Contractor submits invoices to the City which include payments to be made on account of work performed by a subcontractor, such payments shall be conditioned upon submission by the Contractor of waiver of liens, or such other documents satisfactory to the City to protect the City's title to land, buildings, or improvements or to otherwise protect the City's interest. By submitting an invoice to the City, the Contractor warrants and guarantees that title to all land, buildings or improvements which may be subject to a lien under 429.015 RSMo, upon the receipt of such payment by the Contractor, will not be subject to a lien under 429.015 RSMo.

Indemnification. To the fullest extent permitted by law, the Contractor agrees to defend with counsel approved by the City, and indemnify and hold harmless the City, its officers, engineers, representatives, agents and employees from and against any and all liabilities, damages, losses, claims or suits, including costs and attorneys' fees, for or on account of any kind of injury to person, bodily or otherwise, or death, or damage to or destruction of property, or any other circumstances, sustained by the City or others, arising from breach of this Agreement or out of services negligently performed hereunder by the Contractor, or claims relating thereto, and including but not limited to the City's reliance on or use of the services or products provided by the Contractor under the terms of this agreement. The Contractor shall not be liable for any loss or damage attributable solely to the negligence of the City. To the extent required by law to enforce this provision, the Contractor agrees that this indemnification requires the Contractor to obtain insurance in amounts specified herein and that the Contractor has had the opportunity to recover the costs of such insurance in the compensation set forth in this Agreement.

No Aldermen, officer, administrator, director, board member, or employee of the City shall have any personal liability, directly or indirectly, under or in connection with this Agreement or any agreement made or entered into under or pursuant to the provisions of this Agreement. The Contractor shall look solely to the City for the satisfaction of any claims the Contractor may have arising under this Agreement.

Insurance. The Contractor shall furnish the City the certificates of insurance for workers' compensation, public liability, and property damage, including automobile coverage in the amounts specified by the City in the Invitation for Bids, if any, otherwise in the amounts required by the City, if any, but in no event less than the maximum amounts of liability set forth in Chapter 537.610 RSMo, as amended, applicable to political subdivisions. The policies of insurance shall be in such form and shall be issued by such company or companies as may be satisfactory to the City. In addition to the foregoing, the Contractor shall maintain Professional Liability "errors and omissions" insurance in the form for the coverages satisfactory to City as indicated in the Invitation for Bids, if any, but in no event less than the maximum amounts of liability set forth in Chapter 537.610 RSMo applicable to political subdivisions unless otherwise approved by

the City. The City, and such additional persons and entities as may be deemed to have an exposure to liability as a result of the performance of the Contractor's services, as determined by the City, shall be named as additional insured on a primary and non-contributory basis, with duty of defense on all insurance policies required hereunder.

Nondisclosure/Confidentiality. The Contractor agrees that it will preserve the confidentiality of all City data and account information and will not divulge to third parties without the written consent of the City any information obtained from or through the City in connection with the performance of this Agreement.

Changes. No change in this Agreement shall be made except in writing prior to the change in Services or terms being performed. The Contractor shall make any and all changes in the Services without invalidating this Agreement when specifically ordered to do so in writing by the City. The Contractor, prior to the commencement of such changed or revised Services, shall submit promptly to the City, a written cost or credit proposal for such revised Services. If the City and the Contractor shall not be able to agree as to the amount, either in consideration of time or money to be allowed or deducted, it shall nevertheless be the duty of the Contractor, upon written notice from the City, to immediately proceed with such alteration or change, and the Contractor shall be compensated the reasonable value of such Services. **No work or change shall be undertaken or compensated for without prior written authorization from the City and shall be subject to any required approval from state or federal departments or agencies.**

Multi-year contracts; Non-appropriation. Notwithstanding any provision herein to the contrary, the City is obligated only to make the payments set forth in the attached contract as may lawfully be made from funds budgeted and appropriated for that purpose during the City's then current fiscal year at the discretion of the City. If no funds are appropriated or otherwise made legally available to make the required payments for this Agreement during the next occurring fiscal year (an "**Event of Non-appropriation**"), this Agreement will terminate at the end of the then current fiscal year as if terminated expressly. The failure or inability of the City to appropriate funds for this Agreement in any subsequent fiscal year shall not be deemed a breach of this Agreement by any party. If applicable, this Agreement may be annually renewed at each fiscal year by inclusion of specific appropriation for this Agreement, from year to year not to exceed the maximum renewal period or term as set forth in the Agreement.

Accounting. During the period of this Agreement, the Contractor shall maintain books of accounts of its expenses and charges in connection with this Agreement in accordance with generally accepted accounting principles and practices. The City shall at reasonable times have access to these books and accounts to the extent required to verify all invoices submitted hereunder by the Contractor.

Other Contractors. The City reserves the right to employ other Contractors in connection with the Services.

Invitation for Bids. If the City issued an Invitation for Bids in connection with the Services, such Invitation for Bids and the bid of the Contractor in response thereto are incorporated herein by reference and made a part of this Agreement. In case of any conflicts between the Invitation for Bids and the executed City-Contractor Agreement or bid of the Contractor, the requirements of the City's Invitation for Bids and this executed City-Contractor Agreement shall control and supersede unless a change thereto is specifically stated in this Agreement.

Work Records and Work Product. The Contractor shall provide the City with copies of all documents pertinent to the Services which shall include, without limitation, reports, correspondence, meeting minutes, and originals of all deliverables. The City shall own all right, title and interest, including without limitations, all copyrights and intellectual property rights, to all documents and Work Product of the Contractor created in performance of or relating to this Agreement. The Contractor agrees to take all steps reasonably requested by the City to evidence, maintain, and defend the City's ownership rights in the Work Product. Upon termination of this Agreement, the Contractor shall promptly deliver to City any documents, and work product, whether printed or electronic.

Personnel. The Services shall be performed exclusively by the personnel of the Contractor identified in the Contractor's bid and no other personnel of the Contractor shall perform any of the Services without the express written approval of the City.

Compliance with State Immigration Statutes. As a condition for the award of this Agreement, the Contractor shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the Services. The Contractor shall also sign an (Affidavit of Participation in Federal Work Authorization Program) affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the Services. The Contractor shall not be required to provide these affidavits to the City if such affidavits have been previously provided to the City within the past year. All words in this paragraph shall have the definitions as provided in Section 285.525 RSMo.

Representations. The Contractor agrees that it has not relied on any representations or warranties of the City, oral or written, other than expressly identified in this Agreement. The parties agree this Agreement represents the entire agreement between the parties.

Governing/Choice of Law; Jurisdiction. This Agreement shall be governed by and construed and interpreted in accordance with the internal laws of the State of Missouri, without regard to its principles of conflict of laws, and shall be deemed to be executed and performed in the County of St. Charles, Missouri. Any legal action arising out of, or relating to this Agreement, shall be governed by the laws of the State of Missouri, and the parties agree to the exclusive jurisdiction and venue over them by a court of competent jurisdiction located in the County of St. Charles, Missouri or the U.S. District Court for the Eastern District of Missouri.

Counterparts. This Agreement may be executed in one or more counterparts each of which shall be deemed an original and all of which shall constitute one and the same agreement.

Presented as example; not required with bid
**AFFIDAVIT OF PARTICIPATION IN
FEDERAL WORK AUTHORIZATION PROGRAM**

Comes now _____ as _____ first being duly sworn, on my
(Name) (office held)
oath, affirm _____ is enrolled and will continue to participate in a
(company name)
Federal work authorization program in respect to employees that will work in connection with the contracted
services related to the services being provided to the City of Wentzville for the duration of the
contract, if awarded, in accordance with Section 285.530.2, Revised Statutes of Missouri. I also affirm
that _____ does not and will not knowingly
(company name)
employ a person who is an unauthorized alien in connection with the contracted services for the
duration of the contract, if awarded.

Attached to this affidavit is documentation of _____'s
(company name)
participation in a federal work authorization program.

(ATTACH DOCUMENTATION SHOWING THAT COMPANY PARTICIPATES IN FEDERAL WORK
AUTHORIZATION PROGRAM)

*In Affirmation thereof, the facts stated above are true and correct (The undersigned understands that false
statements made in this filing are subject to the penalties provided under Section 575.040, RSMo).*

Signature (person with authority) Printed Name

Title Date

State of Missouri)
)
County of _____) ss.

Subscribed and sworn to before me this _____ day of _____, 2016.

My commission expires: Notary Public

Presented as information; not required with bid

**PROOF OF E-VERIFICATION WITH U.S. DEPARTMENT OF HOMELAND
SECURITY**

Electronic Signature Page



JOB SPECIFIC PROVISIONS

STANDARD SPECIFICATIONS

The City of Wentzville Standard Specifications and Standard Details, most current effective date, have been adopted by the City as standard Construction Specifications. The adopted specifications are hereinafter referred to as the Standard Specifications. All work on this project shall be done in accordance with these specifications, except as indicated on the Plans for Construction and herein provided.

ENGINEERING DESIGN CRITERIA

The City of Wentzville Engineering Design Criteria, most current effective date, has been adopted by the City as standard design criteria. The adopted criteria are hereinafter referred to as the Engineering Design Criteria. All work on this project shall be done in accordance with these criteria, except as indicated on the Plans for Construction and herein provided.

JOB SPECIFIC PROVISIONS

The provisions of this section take precedence over the Standard Specifications. The following definitions apply to the Job Specific Provisions (JSPs):

Contract – Rotary Park Grinder Lift Station, ENG-2014-037B

Owner / Engineer – City of Wentzville, Missouri

Plans for Construction – Rotary Park Grinder Lift Station, ENG-2014-037A

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JSP-1 - Mobilization

Description. Mobilization shall consist of scheduling and mobilizing equipment, materials and personnel necessary to pursue the work under this Contract. Mobilization shall include demobilization, which shall consist of removal and transporting from the site all personnel, plant devices, tools, equipment, and materials mobilized by the Contractor. It shall also consist of cleanup of the work area to the satisfaction of the Owner.

Materials. None.

Construction Requirements. Contractor shall set up operations on site with supervision and labor and shall move in and place the equipment, materials, and traffic control devices required for protecting and carrying out the work covered by this Contract.

Contractor shall breakdown operations by demobilizing which shall include, but not be limited to, removal and transporting from site all personnel, tools, equipment and materials mobilized by the Contractor.

Method of Measurement. Mobilization will not be measured.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for mobilization. When payment becomes due, partial payments will be made as follows:

- a) A maximum of \$5,000 may be invoiced with the first invoice for mobilization.
- b) The remaining contract amount, if any, may be invoiced on subsequent invoices.

Said lump sum price shall include full compensation to the Contractor for labor, materials, and equipment required for the complete mobilization of the Contractor onto the job site including portable sanitary facilities and all other incidental work related thereto and as shown on the Plans for Construction and Job Specific Specifications herein.

JSP-2 – Erosion and Sediment Control

Description. The erosion control shall consist of the application of those measures and practices to limit erosion on the project site and to control the generation, collection and disposition of sediment associated with the project.

Erosion control is defined as those practices that limit the liberation of the soil from the surface of the ground. Erosion control is a preventative measure. Properly implemented erosion control measures will minimize the release of soil particles throughout the disturbed areas. Examples of erosion control measures include minimizing disturbed ground, temporary or permanent seeding and erosion control blankets.

Sediment control is the second line of defense used to prevent liberated sediment from migrating off the site or into the stream. Sediment control specifically deals with trapping liberated soil particles.

Prior to commencement of work, the Contractor shall submit any revisions in writing necessary to the Erosion and Sediment Control Plan as shown on the Plans for Construction. A copy of the approved Erosion and Sediment Control Plan shall be on site during Construction.

Materials. Acceptable sediment control materials include but are not limited to, siltation fence, sediment logs, or mulch tubing. The siltation control materials shall be approved, in writing by the Owner prior to commencement of work.

The Contractor is not limited in using the materials above or as shown in the Erosion and Sediment Control Plan. The Contractor is free to use all materials necessary to limit erosion and control sediment, as long as the Owner approves of the materials, in writing, prior to the commencement of work.

Exclusions. Hay bales and straw shall NOT be used for erosion and sediment control unless specifically called for in subsequent Job Specific Provisions.

Construction Requirements. Erosion and sediment control measures shall be applied to all disturbed areas. In addition, Contractor shall identify all site access, staging and stockpile areas and apply erosion and sediment control measures.

During the course of construction, the Contractor shall conduct his operation in such a manner to prevent damage to the adjacent stream from pollution by debris, sediment or any other foreign material, or from the manipulation of equipment or materials in or near the stream. The Contractor shall protect all slopes from erosion during construction.

Included in this JSP are minimum measures to be used in achieving the above performance specification.

Initial Erosion Control

The purpose of initial erosion control is to be the first linen of defense against erosion and sediment. The Contractor shall not disturb areas until he is ready to excavate.

Initial Sediment Control

The Contractor shall place temporary sediment fence parallel to the stream at the base of the active excavation prior to mobilizing equipment or otherwise disturbing the ground. The purpose of the sediment fence is to prevent loose clods of soil and other debris from entering the stream during excavation. It is not intended to contain runoff.

Areas of concentrated flow shall be leveled and spread. Sediment fence anchored in a toe trench, Enviroberm® or Sediment Logs™, or approved equal can be used to spread flow.

This temporary sediment fence shall be maintained and any accumulation of soil removed.

Sediment Control

The purpose of sediment control is to prevent sediment and other debris from entering the adjacent stream until permanent erosion control is established.

For long or steep slopes, the Contractor shall place intermediate sediment traps on the excavation slope according to the following table:

Slope	Distance on Slope Between Sediment Traps
10 Horizontal:1Vertical	<50 feet
5H:1V	<25 feet
4H:1V	<15 feet

For slope steeper than 4H:1V, techniques that divert upland runoff past disturbed slopes shall be employed in addition to other sediment control measures.

If tracked equipment is used on the slope, tracking shall be up and down slope and not across.

Temporary Erosion Control

The purpose of temporary erosion control (i.e. straw blanket or equivalent) is to reduce erosion between the beginning of excavation and the establishment of permanent erosion control.

The Contractor shall install temporary erosion control within 24 hours of disturbing the ground if the area is to remain bare for more than 5 days. No disturbed area is to be left bare for more than 5 days. If construction must stop for more than 7 days, the entire site must be stabilized, using a straw blanket, a heavy mulch layer, or another method that does not require germination to control erosion.

Method of Measurement. Erosion and Sediment Control will not be measured.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for erosion and sediment control. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item.

JSP-2A – Erosion and Sediment Control Maintenance

Description. Erosion and sediment control maintenance shall consist of the maintenance, repair, replacement, and removal of those measures and practices utilized.

Materials. Erosion and sediment control materials.

Construction Requirements.

Inspections. Erosion and sediment control measures shall be inspected once each week and within 24 hours after a storm event of ½ inches or greater. Inspections shall be documented using the Erosion and Sedimentation Control Inspection Form found at the end of the Special Provisions. Completed inspection forms are to be kept on site with the approved Erosion and Sediment Control Plan.

Sediment Control. If accumulated sediment exceeds 1/3 of the height of the sediment trap, the sediment shall be removed. Removed sediment shall be deposited in an area

that will not contribute sediment off-site and can be permanently stabilized. Should any part of the sediment control collapse, tear, decompose or become ineffective, it shall be replaced immediately.

Cleanup. All damaged or unused erosion and sediment control materials shall be removed from the site. When the site has been properly stabilized, all erosion and sediment control material, not part of the permanent design, shall be removed from the site.

Method of Measurement. Erosion Control Maintenance will not be measured.

Basis of payment. No direct payment will be made for Erosion and Sediment Control Maintenance. The work under this item is considered incidental to the Contract.

JSP-3 – Excavation

Description. Excavation shall consist of stripping, excavation, stockpiling or hauling and disposal of all Class “A” and “C” materials to obtain the lines and grades on the Plans for Construction, install the lift station and all external piping. At the Contractors option, trenchless installation of external piping may be performed in accordance with JSP-4.

Materials.

Class A: Any material in original beds, or well-defined ledges such as solid limestone, hard sandstone, or hard shales. Also, any material where each piece is more than one cubic yard in volume such as large boulders, detached pieces of limestone, hard sandstone, or mass concrete.

Class C: All materials not included in Class A excavation.

Topsoil: The top 6-inches of the existing earthen material.

Construction Requirements. All work and materials shall conform to the Standard Specifications for Trench Excavation, unless otherwise described herein or on the Plans for Construction. Work shall include pumping and bailing necessary to keep trenches and excavation areas free of water during construction.

Additionally, the work shall include shoring and the protection and temporary support or bracing of all pipes, conduits, utilities, and wires shown to be protected and other public and private property adjacent to or in the line of work.

Stripping. Remove topsoil from areas within limits of excavation, trenching, borrow and areas designed to receive fill. Scrape areas clean of all trees, brush, grass, weeds, roots and other unsuitable material. Strip to a minimum depth of 6 inches, and to a sufficient depth to remove excessive roots in heavy vegetation or brush areas and as required to segregate topsoil. Debris shall be disposed off the jobsite at a location provided by the Contractor.

Dewatering. Contractor shall drain or pump surface and groundwater as required to continually maintain all excavations and trenches free of water or mud. Commence

when water first appears and continue until work is complete to the extent that no damage will result from the presence of water.

Class "A" Excavation. Where encountered, rock shall be excavated to a distance of at least three (3) feet from outside of structure walls. Any additional rock excavation required for stability during construction shall be benched to maintain vertical cuts. Such additional excavation and any additional backfill subsequently required shall be supplied at no extra cost to the Owner.

Method of Measurement. Excavation will not be measured. Class "A" excavation exceeding 5 cubic yards will be measured by the cubic yard as computed from the Plans for Construction. Final measurement will not be made except for written authorized changes, accepted by the Owner during construction. Authorized changes shall be accepted in writing by the Owner prior to commencement of work. The revision or correction will be computed and added to or deducted from the Contract unit quantity.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for all Class "C" Excavation and 5 cubic yards of Class "A" Excavation. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item. Any additional Class "A" excavation performed above the 5 cubic yards will be paid based on the authorized changes to the Contract amount.

JSP-3A – Trenchless Installation

Description. At the Contractor's option, trenchless installation may be performed in lieu of trench excavation. Select a method of installation that is appropriate for the soil conditions anticipated that will 1) allow the pipe to be installed to the desired line and grade within the specified tolerances; 2) prevent heaving or settlement of the ground surface or damage to nearby facilities; and 3) prevent damage to the carrier pipe and any lining materials within the carrier pipe.

Construction Requirements.

1. Installation Methods:
 - a. Auger Boring: A method that utilizes a rotating cutting head to form the bore hole and a series of rotating augers inside a casing pipe to remove the spoil.
 - b. Directional Drilling: A method for installing pipe from a surface-launched drilling rig. A pilot bore is formed and then enlarged by back reaming and removing the spoil material. The pipe is then pulled in place.
 - c. Open-ended Pipe Ramming: A method that involves driving steel casing pipe with a percussive hammer. The front end of the casing pipe is open-ended. Spoils are removed from the pipe.
 - d. Pipe Jacking: A method in which pipe is pushed into the ground with hydraulic jacks while the soil is simultaneously excavated. Excavation is normally completed within a tunnel boring machine.
 - e. Microtunneling: A method of pipe jacking using a remote controlled tunnel boring machine.

- f. Utility Tunneling: A method of forming large diameter tunnels. As excavation takes place at the front of the tunnel, a liner is constructed to temporarily support the tunnel. Upon completion of the tunnel, the pipe is pushed in place.
 - g. Other: Other methods may be allowed with the Engineers' approval.
2. Line and Grade:
- a. Install pipe and grade that will allow the carrier pipe to be installed at its true starting elevation and grade within the specified maximum alignment deviation of the pipe centerline.
 - b. When no deviation tolerances are specified in the contract documents, apply the following maximum deviations to the carrier pipe.
 - i. Horizontally: +/- 1.0 foot per 100 feet;
 - ii. Vertically: +/- 0.2 feet up to 100 feet; an additional +/- foot per 100 feet thereafter. Backfall in pipe is not allowed.
 - c. Pressurized Pipe:
 - i. Horizontally: +/- 2.0 feet
 - ii. Vertically: +/- 1.0 foot. Maintain the minimum depth specified in the Contract Documents.
3. Casing Pipe or Un-cased Carrier Pipe Installation:
- a. Install pipe by approved methods.
 - b. Use a jacking collar, timbers, and other means as necessary to protect the driven end of the pipe from damage.
 - c. DO not exceed the compressive or tensile strength capacity of the pipe during pushing or pulling operations.
 - d. Fully support bore hole at all times to prevent collapse. Insert pipe as soil is removed, or support bore with drilling fluid.
 - e. Fully weld all casing pipe joints. Use an interlocking connection system when approved by the Engineer.
 - f. Fill space between the inside of the bore hold and the outside of the pipe with special fill material if the space is greater than 1 inch.
4. Carrier Pipe Installation through Casing:
- a. Clean dirt and debris from the interior of the casing pipe after installation
 - b. Install casing spacers on carrier pipe sections as necessary to support the pipe barrel according to the pipe manufacturer's recommendations subject to the following minimum requirements:
 - i. Install a spacer within 1 foot of each side of the carrier pipe joint and at a maximum spacing of 6 feet.
 - ii. Do not allow the pipe to be supported by joint bells.
 - iii. Lubricate casing spacers with drilling mud or flax soap. Do not use petroleum-based lubricant or oils.
 - c. Ensure that thrust loads will not damage carrier pipe joints. Provide thrust collars between joint shoulders of concrete pipe.
 - d. Provide timbers for sufficient cushioning between the end of the pipe pushed and the jacking equipment to prevent damage to the pipe. Do not allow the steel jack face to thrust against the unprotected pipe end.
 - e. Position jacks so the resulting force is applied evenly to the entire end of the pipe.

- f. Assemble pipe joints in jacking pit before pushing the carrier pipe into the casing.
 - g. Close the end of the casing pipe around the carrier pipe with a casing end seal.
 - h. When specified in the Contract Documents, fill the annular space between the carrier and casing pipe with flowable mortar or CLSM.
5. Pit Restoration
- a. Remove installation equipment and unused material from the launching and receiving pits.
 - b. When the carrier pipe extends beyond the limits of trenchless installation and into the bore pit, place bedding and backfill material
 - c. Place suitable backfill material in the pit.
 - d. Restore the site to original condition or better.

Method of Measurement. No measurement will be made.

Basis of payment. No direct payment will be made for Trenchless Installation. The work under this item is considered incidental to the Exterior Piping, Excavation and Embankment.

JSP-4 – Embankment

Description. Embankment shall consist of backfill, compaction, and final grading to construct the proposed lift station and restore surrounding grades to pre-construction conditions.

Materials.

- a) 1-inch Clean Limestone
 - i. 1-inch clean limestone shall be graded such that there is a maximum of 5-percent retained by the 1-inch sieve opening and a maximum of 5-percent passing the #200 sieve. The rock shall be a free draining material.
- b) Topsoil
 - i. As defined by JSP-3 – Excavation

Construction Requirements. All work and materials shall conform to the Standard Specifications for Trench Backfill, unless otherwise described herein or on the Plans for Construction.

Placement. Placement of fill material in 8-inch maximum layers (uncompacted depth). Do not place snow, ice or frozen earth in fill and do not place fill on a frozen surface.

Compaction. Compact in loose lifts of 8 to 12 inches, using approved vibratory equipment.

Topsoil. All areas to be sodded shall have 6-inches compacted topsoil placed to meet the pre-construction grades.

Subgrade Preparation. Excavation or fill as required to construct subgrades to elevation and grades indicated. Remove all unsuitable material and replace with approved fill material. Perform all wetting, drying, shaping, and compacting required to prepare a suitable subgrade. Extend subgrade to full width of surfaced areas plus one foot. Compact subgrade to 90 percent maximum dry density. Compact the top six inches of subgrades for traffic areas and slabs on grade to 95 percent.

Maintenance and Repair. Settling or erosion shall be filled, repaired and grades reestablished to elevations and slopes indicated. Under provisions of the guarantee, the Contractor is responsible for correcting any settlement in excess of the amount of the specified grading tolerance for the specific areas of embankments or backfill and damages created thereby within one year after final acceptance of the Work. Repairs shall be made within 10 days from and after due notification by Owner of embankment backfill settlement and resulting damage.

Method of Measurement. No measurement will be made.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for embankment. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item.

JSP-5 – Single Phase Electric Power Supply

Description. Single-Phase Electric Power Supply shall consist of the installation of all conduit wiring, and appurtenant structures necessary to convey Single-Phase 230 Volt Electric from the nearest transformer with sufficient capacity to the Rotary Park Grinder Lift Station per the Plans for Construction.

Materials. All conduit, wiring, valve boxes, poles, meters and pads as may be required by Ameren. Additionally, all materials necessary to perform the Work that is not otherwise indicated on the Plans for Construction.

Construction Requirements.

Installation of conduit in defined areas shall be accomplished using trenchless horizontal directional drilling methods whenever practical and all necessary trenching excavation by hand or equipment in order to complete the installation.

Requirements. All electrical work shall conform with the requirements specified by Ameren including both the *Electric Service Manual* and the *Specifications for Costumer-Installed Underground Distribution Facilities (Non-Residential)*, Current Edition. This shall include all testing to ensure proper functioning of the power supply.

Utility Coordination. The Contractor shall coordinate with Ameren to provide a power supply to the new lift station. A preconstruction meeting shall be held with representatives from the Contractor, Owner, and Ameren to determine site specific requirements. For inquiries as to what may be required by Ameren, please contact:

Mr. Dan Giessmann

Customer Service Specialist
Ameren-Missouri (Electric)
200 North Callahan Road
Wentzville, Mo 63385-1932
Phone: (626) 357-2978
Email: DGiessmann@ameren.com

Ownership. After wiring has been pushed through the conduit and the installation has been approved by Ameren, the Contractor shall transfer ownership of conduit, wiring, valve boxes, and transformers to the City / Ameren.

Method of Measurement. No measurement will be made.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for single-phase electric power supply. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item.

JSP-6 – Grinder Lift Station

General. Furnish two (2) and install two (2) Model S10/4DE Sulzer PIRANHA Grinder Pumps to deliver the flow and total head ranges defined in the pressure sewer system analysis. The motors shall be 1.3 HP, 1740 RPM connected for operation on a 230 volt, 60 HZ, three phase service. The motor shall be an integral part of the pumping unit. The pump discharge size shall be 1-1/4".

The local representative for ABS Pump is **Municipal Equipment Company** (314-645-2400).

The grinder unit shall be capable of shearing and reducing to a fine slurry all material normally found in domestic and commercial sewage such as sanitary napkins, disposable diapers, cloth diapers, wash rags, wood, plastic, etc. The slurry shall be capable of freely passing through a 1-1/4" piping system including check and gate valves.

Grinder Pump Construction. The pump shall be of the centrifugal type with the rotating cutter mounted on the pump shaft directly against the impeller. The stationary cutter shall be mounted in an adjustable bottom plate. The bottom plate shall be cast with grooves threading outward from the center opening of the plate to the outer diameter. The impeller shall be a multiple vane centrifugal type. The cutter material shall be similar to an AISI 440C stainless steel with the addition of cobalt, vanadium, and molybdenum for superior abrasion resistance and a hardness of 58-62 Rockwell C.

The common pump and motor shaft shall be 420 stainless steel supported by a heavy duty lower single row ball bearing and an upper sealed single row ball bearing, all models. The cutting elements and impeller shall be designed to keep the overhung load distance to a minimum. All fasteners shall be 304 stainless steel.

Shaft Seals: Each pump shall be equipped with two seals. The lower seal (pump side) shall be of the mechanical type with silicon carbide faces. The upper seal shall be a lip type seal, mounted at a slight angle to the shaft.

Seal Failure Warning System: The seals shall be separated by an oil chamber. An electronic probe shall be provided in the oil chamber to detect the leakage of water. Solid-state device mounted in the pump control panel or in a separate enclosure shall send a low voltage, low amperage signal to the probe. If water enters the oil chamber, the probe shall activate a warning light in the control panel.

Motor Construction. The motor shall be of the submersible type rated for 1.3 HP at 1710 RPM. The full load current shall not exceed 5.2 Amps at 230 volts. Motor speeds above 1780 RPM shall not be acceptable.

The motor shall be air filled and shall have Class "F" insulation. The rotor and stator shall be enclosed in a cast iron outer housing. Bimetallic thermal switches shall be imbedded in each phase of the winding to sense high temperature. The rating of the switch shall be $130^{\circ}\text{C} \pm 5^{\circ}\text{C}$. The control current shall be connected through the bimetallic switches so the motor is shut down should a high temperature condition exist. The switches shall be self-resetting when the motor cools. Power cables shall be rated for an explosion proof environment and have a minimum length of 30'.

Accessories.

Fiberglass Basin: The pump station wet well shall be glass fiber-reinforced polyester basin with a minimum diameter of 48 inches. The resins used shall be a commercial grade unsaturated polyester resin. The reinforcing materials shall be commercial grade "E" type glass in the form of a mat, chopped roving or roving fabric, having a coupling agent that will provide a suitable bond between the glass reinforcement and the resin. Fillers of any type shall not be utilized.

The exterior surface shall be relatively smooth with no sharp projections. Handwork finish shall be utilized to ensure that enough resin is present to eliminate exposed fibers. The exterior surface shall be free of delamination, exposed fibers and blisters larger than 0.5 inches in diameter. The interior surface shall be resin rich with no exposed fibers. The surface shall be free of crazing, delamination, blisters, and wrinkles larger than 0.125 inches or greater in depth.

The wall and bottom laminates shall have a glass content of 30%+ 5% glass content by weight and resin content of 70% + 5%. The basin shall have a pipe stiffness of 2.01 (ASTM D3753, 1984). The flexural modulus in the hoop and axial direction shall be a minimum of 800000 psi. The basin thickness shall be adequate to maintain structural integrity when installed in the conditions listed: 1) Soil modulus of 700 psi, 2) Soil density of 120 pounds per square foot and 3) Luscher's safety factor of 2.

The fiberglass basin depth shall be of the size shown on the plans and shall be equipped with an anti-flotation ring on the bottom. The fiberglass basin shall be furnished with cast iron inlet hub(s) of the size and number shown on the plans. These shall be furnished loose for field installation. Internal piping and guide rail system shall be factory installed.

The basin shall be equipped with a 1 ¼" NPT coupling for the discharge connection and one (1) 1 ½" NPT for the electrical connection. These couplings shall be factory installed.

Guide Rail Base and Piping: A cast iron guide rail base shall be mounted on the floor of the pump station. The grinder pump shall be guided onto the cast iron discharge base by a single guide rail supported at the top by an upper guide bracket and at the bottom by the discharge base. The pump base shall be equipped with a straightening vane, which properly aligns the pump on the discharge base just prior to the final seating. The pump slide bracket shall include a fully ported ball check valve. The pump and check valve shall be removable from the guide rail base as a single unit. When the pump is in position, the weight of the pump shall compress the gasket and seal the connection. The area under the pump shall be free and clear of any additional support legs or guides pipes to insure free entrance of solids to the impeller.

The pump guide rail shall be schedule 40 stainless steel pipe and shall be threaded into the pump base. The discharge pipe shall be schedule 80 PVC and 1 ¼" diameter. A bronze 1 ¼" gate valve shall be installed for each pump discharge line. A second gate valve shall be installed in the common discharge line exiting the station and this valve shall be used as a throttling valve to induce head against the pumps. Both gate valves shall have a stainless steel extension handle that will extend from the top of the valve to 1 foot below the top of the basin.

A 1 ¼" anti-siphon valve shall be installed in the basin.

Lifting Chains: Pump lifting chains shall be sized and provided by the pump manufacturer. The chain shall be sized to accommodate the installed pump weight and shall be type 304 or 316 stainless steel. The chain length shall be five feet greater than the station depth.

Float Switches: Float switches shall be Anchor Scientific Roto-Float type SM or approved equal. Each float shall contain a single pole mercury switch, which activates when the longitudinal axis of the float is horizontal, and dictates when liquid level falls 1" below the actuation elevation. The casing shall be chemical resistant polypropylene and have an internal stabilizing weight. A PVC type STO, 2 - #18 AWG conductor cable shall protrude from one end of casing. One end of the cable is permanently connected to the glass enclosed mercury switch and the entire assembly is encapsulated to form a completely watertight and impact resistant unit. The electrical cable shall have a minimum length of 30'.

Basin Cover: The basin cover shall be constructed of fiberglass, capable of withstanding 150 pounds per square foot loading, and be of one piece construction. The basin cover shall be bolted to the basin with stainless steel hardware. The basin cover shall include a 2" mushroom vent.

Junction Box: An ABS P/N 6002002-1 simplex junction box shall be installed in the fiberglass basin. The junction box shall be NEMA 4X, and constructed of Noryl. The junction box shall come complete with two pump power cable glands, four float switch glands, gasketed cover, and stainless steel screws. The junction box shall have a 1 ½" extension fitting to attach to the electrical conduit hub. A stainless steel float switch mounting bracket shall be installed next to the junction box.

Duplex Control Panel. The control panel shall be equivalent to the QC II series of controls offered by Sulzer/ABS Pumps housed in a Nema 4X fiberglass enclosure and to include:

- Circuit breaker with short circuit protection, per pump
- Contactor and overload relay, per pump (overload relay provides class 10 trip)
- Start & run capacitors, start relay, per pump
- Hand, Off, Auto selector switch, per pump
- Green pump run light, per pump
- Red seal fail light, per pump
- Switches and lights mounted on elevation bracket. No dead front door included.
- Motor thermal wired into control logic to shut off pump upon an over temp. Pump will restart after thermal cools.
- High water alarm beacon, top mounted on panel
- Highwater alarm buzzer, 95 db @ 2 ft., bottom mounted
- Alarm Off-Auto selector switch
- Terminal blocks for power, pump, and float switch connections.
- Dry Contacts for pump fail, high water, and power failure alarms
- UL approved

Operation: Basic operation of the pumps will be as a pump-down, lead/lag, common “off” system with high level alarm. Where two “off” floats are required by the plans, they shall be set at the same elevation and connected in series. Each pump motor shall be controlled through a Hand-Off-Auto switch. In the Auto position, the pump shall be controlled by the “off” and “on” float-type level sensors in the wet well. Elevations for float switches shall be as shown on the plans. “Off” floats shall not be set lower than the cable entrance into the pump motor.

Product Data and Service Requirements. No measurement will be made.

Manufacturer of Major Equipment. These specifications describe certain manufacturers of the required equipment. This is not done, however, to eliminate others equally as good and efficient. Any substitution of equipment or materials will be considered for one reason only: that the equipment proposed for substitution is superior or equal in construction and/or efficiency to that described in the specifications and work space equal to or greater than shown on the drawings is provided, and that high quality has been demonstrated by at least five years of service in similar installations.

If, prior to the opening of bids, the Engineer’s approval is obtained for alternate equipment, the Contractor shall, at his own expense, make any changes in the structures, building, piping or electrical necessary to accommodate the equipment and if engineering is required due to substitution of other material, the Contractor shall pay the Engineer for the engineering service.

It will be assumed that the cost to the contractor of the equipment proposed to be substituted is less than the specified equipment and if the substitution is approved, the contractor’s bid price shall be reduced by an amount equal to the net savings.

Substitution of equipment other than that specified and shown will not be considered after the opening of bids.

Submittal Data Requirements. The contractor shall submit, as a minimum, the following data for review and approval by the engineer.

- A. Pump performance curves and tests procedures.
- B. Complete technical data showing materials of construction, moments of inertia, weight, type, and length of cable.
- C. Complete motor data including input kW, shaft BHP, full load amps, locked rotor amps, NEMA code letter, motor efficiency, power factor, and moment of inertia.
- D. Dimensional prints.
- E. Details on accessories being supplied.
- F. Installation guides.
- G. Technical manuals.
- H. Parts list(s).
- I. A full set of shop drawings detailing the control system layout. The system layout shall include all mechanical, electrical, ladder diagrams, and panel details to completely describe the system and system operation. Product data and dimension sheets for all control system components.

Operation and Maintenance Manuals. Prior to final acceptance of the control system, four (4) complete system manual with operation and maintenance manuals for all the equipment provided, control system as-built drawings, and parts list shall be provided prior to final acceptance. The Contractor shall also submit any component warranties.

Field Service Requirements. The supplier of the lift station equipment and controls shall provide one (1) day of start-up service and operator training. The manufacturer's representative shall provide written certification that the installation has been successfully started and pump station can be put into service.

The control system manufacturer shall maintain a spare parts inventory for the controls within 300 miles of the project location. In addition, the control system manufacturer shall have on staff factory trained field service personnel available within 200 miles.

The pump manufacturer shall maintain spare parts inventory and have a warranty service center within 200 miles of the project location.

If requested by the Engineer, the pump station equipment supplier and/or the control system manufacturer shall supply at least five (5) names, locations and telephone numbers of references. These references would be used to document the service capabilities and quality of field service personnel.

Method of Measurement. No measurement will be made.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for the control panel and transfer switch. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item.

JSP-7 – External Sanitary Piping

Description. External Sanitary Piping shall include the installation of the external gravity and force main piping including all valves, cleanouts, tracer wire, meter pit, connections, thrust blocks, manhole coating, and manhole box outs necessary to complete the connections specified on the Plans for Construction.

External piping connections:

- 1) Gravity piping from bathroom lateral stub to propose wet well.
- 2) Discharge piping from proposed wet well to the existing manhole.

Materials: All components necessary to complete the installation as indicated on the Plans for Construction and within the Standard Specifications.

Construction Requirements. As specified in the Plans for Construction and Standard Specifications.

Method of Measurement. No measurement will be made.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for the external sanitary piping. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item.

JSP-8 – Site Restoration

Description. Site Restoration shall include top soil preparation, fertilization, and placement of seed.

Materials: Seed mixture shall follow Section 805.2 of the Standard Specifications.

Construction Requirements. In addition to those within the Standard Specifications and Engineering Design Criteria:

Vegetation. The Contractor shall protect an avoid damage to all public and private property along the line of work. Damage due to the carelessness of the Contractor shall be repaired or restored at his expense. Particular attention shall be paid to avoid damage to trees, shrubs, bushes, and private property located in and adjacent to the easements on private property and right-of-way. No trees may be removed outside the limits of the easements without the permission of the property owner. The removal of trees, shrubs, and plants within the easement lines necessary to construct the project may be removed and not replaced, unless otherwise shown on the plans or provided in the Project Specifications. At the Engineer's direction, specific trees, shrubs, or plants may be required to be removed and properly disposed of or left in place and protected.

Cleanliness. Debris and unused materials shall be removed from the working areas without unreasonable or unnecessary delay, and the working areas restored as nearly as practicable, as determined by the Engineer, to their original conditions as soon as possible, in order to minimize damage, hazard, and inconvenience.

Seeding. Seeding shall follow Section 805.3 of the Standard Specifications.

Method of Measurement. No measurement will be made.

Basis of payment. Payment for this item will be based on the Contract lump sum bid price for the site restoration. Such payment shall include the whole cost of providing all labor, tools, equipment, materials, handling, and any other requirements and sundries associated with this item.

JSP-9– Shop Drawings, Product Data and Samples

Description. This section specifies procedural requirements for non- administrative submittals including shop drawings, product data, samples and other miscellaneous work-related submittals. Shop drawings, product data, samples and other work-related submittals are required to amplify, expand and coordinate the information in the Contract Documents. The submittals shall include all materials, equipment, fittings, structures including reinforcement, complete, so as to show conformance with these Job Specific Provisions, the Standard Specifications, and the Plans for Construction.

1. Shop drawings are technical drawings and data that have been specially prepared for this project, including but not limited to the following items:
 - a. Fabrication and installation drawings showing foundation details, anchor bolt sizes, base plate sizes, location of Owner's connections and all clearances required for erection, operation, and disassembly for maintenance.
 - b. Setting diagrams.
 - c. Shopwork manufacturing instructions.
 - d. Templates.
 - e. Patterns.
 - f. Coordination drawings (for use on-site).
 - g. Design mix formulas.
 - h. Contractor's engineering calculations.
 - i. Electrical routing drawings, internal wiring diagrams, one-line diagrams, etc.

Standard information prepared without specific reference to a project is not considered to be shop drawings.

2. Product data includes standard printed information on manufactured products that has not been specially prepared for this project, including but not limited to the following items:
 - a. Manufacturer's production specifications and installation instructions.
 - b. Standard color charts.
 - c. Catalog cuts.
 - d. Roughing-in diagram and templates.
 - e. Standard wiring diagrams.
 - f. Printed performance curves.
 - g. Operational range diagrams.
 - h. Mill report.
 - i. Standard product operating and maintenance manuals.

3. Samples are physical examples of Work, including but not limited to the following items:
 - a. Partial sections of manufactured or fabricated work
 - b. Small cuts or containers of materials.
 - c. Complete units of repetitively used materials.
 - d. Swatches showing color, texture and pattern.
 - e. Color range sets.

4. Miscellaneous submittals are work-related, non-administrative submittals that do not fit in the three previous categories including but not limited to the following:
 - a. Specially prepared and standard printed warranties.
 - b. Maintenance agreements.
 - c. Workmanship bonds.
 - d. Survey data and reports.
 - e. Project photographs.
 - f. Testing and certification reports.
 - g. Record drawings.
 - h. Field measurement data.
 - i. Operating and maintenance manuals.
 - j. Keys and other security protection devices.
 - k. Maintenance tools and spare parts.
 - l. Overrun stock.

Submittal Procedures.

1. Contractor shall prepare for Engineer's concurrence a schedule for submission of all shop drawings specified or necessary for Engineer's approval of the use of equipment and materials proposed for incorporation in the Work or needed for proper installation, operation or maintenance. The schedule shall accompany the procurement schedule and Work progress schedule submitted to the Engineer. Submission of all submittals shall be scheduled to permit review, fabrication and delivery in time to cause no delay in the Work of Contractor or his Subcontractors or any other contractors as described herein.
 - a. The schedule shall indicate anticipated dates of original submission for each item and Engineer's acceptance thereof, and shall be based upon at least one resubmission for each item.
 - b. All submittals of equipment and materials furnished by Subcontractors, manufacturers and suppliers shall be submitted to Engineer by Contractor.

2. After checking and verifying all field measurements, Contractor shall transmit all submittals to Engineer for acceptance. Contractor shall:
 - a. Identify each submittal by Project name and number along with the Contract title and number. Unidentifiable submittals will be returned for proper identification.
 - b. Check and stamp submittals of Subcontractors, suppliers and manufacturers with his/her approval prior to transmitting them to the Engineer. The Contractor's stamp of approval shall constitute a

- representation to Owner and Engineer that the Contractor has either determined or verified all quantities, dimensions, field construction criteria, materials, catalog numbers and similar data or he assumes full responsibility for doing so, and that he has coordinated each submittal with the requirements of the Work and the Contract Documents.
- c. At the time of each submission, call to the attention of the Engineer in the letter of transmittal any deviations from the requirements of the Contract Documents.
 - d. All drawings, catalogs or parts thereof, manufacturer's specifications and data, samples, instructions, written guarantees and other information specified are necessary:
 - i. For Engineer to determine that the equipment and materials conform with the design concept and comply with the intent of the Contract Documents.
 - ii. For the proper erection, installation operation and maintenance of the equipment and materials which the Engineer will review for general content but not for substance.
 - iii. For Engineer to determine what supports, anchorages, structural details, connections and services are required for the equipment and materials, and effects on contiguous or related structures, equipment and materials.
3. Data submitted shall be complete with respect to dimensions, design criteria, materials of construction and the like to enable the Engineer to review the information effectively. Where standard drawings are furnished which cover a number of variations of the general class of equipment, each such drawing shall be individually annotated to describe exactly which parts of the drawing apply to the equipment being furnished. Such annotation shall also include proper identification of the submittal permanently attached to the drawing. Reproduction or copies of Contract Drawings or portions thereof will not be accepted as complete fabrication or erection drawings, but will be acceptable when used by the Contractor as a drawing upon which to indicate information on erection or to identify detail drawings.
4. Equipment operation and maintenance manuals shall be prepared by the manufacturer with loose-leaf pages mounted in durable covers and shall include the following:
- a. Index and tabs.
 - b. Instructions for installation, start-up, operation, inspection, maintenance, parts list and recommended spare parts, and data sheets showing model numbers.
 - c. Applicable drawings.
 - d. Address of nearest manufacturer-authorized service facility.
 - e. All additional data specified.
5. Engineer will review and return submittals to Contractor with appropriate notations. Instruction books and similar submittals will be reviewed by Engineer for general content but not for substance. The approval for use of a separate item as such will not indicate approval for use of the assembly in which the item functions. The Contractor shall make all modifications noted or indicated by the

Engineer and shall return revised prints, copies or samples until accepted. The Contractor shall direct specific attention in writing, or on revised submittals, to changes other than the modifications called for by the Engineer on previous submittals. After submittals have been accepted, the Contractor shall submit copies thereof for final distribution. Prints of accepted drawings transmitted for final distribution will not be further reviewed and are not to be revised. If errors are discovered during manufacture or fabrication, the submittal shall be corrected and resubmitted for review.

6. No Work requiring a submittal shall be commenced or shipped until the submittal has been stamped "Approved" or "Approved as Noted" by the Engineer. A copy or sample of each submittal shall be kept in good order by the Contractor at the site.

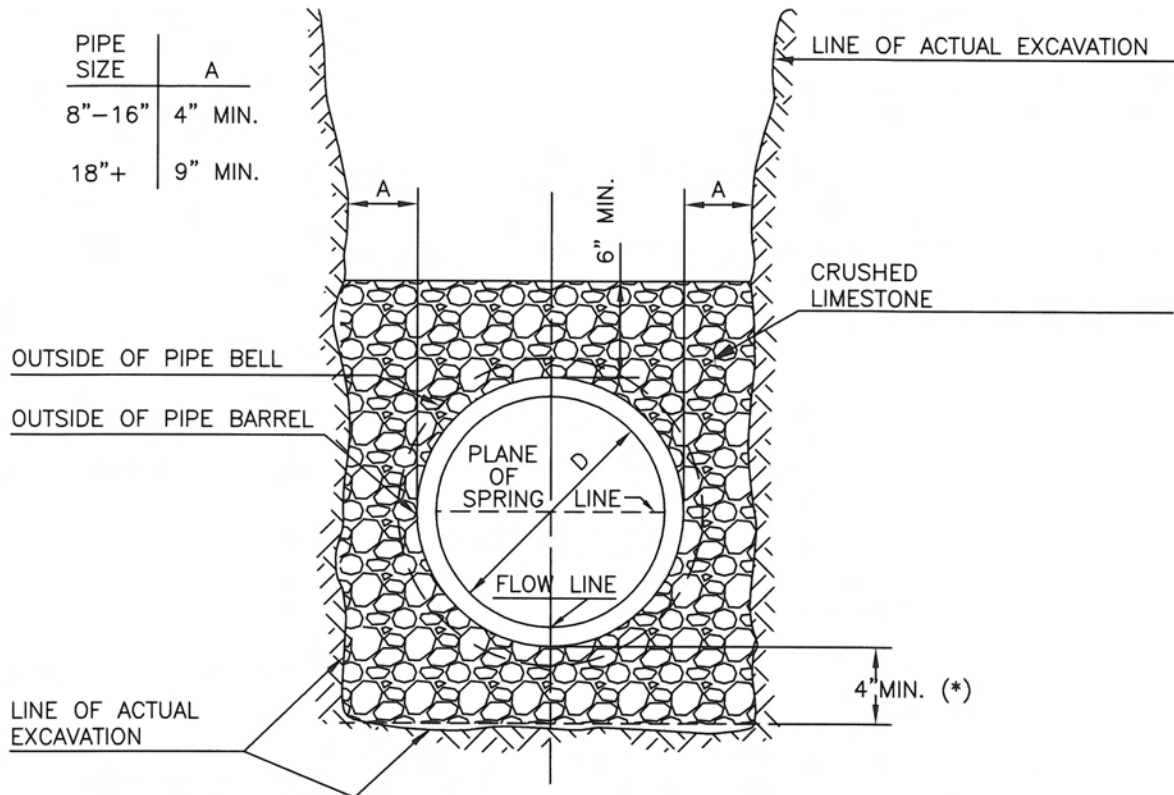
Engineer's Action.

1. Except as otherwise specified, all manufacturer's or fabricator's drawings and specifications shall be transmitted as follows:
 - a. Initial submittal – 2 hard copies to the Engineer
 - b. Resubmittal – 2 hard copies to the Engineer
 - c. Submittal for Final Distribution – 4 hard copies and 1 electronic copy to the Engineer, 1 copy retained by the Contractor.
2. Engineer's review action stamp, appropriately completed, will appear on all submittals of Contractor when returned by Engineer.
3. Engineer's approval of the submittals in no way relieves the Contractor from the responsibility of providing a working system, nor from insuring that all components are compatible with other components of the system.

Method of Measurement. No measurement will be made.

Basis of payment. No direct payment will be made for Shop Drawings, Product Data, and Submittals. The work under this item is considered incidental to the Contract.

EXHIBIT D



(*) WHEN A TRENCH IS CUT THROUGH ROCK, IT SHALL BE EXCAVATED 6" BELOW THE PLANNED PIPE BOTTOM GRADE, AND BEDDED AND INITIALLY BACKFILLED WITH NON-ANGULAR GRANULAR BEDDING MATERIAL.

IN HIGHLY ORGANIC OR OPENLY FLOWING SOILS, THIS DEPTH SHALL BE INCREASED AS REQUIRED BY THE CITY.

NOTES:

1. CHECK GRADE OF PIPE AFTER BACKFILL TO INSURE THE DESIRED FLOWLINE HAS NOT CHANGED
2. DURING JETTING PROCESS, NOZZLE SHALL NOT BE INSERTED CLOSER THAN TWO FEET FROM TOP OF PIPE.
3. ANY TRENCH BRACING USED BELOW THE TOP OF PIPE SHALL BE LEFT IN PLACE.
4. FOR INSTALLATIONS IN HIGHLY ORGANIC OR OPENLY FLOWING SOILS, THE ENTIRE PERIMETER OF THE PIPE BEDDING SHALL BE WRAPPED WITH AN APPROVED FILTER FABRIC OR THE "MINIMUM TRENCH WIDTH" SHALL BE EXPANDED BY INCREASING THE DISTANCE BETWEEN THE SIDE OF THE PIPE AND THE LINE OF ACTUAL EXCAVATION OR TRENCH BRACING TO A MINIMUM OF ONE PIPE DIAMETER.



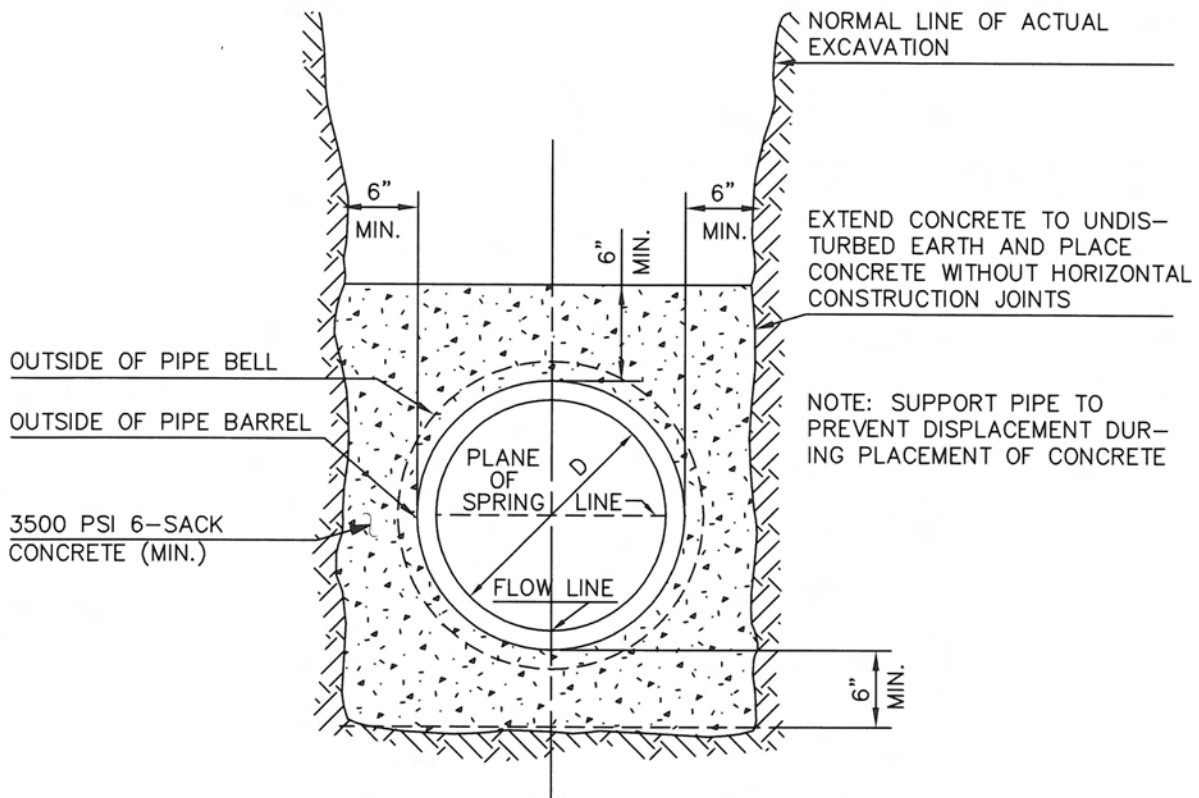
City of Wentzville
 Public Works Department
 Engineering Division
 200 East Fourth Street
 Wentzville, MO 63385

STANDARD PIPE BEDDING FOR SANITARY SEWER

Approved: W.E.B.
 Date: June 10, 2009

300.01

EXHIBIT D



NOTES:

1. CONCRETE ENCASEMENT OF THE SANITARY SEWER IS REQUIRED WHEN:
 - A. THE SANITARY SEWER IS UNDER A STORM SEWER WITH LESS THAN 2 FEET OF VERTICAL SEPARATION. THE ENCASEMENT SHALL EXTEND 10 FEET ON EACH SIDE OF THE CROSSING.
 - B. THERE IS LESS THAN 3 FEET OF COVER OF THE TOP OF PIPE. THE ENCASEMENT SHALL EXTEND FOR THE LENGTH OF THE TRENCH WHERE COVER IS LESS THAN 3 FEET.
 - C. THERE IS INSUFFICIENT SEPARATION FROM THE WATER MAIN AS SHOWN ON SCD 502.02
2. WHERE CONCRETE ENCASEMENT IS REQUIRED THE PIPE SHALL BE SUPPORTED AT NO MORE THAN TWO PLACES WITH MASONRY SUPPORTS OR SELECTED HARDWOOD AS APPROVED BY THE CITY OF MINIMUM SIZE SUFFICIENT TO PROVIDE THE REQUIRED CLEARANCE AND TO PREVENT DISPLACEMENT DURING PLACING OF CONCRETE.
3. WHEN SANITARY SEWER IS ABOVE A STORM SEWER WITH LESS THAN 2 FEET OF VERTICAL SEPARATION A CONCRETE CRADLE SHALL BE POURED OVER THE STORM SEWER PIPE, FROM THE SPRINGLINE OF THE STORM SEWER UP TO THE FLOWLINE OF THE SANITARY SEWER, FOR THE WIDTH OF THE STORM SEWER TRENCH.



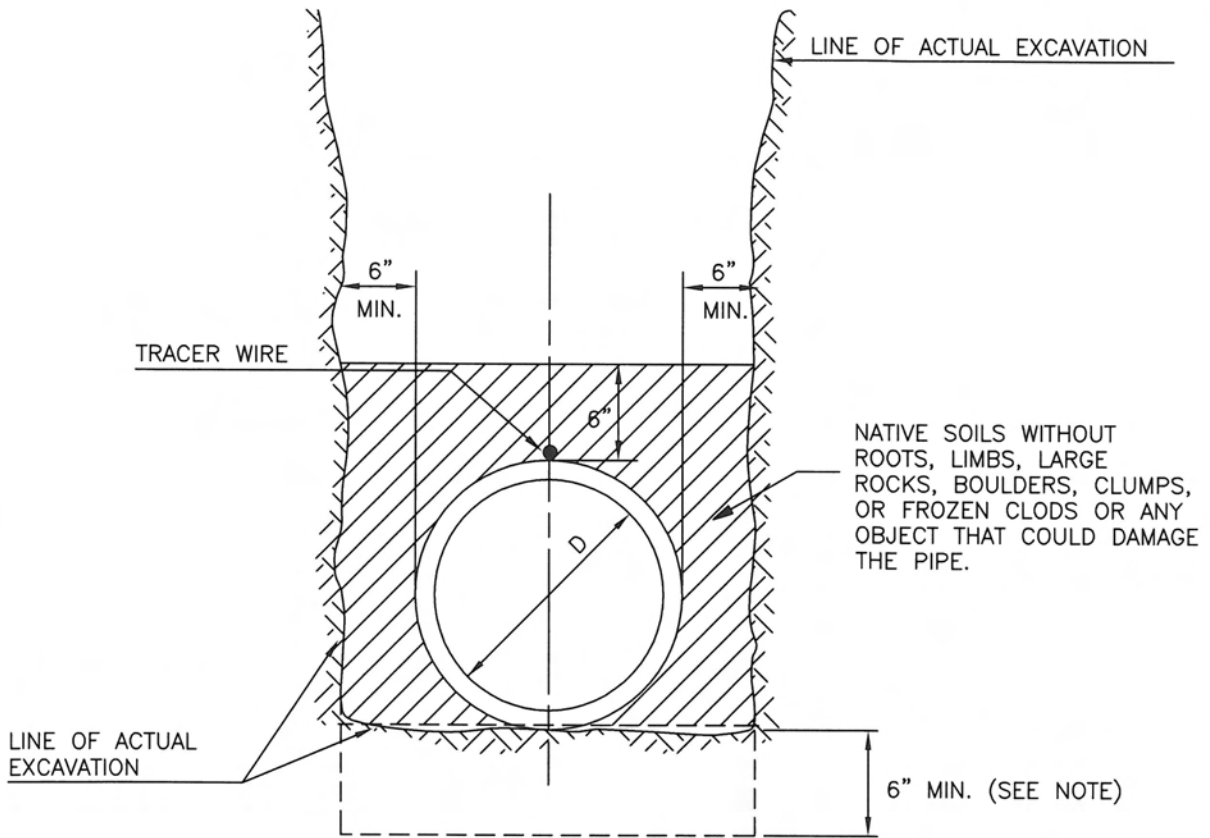
City of Wentzville
 Public Works Department
 Engineering Division
 200 East Fourth Street
 Wentzville, MO 63385

CONCRETE ENCASEMENT

Approved: W.E.B.
 Date: June 10, 2009

300.02

EXHIBIT D



NOTE: WHEN A TRENCH IS CUT THROUGH ROCK, IT SHALL BE EXCAVATED 6" BELOW THE PLANNED PIPE BOTTOM GRADE, AND BEDDED AND INITIALLY BACKFILLED WITH NON-ANGULAR GRANULAR BEDDING MATERIAL.



City of Wentzville
Public Works Department
Engineering Division
200 East Fourth Street
Wentzville, MO 63385

STANDARD PIPE BEDDING
FOR C906 POLYETHYLENE
FORCE MAIN PIPE

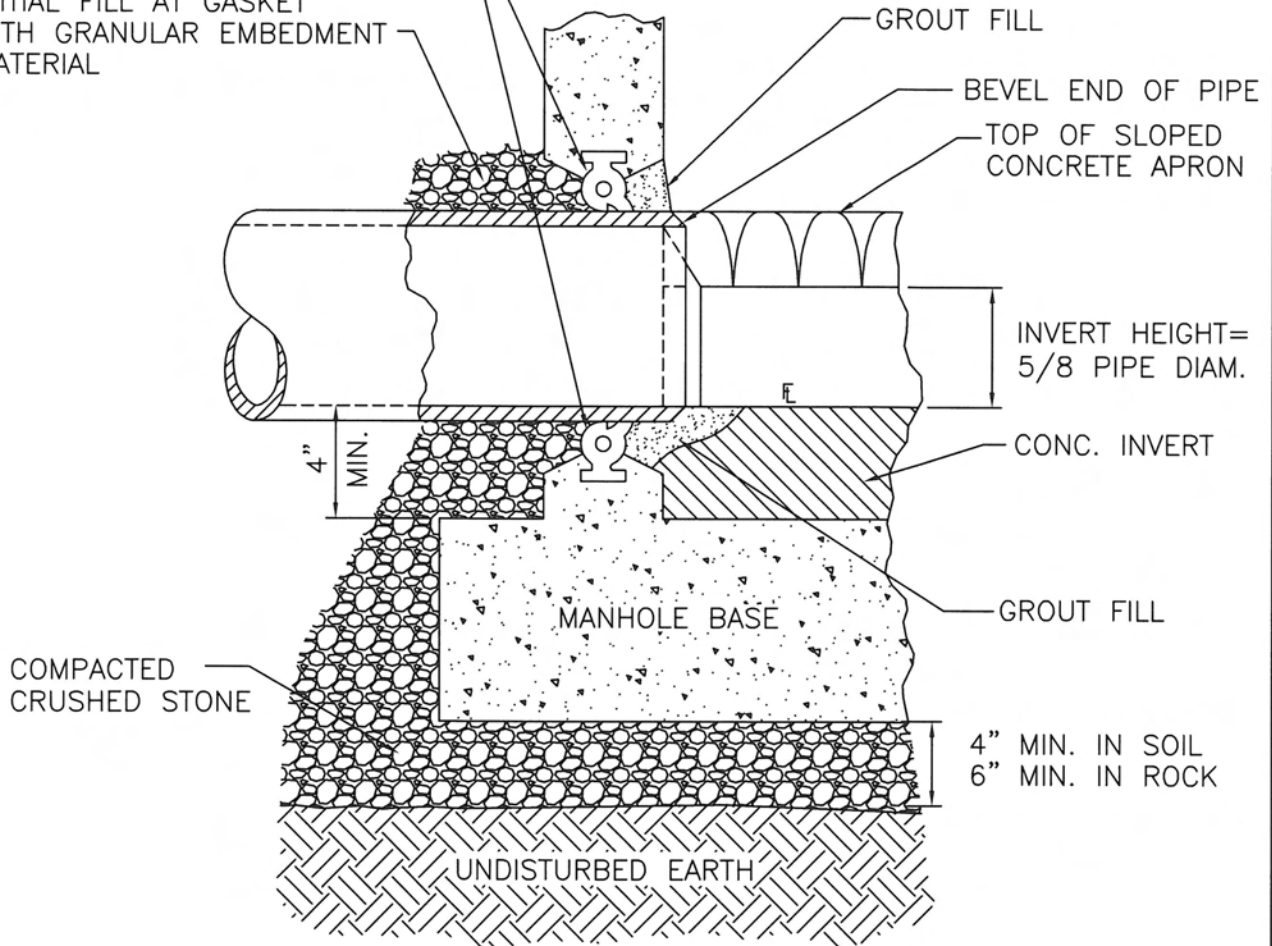
Approved: W.E.B.
Date: June 10, 2009

300.05

EXHIBIT D

WATERTIGHT FLEXIBLE GASKET
 "A-LOK" OR EQUAL FOR $\leq 7\%$
 "Z-LOK" OR EQUAL FOR $7\% < 25\%$

INITIAL FILL AT GASKET
 WITH GRANULAR EMBEDMENT
 MATERIAL



NOTE:

1. BITUMINOUS COATING ON EXTERIOR SURFACE OF MANHOLE SHALL NOT COME IN CONTACT WITH PIPE GASKET.
2. FOR CAST-IN-PLACE CONCRETE MANHOLES OR PRE-CAST WITH BOX-OUTS, THE PIPE GASKET SHALL BE A RUBBER LABYRINTH WATERSTOP WITH STAINLESS STEEL CLAMPING BANDS LOCATED AT CENTER OF WALL AND THE SPACE BETWEEN PIPE & WALL COMPLETELY GROUTED WITH NONSHRINKING MORTAR.
3. PIPE TO BE INSTALLED PAST GASKET SUCH THAT ANNULAR SPACE AROUND PIPE MAY BE GROUT FILLED.



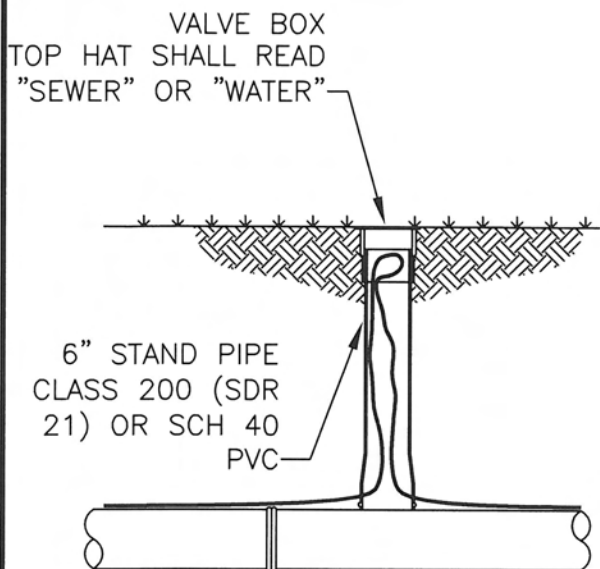
City of Wentzville
 Public Works Department
 Engineering Division
 200 East Fourth Street
 Wentzville, MO 63385

MANHOLE GASKET

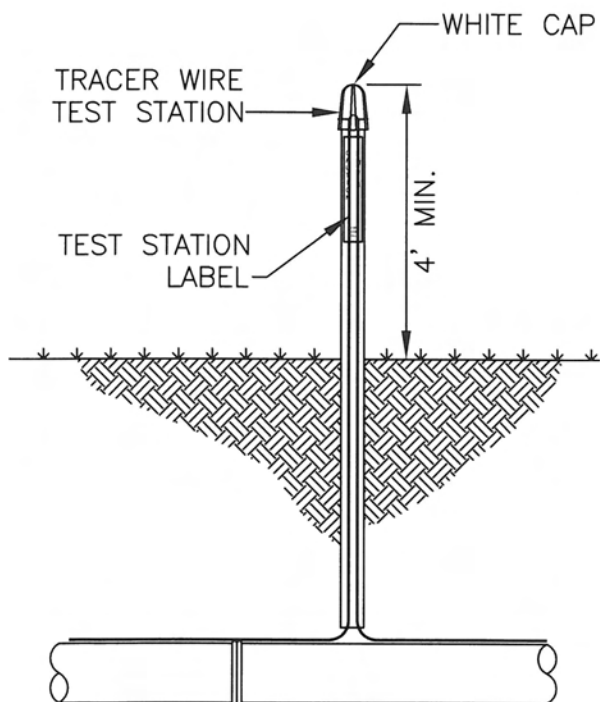
Approved: W.E.B.
 Date: June 10, 2009

302.04

EXHIBIT D



TRACER WIRE ACCESS BOX



TRACER WIRE TEST STATION

NOTES:

1. ALL SPLICING OF TRACER WIRE MUST BE MADE WITH APPROVED 3M WATERPROOF SPLICE KITS.
2. TEST STATIONS OR ACCESS BOXES SHALL BE PLACED AT THE PC AND PT OF ALL RADII, AT ALL BENDS AND EVERY 500' ON STRAIGHT RUNS OF PIPE. CURVE LENGTHS GREATER THAN 150 FEET REQUIRE INTERMEDIATE TEST STATIONS OR ACCESS BOXES IN ADDITION TO THE PC AND PT.
3. TRACER WIRE ACCES BOXES SHALL BE USED IN IMPROVED AREAS, SUCH AS IN THE EASEMENT OR RIGHT-OF-WAY OF A RESIDENTIAL DEVELOPEMENT. TRACER WIRE TEST STATIONS SHALL BE USED IN UNIMPROVED AREAS, SUCH AS IN AREAS WITH HEAVY BRUSH OR TALL GRASSES.
4. TRACER WIRE SHALL BE CONNECTED TO THE TEST STATION AS DIRECTED BY THE MANUFACTURER'S INSTRUCTIONS.
5. A MINIMUM OF 3' OF EXCESS TRACER WIRE SHALL BE ROLLED UP AND BE AVAILABLE AT THE TOP OF THE TRACER WIRE ACCESS BOX.

TEST STATIONS SHALL BE CARSONITE SCEPTER TEST STATIONS.

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 1-800-DIG-RITE

SEWER TEST
 STATION LABEL
 (GREEN)

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 1-800-DIG-RITE

WATER TEST
 STATION LABEL
 (BLUE)



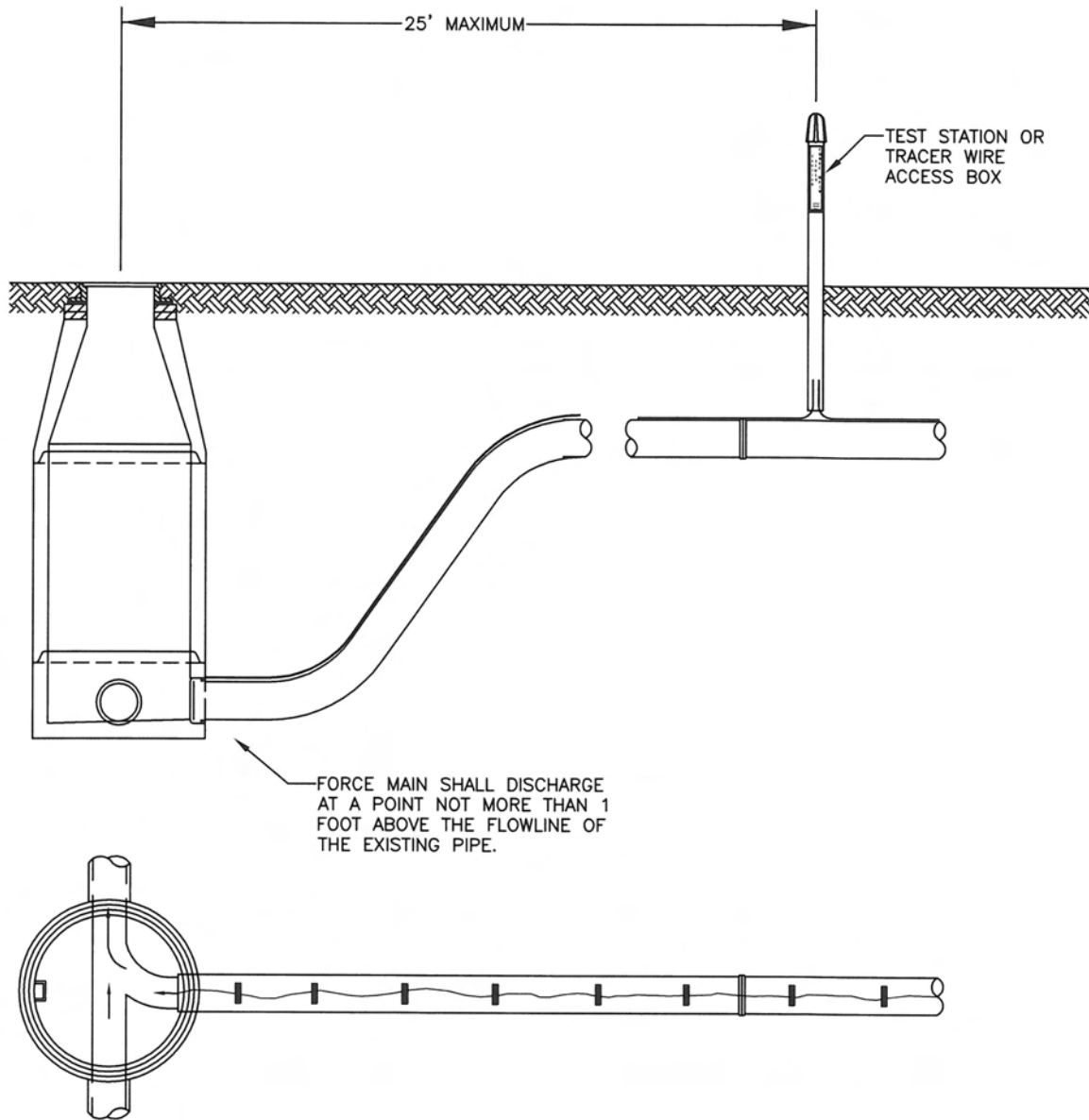
City of Wentzville
 Public Works Department
 Engineering Division
 200 East Fourth Street
 Wentzville, MO 63385

STANDARD TRACER WIRE
 TEST STATION AND
 ACCESS BOX

Approved: W.E.B.
 Date: June 10, 2009

302.17
 500.03

EXHIBIT D



NOTES:

1. ALL SPlicing OF TRACER WIRE MUST BE MADE WITH APPROVED 3M WATERPROOF SPLICE KITS.
2. SEE SCD 302.17/500.03 FOR STANDARD TRACER WIRE TEST STATION.
3. TRACER WIRE SHALL BE DUCT TAPED TO THE TOP OF THE FORCE MAIN PIPE TO PREVENT MOVEMENT OF THE WIRE DURING BACKFILLING OPERATIONS.
4. THE RECEIVING MANHOLE AND THE NEXT TWO (2) DOWNSTREAM MANHOLES, AT A MINIMUM, SHALL BE PROTECTED BY AN EPOXY COATING ON THEIR INTERIOR SURFACES.



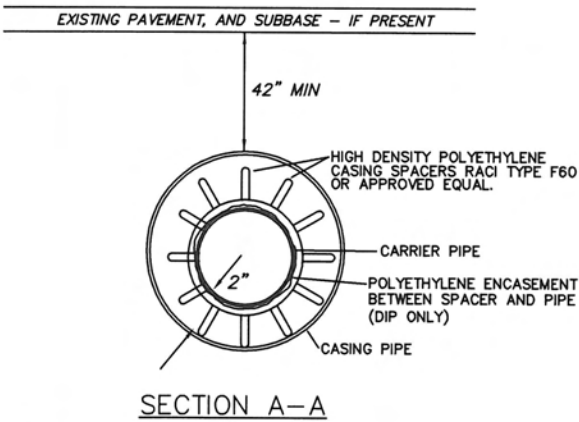
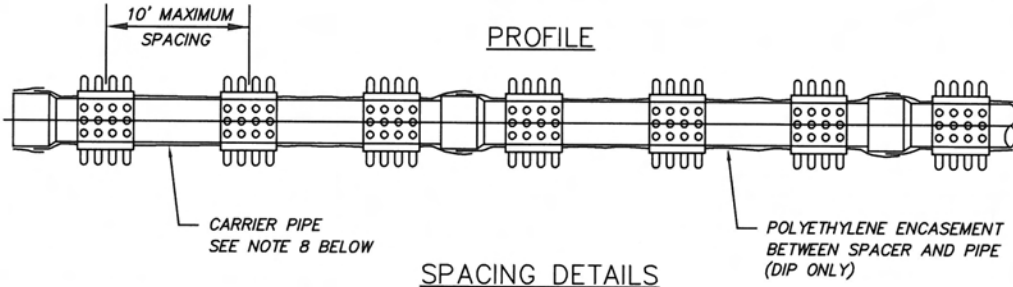
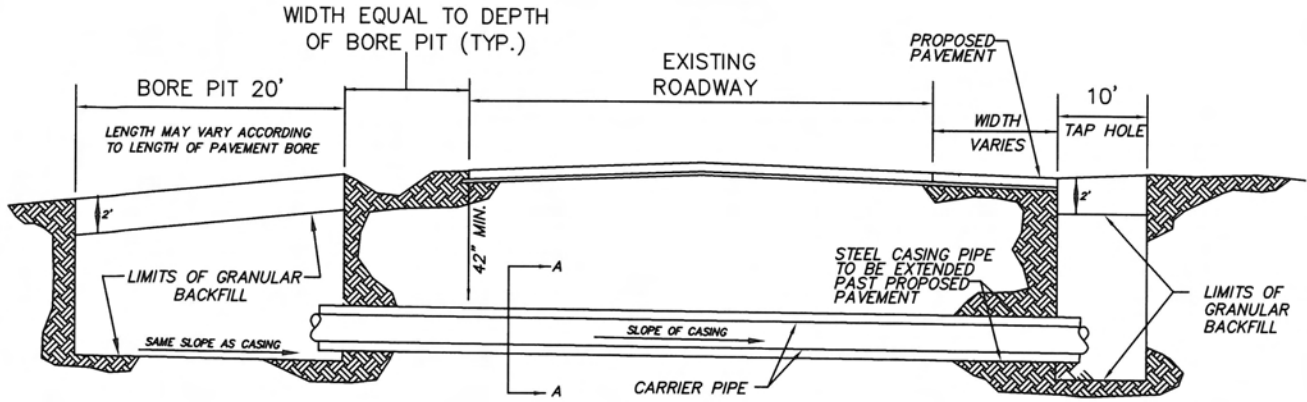
City of Wentzville
Public Works Department
Engineering Division
200 East Fourth Street
Wentzville, MO 63385

STANDARD FORCE MAIN DISCHARGE AT RECEIVING MANHOLE

Approved: W.E.B.
Date: June 10, 2009

304.01

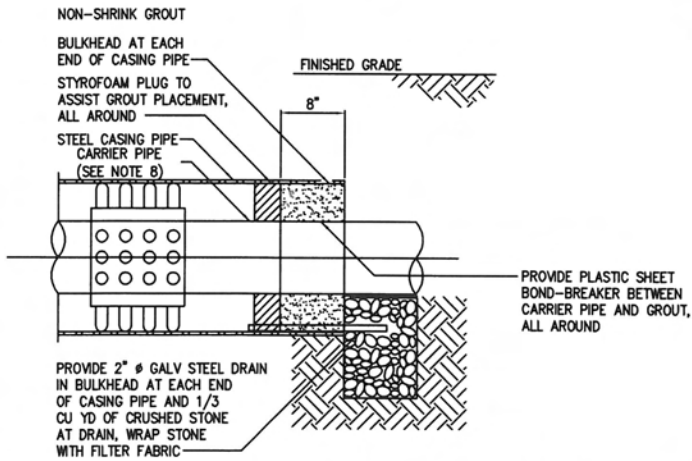
EXHIBIT D



NOTES:

- DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.
- ALL JOINTS IN THE CASING PIPE SHALL BE WELDED AND COLE TAR EPOXY COATED.
- STEEL CASING PIPE USED IN THE INSTALLATION OF WATER OR SEWER MAINS MUST HAVE A MINIMUM YIELD STRENGTH OF 35,000 P.S.I.
- HIGH DENSITY POLYETHYLENE CASING SPACERS SHALL BE RACI TYPE F60 OR APPROVED EQUAL.
- POLYETHYLENE SPACERS SHALL BE PLACED EVERY 10 FEET ALONG THE CARRIER PIPE AND 2 AT EVERY JOINT.
- BORE PIT AND TAP HOLE SHALL BE BACKFILLED WITH GRANULAR BACKFILL.
- STEEL CASING PIPE SHALL HAVE A MINIMUM WALL THICKNESS AS INDICATED ON THE TABLE BELOW.

CASING PIPE DIAMETER	CASING PIPE MINIMUM WALL THICKNESS
6" THRU 12"	0.188"
14" THRU 22"	0.250"
24" & 26"	0.281"
28" THRU 34"	0.312"
36" THRU 48"	0.344"



- CARRIER PIPE MATERIAL SHALL BE AS FOLLOWS. FOR WATER MAINS AND SANITARY SEWER FORCE MAINS, THE CARRIER PIPE SHALL BE C906 POLYETHYLENE. FOR SANITARY SEWER GRAVITY MAINS, THE CARRIER PIPE SHALL BE SDR 35 PVC OR DIP.
- SPACERS MAY BE OMITTED FOR C906 CARRIER PIPE, WHEN APPROVED BY ENGINEERING. IF SPACERS NOT USED, CASING PIPE SHALL BE A MIN. 4" DIA LARGER THAN CARRIER PIPE.



City of Wentzville
Public Works Department
Engineering Division
200 East Fourth Street
Wentzville, MO 63385

TYPICAL BORE DETAIL

Approved: W.E.B.
Date: June 10, 2009

304.10

502.10

EXHIBIT E
ROTARY PARK GRINDER LIFT STATION (ENG-2015-037A)
SUBMITTAL SCHEDULE

SUBMITTAL	REQUIREMENTS	(FIO) / (EA) ¹	RECEIPT DEADLINE
Shop Drawings	The submittals shall include all materials, equipment, fittings, structures including reinforcement, complete, so as to show conformance with the City of Wentzville Standard Specifications, the Approved Plans for Construction, and Standard Construction Detail's.	EA	30 Days from Notice to Proceed
Superintendent	The name of the person selected as superintendent and his qualifications.	EA	Prior to Mobilization
Sediment and Erosion Control Plan	Contractor shall submit an erosion control plan for the work.	EA	Prior to Mobilization
Quarry Information	The Contractor shall submit contract information for the quarry or quarries that will be supplying the aggregate.	FIO	5 Days prior to Day of Delivery
Material Tickets	The Contractor shall submit to the City original tickets to verify the quantity of each item.	FIO	Day of Delivery
Concrete Mixes	The Contractor and/or material supplier shall provide a copy of all concrete mix designs (standard and high early).	EA	Minimum 48 hours prior to commencing any concrete work.
Pipe Materials	The Contractor shall submit pipe materials prior to delivery to site.	EA	5 Days prior to Day of Delivery
Epoxy Coating	The receiving manhole of the force main shall be protected by an epoxy coating on the interior surfaces. Contractor shall submit epoxy coating.	EA	5 Days prior to Day of Delivery
Pump Warranties	The Pump Manufacturer shall warrant the units being supplied to the Owner against defects in workmanship and material for a period to be determined by the Manufacturer's allowable duration.	FIO	Final Acceptance
Pump O&M Manuals	Prior to final acceptance of the control system, Contractor shall submit complete system manual with operation and maintenance manuals for all equipment provided, control system as-built drawings, and parts list shall be provided.	FIO	Within 30 Days of Final Inspection
Pump and Pipe Testing	Contractor shall submit all pump and pipe testing results as required by the Contract Documents.	FIO	Within 30 Days of Final Inspection

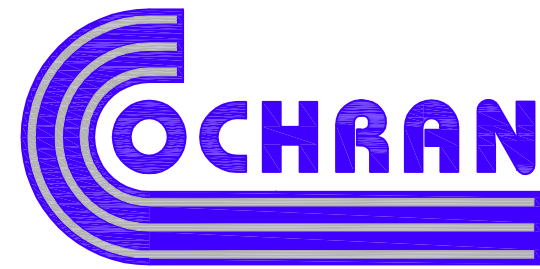
¹ FIO – For Information Only; EA – Engineer Approval

CONTACT INFORMATION

OWNER

OWNER: CITY OF WENTZVILLE
 REPRESENTATIVE: BILLY ROLL
 ADDRESS: 310 WEST PEARCE BLVD
 PHONE: 636-332-9236

ARCHITECTURAL/STRUCTURAL



8 E. Main
 Wentzville, MO 63387
 (636) 332-4574
 (636) 327-0760
 Contact: Joe McGowan

MECHANICAL / ELECTRICAL / PLUMBING

AEDIFICA CASE ENGINEERING
 796 Merus CT
 Fenton, Missouri 63026
 (636) 349-1600
 Contact: Jim Eyre

ROTARY PARK RESTROOMS

CITY OF WENTZVILLE

Wentzville, Missouri

DRAWING INDEX

CIVIL

C1 SITE EXHIBIT

ARCHITECTURAL

A1.1 FLOOR PLAN / REFLECTED CEILING PLAN
 A1.2 FOUNDATION PLAN
 A2.1 EXTERIOR ELEVATIONS / BUILDING SECTIONS
 A3.1 INTERIOR ELEVATIONS / SCHEDULES
 A4.1 SECTIONS & DETAILS

MECHANICAL

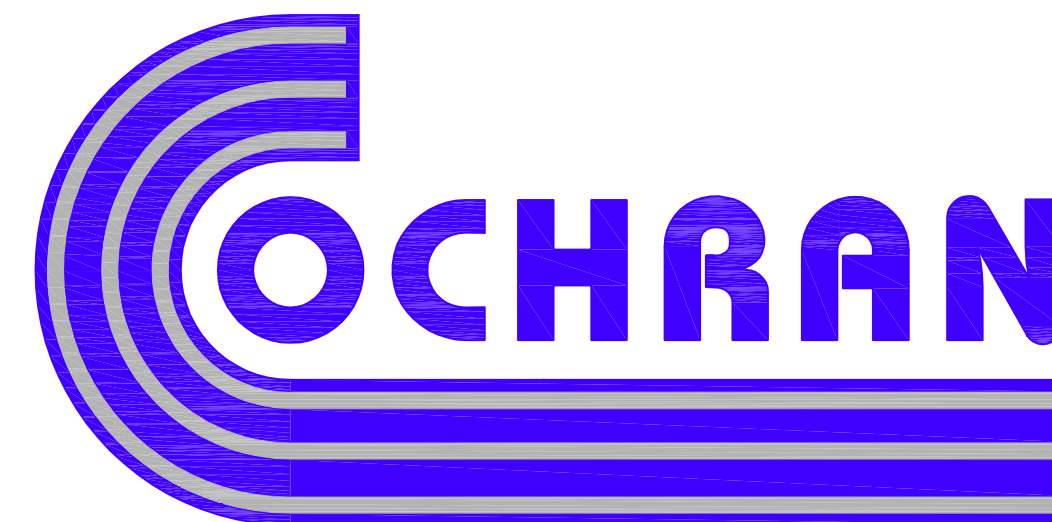
M1.0 MECHANICAL SPECIFICATIONS
 M2.0 MECHANICAL DETAILS
 M3.0 MECHANICAL PLAN

ELECTRICAL

E1.0 ELECTRICAL SYMBOLS & LEGENDS
 E2.0 ELECTRICAL SPECIFICATIONS
 E3.0 ELECTRICAL PLAN

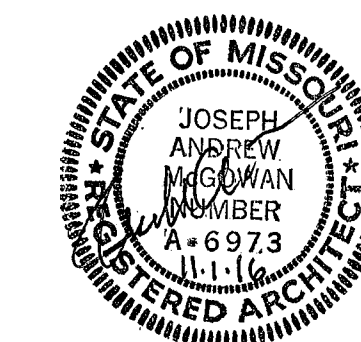
PLUMBING

P1.0 PLUMBING SPECIFICATIONS
 P2.0 PLUMBING PLAN
 P3.0 PLUMBING DETAILS



- CIVIL ENGINEERING
- LAND SURVEYING
- ARCHITECTURE
- SITE DEVELOPMENT
- MASTER PLANNING
- GENERAL CONSULTING

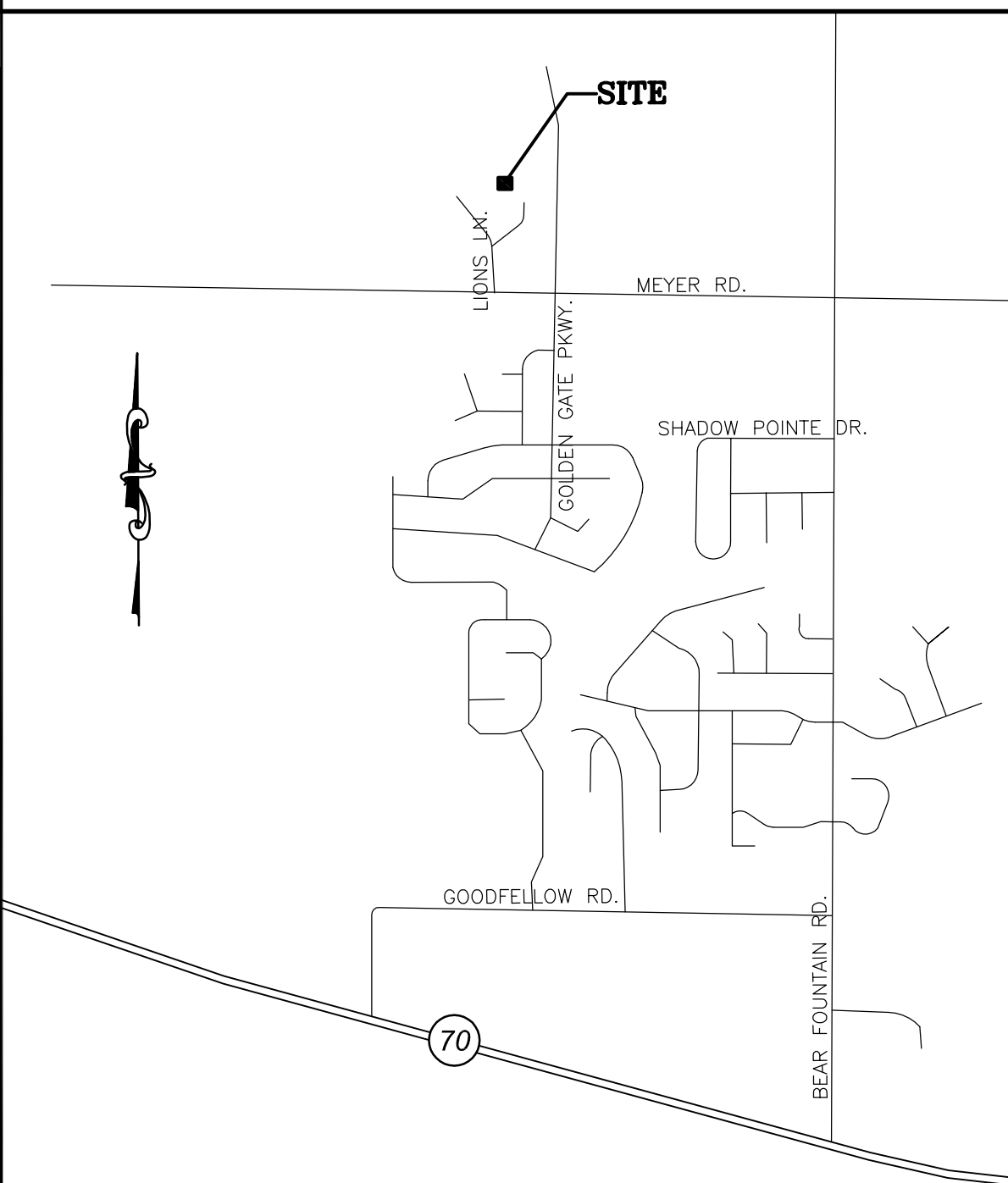
8 E. MAIN, WENTZVILLE, MO 63387
 TELEPHONE (636) 584-0540
 FAX (636) 584-0512
 mail@cochraneng.com



Joseph A. McGowan No. A-6973
 Registered Architect
 State of Missouri
 Cochran

Two working days prior to the start of any excavation on this site, contractor shall call 1-800-DIG-RITE for utility location information.

All OSHA rules & regulations established for the type of construction required by these plans shall be strictly followed (i.e. Trenching, Blasting, etc.)

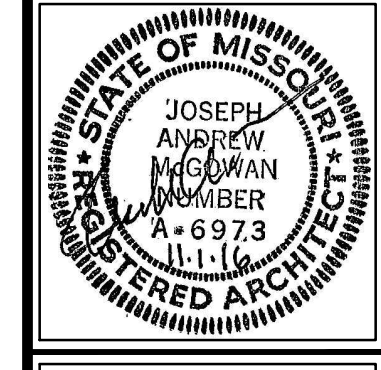


VICINITY MAP
 NO SCALE

COVER SHEET					DATE:
					11/1/16
					SCALE:
					N.T.S.
					PROJ. NO.:
					M14-7119
					(15-6060)
					DWG. NO.:
					CS

Two working days prior to the start of any excavation call 1-800-368-RITE for utility location information.

All OSHA rules & regulations and applicable state and local construction requirements shall be strictly followed (e.g. trenching, shoring, etc.)



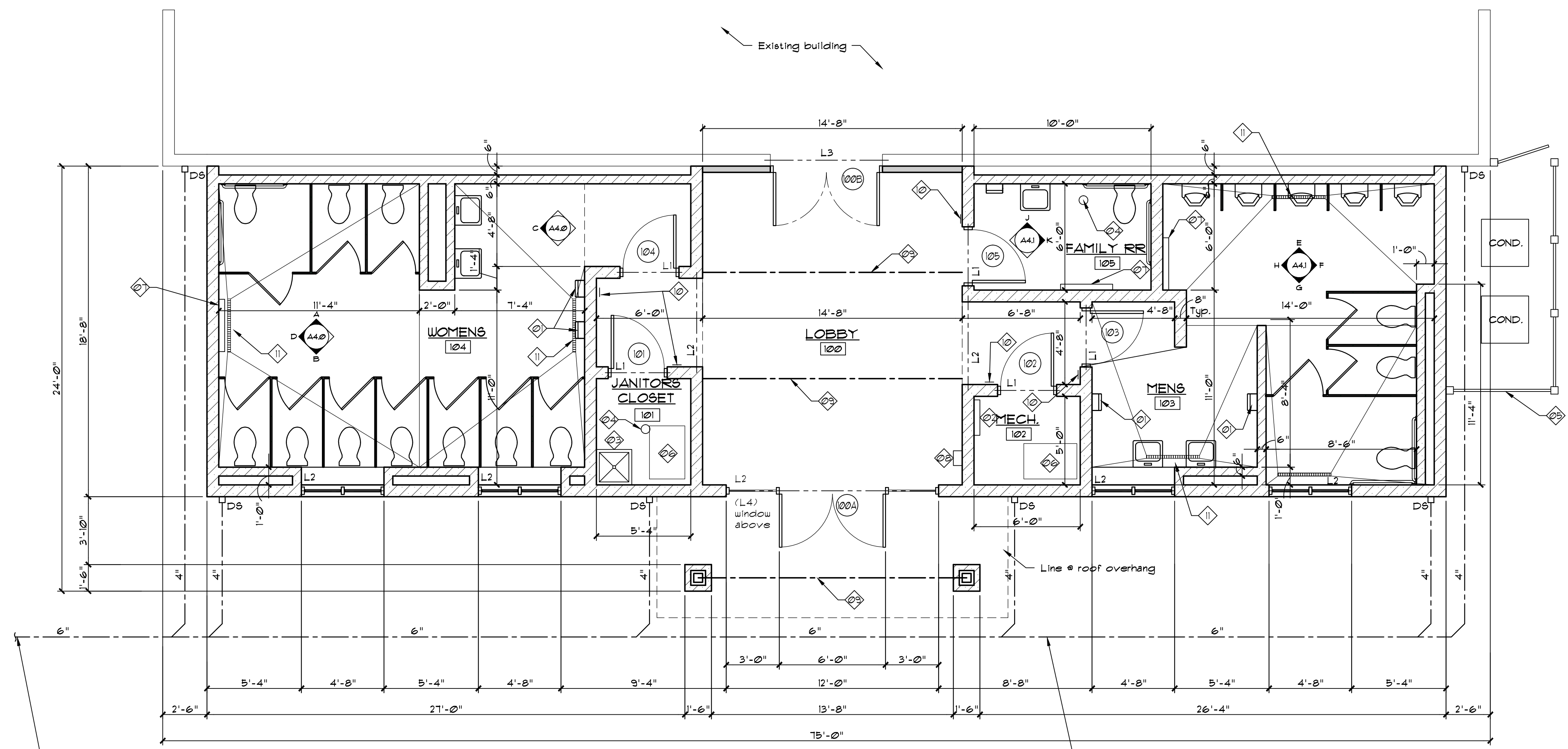
NEW RESTROOMS
CITY OF WENTZVILLE
ROTARY PARK
WENTZVILLE, MISSOURI

DATE:	DATE:
AKL	JAM
Nov. 1, 2016	
SCALE:	
AS NOTED	
PROJ. NO.:	
M14-7119	
(15-6060)	
DWG. NO.:	
A1.1	

KEY NOTES	
⊕	Hand dryer - see Interior Elevations
⊕	Electric panel - see Electrical Drawings
⊕	Mop sink - see Plumbing Drawings
⊕	Floor drain - see Plumbing Drawings
⊕	4' tall cedar screening maintain 3'-0" clearance around condensing unit.
⊕	Mechanical unit - see Mechanical Drawings
⊕	Baby changing station - see Interior Elevations
⊕	Fire extinguisher cabinet
⊕	Timber truss - see Details
⊕	Sign - see Schedule
⊕	Trench drain - see Plumbing Drawings

LINTEL SCHEDULE		
MARK	DESCRIPTION	DETAILS
L1	(2) L 3 1/2x3 1/2x5/16"	
L2	W8x18 with 7"x5/16" plate	
L3	(2) L 4x6x1/4"	
L4	(2) L 3 1/2x3 1/2x1/4"	

Notes:
1. Field paint exposed lintels.
2. See Typical Lintel Bearing Detail on Sheet A4.1.
3. L4 steel angle welded back to back follow slope of window with 8" horizontal ends.

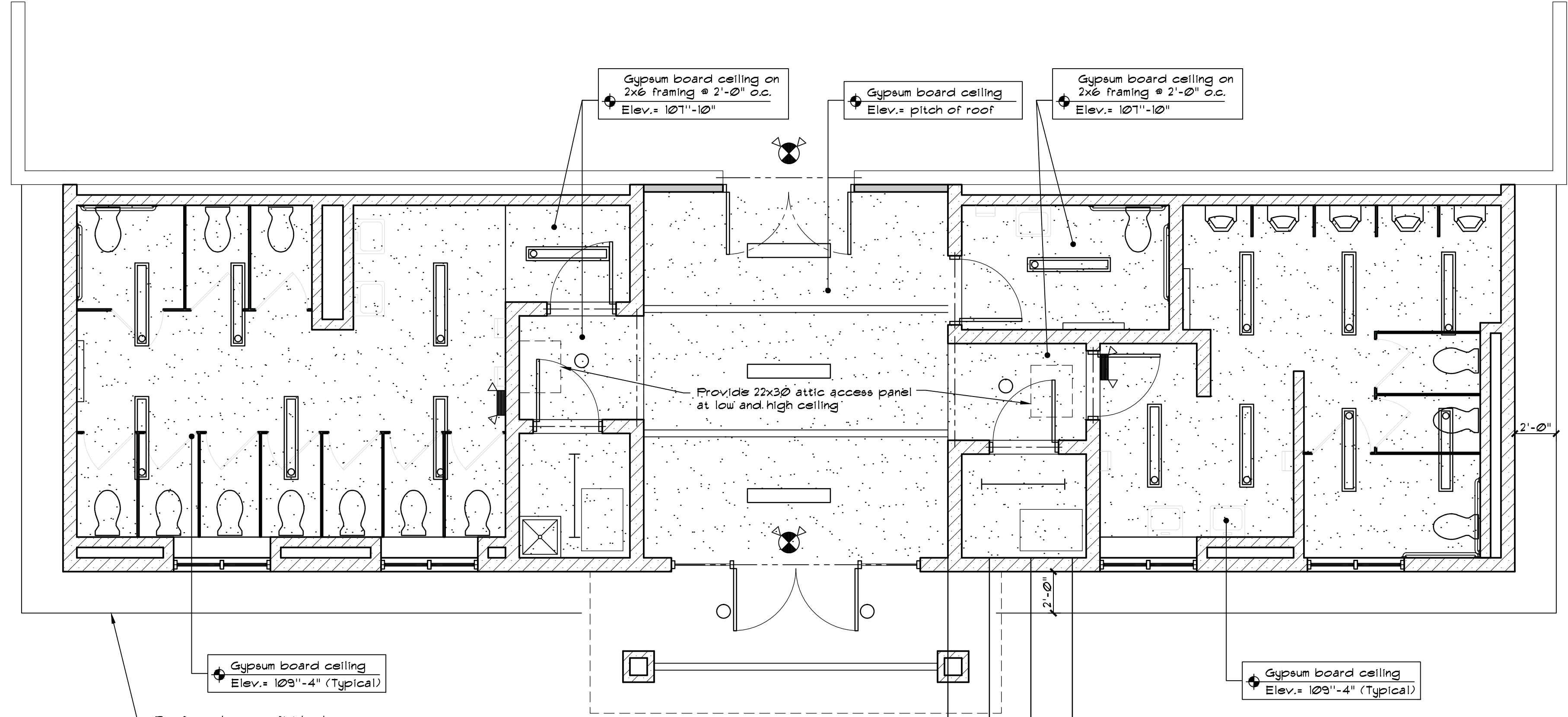


Connection to new storm sewer (not part of this contract).

Downspout collection system shall be SDR-35 with gasketed fittings, 45° bends typical. Provide 4" laterals and 6" main.

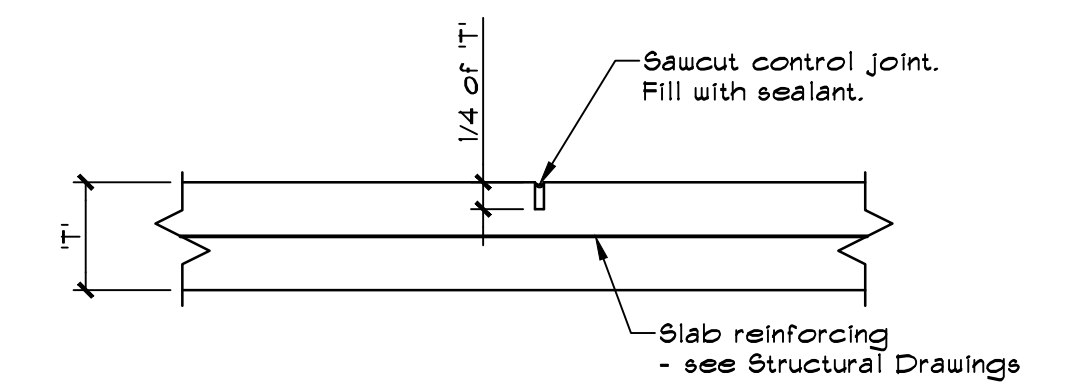
FLOOR PLAN
1/4" = 1'-0"

CEILING LEGEND	
EMERGENCY LIGHT	
EMERGENCY/EXIT LIGHT	
LINEAR FLUORESCENT	
OUTDOOR PENDANT FIXTURE	
GYP BOARD	
STRIP FLUORESCENT	
CAN LIGHT	

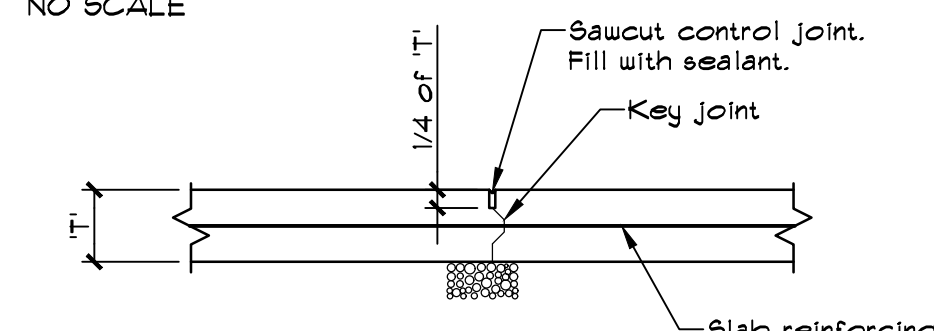


Note: Gypsum board ceiling to be installed at underside of trusses on entire building, provide drop ceilings where indicated.

REFLECTED CEILING PLAN
1/4" = 1'-0"



TYPICAL INTERIOR SLAB-ON-GRADE CONTROL JOINT DETAIL
NO SCALE

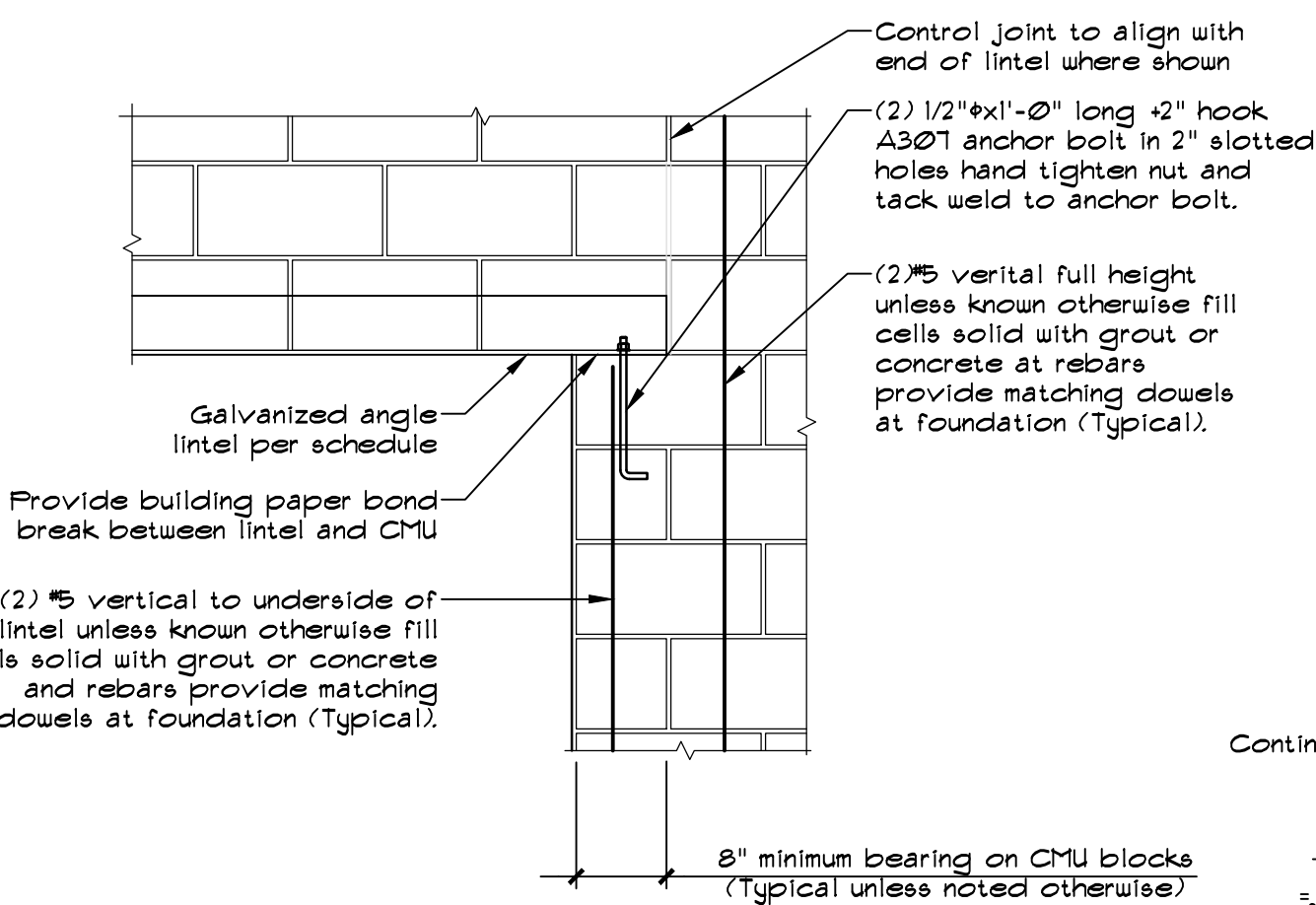


TYPICAL SLAB-ON-GRADE CONSTRUCTION JOINT
NO SCALE

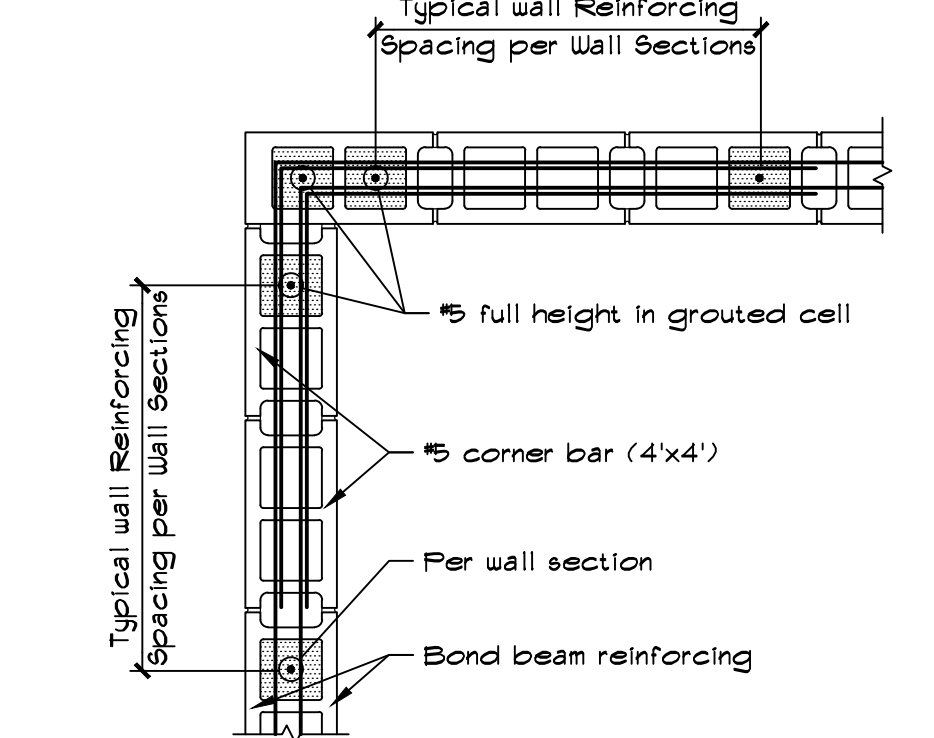


TYPICAL REINFORCEMENT FOR OPENING IN CMU WALL
NO SCALE

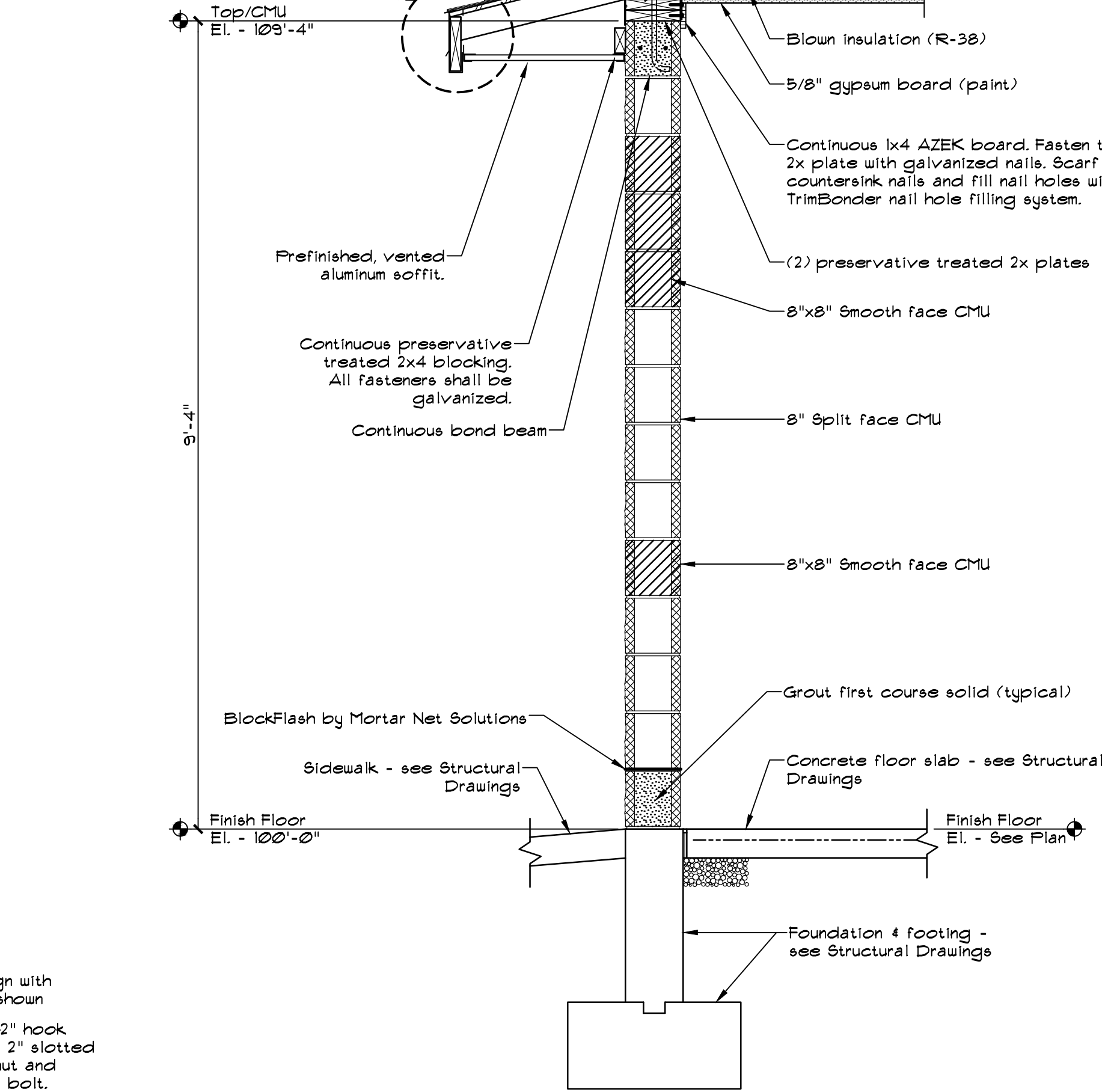
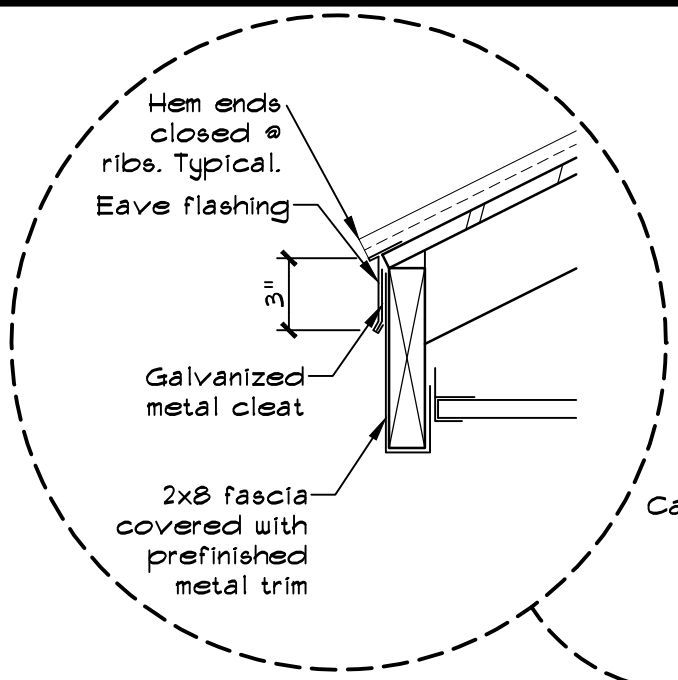
TYPICAL STEEL ANGLE LINTEL DETAIL
NO SCALE



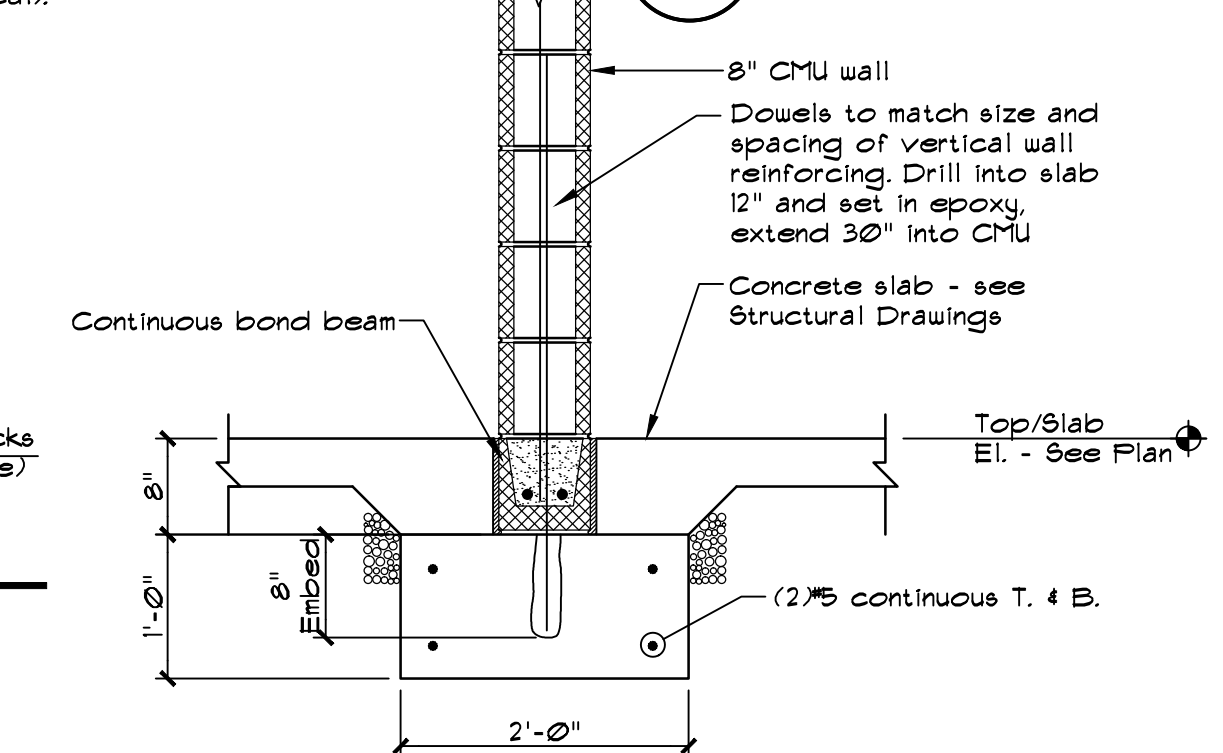
TYPICAL CMU CORNER REINFORCING DETAIL
3/4" = 1'-0"



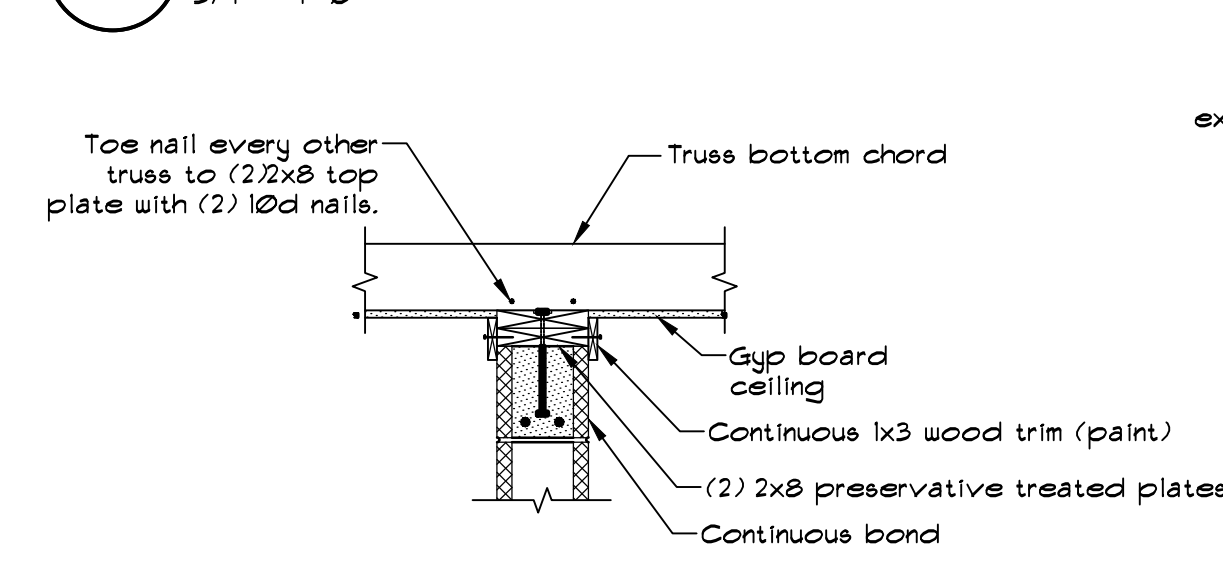
TYPICAL CMU CORNER REINFORCING DETAIL
3/4" = 1'-0"



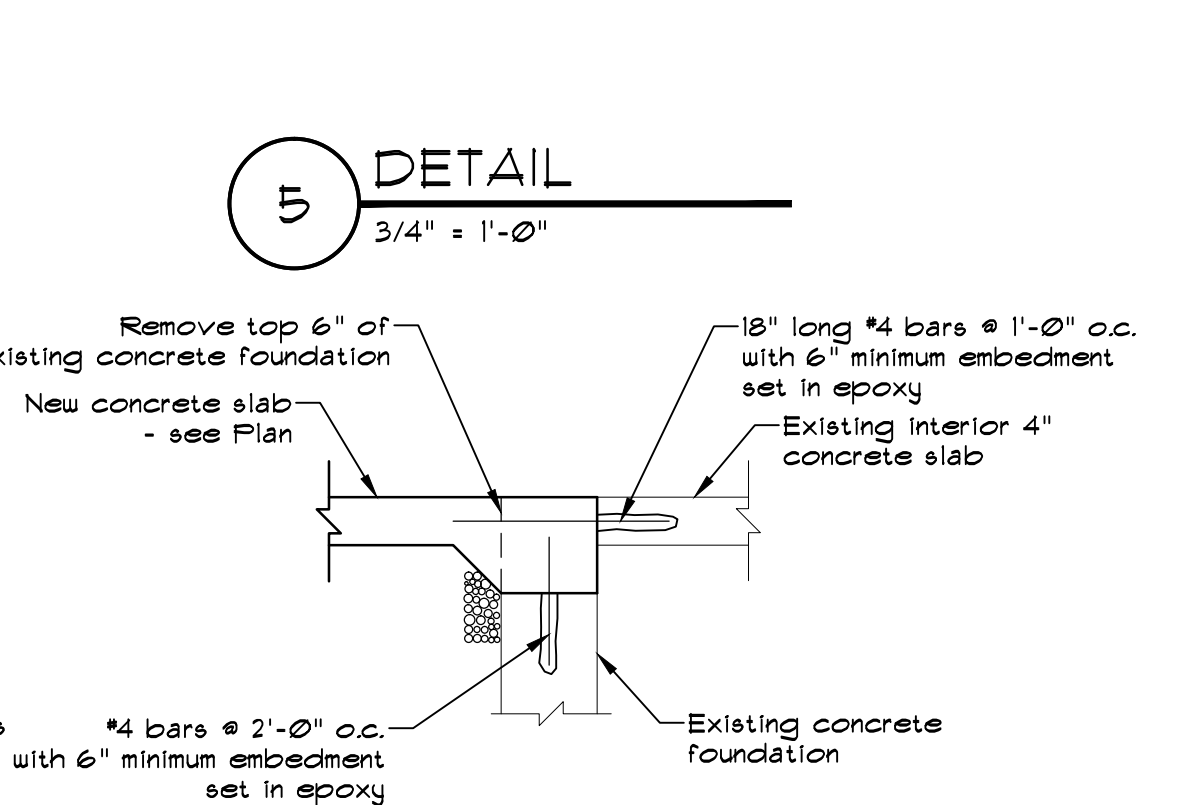
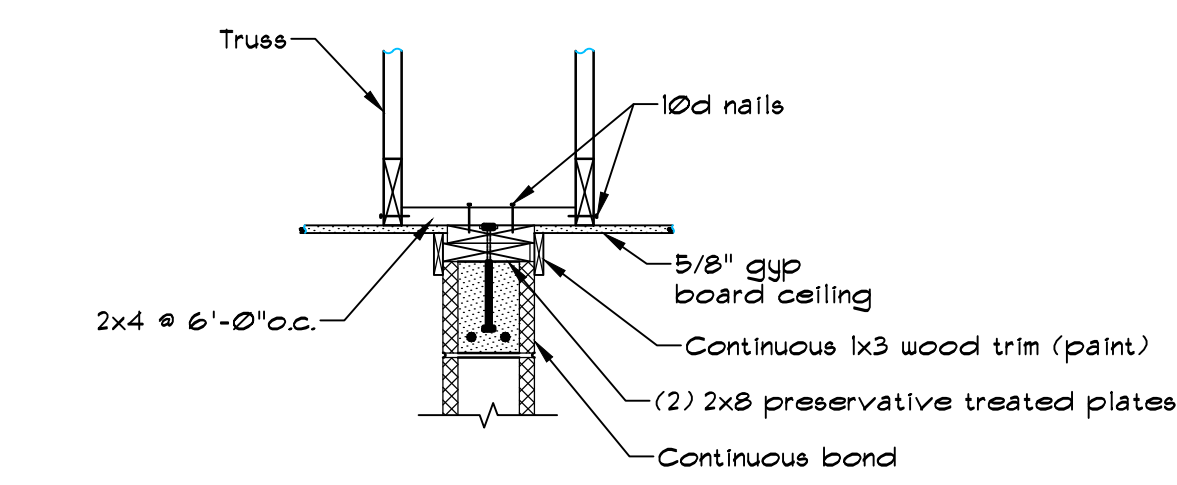
1 TYPICAL EAVE WALL SECTION
3/4" = 1'-0"



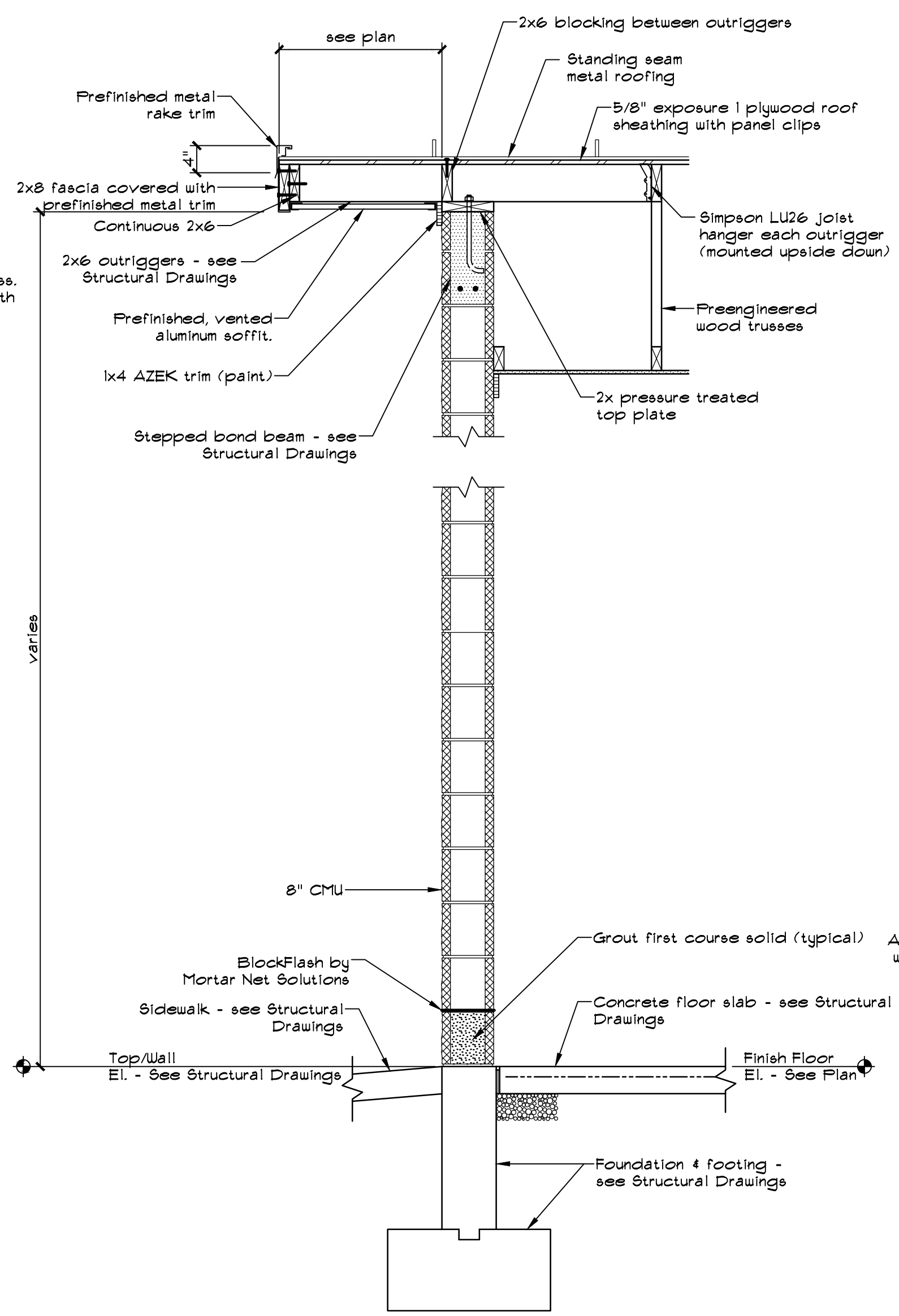
3 SECTION THRU INTERIOR WALL
3/4" = 1'-0"



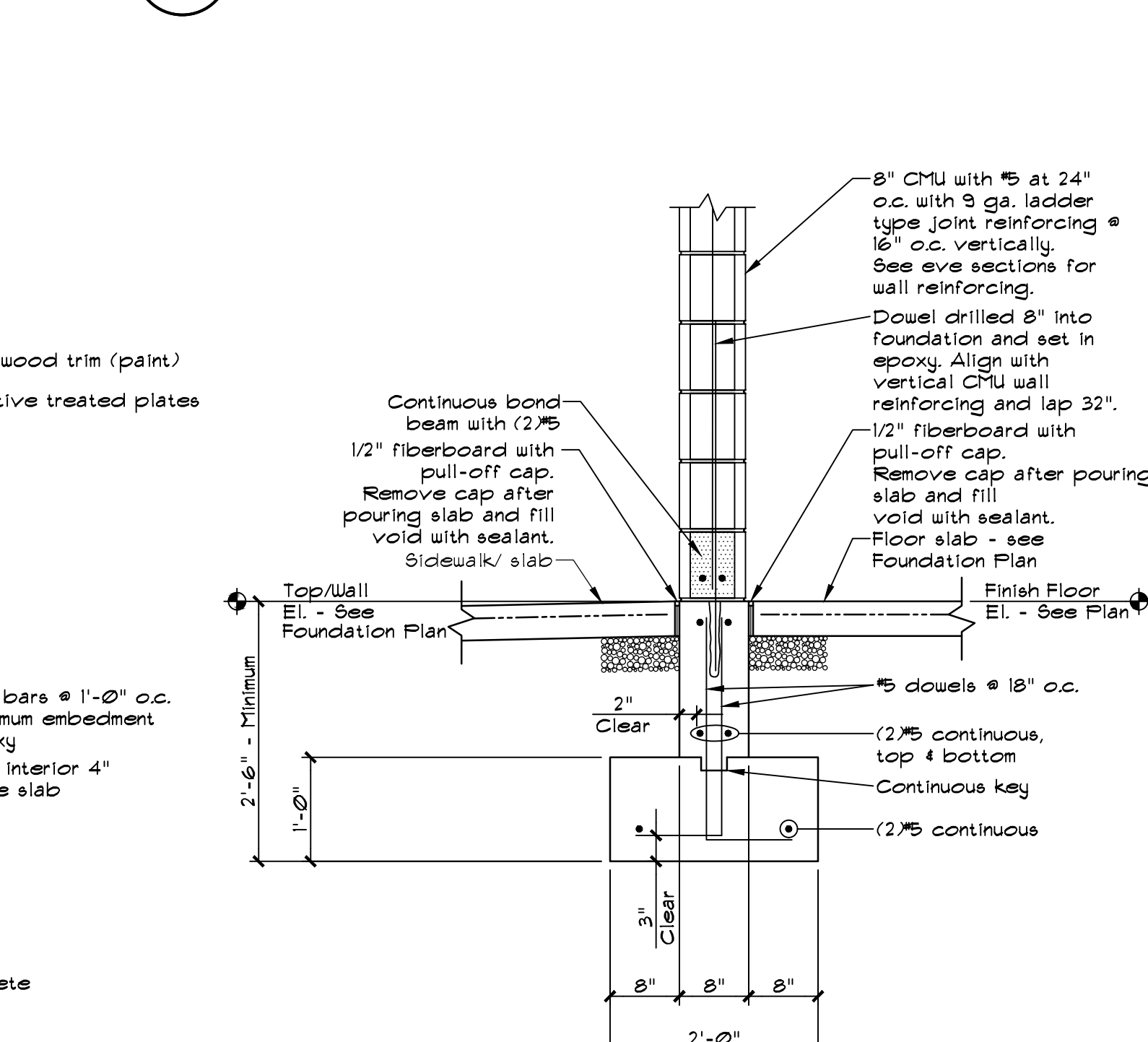
4 DETAIL
3/4" = 1'-0"



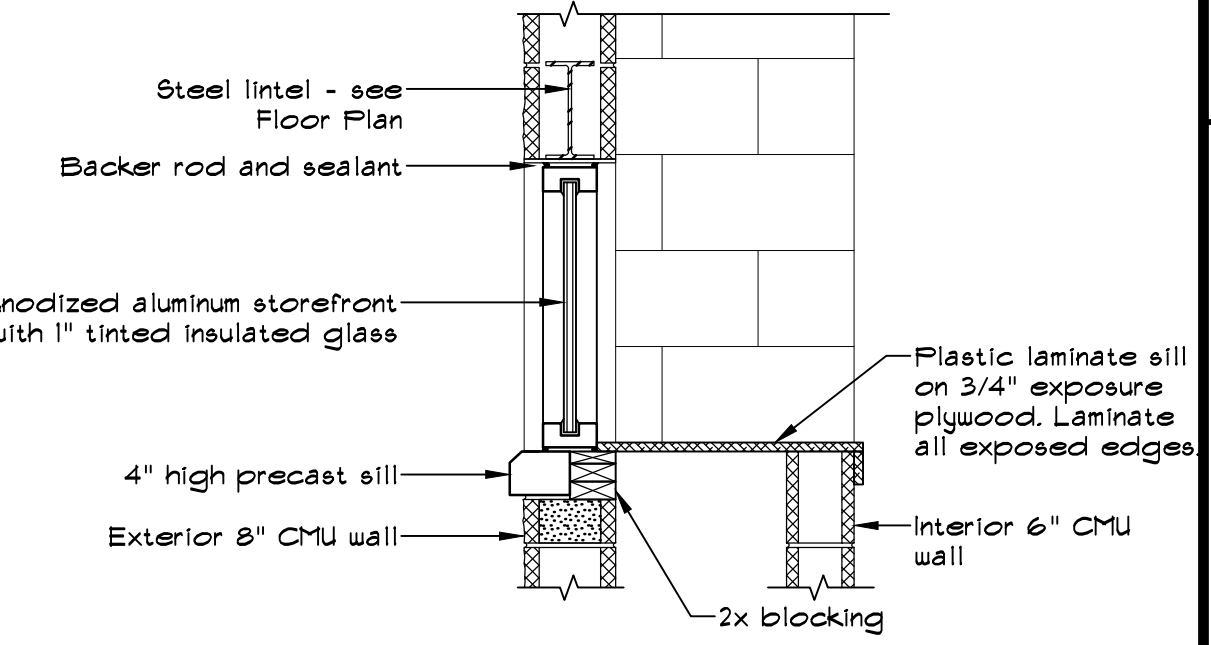
6 DETAIL
3/4" = 1'-0"



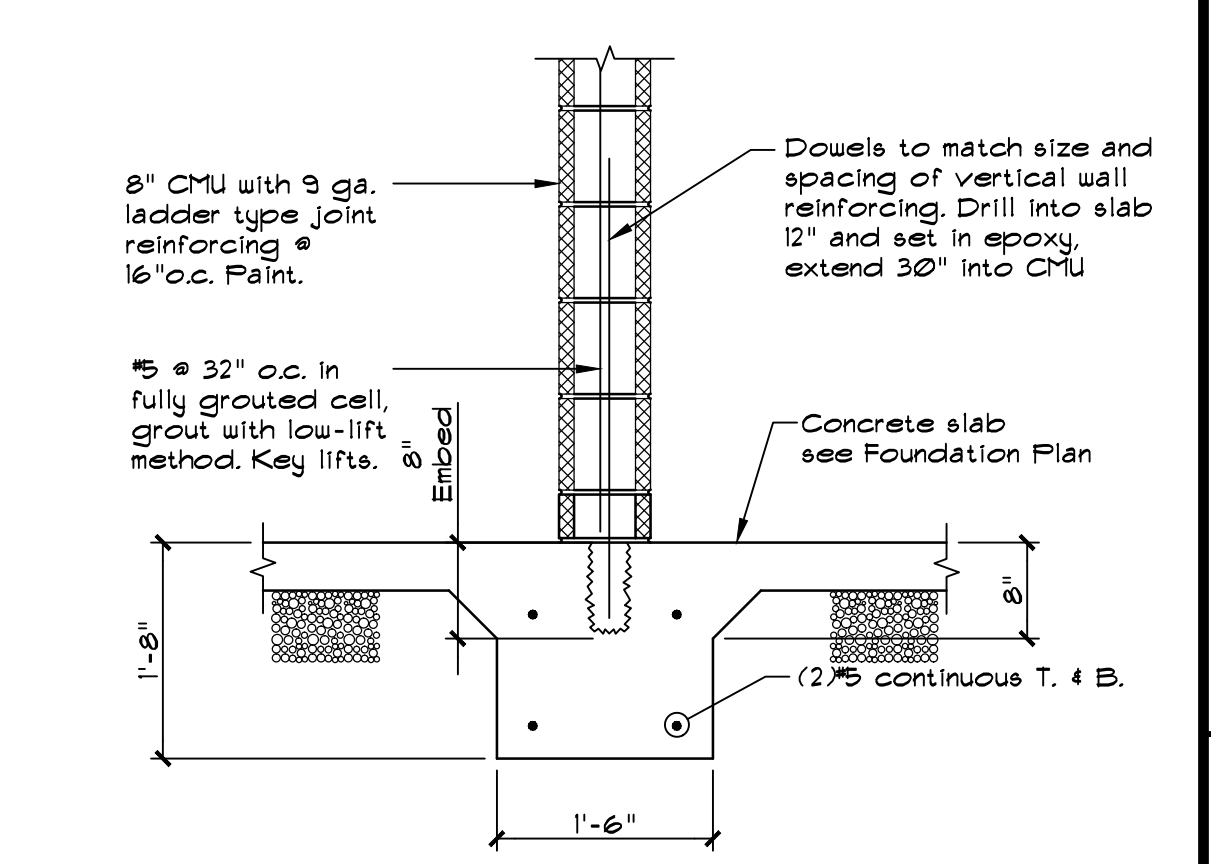
2 TYPICAL RAKE WALL SECTION
3/4" = 1'-0"



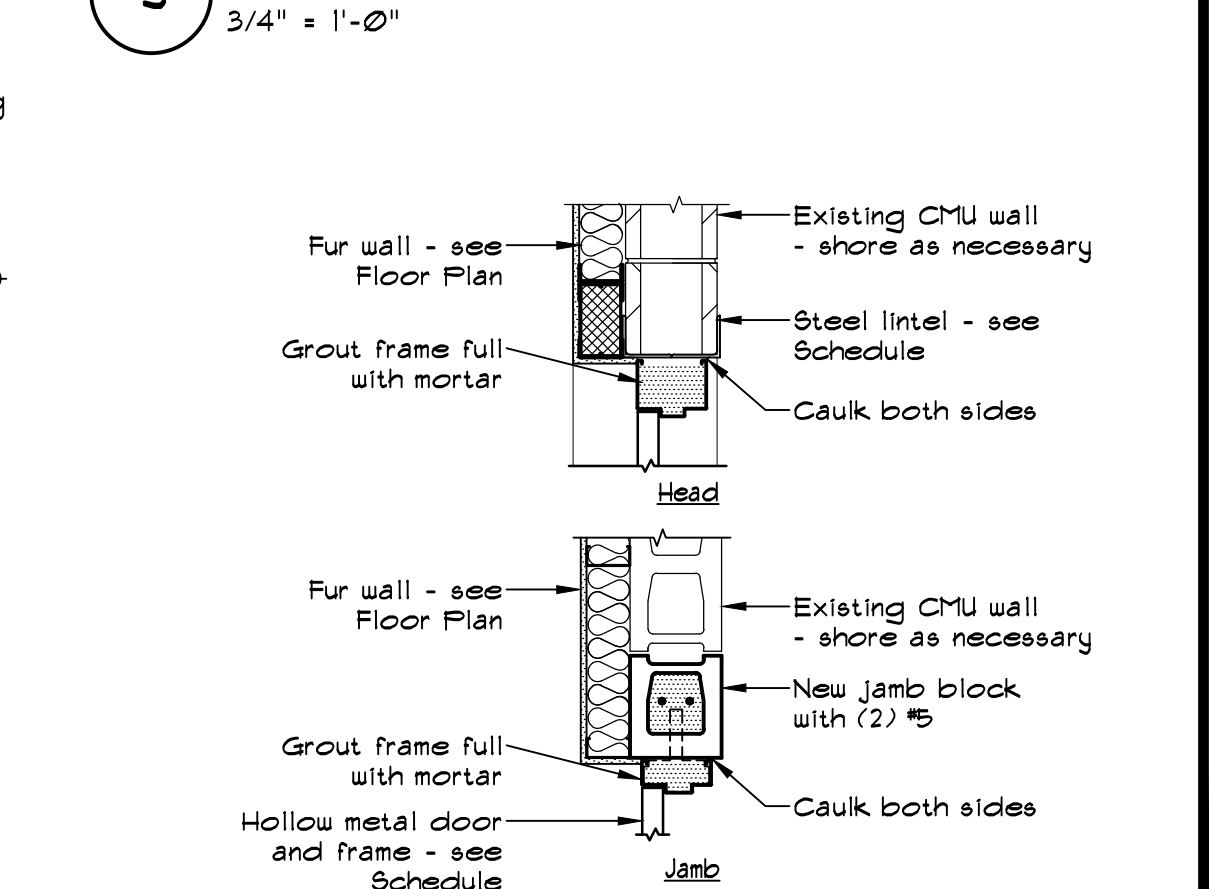
7 FOUNDATION SECTION
3/4" = 1'-0"



10 DETAIL @ WINDOW
3/4" = 1'-0"



9 SECTION THRU INTERIOR WALL
3/4" = 1'-0"



8 DOOR DETAIL
3/4" = 1'-0"

ELECTRICAL SPECIFICATIONS

A. BASIC REQUIREMENTS

1. WORK INCLUDED

FURNISH ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, SERVICES AND SKILLED SUPERVISION NECESSARY FOR THE CONSTRUCTION, ERECTION, INSTALLATION, CONNECTIONS, TESTING AND ADJUSTMENT OF ALL EQUIPMENT SPECIFIED HEREINAFTER, OR SHOWN OR NOTED ON THE DRAWINGS, AND ITS DELIVERY TO THE OWNER COMPLETE IN ALL RESPECTS AND READY FOR USE, PROVIDE ALL MINOR INCIDENTAL ITEMS REQUIRED AS PART OF THE WORK EVEN THOUGH NOT SPECIFIED OR SHOWN.

2. COORDINATION OF WORK:

PLAN AND COORDINATE ALL WORK SO THAT IT PROCEEDS WITH A MINIMUM OF INTERFERENCE WITH OTHER TRADES. CONFLICTS ARISING FROM LACK OF COORDINATION SHALL BE THIS CONTRACTOR'S RESPONSIBILITY. PROVIDE ALL SPECIAL FRAMES, SLEEVES AND ANCHOR BOLTS AS REQUIRED. COORDINATE THE ELECTRICAL WORK WITH THE MECHANICAL INSTALLATION.

3. EQUIPMENT AND FIXTURES:

EQUIPMENT AND FIXTURES SHALL BE CONNECTED PROVIDING CIRCUIT CONTINUITY IN ACCORDANCE WITH APPLICABLE CODES, WHETHER OR NOT EACH PIECE OF CONDUCTOR, CONDUIT, OR PROTECTIVE DEVICE IS SHOWN BETWEEN SUCH ITEMS OF EQUIPMENT OR FIXTURES, AND THE POINT OF CIRCUIT ORIGIN.

ONLY NEW AND UNDAMAGED PRODUCTS SHALL BE UTILIZED FOR PERMANENT CONSTRUCTION.

4. APPLICABLE DOCUMENTS:

DESIGN, MANUFACTURE, TESTING AND METHOD OF INSTALLATION OF ALL APPARATUS AND MATERIALS FURNISHED UNDER THE REQUIREMENTS OF THESE SPECIFICATIONS SHALL CONFORM TO THE LATEST AND/OR APPLICABLE PUBLICATIONS OR STANDARD RULES OF THE FOLLOWING:

- NATIONAL ELECTRICAL CODE - NEC
- INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS - IEEE
- NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION - NEMA
- UNDERWRITERS' LABORATORIES, INC.
- NATIONAL FIRE PROTECTION ASSOCIATION - NFPA
- AMERICAN SOCIETY FOR TESTING AND MATERIALS - ASTM
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION - OSHA
- AMERICAN STANDARDS INSTITUTE, INC. - ANSI
- NATIONAL ELECTRICAL SAFETY CODE - NESC
- INSULATED POWER CABLE ENGINEERS ASSOCIATION - IPCEA
- ELECTRICAL INSTITUTE ASSOCIATION - EIA
- AMERICANS WITH DISABILITIES ACT - ADA
- BOCA - NATIONAL BUILDING CODE
- BOCA - SEISMIC REQUIREMENTS

PROVIDE THE DESIGN, FABRICATION, AND ERECTION OF SUPPLEMENTARY STRUCTURAL FRAMING REQUIRED FOR ATTACHMENT OF HANGERS OR OTHER DEVICES SUPPORTING ELECTRICAL EQUIPMENT. PROVIDE MEMBERS WELDED TO STRUCTURAL MEMBERS EQUAL TO THE SPECIFICATION FOR THE MAIN STRUCTURAL MEMBER. PROVIDE "SIMPLE BEAM" TYPE FRAMING WITH END CONNECTIONS WELDED OR BOLTED FOR SHEAR LOADS. USE CANTILEVERS ONLY WHEN SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. THE ENGINEER'S APPROVAL IS ALSO REQUIRED FOR LOCATION OF SUPPLEMENTARY FRAMING. WHEN SUPPLEMENTARY FRAMING IS REQUIRED, DESIGN-FRAMING MEMBERS FOR THEIR ACTUAL LOADS, WITH ALLOWABLE STRESSES SPECIFIED BY AISC. VERIFY THAT DIMENSIONS ARE SUITABLE FOR THE EQUIPMENT FURNISHED. PROVIDE ADDITIONAL STRENGTH WHEN EQUIPMENT FURNISHED IS HEAVIER THAN THAT SPECIFIED.

5. FEES AND PERMITS

ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY FEES ASSOCIATED WITH THIS INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ARRANGING INSPECTIONS WITH THE APPROPRIATE BUILDING OFFICIALS.

6. SUBMITTAL DATA

INFORMATION ON ALL MATERIALS, EQUIPMENT AND APPURTENANCES TO BE FURNISHED UNDER THIS CONTRACT SHALL BE SUBMITTED AND APPROVED PRIOR TO RELEASE FOR FABRICATION AND/OR SHIPMENT TO THE JOBSITE. ALLOW 14 DAYS AFTER RECEIPT FOR RETURN. SUBMIT TEN COMPLETE COPIES. SIX COPIES WILL BE RETURNED. SUBMITTAL DATA SHALL INCLUDE MANUFACTURERS LITERATURE AND DATA SHEETS SHOWING QUANTITY, MODEL NUMBERS, DIMENSIONS, WEIGHTS, CAPACITIES, MATERIALS AND COMPLETE PERFORMANCE INFORMATION SHALL BE PROVIDED. CONTRACTOR SHALL SUBMIT TO THE ELECTRICAL CONSTRUCTION MANAGER FOUR COPIES OF DESCRIPTIVE LITERATURE COVERING INSTALLATION, MAINTENANCE AND OPERATION DATA AND PARTS LIST FOR EQUIPMENT FURNISHED UNDER THIS CONTRACT.

7. PROTECTION AND CLEANING

EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION BY THE INSTALLING CONTRACTOR. EQUIPMENT OR MATERIALS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT NO COST TO THE OWNER. INSTALLING CONTRACTOR SHALL ASSUME CUSTODY AND CONTROL OF OWNER FURNISHED EQUIPMENT ONCE IT ARRIVES AT THE JOBSITE.

AT THE COMPLETION OF THE INSTALLATION, THIS CONTRACTOR SHALL CLEAN ALL EQUIPMENT AND SHALL REMOVE ALL RUBBISH, CRATING, DEVICES, MATERIALS OR ANY OTHER DEBRIS OCCASIONED BY THIS INSTALLATION.

8. OUTLET LOCATION

POSITION OF OUTLETS: CENTER ALL OUTLETS WITH REGARD TO PANELING FURRING AND TRIM. SYMMETRICALLY ARRANGE OUTLETS IN THE ROOM. SATISFACTORILY CORRECT OUTLETS IMPROPERLY LOCATED OR INSTALLED. MOUNTED HEIGHTS ARE TO BE TO THE CENTER OF BOX ABOVE FINISH FLOOR.

9. SPECIAL CONSIDERATIONS:

WHEN CUTTING AND PIERCING IS REQUIRED, OBTAIN WRITTEN PERMISSION OF THE STRUCTURAL ENGINEER BEFORE CUTTING OR PIERCING STRUCTURAL MEMBERS. SLEEVES SHALL BE GALVANIZED SHEET METAL, GALVANIZED RIGID STEEL CONDUIT OR PLASTIC SLEEVES, PROPERLY SIZED TO ACCOMMODATE THE RACEWAY. ALL SLEEVES MUST BE SEALED AND MADE TO A FIRE RATED PROTECTION STANDARD AFTER CONDUIT OR CABLES HAVE BEEN INSTALLED. SEAL EQUIPMENT OR COMPONENTS EXPOSED TO THE WEATHER AND MAKE WATERTIGHT AND INSECT-PROOF.

10. ALTERATIONS:

VERIFICATION OF EXISTING CONDITIONS PRIOR TO ORDERING OR FABRICATING MATERIALS AND EQUIPMENT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. THE OWNER INTENDS TO MAKE CONTINUED USE OF EXISTING FACILITIES, UTILITIES AND SERVICES TO EXISTING FACILITIES SHALL NOT BE INTERRUPTED WITHOUT THE OWNER'S APPROVAL AS TO THE TIME AND DURATION. THE OWNER WILL CONTINUE TO OCCUPY THE EXISTING FACILITIES THROUGHOUT THE CONSTRUCTION OPERATIONS. ELECTRICAL CONTRACTOR SHALL SO ORGANIZE HIS WORK AS TO CAUSE A MINIMUM OF INTERFERENCE WITH THE NORMAL ROUTINE ACTIVITIES OF THE FACILITIES. ALL INTERRUPTION SHALL BE SCHEDULED AT THE CONVENIENCE OF THE OWNER.

ALL CONCEALED CONDUIT FOR CIRCUITS, WHICH ARE PARTIALLY OR COMPLETELY ABANDONED, MAY REMAIN IN PLACE. EXPOSED CONDUIT FOR ABANDONED CIRCUITS SHALL BE REMOVED UNLESS OTHERWISE NOTED.

WIRING FOR EXISTING CIRCUITS WHICH MUST BE RE-ROUTED, OR WHICH ARE PARTIALLY ABANDONED, SHALL BE RECONNECTED TO SERVE THE REMAINING OUTLETS ON THE CIRCUIT.

THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER AND SHALL TURN OVER TO THE OWNER ALL REMOVED ELECTRICAL EQUIPMENT THAT THE OWNER DESIGNATES. ALL OTHER EQUIPMENT THAT IS REMOVED SHALL BECOME THE PROPERTY OF THE ELECTRICAL CONTRACTOR AND SHALL BE REMOVED FROM THE JOB SITE.

11. IDENTIFICATION OF EQUIPMENT

NAMEPLATES / IDENTIFICATION SHALL BE PROVIDED FOR ALL SAFETY SWITCHES, AND INDIVIDUAL MOTOR CONTROL EQUIP. THE NAMEPLATE SHALL INCLUDE THE EQUIPMENT NAME/NUMBER, VOLTAGE, AMPERES AND THE FEEDER OR THE EQUIPMENT THAT IT FEEDS. ALL EXISTING PANELBOARDS MODIFIED UNDER THIS CONTRACT SHALL INCLUDE NEW TYPED DIRECTORIES WITH ALL EXISTING AND NEW LOADS VERIFIED AND IDENTIFIED. PROVIDE SHOP DRAWINGS AND SUBMITTALS INCLUDING SYSTEM-WIRING DIAGRAMS. PARTIAL OR STANDARD WIRING DIAGRAMS WILL NOT BE ACCEPTABLE. THE WIRING DIAGRAMS SHALL BE FOR THE COMPLETE INSTALLED SYSTEM.

PROVIDE "DYMO TAPE" IDENTIFICATION FOR ALL EQUIPMENT NOT COVERED ABOVE, WHICH SHALL INCLUDE: DISCONNECT SWITCHES, MOTOR STARTERS, CONTROL PANELS, ETC.

ALL PANEL DIRECTORY CARDS SHALL BE TYPED AND INDICATE AREA AND DEVICES SERVED BY THE RENOVATION. PROVIDE NEW DIRECTORIES IN ALL EXISTING PANELS AFFECTED.

12. EQUIPMENT, CONNECTIONS, STARTERS, AND CONTROLS

THE EC SHALL FURNISH AND INSTALL ALL CONDUIT, WIRING AND MATERIAL REQUIRED TO PROVIDE CIRCUIT AND DISCONNECTING MEANS FOR ALL EQUIPMENT. HE SHALL INSTALL AND SET ALL BELT-DRIVEN MOTORS AND ALL STARTERS AND CONTROL DEVICES AS FURNISHED WITH, AND AS A PART OF THE EQUIPMENT FURNISHED BY OTHERS. EC SHALL ASSIST IN EQUIPMENT UNLOADING AND HANDLING AS ESTABLISHED BY LOCAL LABOR CUSTOM AND PROCEDURES.

THE EC SHALL PROVIDE FVNR MAGNETIC AND/OR COMBINATION STARTERS AS INDICATED. STARTERS SHALL BE PROVIDED WITH START-STOP, HOA, PILOT LIGHT, AUXILIARY CONTACTS AND CONTROL TRANSFORMER.

ALL CONNECTION AND WIRING REQUIRED FOR INTERLOCK AND/OR TEMPERATURE CONTROL WILL BE BY THE MECHANICAL SUBCONTRACTOR.

13. GROUNDING SYSTEM

FURNISH AND INSTALL A GROUNDING SYSTEM INCLUDING ALL FITTINGS, CLAMPS, CONDUIT AND WIRE OF THE PROPER SIZE TO MAKE GROUND CONNECTIONS BETWEEN ALL APPARATUS, CONDUITS, ETC. AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ACCORDING TO THE REQUIREMENTS OF THE UTILITY COMPANY AND LOCAL AUTHORITIES.

13. LIGHTING FIXTURE INSTALLATION

FURNISH AND INSTALL LIGHT FIXTURES OF TYPES AND QUANTITIES SHOWN ON THE PLANS. FINAL FIXTURE SELECTION AND COLORS TO BE DETERMINED BY OWNER.

THE EC SHALL PROVIDE ALL MOUNTING HARDWARE, FITTINGS AND ACCESSORIES REQUIRED. DO NOT DEPEND ON CEILING GRID FOR SUPPORT OF FIXTURES.

REMOVE, RETAIN AND RE-INSTALL, WHERE APPLICABLE ANY FIXTURES REQUIRED TO BE TEMPORARILY REMOVED TO COMPLETE DEMOLITION AND CONSTRUCTION WORK. EC SHALL SERVICE/TEST EXISTING BATTERY LIGHTING UNITS AND EXIT LIGHT FIXTURES AFFECTED BY THIS WORK.

UPON COMPLETION OF JOB, ALL FIXTURES SHALL BE LAMPED AND LEFT IN FIRST-CLASS CONDITION AND COMPLETELY CLEANED OF ALL PLASTER, PAINT AND SMUDGES.

B. BASIC MATERIALS AND METHODS

1. RACEWAYS, FITTINGS AND BOXES

CONDUITS RUN ABOVE CEILINGS, IN WALLS OR EXPOSED SHALL BE ELECTRICAL METALLIC TUBING WITH STEEL SET SCREW FITTINGS. TYPE AC AND /OR MC CABLE MAY BE USED FOR LIGHTING AND RECEPTACLE CIRCUITS, AS PERMITTED BY CODE. HOME RUNS TO PANELS SHALL BE EMT.

CONDUITS IN DIRECT CONTACT WITH EARTH OR BELOW VAPOR BARRIER SHALL BE HEAVY WALL GALVANIZED STEEL OR SCHEDULE 40PVC.

PROVIDE HEAVY WALL GALVANIZED STEEL ELBOWS FOR PVC CONDUIT SERVING PANELS AND EQUIPMENT.

PROVIDE GROUND WIRE, PER NEC IN ALL PVC CONDUIT. OUTLET BOXES FOR ALL INTERIOR OUTLETS SHALL BE STANDARD, GALVANIZED PRESSED STEEL WITH SUITABLE FRAMES TO SERVE PURPOSE INDICATED AND TO FIT SPACE ALLOTTED.

ALL OUTDOOR LIGHTS, SWITCHES AND OUTLETS SHALL BE PROVIDED WITH APPROVED WEATHERPROOF OUTLET BOXES.

FURNISH AND INSTALL JUNCTION BOXES WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED FOR THE PROPER INSTALLATION OF THE SYSTEMS.

WHERE FLUSH COVER PLATES ARE REQUIRED, THEY SHALL BE PAINTED TO MATCH ADJACENT WALL OR CEILING FINISHES.

ALL JUNCTION BOXES, OTHER THAN FOR POWER OR LIGHTING SHALL BE IDENTIFIED AS TO THEIR USAGE ON THE INSIDE OF THE COVER PLATE.

2. CONDUCTORS/CABLE ASSEMBLIES

UNLESS OTHERWISE SPECIFIED, PROVIDE SOLID COPPER CONDUCTORS TYPE THWN (75C WET OR DRY) OR THHN (90C DRY ONLY) FOR ALL CONDUCTORS NO. 10 AWG AND SMALLER.

UNLESS OTHERWISE SPECIFIED, PROVIDE STRANDED COPPER CONDUCTORS THYPER THW, THWN, XHHW (75C WET OR DRY), THHN OR XHHW (90C DRY ONLY) FOR ALL CONDUCTORS NO. 10 AWG AND LARGER.

CABLE ASSEMBLIES SUCH AS TYPE AC, MAC ETC., AS PERMITTED BY CODE, ARE ACCEPTABLE.

COLOR- CODE ALL CONDUCTOR INSULATION WITH THE STANDARD COLORS, OR TAPE AT EACH TERMINATION AND JUNCTION BOX. EACH VOLTAGE, PHASE, NEUTRAL AND GROUND SHALL BE IDENTIFIED WITH A SEPARATE COLOR AND SHALL BE USED CONSISTENTLY THROUGHOUT.

NO SPLICING OR JOINTS WILL BE PERMITTED IN EITHER FEEDER OR BRANCH CIRCUITS EXCEPT AT OUTLET OR ACCESSIBLE JUNCTION BOXES. UTILIZE COMPRESSION TYPE SOLDER LESS CONNECTORS, SIMILAR TO THOMAS AND BETTS TYPE 545 WITH 3M, 8400 SERIES SPLICE KITS AND COLD SHRINK CONNECTORS WHEN MAKING SPLICES OR TAPS IN CONDUCTORS NO. 8 AWG OR LARGER. UTILIZE PREINSULATED CONNECTORS 3M COMPANY "SCOTCHLOK" OR IDEAL INDUSTRIES, INC. "SUPER NUT", FOR SPLICES AND TAPS IN CONDUCTORS NO. 10AWG AND SMALLER. ALL OTHER TWIST-ON CONNECTORS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. ALSO, UTILIZE THIS TYPE OF CONNECTOR FOR FACTORY-MADE SPLICES IN FIXTURES AND EQUIPMENT.

3. SAFETY SWITCHES

ACCEPTABLE MANUFACTURERS ARE SIEMENS, G.E., SQUARE D, WESTINGHOUSE OR APPROVED EQUAL.

SAFETY SWITCHES SHALL BE HEAVY DUTY, SIZE AND TYPE AND AS REQUIRED FOR THE PURPOSE INTENDED. PROVIDE MINIMUM NEMA 3R CONSTRUCTION FOR SWITCHES LOCATED OUTDOORS.

4. WIRING DEVICES AND PLATES

ALL SWITCHES AND RECEPTACLES SHALL BE 20A COMMERCIAL GRADE. DEVICES SHALL BE STANDARD COLORS AS APPROVED BY THE ARCHITECT. PLATES SHALL MATCH DEVICE COLOR AND BE HIGH IMPACT, THERMOPLASTIC FOR ALL FLUSH MOUNTED DEVICES.

5. SHOP DRAWINGS

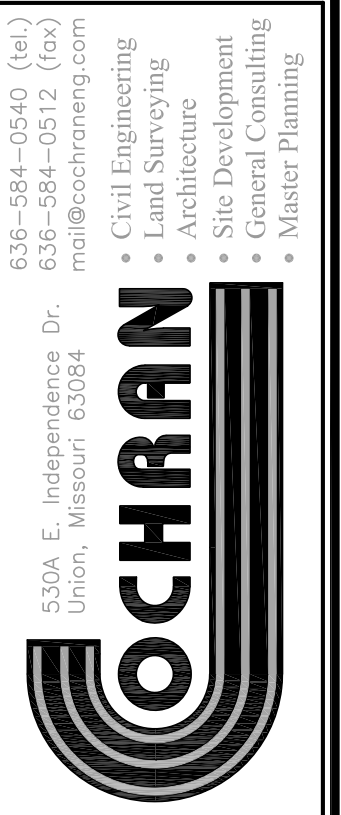
ELECTRICAL CONTRACTOR SHALL SUBMIT FOR APPROVAL ± TEN COPIES EACH OF DESCRIPTIVE LITERATURE FOR ALL PANELS, LIGHTING FIXTURES, ELECTRICAL EQUIPMENT, BOXES, CONDUITS, CABLES, CONDUCTORS, DEVICES, ETC. PRIOR TO INSTALLATION. ALL ELECTRICAL WORK INSTALLED PRIOR TO APPROVAL AND DEEMED UNACCEPTABLE SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

6. OPERATION AND MAINTENANCE MANUALS:

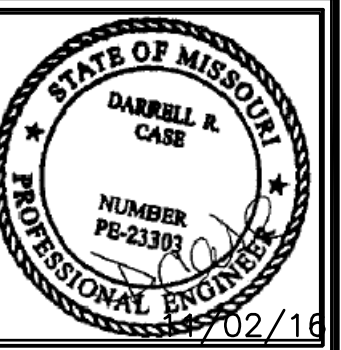
BEFORE FINAL APPROVAL OF THE ELECTRICAL INSTALLATION, SUBMIT FOUR (4) COPIES OF DESCRIPTIVE LITERATURE, MAINTENANCE, RECOMMENDATIONS FROM THE EQUIPMENT MANUFACTURER, DATE OF INITIAL OPERATION, WIRING DIAGRAMS AND PARTS LIST OF EACH ITEM OF ELECTRICAL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

7. WARRANTIES

THE ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP SUPPLIED BY HIM TO BE FREE OF DEFECT FOR THE PERIOD OF ONE YEAR AFTER THE ACCEPTANCE DATE OF WORK, AND SHALL BE REQUIRED TO REPLACE OR MAKE ADJUSTMENTS FOR ANY DEFECTS DUE TO FAULTY MATERIAL OR POOR WORKMANSHIP. ALL GUARANTEES AND WARRANTIES PROVIDED BY MANUFACTURERS OR OTHERS FOR LONGER PERIODS SHALL BE IDENTIFIED AND PASSED THROUGH TO THE OWNER. A COMPLETE LIST OF ALL WARRANTIES SHALL BE SUBMITTED WITH CONTRACT NAMES, AND ADDRESSES AND PHONE NUMBERS PRIOR TO PROJECT COMPLETION.

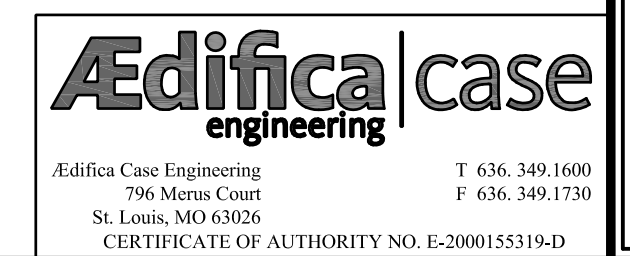


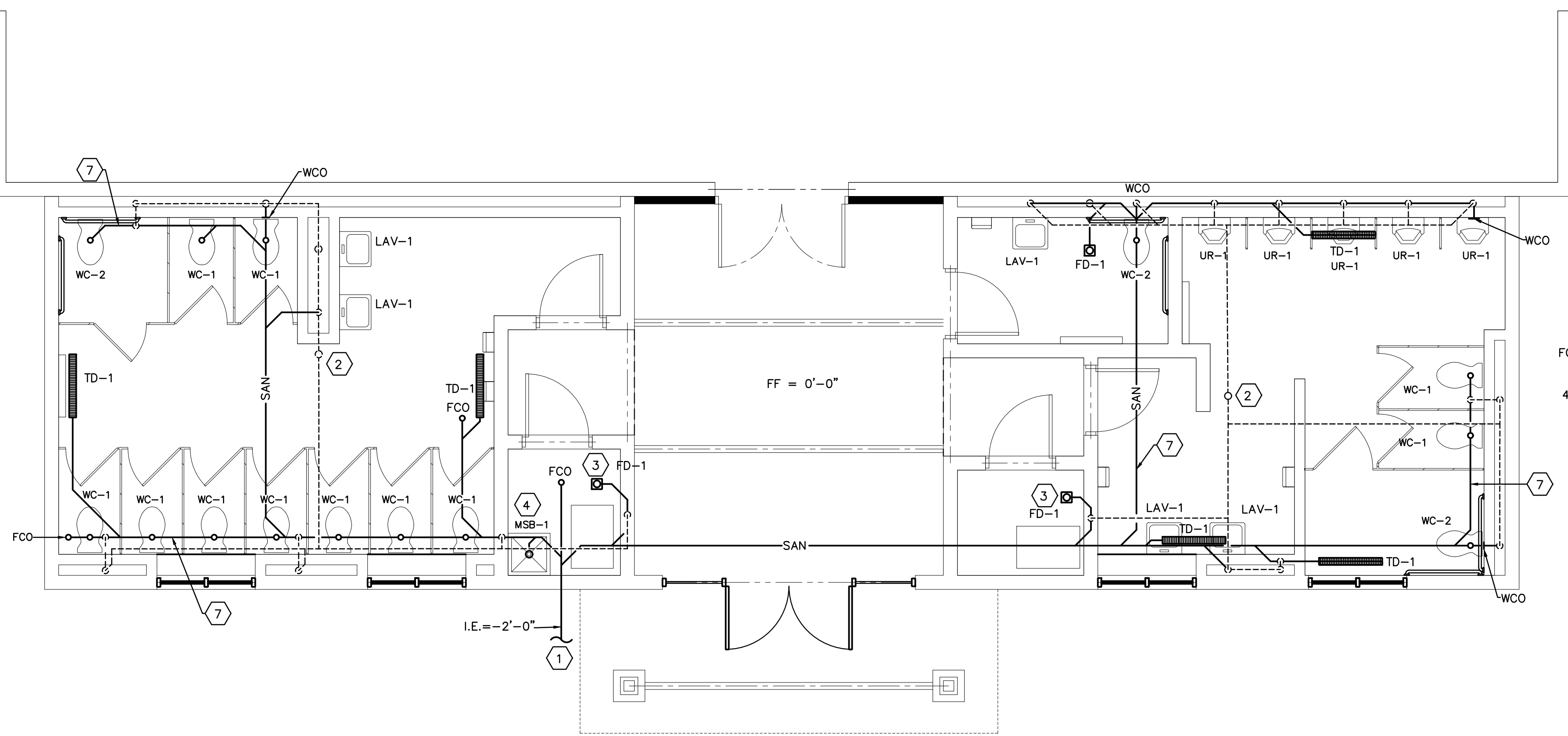
Two working days prior to the start of any excavation call 1-800-368-8111 for utility location information. All OSHA rules & regulations must be strictly followed (ie. trenching, shoring, etc.)



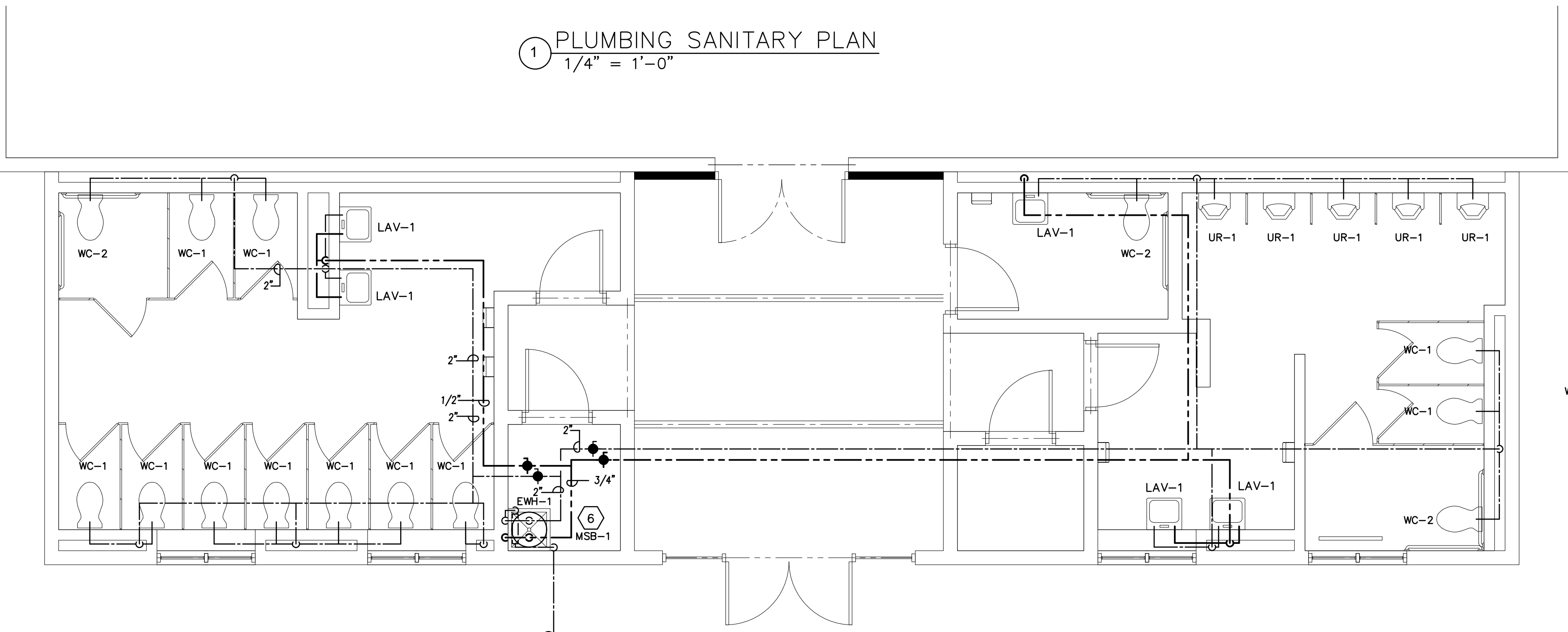
NEW RESTROOMS
CITY OF WENTZVILLE
ROTARY, PARK
WENTZVILLE, MISSOURI

ELECTRICAL SPECIFICATIONS	
DATE:	NOV 01, 2016
SCALE:	AS NOTED
PROJ. NO.:	15-6060
DATE:	E2.0

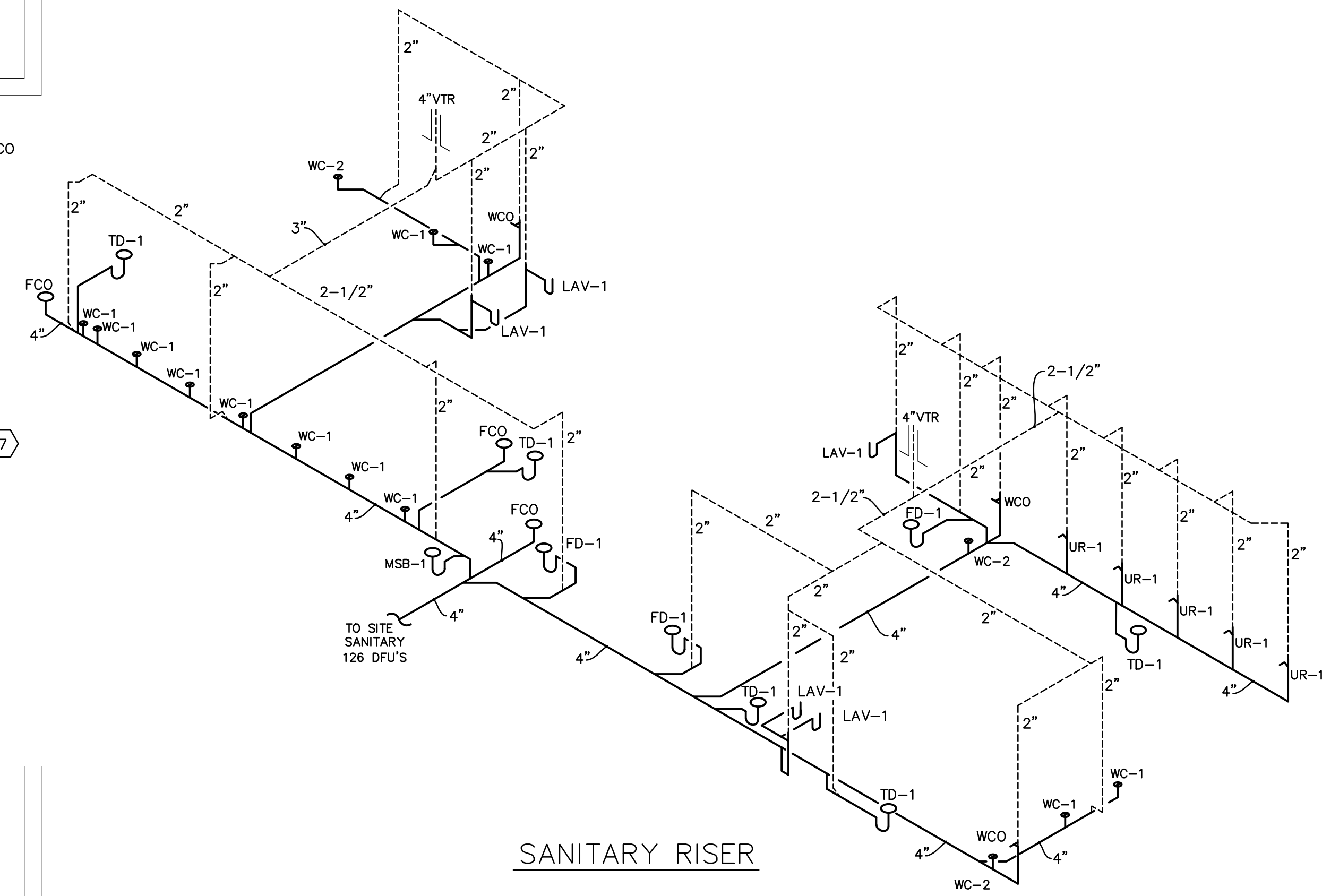




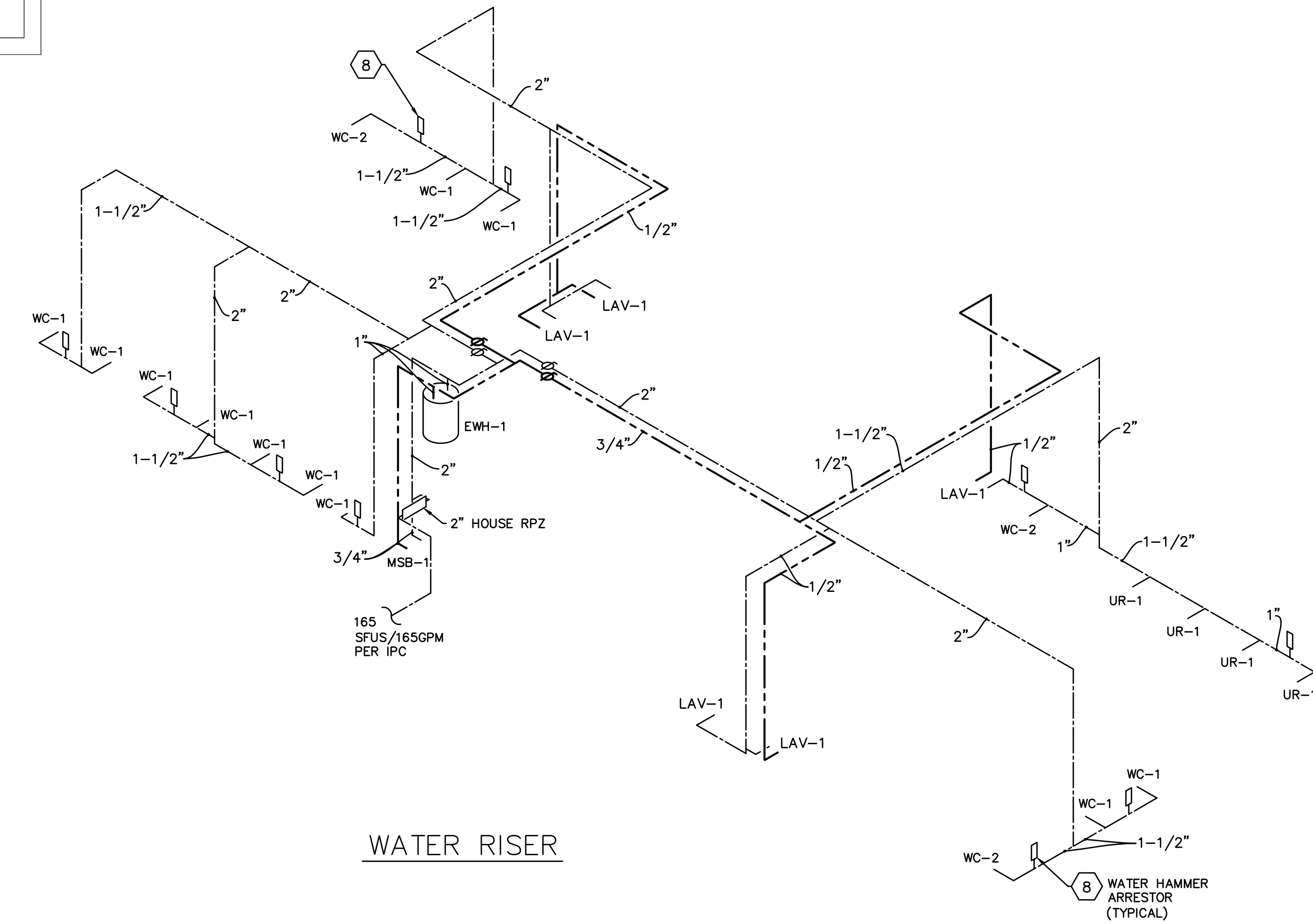
1 PLUMBING SANITARY PLAN
1/4" = 1'-0"



2 PLUMBING WATER PLAN
1/4" = 1'-0"



SANITARY RISER



WATER RISER

PLUMBING KEYED NOTES

- 1 ROUTE TO CONNECT TO EXISTING SANITARY WASTE PIPING. VERIFY EXACT SIZE, INVERT ELEVATION AND LOCATION IN FIELD PRIOR TO WORK. CONTACT ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED.
- 2 VENT PIPING THROUGH ROOF. MAINTAIN MINIMUM 10'-0" CLEARANCE FROM ALL AIR INTAKES.
- 3 DRAIN FROM AIR HANDLER TO DISCHARGE INDIRECTLY INTO FLOOR DRAIN. PROVIDE MINIMUM 1" AIR GAP FROM LIP OF BASIN. ROUTE TIGHT TO WALL.
- 4 DRAIN FROM WATER HEATER TO DISCHARGE INDIRECTLY INTO MOP SINK. PROVIDE MINIMUM 1" AIR GAP FROM LIP OF BASIN.
- 5 PROVIDE NEW 2" COLD WATER SERVICE TO BUILDING. VERIFY EXACT METER LOCATION AND REQUIREMENTS WITH WATER COMPANY PRIOR TO WORK. CONTACT ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.
- 6 WATER HEATER TO BE PROVIDED ABOVE MOP SINK. REFER TO WATER HEATER DETAIL FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- 7 2" SANITARY VENT PIPING BELOW SLAB.
- 8 REFER TO WATER ARRESTOR DETAIL P.3.0

GENERAL NOTES

1. POINT OF USE THERMOSTATIC MIXING VALVES MUST BE INSTALLED AT EACH FIXTURE REQUIRING ADA & IAC THERMAL PROTECTION.

WATER HEATER SCHEDULE								
MARK	MFR	MODEL	STORAGE	RECOVERY	F. RISE	VOLT/PHASE	HEAT INPUT	REMARKS
EWH-1	AO SMITH	DRE-52	50	41	90	208/1	12 KW	1

1. ELECTRIC WATER HEATER.

Edifica case
engineering

Edifica Case Engineering
796 Menas Court
St. Louis, MO 63026
CERTIFICATE OF AUTHORITY NO. E-2000155319-D

T 636.349.1600
F 636.349.1730

636-584-0540 (tel)
636-584-0512 (fax)
mailto:ochran@ochran.com
www.ochran.com

UCHRAN
Civil Engineering
Land Surveying
Architecture
Site Development
General Consulting
Master Planning

Two working days prior to the start of any excavation, call 1-800-DC-RITE for utility location information.
All OSHA rules & regulations and construction required by these plans shall be strictly followed (i.e. trenching, shoring, etc.).

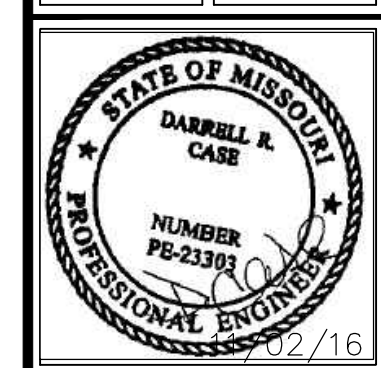
STATE OF MISSOURI
NUMBER PB-2380
PROFESSIONAL ENGINEER
02/16

**NEW RESTROOMS
CITY OF WENTZVILLE
ROTARY, PARK
WENTZVILLE, MISSOURI**

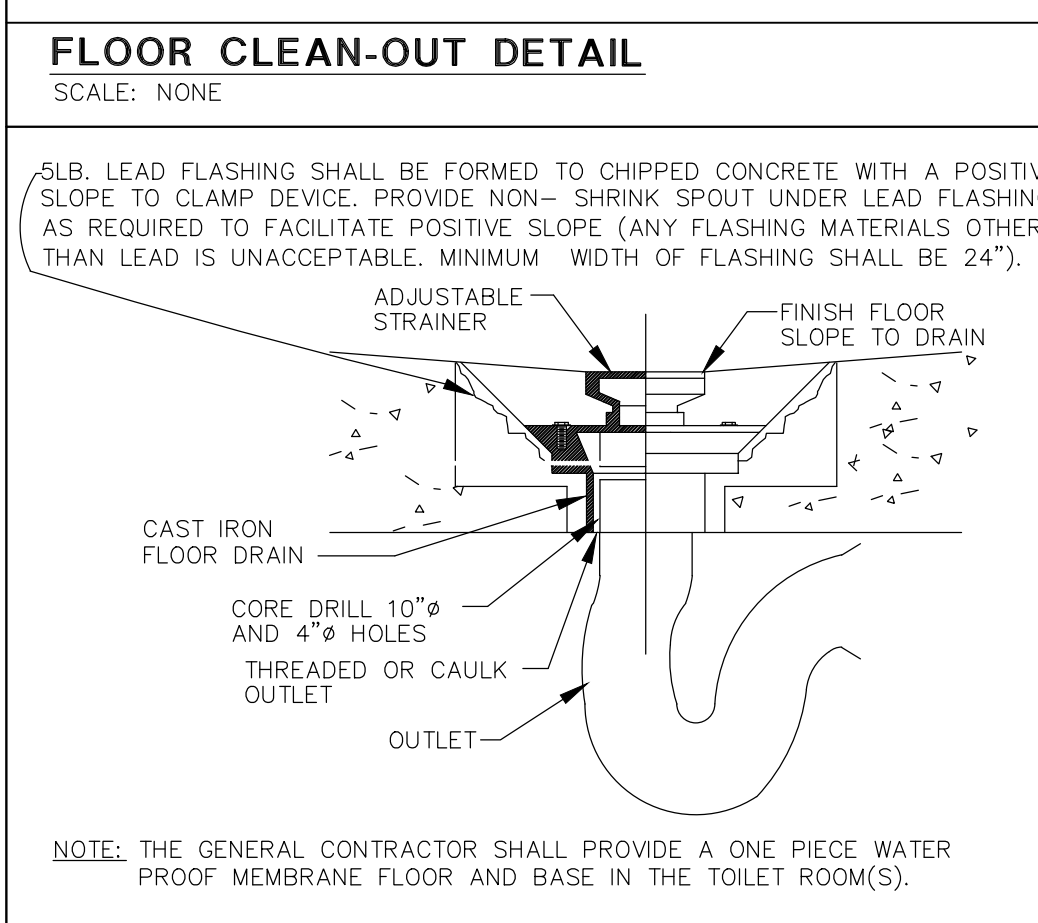
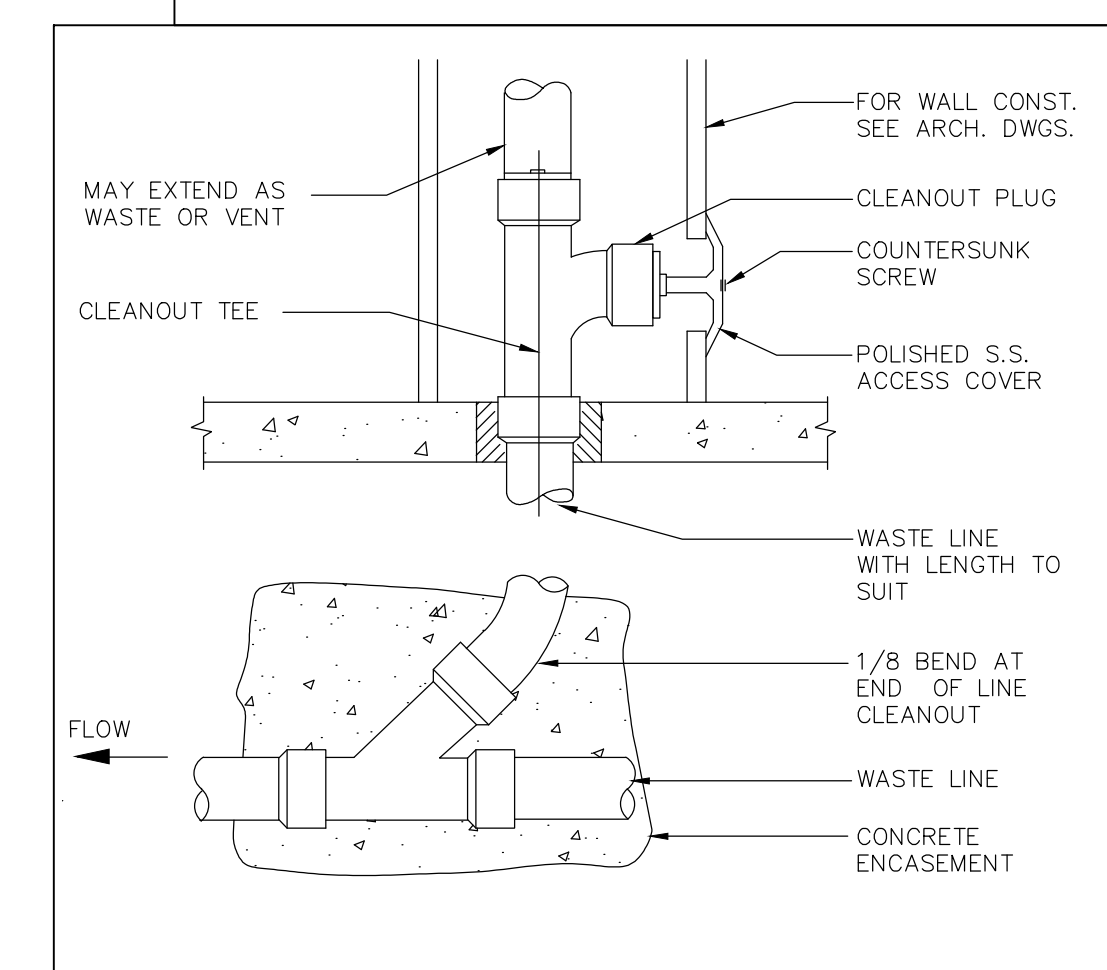
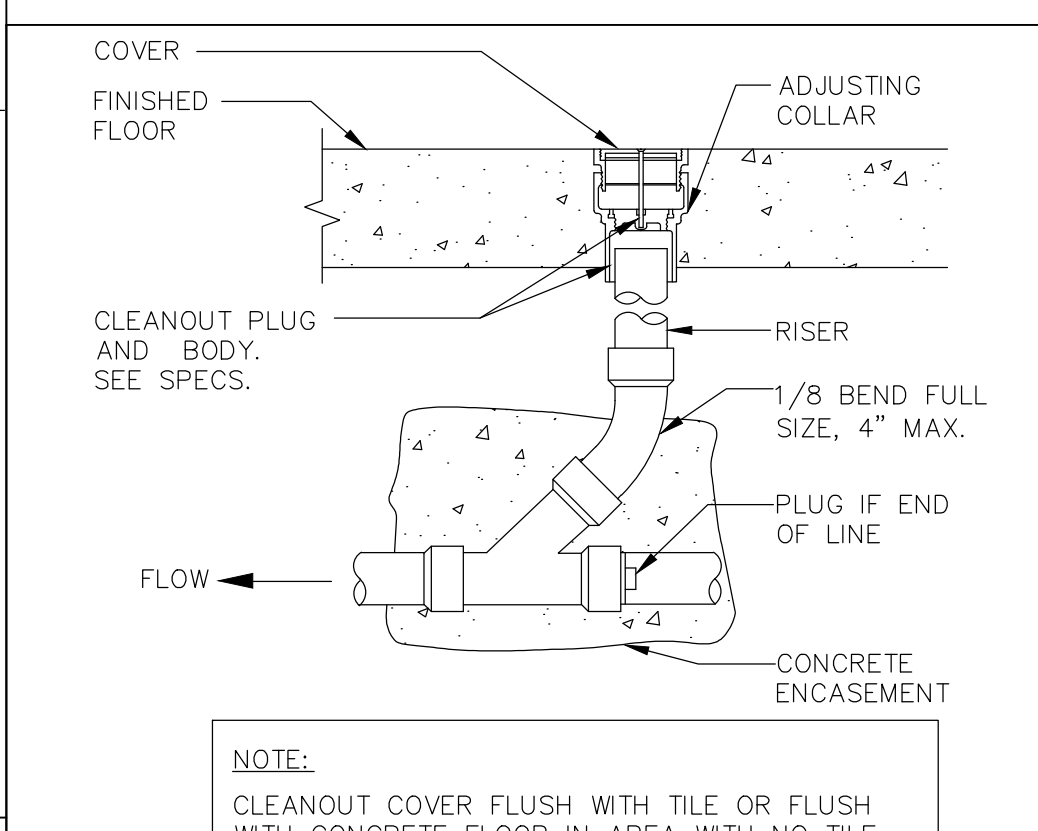
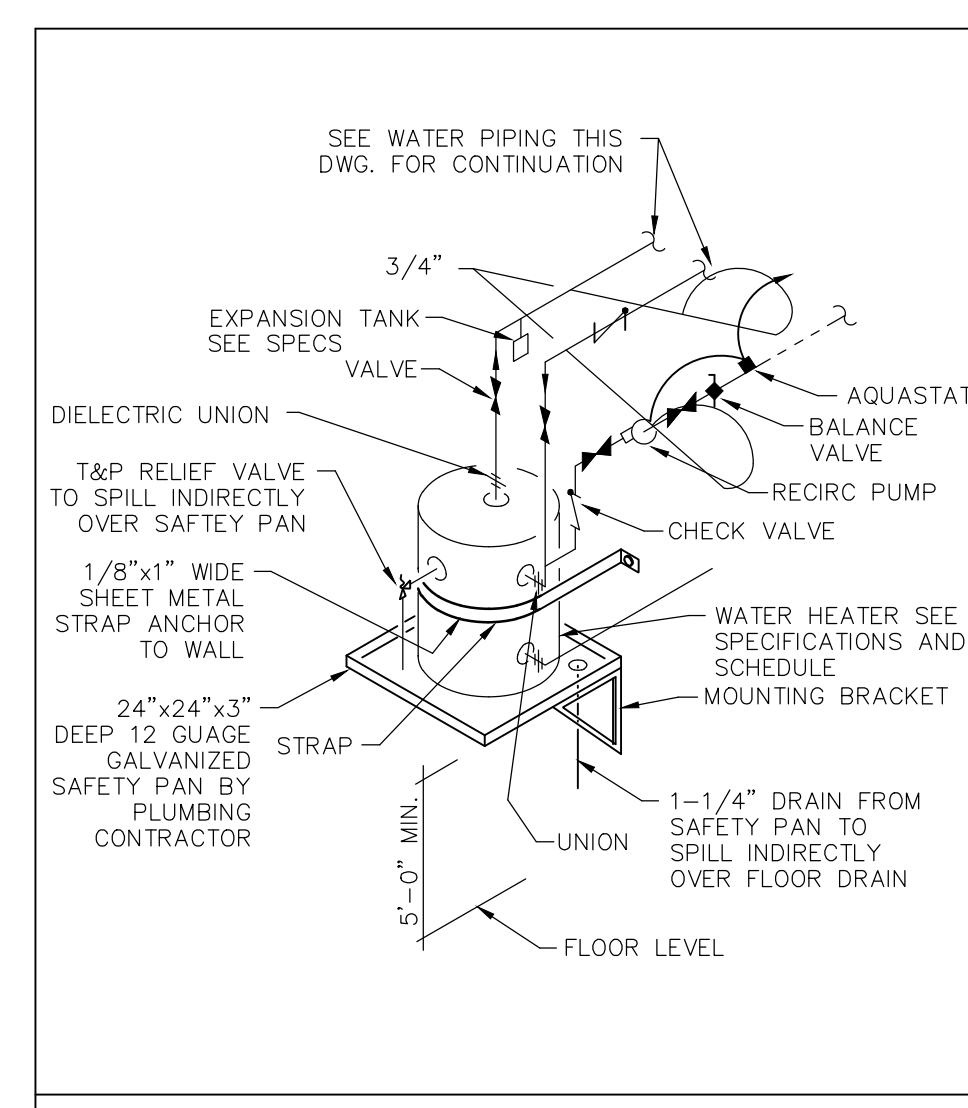
PLUMBING PLAN
DATE: 11/02/16
APP'D BY: [Signature]
DATE: NOV 02, 2016
SCALE: AS NOTED
PROJ. NO.: 15-6060
DWG. NO.: P2.0

No working drawings prior to the start of any excavation or construction shall be permitted without call 1-800-400-RIE for safety location information.

All OSHA rules & regulations and construction required by these plans shall be strictly followed (ie. trenching, shoring, etc.).



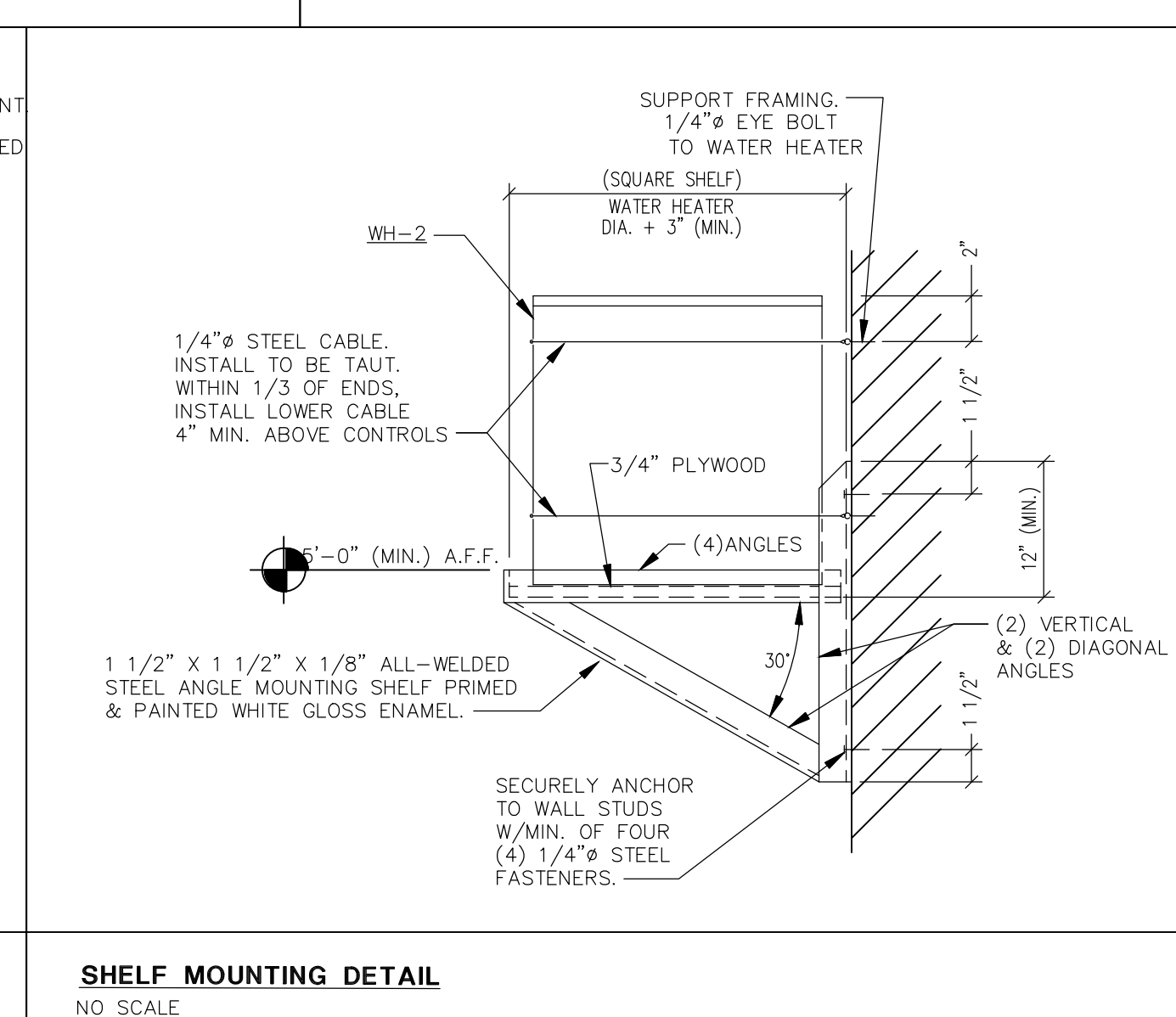
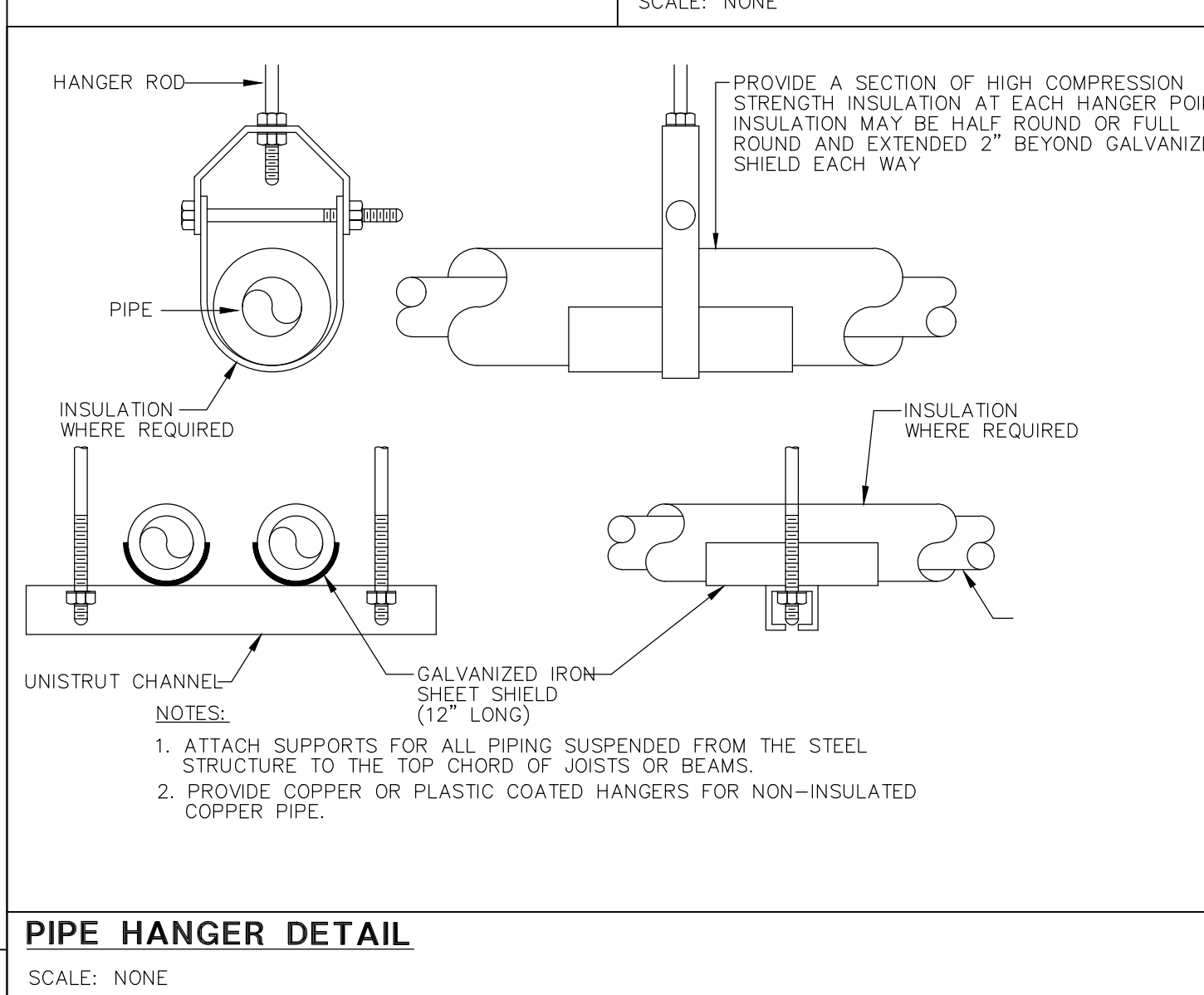
**NEW RESTROOMS
CITY OF WENTZVILLE
ROTARY, PARK
WENTZVILLE, MISSOURI**



SHOCK ABSORBER DETAIL						
JOSAM	75001-S	75002-S	75003-S	75004-S	75005-S	75006-S
FIXT. UNIT RATING	1-11	12-32	33-60	61-113	114-154	155-330

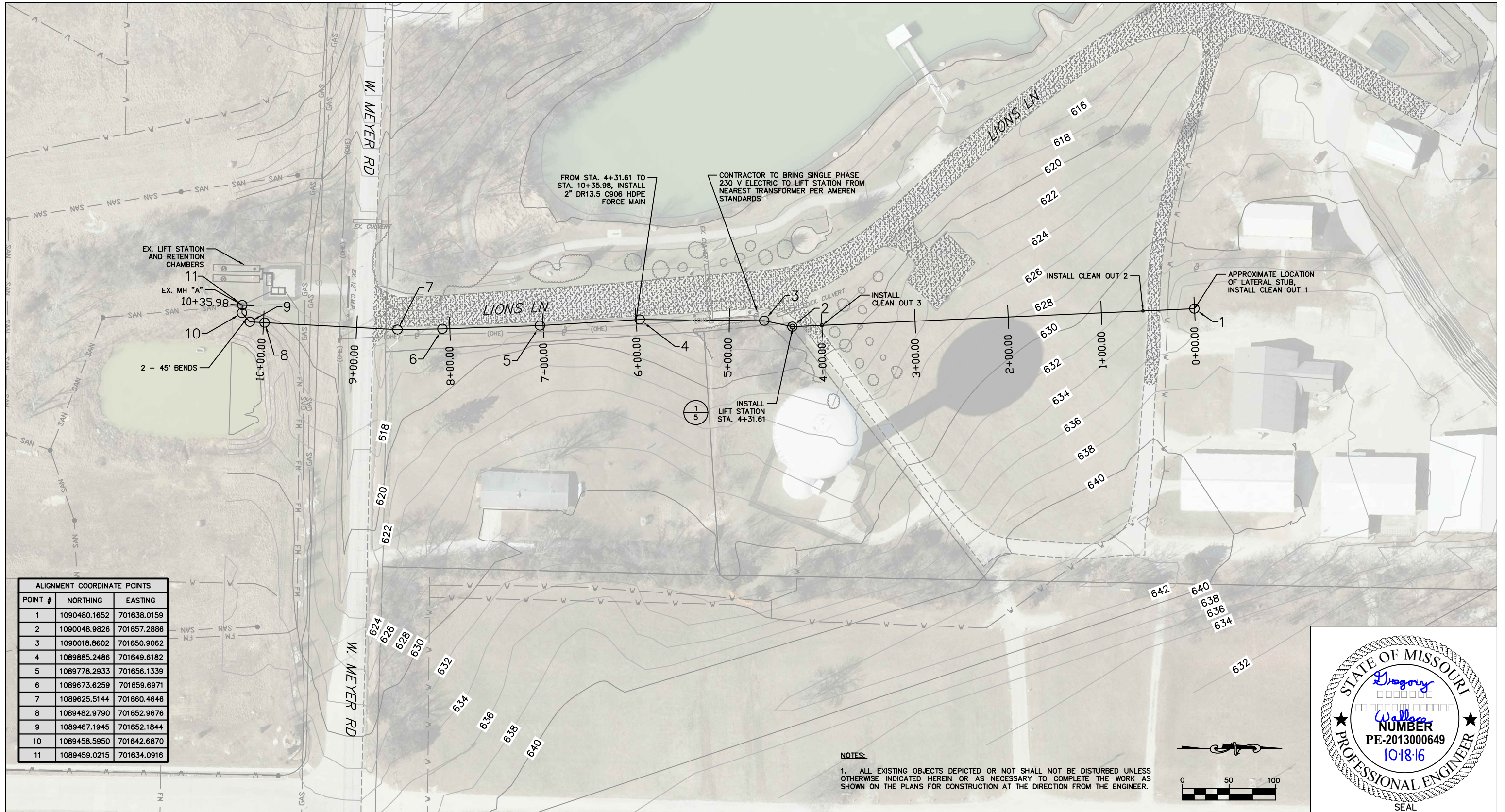
NOTES:

- CONTRACTOR SHALL FURNISH AND INSTALL SHOCK ABSORBERS ON ALL FLUSH VALVE OPERATED FIXTURES OR FIXTURES W/ QUICK CLOSING VALVES.
- WHEN WATER PRESSURE IN THE LINE IS OVER 65 PSI, INSTALL THE NEXT LARGER UNIT.
- CONTRACTOR SHALL MINIMUM TYPE 'A' SHOCK ABSORBER ON ALL ISOLATED FIXTURES OR BATTERY OF FIXTURES NOT REQUIRING SHOCK ABSORBERS.
- SIZE OF SHOCK ABSORBERS REQUIRED ON BATTERY OF FIXTURES SHALL BE BASED ON FIXTURE UNIT VALVES OF FLUSH VALVE OPERATED FIXTURES ONLY.
- WHERE SHOCK ABSORBERS ARE INSTALLED IN NON-ACCESSIBLE PIPE SPACES OR IN PARTITIONS, CONTRACTOR SHALL INSTALL 12"x12" STAINLESS STEEL ACCESS PANEL WITH CYLINDER LOCK.
- SHOCK ABSORBERS MANUFACTURED BY ZURN, J.R. SMITH OR WADE EQUAL TO THAT LISTED ABOVE ARE APPROVED.

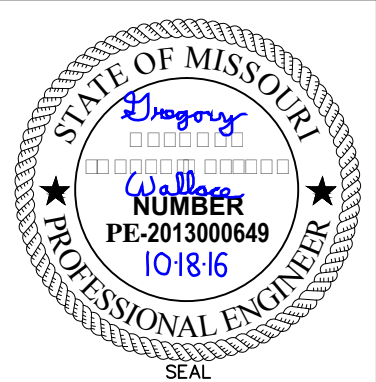
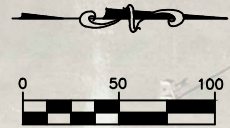


PLUMBING DETAILS

DATE:	REV:	APP'D. BY:
NOV 01, 2016		
AS NOTED		
15-6060		
P3.0		



NOTES:
 1. ALL EXISTING OBJECTS DEPICTED OR NOT SHALL NOT BE DISTURBED UNLESS OTHERWISE INDICATED HEREIN OR AS NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS FOR CONSTRUCTION AT THE DIRECTION FROM THE ENGINEER.



NO.	DATE	BY	REVISION

UTILITY NOTES
 UNDERGROUND FACILITY STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD INFORMATION AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF LOCATION OF ALL UNDERGROUND STRUCTURES AND FACILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

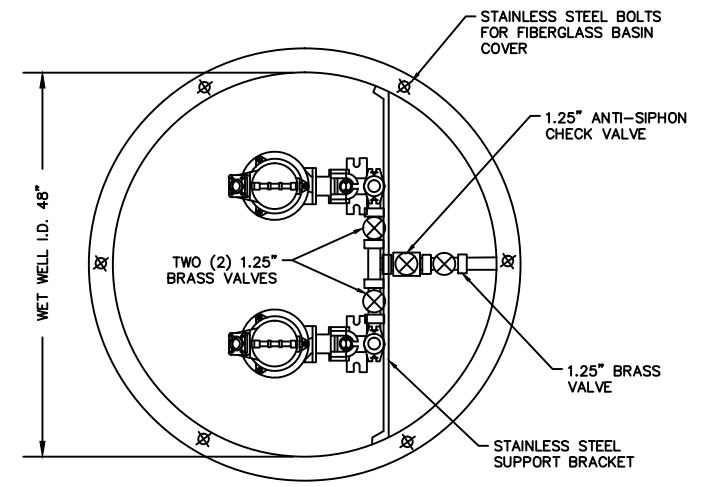
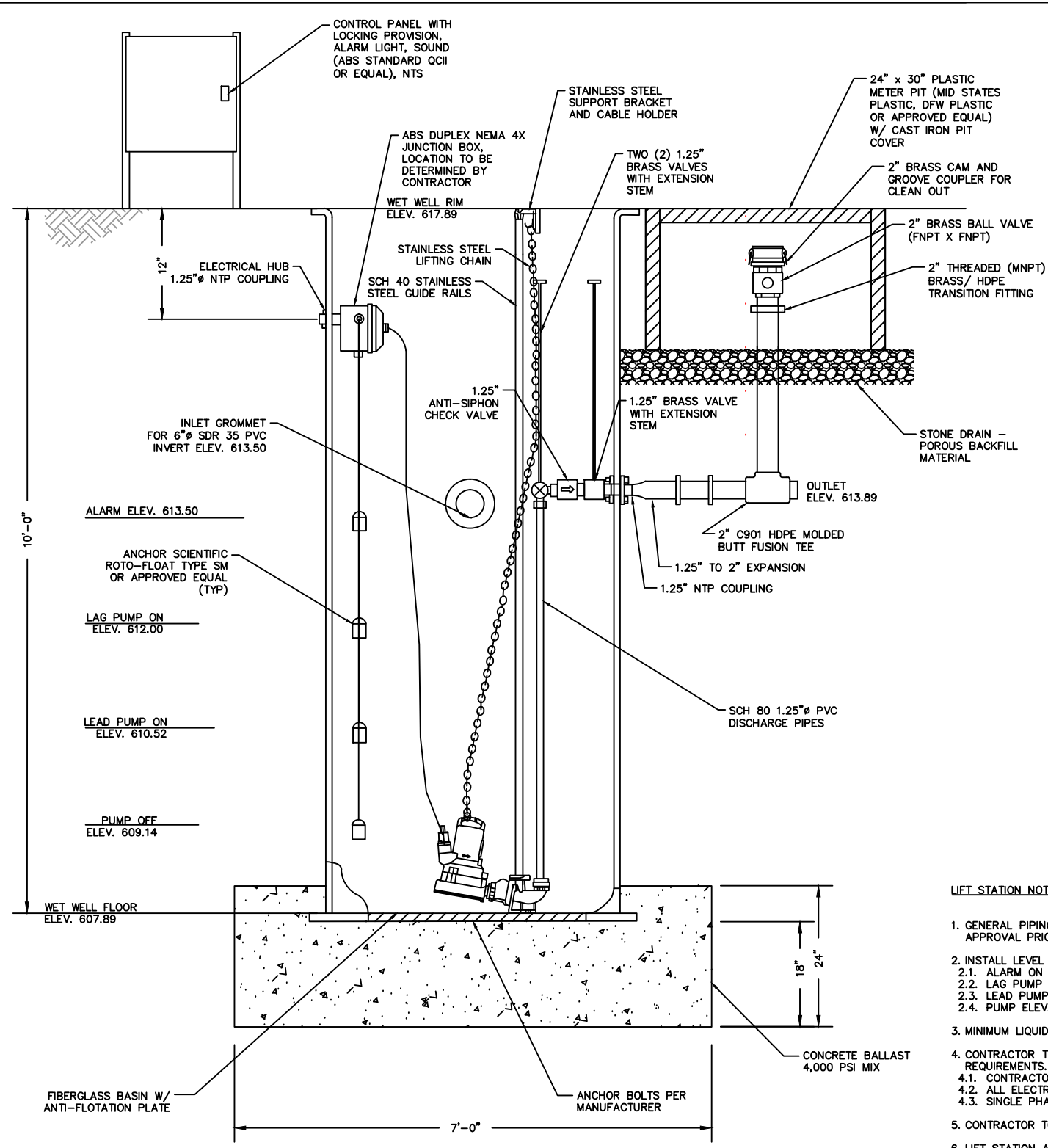
CITY OF WENTZVILLE
 PUBLIC WORKS DEPARTMENT
 200 E. FOURTH STREET
 WENTZVILLE, MISSOURI 63385
 PH. 636-639-2049
 FAX. 636-639-2057

DESIGNED BY: GJW
 DRAWN BY: GJW
 CHECKED BY: WPC
 APPROVED BY: GJW

SCALE: 1"=100'
 DATE: 10/18/2016
 PROJECT NO.: 2015-037A

ROTARY PARK GRINDER LIFT STATION
SEWER & FORCE MAIN PLAN

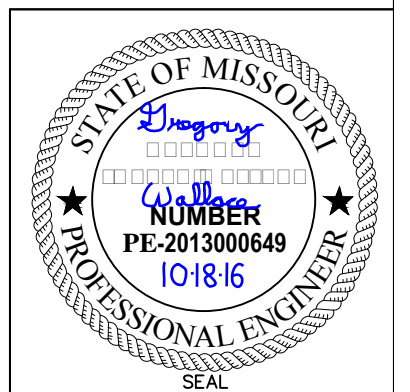
SHEET NUMBER: 3
 TOTAL SHEETS: 5



LIFT STATION NOTES

- GENERAL PIPING LAYOUT SHOWN FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS INCLUDING FINAL PIPING LAYOUT TO BE SUBMITTED TO CITY FOR REVIEW AND APPROVAL PRIOR TO MANUFACTURE OF LIFT STATION.
- INSTALL LEVEL SENSOR SETTINGS AS BELOW. ADJUST LEVEL SETTINGS IN FIELD AS NEEDED.
 - ALARM ON ELEV. = 613.00
 - LAG PUMP ON ELEV. = 612.00
 - LEAD PUMP ON ELEV. = 610.52
 - PUMP ELEV. OFF = 609.14
- MINIMUM LIQUID LEVEL MUST NOT FALL BELOW TOP OF VOLUTE.
- CONTRACTOR TO PROVIDE ELECTRIC SERVICE FROM EXISTING NEARBY TRANSFORMER TO FUTURE LIFT STATION AND CONTROL PANEL, CONFORMING TO AMEREN ELECTRIC REQUIREMENTS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ELECTRICAL COMPONENTS.
 - ALL ELECTRICAL WORK SHALL BE PERFORMED IN COORDINATION WITH AMEREN.
 - SINGLE PHASE, 230V POWER SHALL BE BROUGHT TO THE PROPOSED LIFT STATION FROM NEAREST TRANSFORMER.
- CONTRACTOR TO PROVIDE ALL WORK AND MATERIALS REQUIRED TO RENDER LIFT STATION COMPLETELY OPERATIONAL.
- LIFT STATION AUDIBLE AND VISUAL ALARM SHALL BE PROVIDED WITH CONTROL PANEL.
- DUPLEX GRINDER PUMPS SHALL BE ABS PIRANHA S10/4D 60 HZ SINGLE PHASE 230 VOLT.
- LIFT STATION SHALL BE BACKFILLED WITH 1" CLEAN ROCK AND SHALL BE A MINIMUM OF 12" THICKNESS AROUND STRUCTURE.

1 LIFT STATION PLAN AND PROFILE
5 SCALE: 1" = 2'



UTILITY NOTES

UNDERGROUND FACILITY STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORD INFORMATION AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF LOCATION OF ALL UNDERGROUND STRUCTURES AND FACILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



CITY OF WENTZVILLE
PUBLIC WORKS DEPARTMENT
200 E. FOURTH STREET
WENTZVILLE, MISSOURI 63385
PH. 636-639-2049
FAX. 636-639-2057

DESIGNED BY: GJW	SCALE: 1"=2'
DRAWN BY: GJW	DATE: 10/18/2016
CHECKED BY: WPC	PROJECT NO. 2015-037A
APPROVED BY: GJW	

**ROTARY PARK
GRINDER LIFT STATION**

LIFT STATION DETAILS

SHEET NUMBER	5
TOTAL SHEETS	5

NO.	DATE	BY	REVISION

APPENDIX A

ELECTRONIC DATA TRANSFER AGREEMENT

At the request of the City of Wentzville, from time to time when requested by the undersigned construction contractor (Contractor), computer files of design documents or portions of design documents (CADD and Specification Files) prepared by Cochran for the City of Wentzville Rotary Park Restrooms and Grinder Lift Station may be transferred by Cochran to the Contractor for the Project or its authorized subcontractor (Subcontractor) for their use in preparing other documents to be used to aid in the construction of the Project. The undersigned Contractor and Subcontractor, represent, acknowledge, and agree as follows:

1. The CADD and Specification Files are a component of Cochran’s instruments of service to the City of Wentzville and Cochran retains all ownership rights therein, and the Contractor and Subcontractor shall not use the CADD and Specification Files for any purpose not related to this particular Project.

2. The transfer has been authorized in writing by the City of Wentzville.

3. Cochran and the City of Wentzville makes no representation regarding and disclaims any responsibility and liability for: a) the accuracy, completeness or suitability of the CADD and Specification Files for the purpose for which the documents are to be used; b) the accuracy or completeness of the CADD and Specification Files after the transfer; or c) durability of the CADD and Specification Files or the medium in or on which they are transferred.

Signed and sealed documents shall take precedence over any and all discrepancies between such documents and the CADD and Specification Files.

4. Use of the CADD and Specification Files is at the sole risk of the Contractor and Subcontractor and without any liability or legal exposure to Cochran. Furthermore, the Contractor and Subcontractor shall indemnify, defend and hold harmless Cochran from any and all claims, damages, losses and expenses including attorneys' fees arising out of or related to such use or this transfer.

5. This transfer does not transfer any right or license to use the underlying software or any other rights whatsoever.

6. The undersigned certifies he or she is duly authorized to sign this document for the Contractors and Subcontractor.

Accepted by:

CONTRACTOR

SUBCONTRACTOR [if applicable]

(firm name)

(firm name)

(signature)

(signature)

(printed name)

(printed name)

(title)

(title)

(date)

(date)