

AGENDA

UTILITIES SERVICE BOARD MEETING

Utilities Service Center Boardroom
City of Bloomington Utilities
600 E. Miller Dr.
Bloomington, Indiana 47401

Amanda Burnham, President
Megan Parmenter, Vice President
Jeff Ehman
Seth Debro
Jim Sherman
Kirk White
Molly Stewart
Jim Sims, ex officio
Scott Robinson, ex officio

This meeting may be attended electronically via Zoom by using the following link:

Join Zoom Meeting

<https://bloomington.zoom.us/j/81397676151?pwd=RXZnhgbKDYHJMjXQQAjdT9miMMdGK.1>

Meeting ID: 813 9767 6151

Passcode: 075929

Monday, December 2, 2024

4:30 p.m. Special Meeting

- I. Call to Order
- II. Bid Opening - Dillman Road Wastewater Treatment Plant Site Safety and Process Improvements Project - Mark Menefee
- III. Petitions and Communications*
- IV. Adjournment

*Public Comment will be limited to 5 minutes per person

SECTION 00 11 13

NOTICE TO BIDDERS

DILLMAN ROAD WWTP SITE SAFETY AND PROCESS IMPROVEMENTS

Sealed bids shall be received by the City of Bloomington Utilities Department (Owner), at 600 E. Miller Drive, Bloomington, Indiana, 47401, at or before **4:00 PM** local time on **December 2, 2024** for the Dillman Road WWTP Site Safety and Process Improvements. Bids will be publicly opened and read aloud by the Utilities Service Board at 5:00 PM local time on December 2, 2024 at its meeting in the Board Room, Utilities Building, 600 E. Miller Drive, Bloomington, Indiana. Any bids received after the designated time will be returned unopened. Bids will be reviewed, and the award may be made at the December 12, 2024 meeting or a subsequent meeting of the Utilities Service Board.

The Work comprises furnishing all labor, materials, equipment, supplies and services for the Dillman Road WWTP Site Safety and Process Improvements Project. The Work includes, but is not limited to, Disc Filter Building Plumbing Improvements; Disinfection Building HVAC/Plumbing Improvements; Site Safety Guardrail Installation; Aeration Tank Walkway Repair; Gate/Valve Replacements; Raw Pump Station Suction Piping/Valve Replacement; Centrifugal Blower Installation; and all associated Work complete in place as shown and specified in the Contract Documents.

A **Pre-Bid Conference** will be held on **November 13, 2024 at 10:30 a.m.** local time at the Utilities Department, 600 E. Miller Drive, Bloomington, Indiana 47401. A plant tour of the Dillman Road Wastewater Treatment Plant, 100 West Dillman Road, Bloomington, Indiana, 47403 will be given immediately following the Pre-Bid Conference. All bidders are encouraged to attend and participate in the conference and plant tour.

Each Bidder shall file with the sealed bid: (1) a properly executed Non-collusion Affidavit as required by the laws of the State of Indiana; (2) a Questionnaire Form 96 of the State Board of Accounts; (3) a cashier's check or certified check drawn on an acceptable bank or a Bid bond equal to five (5) percent of the total amount of bid; (4) a properly executed Trench Safety Systems Affidavit; and (5) a properly executed Employee Drug Testing Program Affidavit for a public works project estimated to cost at least \$150,000. For projects utilizing Federal funding Wage rates shall comply with Davis Bacon. For bids of \$100,000 or more, the successful bidder shall furnish performance and payment bonds for one hundred percent (100%) of the contract amount prior to the execution of the contract and said bonds shall remain in effect for a period of one (1) year after final acceptance of the work.

Each Bidder must assure that to the greatest extent feasible, opportunities for training and employment should be given to lower income residents of the project area and purchases and/or contract for work in connection with the project should be awarded to small business concerns which are located in, or owned in substantial part, by persons residing in the area of the project.

The City of Bloomington is an equal opportunity employer, and Bidder shall meet all requirements for equal employment under Title VII of the 1964 Civil Rights Act as amended and under the Bloomington Human Rights Ordinance, as amended.

Each Bidder for proposals over \$10,000 shall submit and have approved by the City of Bloomington Contract Compliance Officer, (Audrey Brittingham), a written Affirmative Action Plan at least twenty-four (24) hours prior to the deadline for submission of bid. Bids received that do not have an approved Affirmative Action Plan may be returned unopened. Each Bidder must assure that all employees and applicants for employment are not discriminated against because of race, religion, color, sex, national origin, ancestry, disability, sexual orientation, gender identity, veteran status or housing status. All the protected classes must be included in your Affirmative Action Plan for it to be acceptable. In addition to other requirements, your plan **MUST** include a workforce breakdown, an internal grievance procedure, a non-retaliation statement, designation of a person by name or position who is responsible for implementation of the Plan, applicability to both applicants and employees, recruitment of minorities, equal access to training programs, and an explanation of your method of communicating the operations of your affirmative action plan to employees and prospective applicants. Audrey Brittingham, Contract Compliance Officer, may be contacted at (812) 349-3429, 8:00 a.m. to 5:00 p.m. Monday through Friday or human.rights@bloomington.in.gov.

In accordance with Indiana Code 4-13-18-5, each Contractor that submits a bid for a public works project that is estimated to cost \$150,000 or more shall submit with bid a written plan for an employee drug testing program to test the employees of the Contractor and Subcontractors for drugs.

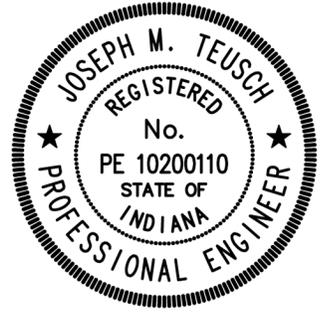
Copies of the Contract Documents may be obtained from the office of TYLin | Greeley and Hansen Water Solutions, 8250 Haverstick Road, Suite 285, Indianapolis, IN (317) 420-4854 or e-mail Jacob.Schlotterer@tylin.com upon the payment of \$100.00 for each set.

The Owner reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and to reject the Bid of any Bidder if Owner believes that it would not be in the best interests of the Owner to make an award to the Bidder. Owner reserves the right to waive any informalities or irregularities. Bids may be held by the Owner for a period of 90 days from the date of the Bid opening for the purpose of reviewing the Bids and investigating the qualifications of the Bidders prior to awarding the contract.

Utilities Service Board, City of Bloomington, Indiana
Megan Parmenter President

END OF SECTION

**CITY OF BLOOMINGTON UTILITIES
DILLMAN ROAD WWTP SITE SAFETY
AND PROCESS IMPROVEMENTS**



Addendum No. 1

TYLin | Greeley and Hansen Water Solutions
November 15, 2024

A handwritten signature in black ink that reads "Joseph Teusch".

**Seal Affixed
November 15, 2024**

Bidders on the Dillman Road WWTP Site Safety and Process Improvements Project are hereby notified that the following addendum is made to the Contract Documents. Sealed Bids to be received by 4:30 pm local time (EST) on December 2nd, 2024 shall conform to this addendum. Bidders shall annotate the proposal in the location provided to indicate receipt of Addendum No. 1.

GENERAL

1. The attached meeting notes from the November 13th, 2024 pre-bid meeting shall become part of this Addendum.

NOTICE TO BIDDERS

1. Specification 00 11 13, Page 00 11 13-1: **Delete** "Sealed bids shall be received by the City of Bloomington Utilities Department (Owner), at 600 E. Miller Drive, Bloomington, Indiana, 47401, at or before 4:00 PM local time on December 2, 2024 for the Dillman Road WWTP Site Safety and Process Improvements." and **replace** with "Sealed bids shall be received by the City of Bloomington Utilities Department (Owner), at 600 E. Miller Drive, Bloomington, Indiana, 47401, at or before 4:30 PM local time on December 2, 2024 for the Dillman Road WWTP Site Safety and Process Improvements."
2. Specification 00 11 13, Page 00 11 13-1: **Delete** "Bids will be reviewed, and the award may be made at the December 12, 2024 meeting or a subsequent meeting of the Utilities Service Board." and **replace** with "Bids will be reviewed and award may be made at the December 16, 2024 meeting or a subsequent meeting of the Utilities Service Board."

INSTRUCTION TO BIDDERS

1. Specification 00 21 13, Page 00 21 13-9, Section 1.25: **Delete** the following requirements under Section 1.25 Summary of Items to be Submitted with the Contractor's Bid.
 - D. Performance Bond (00 61 00)
 - E. Payment Bond (00 61 16)

BID FORM

1. Specification 00 41 00: **Delete** this specification in its entirety and **replace** with Specification 00 41 00 attached to this addendum.

TECHNICAL SPECIFICATIONS

1. Specification 01 11 00, Page 01 11 00-6, Section 1.3: **Delete** item 6 in its entirety and replace with:
 - “6. Maintain one (1) influent wet well and associated equipment, including three (3) influent pumps, in service during construction at all times. Work associated with replacement of 36” plug valves P-PV-15 and (P-PV-16 if bid alternate is selected) must be completed prior to beginning work associated with either wet well. Bidder agrees that the total downtime associated with each wet well isolation is limited to 15 weeks. All work requiring wet well isolation is to be completed only within the 4-month period of June 1 to September 30. Work associated with the first wet well isolation to be completed and back in service by September 30, 2025. Work associated with the second wet well isolation to be completed and back in service by September 30, 2026.”
2. Specification 01 11 00, Page 01 11 00-4, Section 1.3: **Add** item 17 below:
 - “17. OWNER will allow use of 4-ton monorail and hoist in the Pump Station provided no lifted loads exceed 50 percent of the rated capacity of the hoist. Prior to commencing the Work, submit to the ENGINEER a lifting plan indicating anticipated lifts and loading as well as perform an initial inspection indicating any defects or damage to the overhead crane and all associated components. CONTRACTOR will be held responsible for any damage resulting from the use of the hoist. The use of the hoist shall not interfere with the daily operation of the wastewater treatment plant. If any lifted load exceeds 50 percent of the rated capacity of the crane, CONTRACTOR will provide a load test and inspection of the crane, performed by an OSHA certified Crane and Hoist Inspection Company, prior to commencing Work and must pass a load test and inspection upon completion of the Work. Load test and inspection shall be at the CONTRACTOR’s expense.”
3. Specification 01 29 50, Page 01 29 50-1, Section 1.2: **Delete** Section 1.2 CONTRACT ITEM 2 WORK ALLOWANCE in its entirety.
4. Specification 01 45 00: **Delete** this specification in its entirety and **replace** with Specification 01 45 00 attached to this addendum.
5. Specification 26 29 53: **Delete** this specification in its entirety and **replace** with Specification 26 29 53 attached to this addendum.

DRAWINGS

1. Drawing M4: **Delete** this drawing in its entirety and **replace** with attached Drawing M4 Revision 1.
2. Drawing M5: **Delete** this drawing in its entirety and **replace** with attached Drawing M5 Revision 1.
3. Drawing M7: **Delete** this drawing in its entirety and **replace** with attached Drawing M7 Revision 1.

QUESTIONS FROM PROSPECTIVE BIDDERS

1. Question: What is the cut-off date/time for questions base on the current 12/2/24 bid date?

Answer: All questions to be received by 11/22/24 and responses to such questions will be issued to all plan holders by 11/26/24.
2. Question: What is the anticipated Notice to Proceed date for this project based on the current 12/2/24 bid date?

Answer: Anticipated Notice to Proceed date is same as anticipated award date of December 16, 2024.
3. Question: Are there any MBE/WBE participation goals for this project?

Answer: No MBE/WBE requirements, but good faith efforts are encouraged.
4. Question: Reference Section 01 11 00, Paragraph 1.3 A.14(page 4). We request the existing WWTP as-built drawings, with tunnel locations shown, be provided with the first addendum.

Answer: Certain buildings have basements, but there are no tunnels located at Dillman Road WWTP site.
5. Question: Are there any specific material sourcing requirements for this project? i.e. Do American Iron and Steel (AIS) requirements OR Build America, Buy America (BABA) requirements apply to this project?

Answer: Project is financed with local funds and does not require AIS compliance. However, the project requires compliance with Indiana Code 5-16-8: "Only steel or foundry products made in the United States shall be used or supplied in the performance of the Contract or any Subcontracts."

6. Question: In Section 1.25 in instruction to bidders are items: D, E and F to really be submitted with the bid. And doesn't the Affirmative Action & Workforce breakdown plan get emailed to: Audrey Brittingham 24 hours before the bid?

Answer: Performance Bond (D) and Payment Bond (E) are not required and removed from revised Specification 00 21 13. Local Contract Provisions (F) are all to be submitted with Bid. Affirmative Action Plan needs to be submitted and approved 24 hours ahead of bid date. Please refer to Specification 00 73 40A.

7. Question: Please confirm that the Owner's Engineer will perform the required on-site quality control field testing for concrete cylinders, soil compaction, etc. It is our understanding that the contractor is just responsible for the cost of all shop and field tests of equipment and other material testing required by the contract documents.

Answer: Contractor will be required to provide on-site quality control field testing requirements. See attached revised specification 01 45 00, Section 1.6.I.a.

8. Question: Please provide a specification for the Blower RVSS. Specification 26 24 19 Motor Control Centers references Section 26 29 23 Adjustable Frequency Drives. However, this section is not included in the current bid package?

Answer: Adjustable Frequency Drives are not included in project. See attached revised Specification 26 29 53 Control Components and Devices for RVSS requirements.

9. Question: Per the Pipe Schedule, the pump suction lines are to be ductile iron pipe. Drawing M7 indicates a "30" Short Radius, smooth 90' bend with a 38" Bellmouth "welded" to bottom? Based on this, should this suction piping be Carbon Steel (CS) Piping? It appears to be drawn on the bid drawings as CS. The fittings do not appear to be standard DIP fittings?

Answer: Pump suction to be ductile iron per pipe schedule. Elbow and bellmouth to be special DIP fitting - Short Radius 90 Degree Flare Bend. See attached revised Drawings M5 and M7.

10. Question: Section 01 50 00, paragraph 1.2 D. states "Obtain and pay for any and all permits, approvals and licenses required by all local, state and federal agencies having jurisdiction at no addition to the Contract Price." Please advise what specific permits are required for the work associated with the subject project so we may include this cost in our bid, if necessary.

Answer: Wastewater Treatment Plant Construction Permit has been approved and issued by Indiana Department of Environmental Management (IDEM). No other permits are anticipated.

CITY OF BLOOMINGTON UTILITIES

Dillman Road WWTP Site Safety and Process Improvements

**PRE-BID CONFERENCE
MEETING NOTES**

November 13, 2023
10:30 a.m.

1. Introductions
 - a. [See attached sign-in sheet.](#)

2. General Items
 - a. Bid Date: **December 2, 2024 @ 4:30 p.m. local time**
City of Bloomington Utilities
600 East Miller Drive
Bloomington, IN 47401

3. Special Project Requirements
 - a. Summary of Work – [Spec Section 01 11 00](#)

 - b. Contract Items – [Spec Section 01 29 50](#)

 - c. Tax Exemption – [Sales and Use Taxes](#)

 - d. Items to be included with Bid:
 - i. Signed bid (including non-collusion affidavit and insurance)
 - ii. Form 96 Questionnaire and References
 - iii. Bidders Financial Statement
 - iv. Acknowledgement of Addenda
 - v. Bid Security (5% of Total Bid)
 - vi. Local Contract Provisions (Spec 00 73 40)
 1. Bloomington Affirmative Action Plan
 2. Living Wage Ordinance Certification
 3. Bloomington Responsible Bidder Affidavit
 4. Bloomington Substitute W-9
 5. Bloomington Bank EFT Form
 6. Bloomington Escrow Agreement
 7. Trench Safety Compliance Affidavit
 8. E-Verify Affidavit
 9. Employee Drug Testing Compliance Affidavit

e. Local Contract Provisions – Spec 00 73 40

Contact:

Audrey Brittingham
City of Bloomington
Human Rights Commission
812-349-3429
audrey.brittingham@bloomington.in.gov
M-F 8 am to 5 pm

Note: Affirmative Action Model must be Submitted and Approved 24 hours before bid opening. Existing Affirmative Action Models must be updated every 6 months. Prospective Bidders should contact Audrey to confirm what is needed.

4. Project Description

- a. Raw Pump Station Suction
 - i. Suction piping replacement
 - ii. Suction valve replacement
 - iii. Pump floor drain replacement
- b. Centrifugal Blower Installation
 - i. New Centrifugal blower, valves, silencers, and associated appurtenances and electrical.
 - ii. Blower integration – Toric Engineering
 - iii. New Centrifugal blower to be Atlas Copco
- c. Gate/Valve Replacements
 - i. Sludge Lagoon: 2 gates; 3 valves
 - ii. Aerated Grit: 5 gates
 - iii. Chlorine Contact Tanks: 2 gates; 2 valves
 - iv. New Blower: 5 valves
 - v. Pump Station: 8 valves including mandatory bid alternate
- d. Aeration Tank Walkway Repair
 - i. Structural repairs to walkways for Aeration Tank Nos. 1-3
 - ii. Structural drawings for scope, sequence and details.
- e. Disc Filter Plumbing Improvements
 - i. New hot water heater, shower/eyewash station
- f. Disinfection Building HVAC/Plumbing Improvements
 - i. New heating/ventilating unit, 2 electric unit heaters, 2 exhaust fans and ductwork; and fire suppression modifications.
- g. Site Safety Gates/Fencing/Handrail Installation
 - i. Miscellaneous gate, fence and handrail improvements as shown on Architectural drawings.

- h. Mandatory Bid Alternate
 - i. Plug Valve (P-PV-16) located in Pump Station.

5. Key Project Constraints

- a. Maintain one (1) influent wet well and associated equipment, including three (3) influent pumps, in service during construction at all times. Work associated with replacement of 36" plug valve P-PV-15 and (P-PV-16 if bid alternative is selected) must be completed prior to beginning work associated with either wet well. All work requiring wet well isolation is to be completed only within the 4-month period of June to September. Work associated with the first wet well isolation to be completed and back in service by September 30, 2025. Work associated with the second wet well isolation to be completed and back in service by September 30, 2026.
- b. Use of the equalization basin is not possible during shutdown of wet well 2 until new plug valve (P-PV-15) is installed.
- c. Coordinate main influent shutdowns with OWNER at least 14 calendar days ahead of intended shutdown. These shutdowns may be necessary to isolate for the replacement of gates/valves. Shutdowns shall not last longer than six (6) hours and take place during non-peak flow. Coordinate with OWNER for utilization of equalization basin for shutdowns longer than six (6) hours if needed.
- d. Wet wells are National Electric Code Class 1 Division 1 Group D hazardous areas and considered a confined space.

7. Milestones

- a. Anticipated Notice to Proceed – December 16, 2024
- b. Milestones #1 and #2 – Bidder agrees that the total downtime associated with each wet well isolation is limited to 15 weeks. Bidder must complete work associated with installation of 36" plug valves P-PV-15 and (P-PV-16 if bid alternative is selected) prior to beginning work associated with isolation of either wet well. All work requiring wet well isolation is to be completed only within the 4-month period of June to September. Work associated with the first wet well isolation to be completed and back in service by September 30, 2025. Work associated with the second wet well isolation to be completed and back in service by September 30, 2026.
- c. Milestone #3 – Bidder agrees that the Work will be substantially complete with 640 calendar days of the Notice-to-Proceed.
- d. Milestone #4 – Bidder agrees that the remaining Work will be completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within 730 calendar days from the Notice-to-Proceed.

- e. Liquidated Damages set forth at \$1,500 per calendar day for the milestones listed above.

8. General Discussion / Bidder Questions

a. Questions and Addenda

- i. Joe Teusch, PE
joseph.teusch@tylin.com
(317) 473-6234
- ii. November 22, 2024 last day for questions
- iii. November 26, 2024 last day for addendum

b. Bidder Questions

- i. Is the 36" single discharge pipe for valve P-PV-15 the only pipe to the WWTP? **Yes. It will require a plant shutdown to install this valve. The maximum time available for temporary shutdowns is 12 hours.**
- ii. Who is the centrifugal blower manufacturer? **Atlas Copco is specified to match the existing blowers. Robinson and Associates can provide pricing for Atlas Copco blower.**
- iii. Who are the valve/gate manufacturers? **The valve and gate specs include acceptable manufacturers. B.L. Anderson can provide pricing for acceptable gates/valves.**

9. Dillman Road WWTP Tour

City of Bloomington Utilities
Dillman Road WWTP Site Safety and Process Improvements

Pre-Bid Meeting
Sign-in Sheet

November 13, 2024

Name	Initials	Company/Agency	Phone #	E-mail Address	Plant Tour
Dan Hudson	DH	CBU	(812) 349-3653	hudsond@bloomington.in.gov	✓
Phil Peden	PP	CBU	(812) 349-3623	pedenp@bloomington.in.gov	
Mark Menefee	MM	CBU		mark.menefee@bloomington.in.gov	✓
Garrett Towell	GT	CBU	(812) 824-4900	towellg@bloomington.in.gov	✓
Tim Myers		CBU	(812) 824-4900	myerti@bloomington.in.gov	✓
Tom Axsom		CBU	(812) 349-3643	axsomt@bloomington.in.gov	
Audrey Brittingham		CBU/HRC	(812) 349-3426	audrey.brittingham@bloomington.in.gov	
Joe Teusch	JT	TYLin	(317) 473-6234	joseph.teusch@tylin.com	✓
Jeff Rigger		Electric Plus	317 675 6155	jriggen@electricplus.com	✓
Adam Sparks		S&J Excavation	812-525-5990	adam.sparks@sjaxcavation.com	✓
Kyle Klavsson		CBU	812-803-8114	kyle.klavsson@bloomington.in.gov	✓
Aecher Dutz		CBU	812-369-2203	Sanchoch@bloomington.in.gov	
Jeni Merdith		Mohesing Industrial	317-448-8758	Jeni.Merdith@KGSig.B.R.	✓
PAI JOHNSTON		KOHOSIUB INDUSTRIAL	317-586-5057	johnston@KOHOSIUB.B.R.	

BID OF

_____ (Contractor)

_____ (Address)

FOR
PUBLIC WORKS PROJECTS
OF

City of Bloomington Utilities

Dillman Road WWTP

Site Safety and Process Improvements

Filed _____, _____

Action taken _____



CONTRACTOR'S BID FOR PUBLIC WORK - FORM 96

State Form 52414 (R2 / 2-13) / Form 96 (Revised 2013)

Prescribed by State Board of Accounts

PART I

(To be completed for all bids. Please type or print)

Date (month, day, year): _____

1. Governmental Unit (Owner): City of Bloomington Utilities, Indiana

2. County : Monroe

3. Bidder (Firm): _____

Address: _____

City/State/ZIPcode: _____

4. Telephone Number: _____

5. Agent of Bidder (if applicable): _____

Pursuant to notices given, the undersigned offers to furnish labor and/or material necessary to complete the public works project of City of Bloomington Utilities

(Governmental Unit) in accordance with plans and specifications prepared by _____

TYLin | Greeley and Hansen Water Solutions and dated October 2024 for the sum of

Stated in Section VII \$ _____

The undersigned further agrees to furnish a bond or certified check with this bid for an amount specified in the notice of the letting. If alternative bids apply, the undersigned submits a proposal for each in accordance with the notice. Any addendums attached will be specifically referenced at the applicable page.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit basis, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS

(If applicable)

I, the undersigned bidder or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel products on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

ACCEPTANCE

The above bid is accepted this _____ day of _____, _____, subject to the following conditions: _____

Contracting Authority Members:

PART II
(For projects of \$150,000 or more – IC 36-1-12-4)

Governmental Unit: City of Bloomington Utilities, Indiana

Bidder (Firm) _____

Date (month, day, year): _____

These statements to be submitted under oath by each bidder with and as a part of his bid. Attach additional pages for each section as needed.

SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

2. What public works projects are now in process of construction by your organization?

Contract Amount	Class of Work	Expected Completion Date	Name and Address of Owner

3. Have you ever failed to complete any work awarded to you? _____ If so, where and why?

4. List references from private firms for which you have performed work.

SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed work. *(Examples could include a narrative of when you could begin work, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)*

2. Please list the names and addresses of all subcontractors *(i.e. persons or firms outside your own firm who have performed part of the work)* that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

3. If you intend to sublet any portion of the work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you will require a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

4. What equipment do you have available to use for the proposed project? Any equipment to be used by subcontractors may also be required to be listed by the governmental unit.

5. Have you entered into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which would corroborate the prices listed.

SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of bidder's financial statement is mandatory. Any bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the contract must be specific enough in detail so that said governing body can make a proper determination of the bidder's capability for completing the project if awarded.

Section VI: Assurances

- 1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform all Work as specified or indicated in the Contract Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
- 2. Bidder accepts all of the terms and conditions of the Advertisement to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 90 days after the day of Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding requirements within 15 days after the date of OWNER's Notice of Award.
- 3. In submitting this Bid, Bidder represents, set forth in the Agreement, that:

- A. Bidder has examined and carefully studied the Contract Documents, the other related data identified in the Contract Documents, and the following Addenda, receipt of all which is hereby acknowledged:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, and performance of the Work.

- D. Bidder has carefully studied all: reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface of subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions. Bidder accepts the determination set forth in paragraph SC-4.02 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which Bidder is entitled to rely as provided in paragraph 4.02 of the General Conditions. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder's purposes. Bidder acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data

shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site.

- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site or otherwise which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Contract Documents.
- G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that Bidder has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.
- J. Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance of the Work for which this Bid is submitted.
- K. Bidder is of lawful age and that no other person, firm, corporation, or joint venture has any interest in the Bid or in the Contract proposed to be entered into.
- L. This Bid is made without any understanding, agreement, or connection with any other person, firm, corporation, or joint venture making a Bid for the same purposes, and is in all respects fair and without collusion or fraud.
- M. Bidder is not in arrears to the City of Bloomington, upon debt or contract; is not a defaulter, as surety or otherwise, upon any obligation to the City of Bloomington; and has not been delinquent or unfaithful in any former contract with the City of Bloomington.

- N. No officer or employee or person whose salary is payable in whole or in part by the Owner is, shall be or become interested, directly or indirectly, as a contracting party, partner, stockholder, surety or otherwise, in this Bid, or in the performance of the Contract, or in the supplies, materials, or equipment and Work or labor to which it relates, or in any portion of the profits thereof.
- O. Bidder is a duly registered Contractor in the State of Indiana. A successful bidder shall furnish proof of registration before the Contract will be awarded.
- P. That the Bidder has given the ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies that the Bidder has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to convey understanding of all terms and conditions for performing and furnishing the Work for which the Bid is submitted.
- Q. All Bids shall be based on named manufacturers for principal items listed in the Bid Form.

Section VII: Bid Prices

1. Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
2. Preliminary acceptance of material listed by the manufacturers named shall not in any way constitute waiver of the Drawings and Specification requirements covering such materials. Acceptance will be based on full conformity with the Drawings and Specifications covering the materials.
3. Bidder declares that all the component parts of the Contract Documents have been carefully examined and the documents are fully understood and it is agreed that the Bidder will execute the Contract and furnish the required Performance and Payment Bonds and will complete the Work in accordance with the Contract Documents for the following prices:

BID

Contract Item No.	Estimated Quantity	Description and Price in Words	Price in Figures	
			Unit Price	Computed Total Price For Item
1	Lump Sum	Provide Dillman Road WWTP Site Safety and Process Improvements as shown and specified for the lump sum price of _____ dollars and _____ cents.	Lump Sum	\$ _____

CONTRACTOR _____

TOTAL BID PRICE (Total of All Contract Item Prices)

_____ (\$ _____)
 (Amount in Words) (Amount in Figures)

The Bidder Affirms that the Bid is based on the equipment manufacturers circled below:

<u>Equipment</u>	<u>Base Bid Manufacturer</u>
Centrifugal Blower	Atlas Copco
Centrifugal Blower System Integrator	Toric Engineering

Note: The Bidder is required to circle the equipment manufacturer used in the base bid price to be considered responsive.

MANDATORY BID ALTERNATES

The Bidder understands that after a Contract is awarded, the Owner may select the Mandatory Bid Alternates listed below. The proposed prices for the Mandatory Bid Alternates will NOT be considered in determination of the lowest Bid. If awarded the Contract, the Bidder agrees to furnish and install the Mandatory Bid Alternates for the lump

sum prices indicated. The Total Bid Price will then be adjusted accordingly. Failure to provide prices for Mandatory Bid Alternates may result in Bidder being considered nonresponsive.

Mandatory Bid Alternate No. 1 – Addition of P-PV-16

Demolish existing 36” pipe and install new 36” plug valve in accordance with the requirements of Specification Section 40 05 20.

	<u>Location</u>	<u>Name</u>	<u>Size</u>	<u>Type</u>
Valves	Pump Station Building Mid-Level Floor	P-PV-16	36”	Plug Valve

_____ (\$ _____)
 (Amount in Words) (Amount in Figures)

Section VIII: Additional Provisions

1. Unit Prices have been computed in accordance with paragraph 11.03 of the General Conditions. Bidder acknowledges that quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.
2. Milestones 1 and 2 – Bidder agrees that the total downtime associated with each wet well isolation is limited to 15 weeks. Bidder must complete work associated with installation of 36” plug valve(s) (P-PV-15 and P-PV-16 if bid alternative is selected) prior to beginning work associated with isolation of either Wet Well. All work requiring wet well isolation is to be completed only within the 4-month period of **June to September**. Work associated with the first Wet well isolation to be completed and back in service by **September 30, 2025**. Work associated with the second Wet well isolation to be completed and back in service by **September 30, 2026**.
3. Milestone 3 – Bidder agrees that the Work will be substantially complete with **640 calendar days** of the Notice-to-Proceed.
4. Milestone 4 – Bidder agrees that the remaining Work will be completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions within **730 calendar days** from the Notice-to-Proceed.
4. Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Agreement.

5. The following documents are attached to and made a condition of this Bid:
 - a. Bid Proposal Form - completely executed and signed.
 - b. Form 96 (Revised 2013), "Contractors Bid For Public Works", including Non-Collusion Affidavit, completely executed, signed, and notarized as prescribed by the Indiana State Board of Accounts, and Section III of Part II of Form 96 titled, "Contractor's Financial Statement."
 - c. Bid Security - acceptable Bidder's bond or certified check in an amount of not less than 5% of the total Bid price.
 - d. Completed City of Bloomington Responsible Bidder Affidavit
 - e. Trench Safety Compliance Affidavit
 - f. Employee Drug Testing Compliance Affidavit
 - g. E-Verify Affidavit
 - h. Approved Affirmative Action Plan
6. The terms used in this Bid which are defined in the General Conditions or Instructions to Bidders will have the meanings indicated in the General Conditions or Instructions to Bidders.
7. Accompanying this Bid is a certified check, a bank cashier's check, or bid bond which shall become the property of the City of Bloomington, Indiana, if this Bid shall be accepted by the City of Bloomington, Indiana, and the undersigned bidder fails to furnish the required bonds and insurance within Fifteen (15) days and to enter into a Contract within Thirty (30) days after the Owner's acceptance of this Bid.

IN WITNESS WHEREOF, this Bid is hereby signed and sealed as of the date indicated.

Bidder: _____

Date: _____ By: _____

Printed name of signer

Title of signer

Where Bidder is an (Individual) (Partnership) (Corporation)

(SEAL)

ATTEST: _____

NOTE: The legal status of the Bidder, whether an individual, partnership or corporation must be indicated above, and all pertinent information as required by the specifications must be furnished.

END OF SECTION

(NO TEXT FOR THIS PAGE)

SECTION 01 45 00
QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Inspection Services
- B. Inspection of Materials
- C. Quality Control
- D. Costs of Inspection
- E. Acceptance Tests
- F. Failure to Comply with Contract

1.2 RELATED SECTIONS

Related Work Specified in Other Sections Includes, But is Not Limited to, the Following

- A. Section 01 33 00 - Submittals: Specific Submittal Requirements

1.3 SUBMITTALS

- A. General: Provide all submittals, including the following, as specified in Division 01.
- B. Certificate Submittals: Furnish the ENGINEER authoritative evidence in the form of Certificates of Manufacture that the materials and equipment to be used in the Work have been manufactured and tested in conformity with the Contract Documents. Include copies of the results of physical tests and chemical analyses, where necessary, that have been made directly on the product or on similar products of the manufacturer.

1.4 INSPECTION SERVICES

- A. OWNER's Access: At all times during the progress of the Work and until the date of final completion, afford the OWNER and ENGINEER every reasonable, safe, and proper facility for inspecting the Work at the site. The observation and inspection of any work will not relieve the CONTRACTOR of any obligations to perform proper and satisfactory work as specified. Replace work rejected due to

faulty design, inferior, or defective materials, poor workmanship, improper installation, excessive wear, or nonconformity with the requirements of the Contract Documents, with satisfactory work at no additional cost to the OWNER. Replace as directed, finished or unfinished work found not to be in strict accordance with the Contract, even though such work may have been previously approved and payment made therefor.

- B. Rejection: The OWNER and the OWNER's Authorized Representatives have the right to reject materials and workmanship which are defective or require correction. Promptly remove rejected work and materials from the site.
- C. Inferior Work Discoveries: Failure or neglect on the part of the OWNER or the OWNER's Authorized Representatives to condemn or reject bad or inferior work or materials does not imply an acceptance of such work or materials. Neither is it to be construed as barring the OWNER or the OWNER's Authorized Representatives at any subsequent time from recovering damages or a sum of money needed to build anew all portions of the Work in which inferior work or improper materials were used.
- D. Removal for Examination: Should it be considered necessary or advisable by the OWNER or the OWNER's Authorized Representatives, at any time before final acceptance of the Work, to make examinations of portions of the Work already completed, by removing or tearing out such portions, promptly furnish all necessary facilities, labor, and material, to make such an examination. If such Work is found to be defective in any respect, defray all expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the cost of examination and restoration of the Work will be considered a change in the Work to be paid for in accordance with applicable provisions of the Contract.
- E. Operation Responsibility: Assume full responsibility for the proper operation of equipment during tests and instruction periods. Make no claim for damage which may occur to equipment prior to the time when the OWNER accepts the Work.
- F. Rejection Prior to Warranty Expiration: If at anytime prior to the expiration of any applicable warranties or guarantees, equipment is rejected by the OWNER, repay to the OWNER all sums of money received for the rejected equipment on progress certificates or otherwise on account of the Contract lump sum prices, and upon the receipt of the sum of money, OWNER will execute and deliver a bill of sale of all its rights, title, and interest in and to the rejected equipment. Do not remove the equipment from the premises of the OWNER until the OWNER obtains from other sources, equipment to take the place of that rejected. The OWNER hereby agrees to obtain other equipment within a reasonable time and the CONTRACTOR agrees that the OWNER may use the equipment furnished by the CONTRACTOR without rental or other charge until the other new equipment is obtained.

1.5 INSPECTION OF MATERIALS

- A. Premanufacture Notification: Give notice in writing to the ENGINEER sufficiently in advance of the commencement of manufacture or preparation of materials especially manufactured or prepared for use in or as part of the permanent construction. When required, notice to include a request for inspection, the date of commencement, and the expected date of completion of the manufacture or preparation of materials. Upon receipt of such notice, ENGINEER will arrange to have a representative present at such times during the manufacture or testing as may be necessary to inspect the materials, or will notify CONTRACTOR that the inspection will be made at a point other than the point of manufacture or testing, or that the inspection will be waived. Comply with these provisions before shipping any materials. Such inspection will not constitute a release from the responsibility for furnishing materials meeting the requirements of the Contract Documents.
- B. Testing Standards: Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with recognized, applicable test codes except as may otherwise be stated herein.

1.6 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- H. Testing, inspections and source quality control may occur on or off project site. Perform off-site testing as required by ENGINEER or OWNER.
- I. Testing
 - 1. Field and Laboratory

- a. ~~Provide personnel to assist the ENGINEER in performing~~Perform the following periodic observation and associated services.
 - (1) Soils: Observe and test excavations, placement and compaction of soils. Determine suitability of excavated material. Observe subgrade soils and foundations.
 - (2) Concrete: Observe forms and reinforcement; observe concrete placement; ~~witness-perform slump and~~ air entrainment tests, ~~facilitate-perform~~ concrete cylinder preparation, ~~and assist with other tests performed by ENGINEER.~~
 - (3) Masonry: Sample and test mortar and grout; inspect brick and block samples and sample panels; inspect placement of reinforcement and grouting.
 - (4) Structural Steel: Verify that all welders are certified; visually inspect all structural steel welds; mechanically test high-tensile bolted connections.
 - b. When specified in Divisions 2 through 49 of the Contract Documents, provide an independent laboratory testing facility to perform required testing. Qualify the laboratory as having performed previous satisfactory work. Prior to use, submit to the ENGINEER for approval.
 - c. Cooperate with the ENGINEER and laboratory testing representatives. Provide at least 24 hours notice prior to when specified testing is required. Provide labor and materials, and necessary facilities at the site as required by the ENGINEER and the testing laboratory.
 - d. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
 - e. Provide an independent testing agency, a member of the National Electrical Testing Association, to perform inspections and tests specified in Division 26 of these Specifications.
2. Equipment: Coordinate and demonstrate test procedures as specified in the Contract Documents or as otherwise required during the formal tests.
 3. Pipeline and Other Testing: Conform to test procedures and requirements specified in the appropriate Specification Section.

J. Reports

1. Certified Test Reports: Where transcripts or certified test reports are required by the Contract Documents, meet the following requirements:
 - a. Before delivery of materials or equipment submit and obtain approval of the ENGINEER for all required transcripts, certified test reports, certified copies of the reports of all tests required in referenced specifications or specified in the Contract Documents. Perform all testing in an approved independent laboratory or the manufacturer's laboratory. Submit for approval reports of shop equipment tests within thirty days of testing. Transcripts or test reports are to be accompanied by a notarized certificate in the form of a letter from the manufacturer or supplier certifying that tested material or equipment meets the specified requirements and the same type, quality, manufacture and make as specified. The certificate shall be signed by an officer of the manufacturer or the manufacturer's plant manager.
2. Certificate of Compliance: At the option of the ENGINEER, or where not otherwise specified, submit for approval a notarized Certificate of Compliance. The Certificates may be in the form of a letter stating the following:
 - a. Manufacturer has performed all required tests
 - b. Materials to be supplied meet all test requirements
 - c. Tests were performed not more than one year prior to submittal of the certificate
 - d. Materials and equipment subjected to the tests are of the same quality, manufacture and make as those specified
 - e. Identification of the materials

1.7 COSTS OF INSPECTION

- A. CONTRACTOR's Obligation: Include in the Contract Price, the cost of all shop and field tests of equipment and other tests required by the Contract Documents. The OWNER may perform tests on any material or equipment furnished under this Contract at any time during the Contract. If tests performed by the OWNER result in failure or rejection for noncompliance, reimburse the OWNER for expenditures incurred in making such tests. Tests performed by the OWNER shall prevail in determining compliance with Contract requirements.
- B. Reimbursements to OWNER:
 1. Materials and equipment submitted by the CONTRACTOR as the equivalent to those specifically named in the Contract may be tested by the OWNER for compliance. Reimburse the OWNER for expenditures incurred

in making such tests on materials and equipment which are rejected for noncompliance.

1.8 ACCEPTANCE TESTS

- A. Preliminary Field Tests: As soon as conditions permit, furnish all labor and materials and services to perform preliminary field tests of all equipment provided under this Contract. If the preliminary field tests disclose that any equipment furnished and installed under this Contract does not meet the requirements of the Contract Documents, make all changes, adjustments and replacements required prior to the acceptance tests.
- B. Final Field Tests: Upon completion of the Work and prior to final payment, subject all equipment, piping and appliances installed under this Contract to specified acceptance tests to demonstrate compliance with the Contract Documents.
1. Furnish all labor, fuel, energy, water and other materials, equipment, instruments and services necessary for all acceptance tests.
 2. Conduct field tests in the presence of the ENGINEER. Perform the field tests to demonstrate that under all conditions of operation each equipment item:
 - a. Has not been damaged by transportation or installation
 - b. Has been properly installed
 - c. Has been properly lubricated
 - d. Has no electrical or mechanical defects
 - e. Is in proper alignment
 - f. Has been properly connected
 - g. Is free of overheating of any parts
 - h. Is free of all objectionable vibration
 - i. Is free of overloading of any parts
 - j. Operates as intended
 3. Operate work or portions of work for a minimum of 100 hours or 14 days continuous service, whichever comes first. For those items of equipment which would normally operate on wastewater or sludge, plant effluent may be used if available when authorized by ENGINEER. If water can not properly exercise equipment, conduct 100-hour test after plant startup. Conduct test on those systems which require load produced by weather (heating or cooling) exercise only when weather will produce proper load.
- C. Failure of Tests: If the acceptance tests reveal defects in material or equipment, or if the material or equipment in any way fails to comply with the requirements of the Contract Documents, then promptly correct such deficiencies. Failure or refusal to correct the deficiencies, or if the improved materials or equipment, when tested again, fail to meet the guarantees or specified requirements, the OWNER,

notwithstanding its partial payment for work and materials or equipment, may reject said materials or equipment and may order the CONTRACTOR to remove the defective work from the site at no addition to the Contract Price, and replace it with material or equipment which meets the Contract Documents.

1.9 FAILURE TO COMPLY WITH CONTRACT

- A. Unacceptable Materials: If it is ascertained by testing or inspection that the material or equipment does not comply with the Contract, do not deliver said material or equipment, or if delivered remove it promptly from the site or from the Work and replace it with acceptable material without additional cost to the OWNER. Fulfill all obligations under the terms and conditions of the Contract even though the OWNER or the OWNER's Authorized Representatives fail to ascertain noncompliance or notify the CONTRACTOR of noncompliance.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify utility services are available, of correct characteristics, and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

END OF SECTION

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SECTION 26 29 53

CONTROL COMPONENTS AND DEVICES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes: Requirements for providing manual starters, motor controllers and remote-control stations. In addition, the requirements for control components and devices for use in equipment provided under various other sections.
- B. Related Work Specified in Other Sections Includes, But is Not Limited to, the Following:
 - 1. Section 09 96 00 - High Performance Coatings
 - 2. Section 26 05 00 - Basic Electrical Materials and Methods
 - 3. Section 26 05 19 - Wires and Cables - 600 Volts and Below
 - 4. Section 26 05 60 - Requirements for Shop-Assembled Equipment
 - 5. Section 26 05 26 - Grounding

1.2 REFERENCES

- A. Codes and standards referred to in this Section are:
 - 1. NEMA ICS 2 - Industrial Control Devices, Controllers and Assemblies
 - 2. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum)
 - 3. UL 486A - Wire Connectors and Soldering Lugs for Use With Copper Conductors

1.3 SYSTEM DESCRIPTION

- A. Design Requirements: Provide equipment capable of operating in an ambient temperature range of 0 to 40 degrees C and humidity of up to 90 percent noncondensing.
- B. Motor Controllers: Provide motor controllers suitable for 480-volt, three-phase, three-wire, 60-hertz operation.
- C. Control Devices: Provide control devices suitable for operation at 120-volts, 60-hertz, unless specifically noted otherwise.
- D. Insulation Class: Provide control equipment and devices that meet the requirements of the 600-volt insulation class.

1.4 SUBMITTALS

- A. General: Furnish all submittals, including the following, as specified in Division 01 and Section 26 05 00.
- B. Product Data and Information: Furnish catalog data for all associated equipment and devices.
- C. Shop Drawings: Furnish shop drawings customized to the project for manual starters, motor controllers and remote control stations that include the following:
 - 1. Outline drawings showing dimensions, identification of components and a nameplate schedule for all units.
 - 2. Bill of materials including manufacturers' name and catalog number.
 - 3. Individual schematic and wiring diagrams for each motor controller
- D. Equipment Ratings: Obtain and enter full performance details on all motors and other equipment being served on the above drawings.

1.5 QUALITY ASSURANCE

- A. Codes: Provide manual starters, motor controllers and remote control stations that are in accordance with NEMA ICS 2.
 - 1. Provide manual starters, motor controllers and remote control stations that are in accordance with the NEC and local codes.
- B. UL Listing: Provide UL-listed manual starters, motor controllers and remote control stations.

1.6 DELIVERY, STORAGE AND HANDLING

- A. General: Deliver, store, and handle all products and materials as specified in Division 01.
- B. Storage and Protection: Store all equipment and materials in a dry, covered, heated and ventilated location. Provide any additional measures in accordance with manufacturer's instructions.

1.7 SPARE PARTS

- A. General: Furnish the following spare parts:
 - 1. Two control stations of each type provided.

2. Three of each type of manual starter.
 3. One of each type of motor controllers.
- B. Packaging: Pack spare parts in containers bearing labels clearly designating contents and related pieces of equipment. Deliver spare parts in original factory packages. Identify all spare parts with information needed for reordering.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers: Acceptable manufacturers are listed below. Other manufacturers of equivalent products may be submitted for review.
1. Manual Starters, Motor Controllers and Remote-Control Stations:
 - a. Eaton/Cutler-Hammer
 - b. General Electric Company
 - c. Square D/Schneider Electric
 - d. Emerson Industrial Automation/Appleton
 - e. Eaton/Crouse-Hinds
 - f. Rockwell Automation/Allen-Bradley
 2. Control Relays:
 - a. Eaton/Cutler-Hammer
 - b. Square D/Schneider Electric
 - c. General Electric Company
 - d. Rockwell Automation/Allen-Bradley
 3. Timing Relays:
 - a. TE Connectivity/Agastat 7000 Series
 - b. Danaher Specialty Products/Eagle Signal
 4. Reset and Repeat Cycle Timers:
 - a. Danaher Specialty Products/Eagle Signal
 - b. Marsh Bellofram/Automatic Timing and Controls
 5. Alternators
 - a. Time Mark Corp. Model 261
 - b. ABB Group/ SSAC Inc. Series ABP
 6. Current Switches

- a. Veris Industries Inc.
7. Surge Protection Devices (SPD)
- a. Thomas & Betts/Current Technologies, Inc.
 - b. Eaton/Cutler-Hammer
8. Rubber Work Mats
- a. Salisbury by Honeywell
 - b. North American Mat
 - c. White Equipment

2.2 MANUAL MOTOR STARTERS

- A. Manual Motor Starters: Provide toggle-type, thermal-switch, manual, motor starters with pilot lights for all 120-volt, single-phase motors rated less than ½ hp.
- 1. Where shown or required, provide starters complete with a HAND/OFF/AUTO selector switch.
 - 2. Provide starter enclosures as specified under the section Remote Control Stations.

2.3 MOTOR CONTROLLERS

- A. General: Provide 480-volt, 3-phase, 60-hertz, across-the-line, combination motor circuit protector magnetic starters with individual control power transformers.
- B. Magnetic Starters: Provide magnetic starters as follows:
- 1. Full voltage non-reversing or full voltage reversing, as required.
 - 2. Starter contacts of the replaceable, spring-loaded, wedge type with silver-cadmium oxide plated contact surfaces.
 - 3. Provide replaceable coils of the epoxy sealed type.
 - 4. Thermal Overload Elements: Class 20 thermal overload element and all required accessories. Provide size five and larger starters with current transformer operated overload relays.
 - a. Bimetallic type with an adjustment knob which allow plus or minus 15-percent adjustment of the heater's nominal rating.
 - b. Size the overload relays after approval of the corresponding motor.

- c. Provide and adjust overload relays that match the associated motor nameplate running-current rating.
 - d. Provide a set of isolated, normally-open and normally-closed contacts for each overload relay.
- C. Motor Circuit Protectors: Provide a motor circuit protector for each combination starter as follows:
- 1. Molded-case, air-break type designed for 600-volt, 60-hertz service with an interrupting capacity of 65,000 rms symmetrical amperes at 480 volts.
 - 2. Three-pole motor circuit protectors with magnetic, adjustable-trip units actuating a common tripping bar to open all poles when an overload or short circuit occurs.
 - 3. No thermal elements.
 - 4. Magnetic trip units capable of being set from 700 to 1,300 percent of the motor full-load amperes.
- D. Control Components: Provide push buttons, switches, indicating lights, transformers, relays and timers as specified herein under paragraph 2.5.
- E. Enclosures: Provide motor controllers installed in NEMA 250 rated enclosures as follows:

AREA	ENCLOSURE
All areas listed Class 1, Division 1 and 2, Group D as defined in Section 26 05 00 or as shown.	NEMA 7 - Explosion-proof
Outdoor and below grade elevation indoors	NEMA 4X 316 Stainless Steel
Corrosive areas as defined in Section 26 05 00 or as shown	NEMA 4X 316 Stainless Steel
Above grade indoor	NEMA 12 – Industrial

2.4 REMOTE CONTROL STATIONS

- A. General: Provide heavy-duty, oiltight remote control stations, consisting of push buttons, indicating lights, and selector switches with double-break silver contacts meeting the requirements specified under the section Control Components.

- B. Enclosures: Provide motor controllers installed in NEMA 250 rated enclosures as follows:

AREA	ENCLOSURE
All areas listed Class 1, Division 1 and 2, Group D as defined in Section 26 05 00 or as shown.	NEMA 7 - Explosion-proof
Outdoor and below grade elevation indoors	NEMA 4X 316 Stainless Steel
Corrosive areas as defined in Section 26 05 00 or as shown	NEMA 4X 316 Stainless Steel
Above grade indoor	NEMA 12 – Industrial

- C. Lockout Attachments: Where shown, provide lockout attachments as follows:

1. Push buttons with padlockable attachment that holds the button depressed.
2. Selector switch with a padlockable attachment that covers the selector switch operators and allows the switch to be set in any position. Selector switch operators that use a removable key are not acceptable.

2.5 CONTROL COMPONENTS

- A. Push Buttons, Selector Switches and Indicating Lights:

1. Provide heavy-duty, oiltight, 30.5 mm, push-button or selector switch control stations arranged for flush-panel mounting.
2. Provide the additional switches, relays, and other electrical accessories necessary to control and safeguard the operation of the associated equipment.
3. Provide 30.5 mm, low-voltage, push-to-test, LED type indicating lights suitable for operation at 120-volt, 60-hertz ac control circuit voltages.
4. Color code indicating lights as follows:

Red - Motor running or valve open
 Green - Motor off or valve closed
 Amber - Capable of operation from this point
 Blue - Alarm or trouble condition

- B. Control Power Transformer: Provide an individual, control power transformer for each starter to derive the 120 volts for the unit's control circuit. Provide transformers with sufficient capacity to meet the energy demands for all related control components including relays, solenoids and other indicated items. Provide dual fuses on the primary and one fuse on the secondary. Ground the unfused leg of the secondary to the enclosure.
- C. Elapsed Time Meters: Provide nonreset-type elapsed time meters to register up to 9999.9 hours, having square cases suitable for panel mounting and having coils for 120-volt, 60-hertz operation.
- D. Control and Latching Relays: Provide control and latching relays of 600-volt class, machine-tool quality with convertible contacts. Provide relay-operating contacts rated at a minimum of 10 amperes, 120 volts, 60 hertz.
- E. Timing Relays: Provide four-pole, double-throw, timing relays with timing ranges and ON/DELAY or OFF/DELAY operation as required. Provide contacts rated a minimum of 10 amperes at 120 volts, 60 hertz.
- F. Long Distance Relays: Provide long distance induction type relays with two normally open and one normally closed contacts rated 25 amperes resistive at 120V, 60 hertz.
- G. Reset and Repeat Cycle Timers: Provide electromechanical or solid-state type reset and repeat cycle timers, with timing ranges and functions as indicated. Provide contacts rated at a minimum of 10 amperes, 120 volts, 60 hertz. Solid-state output contacts are not acceptable.
- H. Current Switches: Provide current switches as follows:
 - 1. General: Provide electric current switches to accomplish specified control functions.
 - 2. Construction: Provide current switches of a solid state type with compatible current and voltage ratings. Provide sensors complete with in-rush delay, single set joint adjustment, power and status LED's and adjustable trip set point with accuracy of +/- 2 percent of range. UL listing and NEMA 12 sealing is required. Provide with two normally open dry contacts.
 - 3. Design: Provide switches designed for a 5 to 185 degree F and 0 to 95 percent humidity, and of a power induced type. Sensors with external power supply are not acceptable.
- I. Alternators: Provide alternators suitable for 120-volt, 60-hertz operation.

1. Provide alternator-operating double pole, double throw cross wired contacts rated at minimum of 7 amperes at 120 volts, 60 hertz.
 2. Provide alternators suitable for circuit design requiring alternating "lead-lag" operations.
 3. Provide alternators with integral three position switch "Load 1 – Alternate – Load 2" switch and LED status indicators.
 4. Provide 8-pin plug-in alternator with an 8-pin socket.
- J. Phase Failure and Undervoltage Relay: Provide a 3-phase, power monitor to detect phase failure, phase reversal, phase unbalance and undervoltage, suitable for operation at 480 volts. Provide an adjustable, drop-out voltage range of 380 to 500 volts and an adjustable time delay from 0.2 to 20 seconds. Provide a normally-open and normally-closed alarm contact rated 10 amperes at 120 volts with automatic reset.
- K. Ground Fault Protection Relay: Provide a manually-reset, ground-sensing relay suitable for use with a window-type current transformer. Provide an adjustable time delay and pickup settings. Provide single-pole, double-throw, alarm contacts rated 10 amperes at 120 volts.
- L. Emergency Boiler Shutoff Station: Provide a break glass control station with 10 ampere rated contacts at 120 volts configured for normally open or normally closed operation as required, housed in a NEMA 4X enclosure with engraved nameplate reading "BOILER – EMERGENCY SHUTDOWN".

2.6 REDUCED VOLTAGE SOLID STATE COMBINATION STARTER

1. Provide solid-state reduced voltage starters that achieve reduced voltage starting and, once a motor reaches full speed, automatically closes a run contactor in parallel with the solid state devices to handle the motor's continuous duty operation. Provide solid-state starters that transfer the motor from the run contactor back to the solid-state devices to provide a smooth stepless stop.
2. Provide solid-state reduced-voltage starters that consist of a SCR based power section, logic board and paralleling run contactor.
3. Rate the solid-state reduced-voltage starter for severe duty providing a ramp current of 450 percent of motor full load current for 30 seconds and capable of starting the motor four times per hour.
4. Provide solid-state, reduced-voltage starters having the following features:
 - a. Motor running overload protection in both the reduced voltage and by-pass modes of operation.

- b. Six SCR control
- c. Phase loss and phase reversal protection
- d. Kick-start: Adjustable 0 to 85 percent of locked rotor current for 0 to 2 seconds to provide additional torque to start motor.
- e. Ramp Start: Adjustable 0 to 180 seconds to provide constant increase in torque of the motor
- f. Current Limit Start: Adjustable 0 to 85 percent of locked rotor current to limit the maximum current drawn by the motor during the startup 0 to 180 seconds ramp time.
- g. Soft Stop: Adjustable 0 to 60 seconds for controlled stopping of motor.
- h. Overtemperature protection
- i. Selectable overload trip class (5, 10, 20 and 30 seconds)
- j. A normally open (NO) contact to indicate when the run contactor is closed and a normally open (NO) contact to annunciate fault conditions, and display on the logic board the type of fault (current trip, phase loss, phase rotation).

B. Provide motor circuit protector for short-circuit protection.

2.62.7 SURGE PROTECTION DEVICES (SPD):

- A. Provide SPD equipment that complies with UL 1449 and UL 1283.
- B. Provided units with a maximum continuous operating voltage that exceeds 115 percent of the nominal system operating voltage.
- C. Provide SPD equipment suitable for wye configured systems.
- D. Provide SPD equipment having directly connected suppression elements between line-neutral (L-N), line-ground (L-G) and neutral-ground (N-G).
- E. Provide SPD equipment that distributes the surge current to all MOV components to ensure equal stressing and maximum performance and provides equal impedance paths to each match MOV.
- F. Provide high-performance EMI/RFI noise rejection filters that attenuate the electric line noise at least 55dB at 100 kHz using MIL-STD-220A insertion loss test method.

- G. Wire internal components with connections utilizing low impedance conductors and compression fittings.
- H. Provide a monitoring panel for each system that incorporates the following features:
 - 1. Green/Red solid state indicator lights to indicate which phase(s) have been damaged.
 - 2. A flashing trouble light to indicate fault detection.
 - 3. Transient event counter.
 - 4. Audible alarm.
 - 5. Form C contacts for remote monitoring of the unit status.
- I. Provide SPD suitable for location application and minimum surge current per mode as follows:
 - 1. Motor Control Center: UL 1449, Type 1/2, 250kA
 - 2. 480V and 480Y/277V Panelboard: UL 1449, Type 1/2, 150kA
 - 3. 120/240V and 208Y/120V Panelboard: UL 1449, Type 2, 80kA
- J. Location: Install SPD as follows:
 - 1. Panelboard: Mount SPD internally or externally to minimize lead length. Provide a branch circuit breaker disconnect sized in accordance with the manufacturer's recommendations. Locate the SPD unit branch circuit breaker immediately downstream of the main circuit breaker or main lugs.

2.72.8 RUBBER WORK MATS:

Provide a three foot wide rubber work mat on the floor in front of each switchgear, switchboard and motor control center. The mat will be long enough to cover the full length of the line-up. Provide mats that are 1/4 inch thick with beveled edges, canvas back and solid type with corrugations running the entire length. Mats will be guaranteed to be free from cracks, blow holes or other defects detrimental to their mechanical and electrical strengths. Mats will meet all OSHA requirements and those of ANSI/ASTM J6.7 – 1935 (R1971) / D178, Type 2, Class 2.

PART 3 EXECUTION

3.1 INSTALLATION

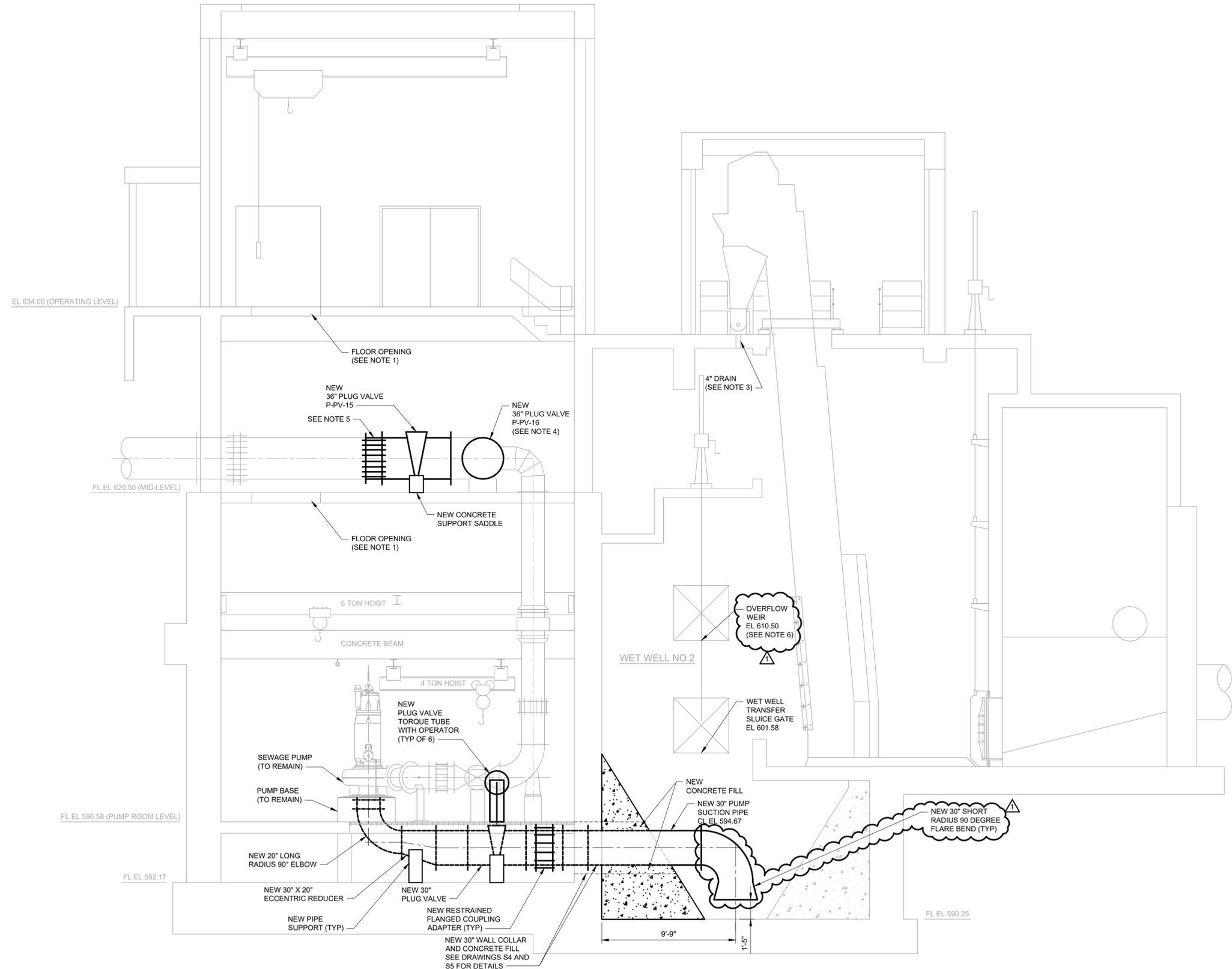
- A. General: Install all equipment in accordance with the manufacturer's recommendations and approved shop drawings and as specified in Division 1.
- B. Mounting: Mount manual starters, motor controllers and remote control stations 4 feet 6 inches from the finished floor up to their centerlines, unless otherwise shown. Mount all devices at least ½ inch away from concrete wall surfaces.
- C. Adjustments: Set all motor circuit protectors and circuit breakers based on the approved short circuit and coordination study.
- D. Overloads: Adjust the thermal overloads on each phase of each starter unit for the actual motor installed.
- E. Cable Connections: Terminate and label all field wiring per the approved diagrams.
- F. Torque Requirements: Tighten electrical connectors and terminals, including screws and bolts, in accordance with equipment manufacturers' published torque tightening recommendations. Where manufacturers' torquing requirements are not available, tighten connectors and terminals in accordance with UL Standard 486 A.

3.2 FIELD QUALITY CONTROL

- A. Inspections: Inspect, adjust and check the installation for physical alignment, cable terminations and ventilation.
- B. Operation and Maintenance: Furnish operation and maintenance instructions as specified in Division 01.

END OF SECTION

(NO TEXT FOR THIS PAGE)



SECTION 1/M5, M6
 SCALE: 1/4"=1'-0"

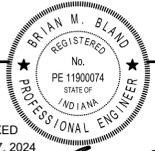
NOTES:

1. FLOOR OPENINGS COVERED WITH REMOVABLE ALUMINUM GRATING.
2. REMOVE ALL DEPOSITED SOLIDS, INCLUDING BUT NOT LIMITED TO, SLUDGE, GRIT, AND OTHER MATERIALS FROM WET WELLS. ALL REMOVED SOLIDS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM WWTP TO A LOCATION APPROVED FOR THE DISPOSAL OF THE SOLIDS. FOR BIDDING PURPOSES ASSUME 10 CUBIC YARDS OF MATERIAL.
3. 4" PVC DRAIN LINE THRU SLAB OF OVERHEAD SCREENING OPERATING FLOOR FOR WASH PRESS EQUIPMENT DISCHARGES DIRECTLY TO WET WELL NO.1. DRAIN LINE TO BE TEMPORARILY REROUTED TO WET WELL NO.2 AS NEEDED DURING ISOLATION.
4. ALL WORK ASSOCIATED WITH INSTALLATION OF P-PV-16 TO BE INCLUDED IN MANDATORY BID ALTERNATIVE 1 AS DETAILED IN BID FORM SPECIFICATION 00 41 00.
5. RESTRAINED FLANGED COUPLING ADAPTER MAY NOT BE REQUIRED. CONTRACTOR TO CONFIRM LENGTH OF EXISTING SPOOL PIECE WITH LAY LENGTH OF NEW VALVE PRIOR TO DEMOLITION.
6. CONTRACTOR TO TEMPORARILY BLOCK OPENING TO ISOLATE WET WELL NO.1 AND NO.2 TO PERFORM WORK.

GREELEY AND HANSEN
 A TYLin Company
 8250 HAVERSTICK ROAD, SUITE 285
 INDIANAPOLIS, INDIANA 46240

DESIGNED: BMB
 DRAWN: MJR
 CHECKED: JMT

SEAL AFFIXED
 OCTOBER 7, 2024
 APPROVED: *[Signature]*



NO.	DATE	APPD	REVISION DESCRIPTION
1	11/11/2024	JMT	ADDENDUM #1

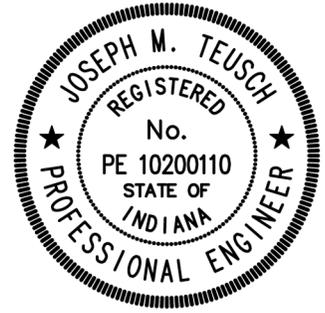
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CITY OF BLOOMINGTON UTILITIES
 DILLMAN ROAD WWTP SITE SAFETY AND PROCESS IMPROVEMENTS

MECHANICAL
 PUMP STATION BUILDING NEW SECTION

PROJECT NO.: 0593W
 DWG: **M7**
 SHEET: 23 OF 62
 DATE: OCTOBER 2024 REV: 1

CITY OF BLOOMINGTON UTILITIES
DILLMAN ROAD WWTP SITE SAFETY
AND PROCESS IMPROVEMENTS



Addendum No. 2

TYLin | Greeley and Hansen Water Solutions
November 25, 2024

A handwritten signature in black ink that reads "Joseph Teusch".

Seal Affixed
November 25, 2024

Bidders on the Dillman Road WWTP Site Safety and Process Improvements Project are hereby notified that the following addendum is made to the Contract Documents. Sealed Bids to be received by 4:30 pm local time (EST) on December 2nd, 2024 shall conform to this addendum. Bidders shall annotate the proposal in the location provided to indicate receipt of Addendum No. 2.

DRAWINGS

1. Drawing S4: **Delete** this drawing in its entirety and **replace** with attached Drawing S4 Revision 1.
2. Drawing S5: **Delete** this drawing in its entirety and **replace** with attached Drawing S5 Revision 1.

QUESTIONS FROM PROSPECTIVE BIDDERS

1. Question: Per drawing Sheet M15, only two plug valves get 100% replaced and one valve gets a new stem, guide and operator. In the Addendum #1 – Pre-Bid Meeting Notes, Project Description Item 4.C.i., it states, “Sludge Lagoon:3 valves” Please confirm that we are to replace 2 complete valves and 1 valve stem, guides and actuator on the third valve.
Answer: Confirmed to replace 2 complete valves and 1 valve stem, guide and actuator on the third per Drawing M15.
2. Question: Reference Sheets M2 and M4. Please confirm that the entire concrete fillet in the Wet Wells is to be removed and replaced in the pump station, not just the fillet where the suction pipe is penetrates this concrete fillet.
Answer: Existing fillet is shown to be removed and replaced in its entirety.

3. Question: Per Sheet M4, Note 3, we are to remove an anticipated 10 CY of deposited solids, including but not limited to, sludge, grit and other materials from each wet well. For bidding purposes, how much sludge should we estimate will be inside each pump suction line that will need to be disposed of when we demolish this piping?

Answer: The assumed 10 CY each wet well (20 CY total) for bidding purposes includes solids within both wet well and suction piping.

4. Question: Reference Addendum No. 1, Question 5 response. Indiana Code 5-16-8 allows for the use of foreign products if we can provide proof that the same domestic product is 15% or more costly than the corresponding foreign product. Please confirm that we may furnish and install foreign piping and valves on this project if we provide proof of this 15% cost differential post bid.

Answer: Confirmed, proof of unreasonable (>15%) cost to be provided in writing.

5. Question: Reference Sheet M7. This drawing calls out a 30" Wall Collar that appears to extend from the inside of the Pump Building to the outside edge of the fillet in the Wet Well (approx. 7' 6" in length). The plan view on Sheet M5 does not show this extended wall collar. Sheet S4 calls out a new wall pipe. Is this intended to be a Wall Casting? The detail on Sheet S4 shows a pipe passing through a wall sleeve with no water collar so we are assuming this detail requires Link Seal? Does the Concrete Fillet get poured directly over the new pipe that extends into the Wet Well? Please provide more detail for this pipe penetration so it is clear what is required.

Answer: Pipe section to be wall collar that extends to outside edge of fillet as shown in M7. See Revised Drawings S4 and S5. Concrete fillet to be poured directly over new wall collar pipe.

6. Question: Reference Sheet M10. This drawing calls out a Temporary Cofferdam that is "L" shaped. Are there 2 channels being isolated in this configuration? Is it acceptable to use a single steel plate (not an L shape) on the upstream side of each gate for isolation? Does the flow enter into the Mixing Well from the floor or wall? Is there a better detail of this area that can be provided? Please advise.

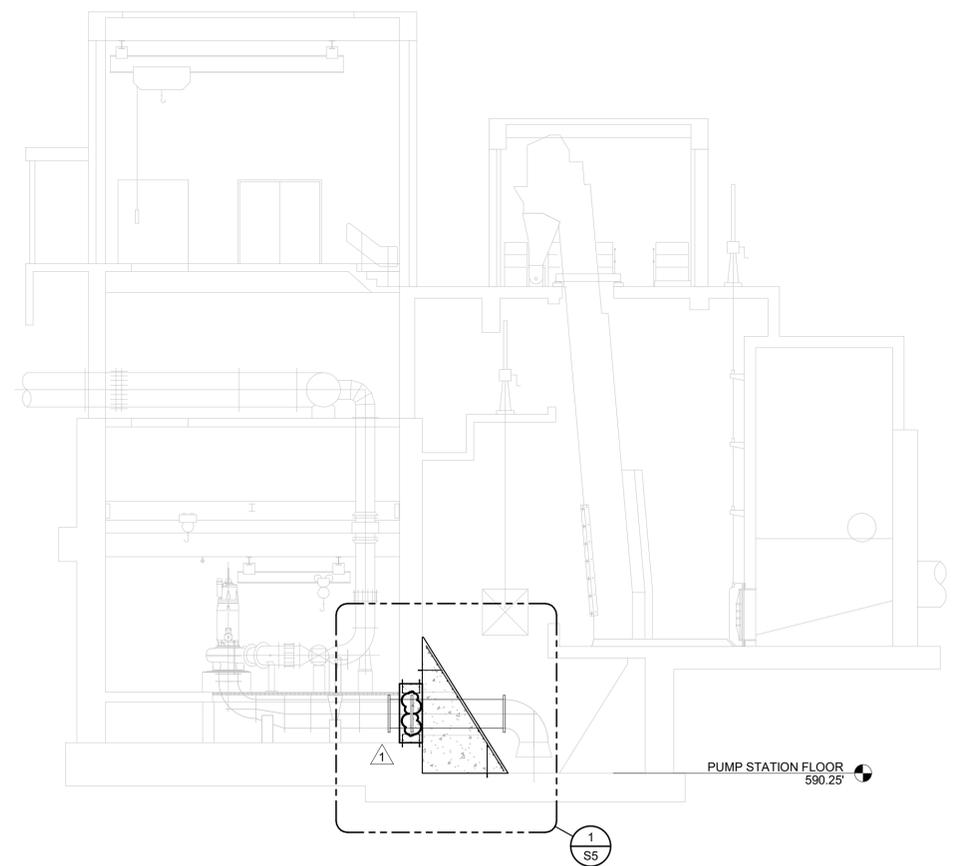
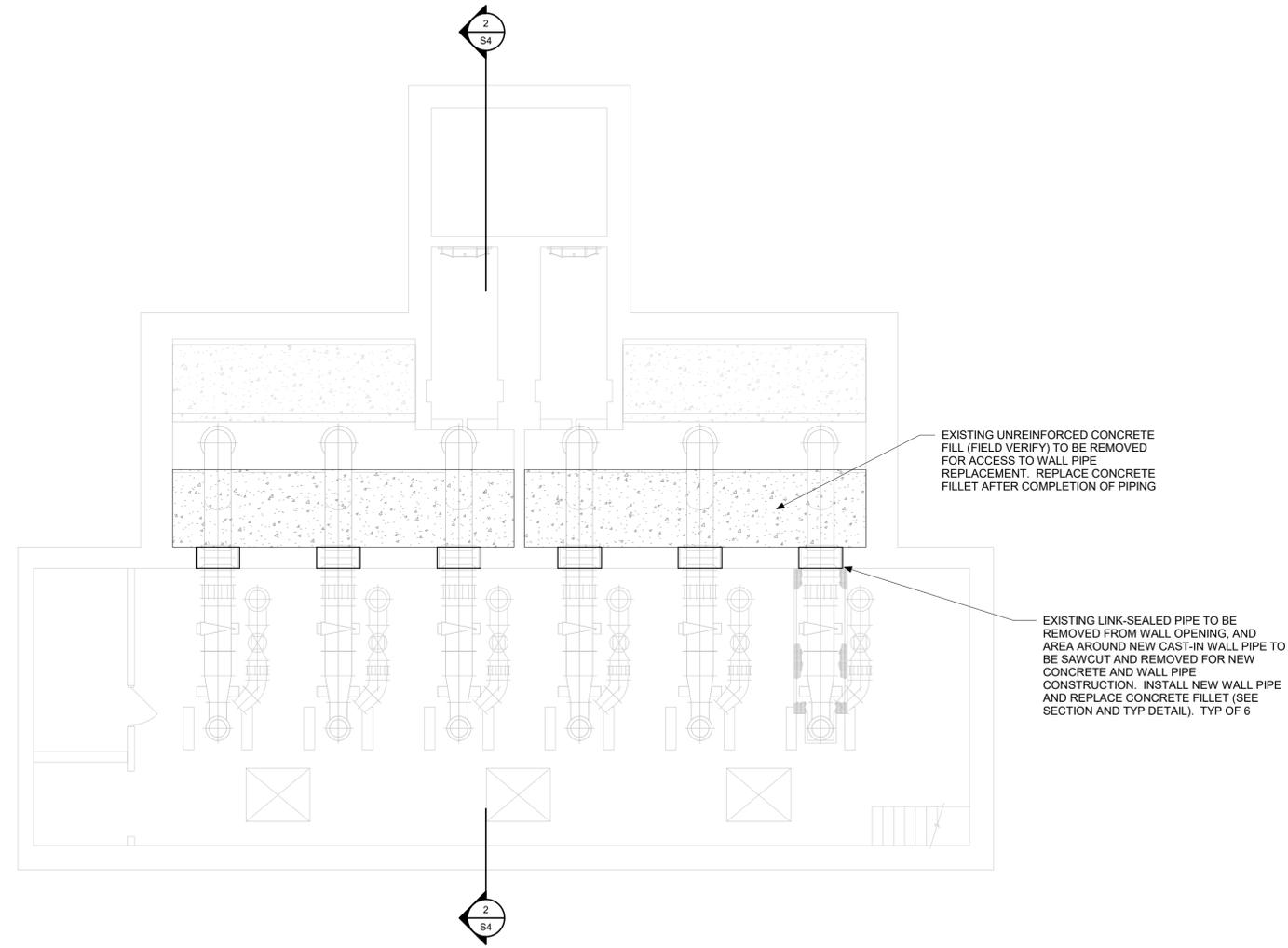
Answer: Temporary cofferdam to isolate two channels. Single steel plate is acceptable for isolation. Filter effluent is discharged via two (2) 42" filter effluent pipes. Flow is discharged into overflow box that is connected to the mixing well. See attached record drawings Sheet GF-11 Basement Piping Plan and GF-12 Piping Sections.

7. Question: Under Section 00 73 40, it requires each subcontractor over \$150,000 to complete the City of Bloomington Responsible Bidder Affidavit. Item 6 of this affidavit calls for the Contractor to submit an affirmative action plan as required under § 2.21.070(8) of the Bloomington Municipal Code. Section 00 11 13 calls for the affirmative action plan to be submitted by each Bidder 24 hours prior to bid. Please confirm that this plan is required from each subcontractor(>\$150K) to submit 24 hours before the bid as the affirmative action plan states “You must submit your written affirmative action plan (or supplement) to City Legal or as part of your bid packet by the bid deadline.” This request is somewhat unreasonable due to the bid date being the Monday following a federal holiday and suggest to extend this timetable to provide the affirmative action plan post bid for the presumed low bidder for the project. Please advise.

Answer: Strikethrough Specification 00 11 33 “at least twenty-four (24) hours prior to the deadline for the submission of bid” requirement. Affirmative action plan submission requirements to follow Specification 00 73 40A. Only prime contractors are required to submit an affirmative action plan. Responsible bidder affidavits are required for both prime contractors and subcontractors performing more than \$150,000 worth of work.

8. Question: What is the current roof membrane type on top of the Chlorine Building. The roofs look to have been replaced within the last five years. The roof membrane looks to be either PVC or TPO. Can we please receive confirmation on which type of membrane and possibly the product manufacturer of this existing roofing membrane?

Answer: Chlorine building roof is TPO and has been replaced within the last five years.



1 PUMP STATION FLOOR PLAN
SCALE: 1/8" = 1'-0"

2 PUMP STATION SECTION
SCALE: 1/8" = 1'-0"

Fink Roberts & Petrie, Inc.
Structural Engineers
3535 East 96th Street, Ste 128
Indianapolis, Indiana 46240

REGISTERED PROFESSIONAL ENGINEER
No. PE100001110
STATE OF INDIANA
DAVID J. MAUSER
10/7/24

GREELEY AND HANSEN
A TYLin Company
8250 HAVERSTICK ROAD, SUITE 285
INDIANAPOLIS, INDIANA 46240

DESIGNED DJM
DRAWN DJM
CHECKED CAN

APPROVED
DAVID J. MAUSER
10/7/24

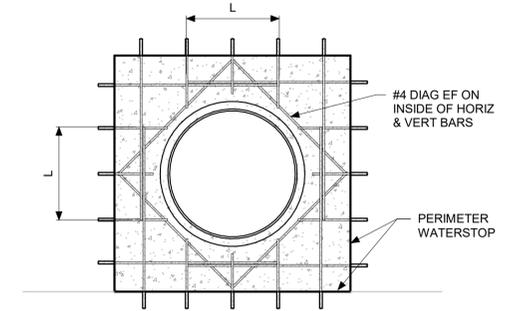
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SCALE

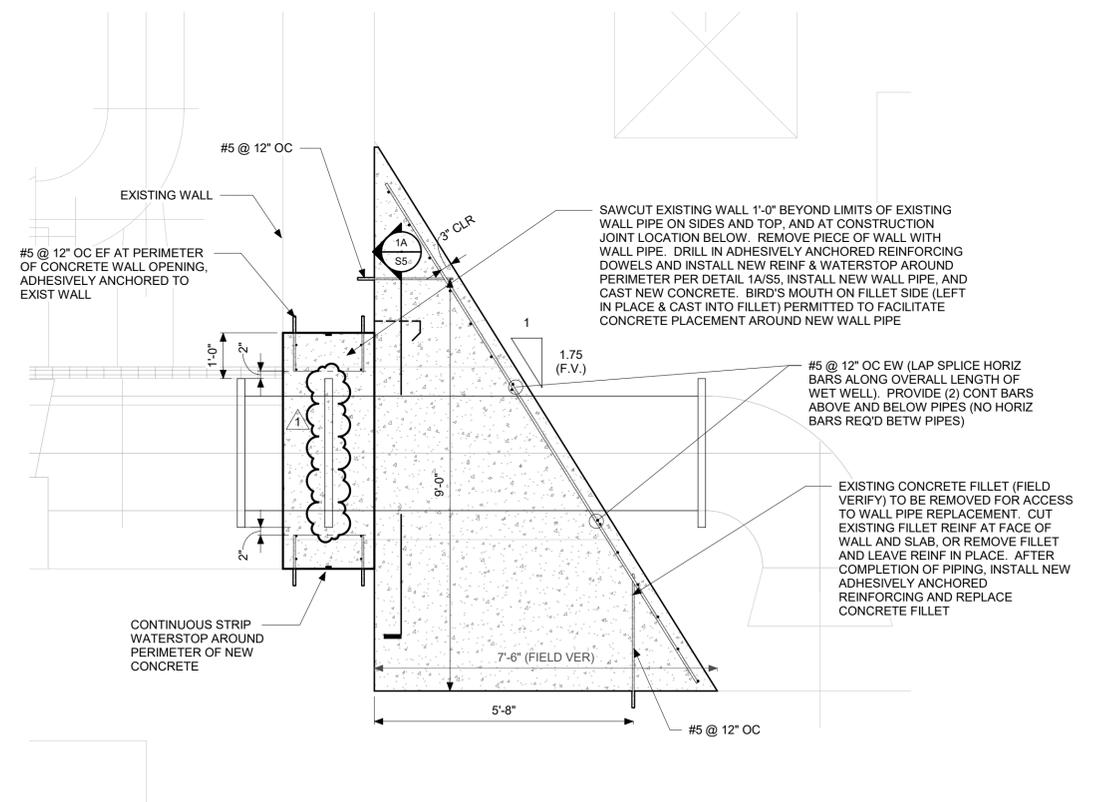
CITY OF BLOOMINGTON UTILITIES
DILLMAN ROAD WWTP SITE SAFETY
AND PROCESS IMPROVEMENTS

STRUCTURE
PUMP STATION BUILDING REPAIR PLAN

DWG **S4**
SHEET 8 OF 62
DATE OCTOBER 2024 REV 1

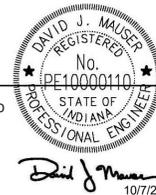


1A-CAST-IN WALL PIPE ELEVATION
1/2" = 1'-0"



1 CONCRETE DETAILS AT WALL PIPE REPLACEMENT
SCALE: 1/2" = 1'-0"

Fink Roberts & Petrie, Inc.
Structural Engineers
3335 East 96th Street, Ste 128
Indianapolis, Indiana 46240



GREELEY AND HANSEN
A TYLin Company
8250 HAVERSTICK ROAD, SUITE 285
INDIANAPOLIS, INDIANA 46240

DESIGNED DJM
DRAWN DJM
CHECKED CAN

APPROVED
David J. Mauser
10/7/24

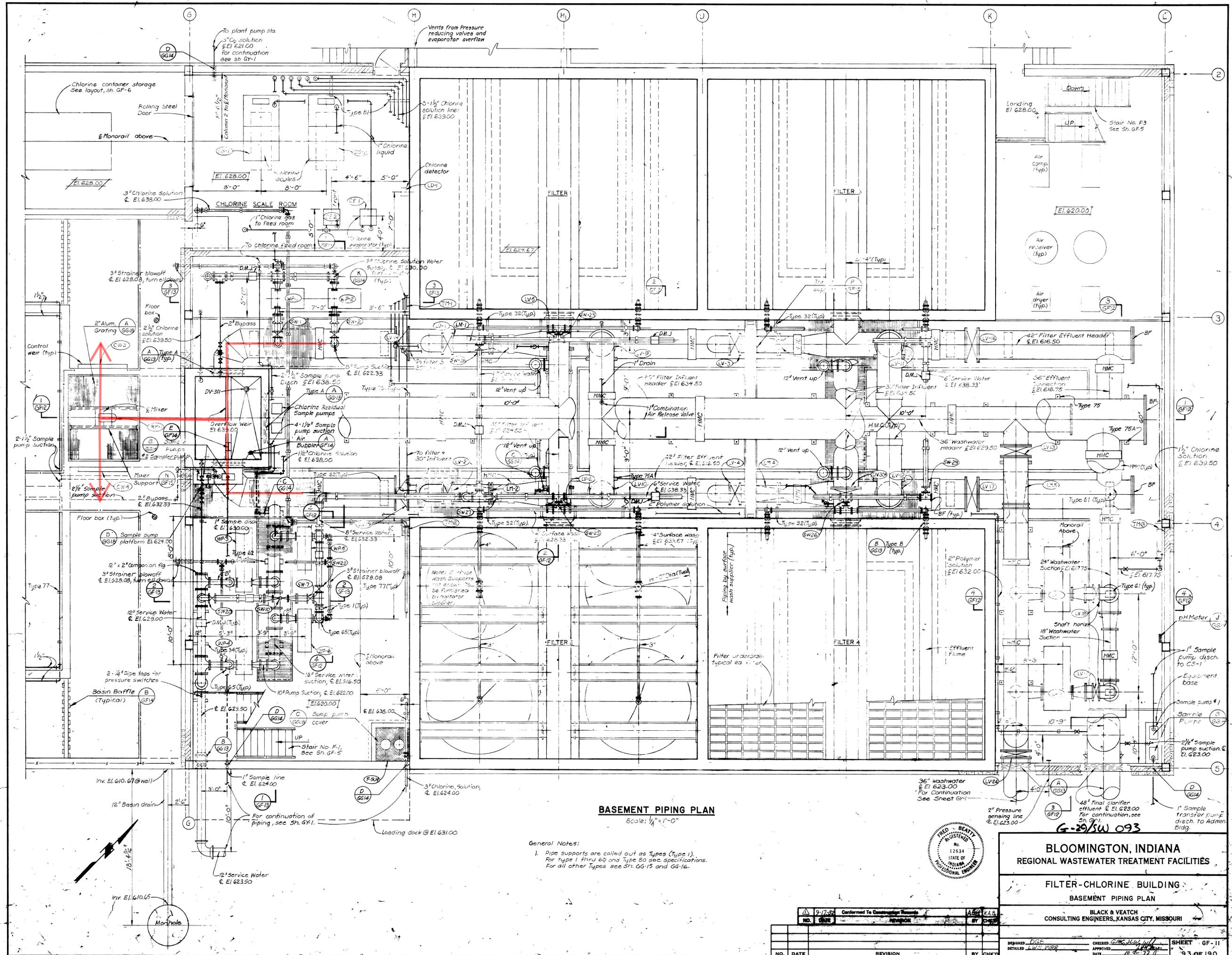
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1	11/22/24	DJM	ADDENDUM #2

SCALE

CITY OF BLOOMINGTON UTILITIES
DILLMAN ROAD WWTP SITE SAFETY
AND PROCESS IMPROVEMENTS

PUMP STATION BUILDING REPAIR SECTIONS

DWG **S5**
SHEET 9 OF 62
DATE OCTOBER 2024 REV 1



BASEMENT PIPING PLAN
Scale: 1/4" = 1'-0"

General Notes:
1. Pipe supports are called out as Types (Type 1).
For Type 1 thru 60 and Type 80 see specifications.
For all other Types see Sh. GG-15 and GG-16.

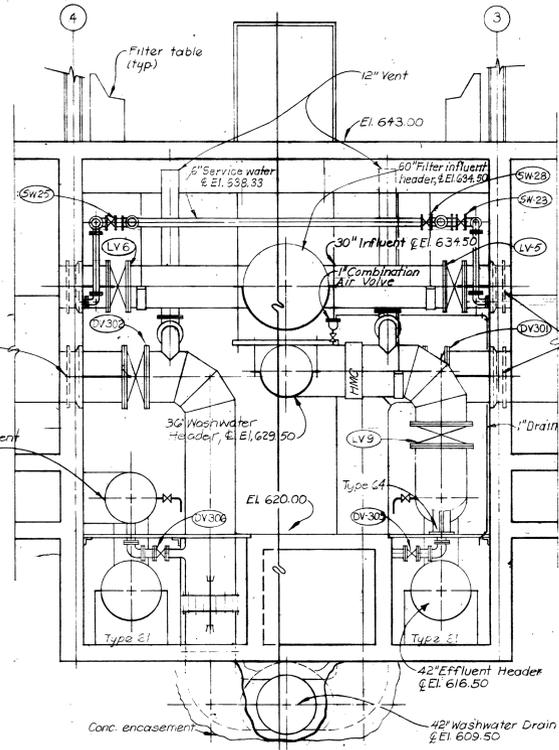
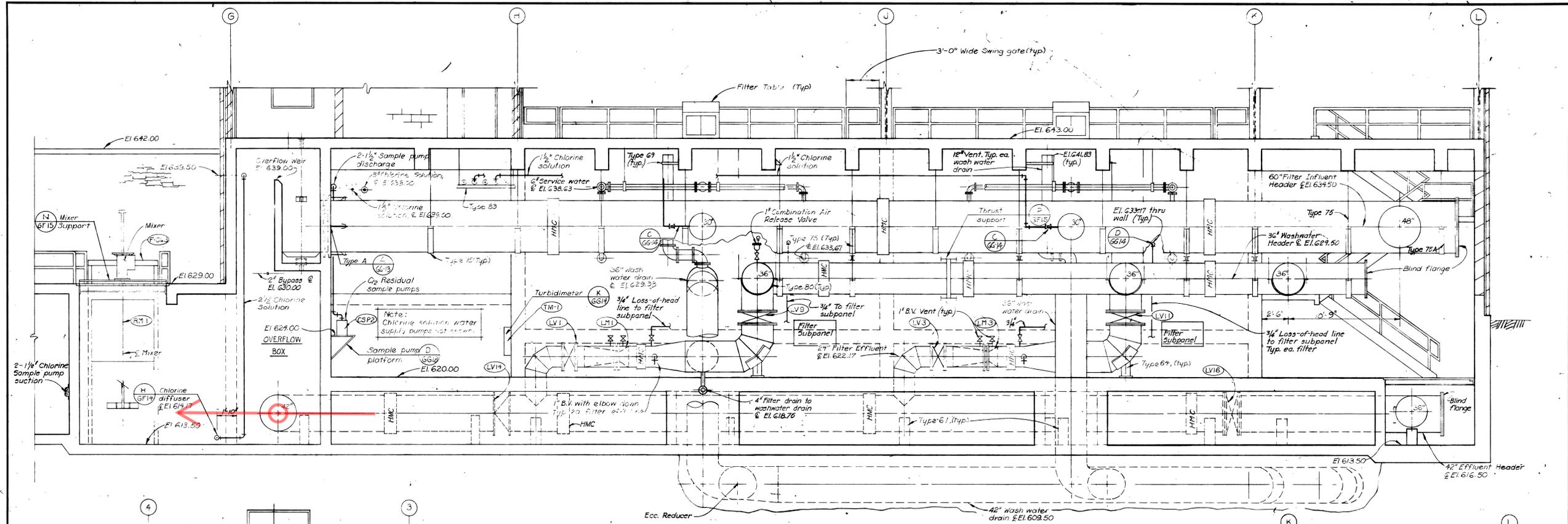


BLOOMINGTON, INDIANA
REGIONAL WASTEWATER TREATMENT FACILITIES
FILTER-CHLORINE BUILDING
BASEMENT PIPING PLAN

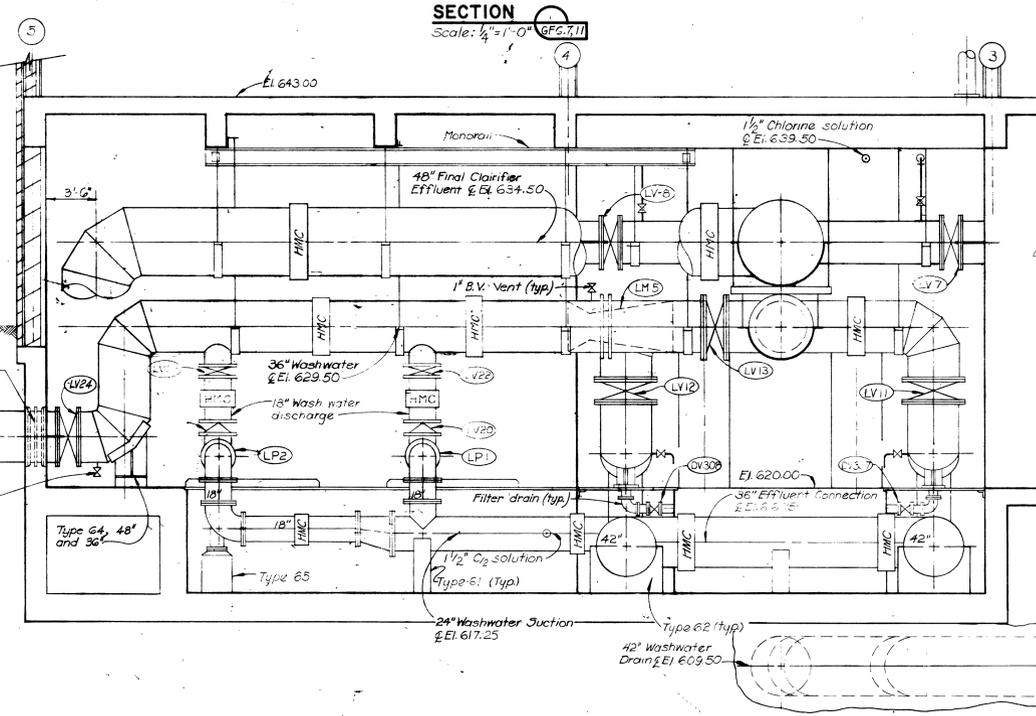
BLACK & VEATCH
CONSULTING ENGINEERS, KANSAS CITY, MISSOURI

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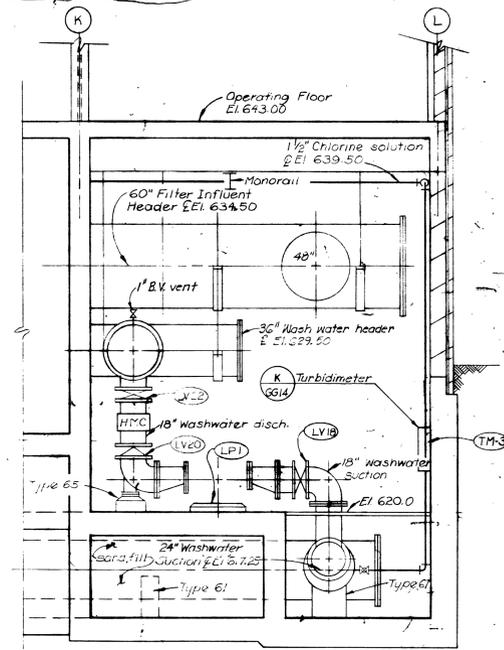
DESIGNED: DGP
CHECKED: GJK
APPROVED: LWS
DATE: 12-22-71
SHEET GF-11
93 OF 190
PROJECT 7409



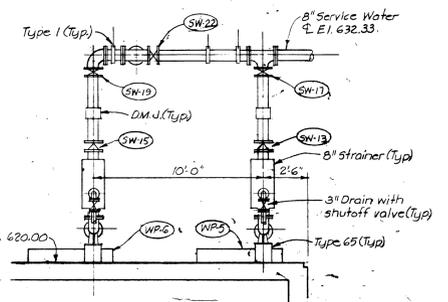
SECTION 1
Scale: 1/4" = 1'-0"
GF6,7,11



SECTION 2
Scale: 1/4" = 1'-0"
GF6,7,11



SECTION 3
Scale: 1/4" = 1'-0"
GF6,7,11



SECTION 4
Scale: 1/4" = 1'-0"
GF11



G-29/KW 094

BLOOMINGTON, INDIANA
REGIONAL WASTEWATER TREATMENT FACILITIES

FILTER CHLORINE BUILDING
- PIPING SECTIONS

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CONSULTING ENGINEERS, KANSAS CITY, MISSOURI

NO.	DATE	REVISION

DESIGNED: DGB
CHECKED: LVA, PBR
DATE: 12-26-77
SHEET: GF-12
94 OF 190