

ADDENDUM NUMBER #1

<u>PROJECT</u>	<u>BIDS DUE</u>
Village of Bellaire CWSRF Project #5910-01 WWTP Improvements GFA Project No: 24024	Date: June 24, 2024 Time: 9:00 AM Location: Village of Bellaire 202 N Bridge St., Bellaire, MI 49615

The Addendum is issued prior to the receipt of bid proposals to amend the Contract Documents as follows. Bidders shall acknowledge receipt of this addendum by means of acknowledging on Page 1 of the Bid Form (EJCDC C-410).

CLARIFICATIONS

1. Davis Bacon Wage Rates apply to this project, wage rates included in Bid Documents are most recent version to date. It is the contractors responsibility to verify wage rate modifications through Sam.gov as they are published.

BIDDING DOCUMENTS

1. EJCDC C-410 shall be stricken in its' entirety and replaced with the attached. The bid form has been updated to account for adjustments to Access Drive Replacement quantities.
2. Specification 02250 shall be stricken in its' entirety and replaced with the attached. The specification has been updated to clarify contradictions regarding Residuals Management Plan and clarify method of payment. Biosolids removal contractor will be responsible for assisting the Owner with updates to their existing Residuals Management Plan per EGLE requirements.

DRAWINGS:

1. Sheets C2.4, C2.5, A2.1, and E1.1 have been updated and incorporated into this Addendum and shall supersede the previous sheets.
 - a. C2.4 - site grading plan modifications
 - b. C2.5 - Monitoring well construction note clarifications and access drive construction detail have been added
 - c. A2.1 - Detail B/A.21 has been updated to clarify only new CMU structures are to be painted. There is no existing CMU structures.

- d. E1.1 – Screening Building is classified as Class I, Division I.

This Addendum No. 1 becomes part of the Contract Documents as of this date and supersedes the information in the originally issued Contract Documents where applicable. The Contractor shall acknowledge receipt of the Addendum in the Bid Schedule included with his/her bid.

BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

- 1.01 This Bid is submitted to: **Village of Bellaire, 202 N. Bridge St, PO Box 557, Bellaire, MI 49615**
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

- 2.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. List of Proposed Suppliers;
 - D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;
 - E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;
 - F. Required Bidder Qualification Statement with supporting data; and
 - G. C-451 – Bidders Experience Form**
 - H. Certification Regarding Debarment, Suspension, & Other Responsibility Matters**
 - I. Davis-Bacon Compliance Certification**
 - J. Good Faith Efforts Worksheet**

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

- 3.01 **Deleted**
- 3.02 *Unit Price Bids*
- A. Bidder will perform the following Work at the indicated unit prices:

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Amount
SITE IMPROVEMENTS					
1	Mobilization, Max 5%	LS	1	\$	\$
2	Asphalt Road/Driveway Removal	SF	2,800	\$	\$
3	Access Drive Replacement	SY	450	\$	\$
4	Existing Sanitary Sewer Removal including Bulkhead	LF	30	\$	\$
5	Sewer Manhole, 4' Dia.	EA	1	\$	\$
6	Sanitary Sewer, 10" SDR 35	LF	60	\$	\$
7	2" PVC Monitoring Wells	EA	5	\$	\$
8	Removal of Diversion Structure	LS	1	\$	\$
9	Connect to Existing Sanitary Sewer	EA	3	\$	\$
10	Proposed Diversion Structure	LS	1	\$	\$
11	Site Restoration	LS	1	\$	\$
LAGOON BERM REPAIRS					
1	Clay Repairs	SF	18,000	\$	\$
2	Geotextile Fabric & Erosion Control Gravel	SF	20,000	\$	\$
3	Berm Soil Testing	EA	4	\$	\$
BIOSOLIDS REMOVAL					
1	Removal, Hauling, Land Application & Agronomic Management of Biosolids	GAL	5,300,000	\$	\$
2	Biosolids Testing & Analysis	EA	4	\$	\$
3	Temporary Heavy Equipment Access Pad	SYD	230	\$	\$
HEADWORKS BUILDING					
1	Headworks Building including Lean To	SF	450	\$	\$
2	Mechanical In-Channel Screen including Washer/ Compactor Unit and Waste Chute	LS	1	\$	\$
3	Manual Bar Screen	LS	1	\$	\$
4	Site Electrical Demolition and New Service	LS	1	\$	\$
5	Site Natural Gas	LS	1	\$	\$
6	Site Water Service	LS	1	\$	\$
7	Aluminum Grating	SF	20	\$	\$
8	Concrete Headworks Channel and Bypass	LS	1	\$	\$
9	Hydraulic Slide Gates	EA	4	\$	\$
10	Gas Detection System	LS	1	\$	\$
11	Building Mechanical / HVAC	LS	1	\$	\$
12	Building Lighting and Electrical	LS	1	\$	\$
13	Building Plumbing	LS	1	\$	\$
AERATION SYSTEM REPLACEMENT					
1	Lagoon Aeration Equipment including Blowers	LS	1	\$	\$
2	Aeration Header Piping, Valves and Appurtenances	LS	1	\$	\$
3	Aeration riser piping and appurtenances	LS	1	\$	\$
4	Blower Electrical	LS	1	\$	\$
Total of All Unit Price Bid Items					\$

- B. Bidder acknowledges that:
1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
 2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—DELETED

ARTICLE 5—DELETED

ARTICLE 6—TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of days indicated in the Agreement.
- 6.02 **Deleted**
- 6.03 **Deleted**
- 6.04 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

- 7.01 *Bid Acceptance Period*
- A. This Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 7.02 *Instructions to Bidders*
- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.
- 7.03 *Receipt of Addenda*

Bidder hereby acknowledges receipt of the following Addenda:

Bidders are responsible to research Addendums and Acknowledge Addendums on the Bid form. Addendums will be posted, at least three (3) days prior to Bid Opening, on the GFA website at www.gfa.tc, go into the Project Center, Advertisements for Bids, then select the appropriate Project. Failure of any Bidder to obtain any such addendum or interpretation shall not relieve such Bidder from any obligation under his Bids as submitted. All Addendas, so issued, shall become part of the Contract Documents.

Addendum Number	Addendum Date

ARTICLE 8—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

8.01 *Bidder’s Representations*

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder’s (Contractor’s) safety precautions and programs.
 7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
 8. 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 Bidding Documents.
 9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
 11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

8.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. 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 collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

Address for giving notices:

Bidder's Contact:

Name: _____
(typed or printed)

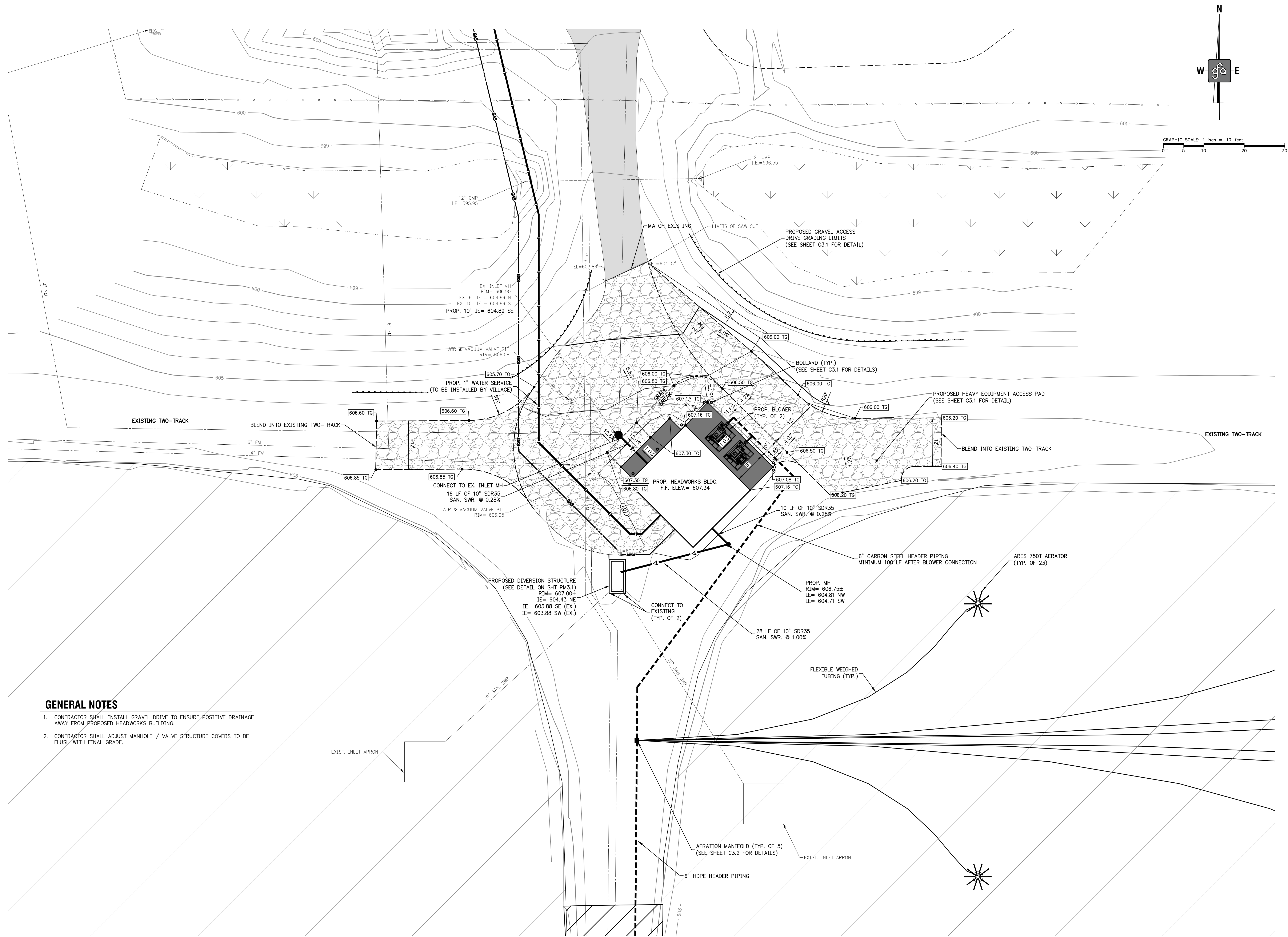
Title: _____
(typed or printed)

Phone: _____

Email: _____

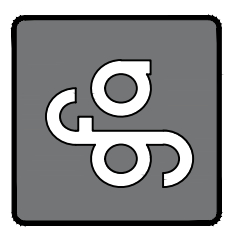
Address: _____

Bidder's Contractor License No.: (if applicable) _____



GENERAL NOTES

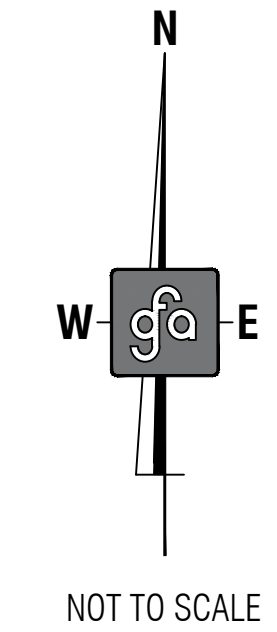
1. CONTRACTOR SHALL INSTALL GRAVEL DRIVE TO ENSURE POSITIVE DRAINAGE AWAY FROM PROPOSED HEADWORKS BUILDING.
2. CONTRACTOR SHALL ADJUST MANHOLE / VALVE STRUCTURE COVERS TO BE FLUSH WITH FINAL GRADE.



REV#	DATE	BY	CHK	DESCRIPTION
A	02/23/2024	CPB	ESD	ISSUED FOR C.E. REVIEW
B	4/10/2024	MMB	ESD	ISSUED FOR PERMITS
0	5/24/2024	MMB	ESD	ISSUED FOR BIDS
1	6/18/2024	MMB	ADDENDUM #1	

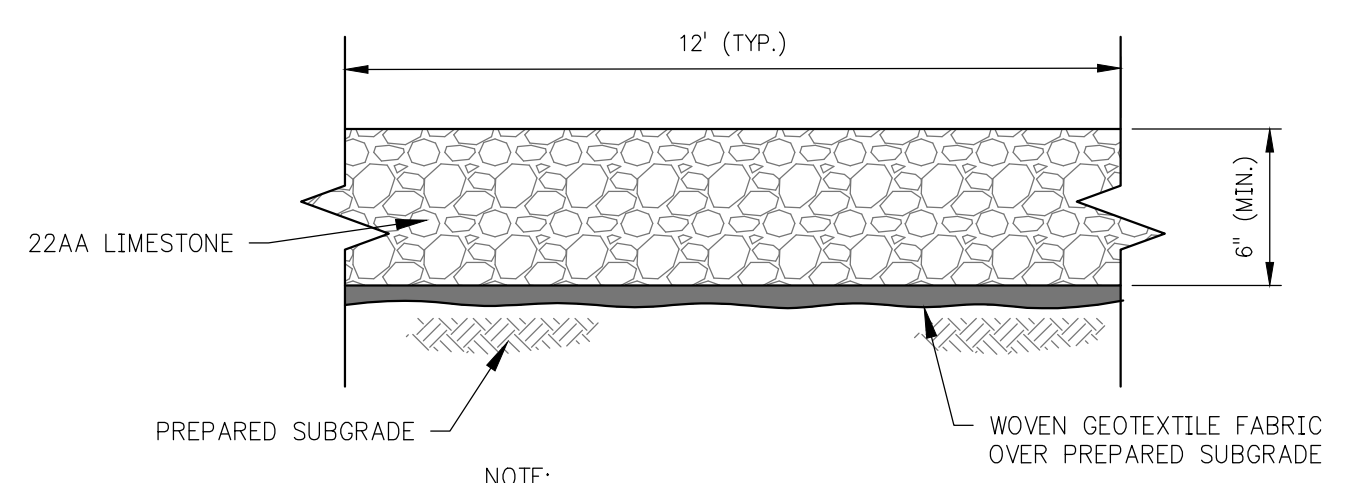
VILLAGE OF BELLAIRE
WASTE WATER TREATMENT PLANT IMPROVEMENTS
DETAILED SITE PLAN
 SECTION 30, T.30 N., R.7 W.
 VILLAGE OF BELLAIRE, ANTRIM COUNTY, MICHIGAN

These documents are prepared in accordance with the contractual terms and conditions for this project.



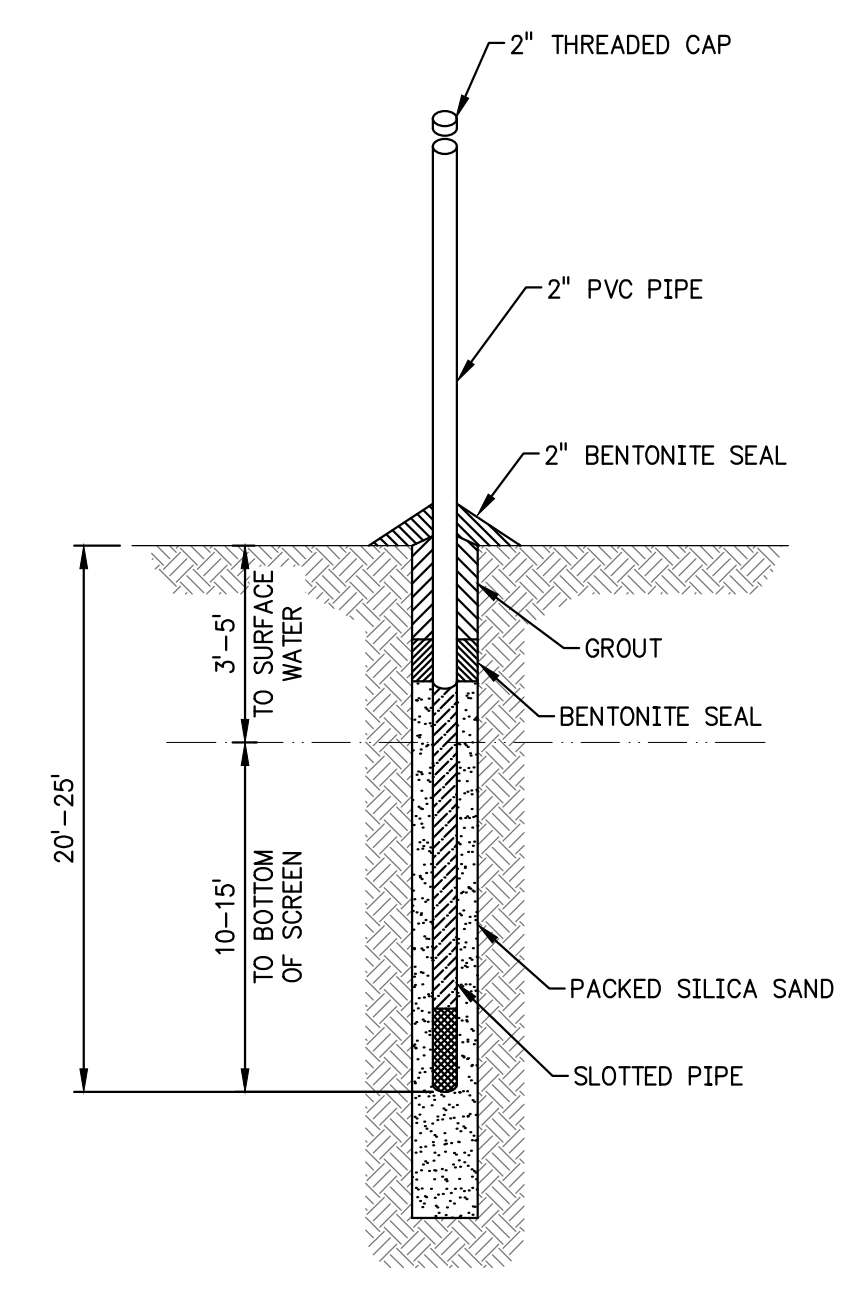
GENERAL NOTES

1. LOCATIONS ARE APPROXIMATE AND CONTRACTOR TO FINALIZE WITH ENGINEER PRIOR TO IMPLEMENTING WORK.
2. REFER TO TECHNICAL SPECIFICATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR ALL MOBILIZATION, SITE ACCESS, INCLUDING CLEANING, GRAVEL PAD, TEMPORARY WATER/POWER SUPPLY.
4. CONTINUOUS SOIL SAMPLING MAY BE REQUIRED PER REGULATORY REQUIREMENTS.
5. ALL MONITORING WELL SCREENS ARE TO BE PLACED SUCH THAT THE TOP OF THE WELL SCREEN IS A MINIMUM OF 5-10 FEET BELOW THE WATER TABLE.
6. GROUNDWATER SURFACE AND TOP OF WELL CASING ELEVATIONS ARE REQUIRED WITHIN 0.01 FOOT AT TIME OF INSTALLATION, FOR EACH WELL. USGS DATUM TO BE USED.



NOTE:
CONTRACTOR SHALL REMOVE TOPSOIL PRIOR TO PLACEMENT OF TEMPORARY DRIVE. TOP 12\"/>

TEMPORARY ACCESS DRIVE
NO SCALE

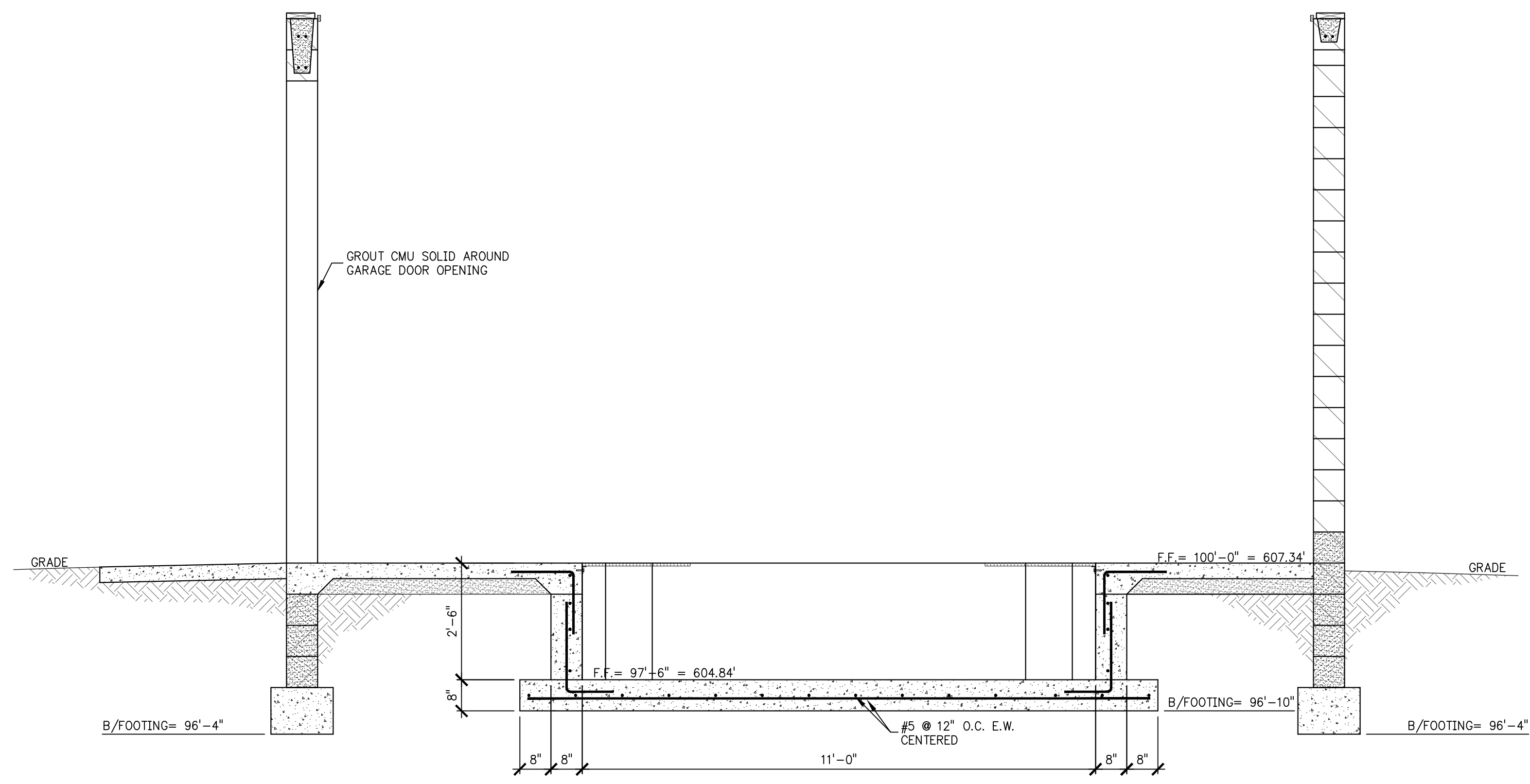


MONITORING WELL DETAIL
SCALE: NOT TO SCALE

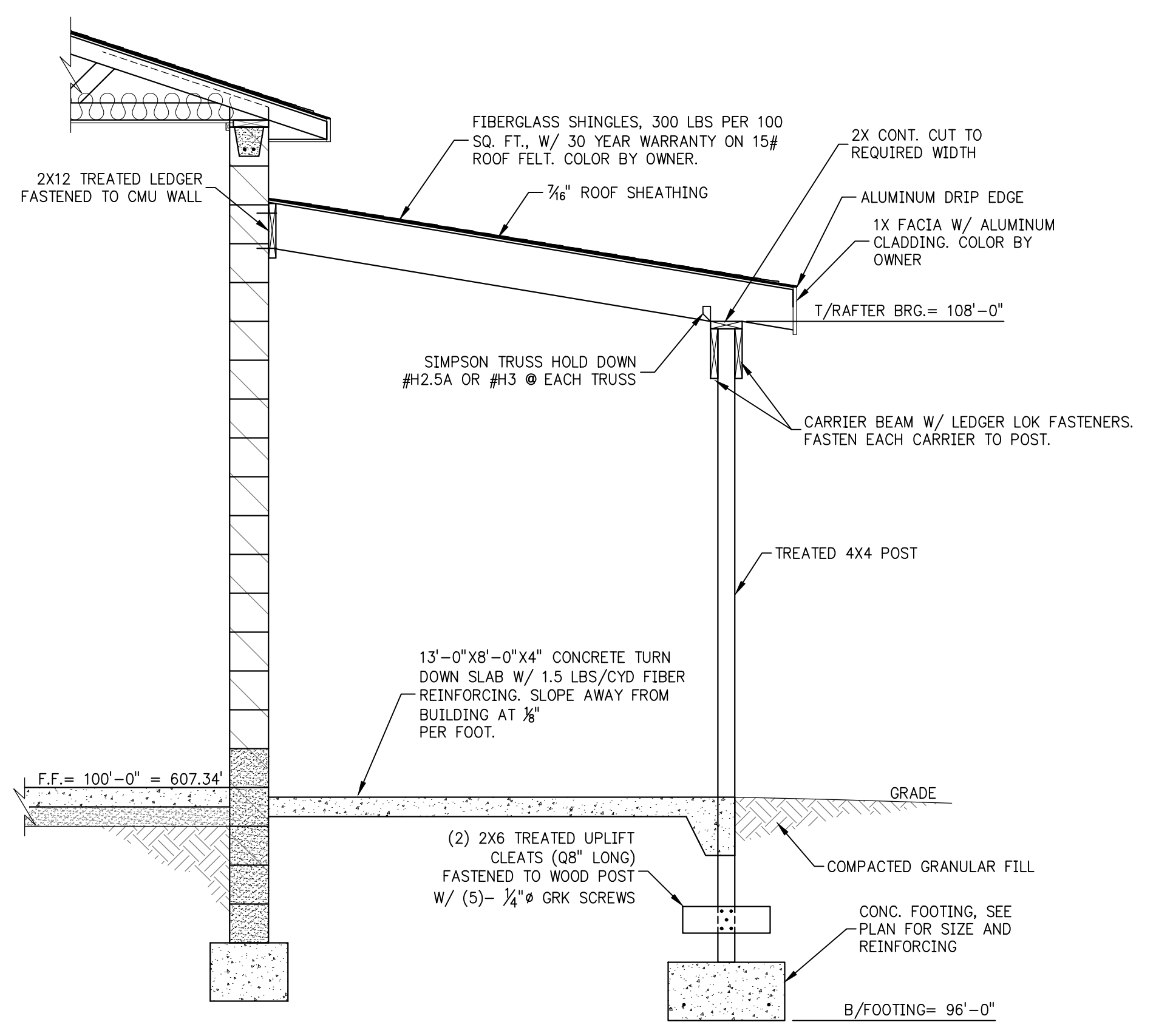
PROJECT: WASTE WATER TREATMENT PLANT IMPROVEMENTS, VILLAGE OF BELLAIRE, ANTRIM COUNTY, MICHIGAN

ENGINEERING SURVEYING TESTING & OPERATIONS 123 West Front Street Traverse City, MI 49684																										
http://gfa.io 231.946.5874 (p) 231.946.3708 (f)																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV#</th> <th>DATE</th> <th>BY</th> <th>CHK</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>02/28/2024</td> <td>CPB</td> <td></td> <td>ISSUED FOR C.E. REVIEW</td> </tr> <tr> <td>B</td> <td>4/10/2024</td> <td>AMB</td> <td></td> <td>ISSUED FOR PERMITS</td> </tr> <tr> <td>0</td> <td>5/24/2024</td> <td>AMB</td> <td></td> <td>ISSUED FOR BIDS</td> </tr> <tr> <td>1</td> <td>6/18/2024</td> <td>AMB</td> <td></td> <td>ADDENDUM #1</td> </tr> </tbody> </table>	REV#	DATE	BY	CHK	DESCRIPTION	A	02/28/2024	CPB		ISSUED FOR C.E. REVIEW	B	4/10/2024	AMB		ISSUED FOR PERMITS	0	5/24/2024	AMB		ISSUED FOR BIDS	1	6/18/2024	AMB		ADDENDUM #1	<p style="text-align: center;"> VILLAGE OF BELLAIRE WASTE WATER TREATMENT PLANT IMPROVEMENTS MONITORING WELL SITE PLAN SECTION 30, T.30 N., R.7 W. VILLAGE OF BELLAIRE, ANTRIM COUNTY, MICHIGAN </p>
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PROJECT: WASTE WATER TREATMENT PLANT IMPROVEMENTS, VILLAGE OF BELLAIRE, ANTRIM COUNTY, MICHIGAN SHEET: 24024 OF: C2.5																										

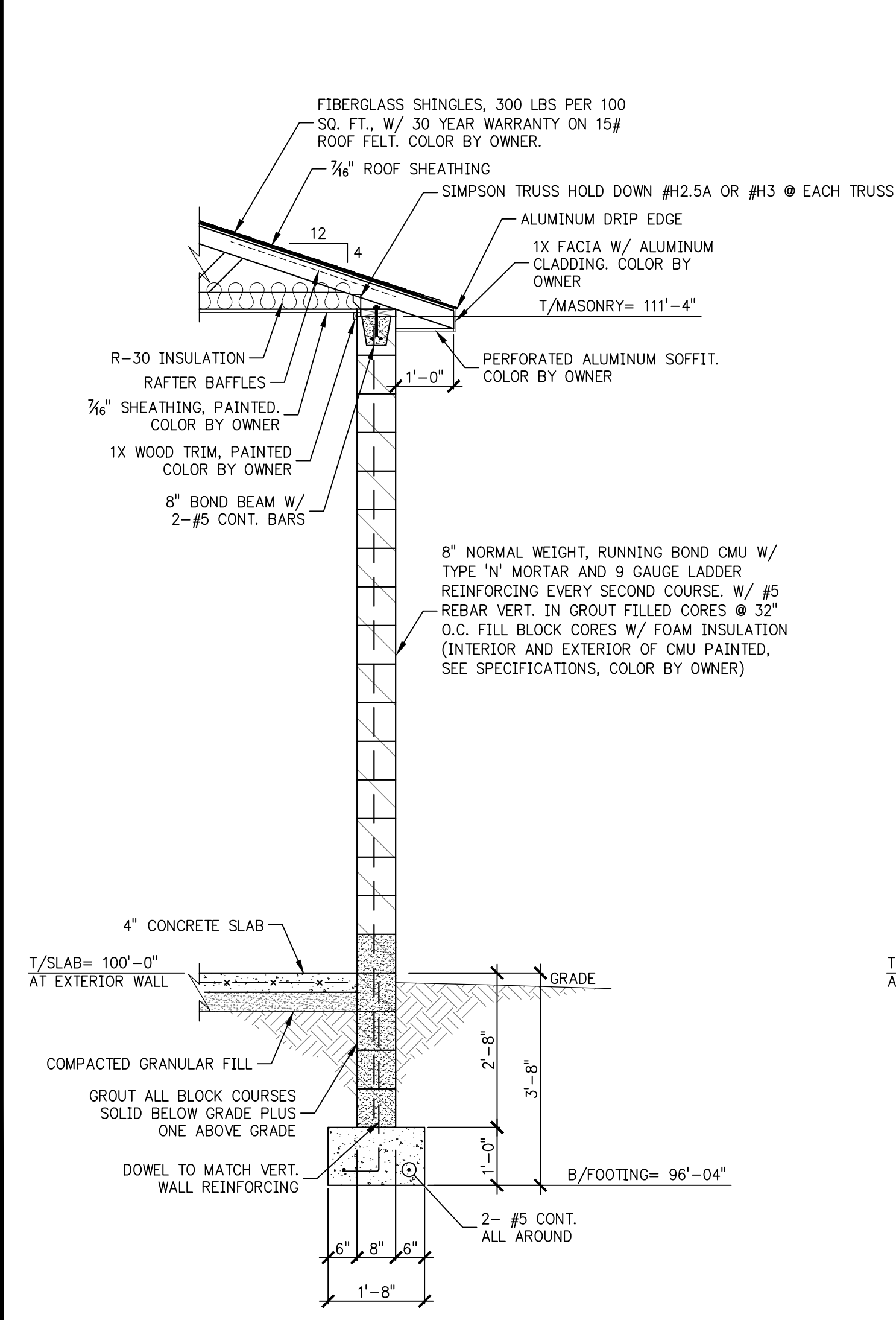
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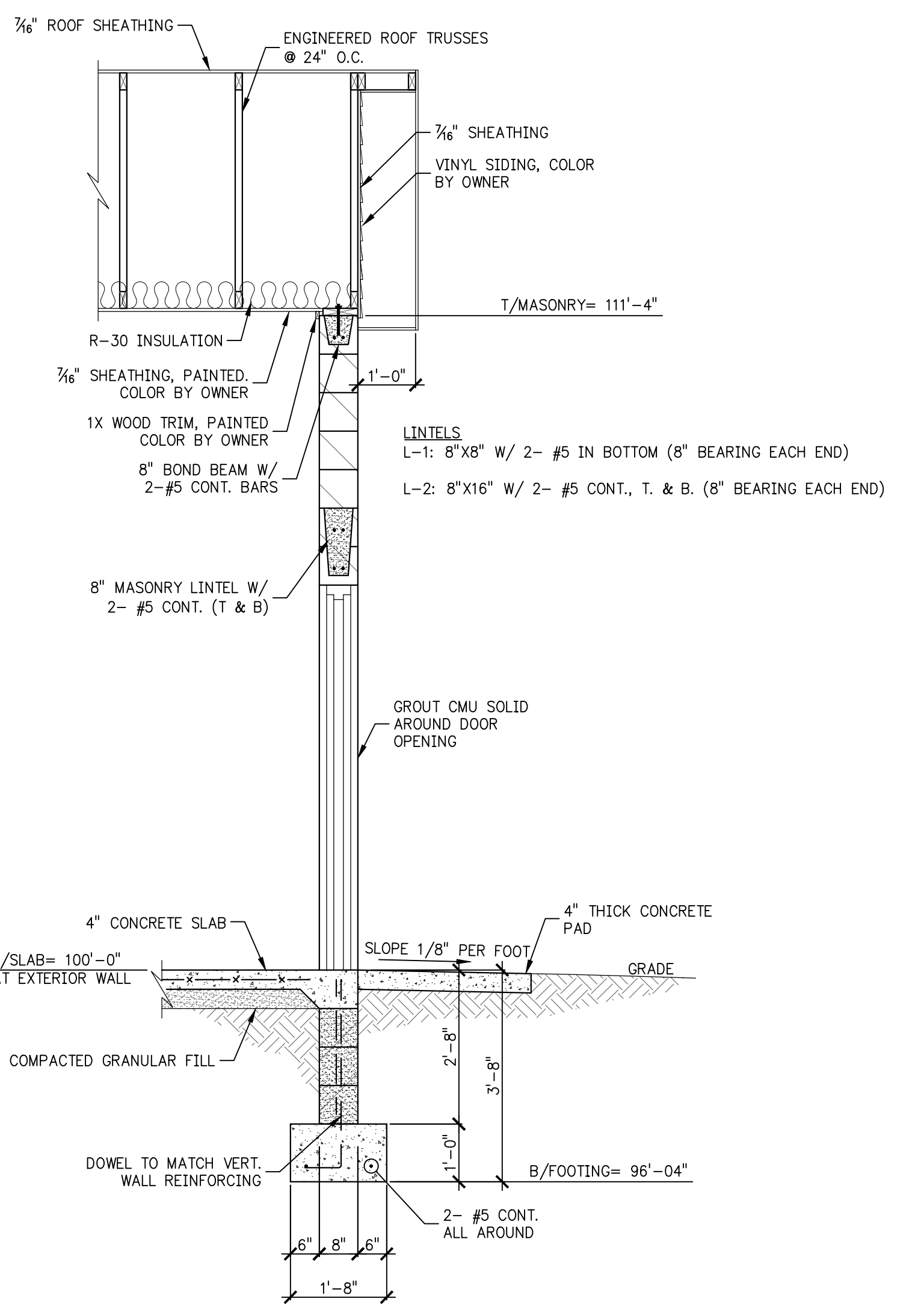
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A2.1 SECTION
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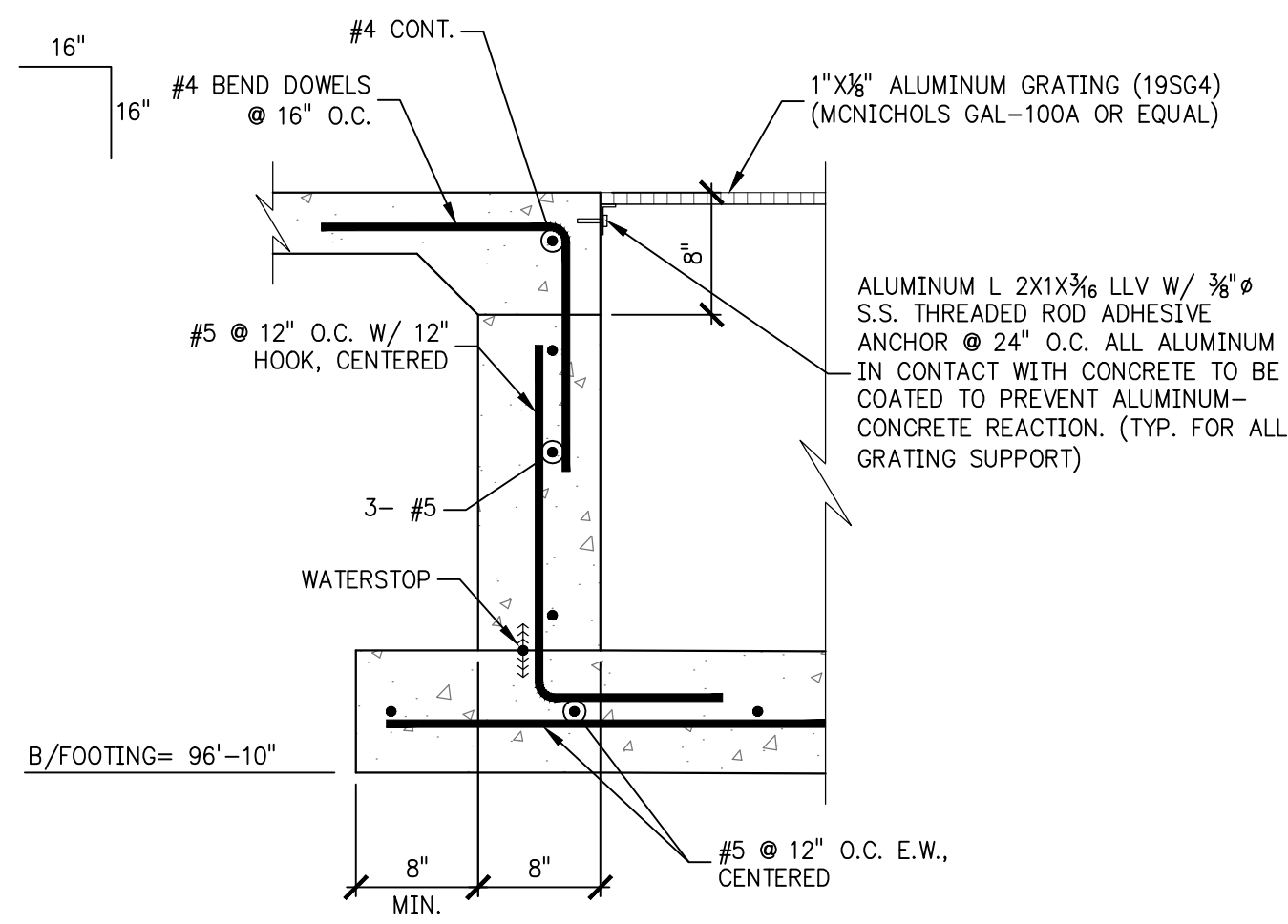
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A2.1 SECTION
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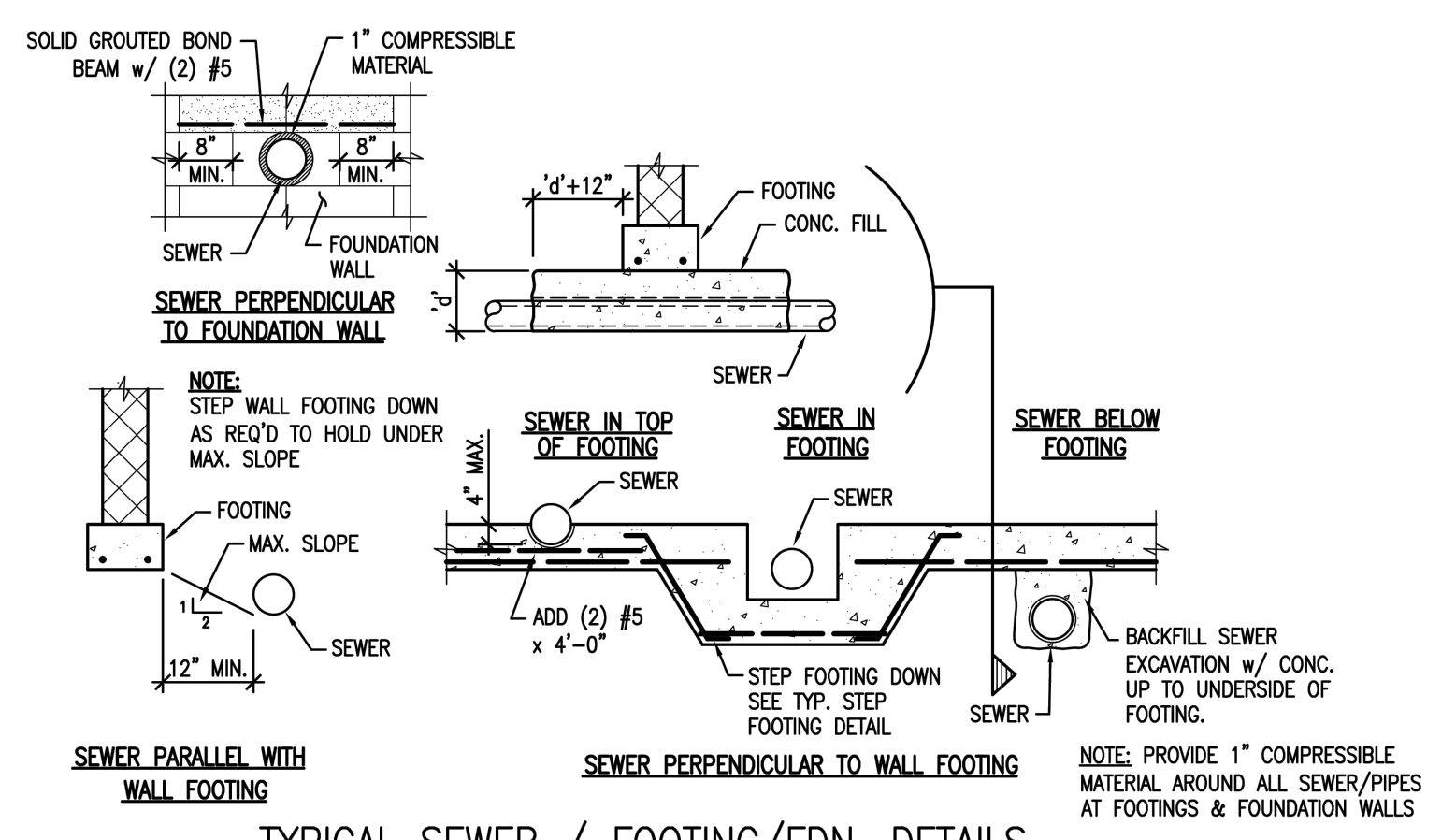
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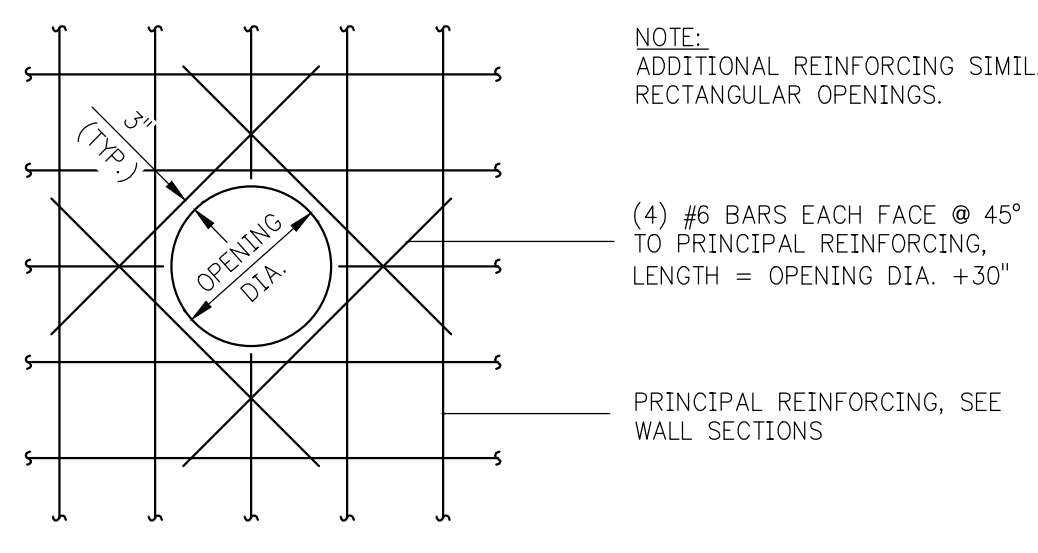
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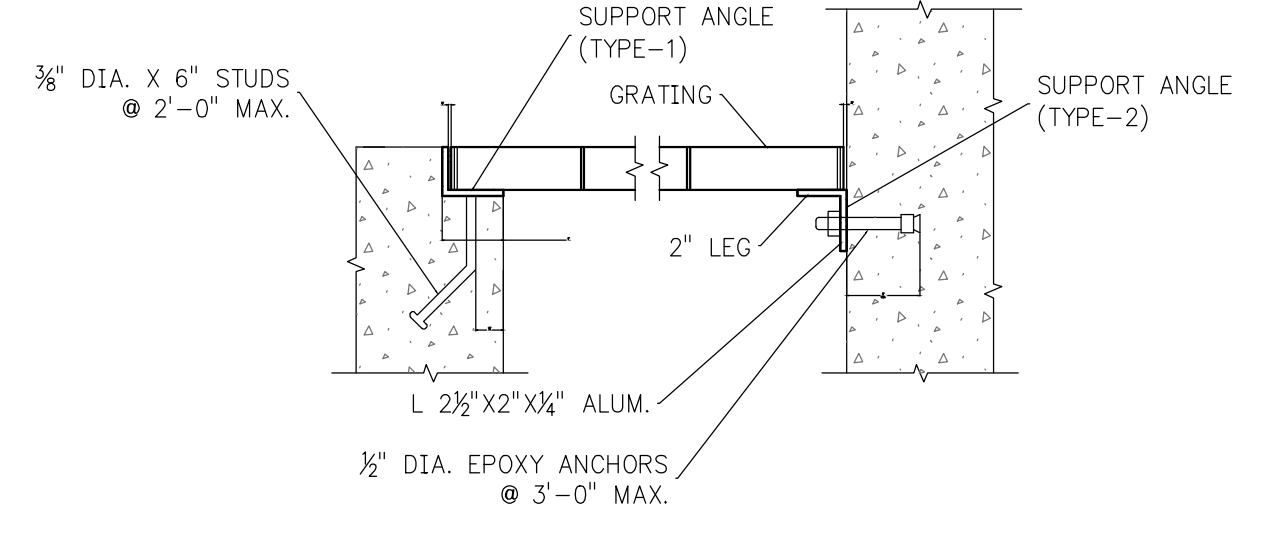
E
A2.1 DETAIL
SCALE: 1"=1'-0"



TYPICAL SEWER / FOOTING / FDN. DETAILS
NOTE: MECHANICAL PIPING & ELECTRICAL CONDUITS SIMILAR TO SEWER DETAILS



TYPICAL DIAGONAL REINFORCING AT WALL AND SLAB OPENINGS
SCALE: NOT TO SCALE



- NOTES:
- SUBSTITUTE GRATING SUPPORT ANGLES ACROSS OPENINGS WITH L 3x2x4, EPOXY ANCHOR BOTH ENDS OF ANGLE TO WALL W/ 1/2" DIA. ANCHORS.
 - GENERAL CONTRACTOR SHALL CUT GRATING SUPPORT ANGLES WHERE NECESSARY FOR CLEARANCE W/ STOP PLATE GROOVES.
 - ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL HAVE BITUMASTIC COATING OR EQUAL.
 - GRATING SCHEDULE:
- | SIZE | SUPPORT ANGLE | MAX. SPAN |
|---------------|--------------------|-----------|
| 1 1/2" x 3/8" | 1 3/4" x 2" x 1/4" | 4'-0" |
| 2" x 3/8" | 2 1/2" x 2" x 3/8" | 5'-0" |
- ALL GRATING SUPPORT ANGLES SHALL BE TYPE-2 UNLESS NOTED OTHERWISE.

TYPICAL GRATING DETAIL
SCALE: NOT TO SCALE

REV#	DATE	BY	CHKD	DESCRIPTION
A	02/26/2024	CPB	ISSUED FOR COLLE REVIEW	
B	4/10/2024	AMB	ISSUED FOR PERMITS	
0	5/24/2024	AMB	ISSUED FOR BIDS	
1	6/16/2024	AMB	ADDENDUM #1	

PANEL #PP-H		200 AMPS M.C.B. 480V-3Ø -3W SQUARE D TYPE NF NEMA 4X SURFACE PANEL WITH TRIM KIT, GROUND BAR KIT, COPPER MAINS, AND SOLID NEUTRAL.					
CIR NO.	AMP/ POLES	DESCRIPTION	LOAD	LOAD	DESCRIPTION	AMP/ POLES	CIR NO.
1							2
3	15/3*	MUA-1 - 1.6 MCA	1275	1458	CP-1 - M-1, & M-2 0.25 HP LOW FLOW	15/3*	4
5					0.5 HP LOW FLOW WASHER COMPACTOR		6
7	15/2	TX-H - HEADWORKS - 7.5KVA	1838	49218	CP-2 - M-3 & M-4 - BLOWERS 1 & 2	100/3*	8
9					50 HP EACH (BLOWERS DO NOT RUN OR START SIMULTANEOUSLY)		10
11	--	SPACE	--	--	SPACE	--	12
13	--	SPACE	--	--	SPACE	--	14
15	--	SPACE	--	--	SPACE	--	16
17	--	SPACE	--	--	SPACE	--	18
19	--	SPACE	--	--	SPACE	--	20
21	--	SPACE	--	--	SPACE	--	22
23	--	SPACE	--	--	SPACE	--	24
25	--	SPACE	--	--	SPACE	--	26
27	--	SPACE	--	--	SPACE	--	28
29	--	SPACE	--	--	SPACE	--	30

TOTAL PANEL LOAD = 53,789 W - 64.7 A

- Ⓞ DENOTES CIRCUIT REQUIRED TO PASS THRU LIGHTING CONTROL PANEL.
- ⓐ DENOTES ARC FAULT CIRCUIT INTERRUPTER (AFCI) CIRCUIT BREAKER REQUIRED.
- ⓑ DENOTES GROUND FAULT CIRCUIT INTERRUPTER (GFCI) CIRCUIT BREAKER REQUIRED.
- ⓒ DENOTES CIRCUIT BREAKER WILL REQUIRE SHUNT-TRIP OR TO BE RUN THROUGH SHUNT-TRIP CONTACTOR.
- ⓓ DENOTES BREAKER LOCK REQUIRED ON CIRCUIT BREAKER.
- ⓔ DENOTES 30mA GROUND FAULT EQUIPMENT PROTECTION (GFEP) CIRCUIT BREAKER REQUIRED.
- * DENOTES CONTRACTOR TO CONFIRM EXACT CIRCUIT BREAKER SIZE WITH EQUIPMENT SUBMITTALS.

PANEL #LP-H		30 AMPS M.C.B. 120/240V-1Ø -3W SQUARE D TYPE QO NEMA 4X SURFACE PANEL WITH TRIM KIT, GROUND BAR KIT, COPPER MAINS, AND SOLID NEUTRAL.					
CIR NO.	AMP/ POLES	DESCRIPTION	LOAD	LOAD	DESCRIPTION	AMP/ POLES	CIR NO.
1	20/1	LIGHTS - INTERIOR & EXTERIOR	422	456	EF-1	20/1	2
3	20/1	RECEPTACLES - EXTERIOR	360	--	SPARE	20/1	4
5	20/1	CP-3 - GAS MONITORING CONTROL PANEL	600	--	SPARE	20/1	6
7	--	SPACE	--	--	SPARE	20/1	8
9	--	SPACE	--	--	SPARE	20/1	10
11	--	SPACE	--	--	SPACE	--	12
13	--	SPACE	--	--	SPACE	--	14
15	--	SPACE	--	--	SPACE	--	16
17	--	SPACE	--	--	SPACE	--	18
19	--	SPACE	--	--	SPACE	--	20

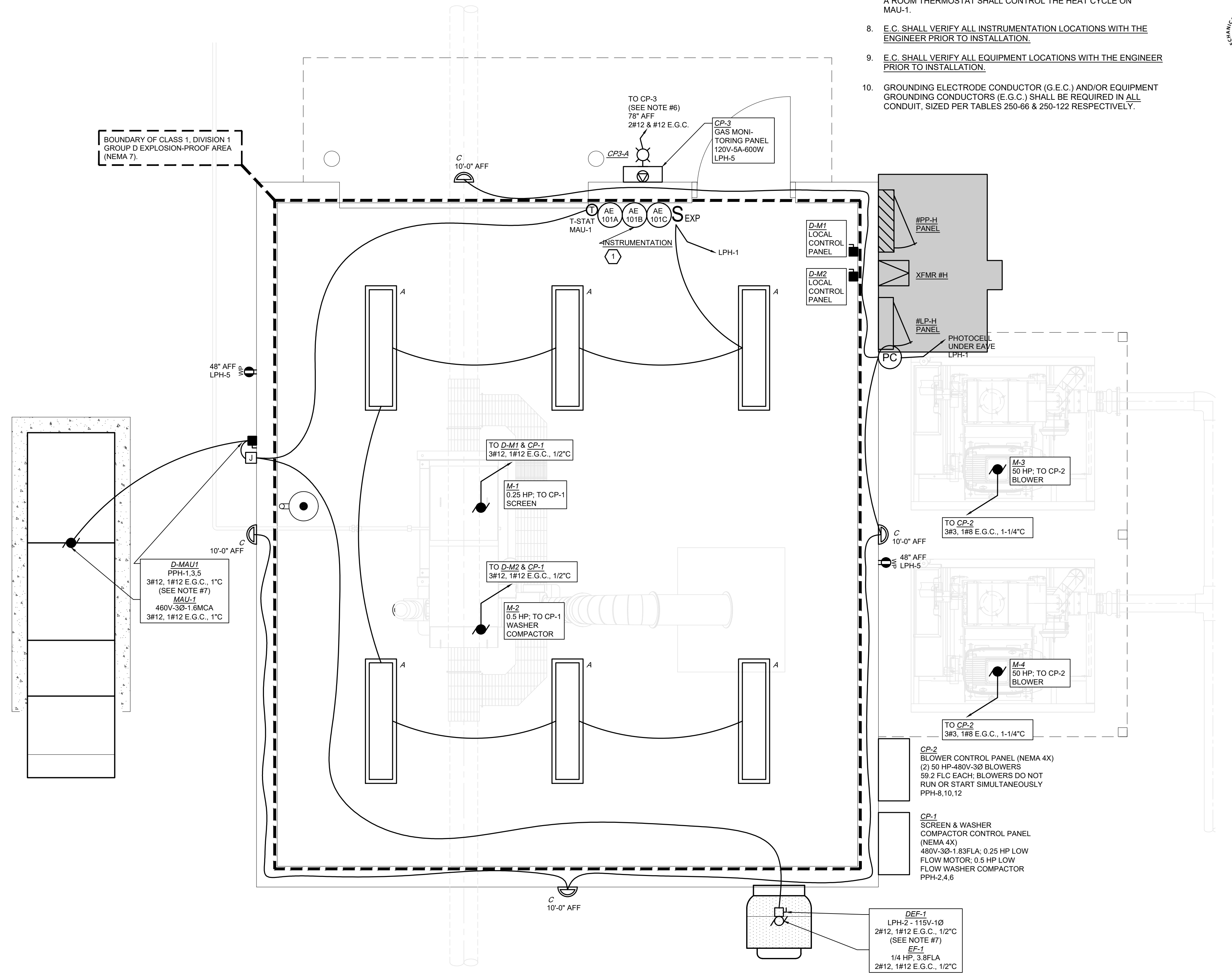
TOTAL PANEL LOAD = 1,838 W - 7.66 A

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INSTRUMENTATION PLAN NOTES

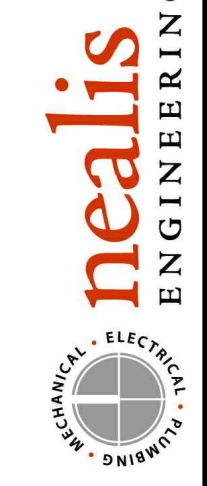
- INSTRUMENTATION AND CONTROL PER SPECIFICATIONS SECTION 407000.
- COORDINATE LOCATIONS OF PANELS, TRANSMITTING DEVICES, ETC. WITH ENGINEER IN SHOW DRAWING SUBMITTALS.

- NOTES**
- ALL ELECTRICAL EQUIPMENT AND WIRING METHODS SHALL MEET LATEST ENFORCEABLE EDITION OF THE N.E.C. CLASS 1, DIVISION 1, GROUP C & D, HAZARDOUS LOCATIONS IN SCREENING ROOM #100.
 - ALL ELECTRICAL PIPING IN CLASS 1, DIVISION 1, GROUP C & D SHALL BE PVC COATED RIGID CONDUIT, SURFACE MOUNTED. ALL OTHER CONDUIT SHALL BE (GRS) UNLESS NOTED OTHERWISE ON DRAWINGS. USE PVC CONDUIT STRAPS.
 - NOT USED
 - NOT USED
 - NOT USED.
 - STROBE WARNING LIGHT (1) SUPPLIED BY CONTROL PANEL MANUFACTURER (CP-3). INSTALLED & WIRED BY E.C.
 - T.C.C. SHALL INTERLOCK MAU-1 AND EF-1 TOGETHER THROUGH RELAY/CONTACTOR. JUNCTION BOX SHALL BE NEMA #4X ENCLOSURE. BOTH MAU-1 AND EF-1 SHALL RUN TOGETHER. A ROOM THERMOSTAT SHALL CONTROL THE HEAT CYCLE ON MAU-1.
 - E.C. SHALL VERIFY ALL INSTRUMENTATION LOCATIONS WITH THE ENGINEER PRIOR TO INSTALLATION.
 - E.C. SHALL VERIFY ALL EQUIPMENT LOCATIONS WITH THE ENGINEER PRIOR TO INSTALLATION.
 - GROUNDING ELECTRODE CONDUCTOR (G.E.C.) AND/OR EQUIPMENT GROUNDING CONDUCTORS (E.G.C.) SHALL BE REQUIRED IN ALL CONDUIT, SIZED PER TABLES 250-66 & 250-122 RESPECTIVELY.



ELECTRICAL FLOOR PLAN
SCALE: 1/2" = 1'-0"

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gfa
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123 West Front Street
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REV#	DATE	BY	CHKD	DESCRIPTION
A	10/18/2024	CPB		ISSUED FOR E.C. REVIEW
B	10/18/2024	AMB		ISSUED FOR E.C. PERMITS
C	10/24/2024	AMB		ISSUED FOR BIDS

VILLAGE OF BELLAIRE
WASTE WATER TREATMENT PLANT IMPROVEMENTS
HEADWORKS BUILDING ELECTRICAL FLOOR PLAN
SECTION 30, T.30 N., R.7 W.
VILLAGE OF BELLAIRE, ANTRIM COUNTY, MICHIGAN

PROJECT	JENNIFER GRAHAM, P.E.
DATE	J. VanBrooklin A. BELANGER
NO. NO.	24024
NO. NO.	E1.1

These documents are prepared in accordance with the contractual terms and conditions for this project.

SECTION 02250 – BIOSOLIDS REMOVAL, TRANSPORTATION, & DISPOSAL

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This Section of specifications includes all Work and Items necessary for the removal, testing and disposal of biosolids present in the lagoons at the Village of Bellaire Wastewater Treatment Plant. The work under this Section includes the following:
1. Removal and disposal of wastewater biosolids.
 2. Testing of materials.
 3. All temporary means needed to prevent discharge of biosolids to watercourses because of dewater systems or erosion.
 4. Site restoration/site improvements to facilities access.

1.2 QUALITY ASSURANCE

1. The services of an independent qualified testing laboratory shall be engaged by the Contractor to make tests and determine acceptability of the materials for disposal.

1.3 SUBMITTALS

- A. Contractor shall submit information regarding the following applicable items for approval:
1. Detailed description of the proposed lagoon cleaning procedures and methods including materials and equipment used to remove biosolids from the lagoon and lagoon cleaning operation.
 2. Detailed description of biosolids pumping system including procedures for testing and transport of removed biosolids to disposal facilities/locations (if applicable).
 3. Certification from landfill and/or field that will accept biosolids removed from lagoons when applicable.
 4. Trucking licenses from approved material haulers.
 5. Approval of Residuals Management Plan by EGLE, if land applied.

1.4 REGULATORY REQUIREMENTS

- A. Permits and Regulations:
1. All work must be in accordance with approved Residuals Management Plan per EGLE NPDES Permit No. MI0044873, the Residuals Management Plan and NPDES Permit have been provided within these contract documents.
 2. The Contractor shall obtain all necessary permits and shall pay all associated costs for obtaining the permits necessary for removal, transport and disposal of all materials removed from the lagoons. The Contractor shall comply with all provisions of these permits at his own expense. This site Residuals Management Plan (RMP) approved by the

State of Michigan Department of Environment, Great Lakes & Energy (EGLE) is attached to these contract documents. It will be the responsibility of the Contractor to collect the necessary information to complete updates to the existing RMP on behalf of the Village of Bellaire, in accordance with existing NPDES permit requirements. This work will include but is not limited to any sample collection and analysis of bio-solids and soils, determination of agronomic rates for the sub-surface injection of bio-solids and agreements with landowners for appropriate agricultural land use. The Owner shall be responsible for payment of the annual bio-solids land application fee as levied by the State of Michigan Department of EGLE associated with the application of bio-solids land applied during this project.

3. Sampling requirements shall be in accordance with current EGLE requirements for biosolids removal and land application which shall include at a minimum PFAS, metals, nutrients, and fecal coliform testing of biosolids removed from EACH lagoon. A minimum of one sample per lagoon is required.
4. The Contractor shall, in addition to items outlined above, obtain all additional permits, provide insurance, bonds and guarantees, and all else required by the governing authorities at his own expense. The Contractor's responsibility under this paragraph may include, but is not limited to the following:
 - a. Constructing and removing temporary facilities and structures.
 - b. Provide details of construction methods.
 - c. Reimbursing the applicable authority (electrical utility, Road Commission, etc., if applicable) for any and all expenses incurred by them in connection with the Work.
 - d. Coordination of scheduling with the Village of Bellaire DPW.
 - e. Necessary cleanup and restoration.

PART 2 PRODUCTS

2.1 CLAY MATERIALS - CLAY LINER REPAIR, AS APPLICABLE

- A. Refer to specification 02260 Lagoon Berm Repairs.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

- A. In general, the work under this Section consists of the following:
 1. Removal of all accumulated biosolids from the lagoons to a maximum elevation 6 inches above the top of the existing clay liner or such elevation as indicated on the Drawings. Removal shall include all materials from bottom elevation of lagoons and along the side slopes of lagoons.
 2. Responsible to provide all equipment, labor and temporary facilities including electricity to complete work.
 3. Collection, handling and disposal of biosolids as a result of the lagoon cleaning operations.
 4. Additional sampling and testing of the biosolids generated from the removal operations as necessary to meet the disposal site requirements.

5. Loading, hauling, transportation and subsurface injection disposal of the removed biosolids at approved agronomic rates and in compliance with CFR40 Part 503, sub part B “Land Application” and sub part D “Pathogen and Vector Attraction Reduction” and the Part 24 Rules of Part 31 of the Michigan Natural Resources and Environmental Protection Act (NREPA). If biosolids are to be landfilled the contractor shall insure the landfill is appropriately permitted by the State of Michigan and that the waste complies with Part 115 of the NREPA. Any biosolids deemed to meet the criteria of hazardous waste shall be disposed of in compliance with Part 111 of the NREPA. The contractor will not be required to dispose of hazardous waste under this contract.
6. Final site cleanup and restoration of areas damaged or disturbed during the removal operations.
7. Completion of an approvable Michigan Department of Environment, Great Lakes & Energy Residuals Management Plan Application as described in Part 1.4 A.1 of this specification.
8. Loading, hauling, and transportation shall not result in spillage of biosolids on roads or other public areas.
9. In the event of a spill, Contractor shall perform immediate cleanup.

3.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. The Contractor shall comply with all applicable federal, state and local laws and ordinances required for removal, transport and disposal of biosolids generated from the work under this Project.
- B. The Contractor shall be responsible to obtain all necessary permits for execution of the Work and will be responsible to pay all costs associated with obtaining the permits and meeting the requirements of the permits. Permits under this section may include transportation and disposal permits.

The Contractor shall obtain all required permits prior to the start of the work and shall deliver a copy of each permit to the Engineer prior to starting the work on the Contract.

3.4 SITE CONDITIONS

- A. Existing Structures: Shown on the Contract Drawings are certain surface and underground structures adjacent to the Work. This information has been obtained from existing records. It is not guaranteed to be correct or complete and is shown for the convenience of the Contractor. Contractor shall explore in advance of the required work to determine the exact location of all structures. They shall be supported and protected from injury by the Contractor. If they are destroyed or damaged, they shall be restored immediately by the Contractor at his expense.
- B. Existing Utilities: Locate existing underground utilities in the areas of Work. If utilities are to remain in place, provide adequate means of protection during operations.
 1. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult the Engineer immediately for directions as to procedure. Cooperate

with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner.

2. Do not interrupt existing utilities serving facilities occupied and used by Owner or others, except when permitted in writing by Engineer and then only after acceptable temporary utility services have been provided and all affected customers of the utility notified of the proposed interruption.
3. Demolish and completely remove from Site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.
4. Protect, support, and maintain all utilities during the course of the work. Should any utilities be damaged, they shall be repaired or replaced in a manner satisfactory to the Engineer and the Owner. All costs of repair or replacement shall be the responsibility of the Contractor.

3.7 REMOVAL AND DISPOSAL OF BIOSOLIDS

- A. Prior to the start of the excavation work on the Project, the Owner will shut down one lagoon and lower the water levels using existing drainage facilities. All facility operations is to be completed by DPW staff only, Contractor to coordinate with Owner for modifications in liquid levels within the ponds.
- B. The Contractor shall be advised that there may be standing water in the lagoons after the Owner lowers the water levels. The Contractor shall furnish and operate pumping systems as necessary to complete the biosolids removals and the associated lagoon modifications.
- C. The Contractor shall furnish, operate, and maintain all necessary collection systems, piping, pumps and other equipment required to complete the biosolids removal operations. The Contractor shall modify his equipment and procedures as necessary during removal operations as dictated by the Site conditions. All biosolids removal operations and disposal of biosolids shall be approved by the Engineer and Owner.
- D. The Contractor shall be responsible for all laboratory testing of biosolids as may be required for disposal. Laboratory testing of biosolids is required to meet disposal requirements, the Contractor shall furnish the services of an independent testing laboratory to complete the tests.

3.8 EXCAVATION AND DISPOSAL OF BIOSOLIDS

- A. The Contractor shall excavate, remove and dispose of all biosolids from the lagoons as described herein.
- B. The Contractor is responsible for all means and methods used for the removal of biosolids from the lagoons; however, any methods used shall be approved by the Engineer. The Contractor's selections of equipment and methods used to remove the biosolids from the lagoon shall take into account the construction of the existing lagoons to be cleaned, the size of available work areas, Owner's operations in the area and any other factors which may affect the work under this Contract.
- C. The Contractor shall remove biosolids in the lagoons including the embankments to a depth that is 6 inches above the existing clay liner. If variations in the elevation of the clay liner exist, the

Contractor shall remove biosolids to such elevations as established by the Engineer. The Contractor shall use care when excavating and removing biosolids from the lagoons so as not to over excavate to or below the clay liner. Any over excavation caused by the Contractor's operations may result in removal of sections of the clay liner.

In the event that the clay lining is damaged or disturbed during excavation operations, the lining shall be repaired with new clay materials as specified herein. Repairs shall not be made with disturbed materials. All repairs to the clay liners shall be the responsibility of the Contractor and shall be at his cost and expense. All repairs to the clay liner shall be approved by the Engineer. Except for areas identified for repair as noted on the plans. Refer to specification 02260.

- D. The Contractor shall provide vehicles, pumps, equipment, and operators to load and transport the biosolids from the identified lagoons, or other facilities of the Village as required, to the field sites.
- E. The Contractor shall provide adequate equipment to facilitate removal of biosolids within a maximum of thirteen (13) days per lagoon, or as directed by the WWTP Operator. Contractor responsible to provide appropriate quantity of hauling trucks / licensed haulers to accommodate timeframe of removal.
- F. The Contractor shall safely drive and park his equipment at designated areas at the wastewater treatment plant and as indicated on plans.
- G. The Contractor desiring to modify existing loading facilities must submit the plan to the Village for approval.
- H. The Contractor shall be responsible for immediate cleanup of any spilled biosolids on the plant site and shall include the loading areas and roadways. Said cleanup shall include sweeping, shoveling, or washing equipment and/or road areas. Wherever possible, sweeping or shoveling shall be used for cleanup with any washing done so as to use as little water as possible. The Contractor shall provide all cleanup equipment.
- I. Upon completion of the excavation and removal operation, the Contractor shall uniformly grade the bottom and embankments of the lagoons, including adjacent transition areas. Provide smooth subgrade surfaces with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- J. The methods employed by the Contractor to load, haul and transport removed biosolids shall meet all permit requirements and laws and ordinances in effect at the time of hauling and transport. Contractor shall furnish bed liners, covers, sealed tank trucks, and any other equipment necessary to prevent biosolid spillage or seepage during hauling and transport. The Contractor shall be responsible for all costs for cleanup of any spilled materials between the Project and disposal sites.
- K. The Contractor shall coordinate his hauling and transport operations with the Owner's operations. Any hauling operations by the Contractor shall be scheduled in advance with the Owner and Engineer in order to avoid conflicts with the Owner's operations. The Owner will designate routes or roadways at the Bellaire Wastewater Treatment Plant site for the use by the Contractor.

3.9 TRANSPORTATION

- A. The Contractor shall provide operators and equipment approved for biosolids transport from the wastewater treatment plant to the application site. The Contractor will also comply with all Federal, State, County, and Local regulations affecting the transport of biosolids.
- B. The transportation routes shall be designed to minimize travel through densely populated areas. Proposed routes will be reviewed and approved by the Village prior to transport.
- C. The Contractor shall comply with load restrictions placed on certain roads, including when "frost restrictions" are in effect. There will be no additional compensation allowed in the unit price for biosolids hauled during "frost restrictions" on roads.
- D. Loading of vehicles will be such that biosolids are not spilled from the vehicles while enroute. All vehicles will be cleaned of any biosolids outside the load area prior to leaving the treatment plant and again prior to leaving the application site. The Contractor will be responsible for any spilled biosolids during transportation activities.
- E. If there are complaints about the odor or spillage from transportation equipment, the Contractor shall take the necessary steps to correct the complaints.

3.10 WORK AREAS

- A. The Contractor shall confine his work and operations to the limits of work areas designated by the Owner for this Contract. Any damage resulting from work outside the limits of work areas shall be restored and shall be subject to approval by the Engineer.

3.11 SITE RESTORATION

- A. Upon completion of the Work under this Contract, restore site to pre-construction conditions in accordance with technical specification 01930 Restoration.

3.12 RESTORATION OF LAGOON EMBANKMENTS

- A. Contractor shall be responsible for restoration of lagoon embankments damaged during the work and additional existing damaged areas identified on the plans. Refer to specification 02260. Embankments include internal and external sloped areas and tops of the lagoon dikes. Restoration shall match existing embankment structure and may include structural clay liner, rip-rap surface protection and top soiled grass covered areas.

END OF SECTION 02250