

Lemon Creek Ranch Lift Station RFCSP Solicitation Number: CO-00490 Job No.: 21-3000

ADDENDUM 3 December 15, 2021

To Respondent of Record:

This addendum, applicable to work referenced above, is an amendment to the bid proposal, plans and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the Respondent Questionnaire.

CHANGES TO SPECIFICATIONS

1. **REQUEST FOR COMPETITIVE SEALED PROPOSALS.** The last three paragraphs are hereby modified to read as follows:

Due to the COVID-19 emergency and to protect the health of the public, SAWS is implementing new procedures for the submission of proposals. Proposals will be received electronically only, until 10:00 AM (CDT), December 22, 2021 (CDT). Electronic proposals will be received via the secure SAWS FTP site. See the Electronic Proposal Opening Instructions attachment for additional information regarding an electronic proposal submittal. Electronic proposals shall be accompanied by a bid bond in an amount not less than five percent of the total proposal price. (Or, if providing SAWS with a cashier's check or certified check in an amount not less than five percent of the total proposal price, SAWS will request this within 24 hours from the Respondent who did not submit a bid bond). Proposals will then be publicly opened and read aloud by Contract Administration via WebEx.

https://saws.webex.com Meeting number (access code): 2483 212 1025 Meeting password: eFiDkD5Um32 Audio Connection: (210) 233-2090

Respondents will need to submit a request by **December 21, 2021 at 10:00 AM (CDT)** to receive access to the File Transfer Protocol (FTP) site via email to florinda.gonzales@saws.org. Respondent's email requesting access to the FTP site shall provide the legal name of Respondent's company and the intended recipient's email address and phone number. No requests for FTP site access will be accepted after **December 21, 2021 at 10:00 AM (CDT)**."

- 2. Remove and replace entire "Bid Proposal" with the attached updated Bid Proposal. Construction Duration has been revised. Line item 1 has been revised. Alternate bid items have been removed. Bidders shall use the revised bid proposal when submitting a bid for this project. Failure to use the revised version may result in the bid being found non-responsive.
- **3.** Remove and replace entire "Proposal Certification" PC-1 with the attached updated Proposal Certification PC-1. Construction Duration Has Been Revised.
- 4. Remove and replace "Special Conditions" with the attached updated Special Conditions.

5. Remove and replace the Specifications Table of Contents with the attached updated Table of Contents. Specification 02741 has been removed from the table of contents. Specification 264510 has been updated to Specification 264511 in the table of contents.

CHANGES TO PLANS

- 1. Remove and sheets S1-A, S2, S2A, S3, S3A, S4, S4A, S5, S5A, S6-A, S7-A, S8, and S9. Replace with new sheets S1-S11 included in this addendum.
- 2. Remove and replace sheet LS17 with the version included with this addendum.
- 3. Remove and replace sheet E8 with the version included with this addendum.

RESPONSES TO QUESTIONS

- 1. Question: With the current market conditions/lead times and solid rock site conditions, the 12 month contract duration is nearly impossible. Will consideration be given to extending the contract length? We would recommend 16 months.
 - *Response:* The contract duration for this project has been revised to substantial completion within 365 consecutive calendar days after notice to proceed and full completion within 425 calendar days after notice to proceed. Substantial completion and full completion are defined in Special Condition 2.0.
- 2. Question: Also, will 7 day work weeks be allowed?
 - *Response:* Work on Sundays will not be allowed. Work on Saturdays may be allowed with approval by SAWS on a week-to-week basis.
- 3. Question: Can you please provide me with the flow data of the line to be bypassed (sheet G18)? Also, will we need to trench the bypass discharge line under Nichols Creek to keep the road open?
 - *Response:* Peak Wet Weather Flow for this pipe is 1.36 mgd. Contractor is to assume full-flow conditions for bidding purposes.

Per SAWS specification 865.3 (w) Contractor shall maintain pedestrian and vehicular traffic and comply with ADA regulations for access to all residential and commercial property unless written approval is otherwise obtained from the property owner allowed for reduced access. Installing sewer line underground or utilizing vehicular ramps is acceptable.

- 4. Question: Specifications 02741 and 264510 are missing per the Table of Contents for the Lemon Creek Ranch Lift Station.
 - Response: Please refer to updated Table of Contents provided in this Addendum. Specification 02741 has been removed from the table of contents. Specification 264510 has been updated to Specification 264511 in the table of contents. Any reference to Specification 264510 should instead reference Specification 264511.
- 5. Question: Can y'all extend the deadline for questions at least another week? It is extremely difficult to get feedback/concerns from vendors and subcontractors when the deadline is almost 3 weeks before the bid date.

Response: Deadline for questions was extended to December 8^{th} per Addendum 1.

- 6. Question: The 8.96 LF of 15" PVC entering the lift station from the manhole is the same size as the two 15" PVC lines bringing flow to that manhole. Can you consider upsizing the 15" PVC stub out entering the lift station?
 - *Response:* Yes, sewer line on sheet LS 4 from manhole 1+08.92 to Wet Well were updated from 15-inch sewer line to a 24-inch sewer line. See revised sheets provided in Addendum 2.
- 7. Question: Cannot find any details on the HVAC system requirements for this project. Referencing sheet LS16, E9 etc. and cannot find any Basis of Design for the HVAC equipment, duct sizes, grill selections etc. The only reference I see is Specs Section 13120 Precast building para 2.06 which provides a small detail of the HVAC units. Want to ensure that there isn't any additional requirements that have not been released.
 - Response: Additional dimensions have been added to sheet LS17. There are no additional requirements for the HVAC system. The HVAC system specified in Specification Section 13120 Precast Electrical Building paragraph 2.06 has been designed per SAWS cooling/heating requirements and building insulation requirements which include the following:
 - Maintaining an internal temperature of 70 degrees while the external ambient temperature is 105 degrees.
 - Maintaining an internal temperature of 45 degrees while the external ambient temperature is 25 degrees.
- 8. Question: My suppliers for cement treated base have all come back and said that they are out of it. Can you please let me know if lime would be an acceptable replacement instead of the cement treated base?
 - *Response:* No. Based on Bexar County Requirements, Lime will not be an acceptable replacement. Only cement stabilized base or flowable fill will be accepted.
- 9. Question: On drawing E9 you show the Pump Control Panel as a double door enclosure. On drawing E10 you show the same panel as a single door enclosure. Please advise?
 - Response: The Pump Control Panel is double door, as shown on drawing E9 and E 10 [Detail B (swing panel layout) & Detail C (back panel layout]). The pump panel motor starters are single door as shown on E9 and E10 [(Detail E (swing panel layout) & Detail F (back panel layout)]. SAWS wanted the 120V and 480V separated. Therefore 120V is in the pump control panel and 480V is in the pump panel motor starter.
- 10. Question: On drawing E8 the Tower notes call out for a Rohn Self-Supported Tower. In the Tower specs #40 60 00 it calls out for a Saber Tower. Which one is recommended?
 - *Response:* A Saber tower is recommended. Sheet E8 has been revised to call out a Saber tower instead of a Rohn Self-Supported Tower.
- 11. Question: Reference Spec Section 26 92 10 (pg. 8&9) 3.06 B.1. Please provide class name and training course number so we can get a quote for Rockwell.

B. Programmable Logic Controller (PLC) Hardware and Software and Top End System Software: 1. Provide 32-40 hours of manufacturer's standard training course for five (5) of the Owner's personnel in the operation, configuration, programming, installation, and maintenance of the HMI software, SAWS Programmer staff will provide the Rockwell course number at a late date.

Response: This course is provided as an example only. Course: Factory Talk Vantage Point. Course Number: FTVP

END OF ADDENDUM 3

This Addendum is twenty-five (25) pages in its entirety with attachments.

Attachments:

Table of Contents Bid Proposal Proposal Certification Special Conditions Sheets LS17, E8, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11



12/15/2021

SAN ANTONIO WATER SYSTEM LEMON CREEK RANCH – UPSTREAM SANITARY SEWER PHASE 1B – REGIONAL LIFT STATION

TECHNICAL SPECIFICATIONS

Division 1 – General Requirements

- 01110 Summary of Work
- 01200 Project Meeting
- 01270 Measurement and Payment
- 01300 Submittals
- 01321 Progress Schedule
- 01322 Construction Photographs and Video
- 01400 Quality Control
- 01500 Construction Facilities and Controls
- 01640 Manufacturer's Field Services
- 01700 Contract Closeout
- 01730 Operation and Maintenance Data
- 01752 Facility Startup and Commissioning Requirements
- 01756 Testing, Training, Demonstration, and Start-up Requirements

Division 2 – Site Work

- 02240 Dewatering
- 02300 Earthwork
- 02764 Paving Joint Sealants
- 02820 Chain Link Fencing and Gates

Division 3 – Pavement

03315Watertightness Test for Hydraulic Structures03600Grout

Division 9 - Finishes

09900	Painting
09910	Epoxy Liners for Sanitary Sewer Structures

Division 11 - Equipment

- 11100 Non-Clog Submersible Sewage Pumps
- 11200 Guide Rail System
- 11266 Odor Control System Equipment Provided by vendor
- 11300 Access Hatches

Division 13 - Equipment

13120 Precast Concrete Building

Division 15 – Mechanical

- 15020 Ductile Iron Pipe and Fittings
- 15080 Flexible Joints and Couplings
- 15104 Check Valves
- 15108 Plug Valves
- 15118 Surge Relief Valves

Division 26 – Electrical

260100 Basic Electrical Requirements	
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- 260500 Basic Electrical Materials and Methods
- 260519 Low-Voltage Electrical Power Conductor and Cables
- 260520 Hangers and Supports for Electrical Systems
- 260573 Power System Study
- 260800 Commissioning of Electrical Systems
- 261100 Raceways
- 261200 Conductors
- 262200 Transformers- General Purpose 3-Phase
- 264100 Safety-Switches Heavy Duty
- 264210 Soft Start Motor Controller
- 264313 Surge Protective Devices
- 264511 Grounding and Lightning Protection
- 265010 Automatic Transfer Switches
- 266000 Standby Generator
- 269210 SCADA System and Local Station Control Monitoring
- 269300 Instrumentation
- 269400 Heat Trace System
- 269500 Electrical Testing

Division 40 – Instrumentation and Control

- 404000 Control Loop Descriptions
- 406000 Communication Towers

PRICE PROPOSAL

PROPOSAL OF		_, a
	corporation	
a partnership consisting of		
an individual doing business as		
J		

THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Request for Competitive Sealed Proposals, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the project as specified, in accordance with the Plans and Specifications for the following prices in the bid proposal to wit:

PLEASE SEE ATTACHED LIST OF BID ITEMS.

RESPONDENT'S SIGNATURE & TITLE

FIRM'S NAME (TYPE OR PRINT)

FIRM'S ADDRESS

FIRM'S PHONE NO. /FAX NO.

FIRM'S EMAIL ADDRESS

The Contractor herein acknowledges receipt of the following: Addendum Nos._____

OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE PROPOSAL.

The Respondent offers to construct the Project in accordance with the Contract Documents for the contract price, and to complete the Project within <u>425</u> calendar days after the start date, as set forth in the Authorization to Proceed. The Respondent understands and accepts the provisions of the contract Documents relating to liquidated damages of the project if not completed on time.

Complete the additional requirements of the Proposal which are included on the following pages.

Statement on President's Executive Orders

Has your firm previously performed work subject to the President's Executive Orders Numbers 11246 and 11375 or any preceding similar executive orders (Numbers 10925 and 11114)?

Yes	No
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Texas Government Code Chapter 2274 Verifications

Are you, Contractor, held or controlled by individuals who are citizens of China, Iran, North Korea, Russia or a country designated by the Governor of the State of Texas pursuant to Texas Government Code Chapter 2274?

Yes No

Are you, Contractor, held or controlled by a company or other entity, including a governmental entity, that is owned or controlled by citizens of or directly controlled by the government of China, Iran, North Korea, Russia or a country designated by the Governor of the State of Texas pursuant to Texas Government Code Chapter 2274?

Yes [No [
103 [

Are you, Contractor, headquartered in China, Iran, North Korea, Russia or a country designated by the Governor of the State of Texas pursuant to Texas Government Code Chapter 2274?

Yes 🗌] No	
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Solicitation No. CO-00490

		Base Bid Que	otes			
Line No.	Item No.	Item Description	Unit	Quantity	Unit Price	Total
1		Lift Station	LS	1		
2	103.1	Remove Concrete Curb	LF	90		
3	103.3	Remove Concrete Driveways	SF	60		
4	201.1	Cement Treated Base (6" Compacted Depth)	SY	1,872		
5	202.1	Prime Coat	GAL	474		
6	203.1	Tack Coat	GAL	237		
7	205.2	HMAC - Type B (10" Compacted Depth)	SY	1,520		
8	205.4	HMAC - Type D (2" Compacted Depth)	SY	2,322		
9	208.1	Salvaging, Hauling, & Stockpiling Reclaimable Asphaltic Pavement (2" Depth)	SY	654		
10	413.1	Flowable Fill (Low Strength)	CY	7		
11	500.1	Concrete Curb	LF	90		
12	503.1	Portland Cement Concrete Driveway	SY	69		
13	503.4	Asphaltic Concrete Driveway	SY	1,587		
14	513.1	Remove and Relocate Mailbox (All Types)	EA	11		
15	515.1	Topsoil (4" Depth)	CY	2,700		
16	520.1	Hydromulching	SY	24,244		
17	530.1	Barricades, Signs, and Traffic Handling	LS	1		
18	535.1	4" Wide Yellow Line	LF	2,520		
19	535.2	4" Wide White Line	LF	1,799		
20	535.7	24" Wide White Line	LF	45		
21	540	Temporary Erosion, Sediment, and Water Pollution Prevention and Control	LS	1		
22	550.1	Trench Excavation Safety Protection	LF	7,449		
23	828	16" Plug Valve	EA	6		
24	846	2" Dual Air Release Assembly	EA	2		
25	848	16" DR-11 HDPE Force Main	LF	13,713		
26	848A	24" PVC Gravity Sewer Pipe (ASTM F679, 0'-6' Depth)	LF	116		
27	848A	24" PVC Gravity Sewer Pipe (ASTM F679, 6'-10' Depth)	LF	229		
28	848A	24" PVC Gravity Sewer Pipe (ASTM F679, 10'-14' Depth)	LF	69		
29	848A	24" PVC Gravity Sewer Pipe (ASTM F679, 14'-18' Depth)	LF	77		
30	851	Existing Manhole Adjustments	EA	1		
31	853A	Fiber Reinforced Sanitary Sewer Manhole (5' Diameter)	EA	5		

Lemon Creek Ranch Lift Station

Solicitation No. CO-00490

32	853A	Extra Depth (>6') Fiberglass Manhole (5' Diameter)	VF	19		
33	865	Bypass Pumping, Small Diameter Sanitary Sewers (<24")	LS	1		
34	866	Sewer Main Television Inspection	LF	489		
35	ALW 1	CPS Energy Allowance	ALW	1	\$25,000	
36	ALW 2	Start-Up/Commission Allowance	ALW	1	\$50,000	
SUBTOTA	SUBTOTAL - (ITEMS 1-36)					

		Mobilization			
37	100	Maximum 5% of line items 1-36	LS	5%	
		Intermediate Mobilization and Demobilization (Open Cut Work)- This item shall			
		include project move-in and move-out of personnel and equipment, for all work			
		including furnishing all labor, materials, tools, equipment, and incidentals required to			
		mobilize, demobilize, bond and insure the Work for the project in accordance with the			
38	100A	Contract Documents, complete in place.	EA	2	
		Intermediate Mobilization and Demobilization (Lift Station Work) - This item shall			
		include project move-in and move-out of personnel and equipment, for all work			
		including furnishing all labor, materials, tools, equipment, and incidentals required to			
		mobilize, demobilize, bond and insure the Work for the project in accordance with the			
39	100B	Contract Documents, complete in place.	EA	1	
		Preparation of Right-of-Way - This item shall include preparing the right-of-way for			
		construction operations be removing and disposing all obstructions from the right-of-			
		way and from designated easements where removal of such obstructions is not			
		otherwise povided for in the contract documents.			
40		Maximum 5% of line items 1-36	LS	5%	

MOBILIZATION SHALL BE LIMITED TO THE MAXIMUM PERCENTAGE SHOWN. IF THE PERCENTAGE WRITTEN EXCEEDS THE ALLOWABLE MAXIMUM STATED FOR MOBILIZATION, SAWS RESERVES THE RIGHT TO CAP THE AMOUNT AT THE PERCENTAGES SHOWN AND ADJUST THE EXTENSIONS OF THE BID ITEMS ACCORDINGLY.

Addendum 3

PROPOSAL CERTIFICATION

Accompanying this proposal is a Bid Bond or Certified or Cashier's Check payable to the Order of the San Antonio Water System for ______ dollars (\$______),

which amount represents five percent (5%) of the total bid price. Said bond or check is to be returned to the bidder unless the proposal is accepted and the bidder fails to execute and file a contract within **10** calendar days after the award of the Contract, in which case the check shall become the property of said San Antonio Water System, and shall be considered as payment for damages due to delay and other inconveniences suffered by said San Antonio Water System due to the failure of the bidder to execute the contract. The San Antonio Water System reserves the right to reject any and all bids.

It is anticipated that the Owner will act on this proposal within <u>90</u> calendar days after the bid opening. Upon acceptance and award of the contract to the undersigned by the Owner, the undersigned shall execute standard San Antonio Water System Contract Documents and make Performance and Payment Bonds for the full amount of the contract within 10 calendar days after the award of the Contract to secure proper compliance with the terms and provisions of the contract, to insure and guarantee the work until final completion and acceptance, and the guarantee period stipulated, and to guarantee payment of all lawful claims for labor performed and materials furnished in the fulfillment of the contract.

It is anticipated that the Owner will provide written Authorization to Proceed within 30 days after the award of the Contract.

The work called for in this Contract shall commence on the date indicated in the SAWS written Authorization to Proceed Under no circumstances shall the work commence prior to the date provided for in the SAWS issued, written Authorization to Proceed. Work shall be completed in full within <u>425</u> consecutive calendar days.

The undersigned further acknowledges compliance with "Wage and Labor Standard Provisions" of this contract and the use of the Blue Book rental rates for establishment of equipment rental rates whether owned or leased during the course of this Contract.

In completing the work contained in this proposal the undersigned certifies that bidder's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin and that the bidder will affirmatively cooperate in the implementation of these policies and practices.

Signed:

Company Representative

Company Name

Address

Please return bidder's check to:

Company Name

Address

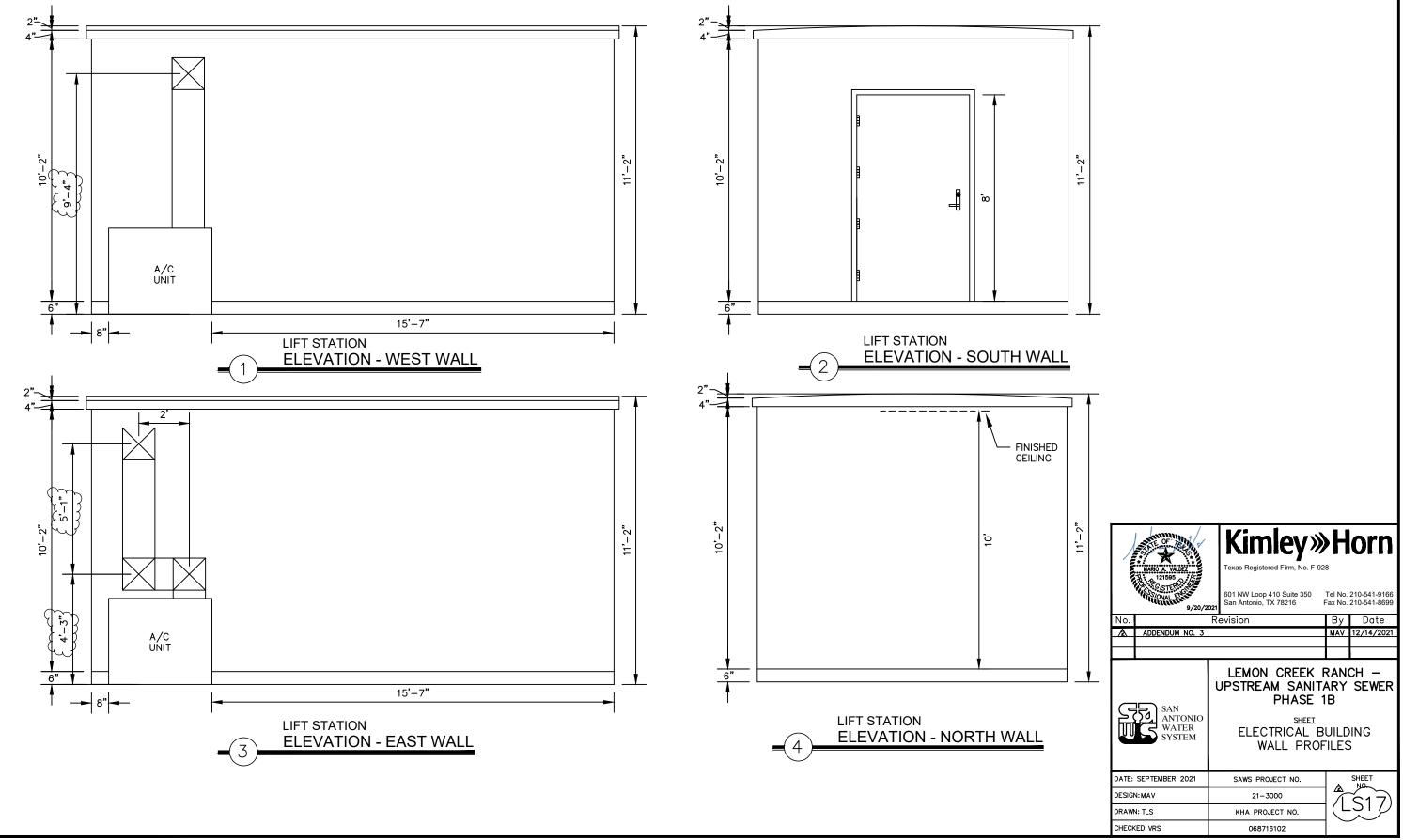
Special Conditions

SC 1.0 A Geotechnical Data Report has been developed for SAWS on this project and has been made available for Contractors for informational purposes only. SAWS will require the execution of a SAWS disclaimer form by the Contractor as a condition of and prior to the release of the report. To complete the disclaimer form and obtain the report, please go to the following link on the SAWS website:

http://www.saws.org/business_center/ContractSol/

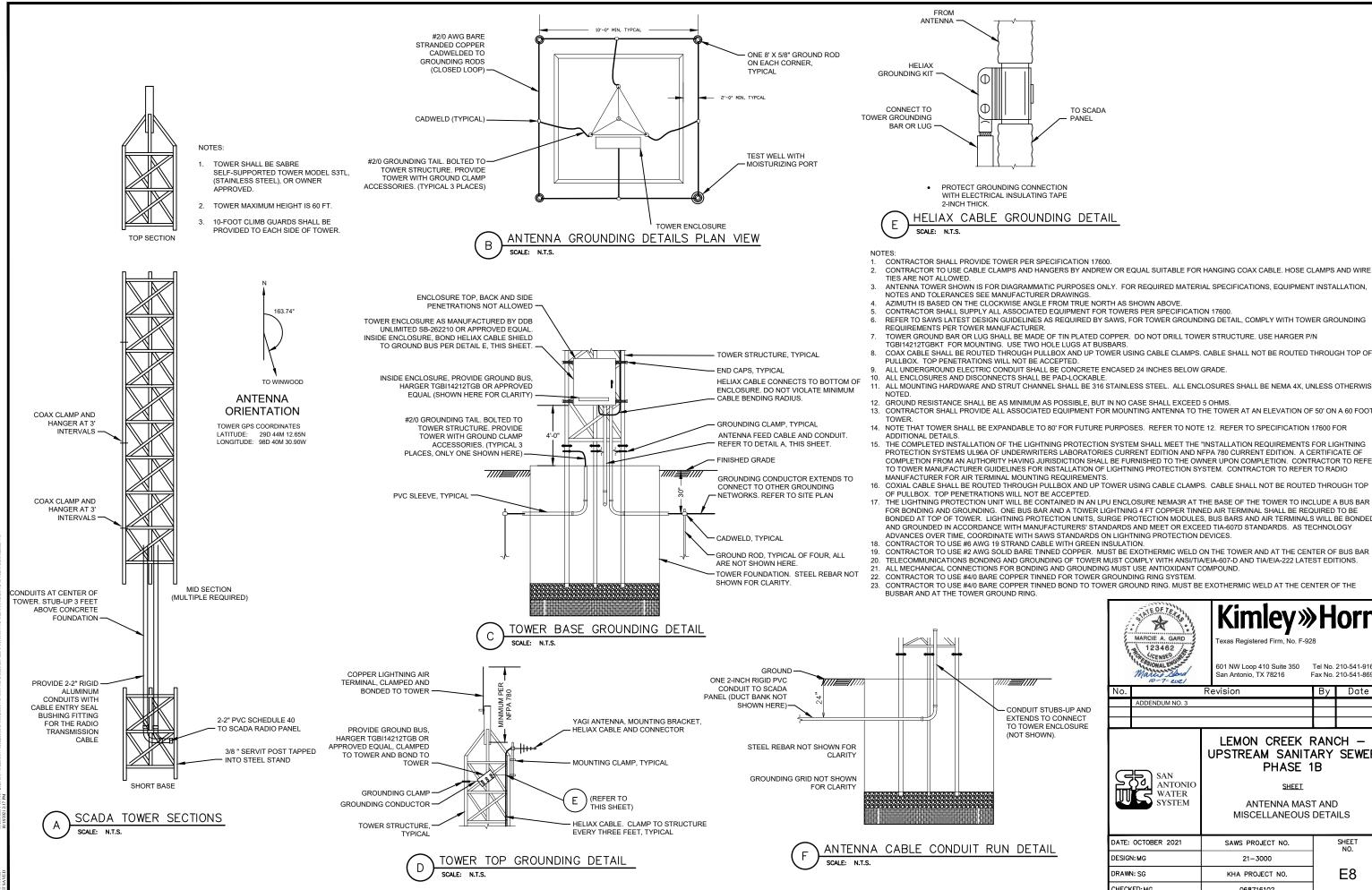
SC 2.0 Construction Duration: Contractor shall have lift station substantially complete within 365 calendar days. Final completion shall be no later than 425 calendar days. Substantial completion is defined as lift station being fully operational, secured per Texas Commission on Environmental Quality, and accessible including all testing having been performed by the contractor and approved by SAWS (Reference General Condition Article I). "Fully operational" shall include all controls, instrumentation, SCADA, dual force mains, paving within fence limits, and back-up generator for a fully functional system.

Acceptable final completion items include, paving outside of lift station, striping, signage, seeding, sidewalk, and other items not defined under substantial completion.





1. CONTRACTOR SHALL VERIFY ALL DUCT LOCATIONS IN THE FIELD PRIOR TO PROJECT LAYOUT AND A/C DUCT SHOP DRAWING SUBMITTAL AND FABRICATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ALL DUCTS AND CONCRETE PADS ARE ADJUSTED APPROPRIATELY TO ANY AIR CONDITIONER LOCATION CHANGE.



CONTRACTOR TO USE CABLE CLAMPS AND HANGERS BY ANDREW OR EQUAL SUITABLE FOR HANGING COAX CABLE. HOSE CLAMPS AND WIRE

ANTENNA TOWER SHOWN IS FOR DIAGRAMMATIC PURPOSES ONLY. FOR REQUIRED MATERIAL SPECIFICATIONS, EQUIPMENT INSTALLATION,

REFER TO SAWS LATEST DESIGN GUIDELINES AS REQUIRED BY SAWS, FOR TOWER GROUNDING DETAIL, COMPLY WITH TOWER GROUNDING

TOWER GROUND BAR OR LUG SHALL BE MADE OF TIN PLATED COPPER. DO NOT DRILL TOWER STRUCTURE. USE HARGER P/N

COAX CABLE SHALL BE ROUTED THROUGH PULLBOX AND UP TOWER USING CABLE CLAMPS. CABLE SHALL NOT BE ROUTED THROUGH TOP OF

ALL MOUNTING HARDWARE AND STRUT CHANNEL SHALL BE 316 STAINLESS STEEL ALL ENCLOSURES SHALL BE NEMA 4X UNLESS OTHERWISE

GROUND RESISTANCE SHALL BE AS MINIMUM AS POSSIBLE, BUT IN NO CASE SHALL EXCEED 5 OHMS. CONTRACTOR SHALL PROVIDE ALL ASSOCIATED EQUIPMENT FOR MOUNTING ANTENNA TO THE TOWER AT AN ELEVATION OF 50' ON A 60 FOOT

14. NOTE THAT TOWER SHALL BE EXPANDABLE TO 80' FOR FUTURE PURPOSES. REFER TO NOTE 12. REFER TO SPECIFICATION 17600 FOR

THE COMPLETED INSTALLATION OF THE LIGHTNING PROTECTION SYSTEM SHALL MEET THE "INSTALLATION REQUIREMENTS FOR LIGHTNING PROTECTION SYSTEMS UI 96A OF UNDERWRITERS LABORATORIES CURRENT EDITION AND NEPA 780 CURRENT EDITION A CERTIFICATE OF COMPLETION FROM AN AUTHORITY HAVING JURISDICTION SHALL BE FURNISHED TO THE OWNER UPON COMPLETION. CONTRACTOR TO REFER TO TOWER MANUFACTURER GUIDELINES FOR INSTALLATION OF LIGHTNING PROTECTION SYSTEM. CONTRACTOR TO REFER TO RADIO

COXIAL CABLE SHALL BE ROUTED THROUGH PULLBOX AND UP TOWER USING CABLE CLAMPS. CABLE SHALL NOT BE ROUTED THROUGH TOP

FOR BONDING AND GROUNDING. ONE BUS BAR AND A TOWER LIGHTNING 4 FT COPPER TINNED AIR TERMINAL SHALL BE REQUIRED TO BE BONDED AT TOP OF TOWER LIGHTNING PROTECTION UNITS. SURGE PROTECTION MODULES, BUS BARS AND AIR TERMINALS WILL BE BONDED. AND GROUNDED IN ACCORDANCE WITH MANUFACTURERS' STANDARDS AND MEET OR EXCEED TIA-607D STANDARDS. AS TECHNOLOGY

CONTRACTOR TO USE #2 AWG SOLID BARE TINNED COPPER. MUST BE EXOTHERMIC WELD ON THE TOWER AND AT THE CENTER OF BUS BAR TELECOMMUNICATIONS BONDING AND GROUNDING OF TOWER MUST COMPLY WITH ANSI/TIA/EIA-607-D AND TIA/EIA-222 LATEST EDITIONS. ALL MECHANICAL CONNECTIONS FOR BONDING AND GROUNDING MUST USE ANTIOXIDANT COMPOUND.

CONTRACTOR TO USE #4/0 BARE COPPER TINNED BOND TO TOWER GROUND RING. MUST BE EXOTHERMIC WELD AT THE CENTER OF THE

= ////	Winnies	MARCIE A. GARD 123462 MARCIE A. GARD 123462 Marcie A. GARD Marcie A. GARD		28 Tel No.	OTN 210-541-9166 210-541-8699
	No.		Revision	By	Date
NDUIT STUBS-UP AND		ADDENDUM NO. 3			
ENDS TO CONNECT					
IT SHOWN).	UE	SAN ANTONIO WATER SYSTEM	LEMON CREEK UPSTREAM SANIT PHASE SHEET ANTENNA MAS MISCELLANEOUS	ARY IB T AND	SEWER
DETAIL	DATE: OCTOBER 2021		SAWS PROJECT NO.		SHEET NO.
	DESIGN: MG		21-3000		
	DRAWN: SG		KHA PROJECT NO.		E8
	CHECKED: MG		068716102		

DESIGN CRITERIA

- 1. THIS CONSTRUCTION DOCUMENT ARE BASED ON THE REQUIREMENT OF INTERNATIONAL BUILDING CODE (IBC) LATEST EDITION.
- 2. THIS STRUCTURE WAS DESIGNED IN ACCORDANCE WITH ACI 350-20 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"
- 3. LOADING
- A. LIVE LOAD

TOP SLAB

TYPICAL = 100 PSF WALLS: 500 PSF SURCHARGE = B. WIND LOAD ULTIMATE DESIGN WIND SPEED, Vult = 118 MPH (3-SECOND GUST) NOMINAL DESIGN WIND SPEED, Vasd = 92 MPH (3-SECOND GUST) EXPOSURE = INTERNAL PRESSURE COEFFICIENT, GCpi = +/- 0.18 RISK CATEGORY = IV C. SEISMIC LOAD:

RISK CATEGORY =	IV
SEISMIC IMPORTANT FACTOR, le =	1.50
SITE CLASS =	С
Ss =	0.048g
S ₁ =	0.023g
S _{DS} =	0.042g
S _{D1} =	0.023g
SEISMIC DESIGN CATEGORY	Α

D. FUTURE EXPANSION

NO PROVISION HAVE BEEN MADE FOR FUTURE VERTICAL OR HORIZONTAL EXPANSION OF THE STRUCTURE.

DATUN

- 1. ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD88)
- 2. REFER TO CIVIL DRAWINGS FOR STRUCTURE LOCATION COORDINATES.

GENERAL CONDITION

- IT IS THE RESPONSIBILITY OF GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF THE SHOP DRAWINGS
- 2. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. AND EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE MEANS AND METHODS OF CONSTRUCTION. THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, SAFETY, OSHA COMPLIANCE, TECHNIQUES, AND SEQUENCES. THE GENERAL CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE QUALITY AND CORRECTNESS OF THE WORK.
- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND CIVIL. MECHANICAL. ELECTRICAL. PLUMBING. AND SITE DRAWINGS. REFER TO THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, FLOOR SLAB DEPRESSION, CURBS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS
- 4. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSION AND CONDITIONS AND COORDINATE WITH THE CONTRACT DOCUMENTS AND SHOP DRAWINGS.
- 5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH THE MECHANICAL DRAWINGS PRIOR TO CONSTRUCTION AND FABRICATION. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONSTRUCTION
- 6. GENERAL CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF PIPE OPENINGS, GRILLES, LOUVERS, HATCHES ETC., WITH THE MECHANICAL CONTRACTOR BEFORE PROCEEDING WITH THE WORK.
- 7. THE STRUCTURE HAS BEEN DESIGNED FOR THE LOAD IDENTIFIED WITHIN THESE STRUCTURAL DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONCE COMPLETED. THE GENERAL CONTRACTOR SHALL NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS. INCLUDING THOSE DUE TO CONSTRUCTION VEHICLE OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING OR RESHORING, OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL SUBMIT CALCULATION SIGNED AND SEALED BY PROFESSIONAL ENGINEER VERIFYING THE ADEQUACY OF THE STRUCTURE FOR ANY PROPOSED CONSTRUCTION LOADS. THE CONTRACTOR IS RESPONSIBLE TO ENGAGE A LICENSED DESIGN PROFESSIONAL TO CHECK THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY LOADS APPLIED TO THE STRUCTURE DURING CONSTRUCTION
- 8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL PERTINENT LOCAL, STATE, AND FEDERAL BUILDING REGULATIONS.
- 9. SHOP DRAWINGS
- A. THE GENERAL CONTRACTOR SHALL REVIEW EACH SUBMITTAL BEFORE FORWARDING TO THE ENGINEER
- B. THE ENGINEER OF RECORD'S REVIEW IS ONLY FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND COMPLIANCE WITH THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS. THE GENERAL CONTRACTOR IS

RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE SITE: FOR INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES, OR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION; AND FOR COORDINATION OF THE WORK OF ALL TRADES. THE ENGINEER'S APPROVAL OF A SPECIFIC ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT.

- C. FOR COMPONENTS DESIGNED BY A SPECIALTY ENGINEER: PROVIDE SHOP DRAWINGS, DESIGN CALCULATIONS, AND A COVER LETTER SIGNED AN SEALED BY PROFESSIONAL ENGINEER
- D. DELEGATED DESIGN AND DEFERRED SUBMITTALS ARE MANUFACTURER'S OR GENERAL CONTRACTOR'S DESIGNED COMPONENTS PER THE CONTRACT DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW. THE GENERAL CONTRACTOR SHALL SUBMIT THESE REVIEWED DEFERRED SUBMITTALS DOCUMENTS TO THE BUILDING OFFICIAL FOR APPROVAL. THESE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN TEAM HAS REVIEWED AND THE BUILDING OFFICIAL HAS APPROVED.

SITE WORK

GEOTECHNICAL DESIGN DATA

GEOTECHNICAL INVESTIGATION REPORT: GEOTECHNICAL BASELINE REPORT (GBR) FOR THE SAWS LEMON CREEK RANCH PROJECT PHASE 1 - LIFT STATION SITE, ROCK ENGINEERING AND TESTING LABORATORY INC., APRIL 22, 2021.

EARTHWORK AND EXCAVATION:

- 1 THE CONTRACTOR IS PERMITTED TO BACKEILL THE BELOW GRADE WALLS TO A MAXIMUM OF 10 FEET ABOVE THE FOUNDATION LEVEL ONCE THE WALLS HAVE REACHED THEIR DESIGN STRENGTH. THE CONTRACTOR SHALL NOT BACKFILL THE BELOW GRADE WALLS ANY HIGHER THAN 10 FEET UNTIL THE TOP ELEVATED SLAB IS IN PLACE AND HAS REACHED ITS DESIGN STRENGTH.
- BACKFILL BEHIND THE WALLS SHALL BE FREE DRAINING GRAVELS, WITH LESS THAN 5-PERCENT PASS THE #200 SIEVE. SOILS WITH USCS CLASSIFICATION OL, ,H, CH, AND OH ARE UNSUITABLE FOR USE AS BACKFILL.
- THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING, BUT NOT LIMITED TO: LAGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, STREETS, AND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL BUILDING DEPARTMENT AND OSHA REGULATIONS
- EXCAVATION SHALL NOT OCCUR WITHIN ONE FOOT OF THE ANGLE OF REPOSE OF ANY SOIL BEARING FOUNDATION UNLESS THE FOUNDATION IS PROTECTED AGAINST SETTLEMENT
- THE EXTENT OF SUBGRADE PREPARATION SHALL EXTEND A MINIMUM OF 5'-0" BEYOND THE STRUCTURE'S PERIMETER.
- THE GENERAL CONTRACTOR SHALL PROVIDE A SUBGRADE BENEATH THE SLAB ON GRADE PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- COMPACT FILL TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR ASTM D-1557. THE COMPACTION SHALL MEET ALL RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION REPORT.
- PLACEMENT OF FILL AND COMPACTION SHALL BE MONITORED AND ACCEPTED BY A RETAINED TESTING AGENCY.
- THE GENERAL CONTRACTOR SHALL DETERMINE THE EXTENT OF THE CONSTRUCTION DEWATERING SYSTEMS REQUIRED FOR THE EXCAVATION. AT A MINIMUM, THE GENERAL CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE SITE
- 10. THE GENERAL CONTRACTOR SHALL SUBMIT CONSTRUCTION DEWATERING PLAN TO THE GEOTECHNICAL ENGINEER FOR APPROVAL PRIOR TO BEGINNING EXCAVATION.
- 11. THE GENERAL CONTRACTOR SHALL INSTALL ALL NECESSARY DEWATERING SYSTEMS

FOUNDATIONS

- FOUNDATIONS ARE DESIGNED IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION REPORT
- 2. FOUNDATION SIZE AND REINFORCEMENT ARE BASED ON AN ALLOWABLE BEARING PRESSURE OF 2,500 PSF PER GEOTECHNICAL INVESTIGATION REPORT.
- SOIL BELOW FOUNDATIONS NOT MEETING THE ALLOWABLE BEARING PRESSURE SHALL BE REMEDIATED PER GEOTECHNICAL INVESTIGATION REPORT AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE FOUNDATIONS.

CAST IN PLACE CONCRETE

CONCRETE

- ALL CONCRETE CONSTRUCTION TECHNIQUES SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301)
- 2. THE FOUNDATIONS AND WALLS ARE CONSIDERED MASS CONCRETE. CONCRETE MIX DESIGN AND CONSTRUCTION TECHNIQUES SHALL CONFORM TO "GUIDE TO MASS CONCRETE" (ACI 207.1)
- A. THE STRUCTURE WALLS ARE CONSIDERED MASS CONCRETE AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 207 RECOMMENDATIONS AND GUIDELINES. THE CONTRACTOR SHALL SUBMIT THE CONCRETE MIX DESIGN WHICH ACHIEVES F'C= 5000 PSI AT 28 DAYS. THE MIX DESIGN SHALL ACCOUNT FOR THE CONTRACTOR'S PLACEMENT PLAN, CURING PLAN, AND CONCRETE POUR LIFT SCHEDULE.

- B. TYPE V CEMENT SHALL BE USED.
- C. AVERAGE AGGREGATE SIZE D50 = 1-1/2"
- D. MAX AGGREGATE SIZE =3
- E. THE MAXIMUM CONCRETE TEMPERATURE SHALL NOT EXCEED 160 DEGR FAHRENHEIT DURING CURING, AND THE MAXIMUM TEMPERATURE DIFFERENT BETWEEN THE CENTER AND SURFACE OF PLACEMENT SHALL NOT EXCEED DEGREES FAHRENHEIT.
- F. ANY CRACKS DUE TO THERMAL STRESSES SHALL BE PAID FOR AND REPAIRED THE CONTRACTOR. CRACK REPAIR METHOD SHALL BE SUBMITTED FOR REV AND COMMENT.
- 3. THE CONTRACTOR SHALL UTILIZE CONSHIELD[®] ANTI-BACTERIAL ADDITIVE IN STRUCTURAL CONCRETE MIX DESIGN PER MANUFACTURER'S RECOMMENDATION
- 4. THE CONTRACTOR SHALL SUBMIT THE CONCRETE MIX DESIGNS TO THE ENGINE FOR REVIEW PRIOR TO CONSTRUCTION.
- 5. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (145 PCF) AND STRENG SHALL MEET THE FOLLOWING 28 DAY COMPRESSIVE STRENGTH:
 - A. FOUNDATIONS = 5.000 PSI
 - B. BEAMS = 5.000 PS
 - C. WALLS
- 6. MAXIMUM WATER TO CEMENT RATIO = 0.45
- 7. PROVIDE A ¾ INCH CHAMFER AT ALL EXPOSED CORNER OF BEAMS, WALLS, UNLES NOTED OTHERWISE.

= 5,000 PSI

- 8. THE USE OF CALCIUM CHLORIDE AND OTHER CHLORIDE CONTAINING AGENT PROHIBITED. THE USE OF RECYCLED CONCRETE IS PROHIBITED. PLACEMEN WITHIN AND CONTACT BETWEEN ALUMINUM ITEMS, INCLUDING ALUMINUM CONDUIT. AND CONCRETE IS PROHIBITED
- 9. CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT THE LOCATIONS INDICATED ON THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

CONCRETE REINFORCEMENT:

- ALL CONCRETE SHALL INCLUDE REINFORCEMENT. IF REINFORCEMENT IS NOT SPECIFICALLY INDICATED ON THE DRAWINGS, VERIFY WITH ENGINEER OF RECORD. REFER TO MECHANICAL DRAWINGS FOR REINFORCEMENT REQUIREMENTS OF FILL CONCRETE
- 2. REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS AND MATERIALS PROPERTIES, UNLESS NOTED OTHERWISE: A. DEFORMED BARS = ASTM A615. GRADE 60
- 3. DETAIL REINFORCEMENT BASED ON THE PROJECT REQUIREMENT, ACI-318 AND ACI-315
- WHERE A 90-DEGREE, 135-DEGREE OR 180-DEGREE HOOK IS GRAPHICALLY INDICATED, PROVIDE CORRESPONDING ACI STANDARD HOOKS.
- 5. DOWELS SHALL MATCH SIZE AND SPACING OF MAIN REINFORCEMENT UNLESS NOTED OTHERWISE.
- 6. REINFORCEMENT SHALL HAVE CONCRETE PROTECTION (CLEAR COVER) AS NOTED ON THE DRAWINGS
- ALL HORIZONTAL INTERSECTING ELEMENTS, SUCH AS TIE BEAMS, FOOTINGS, AND GRADE BEAMS SHALL BE PROVIDED WITH CORNER REINFORCEMENT BARS OF THE SAME SIZE AND GRADE AS THE INTERSECTING LONGITUDINAL REINFORCEMENT BARS
- 8. SPREAD BARS AROUND SMALL OPENINGS AND SLEEVES IN SLABS WHERE POSSIBLE DISCONTINUE BARS AT LARGE OPENINGS WHERE NECESSARY AND PROVIDE AN AREA OF REINFORCING EQUAL TO THE INTERRUPTED REINFORCING DISTRIBUTED EACH SIDE OF OPENING (TOP AND BOTTOM).
- 9. REINFORCING STEEL IN FOOTINGS SHALL BE ASSEMBLED AS MATS WITH BARS EQUALLY SPACED AND WIRED TOGETHER AT EACH INTERSECTION BEFORE CONCRETE IS PLACED
- 10. ALL LAP SPLICES ARE TO BE PER REINFORCEMENT LAP SPLICE SCHEDULE UNLESS NOTED OTHERWISE.

FORMWORK, SHORING AND RESHORING:

- 1. PROVIDE COMPLETE SHORING AND RESHORING DRAWINGS PREPARED UNDER THE DIRECT SUPERVISION OF A DELEGATED ENGINEER AND CONFORMING TO THE REQUIREMENT OF PROJECT SPECIFICATION AND CONFORM WITH ACI 347 AND ACI
- 2. FORMWORK REMOVAL IS THE SOLE RESPONSIBILITY OF GENERAL CONTRACTOR REMOVE FORMS IN SUCH A MANNER AS TO ENSURE JOB SAFETY AND TO PREVENT DAMAGE TO, AND CREEP DEFLECTION OF, THE STRUCTURE.
- 3. FORMWORK SHALL NOT BE REMOVED UNTIL THE CONCRETE STRENGTH HAS REACHED 75% OF THE SPECIFIED DESIGN STRENGTH.

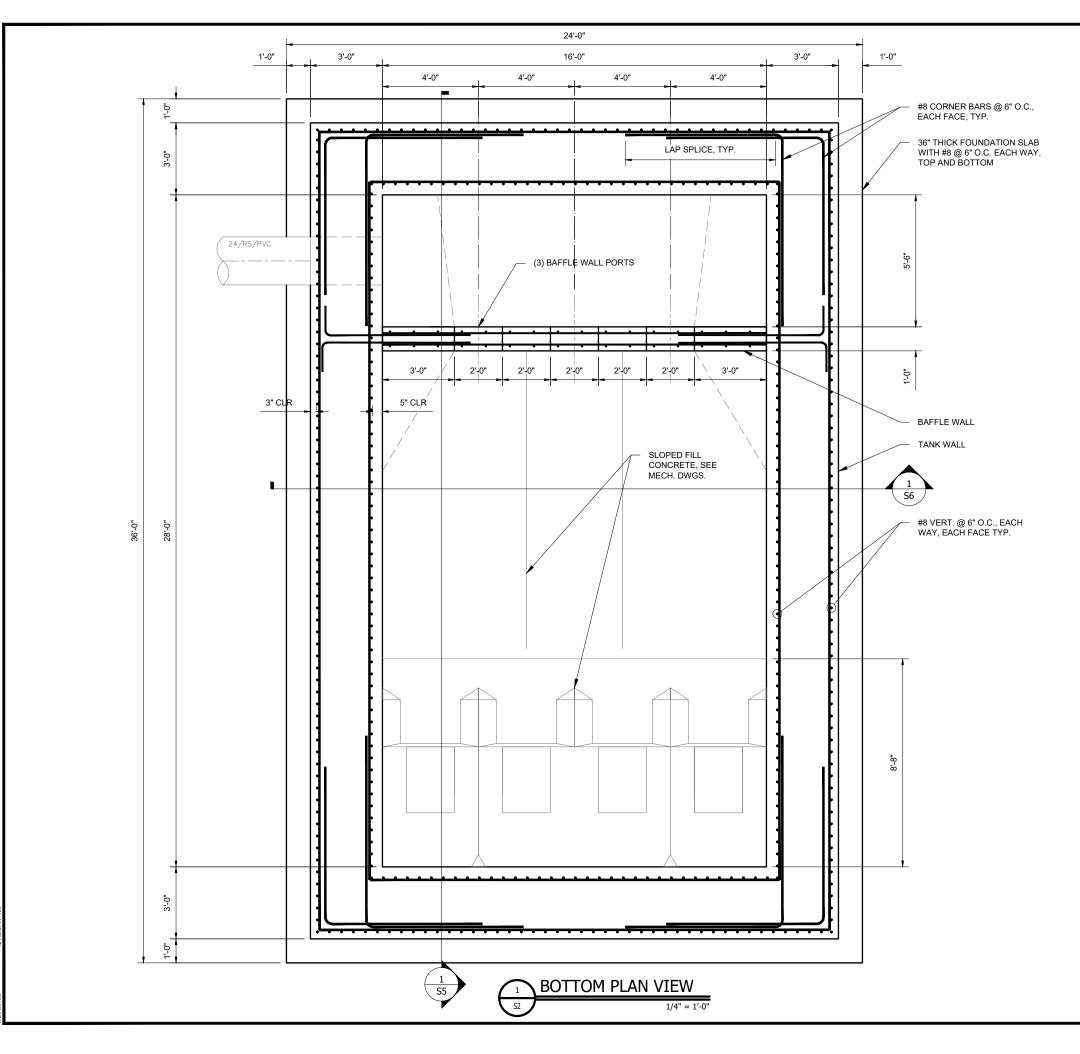
HATCHES

- 1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW
- 2. CONTRACTOR SHALL VERIFY HATCH SIZES AND LOCATIONS WITH THE MECHANICAL DRAWINGS AND NOTIFY OF THE ENGINEER OF ANY DISCREPANCIES.
- 3. HATCHES SHALL BE ALUMINUM WITH 316 STAINLESS STEEL HARDWARE
- 4. HATCHES SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
- 5. ALUMINUM SHALL BE COATED WITH BITUMASTIC COATING WHEN IN DIRECT CONTACT WITH CONCRETE.

	HATCH SCHEDULE					
REES	HATCH SIZE	MANUFACTURER	PRODUCT #/TYPE	NOTES		
D 35	84"X53.5"	EJ GROUP, INC	H48843296	SUBMIT SHOP DRAWING FOR REVIEW		
D BY /IEW	72"X48"	THE BILCO COMPANY	JD-3AL	SUBMIT SHOP DRAWING FOR REVIEW		
THE NS.	30"X30"	THE BILCO COMPANY	J-2AL	SUBMIT SHOP DRAWING FOR REVIEW		
IEER IGTH	24"X24"	THE BILCO COMPANY	J-1AL	SUBMIT SHOP DRAWING FOR REVIEW		

	REINFORCEMENT LAP SPLICE SCHEDULE								
	BAR SIZE								
SS		#3	#4	#5	#6	#7	#8	#9	#10
IS NT	5,000 PSI	22"	29"	36"	44"	63"	72"	81"	90"

HOMAS J. TUSTIN HOMAS J. TUSTIN 141194 COMPANY 121141[2]	Phone No. 210.860.9224	VC Rd., Suite	
No.	Revision	Вy	Date
SAN ANTONIO WATER SYSTEM	LEMON CREEK UPSTREAM SANI PHASE <u>Sheet</u> GENERAL 1	TARY 1B	SEWE
ANTONIO	UPSTREAM SANI PHASE sheet	TARY 1B	SE WE
ANTONIO WATER SYSTEM	UPSTREAM SANI Phase sheet General 1	TARY 1B	SE WE
DATE: DECEMBER 2021	UPSTREAM SANI PHASE SHEET GENERAL 1 SAWS PROJECT NO.	TARY 1B	SE WE

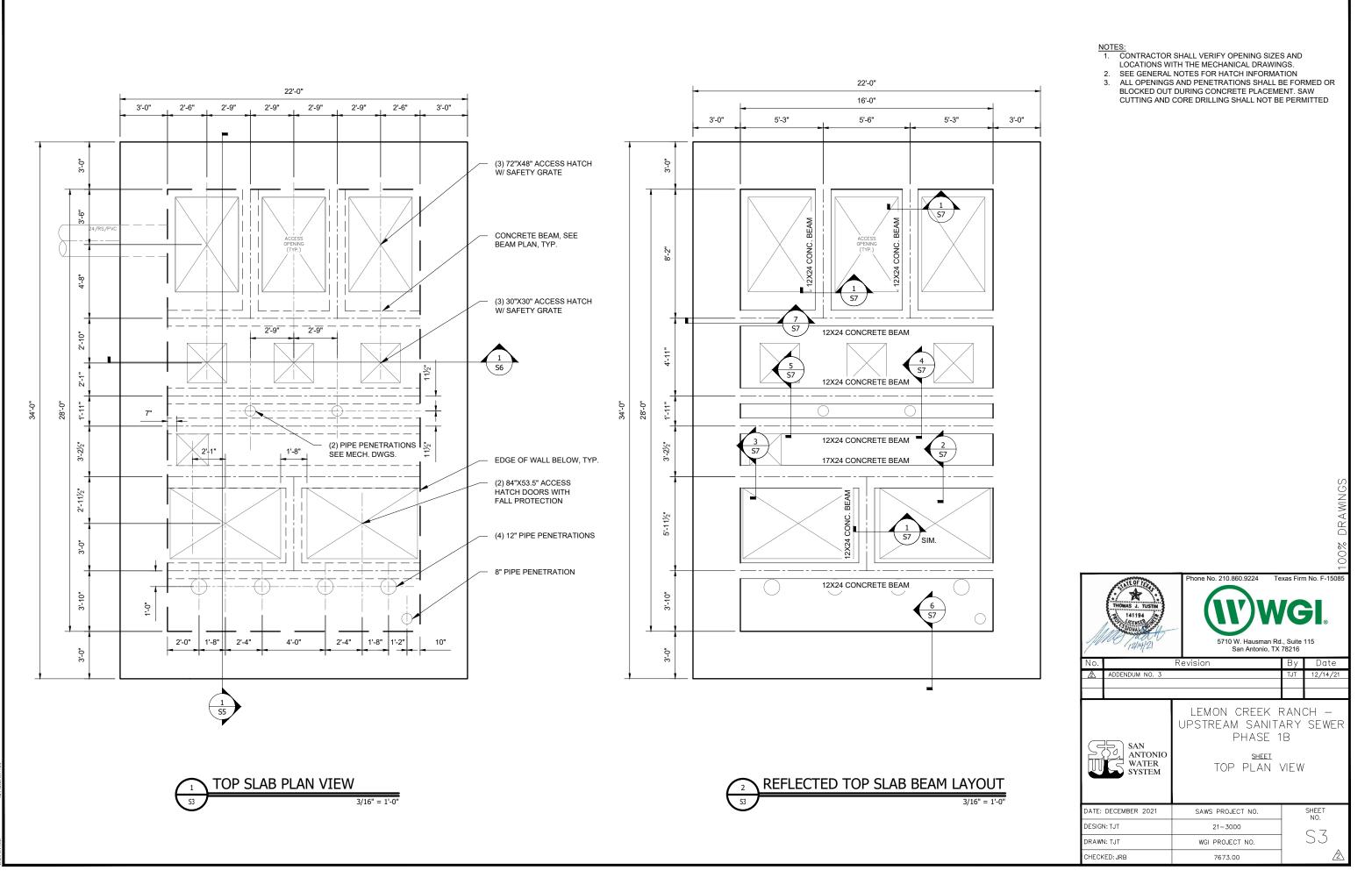


THOMAS TUSTIN 12/14/2021 819 AM PSTRUCTURE30281-JOBS767500 LEMON CREEK RANCH LIFT STATION07 STRUCTURAL DW6SGADDLEMON, CREEK, RANCH, LIFT, STATI 19/14/0011 81 744

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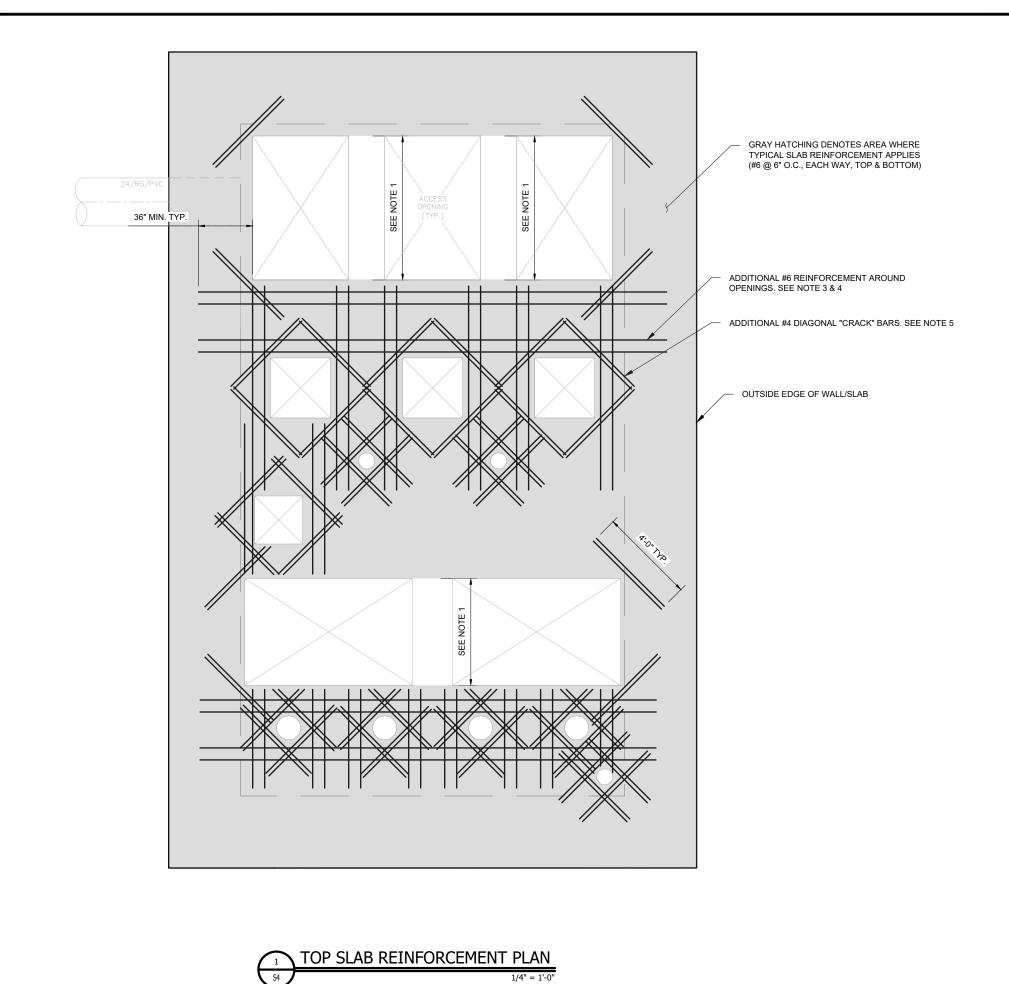
	Phone No. 210,860,9224 Te		₩000 000000000000000000000000000000000
	5710 W. Hausman Rd San Antonio, TX	I., Suite	6
No.	Revision	Вy	Date
ADDENDUM NO. 3		TJT	12/14/21
SAN ANTONIO WATER SYSTEM	LEMON CREEK F UPSTREAM SANIT, PHASE 1 <u>Sheet</u> FOUNDATION VIEW	ARY B	SEWER
DATE: DECEMBER 2021	SAWS PROJECT NO.		SHEET NO.
DESIGN: TJT	21-3000		\sim
DRAWN: TJT	WGI PROJECT NO.	1	S2
CHECKED: JRB	7673.00		\triangle

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USTUSTIN 12)4/2021 84.9 AM USTURES2021-1008/073/00 LEMON CREEK RANCH LIFT STATION/07 STRUCTURAL DWGSCADDLEMON_CREEK_RANCH_LIFT_STATI 01 € 1 AM

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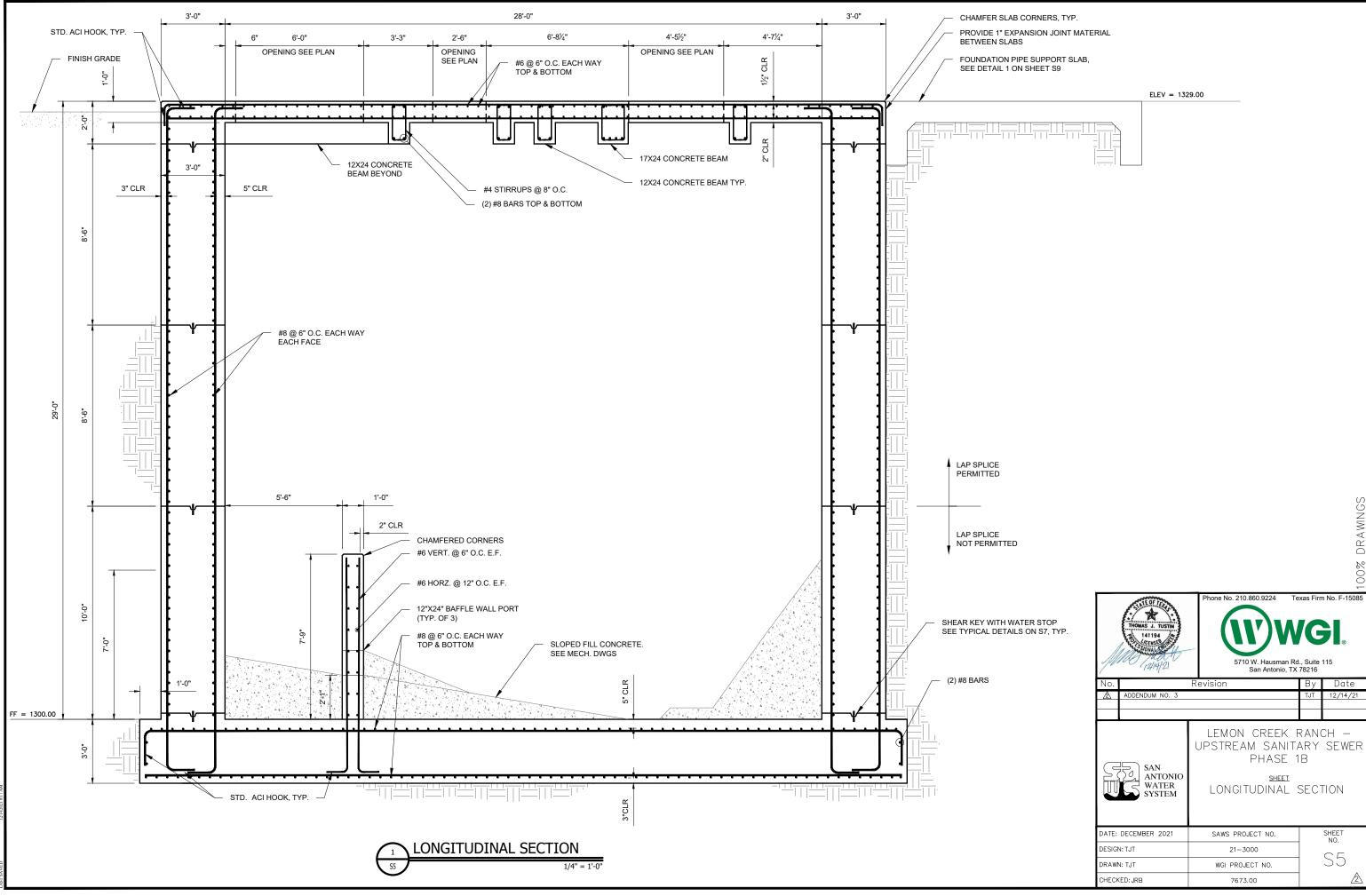


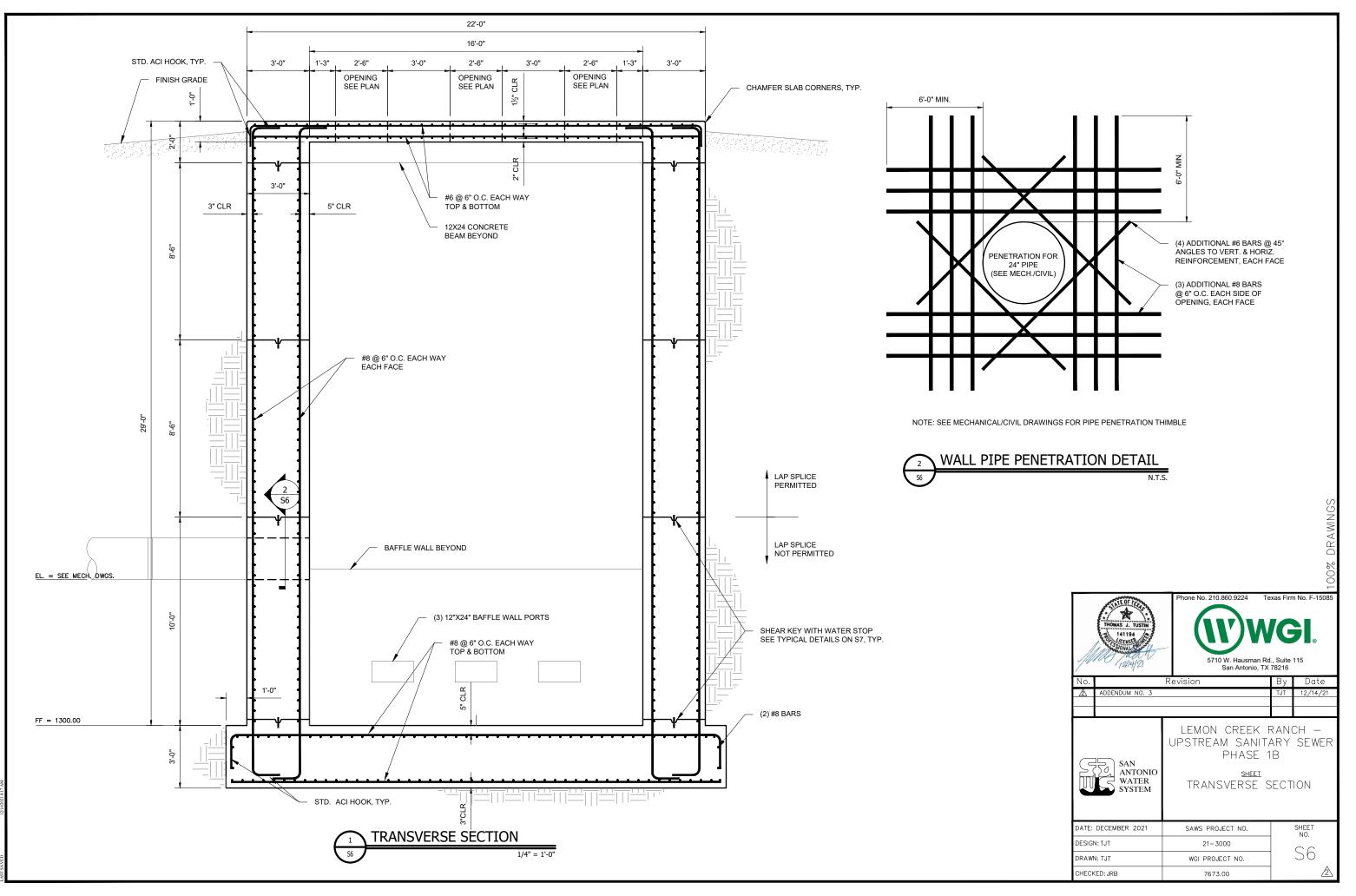
- NOTES: 1. TYPICAL SLAB REINFORCEMENT IS NOT REQUIRED BETWEEN THE OPENINGS NOTED.
- 2. ADDITIONAL #6 BAR REINFORCEMENT SHALL BE ADDED AROUND OPENINGS AS SHOWN. ADDITIONAL REINFORCEMENT SHALL BE SPACED EQUAL TO THE TYPICAL REINFORCEMENT SPACING. ADDITIONAL REINFORCEMENT SHALL BE PLACED CENTERED BETWEEN TYPICAL REINFORCEMENT.
- 3. ADDITIONAL REINFORCEMENT SHALL EXTEND A MINIMUM OF 36" PAST THE ADJACENT OPENINGS.
- ADDITIONAL (2) #4 X 48" LONG (MINIMUM) @ 3" O.C. DIAGONAL "CRACK" BARS SHALL BE PLACED DIAGONALLY, AT A 45 DEGREE ANGLE TO THE TYPICAL REINFORCEMENT, AT EACH OPENING CORNER AND AT EACH
- CIRCULAR OPENING.
 ADDITIONAL SLAB AND DIAGONAL REINFORCEMENT SHOWN APPLIES TO BOTH THE TOP AND BOTTOM REINFORCEMENT MATS.
- 6. ALL TOP SLAB REINFORCEMENT BARS TERMINATING AT AN OPENING OR OUTSIDE EDGE OF WALL SHALL HAVE A STANDARD ACI HOOK.
- 7. SLAB REINFORCEMENT SHALL BE CONTINUOUS THROUGH BEAMS, UNLESS NOTED OTHERWISE.
- 8. CONCRETE BEAMS NOT SHOWN FOR CLARITY

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No.		Revision	Вy	Date
	ADDENDUM NO. 3			12/14/21
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SAN ANTONIO WATER SYSTEM		sheei Top Slab REINFORCEMENT PLAN		_AN
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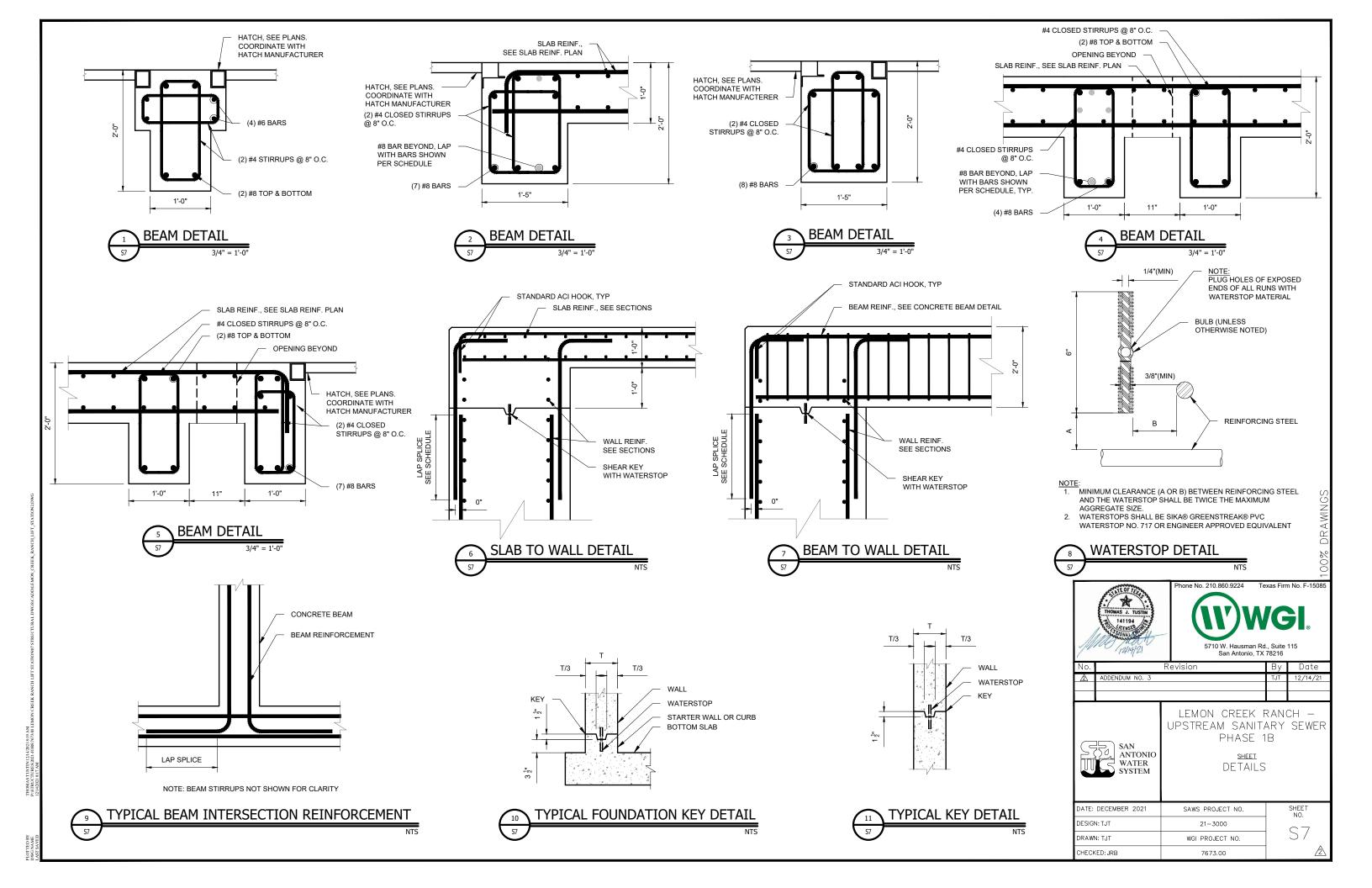
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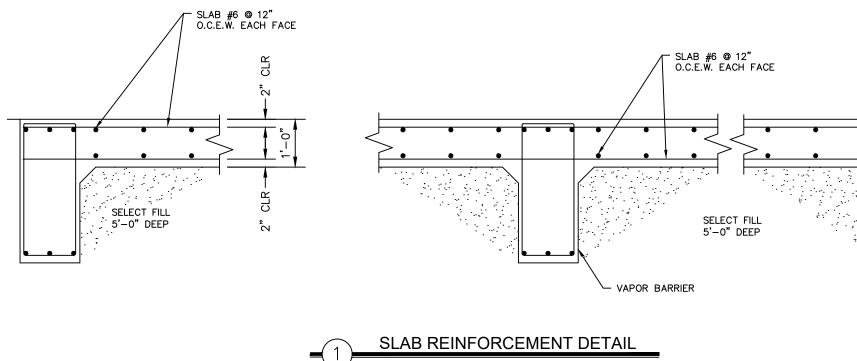


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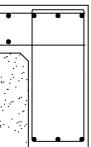
GENERAL	REINFORCED CONCRETE	REINFORCED CONCRETE (CONT'D)	SHOP DRAWINGS AND SUBMITTALS	SHOP DRAWINGS AND SUBMITTALS (CONT'D)
G-1. ALL WORK SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING	C-1 CONCRETE WORK SHALL CONFORM TO REQUIREMENTS OF THE	C-17. STEEL REINFORCING, UNLESS NOTED OTHERWISE, SHALL CONFORM TO	SS-1. REVIEW OF SUBMITTALS BY THE ENGINEER IS FOR GENERAL	
CODE. G-2. SECTION AND DETAILS SHOWN ON DRAWINGS ARE TYPICAL. USE SIMILAR CONSTRUCTION AT LOCATIONS NOT SPECIFICALLY DETAILED.	AMERICAN CONCRETE INSTITUTE (ACI) 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE", ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".	THE FOLLOWING: a. BARS, TIES AND STIRRUPS A.S.T.M. A615 GRADE (FY = 60,000 P.S.I.)	CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SUBMITTALS REQUIRED TO BE SUBMITTED WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT REVIEW.	SS-16. CALCULATIONS ARE THE SOLE RESPONSIBILITY OF THE DELEGATED ENGINEER, CALCULATIONS ARE SUBMITTED TO THE ENGINEER FOR HIS RECORDS. SS-17. CATALOG INFORMATION ON STANDARD PRODUCTS (i.e. "CUT SHEETS"
G-3. VERIFY LOCATION OF EXISTING UNDERGROUND SITE UTILITIES PRIOR TO THE START OF WORK, AND COORDINATE LOCATION WITH STRUCTURAL DRAWINGS. NOTIFY THE ENGINEER OF ANY CONFLICTS IN WRITING, DO NOT PROCEED WITH AFFECTED WORK UNTIL CONFLICTS HAVE BEEN RESOLVED.	C-2 ALL STRUCTURAL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH (F'C), AT THE AGE OF 28 DAYS MEASURED ON TEST CYLINDERS ACCORDING TO ACI METHODS, OF 4000 PSI WITH A MAX WATER CEMENT RATIO (w/c OF 0.45)	b. REINFORCING TO BE WELDED SHALL CONFORM TO A.S.T.M. A706 (FY = 60,000 P.S.I.) OR MILL TEST REPORTS SHALL BE SUBMITTED SHOWING CARBON EQUIVALENT.	SS-2. ALL SUBMITTALS SHALL BE ACCOMPANIED BY A LETTER OF TRANSMITTAL. CONTRACTOR'S SUBMITTAL NUMBER SHALL BE INDICATED ON TRANSMITTAL DO NOT COMBINE DIFFERENT SUBMITTALS ON THE	DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER. REVIEW BY THE PROJECT ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING:
G-4. STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED TOGETHER WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL LAYOUTS.	C-3. LEAN CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH (FC), AT THE AGE OF 28 DAYS MEASURED ON TEST CYLINDERS ACCORDING TO ACI METHODS OF 750 PSI. (U.O.I.)	C-18. MINIMUM CONCRETE PROTECTIVE COVER FOR REINFORCEMENT OF ENGINEERED CONCRETE STRUCTURES SHALL BE AS FOLLOWS U.O.N.:	SAME TRANSMITTAL. SUBMIT SHOP DRAWINGS IN A TIMELY MANNER, CONSISTENT WITH THE ABOVE, AND PRIOR TO FABRICATION, INSTALLATION OR COMMENCEMENT OF THE WORK. ALLOW UP TO 10 WORKING DAYS FOR ENGINEER TO REVIEW AND RETURN SHOP DORKING DAYS FOR ENGINEER TO REVIEW AND RETURN SHOP	A. THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED. B. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER. C. THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN
G-5. THE MORE STRINGENT SPECIFICATION SHALL APPLY WHERE DISCREPANCIES OCCUR BETWEEN DRAMINGS AND OTHER DOCUMENTS. NOTIFY ENGINEER OF ANY DISCREPANCIES.	C-4. PORTLAND CEMENT USED FOR CONCRETE WORK SHALL COMPLY WITH ASTM C-150 FOR TYPE I / II CEMENT.	a. UNFORMED SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH	DRAWINGS. NUMBER OF COPIES OF EACH SUBMITTED SHOP DRAWING SHALL BE SUFFICIENT FOR ENGINEER TO RETAIN 2 COPIES. SS-3. ALL SUBMITTALS MUST BEAR EVIDENCE OF CONTRACTOR'S REVIEW	INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.) D. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL
G-6. ALL DIMENSIONS ARE SHOWN IN FEET AND INCHES.	C-5. AGGREGATE SHALL BE #57 STONE OR APPROVED ALTERNATE. THE MAXIMUM DIAMETER OF COARSE AGGREGATES IS 1 1/2".	TO WEATHER,	(INCLUDING COMPANY STAMP AND DATED SIGNATURE OF REVIEWER) AND MUST BE APPROVED OR APPROVED AS NOTED BY HIM PRIOR TO SUBMITTING TO THE ENGINEER.	SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)
 G-7. NO DIMENSIONS ARE TO BE SCALED FROM DRAWINGS. G-8. THE STRUCTURES HAVE BEEN DESIGNED TO RESIST DESIGN LOADS ONLY WHEN COMPLETED. CONSTRUCTION LOADS ON THE PARTIALLY 	C-6. REINFORCED CONCRETE MUST COMPLY WITH A SLUMP CONE MEASURE (ABRAMS CONE) OF 5" WITH A TOLERANCE OF +/- 1 INCH	#6 THROUGH #18 BARS 2.0" #5 BARS AND SMALLER	SS-4. ALL CHANGES AND ADDITIONS MADE ON RESUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RESUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ENGINEER	SS-18. SUBMITTALS NOT MEETING THE ABOVE CRITERIA, OR SUBMITTED AFTE FABRICATION, WILL NOT BE REVIEWED.
COMPLETED STRUCTURES SHALL BE CONSIDERED BY THE CONTRACTOR AND INCLUDED IN THE DESIGN OF SHORING, BRACING, FORMWORK, AND ANY OTHER SUPPORTING ELEMENTS PROVIDED FOR CONSTRUCTION OF THE STRUCTURE. DURING CONSTRUCTION AND UNTIL ALL PERMANENT	C-7. THE CONTRACTOR SHALL APPLY CONSHIELD ANTIMICROBIAL ADDITIVE TO THE STRUCTURAL CONCRETE MIX DESIGN PRIOR TO PLACEMENT PER MANUFACTURER RECOMMENDATION.	 c. Building Surfaces not in contact with earth or exposed to weather (walls and slabs), 	REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RESUBMITTAL. SS-5. DO NOT REPRODUCE THE STRUCTURAL DRAWINGS FOR USE AS ERECTION, PLACING OR FABRICATION DRAWINGS.	
CONNECTIONS ARE MADE, THE CONTRACTOR MUST PROVIDE TEMPORARY BRACING FOR THE STRUCTURE IN ALL DIRECTIONS. G-9. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND	C-8. IF CONCRETE IS PUMPED, SLUMP MAY BE INCREASED USING HIGH RANGE WATER REDUCING AGENT, PROVIDED THE SLUMP SPECIFIED ABOVE IS MAINTAINED AT THE DISCHARGE END. USE A MINIMUM 4 INCH PUMP. FOR PUMPED CONCRETE, TAKE CONCRETE SAMPLES FOR	#11 BARS AND SMALLER	SS-6. SUBMITTALS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL NOT BE REVIEWED.	
DIMENSIONS PRIOR TO THE START OF WORK.	CYLINDER TESTING AT DISCHARGE END OF HOSE. C-9. WHENEVER POSSIBLE, CONCRETE SHOULD BE PLACED INTO FORMS CONTINUOUSLY IN HORIZONTAL LIFTS NOT EXCEEDING 1.5 FT. DEPTH.	d. BUILDING BEAMS, GIRDERS AND COLUMNS – PRINCIPAL REINFORCEMENT, TIES, STIRRUPS AND SPIRALS1.5"	SS-7. SUBMITTALS: AS A MINIMUM, THE FOLLOWING SHALL BE SUBMITTED, AS APPLICABLE, TO THE ENGINEER FOR REVIEW AND COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS PRIOR TO FABRICATION, INSTALLATION, OR COMMENCEMENT OF THE WORK:	
 F-1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL BASELINE REPORT BY ROCK ENGINEERING AND TESTING LABORATORY, INC. DATED APRIL 22, 2021. a. ALLOWABLE SOIL BEARING PRESSURE: 2,500 PSF. 	CONCRETE SHOULD NOT BE ALLOWED TO FALL INTO FORMS FROM A HEIGHT OF MORE THAN 5'-O", AS THIS CAUSES THE CONCRETE TO SEGREGATE. FOR HIGHER DROPS, THE CONCRETE SHOULD BE DEPOSITED THROUGH A SUITABLE VERTICAL PIPE. THE CONCRETE SHOULD NOT BE DEPOSITED IN A PILE BUT SHOULD BE SPREAD OUT AND LEVELED BY RAKING OR SHOVELING. VIBRATORS MAY BE USED	C-19. WHERE CONTINUOUS REINFORCEMENT IS CALLED FOR, IT SHALL BE EXTENDED CONTINUOUSLY AROUND CORNERS AND LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS. SEE DETAILS ON DRAWINGS.	A. CONCRETE, MORTAR AND GROUT MIX DESIGNS, INCLUDING ADMIXTURE DATA SHEETS. B. BILL OF REINFORCING AND LAYOUT. C. MISCELLANEOUS METAL FABRICATIONS. D. PAINT, SEALANT, TOPPINGS AND OTHER FINISH PRODUCTS. E. SHORING.	
F-2. COMPACTED (INSITU) SOILS SHALL BE COMPACTED TO NOT LESS THAN 95% OF MODIFIED PROCTOR ACCORDING TO ASTM D698/AASHTO T-99. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES IN LOSSE DEPTH. PRIOR TO PLACING STRUCTURES OR NEW LIFTS / LAYERS.	TO CONSOLIDATE THE CONCRETE BUT SHOULD NOT BE USED TO ASSIST PLACEMENT. CONCRETE CAN ALSO BE PLACED BY PUMPING. C-10. WHEN THE AMBIENT TEMPERATURE EXCEEDS 77*F, THE CONTRACTOR SHALL MAKE SPECIAL PREPARATIONS TO ENSURE THAT THE CONCRETE WILL BE TRANSPORTED, PLACED, CONSOLIDATED, AND FINISHED AT THE FASTEST RATE POSSIBLE COMPATIBLE WITH OTHER	C-20. WHERE REINFORCING IS NOT SHOWN ON THE CONTRACT DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE DETAILS AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN THE MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES NOR LESS THAN THE FOLLOWING:	IN ADDITION, CUT SHEETS FOR WATERPROOFING, VAPOR BARRIERS, WATERSTOPS, PROPRIETARY ANCHORS, FASTENERS, OTHER STANDARD ATTACHMENTS, EXPANSION JOINTS, MORTAR, BONDING AGENT, DOORS, WINDOWS, INSULATION, AND OTHER MATERIALS AND APPROPRIATE CERTIFICATIONS SHALL ALSO BE SUBMITTED.	
F-3. BACKFILL TO TOP OF FOOTINGS OR FINISHED GRADES AS SHOWN ON PLANS AS SOON AS POSSIBLE AFTER CONCRETE CURES AND FORMS ARE REMOVED.	REQUIREMENTS FOR GOOD CONSTRUCTION PRACTICE; AND SPECIAL MEANS SHALL BE TAKEN IN CONVEYING THE CONCRETE TO THE FORMWORKS, SO THAT LARGE SURFACE AREAS OF FRESH CONCRETE ARE NOT EXPOSED TO THE SUN AND HOT WINDS.	a. DOWELS FROM TOP OF WALLS TO CONCRETE SLABS: b. MAIN SLAB REINFORCING: SEE DRAWINGS.	WELDER CERTIFICATIONS FOR ALL WELDERS SHALL BE SUBMITTED. CERTIFICATIONS MUST HAVE BEEN ISSUED WITHIN 3 YEARS PRIOR TO PERFORMING WORK ON THE PROJECT.	
F-4. BACKFILL AGAINST BELOW GRADE WALLS AFTER SLAB IS SUPPORTING TOP OF WALL OR PROVIDE TEMPORARY SUPPORT FOR TOP OF WALL UNTIL FLOOR SLAB IS IN PLACE AND HAS REACHED DESIGN STRENGTH.	C-11. SLABS. a. THE CONTRACTOR SHALL FOLLOW CONCRETE SEQUENCE BASED	c. TEMPERATURE & SHRINKAGE: SEE DRAWINGS. C-21. WHERE REINFORCEMENT IS SHOWN IN SECTION, REINFORCEMENT IS	SS-8. REQUESTS FOR SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW. SUBMIT 3 COPIES OF ALL PRODUCT DATA AND CUT SHEETS AS NECESSARY TO SHOW COMPLIANCE WITH THE	
F-5. TOPSOIL, ORGANIC MATERIAL AND ANY NATURAL OR MANMADE DEBRIS SHALL BE STRIPPED FROM THE SITE TO THE DEPTHS REQUIRED OR NOTED. THESE AND OTHER DELETERIOUS MATERIAL SHALL NOT BE USED AS BACKFILL UNDER ANY STRUCTURAL AREA & SHALL BE REMOVED	ON THE RESPECTIVE DRAWINGS, AND MAY PROPOSE ALTERNATIVES, WHICH SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.	CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES. C-22. REINFORCEMENT SHALL BE CONTINUOUS THROUGH CONSTRUCTION JOINTS UNLESS OTHERMISE SHOWN.	PROJECT REQUIREMENTS. CONTRACTOR SHALL BEAR THE BURDEN OF OBTAINING AUTHORIZATION FOR USE OF ITEMS TO BE SUBSTITUTED. ENGINEER'S DECISION REGARDING SUBSTITUTION SHALL BE FINAL. SS-9. FOR ADDITIONAL CRITERIA APPLICABLE TO SUBMITTALS REQUIRING	
FROM THE SITE. F-6. UNSUITABLE SUBGRADE, IF ENCOUNTERED, SHALL BE UNDERCUT AND REPLACED WITH LEAN CONCRETE OR SELECT GRANULAR FILL MATERIAL AS ORDERED BY THE GEOTECHNICAL ENGINEER OR EOR.	b. CONCRETE SLABS ON GRADE SHALL BE PLACED SO THAT THE SLAB THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE CONTRACT DRAWINGS. ADJUST SUBGRADE LEVELS TO ACCOUNT FOR SLOPED SLAB ON GRADE SURFACES.	C-23. PROVIDE DOWELS FROM FOUNDATION TO MATCH BAR SIZE AND NUMBER OF REINFORCING IN THE SUPPORTED ELEMENT, UNLESS NOTED OTHERWISE.	SS-10. DELEGATED ENGINEER:	
F-7. THE CONTRACTOR SHALL PROVIDE SUPPORTS, WHETHER SHEETING, SHORING OR BRACING SUCH THAT NO HORIZONTAL MOVEMENT OR VERTICAL SETTLEMENT OCCURS TO EXISTING STRUCTURES, STREETS OR UTILITIES ADJACENT TO. OR ON THE PROJECT SITE.	 c. LEAN CONCRETE SHALL BE WET UNTIL SATURATION, BEFORE PLACING THE CONCRETE ON THE BOTTOM SLAB. d. IN CASE OF HIGH TEMPERATURES AND WIND, THE CONTRACTOR SHALL USE ADEQUATE PROTECTION AGAINST THE SUN AND WIND. 	C-24. REINFORCEMENT SHALL NOT BE TACK WELDED OR HEATED FOR BENDING. C-25. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24	A. DEFINITION – A TEXAS PROFESSIONAL ENGINEER WHO UNDERTAKES A SPECIALTY SERVICE AND PROVIDES SERVICES OR CREATIVE WORK (DELEGATED ENGINEERING DOCUMENT) REGARDING A PORTION OF THE ENGINEERING PROJECT. THE DELEGATED ENGINEER IS THE ENGINEER OF RECORD FOR THAT PORTION OF THE ENGINEERING PROJECT.	
F-8. THE CONTRACTOR SHALL PROVIDE STABLE SIDES AND BOTTOM OF EXCAVATION DURING CONSTRUCTION BY SHORES, SLOPES OR BENCHED SIDES. THE DESIGN AND INSTALLATION OF THE EXCAVATION BRACING SHALL BE IN ACCORDANCE WITH OSHA SHORING PRACTICES AND BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.	C-12. CURING OF CONCRETE a. IN SLABS, THE CURING SHALL BEGIN IMMEDIATELY UPON THE DISAPPEARANCE OF THE SUPERFICIAL MOISTURE PRODUCED BY THE EXUDATION OF THE CONCRETE. SLABS SHALL BE WET	HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY INSPECTOR OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT. C-26. WELDING OF REINFORCEMENT SHALL CONFORM TO A.W.S. D1.4	B. SHALL BE: (1) AN INDEPENDENT CONSULTANT, (2) AN EMPENZE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR OR CONTRACTOR, SO LONG AS THE ENGINEER ACTS AS AN INDEPENDENT CONSULTANT OR THROUGH A DULY QUALIFIED ENGINEERING CORPORATION, OR (3) AN EMPLOYEE OR OFFICER OF A FABRICATOR OR CONTRACTOR, SO LONG AS THE ENGINEER ACTS AS AN	
 F-9. THE CONTRACTOR SHALL NOTIFY THE EOR IMMEDIATELY OF ANY EXISTING FOUNDATION CONDITIONS OR DETAILS THAT ARE IN CONFLICT WITH THOSE INDICATED IN THE GEOTECHNICAL SOLLS REPORT. 	CURED A MINIMUM OF 7 DAYS AND JOINTS CUT WITHIN 8 HOURS	(INCLUDING PREHEAT REQUIREMENTS). ONLY BARS INDICATED ON DRAWINGS TO BE WELDED SHALL BE WELDED. C-27. REBARS SHALL BE PLACED CLEAN, FREE OF DUST, MUD, RUST,	INDEPENDENT CONSULTATION, SO LONG AS THE ENGINEER ACTS AS AN INDEPENDENT CONSULTATION THROUGH A DULY QUALIFIED ENGINEERING CORPORATION. SS-11. SUBMITTALS FOR CUSTOM DESIGNED, MANUFACTURED OR FABRICATED	
F-10 BACKFILLING, WHERE REQUIRED, SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.	C-13. ALL CONCRETE JOINTS SHALL BE SCHEDDLED BT THE CONTRACTOR AND REVIEWED AND APPROVED BY THE EOR. C-14. ALL CONCRETE JOINTS IN SLABS SHALL BE CUT PERPENDICULAR TO THE SLAB SURFACE.	GREASE, OIL, PAINT, LAITANCE OR HARDENED CONCRETE, AND ANY OTHER SUBSTANCE CAPABLE OF REDUCING THE BOND WITH THE CONCRETE.	LOAD-CARRYING ITEMS AND CUSTOM FABRICATION FOR MICH ARE REQUIRED BY CODES OR STANDARDS TO RESIST FORCES AND STRESSES, INCLUDING THEIR CONNECTIONS, ANCHORAGES AND ATTACHMENTS REQUIRE A DELEGATED ENGINEER.	ASEN E. LENKER
STRUCTURAL STEEL	C-15. ALL CONCRETE JOINTS SHALL BE PREPARED ACCORDING TO THE FOLLOWING:	C-28. UNLESS NOTED OTHERWISE, OVERLAPS & ANCHORS, SHALL BE AT LEAST 60 TIMES THE DIAMETER OF THE BIGGEST BAR DIAMETER. C-29. STEEL REINFORCING MESH NOT INDICATED IN DRAWINGS. MAY NOT	SS-12. AS A MINIMUM, THE FOLLOWING SYSTEMS AND COMPONENTS REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A DELEGATED ENGINEER:	601 NW Loop 410 Suite 350 Tel No. 210-541-916 San Antonio, TX 78216 Fax No. 210-541-866
S-1. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE A.I.S.C. "MANUAL OF STEEL CONSTRUCTION". FIFTEENTH EDITION AND THE A.I.S.C. "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS". 2016. STRUCTURAL STEEL SHAPES, PLATES, BRACKETS, SEATS AND OTHER	a. ALL SURFACES AGAINST WHICH NEW CONCRETE IS TO BE PLACED, SHALL BE CLEAN, SOLID AND FREE FROM LOOSE OR UNSOUND FRAGMENTS, OBJECTIONABLE COATINGS AND ANY OTHER SUBSTANCES OR DEBRIS. IT SHALL BE SUFFICIENTLY ROUGH TO ENSURE THAT A FULL BOND IS DEVELOPED WITH THE	OVERLAP MORE THAN 20% OF ITSELF IN THE SAME POSITION. C-30. ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING AT POSITIONS SHOWN ON PLANS SHALL BE PROVIDED. ALL REINFORCING, DOWELS, BOLTS AND COLLAR FLANGES SHALL BE SET AND TIED IN	A. ALUMINUM ENTRY GATE SS-13. FOR EACH CATEGORY OF SUBMITTALS REQUIRING INPUT FROM A DELEGATED ENGINEER, THE CONTRACTOR SHALL ATTACH TO THE FIRST SUBMITTAL A SIGNED AND SEALED LETTER FROM THE RESPONSIBLE DELEGATED ENGINEER STATING 4 CETTFY THAT THE DESIGN AND	No. Revision By Date A ADDENDUM NO. 3 JEL 12/14/202
STRUCTURAL STEEL SHAPES, PLATES, BRACKETS, SEATS AND OTHER FABRICATIONS SHALL BE OF STEEL CONFORMING TO A.S.T.M. A-36, WITH A MINIMUM YIELD STRESS OF 36 KSI OR A992 GRADE 50.	NEW CONCRETE. b. BEFORE FRESH CONCRETE IS PLACED, THE SURFACES SHALL BE CHIPPED OR ROUGHENED 3/4" - 1 3/16" AND CLEANED OF ALL	PLACE BEFORE THE CONCRETE IS POURED. "STABBING" INTO PREVIOUSLY PLACED CONCRETE IS NOT PERMITTED. C-31. CHAMFER EXPOSED CORNERS AND EDGES OF CONCRETE 3/4"	DRAFTING OF THE SHOP DRAWINGS WHICH ARE SIGNED AND SEALED BY ME WERE PREPARED UNDER MY DIRECT SUPERVISION AND CONTROL, AND TO THE BEST OF MY KNOWLEDGE, THE SHOP DRAWINGS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE CONTRACT	LEMON CREEK RANCH –
S-3. TUBE STEEL SHAPES SHALL CONFORM TO A.S.T.M. A-500, GRADE B WITH A MINIMUM YIELD STRESS OF 46 KSI, PIPE COLUMNS SHALL CONFORM TO A.S.T.M. A-501 OR A-53, TYPES E OR S, WITH A MINIMUM YIELD STRESS OF 36 KSI, THE CONTRACTOR MAY SUBSTITUTE	DEBRIS AND FOREIGN MATERIAL WITH AN AR-OPERATED WATER JET WITH AIR PRESSURES IN EXCESS OF 90 PSI TO PROVIDE A THOROUGHLY CLEAN SURFACE. FREE WATER SHALL BE REMOVED FROM THE SURFACES WITH THE AIR JET.	C-32. LAPS SHALL BE CLASS B TENSION LAP SPLICES, UNLESS NOTED OTHERWISE CLASS B SPLICES FOR REINFORCEMENT, OTHER THAN TOP BARS:	DOCUMENTS." SS-14. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION.	UPSTREAM SANITARY SEWER PHASE 1B
F = 50 KSI STEEL FOR $F = 36$ KSI STEEL. S-4. BOLTS WHICH ARE TO BE CAST INTO CONCRETE SHALL BE A.S.T.M. A-36 OR A-307, UNLESS NOTED OTHERWISE	c. AFTER SEVEN DAYS OR AFTER CURING HAS FINISHED, A BONDING AGENT SHALL BE APPLIED TO PREVIOUSLY PLACED CONCRETE PRIOR TO RESUMING CONCRETE POUR.	BAR SIZE 3,000 PSI 4,000 PSI 5,000 PSI #3 22" 19" 17" #4 29" 25" 23" #5 36" 31" 28"	CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCTS UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED. SS-15. SHOP DRAWINGS AND CALCULATIONS REQUIRE THE IMPRESSED SEAL, DATE AND SIGNATURE OF THE DELEGATED ENGINEER. COMPUTER	SAN ANTONIO WATER SYSTEM STRUCTURAL NOTES FOR ELECTRICA BUILDING FOUNDATION, GENERATOR
S-5. SHOP AND FIELD WELDING SHALL BE PERFORMED BY CURRENTLY CERTIFIED WELDERS IN ACCORDANCE WITH THE AWS "STRUCTURAL WELDING CODE". LATEST EDITION. ALL CONNECTIONS SHALL USE E70XX ELECTRODES.	d. COVER: JOINTS SHOULD NOT BE LOCATED WITHIN THREE (3) BAR DIAMETERS OF NEAREST REINFORCING STEEL. COVER SHALL BE MAINTAINED AND EMBEDMENT SHALL NOT CONTACT REINFORCEMENT.	#5 56 31 28 #6 43 37 34 #8 72" 62" 56" CLASS B SPLICES FOR REINFORCEMENT AS TOP BARS: BAR SIZE 500 DEL	PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE IMPRESSED SEAL AND	DATE: AUGUST 2021 SAWS PROJECT NO.
S-6. SUBMIT STRUCTURAL STEEL AND MISCELLANEOUS FABRICATIONS SHOP AND ERECTION DRAWINGS FOR REVIEW BY THE EOR.	C-16. REINFORCEMENT WORK OF DETAILING, FABRICATION AND ERECTION	BAR SIZE 3,000 PSI 4,000 PSI 5,000 PSI #3 28" 25" 22" #44 38" 33" 29" #5 47" 41" 36"	SIGNATURE OF THE DELEGATED ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. IF ACCOMPANYING SIGNED AND SEALED BLUEINE PRINTS ARE PROVIDED, SEPIAS DO NOT	DESIGN: JEL 21-3000
AND ENCOUNT DIVININGS FOR REVEN DI THE EUK.	SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (A.C.I. 318)", "A.C.I. DETAILING MANUAL", "CRSI MANUAL OF STANDARD PRACTICE (MSP I)" AND "STRUCTURAL	#3 28" 25" 22" #4 38" 33" 29" #5 47" 41" 36" #6 56" 49" 44" #8 93" 81" 72"	REQUIRE SIGNATURE AND SEAL. THE ENGINEER WILL RETAIN 2 SIGNED AND SEALED BLUELINE PRINTS FOR HIS RECORDS.	
	WELDING CODE - REINFORCING STEEL (A.W.S. D1.4)"	#°° 93 81 72 [°]		CHECKED: AF 068716102



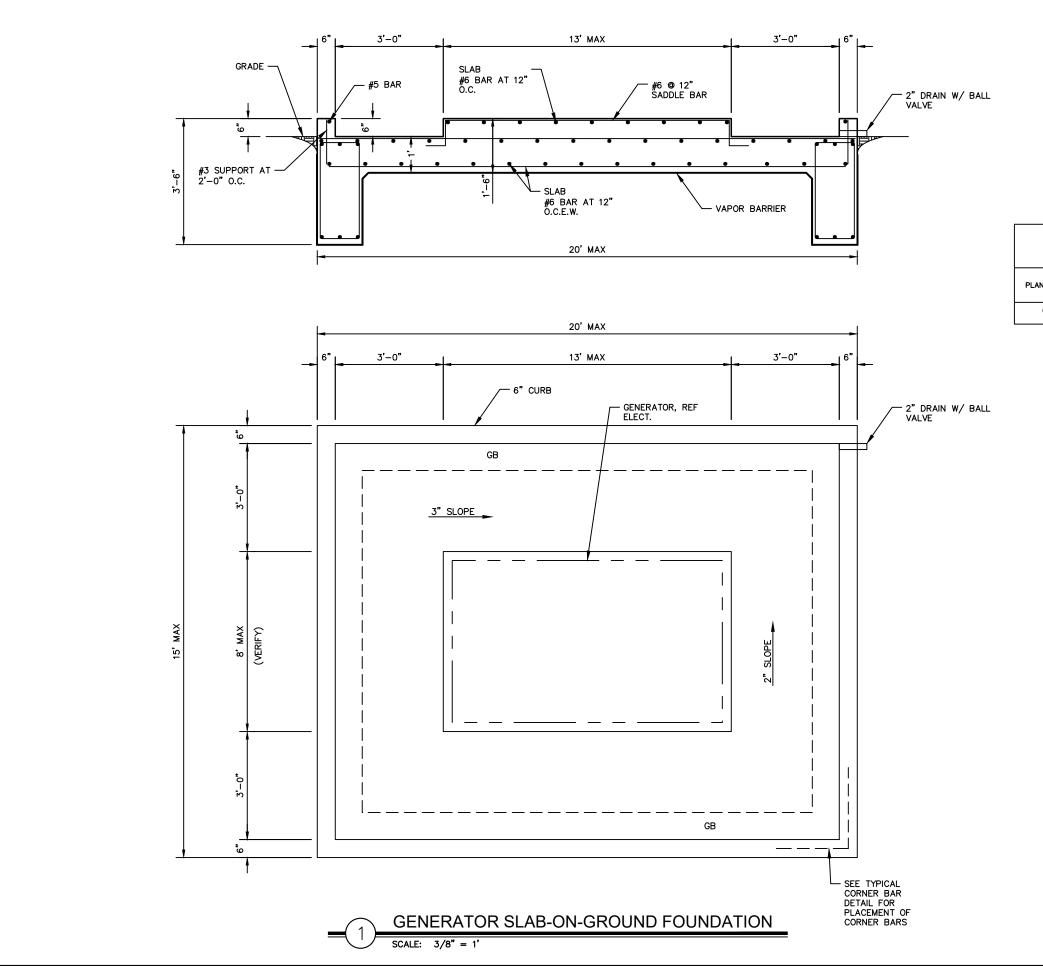
SCALE: 3/8" = 1'

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No.	ADDENDUM NO. 3	Kimley» Texas Registered Firm, No. F-92 601 NW Loop 410 Suite 350 San Antonio, TX 78216 Revision	28 Tel No.		
UE	SAN ANTONIO WATER SYSTEM	LEMON CREEK UPSTREAM SANIT PHASE SHEET PIPE SLA REINFORCEMEN	ARY 1B	SEWER	
DATE:	AUGUST 2021	SAWS PROJECT NO.		SHEET	
DESIG	N: JEL	21-3000			
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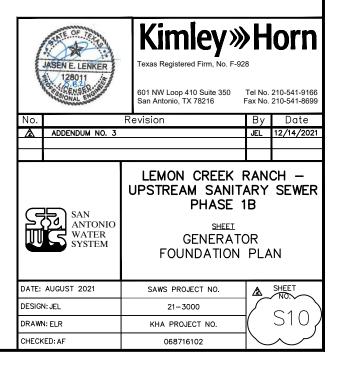
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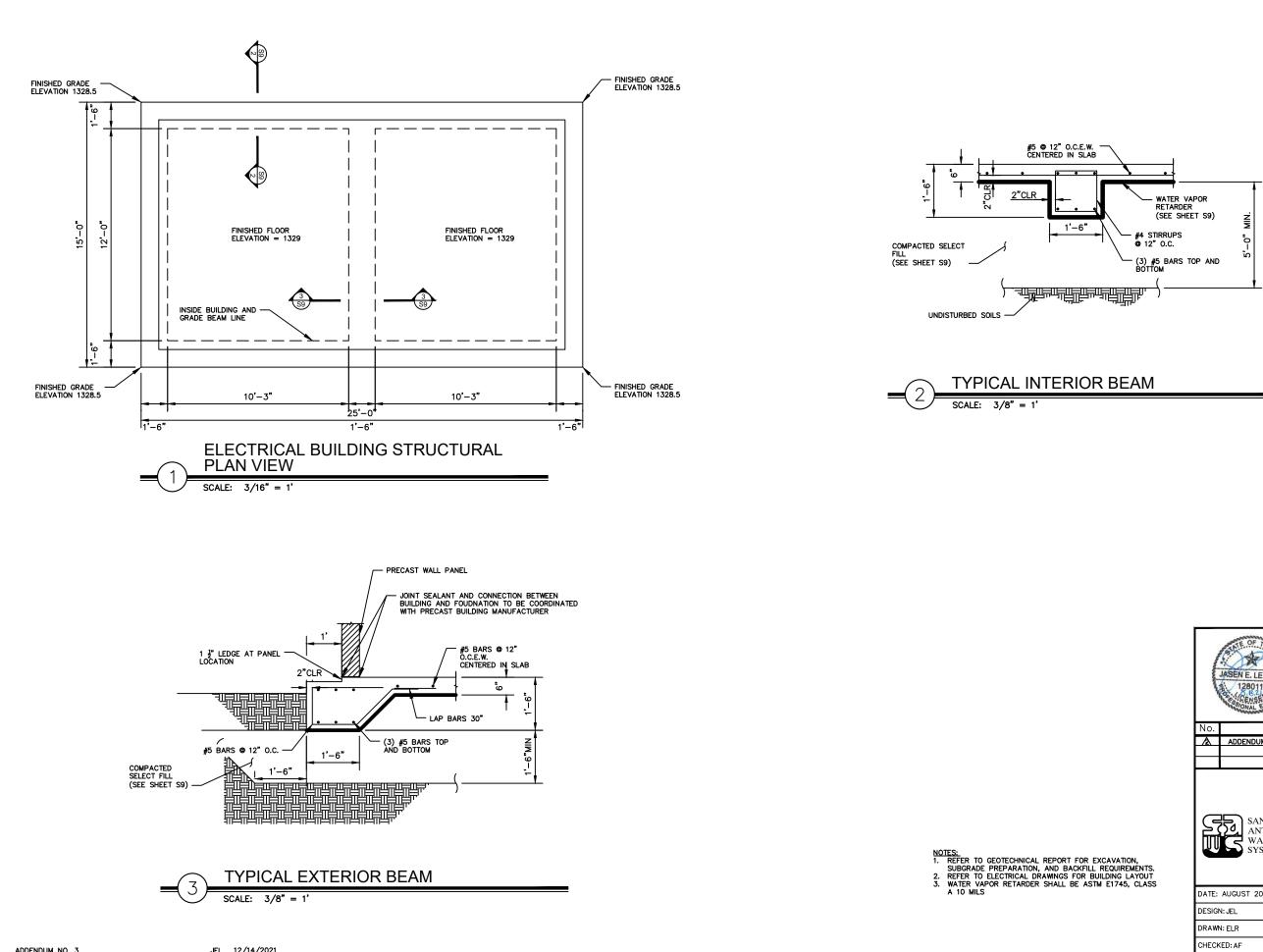
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- NOTES: 1. GENERATOR FRAME SHALL BE SOLIDLY ANCHORED TO CONCRETE SLAB. ALL COMPONENTS USED TO FASTEN THE GENERATOR SHALL BE MADE OF STAINELSS STEEL 316.D 2. CONDUIT STUB-UP AREA SHOWN IN THIS DRAWINGS IS FOR ILLUSTRATION PURPOSES ONLY. CONTRACTOR MUST VERIFY THE LOCATION OF THE STUB-UP AREA WITH THE GENERATOR MANUFACTURER AND ELECTRICAL DRAWINGS. DUCT BANK SHALL BE PLACED UNDER BOTTOM OF GRADE BEAM. 3. CONTRACTOR SHALL VERIFY GENERATOR AND PAD DIMENSION REQUIREMENTS WITH THE
- PAD DIMENSION REQUIREMENTS WITH THE GENERATOR MANUFACTURER AND ELECTRICAL DRAWINGS.
- 4. THE BOTTOM OF GRADE BEAMS SHALL BE PLACED 30" BELOW GRADE OR AT ELEVATION INDICATED ON THE PLAN, WHICHEVER IS DEEPER.

GRADE BEAM SCHEDULE

MIN. BEAM DEPTH	MIN. BEAM WIDTH	TOP BARS	BOTTOM BARS	STIRRUP	SPACING
3'-0"	1'-4"	3-#8	3-#8	#3 STIR.	12" OC





JEL 12/14/2021

	JASEN E. LENKER	Kimley » Texas Registered Firm, No. F-92 601 NW Loop 410 Suite 350 San Antonio, TX 78216	28 Tel No.	
No.	No. Revision			Date
∕⋧	ADDENDUM NO. 3			12/14/2021
	SAN ANTONIO WATER SYSTEM	LEMON CREEK UPSTREAM SANIT PHASE SHEET ELECTRICAL BI FOUNDATI	ARY IB UILD	SEWER
DATE:	AUGUST 2021	SAWS PROJECT NO.	▲	SHEET (
DESIG	N: JEL	21-3000	\square	$\begin{pmatrix} 1 \\ 1 \end{pmatrix}$
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