

ADDENDUM #1

Design-Build Services for Wastewater Treatment Facility Improvements

Peachtree City Water and Sewerage Authority
1127 Hwy 74 South, Peachtree City, GA 30269

Proposals Due: March 14, 2024 @ 5:00p

Pre-Proposal Meeting: January 25, 2024

RFP #: 2024-100

Date: February 7, 2024

INCORPORATE CHANGES INTO THE REQUEST FOR PROPOSALS AS DESCRIBED BELOW AND ATTACHED TO THIS ADDENDUM:

1. Question: *Is a short-term plant shut down possible at either of the treatment facilities? If yes, please specify what number of hours the plant can be shut down.*

Answer: Yes, a short-term plant diversion is possible. PCWASA has the ability to divert up to approximately 80% of plant flows from either facility to the other by operating a splitter box upstream of both plants. Current average daily flows for Line Creek and Rockaway are 1.4 MGD and 2.5 MGD, respectively. A small portion of influent flows enter the plants directly, avoiding the splitter box. This portion of flow would require bypass pumping around the site of work. This flow diversion may be maintained for multiple days, given the operation is performed during a dry period. Wet weather flows will overload a single facility. The Rockaway facility also has the ability to hold flows in the SBR basins for up to 8 hours. For bypass consideration at Line Creek, the plant has the capability to divert effluent to two reject storage ponds, having a total storage capacity of 18.7 million gallons.

2. Question: *Reference drawings indicate 2 UV banks installed at Rockaway and 3 at Line Creek. How many at each location are required to provide adequate disinfection, how many are redundant, and what is the operating condition of each?*

Answer: At Rockaway, of the 2 UV banks installed, one is redundant, and only one is necessary to achieve the required disinfection at an average flow 4 MGD. At Line Creek, of the 3 UV banks installed, one bank is capable of achieving the required disinfection at an average flow of 2 MGD, while the remaining 2 banks may be taken offline. The design parameters for the existing UV systems are attached.

3. NPDES discharge permit requirements are attached to this addendum. All effluent discharged to the designated surface waters must meet these parameters for the entirety of the project.
4. Additional drawings for the headworks at Line Creek have been provided for reference. The sheets are attached to this addendum.

5. In Attachment A, Scope of Work, under the Design-Builder's Scope of Services for the Line Creek WRF Headworks Improvements, please note that a conveyor is allowed in place of a washer/compactor for the new screen.

Existing UV Disinfection System Design Parameters



Table 3-23: Ultraviolet Disinfection System Technical Design Data

Description	Design Criteria
Manufacturer	Trojan Technologies, Inc.
Type	Low pressure, high-intensity
Model	UV3000 Plus
Peak Flow	5.0 mgd
Average Flow	2.0 mgd
Transmittance	Minimum 60%
Total Suspended Solids	5 mg/l, monthly average
Disinfection Requirements	23/100 ml fecal coliform, monthly average
Maximum Mean Particle Size	30 microns
Minimum UV Dose at Peak Flow	52,800 mW•s/cm ²
Channel Length	42 feet x 1.5 feet x 4.5 feet
Total Number of Channels	1
Total Number of Banks	3
Number of Modules per Bank	6
Number of Lamps per Module	8
Total Lamps	144
Channel Width	1.5 feet
Water Depth	24 inches
Number of System Control Centers	1
Number of UV Detection Systems	3
Number of Power Distribution Centers	3
Number of Level Controllers	1
Electrical Requirements	460 volt, 3 phase, 60 Hz

Table 3-24: UV Davit Crane Technical Design Data

Description	Design Criteria
Manufacturer	Thern, Inc.
Model	M4021PB, 5122M1-S
Type	Spur gear, hand wench
Number of Units	1 (2 crane bases)
Boom Extension	112 inches
Load Rating	110 lbs
Maximum Height	70 inches



Table 3-26: Ultraviolet Disinfection System Technical Design Data

Description	Design Criteria
Manufacturer	Trojan Technologies, Inc.
Type	Low pressure, high-intensity
Model	UV3000 Plus
Peak Flow	10.0 mgd
Average Flow	4.0 mgd
Transmittance	Minimum 60%
Total Suspended Solids	20 mg/l, monthly average
Disinfection Requirements	200/100 ml fecal coliform, monthly average
Maximum Mean Particle Size	30 microns
Minimum UV Dose at Peak Flow	52,800 mW•s/cm ²
Channel Length	42 feet x 3 feet x 4.5 feet
Total Number of Channels	1
Total Number of Banks	2
Number of Modules per Bank	12
Number of Lamps per Module	8
Total Lamps	192
Channel Width	3 feet
Water Depth	24 inches
Number of System Control Centers	1
Number of UV Detection Systems	2
Number of Power Distribution Centers	2
Number of Level Controllers	1
Electrical Requirements	460 volt, 3 phase, 60 Hz

Table 3-27: UV Davit Crane Technical Design Data

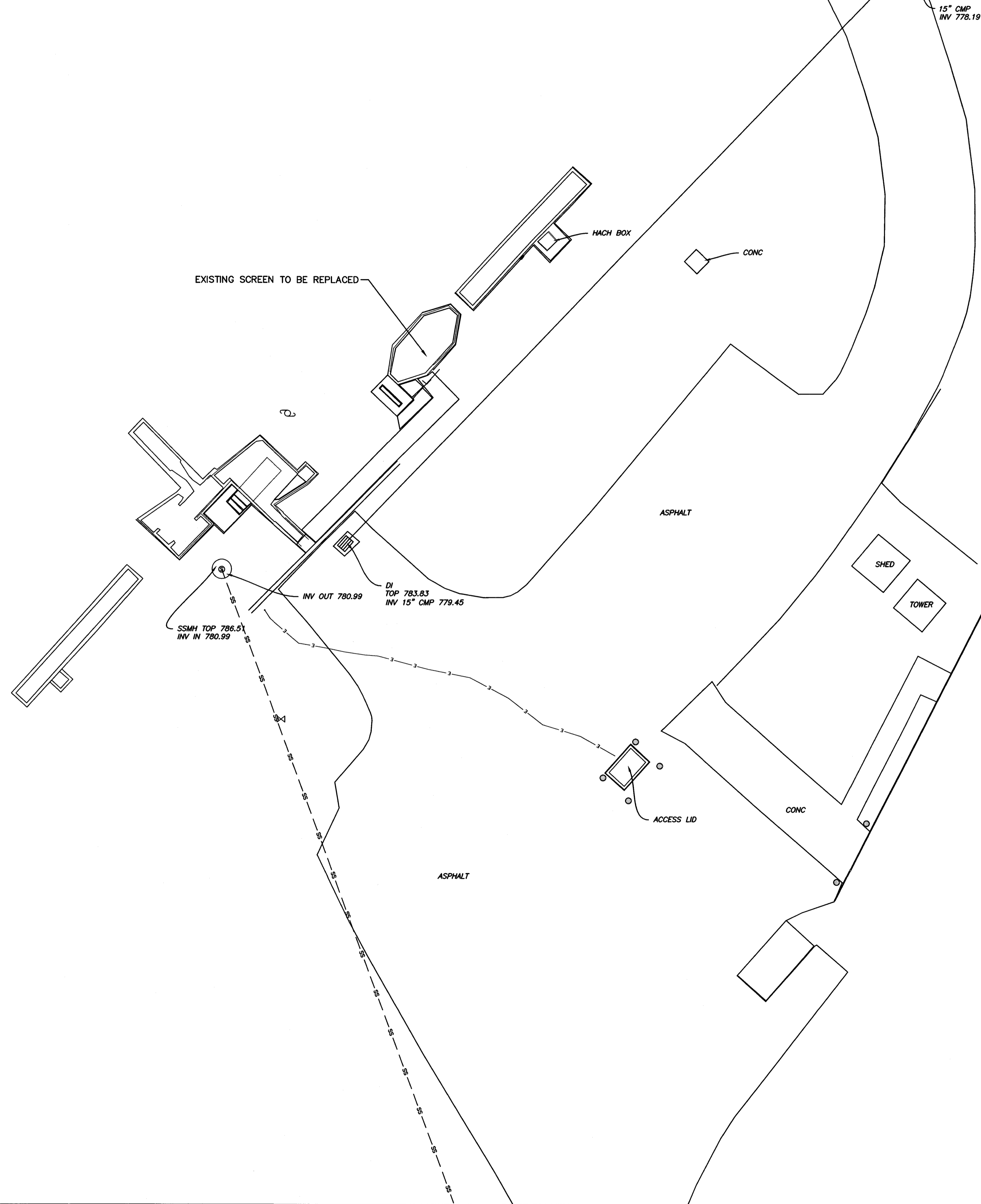
Description	Design Criteria
Manufacturer	Thern, Inc.
Model	M4021PB, 5122M1-S
Type	Spur gear, hand wench
Number of Units	1 (2 crane bases)
Boom Extension	112 inches
Load Rating	110 lbs
Maximum Height	70 inches

NPDES Discharge Permit Requirements

Parameter	Discharge Limitations in mg/L (unless otherwise specified)	
	Monthly Average	Weekly Average
Flow (MGD)		
May - October	1.6	1.975
November - April	2	2.5
Five-Day BOD		
May - October	5	7.5
November - April	8	12
TSS	10	15
Ammonia, as N	1	1.5
May - October	1	1.5
November - April	2	3
E. Coli (#/100 mL)		
May - October	20	40
November - April	126	410
pH (standard unit)	6 - 8.5	
Total Residual Chlorine, Max	0.02	
DO, Minimum	6	
Orthophosphate, as P	Report	
Total Phosphorus, as P	Report	
Organic Nitrogen, as N	Report	
Nitrate-Nitrite, as N	Report	
TKN, as N	Report	
Total Nitrogen, as N	Report	

Parameter	Discharge Limitations in mg/L (unless otherwise specified)	
	Monthly Average	Weekly Average
Flow (MGD)	4	5
Five-Day BOD	5	7.5
TSS	10	15
Ammonia, as N	1.9	2.9
E. Coli (#/100 mL)	126	410
pH (standard unit)	6 - 8.5	
Total Residual Chlorine, Max	0.02	
DO, Minimum	6	
Total Recoverable Copper (µg/L)	13	16
Total Phosphorus, as P	Report	
Orthophosphate, as P	Report	
Total Nitrogen, as N	Report	
Organic Nitrogen, as N	Report	
Nitrate-Nitrite, as N	Report	
TKN, as N	Report	
Total Recoverable Zinc	Report	
Bis(2-ethylhexyl)phthalate	Report	

Line Creek WRF Headworks Drawings



- DRAWING NOTES:**
- EXISTING CONSTRUCTION DRAWING FOR INFORMATION ONLY.
 - CONTRACTOR TO SATISFY HIMSELF OF ITS ACCURACY.
 - SEE C-3.2 THROUGH C-3.4 FOR ALL SECTIONS.
 - SEE E1.1 THROUGH E1.4 FOR ELECTRICAL

- DEMOLITION CONSTRUCTION NOTES:**
- ISOLATE BAR SCREEN USING SLIDE GATES SHOWN.
 - REMOVE AND REPLACE ONE BAR SCREEN AT A TIME LEAVING THE OTHER FULLY OPERATIONAL.
 - CONTRACTOR TO HAUL AWAY AND PROPERLY DISPOSE OF BOTH OLD BAR SCREENS.

- CONSTRUCTION NOTES:**
- NEW BAR SCREENS ARE OWNER FURNISHED. SEE SPECIFICATIONS AS TO TERMS AND CONDITIONS FROM OWNER.
 - INTENT OF THIS PROJECT IS TO REMOVE OLD SCREENS AND INSTALL FULLY FUNCTIONING NEW SCREENS. THIS INCLUDES ALL FASTENERS, WATER, ELECTRICAL, ETC. REQUIREMENTS.



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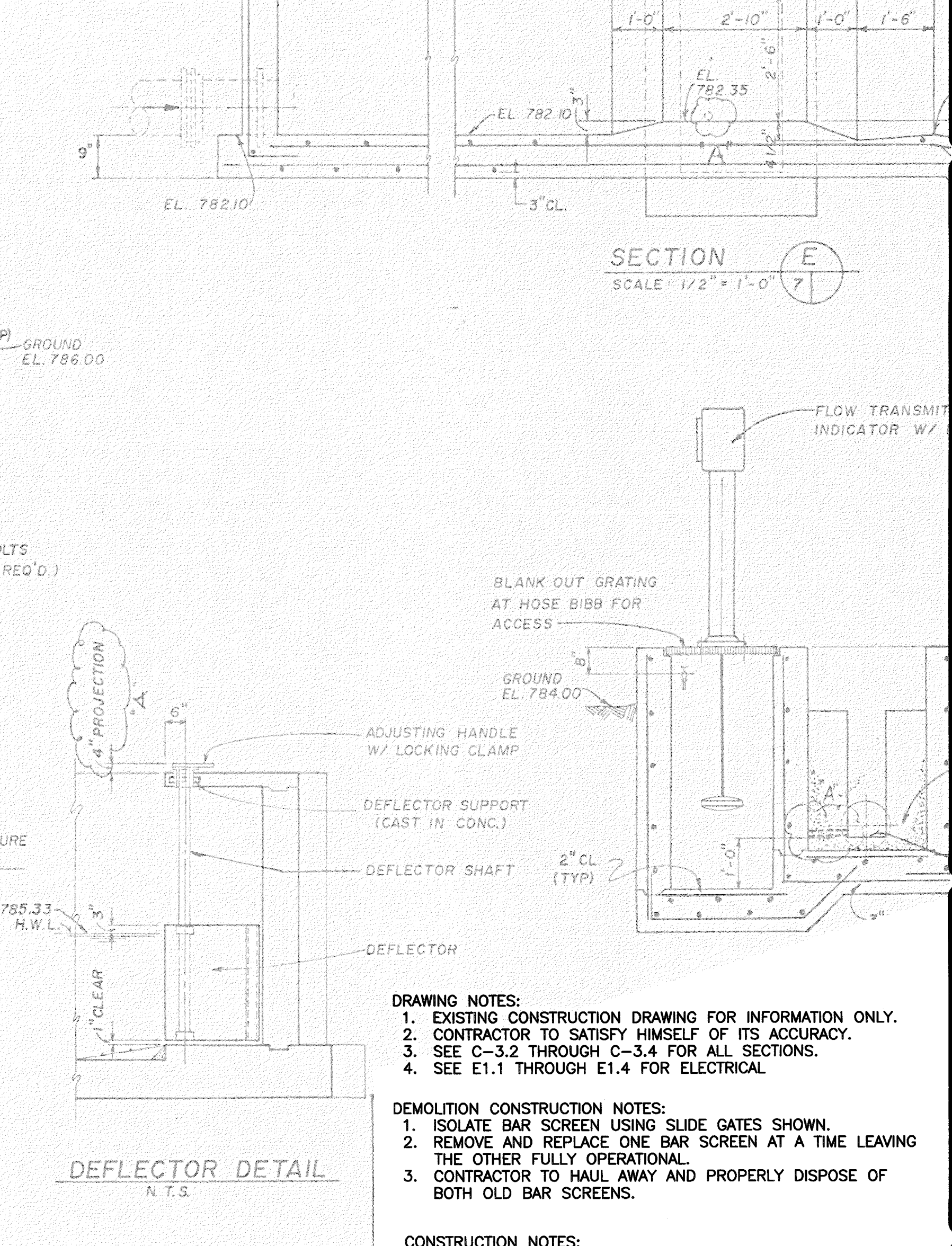
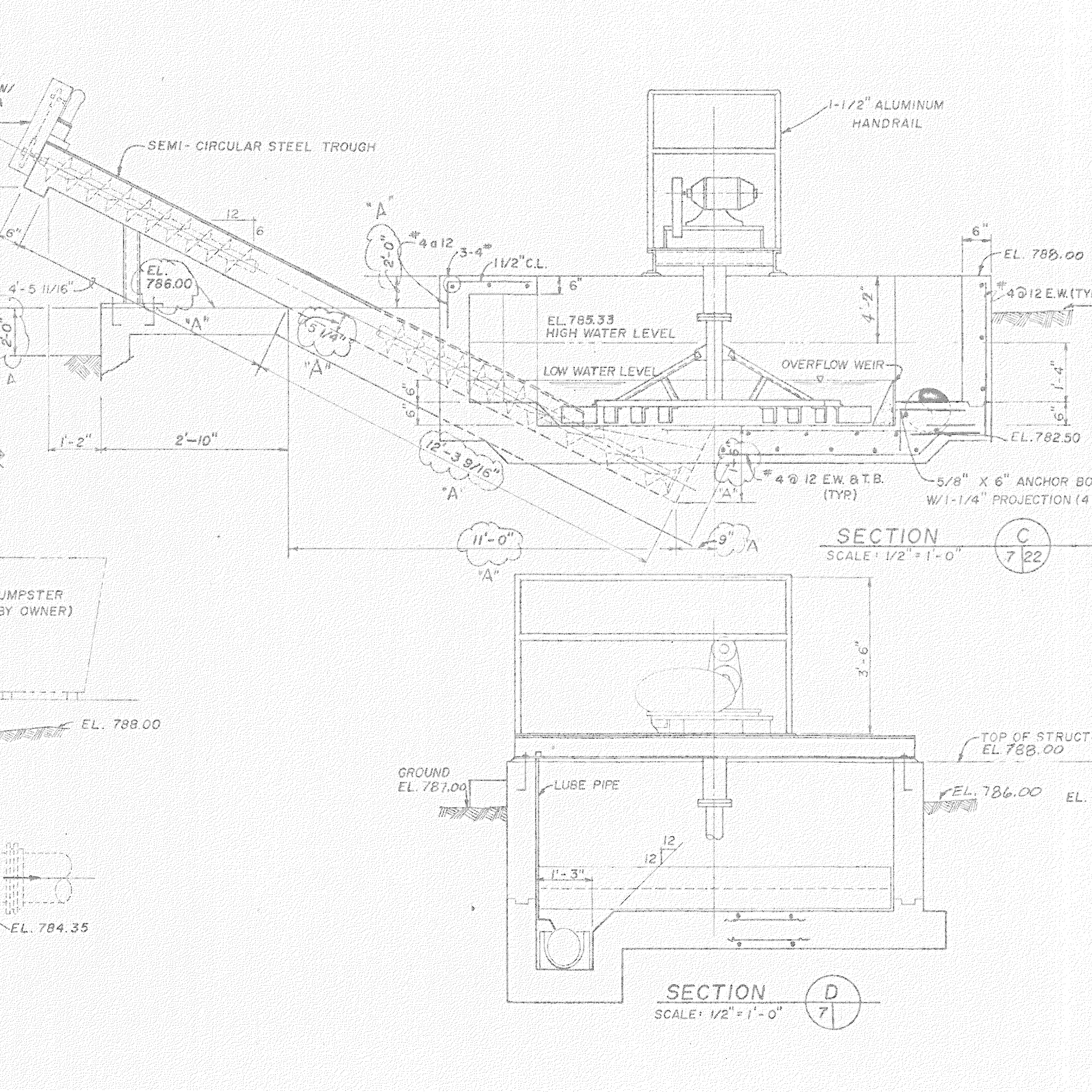
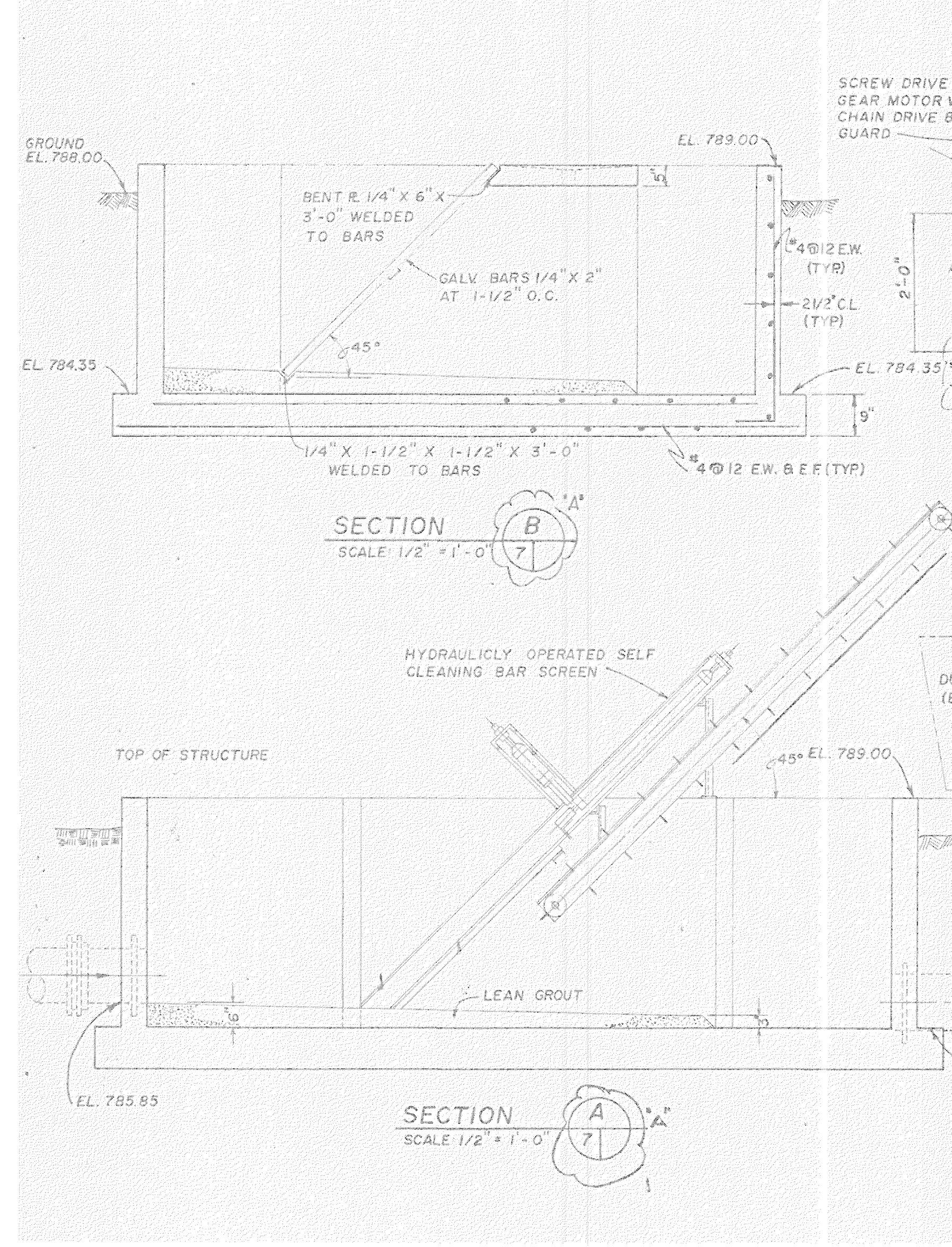
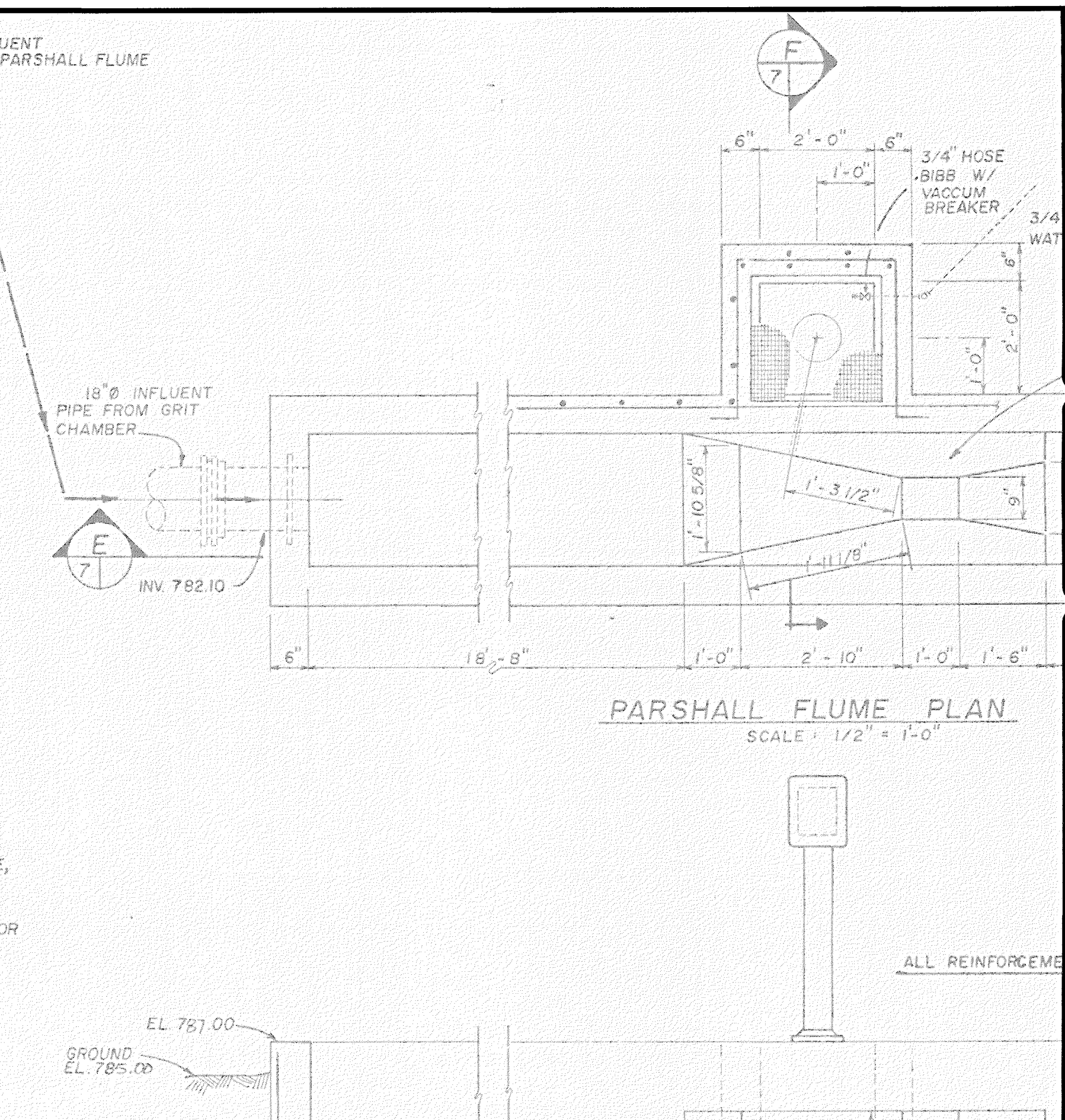
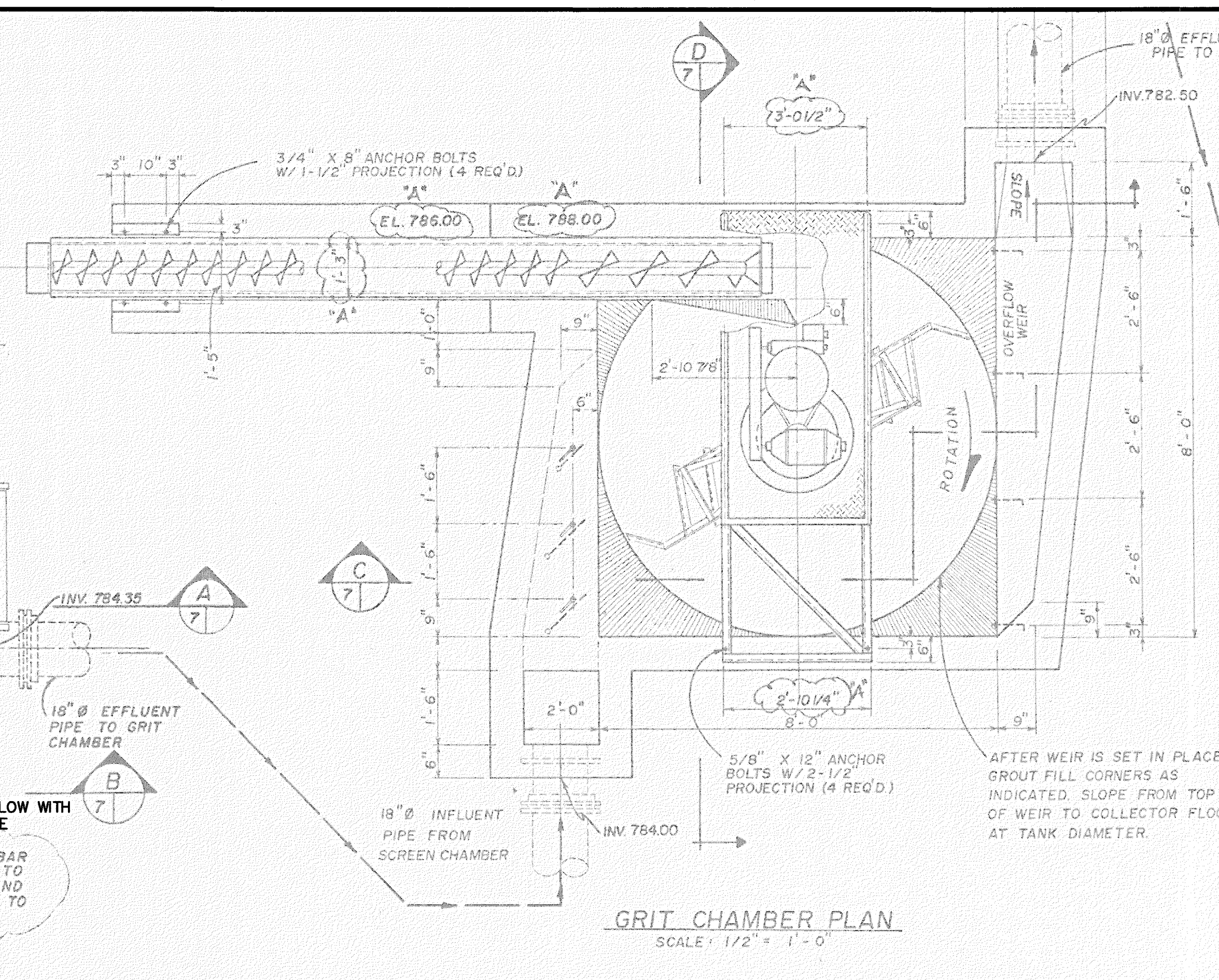
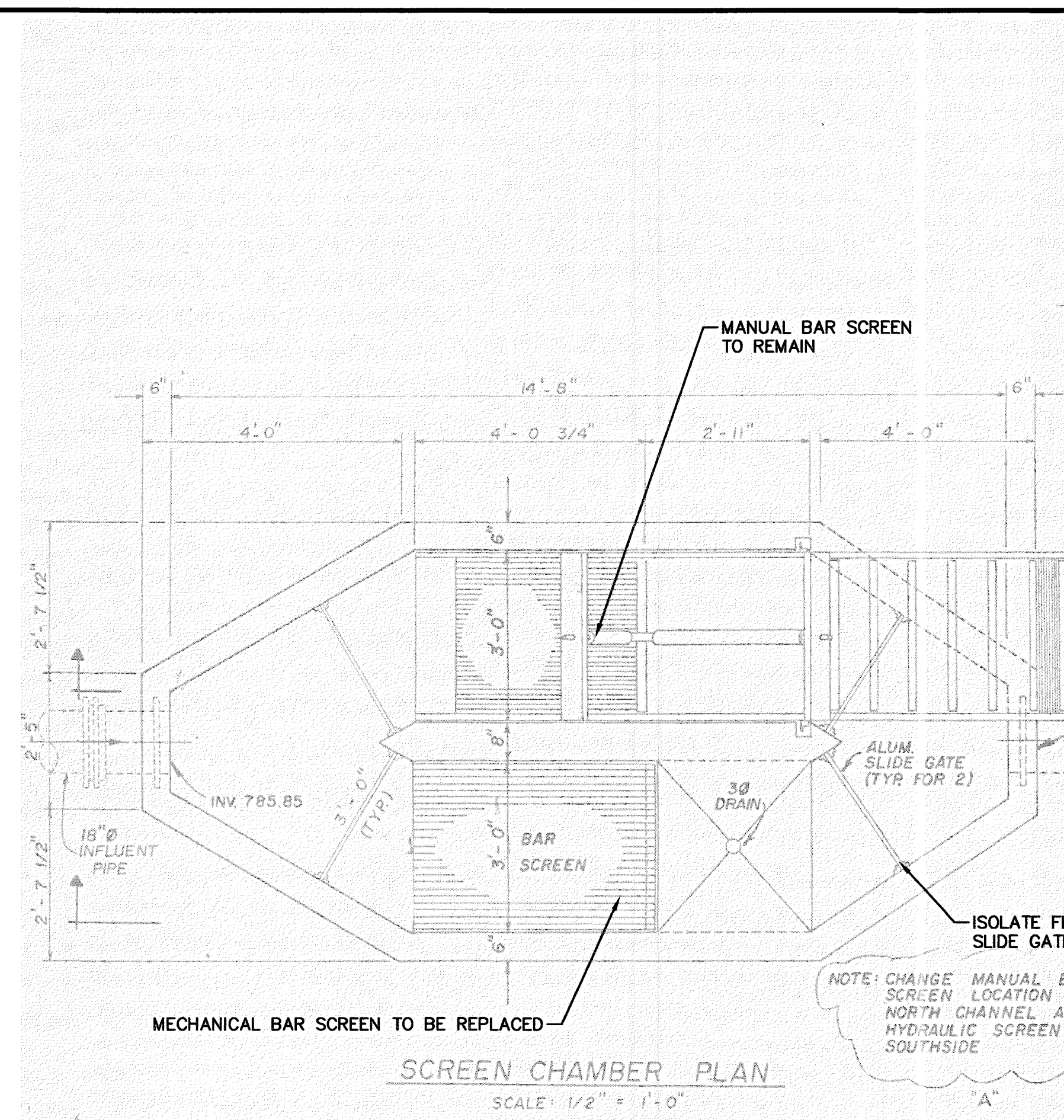
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CONSTRUCTION PLANS
FOR
LARRY B. TURNER WRF BAR SCREENS & REUSE P.S.
AND
ROCKAWAY WWP BAR SCREENS
PEACHTREE CITY WATER & SEWERAGE AUTHORITY
LOCATED IN LAND LOT 45 OF THE 5TH DISTRICT, PEACHTREE CITY, GEORGIA

LARRY B. TURNER WRF
HEADWORKS BAR SCREEN
EXISTING SITE PLAN

DRAWING NO.
C-4.1

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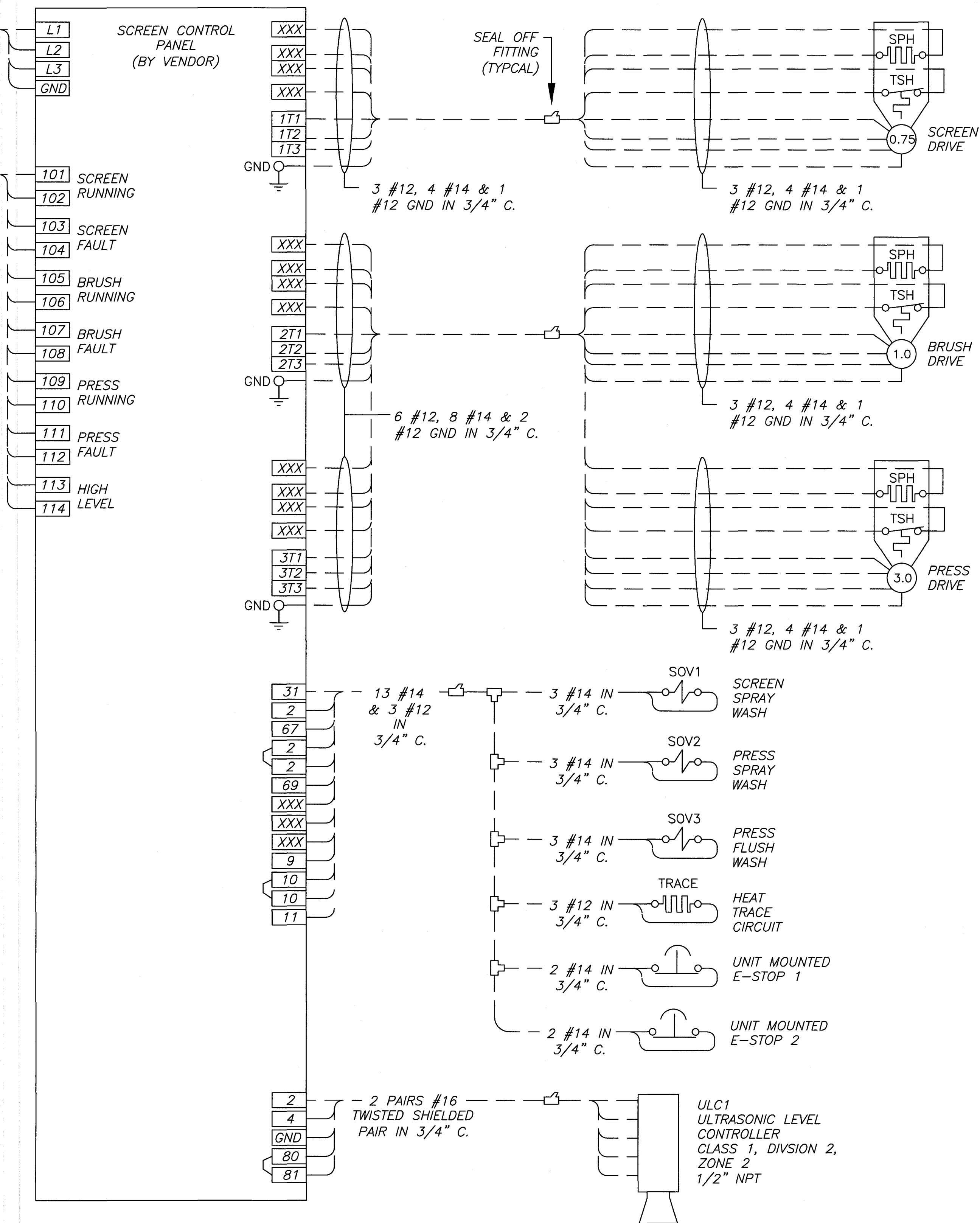
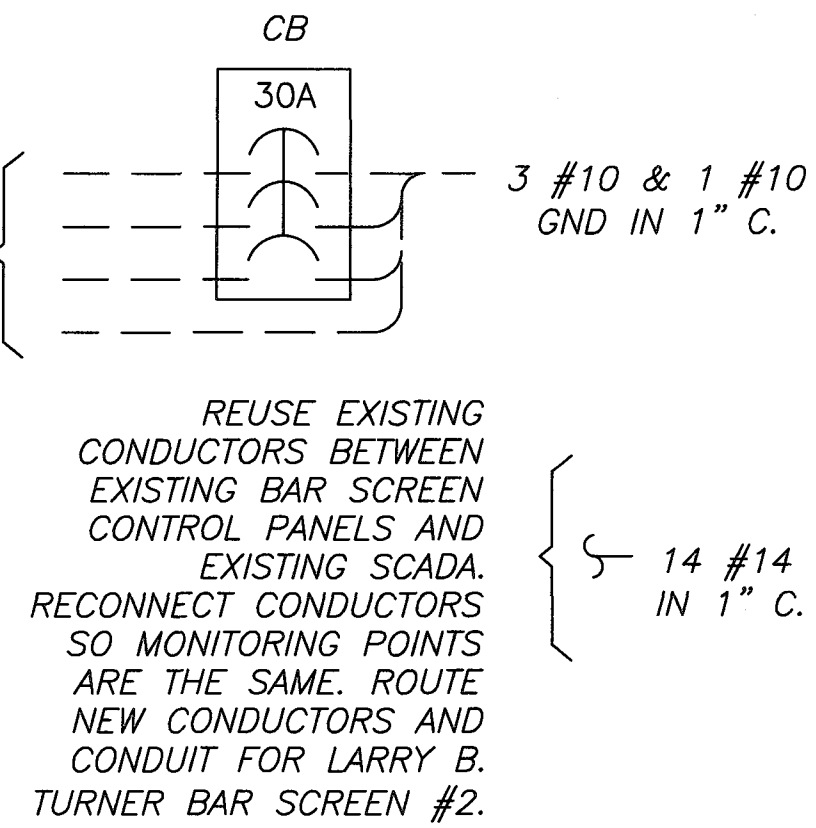
- DRAWING NOTES:**
- EXISTING CONSTRUCTION DRAWING FOR INFORMATION ONLY.
 - CONTRACTOR TO SATISFY HIMSELF OF ITS ACCURACY.
 - SEE C-3.2 THROUGH C-3.4 FOR ALL SECTIONS.
 - SEE E1.1 THROUGH E1.4 FOR ELECTRICAL.
- DEMOLITION CONSTRUCTION NOTES:**
- ISOLATE BAR SCREEN USING SLIDE GATES SHOWN.
 - REMOVE AND REPLACE ONE BAR SCREEN AT A TIME LEAVING THE OTHER FULLY OPERATIONAL.
 - CONTRACTOR TO HAUL AWAY AND PROPERLY DISPOSE OF BOTH OLD BAR SCREENS.
- CONSTRUCTION NOTES:**
- NEW BAR SCREENS ARE OWNER FURNISHED. SEE SPECIFICATIONS AS TO TERMS AND CONDITIONS FROM OWNER.
 - INTENT OF THIS PROJECT IS TO REMOVE OLD SCREENS AND INSTALL FULLY FUNCTIONING NEW SCREENS. THIS INCLUDES ALL FASTENERS, WATER, ELECTRICAL, ETC. REQUIREMENTS.

CONSTRUCTION PLANS FOR
LARRY B. TURNER WRF BAR SCREENS & REUSE P.S.
AND
ROCKAWAY WWTP BAR SCREENS
 PEACHTREE CITY WATER & SEWERAGE AUTHORITY
 LOCATED IN LAND LOT #5 OF THE 6TH DISTRICT, PEACHTREE CITY, GEORGIA

LARRY B. TURNER WRF HEADWORKS BAR SCREEN SECTIONS

DRAWING NO.
C-4.3

REUSE EXISTING CONDUCTORS BETWEEN EXISTING BAR SCREEN CONTROL PANELS AND 480V PANELS. RECONNECT CONDUCTORS AFTER NEW SCREENS ARE INSTALLED. ROUTE NEW CONDUCTORS AND CONDUIT FOR LARRY B. TURNER BAR SCREEN #2



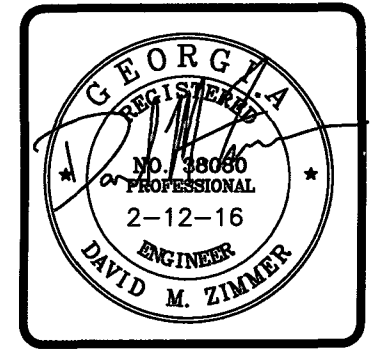
BAR SCREEN CONTROL PANEL SCHEMATIC (TYPICAL FOR 4 SCREENS)

NOTES

1. THE BAR SCREEN SCHEMATIC IS TYPICAL FOR FOUR SCREENS. CONTRACTOR SHALL REMOVE AND REPLACE THE TWO EXISTING SCREENS AT THE ROCKAWAY WWTP AND THE ONE EXISTING SCREEN AT THE LARRY B. TURNER WRF. THE CONTRACTOR SHALL ALSO INSTALL ONE NEW SCREEN AT THE LARRY B. TURNER WRF.
2. THE ABOVE SCHEMATIC IS BASED ON PARKSON AQUA SCREENS AND IS SUBJECT TO CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR ALL INTERCONNECTING WIRING AND CONDUIT BASED ON THE EXACT SHOP DRAWINGS.
3. THE AREA AROUND THE BAR SCREEN IS CLASS 1, DIVISION 2. ALL WORK SHALL CONFORM TO NATIONAL ELECTRICAL CODE ARTICLES 500, 501, AND 502.
4. PROVIDE WIRE LABELS ON EACH END OF CONDUCTORS. LABELS SHALL BE BASED ON SHOP DRAWING TERMINAL NUMBERS.

GENERAL CONSTRUCTION NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE 2014 EDITION, THE LIFE SAFETY CODE, AND ALL STATE, COUNTY AND LOCAL CODES.
2. THE CONTRACTOR SHALL OBTAIN ALL THE REQUIRED PERMITS FOR CONSTRUCTION. PAY ALL FEES AND OBTAIN ALL THE REQUIRED INSPECTIONS, IN PROVIDING THE OWNER WITH A COMPLETE ELECTRICAL SYSTEM, READY FOR CERTIFICATE OF OCCUPANCY.
3. THE CONTRACTOR SHALL COORDINATE THE WORK WITH ALL TRADES AT ALL STAGES OF CONSTRUCTION, COORDINATE THE LOCATION OF DEVICES TO AVOID CONFLICTS AND REPORT ALL SUCH CONFLICTS TO THE OWNER/ENGINEER. SEE SEQUENCING OF WORK NOTES FOR SCHEDULING RESTRICTIONS ASSOCIATED FOR WORK DETAILED.
4. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS BEFORE SUBMITTING HIS OR HER BID. WORK ON NEW CONSTRUCTION SHALL NOT OBSTRUCT DAILY OPERATIONS OF THE FACILITIES.
5. THE CONTRACTOR CAN COMBINE HOME RUNS FOR CIRCUITS ON A SINGLE RACEWAY. PROVIDE DEDICATED NEUTRAL. NO MORE THAN 3 CIRCUITS IN A SINGLE RACEWAY EQUIVALENT TO A 3 PHASE 4 WIRE CIRCUIT IN A SINGLE RACEWAY SHALL BE ACCEPTABLE.
6. UNLESS NOTED OTHERWISE, ALL SIGNAL CONDUCTORS SHALL BE ROUTED IN DEDICATED CONDUIT. DO NOT ROUTE WITH POWER OR CONTROL (#14) CONDUCTORS. WHEN SIGNAL CONDUCTORS SHARE COMMON JUNCTION BOX, PULLBOX, HANDHOLE, OR MANHOLE PROVIDE A PHYSICAL BARRIER BETWEEN CONDUCTORS.
7. CONTRACTOR SHALL TERMINATE ALL CONTROL AND SIGNAL CABLES IN ALL CONTROL PANELS. PROVIDE WIRE LABELS FOR ALL CONDUCTORS.
8. THE CONTRACTOR SHALL INSTALL NEW CONDUCTORS AND CONDUIT AS SHOWN ON THE DRAWINGS. ALL 480V CONDUCTORS SHALL BE 600V, COPPER WITH XHHW-2 INSULATION. ALL 120V CONDUCTORS SHALL BE 600V, COPPER WITH THWN-2 INSULATION.
9. ALL OUTSIDE DEVICES SHALL BE NEMA 4X SS INCLUDING BOXES, PULL BOXES, JUNCTION BOXES, PANELS, HARDWARE, FASTENERS, ETC., UNLESS NOTED OTHERWISE.
10. CONTRACTOR COORDINATE ALL DUCTBANK ROUTING WITH EXISTING UNDERGROUND PIPING, CONDUITS, TREES, AND UTILITIES.
11. ALL CONDUIT SHALL BE PVC COATED RIGID (TO MATCH EXISTING) UNLESS NOTED OTHERWISE. ALL UNDERGROUND CONDUIT SHALL BE PVC-SCHEDULE 40 WITH RIGID ELBOWS. ALL CONDUIT SUPPORTS SHALL BE PVC COATED RIGID WITH STAINLESS STEEL HARDWARE.
12. ALL EXTERIOR CONDUIT, CONTROL PANEL, PULL BOX, ETC. CONNECTIONS SHALL BE MADE WITH MYERS WATERTIGHT PVC COATED RIGID HUBS. ALL CONNECTIONS SHALL BE MADE FROM THE BOTTOM. TOP OR SIDE PENETRATIONS ARE NOT PERMITTED.
13. ALL UTILITY RACKS SHALL UTILIZE ALUMINUM CHANNELS AND UNITSTRUT.
14. CONTRACTOR SHALL PAY ALL COSTS ASSOCIATED WITH THE SCADA UPGRADES AT THE ROCKAWAY WWTP AND THE LARRY B. TURNER WRF. UPGRADES SHALL BE BY UNIVERSAL CONTROLS (MR. TIM SPENCE AT 770-781-4500) AND PAID FOR BY THE CONTRACTOR.
15. CONTRACTOR SHALL FIELD COORDINATE EXACT BAR SCREEN MOTORS AND INSTRUMENTS LOCATION WITH MANUFACTURER'S SHOP DRAWING PRIOR TO ROUTING CONDUIT.



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CONSTRUCTION PLANS FOR LARRY B. TURNER WRF BAR SCREENS & REUSE P.S. AND ROCKAWAY WWTP BAR SCREENS PEACHTREE CITY WATER & SEWERAGE AUTHORITY LOCATED IN LAND LOT #5 OF THE 6TH DISTRICT, PEACHTREE CITY, GEORGIA

ELECTRICAL NOTES AND BAR SCREEN SCHEMATIC

ESAD PROJECT #16011

ESAD LLC
2300 LAKE PARK DRIVE
SUITE 250
SMYRNA, GA 30080
PH: 678-469-5196

DRAWING NO. **E1.1**

