

March 12, 2018
BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA

IFB Y18-729-TA, ADDENDUM NO. 5

**SOUTH WATER RECLAMATION FACILITY (SWRF) INFLUENT PUMP STATION
IMPROVEMENTS**

BID OPENING DATE: ~~March 15, 2018~~ March 29, 2018

This Addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions, and/or revisions to and shall take precedence over the original documents. Additions are indicated by **underlining** and deletions via ~~strikethrough~~.

A. The bid opening date is hereby modified from ~~March 15, 2018~~ to March 29, 2018.

B. BIDDERS QUESTIONS

1. Drawings C-17, C-18, C-22 and C-23 have several bolded notes about Abandoned Buried Foundation and Partial Walls of former treatment facility structures. This information is not shown on the bidding Influent Pump Station Drawings. The Geotechnical Report does not show any indications of these structures as well. Were these structures completely removed? Were these structures partially removed and buried? This information is very important due to the Temporary Excavation Protection systems, Interferences, and Scheduling.

Response No. 1: The drawings provided Addendum #3 should not be considered as as-built or record drawings. All Bidders are required per Part C – INSTRUCTION TO BIDDERS, 2. (k), to carefully examine the site of the proposed work and make all necessary investigation to inform themselves thoroughly as to all difficulties involved in the completion of all work required pursuant to the mandates and requirement of this bid package.

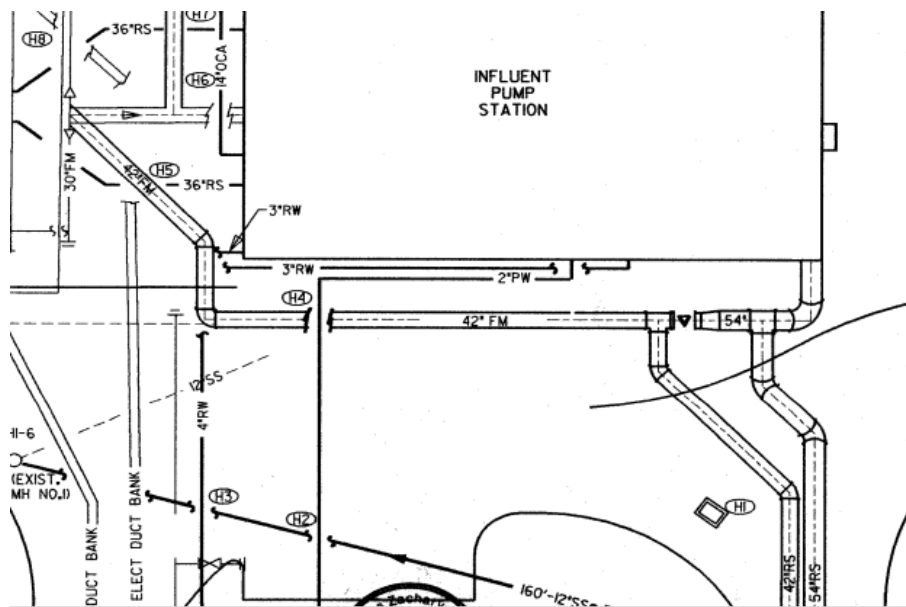
2. Drawing C-18 shows Instrumentation and Electrical Ductbanks going to the Old IPS (as it is now called). These ductbanks would pass directly through the New Influent Pump Station construction. These ductbanks do not show up on the Site Demolition Plan C04 or on the Electrical Site Plan E02 for the New Bidding Project. Do these ductbanks still exist? If so, can they be completely eliminated with the Demolition of the Old IPS? If so, are there any details on them as far as concrete encasement?

Response No. 2: The drawings provided Addendum #3 should not be considered as as-built or record drawings. All Bidders are required per Part C – INSTRUCTION TO BIDDERS, 2. (k), to carefully examine the site of the proposed work and make all necessary investigation to inform themselves thoroughly as to all difficulties involved in the completion of all work required pursuant to the mandates and requirement of this bid package.

- Drawings E-3 and E-4 show Ductbank Section P directly over the location for the New 54" x 48" Taps and 54" Linestops. Is that truly the location of that ductbank? It looks like the main feed for the Existing IPS Electrical Room.

Response No. 3: The drawings provided Addendum #3 should not be considered as as-built or record drawings. All Bidders are required per Part C – INSTRUCTION TO BIDDERS, 2. (k), to carefully examine the site of the proposed work and make all necessary investigation to inform themselves thoroughly as to all difficulties involved in the completion of all work required pursuant to the mandates and requirement of this bid package.

- C-35 New Yard Piping Partial Plan "H" shows a completely different piping configuration for the 54" exiting the SE corner of the Existing IPS. Please see a picture below. If this is truly the piping configuration, it may be impossible to perform the Linestops and Hot Taps as shown on the Bid Documents. Can we confirm the piping configuration?



Response No. 4: The drawings provided Addendum #3 should not be considered as as-built or record drawings. All Bidders are required per Part C – INSTRUCTION TO BIDDERS, 2. (k), to carefully examine the site of the proposed work and make all necessary investigation to inform themselves thoroughly as to all difficulties involved in the completion of all work required pursuant to the mandates and requirement of this bid package.

- What is the pipe material of the 36" Inactive Pipe Lines tagged for demolition from the Old IPS to the Existing IPS. Are any of the pipelines tagged for demolition encased in concrete?

Response No. 5: Material is unknown but it is assumed that the pipe is not encased in concrete outside of the structure foundation.

6. Please confirm that both CCTV inspections of the gravity sewer pipeline as called for in Spec Division 02774 3.03 C.2. can be performed in the wet and no drainage or bypassing of the line is needed.

Response No. 6: Confirmed.

7. Please confirm if the 42" Plug Valve shown on drawing C04 on the 42" RS is active and functioning.

Response No. 7: The 42" Plug Valve on the 42" RS cannot be operated.

8. On yard pipe bedding requirements, drawing C14 is showing stone bedding as detailed in the Bedding and Trenching - Type A details on Drawing C12. Please confirm that Type A Bedding and trenching is required and identify which utility pipe it is applicable to.

Response No. 8: Assume Type A bedding for all piping installations.

9. There are a couple notes on Drawing M-8 about the 30" x 24" Riser Pipes. They do not show any supports on the risers but the notes below suggest that some are required. There are no details or design criteria for the pipe supports. How do we include a cost in our Bid for the supports if we have no information on quantity, locations, purpose or design requirements?

NOTES

1. DISCHARGE PIPING PIPE SUPPORTS IN DISCHARGE PIPING PIPE SUPPORTS IN WET WELLS TO BE DESIGNED AND SIGNED/SEALED BY PE FLORIDA STATE STRUCTURAL ENGINEER.

2. PIPE SUPPORTS TO BE 316 STAINLESS PIPE SUPPORTS TO BE 316 STAINLESS STEEL.

Response No. 9: Note 1 states, "DISCHARGE PIPING PIPE SUPPORTS IN WET WELLS TO BE DESIGNED AND SIGNED/SEALED BY PE FLORIDA STATE STRUCTURAL ENGINEER." The piping support design (support type, connection, spacing, etc.) shall be based on the structural engineer's calculations to support the discharge piping based on piping length, loads and other factors that contribute to the support design.

See Specification Section 15126 FOR THE PROJECT REQUIREMENTS for piping support.

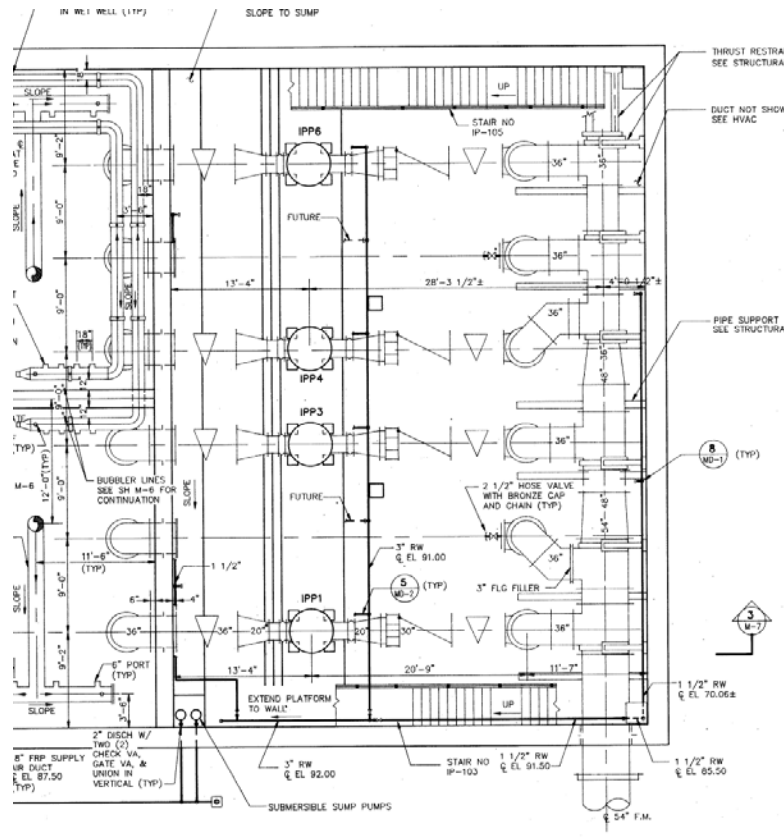
10. On page E06 & E08 indicate in some of the areas that the ductbanks will be encased concrete with rebar (typ.) (Detail 3/E21). That means, all the excavations close to the Influent Pump Station Electrical Building & Influent Pump Station will be encased concrete with rebar (typ.) or only the ones indicate in drawings with the detail 3/E21. Please Advice.

Response No. 10: All conduit shall be encased in concrete with rebar – in each case the callout for 3/E21 is noted as Typical.

11. On detail 3/E21 doesn't mention that we have to exothermic weld the rebar, only the #4/0 Conductor to the Ground Rod. Are we having to exothermic weld the rebar also?

Response No. 11: The grounding conductor shall be exothermic welded to the ground rods. Connection of the grounding conductor to the rebar in the concrete encasement is not required.

12. Can we get clarification on what is to be removed in the East end of the Existing Pump Station. M01 just has a generic note in the middle of the Existing Pump Station. M05 Note 2 says to Remove all equipment inside the pump room but only the piping and risers are hatched for demolition. Please see section Drawing M-5 from the Phase 3A Expansion. Can we get clearer limits and descriptions of what gets removed?



Response No. 12: Drawing M05 has been reissued. See Note 2 on M05 and attached picture.

13. Drawing C06 Shows Taps and Linestops for PCCP Pipe. Please provide details for thrust blocks or mechanical restraints.

Response No. 13: This is Contractor's means and methods. See Specification Section 02282 Connections to Existing Buried Pipelines.

14. Please provide information required for successful Pipe Taps and Linestops on the 54" and 42" PCCP pipelines. Pressure, flow rate, and temperature of the pipeline contents.

Response No. 14: Pressure is estimated to be between 60' to 82'. Flow rate is estimated to be between 12,500 gpm and 21,000 gpm. Temperature is estimated to be between 60 – 75 degrees F.

15. On Drawing C-18 there appears to be longitudinal conflict between the 2' Fiber & Telcon Ductbank and the 12" RWM. Please provide alternate routing to avoid longitudinal conflict.

Response No. 15: The ductbank will be relocated prior to construction starting. See attached reference drawing, *Fiber/Telecom Power Routing*. Contractor shall protect the ductbank during construction activities.

16. Regarding the 63" OD HDPE RS Lines connecting from the Proposed Outlet Box to the Proposed Isolation Box, please allow the use of one joint that can be made in the trench for each of the 3 pipe runs. Since these pipes are embedded in concrete on both ends of relatively short runs, these couplings are necessary to provide proper line and grade. Also, the excavation to install these pipes will be 25' deep, and we will not be able to install the pipe run in one piece due to bracing required for the SOE. Please allow either a flange joint, or a mechanical coupling similar to a Romac Style 400.

Response No. 16: The intent of the design is to fabricate at the factory and ship the three 63" HDPE manifold pipes in up to three sections for each separate manifold pipe. Some manifold pipes could be fabricated at the factory in two sections. Each section cannot be longer than 50 feet for shipping by truck. At the jobsite, the 2 or 3 pieces of each manifold pipe will be fused together using an HDPE fusion machine. The use of couplings or flanged connections shall not be allowed. The fusion process may occur aboveground or in the trench, at the contractor's option. If the fusion process occurs aboveground, the entire fused piece of each manifold pipe will be lowered into place within the trench, using appropriately sized cranes or other hoisting equipment with heavy duty cloth slings to lift the pipe section into place prior to pouring the concrete around both pipe ends. The contractor will need to design and construct the trench/excavation support system adequately to allow lowering and placement of the 63" HDPE pipe manifolds, without interference from the excavation support system. It is highly suggested that the contractor use the services of experienced geotechnical and structural engineers to design the earth support system that will be required for this Project.

17. Specification Section 15066-2.01B requires HDPE pipe to be DR-11 pressure class 160 for wastewater force mains. Drawing M06 shows 63" HDPE RS lines to be DR—21. Which class pipe shall be used for the 63" RS lines?

Response No. 17: Pipe shall be as required per Sheet M06, DR-21.

18. The contractor is requirements to complete the New IPS in 570 days for Partial Utilization Milestone. With consideration being given to Article 18 – Progress Schedule requirement us to having 10% float for unforeseen conditions added to the Critical path you are reducing the actual construction duration to 513 days. After completing a schedule, it is apparent that the construction for this phase would take another 180 days,

or 693 days or 23 months. By maintaining the current duration of 570 days you will be increasing the bid price for all the overtime hours for construction, inspections, overhead and possible damages that would be necessary to comply with the project time as specified. So, in the best interest of the owner, extending the duration for the Partial Utilization Milestone would not impact the substantial or final completion dates and would result in a more competitive bid price \$. We are requesting that duration be extended to 693 days. Please consider this request.

Response No. 18: The Construction Schedule remains unchanged.

19. Multiple Civil drawings, typical of C02 and Landscape drawing L02 indicate a 0.65" Wide Wall around three sides of the Existing IPS Influent Box. No drawing notes or details indicate if this wall is a new proposed wall or an existing wall. Our site visit photos appear to indicate that a wall does not currently exist around the box other than the extension of the box walls forming a concrete curb above grade. Please advise if the contract requires a new construction of a screen wall around the box. If a new wall is the intent, please provide construction details for the proposed wall.

Response No. 19: The wall is existing.

20. 03300 Hot Weather Requirements: 3.07 A.2 requires ice or other means to cool concrete to a temperature not exceeding 80 degrees. A temperature of not greater than 80 degrees is not standard in the industry whereat 85 to 90 degrees is the norm. ACI 301-16 Specification for Structural Concrete and AC 305.1-14 Specification for Hot Weather Concreting both prescribe the limit of maximum concrete temperature at point of placement to be 95 degrees F. Accordingly, please consider raising the allowable maximum concrete temperature at point of placement.

Response No. 20: Yes, it is acceptable to increase the allowable concrete temperature at the point of placement to 90 degree F.

21. 03300 Aggregate for Concrete: paragraph 2.02 F indicates Aggregate Grade 467 for sections greater than 17 inches. We have discussed mix designs with three Orlando ready mix producers, each of whom indicate that 467 stone is not readily available and will need to be custom blended at their facilities for a substantial premium cost. Please review and advise if the normal 57 aggregate grade is acceptable in the greater than 17" sections.

Response No. 21: Yes, #57 stone is acceptable in lieu of #467.

22. Leak Test Structures: Addendum #4 Q/A #22 response indicates leak testing of the IPS is no longer required. However, Addendum #4 specification revisions to 09970 Specialty Coatings for Concrete and 04014 Sequence of Construction each narrate that injections and other activities ensuring water-tightness of the structure shall be performed as required to provide a watertight structure in accordance with coating system manufacturer requirements. Is the intent of this prescription that the coating system manufactures representative complete a visual inspection of the tank walls for the purpose of locating areas in need of possible injection or possible other preparation prior to the coating system installation?

Response No. 22: Yes, the intent is that the coating system manufacturer field verify the surfaces prior to the coating application as stated in paragraph 3.04.C of section 09970.

23. We have requested that the Owner accepts generator status of all known and unknown pre-existing hazardous materials and will sign transportation manifests as such. The EPA and the State of Florida define hazardous waste generation on a "site-specific" basis. Manifest Forms must be completed prior to removal. *This is Title 40 CFR Part 262, Subpart B requires the use of the Uniform Hazardous Waste Manifest (EPA Form 8700-22 and 8700-22a) for hazardous waste shipments. Florida adopted 40 CFR Part 262, Subpart B by reference in Rule 62730.160(1), F.A.C. Under that standard we are expecting the Owner accept Generator status for pre-existing conditions. The Contractor's Abatement Sub is only to remove the listed Hazardous Materials in accordance to the EPA NESHAP and Florida EPA NIOSH recommendations. Please confirm that the owner will comply with this request.*

Response No. 23: The Owner will accept generator status in accordance with the U.S. Comprehensive Environmental Response, Compensation & Liability Act (CERCLA), Title 42, Subsection 96.01, et al.

24. Please confirm that the owner will employ and pay for an Independent Material Testing Laboratory to perform the initial testing as stated under Specification Section 01410 - Quality Control?

Response No. 24: The County will pay for on-site concrete cylinders and compaction testing. The County will not pay for factory testing of equipment or materials and is to be included in bid price.

25. Reference 09900: Does the exposed interior/exterior ductile iron pipe that is required to be field painted need to be sandblasted as per SSPC-SP-6 in the field or is this just for shop prep?

Response No. 25: Refer to Specification 09900 section 2.05.

26. Reference 09900: Which floors are systems 2.09, A, B, C. to be applied?

Response No. 26: 2.09 A, B and C is not applicable to this project.

27. Reference 09900: Electrical Building Floor. What system is to be applied?

Response No. 27: Electrical Building floor requires no additional treatment or finish beyond the concrete MVRA add mixture to the concrete at the time of concrete installation. The flooring finish is to be a ¼" thick rubber mat that shall be insulated to 20,000 ORMS volts and conforming to ASTM D178, Type II, Class 2 and shall be continuously branded on the back. Additional note regarding the flooring mat requirements is found on Architectural sheet A03.

28. Reference 09900: Does the interior concrete vertical surfaces, slab or underside of top deck of the reworked channels within the existing Influent Pump Station receive any coating? If so will it be system 2.08-D? If not please identify what system the contractor should use.

Response No. 28: New interior concrete walls and ceilings installed at the Existing IPS shall be lined to match the existing Sauereisen polymer coating/liner on the Existing IPS walls and ceiling. The polymer coating/liner shall equal the properties of the existing Sauereisen polymer coating/liner. Application of the coating/liner shall include a minimum 24-inch overlap of existing walls or ceilings adjacent to the new concrete installed for this Project. Surface preparation of new concrete and existing concrete with the existing Sauereisen polymer coating/liner, prior to new coating/liner application, shall be in accordance with the new coating/liner manufacturer's written application instructions. The new coating/liner shall be applied to the new concrete and the existing concrete overlaps in strict accordance with the new coating/liner manufacturer's written application instructions.

29. In Reference to Section 15100-10 2.11 Plug Valves, will it be a requirement of the Valve Manufacturer to demonstrate they have experience manufacturing 66" plug valves with a minimum of two projects within the last 5 years and list the location, name and phone number for verification?

Response No. 29: Yes, it will be a requirement.

30. Will Orange County specifications apply to the current bid? Orange County section 3310 2.03 Plug Valves A. 5 states "Packing shall be adjustable and safely replaceable"? 2.03 C. states "Valve packing adjustment shall be accessible without disassembly of the valve actuator"?

Response No. 30: Yes, Section 15100 will be modified by Addendum to include verbiage similar to the OCU requirements stated above. See revision in Part B Specification of this addendum.

C. SPECIFICATIONS

Section 15100:

Item 1, Section 15100, paragraph 2.11.B, second sentence, is revised to read as follows:

Valve packing shall be accessible, adjustable and safely re-packable without any disassembly of the valve or the valve actuator.

Item 2, Section 15100, paragraph 2.11.D, Eccentric Plug Valves: The following subparagraph 2 under paragraph D is added:

2. Valve bushings shall be Type 316 stainless steel in both the upper and lower journals and shall be protected from foreign material with the use of a grit seal or similar device.

D. DRAWINGS

1. **Drawing M05 to be replaced in its entirety with the attached drawing.**

E. ACKNOWLEDGEMENT OF ADDENDA

- a. The Bidder shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of bid.
- b. All other terms, conditions and specifications remain the same.
- c. Receipt acknowledged by:

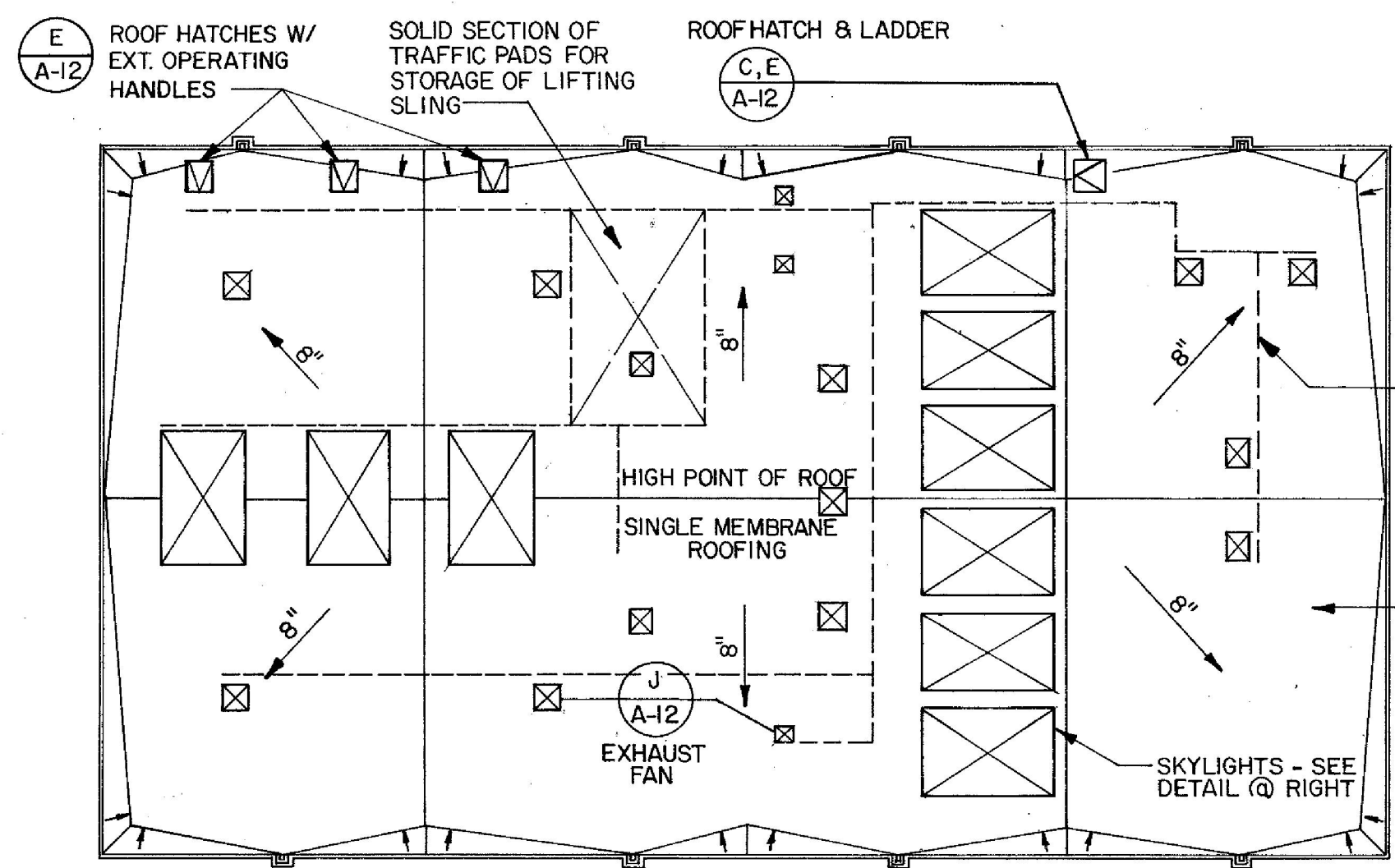
Authorized Signature

Date Signed

Title

Name of Firm

Parent Sheet Set: 110031A_D015 Rev on: 2/14/2018 2:19 PM Individual File Path: R:\PROJECTS\110031A - SOUTH WATER RECLAMATION FACILITY PUMP STATION (PH 2)\DRAWINGS\FINAL\DESIGN\M05.DWG Rev by: JAY MILLER



ROOF PLAN
N.T.S.

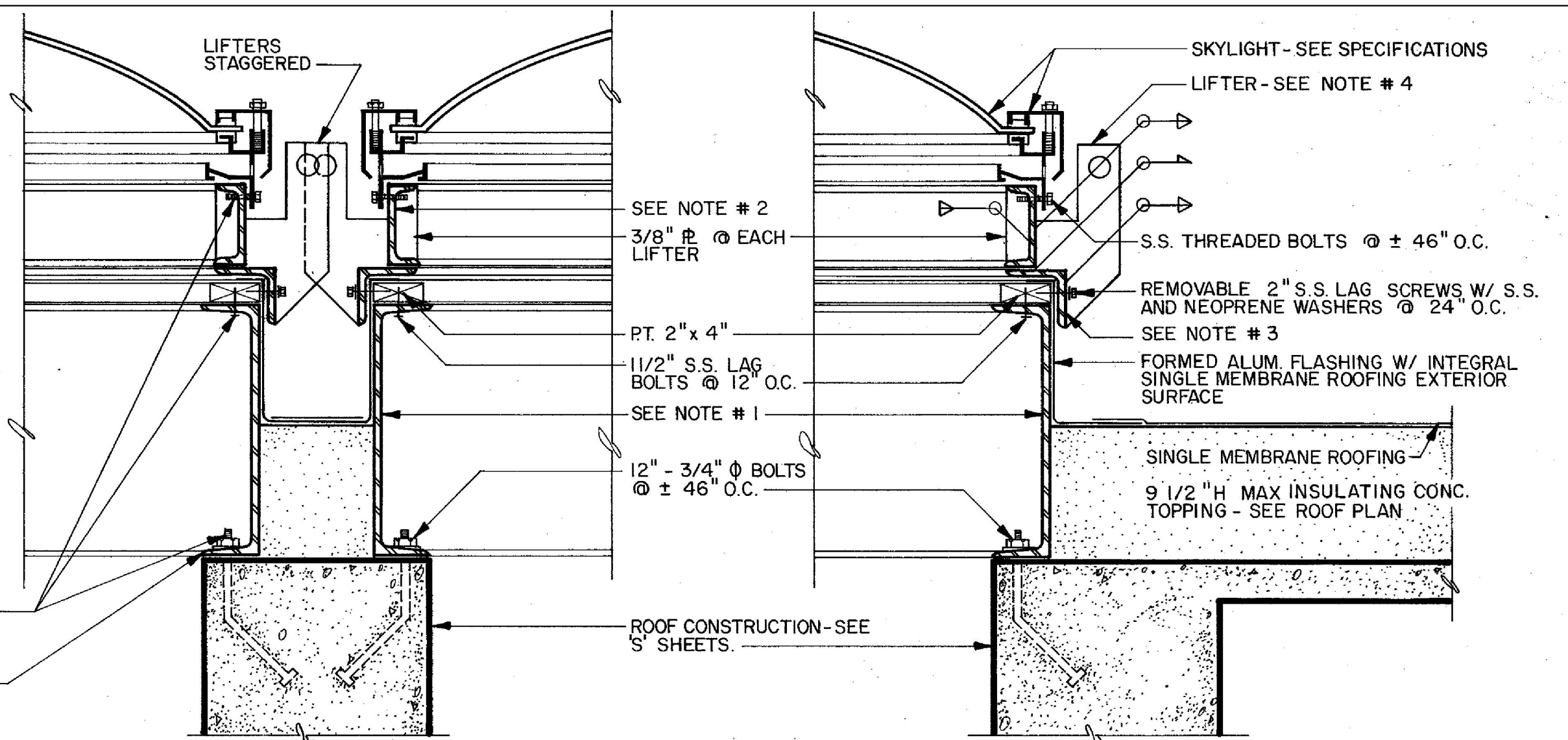
- NOTES:**
- HOT DIPPED GALV. MC 18x42.7 MITERED & WELDED @ CORNERS.
 - C 6x13 HOT DIPPED GALV. MITERED & WELDED @ CORNERS & CONTINUOUSLY WELDED TO Z BELOW.
 - 4"x4"x1/4" L HOT DIPPED GALV. MITERED & WELDED @ CORNERS.
 - LIFTER - 12"H. x 6"W. x 3/8" THK. HOT DIPPED GALV. PLATE W/ 1/2" HOLE. WELD TO CHANNEL & L - PROVIDE 4 ON EACH LONG SIDE - STAGGER PLATES @ ADJACENT SKYLIGHTS.

LOCATION OF TRAFFIC PADS TO BE DETERMINED ON SITE BY ENGINEER

FOR ROOF PENETRATIONS SEE 'S', 'M', 'V' & 'P' SHEETS.

ALL HARDWARE & FITTINGS TO BE STAINLESS STEEL.

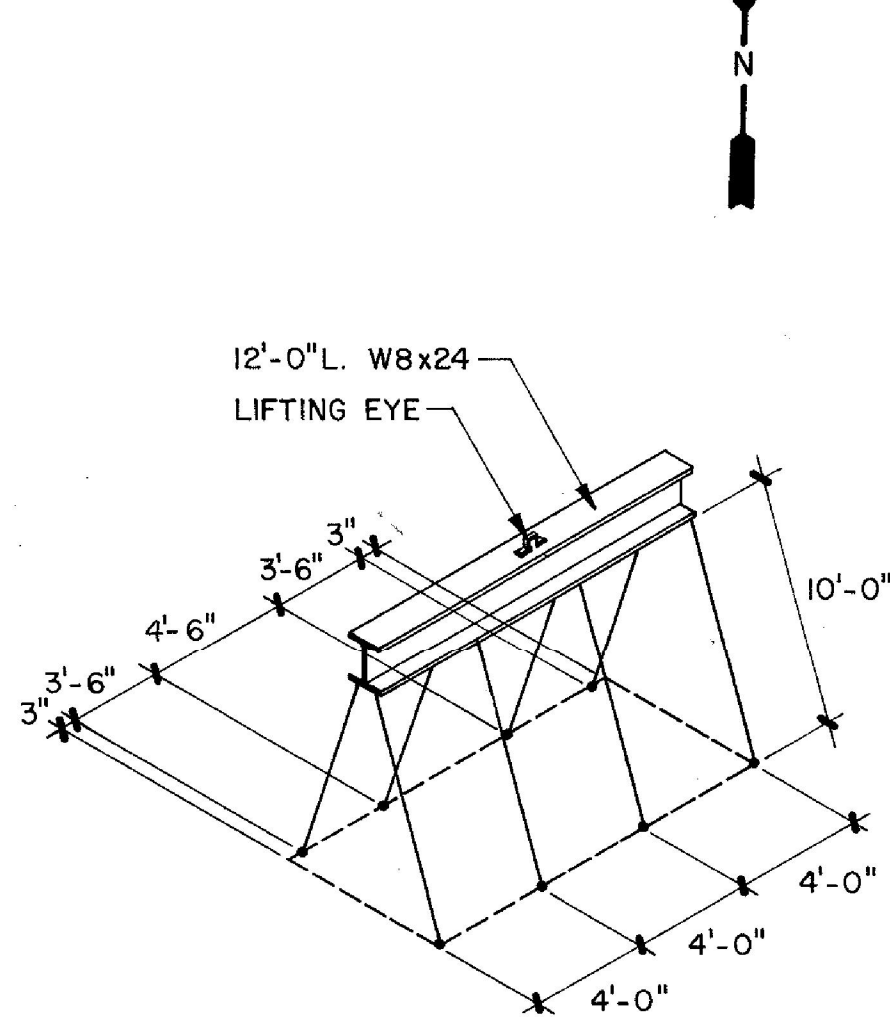
ALL ANGLES & CHANNELS TO BE EPOXY PAINTED - SEE SPECS.



CONDITION @ COMMON BEAMS

CONDITION @ EXTERIOR PERIMETER

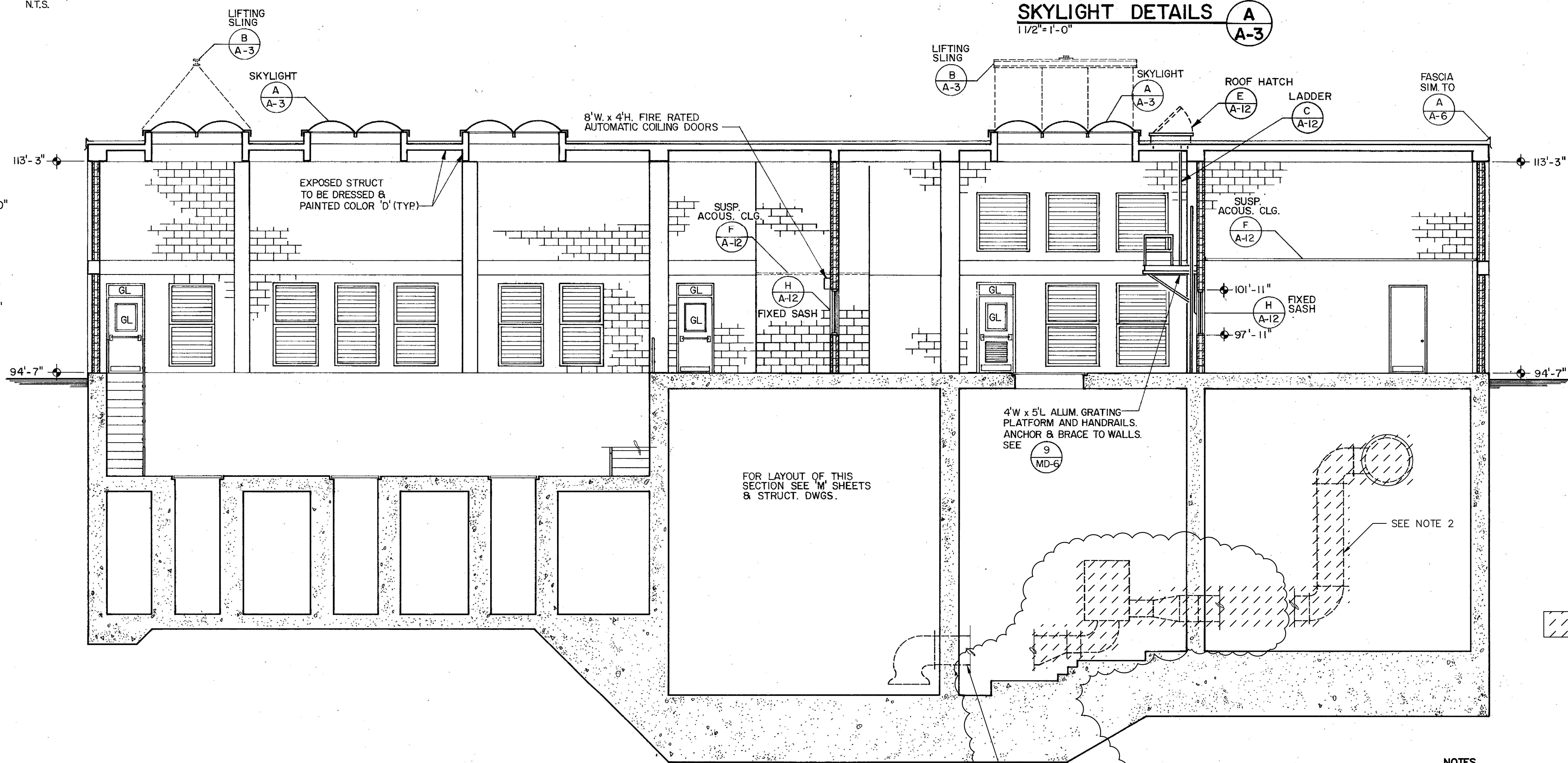
SKYLIGHT DETAILS
1/2" = 1'-0"



SKYLIGHT FRAME MFR. TO PROVIDE LIFTING SLING W/ 8 CABLES & HOOKS FOR REMOVING A SINGLE SKYLIGHT WITHOUT WARPING.

LIFTING SLING

DETAIL B
A-3



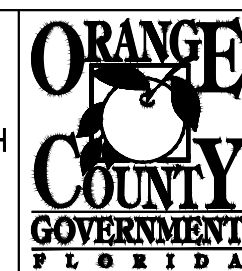
SECTION A-A-1
3/16" = 1'-0"

NOTES

- REFERENCE DRAWING ONLY.
- ALL EQUIPMENT INSIDE PUMP ROOM INCLUDING, BUT NOT LIMITED TO, PUMP PIPING, DRIVE SHAFTS, VALVES TO BE REMOVED ((TYP x4)).
- BLIND FLANGE TO BE INSTALLED AT VALVE REMOVAL.
- SEE INFORMATION FOR BIDDERS IN APPENDIX FOR PHOTOS.

REV	DATE	DESCRIPTION
C	12/2017	ISSUED FOR BID
B	10/2017	100% FOR BID
A	02/2017	90% DRAWINGS

LINE IS 2 INCHES AT FULL SIZE (IF NOT SCALE ACCORDINGLY)



ORANGE COUNTY UTILITIES DEPARTMENT ENGINEERING DIVISION
9150 CURRY FORD ROAD ORLANDO, FL. 32825



REISS ENGINEERING, INC.
CERTIFICATE OF AUTHORIZATION No. 8181
1016 SPRING VILLAS PT
WINTER SPRINGS, FL 32708
(407) 679-5358
PROJECT NO. 110031A

ORANGE COUNTY SOUTH WATER RECLAMATION FACILITY INFLUENT PUMP STATION MECHANICAL EXISTING IPS - DEMOLITION SECTION

STEFANO CERIANA, P.E.
PROFESSIONAL ENGINEER
FLORIDA LICENSE #66379

OCU FILE NO.: OCU #	SCALE: NOTED
DESIGNED BY: SC	DRAWING NO.: M05
DRAWN BY: DHG	CHECKED BY: MDP
CADD FILE: M05.DWG	SHEET: 69 OF 123