

## **2013 Leon Creek Water Recycling Center (WRC) Rehabilitation and Process Improvements**

**Solicitation No.: CO-00003**

**SAWS Job No.: 13-6505**

**Addendum No. 9 (Final)**

**September 2, 2015**

### **To Respondent of Record:**

This addendum, applicable to the project referenced above, is an amendment to the bidding documents 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 issuance date in the space provided in the bid proposal.

### **PART 1 – BIDDING AND CONTRACT DOCUMENTS**

#### **A. Revisions to Section 01 11 00 “SUMMARY OF WORK”**

1. Page 2, Paragraphs 1.03.A.5. and 1.03.A.5.e: REMOVE references to flow conditioners.

### **PART 2 – TECHNICAL SPECIFICATIONS**

#### **A. Revisions to Section 03 60 00 “GROUT”**

1. Page 6, Paragraph 2.01.E. Grout Fill, Topping Grout: REMOVE section in its entirety and REPLACE with the following:

“E. Grout Fill & Topping Grout:

1. Grout for topping of slabs and concrete fill for built-up surfaces of tank, channel, and basin bottoms shall be composed of cement, fine aggregate, coarse aggregate, water, and admixtures proportioned and mixed as specified herein. All materials and procedures specified for normal concrete in Section 03 30 53, Miscellaneous Cast-In-Place Concrete, shall apply except as noted otherwise herein.
2. Topping grout and concrete fill shall contain a minimum of 517 pounds of cement per cubic yard (5.5 sacks) with a maximum water cement ratio of 0.45.
3. Minimum 28 day compressive strength shall be 4,000 psi.

4. Coarse aggregate shall be graded as follows:

U.S. Standard Sieve Size	Percent by Weight Passing
½-inch	100
3/8-inch	85-100
No. 4	10-30
No. 8	0-10
No. 16	0-5

5. Fine aggregate shall be as required in Section 03 30 53.

6. Slump shall be adjusted to match placement and finishing conditions, but shall not exceed 4 inches.

7. Final mix design shall be as determined by trial mix design under supervision of the approved testing laboratory.”

**B. Clarification to Section 40 90 02 “SUPERVISORY CONTROL AND DATA ACQUISITION”**

1. Page 14, Paragraph 2.10.

Power for the valve actuators and DO sensors identified in section 2.10 are not supplied by the MCP. The drawings indicate the power sources for these devices. The flow meters identified in 2.10 will be powered from the Remote PLC panels.

**C. Revisions to Section 46 51 20 “FINE BUBBLE DIFFUSER SYSTEM”**

1. Page 4, Paragraph 1.10.A. REMOVE the last sentence and REPLACE with the following:

“In the event the equipment fails to perform as specified, or if greater than 2% of the overall diffuser count is found to have leaking diffuser holders or saddle connections to the distribution piping, Owner will have the right to reject equipment and the manufacturer will be required to replace in full at no additional cost to the Owner.”

**D. Revisions to Section 46 51 21 “COARSE BUBBLE DIFFUSER SYSTEM”**

1. Page 3, Paragraph 1.05.D. ADD the following:

“3. Aquarius Technologies”

2. Page 3, Paragraph 1.05.B. REMOVE the paragraph in its entirety and REPLACE with the following:

“1. The equipment manufacturer shall have not less than seven (7) successful years of experience in the design, construction and operation of fine bubble diffused aeration equipment including diffuser laterals, manifolds, purge systems and diffuser assemblies, with five (5) or more installation of similar size and diffuser type in the US.”

3. Page 5, Paragraph 1.09.A. REMOVE the last sentence and REPLACE with the following:

“In the event the equipment fails to perform as specified, or if greater than 2% of the overall diffuser count is found to have leaking connections to the distribution piping, Owner will have the right to reject equipment and the manufacturer will be required to replace in full at no additional cost to the Owner.”

### **PART 3 – DRAWINGS**

#### **A. Revisions to Sheet M-4**

1. REMOVE and REPLACE Sheet M-4 with the attached version.

#### **B. Revisions to Sheet M-5**

1. REMOVE and REPLACE Sheet M-5 with the attached version.

#### **C. Revisions to Sheet M-6**

1. REMOVE and REPLACE Sheet M-6 with the attached version.

#### **D. Revisions to Sheet M-7**

1. REMOVE and REPLACE Sheet M-7 with the attached version.

#### **E. Revisions to Sheet M-15**

1. REMOVE and REPLACE Sheet M-15 with the attached version.

#### **F. Revisions to Sheet E-8**

1. Aeration Basins 7-15 Power Plan:

MODIFY label on valve to influent channel mixing diffusers for aeration basins 15-7 from “LC-03AS-VLV-2” to “LC-03AD-VLV-16B”. The panel board sourcing power to the valve actuator shall reflect the name change also.

#### **G. Revisions to Sheet E-10**

1. Aeration Basins 7-15 Controls Plan:

MODIFY label on valve to influent channel mixing diffusers for aeration basins 15-7 from “LC-03AS-VLV-2” to “LC-03AD-VLV-16B”. The interconnection diagram shall reflect the name change also.

**H. Revisions to Sheet PI-2**

1. Process Diagram I:

MODIFICATION: Provide label on valve to influent channel mixing diffusers for aeration basins 15-7 as “LC-0S6AS-LVL-16B” and the flow meter label shall be “FE-C-33-47”. The two devices shall be switched so the flow meter is upstream of the valve.

**I. Revisions to Sheet PI-3**

1. Process Diagram II:

REMOVE the following Note By Symbol 2 paragraph:

“SIEMENS TO PROVIDE DROP LEG VALVE, ACTUATOR, FLOW STRAIGHTER, AND FLOW METER. CONTRACTOR SHALL INSTALL.”

And REPLACE with the following:

“SIEMENS TO PROVIDE DROP LEG VALVE, ACTUATOR, AND FLOW METER. CONTRACTOR SHALL INSTALL.”

**J. Revisions to Sheet PI-4**

1. Process Diagram III:

REMOVE the following Note By Symbol 2 paragraph:

“SIEMENS TO PROVIDE DROP LEG VALVE, ACTUATOR, FLOW STRAIGHTER, AND FLOW METER. CONTRACTOR SHALL INSTALL.”

And REPLACE with the following:

“SIEMENS TO PROVIDE DROP LEG VALVE, ACTUATOR, AND FLOW METER. CONTRACTOR SHALL INSTALL.”

The remainder of the bid documents remain unchanged.

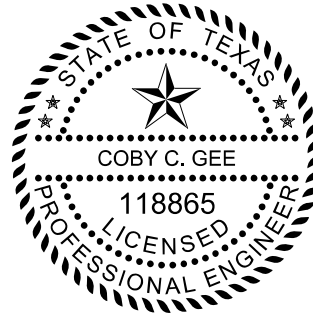
This addendum consists of ten (10) pages.

ALL RESPONDENTS SHALL ACKNOWLEDGE RECEIPT OF ADDENDUM NO. 9 IN THE PRICE PROPOSAL FORM AND BY HIS/HER SIGNATURE AFFIXED HERETO AND TO FILE SAME AS AN ATTACHMENT TO HIS/HER PROPOSAL. PRICE PROPOSAL FORMS SUBMITTED WITHOUT THIS ACKNOWLEDGEMENT WILL BE CONSIDERED INFORMAL.

*Coby C. Gee*

9/2/15

**Coby C. Gee, P.E.**  
Freese and Nichols, Inc.



FREESE AND NICHOLS, INC.  
TEXAS REGISTERED  
ENGINEERING FIRM  
F-2144

**ACKNOWLEDGEMENT BY RESPONDENT**

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THIS ADDENDUM NO. 9 AND THE PROPOSAL SUBMITTED HERewith ARE IN ACCORDANCE WITH THE INFORMATION AND STIPULATION SET FORTH.

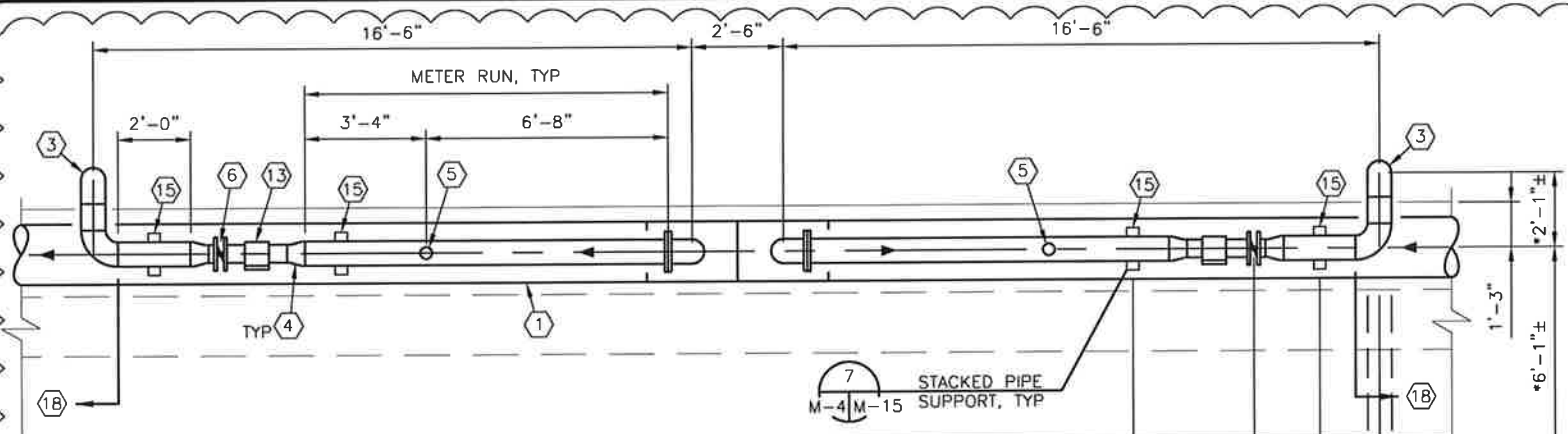
\_\_\_\_\_  
**Signature of Respondent**

\_\_\_\_\_  
**Date**

END OF ADDENDUM NO. 9



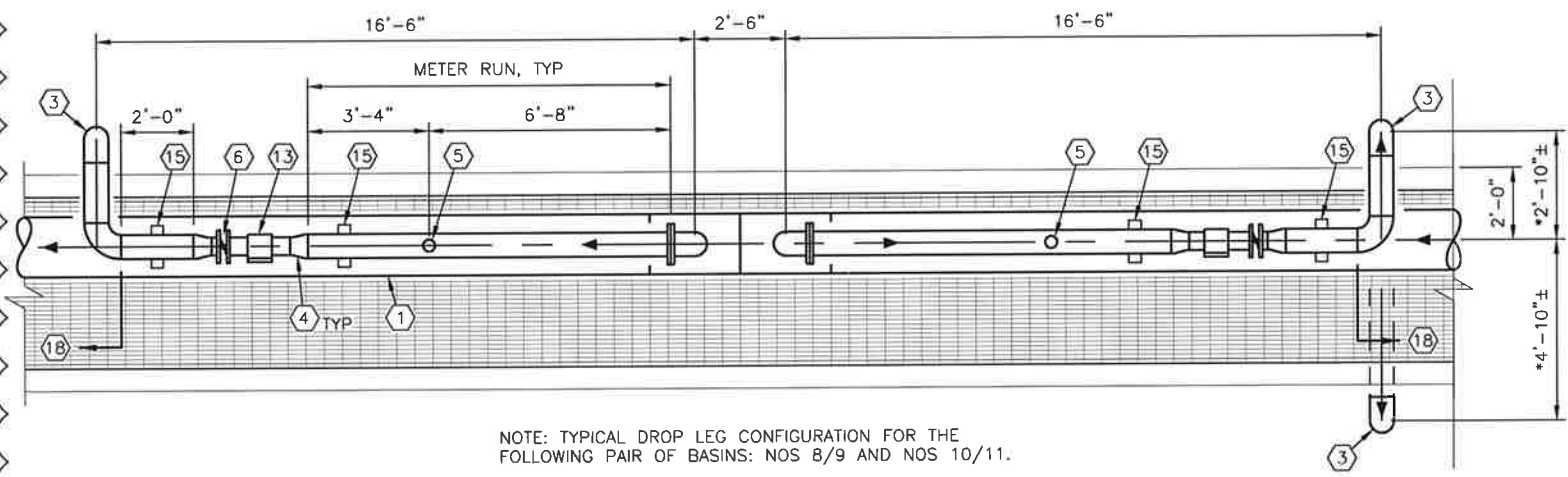
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Revisions	
No.	9/2/15
Date	APPENDUM NO. 9



NOTE: TYPICAL DROP LEG CONFIGURATION FOR THE FOLLOWING PAIR OF BASINS: NOS 1/2, NOS 3/4 AND NOS 5/6.

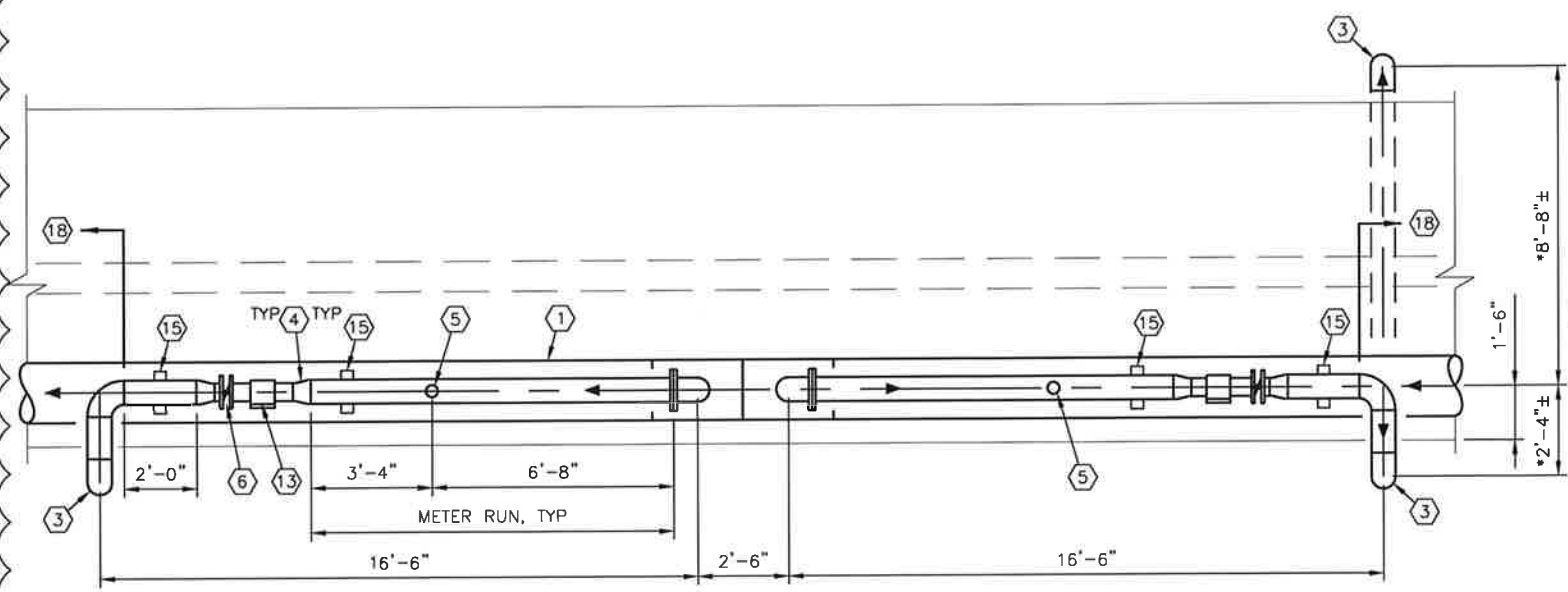
**A TYPICAL ENLARGED PLAN**  
M-2/M-4 3/8" = 1'-0"

3'-4" 1'-10"  
MAX MAX  
TYP STACKED  
SUPPORT LOCATION  
AT EACH DROP LEG



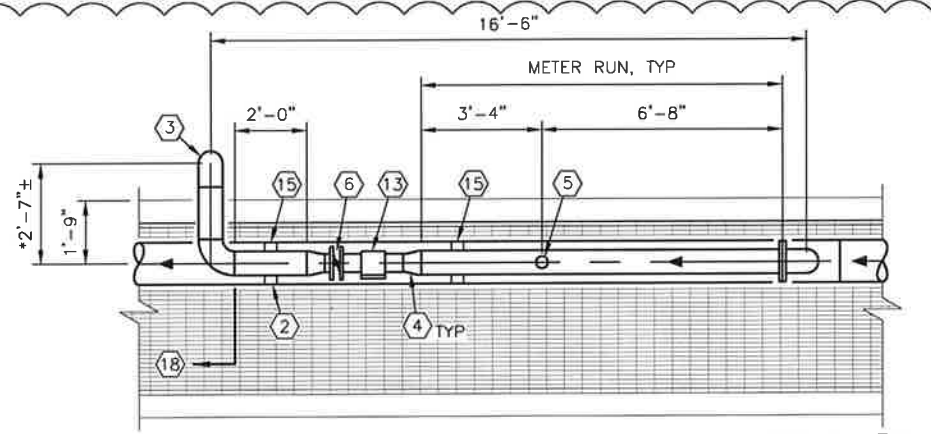
NOTE: TYPICAL DROP LEG CONFIGURATION FOR THE FOLLOWING PAIR OF BASINS: NOS 8/9 AND NOS 10/11.

**B TYPICAL ENLARGED PLAN**  
M-2/M-4 3/8" = 1'-0"



NOTE: TYPICAL DROP LEG CONFIGURATION FOR BASIN NOS 12/13. ENLARGED PLAN IS SIMILAR, BUT OPPOSITE HAND, FOR BASIN NOS 14/15.

**C ENLARGED PLAN**  
M-2/M-4 3/8" = 1'-0"



NOTE: TYPICAL DROP LEG CONFIGURATION FOR BASIN NO 7.

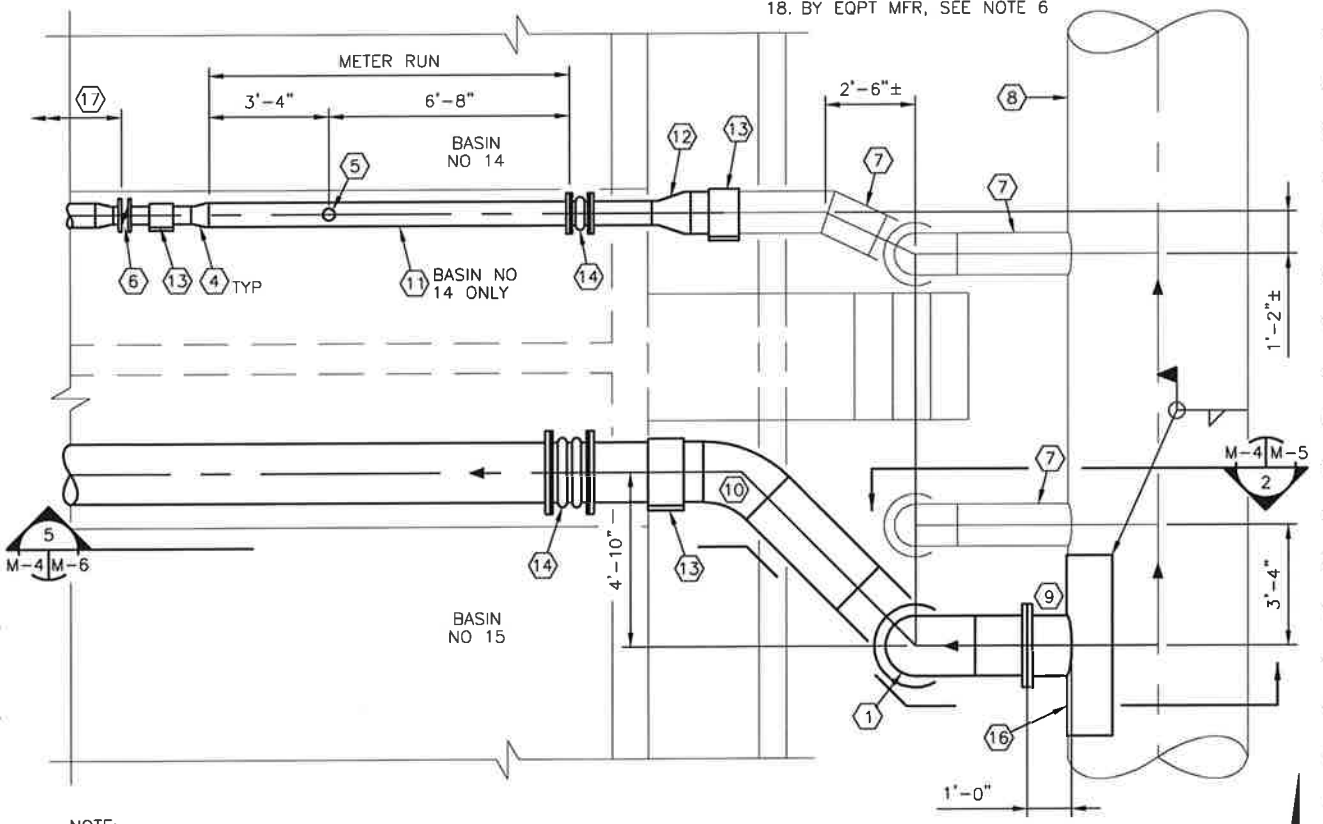
**D TYPICAL ENLARGED PLAN**  
M-2/M-4 3/8" = 1'-0"

**GENERAL NOTES:**

- CONTRACTOR SHALL VERIFY ALL DIMENSIONS ELEVATIONS, SIZES AND MATERIALS OF EXISTING STRUCTURES, PIPING AND APPURTENANCES PRIOR TO SUBMITTING SHOP DRAWING FOR REVIEW.
- DIMENSION VARIES WITH LOCATION OF EXISTING 8"Ø AIR DROP LEGS FOR AERATION BASIN NOS 1-11. CONTRACTOR TO FIELD DETERMINE DIMENSION FOR COORDINATION WITH EQUIPMENT MANUFACTURER.
- CONTRACTOR SHALL PERFORM WELDED CONNECTION FOR INSTALLATION OF 20-A-SS WITH COLLAR PLATE. PROVIDE SCH 10 304L SS COLLAR WRAPPING PLATE AT CONNECTION. 20-A-SS OUTLET AND COLLAR PLATE SHALL BE WELDED AT THE MANUFACTURER PLANT AS ONE UNIT.
- CONTRACTOR SHALL MODIFY LOCATION OF EXISTING ALUMINUM HANDRAIL (NOT SHOWN) TO ACCOMMODATE NEW 20-A-SS AT NO ADDITIONAL COST TO THE OWNER.
- \* DENOTES DIMENSION TO BE DETERMINED BY DIFFUSER SYSTEM MANUFACTURER.
- DIFFUSER MANUFACTURER SHALL SUPPLY ALL PIPING, SUPPORTS, DIFFUSERS, ETC, DOWNSTREAM OF THIS POINT.

**NOTES BY SYMBOL "○"**

- 20-A-SS
- 14-A-SS
- 8-A-SS DROP LEG
- 8"x6" CONCENTRIC REDUCER
- FLOW METER, PROVIDE 1"Ø FNPT HOT TAP W/BALL VALVE FOR INSERTION
- 6-BU-M-03 CONTROL VALVE
- EX 14"Ø STL AIR HEADER
- EX 60"Ø 304L SS MAIN AIR HEADER
- CONNECT 20-A-SS, FLANGED OUTLET, TO 60"Ø 304L SS MAIN AIR HEADER, SEE NOTE 3
- 45° ELBOW
- 8-A-SS
- 14"x8" CONCENTRIC REDUCER
- DEPEND-O-LOK EXP CPLG
- EXP JT
- STACKED PIPE SUPPORT
- REINFORCED COLLAR WRAPPING PLATE FOR WELDED CONNECTION, 5'-0" LG x 3/8" THK MIN, MATCH RADIUS OF EX AIR HEADER
- MINIMUM STRAIGHT RUN DOWNSTREAM OF BUTTERFLY VALVE TO BE 2'-0"
- BY EQPT MFR, SEE NOTE 6



NOTE: ENLARGED PLAN IS SIMILAR FOR TWO WELDED CONNECTIONS TO 60"Ø 304L SS MAIN AIR HEADER AND TREATMENT OF 14"Ø PIPE AT BASIN NOS 12/13 AND 14/15.

**E TYPICAL ENLARGED PLAN**  
M-2/M-4 3/8" = 1'-0"



Date: OCT. 2014  
Designed by: TI  
Drawn by: PEC  
Checked by: HC  
Scale: AS SHOWN



**SAN ANTONIO WATER SYSTEM**

SAWS JOB NO. 13-6505  
2013 LEON CREEK WRC REHABILITATION AND PROCESS IMPROVEMENTS  
AERATION BASIN NOS 1-15  
ENLARGED PLANS

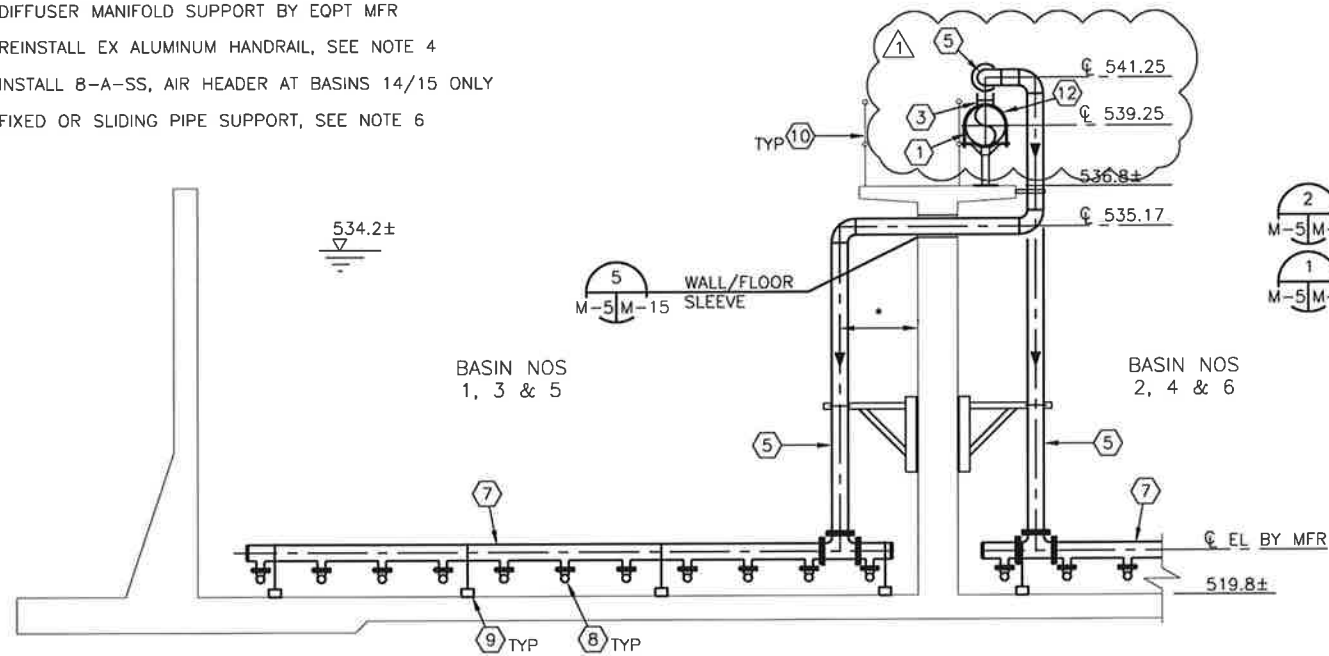
**NOTES BY SYMBOL "⬡"**

1. INSTALL 20-A-SS, AIR HEADER
2. INSTALL 14-A-SS, AIR HEADER
3. INSTALL 20"x8" TEE
4. INSTALL 14"x8" TEE
5. INSTALL 8-A-SS, DROP LEG/AIR PIPING
6. WIDE FLANGE MOUNT PIPE SUPPORT
7. INSTALL 6-A-PVC, DIFFUSER MANIFOLD (TYP 2 PER BASIN) & 8-A-PVC, DIFFUSER MANIFOLD (TYP 1 PER BASIN)
8. INSTALL 4-A-PVC, DIFFUSER LATERAL
9. DIFFUSER MANIFOLD SUPPORT BY EOPT MFR
10. REINSTALL EX ALUMINUM HANDRAIL, SEE NOTE 4
11. INSTALL 8-A-SS, AIR HEADER AT BASINS 14/15 ONLY
12. FIXED OR SLIDING PIPE SUPPORT, SEE NOTE 6

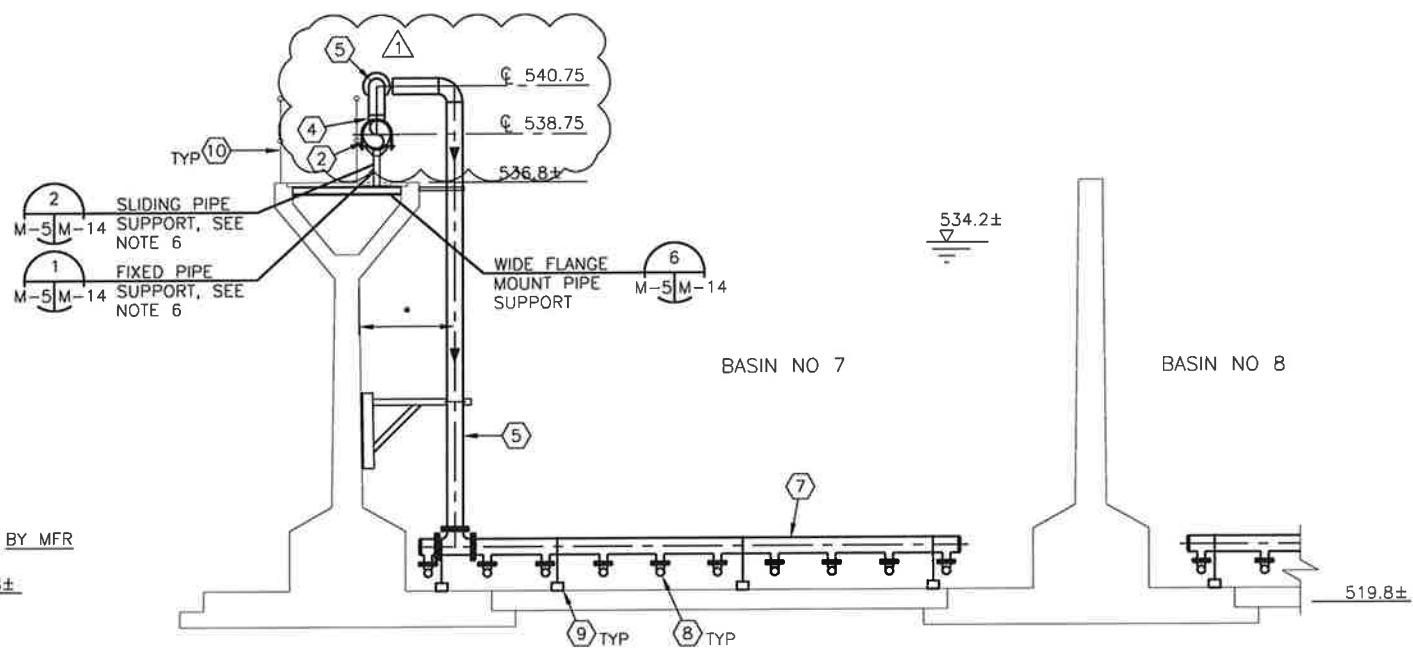
**GENERAL NOTES:**

1. CONTRACTOR SHALL COORDINATE LAYOUT, SIZE, NUMBER, SPACING, PLACEMENT, ETC OF MANIFOLDS, LATERALS, DIFFUSERS, SUPPORTS AND APPURTENANCES WITH EQUIPMENT MANUFACTURER. DRAWINGS AND RELATED DETAILS ARE BASED ON A DIFFUSER LAYOUT AND SYSTEM BY SANITAIRE (XYLEM). IF DESIGN MODIFICATIONS ARE REQUIRED BY THE SELECTION OF A DIFFERENT MANUFACTURER IN THE APPROVED LIST, ANY ASSOCIATED RE-DESIGN AND/OR ANY ADDITIONAL CONSTRUCTION COSTS SHALL BE AT THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL COORDINATE CENTERLINE ELEVATION FOR MANIFOLDS AND LATERALS WITH EQUIPMENT MANUFACTURER.
3. \* DENOTES DIMENSION TO BE DETERMINED BY EQUIPMENT MANUFACTURER.
4. CONTRACTOR SHALL MODIFY EXISTING ALUMINUM HANDRAIL TO ACCOMMODATE NEW 20-A-SS AT NO ADDITIONAL COST TO THE OWNER.

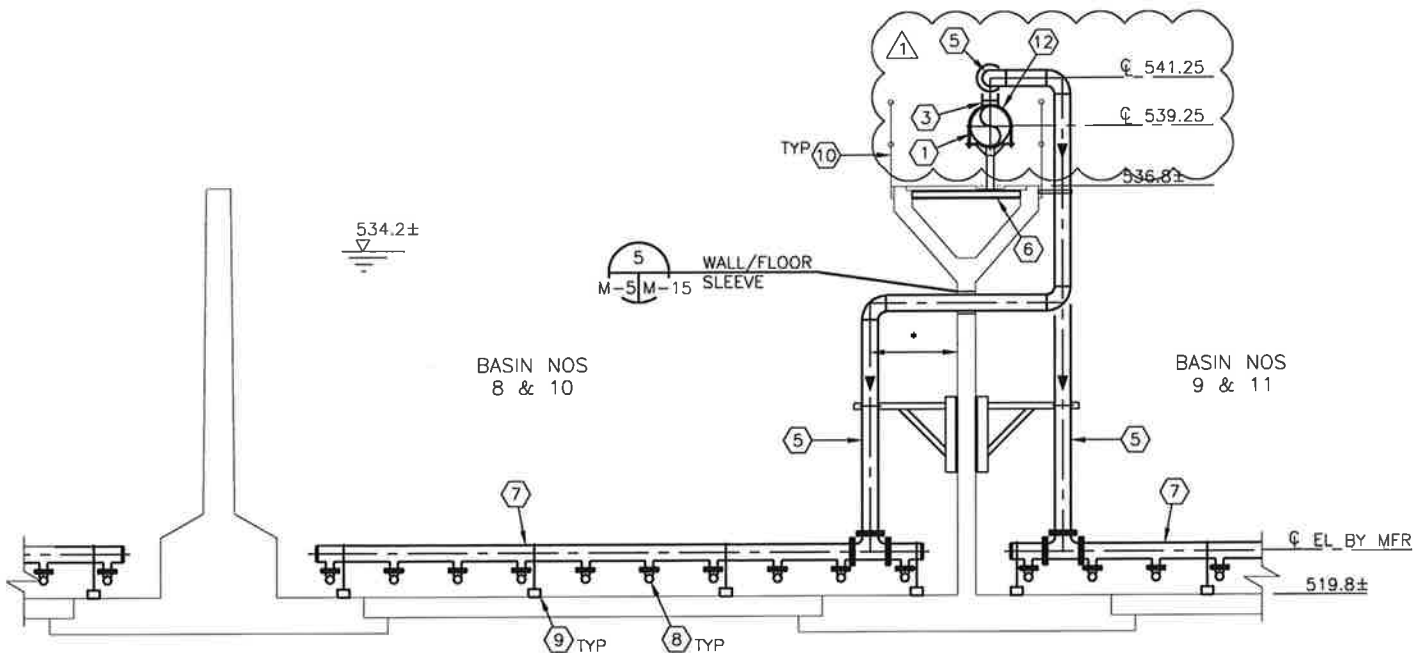
5. WATER SURFACE ELEVATIONS ARE BASED ON FLOWS OF 92 MGD AND WERE OBTAINED FROM RECORD DRAWINGS.
6. REFER TO PLAN VIEW FOR LOCATION OF FIXED AND SLIDING SUPPORTS.
7. NOT USED
8. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND MATERIALS OF EXISTING STRUCTURES, PIPING AND APPURTENANCES PRIOR TO SUBMITTING SHOP DRAWINGS FOR REVIEW.



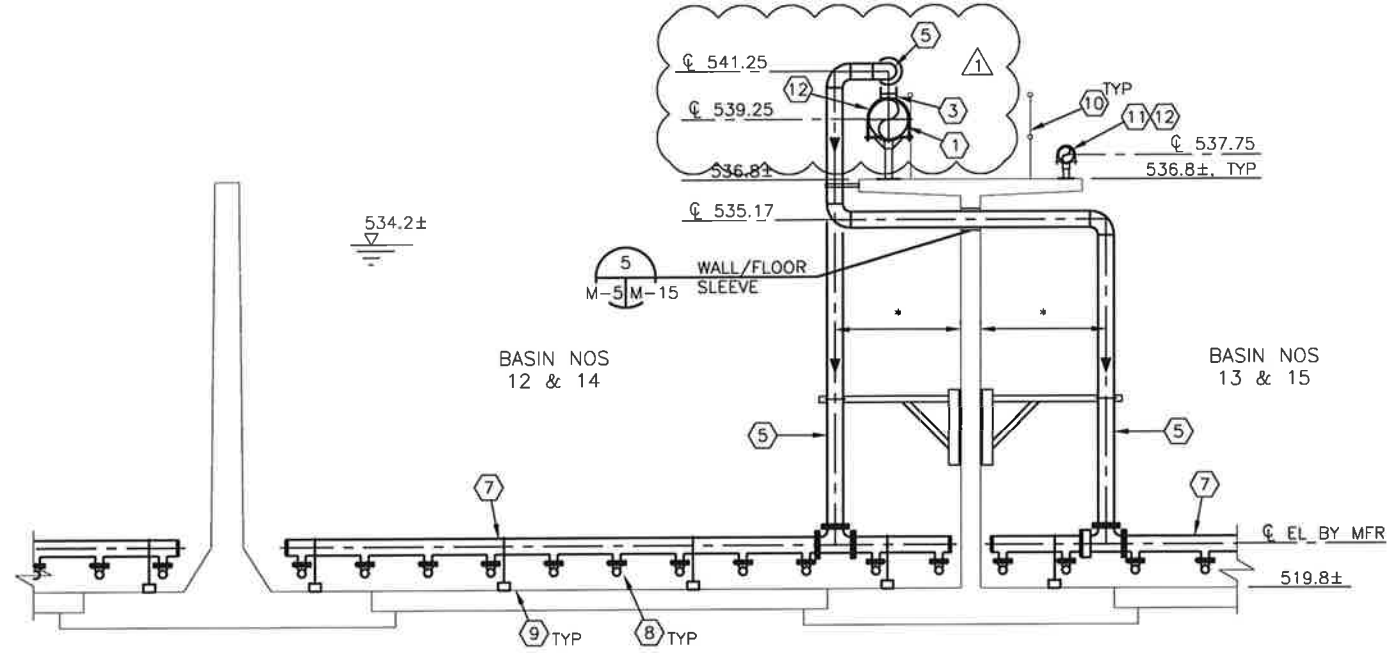
1 TYPICAL SECTION  
M-1M-5 1/4" = 1'-0"



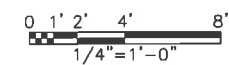
2 SECTION  
M-2M-5 1/4" = 1'-0"



3 TYPICAL SECTION  
M-2M-5 1/4" = 1'-0"



4 TYPICAL SECTION  
M-2M-5 1/4" = 1'-0"



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Revisions	ADDDENDUM NO. 9
Date	9/2/15
No.	9/2/15

Freese And Nichols, Inc.  
Job No. SWB14115

DATE: OCT 2014  
DESIGNED BY: TTT  
DRAWN BY: PEG  
CHECKED BY: HG  
SCALE: AS SHOWN

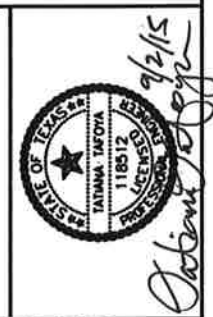
Professional Engineer  
State of Texas  
No. 118512  
Exp. 9/15

CP&Y, Inc.  
CP&Y, Inc.  
TBPE FIRM NO. F-1741

FREESE AND NICHOLS  
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San Antonio, Texas 78209-4350  
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Fax: (210) 288-3801

SAN ANTONIO  
WATER SYSTEM

SAWS JOB NO. 13-6505  
2013 LEON CREEK WRC REHABILITATION AND  
PROCESS IMPROVEMENTS  
AERATION BASIN NOS 1-15  
SECTIONS I



Date: OCT. 2014  
Designed by: TT  
Drawn by: PEC  
Checked by: HC  
Scale: AS SHOWN



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San Antonio, Texas 78209-4350  
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SAN ANTONIO  
WATER SYSTEM

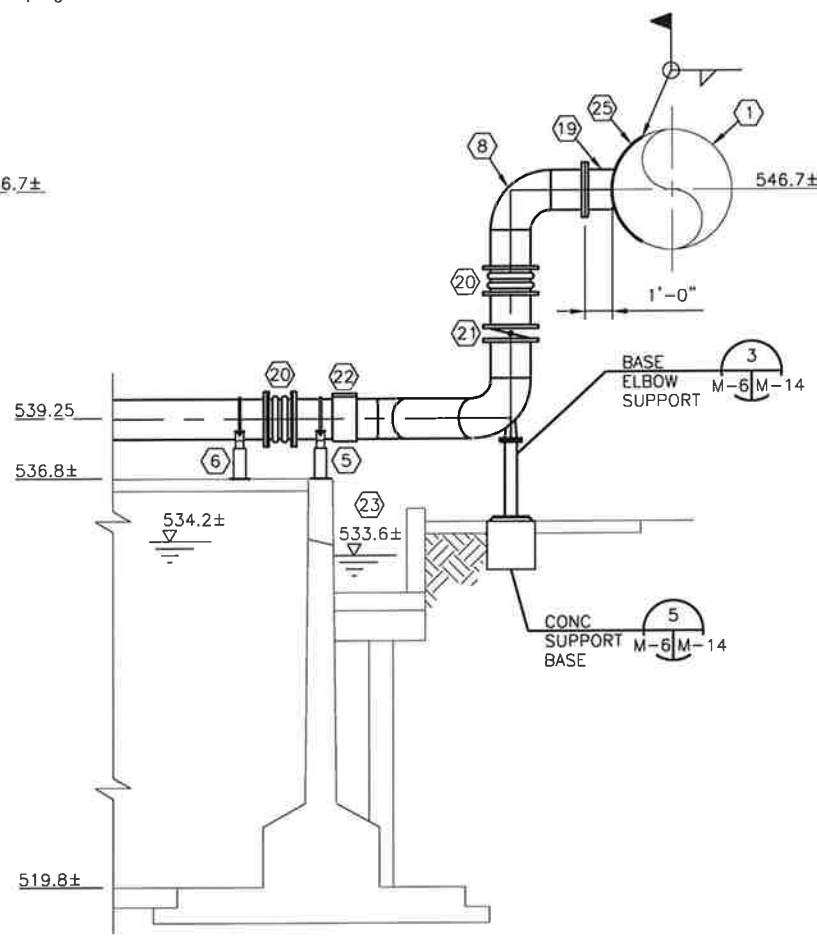
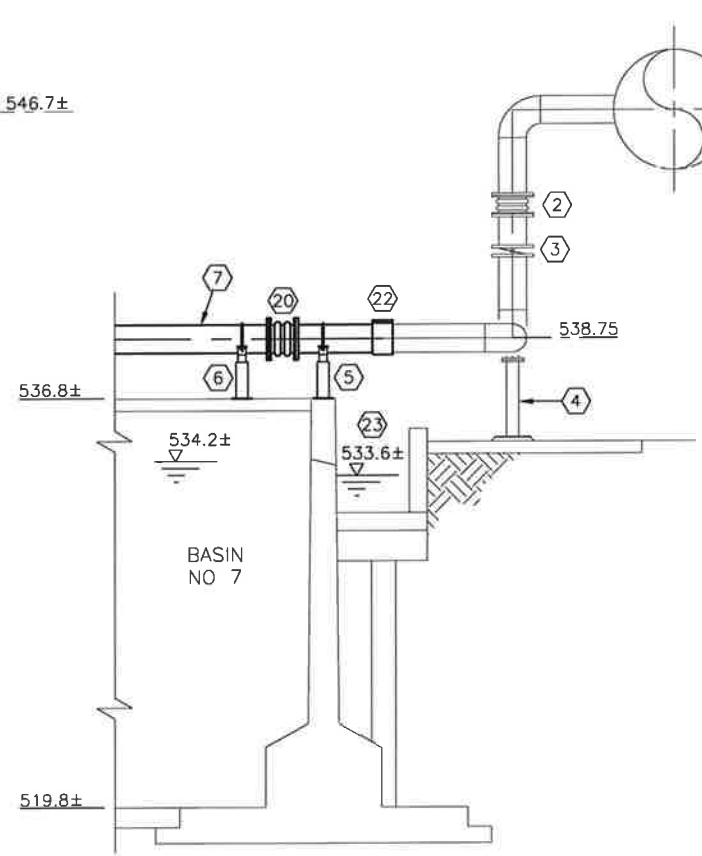
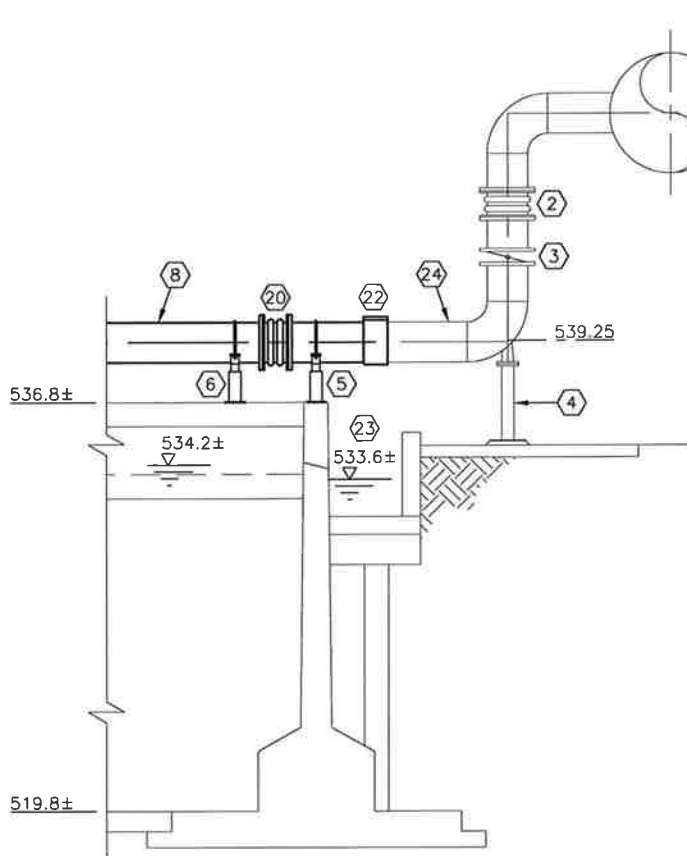
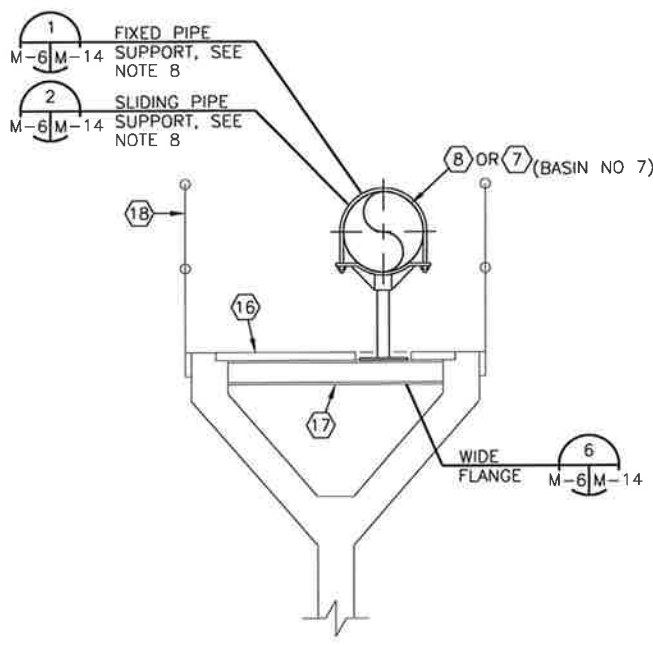
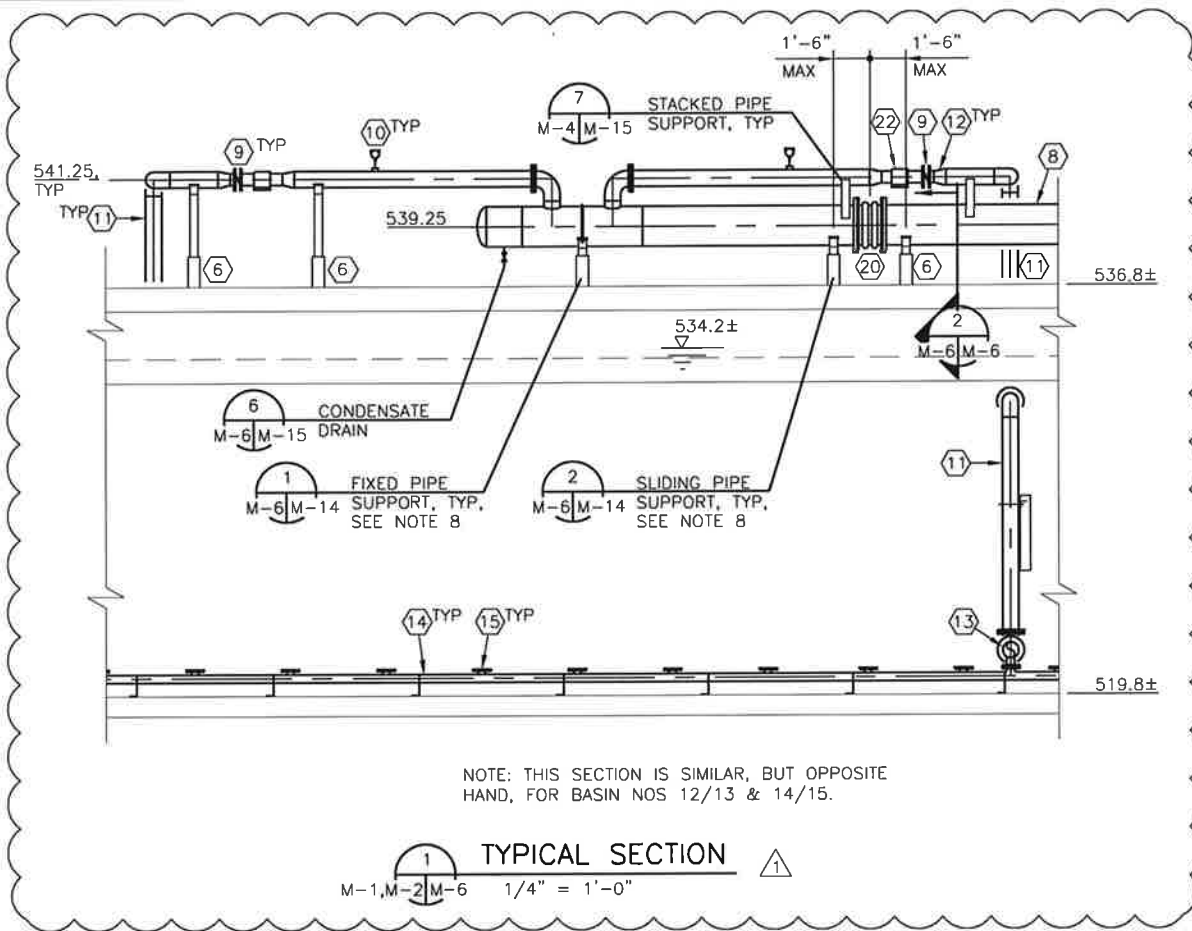
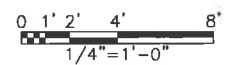
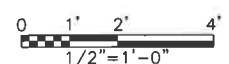
SAWS JOB NO. 13-6505  
2013 LEON CREEK WRC REHABILITATION AND  
PROCESS IMPROVEMENTS  
AERATION BASIN NOS 1-15  
SECTIONS II

NOTES BY SYMBOL "○"

1. EX 60"Ø 304L SS MAIN AIR HEADER
2. EX FLEX CPLG
3. EX BUTTERFLY VALVE
4. EX PIPE SUPPORT
5. FIXED PIPE SUPPORT, SEE NOTE 8
6. SLIDING PIPE SUPPORT, SEE NOTE 8
7. 14-A-SS
8. 20-A-SS
9. 6-BU-M-03 BUTTERFLY VALVE
10. FLOW METER, PROVIDE 1"Ø FNPT HOT TAP W/BALL VALVE FOR INSERTION
11. 8-A-SS DROP LEG
12. 8"x6" CONCENTRIC REDUCER
13. INSTALL 6-A-PVC, DIFFUSER MANIFOLD
14. INSTALL 4-A-PVC, DIFFUSER LATERAL
15. MEMBRANE DISC DIFFUSER
16. EX GRATING
17. EX SUPPORT BEAM, SEE NOTE 6
18. EX ALUMINUM HANDRAIL
19. CONNECT 20-A-SS, FLANGED OUTLET, TO EX 60"Ø MAIN AIR HEADER, SEE NOTE 5
20. EXP JT
21. 20-BU-03, BUTTERFLY VALVE
22. DEPEND-O-LOK EXPANSION COUPLING
23. EFFLUENT CHANNEL
24. EX 20"Ø SS AIR PIPE
25. REINFORCED COLLAR WRAPPING PLATE FOR WELDED CONNECTION

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, SIZES AND MATERIALS OF EXISTING STRUCTURES, PIPING AND APPURTENANCES PRIOR TO SUBMITTING SHOP DRAWING FOR REVIEW.
2. CONTRACTOR SHALL COORDINATE LAYOUT, SIZE, NUMBER, SPACING, PLACEMENT, ETC OF MANIFOLDS, LATERALS, DIFFUSERS, SUPPORTS AND APPURTENANCES WITH EQUIPMENT MANUFACTURER.
3. CONTRACTOR SHALL COORDINATE CENTERLINE ELEVATION FOR MANIFOLDS AND LATERALS WITH EQUIPMENT MANUFACTURER.
4. DIMENSION VARIES WITH LOCATION OF EXISTING 8"Ø AIR DROP LEGS FOR AERATION BASIN NOS 1-11. CONTRACTOR TO FIELD DETERMINE DIMENSION FOR COORDINATION WITH EQUIPMENT MANUFACTURER.
5. CONTRACTOR SHALL PERFORM WELDED CONNECTION FOR INSTALLATION OF 20-A-SS.
6. CONTRACTOR TO PROVIDE NEW SUPPORT BEAM AS NEEDED FOR PIPE SUPPORTS AT NO ADDITIONAL COST TO THE OWNER.
7. WATER SURFACE ELEVATIONS ARE BASED ON FLOWS OF 92 MGD AND WERE OBTAINED FROM RECORD DRAWINGS.
8. REFER TO PLAN VIEW FOR LOCATION OF FIXED AND SLIDING PIPE SUPPORTS.
9. 20-A-SS OUTLET AND COLLAR PLATE SHALL BE WELDED AT THE MANUFACTURER PLANT AS ONE UNIT.



NOTE: TYPICAL FOR COMMON AIR HEADER AT BASINS NOS 1/2, 3/4, 5/6, 8/9 AND 10/11.

NOTE: TYPICAL FOR COMMON AIR HEADER AT BASINS NOS 12/13 AND 14/15.





App.	TT
Revisions	ADDDENDUM NO. 9
Date	9/2/15
No.	

Date: OCT 2014  
Designed by: TI  
Drawn by: PEC  
Checked by: HC  
Scale: AS SHOWN



**FREES & NICHOLS**  
4040 Broadway Street, Suite 600  
San Antonio, Texas 78209-4350  
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Fax: (210) 382-3001



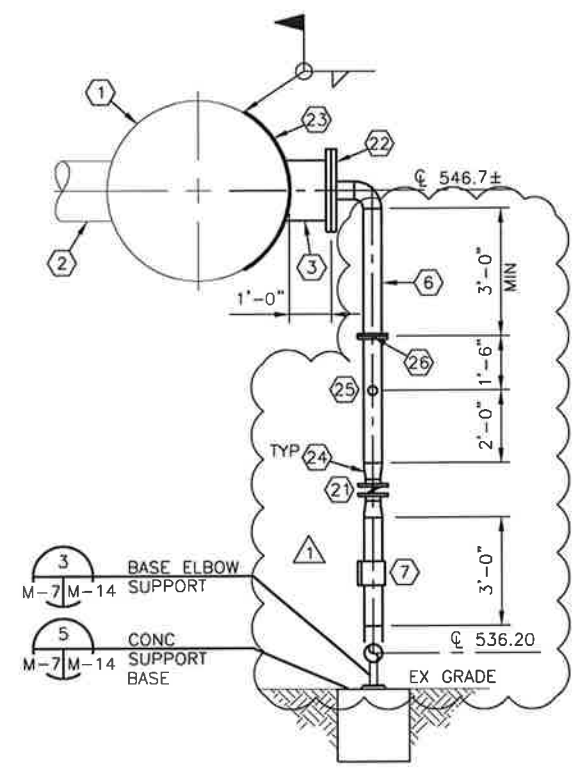
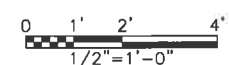
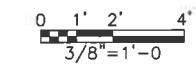
SAWS JOB NO. 13-6505  
2013 LEON CREEK WRC REHABILITATION AND  
PROCESS IMPROVEMENTS  
AERATION BASIN NOS 1-15  
SECTIONS III

**NOTES BY SYMBOL "⬡"**

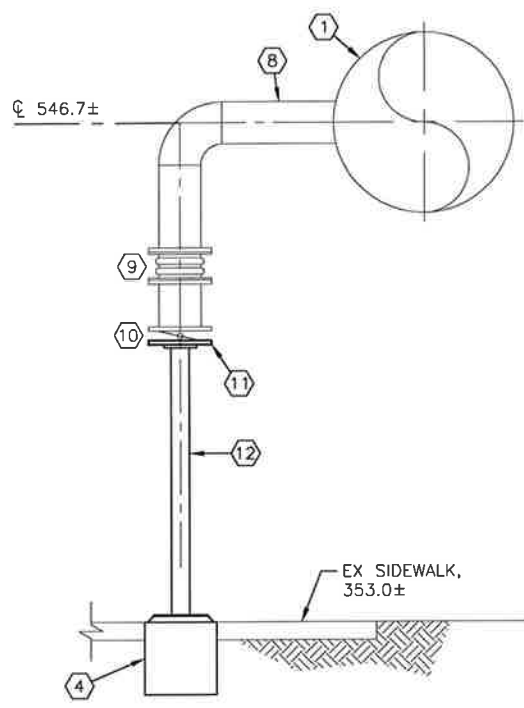
1. EX 60"Ø 304L SS MAIN AIR HEADER
2. EX 20"Ø SS AIR PIPE
3. 20-A-SS, FLANGED OUTLET, CONNECT TO EX 60"Ø MAIN AIR HEADER, SEE NOTE 3
4. CONC SUPPORT BASE
5. COARSE BUBBLE DIFFUSER
6. 6-A-SS, SEE MECH PLANS FOR LOCATIONS
7. DEPEND-O-LOK EXP CPLG
8. EX 14"Ø STL AIR HEADER
9. EX EXPANSION JOINT
10. EX 14" BUTTERFLY VALVE, LUG TYPE
11. 14" BLIND FLANGE
12. STANCHION SUPPORT
13. NEW GRATING, SEE NOTE 5
14. BAND OPENING IN GRATING
15. 8-A-SS, SEE MECH PLANS FOR LOCATIONS
16. 4-A-SS DROP LEG
17. PIPE SUPPORT BY DIFFUSER MFR
18. EX HANDRAIL
19. 4-BU-03
20. FIXED OR SLIDING SUPPORT, SEE NOTE 8
21. 5-BU-M-03
22. BLIND FLANGE, DRILL FOR CONNECTION OF 6-A-SS
23. REINFORCED COLLAR WRAPPING PLATE FOR WELDED CONNECTION. 5'-FT IN LENGTH MATCHING THE RADIUS OF THE EXISTING AIR HEADER WITH A MINIMUM THICKNESS OF 3/8". REFER TO SHEET NOTE 10.
24. 6"x5" CONCENTRIC REDUCER
25. FLOW METER, PROVIDE 1"Ø FNPT HOT TAP W/BALL VALVE FOR INSERTION
26. VIP VORTAB FLOW CONDITIONER (TO BE PROVIDED BY SIEMENS)

**GENERAL NOTES:**

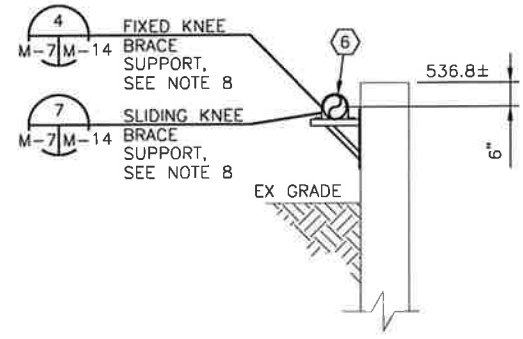
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, SIZES AND MATERIALS OF EXISTING STRUCTURES, PIPING AND APPURTENANCES PRIOR TO SUBMITTING SHOP DRAWING FOR REVIEW.
2. CONTRACTOR SHALL COORDINATE LAYOUT, SIZE, NUMBER, SPACING, PLACEMENT, ETC OF MANIFOLDS, LATERALS, DIFFUSERS, SUPPORTS AND APPURTENANCES WITH EQUIPMENT MANUFACTURER.
3. CONTRACTOR SHALL PERFORM WELDED CONNECTION FOR INSTALLATION OF 20-A-SS.
4. PIPE SUPPORTS INSIDE INFLUENT CHANNEL SHALL BE SUPPLIED BY DIFFUSER MANUFACTURER AND INSTALLED PER DIFFUSER MANUFACTURER'S RECOMMENDATION.
5. CONTRACTOR SHALL PROVIDE NEW GRATING SECTIONS TO MATCH EXISTING AT LOCATIONS WHERE EXISTING PIPE WILL BE DEMOLISHED.
6. \* DENOTES DIMENSION TO BE DETERMINED BY EQUIPMENT MANUFACTURER.
7. WATER SURFACE ELEVATIONS ARE BASED ON FLOWS OF 92 MGD AND WERE OBTAINED FROM RECORD DRAWINGS.
8. REFER TO PLAN VIEW FOR LOCATION OF FIXED AND SLIDING SUPPORTS.
9. CONTRACTOR SHALL PERFORM WELDED CONNECTION FOR INSTALLATION OF 20-A-SS WITH COLLAR PLATE. PROVIDE SCH 10 304L SS COLLAR WRAPPING PLATE AT CONNECTION. 20-A-SS OUTLET AND COLLAR PLATE SHALL BE WELDED AT THE MANUFACTURER PLANT AS ONE UNIT.
10. CONTRACTOR SHALL REMOVE PART OF THE EXISTING WELDED PLATE UNDERNEATH THE BLOWER HEADER TO ALLOW FOR INSTALLATION OF OUTLET AND COLLAR PLATE.



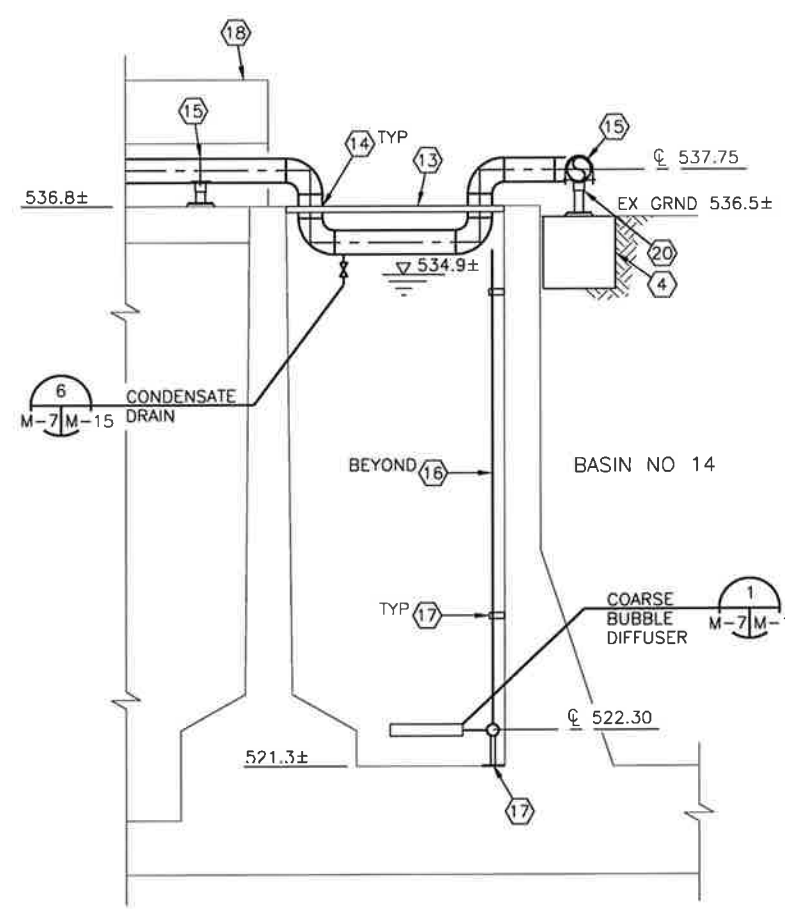
**SECTION 1**  
M-1M-7 3/8" = 1'-0"



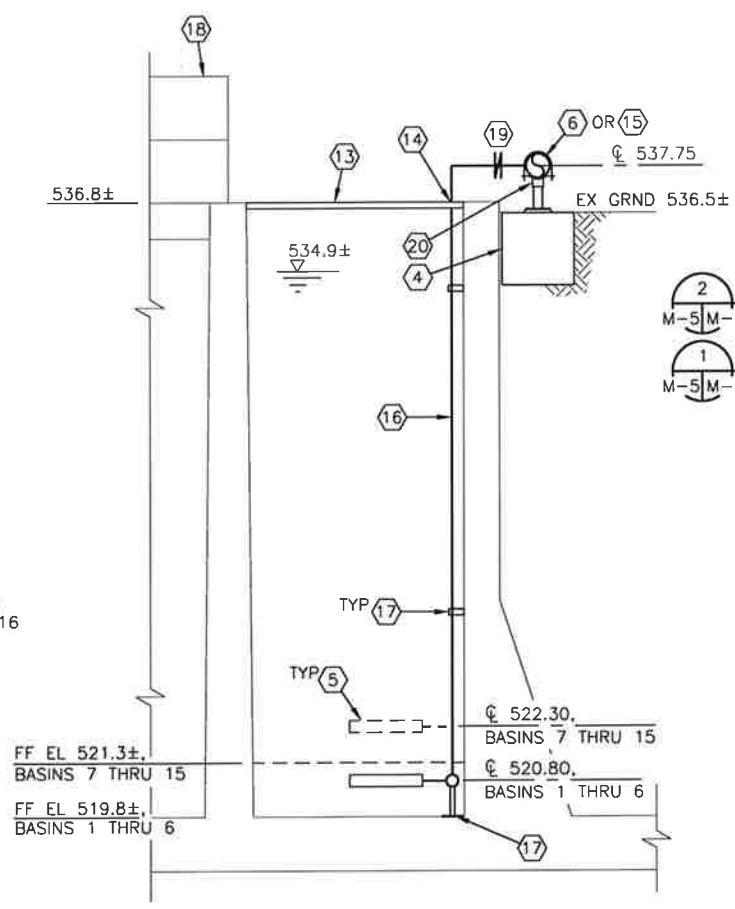
**SECTION 2**  
M-4M-7 3/8" = 1'-0"



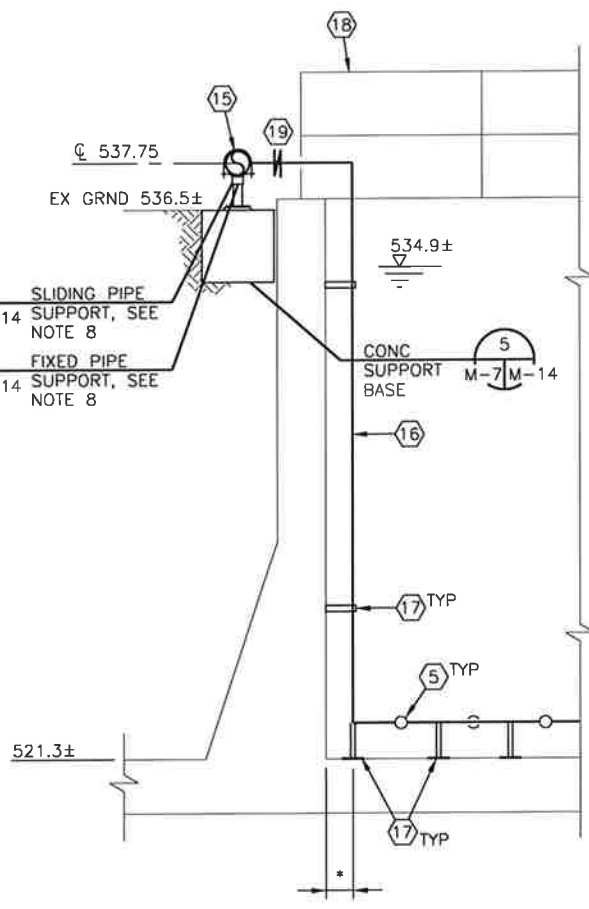
**SECTION 3**  
M-1,M-3M-7 1/2" = 1'-0"



**SECTION 4**  
M-3M-7 3/8" = 1'-0"



**SECTION 5**  
M-3M-7 3/8" = 1'-0"



**SECTION 6**  
M-3M-7 3/8" = 1'-0"



App.	TT
Revisions	NO. 9
Date	9/2/15
No.	ADDENDUM NO. 9

Date: OCT 2014  
Designed by: TT  
Drawn by: PEC  
Checked by: HG  
Scale: N.T.S.

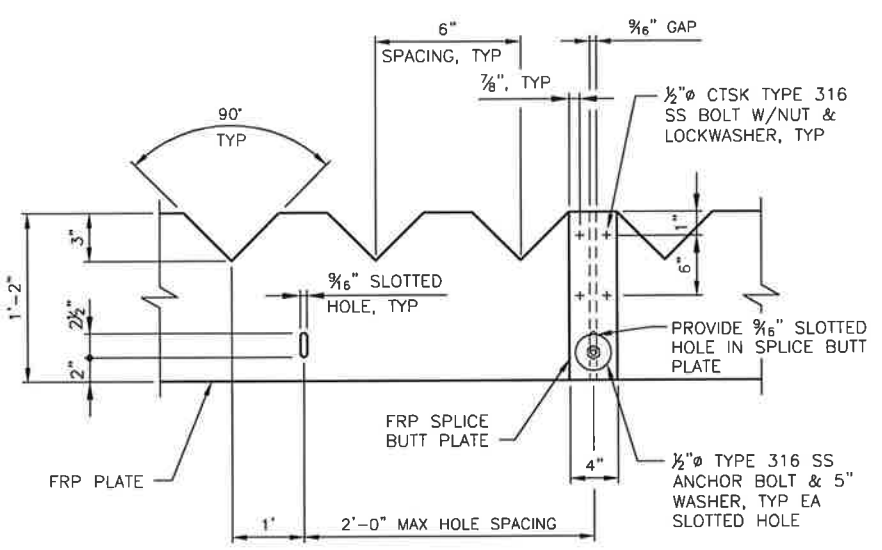


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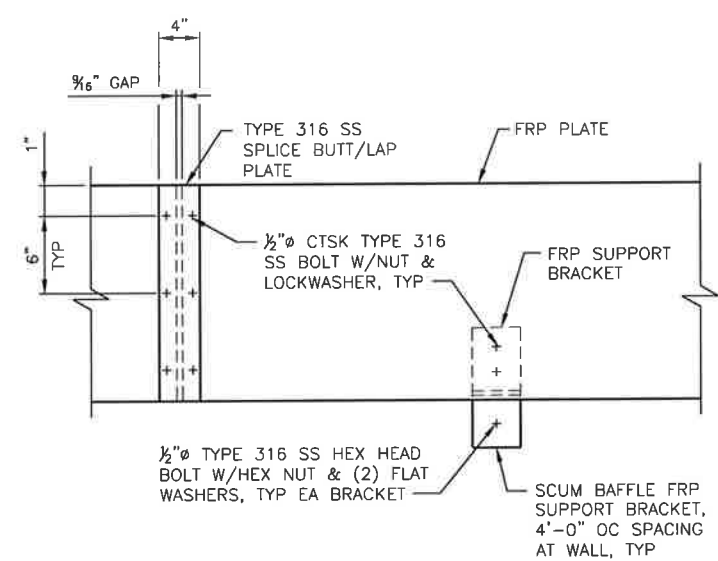
**SAN ANTONIO WATER SYSTEM**

**SAN ANTONIO WATER SYSTEM**  
SAWS JOB NO. 13-6505  
2013 LEON CREEK WRC REHABILITATION AND PROCESS IMPROVEMENTS

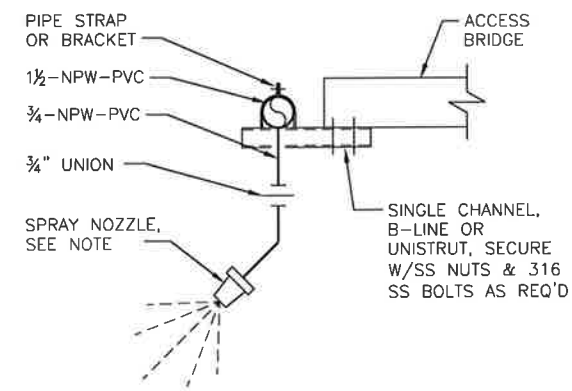
MECHANICAL DETAILS II



**1 V-NOTCH WEIR WITH SPLICE JOINT**  
M-15 NOT TO SCALE

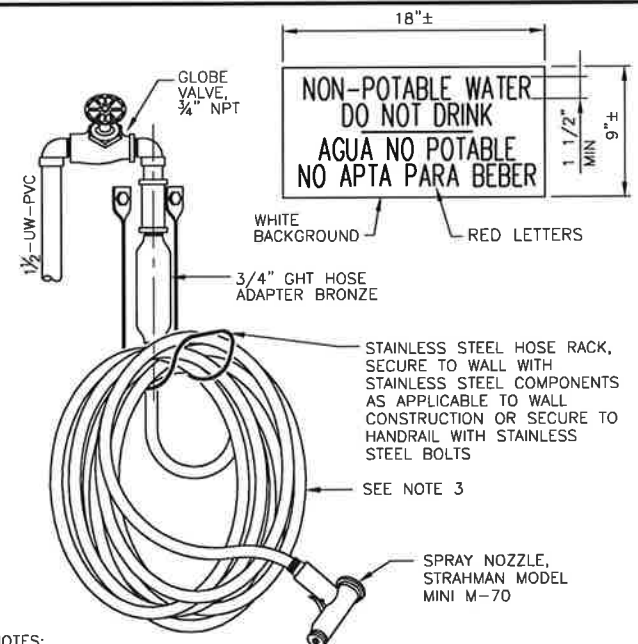


**2 SCUM BAFFLE**  
M-15 NOT TO SCALE



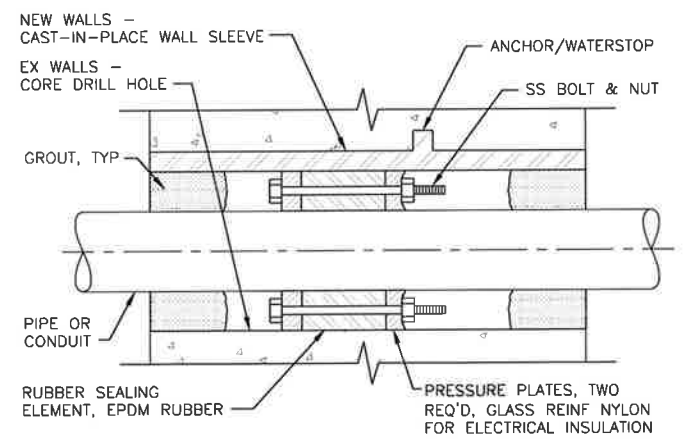
- NOTES:
1. SPRAY NOZZLE SHALL BE FULLJET, WIDE ANGLE SPRAY, MODEL 1/2K-316SS-50, WITH SPRAY ANGLE OF 119°, AS MANUFACTURED BY SPRAYING SYSTEMS CO.
  2. PROVIDE ADJUSTABLE BALL FITTING, MODEL #36275 AS MANUFACTURED BY SPRAYING SYSTEMS CO, TO ALLOW POSITIONING OF SPRAY NOZZLE.
  3. UNISTRUT AND HARDWARE SHALL BE CONSTRUCTED OF 316 SS.
  4. FIELD ROUTE AND ADJUST SPRAY NOZZLE AT CLARIFIER TROUGH.

**3 SPRAY NOZZLE**  
M-15 NOT TO SCALE



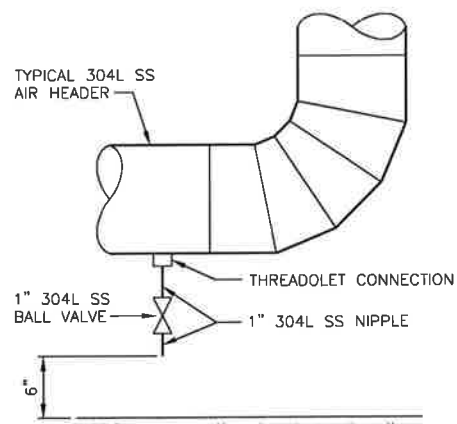
- NOTES:
1. PROVIDE AND MOUNT ONE NON-POTABLE WATER SIGN AT EACH HOSE STATION OR WALL HYDRANT PER SPECIFICATION SECTION 15047, IDENTIFICATION.
  2. MOUNT HOSE STATION WITH GLOBE VALVE 3'-6" AFF.
  3. FURNISH 50' OF 3/4" DIAMETER RUBBER HOSE AT EACH HOSE STATION. HOSE SHALL BE INDUSTRIAL RATED FOR MINIMUM 150 PSI WORKING PRESSURE AND SHALL HAVE NEOPRENE EXTERIOR THAT RESISTS OIL, ABRASION AND SEVERE WEATHER CONDITIONS FOR INDUSTRIAL USE. BOTH ENDS OF HOSE SHALL BE THREADED, ONE END MALE AND ONE END FEMALE.
  4. ROUTING OF WATER LINE IS SHOWN IN GENERAL ONLY. FIELD DETERMINE ROUTING FOR EACH LOCATION.

**4 HOSE STATION**  
M-15 NOT TO SCALE

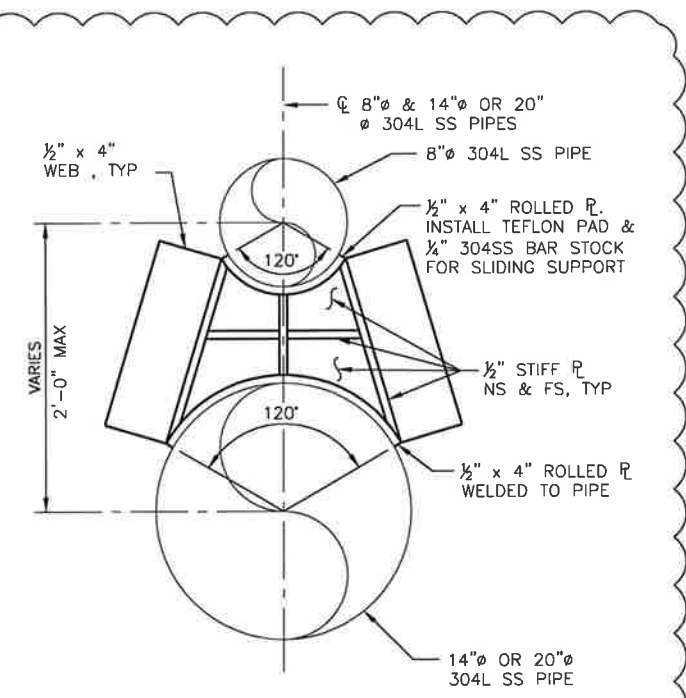


- NOTES:
1. INSIDE DIAMETER OF EACH WALL OPENING SHALL BE OF THE SIZE RECOMMENDED BY THE MANUFACTURER TO FIT THE PIPE OR CONDUIT AND THE WALL SEAL ASSEMBLY TO ASSURE WATERTIGHT JOINT.
  2. PIPE TO WALL PENETRATION CLOSURES SHALL BE OF THE MODULAR TYPE, CONSISTING OF INTERLOCKING SYNTHETIC RUBBER LINKS SHAPED TO FILL THE ANNULAR SPACE BETWEEN THE PIPE AND WALL OPENING. A PRESSURE PLATE SHALL BE PROVIDED UNDER EACH BOLT HEAD AND NUT, WITH THE SEAL CONSTRUCTED TO PROVIDE ELECTRICAL INSULATION BETWEEN PIPE AND WALL.
  3. WALL SEAL ASSEMBLY SHALL BE "LINK SEAL" AS MANUFACTURED BY ENPRO INDUSTRIES, CHARLOTTE, NORTH CAROLINA.
  4. PROVIDE 3 HOUR FIRE RATED MODULAR, INTERLOCKING MECHANICAL SEAL, "LINK SEAL" MODELFD/FS IN FIRE RATED STRUCTURES.
  5. PROVIDE ESCUTCHEONS IN FINISHED SPACES.

**5 WALL/FLOOR SEAL ASSEMBLY**  
M-15 NOT TO SCALE



NOTE:  
INSTALL CONDENSATE DRAINS AT THE END OF AERATION BASIN AIR HEADERS AND BEFORE AND AFTER ALL VERTICAL CHANGES IN PIPE ELEVATION.



NOTE:  
ALL PLATES TO BE 304L SS WELDED TOGETHER.

**7 STACKED PIPE SUPPORT**  
M-15 NOT TO SCALE