CITY OF TAMPA

Bob Buckhorn, Mayor **CONTRACT ADMINISTRATION DEPARTMENT**

Michael W. Chucran, Director

ADDENDUM 3

DATE: September 13, 2017

Contract 17-C-00011; Howard F. Curren AWTP Final Sedimentation Tanks Air Piping Improvements

Bidders on the above referenced project are hereby notified that the following addendum is made to the Contract Documents. BIDS TO BE SUBMITTED SHALL CONFORM TO THIS NOTICE.

Item 1: Replace Page P-2 with the attached page P-2R.

Item 2: Replace Workmanship and Materials Section 32 with the attached Section 32.

Item 3: Replace Workmanship and Materials Section 67 with the attached Section 67.

Item 4: Replace plan sheets 3, 4, 5, 6, and 7 with the attached, revised plan sheets 3, 4, 5, 6, and 7.

Item 5: Attached for reference is the pre-bid meeting sign-in sheet.

All other provisions of the Contract Documents and Specifications not in conflict with this Addendum shall remain in full force and effect. Questions are to be e-mailed to Contract Administration@tampagov.net.

Jim Greiner

Jim Greiner, P.E., Contract Management Supervisor

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Contract Item No.	Estimated Quantity	Description and Price in Words	Computed Total Price for Item in Figures
BASE BID	LS	The work includes the furnishing of all labor, equipment, and material for the removal and replacement of (1) existing 12-inch butterfly valve; the removal and replacement of (12) existing 4-inch butterfly valves; 4-inch sump pump discharge;12-inch, 10-inch, 8-inch, 6-inch and 4-inch existing steel process air header pipe and fittings with Schedule 40 Type-316 stainless steel; (18) existing pipe repair clamps with sleeve type couplings and (25) existing pipe anchors with stainless steel anchors in the Final Sedimentation Tanks No. 7-No.12, any allowances as stated in SP-60, and with all associated work required for a complete project in accordance with the Contract Documents. _____ _____ dollars and _____ cents (BASE BID) LS	$_____

SECTION 32 - VALVES

W-32.01 General

This section includes all valves to be used on City maintained force mains, City owned pump stations and the Howard F. Curren Advanced Wastewater Treatment Plant. Requirements of this section apply to all valves unless exceptions are shown or stated on the plans or specific provisions.

Plug valves for buried applications shall be provided with mechanical joints. Plug valves for above-ground applications shall be provided with flanged connections.

All force main valves shall be plug valves meeting the requirements of the sub-section “Eccentric Plug Valves.”

Valves 2 inches in diameter and smaller shall be all brass or bronze, except the handwheel, and shall have screwed ends. Valves 2-1/2 inches in diameter and larger shall be iron body, bronze mounted with flanged ends, except that in the smaller sizes, valves may be all bronze at the Contractor's option.

All gate, globe, and angle valves shall have rising stems, unless otherwise specified, and shall open when the nut or handwheel is turned counterclockwise. Each handwheel shall be marked with an arrow and the word "Open.” Each nut shall be marked with an arrow and shall not be greater than 24 inches in depth below finished grade.

All references to “stainless steel” or “SS” shall mean 316 Stainless Steel.

All valves of the same type shall be from a single manufacturer. Parts of valves of the same type and size shall be interchangeable.

All valves shall be carefully erected in their respective positions, free from all distortion and strain, and shall be packed and left in satisfactory operating condition.

W-32.02 Submittals

The Contractor shall prepare and submit for approval a complete detail drawing of all valves in accordance with the requirements of the General Provisions. At minimum the submittal shall show all proposed material types to be used as well as proposed interior and exterior coating manufacturer, coating type and proposed minimum dry film thickness.

W-32.03 Flanges

Flanges shall be cast solid and faced accurately at right angles to the axis of the casting. Flanges shall be faced and drilled and shop coated with a rust preventive compound before shipment.

Dimensions and drillings of flanges shall meet the requirements of ANSI B16.1 for working pressures of 125 pounds per square inch. Special drillings shall be provided where required.

W-32.04 Gate Valves

Except as otherwise specified, gate valves shall meet the requirements of Fed. Spec. WW-V-54, Class A, 125 pounds.

Gate valves shall have standard stuffing box seals. Bonnet bolts, studs, and nuts shall be cadmium plated. Wedging devices shall be bronze to iron or bronze to bronze as specified. Glands shall be bronze bushed; gland bolts and nuts shall be bronze.

Gate valves 2-1/2-inch diameter and larger shall be of the double disc type. Gate valves 2-inch diameter and smaller may be of the double disc or solid wedge type.

Valves with operating nuts or wheels 7 feet or more above the floor shall be provided with chains and chain wheels.

W-32.05 Globe and Angle Valves

Except as otherwise specified herein, globe and angle valves shall meet the requirements of Fed. Spec. WW-V-51, Class A, 125 pounds.

W-32.06 Hose Valves

Hose valves shall be globe or angle valves with rising stems, and rubber composition discs for cold water pressures up to 200 psi, nonshock.

Hose valves shall be all bronze or brass, except the handwheel which shall be of malleable iron. Hose threads shall conform to ANSI B2.4.

W-32.07 Check Valves

Check valves, unless otherwise specified, shall be APCO Series 100 of the horizontal, swing type designed to allow full diameter passage and to operate with a minimum loss of pressure. A Letter of Standardization has been executed for this valve. The letter states that no other valve shall be considered an “or equal” in accordance with the City’s standardization program. The “or equal” clause applies to all other equipment, unless specifically excluded by a Single Source Certificate or Letter of Standardization.

Check valves shall have body and body cover of heavily constructed cast iron meeting requirements of ASTM A48, Class 30. Check valve body shall have integrally cast-on end flanges. The flapper shall be rubber and have an "O" ring seating edge and be internally reinforced with steel. The flapper shall be easily replaced while the valve remains in place.

The exterior of the check valve shall be factory coated with an approved interior and exterior corrosion resistance coating. The exterior of the check valve shall receive a field coat as indicated for “Steel Pipe and Fittings” in the Workmanship & Materials Section titled “Painting”.

W-32.08 Pump-Check Eccentric Plug Valve

Pump-check valves, unless otherwise specified, shall meet the requirements of the sub-section for "Eccentric Plug Valves".

The valve shall be equipped with a G-Series rotary cylinder pneumatic actuator that is properly sized for the existing compressed air system within the pump station.

Plug valves shall be Dezurik PEF (100% Port) eccentric plug valve or approved equal.

W-32.09 Eccentric Plug Valves

Plug valves shall be of the eccentric valve design and shall meet or exceed the requirements of AWWA C517 and shall be designed for 175 PSI 3'-12" and 150 PSI 14"-36". Manufacturer's Name shall be cast in body and Valve shall be serialized for future parts identification. Port area shall be 100% of standard pipe area. The Plug shall be Rectangular with associated Rectangular Port and shall provide dead tight shutoff when seated in the closed position. Body material shall be Cast Iron ASTM A126 Class B, Seats shall be 1/8" thick 95% Nickel and 1/2" wide for proper plug seating. Plug shall be Ductile Iron ASTM A536 and Chloroprene Faced. Bearings shall be sintered, oil impregnated permanently lubricated type 316 stainless steel, include upper and lower grit excluders to prevent grit and foreign solids from entering the bearings. Shaft seals shall be multiple V-ring type and shall be externally adjustable via an air gap and re-packable under pressure without removing the actuator or bonnet from the valve. Valves shall have interior and exterior epoxy.

Plug valves shall be nut operated (1/4 turn) 4" to 8" and gear operated 10" and larger. Both nut and gear operated valves shall have a 2-inch square nut for operation. On pump stations where the valve is 7 feet or more above the floor level, a chain and wheel shall be provided for operation.

Plug valves shall be Dezurik PEF (100% Port) eccentric plug valve or approved equal.

W-32.10 Knife Gate Valves

Valves shall be bonnetless wafer knife gate type with cast single-piece body construction. Lugged ends shall have threaded holes in accordance with ANSI B16.1 125/150 pound standards. Working pressure rating shall be 150 psi in sizes 2"-24". Valve body and gate shall be stainless steel type 316 or as specified. Stem shall be type 304 stainless steel. Valve shall have a round port equal to 100% of the connecting pipe. Valves shall be chloroprene resilient seated or as specified.

The body design shall have no pockets or grooves in the flow port where media can settle and adversely affect closure. The gate shall be polished to provide low thrust requirements and long packing life. The leading edge of the gate shall be beveled to assist in closure. The stem shall be outside of the body and will not contact the flowing media. Valves shall have multi-layer square packing with adjustable packing gland bolting.

All valve bodies shall be tested with water at 150% of rated pressure with no visible leakage. Assembled valves shall be tested for seat leakage with water at 40 psi applied to the back of the

gate (pressure in the normal flow direction) and allowable leakage shall be as per MSS SP-81 specifications.

Valves shall be provided with a manually operated direct-mounted handwheel as specified or shown on the construction drawings. Floor stands and extensions shall be provided if specified. Valve superstructures shall be designed to allow easy field interchangeability between manual and pneumatic actuators. New superstructures shall not be required for conversion between manual and pneumatic operators.

Metal surfaces other than stainless steel shall receive a field coat as indicated for “Steel Pipe and Fittings” in the Workmanship & Materials Section titled “Painting”.

Valves shall be model KGC or KGN by DeZURIK, Inc., or approved equal.

W-32.11 Butterfly Valves

Butterfly valves 3 - 20" (80 - 500mm) shall meet or exceed the latest revision of AWWA Standard C504 for Class 150B butterfly valves and shall meet or exceed the requirements of this specification.

Valve bodies shall be constructed of 316 stainless steel ASTM A351, Grade CF8M or other materials as specified. The valve body shall be cast lugged configuration. (minimum of 4 guide holes).

Adjustable Packing shall be multiple V-ring Teflon or braided carbon graphite including anti-extrusion ring, also shall permit inspection, adjustment or complete replacement of packing without disturbing any part of the valve or actuator assembly except the packing follower.

Valve discs shall be of the single offset design to provide uninterrupted 360° sealing and to prevent pressure imbalance applied to the disc. Discs shall be designed with a concave face to minimize dynamic torque, decrease turbulence and maximize flow capacity. Discs shall be 316 stainless steel ASTM A351, Grade CF8M, or other materials as specified.

Valve shaft shall be of one-piece design and shall be centerless ground to minimize bearing and packing wear. Shaft material shall be 2205 Duplex stainless steel ASTM A279. Other materials as required by the application.

The seat shall be pressure assisted PTFE or RTFE capable of drip-tight bi-directional and dead end shutoff. Titanium or Inconel (for oxidizing service) integral hoop to provide memory for low pressure sealing and high cycle service. ANSI Class 150 valves shall provide bubble-tight shutoff to 285 psi. Seat Testing first at full rated pressure and second at 50 psi.

Disc to shaft connection shall be subject to compression forces only thru the use of Tangential pin or torque plugs. Designs using shear or thru pin connections are not allowed. All valves shall have blow-out proof shafts connections.

Unless otherwise specified, exterior and interior metallic surfaces of each valve shall be shop painted per the latest reversion of AWWA C504.

If the actual valve operating conditions are provided within this specification, the valve actuator shall be sized to the specified conditions. If actual operating conditions are not provided within this specification, per AWWA C504, the valve actuator shall be sized to operate the valve at the rated working conditions of the valve. Each valve and valve actuator shall be assembled, adjusted, and tested as a unit per the latest revision of AWWA C504, by the valve manufacturer.

High Performance Butterfly valves shall be DeZURIK, Inc or pre-approved equal.

Ten position locking levers shall be available for 3 - 8" (80 - 200mm) valves. Provision must be made for locking in any of the ten positions using a standard padlock.

Handwheel, chainwheel, and buried service nut actuators shall conform in all respects to AWWA C504.

Valves 3 - 20" (80 - 500mm) shall have traveling nut manual actuators designed and tested per the requirements of AWWA C504. Housings shall be cast iron and shall be available in both weatherproof and buriable constructions with handwheel, chainwheel, or 2" (50mm) square AWWA nut inputs. All units shall have adjustable open and closed position stops.

Pneumatic and hydraulic cylinder actuators shall be double acting, stationary mounted, with all working parts totally protected within weatherproof enclosures. Actuators must be in total conformance to AWWA C540, when specified.

Certified Test Report shall include material certifications for pressure retaining components, low and high pressure seat leakage test per ANSI/FCI 70-2. Test reports shall be kept on file by the manufacturer, for a period of three years from the date of manufacture.

Two Year Warranty shall be provided for all valves and actuators.

W-32.12 Multiport Valves

Three-way and four-way valves, unless otherwise specified, shall meet the requirements of the sub-section for eccentric plug valves.

W-32.13 Solenoid Valves

Solenoid valves, unless otherwise shown or specified, shall be normally closed packless type with full area ports. The body and bonnet shall be forged brass and the solenoid core shall be stainless steel. The diaphragm shall be of synthetic rubber assuring long service life. The coils shall be designed for 115-volt, 60-hertz operation and shall be embedded in molded plastic in NEMA Type I general purpose enclosure.

W-32.14 Ball Valves for CPVC Piping

Manually operated ball valves for CPVC piping shall be CPVC ball valves having renewable Teflon ball seats and EPDM seals. Ball valves shall block in both seating directions, leaving full pressure on the opposite end of the valve. The CPVC ball valves shall be rated at not less than 150 psi working pressure at 75 degrees F, self-lubricating, and shall have socket end connectors. The ball valves shall be of true union design to allow for inspection or removal. CPVC ball valves shall be as manufactured by Hayward Industrial Products, Inc., or equal.

W-32.15 Ball Check Valves for CPVC Piping

Ball check valves for CPVC piping shall be constructed of solid CPVC and shall have a CPVC ball. The check valve shall have EPDM O-rings and shall be capable of operating either horizontally or vertically. The check valve shall have a full flow design that provides a free open area that is equivalent to the connecting pipe size. The check valves shall have socket end connectors and shall be of the true union design to allow for inspection and removal of the valve. Ball valves for CPVC piping shall be as manufactured by Hayward Industrial Products, or equal.

W-32.16 Testing

All valves shall be given hydrostatic shop pressure tests at twice the working pressure specified. The valves shall be tested, first by applying the hydrostatic pressure with the valve open and then with the valve closed. The valves shall be tight and secure under the test pressure.

Valves shall be tested in place by the Contractor, as far as practicable, and any defects in valves or connections shall be corrected to the satisfaction of the Engineer.

W-32.17 Painting and Coating

Plug valves shall receive a factory interior and exterior coating of Tnemec Series 141 (4 mils thick).

All other valves shall receive a factory interior and exterior coating of an approved system.

Metal surfaces other than stainless steel shall receive a field coat as indicated for “Machinery and Equipment” in the Workmanship & Materials Section titled “Painting”.

Chain wheels shall be coated by galvanizing or electroplating with zinc or cadmium. The chain shall be coated by electroplating with zinc or cadmium. Zinc electroplating shall meet the requirements of Fed. Spec. QQ-Z-325, Type II, Class 2; and cadmium electroplating shall meet the requirements of Fed. Spec. QQ-P-416, Type II, Class 2.

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SECTION 67 - STEEL PIPE AND FITTINGS

W-67.01 General

Steel pipe and fittings include all wrought and fabricated steel pipe, stainless steel pipe, and fittings therefor. Steel pipe shall be used only where specifically shown or specified.

Completely detailed working drawings shall be submitted by the Contractor for approval in conformance with the requirements of the General Provisions. Such drawings shall show piping layouts and contain schedules of all pipe, fittings, valves, expansion joints, hangers and supports, and other appurtenances. When any of the steel pipeline work is of special design, such work shall be shown in large detail and be completely described and dimensioned.

W-67.02 Pipe Standards

Dimensions of steel pipe shall conform to ANSI B36.10, unless otherwise specified, shown, or required. Pipe 12 inches and smaller shall be not less than Schedule 40. Pipe 14 to 18 inches inclusive shall be not less than Schedule 30. Pipe 20 through 36 inches shall have a wall thickness of not less than 3/8 inch. Pipe larger than 36 inches shall have a wall thickness of not less than 1/2 inch.

Steel pipe 24 inches in diameter and smaller shall meet the requirements of ASTM A 53.

Steel pipe larger than 24 inches in diameter shall meet the requirements of AWWA C200, unless otherwise specified, shown, or required. Pipe conforming to AWWA C200 fabricated from plates shall meet the requirements of ASTM A 283 Grade B with not more than two longitudinal seams and with girth seams not less than 7 feet apart. Pipe conforming to AWWA C200 mill pipe shall be made with Grade B steel and spiral welded with inside and outside (double) fusion butt welds. The Contractor shall provide an affidavit of compliance for all pipe and fittings furnished under AWWA C200. Stainless steel pipelines shall not be painted.

Steel pipe, including fabricated pipe, shall be furnished in the longest lengths commercially available unless otherwise shown, specified, or required. Pipe shall have the manufacturer's name, initials, or trademark rolled into the surface and the year of manufacture shall be suitably marked on the pipe.

W-67.03 Welding

Welding of pipe joints where shown, specified, permitted, or required shall meet the requirements of ANSI B31.1, Code for Pressure Piping, unless otherwise specified. Pipe and fittings with a wall thickness of 3/16 inch and greater shall have ends beveled for welding. All welding on steel pipelines shall be performed by certified welders having current certificates conforming to requirements of the ANSI Code. Such certification shall be submitted to the Engineer before proceeding with any pipe welding.

Steel pipelines, with interior lining, shall be shop welded. No field welding on such pipelines will be permitted unless authorized in writing by the Engineer. Steel pipelines shall be shop welded and fabricated complete which includes fittings, lugs, anchors, supports, flanges, and like items, ready for field assembly before linings, as specified, are applied. Pipeline lining, where specified, shall include pipe, fittings, and specials.

W-67.04 Sleeve-Type Couplings

Except where standard solid sleeves or split sleeves are shown or specified, sleeve-type coupling for steel pipe shall be Style 38 couplings as made by Dresser Industries, Inc., or Type 411 as made by Smith-Blair, or equal. Gaskets shall be of molded rubber, Dresser Plain Grade 27, Smith-Blair 003, or equal. Middle rings shall be without a pipe stop and shall be at least 1/4 inch thick and 5 inches wide for 8-inch and smaller pipe, 3/8 inch thick and 7 inches wide for 10-inch through 30-inch pipe, and 1/2 inch thick and 10 inches wide for 36-inch and larger pipe with follower rings of appropriate thickness, unless otherwise shown or specified.

Sleeve-type couplings shall be shop coated with Dresser Red "D" Shop-Coat, Smith-Blair Standard Blue Shop Coat, or equal, nontoxic material compatible with the finished coatings specified.

The ends of pipe and fittings which are to have sleeve-type couplings shall be left free of shop coat or field coat for a distance of 12 inches, until after installation, when the pipe and couplings exposed to view shall be field painted as specified or directed.

W-67.05 Harnessing

The steel pipe joint harness shall consist of two or more steel tie rods set diametrically opposite, generally on the horizontal diameter of the pipe, extending across the joint from fabricated bent steel plate lugs welded to the pipe at either side of the joint. Steel plates used in the fabrication of bent plate lugs shall conform to ASTM A 242. Lugs and welds shall be designed to develop the full strength of the tie rods.

Harness tie rods and nuts shall be of mild steel meeting the requirements of ASTM A 307 Grade B. Nuts shall be hexagonal and have a standard chamfer on the back face.

W-67.06 Expansion and Flexible Couplings

Ample provision shall be made for flexibility in all pipelines to compensate for expansion. Expansion devices shall be adequate to allow the lines to expand and contract freely without injury to any part of the piping system. The devices may be in the form of expansion joints, expansion couplings, swivel or swing joints or pipe bends, and include such anchors as may be shown, specified, or required to make the devices effective. If expansion devices are not required, all runs of pipe subject to change in length shall be fabricated shorter than their theoretical length to the extent that there may be freedom to expand without increasing the stresses imposed when cold.

Expansion joints shall be provided with adequate tie rods to limit the axial movement at the specified test pressures, except where otherwise noted or specified.

W-67.07 Handling

During loading, transportation, and unloading, extraordinary care shall be taken to prevent injury to the pipes and coating. Loading and unloading shall be done slowly with each pipe under perfect control at all times. Under no circumstances shall a pipe be dropped. Suitable skids or blocks shall be placed under each pipe in the shop and the pipe shall be securely wedged during transportation to ensure the least possible injury to pipe, lining, and coating.

Pipe shall be handled with equipment such as stout canvas slings and wide padded skids, designed to prevent damage to the coating. The use of bare cables, chains, hooks, metal bars, or narrow skids in contact with the coating will not be permitted. All pipe handling and hauling equipment shall meet the approval of the Engineer before use. The ends of coated pipe shall be protected with roofing paper to prevent damage to the coating during transit. Abrasions and injuries shall be promptly and efficiently repaired.

Pieces shall be examined for defects and no piece shall be installed which is known to be defective. If any defective piece should be discovered after having been installed, it shall be removed and replaced with a sound one in a satisfactory manner by the Contractor at his own expense.

W-67.08 Erection

Steel pipelines shall be furnished, fabricated, erected, and otherwise installed to the lines, elevations, locations, and dimensions shown, specified, and required for a complete installation. In all existing structures and new structures as applicable, the Contractor shall verify all dimensions shown on the Plans and shall take such field dimensions that may be necessary to properly fabricate, locate, erect, connect to existing work, and otherwise install all steel pipelines, pipe supports, pipe anchors, and structural frames required for steel pipelines. Where temporary supports are used, they shall be sufficiently rigid to prevent shifting or distortion of the pipe. Expansion devices shall be properly adjusted so that pipelines will be tight during expansion and contraction.

For sleeve type couplings, diametrically opposite bolts shall be equally tightened on the connection so that the gaskets will be brought up evenly all around the pipe. Final tightening shall be done with torque wrenches set for the torque recommended by the coupling manufacturer.

W-67.09 Hangers and Supports

All steel pipelines shall be permanently erected and supporting devices shall be furnished and installed as specified on the construction plans.

* * *

GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH TREATMENT PLANT PERSONNEL AND PLANT OPERATIONS.

2. EXISTING DIMENSIONS AND ELEVATIONS ARE BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING TRUE DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTALS.

3. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (EASILY READABLE). NO FAXED SHEETS OR POOR COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.

4. IT IS THE ENGINEER'S INTENT THAT ALL WORK INVOLVED IN THIS PROJECT WILL BE PERFORMED WHILE SEDIMENTATION TANKS ARE OFF-LINE AND DRAINED.

5. AWTP PERSONNEL SHALL BE RESPONSIBLE FOR DRAINING SEDIMENTATION TANKS. CONTRACTOR SHALL PROVIDE A MINIMUM OF FIVE WORKING DAYS NOTICE (IN WRITING) BEFORE HAVING AWTP PERSONNEL DRAIN A TANK.

6. CONTRACTOR SHALL REPLACE EXISTING 4", 6", 8", 10" AND 12" STEEL PROCESS AIR HEADER PIPE AND FITTINGS AT THE INFLUENT CHANNEL OF SEDIMENTATION TANKS 7 THRU 12 WITH SCHEDULE 40 TYPE 316 STAINLESS STEEL (316L SS). PROCESS AIR HEADER PIPE SHALL BE LABELED PROCESS AIR INCLUDING DIRECTIONAL FLOW ARROWS AS SPECIFIED. PAINTING OF STAINLESS STEEL PIPING IS NOT REQUIRED.

7. CONTRACTOR SHALL REPLACE STAINLESS STEEL PIPE REPAIR CLAMPS AT THE INFLUENT CHANNEL OF SEDIMENTATION TANKS 7 THRU 12 WITH 316 STAINLESS STEEL SLEEVE TYPE COUPLINGS. A TOTAL OF 17 SLEEVE TYPE COUPLINGS (VARIOUS SIZES) AND (1) 12" HARNESSED SLEEVE TYPE COUPLING WILL BE REQUIRED.

8. CONTRACTOR SHALL REPLACE EXISTING (25) PIPE ANCHORS WITH 316L STAINLESS STEEL PIPE ANCHORS – VARIOUS SIZES. (SEE TABLE 1 AND DETAILS)

1 9. CONTRACTOR SHALL REPLACE AN EXISTING 12" BUTTERFLY VALVE AS DESIGNATED ON THE PLANS. BUTTERFLY VALVE SHALL BE DEZURK HIGH PERFORMANCE (BHP) OR APPROVED EQUAL. VALVE SHALL BE PROVIDED WITH A MANUAL HANDWHEEL OPERATOR. REPLACEMENT OF THIS VALVE WILL REQUIRE PROCESS AIR SHUTDOWN. DURATION OF SHUTDOWN SHALL NOT BE MORE THEN 2 HOURS AND A MINIMUM OF FIVE WORKING DAYS NOTICE IS REQUIRED.

1 10. CONTRACTOR SHALL REPLACE EXISTING 4" SUMP PUMP DISCHARGE AND FLANGE WITH SCHEDULE 40 TYPE 316 STAINLESS STEEL AT LOCATION SHOWN ON PLANS. INSULATING FLANGE SHALL BE USED TO CONNECT TO EXISTING 4" PIPE.

11. ALL HARDWARE, UNLESS OTHERWISE NOTED, SHALL BE TYPE 316 STAINLESS STEEL.

12. THE UPPER DECK OF THE SEDIMENTATION TANKS SHALL BE KEPT CLEAN OF MATERIALS AND DEBRIS AT ALL TIMES. WALKWAYS AND DRIVEWAY SHALL BE KEPT CLEAR FOR AWTP PERSONNEL TO PASS THROUGH.

13. EXISTING STAINLESS STEEL PIPE REPAIR CLAMPS SHALL BE SALVAGED AND DELIVERED TO THE PARTS WAREHOUSE LOCATED ON THE TREATMENT PLANT SITE. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE.

14. OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.

15. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER/INSPECTOR.

1 16. CONTRACTOR SHALL REPLACE (12) EXISTING 4" BUTTERFLY VALVES WITH DEZURK HIGH PERFORMANCE BUTTERFLY VALVES (BHP) OR APPROVED EQUAL. VALVES SHALL BE EQUIPPED WITH ADJUSTABLE LEVERS.

1 17. PIPE WELDING SHALL BE TESTED BY VISUAL INSPECTION. THE VISUAL INSPECTION SHALL BE PERFORMED BY A THIRD PARTY, CERTIFIED WELD INSPECTION COMPANY THAT IS EXTREMELY FAMILIAR WITH 316 STAINLESS STEEL WELDS. THE VISUAL INSPECTION SHALL CONSIST OF INSPECTING AND APPROVING THE INITIAL (ROOT) WELDS ON THE FIRST DAY OF WELDING IN ORDER TO ESTABLISH AN APPROVED CRITERIA. FINAL WELD VISUAL INSPECTIONS OF ALL WELDS SHALL ALSO BE PERFORMED. ALL DEFICIENT WELDS AS IDENTIFIED BY THE TESTING COMPANY SHALL BE CORRECTED AND RE-INSPECTED AT NO ADDITIONAL COST TO THE CITY. ALL COSTS ASSOCIATED WITH THE VISUAL WELD INSPECTION SHALL BE CONTRACTOR'S RESPONSIBILITY.

1 18. CONTRACTOR SHALL PERFORMED A POST-INSTALLATION TEST OF THE SYSTEM. THE POST-INSTALLATION TEST SHALL CONSIST OF OPERATING THE SYSTEM UNDER LIVE FLOW FOR A 48-HOUR PERIOD AND CHECKING FOR AIR LEAKS. ANY DEFICIENCY IDENTIFIED BY THE TESTING SHALL BE CORRECTED AND RE-TESTED AT NO ADDITIONAL COST TO THE CITY.

TABLE 1. AIR PIPING, SLEEVE TYPE COUPLINGS AND PIPE ANCHORS SCHEDULE

PIPE DIAMETER	SLEEVE TYPE COUPLINGS REQUIRED	APPROXIMATE LENGTH OF PIPE REQUIRED	PIPE ANCHORS REQUIRED
4"	1	70'	1
6"	4	80'	6
8"	4	120'	7
10"	4	110'	4
12"	4 1 HARNESSED	90'	7

NOTES:

A. REFER TO SHEET 7 FOR PIPE ANCHOR DETAILS.

B. REFER TO SHEET 8 FOR HARNESSED SLEEVE TYPE COUPLING DETAILS.

C. EXISTING AIR PIPING TO BE REPLACED IS SUPPORTED BY STAINLESS STEEL PIPE SUPPORTS AT VARIOUS LOCATIONS. CONTRACTOR SHALL RE-USE THESE EXISTING SUPPORTS.

JACINTO CARLOS FERRAS, P.E.
#49454 DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1	09/06/2017	ADDENDUM #3 REVISIONS

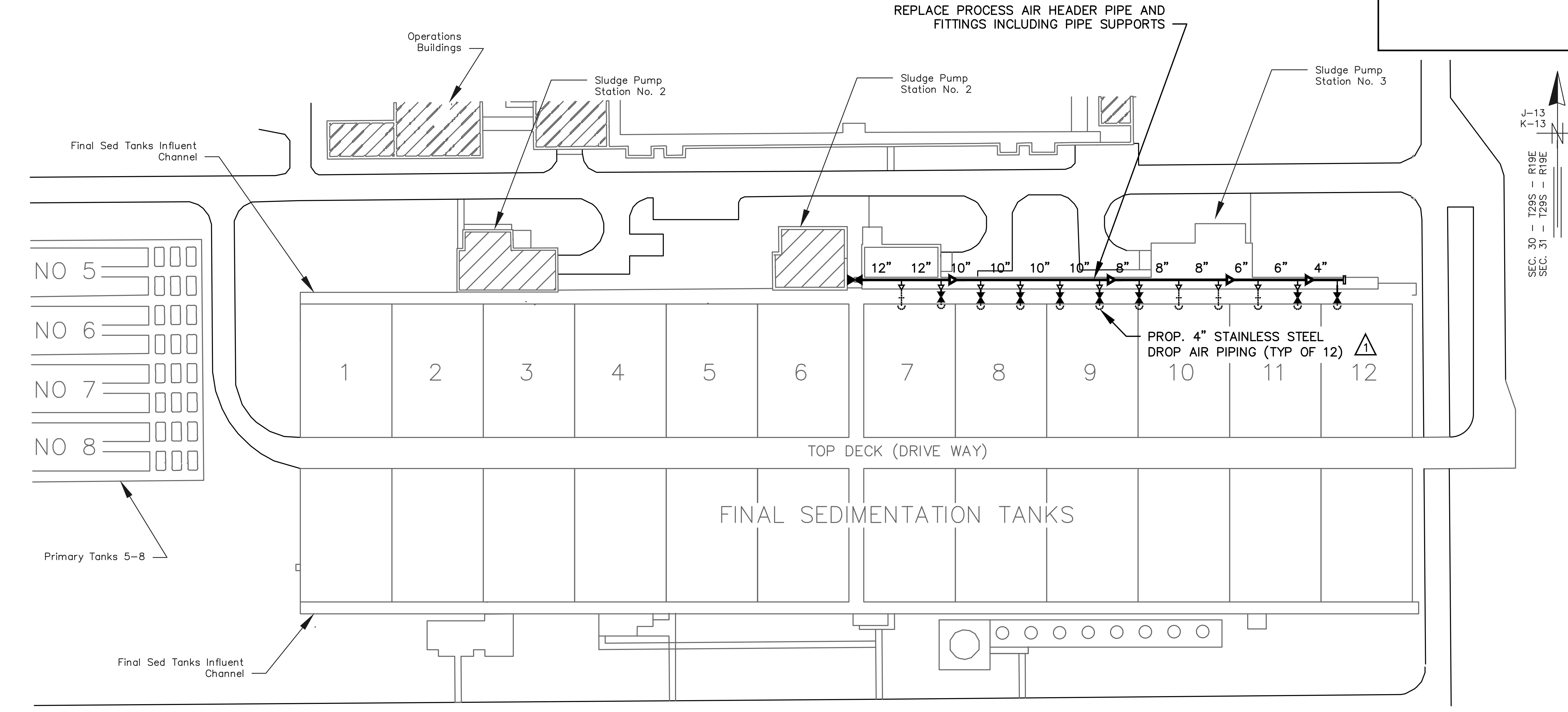
DES: KJG
DRN: MRL
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

HOWARD F. CURREN AWTP FINAL SEDIMENTATION TANKS AIR PIPING IMPROVEMENTS

GENERAL NOTES AND TABLE

SHEET 3

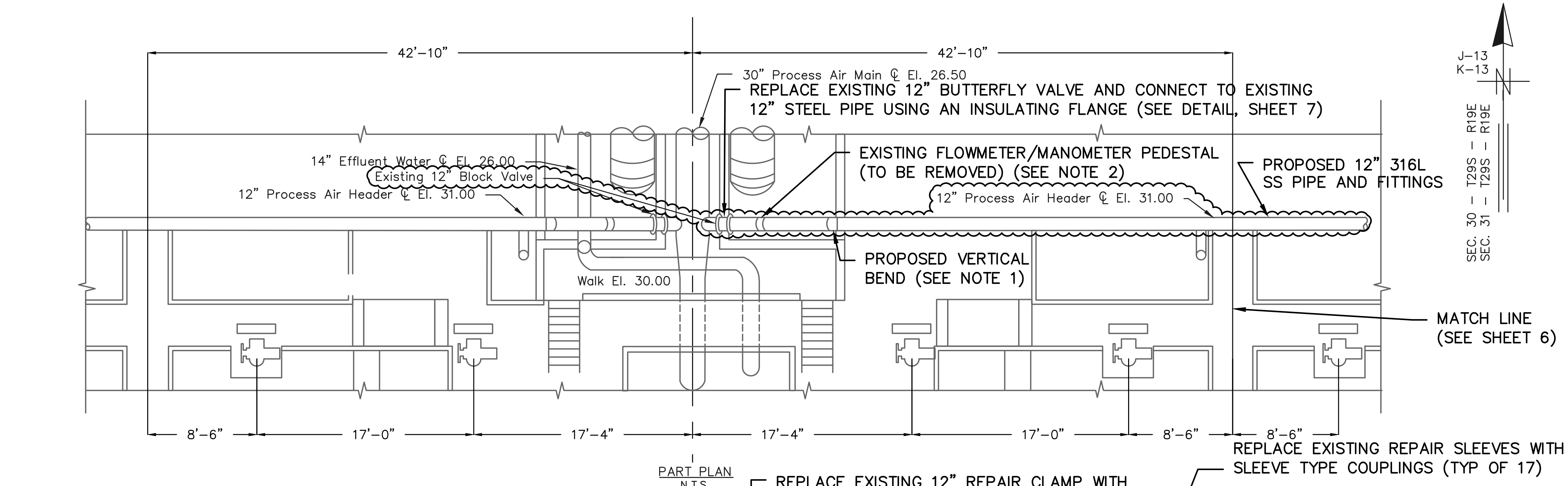


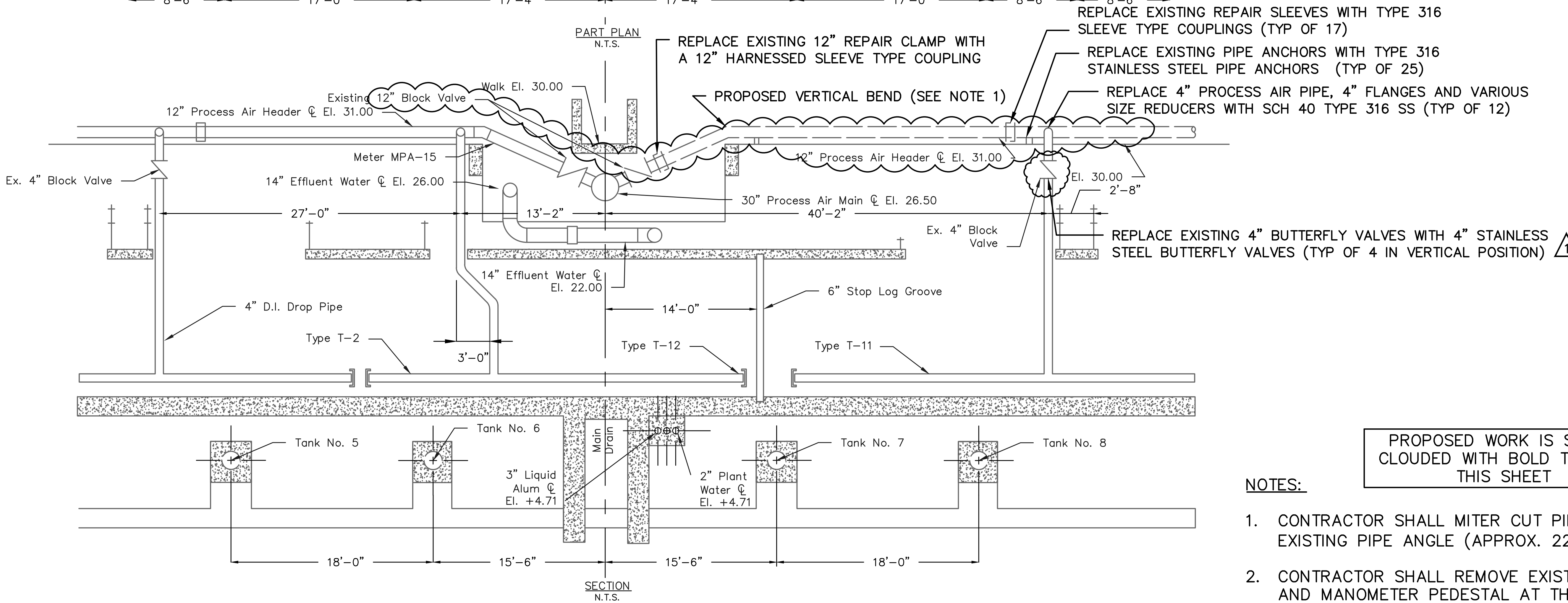
PLAN VIEW
N.T.S.

LEGEND

- PROPOSED BUTTERFLY VALVE
- PROPOSED REDUCER
- EXISTING 4" 90° BEND DROP PIPE (TO REMAIN)

	No.	DATE	REVISIONS				
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	3			DES: KJG	CITY of TAMPA	HOWARD F. CURREN AWTP FINAL SEDIMENTATION TANKS AIR PIPING IMPROVEMENTS	SHEET
	2			DRN: MRL	WASTEWATER DEPARTMENT	FINAL SEDIMENTATION TANKS PLAN VIEW	4
	1	09/06/2017	ADDENDUM #3 REVISIONS	CKD: DATE:			





PROPOSED WORK IS SHOWN CLOUDED WITH BOLD TEXT ON THIS SHEET

NOTES:

1. CONTRACTOR SHALL MITER CUT PIPE TO MATCH EXISTING PIPE ANGLE (APPROX. 22½°)

2. CONTRACTOR SHALL REMOVE EXISTING FLOWMETER AND MANOMETER PEDESTAL AT THE SLUDGE PUMPING STATION NO. 2. CONCRETE SURFACE SHALL BE GROUND BACK TO A SMOOTH CONCRETE SURFACE.

No.	DATE	REVISIONS
3		
2		
1	09/06/2017	ADDENDUM #3 REVISIONS

JACINTO CARLOS FERRAS, P.E.
#49454 DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

DES: KJG
DRN: MRL
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

HOWARD F. CURREN AWTP FINAL SEDIMENTATION TANKS AIR PIPING IMPROVEMENTS

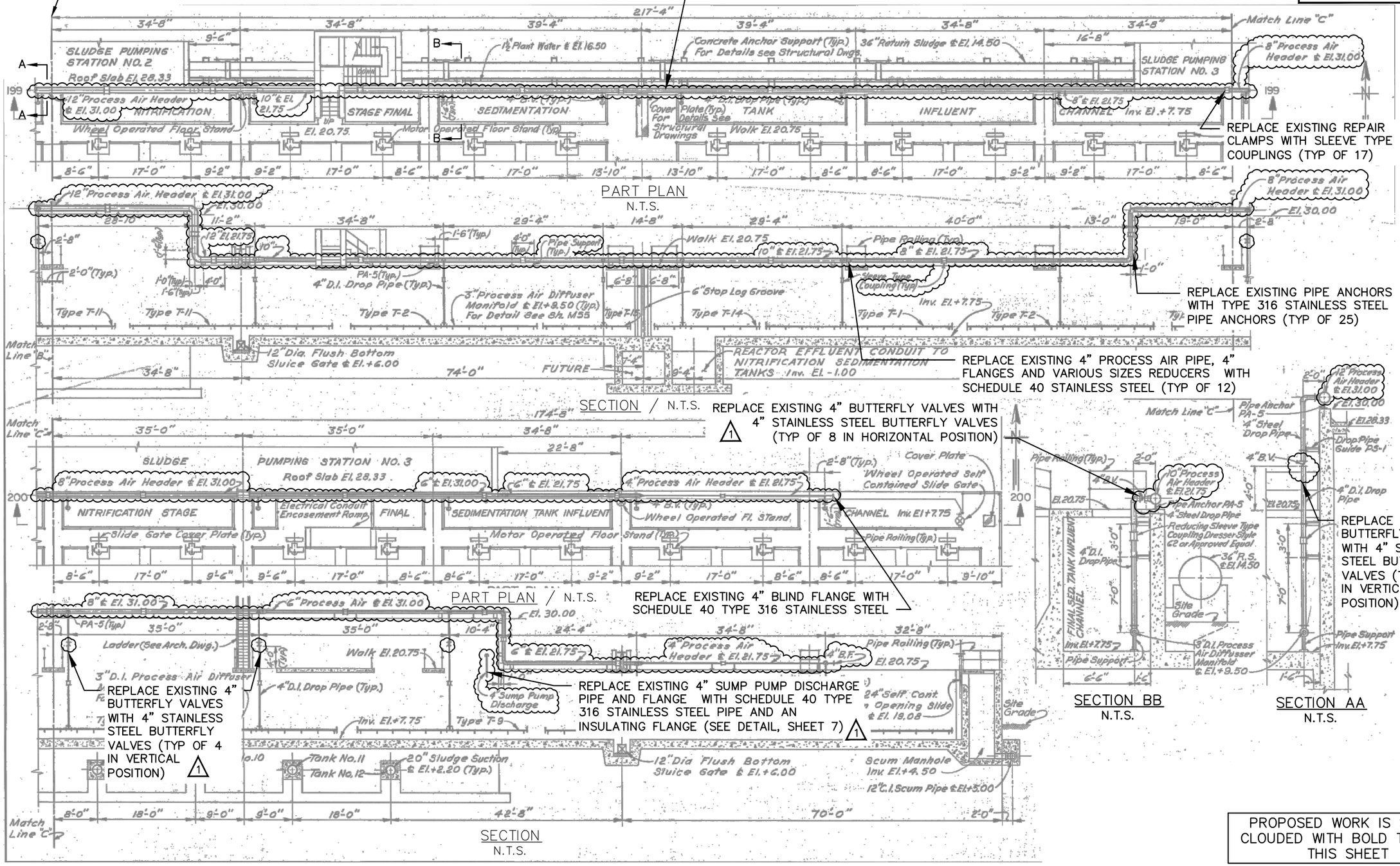
INFLUENT CHANNEL AIR PIPING PROPOSED PLAN & SECTION (1)

SHEET 5

Layout- Sep 12, 2017 - 1:37pm CTB - WW-TOSHIBA.CTB

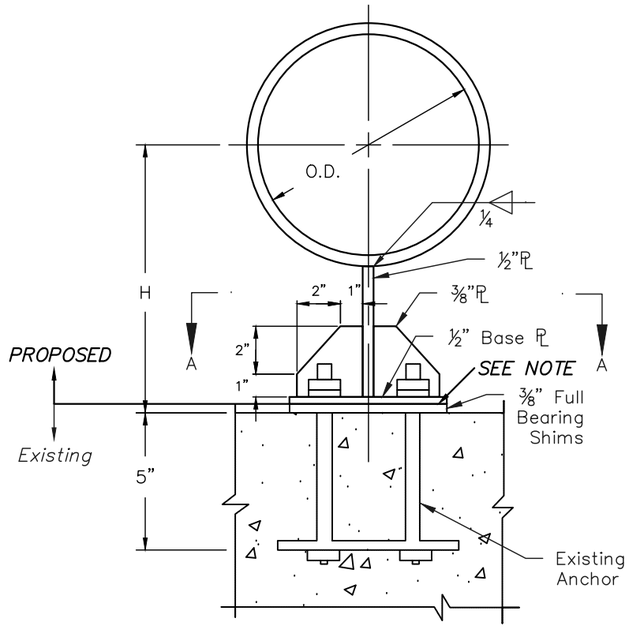
MATCH LINE (SEE SHEET 5)

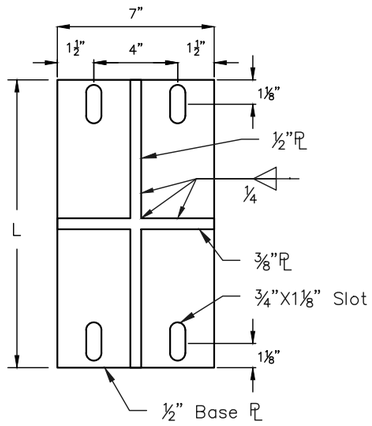
PROPOSED 12", 10", 8", 6" AND 4" 316L SS PIPE AND FITTINGS



PROPOSED WORK IS SHOWN CLOUDED WITH BOLD TEXT ON THIS SHEET

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: KJG DRN: MRL CKD: DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	HOWARD F. CURREN AWTP FINAL SEDIMENTATION TANKS AIR PIPING IMPROVEMENTS INFLUENT CHANNEL AIR PIPING PROPOSED PLAN & SECTION (2)	SHEET 6
	3						
	2						
	1	09/06/2017	ADDENDUM #3 REVISIONS				





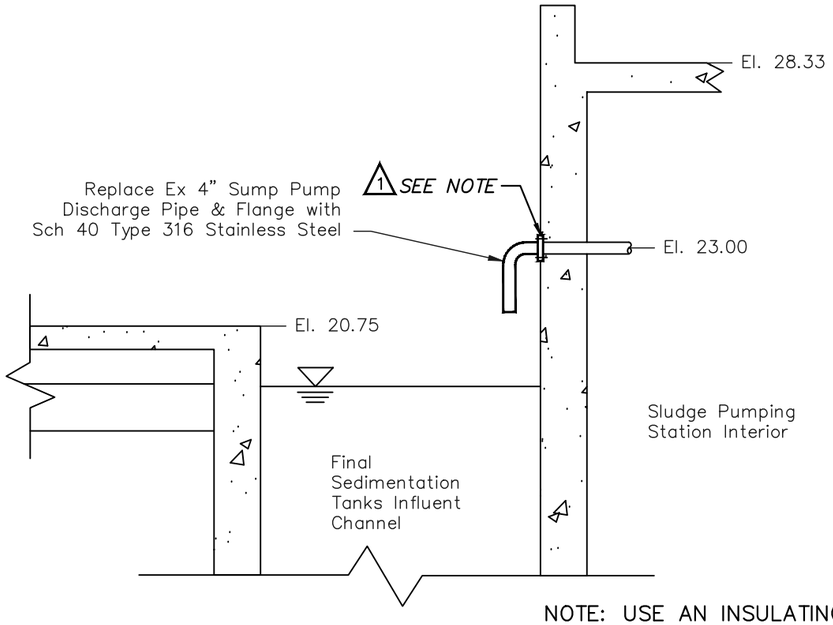
SECTION A–A

PIPE ANCHOR SCHEDULE		
PIPE O.D.	H	L
4.5	1'–0"	6"
6.625	1'–0"	6"
8.625	1'–0"	8"
10.75	1'–0"	1'–1"
12.75	1'–0"	1'–3"

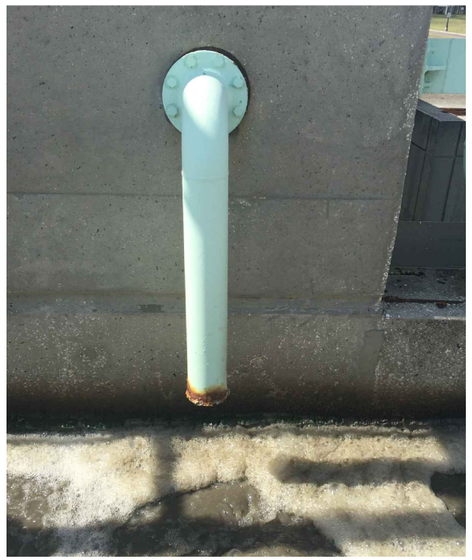
NOTE: INSTALL INSULATING GASKET (NEOPRENE) BETWEEN EXISTING STEEL PLATE AND NEW STAINLESS STEEL PIPE ANCHOR TO PREVENT DISSIMILAR METAL CONTACT

PROPOSED STAINLESS STEEL (316L) PIPE ANCHOR
N.T.S.

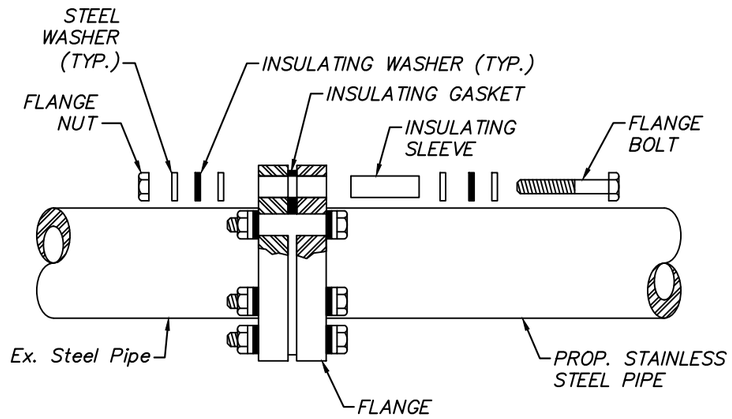
EXISTING PIPE ANCHOR



SUMP PUMP DISCHARGE
N.T.S.



EXISTING SUMP PUMP DISCHARGE



INSULATING FLANGE
N.T.S.

NOTE: USE AN INSULATING FLANGE BETWEEN EXISTING PIPE AND NEW STAINLESS STEEL PIPE 1

	No.	DATE	REVISIONS
	3		
	2		
	1	09/06/2017	ADDENDUM #3 REVISIONS

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

DES: KJG
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CITY of TAMPA
WASTEWATER DEPARTMENT

HOWARD F. CURREN AWTP FINAL SEDIMENTATION TANKS AIR PIPING IMPROVEMENTS

MISCELLANEOUS DETAILS (1)

SHEET 7

Contract 17-C-00011; Howard F. Curren AWTP Final Sedimentation Tanks Air Piping Improvements Pre-Bid Conference 9-5-17 10:15a

E-Mail to **Register as a Plan Holder** and E-Mail All **Questions** to **ContractAdministration@tampagov.net**

Sign-In Sheet ☐ Please Print — City of Tampa, Contract Administration Department

	Name	Organization	E-Mail OR Phone
1	*Jody Gray*	*Tampa Contract Administration Dept.*	jody.gray@tampagov.net
2	Sean Whitmore	Dura Industrial	Swhitmore@conveyors247.com
3	JOHNNY GRANGER	MORENO IND. SERVICES	JOHNYGRANGER@MIS.COM
4	Lars Allebrink	Trias Construction	Joe@TriasConstruction.com
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6	JACK FERIAS	COT - WASTEWATER	JACK.FERIAS@TAMPAGOV.NET
7	JIM JOHNSON	COT WASTEWATER	JIM.JOHNSON@ " " "
8	Karloren Guzman	COT - Wastewater	Karloren.guzman@tampagov.net
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