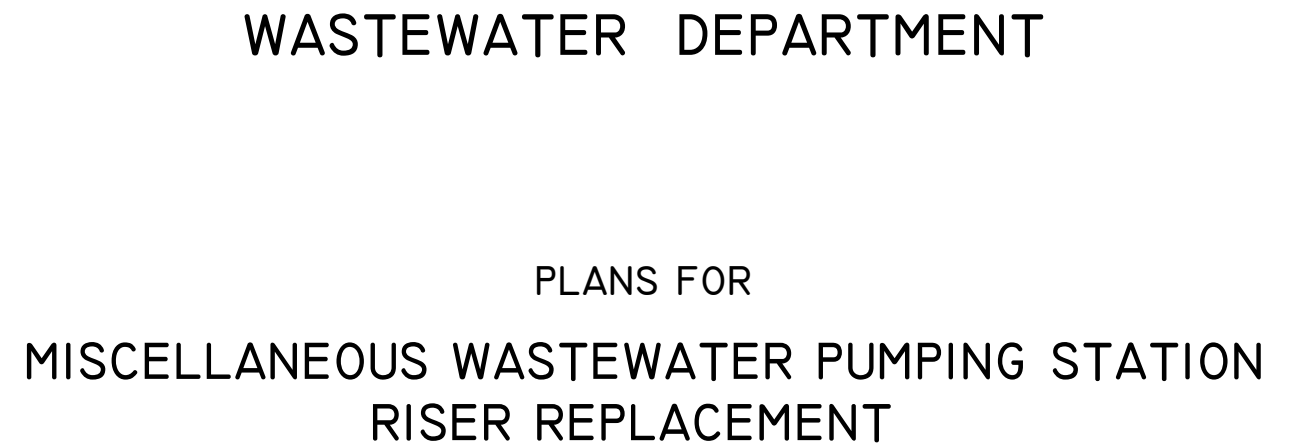


CITY of TAMPA



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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
COVER SHEET

SHEET  
1

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LEGEND

EX SEWERS

EX FORCE MAIN

EX SAN SEWER & MANHOLES

EX STORM SEWER & MANHOLES

PROP SEWERS

PROP FORCE MAIN

PROP SANITARY SEWER & MANHOLES

PROP STORM SEWER & MANHOLES

OTHER FEATURES

RIGHT of WAY LINE

EDGE of PAVEMENT

WATER LINE

GAS LINE

ELECTRICAL CABLE or DUCT

TELEPHONE CABLE or DUCT

TV CABLE

VALVE, AIR RELEASE VALVE

HYDRANT

CATCH BASIN, GRATE

POWER POLE

TELEPHONE POLE

GUY POLE

GUY WIRE

VALVE VAULT

WATER METER

ELECTRICAL MANHOLE or VAULT

TELEPHONE MANHOLE or VAULT

TRAFFIC BOX or VAULT

BUILDING LIMIT

PROPERTY OWNERSHIP

FENCE

CONIFER

PALM

OAK

OTHER

SHRUB

HEDGE

RAILROAD TRACKS

IRON PIPE

CONTROL POINT

CONCRETE MONUMENT

OPEN DITCHES

EXISTING WYE

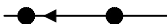
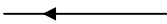
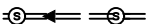
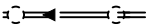
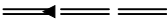
PROPOSED WYE

CLEAN OUT

UP to 36"  
& SMALLER



36" & LARGER



AIR RELEASE VALVE  
APPROXIMATE LOCATION  
BENCH MARK  
BURIED TELEPHONE  
CONCRETE PIPE  
DIAMETER RATIO  
DUCTILE IRON PIPE  
EDGE OF PAVEMENT  
FIBER OPTIC CABLE  
FLORIDA DEPT. OF TRANSPORTATION  
FORCE MAIN  
HIGH DENSITY POLYETHYLENE PIPE  
EL INVERT ELEVATION

ABBREVIATIONS

ARV  
AL  
BM  
BT  
CP  
DR  
DIP  
EOP  
FOC  
FDOT  
FM  
HDPE  
IE or INV  
MAINTENANCE OF TRAFFIC  
MANHOLE  
PLUG VALVE  
POINT of INTERSECTION  
POLYVINYL CHLORIDE PIPE  
REINFORCED CONCRETE PIPE  
RESTRAINED MECHANICAL JOINT  
RIGHT of WAY  
TOP of PIPE  
VERIFIED VERT. AND HORZ. LOCATION  
VITRIFIED CLAY PIPE  
WASTEWATER  
MOT  
MH or M  
PV  
PI  
PVC  
RCP  
RMJ  
R/W  
TOP  
Vvh  
VCP  
WW

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JACINTO CARLOS FERRAS, P.E., #49454  
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CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
LEGEND & INDEX

SHEET  
2

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DEMOLITION NOTES

- SALVAGEABLE MATERIAL, AS DETERMINED BY DEPARTMENT PERSONNEL, SHALL BE 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.
- THE CONSTRUCTION SITE SHALL BE MAINTAINED IN AS NEAT AND ORDERLY CONDITION AS POSSIBLE DURING CONSTRUCTION OPERATIONS. SITE SHALL BE SECURED WITH TEMPORARY FENCING AND STRUCTURES DURING HOURS WHEN CONTRACTOR IS NOT PRESENT TO ENSURE SAFETY OF CITY EMPLOYEES AND THE PUBLIC.
- CONTRACTOR SHALL RESTORE ALL LANDSCAPING, SODDING, SPRINKLER SYSTEM PIPING AND PAVEMENT THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER. CONTRACTOR SHALL SOD ALL UNPAVED AREAS.

GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS FOR THE PUMPING STATION WORK.
- CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
- NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- AFTER WET WELL IS DEWATERED, THE CONTRACTOR SHALL CLEAN WET WELL OF ALL DEBRIS. DEBRIS MAY BE DELIVERED AND DISPOSED OF AT THE CITY OF TAMPA HOWARD F. CURREN AWTP, 2700 MARITIME BOULEVARD.
- TESTING OF THE NEW DISCHARGE PIPES WILL BE ACCOMPLISHED BY OPERATING EACH PUMP FOR A MINIMUM 2 HOUR DURATION AND OBSERVING FOR ANY LEAKS. ANY MANUAL PUMP OPERATION OR SWITCHING PUMPS MUST BE PERFORMED BY CITY PERSONNEL.
- IT IS THE ENGINEER'S INTENT THAT CONTINUOUS SERVICE WILL BE MAINTAINED THROUGHOUT THE PROJECT.
- CONTRACTOR SHALL VERIFY QUANTITIES OF ALL NECESSARY PIPES, REDUCERS, FITTINGS, SUPPORTS, AND ANY MISCELLANEOUS BRACKETS.
- DIMENSIONS SHOWN ARE NOT NECESSARILY ACCURATE TO THE DEGREE REQUIRED FOR FABRICATION. EXISTING DIMENSIONS AND VIEWS ARE SHOWN BASED ON THE BEST INFORMATION AVAILABLE. CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT DIMENSIONS AND REFLECT THEM ON DETAILED SHOP DRAWINGS FOR APPROVAL BEFORE ANY FABRICATION.
- SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (CLEARLY LEGIBLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.
- PUMP DISCHARGE PIPING IN WET WELL SHALL BE HDPE, SDR-11, GREEN STRIPE, DIPS-OD. HDPE JOINTS SHALL BE FLANGED WITH 316 SS BACK UP RINGS.
- PLUG VALVES SHALL BE DEZURIK, PEF 100% PORT, ECCENTRIC PLUG VALVES. 6" PLUG VALVE OR SMALLER SHALL BE PROVIDED WITH 2" NUT. 8" TO 12" PLUG VALVES SHALL BE PROVIDED WITH HANDWHEEL. THESE VALVES ARE STANDARDIZED ITEMS AT THIS FACILITY AND NO "OR EQUALS" WILL BE CONSIDERED.
- CHECK VALVES SHALL BE APCO RUBBER FLAPPER SWING CHECK VALVES, SERIES 100. THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITTALS WILL BE CONSIDERED.
- ALL HARDWARE, UNLESS OTHERWISE NOTED, SHALL BE TYPE 316 STAINLESS STEEL.
- PIPE SUPPORTS SHALL BE CONSTRUCTED AS SHOWN IN THE PIPE SUPPORT DETAIL.
- ALL BOLTED HARDWARE ON HDPE PIPE FLANGE OR HDPE PIPE SUPPORT BRACKETS SHALL BE SECURED WITH 316 S.S. NYLOCK NUTS.
- ALL CEMENTITIOUS CONCRETE AND GROUT, UNLESS OTHERWISE NOTED, SHALL BE CLASS "B", 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. ALL REINFORCING STEEL SHALL BE GRADE 60. THE 28-DAY COMPRESSIVE STRENGTH FOR FLOWABLE FILL SHALL BE BETWEEN 50-100 PSI.
- OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSSES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH FLORIDA BUILDING CODE 7th EDITION 2020, & CHAPTER 5 OF THE CITY OF TAMPA CODE.

- ALL METAL PIPE, FITTINGS, VALVES, ETC. SHALL RECIEVE:
  - SHOP COAT - ONE COAT, 4-6 MILS (DRY) TNEMEC N140-1211 EPOXY PRIMER.
  - FIELD COAT - ONE COAT, 5-7 MILS (DRY) TNEMEC SERIES 446 PERMA-SHIELD MCU
  - FIELD COAT
    - ABOVE GRADE : ONE COAT, 4-6 MILS (DRY) TNEMEC 1074U ENDURASHIELD (WITH FACTORY ADDED UV BLOCKER)
    - BELOW GRADE : ONE COAT, 5-7 MILS (DRY) TNEMEC SERIES 446 PERMA-SHIELD MCU

- ALL STAINLESS STEEL PARTS TO BE WELDED SHALL BE THE LOW-CARBON VERSION OF THE GRADE OF STAINLESS STEEL THAT IS CALLED FOR, SUCH AS: T-316L OR T-304L.
- CONTRACTOR TO SUBMIT METHOD FOR 100% WATERTIGHT SEALING AT PIPE PENETRATIONS THROUGH STRUCTURES. PROPOSED LINK SEAL OR APPROVED EQUAL.
- CONTRACTOR SHALL PROVIDE A REDUCED PRESSURE BACKFLOW-PREVENTION DEVICE IN WATER SERVICE LINE, AS SHOWN IN DETAILS, AT A PLACE TO BE SPECIFIED DURING CONSTRUCTION. BACKFLOW PREVENTION DEVICE SHALL BE 1" WILKINS, MODEL #975 XL, OR EQUAL.
- ALL DIP PIPE AND FITTINGS SHALL BE CLASS 53 WITH PROTECTO 401 INTERIOR COATING. ALL BURIED DIP PIPE AND FITTINGS SHALL BE POLYWRAPPED.
- CONTRACTOR SHALL REHABILITATE PUMPING STATION IN THE SAME ORDER LISTED ON THE INDEX SHEET.
- CONTRACTOR MAY UTILIZE FLANGE ADAPTERS FOR THE ABOVEGROUND DISCHARGE PIPING ASSEMBLY. FLANGE ADAPTERS SHALL BE PROVIDED AT NO ADDITIONAL COST AND SHALL BE MEGAFLANGE SERIES 2100 RESTRAINED ADAPTERS AS MANUFACTURED BY EBAA IRON WITH THE MEGA-BOND RESTRAINED COATING SYSTEM OR APPROVED EQUAL.
- ALL CONCRETE PAVEMENT, UNLESS OTHERWISE NOTED, SHALL BE MINIMUM 6" THICK CONCRETE WITH 4x4 W6 x W6 WWF. CONCRETE SHALL BE CONSTRUCTED ON COMPACTED SUB-BASE (MINIMUM 98% MODIFIED PROCTOR) WITH 1.5" DEEP CONTROL JOINTS SAW-CUT AT 15' MAX, CUT WITHIN 12 HOURS OF CONCRETE PLACEMENT.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL TREES WITHIN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 27 OF THE CITY OF TAMPA CODE. PRUNING OF BRANCHES IS NOT AUTHORIZED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PLANNING AND DEVELOPMENT DEPARTMENT, NATURAL RESOURCE SECTION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST. EXCAVATION WITHIN THE PROTECTIVE RADIUS OF TREES (20' FOR A GRAND TREE (32" OR GREATER DBH), 15' FOR A SPECIMEN TREE (24"- 31" DBH) AND 10' FROM PROTECTED TREE (5" - 23" DBH, OR ANY MITIGATION TREE) WILL REQUIRE ROOT PRUNING BY AN ARBORIST WITH THE APPROPRIATE EQUIPMENT TO ASSURE ROOTS ARE SEVERED CLEAN AT THE APPROVED RADIUS. NO ROOTS LARGER THAN 2" ARE TO BE SEVERED. IF ROOTS OVER 2" ARE ENCOUNTERED, NATURAL RESOURCES WILL BE CONSULTED. FOR QUESTIONS REGARDING THESE REQUIREMENTS, PLEASE CONTACT THE PLANNING DEPARTMENT, NATURAL RESOURCES SECTION AT 274-3100 OR 1400 N. BOULEVARD, TAMPA, FLORIDA 33607.

BYPASSING NOTES

- CONTRACTOR SHALL SUPPLY SOUND ATTENUATED DIESEL BYPASS PUMPS PRIMARY & BACKUP, CAPABLE OF DELIVERING THE FLOW SHOWN ON PUMP SUMMARY PAGE PLUS ANY LOSSES PRODUCED IN THE TEMPORARY BY-PASS PIPING. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN TO THE ENGINEER FOR APPROVAL.
- CONTRACTOR TO PROVIDE TANKERS (MINIMUM 4,000 GALLON CAPACITY) TO HAUL WATER FOR ALL PUMPING STATIONS THAT NEED TO BE SHUT DOWN DURING THE BYPASS CONNECTION AND/OR LINSTOP INSTALLATIONS. THE QUANTITY OF TANKERS REQUIRED IS LISTED IN THE SUMMARY TABLE ON SHEET 4. THE CITY WILL PROVIDE A MAP DURING CONSTRUCTION SHOWING THE TANKER DISCHARGE LOCATIONS. THE CONTRACTOR SHALL CONTINUE HAULING WATER UNTIL PUMPING STATION IS SUCCESSFULLY PLACE BACK INTO SERVICE.
- REFER TO SPECIFICATIONS FOR ADDITIONAL BYPASS PUMPING REQUIREMENTS.

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT GENERAL NOTES	
	3						SHEET
	2						3
	1						

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NAME	REQ'D BYPASS FLOW RATE (gpm)	TOTAL DYNAMIC HEAD (ft)	WETWELL BOTTOM FLOOR EL (ft)	WETWELL TOP SLAB EL (ft)	WETWELL INVERT ELEVATION (ft)	EXISTING INLET PIPE SIZE & TYPE	FORCE MAIN SIZE (in)	PROPOSED FLYGT PUMP BASE SIZE (in)	PROPOSED RISER PIPE SIZE	PROPOSED VALVE SIZE (in)	EXISTING PUMP MODEL (to remain)	PUMP GUIDE RAILS	PROPOSED SAFETY RAIL SYSTEM	PROPOSED LINE STOP	BYPASS NOTES	NOTES
UNIVERSITY MALL	400	86	12.40	28.20	18.05	8" PVC	6	4	6	6	FLYGT 3153	FLYGT 2"	YES	NO	PLUG INLET PIPE INTO WETWELL AND SUCTION AT INLET MANHOLE. BYPASS DISCHARGE INTO EX. BURIED BYPASS CONNECTION /VALVE.	
27th ST.	1500	117	18.88	34.31	29.31	18" VCP	14	6	12	12	FLYGT NP3301	FLYGT 3"	NO	NO	USE FLOW THROUGH PLUG INSIDE WETWELL FOR BYPASS PUMP SUCTION. DISCHARGE INTO EXISTING 8" BURIED BYPASS CONNECTION /VALVE.	
EGYPT LAKE	400	86	26.43	35.80	32.17	10" VCP	6	4	6	6	FLYGT NP-3153	FLYGT 2"	YES	YES	PLUG INLET PIPE INTO WETWELL AND SUCTION AT INLET MANHOLE, BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	
CORY LAKES 1	230	41	26.00	45.35	32.60	8" PVC	6	4	6	6	FLYGT 3102	FLYGT 2"	YES	YES	USE FLOW THROUGH PLUG INSIDE WETWELL FOR PUMP SUCTION; BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	2 TANKERS REQUIRED DURING SHUTDOWN (SEE BYPASSING NOTE 2, SH 3)
CORY LAKES 2	500	170	25.40	46.38	32.64	10" PVC	8	4	8	8	FAIRBANKS- MORSE 5435 MV	FLYGT 2"	YES	YES	USE FLOW THROUGH PLUG INSIDE WETWELL FOR PUMP SUCTION; BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	PROPOSED RAIL ADAPTER REQUIRED FOR THE EXISTING FAIRBANKS-MORSE PUMP MODEL 5435 MV. RAIL ADAPTER FABRICATION WILL REQUIRE CONTRACTOR TO TAKE MEASUREMENTS OF EXISTING PUMP CONFIGURATION. RAIL ADAPTER MUST BE FABRCATED BEFORE BYPASS IS INSTALLED.
CORY LAKES 3	200	43	27.51	48.10	32.56	8" PVC	4	4	4	4	FLYGT NP3102MT	FLYGT 2"	YES	YES	PLUG INLET PIPE INTO WETWELL AND SUCTION AT INLET MANHOLE, BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	2 TANKERS REQUIRED DURING SHUTDOWN (SEE BYPASSING NOTE 2, SH 3) CLOSE SIDEWALK IF USE INLET MANHOLE FOR BYPASS SUCTION PIPE
MEADOW PINE	240	75	22.75	44.40	29.11	10" PVC	6	4	6	6	FLYGT 3102	FLYGT 2"	YES	YES	PLUG INLET PIPE INTO WETWELL AND SUCTION AT INLET MANHOLE, BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	2 TANKERS REQUIRED DURING SHUTDOWN (SEE BYPASSING NOTE 2, SH 3)
SPACE PLUS	150	47	26.88	42.40	31.28	8" PVC	4	4	4	4	FLYGT CP-3102	FLYGT 2"	NO	YES	PLUG INLET PIPE INTO WETWELL AND SUCTION AT INLET MANHOLE, BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	2 TANKERS REQUIRED DURING SHUTDOWN (SEE BYPASSING NOTE 2, SH 3)
WAREHAM 2B-1	275	55	1.00	29.15	8.41	8" DIP	6	4	6	6	FLYGT NP3127.185	FLYGT 2"	YES	YES	PLUG INLET PIPE INTO WETWELL AND SUCTION AT INLET MANHOLE, BYPASS DISCHARGE INTO PROPOSED BYPASS CONNECTION.	2 TANKERS REQUIRED DURING SHUTDOWN (SEE BYPASSING NOTE 2, SH 3) WILL NEED TO CLOSE SIDEWALK TO REHABILITATE PUMP STATION
BEACH PARK	180	47	-9.63	6.77	-7.82	8" CIP	6	4	4	4	FLYGT 3102	FLYGT 2"	YES	NO	INSTALL FLOW THROUGH PLUG INSIDE WETWELL FOR BYPASS PUMP SUCTION AND DISCHARGE INTO NEWLY INSTALLED 6" FM WITH BYPASS CONNECTION.	2 TANKERS REQUIRED DURING SHUTDOWN (SEE BYPASSING NOTE 2, SH 3)

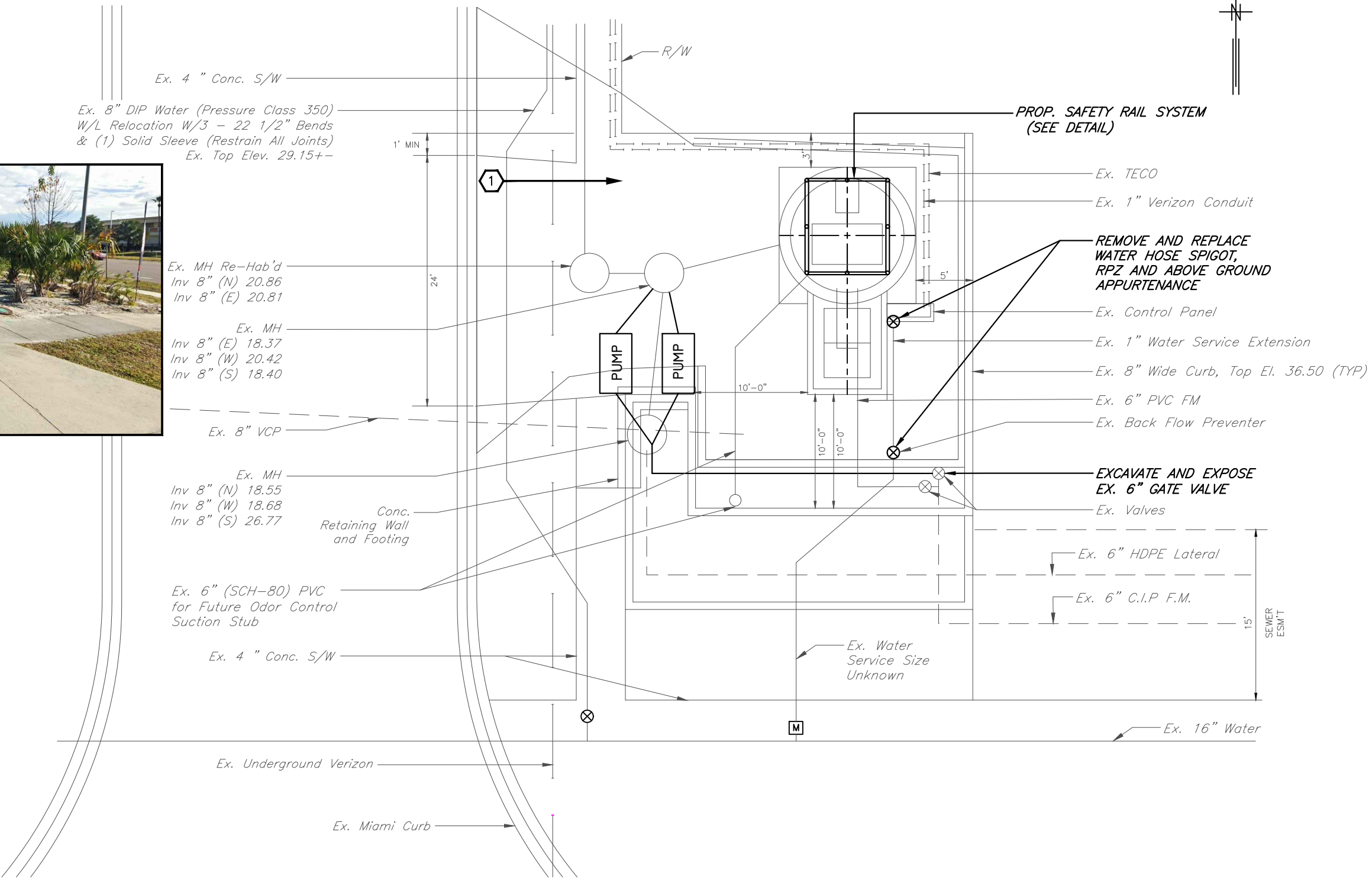
\* REFER TO PLANS FOR COMPLETE SCOPE OF PROPOSED WORK

\*\*\* CONTRACTOR SHALL USE FLYGT PUMP BASES, FLYGT GUIDE RAILS, FLYGT UPPER AND INTERMEDIATE BRACKETS FOR ALL PUMPING STATIONS REGARDLESS OF EXISTING PUMP MANUFACTURER.

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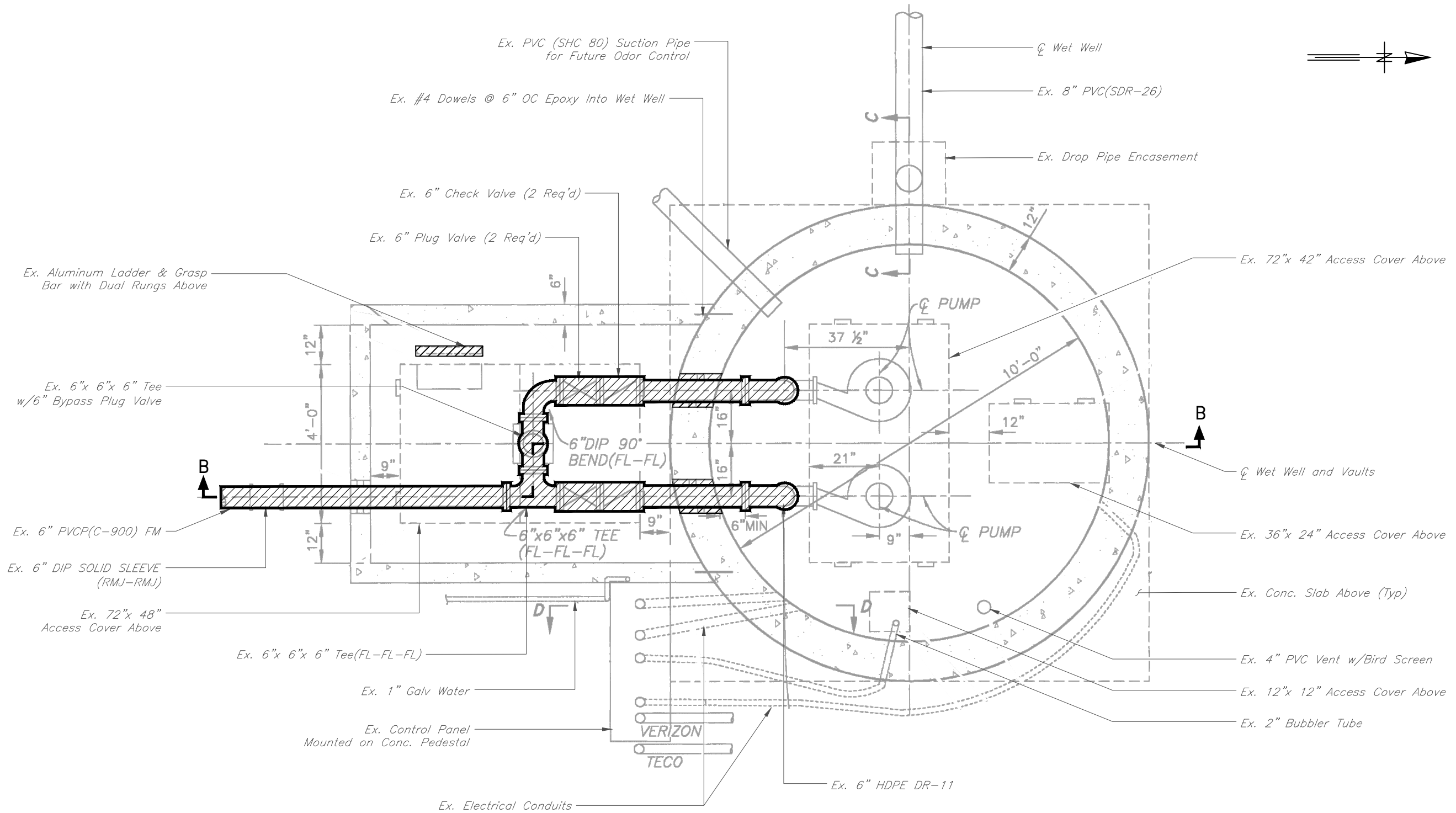
PHOTO 1



SITE PLAN  
SCALE : 1" = 10'

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT UNIVERSITY MALL PUMPING STATION SITE PLAN	SHEET
	3						
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	1						5

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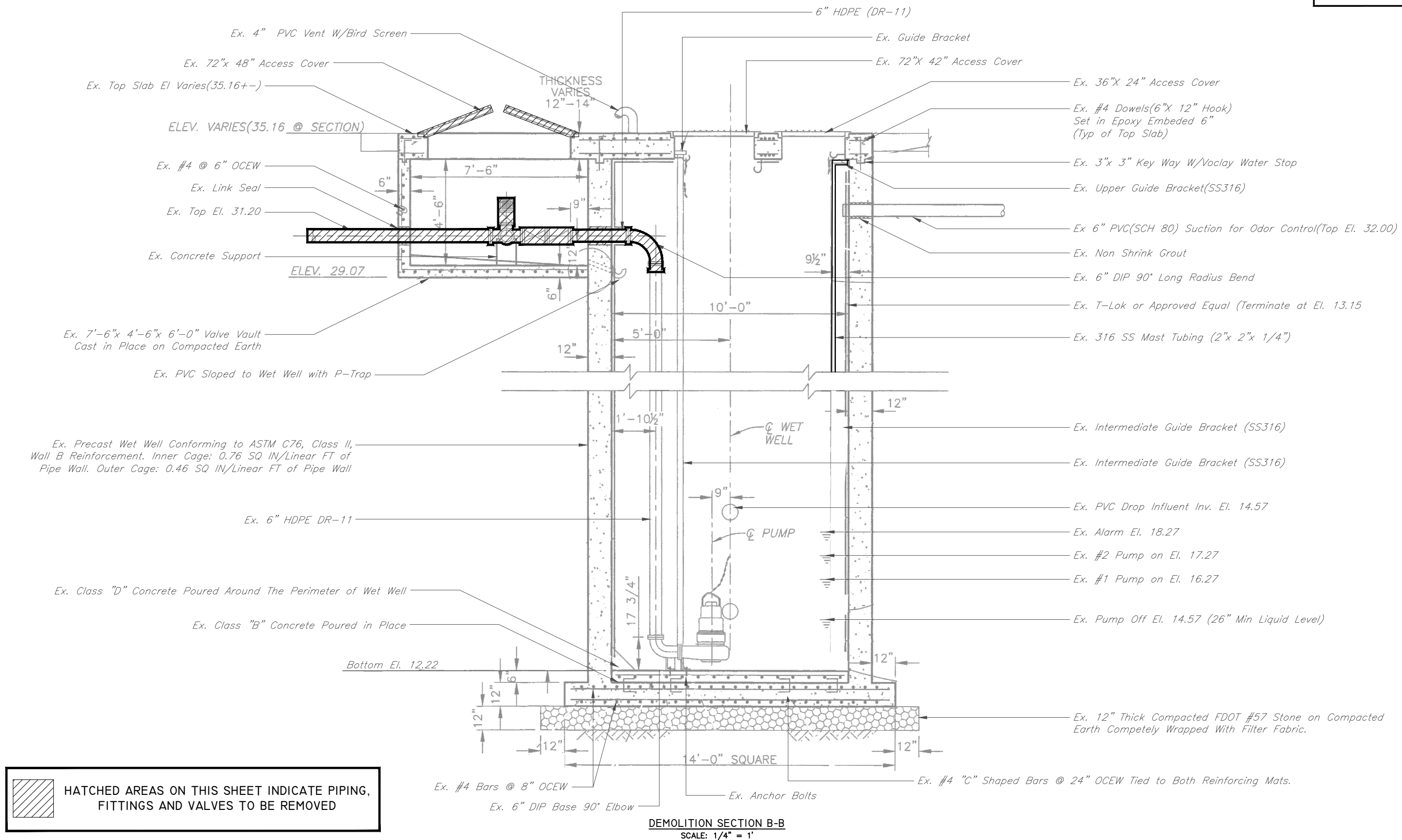


 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMOLITION PLAN VIEW AT ELEVATION +34.07  
SCALE: 3/8" = 1'

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT UNIVERSITY MALL PUMPING STATION DEMOLITION PLAN VIEW	SHEET
	3						6
	2						
	1						

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 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

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	3						7
	2						
	1						







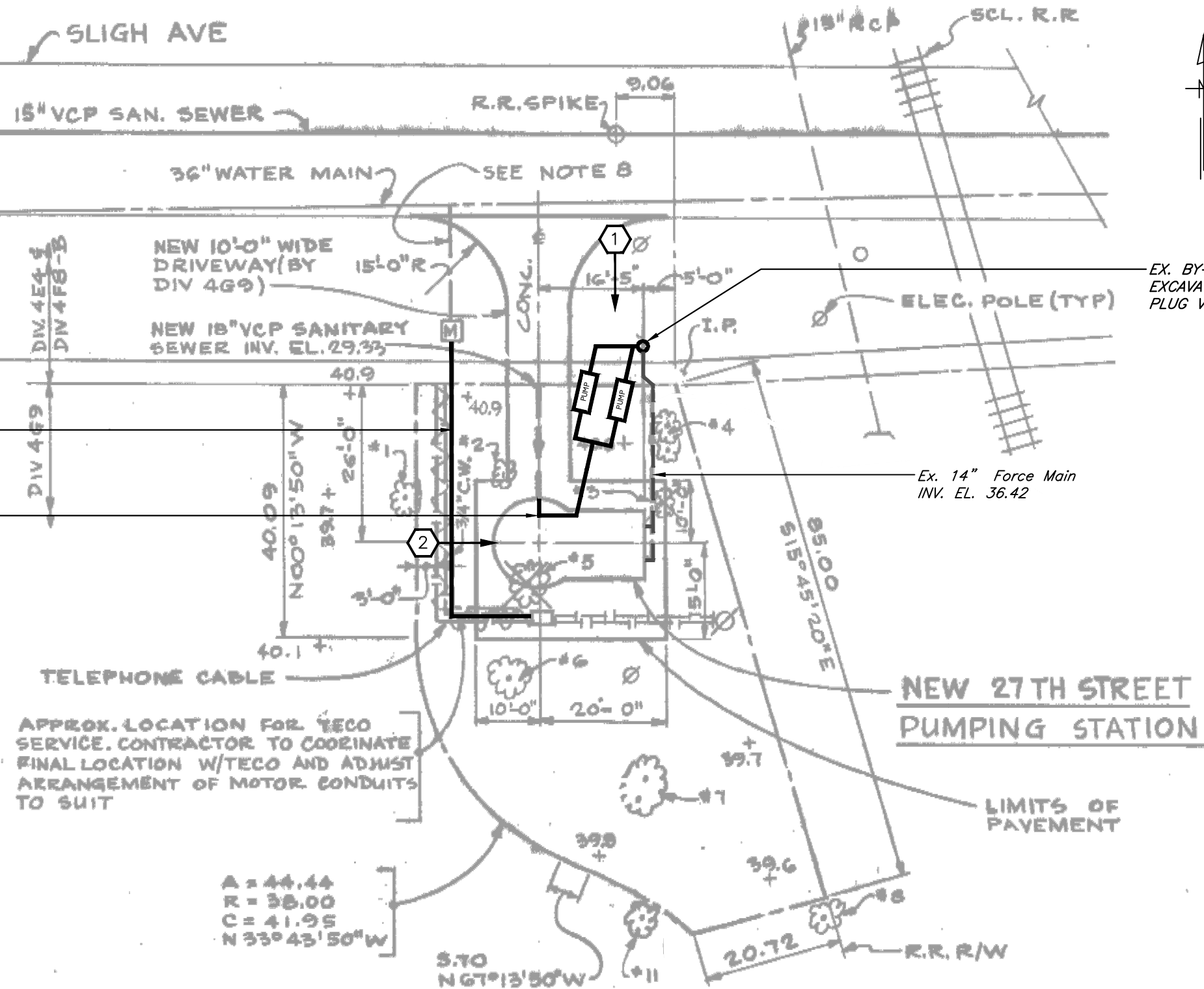
PHOTO ①

REPLACE EX 3/4" WATER LINE FROM METER LINE  
TO PROP. RPZ AND SPIGOT  
(SEE RPZ SPIGOT DETAIL)

FLOW THROUGH PLUG



PHOTO ②

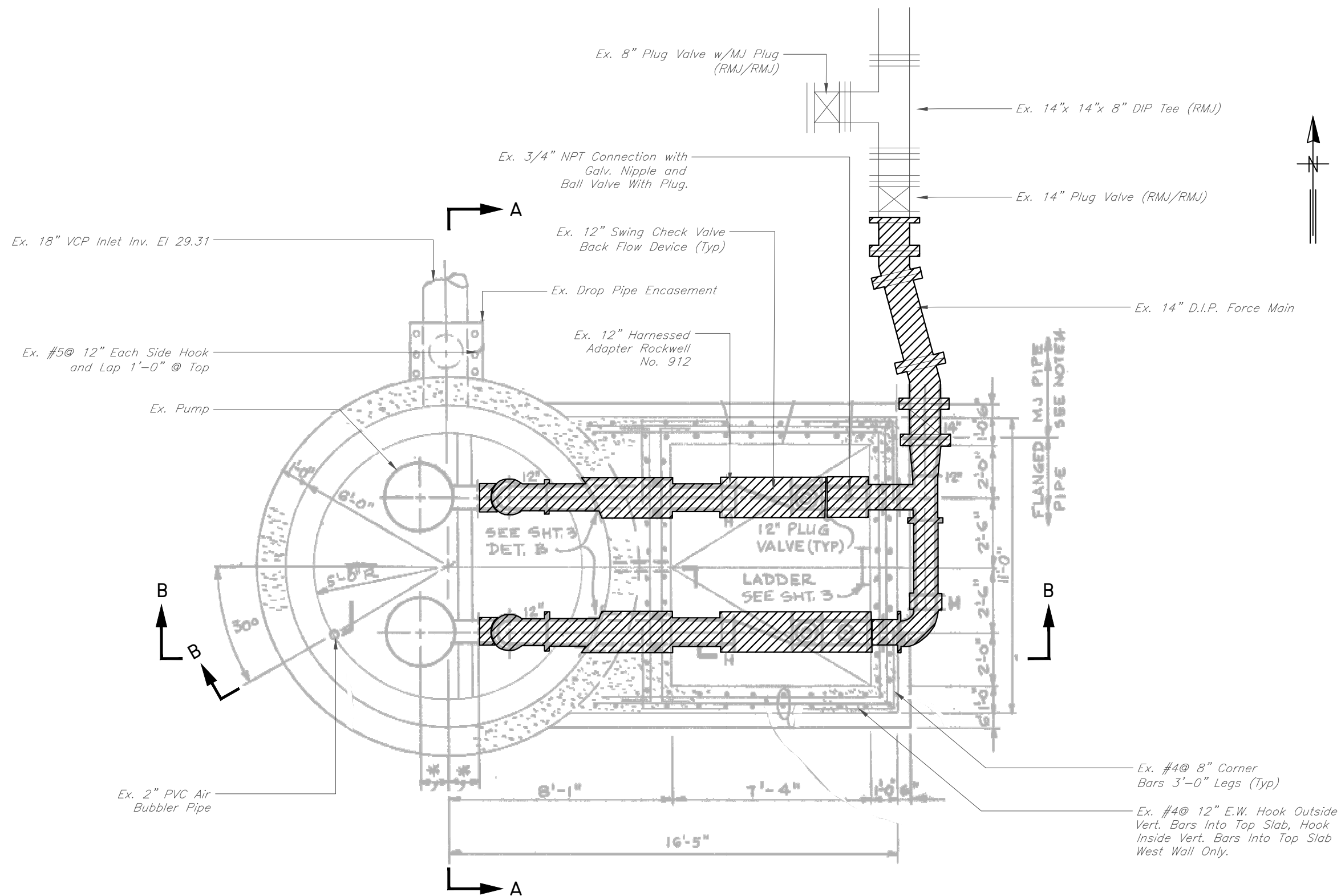


SITE PLAN  
SCALE: 1" = 20'-0"

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 10; Last Saved: Feb 16, 2023 - 10:44am

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT 27TH ST PUMPING STATION SITE PLAN	SHEET
	3						10
	2						
	1						

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 11; Last Saved: Feb 16, 2023 - 10:44am

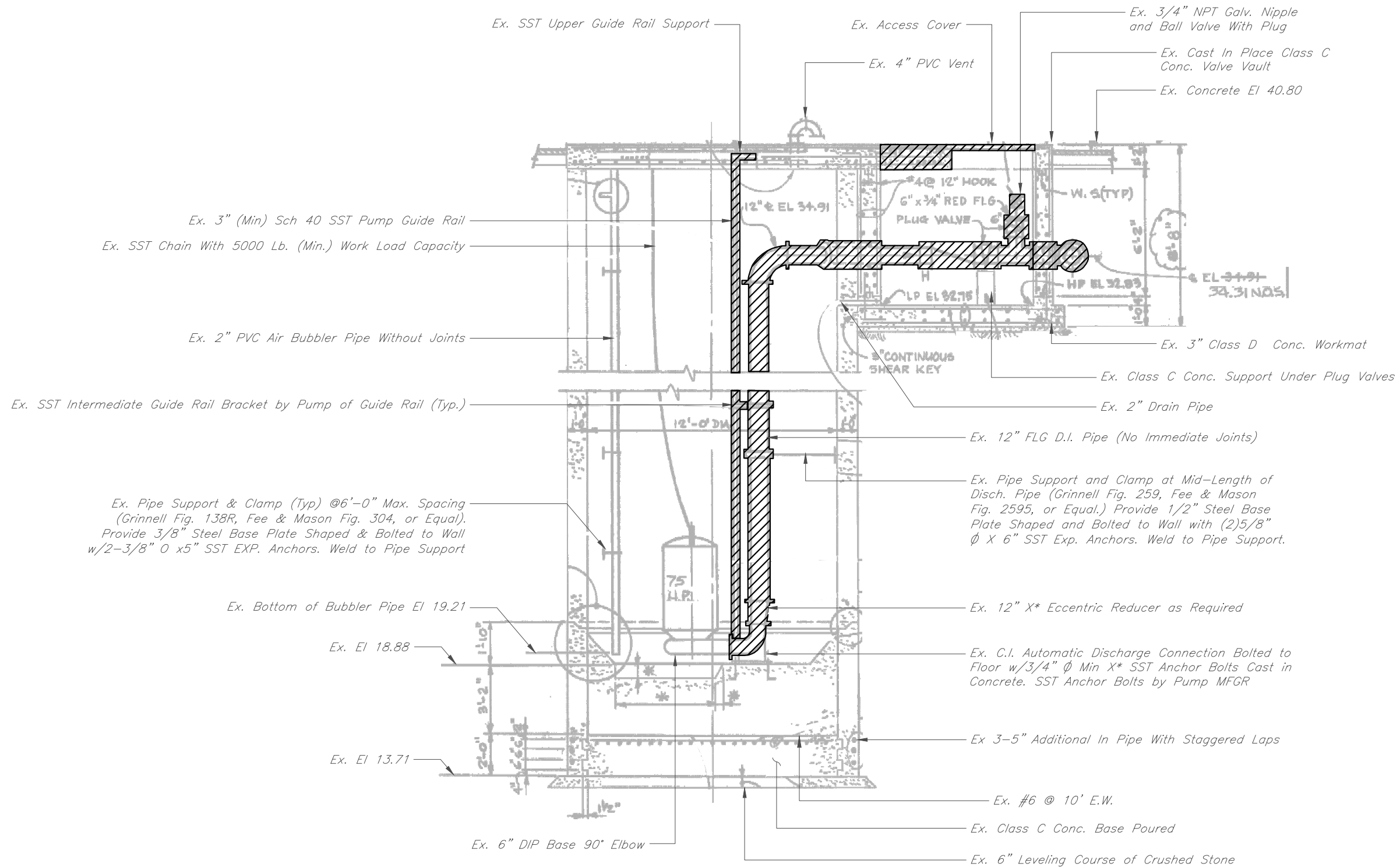


 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

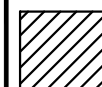
DEMO PLAN  
SCALE: 1/4" = 1'

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT 27TH ST PUMPING STATION DEMO PLAN	SHEET
	3						II
	2						
	1						

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 12; Last Saved: Feb 16, 2023 - 10:44am



DEMO SECTION B-B  
SCALE: 3/16" = 1'-0"



HATCHED AREAS ON THIS SHEET INDICATE PIPING,  
FITTINGS AND VALVES TO BE REMOVED

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

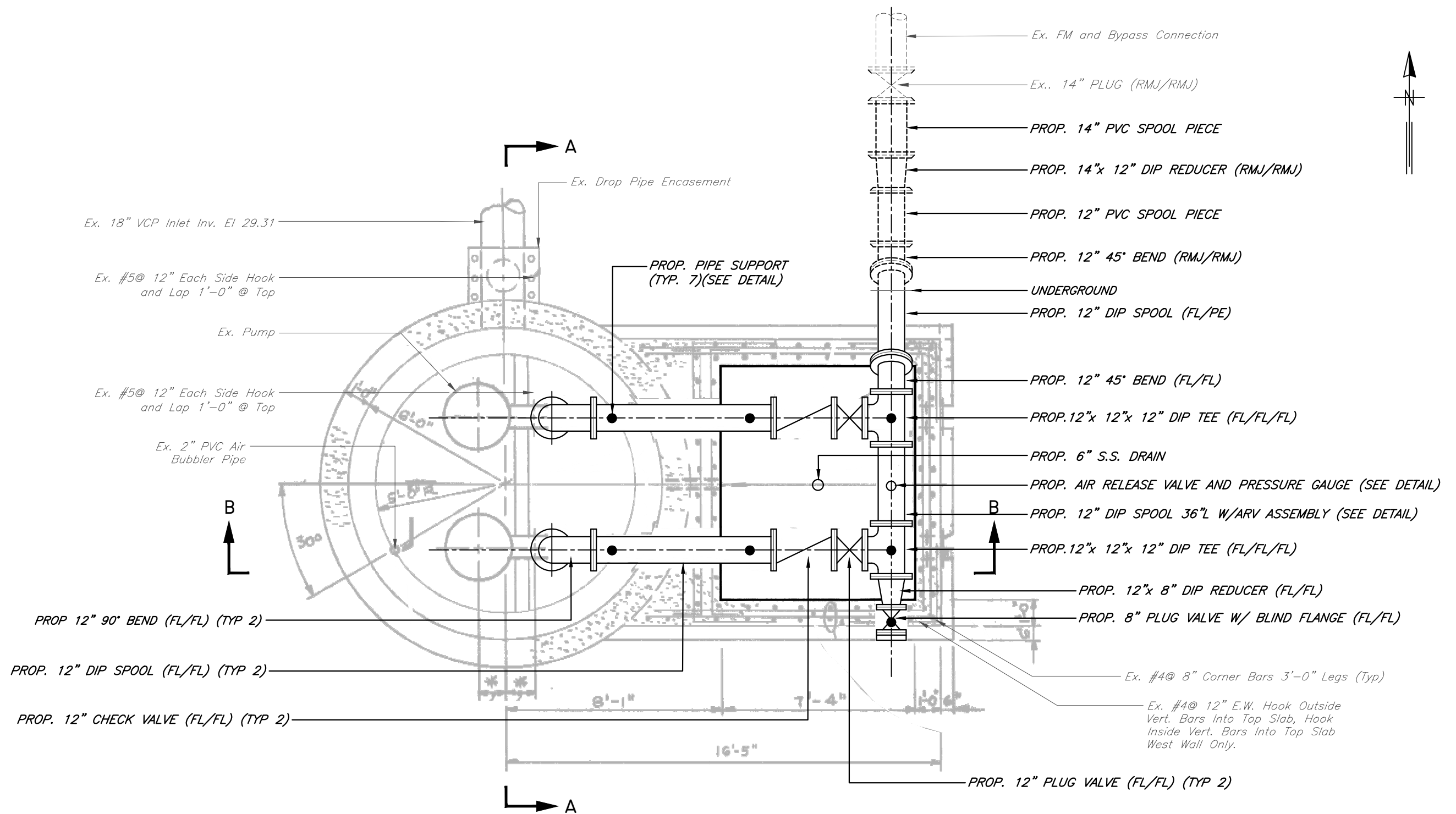
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
27TH ST PUMPING STATION  
DEMO SECTION B-B

SHEET

12

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 13; Last Saved: Feb 16, 2023 - 10:44am



PROPOSED PLAN  
SCALE: 1/4" = 1'

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
27TH ST PUMPING STATION  
PROPOSED PLAN

SHEET

13



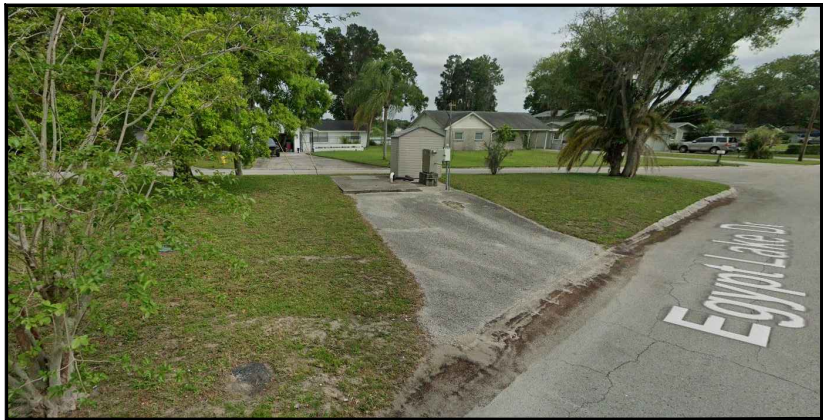
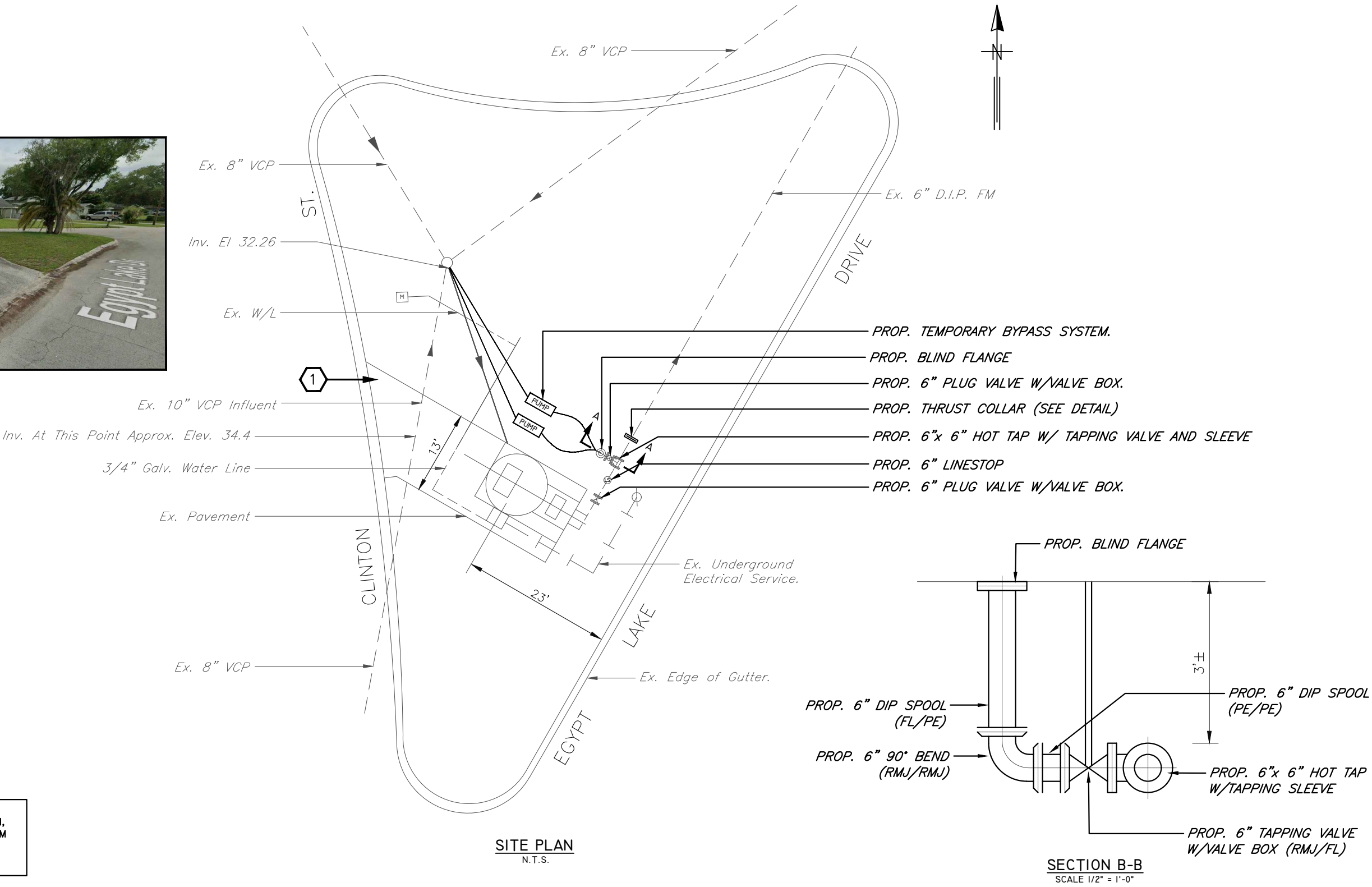


PHOTO 1



**NOTE:** CONTRACTOR SHALL INSTALL BYPASS CONNECTION, THRUST COLLAR AND TEST/START BYPASS SYSTEM BEFORE LINESTOP IS SET AND NEW INLINE VALVE IS INSTALLED.

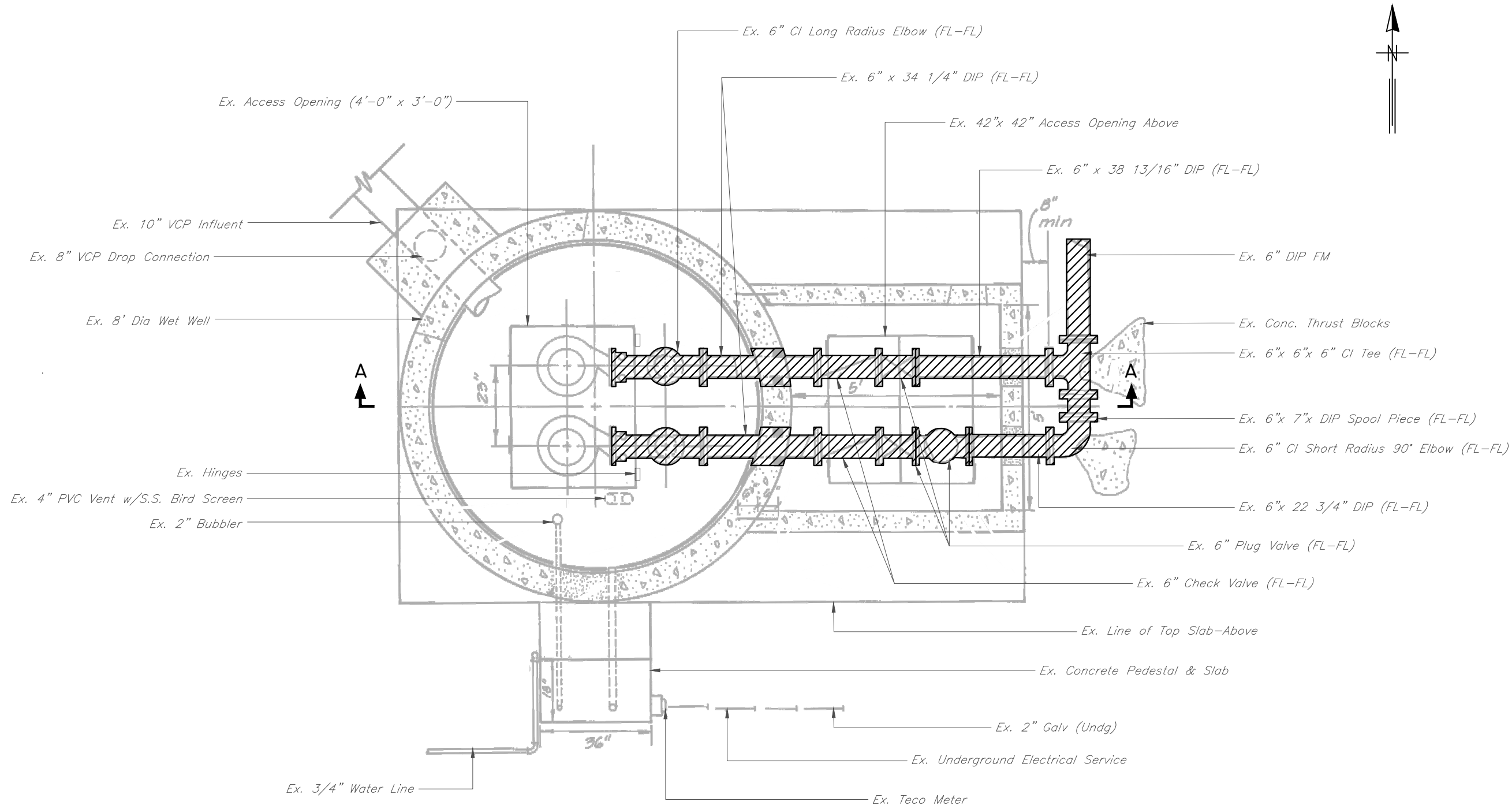
No.	DATE	REVISIONS
3		
2		
1		


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DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
EGYPT LAKE PUMPING STATION  
SITE PLAN

SHEET  
15



 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO PLAN  
SCALE: 3/8" = 1'-0"

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 16; Last Saved: Feb 16, 2023 - 10:44am

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT EGYPT LAKE PUMPING STATION DEMO PLAN	SHEET
	3						16
	2						
	1						

Ex. 48"x 36" Aluminum Access Cover w/  
 Stainless Steel Hardware, including  
 Lock and Hasp FLYGT Model "F" AL  
 or approved equal.

Ex. Top Slab Elev. 41.50

Ex. Elev. 41.30

Ex. 8' RCP

Ex. 2" Bubbler  
 (Not Shown in True Projection)

Ex. T-Lok Liner

Ex. Class "D" Concrete for  
 Drop Pipe Encasement

Ex. 10" Influent Inv El 32.17

Ex. 8" RCP Drop Connection

Ex. Inv Elev 27.94

Ex. Upper Guide Bar Bracket

Ex. 4" PVC Vent w/Bird Screen  
 Not Shown in True Projection

Ex. 6" DIP  
 34 1/2" Long  
 (FL-FL)

REMOVE EX. ALUMINUM FRAME AND COVER

Ex. 3'-6"x 3'-6" Aluminum Cover  
 w/ Stainless Steel Hardware, including  
 Lock and Hasp FLYGT Model "D" AL or  
 Approved Equal.

Ex. Valve Vault 5'x 5'x 4'-6" Deep

Ex. 3/4" Corporation Stop w/Quick Release  
 (not Shown in True Projection)

Ex. Non-Shrink Grout

Ex. Top El 38.80

Ex. 6" DIP 22 3/4" Long (FL-FL)

Ex. 6"x 6"x 6" Tee and By-Pass Valve  
 (Not Shown in True Projection)

Ex. 2" PVC Drain w/ Rubber Plug and Sash Chain

Ex. Intermediate Guide Bar Bracket

Emergency Elev 33.17

Ex. Pump #2 on, Elev 32.67

Ex. Pump #1 on, Elev 32.17

Ex. 2" Galv. Steel Guide Pipe  
 (Cut to Fit) 4 Req; (2/Pump)

Ex. 6"x 9'-7 5/8" DIP (FL-FL)

Ex. Pumps Off, Elev 27.68

Ex. Class "C Concrete"

Ex. 12" Limestone Screenings on Compacted  
 or Undisturbed Earth.

Lock and Hasp

4" PVC Coupling

1 1/2" Drain Pipe

T-Lok Liner

8'-0"

28"

28 1/16"

1'-6"

5'-0" min

1'-2"

8 3/4"


3'-8"

6 3/4"

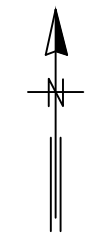
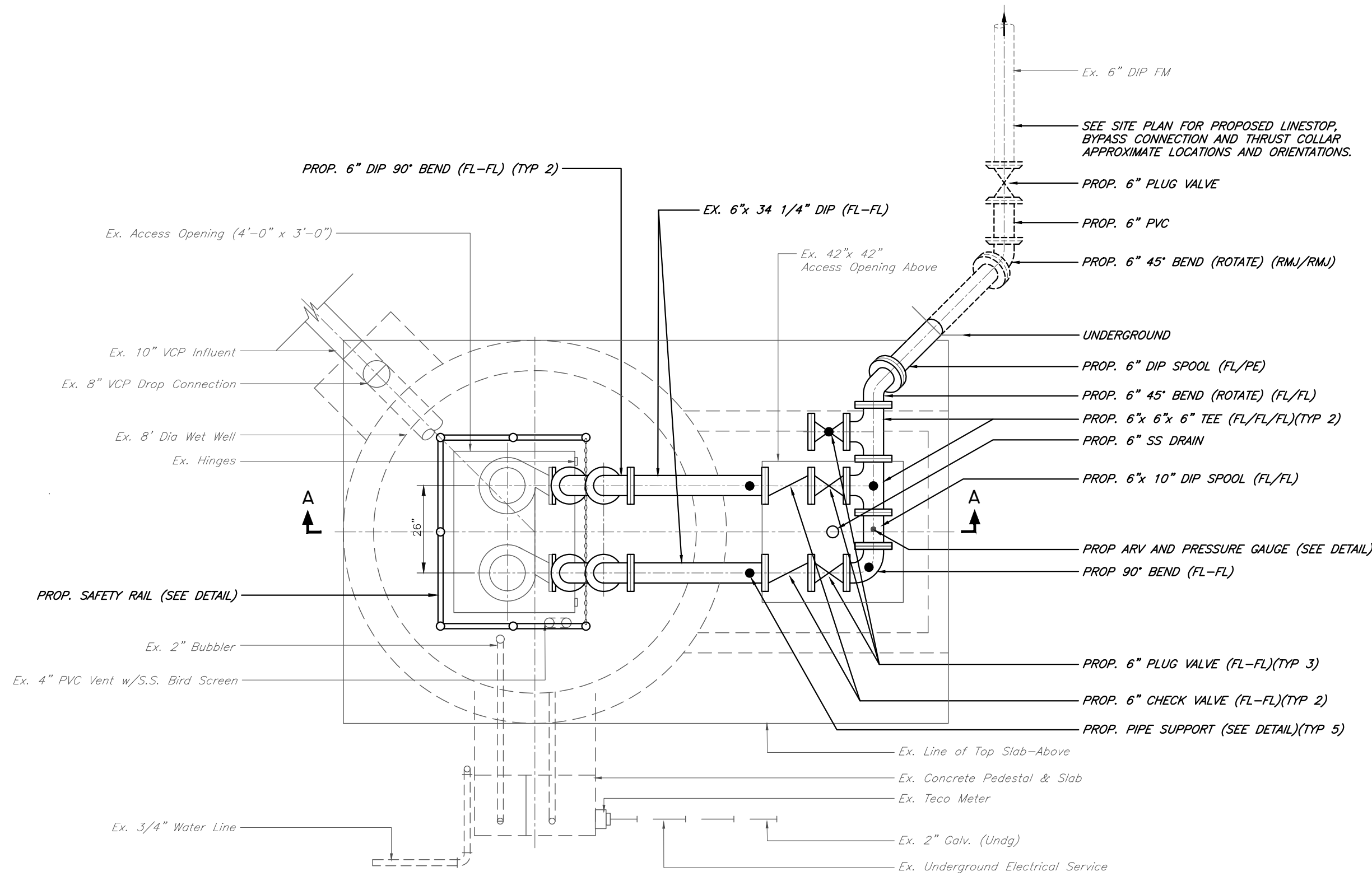
2 1/2"

9" (Typ)

Non-Shrink Grout

 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

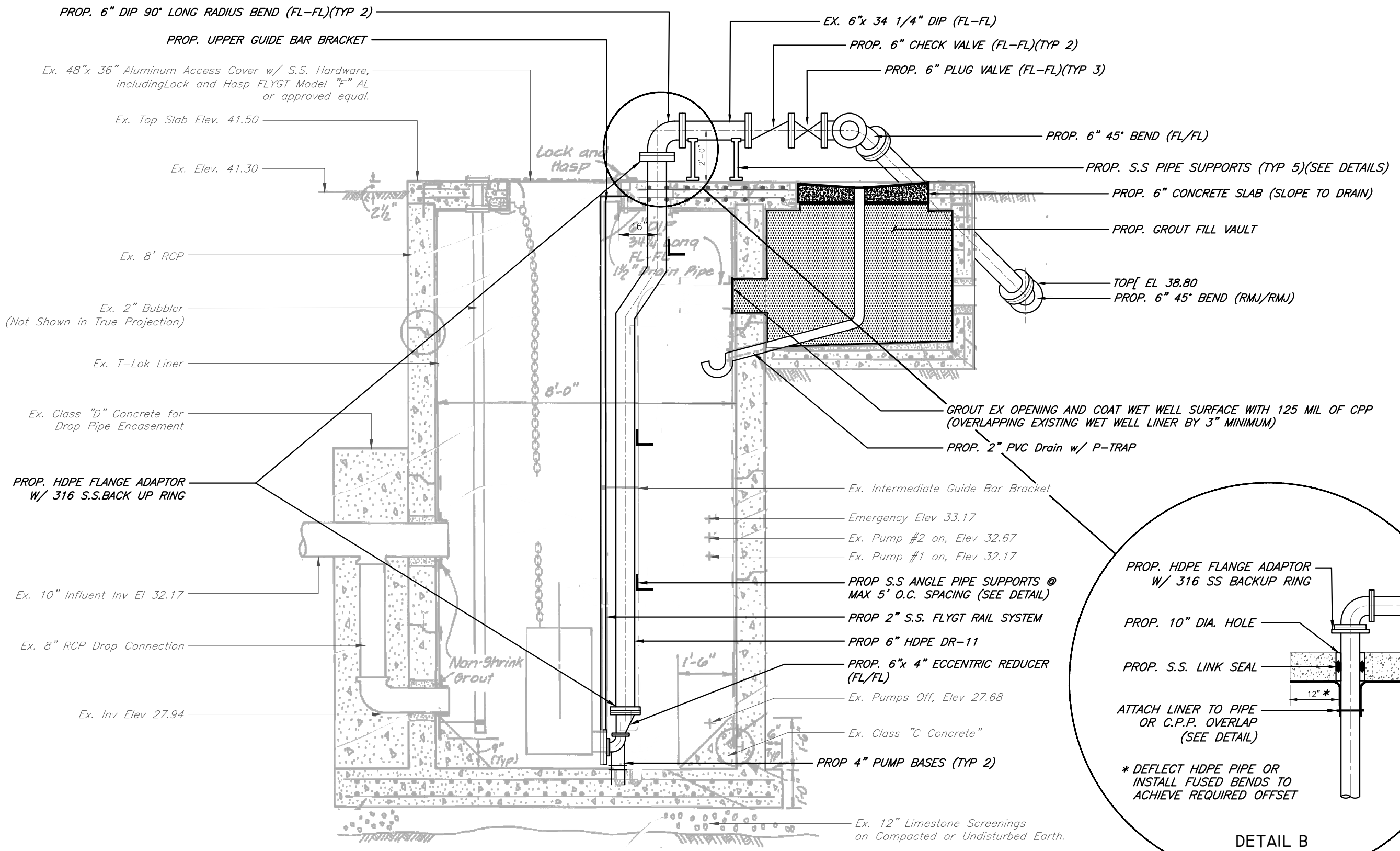
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT EGYPT LAKE PUMPING STATION DEMO SECTION A-A	SHEET
	3			DRN: JHJ			17
	2			CKD:			
	1			DATE: 2/9/23			



PROPOSED PLAN  
SCALE: 3/8" = 1'-0"

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 18; Last Saved: Feb 16, 2023 - 10:44am

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT EGYPT LAKE PUMPING STATION PROPOSED PLAN	SHEET
	3						18
	2						
	1						



PROPOSED SECTION A-A  
SCALE: 3/8" = 1'-0"

DETAIL B  
N.T.S.

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
EGYPT LAKE PUMPING STATION  
PROPOSED SECTION A-A

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 19; Last Saved: Feb 16, 2023 - 10:44am

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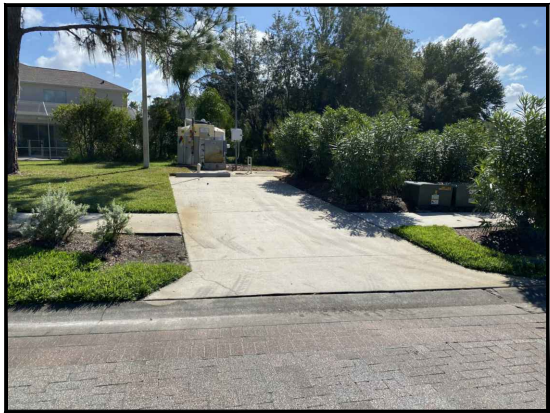
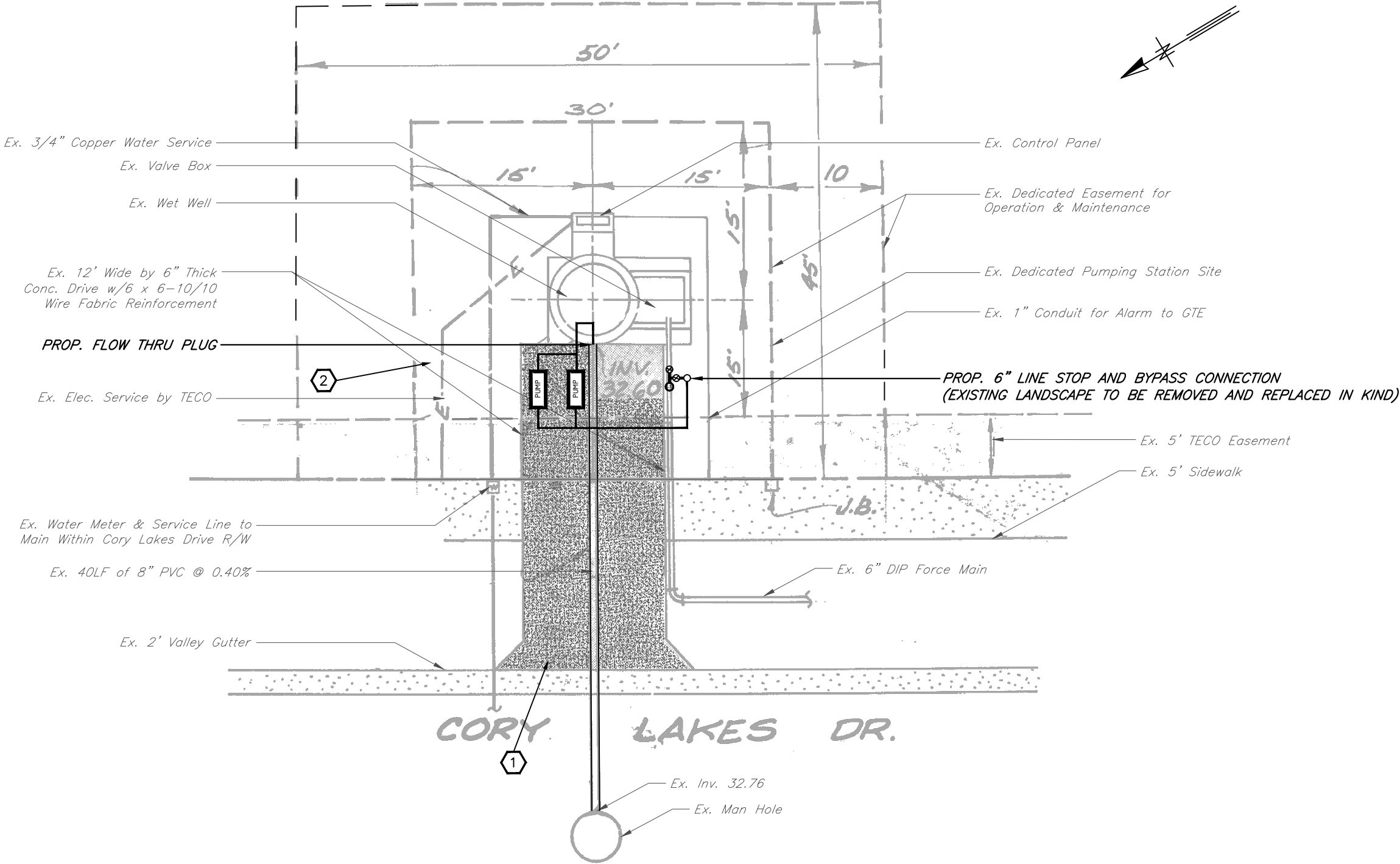


PHOTO 1



PHOTO 2



SITE PLAN  
SCALE: 1" = 10'-0"

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

No.	DATE	REVISIONS
3		
2		
1		

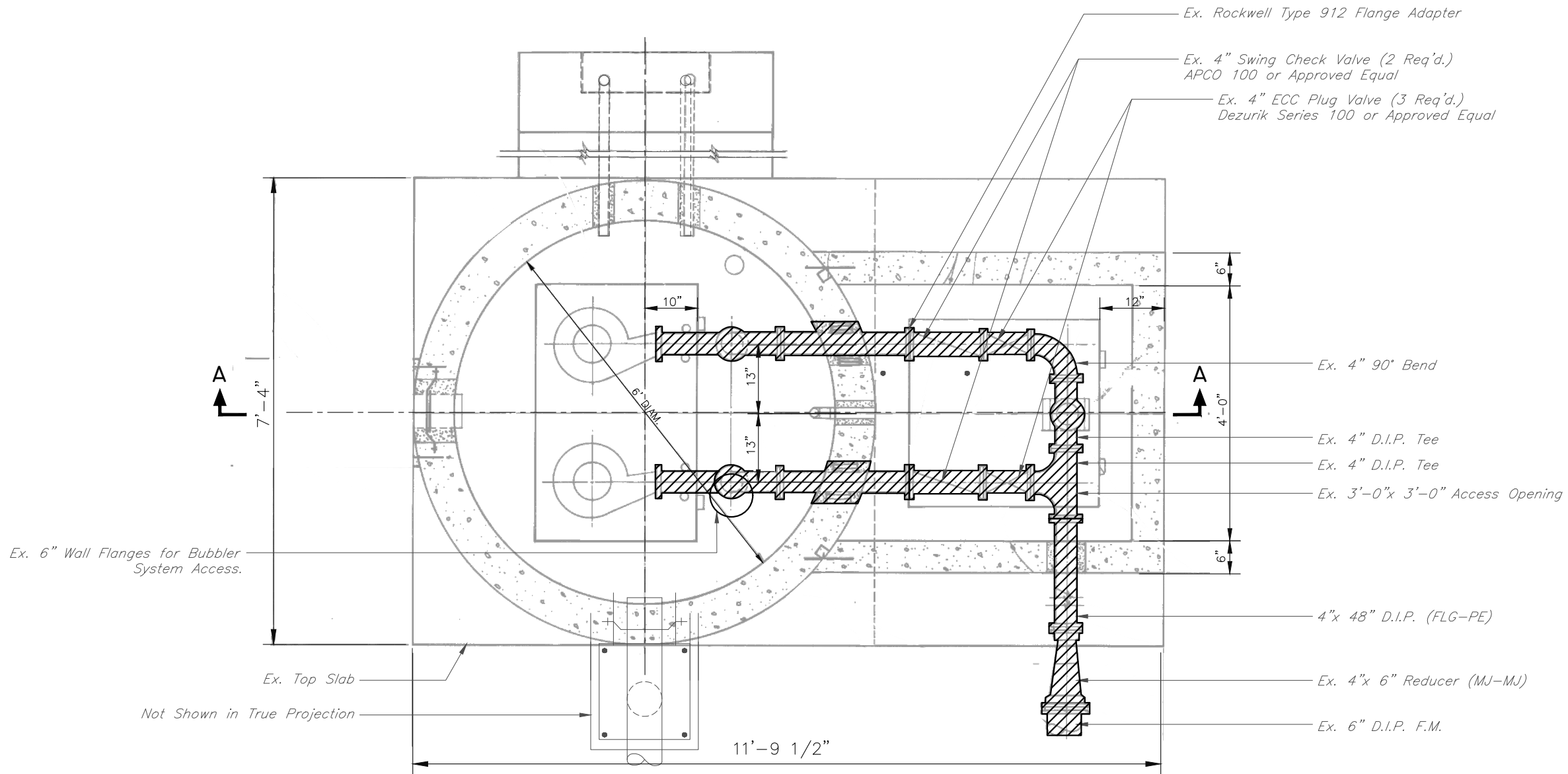
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DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION I  
SITE PLAN

SHEET  
20

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 21; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING,  
FITTINGS AND VALVES TO BE REMOVED

DEMO PLAN  
SCALE: 1/2" = 1'-0"

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION I  
DEMO PLAN

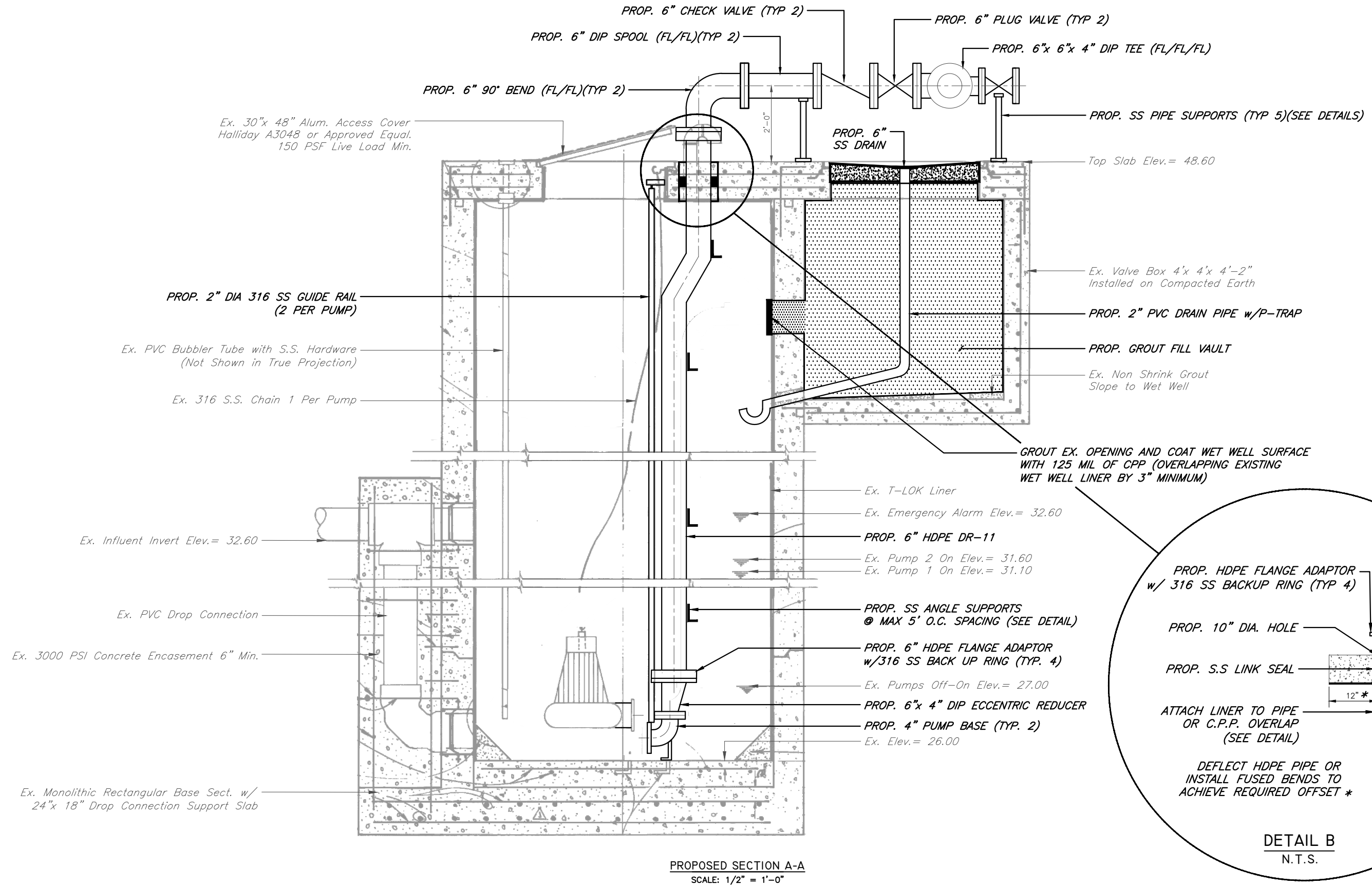
SHEET

21

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\F21 Misc PS Repairs.dwg  
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JACINTO CARLOS FERRAS, P.E. #49454  
DESIGN DIVISION HEAD  
WASTEWATER DEPARTMENT

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Layout: SHT 24; Last Saved: Feb 16, 2023 - 10:44am



No.	DATE	REVISIONS
3		
2		
1		

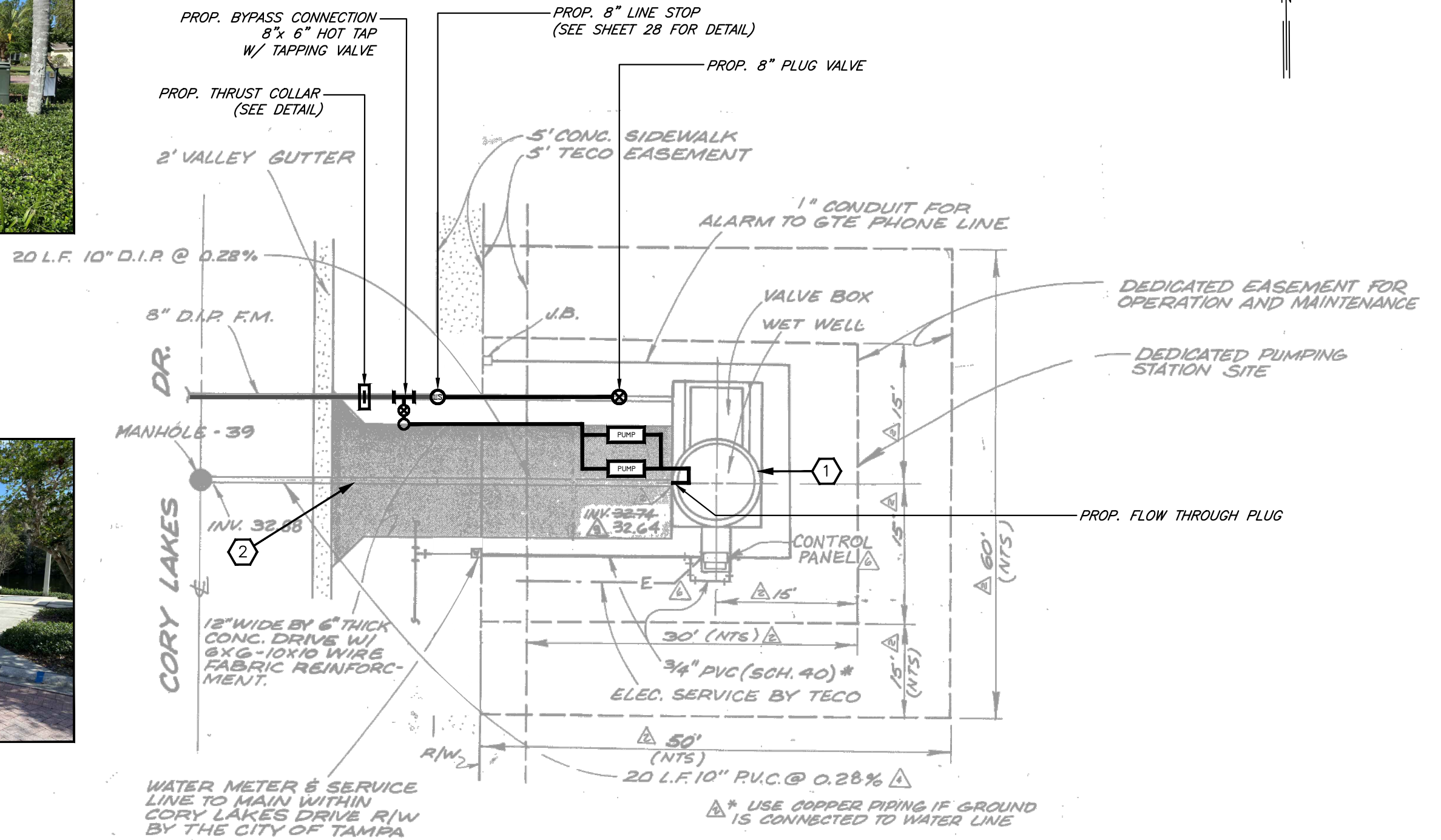
DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION I  
PROPOSED SECTION A-A

SHEET

24



No.	DATE	REVISIONS
3		
2		
1		

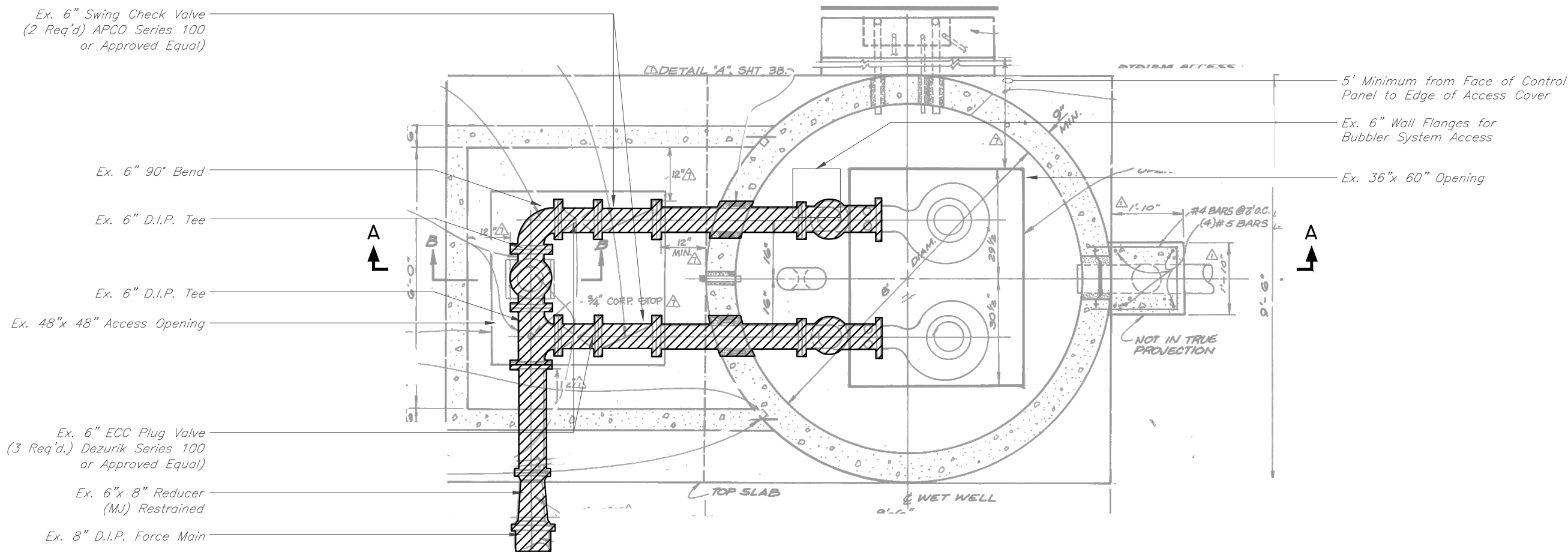
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DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 2  
SITE PLAN

SHEET

25



 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO PLAN  
SCALE: 3/8" = 1'-0"

No.	DATE	REVISIONS
3		
2		
1		

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

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 2  
DEMO PLAN

SHEET  
26

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 26; Last Saved: Feb 16, 2023 - 10:44am

Top Slab Elev. = 49.60

— *Ex. 6" 90° Bend Long Radius*

— Ex. 36"x 60" Alum. Access Door Cover Halliday A3660  
or Approved Equal. Cast Frame in Slab

— Ex. 316 SS Lifting Chain 1 Per Pump

—Wet Well Wall ASTM C76, Class II, Wall B

— Ex. 10" PVC Drop Connection

— Monolithic Base Section with 24"x 24"  
Drop Connection Slab Support


Ex. 4"x 6" Eccentric Reducer

Ex. Pump 2 On Elev. = 32.21

Ex. Pump 1 On Elev. = 31.71

Ex. Pumps Off Elev. = 26.71

Ex. Elev. = 25.40

 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

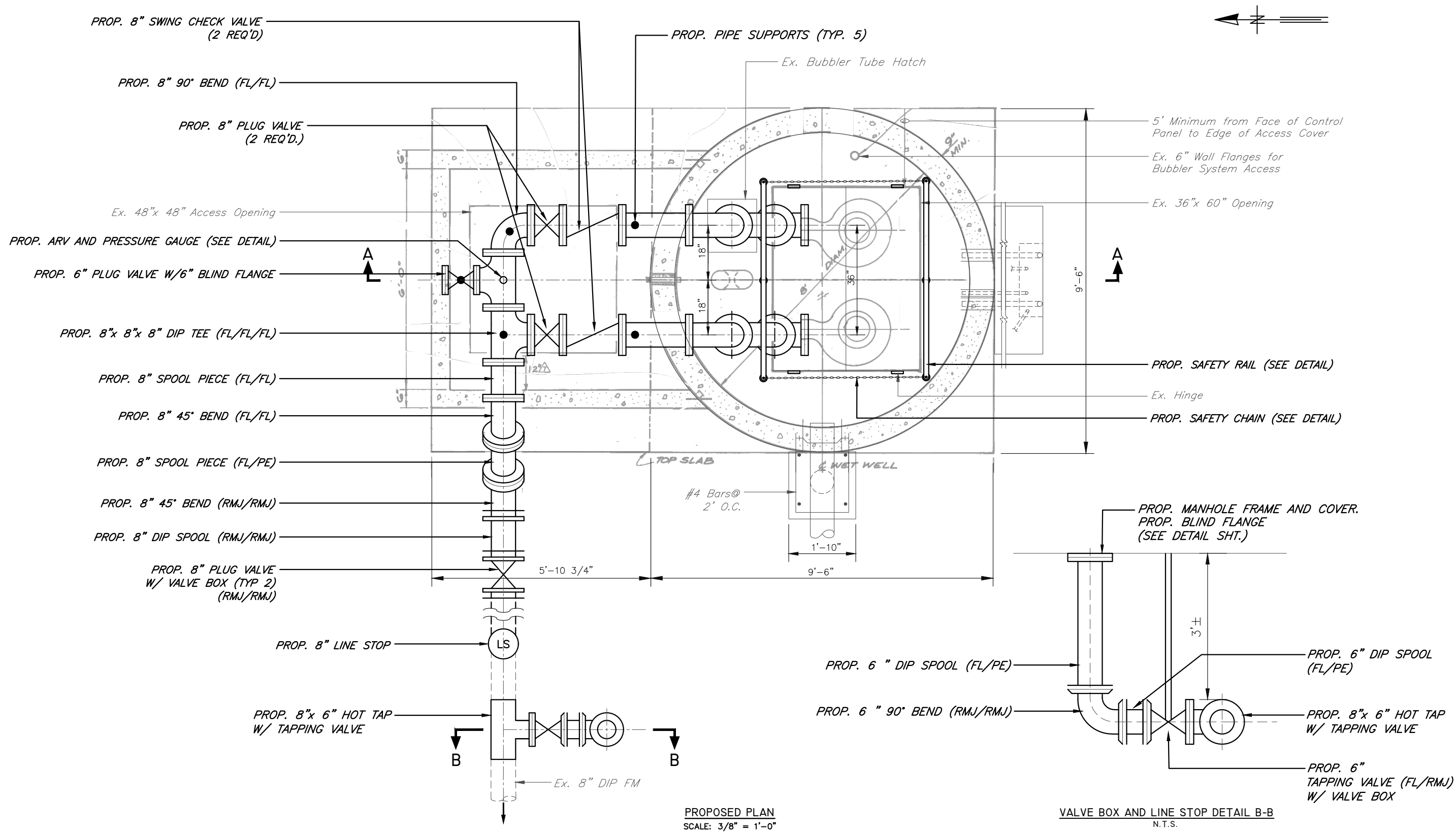
MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 2  
DEMO SECTION A-A

SHEET

27

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\F21 Misc PS Repairs.dwg  
Layout-SHT 27; Last Saved: Feb 16, 2023 - 10:44am

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Layout: SHT 28; Last Saved: Feb 16, 2023 - 10:44am



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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

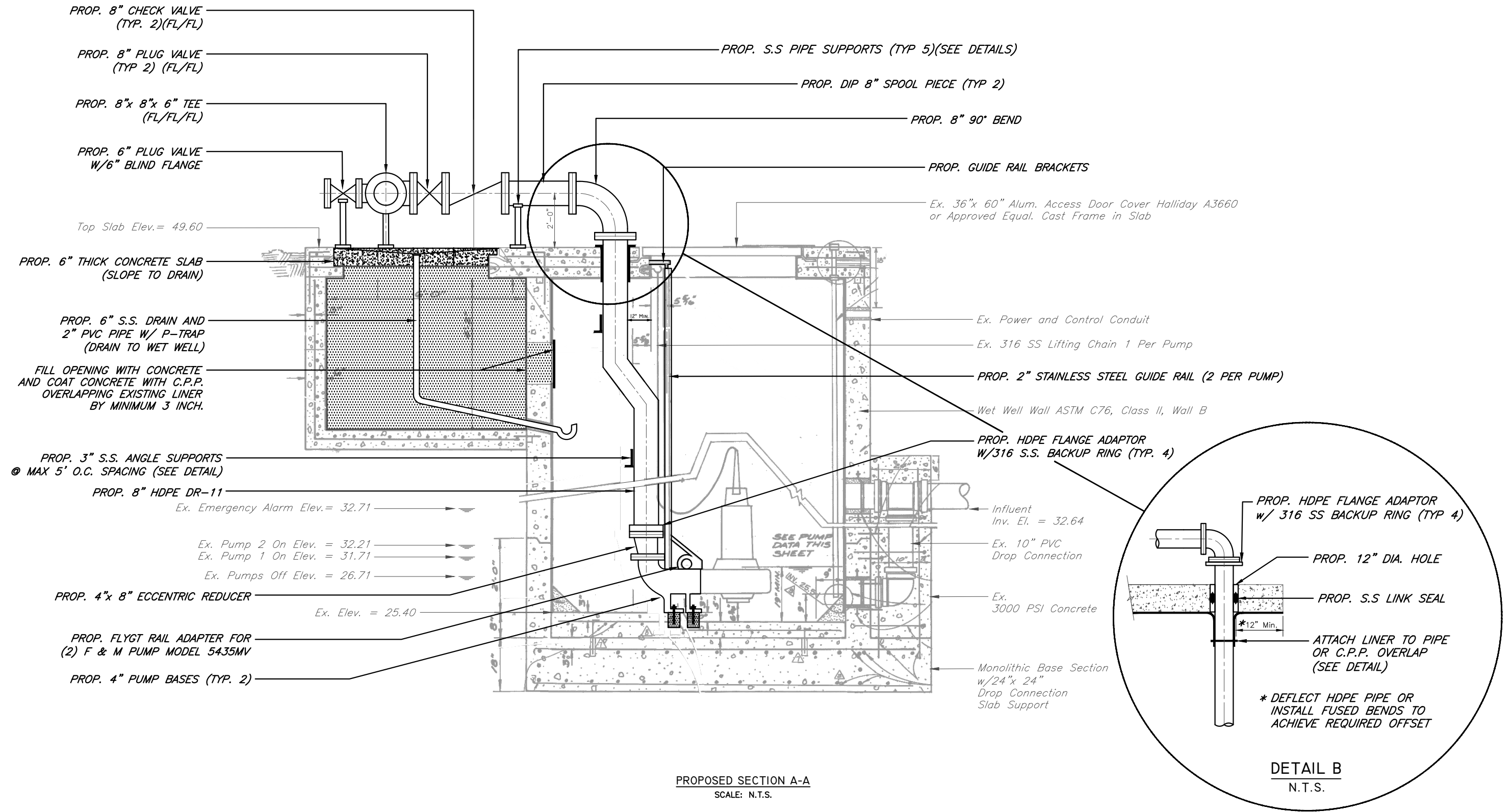
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 2  
PROPOSED PLAN

SHEET

28

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 29; Last Saved: Feb 16, 2023 - 10:44am



JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT CORY LAKES PUMPING STATION 2 PROPOSED SECTION A-A	SHEET
	3						29
	2						
	1						

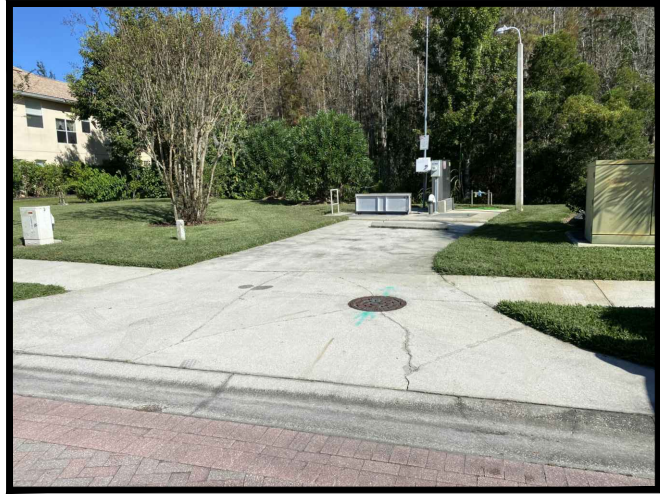


PHOTO 1

PROP. 4" PLUG VALVE W/ VALVE BOX (SEE NOTE THIS SHEET)

PROP. 6" LINE STOP (SEE NOTE THIS SHEET)

Ex. TECO

PROP. THRUST COLLAR (SEE DETAIL)

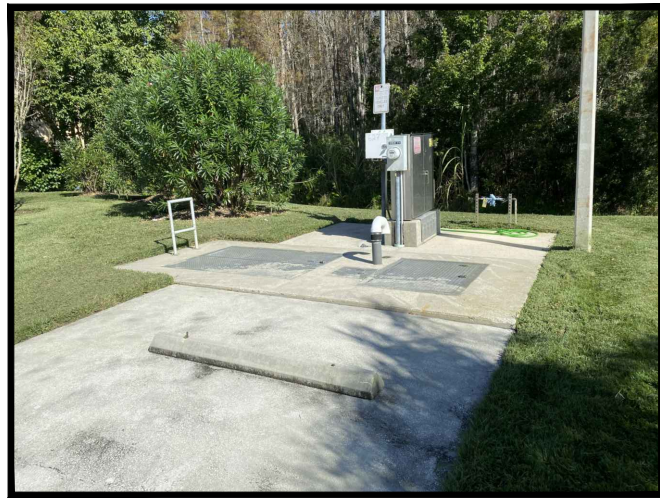
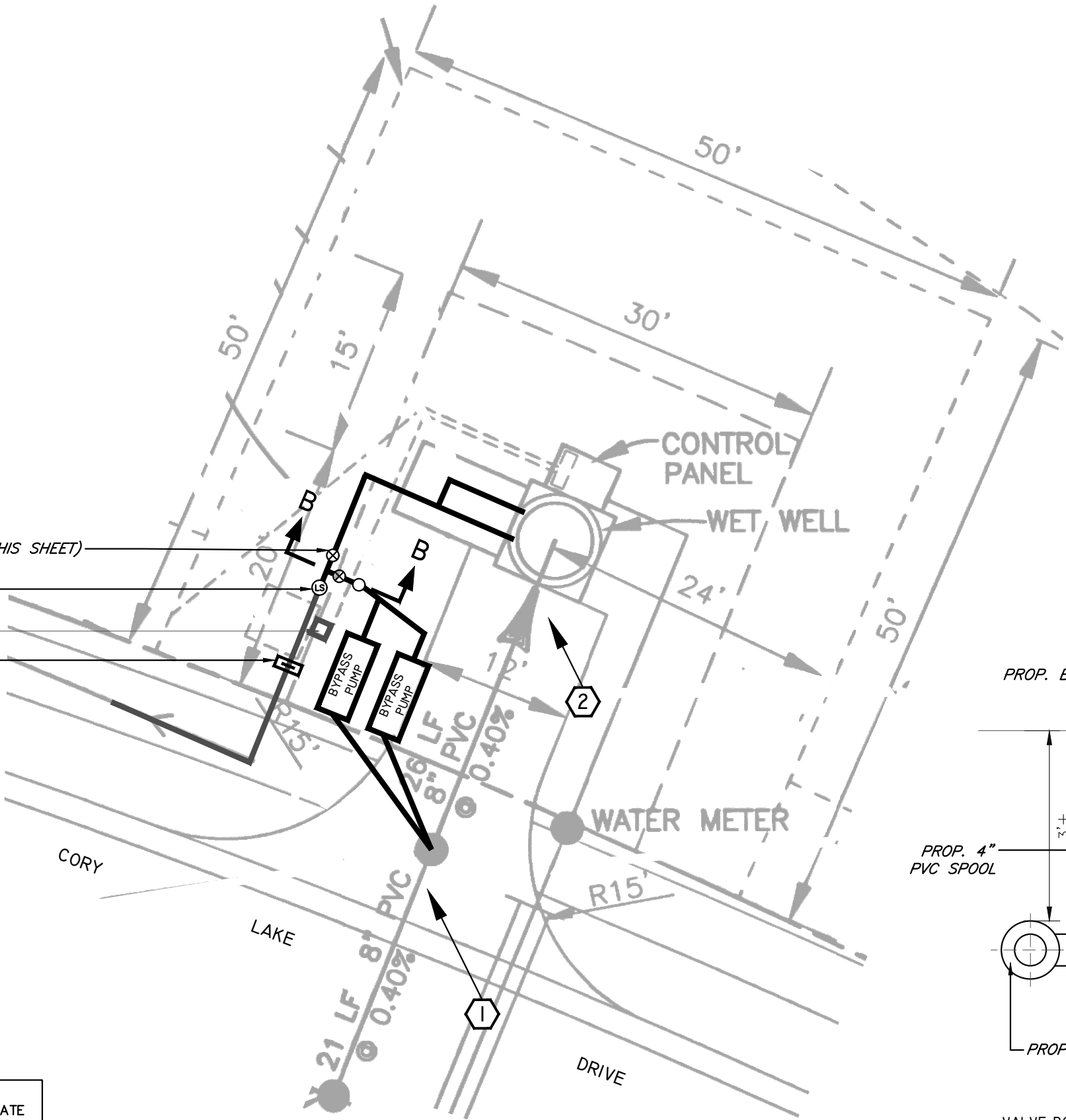
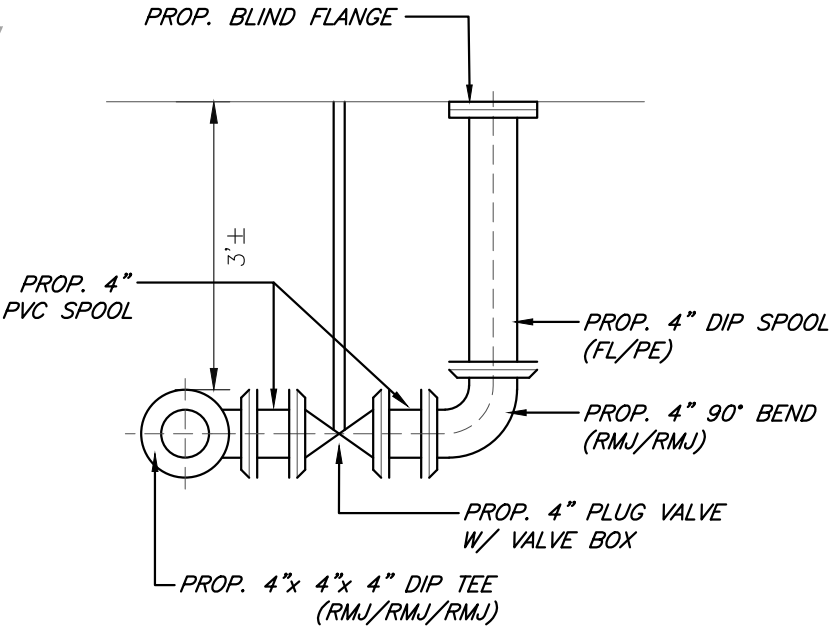


PHOTO 2

**NOTE:** CONTRACTOR TO EXCAVATE EXISTING FM AT APPROXIMATE LINESTOP LOCATION TO VERIFY EXISTING PIPE SIZE. THIS EXCAVATION SHOULD BE DONE BEFORE ORDERING MATERIALS AND LINESTOP.



SITE PLAN  
SCALE: 1" = 10'

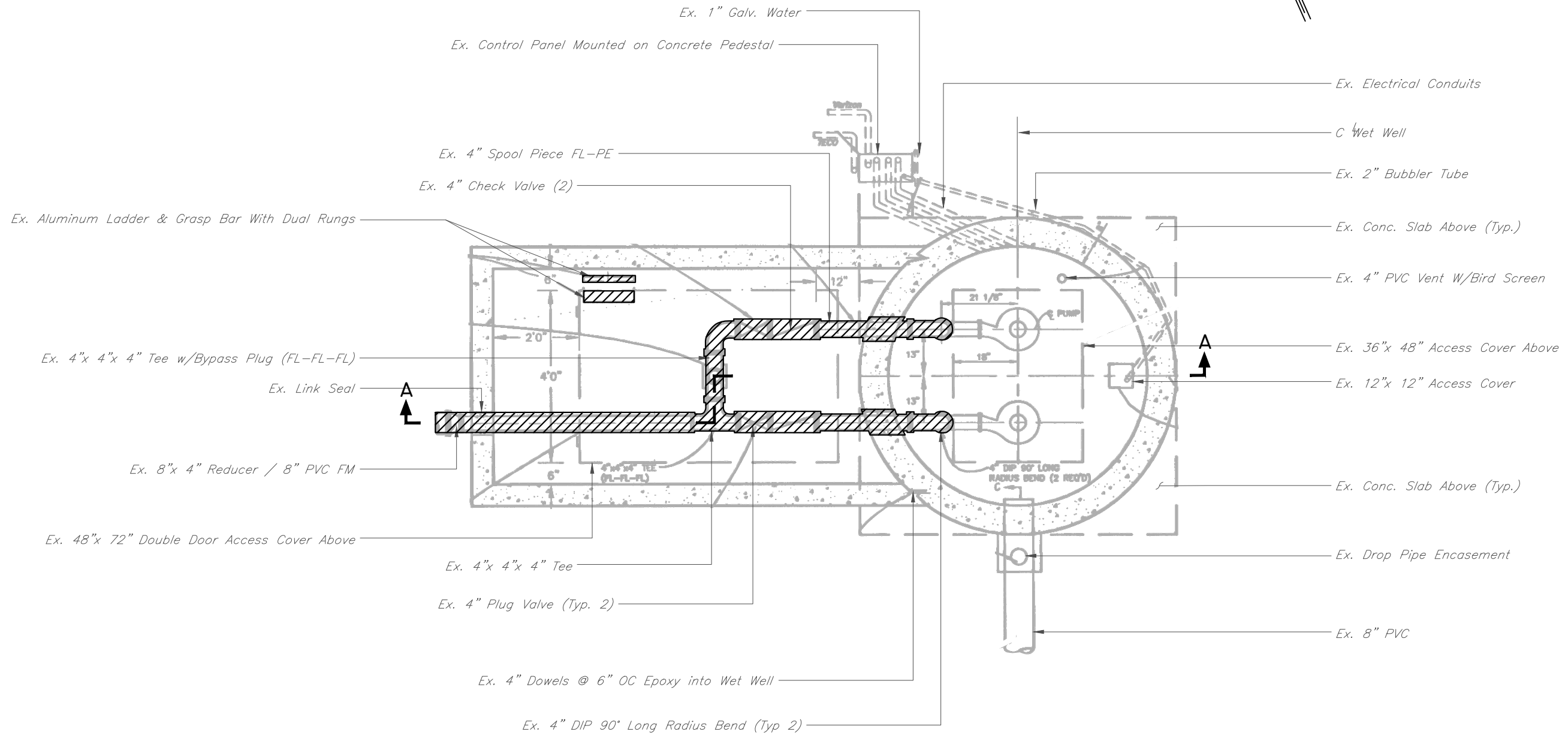


VALVE BOX AND LINE STOP DETAIL B-B  
N.T.S.

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 30; Last Saved: Feb 16, 2023 - 10:44am

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT CORY LAKES PUMPING STATION 3 SITE PLAN	SHEET
	3						
	2						
	1						30

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 31; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO PLAN VIEW  
SCALE: 3/8" = 1'-0"

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

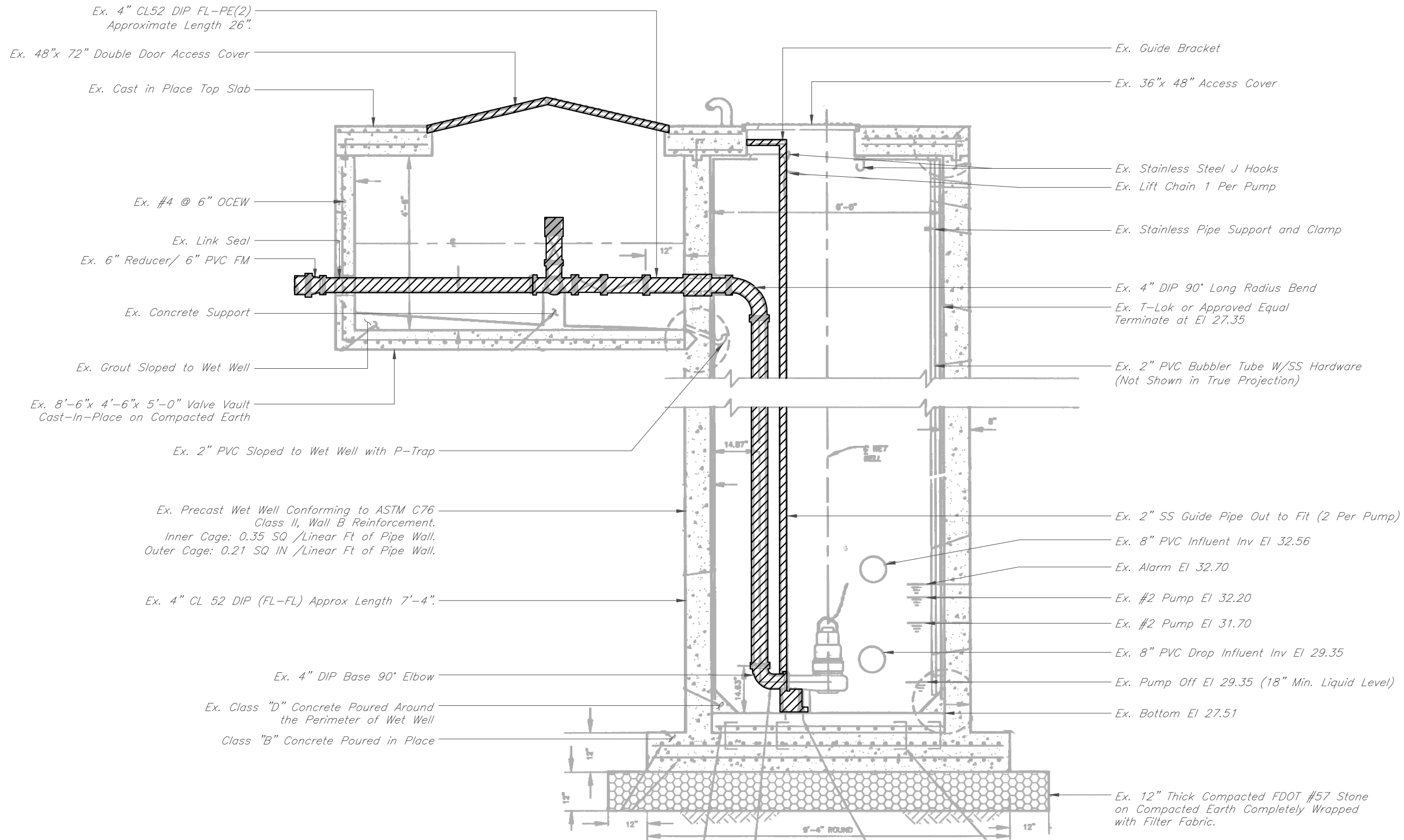
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 3  
DEMO PLAN VIEW

SHEET

31

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 32; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO SECTION A-A  
SCALE: 3/8" = 1'-0"

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

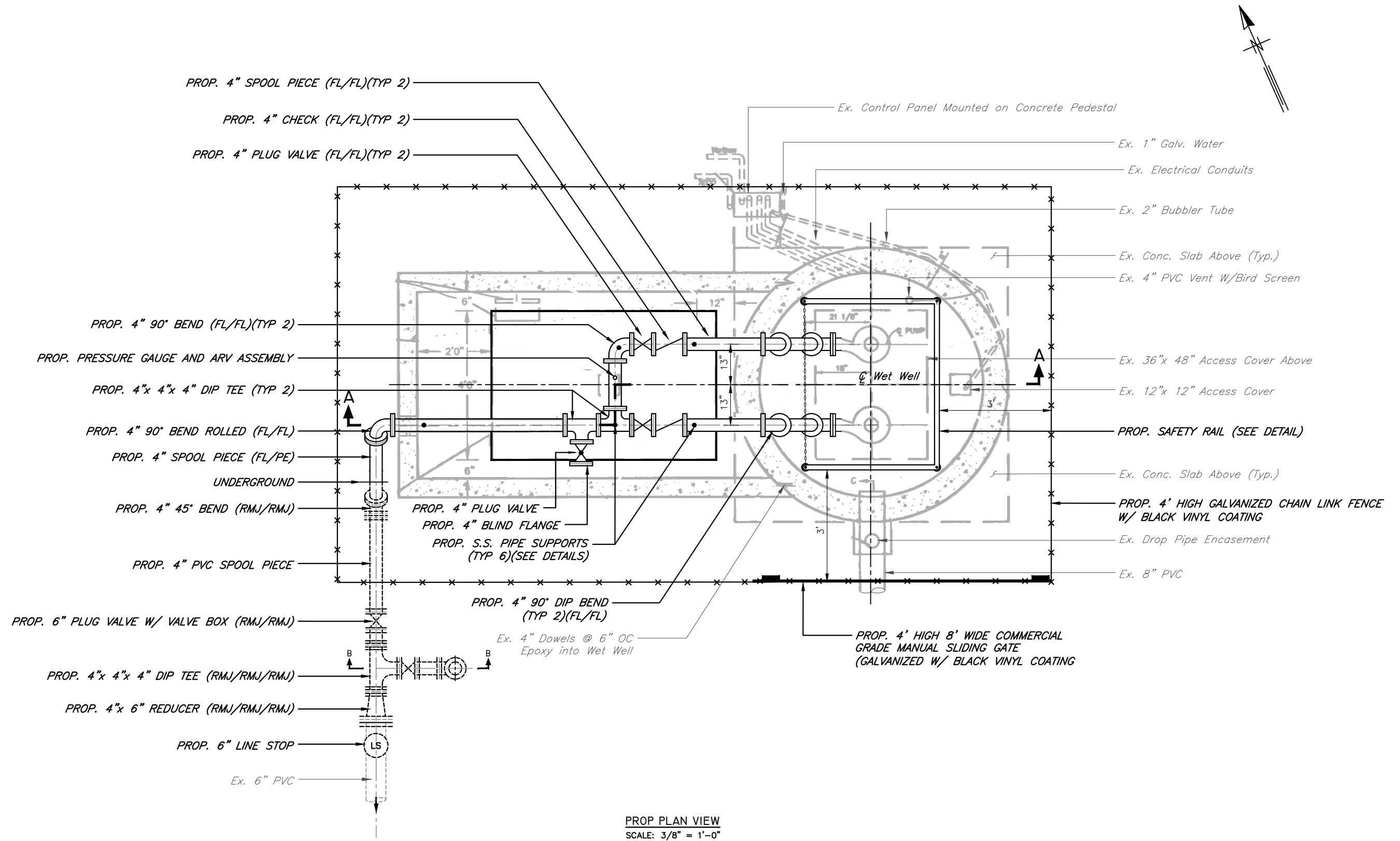
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 3  
DEMO SECTION A-A

SHEET

32

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 33; Last Saved: Feb 16, 2023 - 10:44am



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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

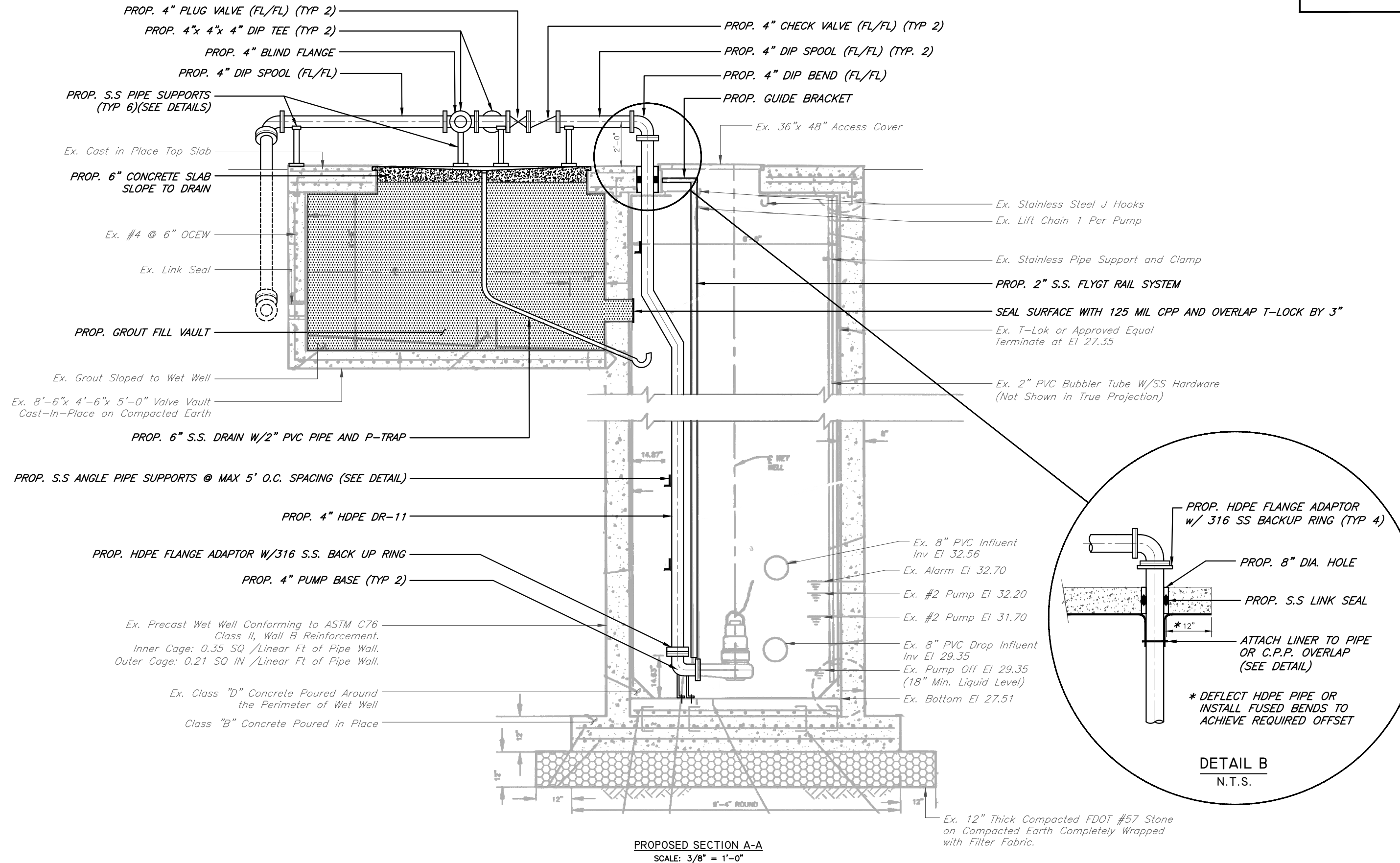
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 3  
PROP PLAN VIEW

SHEET

33

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 34; Last Saved: Feb 16, 2023 - 10:44am



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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
CORY LAKES PUMPING STATION 3  
PROPOSED SECTION A-A

SHEET

34

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 35; Last Saved: Feb 16, 2023 - 10:44am



PHOTO 1

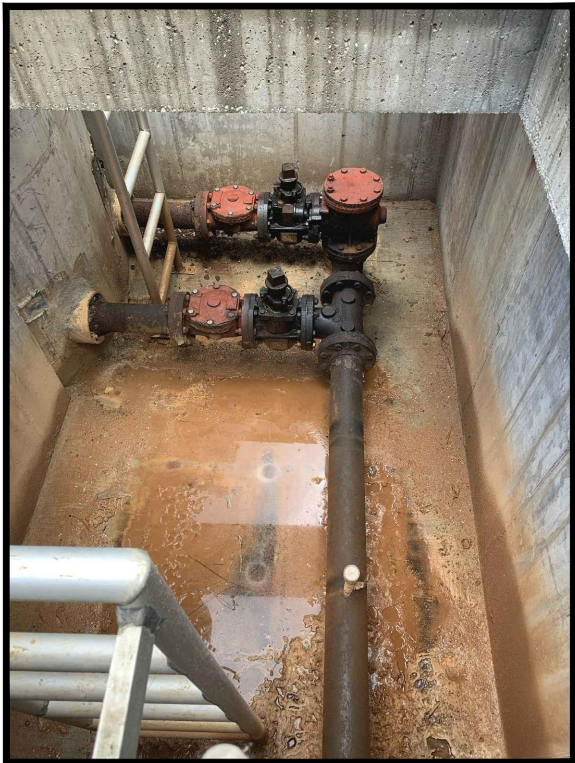
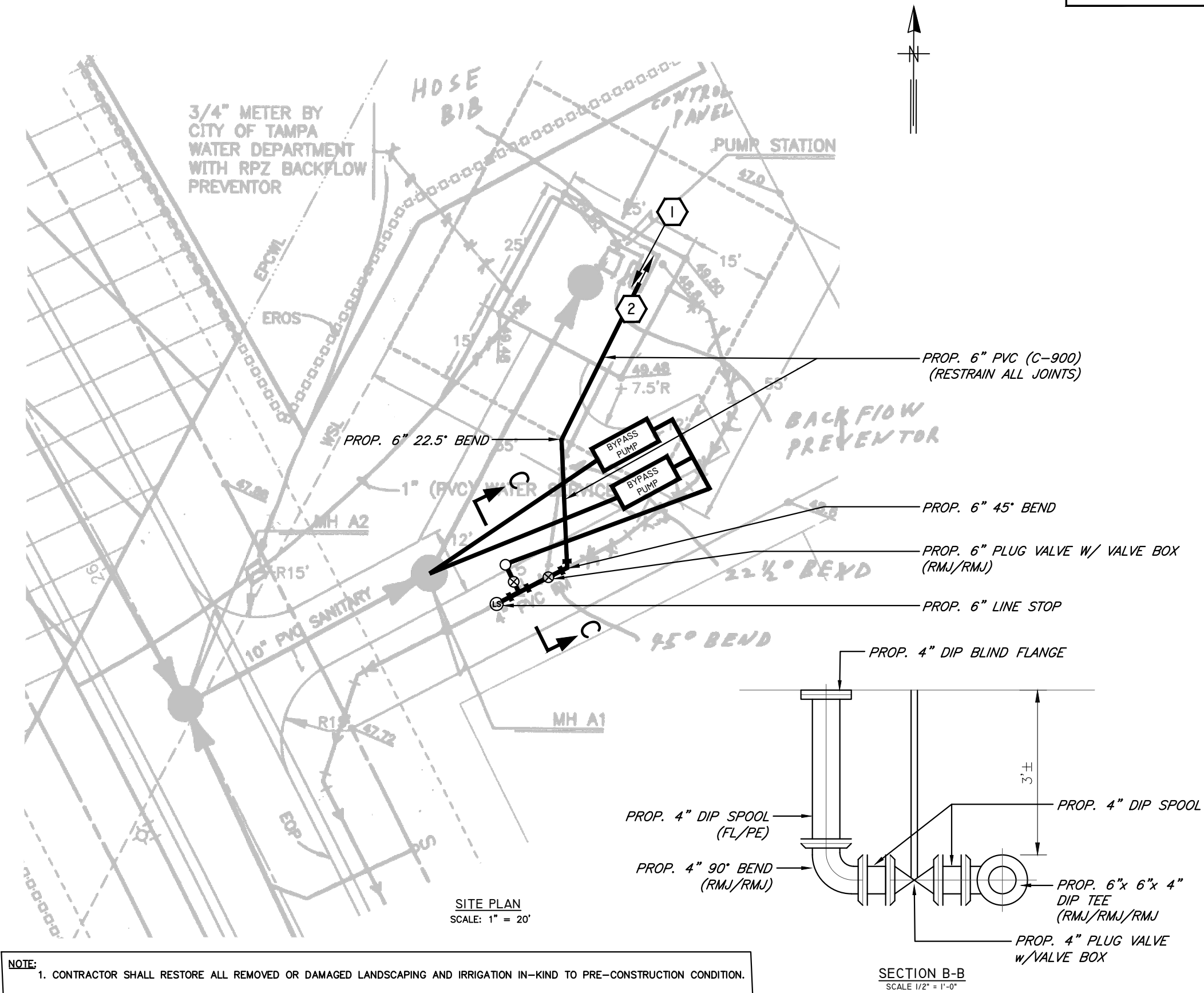


PHOTO 2



JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT MEADOW PINE PS SITE PLAN	SHEET
	3						35
	2						
	1						

2" BUBBLER TUBE

ELECTRICAL CONDUITS TO PUMP

CONTROL CABINET MOUNTED ON CONCRETE PEDESTAL (SEE ELECTRICAL DETAILS)

G.T.E.

T.E.C.O.

3/4" GALV. WATER LINE TO EXIST. WATER MAIN (SEE DETAIL "M", NOTE #4)

USE NON-SHRINK GROUT AROUND OPENINGS IN WET WELL (TYP.)

Ex. Hinges

PROPOSED 10" SDR 26 PVC INFLUENT @ 0.28 %

TOP PIPE ENCASEMENT SEE SECTION "B-B"

PROPOSED 6' DIA. R.C.P. WET WELL

4" PVC BIRD SCREEN

2'-6" X 4'-0" ACCESS OPENING

4'-0"

3'-6"

2'-6"

0'-9"

1'-0" X 1'-0" BUBBLER ACCESS HATCH

2" PVC BUBBLER (SEE DETAIL "E")

REBAR ANCHORING SEE DETAIL "H"

LINK SEAL SEE DETAIL "B"

3'-6" X 4'-0" ACCESS OPENING (TO OPEN TO THE SOUTHEAST & NORTHEAST) (TO BE REMOVED)

4" D.I.P. 90° ELBOW FL-FL

4" TEE WITH BY-PASS VALVE SEE DETAIL "A", SHEET 56

4" ECC. PLUG VALVE FL-FL 3-REQ'D (DEZURIK, SERIES 100)

4" x 4" x 4 D.I.P. TEE (FL-FL)

4" CHECK VALVES APCO MODEL 104P3 OR APPROVED EQUAL (FL-FL)

4" CLASS 52 D.I.P. FORCE MAIN

3'-6" X 3'-6" ACCESS OPENING (TO BE REMOVED) (SEE NOTES #14 & #22)

VALVE BOX, 9'-8" X 5'-6" X 5'-3"

11'-0"

5"

16"

13"

3"

8"

12"

8"

2'-4 1/2"

6'-10"

16" ALUMINUM LADDER & GRASP BAR, SEE NOTE #20 (GRASP BAR MUST HAVE A MINIMUM OF TWO RUNGS)


CONTRACTOR TO SUBMIT SHOP DRAWINGS OF VALVE BOX ACCESS LADDER WITH GRASP BAR

North Arrow

DEMO SECTIONAL PLAN  
SCALE: 3/8" = 1'-0"

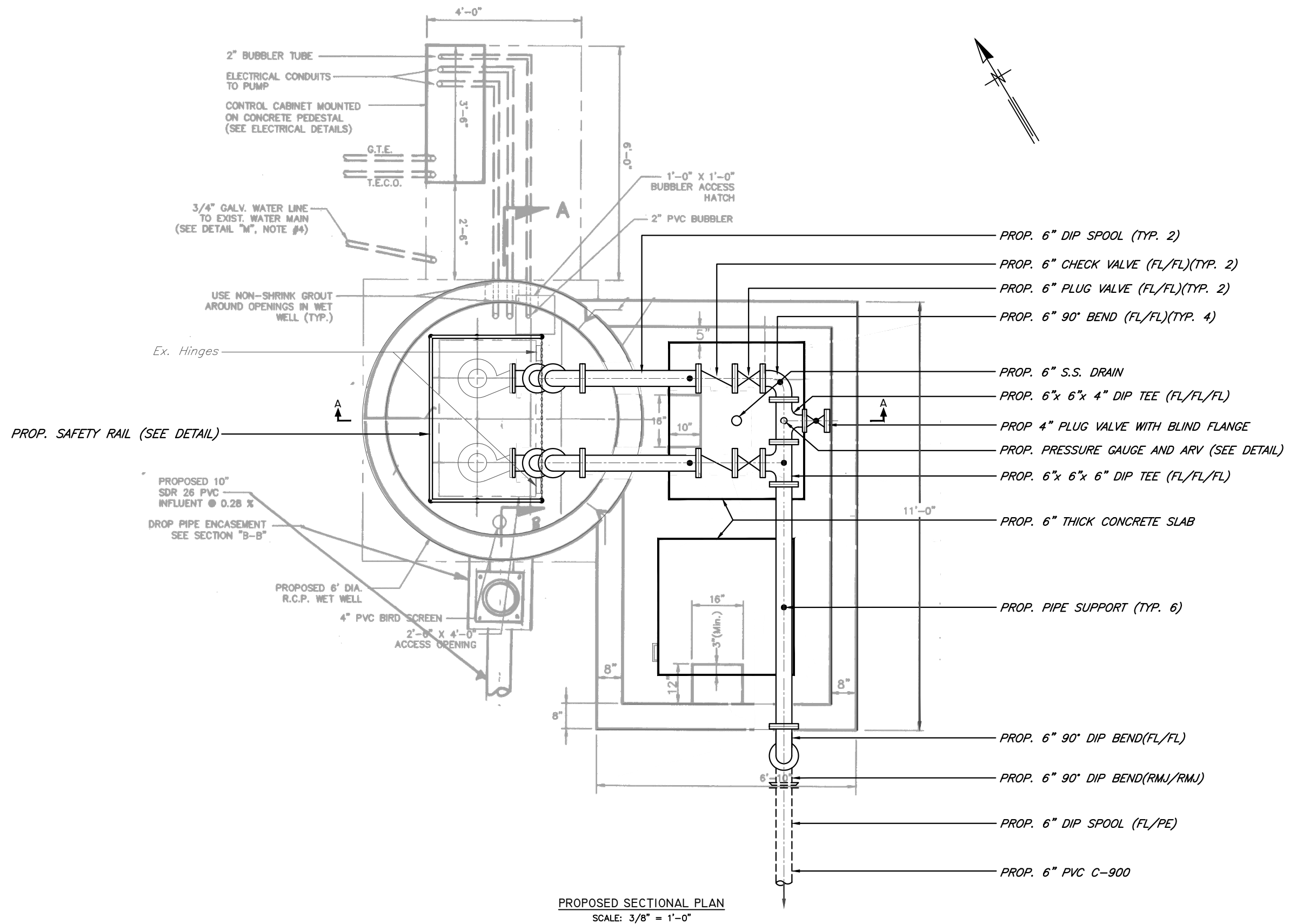
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT MEADOW PINE PS DEMO SECTIONAL PLAN	SHEET
	3			DRN: JHJ			36
	2			CKD:			
	1			DATE: 2/9/23			

[illegible]

 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

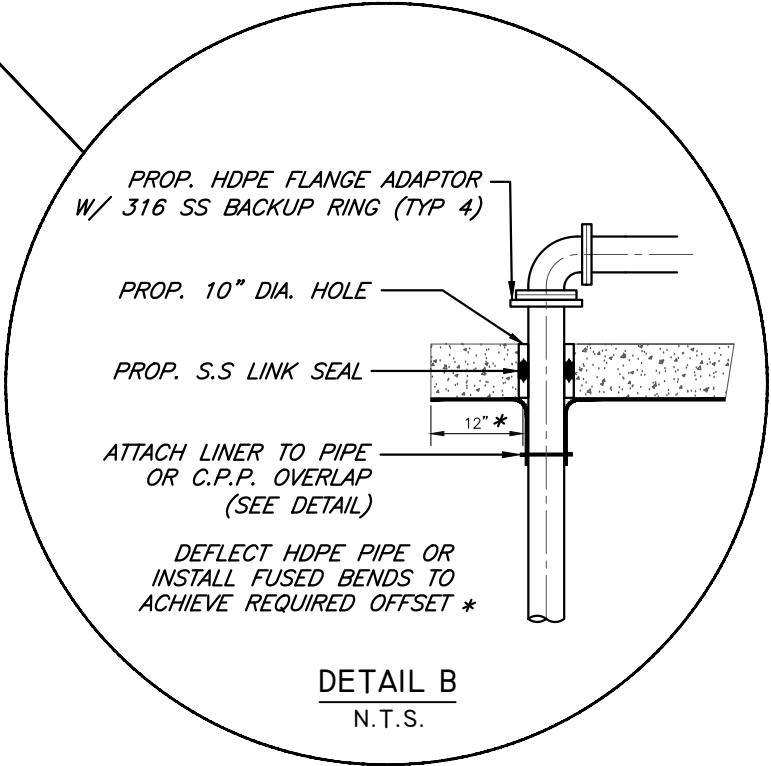
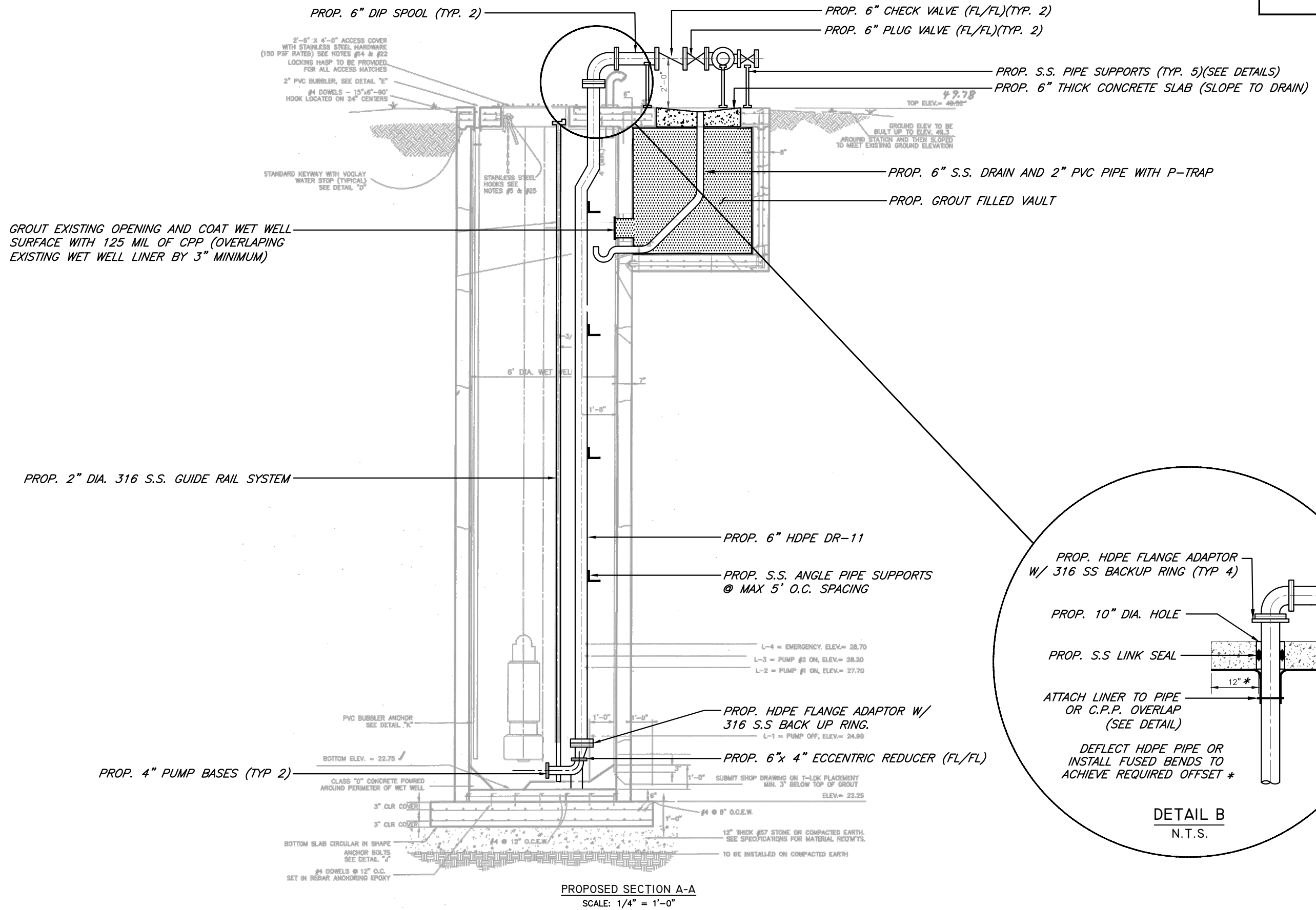
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA  WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT MEADOW PINE PS DEMO SECTION A-A	SHEET
	3			DRN: JHJ			37
	2			CKD:			
	1			DATE: 2/9/23			

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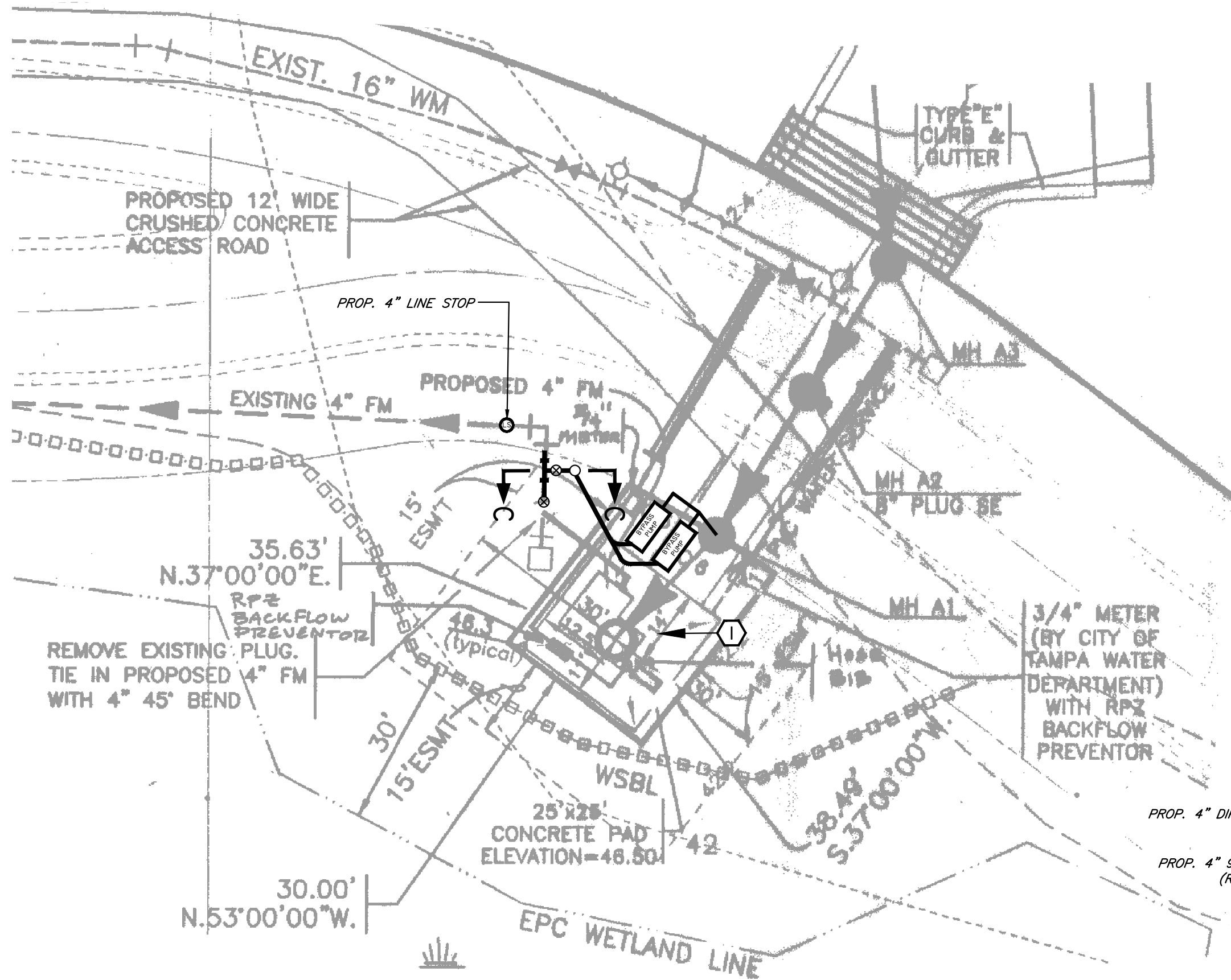
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT MEADOW PINE PS PROPOSED SECTIONAL PLAN	SHEET
	3						38
	2						
	1						

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 39; Last Saved: Feb 16, 2023 - 10:44am



JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT MEADOW PINE PS PROPOSED SECTION A-A	SHEET
	3			DRN: JHJ			39
	2			CKD:			
	1			DATE: 2/9/23			

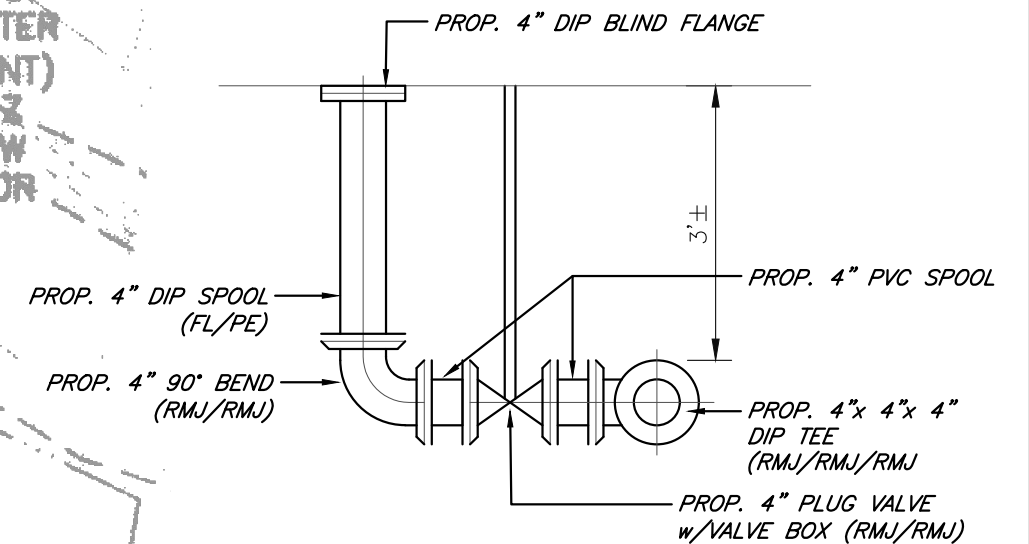
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Layout: SHT 40; Last Saved: Feb 16, 2023 - 10:44am



SITE PLAN  
SCALE: 1" = 20'



PHOTO 1



SECTION C-C  
SCALE: NTS

No.	DATE	REVISIONS
3		
2		
1		

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

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

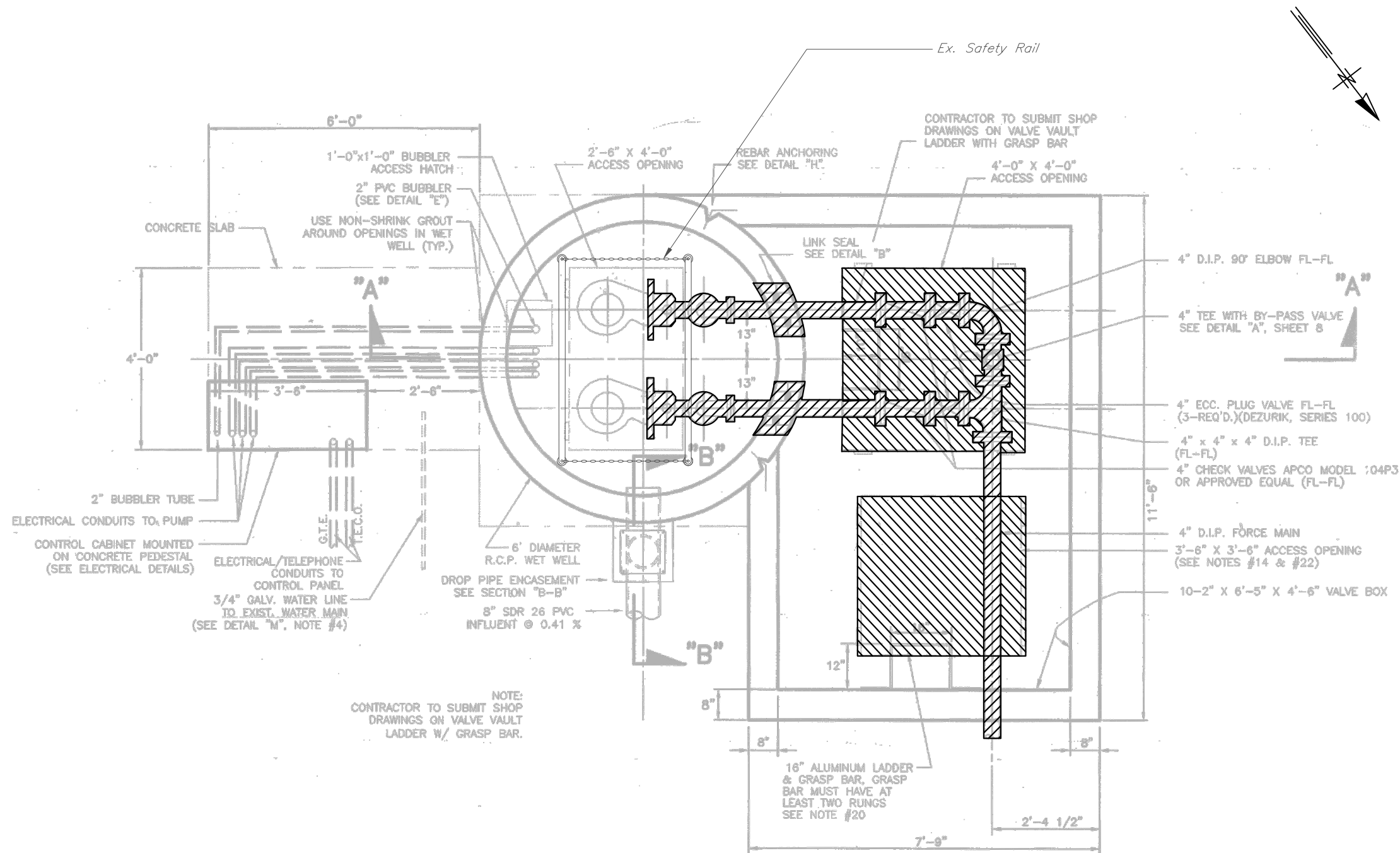
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
SPACE PLUS  
SITE PLAN

SHEET

40

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
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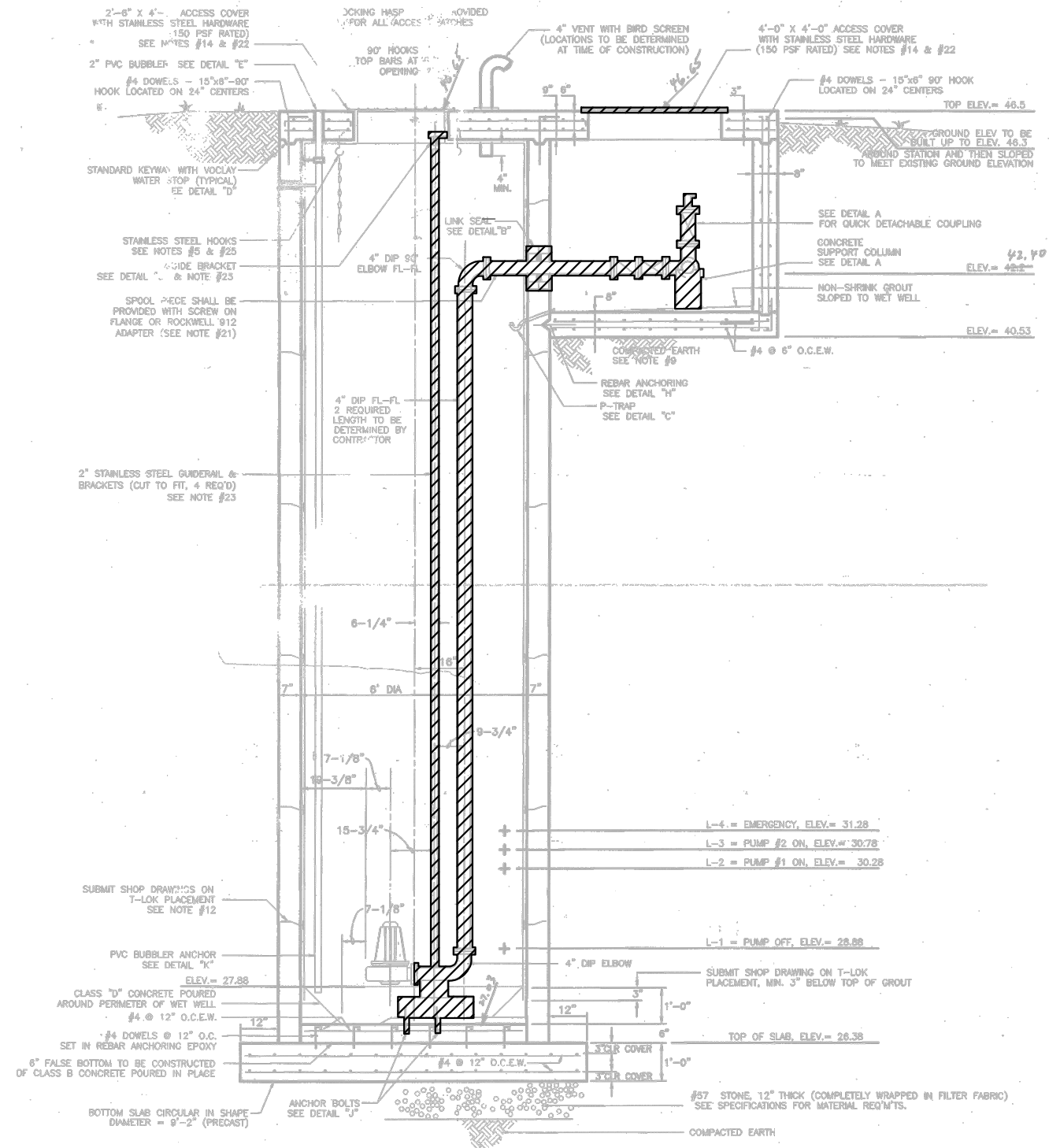


 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO SECTIONAL PLAN  
SCALE: 3/8" = 1'-0"

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT SPACE PLUS DEMO SECTIONAL PLAN	SHEET
	3						41
	2						
	1						

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 42; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO SECTION A-A  
SCALE: 3/16" = 1'-0"

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT SPACE PLUS DEMO SECTION A-A	SHEET
	3						42
	2						
	1						

Technical drawing of a wet well and pump assembly. The drawing includes a plan view of the wet well (a circle) and a side elevation view of the pump assembly. Key components and dimensions are labeled:

- Wet Well:** 6' DIAMETER R.C.P. WET WELL. Access opening: 2'-6" X 4'-0".
- Pump Assembly:** Includes a 4" DIP SPOOL (FL/FL) (TYP. 2), 4" CHECK VALVE (FL/FL) (TYP. 2), 4" PLUG VALVE (FL/FL) (TYP. 3), 4" x 4" x 4" DIP TEE (FL/FL/FL) (TYP. 2), 4" DIP SPOOL (FL/FL), 4" 90° BEND (FL/FL) (TYP. 3), 4" DIP SPOOL (FL/PE), 4" 90° BEND (RMJ/RMJ) (ROTATE), PRESSURE GAUGE AND ARV ASSEMBLY, 6" S.S. DRAIN, S.S. PIPE SUPPORTS (SEE DETAIL) (TYP. 5), 4" BLIND FLANGE, 4" PVC (C-900), 6" CONCRETE SLAB, 4" PLUG VALVE W/ VALVE BOX (RMJ/RMJ), and 4" LINE STOP.
- Dimensions:** 6'-0" (width), 4'-0" (height), 3'-6" (width), 2'-6" (width), 13" (height), 11'-6" (height), 16" (width), 12" (height), 8" (width), 7'-9" (width), 2'-4 1/2" (width).
- Other Labels:** CONCRETE SLAB, 1'-0" X 1'-0" BUBBLER ACCESS HATCH, 2" PVC BUBBLER (SEE DETAIL "E"), USE NON-SHRINK GROUT AROUND OPENINGS IN WET WELL (TYP.), 2" BUBBLER TUBE, ELECTRICAL CONDUITS TO PUMP, CONTROL CABINET MOUNTED ON CONCRETE PEDESTAL (SEE ELECTRICAL DETAILS), ELECTRICAL/TELEPHONE CONDUITS TO CONTROL PANEL, 3/4" GALV. WATER LINE TO EXIST. WATER MAIN (SEE DETAIL "M", NOTE #4), G.I.E., F.E.C.O., DROP PIPE ENCASEMENT SEE SECTION "B-B", 8" SDR 26 PVC INFLUENT @ 0.41 %, 16" ALUMINUM LADDER & GRASP BAR, GRASP BAR MUST HAVE AT LEAST TWO RUNGS SEE NOTE #20, Ex. Safety Rail, Ex. 4" PVC FM.

PROPOSED PLAN  
SCALE: 3/8" = 1'-0"

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA  WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT  SPACE PLUS PROPOSED SECTIONAL PLAN	SHEET
	3			DRN: JHJ			43
	2			CKD:			
	1			DATE: 2/9/23			

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	<b>CITY of TAMPA</b> <b>WASTEWATER DEPARTMENT</b>	<b>MISCELLANEOUS WASTEWATER PUMPING STATION</b> <b>RISER REPLACEMENT</b> SPACE PLUS PROPOSED SECTION A-A	SHEET <div style="font-size: 2em; font-weight: bold;">44</div>
	3						
	2						
	1						

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT SPACE PLUS PROPOSED SECTION A-A	SHEET
	3			DRN: JHJ			44
	2			CKD:			
	1			DATE: 2/9/23			

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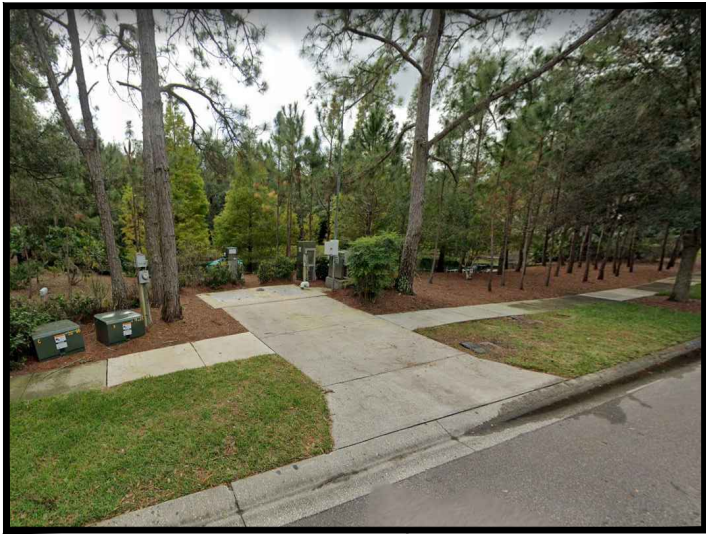


PHOTO 1

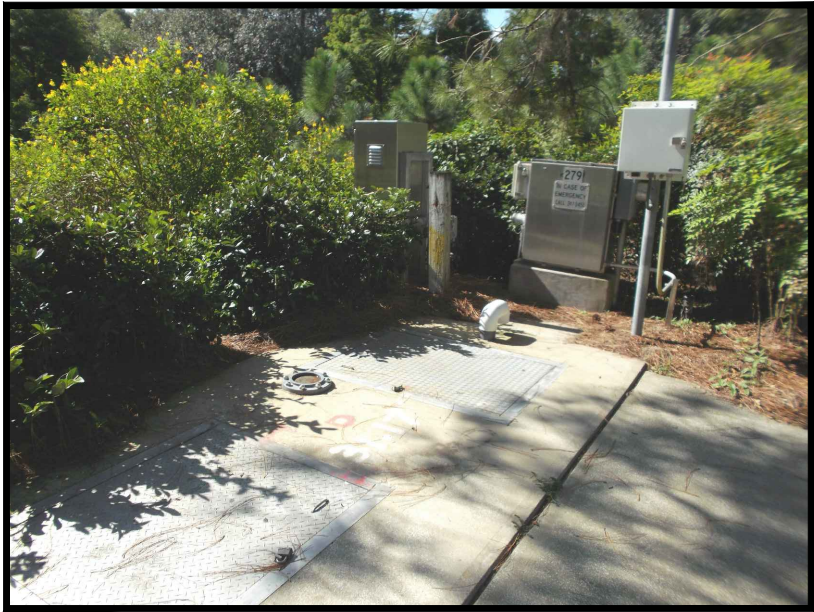
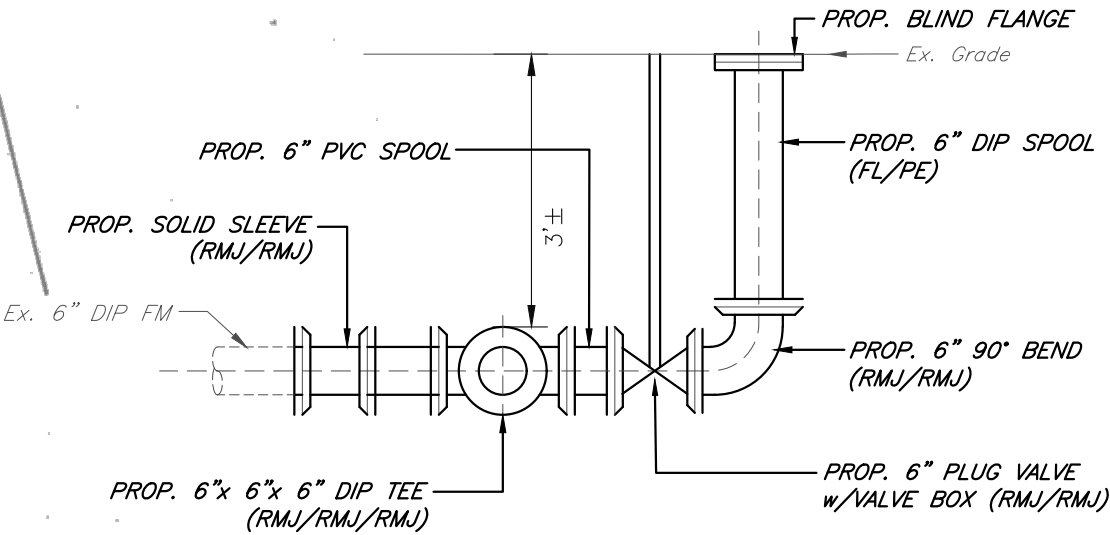


PHOTO 2



VALVE BOX AND LINE STOP DETAIL B-B  
N.T.S.

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

No.	DATE	REVISIONS
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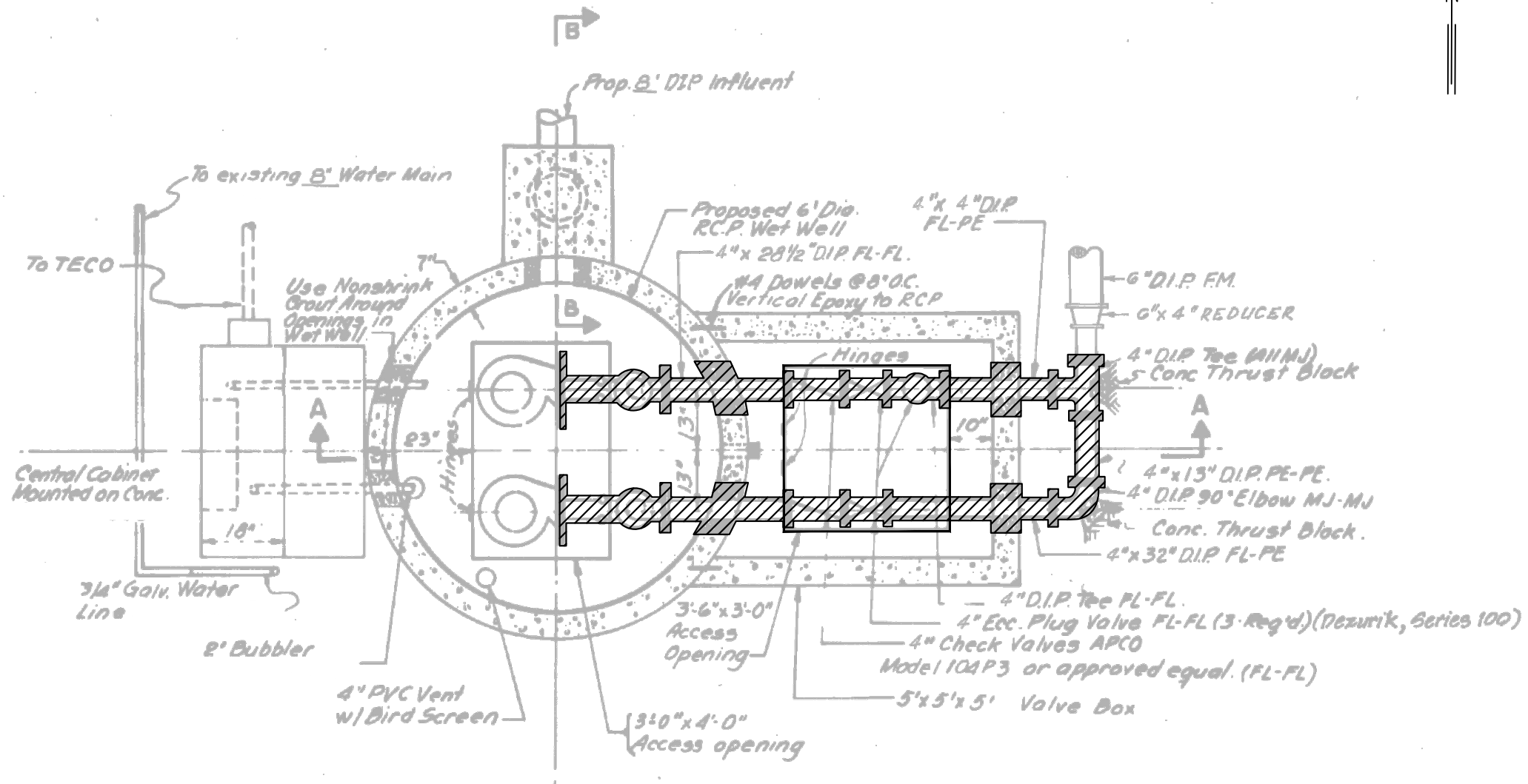
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DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
WAREHAM PS  
SITE PLAN

SHEET  
45

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 46; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO SECTIONAL PLAN  
SCALE: 3/8" = 1'-0"

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

No.	DATE	REVISIONS
3		
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DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

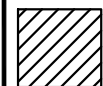
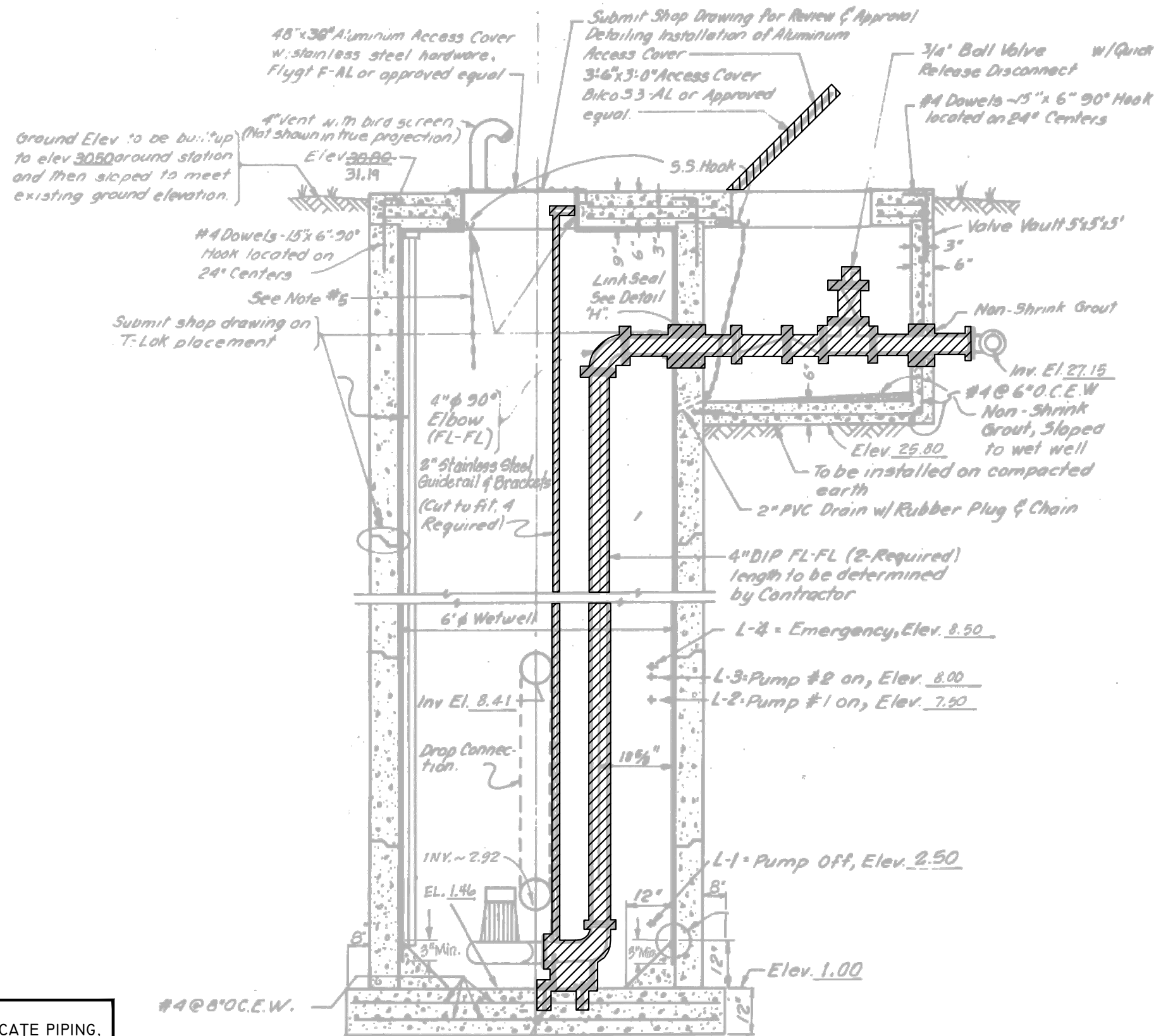
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
WAREHAM PS  
DEMO SECTIONAL PLAN

SHEET

46

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 47; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING,  
FITTINGS AND VALVES TO BE REMOVED

DEMO SECTION A-A  
SCALE: 3/8" = 1'-0"

No.	DATE	REVISIONS
3		
2		
1		

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

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

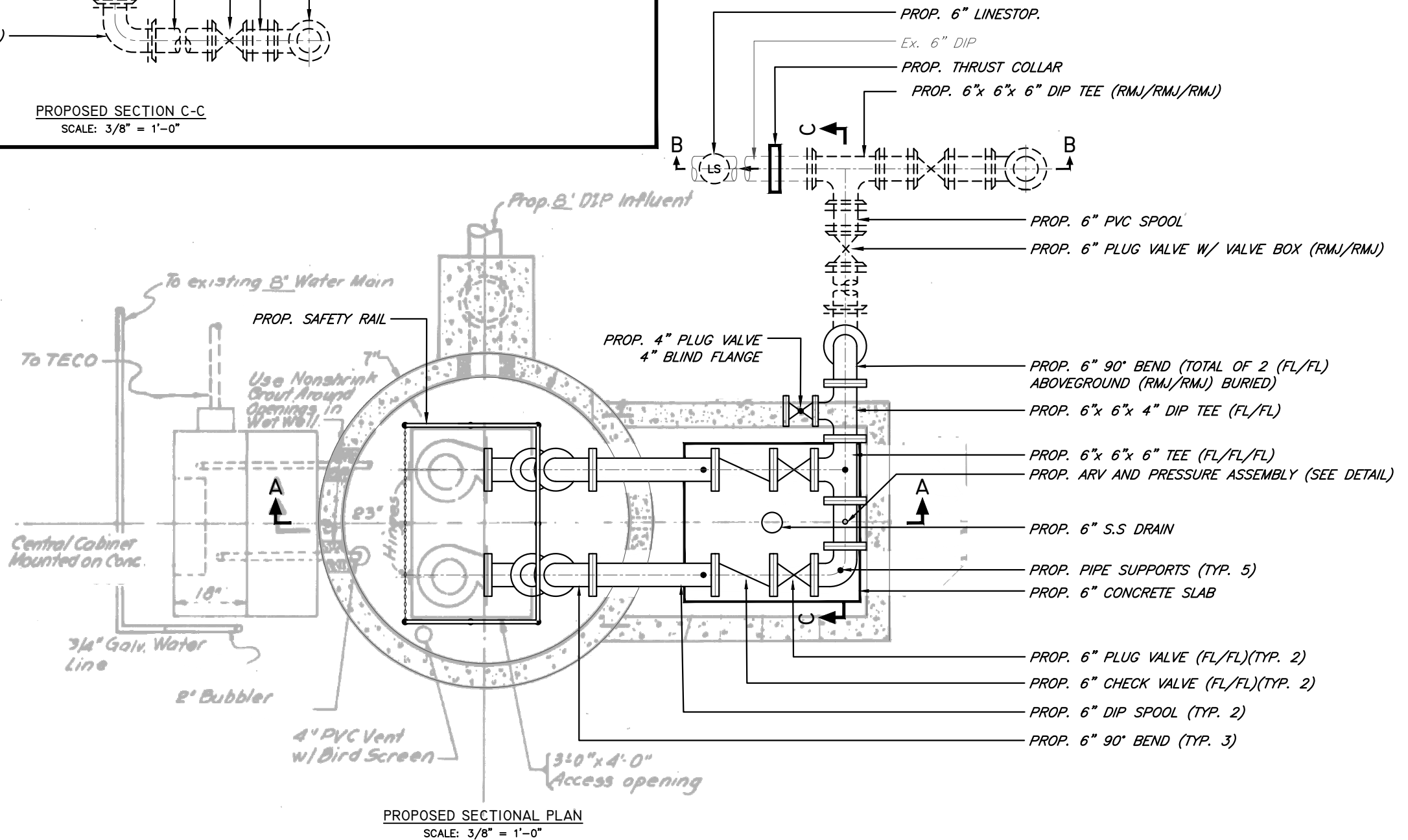
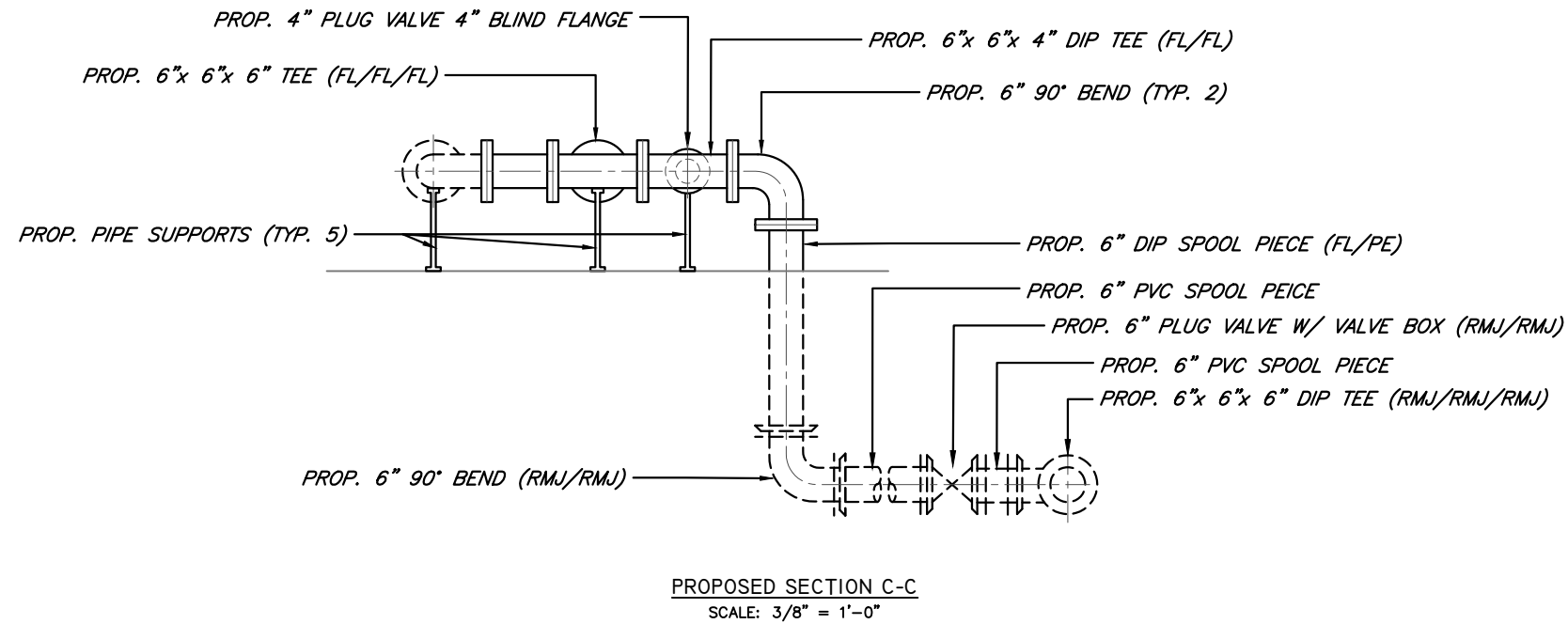
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
WAREHAM PS  
DEMO SECTION A-A

SHEET

47

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 48; Last Saved: Feb 16, 2023 - 10:44am



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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
WAREHAM PS  
PROPOSED SECTIONAL PLAN

SHEET

48

PROP. 6" DIP SPOOL (TYP. 2)

PROP. 6" 90° BEND (TYP. 2)

4" vent with bird screen  
(Not shown in true projection)  
Elev. 30.80  
31.19

PROP. 6" CHECK VALVE (FL/FL)(TYP. 2)

PROP. 6" PLUG VALVE (FL/FL)(TYP. 2)

PROP. S.S. PIPE SUPPORTS (TYP. 5)(SEE DETAILS)

PROP. 6" THICK CONCRETE SLAB (SLOPE TO DRAIN)

PROP. 6" S.S. DRAIN AND 2" PVC WITH P-TRAP

PROP. GROUT FILLED VAULT

PROP. S.S. ANGLE PIPE SUPPORTS  
@ MAX 5' O.C. SPACING

GROUT EXISTING OPENING AND COAT WET WELL  
SURFACE WITH 125 MIL OF CPP (OVERLAPING  
EXISTING WET WELL LINER BY 3" MINIMUM)

PROP. 2" DIA. 316 S.S. GUIDE RAIL SYSTEM

PROP. 6" HDPE DR-11

L-4 - Emergency, Elev. 8.50

L-3 - Pump #2 on, Elev. 8.00

L-2 - Pump #1 on, Elev. 7.50

Inv El. 8.41

Drop Connection

INV. ~ 2.92

EL. 1.46

L-1 - Pump Off, Elev. 2.50

PROP. HDPE FLANGE ADAPTOR W/  
316 S.S. BACK UP RING.

PROP. 6"x 4" ECCENTRIC REDUCER (FL/FL)

Elev. 1.00

PROP. 4" PUMP BASES (TYP 2)

#4 @ 8" O.C. E.W.

PROP. HDPE FLANGE ADAPTOR  
W/ 316 SS BACKUP RING

PROP. 10" DIA. HOLE

PROP. S.S. LINK SEAL

ATTACH LINER TO PIPE  
OR C.P.P. OVERLAP  
(SEE DETAIL)

\* DEFLECT HDPE PIPE OR  
INSTALL FUSED BENDS TO  
ACHIEVE REQUIRED OFFSET

*PROP. HDPE FLANGE ADAPTOR  
W/ 316 SS BACKUP RING*

*PROP. 10" DIA. HOLE*

*PROP. S.S. LINK SEAL*

*ATTACH LINER TO PIPE  
OR C.P.P. OVERLAP  
(SEE DETAIL)*

*\* DEFLECT HDPE PIPE OR  
INSTALL FUSED BENDS TO  
ACHIEVE REQUIRED OFFSET*

**DETAIL B**

N.T.S.

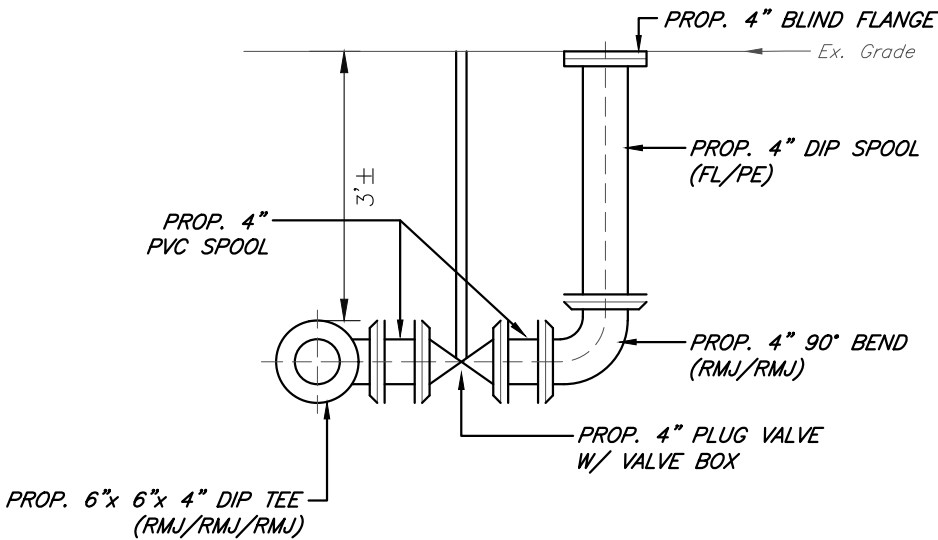
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT WAREHAM PS PROPOSED SECTION A-A	SHEET
	3			DRN: JHJ			49
	2			CKD:			
	1			DATE: 2/9/23			



PHOTO 1

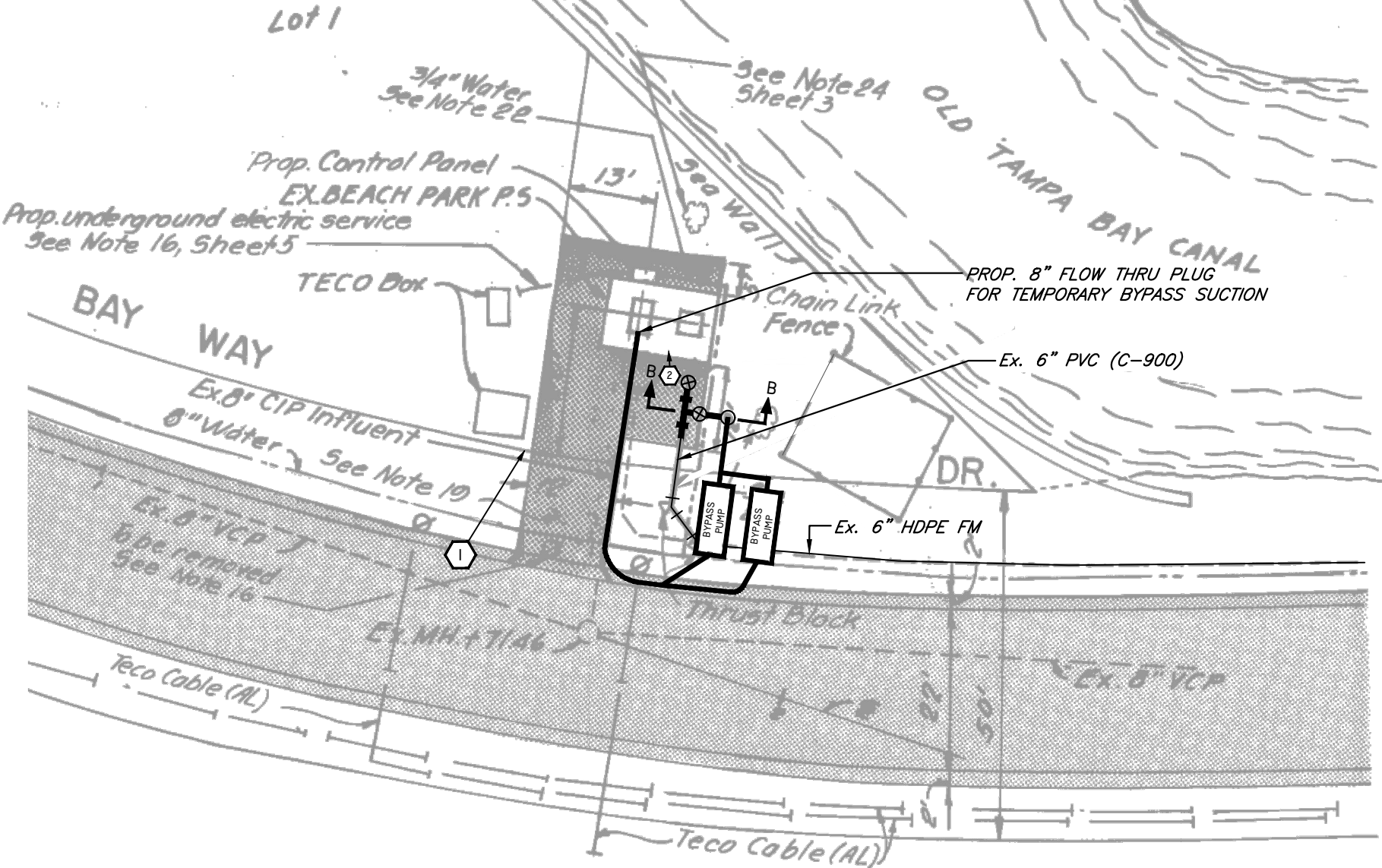


PHOTO 2



VALVE BOX AND LINE STOP DETAIL B-B  
N.T.S.

# BEACH PARK ISLE



SITE PLAN  
SCALE: 1" = 20'-0"

NOTE: CONTRACTOR SHALL RESTORE ALL REMOVED OR DAMAGED CONCRETE DRIVEWAY, LANDSCAPING AND IRRIGATION IN-KIND TO PRE-CONSTRUCTION CONDITION.

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 50; Last Saved: Feb 16, 2023 - 10:44am

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

No.	DATE	REVISIONS
3		
2		
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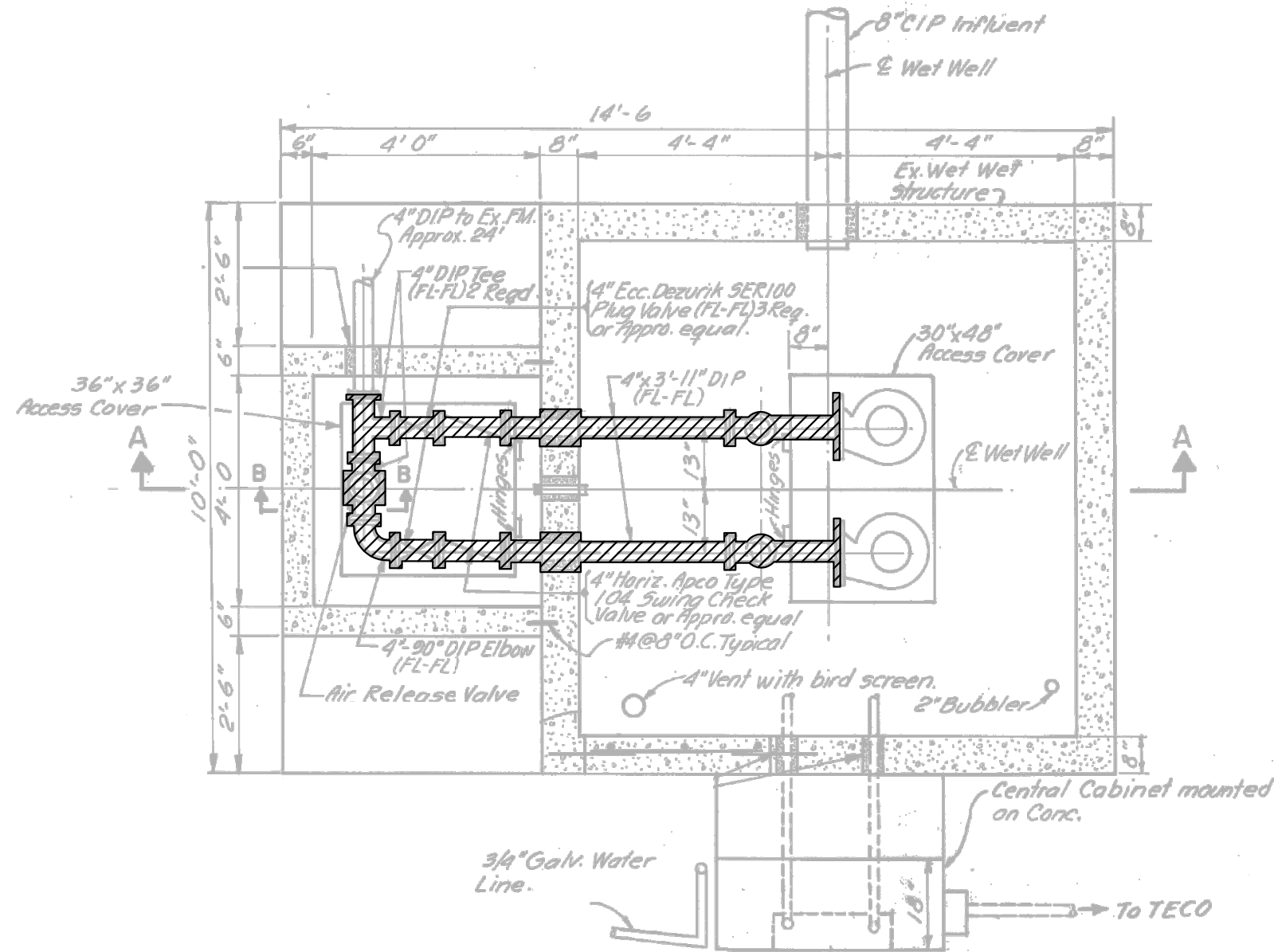
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DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT


MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
BEACH PARK  
SITE PLAN

SHEET  
50

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 51; Last Saved: Feb 16, 2023 - 10:44am

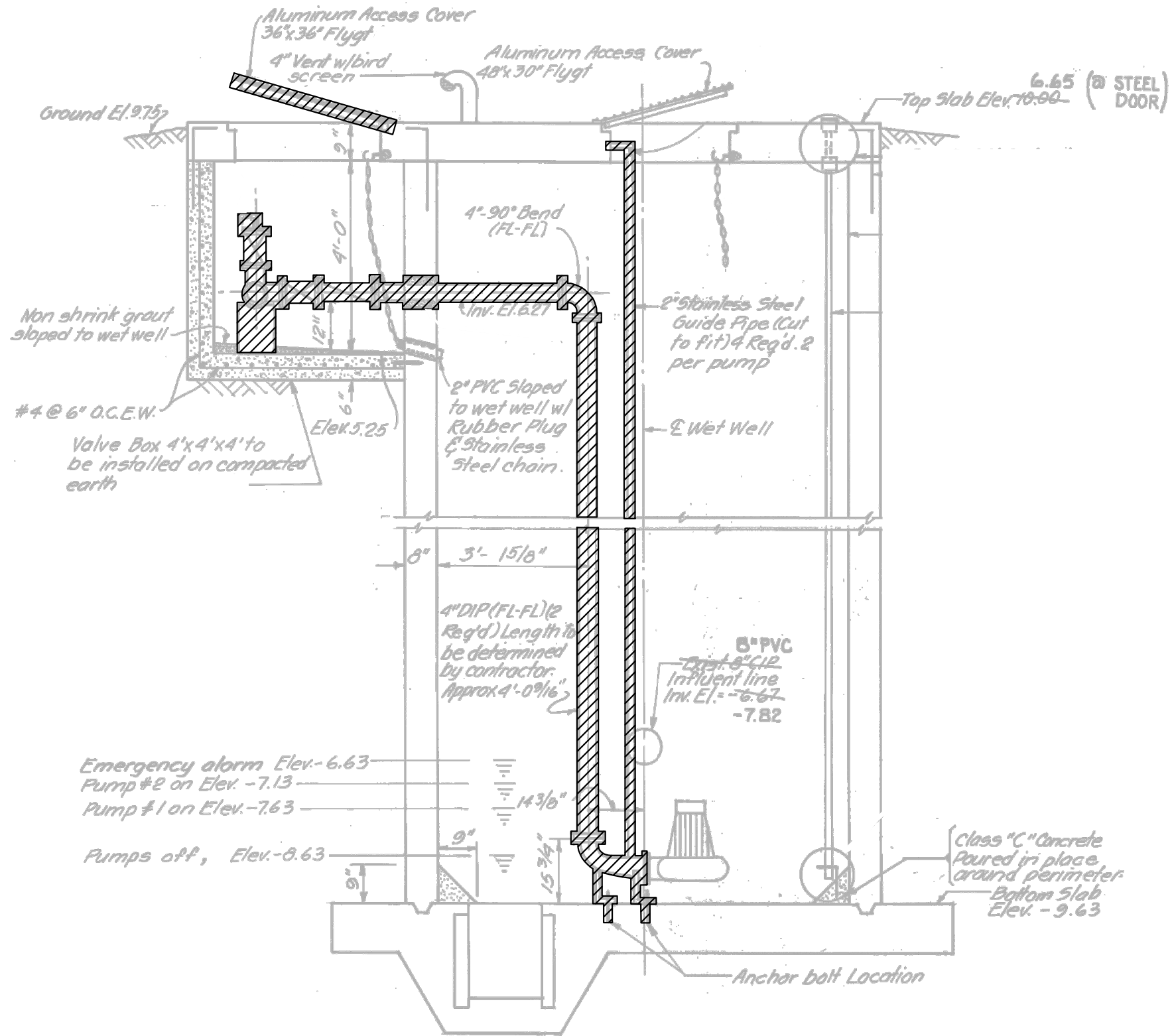


DEMO SECTIONAL PLAN  
SCALE: 3/8" = 1'-0"

 HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT DRN: JHJ CKD: DATE: 2/9/23	CITY of TAMPA WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT BEACH PARK DEMO SECTIONAL PLAN	SHEET
	3						51
	2						
	1						

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Layout: SH1 52; Last Saved: Feb 16, 2023 - 10:44am



HATCHED AREAS ON THIS SHEET INDICATE PIPING, FITTINGS AND VALVES TO BE REMOVED

DEMO SECTION A-A  
SCALE: 3/8" = 1'-0"

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
BEACH PARK  
DEMO SECTION A-A

SHEET

52

SCALE: 3/8" = 1'-0"

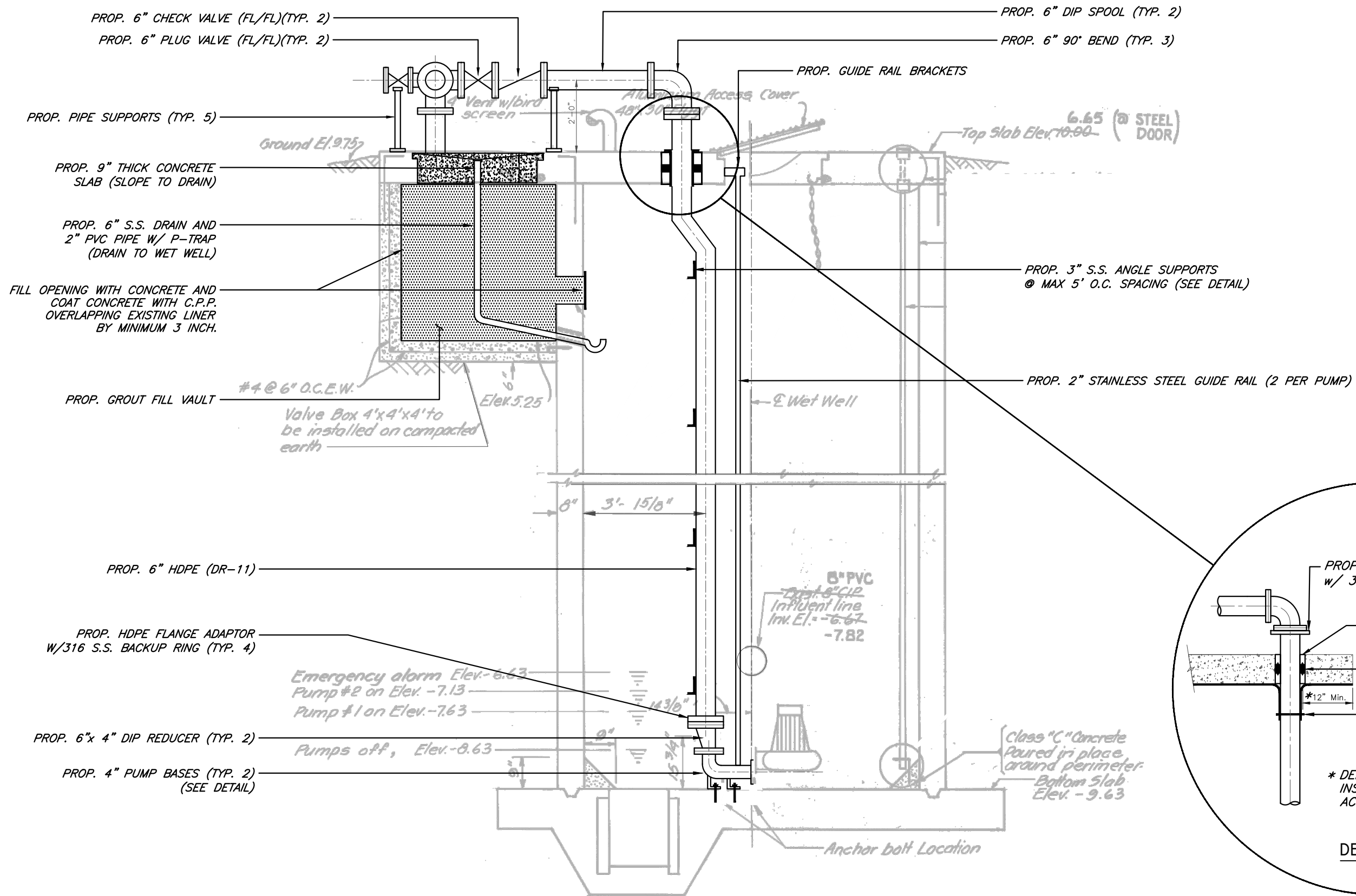
DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

**MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
BEACH PARK  
PROPOSED SECTIONAL PLAN**

53

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout- SHT 53; Last Saved: Feb 16, 2023 - 10:44am

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 54; Last Saved: Feb 16, 2023 - 10:44am



PROPOSED SECTION A-A  
SCALE: 3/8" = 1'-0"

DETAIL B  
N.T.S.

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

No.	DATE	REVISIONS
3		
2		
1		

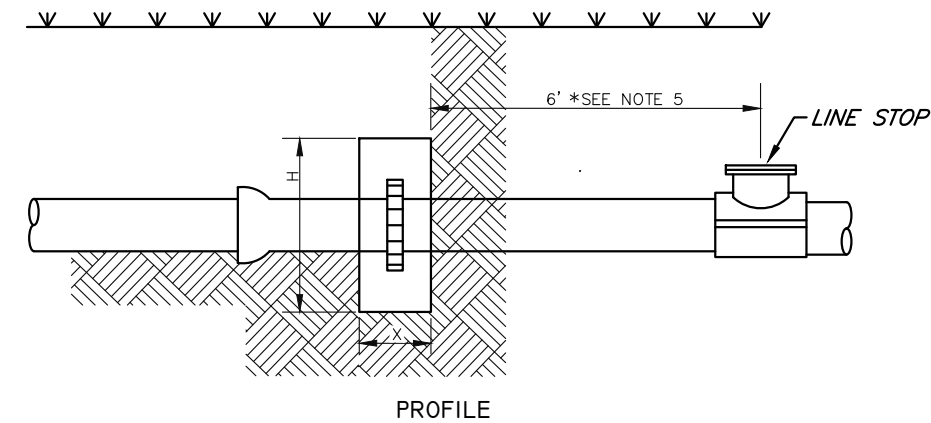
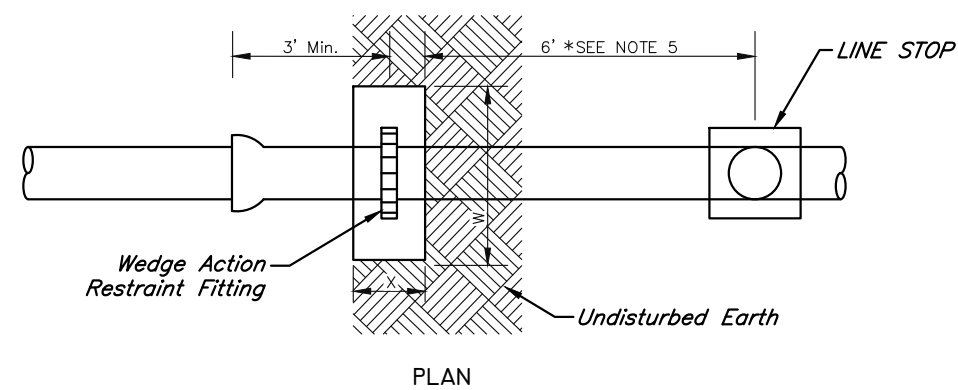
DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
BEACH PARK  
PROPOSED SECTION A-A

SHEET

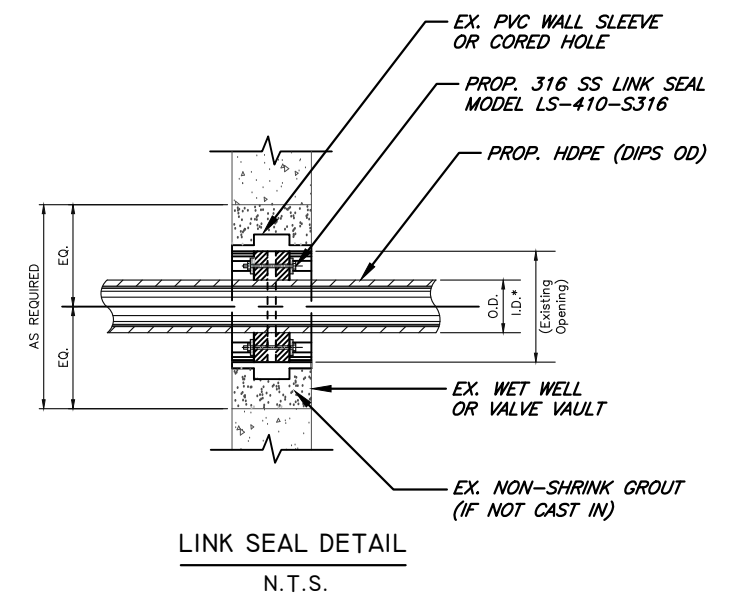
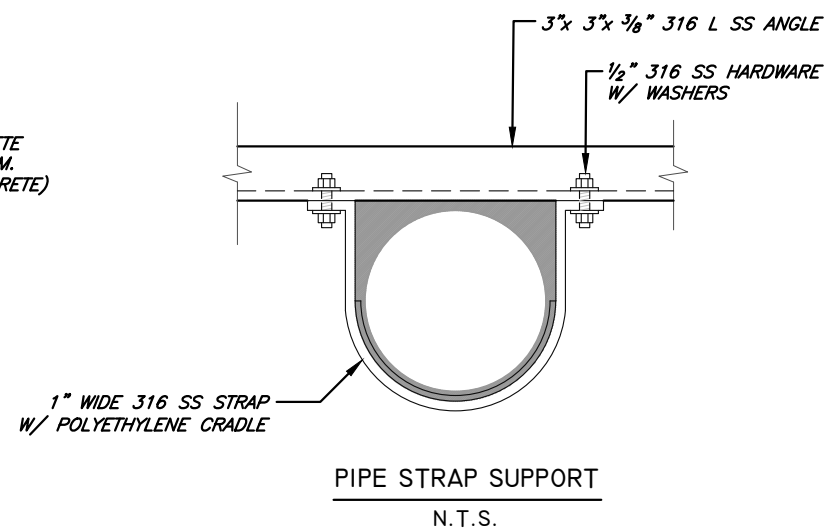
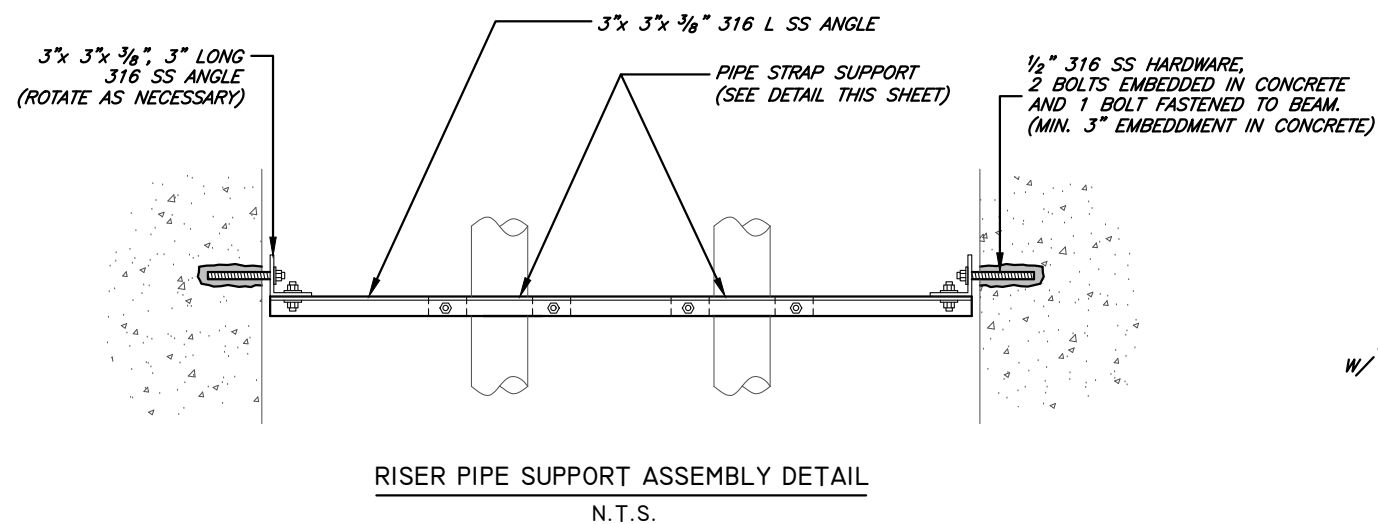
54



PIPE SIZE	4"	6"	8"
H (FT.)	3.0	3.5	4.5
W (FT.)	2.0	3.0	4.0
X (FT.)	2.0 Min.	2.0 Min.	2.0 Min.

- NOTES:
1. CONCRETE SHALL BE KEPT AT SUFFICIENT DISTANCE FROM JOINT FOR REMOVAL OF ALL JOINT ACCESSORIES INCLUDING BOLTS.
  2. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
  3. POOR AND WET SOIL (SILTY SOILS, CLAY, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS, AS DIRECTED BY THE ENGINEER.
  4. FITTINGS SHALL BE COMPLETELY POLYWRAPPED PRIOR TO POURING THRUST BLOCKS.
  - \*5. CLOSEST DISTANCE TO LINE STOP FOR DEADMAN TO REMAIN EFFECTIVE.
  6. DESIGN IS BASED ON AN INTERNAL PRESSURE OF 100 PSI. DEADMAN IS SIZED BASED ON PASSIVE SOIL RESISTANCE AND OIL FRICTION.

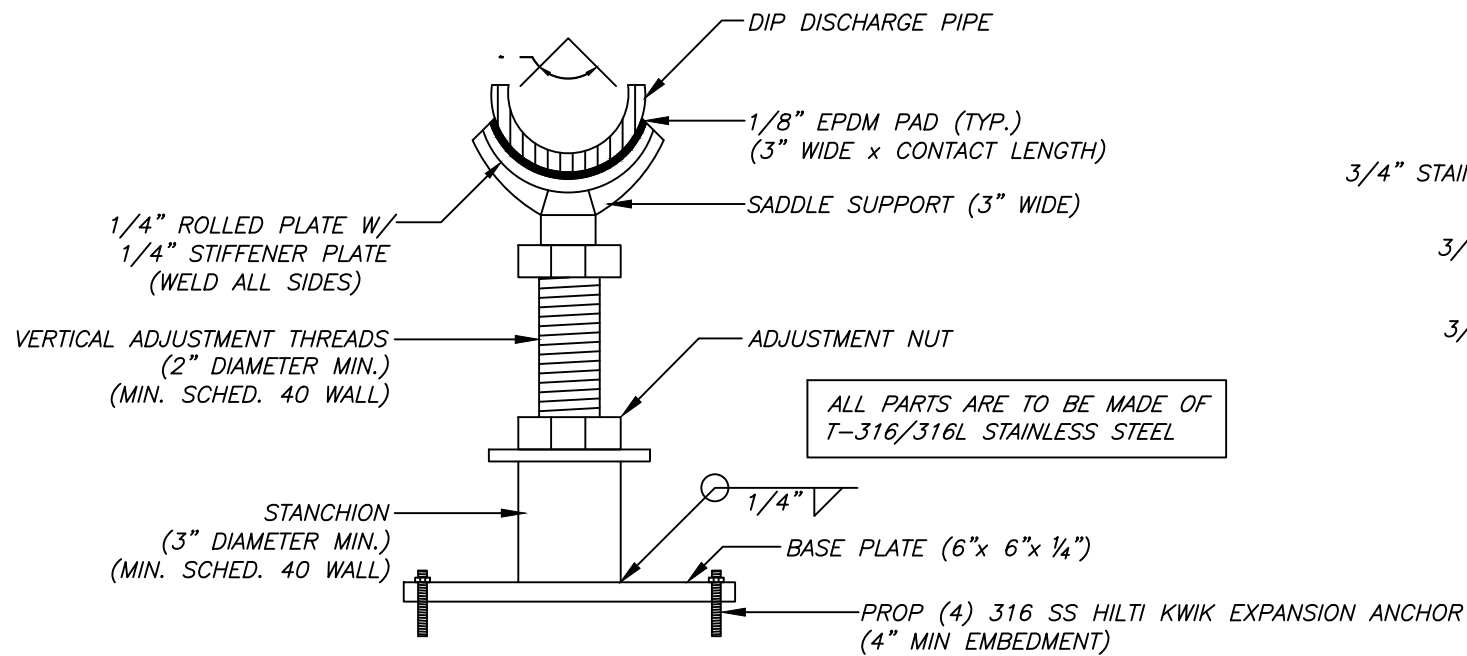
DEAD MAN THRUST BLOCK DETAIL  
NOT TO SCALE



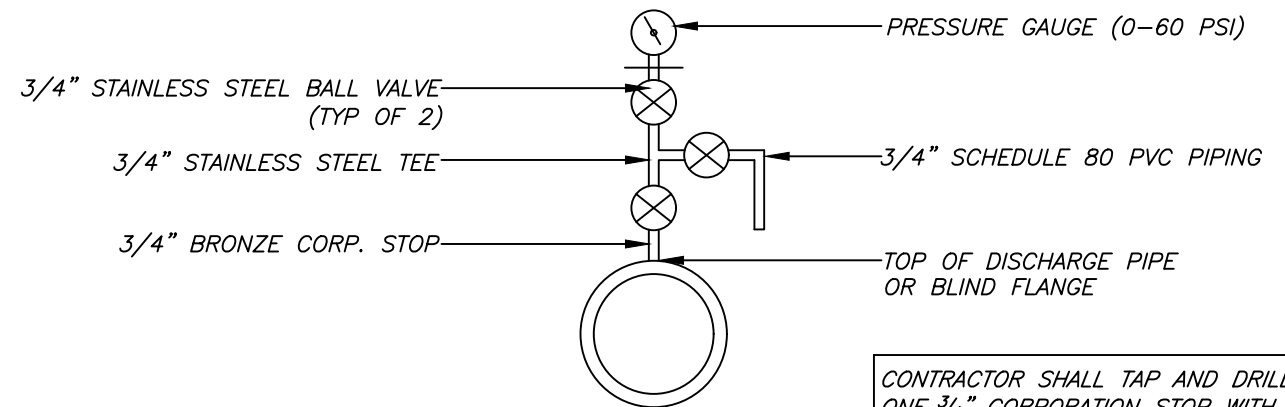
DETAILS  
N.T.S.

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg  
Layout: SHT 55; Last Saved: Feb 16, 2023 - 10:44am

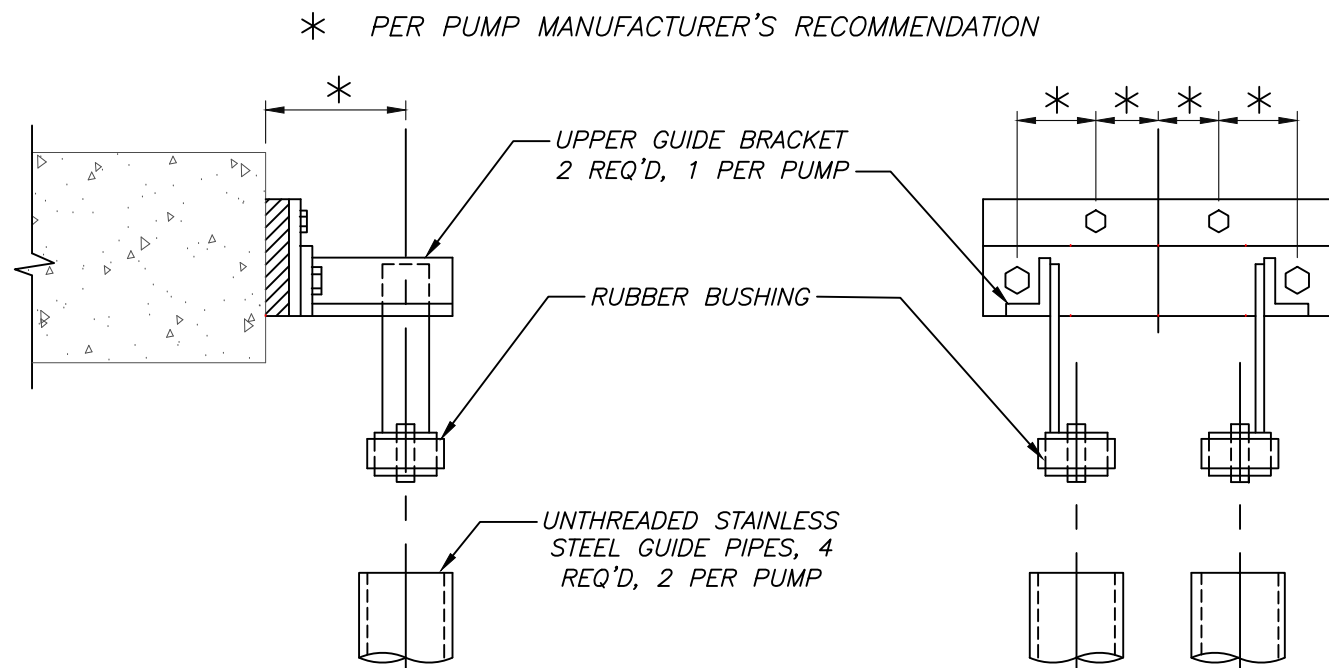
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	<b>CITY of TAMPA</b> <b>WASTEWATER DEPARTMENT</b>	<b>MISCELLANEOUS WASTEWATER PUMPING STATION</b> <b>RISER REPLACEMENT</b> DETAILS	SHEET
	3			DRN: JHJ			55
	2			CKD:			
	1			DATE: 2/9/23			



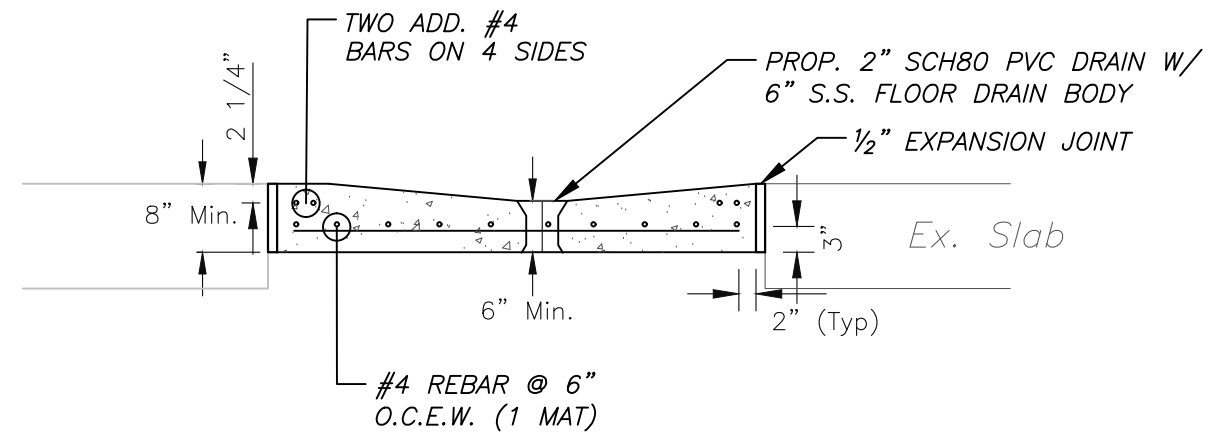
SECTION VIEW - STAINLESS STEEL STANCHION SADDLE SUPPORT  
N.T.S.



AIR RELEASE AND PRESSURE GAUGE  
N.T.S.



GUIDE BRACKET DETAIL  
N.T.S.



CONCRETE SLAB DETAILS  
N.T.S.

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

No.	DATE	REVISIONS
3		
2		
1		

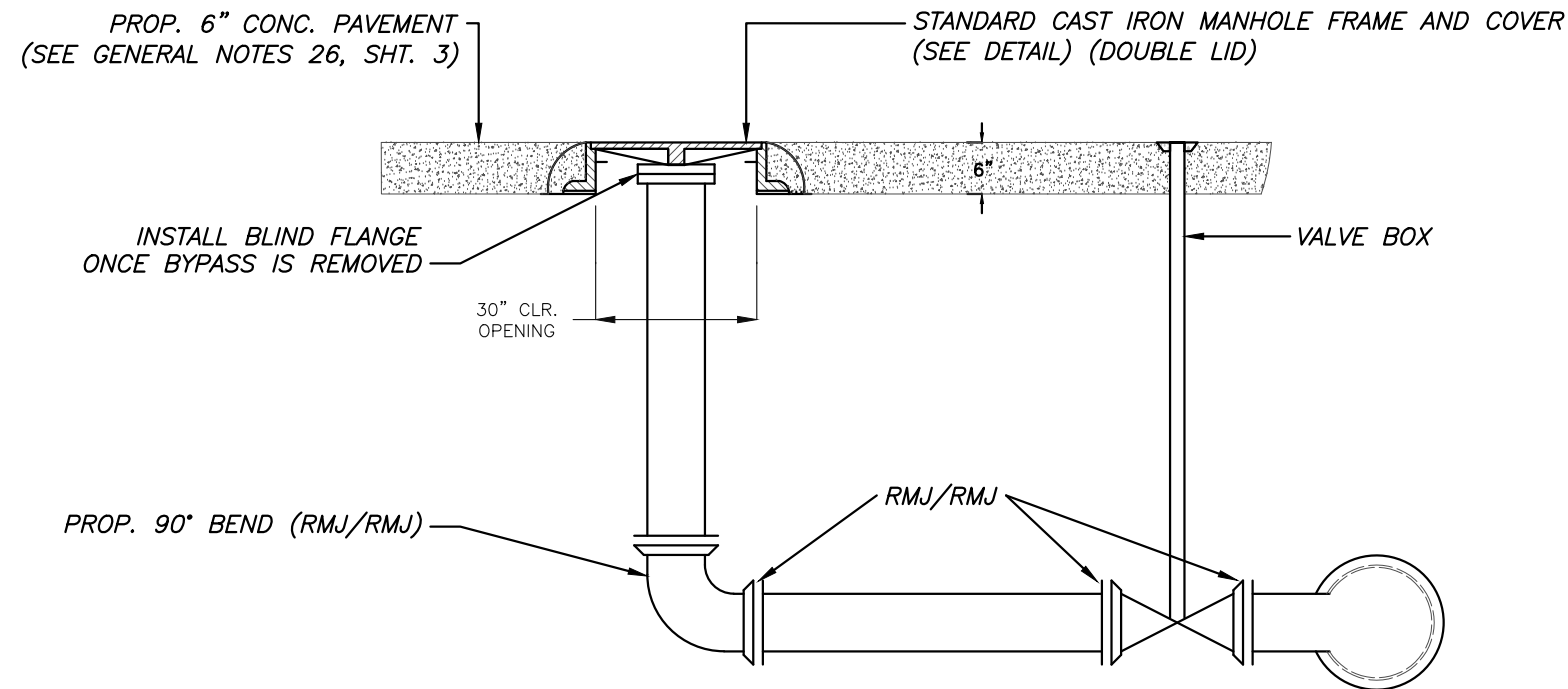
DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
DETAILS

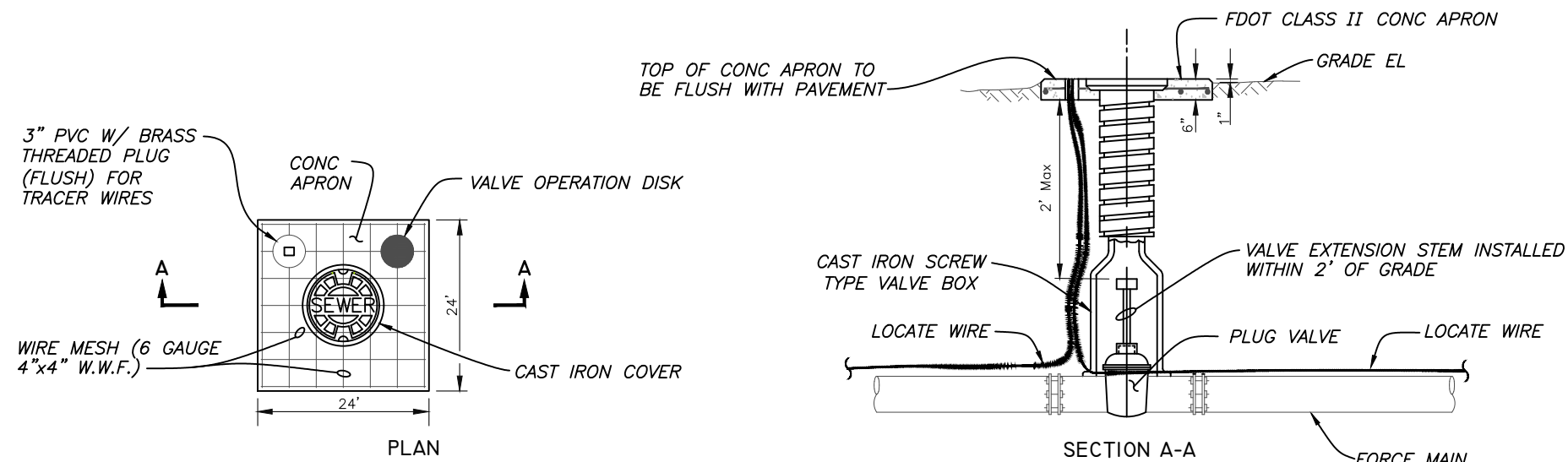
SHEET

56

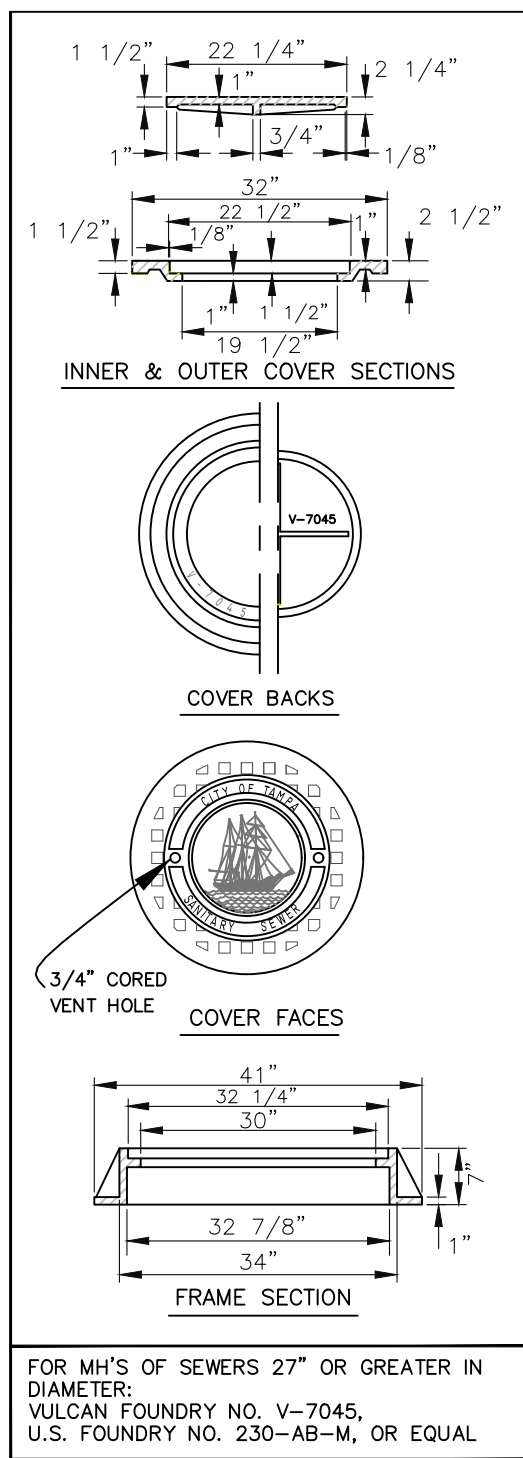


**BYPASS CONNECTION IN CONCRETE DETAIL**

**SECTION VIEW**  
N.T.S.



**VALVE BOX DETAIL**  
NOT TO SCALE



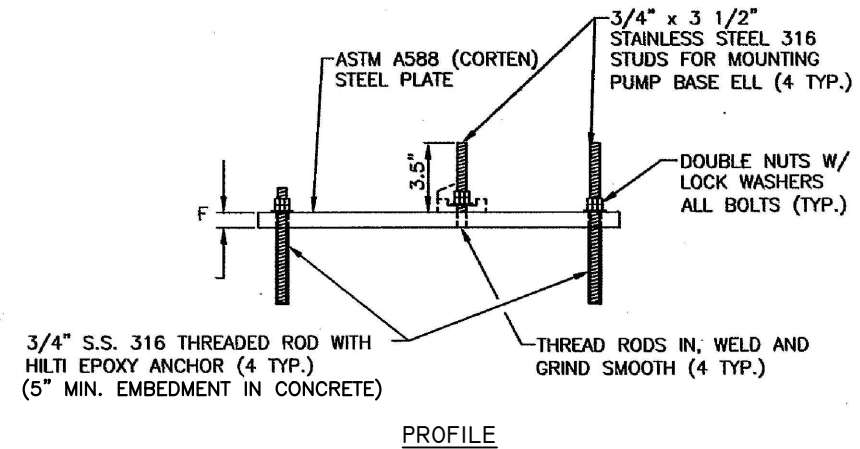
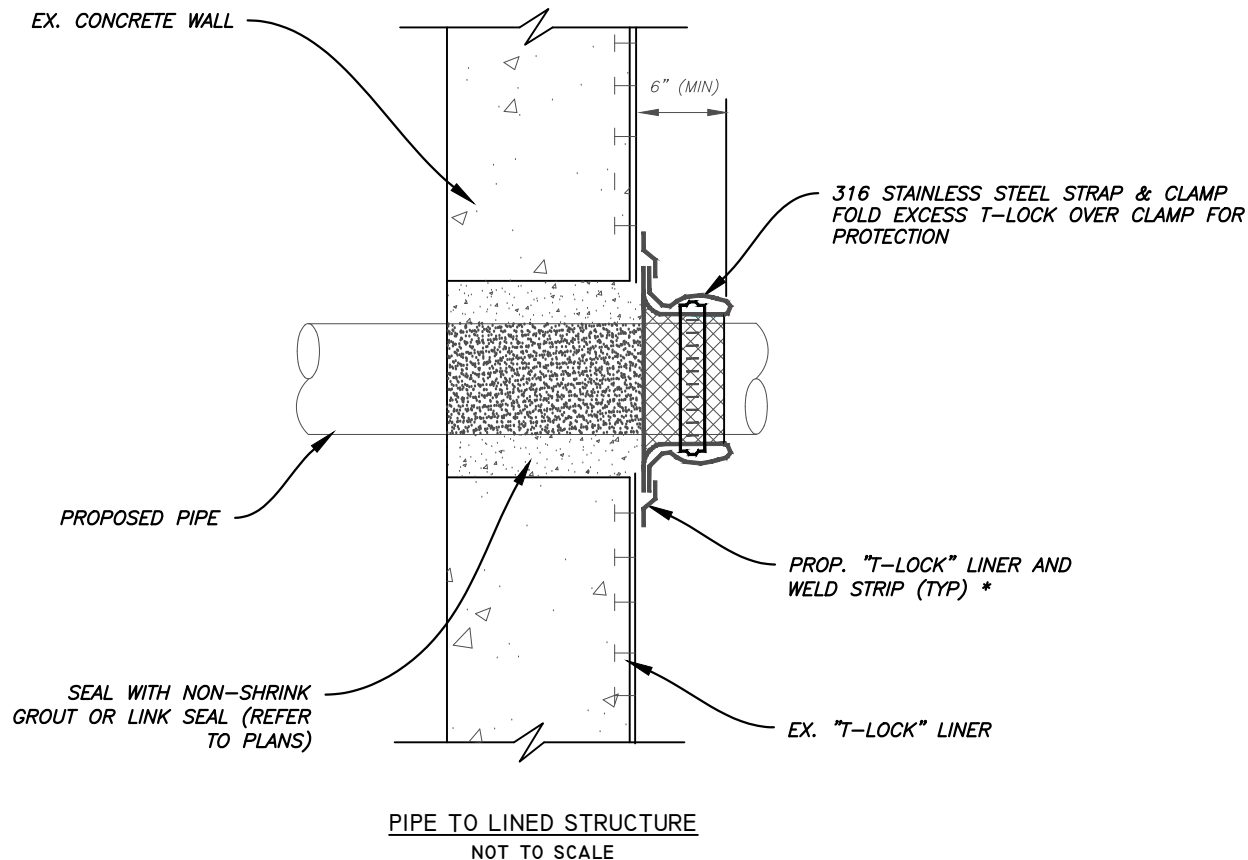
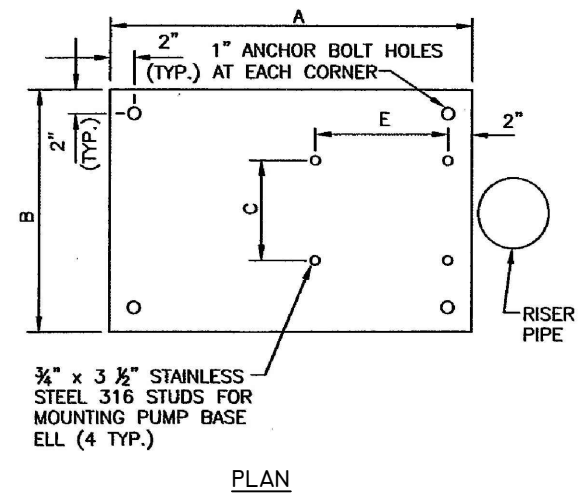
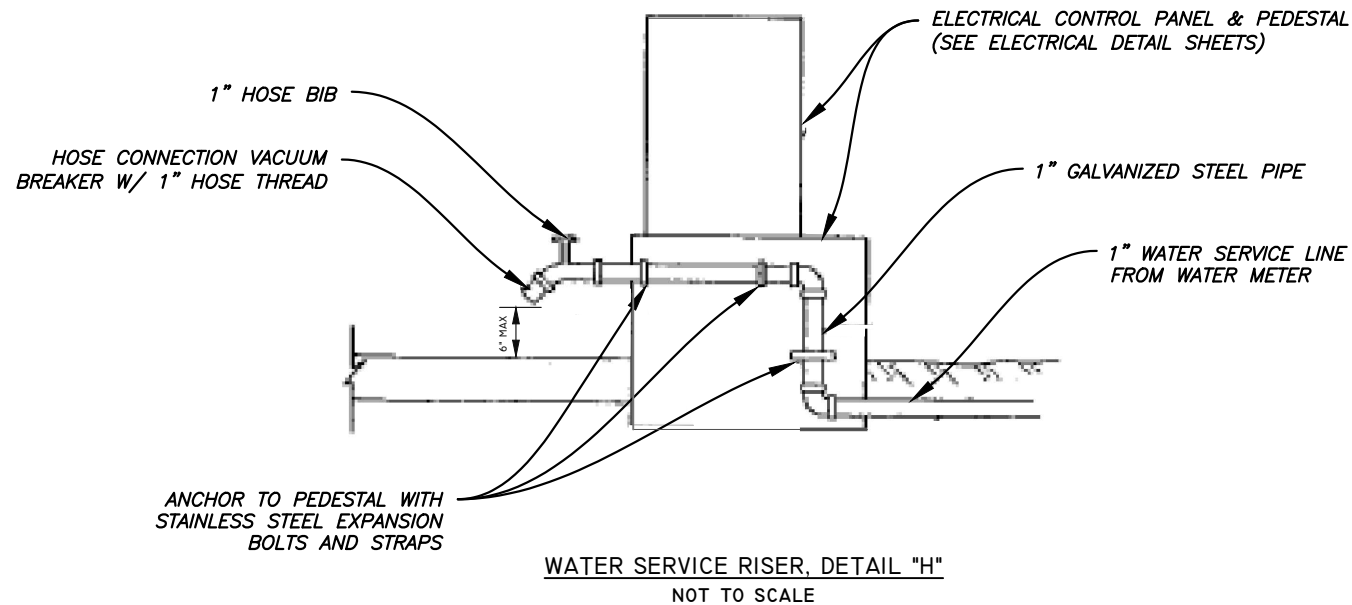
FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER:  
VULCAN FOUNDRY NO. V-7045,  
U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

**HEAVY DUTY CAST IRON MANHOLE  
FRAME & COVER DETAILS**  
N.T.S.

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JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	<b>CITY of TAMPA</b> WASTEWATER DEPARTMENT	MISCELLANEOUS WASTEWATER PUMPING STATION RISER REPLACEMENT DETAILS	SHEET
	3			DRN: JHJ			57
	2			CKD:			
	1			DATE: 2/9/23			

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\FY21 Misc PS Repairs.dwg Layout: SHT 58; Last Saved: Feb 16, 2023 - 10:44am



PUMP BASE ELL MOUNTING PLATE DIMENSIONS							
DIMENSIONS	A	B	C	D	E	F	
FOR 6" PUMPS	24"	20"	*		*	3/4"	
FOR 4" PUMPS	24"	20"	*		*	3/4"	

NOTES:

1. INSTALL DOUBLE NUTS ON ALL EIGHT (8) THREAD RODS.
2. THE PLATE EDGES AND ALL HOLES SHALL BE GROUND SMOOTH TO REMOVE ALL BURRS.
- \* ALIGNMENT OF ANCHOR BOLTS SHALL BE RECOMMENDED BY PUMP MANUFACTURER

PUMP BASE MOUNTING PLATE DETAIL  
NOT TO SCALE

NOTE:

IN LIEU OF SPECIFIED T-LOCK LINING AND WELD, CONTRACTOR MAY APPLY 250 MILS OF CONCRETE POLYMER PASTE (CPP) WITH A MIN 3" OVERLAP OF EXISTING PVC LINER. EXISTING PVC LINER SHALL BE PREPARED (ROUGHENED AND GROOVED) AS RECOMMENDED BY MANUFACTURED.

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

No.	DATE	REVISIONS
3		
2		
1		

DES: VT  
DRN: JHJ  
CKD:  
DATE: 2/9/23

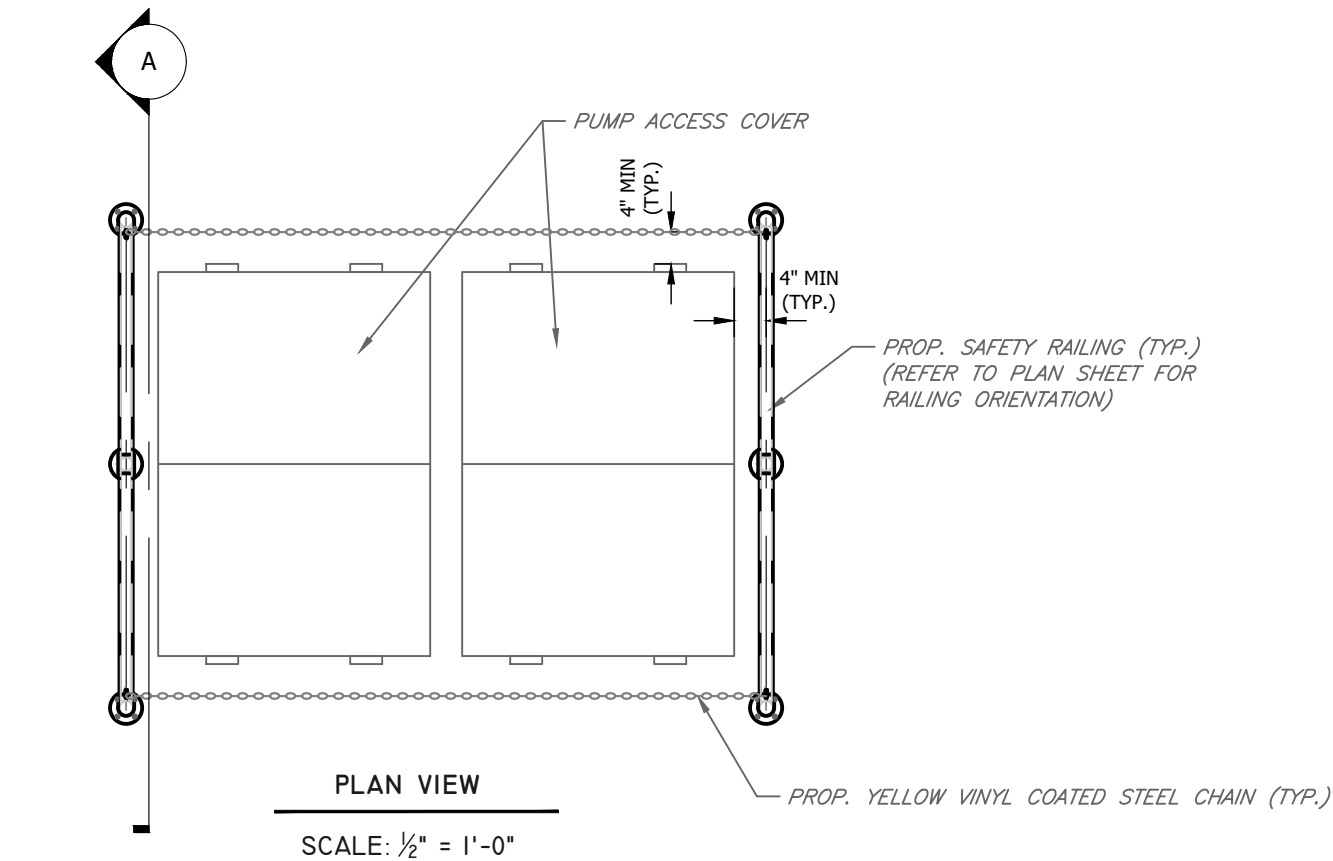
CITY of TAMPA  
WASTEWATER DEPARTMENT

MISCELLANEOUS WASTEWATER PUMPING STATION  
RISER REPLACEMENT  
DETAILS

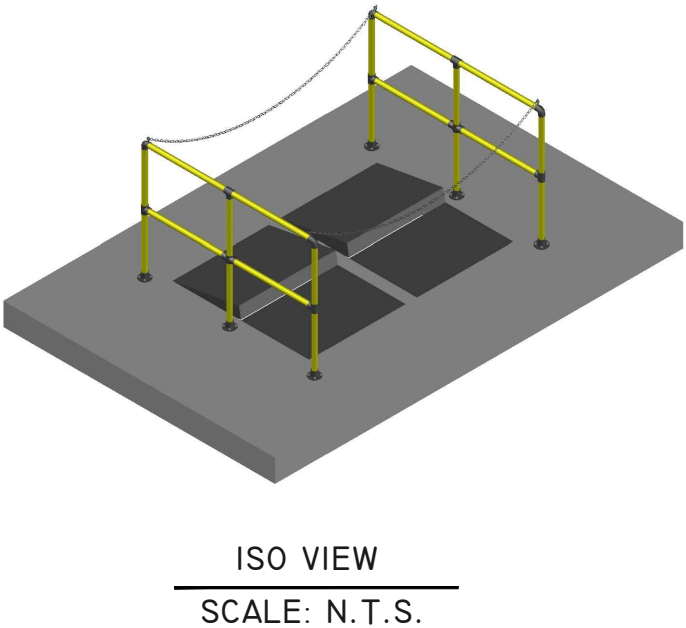
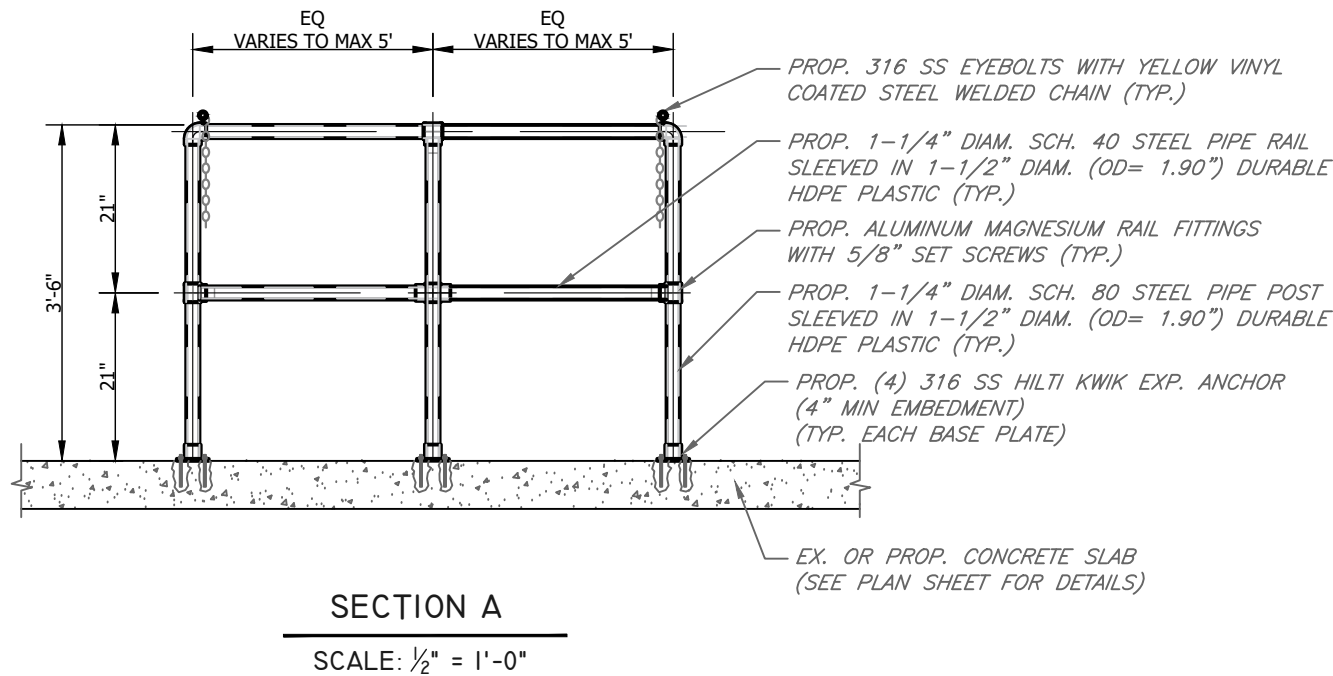
SHEET

58

User: ss13 Drawing Name: C:\Users\ss13\appdata\local\temp\AcPublish\_992\Safety Guard Rail Detail for Pump Stations.dwg  
Layout: Feb 15, 2023 - 10:22amCTB - MONOCHROME.CTB TOSHIBA\_UNI\_COLOR (NORTH WING)



- NOTES:
- 1. SAFETY RAILS AND PARTS SHALL BE STANDARD YELLOW, ULTRAVIOLET RESISTANT AND MANUFACTURED BY IDEAL SHIELD OR APPROVED EQUAL.
  - 2. SAFETY CHAINS SHALL BE 1/4" DIAMETER WELDED YELLOW, ULTRAVIOLET RESISTANT, VINYL COATED STEEL WITH WORKING LOAD LIMIT OF 1,300 LBS WITH TWO 316 SS SPRING LOADED END SNAPHOOKS.



JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: VT	CITY of TAMPA WASTEWATER DEPARTMENT	FY21 MISC PS REPAIRS DETAILS	SHEET
	3			DRN: KLT			59
	2			CKD:			
	1			DATE: 2/9/23			