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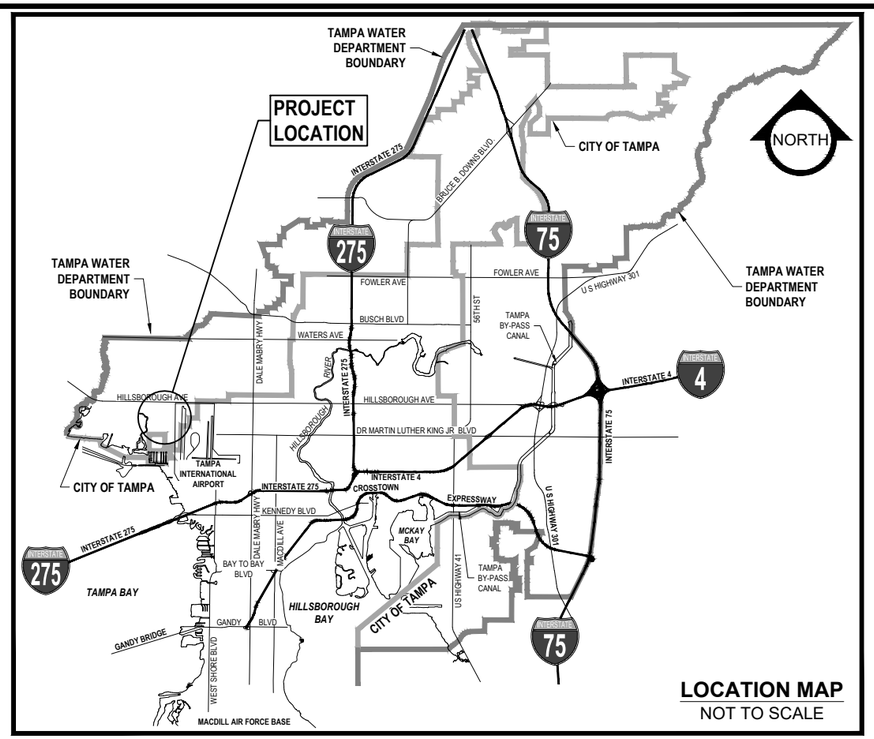
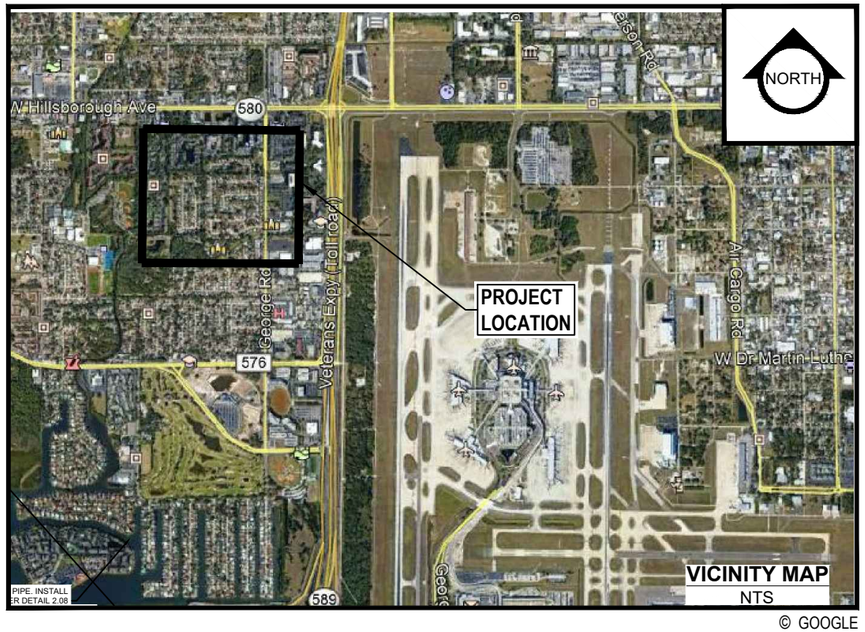
Please Email ALL Questions:

MailTo:ContractAdministration@TampaGov.net

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456





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City of Tampa Florida

Water Department

PLANS FOR:

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

BUDGET FUND: GOLFWOOD ESTATES PIPELINE REPLACEMENT

TAMPA WATER DEPARTMENT
WORK ORDER NO. :

WTR-18-0003

INDEX

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1	COVER SHEET
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4&5	MILL & OVERLAY PLAN - CHLORINE INJECTION POINTS - SAMPLE TAP LOCATIONS - KEY MAP
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RORY A. JONES LICENSE No. 79453 STATE OF FLORIDA PROFESSIONAL ENGINEER

PERMITS			
☐ CITY	■ COUNTY	☐ STATE	■ DEP
CONTRACTOR: DALLAS 1			

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
P.E. #79453

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DESIGNED	IJC
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DATE	07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

COVER SHEET

City of Tampa Florida Water Department

100% PLANS			
WORK ORDER NO.	WTR-18-0003		
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CITY OF TAMPA NOTES

GENERAL

1. ALL WATER WORK FOR THE CITY OF TAMPA (CITY) SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT'S SPECIFICATIONS, CONSTRUCTION DETAILS, AND THE TAMPA WATER DEPARTMENT TECHNICAL MANUAL (LATEST EDITION). IN THE EVENT OF A DISCREPANCY, THE MOST STRINGENT CRITERIA SHALL APPLY.
2. THE CONTRACTOR SHALL NOT TAP ANY WATER MAIN WITHOUT A CITY INSPECTOR PRESENT. THE CONTRACTOR SHALL PROVIDE NOTICE TO THE CITY INSPECTOR AT A MINIMUM OF 5 WORKING DAYS PRIOR TO NECESSARY WORK AND COORDINATE PERFORMANCE OF TAP WITH THE CITY INSPECTOR.
3. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER/INSPECTOR.
4. ELEVATION INFORMATION SHOWN ON THESE PLANS IS REFERENCED TO N.A.V.D. 1988 UNLESS OTHERWISE STATED.
5. CONSTRUCTION OF WATER FACILITIES SHALL BE COORDINATED WITH THE WATER DEPARTMENT PRIOR TO THE START OF THE CONSTRUCTION. CONTRACTOR TO CONTACT CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT @ 813-635-3432 TO COORDINATE/SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY FOR REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES A MINIMUM OF 10 WORKING DAYS PRIOR TO THE PLANNED CONSTRUCTION.
6. EXISTING UTILITIES, BUILDINGS, GROUND ELEVATIONS, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. ALL CONDITIONS, DIMENSIONS, AND QUANTITIES AFFECTING REQUIRED WORK SHALL BE VERIFIED BY CONTRACTOR BEFORE BEGINNING WORK OR ORDERING MATERIALS.
7. VALVES ON EXISTING PUBLIC WATER MAINS TO BE OPERATED BY CITY PERSONNEL ONLY.
8. ALL PROPOSED WATER LINES SHALL BE MANUFACTURED, INSTALLED, AND TESTED PER THE STANDARDS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA) AND BY F.A.C.-62-555.
9. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE HIGH QUALITY PDF DOCUMENTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR RESTRAINING ALL EXISTING PIPE NECESSARY TO MAINTAIN A SAFE CONSTRUCTION AREA AND PERFORM THE WORK SHOWN IN THE PLANS. EXISTING PIPE REQUIRING RESTRAINTS SHALL UTILIZE EXTERIOR BELL RESTRAINTS.
11. THE CONTRACTOR SHALL DEWATER ANY EXCAVATION OR TRENCH TO MAINTAIN A SAFE WORK ENVIRONMENT AND TO ABIDE BY AWWA INSTALLATION STANDARDS. DEWATERING IS AT THE EXPENSE OF THE CONTRACTOR. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE) SHOWN ON PLAN AND PROFILE ARE PER COT GIS DATA. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

PERMITS

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY RIGHT-OF-WAY PERMITS AND ROADWAY CLOSURES ASSOCIATED WITH THE WORK SHOWN IN THE PLANS.
2. IN ORDER TO OBTAIN ROADWAY CLOSURES OR RIGHT-OF-WAY PERMITS, AT MINIMUM, THE CONTRACTOR MUST SUBMIT DETAILED MAINTENANCE OF TRAFFIC (MOT) PLANS ALONG WITH APPLICATIONS TO THE APPROPRIATE AGENCY. THE MOT(S) SHALL CONFORM TO APPLICABLE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DRAWINGS (MOST CURRENT EDITION). THE GOVERNING AGENCIES MAY REQUIRE ADDITIONAL INFORMATION AND DICTATE SPECIFIC WORK TIME DURING NON-PEAK TRAFFIC HOURS.

PIPE CLEARANCES

1. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES AND SHALL MAINTAIN A MINIMUM OF THREE (3) FEET HORIZONTAL SEPARATION FROM OTHER UTILITIES, EXCEPT STORM, SANITARY, AND GAS, WHICH SHALL MAINTAIN TEN (10) FEET HORIZONTAL SEPARATION, UNLESS OTHERWISE NOTED.
2. WATER MAIN SHALL CROSS ABOVE OTHER PIPES. WHEN WATER MUST BE BELOW, PROVIDE 12" MINIMUM VERTICAL SEPARATION UNLESS OTHERWISE NOTED.
3. CENTER ONE FULL JOINT OF PIPE UNDER/OVER ALL SANITARY, STORM, OR RECLAIMED PIPE CROSSINGS.

MATERIAL

1. ALL VALVES SHALL BE RIGHT HAND OPEN.
2. POLYWRAP ALL DUCTILE IRON PIPE (D.I.P) FITTINGS AND APPURTENANCES.
3. ALL HARDWARE SHALL BE 304 STAINLESS STEEL, UNLESS OTHERWISE NOTED.
4. ALL BELOW GROUND BENDS SHALL BE MECHANICAL JOINT (MJ).
5. RESTRAIN ALL JOINTS AND FITTINGS PER CONSTRUCTION PLANS AND DETAILS.
6. CONCRETE THRUST BLOCKS SHALL NOT BE USED TO PROVIDE THRUST RESTRAINT. RESTRAINT OF PUSH-ON DIP (OTHER THAN FOR FITTINGS & VALVES) SHALL BE WITH APPROVED PUSH-ON "GRIPPER-TYPE" RESTRAINTS. FITTINGS AND VALVES SHALL BE CONNECTED TO PIPE WITH MEGALUGS, OR APPROVED EQUAL.
7. ALL POTABLE WATER SERVICE LATERAL, AIR RELEASE VALVES, AND TEMPORARY SAMPLE POINTS SHALL BE CONSTRUCTED OF BLUE SDR-9 HIGH DENSITY POLYETHYLENE (HDPE) TUBING. ALL HDPE TUBING SHALL BE INSTALLED WITHIN A CASING AS DEFINED IN THE SPECIFICATIONS AND DETAILS.

TESTING

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL BE PROPERLY PRESSURE TESTED, WITNESSED AND ACCEPTED BY THE CITY. PRESSURE TESTS TO BE PERFORMED IN ACCORDANCE WITH WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY THE ASSIGNED CITY INSPECTOR A MINIMUM OF THREE (3) WORKING DAYS IN ADVANCE OF PERFORMING TESTS. CONTRACTOR SHALL PRESSURE TEST WATER MAINS AT A MINIMUM OF 150 PSI FOR A PERIOD OF 2 HOURS IN ACCORDANCE WITH AWWA C600-87 STANDARDS. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS.
2. ALL SAMPLE, PRESSURE TEST, AND CHLORINATION POINT PIPING SHALL BE COMPLETELY REMOVED PRIOR TO FINAL ACCEPTANCE. THE CORPORATION STOP SHALL BE CLOSED AND PLUGGED AT THE MAIN.
3. CONTRACTOR SHALL PERFORM CHLORINATION AND HIRE INDEPENDENT FIRMS TO CONDUCT BACTERIOLOGICAL TESTING AS DEFINED IN F.A.C. 62-555.340. CONTRACTOR TO SUPPLY THE CITY WITH AS-BUILTS AND SAMPLE RESULTS NECESSARY TO OBTAIN DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) CLEARANCES BEFORE PLACING METERS OR PIPELINES IN SERVICE.

RESTORATION

1. ROADWAY RESTORATION SHALL BE IN CONFORMANCE WITH CORRESPONDING JURISDICTION'S LATEST STANDARDS.
2. DISTURBANCE TO ANY PROPERTY, PUBLIC OR PRIVATE, SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

PROJECT SPECIFIC NOTES

1. DO NOT OPEN CUT THE ROADWAY FOR SERVICE LINE INSTALLATION.
2. BACKFILL AND SUBGRADE SHALL BE INSTALLED IN 12-INCH LIFTS AND COMPACTED IN ACCORDANCE WITH APPENDIX L (TESTING SCHEDULE). FLOWABLE FILL. IN ACCORDANCE WITH SECTION 121 OF THE FDOT STANDARD SPECIFICATIONS, MAY BE SUBSTITUTED.THE FRICTION COURSE SHALL BE 1 INCH OF SP-9.5. THE SURFACE COURSE SHALL BE 1 $\frac{3}{4}$ INCHES OF SP-12.5 OR EXISTING THICKNESS, WHICHEVER IS GREATER. THE BASE COURSES SHALL BE TWO TIMES THE THICKNESS OF THE EXISTING BASE OR 12 INCHES, WHICHEVER IS GREATER. ROADWAYS CONSTRUCTED OF FULL DEPTH ASPHALT SHALL BE REPLACED IN KIND.
3. THE EXISTING ASPHALT SHALL BE NEATLY SAWCUT A MINIMUM OF TWO FEET BEYOND THE TRENCH OR DAMAGED PAVEMENT LIMITS AND REMOVED. THE CROSSING SHALL THEN BE OVERLAYED, FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT 100 FEET FOR ROADWAYS WITH 35 MPH SPEED LIMIT AND LESS OR 200 FEET FOR ROADWAYS WITH A SPEED LIMIT GREATER THAN 35 MPH CENTERED ON THE OPEN CUT TRENCH.
4. THE ENTIRE WIDTH OF THE ROADWAY SHALL BE MILLED AND RESURFACED. THE OVERLAY SHALL HAVE A MINIMUM THICKNESS OF ONE-INCH AND THE ENDS SHALL BE MILLED SO THE OVERLAY WILL MATCH EXISTING GRADE. PARALLEL TO TRAFFIC FLOW AND EXTENDING TO UNDISTURBED PAVEMENT SHALL SHOW NO MORE THAN $\frac{1}{4}$" IRREGULARITIES.
5. EXISTING UNDERGROUND UTILITIES (ELECTRICAL, TELEPHONE) SHOWN ON PLAN AND PROFILE ARE PER COT GIS DATA. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO CONTRUCTION.
6. RJIB = RESTRAINED JOINT INTEGRAL BELL.
7. DO NOT DISTURB SPEED BUMPS, SPEED HUMPS OR SPEED TABLES.,

RORY A. JONES, P.E.
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DATE 07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

GENERAL NOTES

City of Tampa Florida
Water Department

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LEGEND

EXISTING		PROPOSED
	ASPHALT PAVEMENT	
	CONCRETE PAVEMENT	
	PAVERS	
10	BASE LINE (SURVEY LINE)	10
	CENTER LINE	
	R/W LINE	
	PROPERTY LINE	
	ADJACENT PROPERTY LINE	
B.M. -25	BENCHMARK & NUMBER	
T.B.M. -15	TEMPORARY BENCHMARK & NUMBER	
	EASEMENT LINE	
G G	GAS MAIN	G G
	STORM SEWER	
S 8" VCP S	SANITARY SEWER	S S
FM FM	SANITARY FORCE MAIN	FM FM
E E	ELECTRIC CABLE	E E
T T	TELEPHONE CABLE	T T
C C	TELEVISION CABLE	C C
W W	WATER MAIN	W W
RWL RWL	RECLAIMED WATER MAIN	RWL RWL
F F	FIRE HYDRANT ASSEMBLY (INCL. VALVE & TEE)	F F
W W	WATER VALVE	W W
W W	DETECTOR CHECK VALVE	W W
W W	DOUBLE DETECTOR CHECK VALVE - IN VAULT	W W
W W	DOUBLE DETECTOR CHECK VALVE - ABOVE GROUND	W W
W W	VAULT	W W
W W	CASING PIPE (JACK & BORE)	W W
	-	
	RECLAIMED WATER METER	SINGLE DUAL
	METER TO BE TRANSFERRED	M
BF	BACK FLOW PREVENTER	BF
W W	WET TAP	
	SLEEVE, BEND, TEE, CROSS, PLUG, REDUCER, BLOW-OFF	
	SAMPLE TAP LOCATION	S
	CHLORINE INJECTION POINT	C
	ELECTRIC SERVICE	
	-	
SS ST	MANHOLE - SANITARY, STORM	SS ST
	VALVE	
	SANITARY LATERAL	
	STORM GRATE, CURB INLET	
	STORM PIPE CULVERT WITH HEADWALL, MITERED END SECTION	
	GUY POLE, GUY POLE AND WIRE	
	COMBINATION POLE, LIGHT POLE	
	MAILBOX	
	SIGN	
10' 10' 10' 10'	PINE, TREE, PALM, OAK	
	ROOT PRUNE	
	SHRUB, HEDGE	
	WOODS/HEAVY BRUSH	
4.3	SPOT ELEVATIONS	4.30

LEGEND

LEGEND:

BOS	=	BEGINNING OF SURVEY
CMP	=	CORRUGATED METAL PIPE
CPP	=	CORRUGATED PLASTIC PIPE
D	=	DEGREE OF CURVE
DIA	=	DIAMETER
E	=	EASTING
ELEV.	=	ELEVATION
EOS	=	END OF SURVEY
FCM	=	FOUND CONCRETE MONUMENT
FIP	=	FOUND IRON PIPE
FIRC	=	FOUND IRON ROD & CAP
FNL	=	FOUND NAIL
FOC	=	FIBER OPTIC CABLE
H	=	HEIGHT
IRC	=	IRON ROD AND CAP
L	=	LENGTH OF CURVE
N	=	NORTHING
NAVD	=	NORTH AMERICAN VERTICAL DATUM
N/A	=	NOT AVAILABLE
PC	=	POINT OF CURVE
PI	=	POINT OF INTERSECTION
POC	=	POINT ON CURVE
PT	=	POINT OF TANGENCY
R	=	RADIUS
RCP	=	REINFORCED CONCRETE PIPE
R/W	=	RIGHT OF WAY
STA.	=	STATION
SWK	=	SIDEWALK
T	=	TANGENT DISTANCE
W	=	WIDTH
W/	=	WITH
VCP	=	VITRIFIED CLAY PIPE

= COLUMN
= FIRE HYDRANT
= FLOOD LIGHT
= GUY ANCHOR
= JUNCTION BOX
= LIGHT POLE
= MAIL BOX
SAN = MANHOLE SANITARY SEWER
SD = MANHOLE STORM DRAIN
ELEC = METER ELECTRIC
WATER = METER WATER
= MONUMENT IRON ROD
= MONUMENT NAIL
= MONUMENT OTHER
= MONUMENT PIPE

= POST
= SANITARY SEWER CLEAN OUT
= SHARED POLE
= SHRUB
= SINGLE SUPPORT SIGN
= SPRINKLER
= TELEPHONE PEDESTAL
= TRANSFORMER
= TREE
= TREE CYPRESS
= TREE OAK
= TREE PALM
= TREE PINE
= VALVE COVER UNKNOWN
WATER = VALVE COVER WATER
= WIRE PULL BOX

STRUCTURE TABLES

DRAINAGE STRUCTURE TABLE

NUMBER	RIM ELEV.	INVERT	INVERT ELEV.	PIPE SIZE/TYPE
D1		GRATE	11.40'	N/A
		NE	7.97'	15" RCP
D2	7.91'	SW	7.98'	15" RCP
		NW	7.88'	15" RCP
D3		GRATE	11.65'	N/A
		SE	7.62'	15" RCP
		N	7.50'	15" RCP
D4		S	7.20'	15" RCP
D5		E	4.38'	24" CMP
D6	9.16'	W	4.95'	24" CMP
		E	5.00'	24" CMP
D7	9.37'	W	5.31'	24" CMP
		E	5.69'	18" CPP
D8		W	4.93'	18" CPP
D9		E	+/-1.78'	N/A-UNDER WATER
D10	7.33'	W	3.60'	30"W X 19" H RCP FROM SLAB TO UNDERNEATH FROM SLAB TO UNDERNEATH
		E	3.61'	24" RCP
		SW	6.16' TOP OF CAPPED PIPE	8" PVC-CAPPED END
D11		E	2.78'	24" CMP
D12	8.18'	W	4.18'	24" CMP
		E	3.99'	24" CMP
D13	8.00'	W	4.18'	24" CMP
		E	4.13'	24" CMP
D14		W	3.73	24" CMP
D15	8.62'	N	6.29'	18" RCP
D16	8.33'	N	5.43'	18" RCP
		S	5.56'	18" RCP

SANITARY SEWER STRUCTURE TABLE

NUMBER	RIM ELEV.	INVERT	INVERT ELEV	PIPE SIZE/TYPE
S1	8.66'	E	3.46'	8" PVC
S2	9.36'	E	3.83'	8" PVC
		N	3.88'	10" PVC
		W	3.75'	8" PVC
S3	9.53'	W	4.20'	8" PVC
S4	10.31'	S	5.36'	8" PVC
		N	5.40'	10" PVC
S5	10.62'	S	6.91'	8" PVC
S6	11.06'	W	6.68'	8" PVC
S7	9.21'	E	5.21'	8" PVC
		W	4.98'	8" VCP
S8	8.53'	E	3.83'	8" VCP
		W	3.90'	8" PVC
S9	8.45'	E	2.47'	8" PVC
		N	0.31'	8" PVC
		S	0.25'	8" PVC
S10	8.11'	S	1.68'	8" PVC
		E	1.77'	8" PVC
S11	8.94'	W	2.85'	8" PVC
		E	2.88'	8" PVC
S12	9.60'	W	4.01'	8" PVC
		E	3.92'	8" UNKNOWN
S13	9.71'	W	4.09'	8" PVC
		E	4.16'	8" PVC
		N	4.03'	UNKNOWN SIZE-VCP
S14	9.81'	W	4.87'	8" PVC
		S	4.85'	8" PVC
S15	9.58'	N	5.05'	8" PVC
		SE	5.10'	8" PVC
S16	7.73'	N	-0.60'	8" PVC
		S	-0.64'	10" PVC
S17	7.29'	N	-1.42'	10" PVC
		S	-1.36'	10" PVC
		E	0.11'	10" PVC
		W	-1.51'	10" PVC
		NE	5.17' TOP OF CAPPED PIPE	8" PVC-CAPPED END
S18	6.69'	E	-2.53'	10" PVC
S19	6.76'	N	-0.76'	10" PVC

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GENERAL NOTES

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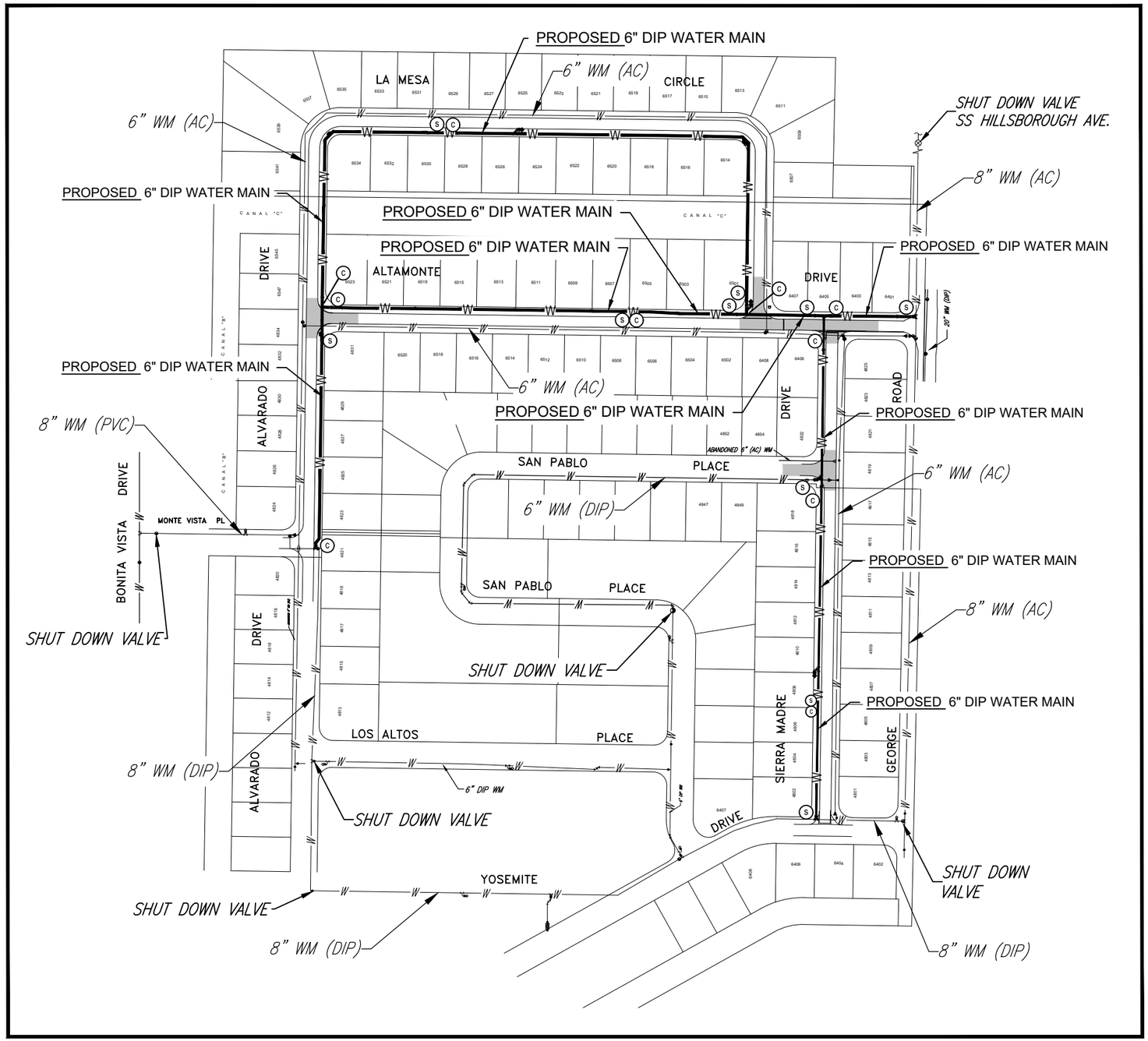

S01-T29S-R17E

LEGEND

(S) SAMPLE TAP LOCATION

(C) CHLORINE INJECTION POINT

MILL AND OVERLAY

MILL & OVERLAY, SAMPLE TAPS, CHL. INJ. PTS. & SHUT DOWN VALVES

1= ~280'

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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

MILL & OVERLAY, SAMPLE TAPS & CHL. INJ. PTS., SHUT DOWN VALVES

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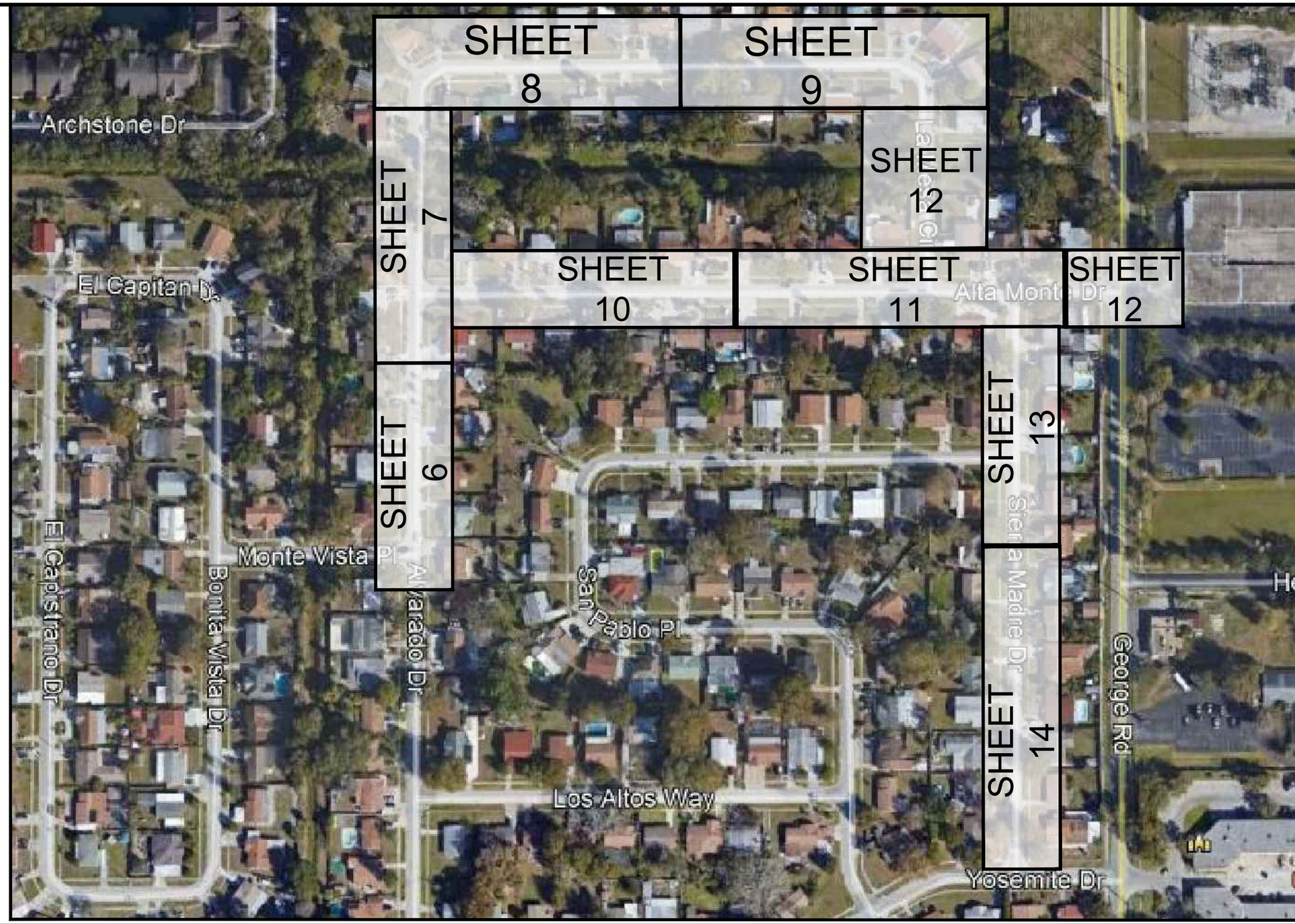

NORTH

S01-T29S-R17E

KEY MAP
NTS

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

KEY SHEET

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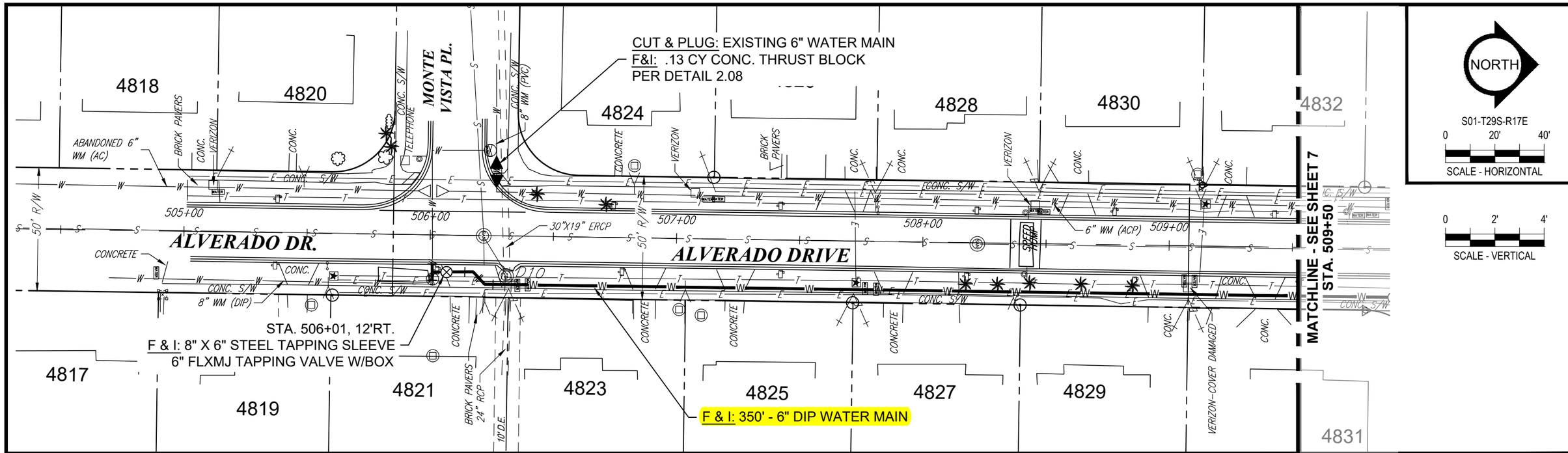

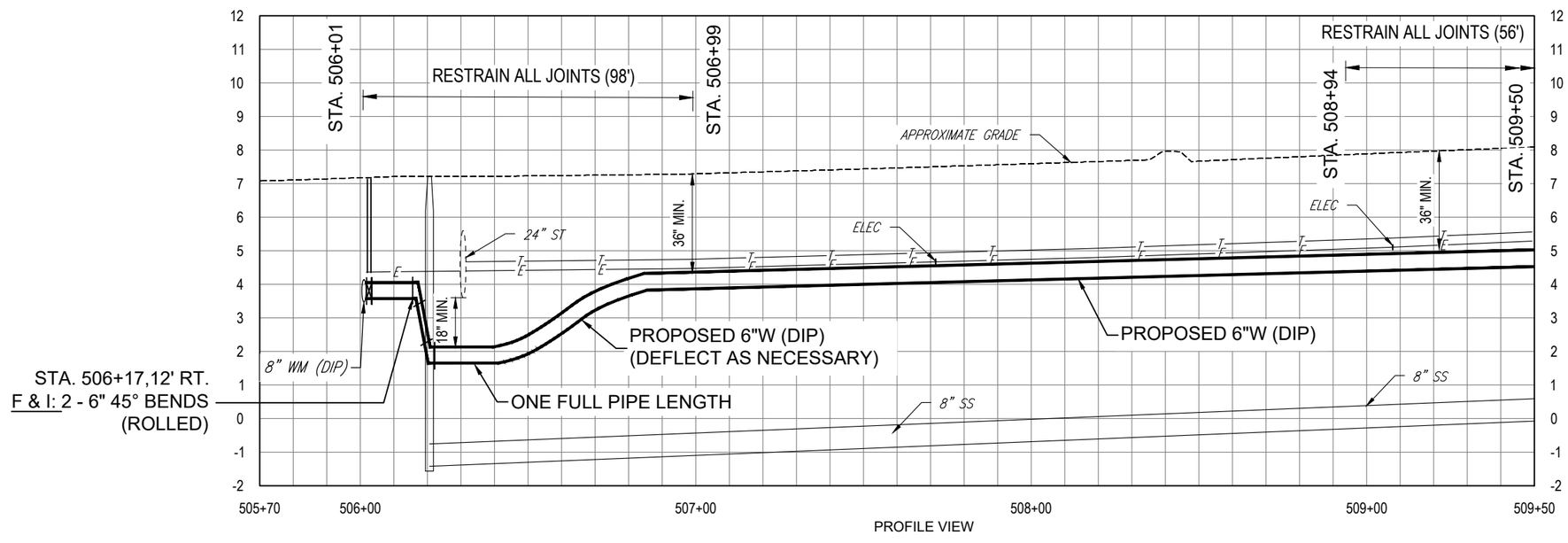

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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

ALVERADO DRIVE

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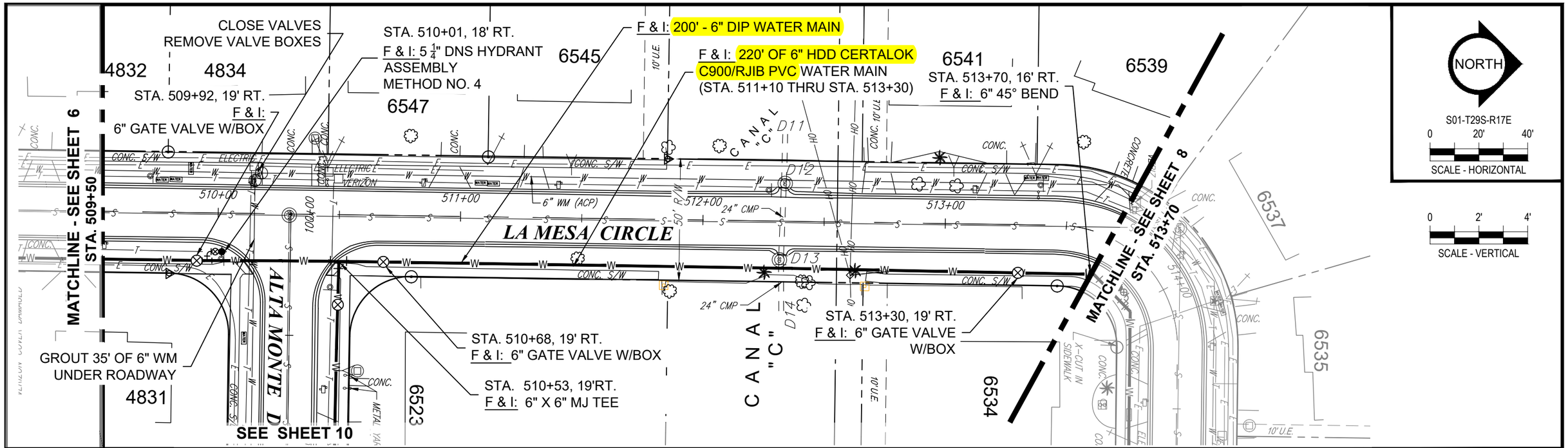

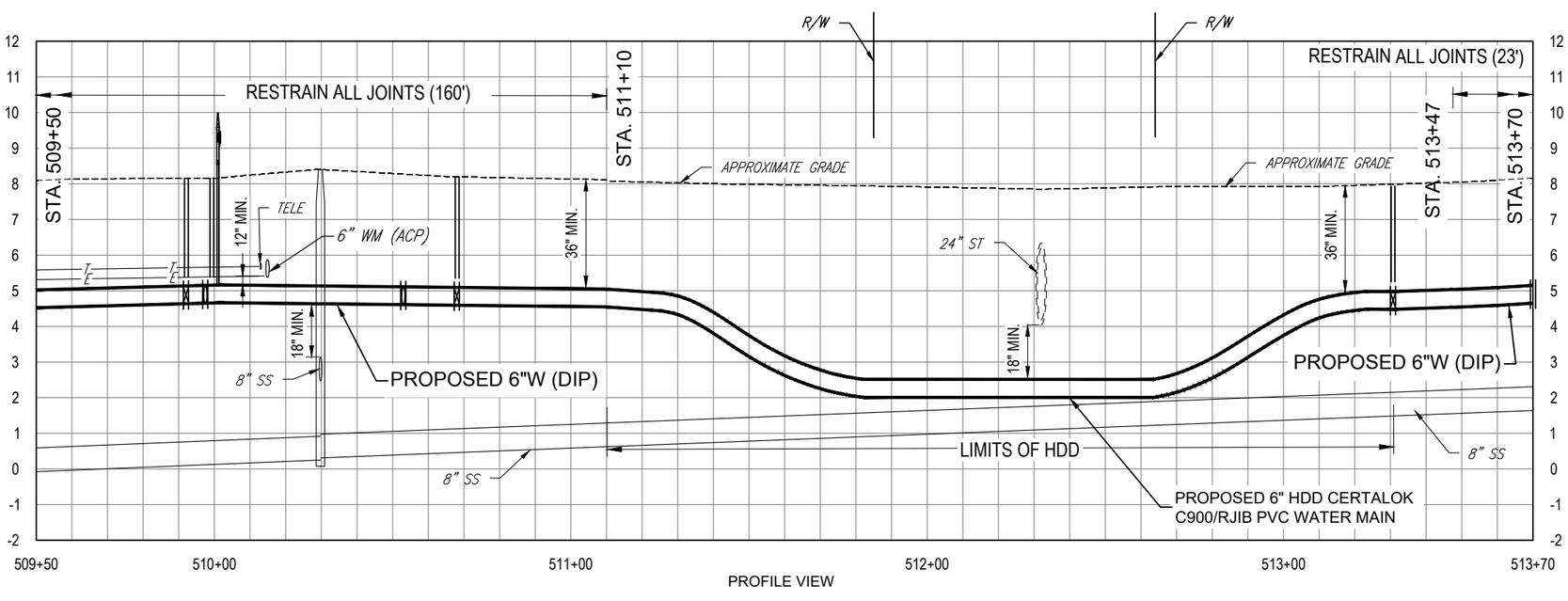

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY	DESIGNED IJC DRAWN MGL CHECKED RAJ DATE 07/01//19	GOLFWOOD ESTATES I PIPELINE REPLACEMENT LA MESA CIRCLE	City of Tampa Florida Water Department
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WORK ORDER NO. WTR-18-0003
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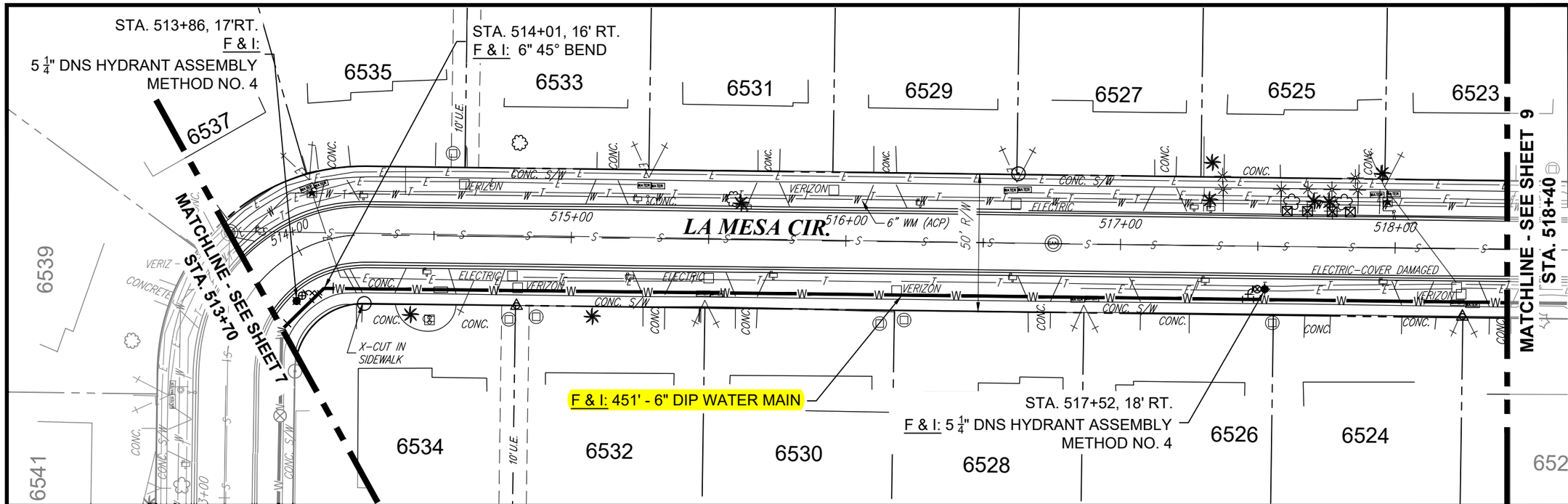

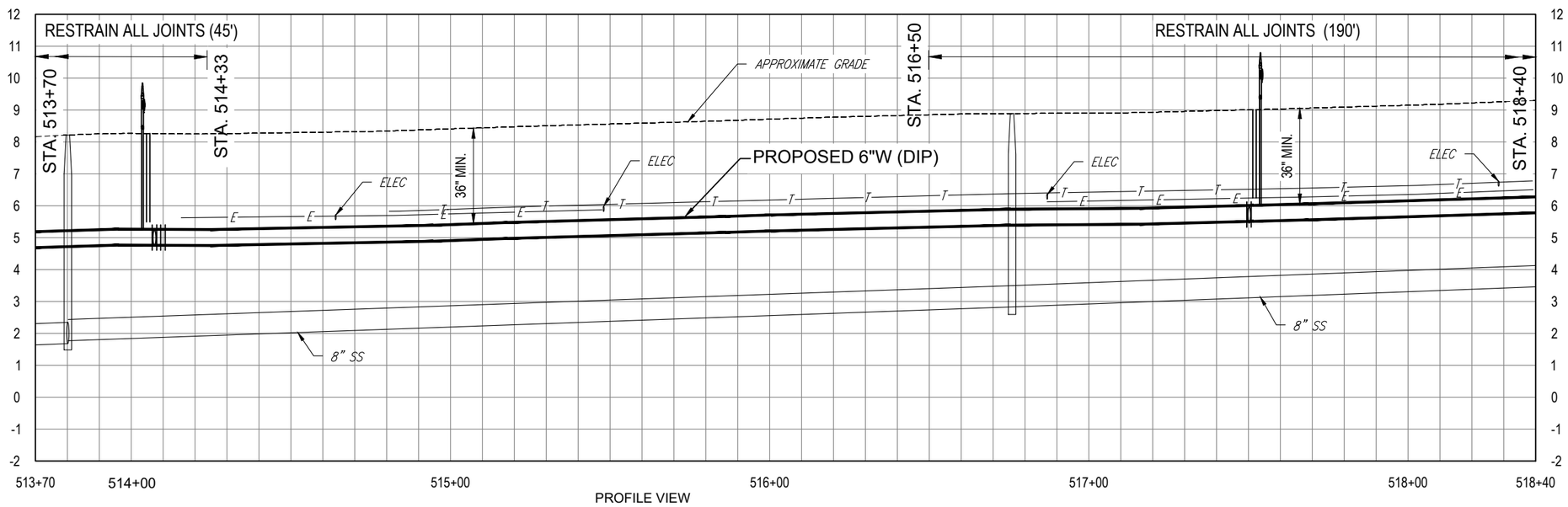

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
P.E. #79453

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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

LA MESA CIRCLE

City of Tampa Florida
Water Department

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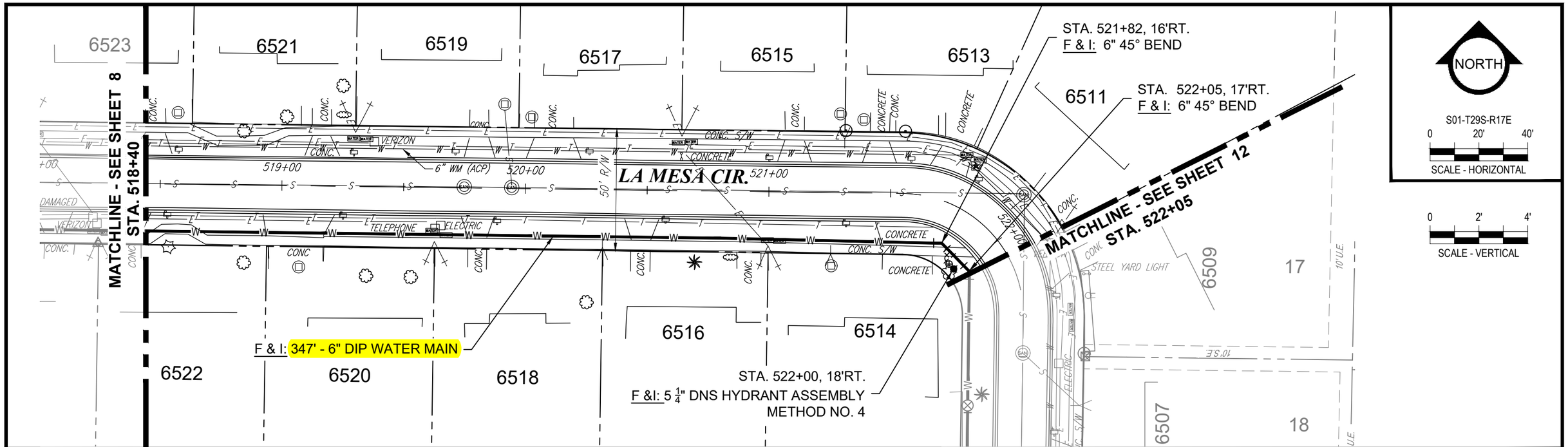

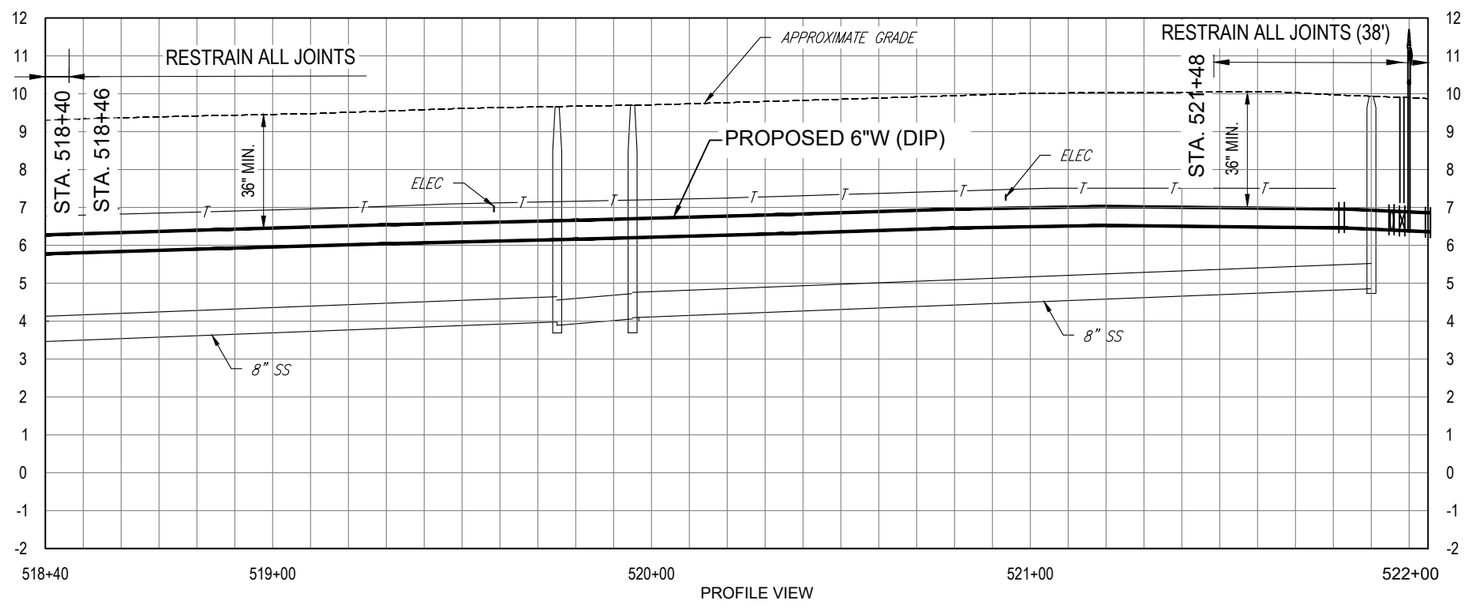

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

LAMESA CIRCLE

City of Tampa Florida
Water Department

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WORK ORDER NO. WTR-18-0003

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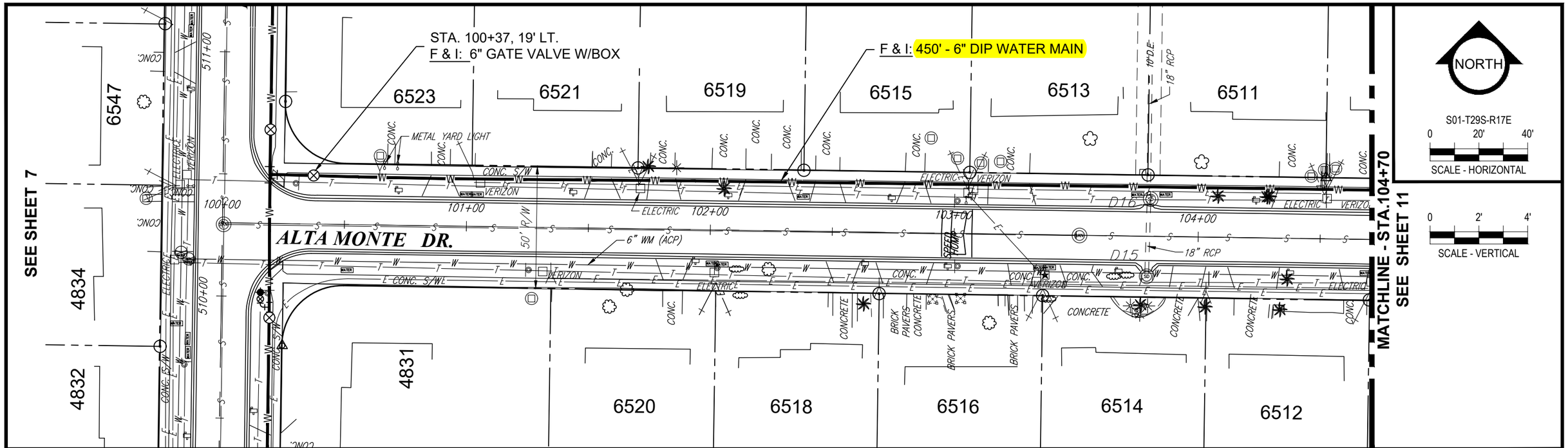

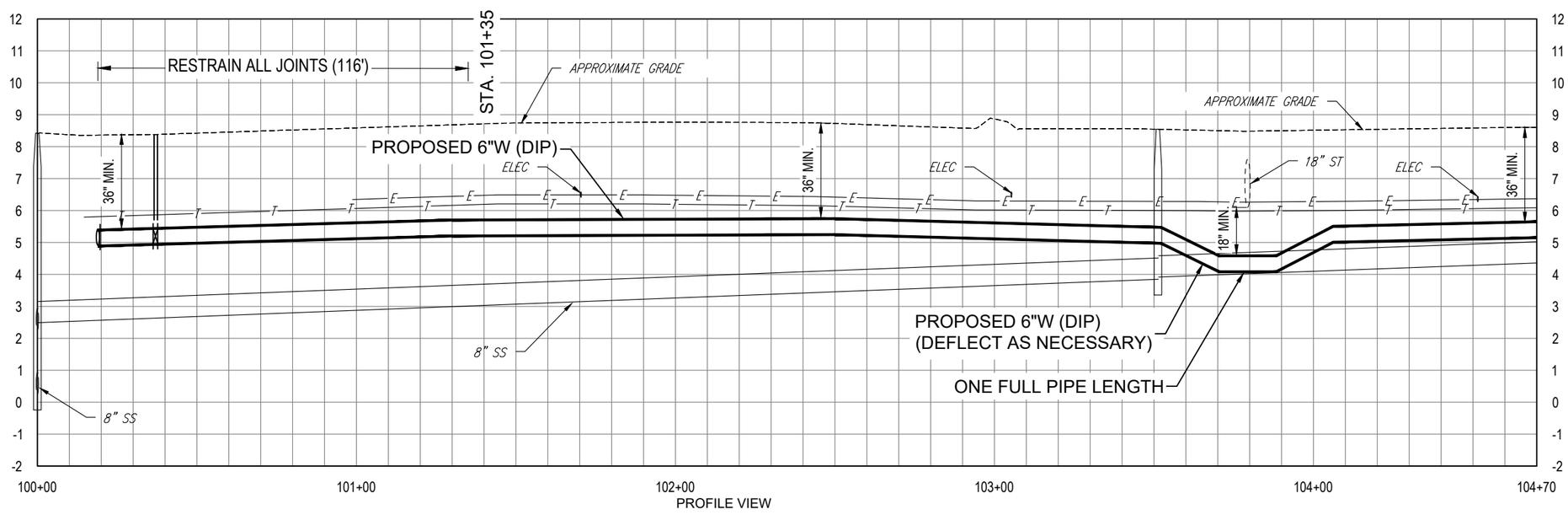

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

ALTA MONTE DRIVE

City of Tampa Florida
Water Department

100% PLANS

WORK ORDER NO.	WTR-18-0003
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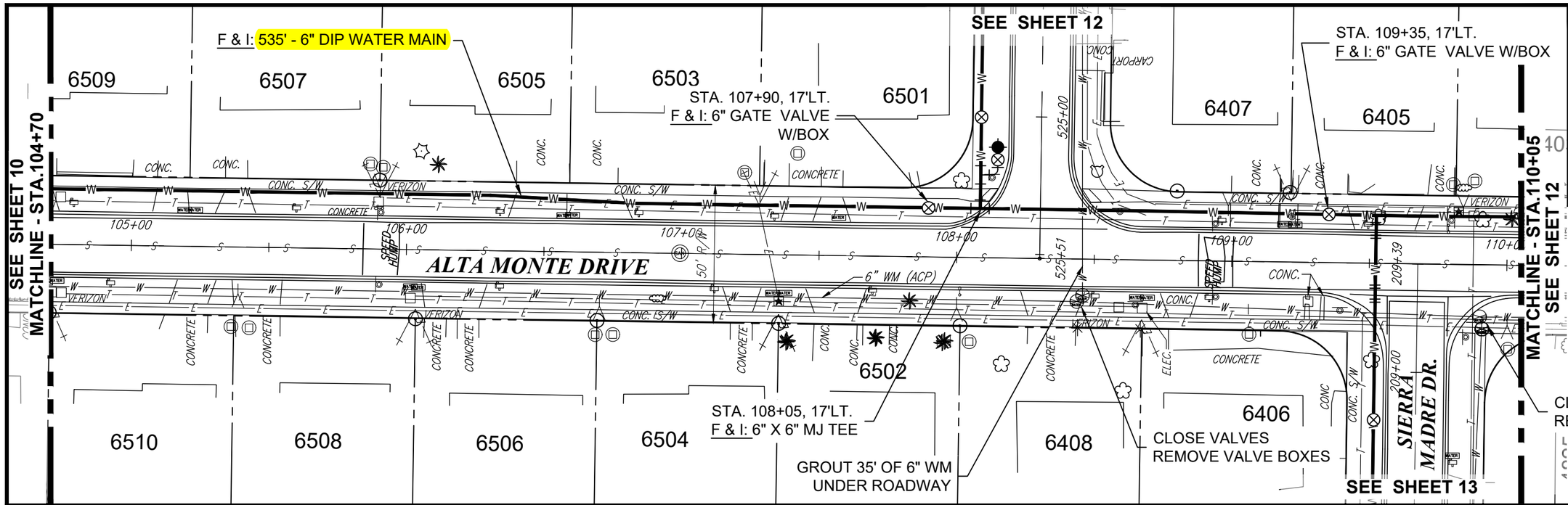

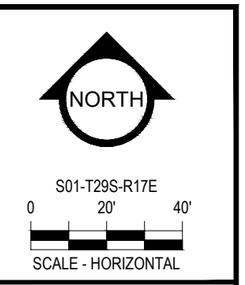

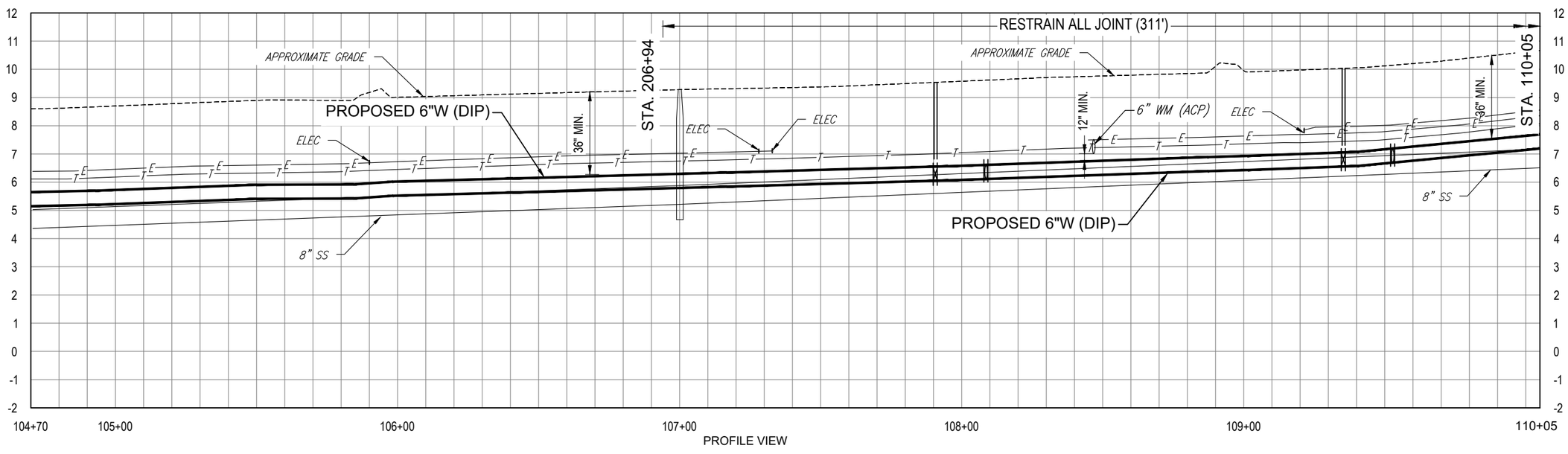

RORY A. JONES, P.E. CITY OF TAMPA WATER DEPT. 306 E. JACKSON ST., 5E TAMPA, FLA. 33602 P.E. #79453	REV NO.	DATE	DESCRIPTION	BY
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

ALTA MONTE DRIVE

City of Tampa Florida
Water Department

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WORK ORDER NO.	WTR-18-0003
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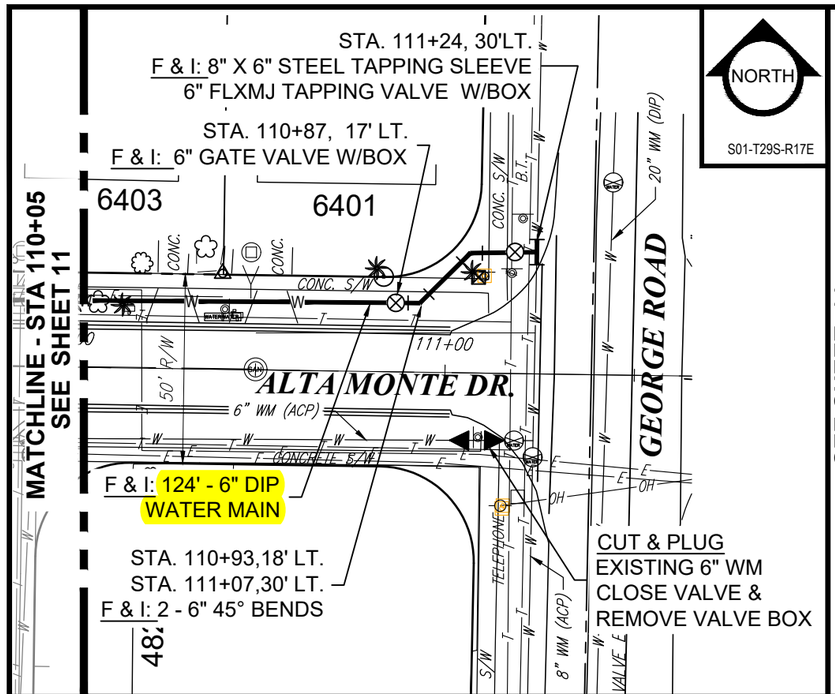

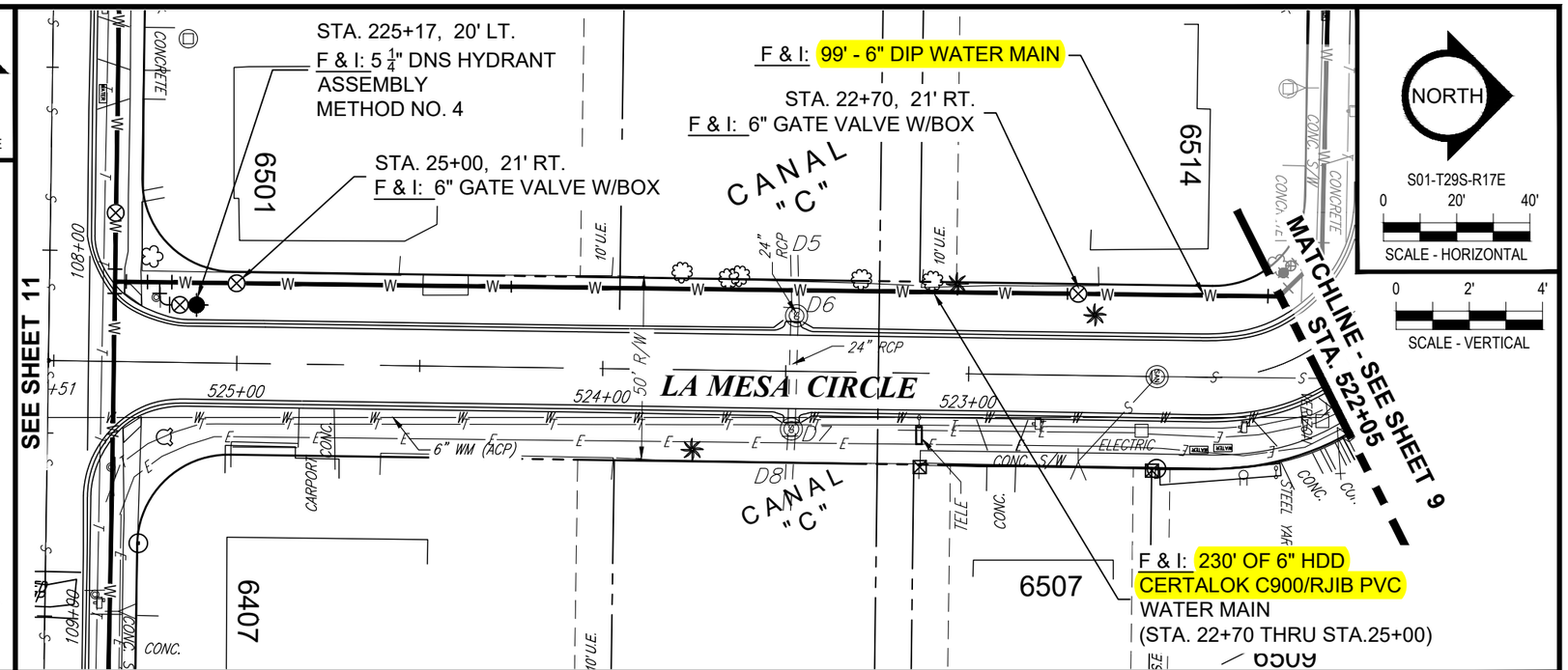

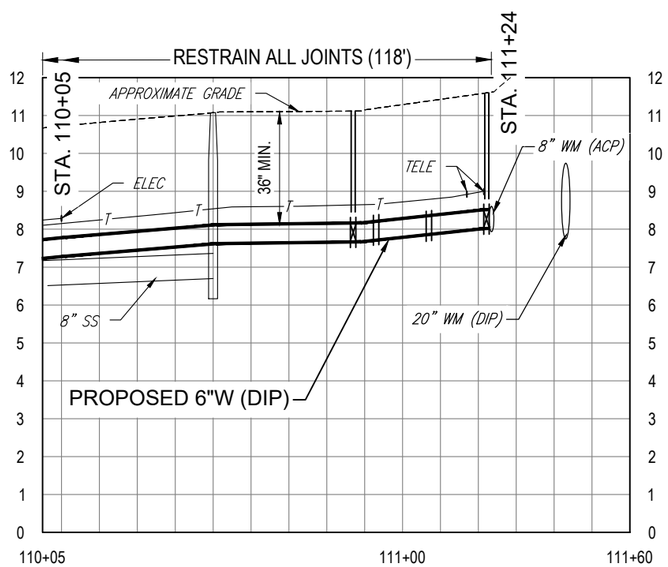

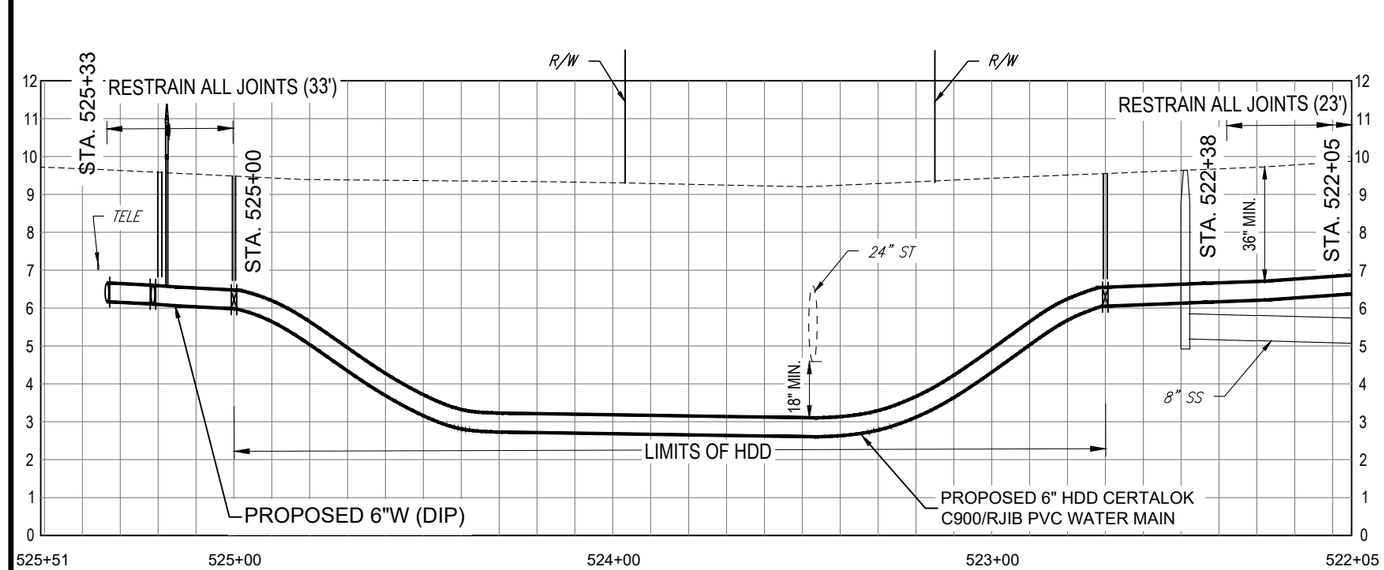

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

ALTA MONTE DRIVE & LA MESA CIR.

City of Tampa Florida
Water Department

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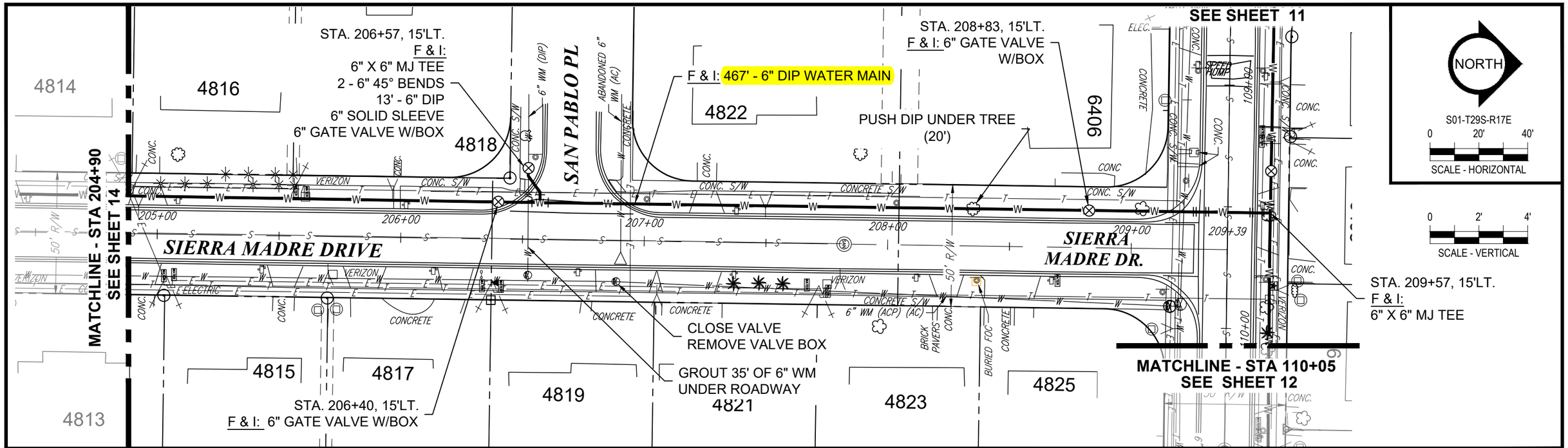

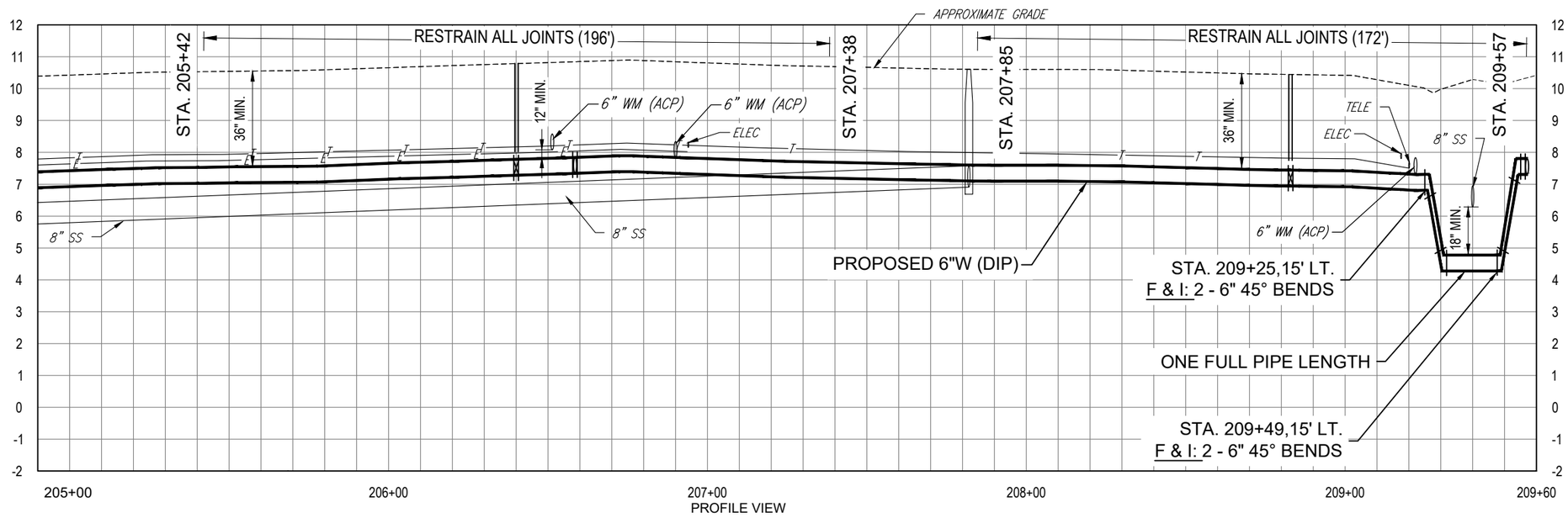

RORY A. JONES, P.E.
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306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

SIERRA MADRE DRIVE

City of Tampa Florida
Water Department

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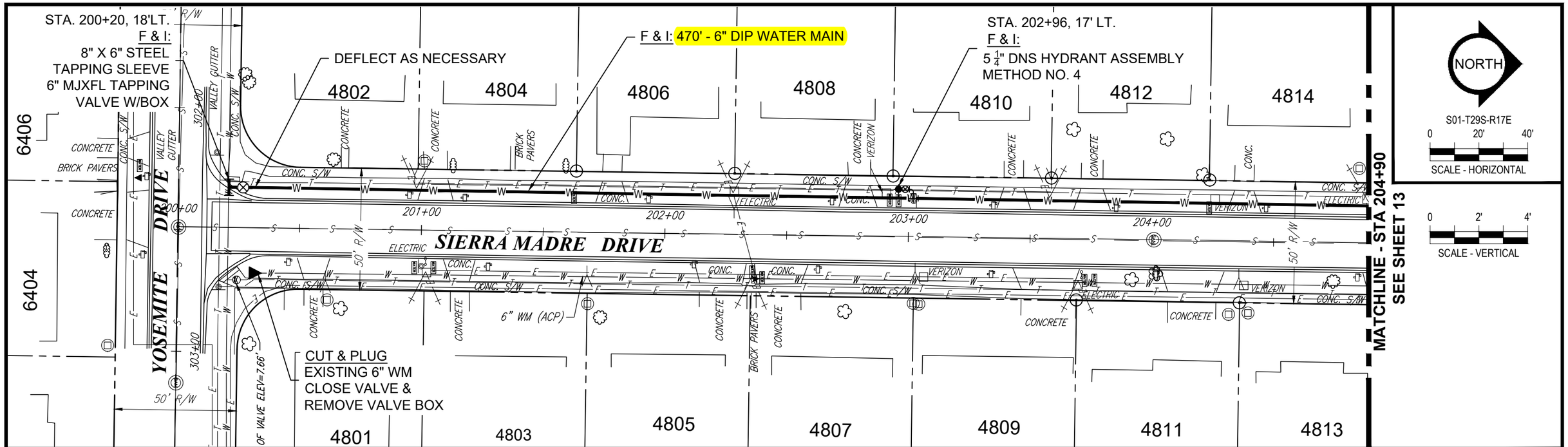

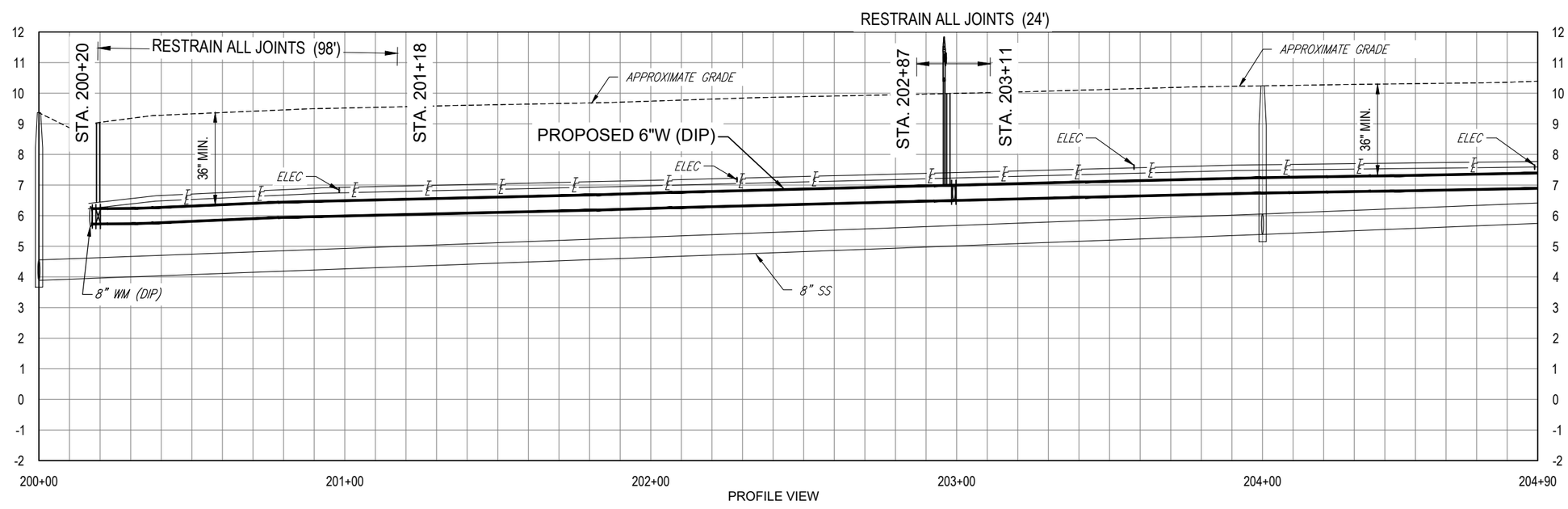

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DATE 07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

SIERRA MADRE DRIVE

City of Tampa Florida
Water Department

100% PLANS

WORK ORDER NO. WTR-18-0003

RECORD DRAWING NO.

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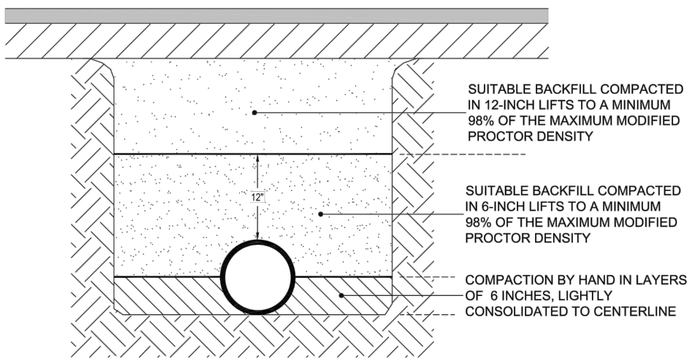
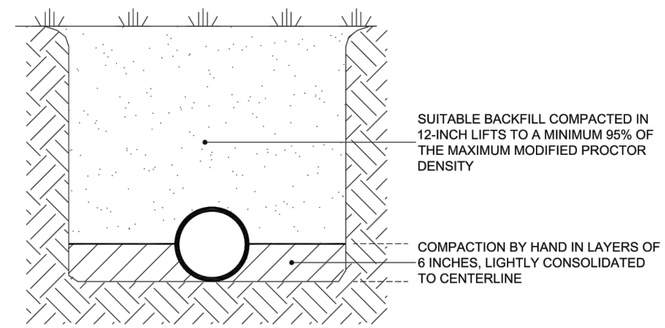


NOTES:

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PERVIOUS AREAS SHALL MEAN ANY CONCRETE OR ASPHALT CURB, SIDEWALK, TRAIL, DRIVEWAY, OR ROADWAY.

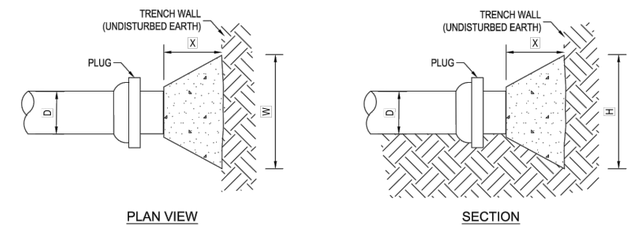
City of Tampa Florida Water Department	LAST REVISION JAN 2018	TRENCHING, BEDDING AND BACKFILL DETAIL FOR NON-PERVIOUS (PAVED) AREAS	2.01A



NOTES:

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PAVED AREA IS A PERVIOUS AREA. IF ANY PART OF THE TRENCH IS WITHIN A CONCRETE OR ASPHALT CURB, SIDEWALK, DRIVEWAY, OR ROADWAY, THEN STANDARD DETAIL 2.01 APPLIES.

City of Tampa Florida Water Department	LAST REVISION JUL 2018	TRENCHING, BEDDING, AND BACKFILL DETAIL FOR PERVIOUS (NON-PAVED) AREAS	2.02



DIMENSIONS OF THRUST BLOCKS FOR GOOD SOIL								
	SIZE (D)	4"	6"	8"	12"	16"	20"	24"
PLUG	THRUST (LBS.)	3,439	7,104	12,223	26,002	45,180	69,624	99,330
	BEARING AREA ($FT.^2$)	2.58	5.33	9.17	19.50	33.89	52.22	74.50
	CONCRETE ($YDS.^3$)	0.042	0.126	0.285	0.891	1.811	3.005	4.594
	H (FT.)	1.3	1.9	2.5	3.6	4.8	5.9	7.0
	W (FT.)	2.0	2.8	3.7	5.4	7.1	8.9	10.6
	X (FT.)	1.0 MIN.	1.4 MIN.	1.9 MIN.	2.7 MIN.	3.0 MIN.	3.0 MIN.	3.0 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. THIS TABLE SHOWS THE MINIMUM SIZE THRUST BLOCKS FOR SOIL BEARING PRESSURE OF 2000 PSF AND AN INTERNAL PRESSURE OF 190 PSI. COVER TO T.O.P. IS 3 FEET FOR 12" AND SMALLER MAINS; 4 FEET FOR 16" AND LARGER MAINS.
4. PLUGS SHALL BE COMPLETELY POLYWRAPPED PRIOR TO POURING THRUST BLOCKS.

WARNING - POOR AND WET SOIL (SILTY SOILS, CLAY, MUCK AND PEAT) WILL REQUIRE LARGER THRUST BLOCKS.

City of Tampa Florida Water Department	LAST REVISION JUL 2018	THRUST BLOCKS FOR PLUGS	2.08

RORY A. JONES, P.E.
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DATE 07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 1

City of Tampa Florida Water Department

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WORK ORDER NO. WTR-18-0003
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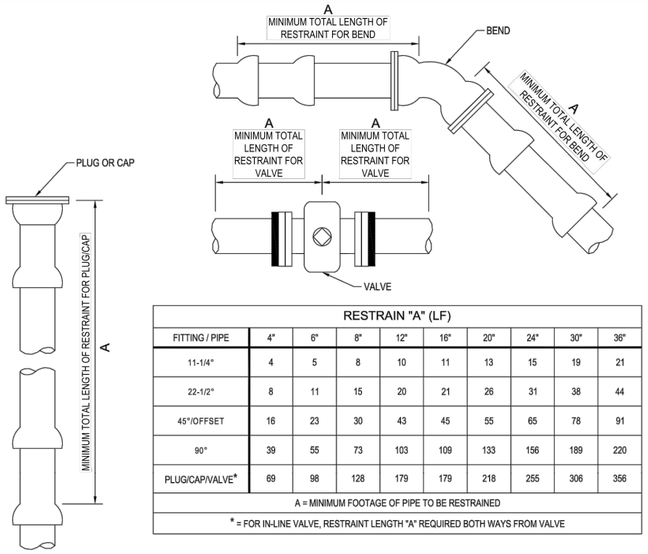
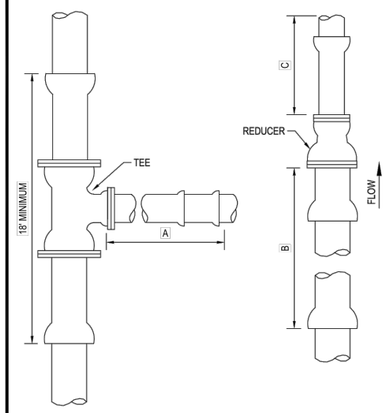


RESTRAIN "A" (LF)									
FITTING / PIPE	4"	6"	8"	12"	16"	20"	24"	30"	36"
11-1/4°	4	5	8	10	11	13	15	19	21
22-1/2°	8	11	15	20	21	26	31	38	44
45°/OFFSET	16	23	30	43	45	55	65	78	91
90°	39	55	73	103	109	133	156	189	220
PLUG/CAP/VALVE*	69	98	128	179	179	218	255	306	356
A = MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED									
* = FOR IN-LINE VALVE, RESTRAINT LENGTH "A" REQUIRED BOTH WAYS FROM VALVE									

NOTES:

1. THIS TABLE IS BASED ON:
   a. MAXIMUM TEST PRESSURE OF 190 PSI
   b. LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
   c. POOR SOIL CONDITIONS
   d. USING D.I.P.
   e. 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
   f. HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
2. "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
3. ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

City of Tampa Florida Water Department | LAST REVISION JUL 2018 | RESTRAINED JOINT STANDARD FOR BENDS, PLUGS, CAPS, AND VALVES | 2.11

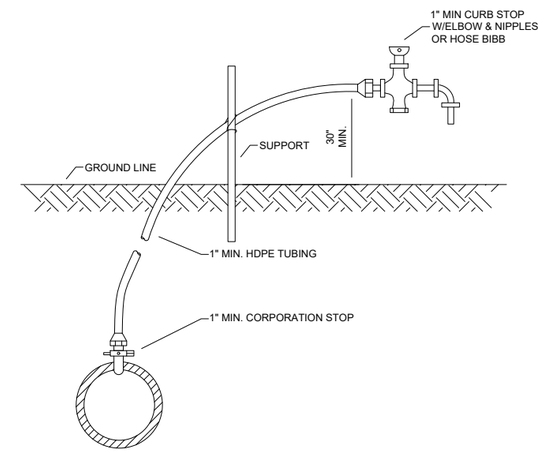


FITTING SIZE	RESTRAIN (LF)		UNRESTRAINED STRAIGHT RUN (LF)
	TEE "A"	REDUCER "B"	REDUCER "C"
4x4	31	*	*
6x4	14	50	74
6x6	60	*	*
8x4	A.T.	91	178
8x6	48	54	70
8x8	90	*	*
12x4	A.T.	155	455
12x6	24	130	260
12x8	71	95	144
12x12	143	*	*
16x6	A.T.	151	401
16x8	34	130	265
16x12	96	76	103
16x16	148	*	*
20x6	A.T.	195	659
20x8	18	180	461
20x12	85	136	233
20x16	139	76	96
20x20	186	*	*
24x6	A.T.	236	971
24x8	A.T.	224	700
24x12	74	188	391
24x16	130	139	215
24x20	180	76	93
24x24	224	*	*
30x6	A.T.	293	1534
30x8	A.T.	283	1130
30x12	56	255	678
30x16	118	216	426
30x20	169	168	260
30x24	215	108	138
30x30	275	*	*
36x6	A.T.	345	2230
36x8	A.T.	336	1660
36x12	38	314	1030
36x16	104	283	689
36x20	159	244	466
36x24	206	195	306
36x30	269	108	133
36x36	326	*	*
A.T. = RESTRAINT REQUIRED AT TEE ONLY. * = NOT APPLICABLE			

NOTES:

1. THIS TABLE IS BASED ON:
   a. MAXIMUM TEST PRESSURE OF 190 PSI
   b. LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
   c. POOR SOIL CONDITIONS
   d. USING D.I.P.
   e. 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
   f. HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
2. RESTRAINT FOR REDUCERS: IF "C" STRAIGHT RUN OF PIPE DOWNSTREAM OF REDUCER NOT AVAILABLE, THE RESTRAIN "B" UPSTREAM OF REDUCER.
3. "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
4. ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

City of Tampa Florida Water Department | LAST REVISION JUL 2018 | RESTRAINED JOINT STANDARD FOR TEES AND REDUCERS | 2.12A



NOTES:

1. WATER OUTLET SHALL BE HELD UP OFF THE GROUND SO AS NOT TO INTERFERE WITH THE SAMPLING PROCESS.
2. CORPORATION STOP TO BE REMOVED AND BRASS PLUG INSTALLED IN TAPPED MAIN AFTER OPERATION.

City of Tampa Florida Water Department | LAST REVISION JUL 2018 | TEMPORARY SAMPLE TAP INSTALLATION W/DI, CI, OR PVC PIPE | 2.18A

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
P.E. #79453

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CHECKED RAJ
DATE 07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 2

City of Tampa Florida Water Department

100% PLANS
WORK ORDER NO. WTR-18-0003
RECORD DRAWING NO.
ATLAS PAGE F6 SHEET 16 OF 23

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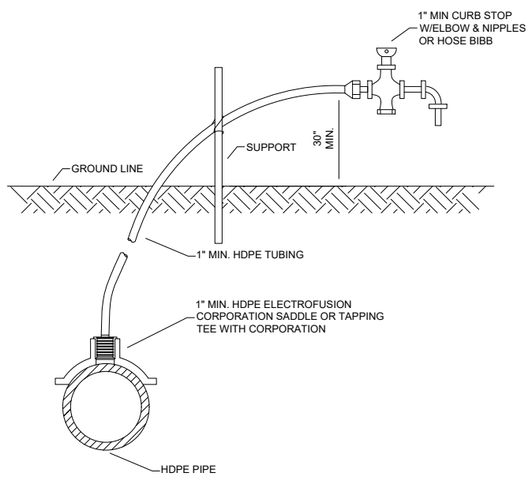
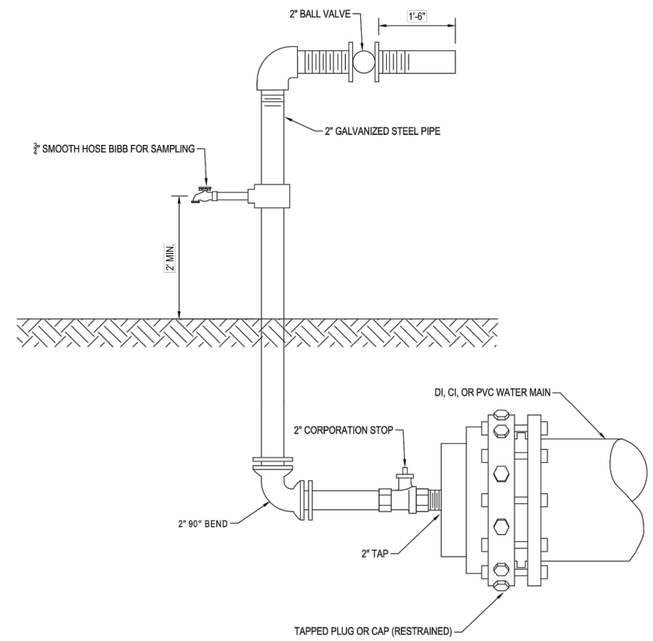


NOTES:

1. WATER OUTLET SHALL BE HELD UP OFF THE GROUND SO AS NOT TO INTERFERE WITH THE SAMPLING PROCESS.
2. CORPORATION STOP TO BE REMOVED AND PLUGGED AFTER OPERATION.

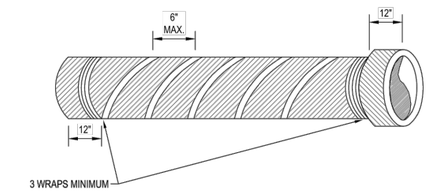
City of Tampa Florida Water Department	LAST REVISION		
	JUL 2018	TEMPORARY SAMPLE TAP INSTALLATION W/HDPE PIPE	2.18B



NOTES:

1. FOR DEAD-END MAINS, SAMPLE TAP TO BE INSTALLED ON A 2" TAPPED CAP/PLUG.
2. FLUSHING/SAMPLING ARRANGEMENT TO BE REMOVED AFTER DISINFECTION OF MAIN LINE.
3. AFTER OPERATION COMPLETE, INSTALL BRASS PLUG AT CORPORATION STOP.

City of Tampa Florida Water Department	LAST REVISION		
	JUL 2018	TEMPORARY SAMPLE TAP INSTALLATION FOR END OF LINE W/DI, CI, OR PVC PIPE	2.19A



SPIRAL WRAP

NOTES:

1. TO ENSURE PROPER ADHESION, EACH PIPE RUN SHALL BE WRAPPED WITH A CONTINUOUS RUN OF TAPE.
2. ALL TAPE SHALL BE MIN. 2" BLUE VINYL TAPE FOR POTABLE WATER.

City of Tampa Florida Water Department	LAST REVISION		
	JUL 2018	DUCTILE IRON PIPE IDENTIFICATION DETAIL	2.20

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
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TAMPA, FLA. 33602
P.E. #79453

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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 3

City of Tampa Florida Water Department

100% PLANS

WORK ORDER NO. WTR-18-0003

RECORD DRAWING NO.

ATLAS PAGE F6 SHEET 17 OF 23

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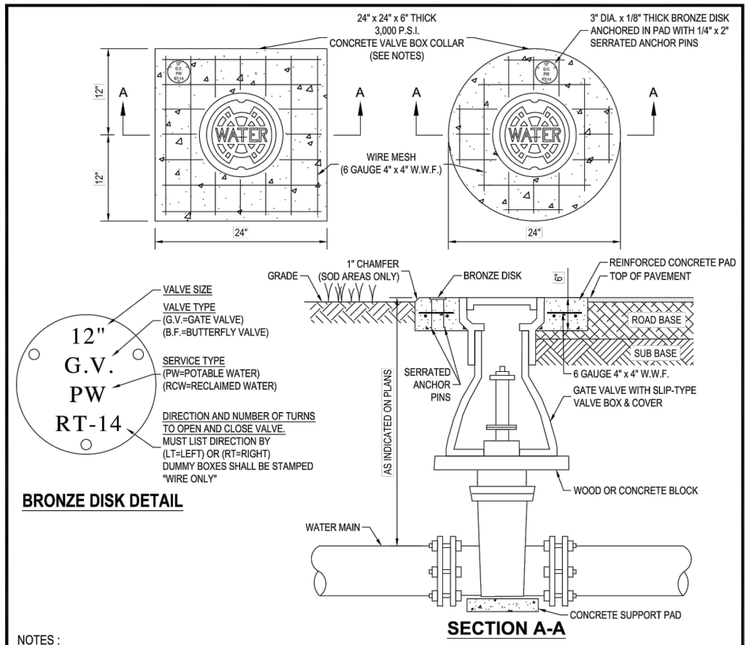
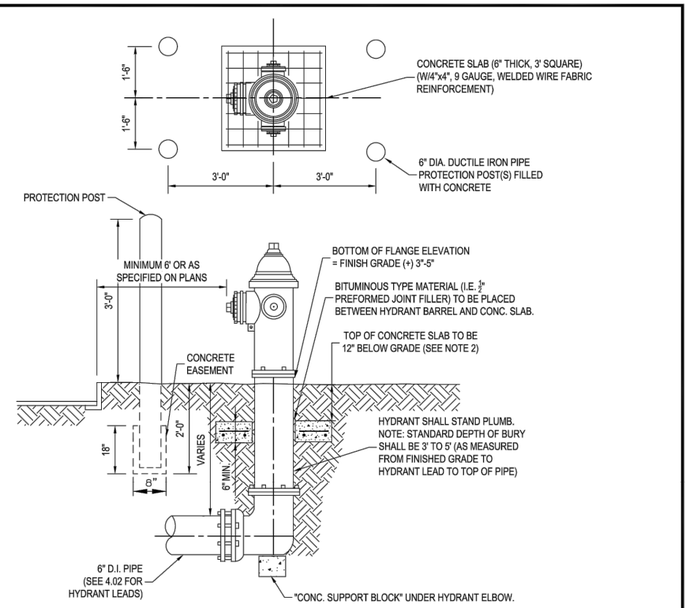


NOTES :

1. CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
2. CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
3. "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
4. EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
5. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
6. IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
7. BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.

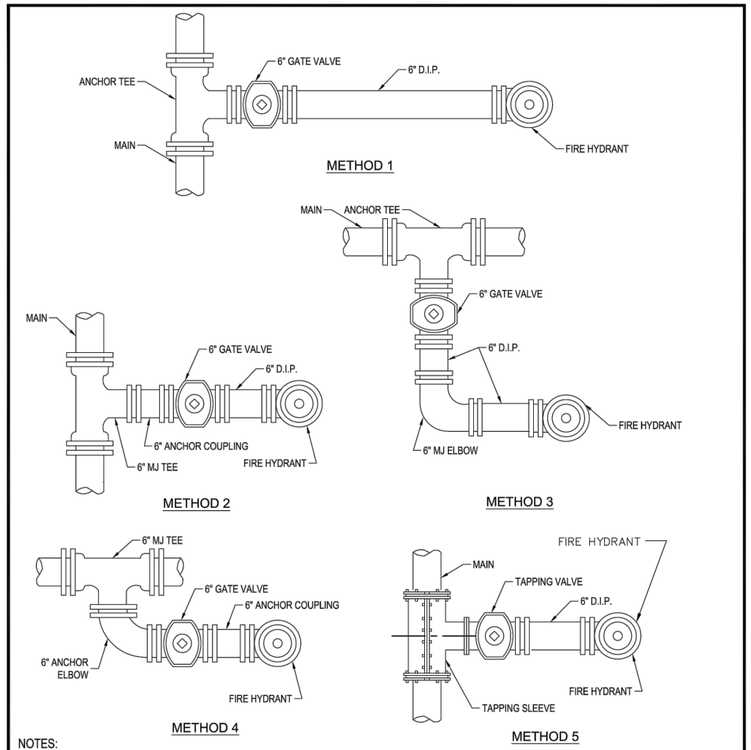
City of Tampa Florida Water Department	LAST REVISION		
	JUL 2018	VALVE INSTALLATION W/VALVE BOX & PAD FOR DI OR CI PIPE	3.01



NOTES:

1. FIRE HYDRANT BARREL ABOVE THE GROUND LINE SHALL BE PAINTED WITH A HIGH-GRADE ENAMEL PAINT, FEDERAL SAFETY YELLOW (OSHA APPROVED), AND THE HYDRANT BONNET SHALL BE PAINTED OSHA GREEN.
2. CONCRETE SLAB MAY BE ELIMINATED IN AREAS WHERE HYDRANT IS SET IN SIDEWALK AND SIDEWALK HAS BEEN INSTALLED PRIOR TO FINAL ACCEPTANCE OF THE HYDRANT.
3. THRUST RESTRAINT FOR HYDRANT:
   a) HYDRANT SHALL BE FIRMLY SUPPORTED UNDER ELBOW IN ALL METHODS BY SUPPORT BLOCK
   b) ALL BACKFILL SHALL BE THOROUGHLY COMPACTED UNDER SUPPORT BLOCK AND UNDER THRUST COLLAR
   c) ALL HYDRANT LEADS SHALL BE RESTRAINED BY MEGALUGS OR EQUIVALENT MECHANICAL RESTRAINTS
4. PROTECTION POSTS ARE REQUIRED WHEN HYDRANT IS LESS THAN 6 FEET FROM EDGE OF PAVEMENT, OR AS DIRECTED BY THE ENGINEER.
5. FOR PVC MAINS, INSTALL CONCRETE SUPPORT BLOCK UNDER ALL HYDRANT TEES.

City of Tampa Florida Water Department	LAST REVISION		
	JUL 2018	FIRE HYDRANT INSTALLATION	4.01



NOTES:

1. VALVE SHALL BE SET IN ACCORDANCE WITH DETAIL 3.01. FOR HYDRANT SET, SEE DETAIL 4.01.
2. ALL VALVES SHALL BE ANCHORED TO BRANCH OF TEE ON ALL HYDRANT INSTALLATIONS.
3. ALL HYDRANT LEADS SHALL BE RESTRAINED BY MEGALUGS OR EQUIVALENT.
4. FOR PVC MAINS, INSTALL CONCRETE SUPPORT BLOCK UNDER HYDRANT TEES.

City of Tampa Florida Water Department	LAST REVISION		
	JUL 2018	FIRE HYDRANT METHODS OF INSTALLATION	4.02

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
P.E. #79453

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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 4

City of Tampa Florida Water Department

100% PLANS

WORK ORDER NO. WTR-18-0003

RECORD DRAWING NO.

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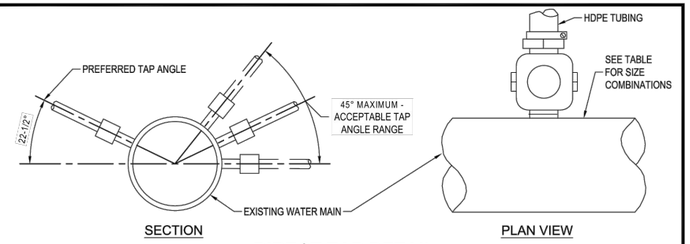
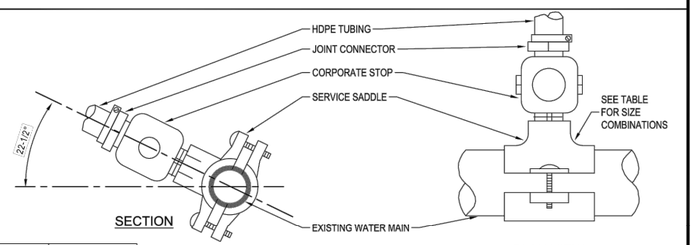


DIRECT TAP DETAIL

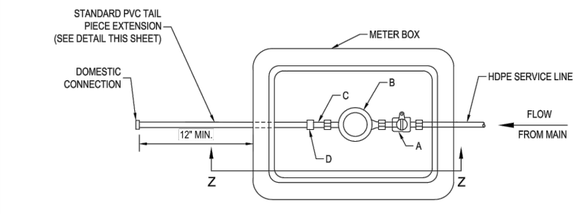


SADDLE TAP DETAIL

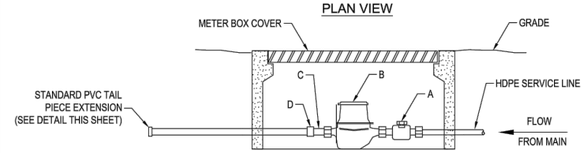
PIPE	SIZE	CORP. TAP SIZE	
		1"	2"
DI/CI	12"	DT	DT
	8"	DT	SS
	6"	DT	SS
	4"	SS	SS
PVC	2", 2-1/2"	SS	NA
	8", C-900	SS	SS
	6", C-900	SS	SS
	2"-SDR21	SS	NA
OTHER*	12"	SS	SS
	10"	SS	SS
	8"	SS	SS
	6"	SS	SS
	4"	SS	NA
	3"	SS	NA
	2", 2-1/2"	SS	NA

LEGEND
DT- DIRECT TAP CAN BE ALLOWED SS- SERVICE SADDLE IS REQUIRED NA- NOT ALLOWED
*ASBESTOS CEMENT, STEEL, GALVANIZED IRON PIPE, NON STD PVC, ETC.

City of Tampa Florida Water Department	LAST REVISION JUL 2018	TAPPING DETAIL FOR 3/4", 1", 1-1/2" & 2" W/DI, CI, OR PVC PIPE	5.01A



PLAN VIEW



SECTION Z-Z

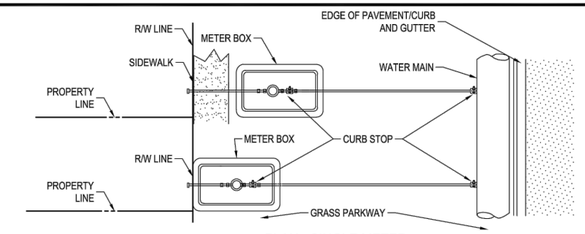
METER INSTALLATION PARTS LIST	
ITEM	DESCRIPTION
A	HDPE CJ X METER, SWIVEL NUT (CURB STOP)
B	METER
C	BRASS METER COUPLING
D	*PVC FIP X WELD COUPLING

STD. TAIL PIECE EXTENSION

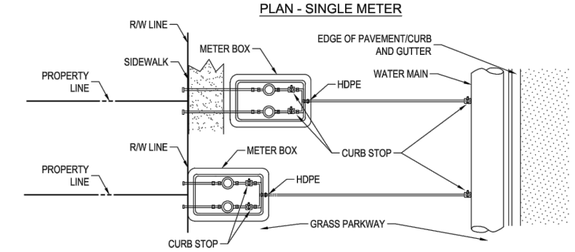
* ALL PVC PIPE AND FITTINGS SHALL BE SCH 80 EXCEPT FOR STANDARD TAIL PIECE SECTION WHICH WILL BE SCH 40.

NOTE: PARTS LIST IS FOR STANDARD INSTALLATION; ACTUAL PARTS REQUIRED MAY VARY AS DIRECTED BY THE ENGINEER.

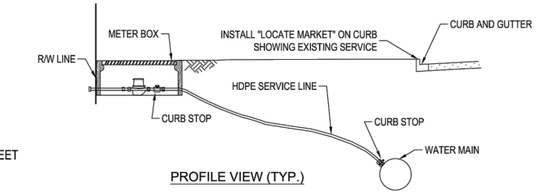
City of Tampa Florida Water Department	LAST REVISION JUL 2018	SINGLE METER SET DETAIL 3/4", 1", 1-1/2", 2"	5.02



PLAN - SINGLE METER



PLAN VIEW - DUAL METER



PROFILE VIEW (TYP.)

DO NOT INSTALL METER WITHIN SIDEWALK. WHEN SIDEWALK EXISTS, INSTALL METER ON STREET SIDE OF SIDEWALK OR WHERE DIRECTED BY CITY ENGINEER.

SINGLE METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES) (0-15')
3/4	1
1	1
1 1/2	2
2*	2

* LINE SIZE APPLICABLE FOR DDCVA

DUAL METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES) (0-15')
3/4	2
1	2
1 1/2	N/A
2*	N/A

(FEET REFER TO DISTANCE FROM WATER MAIN TO METER)

City of Tampa Florida Water Department	LAST REVISION JUL 2018	SINGLE & DUAL METERED SERVICE - SHORT SIDE 3/4", 1", 1-1/2" & 2"	5.04A

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
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DATE 07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 5

City of Tampa Florida Water Department

100% PLANS
WORK ORDER NO. WTR-18-0003
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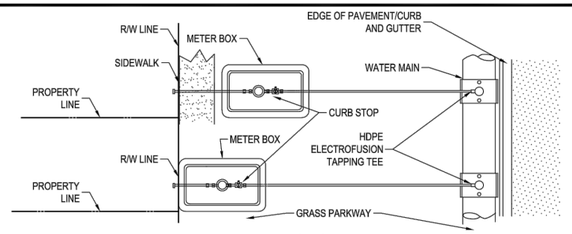
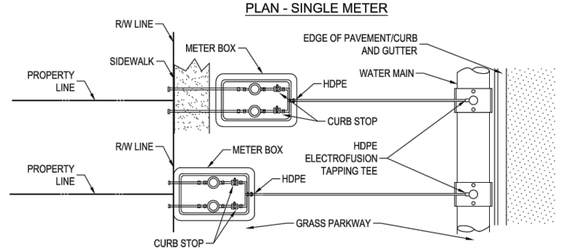
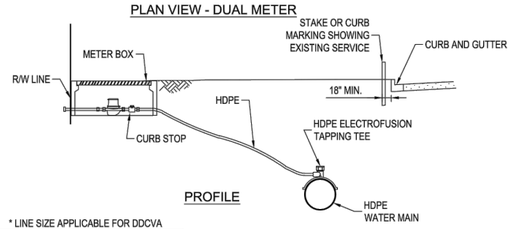


PLAN - SINGLE METER



PLAN VIEW - DUAL METER



PROFILE

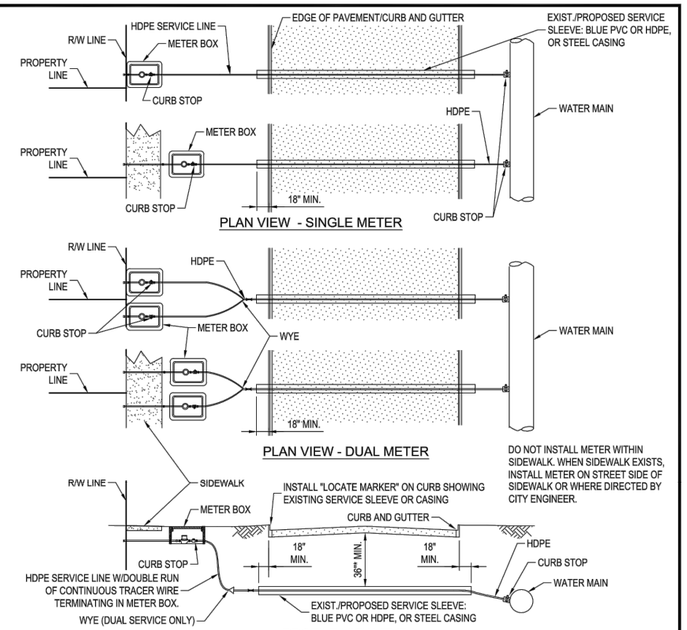
DO NOT INSTALL METER WITHIN SIDEWALK. WHEN SIDEWALK EXISTS, INSTALL METER ON STREET SIDE OF SIDEWALK OR WHERE DIRECTED BY CITY ENGINEER.

SINGLE METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES) (0-15')
3/4	1
1	1
1 1/2	2
2*	2

* LINE SIZE APPLICABLE FOR DDCVA

DUAL METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES) (0-15')
3/4	2
1	2
1 1/2	N/A
2*	N/A

City of Tampa Florida Water Department	LAST REVISION JAN 2018	SINGLE & DUAL METERED SERVICE - SHORT SIDE 3/4", 1", 1-1/2" & 2" W/HDPE PIPE	5.04B



PROFILE VIEW (TYP.)

CASING SPECIFICATION:
1. IF PUSHED-SCH 40 STEEL PIPE (MIN.)
2. IF LAYED IN OPEN TRENCH-SCH 40 STEEL PIPE OR SCH 80 PVC SOLVENT WELD PIPE.

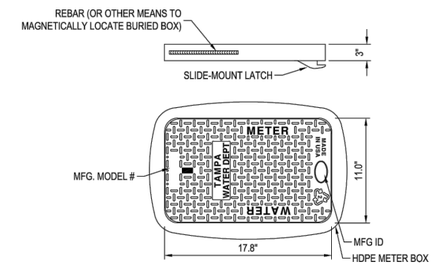
SINGLE METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES)		CASING SIZE (INCHES)
	(15'-80')	(80'-150')	
3/4	1	2	2 / 4
1	1	2	4
1 1/2	2	2	4
2**	4" D.I.P.	4" D.I.P.	12

(FEET REFER TO DISTANCE FROM WATER MAIN TO METER)

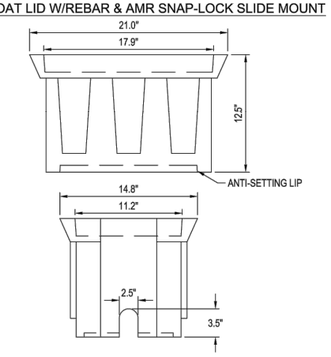
* OR GREATER, IF REQUIRED BY ROW CONTROLLING AGENCY
** LINE SIZES APPLICABLE FOR 2" DDCV

DUAL METER SIZE (INCHES)	SERVICE LINE SIZE (INCHES)		CASING SIZE (INCHES)
	(15'-80')	(80'-150')	
3/4	2	2	4
1	2	4" D.I.P.	4 / 12
1 1/2	N/A	N/A	N/A
2*	N/A	N/A	N/A

City of Tampa Florida Water Department	LAST REVISION JUL 2018	SINGLE & DUAL METERED SERVICE - LONG SIDE 3/4", 1", 1-1/2" & 2"	5.05A



ANTI-FLOAT LID W/REBAR & AMR SNAP-LOCK SLIDE MOUNT



HDPE METER BOX w/LIP

#37 HDPE METER BOX W/COVER

N.T.S.

City of Tampa Florida Water Department	LAST REVISION JUL 2018	3/4" OR 1" SINGLE SERVICE HDPE METER BOX	5.10

RORY A. JONES, P.E.
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 6

City of Tampa Florida Water Department

100% PLANS
WORK ORDER NO. WTR-18-0003
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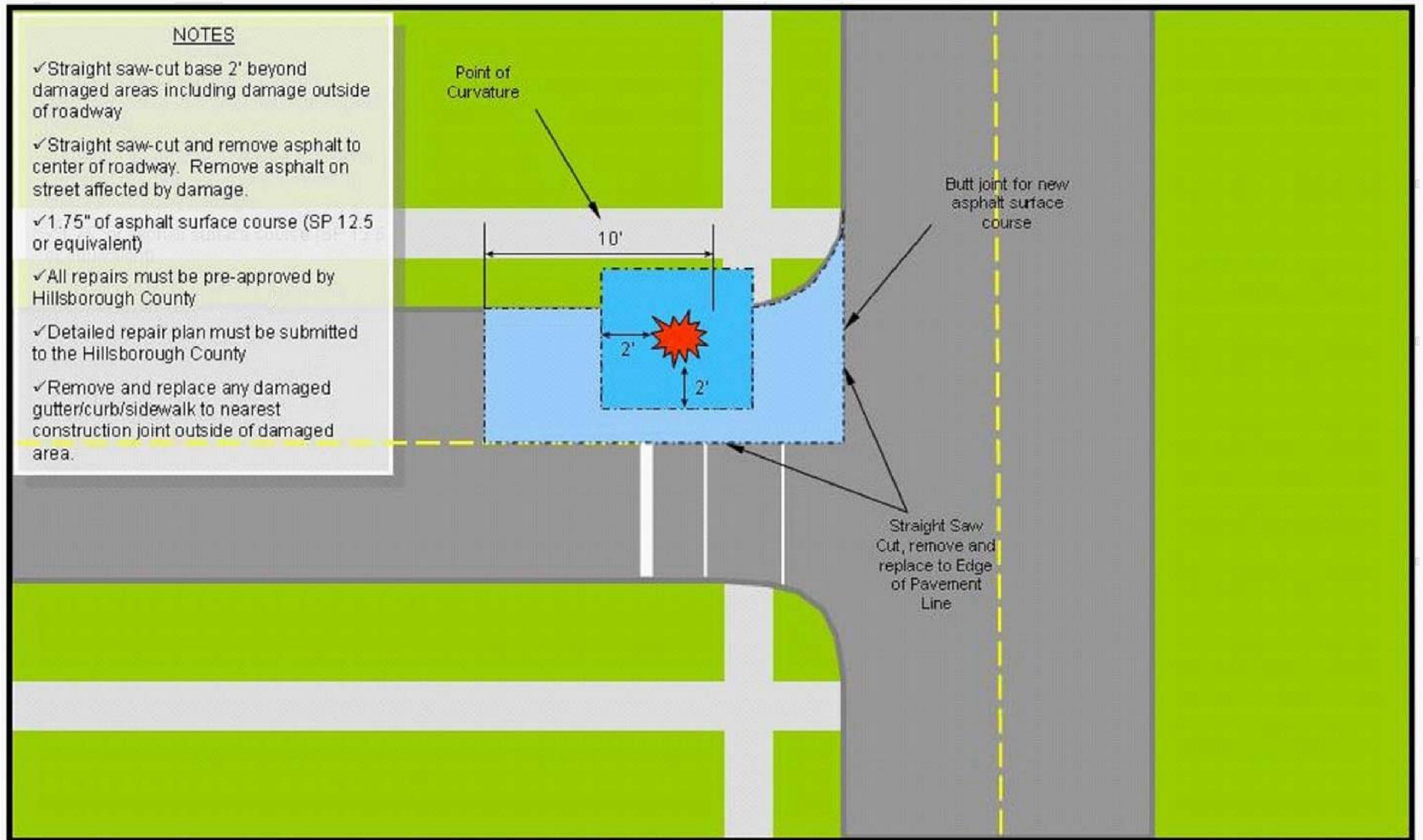

MARCH 2013	SINGLE LANE DAMAGE, NEAR INTERSECTION Minor, Residential Roadway Speed Limit Less than 30 MPH	HILLSBOROUGH COUNTY	Hillsborough County Florida
	FIGURE X-2		

Hillsborough County Florida

RORY A. JONES, P.E.
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GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 7

City of Tampa Florida Water Department

100% PLANS
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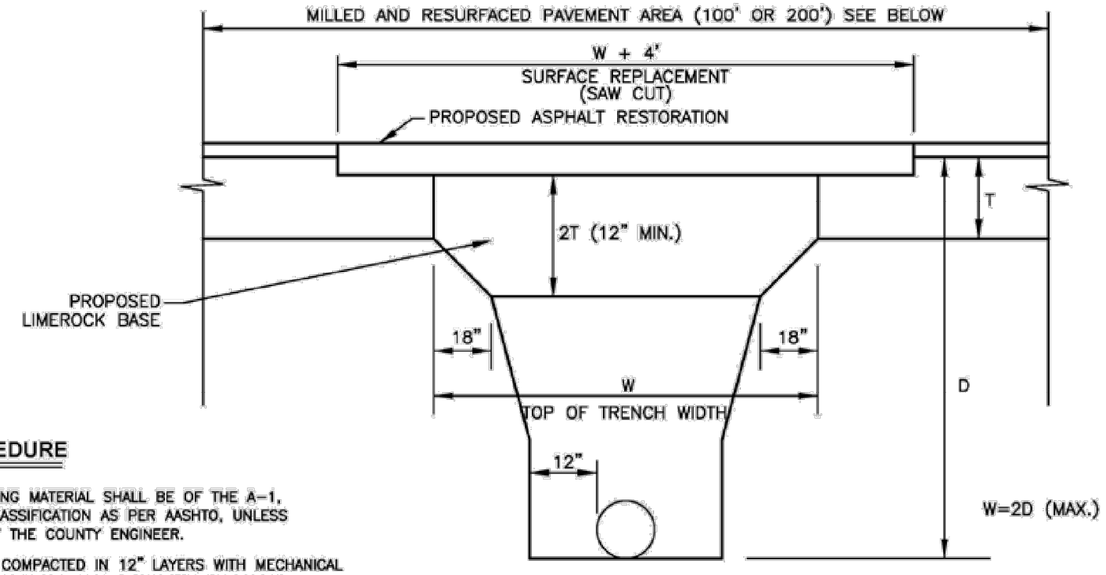
STANDARD DETAILS FOR ROADWAY RESTORATION FOR A PERPENDICULAR UTILITY CROSSING



NOT TO SCALE

POSTED SPEED MPH	MILL AND RESURFACE CENTERED ON TRENCH
35 MPH OR LESS	100 FEET
> 35 MPH	200 FEET

BACKFILL PROCEDURE

THE BACKFILL AND BEDDING MATERIAL SHALL BE OF THE A-1, A-2, A-3 OR A-2-4 CLASSIFICATION AS PER AASHTO, UNLESS OTHERWISE APPROVED BY THE COUNTY ENGINEER.

THE BACKFILL SHALL BE COMPACTED IN 12" LAYERS WITH MECHANICAL TAMPERS TO THE FULL WIDTH OF THE TRENCH AND UP TO THE BOTTOM OF THE ROADWAY BASE. PARTICULAR ATTENTION MUST BE GIVEN TO THE ADEQUATE COMPACTION OF THE FILL BENEATH THE HAUNCHES OF THE PIPE. THE BACKFILL SHALL BE COMPACTED AS REQUIRED BY APPENDIX L: TESTING SCHEDULE. ONE DENSITY TEST SHALL BE TAKEN AT THE SPRING LINE OF THE PIPE, AT ONE FOOT ABOVE THE CROWN OF THE PIPE, AND EVERY FOOT VERTICALLY THEREAFTER. A MINIMUM OF TWO COMPLETE SETS OF BACKFILL DENSITY TESTS ARE REQUIRED. FLOWABLE FILL IN ACCORDANCE WITH SECTION 121 OF THE F.D.O.T. STANDARD SPECIFICATIONS MAY BE SUBSTITUTED.

IF WELL POINTS ARE USED TO PROVIDE A DRY TRENCH FOR LAYING THE UTILITY, THEY SHALL REMAIN IN OPERATION UNTIL THE BACKFILL IS COMPLETE AND TESTED.

PAVEMENT and BASE REPLACEMENT

BASE, INSTALLED TO A THICKNESS OF TWO TIMES THE THICKNESS OF THE EXISTING BASE OR 12" WHICHEVER IS GREATER, SHALL BE INSTALLED IN 6" LIFTS. THE BASE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180-57. A MINIMUM OF TWO DENSITY TESTS PER LIFT IS REQUIRED. NINE (9) INCHES OF SUPERPAVE ASPHALT INSTALLED IN THREE (3) INCH LIFTS MAY BE SUBSTITUTED.

THE SURFACE COURSE SHALL BE F.D.O.T. SUPERPAVE AC WITH A THICKNESS EQUAL TO THE EXISTING OR 1-3/4", WHICHEVER IS GREATER. PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
THE PATCH AREA SHALL BE A SMOOTH PLANE SUCH THAT A STRAIGHT EDGE PLACED ACROSS THE PATH, PARALLEL TO TRAFFIC FLOW AND EXTENDING TO UNDISTURBED PAVEMENT SHALL SHOW NO MORE THAN 1/4" IRREGULARITY. ANY IRREGULARITIES SHALL BE CORRECTED IN SUBSTANTIAL COMPLIANCE WITH F.D.O.T. SPECS.
THE TRENCH SHALL BE MILLED AND RESURFACED WITH 1" OF SUPERPAVE ASPHALT A MINIMUM OF 100 FEET ON THE TRENCH FOR ROADWAYS WITH 35 MPH OR LESS SPEED LIMIT OR 200 FEET FOR ROADWAYS WITH SPEED LIMITS GREATER THAN 35 MPH. THE ENTIRE WIDTH OF THE ROADWAY SHALL BE MILLED AND RESURFACED.
DISTURBED ROADWAYS CONSTRUCTED OF FULL DEPTH ASPHALT SHALL MEET THE MOST CURRENT FDOT AND COUNTY DESIGN STANDARDS AND MATERIALS.

REVISION DATE: 10/17	Utility Accomodation Guide and Rights-of-Way Use Procedures Manual	Hillsborough County Florida	ROADWAY RESTORATION	APPENDIX K
			FIGURE 1	SHEET NO. 1 OF 5

Hillsborough County Florida

RORY A. JONES, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
P.E. #79453

REV NO.	DATE	DESCRIPTION	BY
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DESIGNED	IJC
DRAWN	MGL
CHECKED	RAJ
DATE	07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 8

City of Tampa Florida Water Department

100% PLANS

WORK ORDER NO.	WTR-18-0003
RECORD DRAWING NO.	
ATLAS PAGE F6	SHEET 22 OF 23

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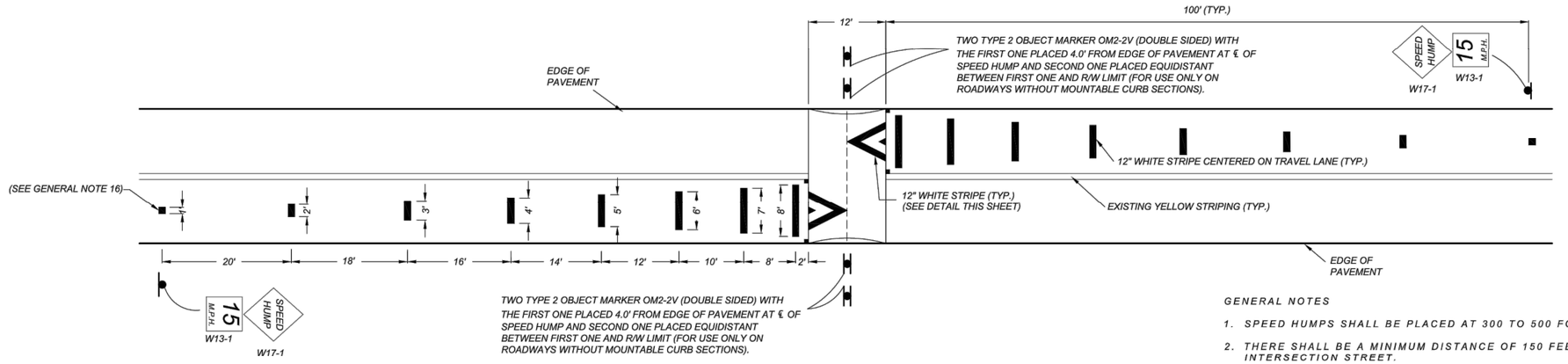
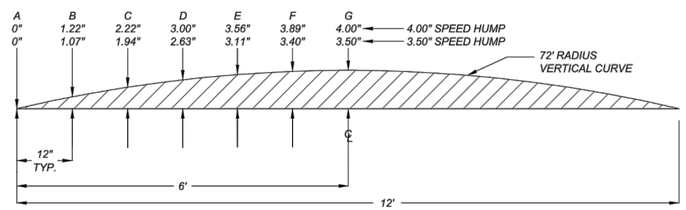
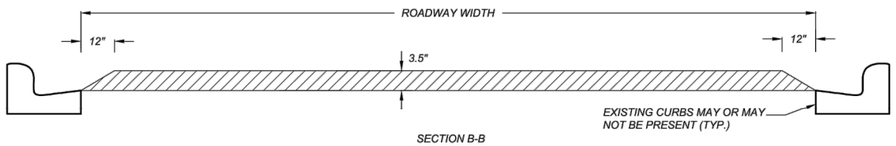




SECTION A-A

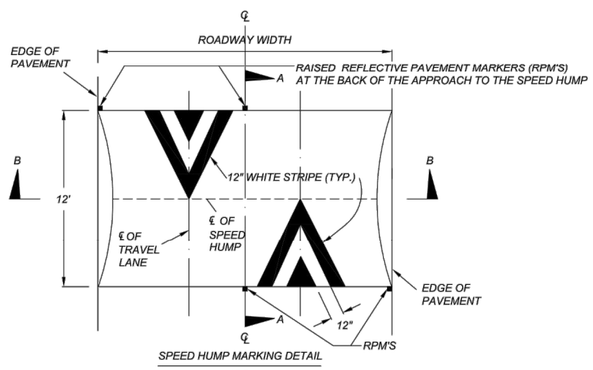
PARABOLIC SPEED HUMP SECTION							
VERTICAL HEIGHT	12" INTERVALS						
	A	B	C	D	E	F	G
3.5"	0"	1.07"	1.94"	2.63"	3.11"	3.40"	3.50"
4.0"	0"	1.22"	2.22"	3.00"	3.56"	3.89"	4.00"



SECTION B-B

12' PARABOLIC SPEED HUMP SECTIONS

N.T.S.



SPEED HUMP MARKING DETAIL

N.T.S.

QUANTITIES FOR 12' SPEED HUMP CONSTRUCTION

ITEM	ROADWAY WIDTH (FT)		
	20	22	24
12" WHITE STIPE (LF)	102	102	102
SIGN W17-1 (AS)	2	2	2
SIGN W13-1 (AS)	2	2	2
DELINEATOR OM2-2V (AS)*	4	4	4
ASPHALT (CY)	1.41	1.56	1.70

* FOR ROADWAYS WITHOUT MOUNTABLE CURBS ONLY

GENERAL NOTES

1. SPEED HUMPS SHALL BE PLACED AT 300 TO 500 FOOT INTERNALS.
2. THERE SHALL BE A MINIMUM DISTANCE OF 150 FEET BETWEEN A SPEED HUMP AND AN INTERSECTION STREET.
3. SPEED HUMPS SHALL NOT BE PLACED; IN FRONT OF DRIVEWAYS, OVER, OR CONTAIN MANHOLES, WATER VALVES OR BE LOCATED ADJACENT TO FIRE HYDRANTS.
4. SPEED HUMPS SHOULD NOT BE PLACED IN LOCATIONS WHERE THE ROAD IS SHADED FROM AN ISOLATED OVERHANGING TREE OR TREES.
5. IN LOCATING SPEED HUMPS, EXISTING STREET LIGHTING SHOULD BE TAKEN ADVANTAGE OF AS MUCH AS POSSIBLE TO INCREASE NIGHTIME VISABILITY.
6. SPEED HUMPS SHOULD NOT BE LOCATED IN HORIZONTAL OR VERTICAL CURVES OR AT LOW POINTS IN ROADWAYS.
7. SPEED HUMPS SHALL NOT BE LOCATED OPPOSITE CURB INLETS.
8. WHEN POSSIBLE, SPEED HUMPS SHOULD BE PLACED AT PROPERTY LINES FOR NOISE ABATEMENT AND AESTHETIC REASONS.
9. SPEED HUMPS SHALL NOT BE PLACED ON MAJOR EMERGENCY VEHICLE RESPONSE ROUTES.
10. MAINTENANCE OF TRAFFIC FOR SPEED HUMP CONTRUCTION SHALL UTILIZE FDOT INDEX 603 OR 607.
11. SIGN DESIGNATIONS REFER TO THE U.S. DEPT. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
12. ALL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
13. ASPHALT SHALL CONFORM TO FLORIDA D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, FOR ASPHALTIC CONCRETE TYPE SP. TACK COAT SHALL BE INCLUDED IN THE COST OF THE ASPHALT.
14. FOR EVALUATING OF EXISTING SPEED HUMPS, MINIMUM HEIGHT SHALL BE 3" WITH A VERTICAL TOLERANCE OF PLUS OR MINUS ONE-HALF INCH ($\pm \frac{1}{2}$").
15. FOR EXISTING SPEED HUMPS REPLACED, VERTICAL HEIGHT SHALL BE 3.5" MINIMUM WITH A 4.0" MAXIMUM.
16. RESIDENTIAL SUBDIVISIONS: PAVEMENT MARKINGS IN ADVANCE OF SPEED HUMPS ARE OPTIONAL. RAISED REFLECTIVE PAVEMENT MARKERS (RPM'S) SHALL BE PLACED AT THE CENTER AND OUTSIDE EDGE AT THE BASE TO THE APPROACH OF THE SPEED HUMP, (SEE SPEED HUMP MARKING DETAIL)

THRESHOLDS FOR USE

1. AVERAGE DAILY TRAFFIC (ADT) <= 3,000
2. POSTED SPEED LIMIT <= 30 MPH.
3. NUMBER OF ROADWAY TRAVEL LANES = 2.

NOTE: This (Parabolic) type speed hump shall only be used for replacing existing in kind, if needed.

Hillsborough County Florida — HILLSBOROUGH COUNTY PUBLIC WORKS DEPARTMENT
NEIGHBORHOOD TRAFFIC CALMING

STANDARD SPEED HUMP

	Names	Dates	Appoved By
Designed by			MICHAEL WILLIAMS, P.E.
Drawn by	M.W.M.		
Checked by	M.B.F.		

Revision No.	Sheet No.	Index No.
	1 of 1	010

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DESIGNED IJC
DRAWN MGL
CHECKED RAJ
DATE 07/01//19

GOLFWOOD ESTATES I PIPELINE REPLACEMENT

DETAIL 9

City of Tampa Florida — Water Department

100% PLANS

WORK ORDER NO. WTR-18-0003

RECORD DRAWING NO.

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