

VILLAGE OF TEQUESTA PALM BEACH COUNTY, FLORIDA TEQUESTA PARK LIFT STATION IMPROVEMENTS



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

MAY, 2015

PROJECT TEAM

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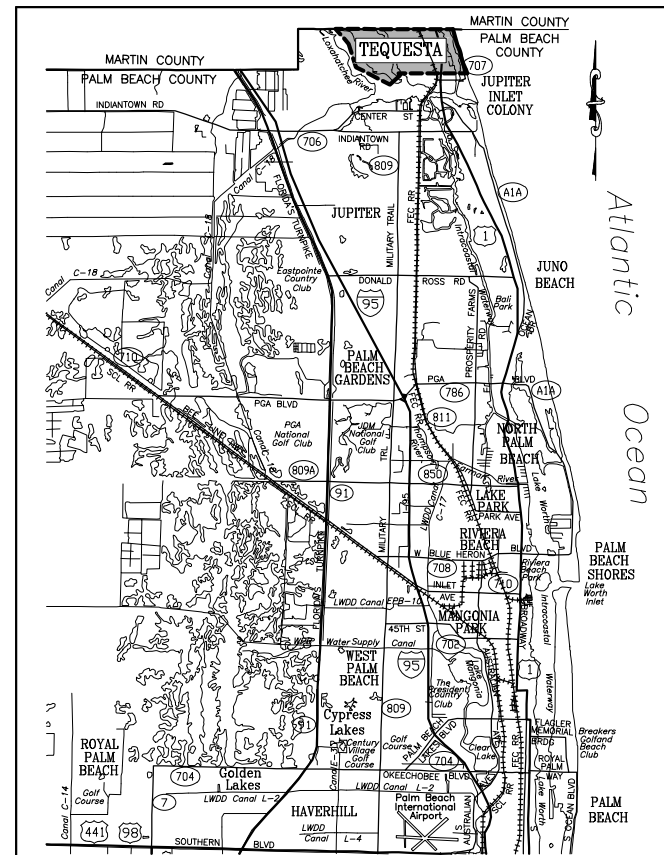
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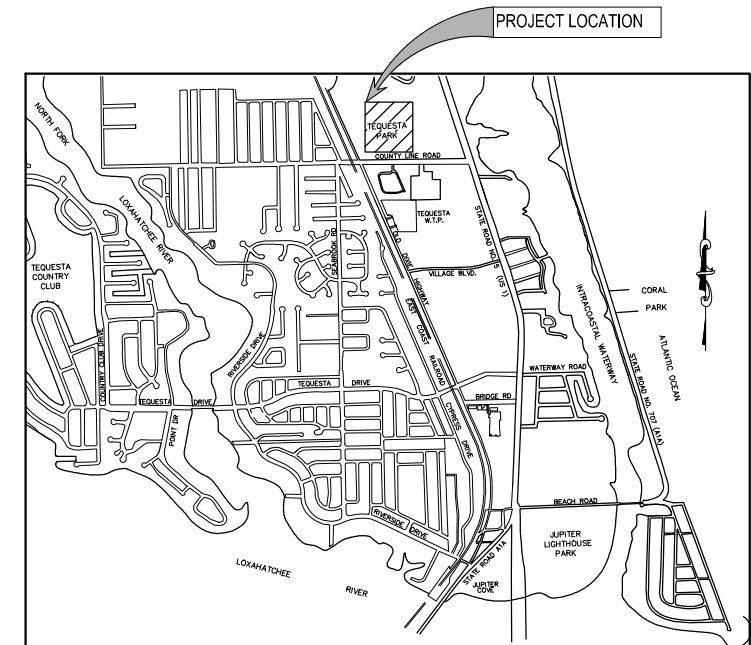
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INDEX OF SHEETS

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AREA MAP



LOCATION MAP

Path Name: G:\Projects\WRF\PROJECTS\900278-LOT PARK LIFT STATION IMPROVEMENTS\OPTION 2\01 COVER.dwg
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VILLAGE OF TEQUESTA
TEQUESTA PARK
LIFT STATION IMPROVEMENTS

PROJECT MANAGER T. JENSEN	DEPARTMENT MANAGER T. JENSEN	LEAD DESIGN PROF. D. BANNETT	CHECKED BY D. BANNETT
SHEET TITLE COVER SHEET		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
			DRAWING NUMBER 1 Of 11

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ABBREVIATIONS

&	AND	CONN	CONNECTION	G	NATURAL GAS	MFGR	MANUFACTURER	PVC	POLYVINYL CHLORIDE	THK	THICK (NESS)
⊙	AT	CONST	CONSTRUCTION	GA	GAUGE, GAGE	MGD	MILLION GALLONS PER DAY	PVDF	POLYVINYLIDENE FLUORIDE	TKD	TANK DRAIN
A	AREA	CONT	CONTINUOUS	GAL	GALLON	MH	MANHOLE	PVMT	PAVEMENT	TM	TELEMETER OR TIME
AASHO	AMERICAN ASSOC. OF STATE HIGHWAY OFFICIALS	COORD	COORDINATE	GALV	GALVANIZED	MHW	MEAN HIGH WATER	PVRV	PRESSURE VACUUM RELIEF VALVE	TOB	TOP OF BERM/BANK
AASHTO	AMERICAN ASSOC. OF STATE HIGHWAY & TRANSPORTATION OFFICIALS	CTR	CENTER	GE	GROOVED END	MIN	MINIMUM	POW	POTABLE WATER	TOC	TOP OF CURB/CONCRETE
ABAND	ABANDONED	CTU	CENTRAL TELEMTRY UNIT	GEN	GENERATOR	MISC	MISCELLANEOUS	PW	PLANT WATER	TOF	TOP OF FOOTING
ABC	AGGREGATE BASE COURSE	CULV	CULVERT	GGR	GRAD (E) (ING)	MJ	MECHANICAL JOINT	PWM	POTABLE WATER METER	TOP	TOP OF PIPE
AC	ACRE	CUP	COPPER PIPE			MLW	MEAN LOW WATER	PYE	POLYETHYLENE	TOW	TOP OF WALL
ADDL	ADDITIONAL	CW	COLD WATER	GIP	GALVANIZED IRON PIPE	MOD	MODIFY			TP	TURNING POINT
ADJ	ADJUSTABLE	CY	CUBIC YARD	GPD	GALLONS PER DAY	MON	MONUMENT	QTY	QUANTITY	TPY	TEMPORARY
ADPT	ADAPTER			GPH	GALLONS PER HOUR	MOT	MAINTENANCE OF TRAFFIC	RAD, R	RADIUS	TRAN	TRANSFER
AFF	ABOVE FINISHED FLOOR			GPM	GALLONS PER MINUTE	MPH	MILES PER HOUR	RCONC	REINFORCED CONCRETE	TRANS	TRANSITION
AFG	ABOVE FINISHED GRADE	DEPT	DEPARTMENT	GR	GRADE	MTD	MOUNTED	RCP	REINFORCED CONCRETE PIPE	TURB	TURBIDITY
AGGR	AGGREGATE	DEMO	DEMOLITION	GRV	GRAVITY	MTL	METAL			TWP	TOWNSHIP
ALT	ALTERNATE	DET	DETAIL	GND	GROUND			RD	ROAD, ROOF DRAIN	TYP	TYPICAL
ALUM	ALUMINUM	DFT	DRY FILM THICKNESS	GRG	GRATING			RDWY	ROADWAY	UD	UNDERDRAIN
APPROX	APPROXIMATE	DHW	DESIGN HIGH WATER	GSKT	GASKET			RED	REDUCER	UG	UNDERGROUND
ASPH	ASPHALT	DI	DUCTILE IRON	GSP	GALVANIZED STEEL PIPE			REF	REFERENCE		
ASPH CONC	ASPHALTIC CONCRETE	DIA	DIAMETER	H	HIGH	#	NUMBER	REINF	REINFORCING	USGS	US GEOLOGICAL SURVEY
ASSOC	ASSOCIATION	DIAG	DIAGONAL			N	NORTH, NORTHING	REM	REMOVE	UT	UNDERGROUND TELEPHONE CABLE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	DIM	DIMENSION	HDB	HORIZONTAL DIRECTIONAL BORE	NC	NORMALLY CLOSED	REQ'D	REQUIRED	UON	UNLESS OTHERWISE NOTED
AUTO	AUTOMATIC	DIP	DUCTILE IRON PIPE	HDP	HIGH DENSITY POLYETHYLENE	NEC	NATIONAL ELECTRIC CODE	RGE	RANGE	UV	ULTRAVIOLET
AUX	AUXILIARY	DISCH	DISCHARGE	HDR	HEADER	NEMA	NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION	RES	RESIDUAL		
AVE	AVENUE	DIV	DIVISION	HDWL	HEADWALL	NGVD	NATIONAL GEODETIC VERTICAL DATUM	REV	REVISION		
AVG	AVERAGE	DL	DEAD LOAD	HDWR	HARDWARE	NIC	NOT IN CONTRACT	RM	REFERENCE MONUMENT	V	VOLTS
AWG	AMERICAN WIRE GAUGE	DMH	DROP MANHOLE	HFAC	HARNESSED FLANGED ADAPTOR COUPLING	NO	NORMALLY OPEN/NUMBER	RND	ROUND	VAC	VACUUM, VOLTS ALTERNATING CURRENT
AWWA	AMERICAN WATER WORKS ASSOCIATION	DN	DOWN	HGR	HANGER	NOM	NOMINAL	RPM	REVOLUTIONS PER MINUTE	VAR	VARIOUS, VARIABLE
		DR	DRAIN, DRIVE	HORIZ	HORIZONTAL	NPT	NATIONAL PIPE THREAD	RR	RAILROAD	VB	VALVE BOX
		DRWY	DRIVEWAY	HP	HIGH POINT OR HORSEPOWER	NPW	NON-POTABLE WATER	RS	RAW SEWAGE	VC	VERTICAL CURVE
		DS	DOWNSPOUT	HR	HOUR	NRS	NON-RISING STEM	RT	RIGHT	VCP	VITRIFIED CLAY PIPE
		DV	DIAPHRAGM VALVE	HT	HEIGHT	NTS	NOT TO SCALE	RW	RECLAIMED WATER, REUSE WATER	VB	VALVE BOX
		DWG	DRAWING	HVAC	HEATING, VENTILATING & AIR CONDITIONING	OC	ON CENTER	RWL	RECLAIMED WATER LINE	VEL	VELOCITY
				HW	HOT WATER	OD	OUTSIDE DIAMETER	RWM	RAW WATER MAIN	VERT	VERTICAL
				HWL	HIGH WATER LEVEL	OE	OVERHEAD ELECTRIC	R/W	RIGHT-OF-WAY	VFD	VARIABLE FREQUENCY DRIVE
				HWR	HOT WATER RETURN	OF	OUTSIDE FACE			VOL	VOLUME
				HWS	HOT WATER SUPPLY	OPNG	OPENING			VT	VENT
				HWT	HOT WATER TANK	O/O	OUTSIDE TO OUTSIDE	SAN	SANITARY SEWER		
				HWY	HIGHWAY	OPER	OPERATOR	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION	W/	WITH
				HYD	HYDRANT	OPP	OPPOSITE	SEC	SECTION	W/O	WITHOUT
						OPT	OPTION (AL)	SCH	SCHEDULE	WC	WATER CLOSET
						ORIG	ORIGINAL	SD	STORM DRAIN	WD	WIDTH
						OT	OVERHEAD TELEPHONE	SEC	SECTION	WE	WELDED END
						OVHD	OVERHEAD	SF, SQ FT	SQUARE FOOT	WF	WALL FAUCET, WIDE FLANGE
								SHT	SHEET	WHA	WATER HAMMER ARRESTER
								SI, SQ IN	SQUARE INCH	WL	WIND LOAD
										WM	WATER MAIN
										WPF	WEATHERPROOF
						PAVT	PAVEMENT			WT	WATER TABLE
						PC	POINT OF CURVATURE	SIM	SIMILAR	WTP	WATER TREATMENT PLANT
						PCC	POINT OF COMPLEX CURVATURE	SLV	SLEEVE	WW	WASTEWATER
						PCF	POUNDS PER CUBIC FOOT	SOJ	SLIP ON JOINT	WWTF	WASTEWATER TREATMENT FACILITY
						PCP	POWER AND CONTROL PANEL	SPEC	SPECIFICATION, SPECIFIED	WWF	WELDED WIRE FABRIC
						PE	PLAIN END	SPL	SAMPLE		
						PERF	PERFORATED	SQ	SQUARE		
						PERIM	PERIMETER	SQ, FT	SQUARE FOOT		
						PERP	PERPENDICULAR	SQ YD	SQUARE YARD	XFMR	TRANSFORMER
						PH	PHASE	SS	STATE ROAD	X SECT	CROSS SECTION
						PI	POINT OF INTERSECTION	SR	STAINLESS STEEL		
						PINF	PRIMARY INFLEUNT	SSP	STAINLESS STEEL PIPE	YD	YARD
						PK	PK NAIL	ST	STREET	YR	YEAR
						PL	PROPERTY LINE, PLATE	STA	STATION		
						PLC	PROGRAMMABLE LOGIC CONTROLLER	STD	STANDARD		
						PNL	PANEL	STL	STEEL		
						POC	POINT OF CURVE	STM	STORM SEWER		
						PQJ	PUSH ON JOINT	STRUC	STRUCTURE		
						POLYE	POLYETHYLENE	STR	STRUCTURE		
						PP	POWER POLE	SUPPTS	SUPPORTS		
						PPAWS	PREFORMED PLASTIC ADHESIVE WATERSTOP	SW	SOLVENT WELDED		
						PPM	PARTS PER MILLION	SWD	SIDE WATER DEPTH		
						PR	PRESSURE RATED	SWK..S/W	SIDEWALK		
						PRC	POINT OF REVERSE CURVE	SY	SQUARE YARD		
						PRCST	PRECAST	SYM	SYMMETRICAL		
						PREFAB	PREFABRICATED				
						PRES	PRESSURE				
						PRIM	PRIMARY				
						PRM	PERMANENT REFERENCE MONUMENT				
						PROP	PROPOSED	T	TANGENT		
						PRV	PRESSURE RELIEF VALVE	TAN	TANGENCY		
						PS	PUMP STATION	TB	TOP OF BEAM		
						PS CONC	PRESTRESSED CONCRETE	TBM	TEMPORARY BENCH MARK		
						LB	POUND	TBR	TO BE REMOVED		
						LBS	POUNDS	TB-XX	TEST BORING-XX (E.G. TB-1)		
						PSF	POUNDS PER SQUARE FOOT	T&B	TOP AND BOTTOM		
						PSI	POUNDS PER SQUARE INCH	TCP	TERRA COTTA PIPE		
						PSIA	POUNDS PER SQUARE INCH absolute	TD	TRENCH DRAIN		
						PSIG	POUNDS PER SQUARE INCH GAGE	TDH	TOTAL DYNAMIC HEAD		
						PT	POINT/POINT OF TANGENCY	TECH	TECHNICAL		
						PUE	PUBLIC UTILITY EASEMENT	TEL	TELEPHONE		
								TEMP	TEMPORARY		

LEGEND:

----	ANCHOR
	BACKFLOW PREVENTOR
	2" 22.5' BEND
	BLOW-OFF
	CATCH BASIN
	CABLE TELEVISION BOX
	CABLE TELEVISION HANDHOLE
	DRAIN
	ELECTRIC HANDHOLE
	ELECTRIC PANEL
	FPL TRANSFORMER PAD
	FIRE HYDRANT
	GATE VALVE
	GATE VALVE
	LIGHT
	LIGHT POLE
	MAIL BOX
	UNDERGROUND PROPANE TANK
	TELEPHONE RISER
	STORM MANHOLE
	SANITARY MANHOLE
	SEWER VALVE
	SIGN
	STREET SIGN
	VAULT
	WATER METER
	WOOD UTILITY POLE
	2" WYE
	YARD DRAIN
	UNDERGROUND ELECTRIC LINE
	UNDERGROUND IRRIGATION LINE
	UNDERGROUND TELEPHONE LINE
	UNDERGROUND CABLE TELEVISION LINE
	UNDERGROUND CABLE UNKNOWN UTILITY
	UNDERGROUND WATER MAIN
	EXISTING WM TO BE GROUTED/ABANDONED IN PLACE

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VILLAGE OF TEQUESTA
TEQUESTA PARK
LIFT STATION IMPROVEMENTS

PROJECT MANAGER T. JENSEN	DEPARTMENT MANAGER T. JENSEN	LEAD DESIGN PROF. D. BANNETT	CHECKED BY D. BANNETT
SHEET TITLE LEGEND		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
			DRAWING NUMBER 3 Of 11

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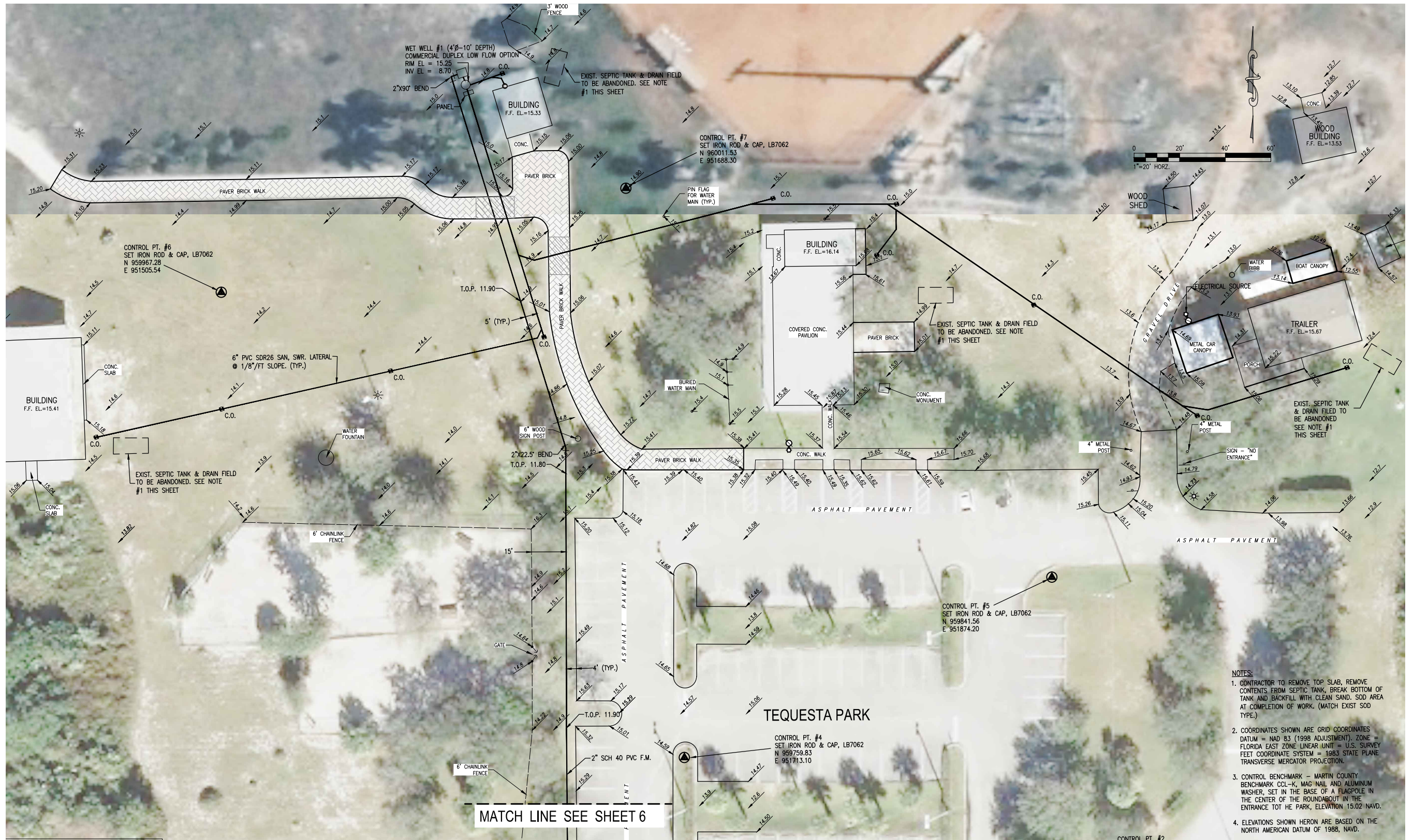
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TEQUESTA PARK
LIFT STATION IMPROVEMENTS

PROJECT MANAGER T. JENSEN	DEPARTMENT MANAGER T. JENSEN	LEAD DESIGN PROF. D. BANNETT	CHECKED BY D. BANNETT
SHEET TITLE KEY SHEET		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
		DRAWING NUMBER 4 Of 11	

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- NOTES:**
1. CONTRACTOR TO REMOVE TOP SLAB, REMOVE CONTENTS FROM SEPTIC TANK, BREAK BOTTOM OF TANK AND BACKFILL WITH CLEAN SAND. SOD AREA AT COMPLETION OF WORK. (MATCH EXIST SOD TYPE.)
 2. COORDINATES SHOWN ARE GRID COORDINATES DATUM = NAD 83 (1998 ADJUSTMENT). ZONE = FLORIDA EAST ZONE. LINEAR UNIT = U.S. SURVEY FEET. COORDINATE SYSTEM = 1983 STATE PLANE TRANSVERSE MERCATOR PROJECTION.
 3. CONTROL BENCHMARK - MARTIN COUNTY BENCHMARK OCL-K, MAG NAIL AND ALUMINUM WASHER, SET IN THE BASE OF A FLAGPOLE IN THE CENTER OF THE ROUNDABOUT IN THE ENTRANCE TO THE PARK, ELEVATION 15.02 NAVD.
 4. ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN DATUM OF 1988, NAVD.

REVISIONS			
NO.	BY	DATE	REMARKS

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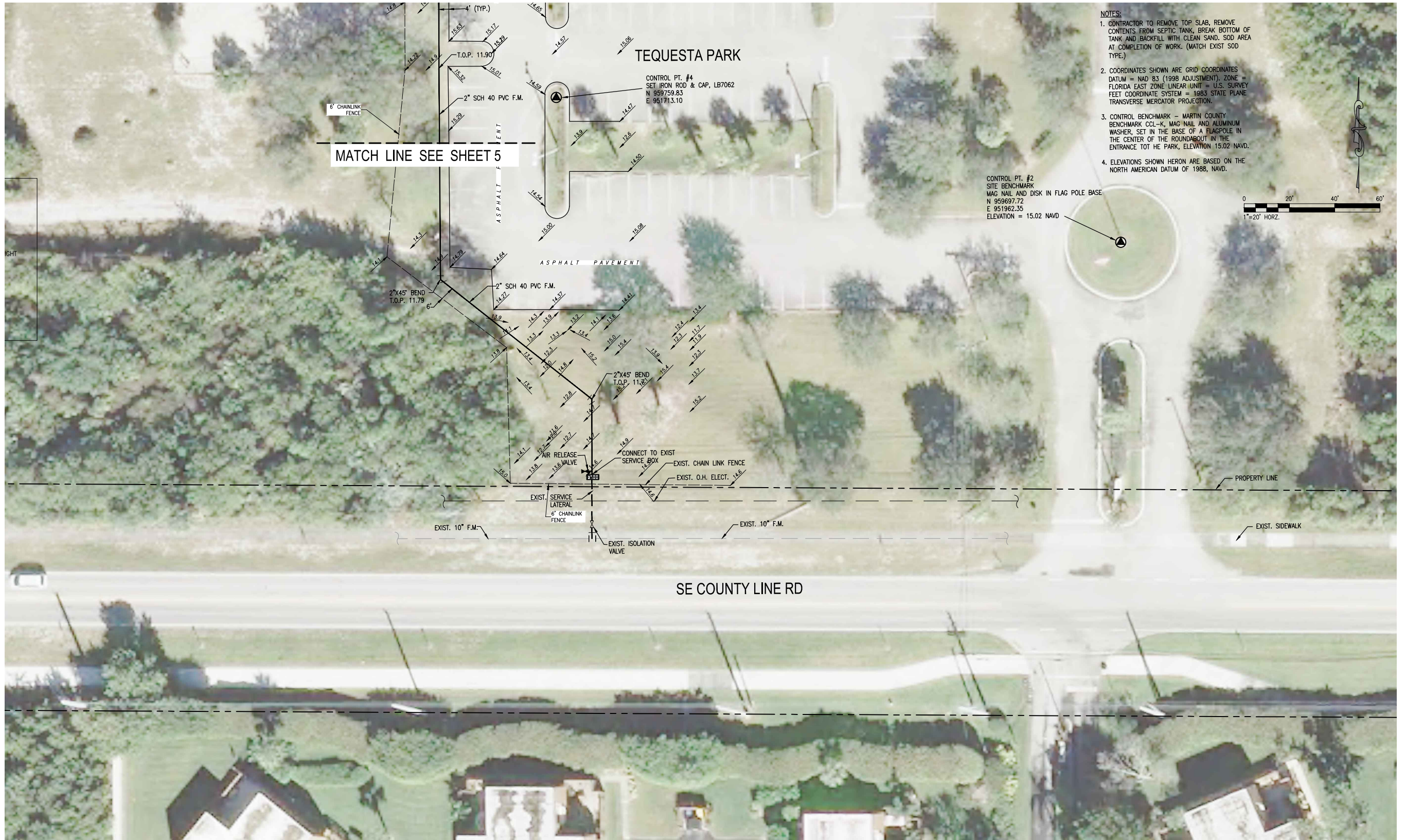
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VILLAGE OF TEQUESTA
TEQUESTA PARK
LIFT STATION IMPROVEMENTS

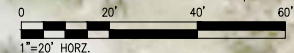
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SHEET TITLE PLAN SHEET 1		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
			DRAWING NUMBER 5 Of 11

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- NOTES:
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 2. COORDINATES SHOWN ARE GRID COORDINATES DATUM = NAD 83 (1998 ADJUSTMENT), ZONE = FLORIDA EAST ZONE LINEAR UNIT = U.S. SURVEY FEET COORDINATE SYSTEM = 1983 STATE PLANE TRANSVERSE MERCATOR PROJECTION.
 3. CONTROL BENCHMARK - MARTIN COUNTY BENCHMARK CCL-K, MAG NAIL AND ALUMINUM WASHER, SET IN THE BASE OF A FLAGPOLE IN THE CENTER OF THE ROUNDABOUT IN THE ENTRANCE TO THE PARK, ELEVATION 15.02 NAVD.
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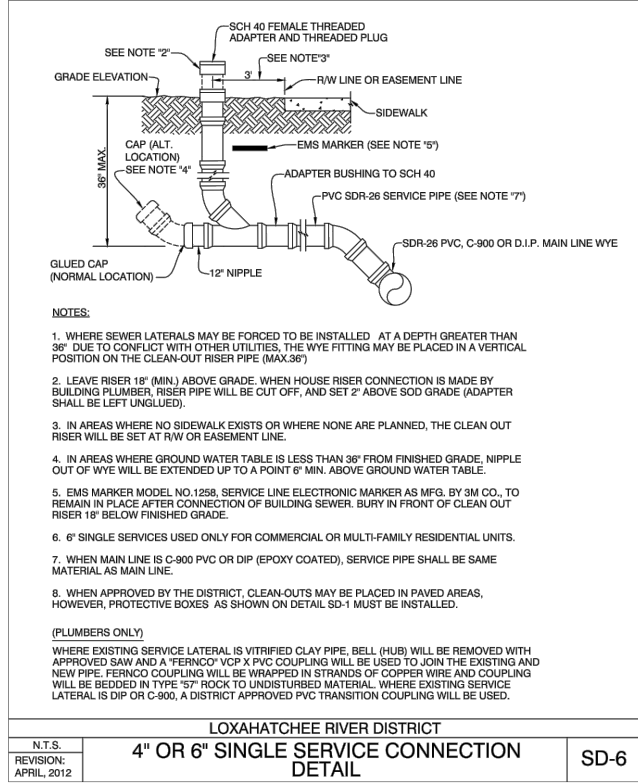
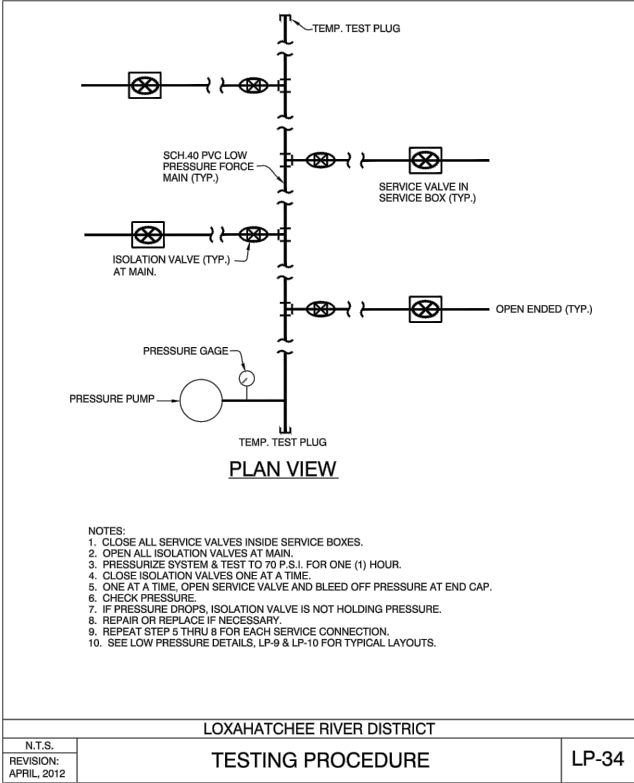
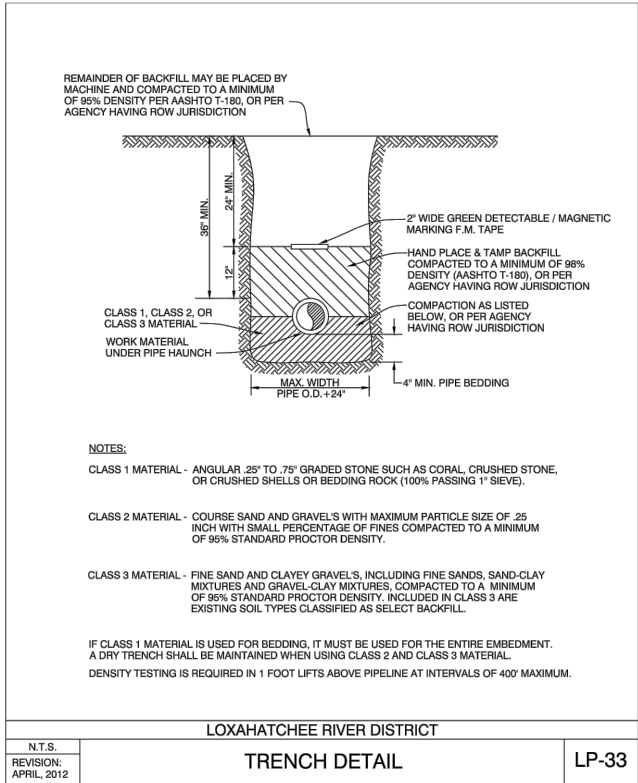
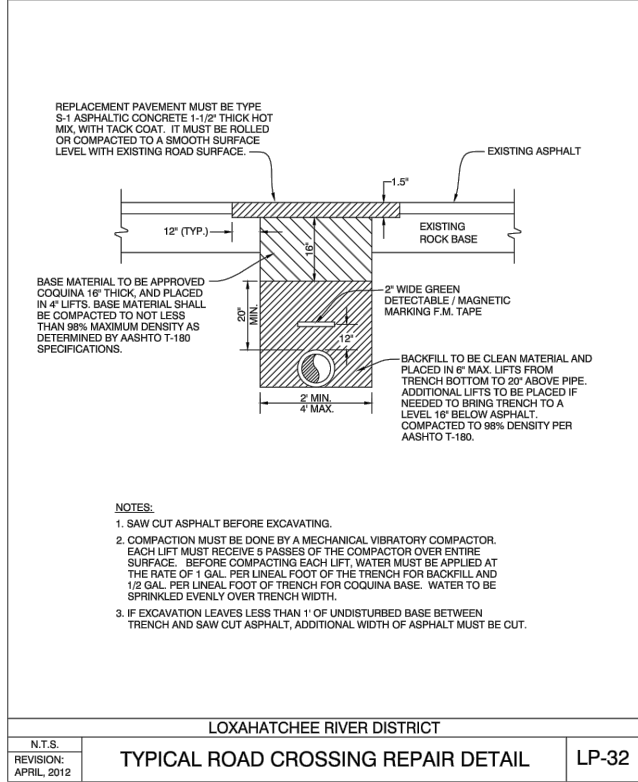
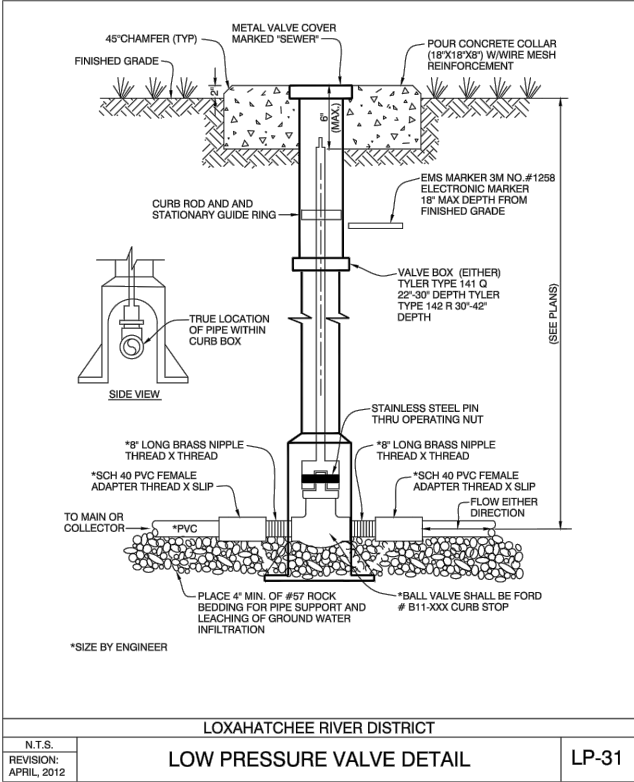
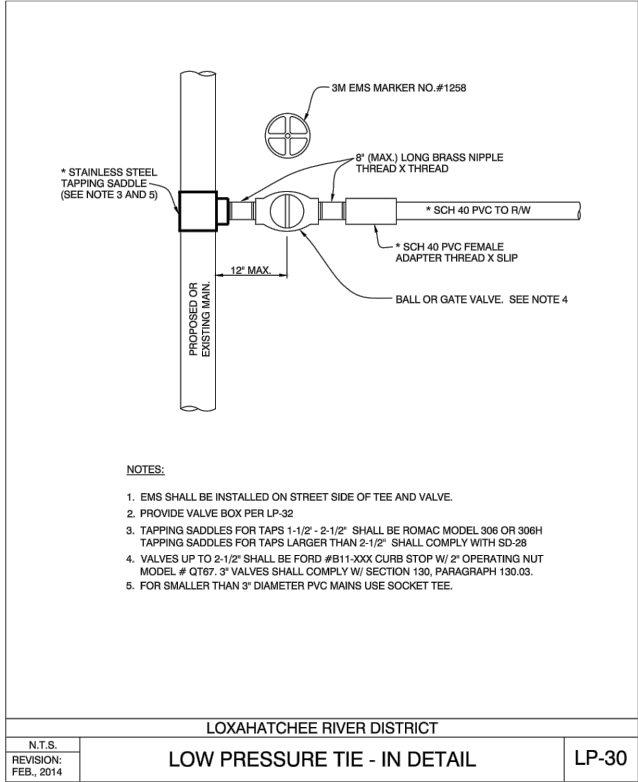
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LIFT STATION IMPROVEMENTS

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SHEET TITLE PLAN SHEET 2		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
			DRAWING NUMBER 6 Of 11

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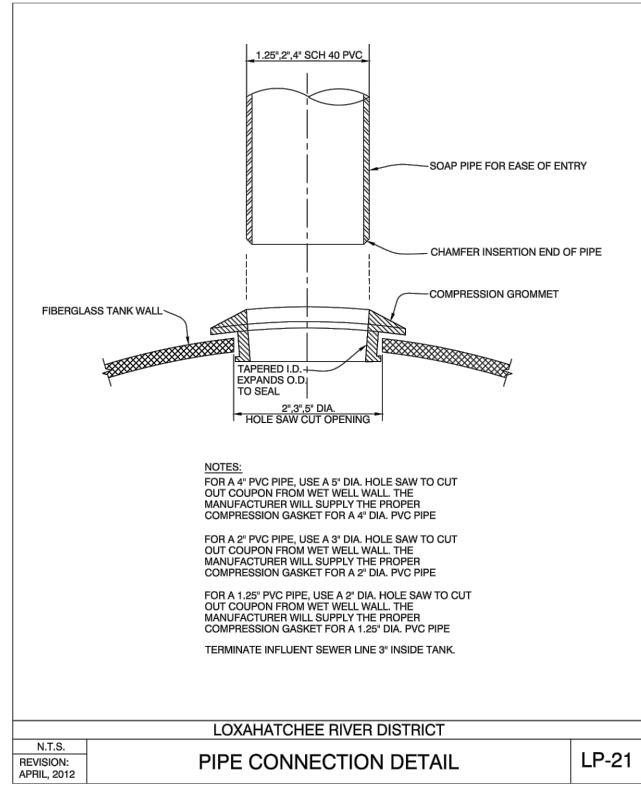
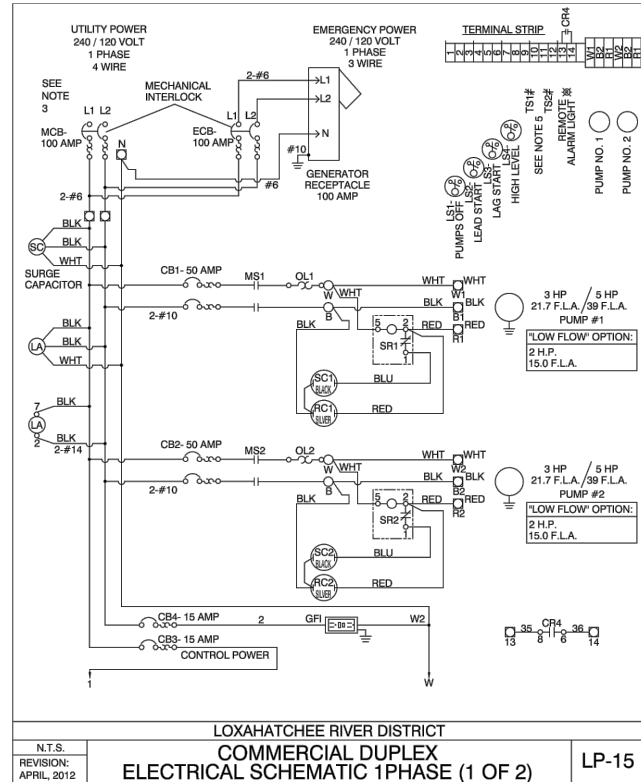
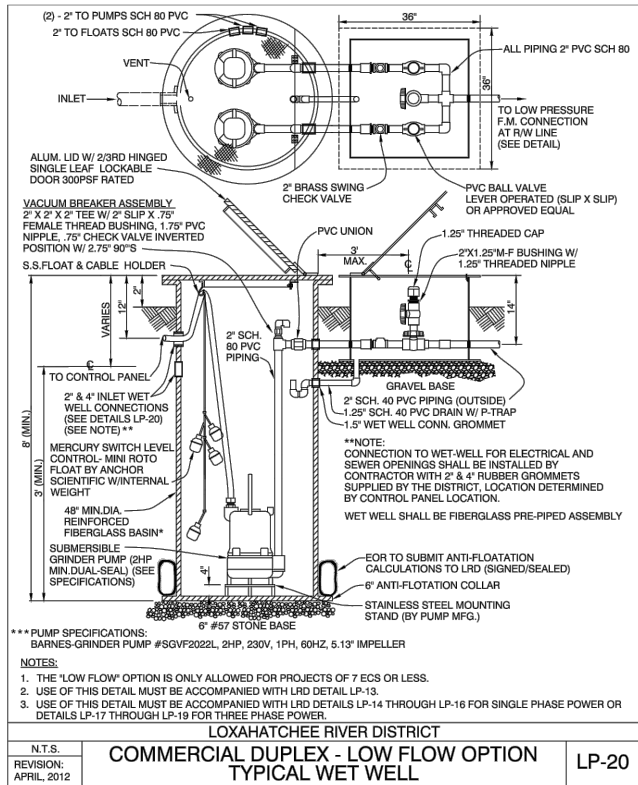
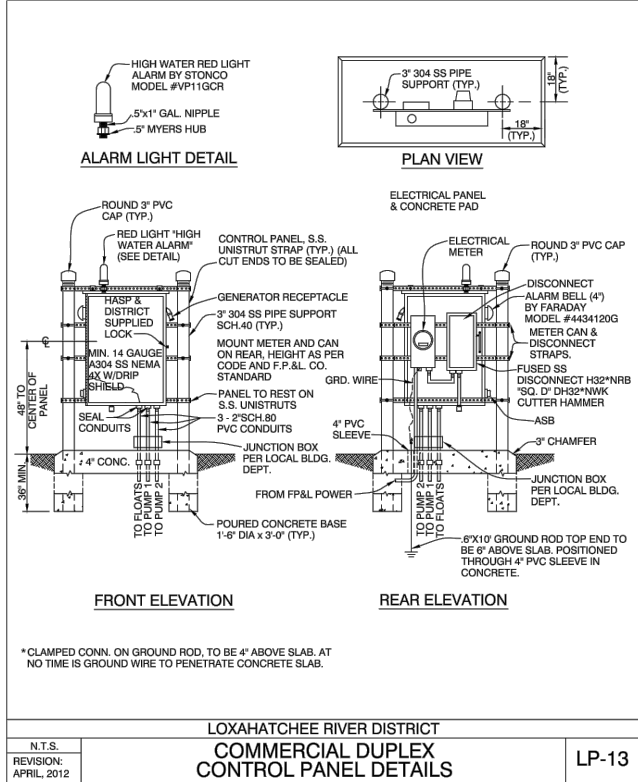
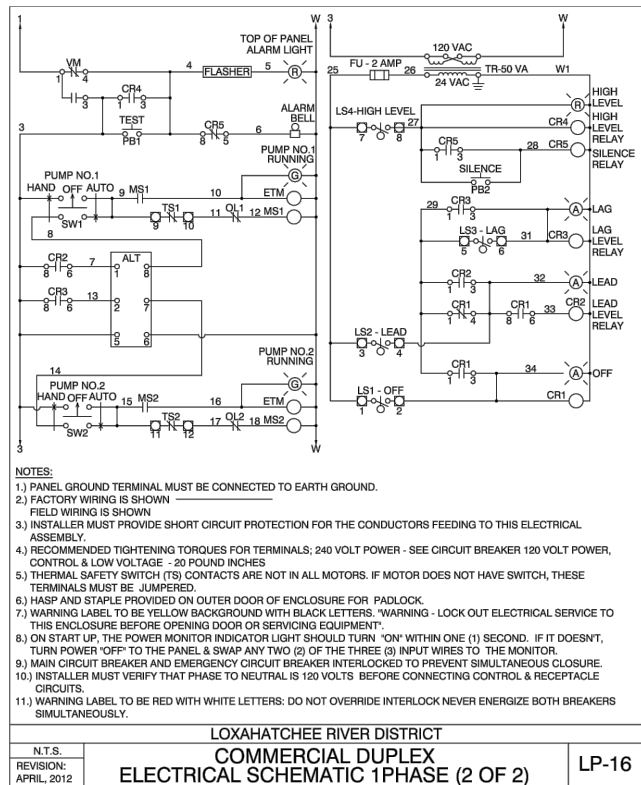
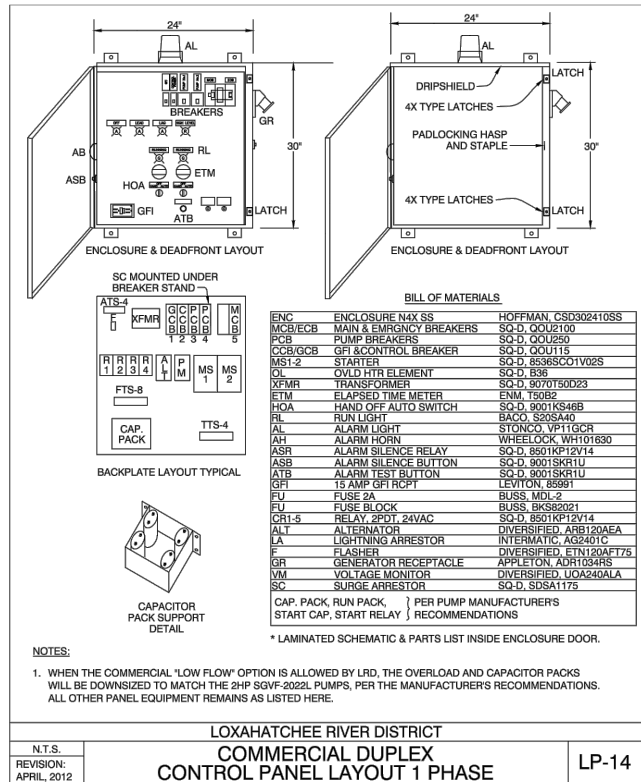
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PROJECT MANAGER T. JENSEN	DEPARTMENT MANAGER T. JENSEN	LEAD DESIGN PROF. D. BANNETT	CHECKED BY D. BANNETT
SHEET TITLE DETAILS 1		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
			DRAWING NUMBER 7 Of 11



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LIFT STATION IMPROVEMENTS

PROJECT MANAGER
T. JENSEN
SHEET TITLE
DETAILS 2

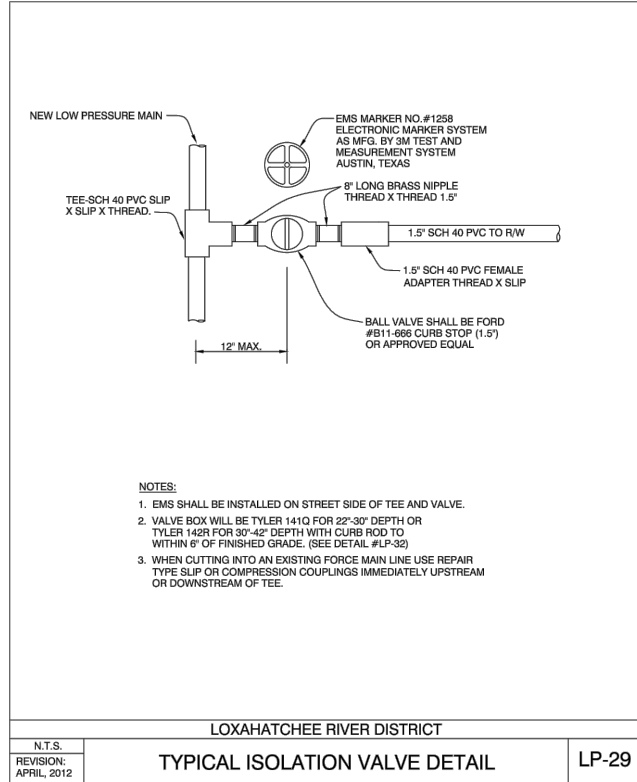
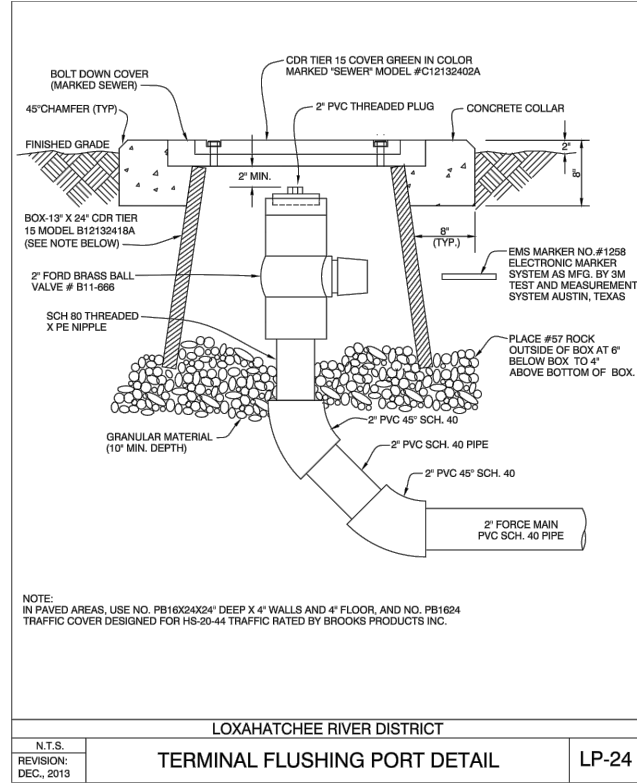
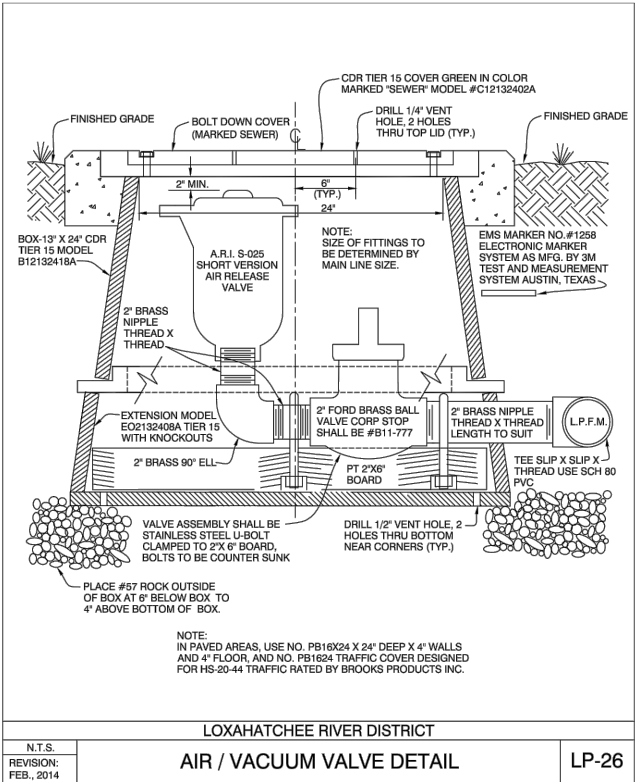
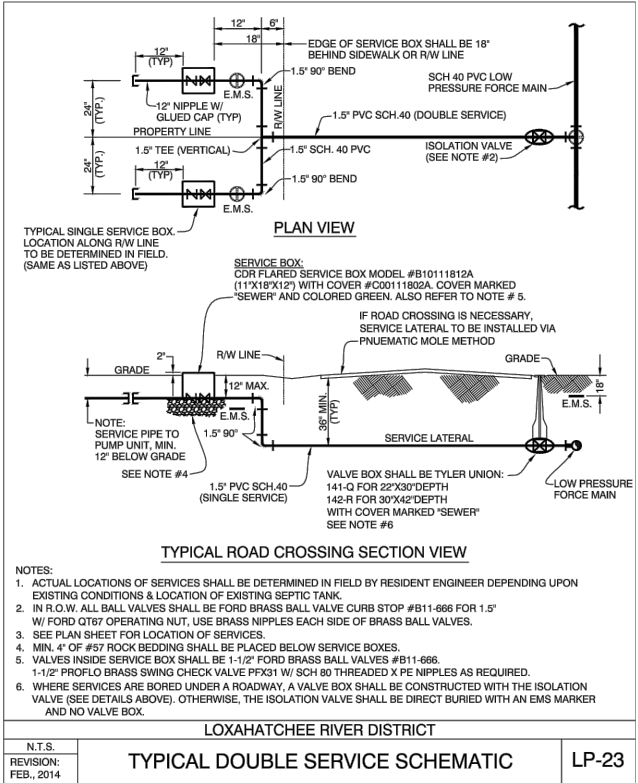
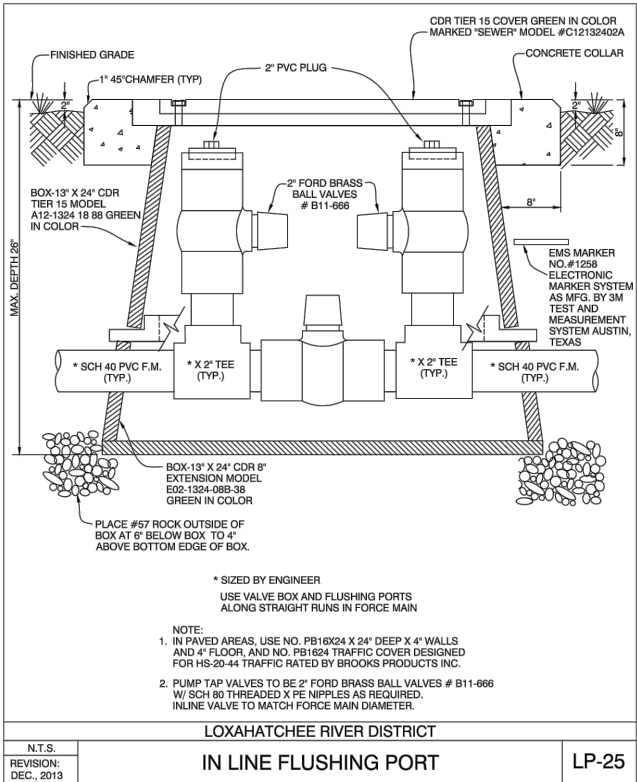
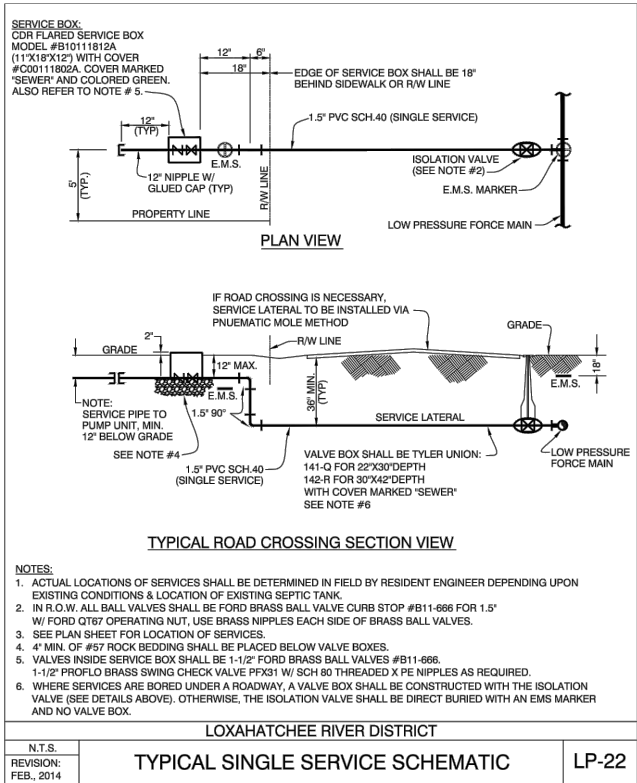
DEPARTMENT MANAGER
T. JENSEN

LEAD DESIGN PROF.
D. BANNETT

CHECKED BY
D. BANNETT

PROJECT NUMBER
WF900278

DRAWING NUMBER
8 Of 11



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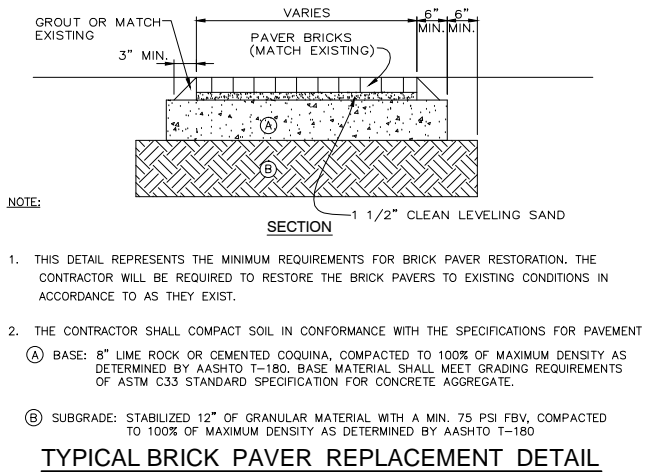
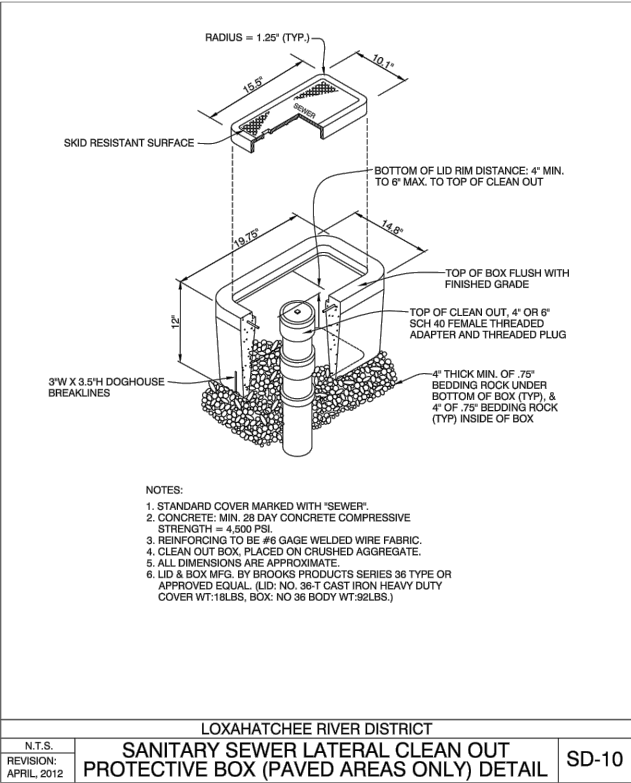
DAVID A. BANNETT
FLORIDA P.E. NO. 51865

VILLAGE OF TEQUESTA
TEQUESTA PARK
LIFT STATION IMPROVEMENTS

PROJECT MANAGER T. JENSEN	DEPARTMENT MANAGER T. JENSEN	LEAD DESIGN PROF. D. BANNETT	CHECKED BY D. BANNETT
SHEET TITLE DETAILS 3			DRAWN BY R. ADAMS
		PROJECT NUMBER WF900278	DRAWING NUMBER 9 Of 11

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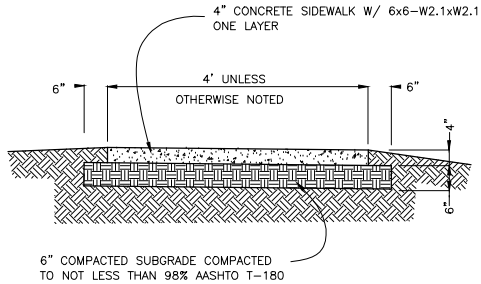
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MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)									
TYPE	PIPE SIZE								
	4"	6"	8"	10"	12"	16"	20"	24"	36"
90° BEND	18	24	31	38	43	55	65	75	88
45° BEND	8	10	13	15	18	23	26	31	38
22-1/2° BEND	4	5	6	8	9	11	13	15	20
11-1/4° BEND	2	3	4	5	6	8	9	10	11
PLUG OR BRANCH OF TEE	38	50	65	79	90	117	139	163	223
VALVE	19	25	32	40	45	59	70	82	98
REDUCER	VARIES BY SIZE; TO BE DETERMINED BY THE DESIGN ENGINEER								

NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:
WORKING PRESSURE: 100 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3
DEPTH OF COVER: 3 FT
SAFETY FACTOR: 1.5
CONVERSION FACTOR FOR PVC PIPE: 1.25
THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.

LOXAHATCHEE RIVER DISTRICT		
N.T.S.	FORCE MAIN THRUST RESTRAINT CHART	SD-18
REVISION:		
APRIL, 2012		



NOTE:
PROVIDE ONE CONTROL JOINT EVERY 8 FEET AND TWO AT THE CORNERS.

REVISIONS			
NO.	BY	DATE	REMARKS

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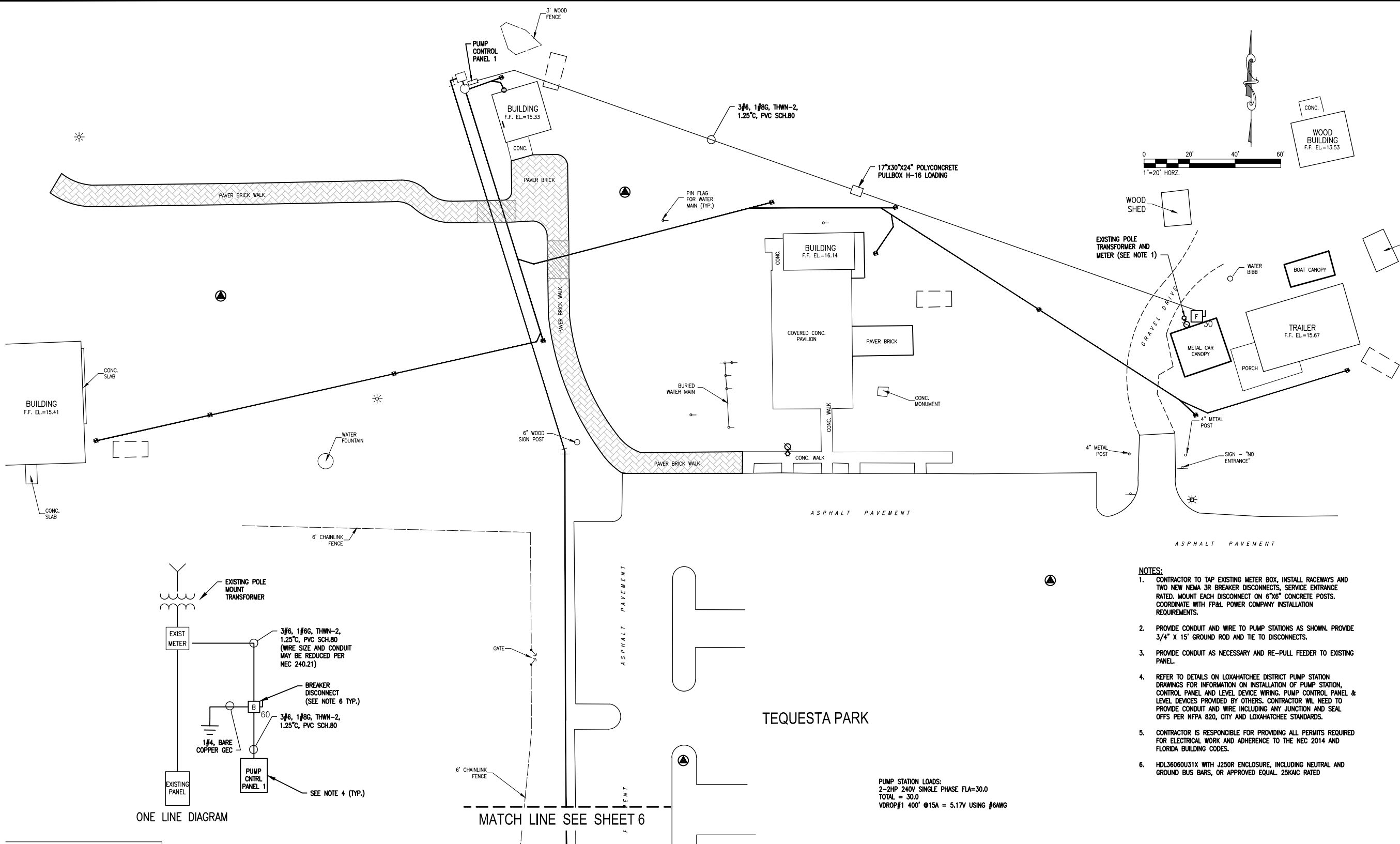
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VILLAGE OF TEQUESTA
TEQUESTA PARK
LIFT STATION IMPROVEMENTS

PROJECT MANAGER T. JENSEN	DEPARTMENT MANAGER T. JENSEN	LEAD DESIGN PROF. D. BANNETT	CHECKED BY D. BANNETT
SHEET TITLE DETAILS 4		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS DRAWING NUMBER 10 Of 11

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VILLAGE OF TEQUESTA
TEQUESTA PARK
LIFT STATION IMPROVEMENTS

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SHEET TITLE ELECTRICAL SITE AND ONE LINE		PROJECT NUMBER WF900278	DRAWN BY R. ADAMS
			DRAWING NUMBER 11 Of 11