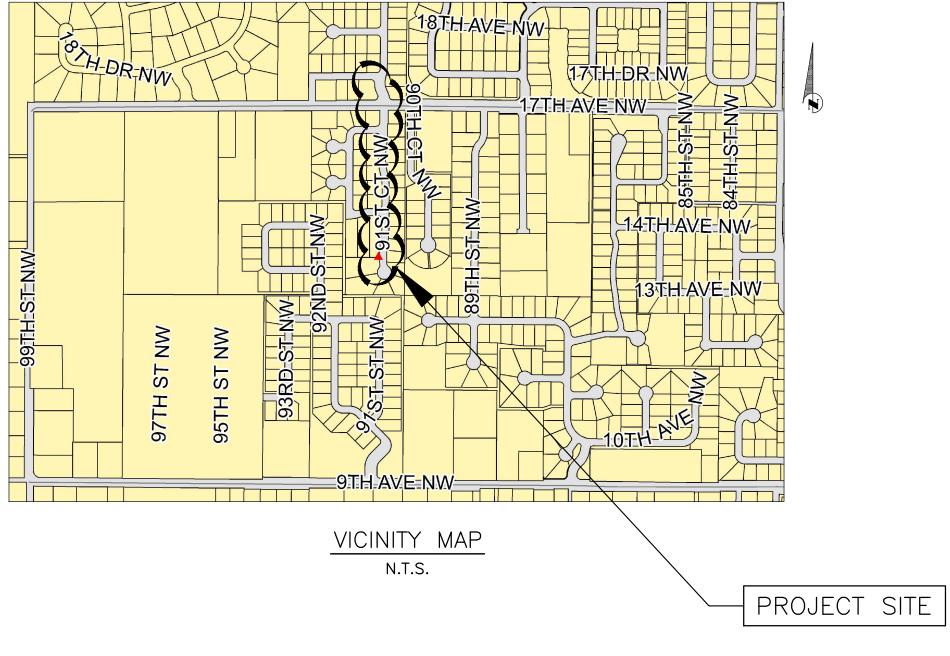
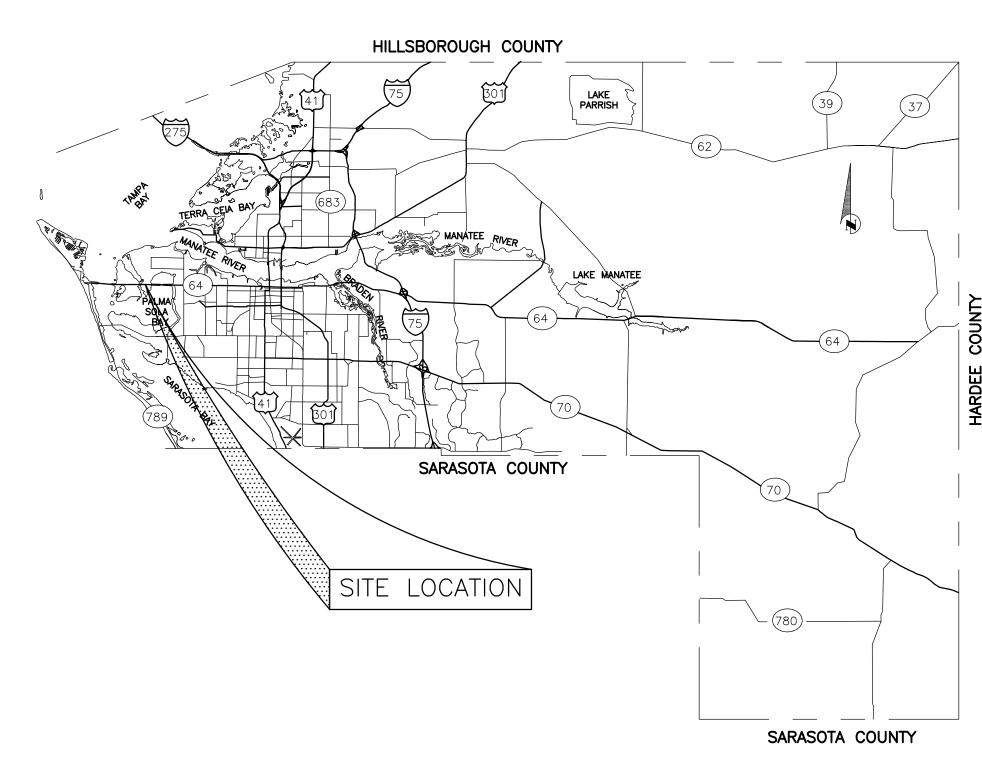


FIDDLERS GREEN LIFT STATION AND FORCE MAIN REPLACEMENT 1312 91ST ST. CT. N.W., BRADENTON, FL 402-5133080

FEBRUARY 2015





100% PLANS

NO.	INDEX OF SHEETS
1.	COVER SHEET
2.	GENERAL NOTES & LEGENE
35.	PLAN AND PROFILE
67.	CONSTRUCTION DETAILS
8.	LIFT STATION DETAILS
9.	EROSION CONTROL
1011.	SURVEY CONTROL SHEETS

Know what's below Call before you dig

PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
22 26th Avenue East, Bradenton, FL 34208

FIDDLERS GREEN LIFT STATIC AND FORCE MAIN REPLACEME 1312 91ST ST. CT. N.W., BRADENTON, FL

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VERTICAL DATUM: NGVD29	REVISION DESCRIPTION			
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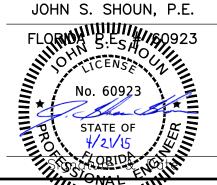
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 CB
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 CHECKED
 JSS
 08/12/14

 JOHN S. SHOUN, P.E.



PROJECT DESCRIPTION

INSTALL A NEW LIFT STATION WET WELL, ABOVE—GROUND VALVE ASEMBLY, AND 4" HDPE FORCE MAIN BY HORIZONTAL DIRECTION DRILL AND CONNECT TO THE EXISTING 6" FORCE MAIN IN THE 17TH AVE NW RIGHT—OF—WAY.

GENERAL

- 1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: SHERRI ROBINSON AND CAN BE REACHED AT (941) 708-7450; EXT. 7334
- 2. SITE VISITS ARE MANDATORY FOR ALL BIDDERS. THESE SITE VISITS CAN BE ARRANGED THROUGH THE PROJECT MANAGER
- . ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
- 4. VERTICAL CONTROL FOR THIS PROJECT WAS ESTABLISHED BY A MINIMUM OF TWO REFERENCE BENCHMARKS DESCRIBED ON THE "THE NATIONAL GEODETIC VERTICAL DATUM OF 1929", (NGVD '29).
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
- 6. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
- 7. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
- 8. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
- 9. NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM, FOR ADDITIONAL PROJECT RESTRAINTS. REFER TO SECTION 01310 OF THE SPECIFICATIONS.

<u>SAFETY</u>

- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
- 11. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
- 12. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
- 13. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

ENVIRONMENTAL

- 14. WHEN A BENTONITE SPILL OR FRACK-OUT OCCURS OR THERE IS A LOSS OF RETURN INDICATING EXCESSIVE SEEPAGE OR LOSS OF DRILLING FLUID, DRILLING MUST BE STOPPED UNTIL THE LOCATION OF THE SPILL IS IDENTIFIED. UNDER NO CIRCUMSTANCES WILL DRILLING CONTINUE WHEN A SPILL IS APPARENT
- 15. ONCE LOCATED, THE BENTONITE SPILL MUST BE ISOLATED AND SEEPAGE INTO ANY NEARBY WATER BODIES WILL BE BLOCKED DEPENDING ON THE DEGREE OF THE SPILL, THE ISOLATED BENTONITE MUST BE REMOVED MANUALLY OR MECHANICALLY AND DISPOSED OF BY APPROPRIATE MEANS OR REUSED.
- 16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.
- 17. STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON-SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STOCKPILED MATERIAL. CONTROL OF DUST FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.
- 18. STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION. THIS WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.
- 19. SEDIMENT BASINS AND TRAPS. PERIMETER BERMS. SEDIMENT BARRIERS. VEGETATIVE BUFFERS. AND OTHER MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES. OR INTO EXISTING BODIES OF WATER. MUST BE INSTALLED. CONSTRUCTED. OR IN THE CASE OF VEGETATIVE BUFFERS. PROTECTED FROM DISTURBANCE. AS A FIRST STEP IN THE LAND ALTERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATION.
- 20. ALL SWALES, DITCHES, AND CHANNELS LEADING FROM THE SITE SHALL BE PROTECTED FROM SILTATION AND EROSION DURING CONSTRUCTION AND BE SODDED WITHIN THREE (3) DAYS OF EXCAVATION.
- 21. SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE CONSIDERED ENVIRONMENTALLY SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYSTEMS MAY INCLUDE STAKED HAY BALES, SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.
- 22. ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND SHALL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- 23. THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CONSTRUCTION SITE. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIONS AND/OR PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERMIT CONDITIONS.
- 24. FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS.

RIGHT-OF-WAY

- 25. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
- 26. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- 27. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
- 28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE PIPE AND HEADWALLS WHETHER SHOWN ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.
- 29. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.
- 30. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER SECTION 02575.
- 31. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.

<u>UTILITIES</u>

- 32. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMPROVEMENTS, UTILITIES, ETC. WHICH ARE WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION SHOWN OR RELOCATED SINCE THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY EFFECT HIS WORK. ALL EXISTING UTILITIES TO BE EXTENDED, CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. ANY DISCREPANCIES OR CONFLICTS FOUND SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.
- 33. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
- 34. THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED OR OFFERED BY FLORIDA POWER AND LIGHT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED OR REQUIRED BY THE UTILITY, THE CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ALL RELATED COSTS.
- 35. ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING CONSTRUCTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE DAY OR NIGHT AND WILL BE COMPLETED AT NO ADDITIONAL COST TO THE OWNER.
- 36. FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE FLOW OF ALL SEWAGE DURING CONSTRUCTION, WHICH MAY REQUIRE BY-PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A DETAILED BY-PASS PUMPING PLAN PER SECTION 02720.

RESTORATION

- 37. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE.
- 38. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.
- 39. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.
- 40. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513.
- 41. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN, SECTION 522, AND SECTION 310 OF THE F.D.O.T. DESIGN STANDARDS.
- 42. WHENEVER A PERMANENT ROADWAY SURFACE IS NOT PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OF THE NEWLY INSTALLED PIPE LINE IN AREAS WHERE TRAFFIC MUST PASS, THE CONTRACTOR SHALL INSTALL A TEMPORARY SURFACE CONSISTING OF NINE INCHES OF COMPACTED LIME ROCK BASE AND A COAT OF ASPHALT EMULSION. PERMANENT ROADWAY REPAIR SHALL BE PERFORMED A MAXIMUM OF TWENTY-ONE CALENDAR DAYS AFTER THE INITIAL OPEN CUTTING.
- 43. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY—FIVE CALENDAR DAYS OF INITIAL DISTURBANCE, OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST.

<u>CONSTRUCTION</u>

- 44. THE EXHAUST SYSTEM OF ALL GASOLINE AND DIESEL ENGINES SHALL BE EQUIPPED WITH MUFFLERS THAT MEET THE EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR NOISE SUPPRESSION. THE CONTRACTOR SHALL INSTALL NOISE ABATEMENT BAFFLES POSITIONED TO BREAK LINE-OF-SITE FROM THE NOISE SOURCE TO AFFECTED RESIDENCES, AS APPROVED BY THE ENGINEER.
- 45. NO MATERIAL SHALL BE STOCKPILED IN ROADWAYS. ALL DIRT AND DEBRIS SHALL BE REMOVED FROM THE JOB SITE DAILY. ROADS SHALL BE SWEPT DAILY AS PART OF DAILY CLEAN UP.
- 46. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.
- 47. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES. 48. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA.
- 49. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM.
- 50. ALL PIPING AND FITTINGS USED ON THIS PROJECT SHALL BE AS NOTED ON THE PLANS AND IN THE CONTRACT DOCUMENT AND SHALL BE INSTALLED TO THE LINES AND GRADES SHOWN ON THE PLANS AND PROFILES.
- 51. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.
- 52. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.
- 53. ALL FITTINGS FOR PRESSURE CLASS—RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS SHOWN ON THE DETAIL SHEETS.
- 54. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MANUFACTURER'S MAXIMUM ALLOWABLE RECOMMENDED DEFLECTION.
- 55. ALL PIPE LENGTHS ARE PLUS OR MINUS AND MAY BE ADJUSTED IN THE FIELD AS REQUIRED. PIPE MEASUREMENTS ARE TO CENTER OF STRUCTURES OR FITTINGS. 56. ALL ROCKS OR STONES LARGER THAN SIX INCH DIAMETER SHALL BE REMOVED FROM THE BACKFILL MATERIAL. BACKFILL
- MATERIAL PLACED WITHIN ONE FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO INCH DIAMETER. 57. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED
- UTILITY SYSTEMS.
- 58. ALL PENETRATION OF EXISTING STRUCTURES SHALL BE BY THE MECHANICAL ROTARY CORE BORING METHOD.
- 59. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY.
- 60. THE CONTRACTOR, PRIOR TO ANY TEMPORARY WATER SHUT-OFFS DURING WATER MAIN TIE-IN, ETC., SHALL NOTIFY THE AFFECTED RESIDENTS BY POSTING INFORMATIONAL SIGNS IN THE NEIGHBORHOOD AT LEAST TWO DAYS (48 HRS) PRIOR TO THE WATER SHUT-OFF. REFERENCE SECTION 01580, PARAGRAPH 1.03 OF THE SPECIFICATIONS. WHEN FEASIBLE, "DOOR HANGERS" SHALL BE DELIVERED TO AFFECTED RESIDENCES AT LEAST TWO DAYS (48 HRS) PRIOR TO WATER SHUT-OFF. FOR LARGE PROJECTS WITH HUNDREDS OF HOMES AFFECTED, THE CONTRACTOR SHALL ALSO MAKE EXTENSIVE USE OF THE MEDIA AND SHALL HAVE PRIOR CONTACT WITH HOMEOWNER'S ASSOCIATIONS. WRITTEN NOTIFICATIONS SHALL ALSO BE FAXED TO THE TAMPA TRIBUNE. BRADENTON HERALD. SARASOTA HERALD TRIBUNE, WBRD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT.
- 61. ALL NEW PIPE LINES SHALL BE PIG CLEANED (4" AND LARGER), FLUSHED, PRESSURE TESTED, DISINFECTED AND CERTIFIED PRIOR TO TIE-INS TO EXISTING FACILITIES. THE CONTRACTOR WILL BE ALLOWED TO USE TEMPORARY PLUGS FOR PIG CLEANING AND PRESSURE TESTING.
- 62. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. A CORPORATION STOP PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE.
- 63. ALL EXISTING MAINS THAT ARE BEING REPLACED SHALL BE ABANDONED IN PLACE UPON ACCEPTANCE AND ACTIVATION OF THE NEW MAINS. ABANDONED MAINS SHALL BE CUT, FILLED WITH GROUT, AND CAPPED. REFER TO SECTION 02064 OF THE SPECIFICATIONS FOR GROUTING OF ABANDONED PIPE.
- 64. WATER MAINS CROSSING OVER OR UNDER SANITARY SEWERS, FORCE MAINS, AND RECLAIMED WATER LINES SHALL BE LAID PER CURRENT EDITION OF "10 STATE STANDARDS" **and manatee county utility standards** unless noted otherwise on the PLANS.

- 65. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE ENGINEER.
- 66. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 14 IN THE CURRENT MANATEE COUNTY UTILITY STANDARDS AT NO COST TO THE OWNER. RECORD DRAWINGS SHALL BE SIGNED & SEALED BY A SURVEYOR CURRENTLY LICENSED BY THE STATE OF FLORIDA. ALL RECORD DRAWING INFORMATION REQUIREMENTS IN SECTION 14 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 14 WILL BE PROVIDED UPON REQUEST.



EMERGENCY CONTACTS

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BRADENTON, FL. 34208

EMERGENCY: 1-800-4-OUTAGE

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GREG COKER

HANS ROESE

MANATEE COUNTY PUBLIC WORKS DEPT. CHRISTOPHER L. MOWBRAY, P.E. 1253 12TH AVENUE EAST 1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7450 FAX: (941) 708-7415

TECO/PEOPLES GAS CO. DAN SHANAHAN 8261 VICO COURT SARASOTA, FL. 34240 (941) 342-4030 FAX: (941) 342-4011 EMERĜENCY: 1-877-832-6911

VERIZON FLORIDA INC. JOHN PLOTT 1701 RINGLING BLVD. SARASOTA, FL. 34236 (941) 906-6707 FAX: (941) 906-6706 John.Plott@verizon.com FLORIDA GAS TRANSMISSION CHAD HARRELL 7804 ANDERSON RD. TAMPA FL 33634 PHONE: (813) 466-3327 E-mail: chad.harrell@sug.com

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FAX: (941) 750-9364 TOM WRIGHT 5413 E. STATE ROAD 64 SOUTHWEST FLORIDA WATER BRADENTON, FL. 34208-5535 MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE (941) 748-3816 EXT. 21348 Tom.Wright@mybrighthouse.com 6750 FRUITVILLE ROAD SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770

PEACE RIVER ELECTRIC COOPERATIVE, INC. P.O. BOX 1310 WACHULA, FL 33873 KENDELL COKER (863) 767-4660

MANATEE COUNTY PUBLIC WORKS ATMS 2101 47TH TERRACE EAST BRADENTON, FL 34203

BRIGHT HOUSE NETWORKS

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DEPT./TRAFFIC ENGINEERING/ VISHAL KAKAAD, P.E. (941) 749-3500 EXT. 7812 FAX: (941) 749-3571 vishal.kakkad@mymanatee.org. X × E

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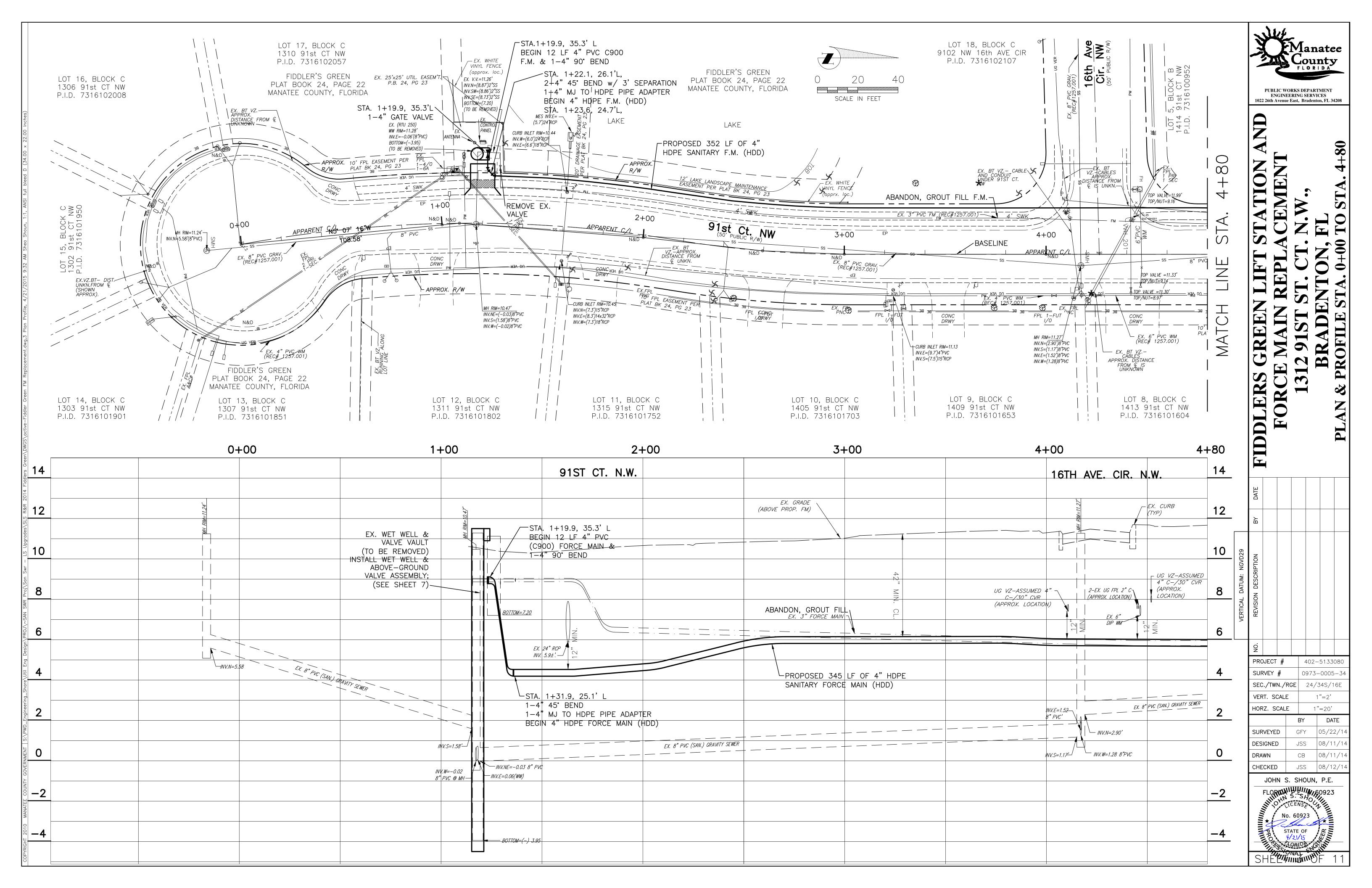
ABBREVIATIONS RIGHT OF WAY CONCRETE ASPHALT DRIVEWAY SIDEWALK EDGE OF PAVEMENT BACK OF CURB SURVEY CONTROL POINT PLAT BOOK PAGE BK. OFFICIAL RECORD BOOK PARCEL IDENTIFICATION NO. PROPOSED

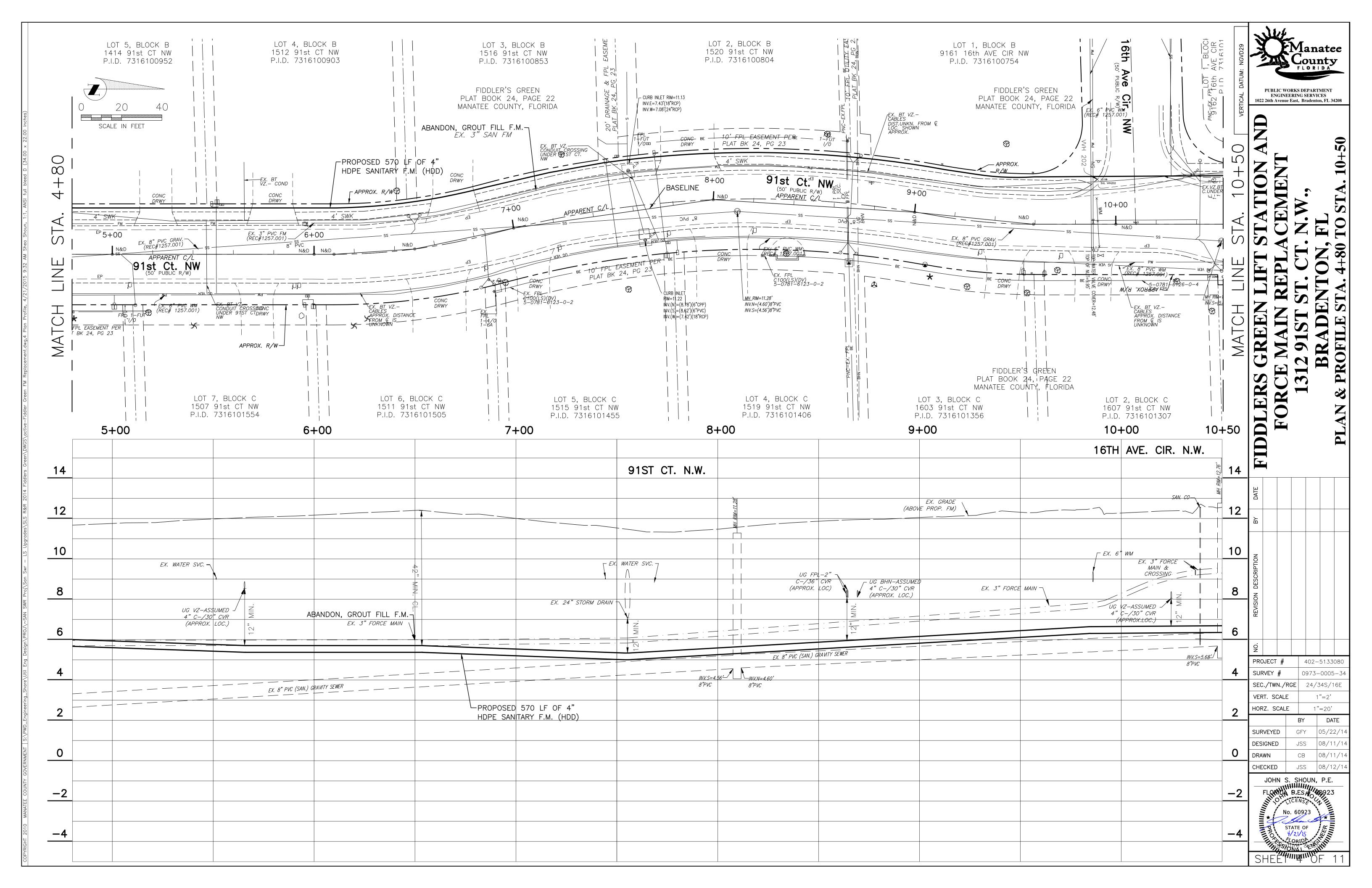
SERVICE LINE FIRE HYDRANT VALVE SANITARY SEWER MANHOLE BLOW OFF ASSEMBLY REDUCER HORIZONTAL BEND VERTICAL BEND PLUG MASTER METER ASSEMBLY SERVICE LINE & METER DOUBLE SERVICE

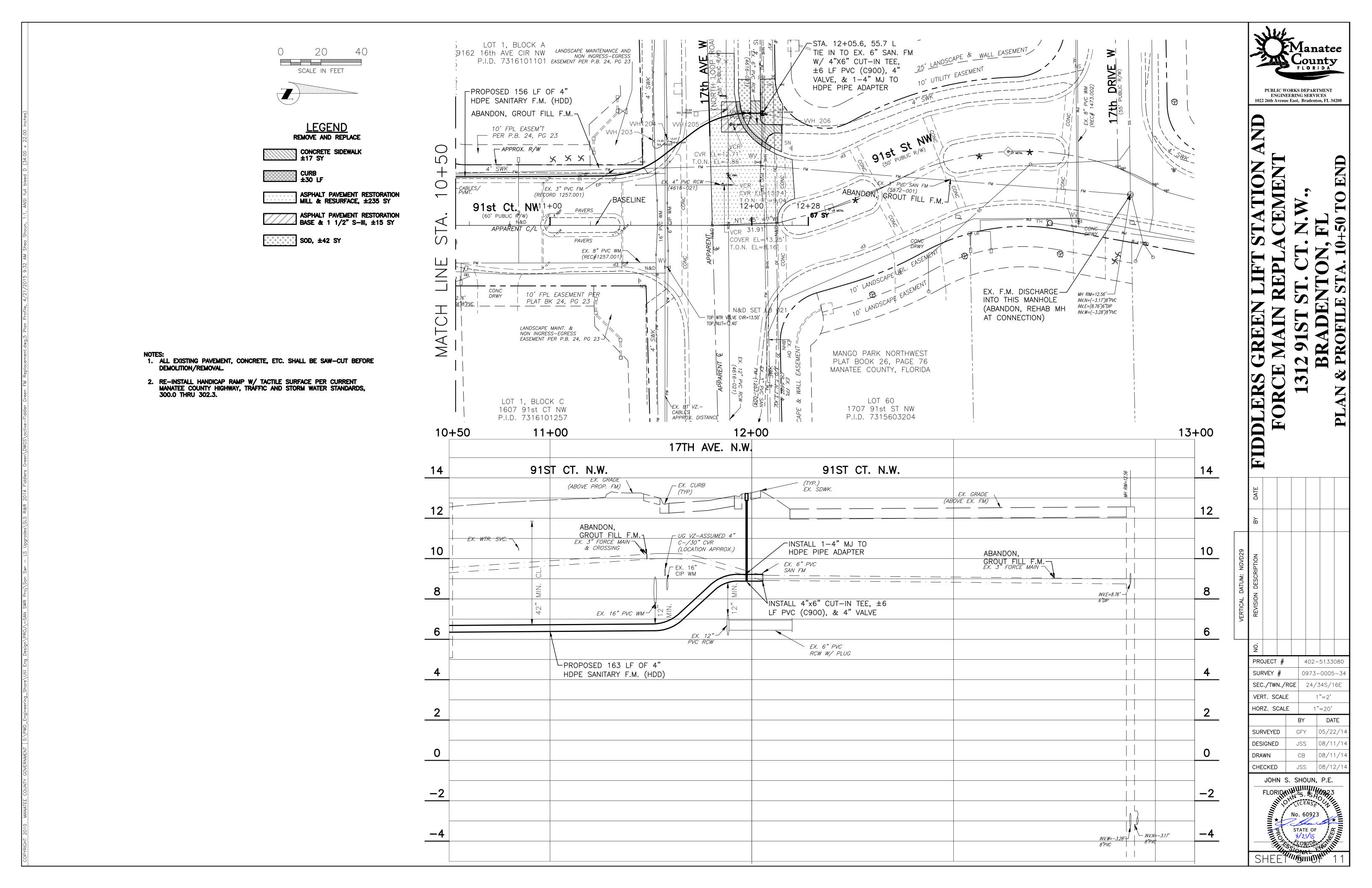
PROJECT #

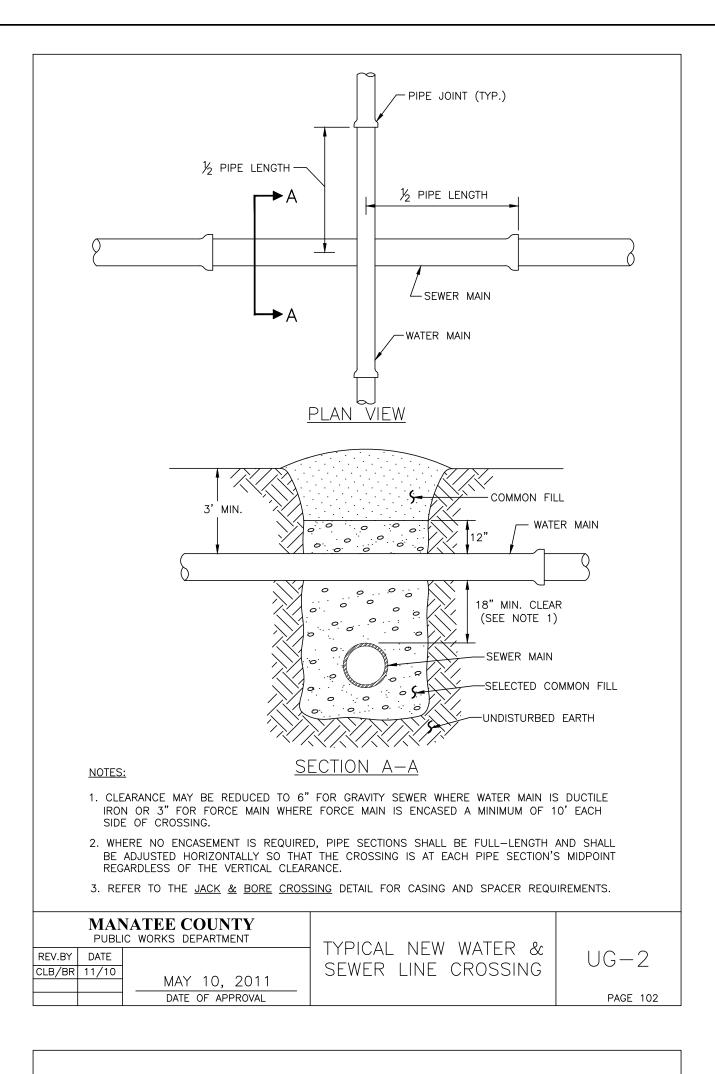
402-5133080 SURVEY # 0973-0005-34 SEC./TWN./RGE | 24/34S/16E SCALE 1"=20' DATE SURVEYED GFY | 05/22/1 DESIGNED JSS |08/11/1 DRAWN CB |08/11/1 JSS |08/12/1 CHECKED

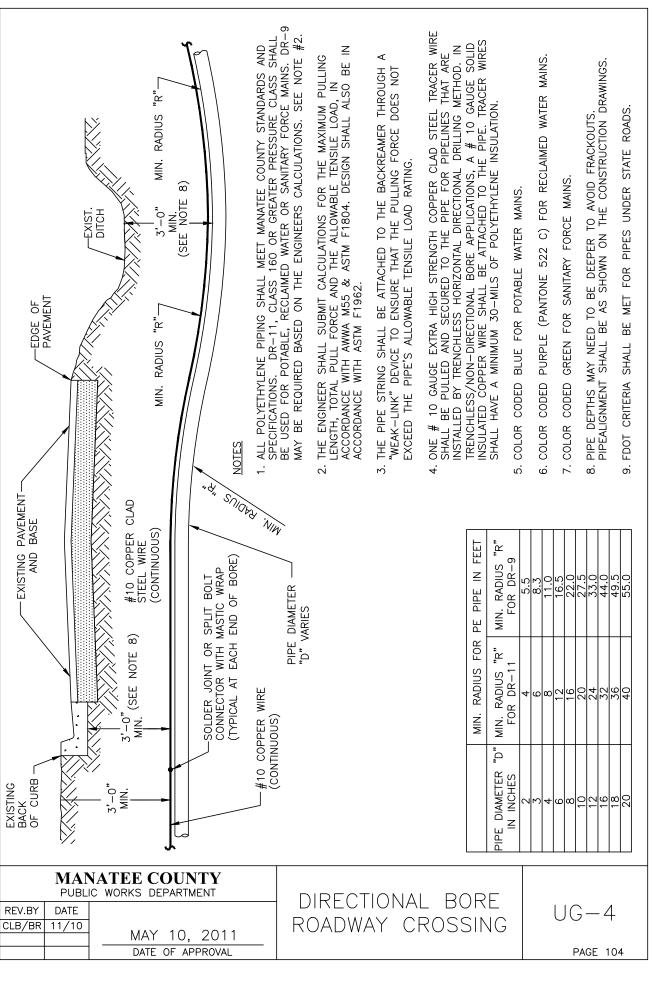
JOHN S. SHOUN, P.E. FLQ**RNO**A, B.E.S.# 180923 No. 60923 STATE OF

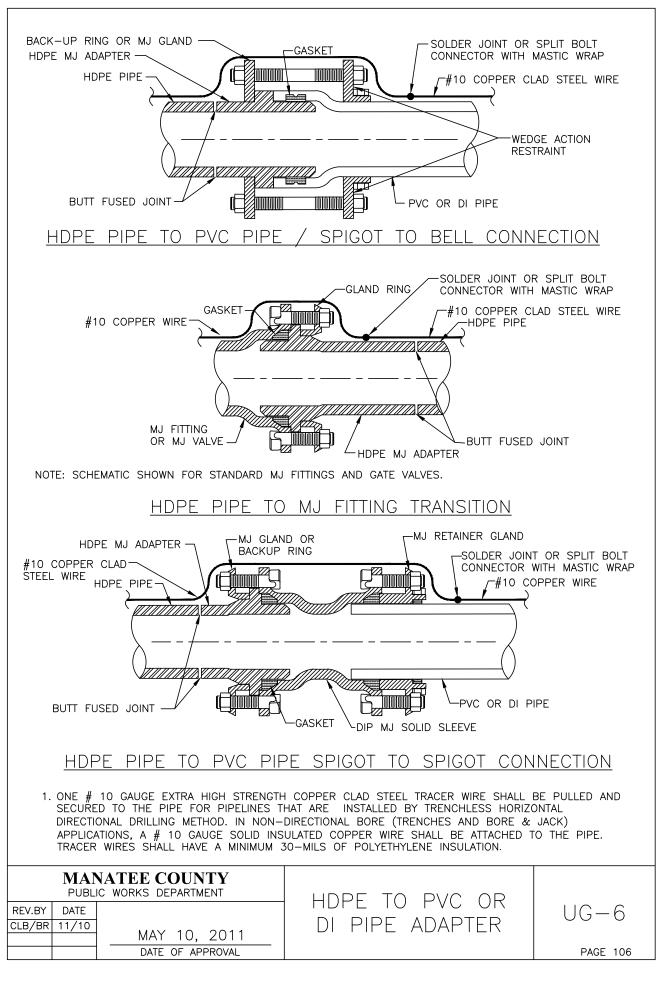


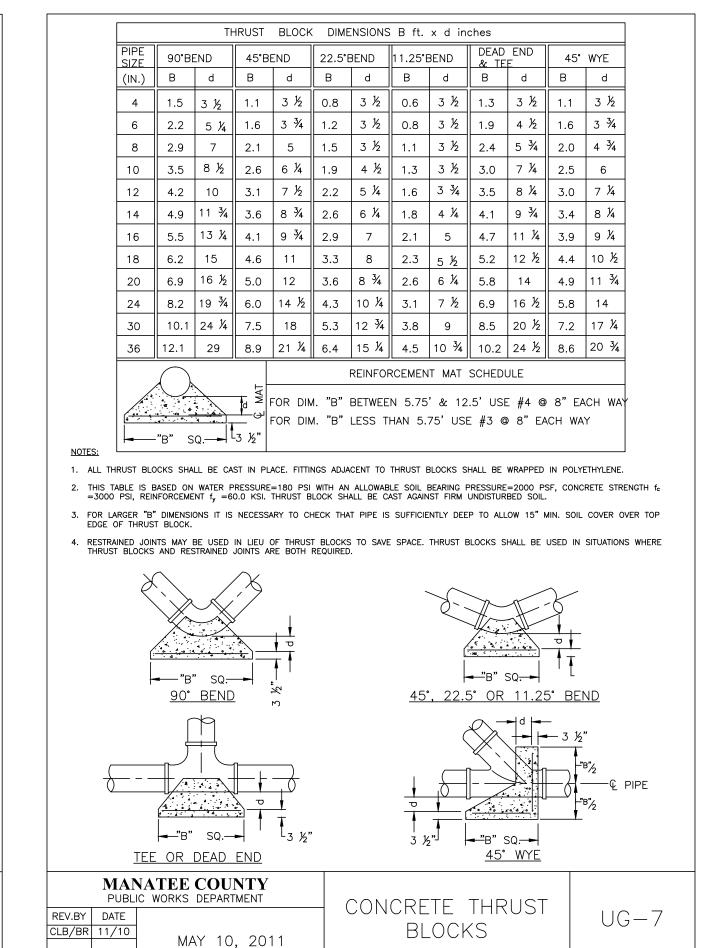












PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208 N MENT OIL REE ER DI BLOCKS DATE OF APPROVAL PAGE 107 FID

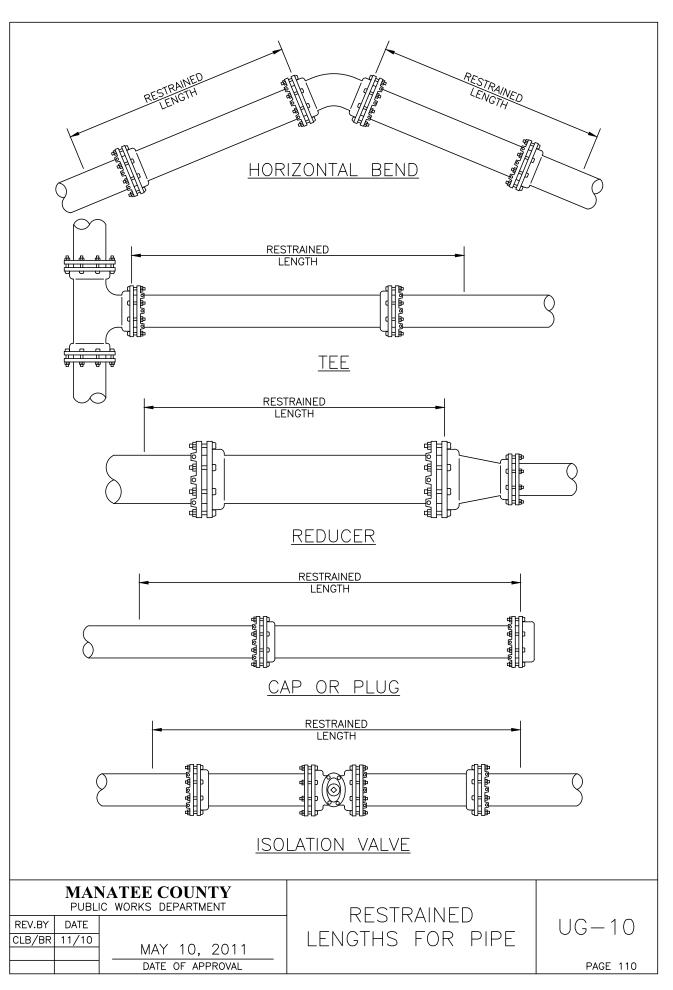


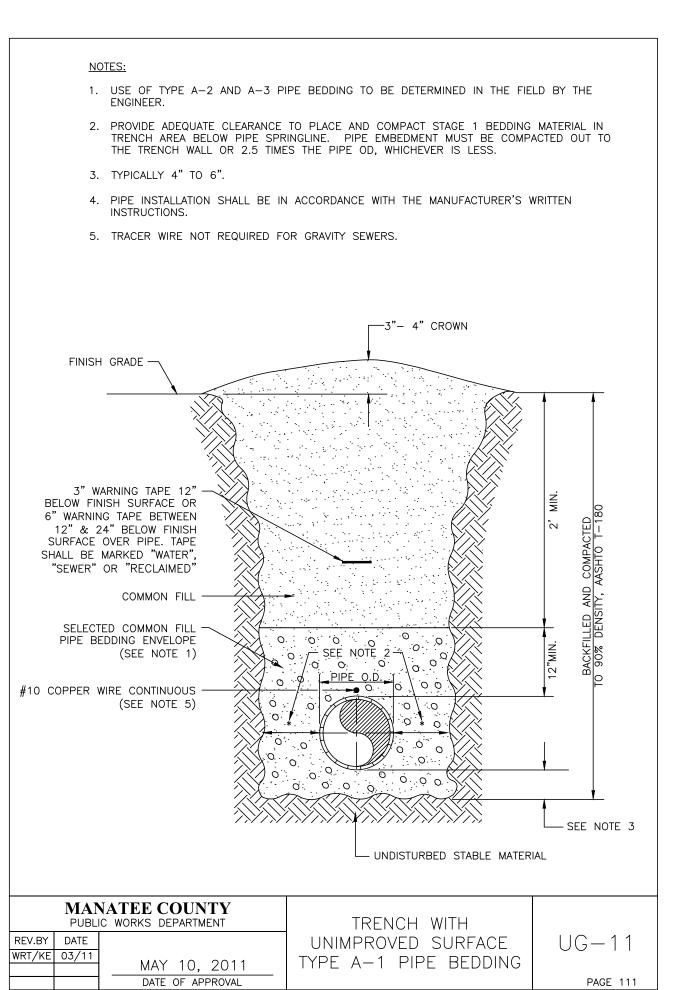
MAIN PIPE	HOR	IZ. BE	ENDS	TEES					REDUCERS			PLUGS & VALVES
SIZE	90°	45°	22.5°		S	SIZE LEN	IGTH		SIZE LENGTH			
24	90	38	18	X24 169	X20 132	X16 90	X12 38	X10 ₆	X20 64	X16 117	X12 158	214
20	78	32	16	X20 141	X16 101	X12 53	X10 24	X8_1	X16 65	X12 115	X10 149	184
16	66	27	13	X16 111	X12 67	X10 41	X8 12		X12 64	X10 107	X8 111	151
12	52	22	10	X12 80	X10 56	X8 31	X6_1		X10 58	X8 62	X6 86	118
10	44	18	9	X10 63	X8 40	X6 ₇			X8 33	X6 61	X4 81	100
8	37	15	7	X8 49	X6 18	X4 ₁			X6 35	X4 60		83
6	29	12	6	X6 29	X4 ₁				X4 33			63
4	21	8	4	X4 12								45

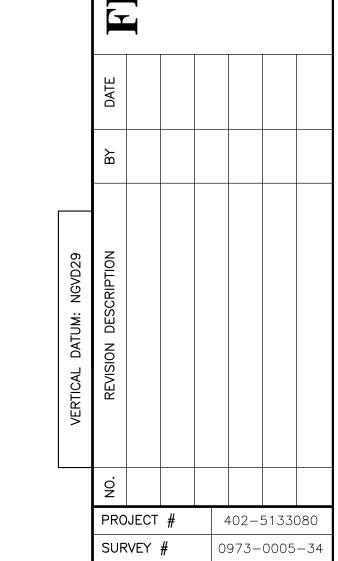
NOTES:

- 1. RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS.
- 2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTINGSECTIONS OF PIPE.
- 3. ALL ISOLATIONVALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
- 4. PIPE SIZES ARE GIVEN IN INCHES.
- 5. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
- 6. LENGTHS SHOWN ARE FOR A TEST PRESURE OF 180 PSI.
- 7. THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFTEY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
- 8. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL RESTRAINED LENGTHS FOR PIPE.

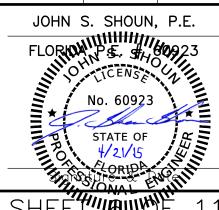
		NATEE COUNTY IC WORKS DEPARTMENT	RESTRAINED	
REV.BY CLB/BR	DATE 11/10	MAY 10, 2011	LENGTHS FOR PVC	UG-8
		DATE OF APPROVAL	, , , , , , , , , , , , , , , , , , ,	PAGE 108







PROJECT #		4	-02-	51330	080	
SURVEY #		09	973-	-0005	-34	
SEC./TWN./		24/3	34S/1	6E		
SCALE		1"=20'				
		BY		DA	ΓΕ	
SURVEYED		GFY		05/22	2/14	
DESIGNED	,	JSS 08/11/1			1/14	
DRAWN		СВ		08/1	1/14	
CHECKED	,	JSS 08/12/1			2/14	
JOHN S. SHOUN, P.E.						
FLOR INI/ P.E. d. 40 023						



- 1. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 2. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- 3. TYPICALLY 4" TO 6".

BY MANATEE COUNTY.

- 4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 5. ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1 1/4 INCH, WHICHEVER IS GREATER.
- 6. MILL 25' BACK FROM TRENCH SAW CUT. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY LIMITS ARE FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT. FINAL OVERLAY TO MATCH EXISTING WITH NO DISCERNABLE "BUMP" AT JOINT. MILLING
- 7. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.

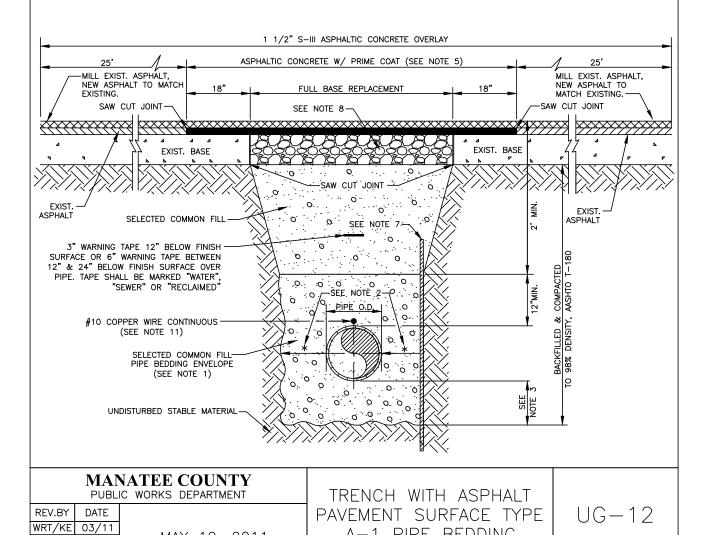
LIMITS THAT IMPACT INTERSECTION SHALL BE ADDRESSED ON A CASE BY CASE BASIS AND APPROVED

- 8. BASE SHALL BE 8" MINIMUM THICKNESS CRUSHED CONCRETE.
- 9. TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
- 10. RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
- 11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.

MAY 10, 2011

DATE OF APPROVAL

12. NOTES 5. THRU 10. ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.

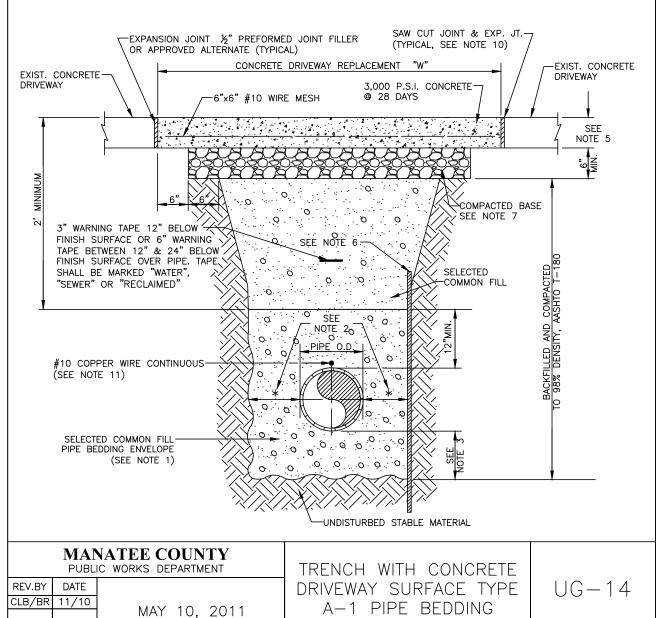


A-1 PIPE BEDDING

PAGE 112

- 1. USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- 3. TYPICALLY 4" TO 6".
- 4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- 5. THICKNESS TO MATCH EXISTING OR BE 6" MINIMUM, WHICHEVER IS GREATER.
- 6. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISH GRADE OR 12" BELOW SUBGRADE.
- 7. BASE SHALL BE COMPACTED 6" MINIMUM THICKNESS OF APPROVED MATERIAL.
- DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED CONSTRUCTION STANDARDS OF THE MANATEE COUNTY TRANSPORTATION DEPARTMENT.
- 9. IF THE DRIVEWAY IS 12' OR WIDER, SAWCUT AN EXPANSION JOINT ALONG THE CENTER OF THE DRIVEWAY (3/6" WIDE AND 11/4" DEEP) AFTER THE CONCRETE HAS SET.
- 10. IF THERE IS AN EXISTING EXPANSION JOINT WITHIN 3' OF THE PROPOSED JOINT, EXTEND DRIVEWAY REPLACEMENT TO THE EXISTING JOINT.
- 11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.

DATE OF APPROVAL

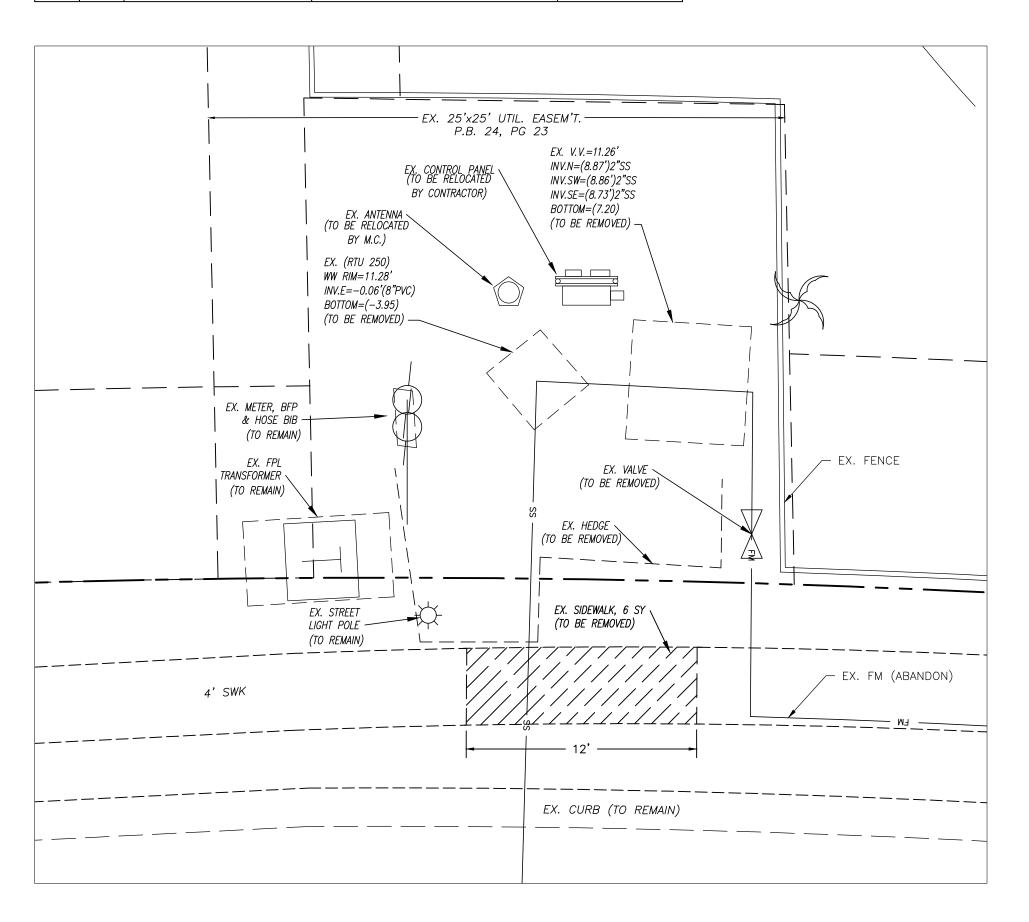




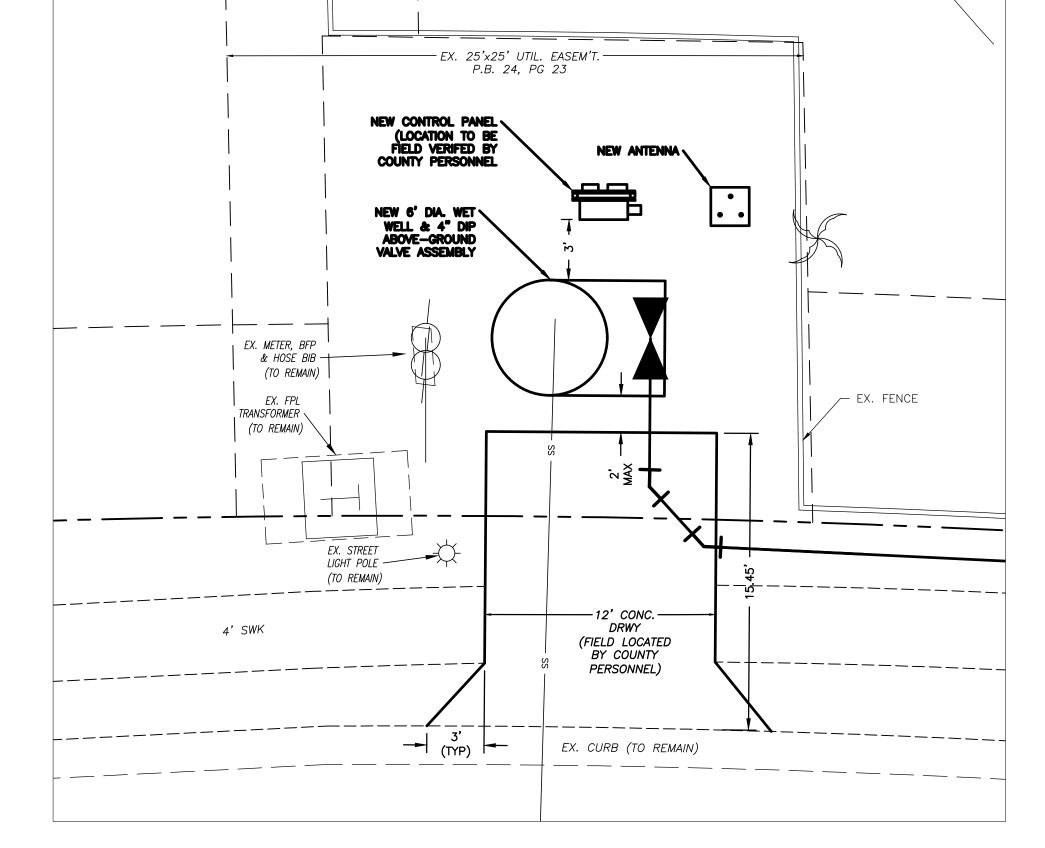
	TINGT COLD CONDI	110110
RIM TOP ELEV. DISCHARGE PIPE SIZE FORCE MAIN SIZE INFLUENT PIPE SIZE NFLUENT INVERT EL. HIGH WATER ALARM EL. LAG PUMP ON EL. LEAD PUMP ON EL. L.W.L. ALL PUMPS OFF EL. PUMP CAPACITY — GPM EACH TOTAL DYNAMIC HEAD, TDH MOTOR HORSE POWER 10 PUMP MODEL 11.50 4 INCH (-)0.06 (-)0.06 (-)1.06 (-)1.06 (-)1.56 (-)3.56 BOTTOM INV. EL. PUMP CAPACITY — GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75	DESCRIPTION	
DISCHARGE PIPE SIZE 4 INCH FORCE MAIN SIZE 4 INCH INFLUENT PIPE SIZE 8 INCH INFLUENT INVERT EL. (-)0.06 HIGH WATER ALARM EL. (-)0.56 LAG PUMP ON EL. (-)1.06 LEAD PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	WET WELL DIAMTER	6 FT
FORCE MAIN SIZE INFLUENT PIPE SIZE INFLUENT INVERT EL. (-)0.06 HIGH WATER ALARM EL. (-)1.06 LAG PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. PUMP CAPACITY — GPM EACH TOTAL DYNAMIC HEAD, TDH MOTOR HORSE POWER PUMP IMPELLER SIZE 8.75 PUMP MODEL 4 INCH (-)0.06 (-)0.06 (-)0.56 (-)1.06 (-)1.56 (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY — GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10	RIM TOP ELEV.	11.50
INFLUENT PIPE SIZE INFLUENT INVERT EL. (-)0.06 HIGH WATER ALARM EL. (-)1.06 LAG PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. PUMP CAPACITY — GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL	DISCHARGE PIPE SIZE	4 INCH
INFLUENT INVERT EL. (-)0.06 HIGH WATER ALARM EL. (-)0.56 LAG PUMP ON EL. (-)1.06 LEAD PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	FORCE MAIN SIZE	4 INCH
HIGH WATER ALARM EL. (-)0.56 LAG PUMP ON EL. (-)1.06 LEAD PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	INFLUENT PIPE SIZE	8 INCH
LAG PUMP ON EL. (-)1.06 LEAD PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	INFLUENT INVERT EL.	(-)0.06
LEAD PUMP ON EL. (-)1.56 L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	HIGH WATER ALARM EL.	(-)0.56
L.W.L. ALL PUMPS OFF EL. (-)3.56 BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	LAG PUMP ON EL.	(-)1.06
BOTTOM INV. EL. (-)5.23 PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	LEAD PUMP ON EL.	(-)1.56
PUMP CAPACITY - GPM EACH 158 TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	L.W.L. ALL PUMPS OFF EL.	(-)3.56
TOTAL DYNAMIC HEAD, TDH 66.3 MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	BOTTOM INV. EL.	(-)5.23
MOTOR HORSE POWER 10 PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	PUMP CAPACITY - GPM EACH	158
PUMP IMPELLER SIZE 8.75 PUMP MODEL HYDROMATI	TOTAL DYNAMIC HEAD, TDH	66.3
PUMP MODEL HYDROMATI	MOTOR HORSE POWER	10
	PUMP IMPELLER SIZE	8.75
	PUMP MODEL	HYDROMATI H4H1000M3

PROPOSED CONDITIONS

THE LIFT STATION PUMPS SHALL BE FURNISHED AND INSTALLED BY THE COUNTY.



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LIFT STATION PROPOSED CONDITION N.T.S.

ME \square LIF DI FID

FLORIDA

PUBLIC WORKS DEPARTMENT

ENGINEERING SERVICES

1022 26th Avenue East, Bradenton, FL 34208

PROJECT # 402-5133080 SURVEY # 0973-0005-34 **SEC./TWN./RGE** | 24/34S/16E SCALE 1"=20' BY DATE GFY 05/22/1 DESIGNED JSS | 08/11/1

CB | 08/11/1

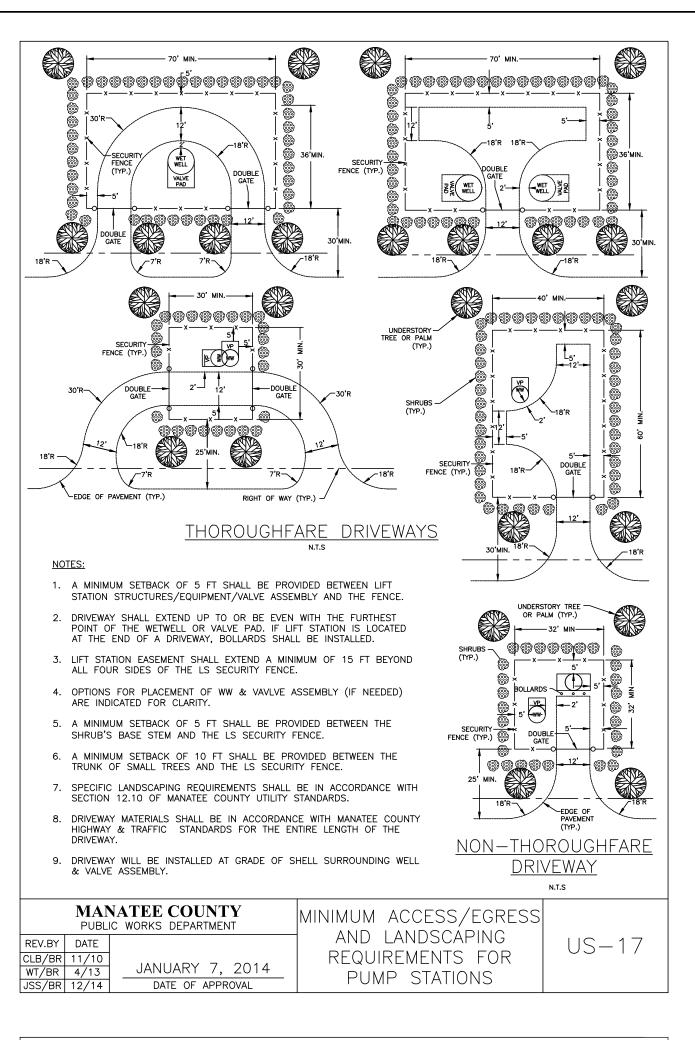
JSS 08/12/1 CHECKED JOHN S. SHOUN, P.E.

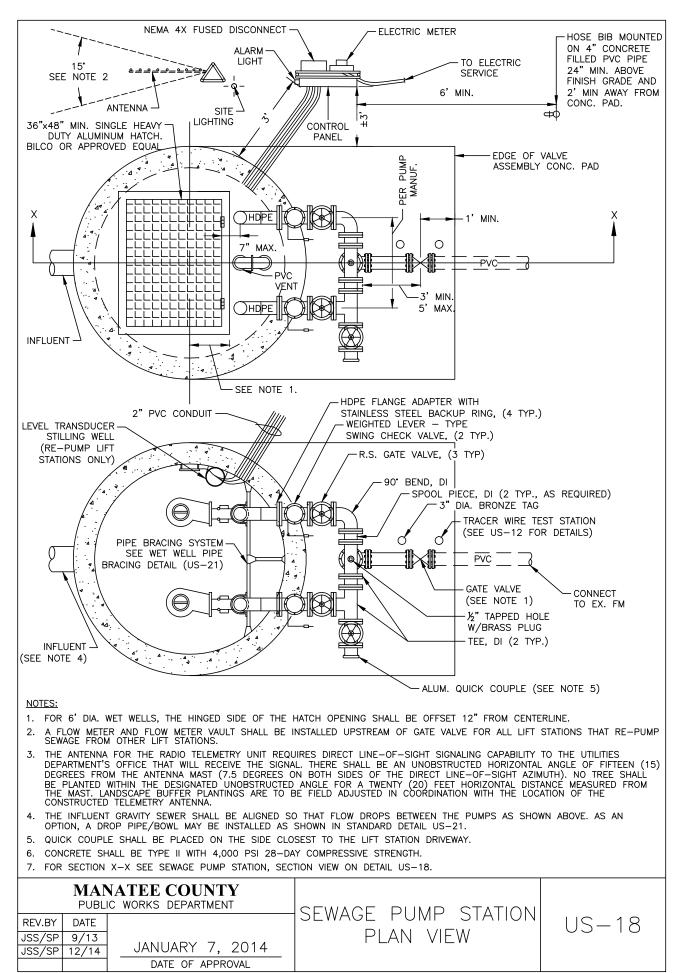
FLORIDA**\\PJEI/I#**,,60923

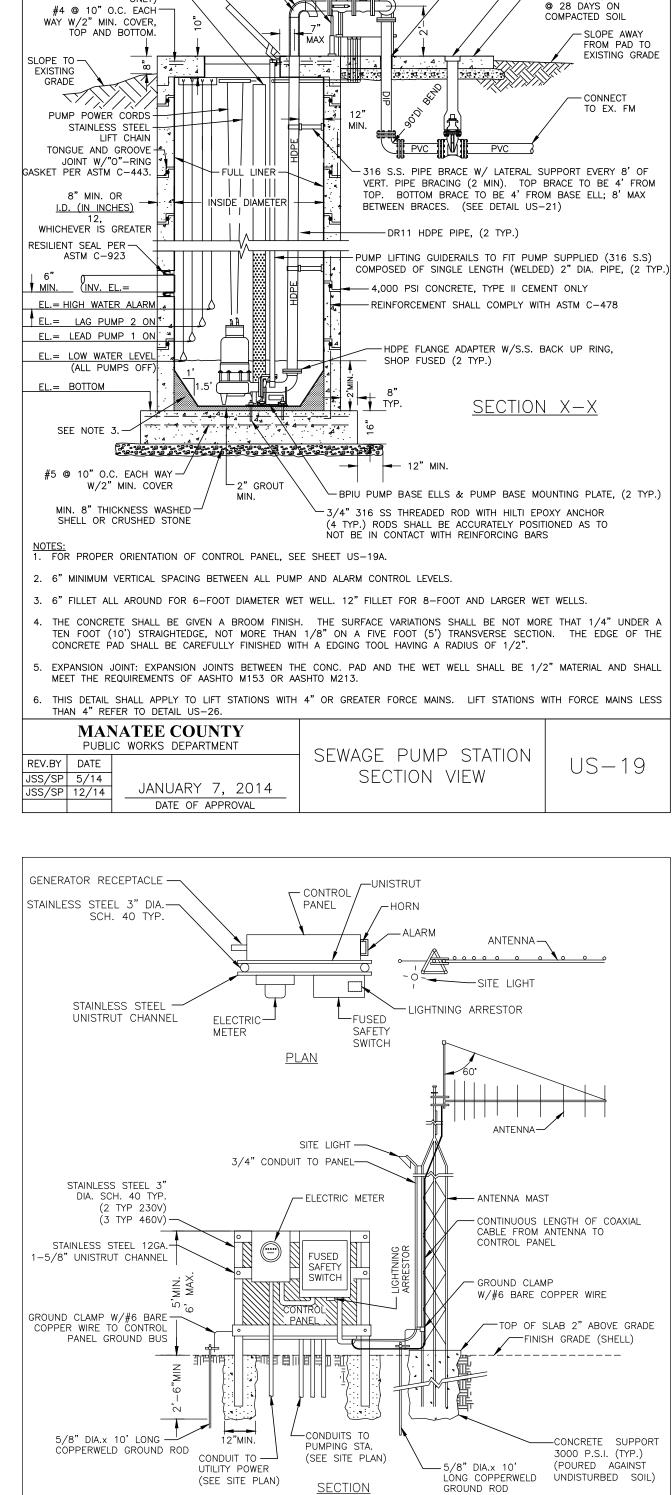
DRAWN

LIFT STATION **EXISTING CONDITION**

N.T.S.







ADJUSTABLE S.S. FLANGED VALVE -

SUPPORTS, (2 TYP.)

SHOP FUSED, (2 TYP)

HDPE MOLDED 90° ELBOW -

SCHD 80PVC VENT (SCREENED)-

ALUMINUM HATCH COVER —

LEVEL TRANSDUCER

' PVC STILLING WELL FOR-

(RE-PUMP LIFT STATIONS

CLB/DOM 1

ON HINGED SIDE OF HATCH

— HDPE FLANGE ADAPTER

SHOP FUSED (2 TYP.)

12" MAX¬

WITH W/ SS BACKUP RING,

- 3"DIA. STAINLESS STEEL PIPE /

- WRAP DUCTILE IRON PIPE

WITH POLYETHYLENE

CONCRETE.

- GATE VALVE

WHERE ENCASED IN

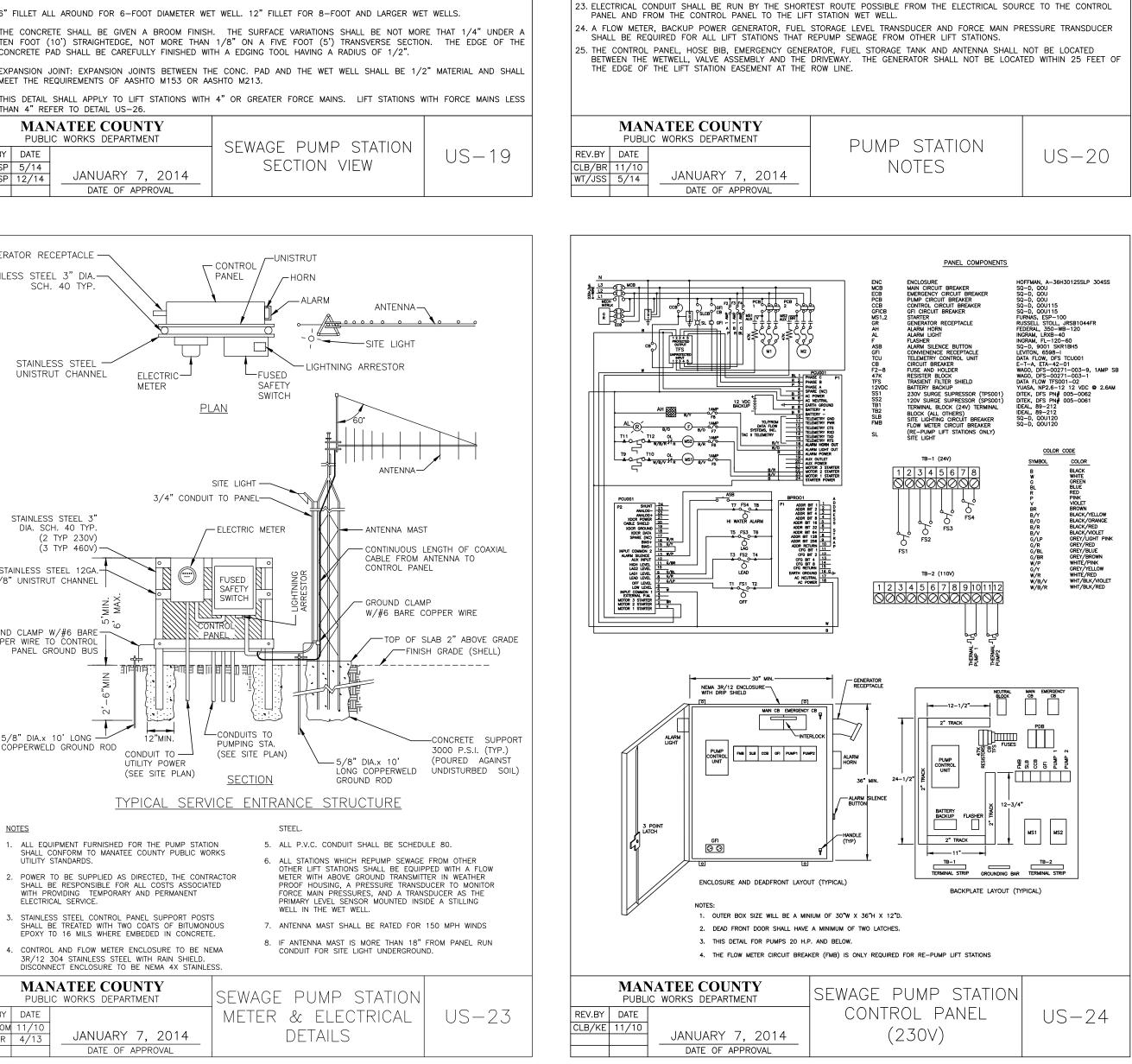
-6" THICK CONC. PAD.

- SLOPE AWAY

FROM PAD TO

EXISTING GRAD

TO EX. FM



ALL ACCESS COVERS SHALL BE ALUMINUM, WITH STAINLESS STEEL HARDWARE AND RATED FOR 300 P.S.F. LOADING, ALL

ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL HAVE 2 COATS BITUMASTIC EPOXY, TOTAL 16 MILS DFT. ALL ACCESS COVERS SHALL BE EQUIPPED WITH A LOCKING STAPLE OR BAR FOR USE WITH A PADLOCK. PADLOCKS FOR

THE MANATEE COUNTY UTILITIES DEPARTMENT

PURPLE-RECLAIMED: BLUE-POTABLE WATER.

CONSTRUCTION PLAN REVIEW SUBMITTAL.

THAT 3 PHASE SERVICE IS UNAVAILABLE.

TURBULENT FLOW DETAIL.

ALL MANHOLES.

INSTALL WET WELL VENT ON THE HINGED SIDE OF THE WET WELL HATCH COVER.

TREES FOR A MINIMUM DISTANCE OF 3 FEET FROM THE TREE.

ASSY. TO THE ISOLATION VALVE SHALL BE DUCTILE IRON PIPE (CL-53).

O. METER VAULTS SHALL BE PRECAST TYPE II REINFORCED CONCRETE.

18. BASE AND FIRST WALL SECTION OF WET WELL SHALL BE MONOLITHIC.

21. ALL GATE VALVES SHALL BE RESILIENT SEAT IN ACCORDANCE WITH THESE STANDARDS.

12. TOP OF WET WELL'S AND VALVE SLABS SHALL BE AT THE SAME ELEVATION.

INSTALLED ON THE REMAINDER OF THE SITE TO THE EDGE OF THE EASEMENT.

ANCHORS & LIFTING DEVICES SHALL NOT PENETRATE THE WALLS OF THE WET WELL.

WETWELL, FENCE GATE AND CONTROL PANELS OF PUBLICLY OWNED & MAINTAINED LIFT STATIONS SHALL BE FURNISHED BY

GROUND SHALL BE SLOPED AWAY FROM SLAB TO NATURAL GROUND FLEVATION IN ALL DIRECTIONS. SITE SHALL INCLUDE A

A WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD TYPE MULCH UNDER THE SHRUBS AND UP TO OUTSIDE OF THE FENCE. WEED BARRIER FABRIC THAT IS COVERED WITH SHREDDED WOOD—TYPE MULCH SHALL BE LOCATED UNDER

ALL FORCE MAIN PIPING AND FITTINGS IN THE WETWELL AND THE VALVE ASSEMBLY, FROM THE PUMP BASE ELBOW TO THE

ELLS) AND TO THE CHECK VALVES SHALL BE MADE USING HDPE FLANGE ADAPTERS WITH 316 STAINLESS STEEL BACKUP

ALL PIPING SHALL BE COLOR CODED IN ACCORDANCE WITH THESE STANDARDS. GREEN-RAW SEWAGE; PANTONE 522C

ALL INTERIOR SURFACES OF WET WELL SHALL BE LINED. SEE STANDARD PRE-CAST SANITARY SEWER MANHOLE FOR

ALL METAL APPURTENANCES INCLUDING BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL (TYPE 316) UNLESS

VERTICAL HDPE PUMP DISCHARGE PIPE IN THE WET WELL SHALL BE BRACED PER DETAIL US-18. THE PIPE SHALL BE

CLAMPED TO A SINGLE LENGTH OF 1-5/8" STAINLESS STEEL CHANNEL INSTALLED HORIZONTALLY AND ANCHORED TO THE

THE PIPE CLAMPS SHALL BE A MINIMUM OF 1-1/2" WIDE, 12 GA. STAINLESS STEEL. WET WELLS LARGER THAN 8 FEET OR PIPING LARGER THAN 8 INCHES SHALL HAVE BRACING CONSTRUCTED FROM 1/4 INCH X 4 INCH STAINLESS STEEL ANGLE.

WET WELL WALL AT EACH END WITH A CENTER BRACE OF 1-5/8" CHANNEL ATTACHED TO THE BACK OF THE WET WELL.

11. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT FLOTATION DURING CONSTRUCTION. ENGINEER SHALL

13. THE EXTERIOR SURFACES OF THE CONCRETE WET WELL AND VALVE ASSEMBLY PAD EXPOSED ABOVE GRADE SHALL BE COATED WITH A LEAST TWO COATS OF H&C SILICONE ACRYLIC CONCRETE STAIN, PATIO GREEN, MANUFACTURED BY FLR

PAINTS, INC. ABOVE GROUND VALVE ASSEMBLY & PIPING SHALL BE PAINTED, RUSTOLEUM 7538 HUNTER GREEN.

15. LANDSCAPING SHALL BE IRRIGATED WITH NON—POTABLE WATER. A RAIN SENSOR SHALL BE FURNISHED AND INSTALLED.

CONTROL PANEL, 24" ABOVE THE SURROUNDING FINISH GRADE, AND ANCHORED TO A 4" PVC CONCRETE FILLED PIPE.

19. EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR TO CONSTRUCT WATERTIGHT STRUCTURES WITH NO VISIBLE LEAKS.

20. FLEXIBLE GASKET CONNECTORS SHALL MEET THE REQUIREMENTS OF ASTM C-923 LATEST REVISION AND ARE REQUIRED IN

22. ELECTRICAL SERVICE SHALL BE 3 PHASE MINIMUM UNLESS THE ELECTRICAL UTILITY PROVIDES CORRESPONDENCE STATING

16. HOSE BIB TO BE A MAXIMUM OF 2 FFFT FROM THE VALVE ASSEMBLY. A MINIMUM OF 6 FFFT FROM THE FLECTRICAL

14. FOR 5/8" WATER METER, PROVIDE POTABLE WATER SERVICE CONNECTION WITH 3/4" BRASS LOCKSHIELD AND LOOSE KEY

HOSE BIB. PROVIDE WATTS 909 BACKFLOW PREVENTER (OR APPROVED EQUAL). ALL WATER SERVICE PIPING FROM WATER

METER TO BE TYPE "K" COPPER OR BRASS, 3/4" MIN. DIAMETER FOR 5/8" METER AND 2" MIN. DIAMETER PIPING FOR 2"

. WATER METER ASSEMBLY TO BE INSTALLED BY CONTRACTOR AS PART OF WATER SERVICE CONNECTION WITH FEES PAID BY

COMPLETED STRUCTURES THAT ARE NOT WATERTIGHT AND/OR DO NOT MEET THE REQUIREMENTS OF ASTM C-443 WILL BE

CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID OVER-SPRAY ONTO THE VALVE ASSEMBLY CONCRETE PAD.

SUBMIT FLOTATION CALCULATIONS ALONG WITH HYDRAULIC CALCULATIONS TO MCPWD ENGINEERING SERVICES DIVISION AT

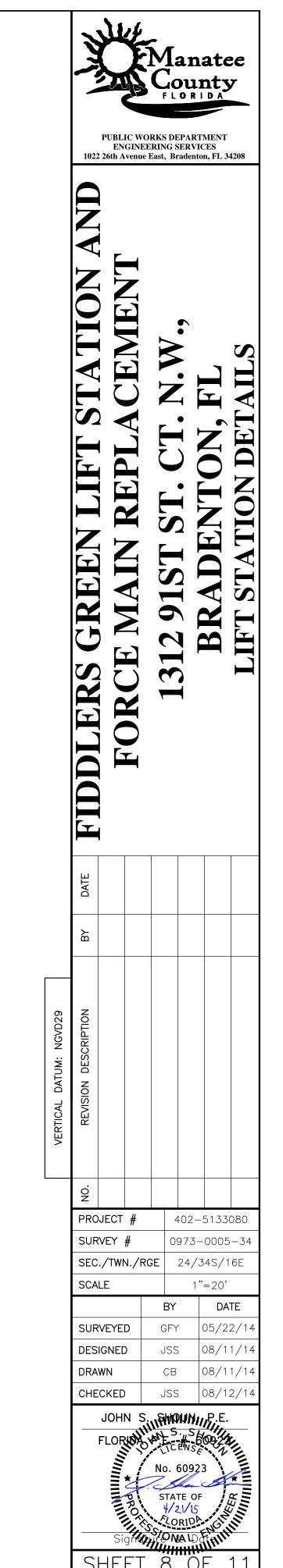
OTHERWISE NOTED. ALL STAINLESS STEEL BOLTS SHALL BE TREATED WITH NEVER-SEIZE PRIOR TO ASSEMBLY.

CHECK VALVE, SHALL BE DR11 HDPE. ALL CONNECTIONS TO IRON BODIED FLANGE FITTINGS IN THE WETWELL (PUMP BASE

ALL HDPE CONNECTIONS SHALL BE THERMAL FUSED OR ELECTRO-FUSED. ALL PIPING DOWNSTREAM OF THE VALVE

WEED BARRIER FABRIC THAT IS COVERED WITH WASHED SHELL OR ROCK WITHIN LIFT STATION FENCING, SITE SHALL INCLUDE

SODDING OR SHREDDED WOOD-TYPE MULCH SHALL BE



-S.S. PIPE CLAMPS-⊢RUBBER STRIP BETWEEN PIPE CLAMP AND PIPE -1/2"x2-1/2" S.S. -SEE NOTE 1 ANCHOR BOLTS (TYP.) S.S. ANGLE BRACES (TYP) S.S. 1-5/8" CHANNEL S.S. GUSSET PLATE WET WELL PIPE BRACING HOLES THROUGH FIBERGLASS DROP XP BY A-LOCK OR 12 PER FOOT APPROVED EQUAL -316 STAINLESS STEEL STRAPS SECURED TO STRUCTURE WITH 316 PIPE COUPLER STAINLESS FASTNERS -5/8" S.S. 6" PVC — @ 4' INTERVALS (MIN. CHANNEL W/ IO GA. STRÁF EVERY 10 LF (MIN. 3 PFR INSTALL 2-1/2" S.S. -BOLTS ACRÓSS THE INSTALLATION) CENTER OF THE DROP PIPE -MIN. DIMENSION STILLING WELL AT THE EQUAL TO PIPE 0 🖶 0 воттом FOLLOW ANGLE FXTEND DROP PIPE BELOW LOW LEVEL WET WELL FLOOR INFLUENT DROP PIPE/BOWL STILLING WELL DETAIL STILLING WELL FOR LEVEL TRANSDUCER 2. REFER TO STANDARD DETAILS US-18, US-18 REQUIRED FOR RE-PUMP STATIONS ONLY. & US-20 FOR PUMP STATION DETAILS. FOR LARGER LIFT STATIONS, PROVISIONS SHALL BE MADE TO MAKE THE TOP OF THE NYLON LOCK NUTS SHALL BE USED AT ALL

TIMES IN THE WET WELL, EXCEPT BASE ELLS

& PIPE BRACING ANCHOR BOLTS CAN ALSO

BE DOUBLE NUT.

PUMP STATION, DROP

PIPE BRACING, &

Stilling Well Details

STILLING WELL VISIBLE AND ACCESSIBLE

JANUARY 7, 2014

DATE OF APPROVAL

FROM THE HATCH OPENING, I.E. 45°

MANATEE COUNTY

PUBLIC WORKS DEPARTMENT

FITTINGS, ETC.

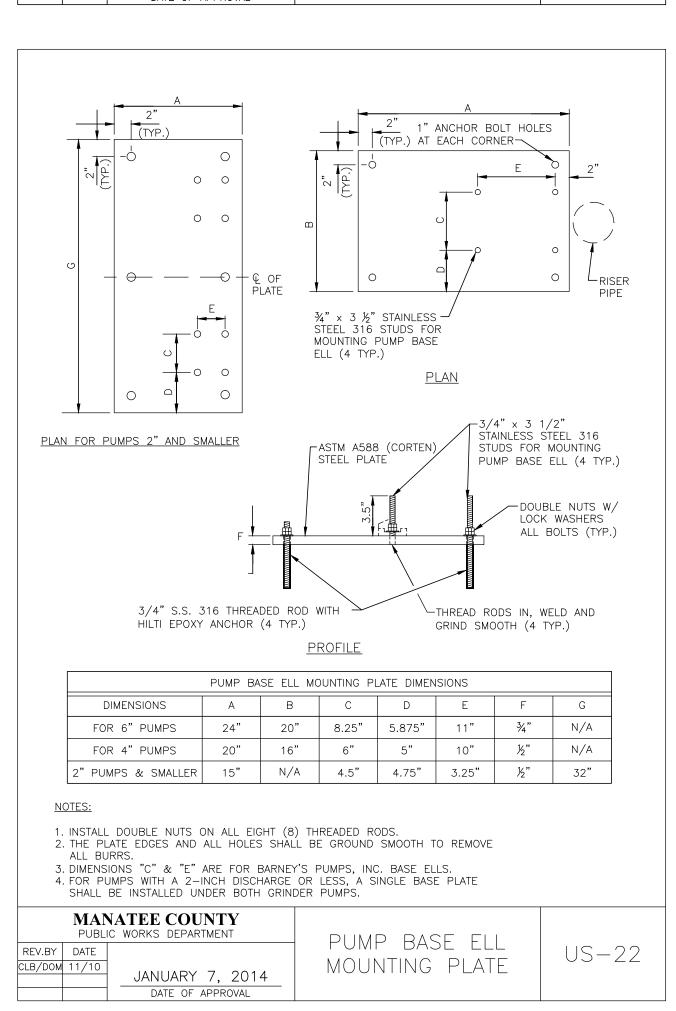
REV.BY DATE

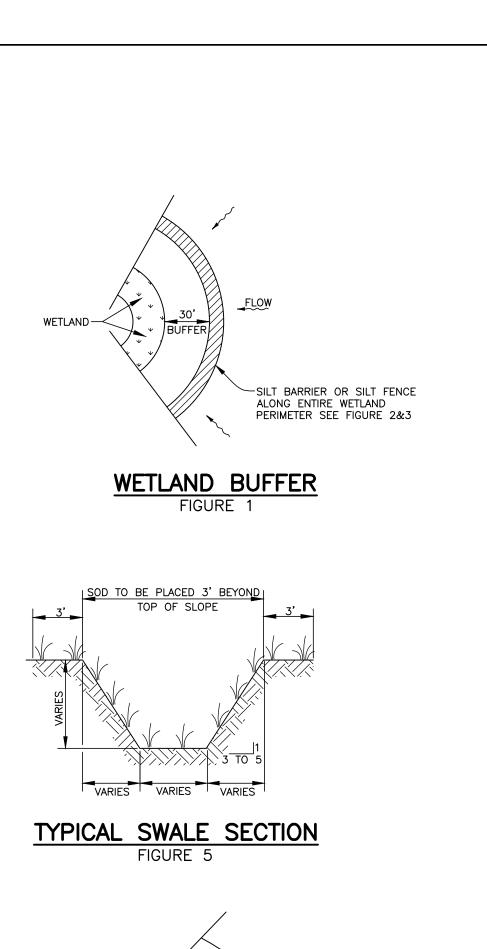
CLB/DOM 11/1

-6" PVC STILLING WELL

(RE-PUMP STATIONS ONLY)

_ = =

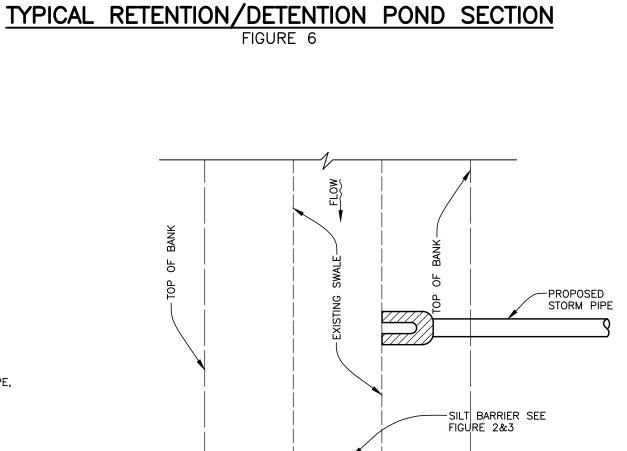




STORM PIPE

WHERE A DAM IS REQUIRED

WITHIN EXISTING LAKE FOR CONSTRUCTION OF STORM PIPE, TURBIDITY BARRIER SHALL BE PLACED BEYOND THE DAM



STORM PIPE TO EXISTING SWALE

FIGURE 10

OPTIONAL POST

CONFORMANCE WITH

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF).

TYPICAL SILT FENCE FIGURE 2

ELEVATION

SOD TO BE PLACED 3'-BEYOND TOP OF BANK

SEC. 985 FDOT SPEC.)

POSITIONS

-PRINCIPAL POST

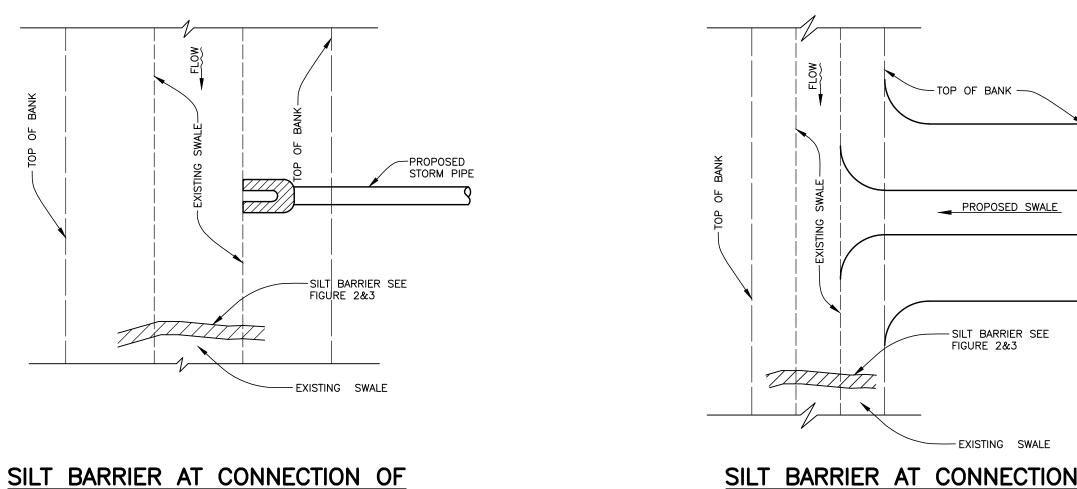
POSITION (CANTED

20° TOWARD FLOW)

SYNTHETIC BALES -

-PROPOSED INLET

PARTIAL INLET



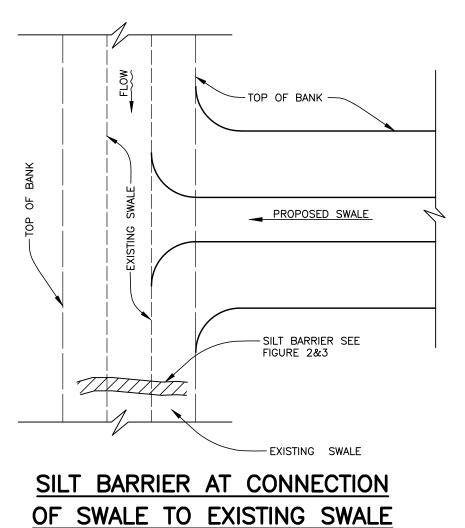


FIGURE 11

-ANCHOR BALES WITH

LOOSE SOIL PLACED BY SHOVEL

ANCHOR BALES WITH 2-2"x2"x4' STAKES PER BALE

DITCH BOTTOM INLET

& LIGHTLY COMPACTED ALONG

UPSTREAM EDGE OF BALES

2-2"x2"x4' STAKES PER BALE

TYPICAL BALE SILT BARRIER

PROPOSED INLET -

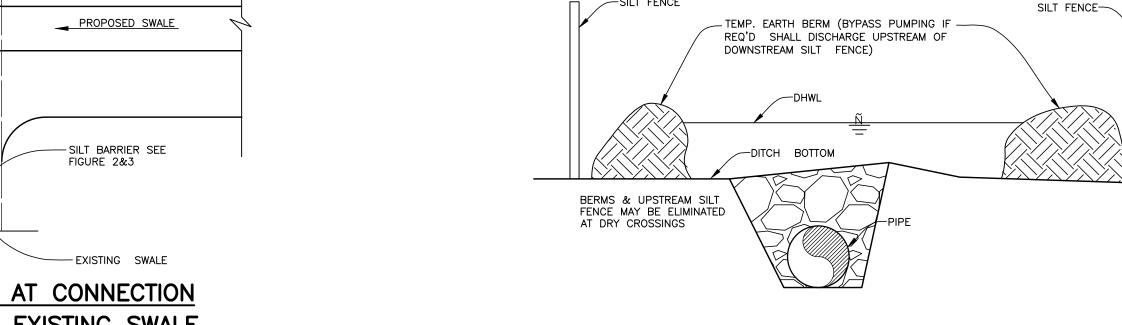
- ROCK BAGS

-SIDEWALK-

COMPLETED INLET

SYNTHETIC BALE PROTECTION AROUND

INLETS OR SIMILAR STRUCTURES FIGURE 7



CLOSED CELL PLASTIC FOAM FLOTATION (6"-

FLOATING TURBIDITY BARRIERS

 $D_1 = 5$ ' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS). $D_2 = 5$ ' STD.

TO DEPTHS OF 10 FEET. TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

(ADDITIONAL PANEL FOR DEPTHS > 5'). CURTAIN TO REACH BOTTOM UP

5/8" POLYPRO ROPE (600 LB. BREAKING STRENGTH)

DIA. EQUIV.)(12 LBS. PER FT. BUOYANCY)

18 07. NYLON REINFORCED

PVC FABRIC (300 PSI TEST) WITH LACING GROMMETS

POST (OPTIONS: 2"x4" OR 2-

1/2" MIN. DIA. WOOD; STEEL

18 OZ. NYLON REINFORCED -PVC FABRIC (300 PSI TEST)

TURBIDITY BARRIER

BARRIERS

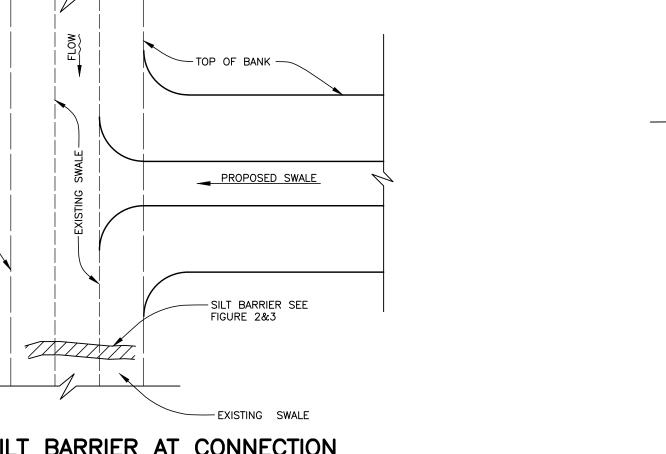
1.33 LBS/FT. MIN.)

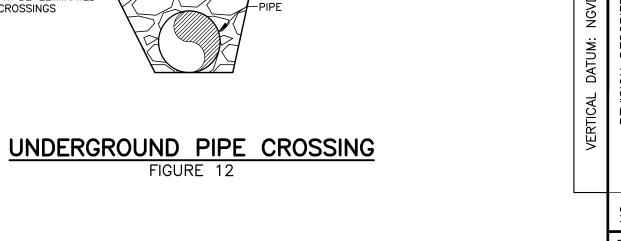
TURBIDITY BARRIERS

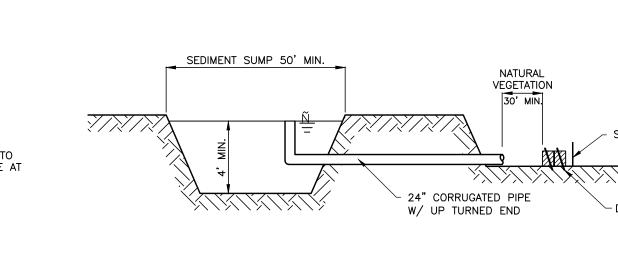
TYPE III SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS

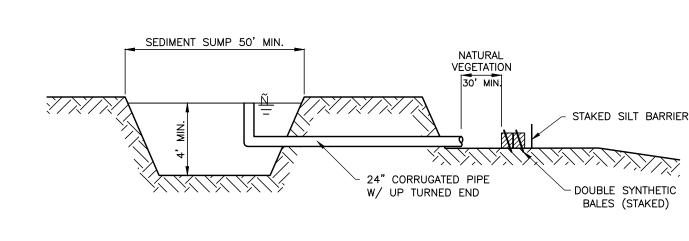
STAKED SILT BARRIER OR SILT FENCE

PROTECTION AROUND DITCH BOTTOM INLETS

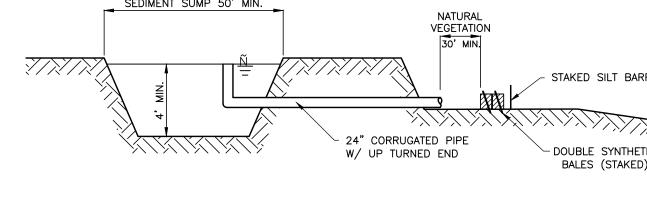








SHOULDER LINE (FINAL	GRADE)
STUB PIPE AND ELBOW OR CONDUIT TO BE RELOCATED AS FILL PROGRESSES	—SLOPE VARIES
INTERMEDIATE SUMP AND DRAIN TO BE CONSTRUCTED AS FILL PROGRESSES AS DIRECTED BY THE ENGINEER. EARTH BERM MAY BE USED IN LIEU OF SANDBAGGING	ANCHOR FOR CORRUGATED PIPE AS DIRECTED BY THE ENGINEER BAG HEIGHT SUFFICIENT TO CONTAIN PIPE DISCHARGE AT DITCH LOCATIONS
SAND BAG CUT-OFF WALL OR IMPERVIOUS ————————————————————————————————————	APRON CONTOURED TO NATURAL GROUND IN ABSENCE OF DITCH



TURBIDITY BARRIER AT CONNECTION OF

STORM PIPE TO EXISTING LAKE
FIGURE 9

TURBIDITY BARRIER SEE FIGURE 4

EDGE OF WATER -

EXISTING LAKE

SOD ALONG CURB AND AROUND INLET FIGURE 14

REFERENCE THE FDOT DESIGN STANDARDS LATEST EDITION FOR ALL TEMPORARY

EROSION CONTROL MEASURES.

GRASS SLOPES FIGURE 13

SECTION AA TEMPORARY SLOPE DRAIN FIGURE 15

SEDIMENT SUMP SECTION FIGURE 16

PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208

FIDDLER

402-5133080

0973-0005-34

1"=20'

BY DATE

GFY 05/22/1

JSS 08/11/1

CB 08/11/14

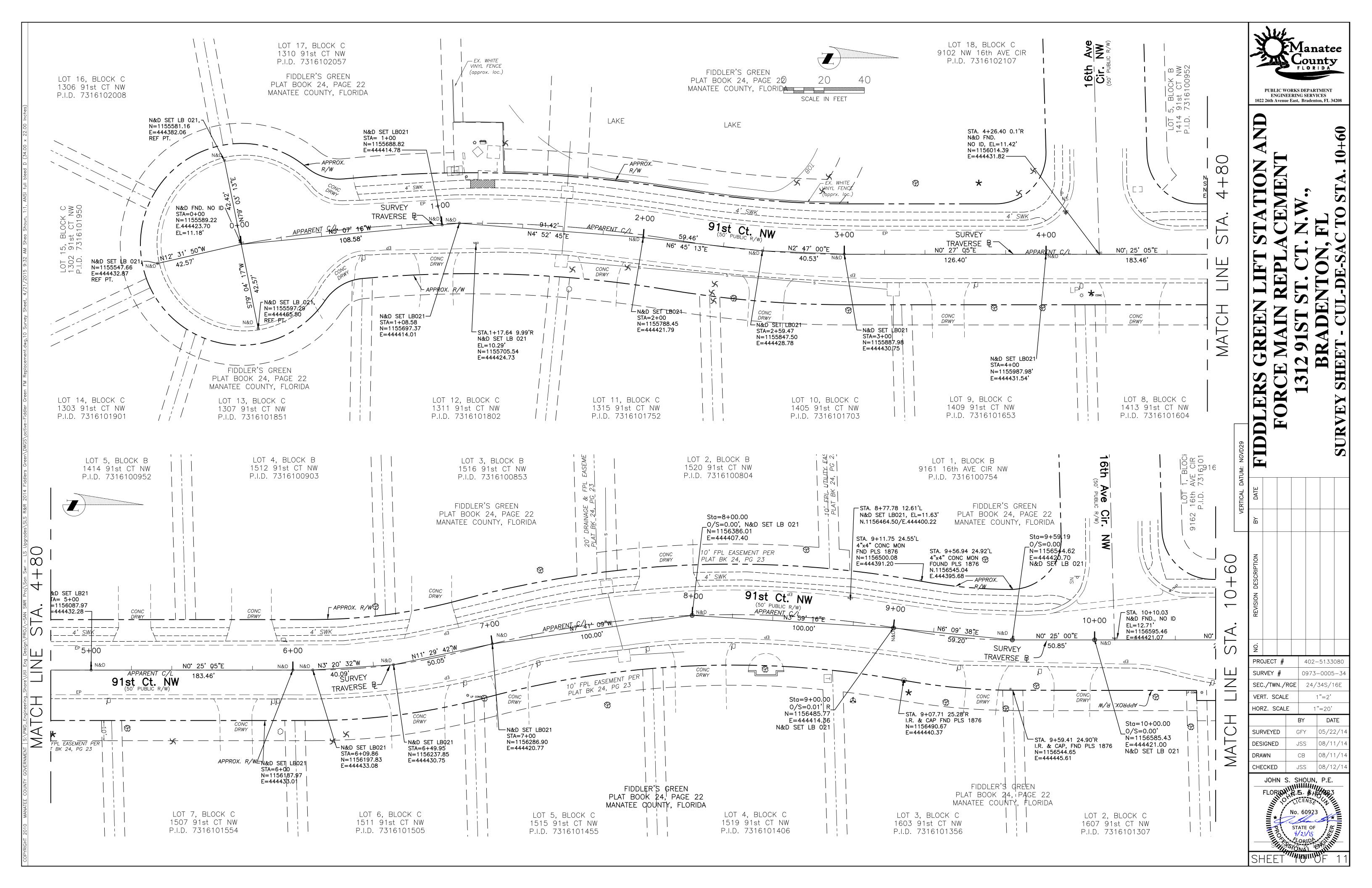
JSS 08/12/1

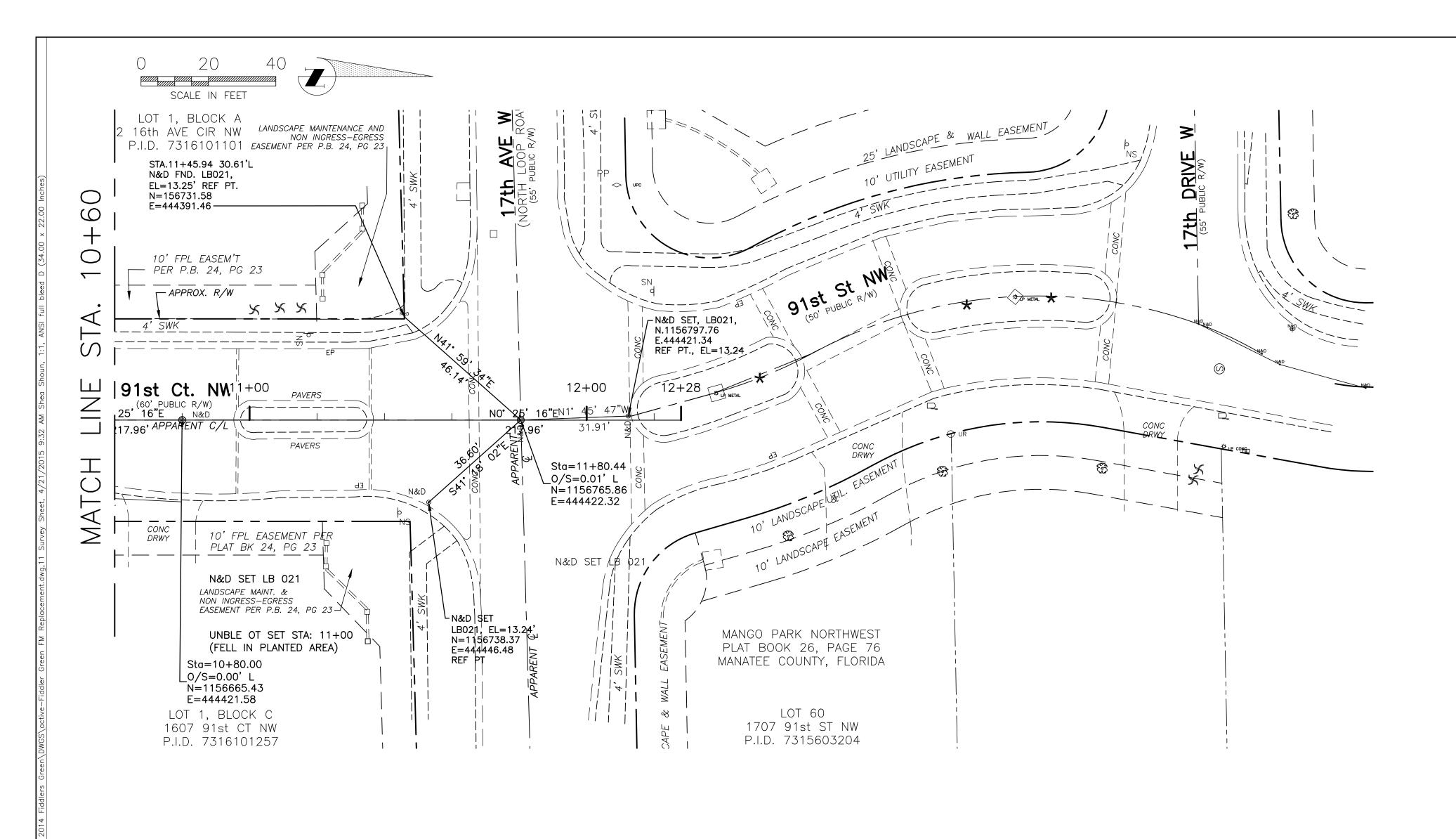
SEC./TWN./RGE 24/34S/16E

JOHN S. SHOUN, P.E.

FLORIDA、日本11, 60923

SCALE







PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208

26

2+05

SURVEY

DLERS

SURVEYOR'S REPORT

- 1. THIS TOPOGRAPHIC SURVEY WAS PREPARED IN CONJUNCTION WITH TITLE DOCUMENTS PROVIDED
- 2. THERE ARE NO VISIBLE ENCROACHMENTS EXCEPT AS SHOWN. FOUNDATIONS BENEATH THE SURF OF THE GROUND THAT MAY ENCROACH HAVE NOT BEEN LOCATED.
- 3. THE LOCATION AND EXISTENCE OF UNDERGROUND UTILITIES AND UNDERGROUND FOUNDATIONS OR ANY OTHER PERTINENT ATTRIBUTES TO SUBJECT PROPERTY (IF ANY) NOT ABSTRACTED AS PART OF THIS SURVEY, EXCEPT AS SHOWN.
- 4. BEARINGS SHOWN WERE BASED ON STATE PLANE COORDINATES, FLORIDA WEST ZONE-NAD '83, AND WERE BASED ON GPS OBSERVATIONS OF NGS SURVEY MONUMENT D 14 2 (PID #AG 9208) WITH PUBLISHED COORDINATES OF (N)1,150,518.57, (E)426,794.97 AND NGS SURVEY MONUMENT M 102 (PID #AG 9207) WITH PUBLISHED COORDINATES OF (N)1,153,744.91, (E)425,106.59.
- 5. ELEVATIONS SHOWN HEREON ARE BASED ON A CLOSED DIFFERENTIAL LEVEL RUN THROUGH MANATEE COUNTY BENCH MARKS 48-29-06 (WITH A PUBLISHED ELEVATION OF 9.860') AND 48-29-07 (WITH A PUBLISHED ELEVATION OF 6.993') NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29). ELEVATIONS MAY BE MATHEMATICALLY CONVERTED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BY APPLYING A ARITHMETICAL VALUE OF <u>-0.98</u>' TO THE SHOWN NGVD29 ELEVATIONS. THIS CONVERSION FACTOR WAS OBTAINED FROM THE NATIONAL GEODETIC SURVEY (NGS) "CORPSCON" SOFTWARE PROGRAM AVAILABLE ON THE INTERNET FROM NGS.NOAA.GOV.
- 6. SUBJECT TO ALL RESTRICTIONS, RIGHTS OF WAY AND EASEMENTS OF RECORD, IF ANY.
- 7. REUSE OF DOCUMENTS: THIS DOCUMENT IS AN INSTRUMENT OF SERVICE IN RESPECT OF THE PROJECT TO WHICH IT APPLIES AND ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY GEORGE F. YOUNG, INC. (GFY) FOR THE SPECIFIC PURPOSES INTENDED WILL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO GFY AND USER SHALL INDEMNIFY AND HOLD HARMLESS GFY FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES INCLUDING ATTORNEYS FEES ARISING OUT OF OR RESULTING THEREFROM. ANY SUCH VERIFICATION OR ADAPTATION WILL ENTITLE GFY TO FURTHER COMPENSATION AT RATES TO BE AGREED UPON BY USER AND GFY.
- 8. THE EXPECTED USE OF THE LAND, AS CLASSIFIED IN THE FLORIDA MINIMUM TECHNICAL STANDARDS (5J-17-F.A.C.), IS SUBURBAN.
- 9. THE PURPOSE OF THIS TOPOGRAPHIC SURVEY WAS TO OBTAIN EXISTING CONDITIONS FOR THE DESIGN OF THE "FIDDLERS GREEN" FORCE MAIN REPLACEMENT. SUBSTANTIAL VISIBLE IMPROVEMENTS WERE LOCATED AND SHOWN HEREON ONLY IN THE PROXIMITY OF THE DESIGN AREA.
- 10. THE DATES OF FIELD SURVEY WERE 05/21/14 THROUGH 05/27/14.

		DATE			
		ВУ			
D BY	VERTICAL DATUM: NGVD29	REVISION DESCRIPTION			
RFACE		NO.			

PROJECT # 402-5133080 SURVEY # 0973-0005-34 **SEC./TWN./RGE** 24/34S/16E VERT. SCALE 1"=2 HORZ. SCALE 1"=20' DATE SURVEYED GFY 05/22/1 JSS |08/11/1 DESIGNED CB |08/11/14 DRAWN CHECKED JSS | 08/12/1 JOHN S. SHOUN, P.E.

STATE OF