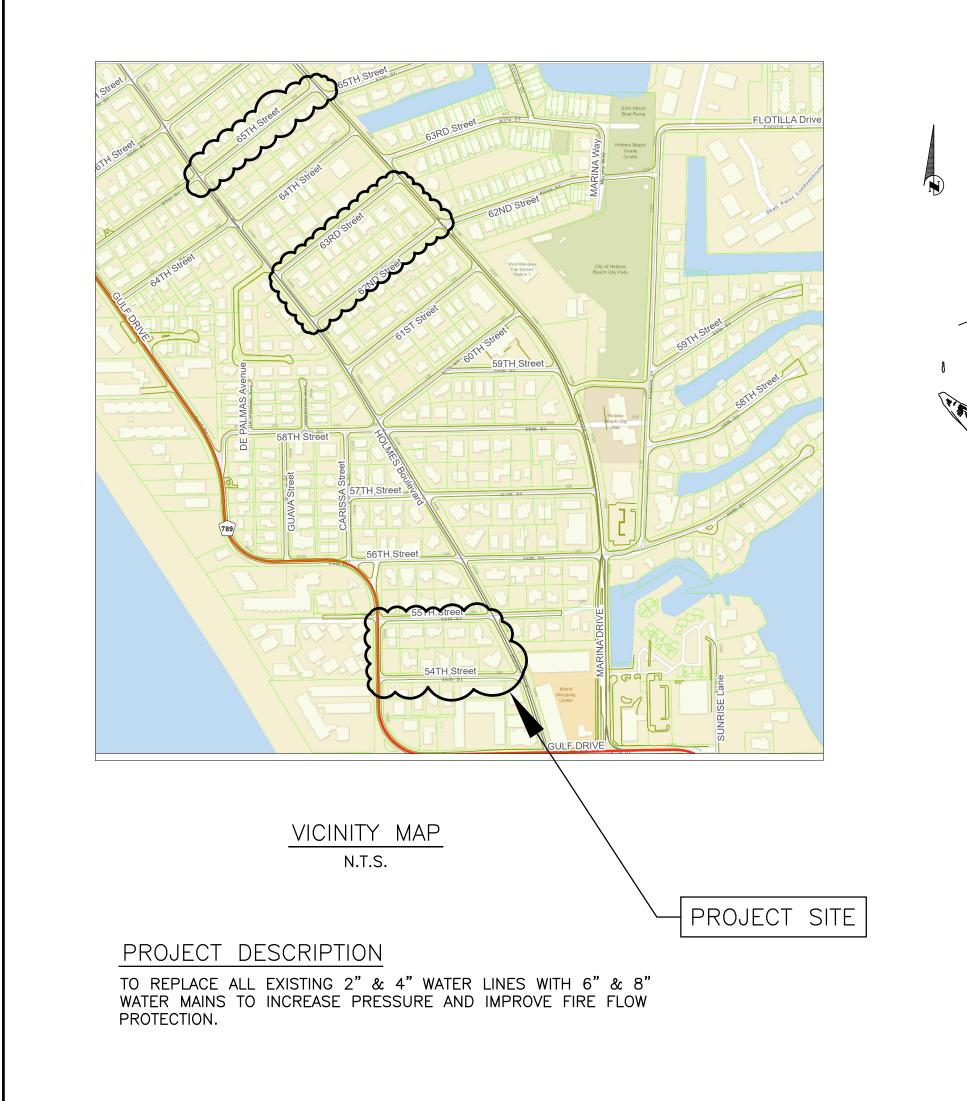
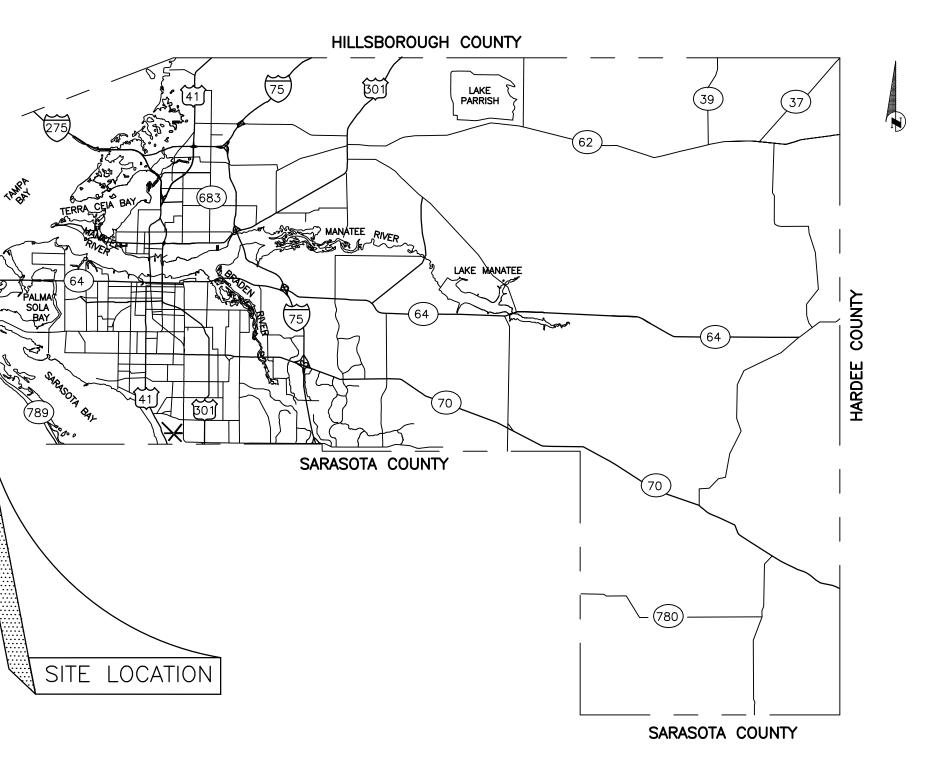
AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53 ANNA MARIA ISLAND **BID PLANS** 402-6002870





MAY 2023



NO.	SHEET TITLE
1	COVER
2	NOTES
3	KEY SHEET SOUTH
4	KEY SHEET NORTH
5	54TH ST
6	55TH ST
7	62ND ST STA.30+00 TO 34+00
8	62ND ST STA.34+00 TO 37+47
9	63RD ST STA.40+00 TO 44+00
10	63RD ST STA.44+00 TO 47+57
11	65TH ST
12	DETAILS
13	DETAILS
14	RESTORATION PLAN SOUTH
15	RESTORATION PLAN NORTH
16	SURVEY CONTROL
17	EROSION CONTROL



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	ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE PROJECT MANAGER IS: ALEJANDRO GONZALEZ, P.E. AND CAN BE REACHED AT 941.708.7450 x7338.								
3.	SITE VISITS ARE MANDATORY FOR ALL BIDDERS. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILIT								
4.	FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND/OR THE FLORIDA BUILDING CODE. ALL WOI PERFORMED BY A LICENSED PLUMBER REGISTERED IN MANATEE COUNTY, UNLESS OTHERWISE INDICATED ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID	GOVERNIN	G FEDERAL,	STATE, AND LOCAL					
5.	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. 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 W NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, A BASED.								
	THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT N DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFOR	E COMME	NCING WITH	CONSTRUCTION.					
	AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLOR NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS—OF—WAY.	FOR COO	RDINATING W	ITH ALL UTILITIES					
	NO WORK, EXCEPT FOR EMERGENCY TYPE, SHALL BE PERFORMED AFTER 7:00 PM AND BEFORE 7:00 AM. FOR ADDITIONA SECTION 01310 OF THE SPECIFICATIONS. ETY	L PROJEC	T RESTRAINT	S, REFER TO					
9.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90—96, LAWS OF F AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPA SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.								
	THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONTRACTOR SHALL USE AND NEOFOCOMY SAFETY PRESENTED TO AVOID CONTRACT WITH OVERVIEW AND AND AND FRANCING								
	THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROU THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT AL								
	PROVIDING A CONTINUOUS SAFE WORKSPACE.								
13.	THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY STORM WATER, EROSION, AND SEDIMENTATION CONTROL N FDEP "FLORIDA STORM WATER, EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL". IT IS THE RESPONSIBILITY PREVENT EROSION AND TRANSPORT OF SEDIMENT TO SURFACE DRAINS AND TO DITCHES DURING CONSTRUCTION.								
	STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY ON—SITE DRAINAGE CONTROLS WHICH PREVENT EROSION OF THE STO FROM SUCH STOCKPILES IS REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTED LENGTH OF TIME THE STO SHALL ANY STOCKPILED MATERIAL REMAIN AFTER THIRTY (30) CALENDAR DAYS.								
	STORM WATER INLETS IN THE VICINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED F SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY TH WILL BE MAINTAINED TO PREVENT DEGRADATION OF THE WATERS OF THE COUNTY AND STATE.								
	SEDIMENT BASINS AND TRAPS, PERIMETER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS, AND OTHER MEASURES INTE PREVENT THE TRANSPORT OF SEDIMENT ONTO ADJACENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INS CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALTERATION PROCESS. OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SITE BEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED DIKES SHALL BE STABILIZED AND PROTECTED FROM DRAINAGE DAMAGE OR EROSION WITHIN ONE (1) WEEK OF INSTALLATI	STALLED, SUCH SYS TO BERM	CONSTRUCTE STEMS SHALL	D, OR IN THE BE FULLY					
	. 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.								
	SOIL DISPLACED BY CONSTRUCTION WILL BE REMOVED. EROSION CONTROL SHALL BE IMPLEMENTED IN AREAS WHICH ARE SENSITIVE. EROSION CONTROL SYSTEMS SHALL BE REQUIRED FOR ALL WORK WITHIN JURISDICTIONAL AREAS. THESE SYST SILT SCREENS, FILTER FABRIC, AND TURBIDITY SCREENS.								
	ALL EROSION AND POLLUTION CONTROL DEVICES SHALL BE CHECKED REGULARLY, ESPECIALLY AFTER EACH RAINFALL AND REPAIRED AS REQUIRED.	SHALL E	E CLEANED	OUT AND/OR					
	THE CONTRACTOR SHALL NOT ENTER UPON OR IN ANY WAY ALTER WETLAND AREAS THAT MAY BE ON OR NEAR THE CON VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL REGULATIO THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM HIS VIOLATION OF ANY REGULATIONS OR PERM	NS AND/	OR PERMITS						
	FOR MORE INFORMATION, SEE THE EROSION CONTROL DETAIL SHEET INCLUDED IN THE PLANS. IT-OF-WAY								
	ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEME	NTS SHO	WN ON THE	DRAWINGS.					
	THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTOR AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.								
	THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHTS-OF-WAY USE PERMI CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF CONTROL AND SAFE PRACTICES". A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONS	ON. ALL N TRANSPO	AINTENANCE	AND PROTECTION					
	THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL DAMAGED STORM WATER STRUCTURES, PIPING, ENTRANCE ON THE PLANS OR NOT. THE HEADWALLS SHALL BE REPLACED IN ACCORDANCE WITH F.D.O.T. STANDARDS.	PIPE ANI) HEADWALLS	WHETHER SHOWN					
	IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT—OF—WAY LINES, BASE LINES, BEN STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.	ICH MARI	(S (ELEV.), (CENTER LINES, AND					
	THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVE AT THE END OF THE WORK DAY AND FULLY RESTORED PER SECTION 02575.	EWAYS WI	LL BE IN PA	SSABLE CONDITION					
	A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE AI DONE OUTSIDE OF THE RIGHT—OF—WAY OR EASEMENT.	NY DRIVE	WAY CONSTRU	JCTION WORK IS					
	<u>ITIES</u> ALL EXISTING FACILITIES IN THE PROJECT AREA SHALL REMAIN OPERATIONAL AND ACCESSIBLE BY COUNTY PERSONNEL AT		S. LE VALVI	FS. MANHOLF					
	COVERS, SEWER CLEAN-OUTS, ETC.								
	TIME OF PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THERE MAY BE OTHER IMF WITHIN THE PROJECT AREA AND WHICH HAVE NOT BEEN LOCATED OR IDENTIFIED, MAY NOT BE IN THE EXACT LOCATION S PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY, PRIOR TO CONSTRUCTION, THE LOCATIONS, ELEVATIONS UTILITIES STRUCTURES AND OTHER FEATURES (WHETHER OR NOT SHOWN ON THE PLANS) THAT MAY EFFECT HIS WORK. A CROSSED OR CONNECTION POINTS SHALL BE EXPOSED PRIOR TO CONSTRUCTION TO VERIFY LOCATION AND ELEVATION. AN SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION FOR RESOLUTION.	PROVEMEN SHOWN OI AND DIME LL EXISTI	ITS, UTILITIES R RELOCATED INSIONS OF NG UTILITIES	5, ETC. WHICH ARE SINCE THE ALL EXISTING TO BE EXTENDED,					
	THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER/RECLAIM/SEWER LINES, STORM DRAINS, OTHER UTIL MAIL BOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. T REPLACE ANY DAMAGED ITEM DUE TO HIS CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION COI THE COUNTY. ALL EXISTING AND PROPOSED VALVE COVERS, RIMS, ETC, SHALL BE BROUGHT TO FINAL GRADE OF THE PR	HE CONTI NDITIONS	RACTOR SHAL AT NO ADDIT	L REPAIR AND/OR					
	THE CONTRACTOR SHALL USE APPROPRIATE TECHNIQUES, AS APPROVED, RECOMMENDED, OR OFFERED BY AN EXISTING UT TO PREVENT UNDERMINING OF POWER POLES DURING CONSTRUCTION. IF HOLDING OF POWER POLES IS RECOMMENDED CONTRACTOR SHALL COORDINATE THIS ACTIVITY WITH THE UTILITY AND BEAR ANY RELATED COSTS.								
	ANY TEMPORARY SHUTDOWNS FOR MODIFICATIONS OF EXISTING UTILITY SYSTEMS THAT MUST REMAIN IN SERVICE DURING (MINIMUM AND SHALL BE COORDINATED WITH AND APPROVED BY THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT DOCUMENTS. IT IS NOTED THAT TEMPORARY SHUTDOWNS MAY BE RESTRICTED TO CERTAIN HOURS AT ANY TIME OF THE AT NO ADDITIONAL COST TO THE OWNER.	IN ACCC	RDANCE WITH	H THE CONTRACT					
	FOR WORK BEING DONE ON EXISTING SANITARY SEWER LINES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONSTRUCTION, WHICH MAY REQUIRE BY—PASS PUMPING AND/OR PUMPER TRUCKS. THE CONTRACTOR SHALL SUBMIT A D SECTION 02720.								
NO.	REVISION DESCRIPTION	BY	DATE						

<u>GENERAL</u>

ANNA MARIA ISLAND

GENERAL NOTES

AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53

62. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH SECTION 1.15 AND/OR 1.16 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 1.15 AND/OR 1.16 SHALL BE STRICTLY ENFORCED. A COPY OF SECTION 1.15 AND 1.16 CAN BE PROVIDED 63. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS OF THE WORK AS CONSTRUCTED. AS-BUILT DRAWINGS SHALL INCLUDE THE LOCATION OF ABANDONED MAINS CUT AND PLUG POINTS. AS-BUILT DRAWINGS SHALL BE ANNOTATED EACH DAY AS THE WORK PROCEEDS AND SHALL BE AVAILABLE TO THE COUNTY PROJECT MANAGER AND/OR FIELD INSPECTOR FOR REVIEW ON AN ONGOING BASIS, AS-BUILT DRAWINGS SHALL PROVIDE THE HORIZONTAL AND VERTICAL INSTALLED LOCATION OF ALL NEW PIPELINE, FITTINGS, VALVES AND APPURTENANCES REFERENCED TO FIXED SURFACE FEATURES THAT ARE SHOWN ON THE CONSTRUCTION DRAWINGS AND/OR RIGHT-OF-WAY LINES, PROPERTY CORNERS OR OTHER SURVEYED POINTS. THE CONTRACTOR SHALL BE ABLE TO PRESENT THE RECORD DRAWINGS TO THE COUNTY PROJECT MANAGER AND/OR INSPECTOR ON DEMAND AS THE WORK PROGRESSES. SEE SECTION 01720 FOR FURTHER

FINAL ACCEPTANCE. A CORPORATION STOP BRASS PLUG SHALL BE INSTALLED AND THE CORPORATION STOP SHALL REMAIN IN PLACE. 60. 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.

THE MANATEE COUNTY UTILITY OPERATIONS DEPARTMENT

59. ALL TEST POINT PIPING SHALL BE CUT LOOSE FROM THE CORPORATION STOP AND COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR PRIOR TO

58. 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.

HERALD TRIBUNE, WBRD RADIO, EMERGENCY COMMUNITY CENTERS, INSPECTIONS, WATER TREATMENT PLANT, WATER MANAGER, HELPLINE, CUSTOMER SERVICE, AND

61. FIELD CONDITIONS MAY NECESSITATE MINOR ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES, AS ORDERED BY THE

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

56. ALL PENETRATIONS OF EXISTING STRUCTURES SHALL BE BY MECHANICAL ROTARY CORE DRILLING METHOD. ALL CONCRETE PENETRATED OR DISTURBED SHALL BE COATED WITH TWO COATS OF EPOXY. 57. THE CONTRACTOR, PRIOR TO ANY TEMPORARY WATER SHUT-OFFS DURING WATER MAIN TIE-IN, ETC., SHALL NOTIFY THE AFFECTED RESIDENTS BY POSTING

54. 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. 55. ONLY MANATEE COUNTY UTILITY OPERATIONS STAFF ARE AUTHORIZED TO OPERATE VALVES ON COUNTY OWNED AND MAINTAINED UTILITY SYSTEMS.

52. 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 53. 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.

51. ALL FITTINGS FOR PRESSURE CLASS-RATED PIPE SHALL BE RESTRAINED DUCTILE IRON. RESTRAINED LENGTHS OF PIPE SHALL ADHERE TO THE REQUIREMENTS AS

46. PRIOR APPROVAL WILL BE REQUIRED FOR REMOVAL OF ANY TREE WITHIN THE CONSTRUCTION AREA. 47. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING EQUIPMENT NECESSARY TO KEEP ALL EXCAVATIONS DRY. DEWATERING IS REQUIRED TO 18" BELOW TRENCH BOTTOM

42. 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. 43. 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

OR TWENTY-ONE CALENDAR DAYS OF SUBSTANTIAL COMPLETION, WHICHEVER OCCURS FIRST. RESTORATION EFFORTS SHALL BE INCLUDED IN THE PROJECT

THE COUNTY. 41. RESTORATION OF CURBS, DRIVEWAYS, SIDEWALKS, AND PLACEMENT OF SOD SHALL BE COMPLETED WITHIN FORTY-FIVE CALENDAR DAYS OF INITIAL DISTURBANCE,

SCHEDULING AND PHASING PLAN TO DEMONSTRATE HOW THE RESTORATION WILL BE ACHIEVED. **CONSTRUCTION**

35. ALL WATER SERVICES TO BE INSTALLED OR MODIFIED ON PRIVATE PROPERTY SHALL REQUIRE A PLUMBING PERMIT;

•FLOOD ZONE DESIGNATION, (IF ONLY FLOOD ZONE, INSTALL A DOUBLE CHECK BPA),

• COMMERCIAL, INDUSTRIAL, MULTISTORY OR MULTIFAMILY RESIDENTIAL FACILITY.

•IN-GROUND IRRIGATION SYSTEM OR UNDERGROUND SPRINKLERS,

E. VACUUM BREAKERS SHALL BE INSTALLED ON ALL EXTERNAL HOSE BIBBS.

IN RIGHT-OF-WAY SHALL BE COORDINATED WITH THE PROPERTY OWNER.

CUTTING. LIME ROCK BASE SHALL COME FROM AN APPROVED FDOT PIT.

PROPERTY OWNER PRIOR TO CONSTRUCTION ACTIVITIES.

SHOWN ON THE DETAIL SHEETS.

FNGINFFR.

UPON REQUEST.

49. ALL PIPE SHALL BE COLOR CODED TO CONFORM TO MANATEE COUNTY STANDARDS.

DETERMINE WHICH PROPERTIES REQUIRE A BPA AND TYPE OF BPA TO BE INSTALLED.

LIMITS ARE APPROXIMATE AND SUBJECT TO THE DIRECTION OF THE COUNTY FIELD REPRESENTATIVE.

DISPOSED OF BY THE CONTRACTOR, PRIOR TO FINAL ACCEPTANCE, AT NO ADDITIONAL COST TO THE OWNER.

• SECONDARY SOURCE OF WATER (I.E. RECLAIMED WATER OR WELL),

• SWIMMING POOL

REQUIRED.

RESTORATION

POINT OF CONNECTION.

• SOLAR WATER HEATING SYSTEM,

CROSS CONNECTION IS FOUND.

• FIRE SPRINKLER SYSTEM.

• FOUNTAIN WITH A DEDICATED FILL PIPE,

RELIEF VALVE AT THE POTABLE WATER METER WHENEVER ANY OF THE FOLLOWING CONDITIONS EXIST AT A PROPERTY:

A. THE CONTRACTOR'S PLUMBER SHALL INSTALL A REDUCED PRESSURE (RP) TYPE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) EQUIPPED WITH A PRESSURE

• PROPERTY THAT ABUTS A BODY OF WATER, INCLUDING RIVER, BAY, LAKE OR POND ON THE PROPERTY OR BORDERING THE PROPERTY,

B. A LICENSED PLUMBER SHALL INSTALL THE BPA'S IN ACCORDANCE WITH THE CURRENT FLORIDA PLUMBING CODE AND MANATEE COUNTY CODE OF

D. ALL BPA SHALL BE INSTALLED 4-5 FEET FROM THE EDGE OF DRIVEWAYS OR ANY OTHER ITEMS/FEATURES THE BPA MAY CREATE AN OBSTRUCTION.

ORDINANCES. AND SHALL SELECT A PRESSURE RELIEF VALVE WITH AN APPROPRIATE PRESSURE SET POINT TO PROTECT THE CUSTOMERS' PLUMBING AND NOT

ALLOW EXCESSIVE LEAKAGE DUE TO SYSTEM SUPPLY PRESSURE. A PRESSURE REDUCING VALVE MAY BE NECESSARY UPSTREAM OF THE PRESSURE RELIEF

VALVE, WHERE NORMAL SUPPLY PRESSURE EXCEEDS 80 PSI. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION CONTROL STAFF AS

F. CONTRACTOR SHALL COORDINATE WITH COUNTY CROSS CONNECTION STAFF & PRIVATE PROPERTY OWNER AS REQUIRED. CROSS CONNECTION STAFF SHALL

34. ALL RESTORATION WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS SHOWN OTHERWISE. ALL RESTORATION

35. ALL DISTURBED GRASSED AREAS SHALL BE SODDED OR SEEDED UNLESS OTHERWISE INDICATED. THE TYPE OF SOD USED TO REPLACE OWNER MAINTAINED AREAS

38. CONCRETE DRIVEWAYS OR SIDEWALKS THAT ARE CUT SHALL BE RESTORED TO MATCH EXISTING ACCORDING TO THE CURRENT EDITIONS OF THE MANATEE COUNTY

39. 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

40. ALL EXISTING SIGNING, THERMOPLASTIC PAVEMENT MARKINGS, ETC ... SHALL BE RESTORED/PROVIDED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE MUTCD,

FDOT DESIGN STANDARDS AND THE MANATEE COUNTY PUBLIC WORKS DEPARTMENT HIGHWAY, TRAFFIC AND STORMWATER STANDARDS, AND/OR AS DIRECTED BY

PUBLIC WORKS STANDARDS PART 3. HIGHWAY & TRAFFIC STANDARDS MANUAL DATED JUNE 2015, SECTION 3.7 DRIVEWAYS AND SECTION 3.8 SIDEWALKS AND/OR THE F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE DESIGN AND THE F.D.O.T. DESIGN STANDARDS. CONCRETE WITH A 3,000 PSI @ 28 DAYS SHALL BE USED.

36. ALL CONCRETE THRUST BLOCKS INSTALLED FOR TESTING PURPOSES AND NOT REQUIRED FOR THE OPERATION OF THE PIPELINE SHALL BE REMOVED AND

37. ASPHALT DRIVES THAT ARE CUT SHALL BE RESTORED PER SECTION 02513 OF THE INFRASTRUCTURE ENGINEERING STANDARD SPECIFICATION.

C. IF IN-GROUND IRRIGATION SYSTEM IS CONNECTED TO THE POTABLE WATER LINE, AN ADDITIONAL REDUCED PRESSURE (RP) BPA SHALL BE INSTALLED AT THE

LINES AND GRADES SHOWN ON THE PLANS AND PROFILES. MODIFICATIONS MUST BE APPROVED BY THE ENGINEER OF RECORD.

45. INGRESS AND EGRESS TO ALL THE PROPERTIES IN THE CONSTRUCTION AREA SHALL BE MAINTAINED AT ALL TIMES. CONTRACTOR SHALL COORDINATE WITH THE

48. 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

50. ALL PIPE AND FITTINGS SHALL BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND ALL PIPE JOINTS SHALL BE RESTRAINED WHERE REQUIRED.

44. THE CONTRACTOR IS TO CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS REQUIRED.

DETAILED REQUIREMENTS OF THE DAILY RECORD DRAWING DOCUMENTATION

EXISTING UTILITY LOCATIONS

MAINTENANCE OF TRAFFIC

ARE CONCEPTUAL.

CLOSURES OR DETOURS.

SEPARATE PAYMENT.

STANDARD INDEX 600.

FRONTIFR

COST OF PIPE.

64. THE FOLLOWING IDENTIFIES THE QUALITY LEVEL OF EXISTING UTILITY LINEWORK ON PLANS. LEVEL "A" -VISUALLY LOCATED OR SOFT DIGS (HORIZONTAL AND VERTICAL) LEVEL "B" -DESIGNATED BY GPR OR FLAGGING (HORIZONTAL) LEVEL "C" -SURFACE VISIBLE FEATURES SURVEY LEVEL "D" -EXISTING RECORDS OR GIS

REFERENCE 2010 EDITION OF FDOT UTILITY ACCOMMODATION MANUAL (UAM)

65. THE CONTRACTOR IS RESPONSIBLE FOR ANY TRAFFIC CONTROL PLAN (TCP) IMPLEMENTED. THE TCP SHALL BE PREPARED BY AN INDIVIDUAL CERTIFIED TO PREPARE A TCP IN THE STATE OF FLORIDA THAT MEETS OR EXCEEDS THE REQUIREMENTS OF THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS LATEST EDITION (SERIES 600). ANY DEVIATIONS MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AND SUBMITTED TO COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.

66. THE CONTRACTOR PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHT-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN (TCP). 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 TCP SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.

67. THE CONTRACTOR SHALL USE, BUT ARE NOT LIMITED TO, FDOT INDICES 415, 600, 615, 616, AND 621. THE RECOMMENDED FDOT DESIGN STANDARD INDICES

68. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY DRAINAGE. THERE WILL BE NO DIRECT PAY FOR THIS WORK. COSTS SHALL BE INCLUDED IN THE

69. MOTORIZED AND MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SHIELDED, PADDED, OR LOCATED TO MINIMIZE NOISE.

70. THE CONTRACTOR WILL NOTIFY ALL EMERGENCY AND RESCUE AGENCIES LOCATED IN THE PROJECT VICINITY 24 HOURS IN ADVANCE OF ANY PROPOSED LANE

71. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS MUST BE PROVIDED AND MAINTAINED DURING CONSTRUCTION.

72. USE FDOT INDEX NO. 619 FOR TRAFFIC CONTROL MEASURES WHEN CONSTRUCTION EQUIPMENT IS DRIVEN ON OPEN TRAVEL LANES. THE REGULATORY SPEED IN WORK ZONES SHOULD BE AS CLOSE TO NORMAL CONDITIONS AS POSSIBLE, UNLESS NOTED ON THE TRAFFIC CONTROL PLANS.

73. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO WORKING NEAR THEIR EXISTING FACILITIES.

74. CONSTRUCTION SEQUENCES SHALL BE COORDINATED TO PROVIDE POSITIVE DRAINAGE OF THE TRAVELWAYS AT ALL TIMES.

LEGEND

75. ANY MOT ITEM NOT SPECIFICALLY LISTED UNDER A PARTICULAR PAY ITEM SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. THERE SHALL BE NO

76. THE MAXIMUM SPACING BETWEEN WARNING DEVICES USED FOR DELINEATION BETWEEN THE TRAVELWAY(S) AND CONSTRUCTION AREA SHALL BE AS PER FDOT

77. ALL DETOURS, IF APPROVED BY THE COUNTY, SHALL ADHERE TO THE REQUIREMENTS SET FORTH IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D. LATEST EDITION) AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, LATEST EDITION (600 SERIES). ANY DETOUR RECOMMENDED BY THE CONTRACTOR MUST BE SUBMITTED TO THE COUNTY (AND FDOT) FOR APPROVAL AT LEAST FOURTEEN (14) DAYS PRIOR TO THE START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COUNTY (AND FDOT) APPROVAL PRIOR TO IMPLEMENTATION AND FAILURE TO OBTAIN APPROVAL SHALL NOT BE GROUNDS FOR ANY DELAY CLAIM FOR TIME OR ADDITIONAL COMPENSATION.

	\bullet	BENCH MARK	Some.	BUSH	A	BBREVIATIONS	
СМ		CONCRETE MONUMENT		TREE			
	0	IRON PIPE		OAK TREE	R/W	RIGHT OF WAY	
	•	IRON ROD	S	PALM TREE	CONC	CONCRETE	
	Δ	HUB		PINE TREE	ASPH	ASPHALT	
	۲	NAIL & DISK	*		DRWY	DRIVEWAY	
×5.23)	ELEVATION			SWK	SIDEWALK	
(123	Ð	PARCEL ID NO.			EP	EDGE OF PAVEMEN	IT
1234	D	PARCEL ID NO.	\cdots	EDGE OF VEGETATION	BOC	BACK OF CURB	
977	D	LOT NO.		- CHAIN LINK FENCE	~~~	FLOW ARROW	
	Ę	GUY WIRE		- WOOD FENCE			
PP	ø	POWER POLE		- BARBED WIRE FENCE			
	☆_	LIGHT POLE	FM	- FORCE MAIN			
	ď	MAIL BOX	PW	- POTABLE WATER			
	q	SIGN	RCW	- RECLAIMED WATER			
REF	9	REFLECTOR	ss	- SANITARY SEWER			
	ø	SPRINKLER	s	- STORM DRAIN			
	©	GAS MARKER	GAS	- GAS LINE			
	-0-	BACKFLOW PREVENTER	OCHR	- OVERHEAD CHARTER			
		BLOW OFF VALVE	CHR	- UNDERGROUND CHARTER	8		
FH	Ŷ	FIRE HYDRANT	OE	- OVERHEAD ELECTRIC			
WV	Χ	WATER VALVE	BE	- UNDERGROUND ELECTRIC	0		
ARV	(A)	AIR RELEASE VALVE	OH FTR	- OVERHEAD FRONTIER			
WM		WATER METER	FTR	- UNDERGROUND FRONTIE	R		
	S	SANITARY SEWER MANHOLE	PCO	- UNDERGROUND PRECO			
	0	SANITARY SEWER CLEAN OUT	FPL	- UNDERGROUND FPL			
SB#1	· ·	SOIL BORING LOCATION	——— он ———	- OVERHEAD UTILITY			
	TED		+++++++++++	-RAIL ROAD TRACKS			
		UTILITY BOX		- EDGE OF CONCRETE			
Ø	り	UTILITY RISER		- EDGE OF ROAD			
	۲	FLOW DIRECTION		- TOE OF SLOPE			
GI r		GRATE INLET		- TOP OF BANK			
_		MITERED END SECTION		- PROPERTY LINE			
C	C	STORM SEWER MANHOLE		-RIGHT OF WAY			
			EMER	GENCY CON	NTACTS		
	COUN		RIDA POWER		LORIDA GAS TRAN		PEACE RIVER ELECTRIC

UTILITY ENG JIM RENNEBERG, P.E. 1022 26TH AVENUE EAST BRADENTON, FL. 34208 (941) 708-7450 EXT. 7220

TECO/PEOPLES GAS CO. ALEX McFARLANE 8261 VICO COURT SARASOTA, FL. 34240 (813) 275-3762 ÈMERGENCY: 1-877-832-6911

JOHN PLOTT 1701 RINGLING BLVD. SARASOTA, FL. 34236 (941) 906–6707 **JOHN.PLOTT@FTR.COM**

PALMETTO, FL 34221 (941) 927-4262 ÈMERGENCY: 1-800-4-OUTAGE TODD.BOLKEMA@FPL.COM

MANATEE COUNTY HEALTH DEPT. HANS ROESE 410 6TH AVENUE EAST BRADENTON, FL. 34208

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT SARASOTA SERVICE OFFICE STEVE LOPES, P.E. 6750 FRUITVILLE ROAD SARASOTA, FL. 34240 (941) 377–3722

(941) 748–0747 EXT. 1355



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

TAMPA FL 33634 PHONE: (813) 466-3327 E-MAIL: CHAD.HARRELL@SUG.COM

FDEP, SOUTHWEST DISTRICT ED WATSON 13051 N. TELECOM PKWY TEMPLE TERRACE, FL 33637 (813) 470–5875

CHARTER COMMUNICATIONS TOM WRIGHT 5413 E. STATE ROAD 64 BRADENTON, FL. 34208-5535 (941) 748-3816 EXT. 21348 TOM.WRIGHT@CHARTER.COM

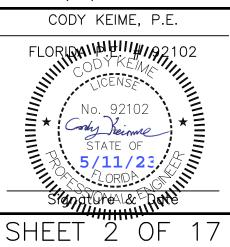
SUNSHINE STATE ONE CALL OF FLORIDA 1-(800) 432-4770

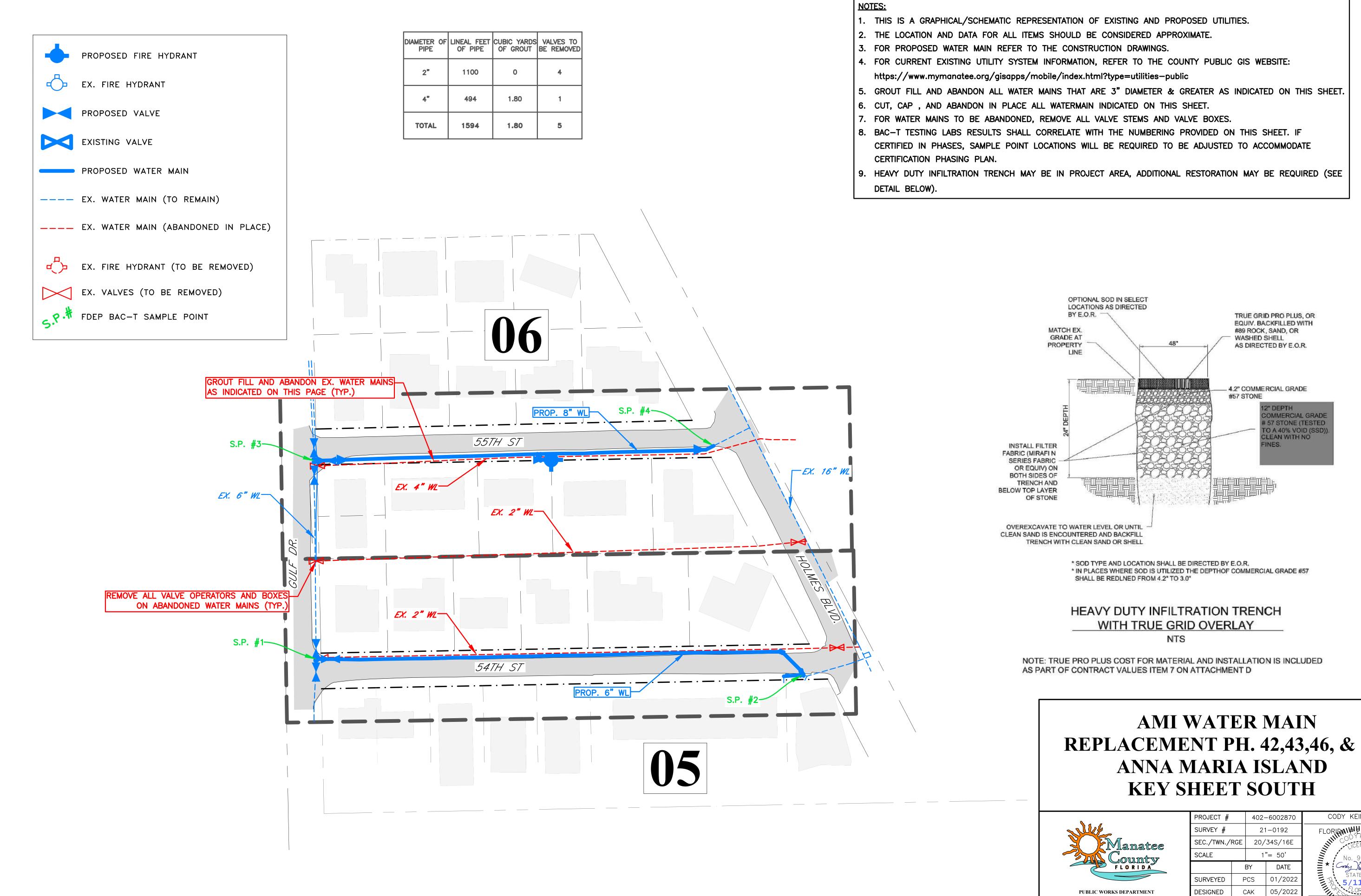
PROJECT # 402-600287 SURVEY # 21-0192 SEC./TWN./RGE 20/34S/16E SCALE N.T.S. BY DATE SURVEYED PCS 01/2022 DESIGNED CAK 05/2022 DRAWN CAK 09/2022 CHECKED CAK 10/2022

WACHULA, FL 33873 KENDELL COKER (863) 767-4660 KENDELL.COKER@PRECO.COOP

MANATEE COUNTY PUBLIC WORKS DEPT./TRAFFIC ENGINEERING/ ATMS 2101 47TH TERRACE EAST BRADENTON, FL 34203 VISHAL KAKKAD, P.E. (941) 749-3500 EXT. 7812 VISHAL.KAKKAD@MYMANATEE.ORG.

CITY OF BRADENTON PUBLIC WORKS 1411 9TH ST. W. BRADENTON, FL 34205 JIM MCLELLAN JIM.MCLELLAN@CITYOFBRADENTON.COM PHONE: (941) 708-6300

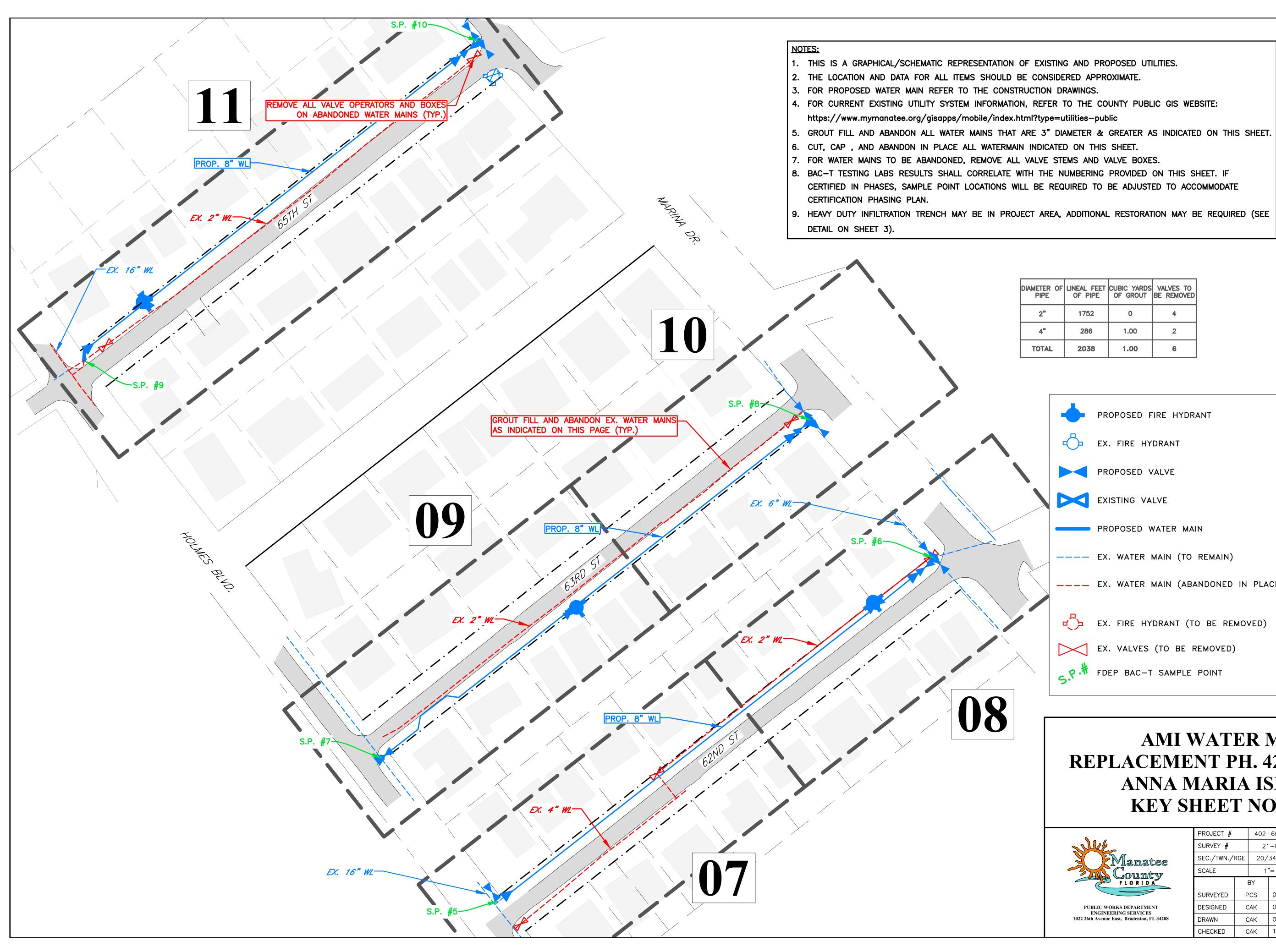




REPLACEMENT PH. 42,43,46, & 53

ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208

	PROJECT #	JECT # 4		-6002870	CODY KEIME, P.E.		
	SURVEY #		21	-0192	FLORIDAN HILLIN #192102		
	SEC./TWN./RGE SCALE		SEC./TWN./RGE		20/	34S/16E	TCENS
			1	"= 50'	FLORIDANDE #192102 CODYKEMAN TICENSE No. 92102 * Cody Vienne *		
		BY		DATE	* Cooky Keinme *		
	SURVEYED	F	PCS	01/2022	STATE OF 5/11/23		
	DESIGNED	CAK		05/2022	A CORIDA		
	DRAWN	C	CAK	09/2022	Signatureale plate		
	CHECKED	C	CAK	10/2022	SHEET 3 OF 17		
				•			



er of Pe	LINEAL FEET OF PIPE	CUBIC YARDS OF GROUT	VALVES TO BE REMOVED
19	1752	0	4
10	286	1.00	2
AL	2038	1.00	6

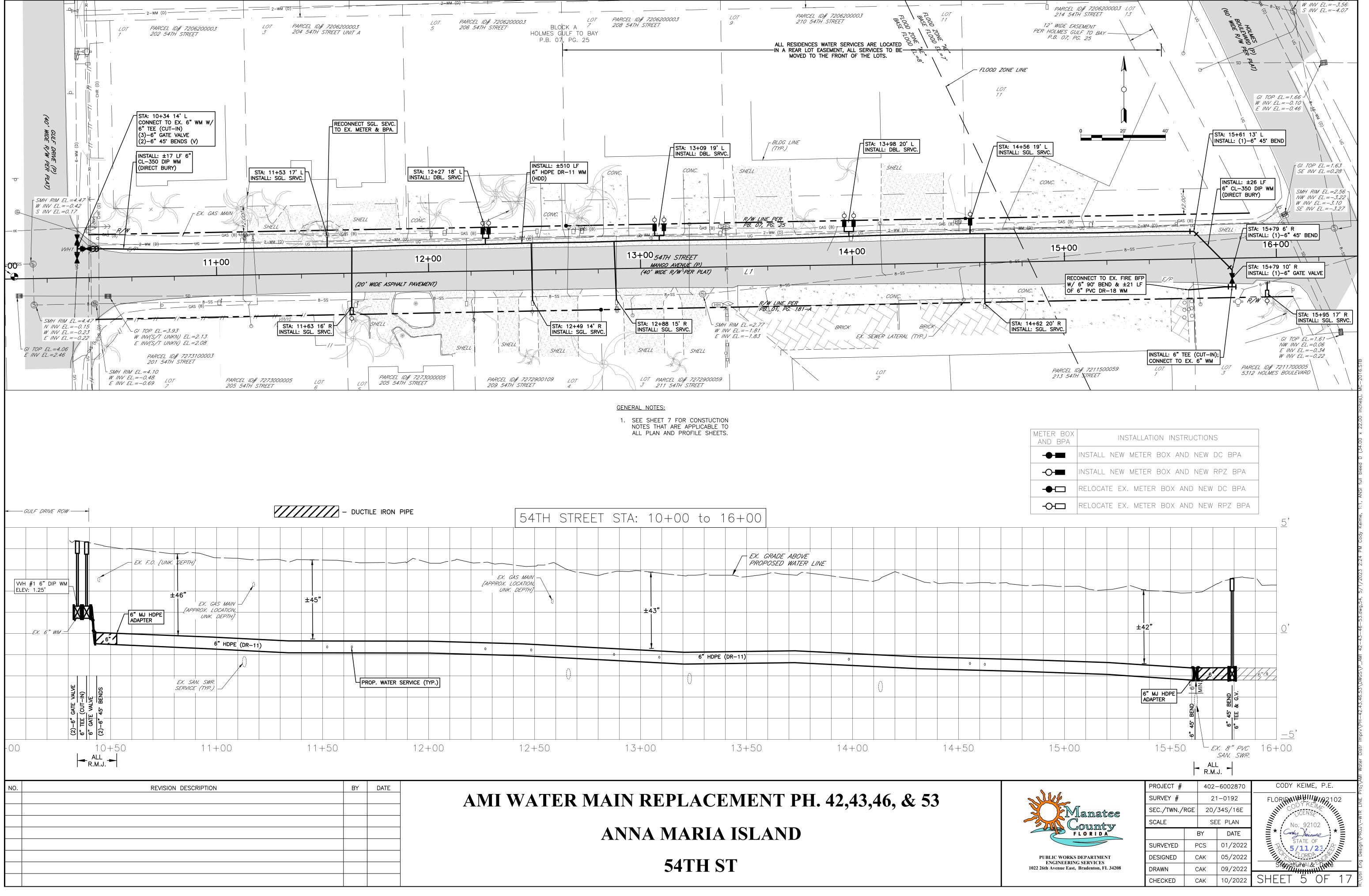
•	PROPOSED FIRE HYDRANT
- Charles	EX. FIRE HYDRANT
	PROPOSED VALVE
	EXISTING VALVE
	PROPOSED WATER MAIN
	EX. WATER MAIN (TO REMAIN)
	EX. WATER MAIN (ABANDONED IN PLACE)
۲ پ	EX. FIRE HYDRANT (TO BE REMOVED)
\bowtie	EX. VALVES (TO BE REMOVED)
s.P.#	FDEP BAC-T SAMPLE POINT

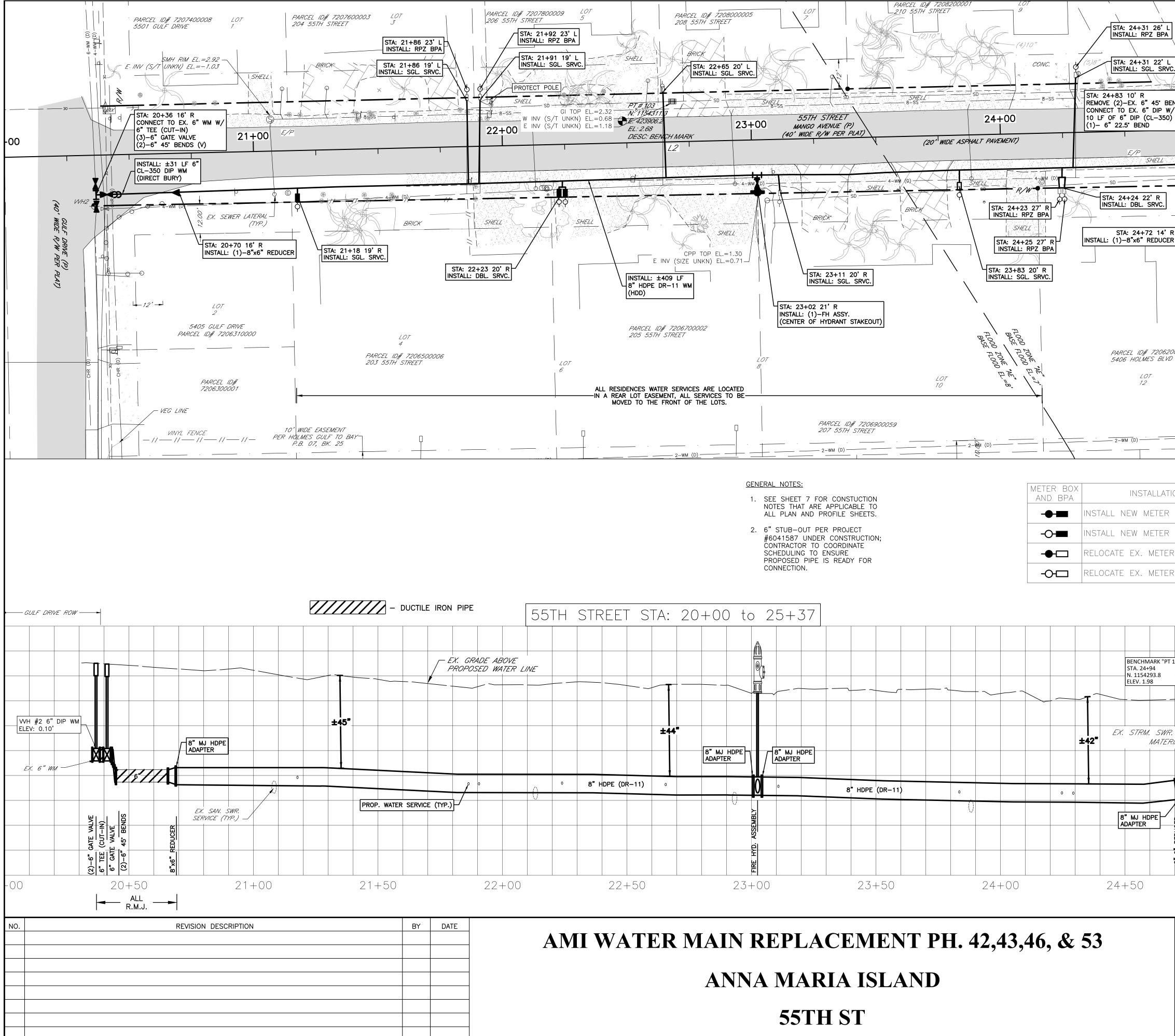
AMI WATER MAIN **REPLACEMENT PH. 42,43,46, & 53** ANNA MARIA ISLAND **KEY SHEET NORTH**



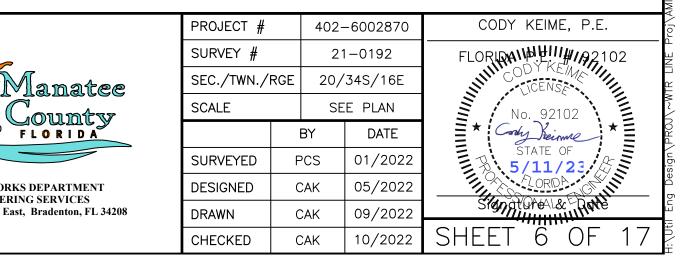
PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208

	PROJECT #		402-	-6002870	CODY KEIME, P.E.		
	SURVEY #		21	-0192	FLORIDAN HILLINHING 2102		
	SEC./TWN./RGE SCALE		SEC./TWN./RGE 2		20/	34S/16E	COD T REMAN
			1	"= 50'	FLORIDAN HE HIG2102 CODY KEIME No. 92102 * Cody Jeinne *		
		B		DATE	* Cooky Reime *		
	SURVEYED	F	PCS	01/2022	STATE OF 5/11/23		
	DESIGNED	DESIGNED CAR		05/2022	FLORIDA C		
	DRAWN CAK		CAK	09/2022	Signatureale Plate		
	CHECKED	C	CAK	10/2022	SHEET 4 OF 17		
	-			•			





July -	PROJECT #	402-6002870	CODY KEIME, P
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	-5'		
	_ ,		
EX. 8" VCP SAN. SWR.	_		
	EX. 16" WM		
EX. 6" DIP	_		
TERIAL UNK.)			
WR. (SIZE &)	-		
E. 424152.2			
"PT 14" OFF. 14.41 R			
HOLMES BLVD ROW			
	<u> <u> </u></u>		
ER BOX AND NEW RPZ BPA			
ER BOX AND NEW DC BPA			
R BOX AND NEW RPZ BPA			
R BOX AND NEW DC BPA			
ATION INSTRUCTIONS			
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SMH RIM EL. NW INV EL.= SE INV EL.=	.=2.14 =-3.01		
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GI TOP EL.=1.82 NW INV (S/T UNKN) EL.	=0.07	- GL TOP FL -1 37	
50) & 25+00 29		— ss —	
BENDS W/ D V25+00 P 25-		(S/T UNKN) EL.=-2.	
SE INV (S/T UNKN) EL.=-2	SMH R E INV	RIM EL.=2.18 (S/T UNKN) EL.=-2.8	
RVC.	.31	SEE NOTE	
E INV (S/T UNKN) EL.=0.60 SE INV (S/T UNKN) EL.=0.81	/ W INV (SIZE UNH E INV (SIZE UNK SE INV (SIZE UN	(N) EL.=0.60	
NW INV (S/T UNKN) EL.=0.71 W INV (S/T UNKN) EL.=0.65	- CPP TOP EL.=1.		4
CPP TOP EL.=1.54			٨



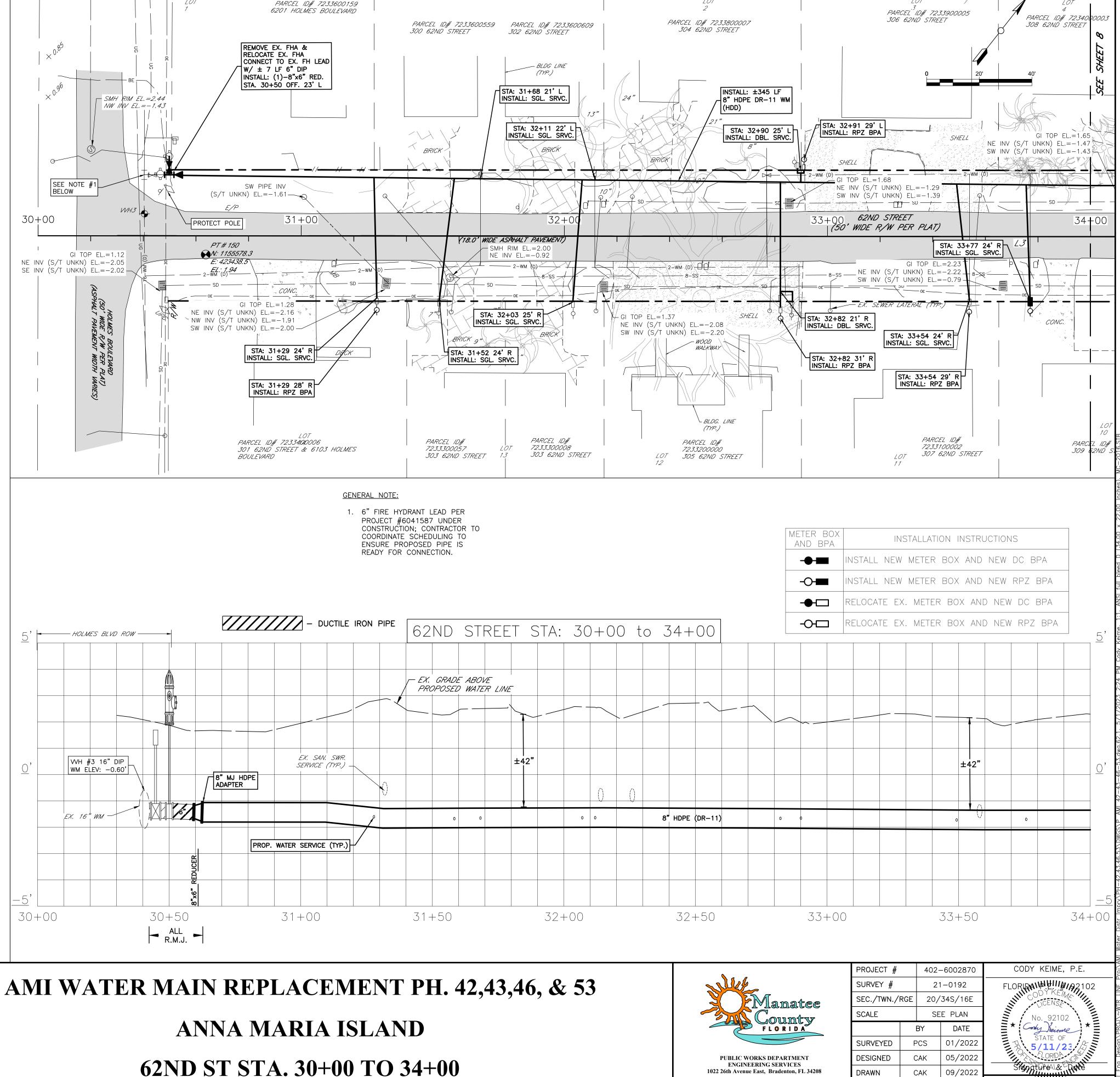
' RIM EL.=2

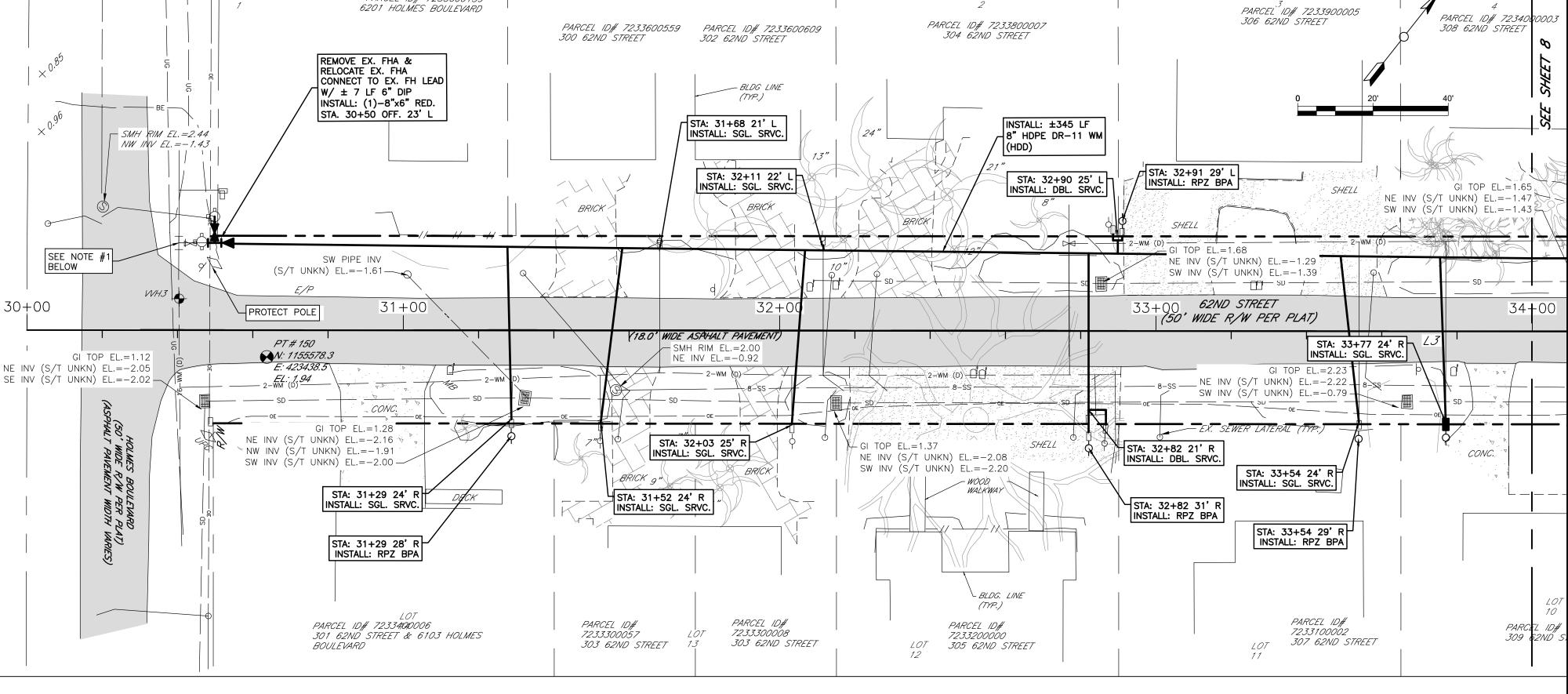
CONSTRUCTION NOTES (APPLICABLE TO ALL PLAN AND PROFILE SHEETS):

- GAS MAINS ARE LOCATED WITH THE PROJECT AREA.
- 2. WATER CONNECTIONS TO THE EXISTING RESIDENCES ARE UNKNOWN. THE CONTRACTOR/PLUMBER MAY SHIFT LOCATIONS OF THE PROPOSED WATER METER TO OPPOSITE PROPERTY CORNER TO CREATE A MORE EFFICIENT ALIGNMENT TO THE EXISTING WATER SERVICE CONNECTION AT THE RESIDENCE.
- ALL METER BOXES PROPOSED AND/OR RELOCATED SHALL BE INSTALLED PER UW-21, UNLESS OTHERWISE NOTED.
- 4. CONTRACTOR SHALL COORDINATE ALL WATER SERVICE LINE INSTALLATIONS WITH THE UTILITY DEPARTMENT (JAMES LEE @ 941-792-8811 x5055) PRIOR TO INSTALLATION. THE CONTRACTOR SHALL INSTALL 3/4-INCH REDUCE PRESSURE BACKFLOW PREVENTION ASSEMBLIES (BPA'S) (WILKINS 975XL2, APOLLO VALVE RPLF4A, OR WATTS MODEL LF007 SERIES) WITH VACUUM BREAKERS ON ALL EXTERIOR HOSE BIBBS, UNLESS OTHERWISE NOTED.
- 5. ALL WORK SHALL MEET MANATEE COUNTY UTILITY STANDARDS AND THE FLORIDA BUILDING CODE. WORK ON PRIVATE PROPERTY SHALL BE PERFORMED BY A LICENSED PLUMBER REGISTERED IN MANATEE COUNTY.
- 6. WATER SERVICE TAPS SHALL NOT BE LOCATED UNDER DRIVEWAYS.
- 7. INSTALLATION OF THE PROPOSED PIPE SHALL BE AS SHOWN IN THE PLAN AND PROFILE VIEWS, UNLESS REVISIONS ARE APPROVED BY THE COUNTY. THE DEPTH OF BURY OR TOP OF PIPE ELEVATION ARE TO BE AS INDICATED BY THE ELEVATION GRID, UNLESS OTHERWISE STATED ON THE PLANS BY ELEVATION CALLOUTS OR SPOT GRADES. IT IS EXPECTED THE INSTALLATION OF THE PIPE OR APPURTENANCES SHALL MATCH THE ELEVATIONS SHOWN IN THE CONSTRUCTION PLANS.
- 8. ALL NECESSARY DEVIATIONS BEYOND THE ACCEPTED TOLERANCES WILL NOT BE ACCEPTED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE COUNTY.
- 9. INSTALLATION VERTICAL AND HORIZONTAL TOLERANCES SHALL BE AS STATED IN THE SPECIFICATION DOCUMENT, SECTION 02617, 1.01.J. PIPE PLACED OUT OF TOLERANCE IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO COST TO THE COUNTY.
- 10. CONTRACTOR SHALL EXPOSE AND SURVEY THE EXISTING TOP OF "PIPE" ELEVATION AT ALL PROPOSED UTILITY CROSSINGS. THIS INFORMATION SHALL BE PROVIDED ON THE RECORD DRAWINGS.
- 11. CONTRACTOR SHALL USE A TAPE MEASURE AND PROVIDE PHOTOGRAPHIC EVIDENCE THAT ALL MINIMUM REQUIRED HORIZONTAL OR VERTICAL DISTANCES HAVE BEEN PROVIDED. THESE PHOTOS SHALL BECOME PART OF THE PROJECT FILE. PHOTOS SHALL BE LABELED WITH THE BASELINE STATION NUMBERING AND UPLOADED TO eBUILDER WITHIN 1 TO 2 DAYS OF THE CROSSING INSTALLATIONS. THIS REQUIREMENTS SHALL APPLY TO ALL CROSSINGS. THESE PHOTOS SHALL BE USED TO SUPPORT THE AS-BUILT RECORD INFORMATION.
- 12. ALL EXISTING, UNDAMAGED, ROME 1910 CAST IRON METER BOXES MAY BE REUSED. REPLACE ALL OTHERS WITH CURRENT STANDARD.
- 13. CONTRACTOR SHALL NOT USE LEVERAGE OR MECHANICAL MEANS TO ALIGN THE PIPE AND/OR FITTINGS FOR ATTACHMENT. THE PIPE SHALL NOT BE "SPRING-LOADED"
- 14. ALL DISTURBED EX. DRAINAGE DITCHES/SWALES SHALL BE RE-GRADED TO ORIGINAL CONDITION TO PROVIDE POSITIVE DRAINAGE.
- 15. ALL COST TO RESTORE PROPERTY IN THE ROW DURING PIPE INSTALLATION SHALL BE INCLUDED IN THE COST OF THE PIPE BID ITEM. IF NOT SPECIFICALLY ADDRESSED BY OTHER BID ITEMS.
- 16. THERE SHALL BE 3-FOOT MINIMUM HORIZONTAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING/PROPOSED STRUCTURES.
- 17. ANY PROPOSED AIR RELEASE VALVES (ARV) SHALL BE INSTALLED AFTER THE FIRST DRAFT OF THE RECORD DRAWINGS ARE REVIEWED TO ENSURE THE ARVS ARE INSTALLED AT THE ACTUAL HIGH POINTS OF THE NEW INSTALLED MAINS.
- 18. LOCATION OF SEWER SERVICE LATERALS ARE APPROXIMATE. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL SEWER SERVICE LATERAL LOCATIONS BOTH HORIZONTALLY AND VERTICALLY ALONG THE PROPOSED WATER MAIN ALIGNMENT AND MARK THEIR LOCATION (HORIZ. & VERT.) ON THE PLANS AND NOTIFY THE COUNTY OF ANY CONFLICTS WITH THE PLAN ELEVATIONS IMMEDIATELY. 6-INCH MIN. VERTICAL CLEARANCE IS REQUIRED FROM THE WATER MAIN. THE REDLINE DRAWINGS SHALL BE SUBMITTED TO THE COUNTY FOR RECORD. ALL SEWER SERVICE LATERALS SHALL BE REFLECTED IN THE RECORD DRAWINGS OF THE PROJECT. THE SEWER SERVICE LINES ILLUSTRATED IN THE PROFILES ARE DRAWN AT THE ELEVATION OF THE SEWER MAIN, THE ELEVATION THAT THEY CROSS THE PROPOSED WATER MAIN IS UNKNOWN.
- 19. THE VERTICAL ALIGNMENT OF THE WATER MAIN MAY BE SLIGHTLY VARIED BY ALLOWABLE JOINT DEFLECTIONS BASED ON THE PIPE MANUFACTURER'S RECOMMENDATIONS. FITTINGS SHALL NOT BE USED TO DEFLECT AROUND THE SEWER LATERALS.
- 20. LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS BOTH HORIZONTALLY AND VERTICALLY ALONG THE PROPOSED WATER MAIN ALIGNMENT AND MARK THEIR LOCATION (HORIZ. & VERT.) ON THE PLANS AND NOTIFY THE COUNTY OF ANY CONFLICTS WITH THE PLAN ELEVATIONS IMMEDIATELY. 6-INCH MIN. VERTICAL CLEARANCE IS REQUIRED FROM THE WATER MAIN. THE REDLINE DRAWINGS SHALL BE SUBMITTED TO THE COUNTY FOR RECORD. ALL EXISTING UTILITIES SHALL BE REFLECTED IN THE RECORD DRAWINGS OF THE PROJECT.
- 21. THE VERTICAL ALIGNMENT OF THE WATER MAIN MAY BE SLIGHTLY VARIED BY ALLOWABLE JOINT DEFLECTIONS BASED ON THE PIPE MANUFACTURER'S RECOMMENDATIONS. FITTINGS SHALL NOT BE USED TO DEFLECT AROUND THE EXISTING UTILITIES. IF A CONFLICT CANNOT BE AVOIDED BY UTILIZING PIPE JOINT DEFLECTIONS, THEN THE EXISTING UTILITIES SHALL BE RELOCATED TO ALLOW CLEARANCE FOR THE WATER MAIN TO PASS. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE EXISTING UTILITY PRIOR TO RELOCATION.
- 22. HEAVY DUTY INFILTRATION TRENCH MAY BE IN PROJECT AREA, ADDITIONAL RESTORATION MAY BE REQUIRED (SEE DETAIL ON SHEET 3).

NO.	REVISION DESCRIPTION	BY	DATE	

ANNA MARIA ISLAND 62ND ST STA. 30+00 TO 34+00



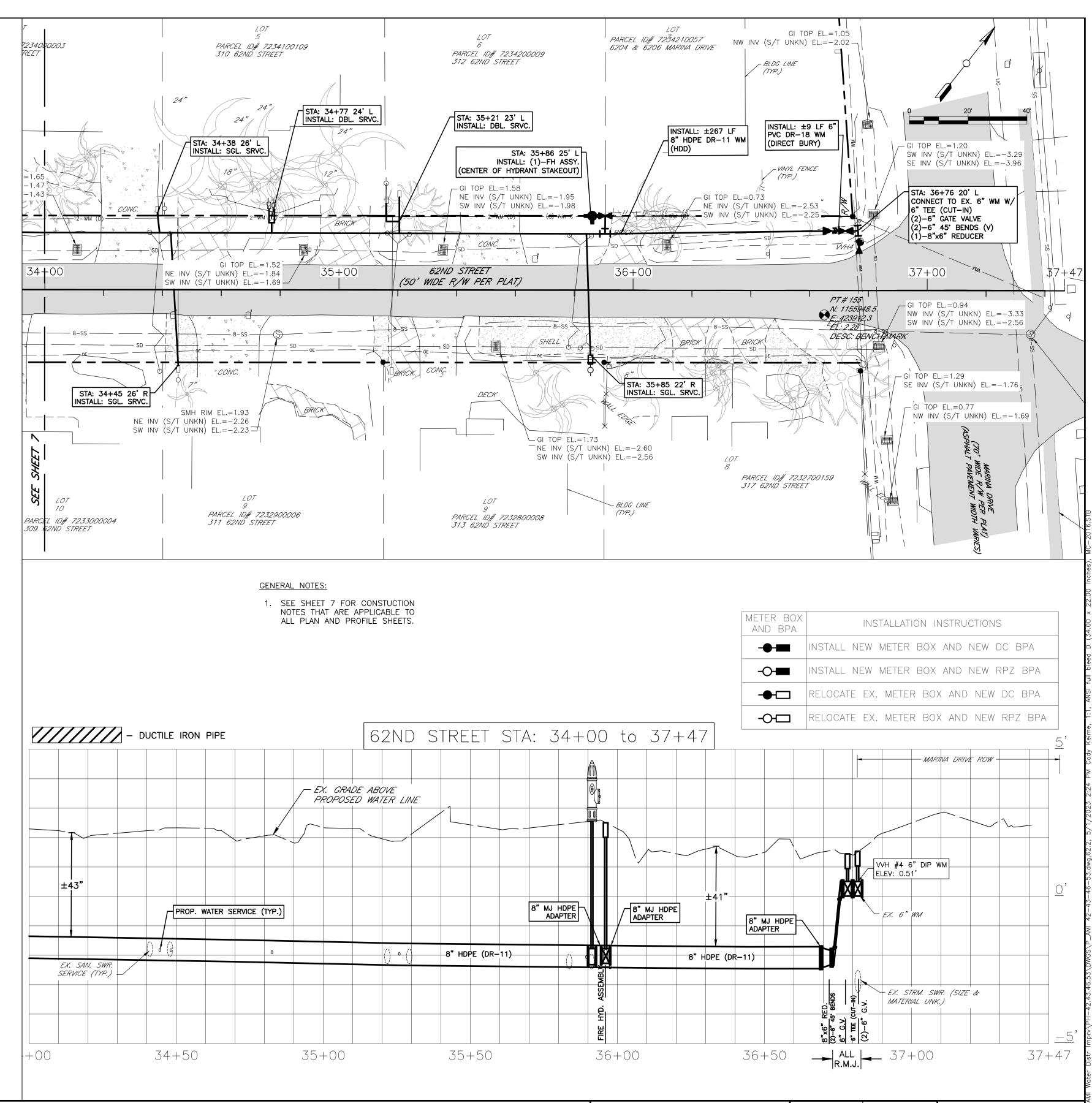


LOT



PROJECT #		402-6002870		CODY KEIME, P.E.
SURVEY #		21	-0192	FLORIDAN HUIII #192102
SEC./TWN./RGE		20/	34S/16E	COD NEMA
SCALE		SE	E PLAN	FLORIDATION KEIME, P.L. FLORIDATION KEIME CODY KEIME No. 92102 * Cody Reime
		BY	DATE	forme
SURVEYED	F	PCS	01/2022	STATE OF 5/11/23
DESIGNED	CAK		05/2022	LORIDA 6
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CHECKED		CAK	10/2022	SHEET 7 OF 17

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NO.	REVISION DESCRIPTION	BY	DATE	
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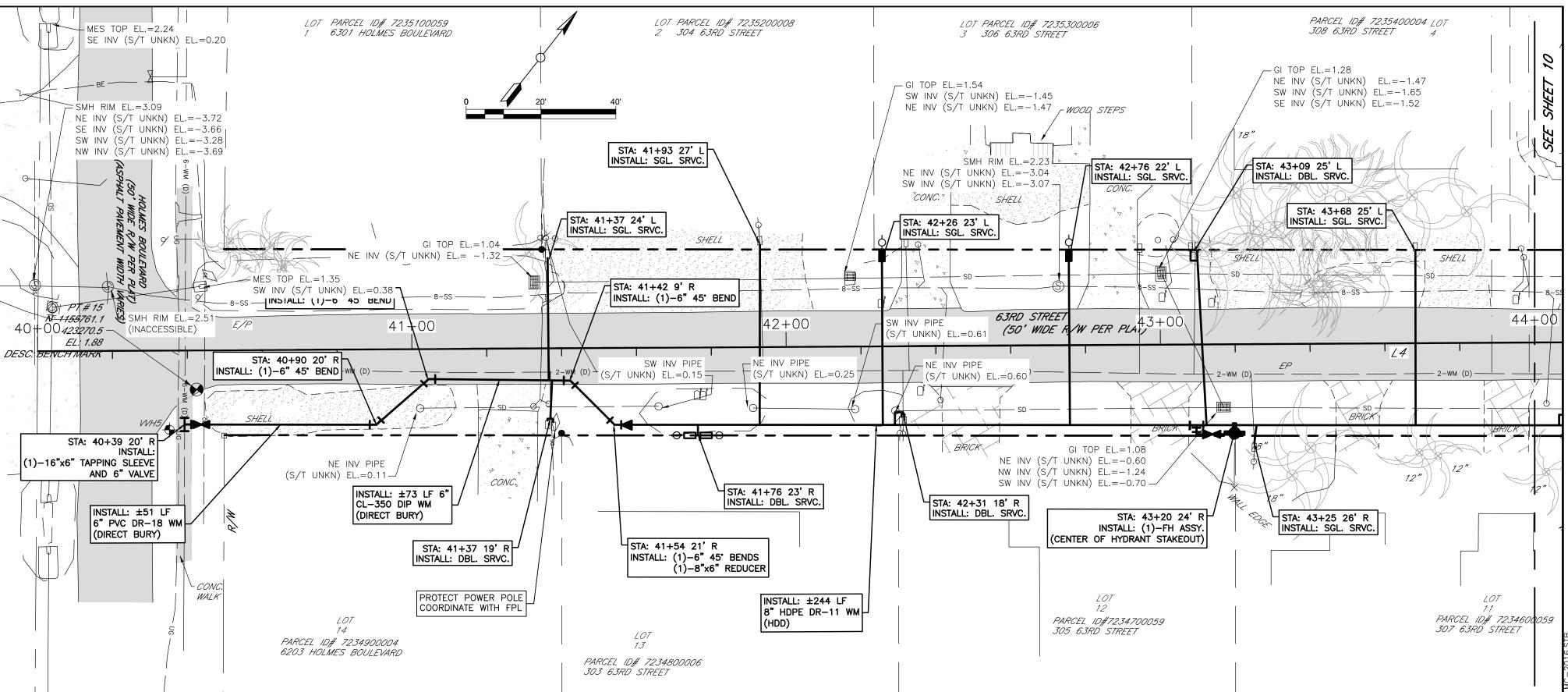


AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53

ANNA MARIA ISLAND 62ND ST STA. 34+00 TO 37+47

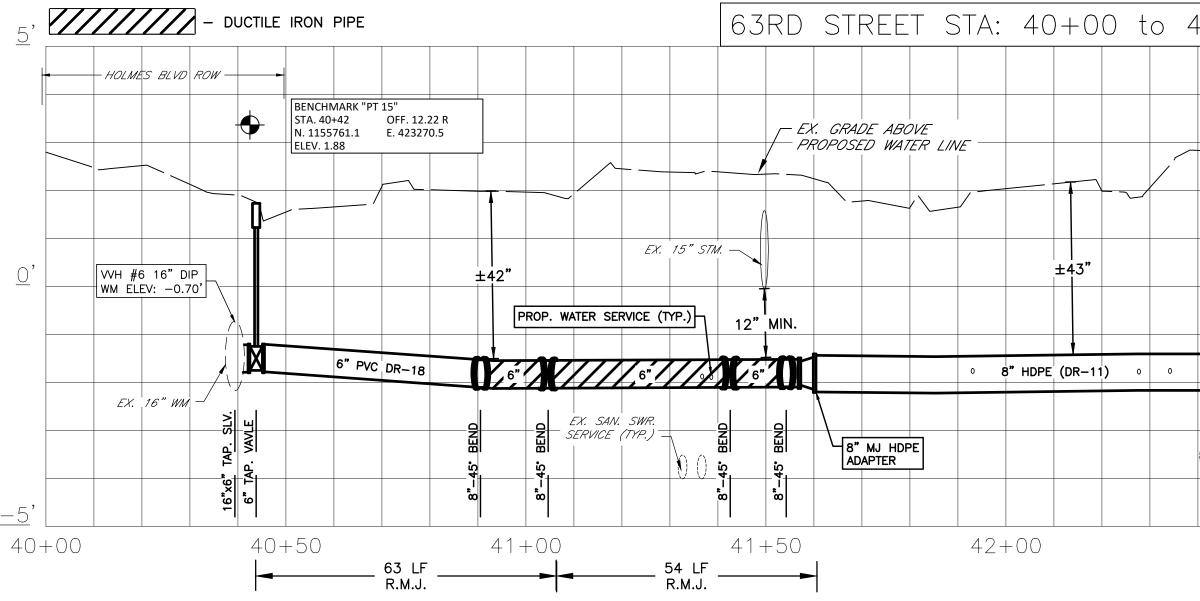
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alles	SURVEY #		2	-0192	FLORIDANIA HIII #192102	Ц Ц Ц
Manatee	SEC./TWN./I	RGE	20/	34S/16E		ב צ
County	SCALE		SE	E PLAN	No. 92102	<u> ~ ~ ~</u>
FLORIDA			BY	DATE	- terme	5 Z L
	SURVEYED	F	PCS	01/2022	STATE OF 5/11/23	esign
PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES	DESIGNED	C	CAK	05/2022	- FLORDA	בע ס
1022 26th Avenue East, Bradenton, FL 34208	DRAWN	C	CAK	09/2022	Signature L& Charte	j E
	CHECKED	C	CAK	10/2022	SHEET 8 OF 17	

NO.	REVISION DESCRIPTION	BY	DATE	
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<u>GENERAL NOTES:</u>

1. SEE SHEET 7 FOR CONSTUCTION NOTES THAT ARE APPLICABLE TO ALL PLAN AND PROFILE SHEETS.



AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53

ANNA MARIA ISLAND 63RD ST STA. 40+00 TO 44+00

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42-	+50		4	3+00)			43+5	50 44+00
									// Water
	•				PROJECT #		402	-6002870	CODY KEIME, P.E.
	N	Vel			SURVEY #		2	1-0192	
Manatee			SEC./TWN./RG		20/34S/16E		TICENSA E		
	AL County			SCALE		SE	E PLAN	No. 92102	
		FLO	RIDA	_			BY	DATE	2 2 2 2 2 2 2 2 2 2 2 2 2 2
				_	SURVEYED	F	PCS	01/202	
	PU	JBLIC WORKS DEP. ENGINEERING SEI			DESIGNED		CAK	05/2022	2
	1022 26	th Avenue East, Brac		3	DRAWN		CAK	09/202	
					CHECKED	C	CAK	10/2022	2 SHEET 9 OF 17 🛱

		METER BOX AND NEW DC BFA	
	-O-III INSTALL NEW	METER BOX AND NEW RPZ BPA	4
	RELOCATE EX	. METER BOX AND NEW DC BPA	7
	-O-C RELOCATE EX	. METER BOX AND NEW RPZ BF	PA
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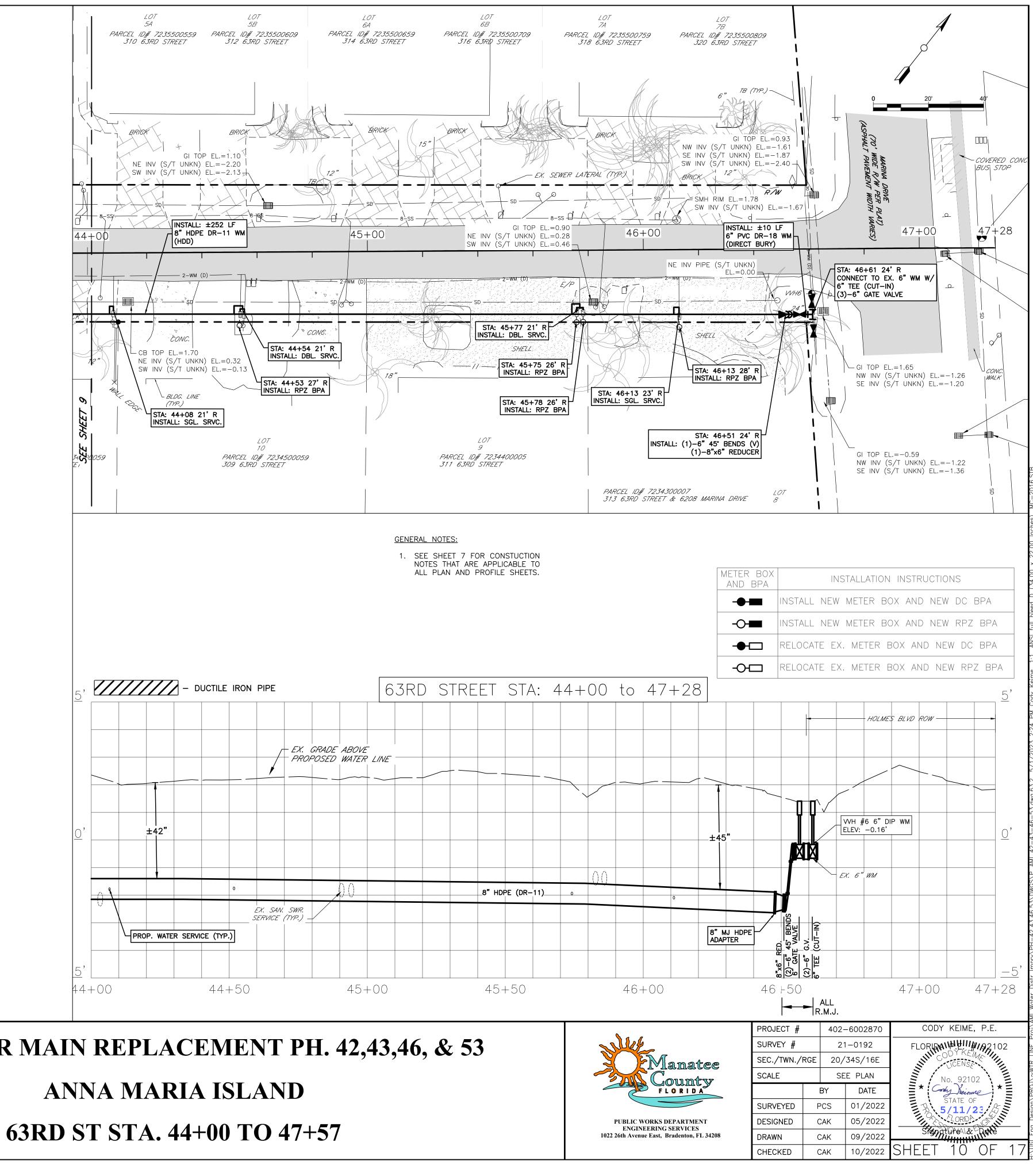


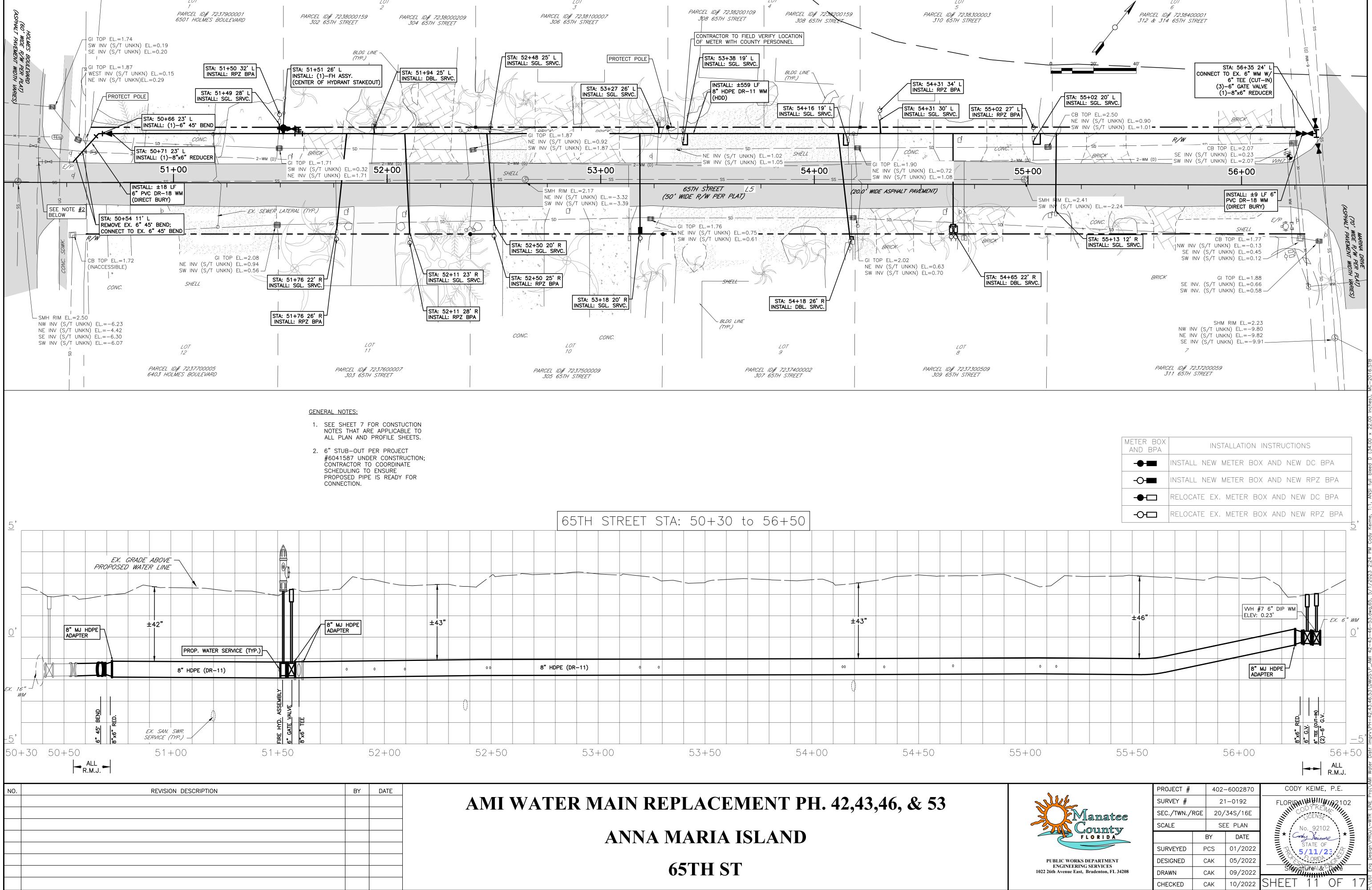
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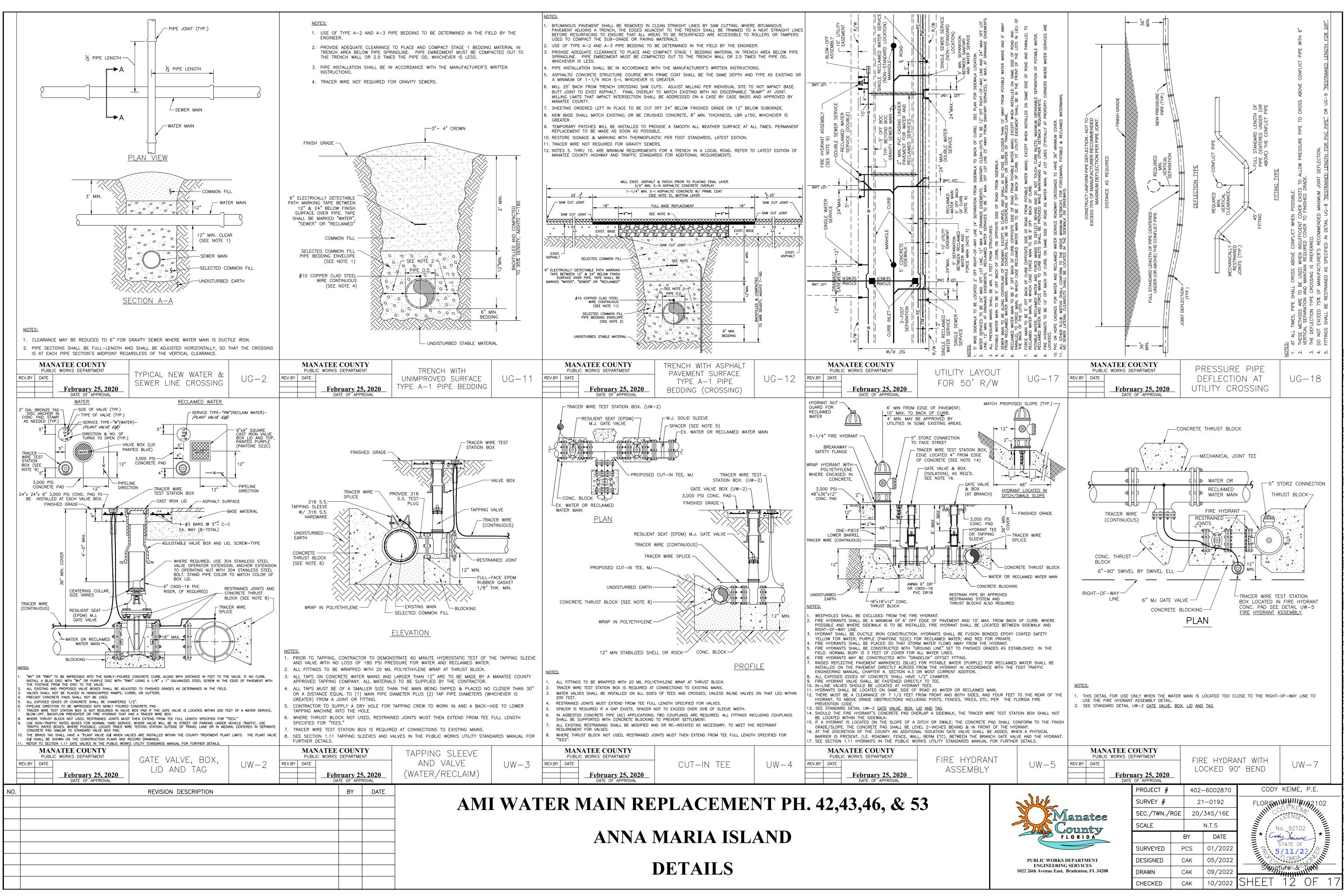
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NO.	REVISION DESCRIPTION	BY	DATE	
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ANNA MARIA ISLAND

AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53





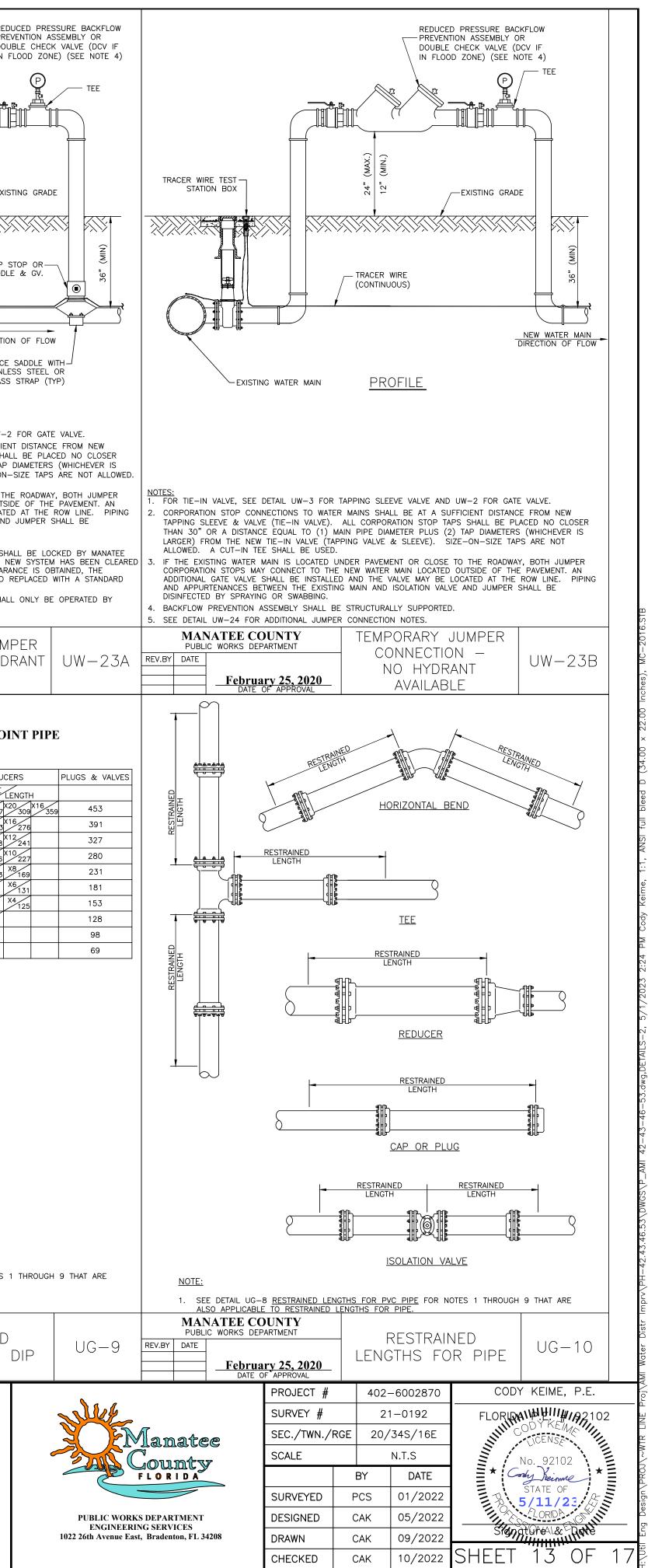


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BACKFLOW PREVENTION ASSEMBLY (SEE NOTE 4)	CAST IRON OVAL METER BOX, PAINTED BLUE AND MARKED "WATER METER" FOR POTABLE WATER OR	24" MAX. FROM PROP. LINE FOR WATER SERVICES. 5' MIN. FROM SAN. SEWER AND FOR RECLAIMED WATER SERVICES.	PRESSURE GAUG TURN TEST COC REDUCER BUSHI
TEST COCKS (TYPICAL) BALL VALVE	PURPLE (PANTONE 522C) FOR RECLAIMED WATER AND MARKED "RECLAIMED METER"		TEE - P
BALL VALVE SEE NOTE 7 SEE NOTE 7	WIRE NUT (CONTINUOUS)		
SEE NOTE 3 (TYP.) $6^{"MAX}$ $12^{"-18"}$ $6^{"-4"}$	SIDEWALK 4" FINISHED GRADE	1" MINIMUM	CONNECT TO AN APPROVED FLOW METER
METER BOX	ANGLE BALL NALVE 8"-10"(±½")	MINIMUM SIZE BASED ON NUMBER OF SERVICES IF THE MAIN IS NOT UNDER PAVEMENT, THE SERVICE PIPE SHALL BE	SOURCE, I.E.
FLOW GR REBAR 3,000 PSI CONC. SLAB	-FULL PORT W/LOCKWING	CORPORATION STOP POLYETHYLENE MEETING AWWA C-901. WHEN THE MAIN IS UNDER PAVEMENT, THE SERVICE PIPE SHALL BE TYPE ("L OR K") COPPER, OR STAINLESS STEEL SCHEDULE 40 PIPE. PE SERVICE PIPE SHALL BE BLUE FOR WATER OR PURPLE FOR RECLAIMED WATER. CASINGS SHALL BE COLOR CODED.	LOCKABLE VALVE BOX PROVIDED BY COUNTY
90° OR 45° BEND (TYP.)	BRASS METER COUPLING: CURB STOP (SEE MANATEE COUNTY (FOR 5/8" AND 3/4" METER)	SPLICE <u>PLAN</u> WATER OR RECLAIMED	TRACER WIRE TEST STATION BOX
SEE NOTE 3 (TYP.)	SPECIFICATIONS)	FINISHED GRADE SIDEWALK	TRACER WIRE SPLICE
		How Stainless Steel or Brass Strap	
	OR TYPE "L OR K" COPPER; OR 316 S.S. SCH. 40 PIPE. (SEE NOTE 6 BELOW) CONNECTION TO BE MADE BY PLUMBER 7" x (5/8" x 3/4")	Image: Second	TIE-IN VALVE TO BE CLOSED & LOCKED (SEE NOTES 1 & 3)
NOTES: 1. BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER, AS SHOWN	1" X 3/4" BUSHING (NOT -/ REQ. FOR 1" METER) REQ. FOR 1" METER)	ALL ROADWAY CROSSINGS; EXTEND MIN. 2' PAST PAVEMENT EDGE AND BE WITHIN 2' OF CURB STOP CURB TOP CURB T	
ABOVE 2. COPPER PIPE TYPE "L" (OR "K") OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE. 3. PIPES PASSING THROUGH CONCRETE SLAB SHALL BE PROPERLY PROTECTED; POLYETHYLENE WRAPPED OR	← BRASS METER COUPLING: METER SWIVEL NUT X 3/4" MIP (FOR 5/8" AND 3/4" METER) BRASS METER COUPLING:	WATER MAIN OR RECLAIMED WATER <u>SECTION</u> WATER MAIN OR RECLAIMED WATER <u>SECTION</u> WATER MAIN OR RECLAIMED WATER <u>SECTION</u> WATER MAIN OR RECLAIMED WATER <u>SECTION</u> WATER MAIN OR RECLAIMED WATER <u>SECTION</u>	NOTES: 1. FOR TIE-IN VALVE, SEE DETAIL UW-3 FOR TAPPING 2. CORPORATION STOP CONNECTIONS TO WATER MAINS
 PVC SLEEVED. COPPER SHALL NOT COME IN CONTACT WITH THE CONCRETE. 4. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND CHAPTER 2–31, ARTICLE X OF THE MANATEE COUNTY CODE OF ORDINANCES. 	METER SWIVEL NUT X 1" MIP (FOR 1" METERS) NOTES:	6" 6" PIPE TO ADJUST LENGTH IS NOT ALLOWED. NOTES: 2 FT MIN.	TAPPING SLEEVE & VALVE (TIE-IN VALVE). ALL CORF THAN 30" OR A DISTANCE EQUAL TO (1) MAIN PIPE LARGER) FROM THE NEW TIE-IN VALVE (TAPPING VAL A CUT-IN TEE SHALL BE USED.
 ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2". BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION. PRESSURE REDUCING VALVE IS REQUIRED UPSTREAM OF BACKFLOW PREVENTION ASSEMBLY, IF SYSTEM PRESSURE EXCEEDS 80 PSI. 	1. METER BOX AND RESETTER ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS.	 METER BOXES & RESETTERS ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS. WITH PRIOR APPROVAL BY COUNTY, METER BOXES WITH LOCKABLE LIDS MAY BE LOCATED IN SIDEWALKS. "WM" OR "RWM" TO BE IMPRESSED INTO THE NEWLY POURED CONCRETE CURB ALONG WITH DISTANCE IN FEET TO THE 	 IF THE EXISTING WATER MAIN IS LOCATED UNDER PA CORPORATION STOPS MAY CONNECT TO THE NEW WA ADDITIONAL GATE VALVE SHALL BE INSTALLED AND TH AND APPURTENANCES BETWEEN THE EXISTING MAIN A
 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET. IN ADDITION TO THE PRV, THE BUILDING DEPT. MAY REQUIRE AN APPROVED DEVICE FOR THERMAL EXPANSION CONTROL DOWNSTREAM OF THE ASSEMBLY. 	 THE METER RESETTER SHALL BE INSTALLED IN SUCH A MANNER AS TO ALLOW REMOVAL AND REPLACEMENT WITHOUT DISTURBING THE STRUCTURAL INTEGRITY OF THE PIPING SYSTEM, THE SHUTOFF VALVES, OR THE RESETTER. FOR COMPLETE SERVICE CONNECTION ASSEMBLY, SEE DETAIL UW-21 <u>TYPICAL SERVICE CONNECTION</u>. 	 METER. IF NO CURB, INSTALL A BLUE DISC WITH "WM" OR A PURPLE DISC WITH "RWM" AND A 1/8"x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE DISTANCE (IN FEET) FROM THE DISC TO THE METER. 4. COLOR CODED TRACER WIRE SHALL BE INSTALLED WITH WATER AND RECLAIMED MAIN AND ALL SERVICES. SERVICE WIRE SHALL BE CONNECTED TO THE TRACER WIRE ALONG THE MAIN. ON DOUBLE SERVICES, WHEN SECOND METER IS OVER 8 FT APART, TWO TRACER WIRES SHALL BE INSTALLED; ONE FOR EACH METER. 	 AND APPORTENANCES BETWEEN THE EXISTING MAIN A DISINFECTED BY SPRAYING OR SWABBING. 4. BACKFLOW PREVENTION ASSEMBLY SHALL BE STRUCT 5. THE TIE-IN VALVE SHALL REMAIN CLOSED AND THE IN
 10. FITTINGS AND CONNECTIONS FOR ABOVE-GROUND INSTALLATIONS SHALL NOT ALLOW ANY MOVEMENT OR ROTATION OF BACKFLOW PREVENTION ASSEMBLY. 11. REFER TO DETAIL US-15 WATER METER & BACKFLOW PREVENTER FOR LIFT STATIONS FOR WATER SERVICE AT SEWAGE PUMPING STATION. 	4. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE R/W IS ONE FOOT (CUL-DE-SAC W/ MEDIAN) A 10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW.	 AFART, IND TRACER WIRES STALL BE INSTALLED, ONE FOR EACH METER. 5. WATER AND RECLAIMED WATER SERVICE LINES TO BE 5' MINIMUM FROM SEWER SERVICE PIPES. 6. FOR 2" SERVICES REPLACE CORPORATION STOP WITH 2" RESILIENT WEDGE FIP GATE VALVE W/BOX, LID & TAG. 7. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE ROW IS ONE FOOT (CUL-DE-SAC W/MEDIAN) A 10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW. 	COUNTY. THE TIE-IN VALVE SHALL REMAIN CLOSED A FOR USE BY THE FDEP AND ALL OTHER PERTINENT A LOCKABLE VALVE BOX SHALL BE REMOVED, RETURNE VALVE BOX.
12. BACKFLOW PREVENTION ASSEMBLIES USED FOR POTABLE APPLICATIONS SHALL BE LEAD FREE AS DEFINED IN THE REDUCTION OF LEAD IN DRINKING WATER ACT, SECTION 1417 OF THE SAFE DRINKING WATER ACT, 42 U.S.C. 300g-6, AS MAY BE AMENDED, AND IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS	 5. 3' MINIMUM CLEARANCE FROM LANDSCAPING PLANTS AND 10' MIN. CLEARANCE FROM TREES TO EDGE OF METER, CLEAR ACCESS OPENING TO STREET. 6. SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION. 	10-FOOT-WIDE PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE ROW. 8. TEMPORARY RESIDENTIAL USE CAN BE PROVIDED BY CONTACTING THE UTILITY CUSTOMER SERVICE. SEE DETAIL UW-19. 9. SERVICE TUBING SHALL NOT BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.	 IN THE EVENT THE LOCKED TIE-IN VALVE MUST BE MANATEE COUNTY PERSONNEL. SEE DETAIL UW-24 FOR ADDITIONAL JUMPER CONNECTIONAL OF ADDITIONAL OF ADDI
MANATEE COUNTY PUBLIC WORKS DEPARTMENT3/4" & 1" BACKFLOWREV.BYDATEUW-13	MANATEE COUNTY PUBLIC WORKS DEPARTMENTMETER BOX ASSEMBLYREV.BYDATEFOR 5/8" X 3/4";UW-18	MANATEE COUNTY PUBLIC WORKS DEPARTMENT TYPICAL SERVICE REV.BY DATE UW-21	MANATEE COUNTY TEN PUBLIC WORKS DEPARTMENT TEN REV.BY DATE CON
February 25, 2020 PREVENTION DATE OF APPROVAL ASSEMBLY	February 25, 2020 DATE OF APPROVAL 3/4"; AND 1" METERS	February 25, 2020 CONNECTION OW 21	February 25, 2020 DATE OF APPROVAL
BACK-UP RING OR MJ GLAND GASKET		1. A 2-INCH MINIMUM TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE POTABLE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS WITH THE FOLLOWING EXCEPTIONS:	REQUIRED LENGTH OF
HDPE PIPE		 a. PROJECTS THAT INCLUDE A PERMANENT BACKFLOW PREVENTER AT THE RIGHT-OF-WAY WHICH IS ADJACENT TO THE EXISTING WATER MAINS; b. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET IN LENGTH: OR 	FOR DIP (POL
TRACER WIRE WEDGE ACTION RESTRAINT	REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR C900-16 PVC PIPE (DR-18)	 c. OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCTION DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER CONNECTION IS NOT REQUIRED. 2. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOURCE 	MAIN HORIZ: BENDS TEES PIPE 90* 45* 22.5* SIZE LENGTH 36 142 59 28 *36 318 *24 232 165
BUTT FUSED JOINT	MAIN HORIZ. BENDS TEES REDUCERS PLUGS & VALVES	(E.G., EXISTING FIRE HYDRANT, EXISTING MAIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHOWN IN THE STANDARD TEMPORARY JUMPER DETAIL UW-23A OR UW-23B. A TEMPORARY JUMPER SHALL BE USED FOR FILLING, FLUSHING AND FOR DISINFECTION OF ANY NEW MAIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER THE	30 124 51 25 X30 333 X24 252 X20 189 X16 115 X12 24 106 44 21 X24 270 X20 211 X16 143 X12 143 X10
HDPE PIPE TO PVC PIPE / SPIGOT TO BELL CONNECTION tracer wire splice	PIPE 90* 45* 22.5* SIZE SIZE SIZE LENGTH SIZE LENGTH 24 90 38 18 X24 169 X12 X10 X20 X16 X12 X10 K10 K117 X12 SIZE LENGTH 214 20 78 32 16 X20 X10 X12 X10 X8 X16 SIZE LENGTH 184	FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) HAS BEEN OBTAINED. 3. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTIONS TO EXISTING	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
GASKET GASKET GASKET TRACER WIRE	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	WATER MAINS THAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON A CASE-BY-CASE BASIS. 4. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	10 44 18 9 X10 X8 X6 X8 X6 X4 100 8 37 15 7 X8 49 X6 X4 X6 5 X4 83	PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, LATEST EDITION. UNLESS APPROVED OTHERWISE, THE TAPPING SLEEVE, AND EXTERIOR OF THE EXISTING MAIN TO BE TAPPED, PIPING WITHIN THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DETAIL UW-23A OR UW-23B SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION 4.6 OF AWWA C651.	6 34 14 7 X6 x4 1 4 24 10 5 x4 19
MJ FITTING	6 29 12 6 X6 29 X4 4 21 8 4 X4 12 6	5. THE JUMPER SHALL INCLUDE A FLOW METER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE IS AT A CONSTANT MEASURED RATE WHILE CHLORINATING THE NEW MAIN. THE CHLORINE CONCENTRATION SHALL BE MEASURED AT REGULAR INTERVALS TO ENSURE THAT IT IS FED AT A CONSTANT RATE OF NOT LESS THAN 25 MILLIGRAMS PER LITER (MG/L) OF FREE CHLORINE.	
OR MJ VALVE - BUTT FUSED JOINT HDPE MJ ADAPTER NOTE: SCHEMATIC SHOWN FOR STANDARD MJ FITTINGS AND GATE VALVES.		 6. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE NEW MAINS CONTINUOUSLY AFTER DISINFECTION AND UNTIL FDEP CLEARANCE LETTER IS OBTAINED. 7. ALL TEMPORARY BACKFLOW PREVENTION ASSEMBLY OR "JUMPERS" UTILIZED DURING PIPELINE 	
HDPE PIPE TO MJ FITTING TRANSITION		CONSTRUCTION MUST SHOW CERTIFICATION THAT THEY HAVE BEEN TESTED ANNUALLY AND PASSED ACCORDING TO THE FLORIDA BUILDING CODE, PLUMBING SECTION, CHAPTER 3, SECTION 312.9.1, 312.9.2, CHAPTER 6, SECTION 608, AND RESOLUTION R87–125. ANNUAL CERTIFICATION MUST BE VALID AT TIME OF INSTALLATION AND PROVIDED TO THE MANATEE COUNTY INSPECTOR UPON REQUEST.	
HDPE MJ ADAPTER TRACER WIRE HDPE PIPE	NOTES:	8. ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION ASSEMBLY, FLOW METER, FITTINGS, VALVES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.	
	1. RESTRAIN 11.25° BENDS 50% OF LENGTH FOR 22.5° BENDS. 2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE. 3. ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI	 TEMPORARY JUMPER SIZE DEPENDS ON THE SITUATION: JUMPERS LARGER THAN 2-INCHES MAY BE USED FOR FLUSHING PURPOSES OR IF PARTIAL FIRE PROTECTION IS REQUIRED DURING INITIAL CONSTRUCTION, AS DETERMINED BY THE ENGINEER OF RECORD OR FIRE DEPARTMENT. PRIOR TO REMOVAL OF THE TEMPORARY JUMPER, THE NEWLY-CONSTRUCTED WATER SYSTEM SHALL HAVE 	
	 ALL ISOLATION VALVES MOST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PST TEST PRESSURE IN EITHER DIRECTION. PIPE SIZES ARE GIVEN IN INCHES. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET. 	RECEIVED CLEARANCE FROM THE FDEP. 11. AFTER RECEIPT OF CLEARANCE FOR USE BY FDEP, MANATEE COUNTY, AND ALL OTHER PERTINENT AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION AND COMPLETE THE	
	 6. LENGTHS SHOWN ARE FOR A TEST PRESSURE 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 	WATER MAIN. ALL CORPORATION STOPS LEFT-IN-PLACE ARE TO BE CLOSED AND PLUGGED WITH 2-INCH BRASS. 12. IF THE TEMPORARY JUMPER IS LOCATED WITHIN A STANDARD PIPE LENGTH AWAY FROM THE PROPOSED TIE-IN AND A SINGLE STANDARD LENGTH OF PIPE IS USED FOR COMPLETING THE CONNECTION, THEN	
HDPE PIPE TO PVC PIPE SPIGOT TO SPIGOT CONNECTION 1. ONE TRACER WIRE SHALL BE SECURED TO THE PIPE FOR ALL TYPES OF PIPELINE INSTALLATIONS.	 1.5 FACTOR OF SAFETY. 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 UG-10 <u>RESTRAINED LENGTHS</u> 	THE COUNTY WILL PERFORM A VISUAL INSPECTION AND A SEPARATE HYDROSTATIC TEST MAY NOT BE REQUIRED. IF MULTIPLE LENGTHS OF PIPES ARE USED TO COMPLETE THE CONNECTION, THEN A SEPARATE	NOTE:
TO THE THREE THREE SECONED TO THE FILE FOR ALL THES OF THE LINE INSTALLATIONS.	FOR PIPE. 9. ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITIES STANDARDS MANUAL.	HYDROSTATIC TEST WILL BE REQUIRED. THE HYDROSTATIC TEST SHALL BE PERFORMED BETWEEN THE PROPOSED TIE—IN VALVE AND THE FIRST DOWNSTREAM VALVE FROM THE TEMPORARY JUMPER LOCATION.	1. SEE UG-8, <u>RESTRAINED LENGTHS FOR PVC</u> ALSO APPLICABLE TO RESTRAINED LENGTHS I
MANATEE COUNTY PUBLIC WORKS DEPARTMENT HDPE TO PVC OR	10. ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE. MANATEE COUNTY PUBLIC WORKS DEPARTMENT RESTRAINED	MANATEE COUNTY PUBLIC WORKS DEPARTMENT	MANATEE COUNTY PUBLIC WORKS DEPARTMENT
REV.BY DATE DI DI	REV.BY DATE LENGTHS FOR PVC UG-8	REV.BY DATE TEMPORARY JUMPER	REV.BY DATE
NO. REVISION DESCRIPTION	BY DATE	FER MAIN REPLACEMENT PH	
		I EN MAIN NEFLACEMENT FI	1. 42,43,40, & 33
		ANNA MARIA ISLAND	
		DETAILS	

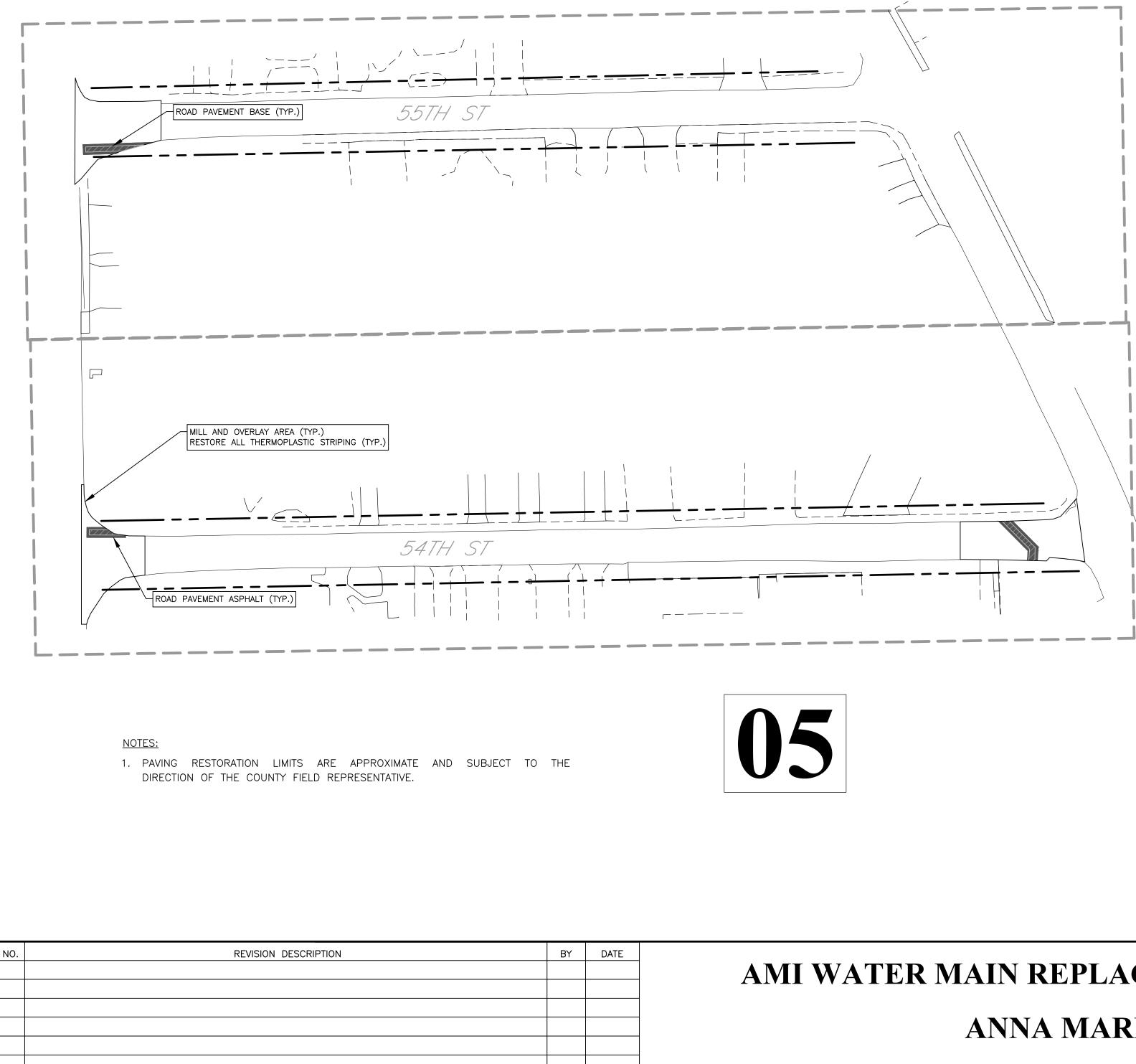
DETAILS

ANNA MARIA ISLAND

$\frac{(\text{L.G.}, EXISTING FIRE HTDRANT, EXISTING MAIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHOWNIN THE STANDARD TEMPORARY JUMPER DETAIL UW-23A OR UW-23B.A TEMPORARY JUMPER SHALL BE USED FOR FILLING, FLUSHING AND FOR DISINFECTION OF ANY NEWMAIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER THEFILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETEDAND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) HASBEEN OBTAINED.3. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTIONS TO EXISTING149 184$					
		24" MAX. FROM PROP. LINE FOR WATER			
			BALL VALVE W/TEST IN FLC COCK (TYP)		
	FINISHED GRADE	CURB STOP (SEE SPEC'S) TEE	APPROVED FLOW METER		
		MINIMUM SIZE BASED ON STAINLESS STEEL OR BRASS STRAP	SOURCE, I.E. HYDRANT		
		CORPORATION STOP POLYETHYLENE MEETING AWWA C-901. WHEN THE MAIN IS UNDER PAVEMENT, THE SERVICE PIPE SHALL BE TYPE ("L OR K") COPPER, OR STAINLESS STEEL SCHEDULE 40 PIPE. PE SERVICE PIPE SHALL BE BLUE FOR WATER OR PURPLE FOR RECLAIMED WATER. CASINGS SHALL BE COLOR CODED.	LIOCKABLE VALVE BOX PROVIDED L BY COUNTY		
	ETER SWIVEL NUT X 3/4" MIP OR 5/8" AND 3/4" METER) RASS METER COUPLING: ETER SWIVEL NUT X 1" MIP	WATER OR RECLAIMED	TRACER WIRE SADDLE		
 Ale and a set of the set of the	OR 1"METERS)		3"-10"		
 And A STATES CONTR And A STATES CONTRACT And A STATES CONTRACT		Z	TIE-IN VALVE TO BE		
Control of the c		Co	(SEE NOTES 1 & 3) EXTRA WIDE STAINLESS BRASS S		
1 1		(B) 2" FOR TRIPLE AND QUADRUPI SERVICES IN 3" CASING, AND SINGLE AND DOUBLE WITH 1"	FOR		
NY PIPE Number of the state o)	OR RECLAIMED WATER <u>SECTION</u> LARGER METERS. PIPE LENGTH CUT AS NEEDED, "LOOPING" OF PIPE TO ADJUST LENGTH IS NOT ALLOWED.	POLY 2. CORPORATION STOP CONNECTIONS TO WATER MAINS SHALL BE AT A SUFFICIENT TAPPING SLEEVE & VALVE (TIE-IN VALVE). ALL CORPORATION STOP TAPS SHALL		
$ \frac{1}{\sqrt{1 + 1}} = 1$	ONTRACTOR AND SHALL NOT RE	1. ALL SERVICE TAPS TO BE LOCATED IN THE FIELD. TAPS SHALL BE NO CLOSER THAN 2'-O" STAGGERED INTERVALS OR 2'-O" FROM BELL OR SPIGOT ENDS.	WITHIN LARGER) FROM THE NEW TIE-IN VALVE (TAPPING VALVE & SLEEVE). SIZE-ON-SI A CUT-IN TEE SHALL BE USED.		
NUM_NOTE Control and the second process of the second proces of the second process of the second process of the s	BY COUNTY, METER BOXES WITH	BE LOCATED IN SIDEWALKS. 3. "WM" OR "RWM" TO BE IMPRESSED INTO THE NEWLY POURED CONCRETE CURB ALONG WITH DISTANCE IN FEET TO THE METER. IF NO CURB, INSTALL A BLUE DISC WITH "WM" OR A PURPLE DISC WITH "RWM" AND A 1/8"× 1" GALVANIZED S	ADDITIONAL GATE VALVE SHALL BE INSTALLED AND THE VALVE MAY BE LOCATED AND APPURTENANCES BETWEEN THE EXISTING MAIN AND ISOLATION VALVE AND J		
III MUNIC DIRECT CONTROL Interaction of the contro Interaction of the control In	SERVICE CONNECTION.	4. COLOR CODED TRACER WIRE SHALL BE INSTALLED WITH WATER AND RECLAIMED MAIN AND ALL SERVICES. SERVICE WIRE SHALL BE CONNECTED TO THE TRACER WIRE ALONG THE MAIN. ON DOUBLE SERVICES, WHEN SECOND METER IS OVER A APART, TWO TRACER WIRES SHALL BE INSTALLED; ONE FOR EACH METER.	4. BACKFLOW PREVENTION ASSEMBLY SHALL BE STRUCTURALLY SUPPORTED. ^{8 FT} 5. THE TIE-IN VALVE SHALL REMAIN CLOSED AND THE LOCKABLE VALVE BOX SHALL COUNTY. THE TIE-IN VALVE SHALL REMAIN CLOSED AND LOCKED UNTIL THE NEW		
φ μου του μ μ αυτού του μ μ αυτού του μ φ μου του Ν <	THE FRONT OF THE LOTS,	6. FOR 2" SERVICES REPLACE CORPORATION STOP WITH 2" RESILIENT WEDGE FIP GATE VALVE W/BOX, LID & TAG.	LOCKABLE VALVE BOX SHALL BE REMOVED, RETURNED TO THE COUNTY, AND RE VALVE BOX.		
MUL-1 THE IS DESIGNATION TYPICAL SERVICE UW-21 THE IS DESIGNATION TUW-164 <		8. TEMPORARY RESIDENTIAL USE CAN BE PROVIDED BY CONTACTING THE UTILITY CUSTOMER SERVICE. SEE DETAIL UW-19. 9. SERVICE TUBING SHALL <u>NOT</u> BE CRIMPED OR KINKED TO RE-ADJUST CURB STOP LOCATION.	MANATEE COUNTY PERSONNEL. 7. SEE DETAIL UW-24 FOR ADDITIONAL JUMPER CONNECTION NOTES.		
Image: Section of the matrix of the section of the sectin of the section of the		PUBLIC WORKS DEPARTMENT TYPICAL SERVICE	PUBLIC WORKS DEPARTMENT		
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NUMBER Advance in the Course were constrained on Loss Hard to the		EXISTING ACTIVE POTABLE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS WITH	THE		
NY PPE • <th< td=""><td></td><td></td><td>REQUIRED LENGTH OF RESTRAILED JOIN</td></th<>			REQUIRED LENGTH OF RESTRAILED JOIN		
B PLUES & WUNST B PLUES & WUNST B AT DUPCEMENT COMPETE SHALL BE UNDER FOR FLUCE, TURNING AND FOR DENERTION OF MAN NEX B TOTAL STATE STATE AT DUPCEMENT COMPETE SHALL BE UNDER FOR FLUCE, TURNING AND FOR DENERTION OF MAN NEX B TOTAL STATE STATE AT DUPCEMENT COMPETE SHALL BE UNDER FOR FLUCE, TURNING AND FOR DENERTION OF MAN NEX B TOTAL STATE STATE AT DUPCEMENT COMPETE SHALL BE UNDER FOR FLUCE, TURNING AND FOR DENERTION OF THE STATE STAT		ADJACENT TO THE EXISTING WATER MAIN; b. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET	FOR DIP (POLY-WRAPPED)		
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Hydrostatic test will be required. The hydrostatic test shall be performed between the proposed tie-in valve and the first downstream valve from the temporary jumper location. Indication 1. see ug-8, <u>Restrained Lengths for pvc pipe</u> detail for notes 1 also applicable to restrained Lengths for pvc pipe detail for notes 1 b Length in the table. PVC UG-8 Rev.by Date February 25, 2020 TEMPORARY JUMPER CONNECTION NOTES UW-24 Rev.by Date February 25, 2020 February 25, 2020	RS PLUGS & VALVES NGTH 112 X10 149 149 184 X8 111 X6 6 83 63 45 45	 ADJACENT TO THE EXISTING WATER MAIN; PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET LENGTH; OR OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCT DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER COUNCCTION IS NOT REQUIRED. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOUF (E.G., EXISTING FIRE HYDRANT, EXISTING MAIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHE IN THE STANDARD TEMPORARY JUMPER OCONNECTION OF AN APPROVED POTABLE WATER SOUF (E.G., EXISTING FIRE HYDRANT, EXISTING MAIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHE IN THE STANDARD TEMPORARY JUMPER OCONNECTION OF HAN ANA POROXED Y JUMPER SHALL BE USED FOR FILLING, FLUSHING AND FOR DISINFECTION OF ANY MAIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNITL AFTER TRLING, FLUSHING, FUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLE AND CLEARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) I BEEN OBTAINED. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTIONS TO EXIST WATER MAINS THAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON CASE-BY-CASE BASIS. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED TO INSTALLATION IN ACCORDANCE OF THE EXISTING MAIN TO BE TAPPED, PIPING WIT THE JUMPER SHALL INCLUDE A FLOW METER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE THAT THE FLOW FROM THE SUPPLY SOURCE THA THE FLOW READ NEW PRIME SHALL BE ADSINFECTED BY SPRAYING OR SWABBING PER SECTION 4.6 OF AWWA C651. THE JUMPER SHALL INCLUDE A FLOW METER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE CONSTRUCTION MUSC SHALL BALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE JUMPER CONNECTION SHALL ALSO BE USED TO THAINTAIN A MINIMUM PRESSURE OF 20 PSI IN THE JUMPER	FOR DIP (POLY-WRAPPED) FOR DIP (POLY-WRAPPED) MAIN HORIZ. BENDS TEES REDUCER SIZE 90° 45° 22.5° SIZE LENGTH SIZE SIZE LENGTH SIZE SIZE SIZE SIZE SIZE SIZE SIZE		
D LENGTH IN THE TABLE. MANATEE COUNTY PVC UG-8 MANATEE COUNTY REV.BY Date February 25, 2020 TEMPORARY JUMPER UW-24 REV.BY Date February 25, 2020	RS PLUGS & VALVES NGTH 112 X12 158 X11 151 X6 6 X4 100 86 118 X4 63 63 45	 ADJACENT TO THE EXISTING WATER MAIN: b. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET LENGTH; OR c. OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCT DRAWINGS SPECIFICALLY STATE THAT A THEMPORARY JUMPER CONNECTION IS NOT REQUIRED. 2. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED DOTABLE WATER SOUF (E.G., EXISTING FIRE HYDRANT, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHO IN THE STANDARD TEMPORARY JUMPER DETAIL UW-23A OR UW-23B. A TEMPORARY JUMPER SHALL BE USED FOR FILLING, FLUSHING AND FOR DISINFECTION OF ANY N MAIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER "FILLING, FLUSHING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLE AND CLARANCE FOR USE FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) HEED OBTAINED. 3. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPER ASSOCIATED WITH CONNECTIONS TO EXIST WATER MAINS THAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON CASE-EY-CASE BASIS. 4. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING MINN TO BE TAPPED, PIPING WITH THE AUMPER, AND DREW PIPING SLEVEL, AND EXTERNOR OF THE EXISTING MAIN TO BE TAPPED, PIPING WITH THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DETAIL UW-23.A OR UW-23.SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION 4.6 OF AWWA GE51. 5. THE JUMPER, SHALL INCLUDE A FLOW METER TO ENSURE THAT TH FE TO AT A CONSTANT MEASURED RATE WHILE CHLORINATING THE NEW MAIN. THE CHLORINE CONCENTRAT SHALL BE MASSURED AT REQUIRE INTERVALS TO ENSURE THAT TH STEED AT A CONSTANT MEASURED RATE WITHE CONNECTION AND UNTIL FEED AT A CONSTANT MEASURED RATE WITHE CONNECTION AND UNTIL TEED AT A CONSTANT MEASURED RATE WITHE OF NEASURED TO RAWWA GE51. 5. THE JUMPER SHALL RATE LARD RATE WITHE CONNECTION AND MASS DEALD OF NUMAR SCONTINUOUSLY AFTER DISINFECTION AND UNTIL FEED CLUORINA THAT SHAL	FOR DIP (POLY-WRAPPED) FOR DIP (POLY-WRAPPED) TING MAIN HORIZ. BENDS TEES REDUCER SIZE 12: NOT NOT SIZE 12:		
PVC UG-8 PUBLIC WORKS DEPARTMENT TEMPORARY JUMPER CONNECTION NOTES UW-24 PUBLIC WORKS DEPARTMENT RESTRAINED LENGTHS FOR D	RS PLUGS & VALVES NGTH 11 X12 158 214 X10 149 184 X8 111 151 X6 86 118 X4 81 100 83 63 45 45	 ADJACENT TO THE EXISTING WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET LENGTH; OR OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCT DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER CONNECTION IS NOT REQUIRED. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOUR (E.G., EXISTING SERV, STISTING SAN, KISTING SAN, KISTING SAN, CISTING SAN, CISTING SAN, CISTING SAN, CISTING SAN, CISTING ANA, NEXTSING SAN, CISTING SAN,	IS FOR DIP (POLY-WRAPPED) MAIN TON RCE DWN MAIN SIZE 90° 45° 22.5° HORIZ. BENDS SIZE 22.5° TEES SIZE SIZE LENGTH REDUCER SIZE LENGTH 36 142 59 28 3593 3318/24 223 2165 16 41° 1 33137/24 247 202 30 124 51 25 333 242 222 168 116 41° 1 13137/24 247 202 116 117 12 11 124 137 213 12 117 12 117 12 117 12 117 12 117 12 117 13 13 12 13 12 117 13 14 117 13 14 12 13 13 13 14 12 13 14 12 13 13 14 12 13 13 12 13 14 12 14 12 13 16 12 14		
	RS PLUGS & VALVES NGTH 112 X12 158 214 X10 149 184 X8 111 151 X6 6 118 X4 100 63 45 45 NG SECTIONS OF PIPE. 45 NG SECTIONS OF PIPE. 180 PSI SOIL CLASSIFICATION SP 3 FEET OF COVER AND MINED BY THE ENGINEER -10 RESTRAINED LENGTHS THE PUBLIC WORKS	 ADJACENT TO THE EXISTING WATER MAIN; P. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET LENGTH; OR OTHER PROPOSED CASES THAT ARE APROVED BY MANATEE COUNTY AND THE CONSTRUCT DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER CONNECTION IS NOT REQUIRED. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOUL (E.G., EXISTING FERVICE) THAT AN TEMPORARY JUMPER SHALL BE USED FOR FULLING, FLUSHING AND FOR DISINFECTION OF ANY NAMIN OF ANY SIZE. THE TEMPORARY JUMPER DETAIL UM-23A OR UM-23B. A TEMPORARY JUMPER SHALL BE USED FOR FULLING, FLUSHING AND FOR DISINFECTION OF ANY NAMIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNITL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF ANY NAMIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNITL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION OF ANY NAMIN AS BEEN SUCCESSFULLY COMPLE AND CLEARANCE FOR USE FROM THE FLORDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) I BEEN OBTINNED. J. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTIONS TO EXIST WATER MAINS THAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON CASE—BY-CASE BASIS. PIPE AND FITTINGS USED FOR CONNECTING THE NEW DIPER TO THE EXISTING PIPE SHALL BE USINFECT ON OT A ACCORDANCE WITH ARWA C\$51, LATEST EDITION, JUNESS PAPROVED ON THE TUMPER, AND NEW PIPHINS SHOWN ON STANDARD TEMPORARY JUMPER DATAL DRUB USINE THAT THE FLOW FROM THE SUPPLY SOURCE AT A CONSTANT MAGUNED KEEVER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE AT A CONSTANT MARED SUPPRISED ON THE FLUMPER SHALL INCLUDE A FLOW METER TO ENSURE THAT THE FLOW FROM THE SUPPLY SOURCE AT A CONSTANT MARED SUPPRISED ON THE FLOW FROM THE SUPPLY SOURCE AT A CONSTANT MARED SUPPRISED ON THE FLOW FROM THE SUPPLY SOURCE AT A CONSTANT MARED SUPPRISED ON THE NEWLE CONSTRUCTION AND A SUPPRISE ON THE SUPPRISE ON THE EXAMINES AND A RECONSTANT MARED SUPPRISED ON THE FLOW FRANCE	FOR DIP (POLY-WRAPPED) FOR DIP (POLY-WRAPPED) MAIN HORIZ. BENDS TEES REDUCER SIZE 1990 45 22.55 SIZE ENGTH SIZE LENGTH SIZE SIG NOT DIP TED LITY SIZE SIG NOTES SIZE SIG NOTES <th <="" colspan="2" td=""></th>		
	RS PLUGS & VALVES NGTH 112 X12 158 X12 158 X12 158 X12 158 X12 158 X12 158 X13 184 X8 111 X6 6 86 118 X4 100 83 63 45 45 NG SECTIONS OF PIPE. IED TO RESIST A 180 PSI SOIL CLASSIFICATION SP 3 FEET OF COVER AND MINED BY THE ENGINEER -10 RESTRAINED LENGTHS THE PUBLIC WORKS D LENGTH IN THE TABLE.	ADJACENT TO THE EXISTING WATER MAN: b. PROJECTS THAT INCLUDE NEW WATER MAINS THAT ARE LESS THAN OR EQUAL TO 18 LINEAR FEET LENGTH; OR c. OTHER PROPOSED CASES THAT ARE APPROVED BY MANATEE COUNTY AND THE CONSTRUCT DRAWINGS SPECIFICALLY STATE THAT A TEMPORARY JUMPER CONNECTION IS NOT REQUERD. 2. A TEMPORARY JUMPER SHALL BE USED AND BE CONNECTED TO AN APPROVED POTABLE WATER SOUR (E.G., EXISTING FIRE HYDRANT, EXISTING SAMIN, EXISTING SERVICE TAP OR TANK TRUCK, ETC.) AS SHO IN THE STANDARD TEMPORARY JUMPER DISAL UW-23A OR UW-23B. A TEMPORARY JUMPER SHALL BE USED FOR FULING, FLUSHING AND FOR DISINFECTION OF ANY N MAIN OF ANY SIZE. THE TEMPORARY JUMPER CONNECTION SHALL BE MAINTAINED UNITL AFTER T FILLING, FLUSHING, TESTING AND DISINFECTION OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLE AND CLEARANCE FOR USE FROM THE FLORDAD DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDE?) I BEEN DETAINED. 3. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTION (FDE?) I DEEN DETAINED. 4. PIPE AND FITTINGS USED FOR CONNECTING THE NEW MAIN AS BEEN SUCCESSFULLY COMPLE AND OLEARANCE FOR USE FROM THE FLORDAR PARAWENT OF ENVIRONMENTAL PROTECTION (FDE?) I DEEN DETAINED. 5. THE LOCATION AND ORIENTATION OF TEMPORARY JUMPERS ASSOCIATED WITH CONNECTIONS TO EXIST WATER MAINS THAT ARE LOCATED UNDER THE ROADWAY PAVEMENT SHALL BE APPROVED ON CASE—BY-CASE BASIS. 4. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECT 9. THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DATAL USES APPROV 0THEWEES, THE TAPHOR SLEEVE, AND EXTERIOR OF THE EXISTING MAIN TO BE TAPPED, PIPING WIT THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DATAL USE APPROVED 0THEWEES, THE CONSTANCE AND EXTERIOR OF THE EXISTING MAIN TO BE TAPPED, PIPING WIT THE JUMPER, AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER DATALL BE TAPPED, PIPING WIT THE JUMPER AND AND MAINTERWAYS AND EXTERNOT THE ROADWAY SAUCESS APPROVE 10 FIRTHAL AND NEW PIPING SHOWN ON STANDARD TEMPORARY JUMPER CON	FOR DIP (POLY-WRAPPED) FOR DIP (POLY-WRAPPED) MIN MORE SEE REDUCER SEE 90° 45° 22.5° SIZE ELOCER 30 124 51 25 SIZE ELOCER SIZE ELN 30 124 51 25 SIZE ELN SIZE ELN 24 106 44 21 24 22.5° SIZE SIZE SIZE ELN SIZE ELN SIZE ELN SIZE ELN SIZE ELN SIZE SIZE ELN SIZE ELN SIZE ELN SIZE ELN SIZE SIZE SIZE SIZE ELN SIZE ELN SIZE SIZE ELN SIZE		







THERMOPLASTIC	STRIPING	RESTORATION
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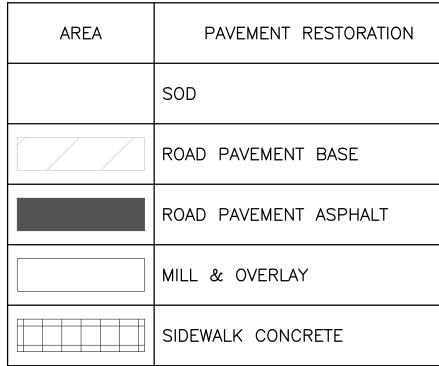
STOP BAR, WHITE, 24"

WHITE, 6"

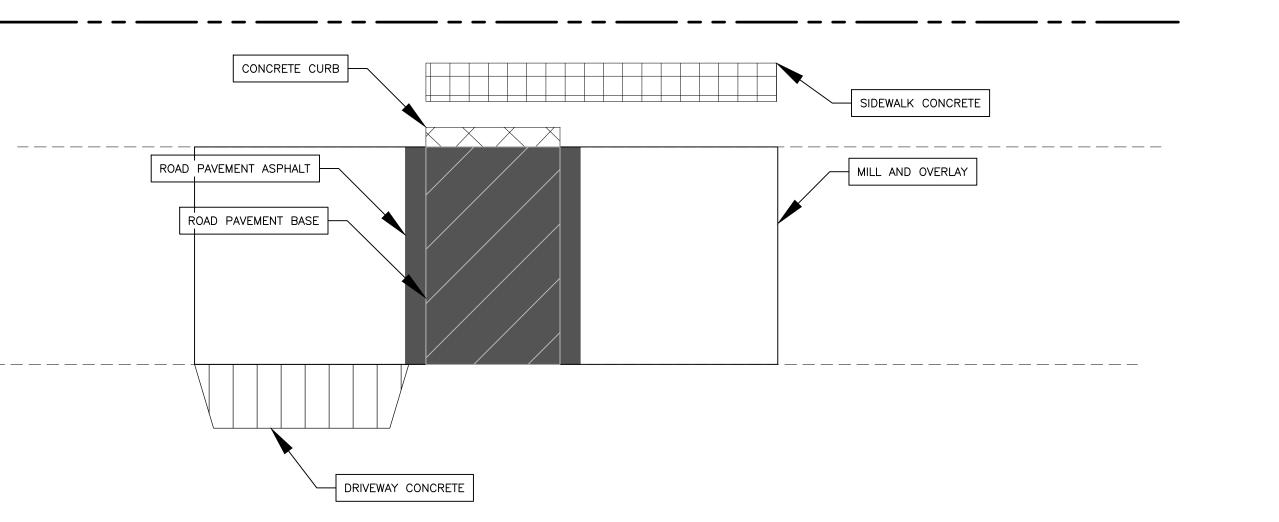
DOUBLE YELLOW, 6"

CROSS WALK, SPECIAL EMPHASIS FDOT 77-001

RESTORATION QUANTITIES



TYPICAL HATCH PATTERNS



AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53

ANNA MARIA ISLAND

RESTORATION PLAN SOUTH

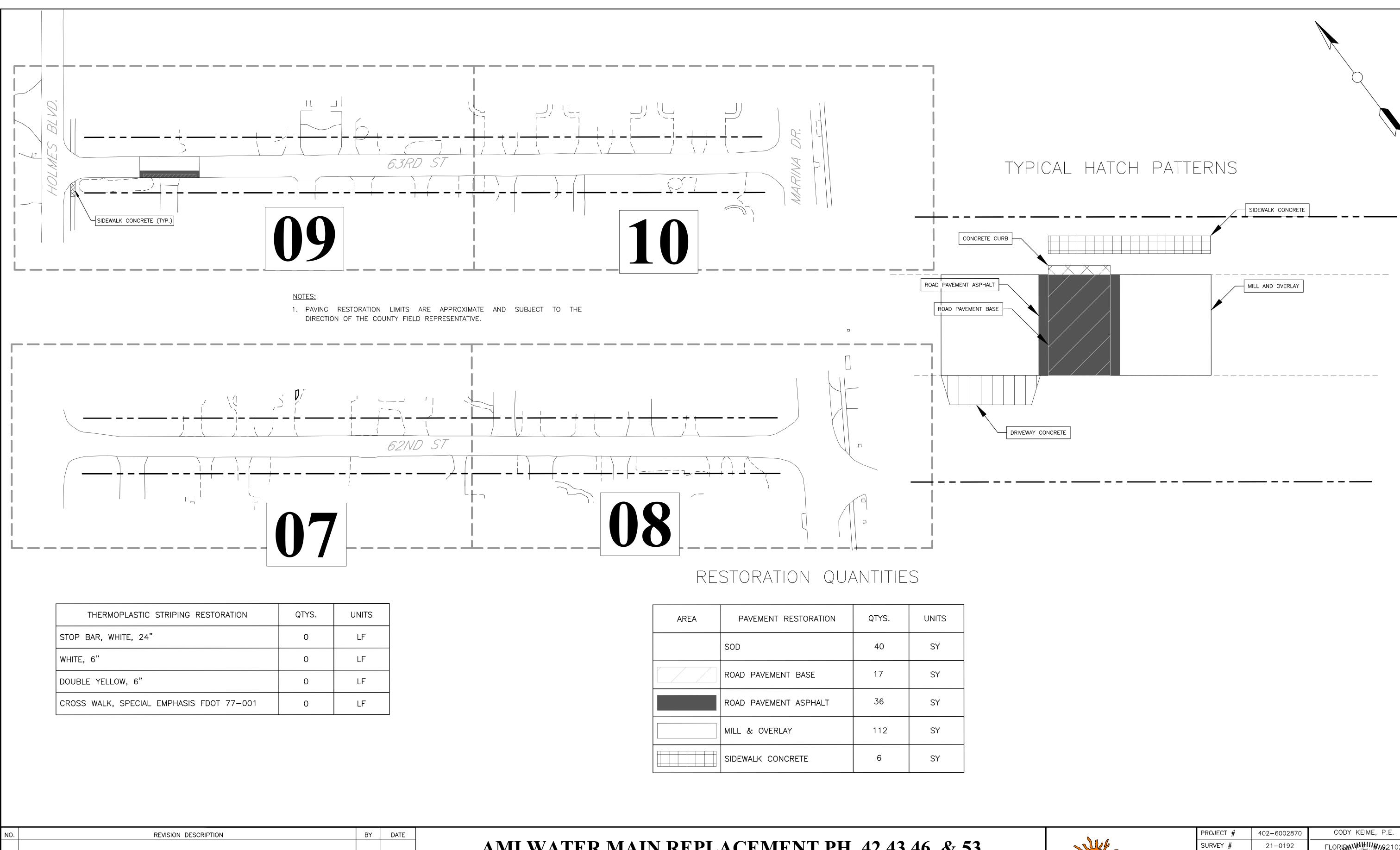
QTYS.	UNITS
36	LF
10	LF
0	LF
0	LF

QTYS.	UNITS
20	SY
24	SY
50	SY
521	SY
0	SY



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

JECT #	402-		-6002870	CODY KEIME, P.E.
/EY #	21		1–0192	FLORIDAND FLORIDA 102
SEC./TWN./RGE		20/	′34S/16E	COUT KEIME
.E		1"=40'		FLORIDANDE HIP2102 CODYKEMAS LICENSE No. 92102 * Cody Deimag
		BY	DATE	- Journa
/EYED	F	PCS	01/2022	STATE OF 5/11/23
GNED	C	CAK	05/2022	// / / / / / / / / / / / / / / / / / /
VN	C	CAK	09/2022	Signature Rote
CKED	C	CAK	10/2022	SHEET 14 OF 17
	/EY # /TWN./I E /EYED GNED VN	/EY # /TWN./RGE .E /EYED F GNED C	/EY # 2 /TWN./RGE 20/ E BY /EYED PCS GNED CAK VN CAK	/EY # 21-0192 /TWN./RGE 20/34S/16E .E 1"=40' BY DATE /EYED PCS 01/2022 GNED CAK 05/2022 VN CAK 09/2022



AREA	PAVEMENT RESTORATION	QTYS.	UNITS
	SOD	40	SY
	ROAD PAVEMENT BASE	17	SY
	ROAD PAVEMENT ASPHALT	36	SY
	MILL & OVERLAY	112	SY
	SIDEWALK CONCRETE	6	SY

AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53

ANNA MARIA ISLAND **RESTORATION PLAN NORTH**

•	PROJECT #		402-	-6002870	CODY KEIME, P.E.		
a les	SURVEY #		21-0192		FLORIDANIA HIM 192102		
FManatee	SEC./TWN./RG		20/34S/16E				
County	SCALE		1	"=40'	No. 92102		
FLORIDA		ł	3Y	DATE	* Costy reinne *		
	SURVEYED	F	CS	01/2022	STATE OF 5/11/23		
PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES	DESIGNED	C	AK	05/2022	Z ORIDA		
1022 26th Avenue East, Bradenton, FL 34208	DRAWN	C	AK	09/2022	Signatureale Plane		
	CHECKED	C	AK	10/2022	SHEET 15 OF 17		

<u>Topographic</u> Survey

In Section 20, Township 34 South, Range 16 East Manatee County, Florida

SURVEY CREATED BY: PARK COASTAL SURVEYING
<u>SURVEY NOTES</u>:

- 1. BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON GRID NORTH OF THE NORTH AMERICAN DATUM OF 1983 (2011) FLORIDA WEST ZONE, AS PER THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN).
- 2. THIS IS NOT A BOUNDARY SURVEY AND SAID SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS OF WAY AND RESTRICTIONS OF RECORD, IF ANY.
- 3. UNDERGROUND UTILITIES, FOUNDATIONS, AND/OR STRUCTURES, IF ANY, BENEATH THE SURFACE HAVE NOT BEEN LOCATED IN THIS SURVEY.
- 4. THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE PARTY OR PARTIES NAMED IN THE CONTRACT FOR THIS PROJECT FOR THE EXPRESS PURPOSE STATED HEREON AND/OR CONTAINED IN THE SAID CONTRACT BETWEEN PARK COASTAL SURVEYING, LLC. AND THE CLIENT FOR THIS PROJECT. COPYING, DISTRIBUTING, AND/OR USING THIS DRAWING, IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN ORIGINALLY INTENDED WITHOUT WRITTEN CONSENT FROM PARK COASTAL SURVEYING, LLC. (PCS) IS STRICTLY PROHIBITED, AND RENDERS THE SURVEYORS CERTIFICATION, SIGNATURE, AND SEAL NULL AND VOID. ANY QUESTIONS CONCERNING THE CONTENT OR PURPOSE OF THIS DRAWING SHOULD BE DIRECTED TO PARK COASTAL SURVEYING, LLC.
- 5. THE SURVEY DEPICTED HEREON IS NOT INTENDED TO SHOW THE LOCATION OR EXISTENCE OF ANY WETLAND OR JURISDICTIONAL AREAS.
- 6. ELEVATIONS SHOWN HERE ON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988(NAVD88) AS PER THE NGS BENCHMARKS "GIS 100" PID AG9205 PUBLISHED ELEVATION=2.56' AND "GIS 103" PID AG9208 PUBLISHED ELEVATION=4.27'.
- 7. ELEVATIONS SHOWN HERE ON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988(NAVD88), AND TO CONVERT FROM NAVD88 TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929(NGVD1929) = NAVD88 + 0.95', PER CORPSCON 6.0.1.
- 8. SURVEY INFORMATION SHOWN WAS COLLECTED WITH EITHER A TRIMBLE R8 GPS/GNSS RTK SYSTEM OR A TRIMBLE ROBOTIC TOTAL STATION.
- 9. THE SURVEY WAS CONDUCTED OVER THE FOLLOWING DATE RANGE: 07/15/2021 10/24/2021
- 10. FENCE OWNERSHIP IS UNDETERMINED.
- 11. THIS PROPERTY LIES IN FLOOD ZONE "AE", ELEVATION OF 7' AND 8' AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP; COMMUNITY MAP NO. 12081C0138 F, DATED AUGUST 10th 2021, SUBJECT TO VERIFICATION.
- 12. INFORMATION SHOWN HERON REFLECTS CONDITIONS AS THEY EXISTED AT THE DATE SHOWN AND CAN ONLY BE CONSIDERED INDICATIVE OF CONDITIONS AT THAT TIME.

NO.	REVISION DESCRIPTION	BY	DATE	
			1	l,

BASELINE HO

BEARING

N52°00'57.57"E 696.97'

L5

LINE CHC LINE/CHORD SEGMENT LENGTH LENG BÉARING _ L1 N89°01'38.29"E 665.23' LINE/CHORD LINE CHC SEGMENT LENGTH LENG BEARING L2 N88°40'14.19"E 537.07' LINE CHO LINE/CHORD SEGMENT BÉARING LENGTH LENG _____ L3 N51°53'10.70"E 746.68' LINE CHOR' LENGTH LENGT LINE/CHORD SEGMENT BÉARING ____ L4 N51°29'17.23"E 727.57' LINE/CHORD LINE CHC SEGMENT

AMI WATER MAIN REPLACEMENT PH. 42,43,46, & 53 ANNA MARIA ISLAND

SURVEY CONTROL

DRIZONTAL	CONTROL	TABLE

LENGTH LAGE 10+00.00 16+65.23 1,154,045.0036 423,662.7789 1,154,056.29 424,327.91 LINE LINE CHORD ARC RADIUS START START START NORTHING END NORTHING START NORTHING EASTING 537.07' C ARC RADIUS START START START NORTHING EASTING 537.07' C ARC RADIUS START START START NORTHING EASTING LINE LINE CHORD ARC RADIUS START START START NORTHING END NORTHING END <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>										
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTARTONSTATIONNORTHING STATIONNORTHING EASTINGNORTHING EASTINGE665.23'11110+00.0016+65.231,154,045.0036 423,662.77891,154,056.29 424,327.91E665.23'1110+00.0016+65.231,154,045.0036 		54TH STREET								
Line CHORD ARC RADIUS START S					RADIUS				NORTHING	NORTHING
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART START STATIONEND STATIONSTART NORTHING EASTINGEND NORTHING EASTINGE537.07'20+00.0025+37.071,154,296.7331 423,658.09631,154,309.19 424,195.02E537.07'20+00.0025+37.071,154,296.7331 423,658.09631,154,309.19 424,195.02E537.07'<	-	665.23 '					10+00.00	16+65.23		1,154,056.2966 424,327.9175
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART 	55TH STREET									
E537.07AC20+00.0025+37.07423,658.0963424,195.0262ND STREETLINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART STATIONEND STATIONSTART STATIONNORTHING EASTINGEND NORTHING EASTINGZ746.68'ARC LENGTHRADIUSSTART TANGENTSTART STATIONSTART STATIONSTART A423,383.8476END NORTHING EASTINGZ746.68'ARC LENGTHRADIUSSTART TANGENTSTART START STATIONSTART STATIONSTART STATIONSTART START STATIONSTART START A23,230.69151,156,056.61 423,971.33ZLINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART STATIONSTART STATIONSTART STATIONNORTHING EASTINGZ11.156,742.9838 423,230.69151,156,196.02 423,799.9940+00.0047+27.571,155,742.9838 423,230.69151,156,196.02 423,799.99Z727.57'IIIIISTART TANGENTSTART STATIONSTART STATIONNORTHING EASTINGNORTHING EASTINGZLINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART STATIONSTART STATIONNORTHING EASTINGZ11.156,157.1124LINE LENGTHARC LENGTHSTART TANGENTSTART STATIONSTART STATIONSTART STATIONNORTHING EASTING				=	RADIUS				NORTHING	NORTHING
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART START STATIONSTART STATIONSTART STATIONSTART NORTHING STATIONSTART NORTHING EASTINGEND NORTHING EASTING2746.68'III	-	537.07'					20+00.00	25+37.07		1,154,309.1934 424,195.0259
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART 					62ND S	STREET				
- 746.68 - - - 30+00.00 37+46.68 423,383.8476 423,971.33 - 63RD STREET - 63RD STREET 63RD STREET START TANGENT START STATION END STATION START NORTHING EASTING END NORTHING EASTING - 727.57' - - - 40+00.00 47+27.57 1,155,742.9838 423,230.6915 1,156,196.02 423,799.99 - 55TH STREET - 65TH STREET - 65TH STREET START TANGENT START STATION START NORTHING EASTING 1,156,196.02 423,230.6915 - - - - 50+00.00 67+27.57 1,156,174.29838 423,230.6915 1,156,196.02 423,799.99 - - - - - - 65TH STREET -					RADIUS				NORTHING	NORTHING
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART STATIONEND STATIONSTART NORTHING EASTINGEND NORTHING EASTINGZ727.57'Image: Start in the start i	-	746.68'					30+00.00	37+46.68		1,156,005.6863 423,971.3229
LINE LENGTHCHORD LENGTHARC LENGTHRADIUSSTART TANGENTSTART STATIONSTART STATIONEND STATIONNORTHING EASTINGNORTHING EASTINGZ727.57'Image: Start s					63RD S	STREET				
E 727.57 40+00.00 47+27.57 423,230.6915 423,799.99 65TH STREET 65TH STREET LINE CHORD ARC START START END START END LINE CHORD ARC RADIUS START START END NORTHING NORTHING LENGTH LENGTH RADIUS START START START END NORTHING EASTING EASTING 50+00.00 56+06.07 1,156,157.1124 1,156,586.09				=	RADIUS				NORTHING	NORTHING
LINE LENGTH CHORD LENGTH ARC LENGTH RADIUS START TANGENT START START START ON START ON START LEND NORTHING EASTING	-	727.57'					40+00.00	47+27.57		1,156,196.0247 423,799.9996
LINE CHORD ARC LENGTH RADIUS START TANGENT START START END NORTHING EASTING EASTING	65TH STREET									
				=	RADIUS				NORTHING	NORTHING
	-	696.97'					50+00.00	56+96.97		1,156,586.0550 423,449.0108

alles.
Manatee
FLORIDA

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

PROJECT #	IECT #		-6002870	CODY KEIME, P.E.
SURVEY #		21-0192		FLORIDAND HIMHIA2102
SEC./TWN./RGE		20/34S/16E		UNIT COUL NEWAS
SCALE		N.T.S		FLORIDANNE P.E. FLORIDANNE P.E. CODY KEMAG ICENSE No. 92102 * Cody Reime
		BY	DATE	* Cooky heime *
SURVEYED	F	PCS	01/2022	STATE OF 5/11/23,位言
DESIGNED	C	CAK	05/2022	FL ORIDA
DRAWN	C	САК 09/2022		Signatureal& Hore
CHECKED	C	CAK	10/2022	SHEET 16 OF 17

