

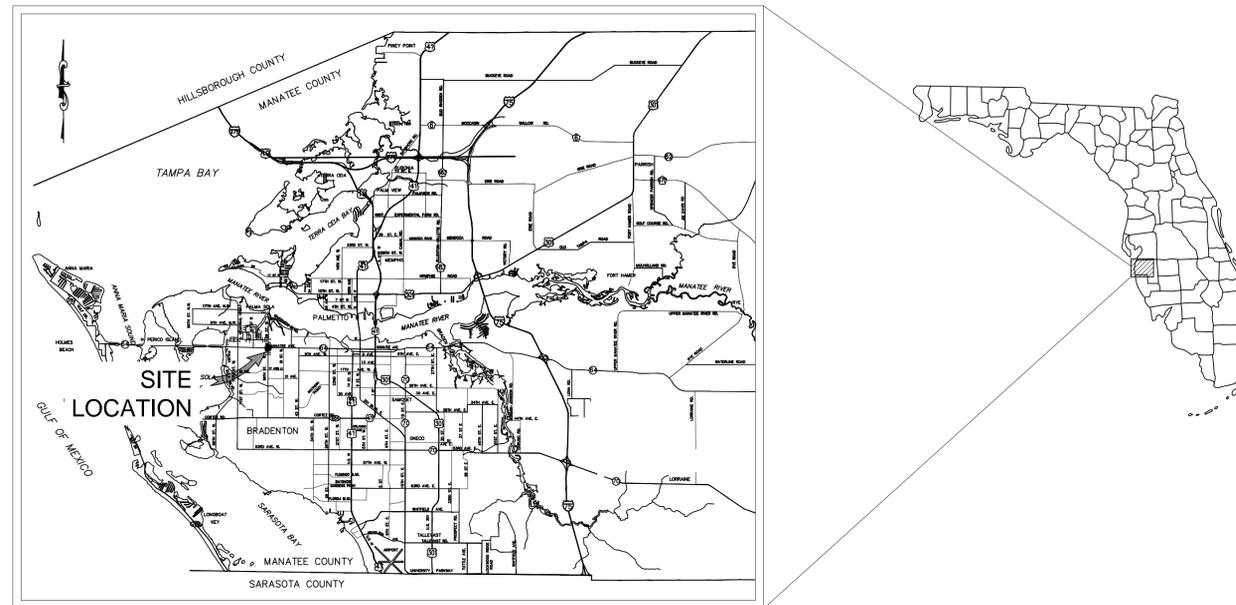
FORCEMAIN 15D REHABILITATION

COUNTY PROJECTS #6022381

AUGUST 2014



MANATEE COUNTY, FLORIDA



PROJECT VICINITY MAP

PREPARED BY
Kimley»Horn

© 2014 KIMLEY-HORN AND ASSOCIATES, INC.
655 NORTH FRANKLIN STREET, SUITE 150,
TAMPA, FL 33602
PHONE (813) 620-1460
WWW.KIMLEY-HORN.COM CA 00000696

GROUNDWATER / DEWATERING NOTE:
THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED ON THIS PROJECT. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR THIS ISSUE. WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



Know what's below.
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WAYNE E. WHITE, P.E.
No. 53232



MANATEE COUNTY, FLORIDA

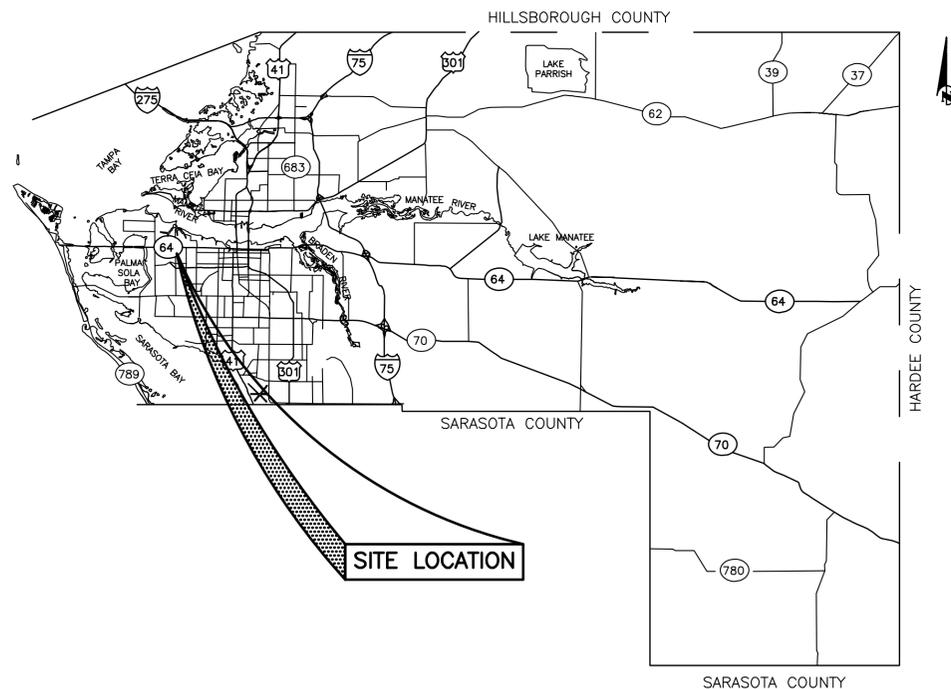
FORCEMAIN 15 D REPLACEMENT

STATE ROAD 64 / 59TH STREET WEST

MAY 2014



FORCEMAIN 15 D REPLACEMENT
STATE ROAD 64 / 59TH STREET WEST
TOPOGRAPHIC SURVEY
COVER SHEET



GENERAL NOTES

1. THE FOLLOWING NGS VERTICAL CONTROL MONUMENT WAS RECOVERED AND UTILIZED FOR THE ELEVATIONS SHOWN HEREIN: "N 689" NAVD 1988 ELEVATION 23.46'
2. THIS SURVEY IS REFERENCED TO A PROJECTION OF THE FLORIDA STATE PLANE COORDINATE SYSTEM (WEST ZONE NAD 1983/2007 ADJUSTMENT).
3. TITLE WORK WAS NOT PROVIDED FOR THIS SURVEY. RIGHT-OF-WAY LINES SHOWN HEREIN ARE BASED ON FOUND BOUNDARY MONUMENTATION TOGETHER WITH PUBLIC INFORMATION AVAILABLE ON FDOT AND MANATEE COUNTY CLERKS WEBSITES.
4. THIS SURVEY IS SUBJECT TO PERTINENT EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.
5. THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE PARTY OR PARTIES CERTIFIED TO BELOW FOR THE EXPRESS PURPOSE STATED HEREON AND/OR CONTAINED IN THE CONTRACT BETWEEN HYATT SURVEY SERVICES, INC. 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 HYATT SURVEY SERVICES, INC. IS STRICTLY PROHIBITED AND RENDERS THE SURVEYOR'S CERTIFICATION, SIGNATURE AND SEAL NULL AND VOID. ANY QUESTIONS CONCERNING THE CONTENT OR PURPOSE OF THIS DRAWING SHOULD BE DIRECTED TO HYATT SURVEY SERVICES, INC.

SITE CONTROL

DESIGNATION	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM 4	1150021.205	455047.978	24.12'	NLD (MANATEE COUNTY)
BM 5	1149661.531	454992.709	24.55'	IRC (MANATEE COUNTY)

NO. INDEX OF SHEETS

1	COVER SHEET
2	PLAN SHEET

PROJECT DESCRIPTION

TO PROVIDE EXISTING TOPOGRAPHIC CONDITIONS ALONG 59TH STREET WEST NORTH AND SOUTH OF STATE ROAD 64 FOR FORCEMAIN REPLACEMENT.

Hyatt Survey Services, Inc.

LB No.: 7203 Geographic Data Specialists
 11007 8th Avenue East Bradenton, Florida 34212
 Phone: (941) 748-4693 Fax: (941) 744-1643

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

 RUSSELL P. HYATT, PSM
 FLORIDA SURVEYORS REGISTRATION NO. 5303

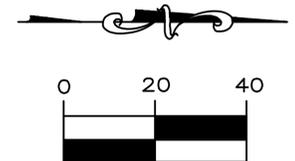
NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	14-1852
SURVEY #	14-1852
SECTION	29
TWN RNG	34 SOUTH 17 EAST
SCALE	N/A
SURVEYED	HYATT 5/2014
DESIGNED	5/2014
DRAWN	JM 5/2014
CHECKED	RH



**FORCEMAIN 15 D REPLACEMENT
STATE ROAD 64 / 59TH STREET WEST
TOPOGRAPHIC SURVEY
PLAN SHEET**

PROJECT #	14-1852
SURVEY #	14-1852
SECTION	29
TWN RNG	34 SOUTH 17 EAST
SCALE	1" = 40'
SURVEYED	HYATT 5/2014
DESIGNED	5/2014
DRAWN	JM 5/2014
CHECKED	RH

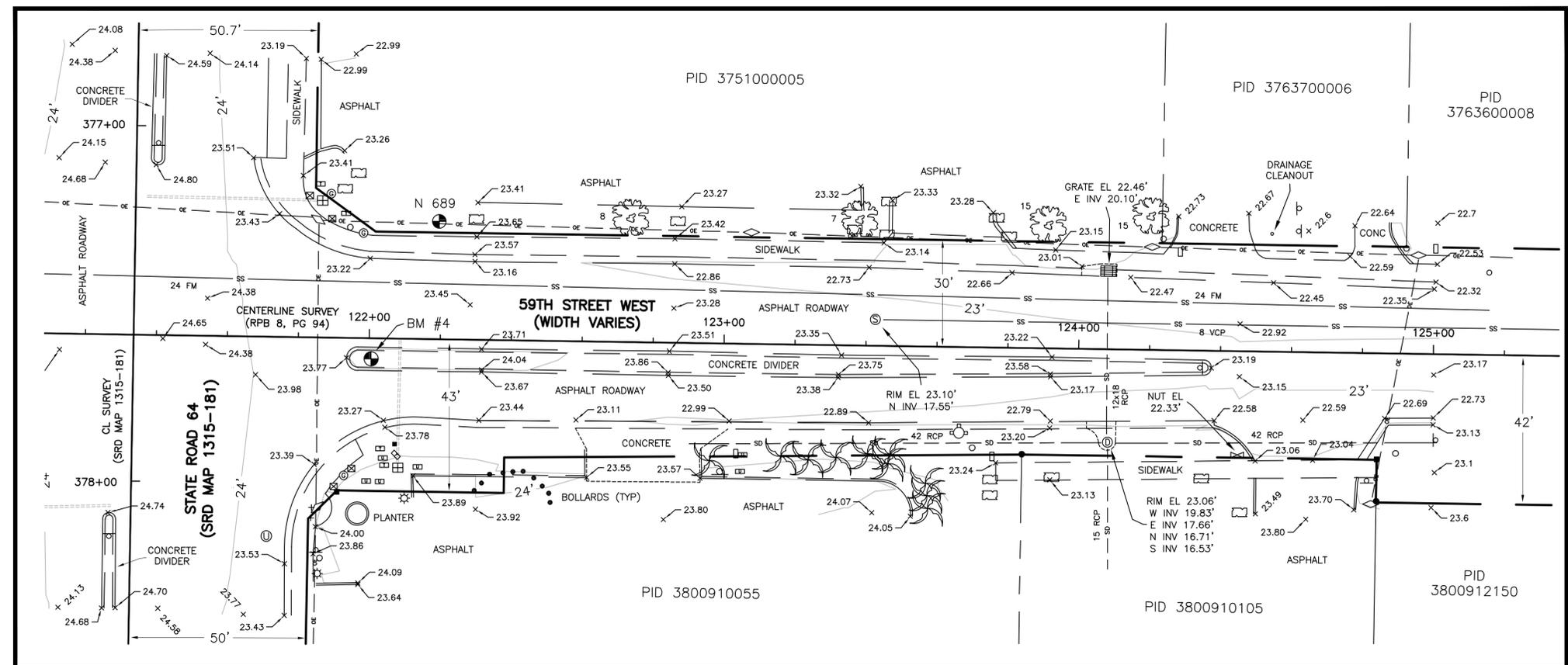
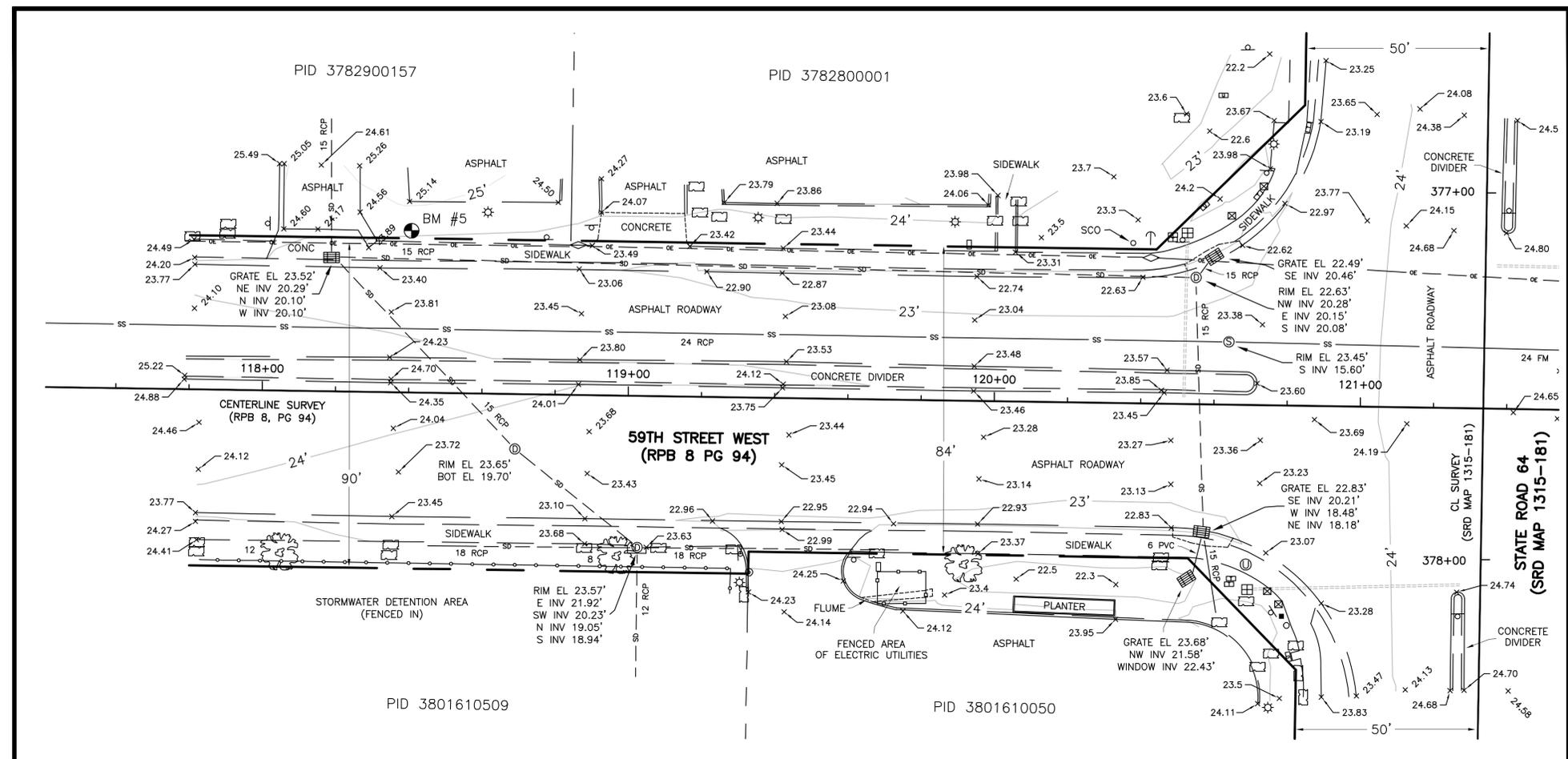


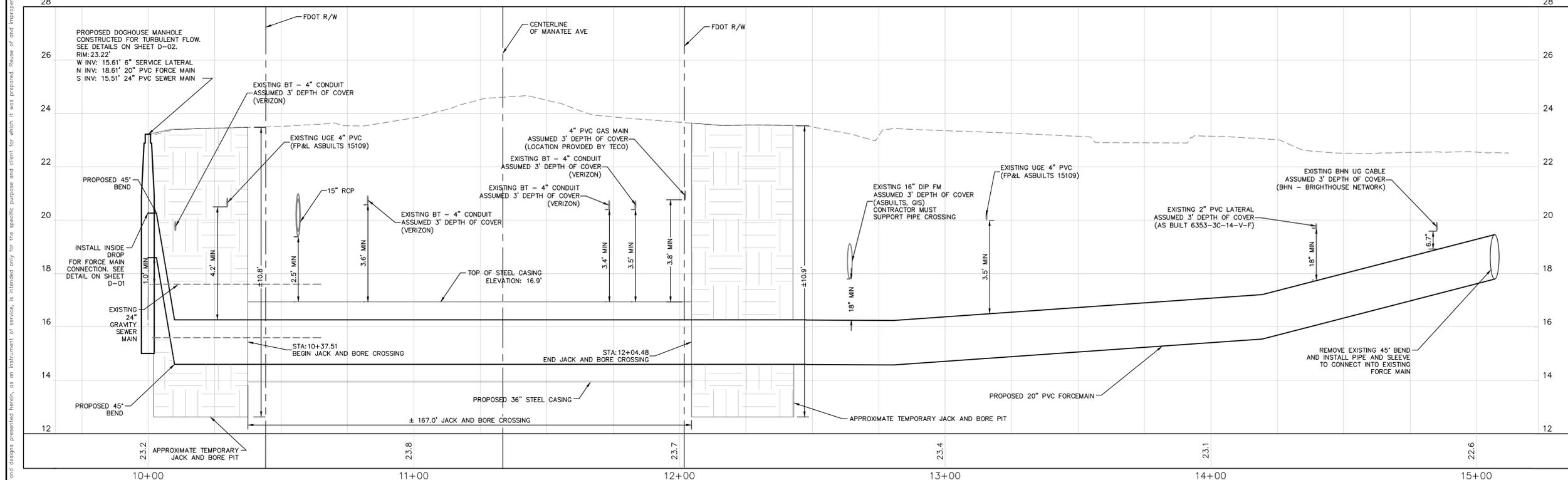
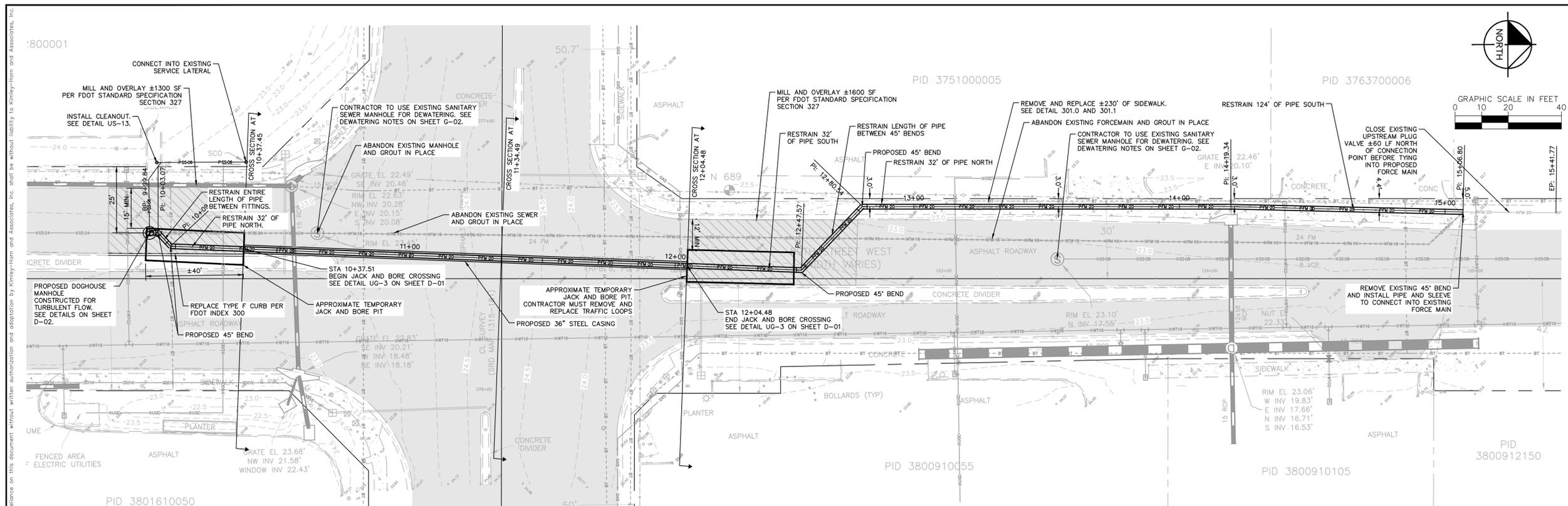
LEGEND

- IRON PIPE
- IRON ROD W/ CAP
- ⊙ PK NAIL W/ DISC
- CONCRETE MONUMENT
- R/W RIGHT-OF WAY
- PID PARCEL IDENTIFICATION
- RPB ROAD PLAT BOOK
- ORB OFFICIAL RECORD BOOK
- PG PAGE
- BM SITE CONTROL POINT
- SCO SANITARY CLEANOUT
- ⊕ SITE BENCHMARK
- ⊖ SIGN
- ◇ UTILITY POLE
- ⌈ GUY WIRE
- WATER METER
- ⊙ SANITARY MANHOLE
- ⊙ STORM MANHOLE
- MAILBOX
- ⊙ LIGHT POLE
- ⊕ FIRE HYDRANT
- ⊖ BACKFLOW PREVENTER
- ⊕ TRAFFIC MASTARM
- ⊕ TRAFFIC CROSSING SIGNAL
- HEDGE
- ⊕ OAK TREE
- ⊕ PALM TREE
- ⊙ GAS MARK
- ⊕ WATER VALVE

SEE BELOW LEFT FOR CONTINUATION

SEE ABOVE RIGHT FOR CONTINUATION





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No.	REVISIONS	DATE	BY

Kimley»Horn
 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602
 WWW.KIMLEY-HORN.COM CA 00006996

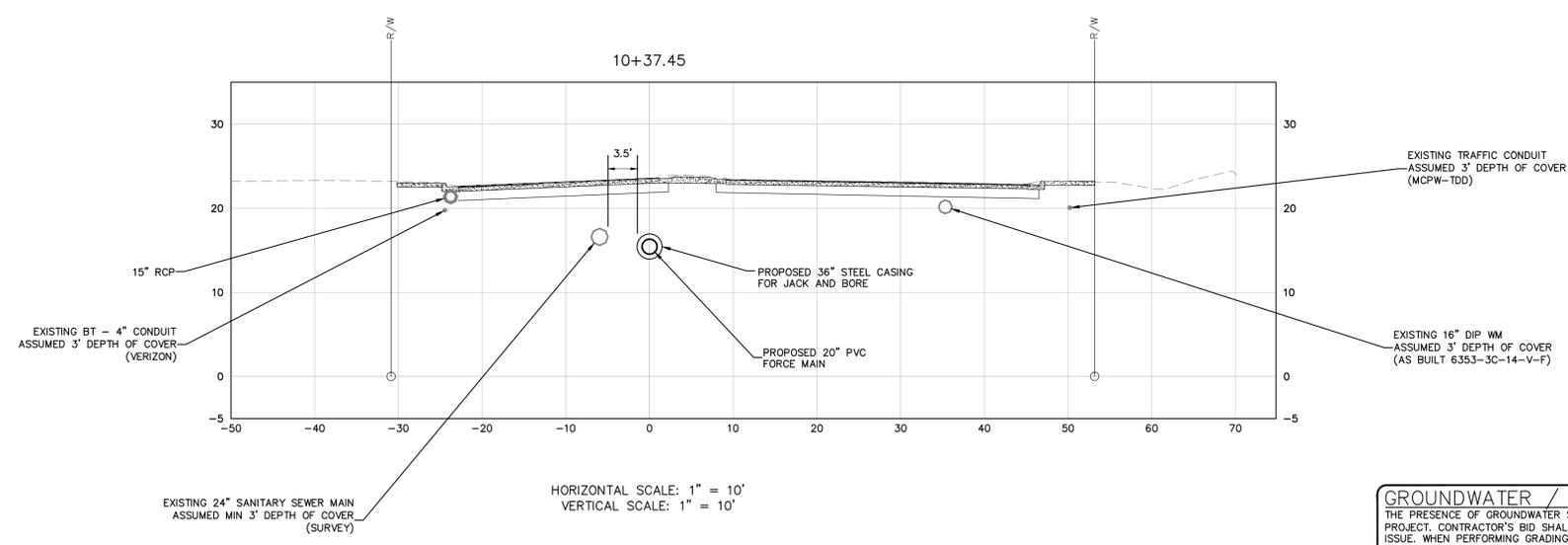
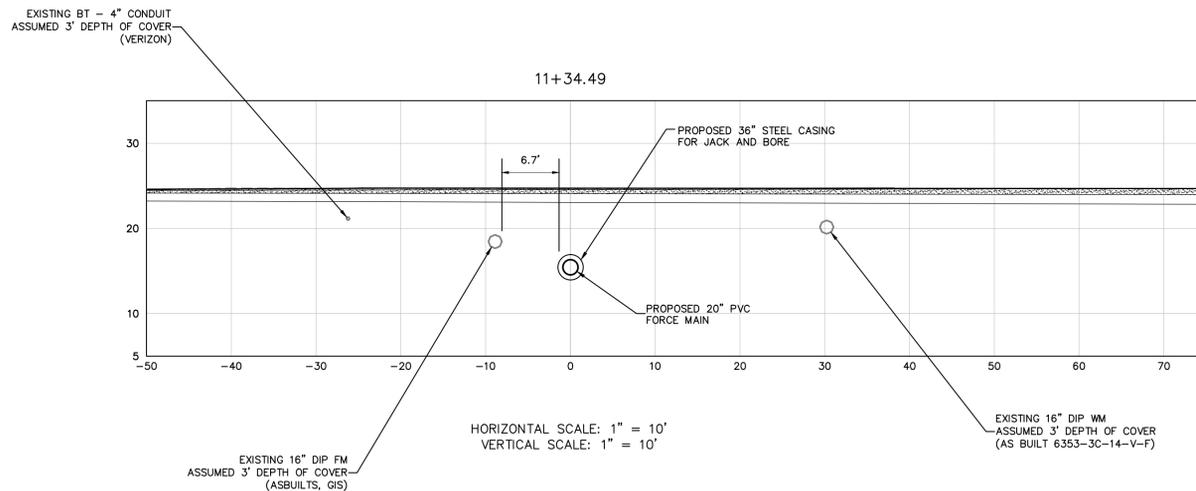
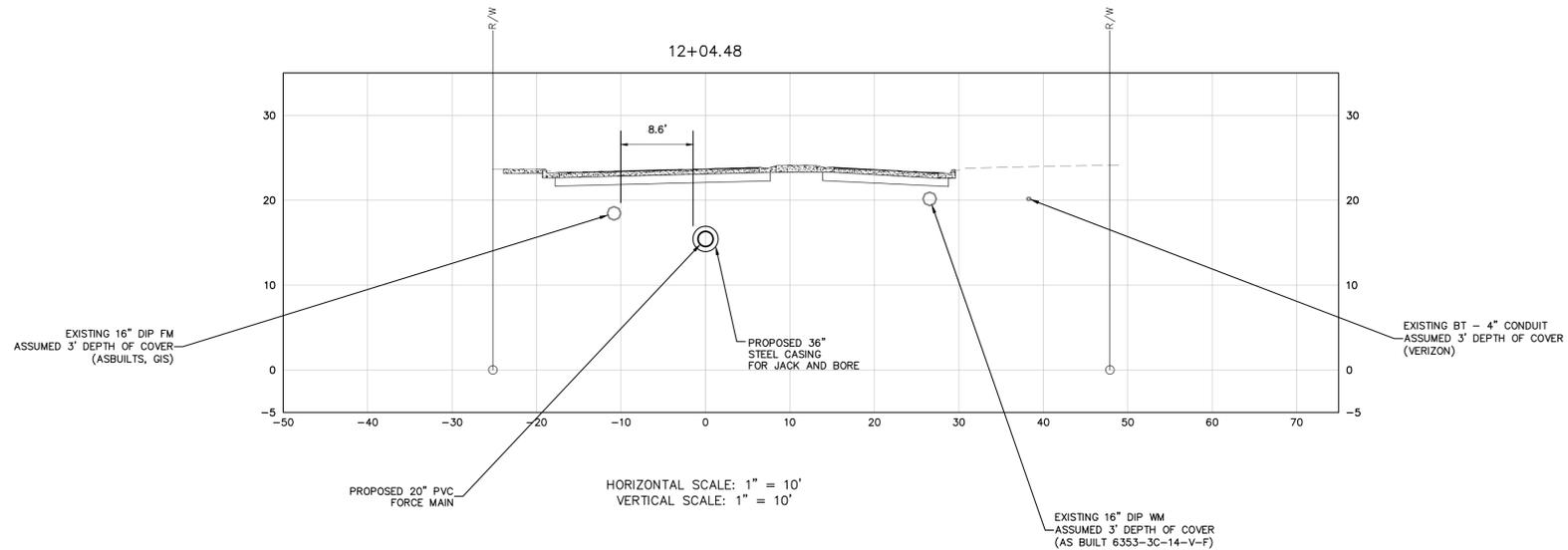
LICENSED PROFESSIONAL	WAYNE E. WHITE, P.E.
FLORIDA REGISTRATION NUMBER	53232
SCALE	AS SHOWN
DESIGNED BY	JWW
DRAWN BY	SNH
CHECKED BY	WEW
DATE	

PLAN AND PROFILE

Manatee County
FORCE MAIN 15D
REHABILITATION
 FLORIDA
 MANATEE COUNTY

SHEET NUMBER
C-0.1

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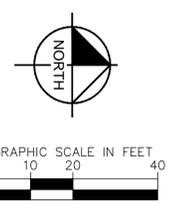
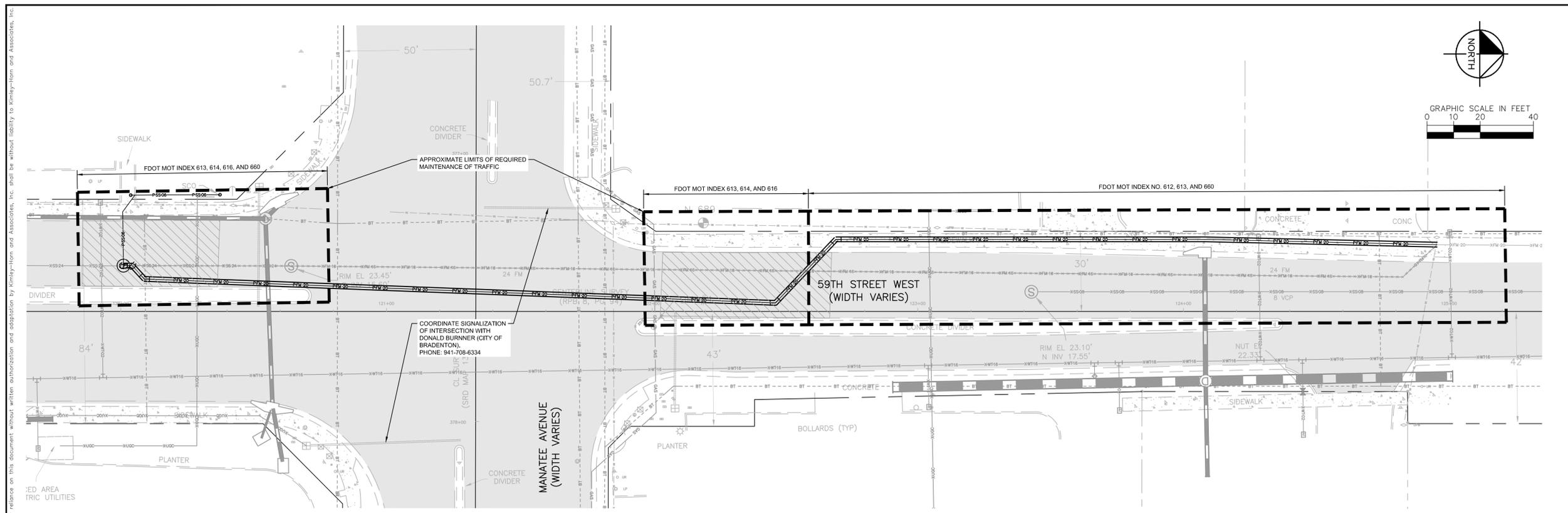


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KHA PROJECT 14640004		LICENSED PROFESSIONAL WAYNE E. WHITE, P.E. FLORIDA REGISTRATION NUMBER 53232	REVISIONS	DATE	BY
DATE JUNE 2014	SCALE AS SHOWN	DESIGNED BY JWW			
FORCE MAIN 15D REHABILITATION FLORIDA MANATEE COUNTY			 655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602 PH: 813-281-1100 WWW.KIMLEY-HORN.COM CA 00006986		
			SHEET NUMBER C-0.2		

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TRAFFIC CONTROL NOTES

1. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH F.D.O.T. DESIGN STANDARDS INDICES NO. 600, 611, 612, 613, 616, AND 660 DEPENDING ON THE OPERATION BEING PERFORMED.
FOR ALL MULTILANE WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE UTILIZE INDEX NO. 613.
FOR ALL MULTILANE WORK NEAR INTERSECTION MEDIAN OR OUTSIDE LANE UTILIZE INDEX NO. 616.
FOR PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALK, UTILIZE FDOT INDEX NO. 660.
2. ONE LANE ALONG 59TH STREET WEST SHALL REMAIN OPEN AT ALL TIMES.
3. CONTRACTOR TO COORDINATE WITH CITY OF BRADENTON FOR ANY LOOP DETECTION AND RETIMING ISSUES. CONTRACTOR TO COORDINATE WITH ED GIDDONS (941) 359-7313 AT FDOT FOR ALL WORK DONE ON A STATE FACILITY.
4. TO AVOID DISRUPTION DUE TO INCLEMENT WEATHER, THE CONTRACTOR SHOULD PERFORM ANY MILLING AND PAVING OPERATIONS DURING THE SAME WORK PERIOD.
5. ALL EXISTING PAVEMENT MARKINGS OUTSIDE THE CONSTRUCTION LIMITS THAT HAVE BEEN ALTERED BECAUSE OF CONSTRUCTION OPERATIONS SHALL BE REPLACED UPON THE COMPLETION OF THE PROJECT AT THE CONTRACTORS EXPENSE.
6. THE EXISTING 35 MPH POSTED SPEED LIMIT ON 59TH STREET WEST SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, ANY CHANGE SHALL REQUIRE APPROVAL FROM THE ENGINEER.
7. LANE CLOSURES SHALL OCCUR BETWEEN 9:00 P.M. AND 5:00 A.M., UNLESS LANE CLOSURE CALCULATIONS ARE PROVIDED AND APPROVED OR APPROVAL IS GRANTED BY THE DISTRICT PERMIT ENGINEER.

THE CONTRACTOR SHALL SCHEDULE WORK OPERATIONS SO THAT ALL LANES CAN BE RE-OPENED TO TRAFFIC WITHIN A PERIOD OF 24 HOURS IN CASE OF AN EMERGENCY.
8. PEDESTRIANS, BICYCLES, AND WHEELCHAIRS:
AT THE END OF EACH WORKDAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROP-OFF ADJACENT TO A SIDEWALK SHALL BE BACKFILLED AT A SLOPE NOT TO EXCEED 1:4, OR SHALL BE PROTECTED IN ACCORDANCE WITH STANDARD INDEX 600
9. PEDESTRIAN AND WHEELCHAIR TRAFFIC SHALL BE ACCOMMODATED UTILIZING STANDARD INDEX 660.
10. ONE PORTABLE VARIABLE MESSAGE SIGN SHALL BE USED IN ADVANCE OF EACH LANE CLOSURE. THE FOLLOWING ARE SUGGESTED MESSAGES TO USE IN THE APPROPRIATE SITUATIONS:

MESSAGE 1
"RIGHT" OR "CENTER" OR "LEFT"
"LANE" "LANE" "LANE"
"CLOSED" "CLOSED" "CLOSED"
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORMWATER FROM ROADWAYS UTILIZED FOR TRAFFIC CONTROL IN A MANNER APPROVED BY THE ENGINEER.
12. AT THE END OF EACH WORKING DAY'S ACTIVITY, TEMPORARY PAVEMENT MARKINGS AND TEMPORARY RPM'S SHALL BE INSTALLED PRIOR TO OPENING THE LANES UP FOR TRAFFIC.
13. ALL PAVEMENT MARKINGS, SIGNS, MARKERS, CHANNELIZATION REQUIRED TO PHASE WORK OR SHIFT TRAFFIC, SHALL UTILIZE INDICES FOR PLACEMENT.
14. THE CONTRACTOR SHALL RESTRICT THE OPERATIONS SO THAT THE FIRST LIFT OF ASPHALT IS PLACED ON THE SAME DAY THAT THE LANES ARE MILLED, BEFORE OPENING THE LANES TO TRAFFIC. INSTALL TEMPORARY PAVEMENT MARKINGS AFTER THE FIRST LIFT AND PRIOR TO OPENING.
16. MILLING AND RESURFACING SHALL BE ACCOMPLISHED DURING THE OFF-PEAK HOURS.

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No.	REVISIONS	DATE	BY

Kimley»Horn
655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602
WWW.KIMLEY-HORN.COM CA 00006996

LICENSED PROFESSIONAL
DAWN M. DODGE, P.E.
FLORIDA REGISTRATION NUMBER:
76221

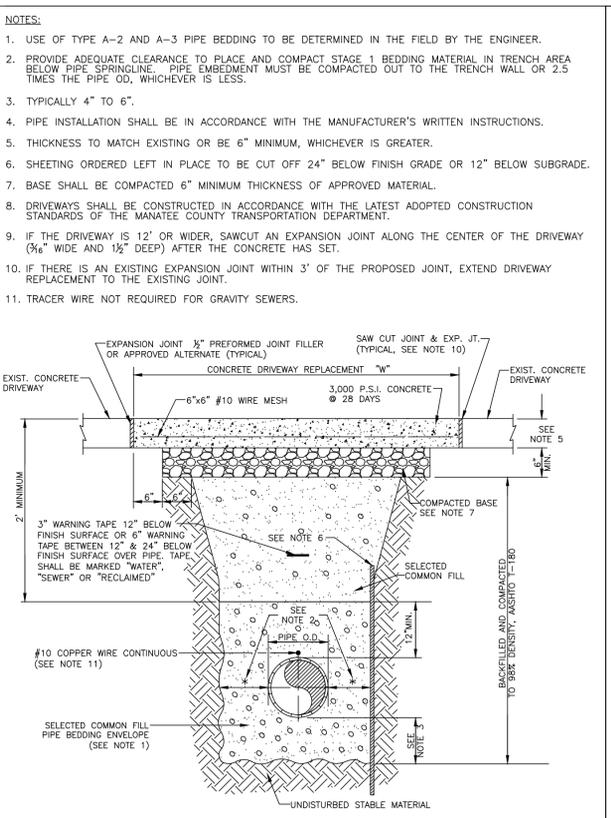
KHA PROJECT: 14640004
DATE: JUNE 2014
SCALE: AS SHOWN
DESIGNED BY: JWW
DRAWN BY: SNH
CHECKED BY: WEW

MOT PLAN

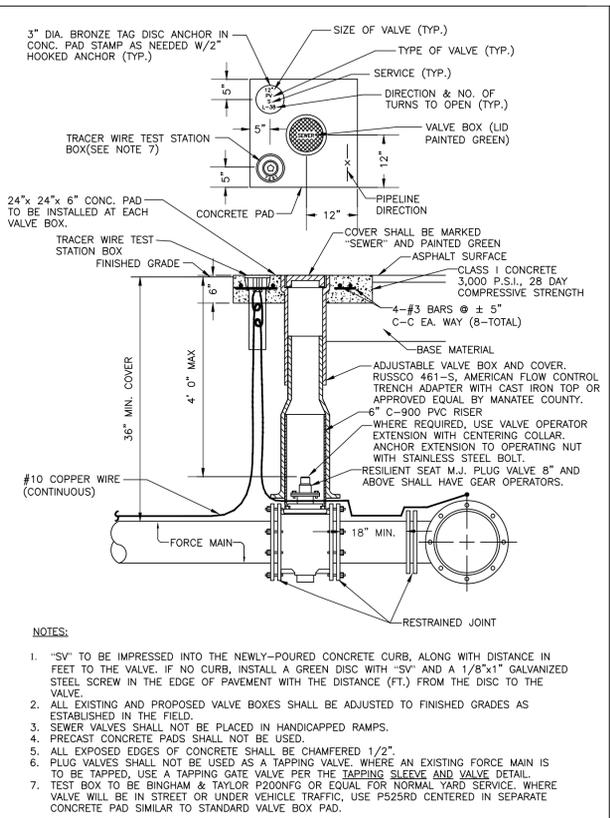
Manatee County
FORCE MAIN 15D REHABILITATION
FLORIDA
MANATEE COUNTY

SHEET NUMBER
C-0.3

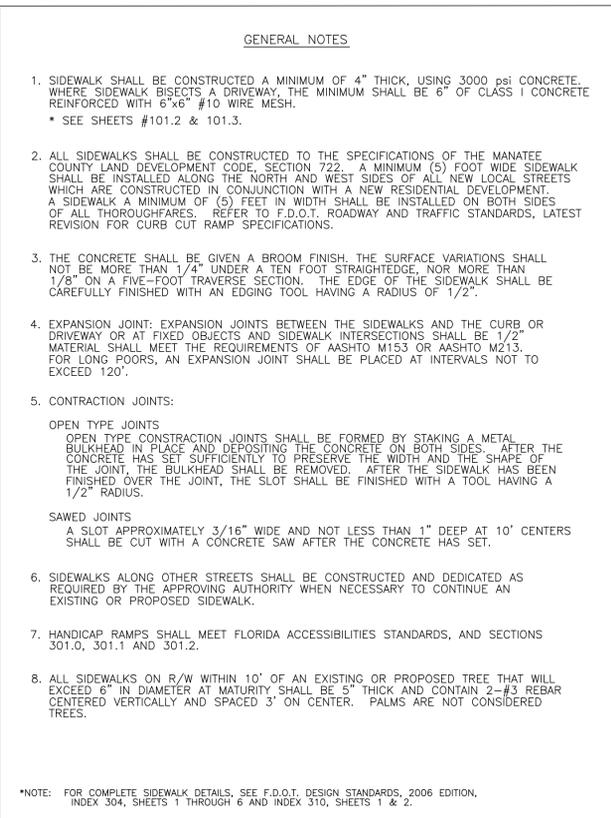
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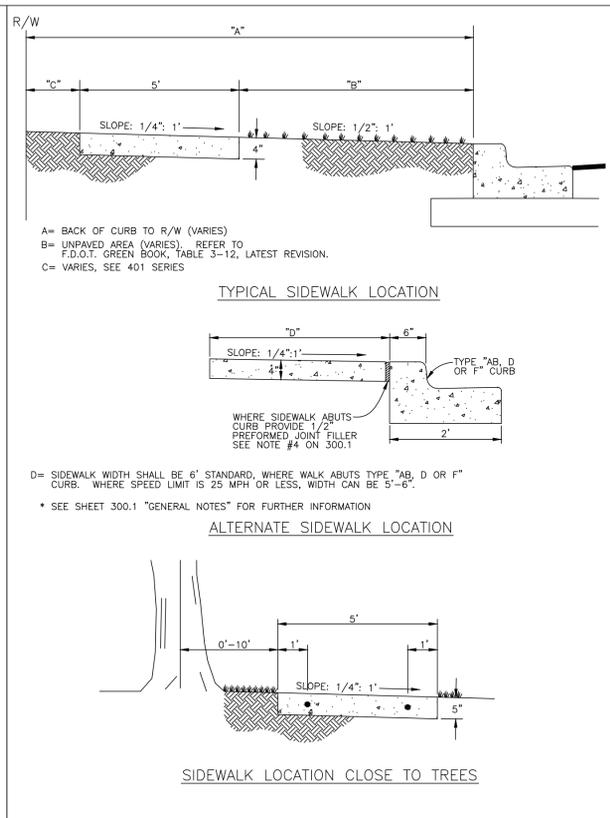
MANATEE COUNTY PUBLIC WORKS DEPARTMENT		TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING	UG-14
REV. BY CLB/BR	DATE 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 114



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		PLUG VALVE, BOX, COVER AND TAG	US-12
REV. BY CLB/DOV	DATE 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 152



MANATEE COUNTY TRANSPORTATION DEPARTMENT		SIDEWALKS GENERAL NOTES	301.0
REV. BY	DATE	6/12/07 DATE OF B.O.C.C. APPROVAL	



MANATEE COUNTY TRANSPORTATION DEPARTMENT		SIDEWALK REQUIREMENTS	301.1
REV. BY	DATE	6/12/07 DATE OF B.O.C.C. APPROVAL	

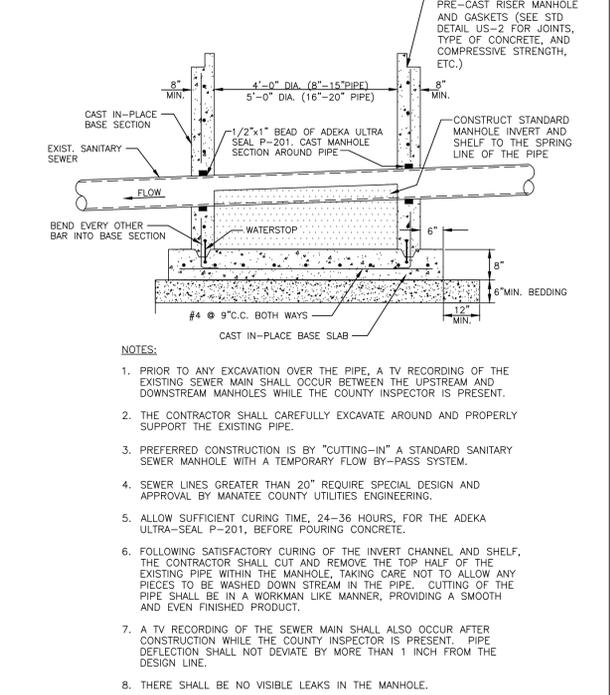
REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DR-18 PVC PIPE

MAIN PIPE SIZE	HORIZ. BENDS	TEES	SIZE			REDUCERS	PLUGS & VALVES				
			90'	45'	22.5'						
24	90	38	18	X24	X20	X16	X12	X8	X6	X4	214
20	78	32	16	X20	X16	X12	X8	X6	X4		184
16	66	27	13	X16	X12	X8	X6	X4			151
12	52	22	10	X12	X8	X6	X4				118
10	44	18	9	X10	X8	X6	X4				100
8	37	15	7	X8	X6	X4					83
6	29	12	6	X6	X4						63
4	21	8	4	X4							45

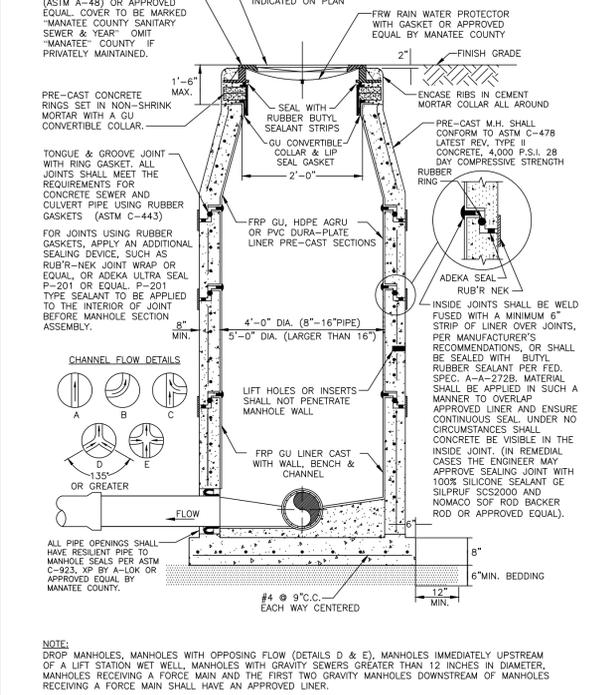
NOTES:

- RESTRAIN 11.25' BENDS 50% OF LENGTH FOR 22.5' BENDS.
- ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTIONS OF PIPE.
- ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
- PIPE SIZES ARE GIVEN IN INCHES.
- RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
- LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
- 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 SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
- RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL RESTRAINED LENGTHS FOR PIPE.

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



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		SANITARY SEWER MANHOLE CONSTRUCTED OVER EXISTING SEWER LINE	US-5
REV. BY CLB/KE	DATE 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 145



MANATEE COUNTY PUBLIC WORKS DEPARTMENT		STANDARD PRE-CAST SANITARY SEWER MANHOLE FOR TURBULENT FLOW	US-3
REV. BY CLB/CB	DATE 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 143

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Kimley»Horn		655 NORTH FRANKLIN STREET, SUITE 150, TAMPA, FL 33602 PHONE: 813-220-1460 WWW.KIMLEY-HORN.COM CA 0000696
LICENSED PROFESSIONAL	WAYNE E. WHITE, P.E.	FLORIDA REGISTRATION NUMBER: 53232
KHA PROJECT	DATE	SCALE
14840004	JUNE 2014	AS SHOWN
DESIGNED BY	DRAWN BY	CHECKED BY
JWV	SNH	WEW
DETAILS		FLORIDA
FORCE MAIN 15D REHABILITATION		MANATEE COUNTY
SHEET NUMBER		D-02