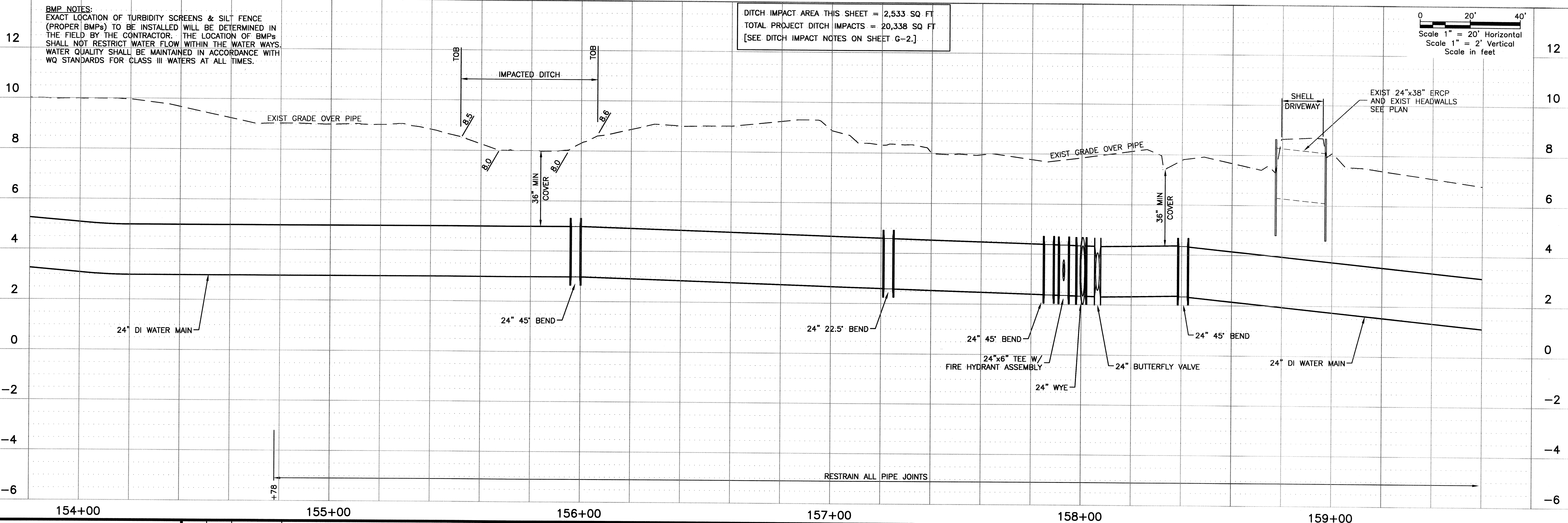
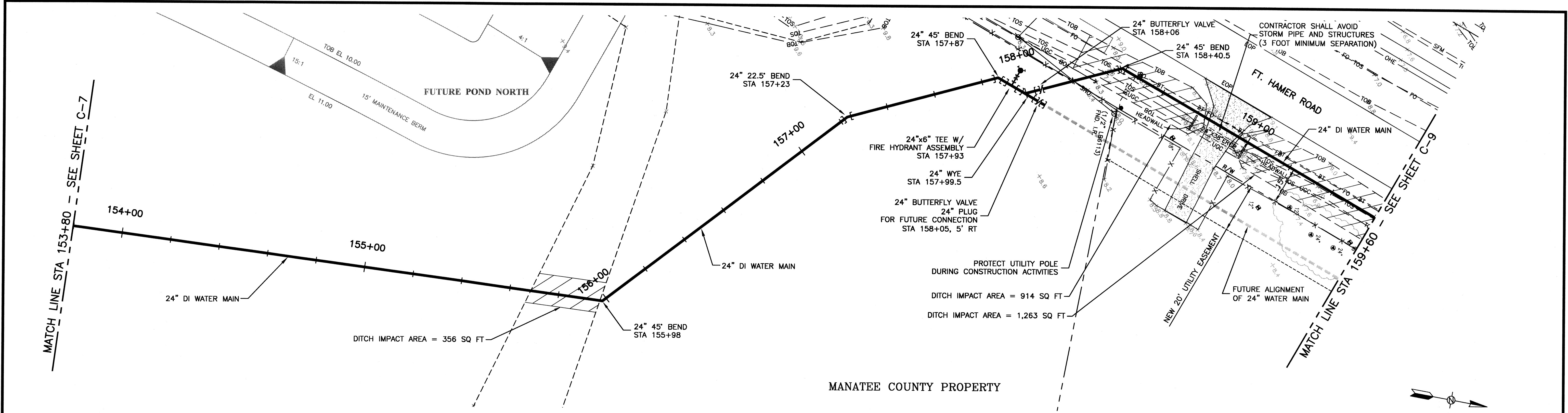
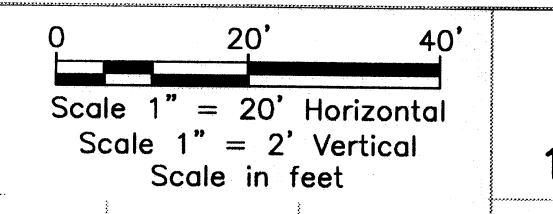


VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY



BMP NOTES:
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DITCH IMPACT AREA THIS SHEET = 2,533 SQ FT
 TOTAL PROJECT DITCH IMPACTS = 20,338 SQ FT
 [SEE DITCH IMPACT NOTES ON SHEET G-2.]

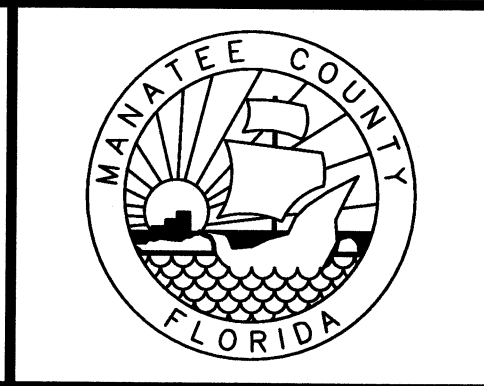


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URS
 7650 West Courtney Campell Causeway
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 Ph: (813) 286-1711 Fax: (813) 286-6587
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 12009610
 PM: DAVID WILCOX
 ENG: DAVID WILCOX
 DRW: TERRY SONNENBERG
 FILE SAVE DATE:
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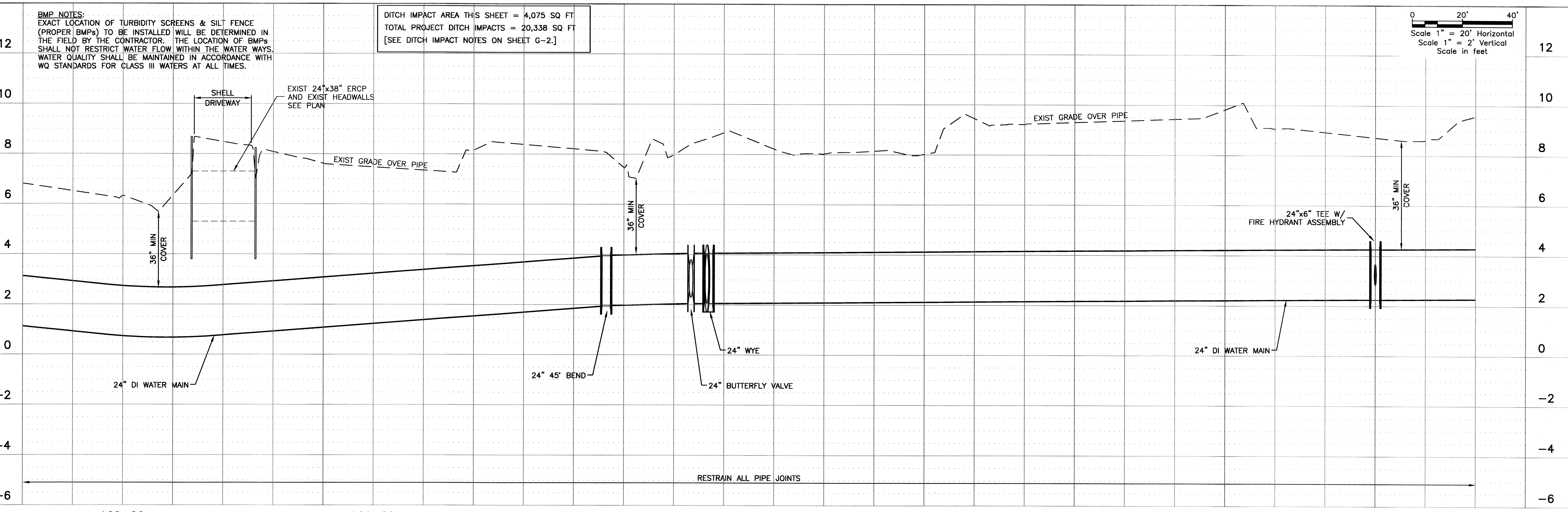
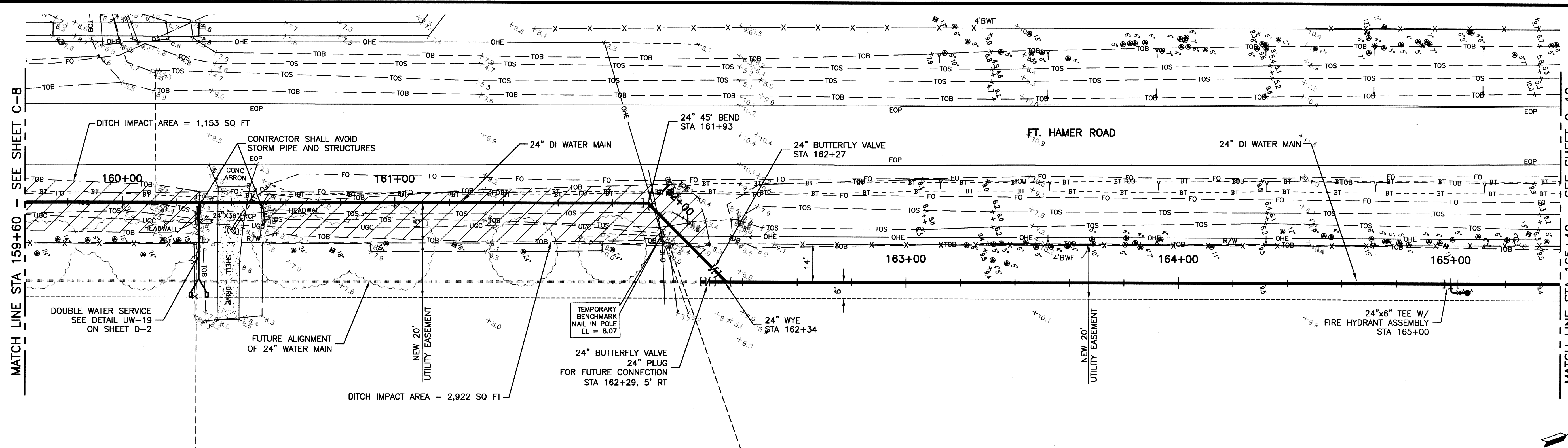


**FT. HAMER ROAD
 WATER MAIN CROSSING**
 FOR
 MANATEE COUNTY GOVERNMENT
 MANATEE COUNTY, FLORIDA

PLAN AND PROFILE

PROJECT STATUS
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 NOVEMBER 2012
C-8

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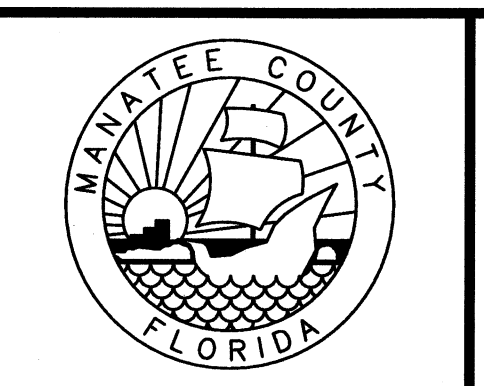


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DAVID A. WILCOX
 FLORIDA P.E. NO. 34942

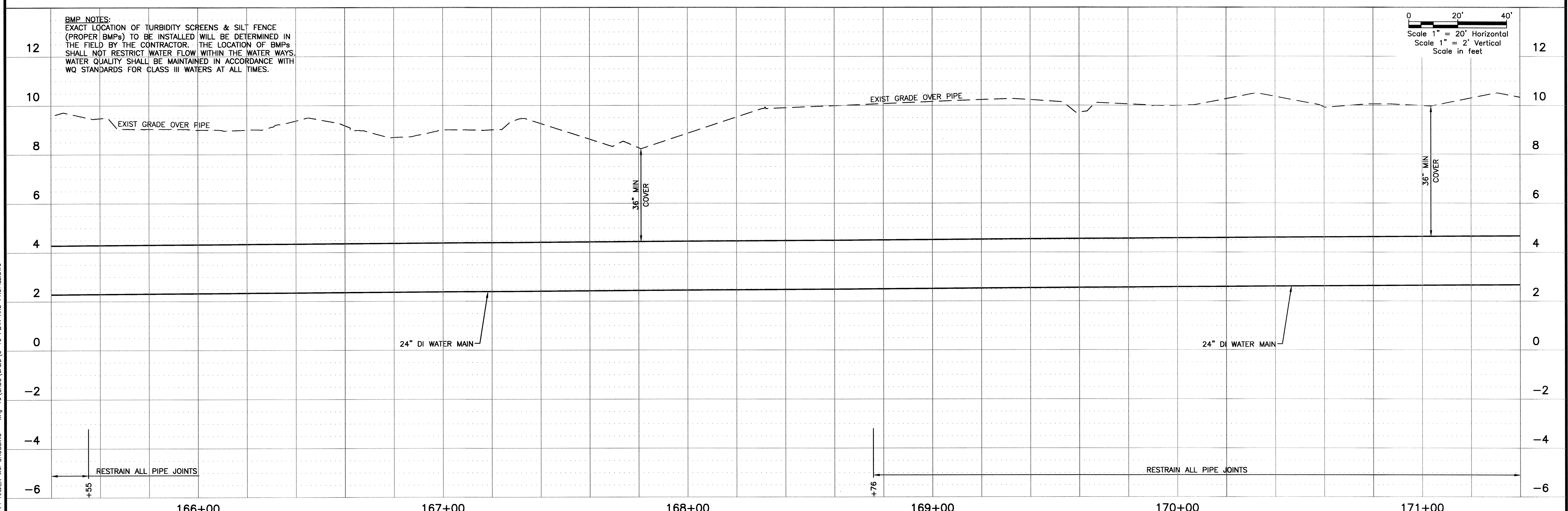
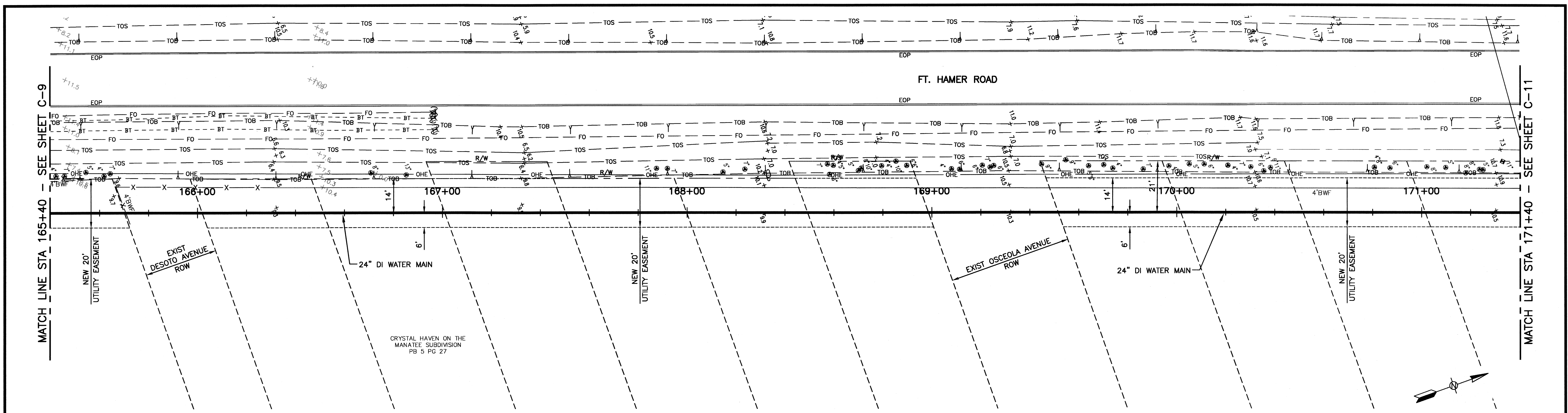


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 MANATEE COUNTY, FLORIDA

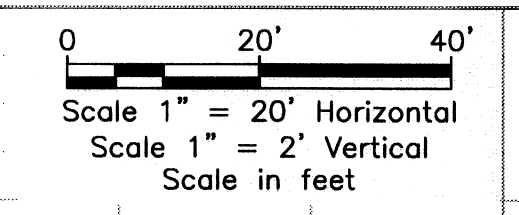
PLAN AND PROFILE

PROJECT STATUS
 BID SET
 NOVEMBER 2012
C-9

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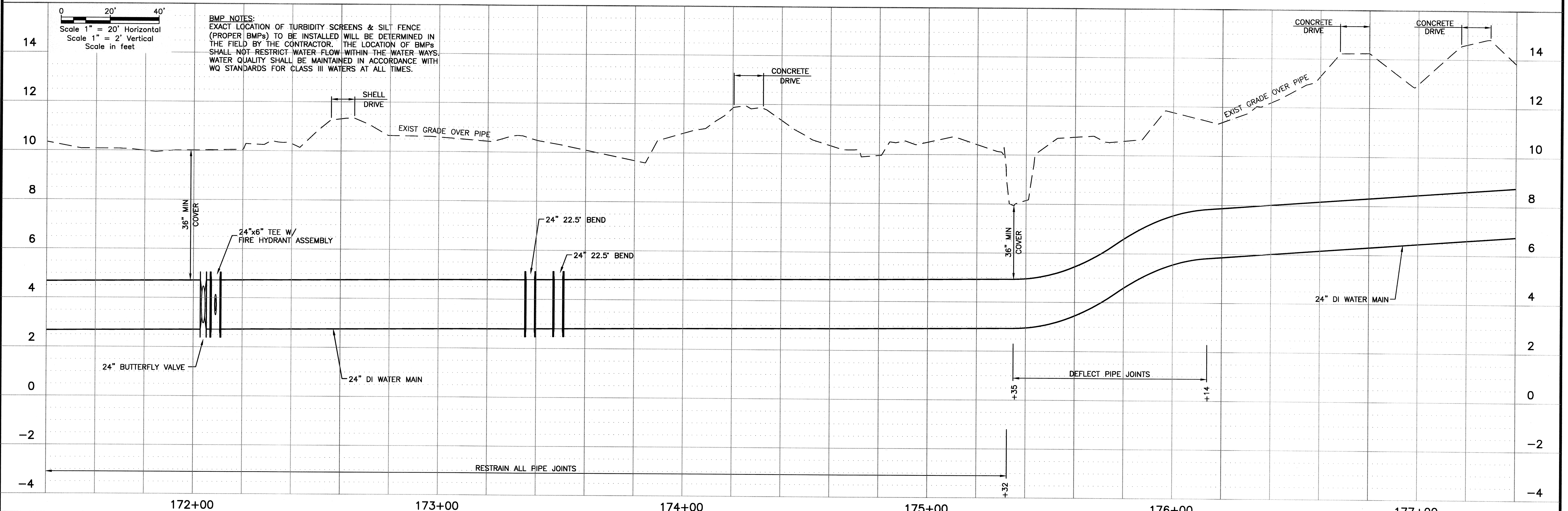
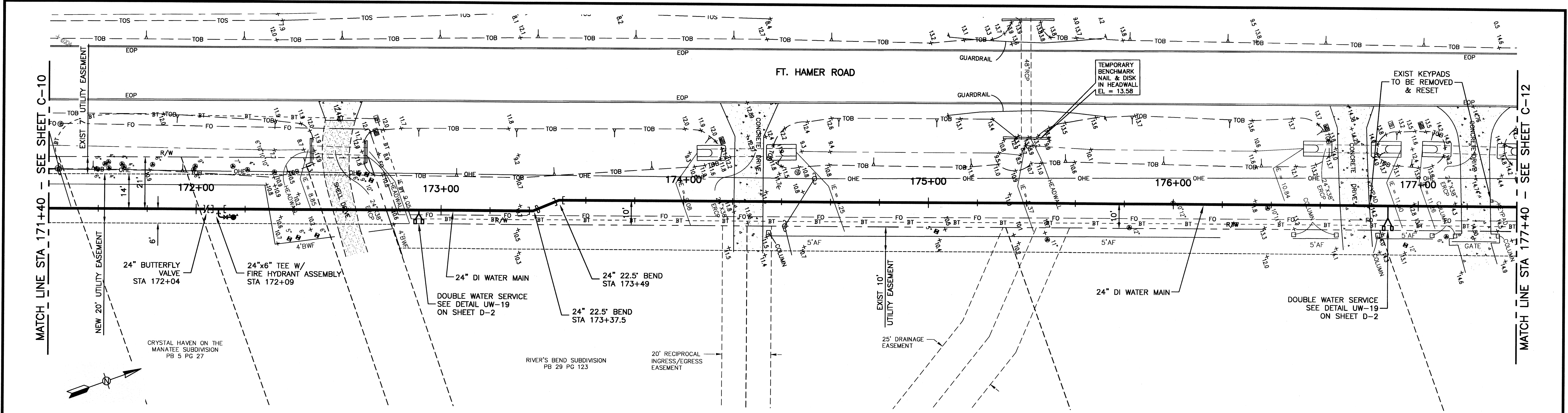


BMP NOTES:
 EXACT LOCATION OF TURBIDITY SCREENS & SILT FENCE (PROPER BMPs) TO BE INSTALLED WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THE LOCATION OF BMPs SHALL NOT RESTRICT WATER FLOW WITHIN THE WATERWAYS. WATER QUALITY SHALL BE MAINTAINED IN ACCORDANCE WITH WQ STANDARDS FOR CLASS III WATERS AT ALL TIMES.



 7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286-1711 Fax: (813) 286-6587 Florida Engineering Number: 000002	URS JOB NUMBER 12009610 PM: DAVID WILCOX ENG: DAVID WILCOX DRW: TERRY SONNENBERG FILE SAVE DATE: November 6, 2012	 DAVID A. WILCOX FLORIDA P.E. NO. 34942		FT. HAMER ROAD WATER MAIN CROSSING FOR MANATEE COUNTY GOVERNMENT MANATEE COUNTY, FLORIDA	PLAN AND PROFILE	PROJECT STATUS BID SET NOVEMBER 2012							
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NO.	BY	DATE	DESCRIPTION										
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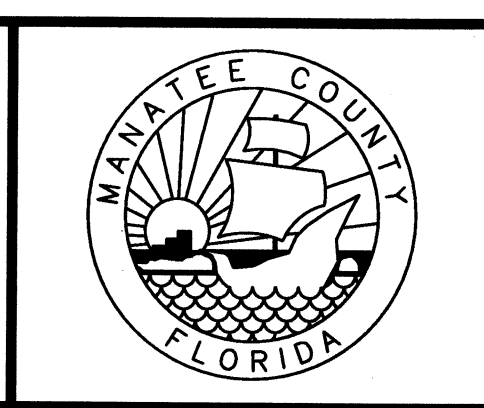
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 Scale 1" = 2' Vertical
 Scale in feet

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 FLORIDA P.E. NO. 34942



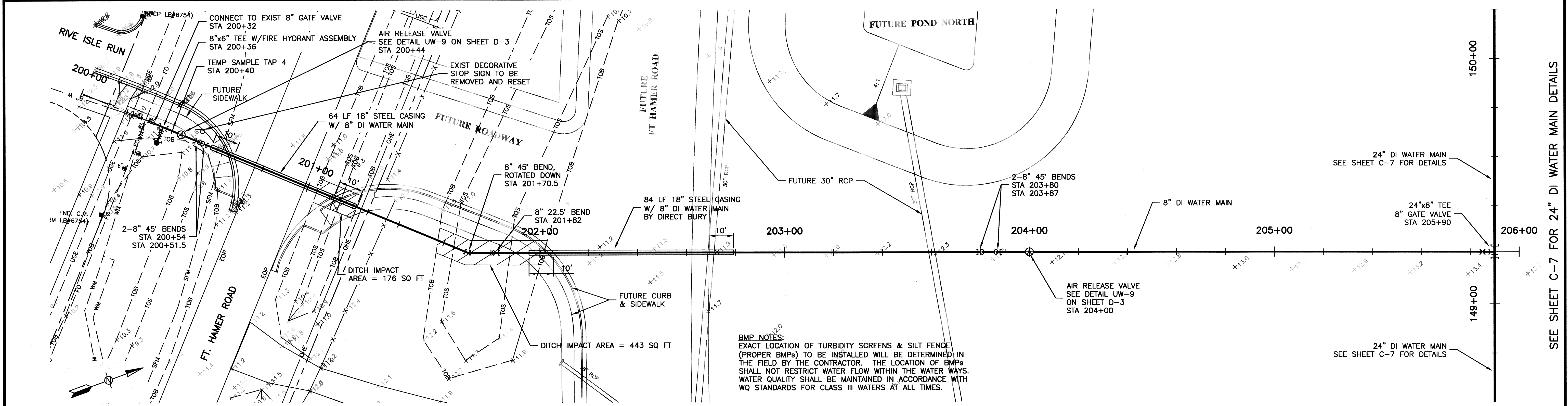
**FT. HAMER ROAD
 WATER MAIN CROSSING**
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 MANATEE COUNTY, FLORIDA

PLAN AND PROFILE

PROJECT STATUS
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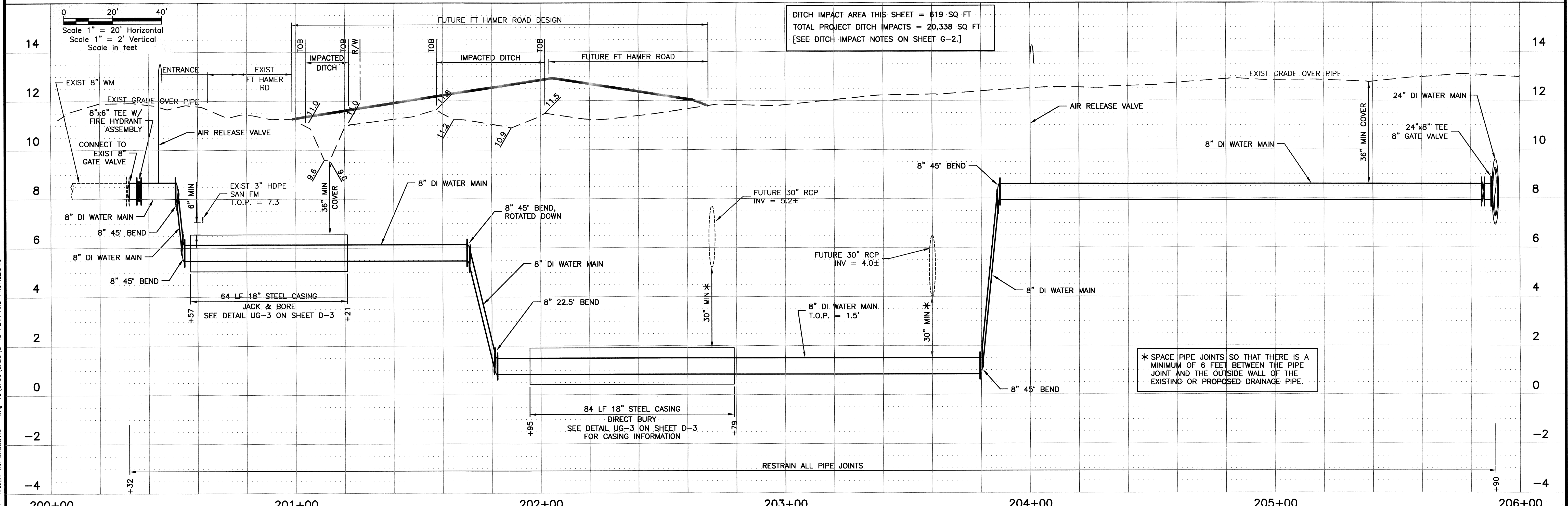
C-11

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SEE SHEET C-7 FOR 24" DI WATER MAIN DETAILS



DITCH IMPACT AREA THIS SHEET = 619 SQ FT
 TOTAL PROJECT DITCH IMPACTS = 20,338 SQ FT
 [SEE DITCH IMPACT NOTES ON SHEET G-2.]

* SPACE PIPE JOINTS SO THAT THERE IS A MINIMUM OF 6 FEET BETWEEN THE PIPE JOINT AND THE OUTSIDE WALL OF THE EXISTING OR PROPOSED DRAINAGE PIPE.

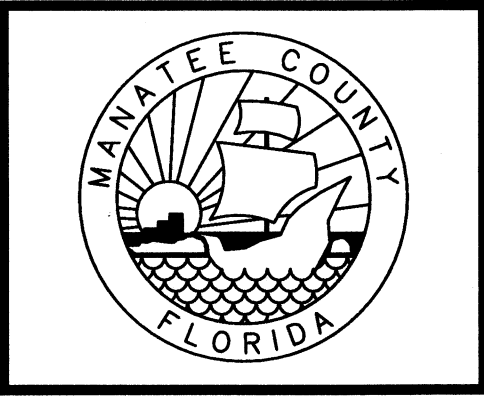
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David A. Wilcox
 3/4/12
 11/6/12

DAVID A. WILCOX
 FLORIDA P.E. NO. 34942



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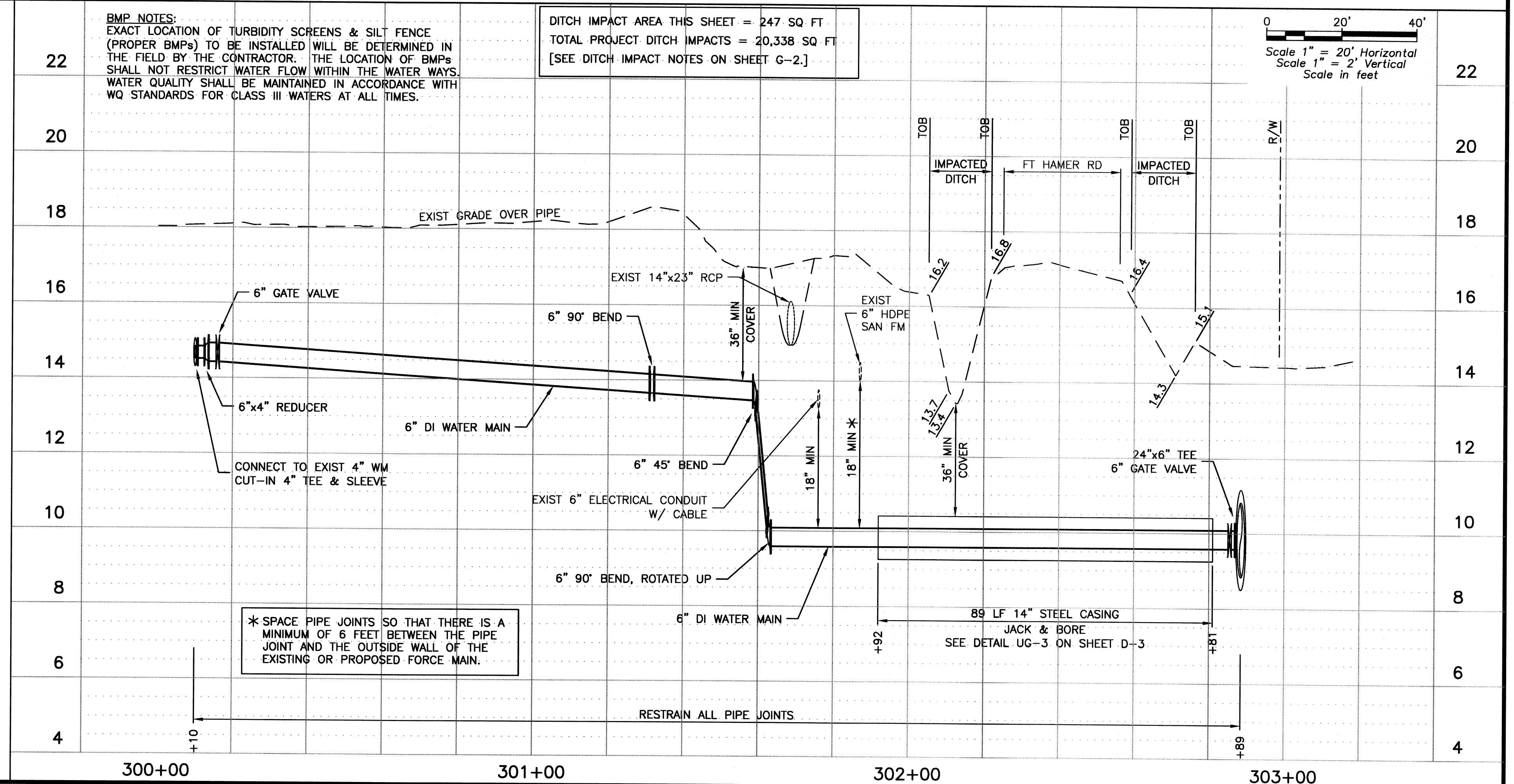
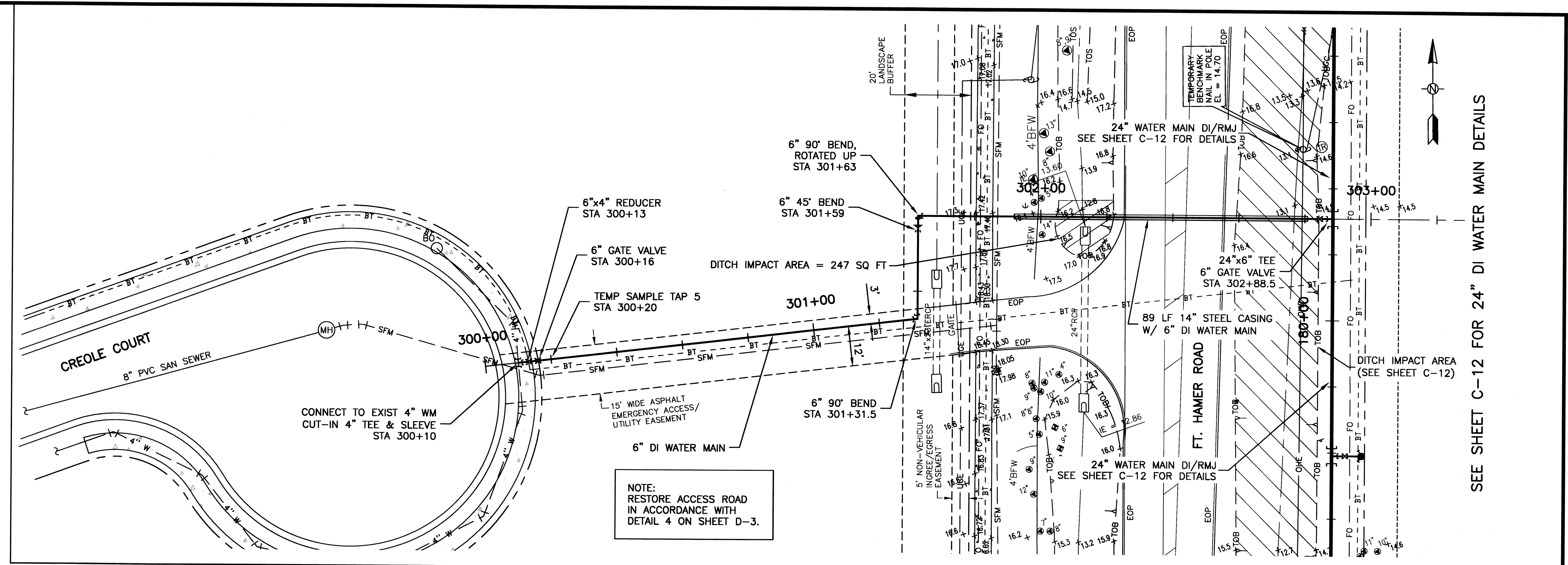
PLAN AND PROFILE

C-13

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VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY

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DITCH IMPACT AREA THIS SHEET = 247 SQ FT
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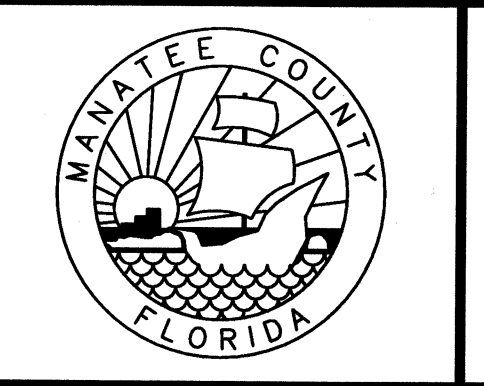
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 Scale 1" = 20' Horizontal
 Scale 1" = 2' Vertical
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David Wilcox
 11/7/12
 DAVID A. WILCOX
 FLORIDA P.E. NO. 34942

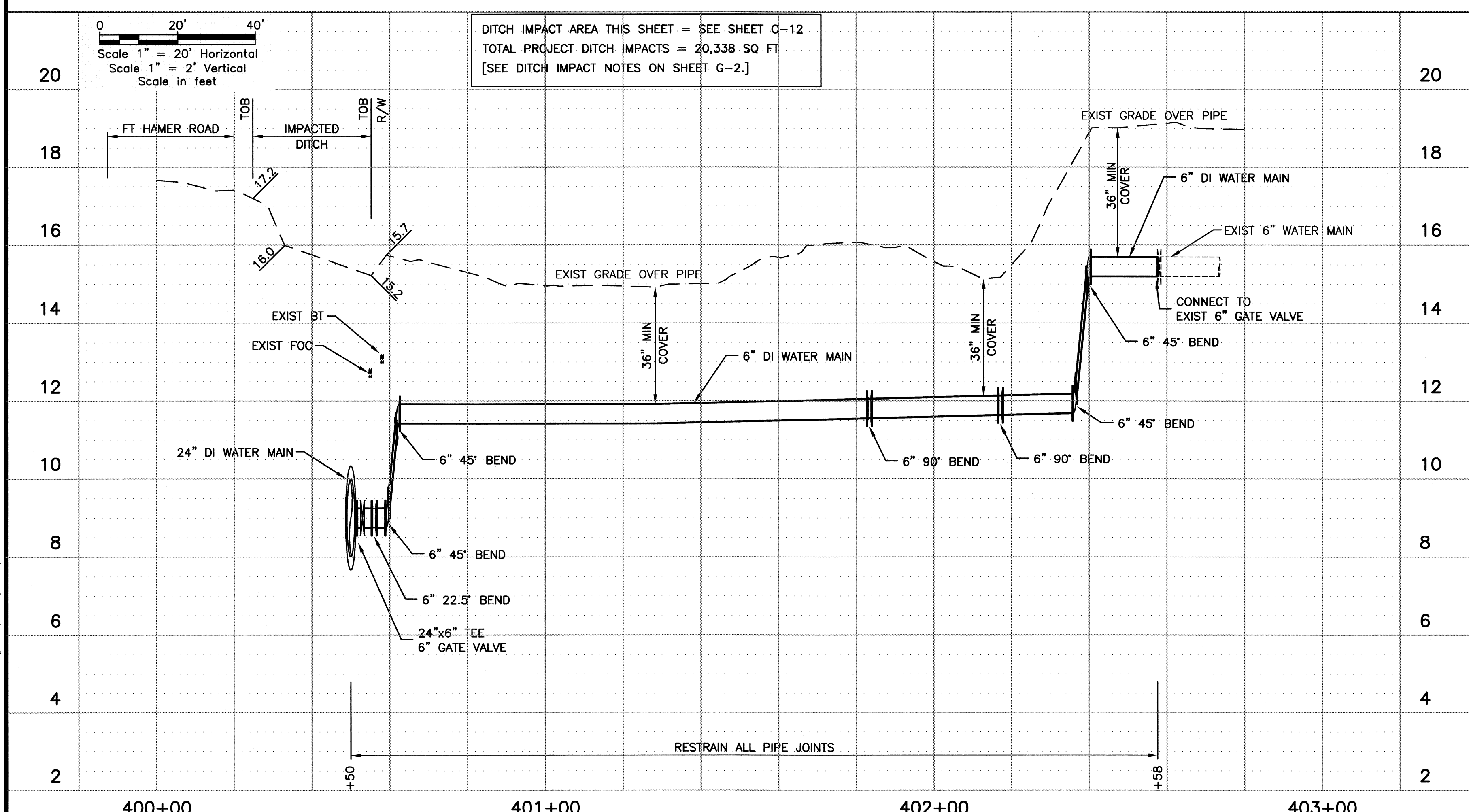
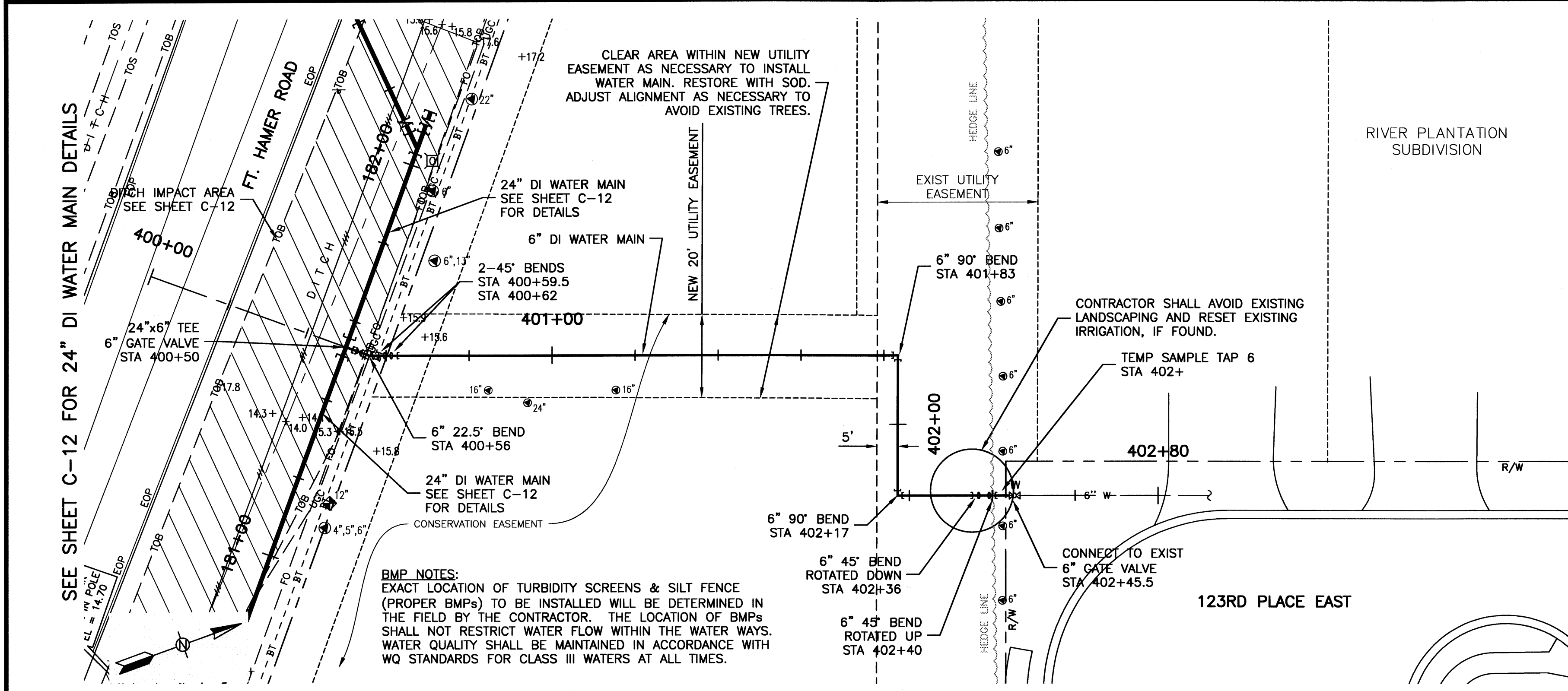


FT. HAMER ROAD
 WATER MAIN CROSSING
 FOR
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 MANATEE COUNTY, FLORIDA

PLAN AND PROFILE

PROJECT STATUS
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C-14

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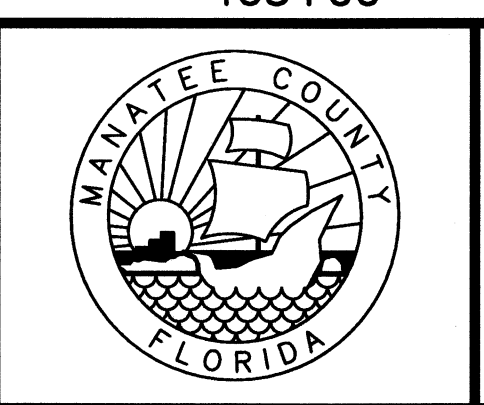


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 FLORIDA P.E. NO. 34942



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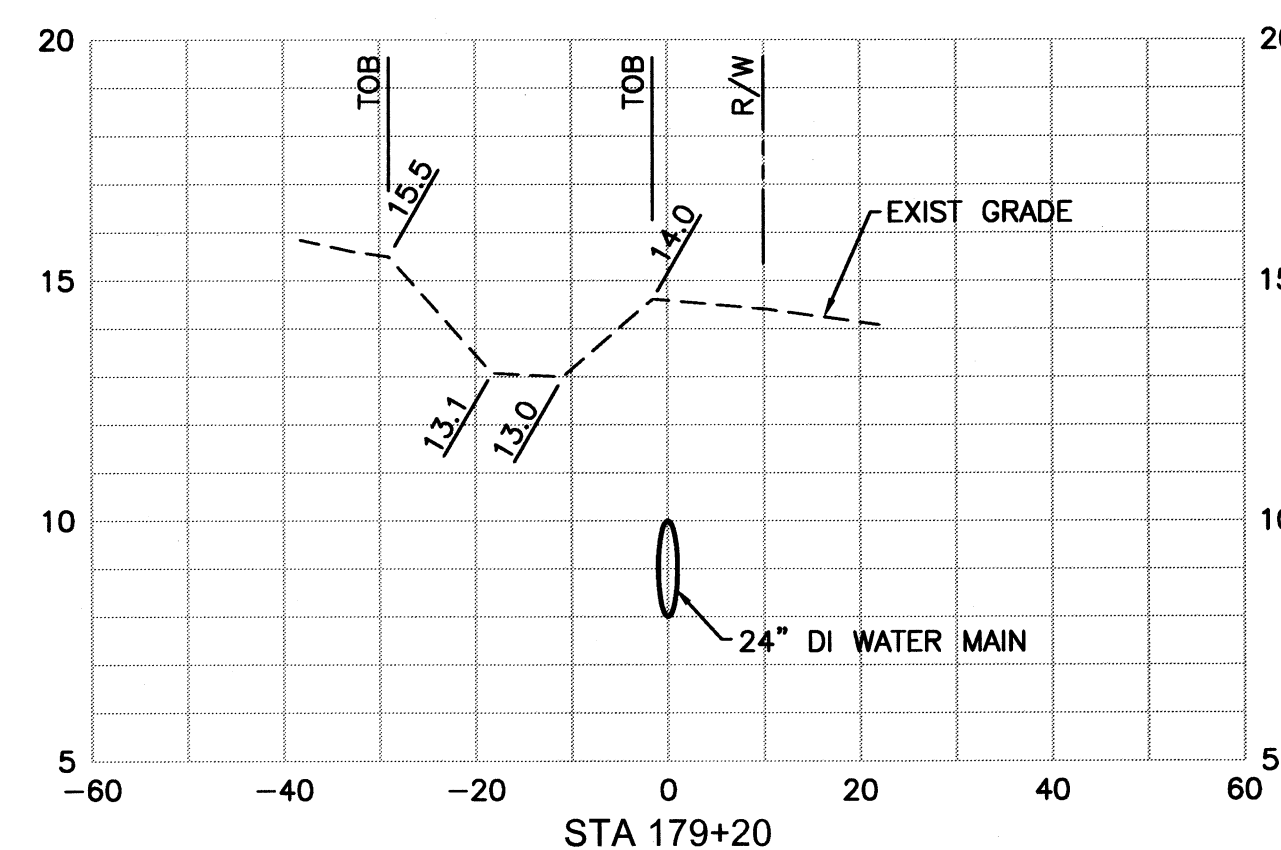
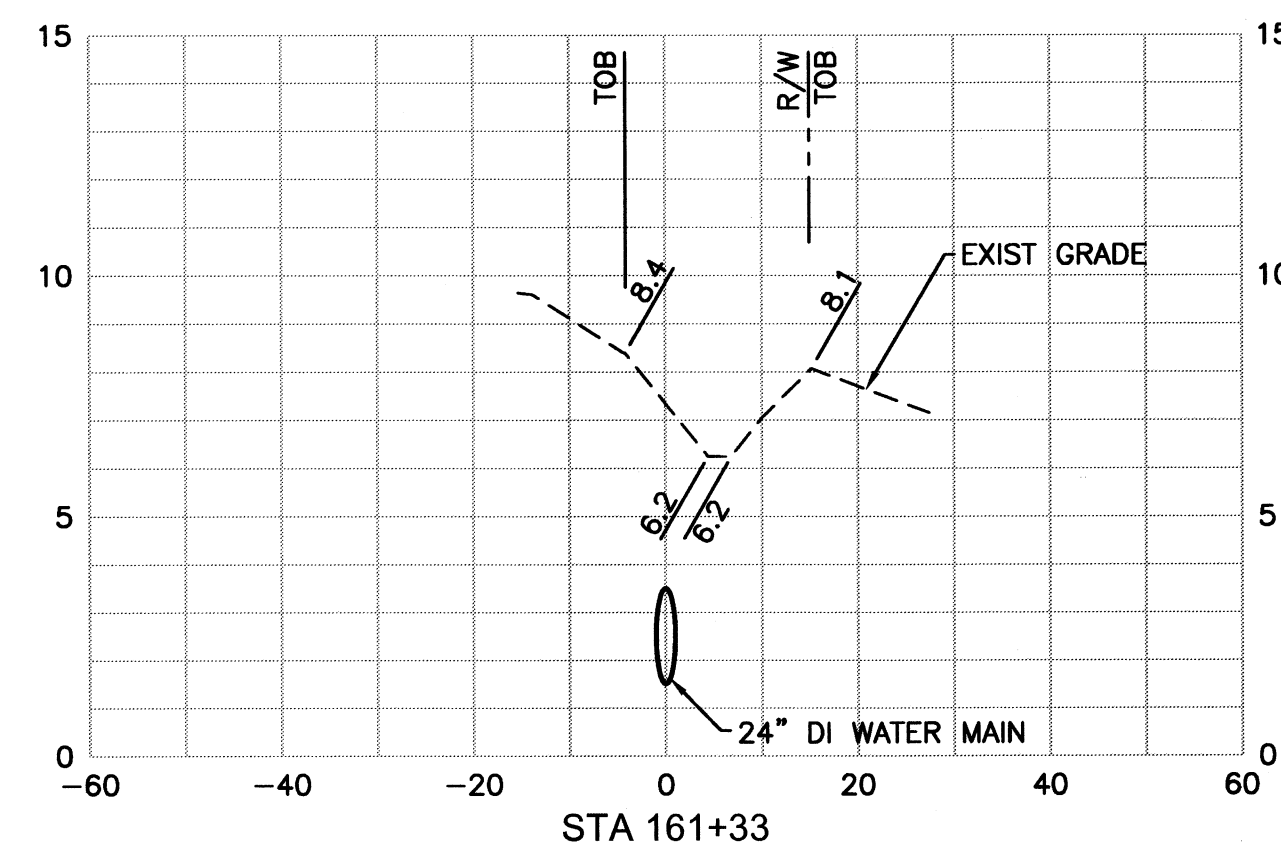
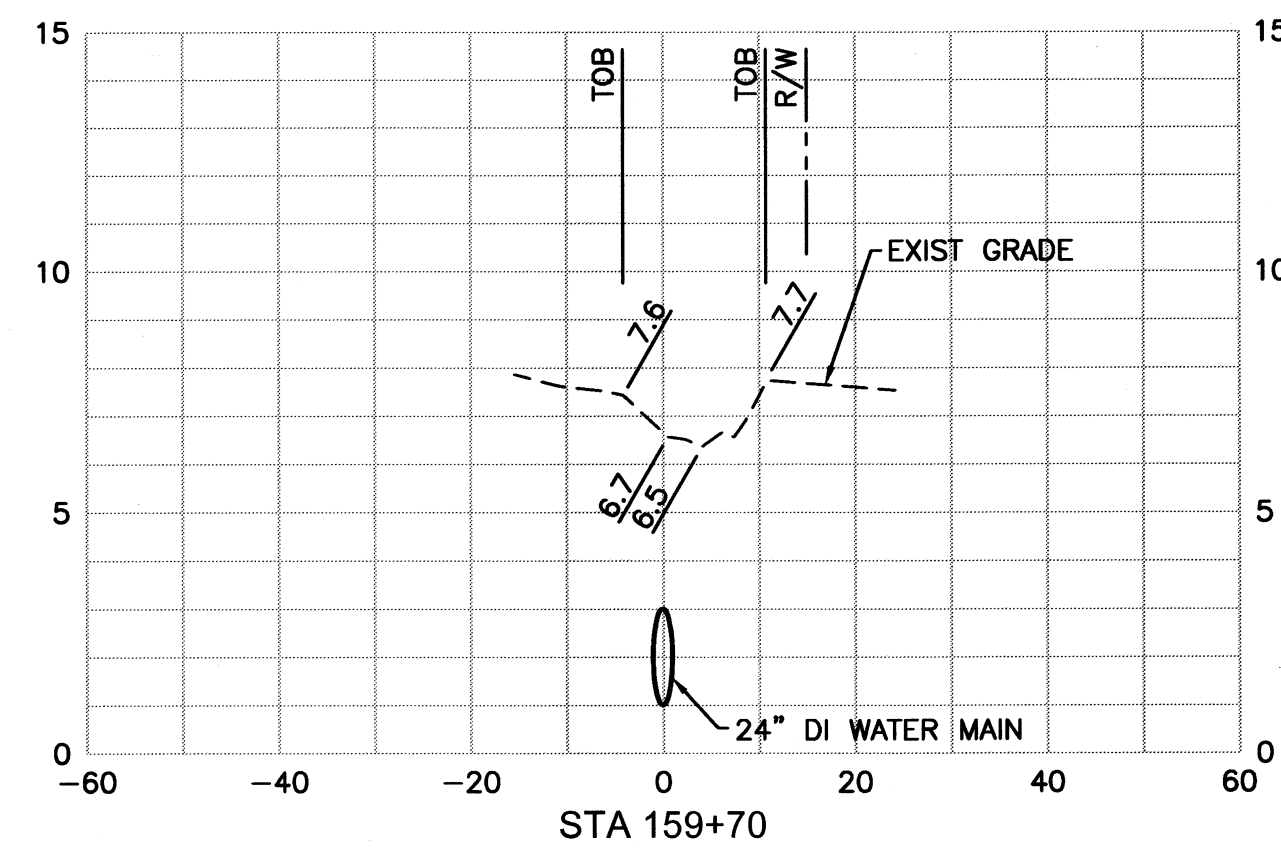
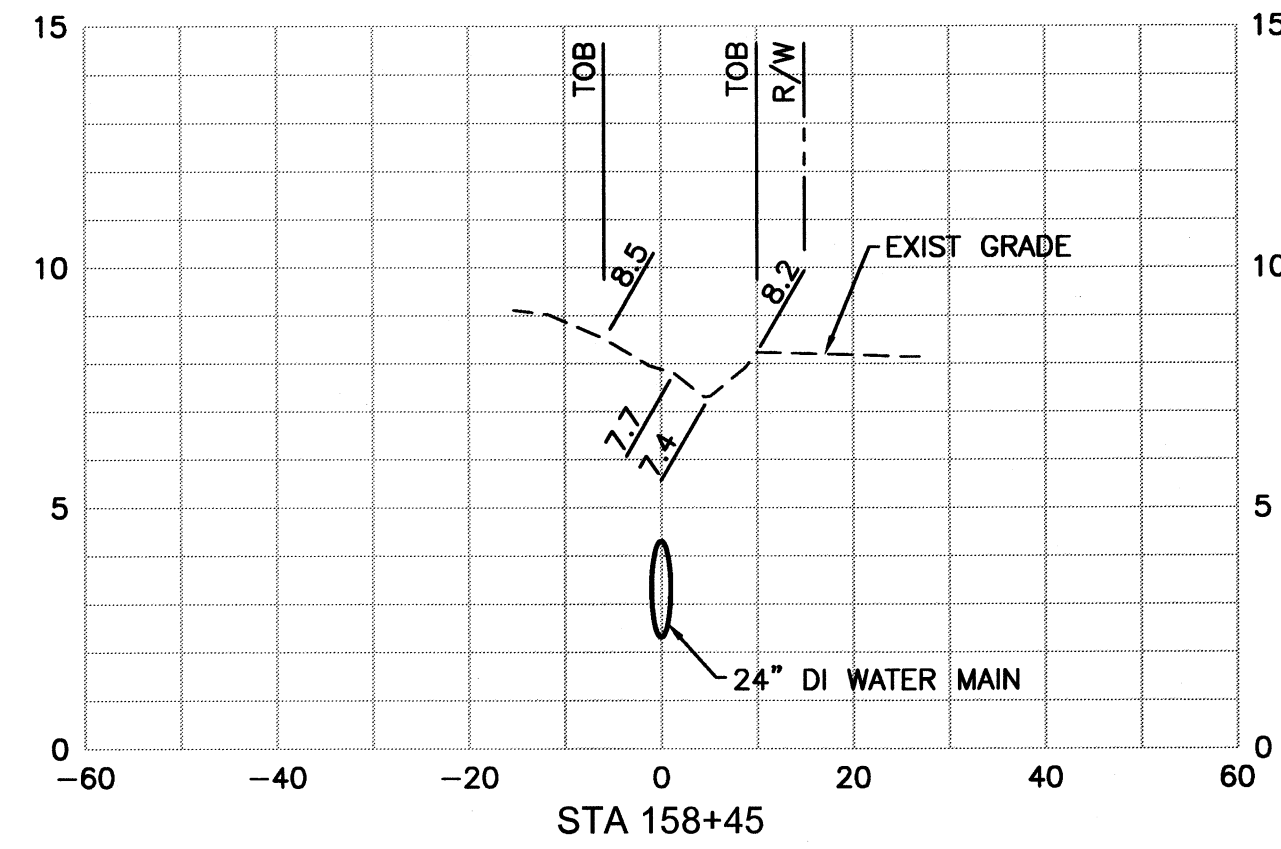
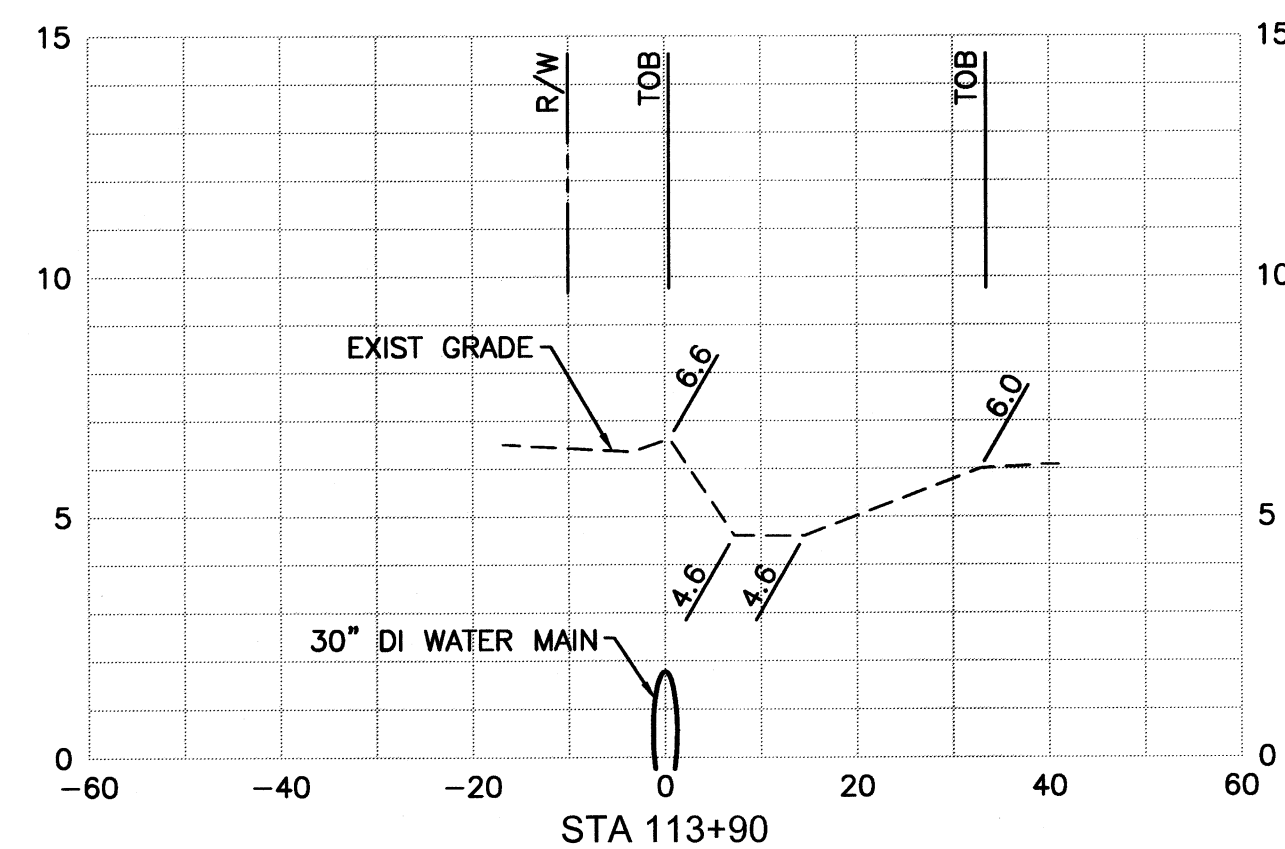
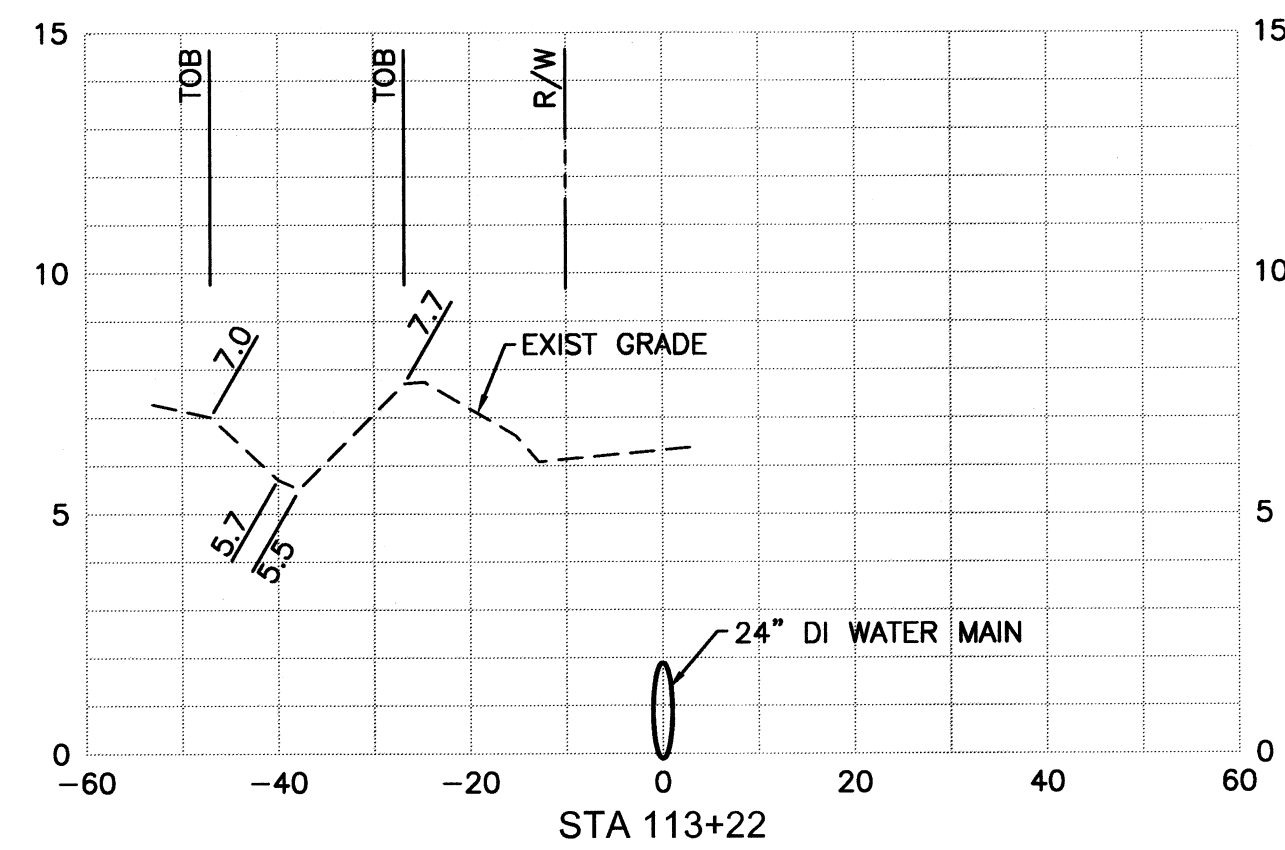
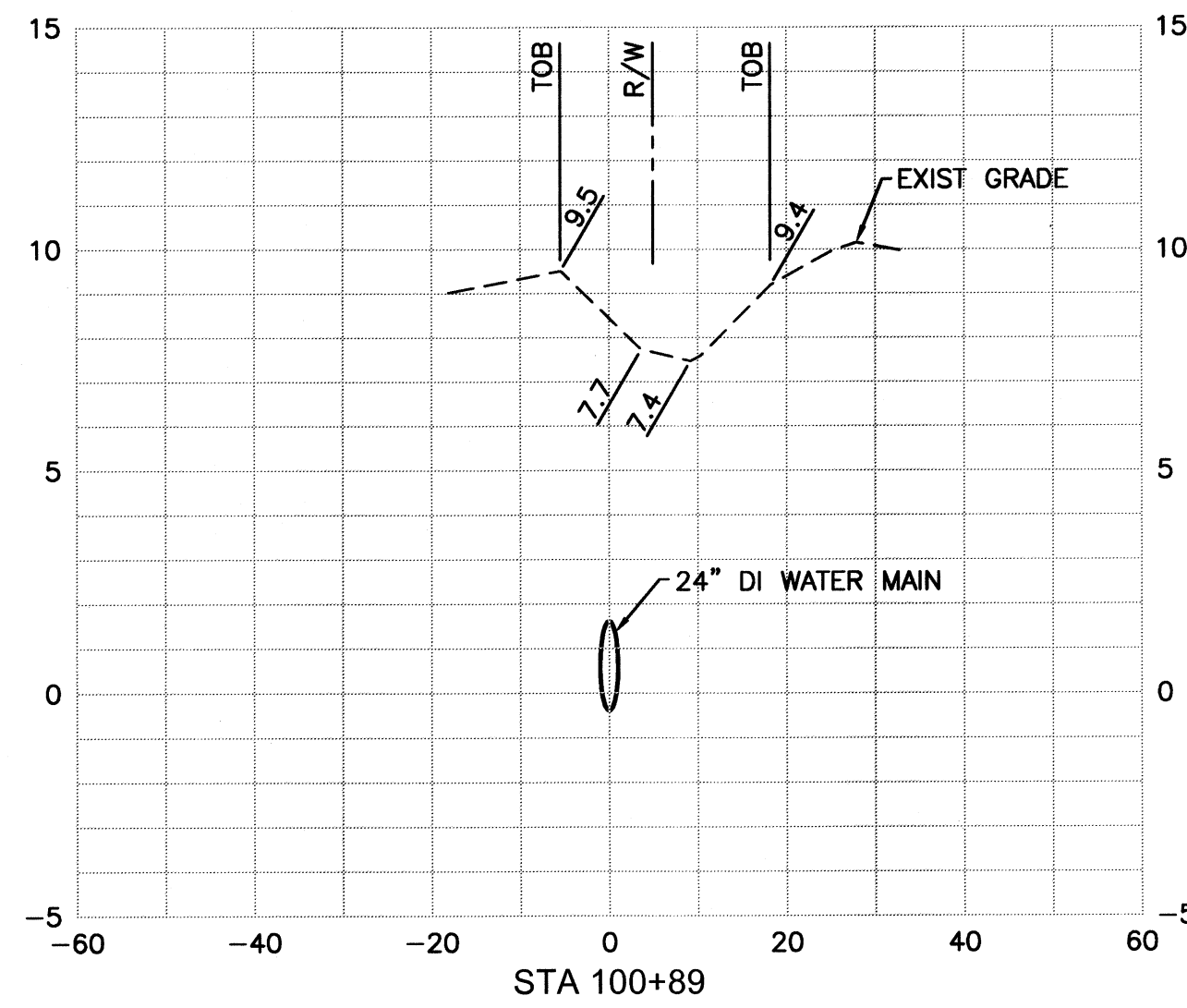
PROJECT STATUS
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PLAN AND PROFILE

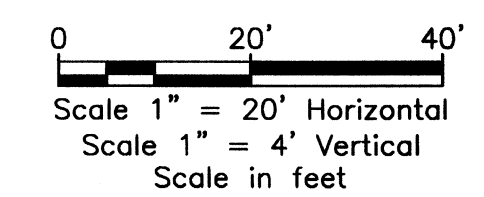
C-15

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NOTES:
 1. SEE DITCH IMPACT NOTES ON SHEET G-2.

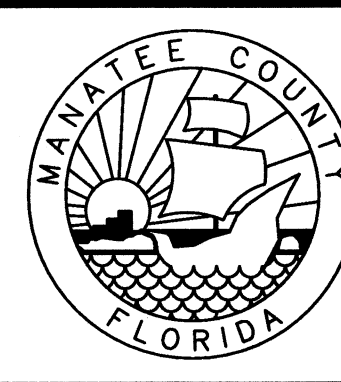


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(Signature)
 3/14/12
 11/9/12
 DAVID A. WILCOX
 FLORIDA P.E. NO. 34942



FT. HAMER ROAD
 WATER MAIN CROSSING
 FOR
 MANATEE COUNTY GOVERNMENT
 MANATEE COUNTY, FLORIDA

IMPACTED DITCH CROSS SECTIONS

PROJECT STATUS
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 NOVEMBER 2012

C-16

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 VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALE ACCORDINGLY

HDPE PIPE TO PVC PIPE / SPIGOT TO BELL CONNECTION

HDPE PIPE TO MJ FITTING TRANSITION

HDPE PIPE TO PVC PIPE SPIGOT TO SPIGOT CONNECTION

1. ONE # 10 GAUGE EXTRA HIGH STRENGTH COPPER CLAD STEEL TRACER WIRE SHALL BE PULLED AND SECURED TO THE PIPE FOR PIPELINES THAT ARE INSTALLED BY TRENCHLESS HORIZONTAL DIRECTIONAL DRILLING METHOD IN NON-DIRECTIONAL BORE (TRENCHES AND BORE & JACK) APPLICATIONS. A # 10 GAUGE SOLID INSULATED COPPER WIRE SHALL BE ATTACHED TO THE PIPE. TRACER WIRES SHALL HAVE A MINIMUM 30-MILS OF POLYETHYLENE INSULATION.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	HDPE TO PVC OR DI PIPE ADAPTER	UG-6
REV. BY DATE CLB/BR 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 108

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

MAIN PIPE SIZE	HORIZ. BENDS	TEES		REDUCERS		PLUGS & VALVES
		SIZE	LENGTH	SIZE	LENGTH	
24	90° 45° 22.5°	X24	X20	X20	X18	214
20	90° 45° 22.5°	X20	X18	X18	X16	184
16	90° 45° 22.5°	X16	X14	X14	X12	151
12	90° 45° 22.5°	X12	X10	X10	X8	118
10	90° 45° 22.5°	X10	X8	X8	X6	100
8	90° 45° 22.5°	X8	X6	X6	X4	83
6	90° 45° 22.5°	X6	X4	X4	X3	63
4	90° 45° 22.5°	X4	X3	X3	X2	45

NOTES:

- RESTRAIN 11.25' BENDS 50% OF LENGTH FOR 22.5' BENDS.
- ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS 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 DATE CLB/BR 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 108

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (POLY-WRAPPED)

MAIN PIPE SIZE	HORIZ. BENDS	TEES		REDUCERS		PLUGS & VALVES
		SIZE	LENGTH	SIZE	LENGTH	
36	90° 45° 22.5°	X36	X30	X30	X24	453
30	90° 45° 22.5°	X30	X24	X24	X18	391
24	90° 45° 22.5°	X24	X18	X18	X12	327
20	90° 45° 22.5°	X20	X16	X16	X12	280
16	90° 45° 22.5°	X16	X12	X12	X10	231
12	90° 45° 22.5°	X12	X10	X10	X8	181
10	90° 45° 22.5°	X10	X8	X8	X6	153
8	90° 45° 22.5°	X8	X6	X6	X4	128
6	90° 45° 22.5°	X6	X4	X4	X3	98
4	90° 45° 22.5°	X4	X3	X3	X2	69

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (NON-WRAPPED)

MAIN PIPE SIZE	HORIZ. BENDS	TEES		REDUCERS		PLUGS & VALVES
		SIZE	LENGTH	SIZE	LENGTH	
36	90° 45° 22.5°	X36	X30	X30	X24	188
30	90° 45° 22.5°	X30	X24	X24	X18	162
24	90° 45° 22.5°	X24	X18	X18	X12	135
20	90° 45° 22.5°	X20	X16	X16	X12	116
16	90° 45° 22.5°	X16	X12	X12	X10	96
12	90° 45° 22.5°	X12	X10	X10	X8	75
10	90° 45° 22.5°	X10	X8	X8	X6	63
8	90° 45° 22.5°	X8	X6	X6	X4	53
6	90° 45° 22.5°	X6	X4	X4	X3	41
4	90° 45° 22.5°	X4	X3	X3	X2	29

NOTE:
SEE RESTRAINED LENGTHS FOR PVC PIPE DETAIL FOR NOTES 1 THROUGH 8 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR DIP.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	RESTRAINED LENGTHS FOR DIP	UG-9
REV. BY DATE CLB/BR 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 109

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	RESTRAINED LENGTHS FOR PIPE	UG-10
REV. BY DATE CLB/BR 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 110

NOTES:

- USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- TYPICALLY 4" TO 6".
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1 1/4 INCH, WHICHEVER IS GREATER.
- MILL 25' BACK FROM TRENCH SAW CUT. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY LIMITS ARE FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT. FINAL OVERLAY TO MATCH EXISTING "BUMPS" AT JOINT. MILLING LIMITS THAT IMPACT INTERSECTION SHALL BE ADDRESSED ON A CASE BY CASE BASIS AND APPROVED BY MANATEE COUNTY.
- SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
- BASE SHALL BE 8" MINIMUM THICKNESS CRUSHED CONCRETE.
- TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
- RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
- TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
- NOTES 5, THRU 10, ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.

TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A-1 PIPE BEDDING	UG-12
REV. BY DATE WRT/KE 03/11	MAY 10, 2011 DATE OF APPROVAL	PAGE 112

NOTES:

- USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- TYPICALLY 4" TO 6".
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1 1/4 INCH, WHICHEVER IS GREATER.
- MILL 25' BACK FROM TRENCH SAW CUT. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY LIMITS ARE FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT. FINAL OVERLAY TO MATCH EXISTING "BUMPS" AT JOINT. MILLING LIMITS THAT IMPACT INTERSECTION SHALL BE ADDRESSED ON A CASE BY CASE BASIS AND APPROVED BY MANATEE COUNTY.
- SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
- BASE SHALL BE 8" MINIMUM THICKNESS CRUSHED CONCRETE.
- TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
- RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
- TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
- NOTES 5, THRU 10, ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.

TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING

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

NOTES:

- USE OF TYPE A-2 AND A-3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
- TYPICALLY 4" TO 6".
- PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- THICKNESS TO MATCH EXISTING OR BE 6" MINIMUM, WHICHEVER IS GREATER.
- SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISH GRADE OR 12" BELOW SUBGRADE.
- BASE SHALL BE COMPACTED 6" MINIMUM THICKNESS OF APPROVED MATERIAL.
- DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST ADOPTED CONSTRUCTION STANDARDS OF THE MANATEE COUNTY TRANSPORTATION DEPARTMENT.
- IF THE DRIVEWAY IS 12" OR WIDER, SAWCUT AN EXPANSION JOINT ALONG THE CENTER OF THE DRIVEWAY (3/8" WIDE AND 1/2" DEEP) AFTER THE CONCRETE HAS SET.
- IF THERE IS AN EXISTING EXPANSION JOINT WITHIN 3' OF THE PROPOSED JOINT, EXTEND DRIVEWAY REPLACEMENT TO THE EXISTING JOINT.
- TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.

TRENCH WITH CONCRETE DRIVEWAY SURFACE TYPE A-1 PIPE BEDDING

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

GATE VALVE, BOX, LID AND TAG

NOTES:

- "W" OR "RW" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A BLUE DISC WITH "W" OR PURPLE DISC WITH "RW" AND A 1/8"x1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
- ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADAS AS DETERMINED IN THE FIELD.
- WATER VALVES SHALL NOT BE PLACED IN HANDICAPPED TRAMPS.
- PRECAST CONCRETE PADS & THRUST BLOCKS SHALL NOT BE USED.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
- FOR VALVES 16" AND LARGER USE BUTTERFLY VALVES.
- PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.
- TRACER WIRE TEST STATION BOX IS NOT REQUIRED IN VALVE BOX PAD IF THE GATE VALVE IS LOCATED WITHIN 200 FEET OF A WATER SERVICE, BLOW-OFF, BACKFLOW PREVENTER OR FIRE HYDRANT THAT HAS A TRACER WIRE BOX.
- WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES".
- BRUSH & TALLOW FOOTING FOR NORMAL YARD SERVICE, WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC, USE P525RD CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT	GATE VALVE, BOX, LID AND TAG	UW-2
REV. BY DATE CLB/KE 11/10	MAY 10, 2011 DATE OF APPROVAL	PAGE 120

URS

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Florida Engineering Number: 000002

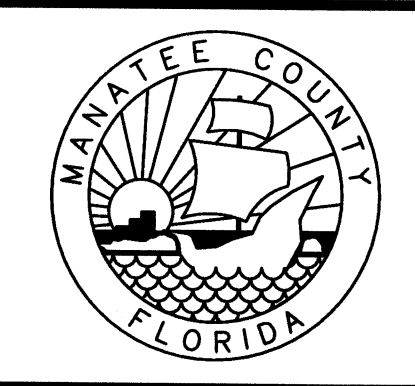
NO.	BY	DATE	DESCRIPTION

URS JOB NUMBER
12009610

PM: DAVID WILCOX
ENG: DAVID WILCOX
DRW: TERRY SONNENBERG

FILE SAVE DATE:
November 6, 2012

DAVID A. WILCOX
FLORIDA P.E. NO. 34942



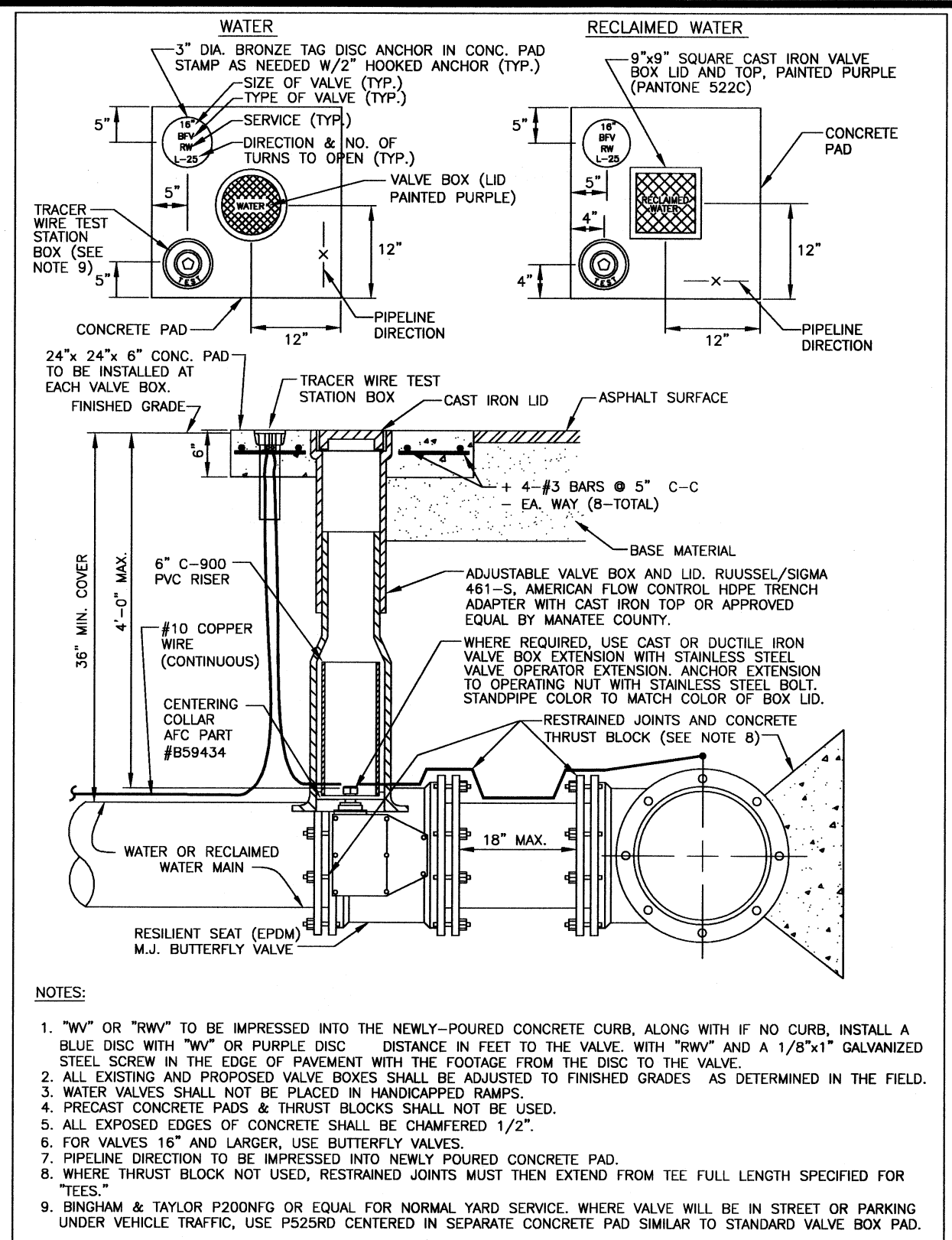
FT. HAMER ROAD WATER MAIN CROSSING
FOR
MANATEE COUNTY GOVERNMENT
MANATEE COUNTY, FLORIDA

CIVIL DETAILS

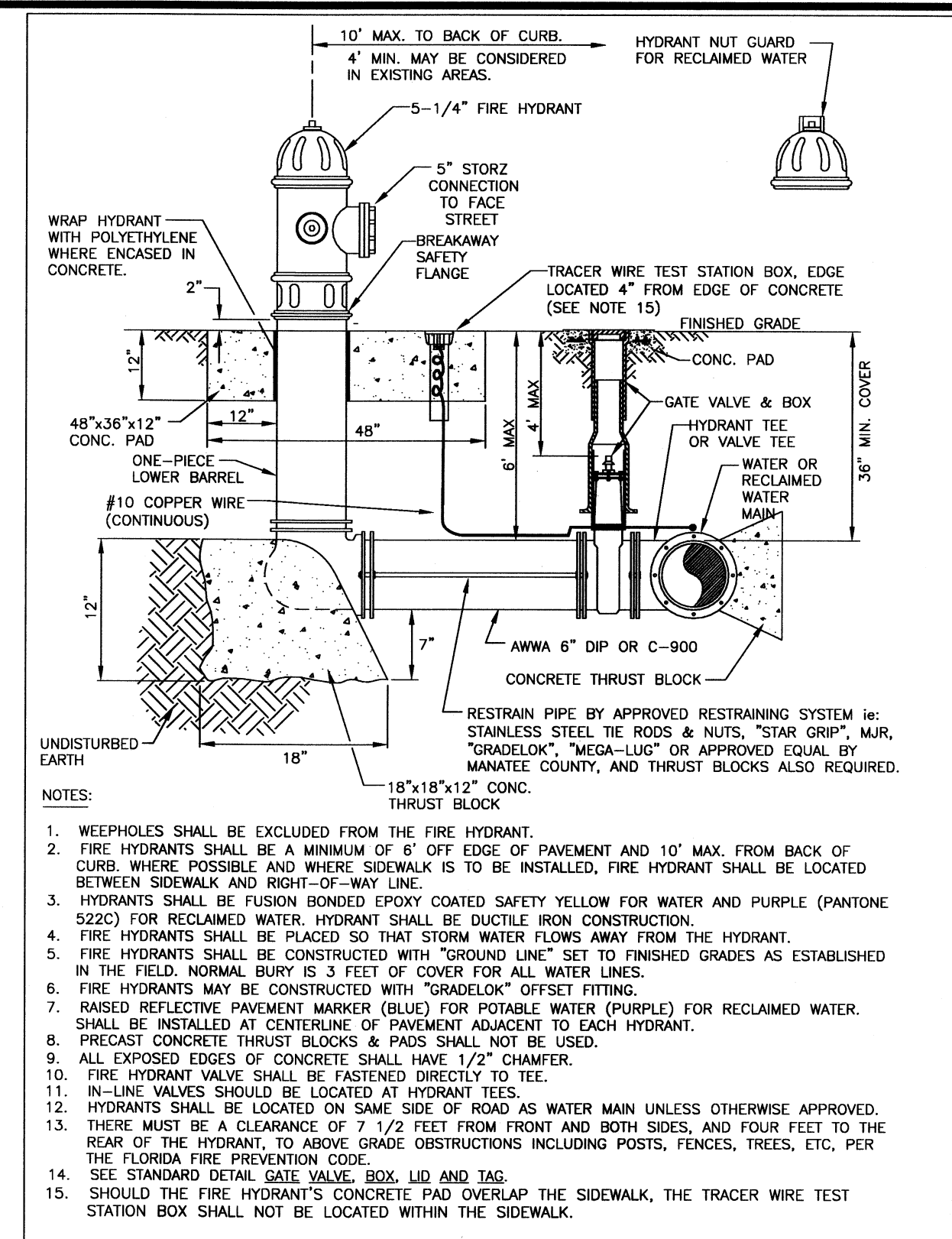
PROJECT STATUS
BID SET
NOVEMBER 2012

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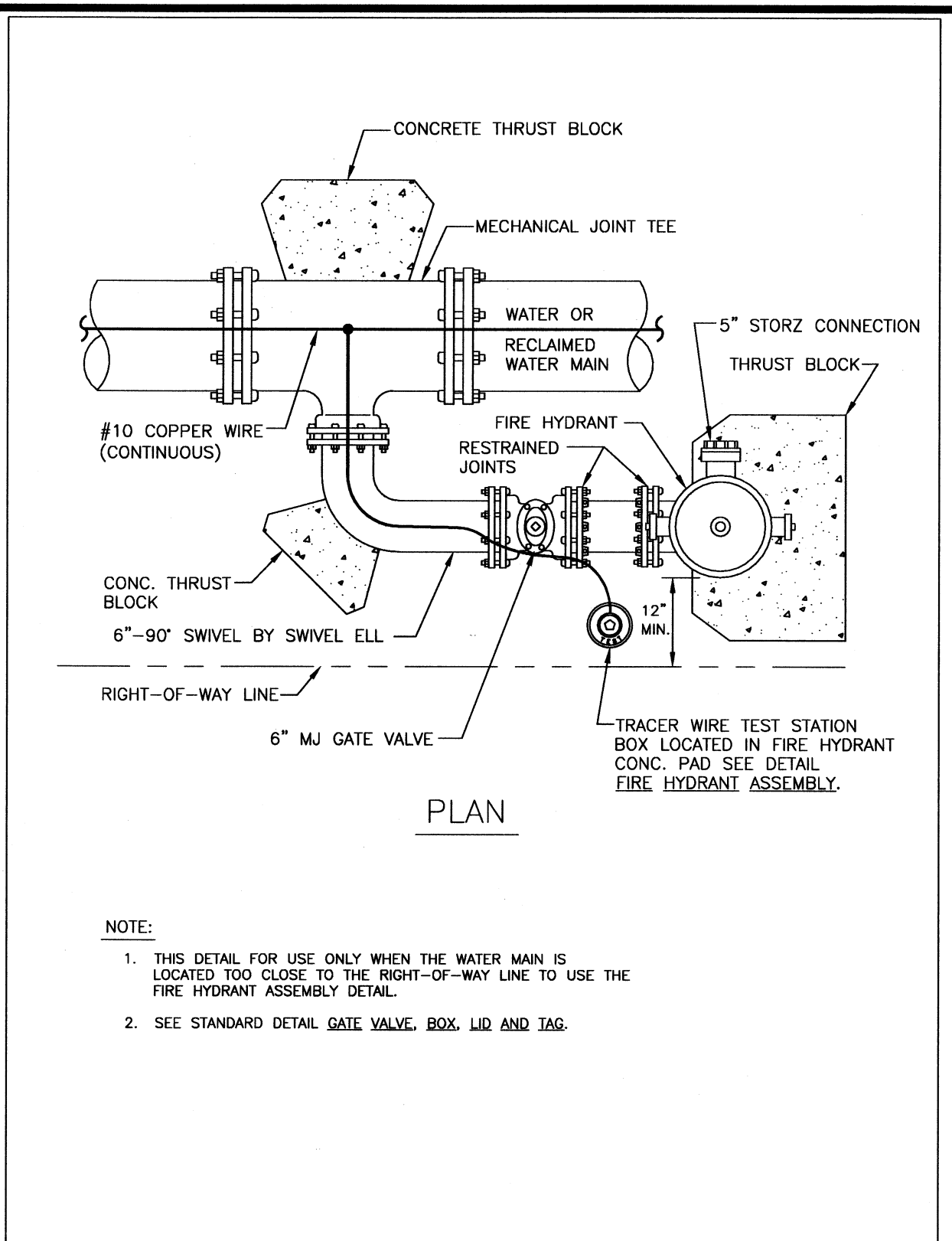
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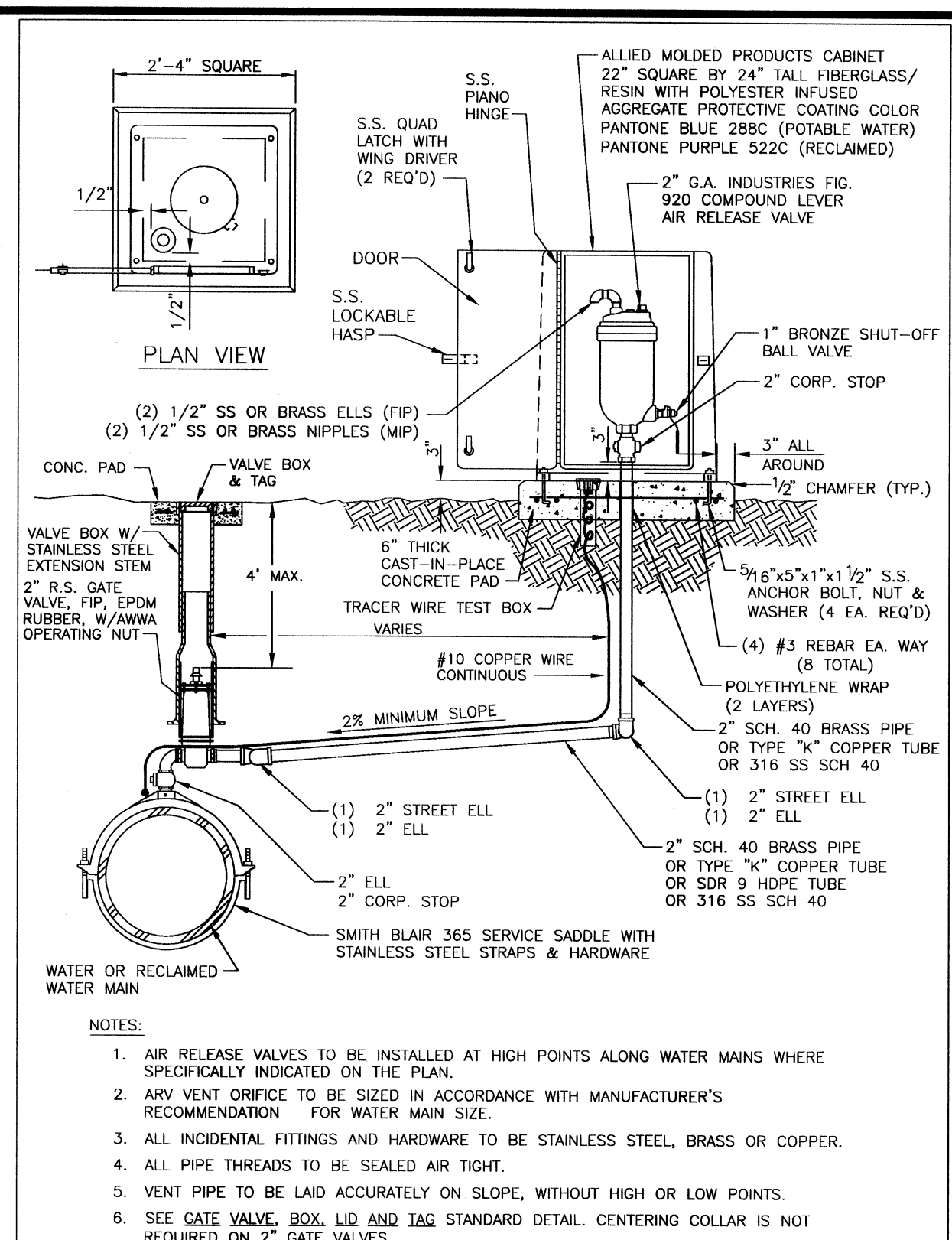
MANATEE COUNTY PUBLIC WORKS DEPARTMENT BUTTERFLY VALVE, BOX, LID AND TAG UW-3



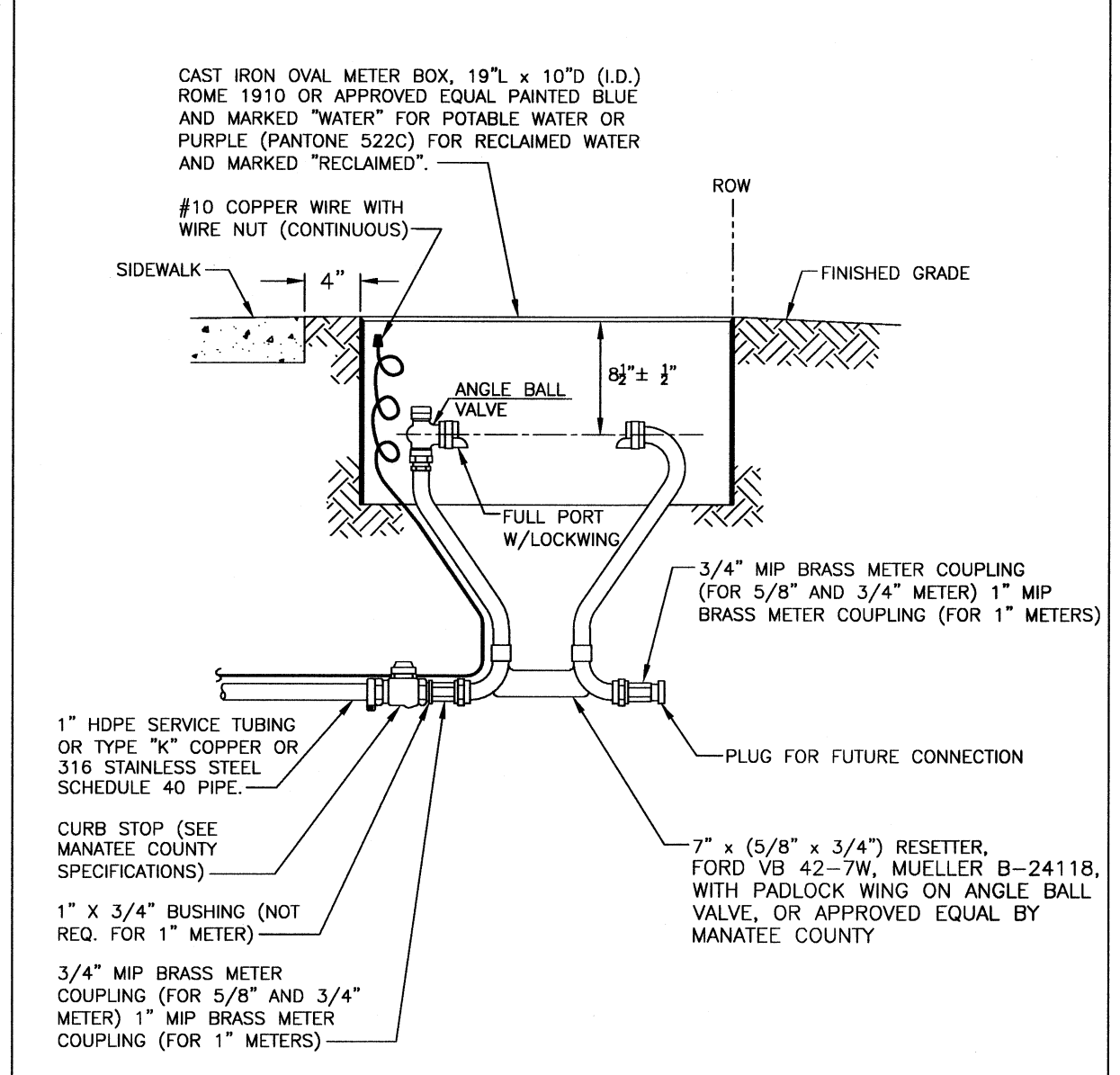
MANATEE COUNTY PUBLIC WORKS DEPARTMENT FIRE HYDRANT ASSEMBLY UW-5



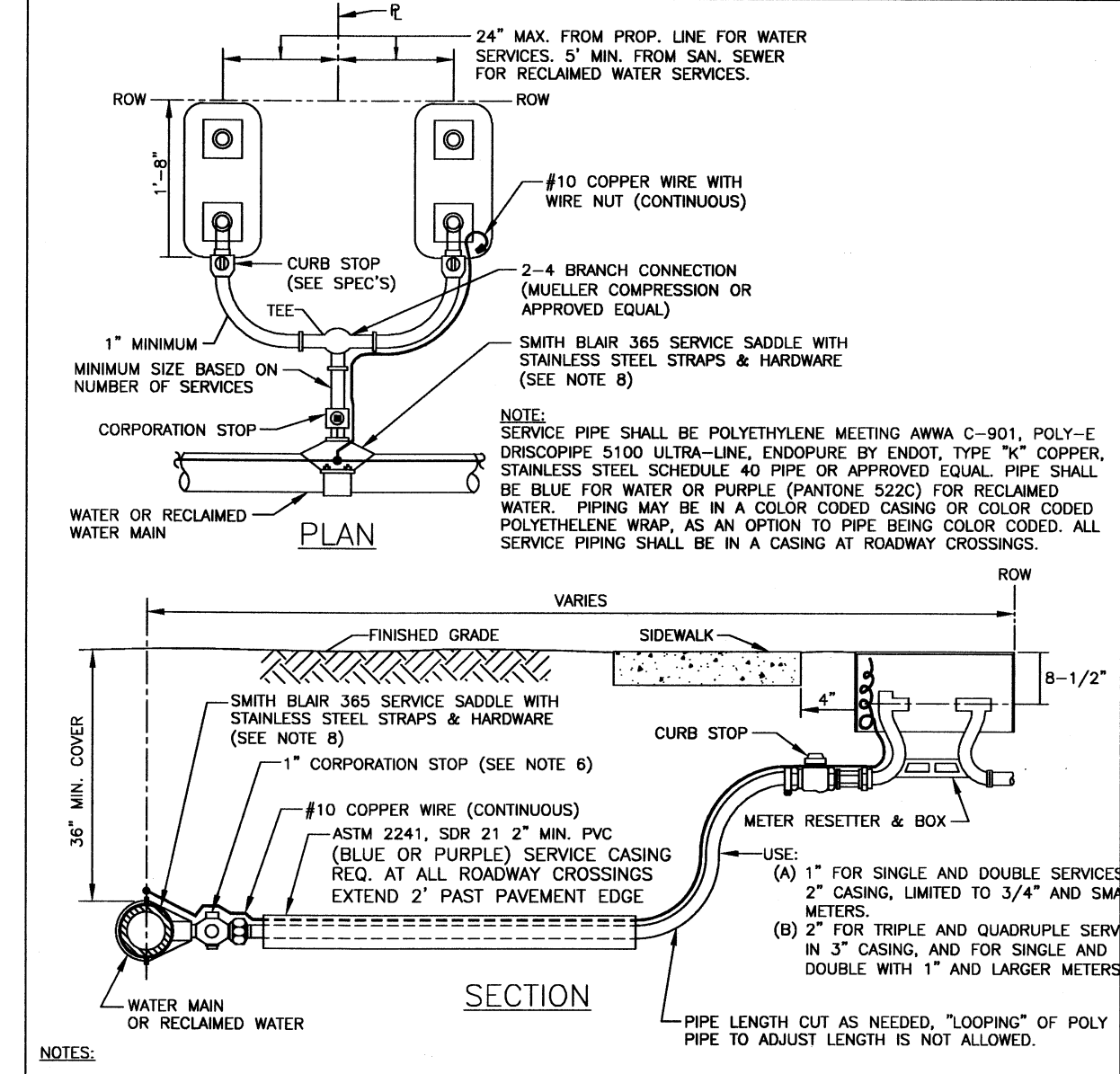
MANATEE COUNTY PUBLIC WORKS DEPARTMENT FIRE HYDRANT WITH LOCKED 90° BEND UW-6



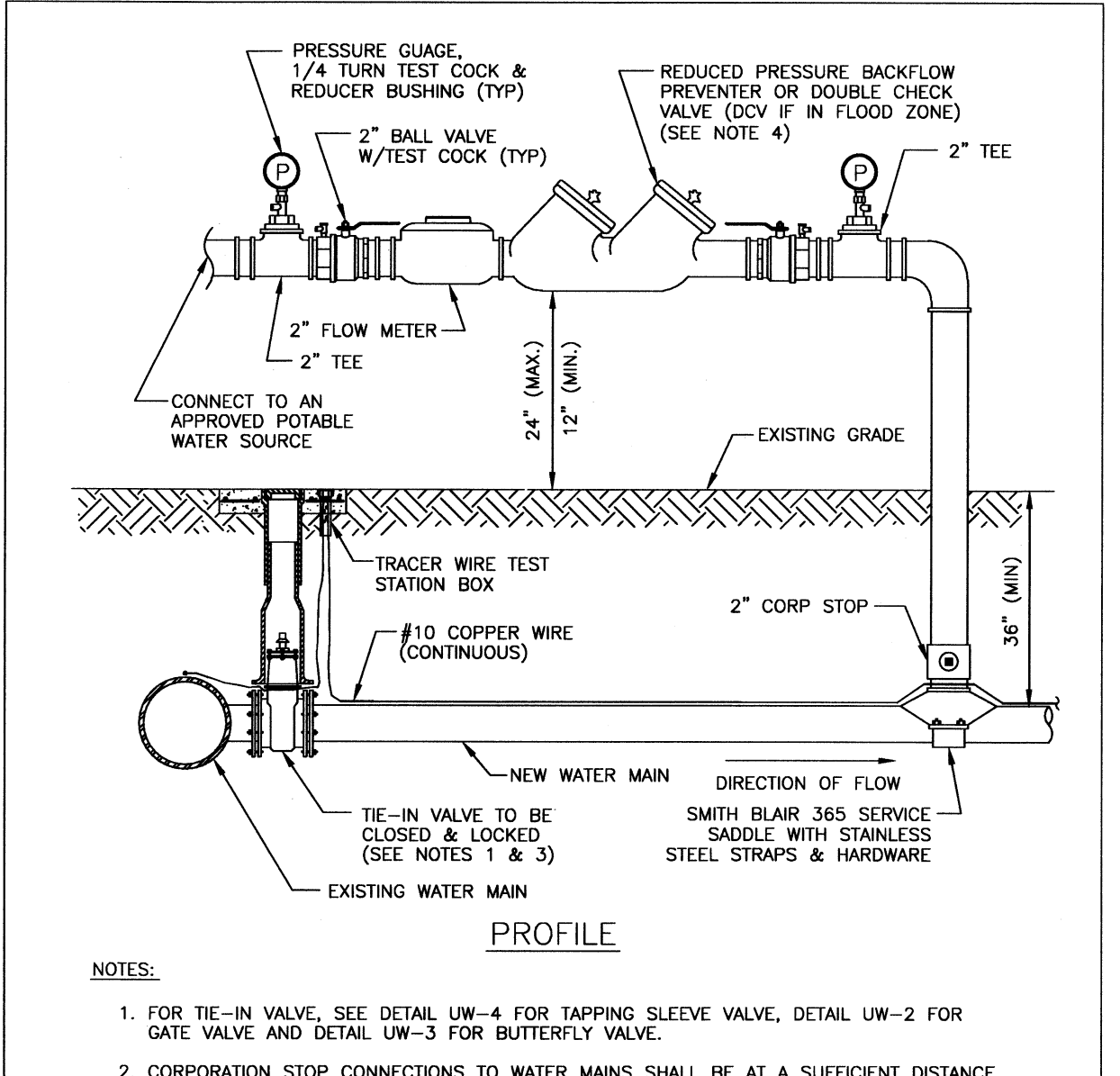
MANATEE COUNTY PUBLIC WORKS DEPARTMENT AIR RELEASE ASSEMBLY FOR 16-INCH AND LARGER MAINS UW-10



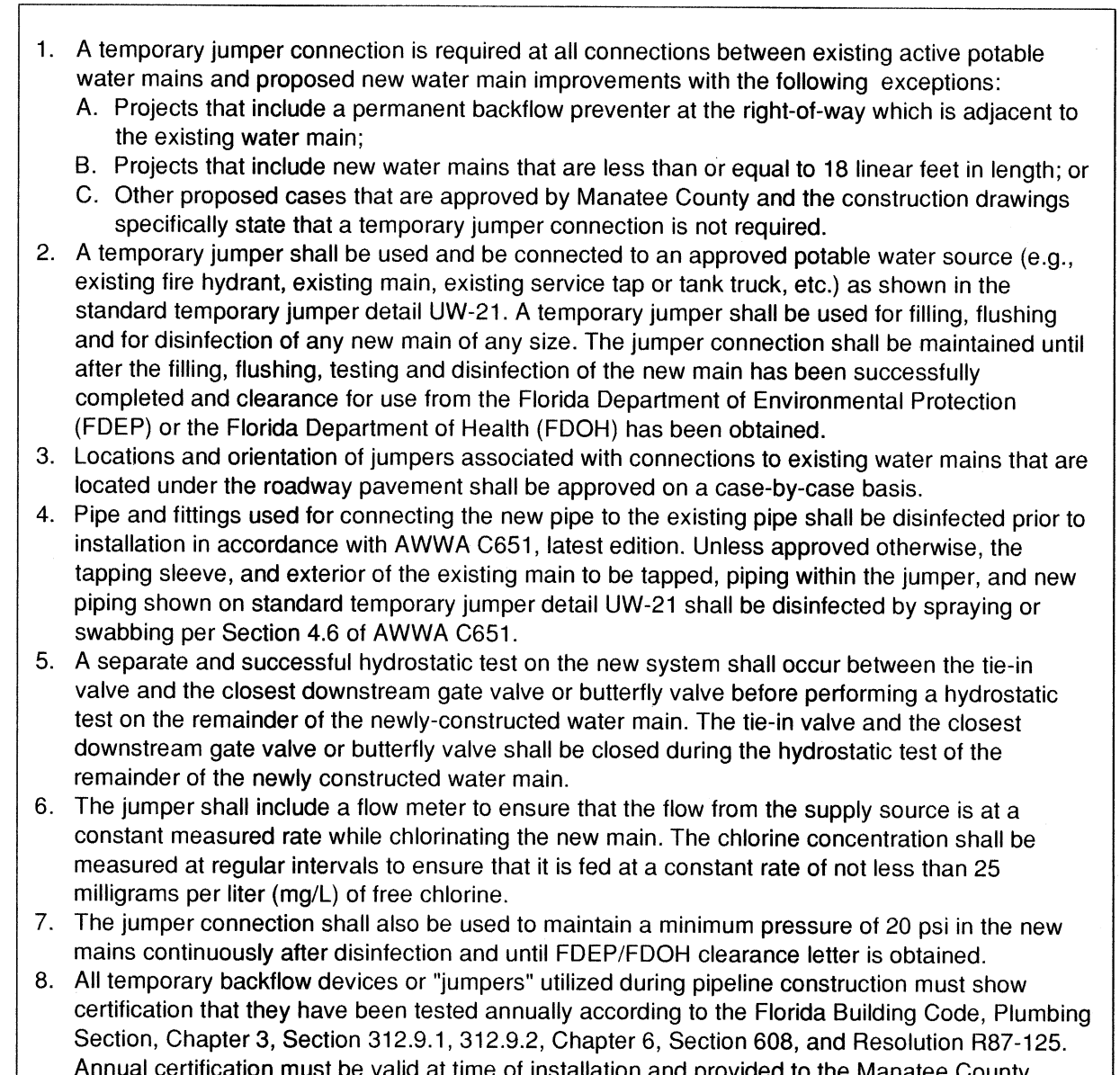
MANATEE COUNTY PUBLIC WORKS DEPARTMENT METER BOX ASSEMBLY FOR 5/8" x 3/4", 3/4" & 1" METERS UW-17



MANATEE COUNTY PUBLIC WORKS DEPARTMENT TYPICAL SERVICE CONNECTION UW-19



MANATEE COUNTY PUBLIC WORKS DEPARTMENT TEMPORARY JUMPER CONNECTION UW-21



MANATEE COUNTY PUBLIC WORKS DEPARTMENT TEMPORARY JUMPER CONNECTION NOTES UW-22

URS logo and address: 7650 West Courtney Campell Causeway, Suite 700, Tampa, Florida 33607

Table with columns: NO., BY, DATE, DESCRIPTION, REVISIONS. Includes project number 12009610 and date November 6, 2012.

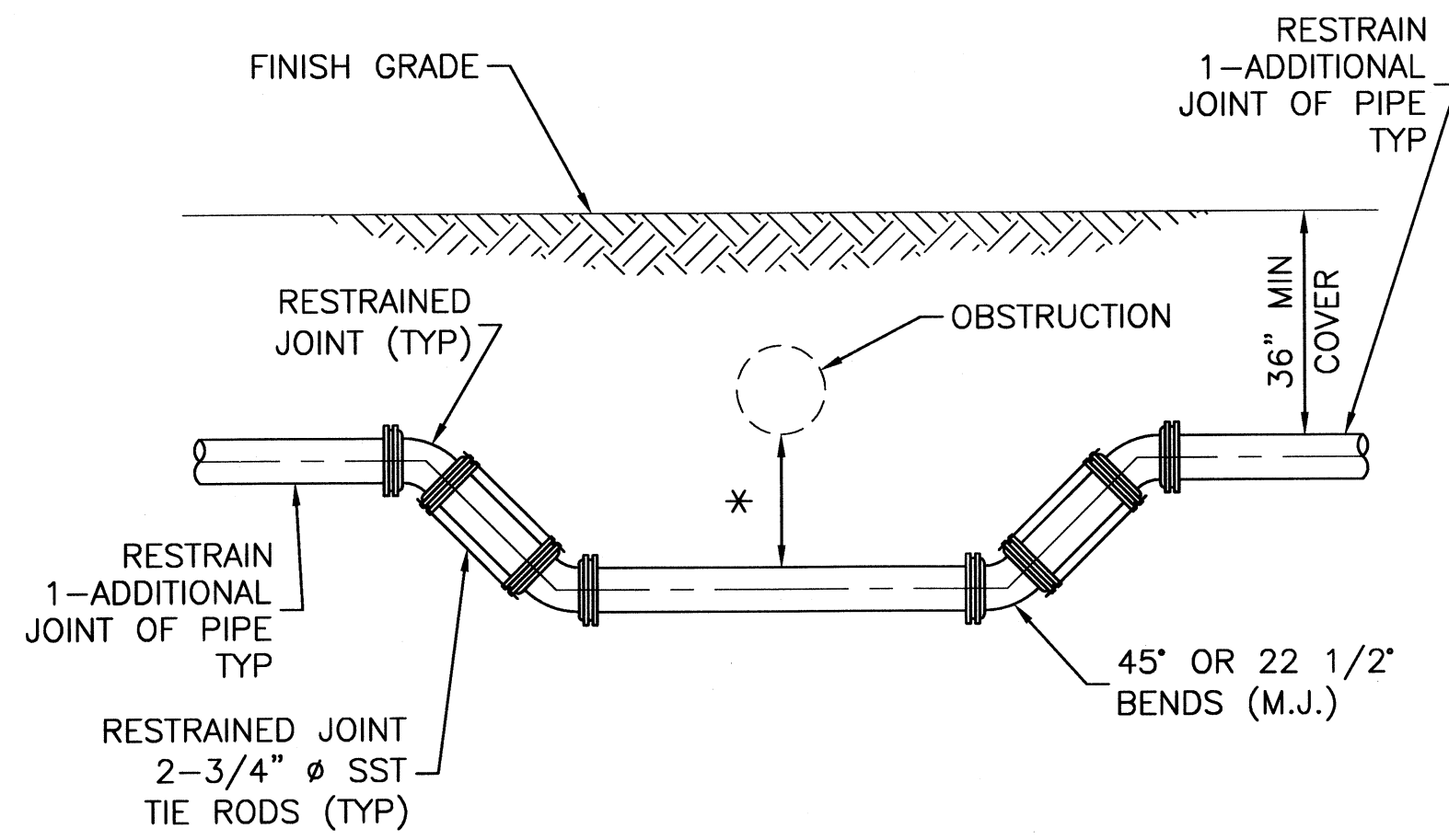
Signature of David A. Wilcox, Florida P.E. No. 34942

MANATEE COUNTY logo and project title: FT. HAMER ROAD WATER MAIN CROSSING FOR MANATEE COUNTY GOVERNMENT

CIVIL DETAILS title block

PROJECT STATUS: BID SET NOVEMBER 2012, D-2

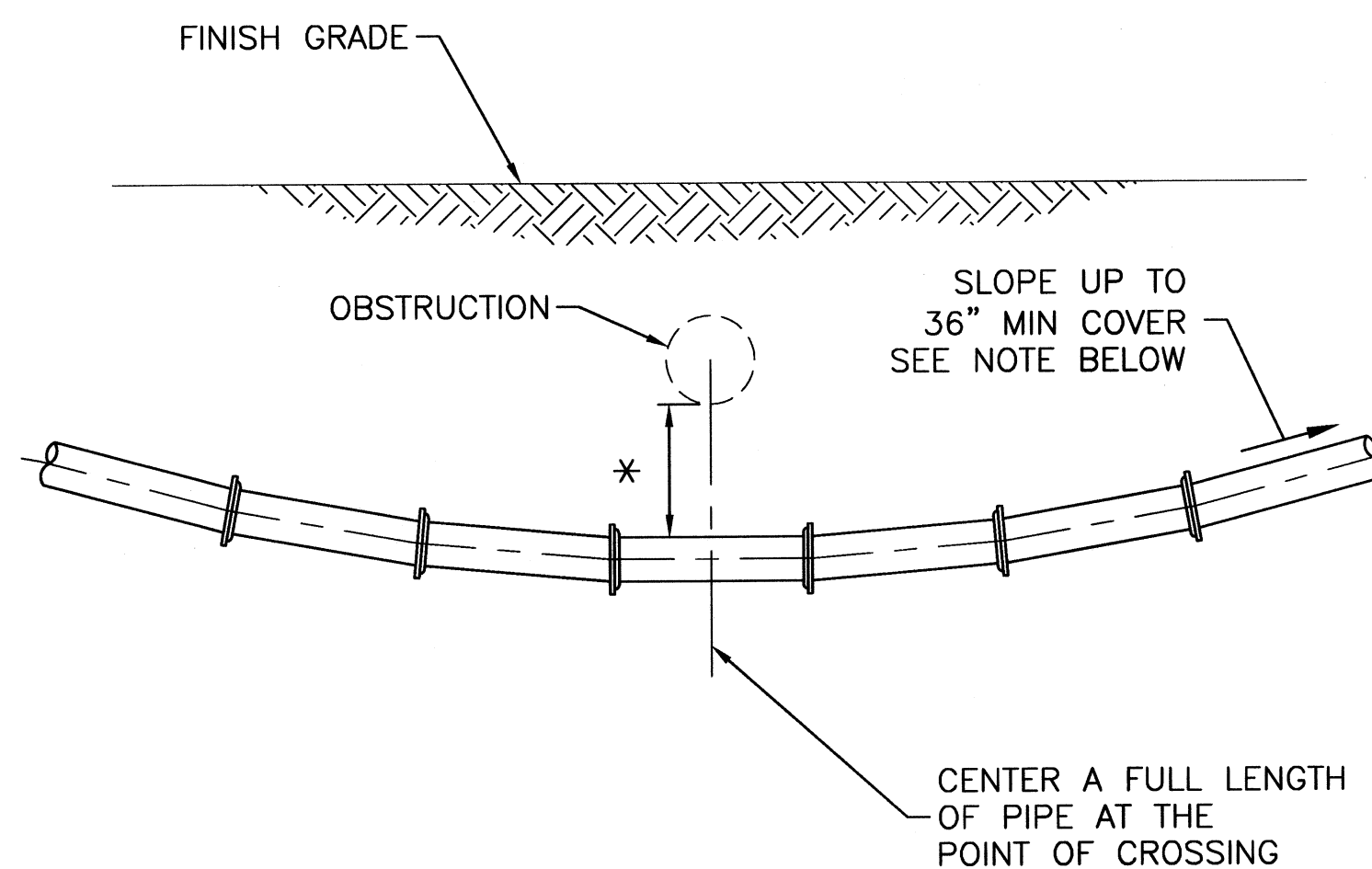
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SPECIAL UTILITY CROSSING - FITTING TYPE
NTS

* 18" MIN CLEARANCE REQUIRED FOR POTABLE WATER MAINS, RECLAIMED WATER MAINS, SANITARY GRAVITY SEWER PIPING, SANITARY FORCE MAINS, AND STORM WATER PIPES.

THE "FITTING TYPE" DETAIL SHOULD ONLY BE USED WHEN "DEFLECTION TYPE" DETAIL IS NOT POSSIBLE.



STANDARD UTILITY CROSSING - DEFLECTION TYPE
NTS

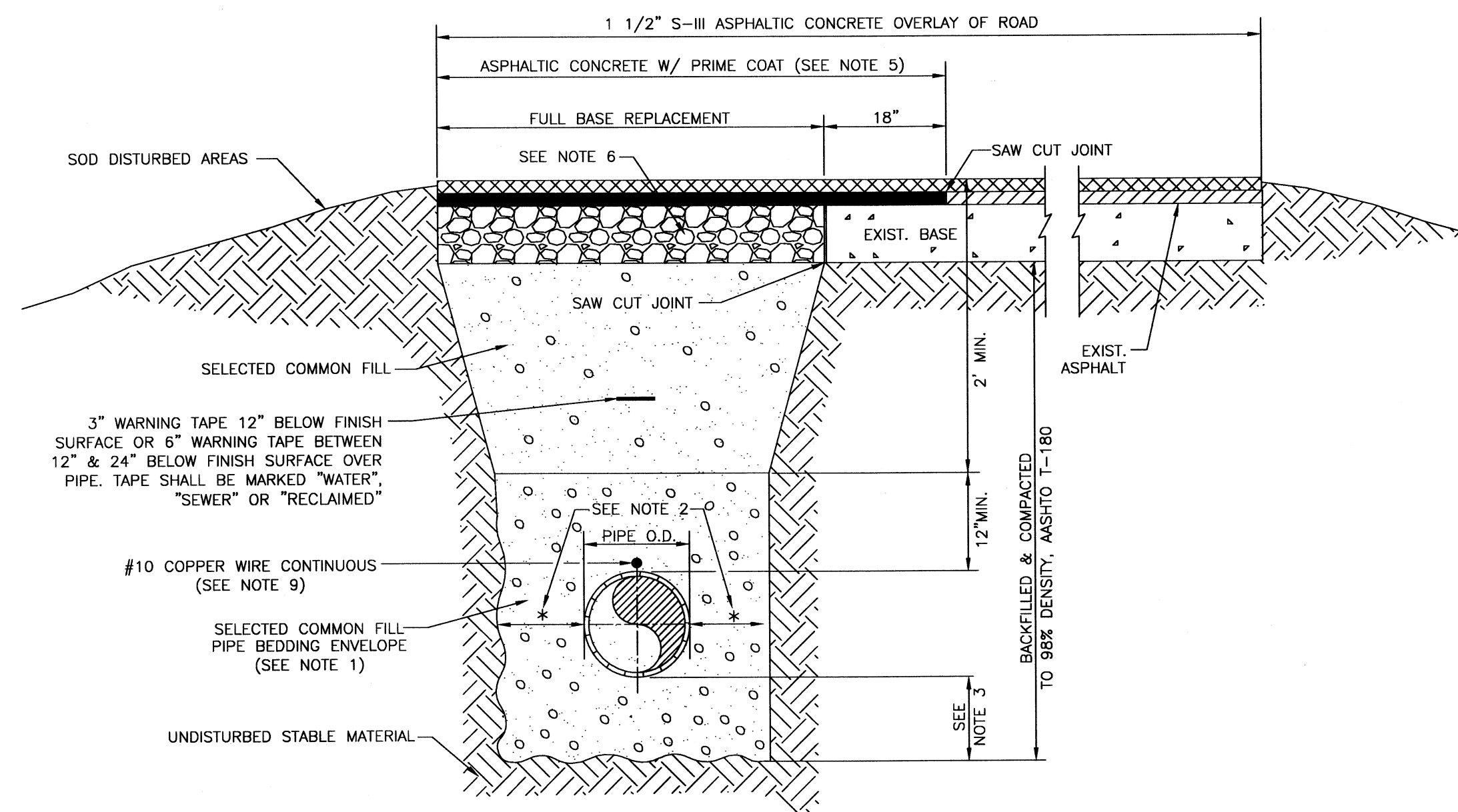
1. THE DEFLECTION TYPE CROSSING SHALL BE USED WHERE EVER POSSIBLE.
2. CONSTRUCT STANDARD CROSSING USING 75% OF MANUFACTURERS MAXIMUM JOINT DEFLECTION (MAX).
3. TIE RODS SHALL BE STAINLESS STEEL.
4. TIE RODS MAY BE OMITTED WHEN OTHER APPROVED METHODS OF RESTRAINING ARE UTILIZED.
5. CONTRACTOR SHALL COORDINATE EXISTING PIPE RELOCATIONS AND SHUT DOWNS WITH PLANT PERSONNEL.

UTILITY CROSSING

1
-
SCALE: NTS

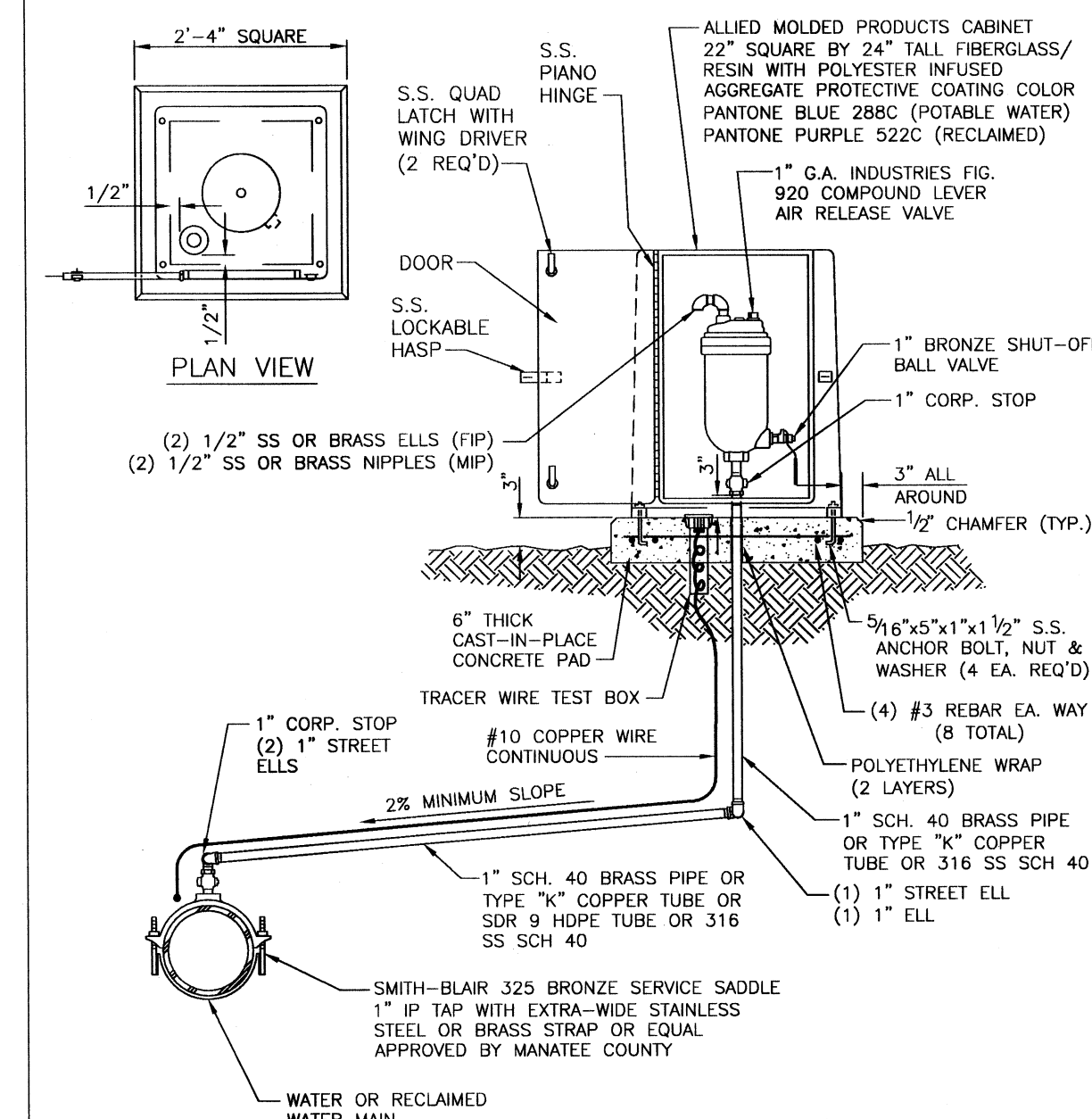
NOTES:

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2. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
3. TYPICALLY 4" TO 6".
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1 1/4 INCH, WHICHEVER IS GREATER.
6. BASE SHALL BE 8" MINIMUM THICKNESS CRUSHED CONCRETE.
7. TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
8. RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
9. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
10. NOTES 5, THRU 10, ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.



TRENCH WITH ASPHALT PAVEMENT RESTORATION ON WINDING STREAM WAY AND EMERGENCY ACCESS ROAD AT CREOLE COURT

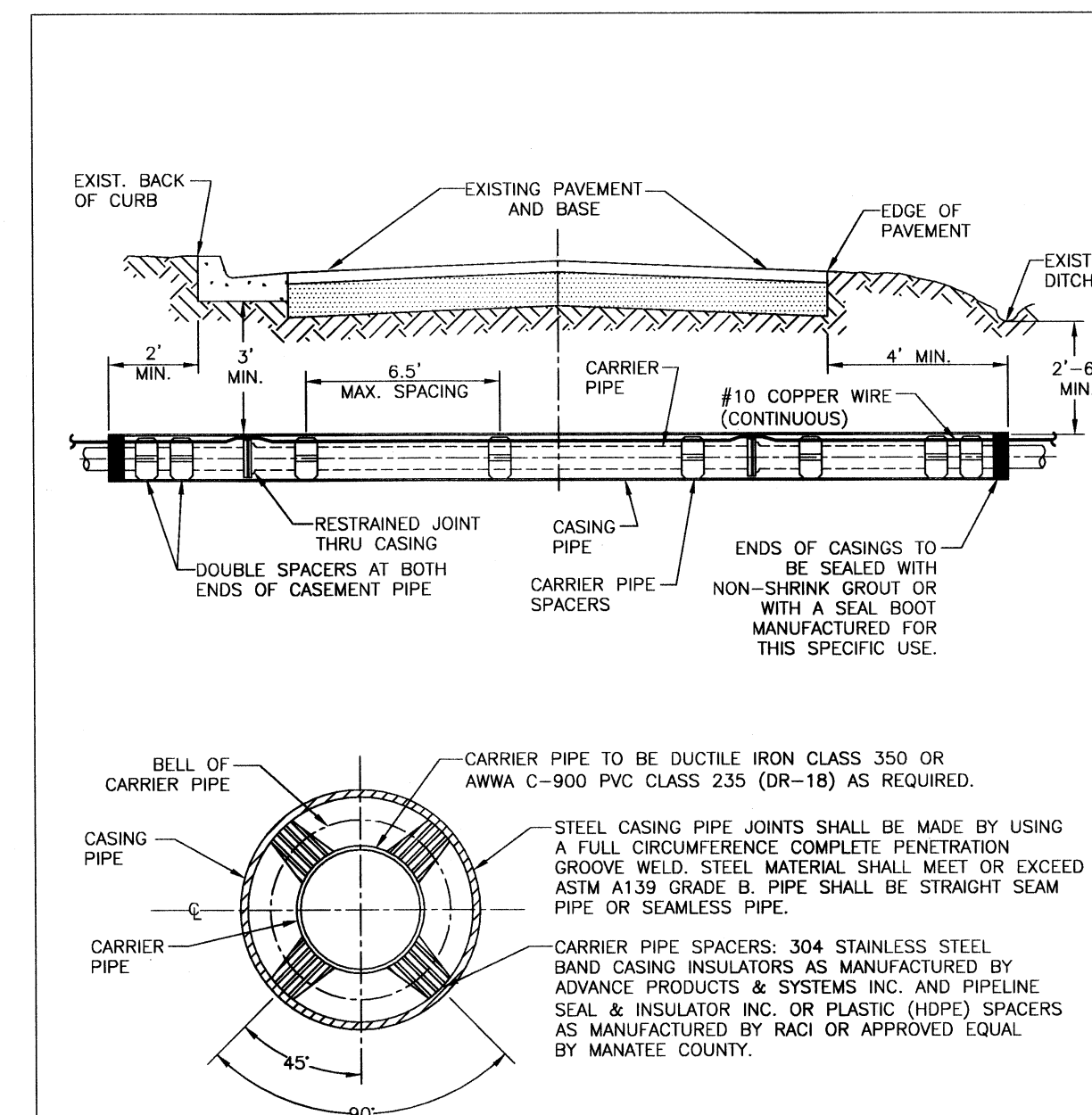
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NOTES:

1. AIR RELEASE VALVES TO BE INSTALLED AT HIGH POINTS ALONG WATER MAINS WHERE SPECIFICALLY INDICATED ON THE PLAN.
2. AIR VENT ORIFICE TO BE SIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION FOR WATER MAIN SIZE.
3. ALL INCIDENTAL FITTINGS AND HARDWARE TO BE STAINLESS STEEL, BRASS OR COPPER.
4. ALL PIPE THREADS TO BE SEALED AIR TIGHT.
5. VENT PIPE TO BE LAID ACCURATELY ON SLOPE, WITHOUT HIGH OR LOW POINTS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		ABOVE-GROUND AIR RELEASE VALVE ASSY. FOR 12-INCH AND SMALLER WATER MAINS	UW-9
REV BY	DATE	MAY 10, 2011	
CLB/KE	11/7/10	DATE OF APPROVAL	PAGE 127



	CARRIER SIZE & MINIMUM CASING SIZE								
CARRIER	4"	6"	8"	10"	12"	14"	16"	18"	20"
CASING	12"	14"	16"	20"	24"	30"	36"	36"	36"
CASING / WALL THICKNESS	0.188	0.188	0.250	0.250	0.344	0.406	0.406	0.406	0.406

NOTES:

1. THE ENGINEER OF RECORD MAY SELECT LARGER CASING DIAMETERS.
2. FOR JACK & BORE SPECIFICATIONS UNDER STATE ROADS AND RAILROADS REFER TO THE F.D.O.T. UTILITY ACCOMMODATION MANUAL, LATEST EDITION.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT		JACK & BORE CROSSING	UG-3
REV BY	DATE	MAY 10, 2011	
CLB/BR	11/7/10	DATE OF APPROVAL	PAGE 103

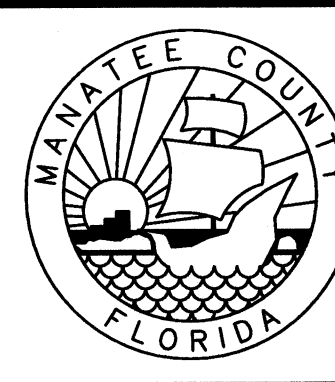


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Florida Engineering Number: 000002

NO.	BY	DATE	DESCRIPTION

URS JOB NUMBER
12009610
PM: DAVID WILCOX
ENG: DAVID WILCOX
DRW: TERRY SONNENBERG
FILE SAVE DATE:
November 6, 2012

DAVID A. WILCOX
FLORIDA P.E. NO. 34942



FT. HAMER ROAD
WATER MAIN CROSSING
FOR
MANATEE COUNTY GOVERNMENT
MANATEE COUNTY, FLORIDA

MISCELLANEOUS DETAILS

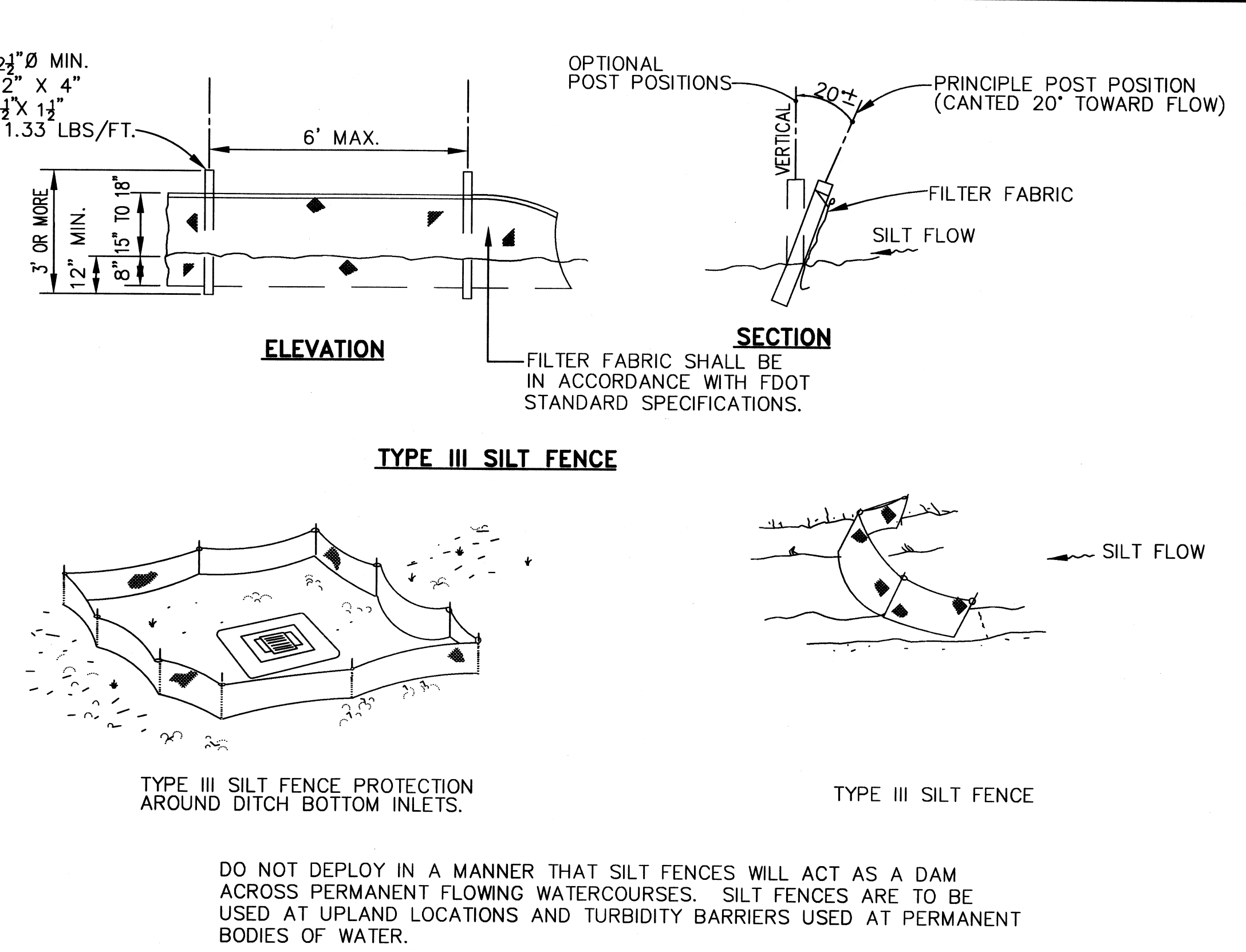
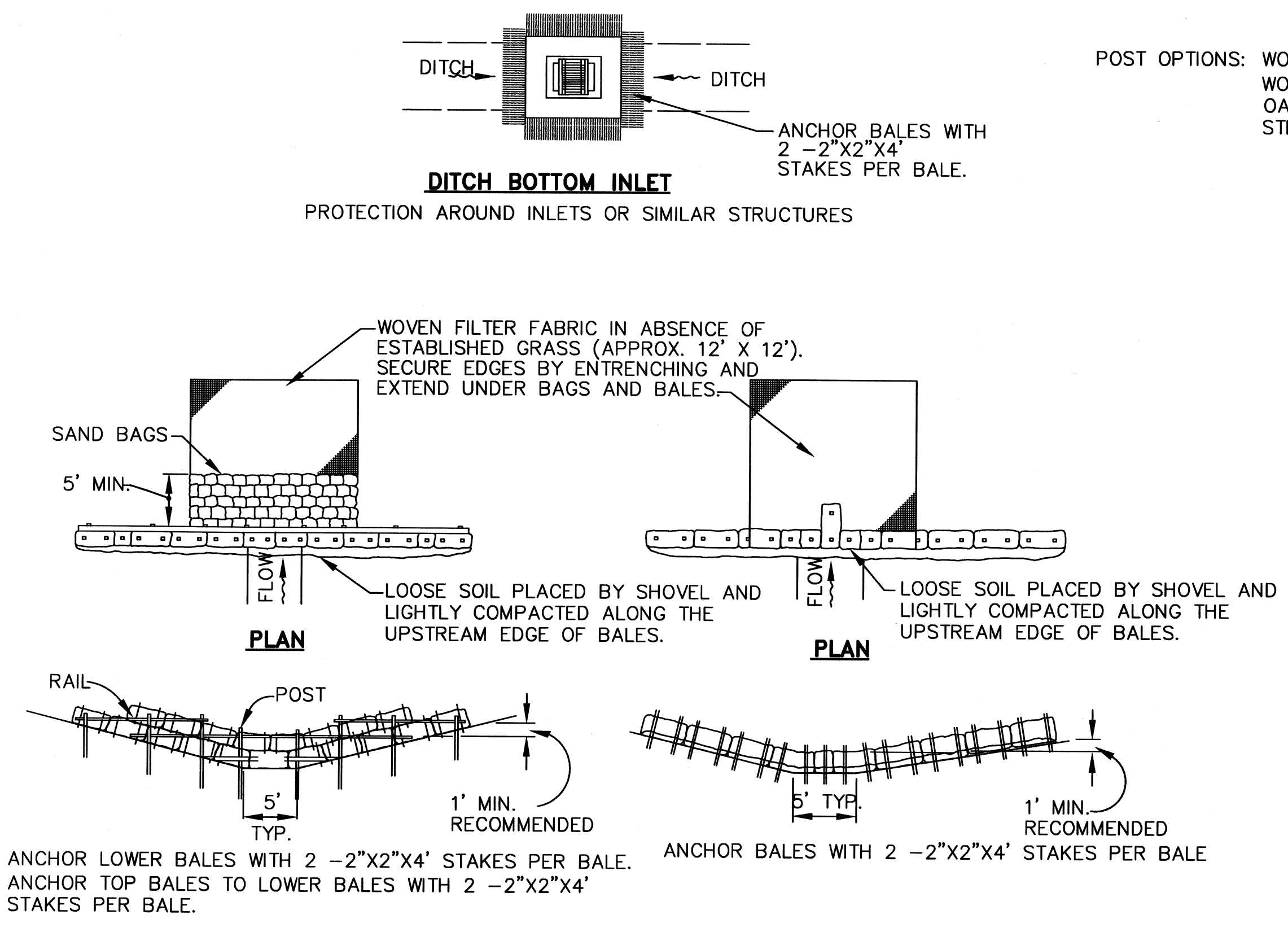
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NOVEMBER 2012

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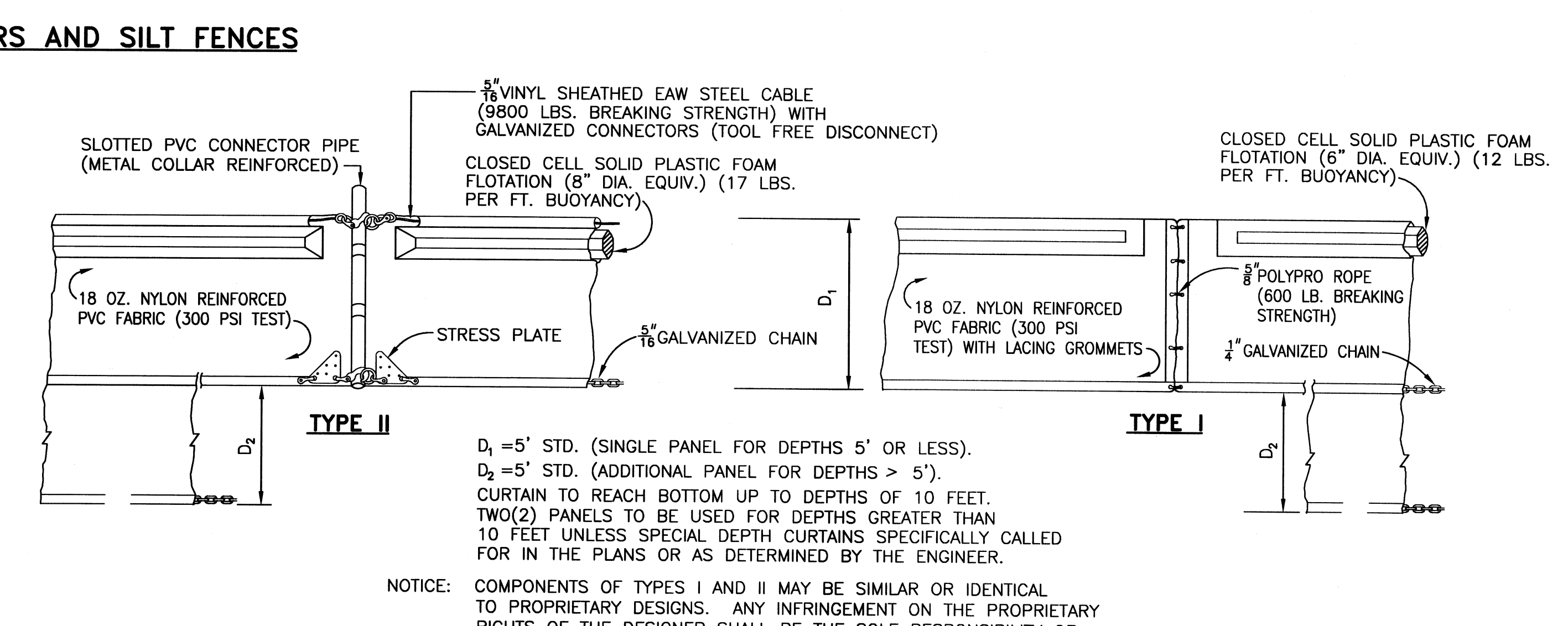
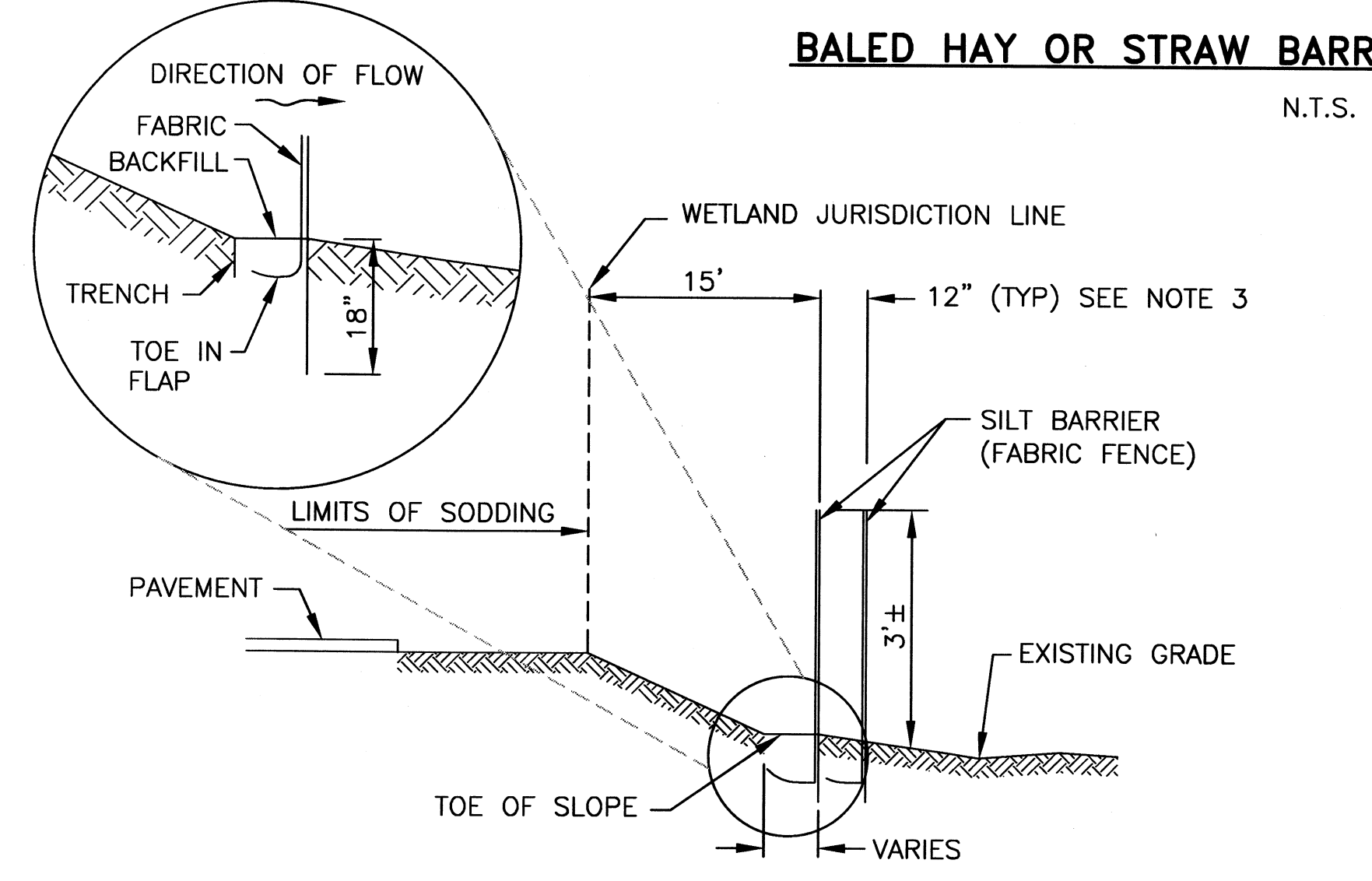
EROSION AND SEDIMENT CONTROL NOTES

- SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES: THE SEQUENCE OF MAJOR ACTIVITIES SHALL BE FOLLOWED UNLESS THE CONTRACTOR CAN PROPOSE AN ALTERNATIVE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND SEDIMENT AND IS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES.
 - PLACEMENT OF TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES
 - DEMOLITION
 - CLEARING, GRUBBING, EXCAVATION AND BACKFILLING
 - PLACEMENT OF SOD
 - REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES
- THE FOLLOWING DISCUSSION DEFINES GENERAL GUIDELINES FOR THE SEQUENCE OF CONSTRUCTION AND THE USE OF STABILIZATION AND STRUCTURAL PRACTICES. THE CONTRACTOR IS ALSO RESPONSIBLE FOR DOCUMENTING THIS PORTION OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) (IF APPLICABLE).
 THE INTENT IS TO PREVENT SEDIMENT FROM LEAVING THE PROJECT BOUNDARIES WITH THE FOLLOWING TEMPORARY BEST MANAGEMENT PRACTICES.
 - TYPE III STAKED SILT FENCE IN ACCORDANCE WITH FDOT INDEX 102 AND FDOT STANDARD SPECIFICATION 104.
 - SOIL TRACKING PREVENTION DEVICE IN ACCORDANCE WITH FDOT INDEX 106.
- ALL EROSION AND SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO ANY SOIL DISTURBANCE.
- THE LOCATIONS OF THESE TEMPORARY CONTROLS ARE SHOWN ON THE PLANS. ADDITIONAL TEMPORARY CONTROLS SHALL BE INSTALLED AS REQUIRED OR AS DIRECTED BY THE ENGINEER.
- THERE ARE NO PERMANENT EROSION AND SEDIMENT CONTROLS OTHER THAN THE STABILIZATION OF SURFACES DISTURBED DURING CONSTRUCTION. DISTURBED AREAS, OTHER THAN ROADWAY SURFACES, SHALL BE STABILIZED WITH SOD NOT MORE THAN 7 DAYS AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED IN THAT PORTION OF THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THE USE OF ALL TEMPORARY EROSION CONTROL BEST MANAGEMENT PRACTICES.
- THE CONTRACTOR SHALL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION ACTIVITIES. ALL FERTILIZER, HYDROCARBON OR OTHER CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO THE EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER. NO SOLID MATERIALS SHALL BE DISCHARGED TO SURFACE WATERS OR WETLAND OR BURIED ON-SITE. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THIS PORTION OF THE SWPPP (IF APPLICABLE).
- A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS SHALL COLLECT ALL SANITARY WASTE FROM PORTABLE UNITS. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THIS PORTION OF THE SWPPP (IF APPLICABLE).
- QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS OR WITHIN 24 HOURS OF THE END OF A RAINFALL THAT IS 0.25 INCHES OR GREATER. INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH WHERE SITES HAVE BEEN FINALLY STABILIZED.
 - DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
 - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
 - SILT FENCES AND SOIL TRACKING PREVENTION DEVICES.
- DAMAGED SILT FENCES TURBIDITY SCREENS, AND SOIL TRACKING PREVENTION DEVICES SHALL BE REPLACED IMMEDIATELY. SILT FENCES AND SOIL TRACKING PREVENTION DEVICES SHALL REMAIN UNTIL THE SITE HAS BEEN FULLY STABILIZED. THE CONTRACTOR SHALL NOT REMOVE SILT FENCES AND SOIL TRACKING PREVENTION DEVICES UNLESS THEY ARE DAMAGED AND NEED TO BE REPLACED. SILT FENCES AND SOIL TRACKING PREVENTION DEVICES WILL REMAIN INSTALLED AFTER CONSTRUCTION IS COMPLETE. SILT FENCES AND SOIL TRACKING PREVENTION DEVICES SHALL BE REMOVED FOLLOWING PROJECT COMPLETION AND SOIL STABILIZATION OR AS DIRECTED BY THE ENGINEER.



BARRIER FOR UNPAVED DITCHES

BALED HAY OR STRAW BARRIERS AND SILT FENCES



- FABRIC FENCE SILT-BARRIER**
- N.T.S.
- NOTES:
- CONTRACTOR IS REQUIRED TO PREVENT ANY SEDIMENT TRANSPORT FROM THE PROJECT SITE ON TO ADJACENT PROPERTY. INSTALLATION OF EITHER BALED HAY OR FABRIC FENCE TYPE SILT BARRIER IS ACCEPTABLE. THE BARRIER MUST REMAIN IN PLACE UNTIL UPLAND VEGETATION IS ESTABLISHED.
 - BEFORE REMOVING SILT BARRIER, CONTRACTOR SHALL COLLECT AND DISPOSE OF ANY ACCUMULATED SILT.
 - SECOND ROW OF SILT FENCE TO BE PLACED IN WETLAND AREAS ONLY. IF 12" DISTANCE CANNOT BE MAINTAINED DUE TO TREES OR VEGETATION, SILT SCREEN SHALL BE PLACED AROUND PERIMETER OF VEGETATION TOWARD AREA OF CONSTRUCTION

URS

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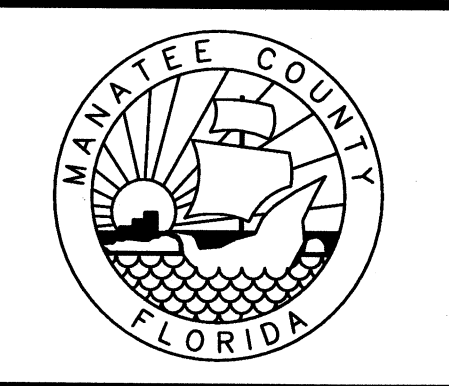
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FT. HAMER ROAD
 WATER MAIN CROSSING
 FOR
 MANATEE COUNTY GOVERNMENT
 MANATEE COUNTY, FLORIDA

MISCELLANEOUS DETAILS

D-4

PROJECT STATUS
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