

1. REPLACE STRIPING TO MATCH EXISTING; ALL STRIPING SHALL BE THERMOPLASTIC.
2. REPLACE ALL SIGNS WITH NEW SIGNS, POSTS, AND HARDWARE TO MEET CURRENT COLLIER COUNTY AND FDOT SPECIFICATIONS/STANDARDS.



REVISION	DATE	DESCRIPTION	BY

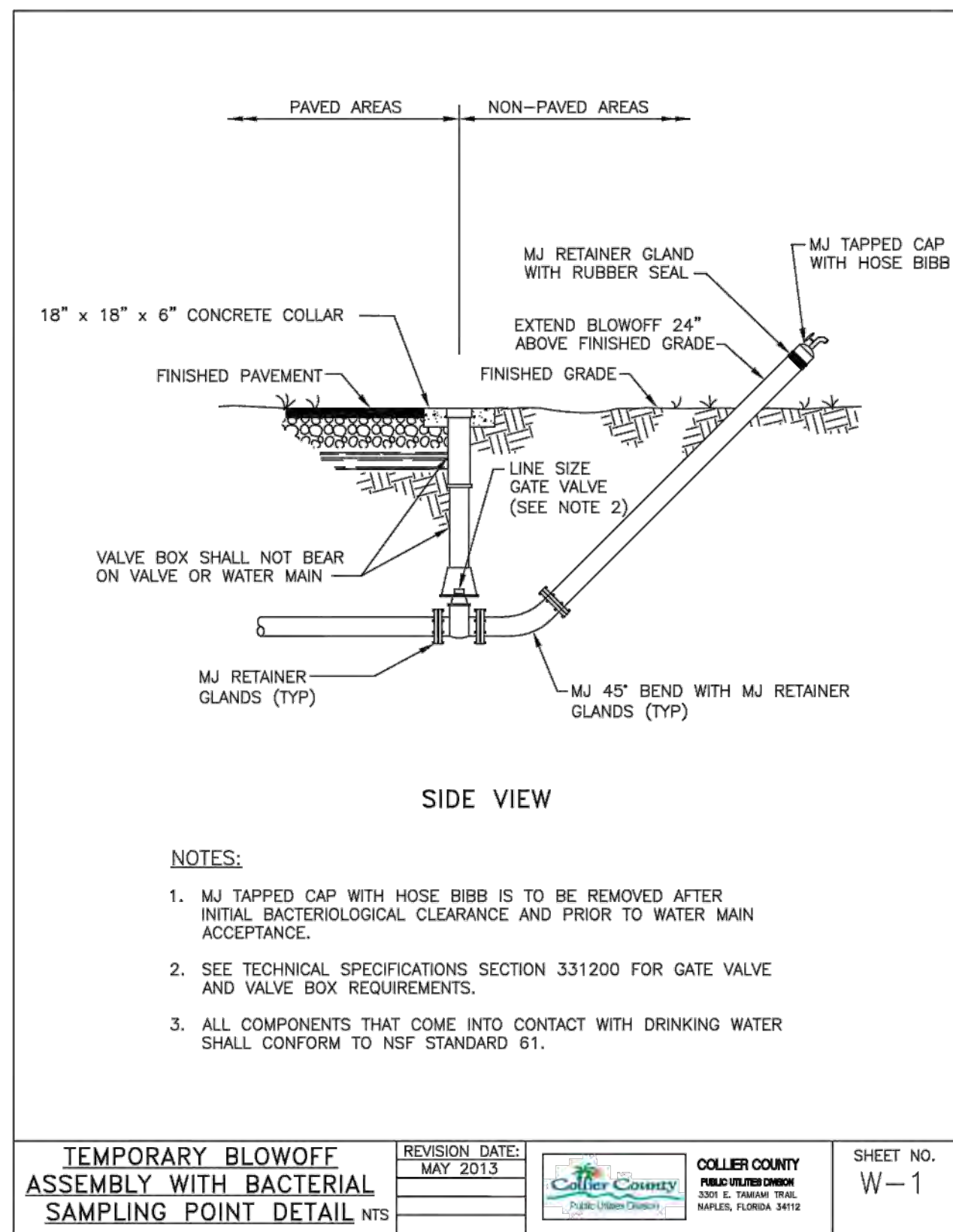
DESIGNED BY: J.N.D.
 DRAWN BY: R.A.K.
 APPROVED: J.A.F.
 JOB CODE: CCU285
 22x34 SCALE: 1" = 20'
 11x17 SCALE: 1" = 40'

GradyMinor
 Civil Engineers • Land Surveyors • Planners • Landscape Architects
 Cert. of Auth. EB 0005151 Cert. of Auth. LB 0005151
 Bonita Springs: 239.947.1144 www.GradyMinor.com Fort Myers: 239.690.4380

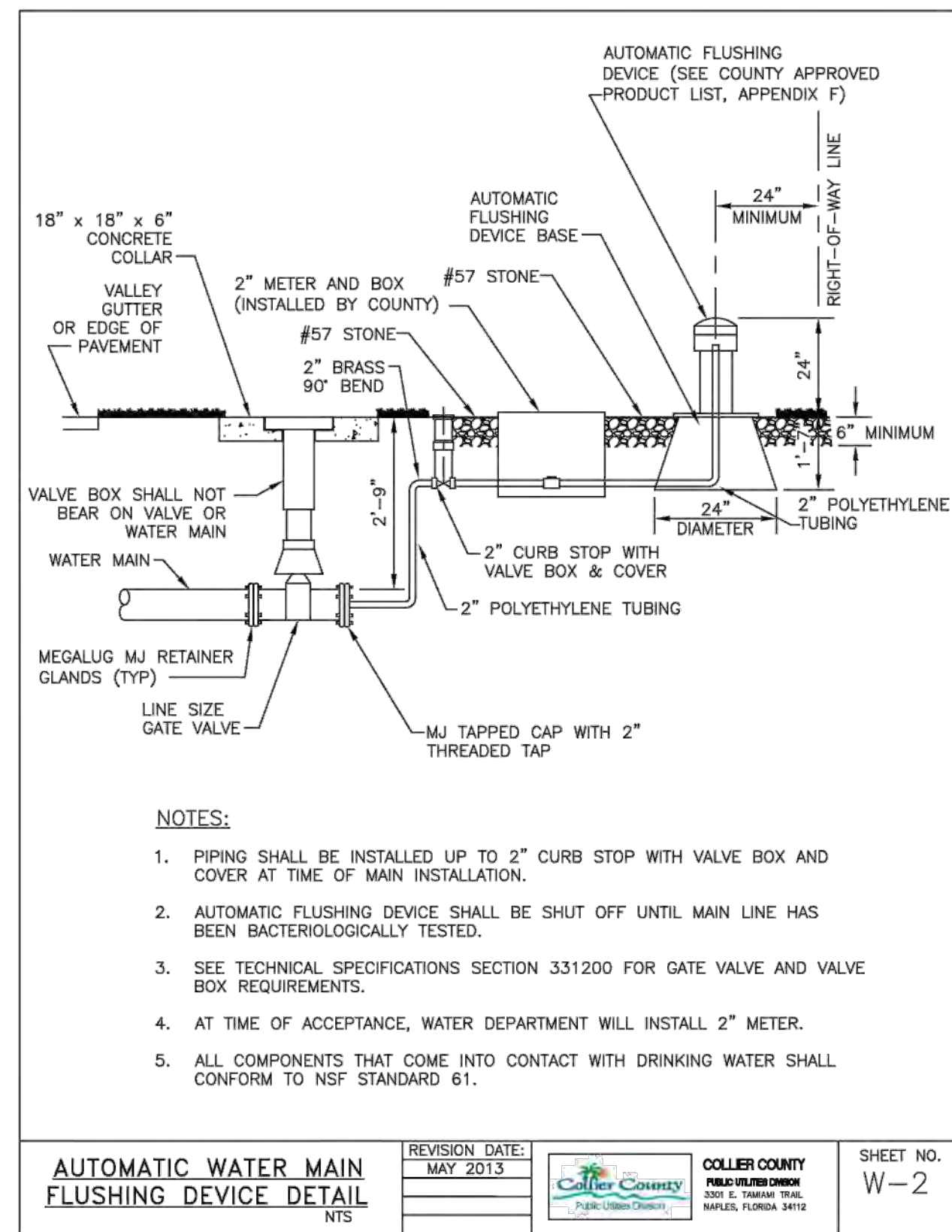
88TH & 99TH AVENUE NORTH - PUBLIC UTILITIES RENEWAL
 8TH ST. N. - GRADING AND PAVING PLAN
 STA. 0+00.00 TO 9+90.00
 ELEVATIONS SHOWN HEREON ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29)
 CONVERSION FACTOR TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) IS (-) 1.237

MUNICIPALITY: COLLIER COUNTY
 SEC/TWN/RGE: 28/48/25
 DATE: MARCH, 2022
 SUBMITTAL TYPE: BID
 SHEET 91 OF 99

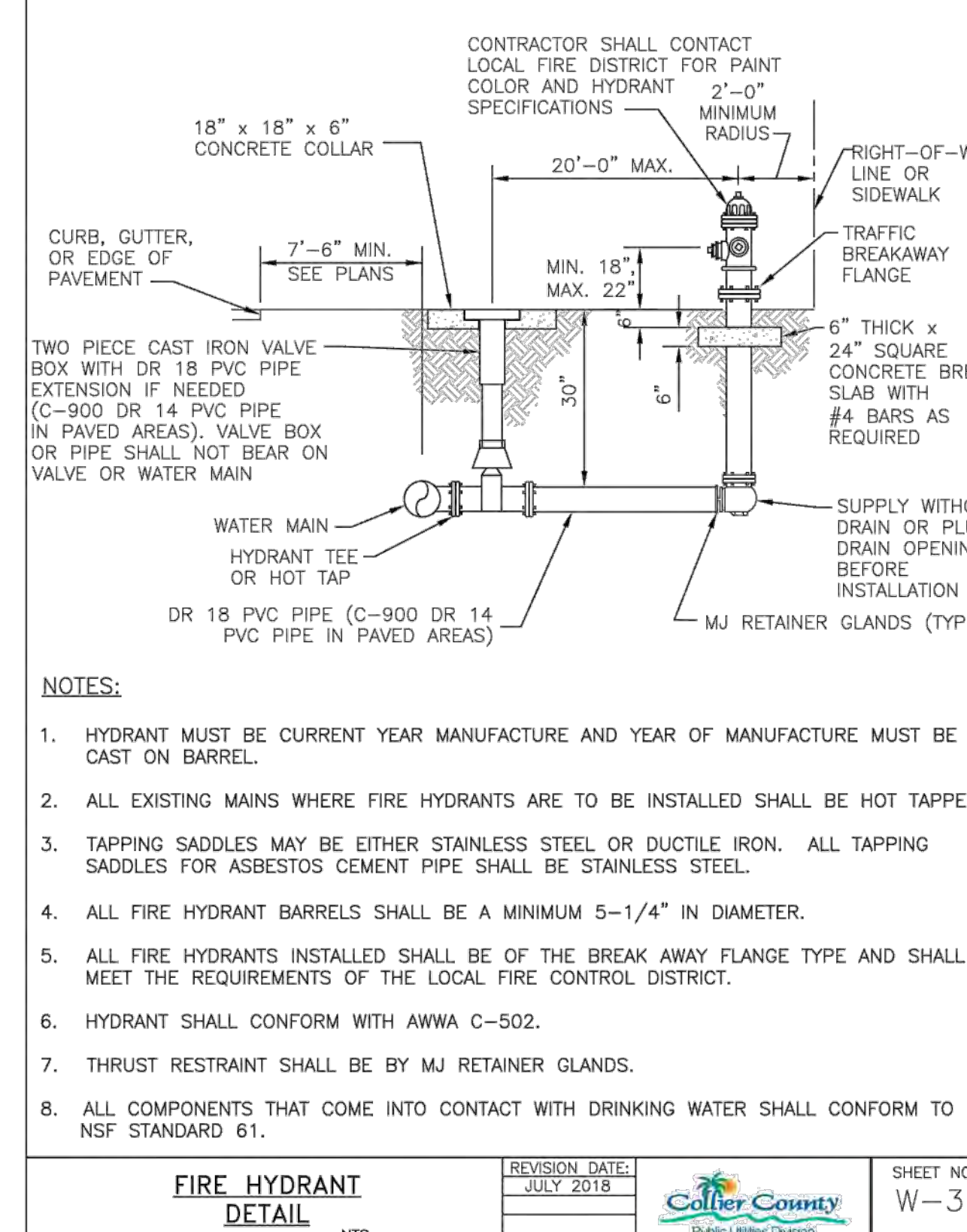
JUSTIN A. FREDERIKSEN, P.E.
 FLORIDA P.E. LICENSE NO. 66086



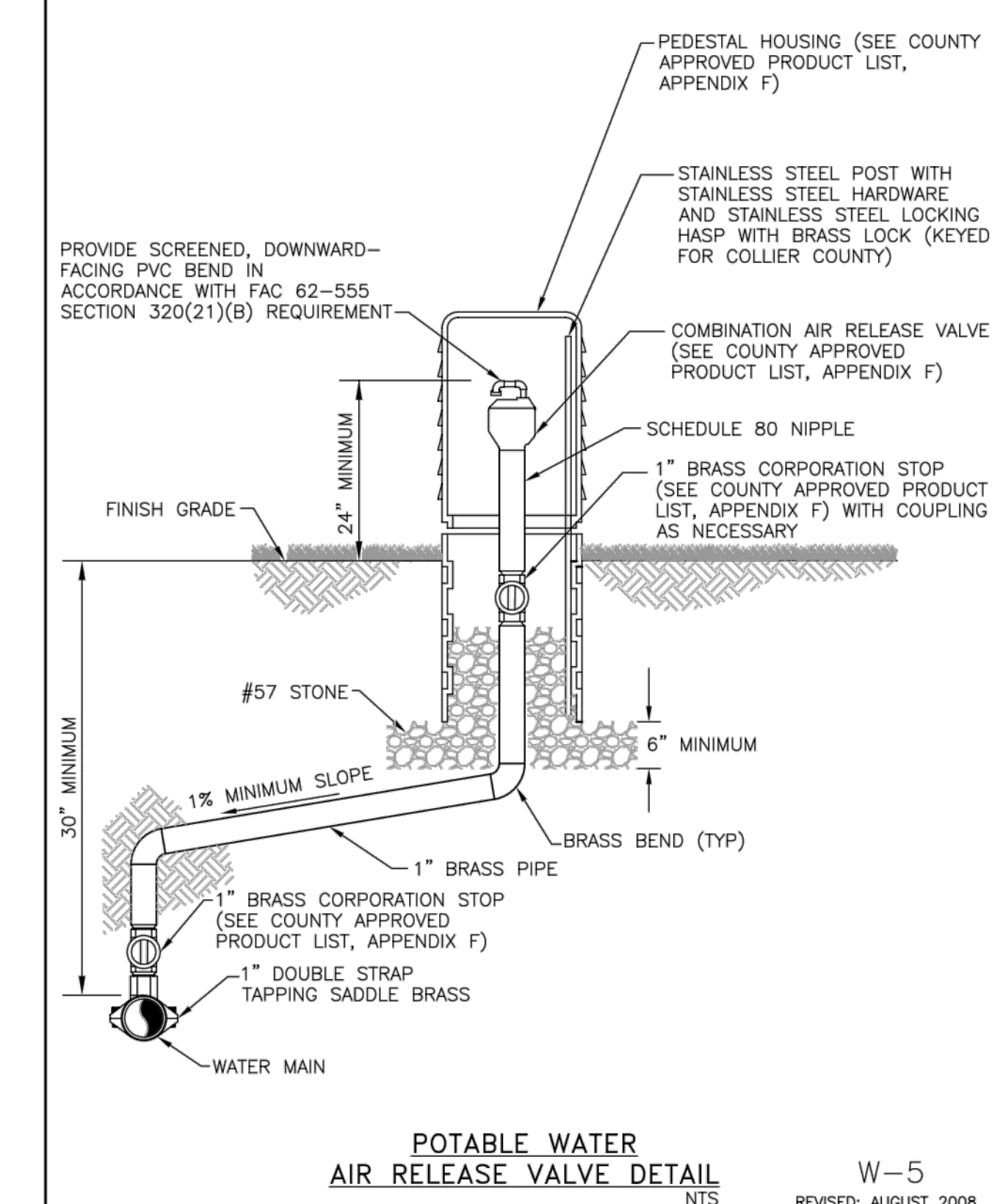
TEMPORARY BLOWOFF ASSEMBLY WITH BACTERIAL SAMPLING POINT DETAIL NTS	REVISION DATE: MAY 2013	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-1
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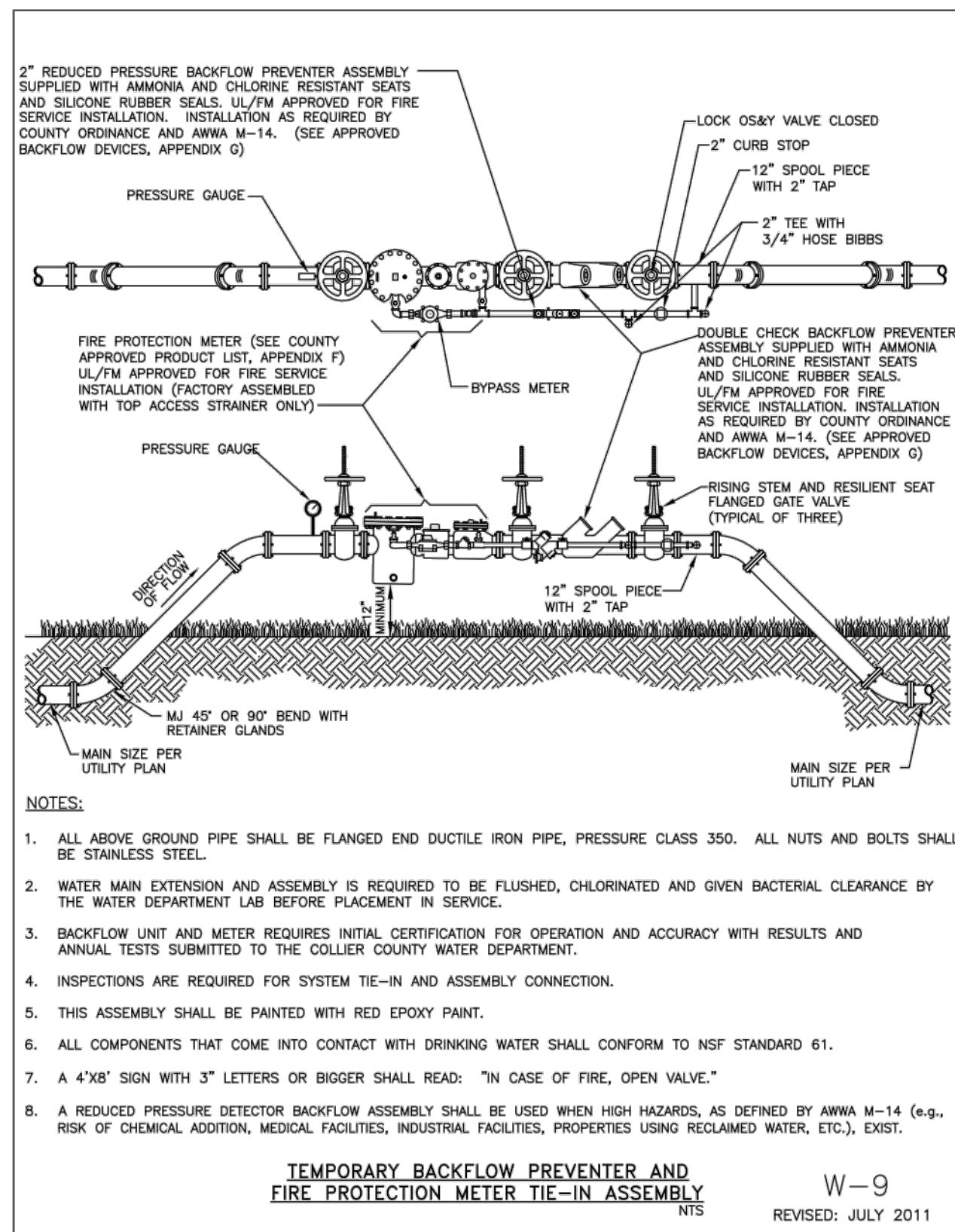
AUTOMATIC WATER MAIN FLUSHING DEVICE DETAIL NTS	REVISION DATE: MAY 2013	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-2
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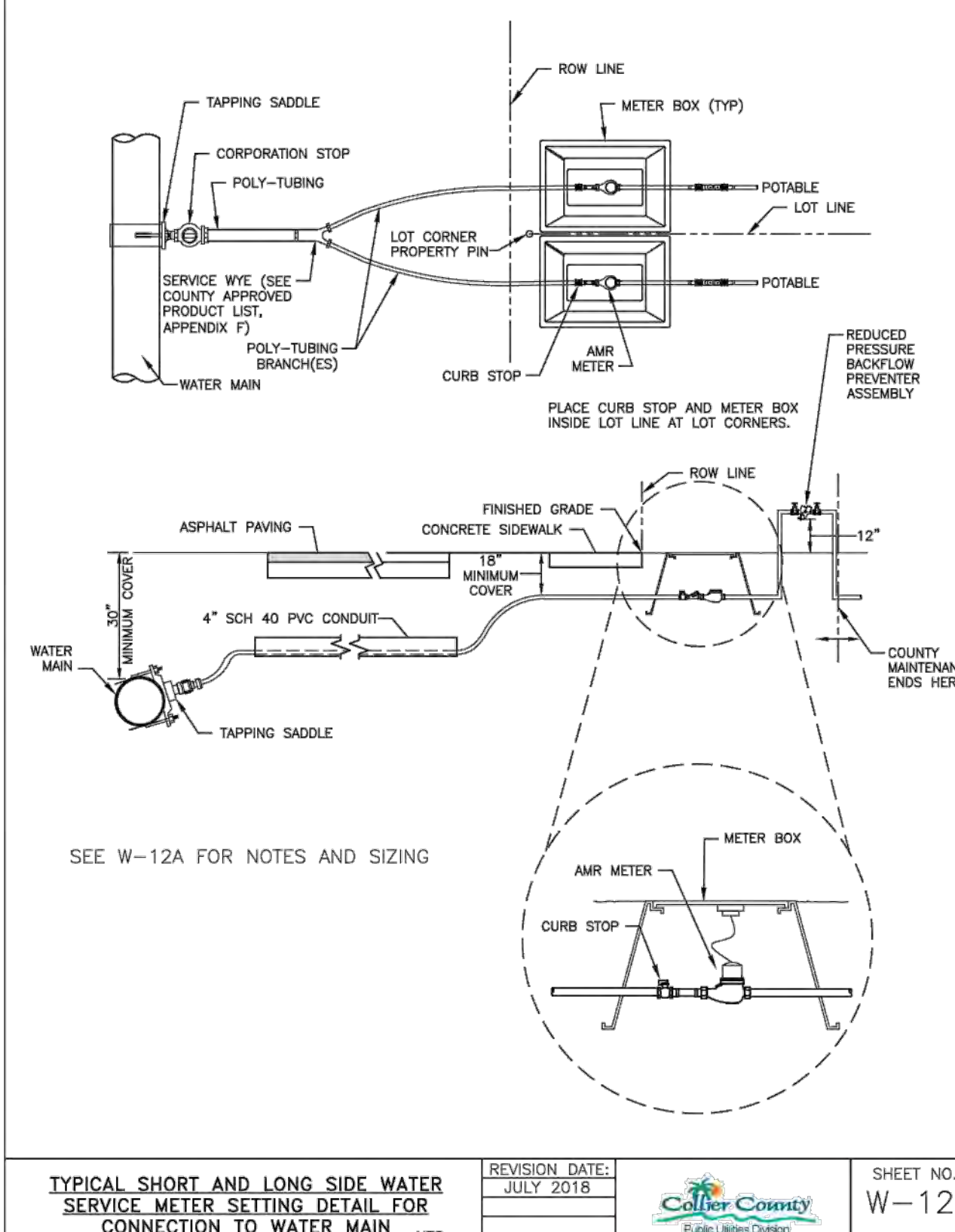
FIRE HYDRANT DETAIL NTS	REVISION DATE: JULY 2018	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-3
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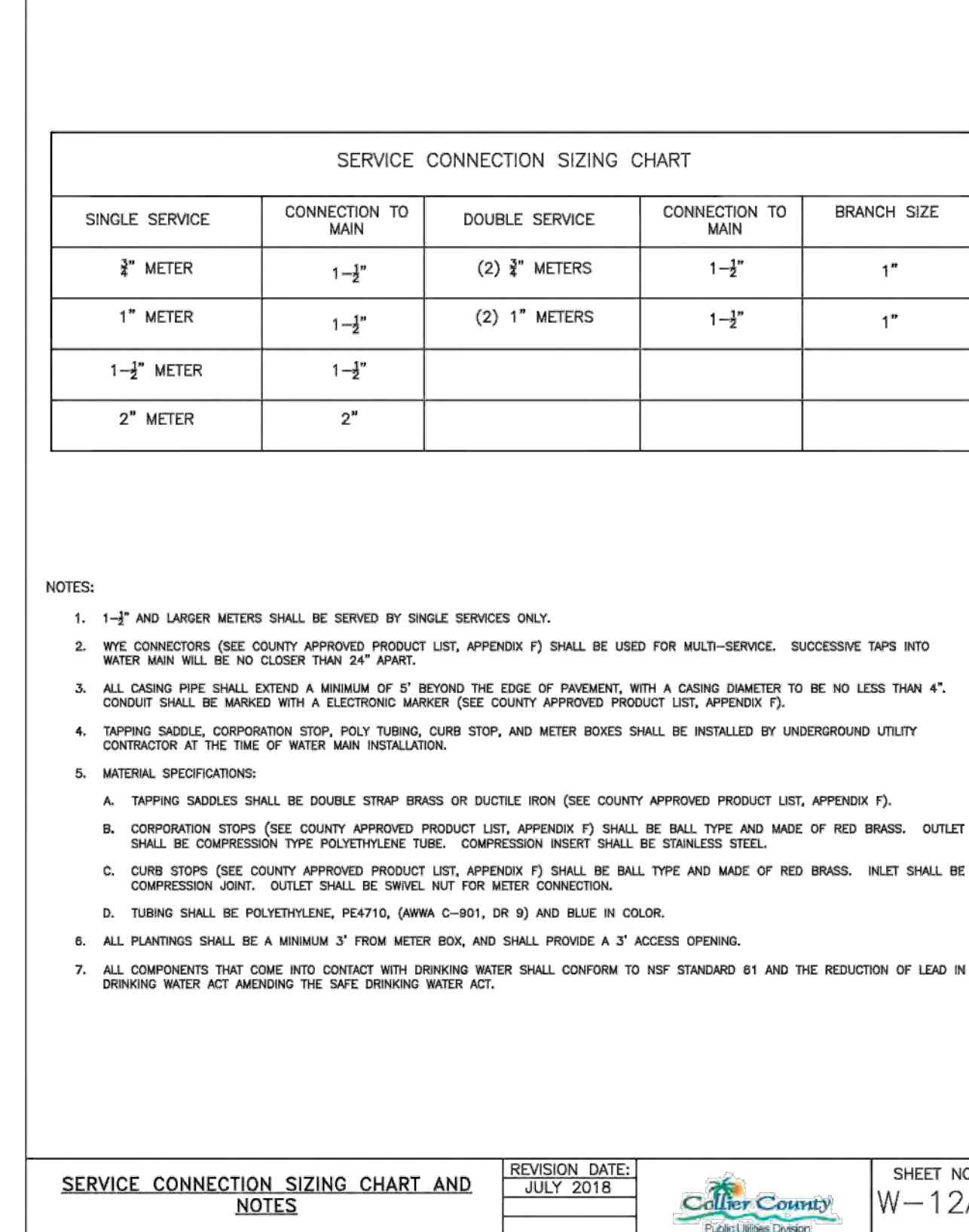
POTABLE WATER AIR RELEASE VALVE DETAIL NTS	REVISION DATE: AUGUST 2008	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-5
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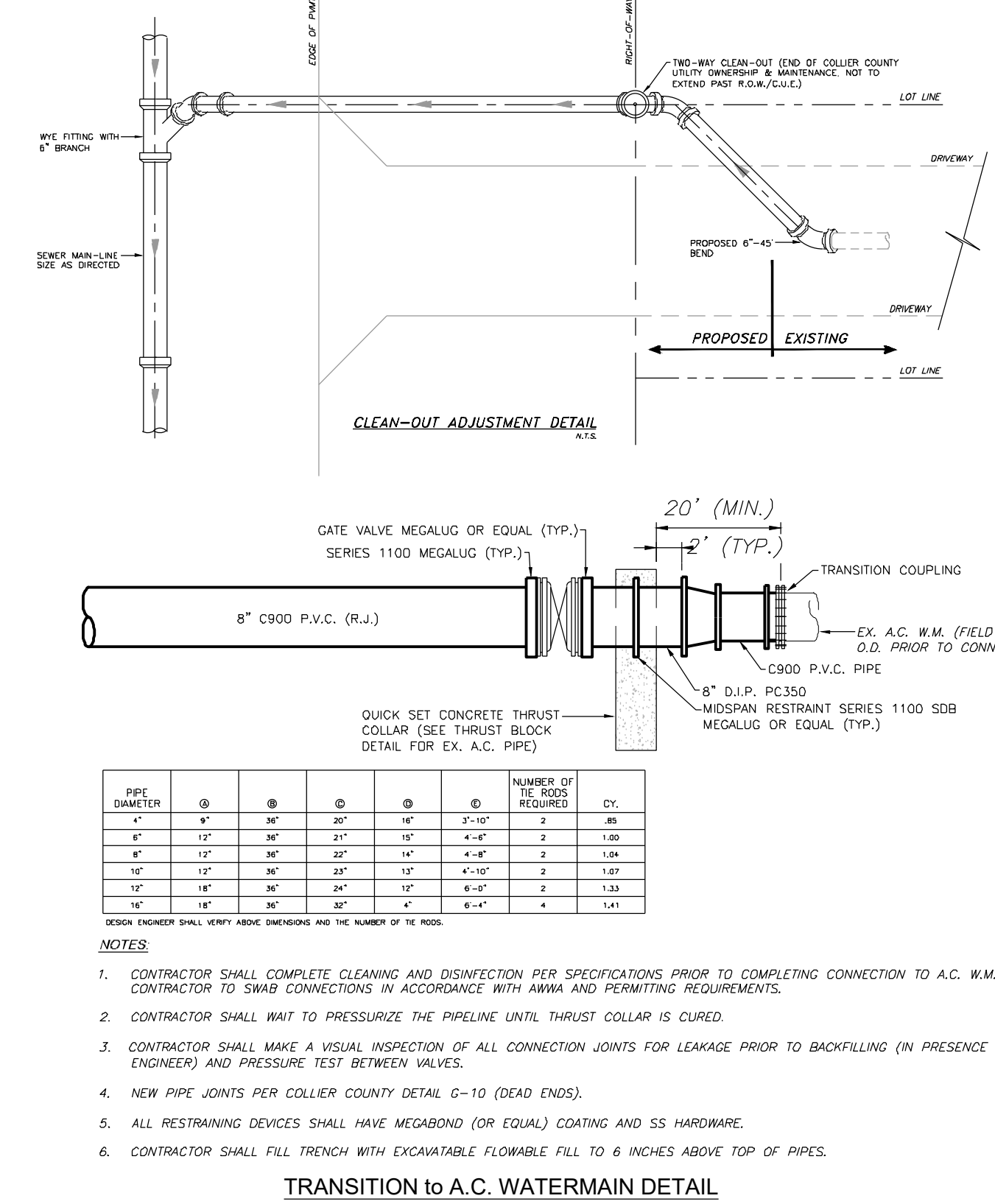
TEMPORARY BACKFLOW PREVENTER AND FIRE PROTECTION METER TIE-IN ASSEMBLY NTS	REVISION DATE: JULY 2011	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-9
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TYPICAL SHORT AND LONG SIDE WATER SERVICE METER SETTING DETAIL FOR CONNECTION TO WATER MAIN NTS	REVISION DATE: JULY 2018	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-12
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SERVICE CONNECTION SIZING CHART AND NOTES	REVISION DATE: JULY 2018	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-12A
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TRANSITION TO A.C. WATERMAIN DETAIL NOT TO SCALE	REVISION DATE: JULY 2018	COLLIER COUNTY PUBLIC UTILITIES DIVISION 300 E. MARSH TRAIL NAPLES, FLORIDA 34102	SHEET NO. W-12A
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REVISION	DATE	DESCRIPTION	BY

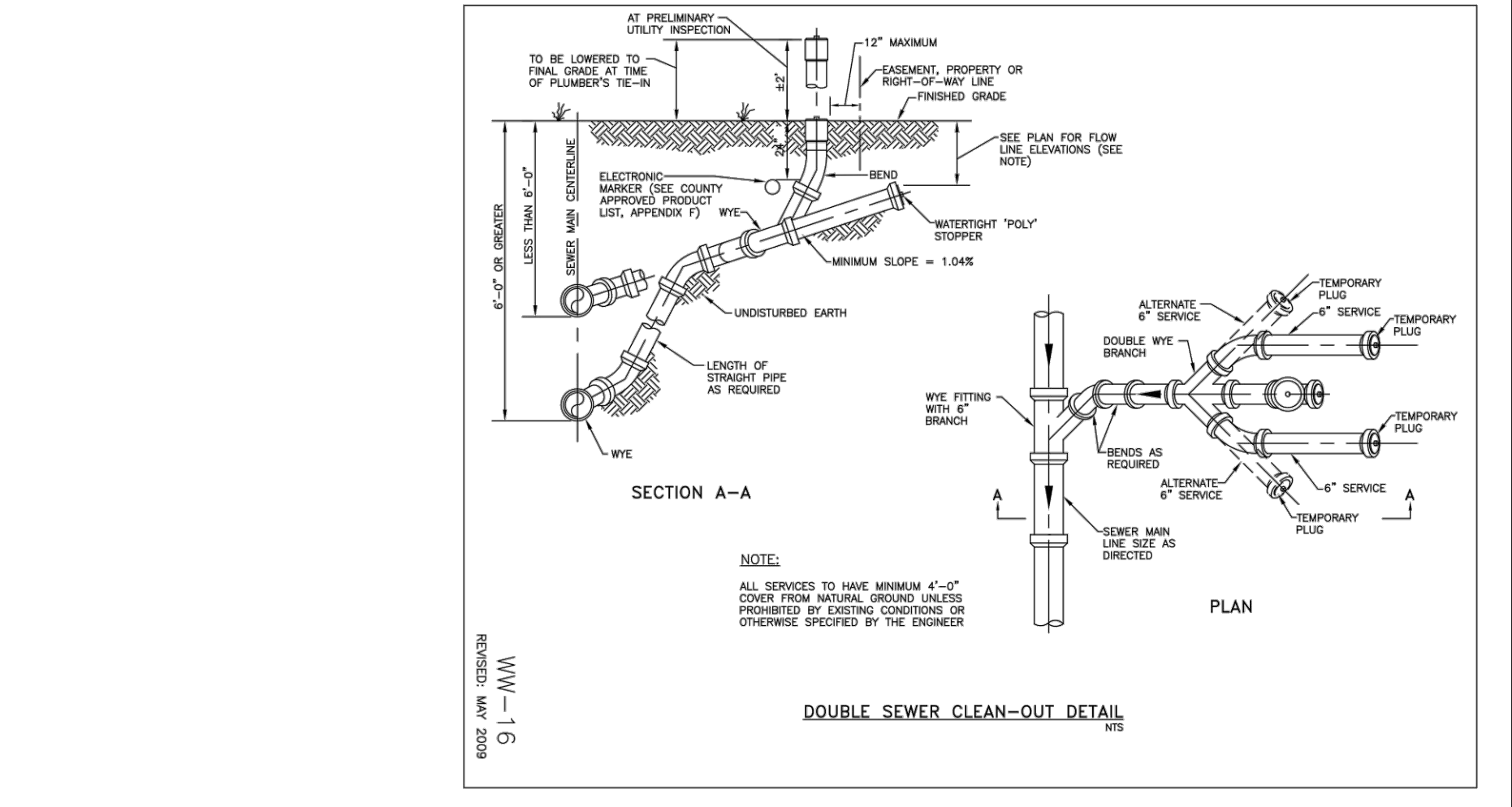
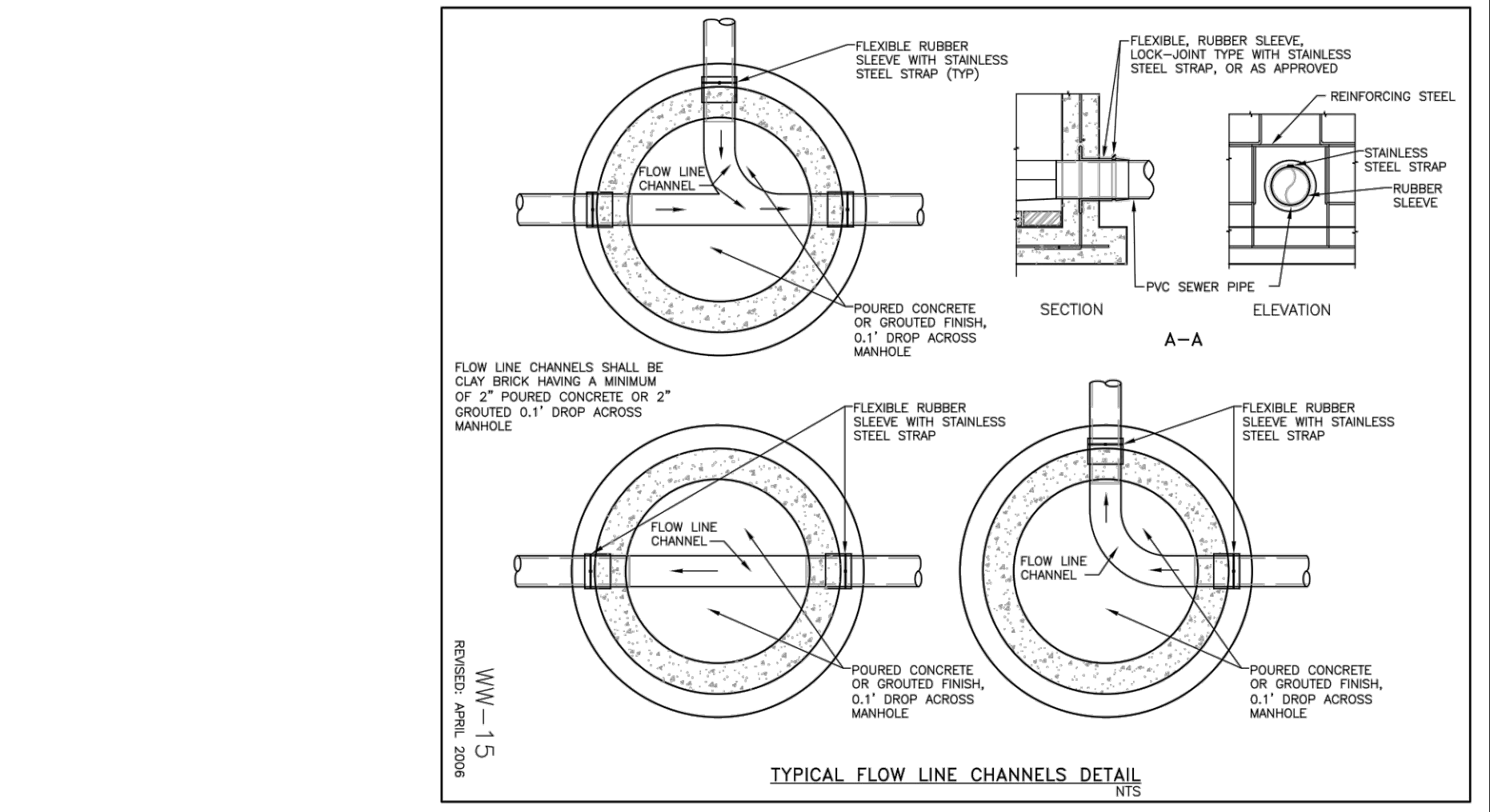
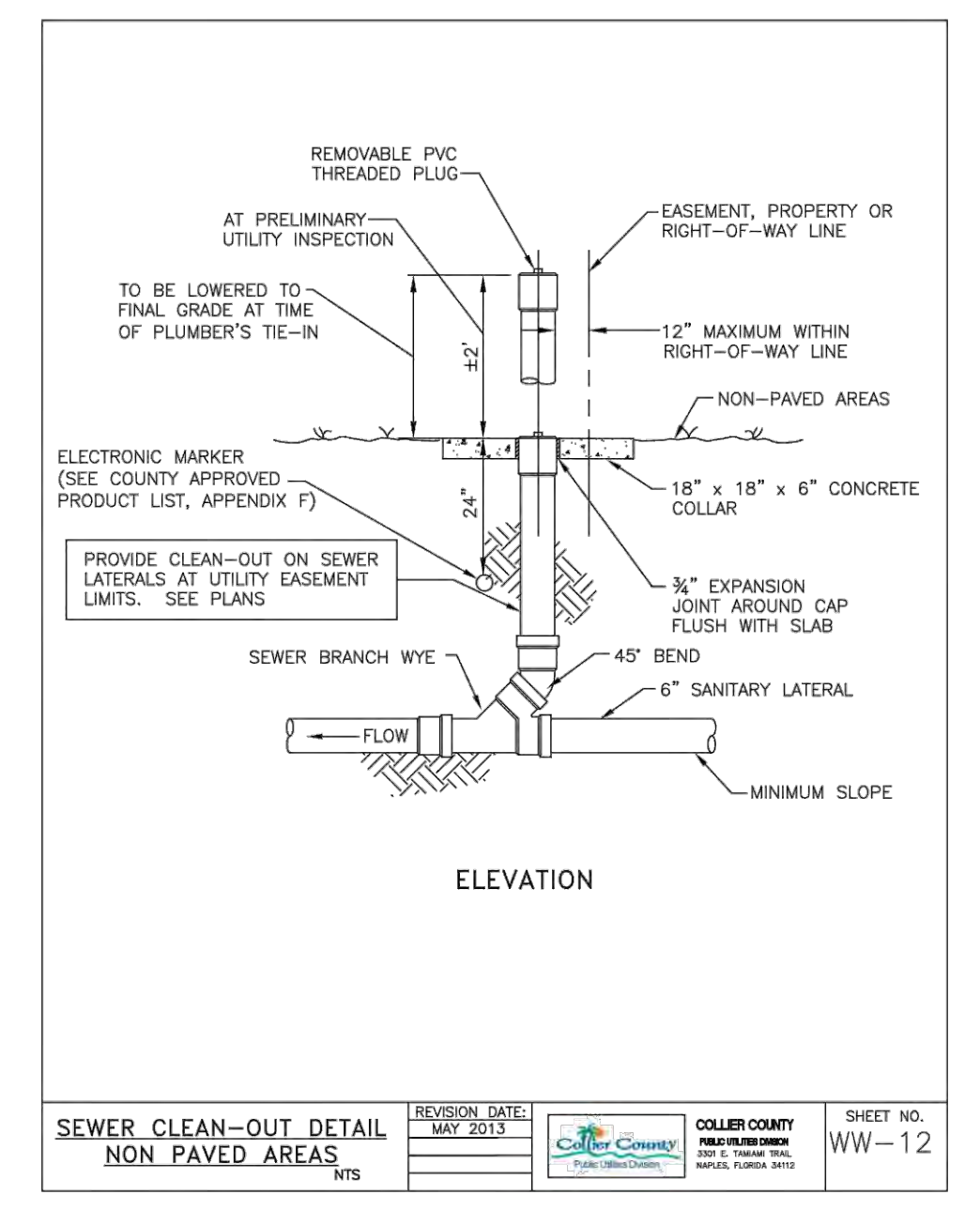
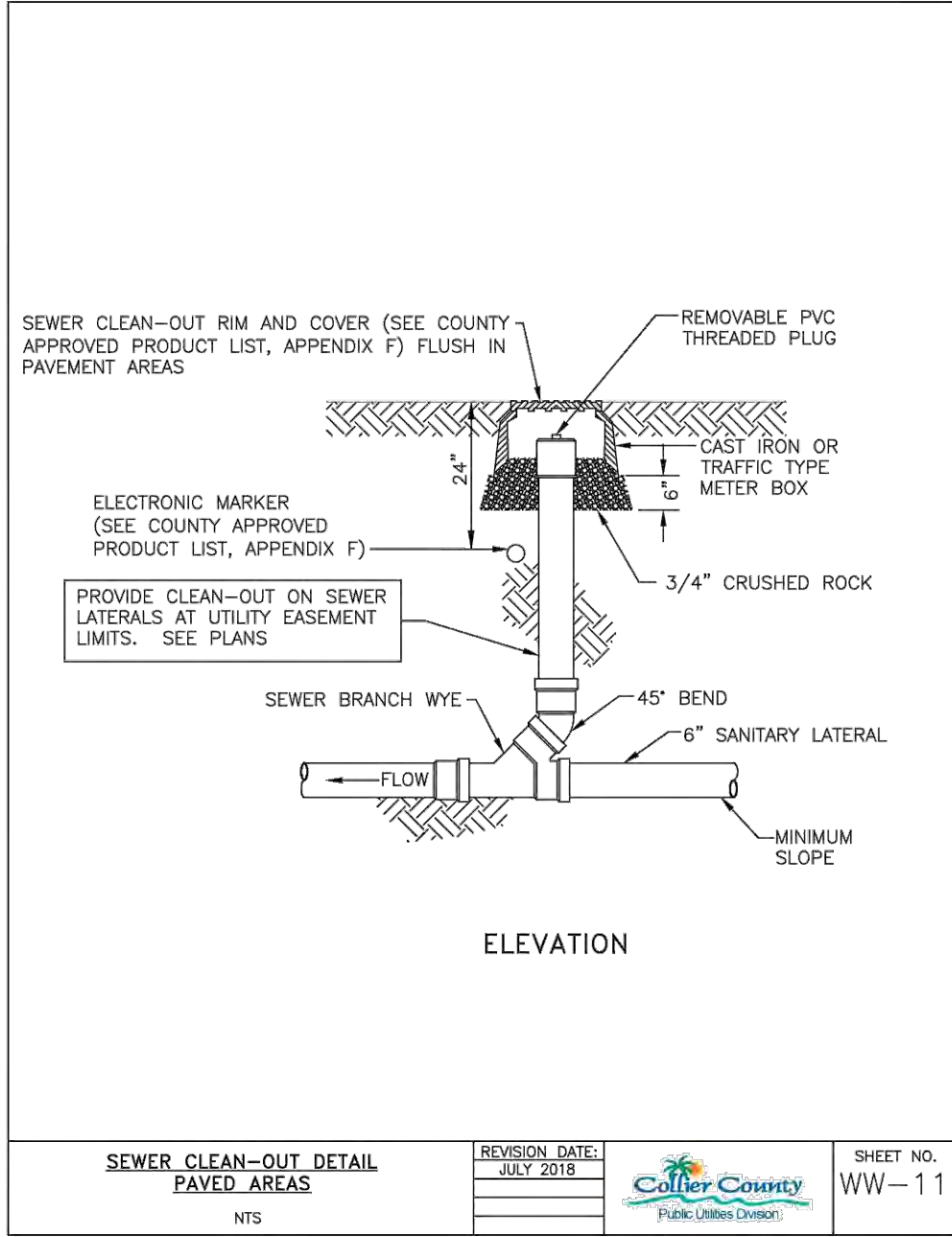
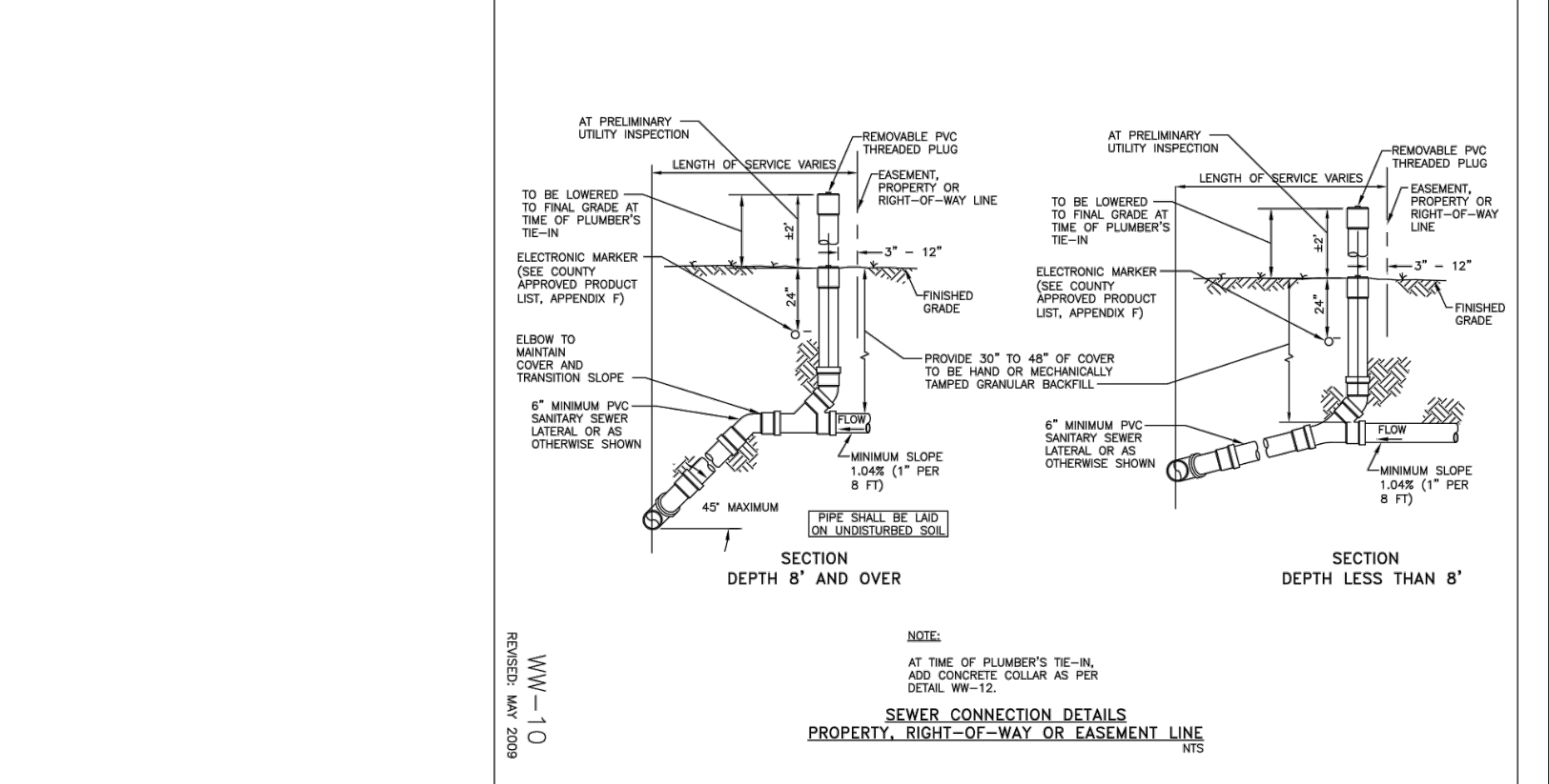
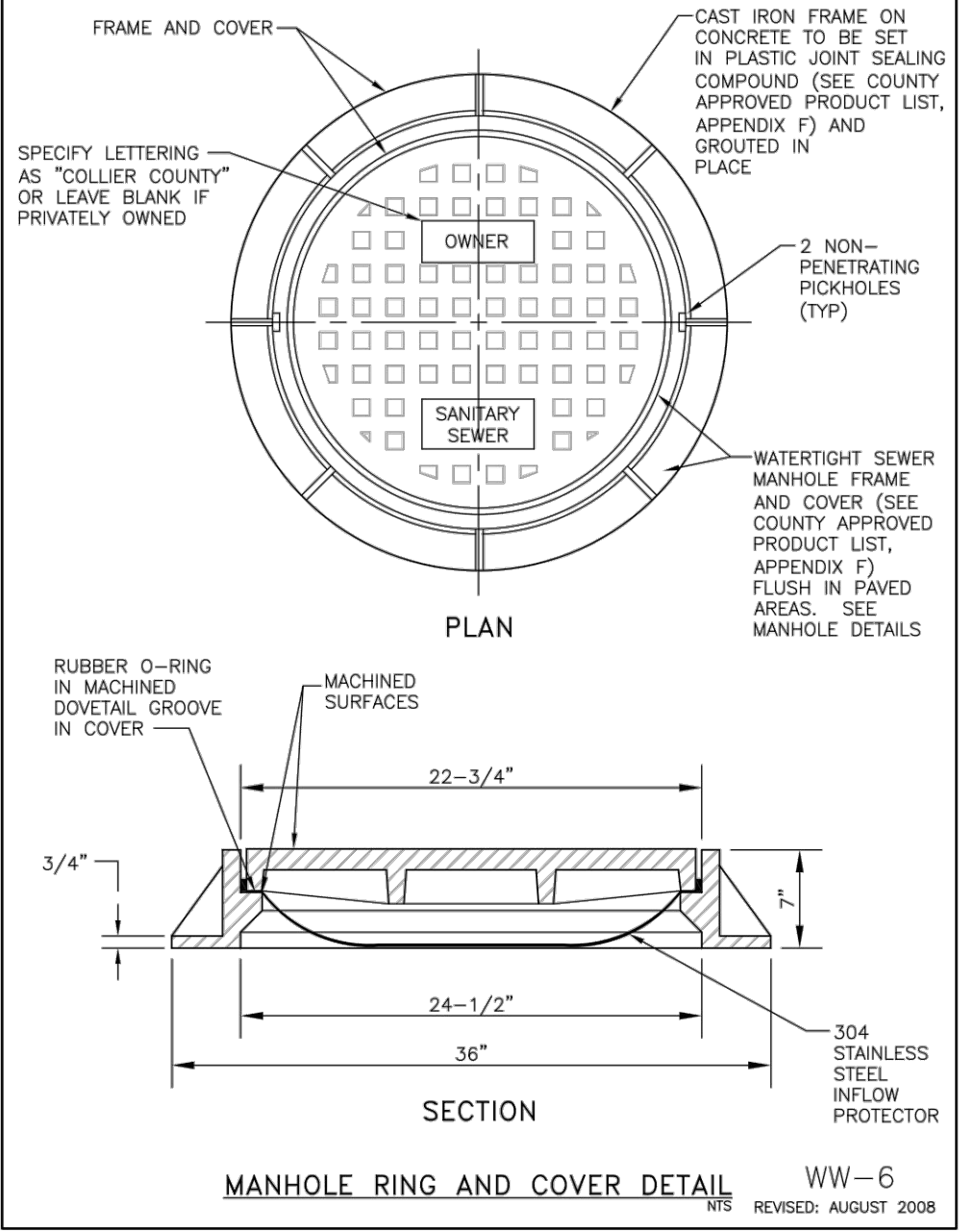
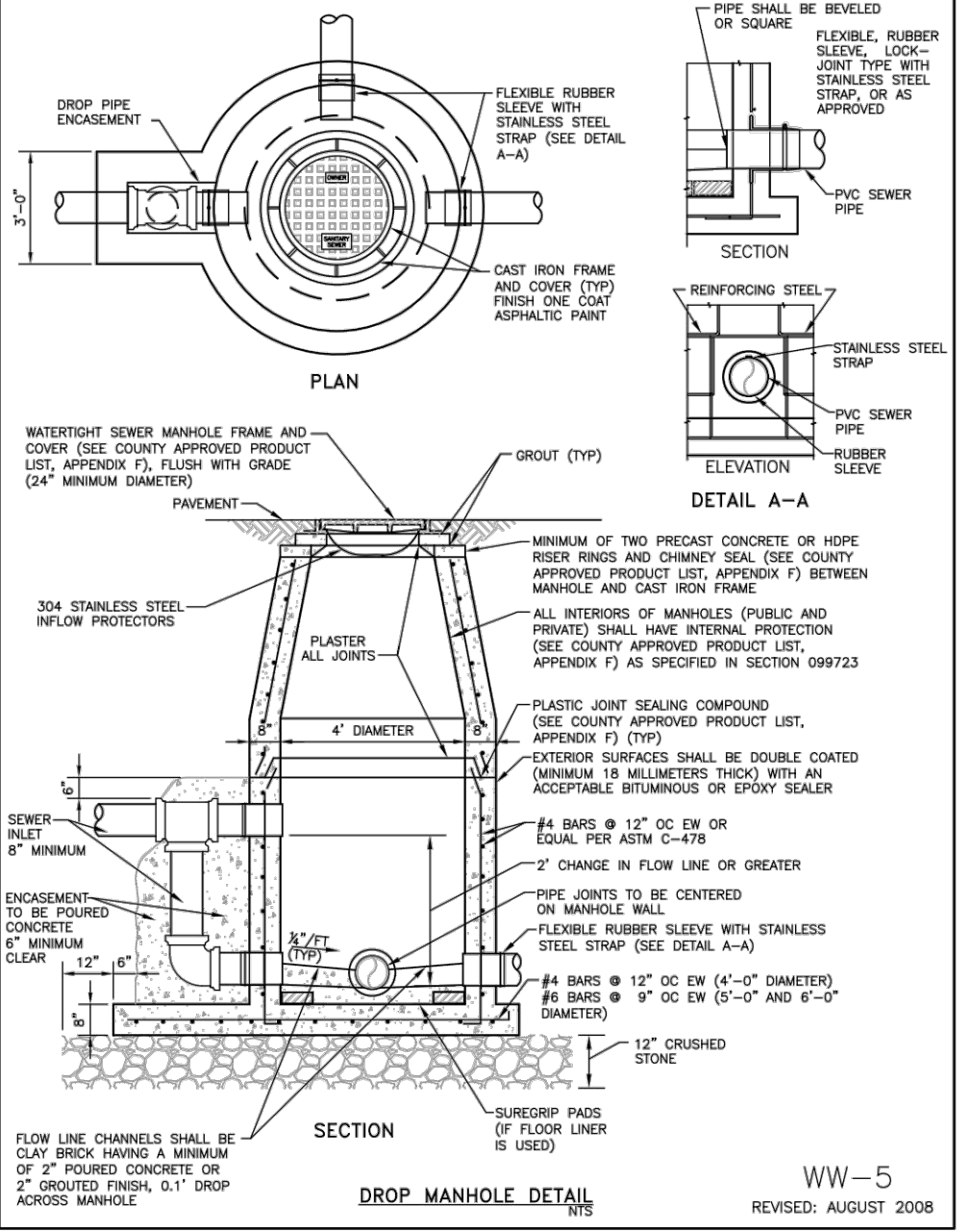
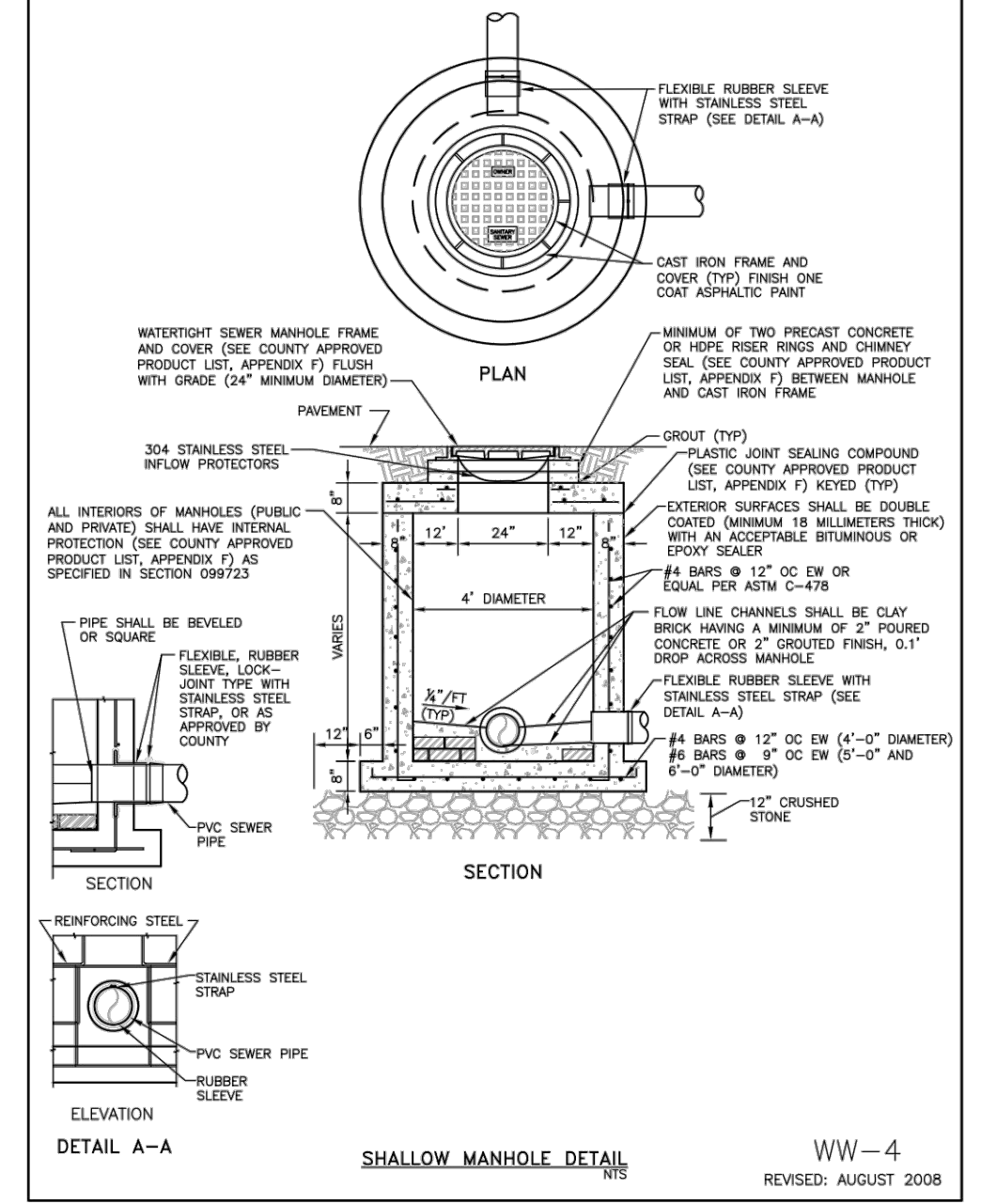
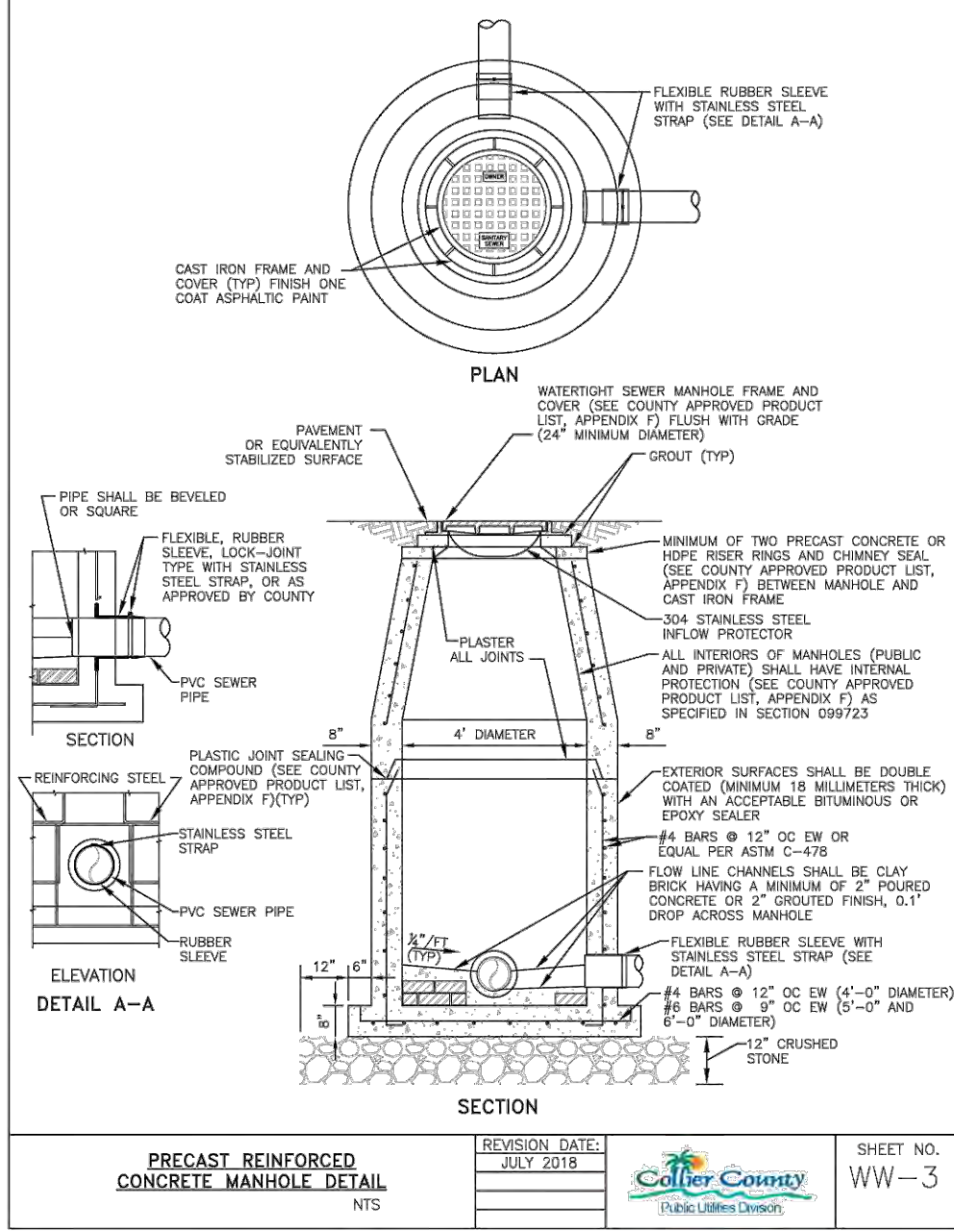
GradyMinor
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 Cert. of Auth. EB 0005151 Cert. of Auth. LB 0005151
 Bonita Springs: 239.947.1144 www.GradyMinor.com Fort Myers: 239.690.4380

98th & 99th Avenue North - Public Utilities Renewal
 O. Grady Minor and Associates, P.A.
 3800 Via Del Rey
 Bonita Springs, Florida 34134
 Business LC 26000266

WATER DETAILS
 ELEVATIONS SHOWN HEREON ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29)
 CONVERSION FACTOR TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) IS (-) 1.237

MUNICIPALITY: COLLIER COUNTY
 SEC/TWN/RGE: 28/48/25
 DATE: MARCH, 2022
 SUBMITTAL TYPE: BID
 SHEET 92 OF 99

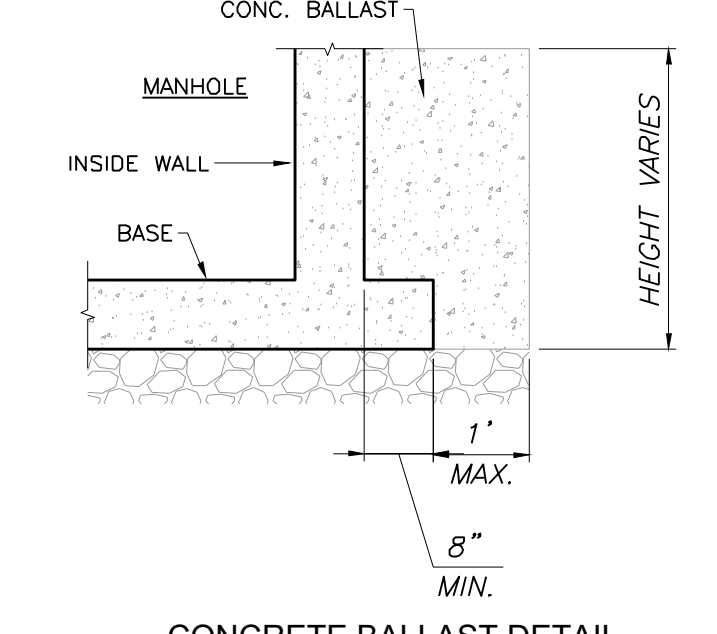
G:\ENGINEERING\PROJ-ENG\CCU\285\01\DWGS\SUBMITTAL\TYPE CONSTRUCTION PLANS\98TH & 99TH AVENUE NORTH - COLLIER 4/21/2023 12:54 PM



SANITARY SEWER MANHOLE BALLAST REQUIREMENTS

MANHOLE DEPTH (feet)	UPWARD FORCE (wt. of water displaced)	DOWNWARD FORCE (total wt.)	ADDITIONAL BALLAST REQUIRED (lbs.)	VOLUME CONCRETE REQUIRED (cu.yds.)
0-5	3,968	2,859	2,101	1.00
5.1-10	8,930	5,313	5,850	2.50
10.1-15	13,893	7,766	9,600	4.50

SAFETY FACTOR=1.25
UNIT WEIGHT SRPC=147 pcf
UNIT WEIGHT CONCRETE=150 pcf
NOTE: THE BALLAST REQUIREMENT ABOVE IS BASED ON 4" THICK MANHOLE WALLS. BALLAST REQUIREMENTS FOR THICKNESS OTHER THAN 4" SHALL REQUIRE APPROVAL BY ENGINEER OF RECORD AND COLLIER COUNTY P.M.



REVISION	DATE	DESCRIPTION

DESIGNED BY: J.N.D.
DRAWN BY: R.A.K.
APPROVED: J.A.F.
JOB CODE: CCU285
22X34 SCALE: N/A
11X17 SCALE: N/A

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Bonita Springs, Florida 34134
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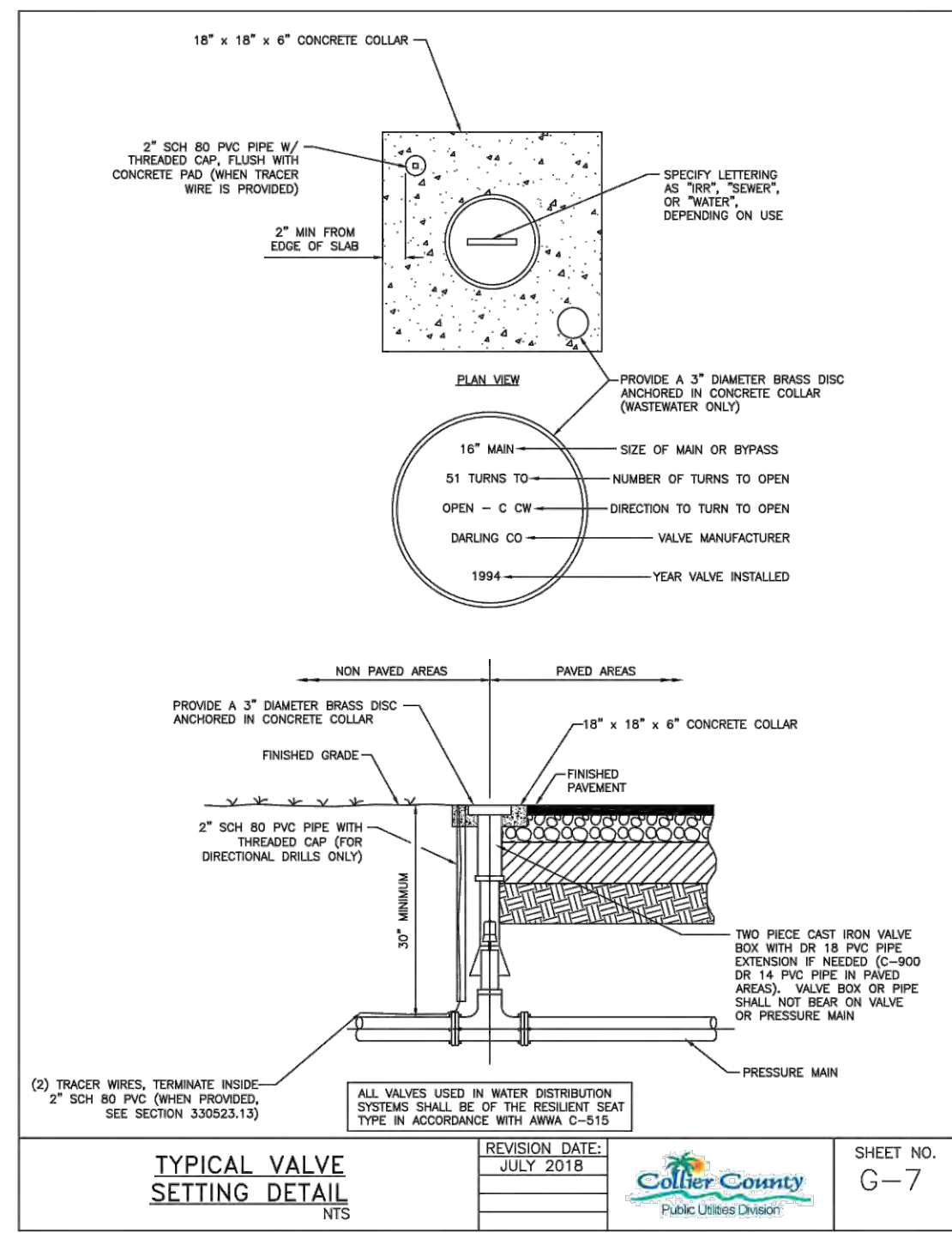
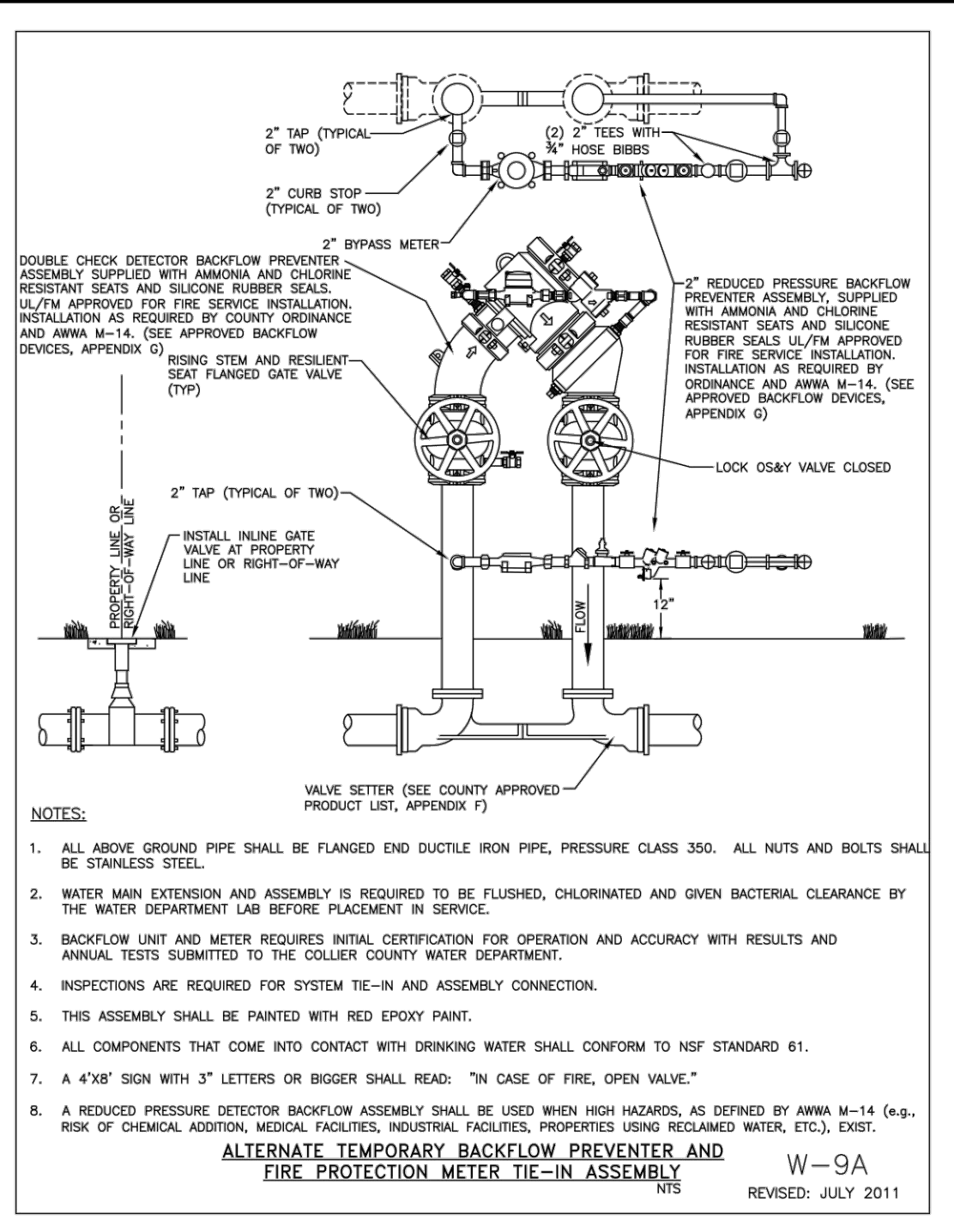
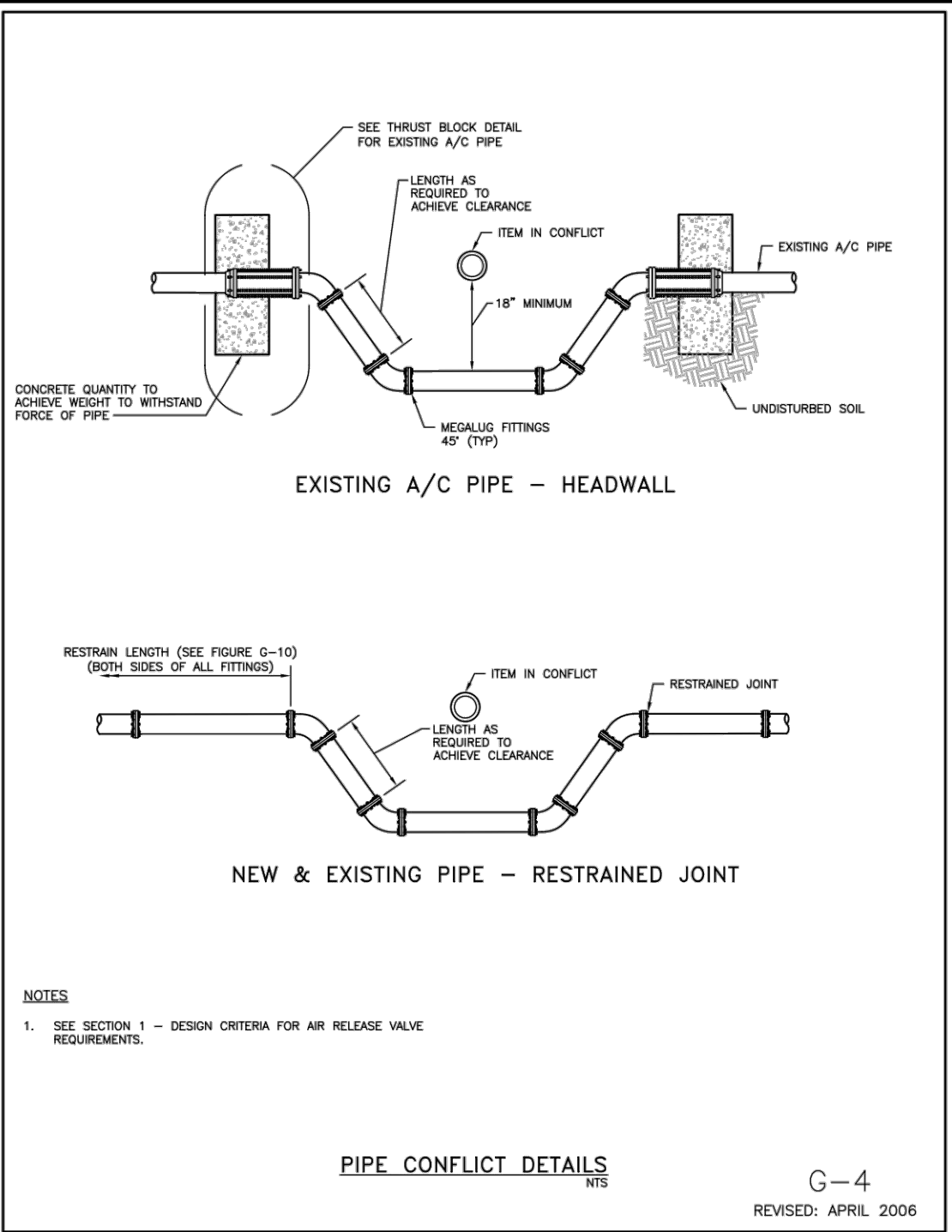
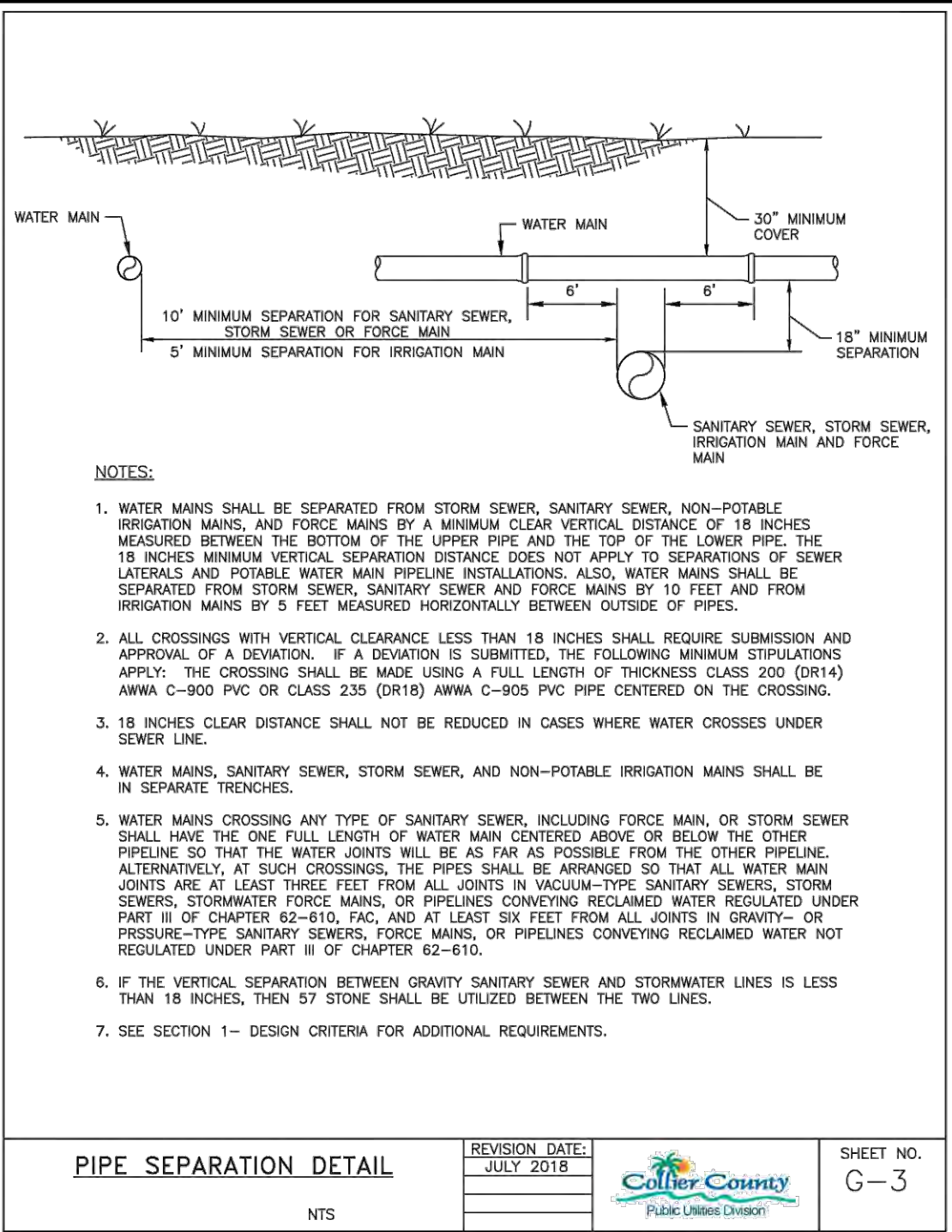
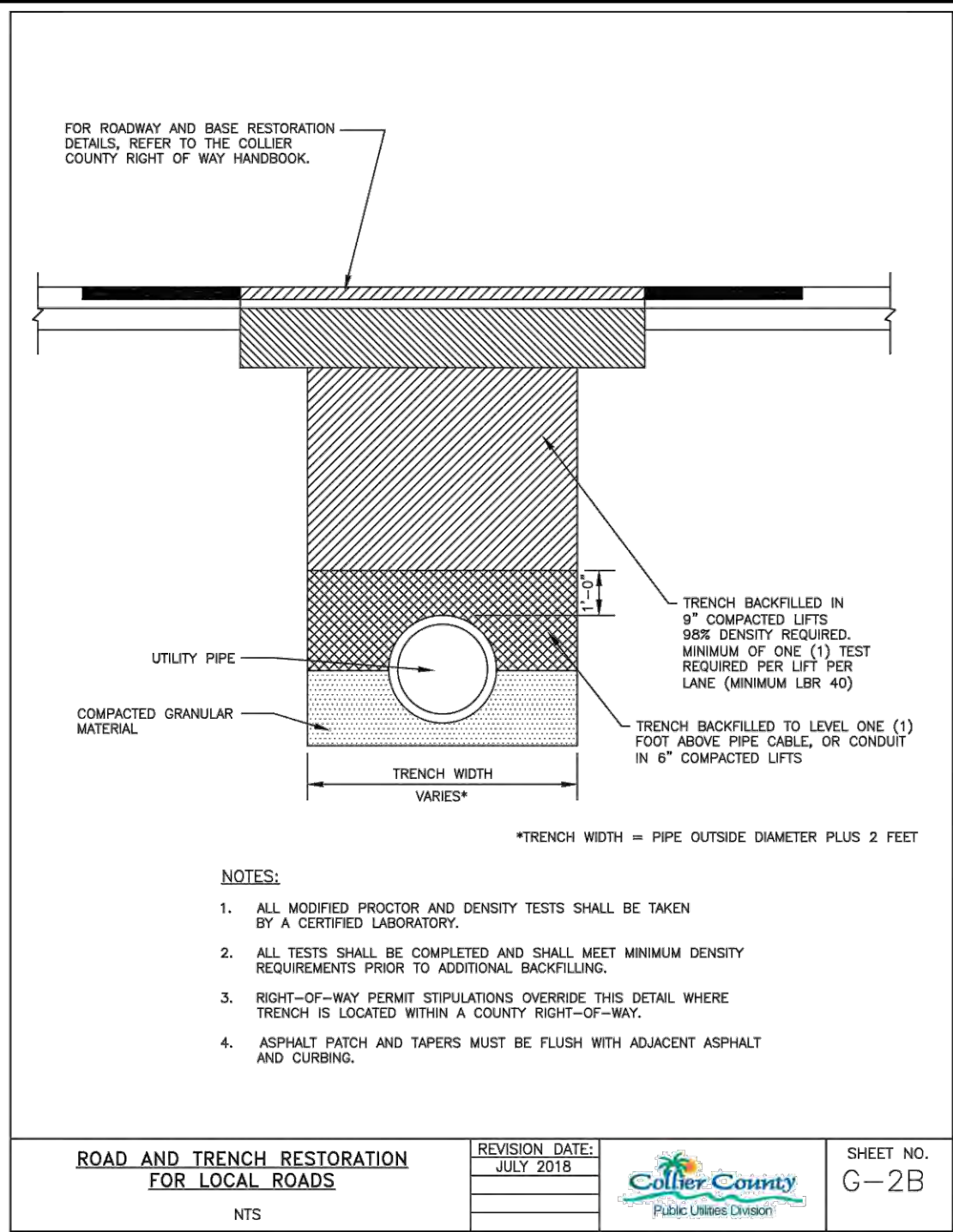
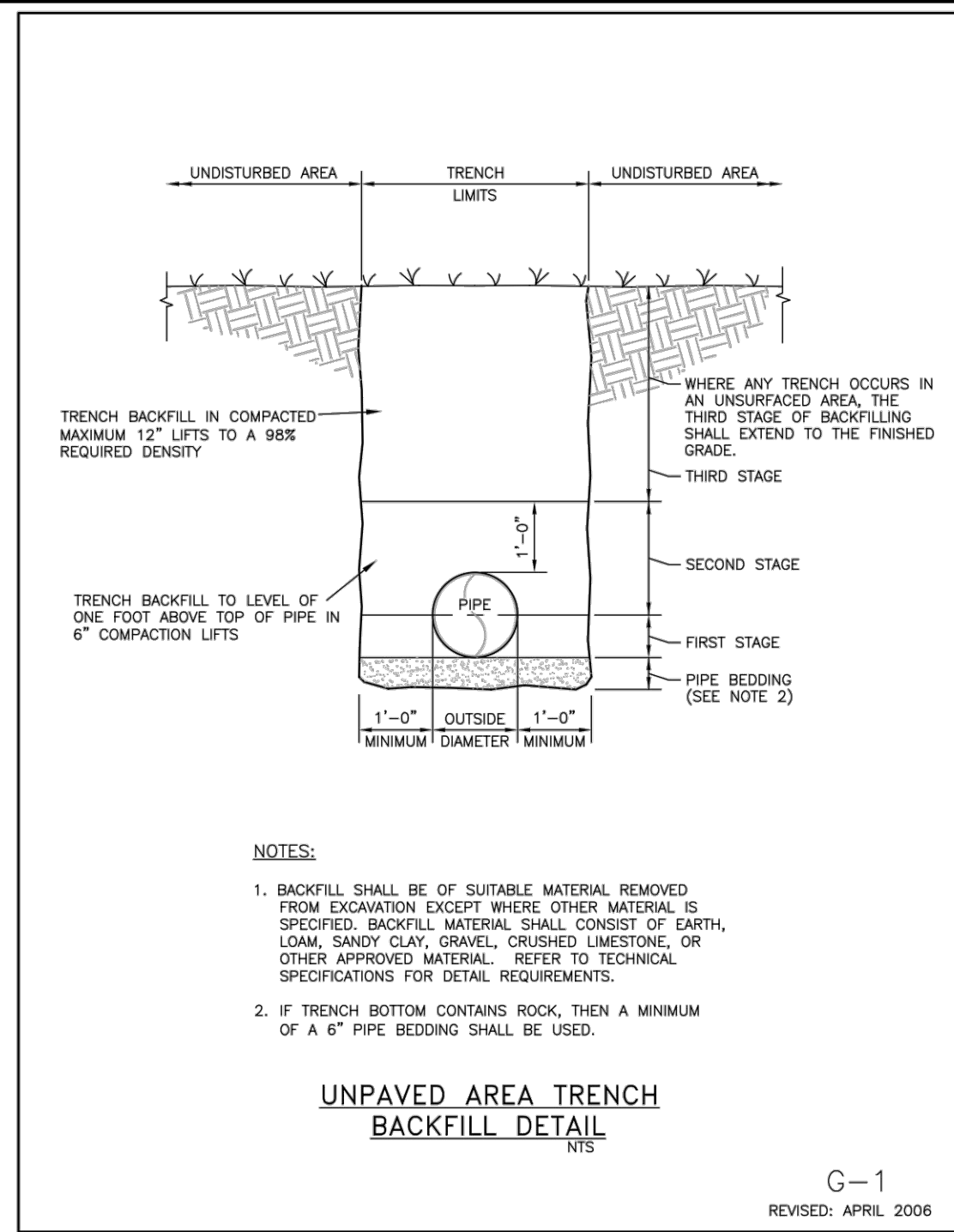
SANITARY SEWER DETAILS

ELEVATIONS SHOWN HEREON ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29)
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JUSTIN A. FREDERIKSEN, P.E.
FLORIDA P.E. LICENSE NO. 66086

MUNICIPALITY: COLLIER COUNTY
SEC/TWN/RGE: 28/48/25
DATE: MARCH, 2022
SUBMITTAL TYPE: BID
SHEET 93 OF 99

C:\ENGINEERING\PROJ-ENG\CCU285\01DWG(S)\SUBMITTAL\TYPE\CONSTRUCTION PLANS\98TH & 99TH\CCU285_98TH-99TH - COVER.dwg 4/21/2023 12:54 PM



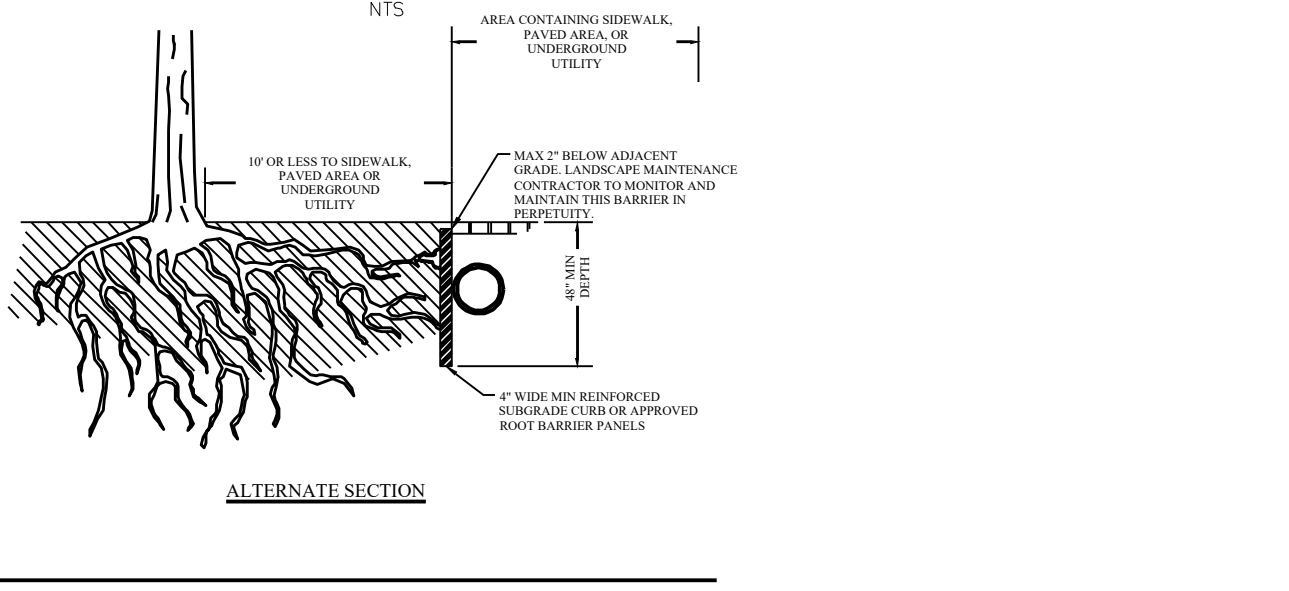
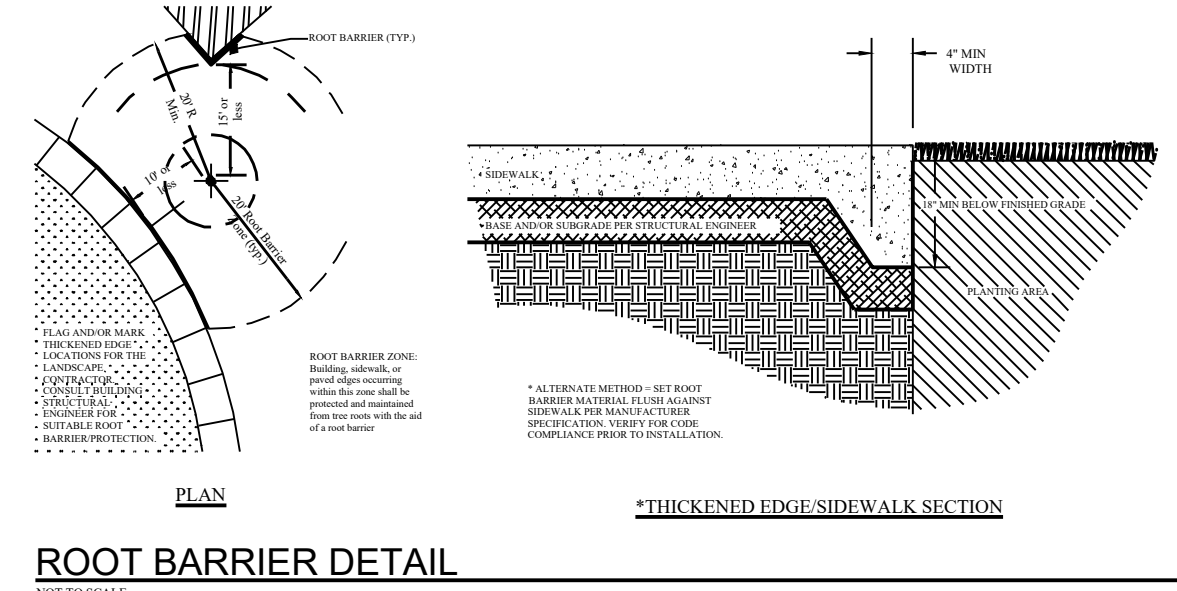
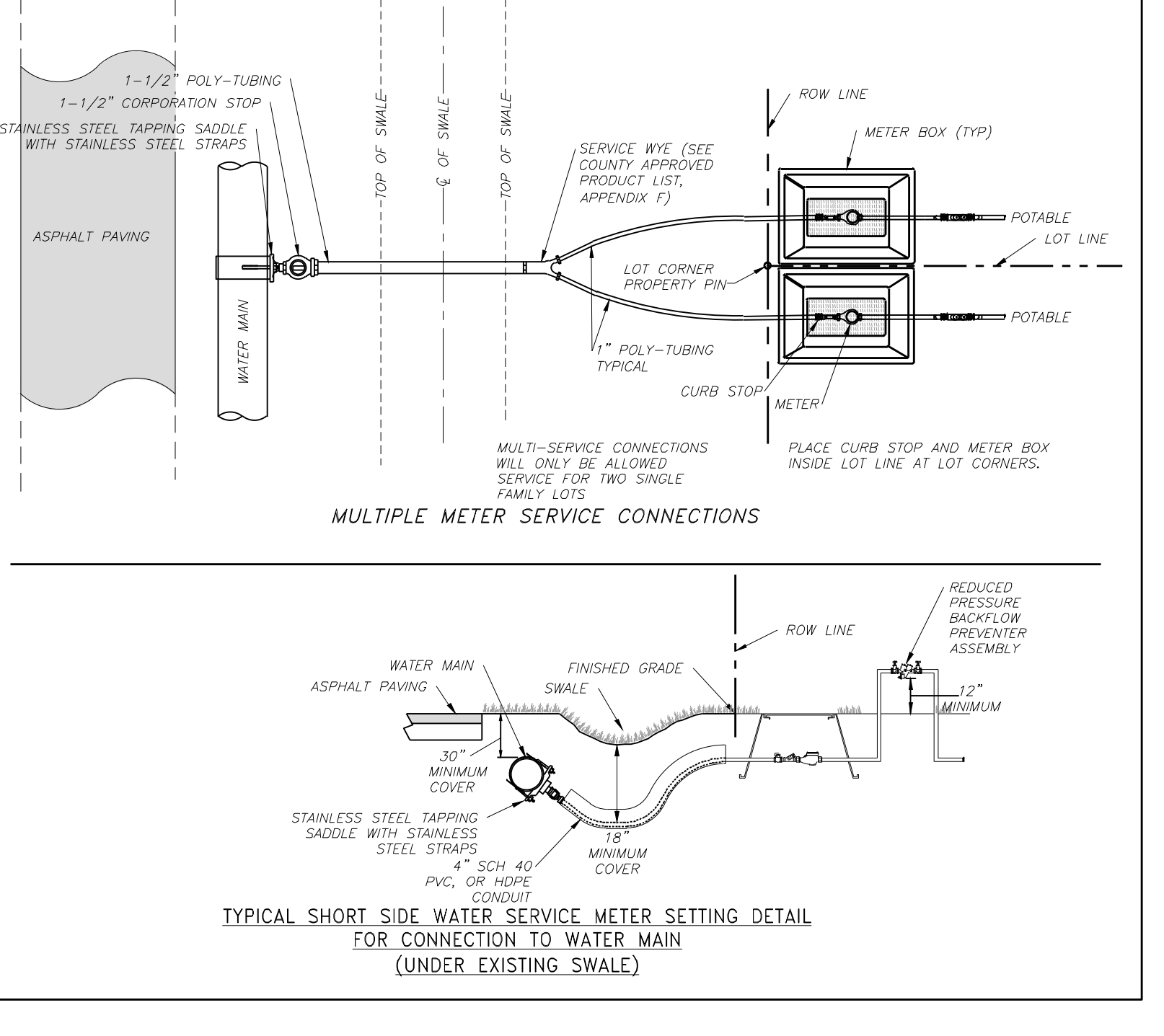
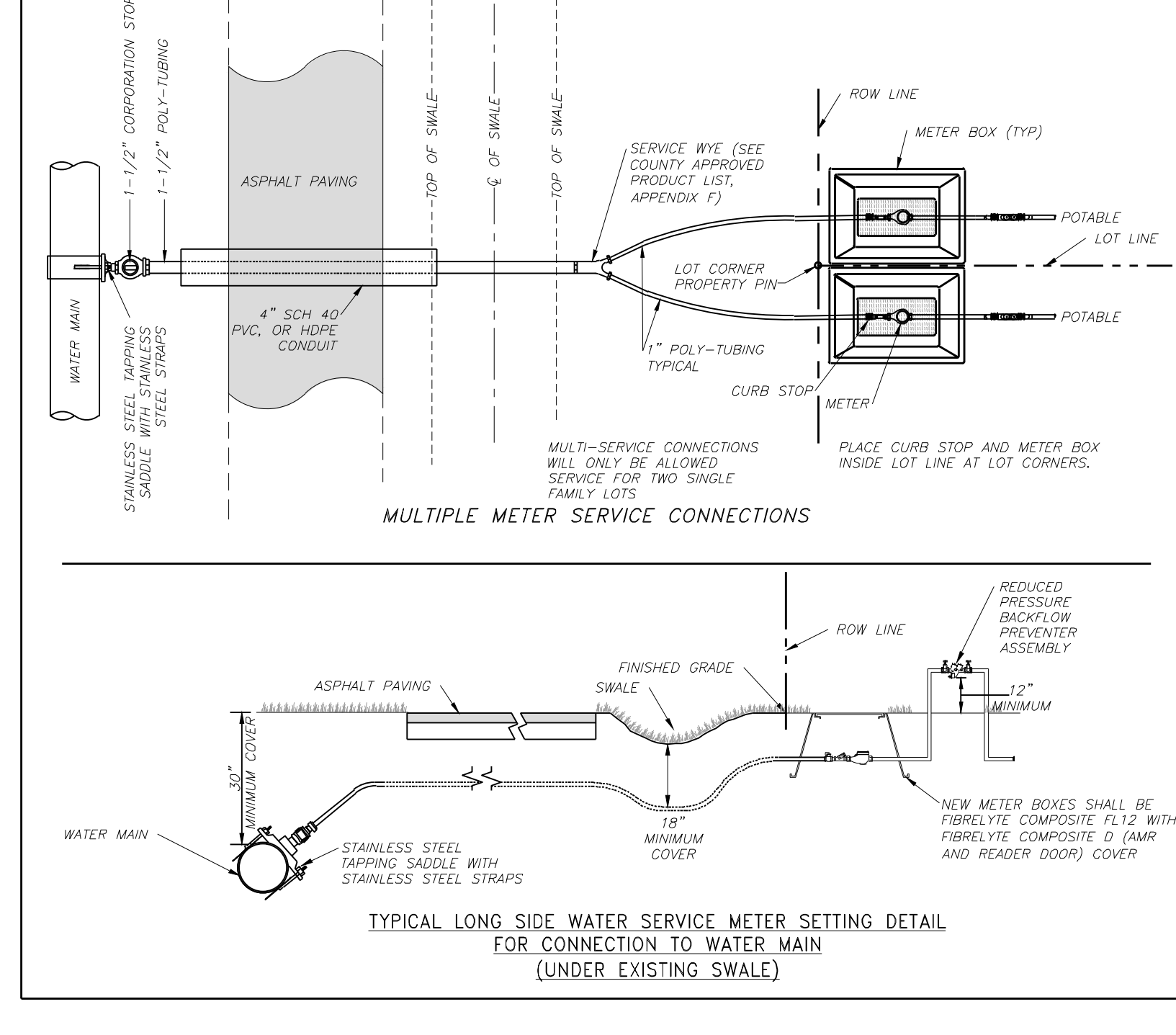
RESTRAINED PIPE LENGTH IN FEET (1)

PIPE SIZE IN INCHES	RESTRAINED PIPE LENGTH IN FEET (1)				DEAD ENDS (2)		45° VERTICAL BENDS	
	90°	45°	22-1/2°	11-1/4°	UPPER	LOWER	UPPER	LOWER
4	23	9	5	2	55	23	6	6
6	32	13	8	3	77	32	11	11
8	40	17	10	4	100	41	14	14
10	48	20	10	5	120	50	17	17
12	56	23	11	6	141	58	20	20
16	71	29	14	7	181	75	26	26
18	77	32	15	8	200	83	28	28
20	84	35	17	8	218	90	30	30
24	96	40	19	10	263	105	35	35
30	112	47	22	11	303	122	41	41
36	127	53	25	13	350	145	47	47

PIPE SIZE IN INCHES	RESTRAINED PIPE LENGTH IN FEET (1)	
	TEE (3)	REDUCER (4)
6 x 4	0	40
6 x 6	34	75
8 x 4	0	72
8 x 6	55	74
10 x 6	3	74
10 x 10	75	75
12 x 4	0	72
12 x 6	31	75
12 x 12	95	75
16 x 6	0	153
16 x 10	44	107
16 x 16	134	157
18 x 6	0	157
18 x 12	68	108
18 x 18	152	161
20 x 10	20	161
20 x 16	120	77
20 x 20	170	107
24 x 12	37	187
24 x 18	132	109
24 x 24	204	132
30 x 16	78	213
30 x 20	138	165
30 x 30	252	165
36 x 18	84	259
36 x 24	170	191
36 x 36	298	191

PIPE RESTRAINT SCHEDULE
NTS

REVISION DATE: JULY 2018
SHEET NO. G-10
REVISED: APRIL 2006



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: J.N.D.
DRAWN BY: R.A.K.
APPROVED: J.A.F.
JOB CODE: CCU285
22X34 SCALE: N/A
11X17 SCALE: N/A

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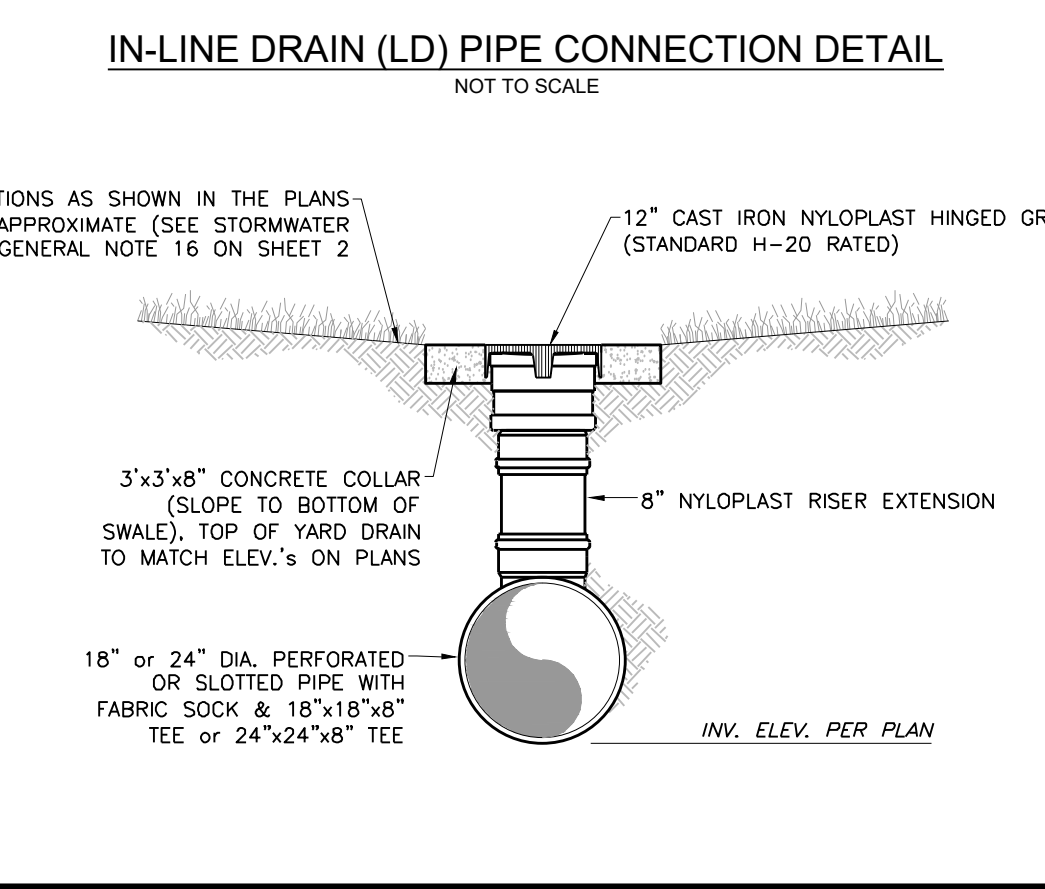
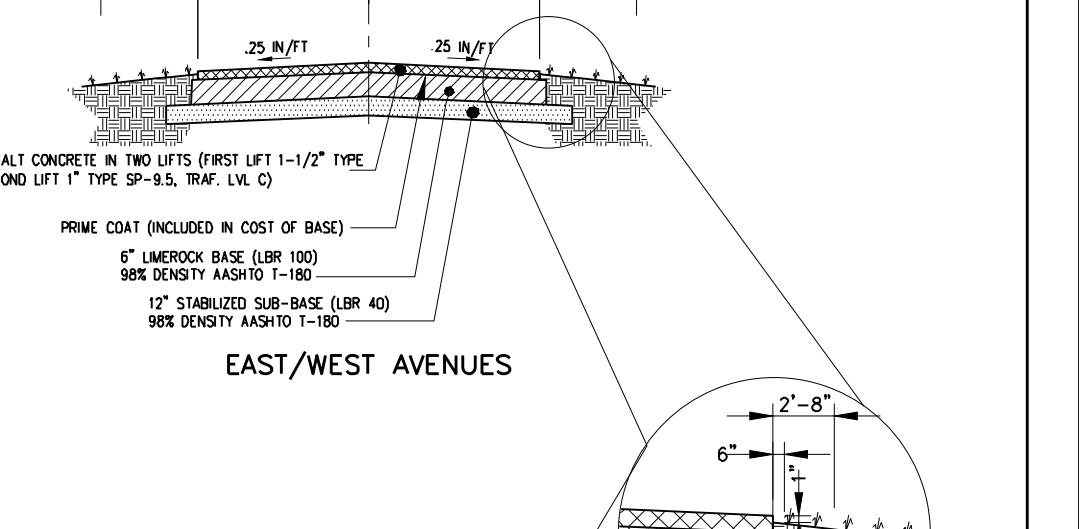
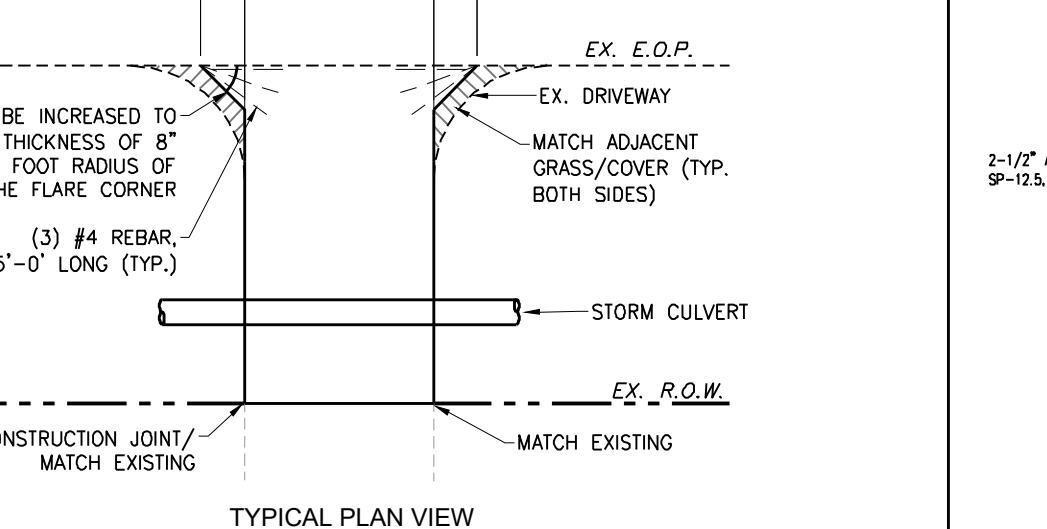
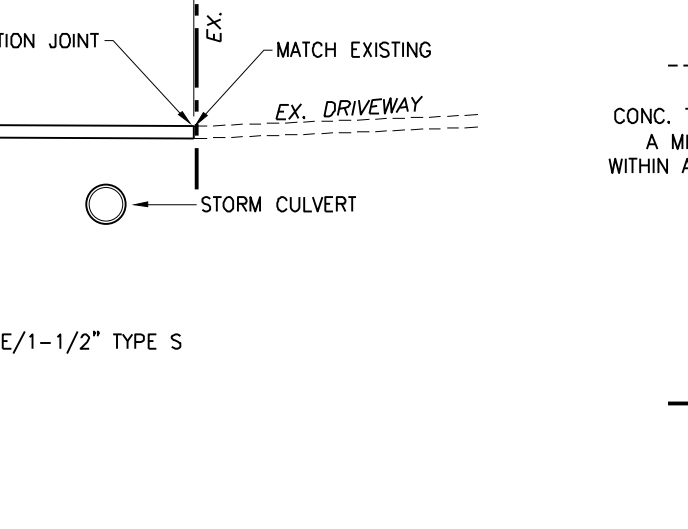
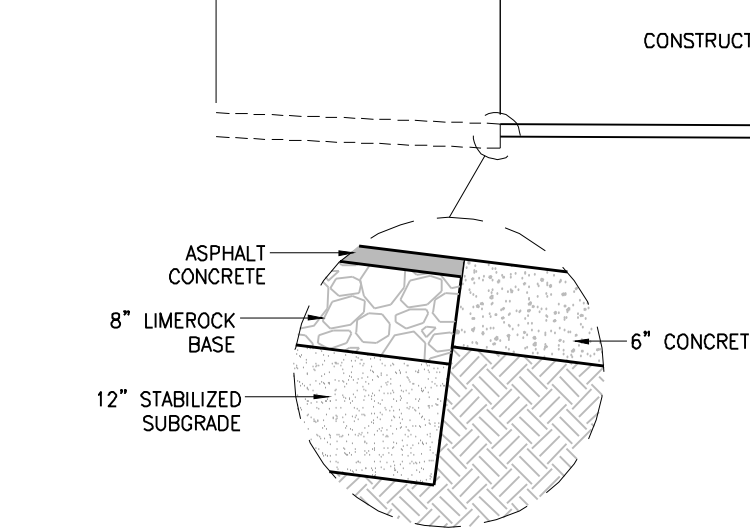
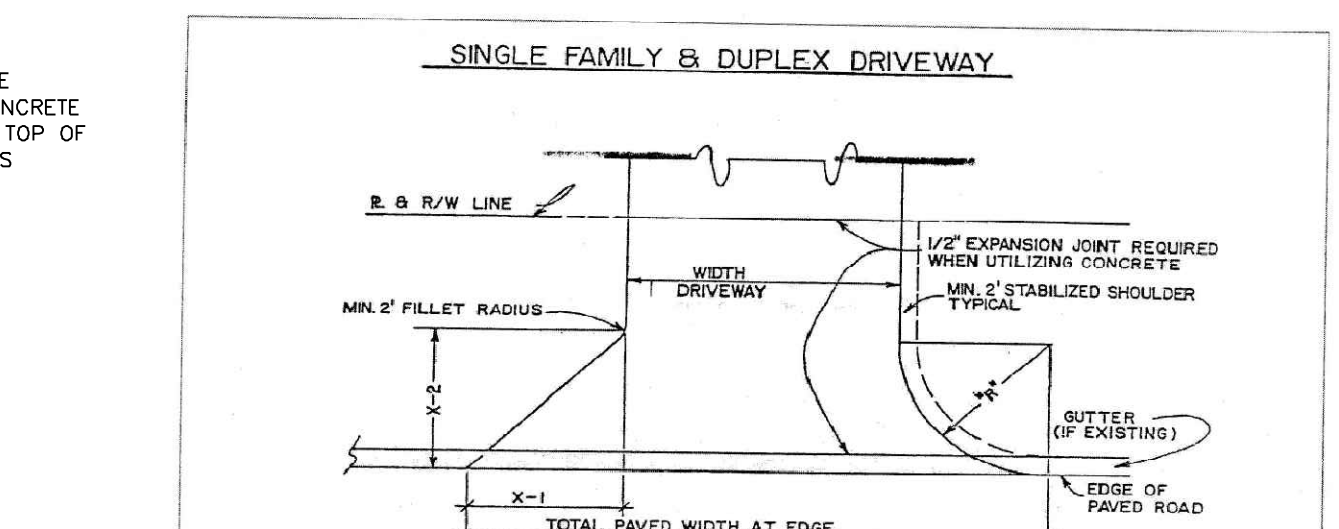
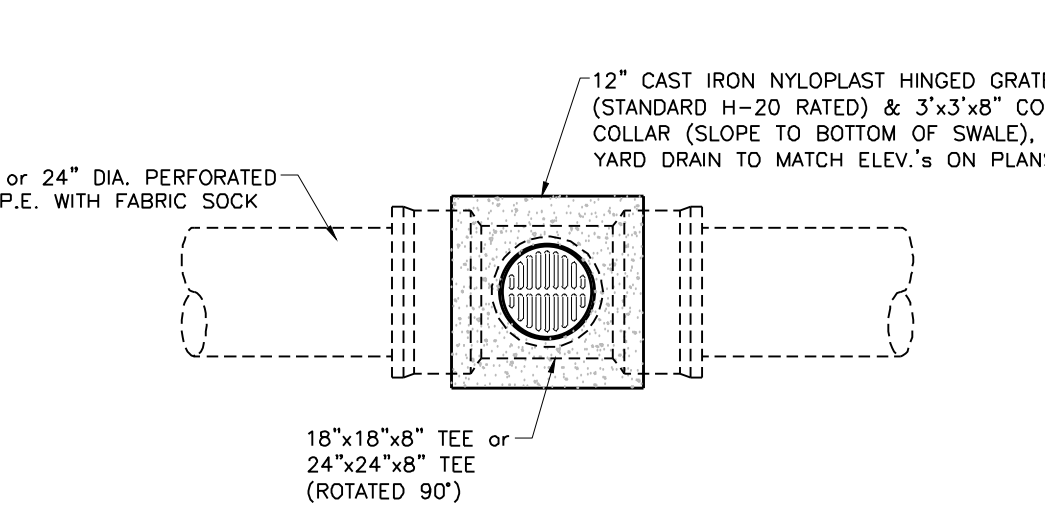
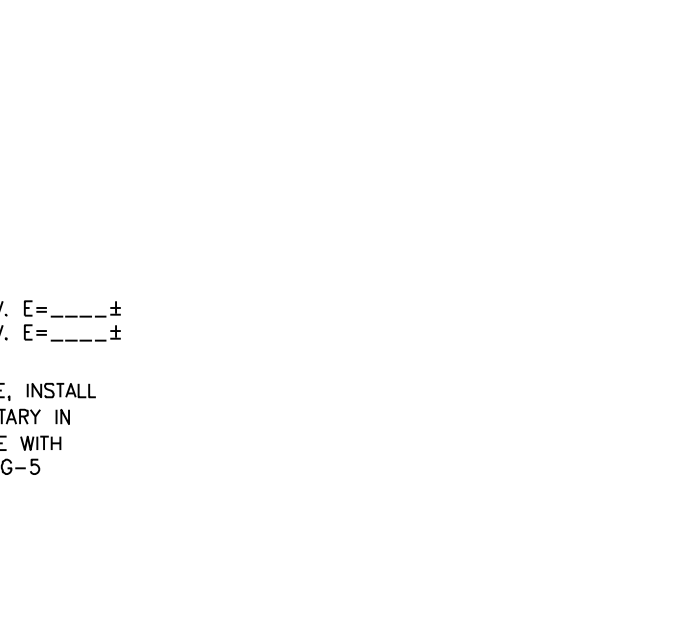
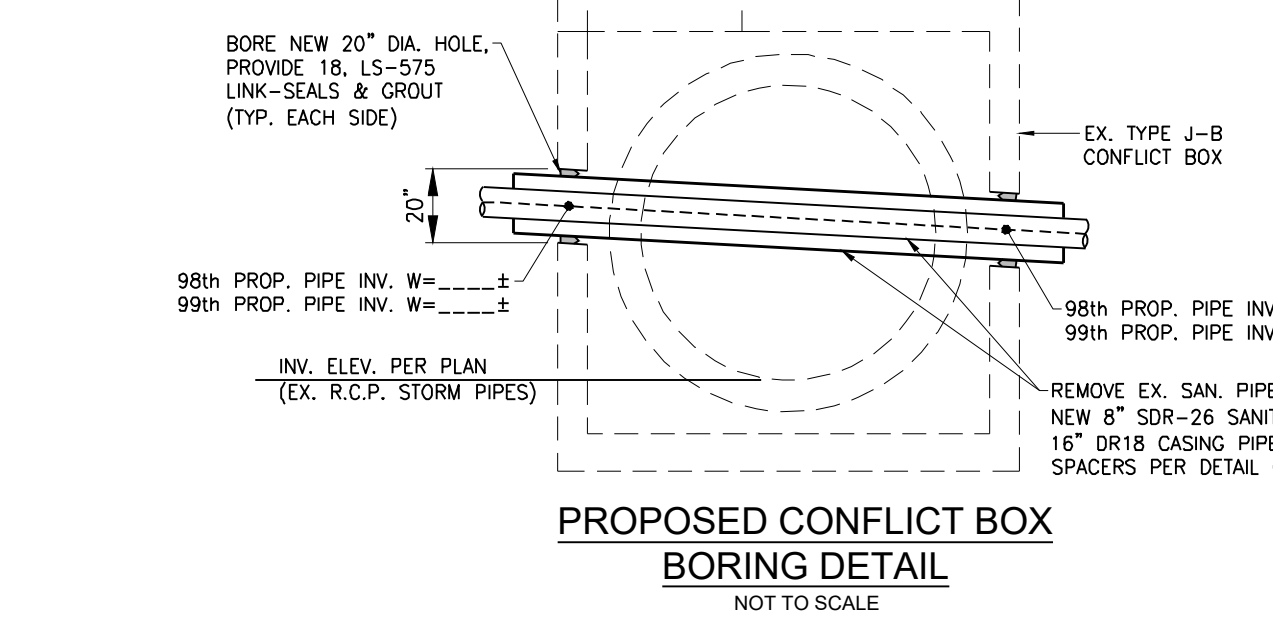
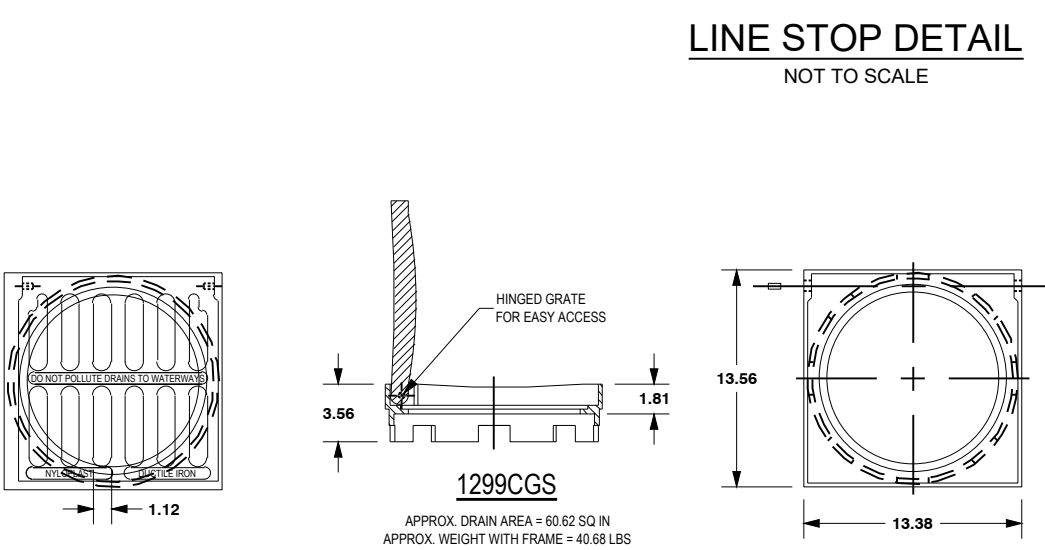
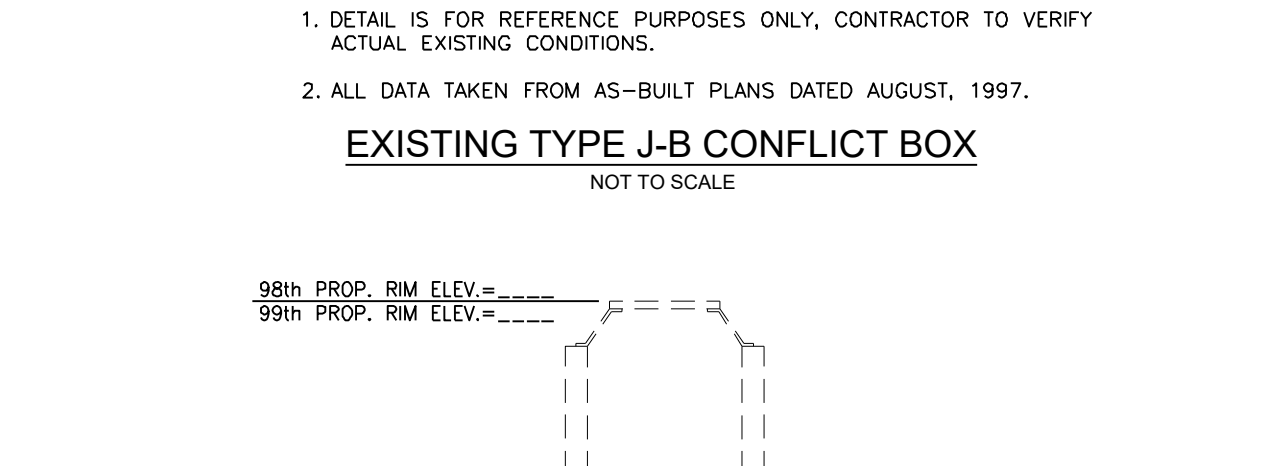
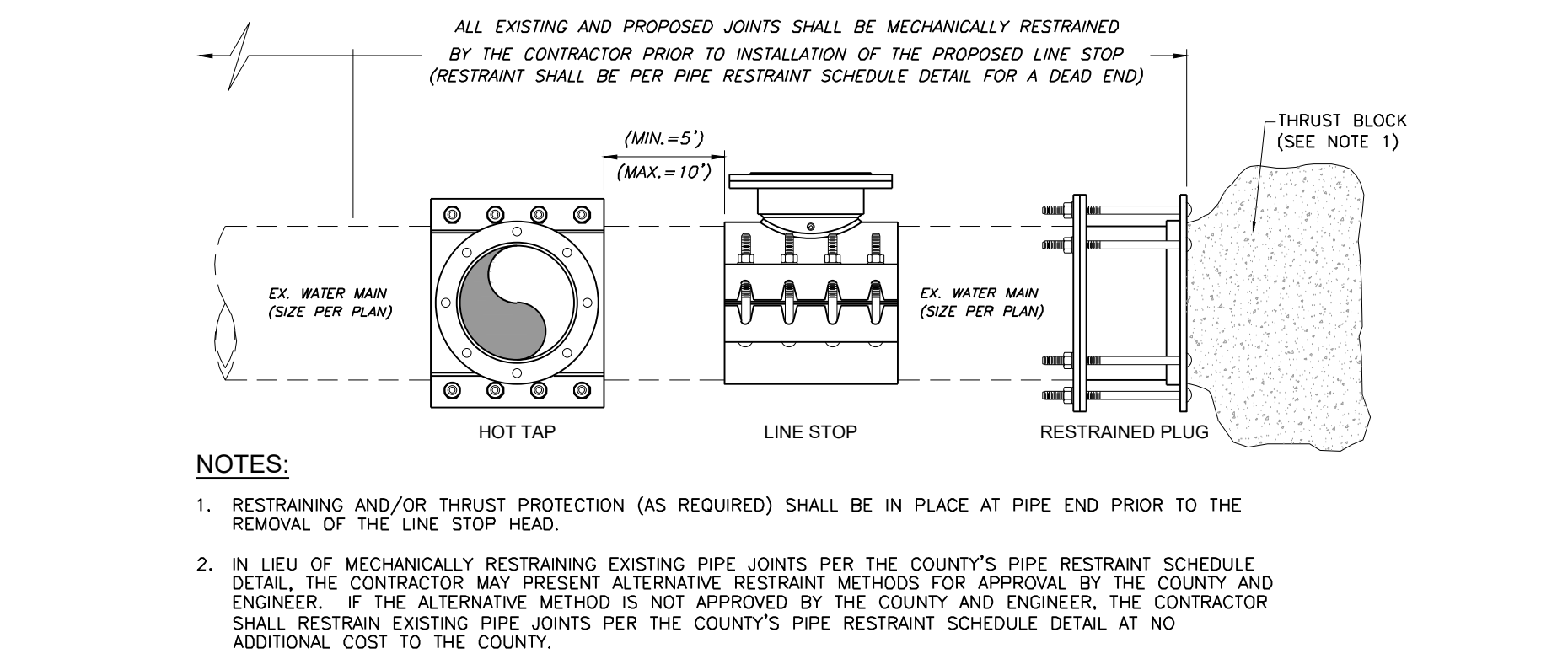
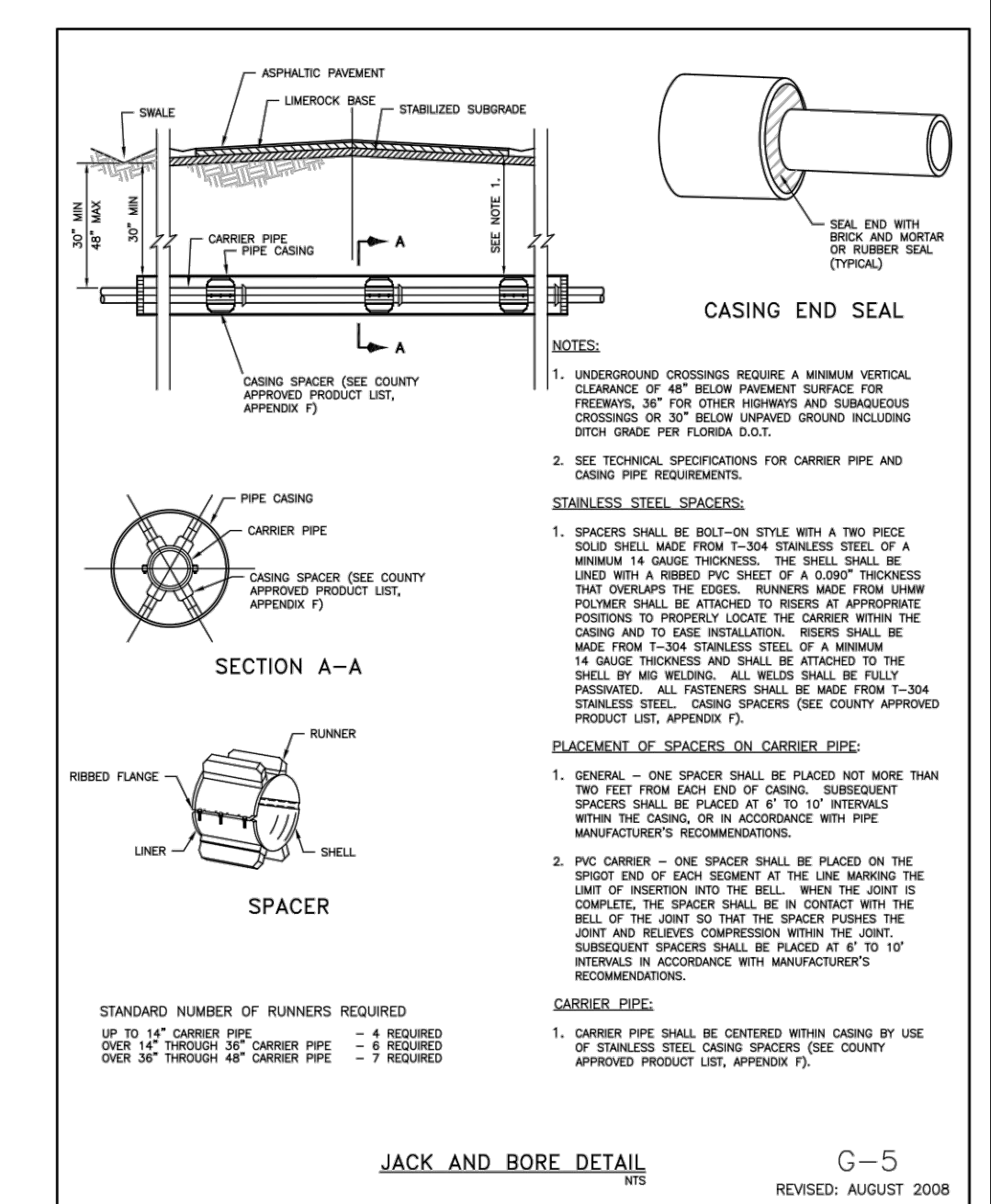
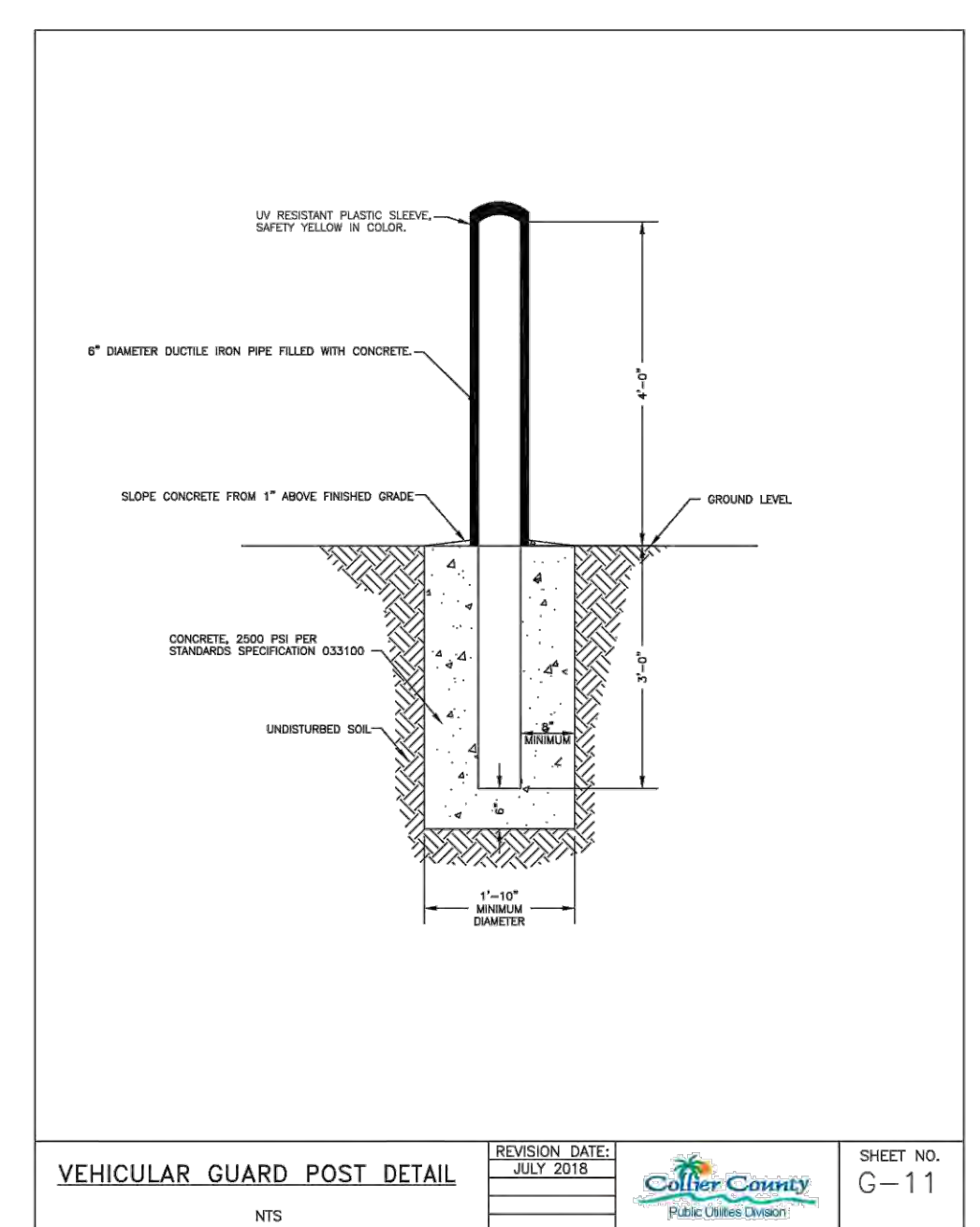
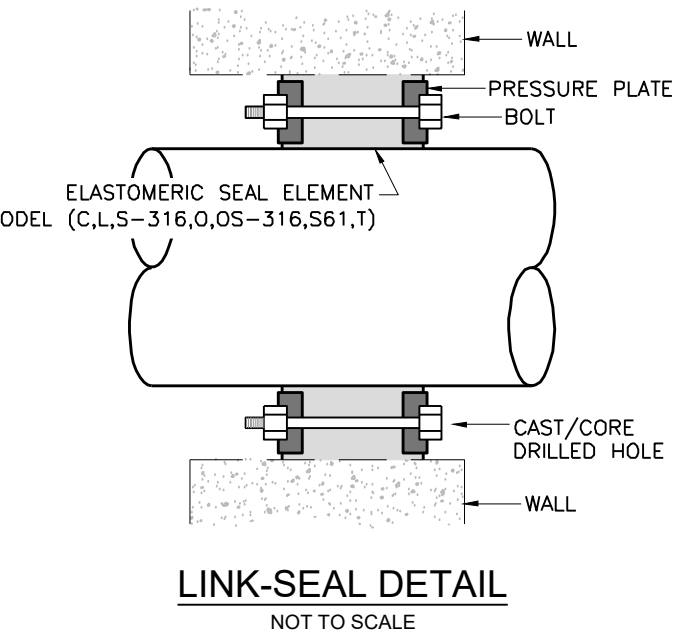
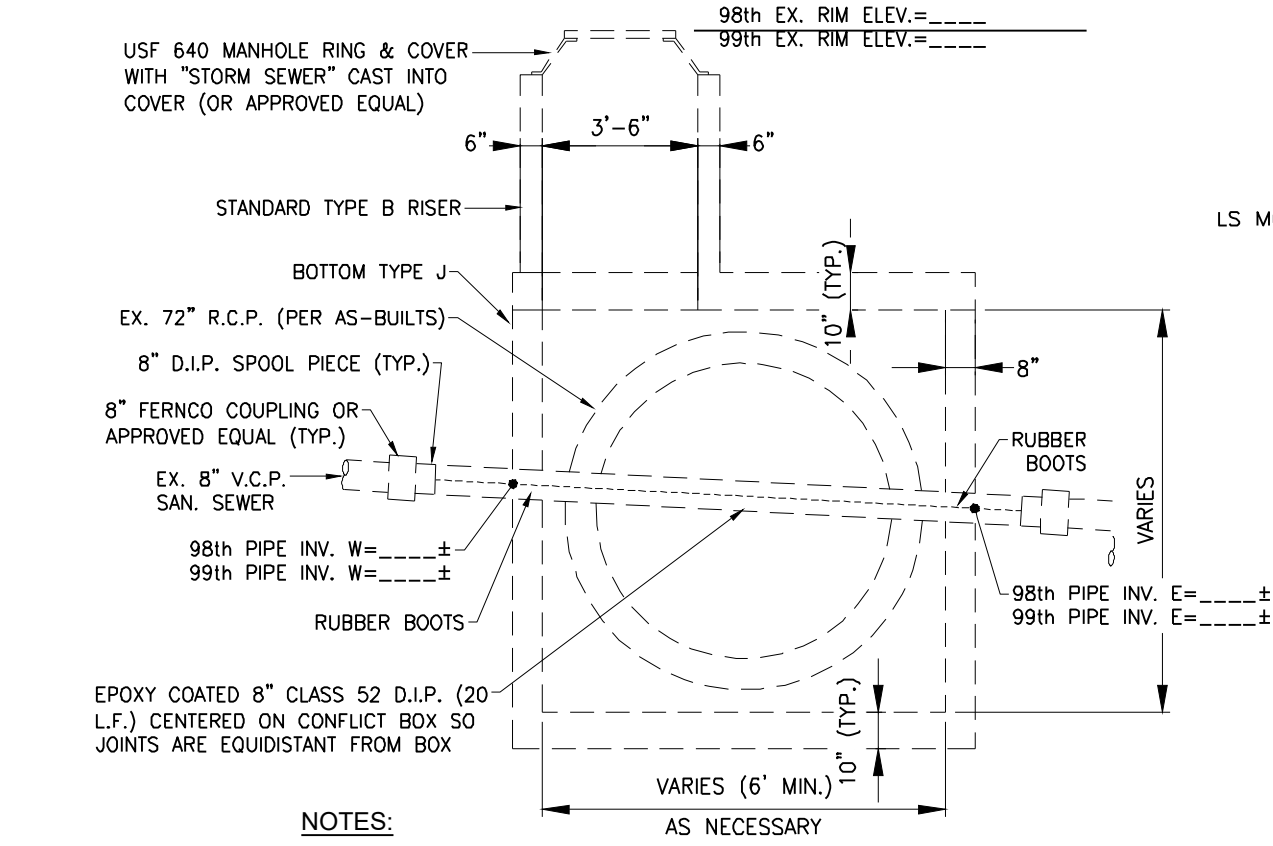
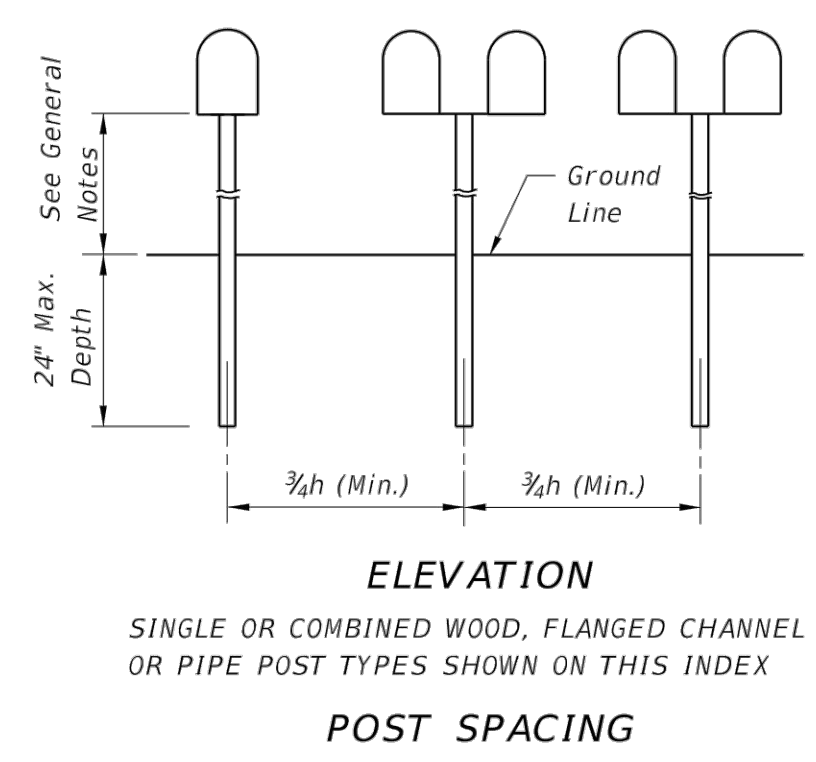
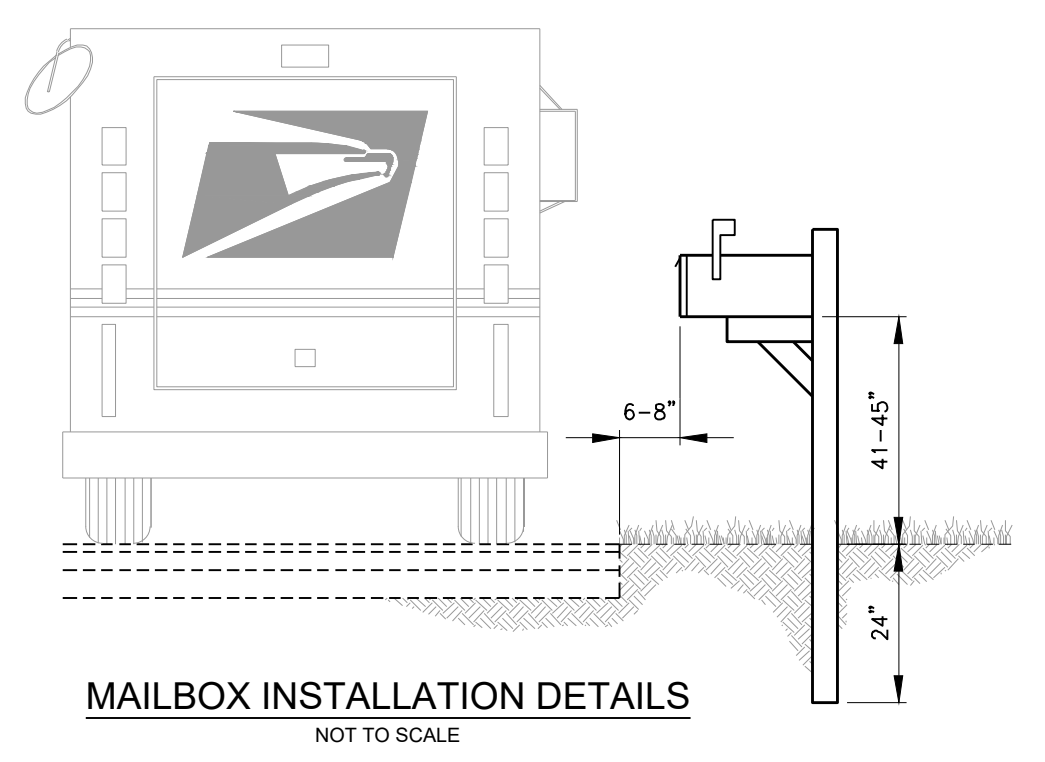
G. Grady Minor and Associates, P.A.
3800 Via Del Rey
Bonita Springs, Florida 34134
Business LC 26000266

98th & 99th Avenue North - Public Utilities Renewal
GENERAL DETAILS
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MUNICIPALITY: COLLIER COUNTY
SEC/TWN/RGE: 28/48/25
DATE: MARCH, 2022
SUBMITTAL TYPE: BID
SHEET 94 OF 99

JUSTIN A. FREDERIKSEN, P.E.
FLORIDA P.E. LICENSE NO. 66086

G:\ENGINEERING\PROJ-ENG\CCU285\01DWGS\SUBMITTAL\TYPE CONSTRUCTION PLANS\98TH & 99TH\COLL285_98TH-99TH - COVER.dwg 4/21/2023 12:54 PM



MINIMUM DRIVEWAY DIMENSION COMBINATION

DRIVEWAY WIDTH	RADIUS	FILLET	TOTAL WIDTHS	X-1	TURNOUT	TOTAL WIDTH
10'	0'	0'	30'	0'	0'	30'
10'	6"	0'	30'	8.2"	6.4"	30'
14'	6"	0'	30'	7.2"	8.2"	30'
14'	7.5"	0'	30'	7.2"	8.2"	30'
18'	7"	0'	30'	7"	5"	30'
18'	18.5"	0'	30'	8.5"	4.5"	30'
18'	6"	0'	30'	6"	4"	30'
18'	6"	0'	30'	6"	4"	30'
20'	6.5"	0'	30'	5.5"	4"	30'
24'	4.5"	0'	30'	4.5"	3"	30'
24'	4"	0'	30'	4"	3"	30'
24'	3"	0'	30'	3"	3"	30'

NOTES: THESE DIMENSIONS ARE NOT APPLICABLE TO DRIVEWAYS CONSTRUCTED APPROX. 25'-0" OR SHORER THAN THE ENGINEERING DEPARTMENT FOR DETAILS CONCERNING VARIANCES.

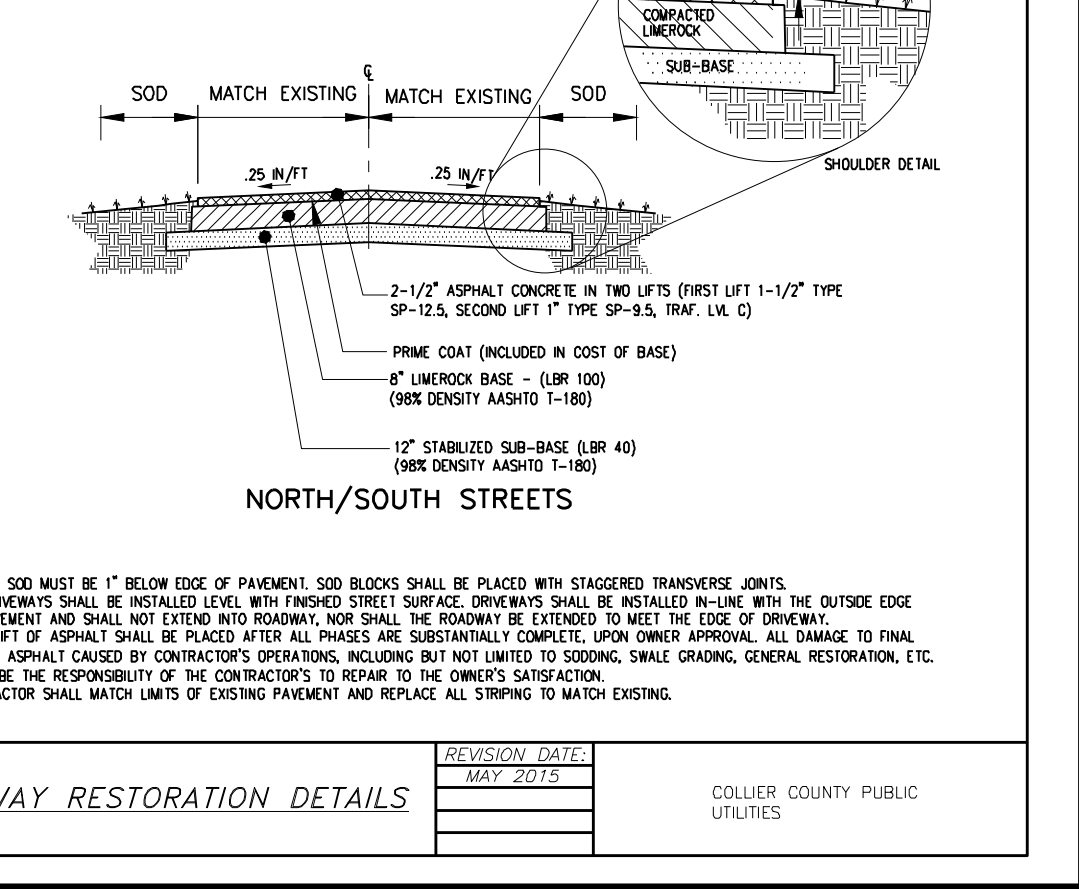
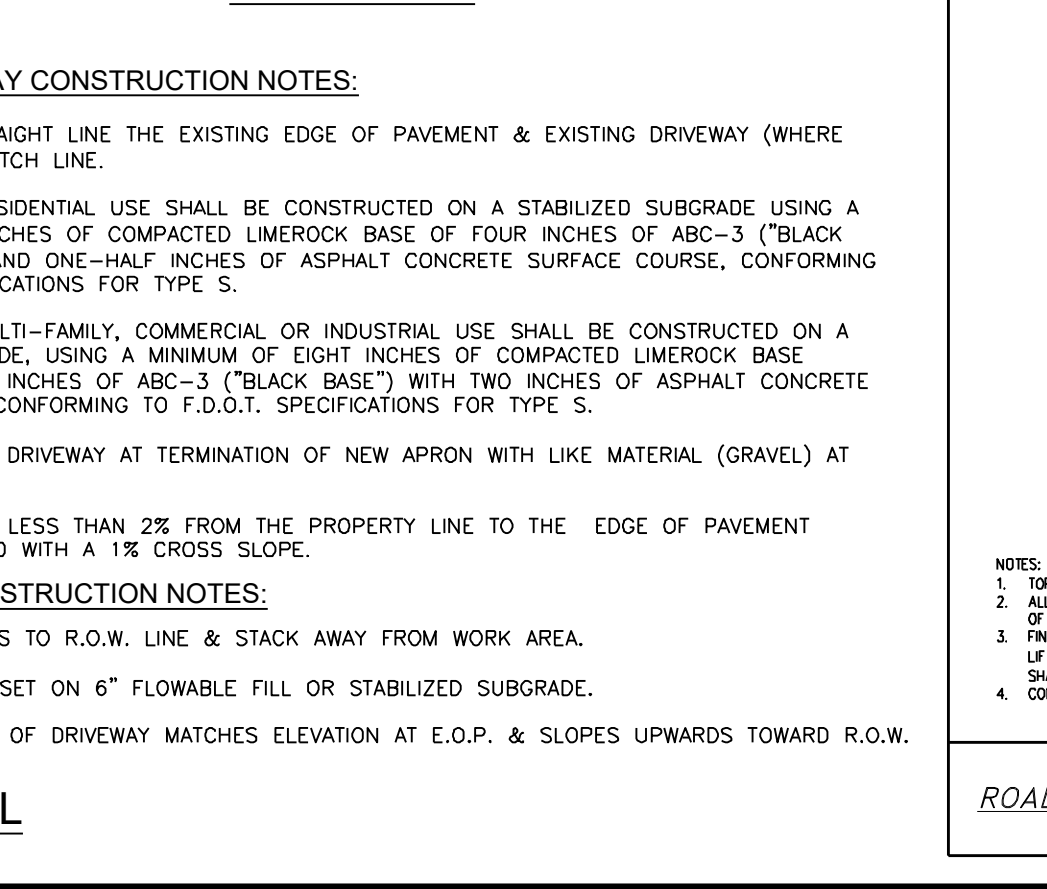
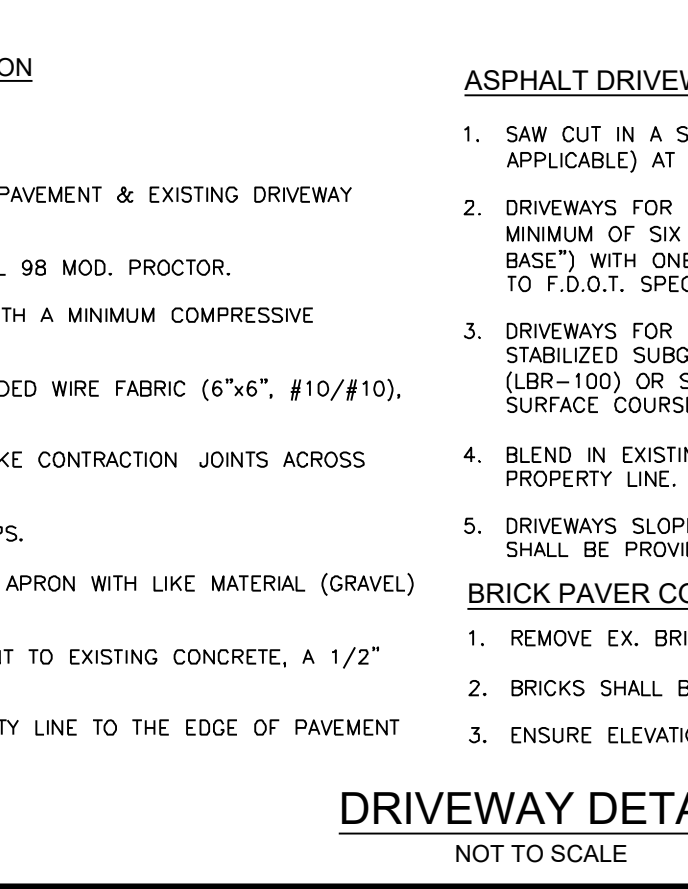
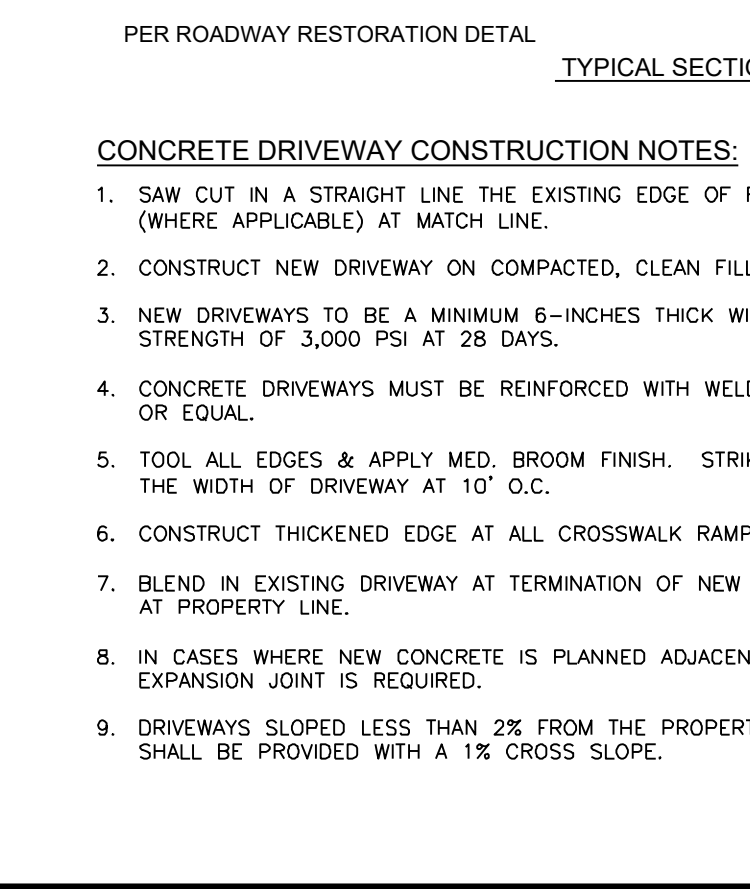
DATE: 09/10/03

COLLIER COUNTY TRANSPORTATION OPERATIONS DEPARTMENT

REVISION: 25-08 APPROVED

RESIDENTIAL DRIVEWAYS AND VARIOUS JOINTS

SHEET 1 OF 26



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: J.N.D.
 DRAWN BY: R.A.K.
 APPROVED: J.A.F.
 JOB CODE: CCU285
 22X34 SCALE: N/A
 11X17 SCALE: N/A

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98th & 99th Avenue North - Public Utilities Renewal

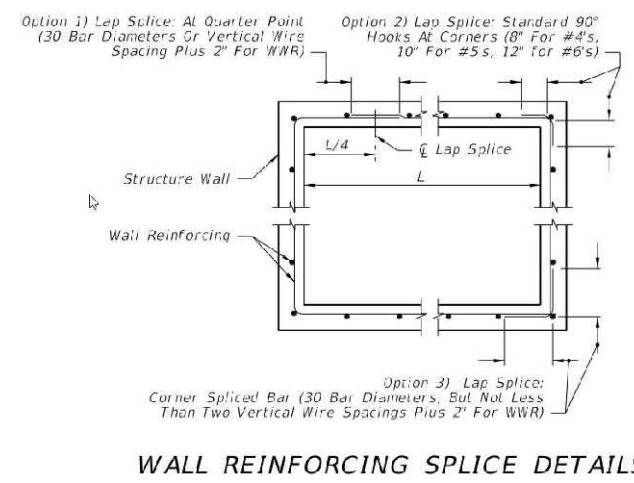
MISCELLANEOUS DETAILS

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 DATE: MARCH, 2022
 SUBMITTAL TYPE: BID
 SHEET 95 OF 99

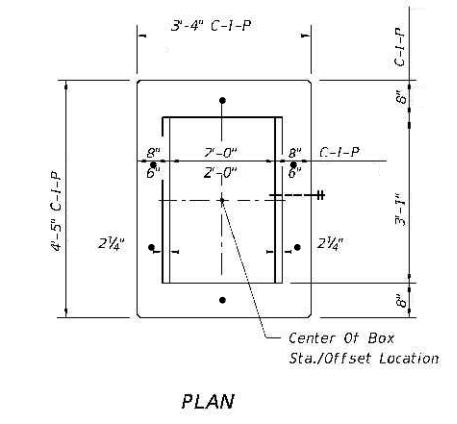
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WALL REINFORCING SPICE DETAILS

1. Joint dowels are to be #4 bars, 12" long with a minimum of 6 bars per joint approximately evenly spaced for circular structures or at maximum 12" spacing for rectangular structures. Bars may be either Adhesive Bonded Dowels in accordance with FDOT Specification Section 416, or placed approximately 6" into fresh concrete leaving the remainder to extend into the secondary coil. Welded wire reinforcement may be substituted for the dowel bar in accordance with the equivalent steel area table on FDOT index 425-001, Sheet 4.

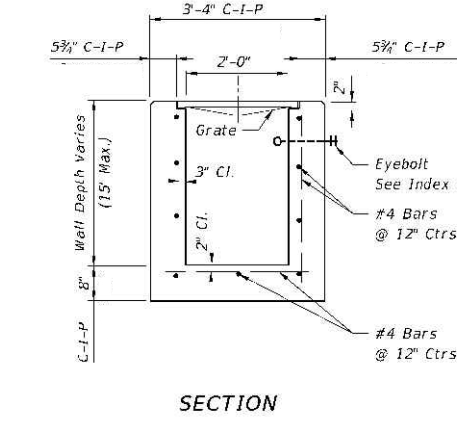
2. Joints between wall segments and between wall segments and top or bottom slabs may be sealed either by preformed plastic gasket material using the procedures given in FDOT Section 430 of the Specifications or by non-shrink grout, in accordance with FDOT Section 934 of the Specifications.



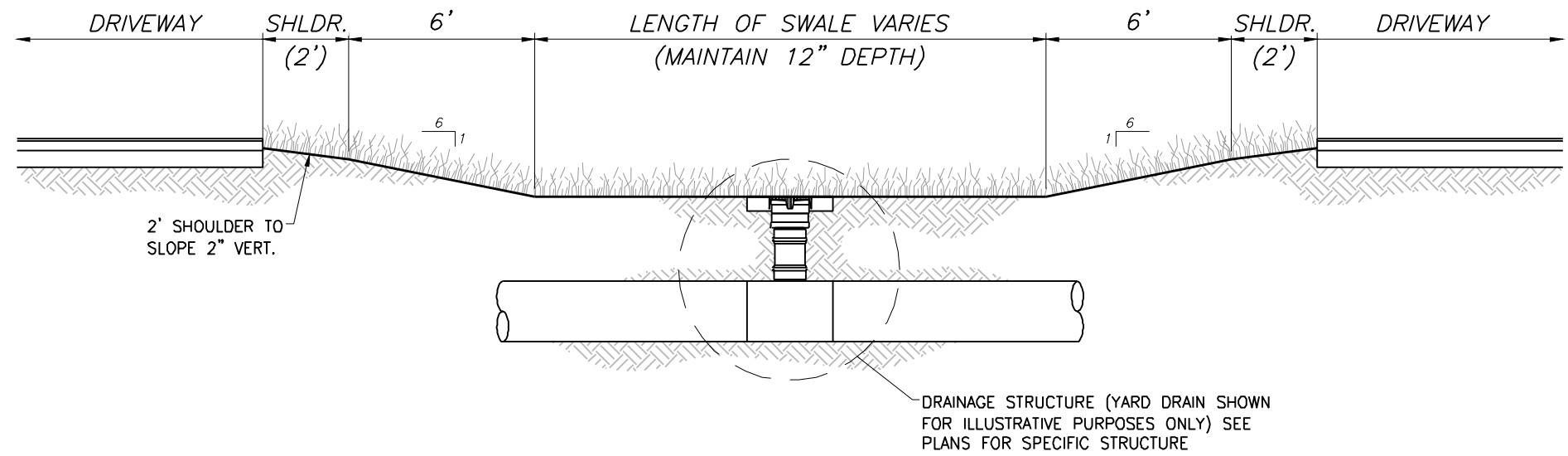
HORIZONTAL WALL REINFORCING SCHEDULES (TABLE 1)

WALL DEPTH	SCHEDULE	AREA (IN. Y/L)	MAX. SPACING BARS	WWF
0-18"	A12	0.20	12"	8"

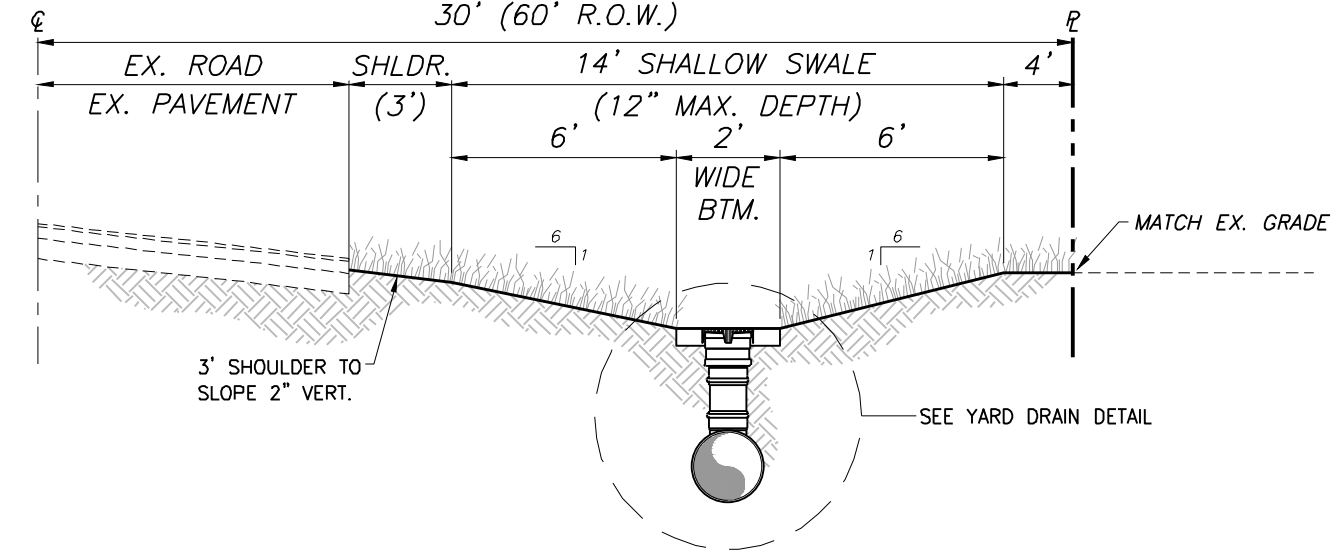
TYPE C
Recommended Maximum Pipe Size:
2'-0" Wall - 18" Pipe
3'-1" Wall - 24" Pipe (18" where an 18" pipe enters a 2'-0" wall)



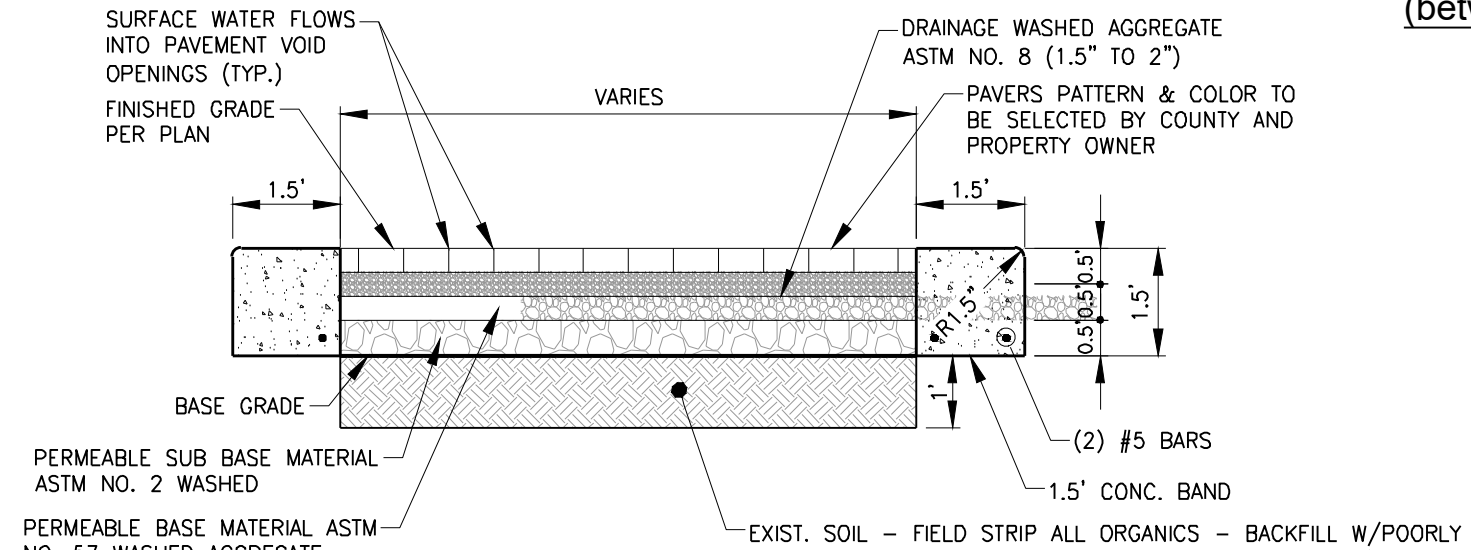
DRAINAGE STRUCTURE MODIFICATION DETAIL
(FOR STRUCTURE TO BE RAISED) NOT TO SCALE



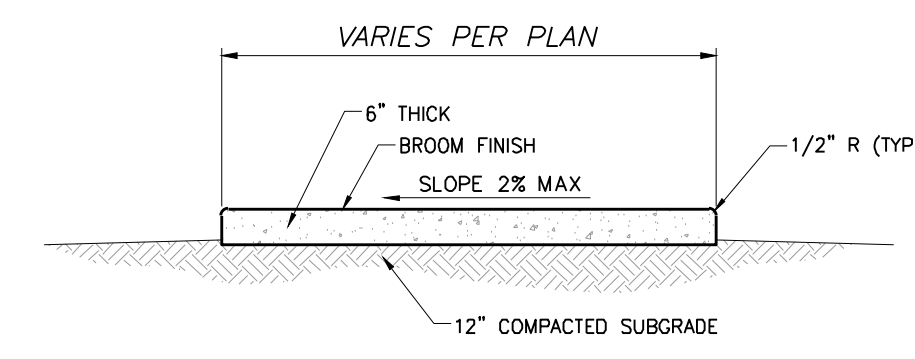
TYPICAL SWALE PROFILE
(between driveways)
NOT TO SCALE



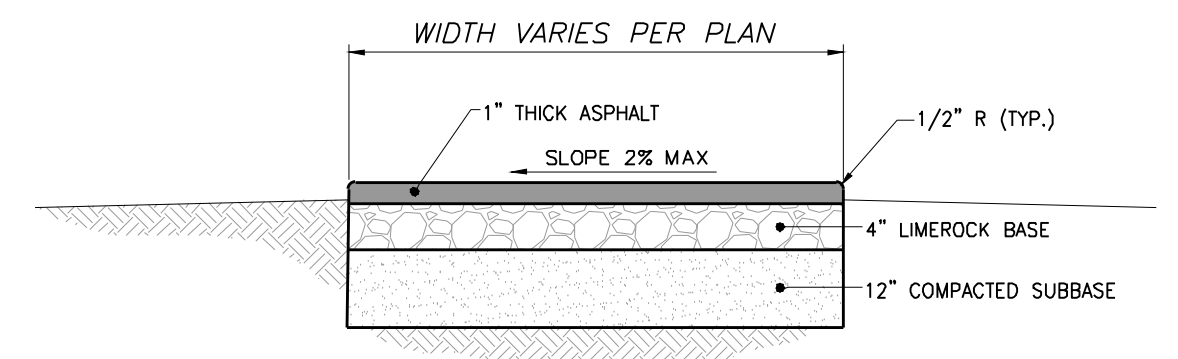
TYPICAL SWALE SECTION
NOT TO SCALE



PERVIOUS PAVER PARKING TYPICAL SECTION
N.T.S.

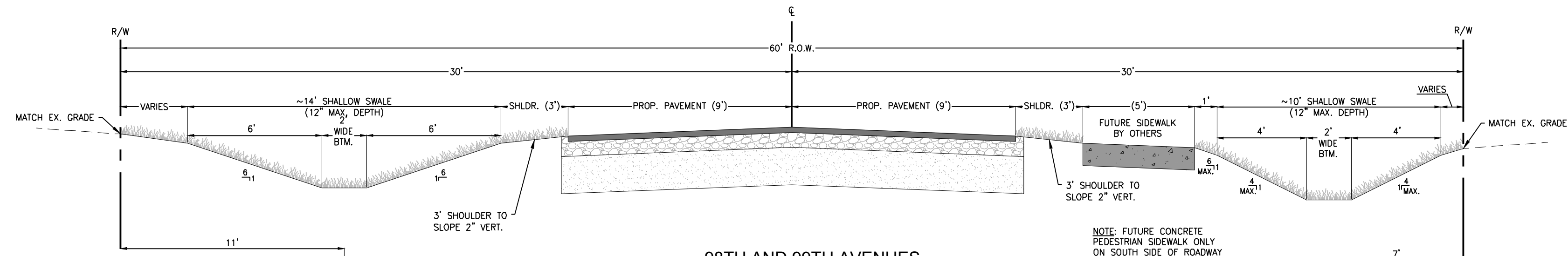


TYPICAL CONCRETE SIDEWALK SECTION
NOT TO SCALE

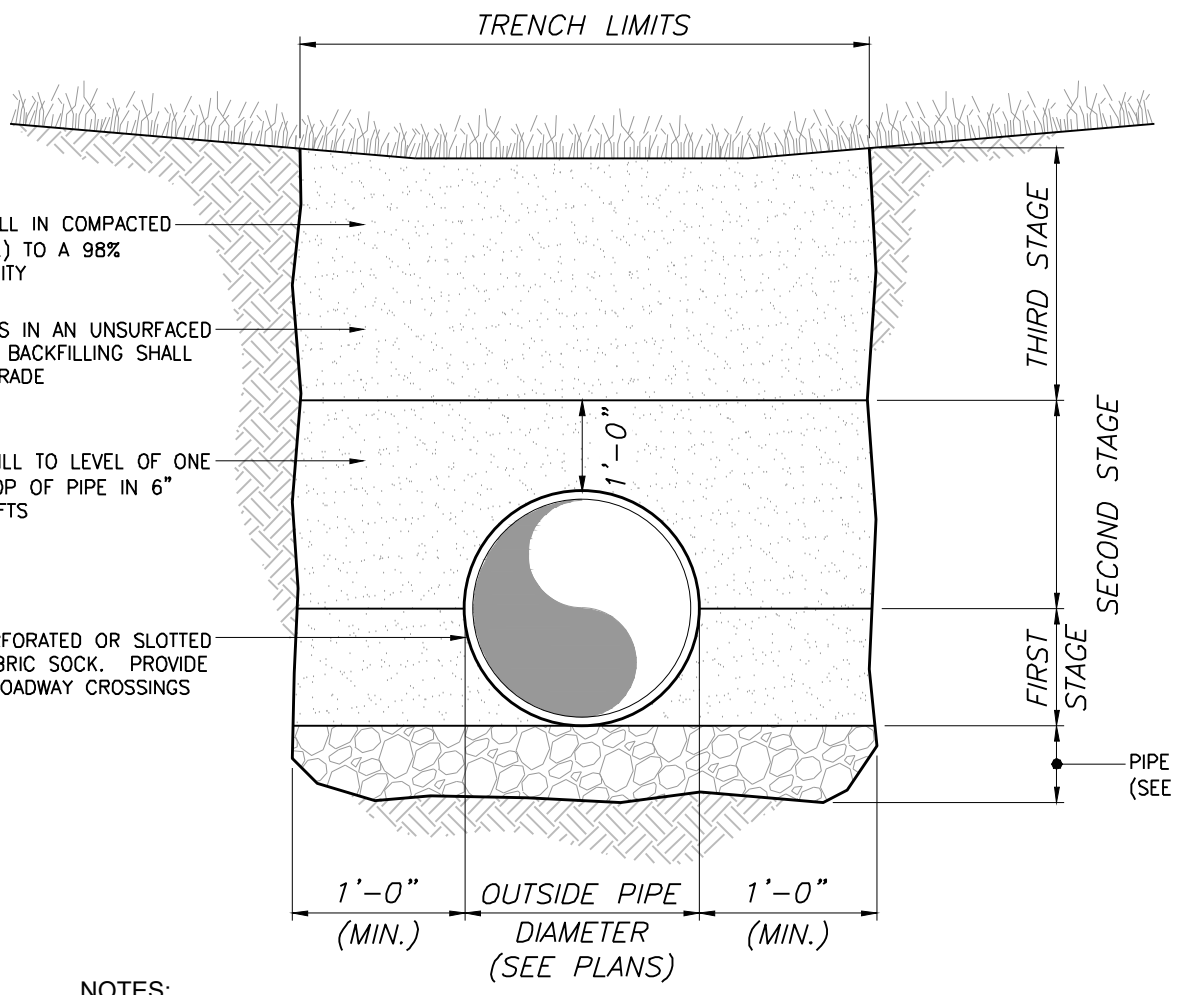


TYPICAL ASPHALT SIDEWALK SECTION
NOT TO SCALE

1. THE PROPOSED FILL SHALL BE COMPACTED IN 12" LIFTS TO 95% MAXIMUM DENSITY IN ACCORDANCE WITH AASHTO T-180 AND THE ENGINEER'S SPECIFICATIONS.
2. SUBGRADE SHALL BE SAND, COMPACTED TO A FIRM EVEN SURFACE, TRUE TO GRADE AND CROSS-SECTION, AND BE MOIST WHEN CONCRETE IS PLACED.
3. SIDEWALK SHALL HAVE CONTRACTION JOINTS AT 5' INTERVALS AND AN EXPANSION JOINT EVERY 120' MAXIMUM.

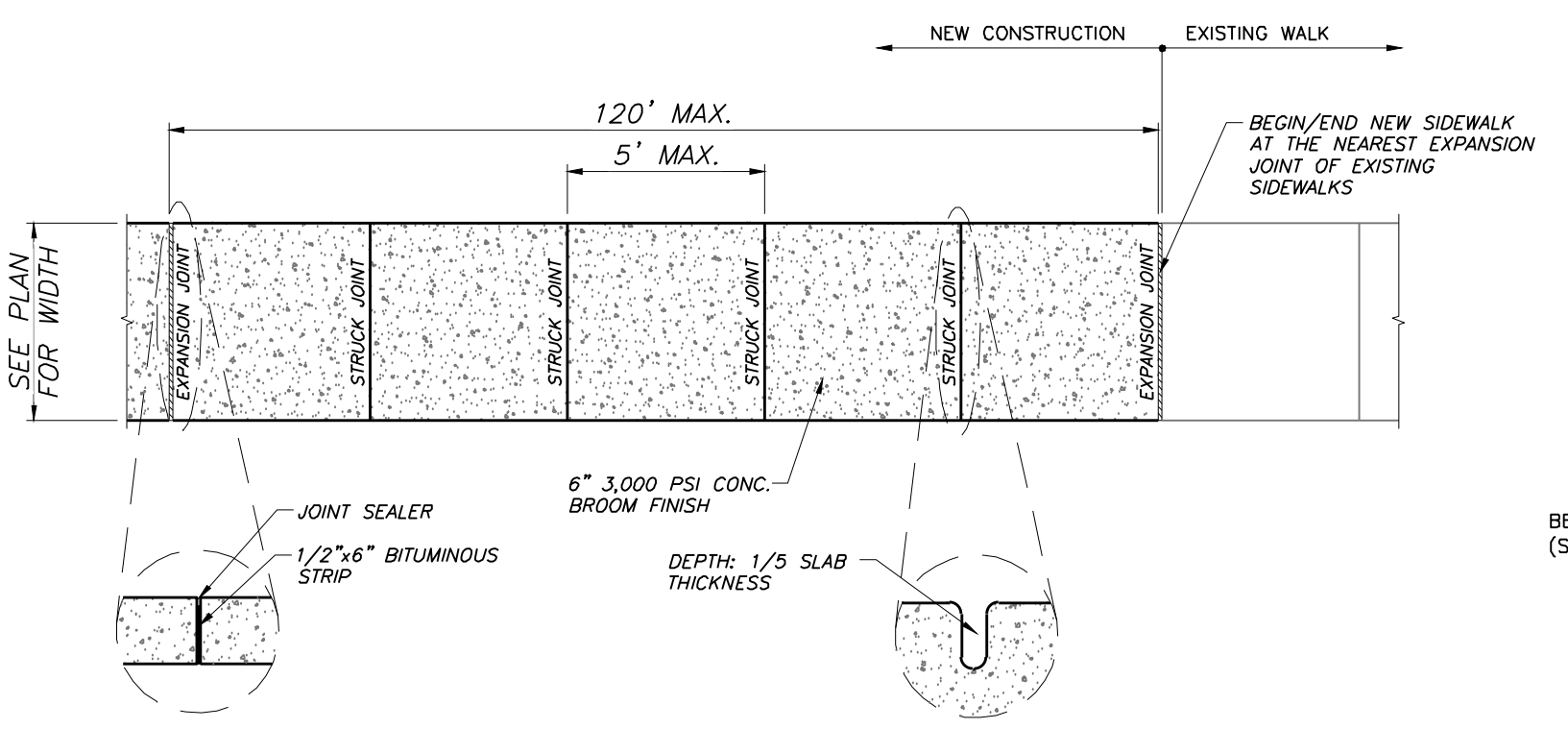


98TH AND 99TH AVENUES TYPICAL STORMWATER TRENCH/SWALE SECTION
NOT TO SCALE



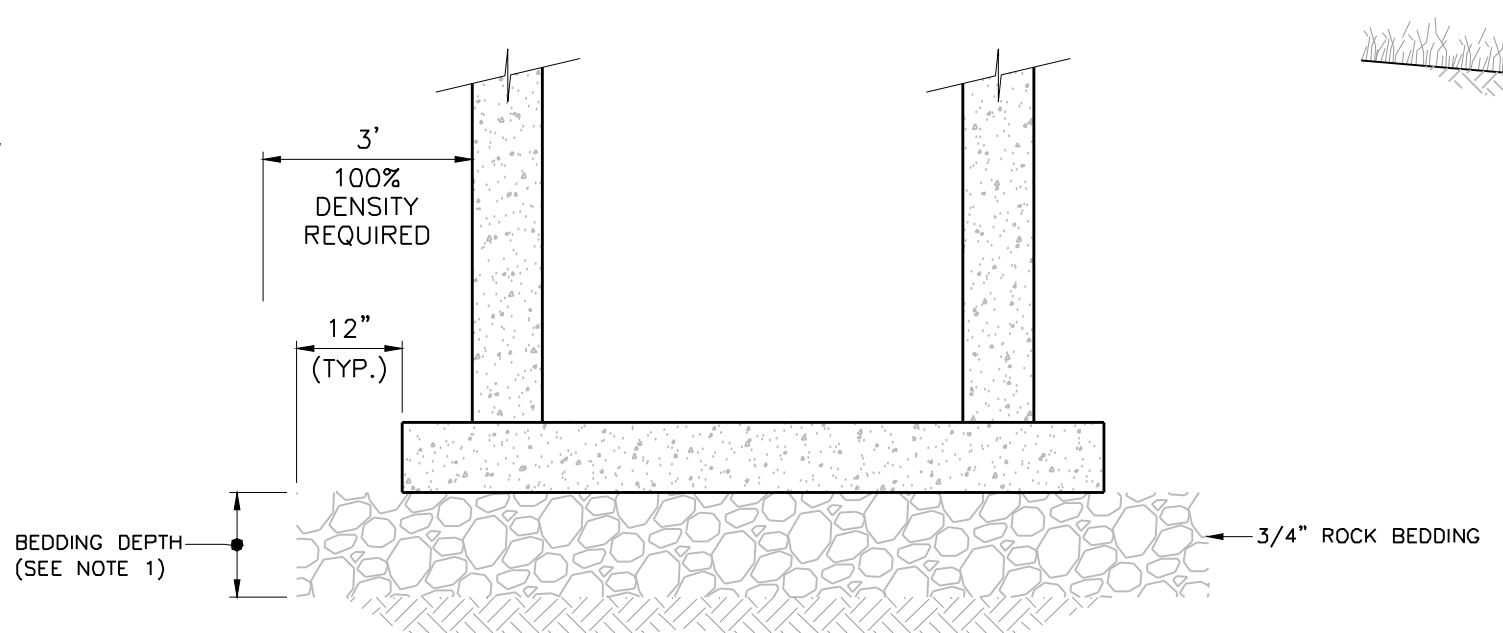
TYPICAL STORMWATER TRENCH DETAIL
NOT TO SCALE

- NOTES:**
1. BACKFILL SHALL BE OF SUITABLE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. BACKFILL MATERIAL SHALL CONSIST OF EARTH, LOAM, SANDY CLAY, GRAVEL, CRUSHED LIMESTONE, OR OTHER APPROVED MATERIAL. REFER TO TECHNICAL SPECIFICATIONS FOR DETAIL REQUIREMENTS.
 2. IF TRENCH BOTTOM CONTAINS ROCK, THEN A MINIMUM OF A 6" PIPE BEDDING SHALL BE USED.



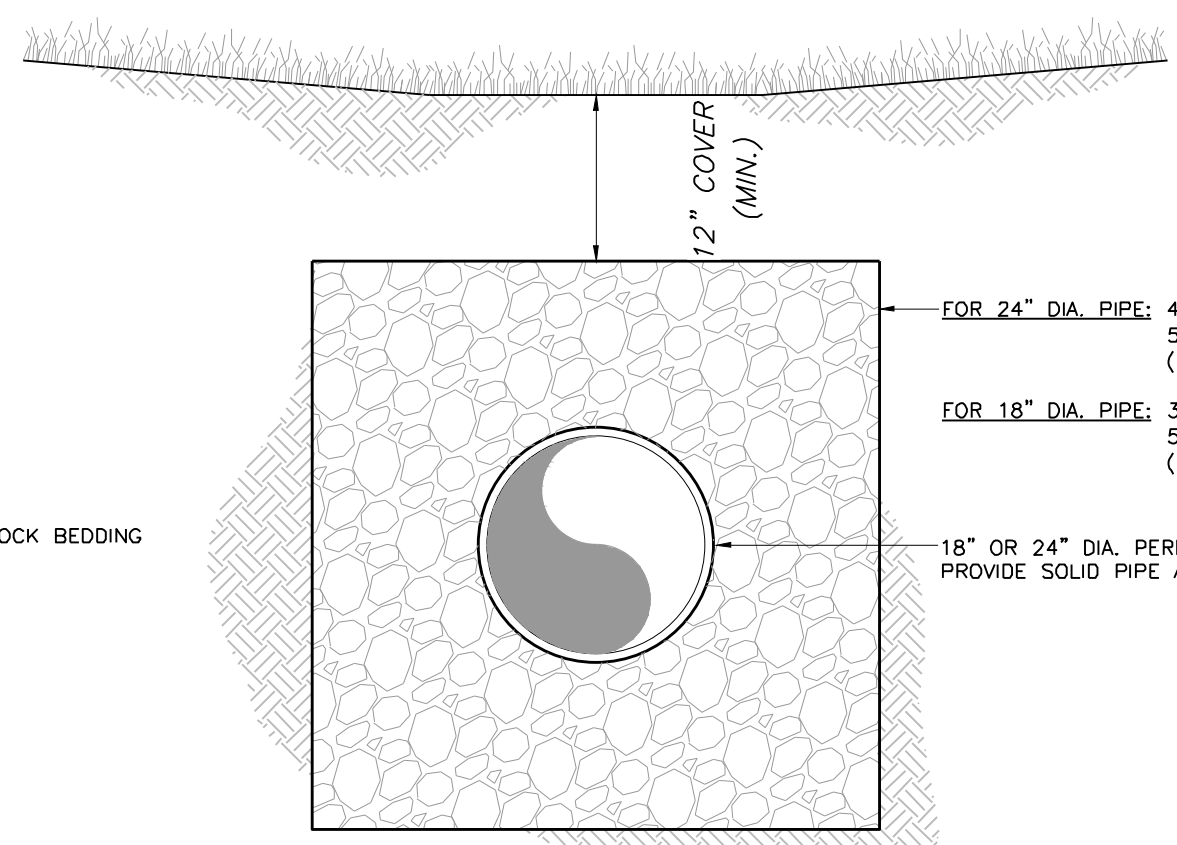
SIDEWALK DETAIL
NOT TO SCALE

- NOTES:**
1. SIDEWALKS SHALL HAVE TOOLED EDGES.
 2. CONSTRUCTION JOINTS SHALL BE LOCATED AT STRUCK JOINTS OR EXPANSION JOINTS ONLY.
 3. WALKS LOCATED WITHIN RIGHT OF WAY SHALL COMPLY WITH FDOT INDEX #310 AND CORRESPONDING SPECIFICATIONS.



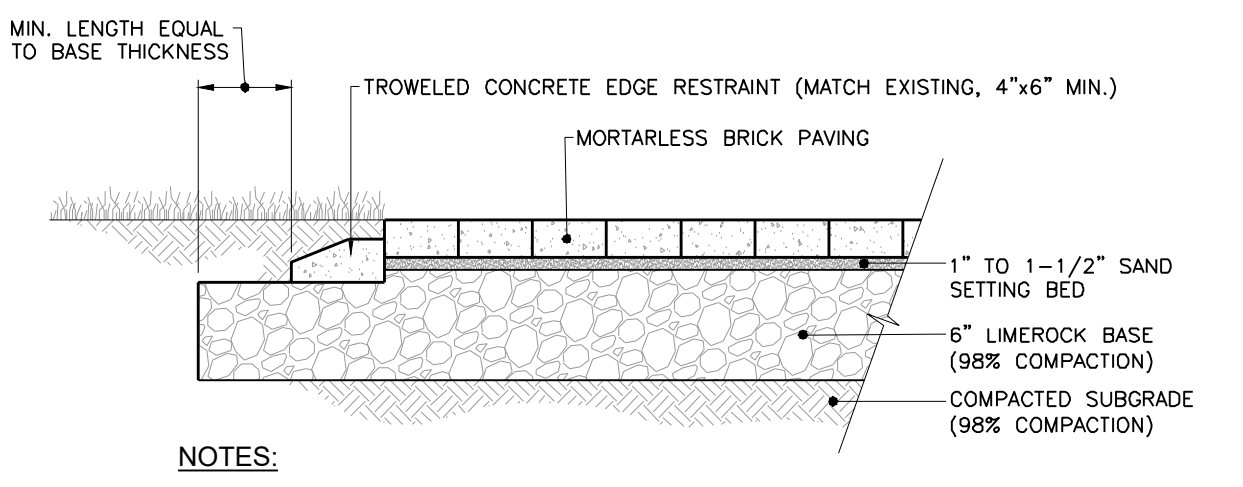
STANDARD BEDDING DETAIL
NOT TO SCALE

- NOTES:**
1. BEDDING DEPTH SHALL BE 12" UNDER SANITARY MANHOLES & DRAINAGE STRUCTURES.
 2. IF STRUCTURE INCLUDES WEEP HOLES, ROCK SHALL BE WRAPPED IN FILTER FABRIC THAT MEETS THE REQUIREMENTS OF F.D.O.T. SPECIFICATION SECTION 985.
 3. BACKFILL AROUND ALL STRUCTURES SHALL BE PLACED IN 12" COMPACTED LIFTS, 100% DENSITY REQUIRED AT A MINIMUM OF 3 FEET FROM THE OUTER EDGE OF THE STRUCTURE TO THE STABILIZED SUBGRADE FOR STRUCTURES IN PAVED AREAS OR TO THE TOP OF THE STRUCTURE IN UNPAVED AREAS.



TYPICAL WATER QUALITY TRENCH DETAIL
NOT TO SCALE

- FOR 24" DIA. PIPE: 4"x3'H ROCK TRENCH (CLEAN No. 57 STONE) WRAPPED IN FABRIC (1' LAP)
- FOR 18" DIA. PIPE: 3.5"x2.5'H ROCK TRENCH (CLEAN No. 57 STONE) WRAPPED IN FABRIC (1' LAP)
- 18" OR 24" DIA. PERFORATED OR SLOTTED PIPE. PROVIDE SOLID PIPE AT ALL ROADWAY CROSSINGS



- NOTES:**
1. PROVIDE CONCRETE EDGE RESTRAIN/CURB ALONG ALL UNRESTRAINED EDGES OF PAVER DRIVEWAYS.
 2. PROVIDE JOINTING SAND BETWEEN BRICK PAVERS.



REVISION	DATE	DESCRIPTION	BY

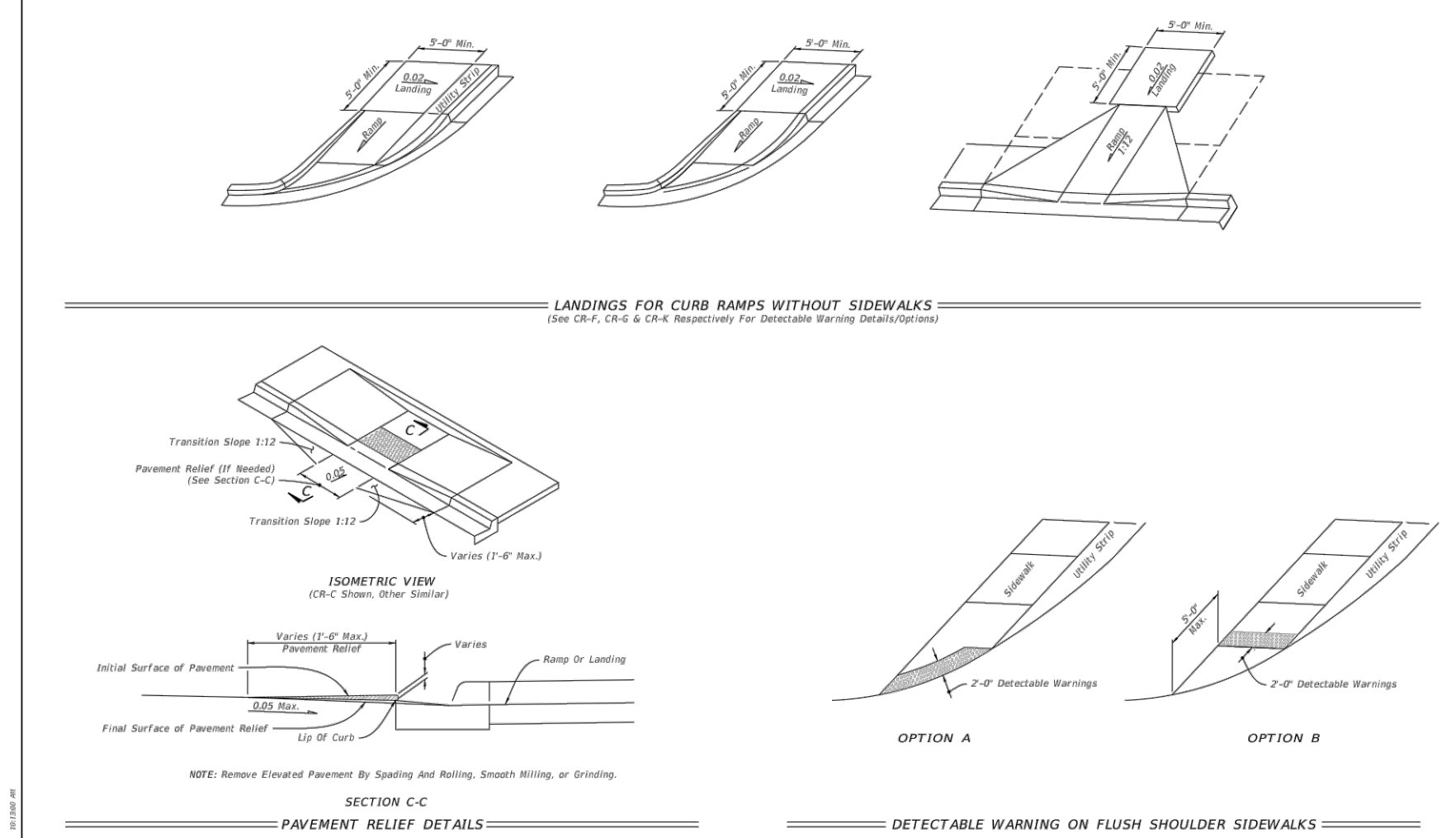
DESIGNED BY: J.N.D.
DRAWN BY: R.A.K.
APPROVED: J.A.F.
JOB CODE: CCU285
22X34 SCALE: N/A
11X17 SCALE: N/A

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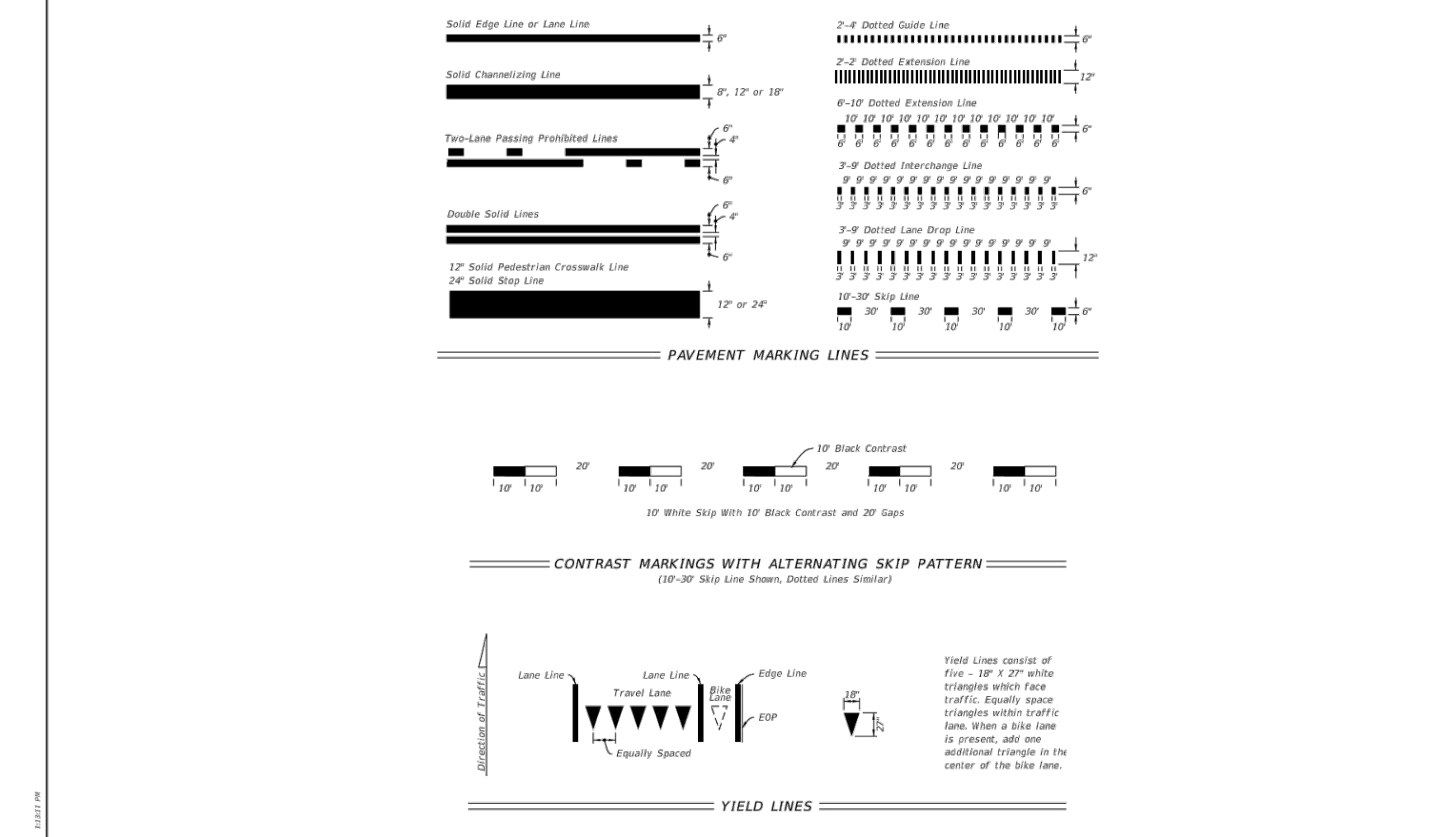
98th & 99th Avenue North - Public Utilities Renewal
MISCELLANEOUS DETAILS
ELEVATIONS SHOWN HEREON ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29) CONVERSION FACTOR TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) IS (-) 1.237

MUNICIPALITY: COLLIER COUNTY
SEC/TWN/RGE: 28/48/25
DATE: MARCH, 2022
SUBMITTAL TYPE: BID
SHEET 96 OF 99

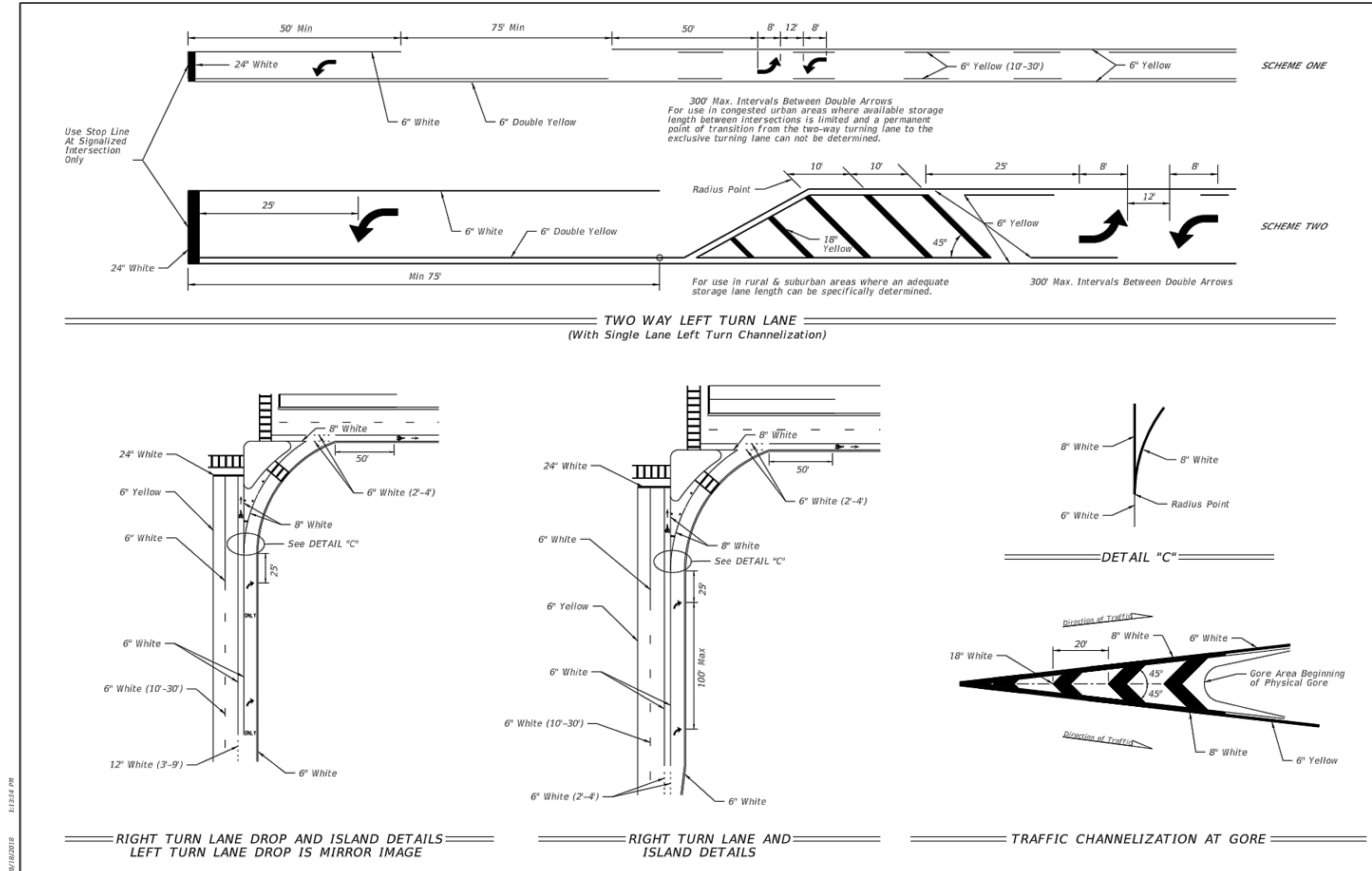
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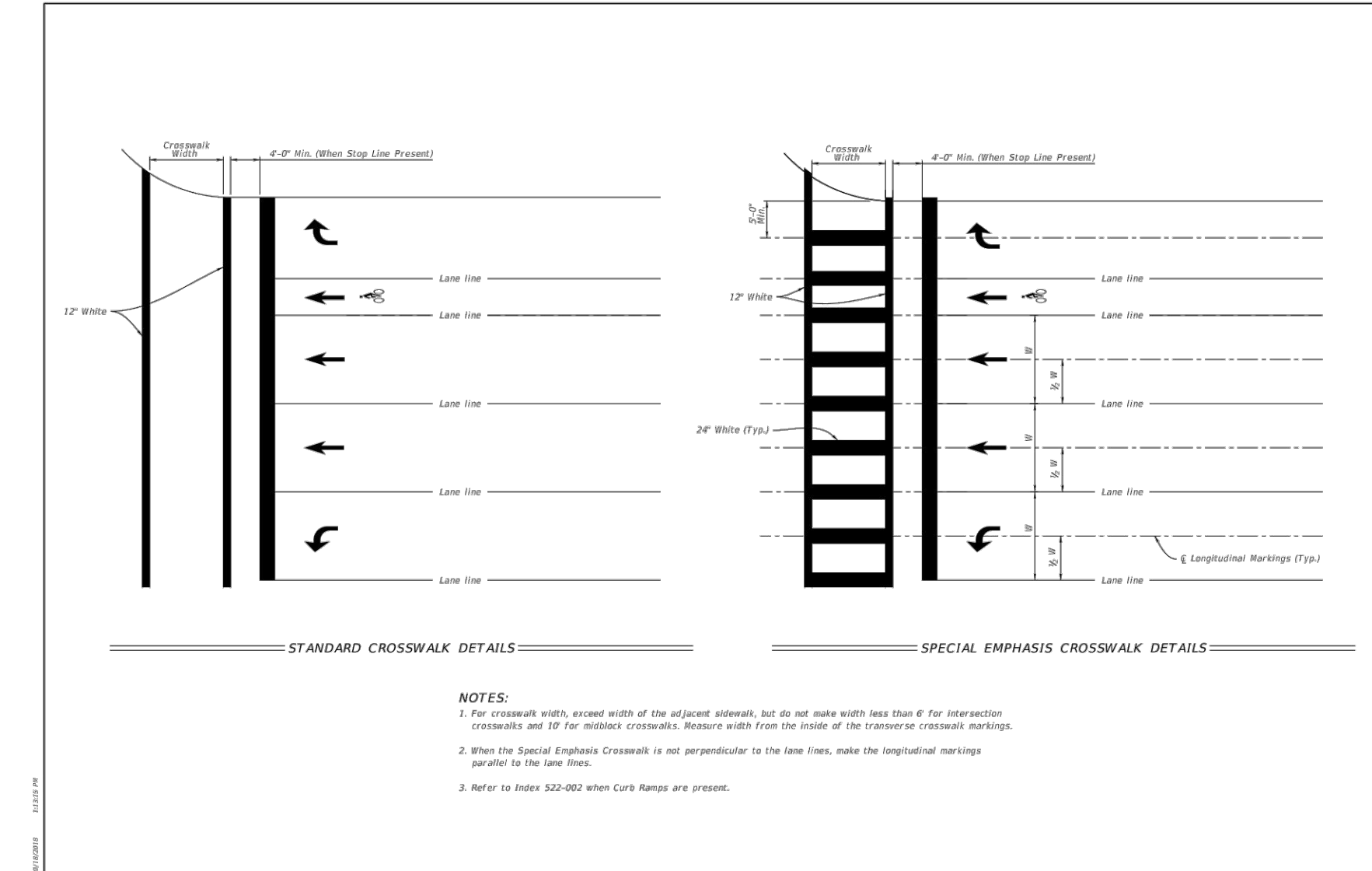
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11/01/18	STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMP	522-002	6 of 8



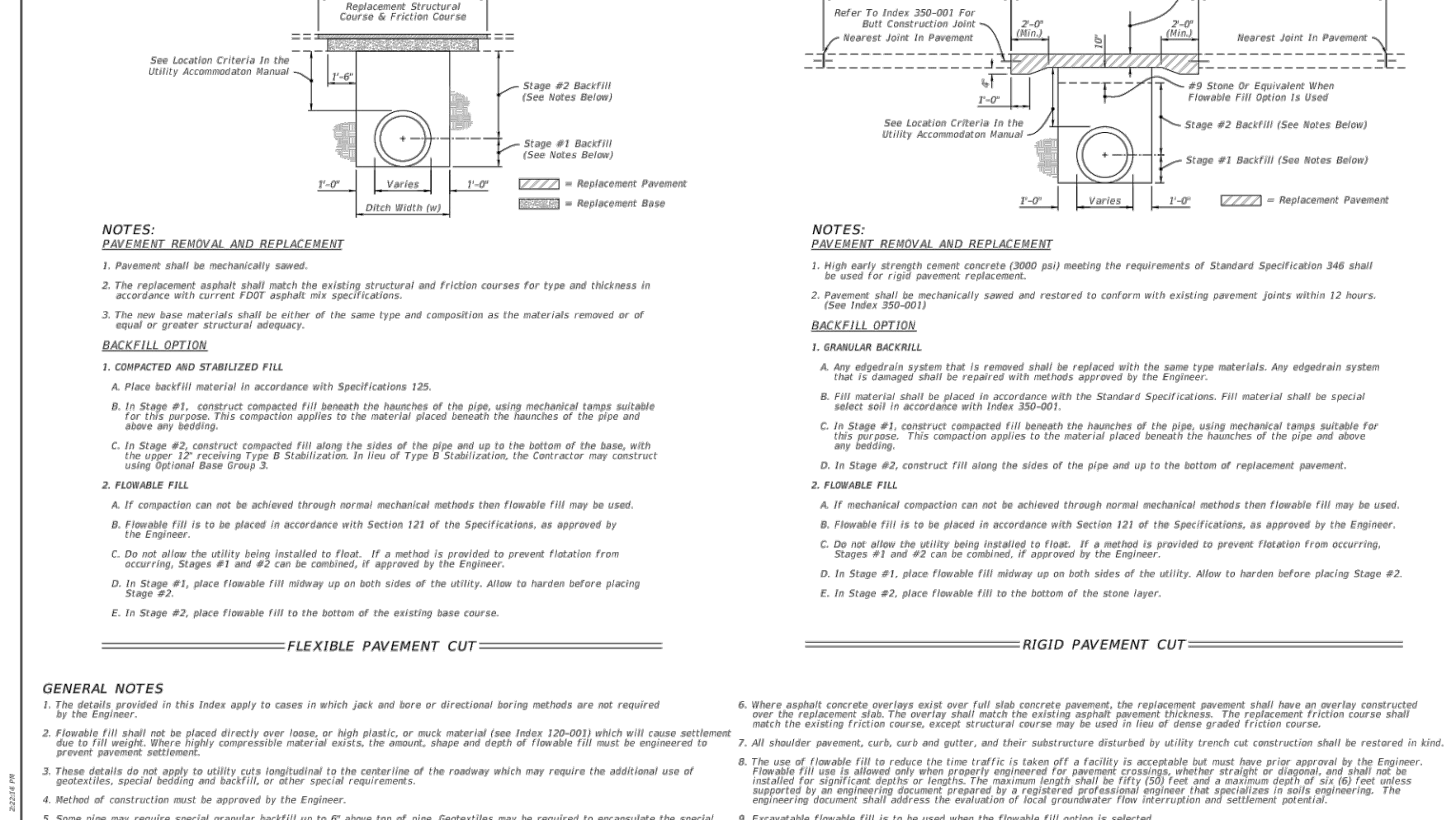
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11/01/18	STANDARD PLANS	PAVEMENT MARKINGS	711-001	2 of 13



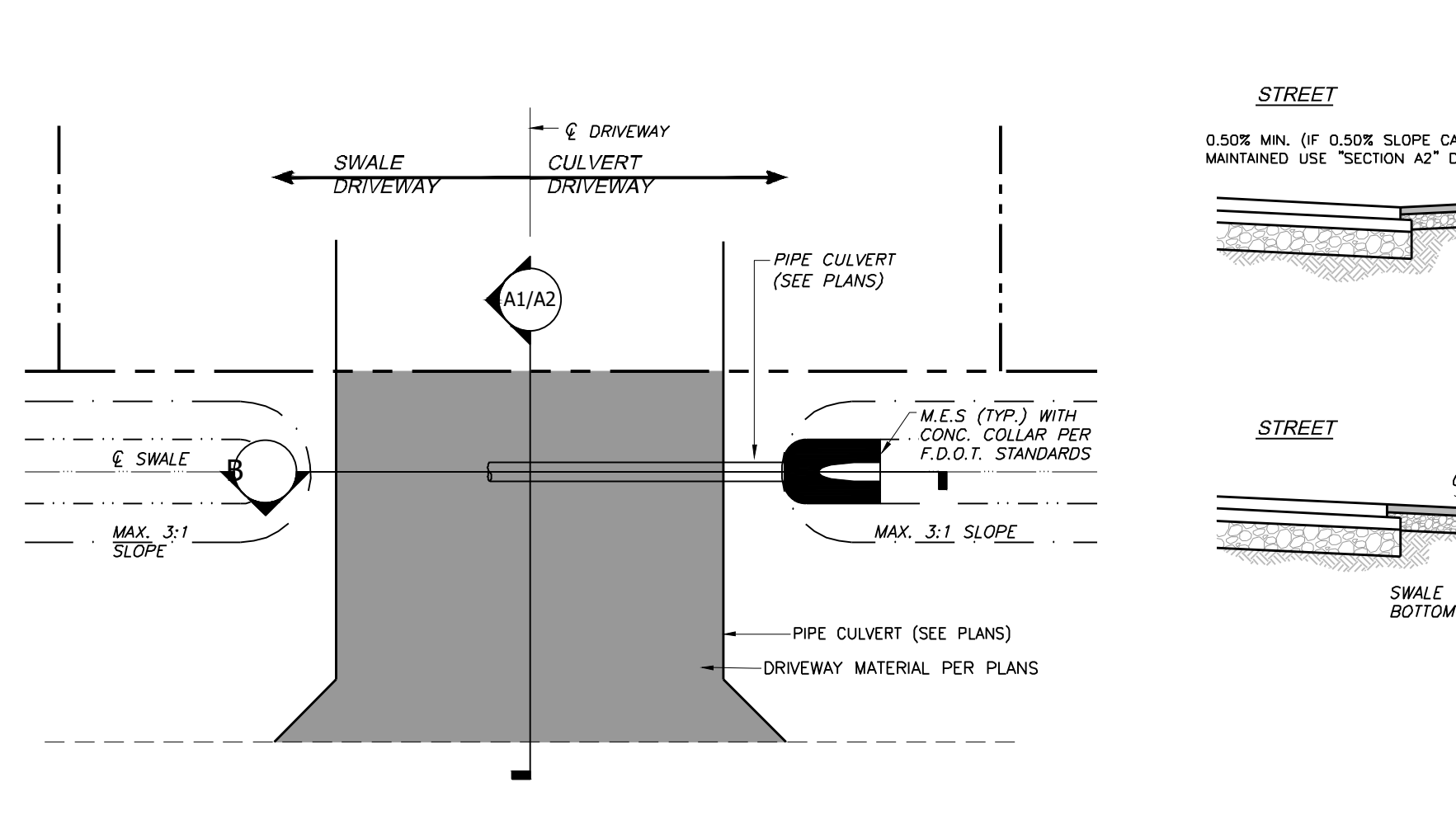
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11/01/18	STANDARD PLANS	PAVEMENT MARKINGS	711-001	8 of 13



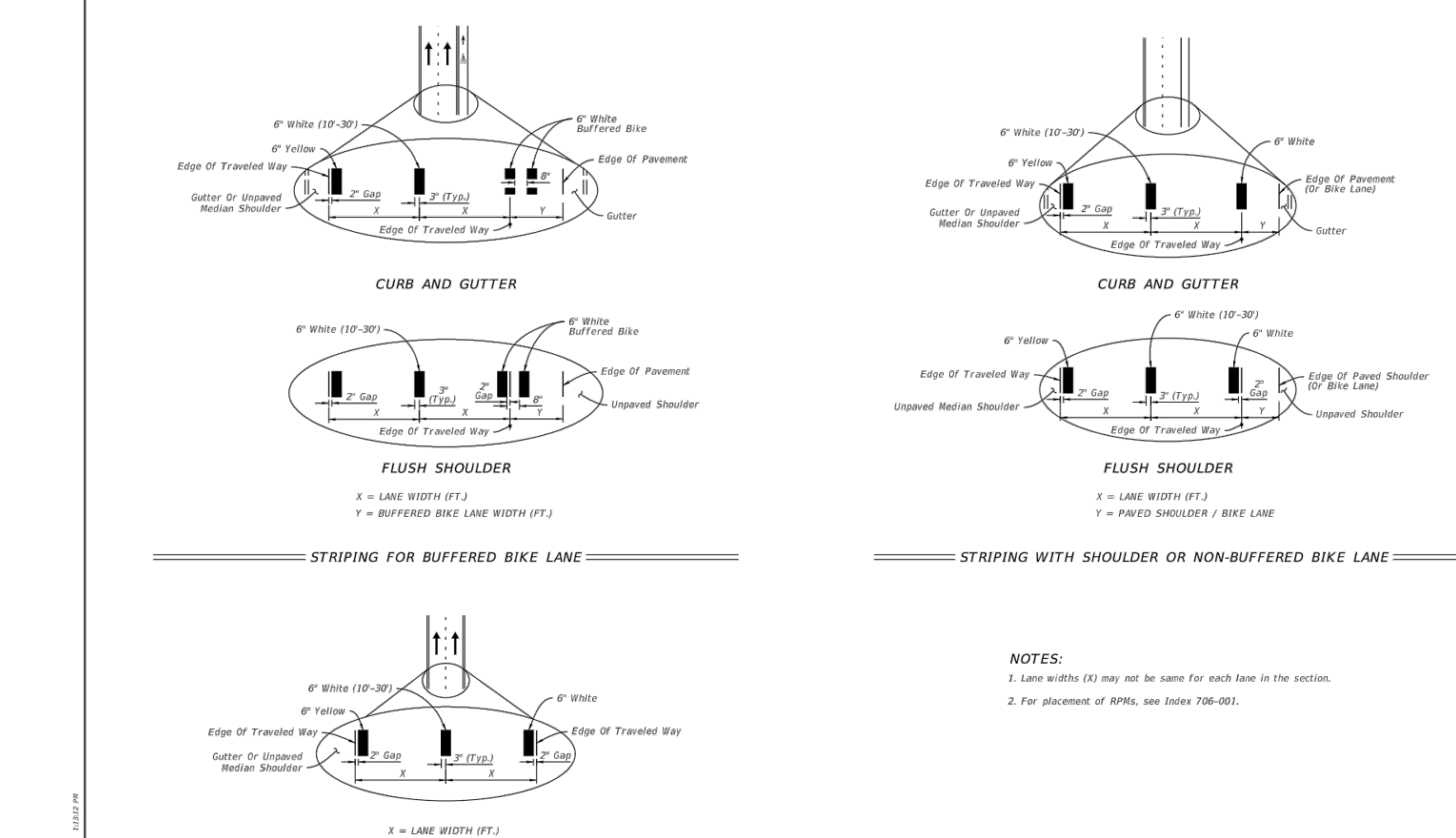
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11/01/18	STANDARD PLANS	PAVEMENT MARKINGS	711-001	10 of 13



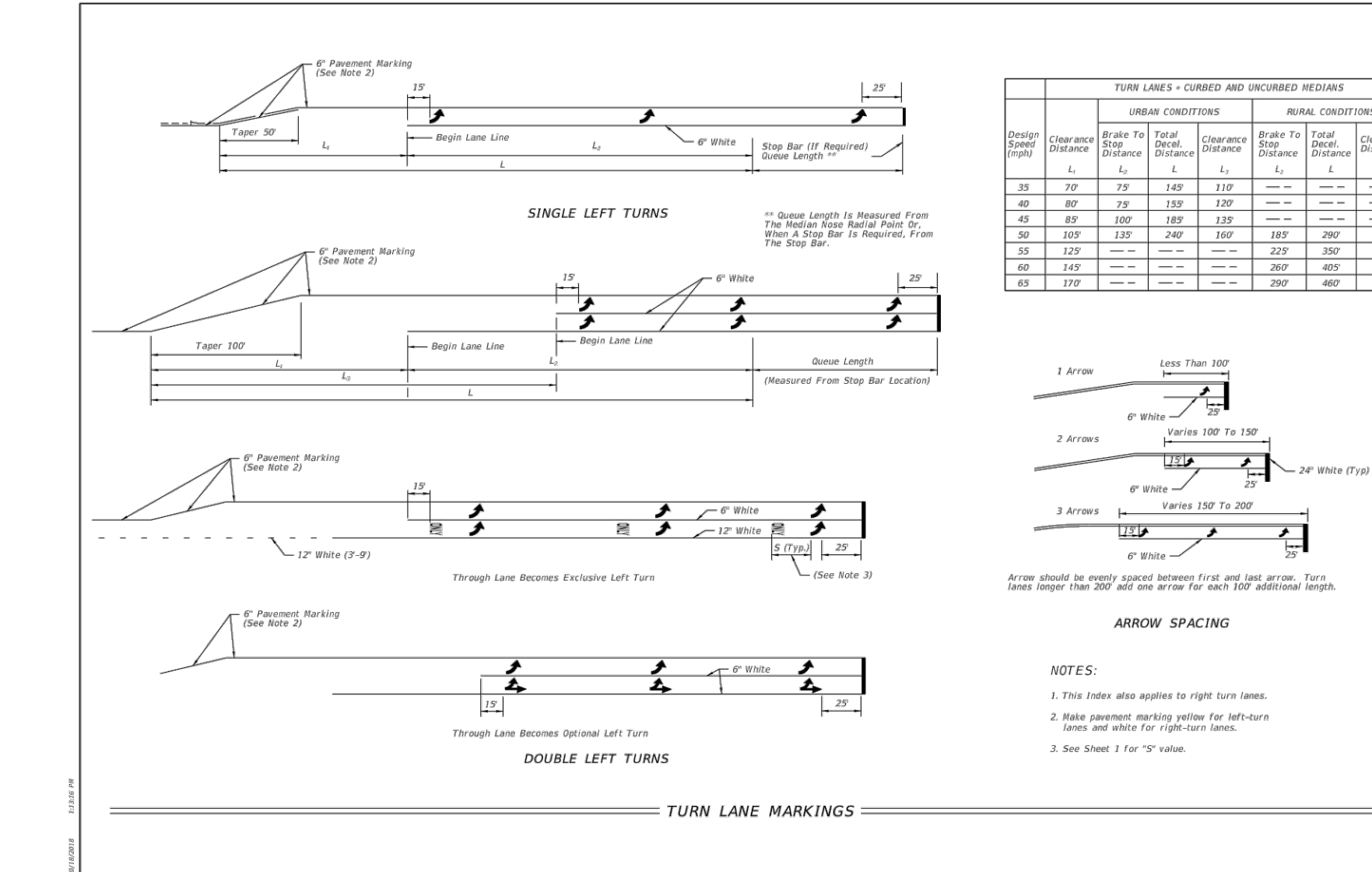
LAST REVISION	DESCRIPTION	FY 2019-20	INDEX	SHEET
01/01/17	STANDARD PLANS	UTILITY ADJUSTMENTS THRU EXISTING PAVEMENT	125-001	1 of 2



LAST REVISION	DESCRIPTION	FY 2019-20	INDEX	SHEET
11/01/18	STANDARD PLANS	PAVEMENT MARKINGS	711-001	11 of 13



LAST REVISION	DESCRIPTION	FY 2019-20	INDEX	SHEET
11/01/18	STANDARD PLANS	PAVEMENT MARKINGS	711-001	3 of 13



LAST REVISION	DESCRIPTION	FY 2019-20	INDEX	SHEET
11/01/18	STANDARD PLANS	PAVEMENT MARKINGS	711-001	11 of 13



REVISION	DATE	DESCRIPTION

DESIGNED BY:	J.N.D.
DRAWN BY:	R.A.K.
APPROVED:	J.A.F.
JOB CODE:	CCU285
22X34 SCALE:	N/A
11X17 SCALE:	N/A

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98th & 99th Avenue North - Public Utilities Renewal
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MUNICIPALITY:	COLLIER COUNTY
SEC/TWN/RGE:	28/48/25
DATE:	MARCH, 2022
SUBMITTAL TYPE:	BID
SHEET	97 OF 99

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Collier County
TRAFFIC OPERATIONS
SIGNING AND PAVEMENT MARKINGS
SPECIAL PROVISION DETAILS
DATED: JULY 2014

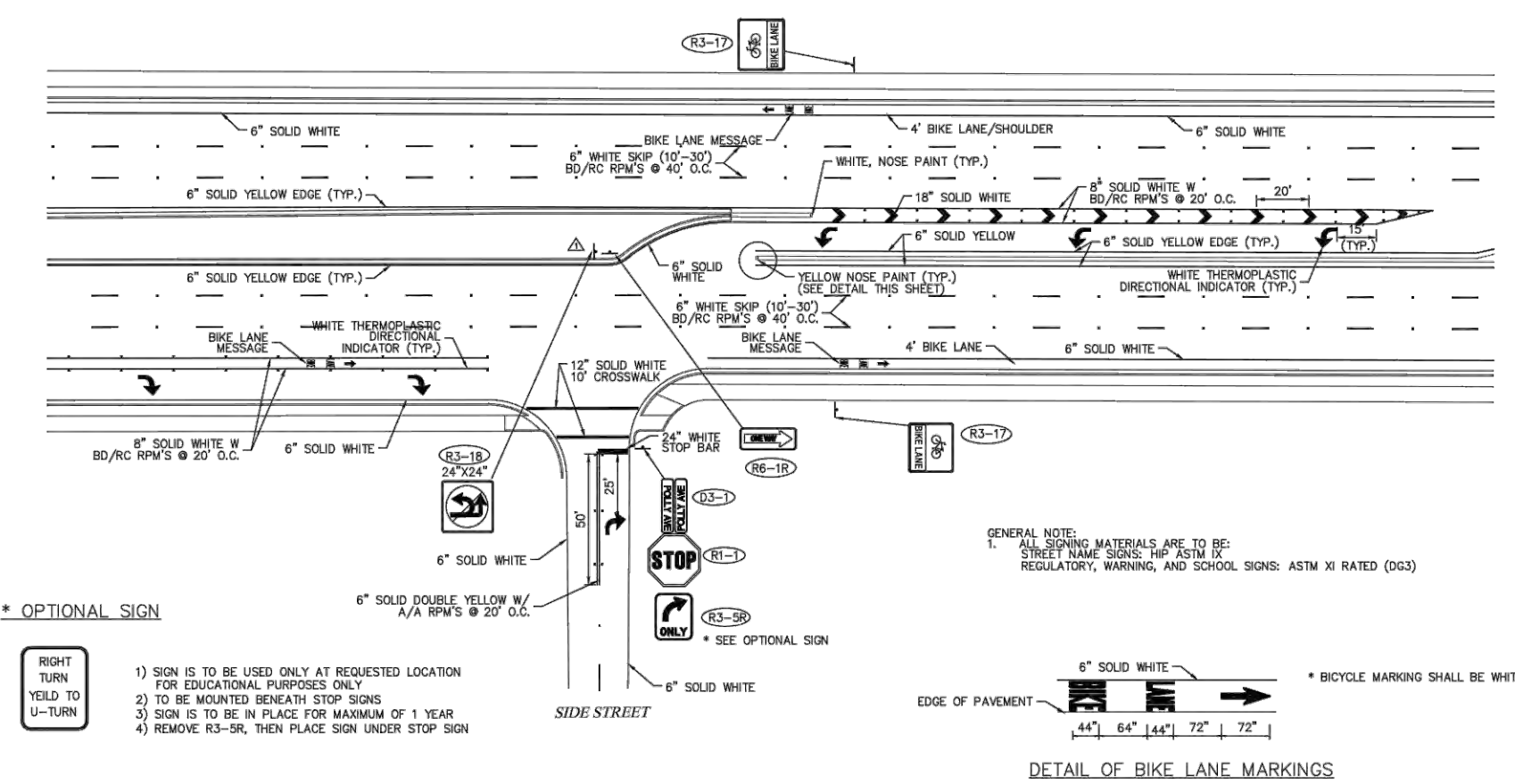
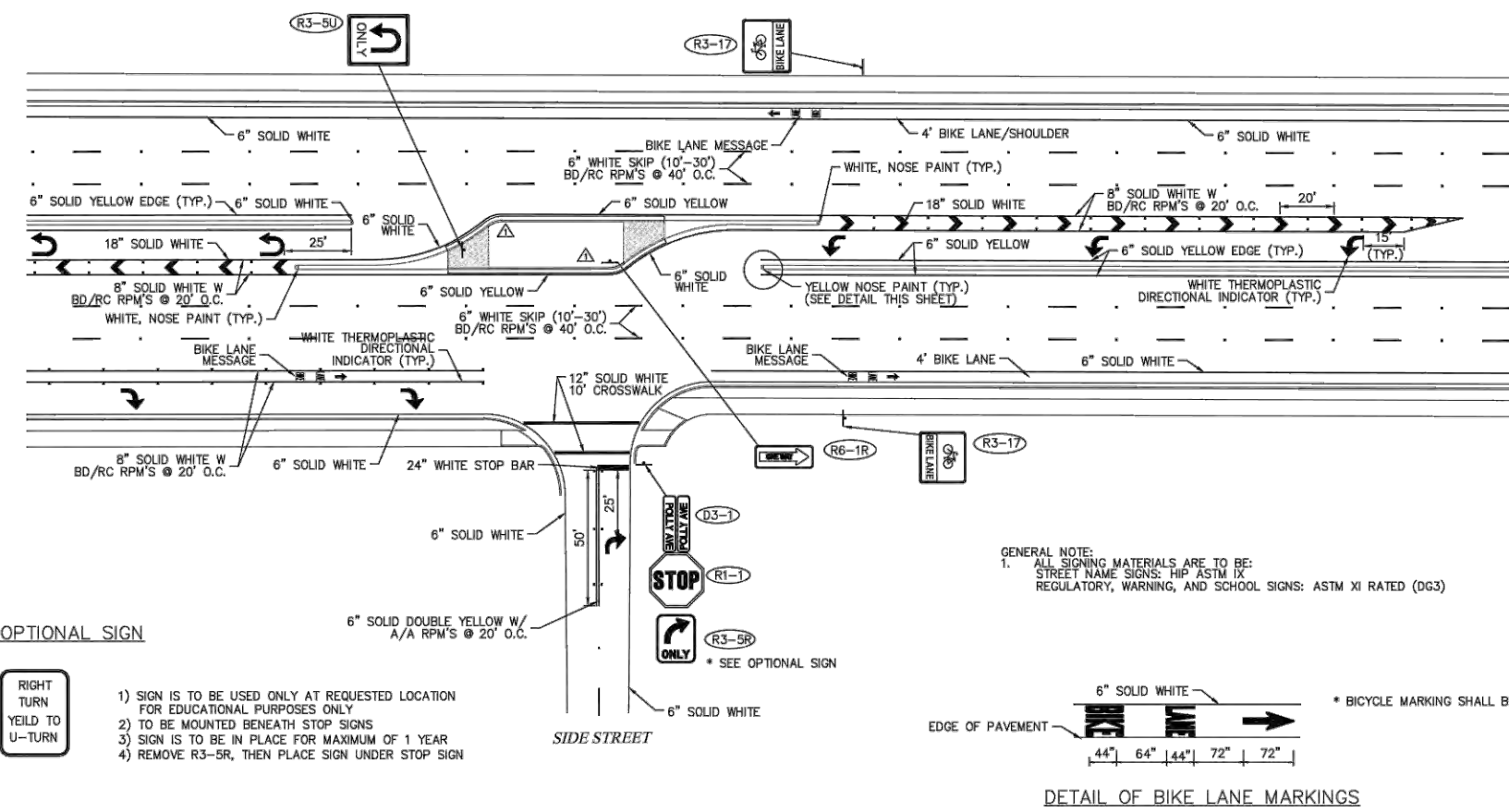
IN ADDITION TO THE
FLORIDA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
FLORIDA DEPARTMENT OF TRANSPORTATION
DESIGN STANDARDS
FEDERAL HIGHWAY ADMINISTRATION
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

INDEX OF TECHNICAL SPECIAL PROVISIONS

INDEX OF SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	SIGN PLACEMENT AT INTERSECTIONS - CASE 1
3	SIGN PLACEMENT AT INTERSECTIONS - CASE 2
4	SIGN LOCATION AT T-INTERSECTIONS
5	YIELD SIGN INSTALLATION
6	INTERSECTION SKIP DETAILS
7	FLEXIBLE DELINEATOR AND SIGN POST MEDIAN INSTALLATIONS
8	ADVANCE STREET NAME SIGNS AT SIGNALIZED INTERSECTIONS
9	COLLIER COUNTY SIGN SPECIAL PROVISION
10	TYPICAL SQUARE SIGN POST INSTALLATION DETAIL
11	TYPICAL REPAIR OF EXISTING ROUND SIGN POST DETAIL
12	ROADWAY SIGN INSTALLATION ON SQUARE POST

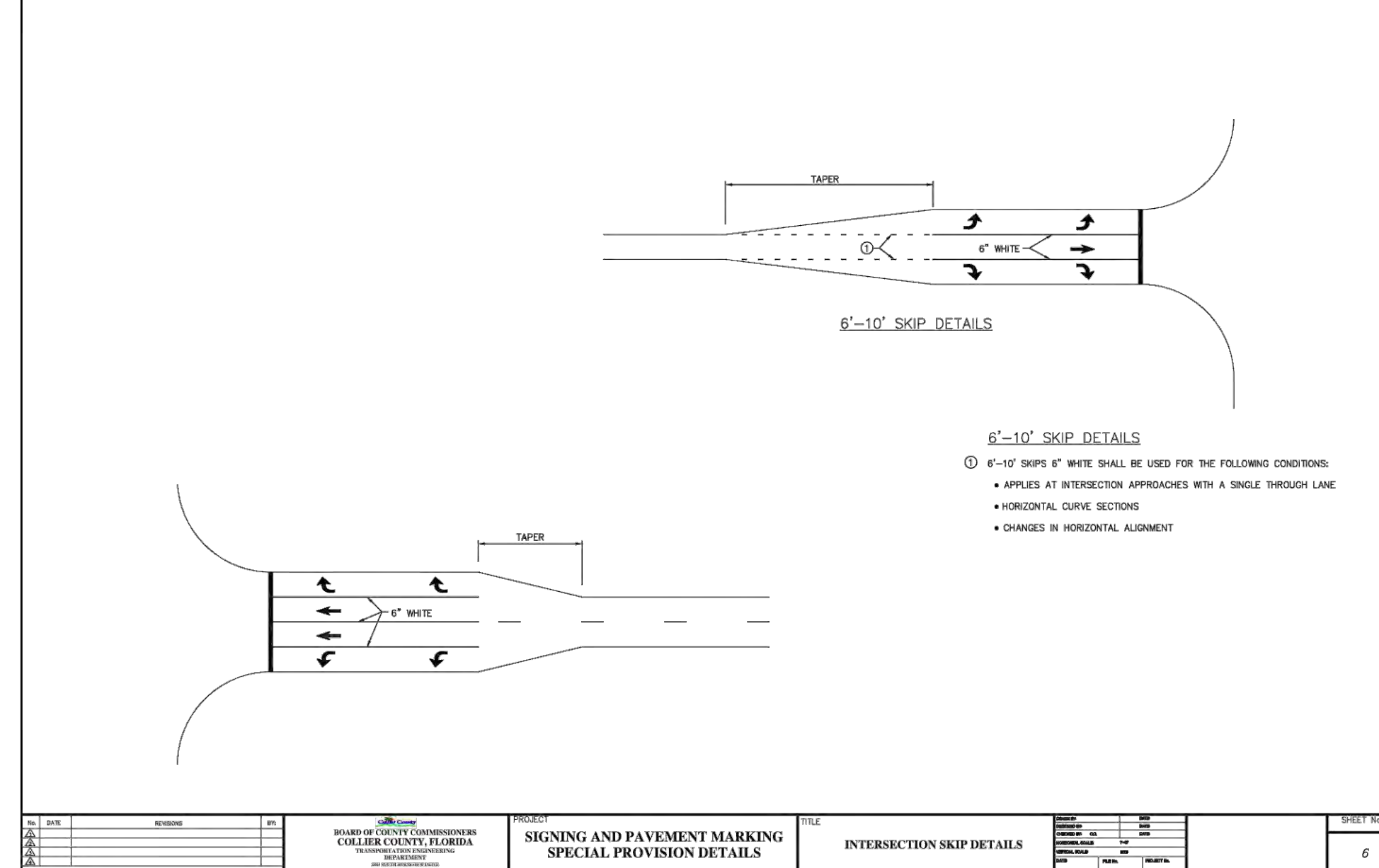
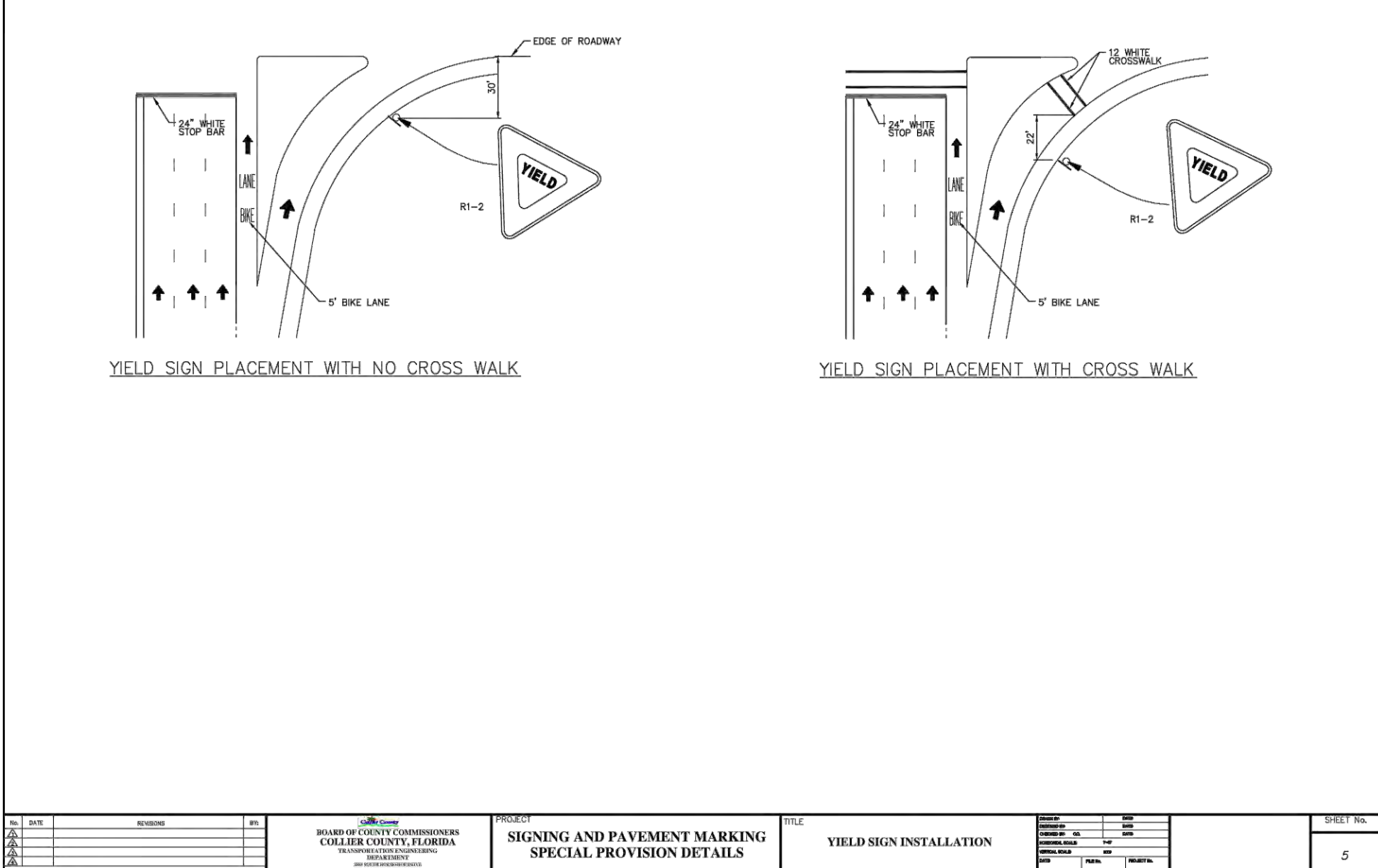
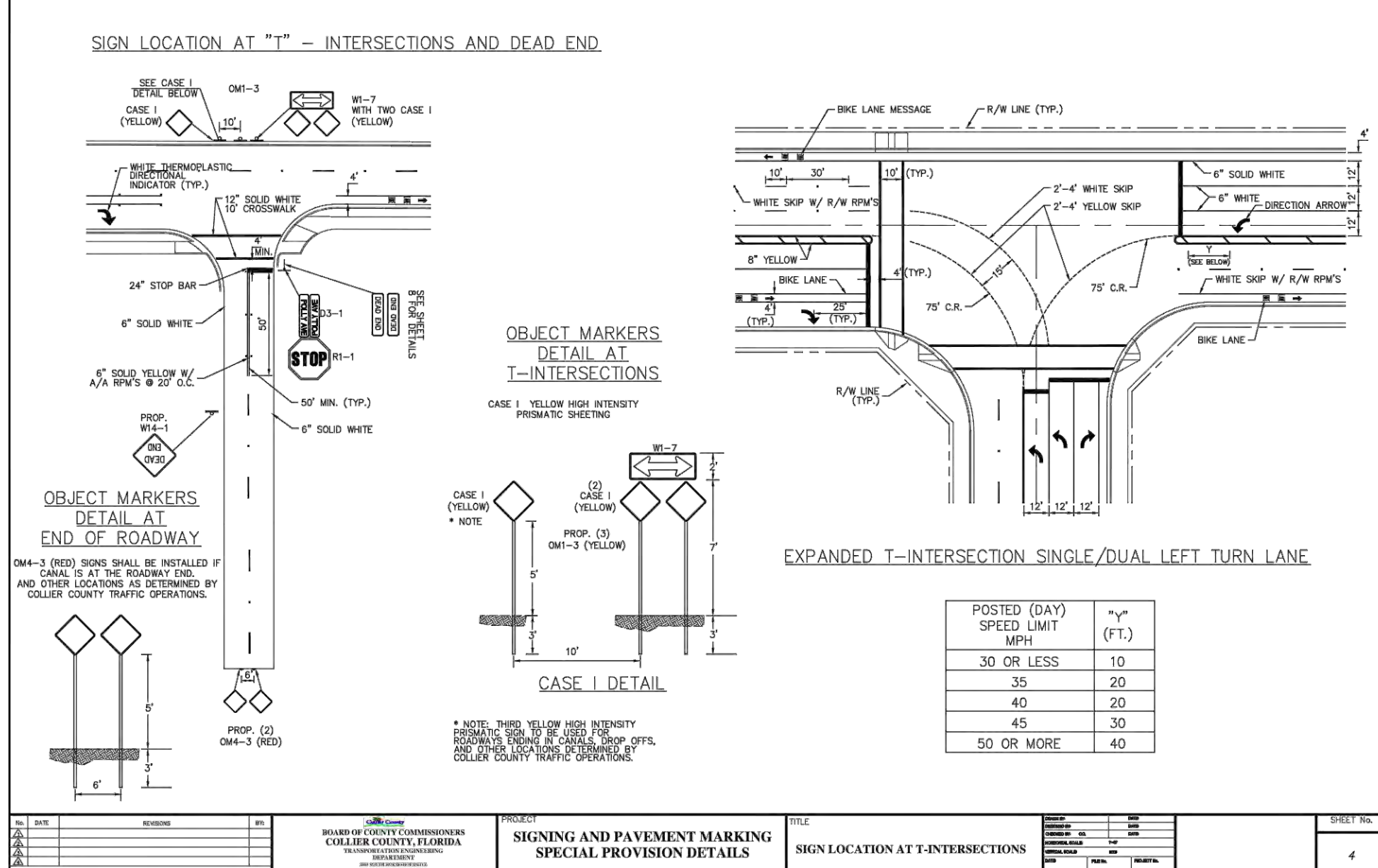
DESIGNED BY: TANA DELGADO, CAD TECH. DATE: JULY 2014
APPROVED BY: CARMELO CARATTOZZO, PE DATE: JULY 2014



NO.	DATE	REVISION	BY	CHKD.	APP'D.	PROJECT	TITLE	SHEET NO.
1						SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS	INDEX OF TECHNICAL SPECIAL PROVISIONS	1

NO.	DATE	REVISION	BY	CHKD.	APP'D.	PROJECT	TITLE	SHEET NO.
1						SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS	SIGN PLACEMENT AT INTERSECTIONS CASE 1	2

NO.	DATE	REVISION	BY	CHKD.	APP'D.	PROJECT	TITLE	SHEET NO.
1						SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS	SIGN PLACEMENT AT INTERSECTIONS CASE 2	3



NO.	DATE	REVISION	BY	CHKD.	APP'D.	PROJECT	TITLE	SHEET NO.
1						SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS	SIGN LOCATION AT T-INTERSECTIONS	4

NO.	DATE	REVISION	BY	CHKD.	APP'D.	PROJECT	TITLE	SHEET NO.
1						SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS	YIELD SIGN INSTALLATION	5

NO.	DATE	REVISION	BY	CHKD.	APP'D.	PROJECT	TITLE	SHEET NO.
1						SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS	INTERSECTION SKIP DETAILS	6



REVISION	DATE	DESCRIPTION	BY

DESIGNED BY: J.N.D.
DRAWN BY: R.A.K.
APPROVED: J.A.F.
JOB CODE: CCU285
22X34 SCALE: N/A
11X17 SCALE: N/A

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Q. Grady Minor and Associates, P.A.
3800 Via Del Rey
Bonita Springs, Florida 34134
Business LC 26000266

98th & 99th Avenue North - Public Utilities Renewal

SIGNING AND PAVEMENT MARKING DETAILS

ELEVATIONS SHOWN HEREON ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM 1929 (NGVD '29)
CONVERSION FACTOR TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD '88) IS (-) 1.237

MUNICIPALITY: COLLIER COUNTY
SEC/TWN/RGE: 28/48/25
DATE: MARCH, 2022
SUBMITTAL TYPE: BID
SHEET 98 OF 99

JUSTIN A. FREDERIKSEN, P.E.
FLORIDA P.E. LICENSE NO. 66086

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YELLOW/YELLOW RPM DETAILS

EDGE LINE DETAILS

MEDIAN NOSE PAINT DETAILS

PAINTED MEDIAN DETAILS

CHEVRON DETAILS

TYPE IV SEPARATOR DETAILS

DELINATOR AND SLIP BASE SYSTEM* MEDIAN INSTALLATIONS

*REDI-TORQUE MODEL 280 SLIP BASE SYSTEM, OR APPROVED EQUAL

NO.	DATE	REVISION

PROJECT: **SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS**
 TITLE: **FLEXIBLE DELINATOR AND SIGN POST MEDIAN INSTALLATIONS**
 SHEET NO.: 7

Collier County Growth Management Division
 Construction & Maintenance Department
 Traffic Operations Section

Advance Street Name Guidelines

PURPOSE:
 To provide guidance on the design, placement and installation criteria for advance street name signs on the Collier County Highway System.

MINIMUM REQUIREMENTS:
 Advance Street Name Signs, at the discretion of Collier County Traffic Operations, may be installed at signalized or non-signalized intersections on the major roadway when the minor roadway has an ADT of 2,000 vehicles per day. The major street shall be classified as collector or arterial, provide access to a traffic generator, or possess other comparable physical or traffic characteristics deemed to be critical or significant.

GENERAL GUIDELINES:

- Requests to install advance street name signs must be approved by Collier County Traffic Operations.
- Advance street name signs shall only be used to identify critical or significant cross streets. They are not intended to identify destinations such as cities, facilities, or residential neighborhoods.
- Collier County shall maintain all approved advance street name signs. A right-of-way permit, the cost of installation and replacement of advance street name signs for private streets or those not open to the public shall be the responsibility of the private developer. Signs shall be removed when the signs no longer meet current standards.
- The word Street, Boulevard, Avenue, etc may be abbreviated to conserve sign panel length.
- When a cross street is known by both route number and a name, use of the name is preferred.
- When minor cross streets intersect the roadway between the advance street name sign and the intersection, additional legend such as "Next Sign" or "XXX Feet" may be added to the advance street name sign.
- Lettering on the advance street name sign should be combined with the legend on either the overhead street name or post mounted street name sign where appropriate.
- Sign sheeting materials shall comply with the ASTM Type III (3M High Intensity Prismatic or equivalent).
- Guidelines are based on the FHWA's Highway Design Handbook for Older Drivers and Pedestrians. The following guidelines shall be used:

Design Guidelines for Advance Street Name Signs

Front Speed Limit (MPH)	Letter Size (Minimum)	Letter Color	Sign Height	Minimum Panel Length (90 Degree)
35 or Less	8"	4"	12"	36" (Round Corner Legend 36" or 39" (Round Corner Double Line)
40 or Greater	8"	4"	12"	36" (Round Corner Legend 36" or 39" (Round Corner Double Line)

Figure 1

NOTE: SHEETING MATERIALS TO BE HIGH INTENSITY PRISMATIC (HIP)

NO.	DATE	REVISION

PROJECT: **SIGN SPECIAL PROVISIONS**
 TITLE: **ADVANCE STREET NAME SIGNS AT SIGNALIZED INTERSECTIONS**
 SHEET NO.: 8

Letters: Series C 2000
Letters: 776 Pt Size Centered

Letters: Series C 2000
Letters: 1,000 Pt Size Centered

Letters: Series C 2000
Letters: 1,000 Pt Size Centered

Letters: Series C 2000
Letters: 1,000 Pt Size Centered

* MOUNTING HOLES ON DOUBLE SIDED SIGNS ARE TO BE LOCATED 2" FROM TOP/BOTTOM AND 1-1/4" FROM SIDE

NO.	DATE	REVISION

PROJECT: **SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS**
 TITLE: **COLLIER COUNTY SIGN SPECIAL PROVISION**
 SHEET NO.: 9

27th Ave NE

TYPICAL INSTALLATION NOT TO SCALE

27th Ave NE

TYPICAL INSTALLATION NOT TO SCALE

Note: Installation shall meet the Florida Department of Transportation Design Standards, Dated 2010, Index Number 17302.
 Note: All new signpost installations in Collier County are to use a square post according to this detail.

NO.	DATE	REVISION

PROJECT: **SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS**
 TITLE: **TYPICAL SQUARE SIGN POST INSTALLATION DETAIL**
 SHEET NO.: 10

27th Ave NE

TYPICAL REPAIR OF EXISTING ROUND SIGN POST DETAIL NOT TO SCALE

27th Ave NE

TYPICAL REPAIR OF EXISTING SQUARE SIGN POST DETAIL NOT TO SCALE

Note: Installation shall meet the Florida Department of Transportation Design Standards, Dated 2010, Index Number 17302.
 Note: This detail is to be used for the repair of an existing round sign post installation only.

NO.	DATE	REVISION

PROJECT: **SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS**
 TITLE: **TYPICAL REPAIR OF EXISTING ROUND SIGN POST DETAIL**
 SHEET NO.: 11

SPEED LIMIT 50

ROADWAY SIGN INSTALLATION ON SQUARE POST

Note: Installation shall meet the Florida Department of Transportation Design Standards, Dated 2010, Index Number 17302.

NO.	DATE	REVISION

PROJECT: **SIGNING AND PAVEMENT MARKING SPECIAL PROVISION DETAILS**
 TITLE: **ROADWAY SIGN INSTALLATION ON SQUARE POST**
 SHEET NO.: 12



REVISION	DATE	DESCRIPTION

DESIGNED BY:	J.N.D.
DRAWN BY:	R.A.K.
APPROVED:	J.A.F.
JOB CODE:	CCU285
22X34 SCALE:	N/A
BY 11X17 SCALE:	N/A

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98th & 99th Avenue North - Public Utilities Renewal

SIGNING AND PAVEMENT MARKING DETAILS

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SHEET	99 OF 99

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