

STRM07 - SKIMMER FOR EXFILTRATION TRENCH OUTLET - TYPE 2 (Rev. 01/07/2019)

"A"	"B"	"C"	"D"
3'-6"	6"	8"	5'-0"
4'-0"	8"	8"	5'-10"
5'-0"	8"	8"	6'-10"
6'-0"	8"	10"	7'-10"
7'-0"	8"	10"	8'-10"
8'-0"	10"	10"	10'-2"

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

STRM 007
2017/02/21

SKIMMER FOR EXFILTRATION TRENCH OUTLET
TYPE 2

STRM08 - SKIMMER FOR EXFILTRATION TRENCH OUTLET - NOTES (Rev. 01/07/2019)

NOTES:

- THE SKIMMER IS A HOODED COVER, MOUNTED OVER AN OUTLET IN A CATCHBASIN, THAT PREVENTS OIL AND FLOATING DEBRIS FROM EXITING THE BASIN. USE THIS SKIMMER IN CATCHBASINS WHERE THERE IS A NEED TO PREVENT OIL, DEBRIS OR OTHER FLOATING CONTAMINANTS FROM EXITING CATCHBASINS THROUGH OUTLET PIPES.
- PLACE NEOPRENE GASKET MATERIAL BETWEEN THE SKIMMER AND THE CATCHBASIN AT ALL POINTS OF CONTACT. TRIM THE GASKET NEATLY TO EXTEND 1/2 INCH BEYOND THE JOINT ON ALL SIDES.
- SKIMMER BAFFLE, CLEANOUT PIPE AND ANGLES SHALL BE PRIMARILY CONSTRUCTED OF EITHER GALVANIZED STEEL, ALUMINUM, POLYVINYL CHLORIDE, POLYETHYLENE, FIBERGLASS OR ACRYLONITRILE BUTADIENE STYRENE. ALL STEEL COMPONENTS, OTHER THAN STAINLESS STEEL, SHALL BE HOT-DIP GALVANIZED.
- MOUNTING HARDWARE, HINGES AND LATCHES SHALL ALL BE 316 STAINLESS STEEL. LOSS PREVENTION DEVICE SHALL BE EITHER 316 STAINLESS STEEL CHAIN OR RIVETED NYLON STRAP.
- MATERIAL USED IN CONSTRUCTION OF SKIMMER BODIES (BAFFLES) AND CLEANOUT PIPE SHALL COMPLY WITH FDOT STANDARD SPECIFICATION 943 FOR STEEL, 945 FOR ALUMINUM OR 948 FOR PLASTICS.
- ALL COST FOR FURNISHING AND INSTALLING A SKIMMER SHALL BE INCLUDED IN THE COST OF THE BASIN IN WHICH IT IS INSTALLED.
- PLASTIC SKIMMER SHALL CONTAIN A MINIMUM OF 1.5% BY WEIGHT OF CARBON BLACK FOR UV PROTECTION.
- THE BACKS OF SKIMMERS MUST CONFORM TO THE SHAPE OF THE BASIN WALLS ON WHICH THEY ARE MOUNTED.
- THE CLEANOUT PORT FOR THE TYPE 2 SKIMMER SHALL BE GASKETED, WITH EITHER A THREADED SCREW-IN LID OR A LID SECURED BY FOUR STAINLESS STEEL QUICK-RELEASE LATCHES.
- TYPE II SKIMMER ARE TO BE USED ONLY WITH OUTLET PIPE DIAMETERS OF 15", 18" AND 24".

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STRM 008
2017/02/21

SKIMMER FOR EXFILTRATION TRENCH OUTLET
NOTES

STRM09 - PRECAST CIRCULAR & SQUARE DRAINAGE STRUCTURES (Rev. 01/07/2019)

"A"	"B"	"C"	"D"
3'-6"	6"	8"	5'-0"
4'-0"	8"	8"	5'-10"
5'-0"	8"	8"	6'-10"
6'-0"	8"	10"	7'-10"
7'-0"	8"	10"	8'-10"
8'-0"	10"	10"	10'-2"

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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

STRM 009
2017/02/14

PRECAST CIRCULAR & SQUARE DRAINAGE STRUCTURES

Hazen

HAZEN AND SAWYER
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HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

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FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114

ENGINEER: PATRICK J. GIBNEY
REG. NO. 49428
DATE: 01/22/2021

TEL: 954-987-0066
FAX: 954-987-2949

DRAWN BY: XXXX
DATE: 01/07/2019
DESIGNED BY: XXXX
SCALE: VERT 1"=2'
HORIZ 1"=20'
CHECKED BY: XXXX
FIELD BOOK: XXXX

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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

STRM10 - CONCRETE JACKET FOR STORMWATER PIPE (Rev. 01/07/2019)

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100 North Andrews Avenue, Fort Lauderdale, Florida 33301

STRM 010
2017/02/24

CONCRETE JACKET FOR STORMWATER PIPE

STRM11 - PIPE PLUG (Rev. 01/07/2019)

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STRM 011
2017/07/19

PIPE PLUG

STRM12 - MANATEE GRATE (Rev. 01/07/2019)

PIPE DIA.	18"	24"	30"	36"	42"
GRATE (LBS)	48	58	74	90	111

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STRM 013
2017/07/25

MANATEE GRATE

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CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS

NO.	DATE	BY	REVISION	DESCRIPTION

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS STORM
DRAINAGE - SHEET 2

SHEET NO.
CZ-DT-08

TOTAL: 255
CAD FILE: 11868-CZ-DT08
DRAWING FILE NO. 4-142-42

Patrick J. Gibney, State of Florida, Professional Engineer, License No. 49428. This item has been electronically signed and sealed by Patrick J. Gibney on the date indicated here using an SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

8/26/2021

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS STORM
DRAINAGE - SHEET 2

SHEET NO.
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STRM017 - TIDAL VALVE FRAME AND COVER, December 22, 2017

LEGEND:
 _____ EXISTING
 _____ PROPOSED

NOTES:
 1. INLINE CHECK VALVE SHALL BE WASTOP BY WAPRO INC (NO SUBSTITUTION).
 2. INLINE CHECK VALVE BODY SHALL BE 316 STAINLESS STEEL.
 3. FOR EXISTING BASINS, THE CONTRACTOR SHALL FIELD MEASURE ALL OPENINGS AND PROVIDE THE MEASUREMENTS TO THE INLINE CHECK VALVE MANUFACTURER SO THAT IT CAN DETERMINE IF A SHORT BODY LENGTH VERSION IS REQUIRED.
 4. PROVIDE STANDARD BODY LENGTH VALVES UNLESS INSTALLATION SPACE LIMITATIONS INDICATE THAT A SHORT BODY LENGTH VERSION IS REQUIRED.

STRM 016
 2017/12/22

STRM017 - MANHOLE FRAME AND COVER, December 22, 2017

NOTES:
 1. MATERIAL: ASTM-A48 GRAY IRON CLASS 35B.
 2. ADDITIONAL GRADE RINGS MAY BE USED TO ELEVATE EXISTING MANHOLE FRAMES TO RESURFACED GRADE (MAX 4" HEIGHT).
 3. OPTIONAL: HINGED FRAME AND COVER AS SPECIFIED.
 4. LOAD RATING: AASHTO H-20

STRM 017
 2017/12/22

STRM018 - ADA COMPLIANT FRAME AND GRATE, January 11, 2019

NOTES:
 1. FRAME WEIGHT: 160 POUNDS
 2. GRATE WEIGHT: 125 POUNDS
 3. LOAD RATING: AASHTO H-20
 4. OPEN AREA: 153 SQUARE INCHES
 5. INSTALL DRAIN MARKER

STRM 018
 2018/1/13

Hazen

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DRAWN BY: XXX
 DATE: 01/07/2019

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 HORIZ 1"=20'

FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

STRM019 - ADA COMPLIANT FRAME AND GRATE, January 11, 2019

NOTES:
 1. FRAME WEIGHT: 165 POUNDS
 2. GRATE WEIGHT: 190 POUNDS
 3. LOAD RATING: AASHTO H-20
 4. OPEN AREA: 233 SQUARE INCHES
 5. INSTALL DRAIN MARKER

STRM 019
 2018/1/13

STRM020 - DITCH BOTTOM INLET TYPE C GRATE, January 11, 2019

NOTES:
 1. THESE INLETS ARE SUITABLE FOR BICYCLE TRAFFIC AND ARE TO BE USED IN DITCHES, MEDIANS AND OTHER AREAS SUBJECT TO INFREQUENT TRAFFIC LOADINGS BUT ARE NOT TO BE PLACED IN AREAS SUBJECT TO ANY HEAVY WHEEL LOADS. THESE INLETS MAY BE PLACED IN AREAS SUBJECT TO OCCASIONAL PEDESTRIAN TRAFFIC SUCH AS LANDSCAPED AREAS AND PAVEMENT AREAS WHERE PEDESTRIANS TRAFFIC SUCH AS LANDSCAPED AREAS AND PAVEMENT AREAS WHERE PEDESTRIANS CAN WALK AROUND THE INLET.
 2. INLETS SUBJECT TO MINIMAL DEBRIS SHOULD BE CONSTRUCTED WITHOUT SLOTS. WHERE DEBRIS IS A PROBLEM INLETS SHOULD BE CONSTRUCTED WITH SLOTS. SLOTTED INLETS LOCATED WITHIN ROADWAY CLEAR ZONES AND AREAS SUBJECT TO PEDESTRIANS SHALL HAVE TRAVERSABLE SLOTS. TRAVERSABLE SLOTS SHALL NOT BE USED IN AREAS SUBJECT TO OCCASIONAL BICYCLE TRAFFIC.
 3. STEEL GRATES ARE TO BE USED ON ALL INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED. STEEL GRATES ARE TO BE USED ON ALL INLETS WITH TRAVERSABLE SLOTS. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON INLETS WITHOUT SLOTS WHERE BICYCLE TRAFFIC IS NOT ANTICIPATED. EITHER CAST IRON OR STEEL GRATES MAY BE USED ON ALL INLETS WITH NON-TRAVERSABLE SLOTS.
 4. STEEL GRATES ARE REQUIRED ON INLETS WITH TRAVERSABLE SLOTS AND ON INLETS WHERE BICYCLE TRAFFIC IS ANTICIPATED.

STRM 020
 2017/12/22

STRM021 - DRAIN MARKER, December 22, 2017

NOTES:
 1. DRAIN MARKER SHALL BE BY LORDON, INC., OR EQUAL.
 2. SECURE WITH SIKAFLEX IIFC ADHESIVE.

STRM 021
 2017/12/22

CONSTRUCTION SET

PROJECT # 11868
 STORMWATER IMPROVEMENTS
 RIVER OAKS NEIGHBORHOOD
 CITY STANDARD DETAILS STORM
 DRAINAGE - SHEET 3

NO.	DATE	BY	DESCRIPTION

SHEET NO. **CZ-DT-09**

TOTAL: 255

CAD FILE: 11868-CZ-DT09&10

DRAWING FILE NO. 4-142-42

WATER10 - WATER MAIN SEPARATION TYPICAL, September 21, 2018

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

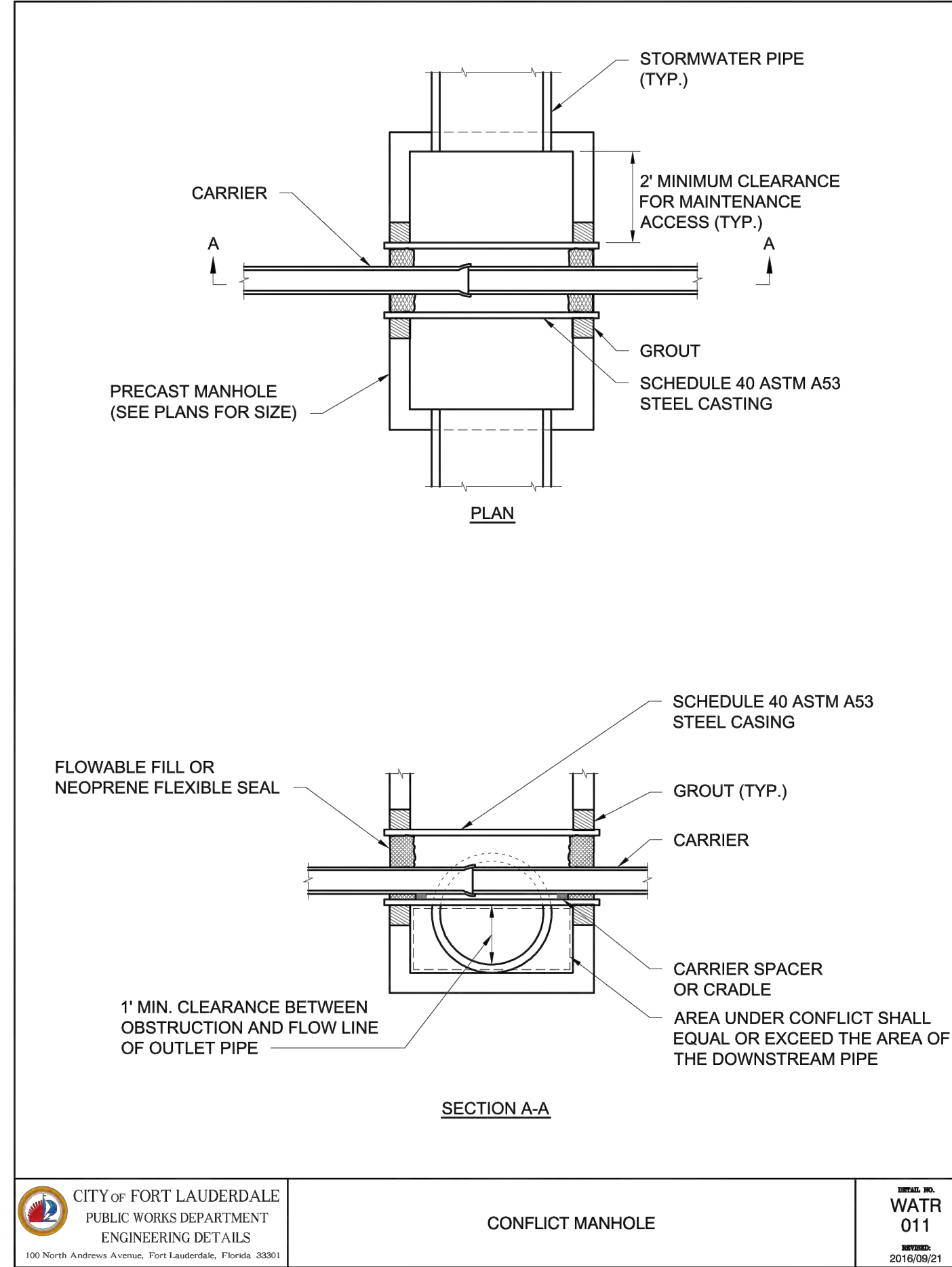
OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (NOTE 1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (NOTE 2)			NOTE 4
VACUUM SANITARY SEWER			NOTE 4
GRAVITY SANITARY SEWER, (NOTE 3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER			NOTE 4
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—

NOTES:

1. WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATE JOINT LOCATIONS ALLOWED UNDER FAC 62-555.314 WILL ONLY BE ALLOWED BY THE ENGINEER ON A CASE-BY-CASE BASIS.

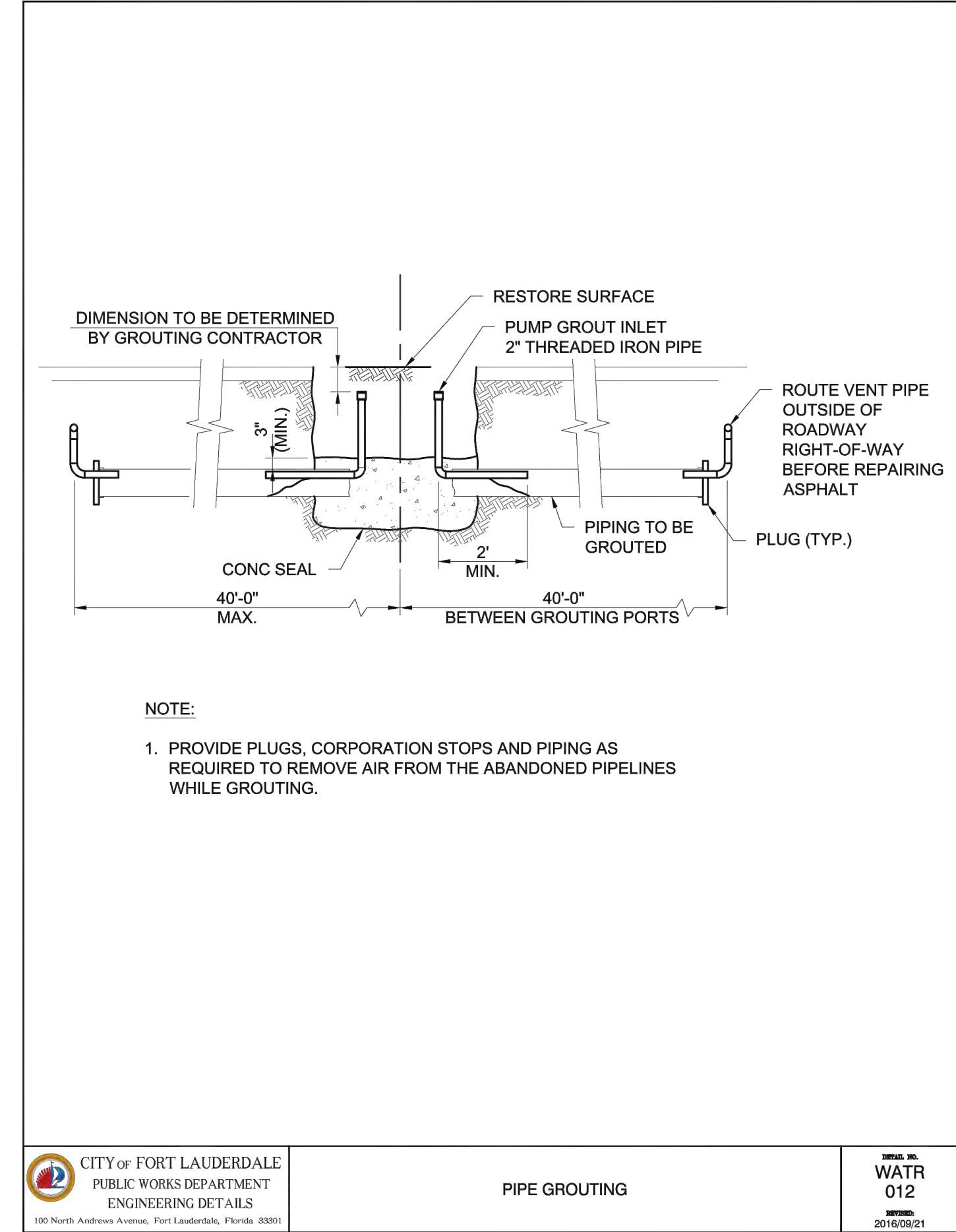
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS WATER MAIN SEPARATION WATR 001 2016/08/21

WATER101 - CONFLICT MANHOLE TYPICAL, September 21, 2018



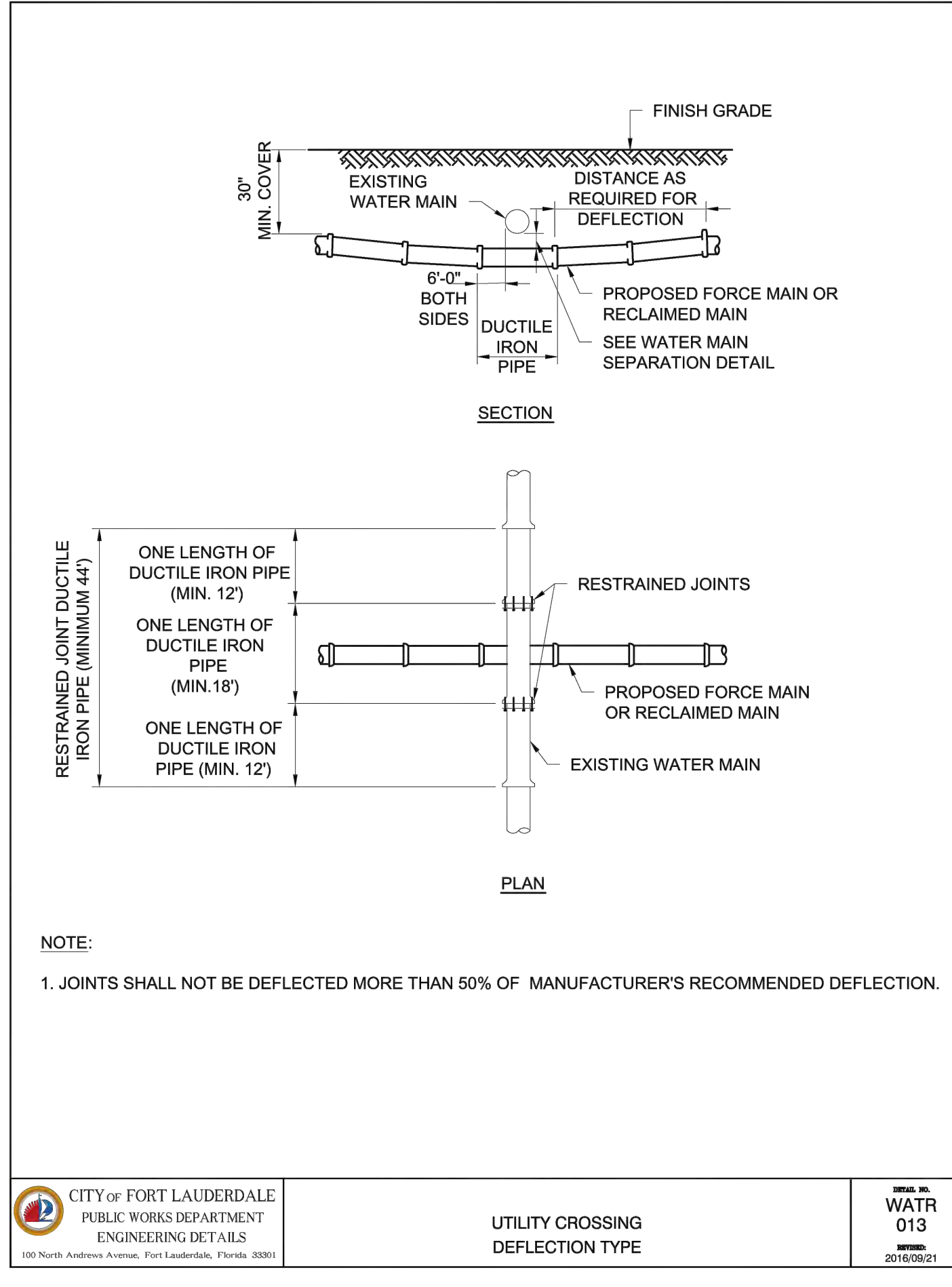
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS CONFLICT MANHOLE WATR 011 2016/08/21

WATER102 - PIPE GROUTING TYPICAL, September 21, 2018



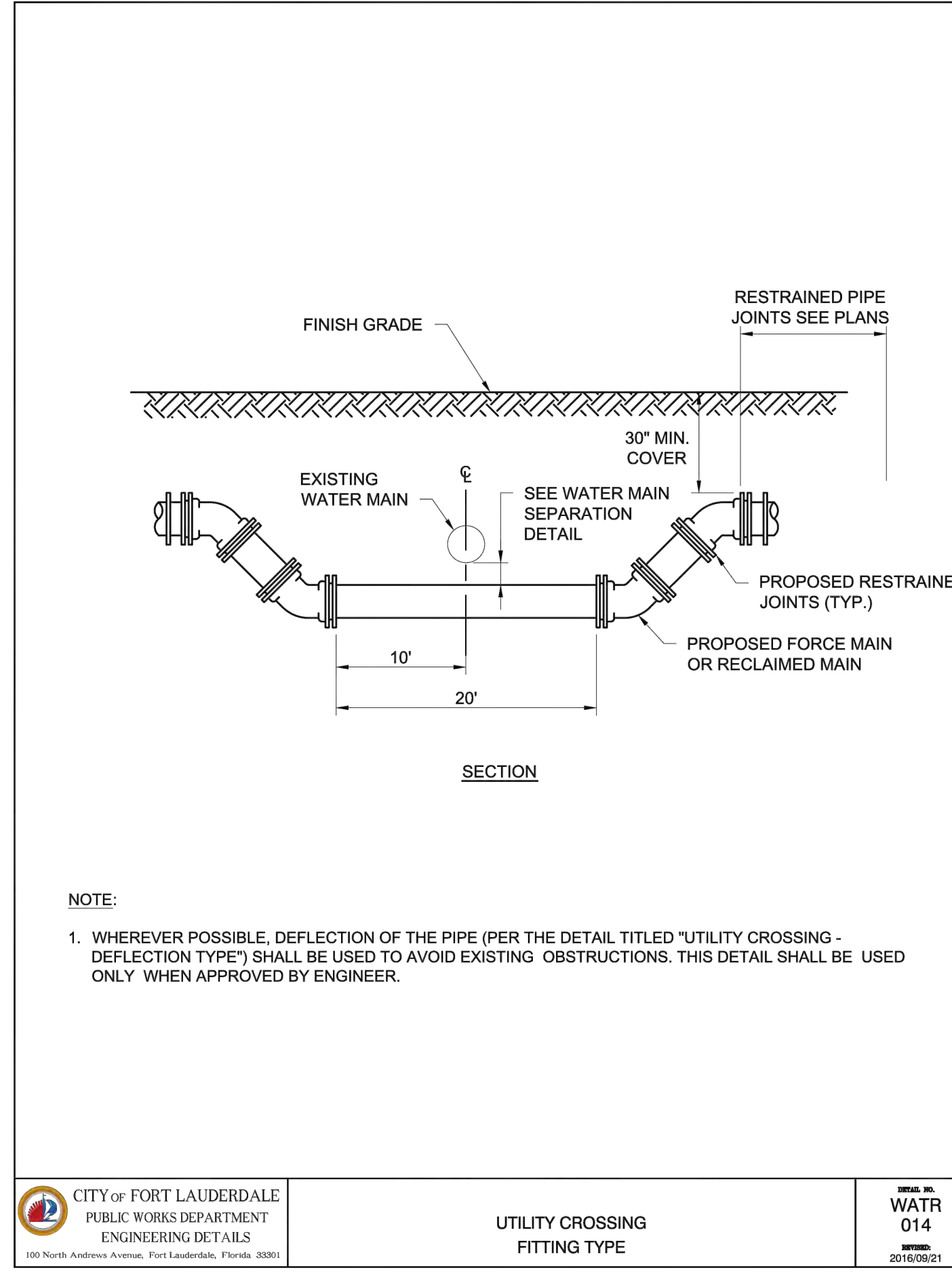
CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS PIPE GROUTING WATR 012 2016/08/21

WATER103 - UTILITY CROSSING - DEFLECTION TYPE TYPICAL, September 21, 2018



CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS UTILITY CROSSING DEFLECTION TYPE WATR 013 2016/08/21

WATER104 - UTILITY CROSSING - FITTING TYPE TYPICAL, September 21, 2018



CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS UTILITY CROSSING FITTING TYPE WATR 014 2016/08/21

Hazen

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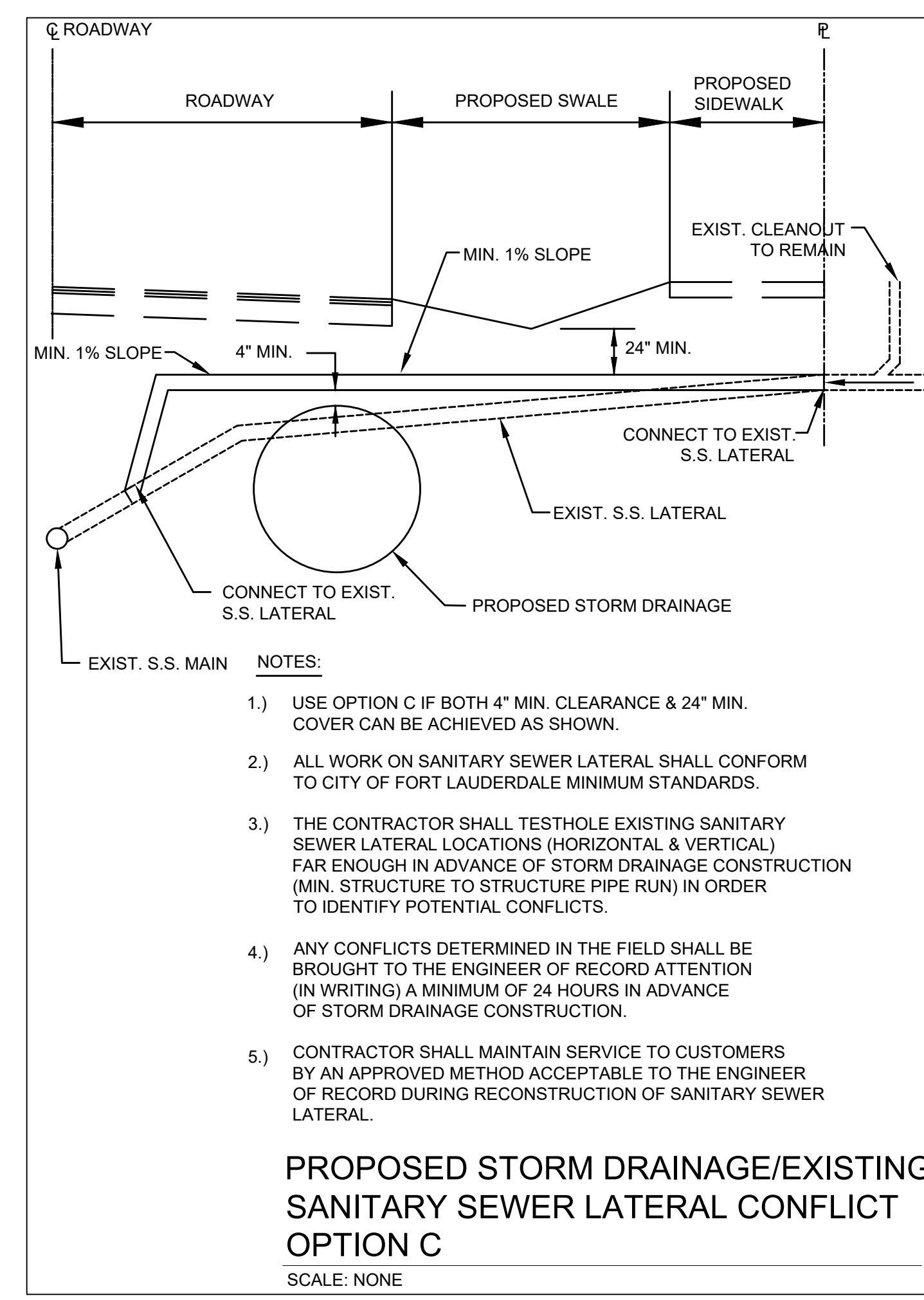
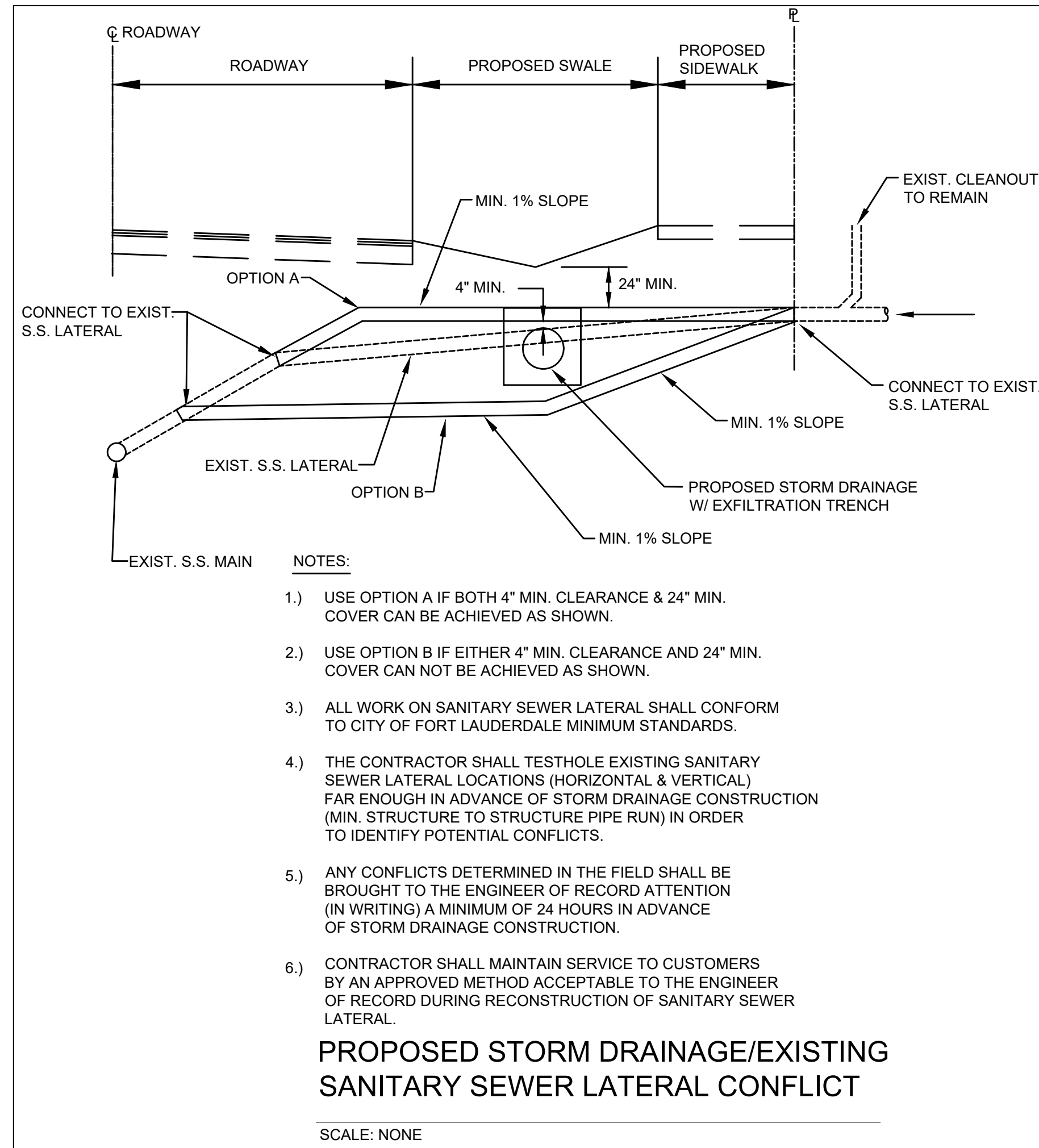
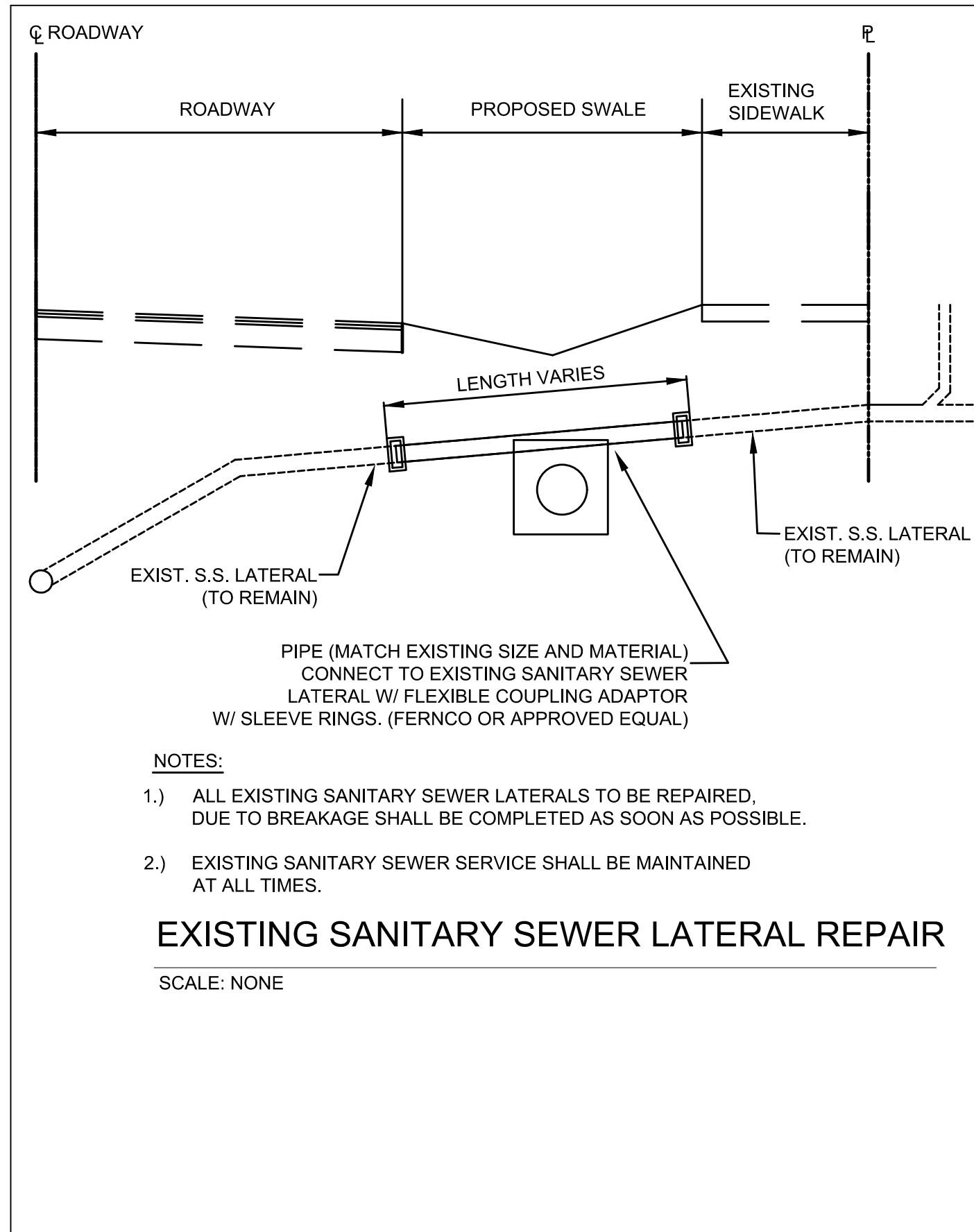
DATE: 01/07/2019
SCALE: VERT 1"=2'
HORIZ 1"=20'
DRAWN BY: XXX
DESIGNED BY: XXX
CHECKED BY: XXX
FIELD BOOK: XXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

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8/26/2021

NO.	DATE	BY	DESCRIPTION

CONSTRUCTION SET
PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS UTILITY
SEPARATION AND CROSSING
SHEET NO. CZ-DT-11
TOTAL: 255
CAD FILE: 11868-CZ-DT11
DRAWING FILE NO. 4-142-42



Hazen

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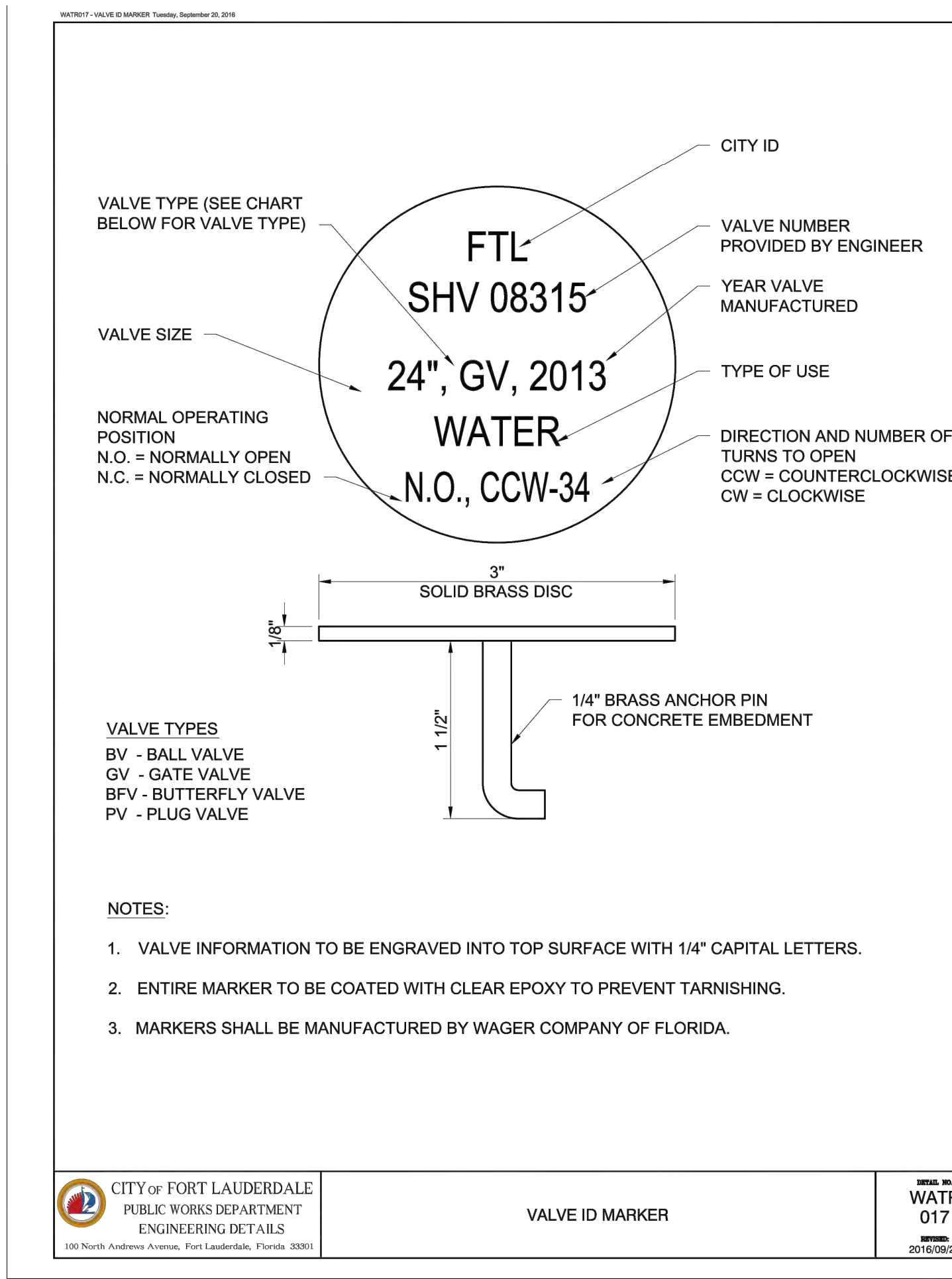
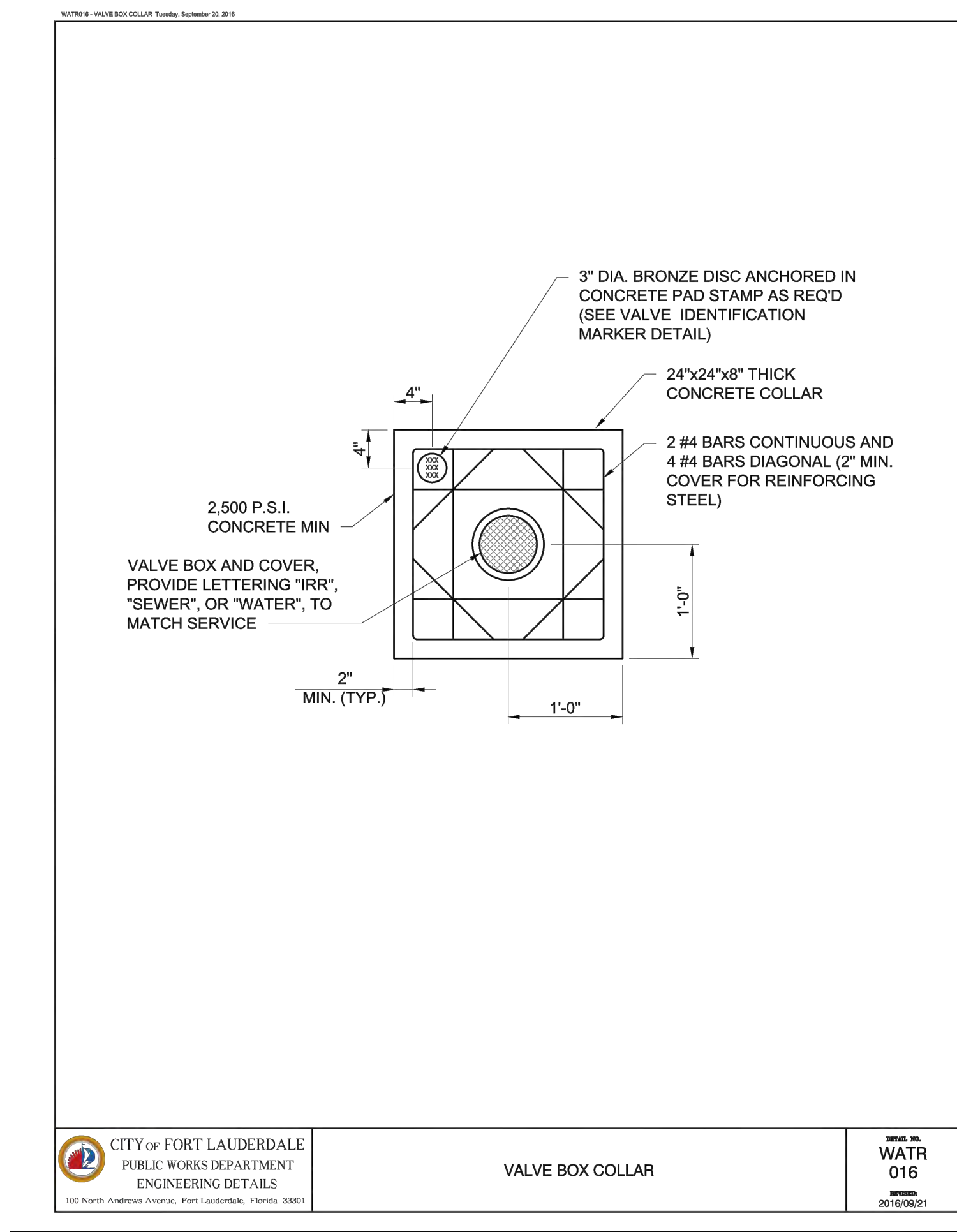
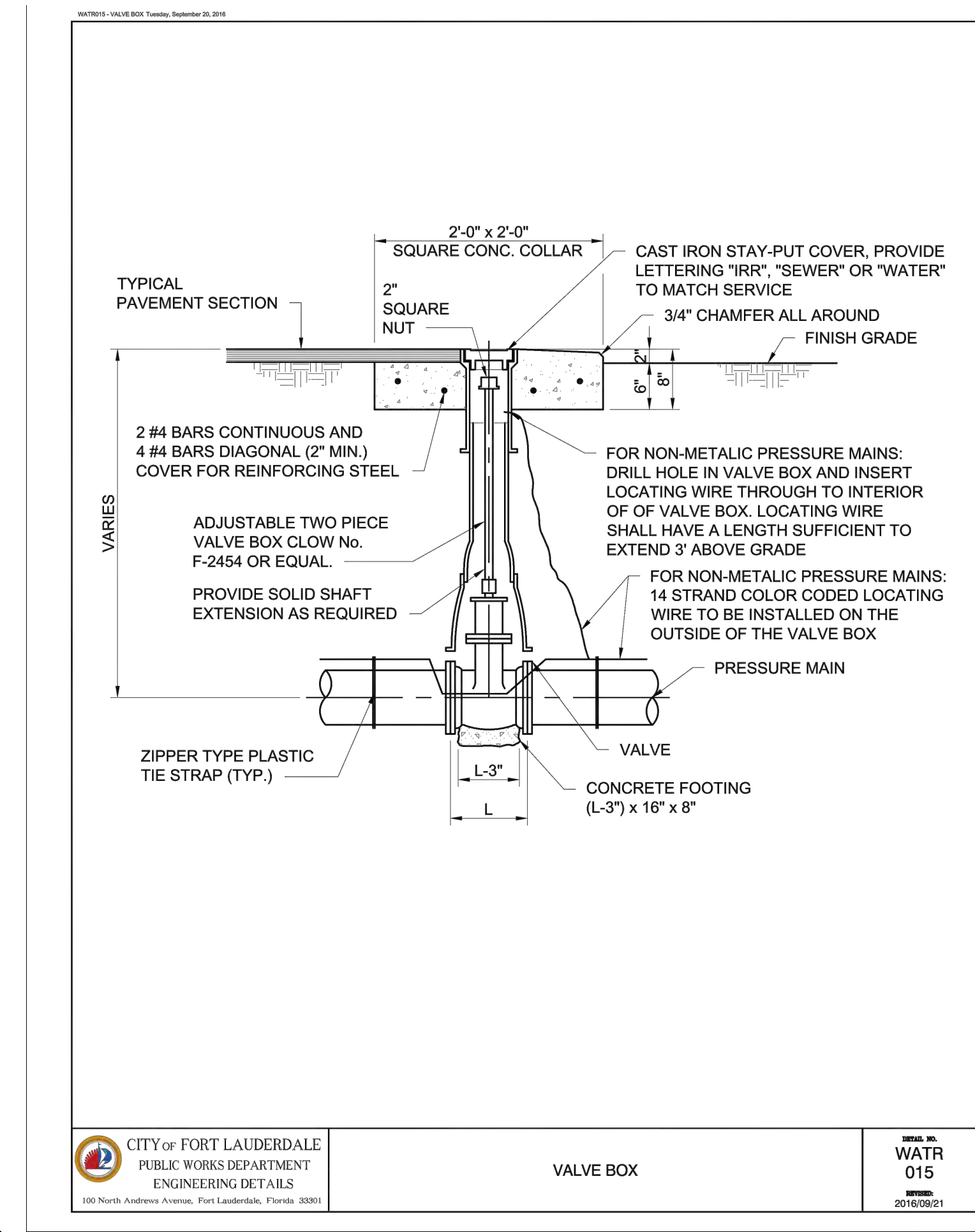
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ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	DESCRIPTION

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS UTILITY
SEPARATION AND CROSSING

SHEET NO.
CZ-DT-12
TOTAL: 255
CAD FILE: 11868-CZ-DT12
DRAWING FILE NO. 4-142-42



CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TYPICAL TRENCH AND PAVEMENT RESTORATION FOR TRANSVERSE PIPE CROSSING
SHEET 1

ROAD NO. 001
2017/03/11

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TYPICAL ROAD SECTION, TYPICAL TRENCH AND TRENCH RESTORATION FOR PARALLEL PIPE TRENCH
SHEET 2

ROAD NO. 002
2017/03/11

CITY OF FORT LAUDERDALE
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ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

TYPICAL ROAD SECTION, TYPICAL TRENCH, PAVEMENT AND SWALE RESTORATION FOR PARALLEL PIPE TRENCH
SHEET 3

ROAD NO. 003
2017/03/07

Hazen
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CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS PAVING
AND GRADING - SHEET 2

SHEET NO. CZ-DT-13

TOTAL: 255
CAD FILE: 11868-CZ-DT13
DRAWING FILE NO. 4-142-42

ENGINEER: PATRICK J. GIBNEY
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OPTIONAL BASE GROUP & STRUCTURAL NUMBERS

ROAD NO. 038
2017/03/11

BASE GROUP	STRUCTURAL RANGE	BASE GROUP PAY ITEM NUMBER	BASE THICKNESS AND OPTION CODES									
			Base Options									
			LIMEROCK, LBR 100	CEMENTED COQUINA, LBR 100	SHELL ROCK, LBR 100	BANK RUN SHELL, LBR 100	RECYCLED CONCRETE AGGREGATE, LBR 100**	GRADED AGGREGATE BASE, LBR 100	TYPE B-12.5	8, 12 AND 18 GRANULAR SUBBASE, LBR 100	RAP BASE	
			(0.18)	(0.18)	(0.18)	(0.18)	(0.15)	(0.30)	(0.30 & 0.15)	(NA)		
1	0.65-0.75	701	4"	4"	4"	4"	4"	4 1/2"	4"		5"	
2	0.80-0.90	702	5"	5"	5"	5"	5"	5 1/2"	4"			
3	0.95-1.05	703	5 1/2"	5 1/2"	5 1/2"	5 1/2"	5 1/2"	6 1/2"	4"			
4	1.05-1.15	704	6"	6"	6"	6"	6"	7 1/2"	4"			
5	1.25-1.35	705	7"	7"	7"	7"	7"	8 1/2"	4 1/2"			
6	1.35-1.50	706	8"	8"	8"	8"	8"	9"	5"			
7	1.50-1.65	707	8 1/2"	8 1/2"	8 1/2"	8 1/2"	8 1/2"	10"	5 1/2"			
8	1.65-1.75	708	9 1/2"	9 1/2"	9 1/2"	9 1/2"	9 1/2"	11"	5 1/2"			
9	1.75-1.85	709	10"	10"	10"	10"	10"	12"	6"	4"		
10	1.90-2.00	710	11"	11"	11"	11"	11"	13"	6 1/2"	4 1/2"		
11	2.05-2.15	711	12"	12"	12"	12"	12"	14"	7"	5"		
12	2.20-2.30	712	12 1/2"	12 1/2"	12 1/2"	12 1/2"	12 1/2"	15"	7 1/2"	5 1/2"		
13	2.35-2.45	713	13 1/2"	13 1/2"	13 1/2"	13 1/2"	13 1/2"	16"	8"	6"		
14	2.45-2.55	714	14"	14"	14"	14"	14"	17"	8 1/2"	6 1/2"		
15	2.60-2.70	715							9"	7"		

* FOR GRANULAR SUBBASE, THE CONSTRUCTION OF BOTH THE SUBBASE AND TYPE B-12.5 WILL BE BID AND USED AS OPTIONAL BASE. GRANULAR SUBBASES INCLUDE LIMEROCK, CEMENTED COQUINA, SHELL ROCK, BANK RUN SHELL, RECYCLED CONCRETE AGGREGATE AND GRADED AGGREGATE BASE. THE BASE THICKNESS SHOWN IS TYPE B-12.5. ALL SUBBASE THICKNESSES ARE 4" MINIMUM.

** FOR RESTRICTIONS ON THE USE OF RECYCLED CONCRETE AGGREGATE - SEE SPECIFICATIONS SECTION 911.

Ø TO BE USED FOR WIDENING, THREE FEET OR LESS.
BASED ON MINIMUM PRACTICAL THICKNESSES.

□ FOR RESTRICTIONS ON THE USE OF RAP BASE - SEE STANDARD SPECIFICATIONS.

GENERAL NOTES
1. WHERE BASE OPTIONS ARE SPECIFIED IN THE PLANS, ONLY THOSE OPTIONS MAY BE BID AND USED.
2. IN SITUATIONS WHERE THE DESIGNER REQUIRES THE USE OF A SINGLE BASE OPTION, AS SHOWN IN THE PLANS, BID AND USE AS OPTIONAL BASE.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PERMEABLE PAVERS AND POROUS ASPHALT PAVEMENT

ROAD NO. 012
2017/01

CONCRETE EDGE RESTRAINT (FOR USE IN AREAS WITHOUT ADJACENT PAVEMENT)

EDGE RESTRAINT (FOR USE IN PARKING LANES OR ADJACENT TO ASPHALT)

NOTES:
1. NO GEOTEXTILES SHALL BE USED IN PLACE OF THE CHOKER.
2. SEE SHEET GREN 011 FOR SECTION OF PAVEMENT WITH CLEANOUT.
3. TOP OF POROUS ASPHALT PAVEMENTS SHALL BE DESIGNED TO ACHIEVE POSITIVE DRAINAGE.
4. DEPTH OF EDGE RESTRAINT IS 6" FOR POROUS ASPHALT AND 10" FOR PERVIOUS CONCRETE AND PERMEABLE PAVERS.
5. MATERIALS: TYPE F, 3,500 PSI CONCRETE; OTHER TYPES OF EDGE RESTRAINTS REQUIRE APPROVAL AND BASED ON MANUFACTURER RECOMMENDATIONS.
6. SEE GREEN INFRASTRUCTURE NOTES.

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

PERMEABLE PAVEMENTS

ROAD NO. 012
2017/01

CONCRETE EDGE RESTRAINT (FOR USE IN AREAS WITHOUT ADJACENT PAVEMENT)

EDGE RESTRAINT (FOR USE IN PARKING LANES OR ADJACENT TO ASPHALT)

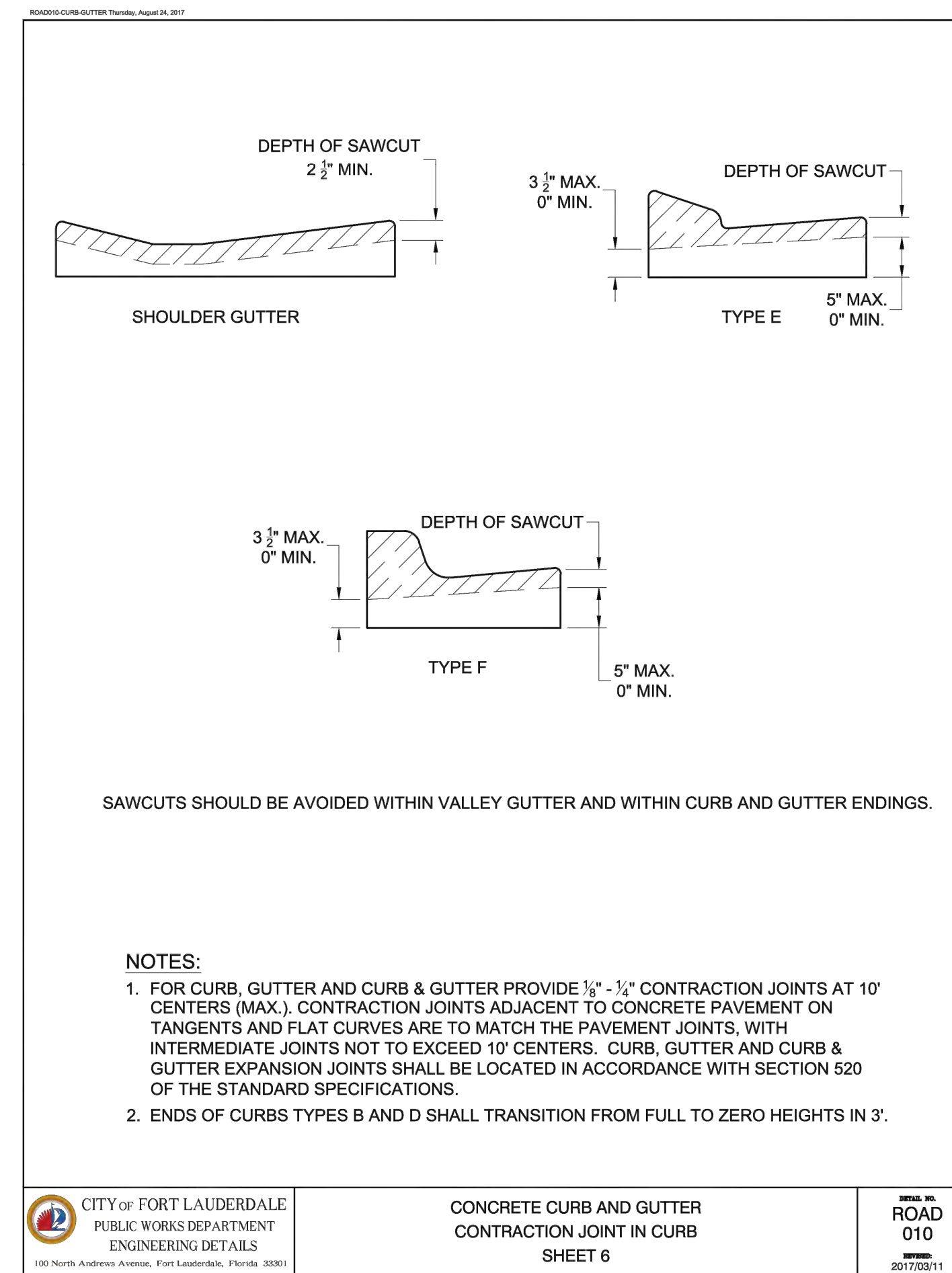
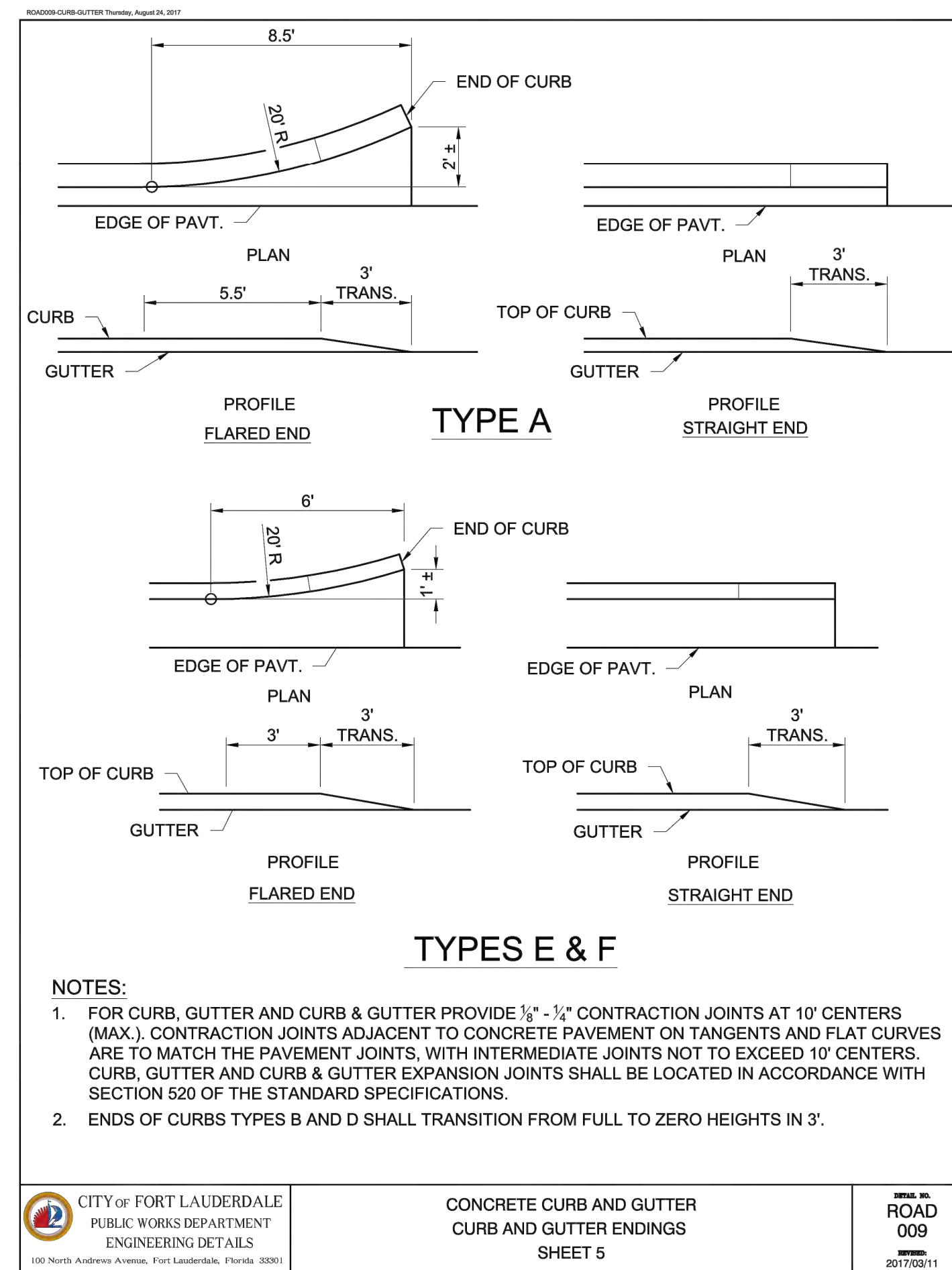
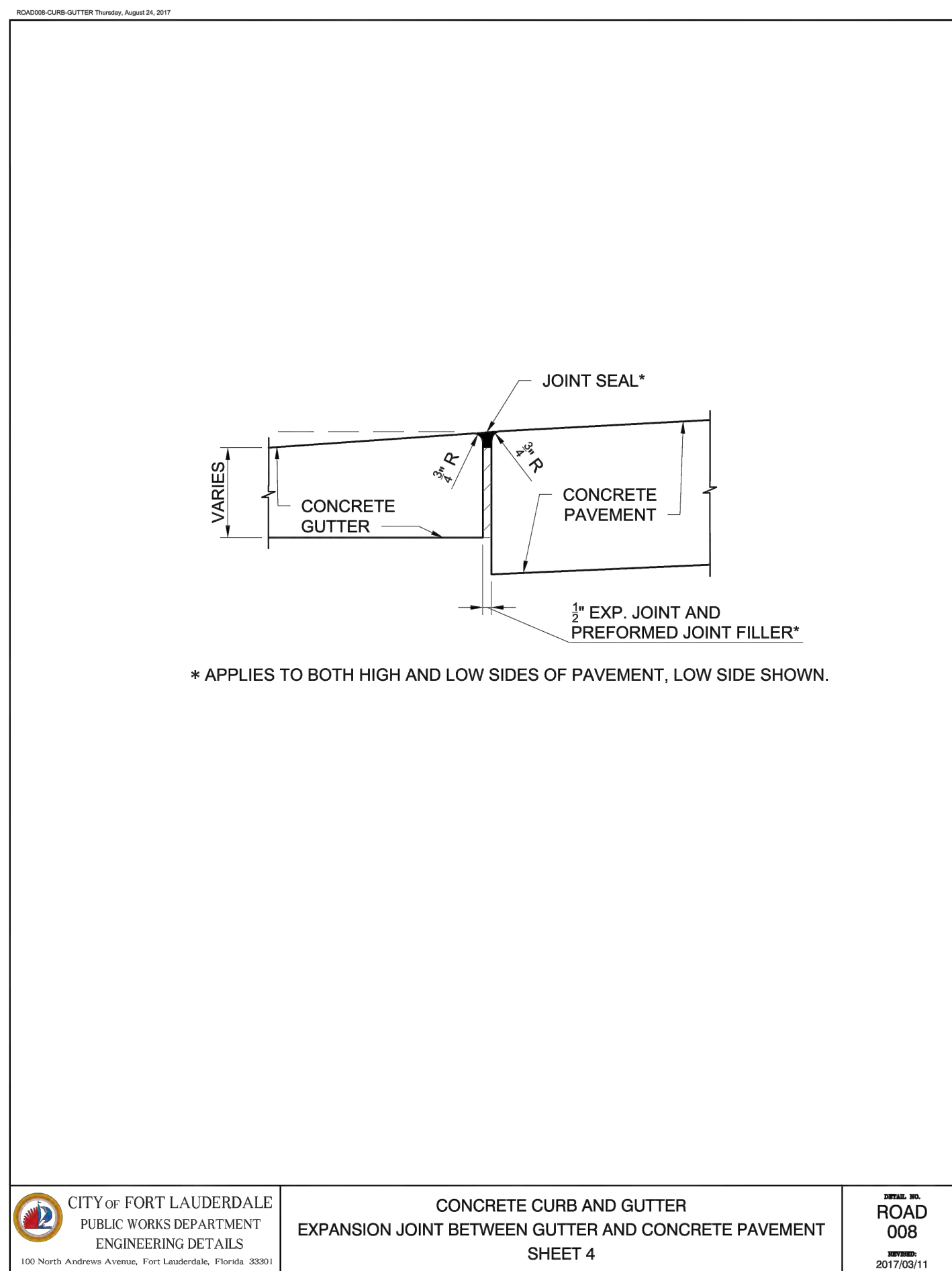
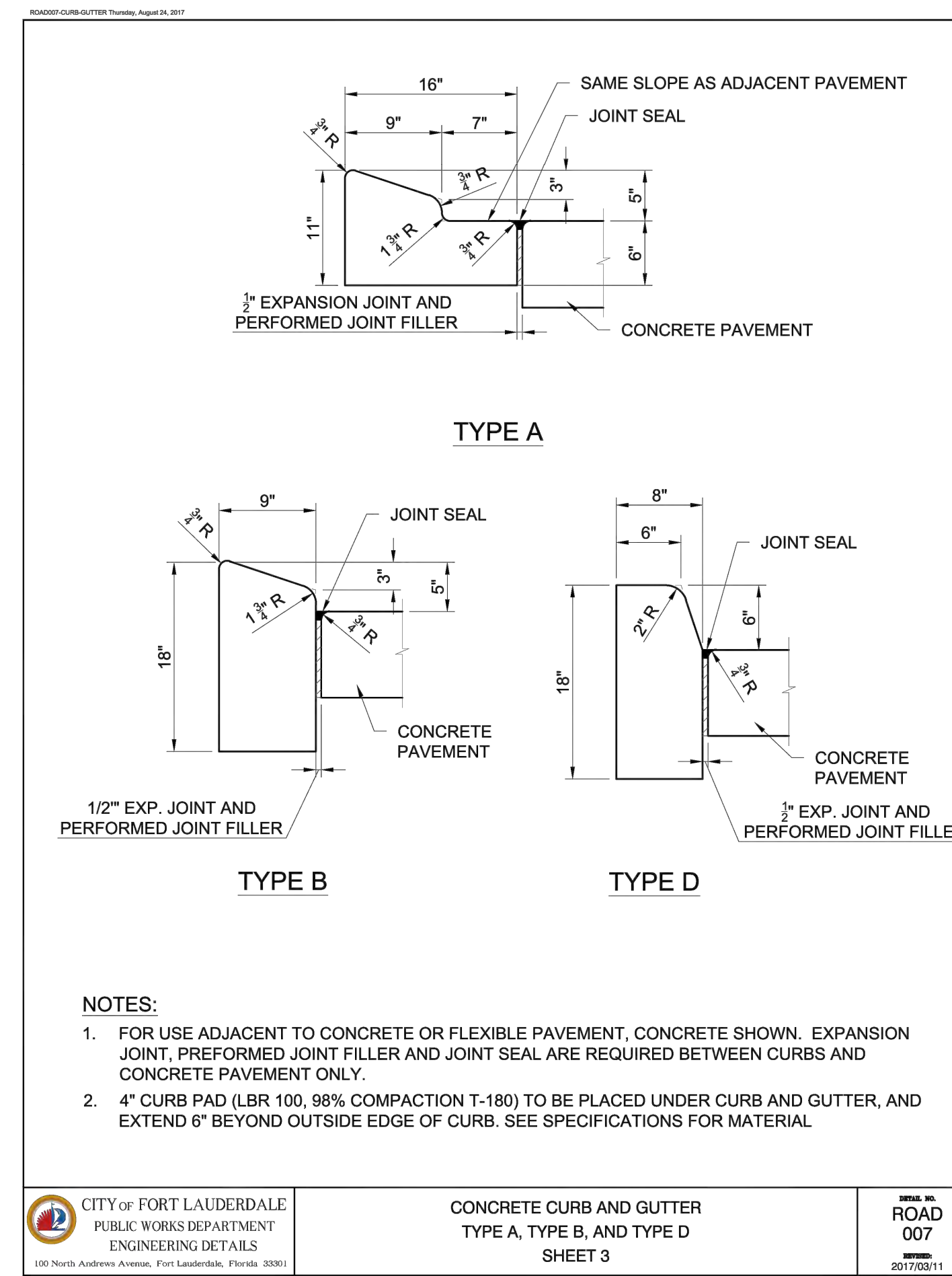
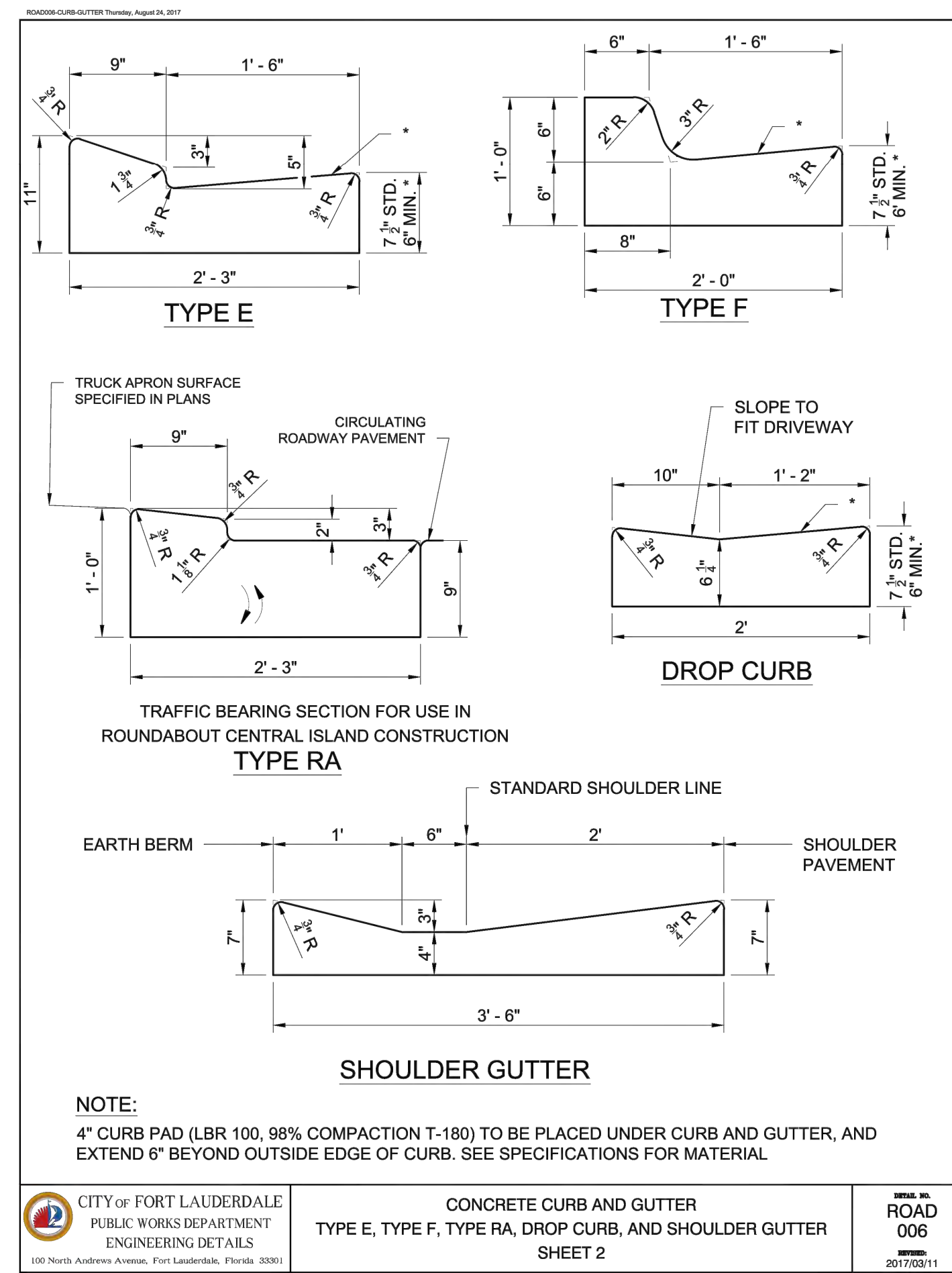
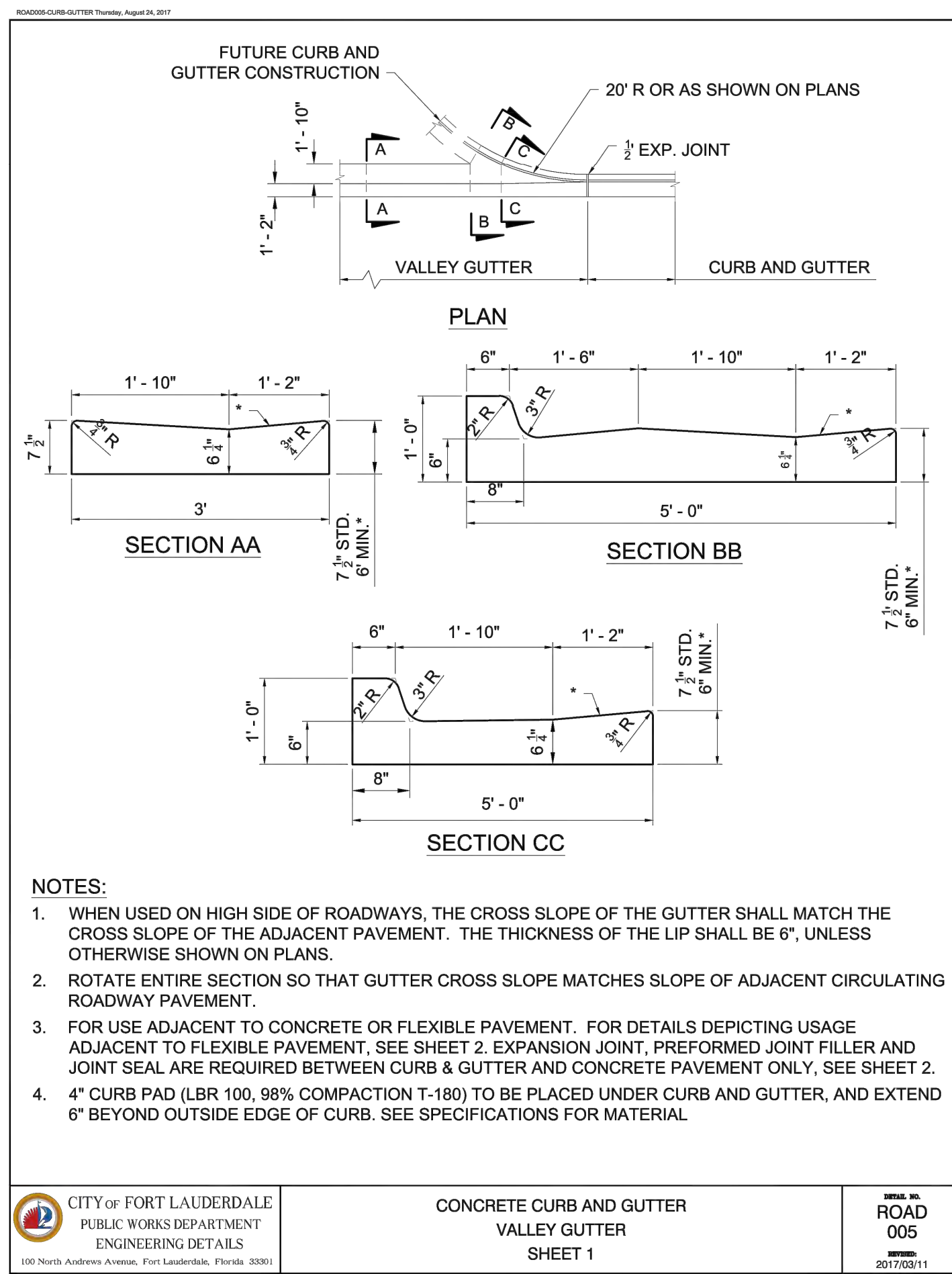
NOTES:
1. NO GEOTEXTILES SHALL BE USED IN PLACE OF THE CHOKER.
2. SEE SHEET GREN 011 FOR SECTION OF PAVEMENT WITH CLEANOUT.
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4. DEPTH OF EDGE RESTRAINT IS 6" FOR POROUS ASPHALT AND 10" FOR PERVIOUS CONCRETE AND PERMEABLE PAVERS.
5. MATERIALS: TYPE F, 3,500 PSI CONCRETE; OTHER TYPES OF EDGE RESTRAINTS REQUIRE APPROVAL AND BASED ON MANUFACTURER RECOMMENDATIONS.
6. SEE GREEN INFRASTRUCTURE NOTES.

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS PAVING
AND GRADING - SHEET 2

SHEET NO. CZ-DT-13

TOTAL: 255
CAD FILE: 11868-CZ-DT13
DRAWING FILE NO. 4-142-42



Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
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Certificate of Authorization No: 2771

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DRAWN BY: XXX
DATE: 01/07/2019
DESIGNED BY: XXX
SCALE: VERT 1"=2'
CHECKED BY: XXX
HORIZ 1"=20'
FIELD BOOK: XXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	REVISIONS	DESCRIPTION

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS PAVING
AND GRADING - SHEET 3

SHEET NO.
CZ-DT-14
TOTAL: 255
CAD FILE: 11868-CZ-DT14
DRAWING FILE NO. 4-142-42

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CONSTRUCTION SET

ROAD 011 CURB AND GUTTER THUMB, August 20, 2017

DEPTH OF SAWCUT 3 1/2" MIN.

DEPTH OF SAWCUT 3 1/2" MIN.

DEPTH OF SAWCUT 3 1/2" MIN.

TYPE A TYPE B TYPE D

SURFACE ON THE LOW SIDE OF PAVEMENT TO BE 1/2" ABOVE LIP OF GUTTER. SURFACE ON HIGH SIDE TO BE FLUSH WITH LIP OF CURB OR CURB AND GUTTER.

SLOPE VARIES

FLEXIBLE PAVEMENT

1 1/2"

* APPLIES TO BOTH HIGH AND LOW SIDES OF PAVEMENT. LOW SIDE SHOWN.
APPLIES TO SHOULDER GUTTER ONLY WHERE ADJOINING TRAFFIC LANES.

NOTES:

- FOR CURB, GUTTER AND CURB & GUTTER PROVIDE 1/8" - 1/4" CONTRACTION JOINTS AT 10' CENTERS (MAX.). CONTRACTION JOINTS ADJACENT TO CONCRETE PAVEMENT ON TANGENTS AND FLAT CURVES ARE TO MATCH THE PAVEMENT JOINTS. WITH INTERMEDIATE JOINTS NOT TO EXCEED 10' CENTERS. CURB, GUTTER AND CURB & GUTTER EXPANSION JOINTS SHALL BE LOCATED IN ACCORDANCE WITH SECTION 520 OF THE STANDARD SPECIFICATIONS.
- ENDS OF CURBS TYPES B AND D SHALL TRANSITION FROM FULL TO ZERO HEIGHTS IN 3'.

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CONCRETE CURB AND GUTTER CONTRACTION JOINT IN CURB SHEET 7

ROAD 011 2017/03/11

ROAD 011 DETECTABLE WARNING THUMB, August 20, 2017

GENERAL NOTES

- SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED AT LOCATIONS THAT WILL PROVIDE CONTINUOUS UNOBSTRUCTED PEDESTRIAN CIRCULATION PATH TO PEDESTRIAN AREAS, ELEMENTS AND FACILITIES WITHIN THE RIGHT OF WAY AND TO ACCESSIBLE PEDESTRIAN ROUTES ON ADJACENT SITES. CURBED FACILITIES WITH SIDEWALKS AND THOSE WITHOUT SIDEWALKS ARE TO HAVE CURB RAMPS CONSTRUCTED FOR ALL INTERSECTIONS AND TURNOUTS WITH CURBED RETURNS. TO ACCOMMODATE CURB RAMPS, PARTIAL CURB RETURNS ARE TO EXTEND TO THE LIMITS PRESCRIBED IN INDEX NO. 515. RAMPS CONSTRUCTED AT LOCATIONS WITHOUT SIDEWALKS ARE TO HAVE A LANDING CONSTRUCTED AT THE TOP OF EACH RAMP. SEE LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS.
- WHEN ALTERING EXISTING PEDESTRIAN FACILITIES, WHERE EXISTING RESTRICTED CONDITIONS PRECLUDE THE ACCOMMODATION OF A RAMP SLOPE OF 1:12, A RAMP SLOPE BETWEEN 1:12 AND 1:10 IS PERMITTED FOR A RISE OF 6' MAXIMUM. WHERE COMPLIANCE WITH THE REQUIREMENTS FOR CROSS SLOPE CANNOT BE FULLY MET, THE MINIMUM FEASIBLE CROSS SLOPE SHALL BE PROVIDED. RAMP SLOPES ARE NOT REQUIRED TO EXCEED 15' IN LENGTH.
- IF SIDEWALK CURB RAMPS ARE LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, THEN PROVIDE TRANSITION SLOPES TO THE RAMP; OTHERWISE A SIDEWALK CURB MAY BE REQUIRED.
- ALL SIDEWALKS, RAMPS, AND LANDINGS WITH A CROSS SLOPE OF 0.02 SHOWN IN THIS INDEX ARE 0.02 MAXIMUM. ALL RAMP SLOPES SHOWN IN THIS INDEX AS 1:12 ARE 1:12 MAXIMUM. LANDINGS SHALL HAVE SLOPES LESS THAN OR EQUAL TO 0.02 IN ANY DIRECTION.
- GRADE BREAKS AT THE TOP AND BOTTOM OF RAMPS SHALL BE PARALLEL TO EACH OTHER AND PERPENDICULAR TO THE DIRECTION OF THE RAMP SLOPE.
- WHERE A SIDEWALK CURB RAMP IS CONSTRUCTED WITHIN EXISTING CURB, CURB AND GUTTER AND/OR SIDEWALK, THE EXISTING CURB OR CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE CURB TRANSITION OR TO THE EXTENT THAT NO REMAINING SECTION OF CURB OR CURB AND GUTTER IS LESS THAN 5' LONG. EXISTING SIDEWALKS SHALL BE REMOVED TO THE NEAREST JOINT BEYOND THE TRANSITION SLOPE OR TO THE EXTENT THAT NO REMAINING SECTION OF SIDEWALK IS LESS THAN 5' LONG. FOR CONCRETE SIDEWALK DETAILS REFER TO INDEX 310.
- SIDEWALK CURB RAMP ALPHA-IDENTIFICATIONS ARE FOR REFERENCE PURPOSES (PLANS, PERMITS, ETC.). ALPHA-IDENTIFICATIONS CR-I AND CR-II WERE INTENTIONALLY OMITTED.
- DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE RAMP AND TO A DEPTH OF 2'. DETECTABLE WARNINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION SECTION 527. FOR THE LAYOUT OF DETECTABLE WARNINGS, REFER TO THE TYPICAL PLACEMENT OF DETECTABLE WARNINGS DETAILS. DETECTABLE WARNINGS SHALL NOT BE PROVIDED ON TRANSITION SLOPES.
- WHEN DETECTABLE WARNINGS ARE PLACED ON A SLOPE GREATER THAN 5%, DOMES SHALL BE ALIGNED WITH THE CENTERLINE OF THE RAMP; OTHERWISE DOMES ARE NOT REQUIRED TO BE ALIGNED.
- DETECTABLE WARNINGS SHALL BE REQUIRED ON SIDEWALKS AND SHARED USE PATHS AT:
 - INTERSECTING ROADS
 - MEDIAN CROSSINGS GREATER THAN OR EQUAL TO 6' IN WIDTH
 - RAILROAD CROSSINGS
 - SIGNALIZED DRIVEWAYS
- DETECTABLE WARNINGS - ACCEPTANCE CRITERIA:
 - COLOR AND TEXTURE SHALL BE COMPLETE AND UNIFORM
 - 90% OF INDIVIDUAL TRUNCATED DOMES SHALL BE IN
 - ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT STANDARDS FOR TRANSPORTATION FACILITIES, SECTION 705
 - THERE SHALL BE NO MORE THAN 4 NON-COMPLIANT DOMES IN ANY ONE SQUARE FOOT
 - NON-COMPLIANT DOMES SHALL NOT BE ADJACENT TO OTHER NON-COMPLIANT DOMES
 - SURFACES SHALL NOT DEVIATE MORE THAN 0.10" FROM A TRUE PLANE
- DETECTABLE WARNINGS SHALL BE INSTALLED NO GREATER THAN 5' FROM THE BACK OF CURB OR EDGE OF PAVEMENT.
- DETECTABLE WARNINGS SHALL NOT BE INSTALLED OVER GRADE BREAKS.

LEGEND

DETECTABLE WARNINGS

CURB RAMP NOMENCLATURE PICTORIAL VIEW

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS

ROAD 013 2017/03/11

ROAD 014 SIDEWALK RAMPS THUMB, August 20, 2017

PICTORIAL VIEW

PLAN VIEW

SECTION A-A

SECTION THROUGH RAMP AND LANDING (UNRESTRICTED CONDITIONS)

RAMP AND LANDING DEPTHS NOT RESTRICTED

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SIDEWALK CURB RAMPS SHEET 1

ROAD 014 2017/03/11

ROAD 015 SIDEWALK RAMPS THUMB, August 20, 2017

PICTORIAL VIEW

PLAN VIEW

SECTION A-A

SECTION THROUGH RAMP AND LANDING (UNRESTRICTED CONDITIONS)

RAMP AND LANDING DEPTHS ARE NOT RESTRICTED

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS SHEET 2

ROAD 015 2017/03/11

ROAD 016 SIDEWALK RAMPS THUMB, August 20, 2017

PICTORIAL VIEW

PLAN VIEW

SECTION B-B

SECTION THROUGH LANDING (UNRESTRICTED CONDITIONS)

RAMP AND LANDING STRIPS NOT RESTRICTED

NOTE: FOR ADDITIONAL INFORMATION ON SIDEWALK CURB CONSTRUCTION, SEE SIDEWALK CURB AND SIDEWALK CURB OPTIONS DETAILS.

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SIDEWALK CURB RAMPS SHEET 3

ROAD 016 2017/03/11

ROAD 017 SIDEWALK RAMPS THUMB, August 20, 2017

PICTORIAL VIEW

PLAN VIEW

DIMENSIONAL FEATURES OF SIDEWALK CURB RAMPS FOR LINEAR PEDESTRIAN TRAFFIC

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS SHEET 4

ROAD 017 2017/03/11

Hazen

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DRAWN BY: XXXX
DATE: 01/07/2019
DESIGNED BY: XXXX
SCALE: VERT 1"=2'
HORIZ 1"=20'
CHECKED BY: XXXX
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CH'D	DESCRIPTION

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS PAVING
AND GRADING - SHEET 4

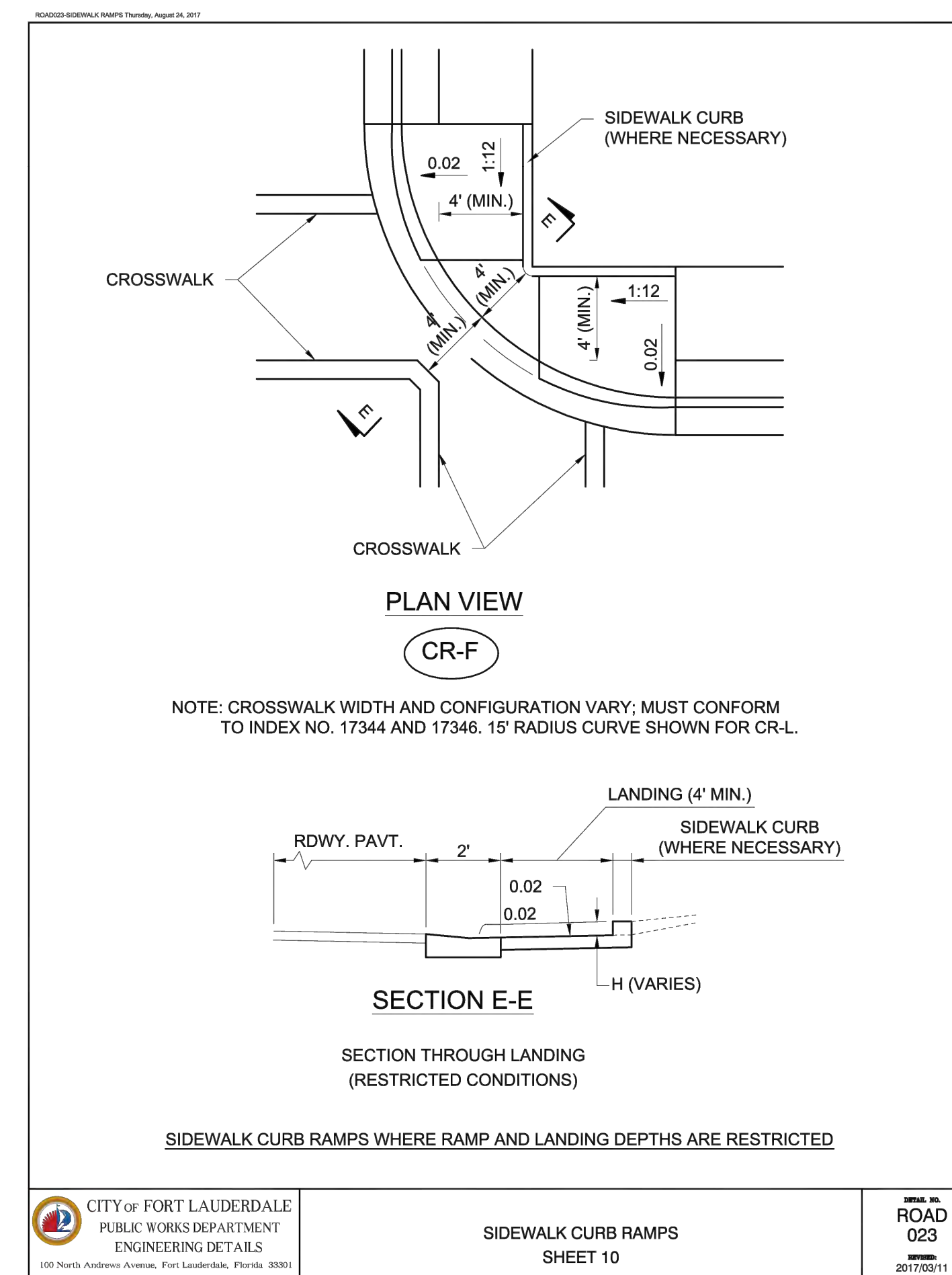
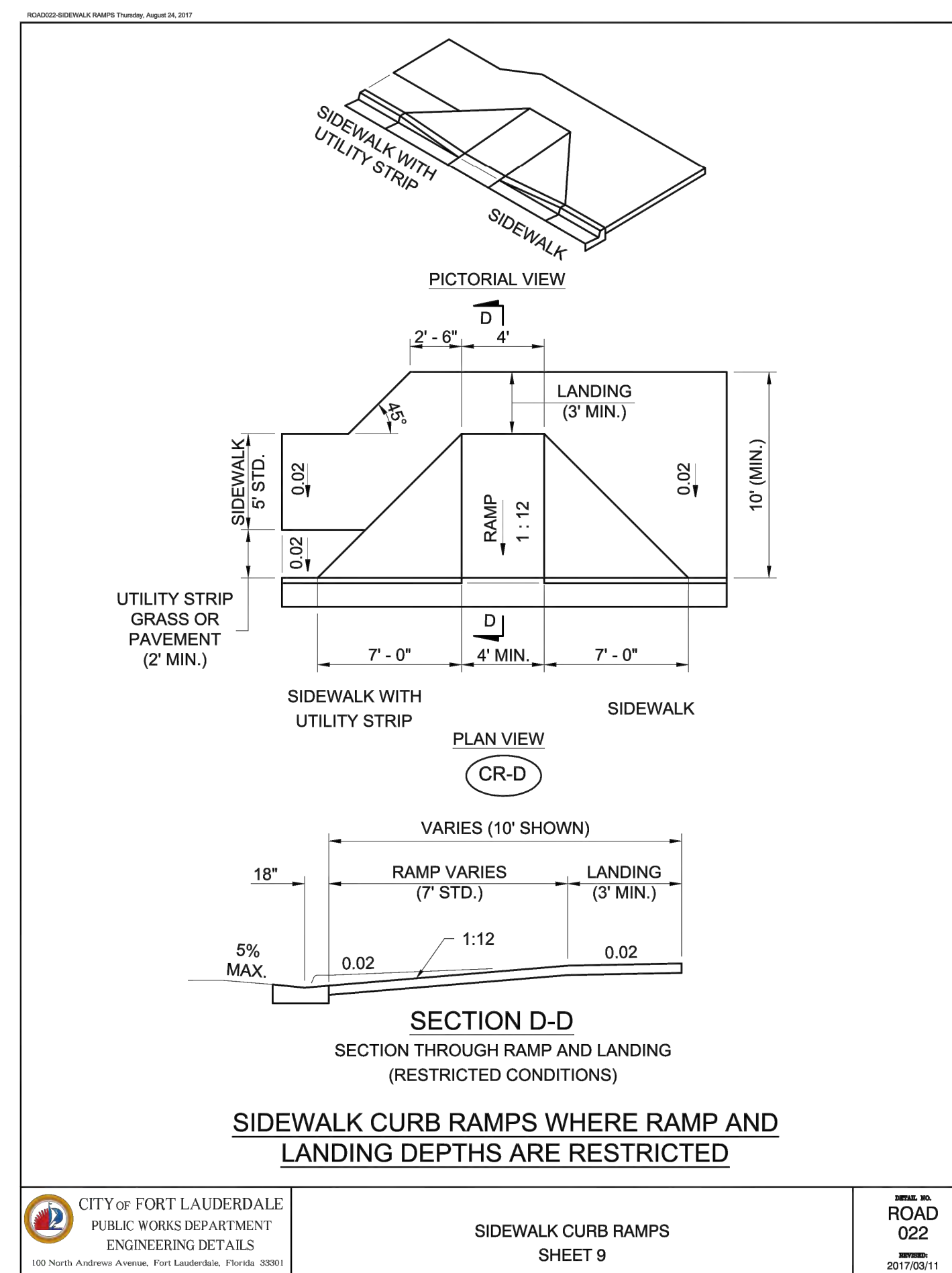
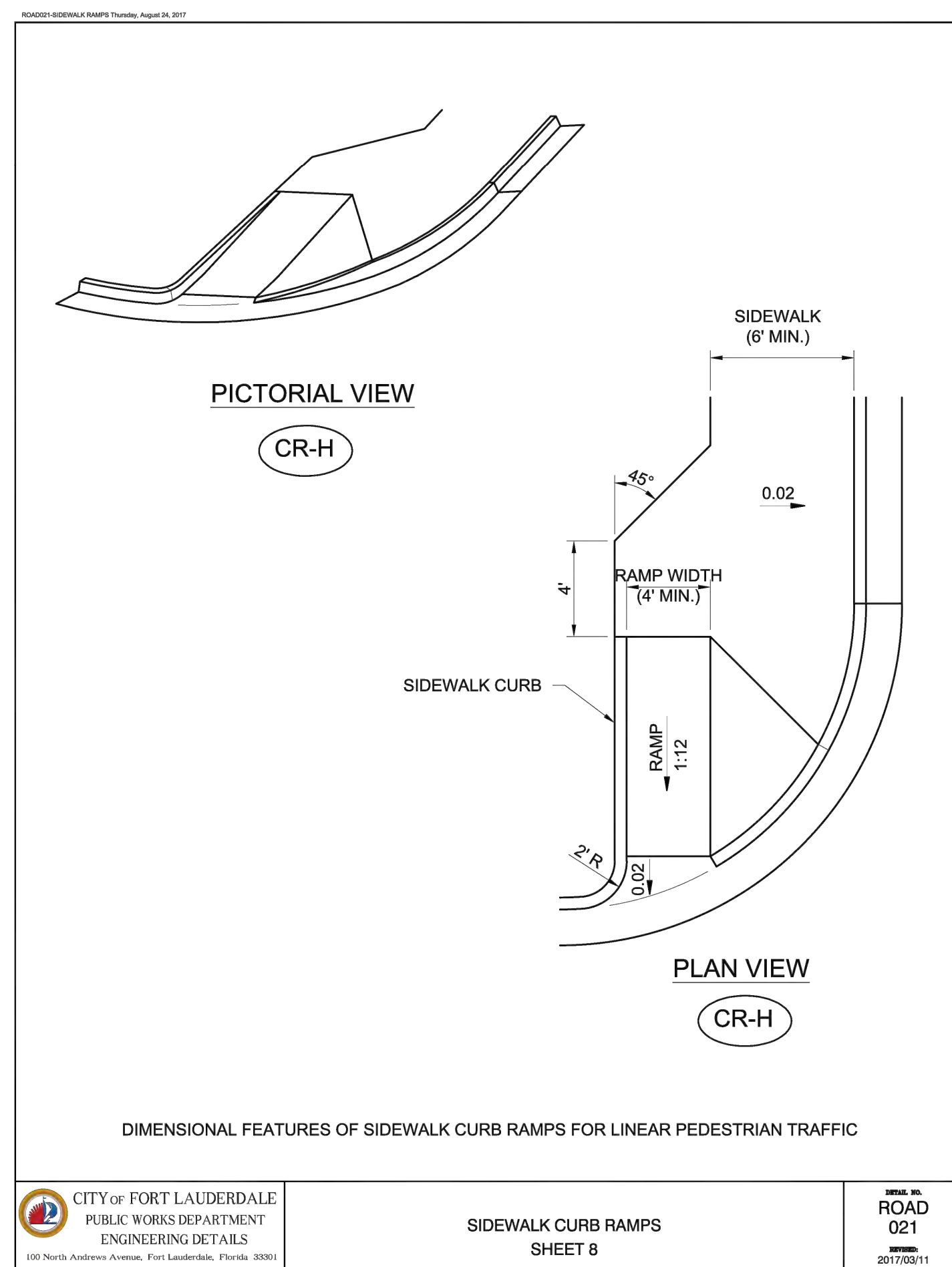
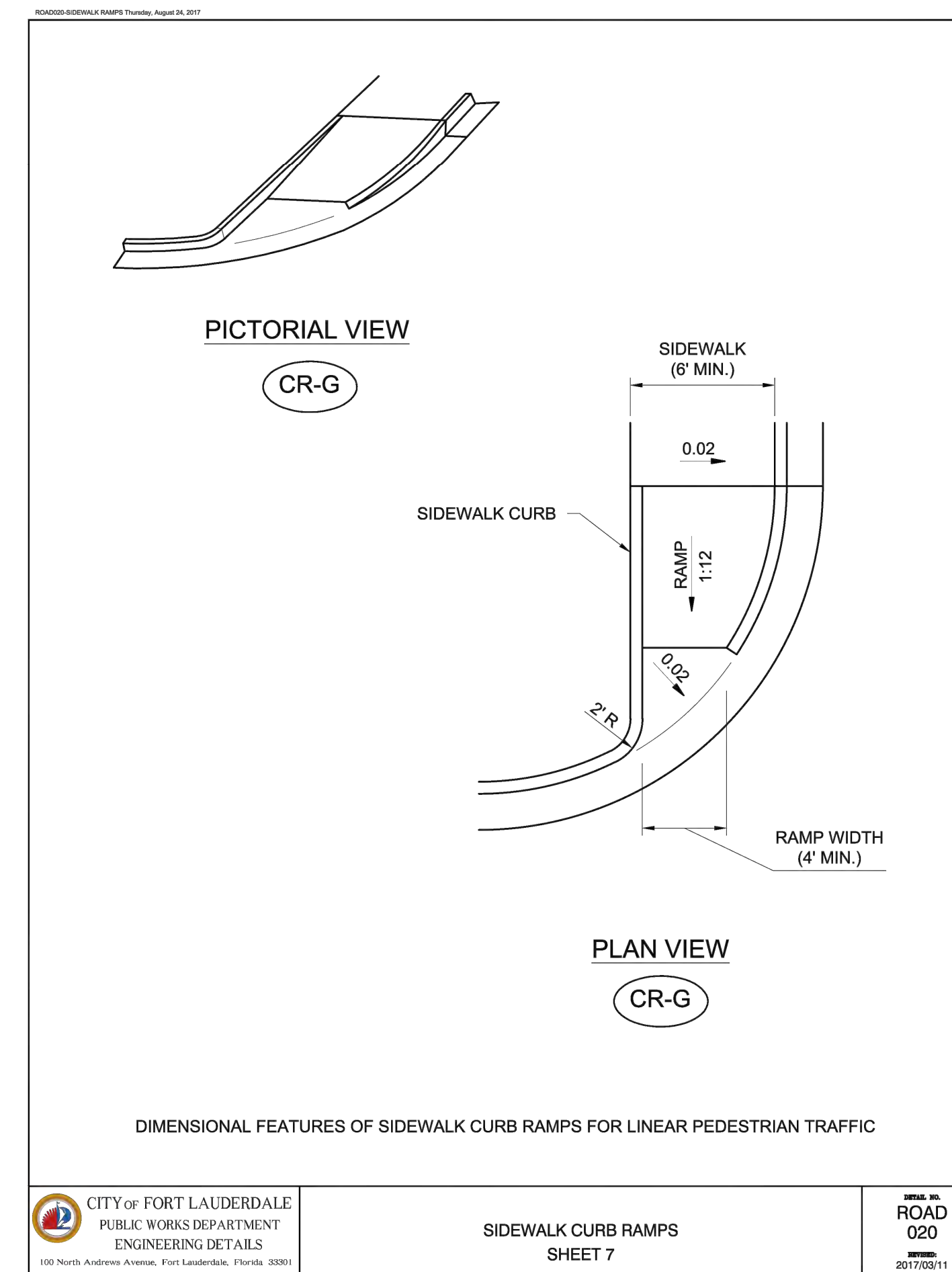
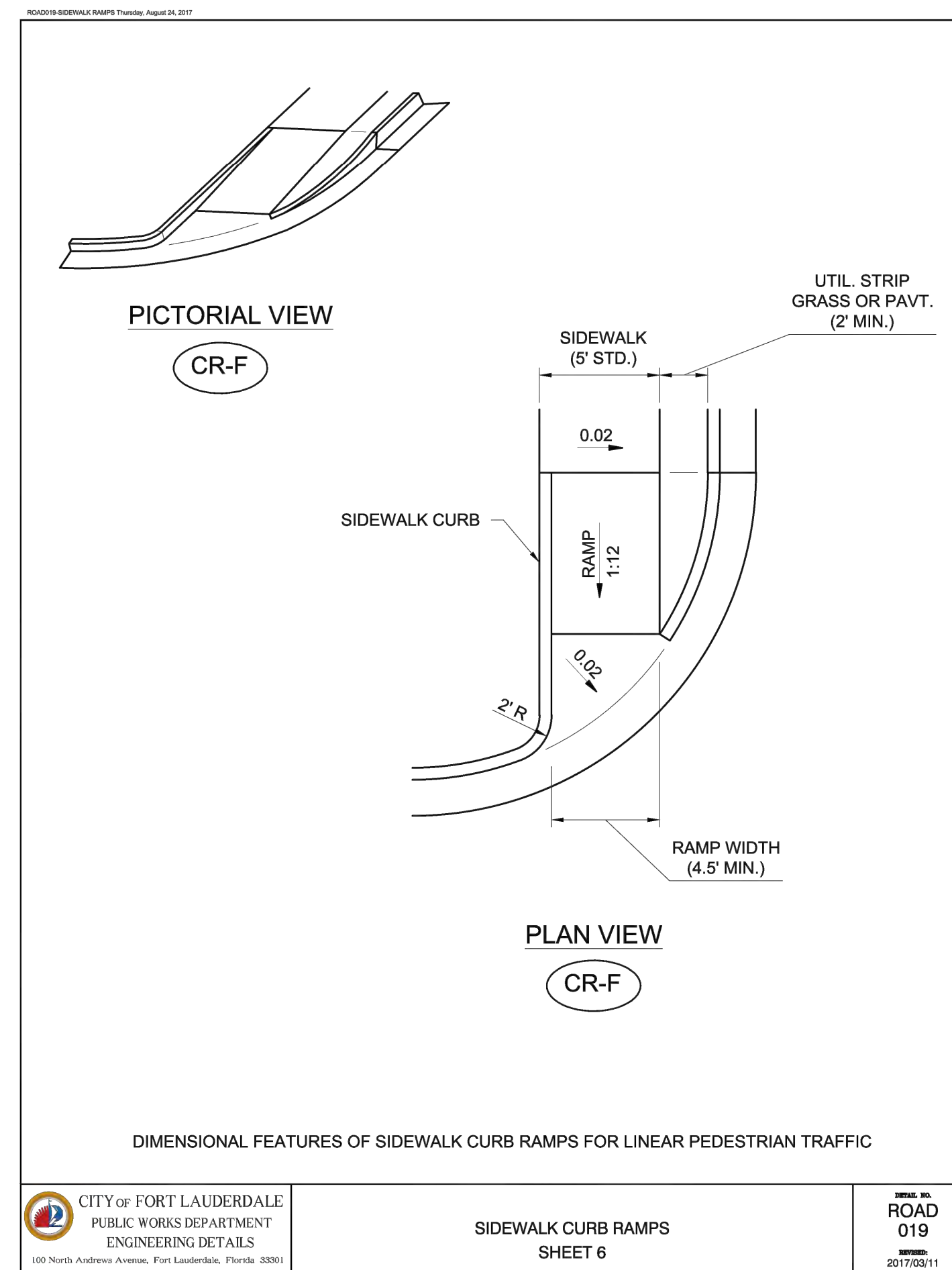
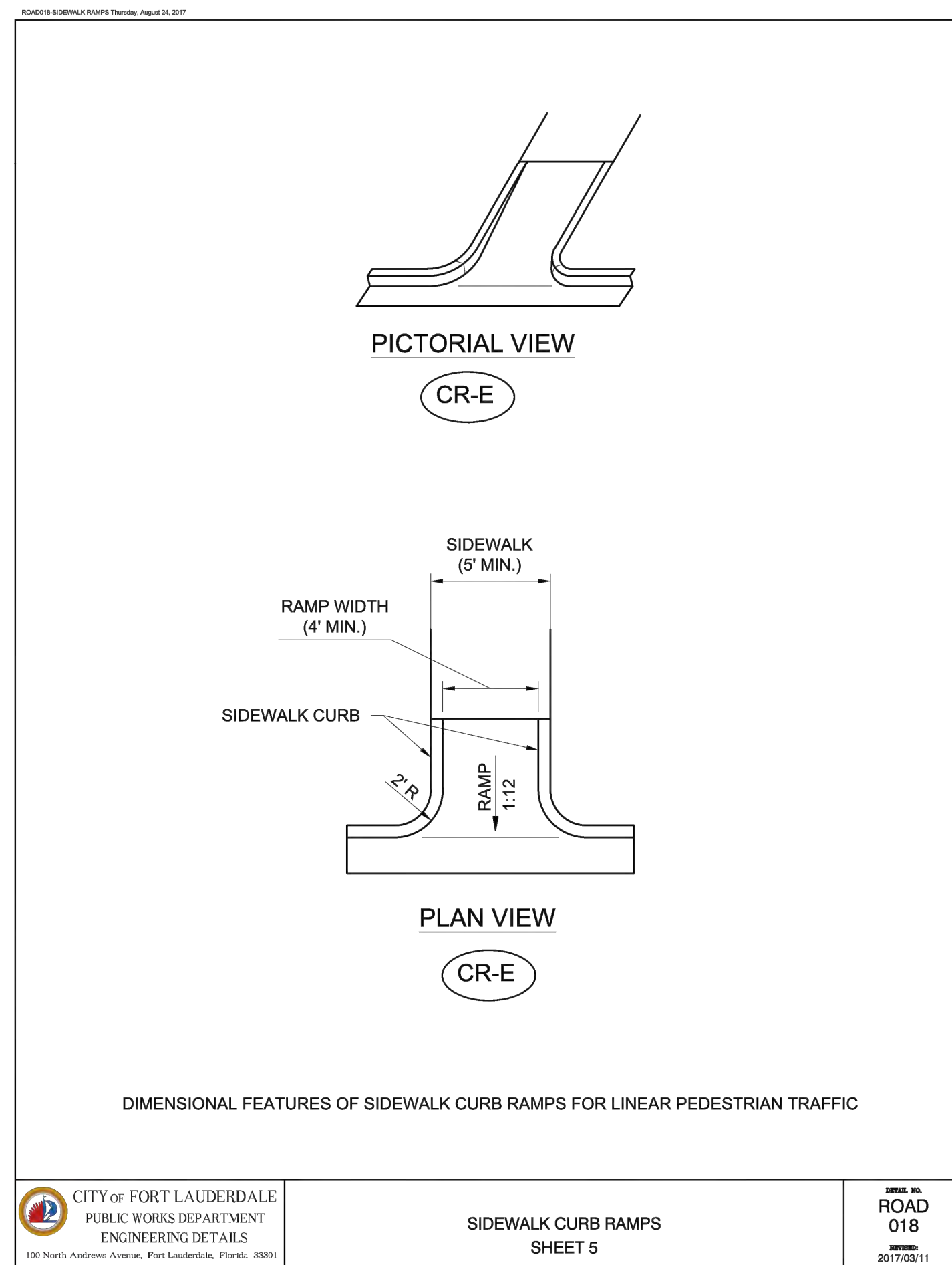
SHEET NO. CZ-DT-15

TOTAL: 255

CAD FILE: 11868-CZ-DT15

DRAWING FILE NO. 4-142-42

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PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CH'D	DESCRIPTION

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS PAVING
AND GRADING - SHEET 5

SHEET NO.
CZ-DT-16

TOTAL: 255
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ROADSIDE CURB RAMP Details, August 28, 2017

MONOLITHIC CAST CURB
RAMP, SIDEWALK, OR LANDING
H (VARIES)
0.02

SEPARATELY CAST CURB
RAMP, SIDEWALK, OR LANDING
H (VARIES)
0.02

SIDEWALK CURB OPTIONS

6" MIN. BUFFER
TRANSITION (WHERE NECESSARY)
NO CURB
DROP (H)
CURB
6" X H MONOLITHIC CAST CURB OR 6" X 12" SEPARATELY CAST CURB
BACK OF SIDEWALK
1:12
0.02
1:12

CONSTRUCT SIDEWALK CURB IN CUT SECTIONS
SIDEWALK CURB

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 11

ROAD NO. ROAD 024
DATE: 2017/03/11

ROADSIDE CURB RAMP Details, August 28, 2017

59% MAX.
1:12
1:12
NOT TO EXCEED 18"
PAVEMENT RELIEF

PICTORIAL VIEW

ASPHALT PAVEMENT
FINAL ROLLED SURFACE
WIDTH VARIES (18" MAX.)
VARIES
RAMP
5% MAX.
PAVEMENT RELIEF
LIP OF CURB

SECTION C-C
PAVEMENT RELIEF AT LIP OF CURB

NOTE: REMOVE ELEVATED PAVEMENT BY SPADING AND ROLLING; SMOOTH MILLING; OR GRINDING

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 12

ROAD NO. ROAD 025
DATE: 2017/03/11

ROADSIDE CURB RAMP Details, August 28, 2017

5' CONCRETE SIDEWALK
2' CURB TRANSITION
5' CONCRETE SIDEWALK
MEDIAN
CURB TYPES A OR B OR CURB & GUTTER TYPE E (CURB AND GUTTER TYPE E SHOWN)
CURB TYPES A OR B OR CURB AND GUTTER TYPE E (CURB AND GUTTER TYPE E SHOWN)

PLAN VIEW
PLAN VIEW - (ALTERNATE DETAIL)

5' REFUGE WITH MAXIMUM SLOPE OF 0.02 MUST BE PROVIDED WHEN SLOPES OF 0.05 OR FLATTER AND 5' IN LENGTH ARE NOT AVAILABLE ALONG THE CROSSWALK; THE REFUGE CAN BE CONSTRUCTED AT ANY LOCATION WITHIN THE CROSSWALK; OR, A 5' X 5' CONCRETE LANDING WITH MAXIMUM SLOPE OF 0.02 CAN BE CONSTRUCTED ADJACENT TO THE CROSSWALK.

CROSSING (CROSSING SIDEWALK, 4")
EDGE OF PAVEMENT
SLOPE VARIES (0.02 STD.; 0.05 MAX.)
CURB TRANSITION (CURB AND GUTTER TYPE E SHOWN)
EDGE OF PAVEMENT

SLOPES TO INTERSECT AT CENTERLINE OF MEDIAN FOR THE 0.02 RATE WHEN THE EDGE OF PAVEMENT ELEVATIONS ARE THE SLOPES MAY INTERSECT OFF THE CENTERLINE FOR VARIABLE EDGE OF PAVEMENT ELEVATIONS OF TO ACCOMMODATE OTHER CONSTRUCTION IN THE MEDIAN; SLOPES ARE NOT TO BE STEEPER THAN 0.05.

SECTION F-F
MEDIAN REFUGE

MEDIAN CROSSING

CITY OF FORT LAUDERDALE
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ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 13

ROAD NO. ROAD 026
DATE: 2017/03/11

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CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

ROADSIDE CURB RAMP Details, August 28, 2017

5' MIN.
LANDING 0.02
RAMP 1:12
OTHER OPTIONS AS SHOWN IN THE PLANS

5' MIN.
LANDING 0.02
RAMP 1:12

5' MIN.
LANDING 0.02
RAMP 1:12

LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 14

ROAD NO. ROAD 027
DATE: 2017/03/11

ROADSIDE CURB RAMP Details, August 28, 2017

2' DETECTABLE WARNINGS
UTILITY STRIP
RAMP
PICTORIAL VIEW CR-A SHOWN (CR-B, CR-E AND CR-K SIMILAR)

2' DETECTABLE WARNINGS
RAMP
LANDING
PICTORIAL VIEW CR-C SHOWN

TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 15

ROAD NO. ROAD 028
DATE: 2017/03/11

ROADSIDE CURB RAMP Details, August 28, 2017

2' DETECTABLE WARNINGS
SIDEWALK
UTILITY STRIP

2' DETECTABLE WARNINGS
PICTORIAL VIEW FLUSH SHOULDER (OPTION A)

5' MAX.
2' DETECTABLE WARNINGS
SIDEWALK
UTILITY STRIP

2' DETECTABLE WARNINGS
PICTORIAL VIEW FLUSH SHOULDER (OPTION B)

TYPICAL PLACEMENT OF DETECTABLE WARNINGS

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING DETAILS
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

SIDEWALK CURB RAMPS
SHEET 16

ROAD NO. ROAD 029
DATE: 2017/03/11

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8/26/2021

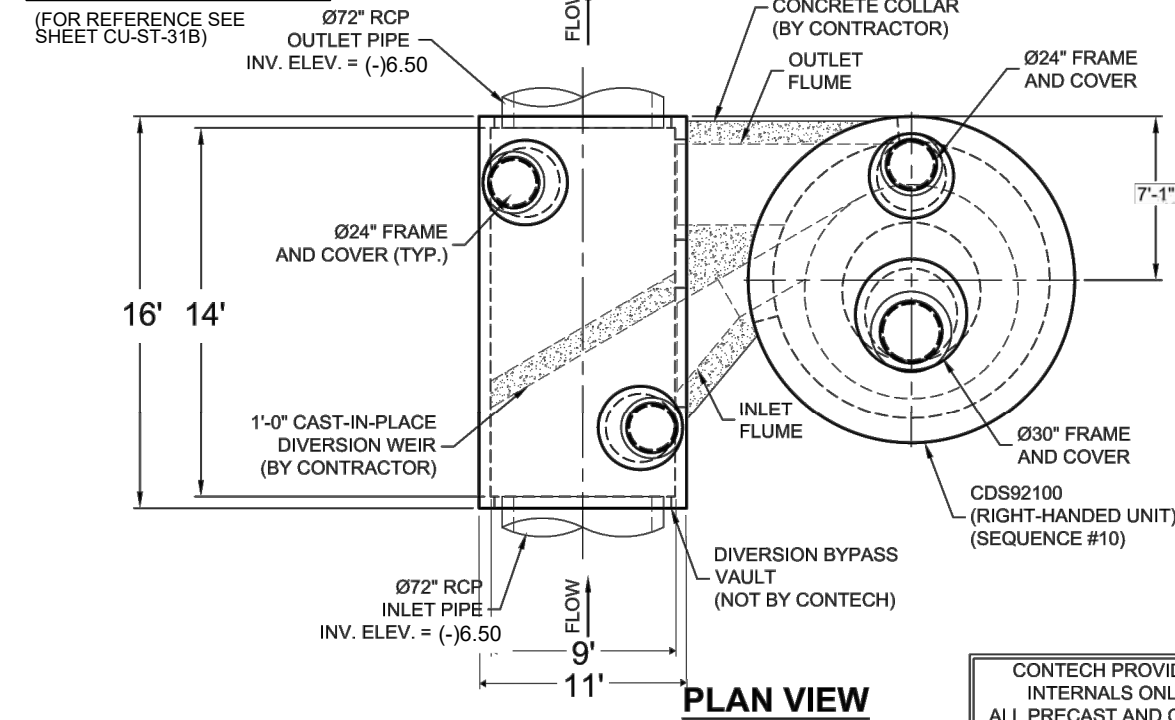
REVISIONS		DESCRIPTION
NO.	DATE	BY

CONSTRUCTION SET

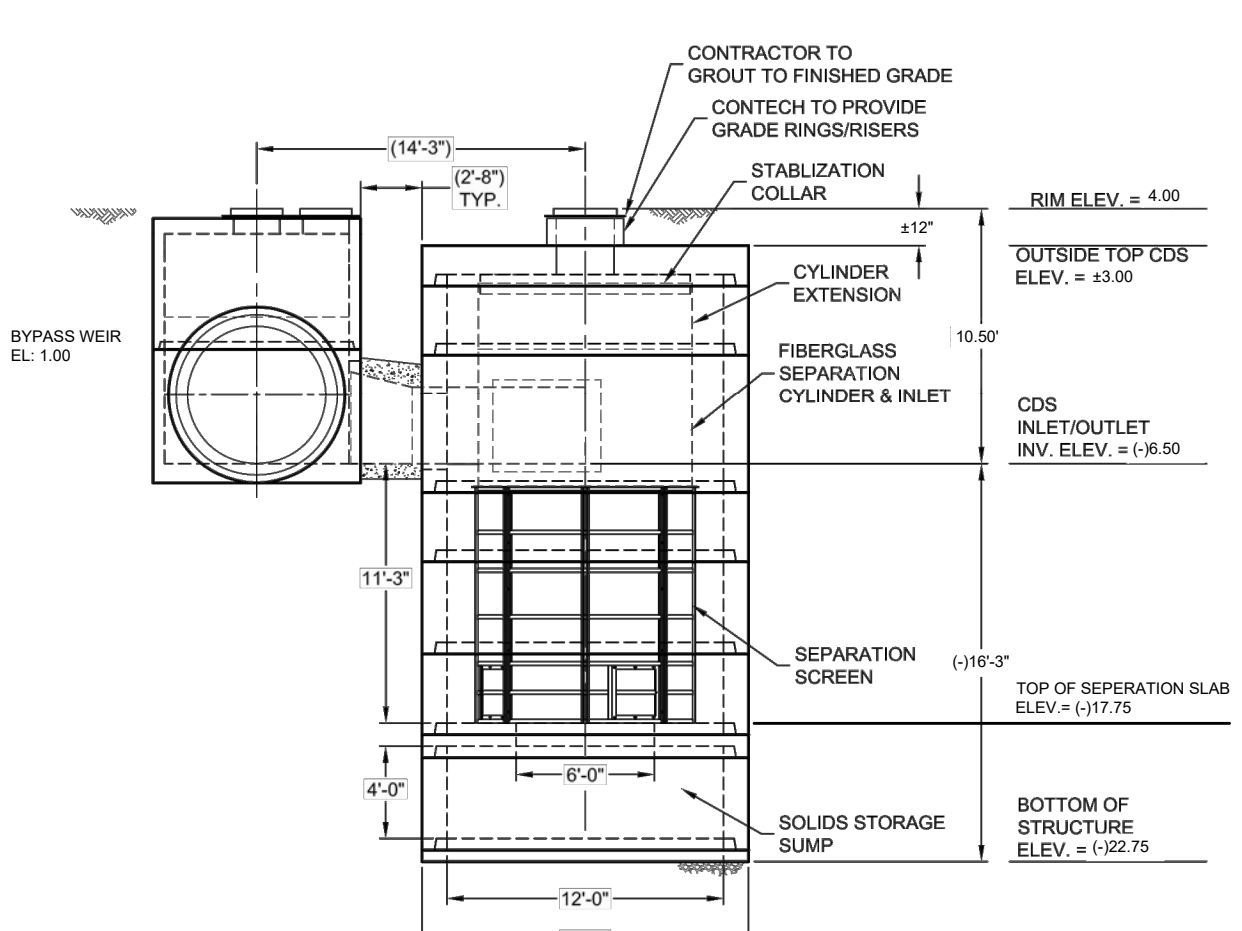
PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
CITY STANDARD DETAILS PAVING
AND GRADING - SHEET 6

SHEET NO. CZ-DT-17
TOTAL: 227
CAD FILE: 11868-CZ-DT17
DRAWING FILE NO. 4-142-42

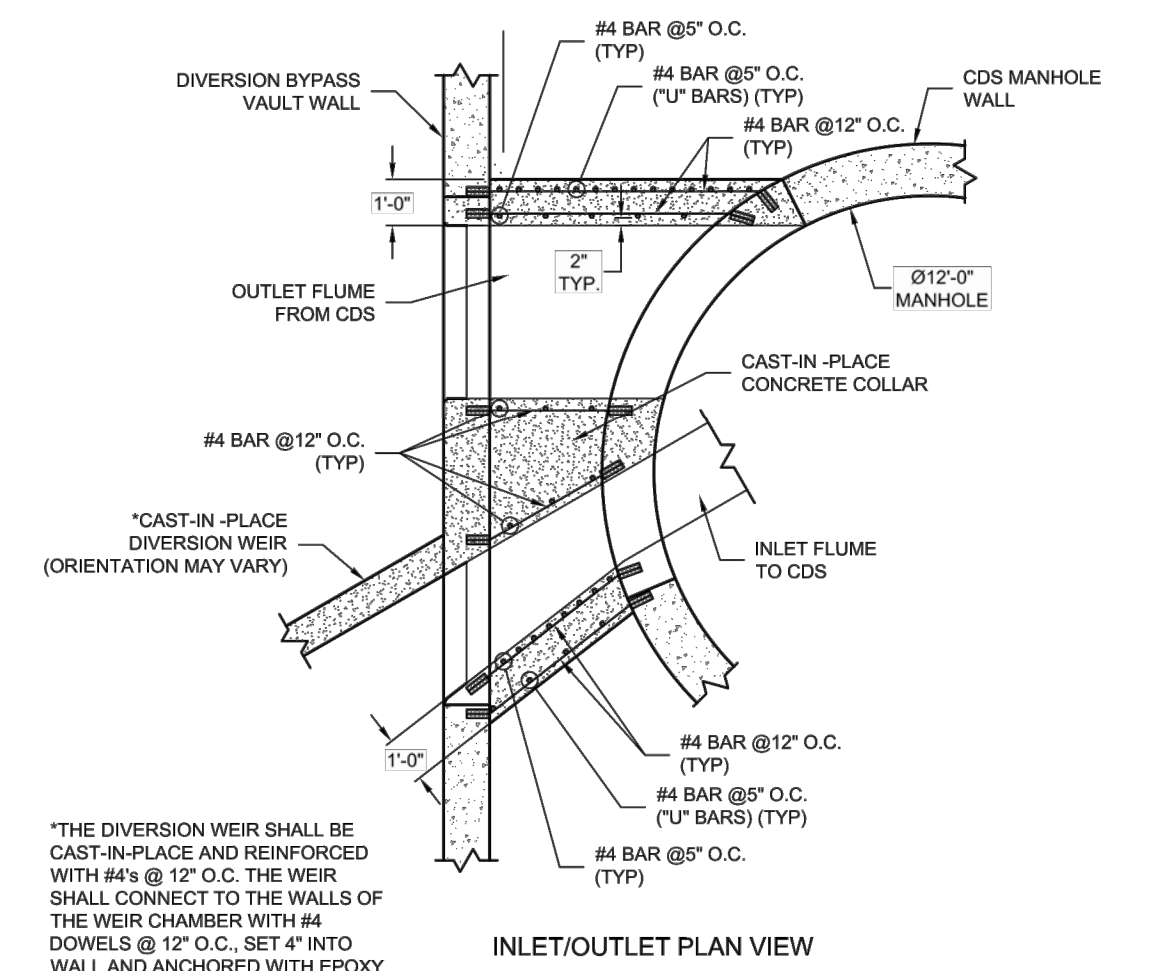
STWQ-S378



PLAN VIEW



ELEVATION VIEW



INLET/OUTLET PLAN VIEW

DESIGN NOTES

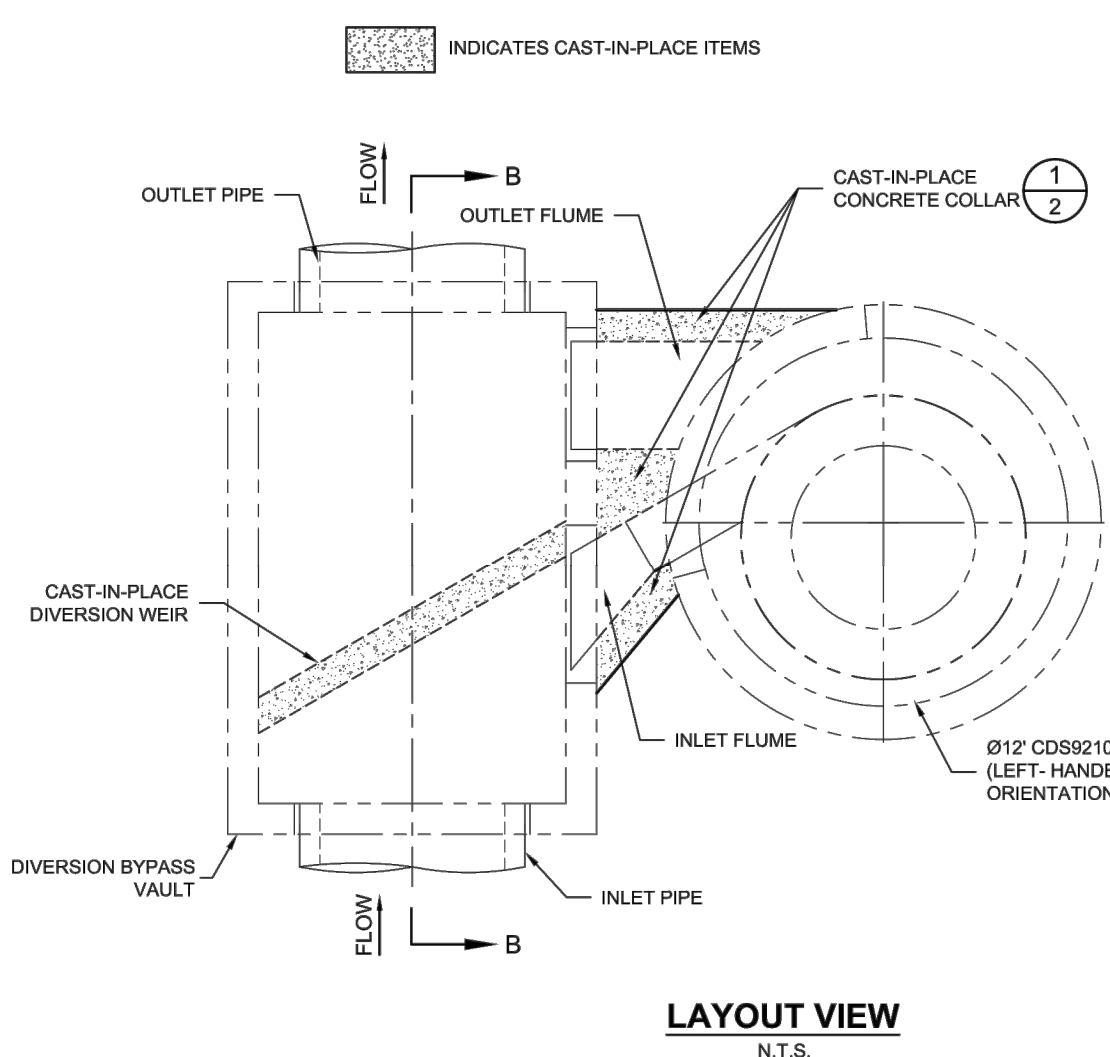
- AS PROVIDED BY EOR:
- DESIGN IN ACCORDANCE WITH ACI-318, & ASTM C478 WITH HS-20 LOADING
- ASSUMPTIONS (TO BE VERIFIED BY EOR)
- EARTH COVER = TBD
 - UNIT WEIGHT OF SOIL = 120 PCF
 - BAR COVER = 2" U.N.O.
 - F_c @ 28 DAYS = 3,000 PSI (MIN.) (C.I.P.)
 - REINFORCEMENT = BAR PER ASTM A615, GRADE 60 WWR PER ASTM A185 GRADE 65
 - EQUIVALENT FLUID PRESSURE = 81 PCF
 - MATERIALS AND MANUFACTURING TO CONFORM TO ASTM C478 & C913

CAST-IN-PLACE CONCRETE COLLAR DETAILS

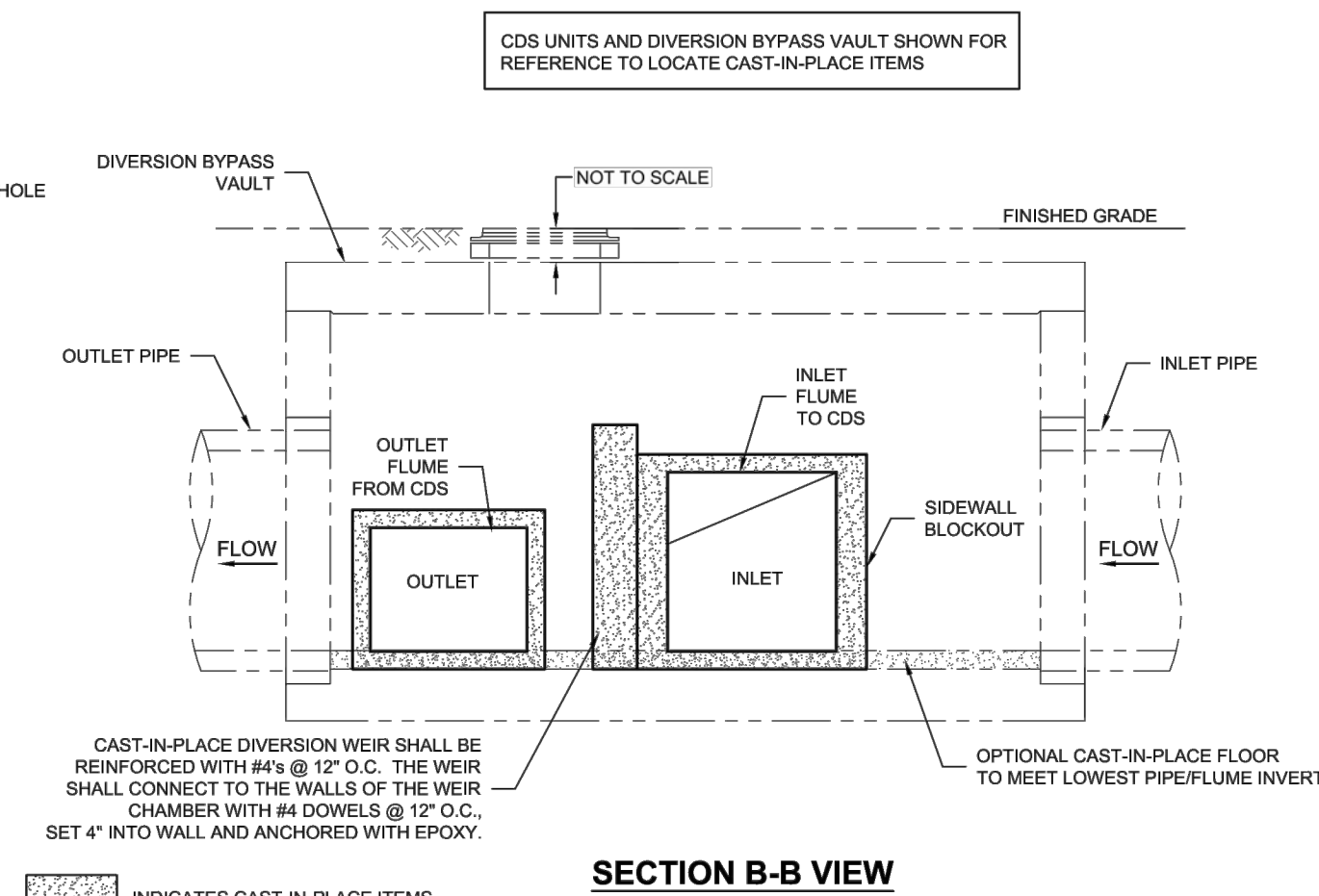


MATERIALS LIST			SITE DESIGN DATA	
COUNT	DESCRIPTION	INSTALLED BY	WATER QUALITY FLOW RATE	83 CFS
1	FIBERGLASS INLET FLUME AND CYLINDER	CONTRACTOR	PEAK FLOW RATE	14 CFS
1	FIBERGLASS OUTLET FLUME	CONTRACTOR	RETURN PERIOD OF PEAK FLOW	TBD YRS
1	4700 MICRON SEPARATION SCREEN	CONTRACTOR		
1	FIBERGLASS STABILIZATION COLLAR	CONTRACTOR		

- GENERAL NOTES**
- DIMENSIONS IN () MAY VARY FROM THOSE SHOWN.
 - CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE'S SECTIONS AND ASSEMBLE STRUCTURES.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT DIVERSION BYPASS VAULT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
 - CONTRACTOR TO INSTALL FIBERGLASS INLET AND OUTLET FLUMES AND SHALL INSTALL CAST-IN-PLACE CONCRETE COLLARS ACCORDING TO DETAILS SHOWN ON SHEET 2 OF 2.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNITS ARE WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.
 - THE DIVERSION BYPASS WEIR WALL SHALL BE CAST-IN-PLACE. SEE SECTION B-B ON SHEET 2 OF 2.

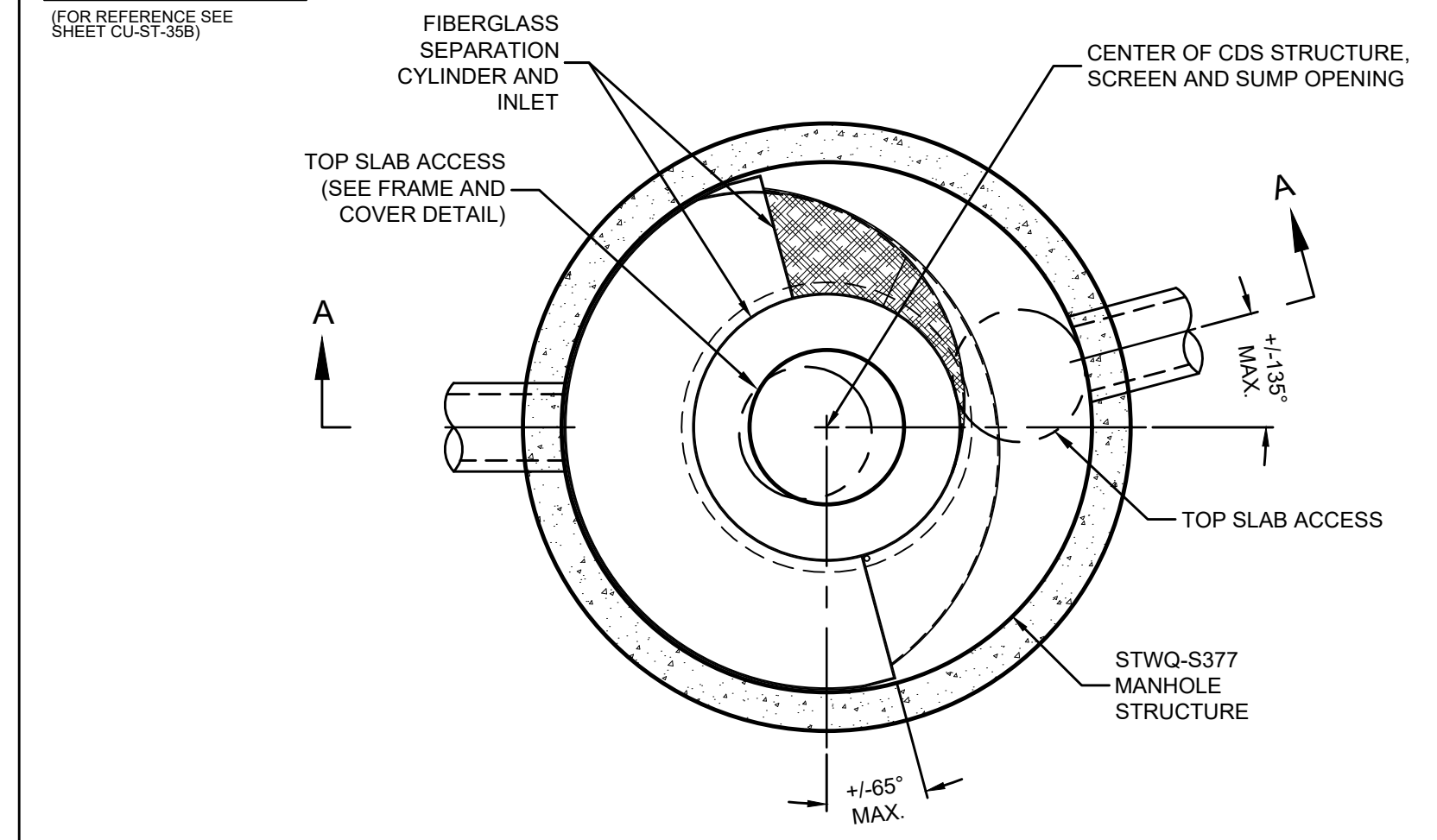


LAYOUT VIEW

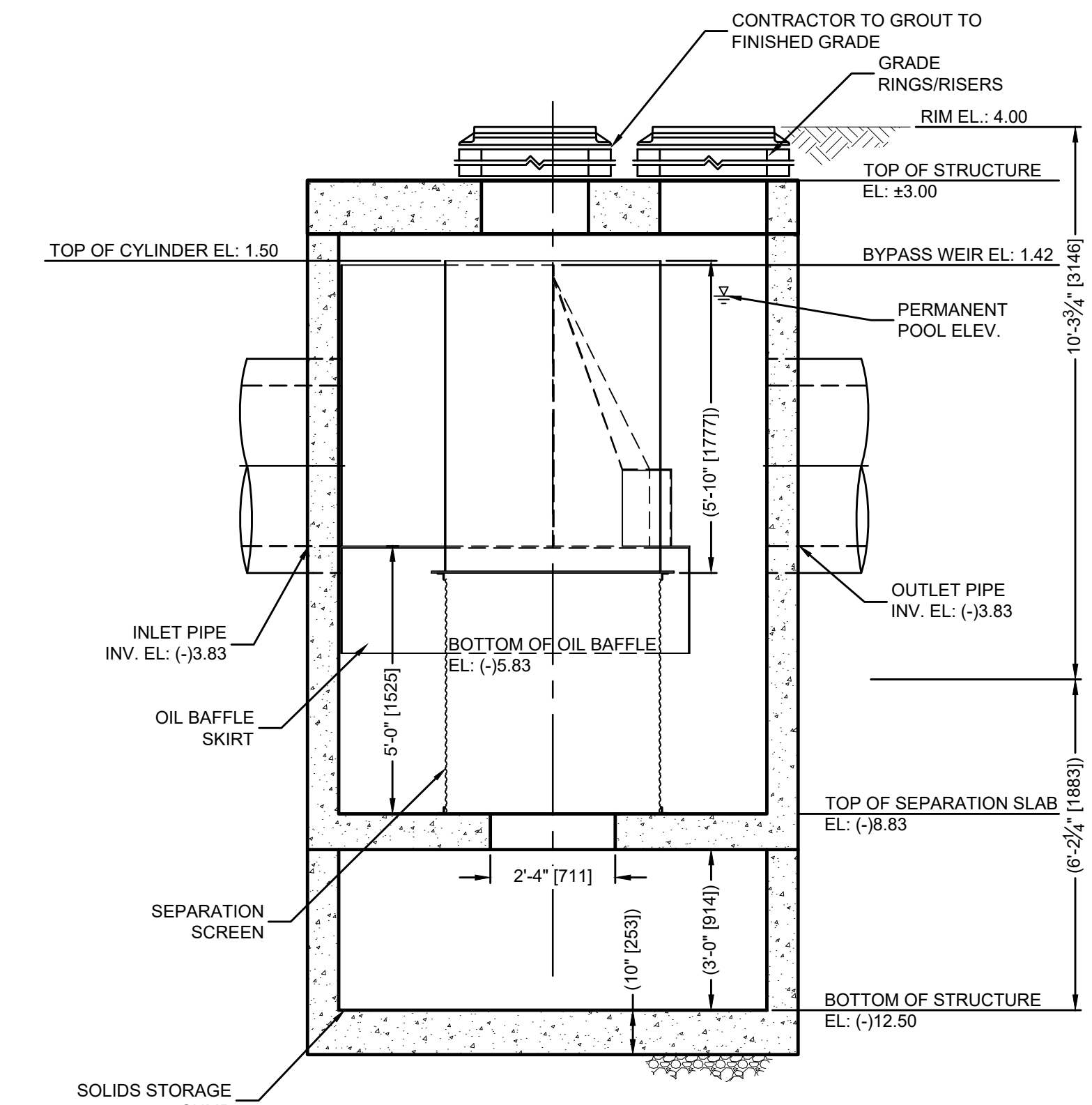


SECTION B-B VIEW

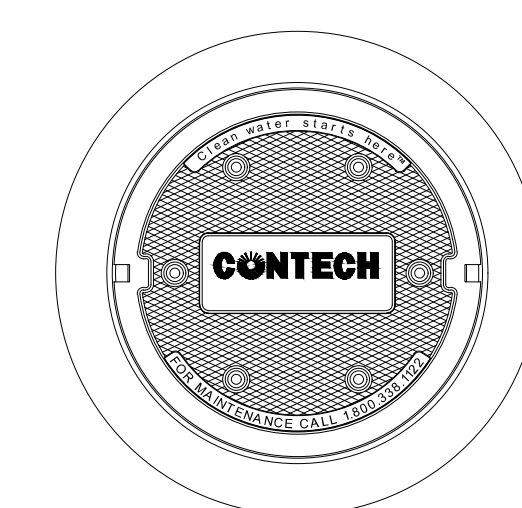
STWQ-S377



PLAN VIEW B-B



ELEVATION A-A



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS	
STRUCTURE ID	STWQ-S377
WATER QUALITY FLOW RATE (CFS OR L/s)	83 CFS
PEAK FLOW RATE (CFS OR L/s)	20 CFS
SCREEN APERTURE	4700
PIPE DATA	I.E. MATERIAL DIAMETER
INLET PIPE 1	(-3) 8.3 RCP 36"
INLET PIPE 2	
OUTLET PIPE	(-3) 8.3 RCP 36"
RIM ELEVATION	4.00

CONFIGURATION DESCRIPTION	
CD54045-8-C RATED TREATMENT CAPACITY IS 7.5 CFS (212.4 L/s), OR PER LOCAL REGULATIONS. MAXIMUM HYDRAULIC INTERNAL BYPASS CAPACITY IS 30.0 CFS (850 L/s). IF THE SITE CONDITIONS EXCEED 30.0 CFS (850 L/s), AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.	
THE STANDARD CD54045-8-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.	
GRATED INLET ONLY (NO INLET PIPE)	
GRATED INLET WITH INLET PIPE OR PIPES	
CURB INLET ONLY (NO INLET PIPE)	
CURB INLET WITH INLET PIPE OR PIPES	
SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)	
SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS	

- GENERAL NOTES**
- SEE SHEET CU-ST-318 FOR PLAN VIEW OF STRUCTURE STWQ-S378.
 - SEE SHEET CU-ST-319 FOR PLAN VIEW OF STRUCTURE STWQ-S379.
 - CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
 - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
 - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 295) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
 - PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

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FAX: (954) 739-6409 TEL: (954) 739-6400
FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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ENGINEER: PATRICK J. GIBNEY
REG. NO: 49428
DATE: 01/22/2021
TEL: 954-987-0068
FAX: 954-987-2949

DRAWN BY: XXX
DATE: 01/07/2019
DESIGNED BY: XXX
SCALE: VERT 1"=2'
CHECKED BY: XXX
HORIZ 1"=20'
FIELD BOOK: XXX
XXXX

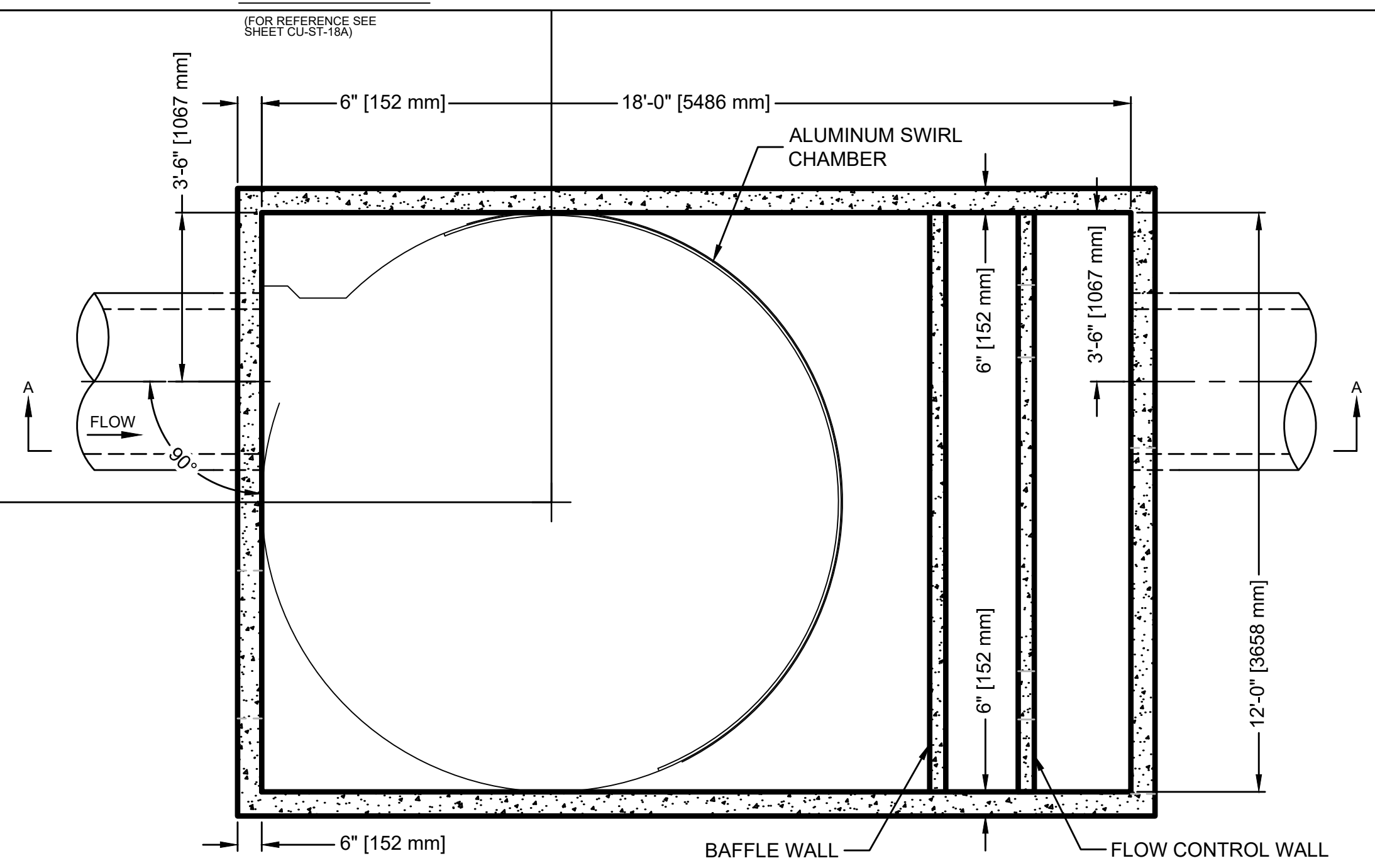
CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	REVISIONS	DESCRIPTION

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
WATER QUALITY CONTROL
STRUCTURE DETAILS

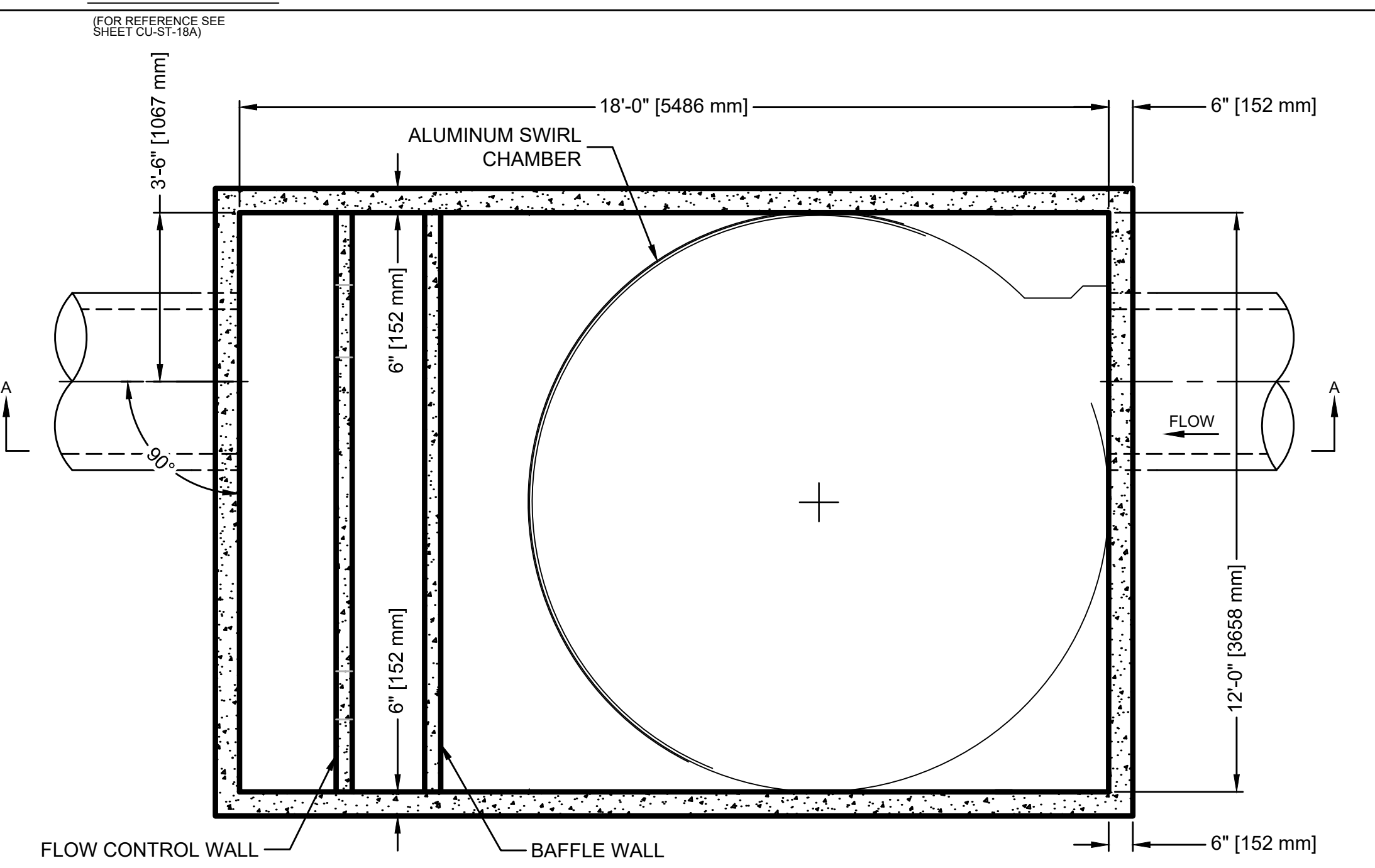
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TOTAL: 255
CAD FILE: 11868-CZ-DT19
DRAWING FILE NO. 4-142-42

STWQ-S352

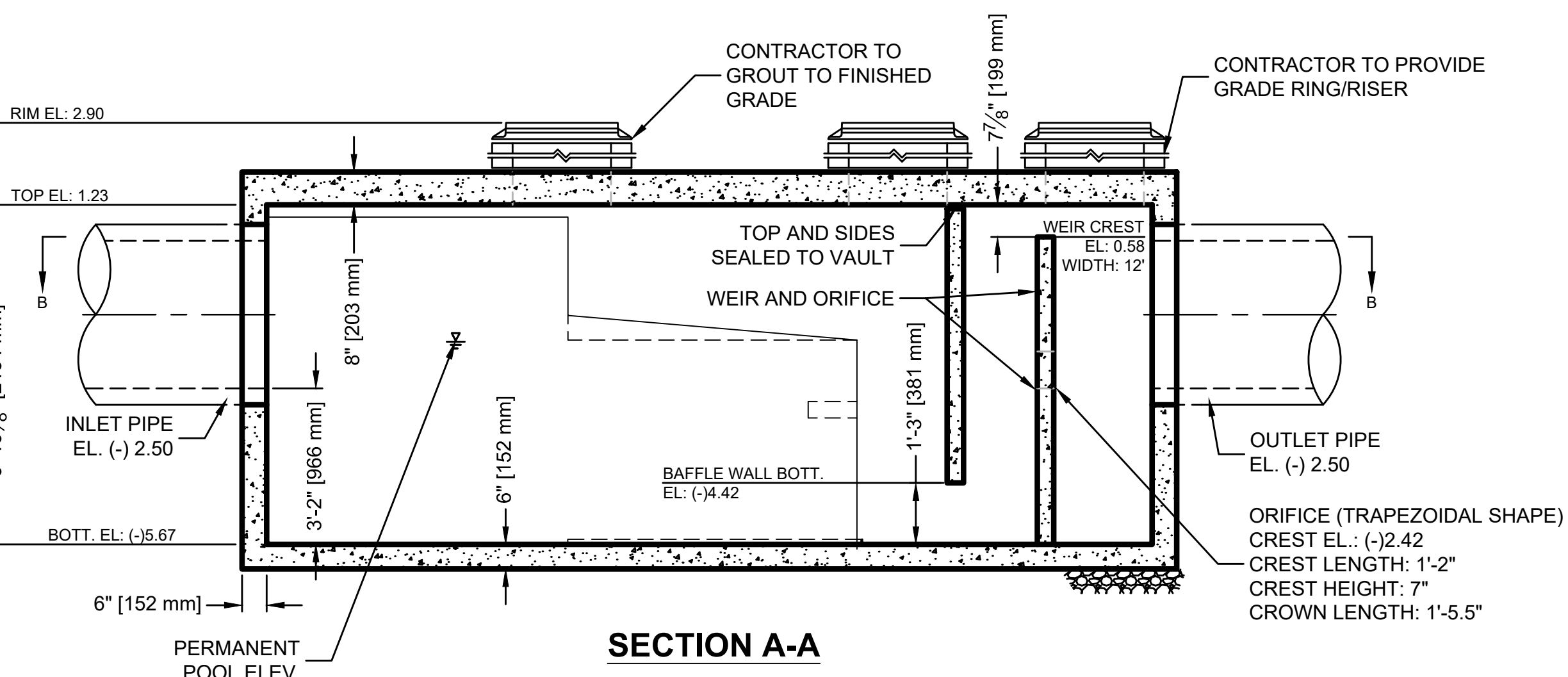


SECTION B-B
PLAN VIEW

STWQ-S353

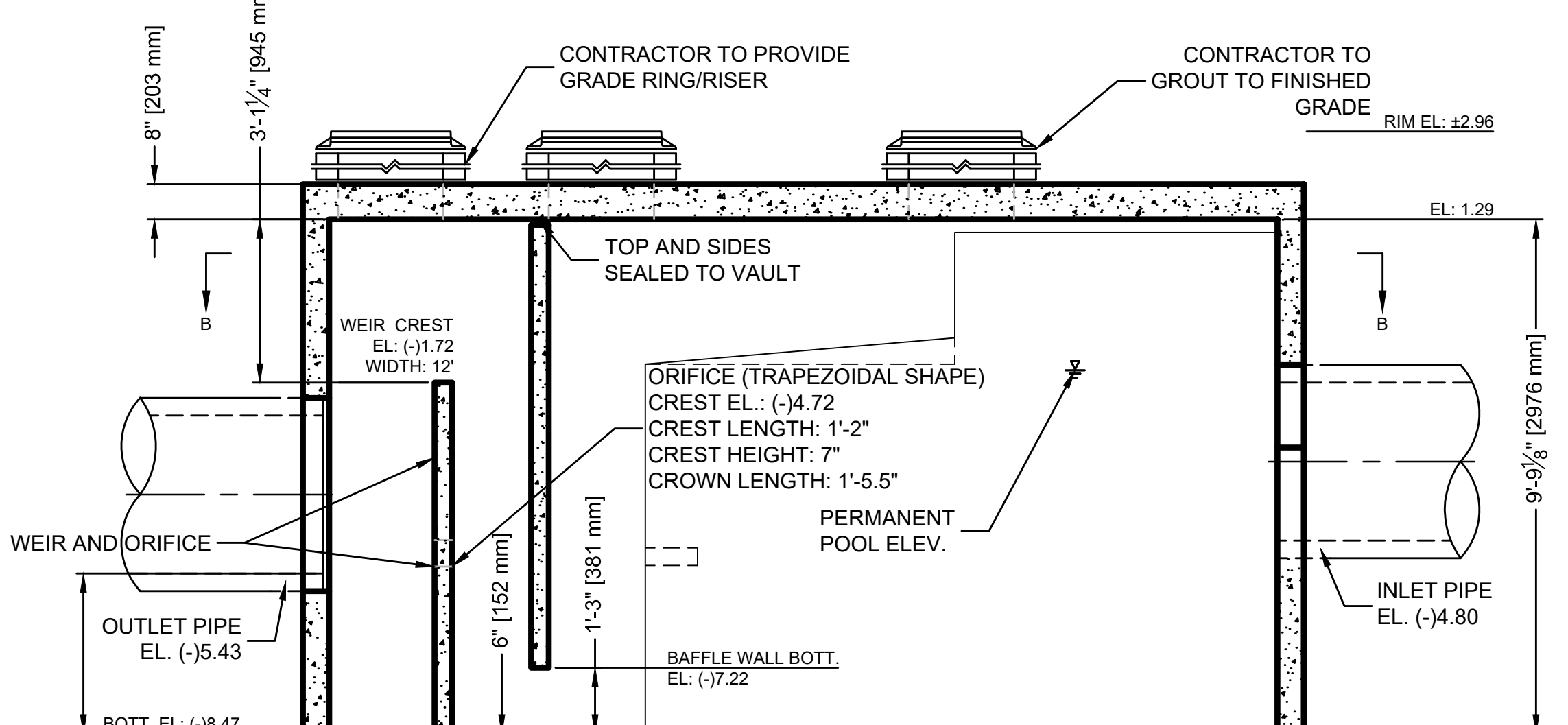


SECTION B-B
PLAN VIEW



SECTION A-A

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID	STWQ-S352		
PEAK FLOW RATE (CFS)	20		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	(-)2.50	RCP	36"
INLET PIPE 2	-	-	-
OUTLET PIPE	(-)2.50	RCP	36"
RIM ELEVATION (NAVD)	2.90		
ORIFICE (TRAPEZOIDAL SHAPE)	0.77 SF		
CREST LENGTH	CREST HEIGHT	CROWN LENGTH	
1'-2"	7"	1'-5.5"	



SECTION A-A

SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID	STWQ-S353		
PEAK FLOW RATE (CFS)	20		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1	(-)4.80	RCP	36"
INLET PIPE 2	-	-	-
OUTLET PIPE	(-)5.43	RCP	36"
RIM ELEVATION (NAVD)	2.96		
ORIFICE (TRAPEZOIDAL SHAPE)	0.77 SF		
CREST LENGTH	CREST HEIGHT	CROWN LENGTH	
1'-2"	7"	1'-5.5"	

GENERAL NOTES

- SEE SHEET CU-ST-18A FOR PLAN VIEW.
- CONTACT TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
- FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- VORTECHS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
- INLET PIPE(S) MUST BE PERPENDICULAR TO THE VAULT AND AT THE CORNER TO INTRODUCE THE FLOW TANGENTIALLY TO THE SWIRL CHAMBER. DUAL INLETS NOT TO HAVE OPPOSING TANGENTIAL FLOW DIRECTIONS.
- OUTLET PIPE(S) MUST BE DOWN STREAM OF THE FLOW CONTROL BAFFLE AND MAY BE LOCATED ON THE SIDE OR END OF THE VAULT. THE FLOW CONTROL WALL MAY BE TURNED TO ACCOMMODATE OUTLET PIPE KNOCKOUTS ON THE SIDE OF THE VAULT.

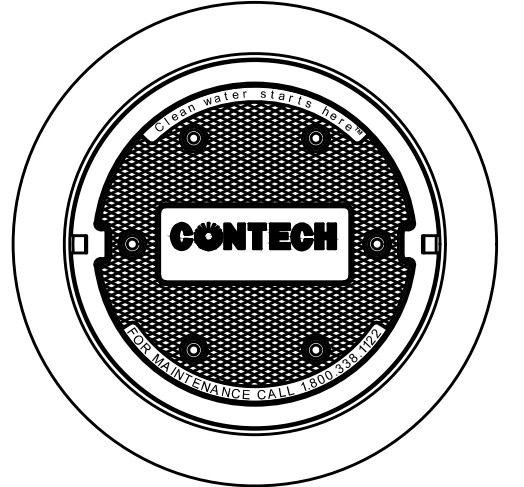
INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTECHS STRUCTURE (LIFTING CLUTCHES PROVIDED).
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- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

VORTECHS 16000 DESIGN NOTES

VORTECHS 16000 RATED TREATMENT CAPACITY IS 25 CFS, OR PER LOCAL REGULATIONS. IF THE SITE CONDITIONS EXCEED RATED TREATMENT CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

THE STANDARD INLET/OUTLET CONFIGURATION IS SHOWN. FOR OTHER CONFIGURATION OPTIONS, PLEASE CONTACT YOUR CONTECH CONSTRUCTION PRODUCTS REPRESENTATIVE. www.ContechES.com



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

GRAVEN - THOMPSON AND ASSOCIATES, INC.
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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114

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ENGINEER: PATRICK J. GIBNEY
REG. No: 49428
DATE: 01/22/2021
TEL: 954-987-0068
FAX: 954-987-2949

DRAWN BY: XXXX
DATE: 01/07/2019
DESIGNED BY: XXXX
SCALE: VERT 1"=2'
CHECKED BY: XXXX
HORIZ 1"=20'
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CR'D	DESCRIPTION

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
WATER QUALITY CONTROL
STRUCTURE DETAILS

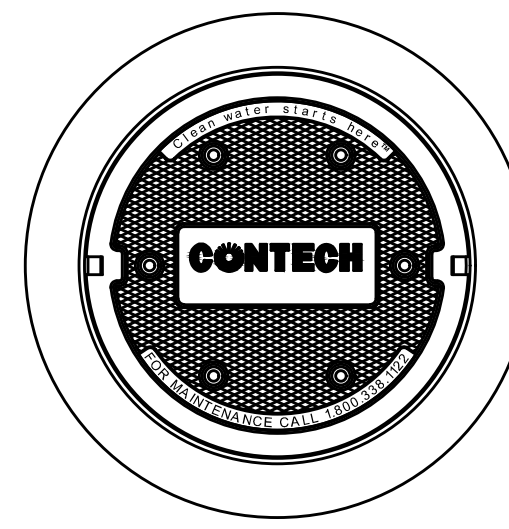
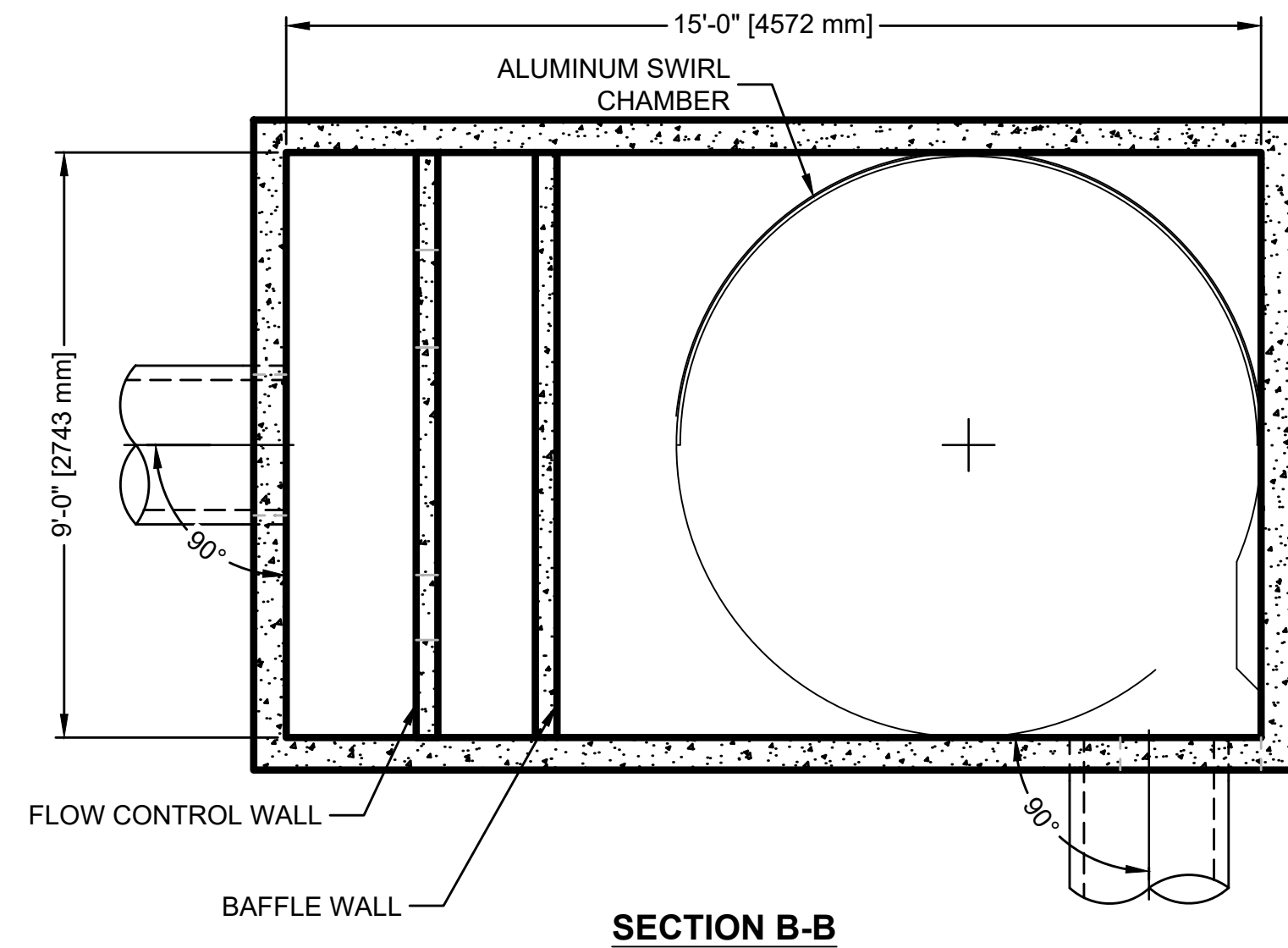
SHEET NO.
CZ-DT-20

TOTAL: 255

CAD FILE:
11868-CZ-DT20

DRAWING FILE NO.
4-142-42

S491
 (FOR REFERENCE SEE SHEET CU-ST-23A)

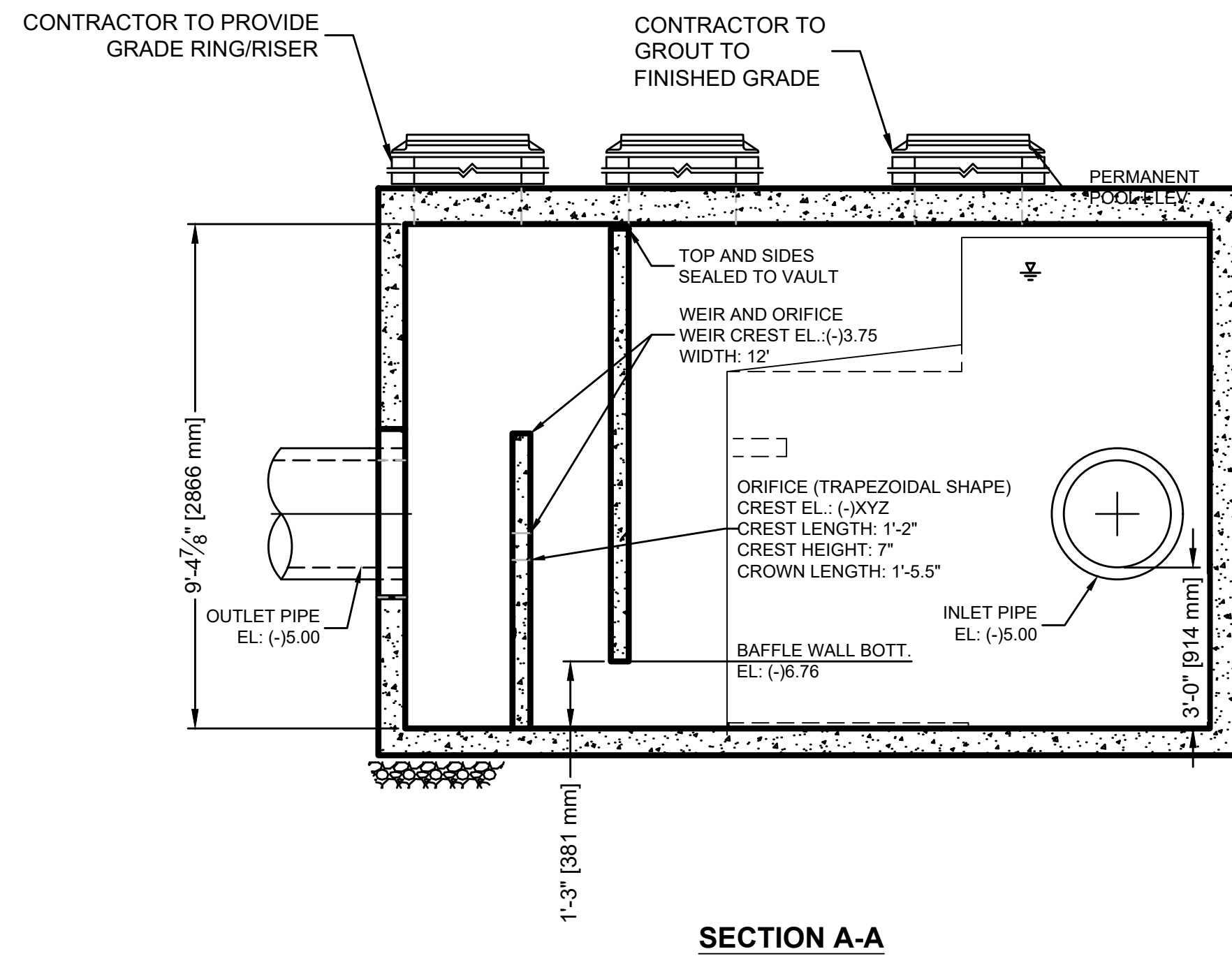


FRAME AND COVER
 (DIAMETER VARIES)
 N.T.S.

SITE SPECIFIC DATA REQUIREMENTS		
STRUCTURE ID	STWO-S352	
PEAK FLOW RATE (CFS)	14	
PIPE DATA:	I.E.	MATERIAL
INLET PIPE 1	(-).5.00	RCP
INLET PIPE 2	.	.
OUTLET PIPE	(-).5.00	RCP
RIM ELEVATION (NAVD)	3.07	
ORIFICE (TRAPEZOIDAL SHAPE)	0.77 SF	
CREST LENGTH	CREST HEIGHT	CROWN LENGTH
1'-2"	7"	1'-5.5"

- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
 - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechies.com
 - VORTECHS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
 - INLET PIPE(S) MUST BE PERPENDICULAR TO THE VAULT AND AT THE CORNER TO INTRODUCE THE FLOW TANGENTIALLY TO THE SWIRL CHAMBER. DUAL INLETS NOT TO HAVE OPPOSING TANGENTIAL FLOW DIRECTIONS.
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- INSTALLATION NOTES**
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Hazen

HAZEN AND SAWYER
 4000 HOLLYWOOD BLVD, SUITE 750N
 HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

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 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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 TEL: 954-987-0066
 FAX: 954-987-2949

DRAWN BY: XXXX
 DATE: 01/07/2019
 DESIGNED BY: XXXX
 SCALE: VERT 1"=2'
 CHECKED BY: XXXX
 HORIZ 1"=20'
 FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE
 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		
NO.	DATE	DESCRIPTION

Patrick J. Gibney, State of Florida, Professional Engineer, License No. 49428. This item has been electronically signed and sealed by Patrick J. Gibney on the date indicated here using an SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.
 8/26/2021

CONSTRUCTION SET

PROJECT # 11868
 STORMWATER IMPROVEMENTS
 RIVER OAKS NEIGHBORHOOD
 WATER QUALITY CONTROL
 STRUCTURE DETAILS

SHEET NO.
CZ-DT-20A

TOTAL: 255
 CAD FILE: 11868-CZ-DT20
 DRAWING FILE NO. 4-142-42

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

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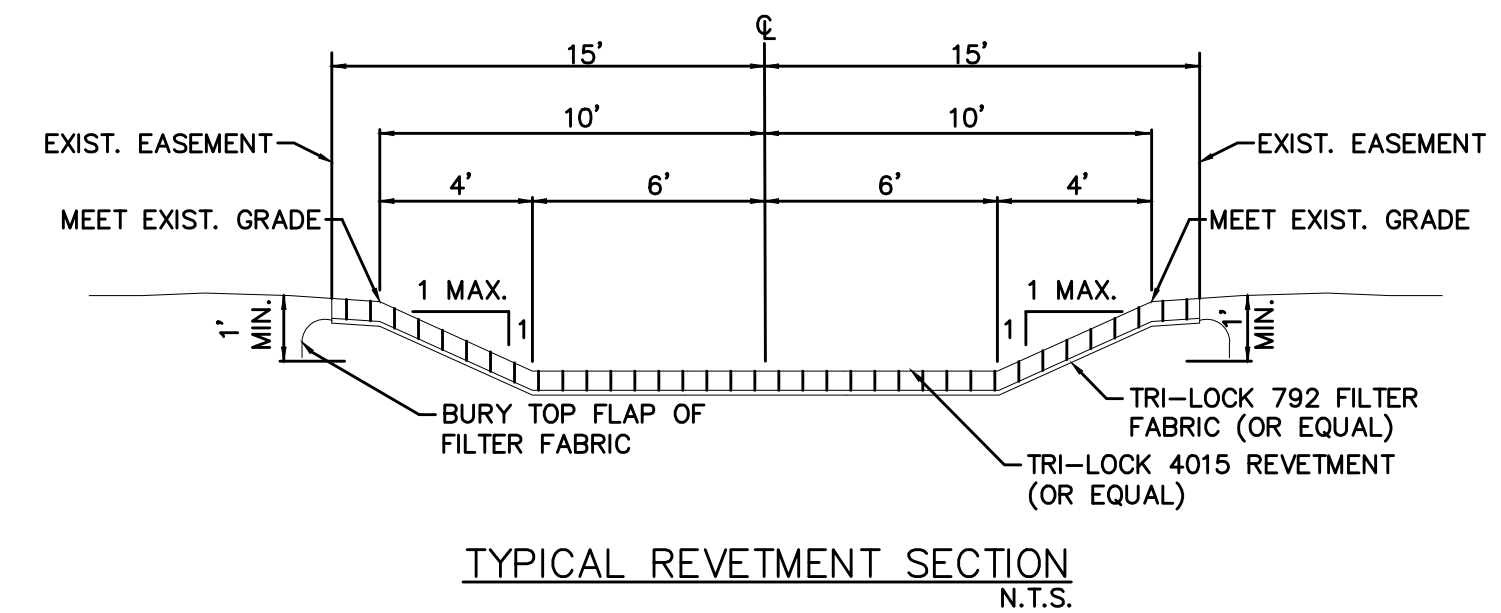
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DATE: 01/07/2019
DESIGNED BY: XXXX
SCALE: VERT 1"=2'
CHECKED BY: XXXX
HORIZ 1"=20'
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

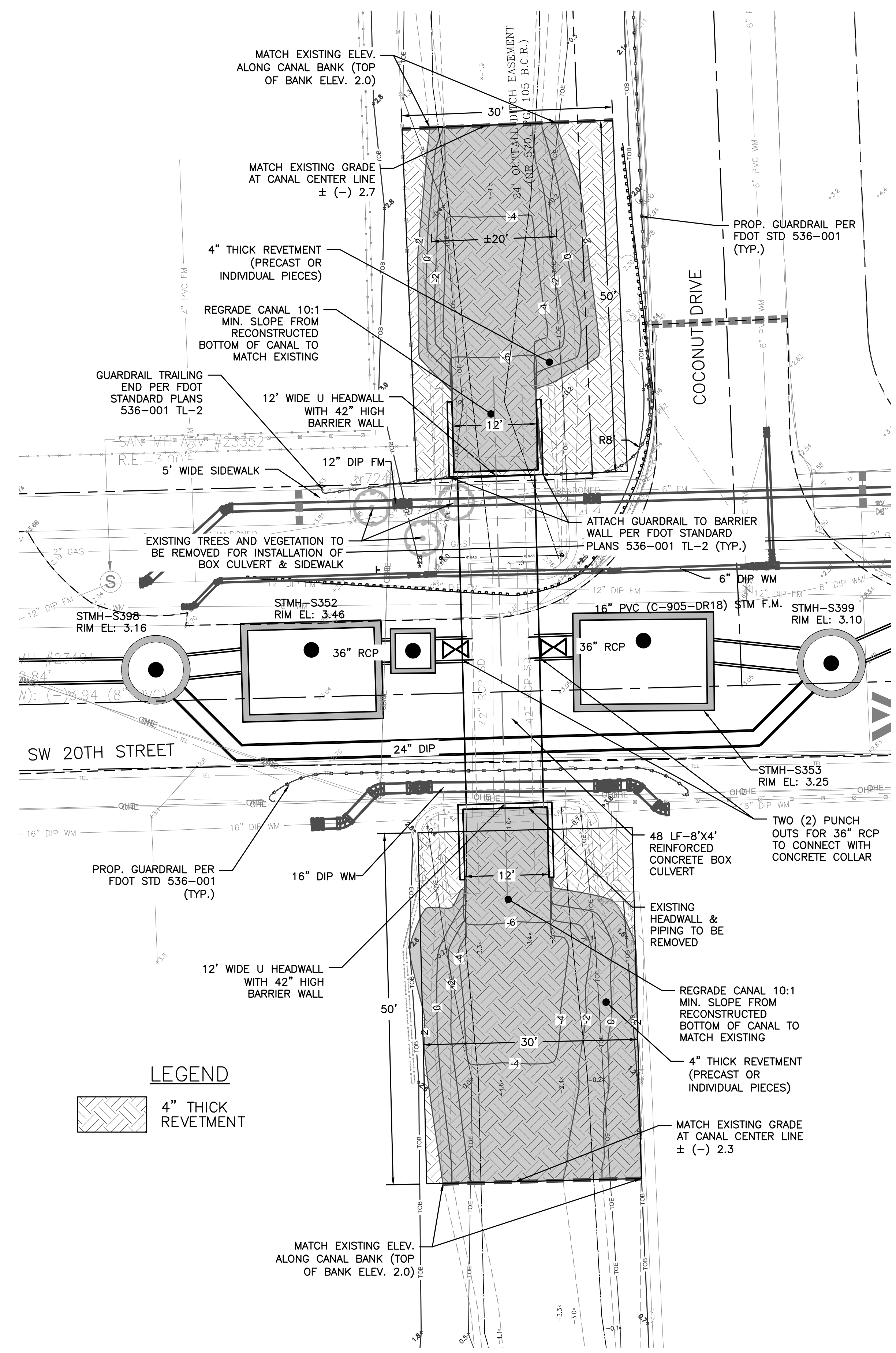
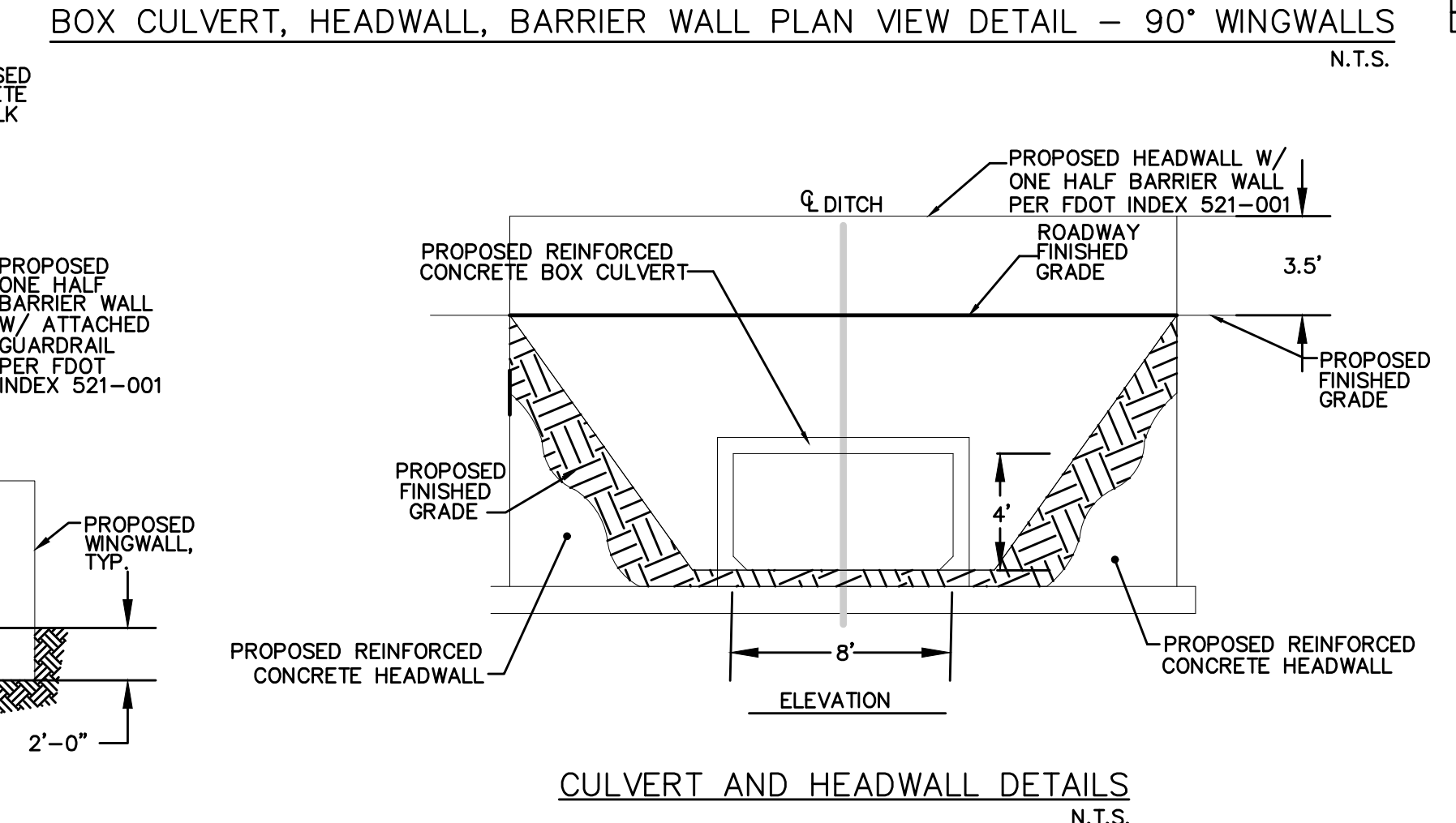
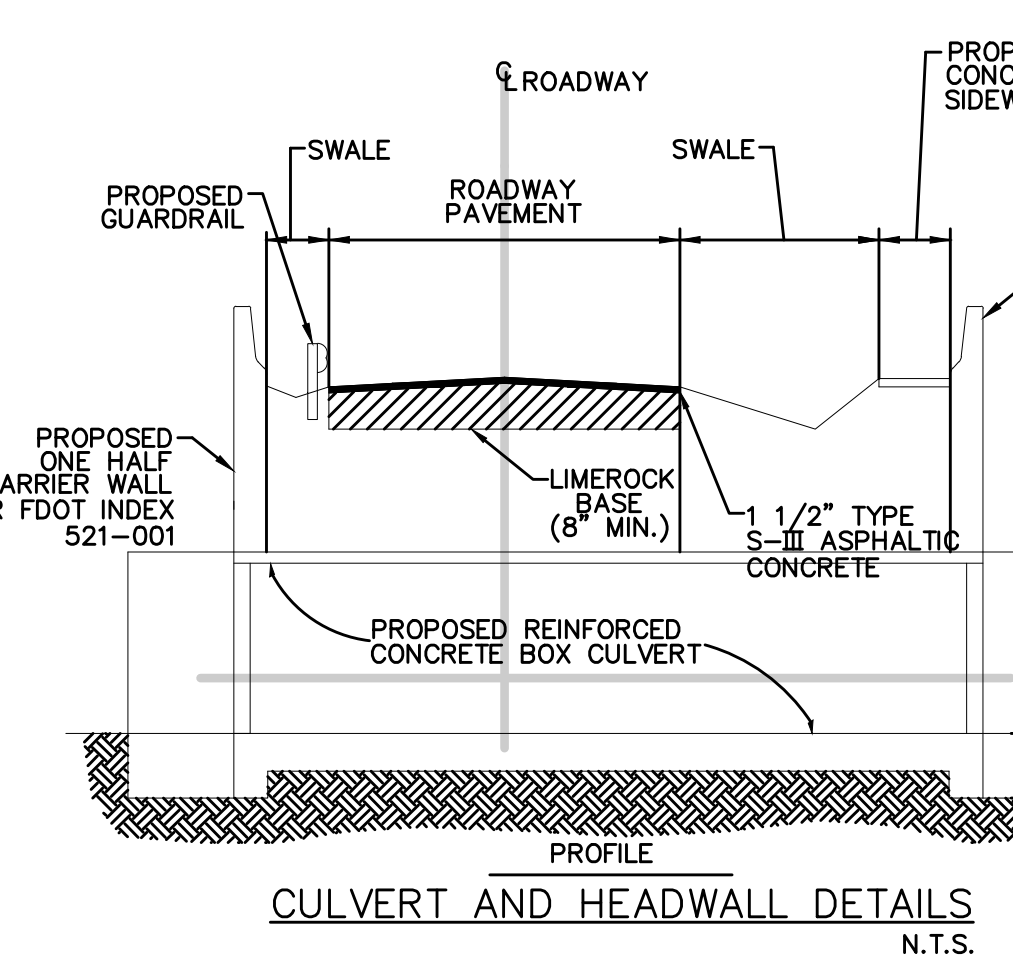
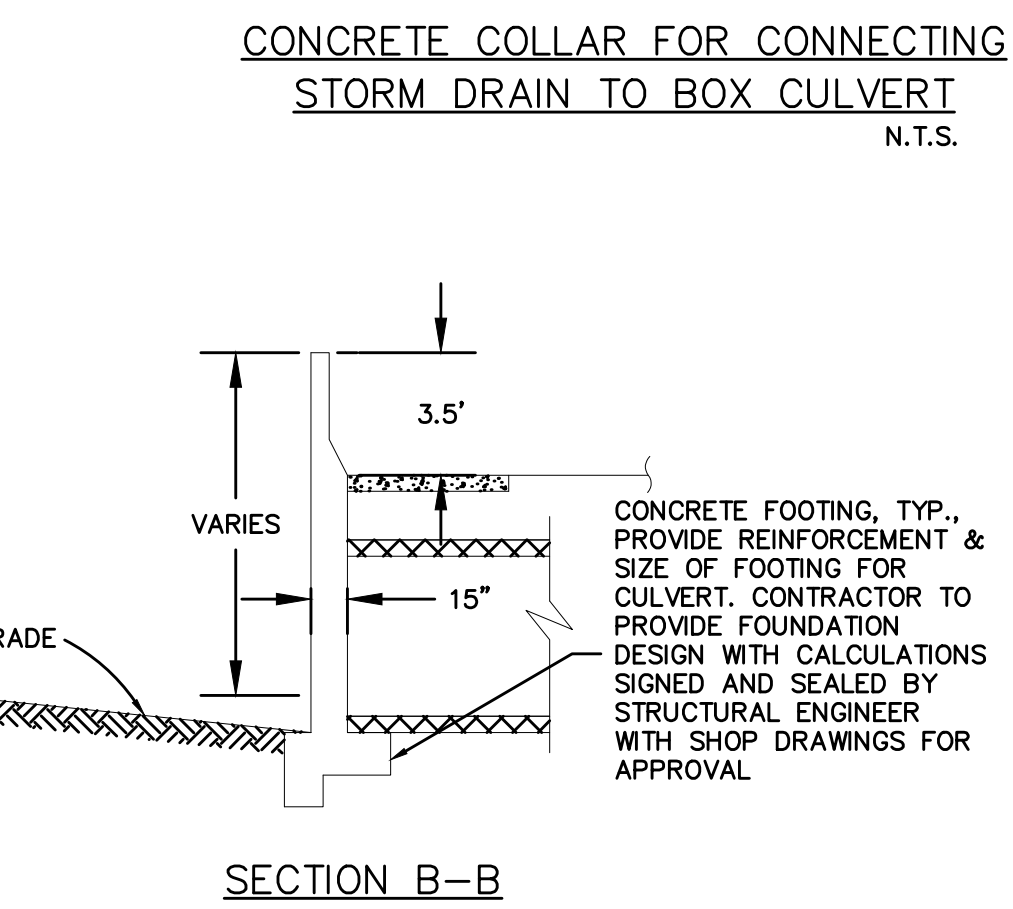
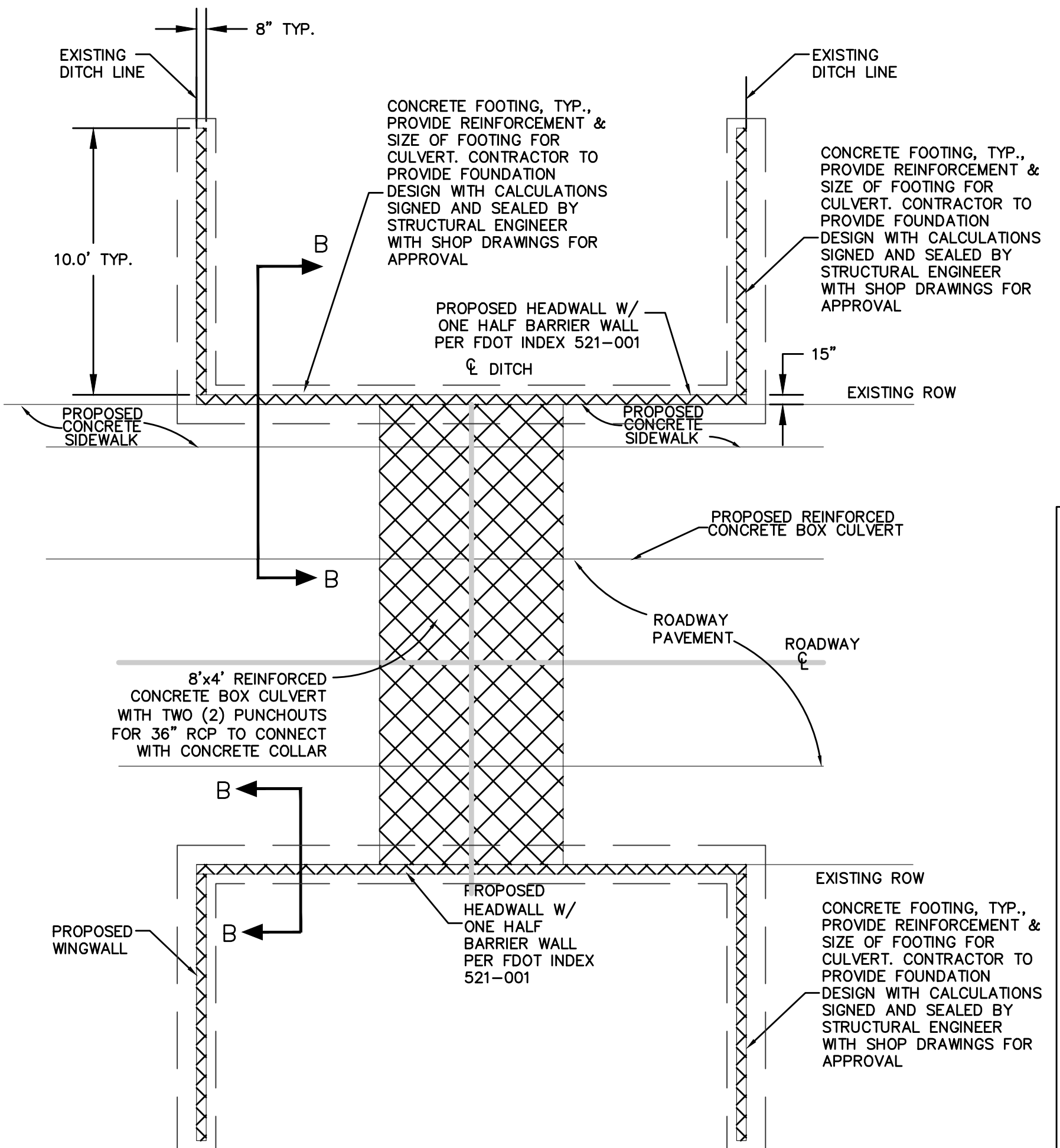
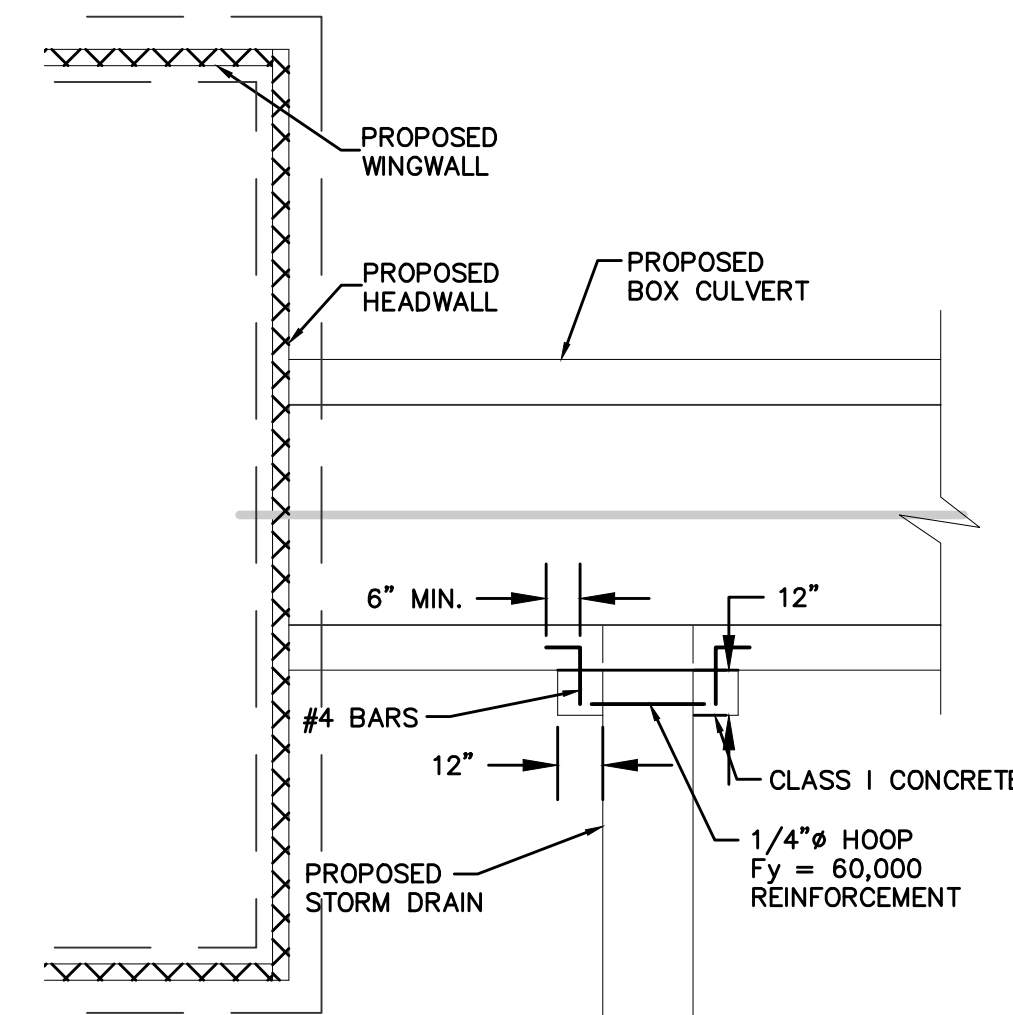
NO.	DATE	BY	REVISIONS	DESCRIPTION

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
BOX CULVERT, HEADWALL &
GUARDRAIL DETAILS

SHEET NO.
CZ-DT-21
TOTAL: 255
CAD FILE:
11868-CZ-DT21
DRAWING FILE NO.
4-142-42



NOTES:
1. CONTRACTOR TO PROVIDE SIGNED AND SEALED STRUCTURAL DESIGN & DETAILING OF FOOTINGS, ENDWALLS, WINGWALLS, BARRIER WALL, BARRIER WALL CONNECTIONS, ETC. FOR ALL CULVERT CROSSINGS.



LEGEND



PLAN
SCALE: 1"=10'

Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

GRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
3553 N.W. 52ND STREET, FORT LAUDERDALE, FLORIDA 33309
FAX: (954) 739-6409 TEL: (954) 739-6400

FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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ENGINEER: PATRICK J. GIBNEY
REG. NO: 49428
DATE: 02/01/2017
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FAX: 954-987-2949

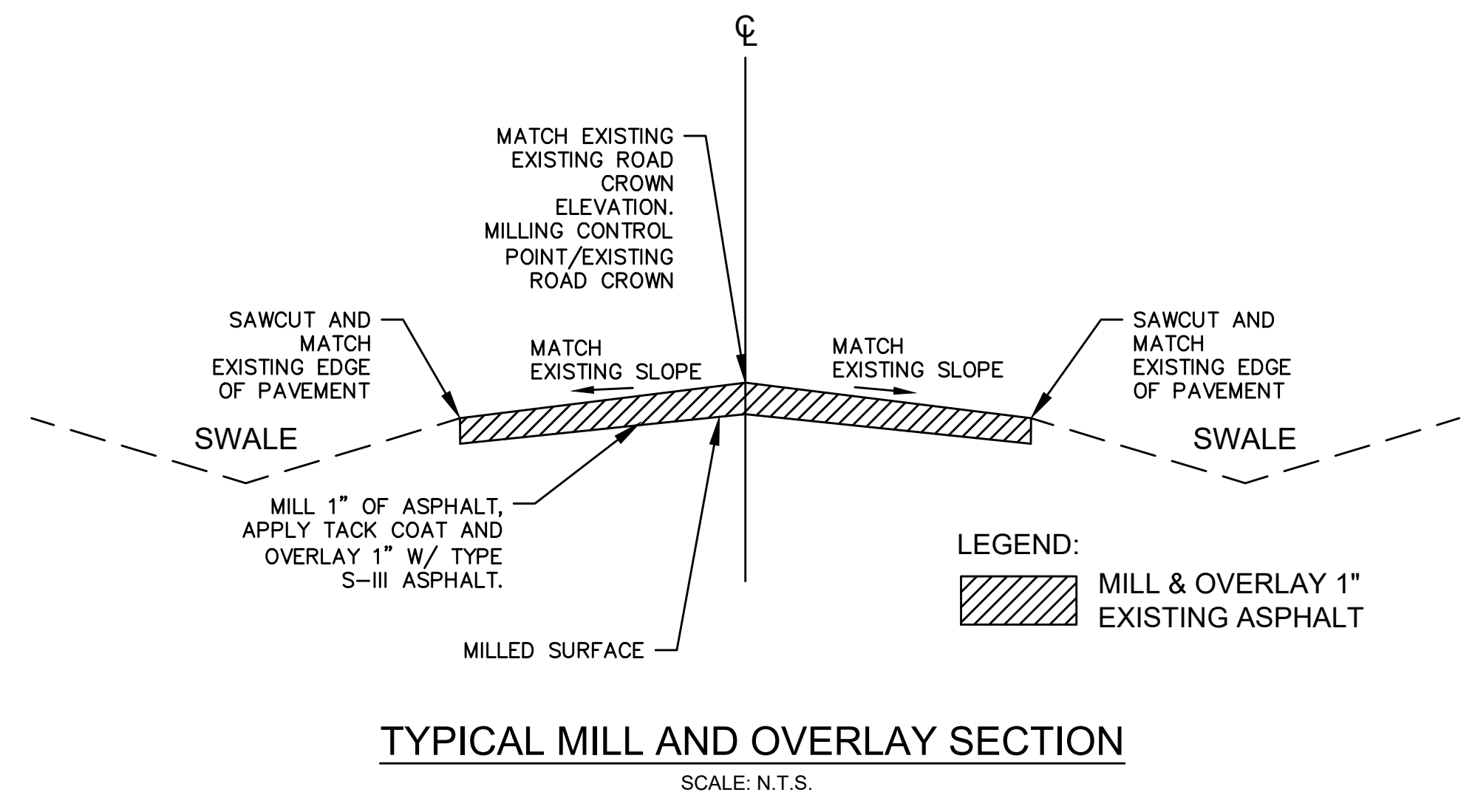
DATE: 01/07/2019
DRAWN BY: XXX
DESIGNED BY: XXX
CHECKED BY: XXX
FIELD BOOK: XXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

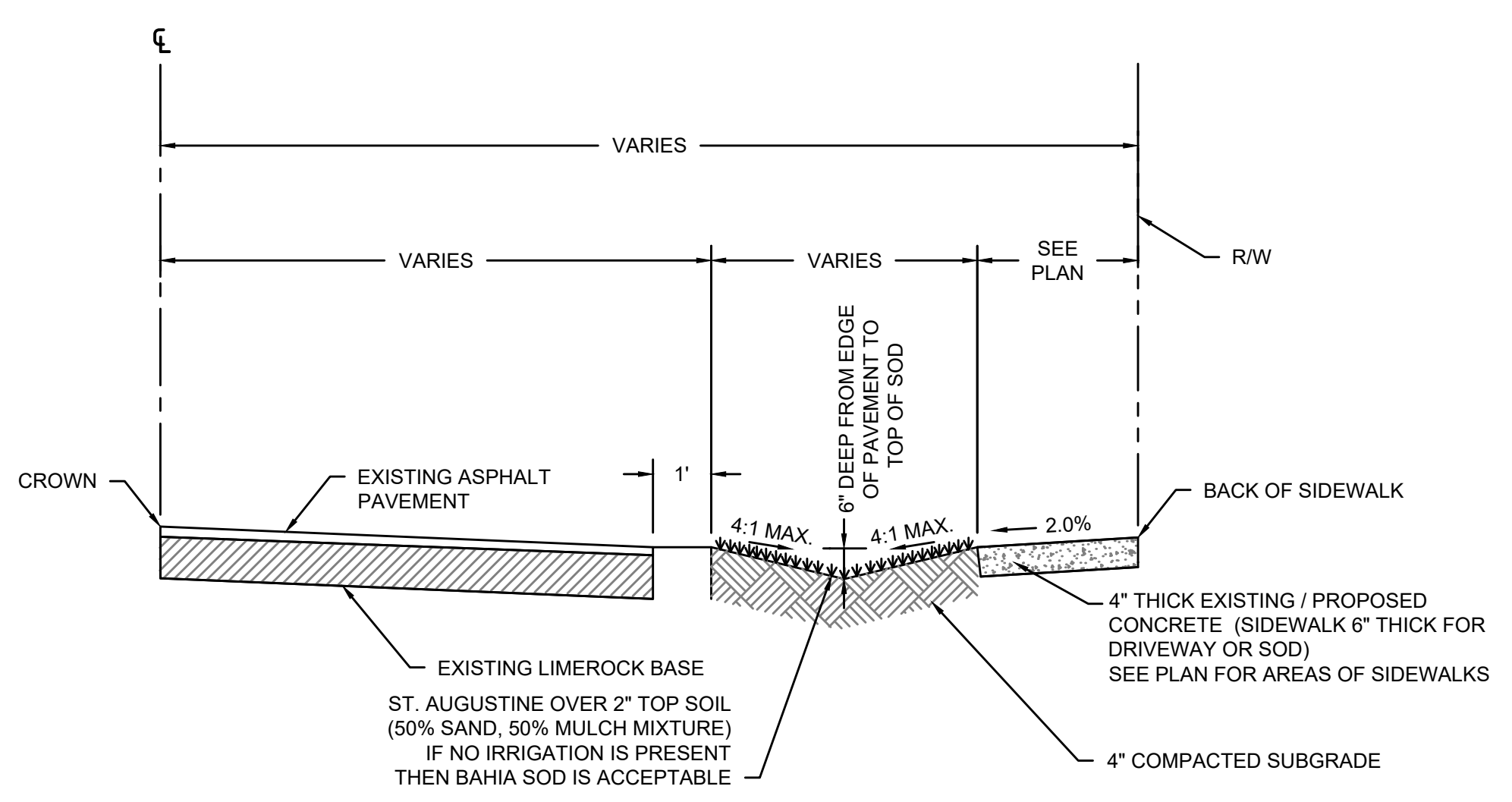
NO.	DATE	BY	CH'D	DESCRIPTION

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
SWALE AND TYPICAL MILL &
OVERLAY DETAILS

SHEET NO.
CZ-DT-22
TOTAL: 255
CAD FILE:
11868-CZ-DT-18&22
DRAWING FILE NO.
4-142-42

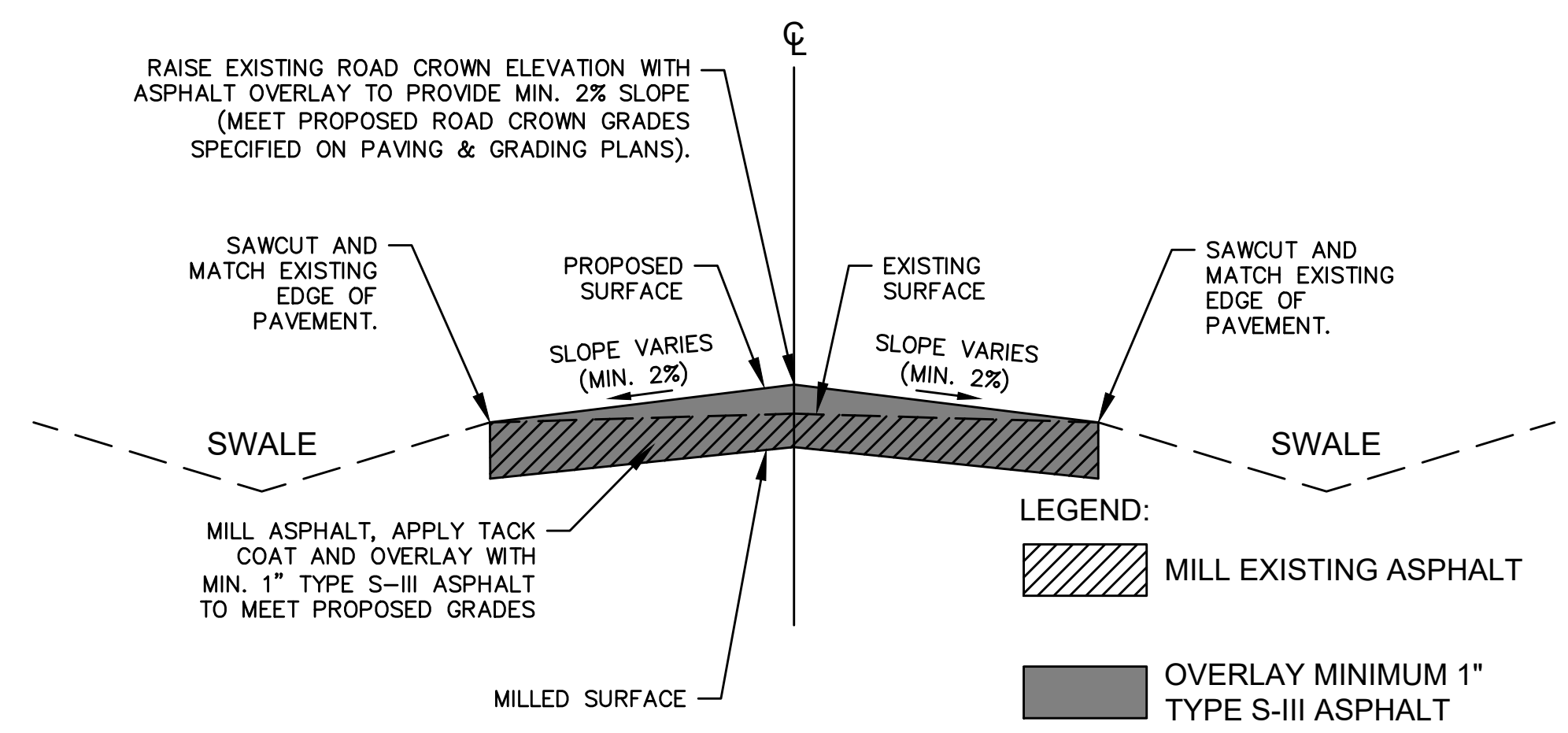


TYPICAL MILL AND OVERLAY SECTION
SCALE: N.T.S.



- NOTES:
- AREAS OF SIDEWALK INSTALLATION - AREA SHALL BE SODDED IN AREAS NO SIDEWALK IS SHOWN CONTRACTOR SHALL CENTER BOTTOM OF SWALE BETWEEN EDGE OF PAVEMENT AND R/W LINE IF NO SIDEWALK EXIST.
 - CONTRACTOR SHALL REPLACE ANY DAMAGED CONCRETE FLAGS OF SIDEWALKS.

6" SWALE PROFILE
N.T.S.



- NOTES:
- THIS DETAIL APPLIES TO EXISTING ROADWAYS THAT DO NOT HAVE A MINIMUM OF 2% ASPHALT CROSS SLOPE. CONTRACTOR SHALL PROVIDE A MINIMUM OF 2% ASPHALT CROSS SLOPE FOR ALL NEW AREAS OF ASPHALT PAVEMENT OVERLAYS.
 - AREAS MAY BE SPECIFIED ON THE PAVING & GRADING PLANS WHERE CROSS SLOPES IN EXCESS OF 2% MAY BE REQUIRED. THESE AREAS ARE SHOWN WITH PROPOSED GRADES AT ROAD CROWNS WITHIN THE OVERLAY LIMITS. CONTRACTOR SHALL MATCH NEW PROPOSED CENTERLINE ELEVATIONS SHOWN ON THE PAVING & GRADING PLANS AS SPECIFIED. WHERE PROPOSED GRADES ARE NOT PROVIDED 2% MIN. CROSS SLOPE SHALL BE PROVIDED).

TYPICAL MILL & OVERLAY SECTION (WITH ASPHALT GRADE ADJUSTMENT)
SCALE: N.T.S.

Patrick J. Gibney, State of Florida, Professional Engineer, License No. 49428. This item has been electronically signed and sealed by Patrick J. Gibney on the date indicated here using an SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.
 9/26/2021

CONSTRUCTION SET

- A. SPECIFIC SITE NOTES
 - B. "CITY" IN THESE NOTES REFERS TO THE CITY OF FORT LAUDERDALE.
 - C. "COUNTY" IN THESE NOTES REFERS TO BROWARD COUNTY.
 - D. "STATE" IN THESE NOTES REFERS TO THE STATE OF FLORIDA.
- II. APPLICABLE CODES
- A. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO CITY STANDARDS AND SPECIFICATIONS, AND ALL OTHER LOCAL, STATE AND NATIONAL CODES WHERE APPLICABLE. ALL CONSTRUCTION WITHIN FDOT R/W SHALL BE CONSTRUCTED PER FDOT MINIMUM STANDARDS. ALL CONSTRUCTION WITHIN COUNTY R/W SHALL BE CONSTRUCTED PER COUNTY MINIMUM STANDARDS.
 - B. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER AND IN STRICT COMPLIANCE WITH ALL THE REQUIREMENTS OF FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, AND ALL STATE AND LOCAL SAFETY AND HEALTH REGULATIONS.
 - C. ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS ARE BASED ON THE NATIONAL GEODETICAL VERTICAL DATUM OF 1988, (N.A.V.D.), UNLESS OTHERWISE NOTED.
 - D. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO CITY, COUNTY AND/OR FDOT SPECIFICATIONS (WHICHEVER APPLIES).
 - E. CITY, COUNTY AND/OR FDOT SPECIFICATIONS SHALL DICTATE WHEN IN CONFLICT WITH ANY OF THE FOLLOWING SPECIFICATIONS.
 - F. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE STATE OF FLORIDA TRENCH SAFETY ACT.
- III. PRECONSTRUCTION RESPONSIBILITIES
- A. UPON THE RECEIPT OF THE "NOTICE TO PROCEED", THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD AND ARRANGE A PRECONSTRUCTION CONFERENCE TO INCLUDE ALL INVOLVED GOVERNMENTAL AGENCIES, UTILITY OWNERS, THE OWNER AND THE ENGINEER OF RECORD.
 - B. THE CONTRACTOR SHALL OBTAIN A SUNSHINE STATE ONE CALL OF FLORIDA CERTIFICATION NUMBER AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION, CALL 811 OR 1-800-432-4770.
 - C. ALL UTILITY EASEMENTS TO BE SECURED PRIOR TO CONSTRUCTION (IF REQUIRED).
 - D. LOCATION OF EXISTING FACILITIES AS SHOWN ON CONSTRUCTION DRAWINGS ARE DRAWN FROM AVAILABLE RECORDS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE FACILITIES SHOWN OR FOR ANY FACILITY NOT SHOWN. THE CONTRACTOR SHALL VERIFY, IF POSSIBLE, THE ELEVATIONS AND LOCATIONS OF EXISTING FACILITIES PRIOR TO CONSTRUCTION. IF AN EXISTING FACILITY IS FOUND TO CONFLICT WITH THE PROPOSED CONSTRUCTION UPON EXCAVATION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF RECORD SO THAT APPROPRIATE MEASURES CAN BE TAKEN TO RESOLVE THE PROBLEM.
 - E. A SEPARATE CALCULATED SITE PLAN WILL BE REQUIRED PRIOR TO CONSTRUCTION TO VERIFY PROPOSED BUILDING, CURB, AND SITE WORK LOCATIONS.
 - F. AT LEAST TWO (2) DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A CGP "NOTICE OF INTENT (N.O.I.) TO USE GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES THAT DISTURB AN ACRE OR MORE OF LAND" FORM (DEP FORM 62-621.300(4)(B)) TO FDEP NOTICES CENTER. THE CONTRACTOR WILL BE RESPONSIBLE FOR: (1) IMPLEMENTATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE DEVELOPED PRIOR TO THE N.O.I. SUBMITTAL AND (2) RETENTION OF RECORDS REQUIRED BY THE PERMIT, INCLUDING RETENTION OF A COPY OF THE SWPPP AT THE CONSTRUCTION SITE FROM THE DATE OF PROJECT INITIATION TO THE DATE OF FINAL SITE STABILIZATION. A "NOTICE OF TERMINATION (N.O.T.) OF GENERIC PERMIT COVERAGE" FORM (DEP FORM 62-621.300(6)) MUST BE SUBMITTED TO FDEP TO DISCONTINUE PERMIT COVERAGE. SUBSEQUENT TO COMPLETION OF CONSTRUCTION, FOR ADDITIONAL INFORMATION SEE FDEP WEBSITE: <http://www.dep.state.fl.us/water/stormwater/npdes>. CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE A SWPPP AND SUBMIT TO THE ENGINEER FOR APPROVAL AND COMPLY WITH ALL PROVISIONS OF CHAPTER 62-621.
 - G. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED DEWATERING PERMITS AND TREE REMOVAL / RELOCATION PERMITS.
- IV. INSPECTIONS
- A. THE CONTRACTOR SHALL NOTIFY THE CITY'S ENGINEERING DEPARTMENT, COUNTY, THE ENGINEER OF RECORD, FDOT, AND ANY OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION AT LEAST 24 HOURS PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO THE INSPECTION OF THE FOLLOWING ITEMS, WHERE APPLICABLE:
 1. CLEARING AND FILLING
 2. STORM DRAINAGE SYSTEM
 3. SANITARY SEWER SYSTEM
 4. WATER DISTRIBUTION SYSTEM
 5. SUBGRADE

- 6. LIMEROCK BASE
 - 7. ASPHALTIC CONCRETE / PAVER BRICK COURSE
 - 8. SIDEWALK
 - 9. FINAL
- V. SHOP DRAWINGS
- A. PRIOR TO THEIR CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD FOR THE FOLLOWING: SANITARY MANHOLES, STORM DRAIN MANHOLES, CATCH BASINS, FIRE HYDRANTS, PIPING, VALVES AND ALL REQUIRED ACCESSORIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY APPROVALS IF REQUIRED.
 - VI. TEMPORARY FACILITIES
 - A. TEMPORARY FACILITIES:
 1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES, TELEPHONE SERVICE AND ELECTRICITY.
 - B. TRAFFIC REGULATION:
 1. MAINTENANCE OF TRAFFIC IN THE PUBLIC RIGHTS-OF-WAY SHALL BE IN ACCORDANCE WITH M.U.T.C.D.
 2. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
 3. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT EXPRESS PERMISSION OF THE CITY.
 4. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR FOR ANY NECESSARY CONSTRUCTION, PAVEMENT MARKING AND SIGNAGE OR ANY PEDESTRIAN SIGNALIZATION AND/OR SIGNAL MODIFICATION TO ACCOMMODATE AN ALTERNATE SAFE WALK ROUTE.
 - VII. WATER DISTRIBUTION SYSTEM
 - A. CITY STANDARDS AND SPECIFICATIONS SHALL GOVERN & SUPERCEDE ALL OTHER REQUIREMENTS FOR WATERMAIN CONSTRUCTION.
 - B. SEPARATION OF WATER AND SEWER MAINS
 1. SANITARY SEWERS, STORM SEWERS, AND FORCE MAINS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, STORM SEWERS, AND FORCE MAINS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHENEVER POSSIBLE.
 2. WHERE SANITARY SEWERS, STORM SEWERS, OR FORCE MAINS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL DISTANCE, BOTH THE SEWER AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
 3. ALL CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING).
 4. WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP, AND THE CROSSING SHALL BE ARRANGED TO MEET THE REQUIREMENTS ABOVE.
 5. A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.
 6. IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
 7. WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 18 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SANITARY SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR

- C. MATERIALS:
 1. ALL PIPE LARGER THAN 12" DIAMETER MUST BE DUCTILE IRON (MIN. CLASS 50). 8" AND 10" DIP (MIN. CLASS 50) 4" AND 6" DIP (MIN. CLASS 52). ALL DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C151/A21.51-02 AND CEMENT MORTAR LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03. SEE CITY AND COUNTY STANDARDS & SPECIFICATIONS FOR FURTHER D.I.P. REQUIREMENTS.
 2. FITTINGS SHALL BE COMPACT DUCTILE IRON MECHANICAL JOINT TYPE AND SHALL BE CLASS 350 THROUGH 24" CONFORMING TO ANSI/AWWA C-153/A21.53-00 SPECIFICATIONS. FITTINGS MUST BE CEMENT LINED AND SEAL COATED PER ANSI/AWWA C104/A21.4-03.
 3. VALVES SHALL BE GATE VALVES, IRON BODY, FULLY RESILIENT SEAT BRONZED MOUNTED NON-RISING STEM, RATED AT 150 PSI AND CONFORMING TO ANSI/AWWA C509-01 OR LATEST REVISION, AND SHALL HAVE MECHANICAL JOINTS.
 - a. GATE VALVES 4" AND LARGER SHALL BE MUELLER A-2370-20, RESILIENT SEATED GATE VALVES SHALL BE AMERICAN AFR2500 LINE OR CLOW F-6100, CONFORMING TO ANSI/AWWA C500-02. SEE COUNTY, AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - b. TAPPING VALVES SHALL BE MUELLER H615 OR APPROVED EQUAL.
 - c. GATE VALVES 3" OR LESS SHALL BE NIBCO T-133 OR T-136 WITH MALLEABLE HAND WHEELS. NO SUBSTITUTIONS ALLOWED.
 4. TAPPING SLEEVES SHALL BE MUELLER H615, CLOW F-2505 OR APPROVED EQUAL. SEE COUNTY, AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 5. VALVE BOXES SHALL BE US FOUNDRY SERIES 7500 OR APPROVED EQUAL.
 6. RETAINER GLANDS SHALL CONFORM TO ANSI/AWWA C111/A21.11-00 OR LATEST REVISION. ALL GLANDS SHALL BE MANUFACTURED FROM DUCTILE IRON AS LISTED BY UNDERWRITERS LABORATORIES FOR 250 PSI MINIMUM WATER PRESSURE RATING. CLOW CORPORATION MODEL F-1058, STANDARD FIRE PROTECTION EQUIPMENT COMPANY OR APPROVED EQUAL.
 7. DRESSER COUPLINGS SHALL BE REGULAR BLACK COUPLINGS WITH PLAIN GASKETS FOR GALVANIZED STEEL PIPE. THEY SHALL BE DRESSER STYLE 90. NO SUBSTITUTIONS ALLOWED.
 8. FIRE HYDRANTS SHALL BE MUELLER CENTURION TRAFFIC TYPE A-423 WITH 5 1/4" INTERNAL VALVE OPENING OR APPROVED EQUAL. MAIN VALVE OPENING TO BE DETERMINED BY THE WATER DEPARTMENT. PUMPER NOZZLE TO BE 18" FROM FINISHED GRADE. ALL HYDRANTS TO BE INSTALLED WITH CONTROL VALVE. RETAINER GLANDS ARE PREFERRED FOR RESTRAINING. FIRE HYDRANT SHALL COMPLY WITH ANSI/AWWA C502-05. SEE COUNTY AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- D. SERVICE CONNECTION:
 1. SERVICE SADDLES SHALL BE STAINLESS STEEL STRAPS, SADDLES SHALL BE DOUBLE STRAP TYPE. ALL SERVICE SADDLES SHALL CONFORM TO ANSI/AWWA C111/A21.11-00 AND ASTM A-588.
 2. SERVICE LINES SHALL BE POLYETHYLENE (3408), 250 PSI RATED, SDR9. PIPE JOINTS SHALL BE OF THE COMPRESSION TYPE TOTALLY CONFINED GRIP SEAL AND COUPLING NUT.
 3. CORPORATION STOPS SHALL BE MANUFACTURED OF BRASS ALLOY IN ACCORDANCE WITH ASTM B-62 WITH THREADED ENDS, AS MANUFACTURED BY MUELLER B-25008 OR APPROVED EQUAL.
 4. CURB STOPS SHALL BE MUELLER H10203 OR APPROVED EQUAL.
 5. METER STOPS SHALL BE LOCKWING TYPE AND SHALL BE OF BRONZE CONSTRUCTION IN ACCORDANCE WITH ASTM B-62. METER STOPS SHALL BE CLOSED BOTTOM DESIGN AND RESILIENT "O" RING SEALED AGAINST EXTERNAL LEAKAGE AT THE TOP. STOPS SHALL BE EQUIPPED WITH A METER COUPLING NUT ON THE OUTLET SIDES, AS MANUFACTURED BY MUELLER OR APPROVED EQUAL.
- E. INSTALLATION:
 1. ALL PVC PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE UNI-BELL

- PLASTIC PIPE ASSOCIATIONS "GUIDE FOR INSTALLATION OF PVC PRESSURE PIPE FOR MUNICIPAL WATER DISTRIBUTION SYSTEM." SEE COUNTY AND CITY CONSTRUCTION STANDARDS & SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - 2. ALL DIP SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600-05 OR LATEST REVISION.
 - 3. ALL WATER MAINS SHALL BE LAID WITH A MINIMUM 36" COVER FOR PVC AND 30" FOR DIP.
 - 4. NO CONNECTIONS TO EXISTING LINES SHALL BE MADE UNTIL PRESSURE TESTS & BACTERIOLOGICAL TESTS HAVE BEEN PERFORMED AND THE SYSTEM IS ACCEPTABLE TO THE CITY OR COUNTY BEACH AND PUBLIC HEALTH UNIT.
 - 5. PIPE DEFLECTION SHALL NOT EXCEED 75% OF THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.
 - 6. A CONTINUOUS AND UNIFORM BEDDING SHALL BE PROVIDED. BACKFILL MATERIAL SHALL BE TAMPED IN LAYERS AROUND THE PIPE AS SHOWN ON THE PLANS. STONES FOUND IN THE TRENCH SHALL BE REMOVED FOR A DEPTH OF AT LEAST 6" BELOW THE BOTTOM OF THE PIPE.
 - 7. ALL VALVES SHALL BE INSTALLED WITH ADJUSTABLE CAST IRON VALVE BOXES WITH THE WORD "WATER" CAST IN THE COVER. U.S.F. OR APPROVED EQUAL.
 - 8. ALL WATER MAIN INSTALLATIONS SHALL COMPLY WITH THE COLOR CODING REQUIREMENTS OF CHAPTER 62-555.320, FAC.
- F. TESTING:
1. FOR TESTING REQUIREMENTS SEE CITY AND COUNTY CONSTRUCTION STANDARDS & SPECIFICATIONS.
 2. BEFORE ANY PHYSICAL CONNECTIONS TO THE EXISTING WATER MAINS ARE MADE, THE COMPLETE WATER SYSTEM SHALL BE PRESSURE TESTED AND DISINFECTED. HYDROSTATIC TESTING OF NEW MAINS SHALL BE PERFORMED AT A MINIMUM STARTING PRESSURE OF 150 PSI FOR TWO HOURS IN ACCORDANCE WITH ANSI/AWWA C600-05 OR LATEST REVISION, THE PRESSURE TEST SHALL NOT VARY MORE THAN 5 PSI DURING THE TEST.
 3. THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE OF THE CITY OR COUNTY AND THE ENGINEER OF RECORD.
 4. BEFORE ACCEPTANCE FOR OPERATION, THE WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH THE ANSI/AWWA C651-05; 150 PSI MINIMUM STARTING PRESSURE TEST. METER RECONNECTIONS MAY BE MADE TO NEW LINES AFTER TWO CONSECUTIVE DAYS OF BACTERIOLOGICAL SAMPLES HAVE PASSED, AND COPIES OF RESULTS HAVE BEEN RECEIVED BY THE ENGINEER, CITY, AND HRS.
 5. SAMPLING POINTS SHALL BE PROVIDED AT THE LOCATIONS SHOWN ON THE PLANS. IF NOT SPECIFIED, SAMPLING POINTS SHALL BE PROVIDED AT INTERVALS OF 1,200' MAXIMUM FOR LINES GREATER THAN 1,200' IN LENGTH.
 6. THE ALLOWABLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR AS DETERMINED BY THE FORMULA:

$$L = \frac{SDPO_5}{148000}$$

IN WHICH L EQUALS THE ALLOWABLE LEAKAGE IN GALLONS PER HOUR, S EQUALS LENGTH OF PIPE (LINEAR FEET), D EQUALS NOMINAL DIAMETER OF PIPE (INCHES) AND P EQUALS THE MINIMUM TEST PRESSURE (POUNDS PER SQUARE INCH).
- VIII. PAVING
- X. GENERAL:
1. COUNTY AND THE CITY'S CONSTRUCTION STANDARDS & SPECIFICATIONS SHALL GOVERN.
 2. ALL MUCK AND YIELDING MATERIAL WITHIN THE LIMIT OF CONSTRUCTION SHALL BE REMOVED AND REPLACED WITH CLEAN FILL MATERIAL WHICH SHALL BE COMPACTED AND SHAPED TO CONFORM TO THE REQUIRED SECTION. COMPACTED AREAS, AS SHOWN ON THE PLANS AND OR AS DETERMINED BY THE ENGINEER, SHALL BE COMPACTED TO NOT LESS THAN 98% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE, AS DETERMINED BY AASHTO T-180, LATEST REVISION. AREAS TO BE STABILIZED, AS DETERMINED BY THE ENGINEER, SHALL HAVE A MINIMUM LBR-40.
 3. ALL UNDERGROUND UTILITIES SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF LIMEROCK BASE.
 4. ALL EXISTING PAVEMENT, CUT OR DAMAGED BY CONSTRUCTION, SHALL BE PROPERLY RESTORED AT THE CONTRACTOR'S EXPENSE.
 5. WHERE ANY PROPOSED PAVEMENT IS

- TO BE CONNECTED TO EXISTING PAVEMENT, THE EXISTING EDGE OF PAVEMENT SHALL BE SAW CUT.
- B. MATERIALS:
 1. BASE COURSE SHALL BE CRUSHED LIMEROCK WITH A MINIMUM OF 70% CARBONATES OF CALCIUM AND MAGNESIUM.
 2. ASPHALT SURFACES SHALL BE TYPE S-III ASPHALTIC CONCRETE, UNLESS OTHERWISE SPECIFIED ON THE PLANS, AND SHALL BE A MINIMUM OF 1-1/2" THICK.
 3. MINIMUM SIDEWALK CONSTRUCTION SHALL BE 4 INCH THICK CONCRETE, MINIMUM 3000psi COMPRESSIVE STRENGTH AT 28 DAYS. SAWCUT CONSTRUCTION JOINTS 5 FOOT O.C. WITHIN 48 HOURS OF PLACING, EXPANSION JOINTS SHALL BE 20 FOOT O.C. SEE COUNTY'S AND THE CITY'S SECTION ON CONSTRUCTION STANDARDS & SPECIFICATIONS FOR FURTHER REQUIREMENTS.
 4. CURBS AND GUTTERS: CONCRETE 3000psi COMPRESSIVE STRENGTH AT 28 DAYS, SAWCUT CONSTRUCTION JOINTS 10 FOOT O.C. WITHIN 48 HOURS OF PLACING.
 5. REINFORCED CONCRETE SLABS SHALL BE CONSTRUCTED OF CLASS I CONCRETE WITH A MINIMUM STRENGTH OF 3,000 PSI AND SHALL BE REINFORCED WITH A 6" x 6" NO. 6 GAUGE WIRE MESH.
- C. INSTALLATION:
 1. SUBGRADE FOR PAVEMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE MAXIMUM DENSITY (AASHTO T-99(c)), AND SHALL HAVE A MINIMUM LBR 40.
 2. BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE A MINIMUM THICKNESS OF 8" AND SHALL BE CONSTRUCTED IN TWO FOUR-INCH LIFTS.
 3. BASE COURSE MATERIAL FOR CURBS AND GUTTERS SHALL BE A MINIMUM THICKNESS OF 6 INCH.
 4. BASE COURSE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180 AND SHALL HAVE A MINIMUM LBR OF 100.
 5. INSTALLATION OF THE WEARING SURFACE SHALL CONFORM WITH THE REQUIREMENTS OF THE D.O.T. STANDARD SPECIFICATIONS FOR TYPE S-III ASPHALTIC CONCRETE.
- D. TESTING:
 1. THE FINISHED SURFACE OF THE BASE COURSE AND THAT OF THE WEARING SURFACE SHALL NOT VARY MORE THAN 1/4" FROM THE TEMPLATE. ANY IRREGULARITIES EXCEEDING THIS LIMIT SHALL BE CORRECTED.
 2. DENSITY TESTS SHALL BE TAKEN BY AN INDEPENDENT TESTING LABORATORY CERTIFIED BY THE STATE OF FLORIDA, WHERE DIRECTED BY THE ENGINEER.
 3. ALL TESTING COSTS (PAVING) SHALL BE PAID FOR BY THE CONTRACTOR.
 4. DENSITY TESTS ON THE STABILIZED SUBGRADE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD AND APPROVED BEFORE ANY LIMEROCK BASE IS CONSTRUCTED.
 5. DENSITY TESTS AND AS-BUILTS ON THE FINISHED LIMEROCK BASE SHALL BE SUPPLIED TO THE ENGINEER OF RECORD, AND APPROVED BEFORE ANY ASPHALT PAVEMENT IS CONSTRUCTED.
- XI. DEWATERING
 1. WHERE DEWATERING IS REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR DEWATERING IN SUCH A MANNER SO AS TO COMPLY WITH ANY AND ALL CITY, COUNTY, STATE AND FEDERAL DEWATERING REGULATIONS. CONTRACTOR MAY CONTACT THE COUNTY DEPARTMENT OF PLANNING AND ENVIRONMENTAL PROTECTION AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR FURTHER INFORMATION.
- XII. PAVEMENT MARKING AND SIGNAGE
 1. ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," LATEST EDITION; AND COUNTY TRAFFIC ENGINEERING STANDARDS (CURRENT EDITION). STANDARDS & SPECIFICATIONS FOR PAVEMENT MARKING REQUIREMENTS.
- XIII. PROJECT CLOSEOUT
 - A. CLEANING UP:
 1. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER, AND UPON FINAL CLEAN-UP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH. THE PAVED, PAVER BRICK, AND CONCRETE AREAS SHALL BE SWEEP BROOM CLEAN.
 2. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY

CONSTRUCTION SET

PROJECT # 11868

STORMWATER IMPROVEMENTS

RIVER OAKS NEIGHBORHOOD

GENERAL NOTES

SHEET NO. **C-02**

TOTAL: 255

CAD FILE: 11868-C02-NOTE

DRAWING FILE NO. 4-142-42



Certificate of Authorization No: 2771

CRAVEN • THOMPSON AND ASSOCIATES, INC.
ENGINEERS • PLANNERS • SURVEYORS
3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309
TEL: (954) 739-6409 FAX: (954) 739-6409

ENGINEER: PATRICK J. GIBNEY
REG. NO. 49428
DATE: 07/13/2018

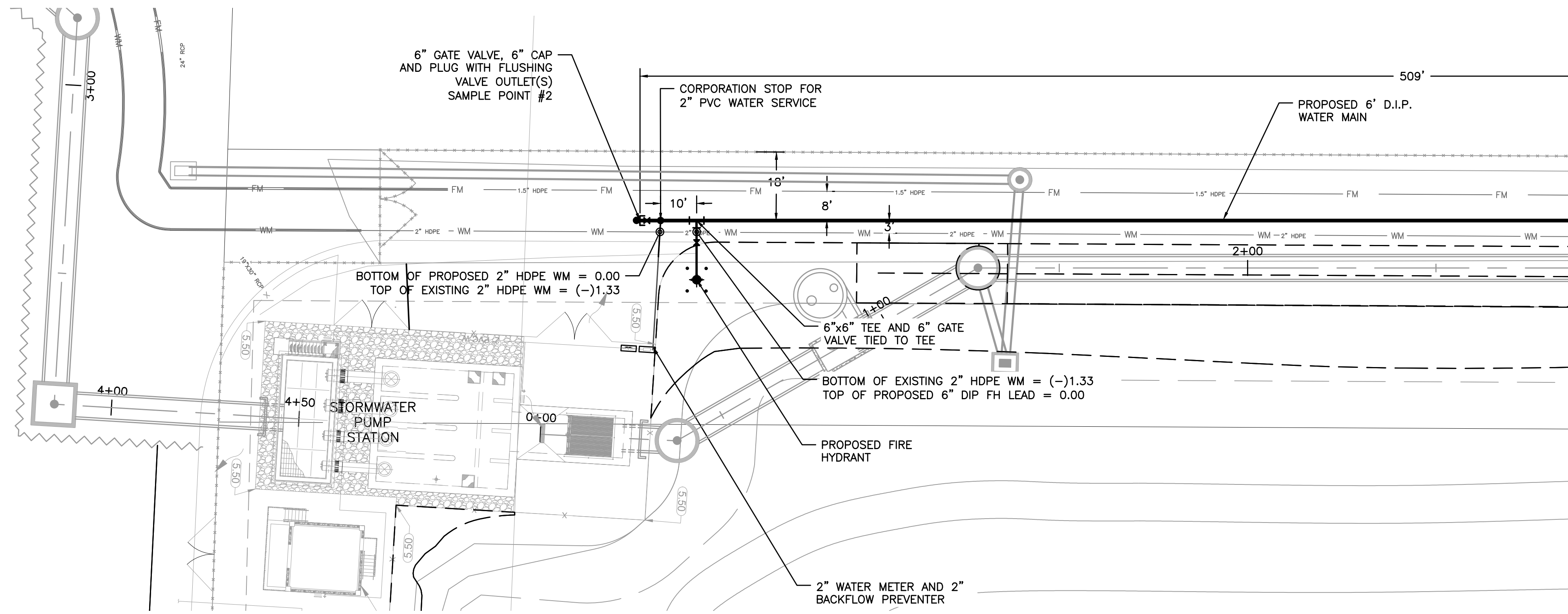
DRAWN BY: DATE: 01/07/2019
DESIGNED BY: SCALE: VERT 1"=2'
CHECKED BY: HORIZ 1"=20'
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

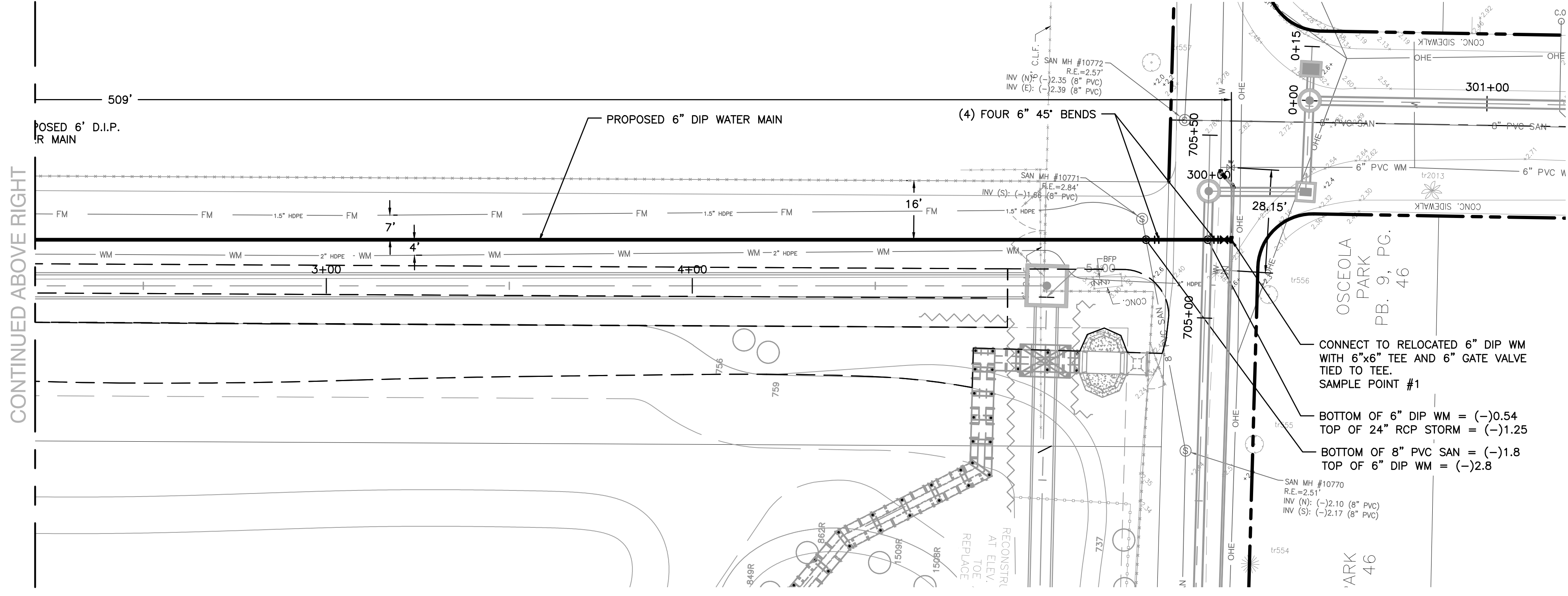
REVISIONS		DESCRIPTION
NO.	DATE	BY

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PLAN
SCALE: 1"=20'

CONTINUED BELOW LEFT



PLAN
SCALE: 1"=20'

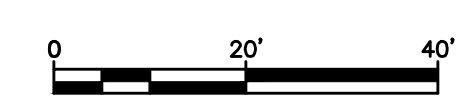
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Hazen

HAZEN AND SAWYER
4000 HOLLYWOOD BLVD, SUITE 750N
HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

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FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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KEY MAP
N.T.S.

ELEVATIONS SHOWN HEREON ARE
BASED ON THE NORTH AMERICAN
VERTICAL DATUM 1988 (NAVD 1988)

- NOTES:
- EXISTING UTILITY DEPTHS ARE UNKNOWN UNLESS OTHERWISE INDICATED. LOCATIONS AND DEPTHS ARE ESTIMATED.
 - 4,196 LF OF NEW/RESTORED SWALE PROPOSED FOR ENTIRE PROJECT (SEE DETAIL ON SHEET CZ-DT-22).

ENGINEER:
PATRICK J. GIBNEY
REG. NO: 49428
DATE: 07/13/2018
TEL: 954-799-6400
FAX: 954-799-6409

DRAWN BY: XXXX
DATE: 01/07/2019
DESIGNED BY: SCALE: VERT 1"=2'
CHECKED BY: HORIZ 1"=20'
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	REVISIONS	DESCRIPTION

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8/26/2021

CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
WATER MAIN EXTENSION PLAN

SHEET NO.
C-03
TOTAL: 255
CAD FILE:
11868-C03-WATR
DRAWING FILE NO.
4-142-42



000001 - GENERAL NOTES Wednesday, July 15, 2017

GENERAL NOTES:

- CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES.
- REFER TO SPECIFICATION SECTION 01001 AND 01520 FOR DETAILED REQUIREMENTS FOR SEQUENCE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.
- SITE INFORMATION HAS BEEN PROVIDED BY SITE SURVEY PREPARED BY XXXX. SURVEYING, LLC DATED FEBRUARY 2013.
- HORIZONTAL CONTROL IS REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83). VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- RECORD DRAWINGS USED FOR EXISTING FEATURES: XXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.
- CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS WHERE NEW WORK WILL MATCH EXISTING. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
- CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
- ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.
- THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED. THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
- UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO THEM. THE CONTRACTOR SHALL CONTACT SUNSHINE 811 AT PHONE NUMBER 811 OR 1-800-432-4770 TO REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION, INCLUDING SOIL DRILLING. THE CONTRACTOR SHALL ALSO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BURIED UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
- THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN OR AROUND EXISTING CITY-OWNED UTILITIES. THE CONTRACTOR SHALL NOTIFY THE CITY AT LEAST TWO BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION WITHIN TEN FEET OF A CITY-OWNED UTILITY SO THAT A CITY REPRESENTATIVE MAY BE PRESENT.
- CONTRACTOR SHALL TAKE CARE TO AVOID DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES THAT ARE NOT INDICATED TO BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING PAVEMENT, STRUCTURES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLE(S) WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OF THE WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	GENERAL NOTES SHEET 1	SHEET NO. GNRL 001 2017/07/19
	2016/09/01	

000002 - TRAFFIC CONTROL PLAN NOTES Thursday, July 13, 2017

TRAFFIC CONTROL PLAN NOTES:

- THE TRAFFIC CONTROL PLANS FOR THE PROJECT SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX NO. 600-690. MUTCD AND THE STANDARD SPECIFICATIONS. THE CONTRACTOR'S RESPONSE TIME TO ALL REPORTED MALFUNCTIONS OF TRAFFIC SIGNALS WITHIN THE PROJECT LIMITS SHALL BE NO MORE THAN TWO (2) HOURS AND SHALL RESTORE ALL MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT TO ITS LEVEL OF OPERATION PRIOR TO THE MALFUNCTIONING WITHIN TWENTY-FOUR (24) HOURS. DURING THIS TIME THE CONTRACTOR SHALL PROVIDE AT HIS EXPENSE TEMPORARY TRAFFIC CONTROL DEVICES, FLAGGER PERSONNEL AND LAW ENFORCEMENT PERSONNEL AS NECESSARY TO MAINTAIN A SAFE AND EFFICIENT FLOW OF TRAFFIC AT THE AFFECTED WORK ZONE. THE ENGINEER OR THE CITY OF FORT LAUDERDALE SHALL APPROVE ALL MODIFICATIONS PRIOR TO THEIR IMPLEMENTATION.
- THE CONTRACTOR SHALL MAINTAIN PROPER OPERATION OF ALL TRAFFIC SIGNAL LOOP ASSEMBLIES AND LOOP DETECTORS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL CORRECT ALL LOOP ASSEMBLY/DETECTOR MALFUNCTIONS WITHIN 24 HOURS OF NOTIFICATION OF SUCH MALFUNCTIONS BY THE ENGINEER.
- THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNALS AND RELATED EQUIPMENT IS BROWARD COUNTY TRAFFIC ENGINEERING.
- A REGULATORY SPEED OF 25 MPH SHALL BE POSTED WITHIN THE LIMITS OF THE WORK ZONE.
- EXISTING SIGNS AND PAVEMENT MARKINGS THAT CONFLICT WITH CONSTRUCTION SIGNS AND MARKINGS SHALL BE REMOVED DURING CONSTRUCTION. ALL EXISTING SIGNS THAT ARE REMOVED SHALL BE STOCKPILED IN A SECURE PLACE AND REINSTALLED AFTER CONSTRUCTION. REMOVE AND REPLACE ANY GROUND MOUNT SIGN BY USE OF INDEX NO. 611.
- THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE PATTERNS AND PREVENT ADVERSE FLOODING OF THE TRAVEL LANES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY OF FORT LAUDERDALE FOR ANY AND ALL CONSTRUCTION ACTIVITIES TO BE PERFORMED AT NIGHT. NO LANE CLOSURE SHALL BE ALLOWED BETWEEN THE HOURS OF 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM, MONDAY THROUGH FRIDAY UNLESS APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY TWO (2) BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES SO THAT A COMPANY REPRESENTATIVE CAN BE PRESENT. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. SEE SPECS FOR LIST OF UTILITY COMPANIES.
- TRAFFIC CONTROL ON ALL COUNTY RIGHTS-OF-WAY SHALL MEET THE ADDITIONAL REQUIREMENTS OF THE BROWARD COUNTY ENGINEERING DEPARTMENT.
- CONTRACTOR SHALL PREPARE AND SUBMIT MAINTENANCE OF TRAFFIC PLAN (MOT) WHERE REQUIRED BY FEDERAL, STATE, COUNTY, OR LOCAL AGENCIES HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS ASSOCIATED WITH THE MOT'S. ALL MOT'S TO BE ATS CERTIFIED.
- THE CONTRACTOR SHALL ALSO COORDINATE THE CONSTRUCTION SCHEDULE WITH FDOT, BROWARD COUNTY AND THE CITY OF FORT LAUDERDALE TO AVOID LANE CLOSURES WHICH WOULD ADVERSELY AFFECT TRAFFIC DURING RUSH HOUR.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	TRAFFIC CONTROL PLAN NOTES	SHEET NO. GNRL 002 2017/07/13
	2016/09/01	

000003 - WATER MAIN SEPARATION Thursday, September 21, 2016

WATER MAIN SEPARATION IN ACCORDANCE WITH F.A.C. RULE 62-555.314

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (NOTE 1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORM WATER FORCE MAIN, RECLAIMED WATER (NOTE 2)			NOTE 4
VACUUM SANITARY SEWER			NOTE 4
GRAVITY SANITARY SEWER, (NOTE 3) SANITARY SEWER FORCE MAIN, RECLAIMED WATER			NOTE 4
ON-SITE SEWAGE TREATMENT & DISPOSAL SYSTEM	10 FT. MINIMUM	—	—

NOTES:

- WATER MAIN SHOULD CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
- RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
- 3 FT. FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6 INCHES ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
- ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPE SO THAT THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATE JOINT LOCATIONS ALLOWED UNDER FAC 62-555.314 WILL ONLY BE ALLOWED BY THE ENGINEER ON A CASE-BY-CASE BASIS.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	WATER MAIN SEPARATION	SHEET NO. WATR 001 2016/09/01
	2016/09/01	

Hazen

HAZEN AND SAWYER
 4000 HOLLYWOOD BLVD, SUITE 750N
 HOLLYWOOD, FLORIDA 33021

Certificate of Authorization No: 2771

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 FLORIDA LICENSED ENGINEERING, SURVEYING & MAPPING BUSINESS NO. 271
 FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114
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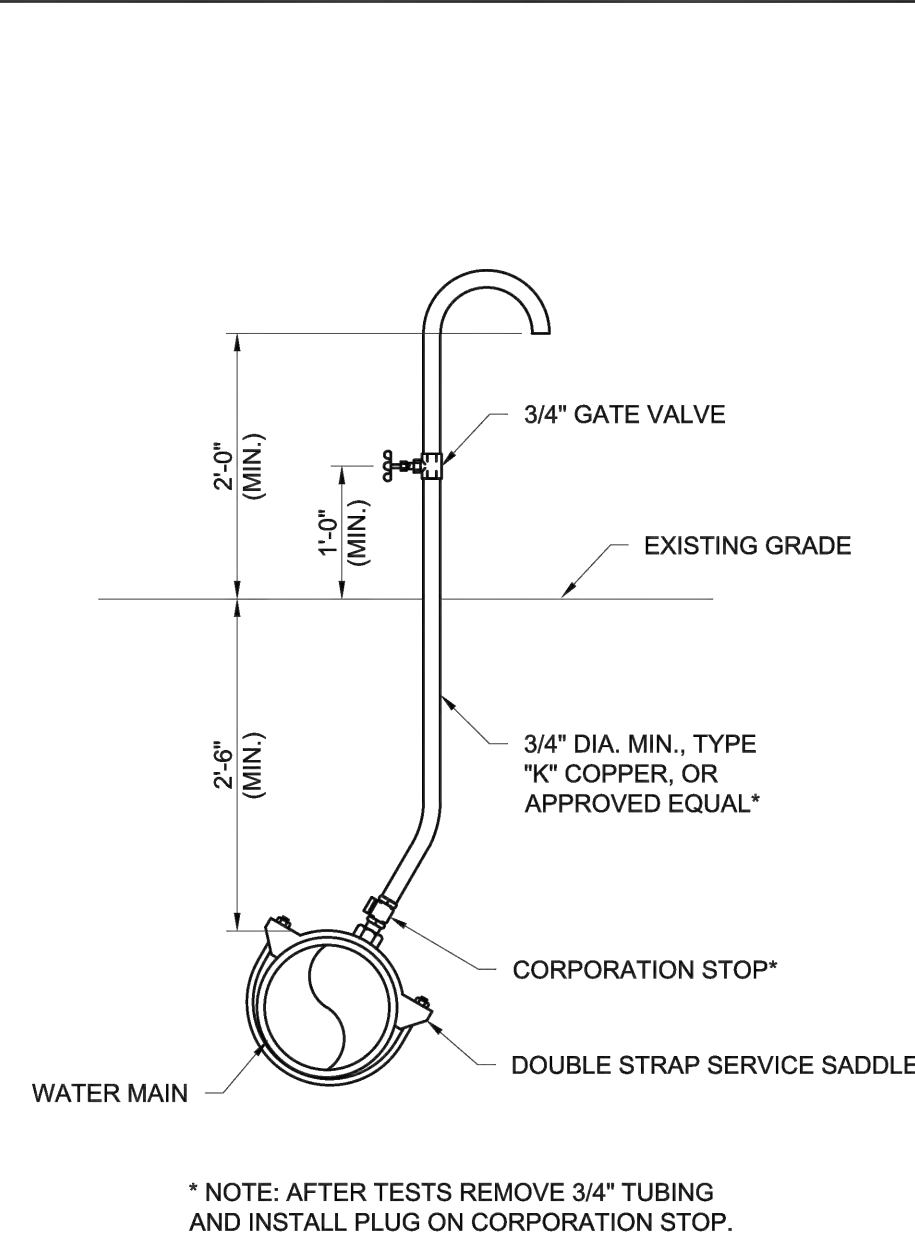
ENGINEER: J. GIBNEY
 PATRICK J. GIBNEY
 REG. NO: 49428
 DATE: 07/13/2018
 TEL: 954-739-6400
 FAX: 954-739-6400

DRAWN BY: XXX
 DATE: 01/07/2019
 DESIGNED BY: XXX
 SCALE: VERT 1"=2'
 CHECKED BY: XXX
 HORIZ 1"=20'
 FIELD BOOK: XXX

CITY OF FORT LAUDERDALE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING & ARCHITECTURE

 100 North Andrews Avenue, Fort Lauderdale, Florida 33301

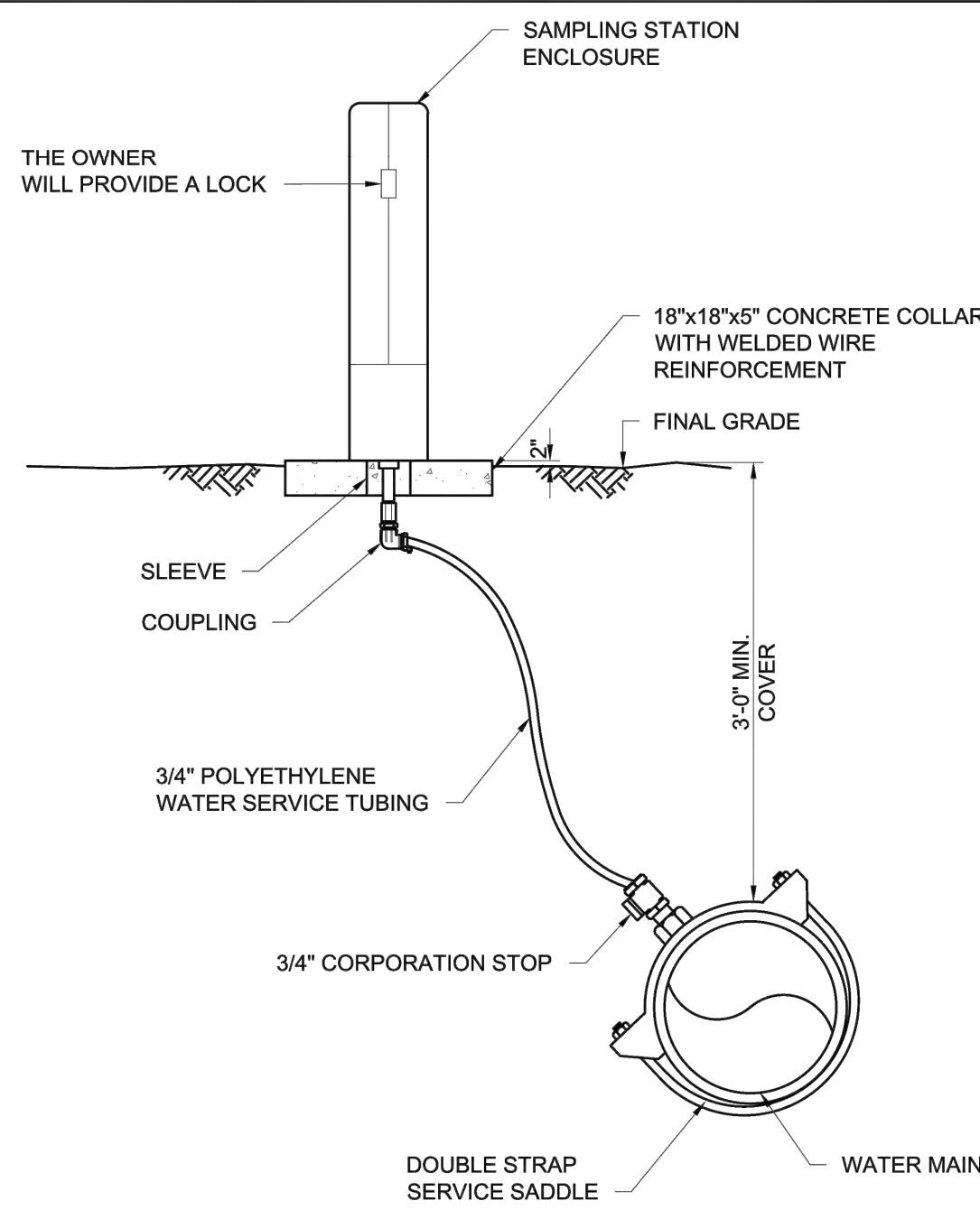
000004 - BACT SAMPLE POINT - TEMPORARY Wednesday, September 21, 2016



* NOTE: AFTER TESTS REMOVE 3/4" TUBING AND INSTALL PLUG ON CORPORATION STOP.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BACT SAMPLE POINT - TEMPORARY	SHEET NO. WATR 002 2016/09/01
	2016/09/01	

000005 - BACT SAMPLE POINT - PERMANENT Wednesday, September 21, 2016

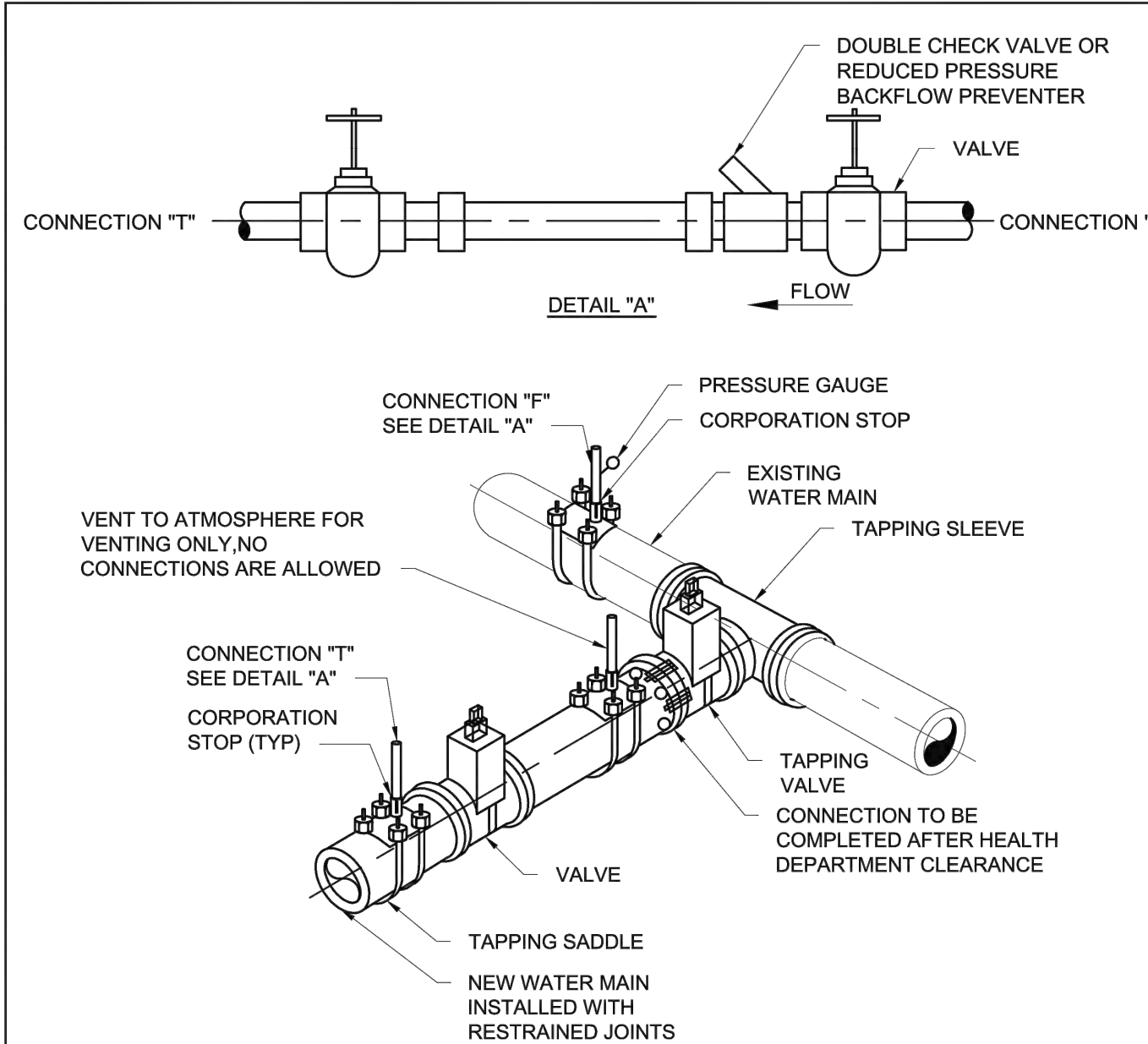


NOTES:

- ENCLOSURE SHALL BE PAINTED CAST ALUMINUM. ENCLOSURE COLOR SHALL BE GREEN.
- SAMPLING STATION STAND PIPE AND VALVES SHALL BE LEAD FREE SURGICAL STAINLESS STEEL.
- FURNISH AND INSTALL ECLIPSE #88WC-SS BY KUPFERLE FOUNDRY COMPANY.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	BACT SAMPLE POINT - PERMANENT	SHEET NO. WATR 003 2016/09/01
	2016/09/01	

000006 - FILLING AND FLUSHING CONNECTION Tuesday, September 21, 2016



NOTES:

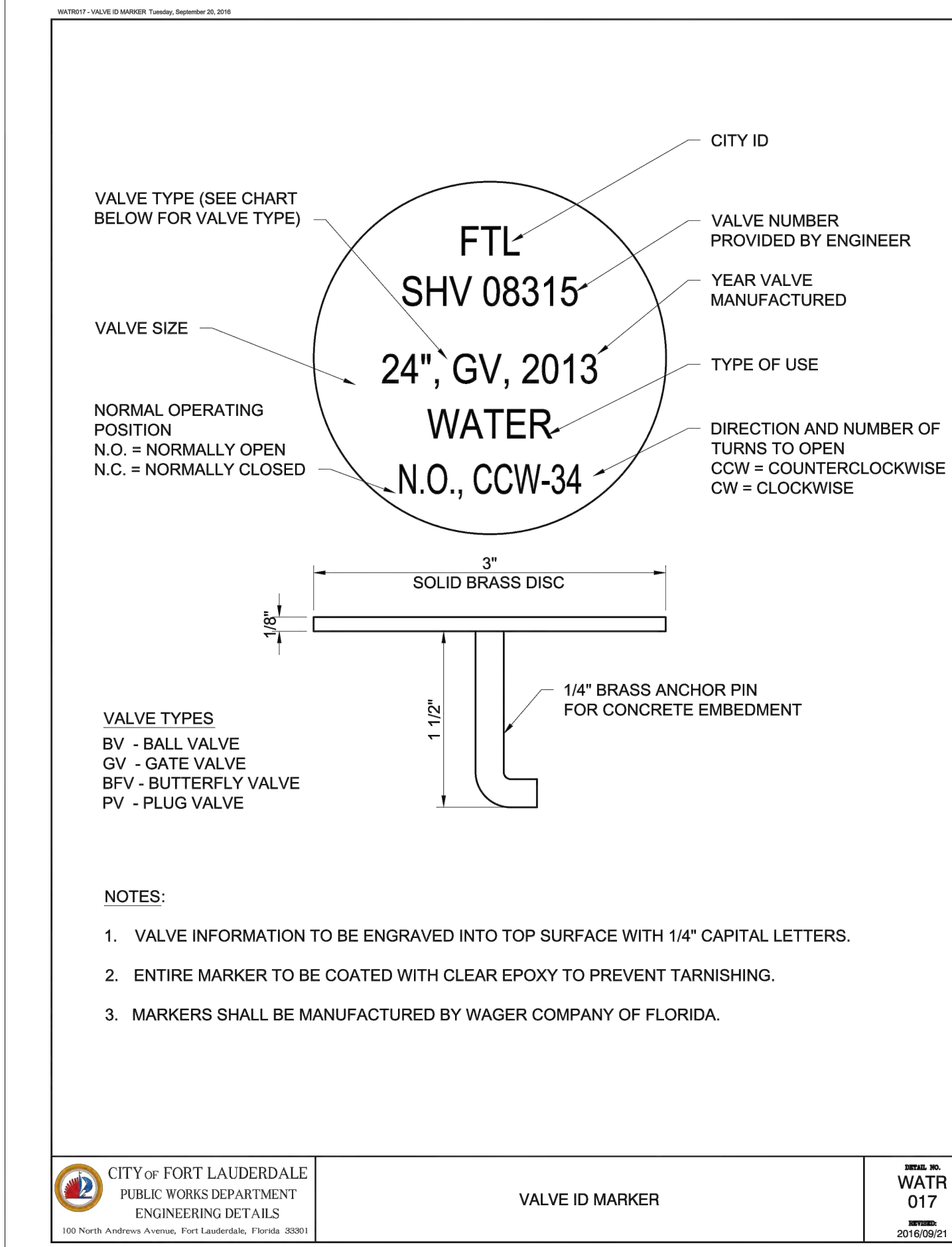
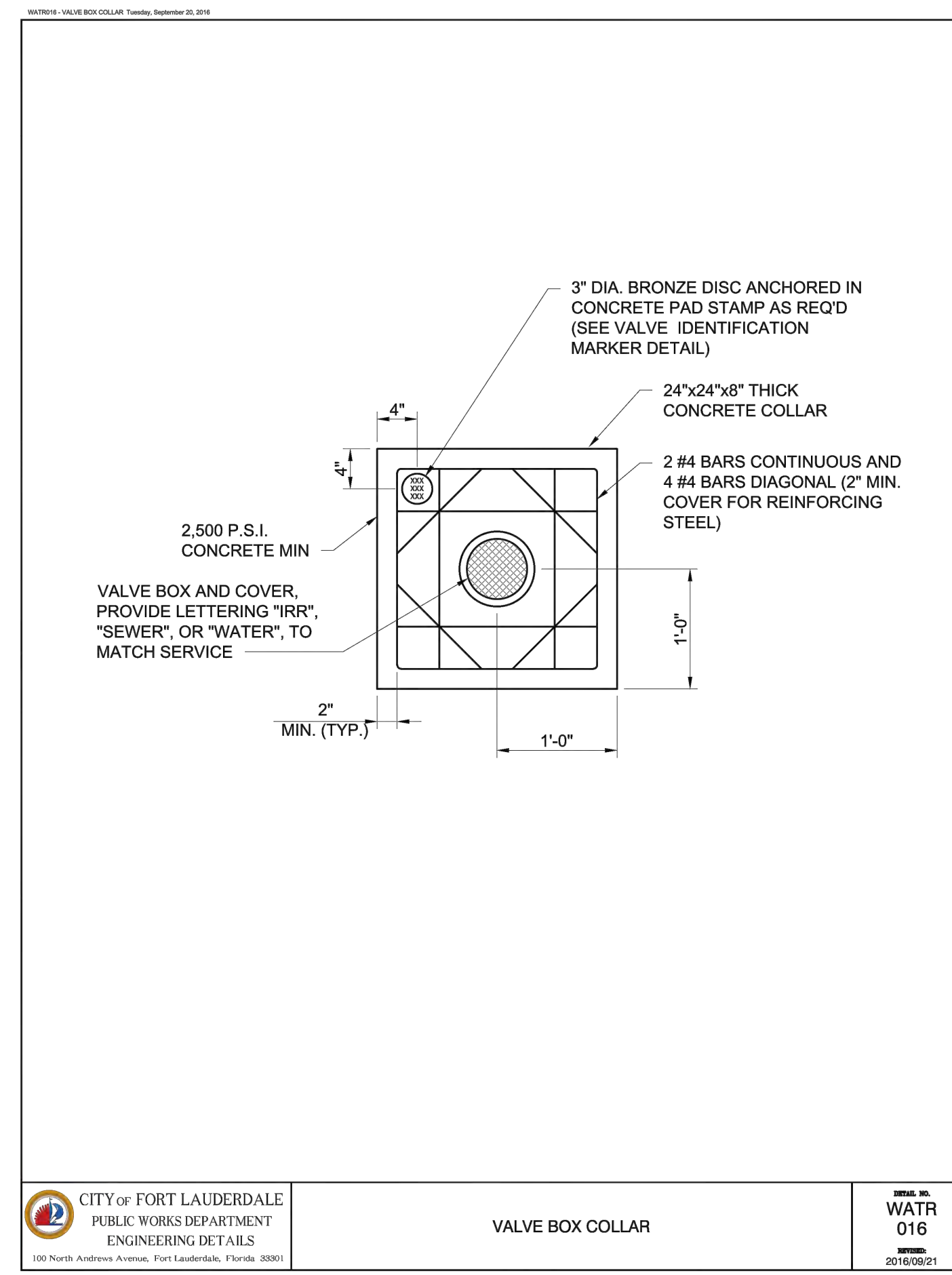
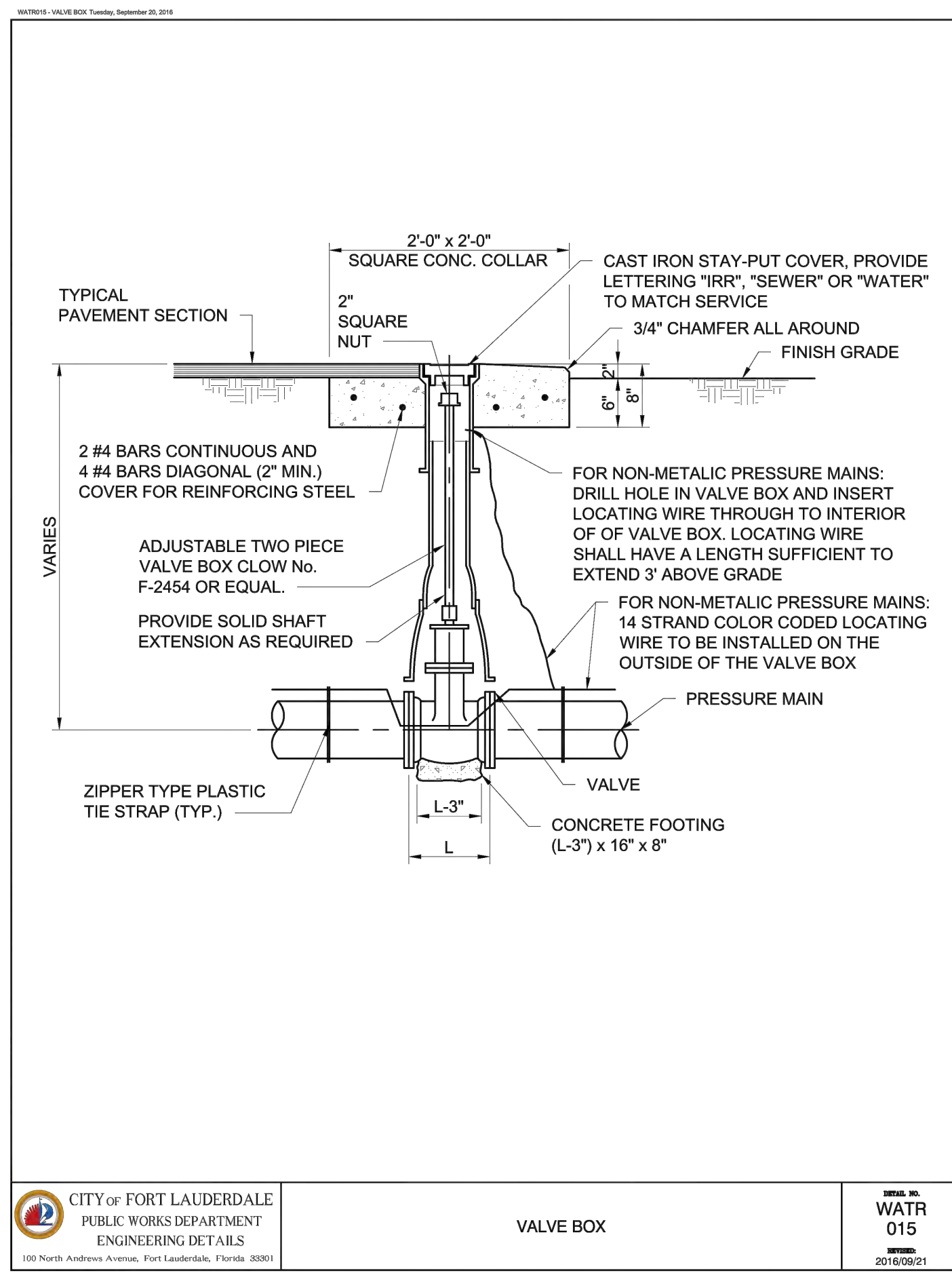
- REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON EXISTING MAIN AFTER FILLING AND FLUSHING OF NEW LINE.
- DO NOT REMOVE TEMPORARY CONNECTION AT CORPORATION STOP ON NEW MAIN UNTIL ALL TESTING HAS BEEN CLEARED BY HEALTH DEPARTMENT.
- CLOSE CORPORATION STOPS AND PLUG/CAP WITH LEAD-FREE BRASS FITTINGS AFTER SAMPLING IS COMPLETED.
- CONTRACTOR WILL INSTALL A PRESSURE GAUGE AT OR NEAR THE FILL AND FLUSH LOCATION AND MAINTAIN A MINIMUM PRESSURE OF 40 PSI AT ALL TIMES. THE FILL VALVE WILL BE OPENED AND CLOSED SLOWLY TO AVOID RAPID PRESSURE CHANGES IN THE WATER SYSTEM.

CITY OF FORT LAUDERDALE PUBLIC WORKS DEPARTMENT ENGINEERING DETAILS 100 North Andrews Avenue, Fort Lauderdale, Florida 33301	FILLING AND FLUSHING CONNECTION	SHEET NO. WATR 004 2016/09/01
	2016/09/01	

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 5/26/2021

REVISIONS		DESCRIPTION
NO.	DATE	BY

CONSTRUCTION SET
 PROJECT # 11868
 STORMWATER IMPROVEMENTS
 RIVER OAKS NEIGHBORHOOD
 WATER DETAILS AND NOTES
 SHEET NO.
C-04
 TOTAL: 255
 CAD FILE:
 11868-C04-DETL
 DRAWING FILE NO.
 4-142-42



Hazen

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ENGINEER:
PATRICK J. GIBNEY
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CITY OF FORT LAUDERDALE
PUBLIC WORKS DEPARTMENT
ENGINEERING & ARCHITECTURE
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY

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CONSTRUCTION SET

PROJECT # 11868
STORMWATER IMPROVEMENTS
RIVER OAKS NEIGHBORHOOD
WATER DETAILS AND NOTES

SHEET NO.
C-05
TOTAL: 255
CAD FILE: 11868-C05-DETL
DRAWING FILE NO. 4-142-42

Bidder shall submit a list of pumping station rehabilitation work completed in the last five years, projects of similar scope and scale (or larger) and shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address. **Bidder's are expected to provide information on each project by including these forms in their bid submittals.** If these forms are not utilized, the Bidder must provide identical information to the City for evaluation purposes.

Note: Do not include proposed team members or parent/subsidiary companies as references in your submittals.

A. PRIME BIDDER'S NAME: _____

CLIENT NO.1 - Name of firm to be contacted: _____

Address: _____

Contact Person: _____

Phone No: (____) _____

Contact E-Mail Address: _____

Project Performance Period: _____ to _____
Dates should be in mm/yy format

Project Name : _____

Location of Project: _____

Description of the overall scope: _____

Description of work that was self-performed by Bidder:

CLIENT NO.2 - Name of firm to be contacted: _____

Address: _____

Contact Person: _____

Phone No: (____) _____

Contact E-Mail Address: _____

Project Performance Period: _____ to _____
Dates should be in mm/yy format

Project Name : _____

Location of Project: _____

Description of the overall scope: _____

Description of work that was self-performed by Bidder:

CLIENT NO.3 - Name of firm to be contacted: _____

Address: _____

Contact Person: _____

Phone No: (____) _____

Contact E-Mail Address: _____

Project Performance Period: _____ to _____
Dates should be in mm/yy format

Project Name : _____

Location of Project: _____

Description of the overall scope: _____

Description of work that was self-performed by Bidder:

Meeting Summary

Total Number of Participant 10

Meeting Title Pre Bid Meeting River Oaks Pumpstations pre-bid meeting
 Meeting Start Time 7/20/2022, 9:27:35 AM
 Meeting End Time 7/20/2022, 10:15:24 AM
 Meeting Id 50104501-0dfd-47ce-8d35-c8d4f2f879c0

Full Name	Join Time	Leave Time	Duration	Email	Role	Participant ID (UPN)
Fausto Vargas	7/20/2022, 9:27:35 AM	7/20/2022, 10:13:42 AM	46m 6s	FVargas@fortlauderdale.gov	Organizer	FVargas@fortlauderdale.gov
Dustin Guskiewicz	7/20/2022, 9:55:49 AM	7/20/2022, 10:13:33 AM	17m 44s	DJGuskiewicz@pcl.com	Attendee	djguskiewicz@pcl.com
Juan Carlos Samuel	7/20/2022, 9:56:15 AM	7/20/2022, 10:13:41 AM	17m 26s	JSamuel@fortlauderdale.gov	Presenter	JSamuel@fortlauderdale.gov
15614417677	7/20/2022, 9:56:37 AM	7/20/2022, 10:13:36 AM	16m 58s		Attendee	
Elizabeth Page	7/20/2022, 9:57:05 AM	7/20/2022, 10:08:43 AM	11m 38s	epage@comtecheng.com	Attendee	epage@comtecheng.com
19542951083	7/20/2022, 9:57:32 AM	7/20/2022, 9:58:45 AM	1m 13s		Attendee	
19542951083	7/20/2022, 9:59:54 AM	7/20/2022, 10:13:31 AM	13m 37s		Attendee	
McMahon, Jennifer N	7/20/2022, 9:57:53 AM	7/20/2022, 10:13:33 AM	15m 39s	jmcmahon@hazenandsawyer.com	Attendee	jmcmahon@hazenandsawyer.com
Loffing, Rachel	7/20/2022, 9:59:51 AM	7/20/2022, 10:13:37 AM	13m 46s	RLoffing@hazenandsawyer.com	Attendee	RLoffing@hazenandsawyer.com
Chad Bumb	7/20/2022, 10:02:10 AM	7/20/2022, 10:15:24 AM	13m 14s	cbumb@ric-manfl.com	Attendee	cbumb_ric-manfl.com#EXT#@wadetrimgroup.onmicroso
Rafael Vega	7/20/2022, 10:02:41 AM	7/20/2022, 10:13:50 AM	11m 9s	rvega@ric-manfl.com	Attendee	rvega@Ric-ManFL.com

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Suppliers that have Viewed
Bid #12712-123 - River Oaks Pump station Project 12745

Responded	Supplier	Main Contact Email	City	State	Qualifications	Date First Viewed	Date Most Recently Viewed	Download
	A.C. Schultes of Florida	admin.acsfl@acschultes.com	GIBSONTON	FL		Jul 12, 2022 9:01:05 AM EDT	Jul 26, 2022 7:59:27 AM EDT	No
	Akerblom Contracting, Inc.	Rakerblom@aol.com	Fort Lauderdale	FL		Jul 13, 2022 9:40:08 AM EDT	Aug 4, 2022 11:35:12 AM EDT	No
	All Florida Contracting Services	mcox@afcs-co.com	Coral Springs	FL		Jul 26, 2022 8:13:25 AM EDT	Jul 26, 2022 8:13:25 AM EDT	No
	Baker Concrete Construction	cfestimating@bakerconcrete.com	Fort Lauderdale	FL		Jul 26, 2022 9:12:34 AM EDT	Jul 29, 2022 8:23:08 AM EDT	No
	Ballard Marine Construction	estimating@ballardmc.com	Washougal	WA		Jul 15, 2022 6:04:26 PM EDT	Jul 15, 2022 6:04:26 PM EDT	No
	BCC Engineering, Inc.	vherrera@bcceng.com	MIAMI	FL		Jul 18, 2022 9:04:25 AM EDT	Jul 18, 2022 9:04:25 AM EDT	No
	BON's Barricades, Inc.	tolara@bonsbarricades.com	Pompano Beach	FL	WBE	Jul 20, 2022 11:54:51 AM EDT	Jul 20, 2022 11:54:51 AM EDT	No
	C.C. Control	Jstock@cccontrolcorp.com	west palm beach	FL		Jul 11, 2022 3:09:04 PM EDT	Aug 4, 2022 10:39:43 AM EDT	No
	C&W Pipeline Inc.	ileal@cwpipelineinc.com	Opa-Locka	FL		Jul 11, 2022 1:54:02 PM EDT	Jul 11, 2022 1:54:02 PM EDT	No
	C.C. Control Corp.	jpmahieu@ccccontrolcorp.com	WEST PALM BEACH	FL		Jul 12, 2022 8:38:27 PM EDT	Jul 26, 2022 7:52:30 AM EDT	No
	Cardinal Contractors	vcapuozzi@prim.com	Sunrise	FL		Jul 21, 2022 10:27:46 AM EDT	Jul 25, 2022 2:05:27 PM EDT	No
	Cardinal Contractors (Primoris Mechanical)	john.taylor@prim.com	Fort Worth	TX		Jul 21, 2022 11:17:40 AM EDT	Aug 8, 2022 7:08:28 AM EDT	Yes
	Cardinal Contractors, Inc.	mwashburn@prim.com	Bradenton	FL		Jul 22, 2022 8:02:50 AM EDT	Jul 22, 2022 1:11:52 PM EDT	No
	CJS Group	Region1@cjsgroup.com	Tallahassee	FL		Jul 12, 2022 9:53:56 AM EDT	Jul 12, 2022 9:53:56 AM EDT	No
	CoCoMoConstruction	robb@cocomoconstruction.com	Clearwater	FL		Jul 18, 2022 10:36:13 AM EDT	Jul 18, 2022 10:36:13 AM EDT	No
	Complete Contract Consulting	sbarnes@completecontractconsulting.com	Riviera Beach	FL	MBE WBE	Jul 12, 2022 12:58:45 PM EDT	Jul 12, 2022 5:12:45 PM EDT	Yes
	Comtech Engineering Inc.	jsierra@comtecheng.com	Miami	FL		Jul 18, 2022 9:13:09 PM EDT	Aug 3, 2022 11:09:52 AM EDT	No
	ConstructConnect	muma.raseini@spirosys.com	Cincinnati	OH		Jul 12, 2022 6:08:21 PM EDT	Jul 13, 2022 11:52:02 AM EDT	No
	ConstructConnect	content@constructconnect.com	Cincinnati	OH	MBE WBE	Jul 12, 2022 3:03:59 AM EDT	Aug 8, 2022 2:50:17 AM EDT	No
	ConstructConnect	content@ConstructConnect.com	Cincinnati	OH		Aug 5, 2022 1:18:22 PM EDT	Aug 5, 2022 1:18:22 PM EDT	No
	Construction Bid Source	mtadayon@constructionbidsource.com	Holly Springs	NC		Jul 21, 2022 3:26:59 PM EDT	Jul 21, 2022 3:26:59 PM EDT	No
	CSA Group	rleon@csagroup.com	NEW YORK	NY		Jul 19, 2022 9:30:12 AM EDT	Jul 19, 2022 9:30:12 AM EDT	No
	Danfoss Drives	jfinch@danfoss.com	LOVES PARK	IL		Jul 29, 2022 2:45:33 PM EDT	Jul 29, 2022 2:45:33 PM EDT	No
	David Mancini & Sons, Inc.	bids@dmsi.co	Pompano Beach	FL		Jul 12, 2022 7:58:07 AM EDT	Aug 4, 2022 1:41:28 PM EDT	No
	DH and Company	Daraharsh@gmail.com	Calsbad	NM		Jul 11, 2022 10:54:46 PM EDT	Aug 7, 2022 10:52:12 PM EDT	No
	Dodge Data & Analytics	dodge.digital.operations@construction.com	TRENTON	NJ		Jul 13, 2022 8:09:28 AM EDT	Jul 13, 2022 8:09:51 AM EDT	No
	Dodge Data & Analytics	jayalakshmil@construction.com	NEW YORK	NY		Jul 12, 2022 12:03:02 PM EDT	Aug 8, 2022 11:03:22 AM EDT	Yes
	EnviroSales of Florida	karen@envirosalesofflorida.com	Sebring	FL		Aug 1, 2022	Aug 1, 2022 11:47:41 AM EDT	No

Inc.					11:47:41 AM EDT		
Equipment Plus Solutions, Inc.	larry.hickey@equipmentplusinc.com	Bellevue	FL		Jul 26, 2022 9:47:15 AM EDT	Aug 2, 2022 3:16:44 PM EDT	No
E J Nugent & Associates Inc	fred@nugentco.com	Sanford	FL		Jul 19, 2022 7:43:55 AM EDT	Aug 8, 2022 11:07:22 AM EDT	No
Ferguson Enterprises Inc.	Alejandro.Cerice@ferguson.com	Pompano Beach	FL		Jul 29, 2022 8:08:34 AM EDT	Jul 29, 2022 8:08:34 AM EDT	No
Florida Bid Reporting	kila@floridabid.com	Tallahassee	FL		Jul 16, 2022 12:03:20 PM EDT	Jul 16, 2022 12:03:20 PM EDT	No
Fort Construction Group of Naples, Inc.	rebekahw@fcgflorida.com	Naples	FL		Jul 12, 2022 12:08:47 PM EDT	Aug 3, 2022 10:17:51 AM EDT	No
GK Solutions of Florida	k.mccalla@thegksolution.com	ocala	FL		Jul 25, 2022 10:49:20 AM EDT	Aug 4, 2022 9:36:57 AM EDT	No
GMAI	brandon_housley@yahoo.com	Davie	FL		Jul 14, 2022 2:16:11 PM EDT	Jul 14, 2022 2:16:11 PM EDT	No
GreMark Consultancy, Inc.	wayne.fergusson.egc@gmail.com	Willimantic	CT		Jul 11, 2022 8:38:37 PM EDT	Aug 7, 2022 9:33:58 PM EDT	Yes
Hazen and Sawyer	jmcMahon@hazendandsawyer.com	HOLLYWOOD	FL		Jul 13, 2022 8:18:38 AM EDT	Aug 8, 2022 10:08:50 AM EDT	No
Hazen and Sawyer	rwariier@hazendandsawyer.com	Hollywood	FL		Jul 13, 2022 10:40:05 AM EDT	Aug 8, 2022 12:12:15 PM EDT	No
Hazen and Sawyer, PC	jforgione@hazendandsawyer.com	Hollywood	FL		Jul 13, 2022 8:06:04 AM EDT	Jul 13, 2022 8:06:04 AM EDT	Yes
Hernandez Consulting and Construction	capture@hernandezconsulting.com	New Orleans	LA		Jul 13, 2022 8:33:19 AM EDT	Aug 5, 2022 2:42:52 PM EDT	No
HydraService	probinson@hydraservice.net	Debary	FL		Aug 5, 2022 9:09:06 AM EDT	Aug 5, 2022 9:39:15 AM EDT	Yes
Information Consultants Inc	psmith@icons-inc.com	Plantation	FL	MBE	Aug 4, 2022 12:28:25 PM EDT	Aug 4, 2022 12:28:25 PM EDT	No
iSqFt	content@constructconnect.com	Cincinnati	OH		Aug 5, 2022 5:10:30 AM EDT	Aug 5, 2022 5:10:45 AM EDT	No
ITSol, LLC	mcsb2012@yahoo.com	Orlando	FL		Jul 14, 2022 9:48:16 PM EDT	Jul 29, 2022 2:51:51 PM EDT	No
J.D. Fields & Co., Inc.	gspratling@jdfields.com	Houston	TX		Aug 8, 2022 1:46:34 PM EDT	Aug 8, 2022 1:47:03 PM EDT	Yes
Kiewit Infrastructure South Co.	john.zelenka@kiewit.com	Peachtree City	GA		Jul 18, 2022 10:38:18 AM EDT	Aug 8, 2022 9:27:24 AM EDT	No
Kimley-Horn and Associates, Inc.	florida.marketing@kimley-horn.com	West Palm Beach	FL		Jul 19, 2022 10:52:24 AM EDT	Jul 19, 2022 10:56:07 AM EDT	No
Lawrence Lee Construction Services, Inc.	gs@LawrenceLeeConstruction.com	Stuart	FL		Jul 14, 2022 10:56:48 AM EDT	Aug 3, 2022 4:05:56 PM EDT	Yes
Lj.power	b.siewert@ljpower.net	Grand Prairie	TX		Jul 14, 2022 11:40:31 AM EDT	Jul 14, 2022 11:40:31 AM EDT	No
McDade Waterworks, Inc.	mike@mcdadewaterworks.com	Tampa	FL		Aug 2, 2022 9:05:36 AM EDT	Aug 4, 2022 9:46:13 AM EDT	No
Michels Marine	ljappe@michels.us	Brownsville	WI		Jul 20, 2022 11:19:51 AM EDT	Jul 20, 2022 11:19:51 AM EDT	No
MJR Associates	merrydas@hotmail.com	Nashville	TN		Jul 12, 2022 8:03:43 AM EDT	Jul 12, 2022 8:03:43 AM EDT	No
Motor Controls Inc.	cdove@motorcontrols.com	Dallas	TX		Aug 1, 2022 12:29:46 PM EDT	Aug 4, 2022 9:35:30 AM EDT	No
MP Predictive Technologies Inc.	apereira@mpp-technologies.com	Jacksonville	FL		Jul 29, 2022 2:05:34 PM EDT	Jul 29, 2022 2:05:34 PM EDT	No
North America Procurement Council, Inc. PBC	sourcemanagement@napc.me	Grand Junction	CO		Jul 13, 2022 12:55:11 PM EDT	Aug 5, 2022 12:55:39 PM EDT	No
PCL Construction Inc	swbritton@pcl.com	Tempe	AZ		Jul 12, 2022 8:03:00 AM EDT	Jul 20, 2022 10:10:22 AM EDT	Yes
Periscope WorkForce Employees	bmontilva@periscopeholdings.com	Austin	TX		Aug 8, 2022 1:40:13 PM EDT	Aug 8, 2022 1:40:14 PM EDT	No
Power & Pumps	tcomer@powerandpumps.com	Jacksonville	FL		Jul 12, 2022 6:49:30 AM EDT	Jul 12, 2022 6:54:59 AM EDT	No
PWXPRESS	bids@pwxpress.com	jacksonville	FL		Jul 13, 2022 1:25:16 PM EDT	Jul 13, 2022 1:26:18 PM EDT	No
QTO Solutions	nisar@qtosol.com	California	CA		Jul 27, 2022 10:29:48 AM EDT	Aug 2, 2022 9:22:41 AM EDT	No
R, J. Behar &	bbehar@rjbehar.com	Pembroke	FL	DBE MBE	Jul 26, 2022 8:17:34	Jul 26, 2022 8:17:34 AM EDT	Yes

Company, Inc.	City of Pines	State	Notification Date	AM EDT		
Randall Environmental, Inc.	bids@rfcenvironmental.com	Apopka FL	Jul 12, 2022 6:38:36 AM EDT	Jul 26, 2022 9:13:05 AM EDT		Yes
Revere Control Systems, Inc.	fl-sales@reverecontrol.com	Birmingham AL	Jul 18, 2022 9:02:48 AM EDT	Jul 29, 2022 8:31:05 AM EDT		No
Ric-Man Construction Florida	rvega@ric-manfl.com	Deerfield Beach FL	Jul 11, 2022 3:23:23 PM EDT	Aug 8, 2022 2:18:10 PM EDT		No
RIC-MAN INTERNATIONAL	bid@ric-man.us	POMPANO BEACH FL	Jul 26, 2022 8:46:40 AM EDT	Jul 26, 2022 1:16:42 PM EDT		No
Ric-Man International, Inc.	larry_brennen@msn.com	Pompano Beach FL	Jul 19, 2022 12:44:46 PM EDT	Aug 1, 2022 8:29:44 AM EDT		No
RoadSafe Traffic Systems	tfoskolos@roadsafetraffic.com	MIAMI FL	Jul 11, 2022 3:23:49 PM EDT	Jul 11, 2022 3:24:45 PM EDT		No
Southeastern Engineering Contractors, Inc	jc@southeasterneng.com	Pembroke Pines FL	Jul 15, 2022 10:07:29 AM EDT	Jul 25, 2022 8:53:16 AM EDT		Yes
Southern Underground Industries, Inc.	belseri1111@aol.com	Oakland Park FL	Jul 12, 2022 11:05:53 AM EDT	Jul 19, 2022 2:36:04 PM EDT	MBE	Yes
TLC Diversified	emacek@tlcdiv.com	Palmetto FL	Jul 20, 2022 1:54:10 PM EDT	Aug 4, 2022 9:58:01 AM EDT		No
TLC Diversified, Inc.	lmoore@tlcdiv.com	Palmetto FL	Jul 21, 2022 9:00:46 AM EDT	Aug 8, 2022 9:17:49 AM EDT		No
Trio Development Corporation	chris@triodevelopment.com	Pompano Beach FL	Jul 15, 2022 2:15:26 PM EDT	Jul 15, 2022 2:15:26 PM EDT		No
Trippensee & Company Inc	trippensee@htn.net	Sebring FL	Jul 14, 2022 9:44:33 AM EDT	Jul 26, 2022 8:32:31 AM EDT		No
WGI, Inc.	busdev@wginc.com	West Palm Beach FL	Jul 12, 2022 4:14:06 PM EDT	Jul 12, 2022 4:14:06 PM EDT		No

Qualification Totals: DBE(1) MBE(5) WBE(3)

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QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:

Firm Name:

President

Business Address:

Telephone:

Fax:

E-Mail Address:

What was the last project of this nature which you completed? Include the year, description, and contract value.

The following are named as three corporations and representatives of those corporations for which you have performed work similar to that required by this contract, and which the City may contact as your references (include addresses, telephone numbers and e-mail addresses). Include the project name, year, description, and contract value.

How many years has your organization been in business?

Have you ever failed to complete work awarded to you; if so, where and why?

The name of the qualifying agent for the firm and his position is:

Certificate of Competency Number of Qualifying Agent:

Effective Date: Expiration Date:

Licensed in: Engineering Contractor's License #

(County/State)

Expiration Date:

NOTE: To be considered for award of this contract, the bidder must submit a financial statement upon request.

NOTE: Contractor must have proper licensing and shall provide copy of same with his proposal.

QUESTIONNAIRE SHEET

1. Have you personally inspected the proposed work and have you a complete plan for its performance?

2. Will you sublet any part of this work? If so, list the portions or specialties of the work that you will.

a)

b)

c)

d)

e)

f)

g)

3. What equipment do you own that is available for the work?

4. What equipment will you purchase for the proposed work?

5. What equipment will you rent for the proposed work?

Question and Answers for Bid #12712-123 - River Oaks Pump station Project 12745

Overall Bid Questions

Question 1

Referencing the Special Conditions Section 08- "Specific Experience Required", please consider changing the previous experience in constructing stormwater pump stations in the State of Florida to a minimum of two (2) within the last five (5) years of similar scope and scale (or larger). (Submitted: Jul 12, 2022 10:19:42 AM EDT)

Answer

- The contract shall have previous construction experience in constructing of stormwater or wastewater pump stations in the State of Florida within the last five (5) years. Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger). (Answered: Jul 14, 2022 9:13:00 AM EDT)

Question 2

Could you please remove Underground Contractor from approved Prime Contractor Status. General Contractor should be the only Contractor approved as prime. Check Florida Statutes 489.105 General Contractor is only one with unlimited status to be Prime Bidder. (Submitted: Jul 13, 2022 10:36:33 AM EDT)

Answer

- Contractor should be a licensed Certified General Contractor (CGC) and not a Certified Underground Contractor (CUC). (Answered: Jul 20, 2022 9:16:19 AM EDT)

Question 3

1. Do you have an engineer's estimate or budget for this project?
2. Do you have a start date or notice to proceed date decided?
3. Do you have a planholder's list available? (Submitted: Jul 13, 2022 12:12:11 PM EDT)

Answer

- 1.The engineer's estimate is \$8,745,000 excluding allowances.
- 2.Estimated start date is Spring of 2023. (Answered: Jul 19, 2022 9:24:15 AM EDT)

Question 4

Can an alternate design be proposed for the foundation plan as depicted on plan sheet 1S-01 so long as signed and sealed by a Florida P.E. (Submitted: Jul 19, 2022 3:45:01 PM EDT)

Answer

- Refer to notes on Sheet 1S-01. Designs shall be signed and sealed by a Professional Engineer and submitted with detailed design calculations in addition to being supported by geotechnical investigation findings. (Answered: Jul 21, 2022 4:31:26 PM EDT)

Question 5

Plan 1C-03, Note 2 states we are to refer to the Bid Plans of FTL Project #11868. Is the Owner going to make these plans available to the bidders? (Submitted: Jul 21, 2022 9:53:21 AM EDT)

Answer

- Plans for Project 11868 are available to the bidders and are NOT considered part of the Contract Documents. Requested plans will be provided for informational purposes only. Project 11868 is currently under construction and it is anticipated that actual conditions will differ from those shown on the drawings. The information provided in plans for Project 11868 is not guaranteed. (Answered: Aug 4, 2022 9:11:31 AM EDT)

Question 6

Where can the water discharge from dewatering operations go to? Is there an area available on site? (Submitted: Jul 21, 2022 9:55:57 AM EDT)

Answer

- Dewatering is subject to the Contractor's means and methods. All dewatering operations shall be in accordance with dewatering permits procured by Contractor. It is the responsibility of potential bidders to conduct a field reconnaissance of the site and surrounding areas prior to bidding the job. (Answered: Jul 25, 2022 4:50:05 PM EDT)

Question 7

Will the FPL allowance also cover the cost of running the stations (electric bills) for testing, start-up and prior to handing the project over to the Owner? Contractors will have to guess the cost for running these stations if we cannot use the allowance. (Submitted: Jul 21, 2022 10:00:31 AM EDT)

Answer

- FPL costs associated with testing and startup of the pump stations shall be billed to the City and paid for by the City. FPL costs associated with the Contractor's construction activities (including, but not limited to, powering tools or providing electricity to field trailers) shall be paid for by the Contractor. (Answered: Jul 25, 2022 4:50:05 PM EDT)

Question 8

Is a Builder's Risk policy required? (Submitted: Jul 25, 2022 11:04:00 AM EDT)

Answer

- Please check solicitation for all insurance requirements. (Answered: Jul 25, 2022 1:46:59 PM EDT)

Question 9

Is payment by P-Card required or can we opt for a check/ACH transfer? On a project of this size, the processing fees for a P-Card will be in excess of \$100,000. (Submitted: Jul 25, 2022 11:07:08 AM EDT)

Answer

- Please review addendum 1 (Answered: Jul 25, 2022 1:46:59 PM EDT)

Question 10

Please advise if this contract will follow Buy American/Buy America Acts? (Submitted: Jul 26, 2022 1:31:15 PM EDT)

Answer

- Please review addendum 3 (Answered: Jul 28, 2022 3:06:36 PM EDT)

Question 11

When will you be posting the Pre-Bid Sign In Sheets? (Submitted: Aug 2, 2022 9:38:56 AM EDT)

Answer

- Document was added. (Answered: Aug 8, 2022 2:33:21 PM EDT)

Question 12

DWG 1C-03 Indicates: Tapping the 6" DIP (By Others) w/ 2" Tap, Run 2" PVC to meter PE Detail 2 @ GM-03, Putting in an 1-1/2" meter assembly w/ 5/8" x 3/4" meter, continuing to 1" RPZ assembly, run 1" PVC to 3 ea hose station w/ 2" yard hydrants. The 1" pipe will not provide sufficient flow to charge yard hydrants. This situation is repeated again at the inlet station on DWG 2C-03. Is this correct? (Submitted: Aug 2, 2022 9:54:17 AM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 13

The following questions are related to the Trash Rake from Duperon Corporation.

Section 11420 Paragraph 2.03 4 - Field welding is required at the anchor plates to install the screen per manufacturers recommendation. Please confirm this is acceptable.

Section 11420, Paragraph 2.03 G.2 - Standard design FlexRake HD motor is 1/4 HP with reversing across the line motor starter. Please clarify if variable speed control is required. If so, standard motor will be 1/2 HP to allow for higher speeds.

Section 11420, Paragraph 2.03 G.2 - Please allow class F insulation. Class H insulation for these small motors requires a custom factory build with very long lead times. Class F insulation motors reliably meet temperature rise requirements in similar applications.

Section 11420, Paragraph 2.04 C.2 - Per earlier clarification, if VFD is required, standard design uses Allen Bradley PowerFlex 525 VFD. Please confirm this is acceptable.

Section 11420, Paragraph 2.05 D.1 and D.2 - the described operation is the reverse of a typical variable speed application. Upon a minimum channel level, the screen should run at the low preset speed. Upon receiving a high channel level signal, the screen would increase to the high-speed setting. Please confirm automatic operation logic.

Section 11420 3.02 D - Grouting is not required after installation.

Section 11420 3.02 F - Field welding is required at the anchor plates to install the screen per manufacturers recommendation. Please confirm this is acceptable. (Submitted: Aug 2, 2022 3:20:03 PM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 14

Drawing 2C-03 details a 24" DI STM Bypass, however the cross-section on 2M-02 only details a 16" DI STM. Please clarify if there is a 24" Bypass and provide a section view. (Submitted: Aug 4, 2022 8:31:04 AM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 15

Drawing 1M-03 adjacent to GM-03, an arrow points to 36" RjXPE Wall Pipe. The piping on the drawing is detailed as being 24" diameter, please clarify. (Submitted: Aug 4, 2022 8:35:27 AM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 16

Regarding question #10 "Please advise if this contract will follow Buy America/Buy America Acts?" the City had answered no to this question. Today I look at the answer and it says yes. Can you please clarify what the correct answer is and can the City send an addendum clarifying any past and future changes to answers of questions that have been answered? (Submitted: Aug 4, 2022 10:38:24 AM EDT)

Answer

- An addendum will be release clarifying this question and number 10. (Answered: Aug 4, 2022 12:44:52 PM EDT)

Question 17

BID SYNC is requesting Municipal Pool Co2 Experience, this does not seem relative to this project. Can it please be removed? (Submitted: Aug 4, 2022 11:26:35 AM EDT)

Answer

- We do not have this requirement on this bid and was verify by Bidsync, please contact costumer service they will be able to help you. (Answered: Aug 4, 2022 1:01:37 PM EDT)

Question 18

Please provide the referenced CITB Questionnaire Sheet. (Submitted: Aug 4, 2022 1:40:25 PM EDT)

Answer

- Document was added. (Answered: Aug 8, 2022 2:42:39 PM EDT)

Question 19

Section view of the wall pipe is showing a flange just outside the wall, per Detail 13 GM-03, however the flap gates will require a Flange connection which means the pipe will be Flange x Flange. Can this spool piece just be Flange x PE with Wall Collar to go straight into the Flexible Coupling? (Submitted: Aug 5, 2022 11:17:33 AM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 20

Detail 13 GM-03 requires a FxF wall pipe, the harness detail for the flexible coupling requires steel tabs, and spec 15000 2.06 requires the length or harness rods be less than 10'0 between adjacent flange but the distance is greater than that. Will the use of rod couplings be permitted to restrain across the coupling? (Submitted: Aug 5, 2022 11:18:27 AM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 21

Detail 13 GM-03 If rod couplings are not permitted, can the use of a restrained coupling (such as Romac 400RG or Smith-Blair 471) be used? (Submitted: Aug 5, 2022 11:18:56 AM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 22

The lower 24" pipes show the same Flange outside the wall, but this pipe is buried. Is it the intent to have flanges buried on this line? Or can this wall pipe be FxP from Flap Gate to RJ Sleeve? (Submitted: Aug 5, 2022 11:19:51 AM EDT)

Answer

- Pipe is Flg X PE from flap gate to RJ sleeve. Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 23

Specify the material required for the pipe straps on the cradle supports. (Submitted: Aug 5, 2022 11:20:03 AM EDT)

Answer

- Refer to Detail 1509300 - Pipe Hold Down Strap Detail on Sheet GS-01. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 24

What is the anchoring/uplift requirement for the entire structure so we can determine the size/depth of the ACP's? (Submitted: Aug 5, 2022 11:59:16 AM EDT)

Answer

- The assumptions on pile capacity and anchorage are noted on drawing 1S-01. (Answered: Aug 23, 2022 3:27:19 PM EDT)

Question 25

Good afternoon,
Is there a plan holders list available for this project?
Thank you so much! (Submitted: Aug 5, 2022 1:24:32 PM EDT)

Answer

- Document was added. (Answered: Aug 8, 2022 2:53:26 PM EDT)

Question 26

Sheet 1S-11 Detail 1 - states 1 1/2" Thick Alum Grating. Detail 3 - states 2" Aluminum Grating. Please advise the thickness of the grating. (Submitted: Aug 5, 2022 1:44:37 PM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 27

Under Summary of work section 1.05 "Additional Engineering Services" - what is the hourly rate to be charged the Contractor for proposed changes to the structural design? (Submitted: Aug 8, 2022 2:18:41 PM EDT)

Answer

- \$195.00 dollars. (Answered: Aug 16, 2022 9:44:43 AM EDT)

Question 28

Section 01025 pay item 7 Remove and relocate trees includes Maintenance under the compensation for this item. Please confirm the detailed maintenance required during the establishment period of a relocated tree is regulated by Spec section 02481. (Submitted: Aug 8, 2022 2:19:19 PM EDT)

Answer

- Confirmed. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 29

Drawing E-03 denotes under item 2 Underground primary furnished by FPL for installation by Contractor from site 1 to 2. Please confirm what materials will be furnished by FPL, i.e. wire, PVC conduit, spacers, Duct bank concrete, etc. ? Will this item be paid under the FPL Allowance account? (Submitted: Aug 8, 2022 2:19:58 PM EDT)

Answer

- Refer to addendum #2. The FPL Allowance does not include payment for work shown on the contract documents. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 30

Please confirm the limits of Power Service scope by FPL from Power pole (not identified) to the new Transformer at the Outfall Pump Station. (Submitted: Aug 8, 2022 2:20:29 PM EDT)

Answer

- Refer to addendum #2. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 31

Please confirm 500 KVA transformer will be supplied and installed by FPL (Submitted: Aug 8, 2022 2:20:54 PM EDT)

Answer

- Confirmed. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 32

Please confirm based on Spec section 02369 Para. 1.01 wherein it states " Sheet piling when shown is mandatory...." that the Contractors design as required under Note 1 on Sheets 1S-01 and 1S-06 will determine whether the sheet pile is permanent or temporary. (Submitted: Aug 8, 2022 2:21:59 PM EDT)

Answer

- Confirmed. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 33

Please confirm Spec section 02468 " Pile Load tests" does not apply to the support of excavation sheet pile for the outfall structures shown at site # 1. (Submitted: Aug 8, 2022 2:22:23 PM EDT)

Answer

- Specification Section 02468 "Pile Load Tests" does not apply to sheet piling. (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 34

- May alternates to auger piles be considered in lieu of helical piles?
- May well point dewatering be considered in lieu of tremie pour?
- Would it be acceptable to use cage from auger in lieu of single rod and anchor plates as illustrated for structural connection to base of concrete structure?
- The geotech report mentions the use of wing walls in lieu of auger piles. Would this be an acceptable alternative?
- If wing walls are to be considered, could the bottom of the concrete structure be pre-cast to avoid working in the wet and requiring use of tremie pour? (Submitted: Aug 8, 2022 3:17:16 PM EDT)

Answer

- 1.No
- 2.No, provide tremie pour.
- 3.Yes, cage is acceptable. Refer to Note 1 on Sheet 15-01. Contractor is responsible for design of cofferdam including auger cast piles.
- 4.No, provide auger cast piles.
- 5.No, provide tremie pour. (Answered: Aug 23, 2022 12:35:39 PM EDT)

Question 35

1) The Architectural & Structural Drawings conflict on the Electrical Building wall to roof interface. Detail 1/S1-10 shows the masonry ending at the bottom of the beam while Detail 5/1A-03 shows additional masonry above the beam (Parapet Wall). Please advise which detail prevails. (Submitted: Aug 8, 2022 3:18:01 PM EDT)

Answer

- Refer to addendum #2 (Answered: Aug 15, 2022 2:48:51 PM EDT)

Question 36

Please remove the P-Card payment authorization from the bid package (Submitted: Aug 8, 2022 3:58:27 PM EDT)

Answer

- Please review addendum 1 (Answered: Aug 9, 2022 10:28:04 AM EDT)

Question 37

Please extend the question period to Friday August 12th. (Submitted: Aug 8, 2022 4:40:45 PM EDT)

Answer

- The time for questions was extended to August 22 (Answered: Aug 16, 2022 9:44:43 AM EDT)

Question 38

Is muck generated from removal of unsuitable & organic soils allowed to be stockpiled and stored on-site or must it be transferred to a waste facility after removal? (Submitted: Aug 8, 2022 4:41:55 PM EDT)

Answer

- Refer to Section 02222, Paragraph 3.01F of the Technical Specifications (Answered: Aug 23, 2022 12:35:39 PM EDT)

Question 39

What is the extent of the field painting on the Pumps and Pump piping, (2 of them are stainless steel).
(Submitted: Aug 17, 2022 8:13:03 AM EDT)

Answer

- Refer to Section 09900, Paragraph 1.10 A of the Technical Specifications (Answered: Aug 23, 2022 12:35:39 PM EDT)

Question 40

Is this project prevailing / Davis-Bacon wages? (Submitted: Aug 17, 2022 9:30:47 AM EDT)

Answer

- Refer to addendum #3 (Answered: Aug 23, 2022 12:35:39 PM EDT)

Question 41

We received a lead time of 66-70 weeks for the generator, which is well beyond the project time. Please adjust the contract duration to reflect this lead time, or provide some assurance that LD's will not be assessed due to the late arrival of the generator. (Submitted: Aug 18, 2022 12:03:22 PM EDT)

Answer

- A non-compensable time extension will be granted provided sufficient information is submitted by the Contractor documenting delays in fabrication and delivery of generator. (Answered: Aug 23, 2022 3:27:19 PM EDT)

Question 42

SAVECO North America, Inc. would like to be considered as an equal for the trash rake equipment. SAVECO has been a provider of custom engineered screening equipment in North America since 1972 and meets the specification section in its entirety. (Submitted: Aug 22, 2022 2:58:26 PM EDT)

Answer

- Refer to Specification Section 01300, Paragraph 1.06 O. (Answered: Aug 23, 2022 3:27:19 PM EDT)