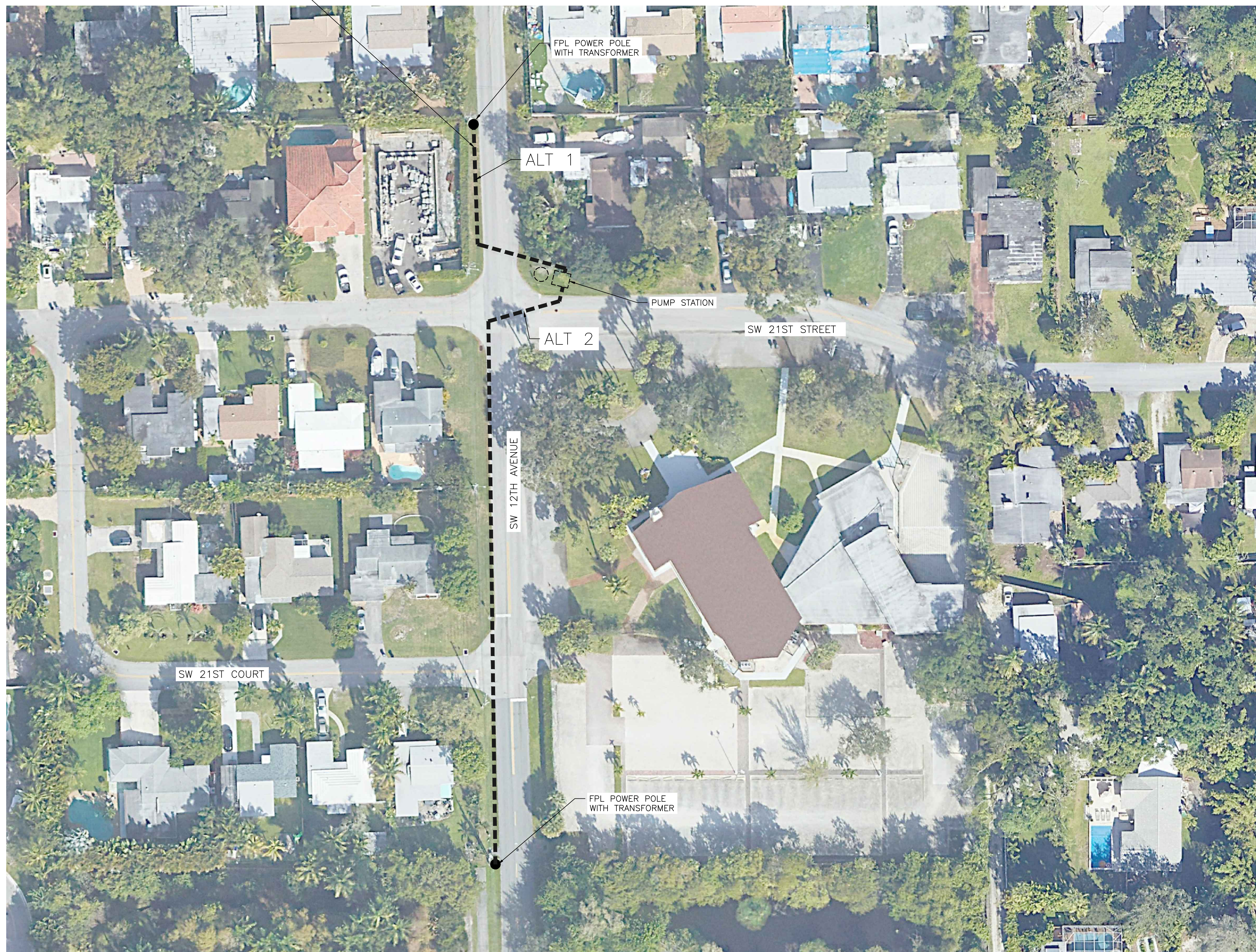


NEW ELECTRICAL SERVICE CONDUIT, CABLE AND MATERIALS PROVIDED AND INSTALLED BY CONTRACTOR. SEE SHEET CU-3C-05



# Hazen

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



**CRAVEN • THOMPSON AND ASSOCIATES, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
3563 N.W. 53RD 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

ENGINEER:  
JOHN C. BURKE  
REG. NO. 17301  
DATE: 04/02/2021  
TEL: 954-987-0066  
FAX: 954-987-2949

DRAWN BY: TB  
DATE: 04/02/2021  
DESIGNED BY: JMB  
SCALE: 1"=40'  
CHECKED BY: JCB  
FIELD BOOK: XXXX

CITY OF FORT LAUDERDALE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & ARCHITECTURE

100 North Andrews Avenue, Fort Lauderdale, Florida 33301

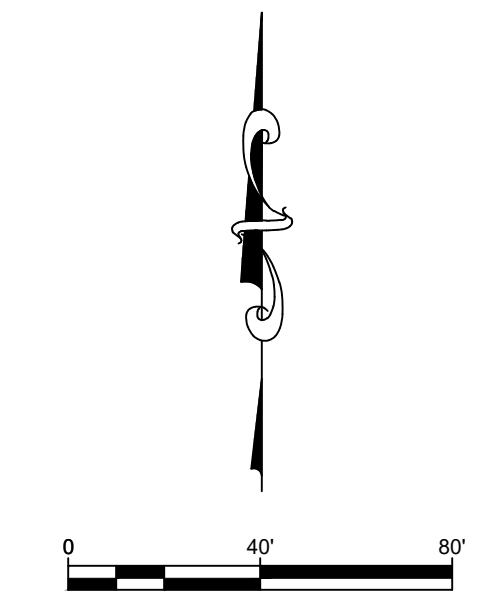
**NOTE:**

CONTRACTOR SHALL COORDINATE WITH FPL TO ARRANGE FOR ELECTRICAL SERVICE FOR PUMP STATION. ALL COSTS ASSOCIATED WITH THESE COORDINATION EFFORTS SHALL BE INCLUDED IN THE BID ITEMS FOR THE MOPS STORMWATER PUMP STATION. FPL FEES SHALL BE REIMBURSED AT COST IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

NO.	DATE	BY	CHK'D	DESCRIPTION
1	04/07/21			ADD #5 SHEET ADDED TO SET

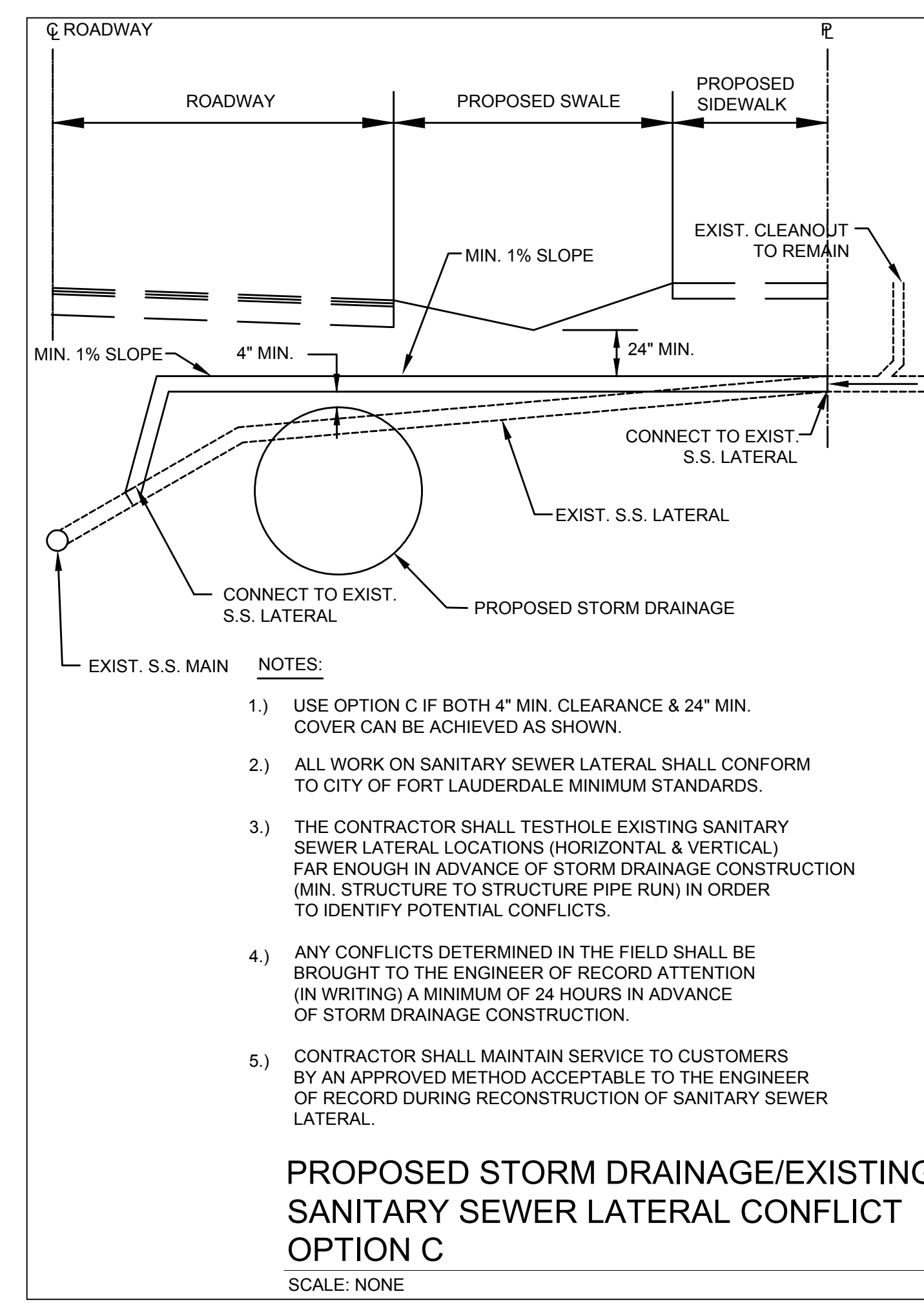
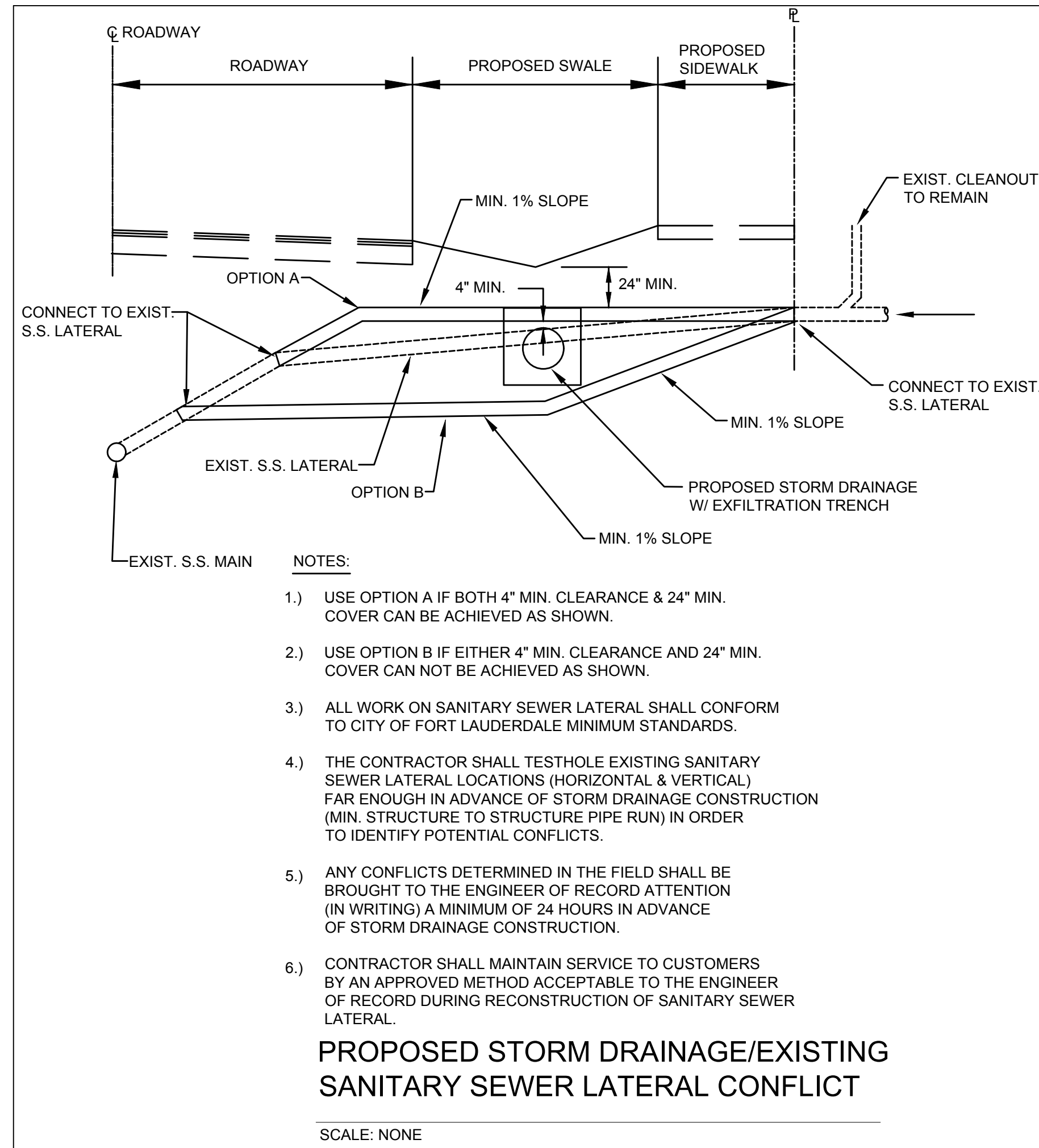
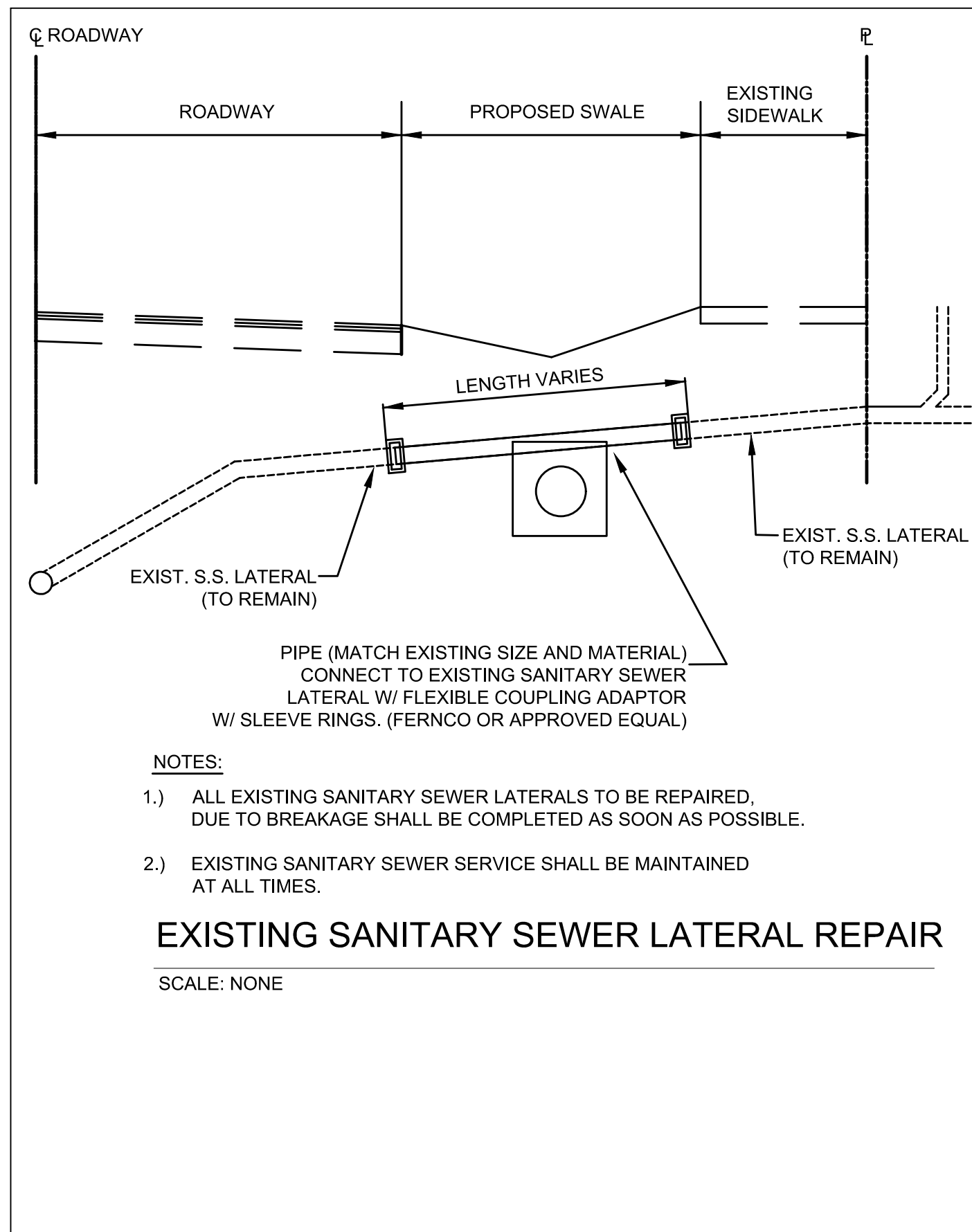
**PROJECT # 12074**  
**STORMWATER IMPROVEMENTS**  
**RIVER OAKS NEIGHBORHOOD**  
**PUMP STATION PROPOSED**  
**ELECTRICAL SERVICE PLAN**

SHEET NO.  
**CU-3C-06**  
TOTAL: 246  
CAD FILE: CU-3C-06  
DRAWING FILE NO. 4-142-42



1" = 40'





# 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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3563 N.W. 53RD 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

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

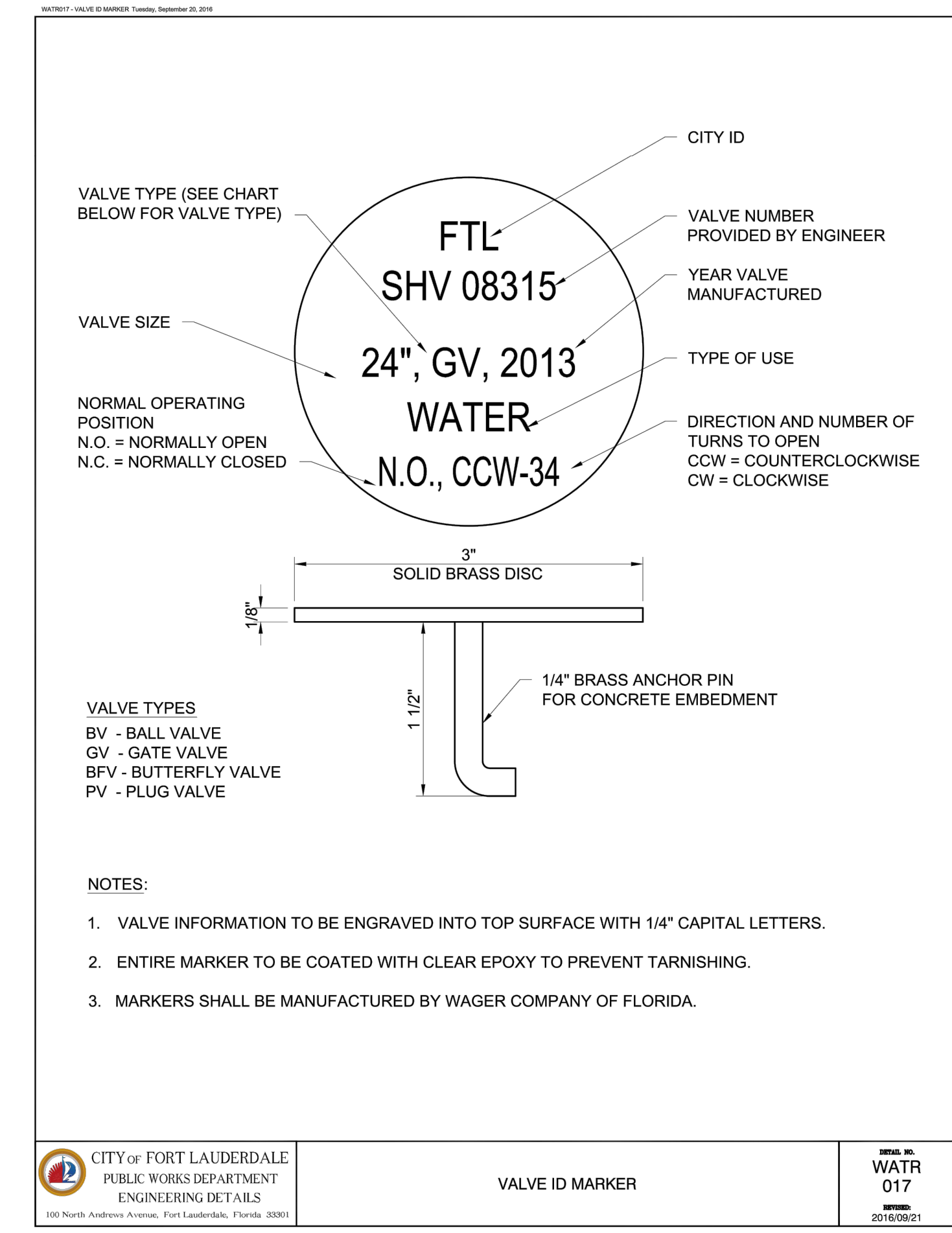
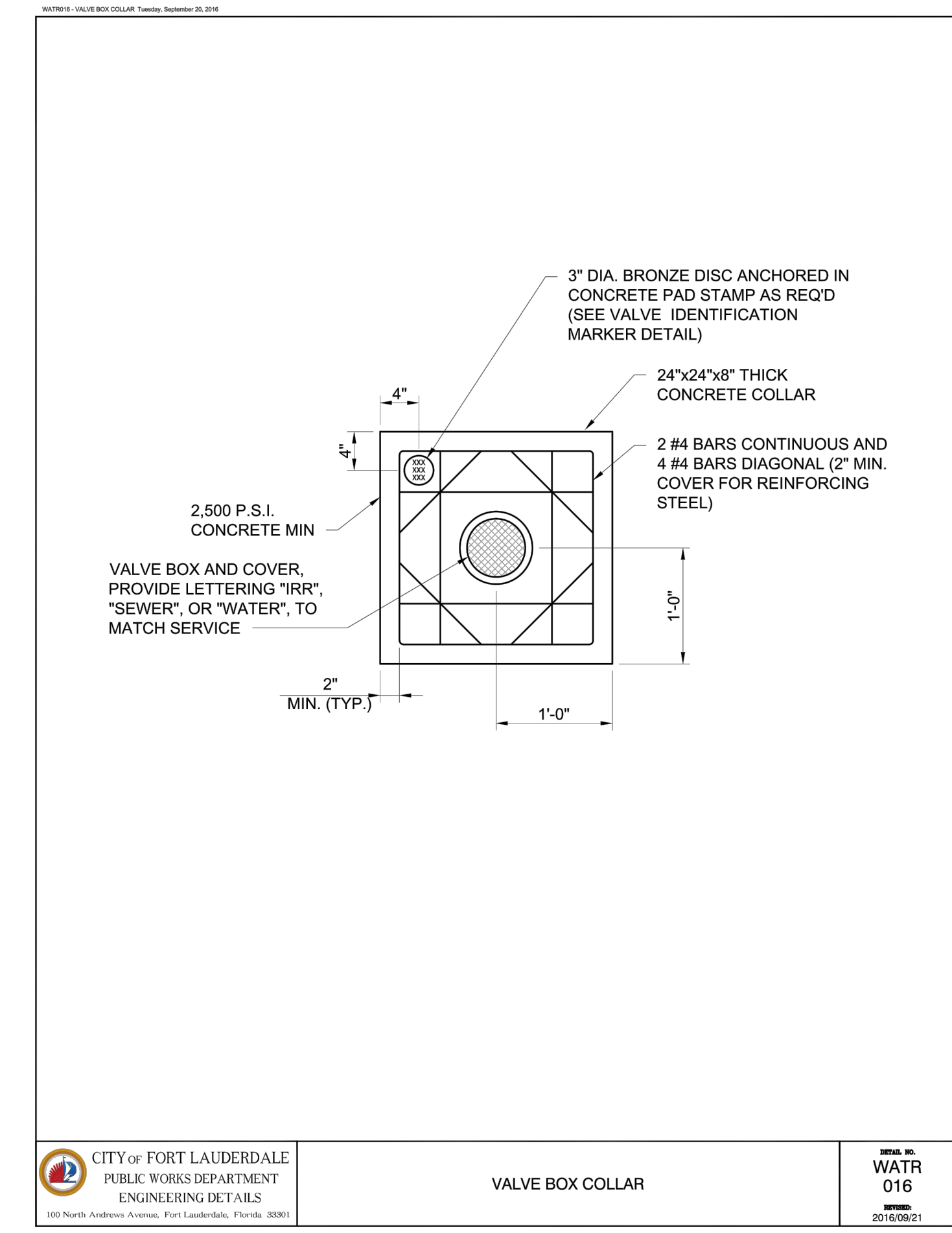
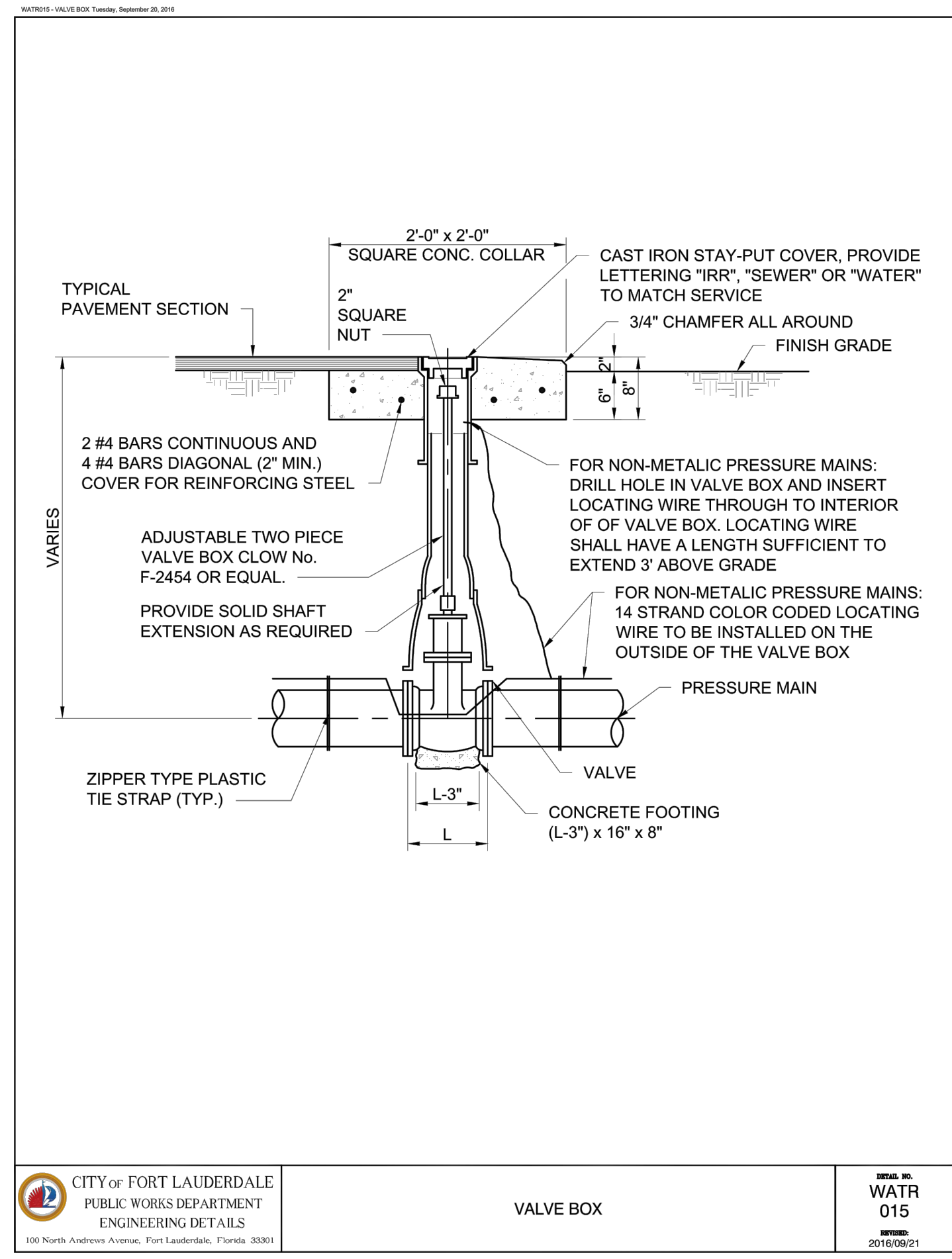
CITY OF FORT LAUDERDALE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & ARCHITECTURE  
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY
1.	04/07/21	MR
		ADD #5 - REISSUED SHEET

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

SHEET NO.  
**CZ-DT-12**  
TOTAL: 254  
CAD FILE: 11868-CZ-DT12  
DRAWING FILE NO. 4-142-42

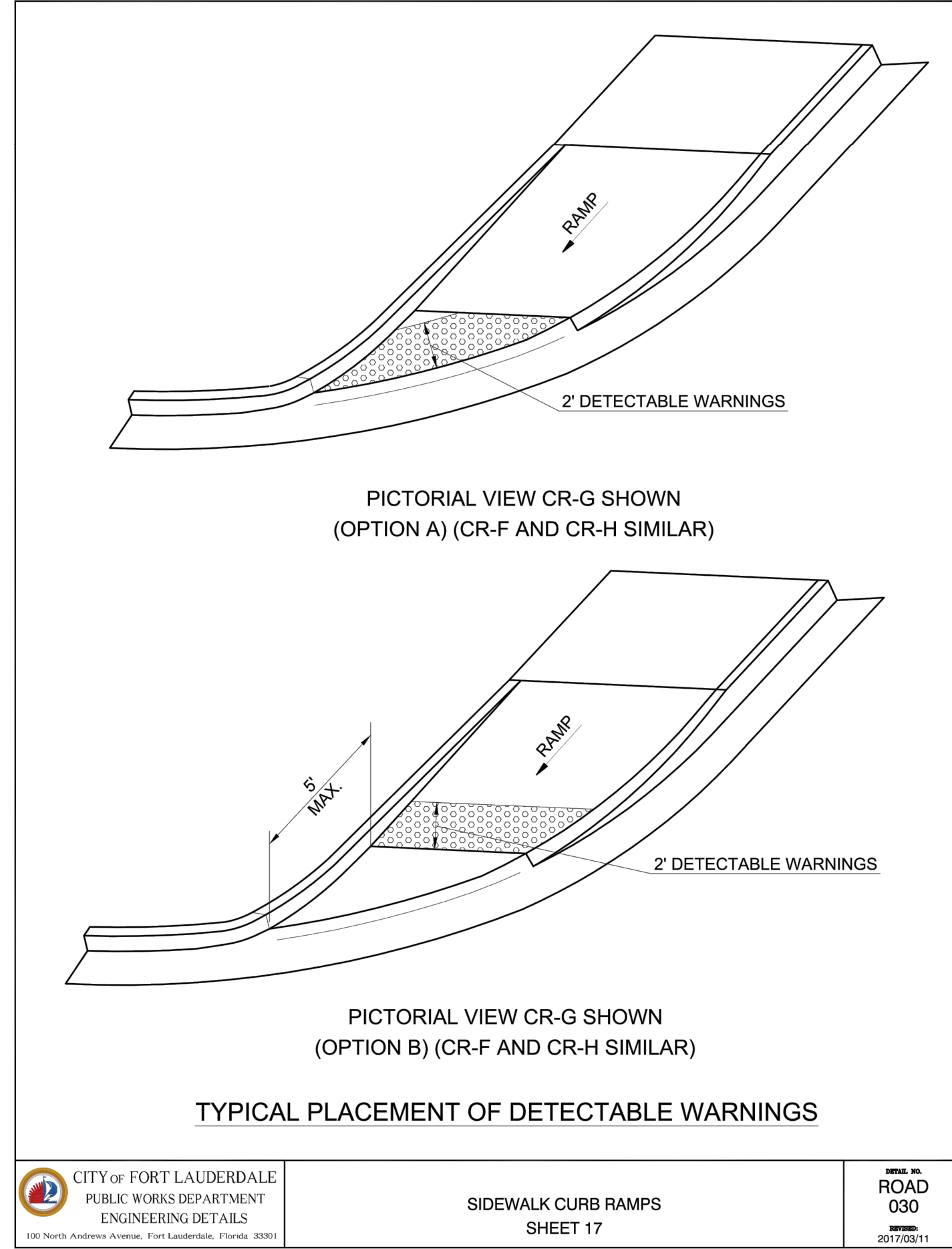
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4/5/2021



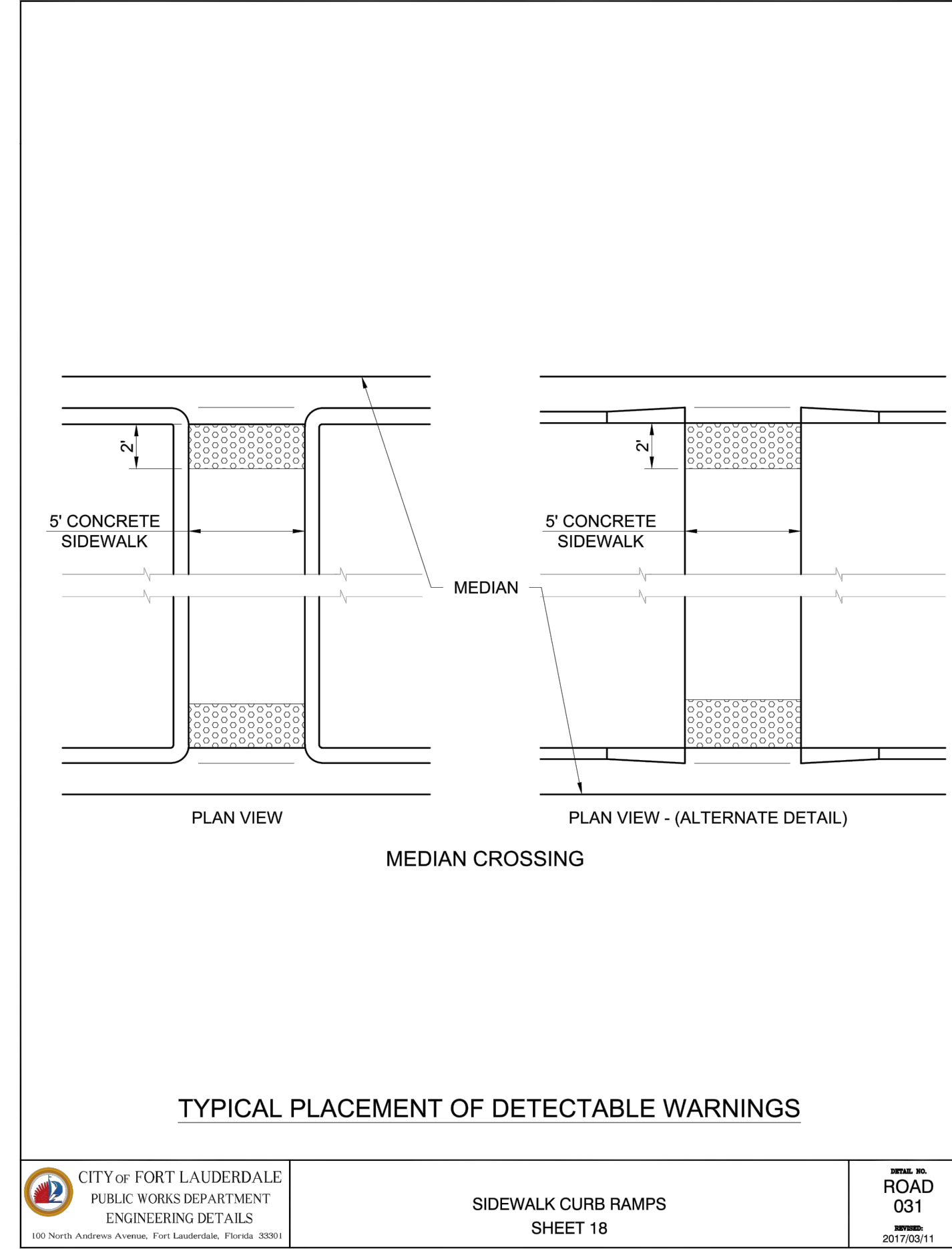
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8/20/2018 08:58:54 (8/20/18) Thursday, August 20, 2018



8/20/2018 08:58:54 (8/20/18) Thursday, August 20, 2018



8/20/2018 10:43:07 (8/20/18) Thursday, August 20, 2018

TABLE OF DETECTABLE WARNINGS		
CURB RAMP TYPE	CURB RADIUS (FT)	TOTAL AREA (SF)
CR-A	N/A	8
CR-B	N/A	8
CR-C	N/A	8
CR-D	25	11
CR-E	N/A	8
CR-F	10	9
	20	11
	25	13
	30	14
CR-G	10	10
	20	11
	25	12
	30	14
CR-H	20	8
	25	8
	30	8
CR-K	N/A	8
CR-L	10	18
	15	13
FLUSH SHOULDER OPTION A		
	10	11
	20	14
	25	15
	30	17
	40	19
	50	21
OPTION B		
	10	10
	20	10
	25	10

**NOTE:**  
DUE TO CONSTRUCTION APPLICATIONS, CR-L IS THE ONLY CURB RAMP FOR WHICH A DETECTABLE WARNING QUANTITY WAS CALCULATED USING A CURB RADIUS OF 15'.  
FOR FLUSH SHOULDER OPTIONS WITH 5' SIDEWALKS, THE BACK OF SIDEWALK IS MEASURED AT 10' FROM THE EDGE OF TRAVELED WAY.

**AREAS OF DETECTABLE WARNINGS FOR SIDEWALK CURB RAMP AND FLUSH SHOULDER APPLICATIONS**

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

**TABLE OF DETECTABLE WARNINGS**  
SHEET 20

**SPRINK. NO. ROAD 033**  
DATE: 2017/03/11

# 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. C200114

**CITY OF FORT LAUDERDALE**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & ARCHITECTURE

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

**DATE:** 01/07/2019  
**SCALE:** VERT 1"=2'  
HORZ 1"=20'  
**FIELD BOOK:** XXXX

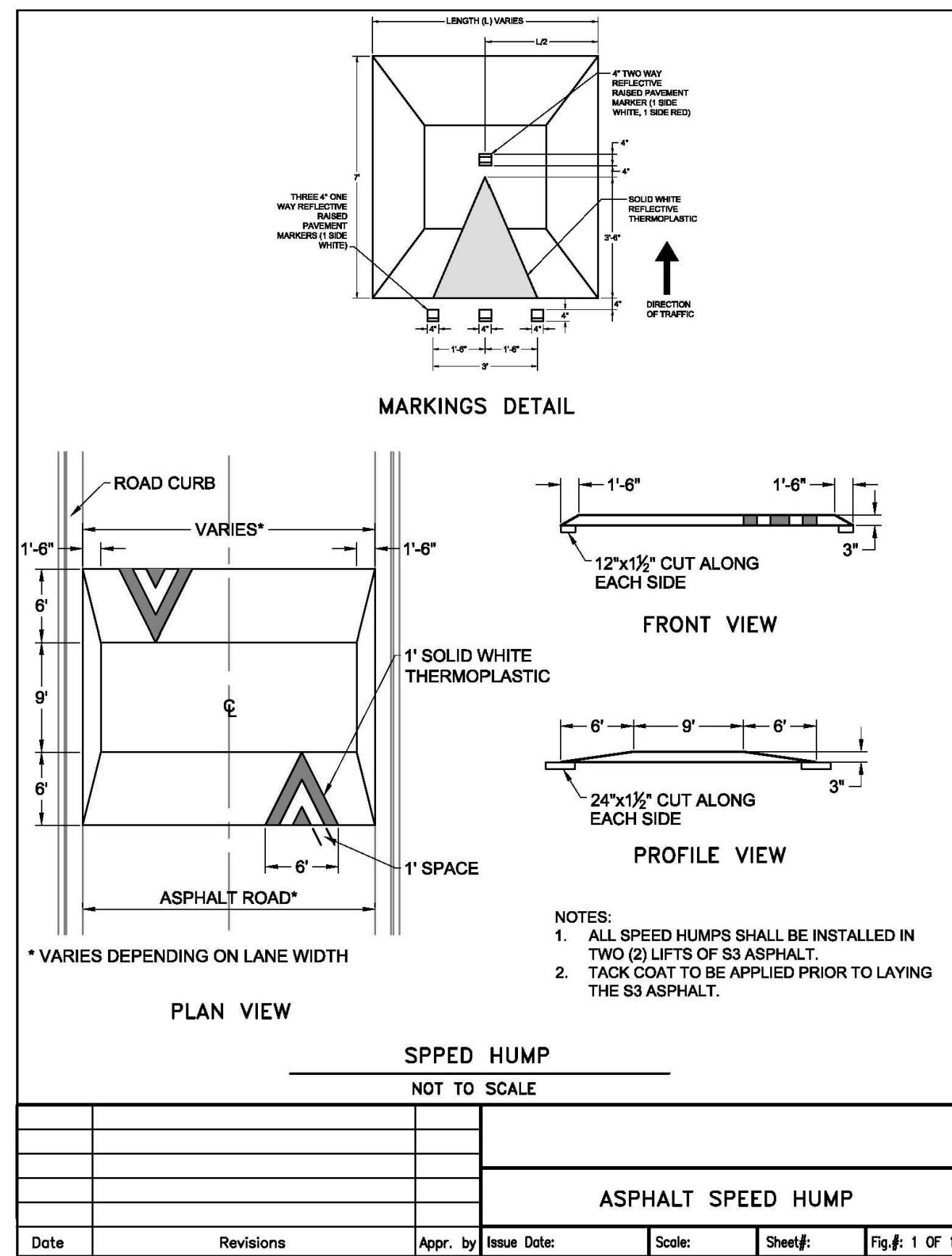
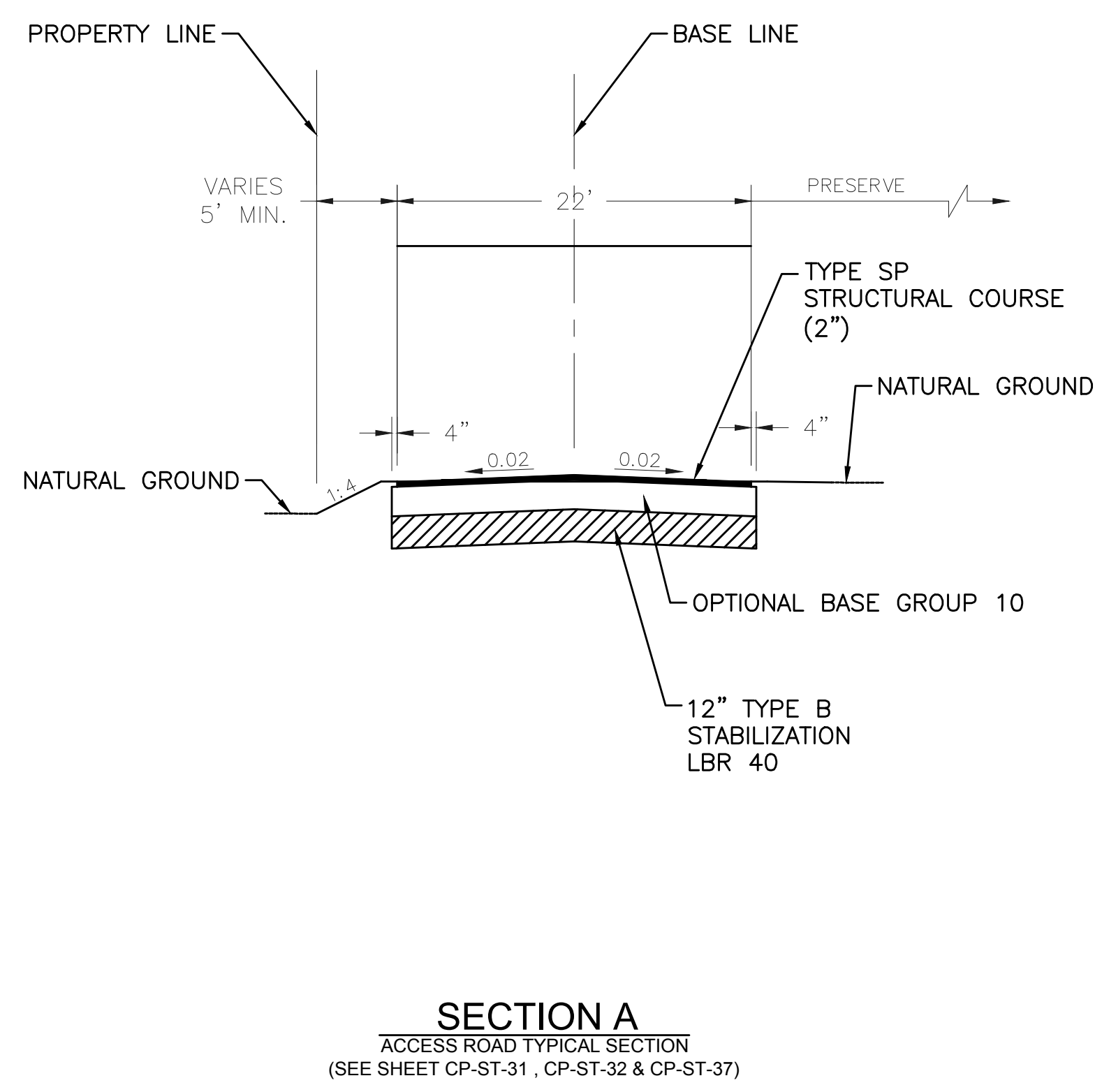
**CITY OF FORT LAUDERDALE**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & ARCHITECTURE  
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

NO.	DATE	BY	CHK'D	DESCRIPTION
1.	04/07/21	MR	ADIS	ADD #5 - REISSUED SHEET

**PROJECT # 11868**  
**STORMWATER IMPROVEMENTS**  
**RIVER OAKS NEIGHBORHOOD**  
**CITY STANDARD DETAILS PAVING**  
**AND GRADING - SHEET 7**

**SHEET NO.**  
**CZ-DT-18**  
**TOTAL:** 254  
**CAD FILE:** 11868-CZ-DT-18.22  
**DRAWING FILE NO.** 4-142-42

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Date	Revisions	Appr. by	Issue Date	Scale	Sheet#	Fig.#
						1 OF 1



# Hazen

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

Certificate of Authorization No: 2771

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3563 N.W. 53RD 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: 01/22/2021  
TEL: 954-987-0066  
FAX: 954-987-2949

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

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

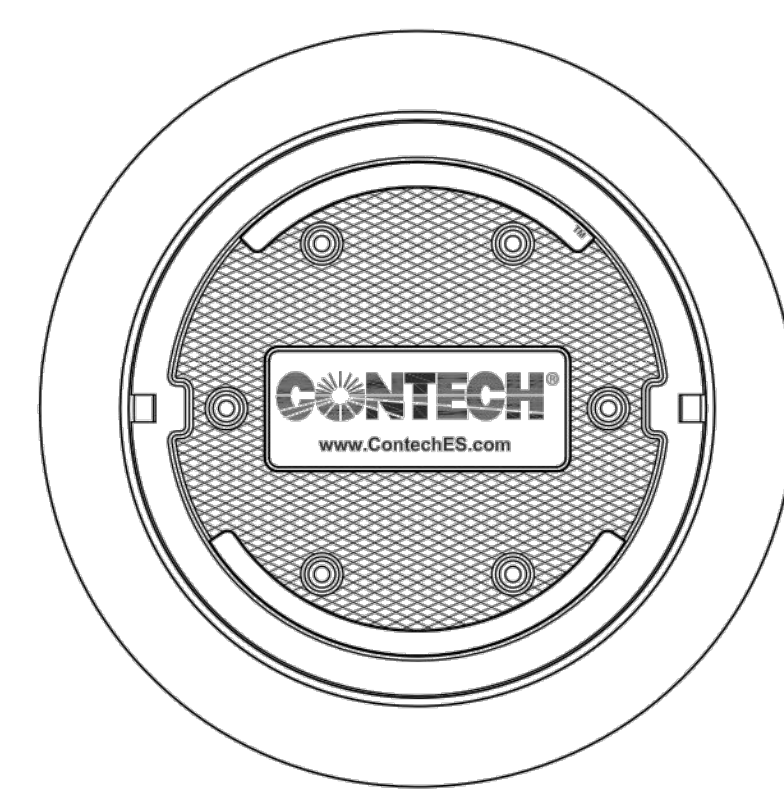
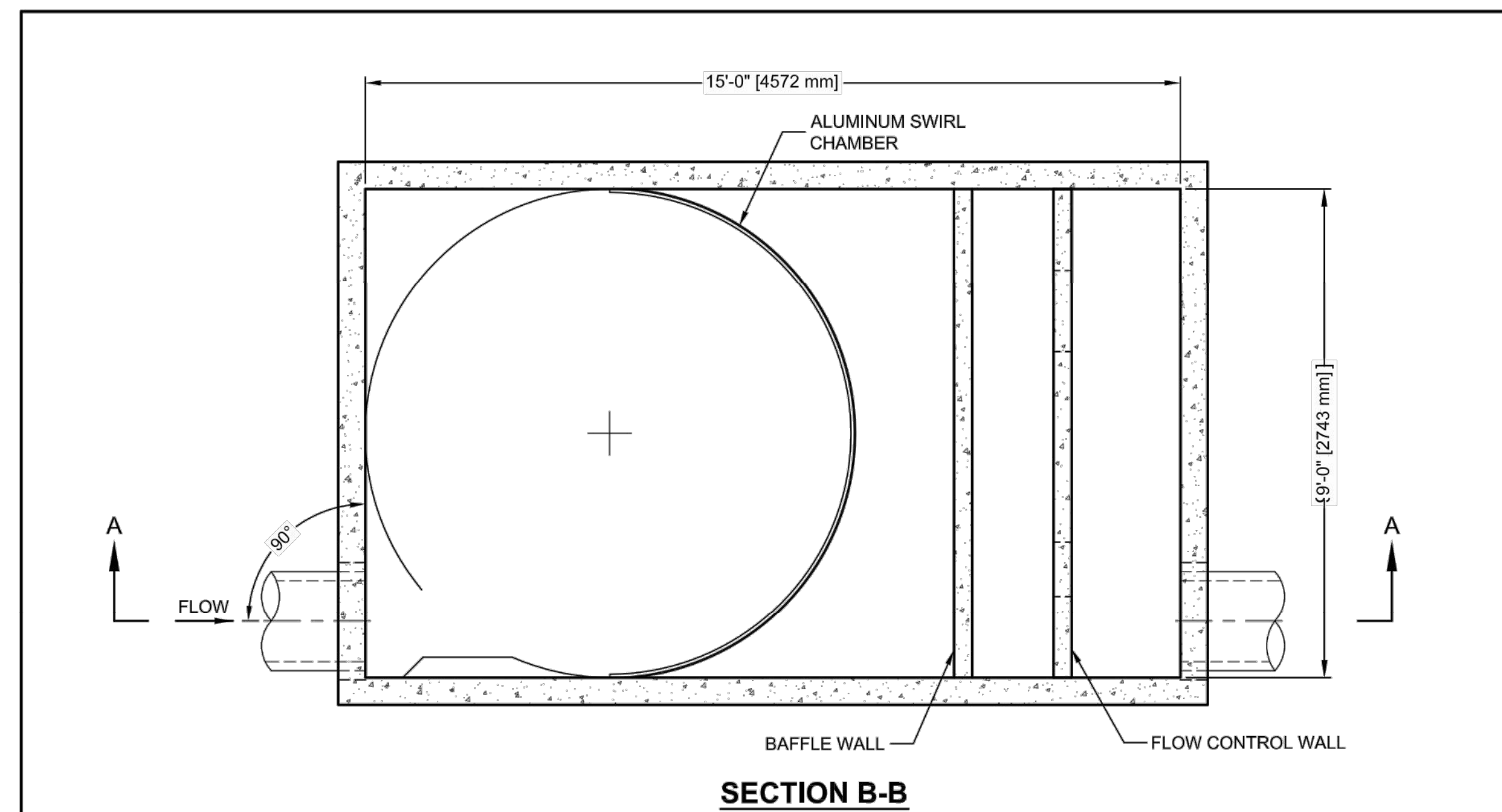
REVISIONS		DESCRIPTION
NO.	DATE	BY
1.	04/07/21	MR
		ADJ
		ADD
		ADD
		ADD

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

SHEET NO.  
**CZ-DT-20A**  
TOTAL: 254  
CAD FILE: 11868-CZ-DT20  
DRAWING FILE NO. 4-142-42

S491  
(FOR REFERENCE SEE SHEET CU-ST-33A)

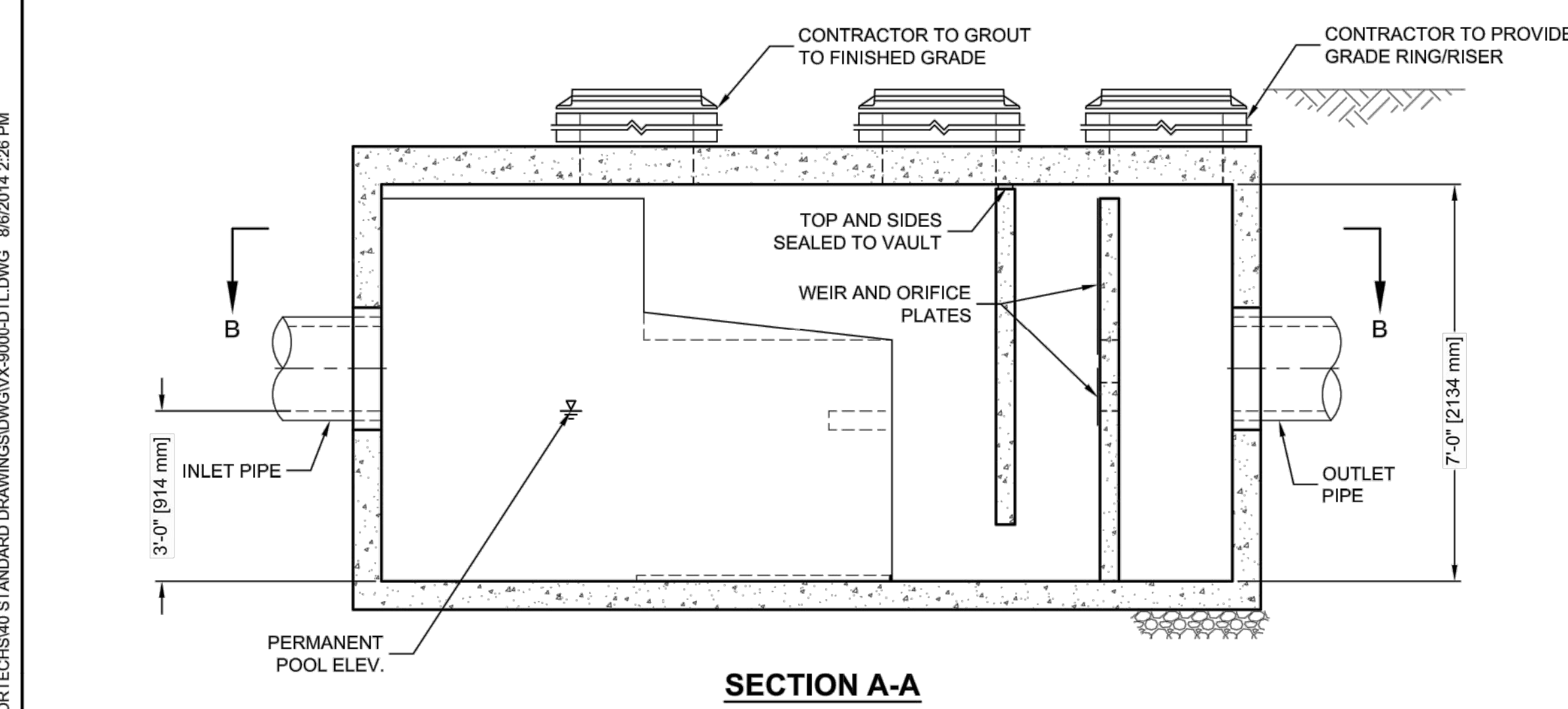
**VORTECHS 9000 DESIGN NOTES**  
VORTECHS 9000 RATED TREATMENT CAPACITY IS 14 CFS, OR PER LOCAL REGULATIONS. IF THE SITE CONDITIONS EXCEED RATED TREATMENT CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.  
THE STANDARD INLET/OUTLET CONFIGURATION IS SHOWN. FOR OTHER CONFIGURATION OPTIONS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. [www.ContechES.com](http://www.ContechES.com)



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

**SITE SPECIFIC DATA REQUIREMENTS**

STRUCTURE ID	*	
WATER QUALITY FLOW RATE (CFS)	*	
PEAK FLOW RATE (CFS)	*	
RETURN PERIOD OF PEAK FLOW (YRS)	*	
PIPE DATA:		
I.E.	MATERIAL	DIAMETER
INLET PIPE 1	*	*
INLET PIPE 2	*	*
OUTLET PIPE	*	*
RIM ELEVATION	*	
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT
	*	*
NOTES/SPECIAL REQUIREMENTS:		
* PER ENGINEER OF RECORD		



- 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.ContechES.com](http://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).
  - CONTRACTOR TO INSTALL 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.



**CONTECH**  
ENGINEERED SOLUTIONS LLC  
[www.ContechES.com](http://www.ContechES.com)  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122 513-645-7000 513-645-7993 FAX

VORTECHS 9000  
STANDARD DETAIL

I:\COMM\CAD\TREATMENT\20 VORTECHS\40 STANDARD DRAWINGS\DWG\X-9000-DTL.DWG 8/6/2014 2:26 PM

BID SET



# 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  
3563 N.W. 53RD STREET, FORT LAUDERDALE, FLORIDA 33309  
FAX: (954) 739-6409 TEL: (954) 739-6400  
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FLORIDA LICENSED LANDSCAPE ARCHITECTURE BUSINESS NO. C000114

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ENGINEER: PATRICK J. GIBNEY  
REG. NO. 49428  
DATE: 01/22/2021  
TEL: 954-987-0066  
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

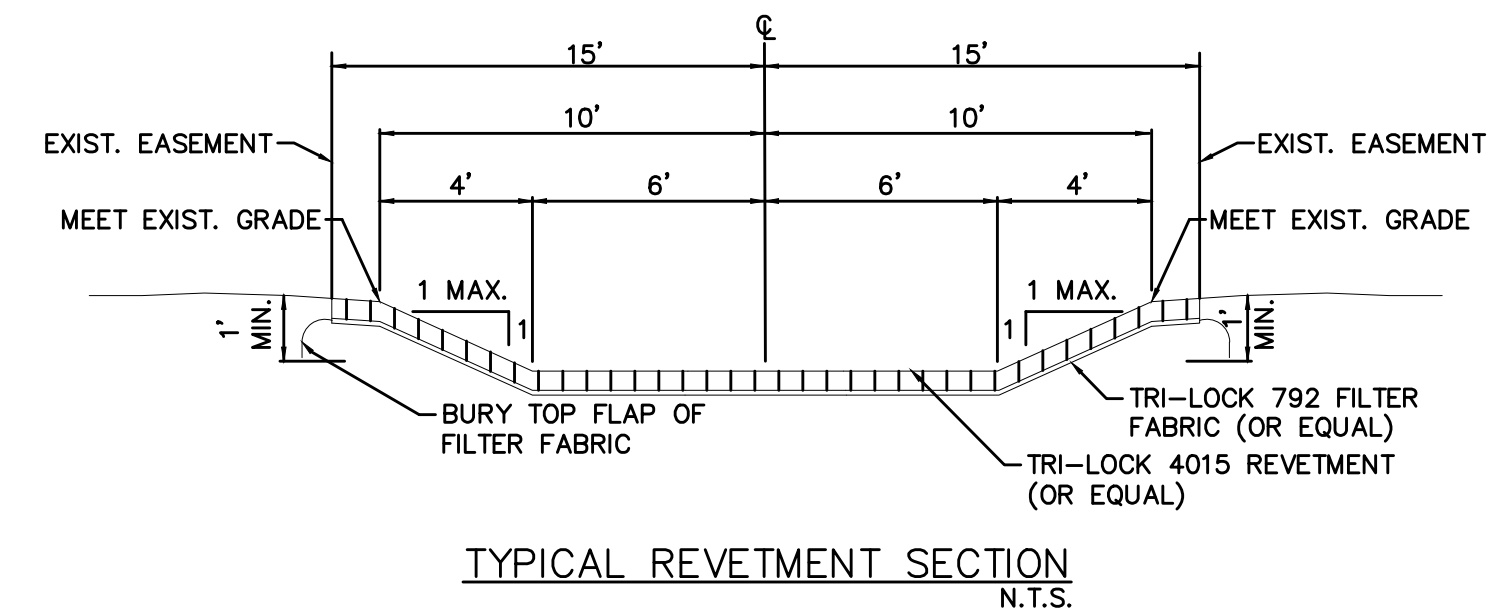
CITY OF FORT LAUDERDALE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & ARCHITECTURE  
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		DESCRIPTION
NO.	DATE	BY
1.	04/07/21	MR

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

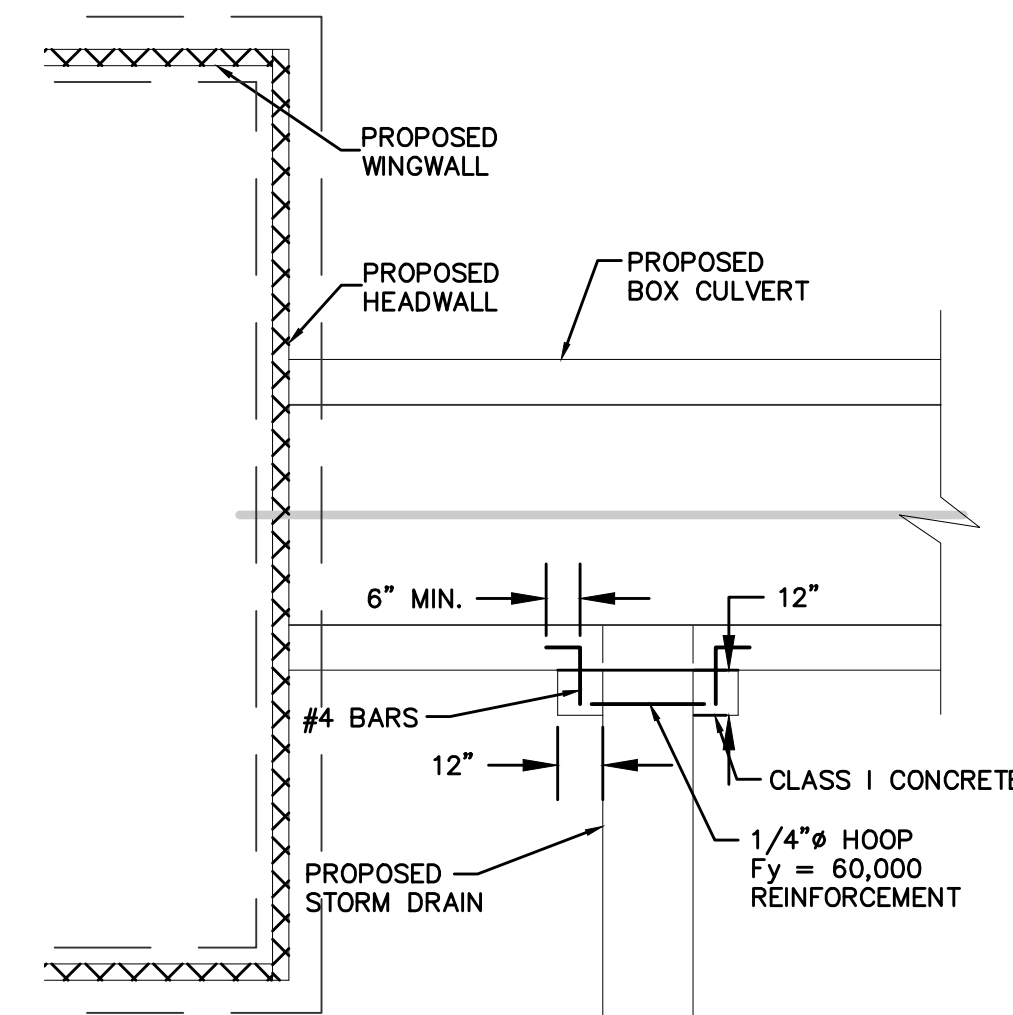
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TOTAL: 254  
CAD FILE: 11868-CZ-DT21  
DRAWING FILE NO. 4-142-42

BID SET

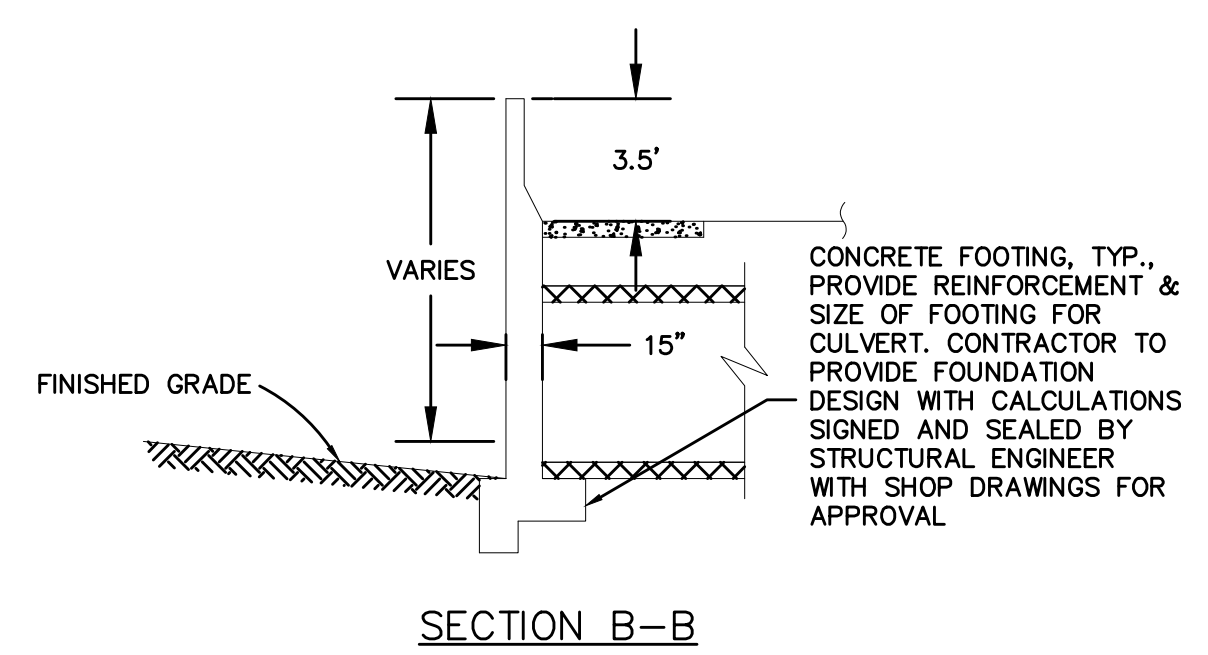


TYPICAL REVETMENT SECTION  
N.T.S.

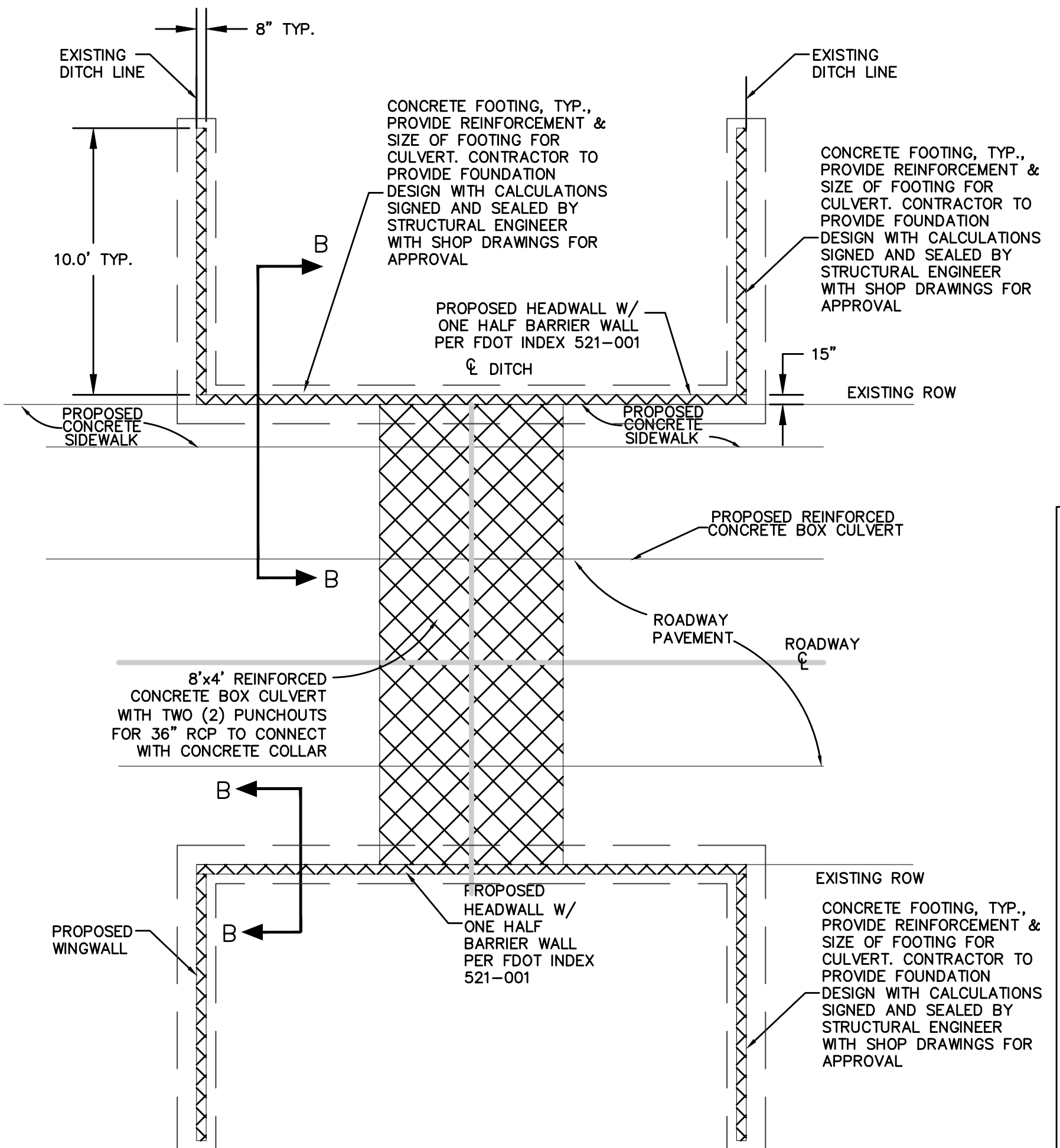
NOTES:  
1. CONTRACTOR TO PROVIDE SIGNED AND SEALED STRUCTURAL DESIGN & DETAILING OF FOOTINGS, ENDWALLS, WINGWALLS, BARRIER WALL, BARRIER WALL CONNECTIONS, ETC. FOR ALL CULVERT CROSSINGS.



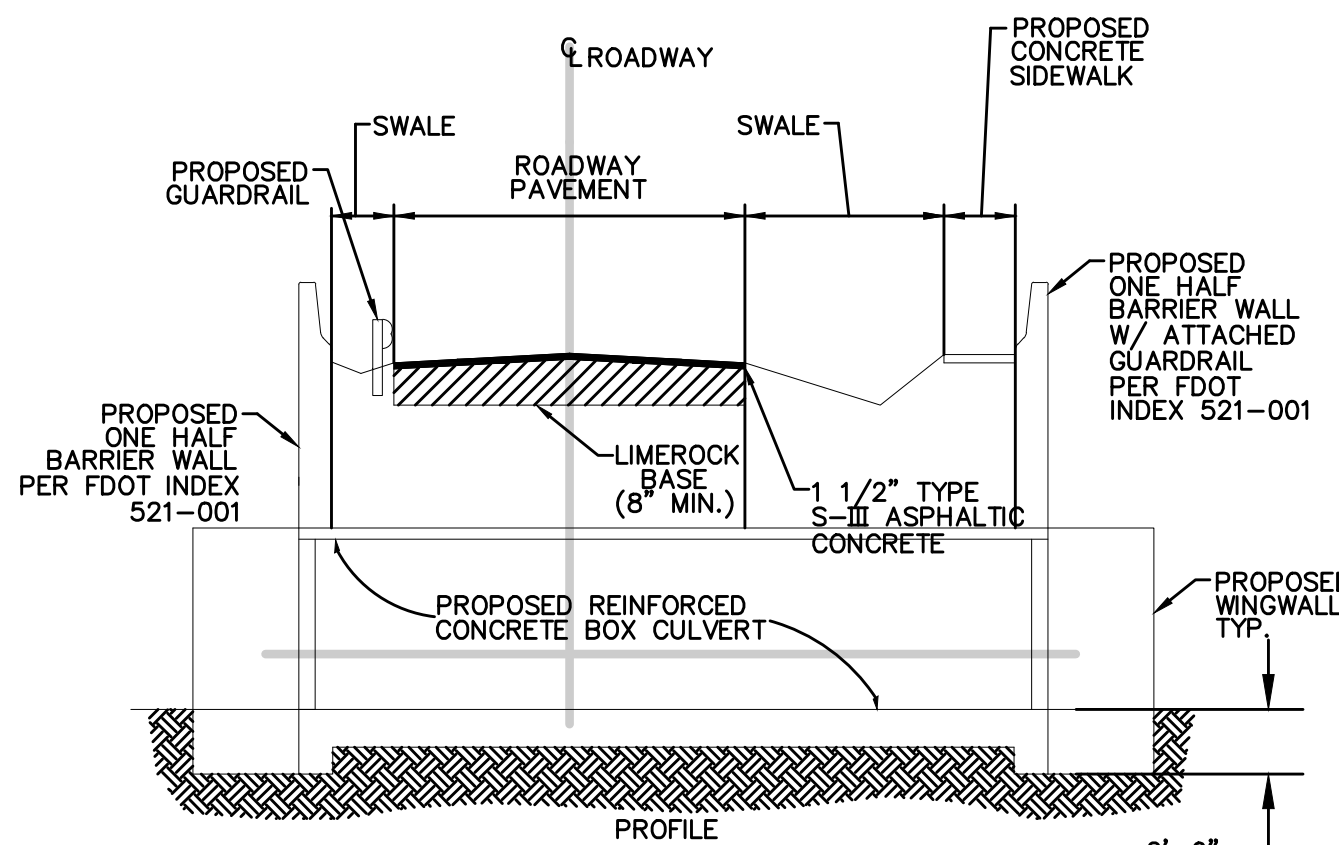
CONCRETE COLLAR FOR CONNECTING  
STORM DRAIN TO BOX CULVERT  
N.T.S.



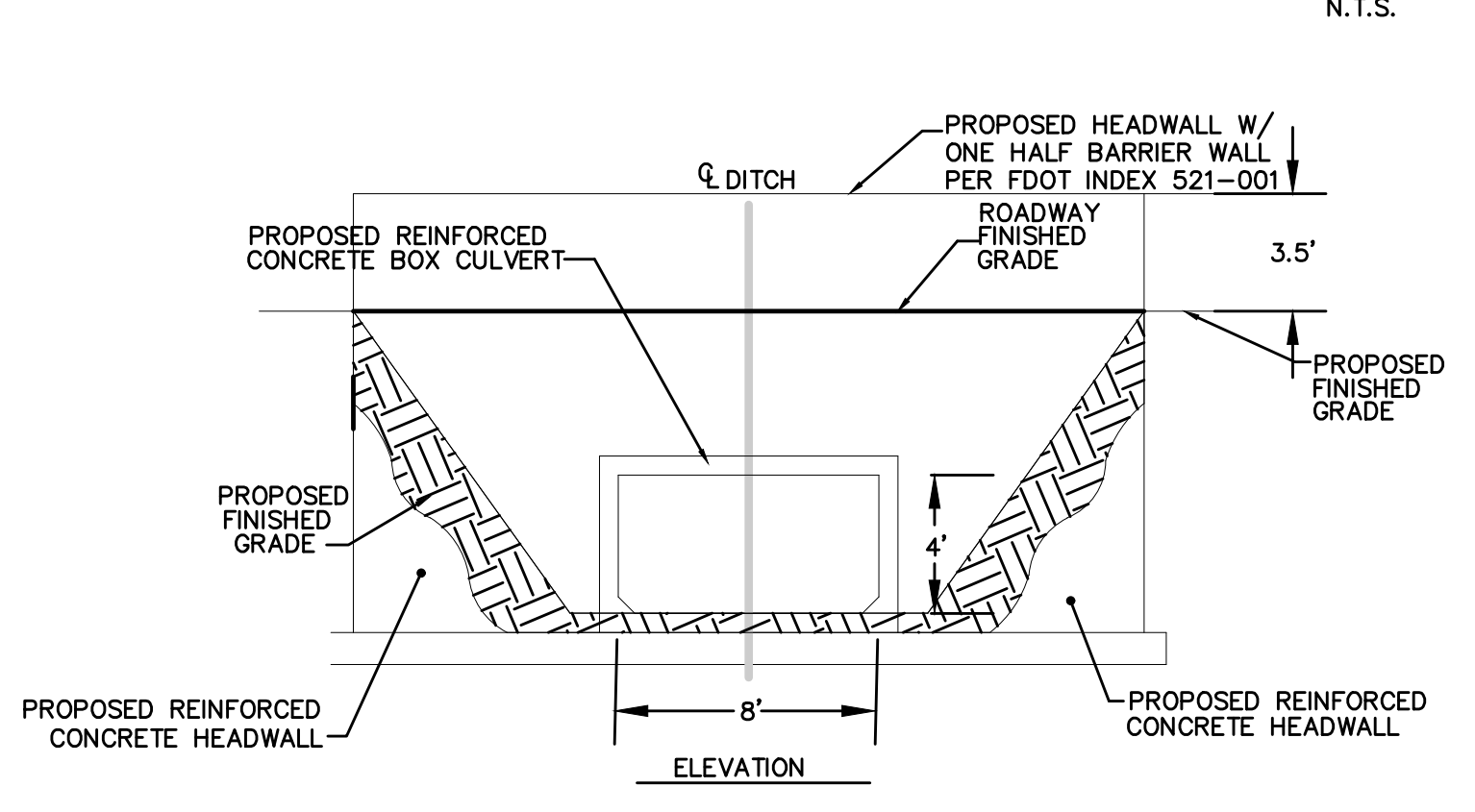
SECTION B-B



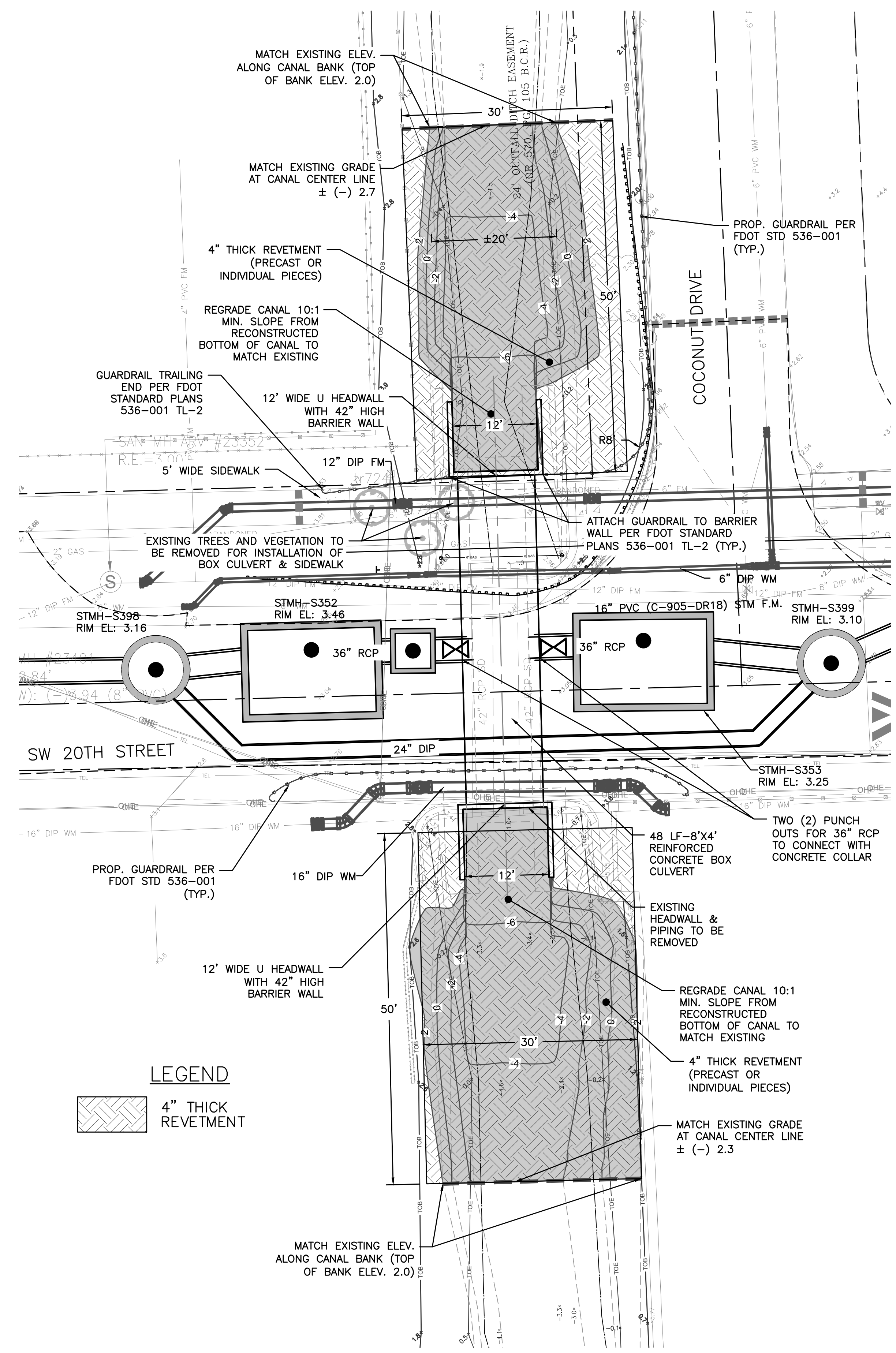
BOX CULVERT, HEADWALL, BARRIER WALL PLAN VIEW DETAIL - 90° WINGWALLS  
N.T.S.



CULVERT AND HEADWALL DETAILS  
N.T.S.



CULVERT AND HEADWALL DETAILS  
N.T.S.



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

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

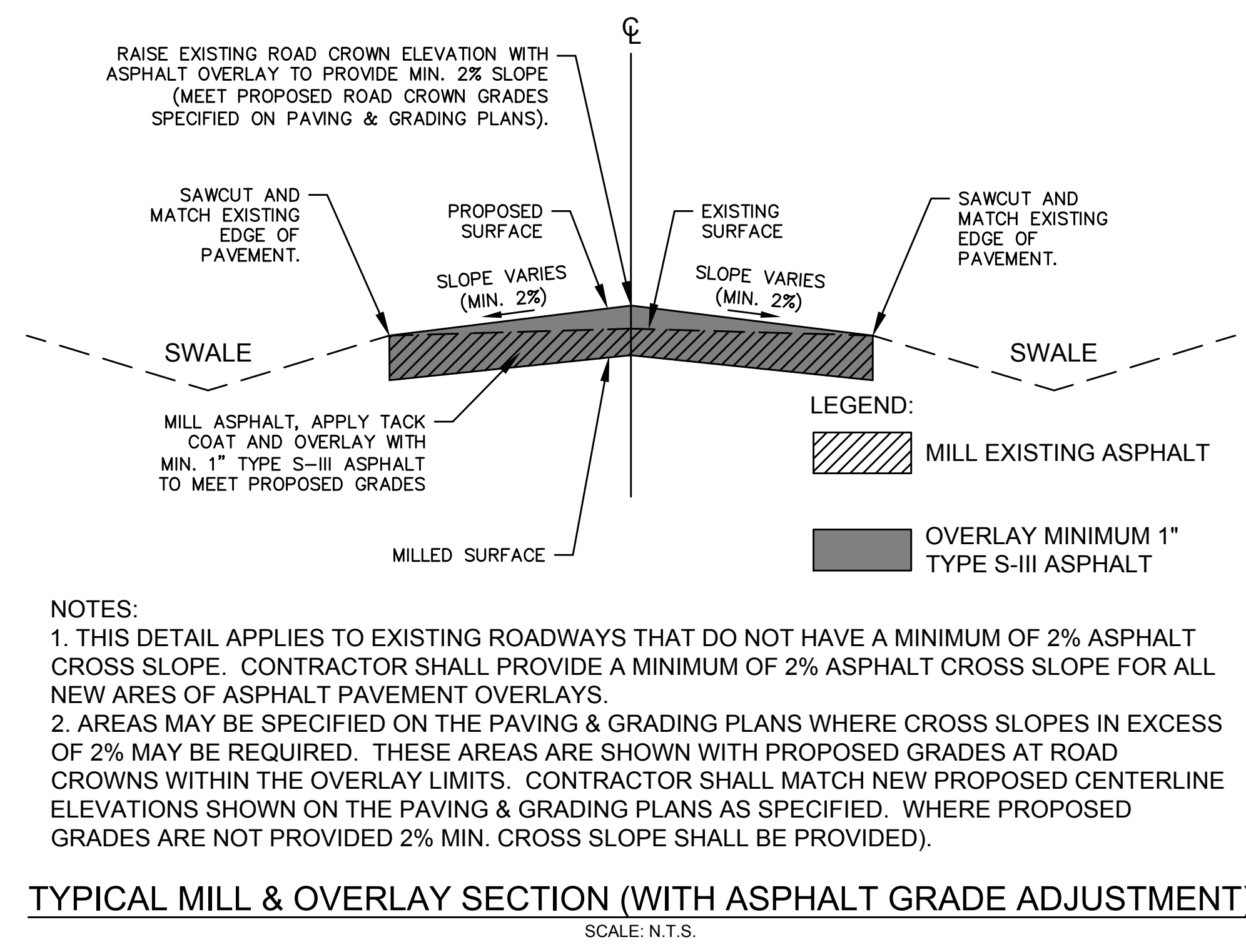
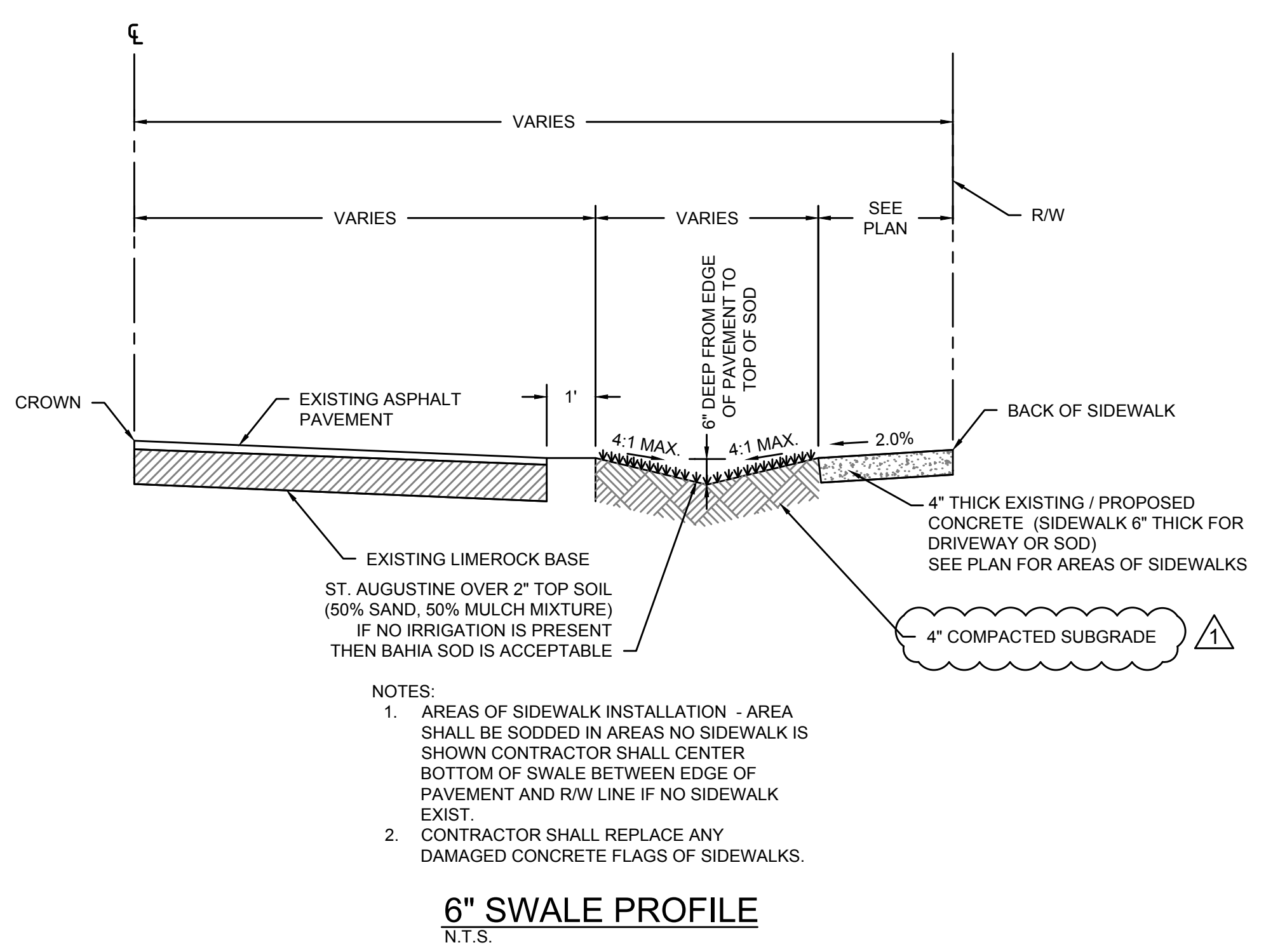
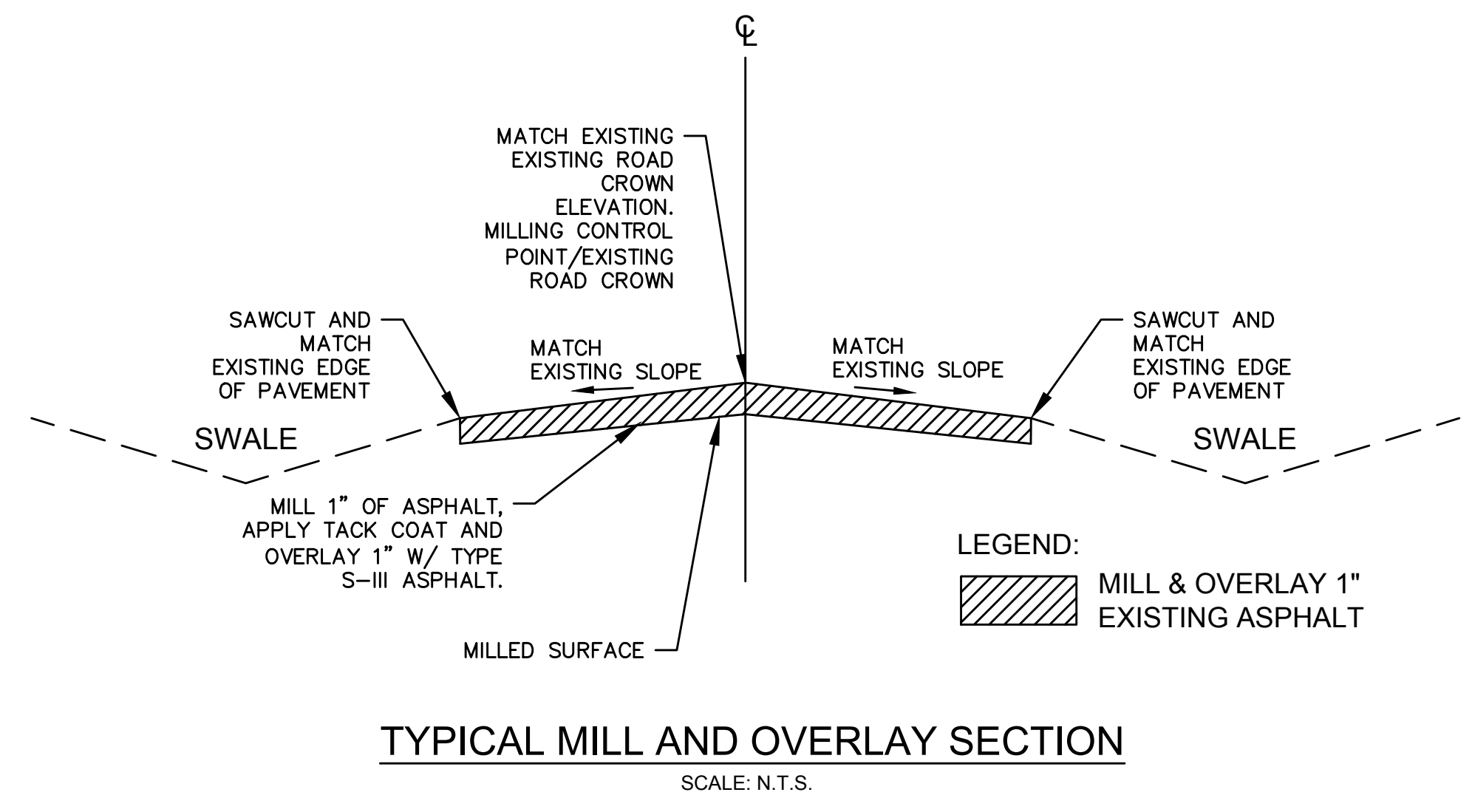
**CITY OF FORT LAUDERDALE**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & ARCHITECTURE  
100 North Andrews Avenue, Fort Lauderdale, Florida 33301

REVISIONS		NO.	DATE	BY	CHK'D	DESCRIPTION
1.	04/07/21	MR	ADS			ADD #5 - REISSUED SHEET

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

SHEET NO.  
**CZ-DT-22**  
TOTAL: 254  
CAD FILE:  
11868-CZ-DT-18&22  
DRAWING FILE NO.  
4-142-42

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4/7/2021





BID NO. 12505-613  
RIVER OAKS STORMWATER IMPROVEMENTS  
(P11868)

---

**ADDENDUM NO. 6**

ISSUED: May 3, 2021

---

This Addendum is to provide the following information as well as clarification/response to Question & Answer concerns submitted in Bidsync. It is hereby made a part of the Plans and Specifications and shall be included with all contract documents.

Acknowledge receipt of this Addendum by inserting its number and date on the CITB Construction Bid Certification Page.

- 1. BID OPENING:** Bid opening date has been changed **TUESDAY, MAY 18, 2021**.
- 2. REVISED/REPLACED:** Special Conditions Page, SC-3 (9), Bid Allowance, has been replaced (see attached). The Allowance description for **FPL Pole Holding** has been revised. Changes are indicated in **red**.
- 3. SUPPLEMENTAL INFORMATION:** As a supplement to the previous Bid Document Information, included in this Addendum No. 6 **for Informational Purposes Only**, are the For Construction Plans & Planting Responsibilities for City Project #11419 – River Oaks Stormwater Preserve.  
**NOTE:** It is **NOT** a part of Project #11868.
- 4. BID LINE ITEMS REVISED/ADDED:**

A list and description of the Bid Schedule revisions are detailed below:

- a. Bid Item Numbers were updated to match Measurement & Payment Section.
- b. Bid Item Numbers **130 & 131** were added to the Bid Schedule, for a total of 130 Bid Items.
- c. Bid Item Quantities were updated in accordance with the Plan Revisions for Addendum #6. There were changes to Bid Item Numbers: **8, 9, 14, 20, 27, 47, 48, 49, 50, 52, 54, 56, 58, 61, 63, 64, 65, 66, 67, 74, 85, 97** and **117**.



**BID LINE ITEMS REVISED/ADDED (continued):**

- d. Bid Item Description was updated for Bid Item Number **105**
- e. Bid Item No. **28** was deleted.

**3. REVISED SPECIFICATIONS:**

A list and description of Specification revisions are detailed below:

**a. Section 01025 – MEASUREMENT AND PAYMENT**

- i. All revisions were bolded for clarity.
- ii. Item No. 1 was revised to include video inspection of existing sanitary sewer facilities. Approximately 4,500 LF of video inspection will be required, with the final amount to be determined in the field.
- iii. Item No. 86 was revised to correct the Payment section reference to relocated fire hydrant.
- iv. Item No. 94 was revised to strikethrough and exclude the last sentence section b. "Temporary asphalt, as approved by the ENGINEER, will be paid under a separate pay item."
- v. Item No. 97 was revised to strikethrough and exclude the 4" Thick reference to the apron for Drainage Structures. Thickness shall be provided based on material and in accordance with Details.
- vi. Item No. 101 was revised to strikethrough and exclude Geogrid from Bid Item requirements.
- vii. Item No. 105 was revised to update the Bid Item description to reference 4" limerock base to match the design drawings and details.
- viii. Item No. 130 was added to the Section for the New Fire Hydrant.
- ix. Item No. 131 was added to the Section for the New Root Barrier.
- x. Allowance FPL Pole Holding was revised to include temporary and permanent Pole Relocations and to include an allowance to cover costs.

**4. REVISED/NEW DRAWINGS - PLAN SHEETS (attached)**

A list and description of Plan Revisions under Addendum #6 marked as Revision 2 and dated 4/26/21 is detailed below:

- a. Sheet #GG-GN-01B – ADDENDUM #6 REVISION SUMMARY
  - i. New sheet added to Bid Set.
  - ii. Sheet added to provide an outline of revisions & a description of all changes issued with Addendum #6.



**REVISED/NEW DRAWINGS - PLAN SHEETS** *(continued)*

- b. Sheet #GG-GN-02 – LIST OF DRAWINGS
  - i. Complete sheet update.
  - ii. 255 total sheets are now included in bid set & 19 sheets identified with a revision block number 2 for added, revised, removed or reissued under addendum #6 dated 4/26/21.
- c. Sheet #CU-SS-01 – SUMMARY OF STORMWATER STRUCTURES
  - i. Complete sheet update.
  - ii. Revised structure tables.
- d. Sheet #CU-SS-02 – SUMMARY OF STORMWATER STRUCTURES
  - i. Complete sheet update.
  - ii. Revised structure tables.
- e. Sheet #CU-SP-01 – SUMMARY OF STORMWATER PIPES
  - i. Complete sheet update.
  - ii. Revised pipe tables.
- f. Sheet #CU-SP-02 – SUMMARY OF STORMWATER PIPES
  - i. Complete sheet update.
  - ii. Revised pipe tables.
- g. Sheet #CU-ST-31B – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Provided dimensions for diversion bypass vault included with S378 (plan now shows inner dimension of vault at 9'x14'), provided additional sheet piling for installation adjacent to embankment, revisions made in plan & profile.
- h. Sheet #CU-ST-32A – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Removed structure #S74 and shifted piping away from existing gazebo in preserve park.
  - iii. Added additional sheet piling for installation under existing boardwalk.
  - iv. Added notes for requirements of contractor for pipe installation under boardwalk & required modifications to boardwalk.
  - v. Provided new alignment for proposed 6" DIP water wain & removed proposed 6" water main crossing & updated profile.
- i. Sheet #CU-ST-37A – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Provided additional sheet piling for installation adjacent to embankment.



**REVISED/NEW DRAWINGS - PLAN SHEETS** *(continued)*

- j. Sheet #CU-ST-38A – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Removed structure #S74 and shifted piping away from existing gazebo in preserve park.
  - iii. Added additional sheet piling for installation under existing boardwalk.
  - iv. Added notes for requirements of contractor for pipe installation under boardwalk & required modifications to boardwalk.
  - v. Updated proposed 6" water main crossing & updated profile.
- k. Sheet #CU-ST-38B – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Shifted piping away from existing gazebo in preserve park.
  - iii. Added additional sheet piling for installation under existing boardwalk.
  - iv. Added notes for requirements of contractor for pipe installation under boardwalk & required modifications to boardwalk.
  - v. Updated proposed 6" water main alignment & removed crossing in plan & profile.
- l. Sheet #CU-ST-39A – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Revised plan to show slight shift to 66" RCP alignment & revised dimensions.
- m. Sheet #CU-ST-39B – STORM DRAINAGE PLAN & PROFILE
  - i. Complete sheet update.
  - ii. Revised plan to show slight shift to 66" RCP alignment & revised dimensions.
- n. Sheet #CU-UR-08 – UTILITY RELOCATION PLAN
  - i. Complete sheet update.
  - ii. Revised plan to show revised 6" DIP water main alignment & connection details.
- o. Sheet #CU-3C-03 – PUMP STATION PROPOSED SITE PLAN
  - i. Complete sheet update.
  - ii. Revised plan to show update to electrical panel information, gravel area, bollard location, water quality structure orientation.
- p. Sheet #CZ-DT-13 – WATER QUALITY CONTROL STRUCTURE DETAILS
  - i. Revised sheet to remove detail ROAD 039 & revise detail GREN 012 to include a 24" minimum storage layer.



**REVISED/NEW DRAWINGS - PLAN SHEETS** *(continued)*

- q. Sheet #CZ-DT-18 – WATER QUALITY CONTROL STRUCTURE DETAILS
  - i. Revised sheet to provide driveway paver detail & header curb detail.
- r. Sheet #CZ-DT-19 – WATER QUALITY CONTROL STRUCTURE DETAILS
  - i. Provided dimensions for diversion bypass vault included with #S378 (Structure now shows inner dimensions of 9'x14')
- s. Sheet #C-03 – WATER MAIN EXTENSION PLAN
  - i. Revised sheet to provide updated proposed 6" DIP water main alignment & connection details, eliminated crossing with proposed 66" RCP.

All other terms, conditions, and specifications remain unchanged.

*Maureen Lewis, MBA, P2P2B*  
Senior Procurement Specialist

Company Name: \_\_\_\_\_  
(please print)

Bidder's Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**08. SPECIFIC EXPERIENCE REQUIRED**

The following expertise is required to be considered for this Contract. Specific references attesting to this expertise must be submitted with the bid response.

The contractor shall have previous construction experience in constructing: storm water drainage pipe ranging from 12 inches to 72 inches, pump station installation, Cured-In- Place Pipe (CIPP) pipe lining, and water main pipe installation ranging from 6 inches to 12 inches 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) 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.

**NOTE: REFERENCES SHALL NOT INCLUDE ONLY CITY OF FORT LAUDERDALE EMPLOYEES OR WORK PERFORMED FOR THE CITY. THE CITY IS ALSO INTERESTED IN WORK EXPERIENCE AND REFERENCES FROM ENTITIES OTHER THAN THE CITY OF FORT LAUDERDALE.**

*By signing this bid solicitation, contractor is affirming that this expertise will be provided for this Contract at no additional charge.*

**09. BID ALLOWANCE**

**Allowance for permits:** Payments will be made to the contractor based on the actual cost of permits upon submission of paid permit receipts. The City shall not pay for other costs related to obtaining or securing permits.

The amount indicated is intended to be sufficient to cover the entire project. If the City's permit fees exceed the allowance indicated, the City will reimburse the contractor the actual amount of the City's permit fees required for project completion.

Allowances	\$
Tree Protection, Tree Removal and Landscaping Restoration Within City Rights-of-Way.	<b>\$ 150,000.00</b>
Contaminated Site Dewatering Services	<b>250,000.00</b>
Permit and Licenses Fee	<b>850,000.00</b>
FPL Pole Holding <b>and Pole Relocation</b>	<b>150,000.00</b>
Gas Service Relocations	<b>375,000.00</b>
Sanitary Sewer main Relocations	<b>250,000.00</b>
Water & Force Main Relocations	<b>250,000.00</b>
Material Testing	<b>75,000.00</b>
Removal and Disposal of Unsuitable/Contaminated Soil	<b>300,000.00</b>
Furnish and Place Additional Suitable Backfill Material	<b>200,000.00</b>
<b>FPL Service &amp; Fee</b>	<b>100,000.00</b>
<b>TOTAL</b>	<b>\$2,950,000.00</b>

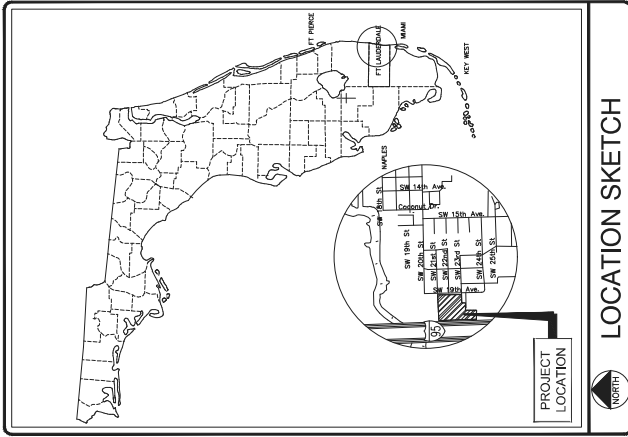
**Note: The City will add this allowance to your bid.**



**SUPPLEMENTAL INFORMATION**  
**FOR INFORMATIONAL PURPOSE ONLY**

**P11419**  
**RIVER OAKS STORMWATER PRESERVE**  
**CONSTRUCTION PLANS**





PROJECT #11419  
RIVER OAKS  
STORMWATER PRESERVE

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

FORT LAUDERDALE CITY COMMISSION

MAYOR  
JOHN P. JACK SEILER  
COMMISSIONER - DISTRICT I  
BRUCE G. ROBERTS  
COMMISSIONER - DISTRICT II  
DEAN J. TRANTALIS  
COMMISSIONER - DISTRICT III  
ROBERT L. MCKINZIE  
COMMISSIONER - DISTRICT IV  
ROMNEY ROGERS

FOR TITLE  
VICE PRESIDENT ENGINEERING 864-739-6400

PROJECT MANAGER  
PATRICK J. GIBNEY, P.E.

DATE: 01/10/2019  
JOB FILE: 11419-COVER  
DRAWING FILE No.: 4-135-81



CITY OF FORT LAUDERDALE

PROJECT # 11419  
STORMWATER IMPROVEMENTS  
RIVER OAKS STORMWATER PRESERVE  
FORT LAUDERDALE, FLORIDA

FOR  
INFORMATION  
PURPOSES ONLY  
NOT A PART OF  
PROJECT #11868

CHAPPELL ENGINEERING AND ASSOCIATES, INC.  
10000 W. BIRCHWOOD DRIVE, SUITE 200  
FORT LAUDERDALE, FLORIDA 33309  
PHONE: 954.345.8888 FAX: 954.345.8889  
WWW.CHAPPELLGROUP.COM

Chappell GROUP  
Environmental Consultants  
Mapping & Wetland  
Mitigation Design &  
Regulatory Services  
10000 Birchwood Drive, Suite 200  
Fort Lauderdale, FL 33309  
Tel: 954.345.8888 Fax: 954.345.8889  
www.chappellgroup.com



DRAWING INDEX	
NO.	DESCRIPTION
GENERAL	
G-01	COVER SHEET
G-02	GENERAL NOTES
SURVEY	
SG-01	SURVEY COVER & NOTES
SU-01	SURVEY PLAN
SU-02	DETAIL SHEET
SU-03	DETAIL SHEET
SU-04	DETAIL SHEET
SU-05	DETAIL SHEET
SU-06	DETAIL SHEET
SU-07	TREE CHART
SITE PLAN	
TD-1	NATIVE TREE EXHIBIT
TD-2	NATIVE TREE DISPOSITION PLAN - SHEET 1
TD-3	NATIVE TREE DISPOSITION PLAN - SHEET 2
TD-4	PLANTING PLAN
T-1	TREE EXHIBIT
C-1	EXISTING CONDITIONS
C-2	PROPOSED CONDITION
C-3	DREDGE & FILL
C-4	STORMWATER DRAINAGE PLAN
C-5	BOARDWALK GRADING PLAN
C-6	SECTION A & B
C-7	SECTION C
C-8	SECTION D
C-9	SECTION E
C-10	SECTION F
C-11	SECTION G
C-12	STORMWATER DETAILS
C-13	STORMWATER DETAILS
C-14	EROSION CONTROL DETAILS
C-15	EROSION CONTROL PLAN
CITY STANDARD DETAILS	
DT-1	DEMOLITION NOTES - SHEET 1
DT-2	DEMOLITION NOTES - SHEET 2
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DT-4	EROSION CONTROL NOTES - SHEET 1
DT-5	EROSION CONTROL NOTES - SHEET 2
DT-6	EROSION CONTROL NOTES - SHEET 3
STRUCTURAL	
S-0.00	STRUCTURAL NOTES
S-2.00	PARTIAL MAIN DECK LAYOUT PLAN - AREA 'A'
S-2.01	PARTIAL MAIN DECK LAYOUT PLAN - AREA 'B'
S-3.00	SECTIONS AND DETAILS
S-4.00	3D VIEWS



**GENERAL NOTES:**

1. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
2. REFER TO SPECIFICATION SECTION 01007 AND 01220 FOR DETAILED REQUIREMENTS FOR SEVERE OF CONSTRUCTION AND CONSTRUCTION CONSTRAINTS.
3. ASSURANCE HAS BEEN PROVIDED BY SITE SURVEY PREPARED CRAWEN THOMPSON & ASSOCIATES, INC.
4. METRIC DRAWINGS 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: XXXXX. RECORD DRAWINGS MAY BE OBTAINED FROM THE OWNER UPON REQUEST.
5. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND LOCATIONS OF UTILITIES AND STRUCTURES TO BE EXPOSED AND REPORT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO THE COMMENCEMENT OF WORK.
6. CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FROM THE APPROPRIATE AUTHORITIES, DEPARTMENTS, AND/OR AGENCIES HAVING JURISDICTION PRIOR TO COMMENCING WORK.
7. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND/OR DAMAGE.
8. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE RECORD DRAWINGS AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
9. UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE TO EXISTING UTILITIES. REQUEST UNDERGROUND UTILITY LOCATION MARK-OUT AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BUREAU OF UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
10. CONTRACTOR SHALL REPLACE SURROUNDING LAND COVER AFFECTED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION.
11. ACTIVITIES, INCLUDING BUT NOT LIMITED TO, PAVING, SIDEWALK, SOD, AND LANDSCAPING, TO EXISTING UTILITIES, STRUCTURES, AND UTILITIES SHALL BE DEMOLISHED OR REMOVED. ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES, AND UTILITIES NOT INDICATED TO BE DEMOLISHED OR REMOVED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
12. WHERE PROPOSED WORK IS IN THE VICINITY OF UTILITY POLES, SUCH THAT SUPPORT OF THE POLES WILL BE REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY OWNERS AND OBTAINING THE NECESSARY PERMITS AND COORDINATE WITH THE UTILITY FOR SUPPORT OF THE POLE.
13. DURING EXCAVATION AND PLACEMENT OF UTILITIES THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY REGULATIONS AND SHALL SUBMIT TO THE ENGINEER FOR APPROVAL ALL SAFETY REGULATIONS AND/OR BRACING DESIGNS AS MAY BE NECESSARY TO MAINTAIN THE STABILITY OF EXISTING UTILITIES AND STRUCTURES.
14. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL DEBRIS GENERATED DURING THE PROJECT OFF SITE AT A PROPERLY PERMITTED DISPOSAL FACILITY.
15. FOR REFERENCE MONUMENTS, SEE SURVEY DRAWING.
16. THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
17. THE UNDERGROUND CONTRACTOR SHALL MINIMIZE THE WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION, SOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY OR SHOULDER WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
18. ALL RESTORATION SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
19. ALL LOOP DETECTORS, COMMUNICATION CABLES AND CONDUITS, IF DAMAGED BY THE CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH SOCIETY AND FOOT REQUIREMENTS.
20. EXISTING AND PROPOSED SIGNAGE SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
21. RESULTANT SEATED GATE VALVES WITH BEVEL TYPE GEAR SHALL BE INSTALLED IN HORIZONTAL ORIENTATION WHEN LESS THAN 7'-FEET OF COVER FROM TOP OF PIPE IS PRESENT OR AS OTHERWISE SPECIFICALLY SPECIFIED IN THE CONTRACT DRAWINGS.

22. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE TO ANY PIPE HYDRANT OR BLOW-OFF STRUCTURE WITHOUT FIRST OBTAINING THE PERMISSION AND A CONSTRUCTION PERMIT FROM THE CITY OF FORT LAUDERDALE.
23. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING, MOVING AND RELOCATING OR REPLACING ALL WATER SERVICES OR SEWER LATERALS WHICH ARE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS BUT NO MORE THAN TEN (10) WORKING DAYS PRIOR TO CONTACT AND REQUEST UTILITY LOCATION MARK-OUT FROM BUREAU OF UTILITY OWNERS WITH UTILITIES ON THE PROJECT SITE THAT ARE NOT PARTICIPANTS OF SUNSHINE 811.
24. STATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE ESTABLISHED BASELINE AND MEASURED AS DISTANCES OR AS A MEASURE OF THE LINEAR FOOTAGE OF PIPE TO BE INSTALLED.
25. THE GENERAL INTENT IS TO PROVIDE SEWER SERVICE LATERALS FOR EACH PROPERTY. ALL LATERAL LOCATIONS SHALL BE FIELD ADJUSTED.
26. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAY SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
27. TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS SHALL NOT BE LEFT OPEN DURING NIGHT TIME HOURS WITHOUT ADEQUATE PROTECTION.
28. CONTRACTOR SHALL PROMPTLY REPAIR AND RESTORE EXISTING PAVEMENT, SIDEWALKS, CURBS, ETC. AND LANDSCAPE AREAS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
29. CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AS REQUIRED BY AGENCIES HAVING JURISDICTION OVER THE PROJECT AND/OR WHEN REQUIRED FOR PUBLIC SAFETY.
30. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF WORK, FOR THE PROTECTION OF EXISTING AND PROPOSED UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
31. LOCATION OF AIR RELEASE VALVES MAY BE FIELD ADJUSTED BY THE ENGINEER OR CITY OF FORT LAUDERDALE AS NECESSARY.
32. CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITY CASTINGS INCLUDING VALVE CASTINGS AND MANHOLES. ALL EXISTING WORK SHALL BE REPAIRED AND/OR REPLACED IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION OVER THE RIGHT-OF-WAY WHERE THE PROJECT IS CONSTRUCTED.
33. EXISTING TRAFFIC SIGNALS SHALL BE RESET UPON COMPLETION PER BROWARD COUNTY TRAFFIC ENGINEERING STANDARDS. COST SHALL BE CONSIDERED INCIDENTAL. CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED TRAFFIC SIGNAL LOOPS PER BROWARD COUNTY TRAFFIC ENGINEERING SPECIFICATIONS. COST SHALL BE CONSIDERED INCIDENTAL.
34. CONTRACTOR SHALL RESTORE EXISTING PAVEMENT AND PAVEMENT MARKINGS/SIGNAGE TO ORIGINAL SPECIFIED IN CONTRACT DOCUMENTS. THIS WORK SHALL BE CONSIDERED INCIDENTAL.
35. ALL CONSTRUCTION WITHIN FOOT 6/A MUST CONFORM WITH FOOT 6/A STANDARDS AND PERMIT REQUIREMENTS. NO WORK SHALL COMMENCE WITHIN FOOT 6/A WITHOUT AN FOOT PERMIT. FULL LANE WIDTH RESTORATION TO MATCH EXISTING PAVEMENT WITHIN FOOT 6/A.

**CHAPPPELL GROUP**  
 714 East Lake Road, Suite 2000  
 Fort Lauderdale, FL 33309  
 Tel: 954-333-3333  
 Fax: 954-333-3333  
 www.thechappellgroup.com

• Environmental Consultations  
 • Storm & Wetland  
 • Utility Relocation  
 • Milling Design &  
 • Monitoring Surveys  
 • Phase I, II, III, & IV

**MUEngineers, Inc.**

ELEVATIONS SHOWN HEREON ARE  
 VERTICAL DATUM 1988 (NAVD 1988)

KNOW WHATS BELOW  
 ALWAYS CALL 811  
 BEFORE YOU DIG  
 It's not. It's free. It's the law.  
 www.call811.com

DESIGNED BY:	W.R./M.N.	10/27/2018
CHECKED BY:	HOR 1-407	
DATE:	10/27/2018	
PROJECT:	PATRICK J. GIBNEY	
SCALE:	AS SHOWN	
DATE:	10/27/2018	
PROJECT:	PATRICK J. GIBNEY	
SCALE:	AS SHOWN	
DATE:	10/27/2018	
PROJECT:	PATRICK J. GIBNEY	
SCALE:	AS SHOWN	
DATE:	10/27/2018	
PROJECT:	PATRICK J. GIBNEY	

PROJECT NO.:	11419
DATE:	10/27/2018
SCALE:	AS SHOWN
PROJECT:	PATRICK J. GIBNEY
SCALE:	AS SHOWN
DATE:	10/27/2018
PROJECT:	PATRICK J. GIBNEY
SCALE:	AS SHOWN
DATE:	10/27/2018
PROJECT:	PATRICK J. GIBNEY

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

NO.	DATE	BY	CRHD	DESCRIPTION

**PROJECT # 11419**  
 RIVER OAKS  
 STORMWATER PRESERVE  
 GENERAL NOTES

PROJECT NO.:	11419
DATE:	10/27/2018
SCALE:	AS SHOWN
PROJECT:	PATRICK J. GIBNEY
SCALE:	AS SHOWN
DATE:	10/27/2018
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SCALE:	AS SHOWN
DATE:	10/27/2018
PROJECT:	PATRICK J. GIBNEY



**GENERAL NOTES:**

- THIS SURVEY DRAWING WAS PREPARED FOR THE EXCLUSIVE USE OF THE CITY OF FORT LAUDERDALE, FLORIDA AND HAZEN AND SAWYER, INC. FOR THE EXPRESS PURPOSE STATED HEREON AS RELATED TO OUR CONTRACT.
- THE PURPOSE OF THIS SURVEY WAS TO ESTABLISH HORIZONTAL AND VERTICAL CONTROL AND COLLECT ABOVE GROUND AND VISIBLE IMPROVEMENTS WITHIN AND ALONG THE RIGHTS-OF-WAYS INSIDE OF THE STORM WATER AND SANITARY SEWER STRUCTURES, IF ACCESSIBLE SUCH AS, INVERTS, WELLS, PIPE SIZES AND MATERIALS, AND BOTTOM OF STRUCTURES.
- THE EXPECTED USE OF THIS SURVEY AND MAP IS FOR COMMERCIAL/HIGH RISK. THEREFORE THIS SURVEY IS CLASSIFIED AS COMMERCIAL/HIGH RISK LINEAR AND EXCEEDS THE MINIMUM RELATIVE PRACTICE (5.1-12.1 A.C.C.) 1 FOOT IN 10,000 FEET AS REQUIRED BY THE FLORIDA STANDARDS OF PRACTICE (5.1-12.1 A.C.C.).
- THE ELEVATIONS SHOWN HEREON ARE RELATIVE TO NAD83 AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE FOLLOWING BENCHMARKS:  
(A) FLORIDA DEPARTMENT OF TRANSPORTATION STATE ROAD 84 BENCHMARK C4 ELEVATION = 6.97'  
(B) FLORIDA DEPARTMENT OF TRANSPORTATION STATE ROAD 84 BENCHMARK C6 ELEVATION = 6.92'  
(NAVD88) STAMPED 84-86-04-C6 FROM FDOT PROJECT NETWORK CONTROL SPECIFIC PURPOSE SURVEY - FINANCIAL PROJECT NO 228243-1-32-01.
- THIS PROJECT WAS PERFORMED IN THE FIELD DURING THE MONTH OF OCTOBER, 2017 USING THE FOLLOWING INSTRUMENTS AND SUPPLIES:  
PROJECT NUMBER 16-0042-001-01 AND AN EXTENSIVE FIELD SURVEY OF THE SITE AND THE SURROUNDING AREAS WITHIN THE FOLLOWING BROWARD COUNTY RECORDED PLATS:  
A: PLAT BOOK 22, PAGE 34 "OSBOURNE PARK"  
B: PLAT BOOK 22, PAGE 32 "WHEELAKE SUBDIVISION"  
C: PLAT BOOK 34, PAGE 32 "THE BLUE PLAT"  
D: PLAT BOOK 155, PAGE 35 "THE BLUE PLAT"  
E: PLAT BOOK 168, PAGE 42 "LAUDERDALE MARINE CENTER"  
F: PLAT BOOK 175, PAGE 177 "SEAGRIAN OAKS"  
G: PLAT BOOK 177, PAGE 78 "RO COLONY" MARINE CENTER PLAT NO 1"  
H: PLAT BOOK 177, PAGE 78 "RO COLONY"  
6. THE COORDINATES SHOWN HEREON ARE RELATIVE TO STATE PLANE FLORIDA EAST ZONE NAD83 (09) UNITS US SURVEY FEET, AND BASED ON REAL TIME KINEMATIC (RTK) GPS UTILIZING THE TRIMBLE STATE-WIDE WRS NETWORK, AND ADJUSTED TO A STATIC GPS CONTROL NETWORK C/A PERFORMED FOR THE CITY OF FORT LAUDERDALE IN 2016.  
7. SECTIONAL INFORMATION AND RIGHT-OF-WAY LINES SHOWN HEREON ARE BASED ON THE RECORDED FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT-OF-WAY MAPS AND PROJECT CONTROL NETWORKS.  
8. C/A FIELD BOOK REFERENCES: FIELD BOOK (FB) 2859, PAGES 44-79 & FB 2860 PAGES 19-39  
9. ALL PLATS SHOWN HEREON REFER TO RECORDED PLATS IN BROWARD COUNTY.  
10. NO TITLE DOCUMENTS WERE SUPPLIED TO THE SURVEYOR FOR REVIEW.

**DESCRIPTION: PROVIDED BY CLIENT**

PARCEL 1:  
A PORTION OF THE SOUTHWEST ONE-QUARTER (SW 1/4) OF SECTION 16, TOWNSHIP 49, SOUTH, RANGE 42, EAST, BROWARD COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
THE SOUTH 72.385 FEET OF THE FOLLOWING DESCRIBED PARCEL:  
THAT PORTION OF THE WEST HALF OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42, EAST, BROWARD COUNTY, FLORIDA, WHICH BOUNDS NORTH BY AND PARALLEL TO THE EAST LINE OF LIVING NORTH OF SAID SECTION 16, WHICH IS 898.96 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SECTION 16, EXCEPTING THEREFROM 210.00 FEET OF ABOVE PARCEL, ALSO EXCEPTING THEREFROM THE EAST 70.00 FEET OF SAID SOUTH 80.00 FEET OF THE ABOVE DESCRIBED PARCEL, SAID LANDS SITUATE, LYING AND BEING INTERESTS 95.  
PARCEL 2:  
THE EAST 704.50 FEET OF THE SOUTH 80 FEET OF THE PORTION OF THE WEST 1/2 OF THE SOUTH 1/2 OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42, EAST, LYING NORTH OF A LINE WHICH IS 898.96 FEET NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SECTION 16, EXCEPTING THEREFROM 210.00 FEET OF ABOVE PARCEL, SAID LANDS SITUATE, LYING AND BEING INTERESTS 95.  
LESS AND EXCEPT THE LANDS LYING WITHIN THE BOUNDARIES OF INTERESTS 1-95.  
PARCEL 3:  
SAID LANDS SITUATE, LYING AND BEING IN BROWARD COUNTY, FLORIDA.  
PARCEL 4:  
THE NORTH 80.00 FEET OF THE FOLLOWING TRACT:  
THAT PORTION OF THE WEST 1/2 OF THE SOUTHWEST 1/4 AND THE WEST 1/2 OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42, EAST, LYING NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SECTION 16, EXCEPTING THEREFROM THAT PART THEREOF LYING WEST OF THE EAST RIGHT OF WAY LINE OF INTERESTS 95.  
PARCEL 5:  
PARCEL "A" OF THE B.B.L.E. PLAT, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 155, PAGE 35 OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.  
PARCEL 6:  
THE EAST 375 FEET OF THE FOLLOWING DESCRIBED PROPERTY:  
THE WEST 1/2 OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 AND THE WEST 1/2 OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42, EAST, LYING NORTH OF AND PARALLEL TO THE SOUTH BOUNDARY OF SAID SECTION 16, EXCEPTING THEREFROM THE SOUTH 150 FEET THEREOF.  
PARCEL 7:  
THE EAST 375 FEET OF THE NORTH 139 FEET OF THE SOUTH 588.54 FEET OF THE WEST 1/2 OF SECTION 16, TOWNSHIP 50 SOUTH, RANGE 42, EAST, OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.  
SAID LANDS LYING AND BEING IN THE CITY OF FORT LAUDERDALE, BROWARD COUNTY, FLORIDA.

**SURVEYOR'S CERTIFICATE:**

I, HEREBY CERTIFY THAT THIS TOPOGRAPHIC SURVEY AND OTHER PERTINENT DATA SHOWN HEREON CONFORMS TO THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN THE STATE OF FLORIDA, AS OUTLINED IN RULES 5.1-12 (FLORIDA ADMINISTRATIVE CODE) ADOPTED BY THE BOARD OF LAND SURVEYING IN SEPTEMBER, 1981, AS AMENDED, PURSUANT TO CHAPTER 472.027, FLORIDA STATUTES AND THAT SAID SALES AS IS FILED AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS PREPARED UNDER MY DIRECTION.  
LAST DATE OF FIELD WORK: 11/21/2017.

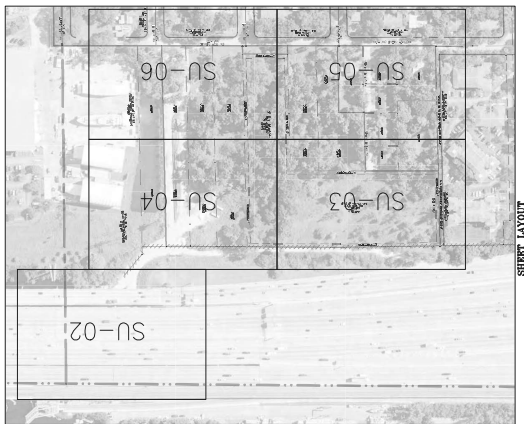
RICHARD D. PRICE, FOR THE FIRM  
FLORIDA PROFESSIONAL SURVEYOR MAPPER NO 4038  
LICENSED BUSINESS NUMBER NO. 271.

THIS SURVEY MAP AND REPORT OR COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL BASED SEAL OF A LICENSED ELECTRONIC SIGNATURE OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER UNDER CHAPTER RULES 5.1-17 FLORIDA ADMINISTRATIVE CODE.



**LOCATION MAP**  
PORTION OF SECTION 16 & 21, TOWNSHIP 50 SOUTH, RANGE 42 EAST  
N01 TO S04E

- LEGEND:**
- ANCHOR
  - BACK FLOW PREIGHTER
  - BOLLARD
  - CANY FEDESTAL
  - CATCH BASIN
  - ELECTRICAL PULL BOX
  - FIRE HYDRANT
  - MILEAGE
  - OUTFALL
  - PLUG
  - SANITARY CLEAN OUT
  - SANITARY MANHOLE
  - SEIN
  - TELEPHONE LEGAM
  - TELEPHONE PEDESTAL
  - WATER METER
  - WATER VALVE
  - WOOD PAST
  - WOOD LIGHT POLE
  - WOOD TELEPHONE POLE
  - PALM TREE
  - SHADE TREE
  - FINE TREE
  - OVER HEAD WIRES
  - TOP OF BANK
  - TOE OF SLOPE
  - RIM ELEVATION
  - LIMITED ACCESS R/W LINE
- CONTROL LEGEND:**
- IRON PIPE
  - ALUMINUM PIPE
  - NAILSPIKE
  - PERMANENT REFERENCE MONUMENT
  - PINNALESPIKE
- ABBREVIATION LEGEND:**
- B/C/R BROWARD COUNTY RECORDS
  - C/MP CORRUGATED METAL PIPE
  - F/ND FOUND
  - I/E INVERT ELEVATION
  - M/H MANHOLE
  - P/B PLAT BOOK
  - P/G PAGE
  - PRM PERMANENT REFERENCE MONUMENT
  - PVC POLYVINYL CHLORIDE
  - R/E RIM ELEVATION
  - R/W RIGHT OF WAY
  - SWN SWAN
  - TR TREE



		<b>CITY OF FORT LAUDERDALE</b> PUBLIC WORKS DEPARTMENT ENGINEERING & ARCHITECTURE	
PROJECT # 11419 STORMWATER IMPROVEMENTS RIVER OAKS PRESERVE SURVEY SURVEY NOTES BOUNDARY/TOPOGRAHIC SURVEY	SHEET NO. 08 SG-01	TOTAL: 40 CUT FILE: 11419/SURV	DRAWING FILE NO.: 4-135-81 DATE: 12/4/2017

FILE # 03,2012,12-0047-001-03-River Oaks Preserve DrawnBy 11419SURV Saved by 286ves Date date = 12/4/2017

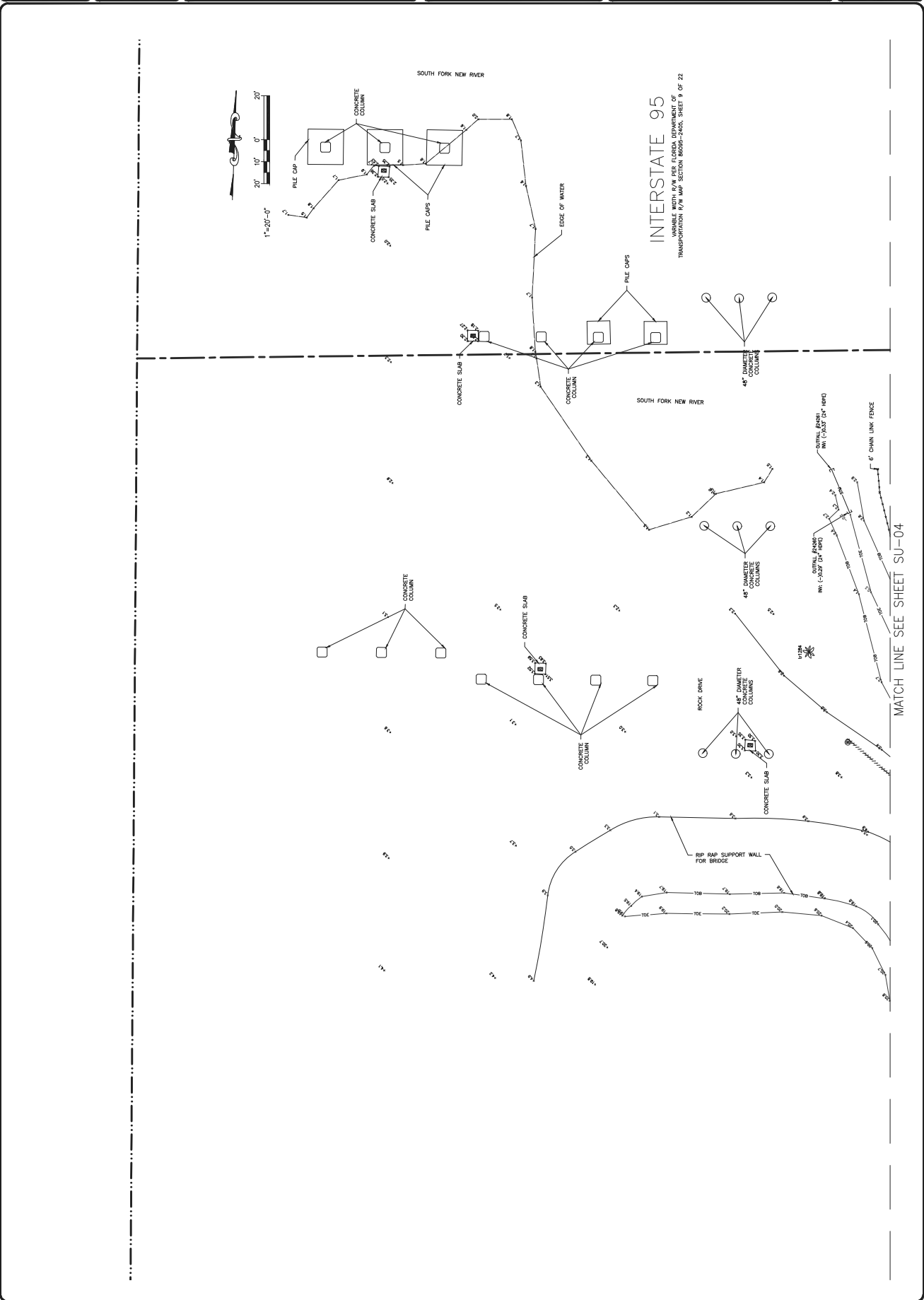






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	XX	CHECKED BY

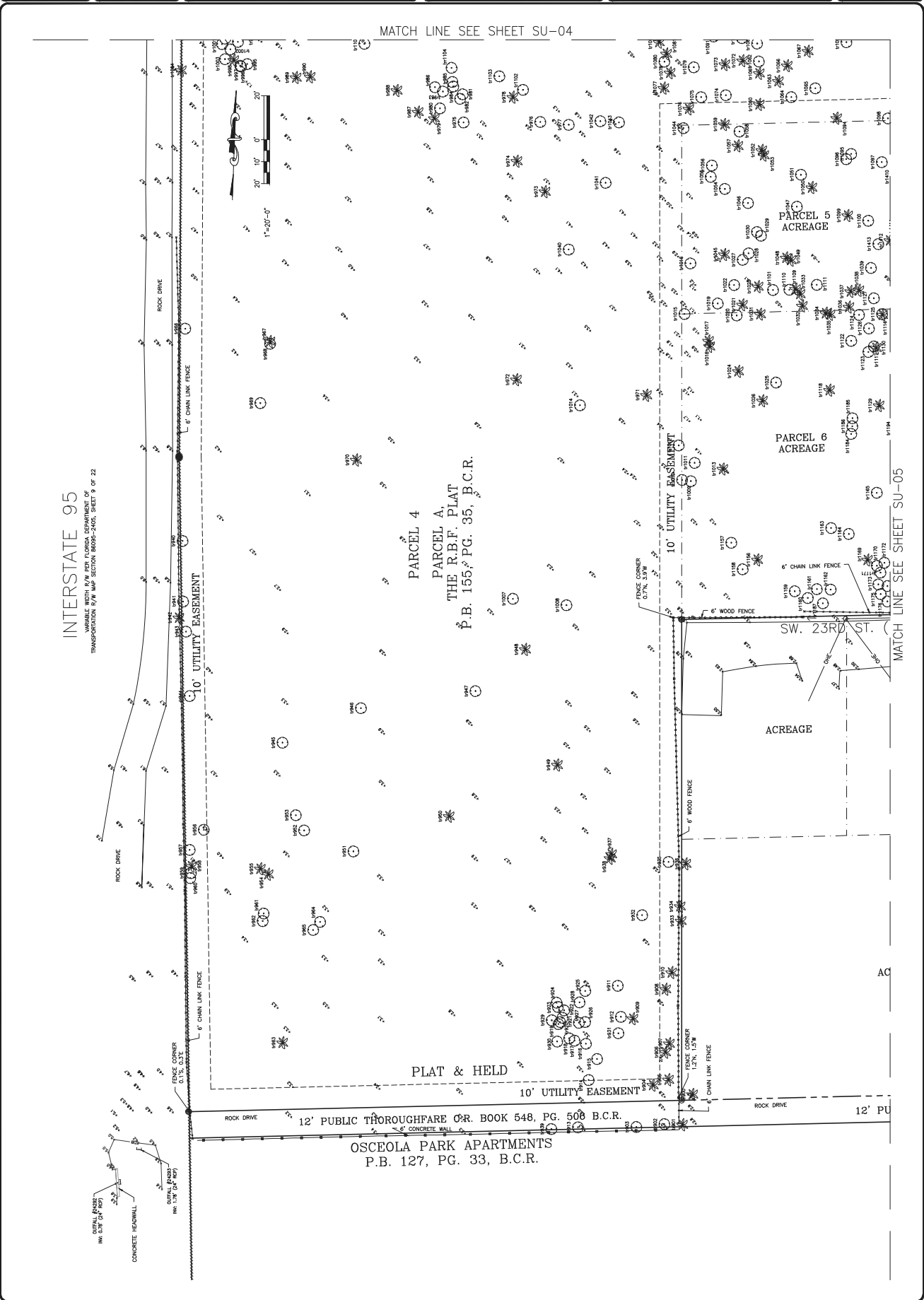



MATCH LINE SEE SHEET SU-04

INTERSTATE 95  
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TRANSPORTATION R/W MAP SECTION 86950-2465, SHEET 9 OF 22

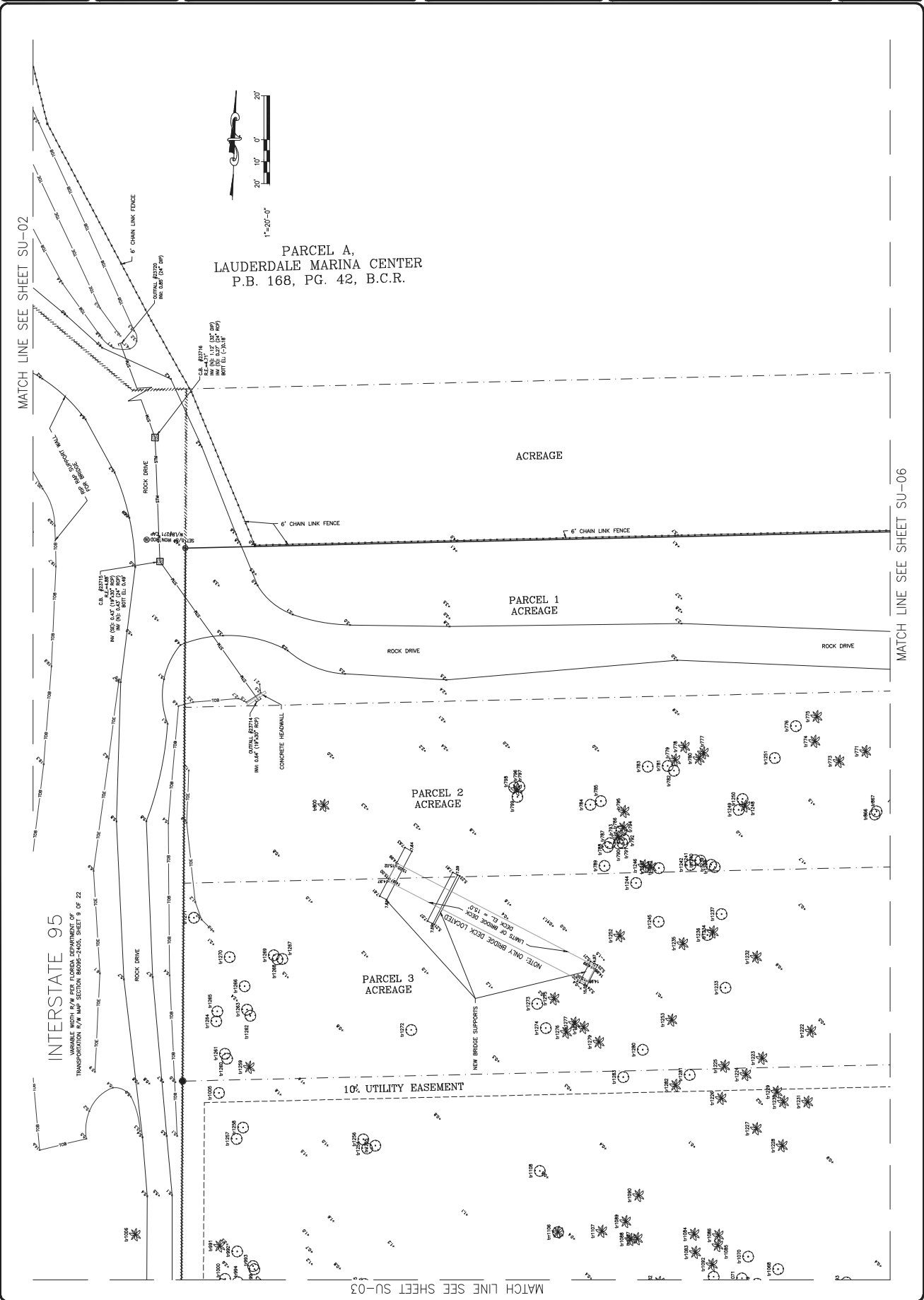
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PROJECT # 11419  
 STORMWATER IMPROVEMENTS  
 RIVER OAKS PRESERVE SURVEY  
 DETAIL SHEET  
 BOUNDARY/TOPOGRAHIC SURVEY

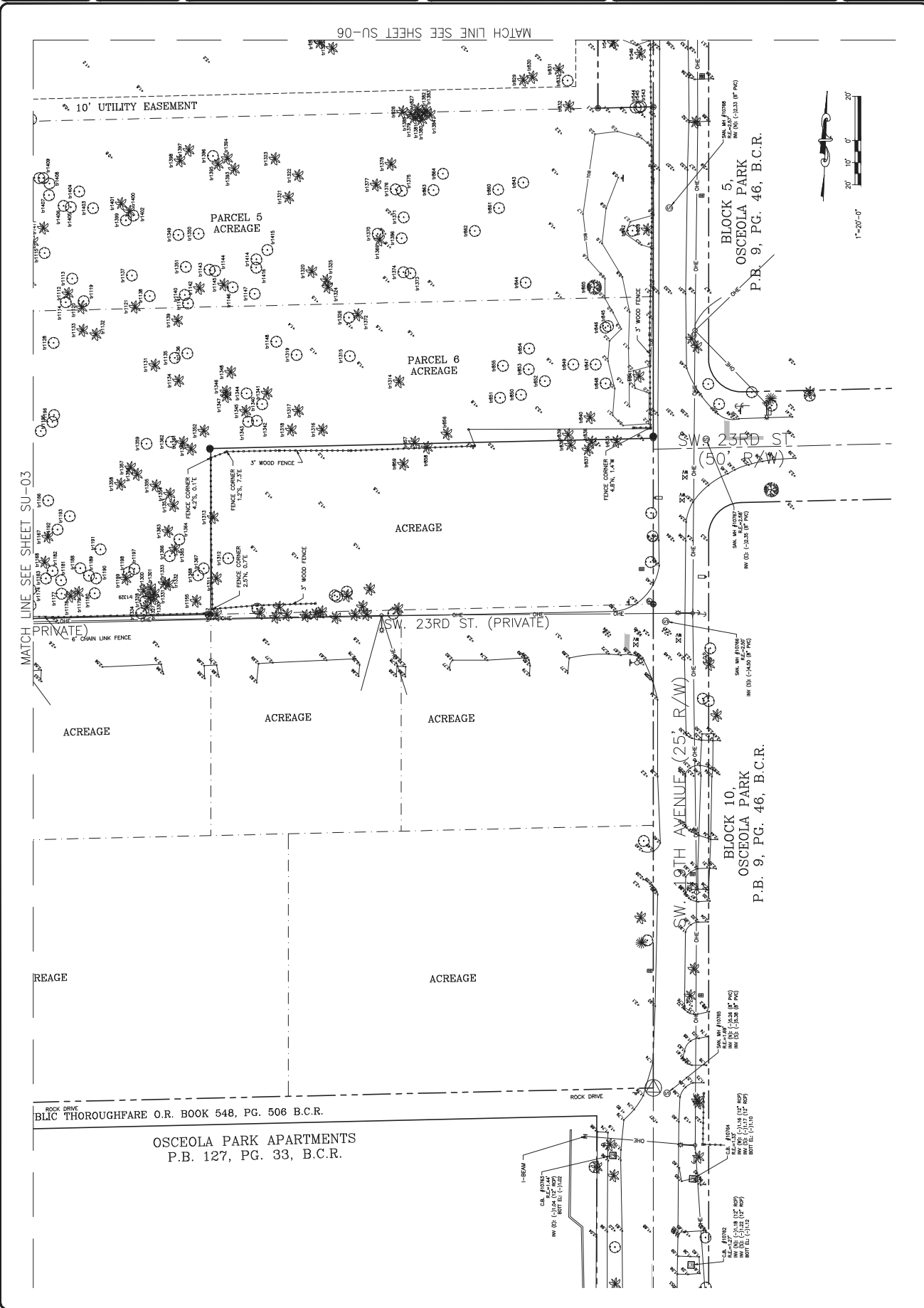
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CITY OF FORT LAUDERDALE  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING & ARCHITECTURE  
 City of Fort Lauderdale  
 3300 N Andrews Avenue, Fort Lauderdale, Florida 33301

DESIGNED BY: XX	DATE: 11/1/17
CHECKED BY: XX	SCALE: 1"=20'
PLotted BOOK: XXXX	

SUBMITTER: RIVER OAKS PRESERVE  
 FILE NO.: 1141952R  
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SHEET NO. 08  
 TOTAL: 40  
 SU-05





PROJECT # 11419  
 STORMWATER IMPROVEMENTS  
 RIVER OAKS PRESERVE SURVEY  
 DETAIL SHEET  
 BOUNDARY/TOPOGRAHIC SURVEY

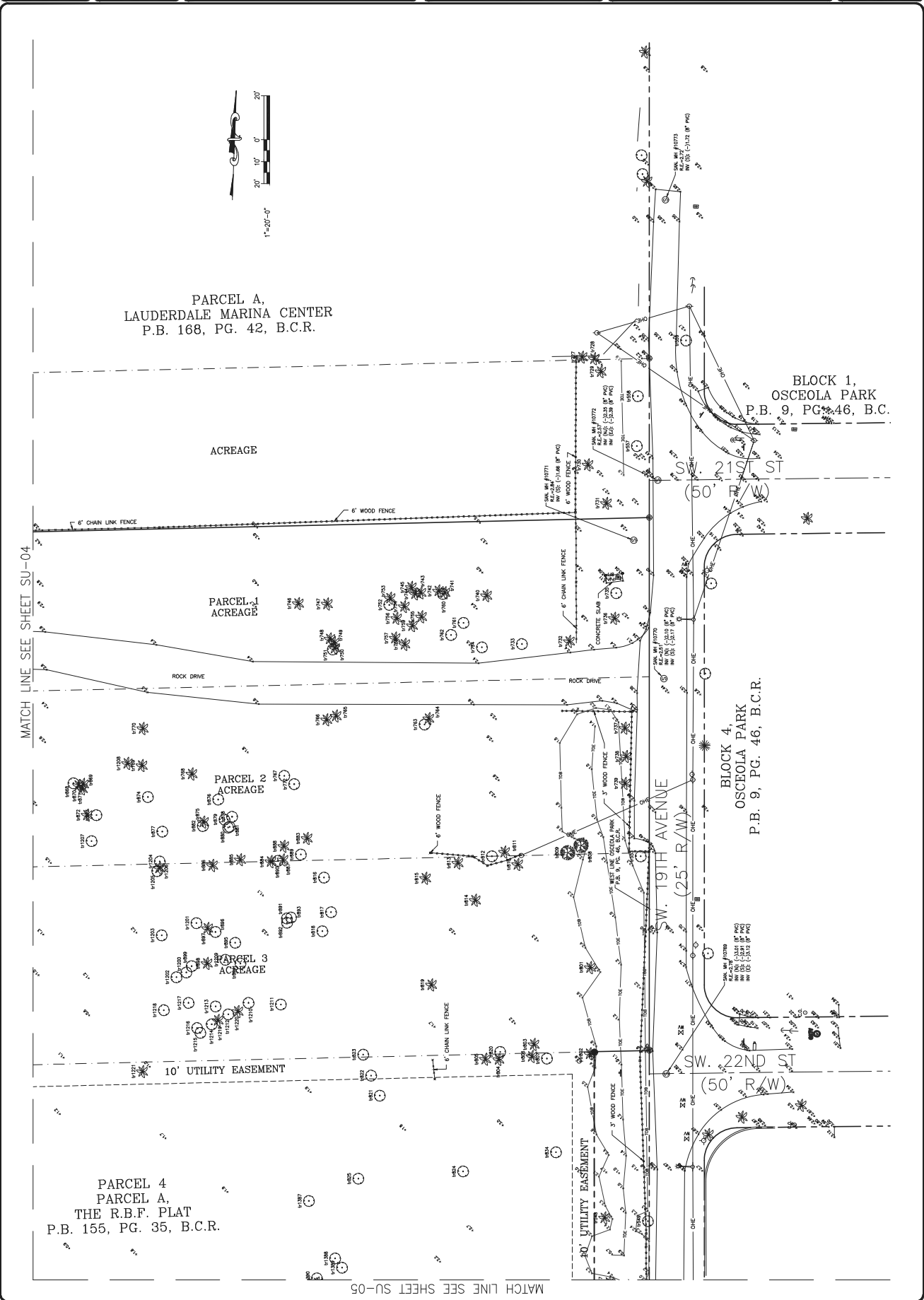
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CITY OF FORT LAUDERDALE  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING & ARCHITECTURE  
 100 Andrews Avenue, Fort Lauderdale, Florida 33301

DESIGNED BY: SCALE: 1"=20'	
CHECKED BY: XX	
DATE: 11/1/17	
BY: XX	

FIELD BOOK: XXXX  
 SUBMITTER: #11419  
 DATE: 11/1/17  
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