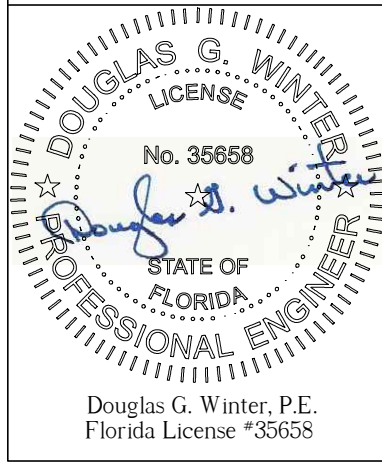


**Doug Winter  
Companies, Inc.**

Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Soils/Site Design  
Wetland/Plant Habitat  
Drayer/Planting/Management  
Golf Course Renovation/Construction



This item has been electronically signed and sealed by  
Douglas G. Winter, P.E. on 04/30/21  
using a SHA-1 authentication code.

Printed copies of this document are not considered  
signed and sealed and the SHA-1 authentication code  
must be verified on any electronic copies.

# GRADING & DRAINAGE WATER, SEWER & FIRE LINE SIGNAGE & STRIPING FOR TEMPORARY FIRE STATION 87 AT WELLS RES 21-21 2409 AVENUE H W RIVIERA BEACH, FL. SEC. 28 TWN. 42S RGE. 43E

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL  
EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND  
UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

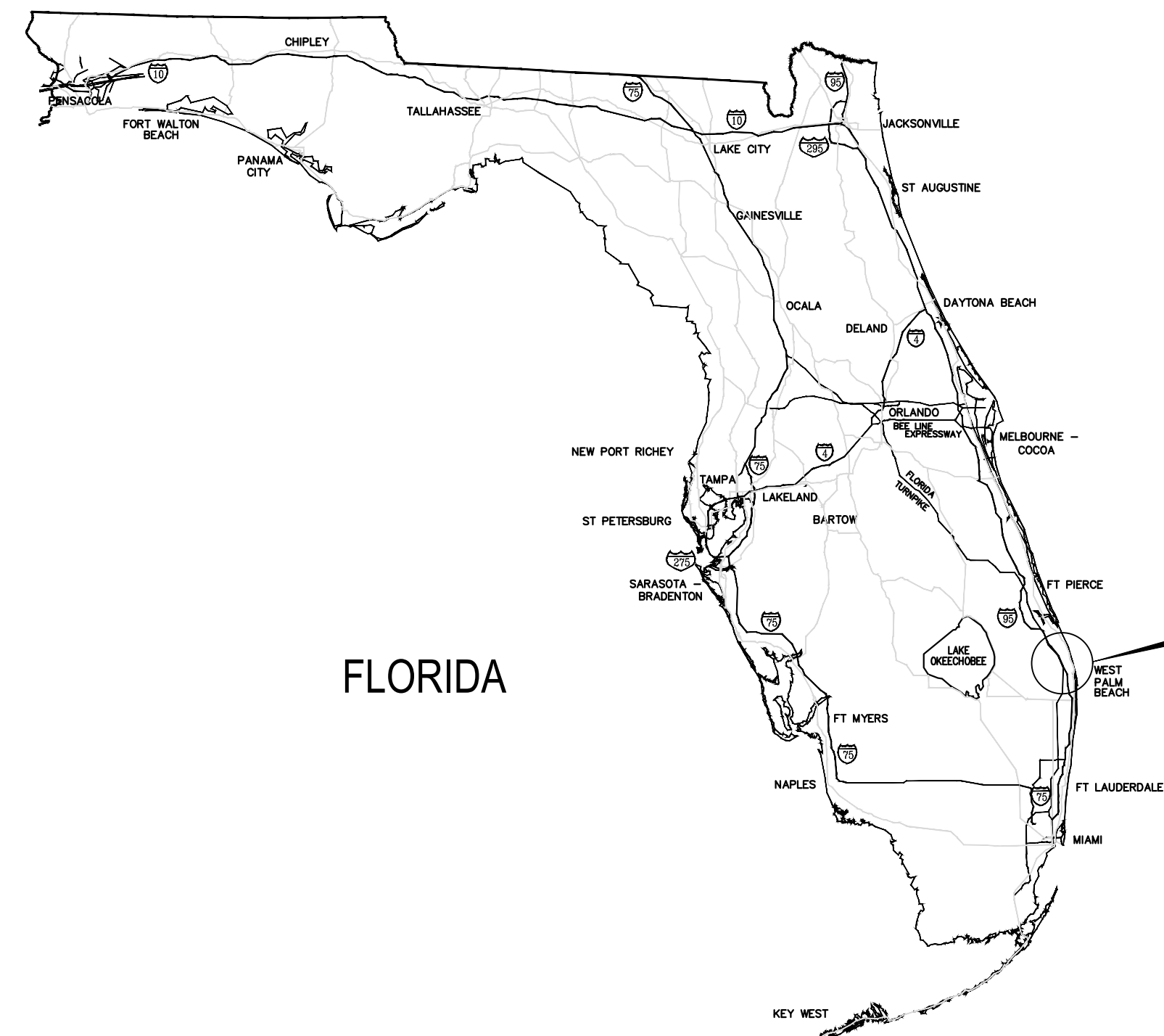
**Doug Winter  
Companies, Inc.**

Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Soils/Site Design  
Wetland/Plant Habitat  
Drayer/Planting/Management  
Golf Course Renovation/Construction

Douglas G. Winter  
Florida P.E. #35658

COVER SHEET

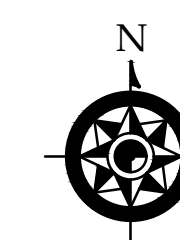
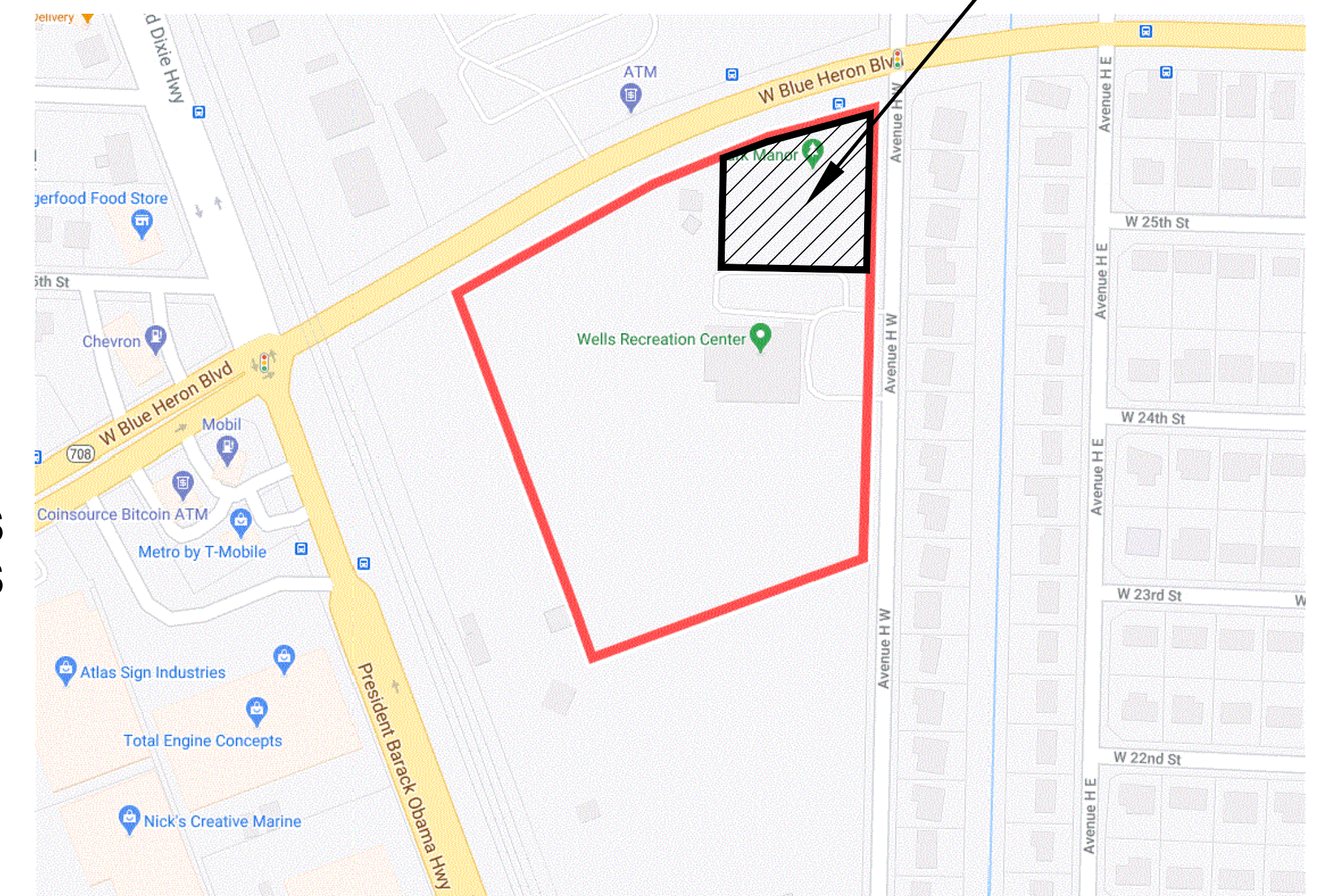


VICINITY MAP

PROJECT LOCATION  
RIVIERA BEACH, FL.

**SHEET INDEX:**

- CS COVER SHEET
- GD-1 GRADING AND DRAINAGE PLAN
- GD-2 DRAINAGE DETAILS
- WS-1 FIRE LINE AND WATER & SEWER PLAN
- WS-2 ENLARGED VIEW
- WS-3 CITY OF RIVIERA BEACH - WATER & SEWER DETAILS
- WS-4 CITY OF RIVIERA BEACH - WATER & SEWER DETAILS
- SS-1 SIGNAGE AND STRIPING PLAN
- SS-2 SIGNAGE AND STRIPING DETAILS
- DC-1 FDOT DRIVEWAY CONNECTION PLAN
- DC-2 FDOT DRIVEWAY DETAILS



LOCATION MAP

TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2409 AVENUE H W  
RIVIERA BEACH, FLORIDA

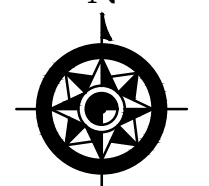
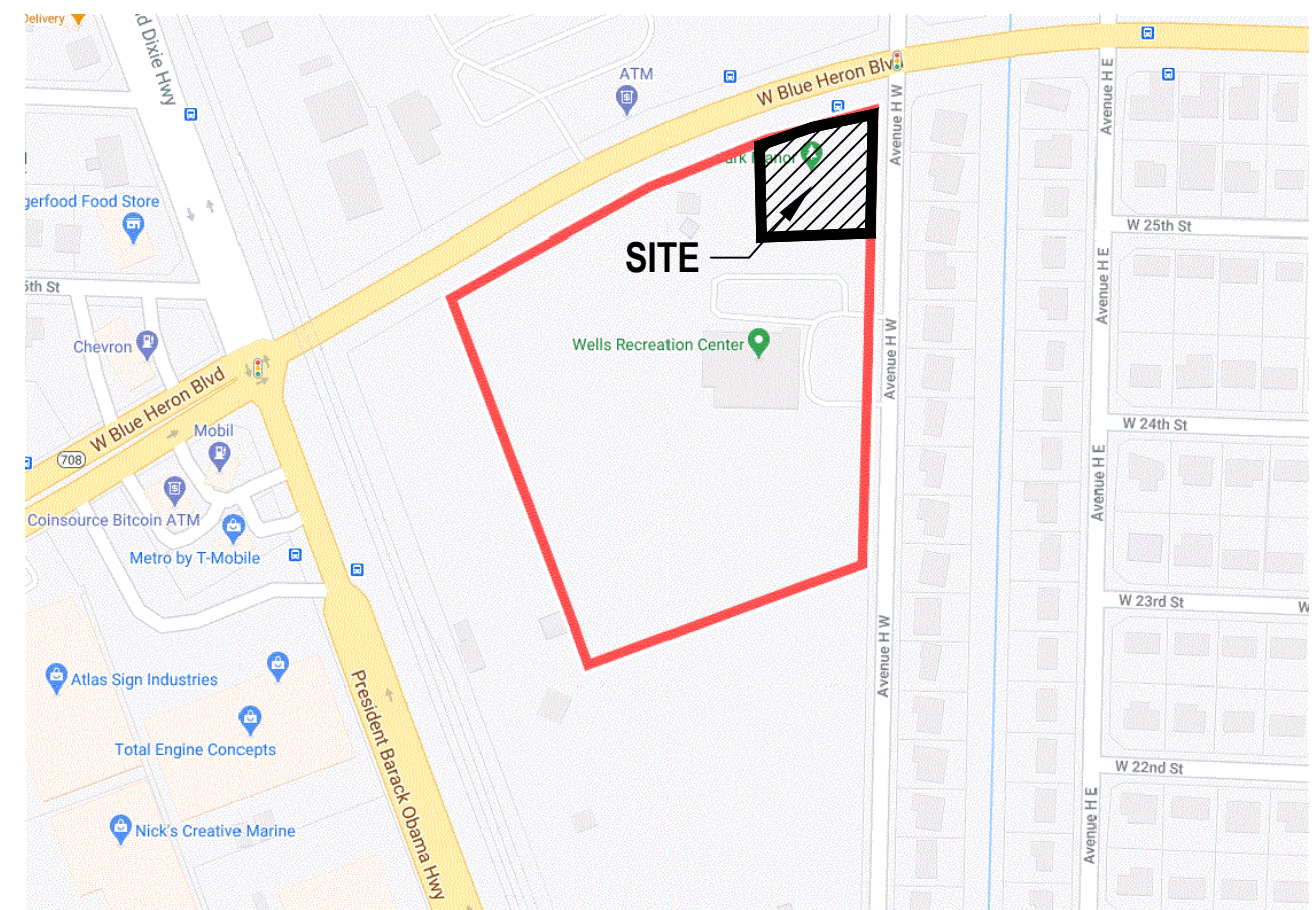
DRAWN	HV
CHKD BY	DW
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966

Sheet

**CS**

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.



**LOCATION MAP**  
N.T.S.

**LEGEND**

- EXISTING ELEVATION PER KEITH & SCHNARS P.A.
- PROPOSED GRADE (FINISHED)
- FLOW DIRECTION
- RAISED D CURB
- PROPOSED ASPHALT APRON
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SILT FENCE
- PROPOSED HDPE STORM PIPE
- SAFE SIGHT LINES

**NOTES:**

- A SEE OTHER PLANS FOR FENCES, ROLLING GATES, LANDSCAPE BUFFER, SAFE SIGHT LINES, TEC.
- B SEE SHEET SS-1 FOR SIGNAGE, STRIPING, ETC.
- C 1-STORY SUPPLY STORAGE AND 1-STORY TEMPORARY FIRE STATION AREA MODULAR BUILDINGS; WILL BE 36" ABOVE EXISTING GRADE AND INCLUDE VARIOUS ADA RAMPS, STEP ETC

**NOTES:**

- 1) CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES IN THE VICINITY OF THE SEWER SERVICE BEFORE CUTTING THE SERVICE FOR THE PROPOSED WYE
- 2) WORK SHOULD BE COMPLETED UNDER THE INSPECTION OF RIVIERA BEACH UTILITIES INSPECTORS

**RECORD DRAWING NOTES:**

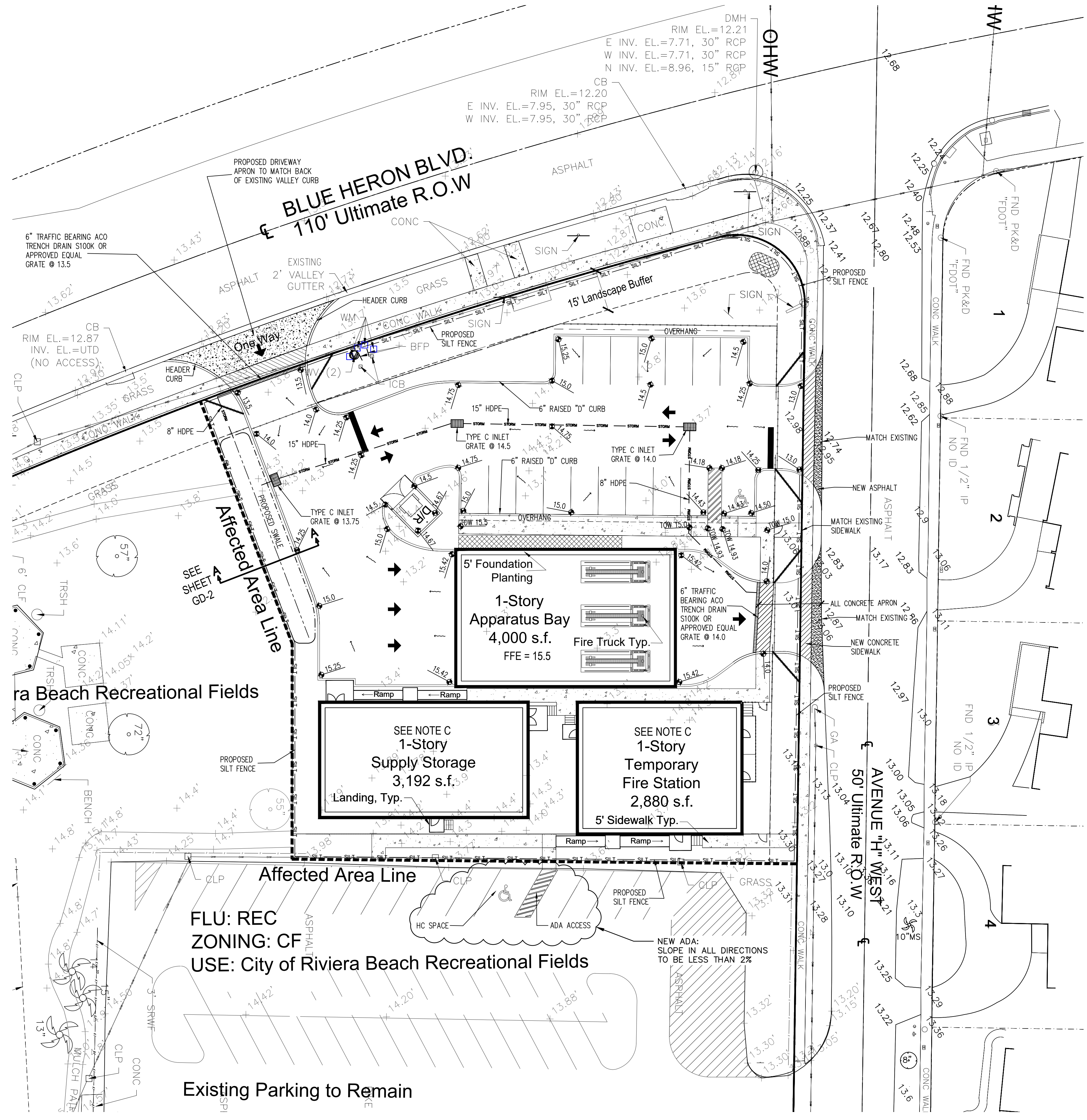
1. RECORD DRAWINGS SHALL BE PREPARED IN THE STATE PLANE COORDINATE SYSTEM.
2. ALL UTILITY FEATURES SHALL BE SHOWN IN THEIR AS-BUILT LOCATION.
3. STATE PLANE COORDINATES SHALL BE DISPLAYED ON RECORD DRAWINGS FOR ALL FEATURES SPECIFIED IN CITY OF RIVIERA BEACH STANDARDS.
4. STATE PLANE COORDINATES SHALL BE SHOWN ON PROPERTY CORNERS AS REQUIRED BY CITY OF RIVIERA BEACH.

**GENERAL SEWER NOTE:**

1. SEWER CLEANOUT MINI-MANHOLES ARE REQUIRED ON ALL CLEANOUTS WITHIN PAVEMENT AREAS.

**GENERAL LANDSCAPE NOTE:**

SOD ONLY WITH NO SHRUBS AND/OR TREES TO BE INSTALLED WITHIN 5' OF A WATER METER AND 7.5' OF A FIRE HYDRANT. TREES CANNOT BE INSTALLED WITHIN 10' OF A WATER OR SEWER MAIN WITHOUT PRIOR CITY OF RIVIERA BEACH APPROVAL AND THE INSTALLATION OF A ROOT BARRIER.

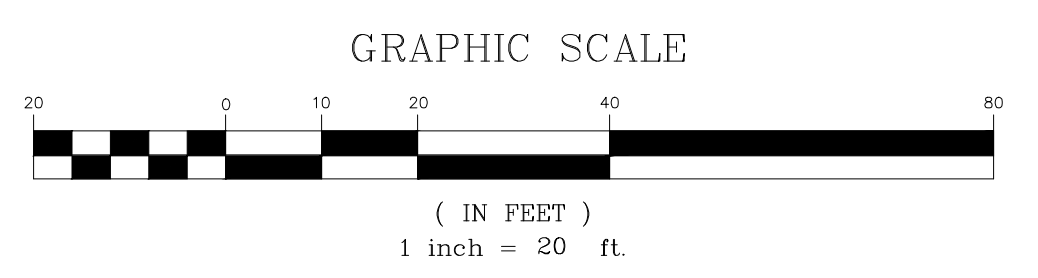
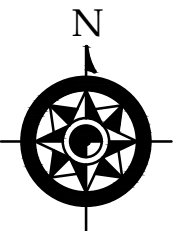


**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

**DOUGLAS G. WINTER**  
LICENSE  
No. 36658  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER  
Douglas G. Winter, P.E.  
Florida License #36658

This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.



NOTE: ALL ELEVATIONS SHOWN IN NGVD 1929

**SITE GRADING AND DRAINAGE PLAN**

TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2904 AVENUE H W  
RIVIERA BEACH, FLORIDA

DRAWN	HV
CHKD BY	DW
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966

Sheet  
**GD-1**

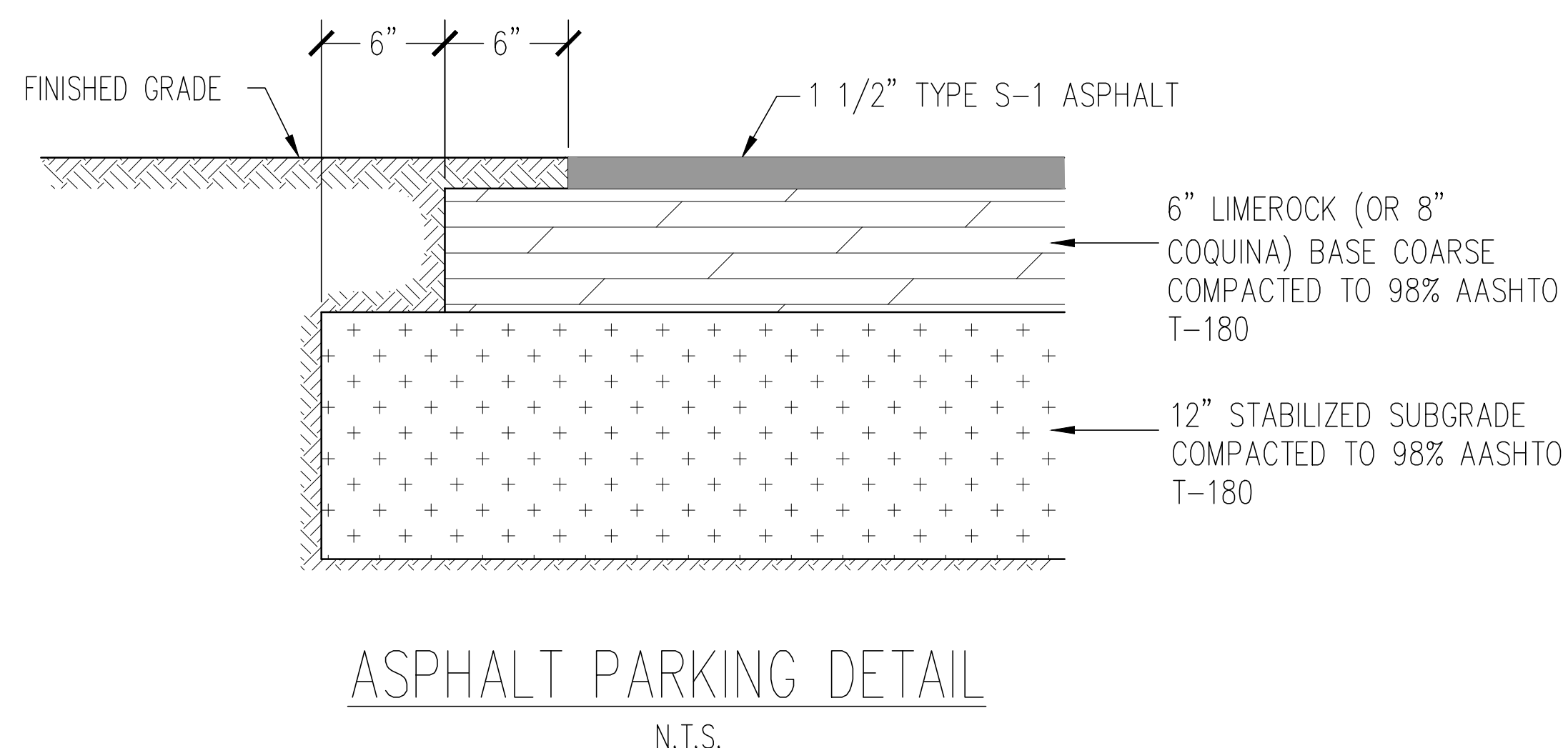
48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

*Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Septic System Design  
Wetland/Planning Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction*

Douglas G. Winter  
Florida P.E. #35658



**ACO DRAIN** Apr 07

**PowerDrain - S100K**

Grates: Slotted, ADA, One meter channel, Half meter channel, End Caps - Closing/inlet/outlet cap

In-line catch basin

6\"/>

**ADA Iron** January 06

**Type 478 ADA ductile iron**

**Product Features**

- Certified to DIN 19580 Load Class E - 135,000 lbs - 2,788 psi
- Uses "QuickLok" boltless locking system
- Suitable for use with K100S, KS100S, C100, H80, H100, H80K, H80KS, H100K, H100KS, and FG100 channels
- Manufactured from ductile iron to ASTM A 536-84 - Grade 64-45-12
- Coated for improved resistance against rust
- Complies with ADA - American Disabilities Act of 1990 Section 4.5.4

**Specifications**

**General**  
The surface drainage system shall be ACO Drain K100S, KS100S, C100, H80, H100, H80K, H80KS, H100K, H100KS and FG100 channels complete with ACO Type 478 ADA ductile iron grate with "QuickLok" locking as manufactured by ACO Polymer Products, Inc. or similar approved.

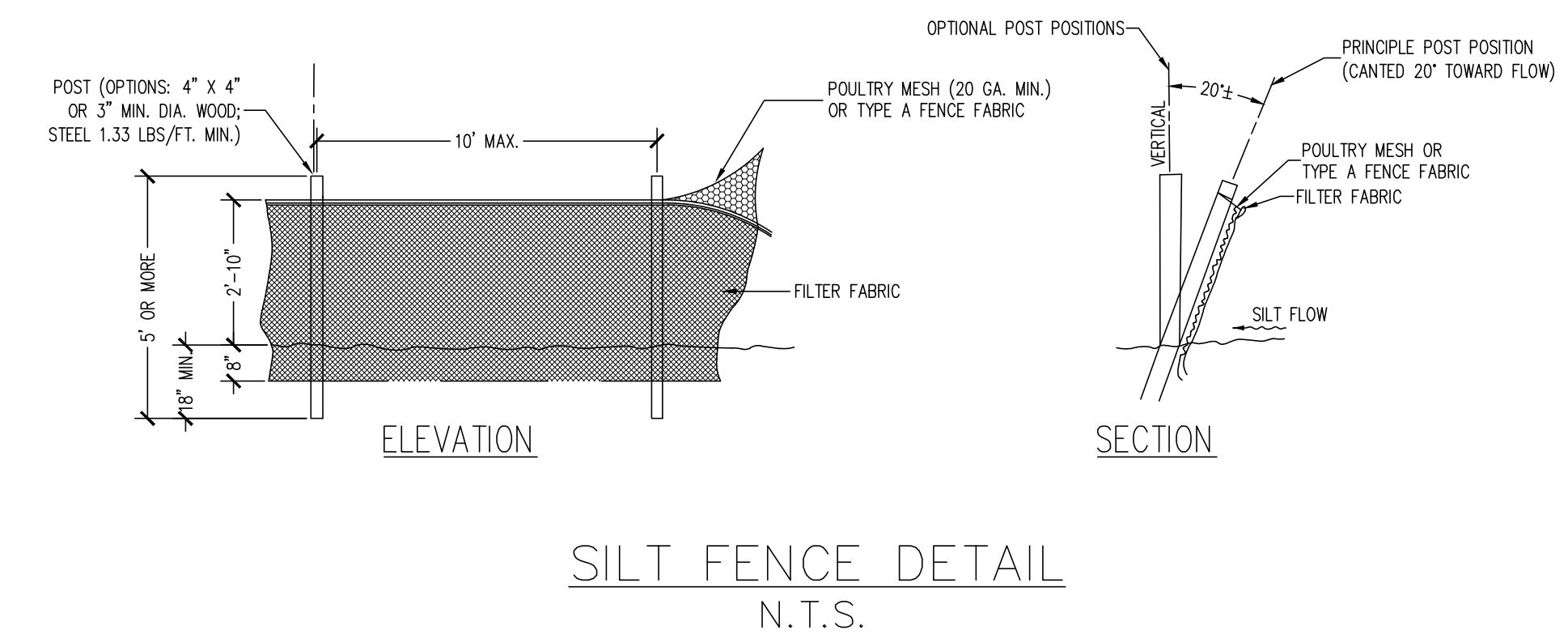
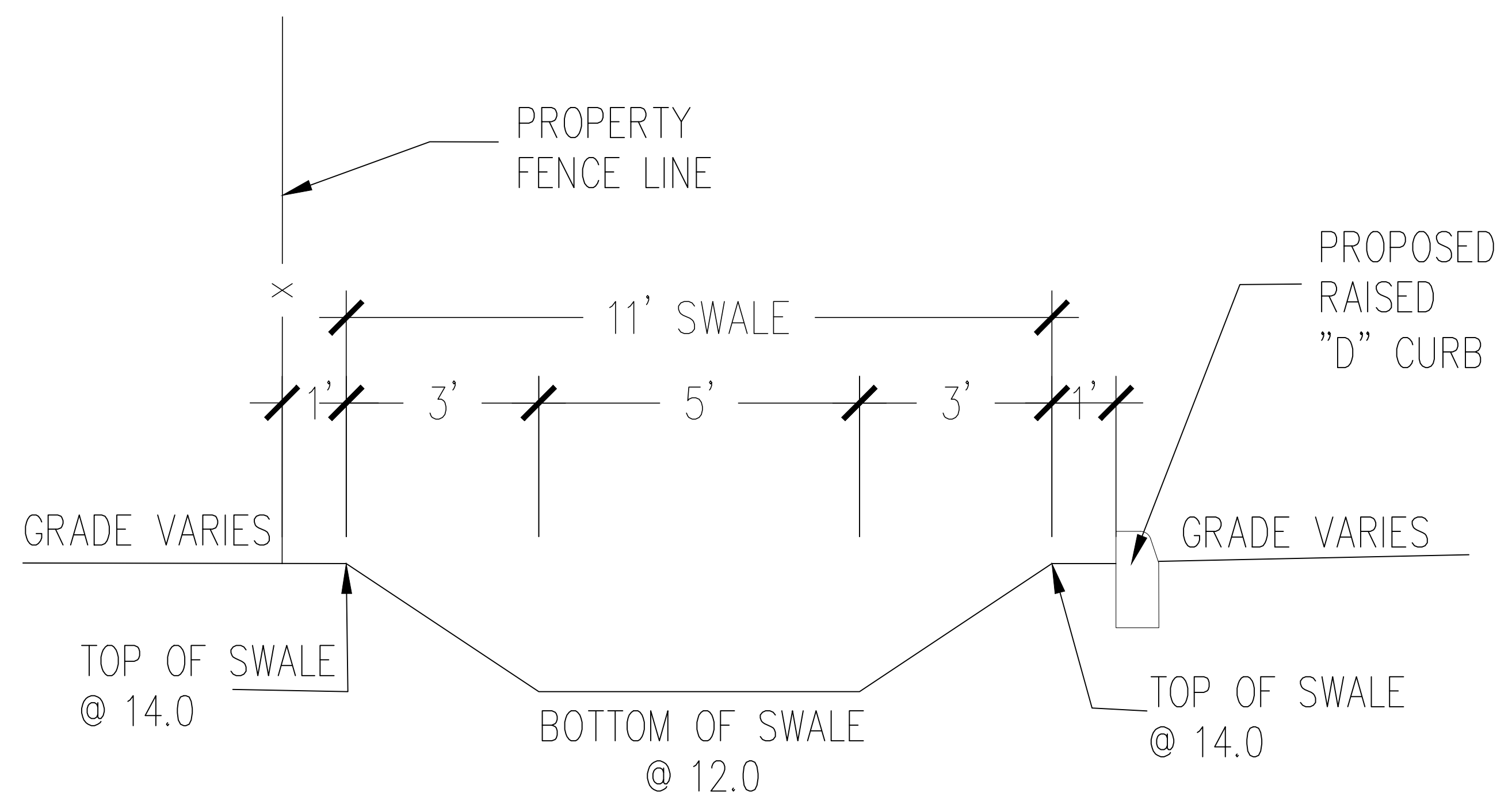
**Materials**  
The covers shall be manufactured from ductile iron and have minimum properties as follows:

- Independently certified to meet Load Class E to DIN 19580 - 135,000 lbs - 2,788 psi
- Ductile iron to ASTM A 536-84 - Grade 64-45-12
- Intake area of 26.3 inches<sup>2</sup> (170 cm<sup>2</sup>) per half meter of grate

The overall width of 4.84\"/>

ACO Specification Information

Specification Information



SECTION A-A  
N.T.S.

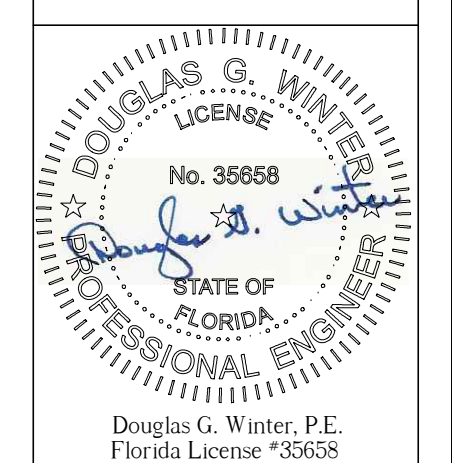
SILT FENCE DETAIL  
N.T.S.

DRAINAGE DETAILS

TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2904 AVENUE H W  
RIVIERA BEACH, FLORIDA

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

*Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Septic System Design  
Wetland/Planning Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction*



This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

DRAWN	HV
CHKD BY	DW
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966

Sheet

GD-2

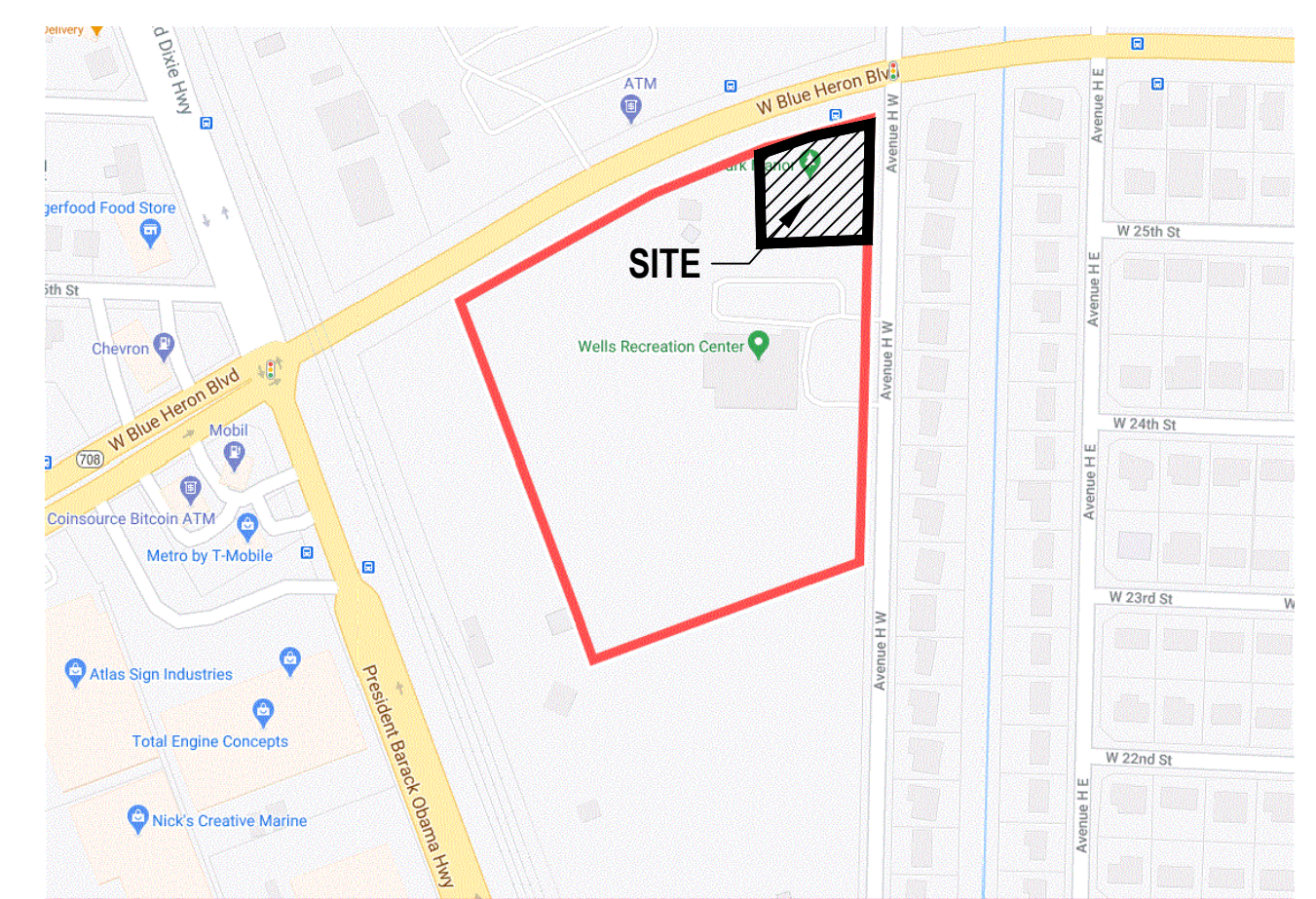
48 HOURS BEFORE DIGGING  
 CALL TOLL FREE  
 1-800-432-4770  
 SUNSHINE STATE  
 ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

Civil/Environmental/Agricultural Engineering  
 Water Resources/Land Development  
 Scope 3-3000 Range  
 Wetland Typing/Habitat  
 Project Planning/Management  
 Golf Course Renovation/Construction

Douglas G. Winter  
 Florida, P.E. #35658

SEE DETAIL A  
 SHEET WS-2



LOCATION MAP  
 N.T.S.

LEGEND

- +14.0'— EXISTING ELEVATION PER KEITH & SCHNARS P.A.
- WM — EXISTING WATER MAIN
- SAN — EXISTING 4" VCP
- FL — PROPOSED 4" DIP FIRE LINE
- WS — PROPOSED 1" WATER SERVICE
- SS — PROPOSED 4" PVC SEWER SERVICE @ 1/8" / FT. SLOPE
- — PROPOSED WATER MAIN FOR FIRE LINE
- ⊙ — PROPOSED FIRE HYDRANT

NOTES:

- 1) CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES IN THE VICINITY OF THE SEWER SERVICE BEFORE CUTTING THE EXISTING SERVICE FOR THE WYE
- 2) WORK SHOULD BE COMPLETED UNDER THE INSPECTION OF RIVIERA BEACH UTILITIES INSPECTORS

RECORD DRAWING NOTES:

1. RECORD DRAWINGS SHALL BE PREPARED IN THE STATE PLANE COORDINATE SYSTEM.
2. ALL UTILITY FEATURES SHALL BE SHOWN IN THEIR AS-BUILT LOCATION.
3. STATE PLANE COORDINATES SHALL BE DISPLAYED ON RECORD DRAWINGS FOR ALL FEATURES SPECIFIED IN CITY OF RIVIERA BEACH STANDARDS.
4. STATE PLANE COORDINATES SHALL BE SHOWN ON PROPERTY CORNERS AS REQUIRED BY CITY OF RIVIERA BEACH.

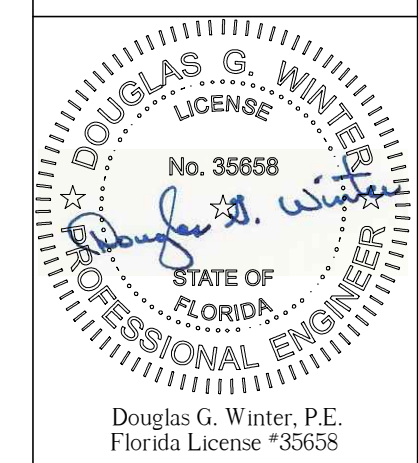
GENERAL SEWER NOTE:

1. ON-SITE SEWER LATERALS, LIFT STATION AND 4" PVC FM ARE PRIVATELY OWNED AND MAINTAINED.
2. SEWER CLEANOUT MINI-MANHOLES ARE REQUIRED ON ALL CLEANOUTS WITHIN PAVEMENT AREAS.

GENERAL LANDSCAPE NOTE:

SOD ONLY WITH NO SHRUBS AND/OR TREES TO BE INSTALLED WITHIN 5' OF A WATER METER AND 7.5' OF A FIRE HYDRANT. TREES CANNOT BE INSTALLED WITHIN 10' OF A WATER OR SEWER MAIN WITHOUT PRIOR CITY OF RIVIERA BEACH APPROVAL AND THE INSTALLATION OF A ROOT BARRIER.

**Doug Winter Companies, Inc.**  
 Certificate of Authorization #5601  
 4047 Okeechobee Blvd., Suite 222  
 West Palm Beach, FL 33409  
 Ph: (561) 471-9863 Fax: (561) 471-5075



This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

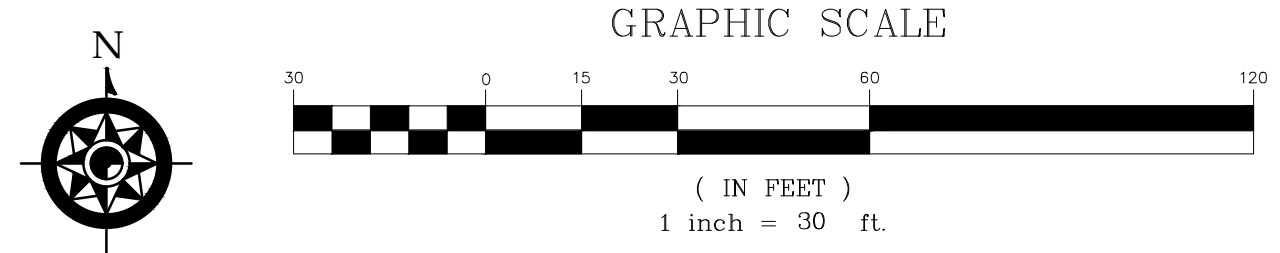
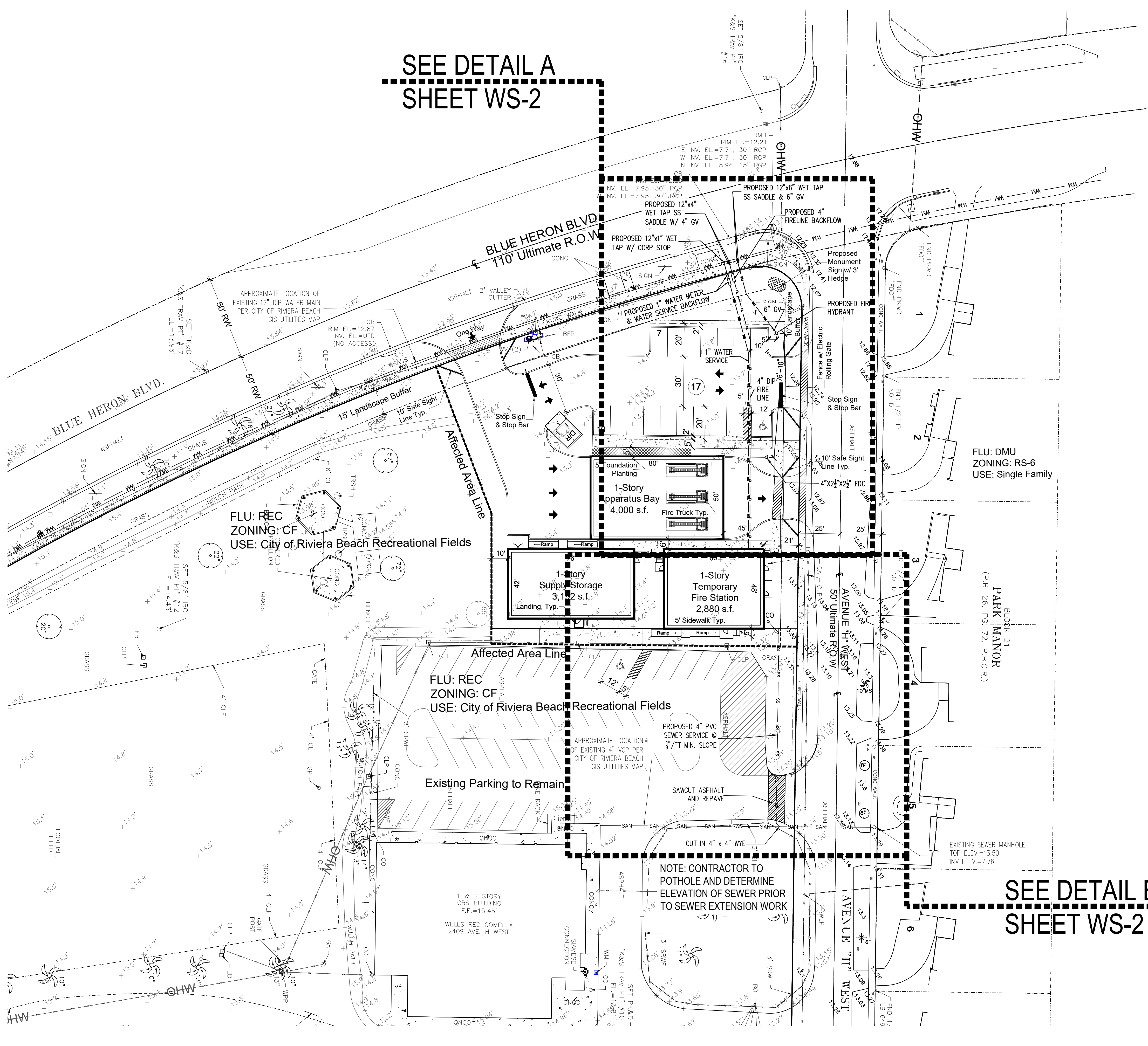
FIRE LINE AND WATER/SEWER CONNECTION PLAN

TEMPORARY FIRE STATION 87 AT WELLS RES 21-21 2904 AVENUE H W RIVIERA BEACH, FLORIDA

DRAWN BY	RY
CHKD BY DW	
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966

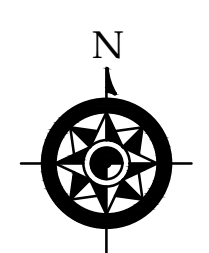
Sheet

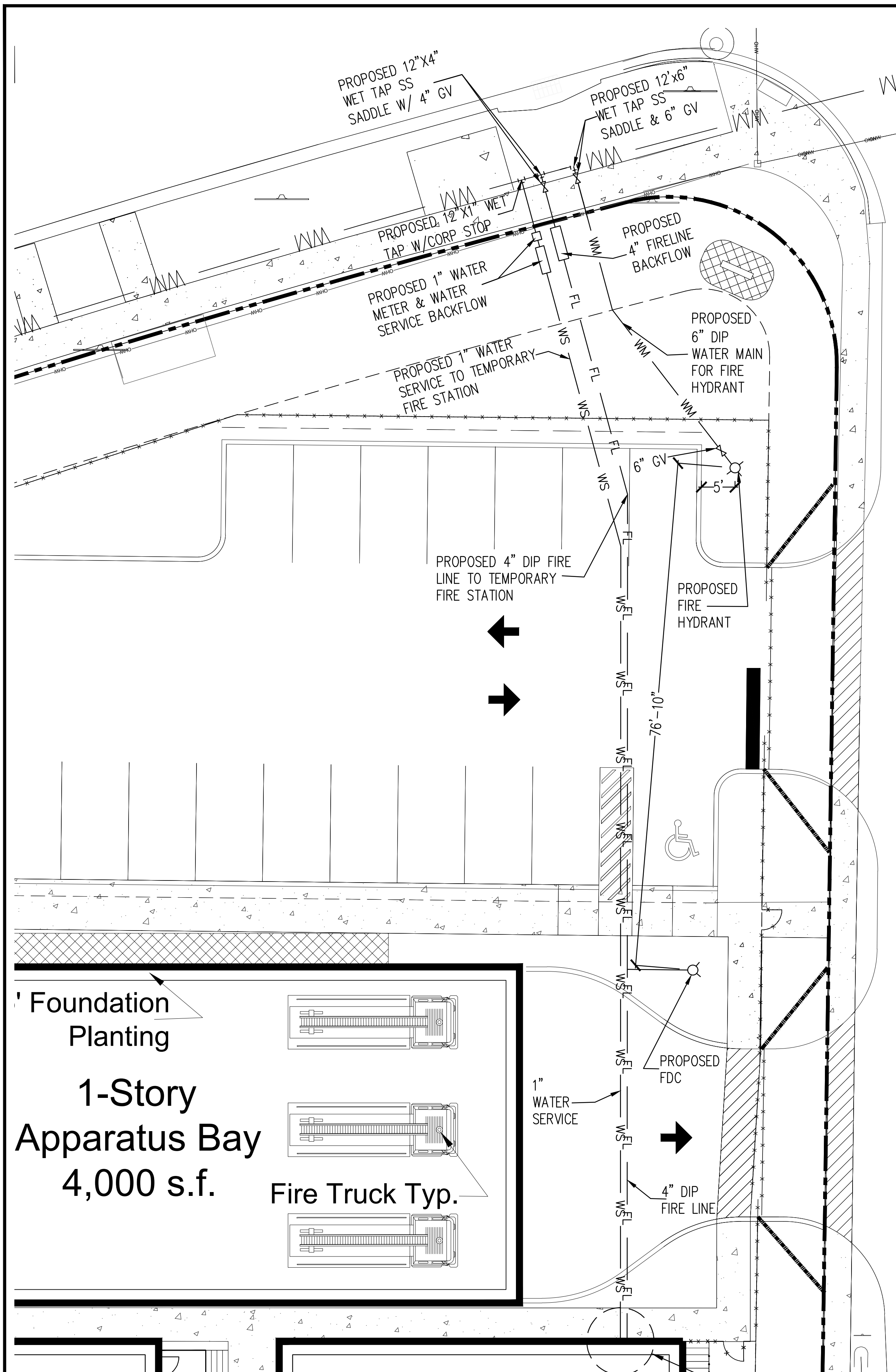
WS-1



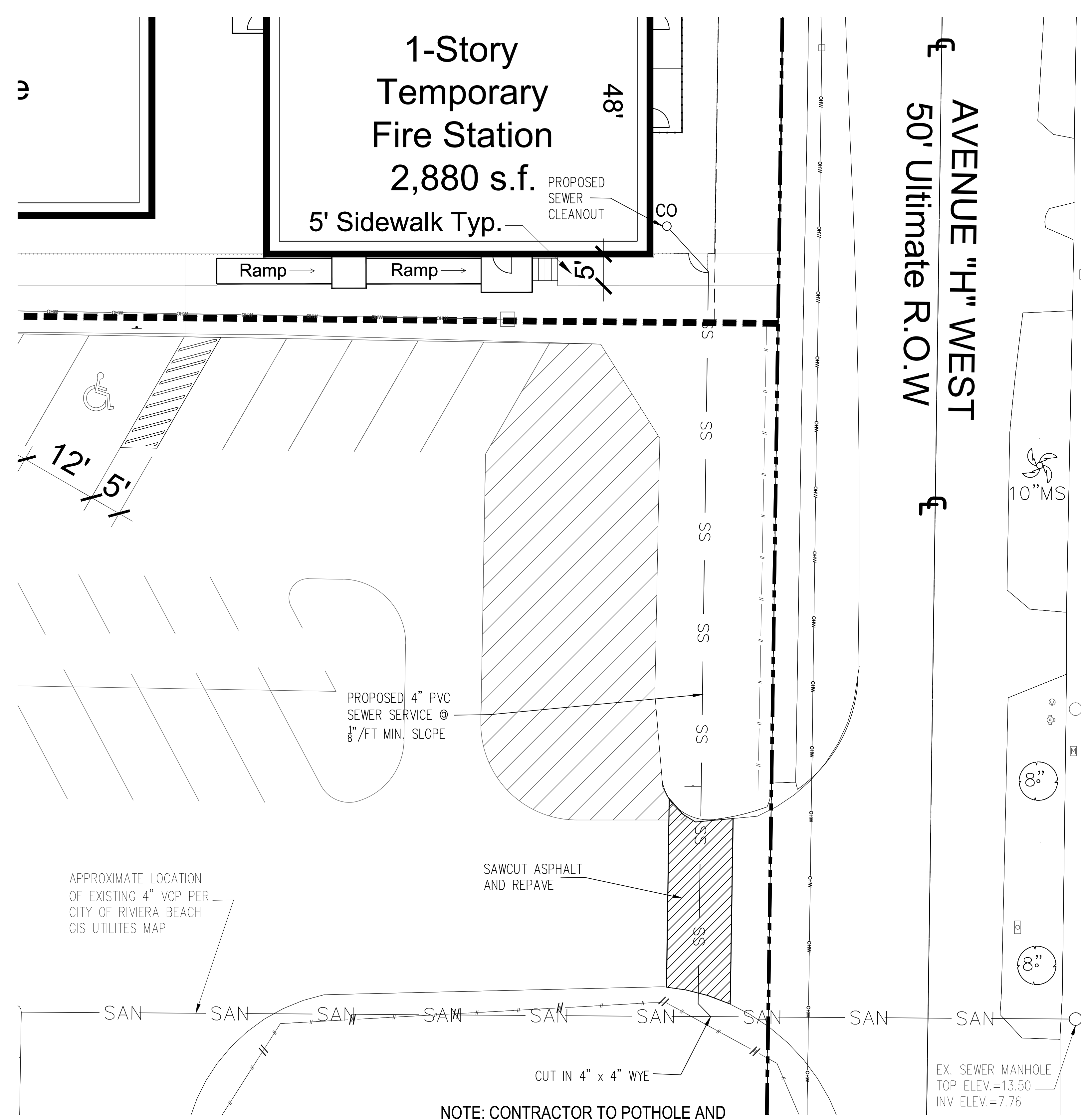
NOTE: ALL ELEVATIONS SHOWN IN NGVD 1929

SEE DETAIL B  
 SHEET WS-2





**DETAIL A (WATER)**  
1" = 10'



**DETAIL B (SEWER)**  
1" = 10'

NOTE: CONTRACTOR TO POTHOLE AND DETERMINE ELEVATION OF SEWER PRIOR TO SEWER EXTENSION WORK

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fax: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Site/Survey Plans  
Wetland/Stormwater  
Project Management  
Golf Course Renovation/Construction

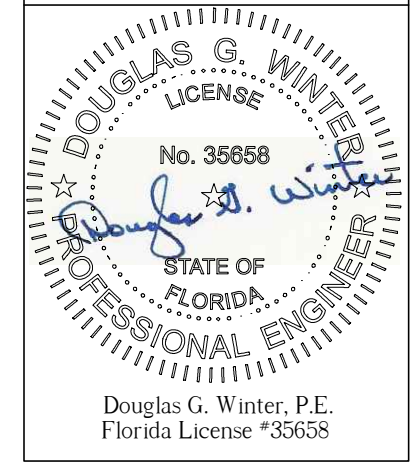
Douglas G. Winter  
Florida P.E. #35658

ENLARGED VIEW

TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2904 AVENUE H W  
RIVIERA BEACH, FLORIDA

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fax: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Site/Survey Plans  
Wetland/Stormwater  
Project Management  
Golf Course Renovation/Construction



This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

DRAWN	RY
CHKD BY	DW
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966
Sheet	

**WS-2**

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

**Doug Winter  
Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resource/Land Development  
Site Design  
Wetland/Plant Habitat  
Project Permitting/Management  
Golf Course Restoration/Construction

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

**SEWER-WATER MAIN CROSSING DETAIL**

STANDARD WATER AND SEWER SEPARATION STATEMENT

- STORM AND SANITARY SEWER CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE LOWER PIPE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN TEN (10) FEET BETWEEN ANY TWO JOINTS AND BOTH PIPES SHALL BE D.I.P. WHERE THERE IS NOT ALTERNATIVE TO SEWER PIPES CROSSING OVER A WATER MAIN, THE CRITERIA FOR MINIMUM SEPARATION BETWEEN LINES AND JOINTS IN THE ABOVE, SHALL BE REQUIRED AND BOTH PIPES SHALL BE D.I.P. RESPECTIVE OF SEPARATION.
- MAINTAIN TEN (10) FEET HORIZONTAL DISTANCE BETWEEN WATER MAIN AND STORM OR SANITARY SEWER MAIN, AS A MINIMUM.
- FORCE MAIN CROSSING WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE OUTSIDE OF THE FORCE MAIN AND OUTSIDE OF THE WATER MAIN WITH WATER MAIN CROSSING OVER THE FORCE MAIN.

06/27/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**STANDARD JACK & BORE DETAIL**  
N.T.S.

CARRIER PIPE SIZE	STEEL CASING	MIN. WALL THICKNESS
4"	12"	188
6"	14"	250
8"	20"	250
10"	20"	250
12"	24"	250
14"	24"	250
16"	30"	250
18"	30"	250
20"	36"	250
24"	42"	312
30"	48"	312
36"	54"	450
42"	60"	500
48"	72"	500

NOTES:

- APPROVED SELF RESTRAINING GASKETS SHALL BE USED FOR 4" THRU 12" DIAMETER PIPE.
- RESTRAINING MECHANICAL JOINTS SHALL BE USED FOR PIPE 14" DIAMETER AND ABOVE AND SHALL HAVE FACTORY WELDED RESTRAINING RINGS. AMERICAN RESTRAINED JOINT PIPE OR APPROVED EQUAL MAY BE USED.
- INSTALL STAINLESS STEEL PIPE CASING SPACERS PER MANUFACTURERS RECOMMENDATIONS (CASCADE MFG. CO. OR APPROVED EQUAL).
- PIPE CASING SPACERS SHALL BE POSITIONED PER MANUFACTURERS RECOMMENDATIONS.

**STANDARD JACK & BORE DETAIL**  
N.T.S.

**CASING DETAIL**  
N.T.S.

05/31/05  
JACKBORR

Water & Sewer Details  
City of Riviera Beach  
Utility District

CONCRETE THRUST BLOCKS

PIPE	THRUST BLOCK AREA REQ'D	PIPE	THRUST BLOCK AREA REQ'D	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	VALUES ARE FOR 90° BEND BASED ON 2000 P.S.F. SOFT BEARING LOAD AND PIPE PRESSURE OF 150 P.S.F. PLUS LIVE LOAD FACTOR FOR OTHER SIZES & PRESSURES THE AREA REQUIRED IS TO BE DETERMINED BY THE INSPECTOR.
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	
8"	6.0 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	122.0 SQ. FT.	
16"	24.0 SQ. FT.			

NOTE: FOR OTHER FITTINGS USE FOLLOWING FACTORS

TEE 100%  
45° BEND 76%  
22 1/2° BEND 39%  
11 1/4° BEND 20%  
DEAD END 100%

**CONCRETE THRUST BLOCKS**  
N.T.S.

05/27/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**Pavement Replacement Detail**

REMAINING BACKFILL PLACED AND COMPACTED TO APPROPRIATE SPECIFICATIONS OR A MINIMUM OF 95% 6" MAXIMUM SIZE.

GRANULAR BACKFILL PLACED AND COMPACTED TO MINIMUM 98% OF MAXIMUM DENSITY PER AASHTO-T-180. 2" MAXIMUM SIZE.

BEDDING MATERIAL PLACED AND COMPACTED TO MINIMUM 98% OF MAXIMUM DENSITY PER AASHTO-T-180.

NOTES:

- BEDDING SHALL CONSIST OF IN-SITU GRANULAR MATERIAL OR WASHED AND GRADED LMEROCK 3/8"-7/8" SIZING.
- THE PIPING SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
- THE PIPE SHALL BE PLACED IN A DRY TRENCH.
- BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGER ROCK, MUCK, AND DEBRIS.
- DENSITY TESTS ARE REQUIRED IN 1 FOOT LIFTS ABOVE THE PIPE AT INTERVALS OF 400' MAX., OR AS DIRECTED BY THE INSPECTOR.
- STREET PAVEMENT 2" ASPHALT, BASE 8" LMEROCK.

**Pavement Replacement Detail**  
N.T.S.

05/27/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**RPZ BACKFLOW PREVENTION DEVICE**

NOTES:

- TYPE "C" COPPER TUBING (SOFT DRAWN) OR POLYETHYLENE TUBING SDR 9 COPPER TUBE SIZE.
- IF THIS DISTANCE IS LESS THAN 3 FEET ONLY COPPER TUBING SHALL BE PERMITTED.
- 3/4"-2" BOTH SIDES SHALL BE TYPE "C" COPPER TUBING (SOFT DRAWN) WITH COPPER/BRASS SOLDER FITTINGS AND ADAPTERS. ONLY LEAD FREE SOLDER AND FLUX SHALL BE PERMITTED.
- BOTH 1 1/2" AND 2" ANGLE METER STOPS SHALL BE EQUIPPED WITH LOCKING CAPS AND METER FLANGES.
- ALL BACKFLOW PREVENTION DEVICES ASSEMBLY MUST BE USC APPROVED.
- WHEN THE DEVICE IS INSTALLED PARALLEL TO A BUILDING WALL THERE SHALL BE A MIN. OF 6" BETWEEN THE EDGE OF THE DEVICE AND THE BUILDING WALL.
- 2 1/2" - 10" THE RPZ BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF THE WATER SERVICE METER 18"-24" ABOVE FINISHED GRADE ON NON-GALVANIZED METAL PIPE. WORK DONE ON THIS DEVICE MUST BE PERFORMED BY A CERTIFIED BACKFLOW TECHNICIAN AND TEST REPORTS MUST BE SUBMITTED TO THE CITY OF RIVIERA BEACH - UTILITY DISTRICT.

**RPZ BACKFLOW PREVENTION DEVICE**  
N.T.S.

05/27/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**DOUBLE DETECTOR CHECK ASSEMBLY & METER INSTALLATION**  
N.T.S.

NOTES:

- ABOVE GROUND INSTALLATION OF 3" & ABOVE REQUIRE RISING STEM O.S. & Y. RESILIENT SEAT GATE VALVES WITH TEST COCKS.
- INSTALLATION AND CERTIFICATION REQUIRED BY A CERTIFIED BACKFLOW TECHNICIAN PRIOR TO ACCEPTANCE.
- AN RPZ BACKFLOW PREVENTION ASSEMBLY MUST BE INSTALLED DOWNSTREAM OF THE DOMESTIC AND IRRIGATION METER, 18" - 24" ABOVE FINISHED GRADE ON NON-GALVANIZED METALLIC PIPE. WORK DONE ON THIS DEVICE IS TO BE PERFORMED BY A CERTIFIED BACKFLOW TECHNICIAN AND TEST REPORTS MUST BE SUBMITTED TO THE CITY OF RIVIERA BEACH - UTILITY DISTRICT.

**DOUBLE DETECTOR CHECK ASSEMBLY & METER INSTALLATION**  
N.T.S.

05/27/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**SAMPLE POINT (ON MAIN)**  
N.T.S.

NOTES:

- WHENEVER POSSIBLE, SERVICE TAPS SHALL BE USED AS SAMPLE POINTS.

**SAMPLE POINT (ON MAIN)**  
N.T.S.

05/31/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**SAMPLE POINT (HYDRANT)**  
N.T.S.

NOTES:

- WHENEVER POSSIBLE, SERVICE TAPS SHALL BE USED AS SAMPLE POINTS.

**SAMPLE POINT (HYDRANT)**  
N.T.S.

05/27/05

Water & Sewer Details  
City of Riviera Beach  
Utility District

**Doug Winter  
Companies, Inc.**

Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resource/Land Development  
Site Design  
Wetland/Plant Habitat  
Project Permitting/Management  
Golf Course Restoration/Construction

DOUGLAS G. WINTER  
LICENSE  
No. 35658  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

Douglas G. Winter, P.E.  
Florida License #35658

This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

© 2021 Doug Winter Companies, Inc.

**TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2409 AVENUE H W  
RIVIERA BEACH, FLORIDA**

**CITY OF RIVIERA BEACH  
WATER & SEWER DETAILS**

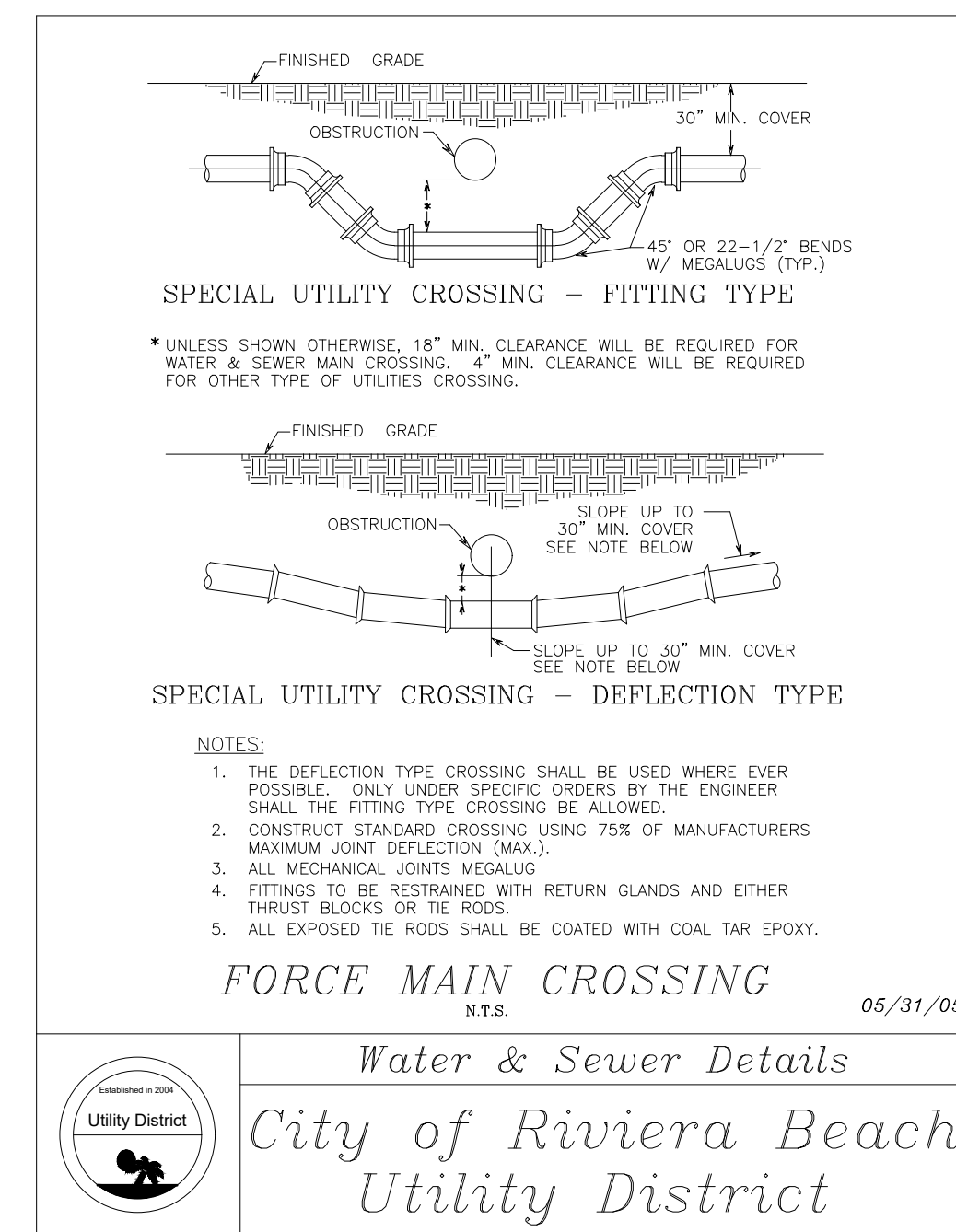
DRAWN HV  
CHKD BY DW  
DATE 04/29/2021  
SCALE AS SHOWN  
JOB # 20-3966

Sheet  
**WS-3**

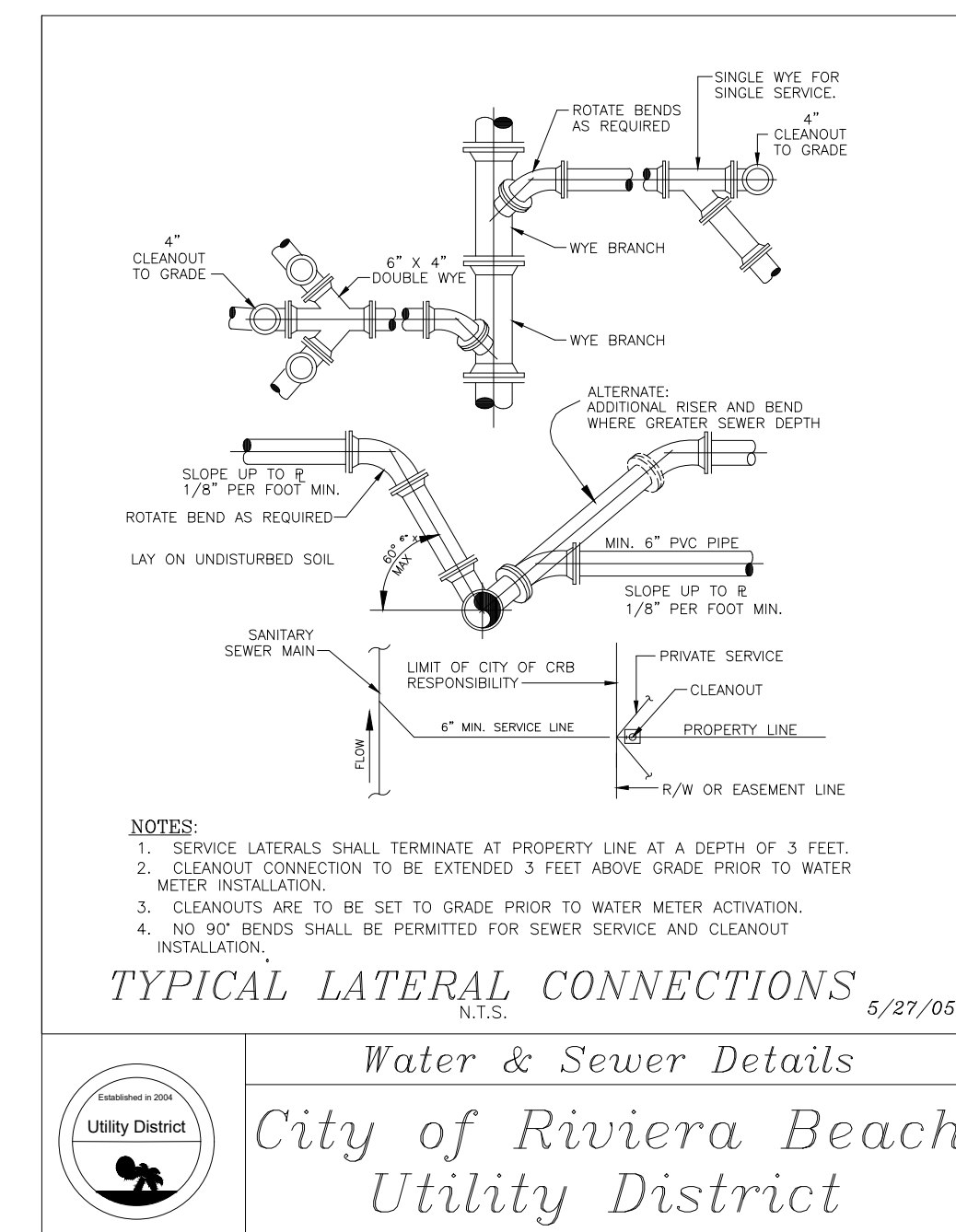
48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

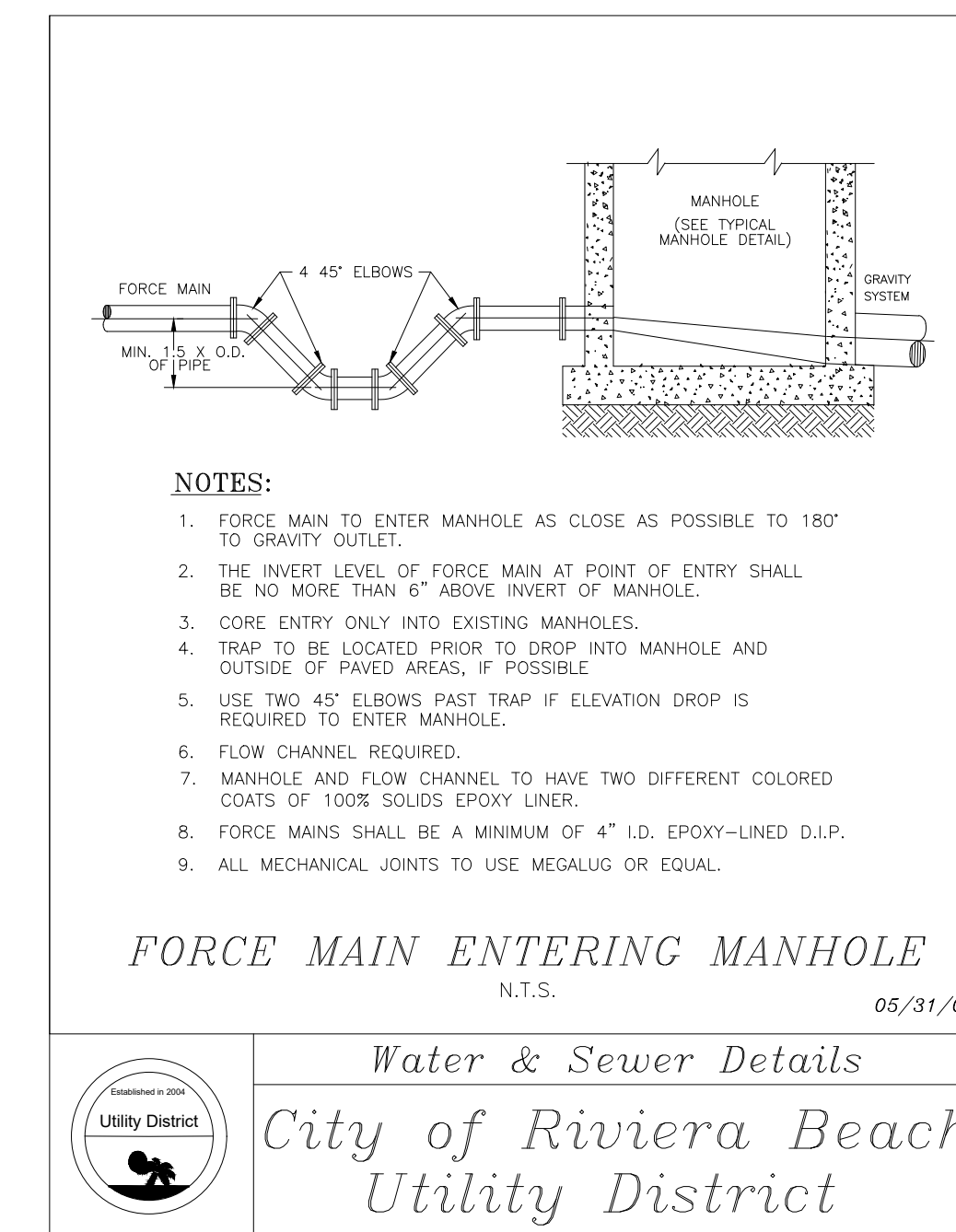
**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075  
Civil/Environmental/Agricultural Engineering  
Water Resource/Land Development  
Soils/Storm Drain  
Wetland/Plant Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction



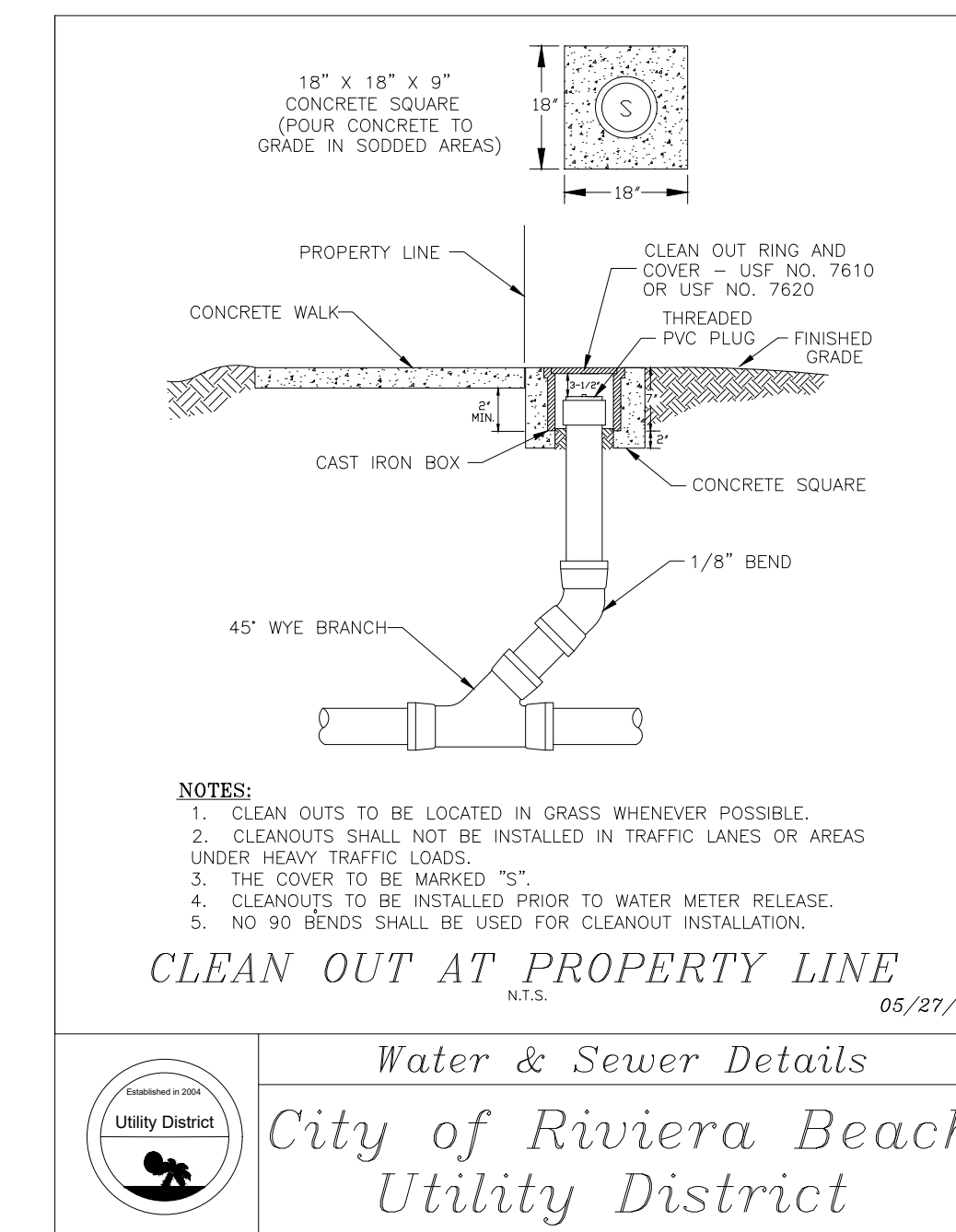
Water & Sewer Details  
City of Riviera Beach  
Utility District



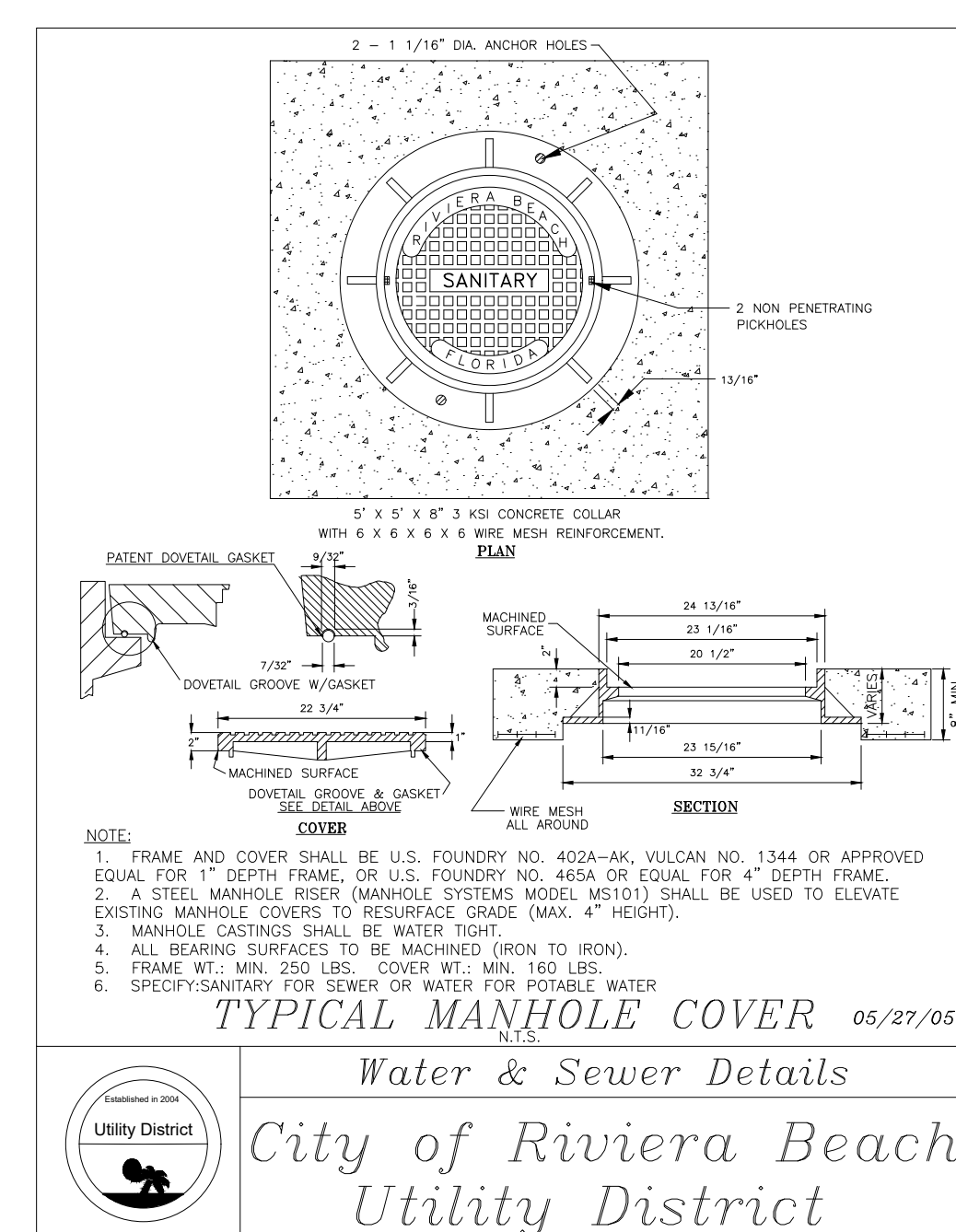
Water & Sewer Details  
City of Riviera Beach  
Utility District



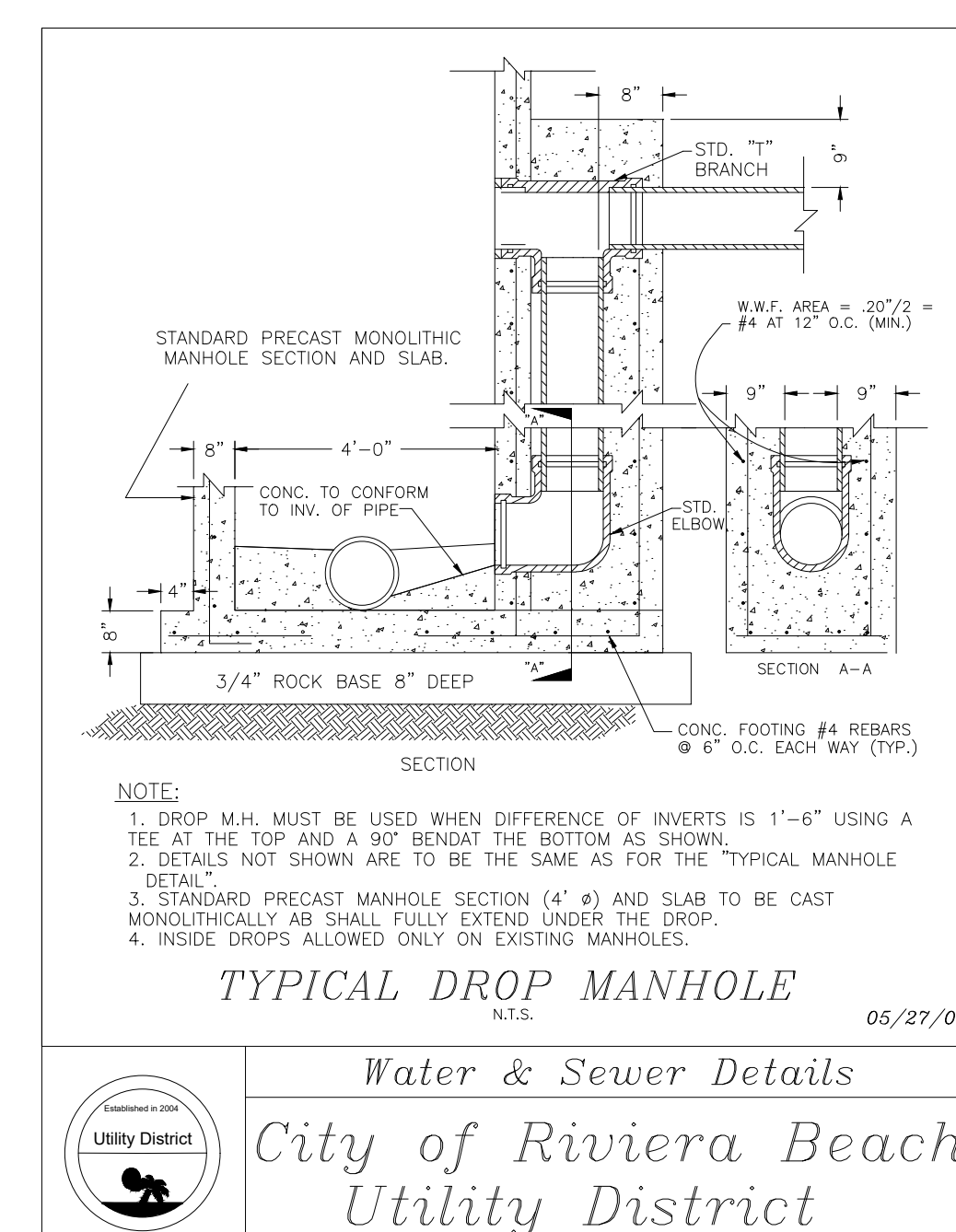
Water & Sewer Details  
City of Riviera Beach  
Utility District



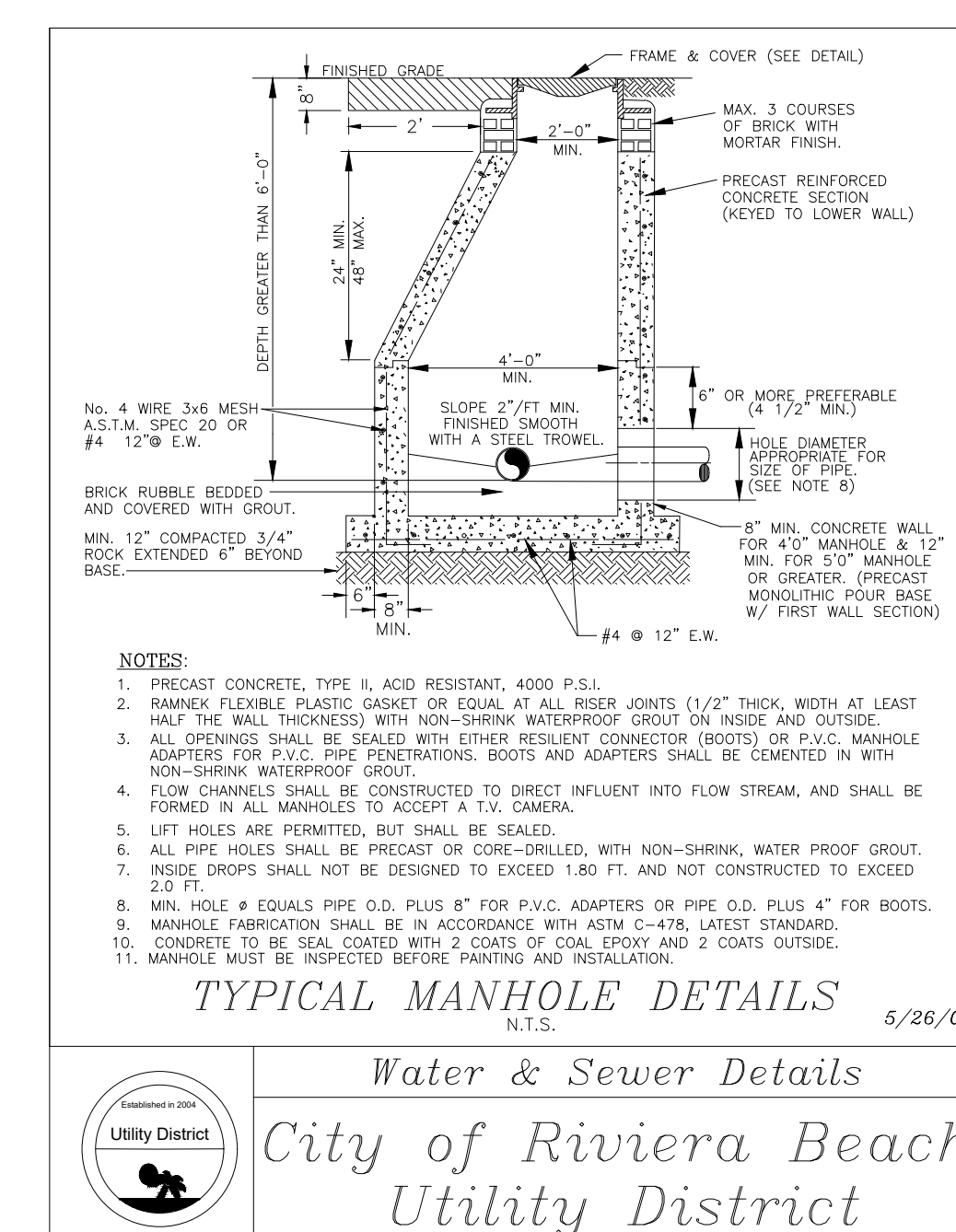
Water & Sewer Details  
City of Riviera Beach  
Utility District



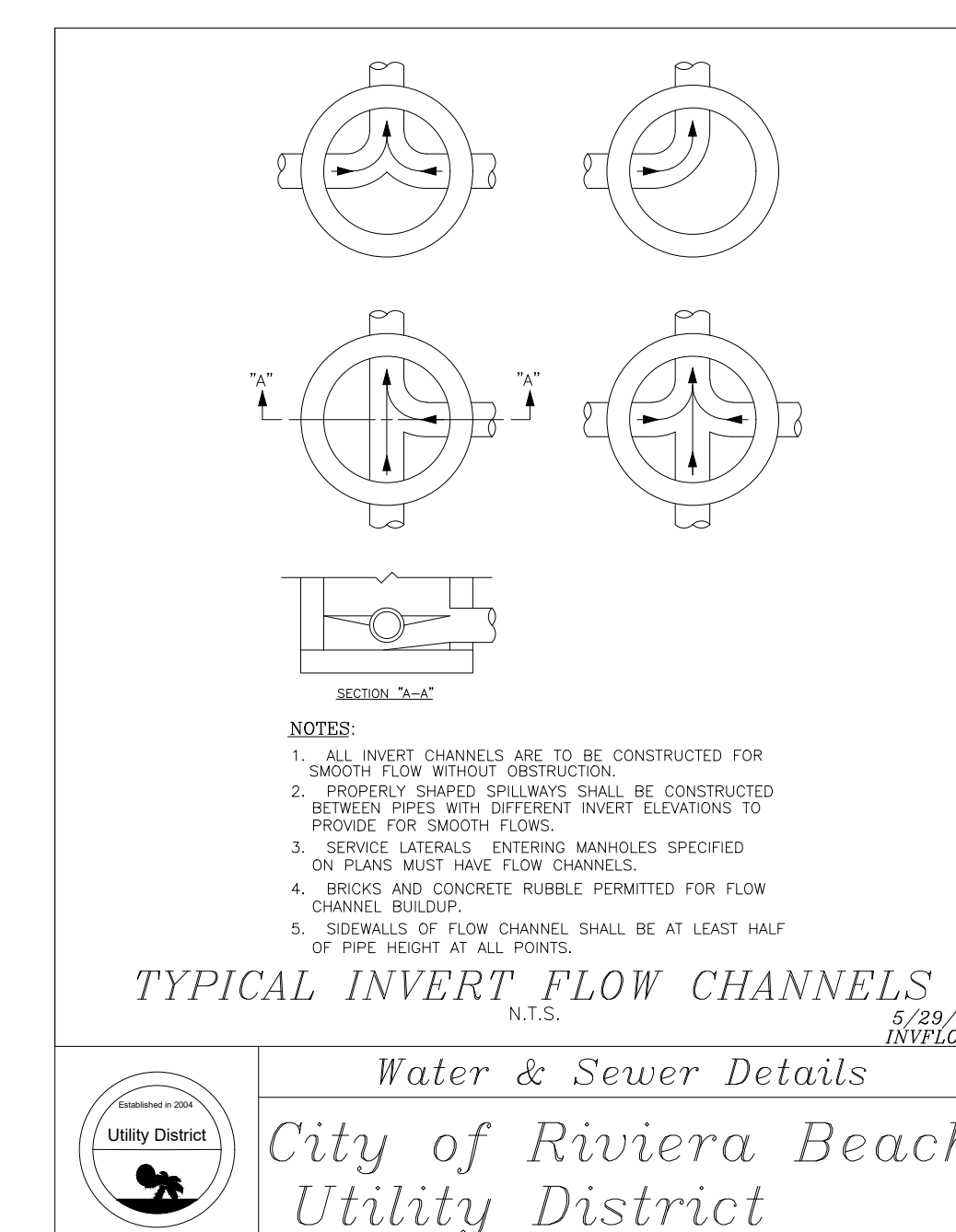
Water & Sewer Details  
City of Riviera Beach  
Utility District



Water & Sewer Details  
City of Riviera Beach  
Utility District

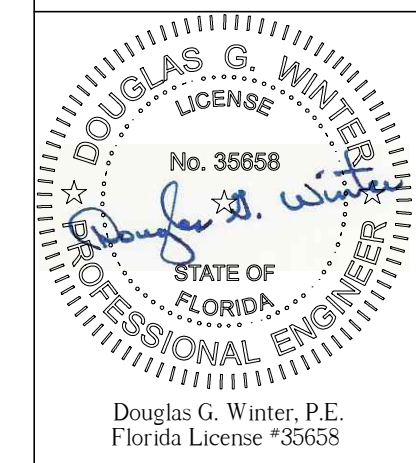


Water & Sewer Details  
City of Riviera Beach  
Utility District



Water & Sewer Details  
City of Riviera Beach  
Utility District

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075  
Civil/Environmental/Agricultural Engineering  
Water Resource/Land Development  
Soils/Storm Drain  
Wetland/Plant Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction

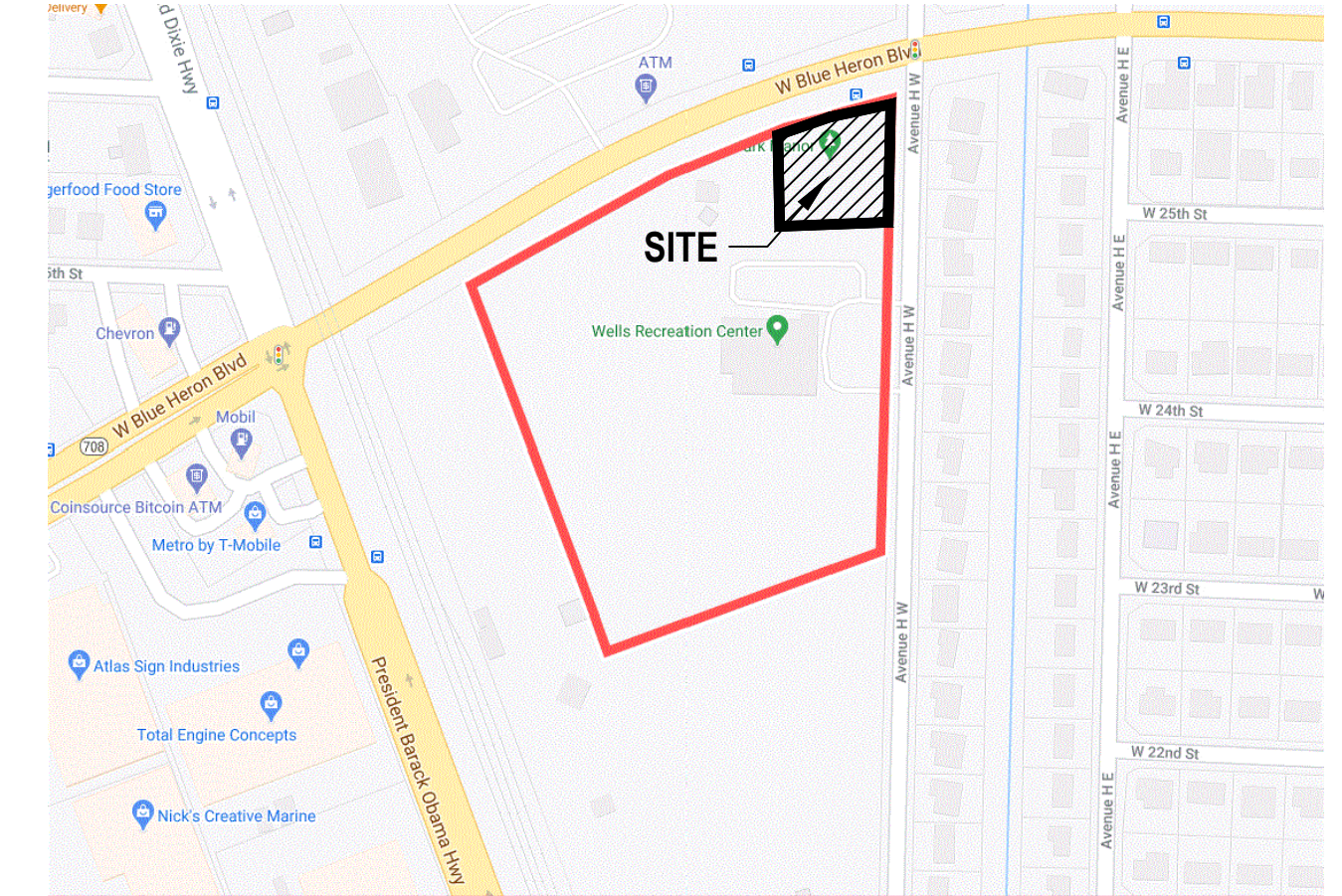


This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.  
Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

**TEMPORARY FIRE STATION 87**  
**AT WELLS RES 21-21**  
**2409 AVENUE H W**  
**RIVIERA BEACH, FLORIDA**  
**CITY OF RIVIERA BEACH**  
**WATER & SEWER DETAILS**  
 DRAWN HV  
 CHKD BY DW  
 DATE 04/29/2021  
 SCALE AS SHOWN  
 JOB # 20-3966  
 Sheet  
**WS-4**  
 © 2021 Doug Winter Companies, Inc.

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.



**LOCATION MAP**  
N.T.S.

**LEGEND**

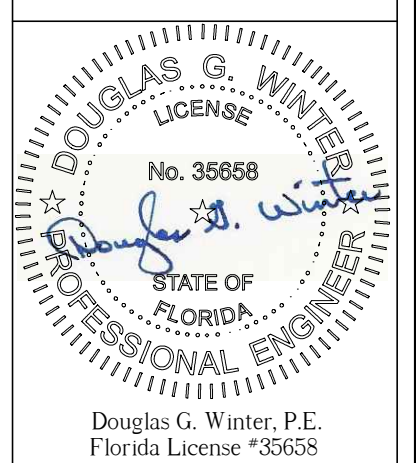
- EXISTING ELEVATION PER KEITH & SCHNARS, P.A.(NGVD)
- ONEWAY DRIVE / DIRECTIONAL ARROWS
- PROPOSED ADA ACCESS
- STOP BAR
- SIGNAGE
- HC PARKING SPACE
- AFFECTED AREA LINE

**SIGNAGE AND STRIPING PLAN**

**TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2904 AVENUE H W  
RIVIERA BEACH, FL**

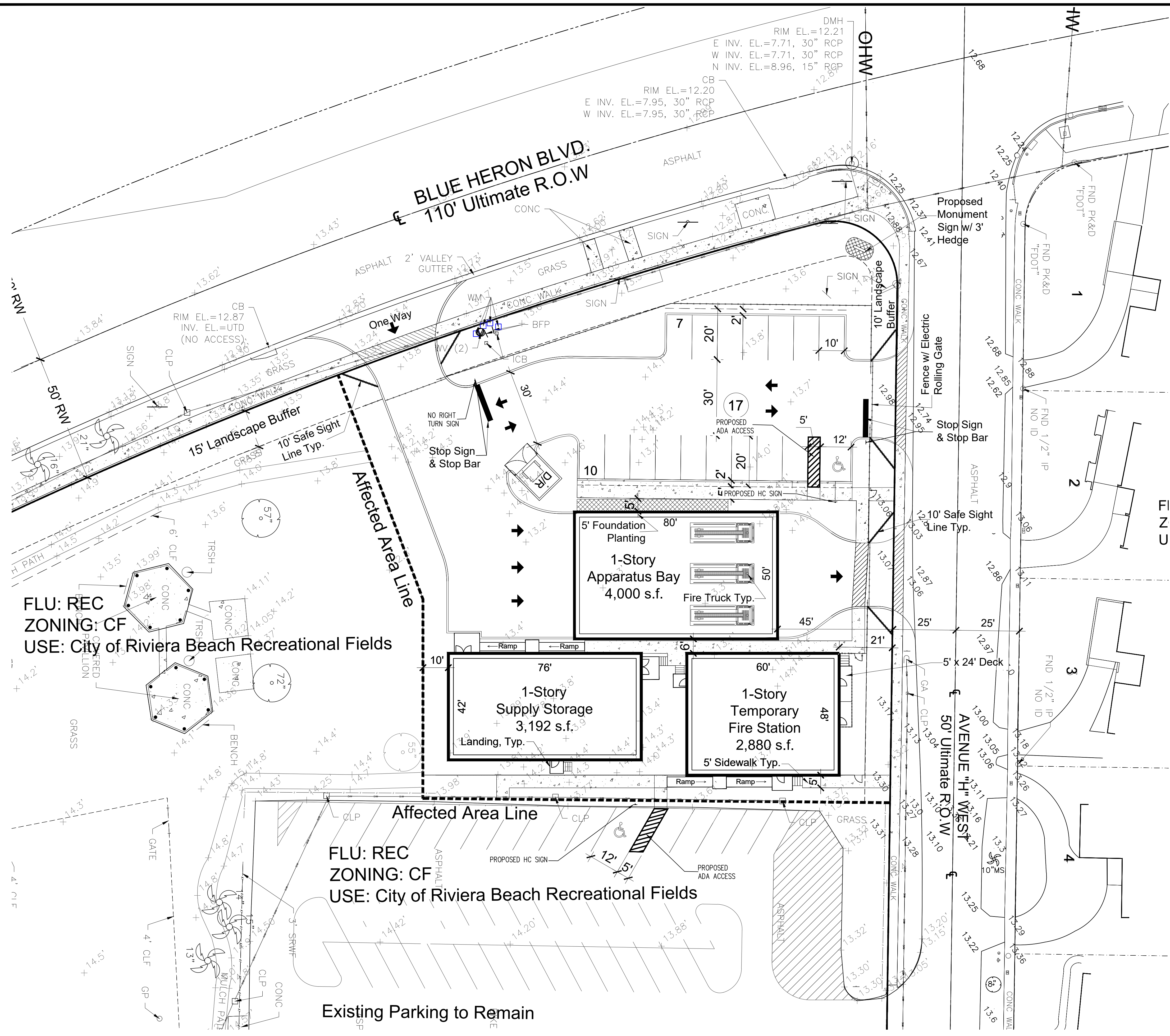
This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.



DRAWN	HV
CHKD BY	DW
DATE	04/29/21
SCALE	AS SHOWN
JOB #	20-3966

Sheet  
**SS-1**



**SIGNAGE AND STRIPING**

GRAPHIC SCALE  
1 inch = 20 ft.

Douglas G. Winter, P.E. on 03/11/21



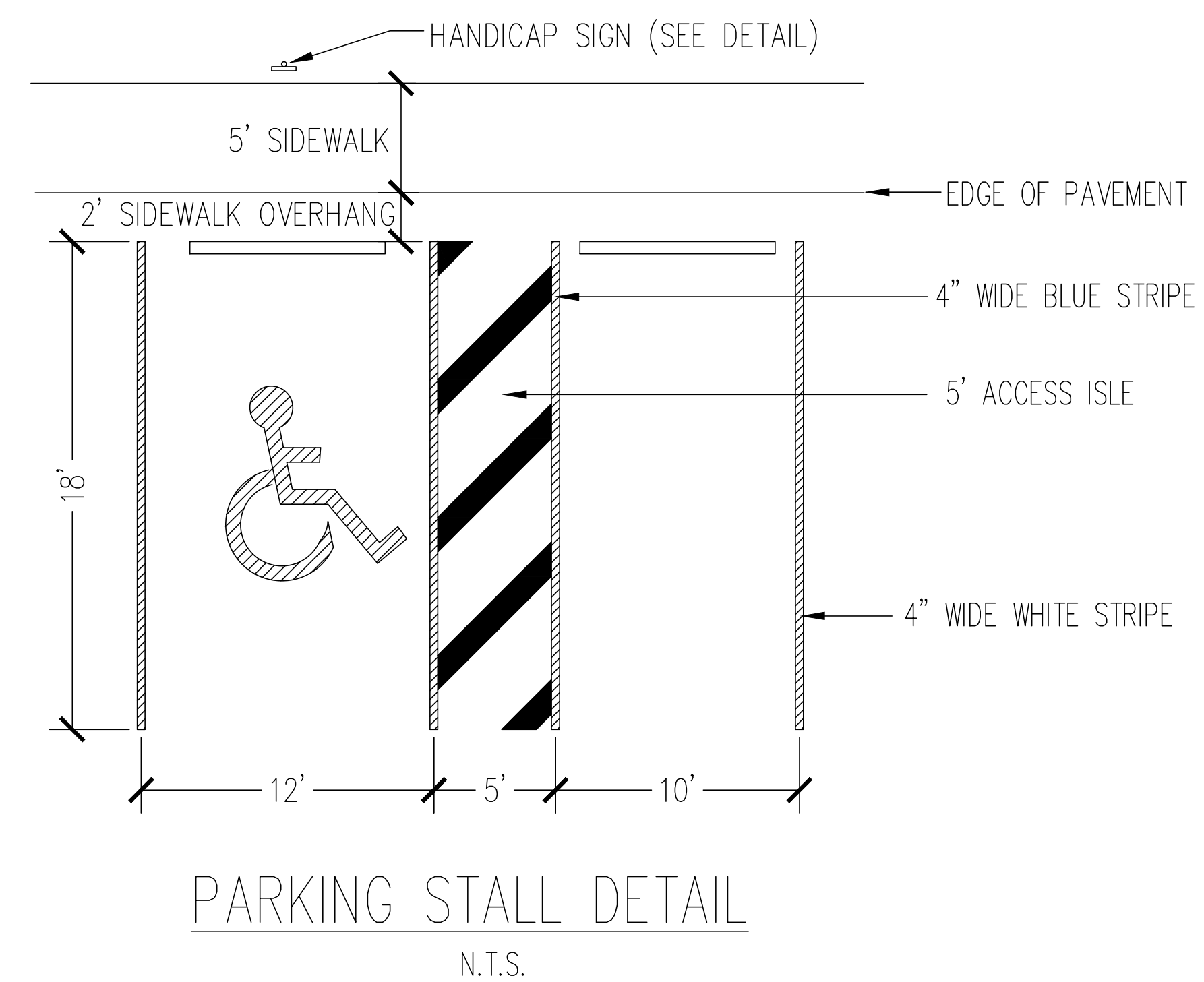
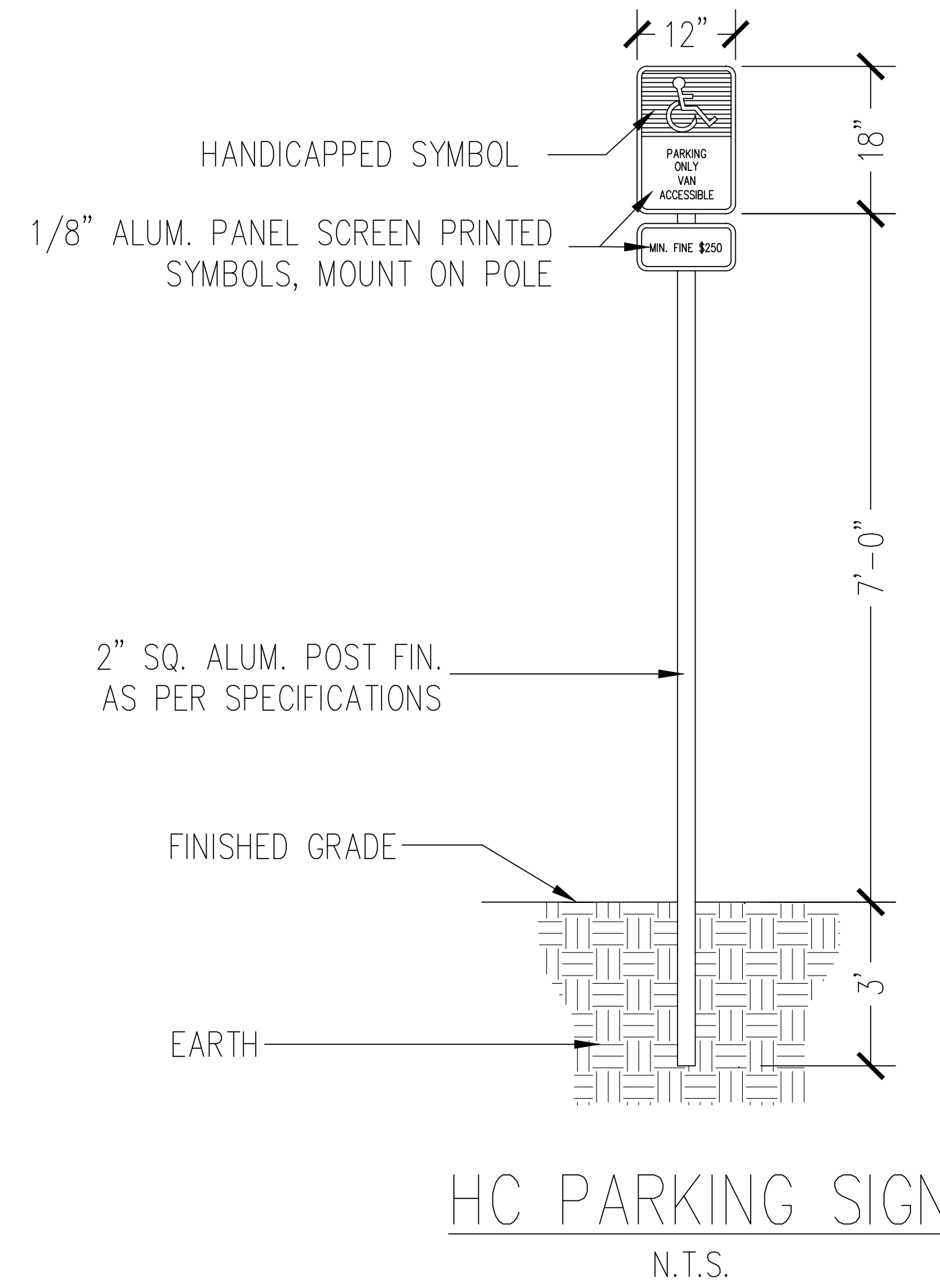
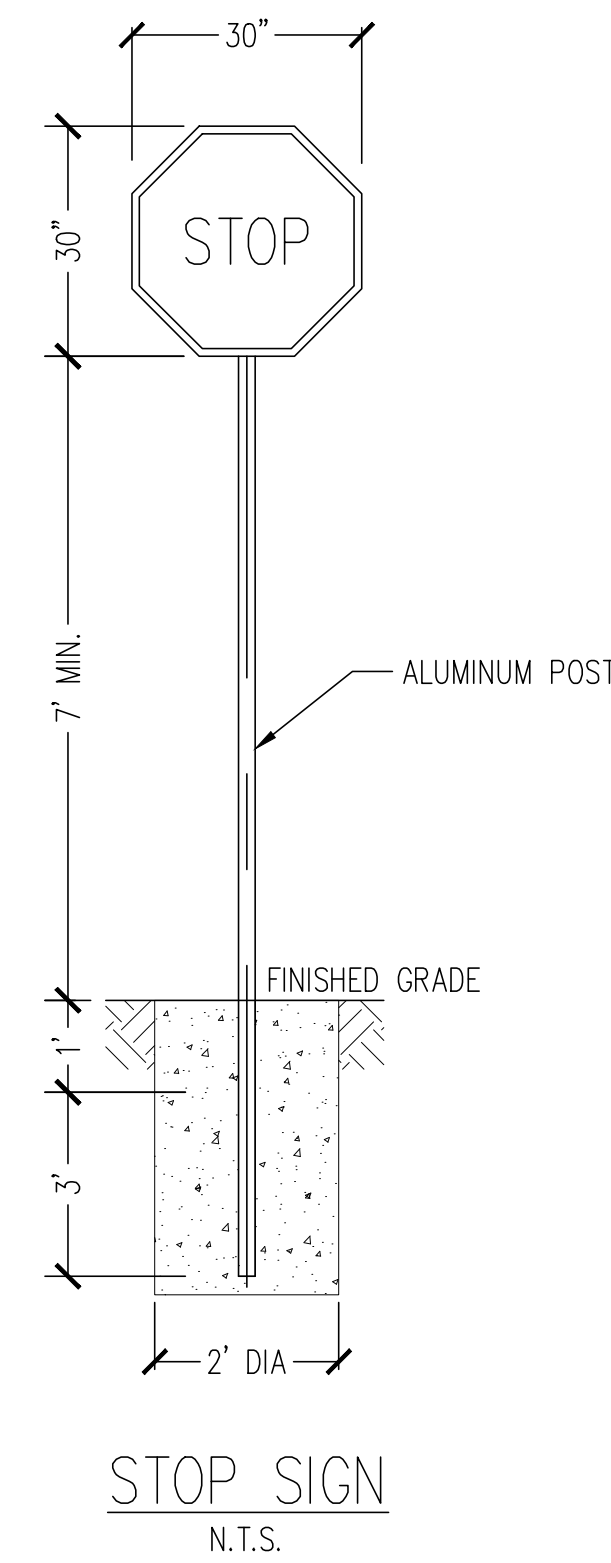
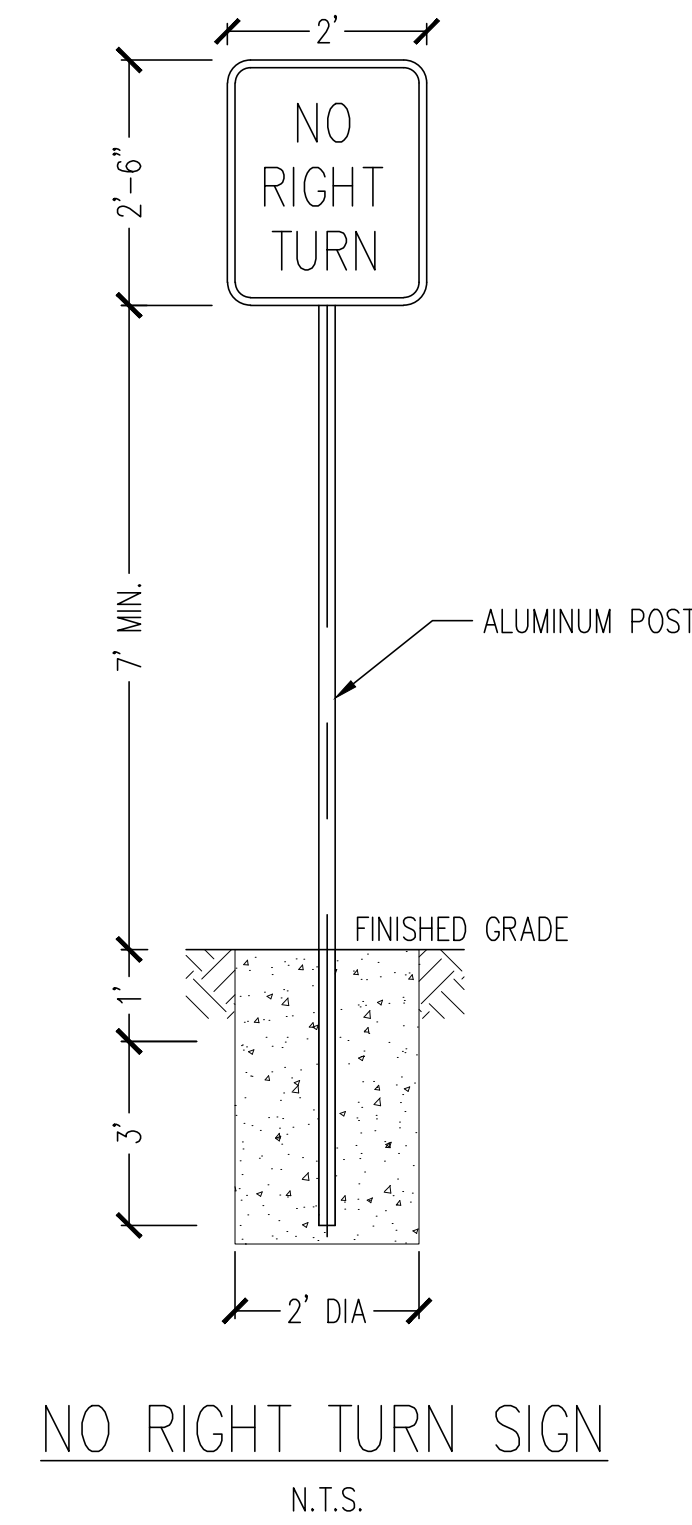
48 HOURS BEFORE DIGGING  
 CALL TOLL FREE  
 1-800-432-4770  
 SUNSHINE STATE  
 ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

**Doug Winter  
 Companies, Inc.**

Certificate of Authorization #5601  
 4047 Okeechobee Blvd., Suite 222  
 PALM BEACH GARDENS, FL 33410  
 Ph: (561) 471-9863 Fx: (561) 471-5075  
 Civil/Environmental/Agricultural Engineering  
 Water Resources/Land Development  
 Storm Systems Design  
 Wetland/Plant Habitat  
 Project Permitting/Management  
 Golf Course Restoration/Construction

Douglas G. Winter, P.E.  
 Florida License #35658



SIGNAGE AND STRIPING  
 DETAILS

TEMPORARY FIRE STATION 87  
 AT WELLS RES 21-21  
 2904 AVENUE H W  
 RIVIERA BEACH, FL

DRAWN	HV
CHKD BY	DW
DATE	4/29/21
SCALE	AS SHOWN
JOB #	20-3966

Sheet

SS-2

**Doug Winter  
 Companies, Inc.**  
 Certificate of Authorization #5601  
 4047 Okeechobee Blvd., Suite 222  
 West Palm Beach, FL 33410  
 Ph: (561) 471-9863 Fx: (561) 471-5075  
 Civil/Environmental/Agricultural Engineering  
 Water Resources/Land Development  
 Storm Systems Design  
 Wetland/Plant Habitat  
 Project Permitting/Management  
 Golf Course Restoration/Construction

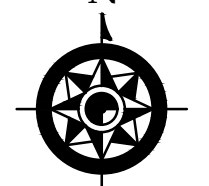
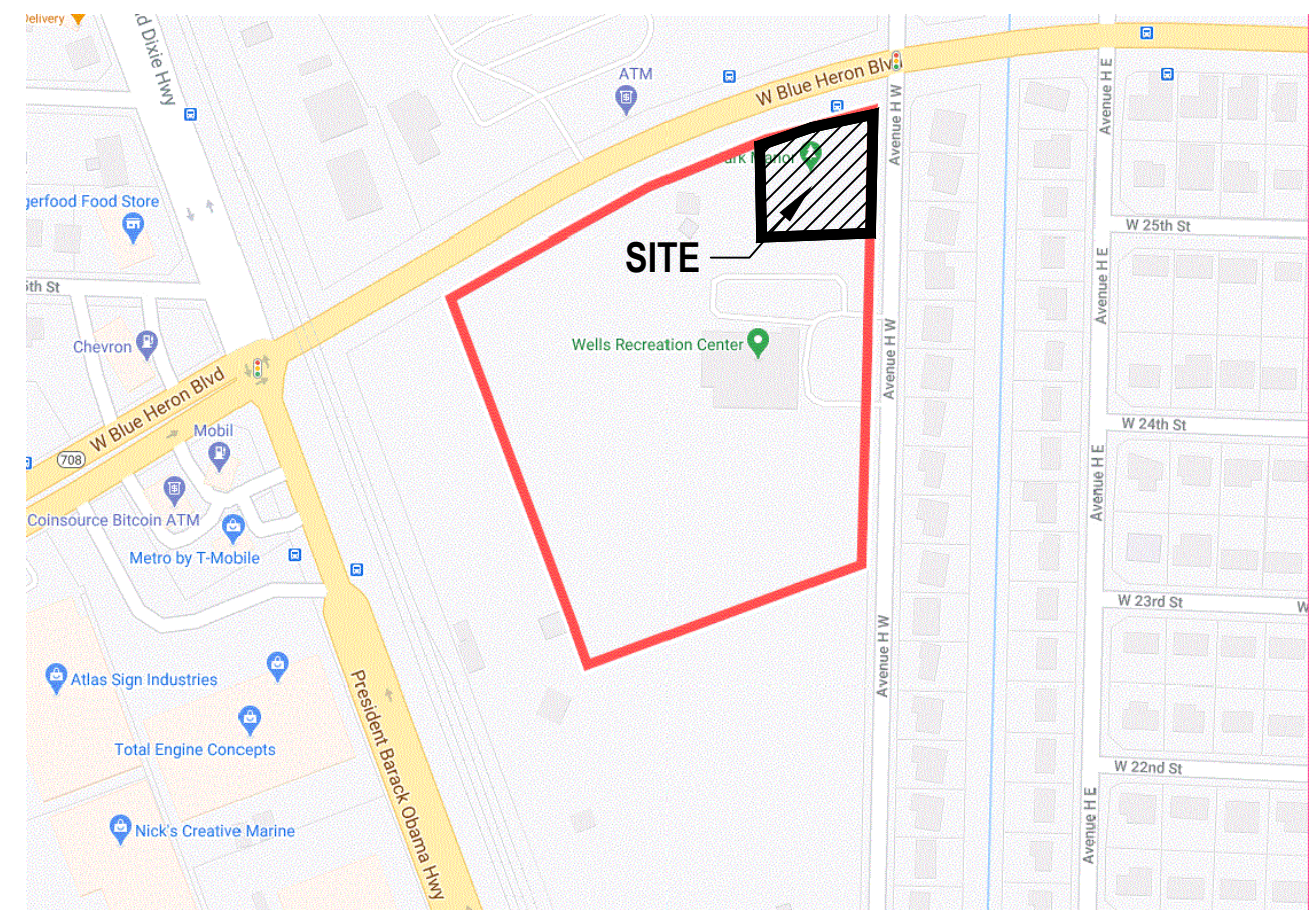
Douglas G. Winter, P.E.  
 Florida License #35658

This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.



**LOCATION MAP**  
N.T.S.

**LEGEND**

- +14.0' EXISTING ELEVATION PER KEITH & SCHNARS P.A.
- NEW HEADER CURB
- PROPOSED CONCRETE DRIVEWAY CONNECTION

**NOTES:**

- 1) CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES IN THE VICINITY OF THE SEWER SERVICE BEFORE CUTTING THE EXISTING SERVICE FOR THE WYE
- 2) WORK SHOULD BE COMPLETED UNDER THE INSPECTION OF RIVIERA BEACH UTILITIES INSPECTORS

**RECORD DRAWING NOTES:**

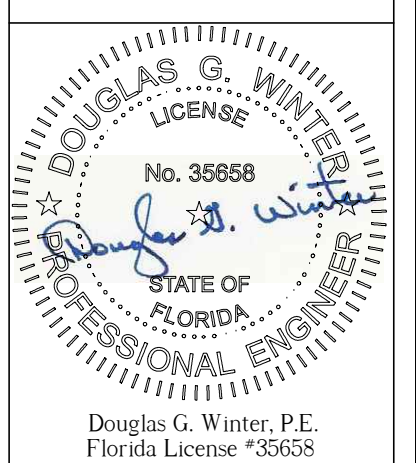
1. RECORD DRAWINGS SHALL BE PREPARED IN THE STATE PLANE COORDINATE SYSTEM.
2. ALL UTILITY FEATURES SHALL BE SHOWN IN THEIR AS-BUILT LOCATION.
3. STATE PLANE COORDINATES SHALL BE DISPLAYED ON RECORD DRAWINGS FOR ALL FEATURES SPECIFIED IN CITY OF RIVIERA BEACH STANDARDS.
4. STATE PLANE COORDINATES SHALL BE SHOWN ON PROPERTY CORNERS AS REQUIRED BY CITY OF RIVIERA BEACH.

**GENERAL SEWER NOTE:**

1. ON-SITE SEWER LATERALS, LIFT STATION AND 4" PVC FM ARE PRIVATELY OWNED AND MAINTAINED.
  2. SEWER CLEANOUT MINI-MANHOLE ARE REQUIRED ON ALL CLEANOUTS WITHIN PAVEMENT AREAS.
- GENERAL LANDSCAPE NOTE:**  
SOD ONLY WITH NO SHRUBS AND/OR TREES TO BE INSTALLED WITHIN 5' OF A WATER METER AND 7.5' OF A FIRE HYDRANT. TREES CANNOT BE INSTALLED WITHIN 10' OF A WATER OR SEWER MAIN WITHOUT PRIOR CITY OF RIVIERA BEACH APPROVAL AND THE INSTALLATION OF A ROOT BARRIER.

Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075

Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Septic System Design  
Wetland/Planting Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction



This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

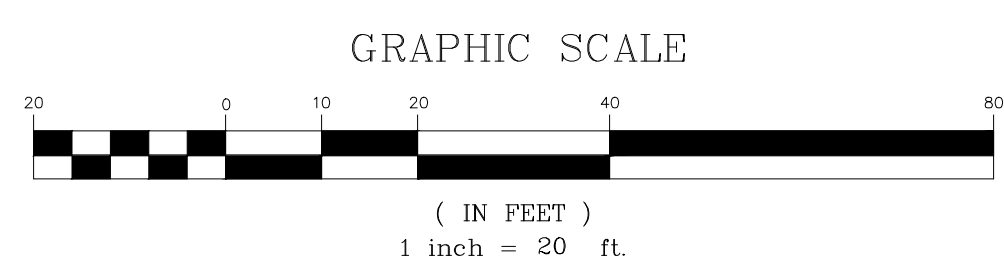
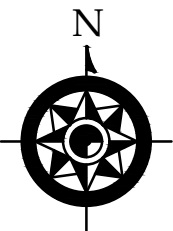
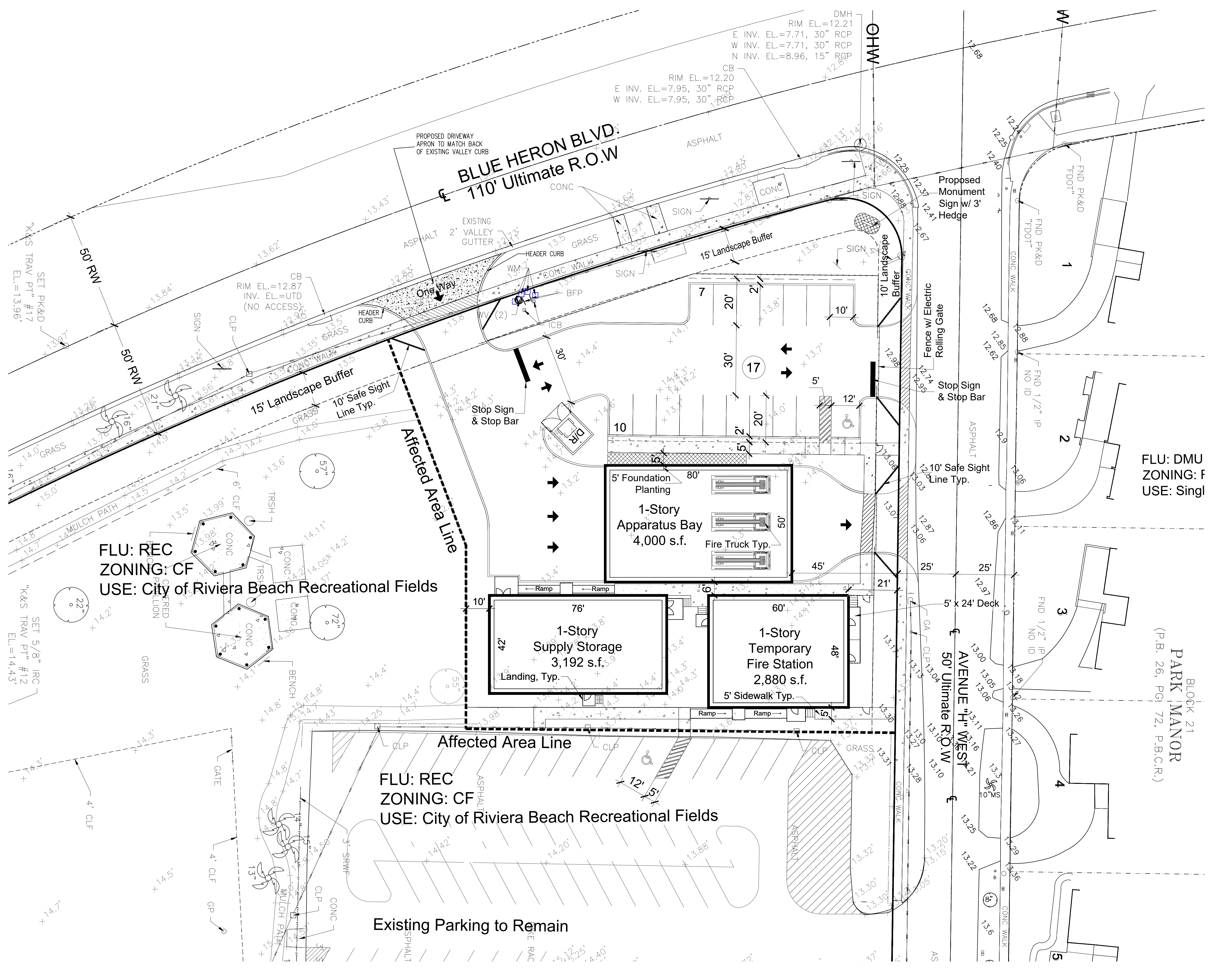
Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

**FDOT DRIVEWAY CONNECTION PLAN**

TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2904 AVENUE H W  
RIVIERA BEACH, FLORIDA

DRAWN	HV
CHKD BY	DW
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966

Sheet  
**FDOT DC-1**



NOTE: ALL ELEVATIONS SHOWN IN NGVD 1929

**FLU: REC ZONING: CF**  
**USE: City of Riviera Beach Recreational Fields**

**FLU: REC ZONING: CF**  
**USE: City of Riviera Beach Recreational Fields**

**FLU: DMU ZONING: F**  
**USE: Singl**

Existing Parking to Remain

**PARK MANOR**  
BLOCK 21  
(P.B. 26, PG. 72, P.B.C.R.)

**BLUE HERON BLVD.**  
110' Ultimate R.O.W.

**AVENUE H WEST**  
50' Ultimate R.O.W.

48 HOURS BEFORE DIGGING  
CALL TOLL FREE  
1-800-432-4770  
SUNSHINE STATE  
ONE CALL OF FLORIDA, INC.

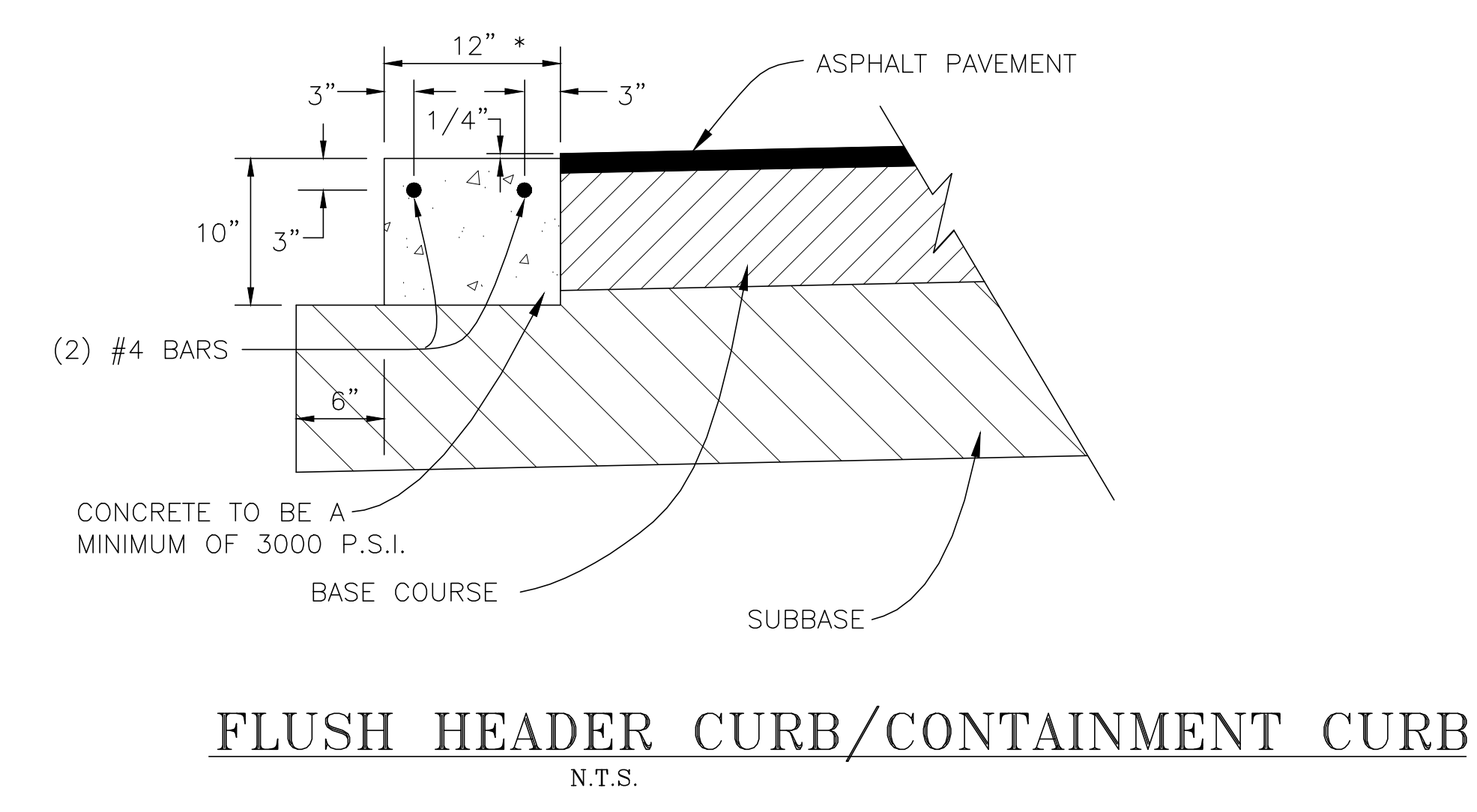
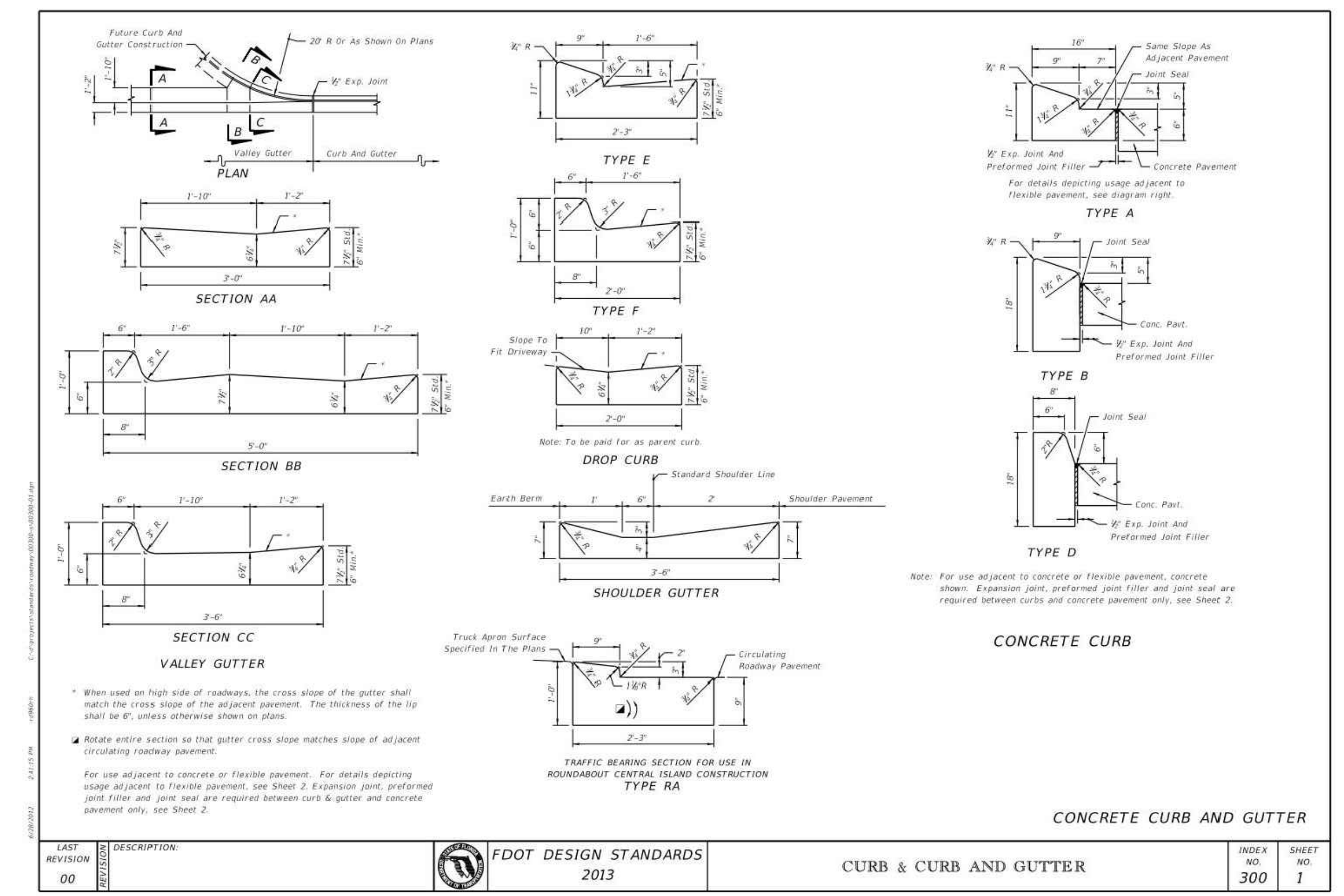
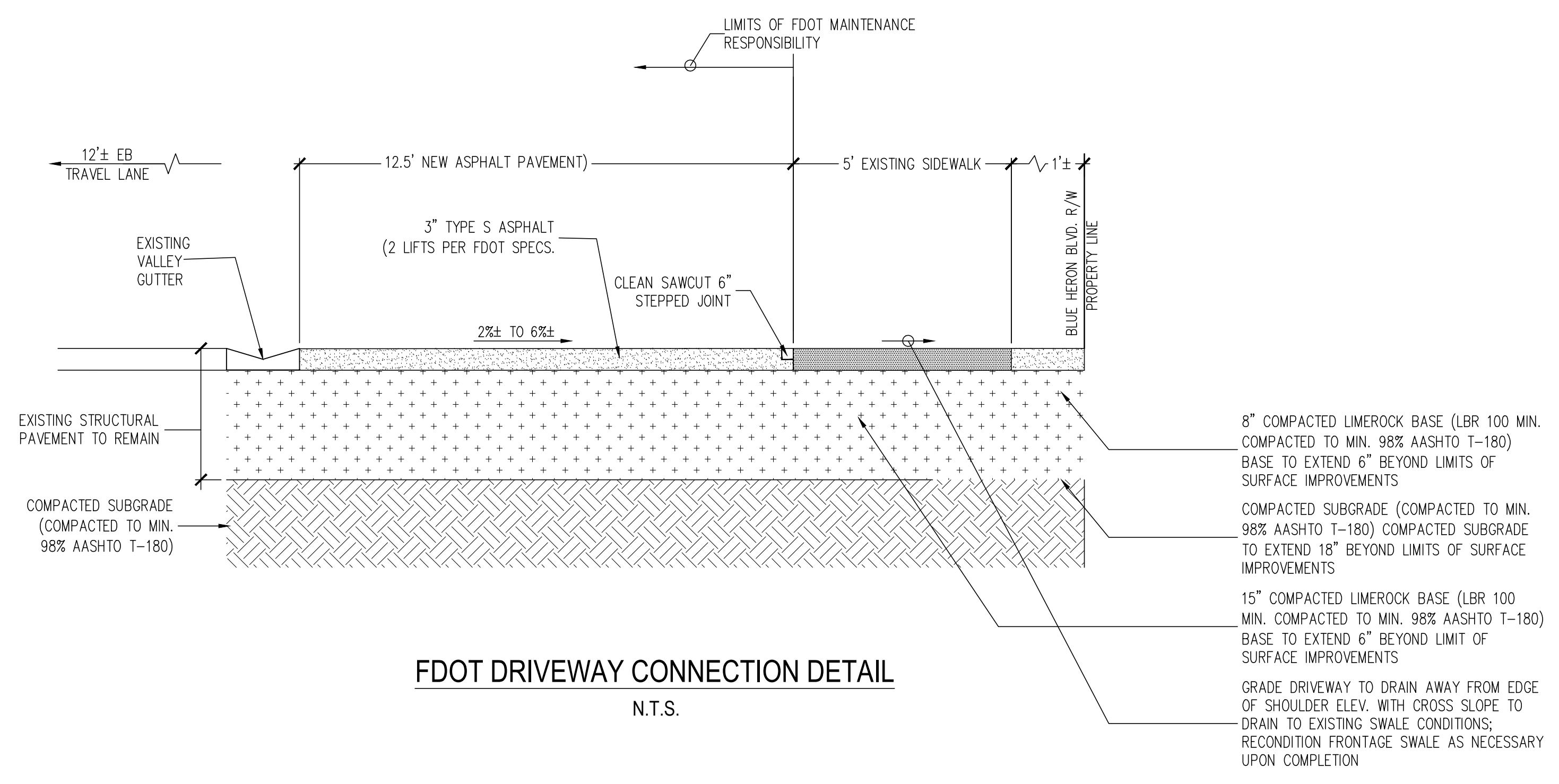
IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL EXISTING UTILITIES FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES.

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075  
Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Septic System Design  
Wetland/Planning Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction

Douglas G. Winter  
Florida P.E. #35655

FDOT DRIVEWAY DETAILS

TEMPORARY FIRE STATION 87  
AT WELLS RES 21-21  
2904 AVENUE H W  
RIVIERA BEACH, FLORIDA



\* NOTE: BRICK AREA OR PLANTER AREA CONTAINMENT CURBING OF A 6", 8" OR 10" WIDTH SHALL INCLUDE (1) #4 BAR CENTERED AT A 3" DEPTH; REF. THE ARCH. DWGS. FOR ADD'L. INFO.

**Doug Winter Companies, Inc.**  
Certificate of Authorization #5601  
4047 Okeechobee Blvd., Suite 222  
West Palm Beach, FL 33409  
Ph: (561) 471-9863 Fx: (561) 471-5075  
Civil/Environmental/Agricultural Engineering  
Water Resources/Land Development  
Septic System Design  
Wetland/Planning Habitat  
Project Permitting/Management  
Golf Course Renovation/Construction

NO. 35858  
DOUGLAS G. WINTER  
LICENSE  
STATE OF FLORIDA  
PROFESSIONAL ENGINEER

Douglas G. Winter, P.E.  
Florida License #35658

This item has been electronically signed and sealed by Douglas G. Winter, P.E. on 04/30/21 using a SHA-1 authentication code.

Printed copies of this document are not considered signed and sealed and the SHA-1 authentication code must be verified on any electronic copies.

DRAWN	HV
CHKD BY	DW
DATE	04/29/2021
SCALE	AS SHOWN
JOB #	20-3966

Sheet  
**FDOT DC-2**