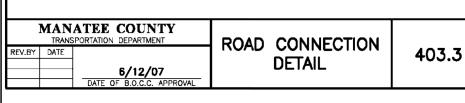


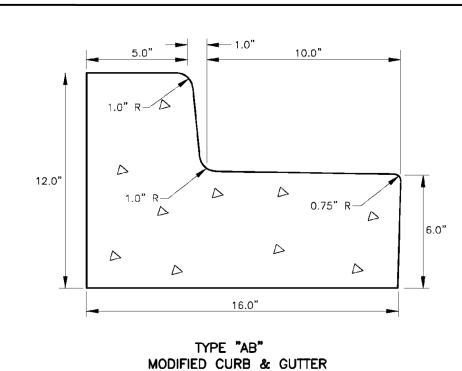
- * NOTE: LIMITS OF OVERLAY EDGE OF PAVEMENT TO EDGE OF PAVEMENT AND 25' BEYOND LIMITS OF CONSTRUCTION.
- ** NOTE: CONNECTION TO OLDER (SUBSTANDARD THICKNESS) ROADS MAY REQUIRE THICKER PROPOSED BASE AND SUB-BASE TO MEET CURRENT STANDARDS.

SIGNAGE AND MARKING PLAN SHALL ACCOMPANY CONSTRUCTION PLAN.

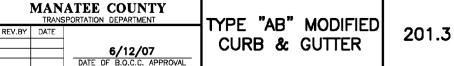
ROAD CONNECTION DETAIL

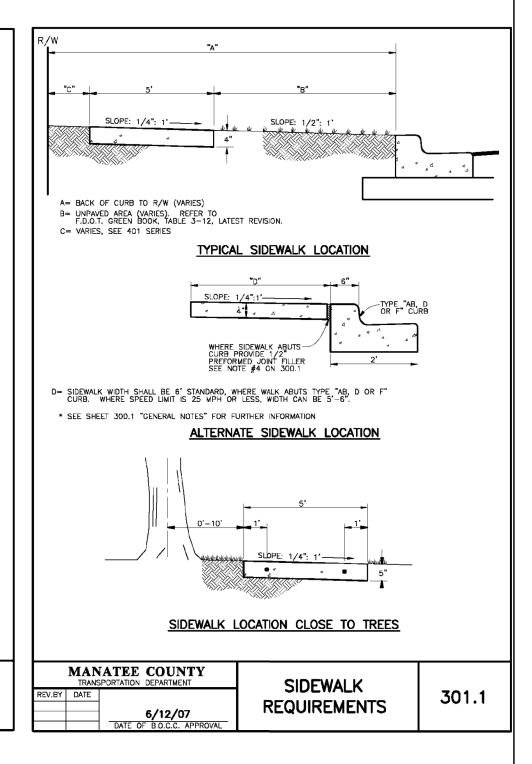
N.T.S.





- A) CLASS 1 CONCRETE 3,000 PSI AT 28 DAYS.
- B) CURB AND GUTTER SHALL MEET THE SPECIFICATIONS ESTABLISHED BY FLORIDA D.O.T. STANDARD SPECIFICATIONS PER F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS STANDARDS INDEX NO. 300, LATEST REVISION.





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No.	REVISIONS	DATE	BY	111	

HDR ENGINEERING, INC.

2601 CATTLEMEN ROAD, SUITE 400

SARASOTA, FLORIDA 34232

CERTIFICATE OF AUTHORIZATION 4213

DATE
09/2019

PROJECT NO.
6045662

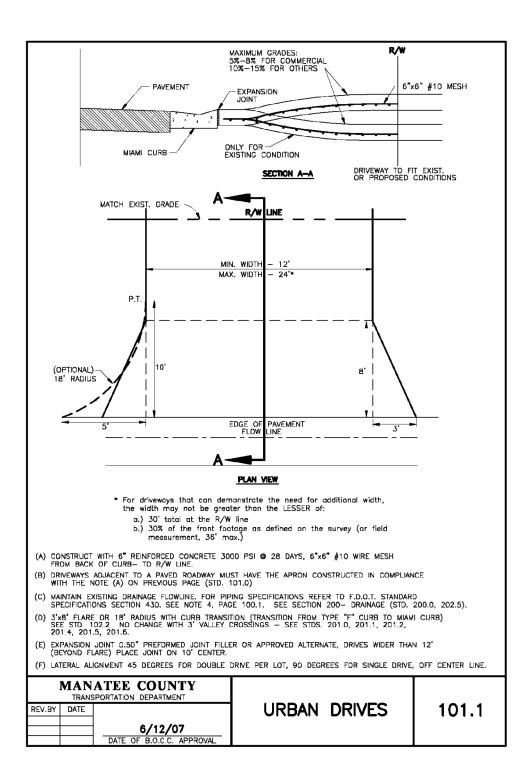


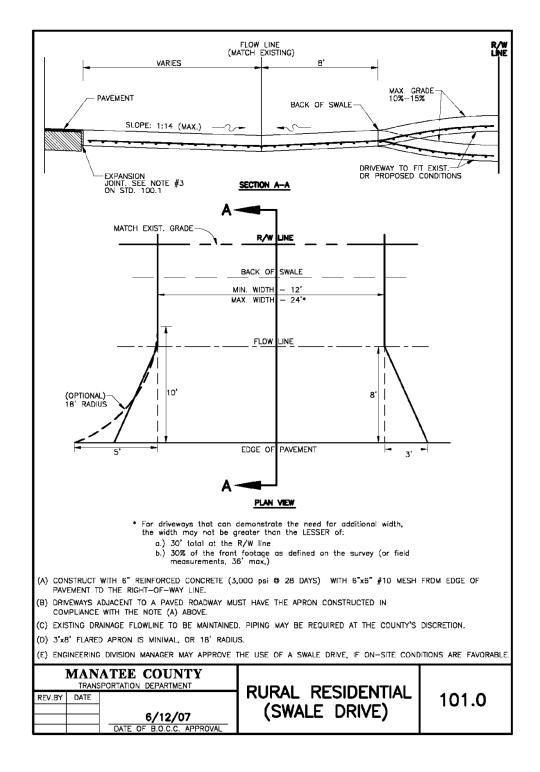
FL. LICENSE NO.

DETAILS (1)

SHEET NO.

DET-I





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HDR ENGINEERING, INC.
2601 CATTLEMEN ROAD, SUITE 400
SARASOTA, FLORIDA 34232
CERTIFICATE OF AUTHORIZATION 4213

DATE 09/2019 PROJECT NO. 6045662

Manatee MANATEE COUNTY
County PUBLIC WORKS

DESIGN ENGINEER

FL. LICENSE NO.

DETAILS (2)

SHEET NO.

DET-2

MANATEE COUNTY PUBLIC WORKS DEPARTMENT

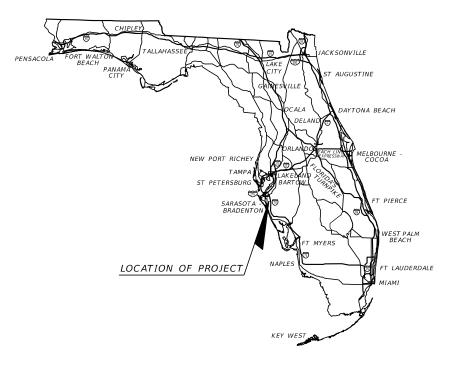
CONTRACT PLANS

INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	TABULATION OF QUANTITIES
T-4	GENERAL NOTES
T-5	PAY ITEM NOTES
T-6 THRU T-7	SIGNALIZATION PLAN
T-8 THRU T-11	ATMS PLAN
T-12	GUIDE SIGN WORKSHEET
T-13	MAST ARM TABULATION
T-14	TRAFFIC MONITORING SITE CROSS SECTION
T-15	CONCRETE APRON DETAILS
T-16	FIBER OPTIC PULL BOX DETAILS
T-17	FIBER OPTIC SPLICE BOX DETAILS
T-18	PEDESTRIAN SIGNAL AND CABINET BASE DETAILS
T-19	GENERATOR CABINET WIRING DIAGRAM
T-20	MVDS SITE INSTALLATION DETAIL
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T-22	TYPE 336S CABINET DETAILS
T-23	SIGNAL CABINET WIRING DIAGRAM
T-24	CABLE ROUTE MARKER DETAIL
T-25	SPLICING DIAGRAM
T-26	MAST ARM ASSEMBLY DATA TABLE
T-27 THRU T-28	REPORT OF CORE BORINGS

MANATEE COUNTY
PROJECT NUMBER 6045662
44TH AVENUE EAST
PHASE I
FROM 44TH AVENUE PLAZA EAST TO I-75

SIGNALIZATION PLANS



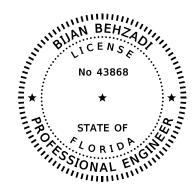
FINAL SUBMITTAL 09/2019

SIGNALIZATION PLANS ENGINEER OF RECORD:

BIJAN BEHZADI, P.E.
P.E. NO.: 43868
HDR ENGINEERING, INC.
2601 CATTLEMEN ROAD, SUITE 400
SARASOTA, FLORIDA 34232
FBPR CERTIFICATE OF AUTHORIZATION NO. 4213
VENDOR NO. 47-0680568
CONTRACT NO. C9480

MANATEE CO. PROJECT MANAGER: ERIC S. SHROYER, P.E.

FISCAL YEAR	SHEET NO.				
19	T-1				



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY:

ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232-6212 CERTIFICATE OF AUTHORIZATION NO. 4213 BIJAN BEHZADI, PE NO. 43868

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SIGNALIZATION PLANS

	-
SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	TABULATION OF QUANTITIES
T-4	GENERAL NOTES
T-5	PAY ITEM NOTES
T-6 THRU T-7	SIGNALIZATION PLAN
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T-25	SPLICING DIAGRAM



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HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FL 34232-6212 CERTIFICATE OF AUTHORIZATION 4213 CHESTER A. SMITH III, P.E. NO. 70756

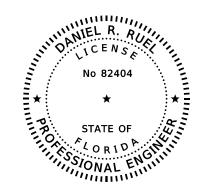
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SIGNALIZATION PLANS

SHEET NO. SHEET DESCRIPTION

T-2 SIGNATURE SHEET T-26

MAST ARM ASSEMBLY DATA TABLE



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ON THE DATE ADJACENT TO THE SEAL

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TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FL 33637 CERTIFICATE OF AUTHORIZATION 6486 DANIEL R. RUEL, PE NO. 82404

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SIGNALIZATION PLANS

SHEET NO. SHEET DESCRIPTION SIGNATURE SHEET T-27 THRU T-28 REPORT OF CORE BORINGS

REVISIONS DATE

AS NOTED HDR ENGINEERING, INC. 2601 CATTLEMEN ROAD, SUITE 400 SARASOTA, FLORIDA 34232 CERTIFICATE OF AUTHORIZATION 4213

DATE 09/2019

PROJECT NO. 6045662



DESIGN ENGINEER BIJAN BEHZADI

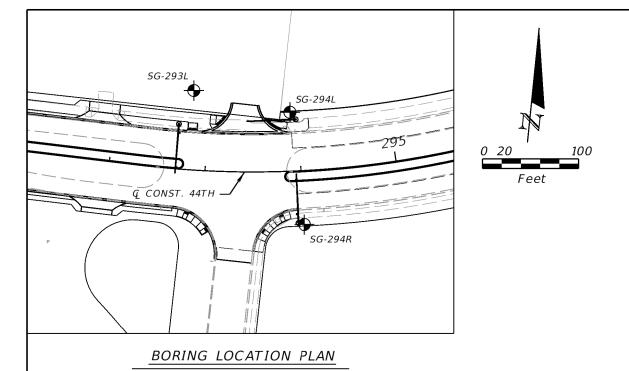
43868

FL. LICENSE NO.

SIGNATURE SHEET

SHEET NO.

T - 2



NOTES: 1. BASED ON A REVIEW OF THE "POTENTIOMETRIC SURFACE OF THE UPPER FLORIDAN AQUIFER, WEST-CENTRAL FLORIDA" MAPS PUBLISHED BY THE USGS WITHIN THE AREA OF THE SIGNAL STRUCTURES, THE POTENTIOMETRIC SURFACE ELEVATION OF THE UPPER FLORIDAN AQUIFER IS ON THE ORDER OF APPROXIMATELY +20 FEET, NGVD 29. THE CONTRACTOR'S TOOLS AND ONSTRUCTION METHODS SHOULD INCLUDE THE ABILITY TO HANDLE A POTENTIOMETRIC HEAD ELEVATION OF +20 FEET, NGVD 29, AT NO ADDITIONAL COST TO THE DEPARTMENT.

- 2. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE REQUIRED IN ORDER TO PREVENT THE COLLAPSE OF THE SANDY SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.
- 3. BORING LOCATIONS AND ELEVATIONS WERE ESTIMATED USING HAND-HELD GPS DEVICES IN CONJUNCTION WITH PROJECT DESIGN FILES PROVIDED BY HDR AND SHOULD BE CONSIDERED APPROXIMATE.

LEGEND

GRAY TO BROWN SAND TO SAND WITH SILT (SP/SP-SM)

GRAY SILTY SAND (SM)

LIGHT BROWN TO GRAY CLAYEY SAND (SC)



LIGHT GRAY SANDY CLAY TO CLAY TO SILT (CL/CH/MH)

SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

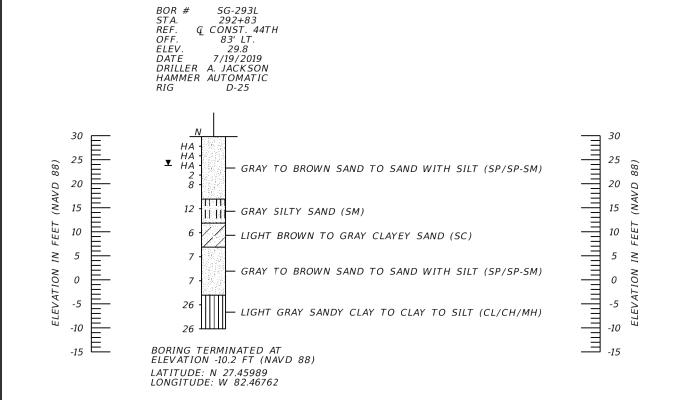
NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).

HA HAND AUGERED TO VERIFY UTILITY CLEARANCE

NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988

▼ GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS

Q CONST. 44TH CENTERLINE CONSTRUCTION OF 44TH AVENUE



REVISIONS

	SAFETY HAMMER	AUTOMATIC HAMMER		
GRANULAR MATERIALS-	SPT N-VALUE	SPT N-VALUE		
RELATIVE DENSITY	(BLOWS/FT.)	(BLOWS/FT.)		
VERY LOOSE	LESS THAN 4	LESS THAN 3		
LOOSE	4 to 10	3 to 8		
MEDIUM DENSE	10 to 30	8 to 24		
DENSE	30 to 50	24 to 40		
VERY DENSE	GREATER THAN 50	GREATER THAN 40		
SILTS AND CLAYS	SPT N-VALUE	SPT N-VALUE		
CONSISTENCY	(BLOWS/FT.)	(BLOWS/FT.)		
VERY SOFT	LESS THAN 2	LESS THAN 1		
SOFT	2 to 4	1 to 3		
FIRM	4 to 8	3 to 6		
STIFF	8 to 15	6 to 12		
VERY STIFF	15 to 30	12 to 24		
HARD	GREATER THAN 30	GREATER THAN 24		

AS NOTED TIERRA, INC.

7351 TEMPLE

BY
BJS
TAMPA, FLOR

D BY
C C FRIF C ATE

7351 TEMPLE TERRACE HIGHWAY
TAMPA, FLORIDA 33637
CERTIFICATE OF AUTHORIZATION 6486

DATE
09/2019

PROJECT NO.
6045662

Manatee MANATEE COUNTY
County PUBLIC WORKS

DESIGN ENGINEER

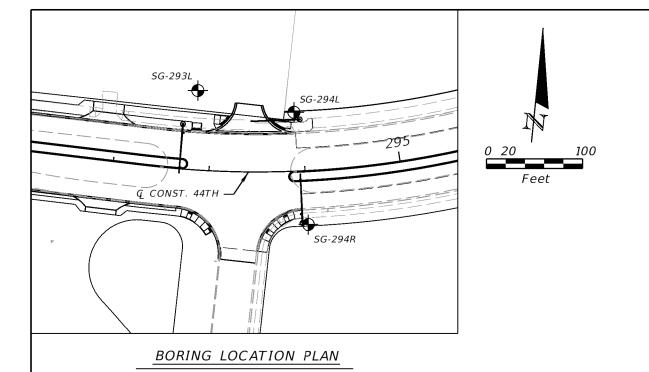
DANIEL R. RUEL

FL. LICENSE NO.

82404

REPORT OF
CORE BORINGS (1)

SHEET NO. T-27



NOTES: 1. BASED ON A REVIEW OF THE "POTENTIOMETRIC SURFACE OF THE UPPER FLORIDAN AQUIFER, WEST-CENTRAL FLORIDA" MAPS PUBLISHED BY THE USGS WITHIN THE AREA OF THE SIGNAL STRUCTURES, THE POTENTIOMETRIC SURFACE ELEVATION OF THE UPPER FLORIDAN AQUIFER IS ON THE ORDER OF APPROXIMATELY +20 FEET, NGVD 29. THE CONTRACTOR'S TOOLS AND ONSTRUCTION METHODS SHOULD INCLUDE THE ABILITY TO HANDLE A POTENTIOMETRIC HEAD ELEVATION OF +20 FEET, NGVD 29, AT NO ADDITIONAL COST TO THE DEPARTMENT.

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LEGEND

GRAY TO BROWN SAND TO SAND WITH SILT (SP/SP-SM)

GRAY SILTY SAND (SM)

1111

LIGHT BROWN TO GRAY CLAYEY SAND (SC)



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SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW

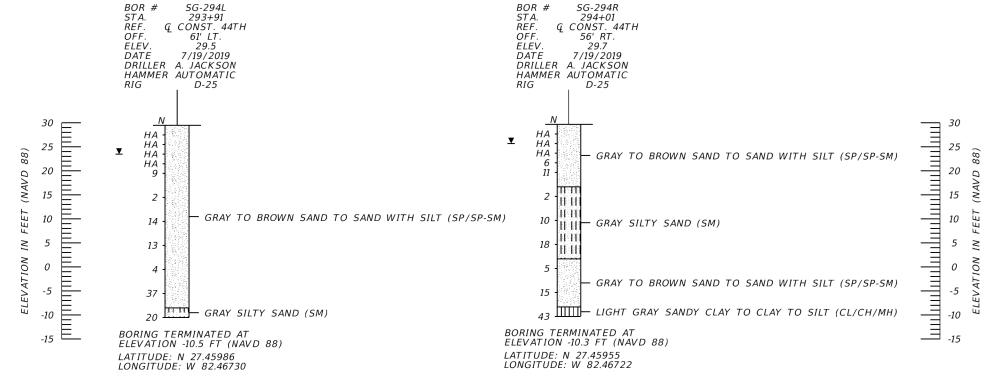
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Q CONST. 44TH CENTERLINE CONSTRUCTION OF 44TH AVENUE



	SAFETY HAMMER	AUTOMATIC HAMMER		
GRANULAR MATERIALS-	SPT N-VALUE	SPT N-VALUE		
RELATIVE DENSITY	(BLOWS/FT.)	(BLOWS/FT.)		
VERY LOOSE	LESS THAN 4	LESS THAN 3		
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HARD	GREATER THAN 30	GREATER THAN 24		

				AS NOTED
				DESIGNED BY DRR
				DRAWN BY
				BJS
				CHECKED BY
No.	REVISIONS	DATE	BY	DRR

TIERRA, INC.

7351 TEMPLE TERRACE HIGHWAY

TAMPA, FLORIDA 33637

CERTIFICATE OF AUTHORIZATION 6486

DATE
09/2019

PROJECT NO.
6045662

Manate
Count

Manatee MANATEE COUNTY
County PUBLIC WORKS

DESIGN ENGINEER

DANIEL R. RUEL

FL. LICENSE NO.

REPORT OF
CORE BORINGS (2)

SHEET NO. T-28