

**CONTRACT PLAN COMPONENTS**

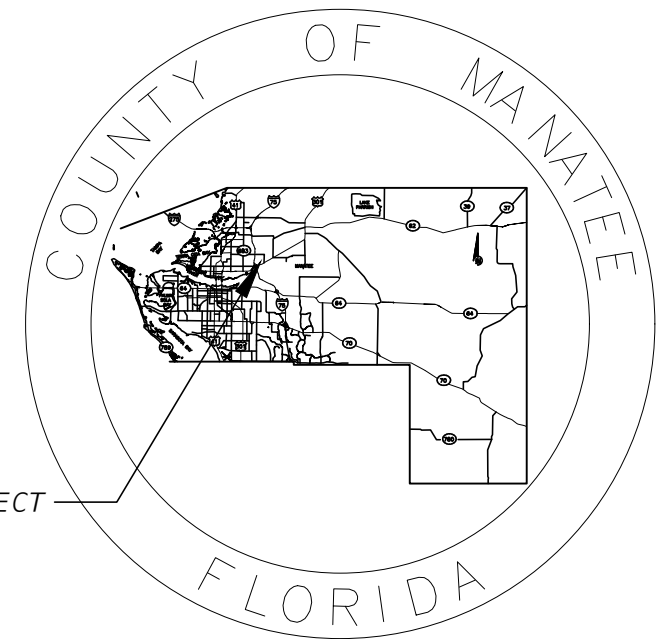
- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- SIGNALIZATION PLANS
- INTELLIGENT TRANSPORTATION SYSTEMS PLANS
- LIGHTING PLANS

**INDEX OF ROADWAY PLANS**

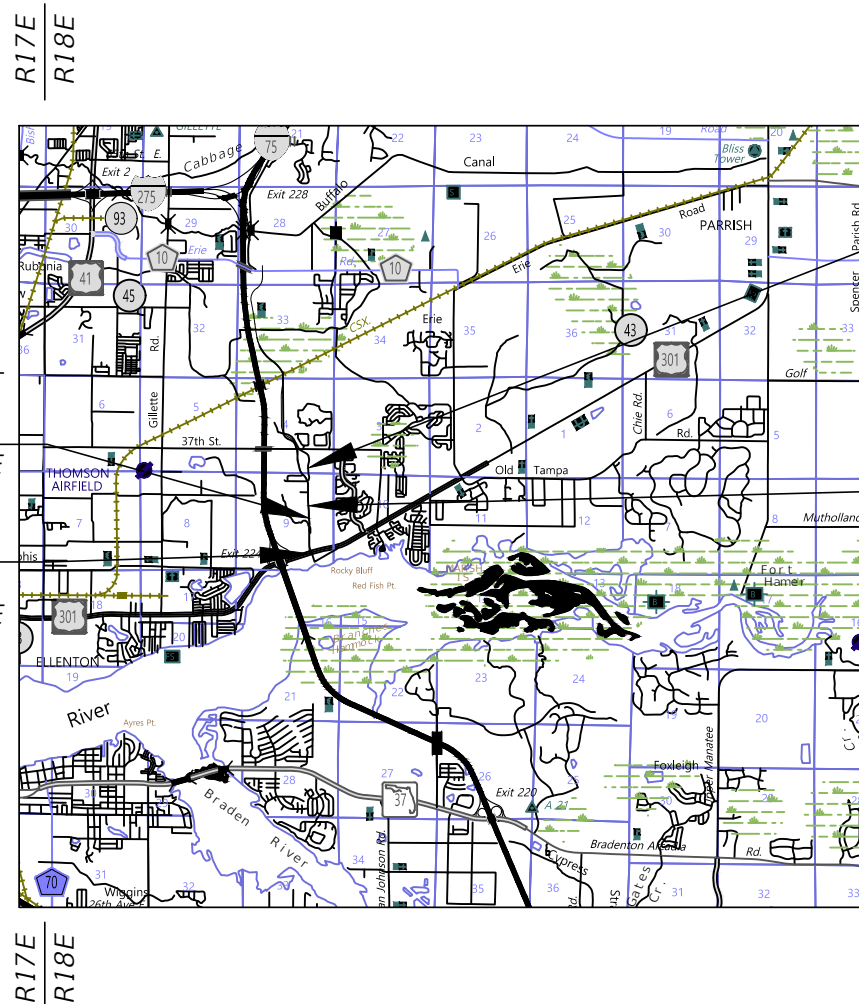
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# STATE OF FLORIDA COUNTY OF MANATEE

## PROPOSED ROADWAY PLANS FOR 60TH AVE. EAST FROM US 301 TO MENDOZA RD. MANATEE COUNTY ELLENTON, FLORIDA MANATEE COUNTY PROJECT No: 6083160



LOCATION OF PROJECT

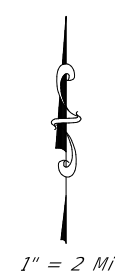


**END CONSTRUCTION**  
 ☒ SURVEY 60TH AVE. E  
 STA. 35+30.00

**BEGIN PROJECT**  
**BEGIN CONSTRUCTION**  
 ☒ SURVEY 60TH AVE. E  
 STA. 11+26.52

**END PROJECT**  
**END SIDEWALK CONSTRUCTION**  
 ☒ SURVEY 60TH AVE. E  
 STA. 56+88.62

**BEGIN SIDEWALK CONSTRUCTION**  
 ☒ SURVEY 60TH AVE. E  
 STA. 41+70.71



**90% PLANS  
JUNE 2022**



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ENLARGED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.



Know what's below  
Call before you dig

**GOVERNING DESIGN STANDARDS:**

FLORIDA DEPARTMENT OF TRANSPORTATION, FY 2022-23 DESIGN STANDARDS eBOOK (DSeB) AND APPLICABLE DESIGN STANDARDS REVISIONS (DSRs) AT THE FOLLOWING WEBSITE:  
<https://www.fdot.gov/design/standardplans/current/default.shtm>

MANATEE COUNTY PUBLIC WORKS STANDARDS PART 3: HIGHWAY & TRAFFIC STANDARDS MANUAL, APRIL 2022 AT THE FOLLOWING WEBSITE:  
[https://www.mymanatee.org/departments/public\\_works/infrastructure\\_engineering](https://www.mymanatee.org/departments/public_works/infrastructure_engineering)

**GOVERNING STANDARD SPECIFICATIONS:**

FLORIDA DEPARTMENT OF TRANSPORTATION, JANUARY 2022 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE:  
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

PROJECT LENGTH IS BASED ON ☒ SURVEY 60TH AVE. E

<b>LENGTH OF PROJECT</b>		
	LINEAR FEET	MILES
ROADWAY	2024.41	0.38
SIDEWALK	1517.91	0.29
<b>GROSS LENGTH OF PROJECT</b>	<b>3542.32</b>	<b>0.67</b>

MANATEE COUNTY PROJECT MANAGER: JIM SHULER, P.E.

ROADWAY PLANS  
 ENGINEER OF RECORD: DEBORAH HERNANDEZ-CEDEÑO, P.E.  
 KISINGER CAMPO & ASSOC.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602  
 (813) 871-5331  
 VENDOR NO.: F59-1677145  
 FLORIDA P.E. # 74754

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
N/A	2023	1

**NOTES TO REVIEWER**

1. THE CONTROLLING DESIGN CRITERIA AND REFERENCES USED FOR 60TH AVE. E ARE PROVIDED IN THE FOLLOWING TABLE:
2. A DESIGN VARIATION WILL BE REQUIRED FOR HORIZONTAL CURVE LENGTH TO ALLOW THE DEFICIENT CURVE LENGTH FOR  $\checkmark$  CONST. 60TH AVE. E CURVE C1 TO REMAIN AS EXISTING.

**COORDINATION NOTES**

OUTSTANDING ISSUES UNDER COORDINATION INCLUDE THE FOLLOWING:

- UTILITY RGBs
- VERIFIED VERTICAL AND HORIZONTAL (Vvh) LOCATES
- TREE DISPOSITION (STA. 41+70.71 TO STA. 56+88.62)
- MANATEE COUNTY TRANSIT AUTHORITY

**DESIGN CRITERIA**

General	Standard	Proposed	Reference
Design Period (years)	FDOT FDM (Jan 2022)	20	Section 201.2
Functional Classification	FDOT FDM (Jan 2022)	Urban Arterial	SLD
Context Classification	FDOT FDM (Jan 2022)	C4	Table 201.5.1
Design Speed (mph) / Posted Speed (mph)	FDOT FDM (Jan 2022)	40 / 35	Table 201.5.1
Design Vehicle	FDOT FDM (Jan 2022)	WB-62FL	Section 201.6
<b>Typical Section</b>			
Lane Width (Thru) (ft)	FDOT FDM (Jan 2022)	11	Table 210.2.1
Lane Width (Aux Turn) (ft)	FDOT FDM (Jan 2022)	11	Table 210.2.1
Median Width (ft)	FDOT FDM (Jan 2022)	22	Table 210.3.1
Cross Slope - Travel Lanes (inside to out)	FDOT FDM (Jan 2022)	0.02 to 0.03	Figure 210.2.1
Clear Zone Width (Thru) (ft)	FDOT FDM (Jan 2022)	18	Table 215.2.1
Clear Zone Width (Aux Turn) (ft)	FDOT FDM (Jan 2022)	10	Table 215.2.1
Front Slopes	FDOT FDM (Jan 2022)	1:2 (std.) 1:6 (min.)	Table 215.2.3
Back Slopes	FDOT FDM (Jan 2022)	1:2 (std.) 1:6 (min.)	Table 215.2.3
Border Width (ft)	FDOT FDM (Jan 2022)	12 (min.)	Table 210.7.1
Superelevation Transition Length (Min) (ft)	FDOT FDM (Jan 2022)	75 (min.)	Table 210.9.3
<b>Horizontal Geometry</b>			
Deflection without Curve (Max) (degrees)	FDOT FDM (Jan 2022)	2° 00' 00"	Section 210.8.1
Deflection Angle Through Intersection	FDOT FDM (Jan 2022)	5° 00' 00"	Table 212.7.1
Curve Length - Standard (Min) (ft)	FDOT FDM (Jan 2022)	600 (400)	Table 210.8.1
Curve Degree (Max) (degrees)	FDOT FDM (Jan 2022)	10° 45' 00"	Table 210.9.2
Curve Radius (Min) (ft)	FDOT FDM (Jan 2022)	533	Table 210.9.2
Curve Degree (Max) @ Normal Crown [degrees]	FDOT FDM (Jan 2022)	3° 45' 00"	Table 210.9.2
Curve Radius (Min) @ Normal Crown	FDOT FDM (Jan 2022)	1,528	Table 210.9.2
e max	FDOT FDM (Jan 2022)	5%	Section 210.9
Superelevation Length (Min) @ Full e (ft)	FDOT FDM (Jan 2022)	100	Section 210.9
Turn Lane - Turn Queue Length (Min) (ft)	FDOT FDM (Jan 2022)	100' or traffic analysis	212.14.2
Turn Lane - Total Decel Length (L) (ft)	FDOT FDM (Jan 2022)	155	Exhibit 212-1
Compound Curve	AASHTO Greenbook (2018)	1.75 ratio	Pg. 192
Corner Radii	Manatee County Reference	50' / 35'	402.2
<b>Vertical Geometry</b>			
Grade (Max/Min)	FDOT FDM (Jan 2022)	7% (max.) / 0.3% (min.)	Table 210.10.1 / Section 210.10.1.1
Grade Change without VC (Max)	FDOT FDM (Jan 2022)	0.8%	Table 210.10.2
Stopping Sight Distance (SSD)	FDOT FDM (Jan 2022)	305	Table 210.11.1
Crest Curve - Length (Min) (ft)	FDOT FDM (Jan 2022)	120	Table 210.10.4
Crest Curve - "K" Value (Min)	FDOT FDM (Jan 2022)	70	Table 210.10.3
Sag Curve - Length (Min) (ft)	FDOT FDM (Jan 2022)	120	Table 210.10.4
Sag Curve - "K" Value (Min)	FDOT FDM (Jan 2022)	64	Table 210.10.3
Vertical Clearance - Under Signs (Min) (ft)	FDOT FDM (Jan 2022)	17.5	Section 210.10.3
Vertical Clearance - SHW	FDOT FDM (Jan 2022)	1'	Section 210.10.3

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
			SCALE	NTS	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
 MENDOZA RD.  
 NOTES TO REVIEWER (1)


NOTES TO REVIEWER

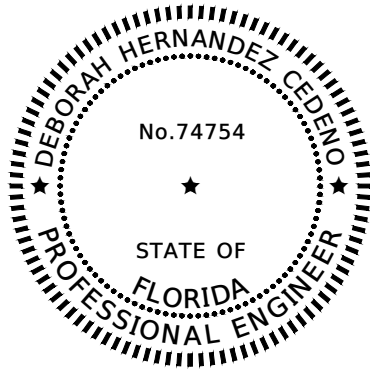
3. THE CONTROLLING DESIGN CRITERIA AND REFERENCES USED FOR NORTH RIVER VILLAGE DRIVEWAY AND OTHER SIDE STREETS ARE PROVIDED IN THE FOLLOWING TABLE:

DESIGN CRITERIA

General	Standard	Proposed	Reference
Design Period (years)	FDOT FDM (Jan 2022)	20	Section 201.2
Functional Classification	FDOT FDM (Jan 2022)	Urban Collector	SLD
Context Classification	FDOT FDM (Jan 2022)	C4	Table 201.5.1
Design Speed (mph) / Posted Speed (mph)	AASHTO Greenbook (2018)	15 / 15	2.3.6.3
Design Vehicle	FDOT FDM (Jan 2022)	WB-62FL	Section 201.6
<b>Typical Section</b>			
Lane Width (Thru) (ft)	Manatee County Reference	12	Section 401.1
Lane Width (Aux Turn) (ft)	Manatee County Reference	12	Section 401.1
Cross Slope - Travel Lanes (inside to out)	FDOT FDM (Jan 2022)	0.02 to 0.03	Figure 210.2.1
Clear Zone Width (Thru) (ft)	FDOT FDM (Jan 2022)	12	Table 215.2.1
Clear Zone Width (Aux Turn) (ft)	FDOT FDM (Jan 2022)	10	Table 215.2.1
Front Slopes	FDOT FDM (Jan 2022)	1:2 (std.) 1:6 (min.)	Table 215.2.3
Back Slopes	FDOT FDM (Jan 2022)	1:2 (std.) 1:6 (min.)	Table 215.2.3
Border Width (ft)	FDOT FDM (Jan 2022)	12 (min.)	Table 210.7.1
<b>Horizontal Geometry</b>			
Corner Radii	Manatee County Reference	35'	402.2
<b>Vertical Geometry</b>			
Grade (Max/Min)	FDOT FDM (Jan 2022)	8% max / 0.3% min	Table 210.10.1 / Section 210.10.1.1
Grade Change without VC (Max)	FDOT FDM (Jan 2022)	1.2%	Table 210.10.2
Stopping Sight Distance (SSD)	AASHTO Greenbook (2018)	80	Tables 3-35, 3-37
Crest Curve - Length (Min) (ft)	AASHTO Greenbook (2018)	45	3.4.6.2.1
Crest Curve - "K" Value (Min)	AASHTO Greenbook (2018)	3	Table 3-35
Sag Curve - Length (Min) (ft)	AASHTO Greenbook (2018)	45	3.4.6.2.1
Sag Curve - "K" Value (Min)	AASHTO Greenbook (2018)	10	Table 3-37
Vertical Clearance - Under Signs (Min) (ft)	FDOT FDM (Jan 2022)	17.5	Section 210.10.3
Vertical Clearance - SHW	FDOT FDM (Jan 2022)	1'	Section 210.10.3

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 <b>PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES</b> 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. NOTES TO REVIEWER (2)	SHEET NO. 1B
			SURVEY #	18-2238	DESIGNED	ST	6/6/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22				
			SCALE	NTS	CHECKED	DHC	6/6/22				



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ON THE DATE ADJACENT TO THE SEAL

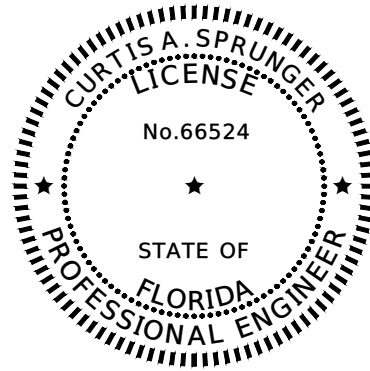
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KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET, SUITE 400,  
TAMPA, FL 33602

DEBORAH HERNANDEZ-CEDENO, P.E. NO. 74754

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

SHEET NO.	DESCRIPTION
1	KEY SHEET
2	SIGNATURE SHEET
3 - 5	SUMMARY OF PAY ITEMS
8 - 11	TYPICAL SECTIONS
12	TYPICAL SECTION DETAIL
16	GENERAL NOTES
17	PROJECT LAYOUT
18	PROJECT CONTROL
19 - 25	ROADWAY PLAN
26 - 27	ROADWAY PROFILE
28	BACK-OF-SIDEWALK PROFILE
29 - 32	INTERSECTION DETAILS
45	CROSS SECTION PATTERN
47 - 66	ROADWAY CROSS SECTIONS
90 - 96	UTILITY ADJUSTMENTS
50-1, 50-3 - 50-6, 50-9 - 50-14	SUMMARY OF QUANTITIES



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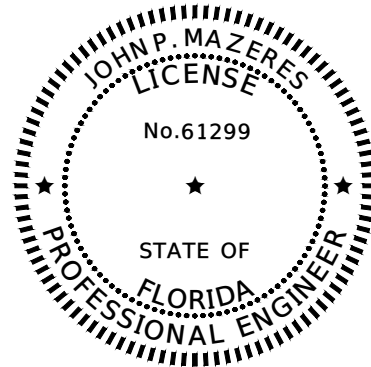
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KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET, SUITE 400,  
TAMPA, FL 33602

CURTIS A. SPRUNGER, P.E. NO. 66524

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

SHEET NO.	DESCRIPTION
2	SIGNATURE SHEET
6 - 7	DRAINAGE MAP
13 - 14	SUMMARY OF DRAINAGE STRUCTURES
15	OPTIONAL MATERIALS TABULATION
33 - 40	DRAINAGE STRUCTURES
41 - 42	DRAINAGE DETAILS
43 - 44	POND DETAILS
69 - 74	POND CROSS SECTIONS
75 - 77	STORMWATER POLLUTION PREVENTION PLAN
78 - 84	EROSION CONTROL PLAN
97 - 99	UTILITY PLAN-PROFILE
100 - 101	UTILITY DETAILS
50-2, 50-8	SUMMARY OF QUANTITIES



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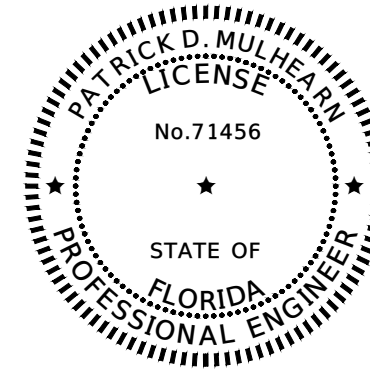
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KISINGER CAMPO & ASSOCIATES CORP.  
111 N. MAGNOLIA STREET, SUITE 105,  
ORLANDO, FL 32801

JOHN P. MAZERES, P.E. NO. 61299

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

SHEET NO.	DESCRIPTION
2	SIGNATURE SHEET
85 - 89	TEMPORARY TRAFFIC CONTROL PLANS



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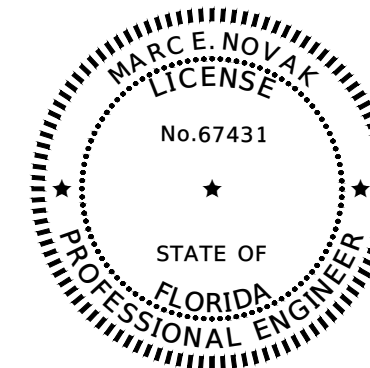
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KISINGER CAMPO & ASSOCIATES CORP.  
111 N. MAGNOLIA STREET, SUITE 105,  
ORLANDO, FL 32801

PATRICK D. MULHEARN, P.E. NO. 71456

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

SHEET NO.	DESCRIPTION
2	SIGNATURE SHEET
102 - 107	BOX CULVERT DETAILS
108 - 110	BOX CULVERT DATA TABLES
111 - 118	BOX CULVERT REINFORCING BAR LIST
50-7	SUMMARY OF QUANTITIES



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TIERRA, INC.  
7351 TEMPLE TERRACE HIGHWAY  
TAMPA, FL 33637

MARC E. NOVAK, P.E. NO. 67431

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

SHEET NO.	DESCRIPTION
2	SIGNATURE SHEET
46	ROADWAY SOIL SURVEY
67 - 68	POND SOIL SURVEY
119 - 120	BOX CULVERT SOIL SURVEY

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	NTS	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
SIGNATURE SHEET

SHEET NO.  
2

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MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
ROADWAY ITEMS			
104- 10- 3	SEDIMENT BARRIER	LF	5999
104- 12	STAKED TURBIDITY BARRIER	LF	52
104- 15	SOIL TRACKING PREVENTION DEVICE	EA	4
104- 18	INLET PROTECTION SYSTEM	EA	3
107- 1	LITTER REMOVAL	AC	112.57
107- 2	MOWING	AC	112.57
110- 1- 1	CLEARING & GRUBBING	AC	9.66
110- 3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	LS	1
110- 4- 10	REMOVAL OF EXISTING CONCRETE	SY	2724.87
120- 1	REGULAR EXCAVATION	CY	10339.22
120- 4	SUBSOIL EXCAVATION	CY	6114.26
120- 6	EMBANKMENT	CY	15545.74
160- 4	TYPE B STABILIZATION	SY	20928.4
285-709	OPTIONAL BASE, BASE GROUP 09	SY	18937.9
327- 70- 6	MILLING EXIST ASPH PAVT, 1 1/2" AVG DEPTH	SY	2396.6
334- 1- 12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	TN	1562
337- 7- 81	ASPH CONC FRICTION COURSE, TRAFFIC B, FC-12.5, PG 76-22	TN	1758
339- 1	MISCELLANEOUS ASPHALT PAVEMENT	TN	7.8
400- 0- 11	CONCRETE CLASS NS, GRAVITY WALL	CY	163.0
400- 4- 1	CONCRETE CLASS IV, CULVERTS	CY	532.3
415- 1- 1	REINFORCING STEEL - ROADWAY	LB	131935
430-175-118	PIPE CULVERT, OPT MATERIAL, ROUND, 18"S/CD	LF	1556
430-175-124	PIPE CULVERT, OPT MATERIAL, ROUND, 24"S/CD	LF	58.0
430-175-130	PIPE CULVERT, OPT MATERIAL, ROUND, 30"S/CD	LF	47.0
430-175-224	PIPE CULVERT, OPT MATERIAL, OTHER SHAPE-ELIP/ARCH, 24"S/CD	LF	10.0
430-175-218	PIPE CULVERT, OPT MATERIAL, OTHER-ELIP/ARCH, 18"S/CD	LF	394.0
425- 1-361	INLETS, CURB, TYPE P-6, <10'	EA	5
425- 1-351	INLETS, CURB, TYPE P-5, <10'	EA	2
425- 1-359	INLETS, CURB, TYPE P-5, <10', MODIFY	EA	1
425- 1-451	INLETS, CURB, TYPE J-5, <10'	EA	1
425- 1-311	INLETS, CURB, TYPE P-1, <10'	EA	8
425- 1-321	INLETS, CURB, TYPE P-2, <10'	EA	1
425- 1-529	INLETS, DT BOT, TYPE C, MODIFY	EA	1
425- 1-549	INLETS, DT BOT, TYPE D, MODIFY	EA	1
425- 2- 41	MANHOLES, P-7, <10'	EA	4
430-982-125	MITERED END SECTION, OPTIONAL ROUND, 18" CD	EA	2
430-982-133	MITERED END SECTION, OPTIONAL ROUND, 30" CD	EA	1
430-982-625	MITERED END SECTION, OPTIONAL - ELLIPTICAL / ARCH, 18" CD	EA	2

MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
ROADWAY ITEMS			
440- 1- 20	UNDERDRAIN, TYPE II	LF	3000
440- 1- 50	UNDERDRAIN, TYPE V	LF	177
440- 70	UNDERDRAIN INSPECTION BOX	EA	15
440- 73- 2	UNDERDRAIN OUTLET PIPE, 6"	LF	71
515- 1- 1	PIPE HANDRAIL - GUIDERAIL, STEEL	LF	648
520- 1- 10	CONCRETE CURB & GUTTER, TYPE F	LF	4995
520- 2- 1	CONCRETE CURB, TYPE A	LF	1711
520- 2- 4	CONCRETE CURB, TYPE D	LF	779
520- 70	CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH	SY	122.2
522- 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	2778.2
522- 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	434.7
522- 3	BUS BOARDING PAD - CONCRETE	SY	17.8
524- 1- 19	CONCRETE DITCH PAVEMENT 3" REINFORCED	SY	28.2
526- 1- 1	PAVERS, ARCHITECTURAL, ROADWAY	SY	73
527- 2	DETECTABLE WARNINGS	SF	325
530- 3- 4	RIPRAP, RUBBLE, F&I, DITCH LINING	TN	893
530- 74	BEDDING STONE	TN	642
536- 1- 0	GUARDRAIL - ROADWAY, GENERAL/LOW SPEED TL-2	LF	262.5
536- 7- 3	SPECIAL GUARDRAIL POST (ENCASED POST FOR SHALLOW MOUNT)	EA	3
536- 73	GUARDRAIL REMOVAL	LF	262.5
536- 85- 20	GUARDRAIL END TREATMENT- TRAILING ANCHORAGE	EA	1
536- 85- 24	GUARDRAIL END TREATMENT- PARALLEL APPROACH TERMINAL	EA	1
570- 1- 2	PERFORMANCE TURF, SOD	SY	22701
571- 11	PLASTIC EROSION MAT, TYPE 1	SY	1240

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	NTS	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 SUMMARY OF PAY ITEMS (1)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
SIGNING & PAVEMENT MARKINGS ITEMS			
700- 1- 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	18
700- 1- 12	SINGLE POST SIGN, F&I GROUND MOUNT, 12-20 SF	AS	5
700- 1- 13	SINGLE POST SIGN, F&I GROUND MOUNT, 21-30 SF	AS	1
700- 1- 14	SINGLE POST SIGN, F&I GROUND MOUNT, 31+ SF	AS	1
700- 1- 50	SINGLE POST SIGN, RELOCATE	AS	2
700- 1- 60	SINGLE POST SIGN, REMOVE	AS	36
700- 2- 13	MULTI- POST SIGN, F&I GROUND MOUNT, 21-30 SF	AS	1
700- 2- 14	MULTI- POST SIGN, F&I GROUND MOUNT, 31-50 SF	AS	2
700- 3-501	SIGN PANEL, RELOCATE, UP TO 12 SF	EA	8
706- 1- 1	RAISED PAVEMENT MARKER, TYPE B WITHOUT FINAL SURFACE MARKINGS	EA	407
710- 90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1
711- 11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	1777
711- 11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	160
711- 11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	1649
711- 11-141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE/ 6-10 GAP EXTENSION, 6"	GM	0.408
071- 11-160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	9
711- 11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	23
711- 11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	102
711- 11-241	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDE LINE /6-10 DOTTED EXTENSION LINE, 6"	GM	0.362
711- 14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	499
711- 14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	EA	10
711- 14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW	EA	10
711- 16-101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	0.715
711- 16-102	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 8"	GM	0.122
711- 16-131	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SKIP, 6", 10-30 SKIP OR 3-9 LANE DROP	GM	0.616
711- 16-201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	1.101
711-17-1	THERMOPLASTIC, REMOVE EXISTING THERMOPLASTIC PAVEMENT MARKINGS- SURFACE TO REMAIN	SF	798

MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
LIGHTING ITEMS			
630-2-11	CONDUIT, F&I, OPEN TRENCH	LF	2890
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	614
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	29
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO 8 TO 6	LF	13257
715-61-311	LIGHT POLE COMPLETE, F&I, STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT, 8' ARM LENGTH	EA	15
715-69-000	LIGHT POLE COMPLETE, REMOVE POLE AND FOUNDATION	EA	1
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1
715-500-1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	15

MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
UTILITY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1644- 111- 08	FIRE HYDRANT, F&I, STANDARD, 1 HOSE, 6"	EA	2.0
1080- 29- 106	UTILITY FIXTURE, MECHANICAL JOINT RESTRAINT, FURNISH & INSTALL, 6"	EA	4
1050- 61- 120	UTILITY PIPE- STEEL, FURNISH & INSTALL, SPLIT CASING, 20"	LF	862
1050- 61- 114	UTILITY PIPE- STEEL, FURNISH & INSTALL, SPLIT CASING, 14"	LF	33
1050- 31- 206	UTILITY PIPE- PVC, FURNISH & INSTALL, WATER, 6"	LF	12.0
1050- 31- 210	UTILITY PIPE- PVC, FURNISH & INSTALL, WATER, 10"	LF	953.0
1050- 51- 206	UTILITY PIPE- DUCTILE IRON/CAST IRON, FURNISH & INSTALL, WATER, 6"	LF	44.0
1060- 11- 223	UTILITY STRUCTURE, BELOW GROUND, F&I, WATER/SEWER, >80 FT3, >12'	EA	5.0

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	NTS	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
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 201 N. FRANKLIN STREET  
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 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 SUMMARY OF PAY ITEMS (2)

SHEET NO.  
 4


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MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
SIGNALIZATION ITEMS			
630- 2- 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	413
630- 2- 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	320
632- 7- 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1
632-7-6	SIGNAL CABLE, REMOVE-INTERSECTION	PI	1
635- 2- 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	17
639- 1-121	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER FURNISHED BY POWER COMPANY	AS	1
639- 2- 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	60
641- 2- 12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1
641-2-70	PRESTRESSED CONCRETE POLE, SHALLOW POLE REMOVAL-POLE 30' AND GREATER	EA	2
646- 1- 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	7
649- 21- 6	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 50'	EA	1
649- 21- 15	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 70'	EA	1
649- 21- 20	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, DOUBLE ARM 70'-70'	EA	1
650- 1- 14	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	12
650- 1- 19	VEHICULAR TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 5 SECTION CLUSTER, 1 WAY	AS	1
653- 1- 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	6
653- 1- 12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAYS	AS	1
660- 3- 11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA	1
660- 3- 12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA	6
663- 1-111	SIGNAL PRIORITY AND PREEMPTION SYSTEM, FURNISH & INSTALL, OPTICAL, CABINET ELECTRONICS	EA	1
663- 1-112	SIGNAL PRIORITY AND PREEMPTION SYSTEM, FURNISH & INSTALL, OPTICAL, DETECTOR	EA	4
665- 1- 12	PEDESTRIAN DETECTOR, FURNISH & INSTALL, ACCESSIBLE	EA	8
670- 5-111	TRAFFIC CONTROLLER ASSEMBLY, FURNISH & INSTALL, NEMA, 1 PREEMPTION	AS	1
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1
684- 1- 1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1
685- 1- 13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA	1
700- 3-201	SIGN PANEL, FURNISH & INSTALL OVERHEAD MOUNT, UP TO 12 SF	EA	1
700- 5- 22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA	4
700- 11- 191	ELECTRONIC DISPLAY SIGN, F&I GROUND MOUNT-AC POWERED, BLANK-OUT SIGN, UP TO 12 SF	EA	3

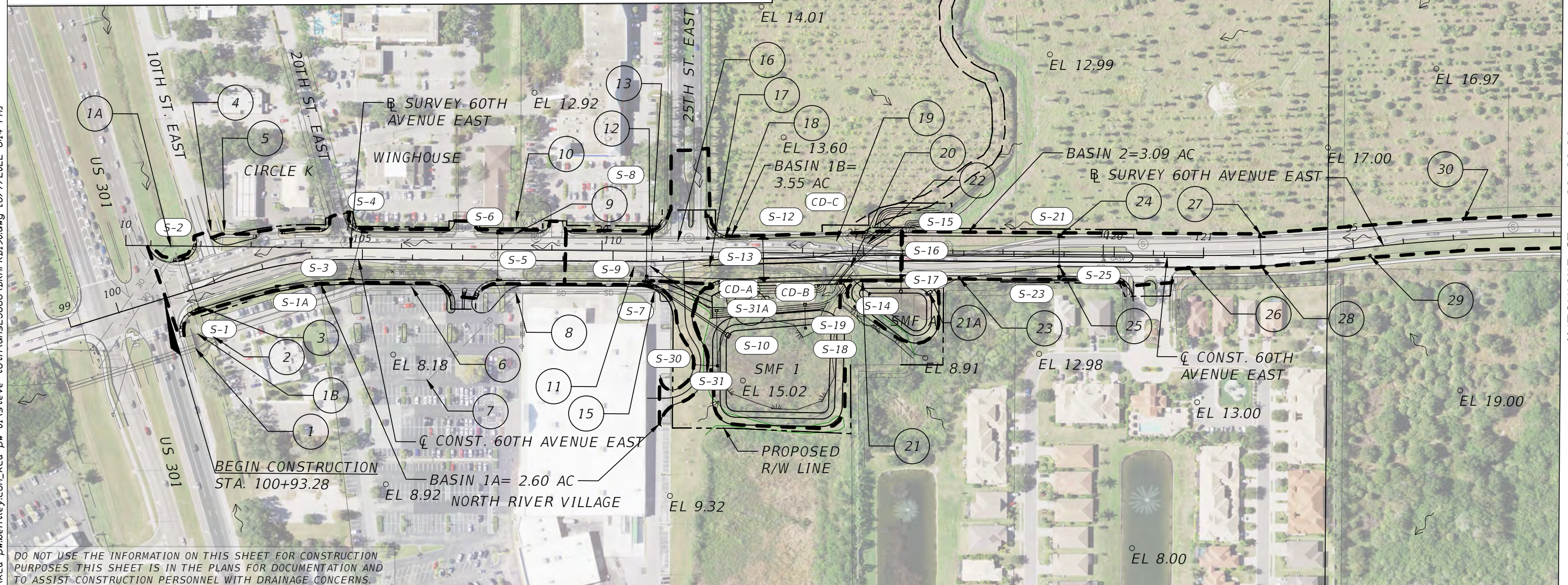
MANATEE COUNTY PUBLIC WORKS DEPARTMENT ENGINEERING SERVICE			
PROJECT SUMMARY OF PAY ITEMS			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
ITS ITEMS			
630- 2- 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	98
630- 2- 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	6140
633- 1-121	FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS	LF	781
633- 1-123	FIBER OPTIC CABLE, F&I, UNDERGROUND,49-96 FIBERS	LF	7037
633- 1-620	FIBER OPTIC CABLE, REMOVE, UNDERGROUND	LF	1218
633- 2- 31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	86
633- 2- 32	FIBER OPTIC CONNECTION, INSTALL, TERMINATION	EA	12
633- 3- 11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	3
633- 3- 12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA	3
633- 3- 14	FIBER OPTIC CONNECTION HARDWARE, F&I, BUFFER TUBE FAN OUT KIT	EA	2
633- 3- 16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA	2
633- 8- 1	MULTI-CONDUCTOR COMMUNICATION CABLE, FURNISH & INSTALL	LF	821
635- 2- 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	7
635- 2- 12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	11
635- 2- 13	PULL & SPLICE BOX, F&I, 30" X 60" RECTANGULAR OR 36" ROUND COVER SIZE	EA	4
639- 1-112	ELECTRICAL POWER SERVICE, F&I, OVERHEAD METER PURCHASED BY CONTRACTOR FROM POWER COMPANY	AS	1
639- 2- 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	18
639- 6- 1	ELECTRICAL POWER SERVICE- TRANSFORMER FURNISH & INSTALL	EA	1
641- 2- 12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1
641- 2- 13	PRESTRESSED CONCRETE POLE, F&I, TYPE P-III	EA	1
641- 2- 14	PRESTRESSED CONCRETE POLE, F&I, TYPE P-IV	EA	1
660- 3- 11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA	2
660- 3- 12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA	2
676- 2- 122	ITS CABINET, FURNISH & INSTALL, POLE MOUNT WITH SUNSHIELD, 336S, 24" W X 46" H X 22" D	EA	1
676- 3- 10	SMALL EQUIPMENT ENCLOSURE, FURNISH AND INSTALL, LESS THAN 10"W X 13"H X 11" D	EA	1
682- 1- 113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE - PRESSURIZED, IP, HIGH DEFINITION	EA	2
684- 1- 1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	2
685- 1- 12	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, ONLINE/DOUBLE CONVERSION	EA	1
685- 2- 1	REMOTE POWER MANAGEMENT UNIT- RPMU, FURNISH AND INSTALL	EA	1

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF PAY ITEMS (3)	SHEET NO. 5
			SURVEY #	18-2238	DESIGNED	ST	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22				
			SCALE	NTS	CHECKED	DHC	6/7/22				

1 ENDWALL 6'x6' CBC FL -2.17 6'x6' CBC FL -2.10	5 INLET GRATE EL. 11.27 12" CMP FL 9.47 15" RCP FL 9.48	9 MANHOLE RIM 11.34 24" RCP FL 3.36 24" RCP FL 3.41	13 MANHOLE RIM EL. 10.64 30" RCP FL 3.45 30" RCP FL 5.19 UNKNOWN FL 5.97	17 INLET RIM EL. 11.08 6" PVC FL 7.55 6" PVC FL 6.85	21 INLET RIM EL. 10.06 SLOT EL. 9.33 12"x18" RCP FL 6.50	24 INLET GRATE EL. 13.76 14"x23" RCP FL 9.88	28 CURB INLET TOP EL. 16.21 18" RCP FL 11.16 18" RCP FL 11.09 12"x18" RCP FL 12.13
2 ENDWALL 10'x6' CBC FL 1.85 10'x6' CBC FL 1.82	6 JUNCTION BOX 10'x6' CBC FL UNKNOWN 10'x6' CBC FL UNKNOWN	10 INLET 24" RCP FL UNKNOWN	14 MANHOLE RIM EL. 10.50 15" RCP FL 6.05 30" RCP FL 2.64 30" RCP FL 2.80	18 MES 24" RCP FL 5.83	21A MES 24" RCP FL 8.44	25 INLET GRATE EL. 13.53 14"x23" RCP FL 9.44 18" RCP FL 9.21 24" RCP FL 9.05 S.	29 INLET GRATE EL. 16.84 18" RCP FL 12.26
3 INLET GRATE EL. 6.01 15" RCP FL 2.21	7 INLET RIM 7.35 24"x38" RCP FL 4.41 UNKNOWN FL 4.63	11 INLET RIM 10.49 15" RCP FL 6.38	15 MANHOLE RIM EL. 8.46 24"x38" RCP FL 3.74 24"x38" RCP FL 3.74	19 INLET GRATE EL. 11.33 12"x18" RCP FL 6.30	22 HEADWALL 10'x6' CBC FL 3.97 10'x6' CBC FL 3.94	26 CURB INLET TOP EL. 15.30 18" RCP FL 10.52 N. 18" RCP FL 10.49 S.	30 INLET GRATE EL. 18.68 FL. UNKNOWN
4 INLET GRATE EL. 10.90 15" RCP FL 9.25 15" RCP FL 9.15	8 MANHOLE RIM 9.16 24"x38" RCP FL 3.89 24"x38" RCP FL 3.79	12 INLET GRATE EL. 11.00 FL. UNKNOWN	16 MANHOLE RIM EL. 11.42 24" RCP FL 5.62 30" RCP FL 5.38 18" RCP FL 5.57	20 HEADWALL 10'x6' CBC FL 3.92 10'x6' CBC FL 3.92	23 MANHOLE RIM EL. 13.65 24" RCP FL 8.60 N. 24" RCP FL 8.47 S.	27 INLET GRATE EL. 16.25 18"x12" RCP FL 12.65	
1A MES 24" RCP FL 2.63	1B MES 24" RCP FL 0.15						

STR.	AREA (AC)	STR.	AREA (AC)	STR.	AREA (AC)
S-1	0.40	S-6	0.19	S-15	0.35
S-1A	0.45	S-7	0.20	S-16	0.32
S-2	0.29	S-8	0.35	S-21	0.38
S-3	0.46	S-11	0.15	S-23	0.28
S-4	0.32	S-12	0.52	S-30	0.13
S-5	0.21	S-13	0.51	S-31	0.13



DO NOT USE THE INFORMATION ON THIS SHEET FOR CONSTRUCTION PURPOSES. THIS SHEET IS IN THE PLANS FOR DOCUMENTATION AND TO ASSIST CONSTRUCTION PERSONNEL WITH DRAINAGE CONCERNS.

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	TB	6/7/22
			4-34S-18E	DRAWN	TB	6/7/22
			1" = 200'	CHECKED	CS	6/7/22

CURTIS A. SPRUNGER, P.E.  
 LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 DRAINAGE MAP (1)  
 SHEET NO. 6

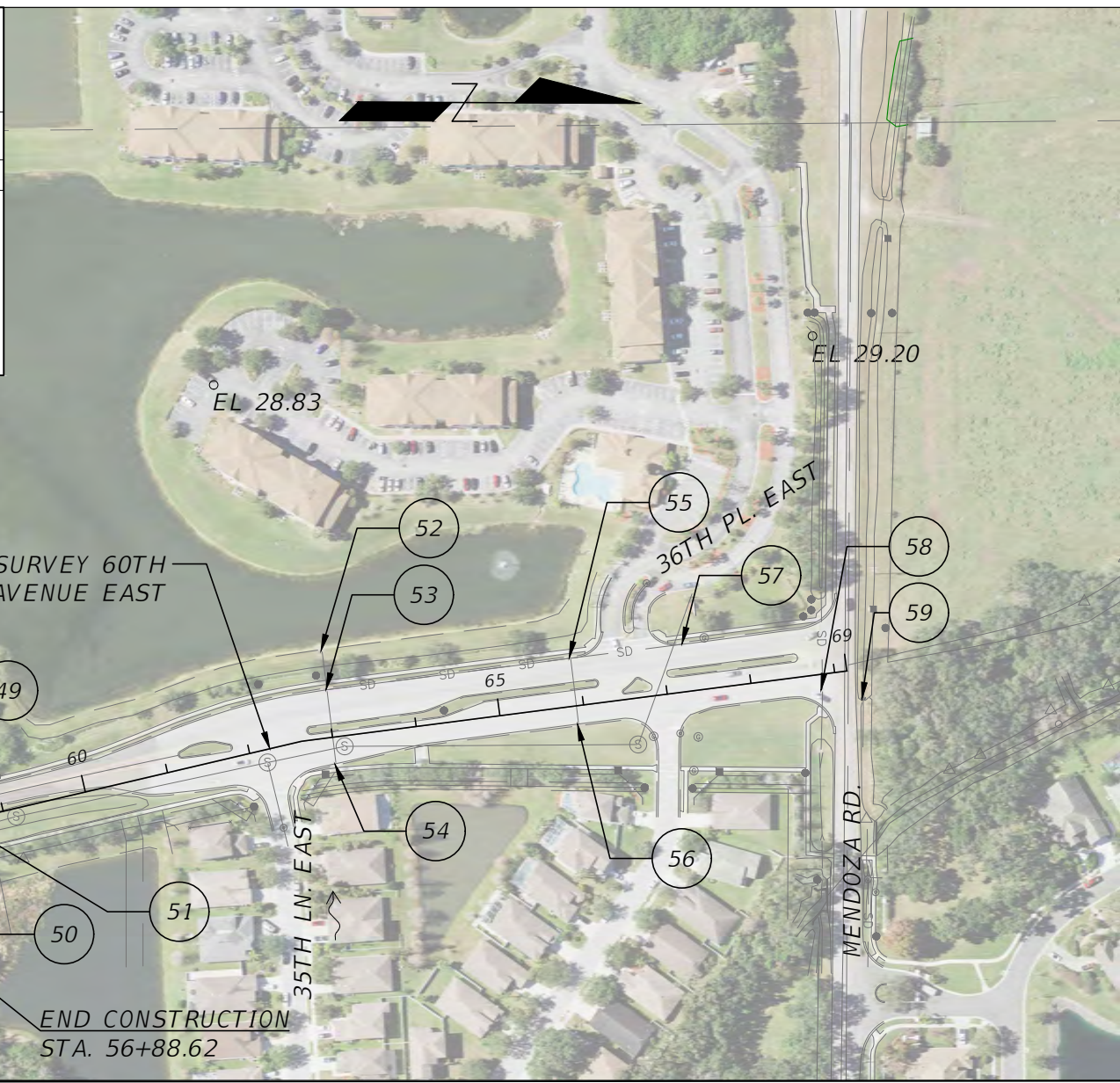
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MATCHLINE STA. - 39+20.00  
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STRUCTURE NO.	STATION	DESIGN FLOOD		BASE FLOOD		OVERTOPPING FLOOD				GREATEST FLOOD			
		2% PROB.	50 YR. FREQ.	1% PROB.	100 YR. FREQ.	DISCHARGE	STAGE	PROB. %	FREQ. YR.	DISCHARGE	STAGE	PROB. %	FREQ. YR.
		DISCHARGE	STAGE	DISCHARGE	STAGE								
CD-C	114+75	443 CFS	7.9'	534 CFS	9.5'					772 CFS	11.7'	0.2	500

NOTE: THE HYDRAULIC DATA IS SHOWN FOR INFORMATIONAL PURPOSES ONLY, TO INDICATE THE FLOOD DISCHARGES AND WATER SURFACE ELEVATIONS WHICH MAY BE ANTICIPATED IN ANY GIVEN YEAR. THIS DATA WAS GENERATED USING HIGHLY VARIABLE FACTORS DETERMINED BY A STUDY OF THE WATERSHED. MANY JUDGEMENTS AND ASSUMPTIONS ARE REQUIRED TO ESTABLISH THESE FACTORS. THE RESULTANT HYDRAULIC DATA IS SENSITIVE TO CHANGES. PARTICULARLY OF ANTECEDENT CONDITIONS, URBANIZATION, CHANNELIZATION, AND LAND USE. USERS OF THIS DATA ARE CAUTIONED AGAINST THE ASSUMPTION OF PRECISION WHICH CAN NOT BE ATTAINED. DISCHARGES ARE IN CUBIC FEET PER SECOND AND STAGES ARE IN FEET, NAVD, 1988.



31 INLET GRATE EL. 20.14 15" RCP FL 16.81	35 MANHOLE RIM EL. 21.19 24" RCP FL 14.91 24" RCP FL 15.51 24" RCP FL 16.52	39 HEADWALL 10'x6' CBC FL 14.48 10'x6' CBC FL 14.35	43 MANHOLE RIM EL. 23.24 30" RCP FL 19.05 24" RCP FL 18.78 24" RCP FL 19.05	47 UNKNOWN 19" x 30" RCP FL 19.75	51 INLET GRATE EL. 23.01 15" x 18" RCP FL 17.54 24" RCP FL 19.41	55 CURB INLET RIM EL. 27.61 15" RCP FL 23.87 15" RCP FL 23.74 18" RCP FL 23.62	59 MES 24" RCP FL 25.57
32 MANHOLE RIM EL. 20.91 24" RCP FL 20.91 18" RCP FL 16.39 15" RCP FL 16.56	36 MES 24" RCP FL 17.53	40 HEADWALL 10'x6' CBC FL 14.38 10'x6' CBC FL 14.45	44 NO INFORMATION AVAILABLE	48 MES 19" x 30" RCP FL 19.47	52 MES 24" RCP FL 21.63	56 CURB INLET RIM EL. 27.75 15" RCP FL 24.02	
33 MANHOLE RIM EL. 20.95 24" RCP FL 15.82 24" RCP FL 15.79 15" RCP FL 16.55	37 MES 24" RCP FL 17.80	41 MES 30" RCP FL 18.25	45 INLET GRATE EL. 23.32 24" RCP FL 19.33 24" RCP FL 19.27	49 INLET GRATE EL. 25.52 12" x 18" RCP FL 22.68	53 CURB INLET RIM EL. 27.08 15" RCP FL 22.85 18" RCP FL 22.29 24" RCP FL 21.69	57 CURB INLET RIM EL. 28.20 15" RCP FL 24.65	
34 MES 24" RCP FL 14.94	38 MANHOLE RIM EL. 23.33 24" RCP FL 17.62 24" RCP FL 17.77	42 MANHOLE RIM EL. 23.45 30" RCP FL 18.59 30" RCP FL 18.55	46 INLET RIM EL. 25.91 24" RCP FL 22.46	50 MANHOLE RIM EL. 26.35 12" x 18" RCP FL 22.70 12" x 18" RCP FL 19.41	54 CURB INLET RIM EL. 26.75 15" RCP FL 23.10	58 MANHOLE RIM EL. 28.98 24" RCP FL 25.16 24" RCP FL 25.20	


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MATCHLINE STA. - 39+20.00

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1" = 200'	CHECKED	CS	6/7/22

CURTIS A. SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



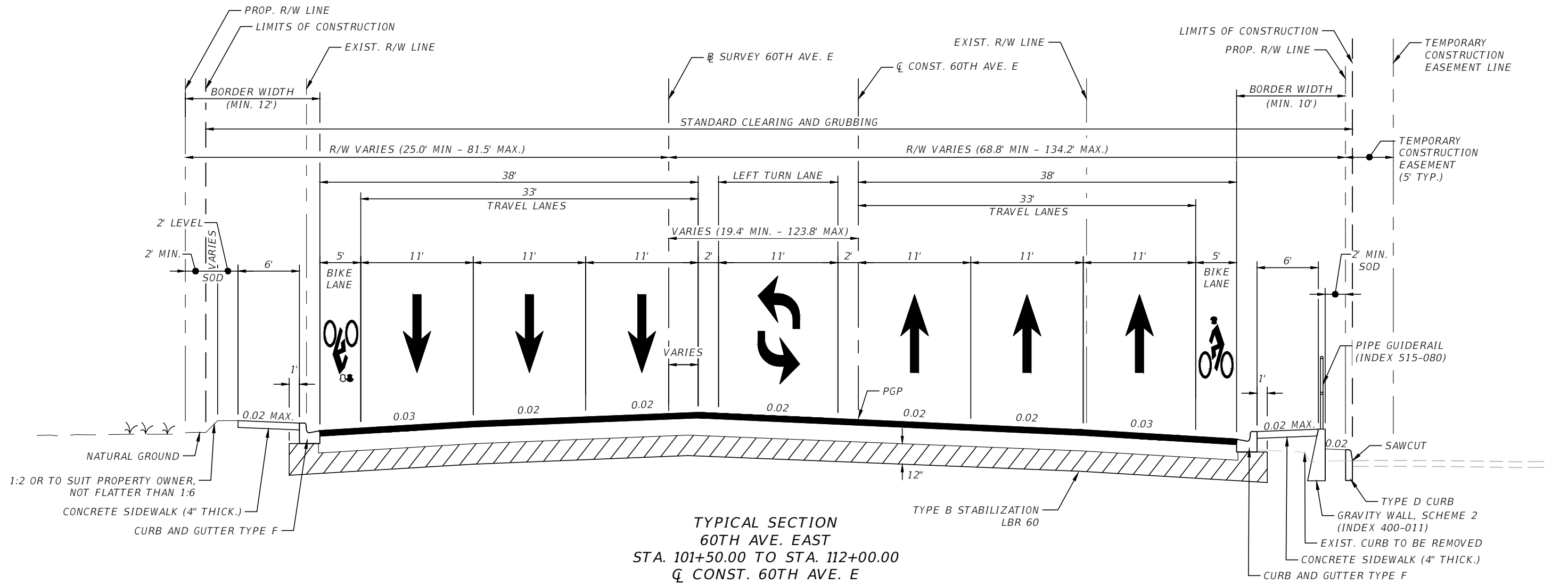
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
DRAINAGE MAP (2)**

SHEET NO.  
7

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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**TYPICAL SECTION  
60TH AVE. EAST  
STA. 101+50.00 TO STA. 112+00.00  
Q CONST. 60TH AVE. E**

**NEW CONSTRUCTION**

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH  
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1.5") (PG 76-22) AND  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

**MILLING & RESURFACING AND WIDENING  
STA. 100+93.34 TO STA. 101+50.00  
Q CONST. 60TH AVE. E**

**WIDENING**

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH  
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1.5") (PG 76-22) AND  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

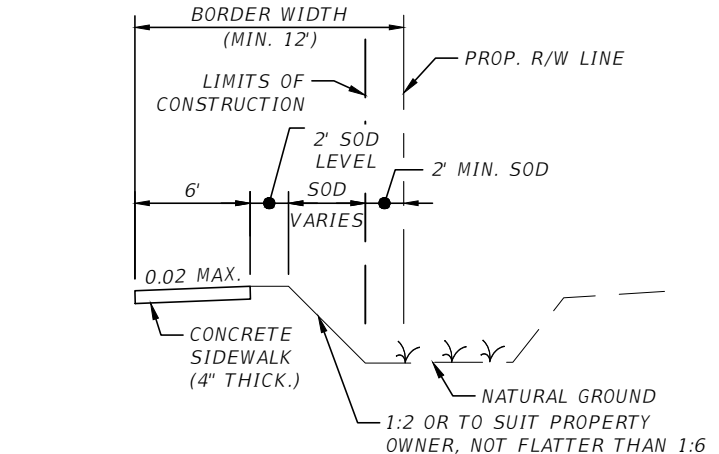
**MILLING & RESURFACING**

MILL EXISTING ASPHALT PAVEMENT (1.5" AVG DEPTH)  
AND RESURFACE WITH  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

**TRAFFIC DATA**

CURRENT YEAR = 2021 AADT = 19,300  
ESTIMATED OPENING YEAR = 2022 AADT = 20,150  
ESTIMATED DESIGN YEAR = 2042 AADT = 27,500  
K = 9.0% D = 58.0% T = 3.0% (24 HOUR)  
DESIGN HOUR T = 1.5%  
DESIGN SPEED = 40 MPH

NOTE: UNDERDRAIN, TYPE II TO BE INSTALLED PER  
STD. INDEX 440-001 FOR THE FOLLOWING LIMITS:  
STA. 101+50 TO 110+50 (RT.)  
STA. 102+50 TO 114+50 (LT.)



**DETAIL LIMITS  
STA. 101+00.89 TO STA. 104+20.00 (RT.)  
Q CONST. 60TH AVE. E**

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	NTS	CHECKED	DHC	6/7/22

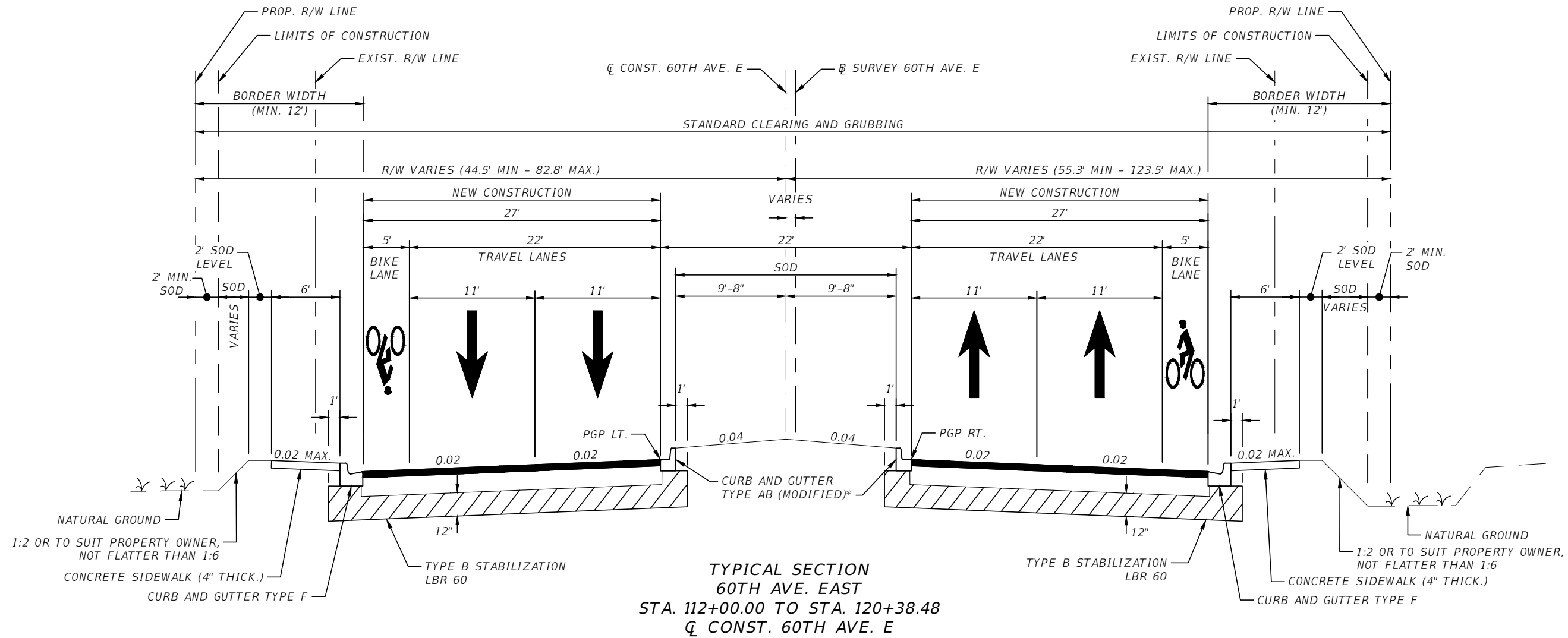
DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
TYPICAL SECTIONS (1)

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**TYPICAL SECTION  
60TH AVE. EAST  
STA. 112+00.00 TO STA. 120+38.48  
Q CONST. 60TH AVE. E**

**NEW CONSTRUCTION**

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH  
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1.5") (PG 76-22) AND  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

**MILLING & RESURFACING AND WIDENING  
STA. 120+38.48 TO STA. 121+78.12  
Q CONST. 60TH AVE. E  
STA. 31+99.96 TO STA. 35+30.00  
B SURVEY 60TH AVE. E**

**WIDENING**

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH  
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1.5") (PG 76-22) AND  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

**MILLING & RESURFACING**

MILL EXISTING ASPHALT PAVEMENT (1.5" AVG DEPTH)  
AND RESURFACE WITH  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

**TRAFFIC DATA**


CURRENT YEAR = 2021 AADT = 19,300  
ESTIMATED OPENING YEAR = 2022 AADT = 20,150  
ESTIMATED DESIGN YEAR = 2042 AADT = 27,500  
K = 9.0% D = 58.0% T = 3.0% (24 HOUR)  
DESIGN HOUR T = 1.5%  
DESIGN SPEED = 40 MPH

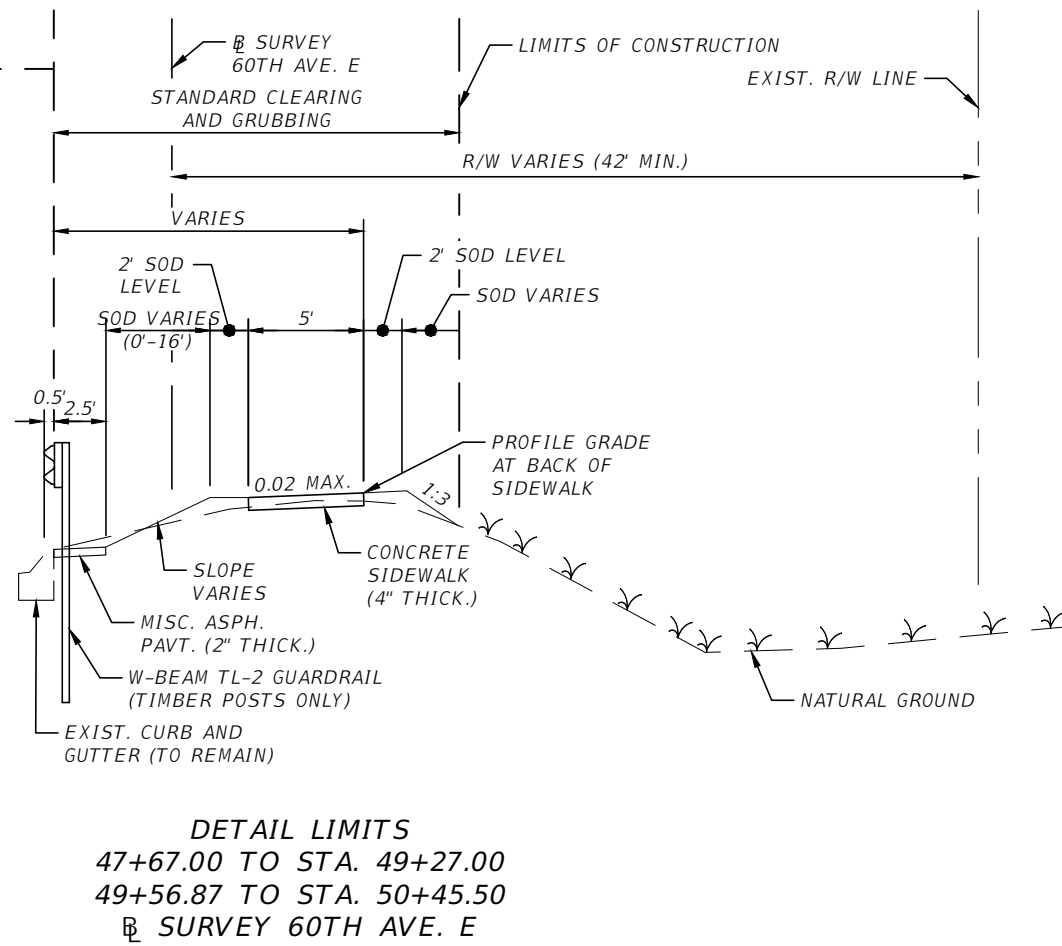
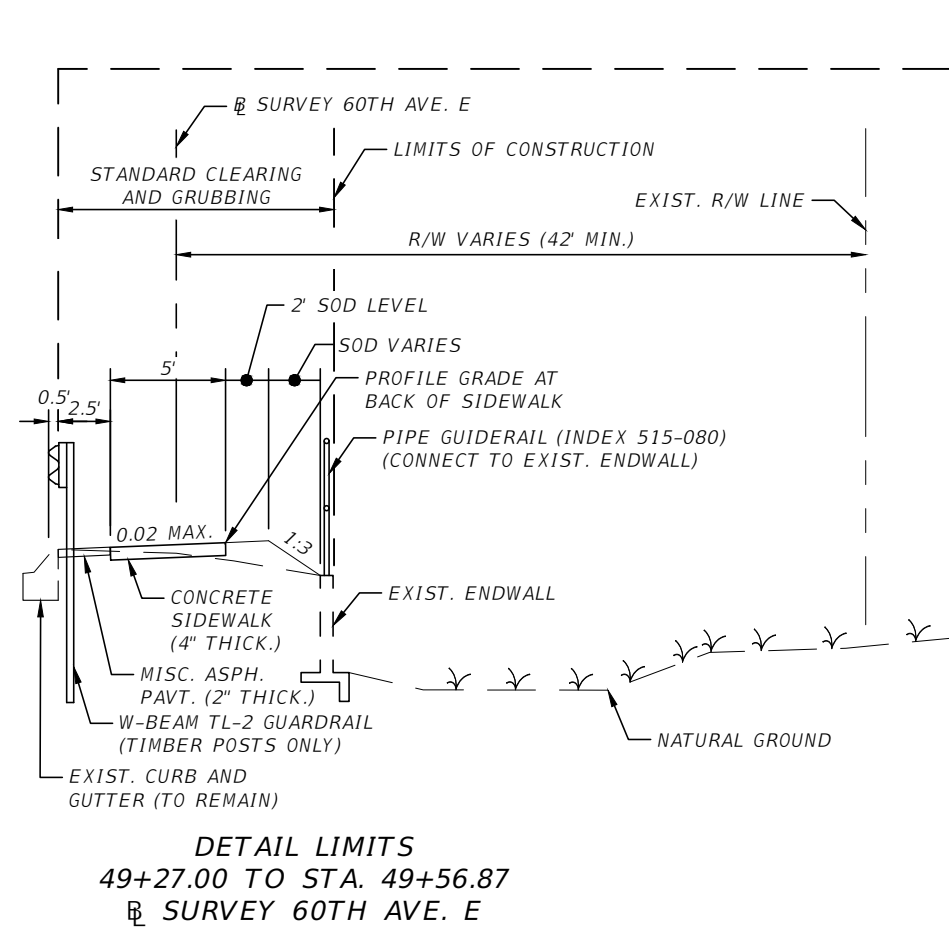
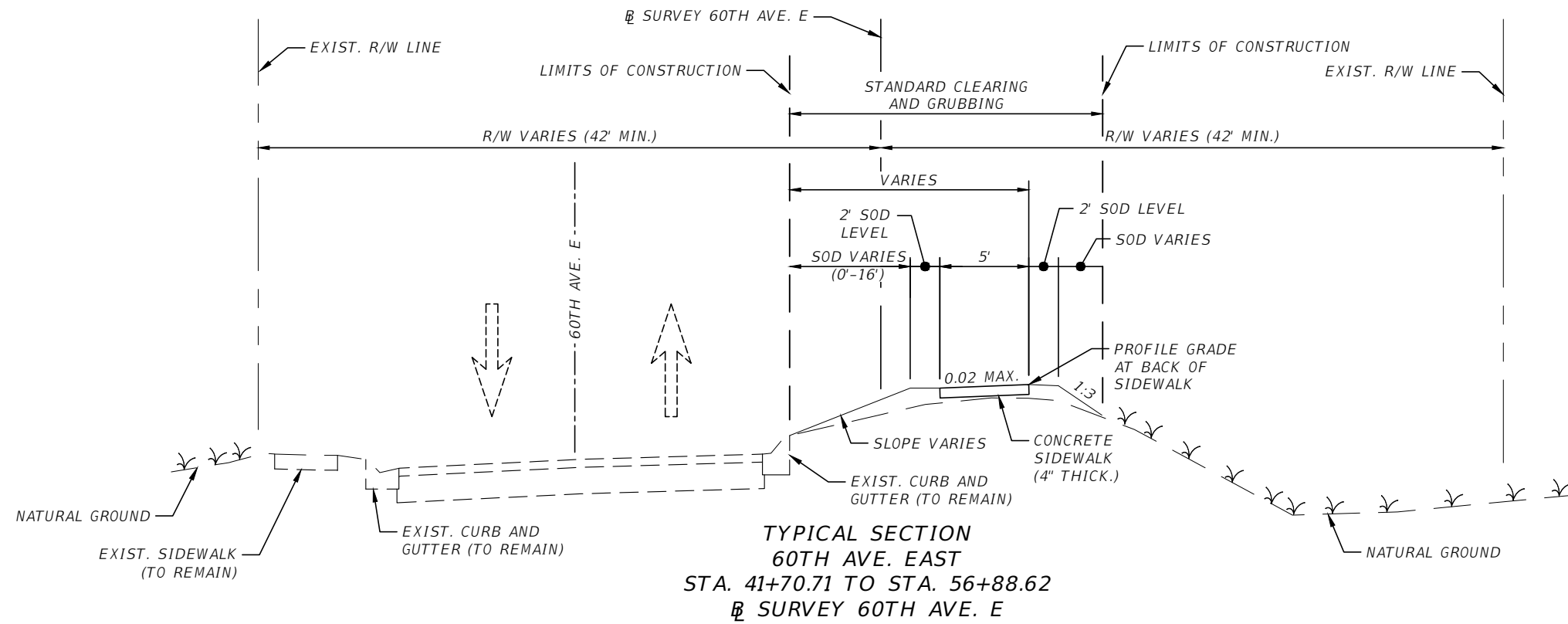
NOTE: UNDERDRAIN, TYPE II TO BE INSTALLED PER  
STD. INDEX 440-001 FOR THE FOLLOWING LIMITS:  
STA. 114+50 TO 119+50 (RT.)  
STA. 115+50 TO 119+50 (LT.)

\*SEE MANATEE COUNTY STANDARDS DETAIL SHEET  
201.3 FOR CURB AND GUTTER TYPE AB (MODIFIED)

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. TYPICAL SECTIONS (2)	SHEET NO. 9
			SURVEY #	18-2238	DESIGNED	ST	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22				
			SCALE	NTS	CHECKED	DHC	6/7/22				

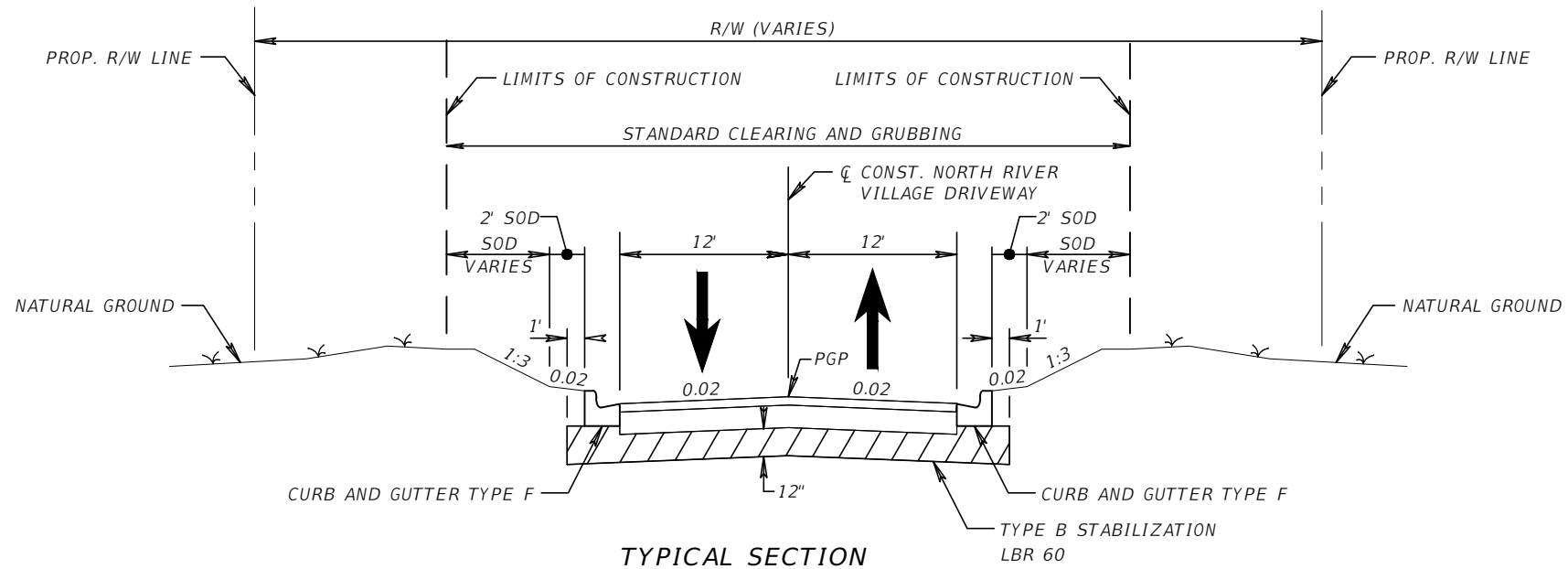


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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. TYPICAL SECTIONS (3)	SHEET NO.			
			SURVEY #	18-2238	DESIGNED	ST	6/7/22							
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22							
			SCALE	NTS	CHECKED	DHC	6/7/22							10

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**TYPICAL SECTION  
NORTH RIVER VILLAGE DRIVEWAY  
STA. 200+38.00 TO STA. 203+33.88  
CL CONST. NORTH RIVER VILLAGE DRIVEWAY**

**NEW CONSTRUCTION**

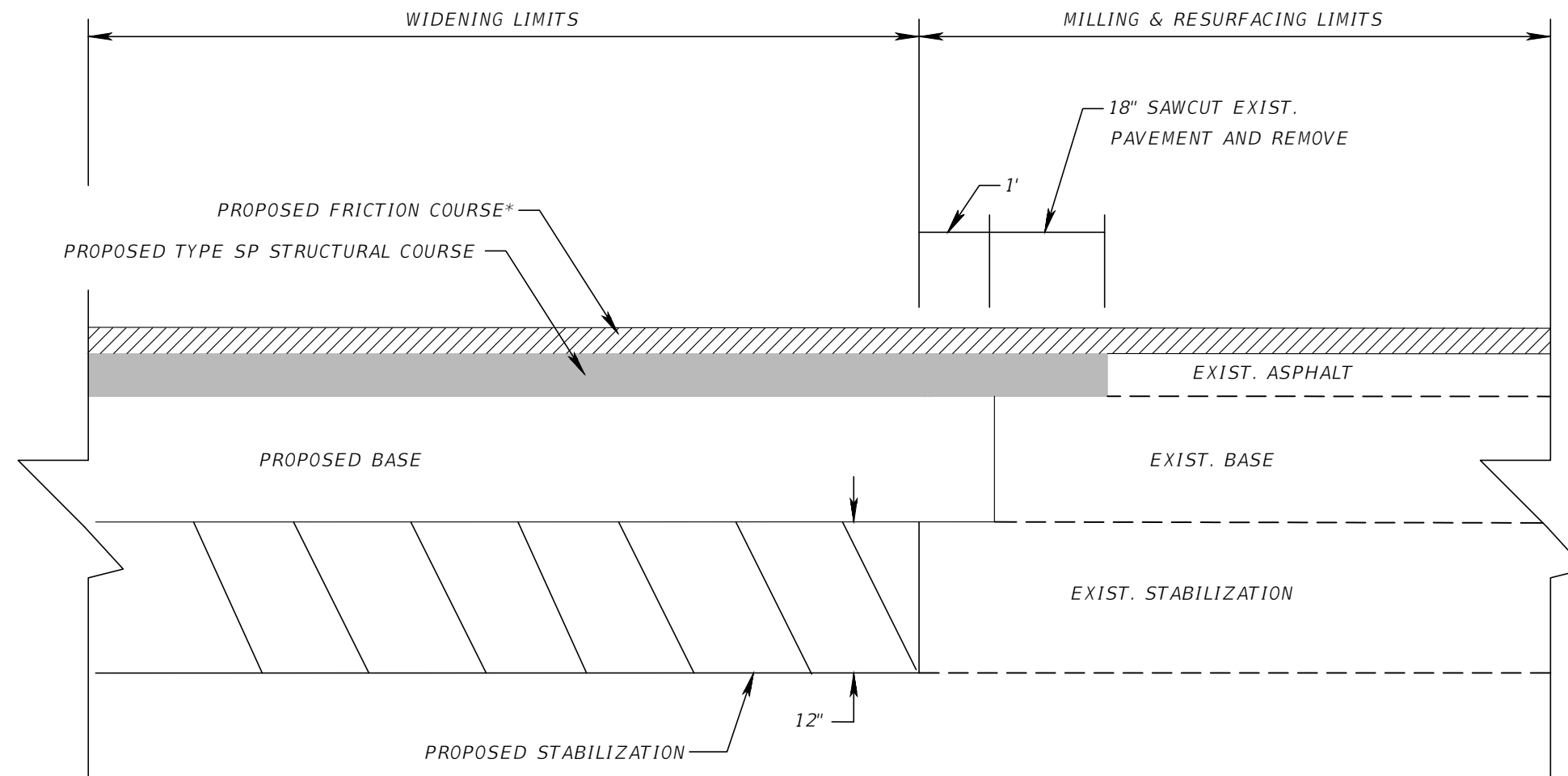
OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH  
TYPE SP STRUCTURAL COURSE (TRAFFIC B) (1.5") (PG 76-22) AND  
FRICTION COURSE FC-12.5 (TRAFFIC B) (1.5") (PG 76-22)

DESIGN SPEED = 15 MPH

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 <b>PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES</b> 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. TYPICAL SECTIONS (4)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22				
			SCALE	NTS	CHECKED	DHC	6/7/22				


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\*NOTE: LIMITS OF FRICTION COURSE - EDGE OF PAVEMENT TO  
EDGE OF PAVEMENT AND 5' BEYOND LIMITS OF CONSTRUCTION.

**TYPICAL SECTION DETAIL**  
ROAD CONNECTION DETAIL  
FOR ALL SAWCUT AND WIDENING LOCATIONS

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 <b>PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES</b> 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. TYPICAL SECTION DETAIL	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22				
			SCALE	NTS	CHECKED	DHC	6/7/22				


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QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	STORM DRAIN AND CROSSDRAIN					CURB INLETS					DITCH BOTTOM INLET		MITERED END SECTION			MANHOLE	REMARKS	
						ROUND			OTHER		P-1	P-2	P-6	P-5	P-5	J-5	C	D	ROUND		OTHER		P-7
						18"	24"	30"	14"X23"	19"X30"	<10'	<10'	<10'	<10'	MOD	<10'	MOD	MOD	18"	30"	14"X23"		<10'
P	S-1	101+55.00	RT	INLET, PIPE	1	162							1										
F																							
P	S-2	101+55.00	LT	INLET, PIPE	1	111					1												
F																							
P	S-1A	103+20.00	RT	INLET, PIPE	1	147							1										
F																							
P	S-3	104+75.00	RT	INLET, PIPE	1	9							1										
F																							
P	S-4	105+00.00	LT	INLET, PIPE	1	101					1												
F																							
P	S-5	107+70.00	RT	INLET	1										1								
F																							
P	S-6	107+70.00	LT	INLET, PIPE	1	98					1												
F																							
P	S-7	110+67.00	RT	INLET, PIPE	2				394							1							
F																							
P	S-8	110+67.00	LT	INLET, PIPE	1	88					1												
F																							
P	S-9	110+67.00	RT	MH, PIPE	1					10												1	
F																							
P	S-10	112+30.00	RT	MES	2																	2	
F																							
P	S-11	111+90.00	LT	INLET, PIPE	1	45					1												
F																							
P	S-11A	111+90.25	LT	MH, PIPE	1	110																1	
F																							
P	S-12	113+00.00	LT	INLET, PIPE	1	87							1										
F																							
P	S-13	113+00.00	RT	INLET, PIPE	1	235							1										
F																							
P	S-14	115+10.00	RT	INLET, PIPE	1		54								1								SMF A CONTROL STRUCTURE
F																							
P	S-15	115+75.00	LT	INLET, PIPE	1	87					1												
F																							
P	S-16	115+75.00	RT	INLET, PIPE	1	23					1												
F																							
SUMMARY				PLAN QUANTITY	P	1303	54		394	10	6	1	3	2	1	1	1			2	2		
				FINAL QUANTITY	F																		

NUMBER	DESCRIPTION	DATE
	PROJECT #	6083160
	SURVEYED	HYATT 5/2021
	DESIGNED	TB 1/2022
	DRAWN	TB 1/2022
	CHECKED	CS 1/2022

CURTIS SPRUGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602




**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
SUMMARY OF DRAINAGE STRUCTURES (1)

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QUANTITY	STR. NO.	STATION	SIDE	DESCRIPTION	BARRELS	STORM DRAIN AND CROSSDRAIN					CURB INLETS					DITCH BOTTOM INLET		MITERED END SECTION			MANHOLE	REMARKS	
						ROUND			OTHER		P-1	P-2	P-6	P-5	P-5	J-5	C	D	ROUND		OTHER		P-7
						18"	24"	30"	14"X23"	19"X30"	<10'	<10'	<10'	<10'	MOD	<10'	MOD	MOD	18"	30"	14"X23"		<10'
P	S-17	115+75.00	RT	MES	1													1					
F																							
P	S-18	113+80.00	RT	INLET, PIPE	1			47										1					SMF 1 CONTROL STRUCTURE
F																							
P	S-19	113+80.00	RT	MES	1														1				
F																							
S-20 NOT USED																							
P	S-21	118+90.00	LT	INLET, PIPE	1	63					1												
F																							
S-22 NOT USED																							
P	S-23	118+90.00	RT	INLET, PIPE	1	25					1												
F																							
P	S-25	118+90.00	RT	PIPE, MH, PIPE	1	4	4															1	
F																							
S-26 TO S-29 NOT USED																							
P	S-30	202+15.00	RT	INLET, PIPE	1	35						1											
F																							
P	S-30A	202+15.00	LT	MH, PIPE	1	110																1	
F																							
P	S-31	202+15.00	LT	INLET, PIPE	1	16						1											
F																							
P	S-31A	201+95.00	LT	MES	1														1				
F																							
P	CD-1A	200+84.57	LT	BOX CULVERT	1																		SEE STRUCTURES PLANS
F																							
P	CD-1B	114+42.26	RT	BOX CULVERT	1																		SEE STRUCTURES PLANS
F																							
P	CD-1C	115+60.00	LT	BOX CULVERT	1																		SEE STRUCTURES PLANS
F																							
P																							
F																							
P																							
F																							
SUMMARY				PLAN QUANTITY	P	253	4	47			2		2					1	2	1		2	
				FINAL QUANTITY	F																		
Grand Total					F	1556	58	47	394	10	8	1	5	2	1	1	1	1	2	1	2	4	

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	CURTIS SPRUGER, P.E. P.E. LICENSE NUMBER 66524 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602		PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF DRAINAGE STRUCTURES (2)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	TB	1/2022					14
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	1/2022					
			SCALE	N/A	CHECKED	CS	1/2022					

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**GENERAL NOTES**

1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE PROJECT MANAGEMENT DIVISION. THE COUNTY PROJECT MANAGER IS:  
JIM SHULER, P.E.  
AND CAN BE REACHED AT:  
(941) 708-7450 EXT. 7306  
JIM.SHULER@MYMANATEE.ORG
2. ALL CONSTRUCTION ON THIS PROJECT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF MANATEE COUNTY UTILITY AND TRANSPORTATION STANDARDS AND/OR FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" UNLESS OTHERWISE INDICATED ON THE PLANS.
3. VERTICAL CONTROL FOR THIS PROJECT IS PROVIDED USING "THE NORTH AMERICAN VERTICAL DATUM OF 1988", (NAVD '88).
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL CONDITIONS AND REQUIREMENTS OF ALL PERMITS AND ALL GOVERNING FEDERAL, STATE, AND LOCAL AGENCIES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS THAT ARE NOT PROVIDED IN THE BID DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER.
5. THE INFORMATION PROVIDED IN THESE PLANS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATION THEY MAY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH THEIR BIDS WILL BE BASED.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS ON THE PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. SHOULD DISCREPANCIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO OBTAIN THE ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH CONSTRUCTION.
7. AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA AT 1-800-432-4770 OR THE NATIONAL 811 ONE CALL NUMBER WHEN APPLICABLE FOR UTILITY LOCATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH ALL UTILITIES FOR THE POSSIBLE RELOCATION OR THE TEMPORARY MOVEMENT OF ANY EXISTING UTILITIES WITHIN THE RIGHTS-OF-WAY.
8. SEPARATE PAYMENT SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT PRICE FOR THE APPROPRIATE BID ITEM.
9. THE CONTRACTOR SHALL HAVE A SUPERINTENDENT, OR RESPONSIBLE PARTY, ON SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. ALL WORKERS ON THE JOB SITE WILL BE COURTEOUS TO THE PUBLIC AT ALL TIMES, AND SHALL REFER ANY QUESTIONS OR CONCERNS TO THE CONTRACTOR'S SUPERINTENDENT OR THE COUNTY INSPECTOR. THE SUPERINTENDENT SHALL SPEAK AND UNDERSTAND ENGLISH AND SHALL BE AVAILABLE AT ALL TIMES FOR TIMELY RESOLUTION OF PROJECT-RELATED ISSUES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE COORDINATION OF CONSTRUCTION SCHEDULING BETWEEN CONTRACTOR AND ALL UTILITY AGENCIES. NOTE THAT THIS INCLUDES MEETING WITH UTILITY AGENCIES PRIOR TO THE PRE-CONSTRUCTION CONFERENCE TO ADJUST THEIR SCHEDULES TO COINCIDE WITH THE CONTRACTOR'S CONSTRUCTION SCHEDULE.
11. ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTORY OF THE COUNTY PROJECT MANAGER. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
12. ALL CONSTRUCTION WITHIN FDOT RIGHT-OF-WAY AT US 301 IS TO BE IN ACCORDANCE WITH CURRENT FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND FDOT STANDARD PLANS.
13. ALL SIGNING, STRIPING AND RPM PLACEMENT WITHIN THE COUNTY RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROADWAY CONSTRUCTION AND THE DESIGN STANDARDS.

14. MONUMENTATION - HORIZONTAL CONTROL, BENCHMARKS, ETC. SET BY THE CONSULTANT, SHALL HAVE THEIR COMPANY IDENTIFICATION ON THE TAG, DISK OR CAP.
15. AT THE COMPLETION OF THE PROJECT, SURVEY CONTROL, BENCHMARKS, PROPERTY CORNERS, ETC. LOST DUE TO CONSTRUCTION SHALL BE RESET.
16. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, WATER AND SEWER LINES, STORM DRAINS, UTILITIES, DRIVEWAYS, SIDEWALKS, SIGNS, MAILBOXES, FENCES, TREES, LANDSCAPING, AND ANY OTHER IMPROVEMENT OR FACILITY IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY DAMAGED ITEMS DUE TO THE CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
17. ALL VALVES, ARVS, MANHOLES, BLOW-OFF ASSEMBLIES, METER ASSEMBLIES, AND FIRE HYDRANTS NEED TO REMAIN ACCESSIBLE DURING AND AFTER CONSTRUCTION ACTIVITIES AND BE ADJUSTED TO FINAL GRADE.
18. ALL EXISTING CURB AND GUTTER WITHIN THE LIMITS OF CLEARING AND GRUBBING IS TO BE REMOVED AND PAID FOR UNDER PAY ITEM 110-4-10 REMOVAL OF EXISTING CONCRETE.
19. CONTRACTOR TO MATCH EXISTING PAVER MATERIAL AND INSTALL PER MANUFACTURER'S INSTRUCTION AND SECTION 3.7 OF MANATEE COUNTY'S HIGHWAY AND TRAFFIC STANDARDS. ADDITIONALLY, THE CONTRACTOR SHALL PROVIDE A 6" MINIMUM CONCRETE RIBBON CONNECTION AT THE SAWCUT LINE.

**SAFETY**

20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT, 90-96, LAWS OF FLORIDA EFFECTIVE OCTOBER 1, 1990 AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 CFR 1926.650, SUBPART P, AS AMENDED. THE CONTRACTOR SHALL INCLUDE IN THE TOTAL BID PRICE ALL COSTS FOR COMPLIANCE WITH THESE REGULATIONS.
21. THE CONTRACTOR SHALL USE SHEET PILING, SHEETING, BRACING, ETC., AS REQUIRED IN ALL EXCAVATION AREAS AND CONFORM TO ALL OSHA REQUIREMENTS.
22. THE CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND UTILITIES, POWER LINES, ETC.
23. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THIS EXCLUSION DOES NOT ALLEVIATE THE CONTRACTOR FOR PROVIDING A CONTINUOUS SAFE WORKSPACE.

**RIGHT-OF-WAY**

24. ALL CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO WITHIN THE MANATEE COUNTY/FDOT RIGHT-OF-WAY AND/OR EASEMENTS SHOWN ON THE DRAWINGS.
25. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO REFERENCE AND RESTORE PROPERTY CORNER MONUMENTS, PINS, AND LANDMARKS THAT MAY BE DISTURBED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
26. THE CONTRACTOR, PRIOR TO CONSTRUCTION AND RESTRICTING ANY TRAFFIC, MUST OBTAIN A RIGHT-OF-WAY USE PERMIT AND A TRAFFIC CONTROL PLAN. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS FROM OTHER GOVERNMENTAL AGENCIES HAVING RELEVANT JURISDICTION. ALL MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD). A TRAFFIC CONTROL PLAN SHALL BE SUPPLIED BY THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING.
27. ALL STORMWATER STRUCTURES, PIPES AND HEADWALLS ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
28. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH IN THE FIELD THE RIGHT-OF-WAY LINES, BASE LINES, BENCH MARKS (ELEV.), CENTER LINES, AND STATIONING AS REQUIRED TO CONSTRUCT THIS PROJECT.
29. THE CONTRACTOR SHALL COORDINATE THE CUTTING OF DRIVEWAYS WITH THE PROPERTY OWNER PRIOR TO CUT. ALL DRIVEWAYS WILL BE IN PASSABLE CONDITION AT THE END OF THE WORK DAY AND FULLY RESTORED PER PLAN.

30. THE CONTRACTOR SHALL COORDINATE WITH THE AFFECTED UTILITY COMPANY FOR THE ADJUSTMENT OF ANY EXISTING UTILITIES AND STRUCTURES IN ORDER TO MATCH THE PROPOSED ELEVATIONS AND ALIGNMENTS.
31. A RIGHT OF ENTRY AGREEMENT SHALL BE OBTAINED BY THE PROJECT MANAGER FROM THE PROPERTY OWNER BEFORE ANY DRIVEWAY CONSTRUCTION WORK IS DONE OUTSIDE OF THE RIGHT-OF-WAY OR EASEMENT.
32. THE CONTRACTOR SHALL COORDINATE WITH STEVEN ROBERTS (941-708-7450 EXT. 7639, STEVEN.ROBERTS@MYMANATEE.ORG) OF MANATEE COUNTY WHEN BEGINNING WORK AFFECTING AN EXISTING BUS STOP. UPON NOTICE, COUNTY STAFF WILL REMOVE THE EXISTING AMENITIES, AND THEY WILL REINSTALL THE AMENITIES ONCE THE WORK IS COMPLETE.
33. ALL SURVEY INFORMATION WAS OBTAINED FROM A LICENSED FLORIDA PROFESSIONAL SURVEYOR AND MAPPER AND UTILIZED AS SUPPORTING DATA IN THE PRODUCTION OF DESIGN PLANS AND FOR CONSTRUCTION ON SUBJECT PROJECT. THE PROFESSIONAL SURVEYOR AND MAPPER OF RECORD IS:


RUSSEL HYATT, P.S.M.  
HYATT SURVEY SERVICES, INC.  
2012 LENA RD.  
BRADENTON, FL 34211

**UTILITY CONTACTS**

- |   |  |
|---|--|
| MANATEE COUNTY PUBLIC WORKS DEPT.<br>UTILITY ENGINEERING<br>JIM RENNEBERG, P.E.<br>1022 26TH AVE E<br>BRADENTON, FL 34208<br>(941) 708-7450 EXT. 7220<br>FAX: (941) 708-7415  | TECO/PEOPLES GAS CO.<br>ANTHONY BAUBLITZ<br>8215 VICO COURT<br>SARASOTA, FL 34240<br>(941) 342-4025<br>EMERGENCY: (443) 838-7139<br>AFBaublitz@tecoenergy.com<br>CC: SWinsor@tecoenergy.com                  |
| MANATEE COUNTY HEALTH DEPT.<br>HANS ROSE<br>410 6TH AVE E<br>BRADENTON, FL 34208<br>(941) 748-0747 EXT. 1355<br>FAX: (941) 750-9364   | PEACE RIVER ELECTRIC CO-OP<br>DAVID MCCLINTOCK<br>210 METHANY ROAD<br>WAUCHULA, FL 33873<br>(863) 767-4621<br>david.mcclintock@preco.coop  |
| MANATEE COUNTY PUBLIC WORKS DEPT.<br>TRAFFIC ENGINEERING/ATMS<br>2101 47TH TERRACE EAST<br>BRADENTON, FL 34203<br>VISHAL KAKKAD, P.E.<br>(941) 749-3500 EXT. 7812<br>FAX: (941) 749-3571<br>VISHAL.KAKKAD@MYMANATEE.ORG | MCI/VERIZON BUSINESS<br>ANDY COLE<br>7701 EAST TELECOM PARKWAY<br>TEMPLE TERRACE, FL 33637<br>(813) 847-4037<br>Andrew.Cole2@verizon.com<br>CC: James.Barra1@VerizonWireless.com                             |
| SUNSHINE STATE ONE CALL OF FLORIDA<br>1-(800) 432-4770  | SPECTRUM SUNSHINE STATE LLC<br>JAMES CRUZAN<br>5413 EAST STATE ROAD 64<br>BRADENTON, FL 34208<br>(727) 329-2846<br>james.cruzan@charter.com<br>CC: James.Fleming1@charter.com<br>patrick.pistner@charter.com |
| FLORIDA POWER & LIGHT DISTRIBUTION<br>GREG COKER<br>1253 12TH AVENUE EAST<br>PALMETTO, FL 34221<br>(941) 723-4430<br>FAX: (941) 723-4444<br>EMERGENCY: 1-800-4-OUTAGE<br>greg.coker@fpl.com                             | FRONTIER COMMUNICATIONS<br>DENISE HUTTON<br>1701 RINGLING BLVD.<br>SARASOTA, FL 34236<br>(941) 906-6722<br>denise.hutton@ftrt.com  |
| FLORIDA POWER & LIGHT TRANSMISSION<br>RALPH DIAZ<br>700 UNIVERSE BLVD DEPT TS4/JW<br>JUNO BEACH, FL 33408<br>(561) 904-3617<br>ralph.diaz@fpl.com   |  |

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 <b>PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES</b> 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. GENERAL NOTES	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22				
			SCALE	NTS	CHECKED	DHC	6/7/22				
											16

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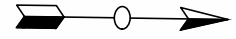
CURVE DATA C1  
 PI STA. = 103+62.74  
 Δ = 17° 30' 17" (RT.)  
 D = 7° 36' 32"  
 T = 115.93'  
 L = 230.05'  
 R = 753.00'  
 PC STA. = 102+46.82  
 PT STA. = 104+76.87  
 e = RC

CURVE DATA C13  
 PI STA. = 33+62.21  
 Δ = 6° 20' 44" (LT.)  
 D = 1° 41' 32"  
 T = 187.67'  
 L = 374.95'  
 R = 3385.56'  
 PC STA. = 31+74.54  
 PRC STA. = 35+49.50  
 e = EXIST.

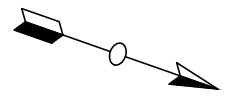
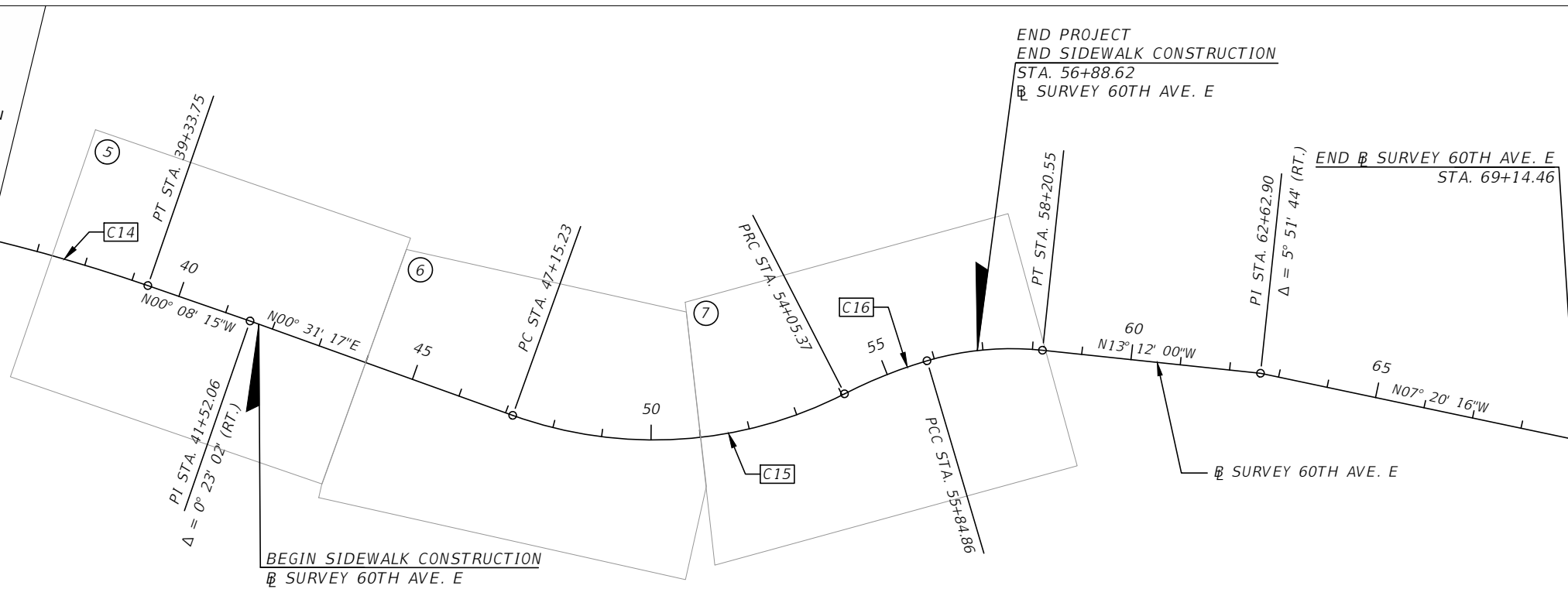
BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 Q CONST. 60TH AVE. E  
 STA. 100+93.28 =  
 STA. 11+26.52, 105.50' RT.  
 B SURVEY 60TH AVE. E

\*SEE INTERSECTION DETAILS (4)  
 FOR MORE INFORMATION

\*\*SEE POND DETAILS  
 FOR MORE INFORMATION



MATCHLINE STA. - 36+00.00  
 B SURVEY 60TH AVE. E



CURVE DATA C14  
 PI STA. = 37+41.82  
 Δ = 6° 20' 44" (RT.)  
 D = 1° 39' 05"  
 T = 192.32'  
 L = 384.26'  
 R = 3469.56'  
 PRC STA. = 35+49.50  
 PT STA. = 39+33.75  
 e = EXIST.

CURVE DATA C15  
 PI STA. = 50+81.01  
 Δ = 46° 57' 45" (LT.)  
 D = 6° 48' 17"  
 T = 365.78'  
 L = 690.15'  
 R = 842.00'  
 PC STA. = 47+15.23  
 PRC STA. = 54+05.37  
 e = EXIST.

CURVE DATA C16  
 PI STA. = 54+95.38  
 Δ = 10° 44' 04" (RT.)  
 D = 5° 58' 51"  
 T = 90.01'  
 L = 179.48'  
 R = 958.00'  
 PRC STA. = 54+05.37  
 PT STA. = 55+84.86  
 e = EXIST.

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1" = 300'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

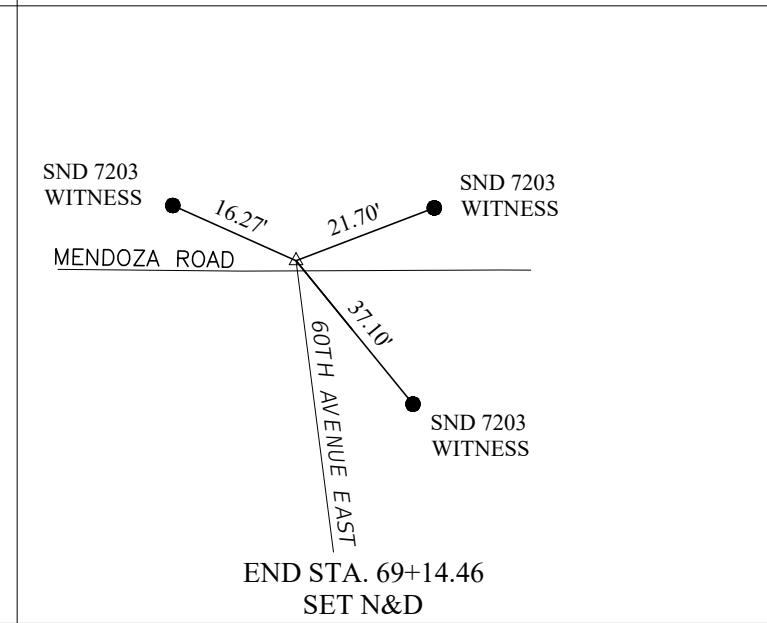
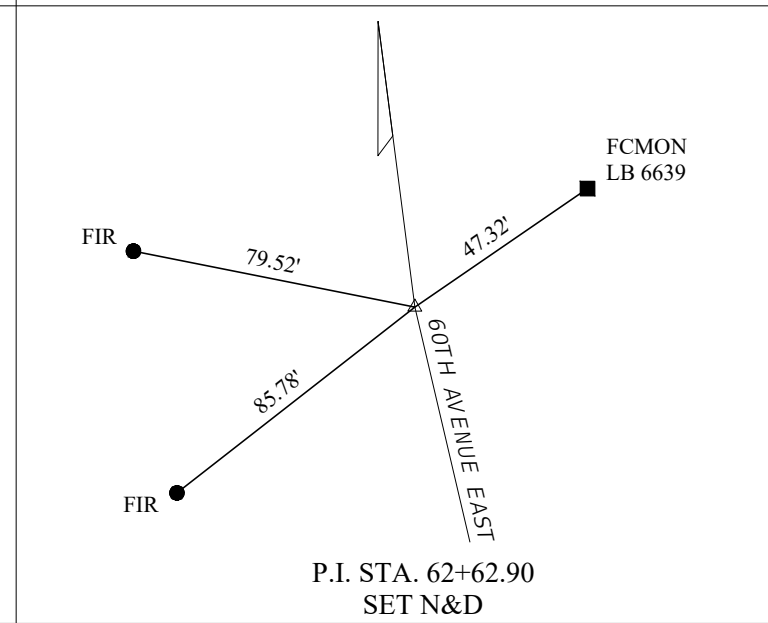
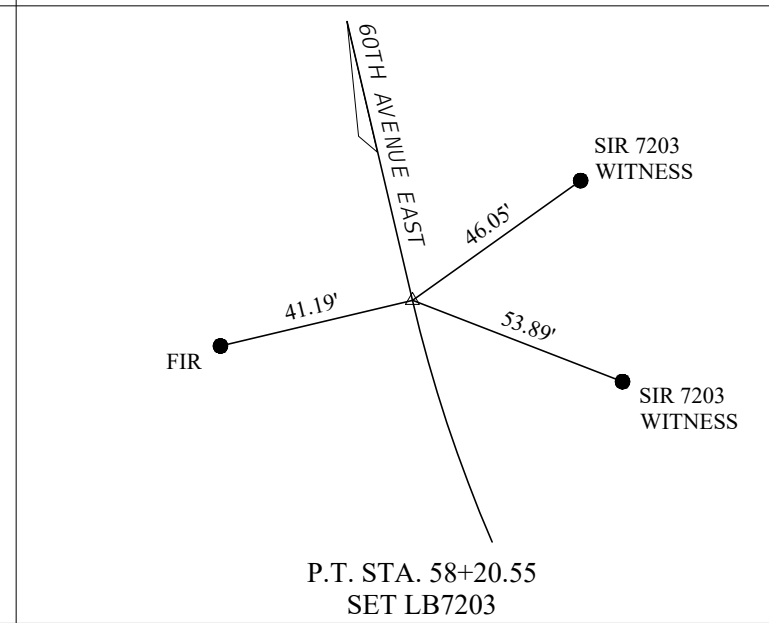
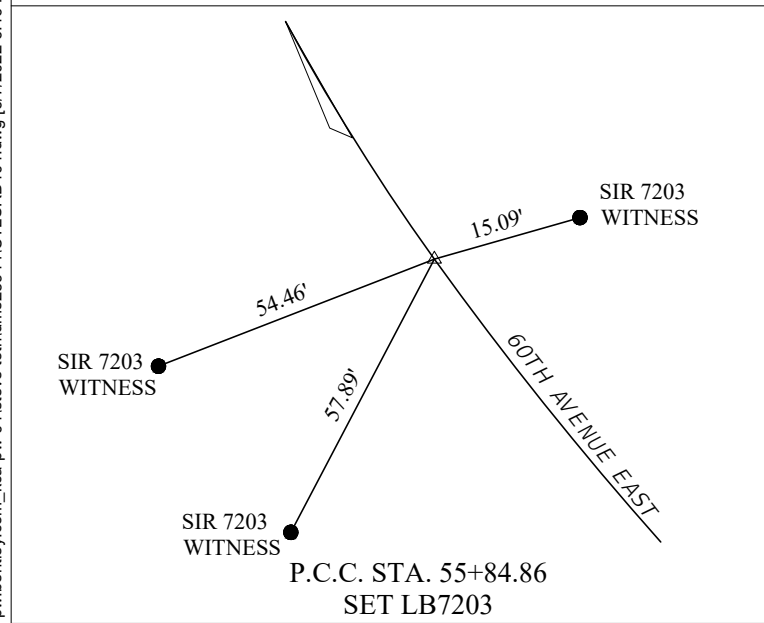
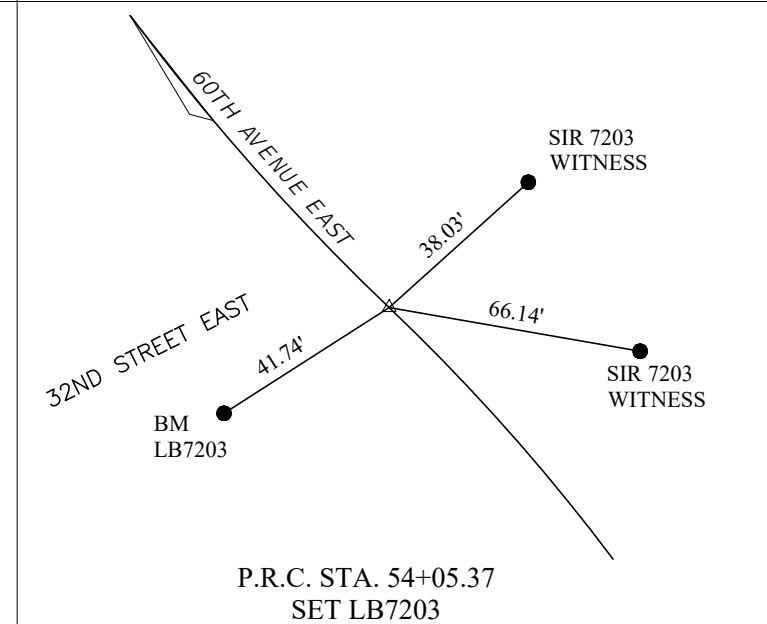
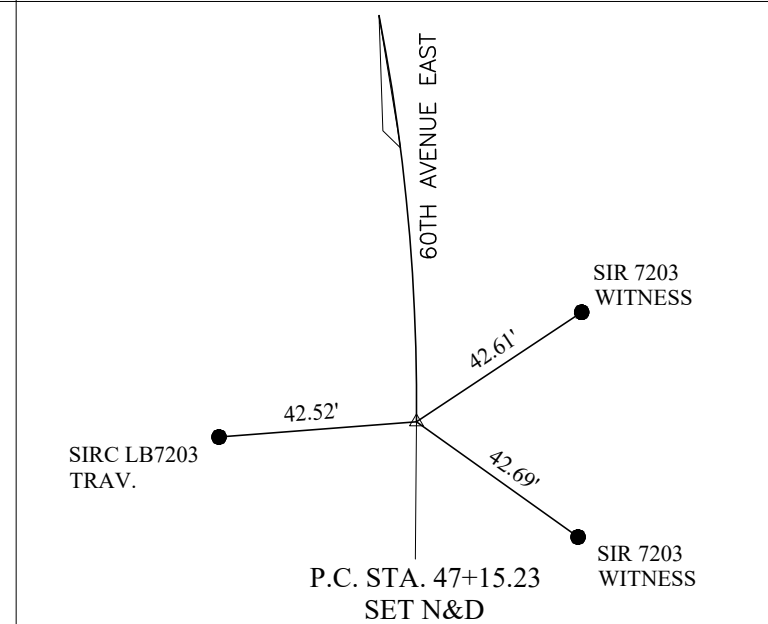
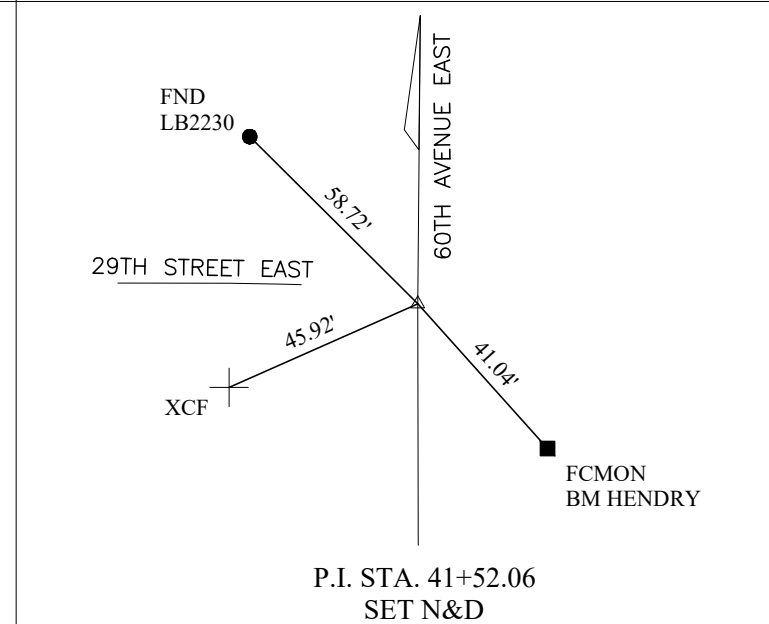
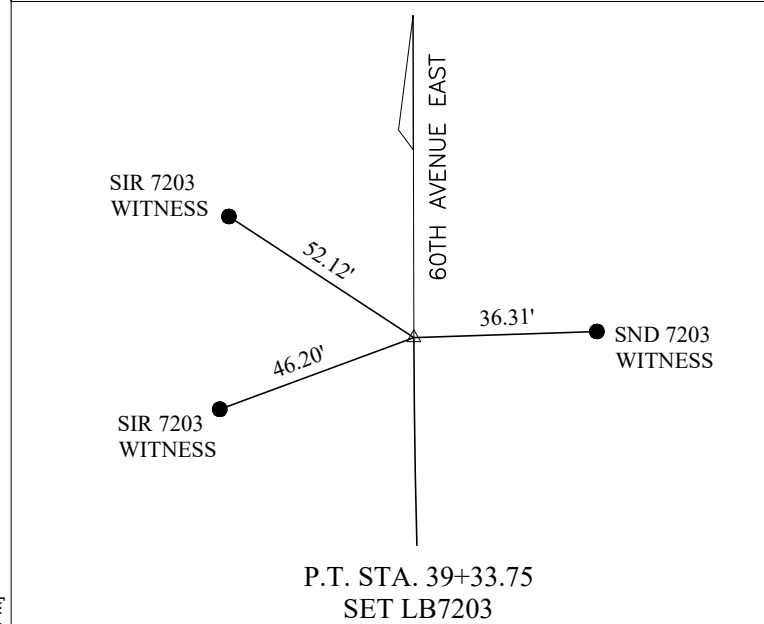
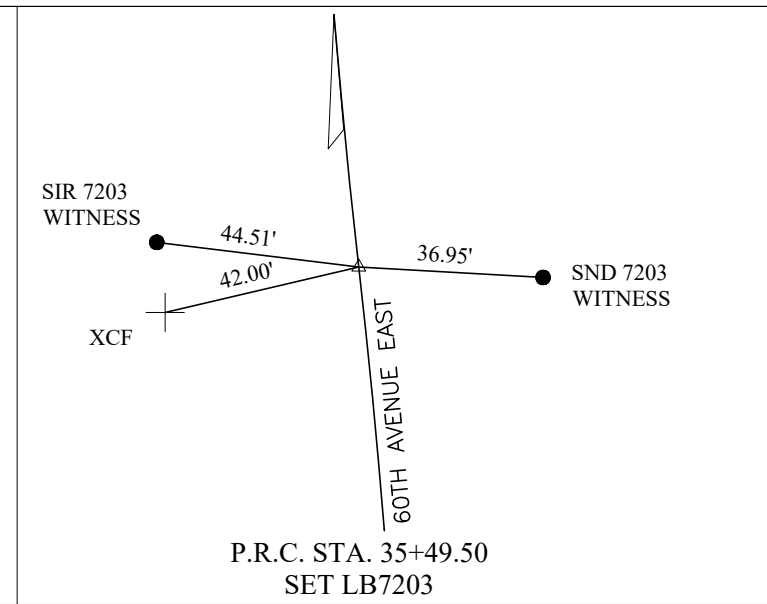
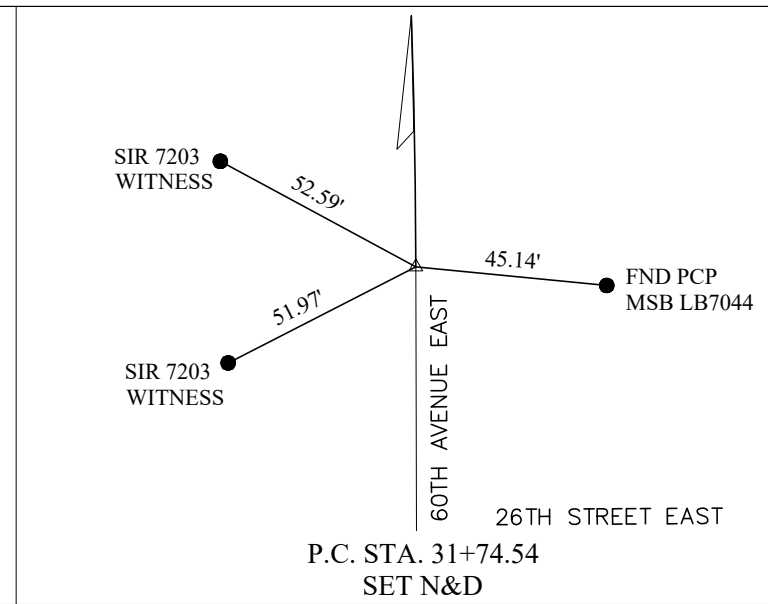
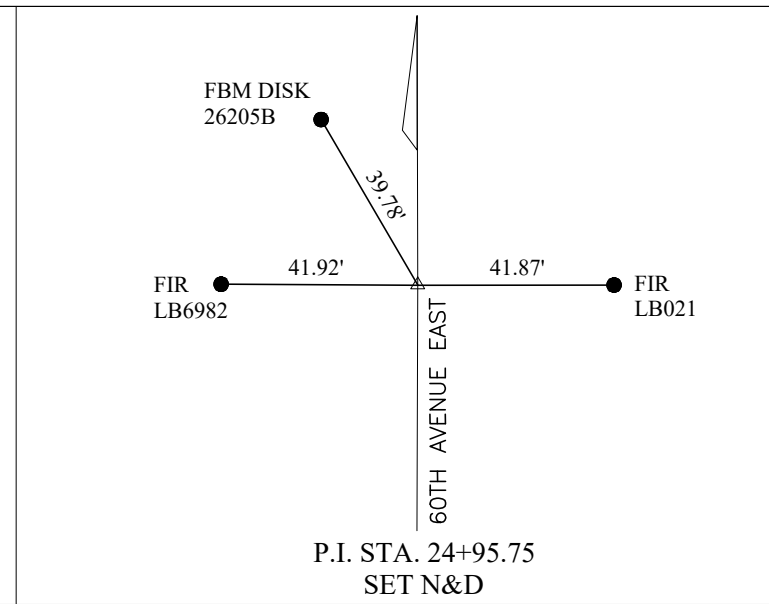
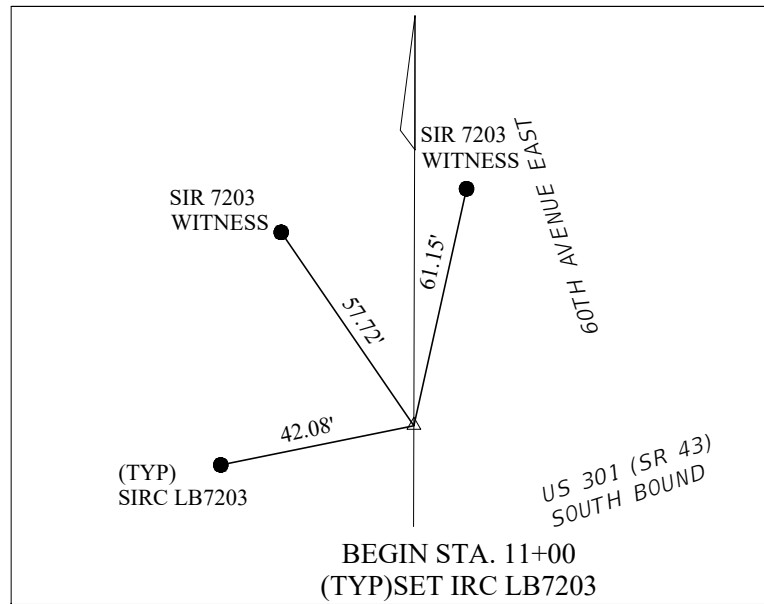


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 PROJECT LAYOUT

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NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	ST	2/1/22
SEC./TWN./RGE	4-34S-18E	DRAWN	ST	2/1/22
SCALE	NTS	CHECKED	DHC	2/1/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



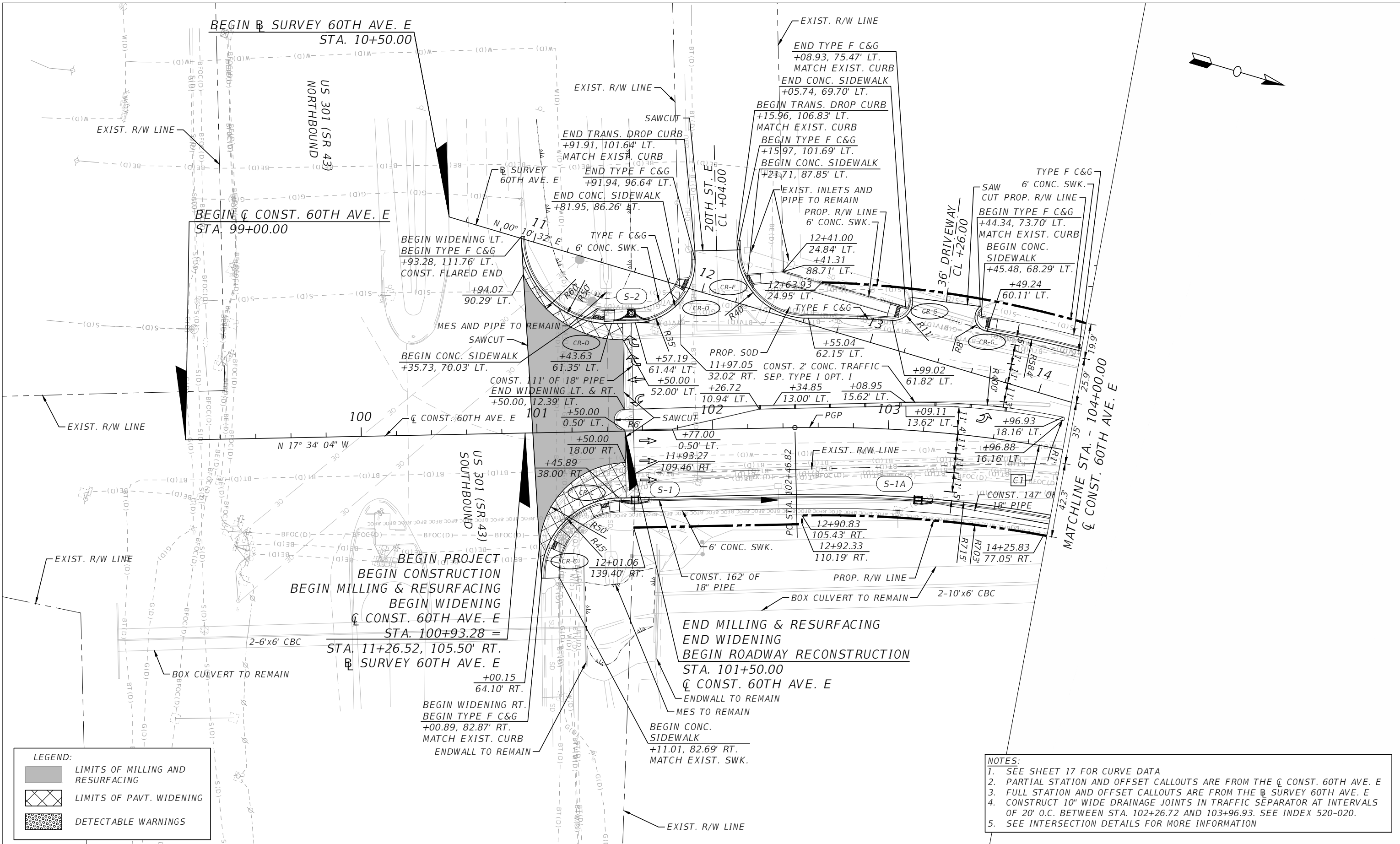
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
PROJECT CONTROL

SHEET NO.  
18

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**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS

- NOTES:**
- SEE SHEET 17 FOR CURVE DATA
  - PARTIAL STATION AND OFFSET CALLOUTS ARE FROM THE Q CONST. 60TH AVE. E
  - FULL STATION AND OFFSET CALLOUTS ARE FROM THE B SURVEY 60TH AVE. E
  - CONSTRUCT 10" WIDE DRAINAGE JOINTS IN TRAFFIC SEPARATOR AT INTERVALS OF 20' O.C. BETWEEN STA. 102+26.72 AND 103+96.93. SEE INDEX 520-020.
  - SEE INTERSECTION DETAILS FOR MORE INFORMATION

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1" = 50'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



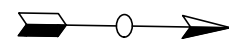
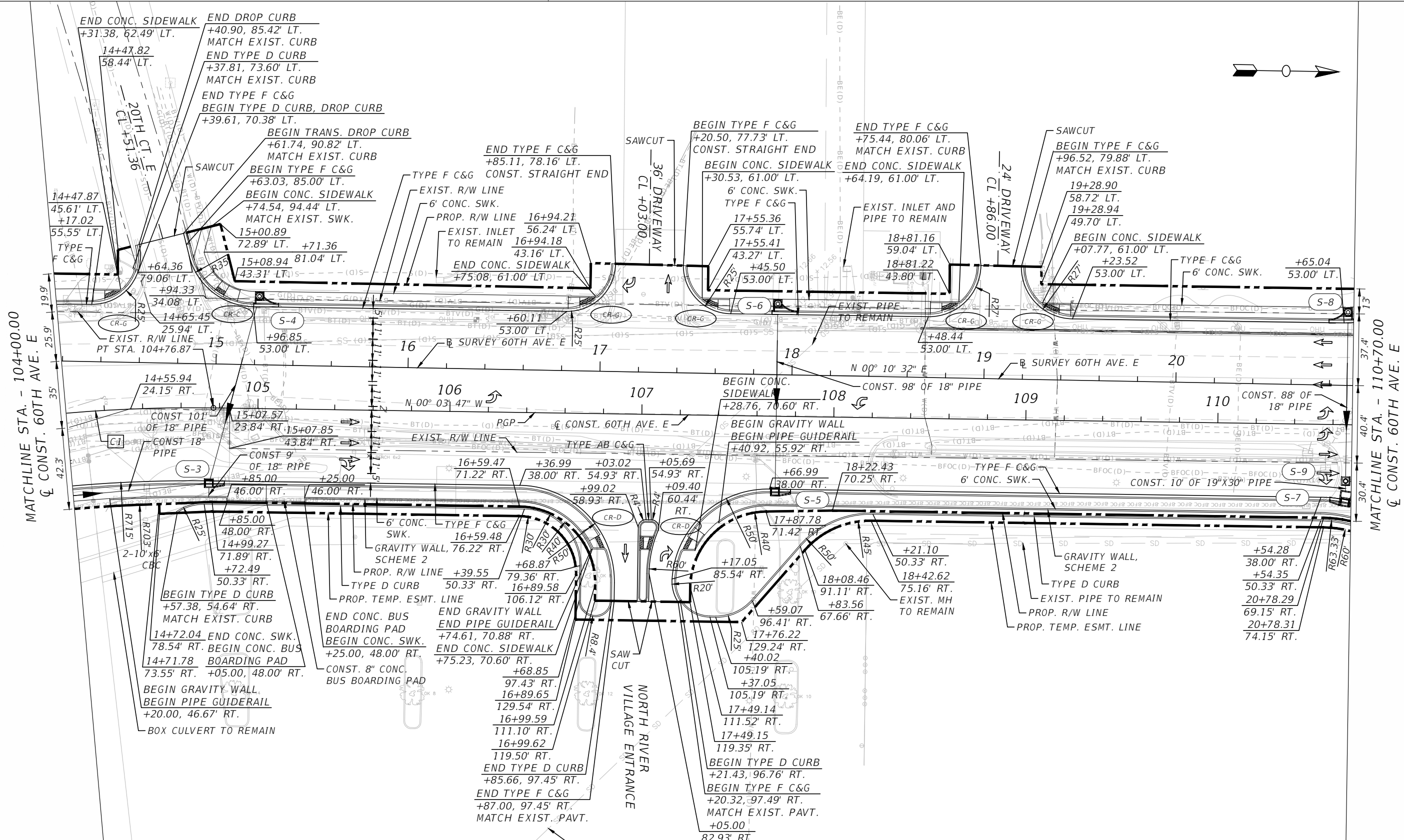
**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 ROADWAY PLAN (1)

SHEET NO.  
 19

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**LEGEND:**  
 DETECTABLE WARNINGS

**NOTES:**  
 1. SEE SHEET 17 FOR CURVE DATA  
 2. PARTIAL STATION AND OFFSET CALLOUTS ARE FROM THE  $\bar{C}$  CONST. 60TH AVE. E  
 3. FULL STATION AND OFFSET CALLOUTS ARE FROM THE  $\bar{S}$  SURVEY 60TH AVE. E  
 4. SEE INTERSECTION DETAILS FOR MORE INFORMATION

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-345-18E	DRAWN	ST	6/6/22
			1" = 50'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



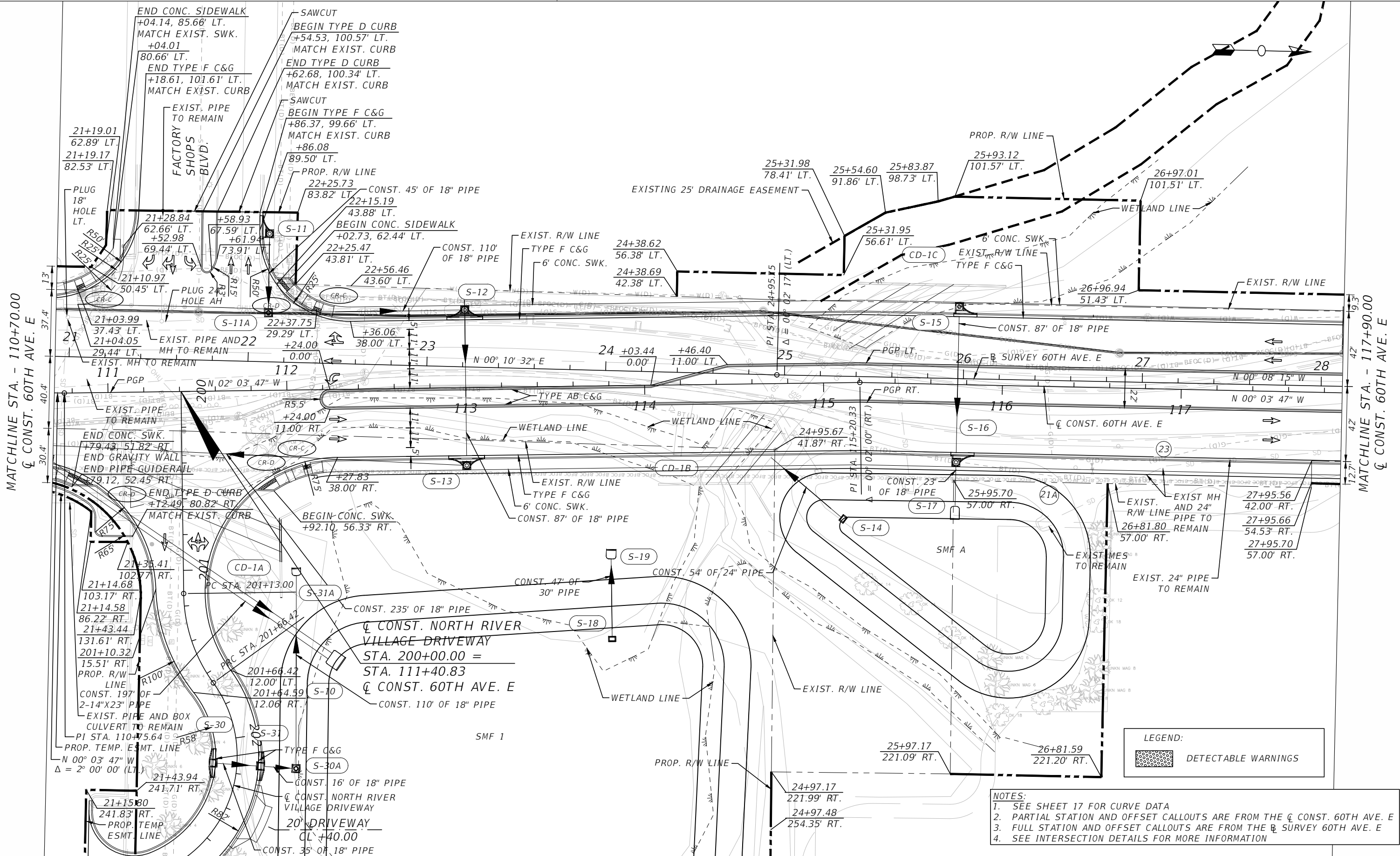
**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY PLAN (2)

SHEET NO.  
 20

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**LEGEND:**

DETECTABLE WARNINGS

- NOTES:**
1. SEE SHEET 17 FOR CURVE DATA
  2. PARTIAL STATION AND OFFSET CALLOUTS ARE FROM THE  $\bar{C}$  CONST. 60TH AVE. E
  3. FULL STATION AND OFFSET CALLOUTS ARE FROM THE  $\bar{C}$  SURVEY 60TH AVE. E
  4. SEE INTERSECTION DETAILS FOR MORE INFORMATION

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	ST	6/6/22
			18-2238	DRAWN	ST	6/6/22
			4-345-18E	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



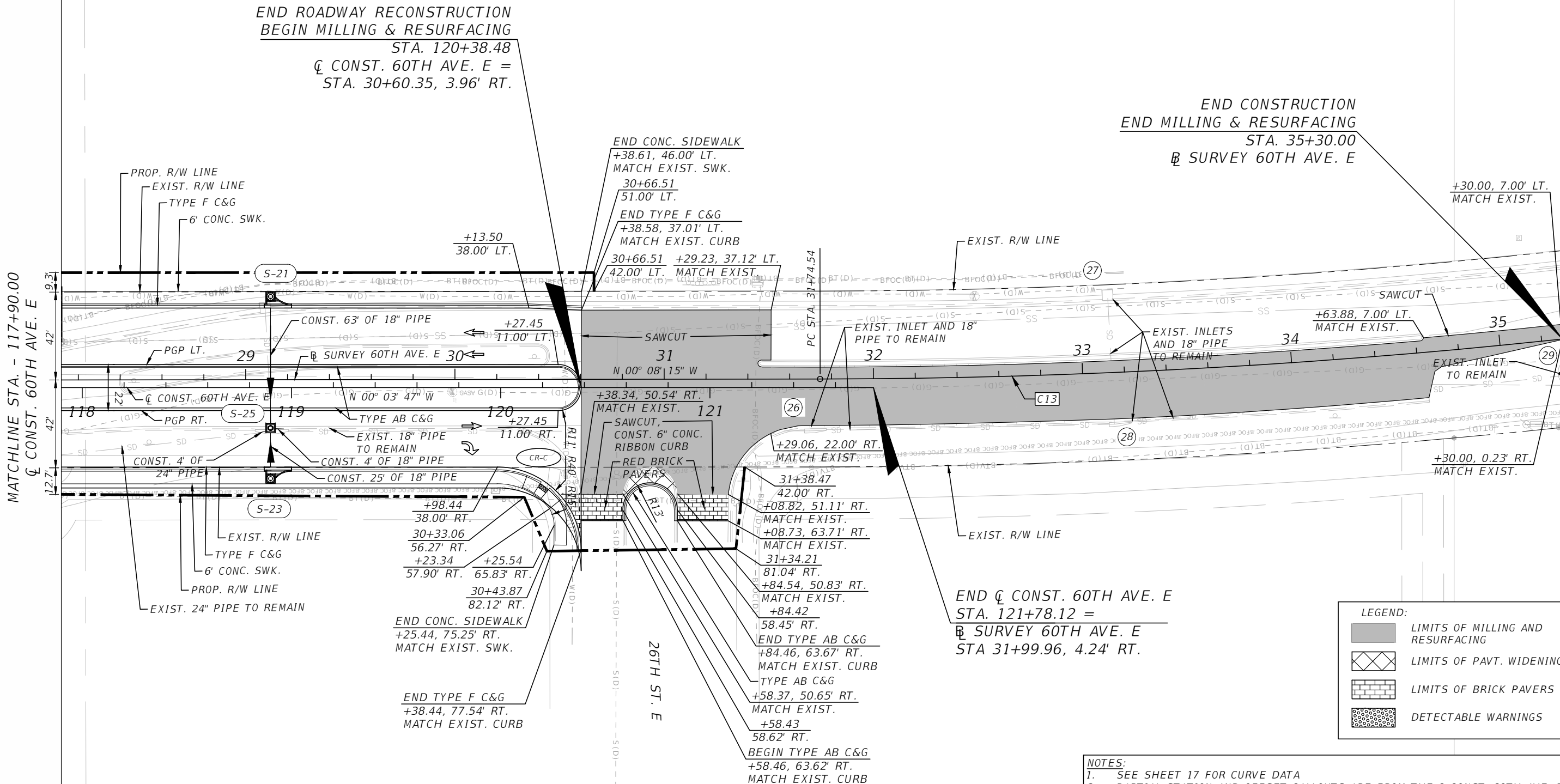
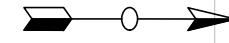
**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY PLAN (5)

SHEET NO.  
 21

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**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	LIMITS OF BRICK PAVERS
	DETECTABLE WARNINGS

- NOTES:**
- SEE SHEET 17 FOR CURVE DATA
  - PARTIAL STATION AND OFFSET CALLOUTS ARE FROM THE  $\bar{C}$  CONST. 60TH AVE. E
  - FULL STATION AND OFFSET CALLOUTS ARE FROM THE  $\bar{R}$  SURVEY 60TH AVE. E
  - SEE INTERSECTION DETAILS FOR MORE INFORMATION

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	ST	6/6/22
			18-2238	DRAWN	ST	6/6/22
			4-34S-18E	CHECKED	DHC	6/6/22
			1" = 50'			

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

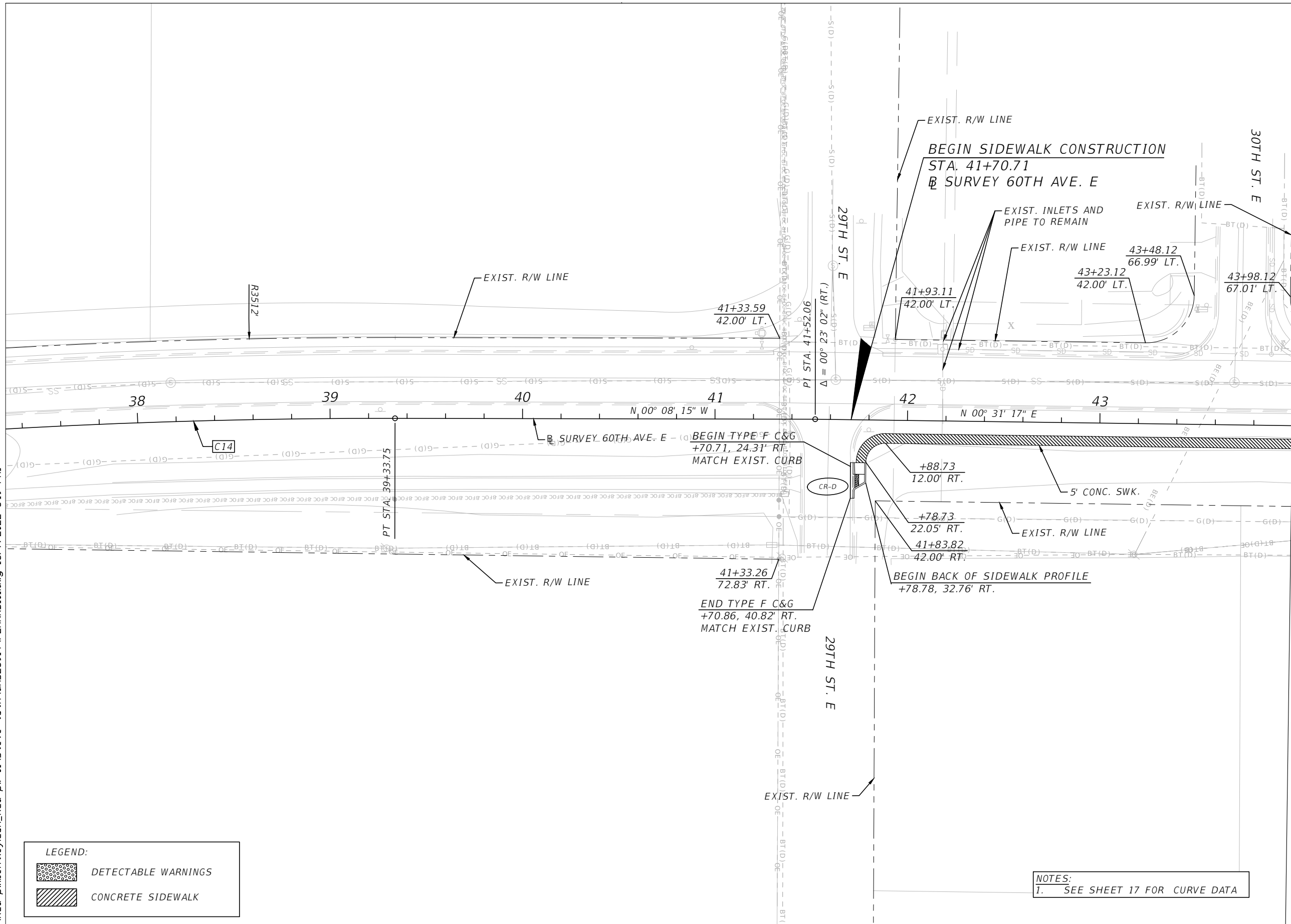
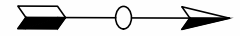
60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY PLAN (4)

SHEET NO.  
 22

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MATCHLINE STA. - 44+00.00  
 SURVEY 60TH AVE. E

**LEGEND:**

	DETECTABLE WARNINGS
	CONCRETE SIDEWALK

**NOTES:**  
 1. SEE SHEET 17 FOR CURVE DATA

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
			SCALE	1" = 50'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

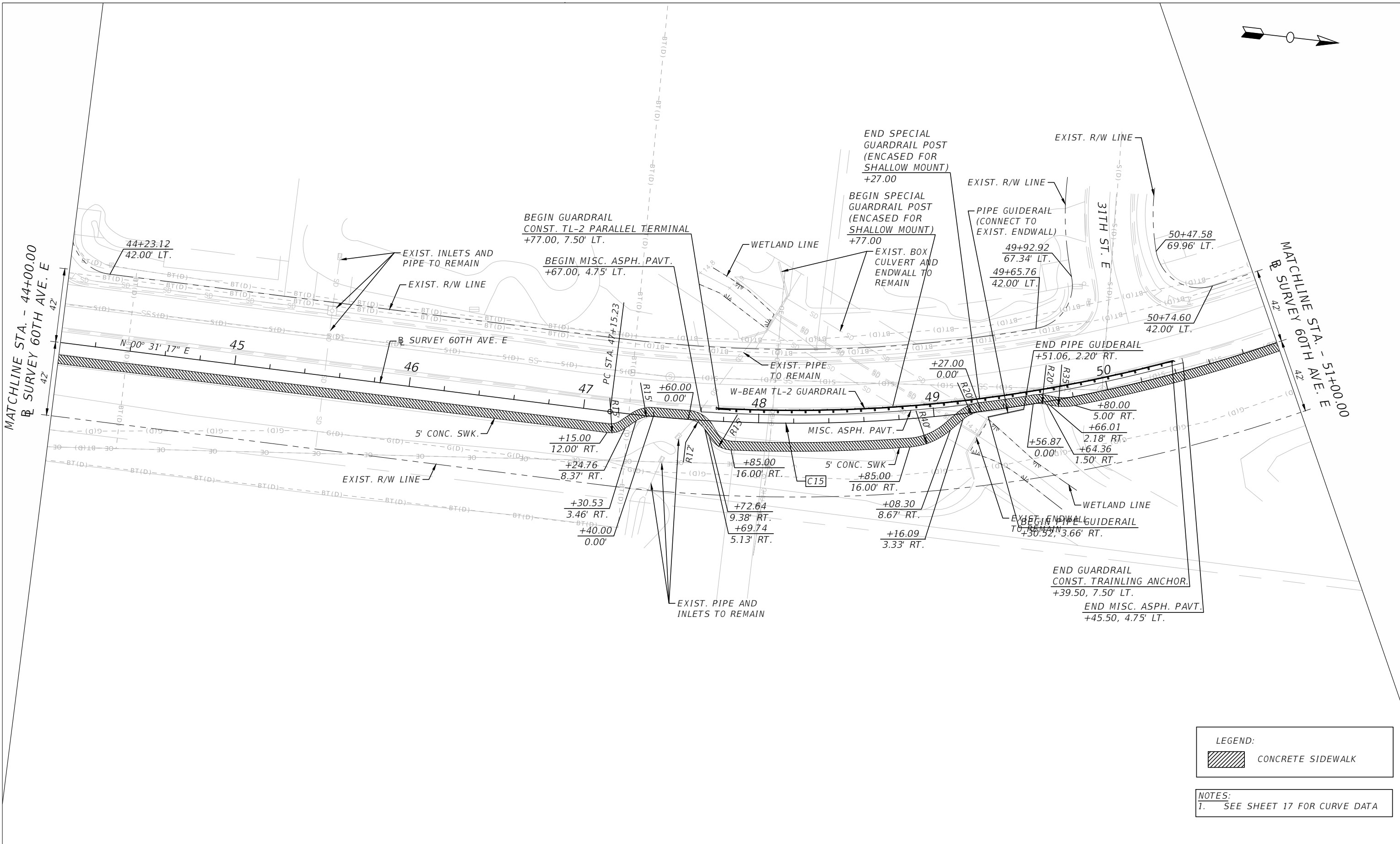


**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY PLAN (5)

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LEGEND:

	CONCRETE SIDEWALK
--	-------------------

NOTES:  
1. SEE SHEET 17 FOR CURVE DATA

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1" = 50'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

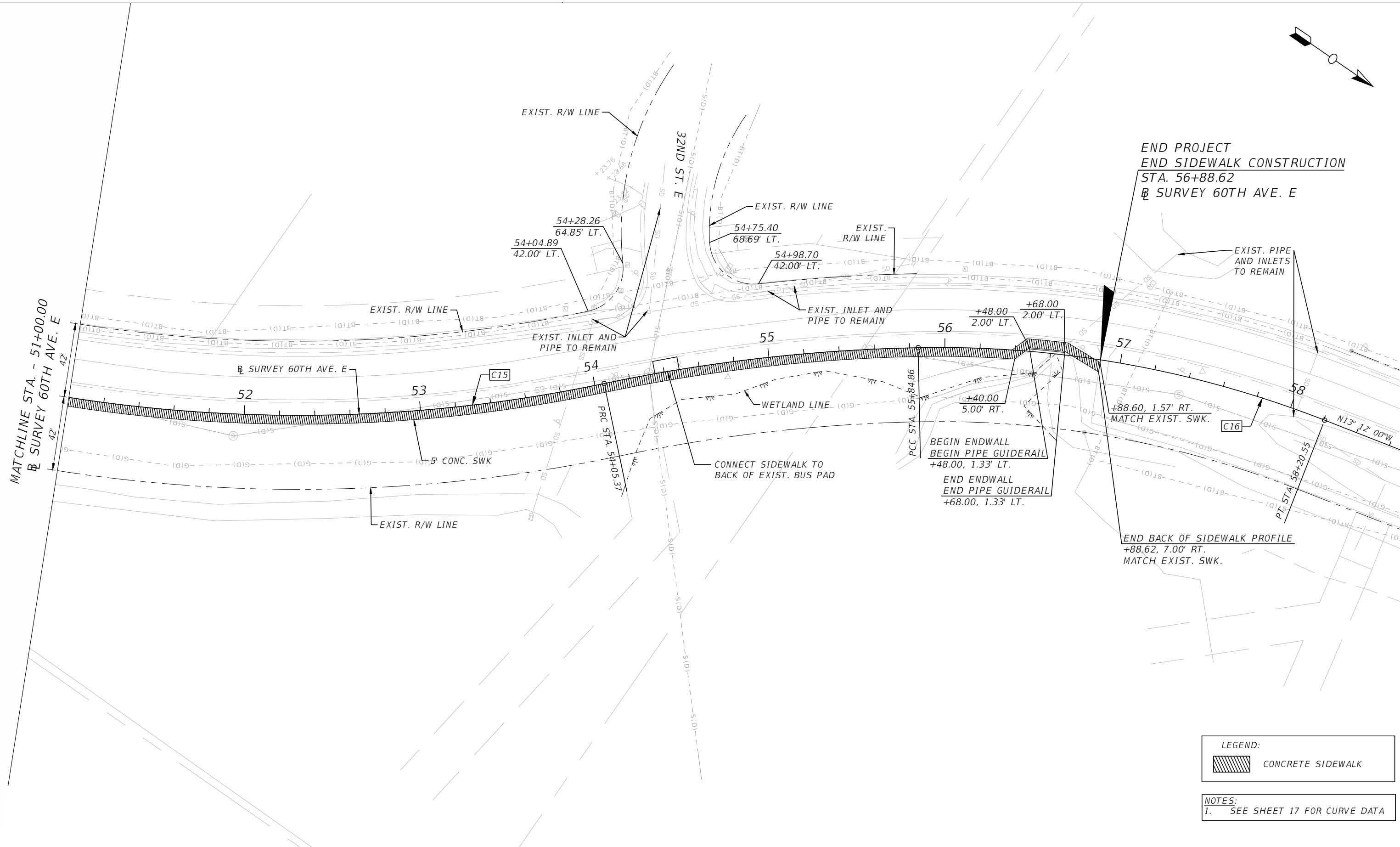


PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY PLAN (6)

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**LEGEND:**

 CONCRETE SIDEWALK

**NOTES:**  
 1. SEE SHEET 17 FOR CURVE DATA

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
			SCALE	1" = 50'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

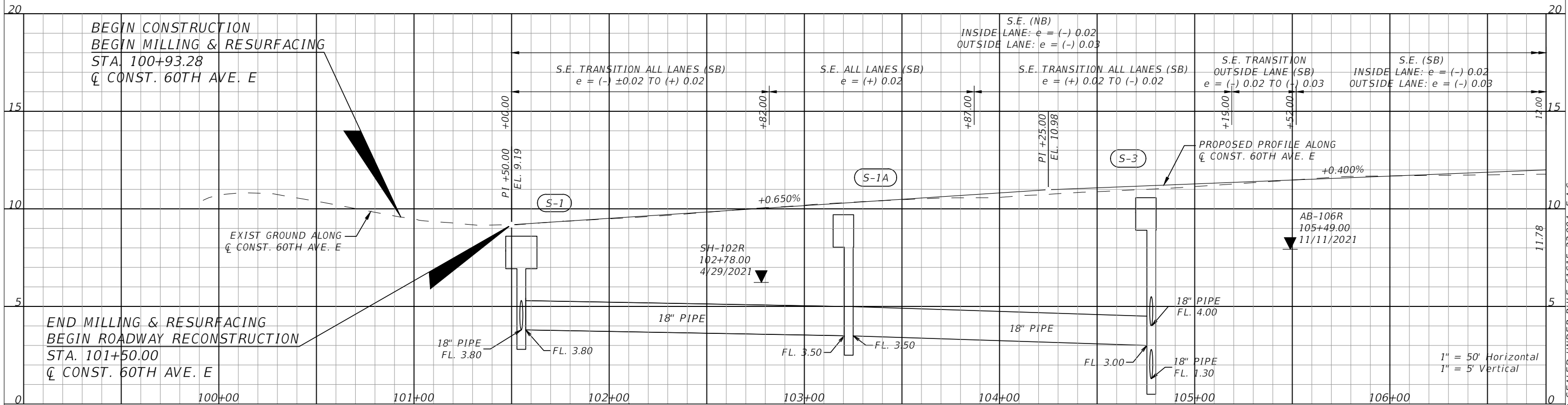


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

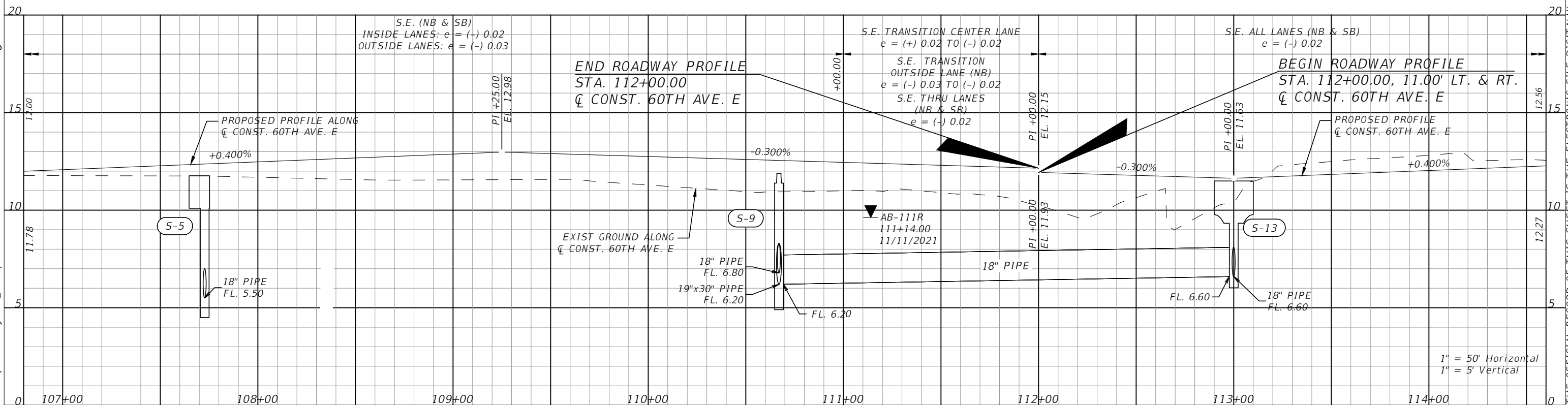
60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY PLAN (7)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

## ROADWAY PROFILE STA. 99+00.00 TO STA. 106+80.00



## ROADWAY PROFILE STA. 106+80.00 TO STA. 114+60.00



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NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1"=50'H/1"=10'V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

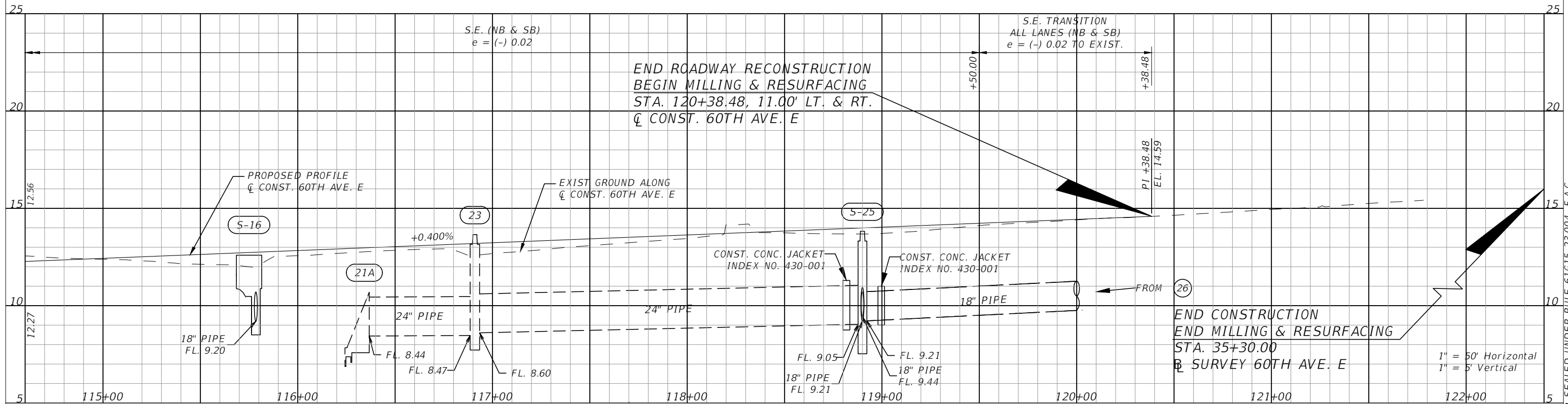
**Manatee County**  
FLORIDA

**PUBLIC WORKS DEPARTMENT**  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
**ROADWAY PROFILE (1)**

SHEET NO.  
26

**ROADWAY PROFILE**  
**STA. 114+60.00 TO STA. 122+40.00**



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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
			SCALE	1"=50'H/1"=10'V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

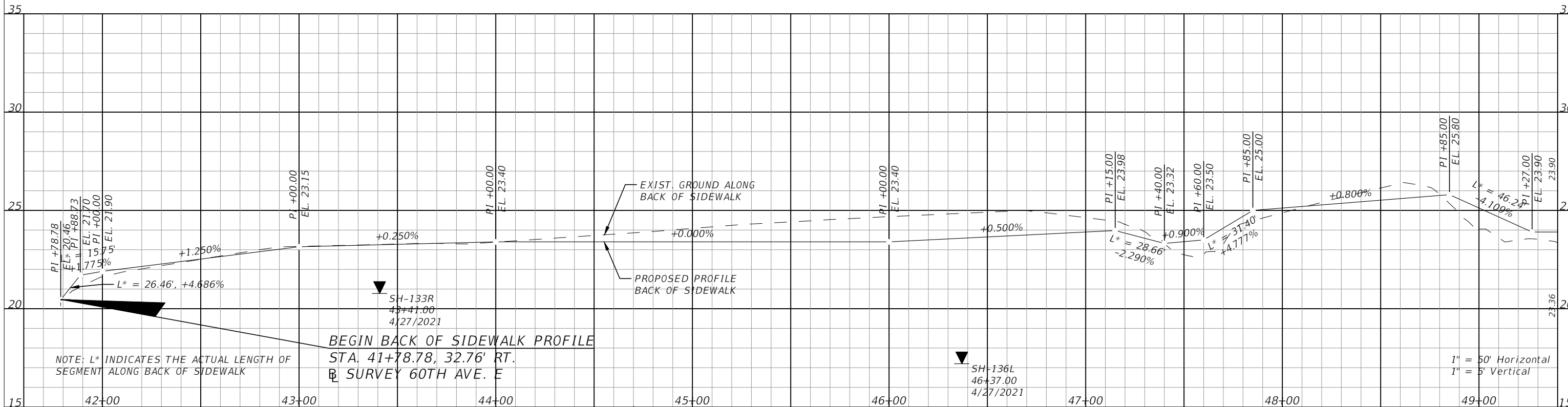
**Manatee County**  
FLORIDA

**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

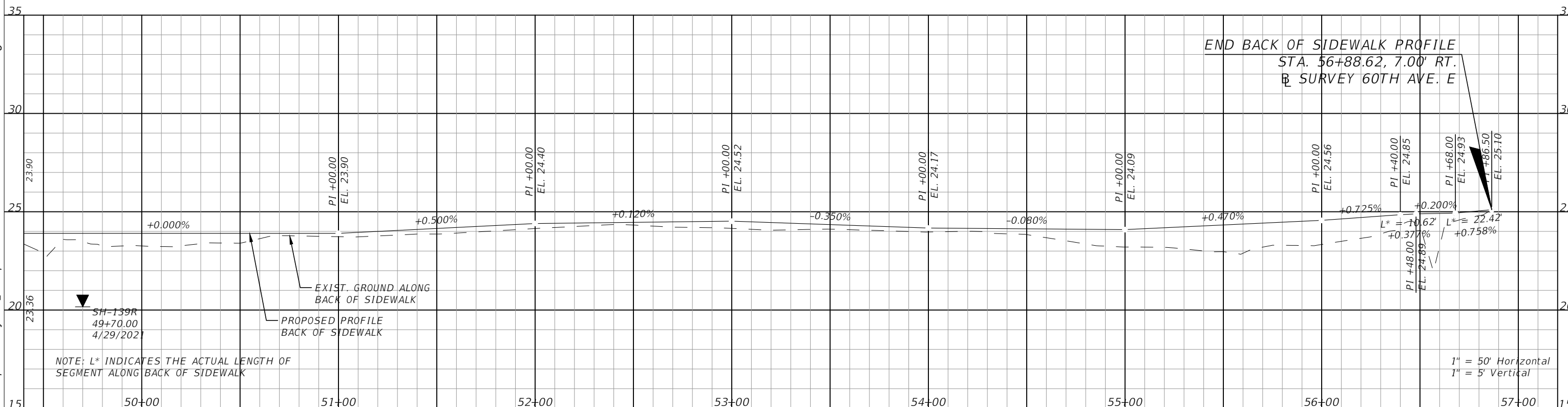
60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 ROADWAY PROFILE (2)

SHEET NO.  
27

BACK OF SIDEWALK PROFILE  
STA. 41+60.00 TO STA. 49+40.00




BACK OF SIDEWALK PROFILE  
STA. 49+40.00 TO STA. 57+20.00

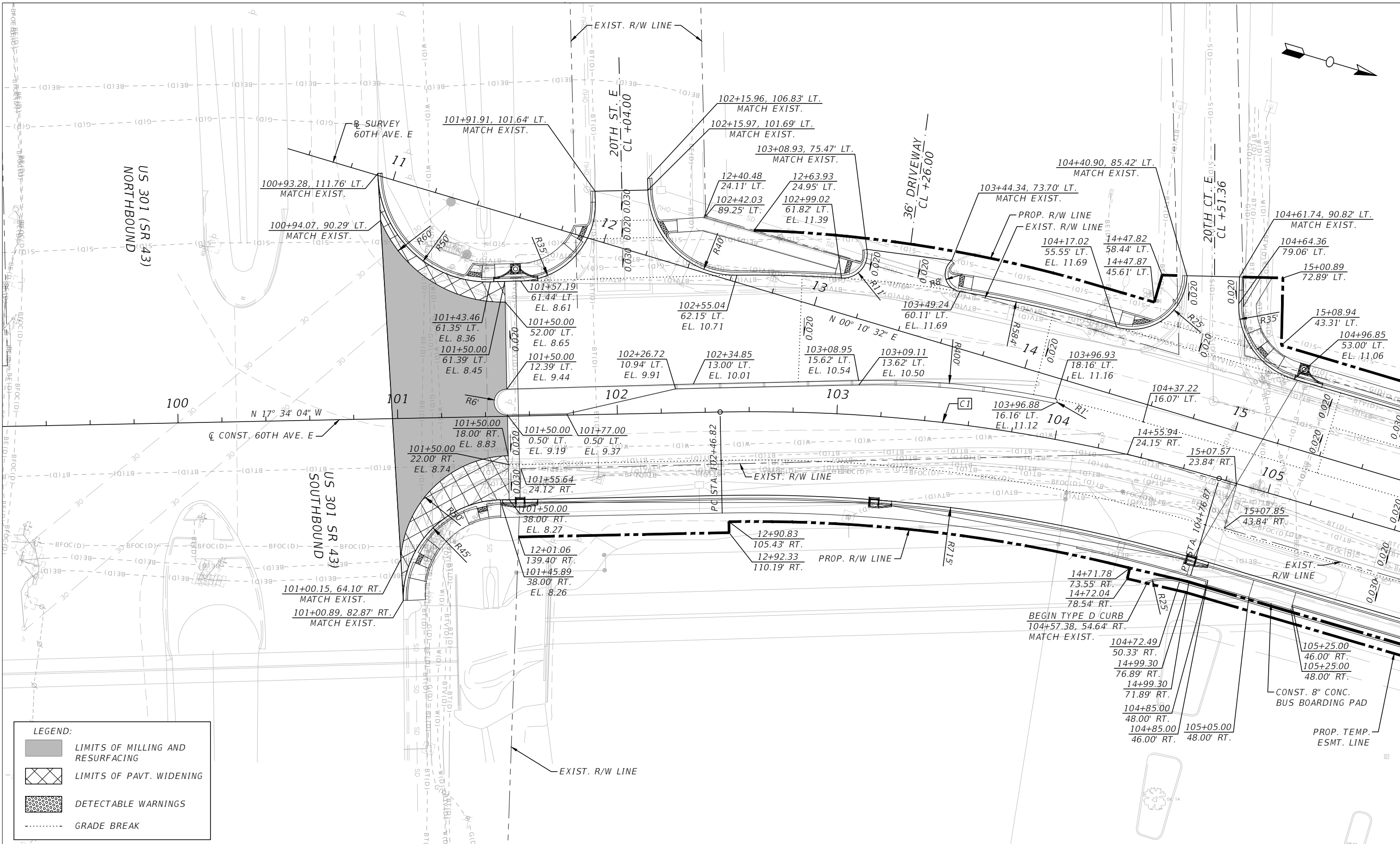


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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDENO, P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BACK-OF-SIDEWALK PROFILE	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	6/6/22				28
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22				
			SCALE	1"=50'H/1"=10'V	CHECKED	DHC	6/6/22				

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**LEGEND:**

- LIMITS OF MILLING AND RESURFACING
- LIMITS OF PAVT. WIDENING
- DETECTABLE WARNINGS
- GRADE BREAK

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1" = 40'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



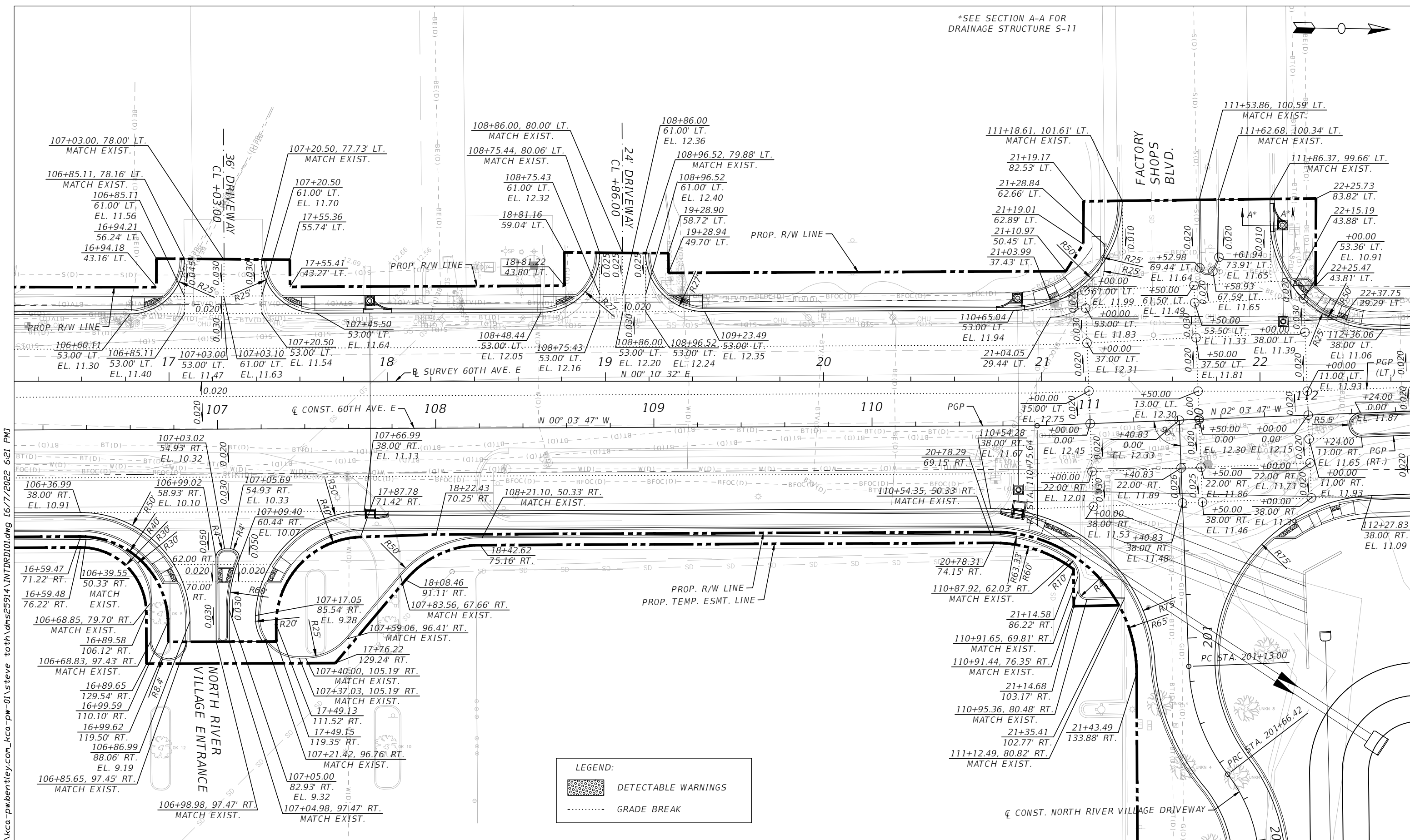
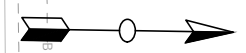
**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 INTERSECTION DETAILS (1)**

SHEET NO.  
29

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\*SEE SECTION A-A FOR DRAINAGE STRUCTURE S-11



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NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-345-18E	DRAWN	ST	6/6/22
			1" = 40'	CHECKED	DHC	6/6/22

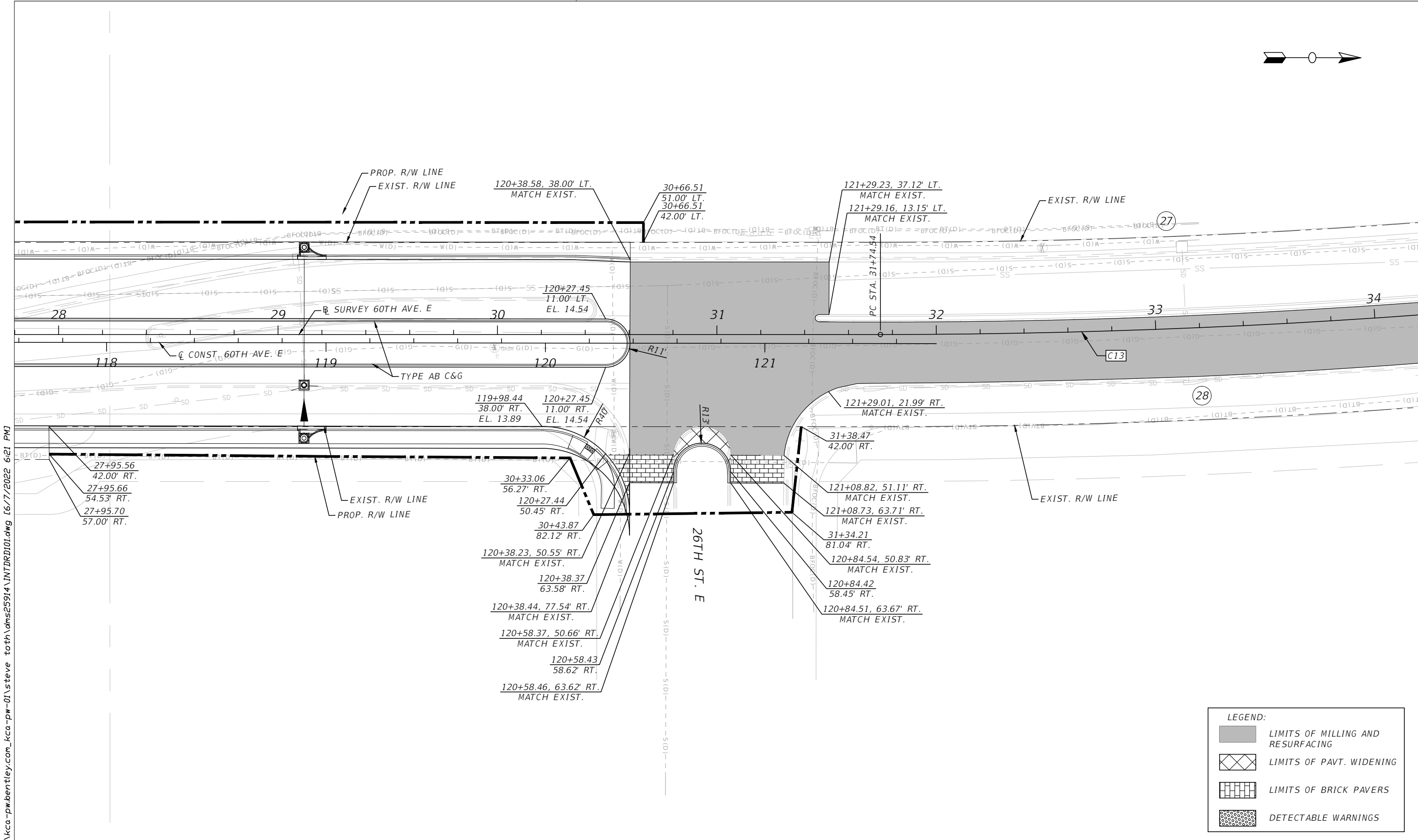
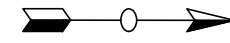
DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 INTERSECTION DETAILS (2)





THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	LIMITS OF BRICK PAVERS
	DETECTABLE WARNINGS

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
			SCALE	1" = 40'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

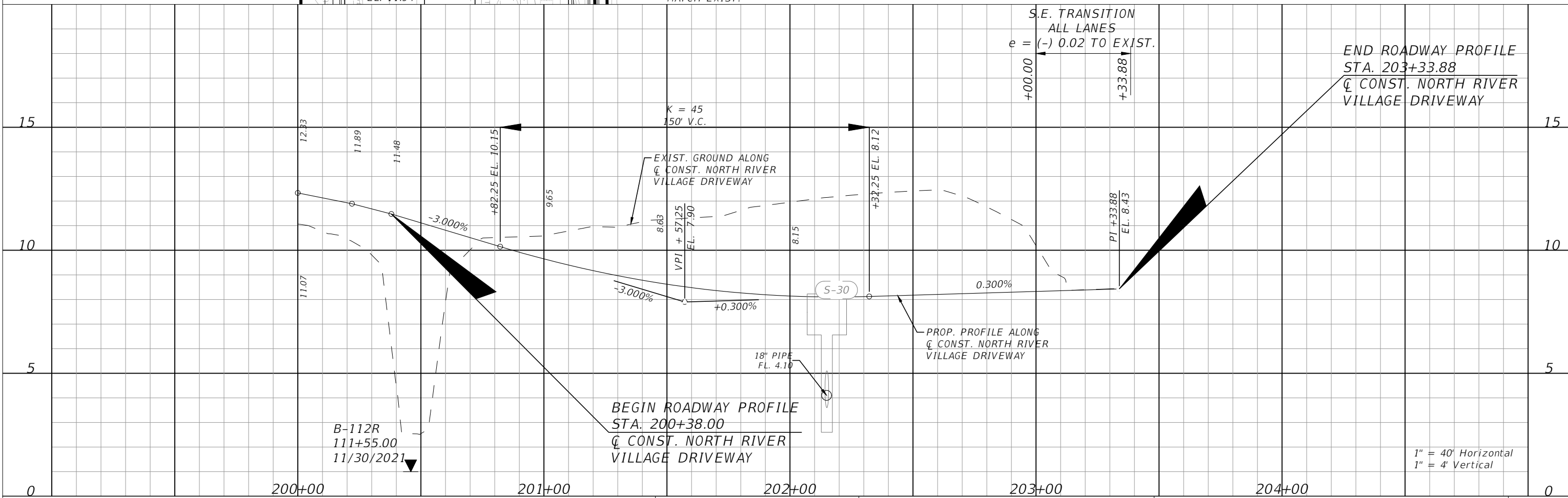
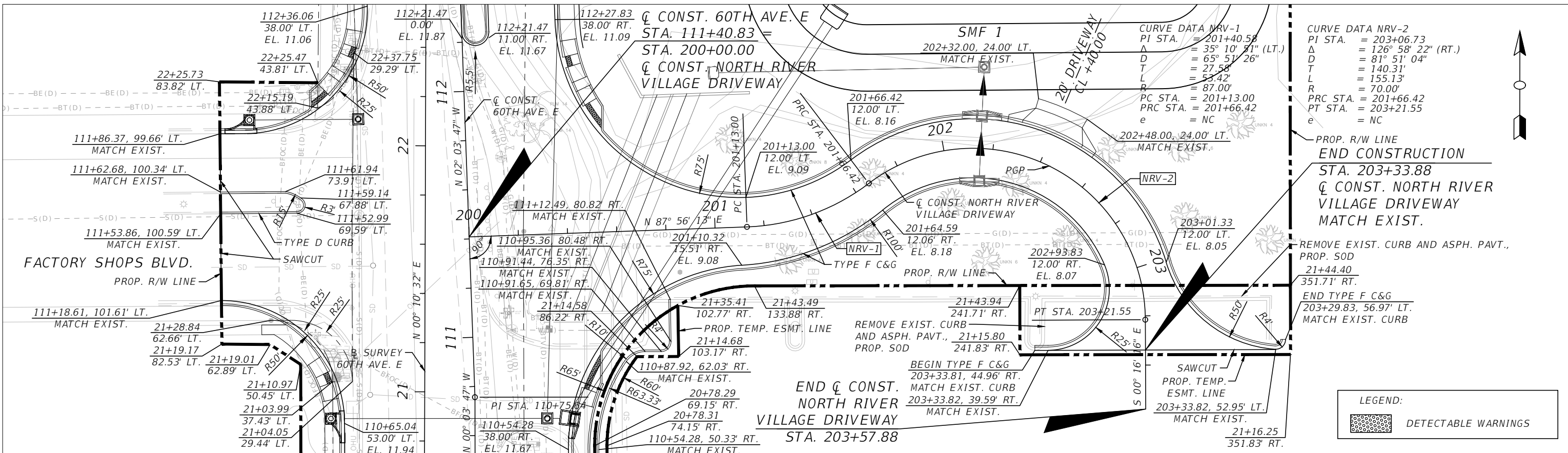


**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 INTERSECTION DETAILS (5)

SHEET NO.  
 31

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NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1"=40'H/1"=4'V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 INTERSECTION DETAILS (4)

SHEET NO. 32

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CL CONST. 60TH AVE. E

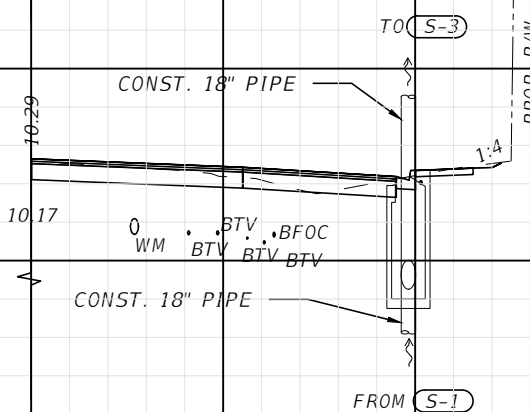
**DRAINAGE NOTES:**

- (1) Special attention is directed to the fact that some portions of some drainage structures extend into stabilized portion of the roadbed and extreme caution will be necessary in stabilization operations at these locations.
- (2) All drainage pipes have optional materials. The Optional Materials Tabulation Sheet(s) shows all materials allowed and indicates which material is plotted in the plans and used as the basis for pay quantities.

(S-1A)

STA 103+20.00 (39.30 Rt.)  
 CONST. Curb Inlet Type P-5 W/ ALT B  
 BOTTOM  
 Index No. 425-021  
 EOP EL. = 9.32  
 FL 3.50 S  
 FL 3.50 N

15  
10  
5  
0  
-5



(S-1A)  
103+20.00

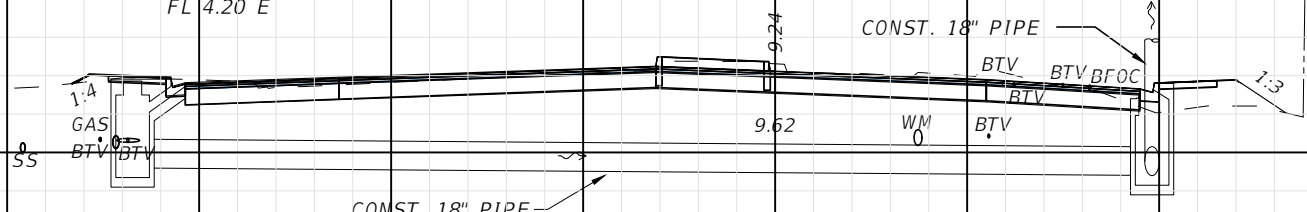
(S-2)

STA 101+55.00 (-66.93 Lt.)  
 CONST. Curb Inlet Type P-2  
 Index No. 425-020  
 EOP EL. = 8.45  
 FL 4.20 E

(S-1)

STA 101+55.00 (39.26 Rt.)  
 CONST. Curb Inlet Type P-6  
 Index No. 425-021  
 EOP EL. = 8.22  
 FL 3.80 W  
 FL 3.80 N

10  
5  
0  
-5



(S-1)  
(S-2)  
101+55.00

CL CONST. 60TH AVE. E

1" = 20' Horizontal  
 1" = 10' Vertical

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
 LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN ST. STE 400  
 TAMPA, FL 33602

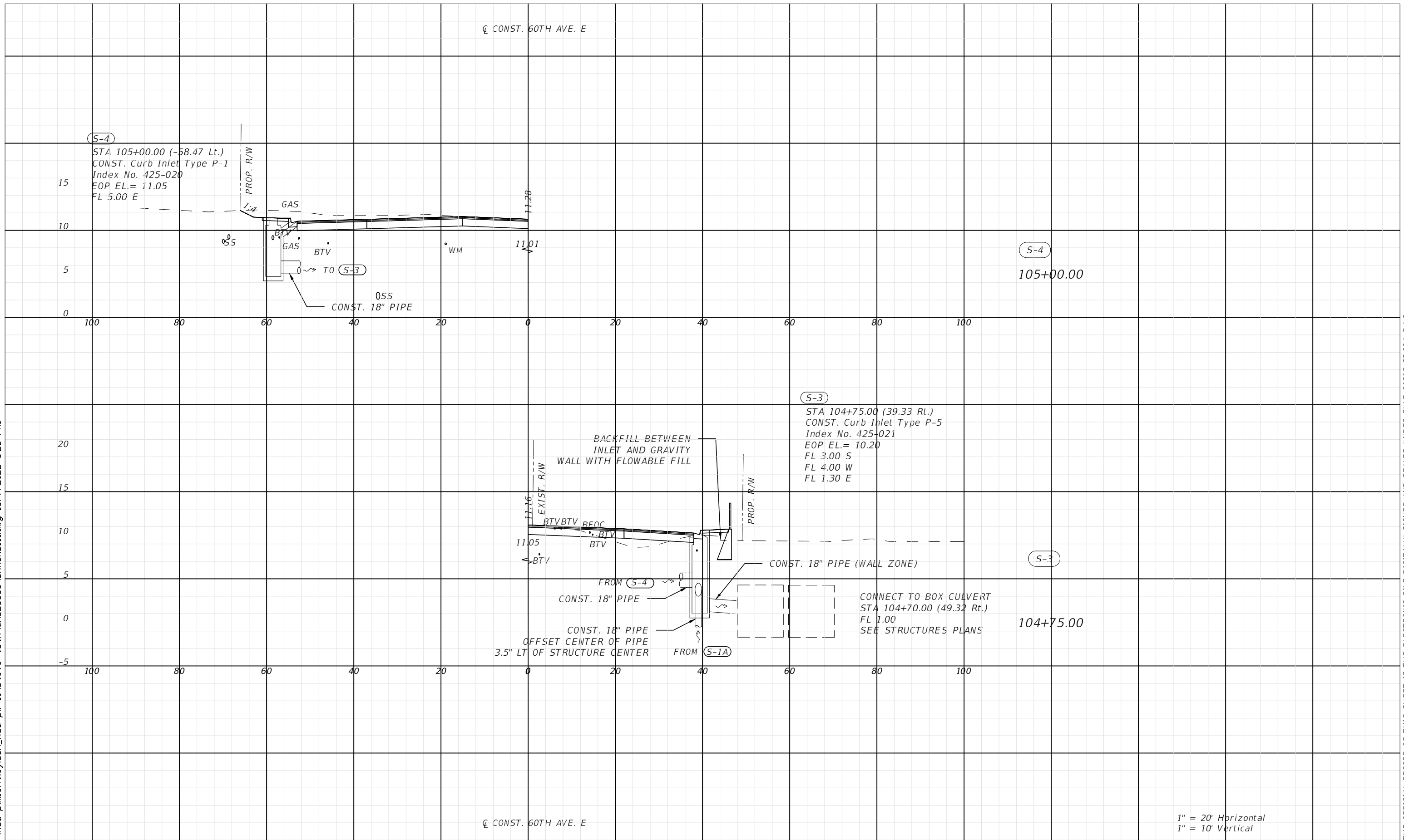


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 DRAINAGE STRUCTURES (1)

SHEET NO.  
33


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1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE 400  
TAMPA, FL 33602

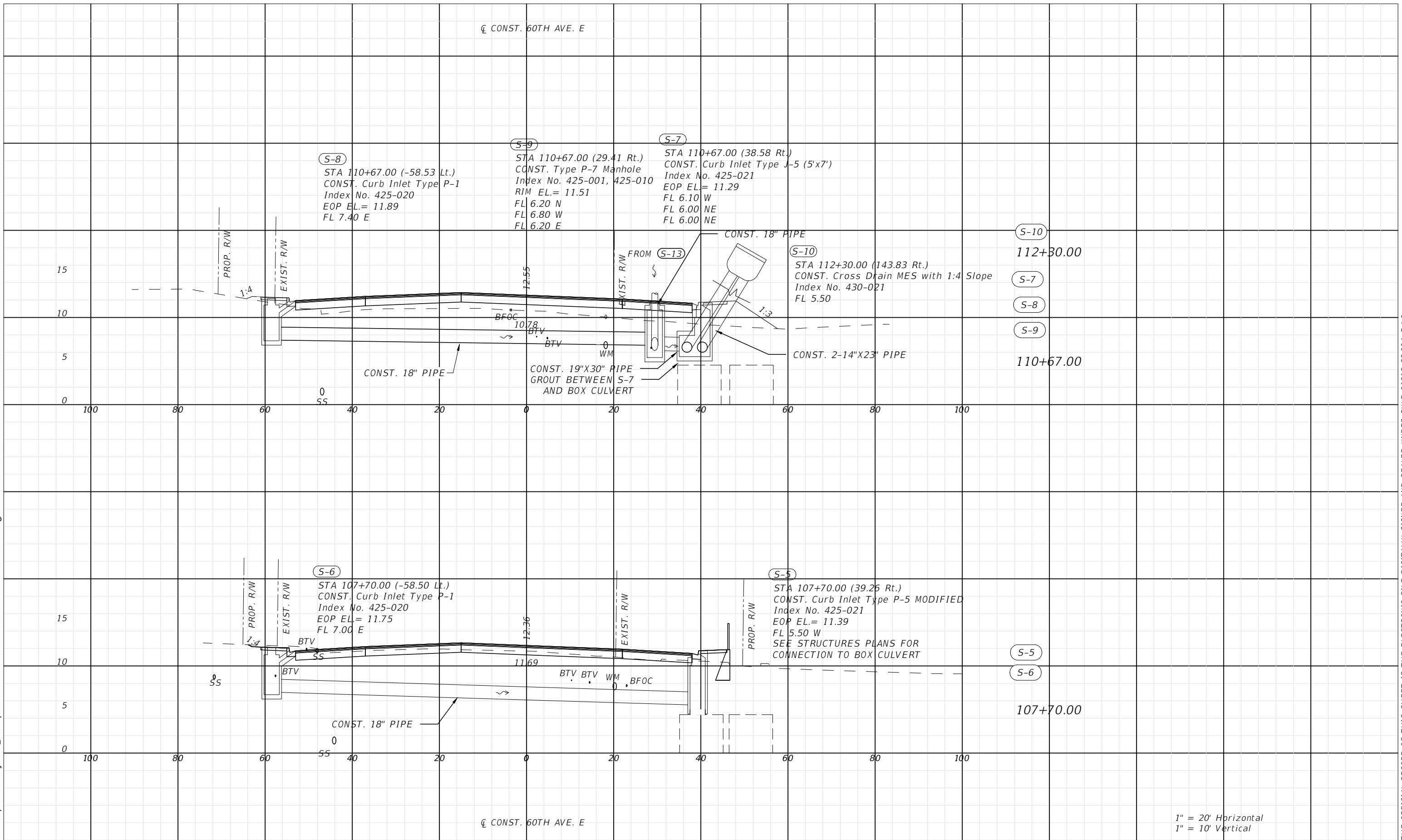


**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
DRAINAGE STRUCTURES (2)**

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1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE 400  
TAMPA, FL 33602



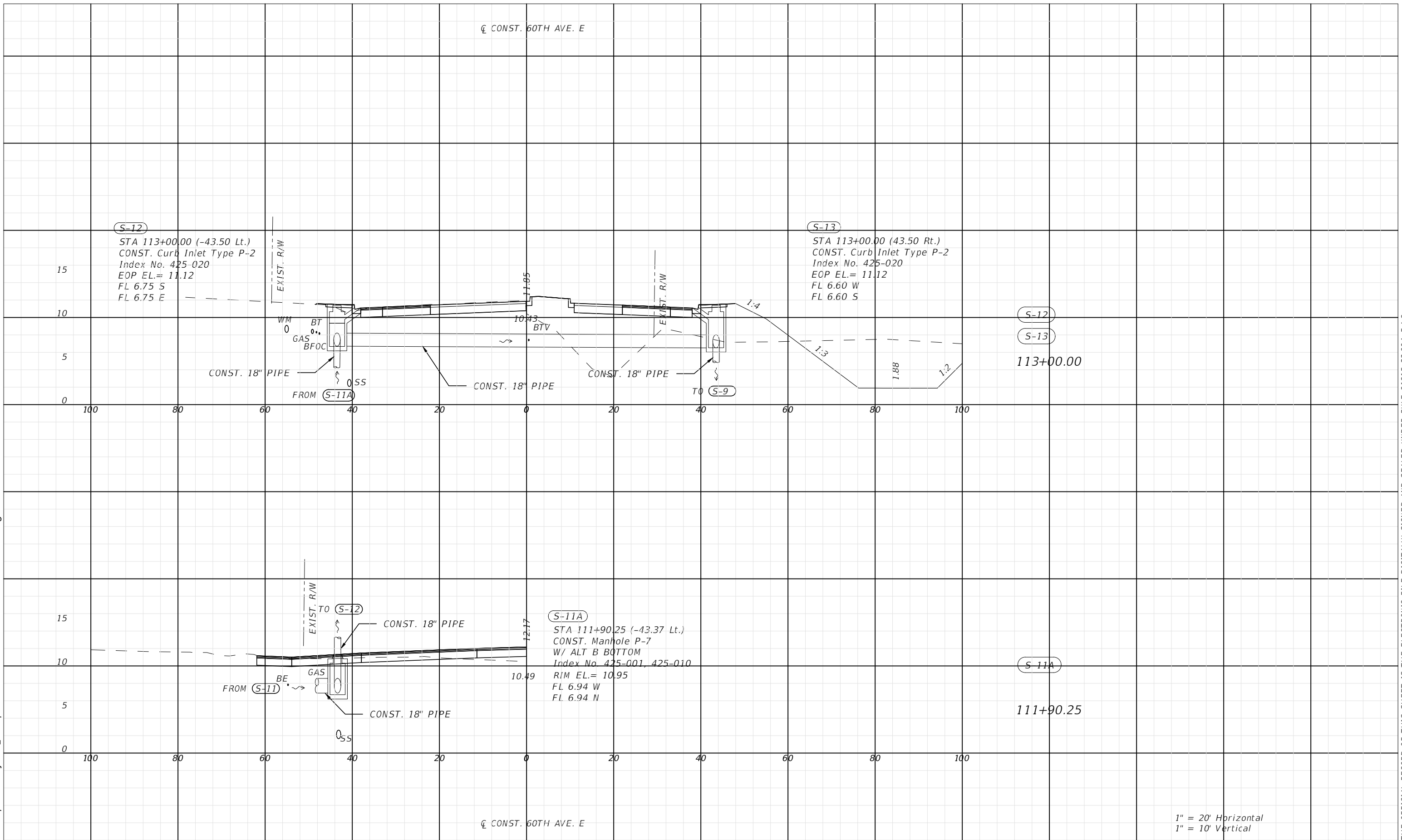
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**DRAINAGE STRUCTURES (3)**

SHEET NO.  
35

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1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE 400  
TAMPA, FL 33602



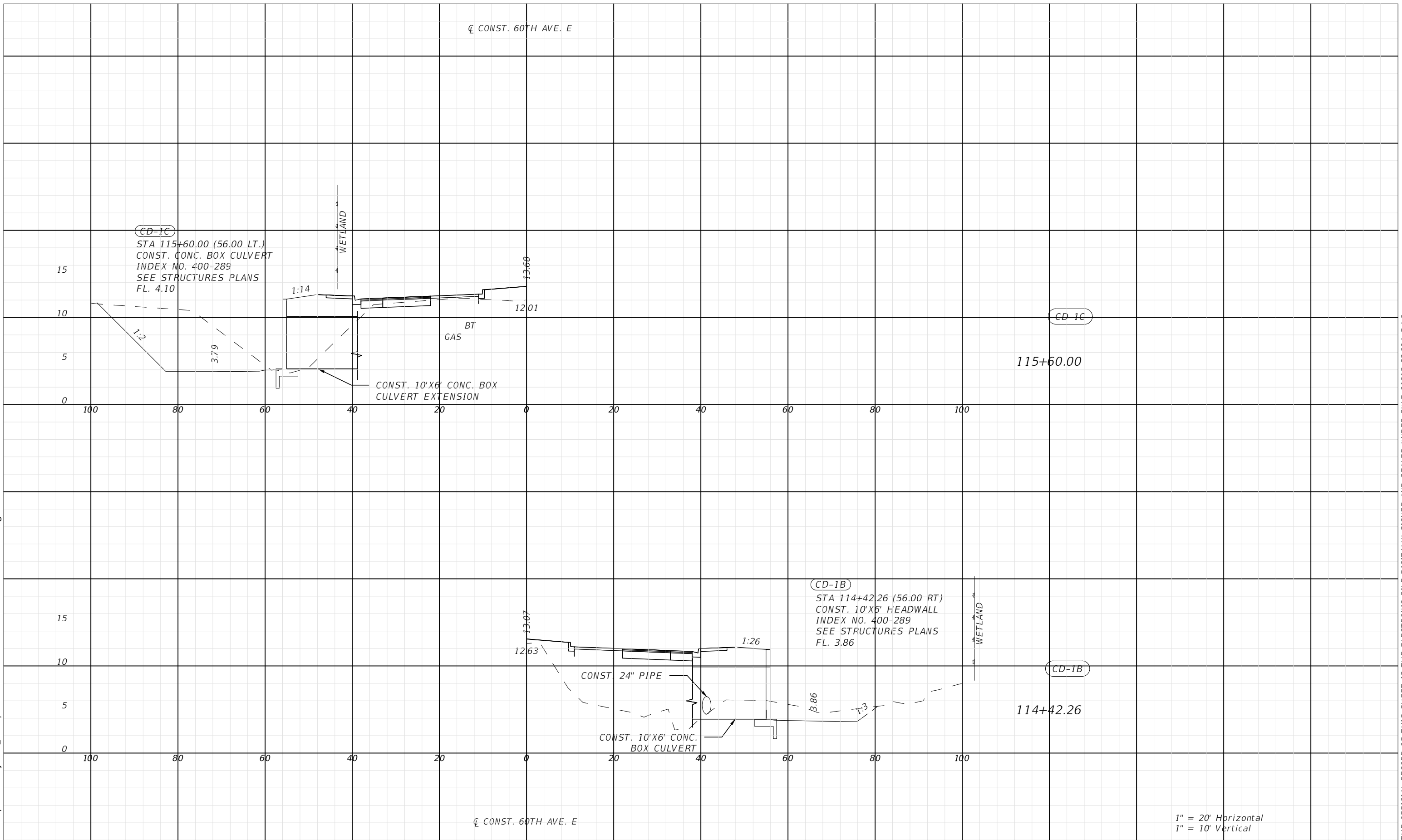
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
DRAINAGE STRUCTURES (4)**

SHEET NO.  
36

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1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE 400  
TAMPA, FL 33602



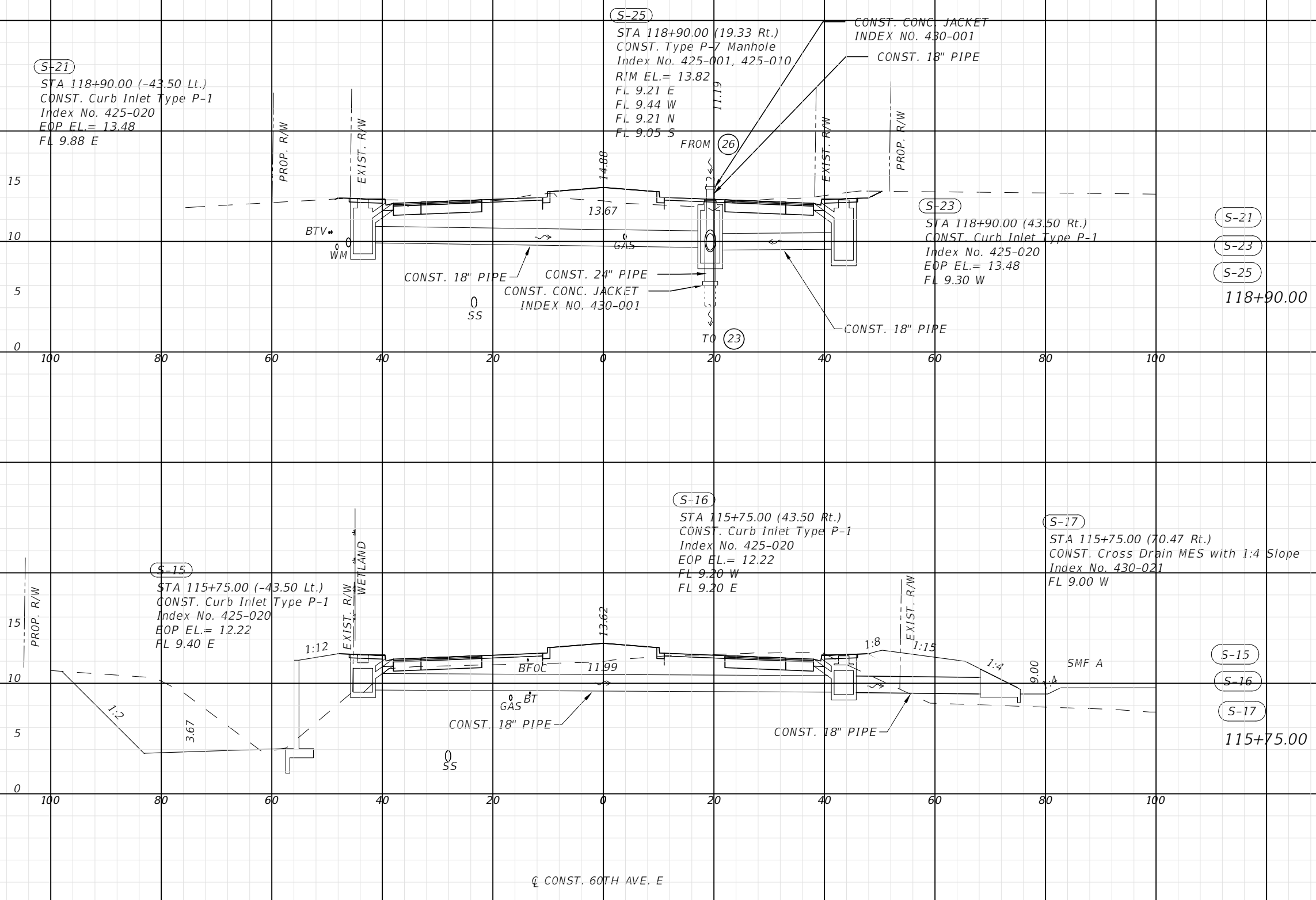
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
DRAINAGE STRUCTURES (5)**

SHEET NO.  
37

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1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE 400  
TAMPA, FL 33602

**Manatee County**  
FLORIDA

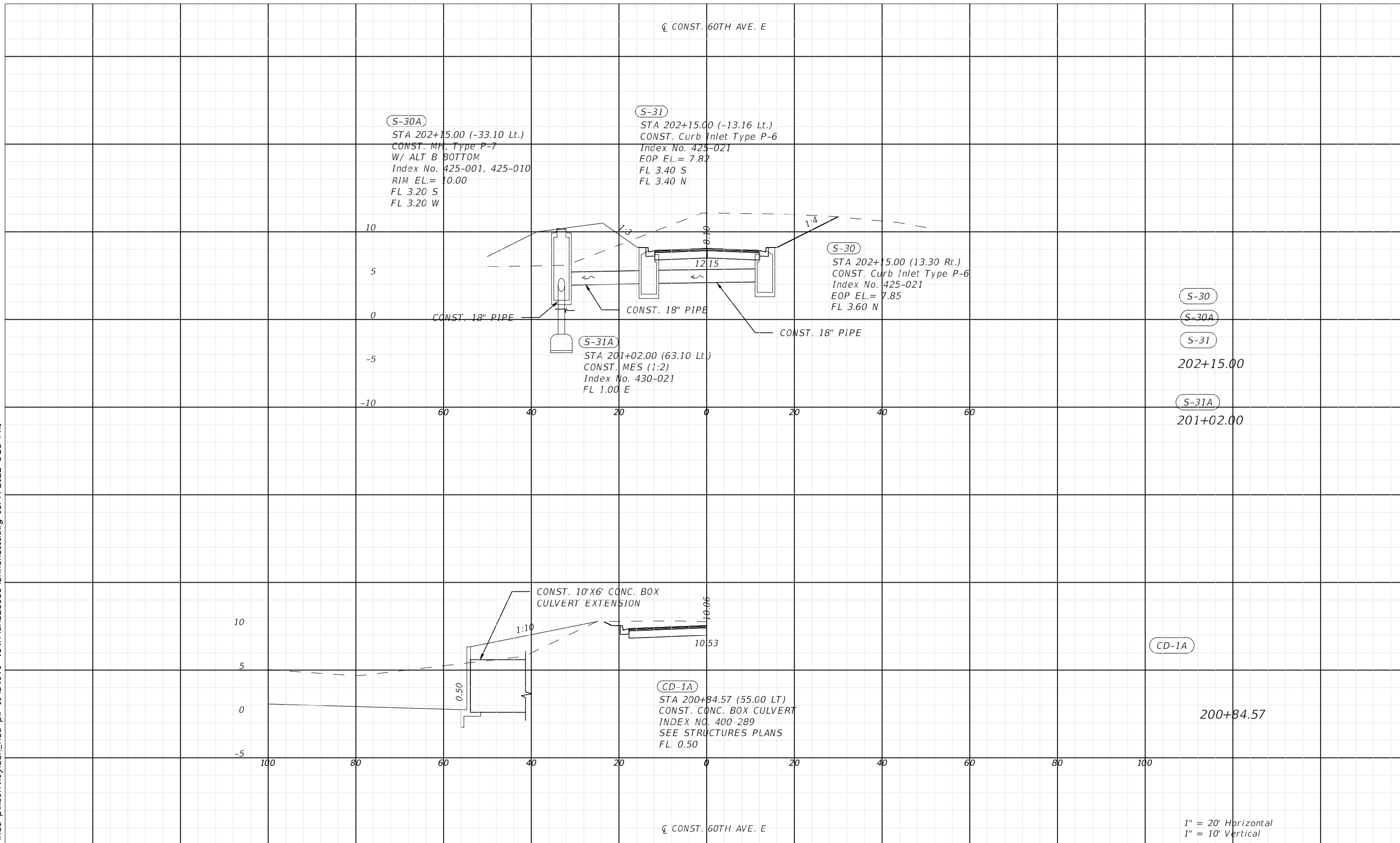
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
DRAINAGE STRUCTURES (6)

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S-30  
S-30A  
S-31  
202+15.00  
S-31A  
201+02.00

CD-1A

200+84.57

1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE 400  
TAMPA, FL 33602



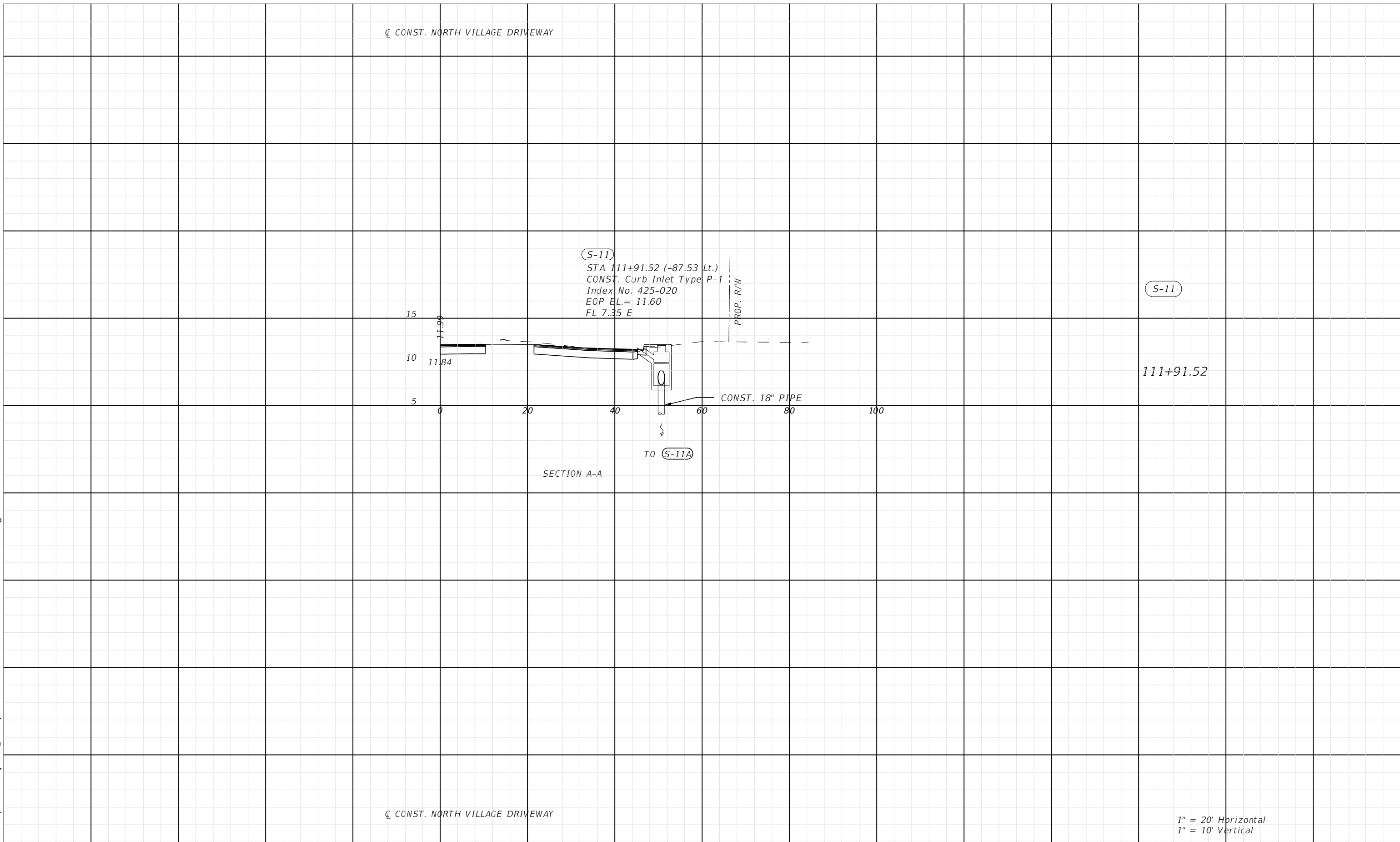
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
DRAINAGE STRUCTURES (7)

SHEET NO.  
39

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S-11

(S-11)  
 STA 111+91.52 (-87.53 Lt.)  
 CONST. Curb Inlet Type P-1  
 Index No. 425-020  
 EOP EL. = 11.60  
 FL 7.35 E

PROP. R/W

111+91.52

CONST. 18" PIPE

TO (S-11A)

SECTION A-A

1" = 20' Horizontal  
 1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER, P.E.  
 LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN ST. STE 400  
 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 DRAINAGE STRUCTURES (8)

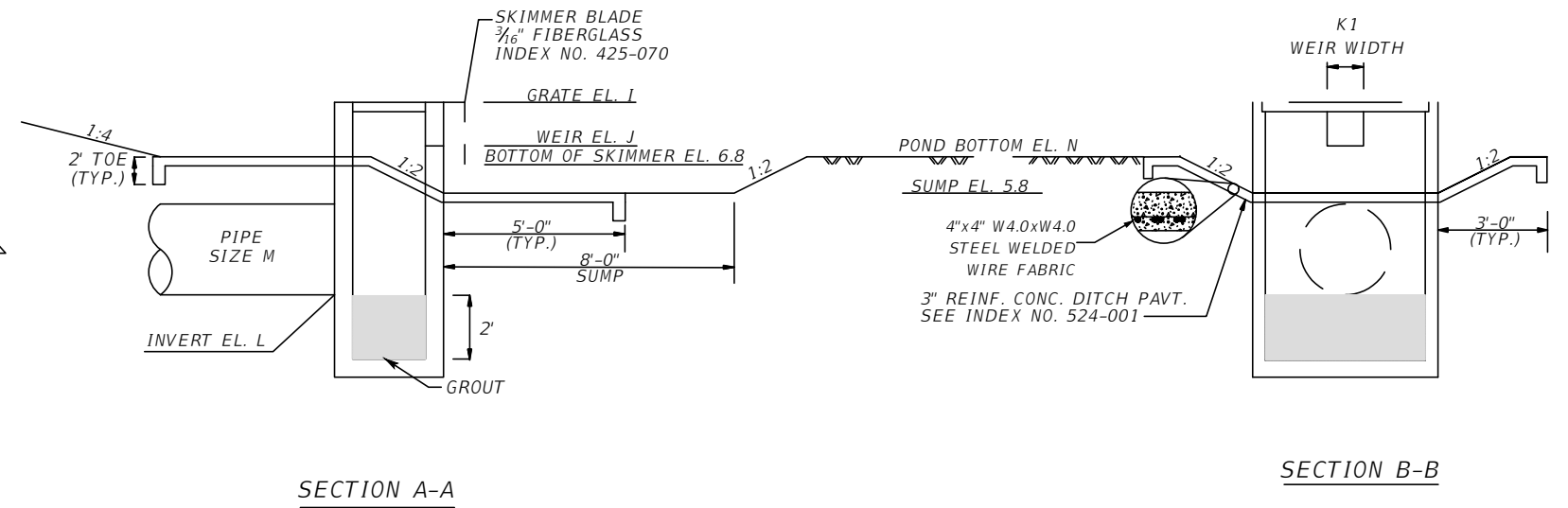
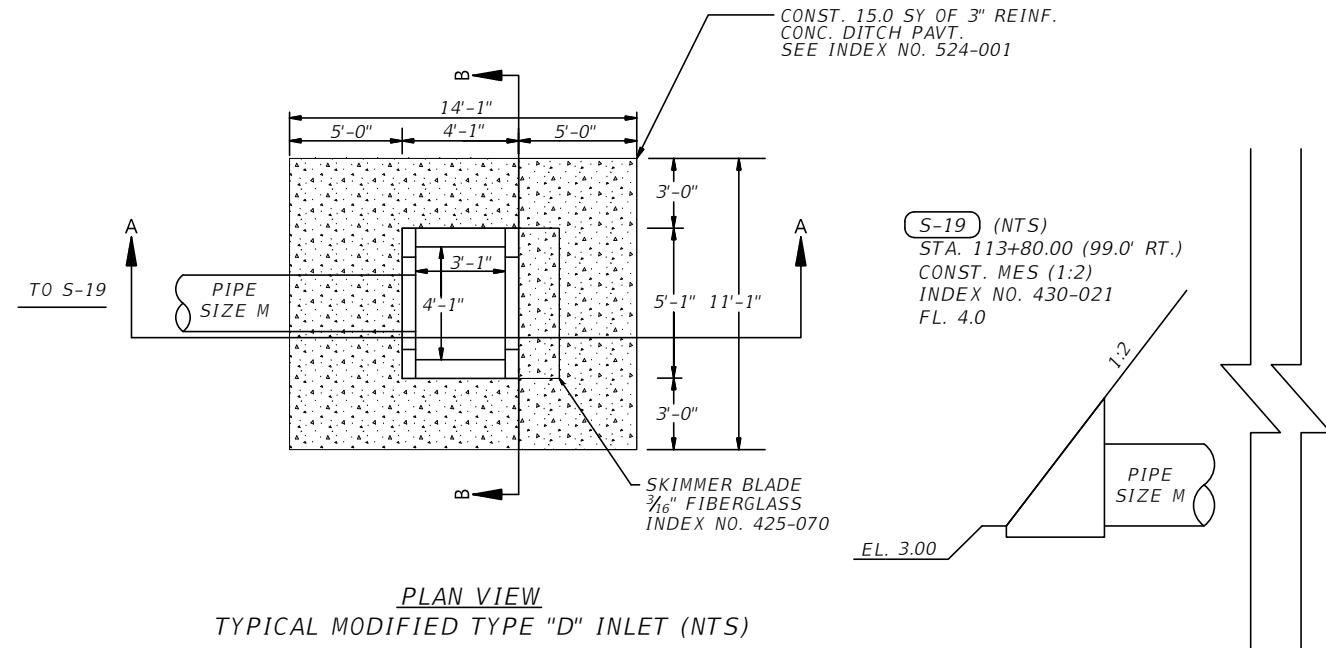
SHEET NO.  
 40

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CONTROL STRUCTURE DATA TABLE

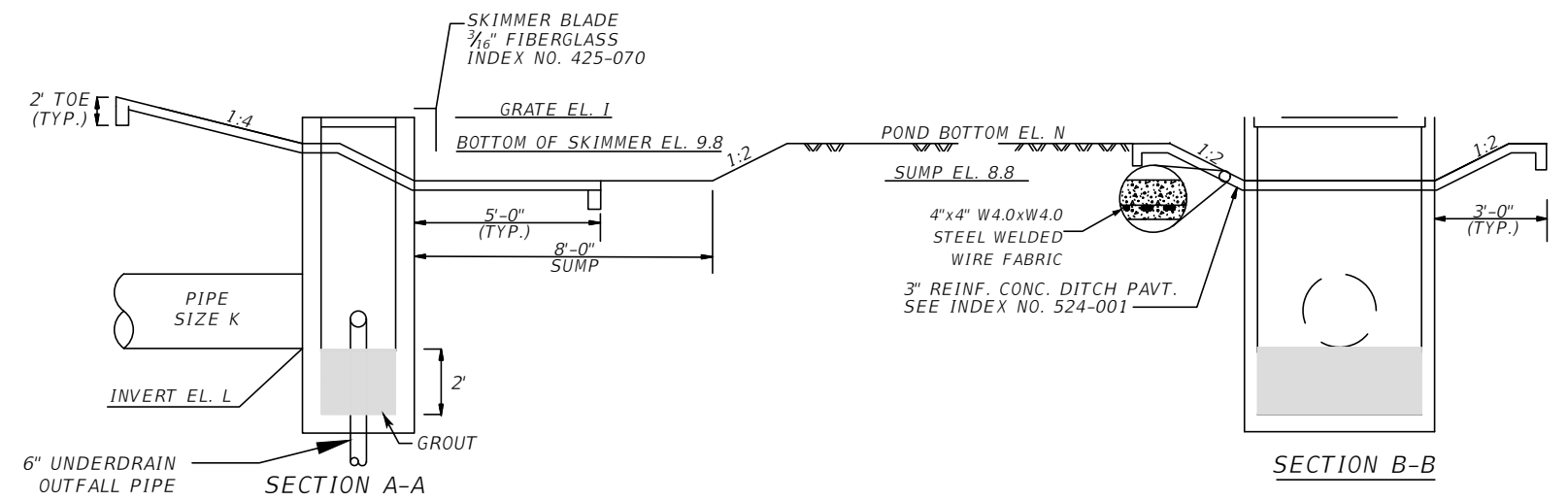
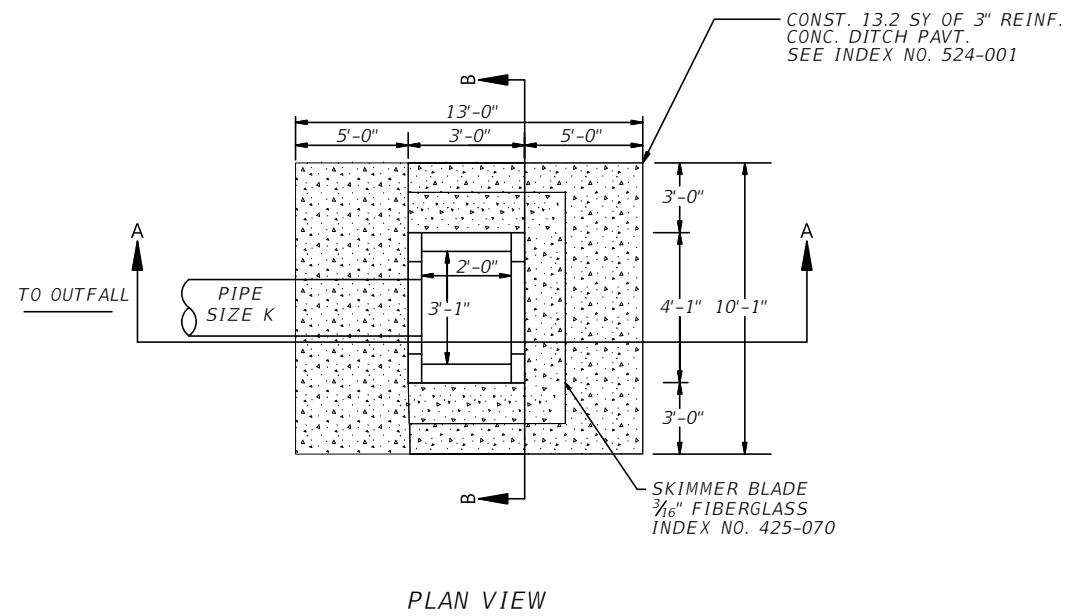
POND	STR. NUMBER	STATION	OFFSET	GRATE EL.	WEIR EL.	WEIR WIDTH (IN.)	PIPE INVERT EL.	PIPE SIZE (IN.)	POND BOTTOM EL.
SMF 1	S-18	113+80.00	141.59 RT	I	J	K	L	M	N

NOTE:  
COST OF SKIMMER BLADE AND MOUNTING HARDWARE TO BE INCLUDED IN COST OF INLET.



CONTROL STRUCTURE DATA TABLE

POND	STR. NUMBER	STATION	OFFSET	GRATE EL.	PIPE INVERT EL.	PIPE SIZE (IN.)	POND BOTTOM EL.
SMF A	S-14	115+09.95	76.19 RT	I	J	K	L



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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	1/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	1/2022
			SCALE		CHECKED	CS	1/2022

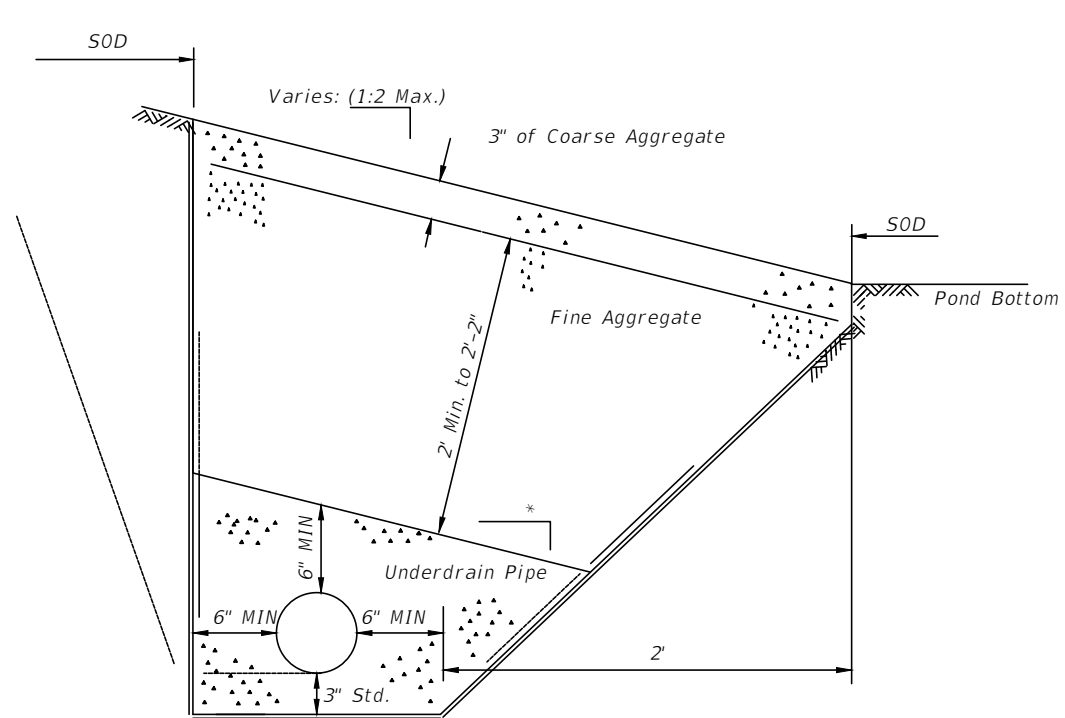
CURT SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

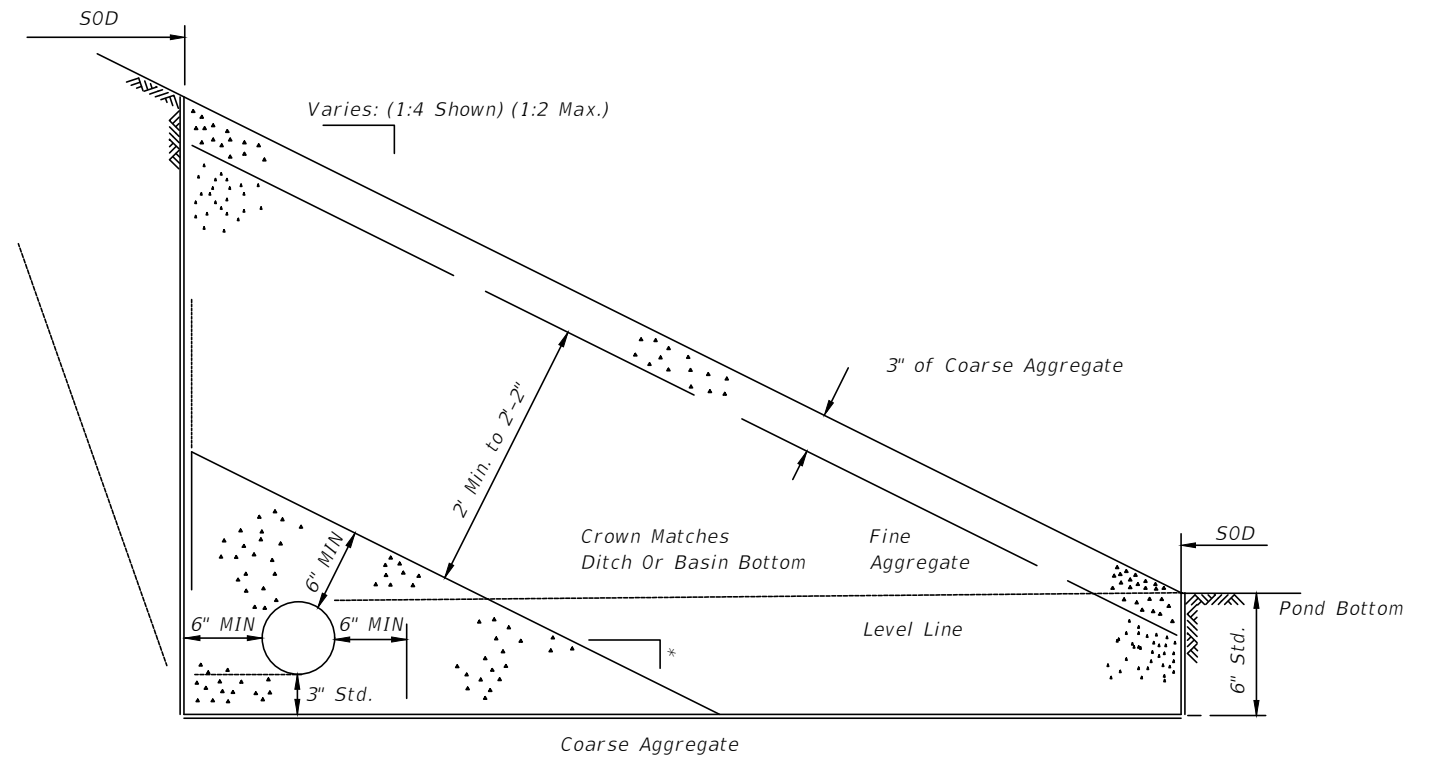
60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
DRAINAGE DETAILS (1)

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\* Slope To Match Top of Fine Aggregate

LOWER LIMIT



\* Slope To Match Top of Fine Aggregate

UPPER LIMIT

MODIFIED TYPE Va (NTS) FDOT INDEX 440-001

NOTE:

SEE INDEX 440-001 AND SPECIFICATION 902-4 FOR FILTER MATERIAL FOR UNDERDRAIN REQUIREMENTS.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	1/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	1/2022
			SCALE		CHECKED	CS	1/2022

CURT SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

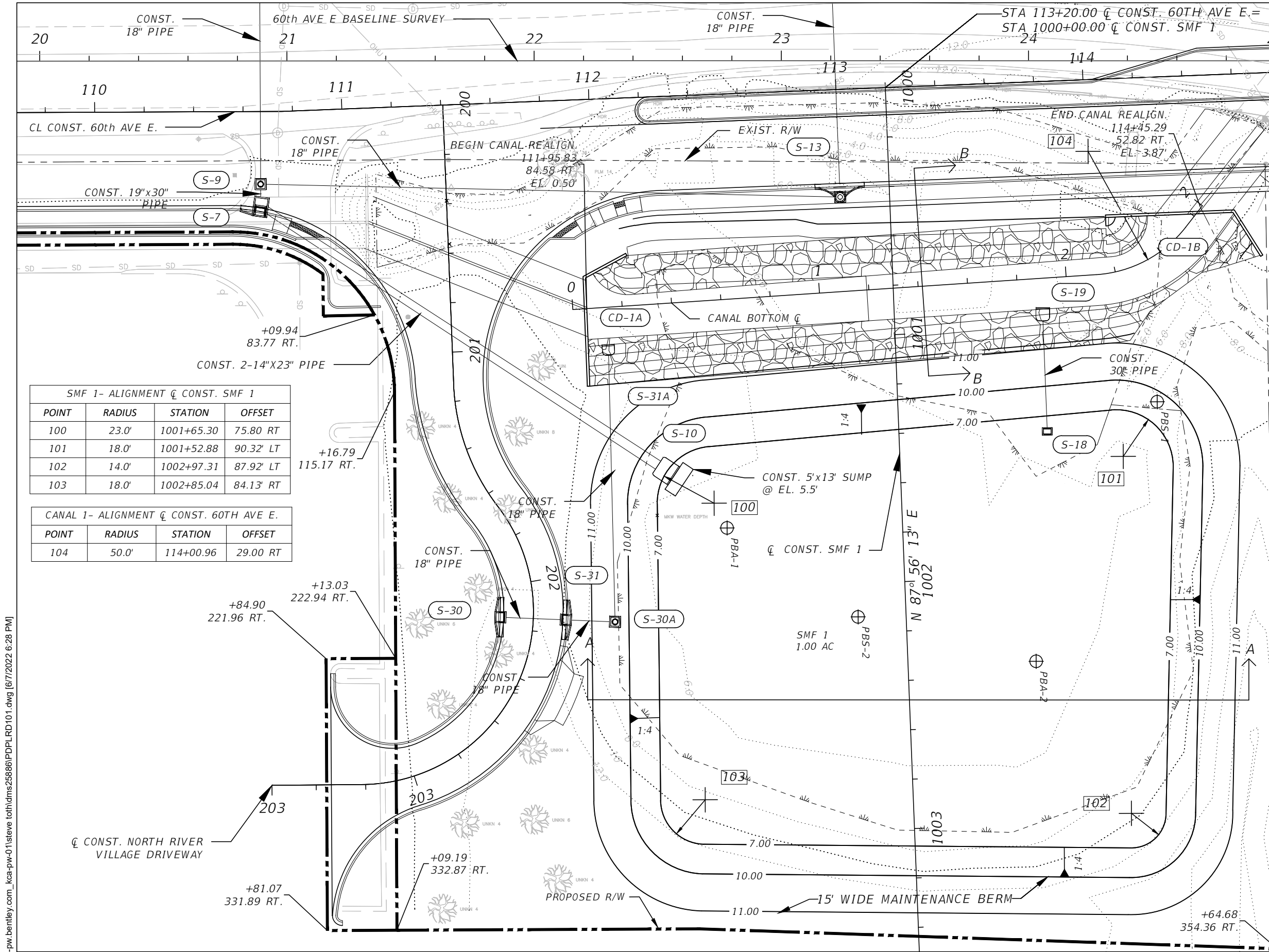


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ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
DRAINAGE DETAILS (2)

SHEET NO.  
42

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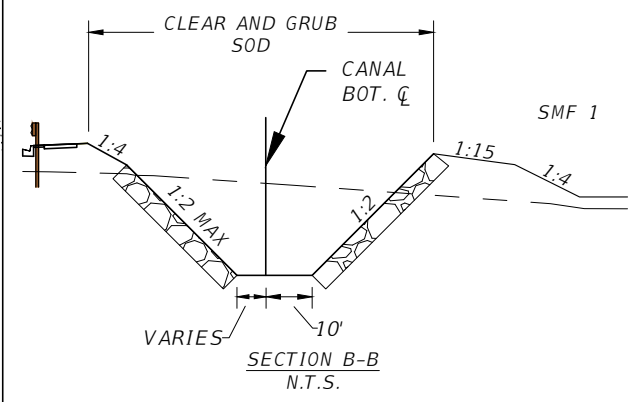
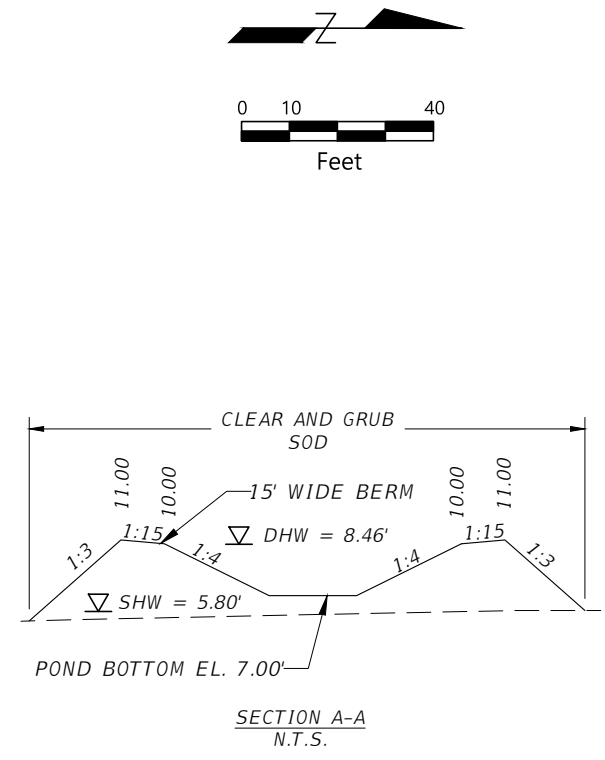


SMF 1- ALIGNMENT  $\bar{C}$  CONST. SMF 1

POINT	RADIUS	STATION	OFFSET
100	23.0'	1001+65.30	75.80 RT
101	18.0'	1001+52.88	90.32 LT
102	14.0'	1002+97.31	87.92 LT
103	18.0'	1002+85.04	84.13 RT

CANAL 1- ALIGNMENT  $\bar{C}$  CONST. 60TH AVE E.

POINT	RADIUS	STATION	OFFSET
104	50.0'	114+00.96	29.00 RT



LEGEND

	RIPRAP
--	--------

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	1/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	1/2022
			SCALE	1" = 40'	CHECKED	CS	1/2022

CURT SPRUNGER, P.E.  
 P.E. LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

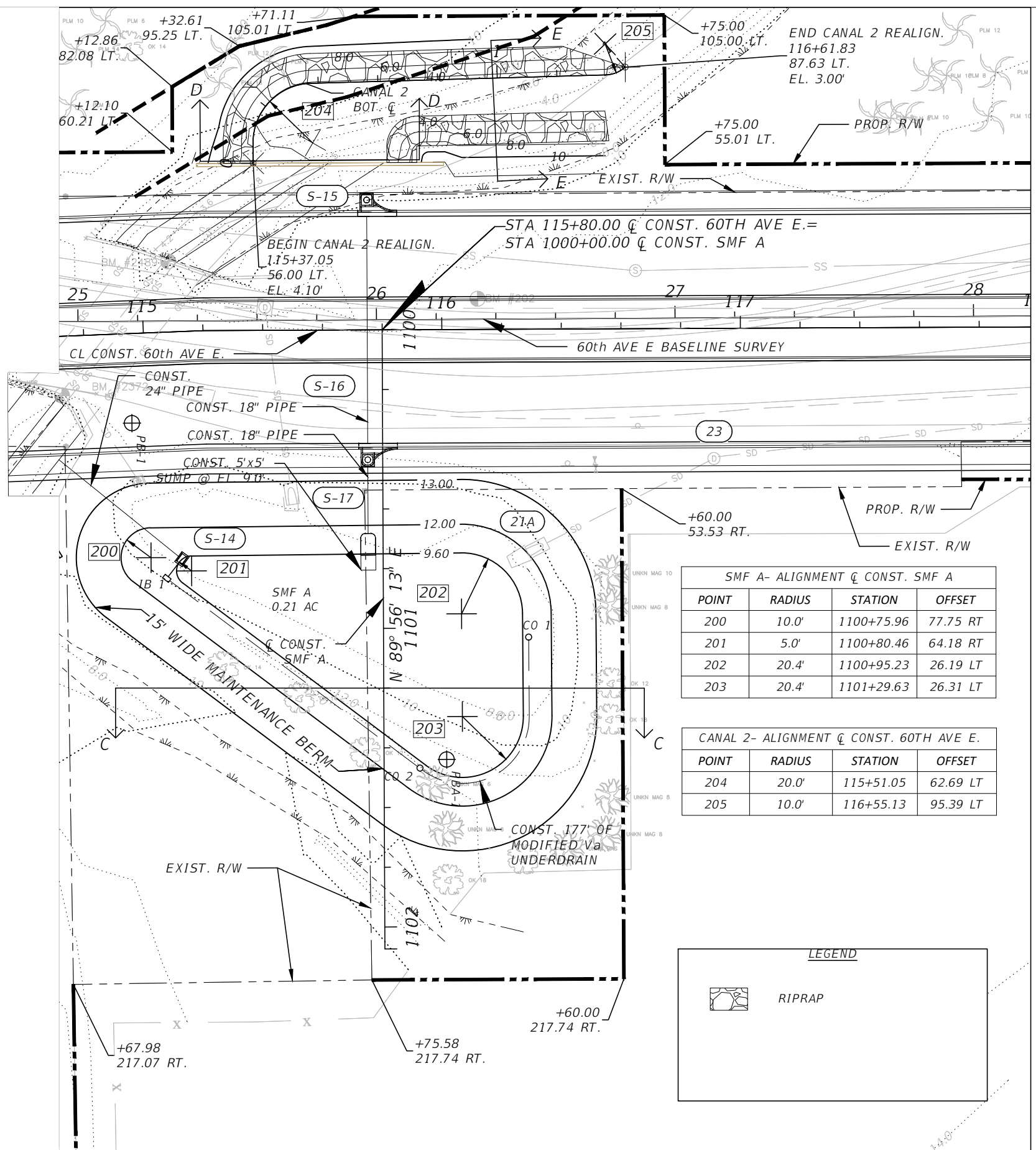
PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301  
 TO MENDOZA RD.  
 POND DETAILS (1)

SHEET NO. 43

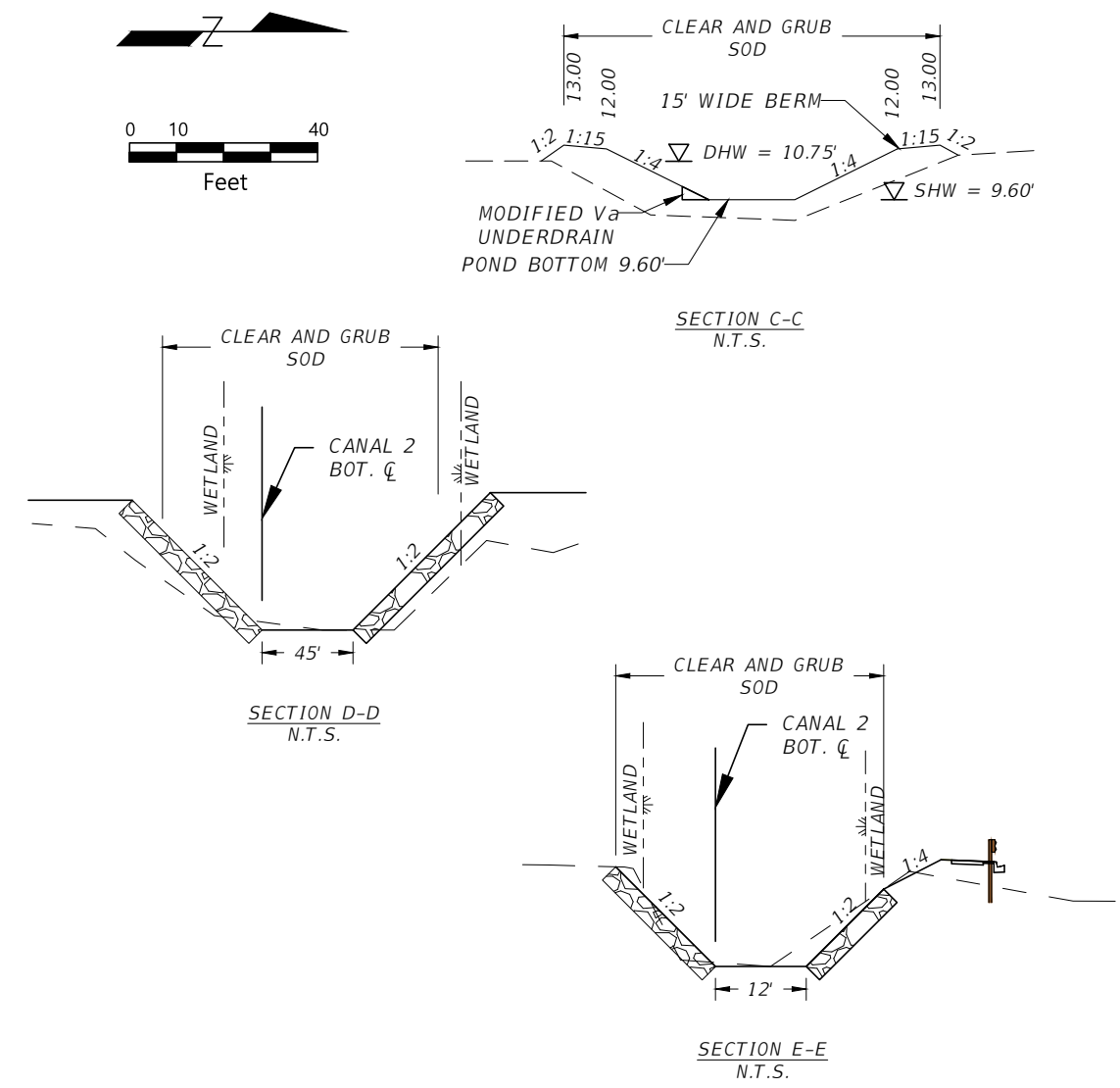
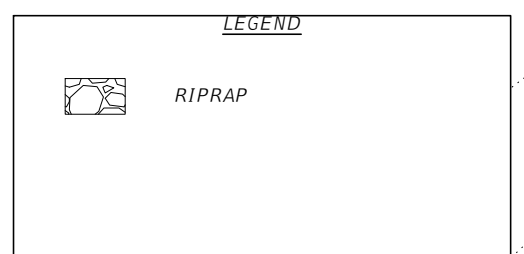
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SMF A- ALIGNMENT C CONST. SMF A			
POINT	RADIUS	STATION	OFFSET
200	10.0'	1100+75.96	77.75 RT
201	5.0'	1100+80.46	64.18 RT
202	20.4'	1100+95.23	26.19 LT
203	20.4'	1101+29.63	26.31 LT

CANAL 2- ALIGNMENT C CONST. 60TH AVE E.			
POINT	RADIUS	STATION	OFFSET
204	20.0'	115+51.05	62.69 LT
205	10.0'	116+55.13	95.39 LT



UNDERDRAIN RUN	UNDERDRAIN INFORMATION TABLE								
	UPSTREAM			DOWNSTREAM			OUTFALL PIPE LENGTH (6" NONPERFORATED PVC)		
	STATION	OFFSET	ID	TOP EL	FL	ID	TOP EL	FL	
1	116+28.62	103.15' RT.	CO 1	10.1'	9.1'	CO 2	10.1'	8.7'	-
2	115+92.00	146.90' RT.	CO 2	10.1'	8.7'	IB 1	10.1'	8.6'	-
3	114+94.58	74.25' RT.	IB 1	10.1'	7.6'	S-14	10.3'	7.5'	11'

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	TB	1/2022
			18-2238	DRAWN	TB	1/2022
			4-345-18E	CHECKED	CS	1/2022
			SCALE	1" = 40'		

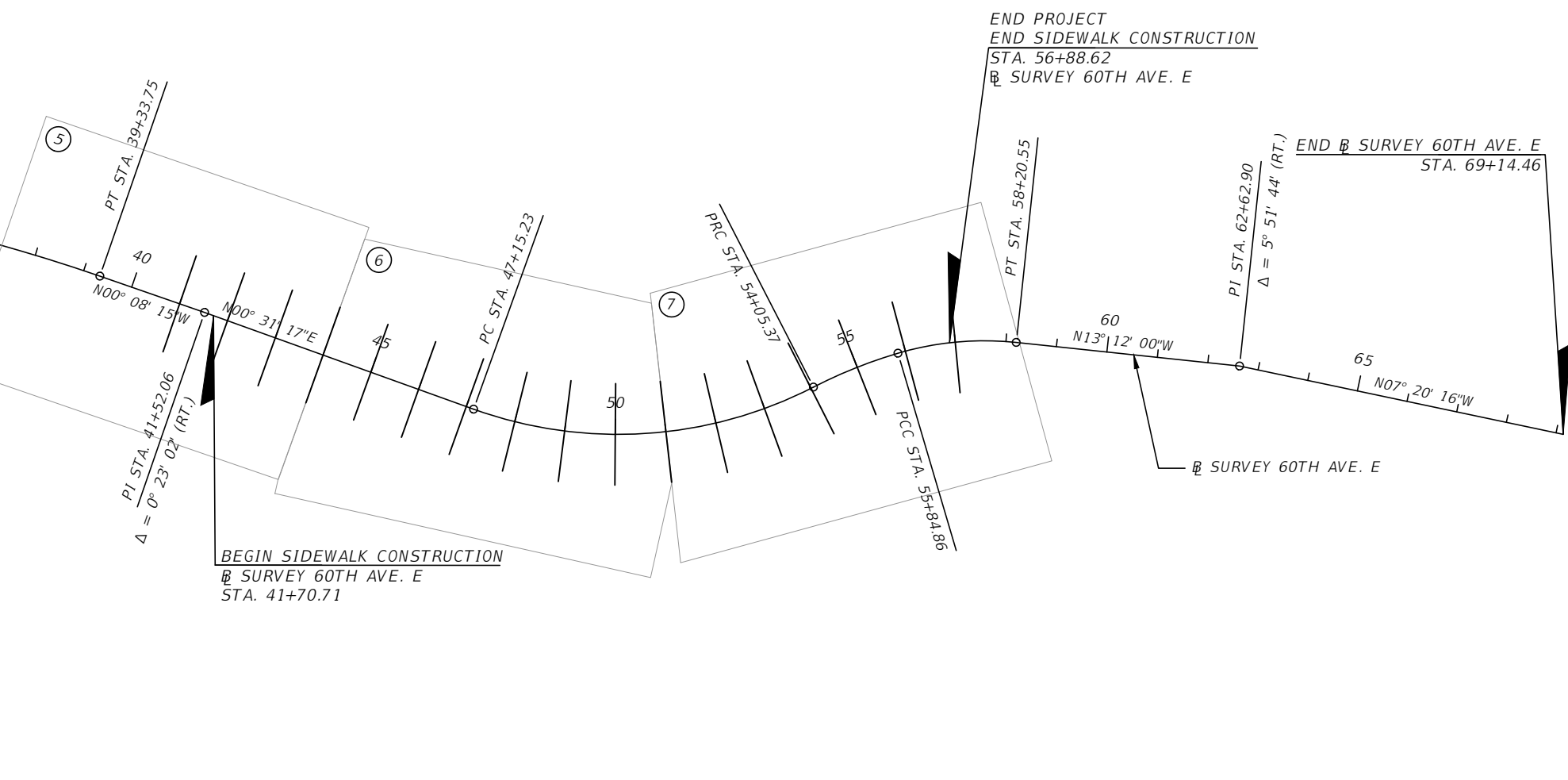
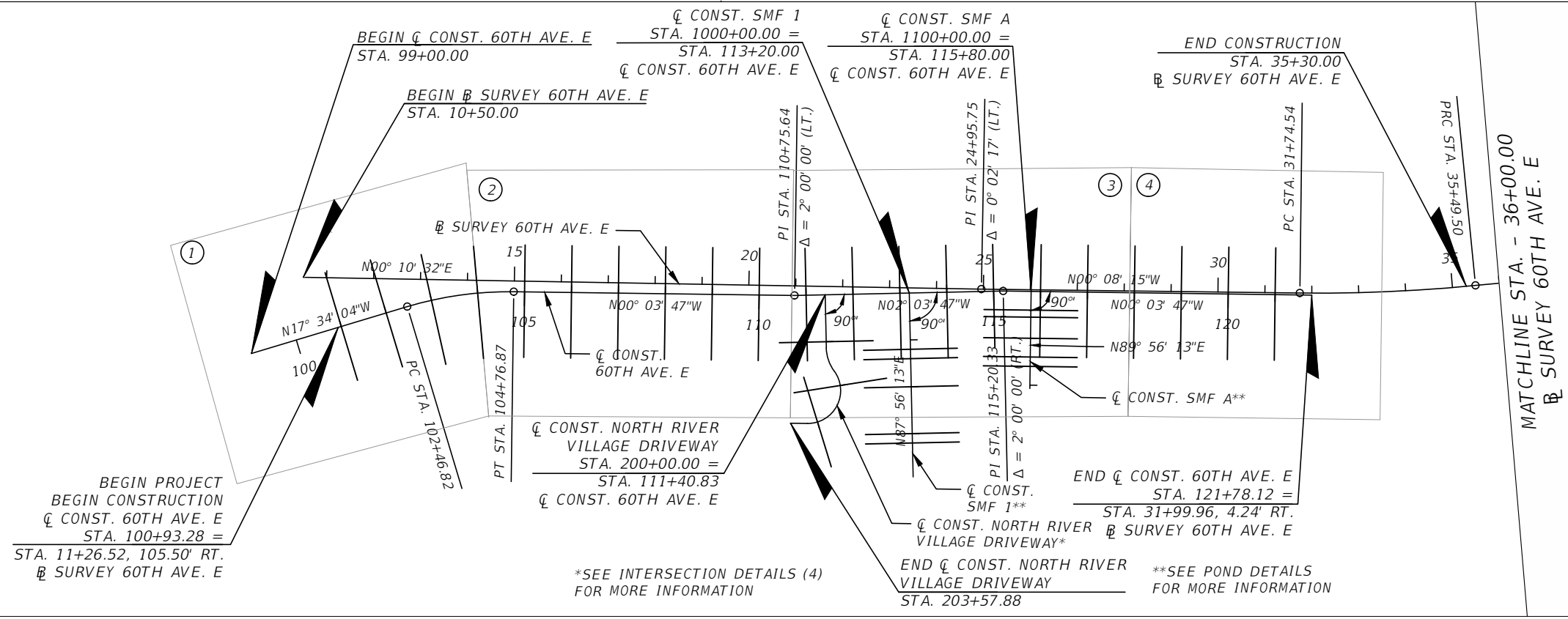
CURT SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301  
TO MENDOZA RD.  
POND DETAILS (2)

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
			SCALE	1" = 300'	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 CROSS SECTION PATTERN

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MANATEE COUNTY

PROJECT NAME: 60TH AVENUE EAST FROM US 301 TO MENDOZA ROAD

MANATEE COUNTY PROJECT NO. 15-0909JE

DATE OF SURVEY: JANUARY 2022  
 SURVEY MADE BY: TIERRA, INC.  
 SUBMITTED BY: MARC E. NOVAK, P.E.

COUNTY: MANATEE

CROSS SECTION SOIL SURVEY FOR THE DESIGN OF ROADS

SURVEY BEGINS STA. 11+30.61 SURVEY ENDS STA. 30+60.35 REFERENCE: B/L SURVEY 60TH AVE. E

STRATUM NO.	ORGANIC CONTENT		MOISTURE CONTENT		SIEVE ANALYSIS RESULTS PERCENT PASS					ATTERBERG LIMITS (%)				DESCRIPTION	CORROSION TEST RESULTS					
	NO. OF TESTS	% ORGANIC	NO. OF TESTS	MOISTURE CONTENT	NO. OF TESTS	10 MESH	40 MESH	60 MESH	100 MESH	200 MESH	NO. OF TESTS	LIQUID LIMIT	PLASTIC INDEX		AASHTO GROUP	NO. OF TESTS	RESISTIVITY ohms cm	CHLORIDE ppm	SULFATES ppm	pH
1	1	3	1	26	32	---	---	---	--	1-14	---	---	---	A-3/A-2-4	LIGHT GRAY TO BROWN FINE SAND TO SILTY SAND	11	2900-28000	15-120	<4.8-45	4.6-8.2
2	1	3	8	12-23	24	---	---	--	--	15-34	7	NP	NP	A-2-4	LIGHT GRAY TO BROWN SILTY SAND	10	760-2400	15-45	<4.8-231	5.4-8.3
3	---	--	31	16-36	32	---	---	---	---	13-34	31	33-37	6-21	A-2-4/ A-2-6	LIGHT GRAY TO GRAY SILTY SAND TO CLAYEY SAND	---	---	---	---	---
4	---	---	10	15-28	10	---	---	---	---	36-85	10	31-44	5-20	A-4/A-6/ A-7-6	LIGHT GRAY SILT TO CLAY WITH SAND	1	8100	15	96	5.4
5	2	5-22	2	21-137	2	---	---	---	---	8-18	---	---	---	A-8	DARK GRAY ORGANIC SAND TO MUCK	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	WLS	CALCAREOUS CLAY TO WEATHERED LIMESTONE	---	---	---	---	---
7	---	---	1	67	1	---	---	---	---	72	1	132	64	A-7-6	LIGHT GRAY CLAY	---	---	---	---	---

EMBANKMENT AND SUBGRADE MATERIAL

NOTES:

- STRATA BOUNDARIES ARE APPROXIMATE. MAKE FINAL CHECK AFTER GRADING.
- THE MATERIAL FROM STRATUM 1 (A-3/A-2-4) APPEARS SATISFACTORY FOR USE IN THE EMBANKMENT WHEN UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001.
  - THE MATERIAL FROM STRATUM 2 (A-2-4) APPEARS SATISFACTORY FOR USE IN THE EMBANKMENT WHEN UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001. HOWEVER, THIS MATERIAL IS LIKELY TO RETAIN EXCESS MOISTURE AND MAY BE DIFFICULT TO DRY AND COMPACT. IT SHOULD BE USED IN THE EMBANKMENT ABOVE THE WATER LEVEL EXISTING AT THE TIME OF CONSTRUCTION.
  - THE MATERIAL FROM STRATA 3 AND 4 (A-2-4/A-2-6/A-6/A-7-6/A-4) ARE PLASTIC MATERIALS AND SHALL BE REMOVED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-002 AND UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001. THE REMOVAL LIMITS ARE ON THE ROADWAY CROSS-SECTIONS.
  - THE MATERIAL FROM STRATUM 7 (A-7-6) IS HIGH PLASTIC MATERIAL AND SHALL BE REMOVED IN ACCORDANCE WITH STANDARD PLANS INDEX 120-002 AND UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001. THE REMOVAL LIMITS ARE DEPICTED ON THE ROADWAY CROSS-SECTIONS AT THE NEXT SUBMITTAL.
  - THE MATERIAL FROM STRATUM 5 (A-8) IS MUCK MATERIAL AND SHALL BE REMOVED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-002 AND UTILIZED IN ACCORDANCE WITH STANDARD PLANS, INDEX 120-001. THE REMOVAL LIMITS ARE DEPICTED ON THE ROADWAY CROSS-SECTIONS.
  - THE MATERIAL FROM STRATUM NUMBER 6 IS A NATURAL LIMESTONE FORMATION. SPECIAL TOOLS AND EQUIPMENT WILL BE REQUIRED TO EXCAVATE AND/OR DEWATER THIS MATERIAL. WEATHERED LIMESTONE/CAPROCK WAS ENCOUNTERED WITHIN THE BORINGS. THIS MATERIAL IS ROCK AND IS LOCATED AT SHALLOW DEPTHS. EXCAVATIONS INTO AND/OR THROUGH LIMESTONE/CAPROCK WILL BE DIFFICULT AND WILL REQUIRE NON CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT. LIMESTONE/CAPROCK IS POROUS AND WILL BE DIFFICULT TO DEWATER.



MARC E. NOVAK, P.E.  
 LICENSE NUMBER 67431  
 TIERRA, INC.  
 7351 TEMPLE TERRACE HIGHWAY  
 TAMPA, FL 33637



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

ROADWAY SOIL SURVEY - SEG. 1

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY SOIL SURVEY

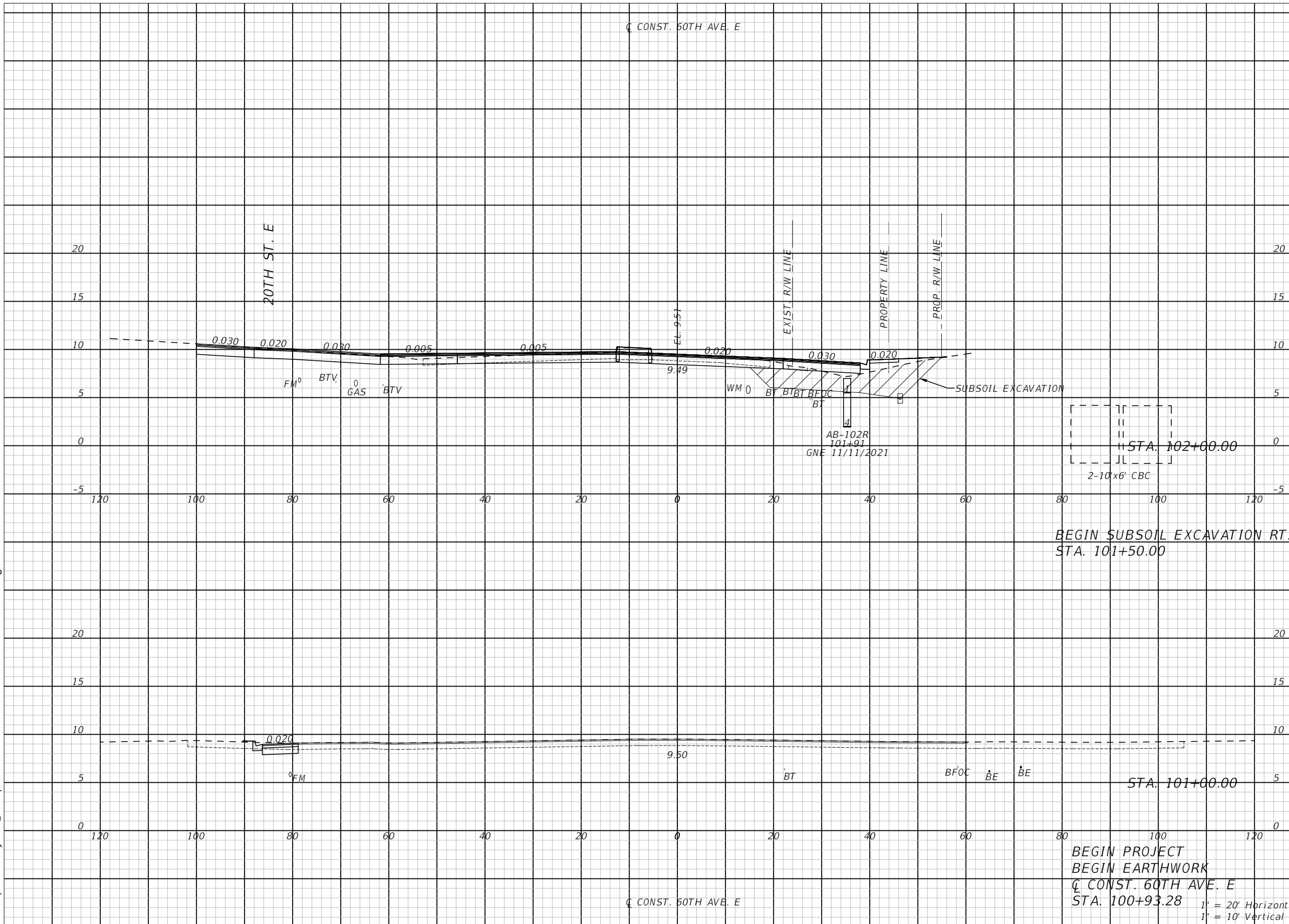
NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	SW	10/2021
			SEC./TWN./RGE	4-34S-18E	DRAWN	SW	10/2021
			SCALE	NTS	CHECKED	MEN	10/2021

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
76.8		115.6		86.6	
71.1		214.5		179.5	
0.0					
0.0					
0.0		0.3		10.3	
0.0		0.0		1.3	
0.0		0.0		0.0	

NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	ST	6/6/22
SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/6/22
SCALE	1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



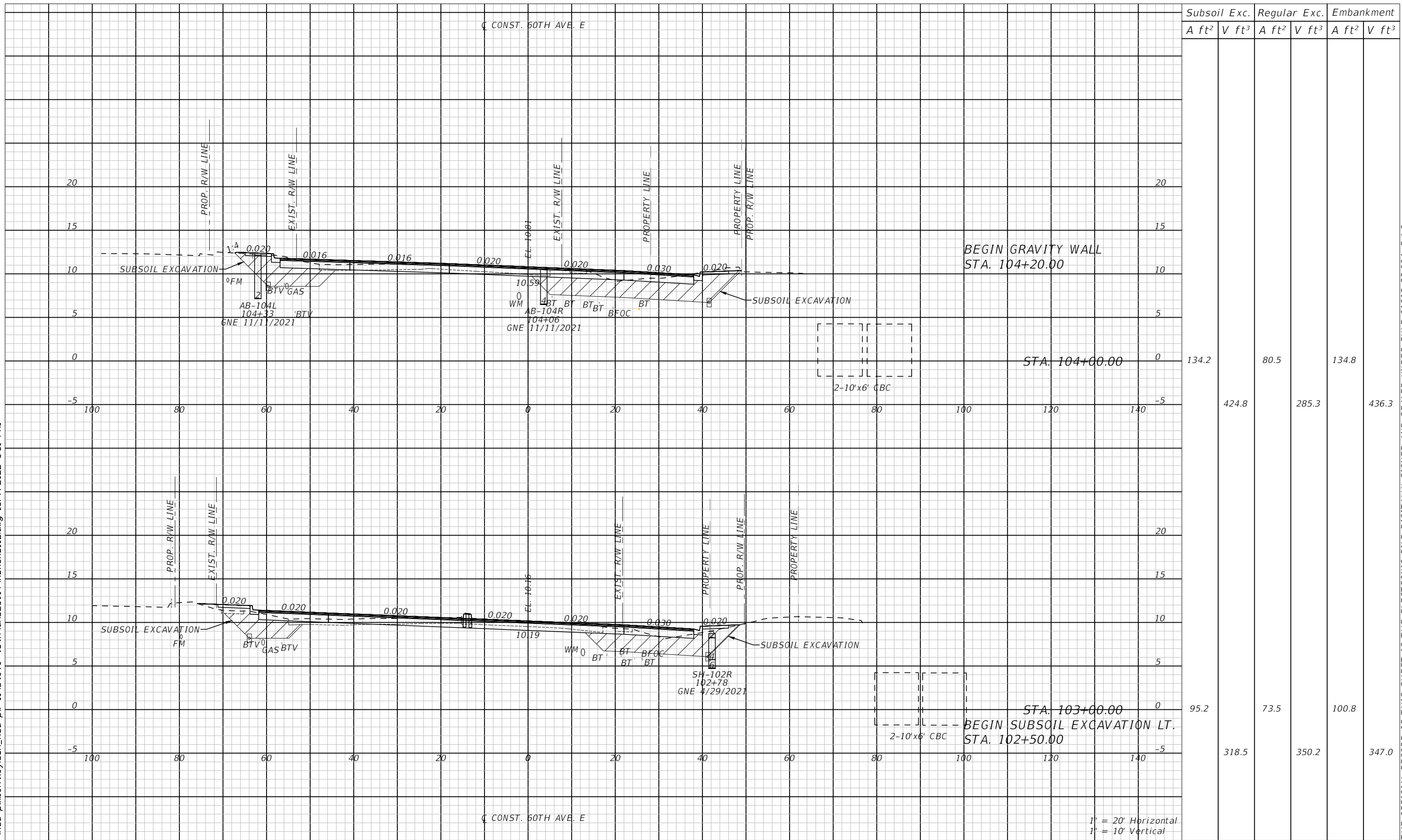
PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY CROSS SECTIONS (1)

SHEET NO.  
 47

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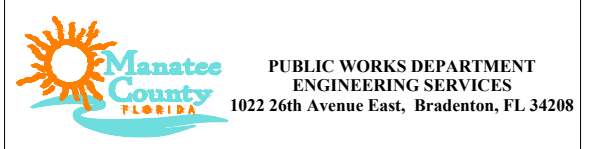


Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
134.2	424.8	80.5	285.3	134.8	436.3
95.2	318.5	73.5	350.2	100.8	347.0

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

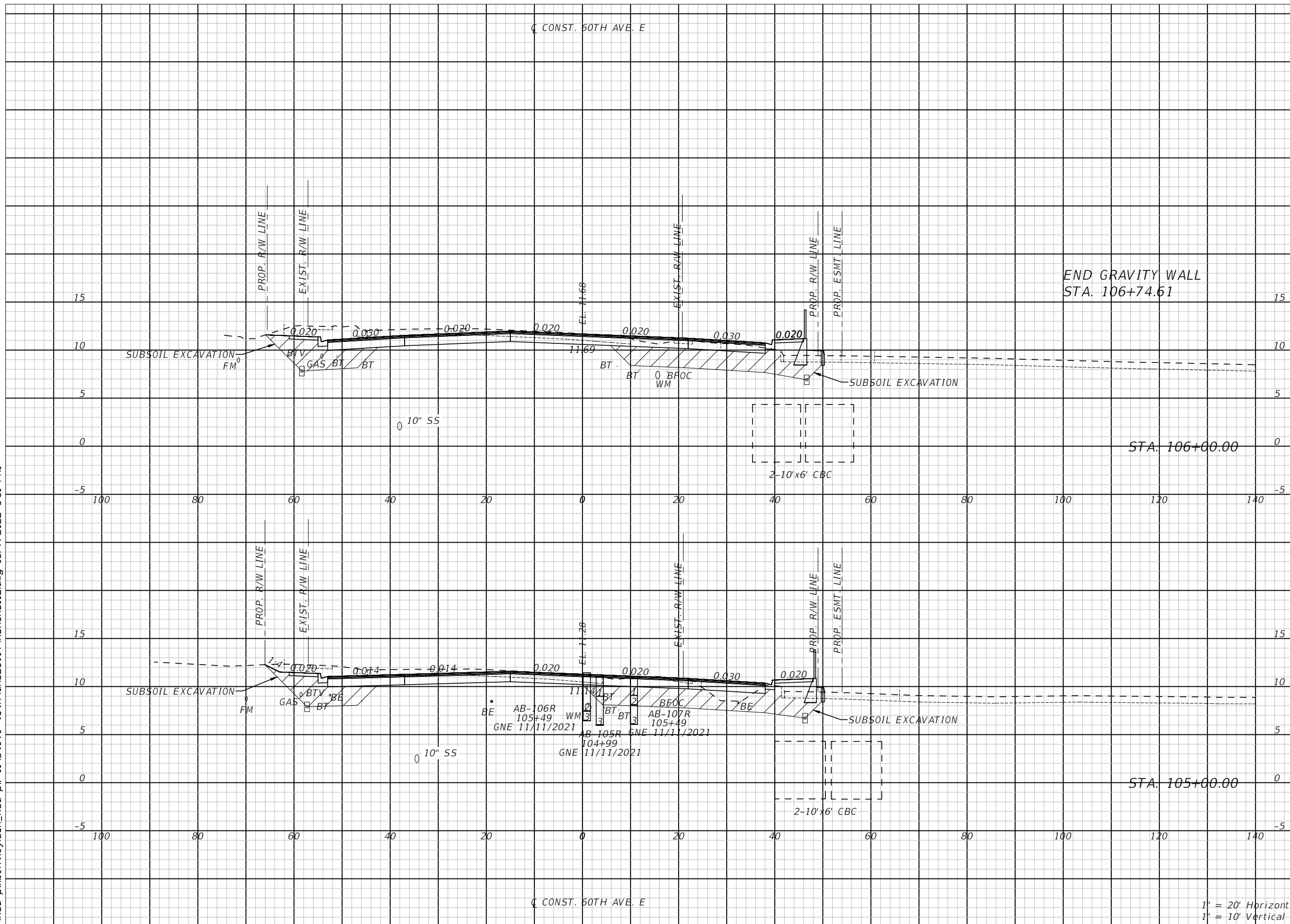
DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
ROADWAY CROSS SECTIONS (2)  
SHEET NO. 48

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END GRAVITY WALL  
STA. 106+74.61

STA. 106+00.00

STA. 105+00.00

C CONST. 60TH AVE. E

1' = 20' Horizontal  
1' = 10' Vertical

Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
124.7	466.0	130.2	458.4	133.2	504.6
126.9	483.7	117.4	366.5	139.3	507.6

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



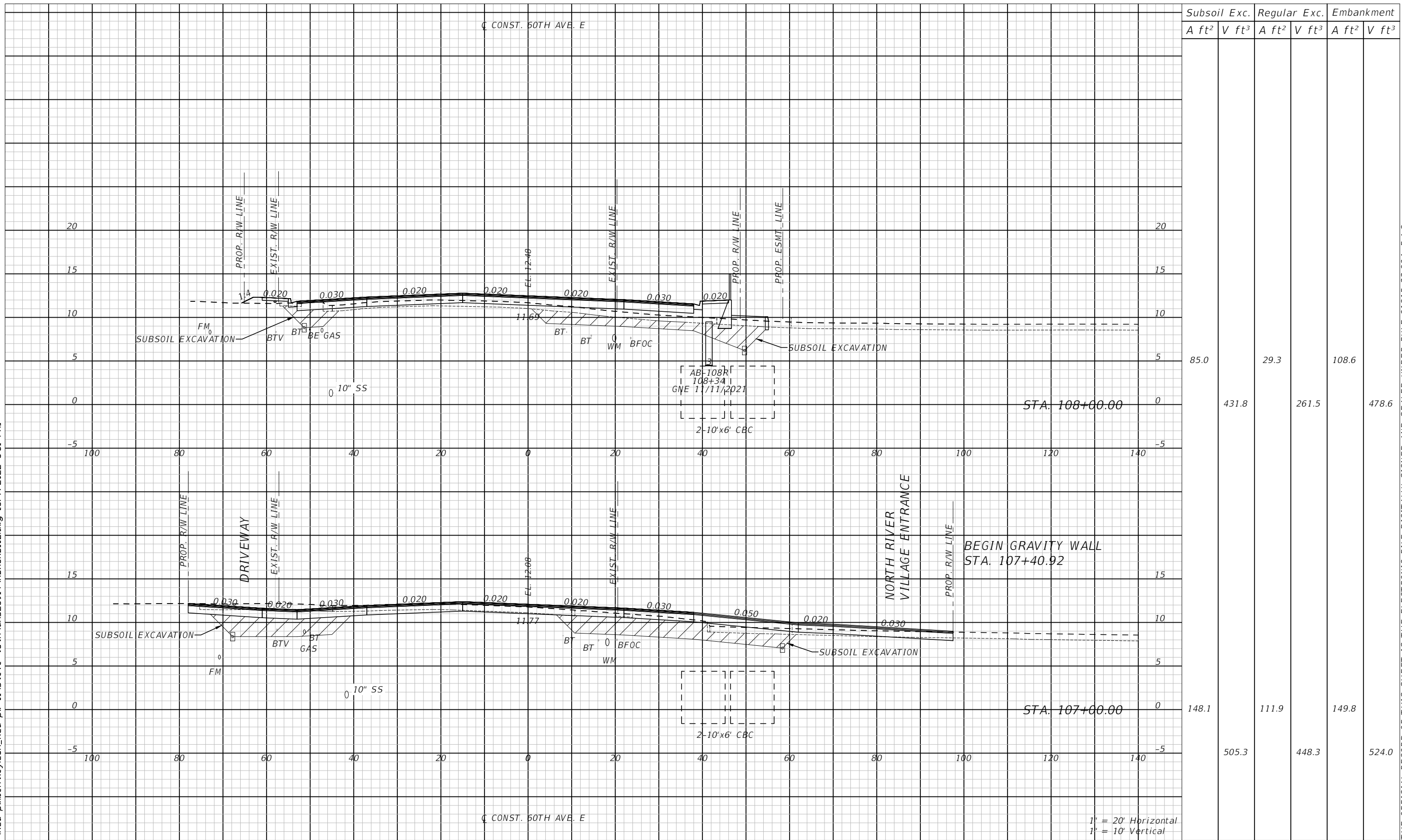
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY CROSS SECTIONS (3)

SHEET NO.  
49

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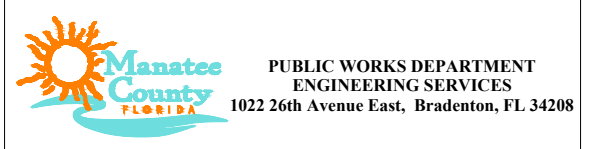


Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
85.0		29.3		108.6	
431.8		261.5		478.6	
148.1		111.9		149.8	
505.3		448.3		524.0	

1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

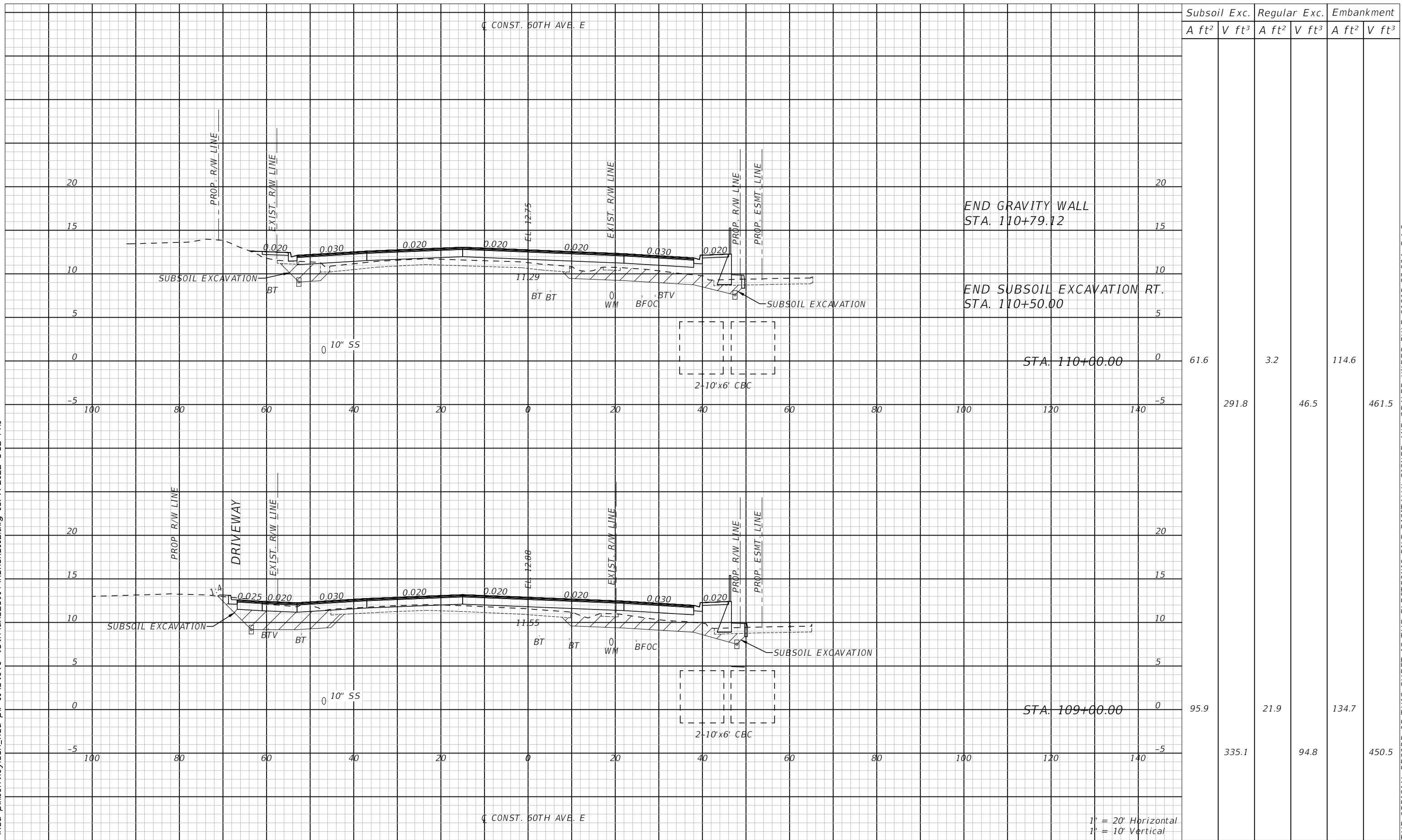
DEBORAH HERNANDEZ-CEDEÑO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**ROADWAY CROSS SECTIONS (4)**

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
61.6	291.8	3.2	46.5	114.6	461.5
95.9	335.1	21.9	94.8	134.7	450.5

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

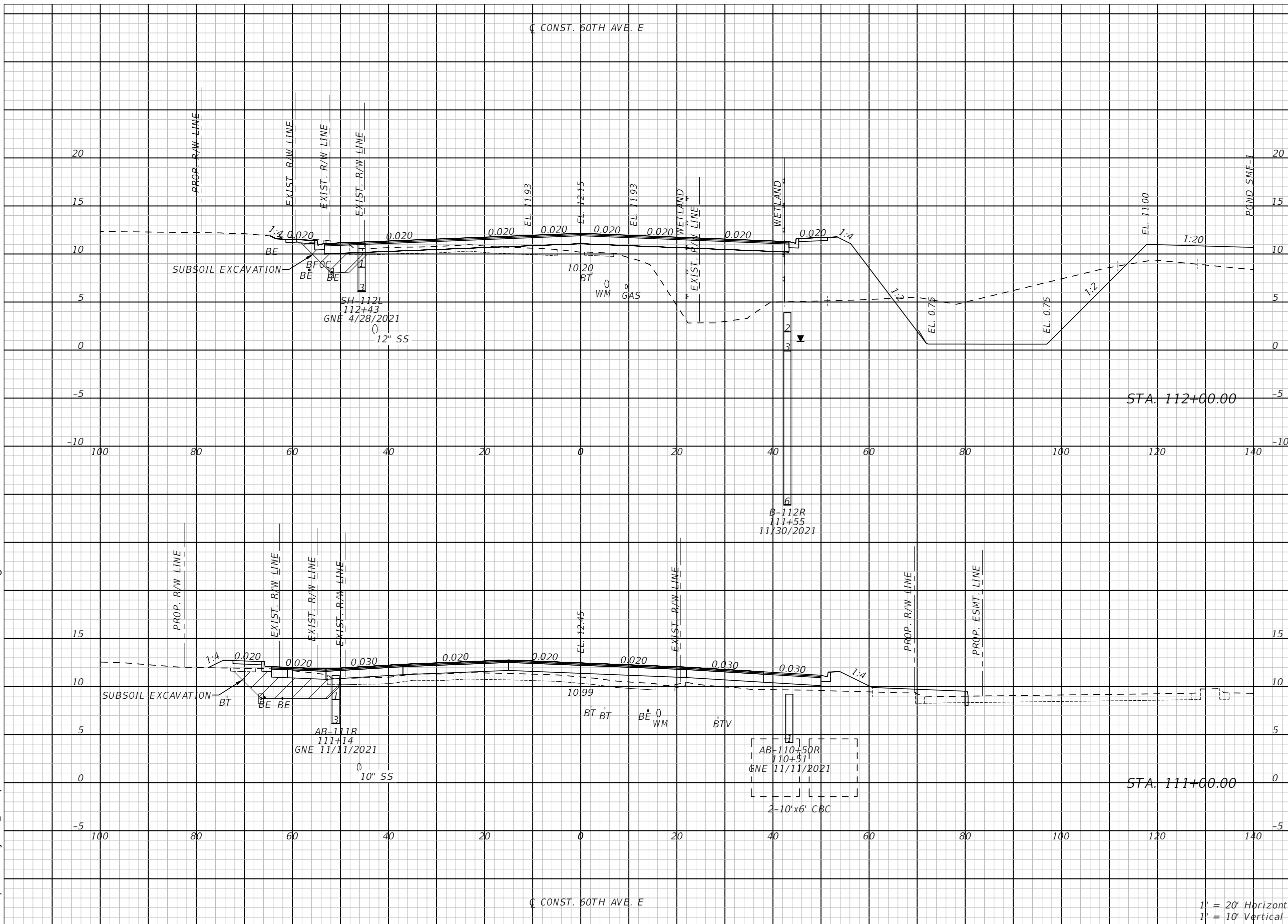


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 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY CROSS SECTIONS (5)

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
17.4	108.3	207.9	401.8	326.2	814.5
41.1	190.3	9.1	22.8	113.6	422.5

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	ST	6/6/22
			18-2238	DRAWN	ST	6/6/22
			4-34S-18E	CHECKED	DHC	6/6/22
			SCALE 1:20 H/1:10 V			

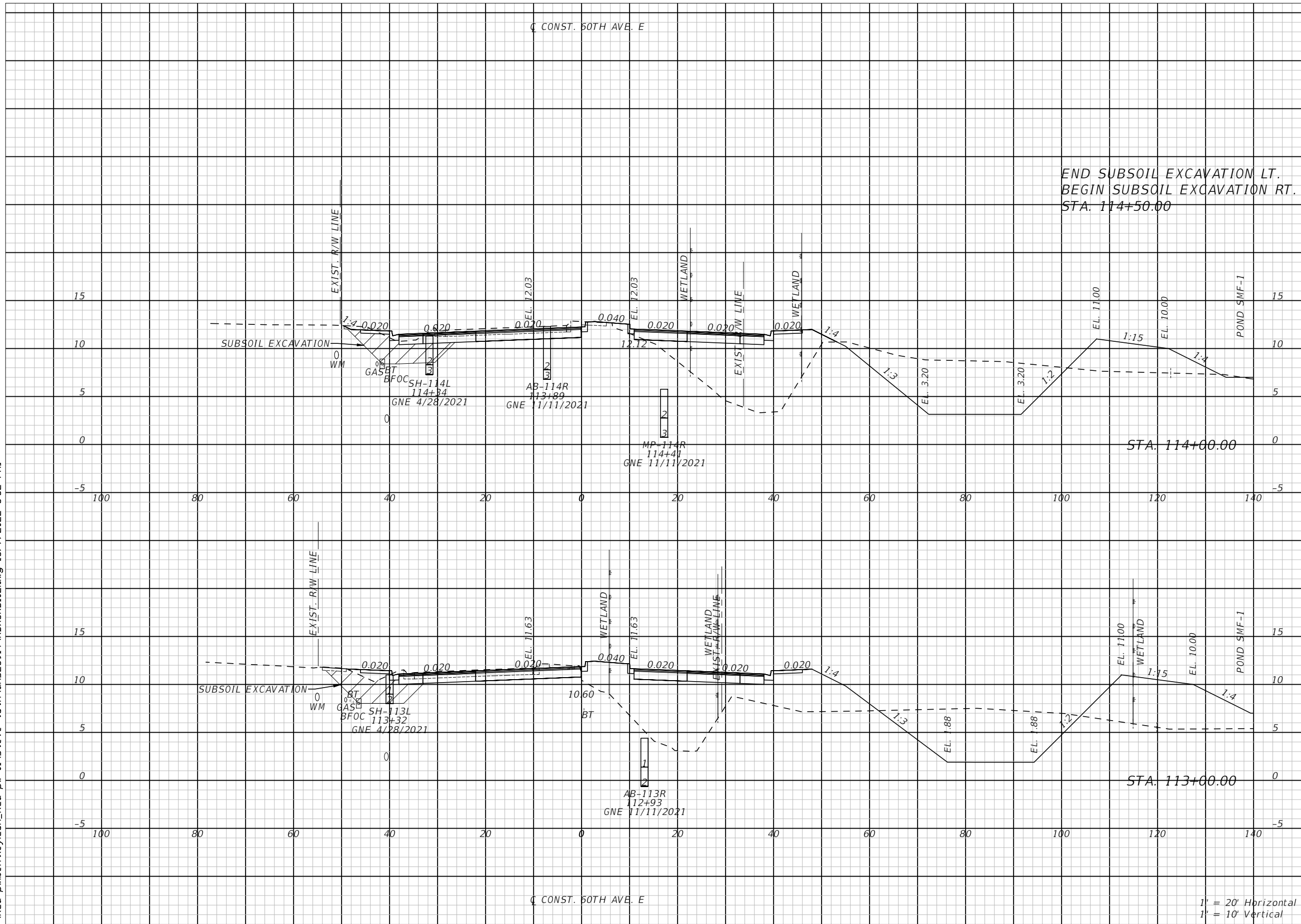
DEBORAH HERNANDEZ-CEDEÑO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
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60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
ROADWAY CROSS SECTIONS (6)  
SHEET NO. 52

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
39.5		235.0		210.9	
145.3		827.8		913.1	
39.0		212.0		282.2	
104.3		777.5		1126.7	

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



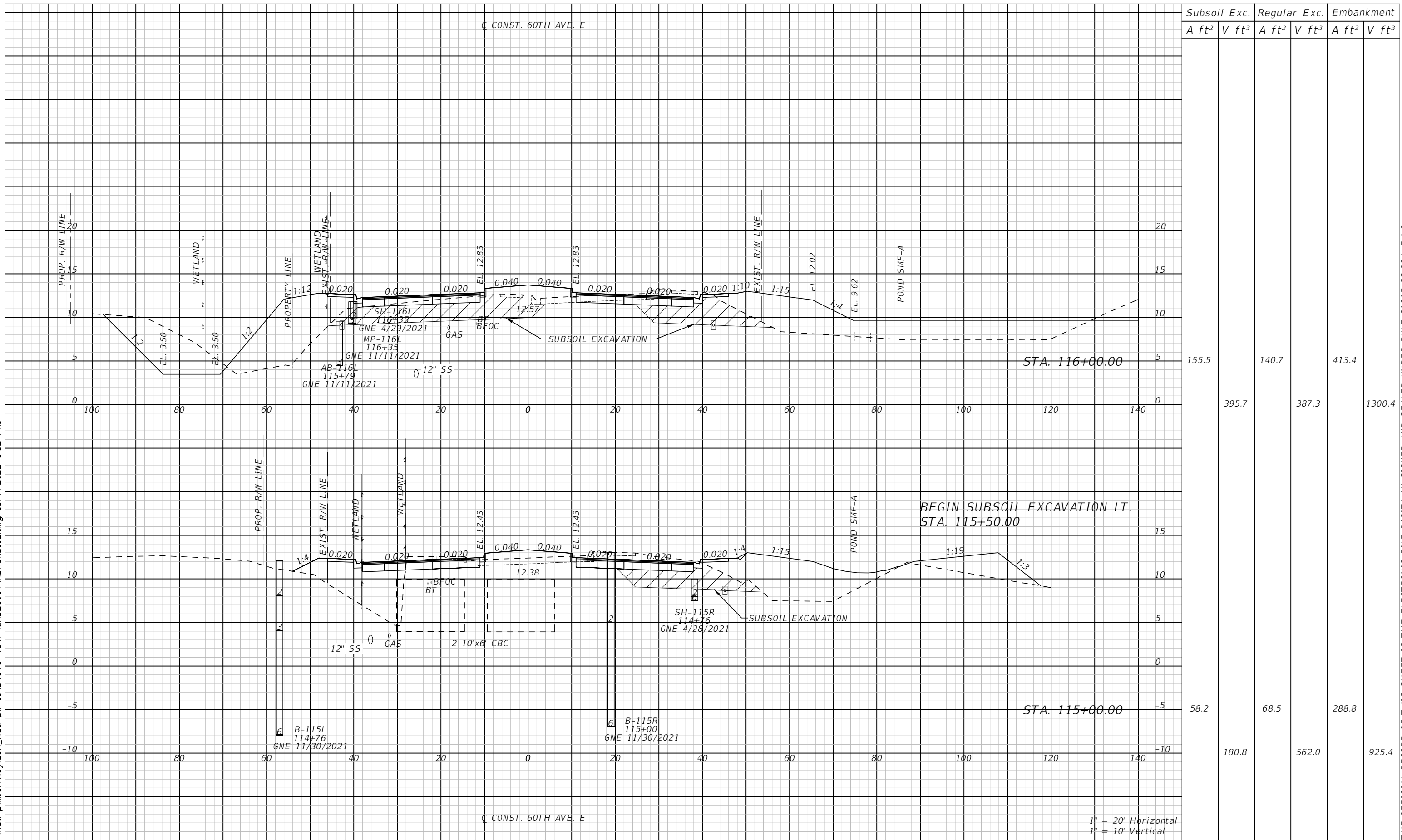
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**ROADWAY CROSS SECTIONS (7)**

SHEET NO.  
53

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NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE	1:20 H/1:10 V	CHECKED	DHC 6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



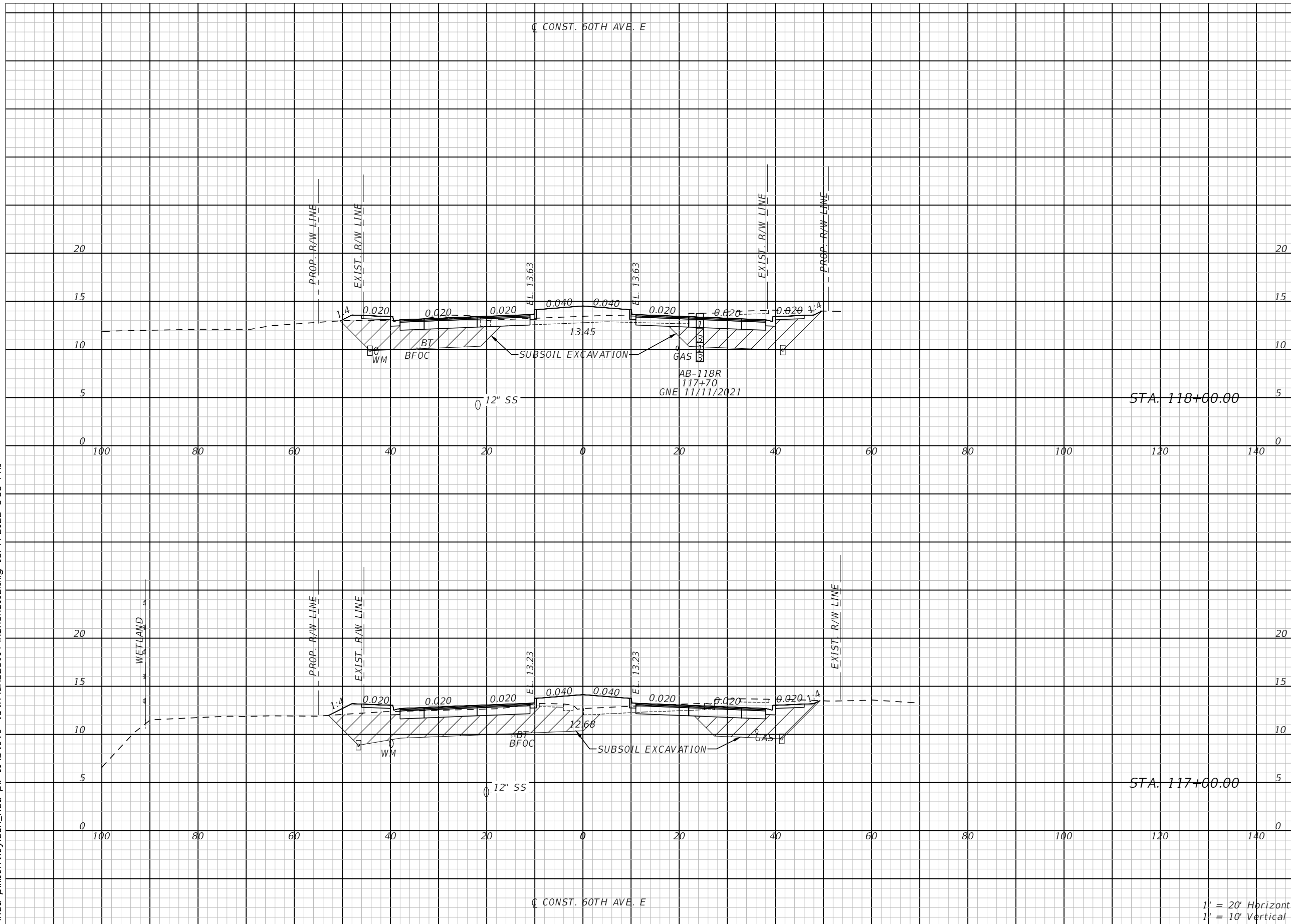
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60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY CROSS SECTIONS (8)

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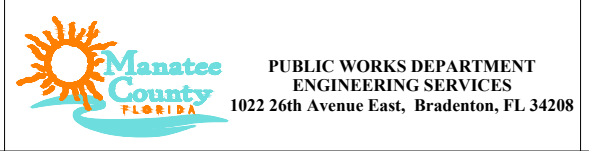


Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
123.0	536.7	77.0	272.1	143.4	624.3
166.8	596.9	69.9	390.0	193.8	1124.5

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

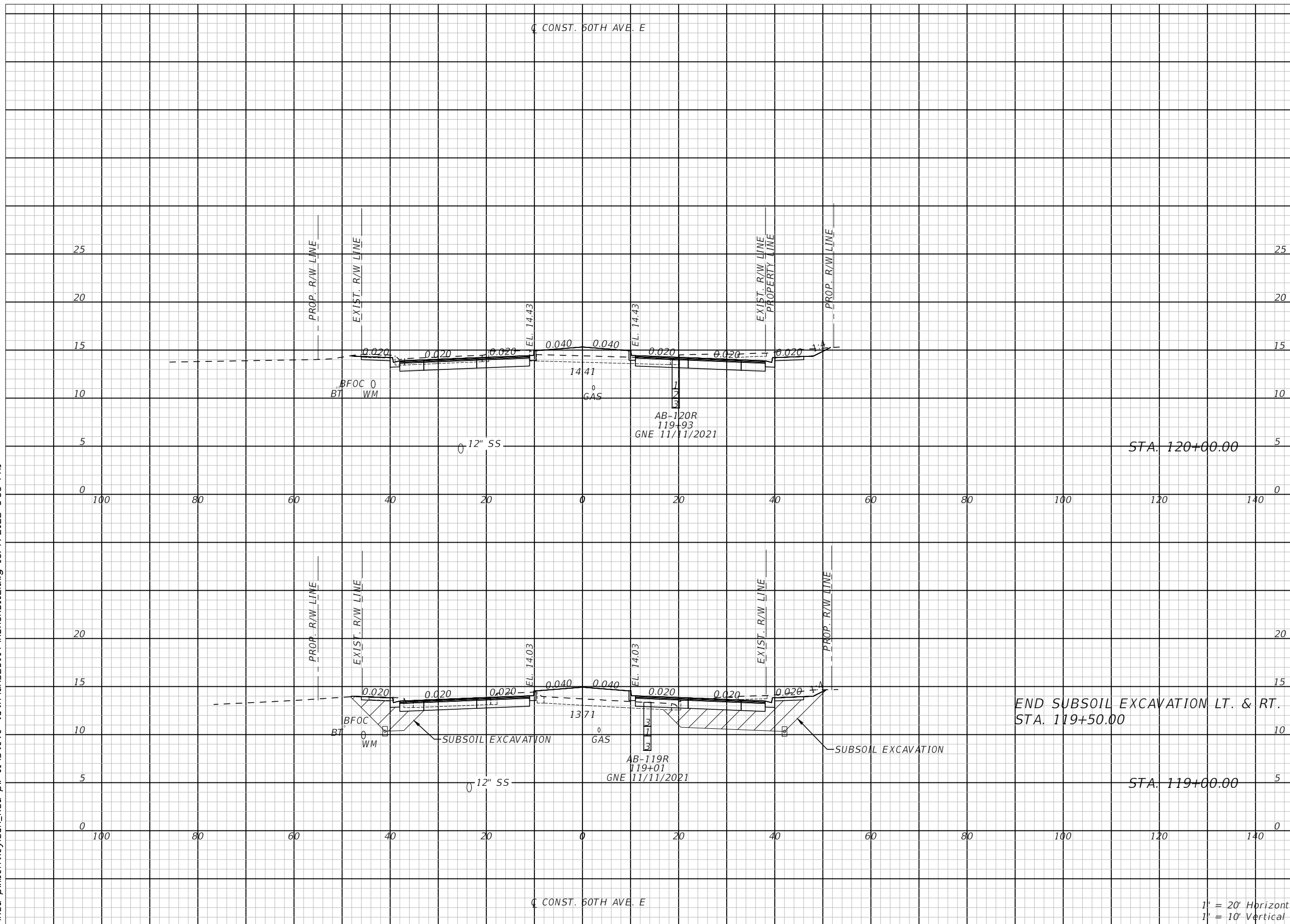


**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**ROADWAY CROSS SECTIONS (9)**

SHEET NO. 55

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	95.0	308.4	14.2	224.5
87.2	80.7	71.6	275.2	107.0	463.7
389.2		275.2		463.7	

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

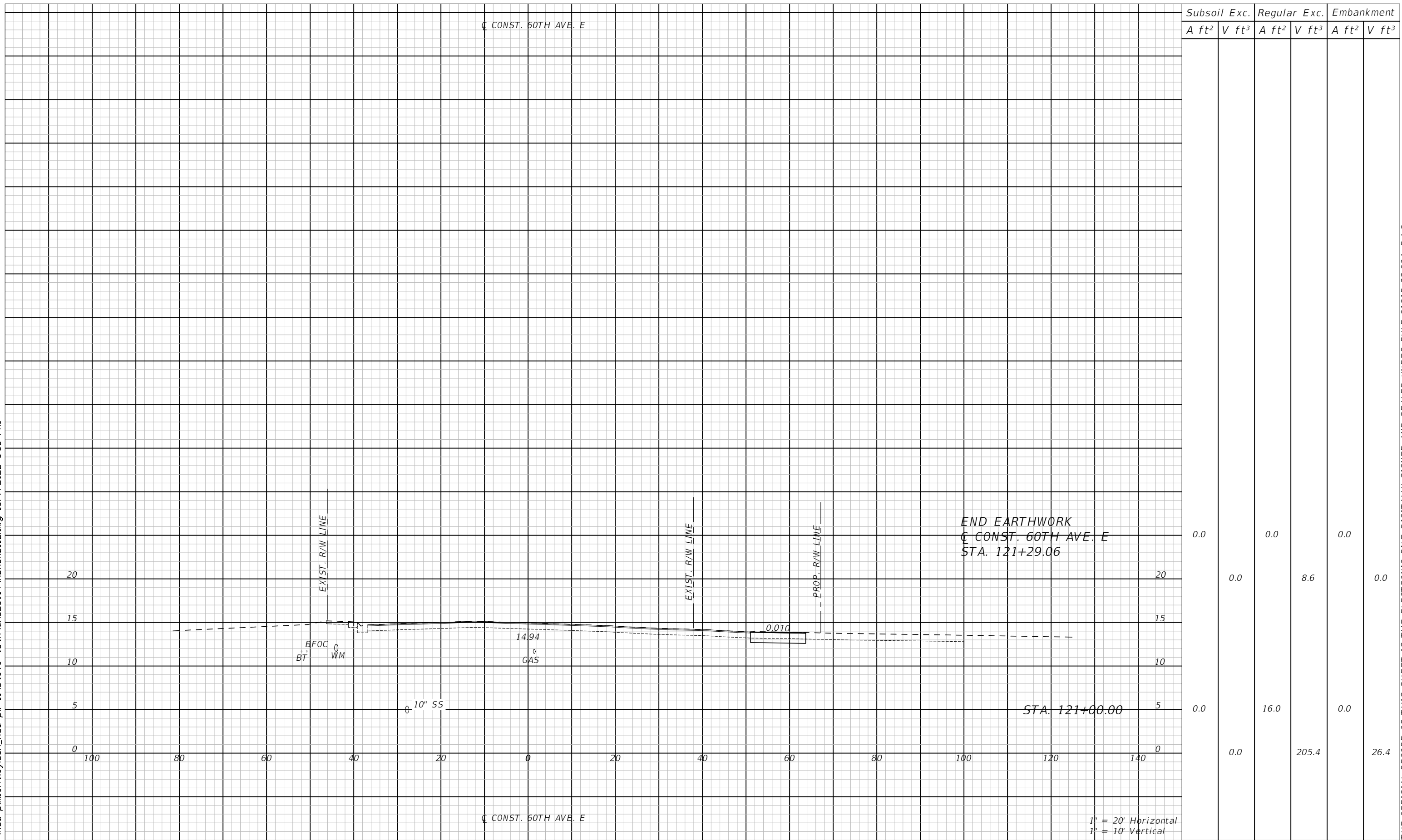


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1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
ROADWAY CROSS SECTIONS (10)

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	8.6	0.0	0.0	0.0
0.0	0.0	16.0	0.0	0.0	0.0
0.0	0.0	205.4	0.0	26.4	0.0

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



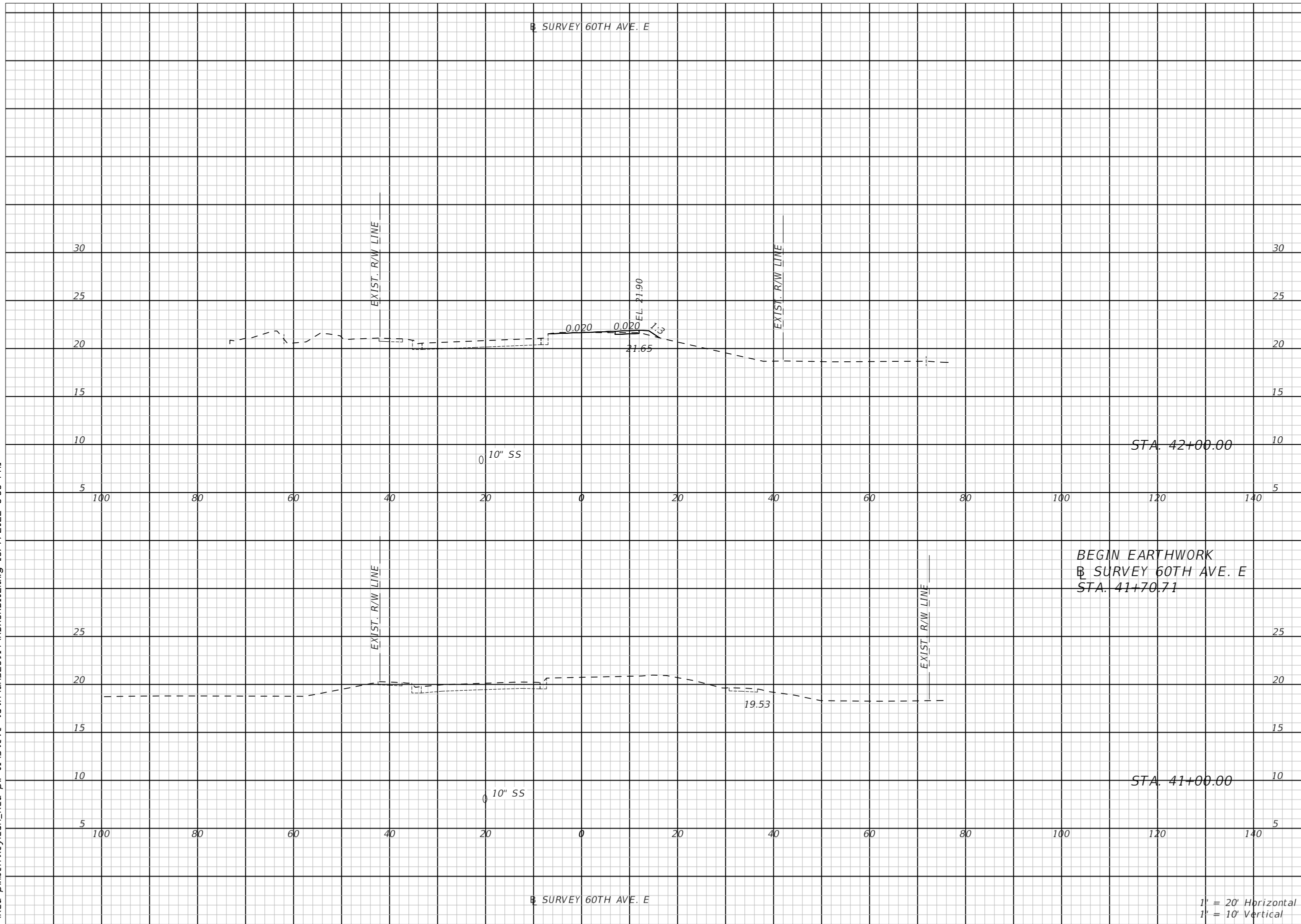
**PUBLIC WORKS DEPARTMENT  
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1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY CROSS SECTIONS (11)**

SHEET NO.  
57

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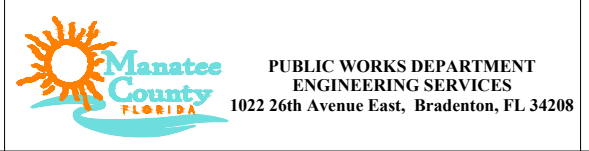
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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	1.1	0.6	1.7	0.9
0.0	0.0	0.0	0.0	0.0	0.0

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

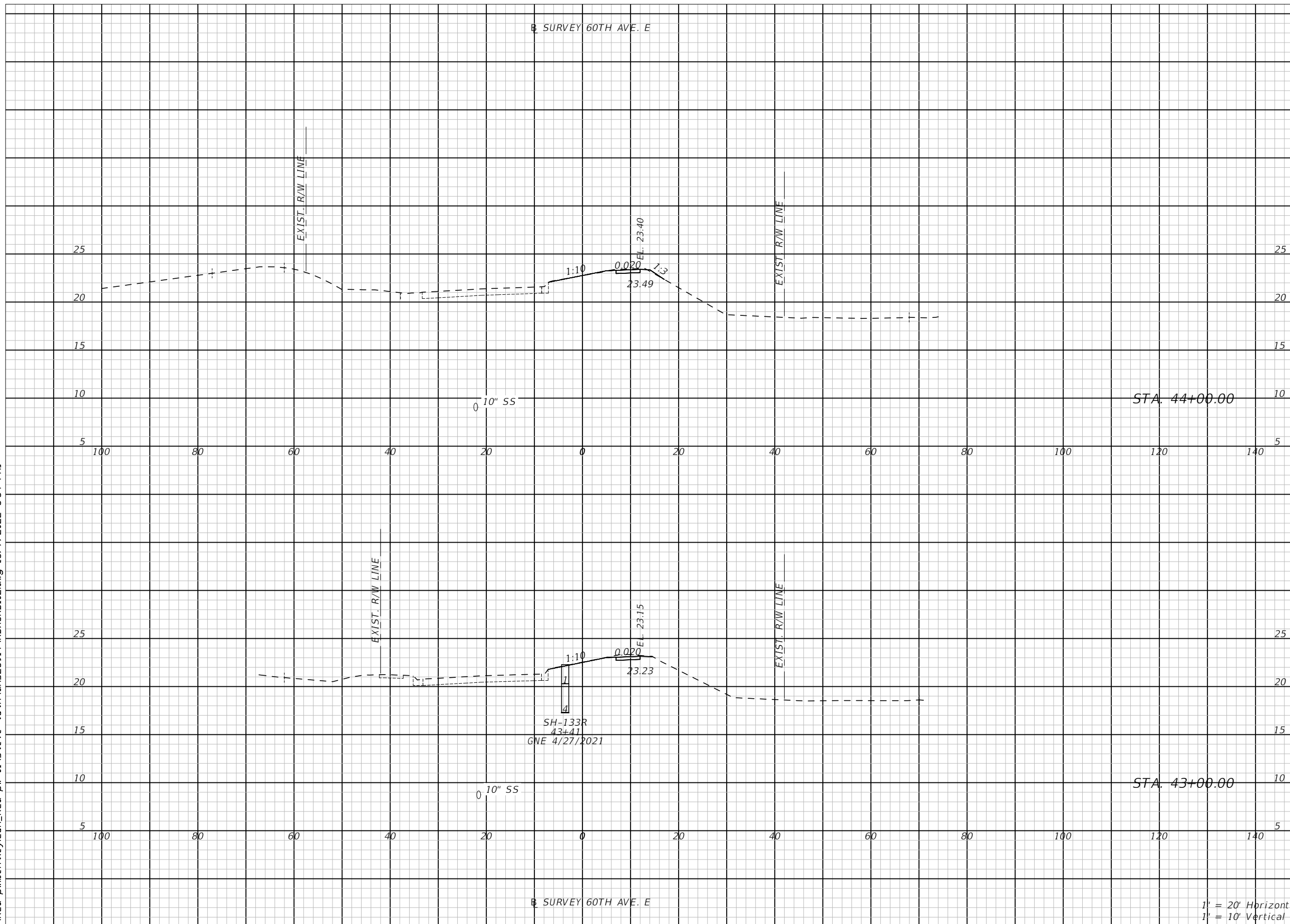


**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**ROADWAY CROSS SECTIONS (12)**

SHEET NO.  
58

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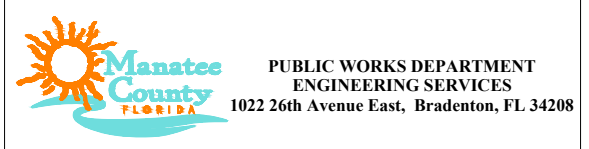


Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	2.5	10.8	0.5	0.9
0.0	0.0	3.4	8.3	0.0	3.1

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

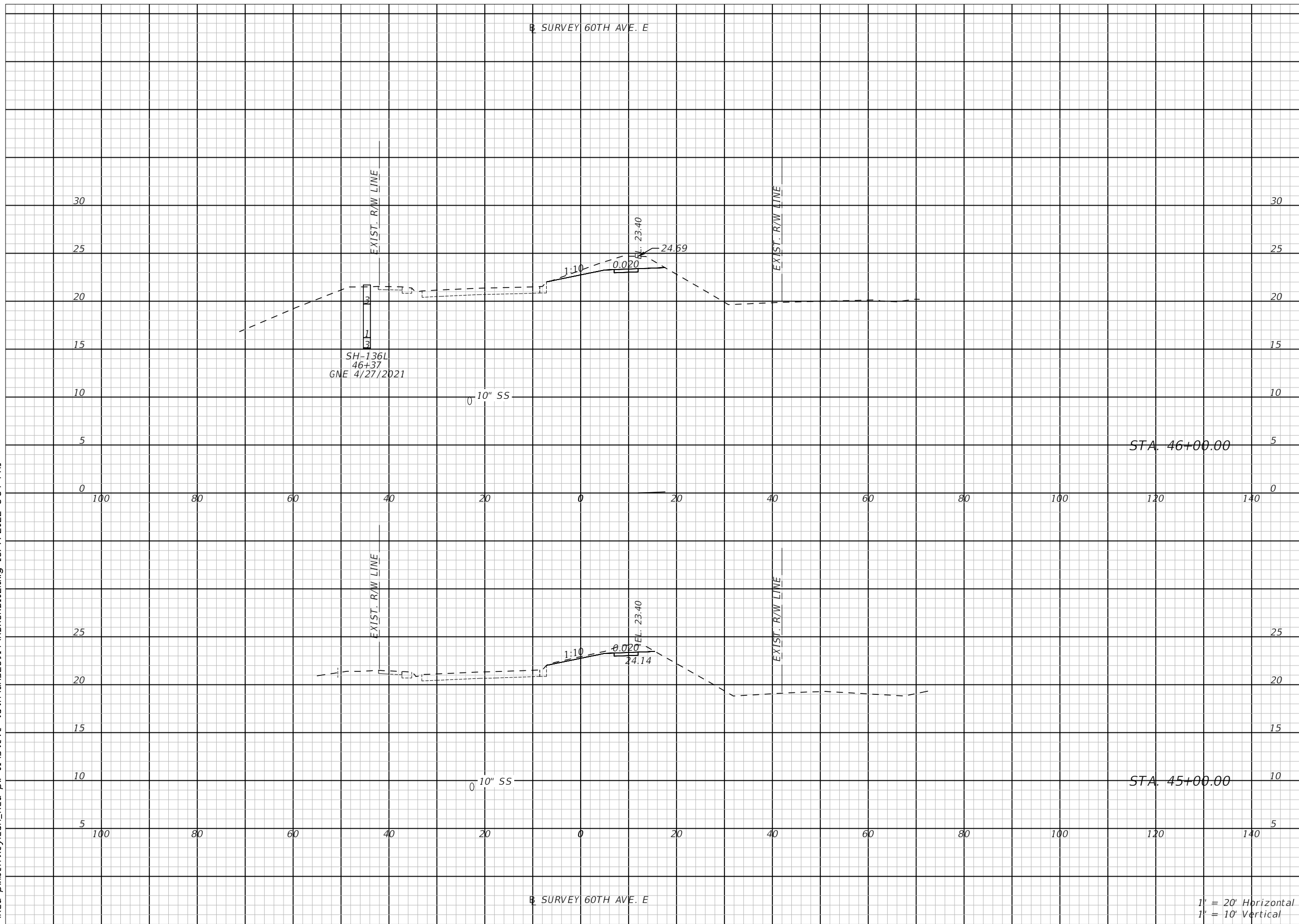


60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
ROADWAY CROSS SECTIONS (13)

SHEET NO.  
59

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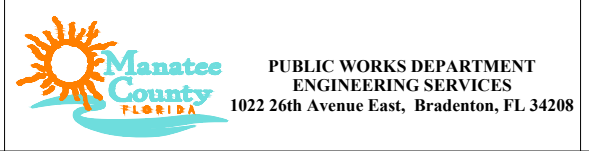


Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	19.7	54.2	0.0	0.0
0.0	0.0	9.6	22.4	0.0	0.9

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

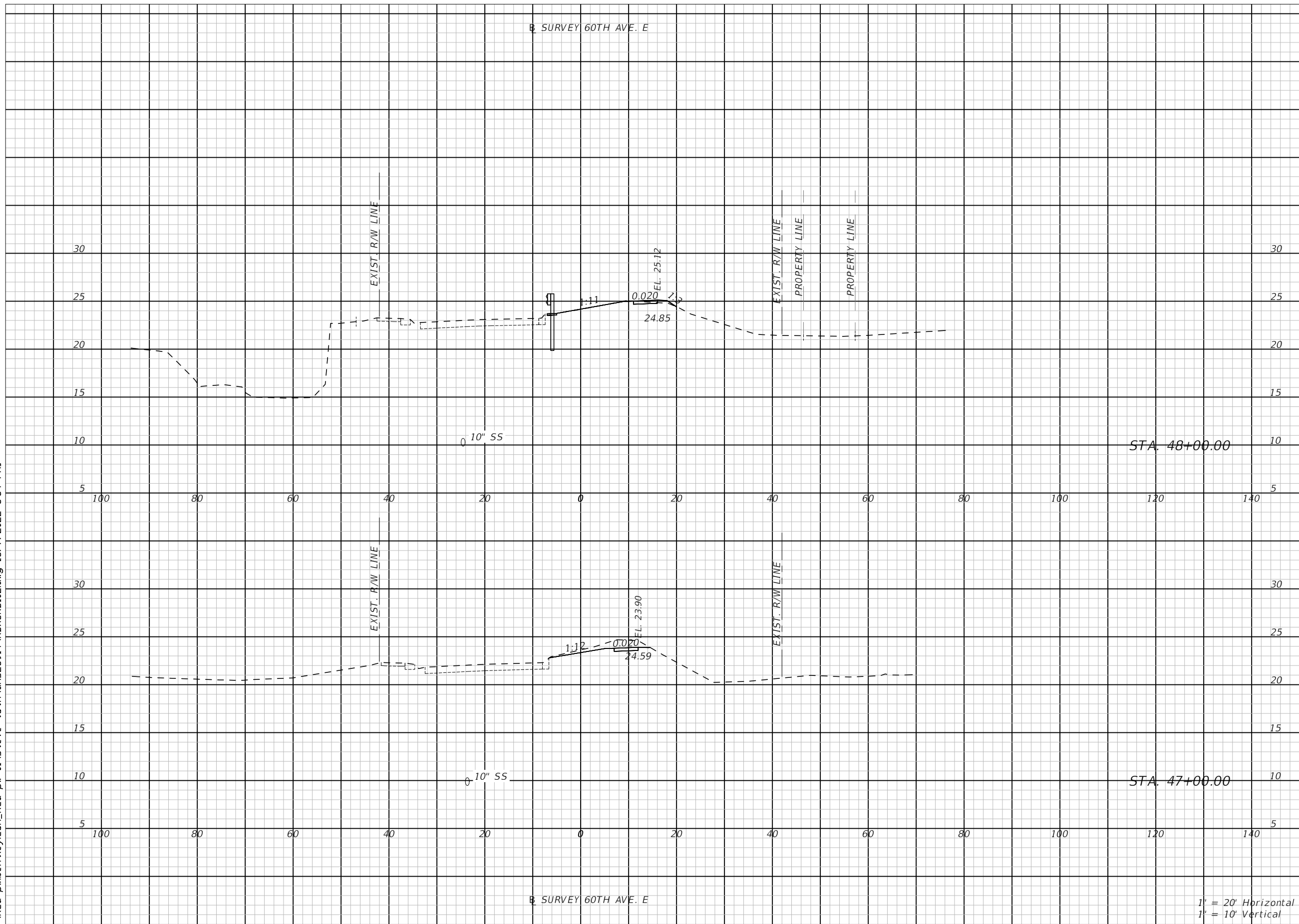


**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**ROADWAY CROSS SECTIONS (14)**

SHEET NO.  
60

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	1.5	23.1	0.9	1.7
0.0	0.0	10.9	56.6	0.0	0.0

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



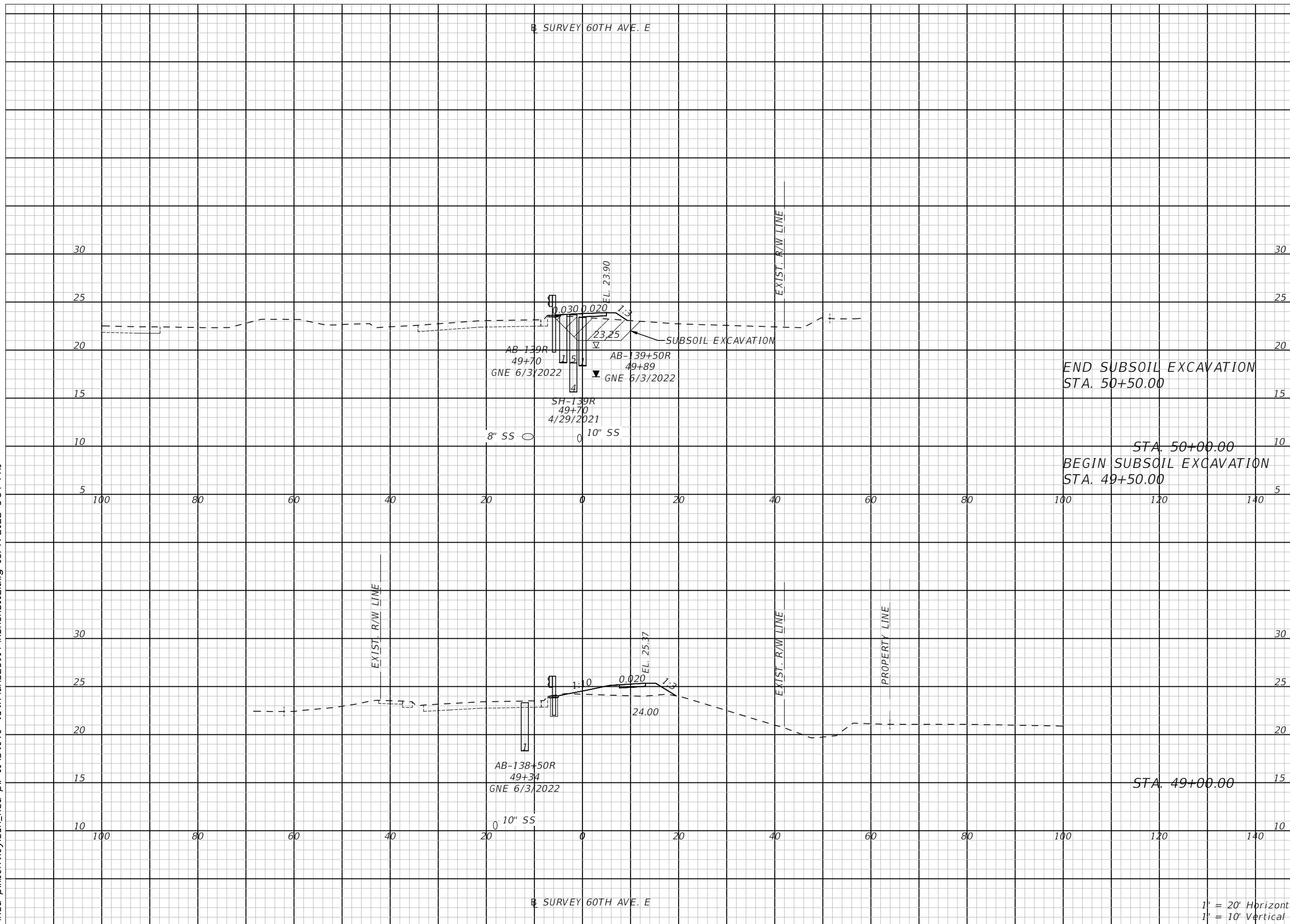
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ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY CROSS SECTIONS (15)**

SHEET NO.  
61

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0					
29.0					
31.3		0.2		35.5	
29.0			1.3		96.1
0.0					
0.0					
0.0		0.5		16.4	
0.0			3.7		32.1

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

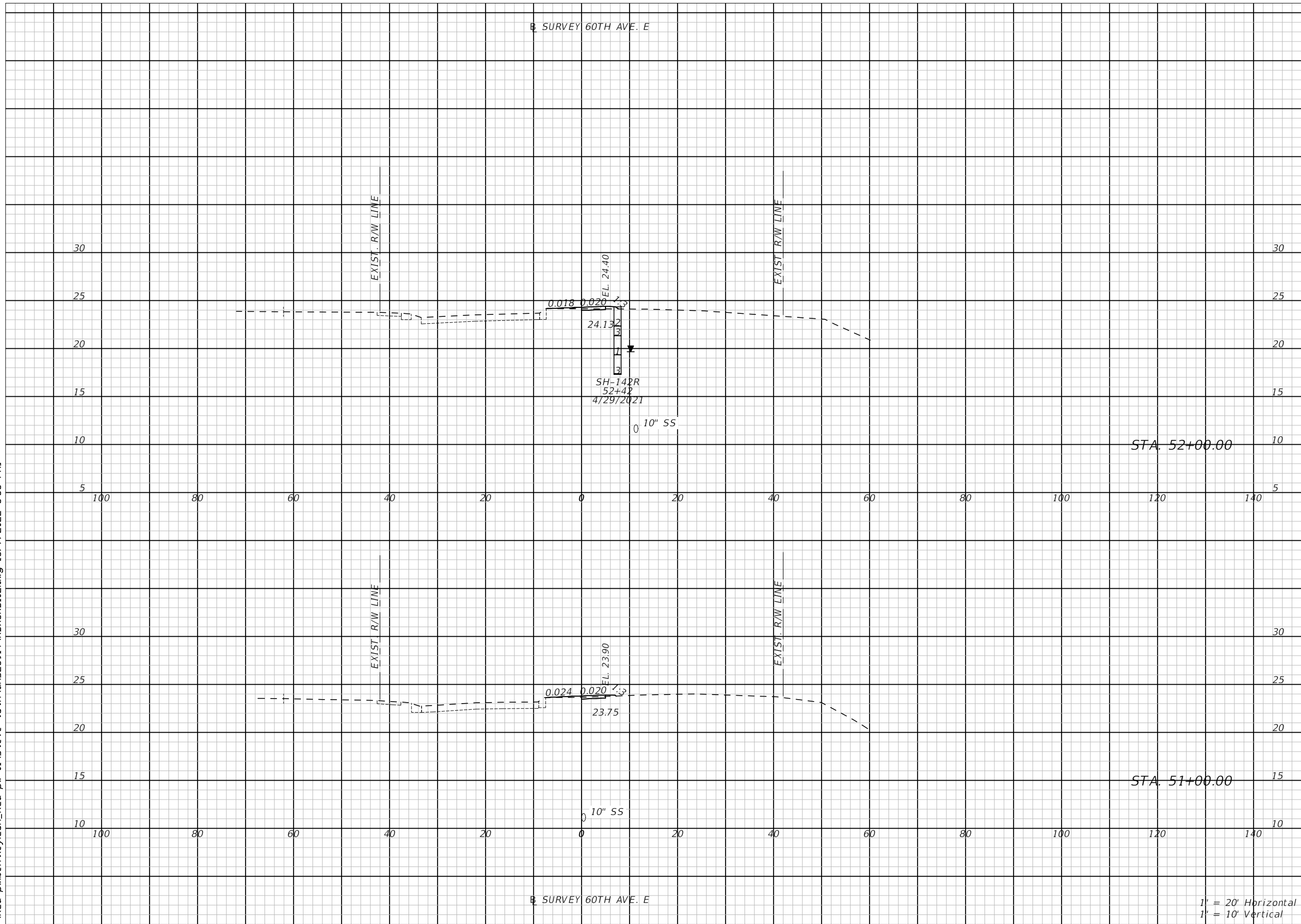
**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**ROADWAY CROSS SECTIONS (16)**

SHEET NO.  
62

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	0.6	2.8	1.1	3.5
0.0	0.0	0.9	2.0	0.8	67.2

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



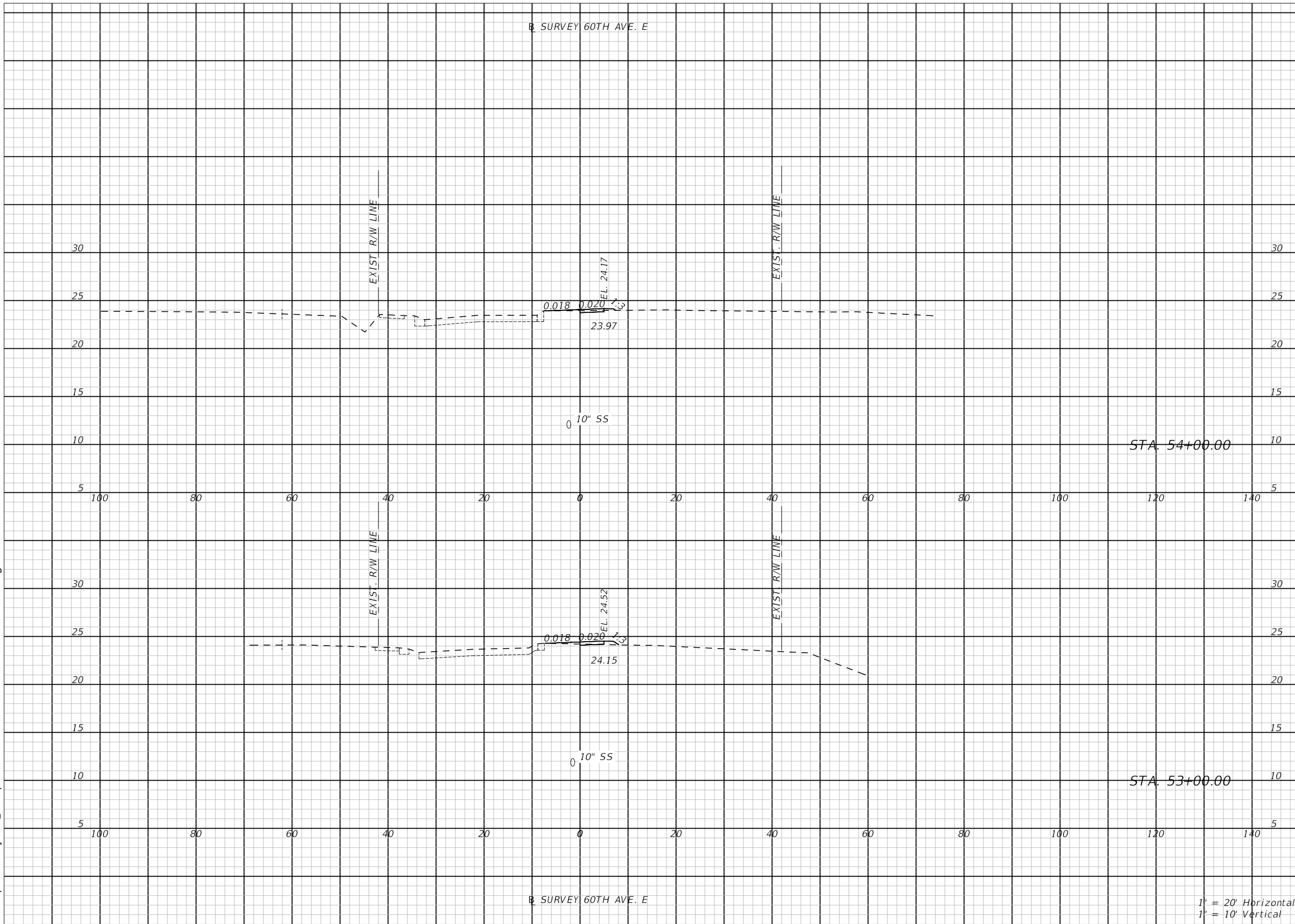
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY CROSS SECTIONS (17)**

SHEET NO.  
63

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	0.9	2.0	0.8	4.7
0.0	0.0	0.2	1.6	1.7	5.3

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



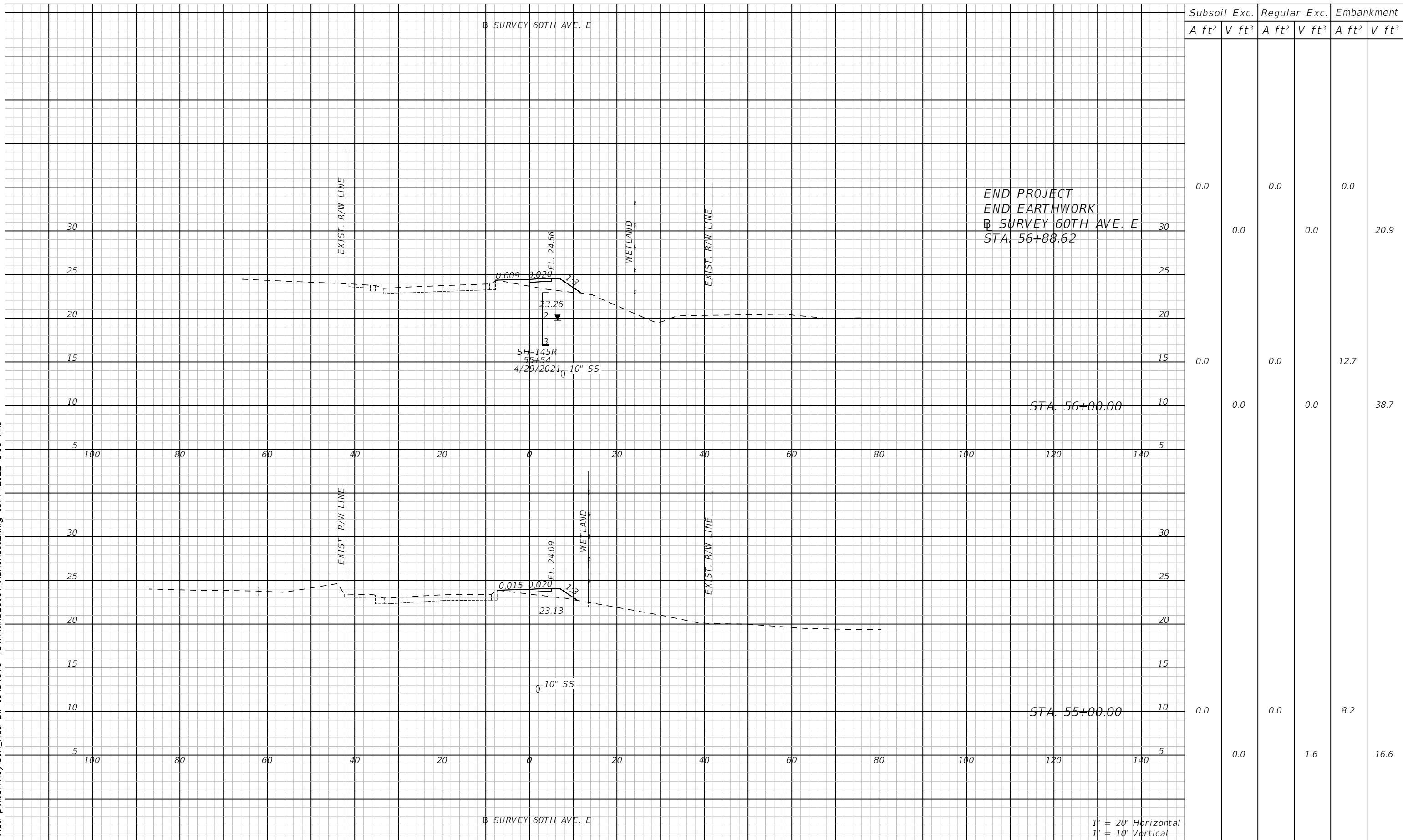
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY CROSS SECTIONS (18)**

SHEET NO.  
64

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	20.9	0.0
0.0	0.0	0.0	0.0	12.7	0.0
0.0	0.0	0.0	0.0	38.7	0.0
0.0	0.0	0.0	0.0	8.2	0.0
0.0	0.0	1.6	0.0	16.6	0.0

1' = 20' Horizontal  
1' = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
LICENSE NUMBER 74754  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602



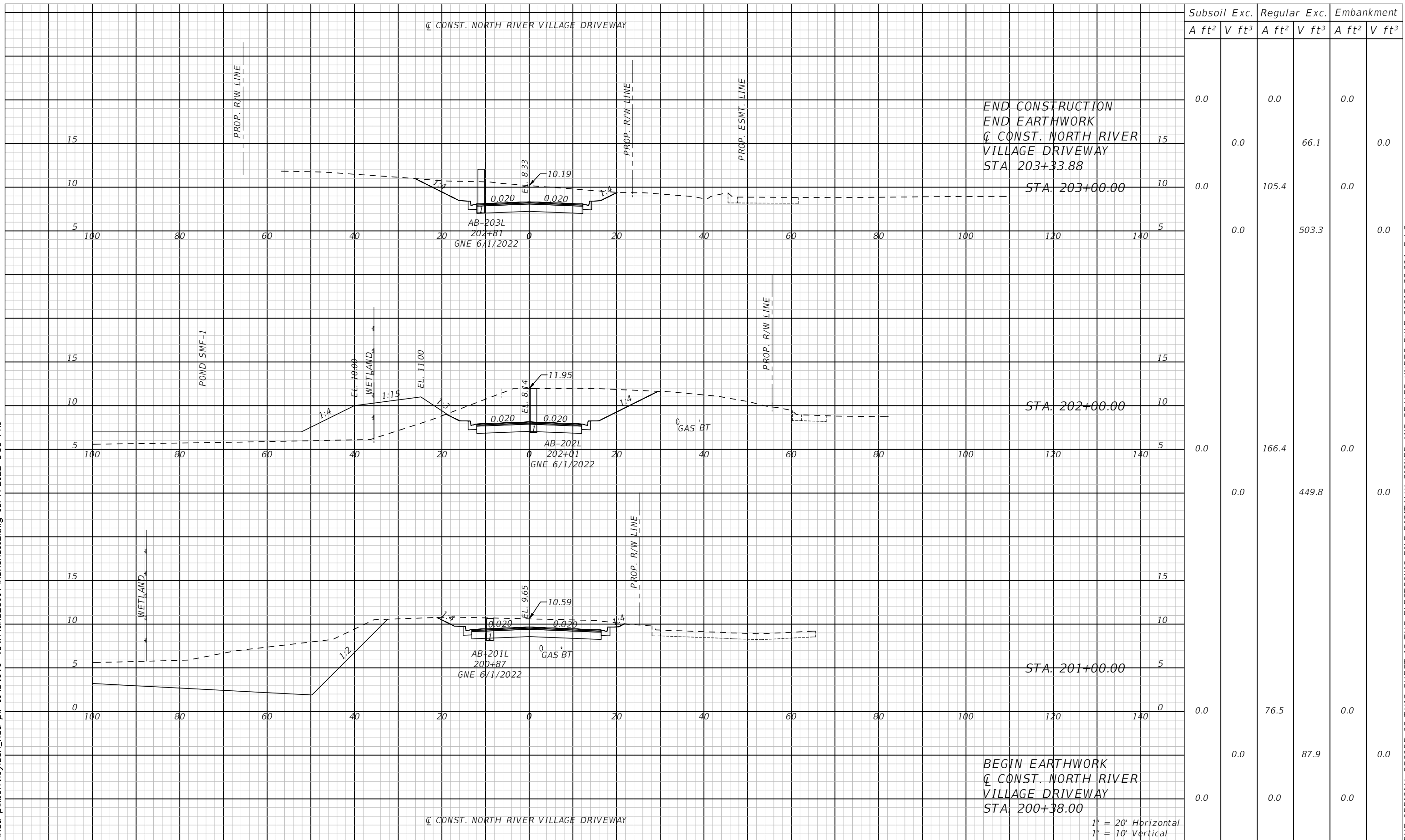
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
ROADWAY CROSS SECTIONS (19)**

SHEET NO.  
65

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Subsoil Exc.		Regular Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	66.1	0.0	0.0	0.0
0.0	105.4	0.0	0.0	0.0	0.0
0.0	0.0	503.3	0.0	0.0	0.0
0.0	0.0	166.4	0.0	0.0	0.0
0.0	0.0	449.8	0.0	0.0	0.0
0.0	0.0	76.5	0.0	0.0	0.0
0.0	0.0	87.9	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/6/22
			4-34S-18E	DRAWN	ST	6/6/22
			SCALE 1:20 H/1:10 V	CHECKED	DHC	6/6/22

DEBORAH HERNANDEZ-CEDEÑO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

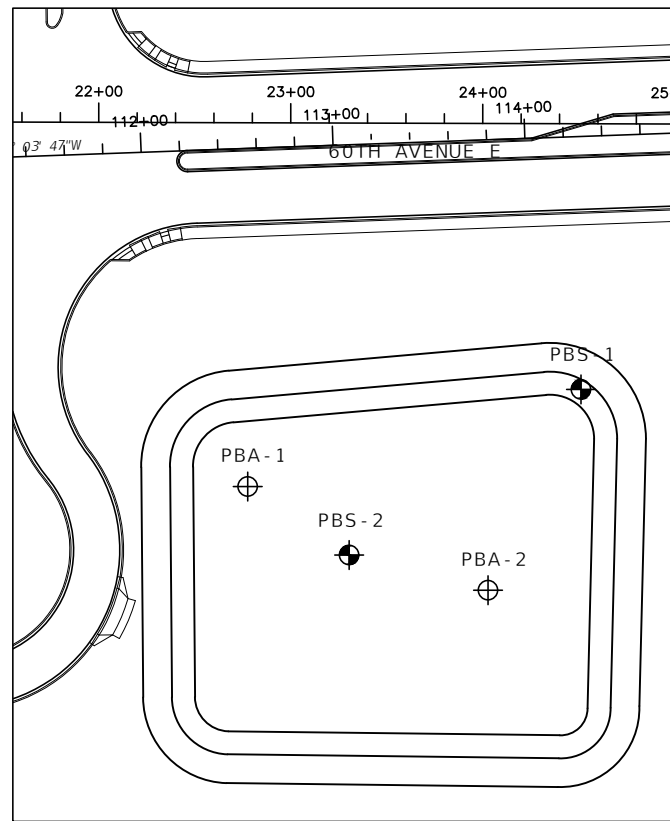


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 ROADWAY CROSS SECTIONS (20)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

# BORING LOCATION PLAN



NOTE: BASE MAP PROVIDED BY KISINGER CAMPO & ASSOCIATES, CORP.

# LEGEND

- 1 LIGHT GRAY TO BROWN FINE SAND (A-3/A-2-4)
- 2 LIGHT GRAY TO BROWN SILTY SAND (A-2-4)
- 3 LIGHT GRAY TO GRAY SILTY SAND TO CLAYEY SAND (A-2-4/A-2-6)
- 4 LIGHT GRAY SILT TO SANDY CLAY (A-4/A-6/A-7-6)
- 5 DARK GRAY ORGANIC SAND TO MUCK (A-8)
- 6 CALCAREOUS CLAY TO WEATHERED LIMESTONE
- 7 LIGHT GRAY CLAY (A-7-6)

A WITH LIMEROCK FRAGMENTS

- ⊕ APPROXIMATE LOCATION OF AUGER BORING
- ⊕ (with dot) APPROXIMATE LOCATION OF SPT BORING
- ▽ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- ▽ (with line) ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
- ▽+ ESTIMATED SEASONAL HIGH GROUNDWATER TABLE IS ABOVE GRADE

- N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)
- A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW
- GNE GROUNDWATER TABLE NOT ENCOUNTERED
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCES
- REFUSAL BORING TERMINATED DUE TO AUGER REFUSAL ON ROCK MATERIAL
- C/L SURVEY CENTERLINE SURVEY 60TH AVENUE EAST
- NAVD NORTH AMERICAN VERTICAL DATUM OF 1988
- \* BORING LOCATED BY SURVEYOR
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON PLASTIC

NOTE: BORING LOCATIONS WERE DETERMINED USING GPS COORDINATES OBTAINED BY TIERRA, INC. IN THE FIELD BY A TIERRA REPRESENTATIVE USING A GPS DEVICE WITH A REPORTED ACCURACY OF APPROXIMATELY +/- 10 FEET UNLESS OTHERWISE NOTED BY AN ASTERISK (\*).

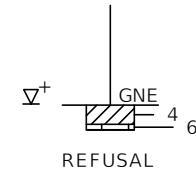
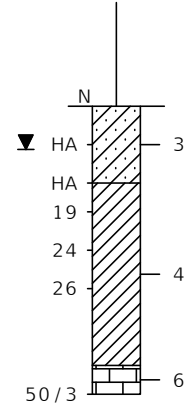
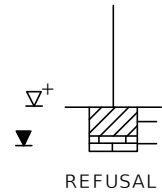
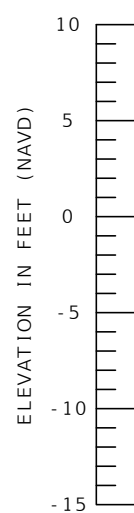
AUTOMATIC HAMMER	
GRANULAR MATERIALS - RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24

BOR # PBA-1\*  
STA. 22+78  
REF. C/L SURVEY  
OFF. 189' RT.  
ELEV. 5.7  
DATE 5/21/2021

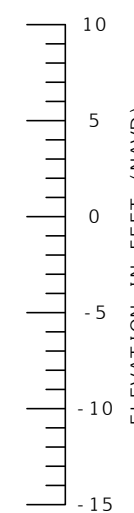
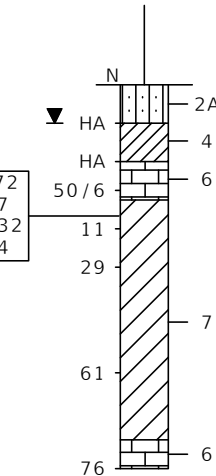
BOR # PBS-2\*  
STA. 23+31  
REF. C/L SURVEY  
OFF. 225' RT.  
ELEV. 5.6  
DATE 5/20/2021  
DRILLER M. ATKINSON  
HAMMER AUTOMATIC  
RIG D-25

BOR # PBA-2\*  
STA. 24+03  
REF. C/L SURVEY  
OFF. 243' RT.  
ELEV. 5.8  
DATE 5/21/2021

BOR # PBS-1\*  
STA. 24+52  
REF. C/L SURVEY  
OFF. 138' RT.  
ELEV. 6.9  
DATE 5/20/2021  
DRILLER M. ATKINSON  
HAMMER AUTOMATIC  
RIG D-25



-200 = 72  
NMC = 67  
LL = 132  
PI = 64



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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	SW	10/2021
			SEC./TWN./RGE	4-34S-18E	DRAWN	SW	10/2021
			SCALE	NTS	CHECKED	MEN	10/2021

MARC E. NOVAK, P.E.  
LICENSE NUMBER 67431  
TIERRA, INC.  
7351 TEMPLE TERRACE HIGHWAY  
TAMPA, FL 33637

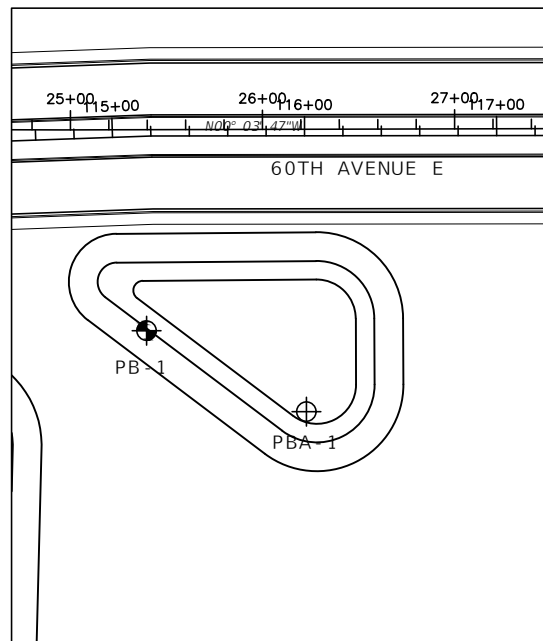


PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND SOIL SURVEY (1)

SHEET NO.  
67

# BORING LOCATION PLAN



NOTE: BASE MAP PROVIDED BY KISINGER CAMPO & ASSOCIATES, CORP.

# LEGEND

- 1 [Symbol] LIGHT GRAY TO BROWN FINE SAND (A-3/A-2-4)
- 2 [Symbol] LIGHT GRAY TO BROWN SILTY SAND (A-2-4)
- 3 [Symbol] LIGHT GRAY TO GRAY SILTY SAND TO CLAYEY SAND (A-2-4/A-2-6)
- 4 [Symbol] LIGHT GRAY SILT TO SANDY CLAY (A-4/A-6/A-7-6)
- 5 [Symbol] DARK GRAY ORGANIC SAND TO MUCK (A-8)
- 6 [Symbol] CALCAREOUS CLAY TO WEATHERED LIMESTONE
- 7 [Symbol] LIGHT GRAY CLAY (A-7-6)

A WITH LIMEROCK FRAGMENTS

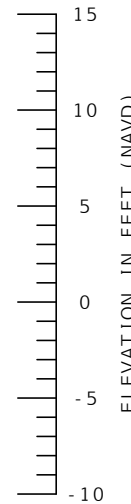
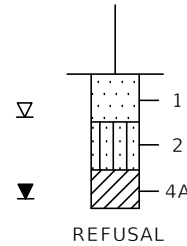
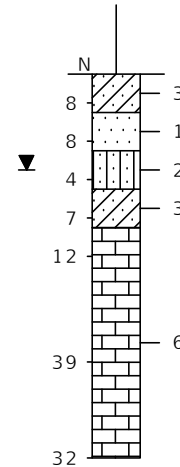
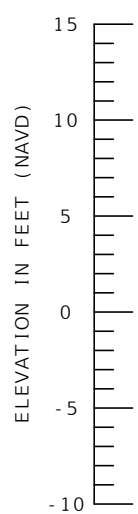
- [Symbol] APPROXIMATE LOCATION OF AUGER BORING
- [Symbol] APPROXIMATE LOCATION OF SPT BORING
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- [Symbol] ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
- [Symbol] ESTIMATED SEASONAL HIGH GROUNDWATER TABLE IS ABOVE GRADE

- N SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)
- A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW
- GNE GROUNDWATER TABLE NOT ENCOUNTERED
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCES
- REFUSAL BORING TERMINATED DUE TO AUGER REFUSAL ON ROCK MATERIAL
- C/L SURVEY CENTERLINE SURVEY 60TH AVENUE EAST
- NAVD NORTH AMERICAN VERTICAL DATUM OF 1988
- \* BORING LOCATED BY SURVEYOR
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON PLASTIC

NOTE: BORING LOCATIONS WERE DETERMINED USING GPS COORDINATES OBTAINED BY TIERRA, INC. IN THE FIELD BY A TIERRA REPRESENTATIVE USING A GPS DEVICE WITH A REPORTED ACCURACY OF APPROXIMATELY +/- 10 FEET UNLESS OTHERWISE NOTED BY AN ASTERISK (\*).

BOR # PB-1  
STA. 114+95  
REF. C/L BASELINE  
ELEV. 12.4  
DATE 11/30/2021  
DRILLER B. CRAIG  
HAMMER AUTOMATIC  
RIG D-25

BOR # PBA-1\*  
STA. 116+01  
REF. C/L BASELINE  
ELEV. 12.4  
DATE 1/18/2022



AUTOMATIC HAMMER	
GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	SW	10/2021
			SEC./TWN./RGE	4-34S-18E	DRAWN	SW	10/2021
			SCALE	NTS	CHECKED	MEN	10/2021

MARC E. NOVAK, P.E.  
LICENSE NUMBER 67431  
TIERRA, INC.  
7351 TEMPLE TERRACE HIGHWAY  
TAMPA, FL 33637

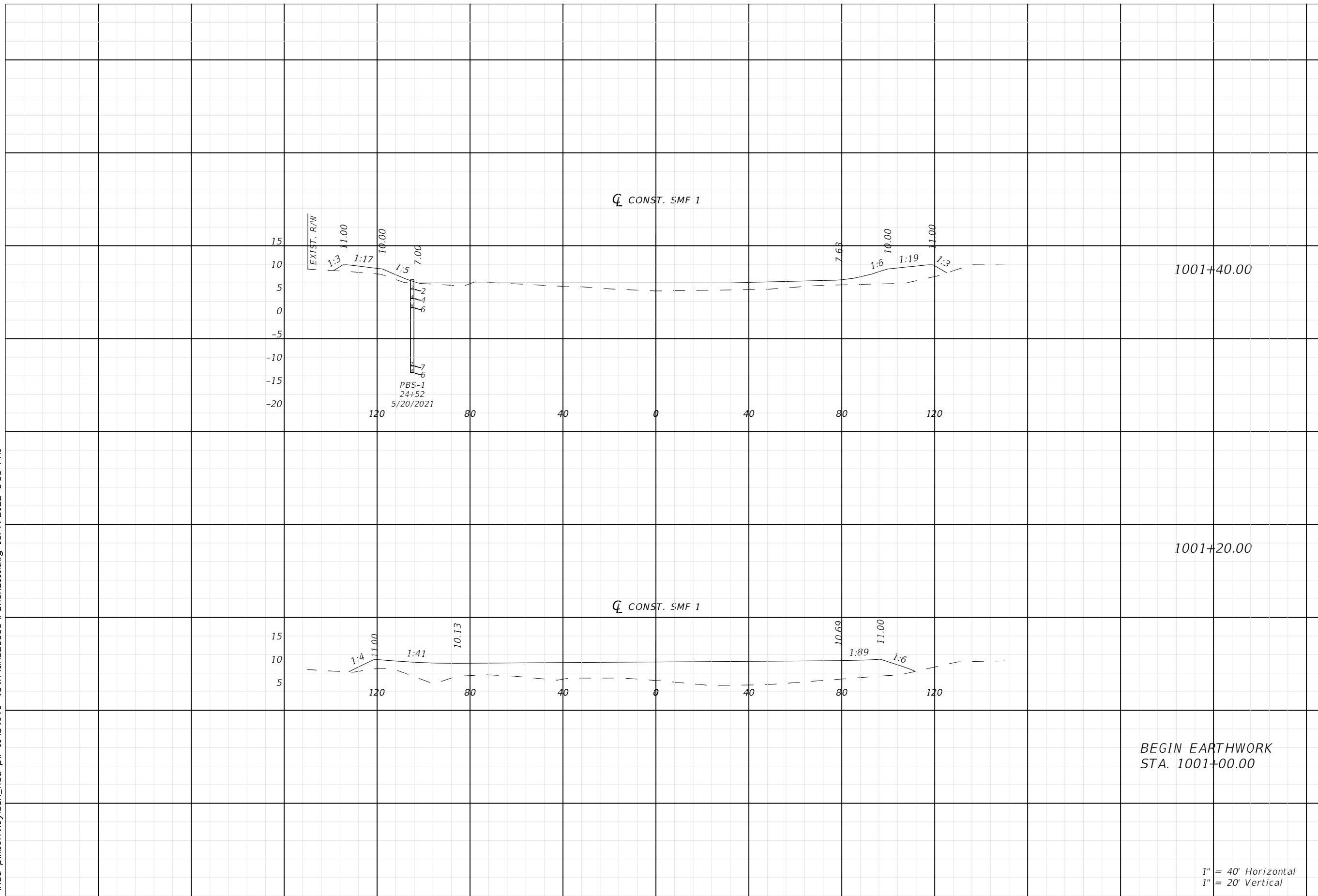


PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND SOIL SURVEY (2)



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Regular		Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
1.0				332.7	
	0.4				442.7
0.0				862.5	
	0.0				319.4
0.0				0.0	

BEGIN EARTHWORK  
STA. 1001+00.00

1" = 40' Horizontal  
1" = 20' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=40'H/1"=20'V	CHECKED	CS	6/7/22

CURTIS SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE. 400  
TAMPA, FL 33602

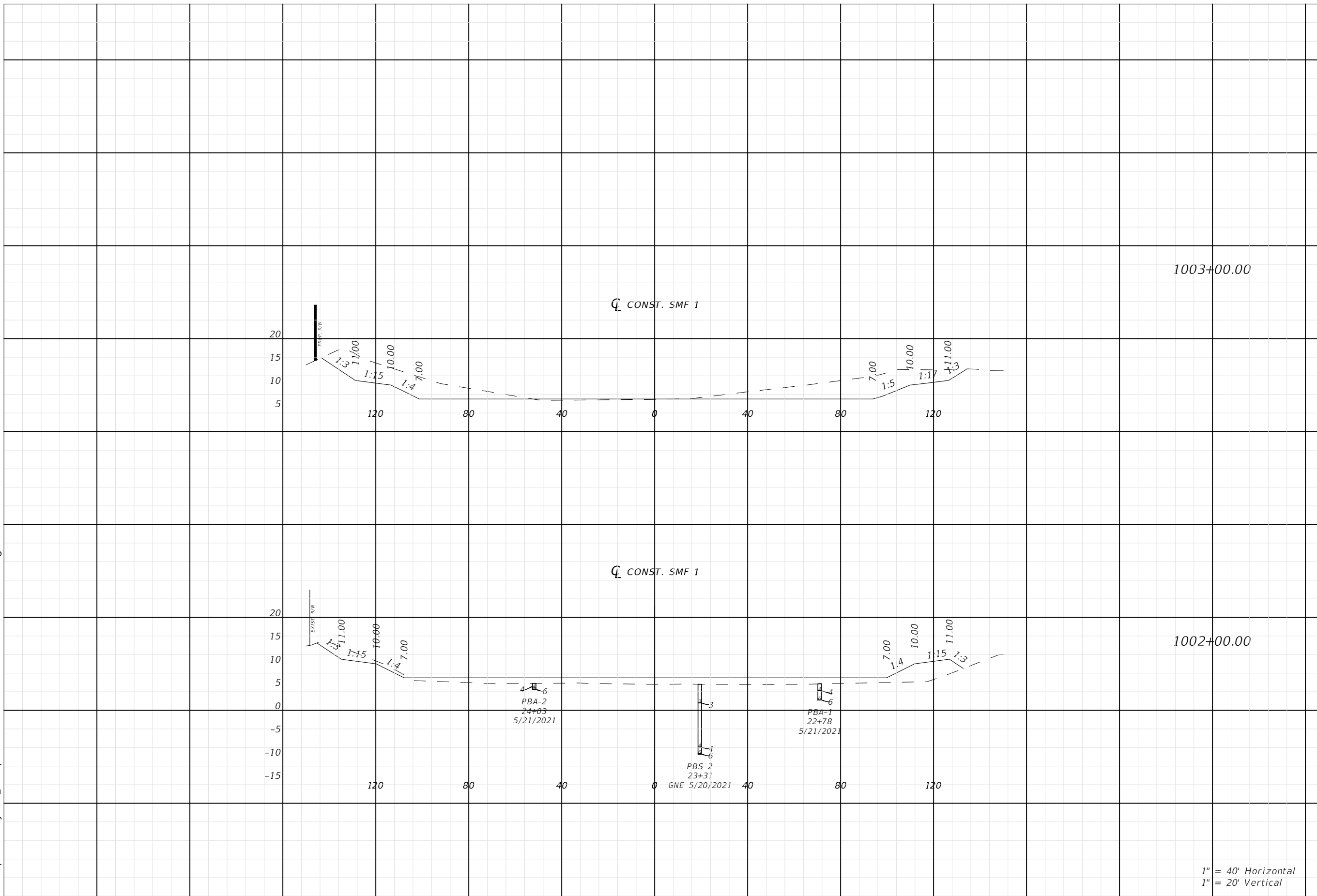


**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND CROSS SECTIONS (1)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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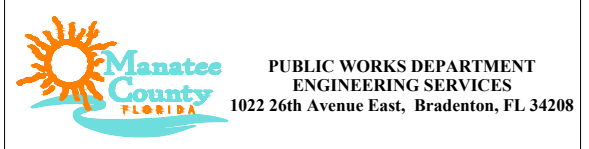


Regular		Exc.		Embankment	
A	V	A	V	A	V
ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>
594.5	1197.4			10.2	661.7
52.1	59.0			347.2	755.4

1" = 40' Horizontal  
1" = 20' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=40'H/1"=20'V	CHECKED	CS	6/7/22

CURTIS SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE. 400  
TAMPA, FL 33602



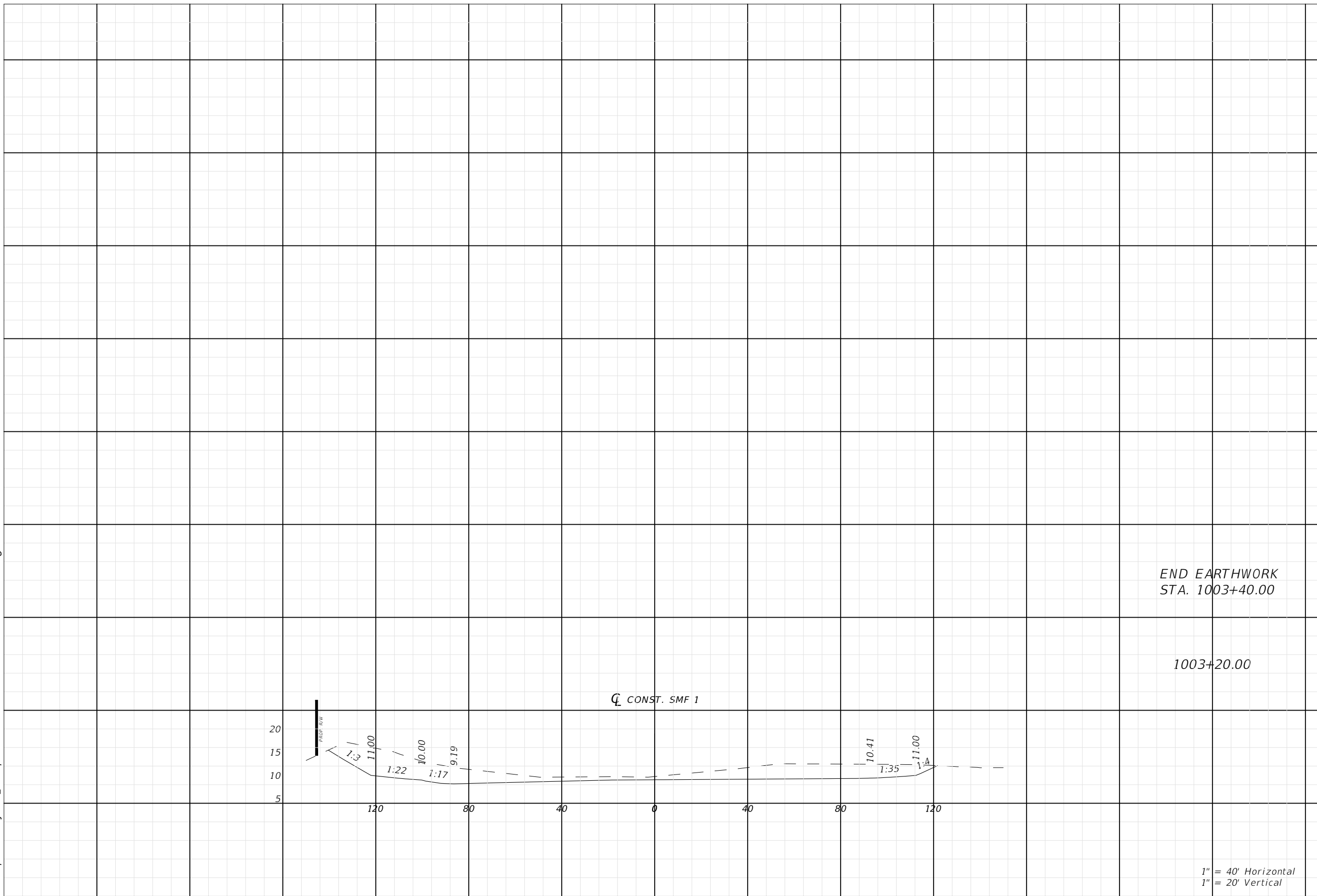
60TH AVE. EAST FROM US 501 TO MENDOZA RD.  
POND CROSS SECTIONS (2)

SHEET NO.  
70

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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END EARTHWORK  
STA. 1003+40.00

1003+20.00

CONST. SMF 1

1" = 40' Horizontal  
1" = 20' Vertical

Regular		Exc.		Embankment	
A	V	A	V	A	V
ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>
0.0				0.0	
	240.2			0.0	
648.4				0.0	
	460.4			0.0	

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=40'H/1"=20'V	CHECKED	CS	6/7/22

CURTIS SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE. 400  
TAMPA, FL 33602



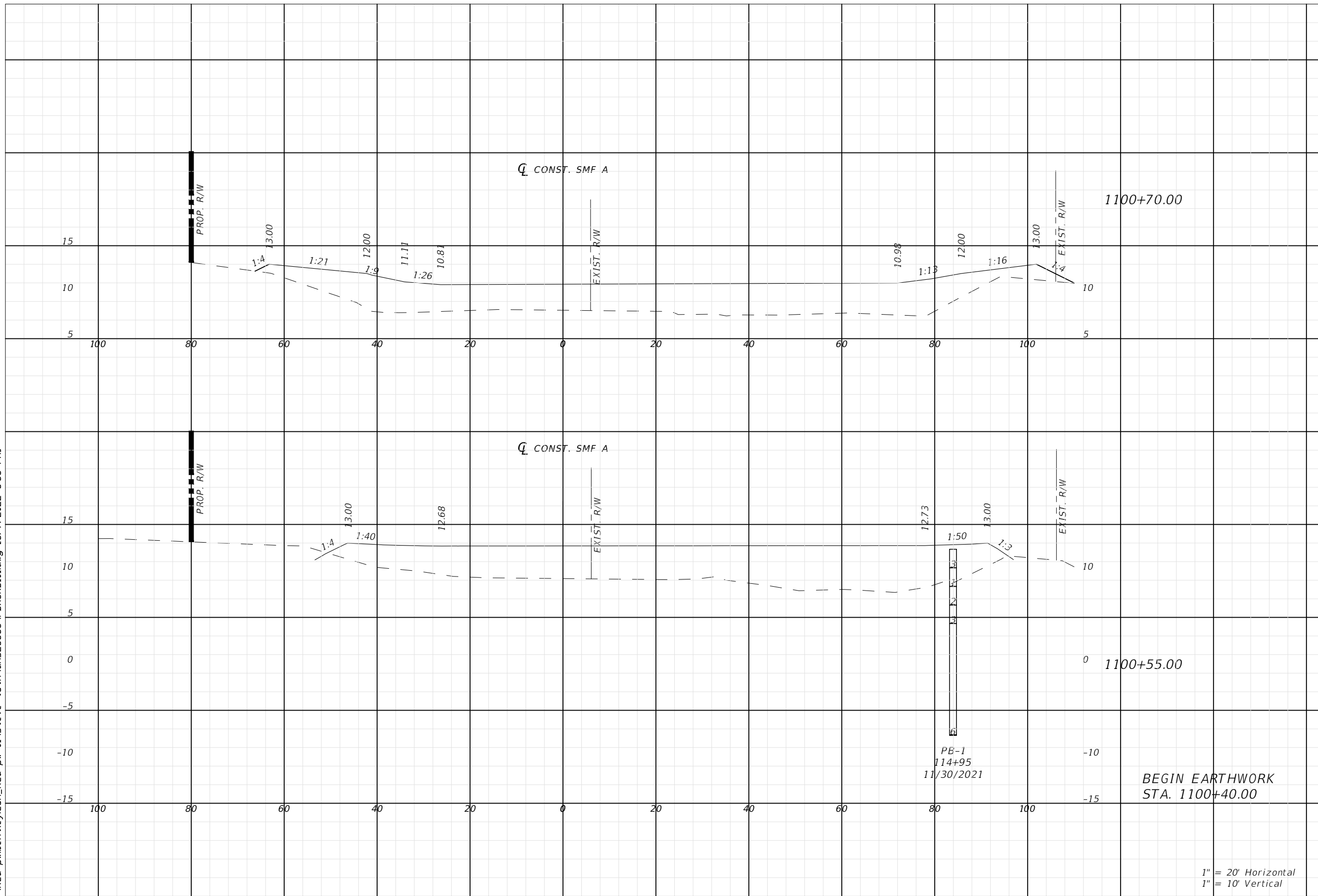
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND CROSS SECTIONS (5)

SHEET NO.  
71

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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Regular		Exc.		Embankment	
A	V	A	V	A	V
ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>
0.0				482.5	
	0.0				278.6
0.0				520.5	
	0.0				144.6
0.0				0.0	

BEGIN EARTHWORK  
STA. 1100+40.00

1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	CS	6/7/22

CURTIS SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE. 400  
TAMPA, FL 33602

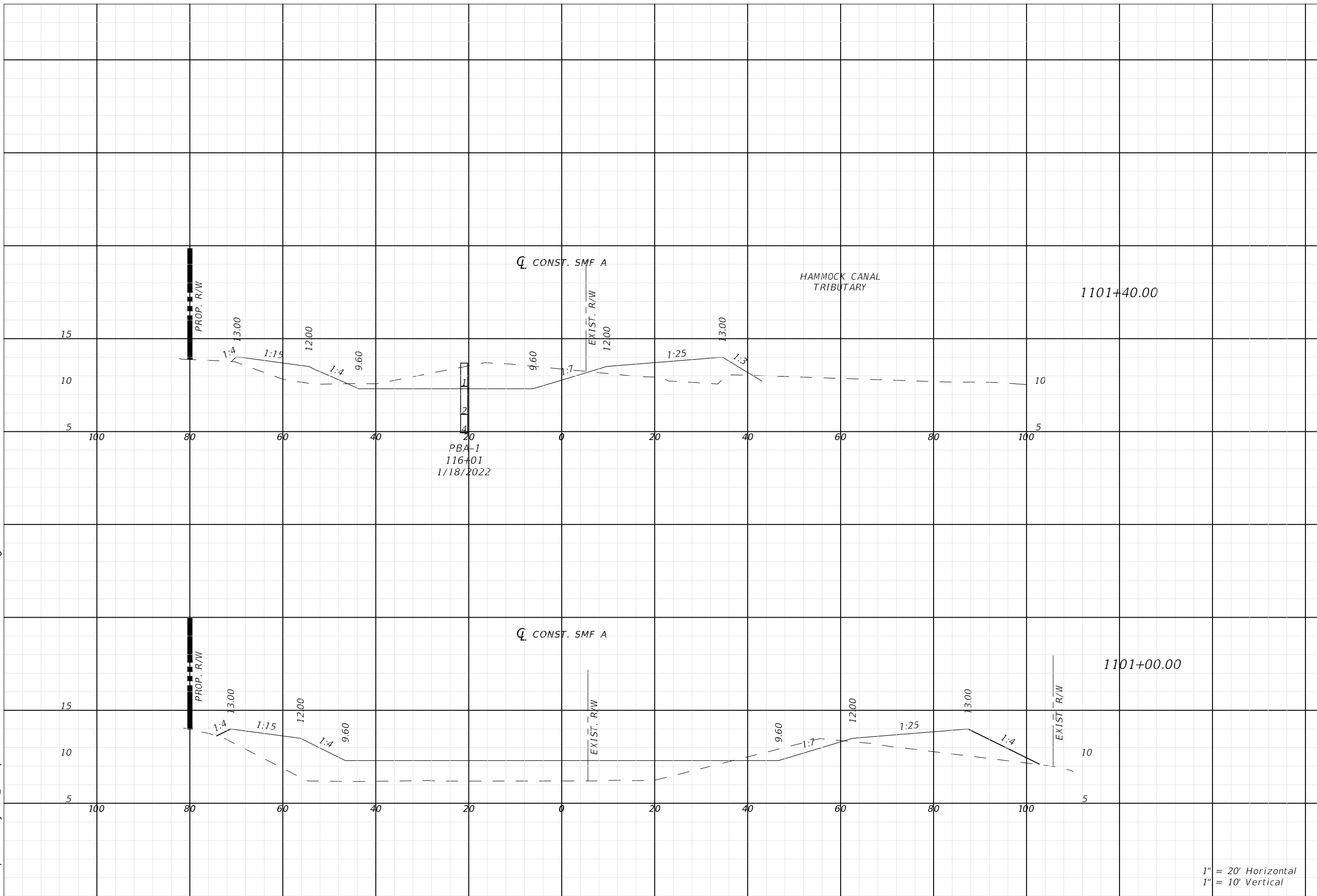


**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND CROSS SECTIONS (4)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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Regular		Exc.		Embankment	
A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>	A ft <sup>2</sup>	V ft <sup>3</sup>
83.9	76.0			83.8	286.6
18.7	10.4			303.2	436.5

1" = 20' Horizontal  
1" = 10' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	CS	6/7/22

CURTIS SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE. 400  
TAMPA, FL 33602



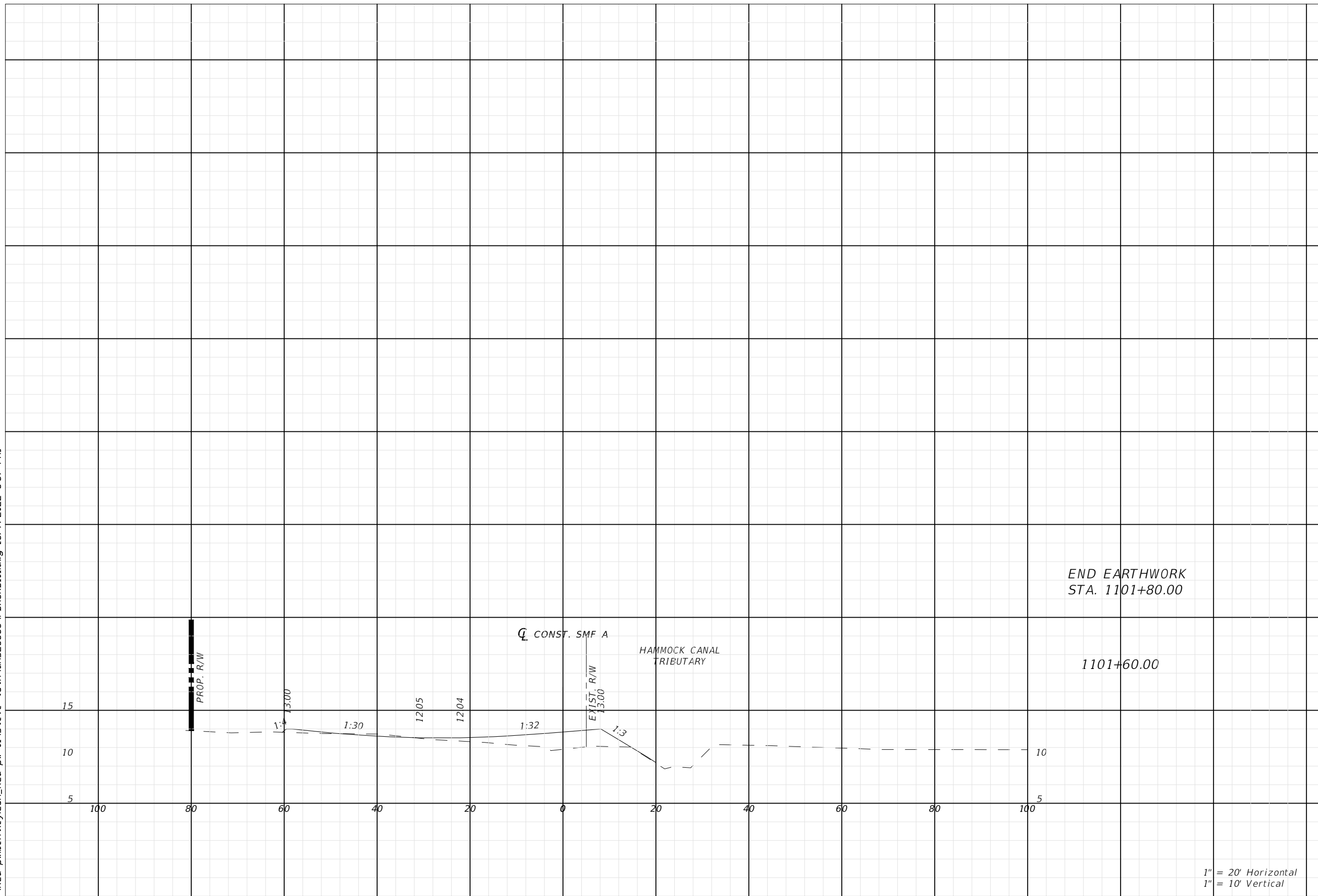
**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND CROSS SECTIONS (5)

SHEET NO.  
73

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END EARTHWORK  
STA. 1101+80.00

1101+60.00

1" = 20' Horizontal  
1" = 10' Vertical

Regular		Exc.		Embankment	
A	V	A	V	A	V
ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>	ft <sup>2</sup>	ft <sup>3</sup>
0.0		0.0			
1.9	0.7	48.5	18.0		
31.8		49.0			

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	TB	6/7/22
			4-34S-18E	DRAWN	TB	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	CS 6/7/22

CURTIS SPRUNGER, P.E.  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN ST. STE. 400  
TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
MENDOZA RD.  
POND CROSS SECTIONS (6)

SHEET NO.  
74

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THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN CONTAINS REFERENCES TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (CALLED THE KEY SHEET) CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN REQUIRED BY SPECIFICATION SECTION 104, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1.0 SITE DESCRIPTION:

1.A. NATURE OF CONSTRUCTION ACTIVITY:

THE PROJECT IS RECONSTRUCTION FROM THE INTERSECTION OF US 301 AND 60TH AVE TO 26TH ST. E. THE PROJECT WILL ALSO BE CONSTRUCTING NEW SIDEWALK FROM US 301 TO MENDOZA RD.

1.B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:

IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

1. CLEARING AND GRUBBING, EARTHWORK, AND STORM DRAIN CONSTRUCTION FOR THE OUTFALL FROM THE PONDS.

2. CLEARING AND GRUBBING, EARTHWORK FOR POND CONSTRUCTION.

3. STORM DRAIN AND ROADWAY UNDERDRAIN CONSTRUCTION.

4. EARTHWORK ASSOCIATED WITH THE CONSTRUCTION OF ROADWAY, GRAVITY WALL, CURB, SUBGRADE, BASE, PAVEMENT, AND SIDEWALK.

5. CONSTRUCT UNDERDRAIN IN POND BOTTOM.

1.A. AREA ESTIMATES:

TOTAL SITE AREA: 9.2 ACRES  
 TOTAL AREA TO BE DISTURBED: 9.2 ACRES

1.B. RUNOFF DATA:

RUNOFF COEFFICIENTS:

BEFORE: 0.62  
 DURING: VARIES FROM 0.62 TO 0.76  
 AFTER: 0.76

SOILS DATA: THE RESULTS OF THE SOIL BORINGS ALONG THE ROADWAY ARE SHOWN IN THE ROADWAY SOIL SURVEY SHEET(S). THE FOLLOWING LISTS THE SOIL TYPES WITHIN THE PROJECT SITE:

- 5 - BRADENTON FINE SAND
- 13 - CHOBEE LOAMY FINE SAND
- 42 - POMELLO FINE SAND
- 48 - WABASSO FINE SAND

OUTFALL INFORMATION:

THERE IS 1 OUTFALL.

#1 DESCRIPTION: EXISTING CROSSDRAIN AT US 301.

LOCATION: LATITUDE 27° 31' 54" N,  
 LONGITUDE, 82° 30' 10" W.  
 EST. DRAINAGE AREA SIZE: 9.3 ACRES  
 RECEIVING WATER NAME: MANATEE RIVER

1.A. SITE MAP:

THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE KEY SHEET OF THESE CONSTRUCTION PLANS.

\* DRAINAGE PATTERNS: THE DRAINAGE BASIN DIVIDES AND FLOW DIRECTIONS ARE SHOWN ON THE DRAINAGE MAPS.

\* APPROXIMATE SLOPES: THE SLOPES OF THE SITE CAN BE SEEN IN THE CROSS SECTION SHEETS AND THE PLAN-PROFILE SHEETS. THERE ARE POND CROSS SECTIONS LOCATED WITH THE POND DETAIL SHEETS.

\*AREAS OF SOIL DISTURBANCE: THE AREAS TO BE DISTURBED ARE INDICATED ON THE PLAN-PROFILE SHEETS, THE CROSS SECTION SHEETS, AND THE POND DETAIL SHEETS. ANY AREAS WHERE PERMANENT FEATURES ARE SHOWN TO BE CONSTRUCTED ABOVE OR BELOW GROUND WILL BE DISTURBED.

\*AREAS NOT TO BE DISTURBED: WETLANDS SHOULD NOT BE DISTURBED AND WILL BE PROTECTED BY EROSION CONTROL. THE EROSION CONTROL PLAN SHOWS THE LIMIT OF CONSTRUCTION AND TYPE OF EROSION CONTROL TO BE USED IN THESE AREAS.

\*LOCATIONS OF TEMPORARY CONTROLS: THESE ARE SHOWN ON THE PLAN SHEETS. TABLES PROVIDING SUMMARIES OF TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS ARE PROVIDED IN THE SUMMARY OF QUANTITY SHEETS.

\*LOCATIONS OF PERMANENT CONTROLS: THE STORMWATER PONDS ARE THE PRIMARY PERMANENT STORMWATER MANAGEMENT CONTROLS. THESE ARE SHOWN ON THE POND DETAIL SHEETS.

\* AREAS TO BE STABILIZED: TEMPORARY STABILIZATION PRACTICES ARE SHOWN IN THE SAME LOCATION AS THE TEMPORARY CONTROLS MENTIONED ABOVE. PERMANENT STABILIZATION IS SHOWN ON THE TYPICAL SECTION SHEETS, THE PLAN-PROFILE SHEETS AND THE POND DETAIL SHEETS.


\* SURFACE WATERS: THE ONLY SURFACE WATER WITHIN THE SITE IS A CANAL, WHICH FLOWS THROUGH THE CULVERTS AT STATION 111+80 AND STATION 116+58. THIS IS LOCATED ON THE PLAN-PROFILE SHEETS AND THE BOX CULVERT CONSTRUCTION DETAIL SHEET.

1.F. RECEIVING WATERS:

60TH AVE. RUNOFF WILL BE CONVEYED ALONG THE CORRIDOR VIA STORMWATER PIPES AND A CANAL WHICH ULTIMATELY FLOWS INTO THE MANATEE RIVER AND THEN INTO TAMPA BAY. THE MANATEE RIVER (WBID 1848B) IS LISTED AS IMPAIRED FOR NUTRIENTS AND TAMPA BAY (WBID 1558A) IS LISTED IMPAIRED FOR BACTERIA. THEREFORE, THIS PROJECT MUST DEMONSTRATE NO INCREASE IN POLLUTANT LOADING TO THE MANATEE RIVER AND TAMPA BAY.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	1/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	1/2022
			SCALE	NTS	CHECKED	CS	1/2022

CURT SPRUNGER, P.E.  
 P.E. LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301  
 TO MENDOZA RD.**  
 STORMWATER POLLUTION PREVENTION PLAN (1)

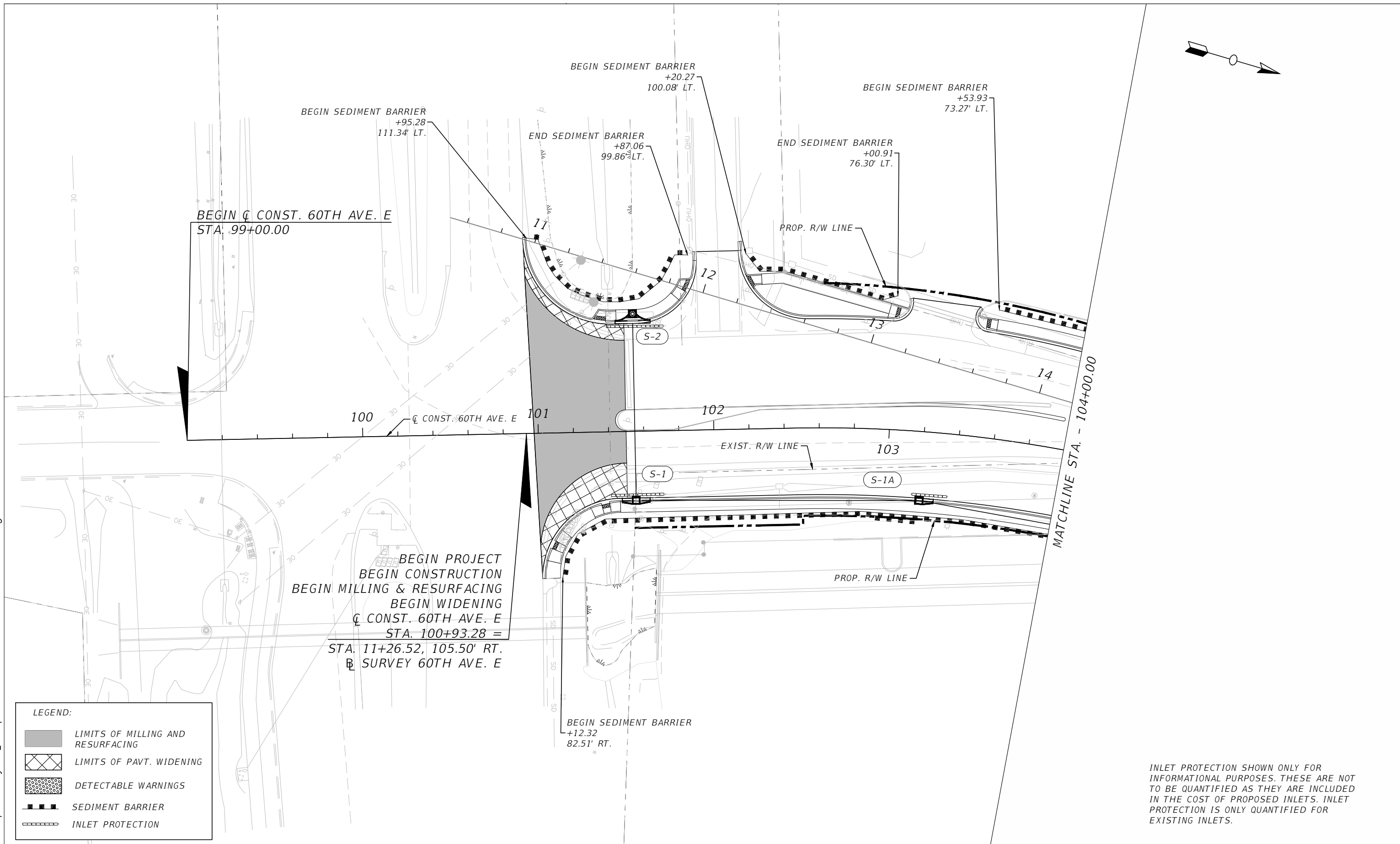
SHEET NO.  
 75

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BEGIN PROJECT  
 BEGIN CONSTRUCTION  
 BEGIN MILLING & RESURFACING  
 BEGIN WIDENING  
 CL CONST. 60TH AVE. E  
 STA. 100+93.28 =  
 STA. 11+26.52, 105.50' RT.  
 SURVEY 60TH AVE. E

LEGEND:

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS
	SEDIMENT BARRIER
	INLET PROTECTION

INLET PROTECTION SHOWN ONLY FOR INFORMATIONAL PURPOSES. THESE ARE NOT TO BE QUANTIFIED AS THEY ARE INCLUDED IN THE COST OF PROPOSED INLETS. INLET PROTECTION IS ONLY QUANTIFIED FOR EXISTING INLETS.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

CURTIS A. SPRUNGER, P.E. LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



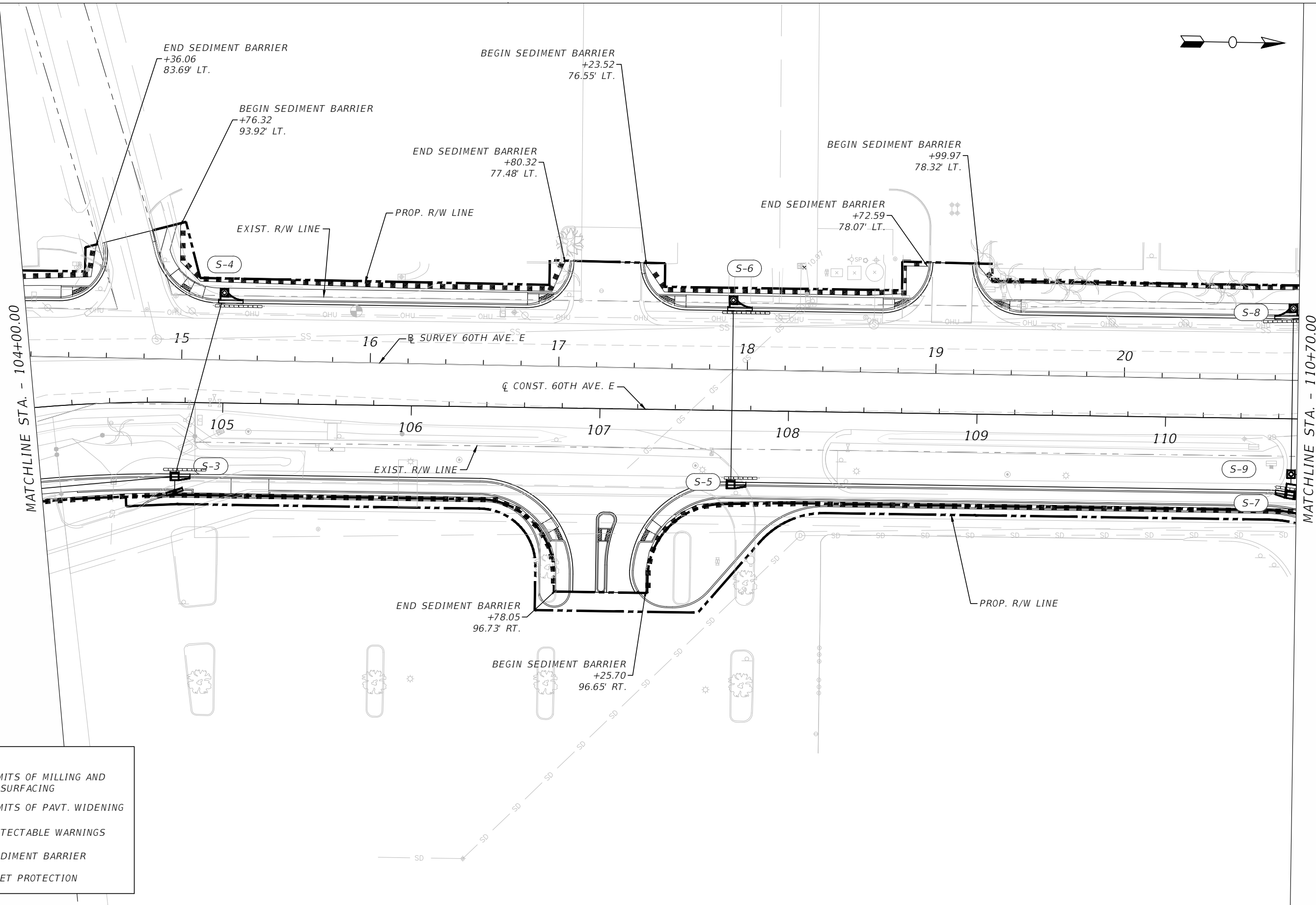
PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 EROSION CONTROL PLAN (1)

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**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS
	SEDIMENT BARRIER
	INLET PROTECTION

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

CURTIS A. SPRUNGER, P.E. LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

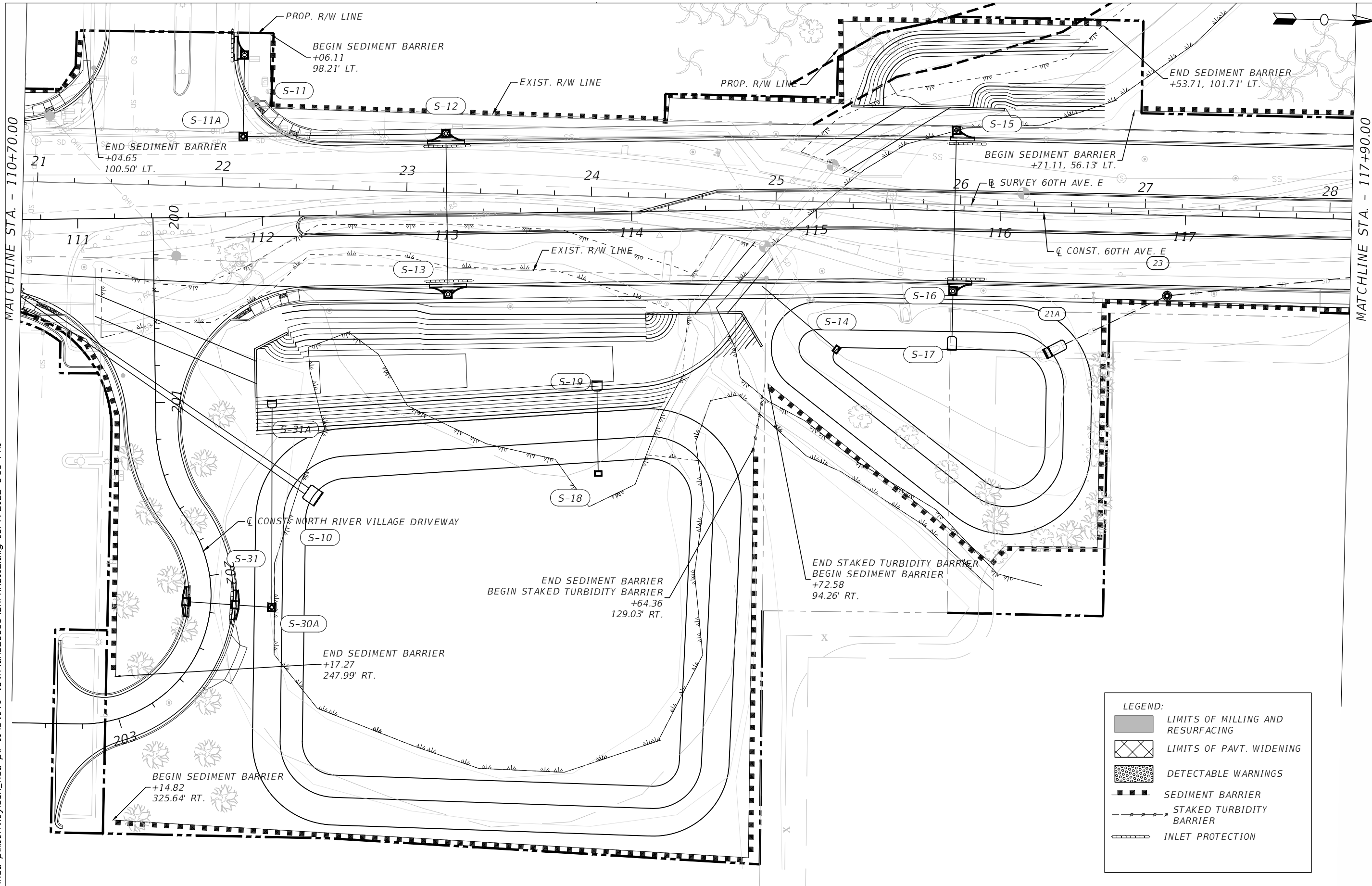


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 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208







60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 EROSION CONTROL PLAN (2)

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**LEGEND:**

-  LIMITS OF MILLING AND RESURFACING
-  LIMITS OF PAVT. WIDENING
-  DETECTABLE WARNINGS
-  SEDIMENT BARRIER
-  STAKED TURBIDITY BARRIER
-  INLET PROTECTION

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

CURTIS A. SPRUNGER, P.E. LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

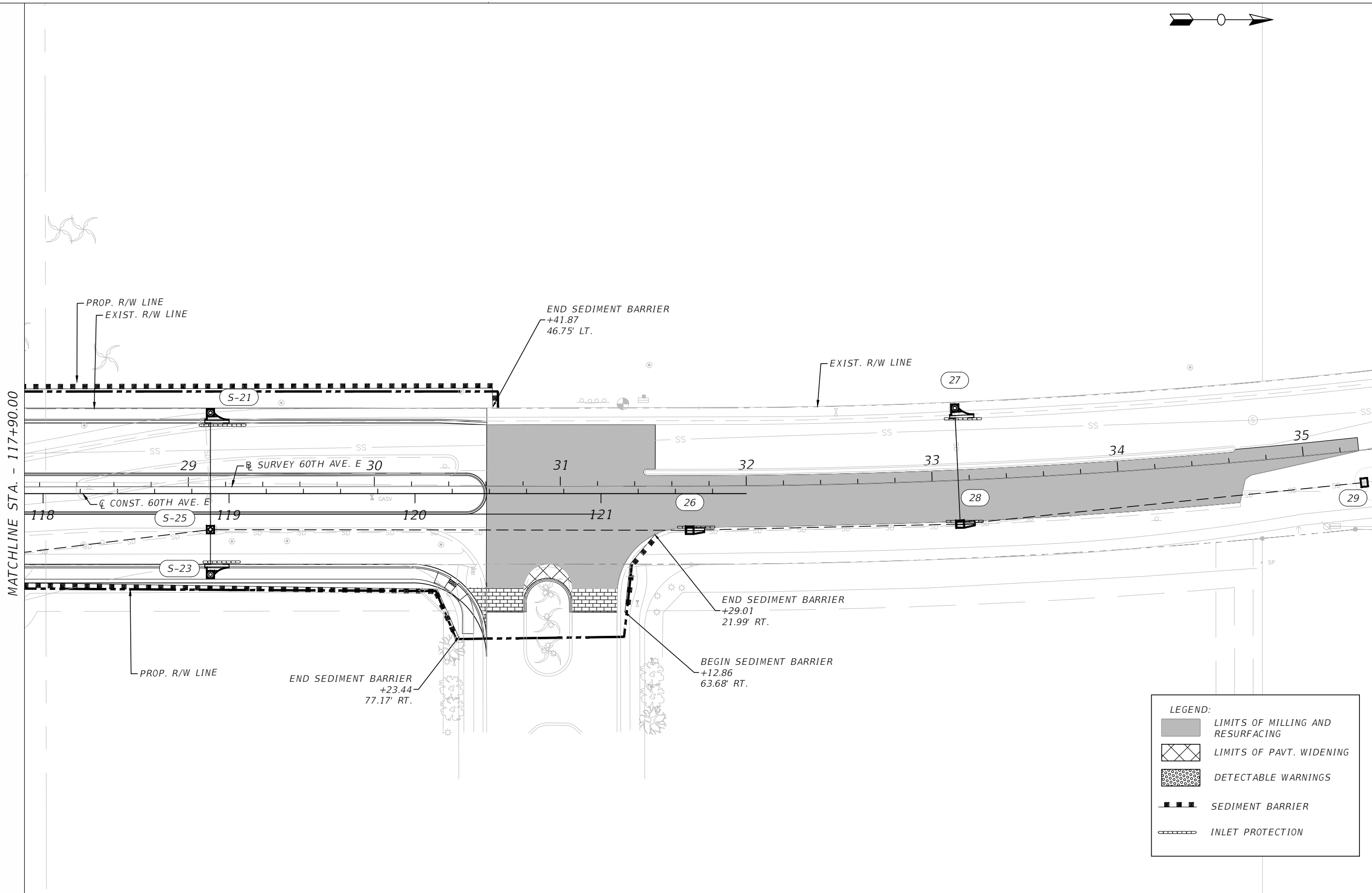


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 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 EROSION CONTROL PLAN (5)

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MATCHLINE STA. - 117+90.00

**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS
	SEDIMENT BARRIER
	INLET PROTECTION

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

CURTIS A. SPRUNGER, P.E. LICENSE NUMBER 66524  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



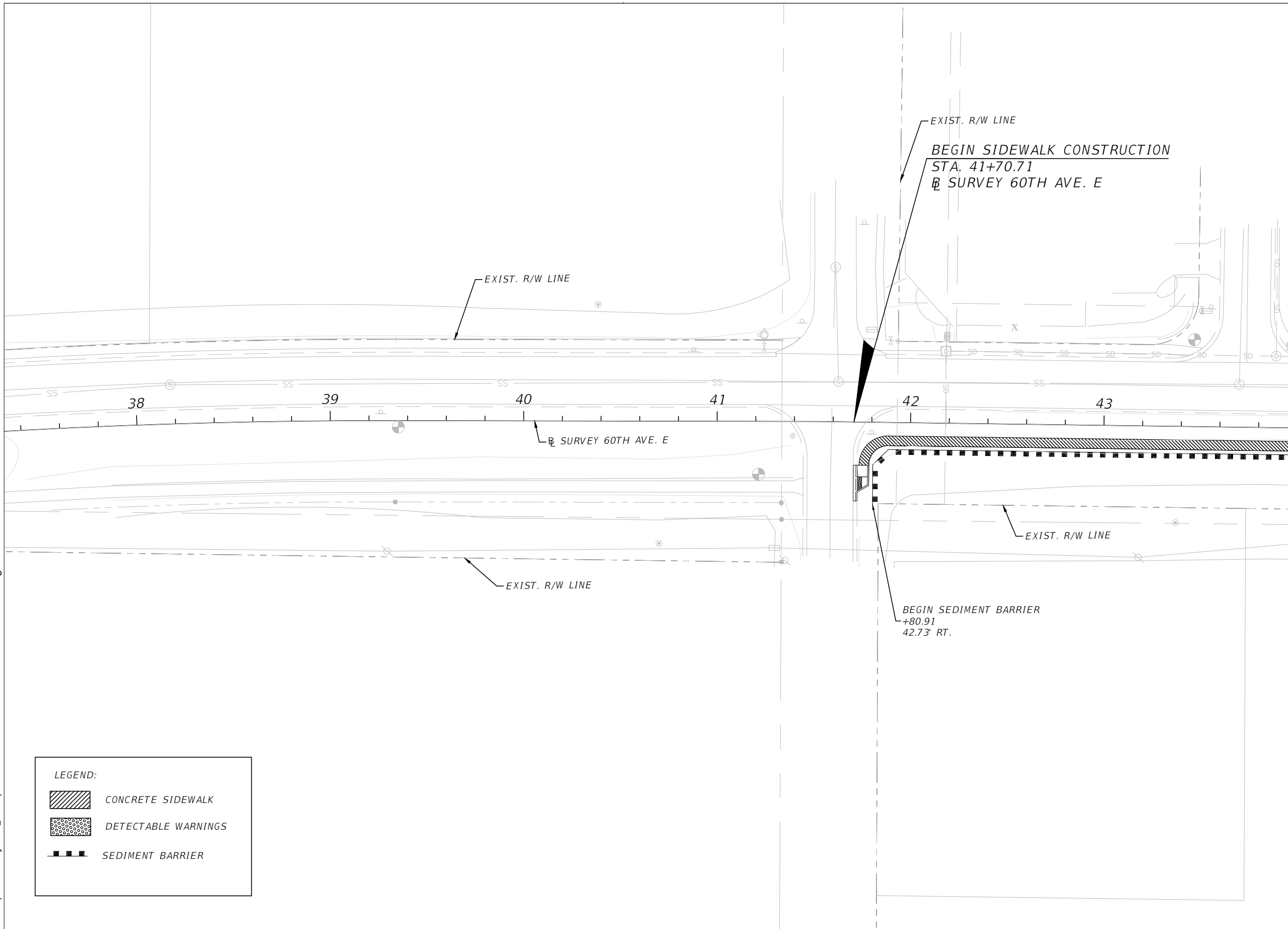
PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO MENDOZA RD.  
 EROSION CONTROL PLAN (4)




SHEET NO.  
 81

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**LEGEND:**

	CONCRETE SIDEWALK
	DETECTABLE WARNINGS
	SEDIMENT BARRIER

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

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 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



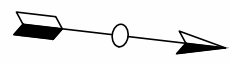
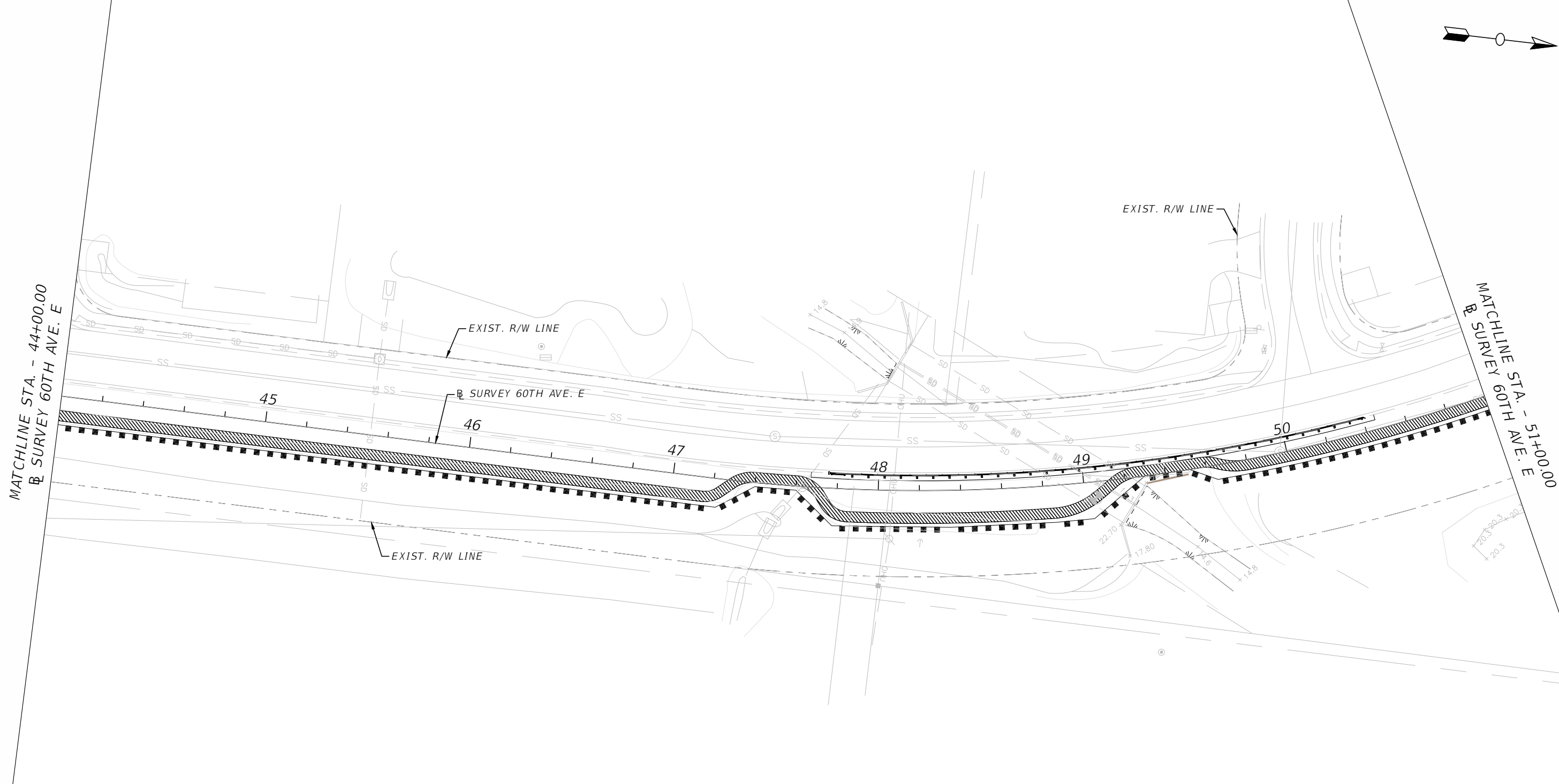
PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 EROSION CONTROL PLAN (5)




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 82

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**LEGEND:**

	CONCRETE SIDEWALK
	SEDIMENT BARRIER
	STAKED TURBIDITY BARRIER

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

CURTIS A. SPRUNGER, P.E. LICENSE NUMBER 66524  
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**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 EROSION CONTROL PLAN (6)

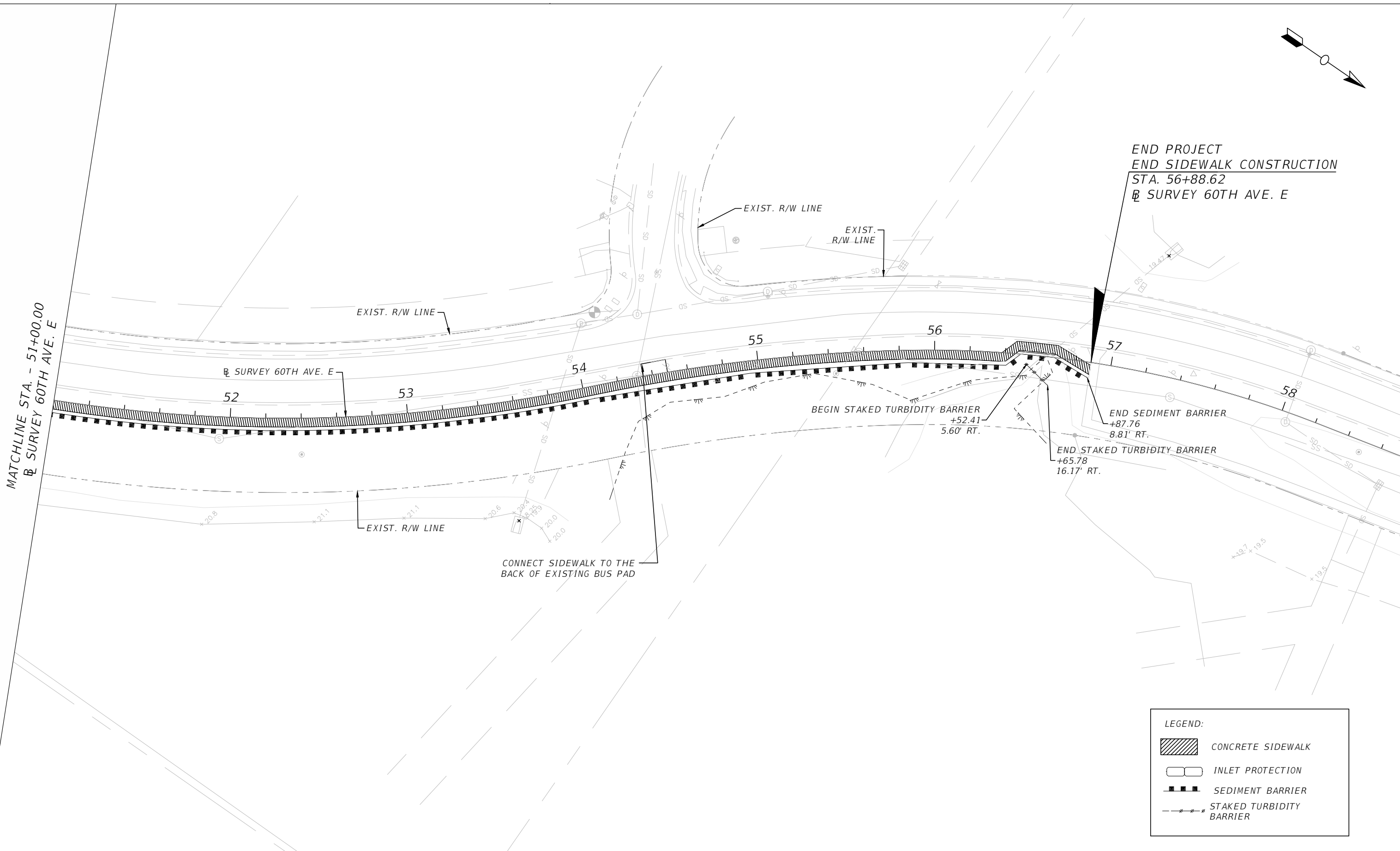
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
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MATCHLINE STA. - 51+00.00  
 @ SURVEY 60TH AVE. E

END PROJECT  
 END SIDEWALK CONSTRUCTION  
 STA. 56+88.62  
 @ SURVEY 60TH AVE. E



**LEGEND:**

-  CONCRETE SIDEWALK
-  INLET PROTECTION
-  SEDIMENT BARRIER
-  STAKED TURBIDITY BARRIER

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TB	6/6/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	6/6/22
			SCALE	1" = 50'	CHECKED	CS	6/6/22

CURTIS A. SPRUNGER, P.E. LICENSE NUMBER 66524  
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 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 EROSION CONTROL PLAN (7)


THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES

1. MAINTAIN THE EXISTING POSTED 30 MPH SPEED LIMIT ON 60TH AVE. E. AT ALL TIMES. MAINTAIN TRAFFIC ON SIDE STREETS USING FDOT STANDARD PLANS, INDEX 102-600 SERIES, WHENEVER WORK OCCURS WITHIN OR ADJACENT TO THE SIDE STREET.
2. LANE CLOSURES ARE NOT ALLOWED ON 60TH AVE. E BETWEEN X:00 AM AND X:00 PM. LANE CLOSURES SHALL OCCUR ONLY DURING ACTIVE WORK PERIODS AND BE APPROVED BY THE ENGINEER AND MANATEE COUNTY. ALL ROAD/LANE CLOSURES SHALL MEET THE REQUIREMENTS OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS SECTION 3.1.4 ROAD CLOSURE PROCEDURES.
3. THE TEMPORARY TRAFFIC CONTROL (TTC) PLAN SHEETS INCLUDED AS PART OF THIS CONTRACT DOCUMENT IS CONCEPTUAL ONLY, FOR ILLUSTRATION PURPOSES. DO NOT CONSTRUCT FROM THE TTC PLAN SHEETS. THE CONTRACTOR MAY DEVELOP THEIR OWN TTC CONCEPT.
4. PREPARE A TTC PLAN IN CONFORMANCE WITH AND IN THE FORM OUTLINED IN THE CURRENT VERSION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN MANUAL. PROVIDE TTC PLAN DETAILS FOR EACH PHASE OF ACTIVITIES. THE CONTRACTOR'S ENGINEER OF RECORD, A FLORIDA LICENSED PROFESSIONAL ENGINEER CERTIFIED IN FLORIDA ADVANCED TRAFFIC CONTROL DESIGN SHALL SIGN AND SEAL THE TTC PLAN AND SUBMIT TO THE ENGINEER FOR APPROVAL. DO NOT BEGIN CONSTRUCTION UNTIL THE TTC PLAN IS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS, DELAYS OR DAMAGES, WHETHER DIRECT OR INDIRECT, RESULTING FROM THE TTC PLAN.
5. MAINTAIN ALL EXISTING WARNING, GUIDE, AND REGULATORY SIGNS AT ALL TIMES. COVER, RELOCATE, OR REMOVE SIGNS FOR THE TRAFFIC CONTROL PATTERN OF EACH PHASE AS APPROVED BY THE ENGINEER.
6. ARROWS SHOWN IN TRAFFIC CONTROL PLANS INDICATE DIRECTION OF TRAFFIC AND DO NOT REPRESENT PAVEMENT MARKINGS UNLESS OTHERWISE NOTED.
7. RETAIN A SELF-CONTAINED VACUUM-TYPE MOBILE BROOM ON THE PROJECT SITE FOR CLEANUP OF DUST AND DEBRIS DURING MILLING OPERATIONS.
8. DO NOT EXCAVATE ANY AREAS THAT CANNOT BE SAFELY REOPENED TO TRAFFIC WITHIN THE SAME WORK PERIOD.
9. MAINTAIN VISIBLE STREET NAME IDENTIFICATION DURING CONSTRUCTION OPERATIONS TO FACILITATE EMERGENCY VEHICLE OPERATIONS.
10. CONTROL SIDE STREET AND DRIVEWAY TRAFFIC DURING CONSTRUCTION OPERATIONS USING FLAGGERS PER FDOT STANDARD PLANS, INDEX 102-600 SERIES.

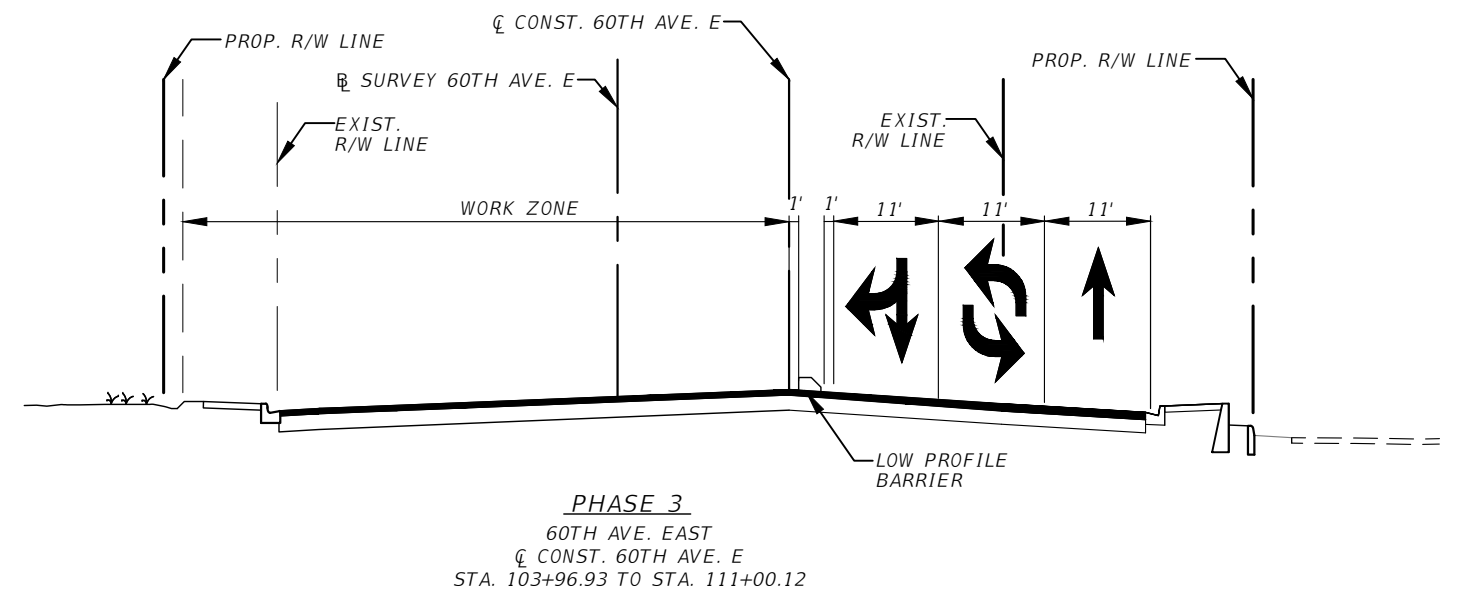
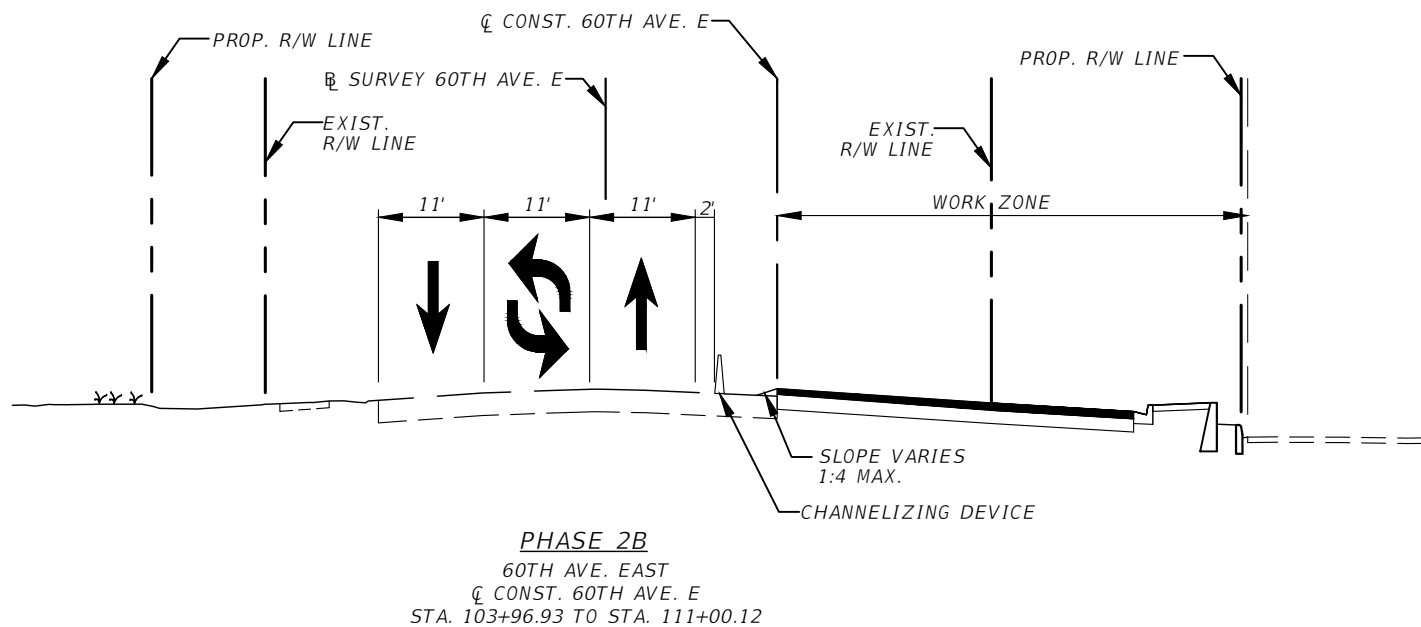
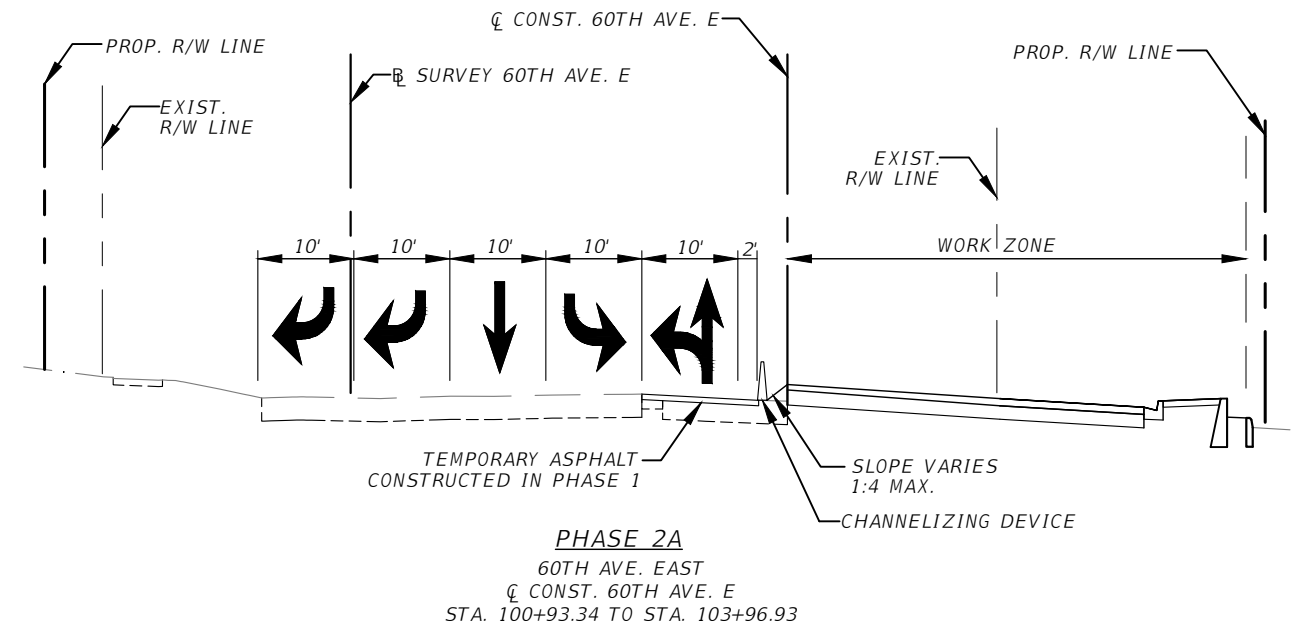
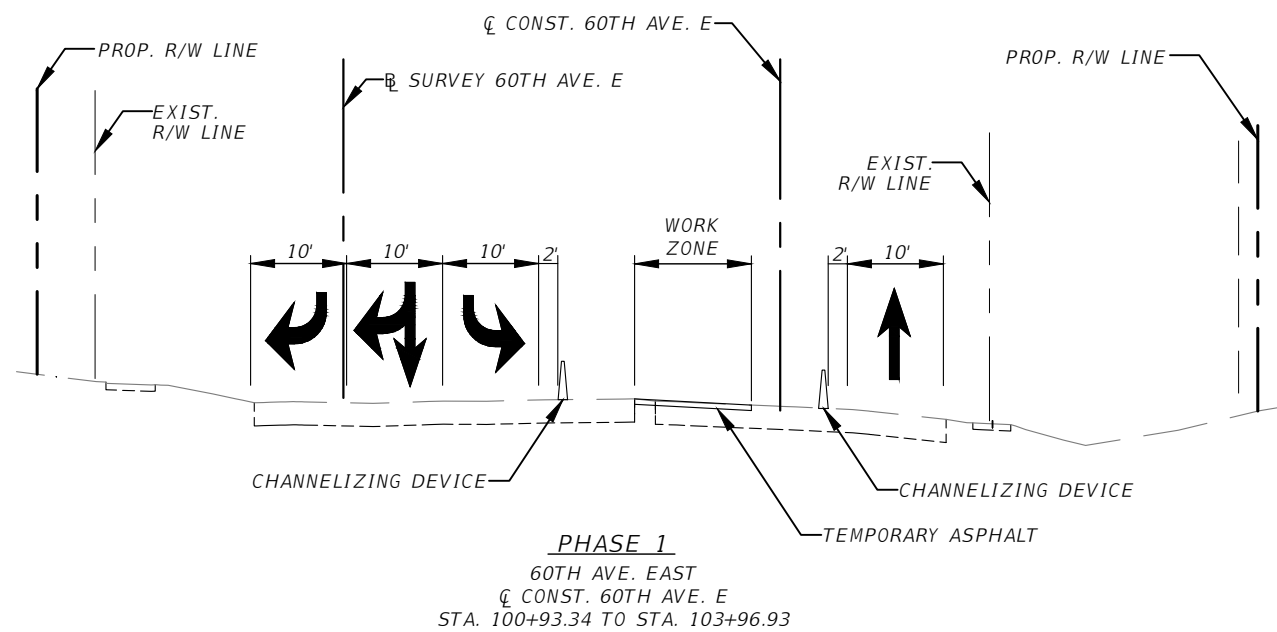
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<b>NUMBER</b>	<b>DESCRIPTION</b>	<b>DATE</b>	<b>PROJECT #</b>	6083160	<b>SURVEYED</b>	HYATT	5/2021	JOHN P. MAZERES, P.E. P.E. LICENSE NUMBER 61299 KISINGER CAMPO & ASSOCIATES CORP. 111 N. MAGNOLIA AVE, SUITE 105 ORLANDO, FL 32801	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. TEMPORARY TRAFFIC CONTROL PLANS (1)	
			<b>SURVEY #</b>	18-2238	<b>DESIGNED</b>	JG	1/2022				
			<b>SEC./TWN./RGE</b>	4-34S-18E	<b>DRAWN</b>	JG	1/2022				
			<b>SCALE</b>	N.T.S.	<b>CHECKED</b>	JPM	1/2022				
SHEET NO. 85											







**TEMPORARY TCP TYPICAL SECTIONS**

60TH AVE. EAST FROM US 301  
TO MENDOZA RD.  
TEMPORARY TRAFFIC CONTROL PLANS (3)

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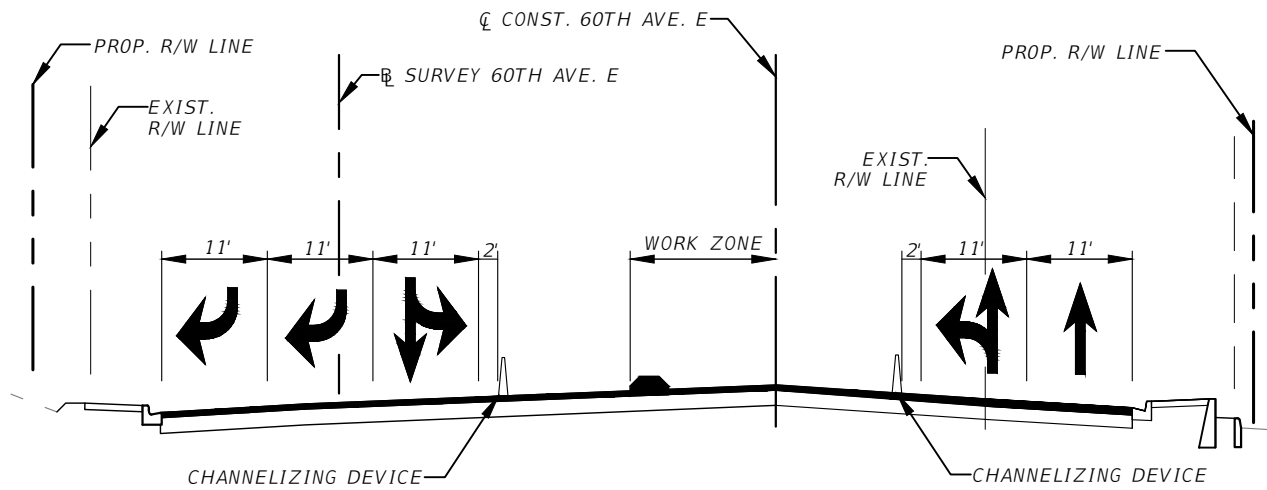
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	JG	1/2022
			4-345-18E	DRAWN	JG	1/2022
			N.T.S.	CHECKED	JPM	1/2022

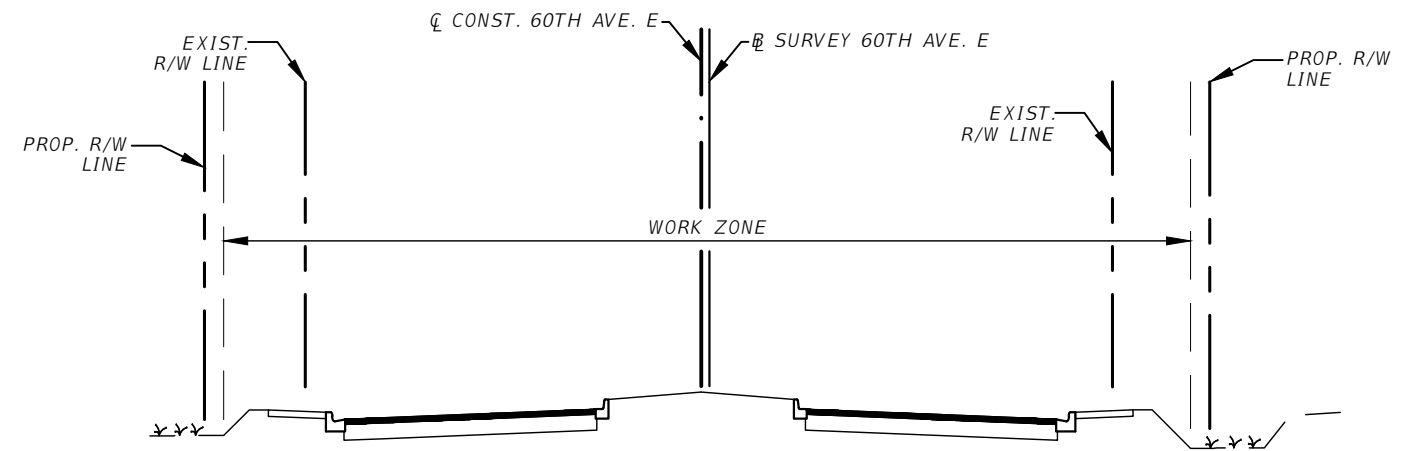
JOHN P. MAZERES, P.E.  
P.E. LICENSE NUMBER 61299  
KISINGER CAMPO & ASSOCIATES CORP.  
111 N. MAGNOLIA AVE, SUITE 105  
ORLANDO, FL 32801



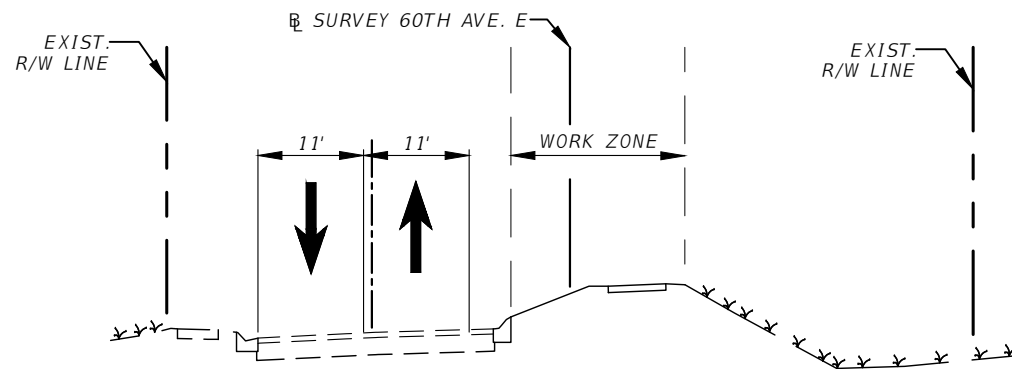
PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208



**PHASE 4**  
 60TH AVE. EAST  
 CL CONST. 60TH AVE. E  
 STA. 100+93.34 TO STA. 103+96.93



**PHASE 5**  
 60TH AVE. EAST  
 CL CONST. 60TH AVE. E  
 STA. 111+00.12 TO STA. 120+38.48



**PHASE 6**  
 60TH AVE. EAST  
 SURVEY 60TH AVE. E  
 STA. 41+72.00 TO STA. 56+88.62

TEMPORARY TCP TYPICAL SECTIONS

60TH AVE. EAST FROM US 301  
 TO MENDOZA RD.  
 TEMPORARY TRAFFIC CONTROL PLANS (4)


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NUMBER	DESCRIPTION	DATE

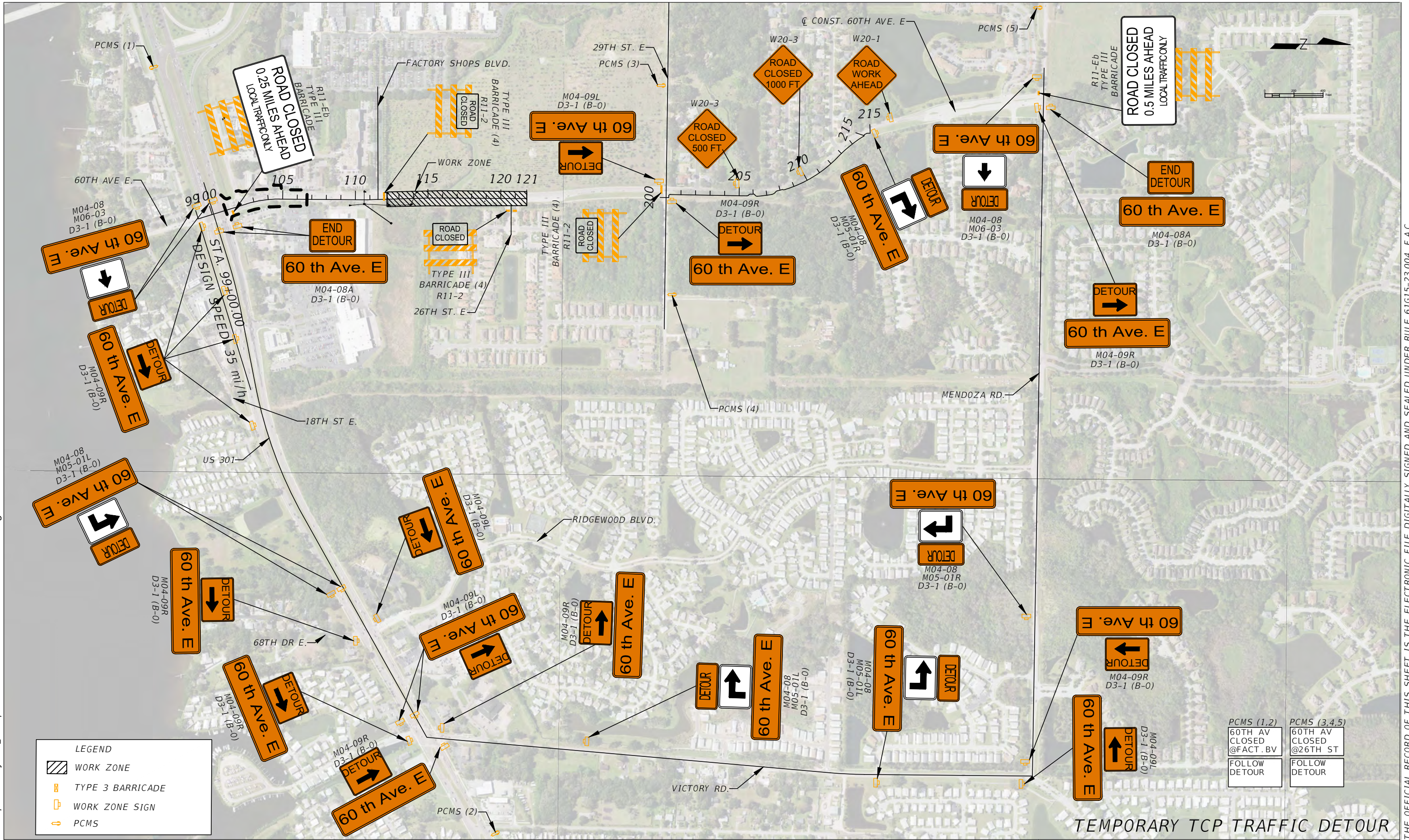
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SURVEY #	18-2238	DESIGNED	JG	1/2022
SEC./TWN./RGE	4-34S-18E	DRAWN	JG	1/2022
SCALE	N.T.S.	CHECKED	JPM	1/2022

JOHN P. MAZERES, P.E.  
 P.E. LICENSE NUMBER 61299  
 KISINGER CAMPO & ASSOCIATES CORP.  
 111 N. MAGNOLIA AVE, SUITE 105  
 ORLANDO, FL 32801



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

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**LEGEND**

- WORK ZONE
- TYPE 3 BARRICADE
- WORK ZONE SIGN
- PCMS

PCMS (1,2)	PCMS (3,4,5)
60TH AV CLOSED @FACT.BV	60TH AV CLOSED @26TH ST
FOLLOW DETOUR	FOLLOW DETOUR

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	N/A	N/A
			SURVEY #	18-2238	DESIGNED	SM	01/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	SM	01/2022
			SCALE	1" = 600'	CHECKED	JPM	01/2022

JOHN P. MAZERES, P.E.  
 LICENSE NUMBER 61299  
 KISINGER CAMPO & ASSOCIATES CORP.  
 111 N. MAGNOLIA AVENUE  
 SUITE 1050  
 ORLANDO, FL 32801



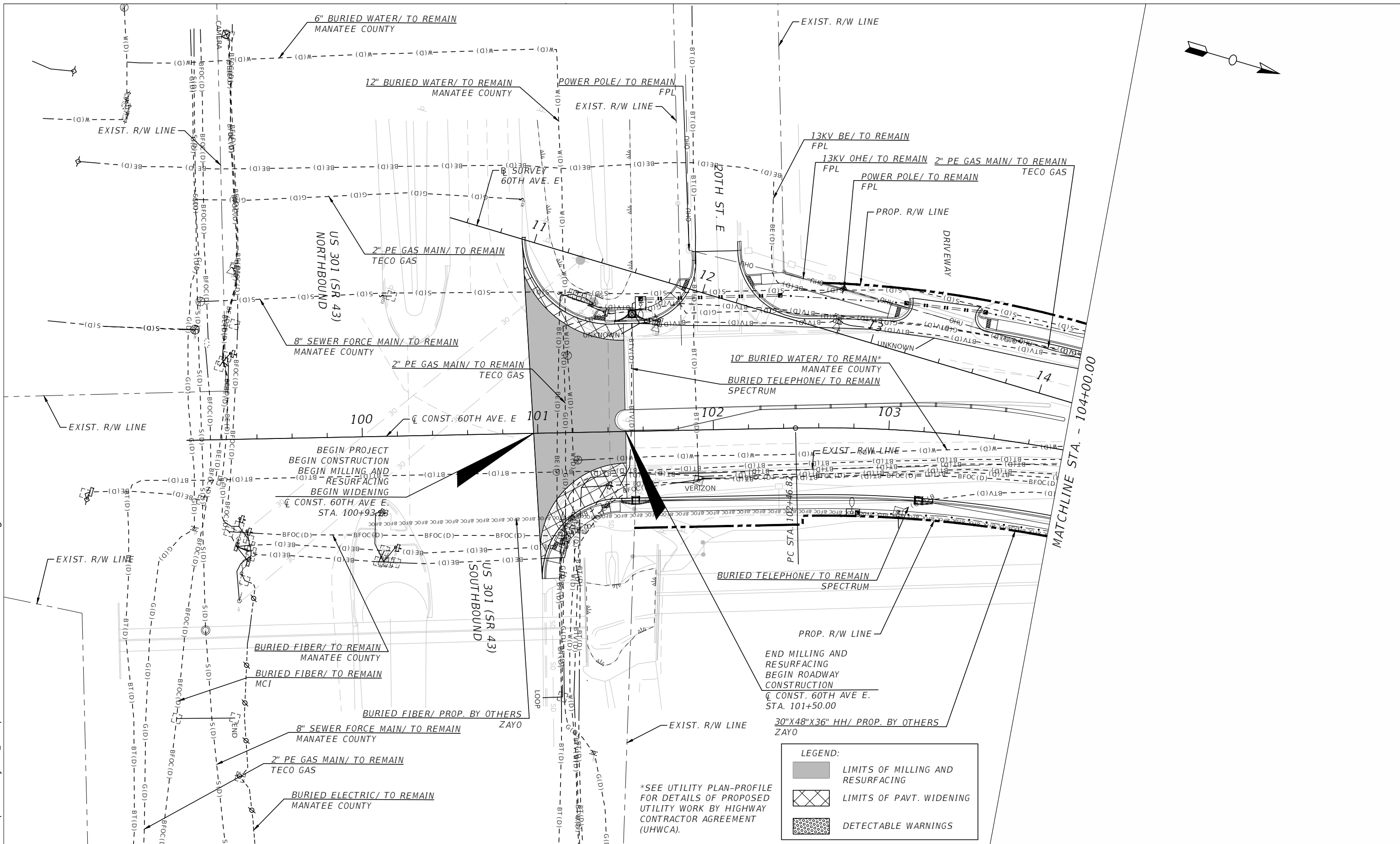
**PUBLIC WORKS DEPARTMENT**  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
 TEMPORARY TRAFFIC CONTROL PLANS (5)

SHEET NO.  
89

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\*SEE UTILITY PLAN-PROFILE FOR DETAILS OF PROPOSED UTILITY WORK BY HIGHWAY CONTRACTOR AGREEMENT (UHWCA).

**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	ST	6/7/22
			18-2238	DRAWN	ST	6/7/22
			4-34S-18E	CHECKED	DHC	6/7/22
			1" = 50'			

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

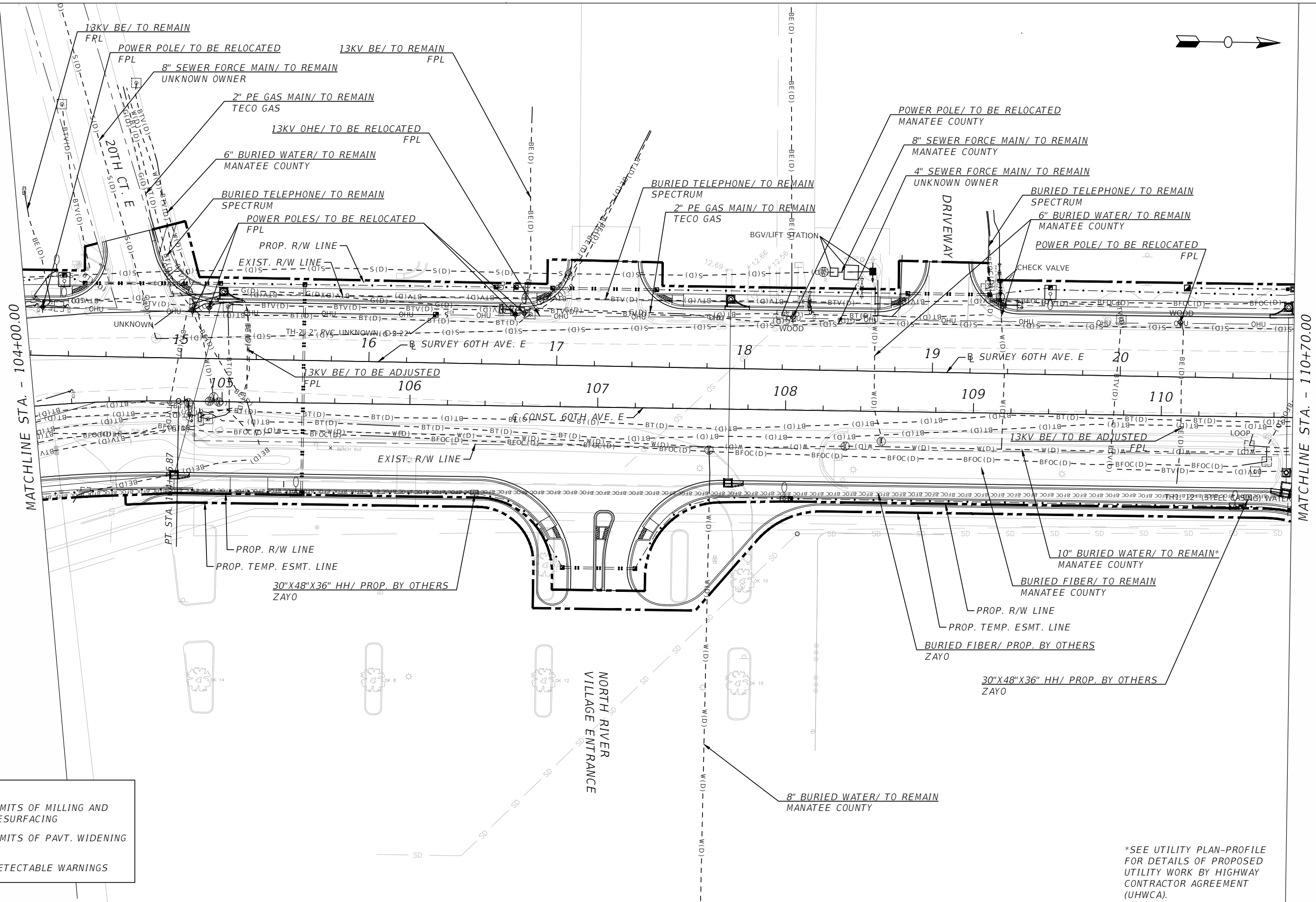


**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 UTILITY ADJUSTMENTS (1)

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**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS

\*SEE UTILITY PLAN-PROFILE FOR DETAILS OF PROPOSED UTILITY WORK BY HIGHWAY CONTRACTOR AGREEMENT (UHWCA).

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



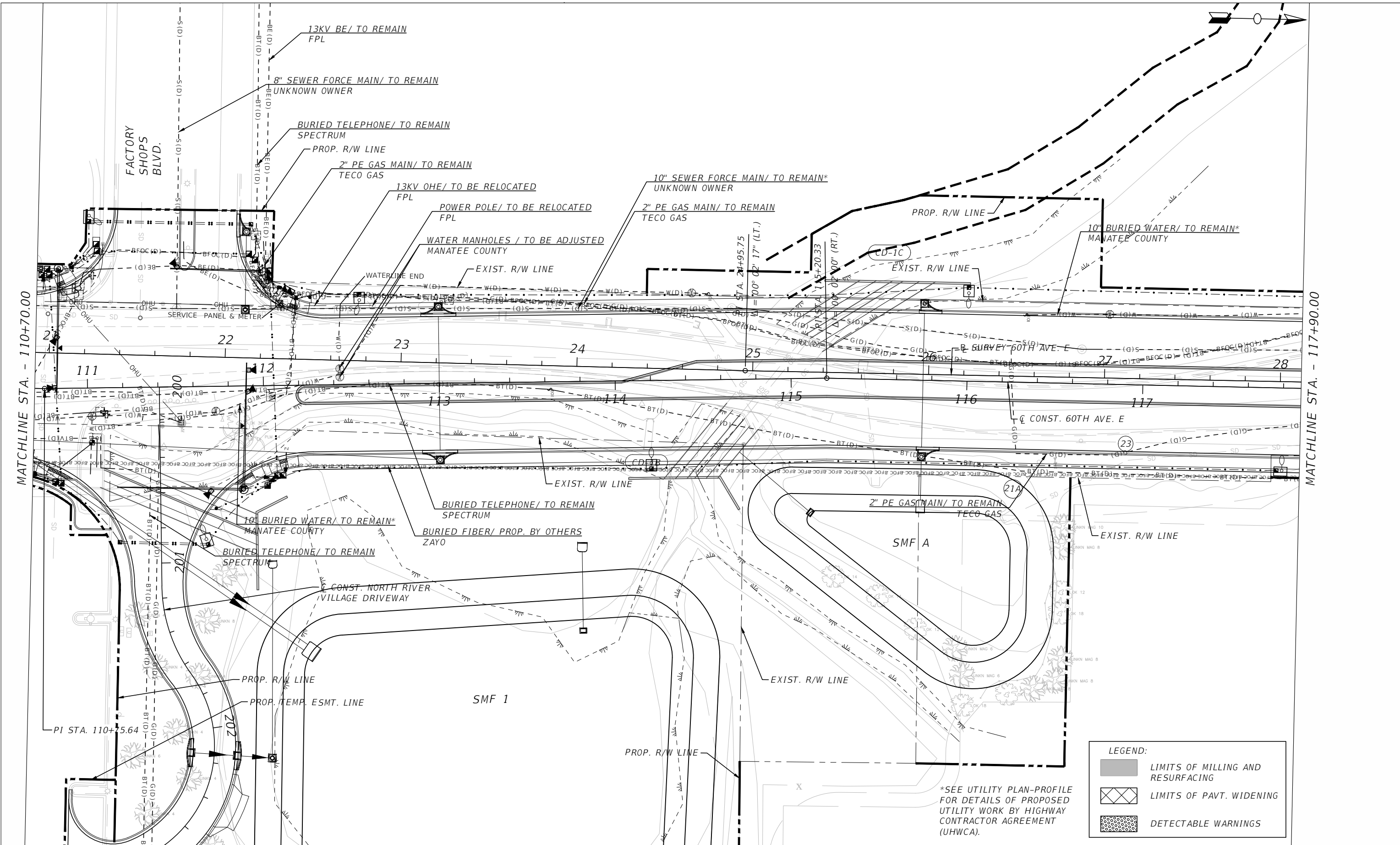
**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 UTILITY ADJUSTMENTS (2)

SHEET NO.  
 91

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**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS

\*SEE UTILITY PLAN-PROFILE FOR DETAILS OF PROPOSED UTILITY WORK BY HIGHWAY CONTRACTOR AGREEMENT (UHWCA).

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	ST	6/7/22
			18-2238	DRAWN	ST	6/7/22
			4-34S-18E	CHECKED	DHC	6/7/22
			1" = 50'			

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

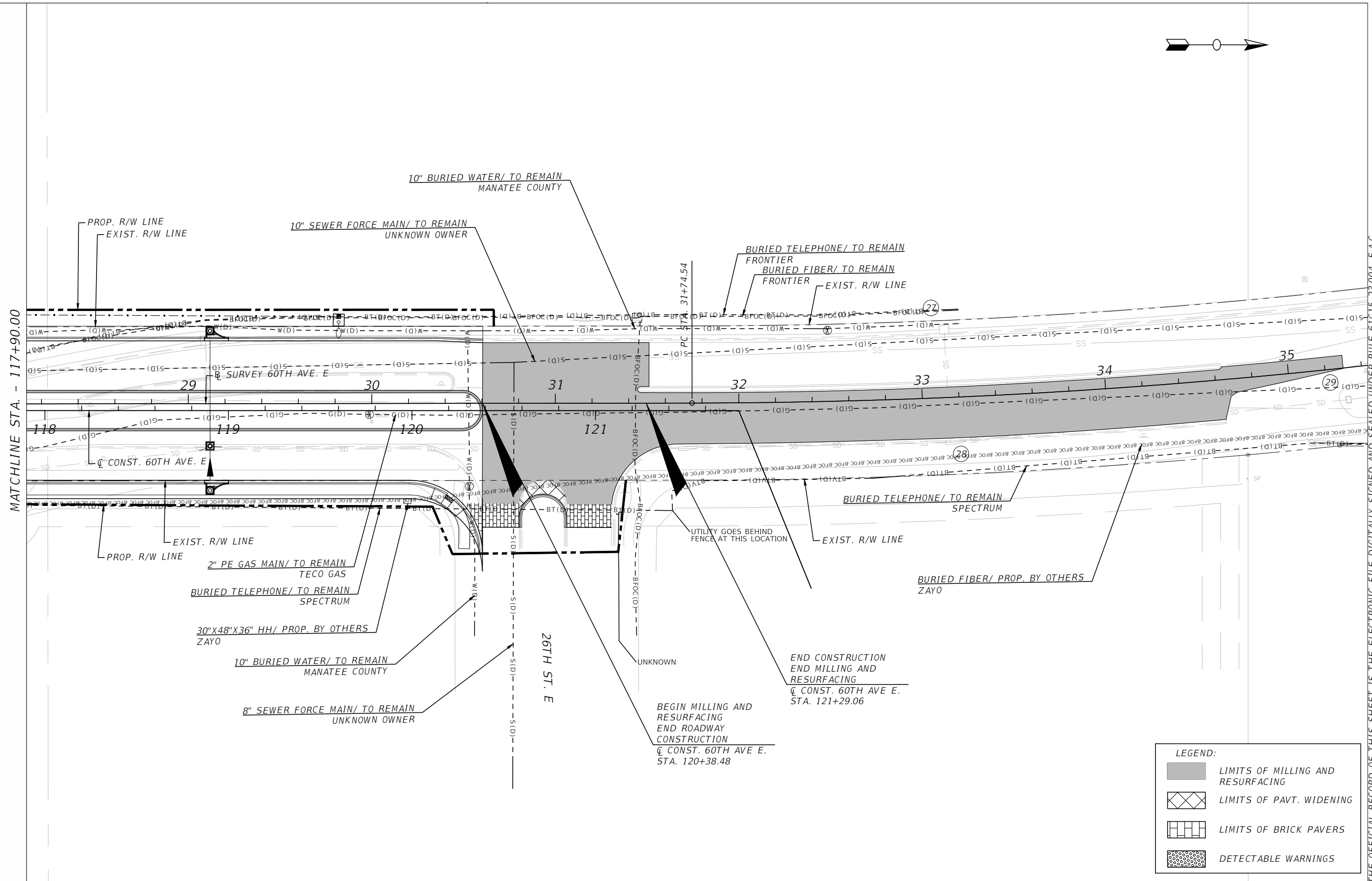


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 UTILITY ADJUSTMENTS (3)

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**LEGEND:**

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	LIMITS OF BRICK PAVERS
	DETECTABLE WARNINGS

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/7/22
			4-34S-18E	DRAWN	ST	6/7/22
			1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



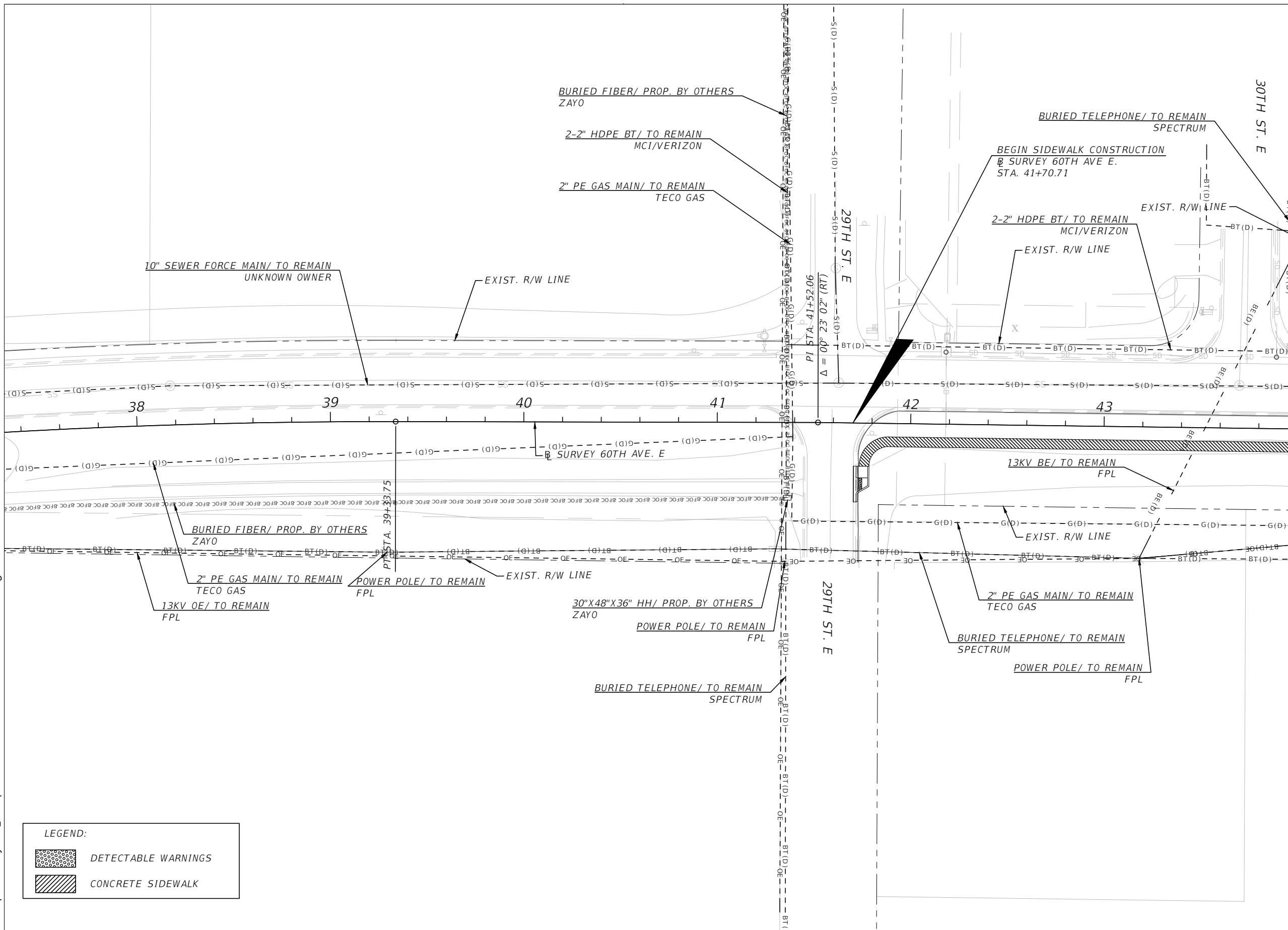
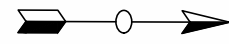
PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 UTILITY ADJUSTMENTS (4)

SHEET NO.  
 93

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MATCHLINE STA. - 44+00.00  
 @ SURVEY 60TH AVE. E

**LEGEND:**

	DETECTABLE WARNINGS
	CONCRETE SIDEWALK

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



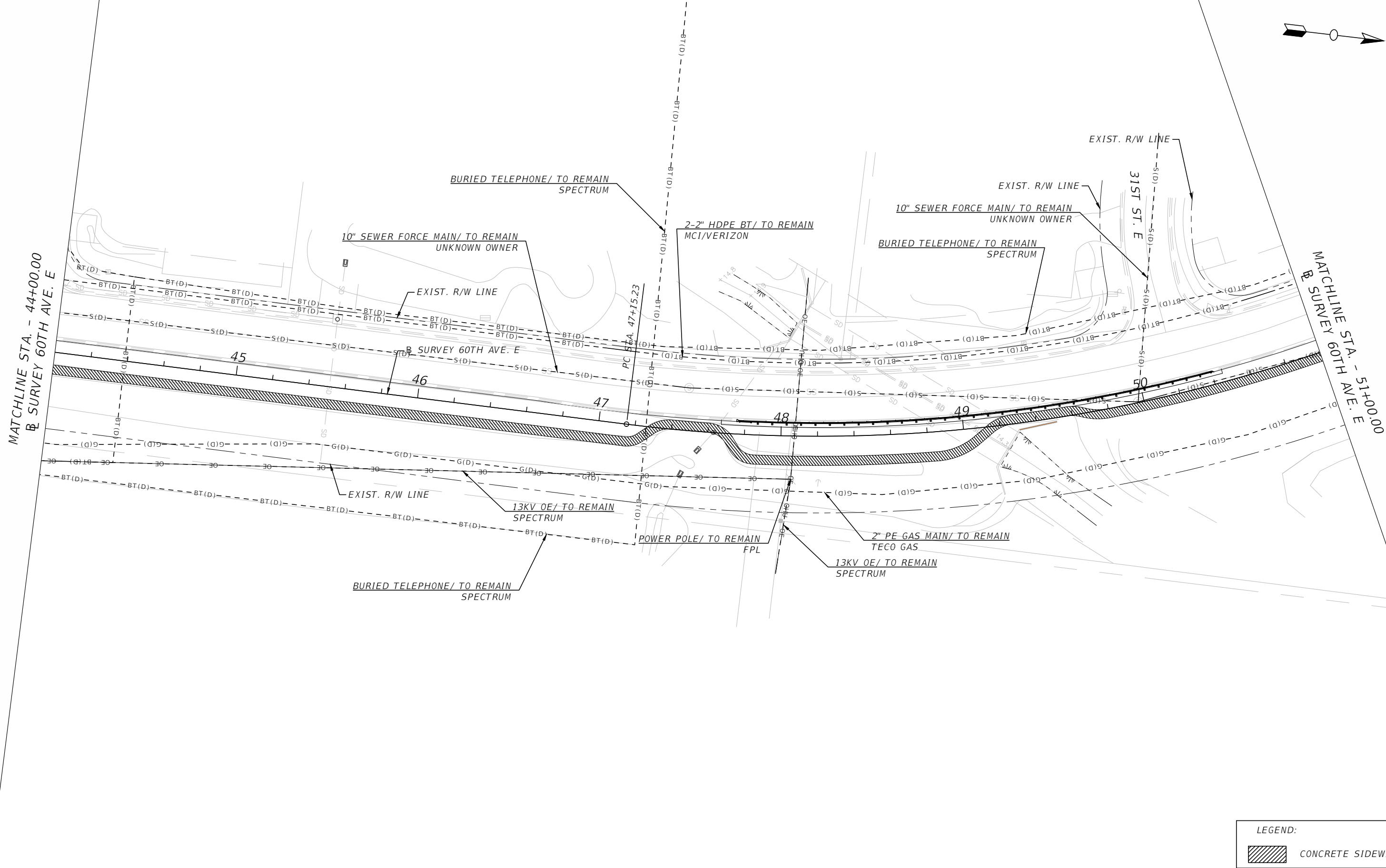
**PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 UTILITY ADJUSTMENTS (5)

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LEGEND:

	CONCRETE SIDEWALK
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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602

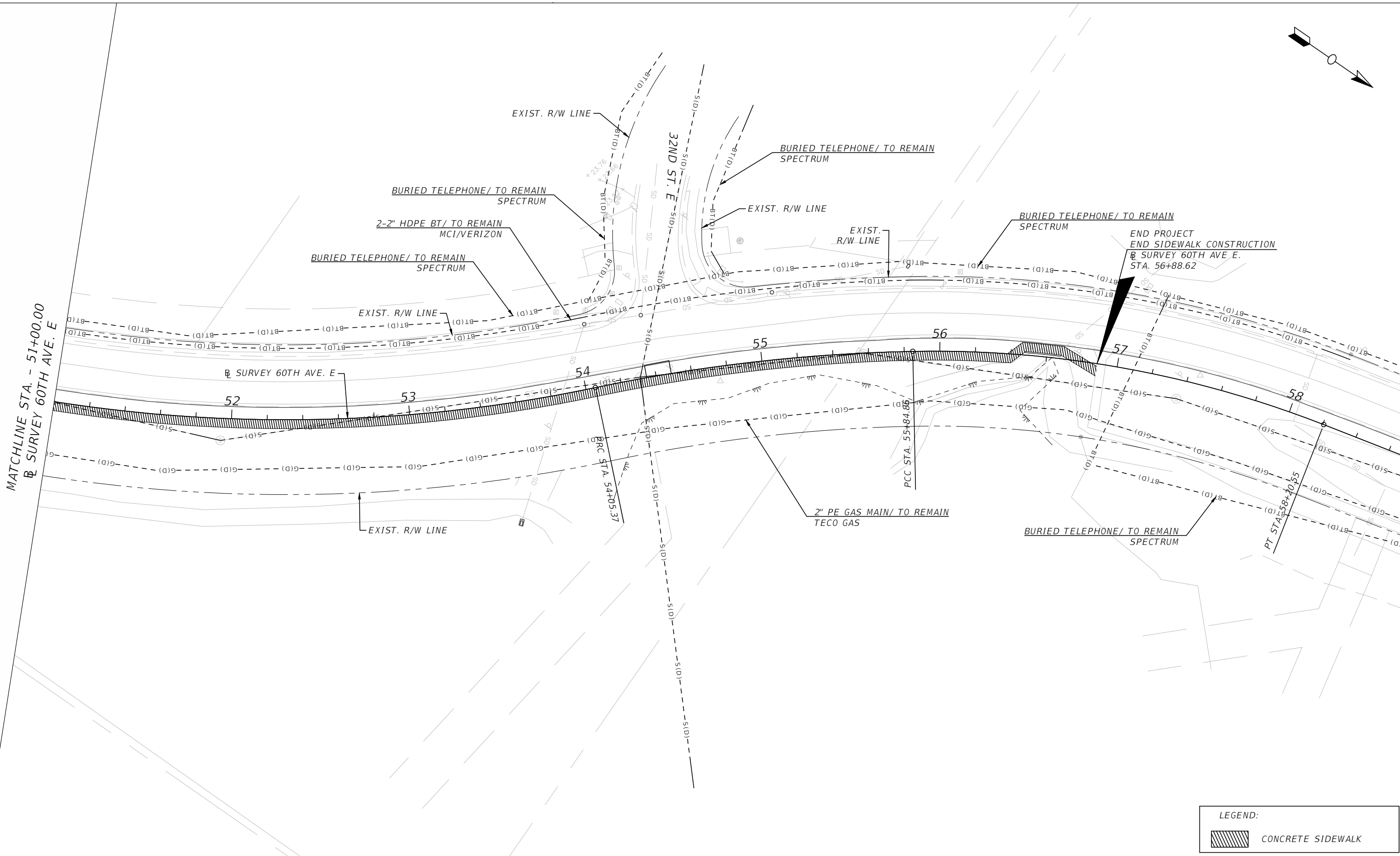


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 UTILITY ADJUSTMENTS (6)

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LEGEND:	
	CONCRETE SIDEWALK

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.  
 LICENSE NUMBER 74754  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



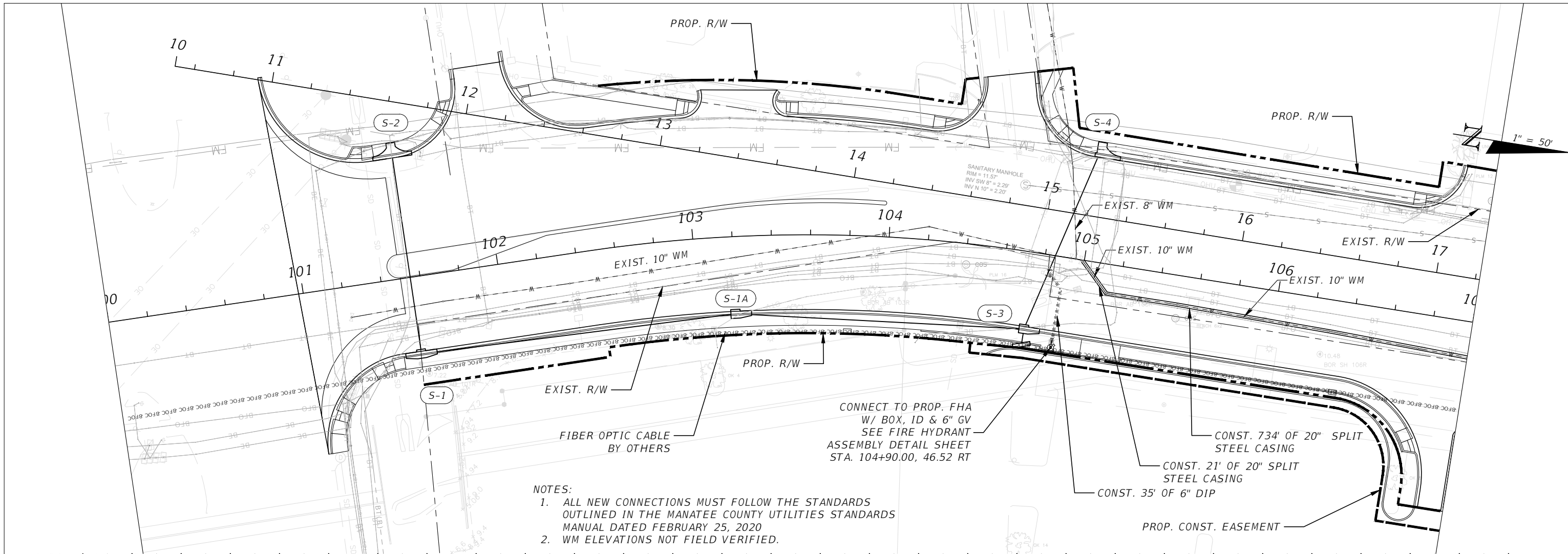
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 UTILITY ADJUSTMENTS (7)

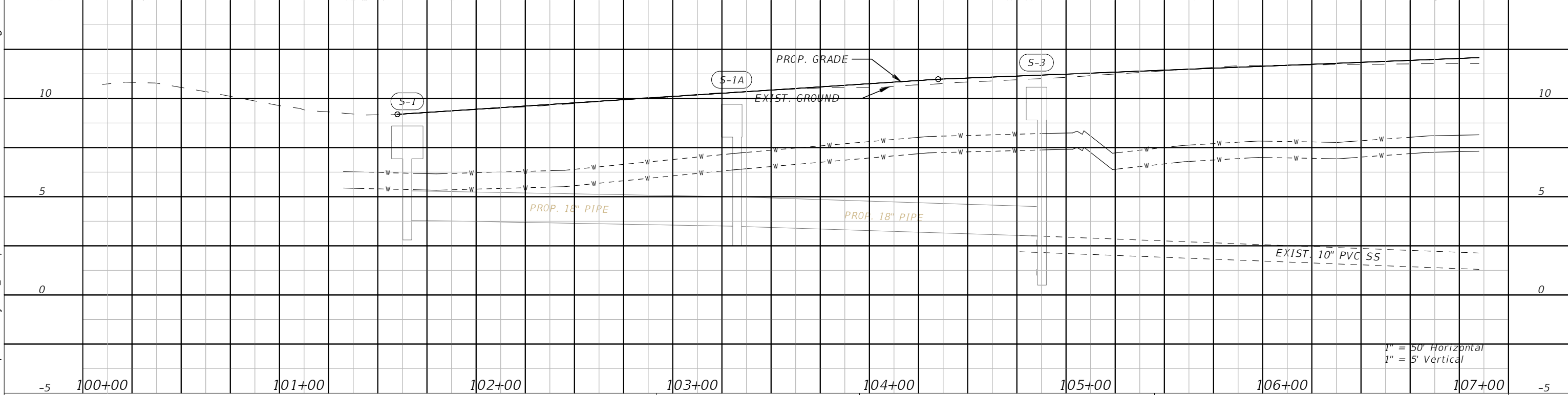
SHEET NO.  
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- NOTES:
1. ALL NEW CONNECTIONS MUST FOLLOW THE STANDARDS OUTLINED IN THE MANATEE COUNTY UTILITIES STANDARDS MANUAL DATED FEBRUARY 25, 2020
  2. WM ELEVATIONS NOT FIELD VERIFIED.



1" = 50' Horizontal  
1" = 5' Vertical

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160			
			18-2238	DESIGNED	ST	6/7/22
			4-34S-18E	DRAWN	ST	6/7/22
			1"=50'H/1"=10'V	CHECKED	DHC	6/7/22

CURTIS SPRUNGER,  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

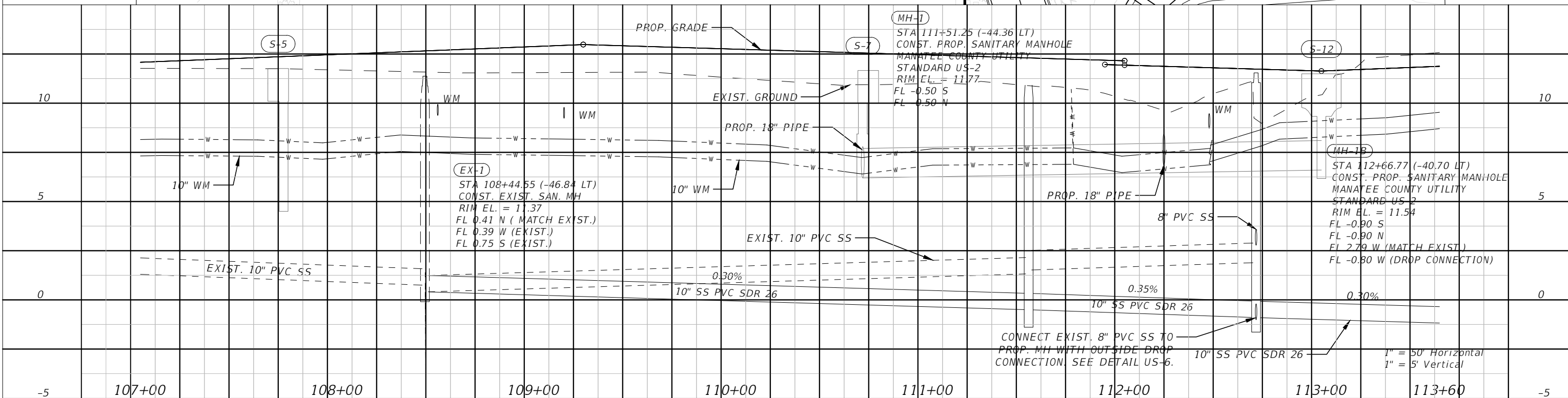
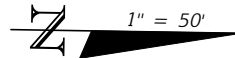
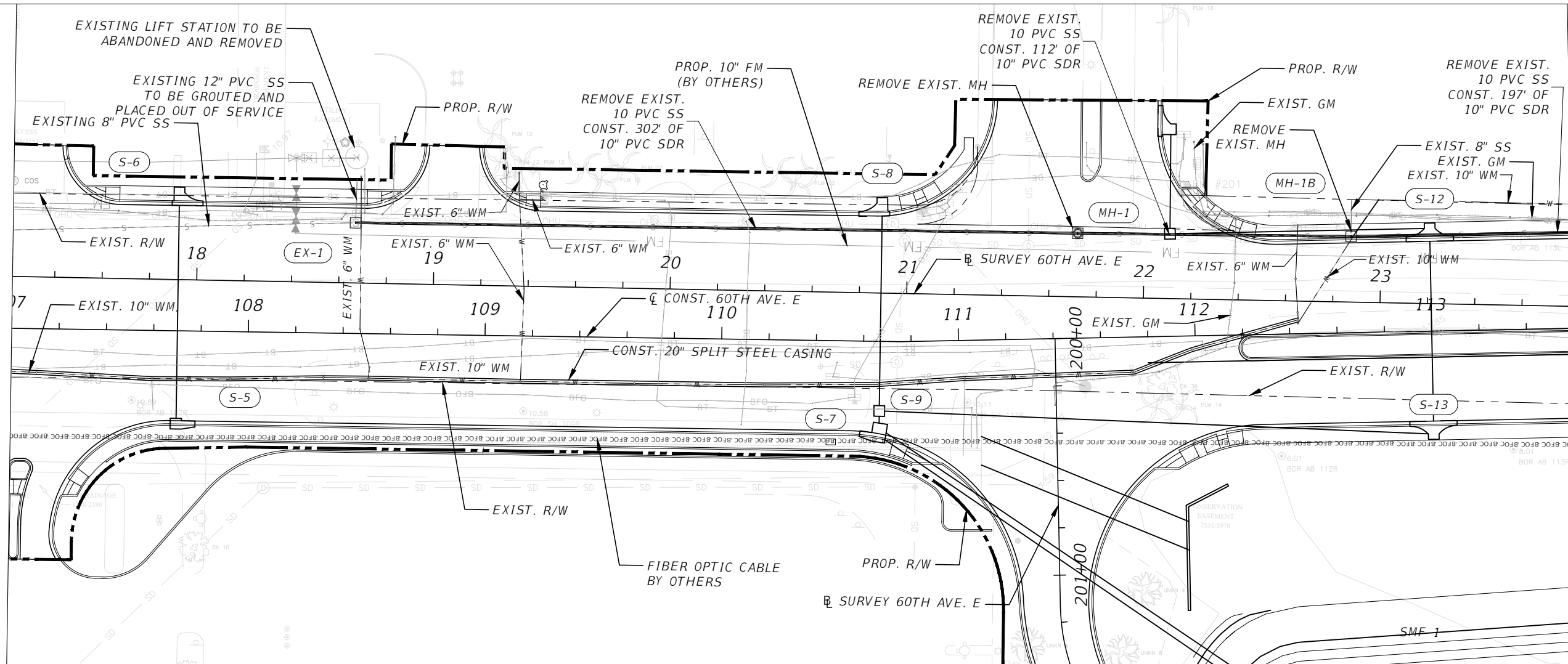


PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
UTILITY PLAN-PROFILE (1)

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NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	TK	6/7/22
SEC./TWN./RGE	4-34S-18E	DRAWN	TK	6/7/22
SCALE	1"=50'H/1"=10'V	CHECKED	JG	6/7/22

CURTIS SPRUNGER,  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

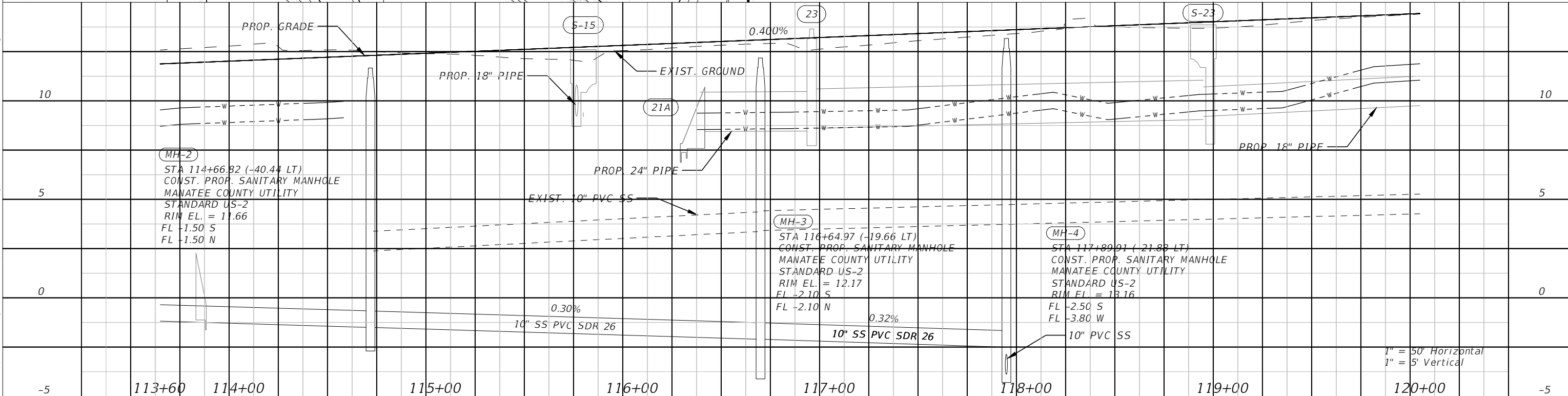
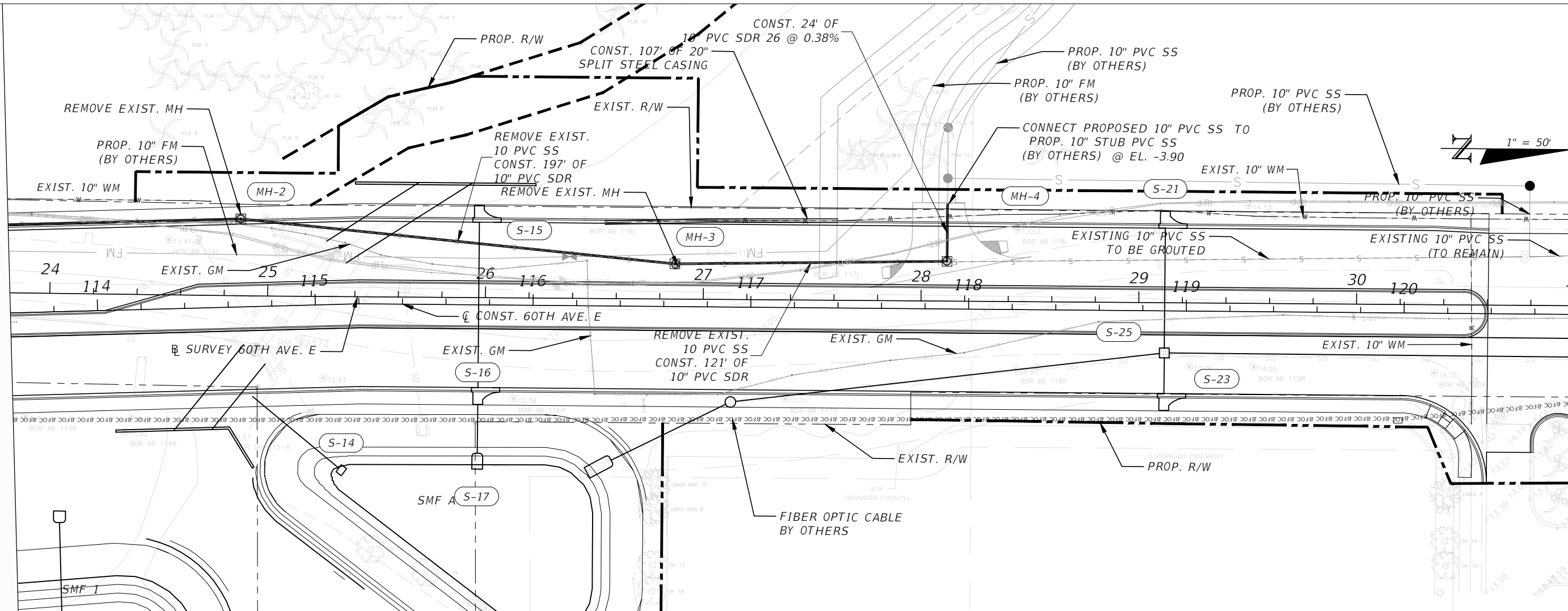



PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO MENDOZA RD.**  
**UTILITY PLAN-PROFILE (2)**

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

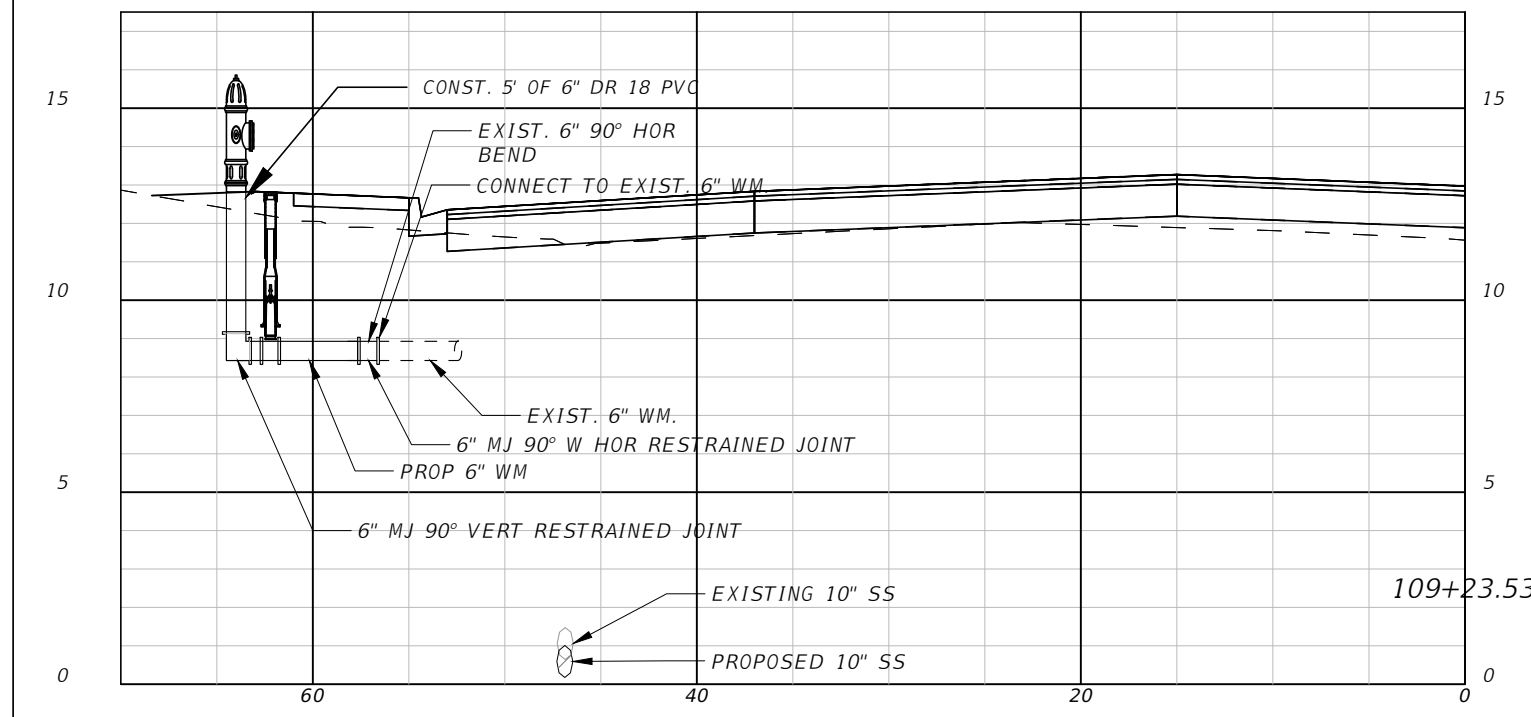
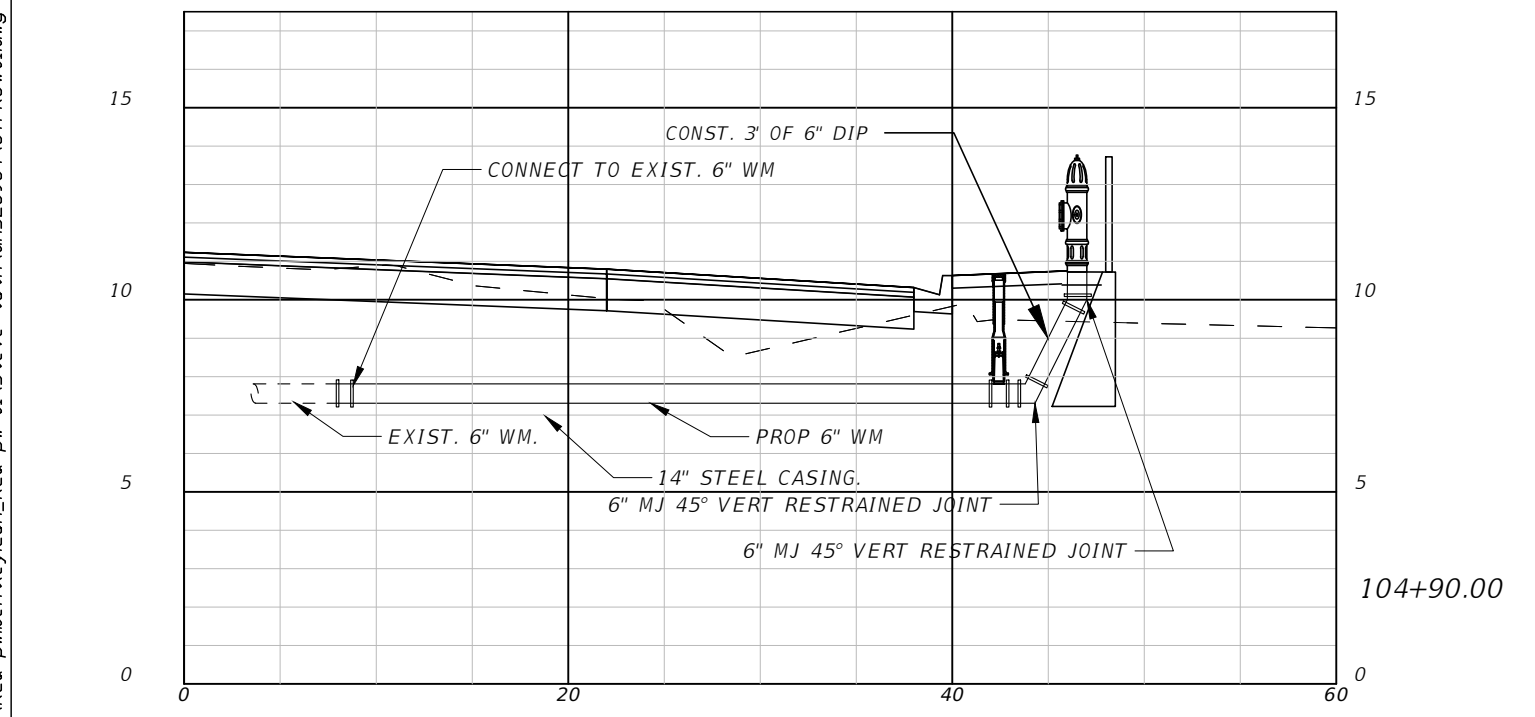
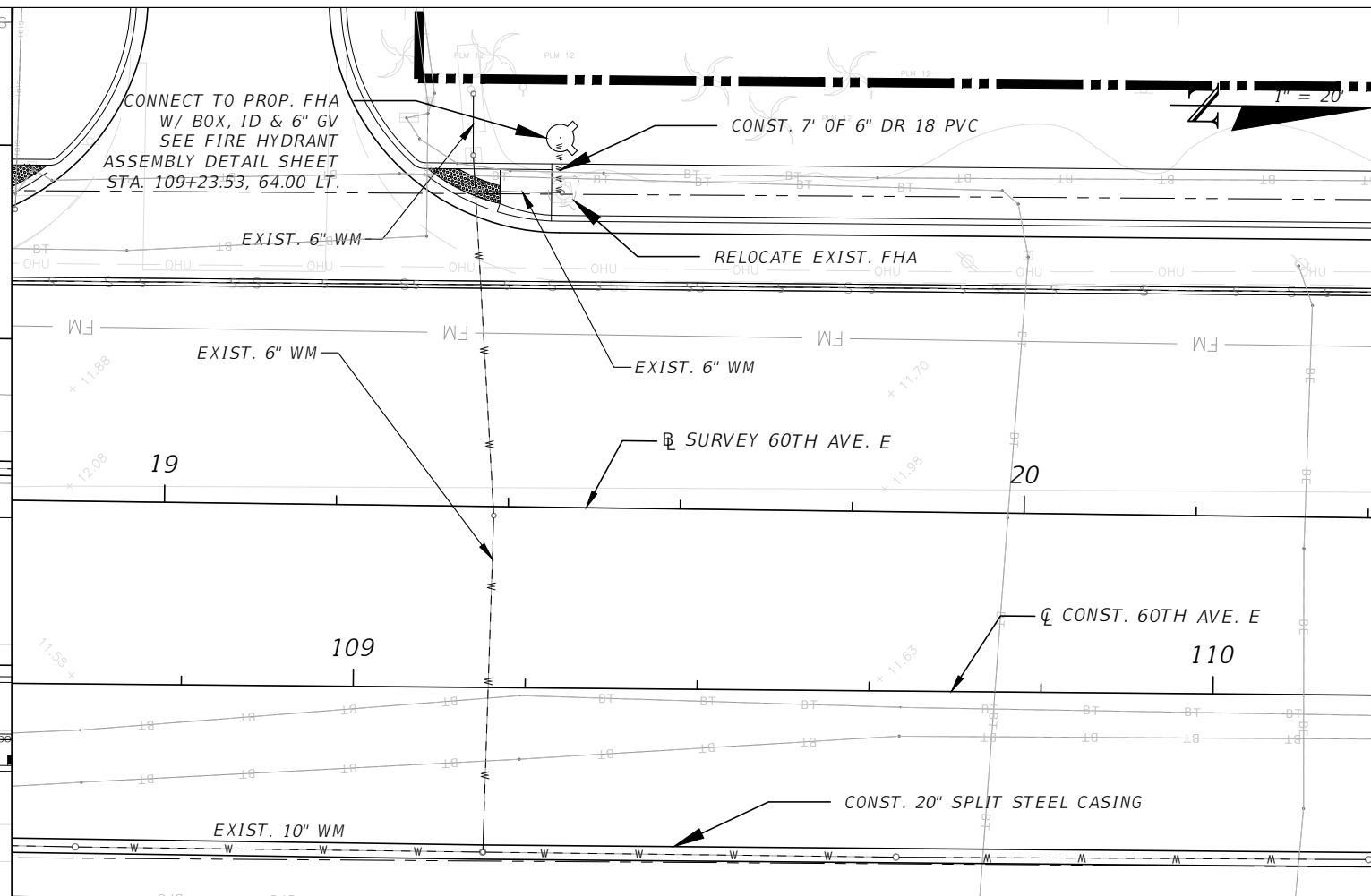
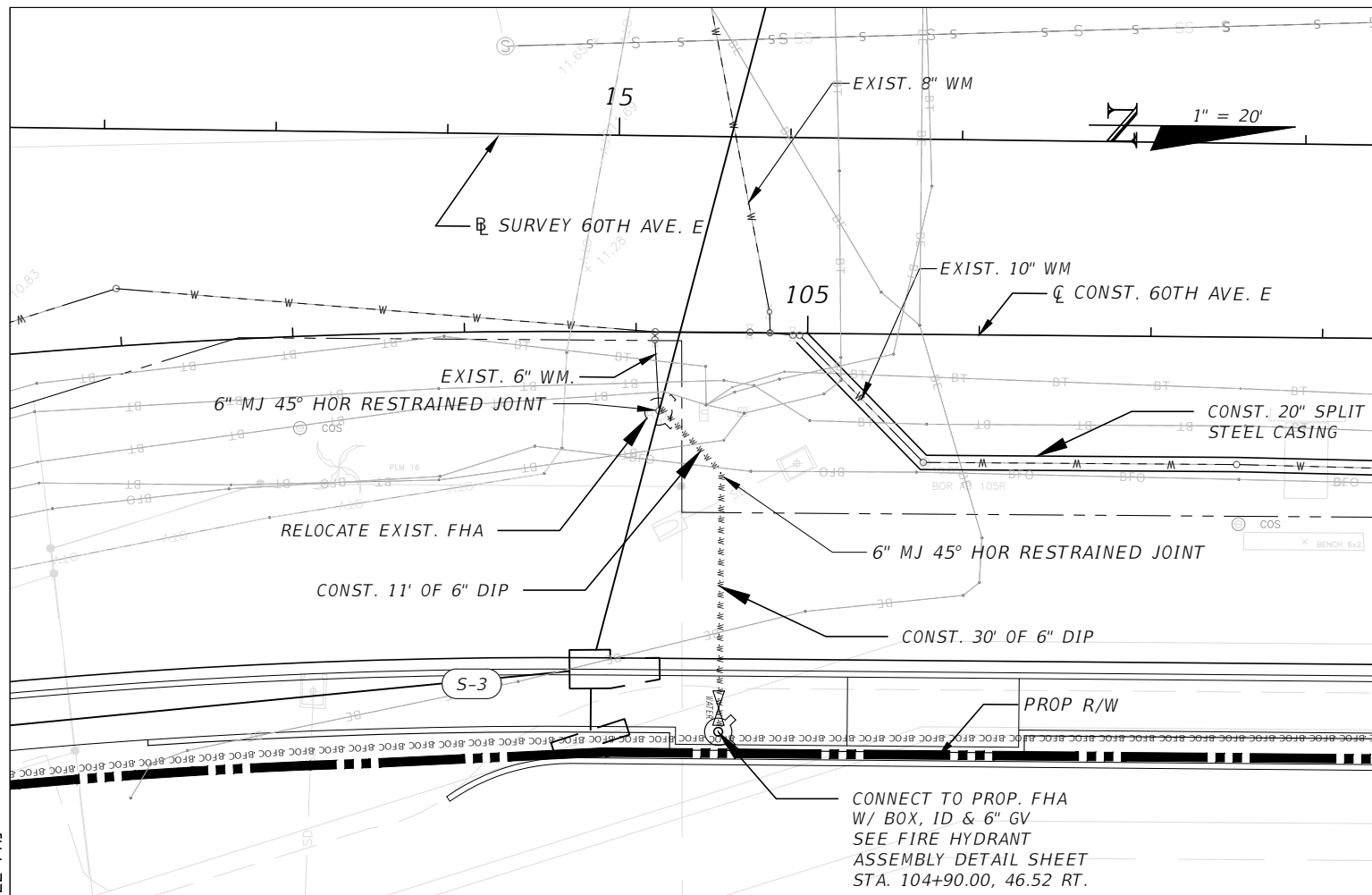
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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	CURTIS SPRUNGER, P.E. LICENSE NUMBER 66524 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD.		SHEET NO. 99
			SURVEY #	18-2238	DESIGNED	TK	6/7/22			UTILITY PLAN-PROFILE (3)		
			SEC./TWN./RGE	4-34S-18E	DRAWN	TK	6/7/22					
			SCALE	1"=50'H/1"=10'V	CHECKED	JG	6/7/22					

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TK	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TK	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	JG	6/7/22

CURTIS SPRUNGER,  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

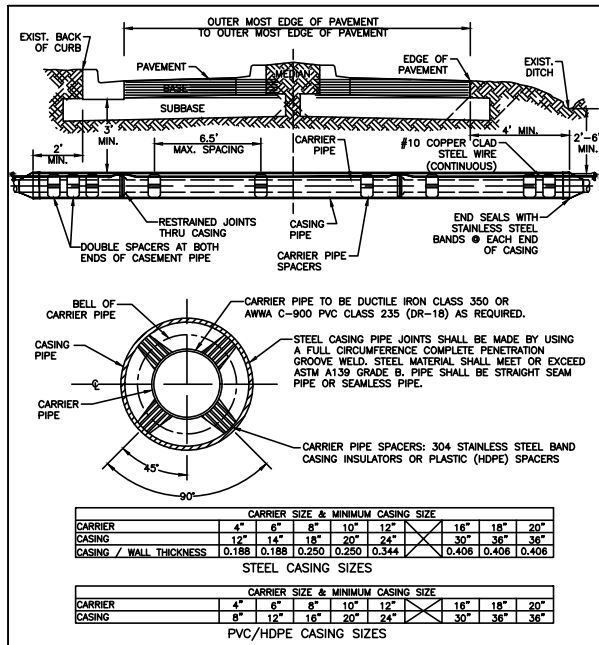


**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
UTILITY DETAILS (1)**

SHEET NO.  
100

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**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**CASING CROSSING**

UG-3

**REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (POLY-WRAPPED)**

MAIN PIPE SIZE	HORIZ. BENDS	TEES	REDUCERS		PLUGS & VALVES
			SIZE	LENGTH	
36	142	59	28	22.5'	453
30	124	51	25		391
24	106	44	21		327
20	92	38	18		280
16	77	32	15		231
12	61	25	12		181
10	52	22	10		153
8	44	18	9		128
6	34	14	7		98
4	24	10	5		69

**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**RESTRAINED LENGTHS FOR DIP**

UG-9

**REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR C900-16 PVC PIPE (DR-18)**

MAIN PIPE SIZE	HORIZ. BENDS	TEES	REDUCERS		PLUGS & VALVES
			SIZE	LENGTH	
24	90	38	18	22.5'	214
20	78	32	16		184
16	66	27	13		151
12	52	22	10		118
10	44	18	9		100
8	37	15	7		83
6	29	12	6		63
4	21	8	4		45

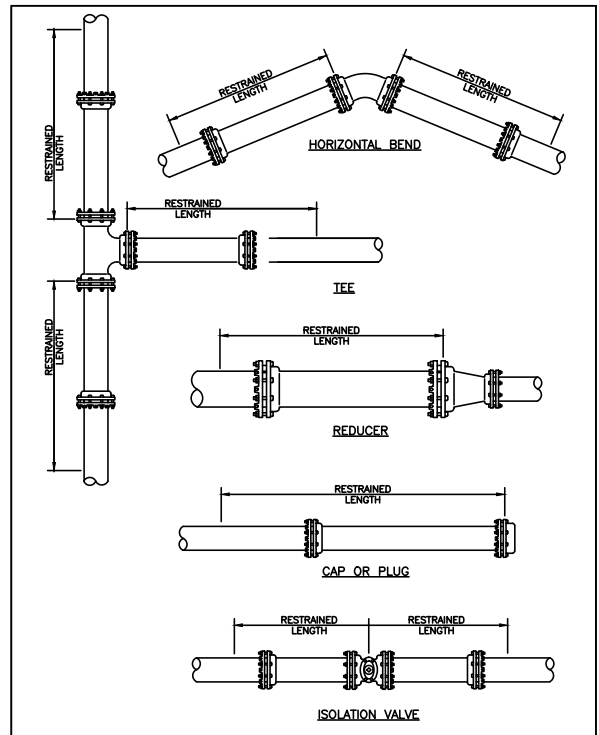
**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**RESTRAINED LENGTHS FOR PVC PIPE**

UG-8



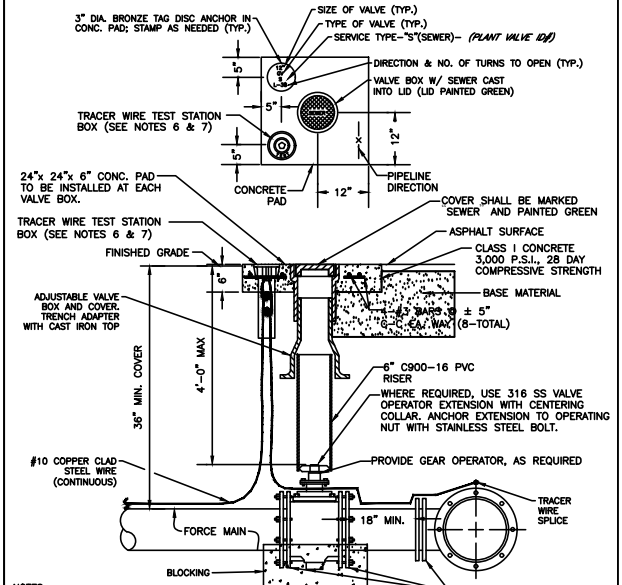
**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**RESTRAINED LENGTHS FOR PIPE**

UG-10



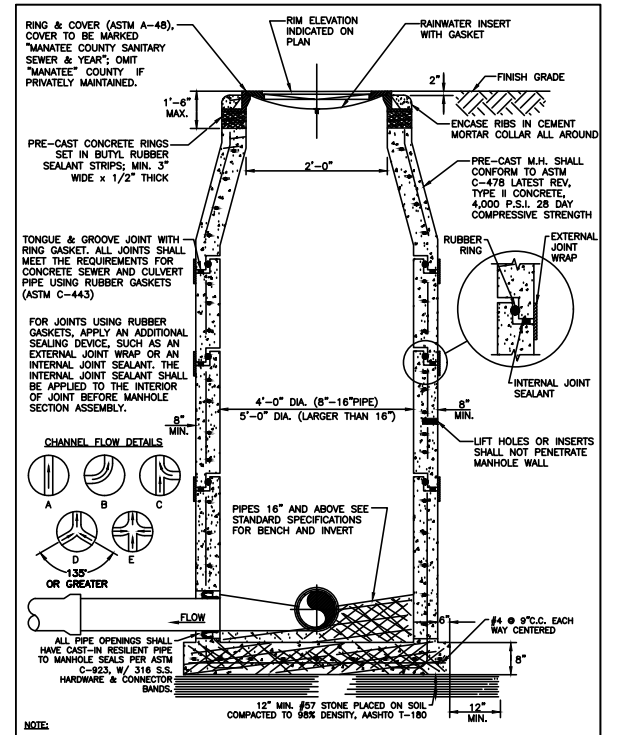
**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**VALVE, BOX, COVER AND TAG**

US-11



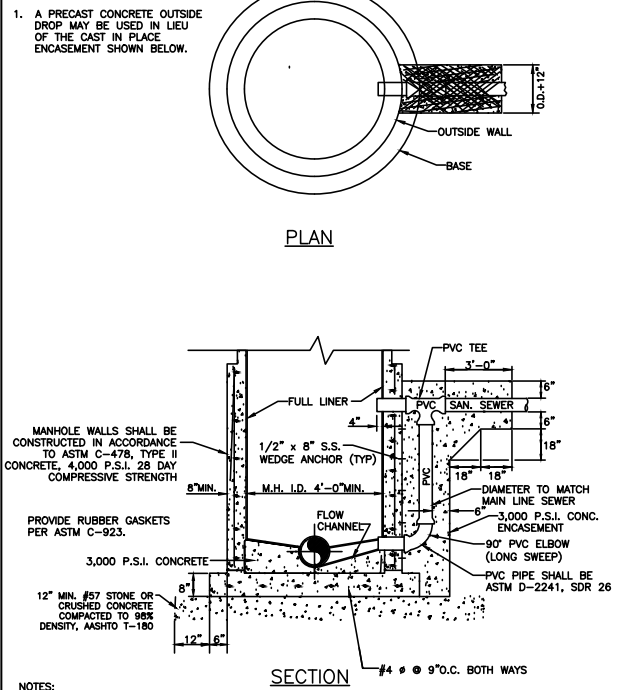
**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**STANDARD PRE-CAST SANITARY SEWER MANHOLE FOR UNDISTURBED FLOW**

US-2



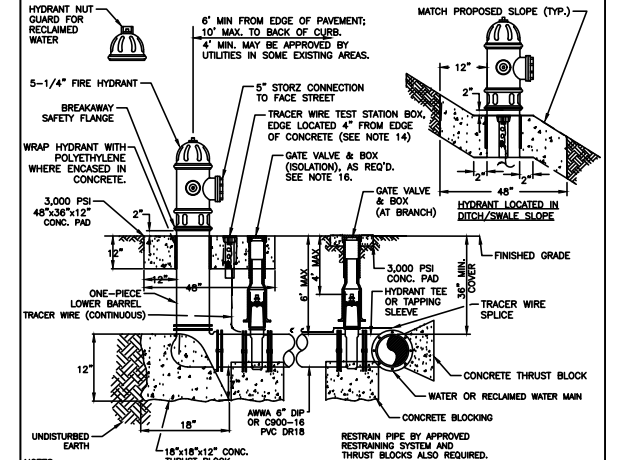
**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**OUTSIDE DROP CONNECTION TO EX. PORTLAND CEMENT MANHOLE**

US-6



**MANATEE COUNTY PUBLIC WORKS DEPARTMENT**

REVISIONS: REV. BY DATE DESCRIPTION

February 25, 2020 DATE OF APPROVAL

**FIRE HYDRANT ASSEMBLY**

UW-5

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CURTIS SPRUNGER,  
P.E. LICENSE NUMBER 66524  
KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET  
SUITE 400  
TAMPA, FL 33602

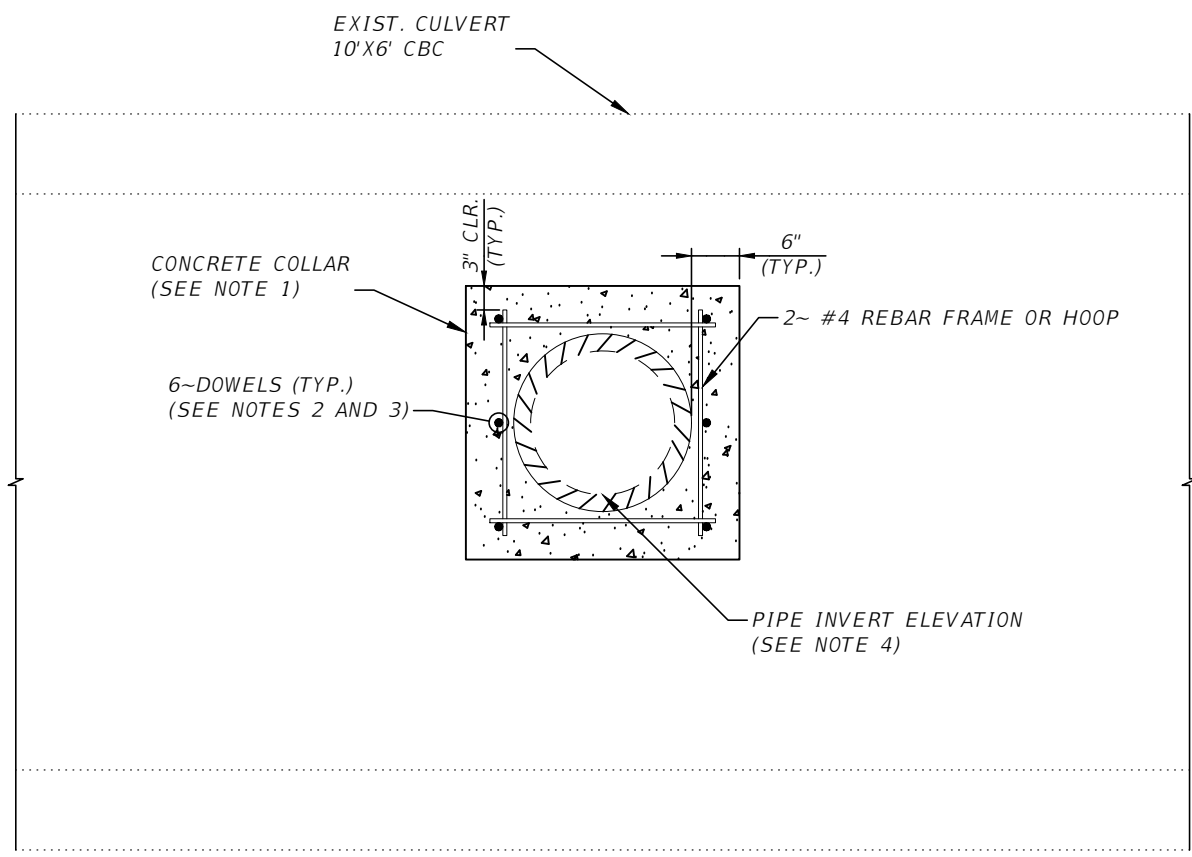


**PUBLIC WORKS DEPARTMENT  
ENGINEERING SERVICES**  
1022 26th Avenue East, Bradenton, FL 34208

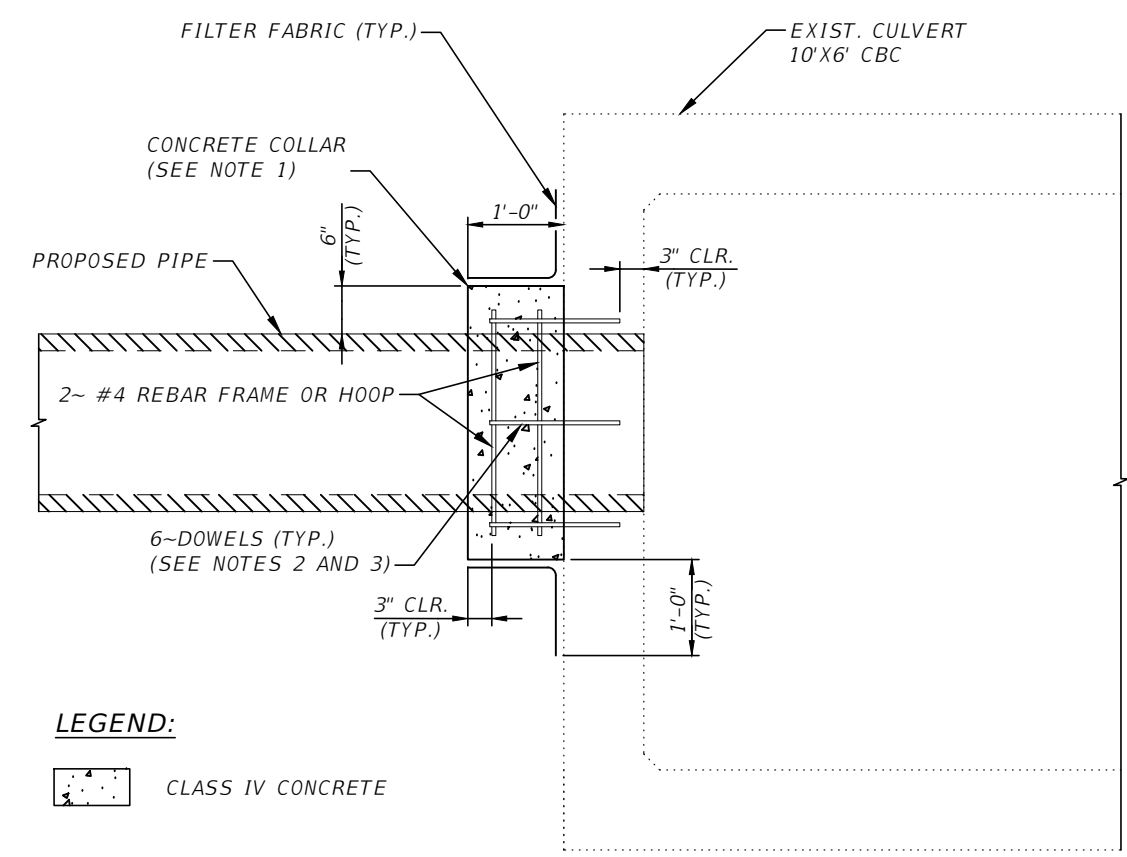
**60TH AVE. EAST FROM US 301 TO  
MENDOZA RD.  
UTILITY DETAILS (2)**

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.


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**END ELEVATION**




**SIDE ELEVATION**

**LEGEND:**  
 CLASS IV CONCRETE

**PIPE FROM DRAINAGE STRUCTURE S-3 BLOCKOUT DETAILS - EXISTING CULVERT**

**PIPE BLOCKOUT NOTES:**

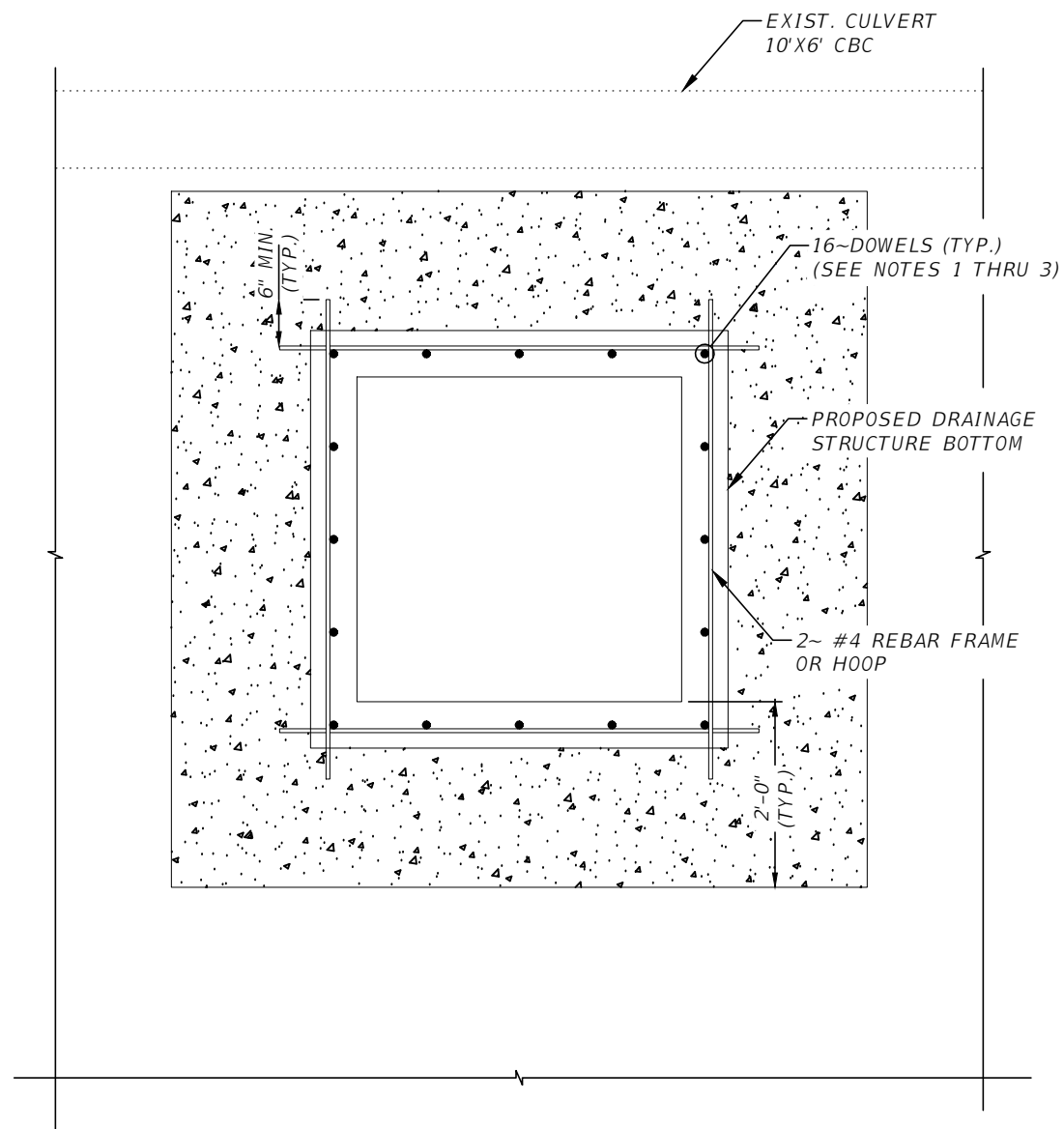
1. THE COLLAR MAY BE FORMED BY ANY METHOD APPROVED BY THE ENGINEER.
2. INSTALL 1/2" DOWELS IN ADHESIVE BOND MATERIAL. SYSTEM IN ACCORDANCE WITH SPECIFICATIONS SECTION 416 & 937.
3. VERIFY EXISTING CULVERT WALL THICKNESS AND PROVIDE 3" COVER FROM INTERIOR SIDEWALL OF EXISTING CULVERT.
4. SEE DRAINAGE PLANS FOR SIZE, PLACEMENT AND INVERT ELEVATION.
5. THE COST OF THE CONCRETE COLLAR CONSTRUCTION SHALL BE INCIDENTAL TO THE PIPE.
6. REMOVE CONCRETE FROM THE EXISTING BOX CULVERT TO PROVIDE FOR THE PROPOSED DRAINAGE PIPE AS SHOWN. CUT EXPOSED REINFORCING STEEL TO 1" BELOW THE FACE OF THE CONCRETE AND SEAL WITH NON-SHRINK GROUT.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 501 TO MENDOZA RD. BOX CULVERT DETAILS (1)	SHEET NO. 102
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

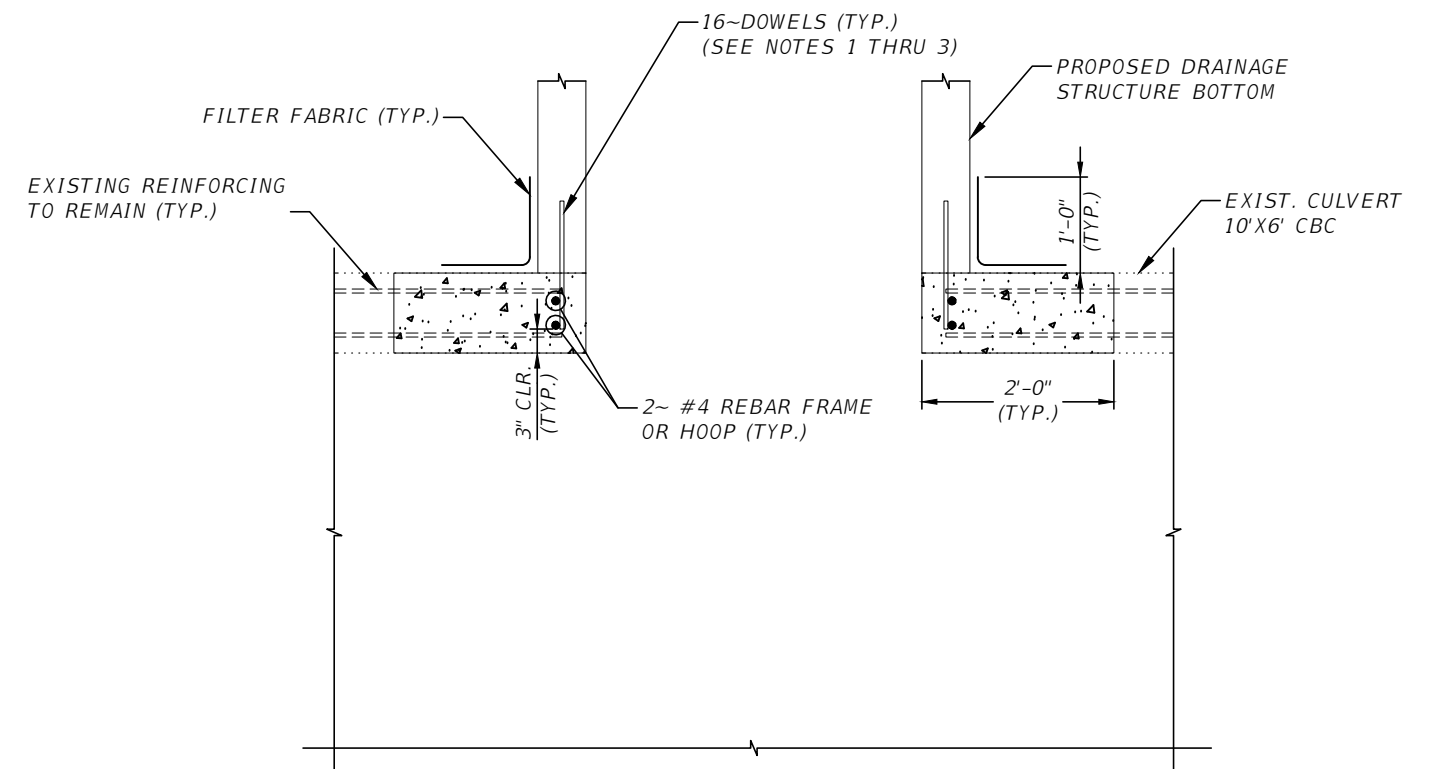
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



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PLAN



SIDE ELEVATION

LEGEND:

 CLASS IV CONCRETE

DRAINAGE STRUCTURE S-5 BLOCKOUT DETAILS - EXISTING CULVERT

DRAINAGE STRUCTURE BLOCKOUT NOTES:

1. INSTALL 1/2" X 16" DOWELS IN ADHESIVE BOND MATERIAL SYSTEM IN ACCORDANCE WITH SPECIFICATIONS SECTION 416 & 937.
2. VERIFY EXISTING CULVERT TOP SLAB THICKNESS AND PROVIDE 3" COVER FROM BOTTOM OF TOP SLAB OF EXISTING CULVERT.
3. SHIFT DOWELS AS REQUIRED TO CLEAR DRAINAGE STRUCTURE REINFORCEMENT.
4. SEE DRAINAGE PLANS FOR DRAINAGE STRUCTURE TYPE, PLACEMENT AND ELEVATIONS.
5. THE COST OF THE DRAINAGE STRUCTURE BLOCKOUT CONSTRUCTION SHALL BE INCIDENTAL TO THE DRAINAGE STRUCTURE BOTTOM.
6. WORK THIS SHEET WITH INDEX 425-010.
7. REMOVE CONCRETE FROM THE EXISTING BOX CULVERT TO PROVIDE FOR THE PROPOSED DRAINAGE STRUCTURE AS SHOWN.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22
			SCALE	NTS	CHECKED	PDM	6/7/22

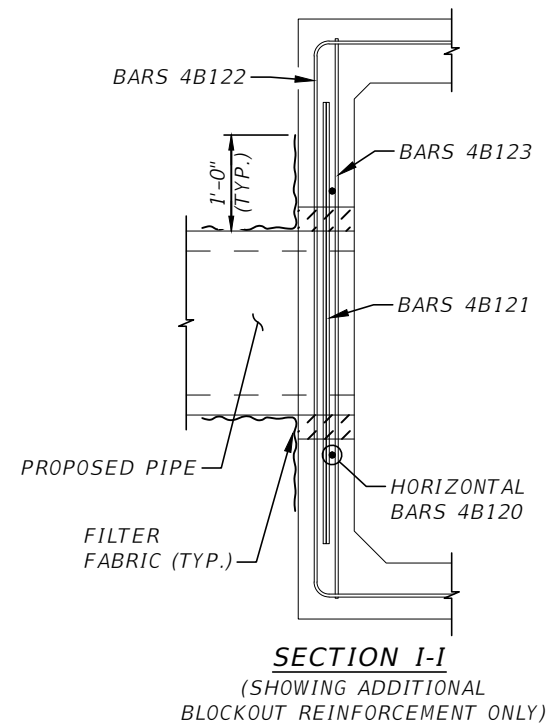
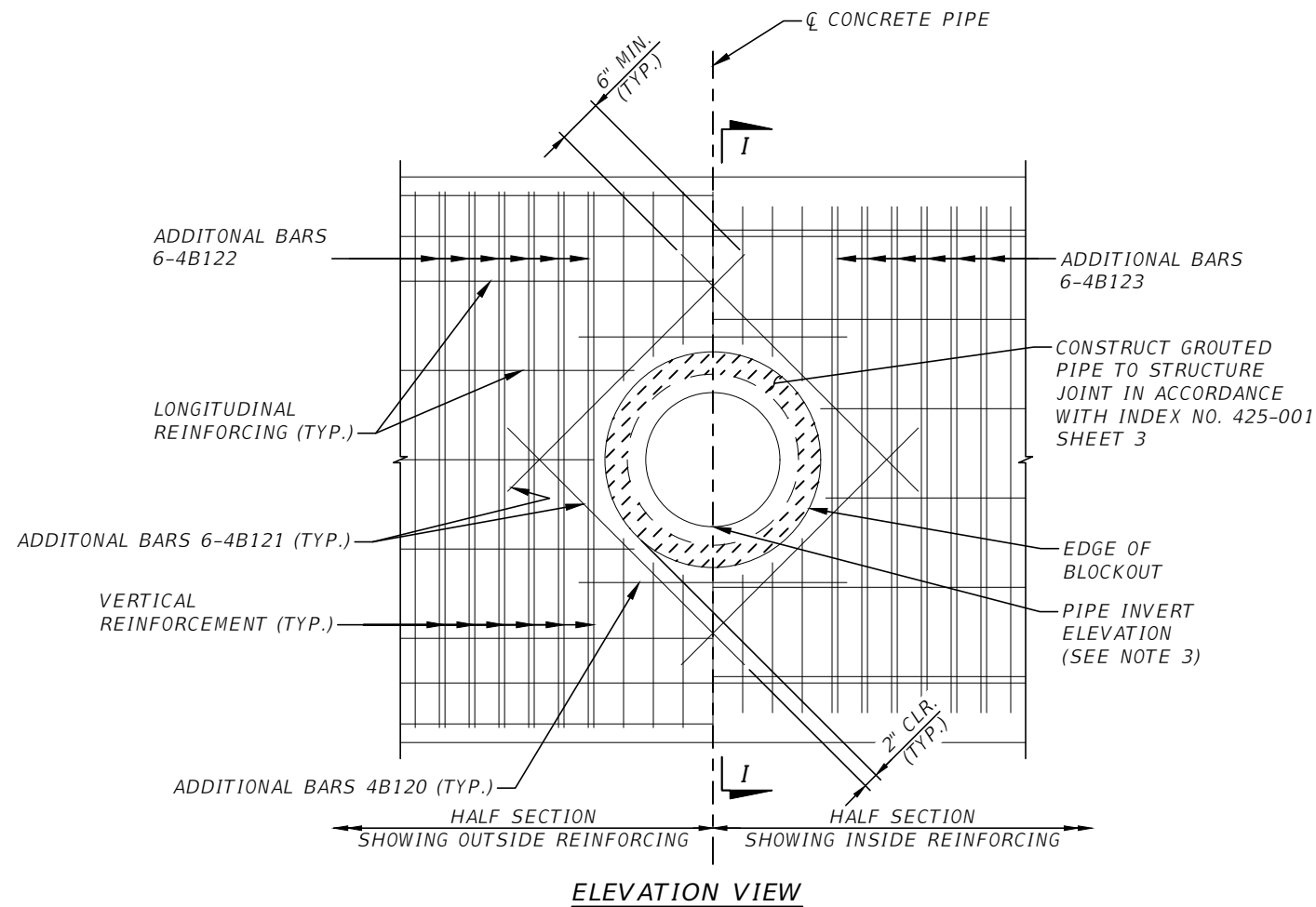
PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 501 TO  
 MENDOZA RD.  
 BOX CULVERT DETAILS (2)


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**PIPE BLOCKOUT DETAILS - PROPOSED CULVERT CD-B2**

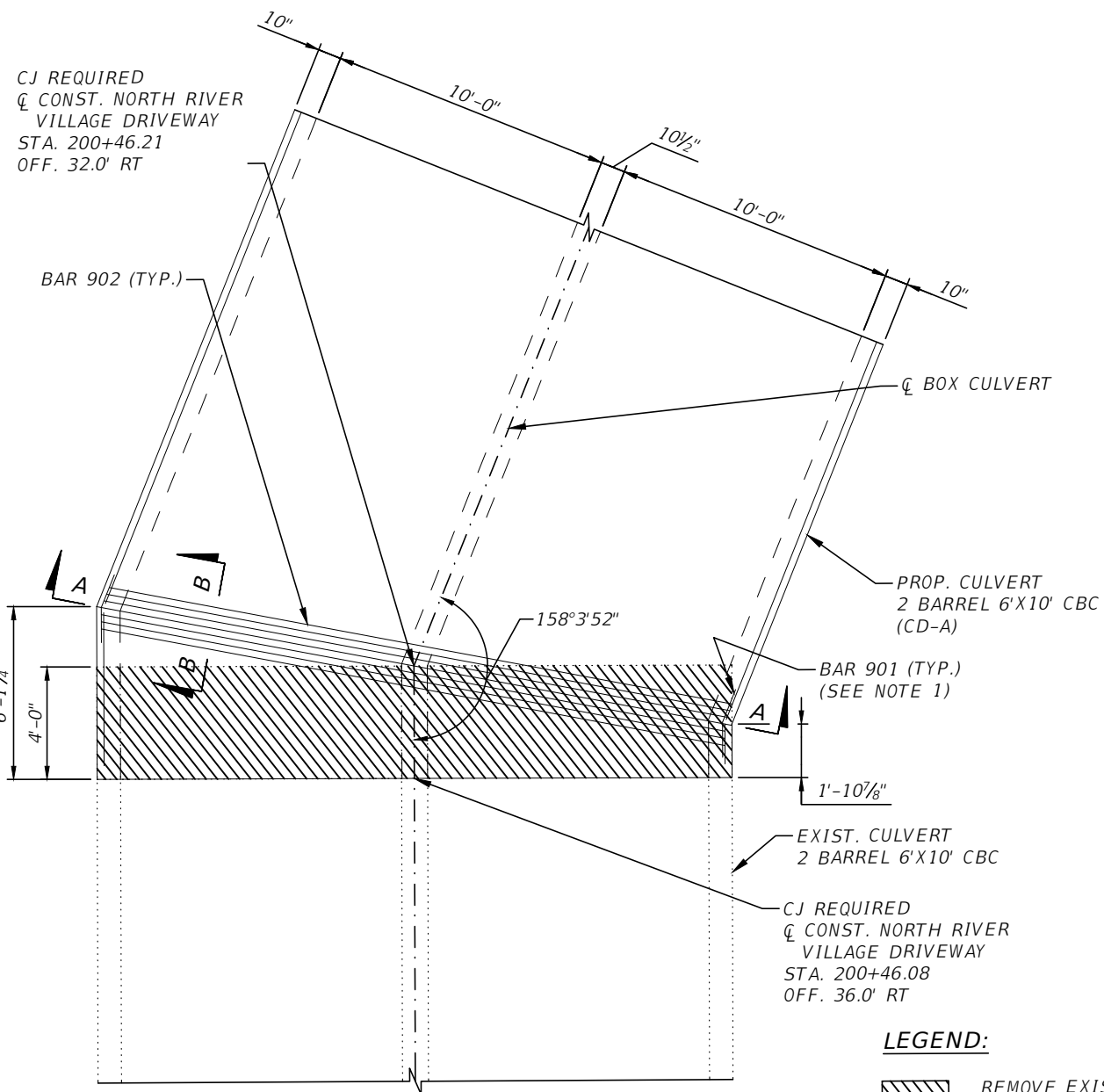
**PIPE BLOCKOUT NOTES:**

1. CUT BOX CULVERT REINFORCEMENT AS REQUIRED TO MAINTAIN 3" COVER.
2. PIPE BLOCKOUT DIAMETER TO BE 6" GREATER THAN PIPE OUTSIDE DIAMETER.
3. SEE DRAINAGE PLANS FOR SIZE, PLACEMENT AND INVERT ELEVATION.


NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 501 TO MENDOZA RD. BOX CULVERT DETAILS (3)	SHEET NO.		
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22						
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22						
			SCALE	NTS	CHECKED	PDM	6/7/22						

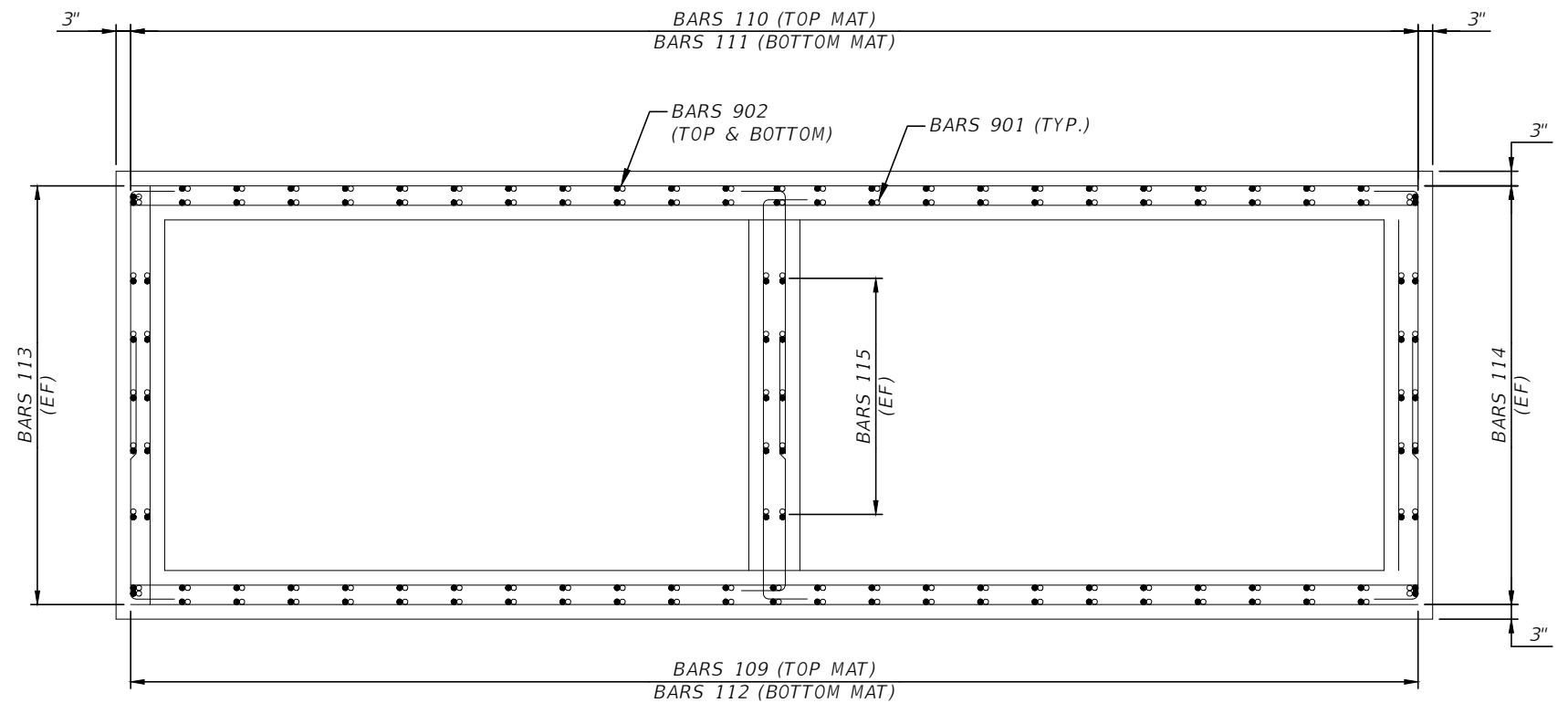
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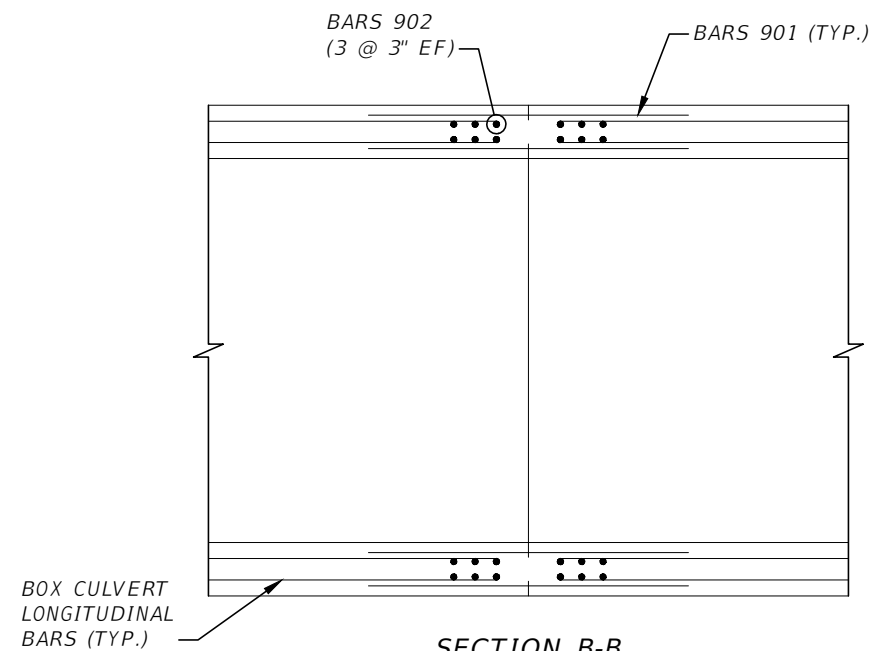


**CD-A CIP PLAN**  
(TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY)

**LEGEND:**  
 REMOVE EXISTING CULVERT CONCRETE. FIELD BEND EXISTING REINFORCEMENT TO MATCH CULVERT GEOMETRY.



**SECTION A-A**  
(SECTION TAKEN ALONG CJ)



**SECTION B-B**

- NOTES:**
1. BARS 901 TO BE LAPPED WITH BOX CULVERT LONGITUDINAL BARS (BARS 109 THRU 115).
  2. WORK THIS SHEET WITH STANDARD INDEX NO. 400-289 AND BOX CULVERT REINFORCING BAR LIST.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22
			SCALE	NTS	CHECKED	PDM	6/7/22

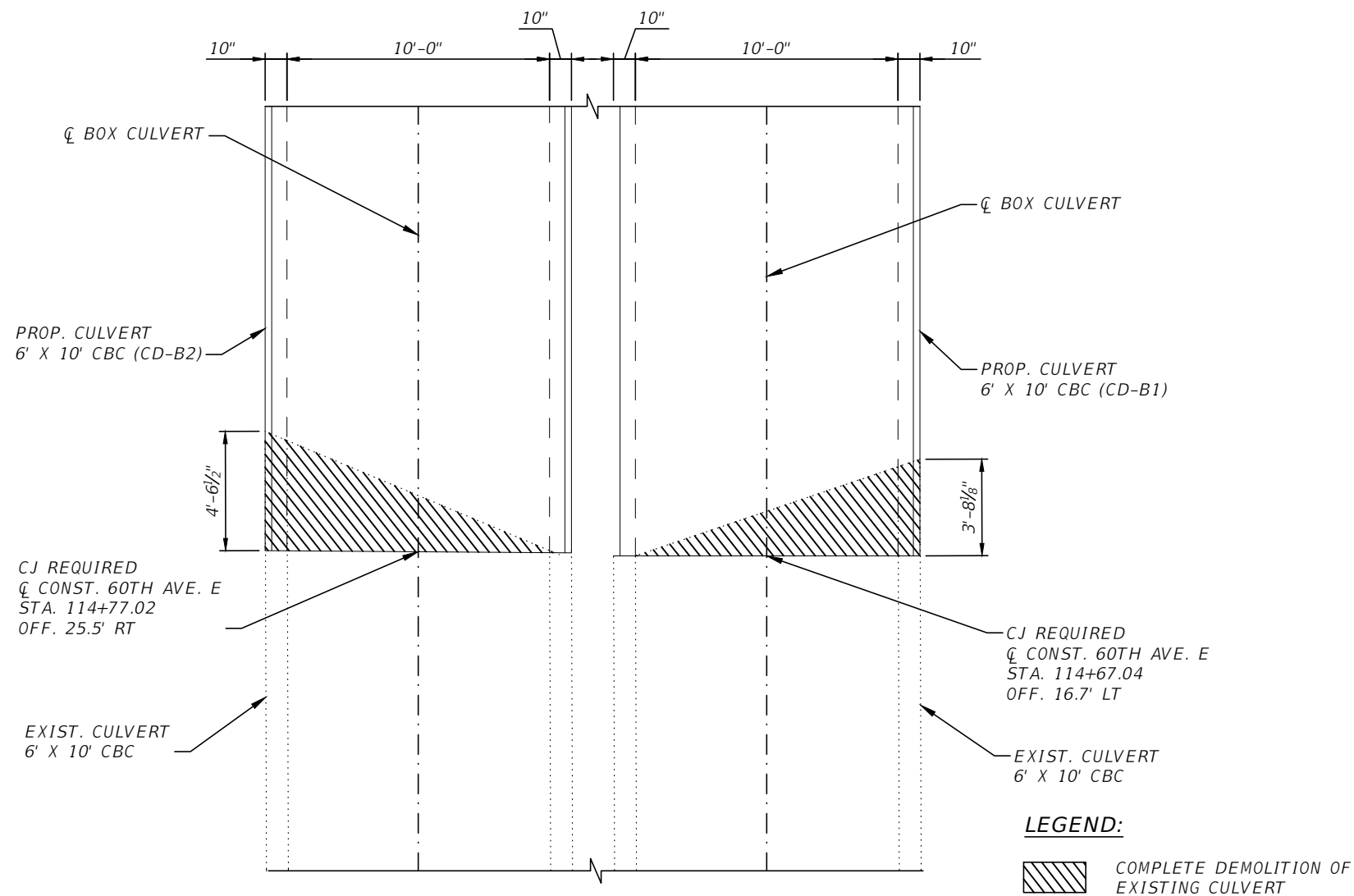
PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 BOX CULVERT DETAILS (4)

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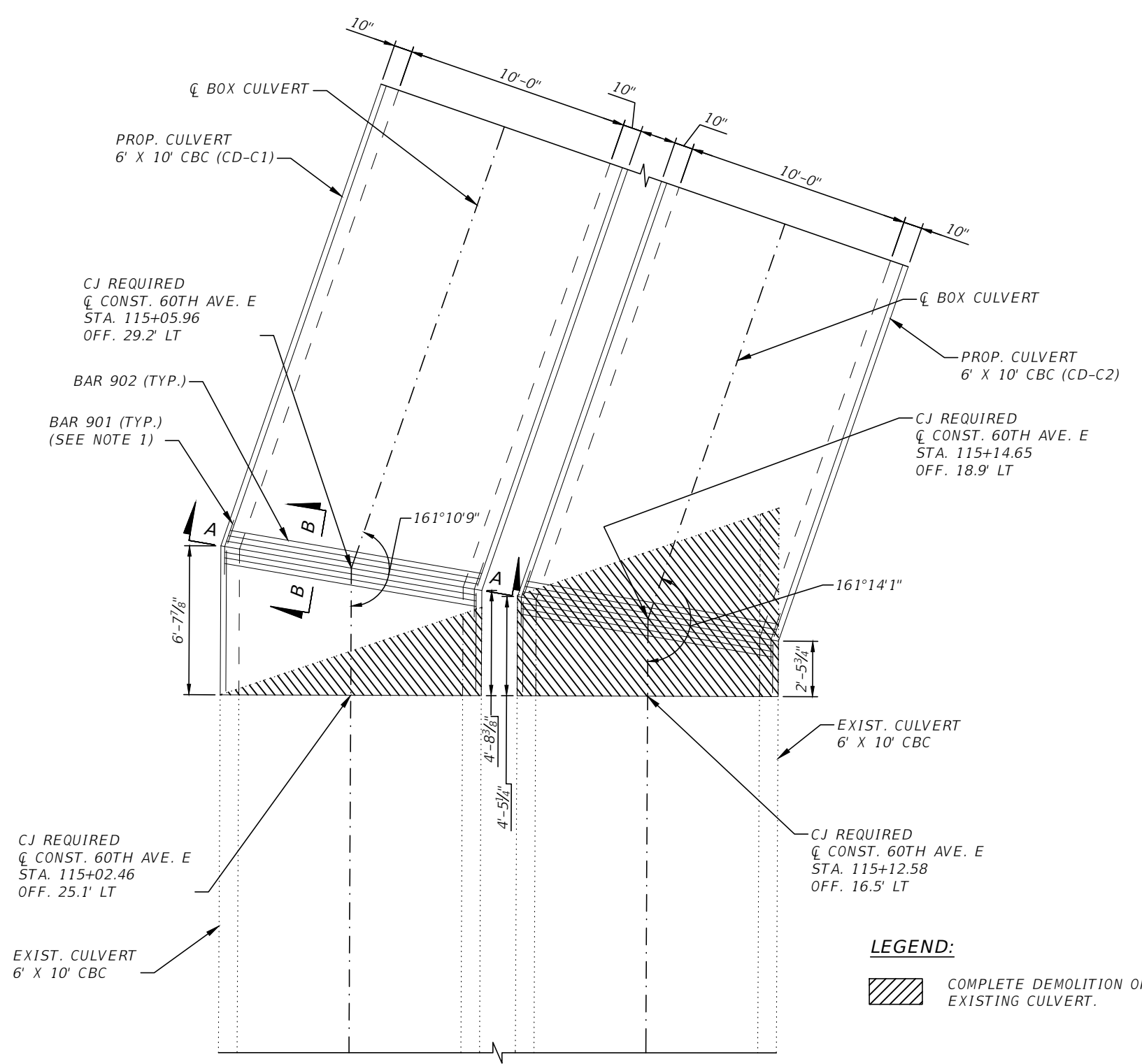
**CD-B PLAN**  
 (TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY)

**NOTE:**  
 1. WORK THIS SHEET WITH STANDARD INDEX NO. 400-289 AND BOX CULVERT REINFORCING BAR LIST.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456	PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT DETAILS (5)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22	KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602			106
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

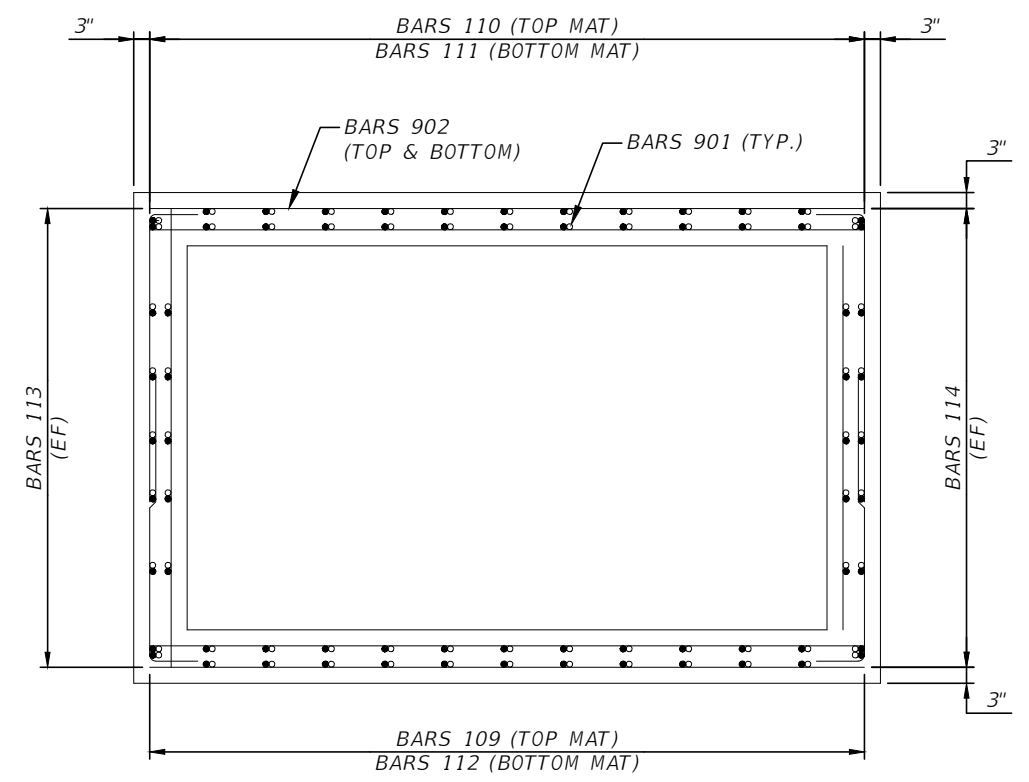
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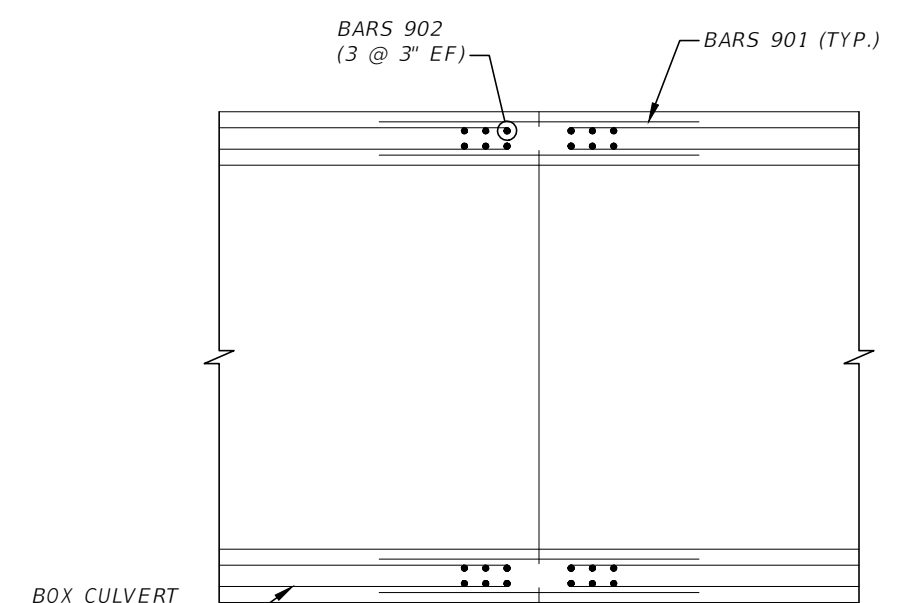


**CD-C CIP PLAN**  
(TRANSVERSE REINFORCING NOT SHOWN FOR CLARITY)

**LEGEND:**  
 COMPLETE DEMOLITION OF EXISTING CULVERT.



**SECTION A-A**  
(SECTION TAKEN ALONG CJ)



**SECTION B-B**

- NOTES:**
1. BARS 901 TO BE LAPPED WITH BOX CULVERT LONGITUDINAL BARS (BARS 109 THRU 114).
  2. WORK THIS SHEET WITH STANDARD INDEX NO. 400-289 AND BOX CULVERT REINFORCING BAR LIST

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22
			SCALE	NTS	CHECKED	PDM	6/7/22

PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING SERVICES**  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
**BOX CULVERT DETAILS (6)**

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

**BOX CULVERT DATA TABLES**

BOX, HEADWALL AND CUTOFF WALL DATA TABLE (inches unless shown otherwise)																			Table Date 7-01-09	
LOCATION	STRUCTURE /BRIDGE NUMBER	BOX									HEADWALL AND CUTOFF WALL									
		Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	#cells	Lc(ft)	Cover	Blhw	Hlhw	Brhw	Hrhw	Blcw	Hlcw	Brcw	Hrcw	SL(deg)	SR(deg)
200+84.58 LT	CD-A	10	6	11	10	10	10.5	2	99	2	12	24	0	0	12	24	0	0	23.8	0

LEFT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																	Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL									LEFT BEGIN WINGWALL								
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)
CD-A	18	12	48	12	114	4	8	8	19	18	12	48	12	130	4	8	8	19

RIGHT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																	Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	RIGHT END WINGWALL									RIGHT BEGIN WINGWALL								
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)
CD-A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

ESTIMATED CONCRETE QUANTITIES (CY)																				Table Date 7-01-13	
STRUCTURE /BRIDGE NUMBER	BOX								LEFT END WINGWALL			LEFT BEGIN WINGWALL			RIGHT END WINGWALL			RIGHT BEGIN WINGWALL			
	Left Cutoff Wall	Right Cutoff Wall	Bottom Slab	Walls	Top Slab	Left Head Wall	Right Head Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	
	CD-A	1.06	0	67.2	53.7	72.7	0.989	0	196	5.28	5.63	10.9	5.28	5.63	10.9	0	0	0	0	0	0

MAIN STEEL REINFORCEMENT SPACING (inches)																	Table Date 7-01-09		
STRUCTURE /BRIDGE NUMBER	BOX															HEADWALLS		CUTOFF WALLS	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115, 116...	803	806	809	812
CD-A	10	10	10	10	10	10	10	10	12	12	12	12	12	12	12	12	0	12	0

WINGWALL STEEL REINFORCEMENT SPACING (inches)																										Table Date 7-01-09		
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL							LEFT BEGIN WINGWALL							RIGHT END WINGWALL						RIGHT BEGIN WINGWALL							
	401 (407(8))	402 (403)	404 (405)	406	409	410	411	501 (507(8))	502 (503)	504 (505)	506	509	510	511	601 (607(8))	602 (603)	604 (605)	606	609	610	611	701 (707(8))	702 (703)	704 (705)	706	709	710	711
CD-A	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0


WINGWALL NOTE: Bar designations in "( )" are only required for variable height wingwalls.

NOTES [Notes Date 7-01-14]:

1. Environmental Class Moderately Aggressive
2. Reinforcing Steel, Grade 60
3. Concrete Class IV  $f'c = 5.5$  ksi
4. Soil Properties:  
Friction Angle 30 deg  
Modulus of Subgrade Reaction 90,000 pcf  
Nominal Bearing Resistance 4,500 psf
5. Work this Drawing with Standard Plans Index 400-289 and Box Culvert Details Sheets.
6. Settlement criteria for Precast Box Culvert option (Index 400-291):  
Long Term Differential Settlement ( $\Delta Y$ ) = 0.05 ft.  
Effective Length for Settlement (L) = 75 ft.
7. Connection Types permitted for Box Culvert Extensions - See Box Culvert Details Sheets.

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT DATA TABLES (1)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				108
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

**BOX CULVERT DATA TABLES**

BOX, HEADWALL AND CUTOFF WALL DATA TABLE (inches unless shown otherwise)																			Table Date 7-01-09	
LOCATION	STRUCTURE /BRIDGE NUMBER	BOX									HEADWALL AND CUTOFF WALL									
		Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	#cells	Lc(ft)	Cover	Blhw	Hlhw	Brhw	Hrhw	Blcw	Hlcw	Brcw	Hrcw	SL(deg)	SR(deg)
14+33.53 RT	CD-B1	10	6	11	10	10	10	1	51.7	2	0	0	12	24	0	0	12	24	0	40.5
14+50.97 RT	CD-B2	10	6	11	10	10	10	1	40.1	2	0	0	12	24	0	0	12	24	0	40.5

LEFT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																			Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL									LEFT BEGIN WINGWALL										
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)		
CD-B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CD-B2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

RIGHT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																			Table Date 01-01-11	
STRUCTURE /BRIDGE NUMBER	RIGHT END WINGWALL									RIGHT BEGIN WINGWALL										
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)		
CD-B1	18	12	48	12	49.5	9.46	8	8	1.6	18	12	48	12	131	9.46	8	8	19		
CD-B2	18	12	48	12	110	9.46	8	8	21	18	12	48	12	131	9.46	8	8	0		

ESTIMATED CONCRETE QUANTITIES (CY)																					Table Date 7-01-13	
STRUCTURE /BRIDGE NUMBER	BOX								LEFT END WINGWALL			LEFT BEGIN WINGWALL			RIGHT END WINGWALL			RIGHT BEGIN WINGWALL				
	Left Cutoff Wall	Right Cutoff Wall	Bottom Slab	Walls	Top Slab	Left Head Wall	Right Head Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total		
CD-B1	0	0.663	19.9	19.9	21.3	0	0.615	62.4	0	0	0	0	0	0	0.192	0.474	0.666	5.28	5.63	10.9		
CD-B2	0	0.663	15.7	15.6	16.7	0	0.615	49.3	0	0	0	0	0	0	5.83	6.22	12.1	0	0	0		

MAIN STEEL REINFORCEMENT SPACING (inches)																			Table Date 7-01-09	
STRUCTURE /BRIDGE NUMBER	BOX															HEADWALLS		CUTOFF WALLS		
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115, 116...	803	806	809	812	
CD-B1	10	10	10	10	10	10	0	10	12	12	12	12	12	12	0	0	12	0	12	
CD-B2	10	10	10	10	10	10	0	10	12	12	12	12	12	12	0	0	12	0	12	

WINGWALL STEEL REINFORCEMENT SPACING (inches)																											Table Date 7-01-09	
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL							LEFT BEGIN WINGWALL							RIGHT END WINGWALL							RIGHT BEGIN WINGWALL						
	401 407(8)	402 (403)	404 (405)	406	409	410	411	501 507(8)	502 (503)	504 (505)	506	509	510	511	601 607(8)	602 (603)	604 (605)	606	609	610	611	701 707(8)	702 (703)	704 (705)	706	709	710	711
CD-B1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	12	12	12	12	12	12	12	12	12	12	12
CD-B2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	12	12	12	12	12	0	0	0	0	0	0	0


WINGWALL NOTE: Bar designations in "( )" are only required for variable height wingwalls.

NOTES [Notes Date 7-01-14]:

- Environmental Class Moderately Aggressive
- Reinforcing Steel, Grade 60
- Concrete Class IV  $f'c = 5.5$  ksi
- Soil Properties:  
Friction Angle 30 deg  
Modulus of Subgrade Reaction 90,000 pcf  
Nominal Bearing Resistance 4,500 psf
- Work this Drawing with Standard Plans Index 400-289 and Box Culvert Details Sheets.
- Settlement criteria for Precast Box Culvert option (Index 400-291):  
Long Term Differential Settlement ( $\Delta Y$ ) = 0.05 ft.  
Effective Length for Settlement (L) = 55 ft.
- Connection Types permitted for Box Culvert Extensions - Type I/Type II
- Quantities for Type I and Type II Connections include 2 ft. additional payment length beyond Lc for connection to existing box culvert. (See Summary of Box Culvert Quantities box in Plans)

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 501 TO MENDOZA RD. BOX CULVERT DATA TABLES (2)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				109
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

**BOX CULVERT DATA TABLES**

BOX, HEADWALL AND CUTOFF WALL DATA TABLE (inches unless shown otherwise)																			Table Date 7-01-09	
LOCATION	STRUCTURE /BRIDGE NUMBER	BOX									HEADWALL AND CUTOFF WALL									
		Wc(ft)	Hc(ft)	Tt	Tw	Tb	Ti	#cells	Lc(ft)	Cover	Blhw	Hlhw	Brhw	Hrhw	Blcw	Hlcw	Brcw	Hrcw	SL(deg)	SR(deg)
15+47.21 LT	CD-C1	10	6	11	10	10	10	1	55.8	2	12	24	0	0	12	24	0	0	57.1	0
15+71.64 LT	CD-C2	10	6	11	10	10	10	1	71.9	2	12	24	0	0	12	24	0	0	57.1	0

LEFT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																	Table Date 01-01-11		
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL									LEFT BEGIN WINGWALL									
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	
CD-C1	18	12	48	12	147	9.46	8	8	1.6	18	12	48	12	32.9	9.46	8	8	19	
CD-C2	18	12	48	12	147	9.46	8	8	19	18	12	48	12	32.9	9.46	8	8	0	

RIGHT SIDE WINGWALLS DATA TABLE (inches unless shown otherwise)																	Table Date 01-01-11		
STRUCTURE /BRIDGE NUMBER	RIGHT END WINGWALL									RIGHT BEGIN WINGWALL									
	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	Rt	Rw	Rh	Rd	SW(deg)	β (deg)	He(ft)	Hs(ft)	Lw(ft)	
CD-C1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CD-C2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

ESTIMATED CONCRETE QUANTITIES (CY)																				Table Date 7-01-13		
STRUCTURE /BRIDGE NUMBER	BOX								LEFT END WINGWALL			LEFT BEGIN WINGWALL			RIGHT END WINGWALL			RIGHT BEGIN WINGWALL				
	Left Cutoff Wall	Right Cutoff Wall	Bottom Slab	Walls	Top Slab	Left Head Wall	Right Head Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total	Footing	Wall	Sub Total		
CD-C1	0.929	0	18.7	18.6	19.9	0.862	0	59.1	0.444	0.474	0.919	4.82	5.63	10.4	0	0	0	0	0	0		
CD-C2	0.929	0	25.3	25.4	27.2	0.862	0	79.8	5.28	5.63	10.9	0	0	0	0	0	0	0	0	0		

MAIN STEEL REINFORCEMENT SPACING (inches)																	Table Date 7-01-09		
STRUCTURE /BRIDGE NUMBER	BOX															HEADWALLS		CUTOFF WALLS	
	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115, 116...	803	806	809	812
CD-C1	10	10	10	10	10	10	0	10	12	12	12	12	12	12	0	12	0	12	0
CD-C2	10	10	10	10	10	10	0	10	12	12	12	12	12	12	0	12	0	12	0

WINGWALL STEEL REINFORCEMENT SPACING (inches)																										Table Date 7-01-09			
STRUCTURE /BRIDGE NUMBER	LEFT END WINGWALL							LEFT BEGIN WINGWALL							RIGHT END WINGWALL							RIGHT BEGIN WINGWALL							
	401 (407(8))	402 (403)	404 (405)	406	409	410	411	501 (507(8))	502 (503)	504 (505)	506	509	510	511	601 (607(8))	602 (603)	604 (605)	606	609	610	611	701 (707(8))	702 (703)	704 (705)	706	709	710	711	
CD-C1	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CD-C2	12	12	12	12	12	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		


WINGWALL NOTE: Bar designations in "( )" are only required for variable height wingwalls.

NOTES [Notes Date 7-01-14]:

1. Environmental Class Moderately Aggressive
2. Reinforcing Steel, Grade 60
3. Concrete Class IV  $f'c = 5.5 \text{ ksi}$
4. Soil Properties:  
Friction Angle 30 deg  
Modulus of Subgrade Reaction 90,000 pcf  
Nominal Bearing Resistance 4,500 psf
5. Work this Drawing with Standard Plans Index 400-289 and Box Culvert Details Sheets.
6. Settlement criteria for Precast Box Culvert option (Index 400-291):  
Long Term Differential Settlement ( $\Delta Y$ ) = 0.05 ft.  
Effective Length for Settlement (L) = 65 ft.
7. Connection Types permitted for Box Culvert Extensions - See Box Culvert Details Sheets.
8. Quantities for Type I and Type II Connections include 2 ft. additional payment length beyond Lc for connection to existing box culvert. (See Summary of Box Culvert Quantities box in Plans)

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT DATA TABLES (3)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				110
			SEC./TWN./RGE	4-34S-18E	DRAWN	BAH	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

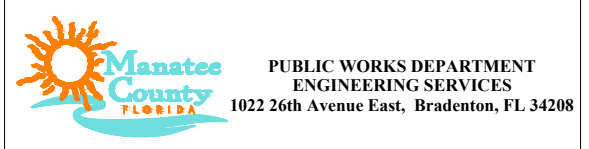


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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG		
LOCATION							CD-A - MAIN BOX										NO. REQUIRED = 1															
8	101	22	3	109	1			22	2	1/2																						
8	201	VARY		11	1			20	1																							
		10	8	0	1			1	2	1/4																						
8	102	22	3	109	1			22	2	1/2																						
8	202	VARY		11	1			20	1																							
		10	8	0	1			1	2	1/4																						
8	103	22	3	111	1			22	2	1/2																						
8	203	VARY		11	1			19	8	1/2																						
		10	3	0	1			0	9	3/4																						
8	104	22	3	111	1			22	2	1/2																						
8	204	VARY		11	1			19	8	1/2																						
		10	3	0	1			0	9	3/4																						
7	105	7	4	228	10			2	4	3/4	4	10	3/4																			
7	106	7	4	228	10			2	4	3/4	4	10	3/4																			
5	107	5	5	456	10			0	10		4	7																				
5	108	7	5	228	1			7	5																							
5	109	VARY		24	2			3	8	101	0																			1		
		99	11	0	2			3	8	91	5																			1		
5	110	VARY		24	2			3	8	99	6																			1		
		98	5	0	2			3	8	89	11																			1		
5	111	VARY		24	2			3	8	99	2																			1		
		98	1	0	2			3	8	89	7																			1		
5	112	VARY		24	2			3	8	101	0																			1		
		99	11	0	2			3	8	91	5																			1		
5	113	93	7	14	2			3	8	89	11																			1		
5	114	103	2	14	2			3	8	99	6																			1		
5	115	98	5	14	2			3	8	94	8 1/2																			1		
LOCATION							CD-A - LEFT END WINGWALL										NO. REQUIRED = 1															
5	401	7	9	20	1			7	9																							
4	402	18	8	9	1			18	8																							
4	404	18	8	9	1			18	8																							
4	406	7	9	20	1			7	9																							
5	407	4	9	20	10			2	2	2	6 3/4																					
4	409	6	2	20	1			6	2																							
4	410	6	2	20	1			6	2																							
4	411	18	8	16	1			18	8																							
5	412	2	0	13	1			2	0																							
LOCATION							CD-A - LEFT BEGIN WINGWALL										NO. REQUIRED = 1															
5	501	7	9	20	1			7	9																							
4	502	18	8	9	1			18	8																							
4	504	18	8	9	1			18	8																							
4	506	7	9	20	1			7	9																							
5	507	4	9	20	10			2	2	2	6 3/4																					
4	509	6	2	20	1			6	2																							
4	510	6	2	20	1			6	2																							
4	511	18	8	16	1			18	8																							
5	512	2	0	13	1			2	0																							
LOCATION							CD- A - LEFT HEADWALL										NO. REQUIRED = 1															
11	801	24	4	2	1			24	3 3/4																							
11	802	24	4	2	1			24	3 3/4																							
5	803	4	7	25	27			1	7	0	6	0	2	0	5	1	2	0	6	0	6											

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22
			SCALE	NTS	CHECKED	PDM	6/7/22

PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602




60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 BOX CULVERT REINFORCING BAR LIST (1)

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MARK	LENGTH	NO	TYP	STY	B	C	D	E	F	H	J	K	N	Ø													
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG
LOCATION CD-A - LEFT CUTOFF WALL NO. REQUIRED = 1																											
7	807	24- 4		2	1			24- 3 3/4																			
7	808	24- 4		2	1			24- 3 3/4																			
5	809	4-10		25	7			1- 7	0- 8	0- 6	0- 6																
LOCATION CD-A CIP SEGMENT NO. REQUIRED = 1																											
8	101	22- 3		2	1			22- 2 1/2																			
8	301	VARY		6	1			20- 7																			
		10- 9		0	1			0-10 3/4																			
8	102	22- 3		2	1			22- 2 1/2																			
8	302	VARY		6	1			20- 7																			
		10- 9		0	1			0-10 3/4																			
8	103	22- 3		2	1			22- 2 1/2																			
8	303	VARY		6	1			6- 8 1/4																			
		3-11		0	1			1- 0 1/2																			
8	104	22- 3		2	1			22- 2 1/2																			
8	304	VARY		6	1			20- 7																			
		10- 9		0	1			0-10 1/2																			
7	105	7- 4		10	10			2- 4 3/4	4-10 3/4																		
7	106	7- 4		10	10			2- 4 3/4	4-10 3/4																		
5	107	7- 4		20	10			2- 4 3/4	4-10 3/4																		
5	108	7- 5		10	1			7- 5																			
5	109	VARY		23	1			5- 8 3/4																			
		3- 8		0	1			1- 7																			
5	110	VARY		23	1			5- 8 3/4																			
		3- 8		0	1			1- 7																			
5	111	VARY		23	1			5- 8 3/4																			
		3- 8		0	1			1- 7																			
5	112	VARY		23	1			5- 8 3/4																			
		3- 9		0	1			1- 7																			
5	113	5- 9		14	1			5- 8 3/4																			
5	114	1- 7		14	1			1- 7																			
5	115	3- 8		14	1			3- 8																			
5	901	4- 0		148	12			2- 0	2- 0																	22	
7	902	24- 0		12	1			23-11 1/2																			

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT REINFORCING BAR LIST (2)	SHEET NO. 112
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG		
LOCATION							CD-B1 - MAIN BOX										NO. REQUIRED = 1															
7	101	11-	4	60	1			11-	4																							
7	301	VARY		10	1			9-	7 1/4																							
		5-	3	0	1			0-	9 1/4																							
7	102	11-	4	60	1			11-	4																							
7	302	VARY		10	1			9-	7 1/4																							
		5-	3	0	1			0-	9 1/4																							
7	103	11-	4	61	1			11-	4																							
7	303	VARY		11	1			10-	4 1/2																							
		5-	6	0	1			0-	7																							
7	104	11-	4	61	1			11-	4																							
7	304	VARY		11	1			10-	4 1/2																							
		5-	6	0	1			0-	7																							
7	105	7-	4	129	10			2-	4 3/4					4-10	3/4																	
7	106	7-	4	129	10			2-	4 3/4					4-10	3/4																	
5	108	7-	5	129	1			7-	5																							
5	109	VARY		13	1			59-	5 1/2																							
		54-	10	0	1			50-	2 3/4																							
5	110	VARY		13	1			57-	11 1/2																							
		53-	4	0	1			48-	8 3/4																							
5	111	VARY		13	1			57-	7 1/2																							
		53-	0	0	1			48-	4 3/4																							
5	112	VARY		13	1			59-	5 1/2																							
		54-	10	0	1			50-	2 3/4																							
5	113	58-	0	14	1			57-	11 1/2																							
5	114	48-	9	14	1			48-	8 3/4																							
LOCATION							CD-B1 - RIGHT END WINGWALL										NO. REQUIRED = 1															
5	601	7-	9	3	1			7-	9																							
4	602	1-	4	9	1			1-	3 1/4																							
4	604	1-	4	9	1			1-	3 1/4																							
4	606	7-	9	3	1			7-	9																							
5	607	4-	9	3	10			2-	2					2-6	3/4																	
4	609	6-	2	3	1			6-	2																							
4	610	6-	2	3	1			6-	2																							
4	611	1-	4	16	1			1-	3 1/4																							
5	612	2-	0	26	1			2-	0																							
LOCATION							CD-B1 - RIGHT BEGIN WINGWALL										NO. REQUIRED = 1															
5	701	7-	9	20	1			7-	9																							
4	702	18-	8	9	1			18-	8																							
4	704	18-	8	9	1			18-	8																							
4	706	7-	9	20	1			7-	9																							
5	707	4-	9	20	10			2-	2					2-6	3/4																	
4	709	6-	2	20	1			6-	2																							
4	710	6-	2	20	1			6-	2																							
4	711	18-	8	16	1			18-	8																							
5	712	2-	0	13	1			2-	0																							
LOCATION							CD-B1 - RIGHT HEADWALL										NO. REQUIRED = 1															
11	804	15-	0	2	1			15-	0																							
11	805	15-	0	2	1			15-	0																							
5	806	4-	7	16	27			1-	7 1/4					0-6																		

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22
			SCALE	NTS	CHECKED	PDM	6/7/22

PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 BOX CULVERT REINFORCING BAR LIST (3)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MARK	LENGTH	NO	TYP	STY	B	C	D	E	F	H	J	K	N	Ø														
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG	
LOCATION CD-B1 - RIGHT CUTOFF WALL NO. REQUIRED = 1																												
7	810	15- 0	2	1				15- 0																				
7	811	15- 0	2	1				15- 0																				
5	812	4-11	16	7				1- 7 1/4	0- 8	0- 6	0- 6																	
LOCATION CD-B2 - MAIN BOX NO. REQUIRED = 1																												
7	101	11- 4	46	1				11- 4																				
7	301	VARY	10	1				9- 8 3/4																				
		5- 4	0	1				0-11																				
7	102	11- 4	46	1				11- 4																				
7	302	VARY	10	1				9- 8 3/4																				
		5- 4	0	1				0-11																				
7	103	11- 4	47	1				11- 4																				
7	303	VARY	11	1				10- 6																				
		5- 8	0	1				0- 8 1/2																				
7	104	11- 4	47	1				11- 4																				
7	304	VARY	11	1				10- 6																				
		5- 8	0	1				0- 8 1/2																				
7	105	7- 4	101	10				2- 4 3/4	4-10 3/4																			
7	106	7- 4	101	10				2- 4 3/4	4-10 3/4																			
5	108	7- 5	101	1				7- 5																				
5	109	VARY	13	1				47-10 3/4																				
		43- 4	0	1				38- 8																				
5	110	VARY	13	1				46- 4 3/4																				
		41-10	0	1				37- 2																				
5	111	VARY	13	1				46- 0 3/4																				
		41- 6	0	1				36-10																				
5	112	VARY	13	1				47-10 3/4																				
		43- 4	0	1				38- 8																				
5	113	46- 5	14	1				46- 4 3/4																				
5	114	37- 2	14	1				37- 2																				
4	B120	4- 0	2	1				4- 0																				
4	B121	4- 4	4	1				4- 4																				
4	B122	10- 1	12	11				7- 5	1- 4	1- 4																		
4	B123	7- 5	12	1				7- 5																				
LOCATION CD-B2 - RIGHT END WINGWALL NO. REQUIRED = 1																												
5	601	7- 9	22	1				7- 9																				
4	602	20- 8	9	1				20- 8																				
4	604	20- 8	9	1				20- 8																				
4	606	7- 9	22	1				7- 9																				
5	607	4- 9	22	10				2- 2	2- 6 3/4																			
4	609	6- 2	22	1				6- 2																				
4	610	6- 2	22	1				6- 2																				
4	611	20- 8	16	1				20- 8																				
5	612	2- 0	13	1				2- 0																				
LOCATION CD-B2 - RIGHT HEADWALL NO. REQUIRED = 1																												
11	804	15- 0	2	1				15- 0																				
11	805	15- 0	2	1				15- 0																				
5	806	4- 7	16	27				1- 7 1/4	0- 6	0- 2	0- 5	1- 2	0- 6	0- 6														
LOCATION CD-B2 - RIGHT CUTOFF WALL NO. REQUIRED = 1																												
7	810	15- 0	2	1				15- 0																				
7	811	15- 0	2	1				15- 0																				
5	812	4-11	16	7				1- 7 1/4	0- 8	0- 6	0- 6																	

NUMBER	DESCRIPTION	DATE

PROJECT #	SURVEYED	HYATT	5/2021
6083160			
SURVEY #	DESIGNED	BAH	6/7/22
18-2238			
SEC./TWN./RGE	DRAWN	ARF	6/7/22
4-34S-18E			
SCALE	CHECKED	PDM	6/7/22
NTS			

PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602



60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 BOX CULVERT REINFORCING BAR LIST (4)

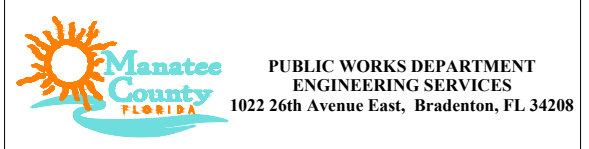
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG		
		LOCATION CD-C1 - MAIN BOX															NO. REQUIRED = 1															
7	101	11	4	51	1			11	4																							
7	201	VARY		20	1			10	5 1/4																							
		5	4	0	1			0	2 1/4																							
7	102	11	4	51	1			11	4																							
7	202	VARY		20	1			10	5 1/4																							
		5	4	0	1			0	2 1/4																							
7	103	11	4	52	1			11	4																							
7	203	VARY		20	1			10	10 1/2																							
		5	9	0	1			0	7 1/4																							
7	104	11	4	52	1			11	4																							
7	204	VARY		20	1			10	10 1/2																							
		5	9	0	1			0	7 1/4																							
7	105	7	4	121	10			2	4 3/4	4	10 3/4																					
7	106	7	4	121	10			2	4 3/4	4	10 3/4																					
5	108	7	5	121	1			7	5																							
5	109	VARY		13	2			2	8	59	10 1/2																					
		54	2	0	2			2	8	43	1 1/4																					
5	110	VARY		13	2			2	8	58	4 1/2																					
		52	8	0	2			2	8	41	7 1/4																					
5	111	VARY		13	2			2	8	58	0 1/2																					
		52	4	0	2			2	8	41	3 1/4																					
5	112	VARY		13	2			2	8	59	10 1/2																					
		54	2	0	2			2	8	43	1 1/4																					
5	113	44	4	14	2			2	8	41	7 1/4																					
5	114	61	1	14	2			2	8	58	4 1/2																					
		LOCATION CD-C1 - LEFT END WINGWALL															NO. REQUIRED = 1															
5	401	7	9	3	1			7	9																							
4	402	1	4	9	1			1	3 1/4																							
4	404	1	4	9	1			1	3 1/4																							
4	406	7	9	3	1			7	9																							
5	407	4	9	3	10			2	2	2	6 3/4																					
4	409	6	2	3	1			6	2																							
4	410	6	2	3	1			6	2																							
4	411	1	4	16	1			1	3 1/4																							
5	412	2	0	26	1			2	0																							
		LOCATION CD-C1 - LEFT BEGIN WINGWALL															NO. REQUIRED = 1															
5	501	7	9	20	1			7	9																							
4	502	18	8	9	1			18	8																							
4	504	18	8	9	1			18	8																							
4	506	7	9	20	1			7	9																							
5	507	4	9	20	10			2	2	2	6 3/4																					
4	509	6	2	20	1			6	2																							
4	510	6	2	20	1			6	2																							
4	511	18	8	16	1			18	8																							
5	512	2	0	26	1			2	0																							
		LOCATION CD-C1 - LEFT HEADWALL															NO. REQUIRED = 1															
11	801	21	2	2	1			21	2																							
11	802	21	2	2	1			21	2																							
5	803	4	7	22	27			1	7 1/4	0	6	0	2	0	5	1	2	0	6	0	6											

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22
			SCALE	NTS	CHECKED	PDM	6/7/22

PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456  
 KISINGER CAMPO & ASSOCIATES CORP.  
 201 N. FRANKLIN STREET  
 SUITE 400  
 TAMPA, FL 33602




60TH AVE. EAST FROM US 301 TO MENDOZA RD.  
 BOX CULVERT REINFORCING BAR LIST (5)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG		
		LOCATION CD-C1 - LEFT CUTOFF WALL															NO. REQUIRED = 1															
7	807	21	2	2	1			21	2																							
7	808	21	2	2	1			21	2																							
5	809	4	11	22	7			1	7 1/4		0	8		0	6		0	6														
		LOCATION CD-C1 CIP SEGMENT															NO. REQUIRED = 1															
7	101	11	4	5	1			11	4																							
7	201	VARY		3	1			9	10 3/4																							
		5	6	0	1			1	0 1/2																							
7	102	11	4	5	1			11	4																							
7	202	VARY		3	1			9	10 3/4																							
		5	6	0	1			1	0 1/2																							
7	103	11	4	5	1			11	4																							
7	203	VARY		3	1			9	10 3/4																							
		5	6	0	1			1	0 1/2																							
7	104	11	4	5	1			11	4																							
7	204	VARY		3	1			9	10 3/4																							
		5	6	0	1			1	0 1/2																							
7	105	7	4	13	10			2	4 3/4		4	10 3/4																				
7	106	7	4	13	10			2	4 3/4		4	10 3/4																				
5	108	7	5	13	1			7	5																							
5	109	VARY		13	1			5	11 3/4																							
		5	1	0	1			4	2																							
5	110	VARY		13	1			5	11 3/4																							
		5	1	0	1			4	2																							
5	111	VARY		13	1			5	11 3/4																							
		5	1	0	1			4	2																							
5	112	VARY		13	1			5	11 3/4																							
		5	1	0	1			4	2																							
5	113	6	0	14	1			5	11 3/4																							
5	114	4	2	14	1			4	2																							
5	901	4	0	80	12			2	0		2	0																		19		
7	902	12	0	12	1			12	0																							

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT REINFORCING BAR LIST (6)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				116
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

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MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG		
		LOCATION CD-C2 - MAIN BOX														NO. REQUIRED = 1																
7	101	11-4		73	1			11-4																								
7	201	VARY		20	1			10-5 1/4																								
		5-4		0	1			0-2																								
7	102	11-4		73	1			11-4																								
7	202	VARY		20	1			10-5 1/4																								
		5-4		0	1			0-2																								
7	103	11-4		74	1			11-4																								
7	203	VARY		20	1			10-10 1/4																								
		5-9		0	1			0-7																								
7	104	11-4		74	1			11-4																								
7	204	VARY		20	1			10-10 1/4																								
		5-9		0	1			0-7																								
7	105	7-4		165	10			2-4 3/4						4-10 3/4																		
7	106	7-4		165	10			2-4 3/4						4-10 3/4																		
5	108	7-5		165	1			7-5																								
5	109	VARY		13	2			2-6					78-2 1/4																	1		
		72-4		0	2			2-6					61-5 1/4																	1		
5	110	VARY		13	2			2-6					76-8 1/4																	1		
		70-10		0	2			2-6					59-11 1/4																	1		
5	111	VARY		13	2			2-6					76-4 1/4																	1		
		70-6		0	2			2-6					59-7 1/4																	1		
5	112	VARY		13	2			2-6					78-2 1/4																	1		
		72-4		0	2			2-6					61-5 1/4																	1		
5	113	62-6		14	2			2-6					59-11 1/4																	1		
5	114	79-3		14	2			2-6					76-8 1/4																	1		
		LOCATION CD-C2 - LEFT END WINGWALL														NO. REQUIRED = 1																
5	401	7-9		20	1			7-9																								
4	402	18-8		9	1			18-8																								
4	404	18-8		9	1			18-8																								
4	406	7-9		20	1			7-9																								
5	407	4-9		20	10			2-2					2-6 3/4																			
4	409	6-2		20	1			6-2																								
4	410	6-2		20	1			6-2																								
4	411	18-8		16	1			18-8																								
5	412	2-0		13	1			2-0																								
		LOCATION CD-C2 - LEFT HEADWALL														NO. REQUIRED = 1																
11	801	21-2		2	1			21-2																								
11	802	21-2		2	1			21-2																								
5	803	4-7		22	27			1-7 1/4					0-6				0-2			0-5				1-2			0-6			0-6		
		LOCATION CD-C2 - LEFT CUTOFF WALL														NO. REQUIRED = 1																
7	807	21-2		2	1			21-2																								
7	808	21-2		2	1			21-2																								
5	809	4-11		22	7			1-7 1/4					0-8				0-6			0-6												

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT REINFORCING BAR LIST (7)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				117
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

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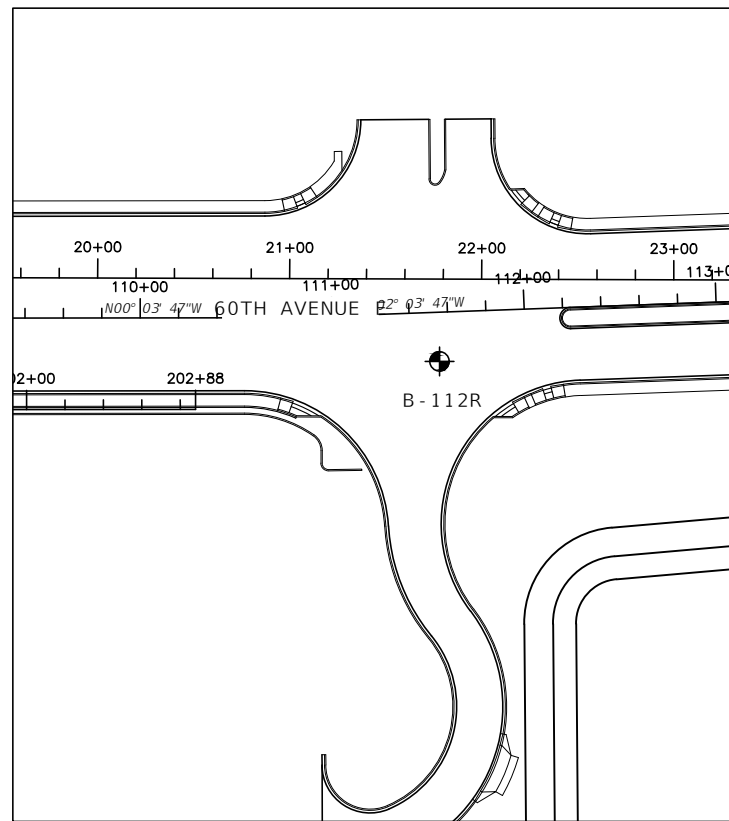
MARK		LENGTH		NO	TYP	STY	B			C			D			E			F			H			J			K			N	Ø			
SIZE	DES	FT	IN	BARS	BAR	A	G	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	FT	IN	FR	NO	ANG					
LOCATION															CD-C2 CIP SEGMENT															NO. REQUIRED = 1					
7	101	11	4	3	1			11	4																										
7	201	VARY		3	1			6	8 1/4																										
		3-11		0	1			1	0 1/2																										
7	102	11	4	3	1			11	4																										
7	202	VARY		3	1			6	8 1/4																										
		3-11		0	1			1	0 1/2																										
7	103	11	4	3	1			11	4																										
7	203	VARY		3	1			6	8 1/4																										
		3-11		0	1			1	0 1/2																										
7	104	11	4	3	1			11	4																										
7	204	VARY		3	1			6	8 1/4																										
		3-11		0	1			1	0 1/2																										
7	105	7	4	9	10			2	4 3/4	4	10 3/4																								
7	106	7	4	9	10			2	4 3/4	4	10 3/4																								
5	108	7	5	9	1			7	5																										
5	109	VARY		13	1			3	9 1/4																										
		2-11		0	1			1	11 1/2																										
5	110	VARY		13	1			3	9 1/4																										
		2-11		0	1			1	11 1/2																										
5	111	VARY		13	1			3	9 1/4																										
		2-11		0	1			1	11 1/2																										
5	112	VARY		13	1			3	9 1/4																										
		2-11		0	1			1	11 1/2																										
5	113	3	10	14	1			3	9 1/4																										
5	114	2	0	14	1			1	11 1/2																										
5	901	4	0	80	12			2	0	2	0																					19			
7	902	12	0	12	1			12	0																										

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	PATRICK D. MULHEARN, P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. BOX CULVERT REINFORCING BAR LIST (8)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	BAH	6/7/22				118
			SEC./TWN./RGE	4-34S-18E	DRAWN	ARF	6/7/22				
			SCALE	NTS	CHECKED	PDM	6/7/22				

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



# BORING LOCATION PLAN



NOTE: BASE MAP PROVIDED BY KISINGER CAMPO & ASSOCIATES, CORP.

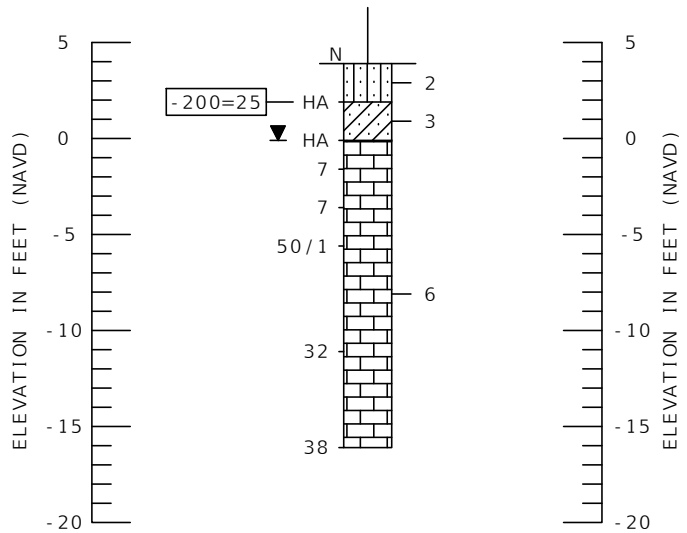
- 1 LIGHT GRAY TO BROWN FINE SAND TO SILTY SAND (A-3/A-2-4) N
- 2 LIGHT GRAY TO BROWN SILTY SAND (A-2-4)
- 3 LIGHT GRAY TO GRAY SILTY SAND TO CLAYEY SAND (A-2-4/A-2-6)
- 4 LIGHT GRAY SILT TO CLAY WITH SAND (A-4/A-6/A-7-6)
- 5 DARK GRAY ORGANIC SAND TO MUCK (A-8)
- 6 CALCAREOUS CLAY TO WEATHERED LIMESTONE
- 7 LIGHT GRAY CLAY (A-7-6)

- A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCES
- ▼ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION
- C/L CONST. CENTERLINE CONSTRUCTION 60TH AVENUE EAST
- NAVD NORTH AMERICAN VERTICAL DATUM OF 1988
- \* BORING LOCATED BY SURVEYOR
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- ★ APPROXIMATE LOCATION OF SPT BORING

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:  
 SUBSTRUCTURE CONCRETE: MODERATELY AGGRESSIVE (RESISTIVITY= 3000 OHM-CM) SUBSTRUCTURE STEEL: MODERATELY AGGRESSIVE (RESISTIVITY= 3000 OHM-CM)

SOIL TEST RESULTS:  
 RESISTIVITY: 3,000 OHM-CM  
 CHLORIDES: 15 PPM  
 SULFATES: <5  
 pH: 7.4

BOR # B-112R  
 STA. 111+55  
 REF. C/L CONST.  
 OFF. 43' RT.  
 ELEV. 3.9  
 DATE 11/30/2021  
 DRILLER B. CRAIG  
 HAMMER AUTOMATIC  
 RIG D-25



NOTES:

- THE BORINGS WERE LOCATED IN THE FIELD BY A REPRESENTATIVE OF TIERRA USING HAND-HELD, NON-SURVEY GRADE GPS EQUIPMENT WITH A MANUFACTURE'S REPORTED ACCURACY OF ± 10 FEET. STATION, OFFSET AND GROUND ELEVATIONS AT THE BORING LOCATIONS WERE DETERMINED BASED ON THE ESTIMATED GPS COORDINATES IN CONJUNCTION WITH PROJECT DESIGN FILES PROVIDED BY AIM ENGINEERING & SURVEYING, INC. THE BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED APPROXIMATE. FOR BORING DENOTED WITH AN ASTERISKS (\*), THE STATION, OFFSET AND ELEVATION WERE LOCATED BY THE PROJECT SURVEYOR.
- BASED ON REVIEW OF THE "POTENTIOMETRIC SURFACE OF THE UPPER FLORIDAN AQUIFER, WEST CENTRAL FLORIDA" MAPS PUBLISHED BY THE USGS, THE POTENTIOMETRIC SURFACE ELEVATION IN THE VICINITY OF THE CULVERT RANGES UP TO APPROXIMATELY +25 FEET, NGVD 29. ARTESIAN CONDITIONS WERE NOT ENCOUNTERED DURING THE FIELD EXPLORATION; HOWEVER, THE CONTRACTOR SHOULD BE PREPARED TO ADDRESS ARTESIAN LEVELS UP TO A HEAD OF +25 FEET, NGVD 29 AT NO ADDITIONAL COST TO THE COUNTY.
- VERY HARD CLAY TO WEATHERED LIMESTONE WAS ENCOUNTERED WITHIN THE BORINGS. SPECIAL TOOLS OR EQUIPMENT MAY BE REQUIRED TO EXCAVATE INTO AND/OR THROUGH SUCH MATERIALS. LIMESTONE IS POROUS AND WILL BE DIFFICULT TO DEWATER.

AUTOMATIC HAMMER	
GRANULAR MATERIALS - RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM	8 TO 24
DENSE	24 TO 40
VERY DENSE	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24



BOX CULVERT CD-A

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	SW	06/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	SW	06/2022
			SCALE	NTS	CHECKED	MEN	06/2022

MARC E. NOVAK, P.E.  
 LICENSE NUMBER 67431  
 TIERRA, INC.  
 7351 TEMPLE TERRACE HIGHWAY  
 TAMPA, FL 33637

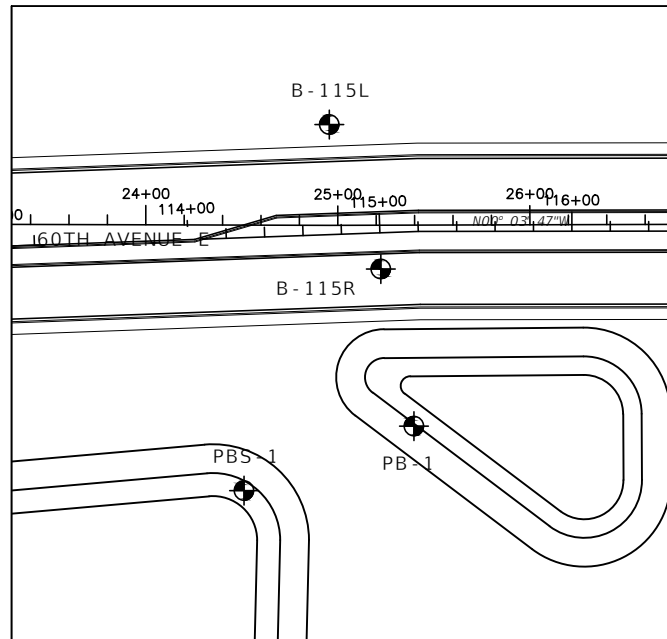


PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 BOX CULVERT SOIL SURVEY (1)

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

# BORING LOCATION PLAN



NOTE: BASE MAP PROVIDED BY KISINGER CAMPO & ASSOCIATES, CORP.

# LEGEND

- |   |  |   |
|---|--|---|
| 1 | LIGHT GRAY TO BROWN FINE SAND TO SILTY SAND (A-3/A-2-4) N  | SPT N-VALUE IN BLOWS/FOOT FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED)   |
| 2 | LIGHT GRAY TO BROWN SILTY SAND (A-2-4)                     | A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW |
| 3 | LIGHT GRAY TO GRAY SILTY SAND TO CLAYEY SAND (A-2-4/A-2-6) | 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION  |
| 4 | LIGHT GRAY SILT TO CLAY WITH SAND (A-4/A-6/A-7-6)          | HA HAND AUGERED TO VERIFY UTILITY CLEARANCES  |
| 5 | DARK GRAY ORGANIC SAND TO MUCK (A-8)                       | ▼ GROUNDWATER LEVEL ENCOUNTERED DURING INVESTIGATION  |
| 6 | CALCAREOUS CLAY TO WEATHERED LIMESTONE                     | C/L CONST. CENTERLINE CONSTRUCTION 60TH AVENUE EAST   |
| 7 | LIGHT GRAY CLAY (A-7-6)                                    | NAVD NORTH AMERICAN VERTICAL DATUM OF 1988  |
|   |  | * BORING LOCATED BY SURVEYOR  |
|   |  | -200 PERCENT PASSING #200 SIEVE   |
|   |  | NMC NATURAL MOISTURE CONTENT (%)  |
|   |  | LL LIQUID LIMIT (%)   |
|   |  | PI PLASTICITY INDEX (%)   |
|   |  | ⊕ APPROXIMATE LOCATION OF SPT BORING  |

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:  
 SUBSTRUCTURE CONCRETE: MODERATELY AGGRESSIVE (RESISTIVITY= 2100 OHM-CM)  
 SUBSTRUCTURE STEEL: MODERATELY AGGRESSIVE (RESISTIVITY= 2100 OHM-CM)

SOIL TEST RESULTS:	WATER TEST RESULTS:
RESISTIVITY: 2,100 OHM-CM	RESISTIVITY: 5,500 OHM-CM
CHLORIDES: 80 PPM	CHLORIDES: 15 PPM
SULFATES: 130 PPM	SULFATES: 21 PPM
pH: 7.5	pH: 8.1

NOTES:

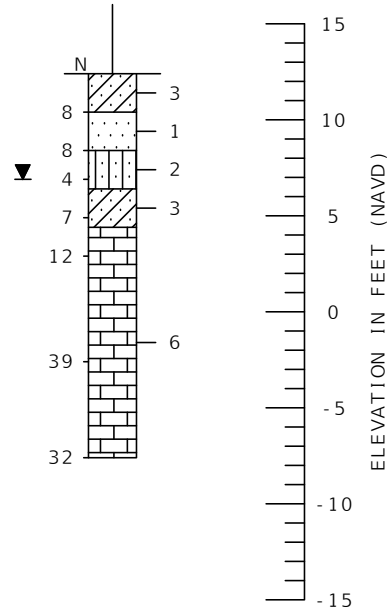
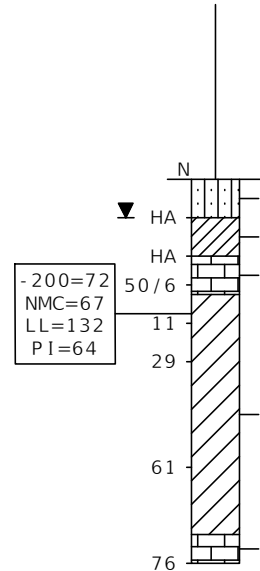
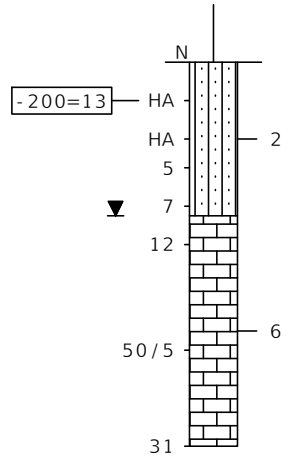
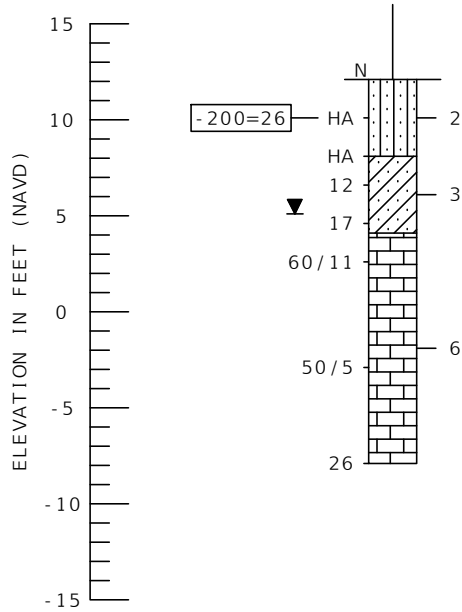
- THE BORINGS WERE LOCATED IN THE FIELD BY A REPRESENTATIVE OF TIERRA USING HAND-HELD, NON-SURVEY GRADE GPS EQUIPMENT WITH A MANUFACTURE'S REPORTED ACCURACY OF ± 10 FEET. STATION, OFFSET AND GROUND ELEVATIONS AT THE BORING LOCATIONS WERE DETERMINED BASED ON THE ESTIMATED GPS COORDINATES IN CONJUNCTION WITH PROJECT DESIGN FILES PROVIDED BY AIM ENGINEERING & SURVEYING, INC. THE BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED APPROXIMATE. FOR BORING DENOTED WITH AN ASTERISKS (\*), THE STATION, OFFSET AND ELEVATION WERE LOCATED BY THE PROJECT SURVEYOR.
- BASED ON REVIEW OF THE "POTENTIOMETRIC SURFACE OF THE UPPER FLORIDAN AQUIFER, WEST CENTRAL FLORIDA" MAPS PUBLISHED BY THE USGS, THE POTENTIOMETRIC SURFACE ELEVATION IN THE VICINITY OF THE CULVERT RANGES UP TO APPROXIMATELY +25 FEET, NGVD 29. ARTESIAN CONDITIONS WERE NOT ENCOUNTERED DURING THE FIELD EXPLORATION; HOWEVER, THE CONTRACTOR SHOULD BE PREPARED TO ADDRESS ARTESIAN LEVELS UP TO A HEAD OF +25 FEET, NGVD 29 AT NO ADDITIONAL COST TO THE COUNTY.
- VERY HARD CLAY TO WEATHERED LIMESTONE WAS ENCOUNTERED WITHIN THE BORINGS. SPECIAL TOOLS OR EQUIPMENT MAY BE REQUIRED TO EXCAVATE INTO AND/OR THROUGH SUCH MATERIALS. LIMESTONE IS POROUS AND WILL BE DIFFICULT TO DEWATER.

BOR # B-115L  
 STA. 114+76  
 REF. C/L CONST.  
 OFF. 57' LT.  
 ELEV. 12.1  
 DATE 11/30/2021  
 DRILLER B. CRAIG  
 HAMMER AUTOMATIC  
 RIG D-25

BOR # B-115R  
 STA. 115+00  
 REF. C/L CONST.  
 OFF. 19' RT.  
 ELEV. 13.0  
 DATE 11/30/2022  
 DRILLER B. CRAIG  
 HAMMER AUTOMATIC  
 RIG D-25

BOR # PBS-1  
 STA. 114+32  
 REF. C/L CONST.  
 OFF. 139' RT.  
 ELEV. 6.9  
 DATE 5/20/2021  
 DRILLER M. ATKINSON  
 HAMMER AUTOMATIC  
 RIG D-25

BOR # PB-1\*  
 STA. 114+95  
 REF. C/L CONST.  
 OFF. 100' RT.  
 ELEV. 12.4  
 DATE 11/30/2022  
 DRILLER B. CRAIG  
 HAMMER AUTOMATIC  
 RIG D-25



AUTOMATIC HAMMER	
GRANULAR MATERIALS - RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 3
LOOSE	3 TO 8
MEDIUM DENSE	8 TO 24
VERY DENSE	24 TO 40
	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	1 TO 3
FIRM	3 TO 6
STIFF	6 TO 12
VERY STIFF	12 TO 24
HARD	GREATER THAN 24

BOX CULVERT CD-B & CD-C



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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	SW	06/2022
			SEC./TWN./RGE	4-34S-18E	DRAWN	SW	06/2022
			SCALE	NTS	CHECKED	MEN	06/2022

MARC E. NOVAK, P.E.  
 LICENSE NUMBER 67431  
 TIERRA, INC.  
 7351 TEMPLE TERRACE HIGHWAY  
 TAMPA, FL 33637



PUBLIC WORKS DEPARTMENT  
 ENGINEERING SERVICES  
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO  
 MENDOZA RD.  
 BOX CULVERT SOIL SURVEY (2)




**SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES**

LOCATION			SIDE	AREA ID	SEDIMENT BARRIER		STAKED TURBIDITY BARRIER		SOIL TRACKING PREVENTION DEVICE		INLET PROTECTION SYSTEM		DESIGN NOTES	CONSTRUCTION REMARKS
					0104 10 3		0104 12		0104 15		0104 18			
STA. TO STA.					LF		LF		EA		EA			
					P	F	P	F	P	F	P	F		
100+95.28	TO	101+87.06	LT		122.6								CL CONST. 60TH AVE	
101+12.32	TO	106+78.05	RT		602.3								CL CONST. 60TH AVE	
102+20.27	TO	103+00.91	LT		94.4								CL CONST. 60TH AVE	
103+53.93	TO	104+36.06	LT		103.5								CL CONST. 60TH AVE	
104+76.32	TO	106+80.32	LT		237.7								CL CONST. 60TH AVE	
107+23.52	TO	108+72.59	LT		171.4								CL CONST. 60TH AVE	
107+25.70	TO	111+17.27	RT		602.0								CL CONST. 60TH AVE	
108+99.97	TO	111+04.65	LT		229.9								CL CONST. 60TH AVE	
111+14.82	TO	114+64.36	RT		566.6								CL CONST. 60TH AVE	
112+06.11	TO	116+53.71	LT		548.6								CL CONST. 60TH AVE	
114+72.58	TO	120+23.44	RT		734.9								CL CONST. 60TH AVE	
116+71.11	TO	120+41.87	LT		380.5								CL CONST. 60TH AVE	
121+12.86	TO	121+29.01	RT		46.7								CL CONST. 60TH AVE	
41+80.91	TO	56+87.76	RT		1557.5								BL SURVEY 60TH AVE	
114+64.36	TO	114+72.58	RT				35.5						CL CONST. 60TH AVE	
56+52.41	TO	56+65.78	RT				16.9						BL SURVEY 60TH AVE	
100+93.28	TO	120+38.48	LT/RT						2				CL CONST. 60TH AVE	
41+70.71	TO	56+88.62	LT/RT						2				BL SURVEY 60TH AVE	
121+48.00			RT								1		CL CONST. 60TH AVE	
33+14.00			LT								1		BL SURVEY 60TH AVE	
33+14.00			RT								1		BL SURVEY 60TH AVE	
SUB-TOTAL :					5998.6		52.4		4		3			
TOTAL :					5999		52		4		3			

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.


NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	CURTIS A. SPRUNGER P.E. P.E. LICENSE NUMBER 66524 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN ST. STE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (2)	SHEET NO. SQ-2
			SURVEY #	18-2238	DESIGNED	TB	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	TB	9/2021				
			SCALE	N.T.S.	CHECKED	CS	9/2021				

**SUMMARY OF LITTER REMOVAL AND MOWING**

CONST. PHASE	LOCATION			SIDE	DURATION (DAYS)	FREQUENCY (DAYS)	LITTER REMOVAL						MOWING						DESIGN NOTES	CONSTRUCTION REMARKS				
							0107 1						0107 2											
	STA. TO STA.						AREA ID	L	W	CYCLES	AREA		AREA ID	L	W	CYCLES	AREA							
											AC/CYCLE	TOTAL (AC)					AC/CYCLE	TOTAL (AC)						
							P	F					P	F										
1-4	100+95.32	TO	101+89.58	LT	720	30				24	0.071	1.713				24						CL CONST. 60TH AVE		
1-4	101+11.01	TO	106+84.98	RT	720	30				24	0.086	2.058				24						CL CONST. 60TH AVE		
1-4	102+17.97	TO	103+06.83	LT	720	30				24	0.031	0.747				24						CL CONST. 60TH AVE		
1-4	103+44.11	TO	104+39.57	LT	720	30				24	0.024	0.577				24						CL CONST. 60TH AVE		
1-4	104+62.31	TO	106+83.11	LT	720	30				24	0.035	0.835				24						CL CONST. 60TH AVE		
1-4	107+22.50	TO	108+73.44	LT	720	30				24	0.020	0.486				24						CL CONST. 60TH AVE		
1-4	107+19.05	TO	111+55.46	RT	720	30				24	0.202	4.840				24						CL CONST. 60TH AVE		
1-4	108+98.52	TO	111+16.61	LT	720	30				24	0.049	1.164				24						CL CONST. 60TH AVE		
1-4	111+54.53	TO	111+62.01	LT	720	30				24	0.006	0.133				24						CL CONST. 60TH AVE		
1-4	111+88.39	TO	120+44.58	LT	720	30				24	0.428	10.267				24						CL CONST. 60TH AVE		
1-4	112+17.30	TO	120+37.11	LT/RT	720	30				24	0.314	7.528				24						CL CONST. 60TH AVE		
1-4	110+85.40	TO	120+36.44	RT	720	30				24	2.919	70.044				24						CL CONST. 60TH AVE		
1-4	120+59.96	TO	120+83.13	RT	720	30				24	0.015	0.359				24						CL CONST. 60TH AVE		
1-4	41+78.78	TO	56+88.62	LT/RT	720	30				24	0.150	3.600				24						BL SURVEY 60TH AVE		
1-4	41+72.74	TO	56+88.62	LT/RT	720	30				24	0.342	8.215				24						BL SURVEY 60TH AVE		
1-4	100+95.32	TO	101+89.58	LT	720	30				24						24	0.071	1.713				CL CONST. 60TH AVE		
1-4	101+11.01	TO	106+84.98	RT	720	30				24						24	0.086	2.058				CL CONST. 60TH AVE		
1-4	102+17.97	TO	103+06.83	LT	720	30				24						24	0.031	0.747				CL CONST. 60TH AVE		
1-4	103+44.11	TO	104+39.57	LT	720	30				24						24	0.024	0.577				CL CONST. 60TH AVE		
1-4	104+62.31	TO	106+83.11	LT	720	30				24						24	0.035	0.835				CL CONST. 60TH AVE		
1-4	107+22.50	TO	108+73.44	LT	720	30				24						24	0.020	0.486				CL CONST. 60TH AVE		
1-4	107+19.05	TO	111+55.46	RT	720	30				24						24	0.202	4.840				CL CONST. 60TH AVE		
1-4	108+98.52	TO	111+16.61	LT	720	30				24						24	0.049	1.164				CL CONST. 60TH AVE		
1-4	111+54.53	TO	111+62.01	LT	720	30				24						24	0.006	0.133				CL CONST. 60TH AVE		
1-4	111+88.39	TO	120+44.58	LT	720	30				24						24	0.428	10.267				CL CONST. 60TH AVE		
1-4	112+17.30	TO	120+37.11	LT/RT	720	30				24						24	0.314	7.528				CL CONST. 60TH AVE		
1-4	110+85.40	TO	120+36.44	RT	720	30				24						24	2.919	70.044				CL CONST. 60TH AVE		
1-4	120+59.96	TO	120+83.13	RT	720	30				24						24	0.015	0.359				CL CONST. 60TH AVE		
1-4	41+78.78	TO	56+88.62	LT/RT	720	30				24						24	0.150	3.600				BL SURVEY 60TH AVE		
1-4	41+72.74	TO	56+88.62	LT/RT	720	30				24						24	0.342	8.215				BL SURVEY 60TH AVE		
SUB-TOTAL :											112.567	SUB-TOTAL :										112.567		
TOTAL :											112.57	TOTAL :										112.57		

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THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (3)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				




SUMMARY OF EARTHWORK					
PAY ITEM NO.	PAY ITEM DESCRIPTION	CY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
120-1	REGULAR EXCAVATION	10339.2			
120-4	SUBSOIL EXCAVATION	6114.3			
120-6	EMBANKMENT	15545.7			

SUMMARY OF PAVEMENT																
PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION				SIDE	AREA ID	LENGTH	WIDTH	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA.	TO STA.	DESCRIPTION	P						F	P	F			
160-4	TYPE B STABILIZATION	100+93.28	TO	120+58.46						SY	20885.60		20928.4		CL CONST. 60TH AVE	
		120+61.02	TO	120+81.95						SY	8.61				CL CONST. 60TH AVE	
		120+84.49	TO	121+08.93						SY	34.15				CL CONST. 60TH AVE	
285-709	OPTIONAL BASE GROUP 09	100+93.28	TO	120+58.46						SY	18895.13		18937.9	TYPE B-12.5	CL CONST. 60TH AVE	
		120+61.02	TO	120+81.95						SY	8.61			TYPE B-12.5	CL CONST. 60TH AVE	
		120+84.49	TO	121+08.93						SY	34.15			TYPE B-12.5	CL CONST. 60TH AVE	
327-70-6	MILL EXIST. ASPH. PAVT., 1 1/2" AVG. DEPTH	100+93.28	TO	101+50.00						SY	531.77		2396.6		CL CONST. 60TH AVE	
		120+38.58	TO	35+30.00						SY	1864.84				CL CONST. 60TH AVE / BL SURVEY 60TH AVE	
334-1-12	SUPERPAVE ASPHALTIC CONC., TRAFFIC B	100+93.28	TO	120+58.46						TN	1558.85		1562.4		CL CONST. 60TH AVE	
		120+61.02	TO	120+81.95						TN	0.71				CL CONST. 60TH AVE	
		120+84.49	TO	121+08.93						TN	2.82				CL CONST. 60TH AVE	
337-7-81	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC B, FC-12.5, PG 76-22	100+93.28	TO	35+30.00						TN	1758.35		1758.3		CL CONST. 60TH AVE / BL SURVEY 60TH AVE	
526-1-1	PAVERS, ARCH. ROADWAY	120+27.39	TO	120+58.46						SY	39.3		73.4		CL CONST. 60TH AVE	
		120+84.49	TO	121+08.92						SY	34.1				CL CONST. 60TH AVE	

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (5)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				

SQ-5

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SUMMARY OF MISCELLANEOUS ASPHALT PAVEMENT											
LOCATION			SIDE	AREA ID	LENGTH	WIDTH	THICK (IN)	UNDER GUARDRAIL		DESIGN NOTES	CONSTRUCTION REMARKS
								0339	1		
STA. TO STA.								TN			
	TO							P	F		
47+67.00	TO	50+45.50	RT				2	7.85			BL SURVEY 60TH AVE
SUB-TOTAL:								7.8			
TOTAL:								7.8			

NUMBER	DESCRIPTION					DATE			DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (6)	SHEET NO. SQ-6
	PROJECT #	6083160	SURVEYED	HYATT	5/2021							
	SURVEY #	18-2238	DESIGNED	ST	9/2021							
	SCALE	N.T.S.	CHECKED	DHC	9/2021							

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SUMMARY OF WALLS													
WALL NO.	PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION			SIDE	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			STA.	TO	STA.			P	F	P	F		
	400-011	CONCRETE CLASS NS, GRAVITY WALL	104+20.00	TO	106+74.61	RT	CY	52.9		163		2' HEIGHT	CL CONST. 60TH AVE
			107+40.92	TO	110+79.12	RT	CY	109.7				3' HEIGHT	CL CONST. 60TH AVE


SUMMARY OF BOX CULVERTS									
PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
				P	F	P	F		
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	CD-A, CD-B, & CD-C	LS	1		1		SEE BOX CULVERT DETAILS	
400-4-1	CONCRETE CLASS IV, CULVERTS	CD-A	CY	226.0		532.3			
		CD-B1	CY	74.0					
		CD-B2	CY	61.4					
		CD-C1	CY	77.0					
		CD-C2	CY	93.9					
415-1-1	REINFORCING STEEL - ROADWAY	CD-A	LB	58899		131935			
		CD-B1	LB	17105					
		CD-B2	LB	13924					
		CD-C1	LB	18763					
		CD-C2	LB	23244					

NUMBER	DESCRIPTION					DATE	PROJECT # 6083160 SURVEYED HYATT 5/2021			PATRICK D. MULHEARN, P.E. P.E. LICENSE NUMBER 71456 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (7)	SHEET NO.
	SURVEY # 18-2238 DESIGNED ST 9/2021						SEC./TWN./RGE 4-34S-18E DRAWN ST 9/2021						
	SCALE N.T.S. CHECKED DHC 9/2021												
												SQ-7	



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SUMMARY OF RAILING							
LOCATION			SIDE	PIPE HANDRAIL - GUIDERAIL		DESIGN NOTES	CONSTRUCTION REMARKS
STA. TO STA.				LF			
			P	F			
104+20.00	TO	106+74.61	RT	264.7			CL CONST. 60TH AVE
107+40.92	TO	110+79.12	RT	343.0			CL CONST. 60TH AVE
49+30.52	TO	49+51.06	RT	20.7			BL SURVEY 60TH AVE
56+48.00	TO	56+68.00	RT	20.0			BL SURVEY 60TH AVE
SUB-TOTAL :				648			
TOTAL :				648			

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (9)	SHEET NO. SQ-9
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				


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**SUMMARY OF CURB & GUTTER AND TRAFFIC SEPARATORS**

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION			SIDE	AREA ID	UNIT	QUANTITY				TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS	
		STA. TO STA.						GROSS LENGTH	DEDUCTIONS		NET LENGTH		P			F
									TYPE	LENGTH	P	F				
520-1-10	CONCRETE CURB & GUTTER, TYPE F	100+93.28	TO	101+91.91	LT		LF	152.8			152.8		4599		CL CONST. 60TH AVE	
		101+00.89	TO	106+86.98	RT		LF	637.7			637.7				CL CONST. 60TH AVE	
		102+15.96	TO	103+08.99	LT		LF	135.0			135.0				CL CONST. 60TH AVE	
		103+42.35	TO	104+41.39	LT		LF	137.4			137.4				CL CONST. 60TH AVE	
		104+61.74	TO	106+85.11	LT		LF	260.6			260.6				CL CONST. 60TH AVE	
		107+17.03	TO	111+57.47	RT		LF	714.0			714.0				CL CONST. 60TH AVE	
		107+20.50	TO	108+75.44	LT		LF	184.4			184.4				CL CONST. 60TH AVE	
		108+96.52	TO	111+18.61	LT		LF	262.4			262.4				CL CONST. 60TH AVE	
		110+83.39	TO	120+38.44	RT		LF	1220.4			1220.4				CL CONST. 60TH AVE	
		111+86.08	TO	120+38.58	LT		LF	894.1			894.1				CL CONST. 60TH AVE	
520-2-1	CONCRETE CURB, TYPE A	112+18.50	TO	120+38.45	LT/RT		LF	1660.1			1660.1		1711	TYPE AB (MODIFIED)	CL CONST. 60TH AVE	
		120+58.42	TO	102+84.46	RT		LF	51.1			51.1				CL CONST. 60TH AVE	
520-2-4	CONCRETE CURB, TYPE D	104+57.38	TO	106+85.65	RT		LF	271.9			271.9		779		CL CONST. 60TH AVE	
		107+21.42	TO	111+12.49	RT		LF	433.8			433.8				CL CONST. 60TH AVE	
		111+52.99	TO	111+62.68	LT		LF	73.1			73.1				CL CONST. 60TH AVE	
520-70	CONCRETE TRAFFIC SEPARATOR, SPECIAL- VARIABLE WIDTH	101+44.05	TO	103+97.89	LT/RT		SY				122.2		122		CL CONST. 60TH AVE	

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (10)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				

**SUMMARY OF SIDEWALK & DETECTABLE WARNINGS**

LOCATION			SIDE	AREA ID	LENGTH	WIDTH	CONC SIDEWALK 4"		CONC SIDEWALK 6"		BUS BOARDING PAD - CONCRETE		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
							0522	1	0522	2	0522	3	0527	2		
SY		SY					SY		SF							
P	F	P					F	P	F	P	F					
STA.	TO	STA.														
101+46.04	TO	105+05.00	RT				235.0									CL CONST. 60TH AVE
102+28.90	TO	102+97.96	LT				50.5									CL CONST. 60TH AVE
103+53.91	TO	104+18.22	LT				46.3									CL CONST. 60TH AVE
105+25.00	TO	106+60.77	RT				74.7									CL CONST. 60TH AVE
104+96.85	TO	106+37.04	LT				109.1									CL CONST. 60TH AVE
107+44.84	TO	108+49.40	LT				69.7									CL CONST. 60TH AVE
107+66.99	TO	110+54.36	RT				191.6									CL CONST. 60TH AVE
109+22.56	TO	110+65.04	LT				95.0									CL CONST. 60TH AVE
112+27.83	TO	119+94.48	RT				512.8									CL CONST. 60TH AVE
112+36.06	TO	120+38.61	LT				537.4									CL CONST. 60TH AVE
41+73.74	TO	56+88.62	RT				856.3									BL SURVEY 60TH AVE
101+02.89	TO	101+46.04	RT						47.1							CL CONST. 60TH AVE
101+33.37	TO	101+88.40	LT						40.0							CL CONST. 60TH AVE
102+19.78	TO	102+29.16	LT						5.5							CL CONST. 60TH AVE
102+96.27	TO	103+06.83	LT						6.6							CL CONST. 60TH AVE
103+44.07	TO	103+54.17	LT						6.5							CL CONST. 60TH AVE
104+17.79	TO	104+31.89	LT						6.7							CL CONST. 60TH AVE
104+66.47	TO	104+96.85	LT						33.0							CL CONST. 60TH AVE
106+37.04	TO	106+81.73	RT						35.2							CL CONST. 60TH AVE
106+60.77	TO	106+75.60	LT						6.6							CL CONST. 60TH AVE
106+99.84	TO	107+07.46	RT						5.2							CL CONST. 60TH AVE
107+22.26	TO	107+66.99	RT						35.2							CL CONST. 60TH AVE
107+30.00	TO	107+44.84	LT						6.6							CL CONST. 60TH AVE
108+49.40	TO	108+64.69	LT						6.8							CL CONST. 60TH AVE
109+07.27	TO	109+22.56	LT						6.8							CL CONST. 60TH AVE
110+54.36	TO	110+91.75	RT						23.4							CL CONST. 60TH AVE
110+65.04	TO	111+08.10	LT						33.6							CL CONST. 60TH AVE
202+24.00	TO	202+56.00	LT						29.9							CL CONST. NRV
111+82.80	TO	112+27.83	RT						29.0							CL CONST. 60TH AVE
111+95.58	TO	112+36.06	LT						29.3							CL CONST. 60TH AVE
119+94.48	TO	120+31.54	RT						34.0							CL CONST. 60TH AVE
41+72.74	TO	41+78.78	RT						7.7							BL SURVEY 60TH AVE
SUB-TOTAL :							2778.2		434.7							
TOTAL :							2778		435		18		325			

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (11)	SHEET NO. SQ-11
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				

**SUMMARY OF SIDEWALK & DETECTABLE WARNINGS**

LOCATION			SIDE	AREA ID	LENGTH	WIDTH	CONC SIDEWALK 4"		CONC SIDEWALK 6"		BUS BOARDING PAD - CONCRETE		DETECTABLE WARNINGS		DESIGN NOTES	CONSTRUCTION REMARKS
							0522 1	0522 2	0522 3	0527 2						
SY		SY					SY		SF							
P	F	P					F	P	F	P	F					
STA.	TO	STA.														
105+05.00	TO	105+25.00		RT						17.8				8" THICK.	CL CONST. 60TH AVE	
101+06.80	TO	101+10.70		RT									9.4		CL CONST. 60TH AVE	
101+33.94	TO	101+39.72		LT									12.8		CL CONST. 60TH AVE	
101+35.35	TO	101+40.17		RT									9.0		CL CONST. 60TH AVE	
101+84.21	TO	101+88.24		LT									13.5		CL CONST. 60TH AVE	
102+19.78	TO	102+25.06		LT									13.4		CL CONST. 60TH AVE	
103+00.08	TO	103+03.16		LT									11.4		CL CONST. 60TH AVE	
103+48.41	TO	103+50.49		LT									10.0		CL CONST. 60TH AVE	
104+23.44	TO	104+31.14		LT									14.2		CL CONST. 60TH AVE	
104+77.04	TO	104+82.37		LT									10.1		CL CONST. 60TH AVE	
106+66.77	TO	106+74.84		LT									14.2		CL CONST. 60TH AVE	
106+76.58	TO	106+81.51		RT									13.2		CL CONST. 60TH AVE	
106+99.85	TO	107+01.85		RT									12.4		CL CONST. 60TH AVE	
107+03.54	TO	107+07.46		RT									12.9		CL CONST. 60TH AVE	
107+30.77	TO	107+38.84		LT									14.2		CL CONST. 60TH AVE	
107+22.47	TO	107+27.37		RT									12.9		CL CONST. 60TH AVE	
108+55.40	TO	108+63.88		LT									14.9		CL CONST. 60TH AVE	
109+08.08	TO	109+16.56		LT									14.9		CL CONST. 60TH AVE	
110+76.96	TO	110+91.11		RT									26.7		CL CONST. 60TH AVE	
110+83.11	TO	110+88.01		LT									9.0		CL CONST. 60TH AVE	
111+83.11	TO	111+93.67		RT									20.2		CL CONST. 60TH AVE	
111+95.58	TO	112+02.40		LT									15.8		CL CONST. 60TH AVE	
112+08.41	TO	112+13.06		RT									8.6		CL CONST. 60TH AVE	
112+15.09	TO	112+19.99		LT									9.0		CL CONST. 60TH AVE	
120+17.77	TO	120+22.79		RT									9.5		CL CONST. 60TH AVE	
41+73.10	TO	41+75.10		RT									12.8		BL SURVEY 60TH AVE	
<b>SUB-TOTAL :</b>											17.8		325.0			
<b>TOTAL :</b>							2778	435			18		325			

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (12)	SHEET NO. 5Q-12
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				

**SUMMARY OF GUARDRAIL**

LOCATION			SIDE	GUARDRAIL (ROADWAY, GENERAL/ LOW SPEED TL-2)		SPECIAL GUARDRAIL POST (ENCASED POST FOR SHALLOW MOUNT)		GUARDRAIL (REMOVAL)		END TREATMENT (TRAILING ANCHORAGE)		END TREATMENT (PARALLEL APPROACH TERMINAL)		DESIGN NOTES	CONSTRUCTION REMARKS
STA. TO STA.				0536 1 0		0536 7 3		0536 73		0536 85 20		0536 85 24			
				LF		EA		LF		EA		EA			
			P	F	P	F	P	F	P	F	P	F			
47+77.00	TO	50+39.50	RT	262.5										TIMBER POSTS ONLY	BL SURVEY 60TH AVE
48+77.00	TO	49+27.00	RT			3									BL SURVEY 60TH AVE
47+77.00	TO	50+39.50	RT					262.5							BL SURVEY 60TH AVE
50+39.50			RT							1					BL SURVEY 60TH AVE
47+77.00			RT									1			BL SURVEY 60TH AVE
<b>SUB-TOTAL :</b>				262.5		3		262.5		1		1			
<b>TOTAL :</b>				263		3		263		1		1			

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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (13)	SHEET NO. 5Q-13
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				

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SUMMARY OF PERFORMANCE TURF										
LOCATION			SIDE	AREA ID	LENGTH	WIDTH	PERFORMANCE TURF (SOD)		DESIGN NOTES	CONSTRUCTION REMARKS
STA. TO STA.							0570 1 2			
							SY			
							P	F		
100+95.32	TO	101+89.58	LT				345.466		CL CONST. 60TH AVE	
101+11.01	TO	106+84.98	RT				415.077		CL CONST. 60TH AVE	
102+17.97	TO	103+06.83	LT				150.631		CL CONST. 60TH AVE	
103+44.11	TO	104+39.57	LT				116.4		CL CONST. 60TH AVE	
104+62.31	TO	106+83.11	LT				168.4		CL CONST. 60TH AVE	
107+22.50	TO	108+73.44	LT				97.9		CL CONST. 60TH AVE	
107+19.05	TO	111+55.46	RT				976.1		CL CONST. 60TH AVE	
108+98.52	TO	111+16.61	LT				234.8		CL CONST. 60TH AVE	
111+54.53	TO	111+62.01	LT				26.7		CL CONST. 60TH AVE	
111+88.39	TO	120+44.58	LT				2070.5		CL CONST. 60TH AVE	
112+17.30	TO	120+37.11	LT/RT				1518.2		CL CONST. 60TH AVE	
110+85.40	TO	120+36.44	RT				14125.6		CL CONST. 60TH AVE	
120+59.96	TO	120+83.13	RT				72.3		CL CONST. 60TH AVE	
41+78.78	TO	56+88.62	LT/RT				726.1		BL SURVEY 60TH AVE	
41+72.74	TO	56+88.62	LT/RT				1656.6		BL SURVEY 60TH AVE	
							SUB-TOTAL :	22701.0		
							TOTAL :	22701		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	DEBORAH HERNANDEZ-CEDEÑO, P.E. P.E. LICENSE NUMBER 74754 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD. SUMMARY OF QUANTITIES (14)	SHEET NO.
			SURVEY #	18-2238	DESIGNED	ST	9/2021				
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	9/2021				
			SCALE	N.T.S.	CHECKED	DHC	9/2021				
5Q-14											