CONTRACT PLANS COMPONENTS

ROADWAY PLANS SIGNING AND PAVEMENT MARKING PLANS LIGHTING PLANS

LEE COUNTY DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

INDEX OF ROADWAY PLANS

SHEET NO.

SQ-1 - SQ-11

KEY SHEET SIGNATURE SHEET SUMMARY OF PAY ITEMS TYPICAL SECTIONS 4-8 TYPICAL SECTION DETAILS 10 SUMMARY OF DRAINAGE STRUCTURES PROJECT LAYOUT 11 PROJECT CONTROL 12 PROJECT NOTES 13 14-17 PLAN SHEETS 18-21 PROFILE SHEETS 22 INTERSECTION DETAILS 23-26 INTERSECTION GRADING DETAILS 27-30 DRAINAGE STRUCTURES 31 ROADWAY SOIL SURVEY CROSS SECTIONS 32-48 49 DRIVEWAY HALF SECTIONS 50-52 STORMWATER POLLUTION PREVENTION PLAN 53-56 EROSION CONTROL 57-60 TEMPORARY TRAFFIC CONTROL 61-64 UTILITY ADJUSTMENTS 65 TEST HOLE FIELD DATA TREE PROTECTION DETAILS

SUMMARY OF QUANTITIES

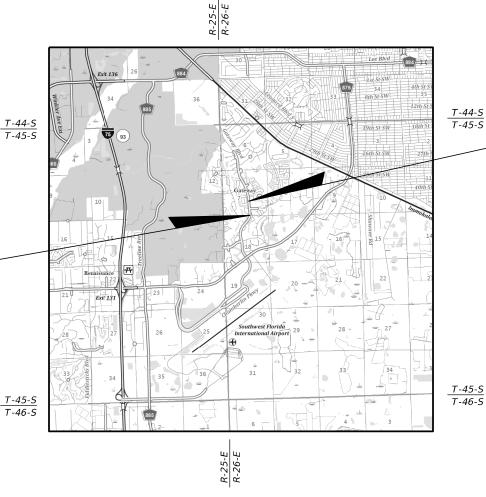
 $\frac{\textit{BEGIN PROJECT}}{\textit{GATEWAY BLVD.}}$

STA. 145+78.67

₽ SURVEY

SHEET DESCRIPTION

GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDABOUT) LEE COUNTY PROJECT NO. 200672



PENSACOLA FORT WALTON
TALLAHASSEE

PENSACOLA FORT WALTON
BEACH
PANAMA
CITY

ORDERSVILLE

ORDERSV

GATEWAY BLVD.

STA. 153+43.55

₿ SURVEY

100% PLANS
JANUARY 2021
(NOT FOR CONSTRUCTION)

ROADWAY PLANS ENGINEER OF RECORD:

JASON Y. YAM, P.E.
P.E. NO.: 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FL 33759
(727) 531-3505
CERTIFICATE OF AUTHORIZATION NO.: 29915

COUNTY PROJECT MANAGER:

Alejandro J. Slaibe, P.E.

CIP NO.	FISCAL YEAR	SHEET NO.
200672	22	1

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2020-21 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

APPLICABLE IRs: N/A

GOVERNING STANDARD SPECIFICATIONS:

Lee County Department of Transportation Specifications, and Florida Department of Transportation, JULY2020 Standard Specifications for Road and Bridge Construction at the following website: http://www.fdot.gov/programmanagement/Implemented/SpecBooks

er 1/19/2021 11:53:02 AM J:\CR044\CR044002.02\ms\roadway\KEYSRD01.DGN

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE SHOULD BE VERIFIED ON THE ELECTRONIC DOCUMENTS,

CARDNO 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FL 33759 PHONE NUMBER: (727) 531-3505 CERTIFICATE OF AUTHORIZATION NO. 29915 JASON Y. YAM, P.E. 62449

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

SHEET NO.	SHEET DESCRIPTION
1	KEY CHEET
1	KEY SHEET
2	SIGNATURE SHEET
3	SUMMARY OF PAY ITEMS
4-8	TYPICAL SECTIONS
9	TYPICAL SECTION DETAILS
11	PROJECT LAYOUT
12	PROJECT CONTROL
13	PROJECT NOTES
14-17	PLAN SHEETS
18-21	PROFILE SHEETS
22	INTERSECTION DETAILS
23-26	INTERSECTION GRADING DETAILS
32-48	CROSS SECTIONS
49	DRIVEWAY HALF SECTIONS
57-60	TEMPORARY TRAFFIC CONTROL
61-64	UTILITY ADJUSTMENTS
65	TEST HOLE FIELD DATA
66	TREE PROTECTION DETAILS
SQ-1 - SQ-11	SUMMARY OF QUANTITIES



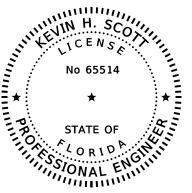
THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE SHOULD BE VERIFIED ON THE ELECTRONIC DOCUMENTS,

CARDNO 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FL 33759 PHONE NUMBER: (727) 531-3505 CERTIFICATE OF AUTHORIZATION NO. 29915 CHRISTOPHER J. KNOX, P.E. 67350

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

SHEET NO.	SHEET DESCRIPTION
2 10 27-30 50-52 53-56	SIGNATURE SHEET SUMMARY OF DRAINAGE STRUCTURES DRAINAGE STRUCTURES STORMWATER POLLUTION PREVENTION PLAN EROSION CONTROL



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE SHOULD BE VERIFIED ON THE ELECTRONIC DOCUMENTS,

TIERRA
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FL 33637
PHONE NUMBER: (727) 531-3505
CERTIFICATE OF AUTHORIZATION NO. 6486
KEVIN H. SCOTT, P.E. 65514

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

SHEET NO.	SHEET DESCRIPTION
2	SIGNATURE SHEET
31	ROADWAY SOIL SURVEY

REVISIONS

DATE DESCRIPTION DATE DESCRIPTION

JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SIGNATURE SHEET	200672	2
		-

	SUMMARY OF ROADWAY		
PAY ITEM	DESCRIPTION	UNITS	QTY
0101-1	MOBILIZATION	LS	1
0102-1	MAINTENANCE OF TRAFFIC	LS/DA	365
0104-10-3	SEDIMENT BARRIER	LF	4636
0104-12	STAKED TURBIDITY BARRIER - NYLON REINFORCED PVC	LF	41
0104-15	SOIL TRACKING PREVENTION DEVICE	EA	4
0104-18	INLET PROTECTION SYSTEM	EA	16
0107-1	LITTER REMOVAL	AC	21
0107-2	MOWING	AC	29
0110- 1- 1	CLEARING & GRUBBING (Includes ***Root Barrier)	LS/AC	1
0110-4-10	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	998
0110-7-1	MAILBOX, SINGLE, F&I	EA	1
0120-1	REGULAR EXCAVATION	CY	1243
0120-6	EMBANKMENT	CY	1632
0160-4	TYPE B STABILIZATION	SY	7780
0285-709	OPTIONAL BASE GROUP 9	SY	532.
0327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	8604
0334-1-13	SUPERPAVE ASPHALT CONC, TRAFFIC LEVEL C (2.5")	TN	716.
0337-7-82	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-9.5, PG76-22	TN	473
0350-30-13	CONCRETE PAVEMENT FOR ROUNDABOUT APRON, 12" DEPTH	SY	207
0425-1-361	INLETS, CURB, TYPE P-6, < 10'	EA	1
0425-1-521	INLETS, DITCH BOTTOM, TYPE C, <10'	EA	3
0425-1-523	INLETS, DITCH BOTTOM, TYPE C, J-BOT <10'	EA	1
0425-1-910	INLETS, CLOSED FLUME	EA	3
0430-175-118	PIPE CULVERT, CONCRETE, ROUND 18" ID	LF	377
0430-175-124	PIPE CULVERT, CONCRETE, ROUND 24" ID	LF	257
0430-175-130	PIPE CULVERT, CONCRETE, ROUND 30" ID	LF	4
0430-982-625	MITERED END SECTION, CROSS DRAIN, 12"x18" ERCP	EA	5
0457-1-12	STANDARD INTEGRAL PILE JACKET, NON-STRUCTURAL, 16.1 TO 30"	EA	2
0520- 1- 7	CONCRETE CURB & GUTTER, TYPE E	LF	2058
0520- 1- 10	CONCRETE CURB & GUTTER, TYPE F	LF	2458
0520-2-4	CONCRETE CURB, TYPE D	LF	206
0520-2-8	CONCRETE CURB, TYPE RA	LF	278
0522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	2020
0524-1-1	CONCRETE DITCH PAVT, NR, 3"	SY	13
0527-2	DETECTABLE WARNINGS	SF	280
0570-1-2	PERFORMANCE TURF, SOD	SY	9006
0919-528	DIRECTIONAL INDICATORS	SF	191
***	ROOT BARRIER	LF	424

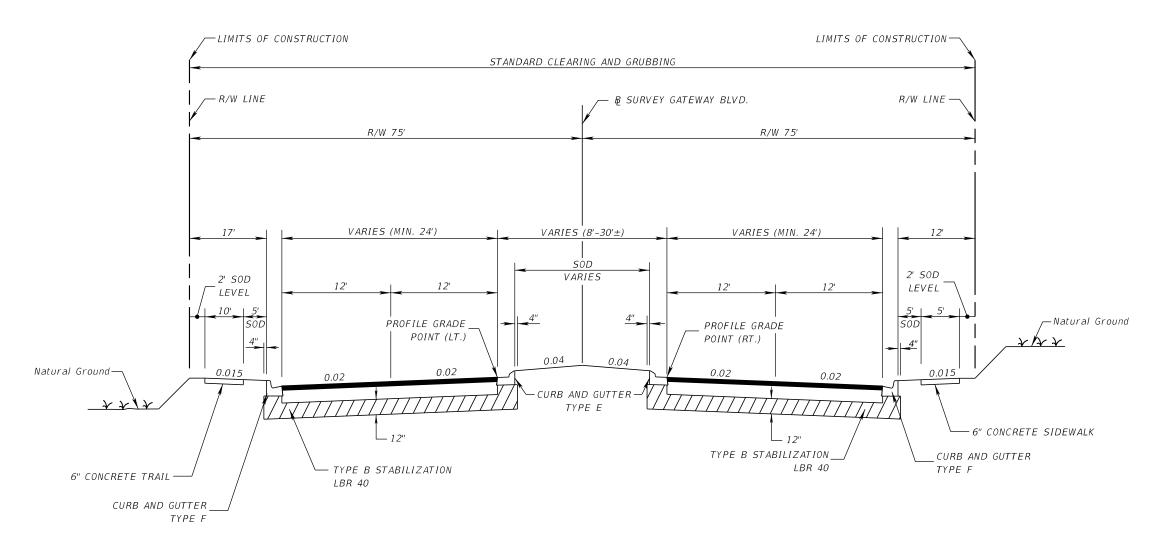
SUMMARY OF SIGNING AND PAVEMENT MARKINGS					
PAY ITEM	DESCRIPTION	UNITS	QTY		
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	2		
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	920		
635-2-11	PULL & SPLICE BOX - LCDOT PULL BOX, 17" X 30" COVER SIZE	EA	8		
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1		
641-2-212	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE (12')	EA	1		
654-2-21	RECTANGULAR RAPID FLASHING BEACON, F&I-SOLAR POWERED, COMPLETE SIGN ASSEMBLY- SINGLE DIRECTION	AS	14		
654-2-22	RECTANGULAR RAPID FLASHING BEACON, F&I-SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO	AS	1		
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	25		
700-1-60	SINGLE POST SIGN, REMOVE	A5	2		
700-2-11	MULTI POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	4		
710-11-290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, ISLAND NOSE	SF	53		
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	L5	1		
711-11-124	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	582		
711-11-141	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE, 6"	GM	0.013		
711-11-144	THERMOPLASTIC, STANDARD, WHITE, 2-2 DOTTED GUIDELINE, 12" FOR ROUNDABOUT	GM	0.039		
711-11-224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	90		
711-11-241	THERMOPLASTIC, STANDARD, YELLOW, 6-10 DOTTED EXTENSION LINE, 6"	GM	0.047		
711-14-123	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 12" FOR CROSSWALK	LF	340		
711-14-125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	340		
711-14-160	THERMOPLASTIC, PREFORMED, WHITE, MESSAGE	EA	6		
711-14-170	THERMOPLASTIC, PREFORMED, WHITE, ARROW	EA	13		
711-16-101	THERMOPLASTIC, STANDARD, OTHER SURFACES, WHITE, SOLID, 6"	GM	0.530		
711-16-102	THERMOPLASTIC, STANDARD, OTHER SURFACES, WHITE, SOLID, 8"	GM	0.241		
711-16-131	THERMOPLASTIC, OTHER SURFACES, WHITE, SKIP, 6", 10-30 SKIP	GM	0.062		
711-16-201	THERMOPLASTIC, STANDARD, OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.378		
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 8 - 6	LF	3135		

SUMMARY OF LIGHTING					
PAY ITEM	DESCRIPTION	UNITS	QTY		
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	215		
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	2570		
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	13		
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE (12')	AS	2		
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO 8 TO NO 6	LF	10949		
715-1-60	LIGHTING CONDUCTORS, REMOVE & DISPOSE, CONTRACTOR OWNS	LF	3993		
715-4-12	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 35' MOUNTING HEIGHT	EA	19		
715-4-70	LIGHT POLE COMPLETE, REMOVE POLE AND FOUNDATION	EA	8		
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1		
715-500-1	POLE CABLE DISTRIBUTION SYSTEM, FURNISH AND INSTALL, CONVENTIONAL	EA	19		

REVISIONS				
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	SHI. NO.
SUMMARY OF PAY ITEMS	200672	3



TYPICAL SECTION (1) GATEWAY BLVD.

STA. 145+78.67 TO STA. 148+69.12 (RT.)

STA. 146+74.57 TO STA. 148+70.09 (LT.)

STA. 149+96.13 TO STA. 153+24.05 (RT.)

STA. 149+97.20 TO STA. 153+43.55 (LT.)

TRAFFIC DATA

CURRENT YEAR = 2019 AADT = 23,100 ESTIMATED OPENING YEAR = 2021 AADT = 19,000 ESTIMATED DESIGN YEAR = 2041 AADT = 25,136 DESIGN HOUR T = 3.4% DESIGN SPEED = 35 MPH

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH

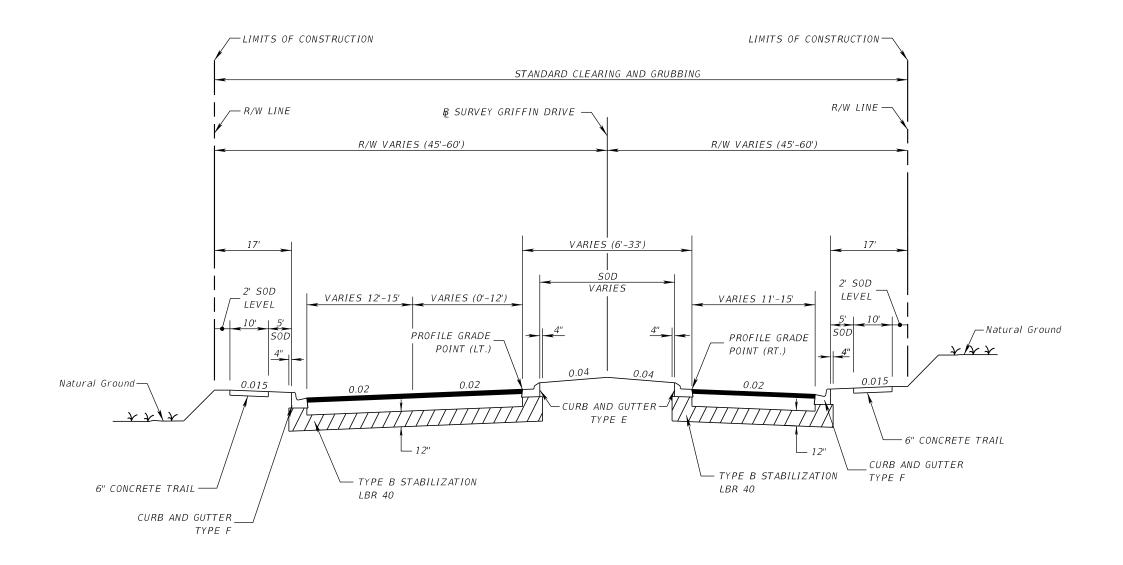
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

REVISIONS				
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300
				CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NC
TYPICAL SECTION (1)	200672	4



TYPICAL SECTION (2)
GRIFFIN DRIVE

STA. 317+88.90 TO STA. 322+86.05 (LT.)

STA. 317+88.94 TO STA. 321+35.18 (RT.)

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH

TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

STA. 318+08.28 TO STA. 319+55.02 (LT.)

WIDENING

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH

TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

STA. 317+94.29 TO STA. 328+87.98 (LT.) MILLING AND RESURFACING

MILL (1")

OVERBUILD (SEE TABLE)*

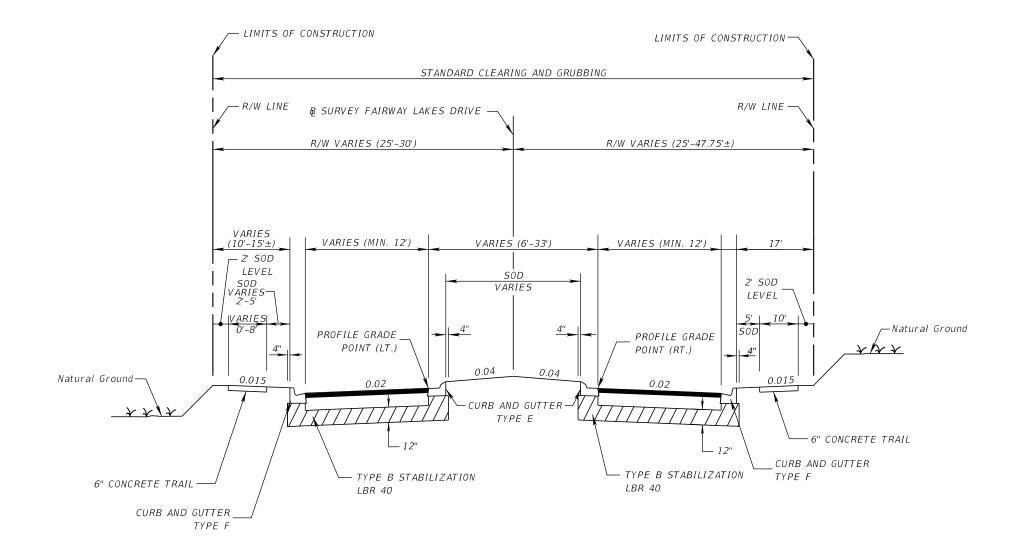
AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

DESIGN SPEED = 35 MPH * SEE TYPICAL SECTION DETAIL SHEET

	REVIS			
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	SHI. NO.
TYPICAL SECTION (2)	200672	5



STA. 314+42.89 TO STA. 315+80.00 (LT.) STA. 314+42.89 TO STA. 315+08.66 (RT.) MILLING AND RESURFACING

MILL (1")

OVERBUILD (SEE TABLE)*

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TYPICAL SECTION (3)

FAIRWAY LAKES DRIVE

STA. 315+80.00 TO STA. 316+35.09 (LT.)

STA. 315+08.66 TO STA. 316+36.79 (RT.)

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5") AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22) STA. 314+42.89 TO STA. 315+63+15 (LT.) STA. 314+58.93 TO STA. 315+06.92 (RT.) WIDENING

OPTIONAL BASE GROUP 9 (TYPE B-12.5 ONLY) WITH

TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

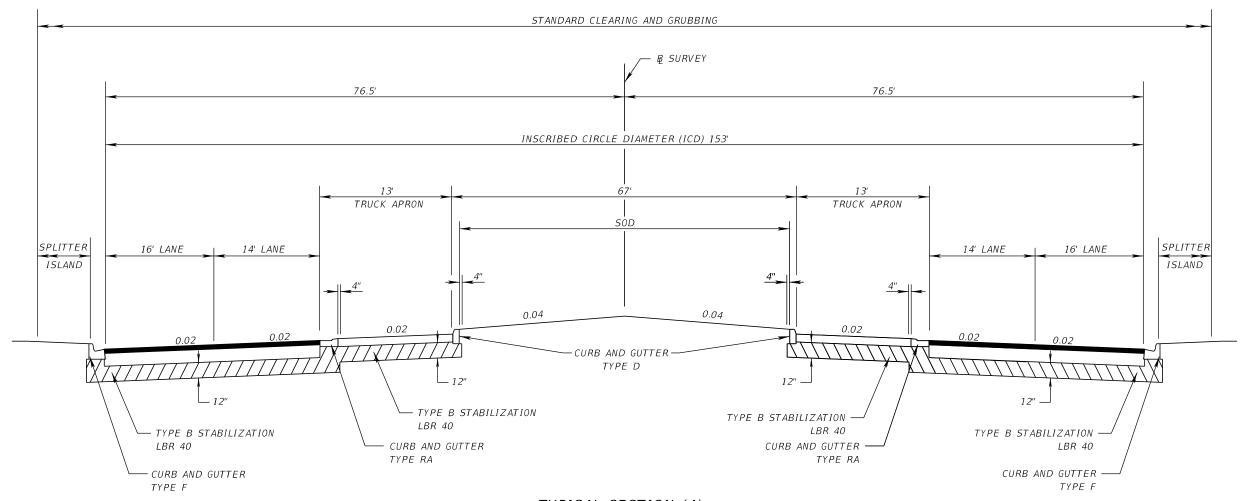
DESIGN SPEED = 25 MPH * SEE TYPICAL SECTION DETAIL SHEET

	REVISIONS						
D,	4TE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM,		
					P.E. LICENSE N CARDNO, INC. 380 PARK PLAC CLEARWATER, I		

JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO
TYPICAL SECTION (3)	200672	6



TYPICAL SECTION (4)
GATEWAY BLVD. ROUNDABOUT
STA. 148+70.09 TO 149+97.20

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 (B-12.5 ONLY) WITH

TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TRUCK APRON

CONCRETE PAVEMENT (12")
(AMS-STD-595-21105 RED)

TRAFFIC DATA

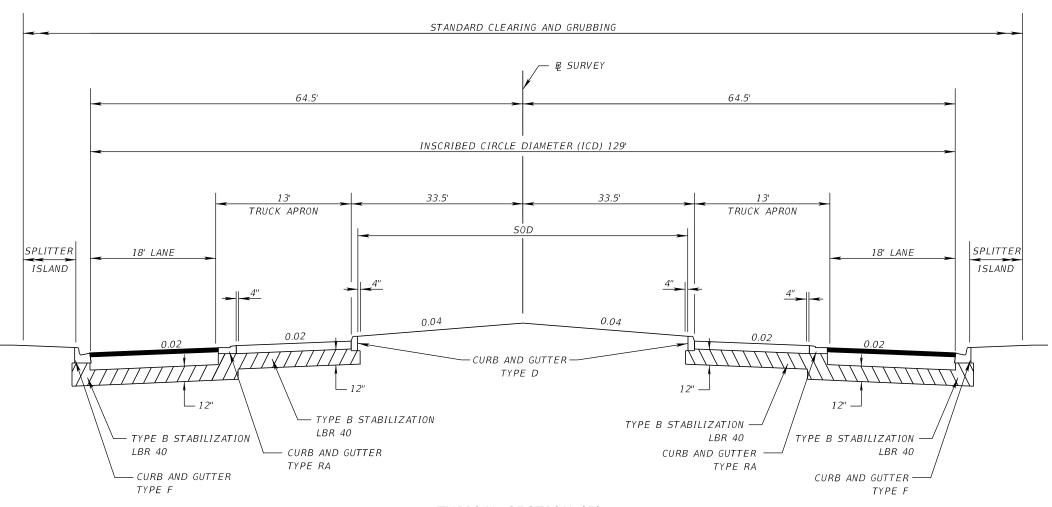
CURRENT YEAR = 2019 AADT = 23,100 ESTIMATED OPENING YEAR = 2021 AADT = 19,000 ESTIMATED DESIGN YEAR = 2041 AADT = 25,136 DESIGN HOUR T = 3.4% DESIGN SPEED = 35 MPH

	REVI			
DATE	DESCRIPTION	DATE	DESCRIPTION] JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD,
				CLEARWATER, FLORIDA 33759

Lee County Southwest Florida
DEPARTMENT OF TRANSPORTATION

GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
TYPICAL SECTION (4)	200672	7





TYPICAL SECTION (5) GRIFFIN DR. AND FAIRWAY LAKES DR. ROUNDABOUT STA. 316+36.79 TO 317+88.94

NEW CONSTRUCTION

OPTIONAL BASE GROUP 9 (B-12.5 ONLY) WITH

TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")

AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TRUCK APRON

CONCRETE PAVEMENT (12") (AMS-STD-595-21105 RED)

	REV			
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759

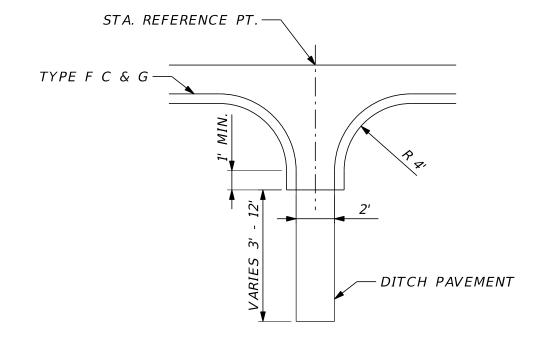


GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.	
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	SHT. NO.	
TYPICAL SECTION (5)	200672	8	

	SUMMARY OF ASPHALT OVERBUILD FAIRWAY LAKES DR							
LOCATION							TYPE SP	
STATION	LANE	EXIST CROSS SLOPE	PROPOSED SLOPE	MAX DEPTH OF OVERBUILD (IN)	WIDTH OF OVERBUILD (FT)	LENGTH OF OVERBUILD (FT)	(TRAFFIC C) OVERBUILD (TN)	
315+00	WB	0.011	0.020	0.00	0	-	-	
315+50	WB	0.008	0.020	0.28	12	50.00	1.01	
315+80.00	WB	0.006	0.020	0.00	0	30.00	0.15	
	TOTAL OVERBUILD FAIRWAY LAKES DR 1.16							

SUMMARY OF ASPHALT OVERBUILD GRIFFIN DR								
LOCATION							TVD5 60	
STATION	LANE	EXIST CROSS SLOPE	PROPOSED SLOPE	MAX DEPTH OF OVERBUILD (IN)	WIDTH OF OVERBUILD (FT)	LENGTH OF OVERBUILD (FT)	TYPE SP (TRAFFIC C) OVERBUILD (TN)	
317+90	WB	0.011	0.020	0.00	-	-	-	
318+00	WB	0.005	0.020	0.53	12.3	10.00	0.40	
318+50	WB	0.012	0.020	0.54	9.4	50.00	1.55	
319+00	WB	0.012	0.020	0.73	11.5	50.00	2.57	
319+50	WB	0.012	0.020	0.89	11	50.00	2.99	
320+00	WB	0.012	0.020	0.94	25.4	50.00	7.30	
320+50	WB	0.012	0.020	1.24	29	50.00	10.99	
321+00	WB	0.012	0.020	0.90	28.4	50.00	7.81	
321+50	WB	0.012	0.020	0.65	29.5	50.00	5.86	
322+00	WB	0.012	0.020	0.30	29.5	50.00	2.70	
322+50	WB	-0.007	0.020	0.05	9.2	50.00	0.14	
322+86	WB	0.005	0.020	0.00	0	36.00	0.03	
	TOTAL OVERBUILD GRIFFIN DR 42.33							

OVERBUILD TABLES



CONCRETE OPEN FLUME DETAIL

GATEWAY BLVD. STA. 151+80.00 LT. GRIFFIN BLVD. STA. 319+30.00 LT.

STA. 321+50.00 LT.

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300
				CLEARWATER, FLORIDA 33759
		l		·



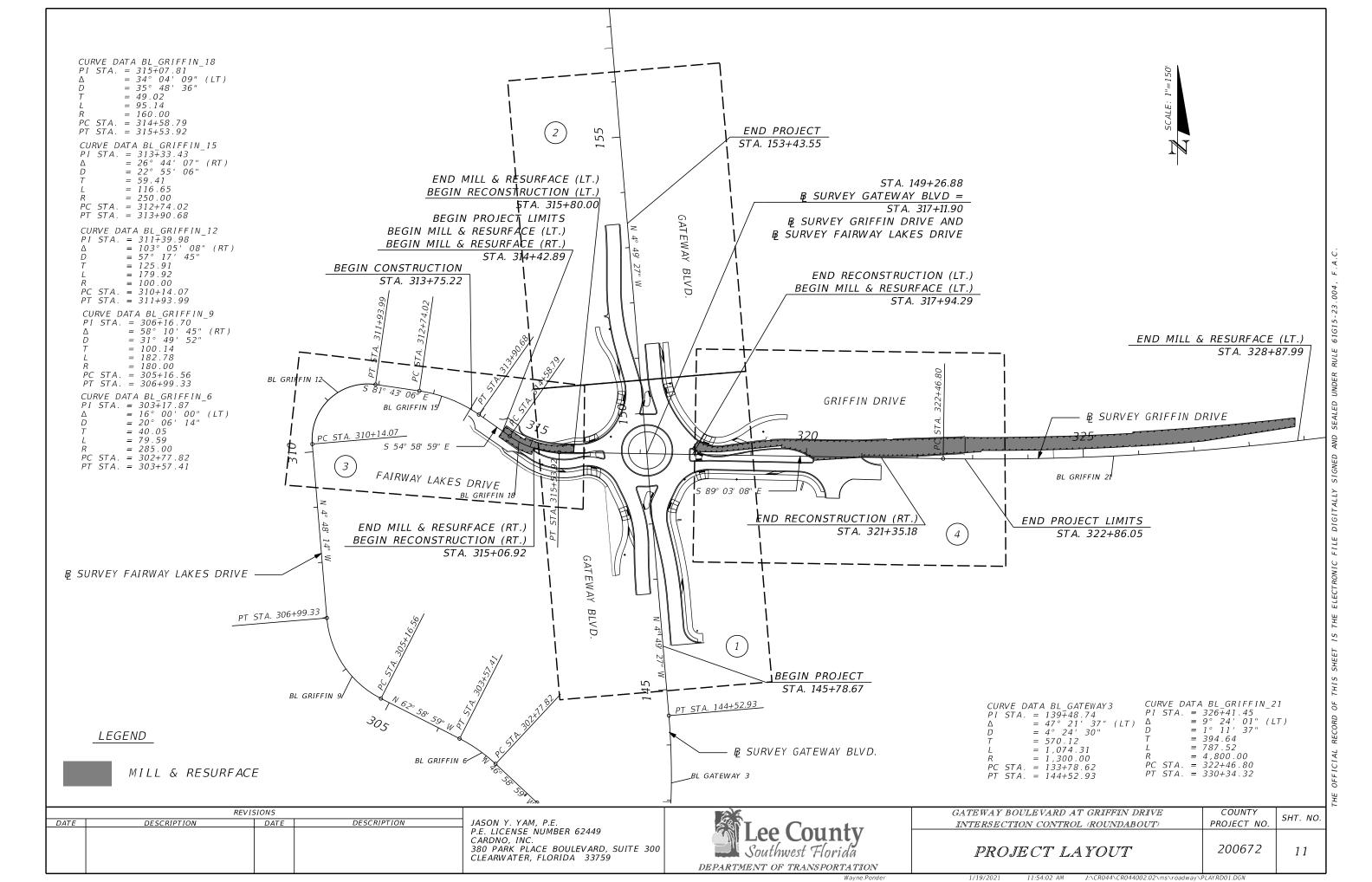
GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
TYPICAL SECTION DETAILS	200672	9

				C.	<u>ح</u>	STORI	M SEWER	R PIPE			BOTTOM LETS	FLUMES	JACKET		
QTY.	STRUCT. NO.	STATION	SIDE	DESCRIPTION	BARKELS		OTHER		P-6	С	C (J-BOT)	CLOSED	16" - 30"	REMARKS	
						18"	24"	30"	<10	<10	<10				
	GA	TEWAY BOU	LEVA	\RD											
Р	S-99	145+86	RT	CLOSED FLUME :	1							1		DITCH PAVEMENT QUANTITY IN ROADWAY ITEMS	
F															
Р	S-100	148+01	RT	CLOSED FLUME :	1							1		DITCH PAVEMENT QUANTITY IN ROADWAY ITEMS	
F														·	
Р	S-101	148+00	LT	DBI & PIPE 1	1	54				1					
F															
Р	S-102	148+54	LT	CURB INLET :	1 2	225			1						
F															
Р	S-103	150+80	LT	DBI & PIPE :	1	98				1					
F															
P	S-104	151+80	LT	DBI & PIPE 1	1		253			1					
F															
P	S-105	154+26	LT	DBI & PIPE :	1		4	4			1		2	ONE 24", ONE 30" JACKET	
F							·							, , , , , , , , , , , , , , , , , , , ,	
		GRIFFIN DE	RIVE												
Р	S-300	320+00		CLOSED FLUME :	1							1		DITCH PAVEMENT QUANTITY IN ROADWAY ITEMS	
F														,	
	SHEET	TOTALS		PLAN QUANTITY FINAL QUANTITY		377	257	4	1	3	1	3	2		
				FINAL QUANTITY											

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	CHRISTOPHER J. KNOX, P.E.
				P.E. LICENSE NUMBER 67350
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300
				CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY NO.	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	COUNTY NO.	3111. NO.
SUMMARY OF	0671	10
DRAINAGE STRUCTURES		10



		C	COORDINATE T	ABLE
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
110	813504.75'	738296.18'	26.97'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
105	813658.70'	738265.38'	27.21'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
113	812805.74'	738187.71'	26.53'	SET N-D "CARDNO T.P. LB 7975"
106	813652.95'	738648.27'	26.15'	SET N-D "CARDNO T.P. LB 7975"
107	813649,38'	738897.12'	25,99'	SET N-D "CARDNO T.P. LB 7975"
108	813539.15'	738650.20'	26.36'	SET N-D "CARDNO T.P. LB 7975"
109	813534.44'	738362.93'	26.16'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
111	813257.75'	738313.82'	27.38'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
112	812763.47'	738298.99'	28.55'	SET N-D "CARDNO T.P. LB 7975"
114	813053.64'	738203.40'	27.18'	SET N-D "CARDNO T.P. LB 7975"
115	813560,82'	738154.20'	26,98'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
116	813641.95'	737921.13'	25.24'	SET N-D "CARDNO T.P. LB 7975"
117	813642.60'	738167.23'	26.95'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
118	814135.81'	738113.66'	25.91'	SET N-D "CARDNO T.P. LB 7975"
119	814233.15'	738105.78'	26.42'	SET N-D "CARDNO T.P. LB 7975"
120	814143.38'	738218.90'	26.38'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
121	813899,42'	738273.67'	26,22'	SET 5/8" IR&C "CARDNO T.P. LB 7975"
102	813656.87'	738445.49'	26.13'	SET N-D "CARDNO T.P. LB 7975"
150	813696.64'	737728.11'	25.71'	SET N-D "CARDNO T.P. LB 7975"
151	813724.15'	737733.94'	25.77'	SET N-D "CARDNO T.P. LB 7975"

LEGEND:

ARV	AIR RELEASE VALVE	t ::	FLAG POLE	•	SPRINKLER	•	FOUND CONCRETE MONUMENT
	BACKFLOW PREVENTER	— FM —	FORCE MAIN	٥	STEEL POST	D.H.	FOUND DRILL HOLE
*	BENCH MARK	ARV	FORCE MAIN AIR RELEASE VAL	.VE 🗉	TELEPHONE BOX OR VAULT	•	FOUND IRON ROD
•	BOLLARD	Ø	GAS PIPELINE MARKER	0	TELEPHONE CANISTER	۰	FOUND IRON ROD & CAP
©	CABLE RISER	Ħ	GROUND LIGHT	P	TELEPHONE FLAG	•	FOUND NAIL
Ö	CABLE TV BOX		GUARD RAIL	•	TELEPHONE MANHOLE	۰	FOUND NAIL & DISK
CB	CATCH BASIN	-•	GUY POLE	•	TELEPHONE RISER	•	FOUND PARKER KALON NAIL
£	CENTERLINE	(GUY WIRE		TOE OF SLOPE	0	FOUND PARKER KALON NAIL & DISK
0	CLEANOUT	Ŀ	HANDI-CAP PARKING	108	TOP OF BANK	[0]	SET CONCRETE MONUMENT
001	COORDINATE NUMBER	нв	HOSE BIB		TRAFFIC SIGNAL BOX	D.H. O	SET DRILL HOLE
-0-	CONCRETE POWER POLE	IRR	IRRIGATION BOX	Ø	TRAFFIC SIGNAL POLE	0	SET 5/8" IRON ROD & CAP "CARDNO LB 7975" U.O.N.
0	DRAINAGE MANHOLE	irr 	IRRIGATION VALVE	U	UNKNOWN UTILITY VAULT OR BOX	0	SET MAG NAIL & DISK "CARDNO LB 7975" U.O.N.
E	ELECTRICAL BOX	₽	LIGHT POLE	0	UNKNOWN UTILITY MANHOLE		
E0	ELECTRIC OUTLET	S	MAIL BOX	uu	UNDERGROUND UTILITIES		
EM	ELECTRIC METER		MITERED END	— w —	WATER MAIN		
— Е —	ELECTRIC LINE	00	WELL	▶	WATER LINE FLAG		
P	ELECTRIC FLAG	OHP	OVERHEAD POWER LINE	WIM	WATER METER		
*	EXISTING ELEVATION	OHT	OVERHEAD TELEPHONE LINE	₩v	WATER VALVE		
x x	FENCE - BARBED WIRE	б	POWER POLE	-0-	WOOD SUPPORT POLE		
	FENCE - CHAIN LINK	Ĉ.	POWER POLE w/RISER	YD	YARD DRAIN		
	FENCE - WOOD	₽	RECLAIM WATER LINE FLAG	xw	CROSS WALK SIGNAL POLE		
٨	FIBER OPTIC MARKER / POST	₽	SEWER LINE FLAG	•	CROSS WALK BUTTON POLE		
\boxtimes	FIBER OPTIC BOX	ss	SANITARY SEWER LINE	9	BUSH		
Ħ	FIRE HYDRANT	S	SEWER MANHOLE	卷	CABBAGE PALM		
₽v	FIRE VALVE	sv ⋈	SEWER VALVE	*	OAK TREE		
		2 D-	SECURITY SENSOR	*	PALM TREE		
		-	SIGN SINGLE POST	*	PINE TREE		
		0 0	SIGN DOUBLE POST	(3)	SHADE TREE (VARIOUS TYPE)		

BBRE	VIATIONS:
AC.	= ACRE
A C	= AIR CONDITIONER
A.K.A.	= ALSO KNOWN AS
ALUM.	= ALUMINUM
APPR.	■ APPROXIMATE
AVE.	- AVENUE
BLDG.	= BUILDING
BLVD.	= BOULEVARD
BM	= BENCHMARK
BOC	= BACK OF CURB
BOW	■ BACK OF WALK
BSM	= BUREAU OF SURVEYING AND MAPPING
(C)	= CALCULATED
CATV	= CABLE TELEVISION
CB	= CATCH BASIN
CBS	= CONCRETE BLOCK STRUCTURE
C.C.R.	= CERTIFIED CORNER RECORD
CDB	= CHORD BEARING
СН	= CHORD
	= CHAIN LINK FENCE
	CONCRETE MONUMENT
CMP	= CORRUGATED METAL PIPE
	= CLEANOUT
	= CONCRETE
	= CONTROL
	= CORRUGATED PLASTIC PIPE
	= CORNER
	= CORPORATION
C.P.	= CONTROL POINT

PLASTIC PIPE C.R. = COUNTY ROAD CT. = COURT C.U.E. = COUNTY UTILITY EASEMENT

(D) = DEED D.E. = DRAINAGE EASEMENT

(DESC.) = DESCRIPTION DH = DRILL HOLE DIA. = DIAMETER DR. = DRIVE DWG. = DRAWING

EL. = ELEVATION ELEC. = ELECTRIC EOP = EDGE OF PAVEMENT

EOW = EDGE OF WATER ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE

ESMT. = EASEMENT EXIST. = EXISTING

(F) = FIELD FDEP = FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY

F.F. = FINISHED FLOOR FND = FOUND

FPL OR FP&L = FLORIDA POWER & LIGHT F.S. = FLORIDA STATUTES FT. = FOOT / FEET

GLO = GENERAL LAND OFFICE GPS = GLOBAL POSITIONING SYSTEM I.D. = IDENTIFICATION

I.D.D. = IONA DRAINAGE DISTRICT I.N. = INSTRUMENT NUMBER INC. = INCORPORATED

INST = INSTRUMENT INV. = INVERT I.P. = IRON PIPE

IR = IRON ROD (5/8" DIA. U.O.N.) IRC OR IR&C = IRON ROD & CAP IRR. = IRRIGATION

> LABINS = LAND BOUNDARY INFORMATION SYSTEM (STATE OF FLORIDA) LAT = LATITUDE LB = LICENSED BUSINESS

LN. = LANE LONG = LONGITUDE LS = LICENSED SURVEYOR

LT = LEFT (M) = MEASURED

L = LENGTH

MAG = MAGNETIC ME = MITERED END MH = MANHOLE

MHWL = MEAN HIGH WATER LINE MISC. = MISCELLANEOUS

MON = MONUMENT

NAD = NORTH AMERICAN DATUM

N.A.V.D. = NORTH AMERICAN VERTICAL DATUM NGS = NATIONAL GEODETIC SURVEY

N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM (1929)

N.T.S. = NOT TO SCALE N.T.T. = NAIL & TIN TAB O/H = OVERHANG

O.H.W.L. = ORDINARY HIGH WATER LINE O.H.W.M. = ORDINARY HIGH WATER MARK

O.R. = OFFICIAL RECORD BOOK / PAGE

PB = PLAT BOOK

P.C. = POINT OF CURVATURE

PCP = PERMANENT CONTROL POINT PG (S) . = PAGE(S)
P.I. = POINT OF INTERSECTION

PKN&D = PARKER-KALON NAIL & DISK

PKWY. = PARKWAY PL = PROPERTY LINE

PLS = PROFESSIONAL LAND SURVEYOR

P.O.B. = POINT OF BEGINNING

P.O.C. = POINT OF COMMENCEMENT P.O.T. = POINT OF TERMINUS

PP = POWER POLE

P.R.M. = PERMANENT REFERENCE MONUMENT

PROP. = PROPERTY

PSM = PROFESSIONAL SURVEYOR AND MAPPER

PT. = POINT

P.T. = POINT OF TANGENCY

P.U.E. = PUBLIC UTILITY EASEMENT PVC = POLY VINYL CHLORIDE

R = RADIUS OR RIGHT

(R) = RECORD

RCP = REINFORCED CONCRETE PIPE RGE = RANGE

RLS = REGISTERED LAND SURVEYOR

R.R. = RAILROAD RT = RIGHT

RTA = RIGHT ANGLE

R/W = RIGHT-OF-WAY

SEC. = SECTION

S.F. = SQUARE FEET

SFWMD = SOUTH FLORIDA WATER MANAGEMENT DISTRICT

SHT = SHEET S.R. = STATE ROAD S.S. = SANITARY SEWER

STA. = STATION

ST. = STREET

SWFWMD = SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

T = TANGENT

TEL = TELEPHONE

TIIF = TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA

TIITF = BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT

TRUST FUND OF THE STATE OF FLORIDA

TOB = TOP OF BANK

TOE = TOE OF SLOPE T.P. = TRAVERSE POINT

TRANS. = TRANSITION
TWP = TOWNSHIP

TYP = TYPICAL U.E. - UTILITY EASEMENT

U.O.N. = UNLESS OTHERWISE NOTED

USGS = UNITED STATES GEOLOGICAL SURVEY

w/ = WITH Y.D. = YARD DRAIN

Δ = DELTA ANGLE ± = MORE OR LESS

= NUMBER

" " = STAMPING OF CAP OR DISK

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
PROJECT CONTROL	200672	12

- 1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). COORDINATE SYSTEM FOR THIS PROJECT SHALL BE BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE; NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT).
- 2. THE COST OF SAW CUTTING SHALL BE INCIDENTAL TO THE WORK BEING PERFORMED.
- ALL LANES MUST BE ABLE TO BE RE-OPENED IN 12 HOURS FOR TRAFFIC DURING AN EVACUATION NOTICE OF A HURRICANE OR OTHER EMERGENCY EVENTS AND SHALL REMAIN OPEN FOR THE DURATION OF THE EVACUATION OR EVENT AS DIRECTED BY THE PROJECT ENGINEER
- 4. PAVEMENT MARKINGS AND SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND FDOT STANDARD PLANS, INDEX 711-001
- 5. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED VV, VH, AND VVH) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. CONTRACTOR SHALL LOCATE AND VERIFY THE SIZE, LOCATION, AND DEPTH OF ALL EXISTING UTILITIES IN THE FIELD
- 6. CONTRACTOR SHALL VERIFY ALL UTILITIES AND PROVIDE AT LEAST 48 HOURS NOTICE TO THE INDIVIDUAL UTILITY COMPANIES AND ICDOT PRIOR TO CONSTRUCTION

COMPANIES AND ECDOT PRIOR TO CON	STRUCTION.	
UTILITY/AGENCY OWNERS:	COMPANY CONTACT	TELEPHONE NUMBERS
CENTURYLINK	EZEKIEL REID	239 - 336 - 2030
COMCAST CABLE	STEVE HUTSON	754-221-1254
FLORIDA POWER AND LIGHT	JUAN CRUZ	941 - 423 - 4842
GATEWAY SERVICES DISTRICT	CHRIS SHOEMAKER	239 - 561 - 1313
LEE COUNTY UTILITIES	ALLAN MAKAU	239 - 533 - 8598
TECO PEOPLES GAS (FT. MYERS)	ANTHONY BAUBLITZ	941 - 342 - 4025

- 7. A STORMWATER POLLUTION PREVENTION PLAN SHALL BE PREPARED IN ACCORDANCE WITH SECTION 104 OF THE FDOT SPECIFICATIONS, THE NOTICE OF INTENT SHALL BE PREPARED FOR THE NPDES STORMWATER PERMIT AND SUBMITTED TO OBTAIN PERMIT COVERAGE. FULL COMPENSATION FOR ALL ITEMS SHALL BE INCLUDED IN THE COST OF PAY ITEMS 104-10-3, 104-12, 104-15 and 104-18.
- 8. IN ANY EXCAVATION WORK IT SHOULD BE NOTED THAT THE WATER TABLE IS HIGH IN THIS AREA. WATER TABLE SHOWN ON CROSS SECTIONS MAY DIFFER FROM SEASONAL HIGH WATER TABLE (SHWT).
- ALL CONSTRUCTION IN THE COUNTY RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT LEE COUNTY DEPARTMENT OF TRANSPORTATION STANDARDS AND ALL REQUIRED INSPECTIONS PERFORMED AS REQUIRED BY THEM. CONTRACTOR SHALL PROVIDE BOND AND PERMIT FEE AS REQUIRED
- 10. CONCRETE SIDEWALK: USE CLASS 1, 3000 PSI (MINIMUM) CONCRETE. APPLY BROOM FINISH AND MAKE VERTICAL SAW CUTS AT 5' ON CENTER AT A DEPTH OF 1/4 OF THE SLAB THICKNESS. PROVIDE PRE-FORMED EXPANSION JOINTS AT 50' ON CENTER. ALL CONCRETE SIDEWALK AND DRIVEWAYS TO BE 6" THICK.
- 11. ALL MATERIALS AND WORKMANSHIP UNDER THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF LEE COUNTY DEVELOPMENT STANDARDS, LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) AND FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2020-21, UNLESS OTHERWISE NOTED.
- 12. ALL PERVIOUS AREAS WITHIN THE PROJECT CONSTRUCTION LIMITS SHALL BE SODDED. EXISTING SOD IS MOSTLY SAINT AUGUSTINE. MATCH EXISTING OR LANDSCAPE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLAN IF INCLUDED WITH THIS PLAN SET OR PROVIDED SEPARATELY AS PART OF CONTRACT.
- 13. CONTRACTOR SHALL VERIFY ALL QUANTITIES SHOWN ON THE PLANS. IF ANY DISCREPANCIES IN QUANTITIES ARE FOUND, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND/OR LCDOT.
- 14. ALL REGULATORY AND PERMITTING AGENCIES' REQUIREMENTS SHALL BE COMPLIED WITH.
- 15. APPROPRIATE TURBIDITY CONTROL DEVICES SUCH AS SILT FENCES WILL BE UTILIZED DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE NPDES NOTICE OF INTENT, NOTICE OF TERMINATION, AND LEE COUNTY RIGHT-OF-WAY PERMITS. NOI MUST BE FILED WITH FDEP IN ACCORDANCE WITH DEP DOCUMENT NO. 62-621 AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND MAINTAINING AN EFFECTIVE STORMWATER POLLUTION PREVENTION PLAN.
- 16. ALL EXISTING PIPES THAT ARE TO REMAIN IN SERVICE WITHIN THE RIGHT-OF-WAY CORRIDOR ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED IN THE PLANS.

DESCRIPTION

ASON Y. YAM, P.E

CARDNO, INC.

P.E. LICENSE NUMBER 62449

CLEARWATER, FLORIDA 33759

17. ALL EXISTING DRAINAGE STRUCTURES ARE TO REMAIN UNLESS NOTED ON THE ROADWAY PLANS.

REVISIONS

DATE

DESCRIPTION

- 18. CONTRACTOR SHALL MARK THE PROPERTY LINE LOCATION AND NOTIFY BUSINESS/HOME OWNERS TO REMOVE ANY EXISTING LANDSCAPING (I.E. SOD, BUSHES, TREES, ETC.) AND/OR SPRINKLER PIPE OR SPRINKLER HEADS AND FENCING THAT IS LOCATED WITHIN THE EXISTING PUBLIC RIGHT-OF-WAY OR EASEMENT AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 19. NOTIFY RESIDENCES AND BUSINESSES AT LEAST 48 HOURS IN ADVANCE OR ANY DISRUPTION IN SERVICE, INCLUDING DRIVEWAY CUTS.
- 20. WATER TABLE SHOWN ON CROSS SECTION MAY DIFFER FROM SEASONAL HIGH WATER TABLE (SHWT).
- 21. ALL STORM PIPES LOCATED WITHIN THE PROJECT LIMITS ARE TO BE DESILTED PRIOR TO COMPLETION OF PROJECT CONSTRUCTION.
- 22. ALL PROPOSED PIPE WITHIN THE RIGHT-OF-WAY SHALL BE REINFORCED CONCRETE PIPE (RCP/ERCP).
- 23. TREES TO BE REMOVED ARE NOTED ON THE EROSION CONTROL PLANS. THE TREES IDENTIFIED ARE ONLY AN ESTIMATE BASED ON DESIGN ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE NUMBER OF TREES THAT NEED TO BE REMOVED TO CONSTRUCT THIS PROJECT, INCLUDING TRAFFIC CONTROL PHASING AND OTHER CONSTRUCTION RELATED ACTIVITIES. LOCATIONS OF TREES TO BE REMOVED SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL BEFORE TREE REMOVAL BEGINS. TREE AND STUMP REMOVAL WILL BE PAID FOR UNDER PAY ITEM 110-1-1, LUMP SUM.

GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDABOUT) PROJECT NOTES DEPARTMENT OF TRANSPORTATION

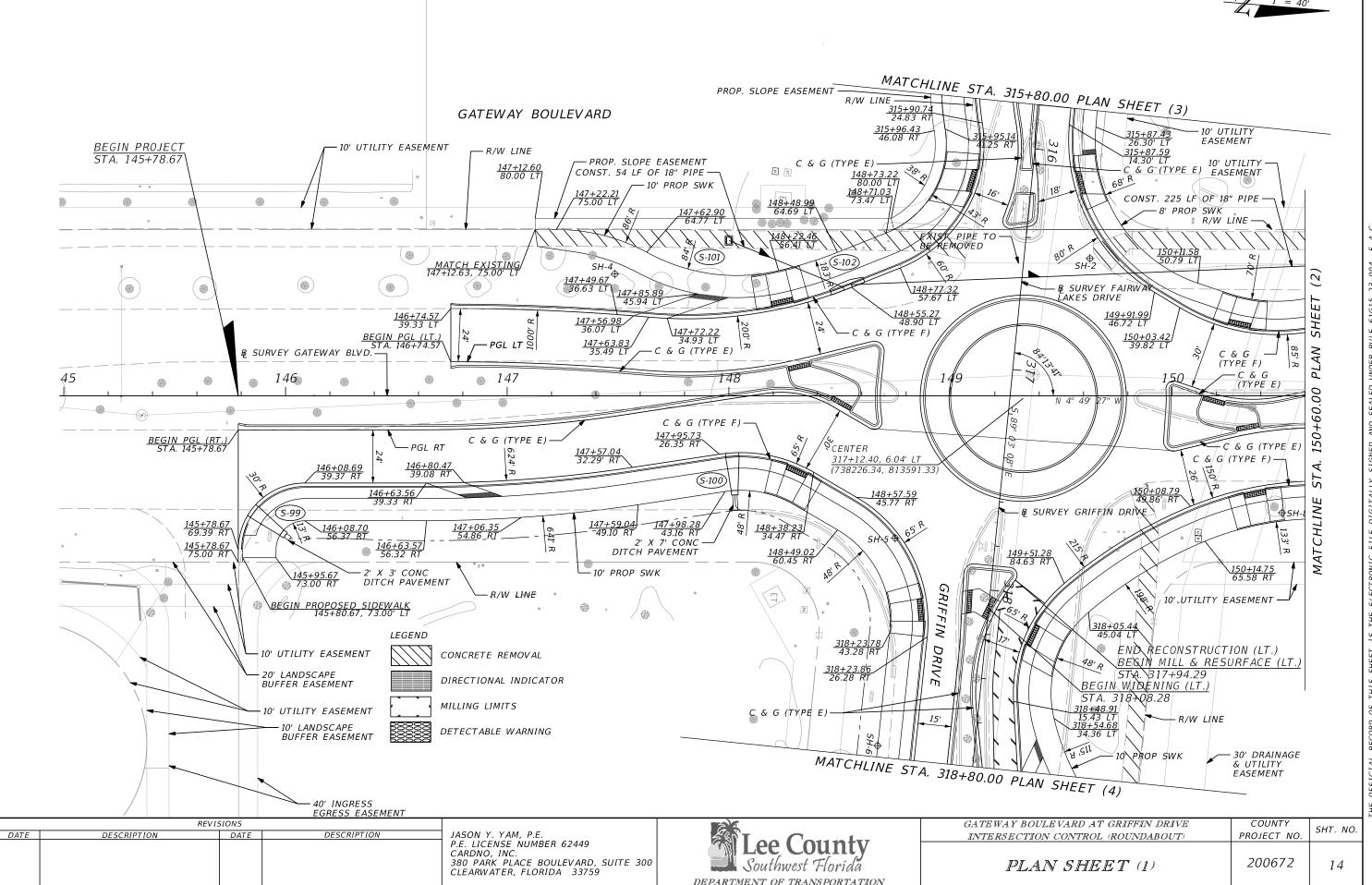
SHT. NO.

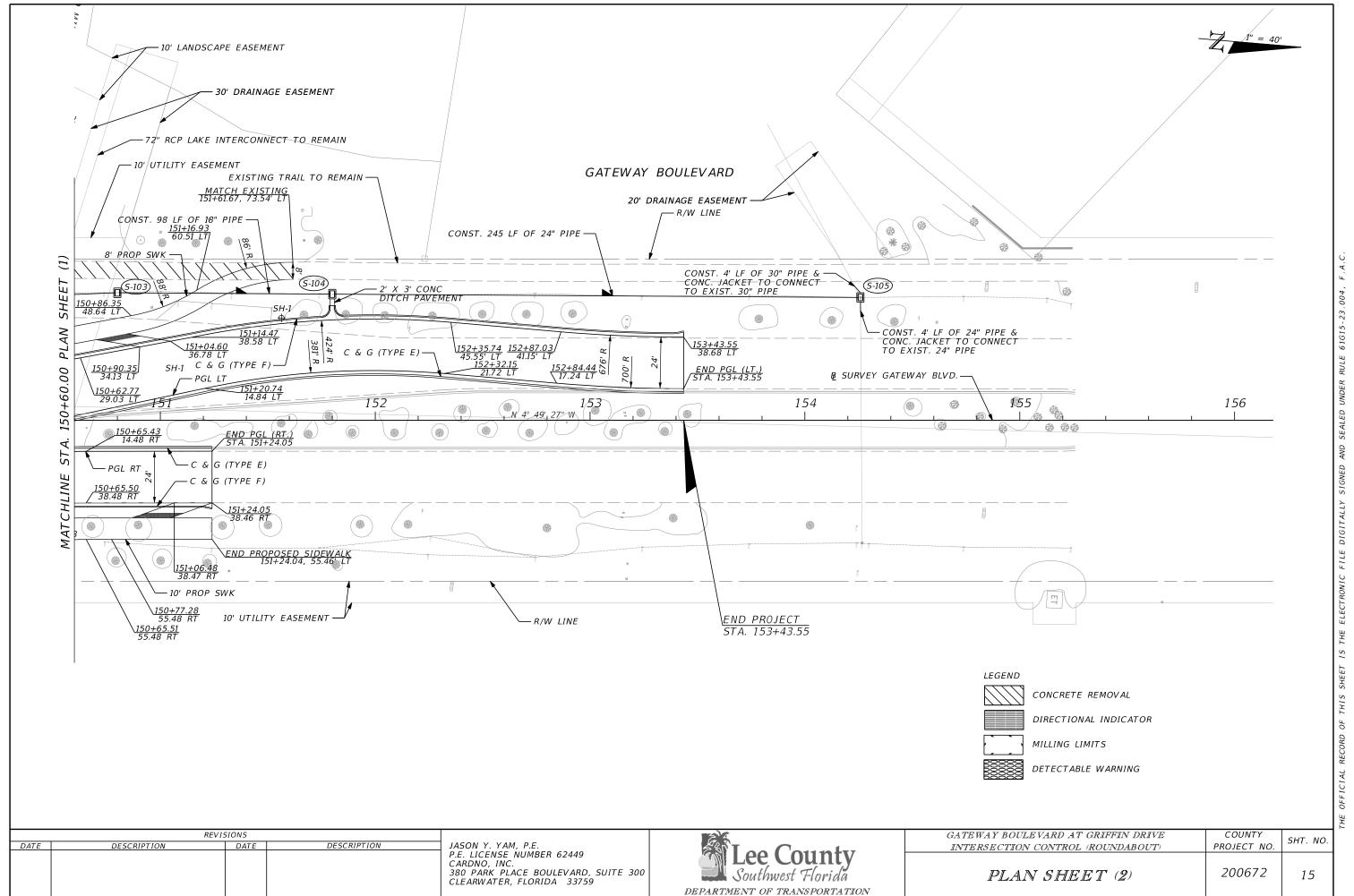
13

COUNTY

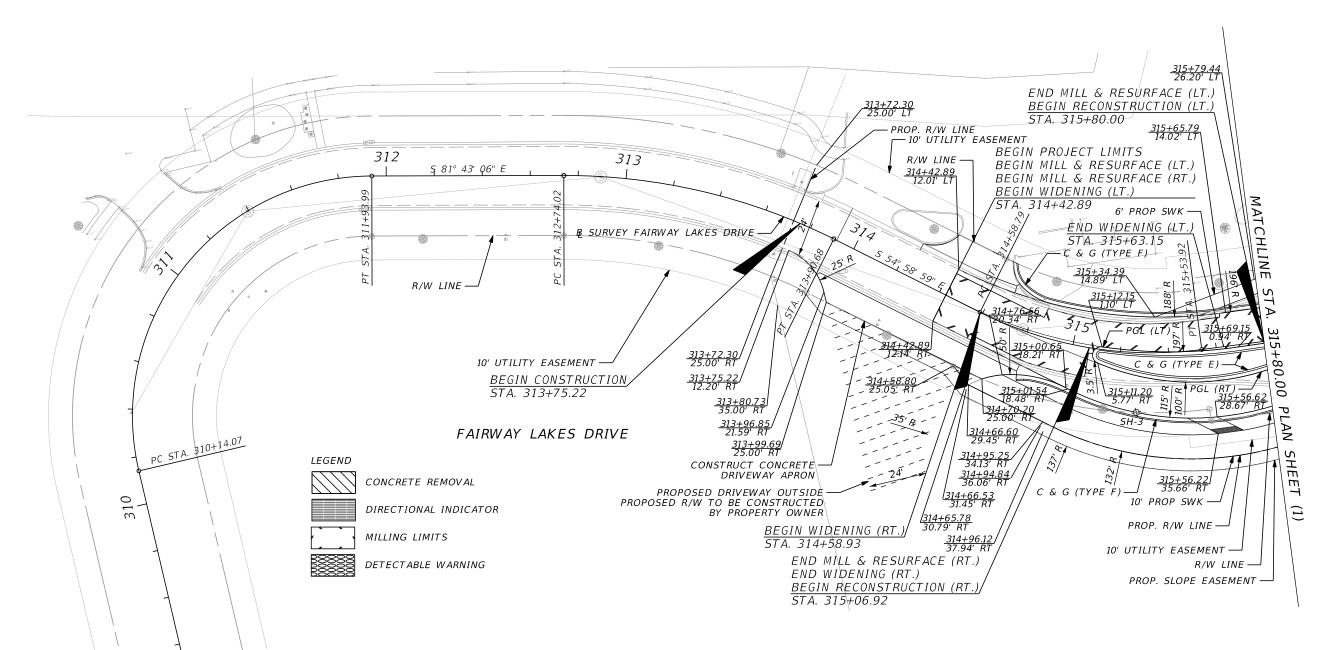
PROJECT NO.

200672





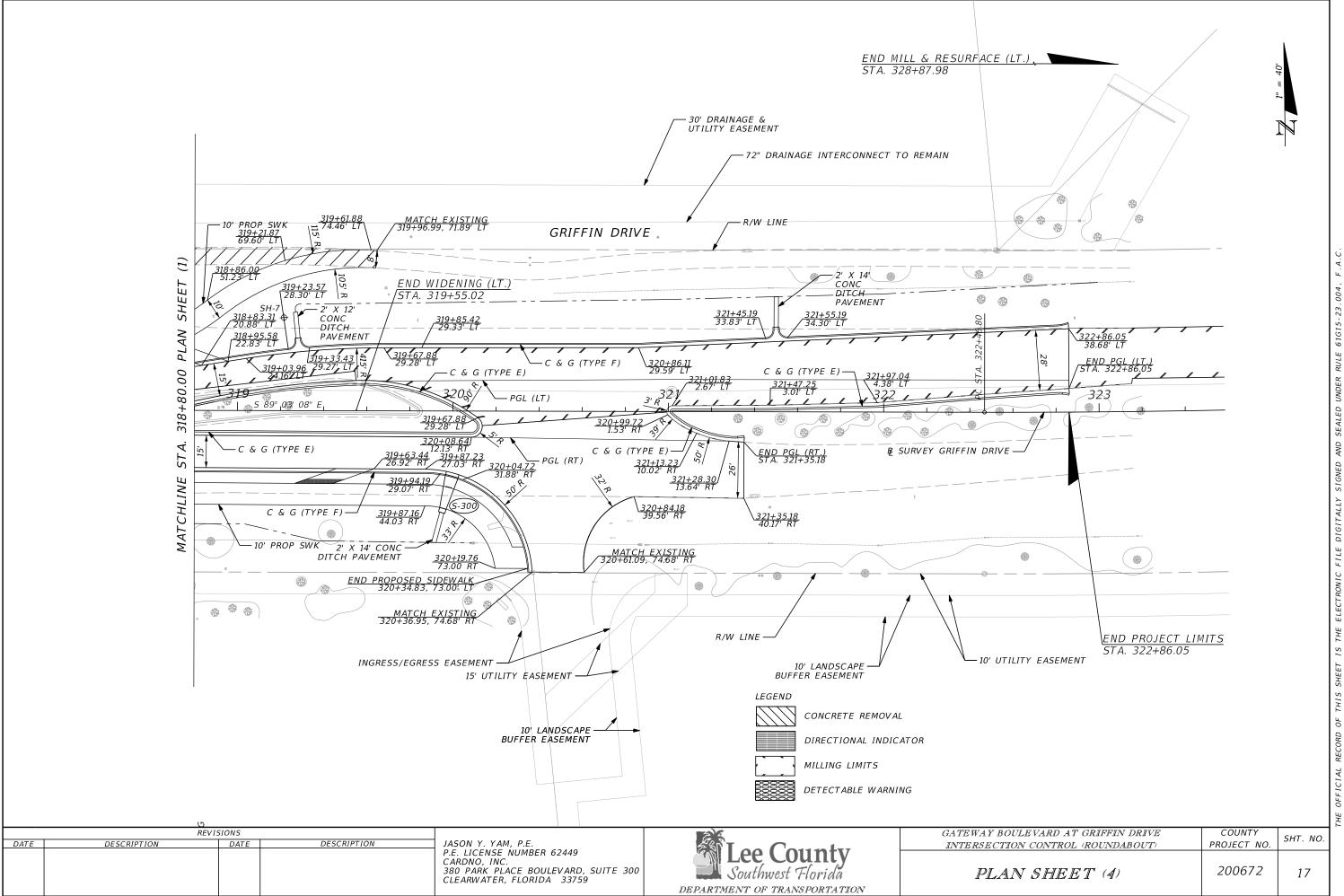


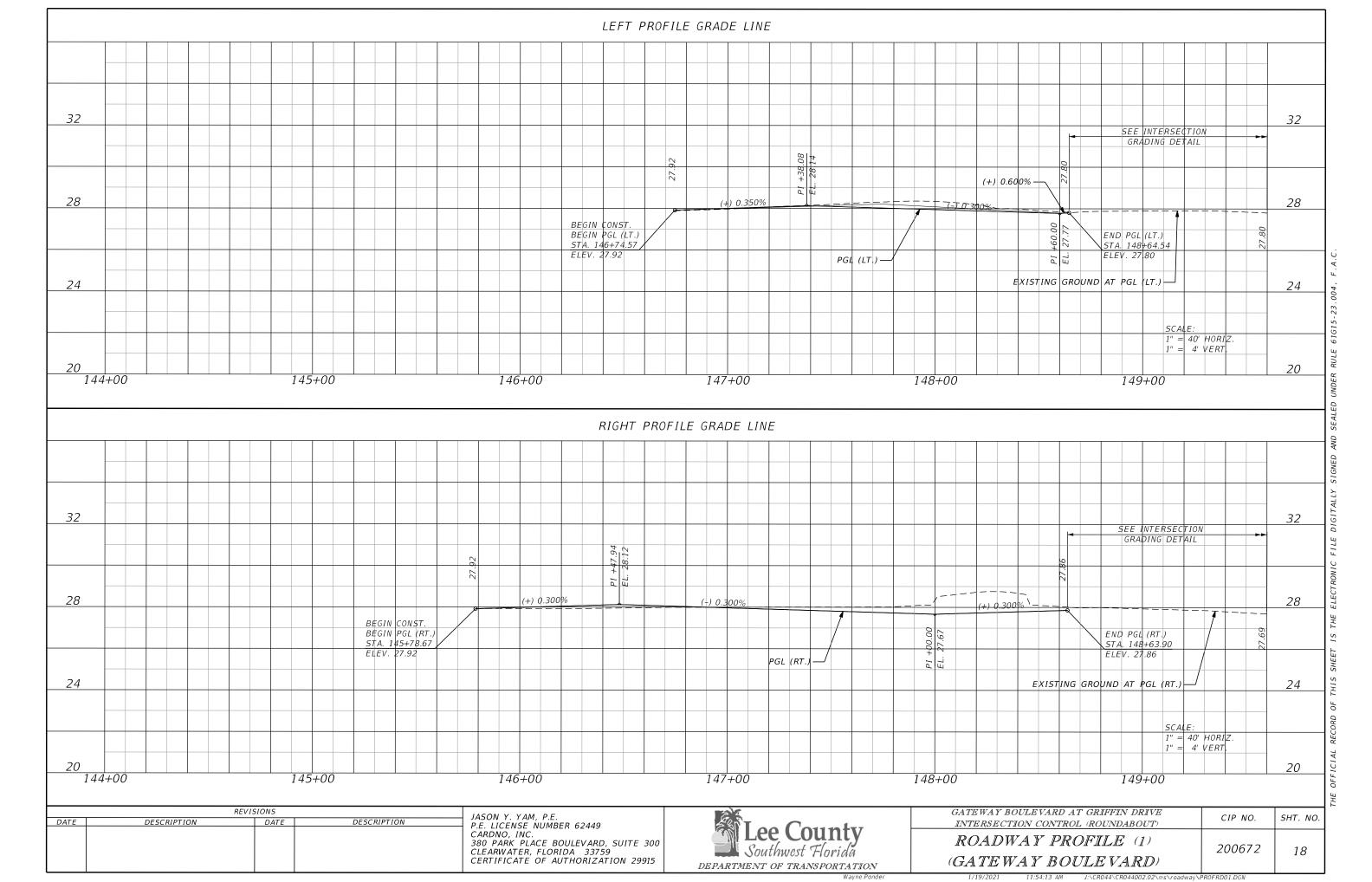


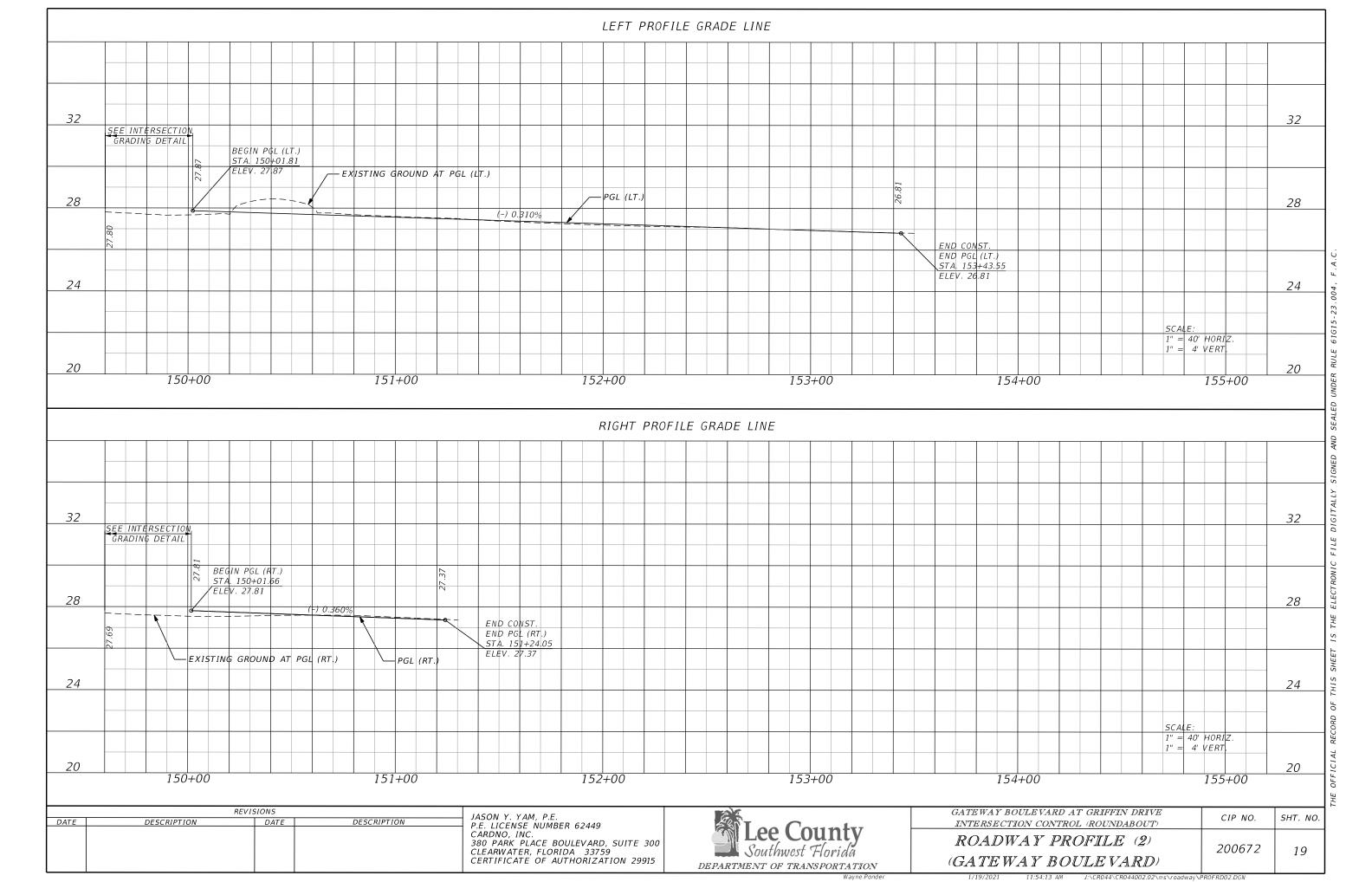
	REV	ISIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759

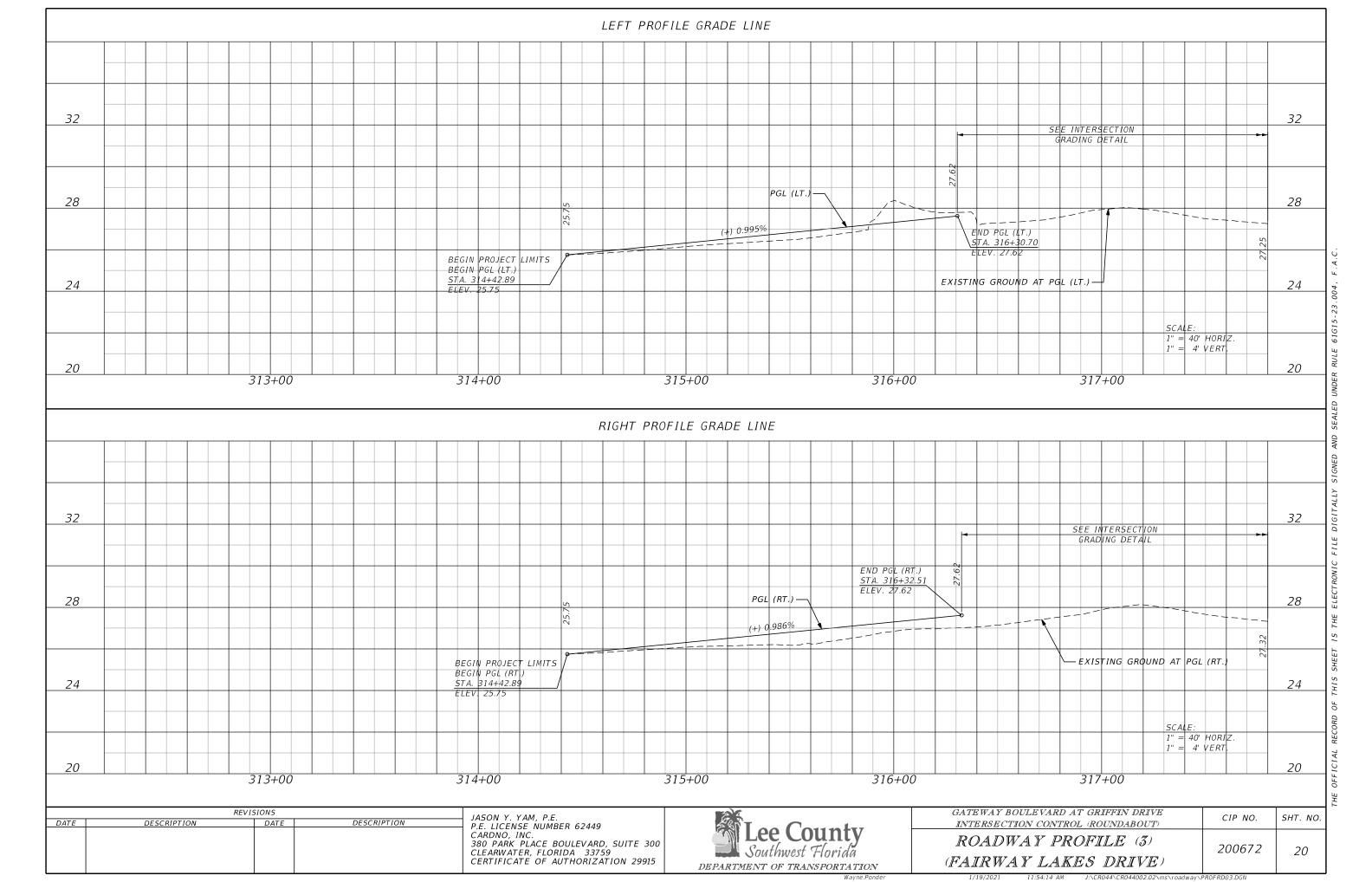


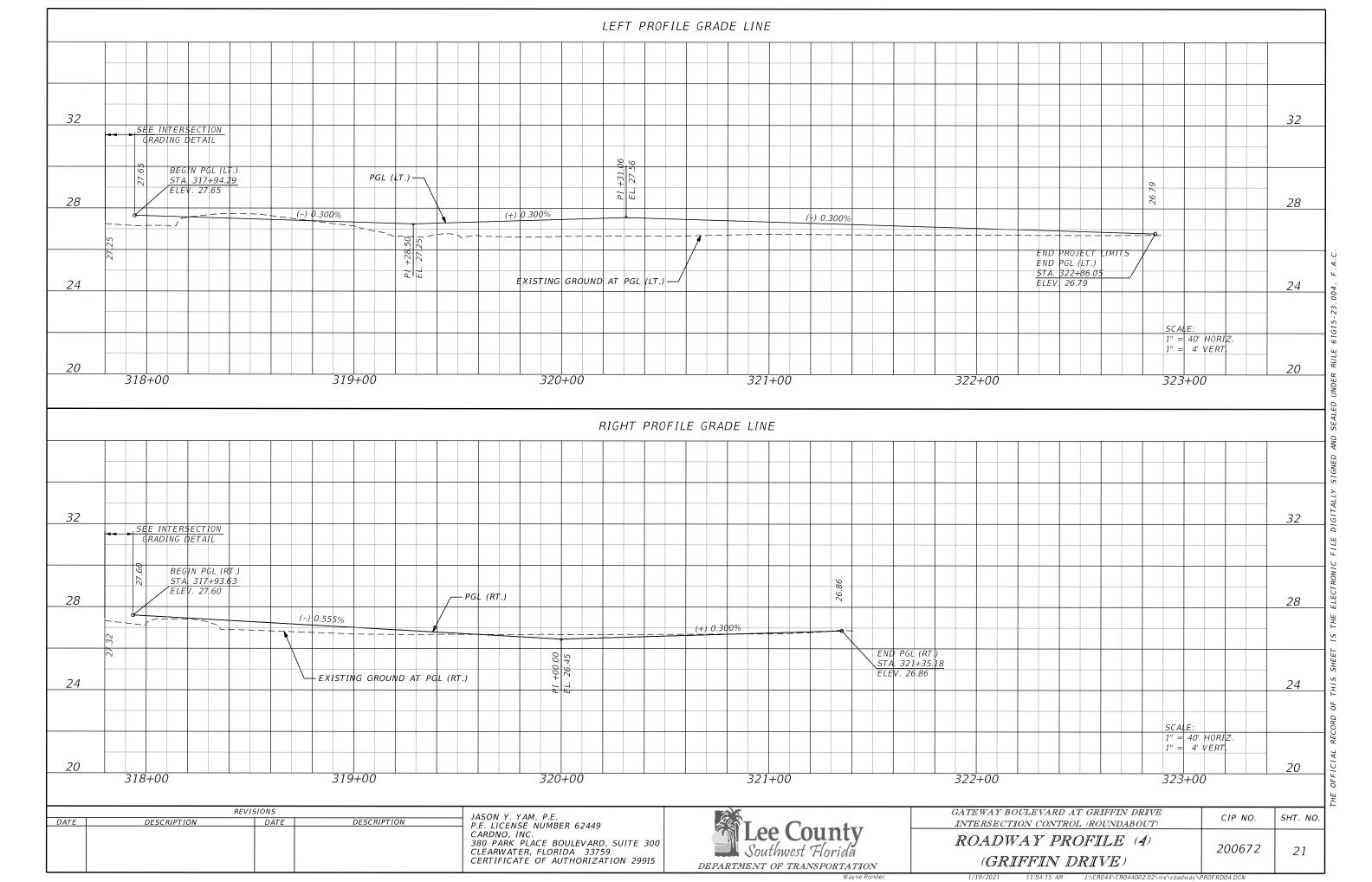
GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
PLAN SHEET (3)	200672	16

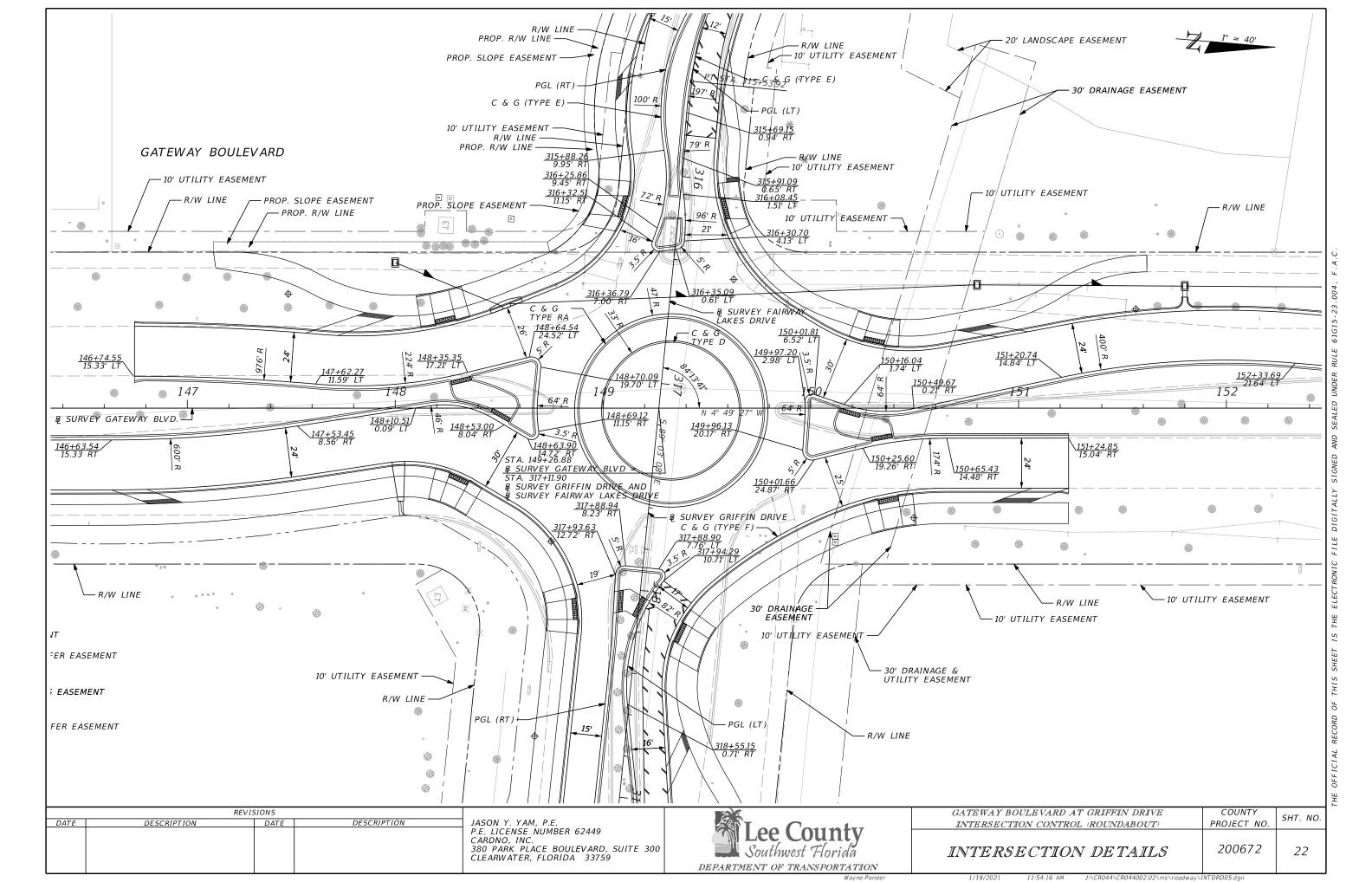


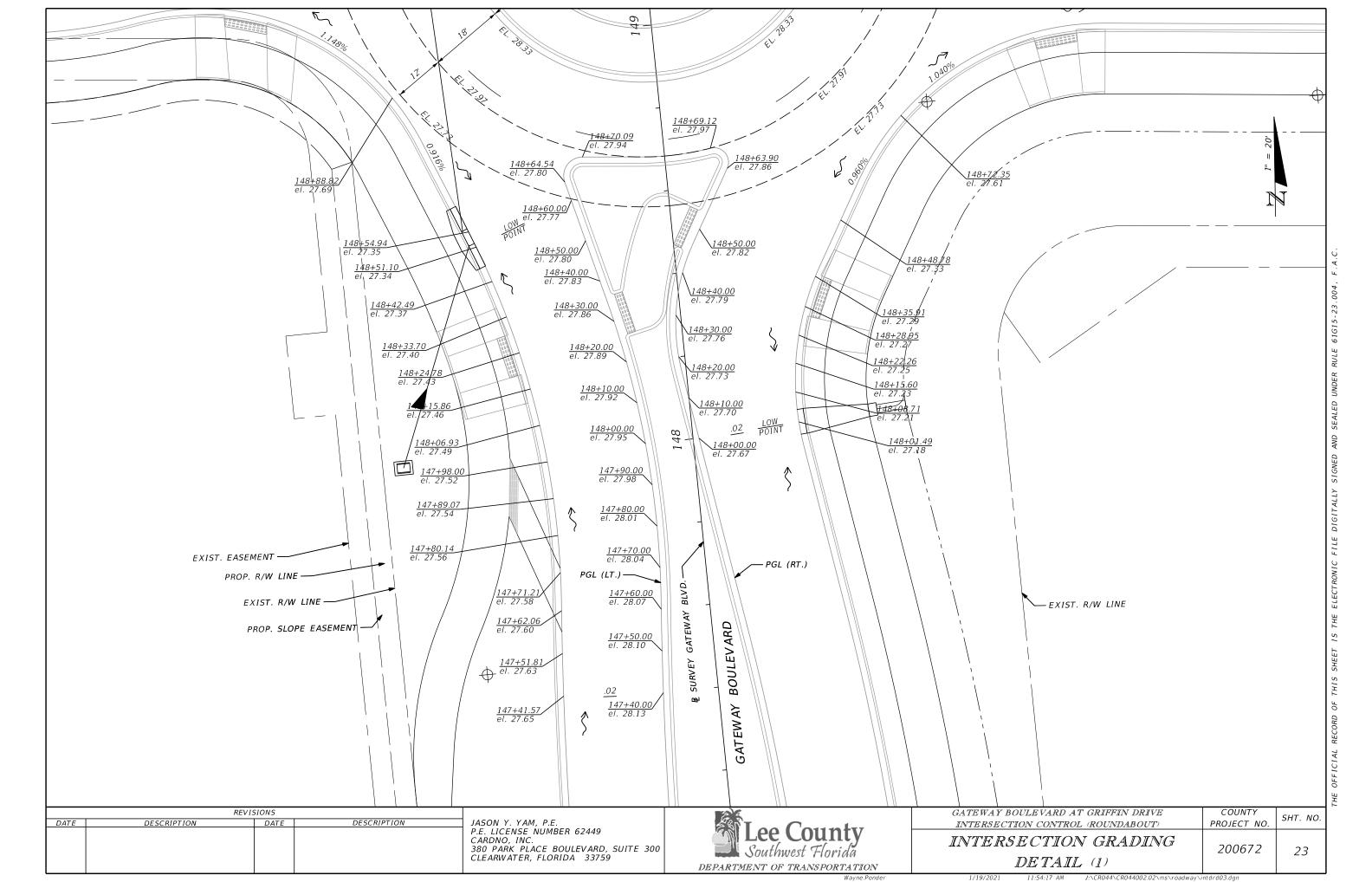


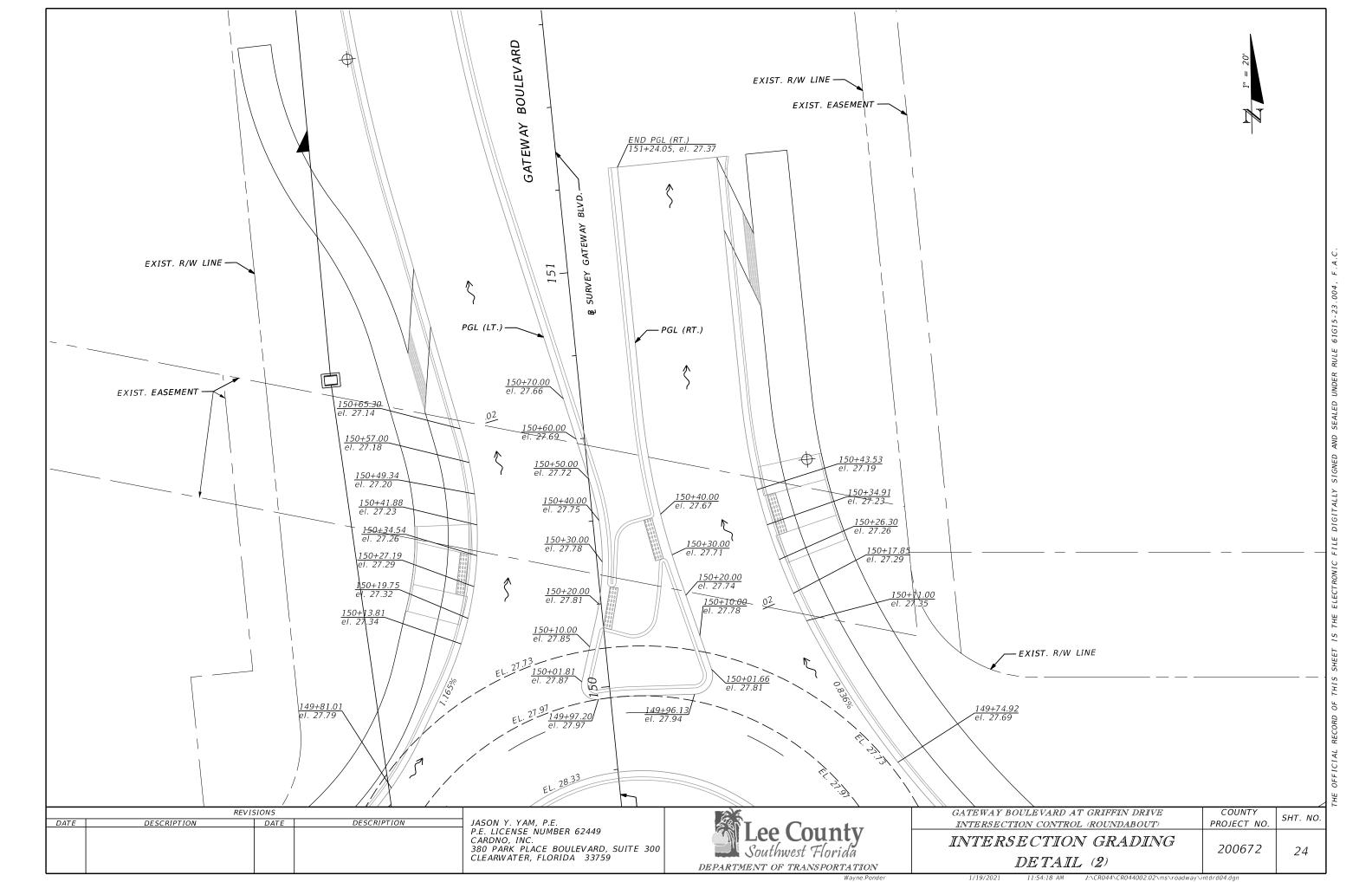


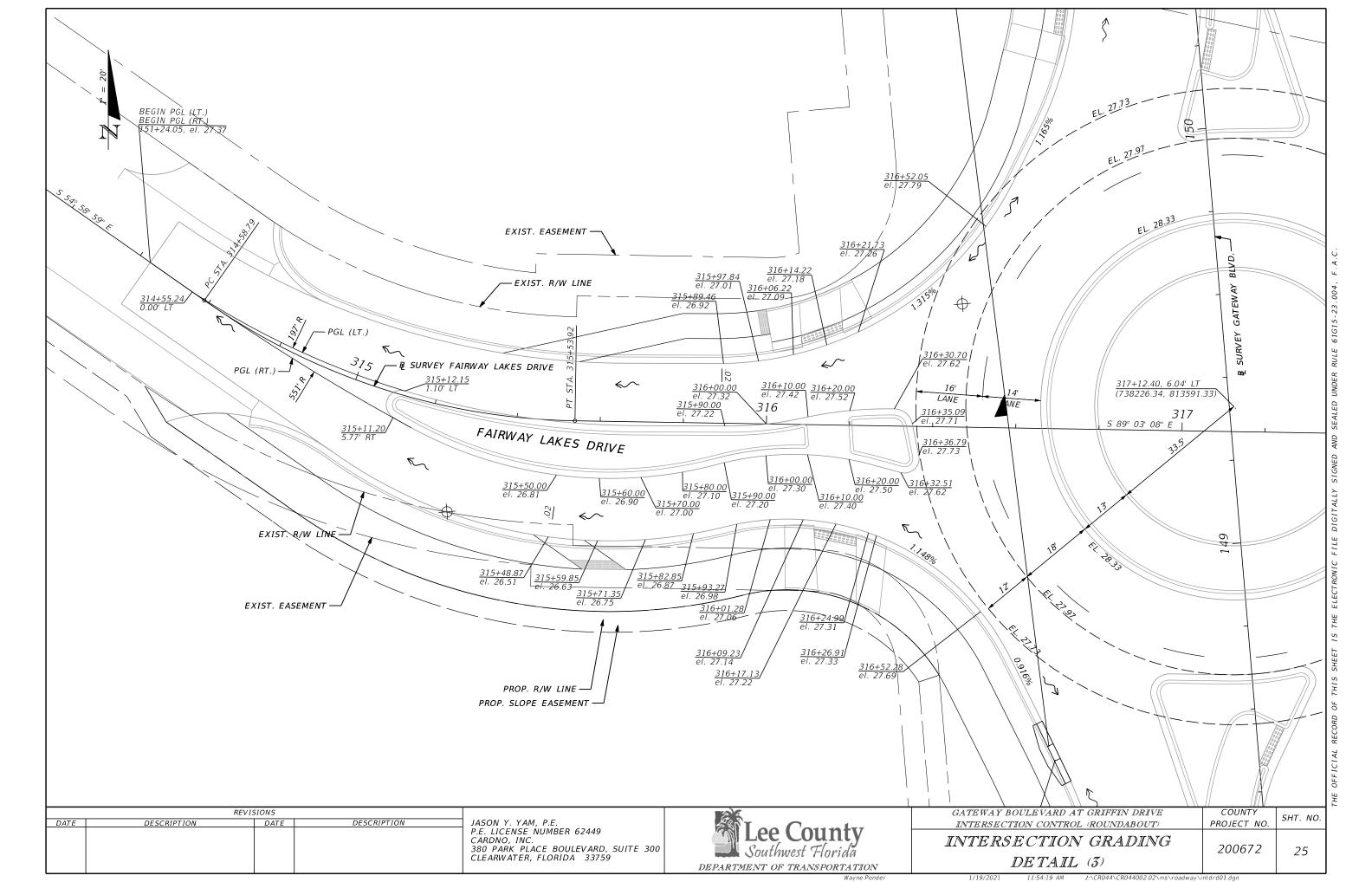


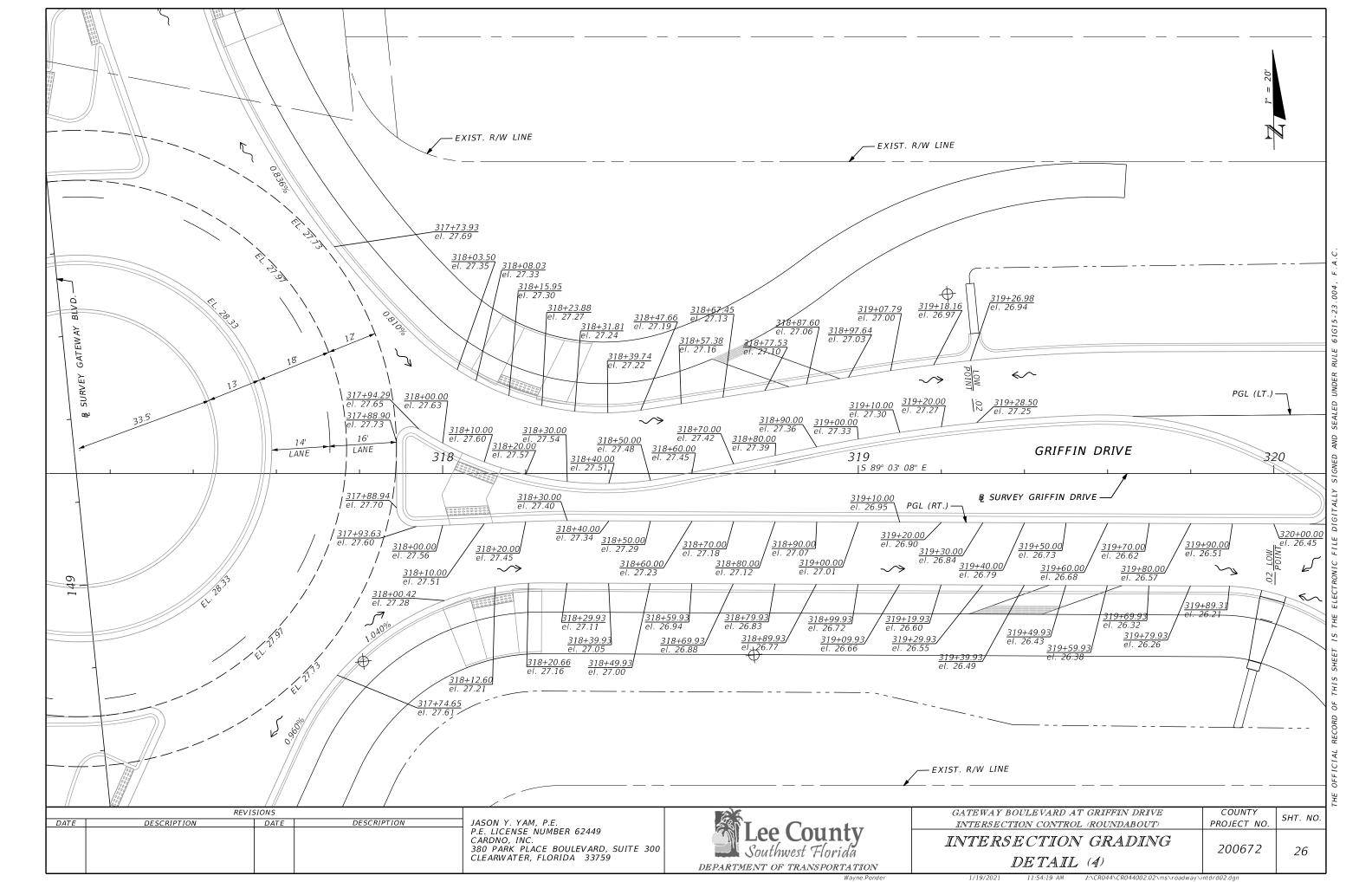


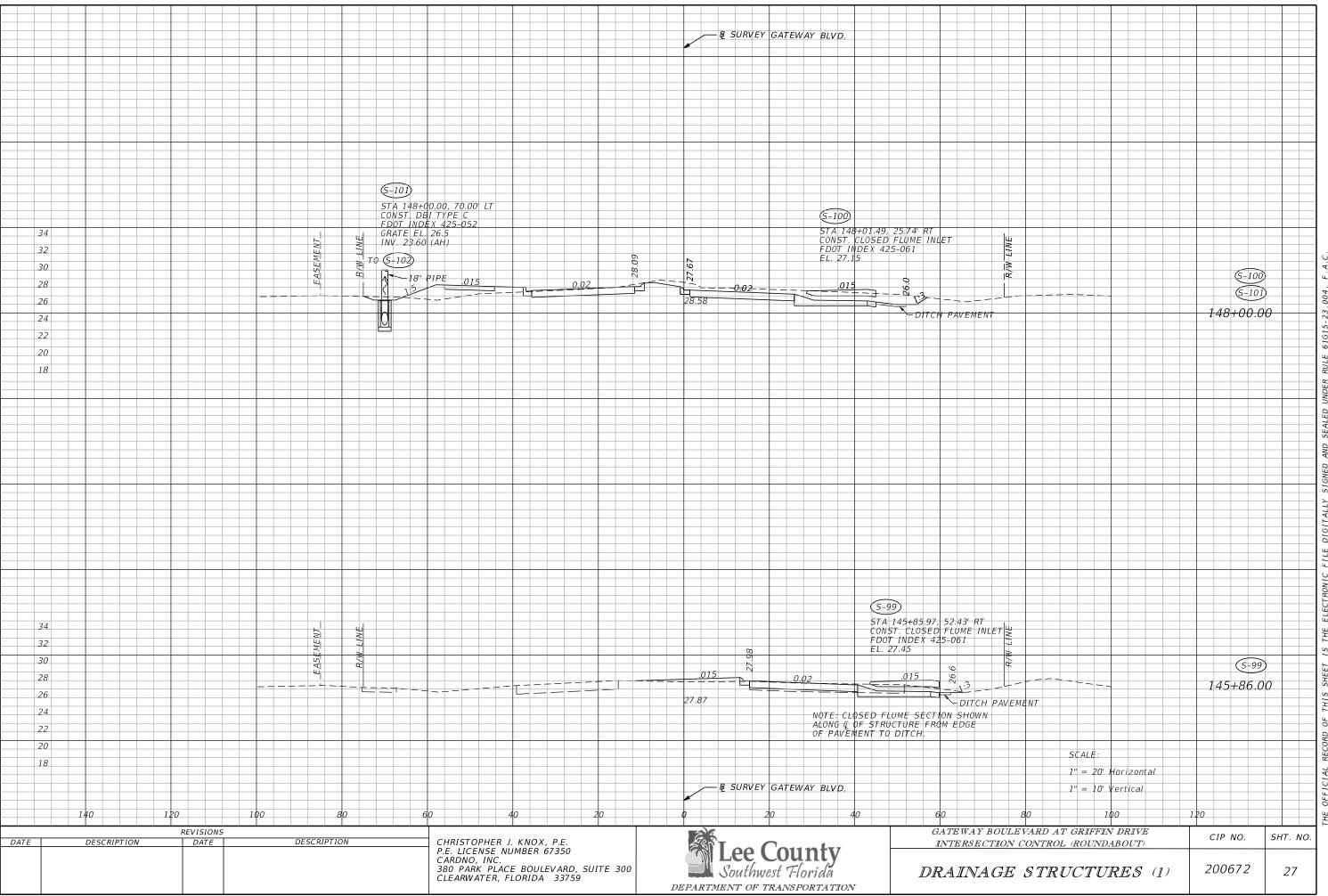


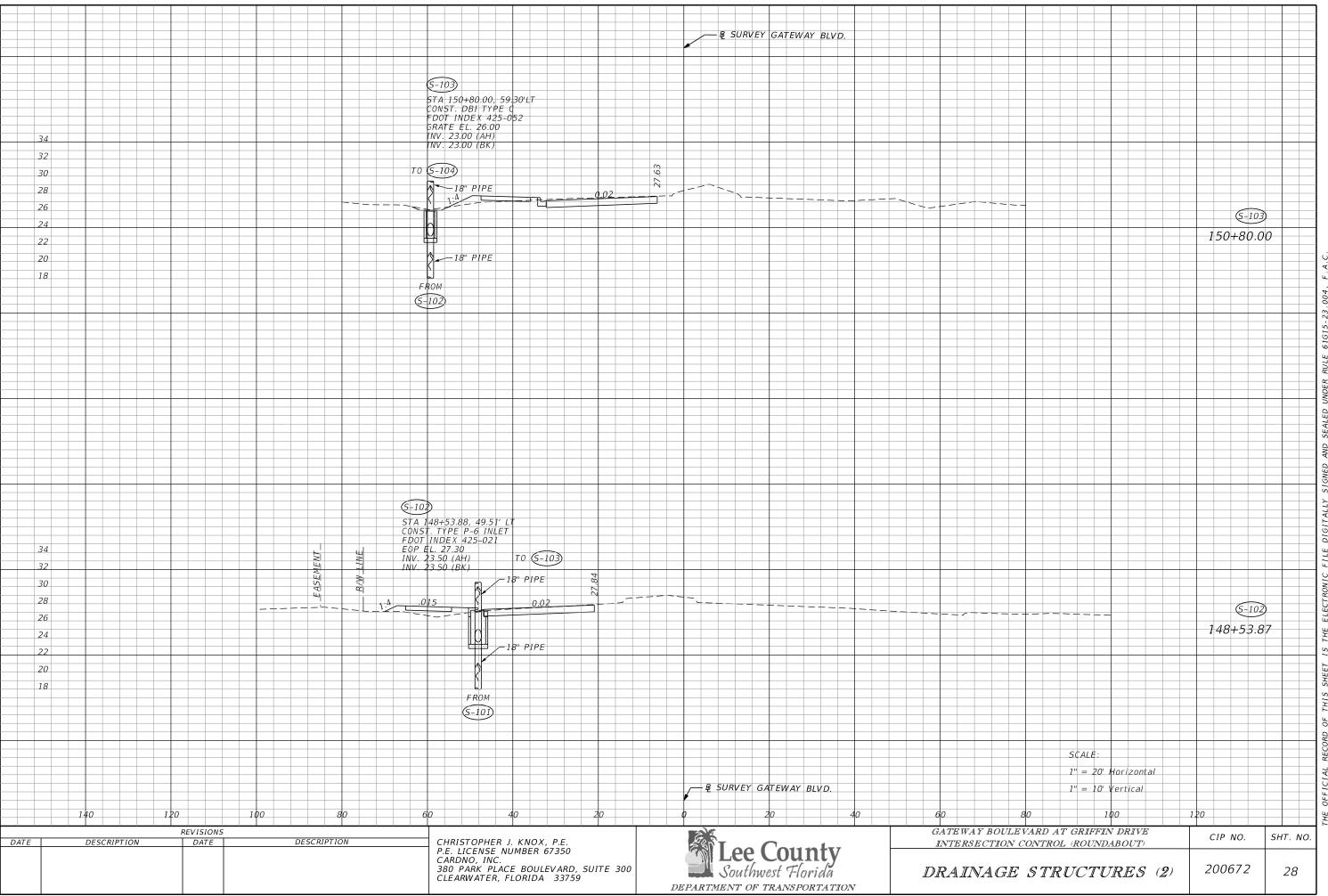


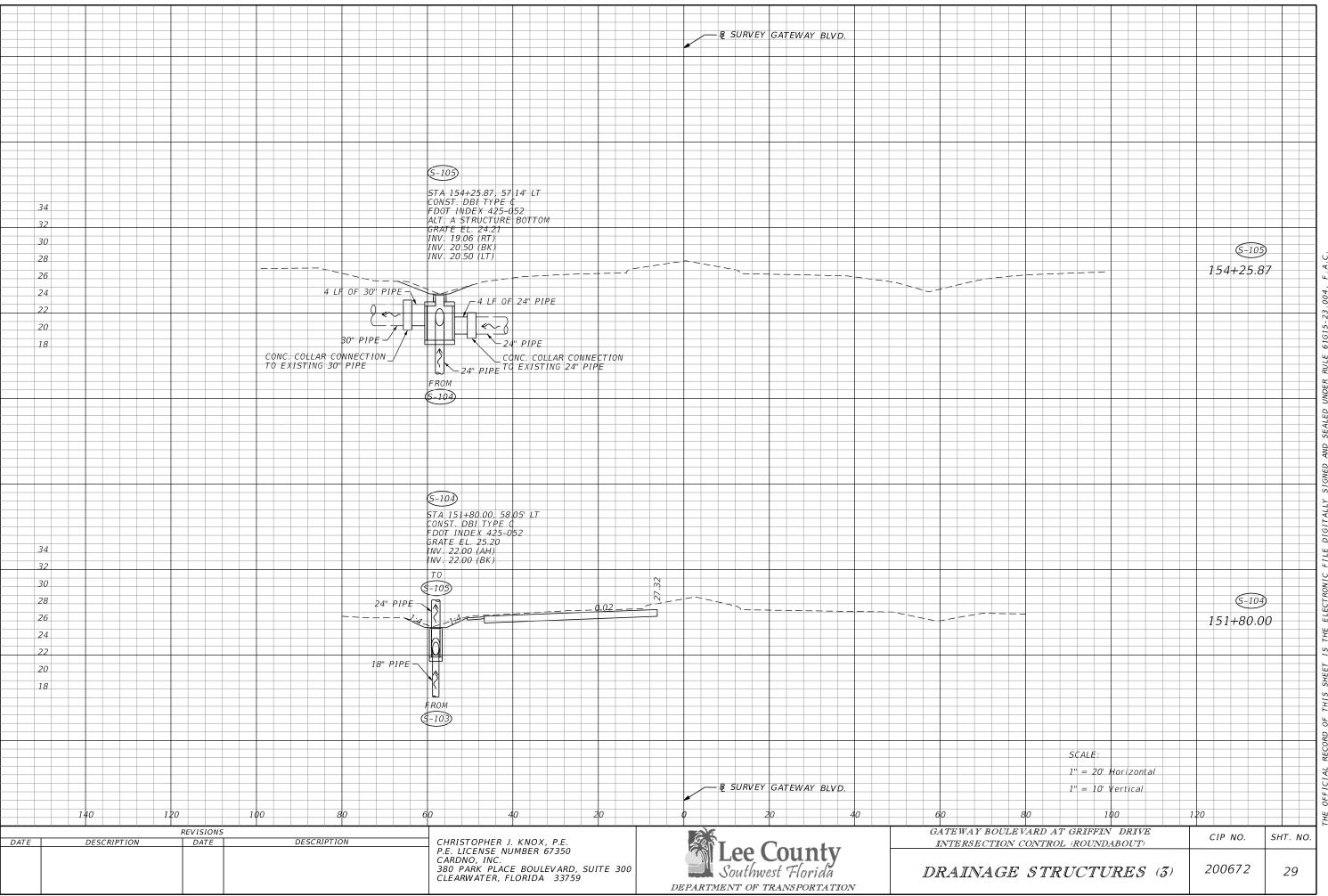




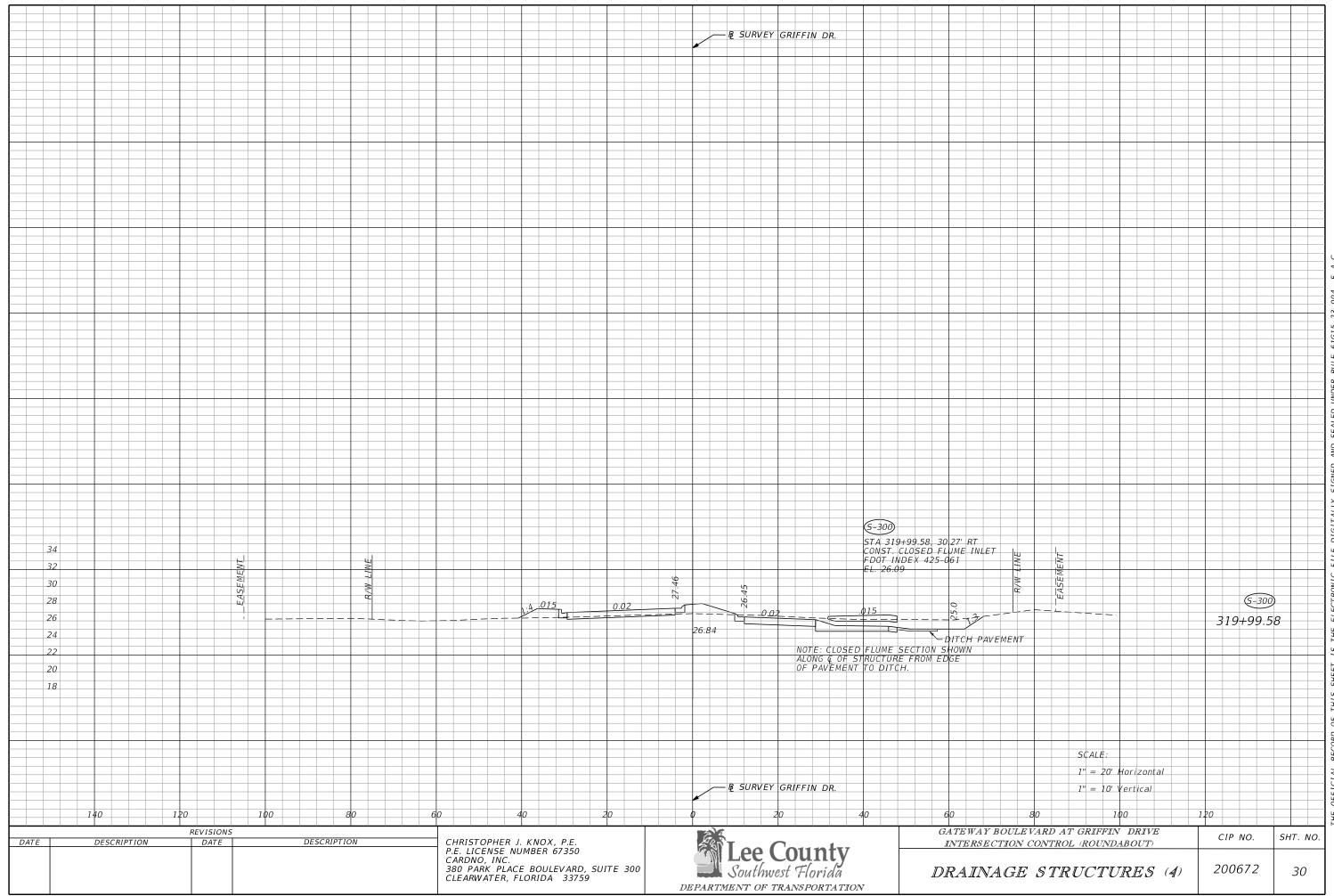








1/19/2021 11:54:21 AM J:\CR044\CR044002.02\ms\drainage\DRXSRD0



E. 738159 E. 738161 E. 738037 E. 738037 E. 738294 E. 7383888 E. 738436 E. 738268 N. 813403 N. 813399 N. 813539 N. 813625 N. 813712 N. 813712 N. 813540 N. 81

LEGEND

- 1. GRAY TO BROWN SAND TO SAND WITH SILT SOMETIMES WITH LIMEROCK FRAGMENTS (A-3)
- 2. LIGHT BROWN SILTY SAND SOMETIMES WITH LIMEROCK FRAGMENTS (A-2-4)
- 3. LIGHT BROWN CLAYEY SAND (A-2-6)
- A-3 AASHTO GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW.
 - ESTIMATED SEASONAL HIGH GROUNDWATER TABLE
- **▼** GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- Z⁺ ESTIMATED SEASONAL HIGH GROUNDWATER TABLE IS ABOVE THE EXISTING GROUND SURFACE
- REFUSAL BOREHOLE REFUSAL DUE TO LIMEROCK
- CAVE-IN BOREHOLE CAVE-IN DUE TO GROUNDWATER INTRUSION
- EASTING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83.
- NORTHING NORTHING COORDINATE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA WEST ZONE, N.A.D. 83.

REVISIONS				
DATE	DESCRIPTION	DATE	DESCRIPTION	KEVI P.E.
				TIER
				7351
				TAM
1				CERT

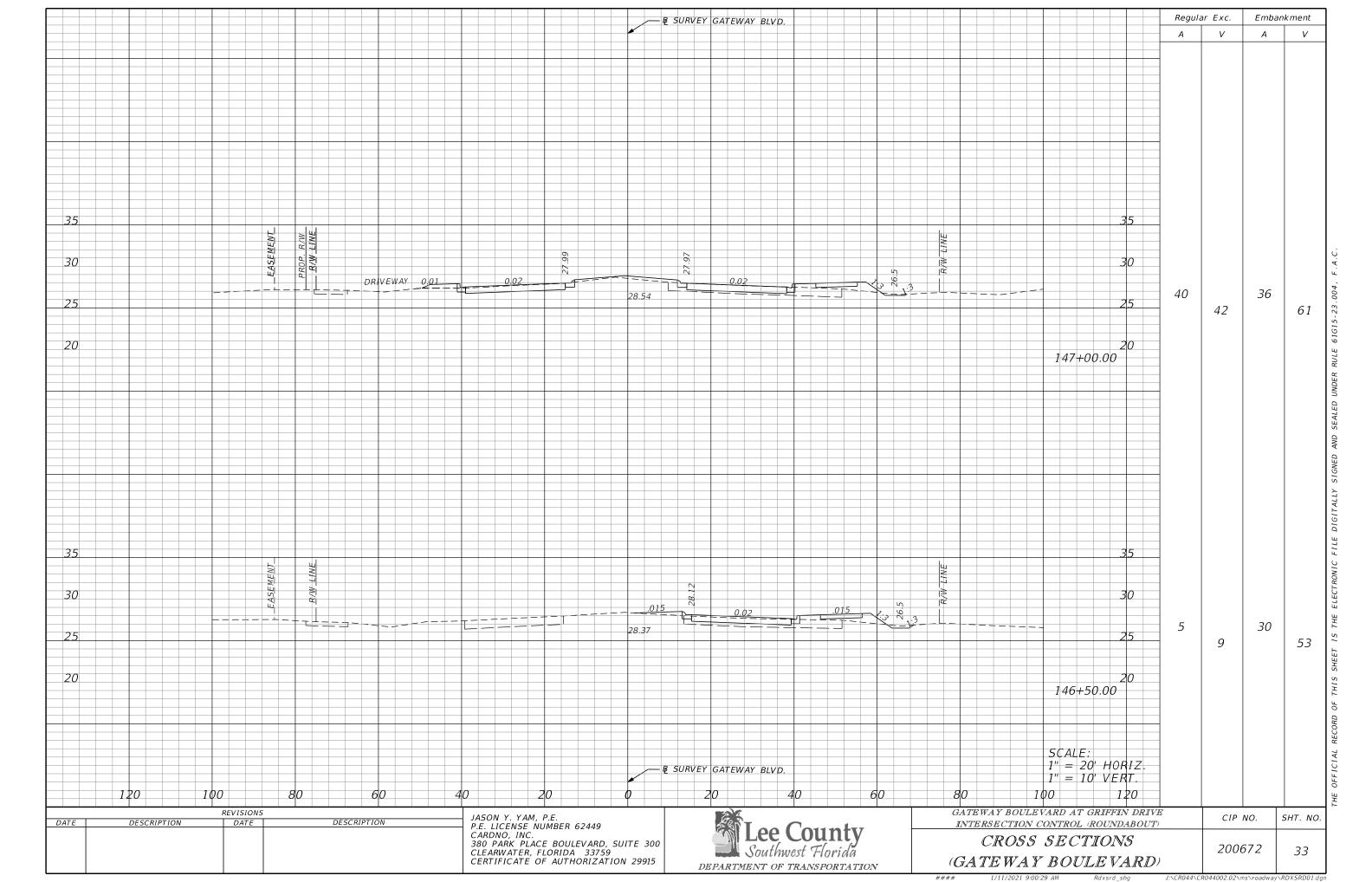
- KEVIN H. SCOTT, P.E. P.E. LICENSE NUMBER 65514 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486



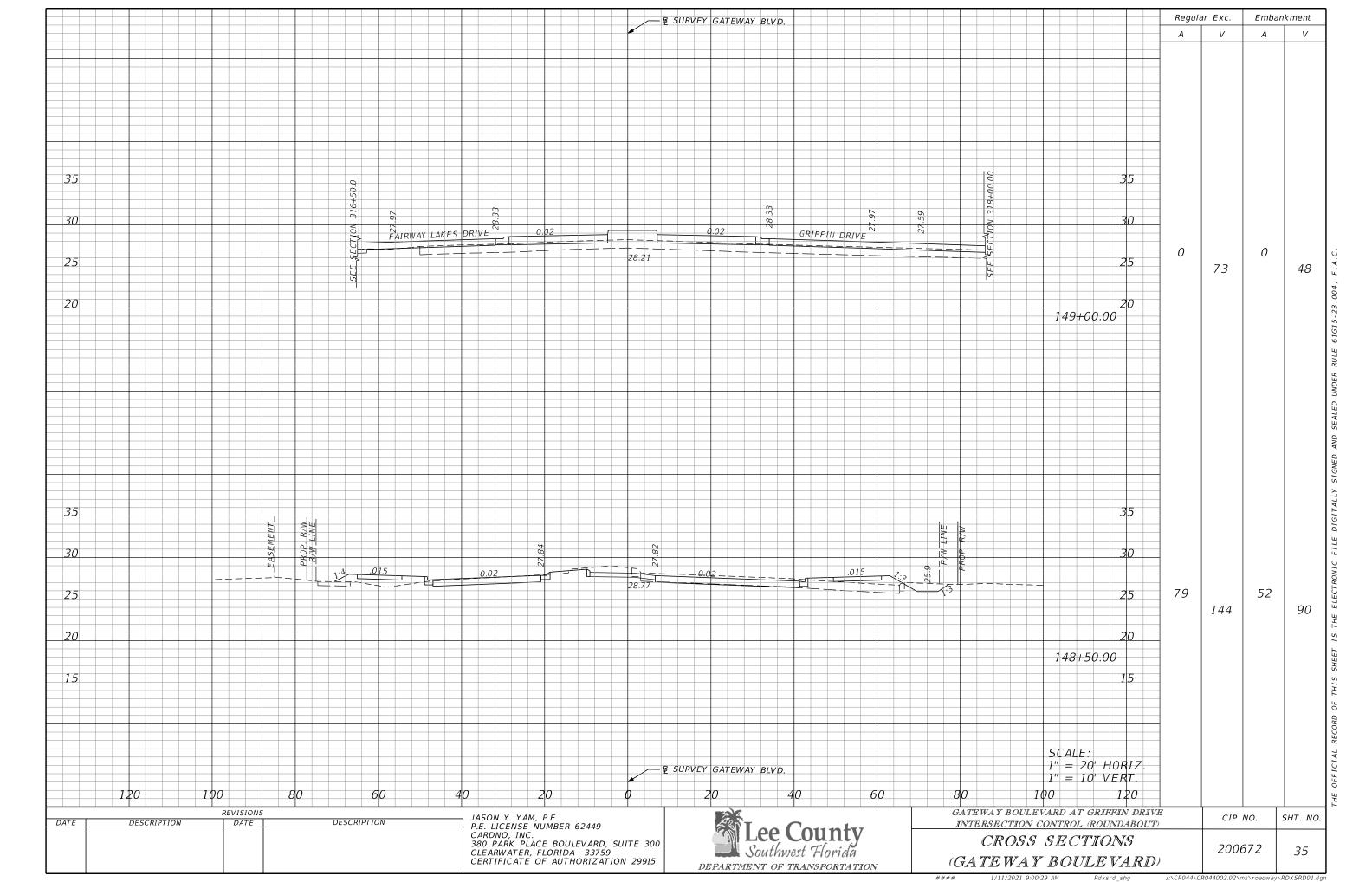
DEPTH IN

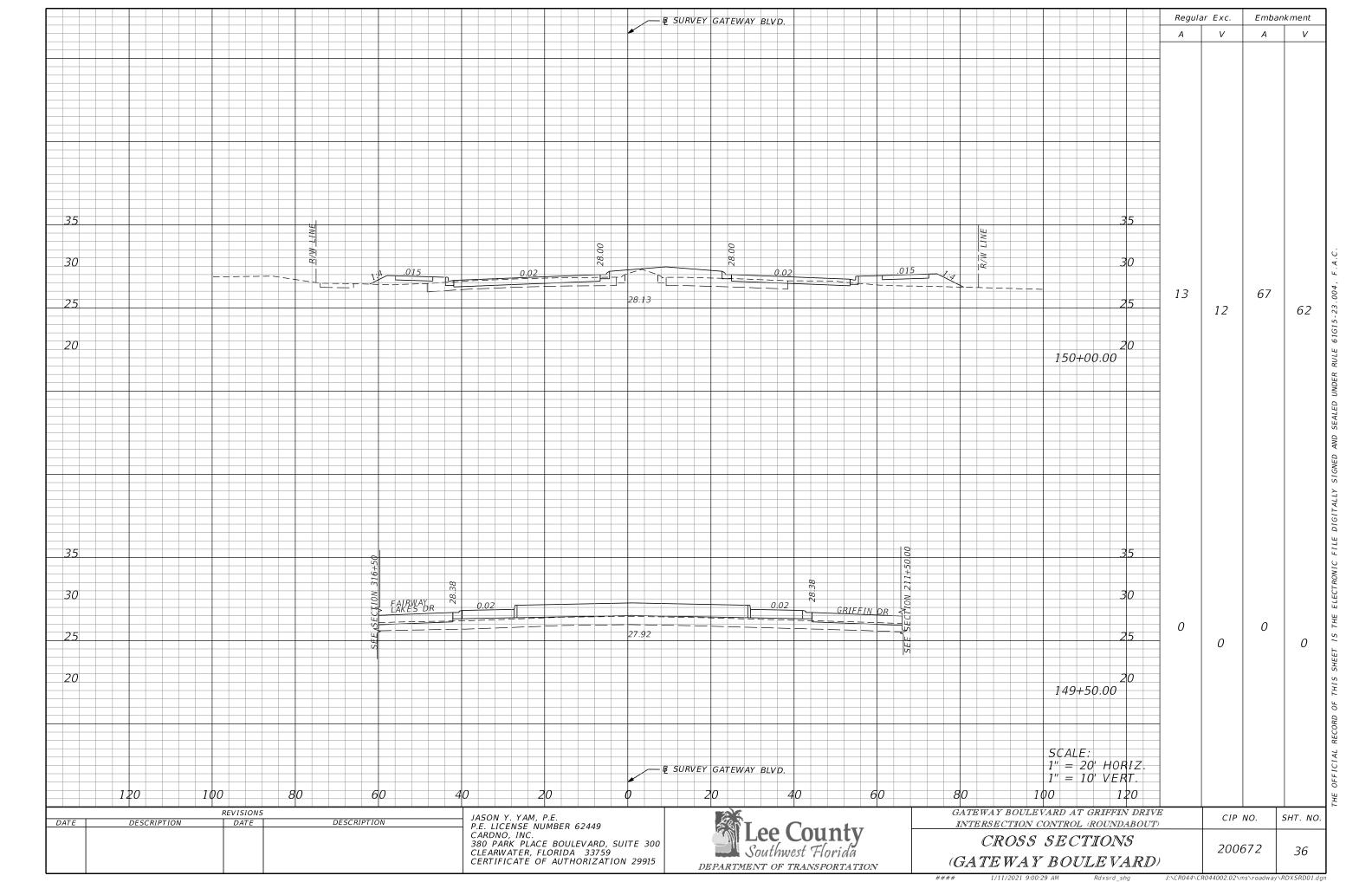
GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.	
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.	
ROADWAY SOIL SURVEY	200672	31	

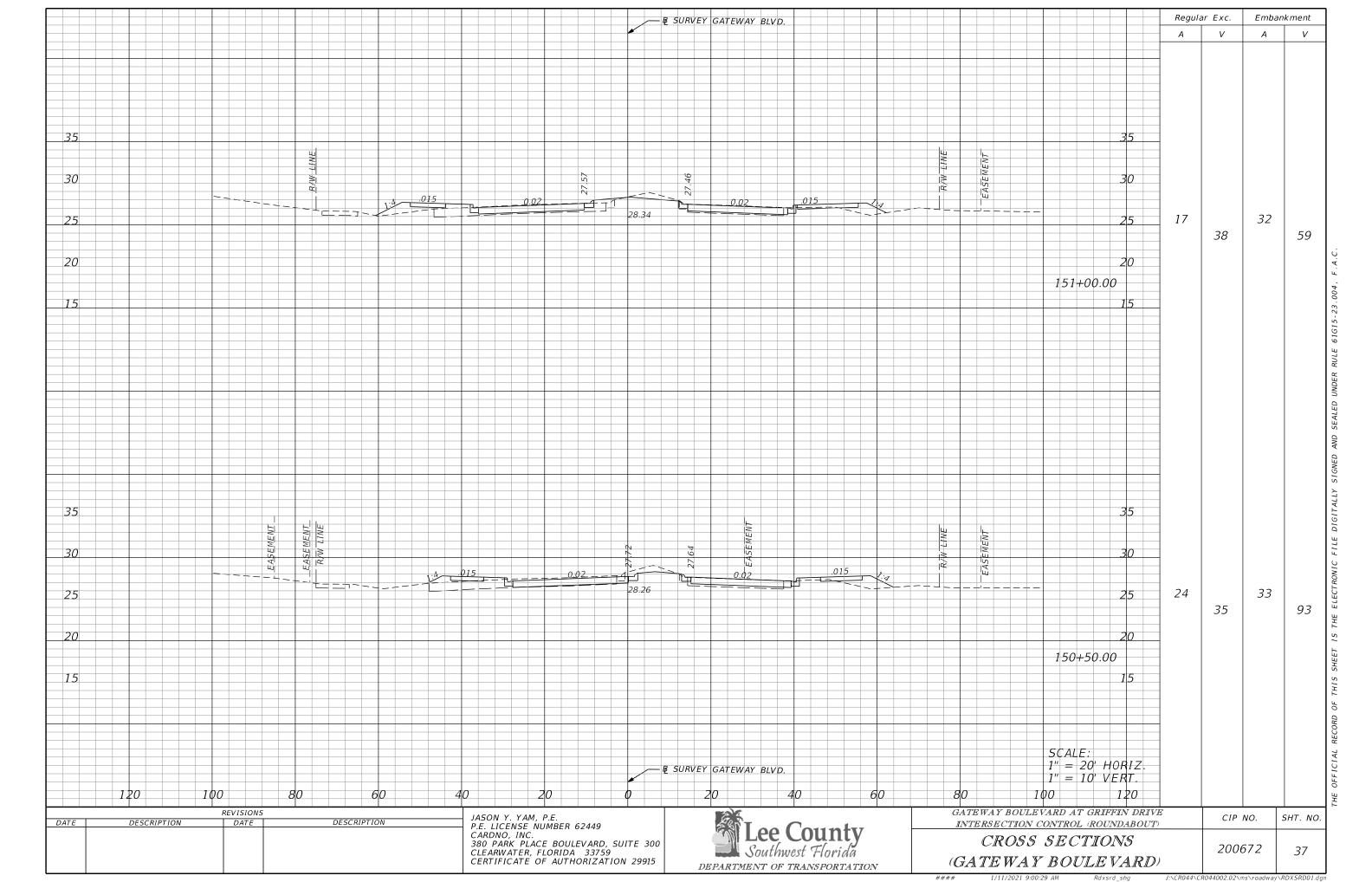


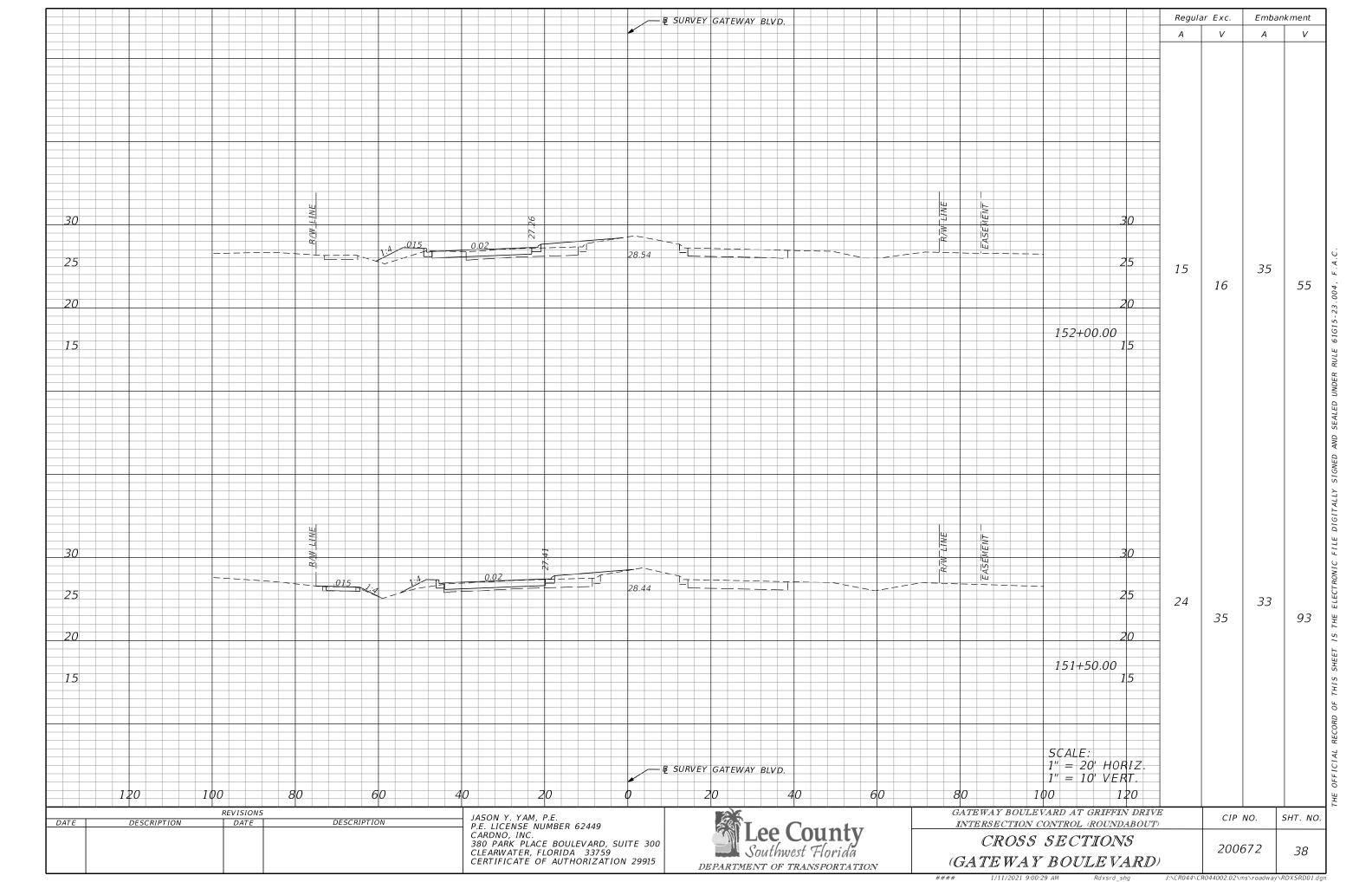




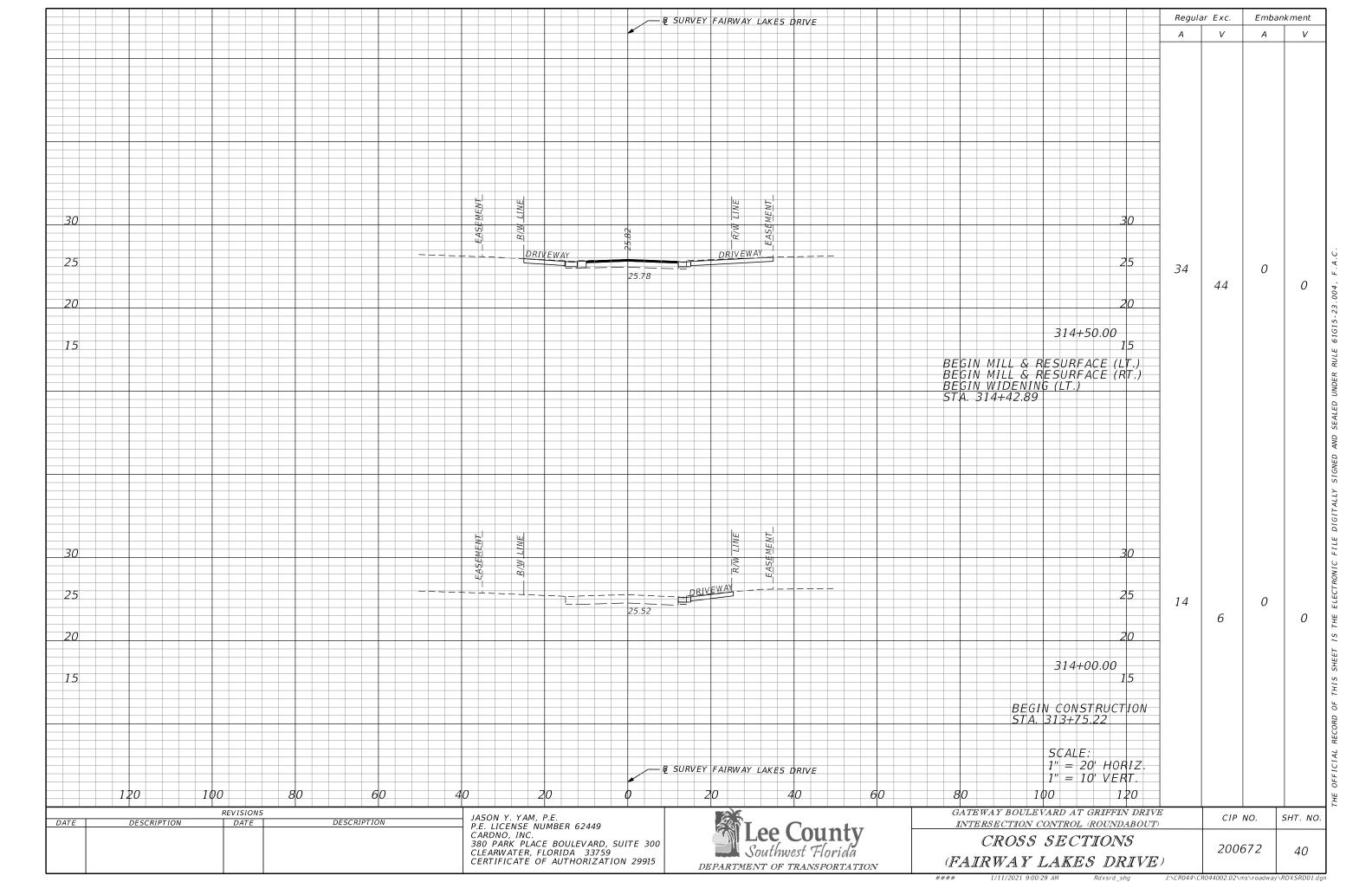


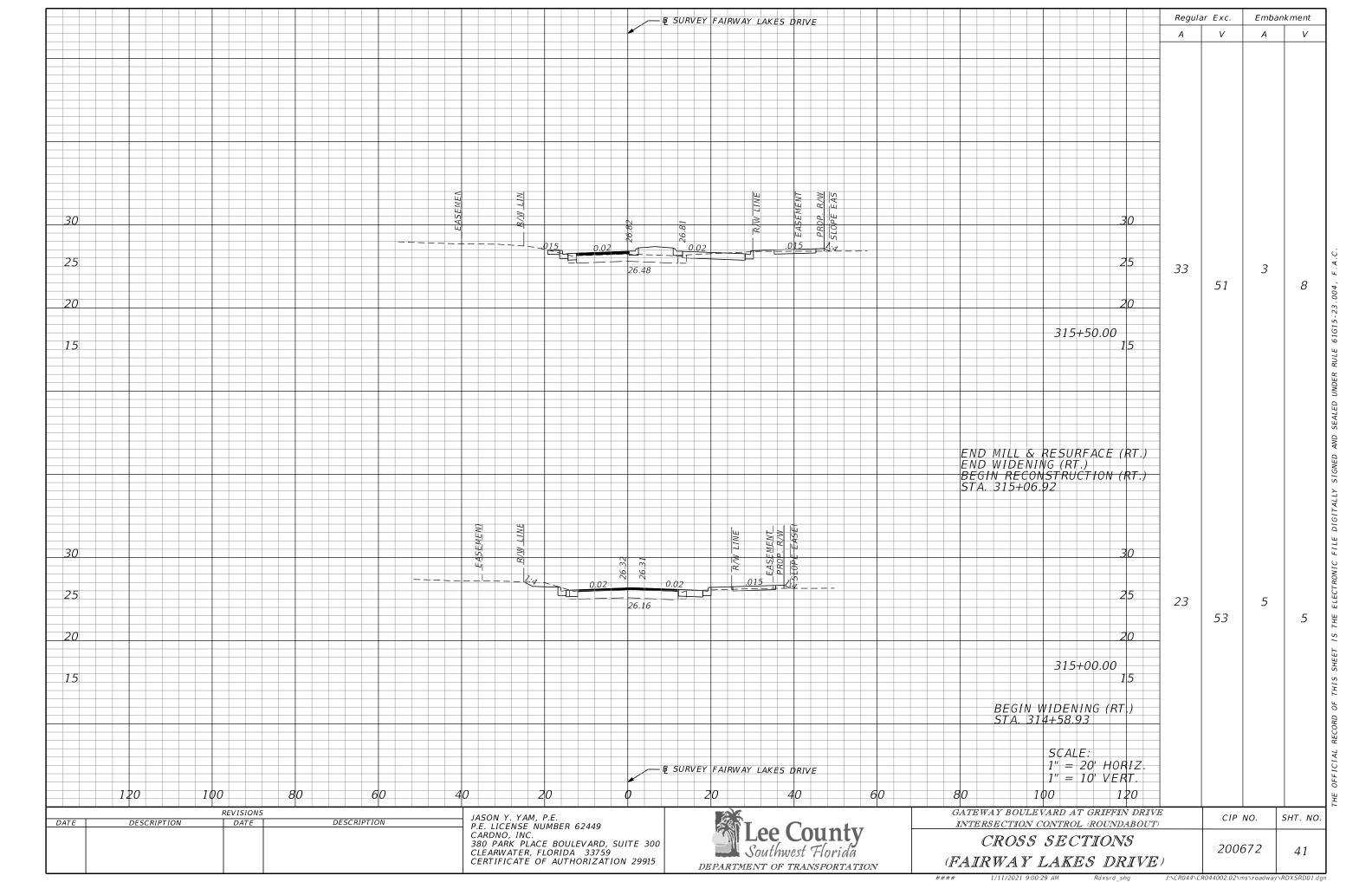


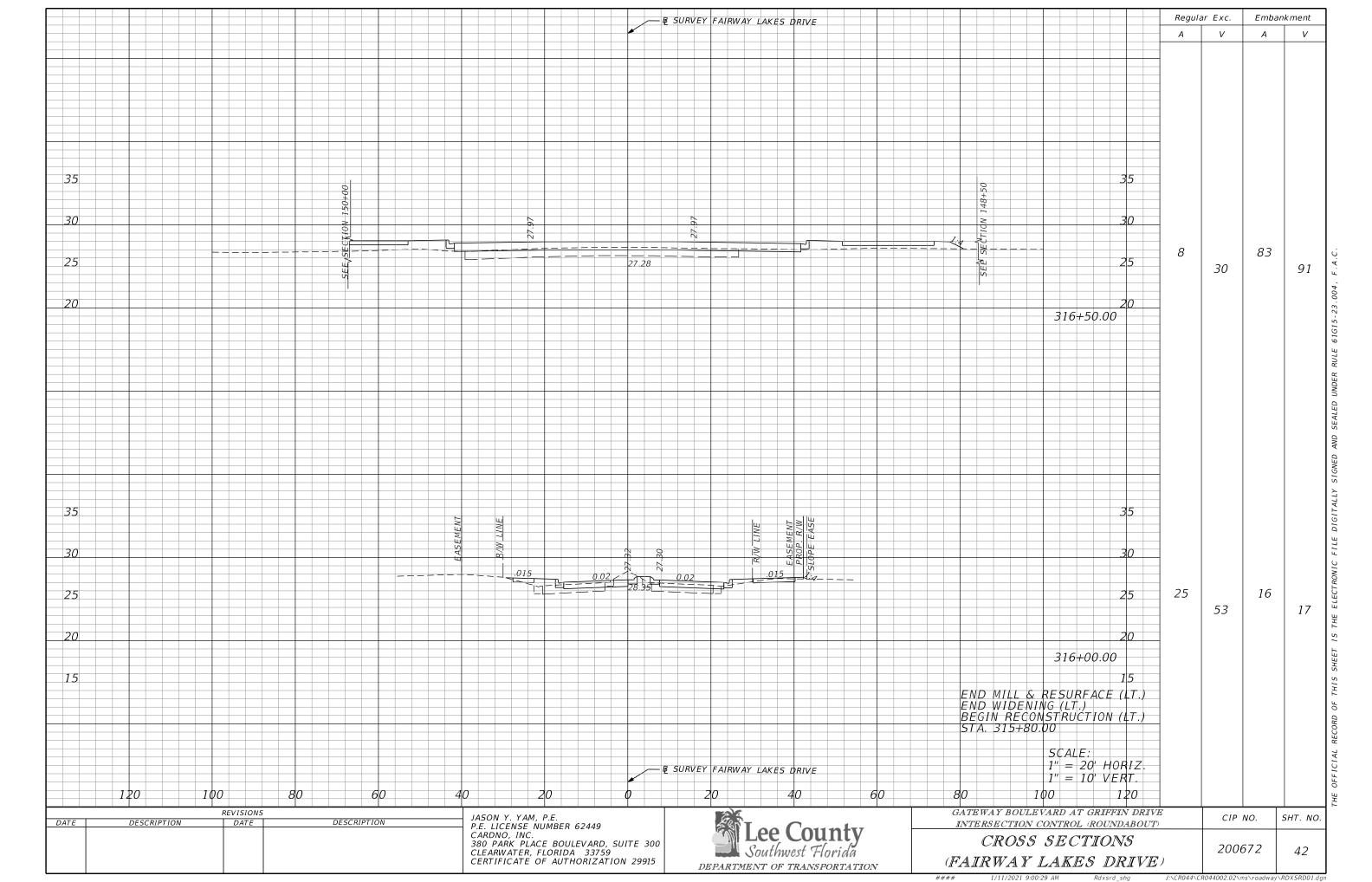


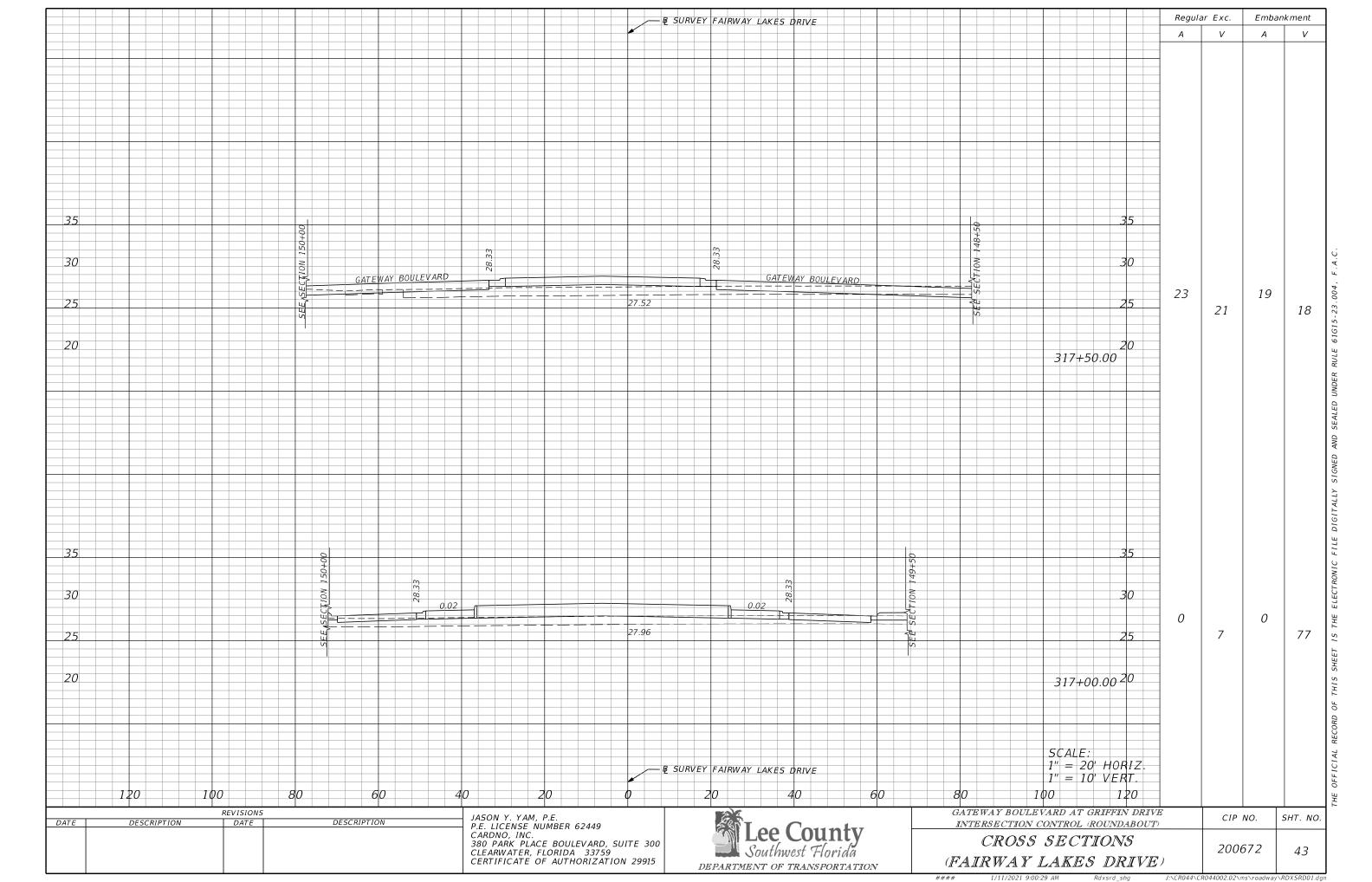


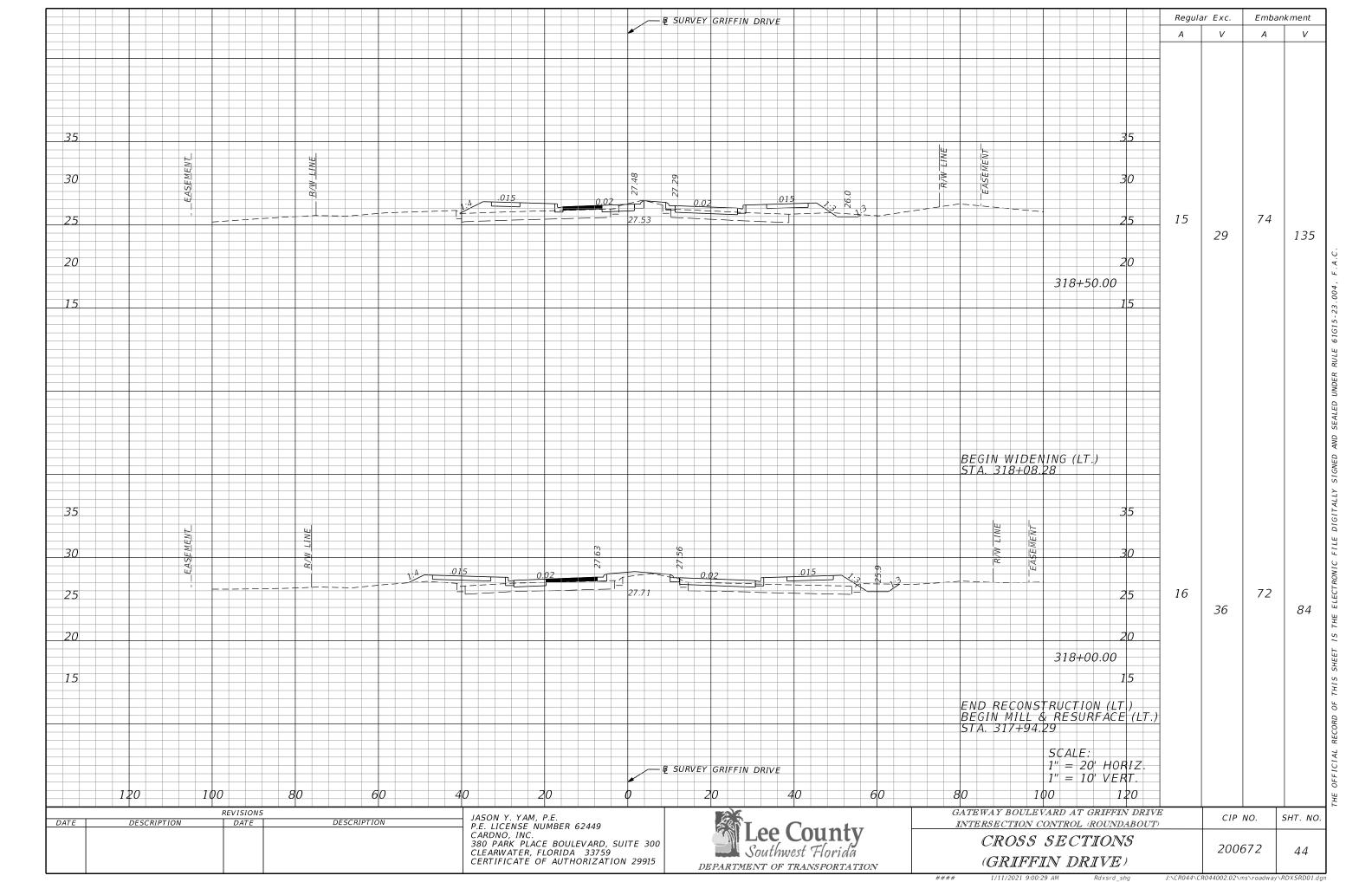


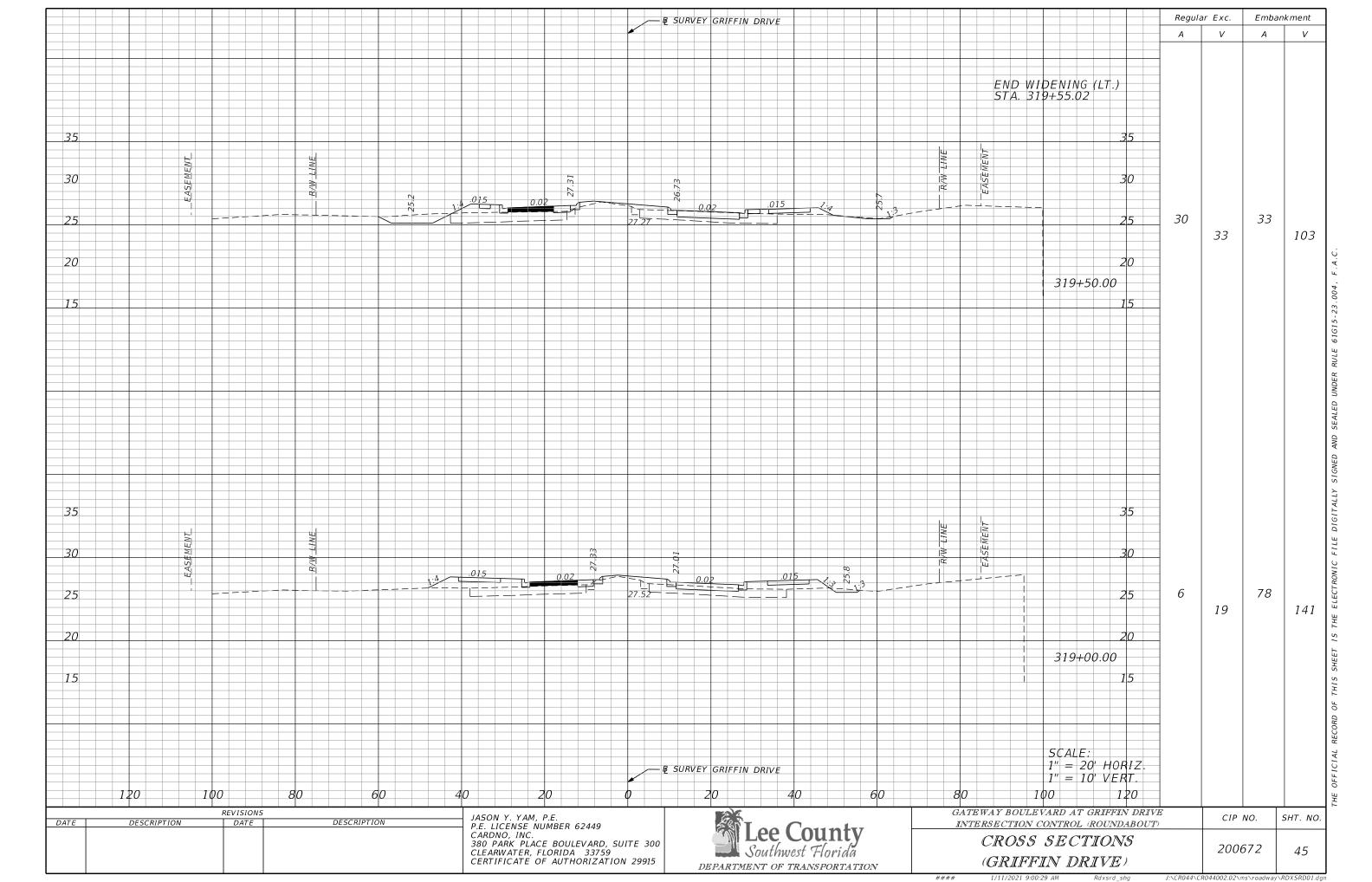


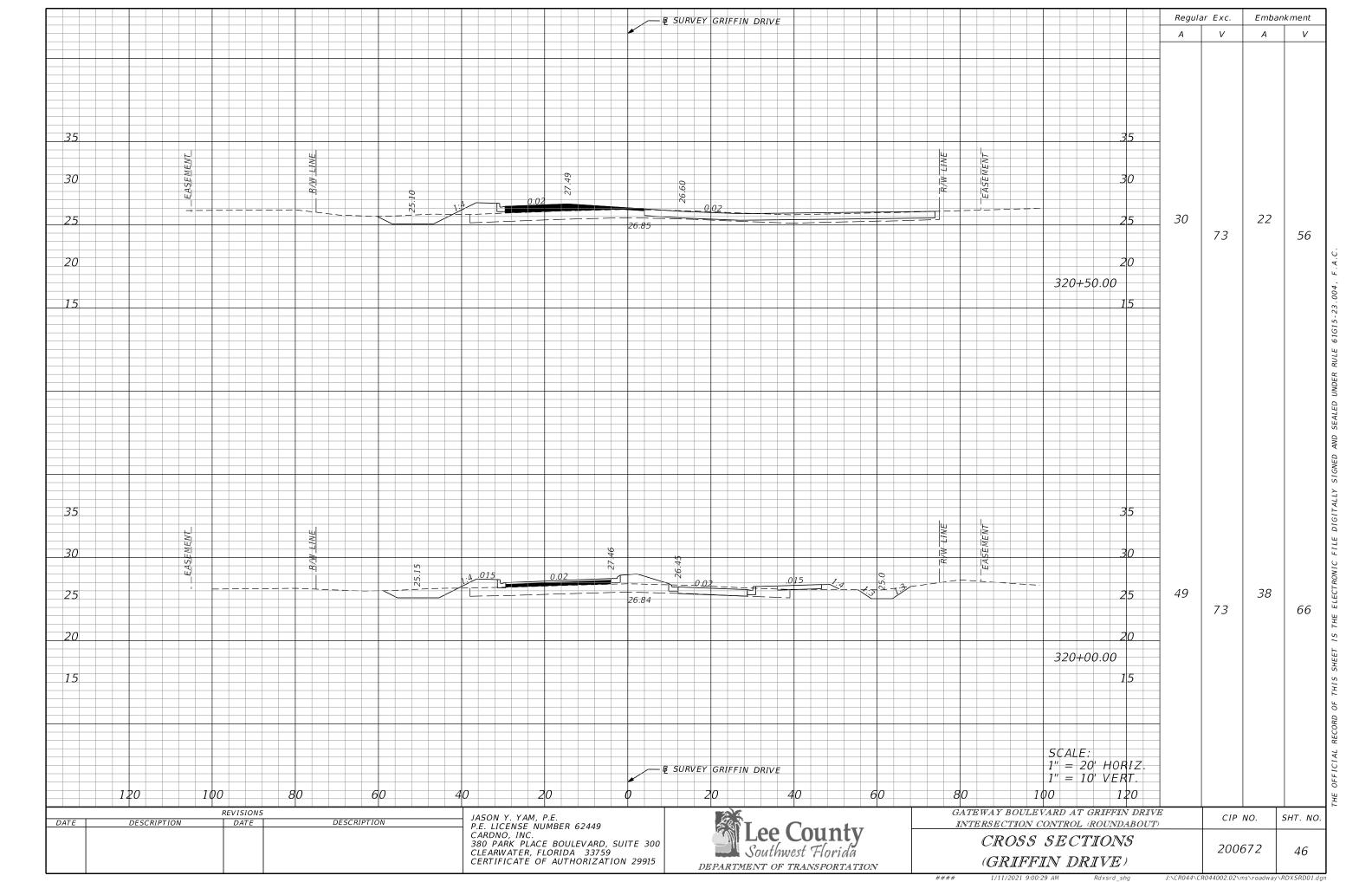


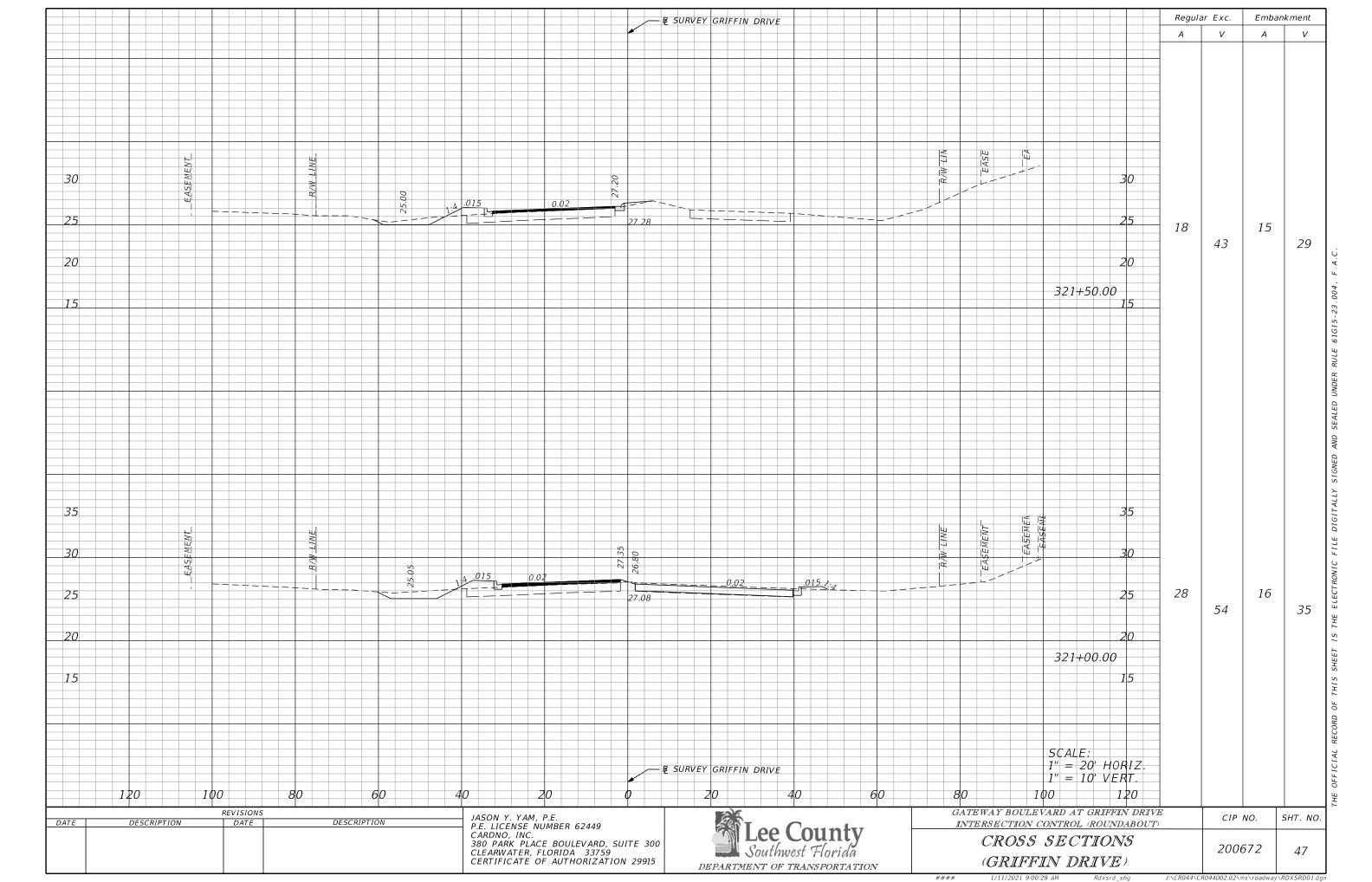


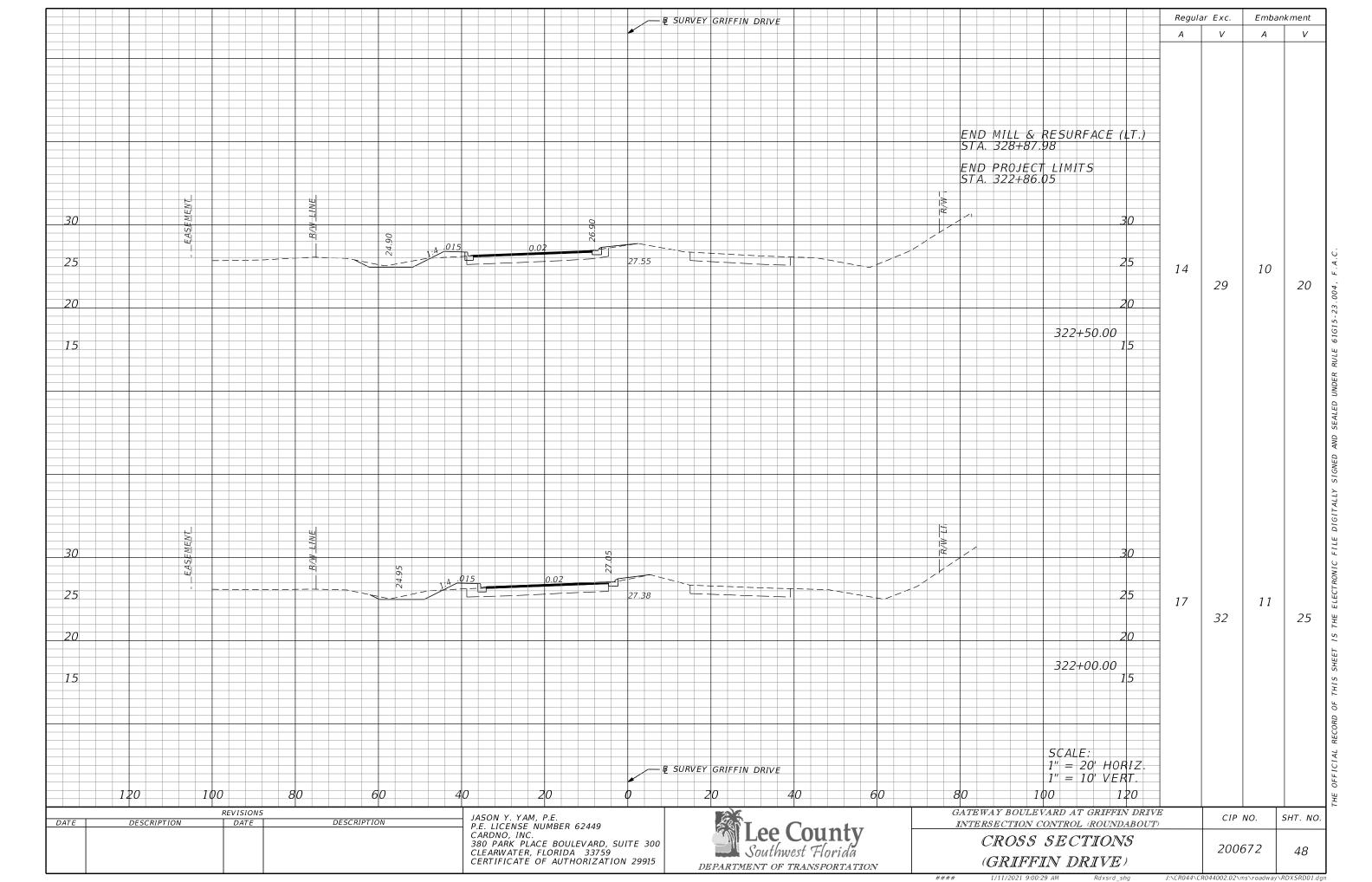


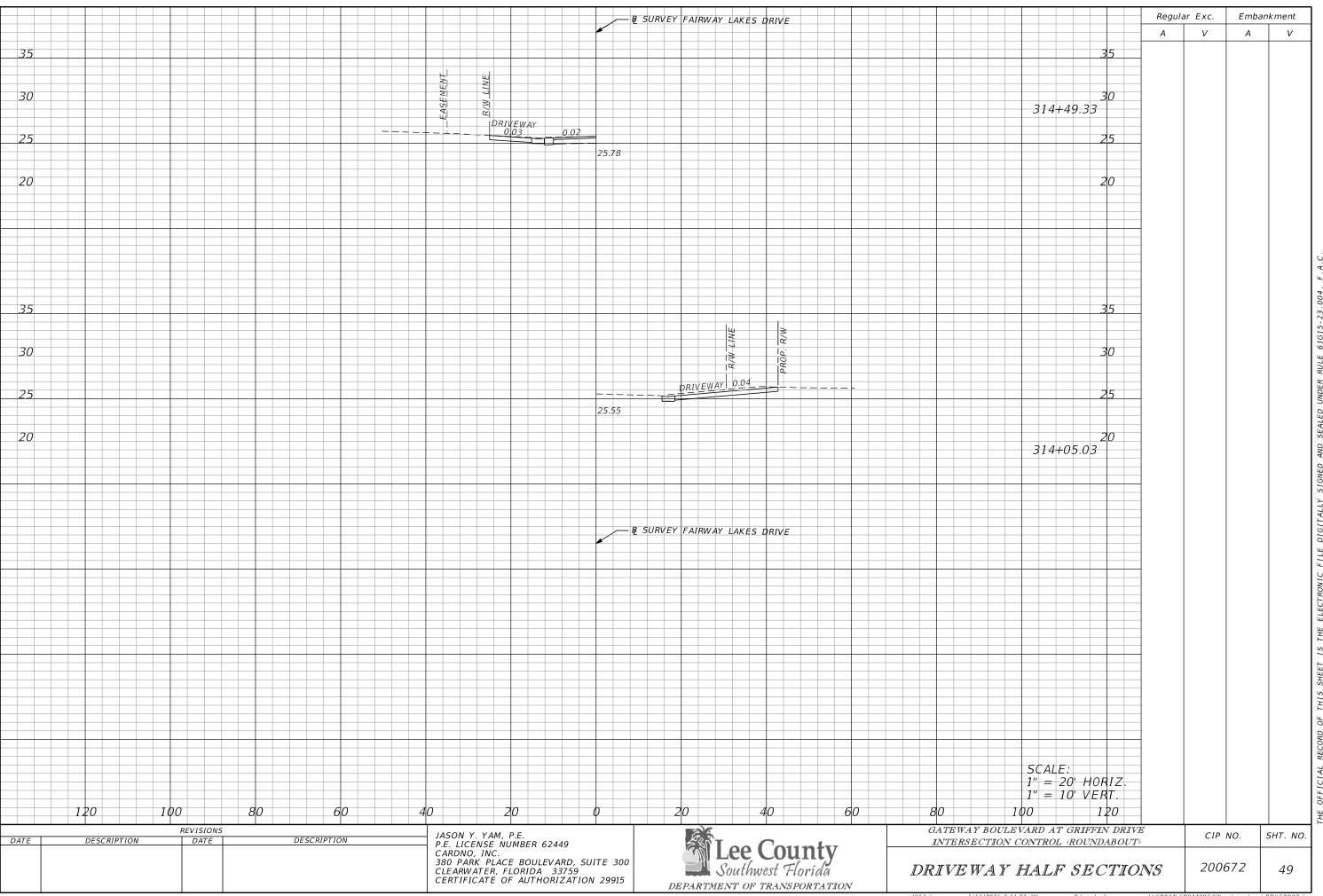












- (2) INTENDED SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES:
 - (A) IN THE CONTRACTOR'S SITE SPECIFIC EROSION AND SEDIMENT CONTROL PLAN, PREPARE A DETAILED CONSTRUCTION SCHEDULE TO INDICATE DATES OF MAJOR GRADING ACTIVITIES AND DETERMINE SEQUENCES OF TEMPORARY AND PERMANENT SOIL DISTURBING ACTIVITIES ON ALL PORTIONS OF THE
 - (B) MODIFY THE PLAN OR MATERIALS TO ADAPT TO SEASONAL VARIATIONS, CONSTRUCTION ACTIVITY VARIATIONS, OR AS DIRECTED BY THE ENGINEER
 - (C) APPLICABLE EROSION AND SEDIMENT CONTROL DEVICES AND IMPLEMENTATION PROCEDURES ARE SUPPLIED IN THE STATE OF FLORIDA EROSION AND SEDIMENTCONTROL DESIGNER AND REVIEW MANUAL (E&SC MANUAL) LATEST
 - (D) DETERMINE IF ANY MODIFICATIONS OR ADDITIONAL CONTROLS ARE REQUIRED AND TO OBTAIN DEPLOYMENT SCHEDULES FOR THE IMPLEMENTATION OF ALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES FROM THE CONTRACTOR.
- (3) LIST OF INTENDED ACTIVITIES
 - (A) ALL EROSION AND SEDIMENT CONTROL DEVICES FOR EACH PHASE OF WORK ARE TO BE INSTALLED PRIOR TO BEGINNING WORK ON THAT PHASE.
 - (B) COVER OR STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
 - (C) DO NOT DISTURB AN AREA UNTIL IT IS NECESSARY FOR CONSTRUCTION TO
 - (D) TIME CONSTRUCTION ACTIVITIES TO LIMIT IMPACT FROM SEASONAL CLIMATE CHANGES OR WEATHER EVENTS.
 - (E) DO NOT REMOVE PERIMETER CONTROLS UNTIL ALL UPSTREAM AREAS ARE FULLY STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED
 - (F) PROVIDE POLLUTION CONTROL BY IMPLEMENTING DUST CONTROL DURING ALL PHASES OF CONSTRUCTION
- (4) PROJECT AREAS:

THE ESTIMATED TOTAL PROJECT AREA IS 3.8 ACRES. THE ESTIMATED AREA TO BE DISTURBED DURING CONSTRUCTION ACTIVITIES IS 3.8 ACRES.

(5) RUNOFF COEFFICIENTS

BEFORE Cw (B), DURING Cw (D) AND AFTER Cw (A) CONSTRUCTION:

RUNOFF COEFFICIENT FOR:

GRASSED SHOULDERS ADJACENT TO ROADWAY: C=0.35 IMPERVIOUS ROADWAYS AND PAVED SHOULDER: C=0.95 DISTURBED AREAS, EXPOSED SOIL, ETC., DURING CONSTRUCTION: C=0.40

WEIGHTED RUNOFF COEFFICIENT:

BEFORE: Cw(B) = 0.55

DURING: Cw(D) = 0.55 TO 0.75

AFTER: Cw(A) = 0.75

THE RUNOFF COEFFICIENT DURING CONSTRUCTION, CW (D), IS CALCULATED ASSUMING THAT THE MAXIMUM ALLOWABLE AREA OF SOIL IS DISTURBED DURING CONSTRUCTION AND THE REMAINING AMOUNT IS THE EXISTING IMPERVIOUS AND GRASSED SHOULDER AREAS.

(6) DESCRIPTION OF SOIL OR QUALITY OF DISCHARGE:

THE SOIL WITHIN THE GATEWAY BLVD AND GRIFFIN DR INTERSECTION. A ROADWAY SOIL SURVEY IS CONTAINED IN THE CONSTRUCTION PLANS.

SOIL TYPE	<i>HYDROLOGIC GROUP</i>	DEPTH TO S
119-MALABAR FINE SAND(1.5%)	A/E/Bw/Btg/Cg	0.4'
120-MALABAR FINE SAND, PONDED(0.2	2%) A/E/Bw/Btg/Cg	0.0'
125-OLDSMAR SAND(2.3%)	A/E/Bh/Btg	0.5'
131-POMPANO FINE SAND(0.6%)	A/C	0.4'

REFERENCE: USDA SOIL SURVEY OF LEE COUNTY FLORIDA

- (7) ESTIMATED DRAINAGE FLOW DIRECTION AND AVERAGE SLOPE OF DRAINAGE AREA FOR EACH OUTFALL:
 - (A) SITE MAP: INCLUDED WITH THESE SHEETS.
 - (B) DRAINAGE MAPS OR MAPS WITH APPROPRIATE CONTOURS: INCLUDED WITH THESE SHEETS
- (8) RECEIVING WATERS:

GATEWAY BLVD AND GRIFFIN DR INTERSECTION. THESE FACILITIES DISCHARGE TO WATERS LISTED ON THE EPA APPROVED FDEP VERIFIED LIST OR ADOPTED TMDL FOR IMPAIRMENT DUE TO TOAL SUSPENDED SOLID, TURBIDITY, NUTRIENTS, DISSOLVED OXYGEN OR FECAL COLIFORM. (FOR LIST, GO TO:

HTTP://WWW.DEP.STATE.FL.US/WATER/WATERSHEDS/ASSESSMENTS/A-LIST.HTM) FOR IMPAIRMENT DUE TO TOTAL SUSPENDED SOLIDS.

(9) OUTFALL LOCATIONS: (TEMPORARY AND PERMANENT)

RECEIVING DRAINAGE *LAT I TUDE* LONGITUDE WATER BODY AREA (AC) (A) POND N27° 49' 10" W82° 15' 57"

- (10) WETLAND AND/OR SURFACE WATER IMPACTS ARE LIMITED TO THE AREAS DESCRIBED IN THE APPROVED PERMITS FOR THE PROJECT.
- (11) DESCRIPTION OF STORMWATER MANAGEMENT: (EXISTING/PROPOSED)
 - (A) THE PROPOSED ROADWAY IMPROVEMENTS SHALL NOT MODIFY OR AFFECT THE EXISTING OFFSITE FLOW PATTERNS UNLESS SPECIFICALLY AUTHORIZED BY THE PERMITS.
 - (B) OFFSITE RUNOFF SHOULD BE DIVERTED AWAY OR THROUGH THE CONSTRUCTION AREA, IF POSSIBLE. THIS ADDITIONAL FLOW, IF NOT DIVERTED, CAN ADD VOLUME AND SIZE TO STRUCTURAL PRACTICES, REQUIRING MORE FREQUENT MAINTENANCE AND LIMITING EFFECTIVENESS OF EROSION AND SEDIMENT
 - (C) LOCATION OF PERMANENT CONTROLS: THE CONVEYANCE SWALES AND STORMWATER PONDS ARE THE PRIMARY PERMANENT STORMWATER MANAGEMENT CONTROLS. THESE ARE SHOWN ON THE ROADWAY PLANS AND POND DETAIL SHEETS.
 - (D) STORMWATER RUNOFF SHALL BE CONVEYED TO EITHER TEMPORARY SEDIMENT BASINS, CONTAINMENT SYSTEMS AND/OR TO PERMANENT STORMWATER MANAGEMENT FACILITIES (TREATMENT AND ATTENUATION PONDS). THE PROPOSED SEDIMENT BASINS, CONTAINMENT SYSTEMS AND/OR STORMWATER MANAGEMENT FACILITIES SHALL BE CONSTRUCTED DURING THE INITIAL PHASE OF CONSTRUCTION AND USED DURING CONSTRUCTION OF THE ROADWAY
 - (E) PREVENT UNAUTHORIZED MATERIALS FROM ENTERING WETLANDS, WATERWAYS, OTHER SURFACE WATERS OR WATERS OF THE U.S.
 - (F) EROSION CONTROL DEVICES SHALL BE LOCATED A MINIMUM OF 15 FEET FROM CETNERLINE OF NEAREST RAILROAD TRACKS.

(12) STATE AND FEDERAL REGULATIONS: PERMITS WILL BE REQUIRED FROM THE FOLLOWING AGENCIES: NPDES, SWFWMD ERP, USACOE

II. CONTROLS:

SEDIMENT AND EROSION CONTROLS

- (1) WATER QUALITY MONITORING:
 - (A) WATER QUALITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE SPECIAL CONDITIONS OF ANY ENVIRONMENTAL PERMIT OR BY THE CONTRACTOR UPON THE OBSERVATION THAT WATER QUALITY STANDARDS MAY BE VIOLATED BY THE CONTRACTOR'S ACTIVITIES. MONITORING LOCATIONS MAY BE SPECIFIED IN THE ENVIRONMENTAL PERMIT OR MAY BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE PROJECT ADMINISTRATOR.
 - (B) MONITOR ANY ACTIVITIES FOR VIOLATION OF WATER QUALITY STANDARDS AS THEY RELATE TO TURBIDITY (NO GREATER THAN 29 NTU'S ABOVE BACKGROUND OR GREATER THAN O NTU'S ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFW'S).
 - (C) IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHALL BE STOPPED IMMEDIATELY, THE ENVIRONENTAL PERMIT CONDITIONS FOLLOWED AND EROSION AND SEDIMENT CONTROL DEVICES REEVALUATED AND APPROVED BY THE ENGINEER PRIOR TO ANY CONTINUATION OF ACTIVITY. MONITORING ACTIVITIES AND TURBIDITY READINGS SHALL BE RECORDED ON THE CONSTRUCTION INSPECTION REPORT AND CONTINUED UNTIL TURBIDITY READINGS FALL BELOW AN ACCEPTABLE LEVEL (LESS THAN 29 NTU'S ABOVE BACKGROUND OR LESS THAN O NTU'S ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFW'S).
 - (D) WATER QUALITY MONITORING MAY BE CONDUCTED DURING ANY PHASE OF CONSTRUCTION AS DIRECTED BY THE PROJECT ENGINEER
- (2) STABILIZATION PRACTICES:
 - (A) STABILIZATION MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO MAINTAINING, ESTABLISHING AND USING VEGETATION, APPLYING MULCHES, SODDING, SEEDING, BMP'S AND THE USE OF ROLLED EROSION CONTROL PRODUCTS. WHEN CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, SIDE SLOPES SHALL BE STABILIZED WITH PERFORMANCE SODDING OR SEEDING OR ANY OTHER APPROVED METHOD OF STABILIZATION INCLUDED IN THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEW MANUAL (E&SC MANUAL), LATEST
 - (B) STABILIZATION SHALL TAKE PLACE AS SOON AS PRACTICAL IN PORTIONS OF THE PROJECT WHERE CONSTRUCTION ACTIVITIES HAVE CEASED, BUT NO LATER THAN 7 DAYS AFTER ANY CONSTRUCTION ACTIVITY CEASES EITHER TEMPORARILY OR PERMANENTLY.
 - (C) ANY TEMPORARY MATERIAL USED FOR POLLUTION OR EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT AND FINAL STABILIZATION OF THE PROJECT HAS BEEN ACHIEVED.

REVISIONS DESCRIPTION DATE DESCRIPTION

CHRISTOPHER J. KNOX, P.E. P.E. LICENSE NUMBER 67350 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE COUNTY NO. SHT. NO. INTERSECTION CONTROL (ROUNDABOUT) STORMWATER POLLUTION 0671 50 PREVENTION PLAN (1)

PURPOSE: TO PROTECT DISTURBED SLOPE SURFACES AGAINST EROSION DUE TO RAINFALL OR FLOWING WATER.

- (1) USED FOR PAUSES IN CONSTRUCTION DUE TO INCLEMENT WEATHER OR OTHER CIRCUMSTANCES. COULD INCLUDE NATURAL OR SYNTHETIC FIBER MATS. PLASTIC SHEETING OR NETS.
- (2) USED FOR EROSION CONTROL THAT FACILITATES PLANT GROWTH WHILE PERMANENT GRASS IS ESTABLISHED. COULD INCLUDE BIODEGRADABLE EROSION CONTROL BLANKETS INSTALLED ON A SEEDED AREA, ON FILL SLOPES OR IN DITCHES.
- (3) USED TO STABILIZE DRAINAGE CHANNELS. CONSULT E&SC MANUAL TO DETERMINE CORRECT PRODUCT TYPE FOR CHANNEL STABILIZATION.
- (B) RUNOFF CONTROL STRUCTURE (TEMPORARY SLOPE DRAIN)

PURPOSE: TO PROTECT HILLSIDE SURFACES AGAINST EROSION DUE TO CONCENTRATED FLOW OF RUNOFF WATER.

- (1) USED ON FILL SLOPES AND CUT SLOPES TO REDUCE SEDIMENT TRANSPORT AND COULD INCLUDE TEMPORARY SLOPE DRAINS, GRASS-LINED CHANNELS, ROCK-LINED CHANNELS AND CHECK DAMS.
- (2) RUNOFF CONTROL STRUCTURES TYPICALLY DISCHARGE TO A SEDIMENT BASIN.
- (C) SEDIMENT BASIN (CONTAINMENT SYSTEM)

PURPOSE: A CONTAINMENT SYSTEM IS DESIGNED TO DETAIN AN ADEQUATE VOLUME OF RUNOFF, REDUCE THE VELOCITY OF FLOW THROUGH THE SYSTEM, ALLOW FOR SETTLEMENT OF SUSPENDED SOLIDS AND REGULATE THE DISCHARGE RATE FROM THE SEDIMENT BASIN.

- (1) SEDIMENT BASINS MUST BE PLACED IN STRATEGIC LOCATIONS WITHIN THE ACTIVE AREAS OF CONSTRUCTION. CONTRIBUTING AREA AND SIZE OF TARGET SOIL PARTICLE WILL DICTATE WHETHER THE SEDIMENT BASIN WILL BE TYPE 1, TYPE 2 OR TYPE 3 SYSTEM.
- (2) THE USE OF SMALLER PRE-SEDIMENTATION BASINS USED IN CONJUNCTION WITH LARGER PERMANENT RETENTION/DETENTION PONDS ARE EFFECTIVE IN CAPTURING LARGER VOLUMES OF SEDIMENTS. THIS TECHNIQUE REQUIRES PERIODICALLY SCHEDULED REMOVAL OF THE ACCUMULATED SEDIMENTS.
- (D) SEDIMENT BARRIERS (TEMPORARY CONSTRUCTION SITE BMP'S)

PURPOSE: SEDIMENT BARRIERS EITHER OBSTRUCT FLOW OR PREVENT THE PASSAGE OF WATER WHILE CONSTRUCTION ACTIVITIES OCCUR. SMALLER SEDIMENT BARRIERS MAY FUNCTION AS A SMALL SEDIMENT CONTAINMENT SYSTEM OR AS A METHOD TO REDUCE FLOW VELOCITY.

(1) THESE CONSTUCTION BMP'S CAN INCLUDE SYNTHETIC BALES, STAKED SILT FENCE, TURBIDITY BARRIER, STORM SEWER INLET BARRIERS, ROCK BARRIERS, GEOSYNTHETIC BARRIERS, ETC.

- (2) APPROPRIATE LOCATIONS INCLUDE SITE PERIMETER, BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION, BELOW THE TOE OF EXPOSED AND ERODIBLE SLOPES, ALONG THE TOE OF STREAM AND CHANNEL BANKS, AROUND DRAINS AND INLETS LOCATED IN LOWPOINTS OR THE DOWNSTREAM EDGE OF AREAS UNDERGOING VERTICAL OR BOX CULVERT CONSTRUCTION ACTIVITIES.
- (3) INAPPROPRIATE LOCATIONS FOR THESE SAME MEASURES INCLUDE
 PARALLEL TO A HILLSIDE CONTOUR, IN CHANNELS WITH CONCENTRATED
 FLOW (UNLESS PROPERLY REINFORCED), UPSTREAM OR DOWNSTREAM
 OF CULVERTS WITH CONCENTRATED FLOW, IN FRONT OF OR AROUND
 INLETS ON A GRADE WITH CONCENTRATED FLOW OR IN FLOWING
 STREAMS.

(E) FLOATING TURBIDITY BARRIER

PURPOSE: USED IN PERMANENT BODIES OF WATER TO RETAIN SEDIMENT AND FLOATING DEBRIS FROM A CONSTRUCTION AREA SO THAT REMOVAL OR CONTAINMENT OF THE MATERIAL IS POSSIBLE. THEY ARE ALSO USED TO CONTROL MIGRATION OF SUSPENDED SEDIMENTS.

- (1) TYPE I, LIGHT DUTY, IS USED WHERE THERE IS LITTLE OR NO CURRENT, NO WIND AND NO WAVE ACTION.
- (2) TYPE II, MODERATE DUTY, IS USED WITH SOME CURRENT (<3.5 FT. PER SECOND) AND SOME EXPOSURE TO WIND.
- (3) TYPE III, HEAVY DUTY, IS USED WITH GREATER CURRENT (3.5-5.0 FT. PER SECOND), MODERATE WIND AND WAVE ACTION
- (4) BARRIER MUST BE ATTACHED AT BOTH ENDS AND WEIGHTED ON THE BOTTOM.
- (5) MULTIPLE LINES OF BARRIER MAY BE USED IN SOME CIRCUMSTANCES FOR ADDITIONAL PROTECTION.
- (6) STANDARD PANELS FOR WATER DEPTHS ARE 5.0'. ADDITIONAL PANELS CAN BE USED FOR WATER DEPTHS GREATER THAN 5.0'.

(F) STAKED TURBIDITY BARRIER

PURPOSE: THIS ITEM IS COMMONLY USED IN AREAS WHERE CONTINUOUS CONSTRUCTION ACTIVITIES CHANGE THE NATURAL CONTOURS AND DRAINAGE RUNOFF PATTERNS.

- (1) COMMONLY USED IN LAKES AND STREAMS AS A SEDIMENT CONTAINMENT SYSTEM. SHOULD NOT BE USED WHERE WATER CURRENTS MOVE THE CURTAIN AND DISLODGE COLLECTED SEDIMENTS.
- (2) MAXIMUM DEPTH OF PANEL IS 3'-8".
- (3) POST MUST BE A MINIMUM LENGTH OF 5.0' AND A MINIMUM OF 10" OF FABRIC MUST BE EMBEDDED IN THE GROUND.

(G) INLET PROTECTION SYSTEM

PURPOSE: ANY OF A NUMBER OF SEDIMENT BARRIERS THAT EITHER PREVENT SEDIMENT FROM ENTERING AN INLET OR TRAP THE SEDIMENTS ONCE THEY ENTER THE INLET.

- (1) TYPICAL APPLICATIONS INCLUDE ROCK BARRIERS, FRAME AND FILTER BARRIERS, CURB INLET "SUMP" BARRIER, CURB INLET DIVERSION BERM, CURB AND GUTTER SEDIMENT CONTAINMENT SYSTEM OR CURB INLET INSET.
- (2) SHOULD BE INSTALLED ONLY WHEN CONSTRUCTION ACTIVITIES ARE ON-GOING AND ONLY WHERE SUMP CONDITIONS EXIST.
- (3) SHOULD NOT BE USED WHEN CONSTRUCTION IS COMPLETE AND SHOULD NOT BE USED IN AREAS WHERE FLOODING COULD ENCROACH INTO THE TRAVEL LANES.

(H) SOIL TRACKING PREVENTION DEVICE

PURPOSE:TEMPORARY STRUCTURES TO ASSIST WITH THE REMOVAL OF SOIL MATERIAL CAPTURED ON VEHICLE TIRES BEFORE THE VEHICLES ENTER THE ROADWAY.

- (1) USE ONE DEVICE PER MILE WITH A MINIMUM OF TWO PER PROJECT.
- (2) USE ADDITIONAL DEVICES FOR CONSRUCTION AREAS THAT ARE NOT ADJACENT TO THE ROAD RIGHT OF WAY AND NO ACCESS IS PROVIDED THROUGH A SOIL TRACKING PREVENTION DEVICE.
- (3) RRR PROJECTS SHOULD BE HANDLED ON A CASE BY CASE BASIS.
- (4) PROVIDING SOIL TRACKING PREVENTION DEVICES AT ALL INGRESS/ EGRESS LOCATIONS.
- (4) CHEMICAL TREATMENTS FOR EROSION AND SEDIMENT CONTROL
 - (A) CHEMICAL TREATMENT POLYACRYLAMIDES (PAM AND PAM BLENDS)

PURPOSE: REDUCE SOIL EROSION THROUGH SOIL BINDING, USED AS A WATER TREATMENT ADDITIVE TO REMOVE SUSPENDED SOLIDS FROM RUNOFF, PROVIDES APPROPRIATE MEDIUM FOR GROWTH OF VEGETATION FOR STABILIZATION AND INCREASES INFILTRATION BY INCREASING SIZE OF SOIL PARTICLE.

- (1) AS AN ADDITIONAL EROSION CONTROL MEASURE, CHEMICAL ADHESIVE STABILIZER (POLYACRYLAMIDE) CAN BE USED WHERE SOIL RUNOFF WILL DRAIN TO WETLANDS OR SURFACE WATERS. SUCH USAGE SHALL BE LIMITED TO AREAS WHERE VEHICLE TRAFFIC AND OTHER DISTURBANCES WILL NOT OCCUR FOR MORE THAN 7 DAYS. POLYACRYLAMIDE CAN BE APPLIED TO EXPOSED SOILS PRIOR TO PLACEMENT OF ARTIFICIAL COVERINGS AND ROLLED EROSION CONTROL PRODUCTS. POLYACRYLAMIDE SHALL BE USED TO STABILIZE SOIL STOCKPILES WHEN THE STOCKPILE WILL REMAIN UNDISTURBED FOR MORE THAN 7 DAYS. POLYACRYLAMIDE SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS
- (2) CAN BE USED ON DISTURBED SOILS. CAN BE USED IN CONJUNCTION WITH OTHER BMP'S TO ENHANCE PERFORMANCE. CAN BE APPLIED IN DISSOLVED FORM WITH WATER, CAN BE USED AS A DRY POWDER, CAN BE USED IN GRANULAR FORM OR MAY BE USED IN THE FORM OF FLOC
- (3) HIGHER CONCENTRATIONS OF PAM'S DO NOT INCREASE THE EFFECTIVENESS OF THE PRODUCT.
- (4) ACTIVELY WORKED AREAS WILL REQUIRE REAPPLICATION TO REMAIN EFFECTIVE.
- (5) PAM SHOULD NOT BE USED WHERE THE IS A POTENTIAL FOR EQUIPMENT CLOGGING OR TOXICITY IS A CONCERN.
- (6) CHEMICAL TREATMENTS FOR EROSION AND SEDIMENT CONTROL WITHIN THE CSXT R/W ARE PROHIBITED. PROVIDE OTHER CONTROL METHODS FOR REVIEW AND APPROVAL BEFORE COMMENCING ANY APPLICABLE OPERATION WITHIN CSX R/W.
- (5) DEWATERING OPERATIONS (OPTIONAL BASED ON PROJECT APPLICABILITY)

DESCRIPTION: DEWATERING OPERATIONS ARE PRACTICES THAT MANAGE THE DISCHARGE OF TURBID WATER WHEN WATERS OTHER THAN STORMWATER AND ACCUMULATED SURFACE WATERS MUST BE REMOVED FROM A LOCATION SO THAT CONSTRUCTION WORK MAY BE ACCOMPLISHED. THESE WATERS CAN INCLUDE GROUNDWATER, WATER FROM COFFERDAMS, WATER DIVERSIONS AND WATERS USED DURING CONSTRUCTION THAT MUST BE REMOVED FROM A WORK AREA.

(A) ENVIRONMENTAL AGENCIES ARE ESPECIALLY CONCERNED WITH THE PROTECTION OF WETLANDS FROM DRAWDOWN EFFECTS, PROTECTING RECEIVING BODIES FROM SEDIMENTATION AND POSSIBLE CAPACITY LIMITATIONS.

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION] (
] F
				(
				3
				(
1				1

CHRISTOPHER J. KNOX, P.E. P.E. LICENSE NUMBER 67350 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



- (B) THREE PRIMARY METHODS OF DEWATERING COMMONLY USED IN FLORIDA ARE RIM-DITCHING, SOCK/PIPE/HORIZONTAL WELLS AND WELL-POINT SYSTEMS.
- (C) METHODS FOR CONTAINING SEDIMENTATION CAN INCLUDE A COMBINATION OF BMP'S AND SEDIMENT TRAPS, SEDIMENT BASINS, GRAVITY BAG FILTERS, WEIR TANKS, DEWATERING TANKS, SAND MEDIA/PRESSURIZED BAGS AND CHEMICAL TREATMENTS.
- (D) DEWATERING OPERATIONS WITHIN THE CSXT R/W ARE PROHIBITED.
 PROVIDE OTHER CONTROL METHODS FOR REVIEW AND APPROVAL BEFORE
 COMMENCING ANY APPLICABLE OPERATION WITHIN CSX R/W.
- (6) OFFSITE VEHICLE TRACKING WILL BE CONTROLLED BY THE FOLLOWING METHODS:
 - (A) LOADED HAUL TRUCKS ARE TO BE COVERED BY A TARPAULIN AT ALL TIMES.
 - (B) EXCESS DIRT ON ROAD WILL BE REMOVED DAILY.
 - (C) USING WATER TRUCKS DURING DUST GENERATING ACTIVITIES.
- (7) NON-STORMWATER (INCLUDING SPILL REPORTING)
 PROVIDE THE FDOT WITH AN EROSION AND SEDIMENT
 CONTROL PLAN THAT WILL INCLUDE SPILL CONTAINMENT, REPORTING, AND
 RESPONSES. THE PLAN SHALL SPECIFY WHAT MANAGEMENT PRACTICES AND
 CONTAINMENT METHODS WILL BE USED TO PREVENT POTENTIAL POLLUTANTS
 (FUEL, LUBRICANTS, HERBICIDES, ETC.) FROM SPILLING ONTO THE SOIL
 OR INTO THE SURFACE WATERS. IF A SPILL DOES OCCUR, OR IF
 CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE
 ENGINEER.ANY SPILL OCCURING WITHIN CSXT R/W, CONTACT THE CSXT
 PUBLIC SAFETY COORDINATION CENTER AT 800-232-0144 AND NOTIFY CSXT
 REPRESENTATIVE.

III. MAINTENANCE:

MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL DEVICES
AND REMOVE EROSION AND SEDIMENT CONTROL DEVICES WHEN NOTICE
OF TERMINATION IS MAILED. PROPERLY DISPOSE OF SEDIMENT BUILDUP
THROUGH THE LIFE OF THE INSTALLED EROSION AND SEDIMENT CONTROL
DEVICES.

- (1) SYNTHETIC BALES SHALL BE MAINTAINED TO ENSURE THEIR USEFULNESS AND NOT BLOCK OR IMPEDE STORMWATER FLOW OR DRAINAGE.
- (2) SOIL TRACKING PREVENTION DEVICES SHALL BE MAINTAINED TO PREVENT CLOGGING OF ROCK BEDDING WHICH MAY IMPEDE THE USEFULNESS OF THE STRUCTURE.

IV. INSPECTION:

(1) ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED DAILY BY CONTRACTOR'S PERSONNEL WHO ARE F.D.E.P. CERTIFIED STORMWATER MANAGEMENT INSPECTORS.

V. TRACKING AND REPORTING:

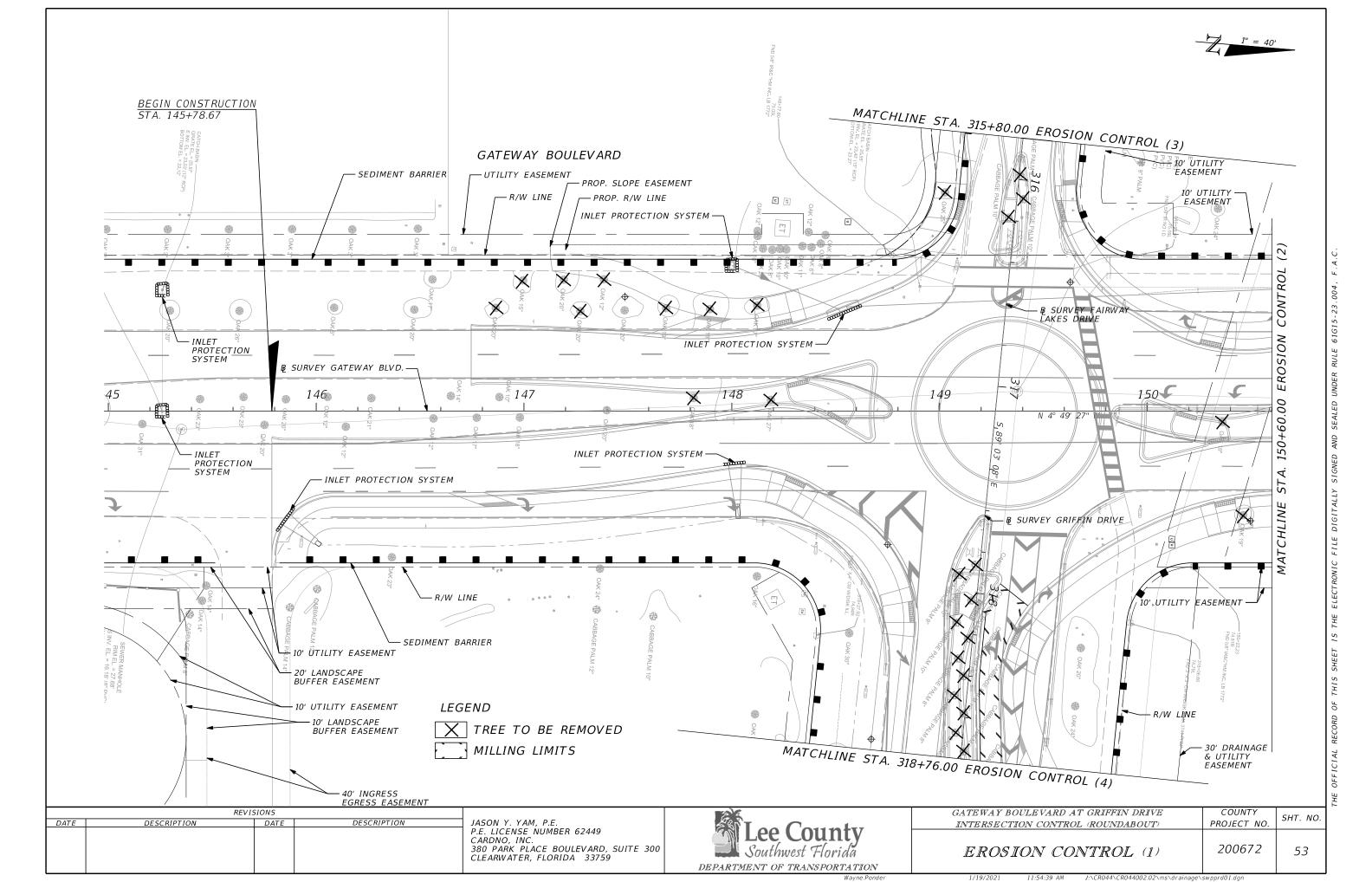
- (1) SUBMIT A WEEKLY REPORT TO THE DEPARTMENT DOCUMENTING THE DAILY INSPECTIONS AND MAINTENANCE OR REPAIRS TO THE EROSION AND SEDIMENT CONTROL DEVICES. MAINTAIN ALL REQUIRED REPORTS AND COMPLETE ALL SWPPP INSPECTION FORMS.
- (2) PREPARATION OF ALL THE CONTRACTOR'S REPORTS OF INSPECTION,
 MAINTENANCE AND REPAIRS REQUIRED FOR THE CONTROL AND ABATEMENT OF
 EROSION AND WATER POLLUTION, SHALL BE INCLUDED IN THE INDIVIDUAL
 COSTS OF THE EROSION AND SEDIMENT CONTROL DEVICES OR LUMP SUM
 COST OF THE PROJECT.
- (3) USE THE SWPPP CONSTRUCTION INSPECTION REPORT FORM # 650-040-03, FOR DAILY INSPECTIONS.

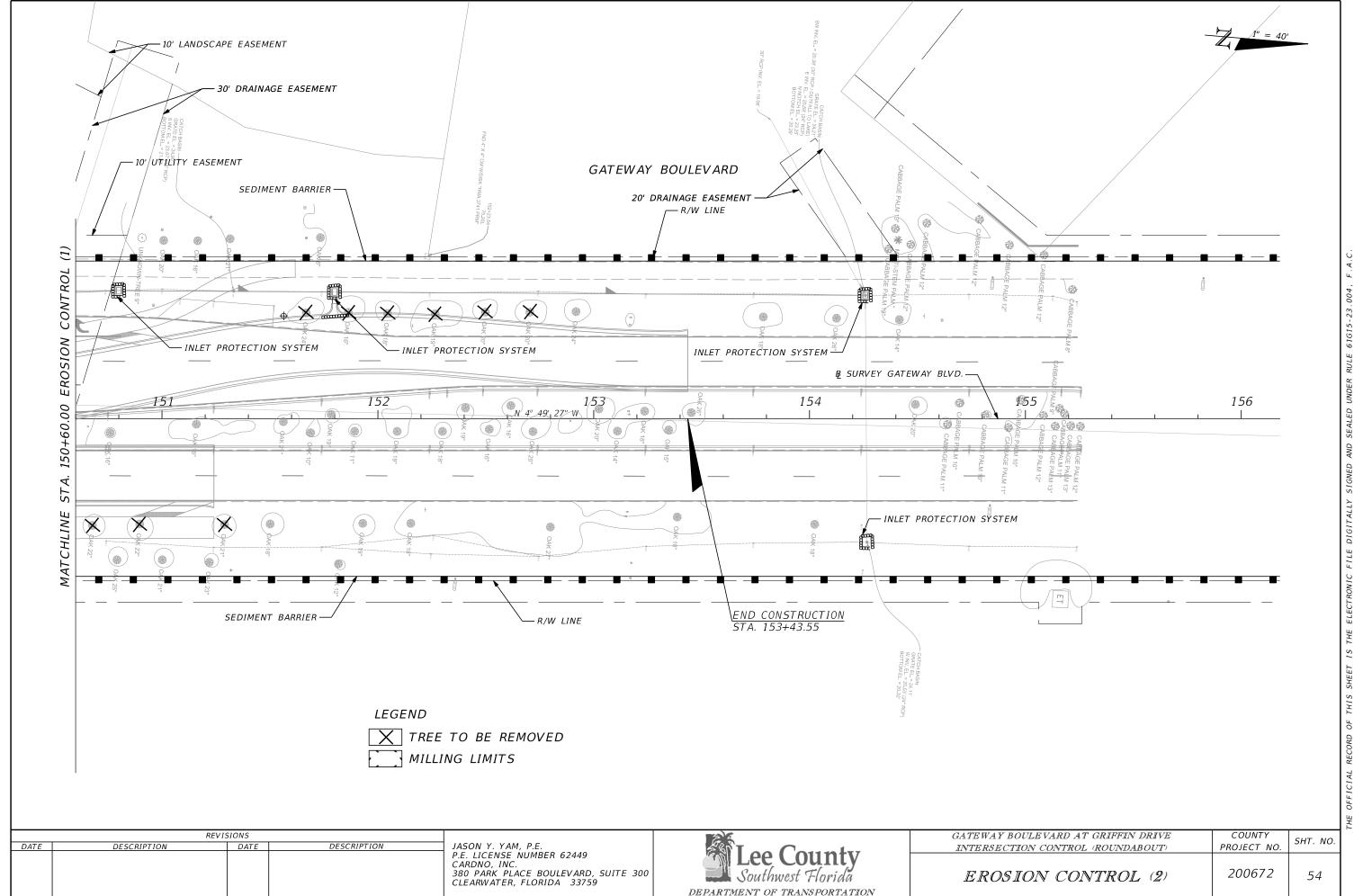
	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	CHRISTOPHER J. KNOX, P.E.
				P.E. LICENSE NUMBER 67350
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759
				CLEARWATER, FLORIDA 33/39



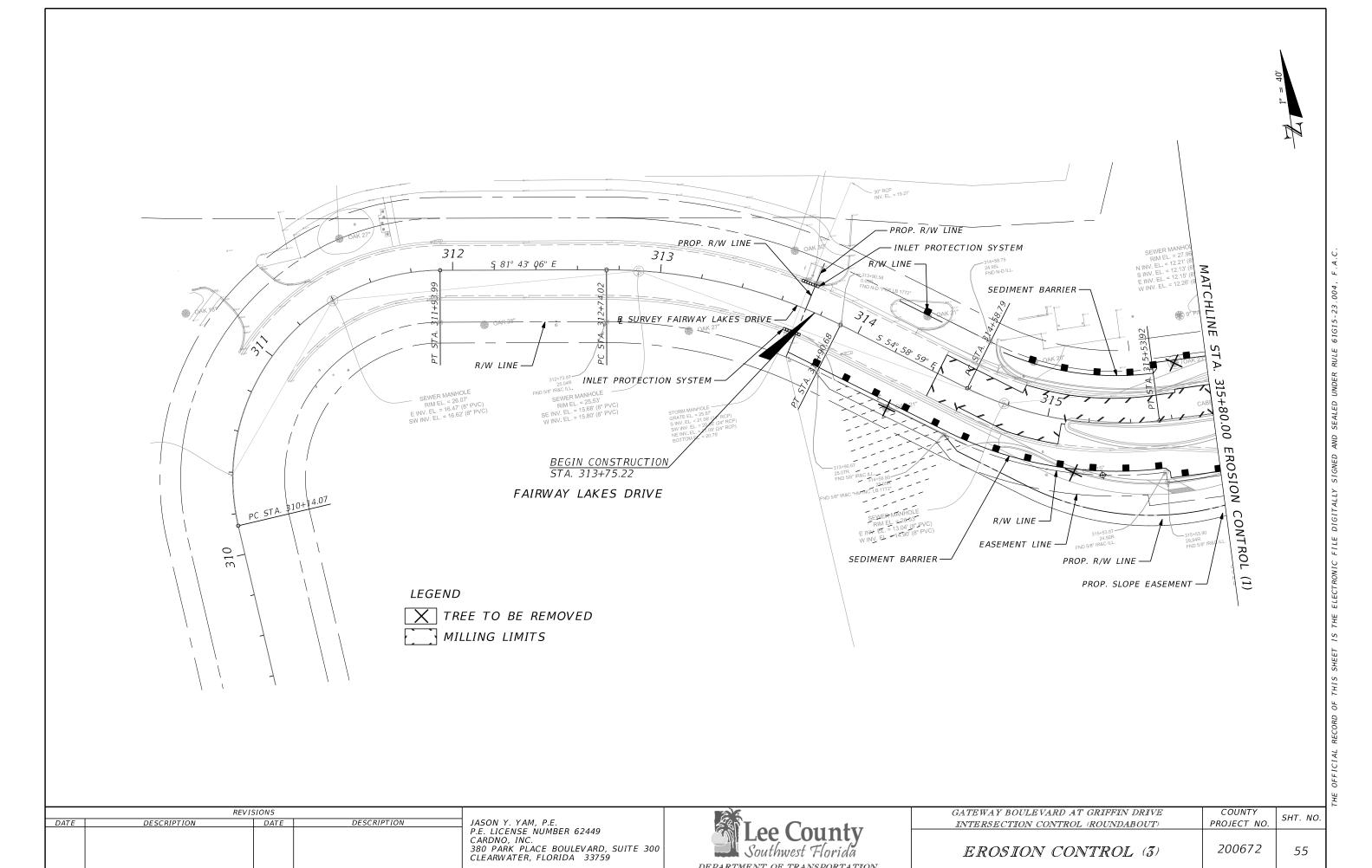
GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY NO.	SHT. NO.	
INTERSECTION CONTROL (ROUNDABOUT)	COUNTY NO.	<u> ЭПТ. NO.</u>	
STORMWATER POLLUTION	0671	<i>-</i> - 2	
PREVENTION PLAN (3)	0071	52	

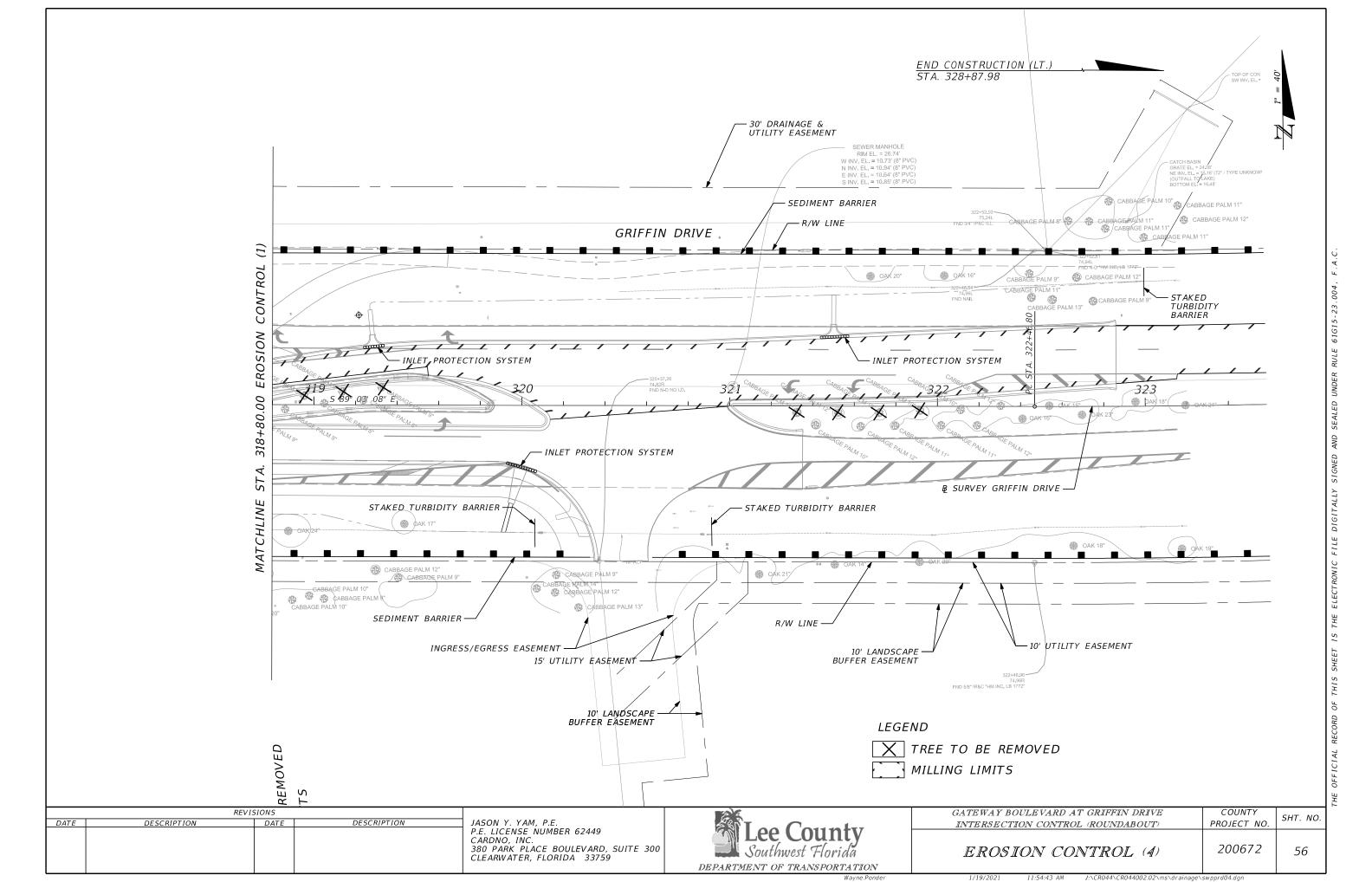
1/19/2021 11:54:37 AM J:\CR044\CR044002.02\ms\drainage\SWPPRD.





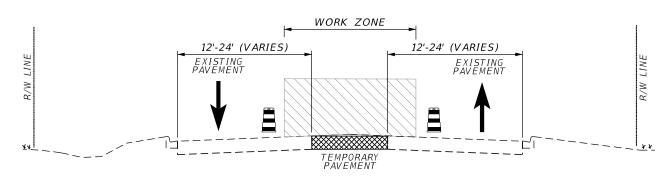
1/19/2021 11:54:41 AM J:\CR044\CR044002.02\ms\drainage\swpprd0



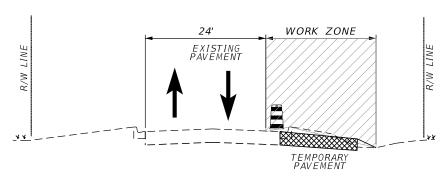


CONSTRUCTION PHASING NOTES

WORK ZONE 12' EXISTING PAVEMENT PAVEMENT



PHASE I GRIFFIN DRIVE



PHASE I FAIRWAY LAKES DRIVE

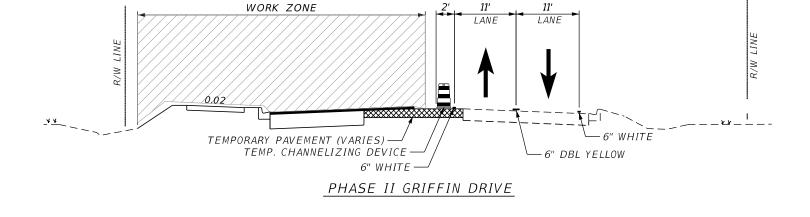
 $\frac{\textit{PHASE I} - \textit{OPERATIONS ARE TO INSTALL TEMPORARY}}{\textit{PAVEMENT FOR PHASE II}}.$

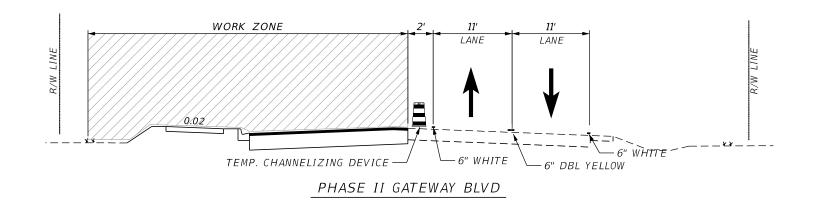
- 1. INSTALL SIGNING ON GATEWAY BLVD, GRIFFIN DRIVE, AND FAIRWAY LAKES DRIVE IN ACCORDANCE WITH THESE PLANS AND INDICES 102-601, 102-602, 102-603, 102-608, 102-611, 102-612, 102-613.
- 2. SHIFT TRAFFIC AND CHANNELIZING DEVICES FOR PHASE I CONSTRUCTION. REMOVE CONFLICTING STRIPING
- 3. CONSTRUCT TEMPORARY PAVEMENT FOR PHASE II.

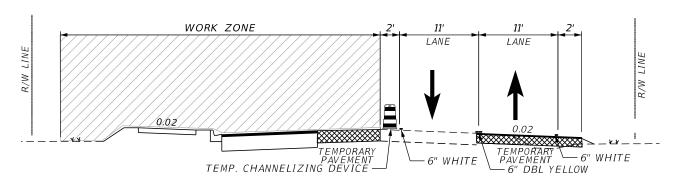
		REVISIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300
				CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	JHI. NO
TEMPORARY TRAFFIC	200672	57
CONTROL (1)	2000,2)







PHASE II FAIRWAY LAKES DRIVE

PHASE II - OPERATIONS ARE TO CONSTRUCT GATEWAY BLVD
WEST SIDE (SB), FAIRWAY LAKES DRIVE NORTH SIDE (WB), AND GRIFFIN DRIVE
NORTH SIDE (WB) NEW ALIGNMENT ALONG WITH TEMPORARY
PAVEMENT.

- 1. INSTALL SIGNING ON GATEWAY BLVD, GRIFFIN DRIVE, AND FAIRWAY LAKES DRIVE IN ACCORDANCE WITH THESE PLANS AND INDICES 102-601, 102-602, 102-603, 102-608, 102-611, 102-612, 102-613.
- 2. SHIFT TRAFFIC AND CHANNELIZING DEVICES FOR PHASE II CONSTRUCTION.
- 3. CONSTRUCT GATEWAY BLVD EAST SIDE (NB), FAIRWAY LAKES DRIVE NORTH SIDE (WB), AND COMMERCE LAKES DRIVE NORTH SIDE (WB) NEW ALIGNMENT.
 THIS WILL INCLUDE LANES, SHOULDERS, CURB AND GUTTERS, SIDEWALKS, EXCLUDING TRAFFIC SEPARATORS AND ROUNDABOUT.
- 4. CONSTRUCT PROPOSED DRAINAGE AS INDICATED ON THIS PLAN SET.
- 5. CONSTRUCT TEMPORARY PAVEMENT FOR PHASE III.

ı					
- [REVIS	SIONS		
	DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
١					P.E. LICENSE NUMBER 62449
- 1					CARDNO, INC.
١					380 PARK PLACE BOULEVARD, SUITE
١					CLEARWATER, FLORIDA 33759



300

2. SHIFT TRAFFIC AND CHANNELIZING DEVICES FOR PHASE III CONSTRUCTION.

- 3. CONSTRUCT GATEWAY BLVD EAST SIDE (NB), FAIRWAY LAKES DRIVE SOUTH SIDE (EB), AND GRIFFIN DRIVE SOUTH SIDE (EB) NEW ALIGNMENT. THIS WILL INCLUDE LANES, CURB AND GUTTERS, SIDEWALKS, EXCLUDING TRAFFIC SEPARATORS AND ROUNDABOUT.
- 4. CONSTRUCT PROPOSED DRAINAGE AS INDICATED ON THIS PLAN SET.

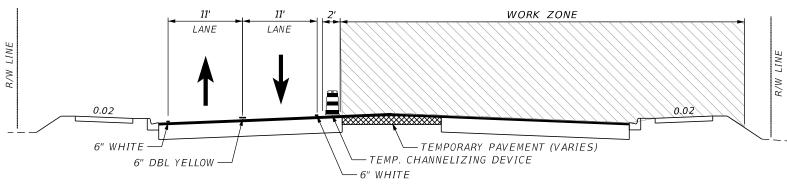
PHASE IV - OPERATIONS ARE TO CONSTRUCT THE SOUTHEAST SECTION OF THE PROPOSED INTERSECTION.

1. INSTALL SIGNING ON GATEWAY BLVD, GRIFFIN DRIVE, AND FAIRWAY LAKES DRIVE IN ACCORDANCE WITH THESE PLANS AND INDICES 102-601, 102-602, 102-603, 102-608, 102-611, 102-612, 102-613.

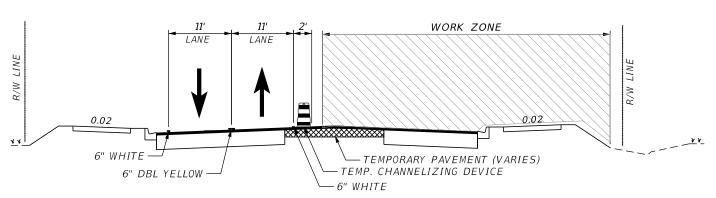
AND FAIRWAY LAKES DRIVE IN ACCORDANCE WITH

THESE PLANS AND INDICES 102-601, 102-602, 102-603, 102-608, 102-611, 102-612, 102-613.

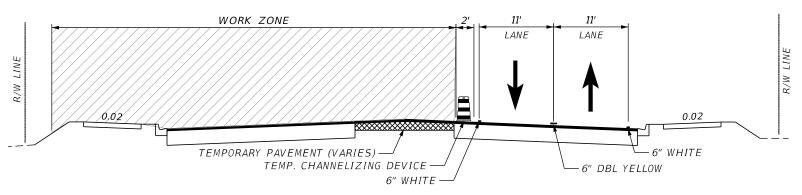
- 2. MOVE CHANNELIZING DEVISES AND SHIFT TRAFFIC FOR PHASE IV CONSTRUCTION.
- 3. CONSTRUCT THE INTERSECTIONA AREA OF GATEWAY BLVD AND FAIRWAY LAKES DRIVE WHICH WAS NTO ACCESSIEBLE DURING PHASES II AND III.



PHASE III GATEWAY BLVD



PHASE III AND IV FAIRWAY LAKES DRIVE AND GRIFFIN DRIVE



PHASE IV GATEWAY BLVD

REVISIONS DESCRIPTION JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 DATE DATE 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



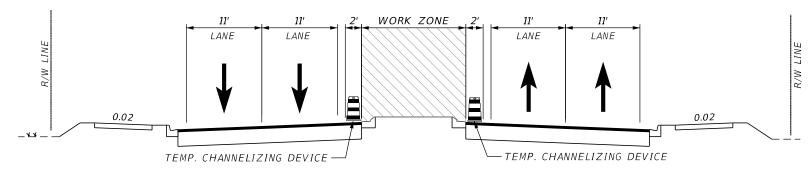
GATEWAY BOULEVARD AT GRIFFIN DRIVE COUNTY SHT. NO. INTERSECTION CONTROL (ROUNDABOUT) PROJECT NO. TEMPORARY TRAFFIC 200672 59 CONTROL (3)

CONSTRUCTION PHASING NOTES

TEMP. CHANNELIZING DEVICE

TEMP. CHANNELIZING DEVICE

PHASE V FAIRWAY LAKES DRIVE AND GRIFFIN DRIVE



PHASE V GATEWAY BLVD

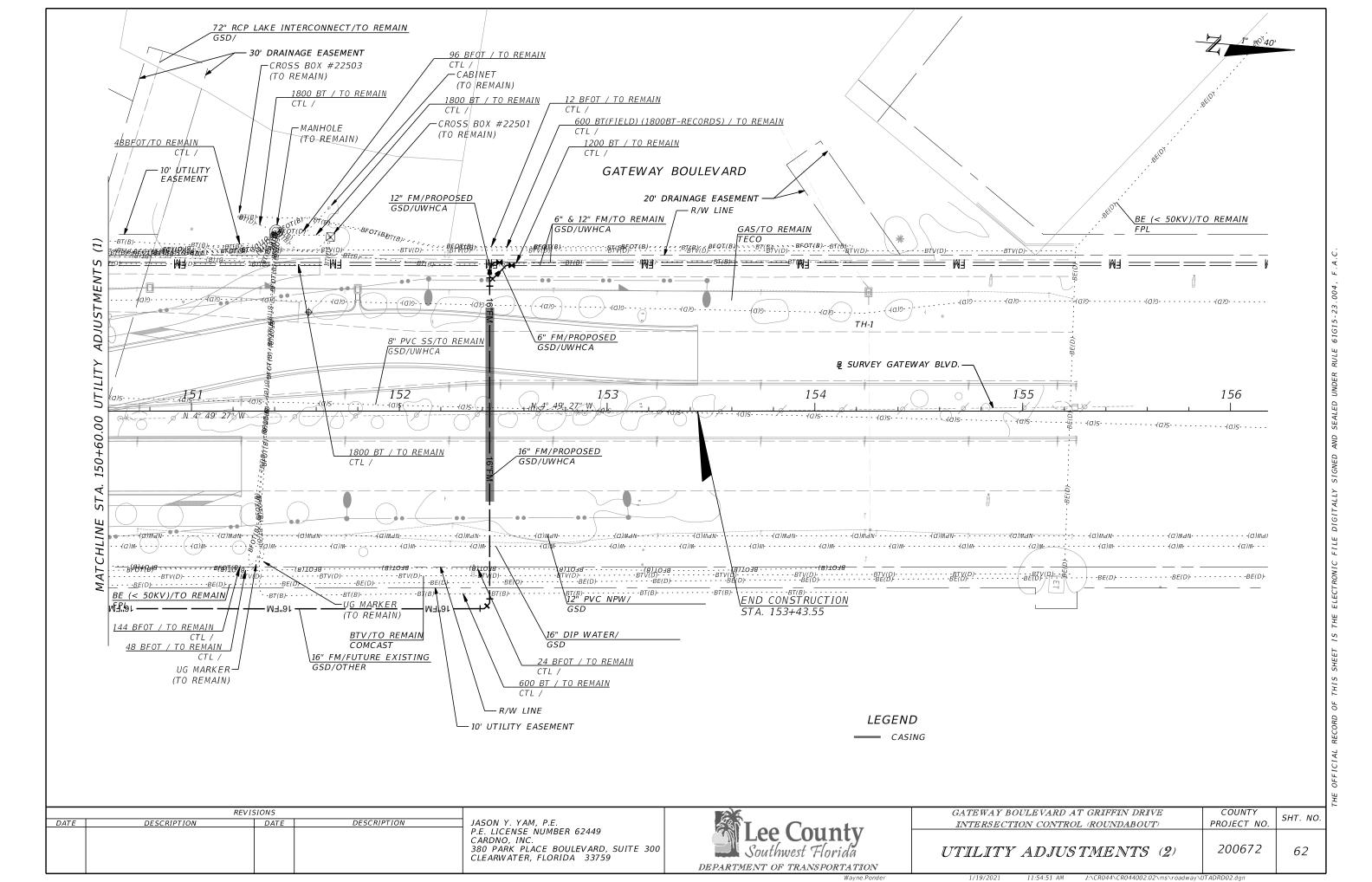
PHASE V - OPERATIONS ARE TO MOVE TRAFFIC ONTO NEWLY CONSTRUCTED ROADWAY AND CONSTRUCT TRAFFIC SEPARATORS, THE CENTER OF THE ROUNDABOUT, COMPLETE ANY REMAINING SIDEWALKS ON GRIFFIN DRIVE AND REMOVE TEMPORARY PAVEMENT FROM THE PREVIOUS PHASES OF CONSTRUCTION.

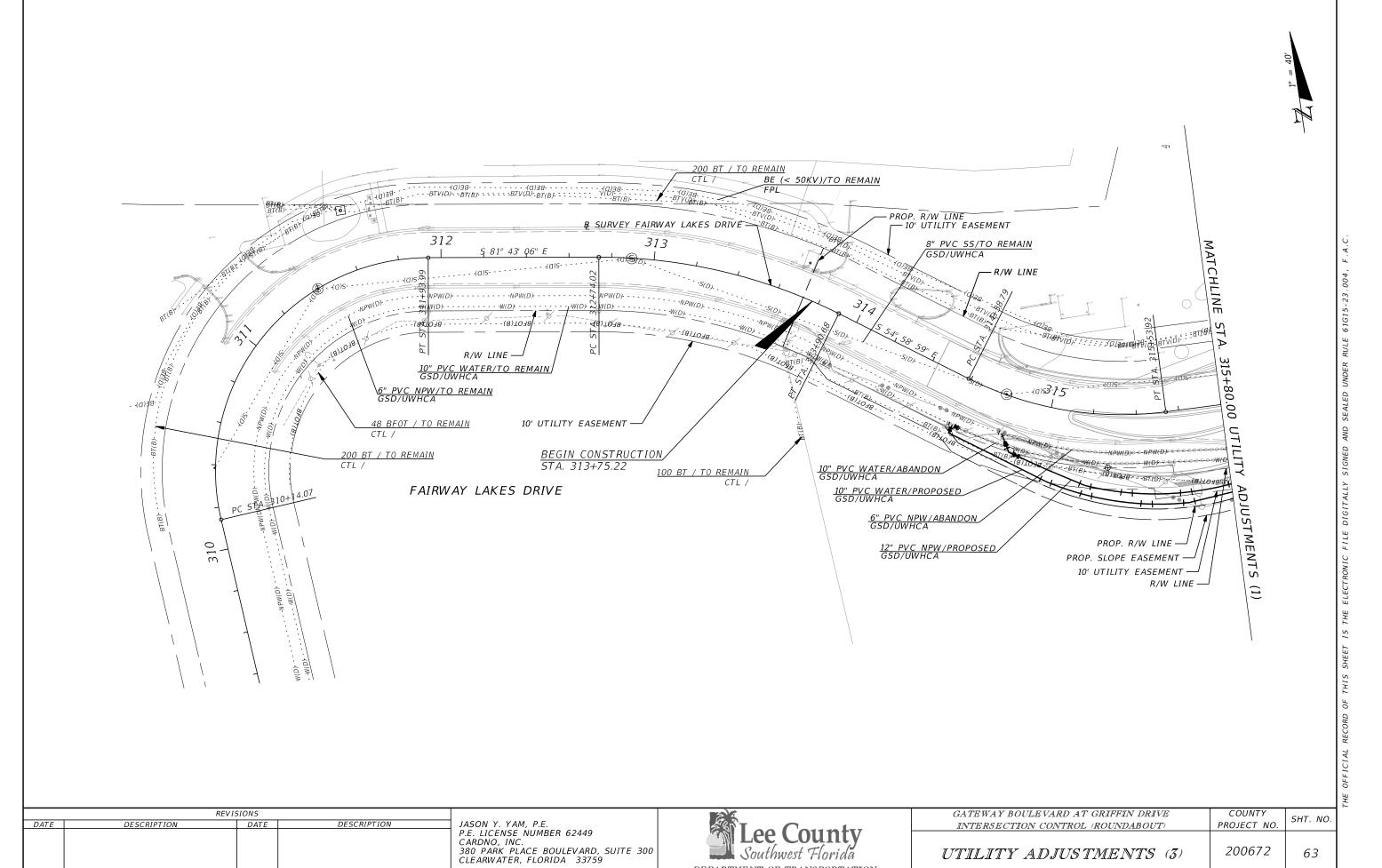
- 1. INSTALL SIGNING ON GATEWAY BLVD, GRIFFIN DRIVE, AND FAIRWAY LAKES DRIVE IN ACCORDANCE WITH THESE PLANS AND INDICES 102-601, 102-602, 102-603, 102-608, 102-611, 102-612, 102-613.
- 2. MILL AND RESURFACE GATEWAY BLVD AND GRIFFIN DRIVE.
- 3. MOVE CHANNELIZING DEVISES AND SHIFT TRAFFIC TO FINAL TRAFFIC PATTERN ON NEWLY CONSTRUCTED ROADWAYS. CONSTRUCT SPLITTER ISLANDS, REMAINING SIDEWALK ON GRIFFIN DRIVE, AS WELL AS CENTER OF THE ROUNDABOUT.
- 4. REMOVE TEMPORARY PAVEMENT FROM PREVIOUS PHASES.
- 4. COMPLETE INSTALLATION OF PERMANENT SIGNING WITHIN PROJECT LIMITS.
- 5. COMPLETE FRICTION COURSE WITHIN PROJECT LIMITS.
- 6. COMPLETE PLACEMENT OF THERMOPLASTIC PAVEMENT MARKINGS.

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y.
				P.E. LICEN
				CARDNO,
				380 PARK
				CLEARWAT

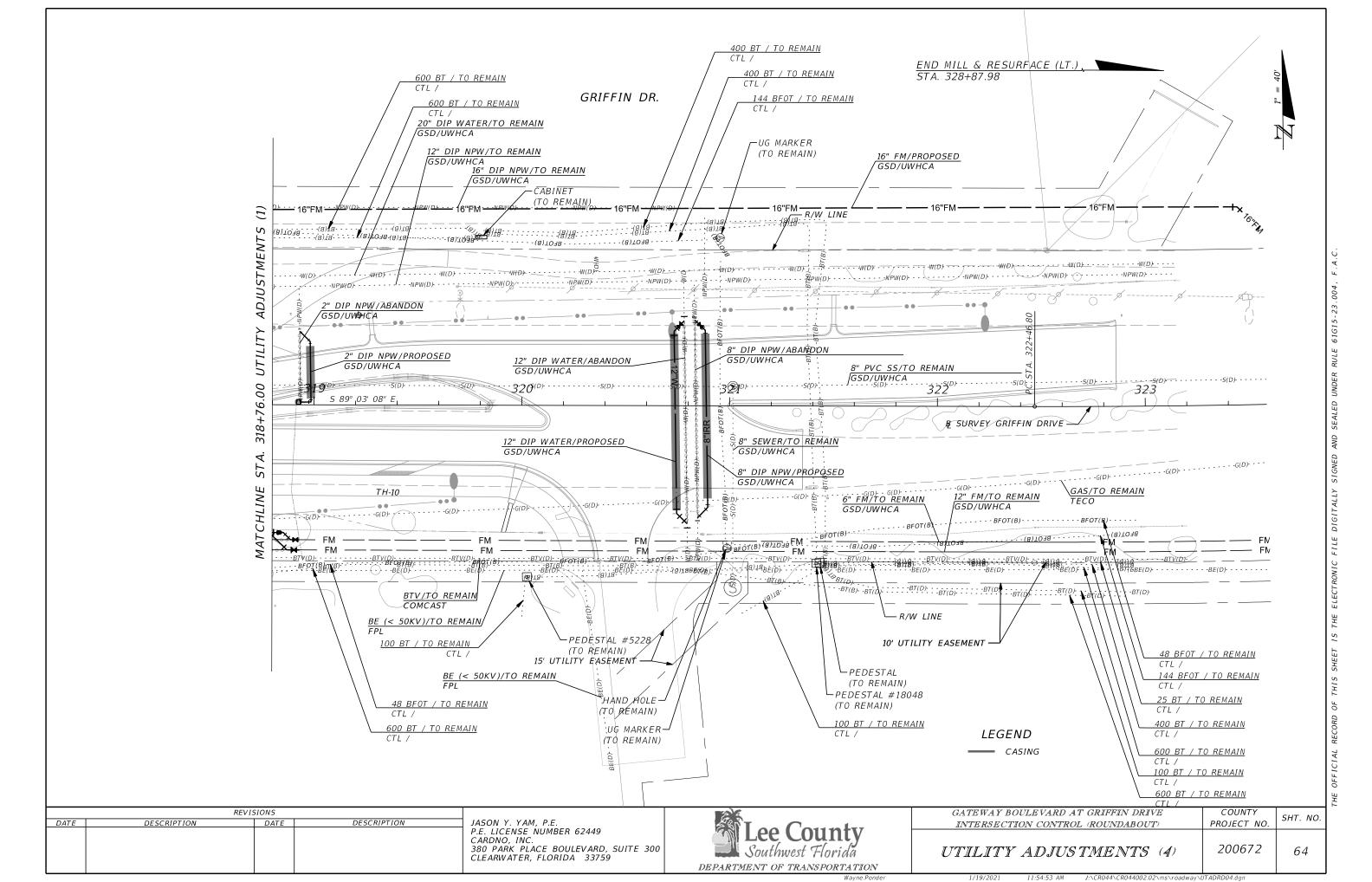


GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.	
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	SHI. NO.	
TEMPORARY TRAFFIC	200672	60	
CONTROL (4)	200072		





UTILITY ADJUSTMENTS (3) 200672



T2 UES, Inc.

5670 Zip Drive, Fort Myers, FL 33905 Phone: 239 277 0722 / Fax: 239 277 7179

Subs	urface Utility Engineering	Date:	10/2/20&12/8/20			
	Test Hole Field Data	Vac Truck/Tr	ailer No.:	55589		
T2 Project No.:	190302	SUE Crew:	R.P., J.A.			
Client Project No.:		Prepared By:	: A.C.			
Proj. Road Name:	GATEWAY BLVD.	Checked By:	C.C.			
Proj. Location:	GATEWAY	Units:	U.S. Survey Feet			
City , County, State:	FORT MYERS, LEE, FLORIDA	Datum(s):	Horizontal:	NAD 83/11	Vertical:	NAVD 88

Utility Material:		U	Jtility Type:	Station & Offset Measured From:			
AC (Transite)	CMP (Corrugated Metal Pipe)	BE - Electrical	BT - Buried Telephone	30 - Edge Of Pavement 31 - "X" in Concrete 32 - Survey B/L			
CI (Cast Iron)	CPP (Corrugated Plastic Pipe)	EXP - Exploratory	CATV - Cable Television	33 - C/L of Construction 34 - Back of Curb 35 -Swing Tie			
Conc. (Concrete)	DBC (Direct Buried Cable)	FL - Fuel Line	CW - Chilled Water	Surface Type:			
Copper	DIP (Ductile Iron Pipe)	FM - Force Main	FOC - Fiber Optic Cable	A - Asphalt B - Brick C - Concrete G - Gravel NG - Natural Ground			
Duct	HDPE (High Density PE)	GM - Gas Line	RAW - Raw Water	RR - Riprap R - Rock S - Shell			
Fg (Fiberglass)	PE (Polyethylene Pipe)	HW - Hot Water	RCW - Reclaimed Water	Identified By :			
Galv. (Galvanized)	PVC (Polyvinyl Chloride)	IRR Irrigation	SAN - Sanitary Sewer	20 - Sleeve 21 - Hub/Lathe 22 - Nail/Disk (See below)			
Lead	RCP (Reinforced Concrete Pipe)	SL - Street Light	STM - Storm Sewer	23 - "X" in Concrete 24 - Iron Rod & Cap (See below)			
STL (Steel)	VCP (Vitrified Clay Pipe)	TS - Traffic Signal	WM - Water Main	* Note: 22 = Set Nail and Disk Stamped "T2 Test Hole"			
UNK (Unknown)	PL Petroleum	UNK - Unknown		* Note: 24 = Set Iron Rod & Cap Stamped "T2 Test Hole"			

Utility Owner	Test Hole Date	Test Hole Number	Utility Size, Material & Type (Size measured in inches and is O.D.)	Northing	Easting	Ground Elevation	Manual Depth (Top)	Utility Elevation (Top)	Offset From	Cross Sectional View	Utility Direction	ID'd By	Surface Type	Pavement Thickness (Inches)
	10/02/20	1	UNK POSS HDPE GAS	814076.62	738137.02	25.02	6.18	18.84	N/A	•	\$	24	NG	N/A
	10/02/20	2	UNK POSS HDPE GAS	813663.06	738166.10	26.52	10.93	15.59	N/A	•	\$	24	NG	N/A
	12/08/20	3	5" HDPE GAS	813533.03	738178.98	26.23	3.26	22.97	N/A	•	\$	24	NG	N/A
	12/08/20	4	12" DIP FM	813522.21	738179.66	26.11	3.64	22.47	N/A	•	\$	24	NG	N/A
	12/08/20	5	6" DIP FM	813517.68	738179.84	25.89	4.79	21.10	N/A	•	\$	24	NG	N/A
	12/08/20	6	2-6" PVC BE	813483.03	738182.69	25.97	3.50	22.47	N/A	• •	\$\$	24	NG	N/A
	12/08/20	7	2-4" PVC BT	813478.67	738293.94	26.07	2.08	23.99	N/A	• •	\$\$	24	NG	N/A
	12/08/20	8	2-6" PVC BE	813489.10	738294.51	26.03	3.90	22.13	N/A	• •	\$\$	24	NG	N/A
	12/08/20	9	EXP	813538.90	738337.87	26.33			N/A			24	NG	N/A
	12/08/20	10	EXP	813540.69	738439.09	25.77			N/A			24	NG	N/A

Page 1 of 1

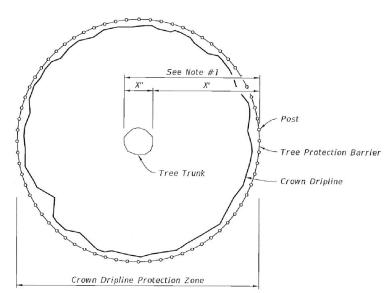
	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 30
				CLEARWATER, FLORIDA 33759



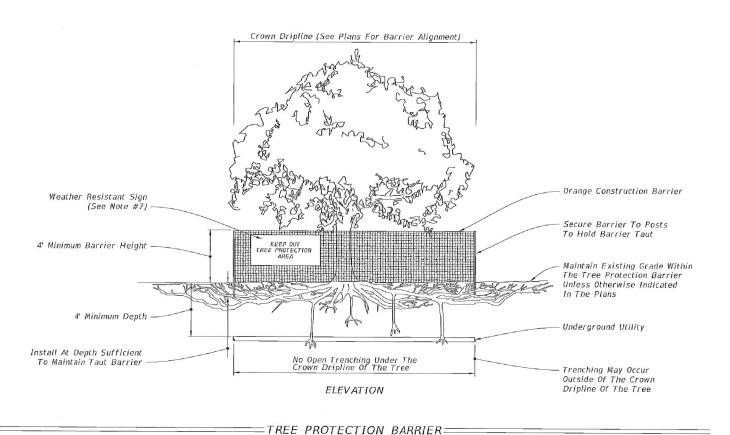
66

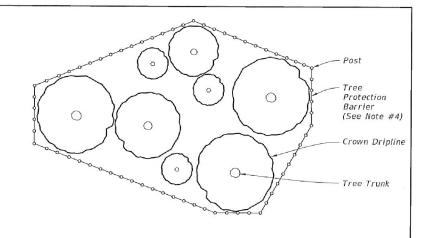
NOTES:

- Crown Dripline Protection Zone: Extends in all directions from trunk of tree to a distance equal to one foot per inch of trunk diameter at breast height.
- Staging, storage, dumping, washing and operation of equipment is not permitted within the limits of the tree protection barrier, including during barrier installation.
- Install all tree protection prior to commencement of construction and remove when directed by the engineer. Maintain protection at all times.
- 4. For closely spaced groups of trees, place the tree protection barrier around the entire group.
- Inspect trunk protection and tree quarterly to prevent girdling. Adjust bands to allow tree growth as needed.
- 6. See plans for any additional requirements or modifications within the tree protection area.
- Place weather resistant sign every 50' along the barrier, with 6" minimum text height and provide text in English and Spanish. Sign should read " Keep Out Tree Protection Area".
- 8. Alternate tree protection systems approved by the Engineer may be used in lieu of the tree pretection barrier detailed on this Index.

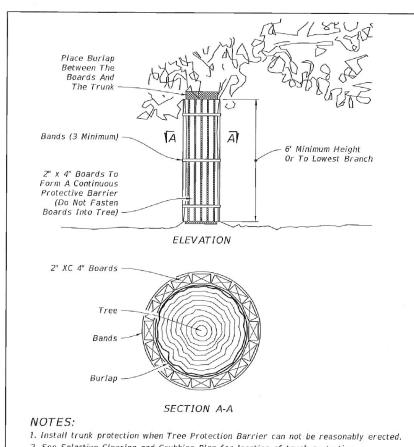


PLAN





PLAN === PROTECTION BARRIER FOR TREE GROUPINGS ===



- 2. See Selective Clearing and Grubbing Plan for location of trunk protection.
- 3. Adjust bands to allow tree growth (inspect quarterly to prevent girdling).

TRUNK PROTECTION

LAST REVISION 11/01/16

DESCRIPTION:

FDOT

FY 2017-18 DESIGN STANDARDS

TREE PROTECTION AND PRESERVATION

INDEX NO. 542 SHEET NO. 1 of 1

REVISIONS

DATE DESCRIPTION DATE DESCRIPTION

JASON Y. YAM, P.E.
P.E. LICENSE NUMBER 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE COUNTY PROJECT NO.

TREE PROTECTION DETAILS

200672

PAY ITEM NOTES:

110-1-1 CLEARING AND GRUBBING INCLUDES THE COST OF TREE TRIMMING BY PROFESSIONAL ARBORISTS AND REMOVAL OF DEBRIS AT LOCATIONS WHERE TREE BRANCHES OR SHRUBS CONFLICT WITH THE PROPOSED LIGHTING POLES.

430-175-118/430-175-124/430-175-130 DESILTING PIPE PRIOR TO PROJECT COMPLETION TO BE INCLUDED IN PROPOSED PIPE PAY ITEMS.

520-1-10 CONCRETE FLUME TO BE PAID AS CURB AND GUTTER.

570-1-2 EXISTING SOD IS MOSTLY ST. AUGUSTINE, MATCH EXISTING.

527-2 ALL DETECTABLE WARNINGS SHALL BE WET SET.

919-528 ALL DIRECTIONAL INDICATORS SHALL BE WET SET.

*** ROOT CONTROL BARRIER SHALL BE INSTALLED TO CONFORM TO THE REQUIREMENTS AS SET FORTH BY THE MANUFACTOURER, TO A MINIMAL DEPTH OF 12" BELOW FINISH GRADE OF ADJACENT SIDEWLAK OR CURBING. ROOT BARRIER SHALL BE FREE OF FOLDS AND TEARS TO PRODUCE AN EFFECTIVE BARRIER BETWEEN CONCRETE CONSTRUCTION AND TREES. INSTALLATION SHALL BE PERPENDICULAR TO FINISH GRADE AND ALL EDGES SHALL BE BELOW FINISH GRADE ONCE RESTORATION OF THE ADJACENT DISTURBED AREA HAS BEEN COMPLETED. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A MANUFACTURER'S CERTIFICATE STATING THE MANUFACTURER'S NAME, PRODUCT NAME, STYLE NUMBER, CHEMICAL COMPOSITION, AND OTHER PERTINENT INFORMATION TO FULLY DESCRIBE THE PRODUCT. THE CONTRACTOR SHALL AFFIX AN APPLICABLE MSDS TO THE OUTSIDE OF EACH SHIPPING CONTAINER FOR THE PRODUCT.

	SUMMARY O	F LUMP	SUM I	TEMS	
PAY ITEM NO.	PAY ITEM DESCRIPTION	QUAN P	T I T Y F	DESIGN NOTES	CONSTRUCTION REMARKS
101-1	MOB I L I Z AT I ON	1			

	SUMMARY OF TEMPORARY TRAFFIC CONTROL PLAN ITEMS										
PAY ITEM NO.				ΓΑL	GRAND	TOTAL	DESIGN NOTES	CONSTRUCT I ON REMARKS			
			Р	F	Р	F]				
102-1	MAINTENANCE OF TRAFFIC	LS	1		1		365 DA				

300

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION] JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE
				CLEARWATER, FLORIDA 33759



		SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES											
LOCATION	SIDE	AREA	SED I BARF		TURB	KED IDITY RIER	SO TRAC PREVE DEV	NT I ON	PROTE	LET ECTION STEM	DESIGN	CONSTRUCTION	
	SIDL	ID	0104	10 3	0104	4 12	0104	4 15	010	4 18	NOTES	REMARKS	
STA. TO STA.			L	F	L	F	E	A	Е	A			
			Р	F	Р	F	Р	F	Р	F			
142+97.39 to 145+51.46	RT		262.8										
142+97.39 to 149+09.02	LT		618.1										
145+82.40 to 148+42.56	RT		281.8										
149+65.96 to 156+61.22	LT		716.9										
149+89+96 to 156+61.22	RT		686.5										
313+72.30 to 316+12.43	RT		256.0										
314+10.82 to 314+33.95	LT		23.1										
314+67.87 to 316+00.30	LT		123.9										
318+06.82 to 328+91.95	LT		1075.3										
318+28.05 to 320+33.05	RT		205.0										
320+62.91 to 324+45.94	RT		386 . 1										
320+06.31 to 320+06.54	RT				13.7								
320+91.43 to 320+91.65	RT				13.7								
322+99.80 to 322+99.88	LT				13.7								
142+75.00	LT						1						
157+00.00	RT						1						
313+50.00	LT						1						
328+30.00	RT						1						
145+23.14 to 145+28.52	LT/RT								1				
145+23.28 to 145+28.66	LT								1				
145+81.07 to 145+89.24	RT								1				
147+95.87 to 148+06.52	RT								1				
147+97.30 to 148+02.68	LT								1				
150+77.21 to 150+82.59	LT								1				
151+73.73 to 151+86.49	LT								1				
151+77.21 to 151+82.59	LT								1				
154+23.06 to 154+28.44	LT								1				
154+23.82 to 154+29.20	RT								1				
313+65.40 to 313+74.91	RT								1				
313+65.72 to 313+74.34	LT								1				
316+67.90 to 316+76.28	RT								1				
319+23.79 to 319+33.84	LT								1				
319+92.75 to 320+07.72	RT								1				
321+43.57 to 321+57.37	LT								1				
	SUL	B-TOTAL:	4635.5		41.1		4.0		16			'	
		TOTAL:	4636		41		4		16				

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SUMMARY OF QUANTITIES	200672	SQ-2

SUMMARY OF LITTER REMOVAL AND MOWING

					LIT	TTER REM	OVAL				MOW I NG				
CONST.	LOCATION		DURATION FREQUENCY			0107	1				0107 2			DESIGN	CONSTRUCTION
PHASE -		SIDE	(DAYS) (DAYS)	AREA			AREA		AREA			AREA		NOTES	REMARKS
	STA. TO STA.			ID	CYCLES	AC / CYCLE	TOTAL P	. (AC) F	ID	CYCLES	AC / CYCLE	TOTAI P	(AC)		
ALL	145+80.67 to 148+56.58	RT	30	24371	12	0.23	1.79								
ALL	146+63.66 to 149+05.60	LT	30	24355	12	0.18									
ALL	149+63.76 to 153+43.55	LT	30	24302	12	0.28									
ALL	149+78.41 to 151+24.05	RT	30	24407	12	0.11									
ALL	313+72.30 to 313+82.69	LT	30	24204	12	0.00									
ALL	313+72.30 to 316+29.64	RT	30	24328	12	0.10									
ALL	314+08.08 to 314+36.99	LT	30	24208	12	0.01									
ALL	314+65.00 to 316+28.71	LT	30	24317	12	0.04									
ALL	317+66.23 to 320+34.95	RT	30	24385	12	0.26									
ALL	317+71.41 to 322+86.06	LT	30	24392	12	0.54									
ALL	320+61.09 to 321+35.18	RT	30	24267	12	0.06									
ALL	145+78.59 ^{to} 148+31.78	LT/RT	30						23878	12	0.12	2.42			
ALL	145+80.67 ^{to} 148+56.58	RT	30						23960	12	0.23				
ALL	146+55.17 ^{to} 147+52.57	RT	30						23898	12	0.00				
ALL	146+63.66 ^{to} 149+07.87	LT	30						24012	12	0.21				
ALL	147+12.60 ^{to} 147+70.00	LT	30						23722	12	0.00				
ALL	147+37.17 ^{to} 148+15.31	LT	30						23718	12	0.00				
ALL	148+37.19 ^{to} 148+75.73	LT/RT	30						23942	12	0.01				
ALL	149+30.08 ^{to} 149+30.08	RT	30						23728	12	0.08				
ALL	149+57.92 ^{to} 151+24.05	RT	30						24000	12	0.15				
ALL	149+64.33 ^{to} 153+43.40	LT	30						24069	12	0.28				
ALL	149+98.37 ^{to} 150+28.36	LT/RT	30						24131	12	0.01				
ALL	150+24.72 ^{to} 153+43.54	LT/RT	30						24103	12	0.18				
ALL	151+79.00 to 151+81.00	LT	30						24157	12	0.00				
ALL	313+72.30 ^{to} 313+82.69	LT	30						23638	12	0.00				
ALL	313+72.30 ^{to} 316+48.78	RT	30						24032	12	0.14				
ALL	314+08.75 ^{to} 314+36.09	LT	30						23645	12	0.00				
ALL	314+65.00 ^{to} 316+31.96	LT	30						24054	12	0.04				
ALL	315+11.78 ^{to} 316+09.43	RT	30						24147	12	0.01				
ALL	316+20.72 ^{to} 316+34.60	LT/RT	30						24120	12	0.00				
ALL	317+66.23 ^{to} 320+34.95	RT	30						23972	12	0.26				
ALL	317+90.13 to 322+85.80	LT	30						23979	12	0.49				
ALL	317+91.15 to 320+10.28	LT/RT	30						24087	12	0.07				
ALL	320+61.09 ^{to} 321+35.18	RT	30						23904	12	0.06				
ALL	321+01.55 ^{to} 322+86.70	LT/RT	30						23763	12	0.07				
						SUB-TOTAL:	1.79				SUB-TOTAL:	2.42			
						TOTAL:	1.8				TOTAL:	2.4	!		

	REVI	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION] JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
ı				380 PARK PLACE BOULEVARD, SUITE 300
				CLEARWATER, FLORIDA 33759
I				



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	энт. NO.
SUMMARY OF QUANTITIES	200672	SQ-3

PAY ITEM PAY ITEM DESCRIPTION		LOCAT I ON	SIDE	AREA I D	LENGTH	WIDTH		SECONDARY UNITS (IF LUMP SUM)	QUAN [*]	TITY	TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
NO.		STA. TO STA.		10				AREA (AC)	Р	F	Р	F	NOTES	REMARKS
10-1-1	CLEARING AND GRUBBING								1.99		,	,		
	oll, with the shabilities	145+78.59 TO 148+31.76	LT/RT	20653			LS	0.117	1,33		_			
		145+80.67 TO 148+56.58	RT	24471				0.231						
		146+63.66 TO 149+07.87	LT	24522				0.206						
		149+64.33 TO 153+43.40	LT	24579				0.284						
		149+57.92 TO 151+23.90	RT	24442				0.148						
		313+72.30 TO 316+48.78	RT	24542				0.014						
		314+85.00 TO 316+31.96	LT	24564				0.037						
		317+66.23 TO 320+34.95	RT	24464				0.262						
		317+90.13 TO 322+85.80	LT	24421				0.493			1			
		317+91.19 TO 320+11.39	LT/RT	24506				0.069			1			
		320+61.09 TO 321+35.18	RT	24483				0.056			1			
		321+01.55 TO 322+86.70	LT/RT	24489				0.070			1			
10-4-10	REMOVAL OF EXISTING CONCRETE	147+12.62 TO 149+09.38	LT	21338			SY		179.2		998	?	SIDEWALK	
		147+97.55 TO 148+76.58	LT/RT	21330					7.8		1		MEDIAN CURB	
		148+11.90 TO 148+74.98	RT	21307					24.4		1		CURB	
		148+31.65 TO 148+75.46	LT	21322					4.4		1		MEDIAN CURB	
		149+64.33 TO 151+61.74	LT	21216					179.7				SIDEWALK	
		149+82.87 TO 153+43.54	LT/RT	21225					81.1		1		MEDIAN CURB	
		149+85.04 TO 151+24.05	RT	21243					31.1				MEDIAN CURB	
		313+90.90 TO 316+38.95	RT	21202					57.0				CURB	
		314+24.94 TO 316+33.96	LT	21156					52.5				CURB	
		314+24.96 TO 314+70.16	LT	21187					35.6				DRIVEWAY	
		315+86.73 TO 316+42.45	LT/RT	21135					15.4				MEDIAN CURB	
		315+88.49 TO 316+38.17	LT	21126					11.0		1		MEDIAN CURB	
		317+44.85 TO 319+64.49	LT	21250			+		190.4		1		SIDEWALK	
		317+49.12 TO 318+69.70	LT	21263					28.1		1		CURB	
		317+63.02 TO 319+85.85	LT/RT	21273					51.6		1		MEDIAN CURB	
		317+64.39 TO 319+82.75	RT	21294					49.0		†		MEDIAN CURB	

		SUI	MMARY (OF MAILBOXES	
STATION	SIDE	QUAN 0110 P	T I T Y 7 1 F	DESIGN NOTES	CONSTRUCTION REMARKS
314+83	LT	1			
SU	B-TOTAL:				
	TOTAL:				

	SUMMARY OF EARTHWORK										
PAY ITEM	PAY ITEM DESCRIPTION	C'	Υ	DESIGN	CONSTRUCTION						
NO.	PAT TIEM DESCRIPTION	P	F	NOTES	REMARKS						
120 - 1	REGULAR EXCAVATION	1243									
120-6	EMBANKMENT	1632									

EARTHWORK HAS BEEN CALCULATED USING THE ASPHALT BASE OPTION. IF ANOTHER OPTION IS CONSTRUCTED, THERE SHALL BE NO REVISION TO THE EARTHWORK QUANTITIES FOR WHICH PAYMENT IS MADE BY PLAN QUANTITY.

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE 300
				CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SUMMARY OF QUANTITIES	200672	SQ-4

SUMMARY OF PAVEMENT

PAY ITEM	PAY ITEM DESCRIPTION	LOCAT I OI	V	SIDE	AREA	LENGTH	ртн	UNIT	QUANT ITY	TOTAL	DESIGN	CONSTRUCTION
NO.		STA. TO STA.	DESCRIPTION	JIDL	I D	EN	M I L				NOTES	REMARKS
						7			P F	P F		
0160 4	TYPE B STABILIZATION	148+37.25 to 148+67.85		LT/RT	12983			SY	49.1	7780		
		149+60.22 to 149+60.22		RT	16385				4523.3	-		
		149+77.08 to 149+77.08		RT	12981				683.5	-		
		315+11.78 to 316+09.43		RT	13009				67 . 4			
		315+28.32 to 315+28.32		RT	16317				630.8			
		317+91.15 to 320+10.28		LT/RT	12997				333.1			
		320+26.07 to 320+26.07		RT	16238				1492.9			
285709	OPTIONAL BASE, BASE GROUP 09	149+59.86 to 149+59.86		RT	16634			SY	3757.0	5321		
		314+58.93 to 316+59.50		LT/RT	16696				577.7			
		317+88.52 to 321+35.18		RT	16722				985.9			
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	142+97.39 to 145+78.70		RT	14385			SY	1075.0	8604		
		142+97.39 to 146+74.01		LT	12112				1165.8			
		151+24.05 to 156+61.22		LT/RT	12201				2578.3			
		313+91.96 to 314+43.12		LT/RT	12142				136.4			
		314+42.65 to 315+80.00		LT/RT	12021				257 . 7			
		317+94.29 to 322+86.06		LT/RT	11994				1254.8			
		321+35.17 to 324+45.94		RT	14371				592.4			
		322+86.05 to 328+87.98		LT	11976				1543.9			
0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C (2	149+59.86 to 149+59.86		RT	16510			TN	482.84	716.1		
	- ,	149+79.33 to 149+79.33		RT	14288				103.78			
		314+58.93 to 316+59.50		LT/RT	16696				31.77			
		317+88.52 to 321+35.18		RT	16722				54.22			
		315+00.00 to 315+80.00		LT					1.16		OVERBUILD FAIRWAY	
		317+90.00 to 322+86.00		LT					42.33		OVERBUILD GRIFFIN DR	
337 7 82	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-9.5, PG 76-22	142+97.39 to 145+78.70		RT	14385			TN	59.13	473.3		
		142+97.39 to 146+74.01		LT	12112				64.12			
		151+24.05 to 156+61.22		LT/RT	12201				141.81			
		313+91.96 to 314+43.12		LT/RT	12142				7.50			
		314+42.65 to 315+80.00		LT/RT	12021				14.17	1		
		317+94.29 to 322+86.06		LT/RT	11994				69.02	1		
		321+35.17 to 324+45.94		RT	14371				32.58	1		
		322+86.05 to 328+87.98		LT	11976				84.92	1		
0337 7 82	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-9.5, PG 76-22	149+59.86 to 149+59.86		RT	16634			TN	206.64	206.6		

	REVISIONS											
DATE	DESCRIPTION	DATE	DESCRIPTION									



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	эпт. NO.
SUMMARY OF QUANTITIES	200672	SQ-5

PAY ITEM		LOCATION		ARFA			QUANT IT	Υ		TOTAL	DESIGN	CONSTRUCTION
NO.	PAY ITEM DESCRIPTION	STA. TO STA.	─ SIDE '	AREA U			DEDUCTIONS TYPE LENGTH	NET L	ENGTH F	P F	NOTES	REMARKS
20 1 7	Concrete Curb & Gutter, Type E	145+78.89 to 145+84.67	RT		LF	5.9		5.9	-	2058		
		145+84.67 to 146+63.54	RT			78.9		78.9				
		146+63.54 to 147+52.57	RT			89.4		89.4				
		146+74.01 to 146+74.01	LT			2.3		2.3				
		146+74.24 to 146+80.01	LT			5.9		5.9				
		146+80.01 to 147+61.53	LT			81.6		81.6				
		147+52.57 to 148+16.18	LT/RT			64.3		64.3				
		147+61.53 to 148+25.74	LT			64.5		64.5				
		148+16.18 to 148+45.11	LT/RT			29.8		29.8				
		148+25.74 to 148+26.03	LT			0.4		0.4				
		148+26.03 to 148+27.19	LT			5.2		5.2				
		148+27.19 to 148+31.78	LT			6.7		6.7				
		148+31.78 to 148+45.39	LT/RT			14.2		14.2				
		148+37.25 to 148+37.43	LT			0.4		0.4				
		148+37.25 to 148+37.54	LT			1.3		1.3				
		148+37.43 to 148+65.07	LT			28.5		28.5				
		148+37.54 to 148+37.73	LT			0.3		0.3				
		148+37.73 to 148+56.45	LT			20.0		20.0				
		148+45.11 to 148+45.44	RT			0.4		0.4				
		148+45.39 to 148+45.51	RT			0.4		0.4				
		148+45.44 to 148+45.51	RT			0.1		0.1				
		148+55.42 to 148+55.51	RT			0.4		0.4				
		148+55.42 to 148+58.78	RT			6.7		6.7				
		148+55.51 to 148+65.03	RT			11.0		11.0				
		148+56.45 to 148+58.78	LT/RT			9.3		9.3				
		148+65.03 to 148+66.90	RT			2.8		2.8				
		148+65.07 to 148+67.85	LT			4.3		4.3				
		148+66.41 to 148+66.90	LT/RT			17.1		17.1				
		148+66.41 to 148+67.85	LT			14.5		14.5				
		149+98.37 to 149+99.41	RT			14.5		14.5				
		149+98.37 to 150+01.14	RT			4.2		4.2				
		149+99.41 to 149+99.45	LT/RT			9.0		9.0				
		149+99.45 to 150+01.09	LT			2.4		2.4				
		150+01.09 to 150+13.31	LT			12.9		12.9				
		150+01.14 to 150+28.36	RT			28.0		28.0				
		150+11.43 to 150+13.46	RT			5.7		5.7				
		150+11.43 to 150+15.24	RT			9.5		9.5				
		150+13.31 to 150+13.46	LT/RT			0.4		0.4				
		150+15.24 to 150+28.34	RT			13.4		13.4				
		150+24.72 to 150+24.80	RT			0.8		0.8				
		150+24.72 to 150+34.42	RT			9.8		9.8				
		150+24.80 to 150+50.14	RT			25.5		25.5				
		150+34.42 to 150+39.24	RT			7.2		7.2				
		150+39.24 to 150+40.03	RT			4.5		4.5				
		150+40.03 to 150+40.31	RT			0.4		0.4		1		
		150+40.31 to 150+65.49	RT			25.3		25.3				
		150+50.14 to 151+21.21	LT/RT			72.6		72.6				
		150+65.43 to 151+24.04	RT			58.6		58.6				
		151+21.21 to 152+31.96	LT			111.4		111.4				
		151+24.04 to 151+24.05	RT			2.2		2.2		1 -		

	REVIS	SIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION
	DATE		DATE DESCRIPTION DATE



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SUMMARY OF QUANTITIES	200672	SQ-6

) AV 1754	PAY ITEM DESCRIPTION	LOCATION STA. TO STA.	— SIDE		QUANT IT	/	TOTAL	DECION	CONSTRUCTION
PAY ITEM NO.					GROSS DEDUCTIONS LENGTH TYPE LENGTH	NET LENGTH	P F	DESIGN NOTES	REMARKS
20 1 7	Concrete Curb & Gutter, Type E (CONT'D)	152+31.96 to 152+84.24	LT	LF	52.5	52.5			
		152+84.24 to 153+43.54	LT		59.4	59.4			
		153+43.54 to 153+43.55	LT		2.3	2.3			
		315+11.78 to 315+12.12	RT		3.6	3.6			
		315+11.78 to 315+87.64	RT		79.1	79.1			
		315+12.12 to 315+69.17	RT		57.6	57 . 6			
		315+69.17 to 315+91.12	RT		21.9	21.9			
		315+87.64 to 316+09.18	RT		21.8	21.8			
		315+91.12 to 316+08.82	RT		17.9	17.9			
		316+08.82 to 316+09.13	RT		0.4	0.4			
		316+09.13 to 316+09.43	RT		3.8	3.8			
		316+09.18 to 316+09.43	RT		0.4	0.4			
		316+20.50 to 316+20.72	LT		0.4	0.4			
		316+20.50 to 316+21.07	LT/RT		7.0	7.0			
		316+20.72 to 316+30.70	LT		10.0	10.0			
		316+21.07 to 316+21.28	RT		0.3	0.3			
		316+21.28 to 316+26.42	RT		5.3	5.3			
		316+26.42 to 316+33.07	RT		6.9	6.9			
		316+30.70 to 316+32.90	LT		3.0	3.0			
		316+32.90 to 316+34.60	LT/RT		7.8	7.8			
		316+33.07 to 316+34.60	RT		2.6	2.6			
		317+91.15 to 317+91.19	LT/RT		16.0	16.0			
		317+91.15 to 317+93.07	LT		2.7	2.7			
		317+91.19 to 317+93.53	RT		3.6	3.6			
		317+93.07 to 318+55.60	LT/RT		65.2	65.2			
		317+93.53 to 318+22.36	RT		28.9	28.9			
		318+22.36 to 318+29.74	RT		7.4	7.4			
		318+29.74 to 320+08.65	RT		178.9	178.9			
		318+55.60 to 318+89.30	LT/RT		34.4	34.4			
		318+80.23 to 319+55.77	LT		76.3	76.3			
		319+55.77 to 320+10.28	LT/RT		58.1	58 . 1			
		320+08.65 to 320+10.28	RT		6.9	6.9			
		321+01.55 to 321+01.56	RT		0.1	0.1			
		321+01.55 to 321+01.95	LT/RT		0.7	0.7			
		321+01.56 to 321+14.00	RT		14.7	14.7			
		321+01.95 to 322+86.20	LT		184.5	184.5			
		321+14.08 to 321+28.48	RT		14.9	14.9			
		321+28.48 to 321+29.34	RT		0.9	0.9			
		321+29.34 to 321+35.17	RT		5.9	5.9			
		321+35.18 to 321+35.33	RT		2.3	2.3			
		322+86.06 to 322+86.20	LT		2.3	2.3			
		322+86.06 to 322+86.20	LT		2.3	2.3			
		322+86.06 to 322+86.20	LT		2.3	2.3			
0 1 10	Concrete Curb & Gutter, Type F	145+80.67 to 145+80.67	RT	LF	5.6	5 . 6	2458		
		145+80.67 to 145+83.27	RT		12.2	12.2			
		145+88.17 to 146+08.69	RT		23.0	23.0			
		146+08.69 to 147+10.31	RT		101.7	101.7			
		146+74.57 to 146+78.57	LT		4.0	4.0			
		146+78.57 to 147+64.00	LT		85.5	85.5			
		147+10.31 to 147+96.03	RT		86.5	86.5			

REVISIONS

DATE DESCRIPTION DATE DESCRIPTION



			Ιi
GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.	
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	SHT. NO.	
SUMMARY OF QUANTITIES	200672	SQ-7	

		LOCATION				0	QUANT I TY						
PAY ITEM	PAY ITEM DESCRIPTION	LOCALION	SIDE	AREA UNIT						ТОТ	AL	DESIGN	CONSTRUCTION
NO .	THE PESCHITTON	STA. TO STA.		ID ONLY	GROSS L LENGTH T	DEDUCT YPE L	ENGTH	NET L P	.ENGTH F	P F	F	NOTES	REMARKS
520 1 10	Concrete Curb & Gutter, Type F (CONT'D)	147+64.00 to 148+54.53	LT	LF	92.3			92.3					
		147+96.03 to 148+37.22	RT		42.7			42.7					
		148+37.22 to 148+56.58	RT		22.4			22.4	!				
		148+54.53 to 148+76.58	LT		23.7			23.7	,				
		148+56.58 to 148+87.48	RT		72.3			72.3	,				
		148+76.58 to 149+12.38	LT		78.5			78.5					
		149+52.58 to 150+09.01	RT		66.4			66.4	.				
		149+55.60 to 149+93.02	LT		87.0			87.0					
		149+93.02 to 150+04.46	LT		13.4			13.4	!				
		150+04.46 to 150+62.44	LT		60.2			60.2	-				
		150+09.01 to 150+65.50	RT		58.0			58.0					
		150+62.44 to 151+14.07	LT		52.5			52.5					
		150+65.50 to 151+18.05	RT		52.5			52.5					
		151+14.07 to 151+75.20	LT		61.7			61.7					
		151+18.05 to 151+23.90	RT		5.9			5.9					
		151+85.11 to 152+35.37	LT		50.3			50.3					
		152+35.37 to 152+86.66	LT		51.5			51.5					
		152+86.66 to 153+37.55	LT		51.0			51.0					
		153+37.55 to 153+43.40	LT		5.9			5.9					
		313+91.78 to 314+42.65	RT		50.9			50.9					
		314+24.94 to 314+43.12	LT		18.2			18.2					
		314+42.65 to 314+81.11	RT		40.7			40.7					
		314+43.12 to 314+68.74	LT		24.7			24.7					
		314+65.00 to 314+72.37	LT		9.2			9.2					
		314+72.37 to 314+86.16	LT		12.6			12.6					
		314+86.16 to 315+65.77	LT		72.5			72.5					
		314+87.21 to 314+99.13	RT		13.4			13.4	-	-			
		314+99.13 to 315+01.07	RT		2.3			2.3		-			
		315+01.07 to 315+91.25	RT		100.2			100.2					
		315+65.77 to 315+87.56	LT		21.8			21.8					
		317+95.04 to 318+48.59	LT RT		58.2			58.2		-			
		318+23.85 to 319+87.22	_		163.4 55.7			163.4 55.7					
		318+48.59 to 319+03.65	LT LT		20.0			20.0					
		319+03.65 to 319+23.52	LT		34.5			34.5					
		319+33.39 to 319+67.88 319+67.88 to 320+86.10	LT		118.2			118.2		1			
		319+67.88 to 321+45.16	LT		177.3	+		177.3	.	1			
		319+87.22 to 320+34.95	RT		72.9	-		72.9		1			
		319+87.22 to 320+34.93 321+55.16 to 322+79.94	LT		124.6			124.6		1			
520 2 4	Concrete Curb, Type D	149+30.08 to 149+35.59	LT/RT	LF	205.8			205.8		206			
520 2 4 520 2 8	Concrete Curb, Type D Concrete Curb, Type RA	149+30.08 to 149+33.39 148+88.58 to 149+77.08	RT	LF LF	278.0			278.0	-	278			
,20 2 0	Concrete Curb, Type IM	140100.30 [0 1437//.00	1 1	L1	2/0.0			2/0.0	1	2/0			

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YA
				P.E. LICENSE
				CARDNO, INC
				380 PARK PL
				CLEARWATER
	DATE		REVISIONS DATE DESCRIPTION DATE	

YAM, P.E. SE NUMBER 62449 INC. PLACE BOULEVARD, SUITE 300 ER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	эпт. NO.
SUMMARY OF QUANTITIES	200672	SQ-8

300

	REVIS	SIONS		
DATE	DESCRIPTION	DATE	DESCRIPTION	JASON Y. YAM, P.E.
				P.E. LICENSE NUMBER 62449
				CARDNO, INC.
				380 PARK PLACE BOULEVARD, SUITE
				CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SUMMARY OF QUANTITIES	200672	SQ-9

1/19

SUMMARY OF DITCH PAVEMENT								
LOCATION	SIDE	AREA	DITCH PAVEMENT NON-REINFORCED (3")		DESIGN	CONSTRUCTION		
		I D	0524	1 1	NOTES	REMARKS		
STA. TO STA.			SY		<u>_</u>			
31A. 10 31A.			Р	F				
GATEWAY BLVD.								
145+99.33 to 146+02.60	RT	24949	0.6		CLOSED FLUME			
148+01.71 to 148+04.43	RT	20478	2.7		CLOSED FLUME			
151+79.00 to 151+81.00	LT	23043	0.7		OPEN FLUME			
GRIFFIN DR.								
319+25.86 to 319+29.01	LT	14527	2.7		OPEN FLUME			
319+90.25 to 319+95.95	RT	23053	3.2		CLOSED FLUME			
321+49.00 to 321+51.00	LT	23048	3.1		OPEN FLUME			
SUB-TOTAL:			12.9					
TOTAL:			13					

LOCATION		AREA	PERFORI TURF (SOD)	DESIGN	CONSTRUCTION
	SIDE	ID	0570	1 2	NOTES	REMARKS
STA. TO STA.		-	SY P	F		
145+78.59 to 148+31.78	LT/RT	20455	568.4			
145+80.67 to 148+48.57	RT	20969	642.6			
145+81.39 to 145+89.41	RT	20834	4.3			
145+88.69 to 146+81.89	RT	20842	49.6			
146+63.66 to 148+79.92	LT	20757	326 . 1			
146+85.54 to 147+99.45	RT	20866	60.1			
147+13.67 to 147+85.89	LT	20779	117.9			
147+77.58 to 148+12.41	LT	20794	17.1			
148+04.45 to 148+19.42	RT	20889	8.0			
148+34.49 to 149+05.80	LT	20747	44.6		<u> </u>	
148+37.26 to 148+67.85	LT/RT	21100	49.1			
148+39.09 to 148+85.40	RT	20894	35.3			
149+30.08 to 149+30.08	RT	20436	374.4		<u> </u>	
149+57.92 to 150+26.82	RT	21093	41.6			
149+66.47 to 150+20.26	LT	20639	18.8			
149+71.80 to 151+23.90	RT	21070	321.5			
149+78.47 to 153+43.40	LT	20554	1096.0			
149+98.37 to 150+28.36	LT/RT	20387	42.3			
150+24.72 to 153+43.54	LT/RT	20370	877.0			
150+42.18 to 150+84.62	LT	20602	19.7			
150+49.02 to 151+00.98	RT	21086	39.1			
313+72.30 to 313+82.69	LT	20547	11.2			
313+72.30 to 313+99.69	RT	20675	24.7			
313+88.47 to 314+03.83	RT	20682	4.2			
314+08.75 to 314+36.09	LT	20538	22.9			
314+64.30 to 316+42.55	RT	20688	114.0			
314+65.00 to 316+32.09	LT	20648	103.7			
314+76.61 to 315+56.22	RT	20702	44.2			
315+11.78 to 316+09.43	RT	20517	67.4			
315+59.66 to 316+04.93	RT	20729	23.4			
315+62.45 to 316+01.34	LT	20661	13.2			
316+20.72 to 316+34.60	LT/RT	20527	13.1			
316+23.74 to 316+33.30	LT	20670	2.4			
317+79.88 to 320+34.95	RT	20950	819.2			
317+90.13 to 318+09.52	LT	21063	12.3			
317+91.15 to 320+10.28	LT/RT	20300	332.9			
317+96.93 to 322+85.80	LT	20983	1923.1			
318+23.80 to 319+40.40	RT	20901	61.0			
318+29.85 to 318+79.41	LT	21030	26.8			
319+45.37 to 319+97.21	RT	20918	25.4			
320+61.09 to 321+35.18	RT	20335	270.3			
321+01.55 to 322+86.70	LT/RT	20341	336.6			
	SUE	B-TOTAL:	9005.5			
		TOTAL:	9006			

REVISIONS					
DATE	DESCRIPTION	DATE	DESCRIPTION		
1		1 1			



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SUMMARY OF QUANTITIES	200672	SQ-10
	ı	ı

SUMMARY OF ROOT BARRIER							
LOCATION	SIDE	ROOT BARRIER	DESIGN NOTES	CONST RUCT I ON REMARKS			
STA. TO STA.		LF P F					
145+84.67 to 146+63.54	RT	78.9					
145+96.71 to 146+08.70	RT	18.9					
146+08.70 to 146+63.58	RT	54.9					
146+63.54 to 147+52.42	RT	89.2					
146+63.58 to 147+59.19	RT	96.0					
146+74.56 to 147+63.93	LT	89.5					
146+80.01 to 147+61.44	LT	81.5					
147+12.61 to 147+20.98	LT	8.4					
147+13.53 to 147+30.26	LT	16.9					
147+20.98 to 147+63.39	LT	44.3					
147+30.26 to 147+58.73	LT	30 . 1					
147+52.42 to 148+16.03	LT/RT	64.3					
147+57.58 to 147+82.13	LT	26 . 4					
147+58.73 to 147+82.13	LT	25.1					
147+59.19 to 147+98.43	RT	39.7					
147+61.44 to 148+15.17	LT	53.9					
147+63.39 to 148+22.24	LT	60.8					
147+63.93 to 147+82.13	LT	19.2					
147+98.43 to 148+29.16	RT	31.9					
148+15.17 to 148+16.03	LT	5.8					
148+22.24 to 148+48.62	LT	27 . 7					
148+29.16 to 148+48.52	RT	22.4					
148+48.52 to 148+71.57	RT	54.0					
148+48.62 to 148+70.66	LT	23.7					
148+70.66 to 148+96.59 149+62.93 to 150+15.13	LT	56.8					
	RT	61.4					
149+66.56 to 150+11.90	LT LT	89.3 14.1					
150+11.90 to 150+25.28 150+15.13 to 150+65.51	RT	51.7					
150+25.28 to 150+59.89	LT	35.1					
150+40.35 to 150+41.09	RT	8.0					
150+40.35 to 150+50.35	RT	10.1		+			
150+41.09 to 150+65.43	RT	24.4					
150+50.35 to 151+21.42	LT / RT	72.6					
150+59.90 to 150+86.17	LT	26.7					
150+65.43 to 151+24.04	RT	58.6					
150+65.51 to 150+77.46	RT	11.9					
150+65.51 to 151+24.04	RT	58.5					
150+86.17 to 151+16.40	LT	32.6					
150+90.23 to 150+98.91	LT	8.8					
150+90.23 to 151+21.69	LT	34.1					
150+98.91 to 151+13.93	LT	15.3					
151+13.87 to 152+35.46	LT	122.2					
151+16.40 to 151+61.66	LT	47 . 7					
151+21.42 to 152+31.87	LT	111.1					
SU	B-TOTAL:	2014.5	-				
	TOTAL:	4249					

LOCATION	6105	ROOT B	ARRIER	DESIGN	CONSTRUCT I ON
	SIDE	* >	k*	NOTES	REMARKS
STA. TO STA.	-	L	F		
		Р	F		
151+21.69 to 151+61.75	LT	42.3			
152+31.87 to 152+84.16	LT	52.5			
152+35.46 to 152+86.74	LT	51.5			
152+84.16 to 153+43.54 152+86.74 to 153+43.55	LT LT	59.5 56.9			
314+66.09 to 314+72.83	LT	8.5			
314+66.57 to 314+95.07	RT	34.6			
314+72.83 to 314+86.10	LT	12.1			
314+86.10 to 315+40.13	LT	48.0			
314+95.05 to 315+95.40	RT	117.2			
315+22.20 to 315+22.70	RT	3.4			
315+22.20 to 315+87.44	RT	67.7			
315+22.70 to 315+69.18	RT	47 . 1			
315+40.13 to 315+79.31	LT	38.7			
315+69.18 to 315+91.13	RT	21.9			
315+79.31 to 315+87.42	LT	8.1			
315+87.44 to 315+91.65	RT	4.3			
315+91.13 to 315+91.65	RT	2.4			
318+06.13 to 318+54.35	LT	51.9			
318+23.77 to 319+87.15	RT	163.4			
318+54.35 to 318+85.39	LT	35.4			
318+55.78 to 318+55.80	RT	4.3			
318+55.78 to 320+08.65	RT	152.9			
318+55.80 to 318+89.50	LT/RT	34.4			
318+75.09 to 318+91.78 318+75.09 to 318+93.98	LT LT	17.7 22.5			
318+80.45 to 319+55.81	LT	76.1			
318+85.39 to 319+61.94	LT	81.7			
318+91.78 to 319+03.49	LT	11.9			
318+93.98 to 319+63.98	LT	74.9			
319+03.49 to 319+23.41	LT	20.1			
319+03.49 to 319+23.41	LT	20.1			
319+23.41 to 319+67.88	LT	44.6			
319+55.81 to 320+09.69	LT/RT	57 . 4			
319+67.88 to 320+86.10	LT	118.2			
319+87.15 to 320+18.76	RT	46.2			
320+08.65 to 320+09.69	RT	3.3			
320+62.08 to 321+35.17	RT	95.5			
320+85.97 to 322+85.95	LT	199.9			
321+02.83 to 321+14.26	RT	13.4			
321+02.83 to 322+86.25	LT/RT	183.6			
321+14.37 to 321+28.54	RT	14.6			
321+28.54 to 321+35.38	RT	6.9			
321+28.54 to 321+35.38	RT	6.9			

	REVIS	SIONS		Г
DATE	DESCRIPTION	DATE	DESCRIPTION] ,
] F
1				(
1] 3
1				(



GATEWAY BOULEVARD AT GRIFFIN DRIVE	COUNTY	SHT. NO.
INTERSECTION CONTROL (ROUNDABOUT)	PROJECT NO.	3H1. NO.
SUMMARY OF QUANTITIES	200672	SQ-11