

CONTRACT PLANS COMPONENTS

- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- LIGHTING PLANS
- FOUNTAIN & LANDSCAPE PLANS

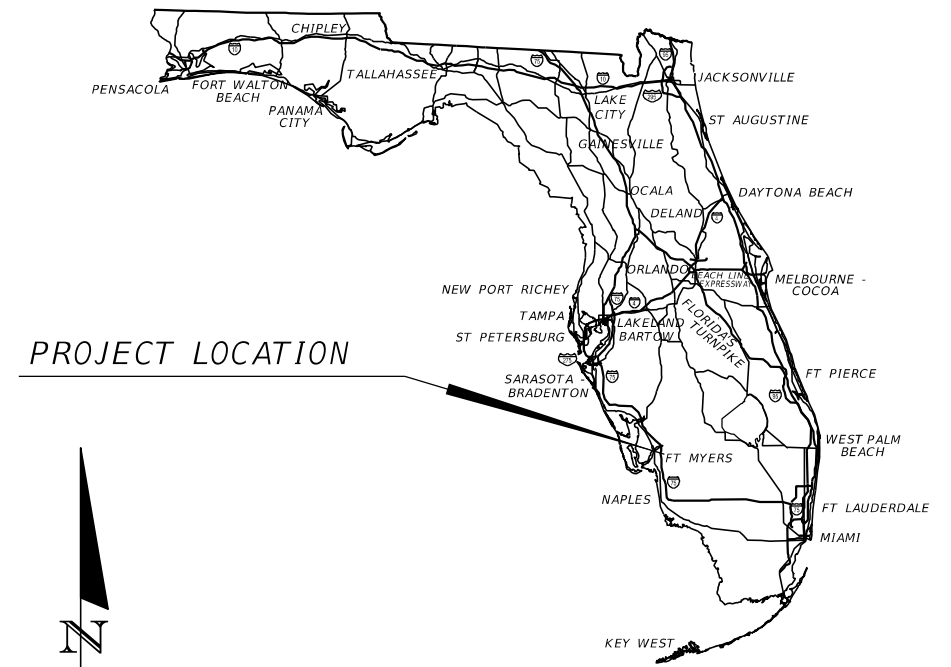
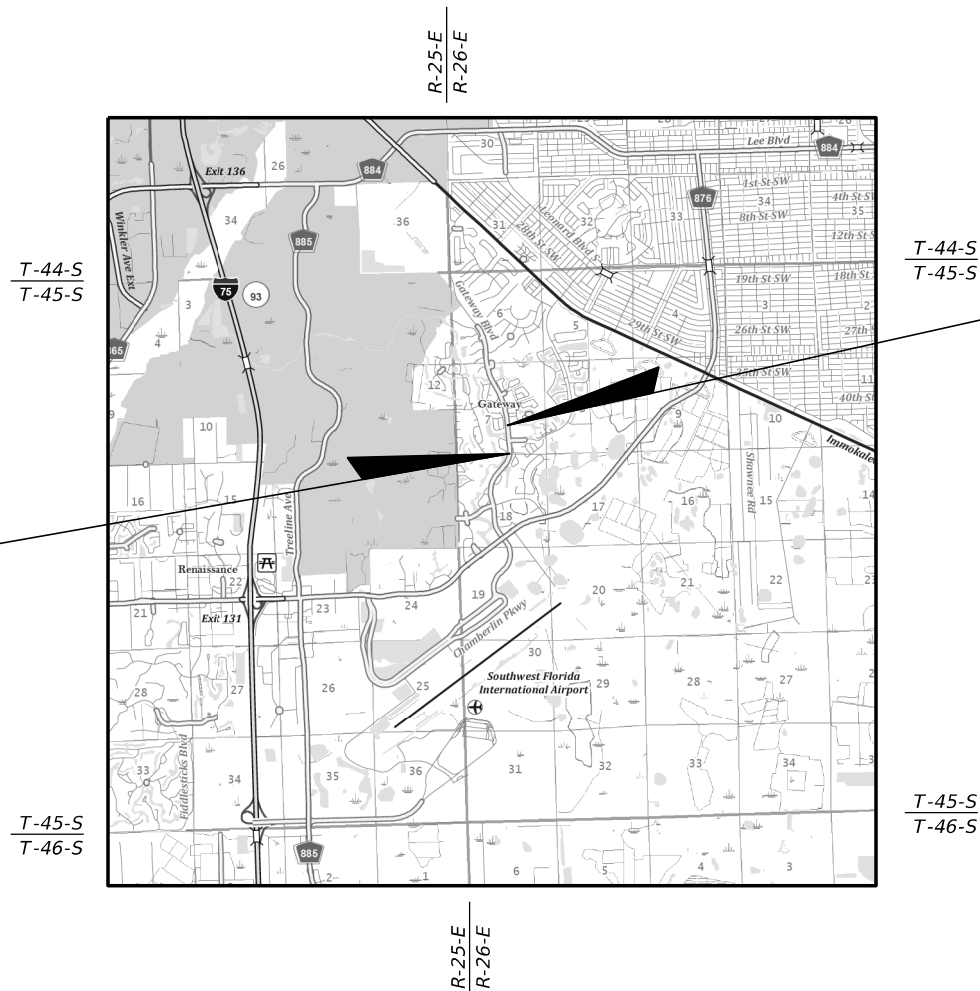
LEE COUNTY
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

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**GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDAABOUT)
LEE COUNTY PROJECT NO. 200671**



PROJECT LOCATION

END PROJECT
GATEWAY BLVD.
@ SURVEY
STA. 153+43.55

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>

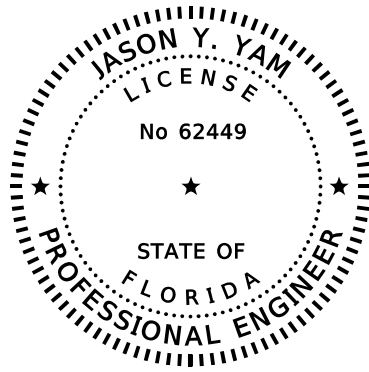
**ROADWAY PLANS
ENGINEER OF RECORD:**

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

COUNTY PROJECT MANAGER:

David M. Murphy, P.E.

CIP NO.	FISCAL YEAR	SHEET NO.
200671	22	1



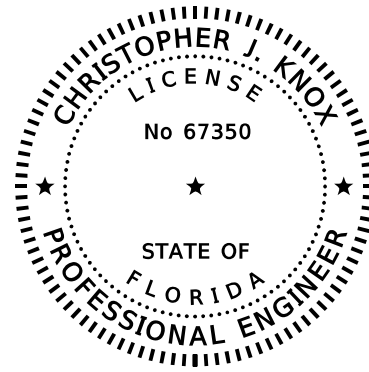
THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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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.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
1	KEY SHEET
2	SIGNATURE SHEET
3	SUMMARY OF PAY ITEMS
4-8	TYPICAL SECTIONS
9-10	TYPICAL SECTION DETAILS
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SQ-1 - SQ-11	SUMMARY OF QUANTITIES



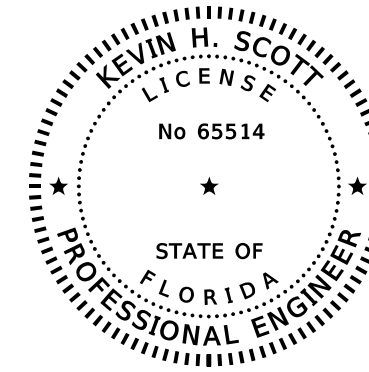
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CARDNO
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FL 33759
PHONE NUMBER: (727) 531-3505
CERTIFICATE OF AUTHORIZATION NO. 29915
CHRISTOPHER J. KNOX, P.E. 67350

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

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
2	SIGNATURE SHEET
11	SUMMARY OF DRAINAGE STRUCTURES
29-32	DRAINAGE STRUCTURES
52-54	STORMWATER POLLUTION PREVENTION PLAN
55-58	EROSION CONTROL



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TIERRA
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FL 33637
PHONE NUMBER: (813) 989-1354
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.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
2	SIGNATURE SHEET
33	ROADWAY SOIL SURVEY

REVISIONS				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 INTERSECTION CONTROL (ROUNDBOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			SIGNATURE SHEET		200671	2

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


SUMMARY OF ROADWAY			
PAY ITEM	DESCRIPTION	UNITS	QTY
0101-1	MOBILIZATION	LS	1
0102-1	MAINTENANCE OF TRAFFIC	LS	1
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	17
0107-1	LITTER REMOVAL	AC	21.5
0107-2	MOWING	AC	29.5
0110- 1- 1	CLEARING & GRUBBING (INCLUDES ***ROOT BARRIER)	LS	1
0110-4-10	REMOVAL OF EXISTING CONCRETE	SY	998
0110-7-1	MAILBOX, SINGLE, F&I	EA	1
0120-1	REGULAR EXCAVATION	CY	1367
0120-6	EMBANKMENT	CY	1795
0160-4	TYPE B STABILIZATION	SY	7780
0285-709	OPTIONAL BASE GROUP 9	SY	5321
0327-70-1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	8604
0334-1-13	SUPERPAVE ASPHALT CONC, TRAFFIC LEVEL C (2.5')	TN	1915.8
0337-7-82	ASPHALT CONCRETE FRICTION COURSE, TRAFFIC C, FC-9.5, PG76-22	TN	473.3
0350-30-13	CONCRETE PAVEMENT FOR ROUNDABOUT APRON, 12" DEPTH	SY	206.6
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
0425-2-61	MANHOLES, P-8, <10'	EA	1
0430-175-115	PIPE CULVERT, CONCRETE, ROUND 15" ID	LF	34
0430-175-118	PIPE CULVERT, CONCRETE, ROUND 18" ID	LF	217
0520- 1- 7	CONCRETE CURB & GUTTER, TYPE E	LF	2108
0520- 1- 10	CONCRETE CURB & GUTTER, TYPE F	LF	2262
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	2160
0524-1-29	CONCRETE DITCH PAVT, 4", REINFORCED	SY	13
0527-2	DETECTABLE WARNINGS	SF	280
0570-1-2	PERFORMANCE TURF, SOD	SY	8901
0919-528	DIRECTIONAL INDICATORS	SF	191
***	ROOT BARRIER (INCLUDED IN CLEARING & GRUBBING)	LF	4249

SUMMARY OF SIGNING AND PAVEMENT MARKINGS			
PAY ITEM	DESCRIPTION	UNITS	QTY
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	125
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
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE (12')	EA	1
654 2 11	RECTANGULAR RAPID FLASHING BEACON, F&I AC POWERED, COMPLETE SIGN ASSEMBLY SINGLE DIRECTION	AS	14
654-2-12	RECTANGULAR RAPID FLASHING BEACON, F&I-AC POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK	AS	1
700-1-11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	23
700-1-60	SINGLE POST SIGN, REMOVE	AS	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	LS	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
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	13
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
711-16-101	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

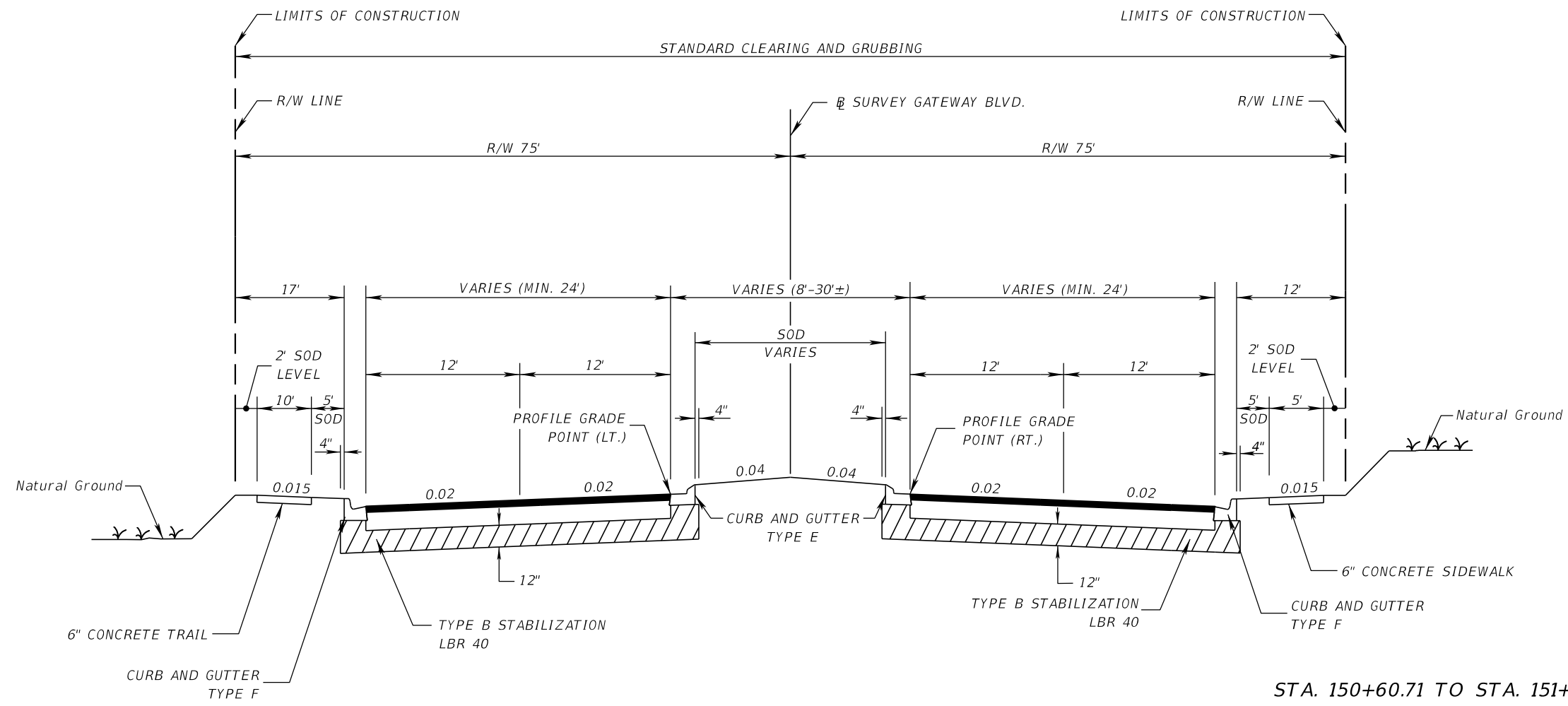
SUMMARY OF LIGHTING			
PAY ITEM	DESCRIPTION	UNITS	QTY
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	215
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	2570
635-2-11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	13
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-11 SERVICE POLE (12')	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

SUMMARY OF FOUNTIAIN			
PAY ITEM	DESCRIPTION	UNITS	QTY
10-1	UNDERGROUND MECHANICAL ROUGH IN	LS	1
10-2	ELECTRICAL WIRE AND CONDUIT	LS	1
10-3	CONCRETE EMBED ITEMS	LS	1
10-4	JETS & IN POOL ITEMS	LS	1
10-5	LIGHT FIXTURES	EA	28
10-6	DISPLAY PUMPING SYSTEMS	LS	1
10-7	WATER TREATMENT SYSTEM	LS	1
10-8	PUMP VAULT	LS	1
10-9	ELECTRICAL CONTROLS	LS	1
10-10	CONCRETE FOUNTAIN STRUCTURE	LS	1
10-11	PRECAST WALL CAP	LF	141
10-12	PRECAST WEIR	LF	32
10-13	WATERLINE TILE	SF	66
10-14	UPPER POOL AND LOWER POOL EXTERIOR TILE	SF	200
10-15	WATER STEP TILE	SF	290
10-16	INTERIOR EXTERIOR FINISH COATING	SF	2400
10-17	ELECTRIAL SERVICE	LS	1
10-18	WATER SERVICE & BACKFLOW	LS	1
10-19	START UP AND ADJUSTMENT	LS	1

SUMMARY OF LANDSCAPE & IRRIGATION			
PAY ITEM	DESCRIPTION	UNITS	QTY
20-1	ROYAL PALM	EA	4
20-2	SILVER BROMELIAD	EA	4
20-3	"SUNSHINE" BROMELIAD	EA	8
20-4	"CRUENTA" BROMELIAD	EA	16
20-5	DWARF NATAL PLUM "EM. BLANKET"	EA	44
20-6	NATIVE BLUE PORTERWEED	EA	12
20-7	ASIAN JASMINE	EA	160
20-8	ARTIFICIAL TURF	SF	1460
20-9	MIRAFI FILTER FABRIC, NON-WOVEN, LIGHT GREY COLOR	SF	1725
20-10	CLEANLINE 1/8" X 5.5" MILL FINISH	LF	340
20-11	GREY MEXICAN PEBBLES, 2-3", INSTALL AT 3"DEPTH OVER FILTER FABRIC, 255 SF	TN	3
20-12	PLANTING SOIL TO BE A COMBINATION OF TOPSOIL AND ORGANIC COMPOSTED SOIL, 3" DEPTH ALL PLANTING AREAS	CY	7
20-13	3" DEPTH, MULCH ALL PLANTING BEDS AND TREE RINGS, 2 CF BAGS.	BAGS	100
20-14	CONNECTION TO RECLAIMED WATER IRRIGATION SOURCE & METER	LS	1
20-15	ELECTRICAL SERVICE CONNECTION (ASSUME SAME AS FNTN)	LS	1
20-16	MAINLINE ISOLATION VALVE	EA	1
20-17	SLEEVING TO SIDE CONNECTION, 4" SCH 40	LF	75
20-18	MAINLINE IN SLEEVE, 1-1/2"	LF	75
20-19	CONTROL VALVE, 1"	EA	2
20-20	CONTROLLER	EA	1
20-21	LATERAL LINES IN R-BOUT	LF	450
20-22	SPRAY HEADS, 10- 12" RADIUS	EA	24
20-23	BUBBLERS TO PALMS	EA	4

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			SUMMARY OF PAY ITEMS		200671	3

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



**STA. 150+60.71 TO STA. 151+24.05 (RT.)
MILLING AND RESURFACING**

MILL (2")
AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1.5") (PG 76-22)

**STA. 147+00.89 TO STA. 148+70.70 (LT.)
STA. 147+70.34 TO STA. 148+70.09 (RT.)
MILLING AND RESURFACING**

MILL (6")
TYPE SP STRUCTURAL COURSE (TRAFFIC C) (3")
AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

**STA. 145+78.67 TO STA. 147+00.00 (RT.)
STA. 146+74.57 TO STA. 147+70.00 (LT.)
STA. 148+51.49 TO STA. 148+70.09 (RT.)
STA. 148+67.92 TO STA. 148+70.09 (LT.)
STA. 149+97.20 TO STA. 149+82.87 (LT.)
STA. 149+97.20 TO STA. 150+60.71 (RT.)
MILLING AND RESURFACING**

MILL (1")
OVERBUILD (SEE TABLE)*
AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TYPICAL SECTION (1)

GATEWAY BLVD.

- STA. 146+74.57 TO STA. 148+29.21 (LT.)
- STA. 147+77.05 TO STA. 148+43.87 (RT.)
- STA. 148+25.54 TO STA. 148+70.09 (LT.)
- STA. 148+68.33 TO STA. 148+70.09 (MED.)
- STA. 149+56.19 TO STA. 150+65.50 (RT.)
- STA. 149+82.87 TO STA. 148+70.09 (MED.)

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. 149+82.87 TO STA. 153+43.55 (LT.)

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)

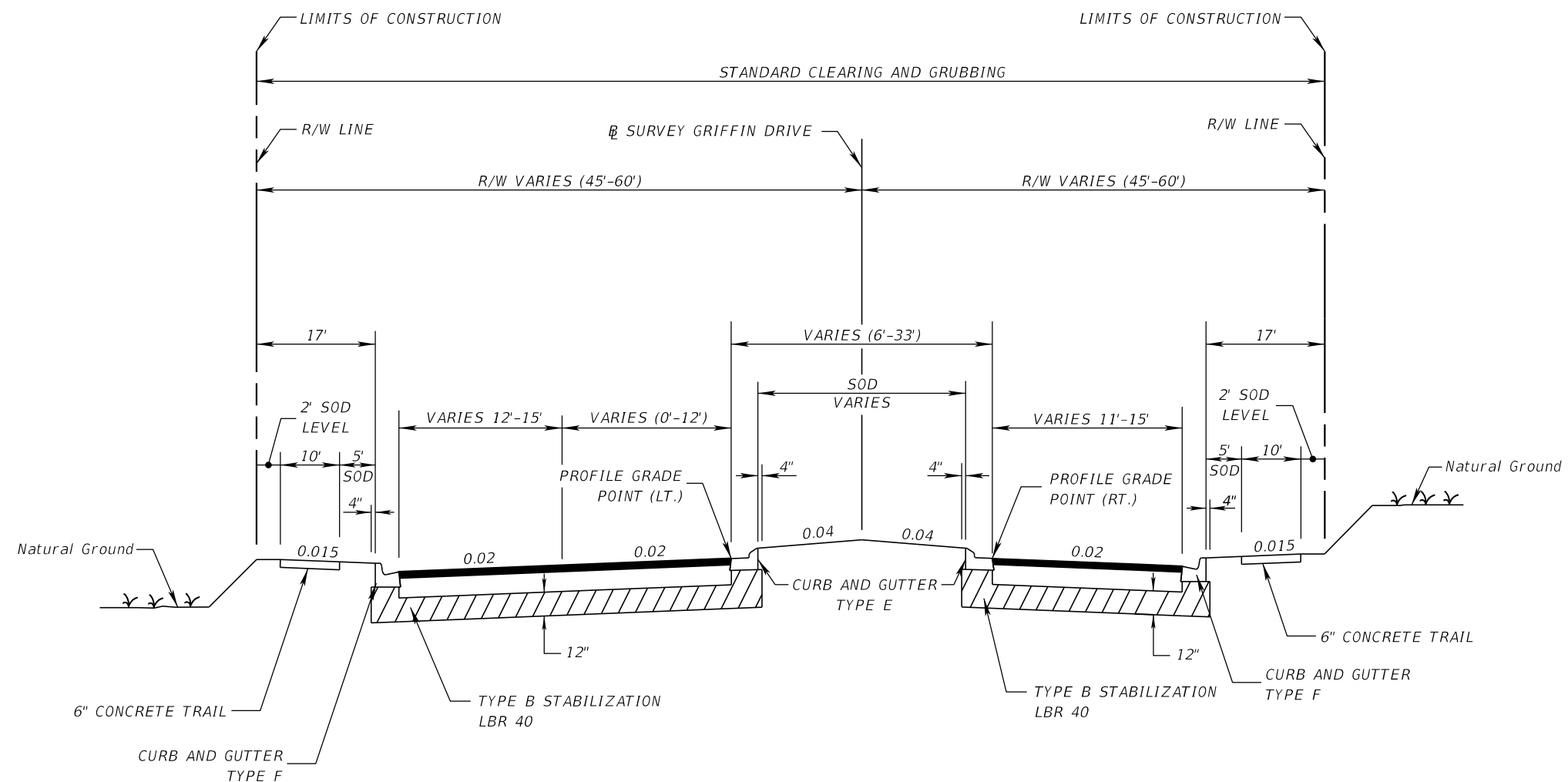
TRAFFIC DATA

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

**EXISTING BASE MATERIAL ALLOWED TO REMAIN IN PLACE AND BE REUSED FOR WIDENING AREAS

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TYPICAL SECTION (1)		200671	4

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TYPICAL SECTION (2)

GRIFFIN DRIVE

STA. 319+60.00 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. 317+88.94 TO STA. 319+60.00 (RT.)

STA. 317+88.94 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)

STA. 317+88.94 TO STA. 318+40.79 (RT.)

STA. 318+08.28 TO STA. 319+54.51 (LT.)

WIDENING

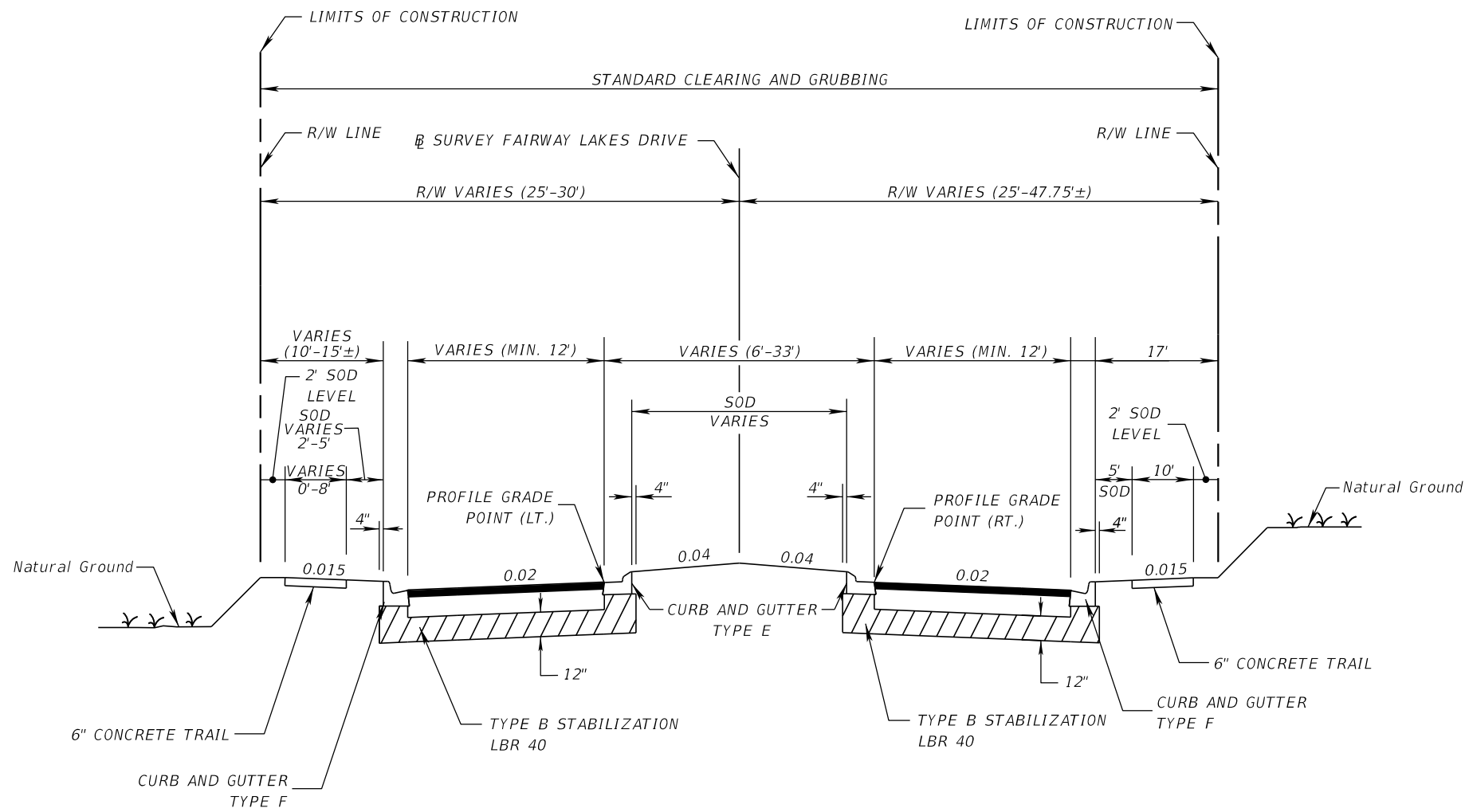
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 TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")
 AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

DESIGN SPEED = 35 MPH * SEE TYPICAL SECTION DETAIL SHEET

**EXISTING BASE MATERIAL ALLOWED TO REMAIN IN PLACE AND BE REUSED FOR WIDENING AREAS

REVISIONS				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 INTERSECTION CONTROL (ROUNDBABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TYPICAL SECTION (2)		200671	5

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STA. 314+42.89 TO STA. 315+06.92 (RT.)
 STA. 314+42.89 TO STA. 316+36.79 (LT.)
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+06.92 TO STA. 316+08.91 (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+58.96 TO STA. 315+06.92 (RT.)
 STA. 315+86.64 TO STA. 316+36.79 (MED.)
 STA. 316+20.10 TO STA. 316+58.06 (LT.)
WIDENING

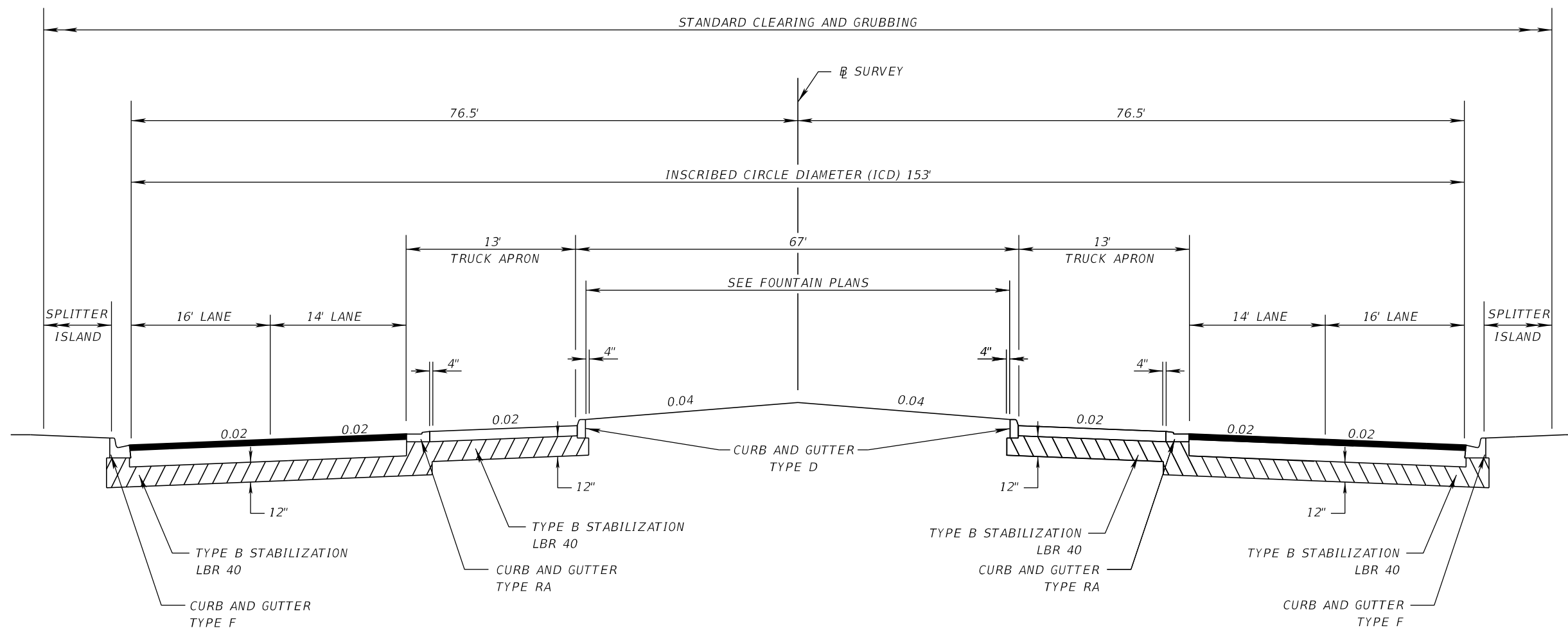
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 TYPE SP STRUCTURAL COURSE (TRAFFIC C) (2.5")
 AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

DESIGN SPEED = 25 MPH * SEE TYPICAL SECTION DETAIL SHEET

**EXISTING BASE MATERIAL ALLOWED TO REMAIN IN PLACE AND BE REUSED FOR WIDENING AREAS

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TYPICAL SECTION (3)		200671	6

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

MILLING AND RESURFACING

MILL (1")
OVERBUILD (SEE TABLE)*
AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TRUCK APRON

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

**STA. 148+70.09 TO STA. 148+91.74
STA. 149+82.87 TO STA. 149+97.33
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)

**EXISTING BASE MATERIAL ALLOWED TO REMAIN IN
PLACE AND BE REUSED FOR WIDENING AREAS

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

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



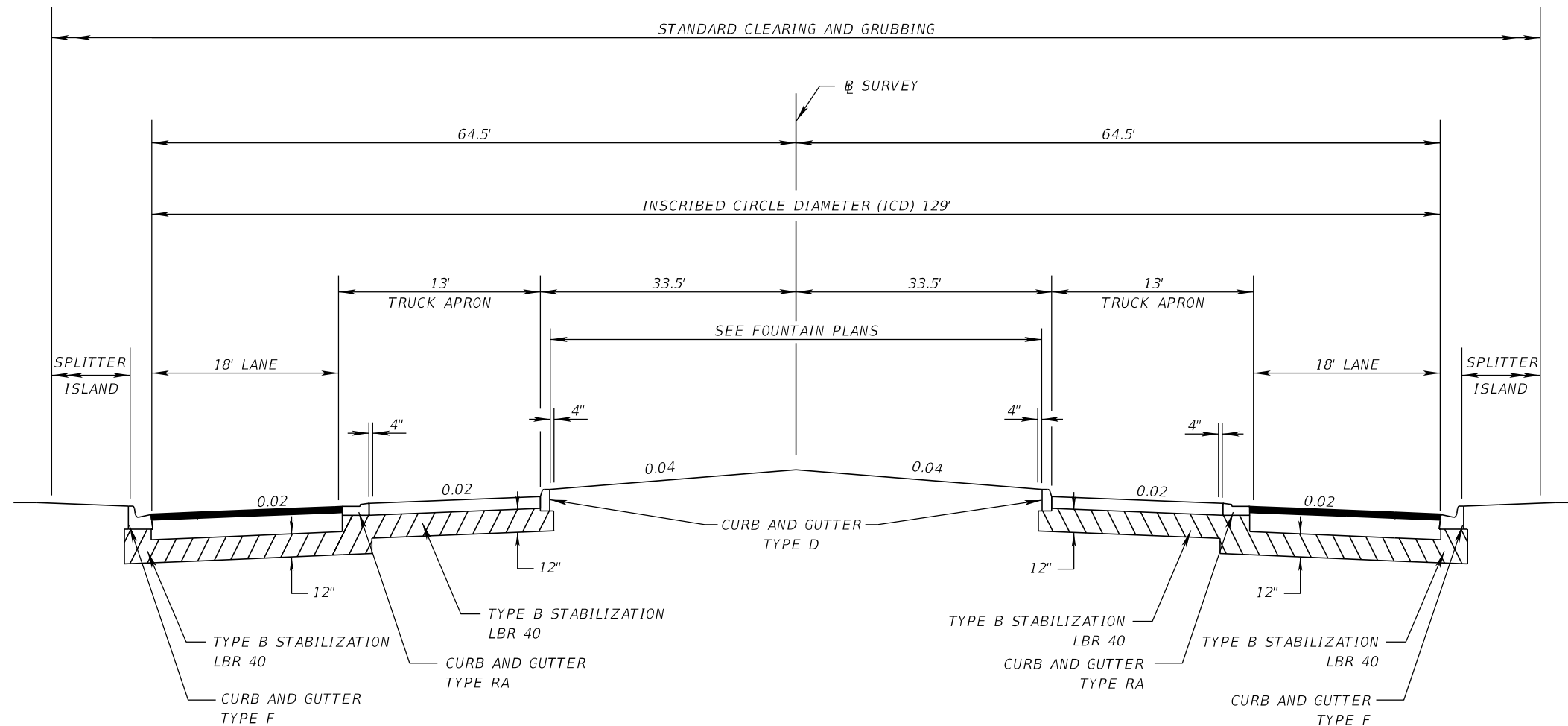
GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDABOUT)

COUNTY PROJECT NO. SHT. NO.

TYPICAL SECTION (4)

200671

7



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

MILLING AND RESURFACING

MILL (1")
 OVERBUILD (SEE TABLE)*
 AND FRICTION COURSE FC-9.5 (TRAFFIC C) (1") (PG 76-22)

TRUCK APRON

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

STA. 316+36.79 TO STA. 316+41.93
STA. 317+63.02 TO STA. 317+88.94
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)

**EXISTING BASE MATERIAL ALLOWED TO REMAIN IN
 PLACE AND BE REUSED FOR WIDENING AREAS

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
 INTERSECTION CONTROL (ROUNDABOUT)

COUNTY PROJECT NO. SHT. NO.

TYPICAL SECTION (5)

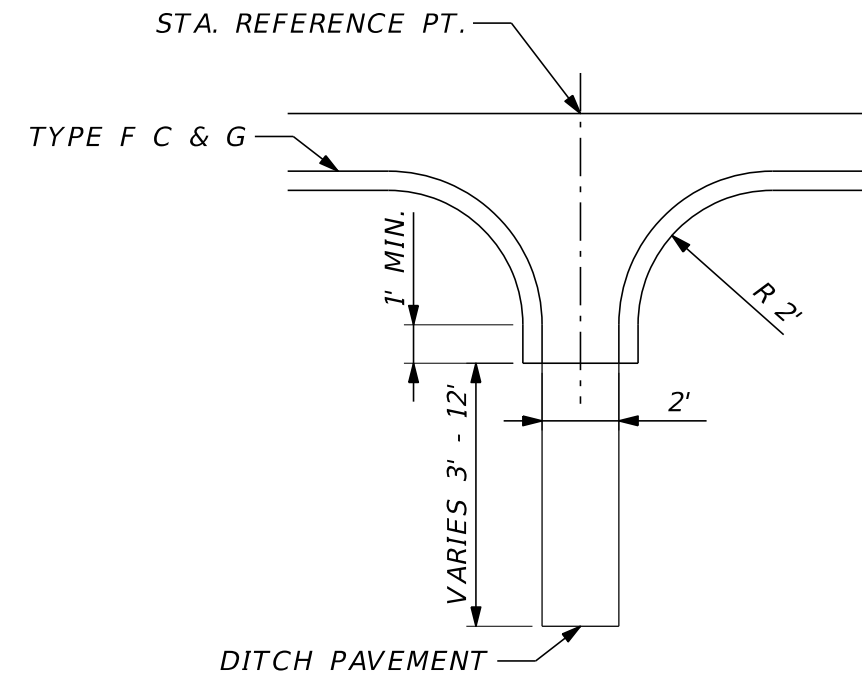
200671

8

SUMMARY OF ASPHALT OVERBUILD GATEWAY BLVD							
LOCATION		MAX DEPTH OF OVERBUIL D (IN)	WIDTH OF OVERBUIL D (FT)	LENGH OF OVERBUIL D (FT)	AREA OF OVERBUIL D (SY)	VOLUME (CY)	TYPE SP (TRAFFIC C) OVERBUIL D (TN)
STATION	LANE						
145+80	NB	0.00	0.0	-	0.0	-	-
146+00	NB	0.73	14.7	20	0.1	0.46	0.93
146+25	NB	1.76	23.6	25	0.6	3.01	6.01
146+50	NB	2.33	24.0	25	0.8	5.92	11.84
146+75	NB	1.24	24.0	25	0.4	4.98	9.95
147+00	NB	0.34	24.0	25	0.0	1.62	3.24
147+25	NB	0.00	0.0	25	0.0	0.14	0.28
148+50	NB	0.00	0.0	-	0.0	-	-
148+55	NB	0.34	0.3	5	0.1	0.06	0.11
148+75	NB	8.51	47.4	20	4.1	13.89	27.76
148+86	NB	7.21	60.0	11	5.1	17.38	34.73
149+00	NB	SEE FAIRWAY LAKES DR & GRIFFIN DR CALCULATIONS					
149+25	NB						
149+50	NB						
149+75	NB						
149+79	NB	5.80	43.7	4	3.1	2.22	4.43
150+00	NB	2.70	13.6	21	0.9	13.66	27.29
150+25	NB	1.03	19.2	25	0.6	6.02	12.03
150+50	NB	0.46	19.9	25	0.1	2.69	5.38
150+60	NB	0.00	0.0	10	0.0	0.14	0.29
TOTAL OVERBUILD GATEWAY BLVD NB (TN)							144.24

SUMMARY OF ASPHALT OVERBUILD GATEWAY BLVD							
LOCATION		MAX DEPTH OF OVERBUIL D (IN)	WIDTH OF OVERBUIL D (FT)	LENGH OF OVERBUIL D (FT)	AREA OF OVERBUIL D (SY)	VOLUME (CY)	TYPE SP (TRAFFIC C) OVERBUIL D (TN)
STATION	LANE						
146+74.57	SB	0.00	0	0.0	0.00	-	-
146+75	SB	1.38	24.26	0.4	0.28	0.02	0.04
147+00	SB	1.79	23.45	25.0	0.43	2.95	5.88
147+25	SB	2.11	22.49	25.0	0.56	4.11	8.22
147+50	SB	1.35	20.9	25.0	0.41	4.01	8.02
147+71	SB	0.00	0	21.0	0.00	1.42	2.85
148+55	SB	0.00	0	5.0	0.00	0.06	0.11
148+65	SB	2.52	11.71	10.0	0.57	0.96	1.91
148+75	SB	5.05	23.41	10.0	1.15	2.87	5.73
148+86	SB	5.97	20.81	11.3	1.81	5.59	11.17
149+00	SB	SEE FAIRWAY LAKES DR & GRIFFIN DR CALCULATIONS					
149+25	SB						
149+50	SB						
149+75	SB						
149+79	SB	1.20	52.75	4.3	0.30	0.21	0.43
150+00	SB	2.40	35.25	20.7	0.59	3.06	6.11
150+15	SB	0.00	0	15.0	0.00	1.48	2.96
TOTAL OVERBUILD GATEWAY BLVD NB (TN)							56.72

GATEWAY BLVD
OVERBUILD TABLES



CONCRETE OPEN FLUME DETAIL
GATEWAY BLVD.
STA. 151+80.00 LT.
GRIFFIN BLVD.
STA. 319+30.00 LT.

REVISIONS				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 INTERSECTION CONTROL (ROUNDAABOUT)		COUNTY	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT NO.			
						TYPICAL SECTION DETAILS (1)		200671	9

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

SUMMARY OF ASPHALT OVERBUILD GRIFFIN DR							
LOCATION		MAX DEPTH OF OVERBUILD (IN)	WIDTH OF OVERBUILD (FT)	LENGTH OF OVERBUILD (FT)	AREA OF OVERBUILD (SY)	VOLUME (CY)	TYPE SP (TRAFFIC C) OVERBUILD (TN)
STATION	LANE						
317+11.90	WB	0.00	0.0	0	0.0	-	-
317+25	WB	6.38	13.7	13	1.4	3.16	6.31
317+50	WB	10.34	23.3	25	4.5	24.94	49.82
317+75	WB	12.14	36.7	25	6.8	47.15	94.21
318+00	WB	5.00	20.1	25	1.8	35.82	71.58
318+25	WB	4.19	12.9	25	1.1	12.23	24.44
318+50	WB	4.94	11.4	25	1.1	9.43	18.84
318+75	WB	5.48	12.5	25	1.4	10.57	21.12
319+00	WB	6.02	13.5	25	1.6	12.58	25.13
319+25	WB	6.02	14.0	25	1.6	13.52	27.01
319+50	WB	6.74	14.2	25	1.9	14.60	29.17
319+75	WB	7.88	16.7	25	2.5	18.29	36.55
320+00	WB	7.10	25.3	25	2.3	19.86	39.68
320+25	WB	7.91	27.4	25	2.6	20.39	40.75
320+50	WB	8.72	29.5	25	3.0	23.40	46.76
320+75	WB	6.26	29.0	25	2.0	20.77	41.49
321+00	WB	3.80	28.5	25	1.0	12.48	24.94
321+25	WB	3.20	29.0	25	0.6	6.80	13.59
321+50	WB	2.60	29.5	25	0.3	3.72	7.44
321+75	WB	1.78	29.5	25	0.5	3.06	6.12
322+00	WB	0.97	29.5	25	0.7	4.82	9.62
322+25	WB	0.58	29.1	25	0.5	4.73	9.46
322+50	WB	0.20	28.6	25	0.2	2.81	5.62
322+75	WB	0.10	14.3	25	0.1	1.39	2.78
322+86	WB	0.00	0.0	11	0.0	0.20	0.41
TOTAL OVERBUILD GRIFFIN DR WB (TN)							502.50

SUMMARY OF ASPHALT OVERBUILD GRIFFIN DR							
LOCATION		MAX DEPTH OF OVERBUILD (IN)	WIDTH OF OVERBUILD (FT)	LENGTH OF OVERBUILD (FT)	AREA OF OVERBUILD (SY)	VOLUME (CY)	TYPE SP (TRAFFIC C) OVERBUILD (TN)
STATION	LANE						
317+11.90	EB	0.00	0.0	0	0.0	-	-
317+25	EB	2.53	13.7	13	0.3	0.69	1.38
317+50	EB	7.64	38.7	25	3.5	15.94	31.86
317+75	EB	6.26	39.8	25	5.2	36.48	72.89
318+00	EB	5.24	16.2	25	1.7	28.75	57.44
318+25	EB	5.30	13.3	25	1.5	13.10	26.18
318+50	EB	5.24	15.0	25	1.6	12.78	25.53
318+75	EB	5.12	15.0	25	1.5	12.69	25.35
319+00	EB	4.34	15.0	25	1.3	11.33	22.64
319+25	EB	1.86	15.0	25	0.7	8.08	16.15
319+50	EB	0.00	11.0	25	0.1	3.37	6.73
TOTAL OVERBUILD GRIFFIN DR EB (TN)							286.15

**FAIRWAY LAKES DR / GRIFFIN DR
OVERBUILD TABLES**

SUMMARY OF ASPHALT OVERBUILD FAIRWAY LAKES DR							
LOCATION		MAX DEPTH OF OVERBUILD (IN)	WIDTH OF OVERBUILD (FT)	LENGTH OF OVERBUILD (FT)	AREA OF OVERBUILD (SY)	VOLUME (CY)	TYPE SP (TRAFFIC C) OVERBUILD (TN)
STATION	LANE						
314+50	WB	0.00	0	0.00	0.00	-	-
314+75	WB	1.35	12.12	25	0.22	0.93	0.61
315+00	WB	2.70	12.18	25	0.45	1.86	1.22
315+25	WB	1.35	6.09	25	0.22	2.78	1.84
315+50	WB	0.00	0.00	25	0.00	0.93	0.61
315+75	WB	5.48	3.13	25	0.38	1.57	1.03
316+00	WB	3.58	12.72	25	1.09	6.10	4.03
316+25	WB	5.33	12.28	25	1.40	10.37	6.85
316+50	WB	8.36	25.79	25	4.30	23.73	15.66
316+75	WB	7.76	28.05	25	3.15	31.04	20.48
317+00	WB	2.90	11.87	25	0.43	14.93	9.85
317+11.90	WB	2.60	10.25	12	0.32	1.48	0.98
TOTAL OVERBUILD FAIRWAY LAKES DR WB (TN)							63.17

SUMMARY OF ASPHALT OVERBUILD FAIRWAY LAKES DR							
LOCATION		MAX DEPTH OF OVERBUILD (IN)	WIDTH OF OVERBUILD (FT)	LENGTH OF OVERBUILD (FT)	AREA OF OVERBUILD (SY)	VOLUME (CY)	TYPE SP (TRAFFIC C) OVERBUILD (TN)
STATION	LANE						
314+50	EB	0.00	0	0.00	0.00	-	-
314+75	EB	1.25	12	25	0.20	0.82	0.54
315+00	EB	2.50	12	25	0.40	1.65	1.09
315+25	EB	2.82	12.33	25	0.00	1.65	1.09
315+50	EB	3.14	12.66	25	0.86	3.60	2.38
315+75	EB	2.60	15	25	0.91	7.38	4.87
316+00	EB	2.42	9.96	25	0.58	6.18	4.08
316+25	EB	4.97	14.76	25	1.45	8.44	5.57
316+50	EB	0.35	37.52	25	7.25	36.23	23.91
316+75	EB	9.62	26.33	25	3.69	45.59	30.09
317+00	EB	5.54	13.7	25	1.23	20.54	13.55
317+11.90	EB	5.54	13.7	12	1.23	4.90	3.23
TOTAL OVERBUILD FAIRWAY LAKES DR EB (TN)							90.40

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
INTERSECTION CONTROL (ROUNDABOUT)**

TYPICAL SECTION DETAILS (2)

COUNTY PROJECT NO.	SHT. NO.
200671	10

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

QTY.	STRUCT. NO.	STATION	SIDE	DESCRIPTION	BARRELS	STORM SEWER PIPE		CURB INLETS	MANHOLE	DITCH BOTTOM INLETS		FLUMES	JACKET	REMARKS
						ROUND	OTHER	P-2	P-8	C	C (J-BOT)	CLOSED	16" - 30"	
						15"	18"	<10	<10	<10	<10			
GATEWAY BOULEVARD														
P	S-97	146+67	LT	DBI & PIPE	1		59			1				
F														
P	S-98	147+30	LT	DBI & PIPE	1		69			1				
F														
P	S-99	145+86	RT	CLOSED FLUME	1							1		DITCH PAVEMENT QUANTITY IN ROADWAY ITEMS
F														
P	S-100	148+01	RT	CLOSED FLUME	1							1		DITCH PAVEMENT QUANTITY IN ROADWAY ITEMS
F														
P	S-101	148+00	LT	DBI & PIPE	1		52			1				
F														
P	S-102	148+52	LT	CURB INLET	1		37	1						Cast-in-place along curb return
F														
P	S-103	148+91	LT	MH & PIPE	1	4			1				1	CONNECT TO EXIST. 15" PIPE (CONC. JACKET Index 430-001)
F														
P	S-104	151+62	LT	DBI & PIPE	1	30				1			1	CONNECT TO EXIST. 15" PIPE (CONC. JACKET Index 430-001)
F														
GRIFFIN DRIVE														
P	S-300	320+00	RT	CLOSED FLUME	1							1		DITCH PAVEMENT QUANTITY IN ROADWAY ITEMS
F														
SHEET TOTALS				PLAN QUANTITY		34	217	1	1	4	0	3	2	
				FINAL QUANTITY										

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

CURVE DATA BL_GRIFFIN_18
 PI STA. = 315+07.81
 Δ = 34° 04' 09" (LT)
 D = 35° 48' 36"
 T = 49.02
 L = 95.14
 R = 160.00
 PC STA. = 314+58.79
 PT STA. = 315+53.92

CURVE DATA BL_GRIFFIN_15
 PI STA. = 313+33.43
 Δ = 26° 44' 07" (RT)
 D = 22° 55' 06"
 T = 59.41
 L = 116.65
 R = 250.00
 PC STA. = 312+74.02
 PT STA. = 313+90.68

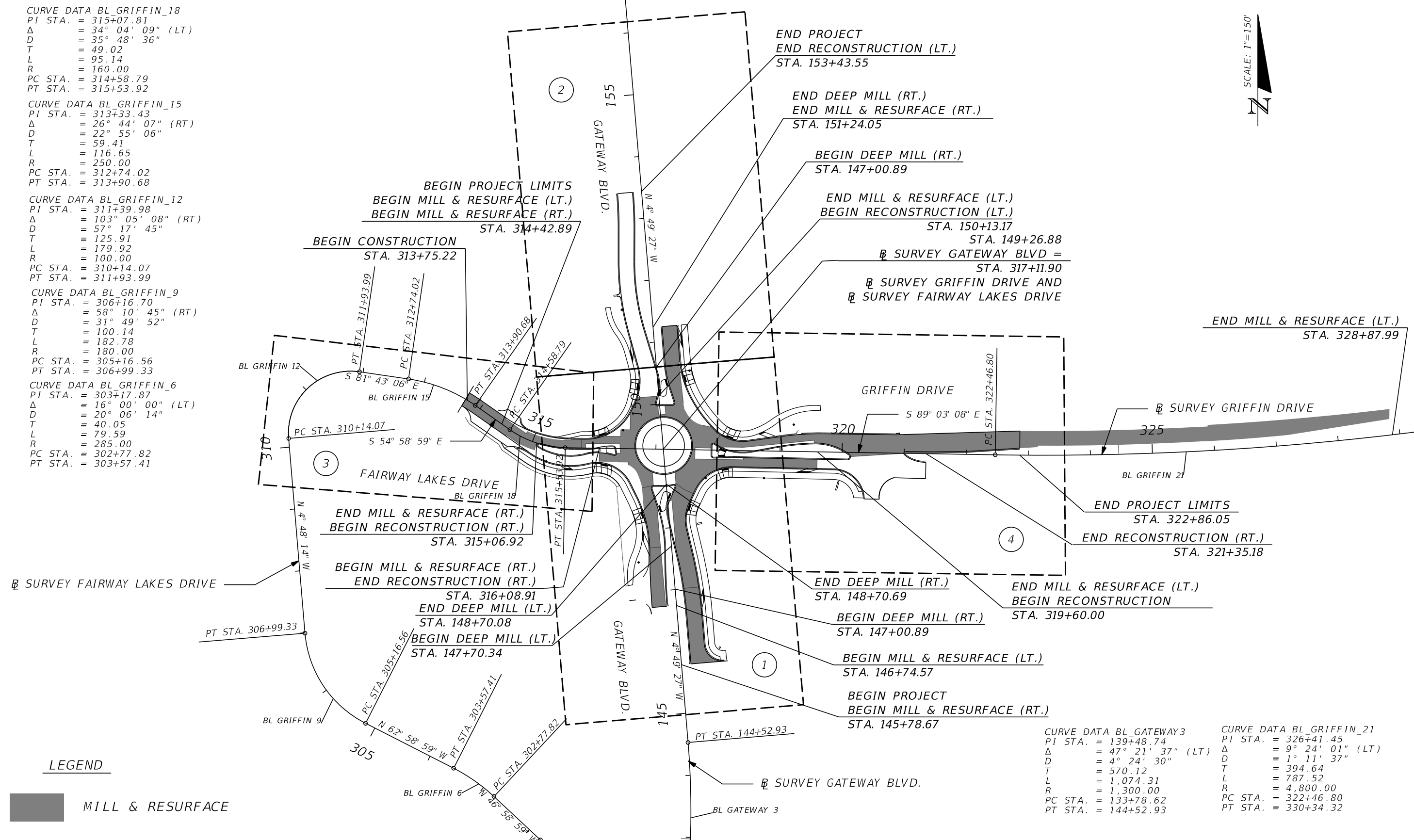
CURVE DATA BL_GRIFFIN_12
 PI STA. = 311+39.98
 Δ = 103° 05' 08" (RT)
 D = 57° 17' 45"
 T = 125.91
 L = 179.92
 R = 100.00
 PC STA. = 310+14.07
 PT STA. = 311+93.99

CURVE DATA BL_GRIFFIN_9
 PI STA. = 306+16.70
 Δ = 58° 10' 45" (RT)
 D = 31° 49' 52"
 T = 100.14
 L = 182.78
 R = 180.00
 PC STA. = 305+16.56
 PT STA. = 306+99.33

CURVE DATA BL_GRIFFIN_6
 PI STA. = 303+17.87
 Δ = 16° 00' 00" (LT)
 D = 20° 06' 14"
 T = 40.05
 L = 79.59
 R = 285.00
 PC STA. = 302+77.82
 PT STA. = 303+57.41

CURVE DATA BL_GATEWAY3
 PI STA. = 139+48.74
 Δ = 47° 21' 37" (LT)
 D = 4° 24' 30"
 T = 570.12
 L = 1,074.31
 R = 1,300.00
 PC STA. = 133+78.62
 PT STA. = 144+52.93

CURVE DATA BL_GRIFFIN_21
 PI STA. = 326+41.45
 Δ = 9° 24' 01" (LT)
 D = 1° 11' 37"
 T = 394.64
 L = 787.52
 R = 4,800.00
 PC STA. = 322+46.80
 PT STA. = 330+34.32



LEGEND

MILL & RESURFACE

REVISIONS				JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759	 DEPARTMENT OF TRANSPORTATION	GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDBABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT LAYOUT		200671	12

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

COORDINATE TABLE				
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"

ABBREVIATIONS:

- | | |
|--|--|
| AC. = ACRE | MH = MANHOLE |
| A.C. = AIR CONDITIONER | MHWL = MEAN HIGH WATER LINE |
| A.K.A. = ALSO KNOWN AS | MISC. = MISCELLANEOUS |
| ALUM. = ALUMINUM | MON = MONUMENT |
| APPR. = APPROXIMATE | NAD = NORTH AMERICAN DATUM |
| AVE. = AVENUE | N.A.V.D. = NORTH AMERICAN VERTICAL DATUM |
| BLDG. = BUILDING | NGS = NATIONAL GEODETIC SURVEY |
| BLVD. = BOULEVARD | N.G.V.D. = NATIONAL GEODETIC VERTICAL DATUM (1929) |
| BM = BENCHMARK | No. = NUMBER |
| BOC = BACK OF CURB | N.T.S. = NOT TO SCALE |
| BOW = BACK OF WALK | N.T.T. = NAIL & TIN TAB |
| BSM = BUREAU OF SURVEYING AND MAPPING | O/H = OVERHANG |
| (C) = CALCULATED | O.H.W.L. = ORDINARY HIGH WATER LINE |
| CATV = CABLE TELEVISION | O.H.W.M. = ORDINARY HIGH WATER MARK |
| CB = CATCH BASIN | O.R. = OFFICIAL RECORD BOOK / PAGE |
| CBS = CONCRETE BLOCK STRUCTURE | (P) = PLAT |
| C.C.R. = CERTIFIED CORNER RECORD | PB = PLAT BOOK |
| CDB = CHORD BEARING | P.C. = POINT OF CURVATURE |
| CH = CHORD | PCP = PERMANENT CONTROL POINT |
| CLF = CHAIN LINK FENCE | PG (S) = PAGE(S) |
| CM = CONCRETE MONUMENT | P.I. = POINT OF INTERSECTION |
| CMP = CORRUGATED METAL PIPE | PKN&D = PARKER-KALON NAIL & DISK |
| C.O. = CLEANOUT | PKWY. = PARKWAY |
| CONC. = CONCRETE | PL = PROPERTY LINE |
| CONT. = CONTROL | PLS = PROFESSIONAL LAND SURVEYOR |
| CPP = CORRUGATED PLASTIC PIPE | P.O.B. = POINT OF BEGINNING |
| COR. = CORNER | P.O.C. = POINT OF COMMENCEMENT |
| CORP. = CORPORATION | P.O.T. = POINT OF TERMINUS |
| C.P. = CONTROL POINT | PP = POWER POLE |
| C.R. = COUNTY ROAD | P.R.M. = PERMANENT REFERENCE MONUMENT |
| CT. = COURT | PROP. = PROPERTY |
| C.U.E. = COUNTY UTILITY EASEMENT | PSM = PROFESSIONAL SURVEYOR AND MAPPER |
| (D) = DEED | PT. = POINT |
| D.E. = DRAINAGE EASEMENT | P.T. = POINT OF TANGENCY |
| (DESC.) = DESCRIPTION | P.U.E. = PUBLIC UTILITY EASEMENT |
| DH = DRILL HOLE | PVC = POLY VINYL CHLORIDE |
| DIA. = DIAMETER | R = RADIUS OR RIGHT |
| DR. = DRIVE | (R) = RECORD |
| DWG. = DRAWING | RCP = REINFORCED CONCRETE PIPE |
| EL. = ELEVATION | RGE = RANGE |
| ELEC. = ELECTRIC | RLS = REGISTERED LAND SURVEYOR |
| EOP = EDGE OF PAVEMENT | R.R. = RAILROAD |
| EOW = EDGE OF WATER | RT = RIGHT |
| ERCP = ELLIPTICAL REINFORCED CONCRETE PIPE | RTA = RIGHT ANGLE |
| ESMT. = EASEMENT | R/W = RIGHT-OF-WAY |
| EXIST. = EXISTING | SEC. = SECTION |
| (F) = FIELD | S.F. = SQUARE FEET |
| FDEP = FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION | SFWM = SOUTH FLORIDA WATER MANAGEMENT DISTRICT |
| FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION | SHT. = SHEET |
| FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY | S.R. = STATE ROAD |
| F.F. = FINISHED FLOOR | S.S. = SANITARY SEWER |
| FND = FOUND | STA. = STATION |
| FPL OR FP&L = FLORIDA POWER & LIGHT | ST. = STREET |
| F.S. = FLORIDA STATUTES | SFWM = SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT |
| FT. = FOOT / FEET | T = TANGENT |
| GLO = GENERAL LAND OFFICE | TEL = TELEPHONE |
| GPS = GLOBAL POSITIONING SYSTEM | TIIF = TRUSTEES OF THE INTERNAL IMPROVEMENT FUND OF THE STATE OF FLORIDA |
| I.D. = IDENTIFICATION | TIITF = BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA |
| I.D.D. = IONA DRAINAGE DISTRICT | TOB = TOP OF BANK |
| I.N. = INSTRUMENT NUMBER | TOE = TOE OF SLOPE |
| INC. = INCORPORATED | T.P. = TRAVERSE POINT |
| INST. = INSTRUMENT | TRANS. = TRANSITION |
| INV. = INVERT | TWP = TOWNSHIP |
| I.P. = IRON PIPE | TYP = TYPICAL |
| IR = IRON ROD (5/8" DIA. U.O.N.) | U.E. = UTILITY EASEMENT |
| IRC OR IR&C = IRON ROD & CAP | U.O.N. = UNLESS OTHERWISE NOTED |
| IRR. = IRRIGATION | USGS = UNITED STATES GEOLOGICAL SURVEY |
| L = LENGTH | w/ = WITH |
| LABINS = LAND BOUNDARY INFORMATION SYSTEM (STATE OF FLORIDA) | Y.D. = YARD DRAIN |
| LAT = LATITUDE | Δ = DELTA ANGLE |
| LB = LICENSED BUSINESS | ± = MORE OR LESS |
| LN. = LANE | # = NUMBER |
| LONG = LONGITUDE | ** = STAMPING OF CAP OR DISK |
| LS = LICENSED SURVEYOR | |
| LT = LEFT | |
| (M) = MEASURED | |
| MAG = MAGNETIC | |
| ME = MITERED END | |

LEGEND:

- | | | | |
|---------------------------|------------------------------|------------------------------|---|
| AIR RELEASE VALVE | FLAG POLE | SPRINKLER | FOUND CONCRETE MONUMENT |
| BACKFLOW PREVENTER | FORCE MAIN | STEEL POST | FOUND DRILL HOLE |
| BENCH MARK | FORCE MAIN AIR RELEASE VALVE | TELEPHONE BOX OR VAULT | FOUND IRON ROD |
| BOLLARD | GAS PIPELINE MARKER | TELEPHONE CANISTER | FOUND IRON ROD & CAP |
| CABLE RISER | GROUND LIGHT | TELEPHONE FLAG | FOUND NAIL |
| CABLE TV BOX | GUARD RAIL | TELEPHONE MANHOLE | FOUND NAIL & DISK |
| CATCH BASIN | GUY POLE | TELEPHONE RISER | FOUND PARKER KALON NAIL |
| CENTERLINE | GUY WIRE | TOE OF SLOPE | FOUND PARKER KALON NAIL & DISK |
| CLEANOUT | HANDICAP PARKING | TOP OF BANK | SET CONCRETE MONUMENT |
| COORDINATE NUMBER | HOSE BIB | TRAFFIC SIGNAL BOX | SET DRILL HOLE |
| CONCRETE POWER POLE | IRRIGATION BOX | TRAFFIC SIGNAL POLE | SET 5/8" IRON ROD & CAP "CARDNO LB 7975" U.O.N. |
| DRAINAGE MANHOLE | IRRIGATION VALVE | UNKNOWN UTILITY VAULT OR BOX | SET MAG NAIL & DISK "CARDNO LB 7975" U.O.N. |
| ELECTRICAL BOX | LIGHT POLE | UNKNOWN UTILITY MANHOLE | |
| ELECTRIC OUTLET | MAIL BOX | UNDERGROUND UTILITIES | |
| ELECTRIC METER | MITERED END | WATER MAIN | |
| ELECTRIC LINE | WELL | WATER LINE FLAG | |
| ELECTRIC FLAG | OVERHEAD POWER LINE | WATER METER | |
| EXISTING ELEVATION | OVERHEAD TELEPHONE LINE | WATER VALVE | |
| FENCE - BARBED WIRE | POWER POLE | WOOD SUPPORT POLE | |
| FENCE - CHAIN LINK | POWER POLE w/RISER | YARD DRAIN | |
| FENCE - WOOD | RECLAIM WATER LINE FLAG | CROSS WALK SIGNAL POLE | |
| FIBER OPTIC MARKER / POST | SEWER LINE FLAG | CROSS WALK BUTTON POLE | |
| FIBER OPTIC BOX | SANITARY SEWER LINE | BUSH | |
| FIRE HYDRANT | SEWER MANHOLE | CABBAGE PALM | |
| FIRE VALVE | SEWER VALVE | OAK TREE | |
| | SECURITY SENSOR | PALM TREE | |
| | SIGN SINGLE POST | PINE TREE | |
| | SIGN DOUBLE POST | SHADE TREE (VARIOUS TYPE) | |

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
INTERSECTION CONTROL (ROUNDABOUT)


PROJECT CONTROL

COUNTY PROJECT NO. 200671
SHT. NO. 13

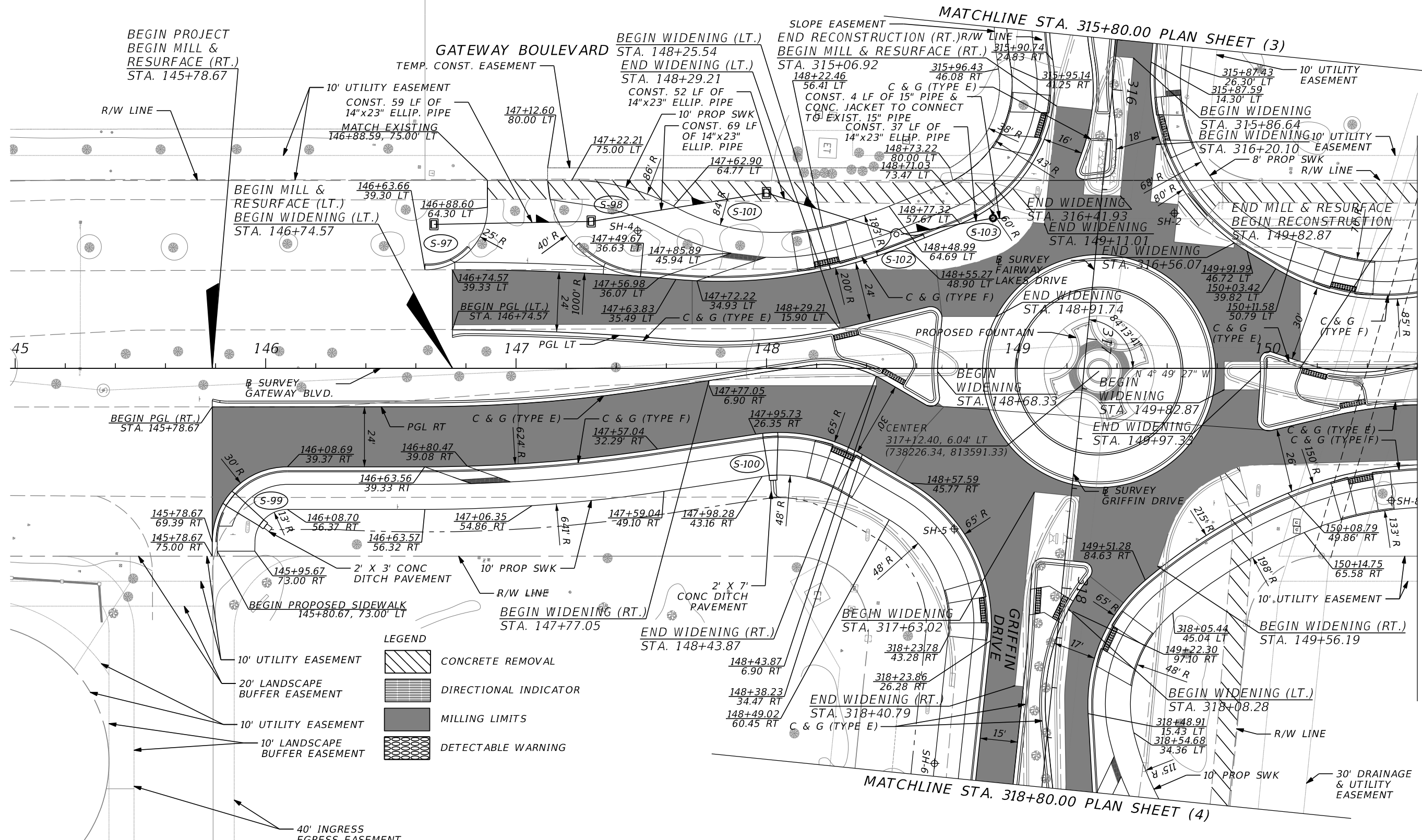
PROJECT NOTES:

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.
3. 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 LCDOT PRIOR TO CONSTRUCTION.

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
SUMMIT BROADBAND	TIMOTHY GREEN	729-243-5251
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).
9. 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.
17. ALL EXISTING DRAINAGE STRUCTURES ARE TO REMAIN UNLESS NOTED ON THE ROADWAY PLANS.
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 OF 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. 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.
24. THE CONTRACTOR SHALL PROVIDE A DETAILED MAINTENANCE OF TRAFFIC PLAN, SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL ENGINEER (WITH ADVANCED FDOT MOT CERTIFICATION). MOT PLAN SHALL BE DESIGNED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD, LATEST EDITION) AS WELL AS THE FDOT SERIES 600 STANDARD INDEXES AS AMENDED BY THE SPECIFICATIONS FOR THIS PROJECT.
25. THE MEDIAN SIGNAGE FOR FAIRWAY LAKES OFFICE PARK AND GRIFFIN DR. SHALL BE DISPOSED OF WITH CLEARING AND GRUBBING.

REVISIONS				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 INTERSECTION CONTROL (ROUNDAABOUT)	COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			PROJECT NOTES	200671	14

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



MATCHLINE STA. 150+60.00 PLAN SHEET (2)

LEGEND

	CONCRETE REMOVAL
	DIRECTIONAL INDICATOR
	MILLING LIMITS
	DETECTABLE WARNING

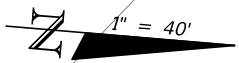
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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

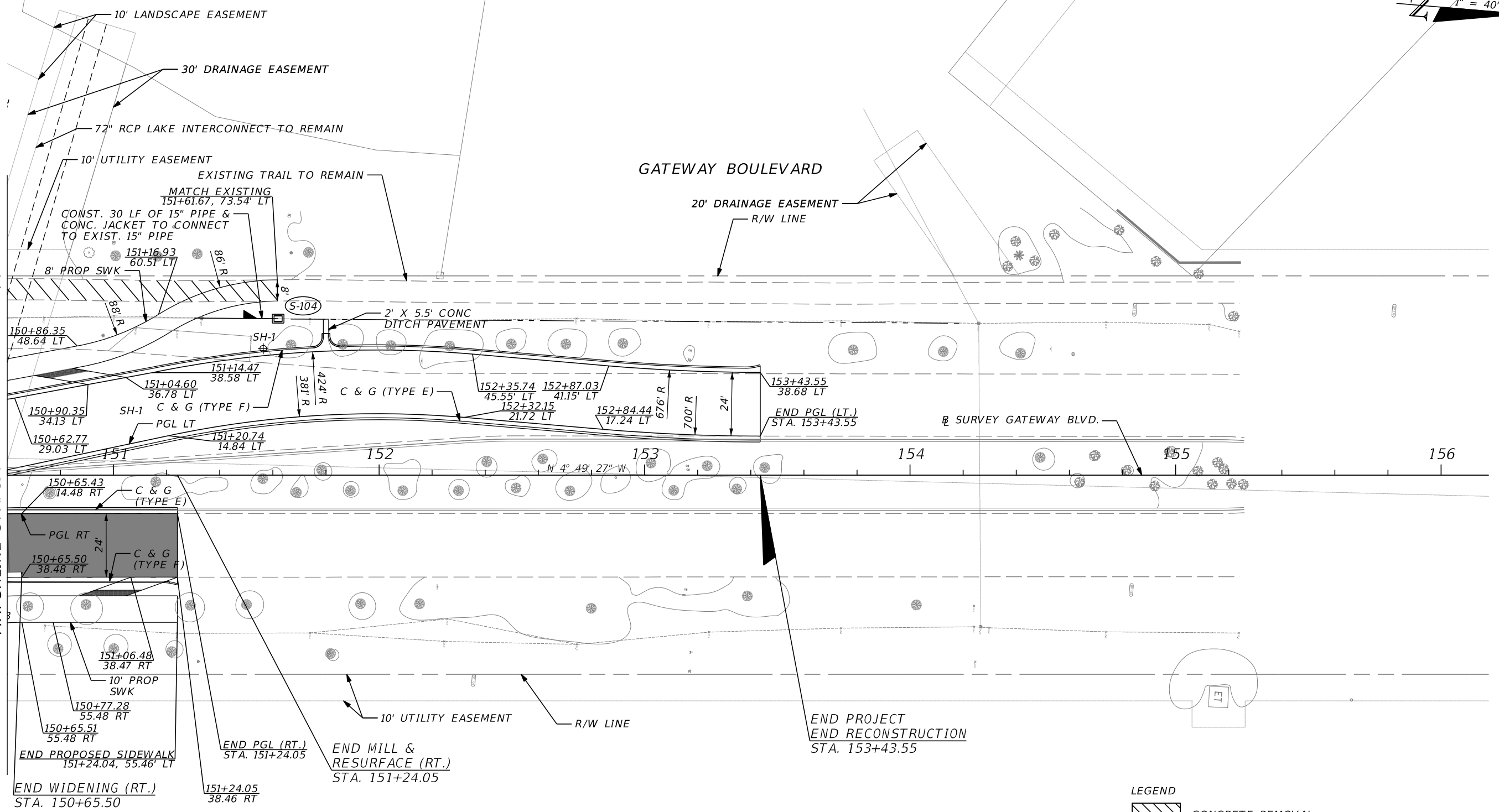


GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
PLAN SHEET (1)

COUNTY PROJECT NO.	SHT. NO.
200671	15



MATCHLINE STA. 150+60.00 PLAN SHEET (1)



LEGEND

	CONCRETE REMOVAL
	DIRECTIONAL INDICATOR
	MILLING LIMITS
	DETECTABLE WARNING

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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

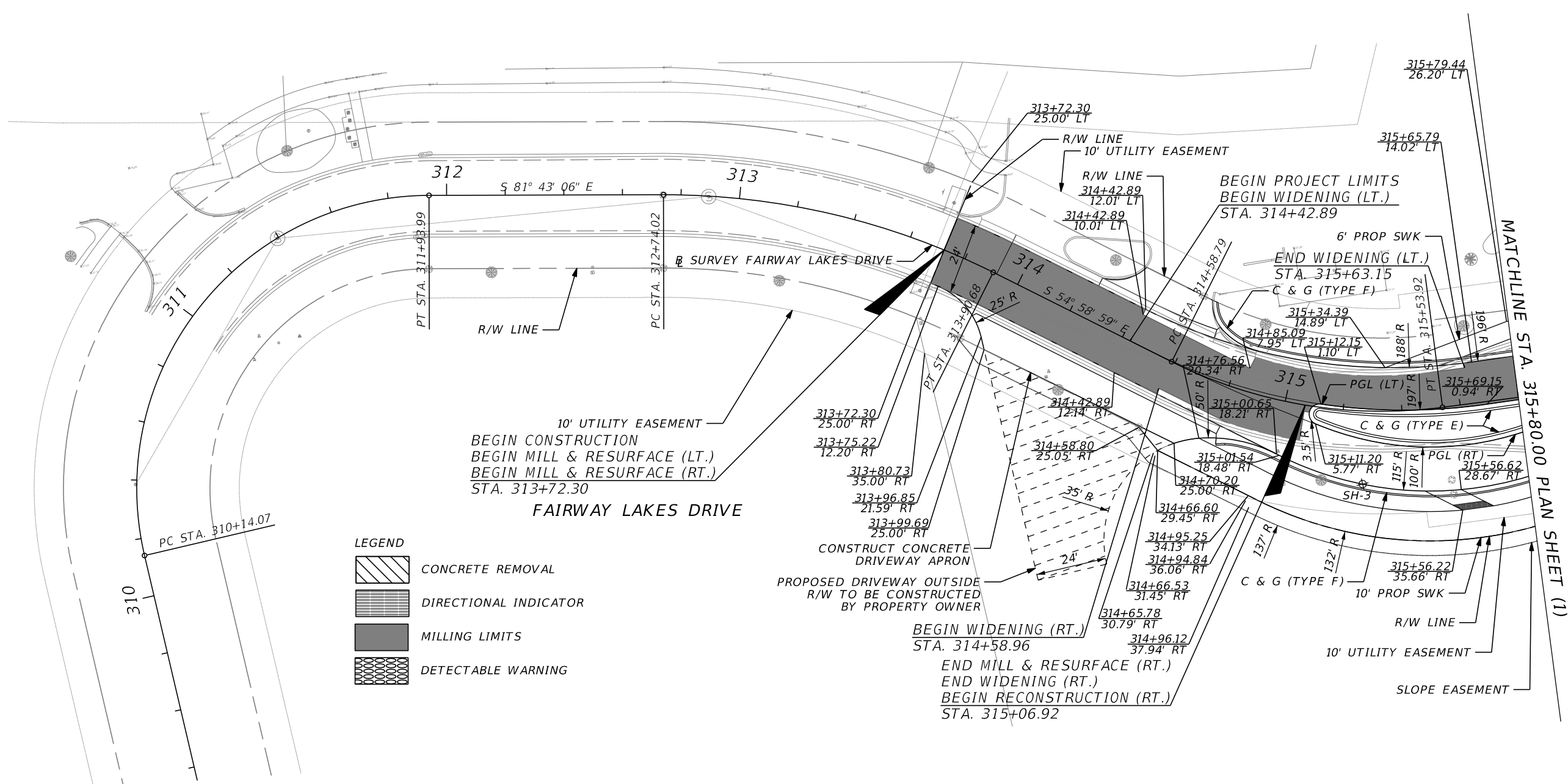


GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDABOUT)

PLAN SHEET (2)

COUNTY PROJECT NO.	SHT. NO.
200671	16

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- LEGEND**
- CONCRETE REMOVAL
 - DIRECTIONAL INDICATOR
 - MILLING LIMITS
 - DETECTABLE WARNING

10' UTILITY EASEMENT
 BEGIN CONSTRUCTION
 BEGIN MILL & RESURFACE (LT.)
 BEGIN MILL & RESURFACE (RT.)
 STA. 313+72.30
FAIRWAY LAKES DRIVE

CONSTRUCT CONCRETE
 DRIVEWAY APRON
 PROPOSED DRIVEWAY OUTSIDE
 R/W TO BE CONSTRUCTED
 BY PROPERTY OWNER

BEGIN WIDENING (RT.)
 STA. 314+58.96
 END MILL & RESURFACE (RT.)
 END WIDENING (RT.)
 BEGIN RECONSTRUCTION (RT.)
 STA. 315+06.92

MATCHLINE STA. 315+80.00 PLAN SHEET (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



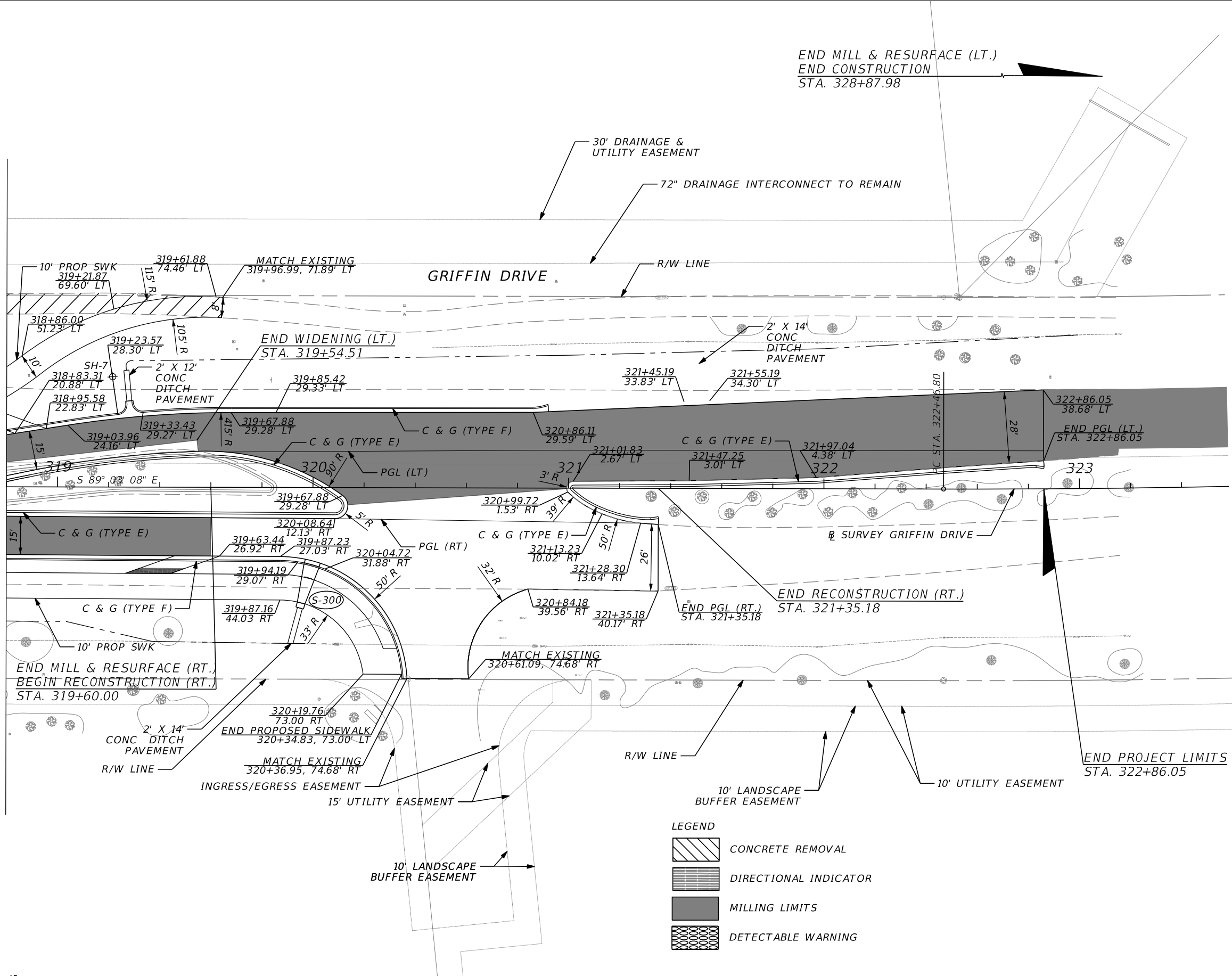
GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
PLAN SHEET (3)

COUNTY PROJECT NO.	SHT. NO.
200671	17

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MATCHLINE STA. 318+80.00 PLAN SHEET (1)



LEGEND

	CONCRETE REMOVAL
	DIRECTIONAL INDICATOR
	MILLING LIMITS
	DETECTABLE WARNING

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JASON Y. YAM, P.E.
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 380 PARK PLACE BOULEVARD, SUITE 300
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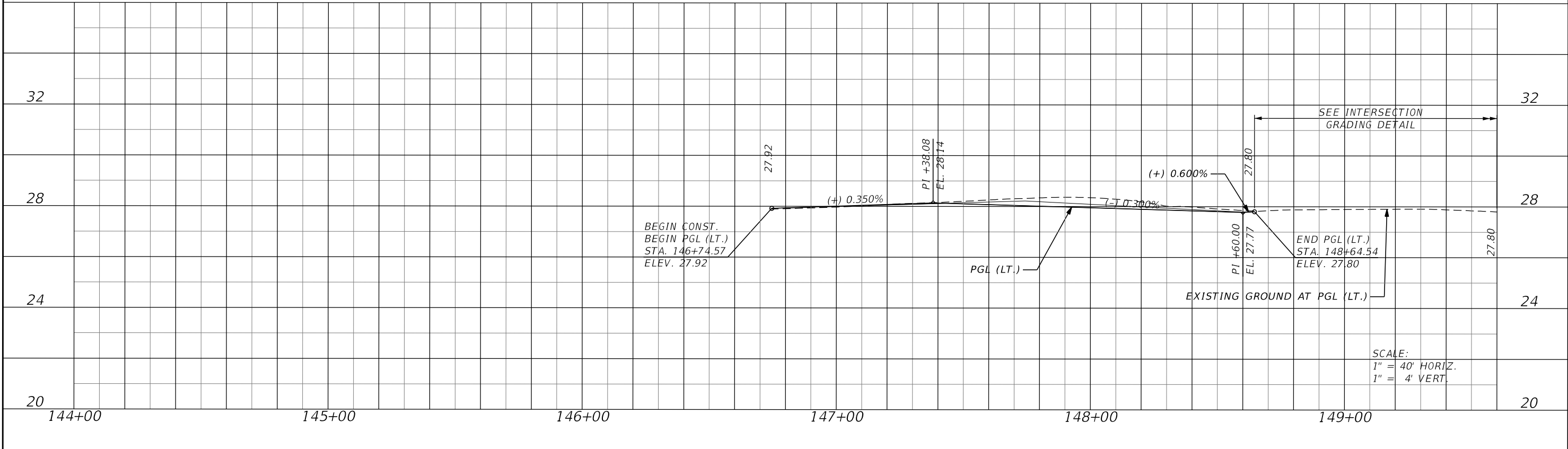
GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDAABOUT)

PLAN SHEET (4)

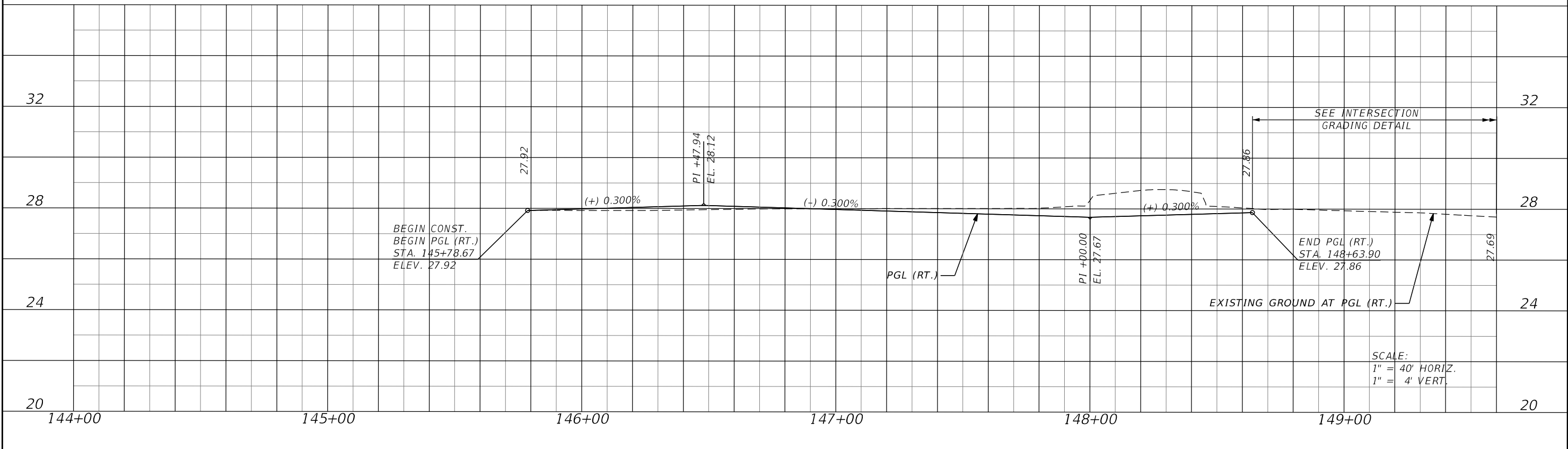
COUNTY PROJECT NO.	SHT. NO.
200671	18

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LEFT PROFILE GRADE LINE



RIGHT PROFILE GRADE LINE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759

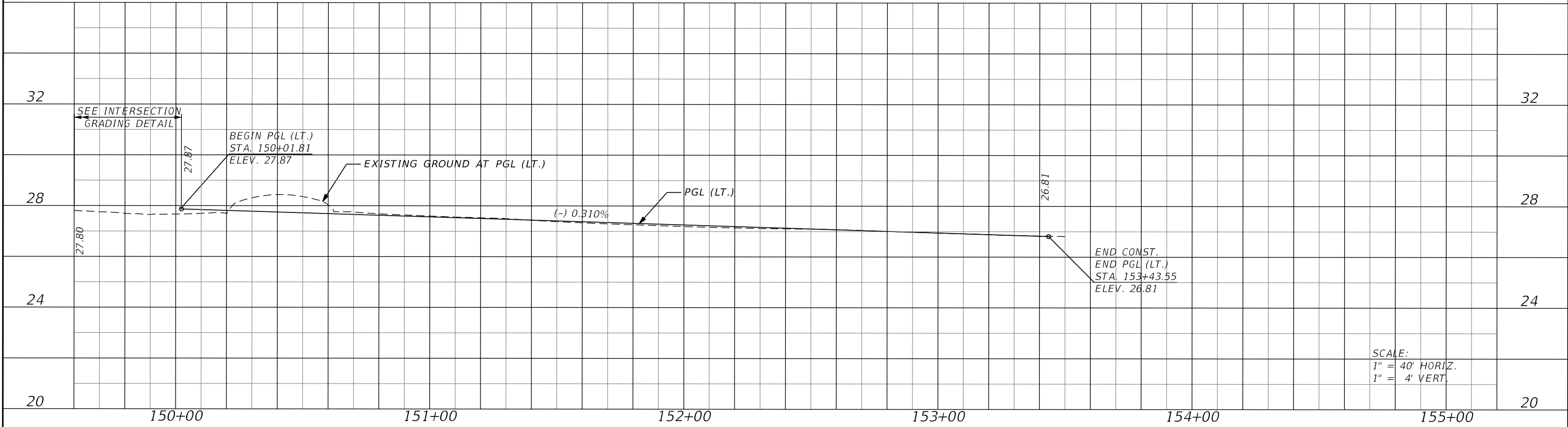


GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
ROADWAY PROFILE (1)
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	19

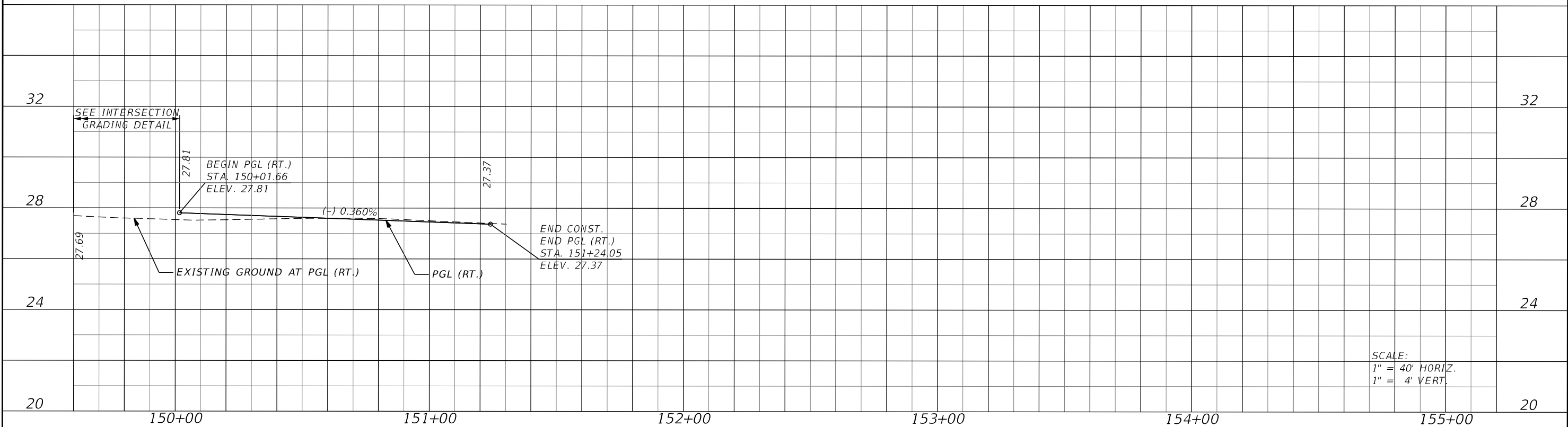
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LEFT PROFILE GRADE LINE



SCALE:
1" = 40' HORIZ.
1" = 4' VERT.

RIGHT PROFILE GRADE LINE



SCALE:
1" = 40' HORIZ.
1" = 4' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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380 PARK PLACE BOULEVARD, SUITE 300
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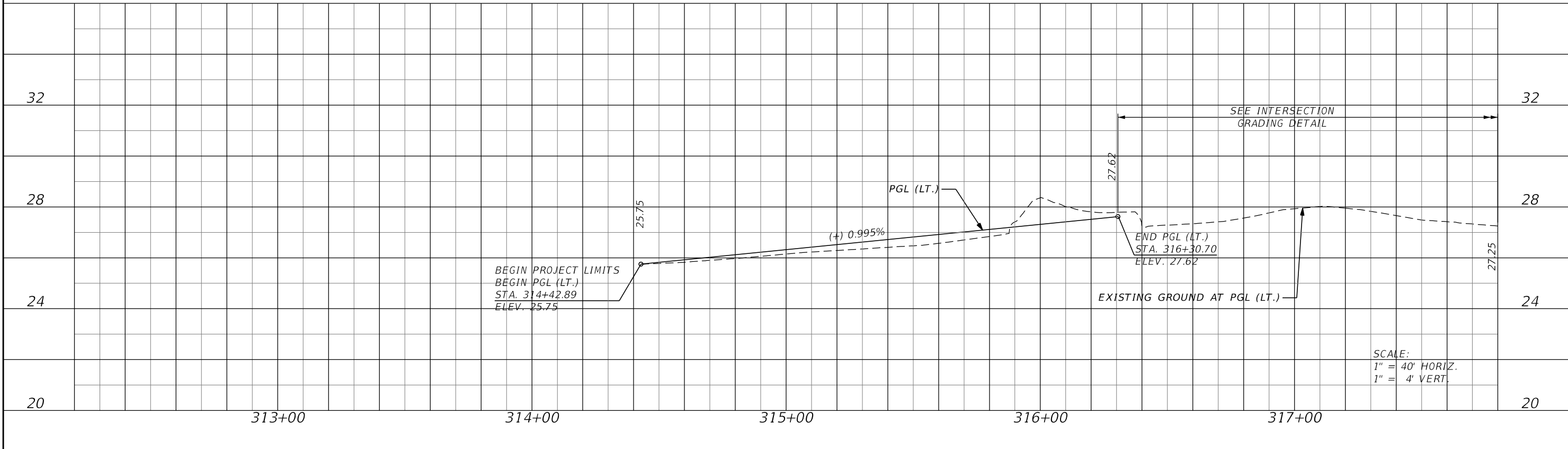


GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDBOUT)
ROADWAY PROFILE (2)
(GATEWAY BOULEVARD)

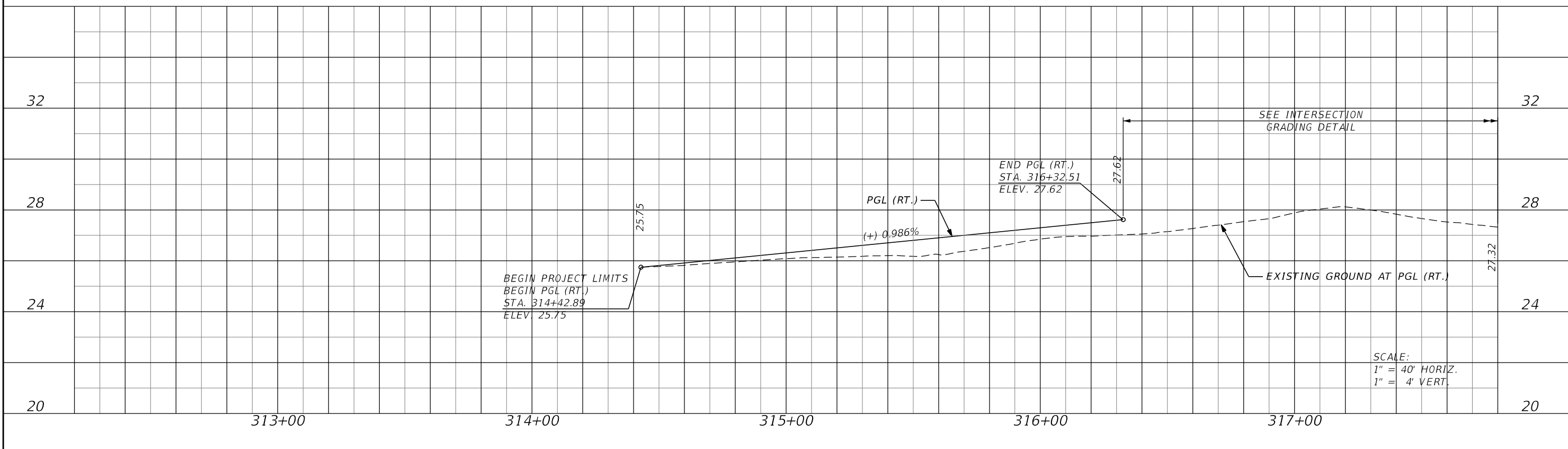
CIP NO. 200671
SHT. NO. 20

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LEFT PROFILE GRADE LINE



RIGHT PROFILE GRADE LINE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

JASON Y. YAM, P.E.
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 380 PARK PLACE BOULEVARD, SUITE 300
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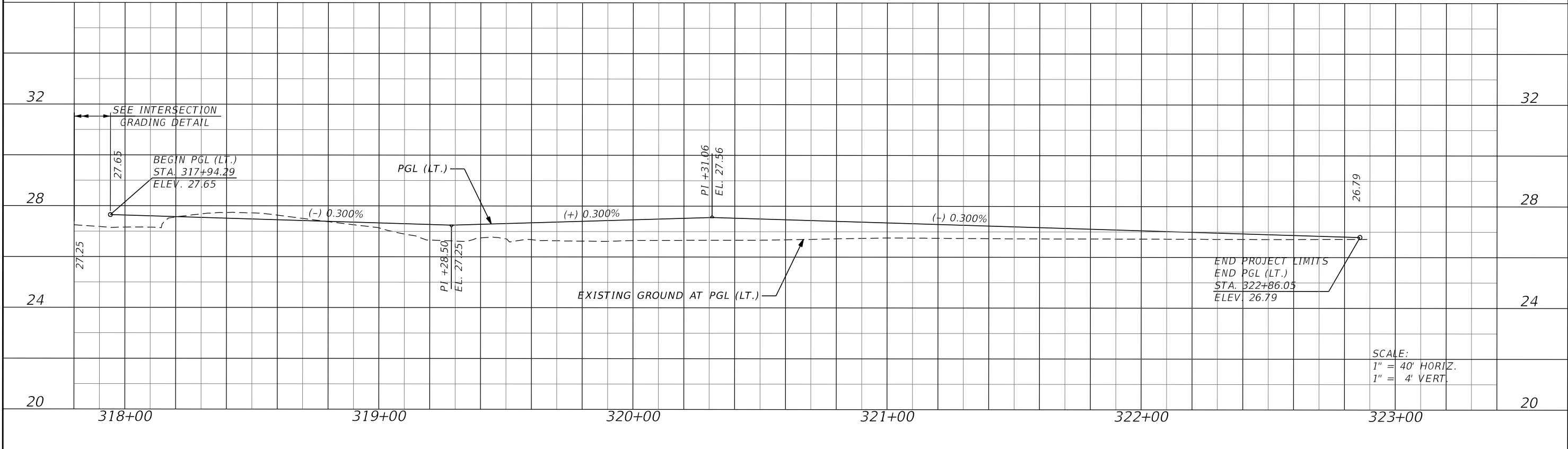


GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
ROADWAY PROFILE (3)
 (FAIRWAY LAKES DRIVE)

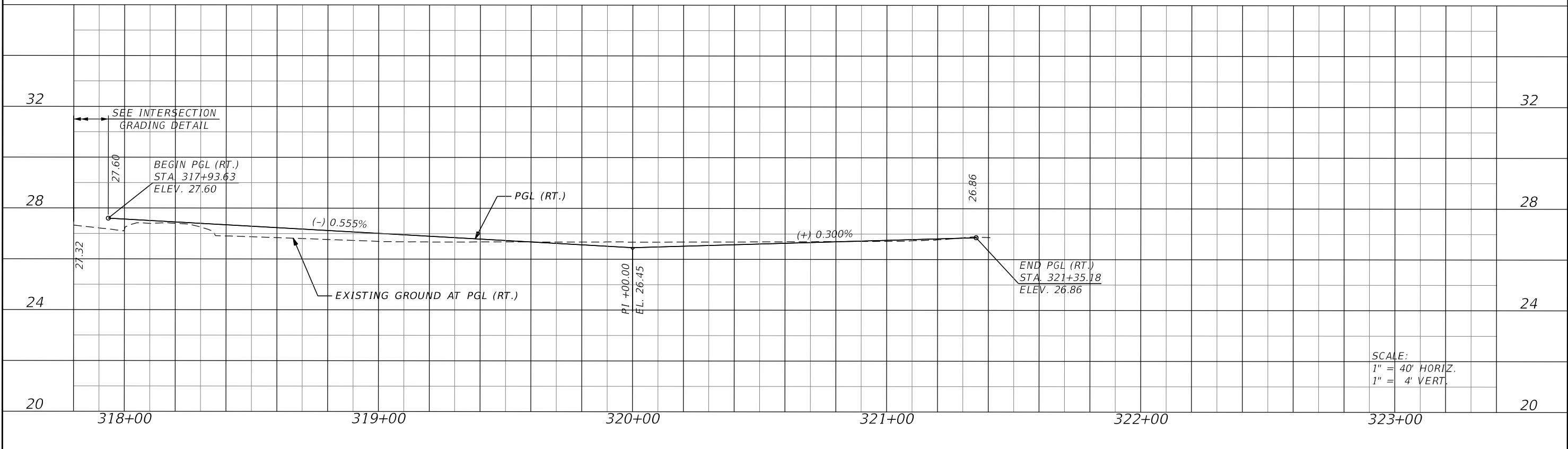
CIP NO.	SHT. NO.
200671	21

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LEFT PROFILE GRADE LINE



RIGHT PROFILE GRADE LINE



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

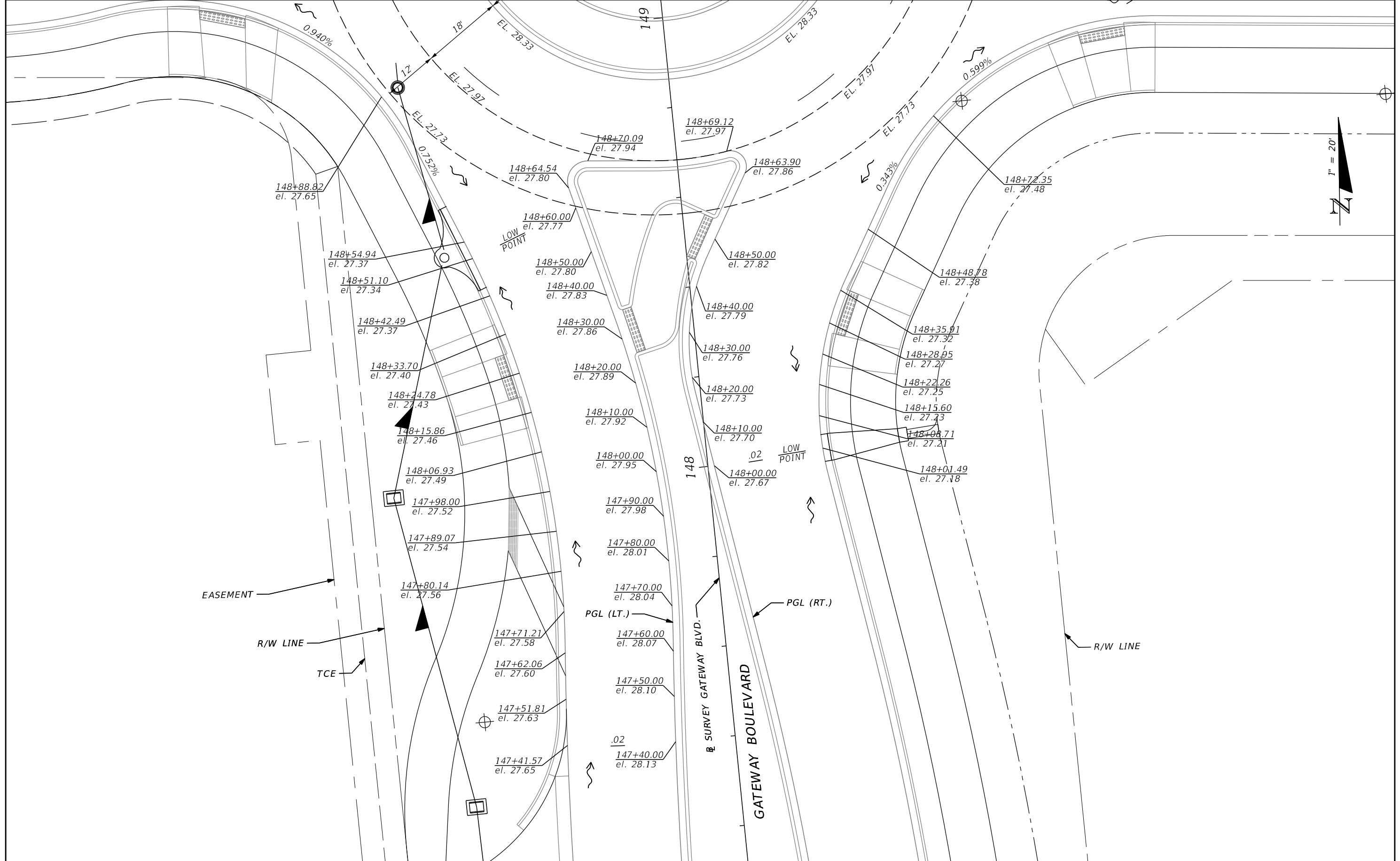
JASON Y. YAM, P.E.
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 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
ROADWAY PROFILE (4)
(GRIFFIN DRIVE)

CIP NO.	SHT. NO.
200671	22

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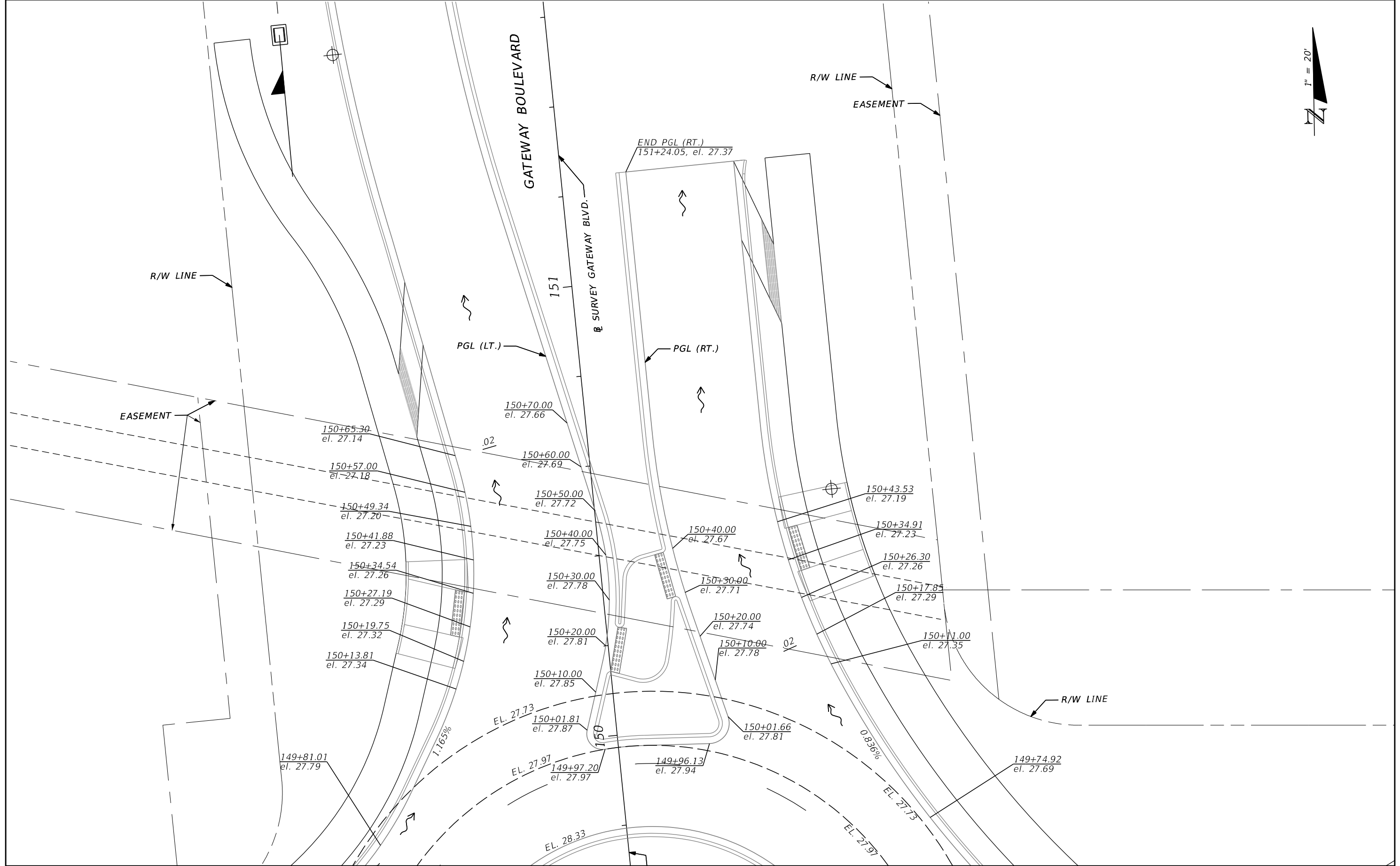
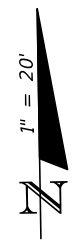
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDAABOUT)
INTERSECTION GRADING
DETAIL (1)

COUNTY PROJECT NO.	SHT. NO.
200671	24



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

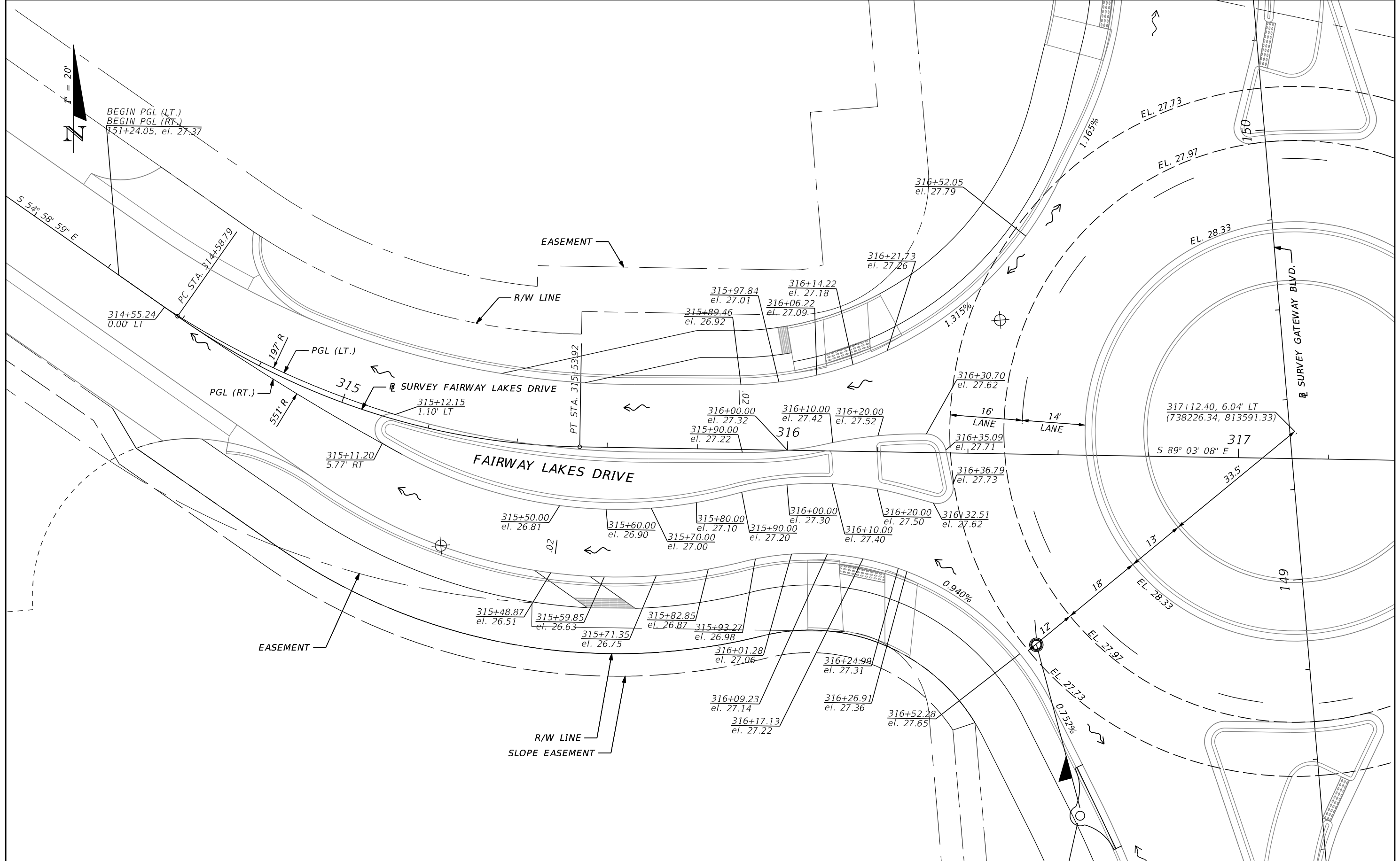
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBABOUT)
INTERSECTION GRADING
DETAIL (2)

COUNTY PROJECT NO.	SHT. NO.
200671	25

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

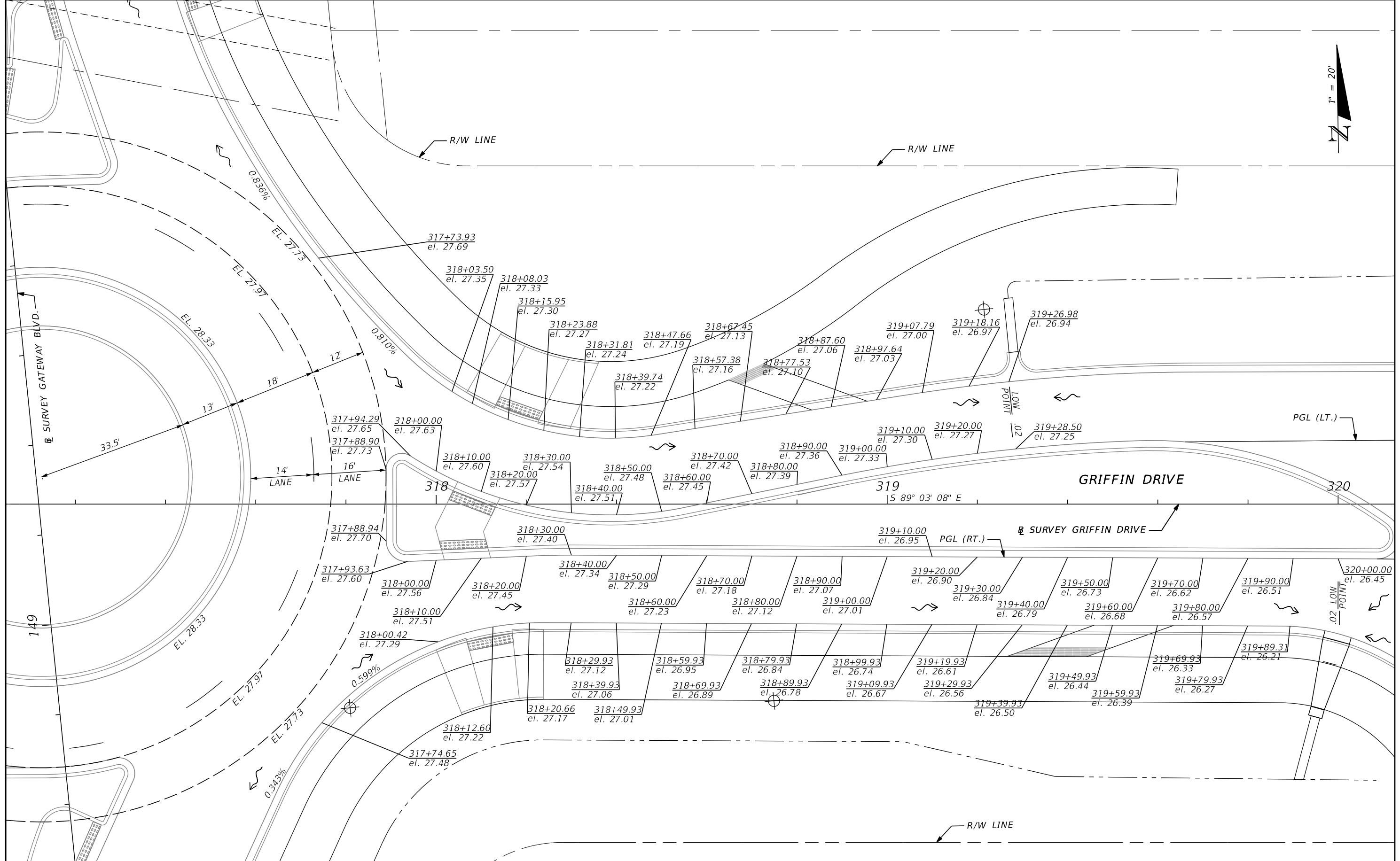
JASON Y. YAM, P.E.
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CARDNO, INC.
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CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDABOUT)
INTERSECTION GRADING
DETAIL (3)

COUNTY PROJECT NO.	SHT. NO.
200671	26

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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

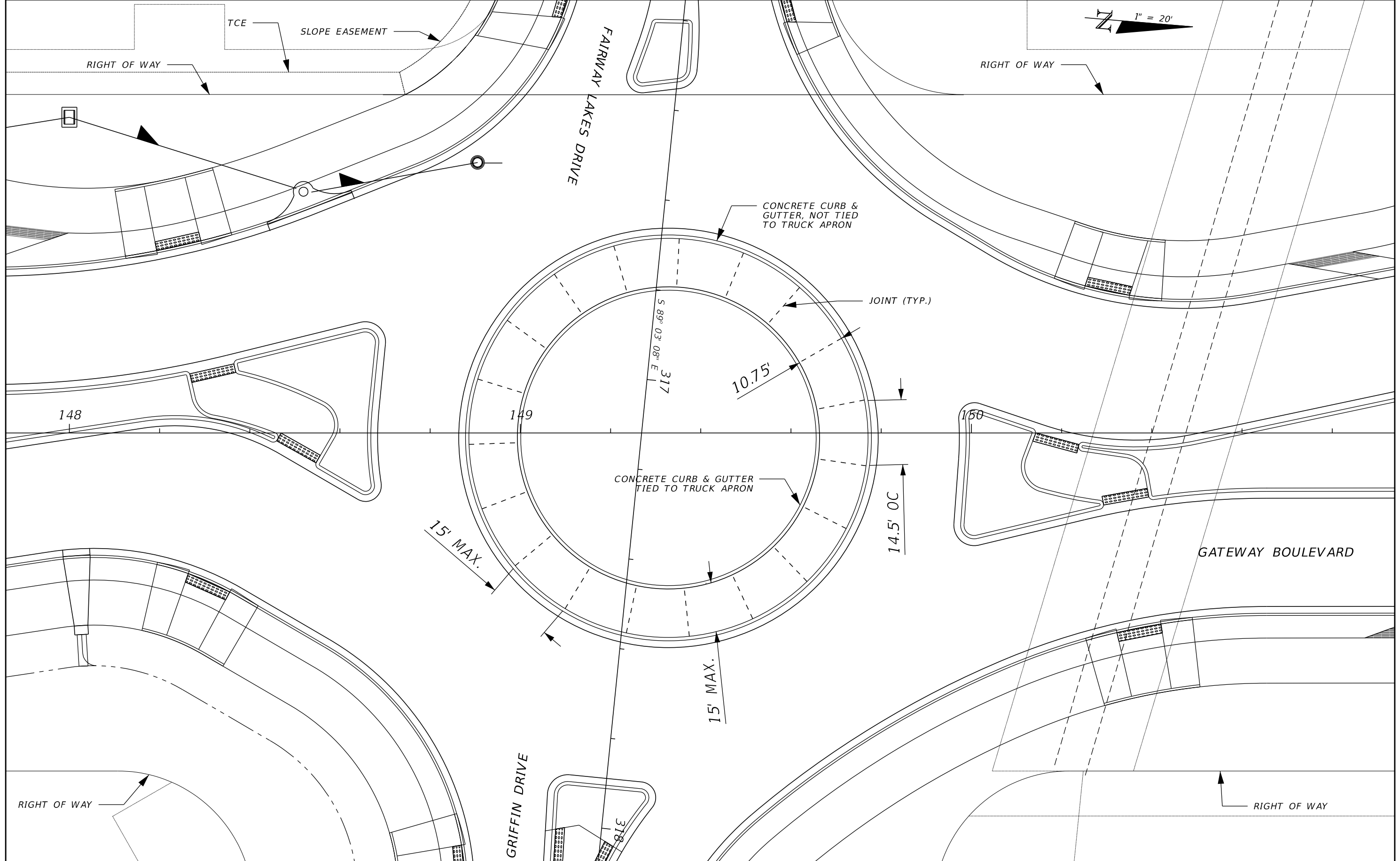
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBABOUT)
INTERSECTION GRADING
DETAIL (4)

COUNTY PROJECT NO.	SHT. NO.
200671	27

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

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
INTERSECTION CONTROL (ROUNDABOUT)
JOINT LAYOUT DETAIL

COUNTY PROJECT NO.	SHT. NO.
200671	28

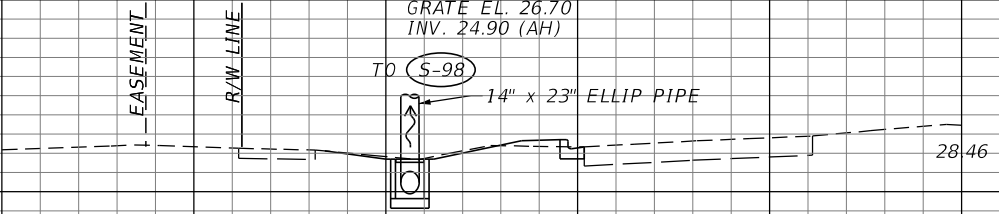
← SURVEY GATEWAY BLVD.

(S-97)
 STA 146+67.00, 57.49' LT
 CONST. DBI TYPE C
 FDOT INDEX 425-052
 GRATE EL. 26.70
 INV. 24.90 (AH)

TO (S-98)
 14" x 23" ELLIP PIPE

(S-97)
 146+67.00

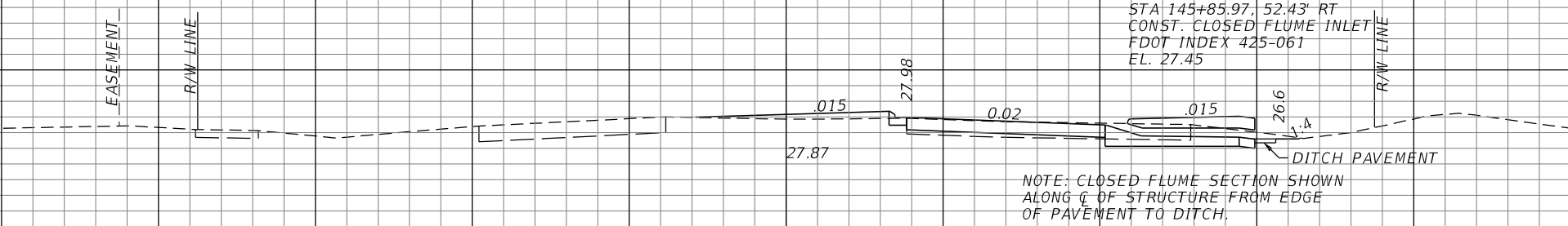
34
32
30
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26
24
22
20
18



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18

(S-99)
 STA 145+85.97, 52.43' RT
 CONST. CLOSED FLUME INLET
 FDOT INDEX 425-061
 EL. 27.45

(S-99)
 145+85.97



NOTE: CLOSED FLUME SECTION SHOWN
 ALONG C OF STRUCTURE FROM EDGE
 OF PAVEMENT TO DITCH.

← SURVEY GATEWAY BLVD.

1" = 10' Vertical

140 120 100 80 60 40 20 0 20 40 60 80 100 120

REVISIONS	
DATE	DESCRIPTION

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



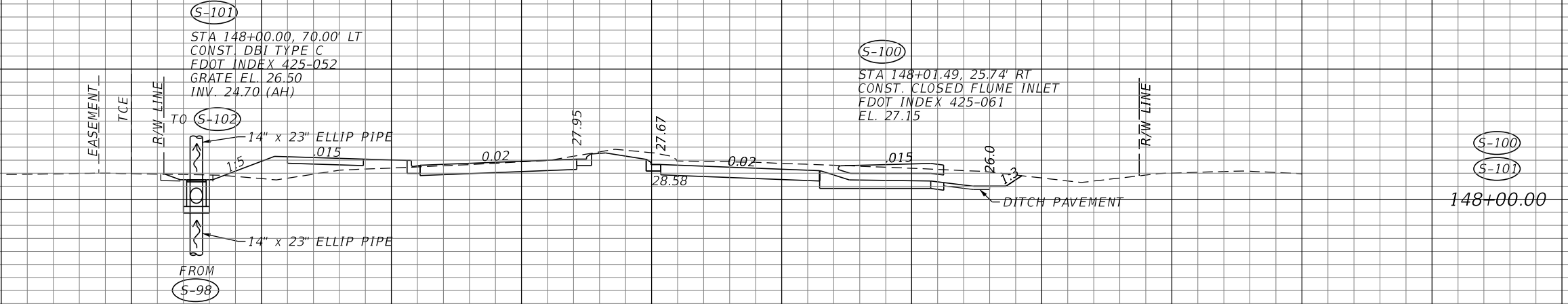
GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
DRAINAGE STRUCTURES (1)

CIP NO.	SHT. NO.
200671	29

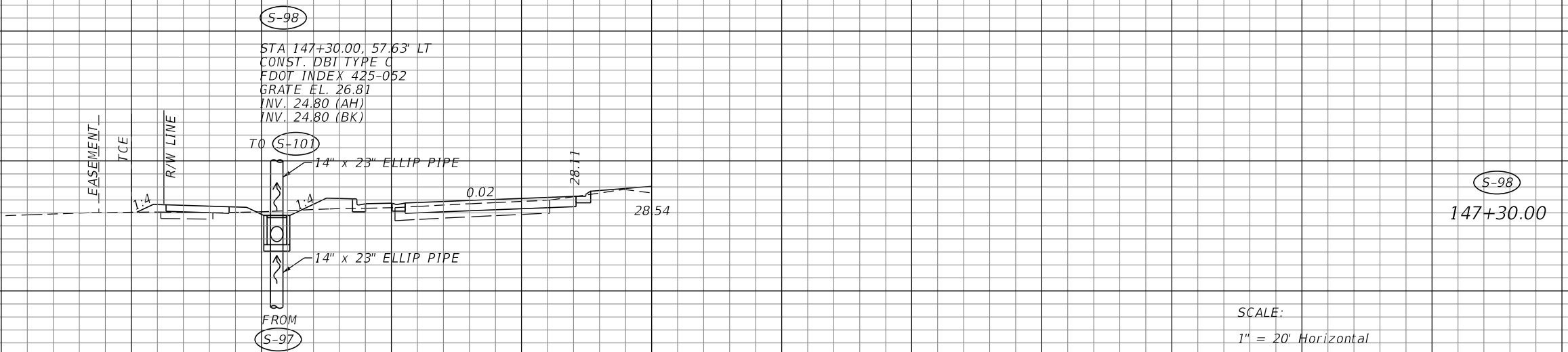
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

☒ SURVEY GATEWAY BLVD.

34
32
30
28
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18



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28
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24
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20
18



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

140 120 100 80 60 40 20 0 20 40 60 80 100 120

REVISIONS			
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
INTERSECTION CONTROL (ROUNDBOUT)
DRAINAGE STRUCTURES (2)

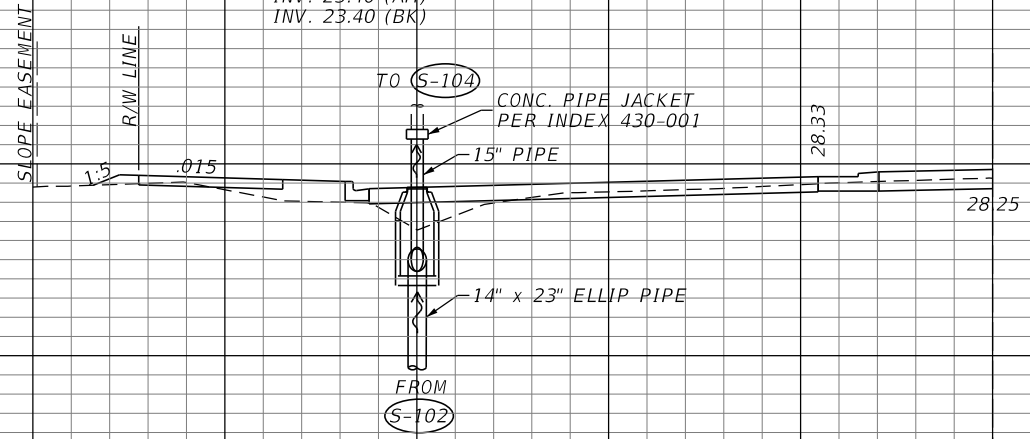
CIP NO.	SHT. NO.
200671	30

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

← SURVEY GATEWAY BLVD.

(S-103)

STA 148+90.51, 59.96' LT
 CONST. MH TYPE 8
 FDOT INDEX 425-001
 RIM EL. 27.77
 INV. 23.40 (AH)
 INV. 23.40 (BK)

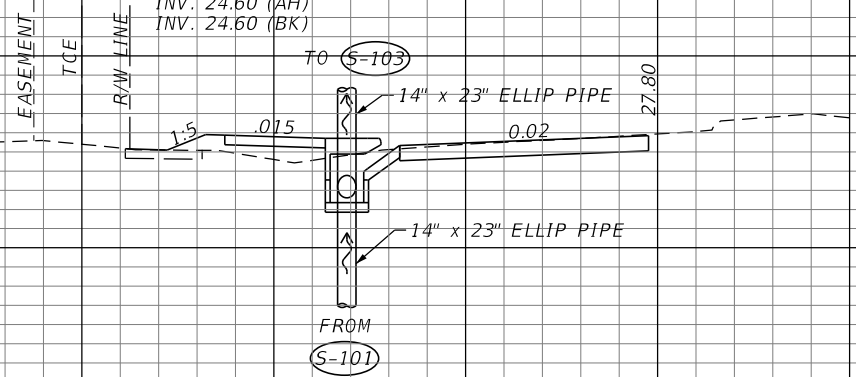


(S-103)

148+90.51

(S-102)

STA 148+51.91, 53.49' LT
 CONST. TYPE P-2 INLET
 (CAST-IN-PLACE)
 FDOT INDEX 425-020
 EOP EL. 27.30
 INV. 24.60 (AH)
 INV. 24.60 (BK)



(S-102)

148+51.91

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

← SURVEY GATEWAY BLVD.

140 120 100 80 60 40 20 0 20 40 60 80 100 120

REVISIONS			
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
 INTERSECTION CONTROL (ROUNDABOUT)
DRAINAGE STRUCTURES (3)

CIP NO.	SHT. NO.
200671	31

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☒ SURVEY GRIFFIN DR.

34
32
30
28
26
24
22
20
18

EASEMENT

R/W LINE

R/W LINE

EASEMENT

(S-300)

STA 319+99.58, 30.27' RT
CONST. CLOSED FLUME INLET
FDOT INDEX 425-061
EL. 26.09

(S-300)

319+99.58

NOTE: CLOSED FLUME SECTION SHOWN
ALONG C OF STRUCTURE FROM EDGE
OF PAVEMENT TO DITCH.

(S-104)

STA 151+62.00, 58.92' LT
CONST. DBI TYPE C
W/ SUMP BOTTOM
FDOT INDEX 425-001, 425-052
GRATE EL. 26.50
SLOT EL. 25.80 (AH)
INV. 23.00 (BK)

R/W LINE

27.37

SUMP BOTTOM EL. 20.7
PER INDEX 425-001

15" PIPE

CONC. PIPE JACKET
PER INDEX 430-001

FROM
(S-103)

(S-104)

151+62.00

34
32
30
28
26
24
22
20
18

SCALE:

1" = 20' Horizontal

1" = 10' Vertical

☒ SURVEY GATEWAY BLVD.

140 120 100 80 60 40 20 0 20 40 60 80 100 120

REVISIONS	
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
INTERSECTION CONTROL (ROUNDBOUT)
DRAINAGE STRUCTURES (4)

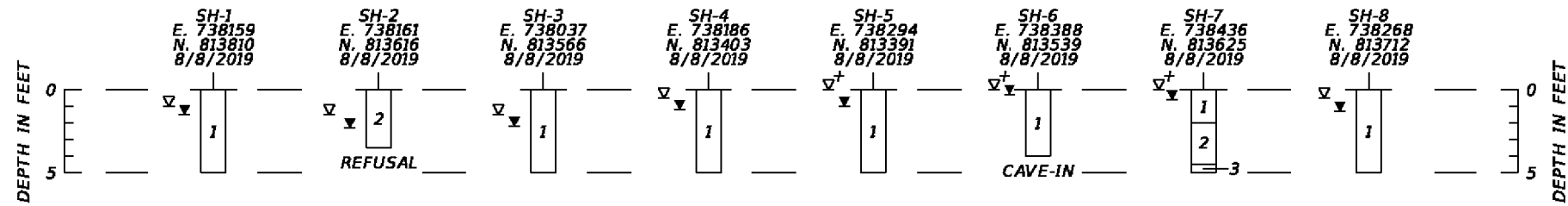
CIP NO.
200671

SHT. NO.
32

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

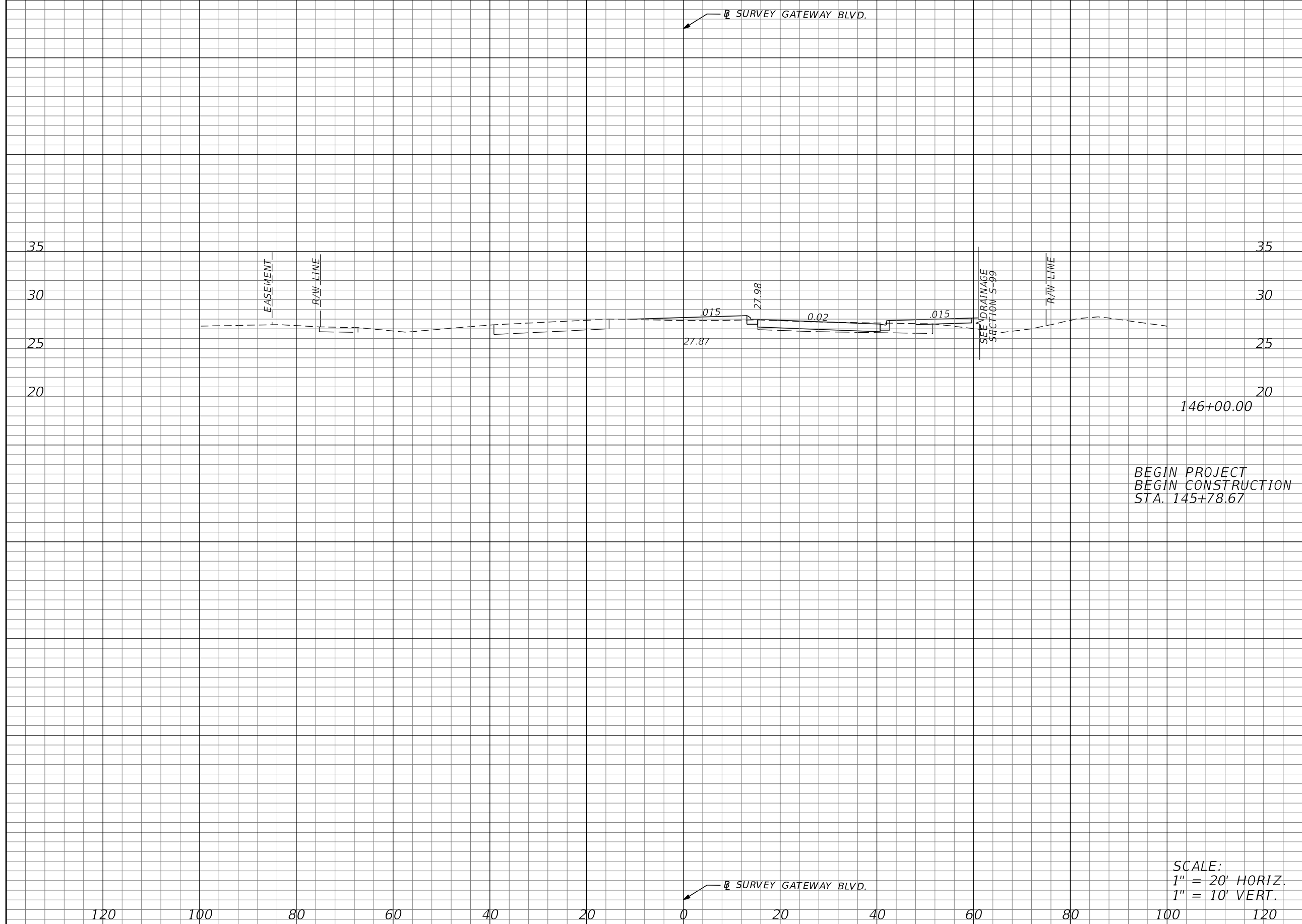
LEGEND

- 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
- ▽⁺ 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 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.



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

REVISIONS				KEVIN H. SCOTT, P.E. P.E. LICENSE NUMBER 65514 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637 CERTIFICATE OF AUTHORIZATION 6486		GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDBOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			ROADWAY SOIL SURVEY		200671	33



Regular		Exc.		Embankment	
A	V	A	V	A	V
5		2		27	11

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

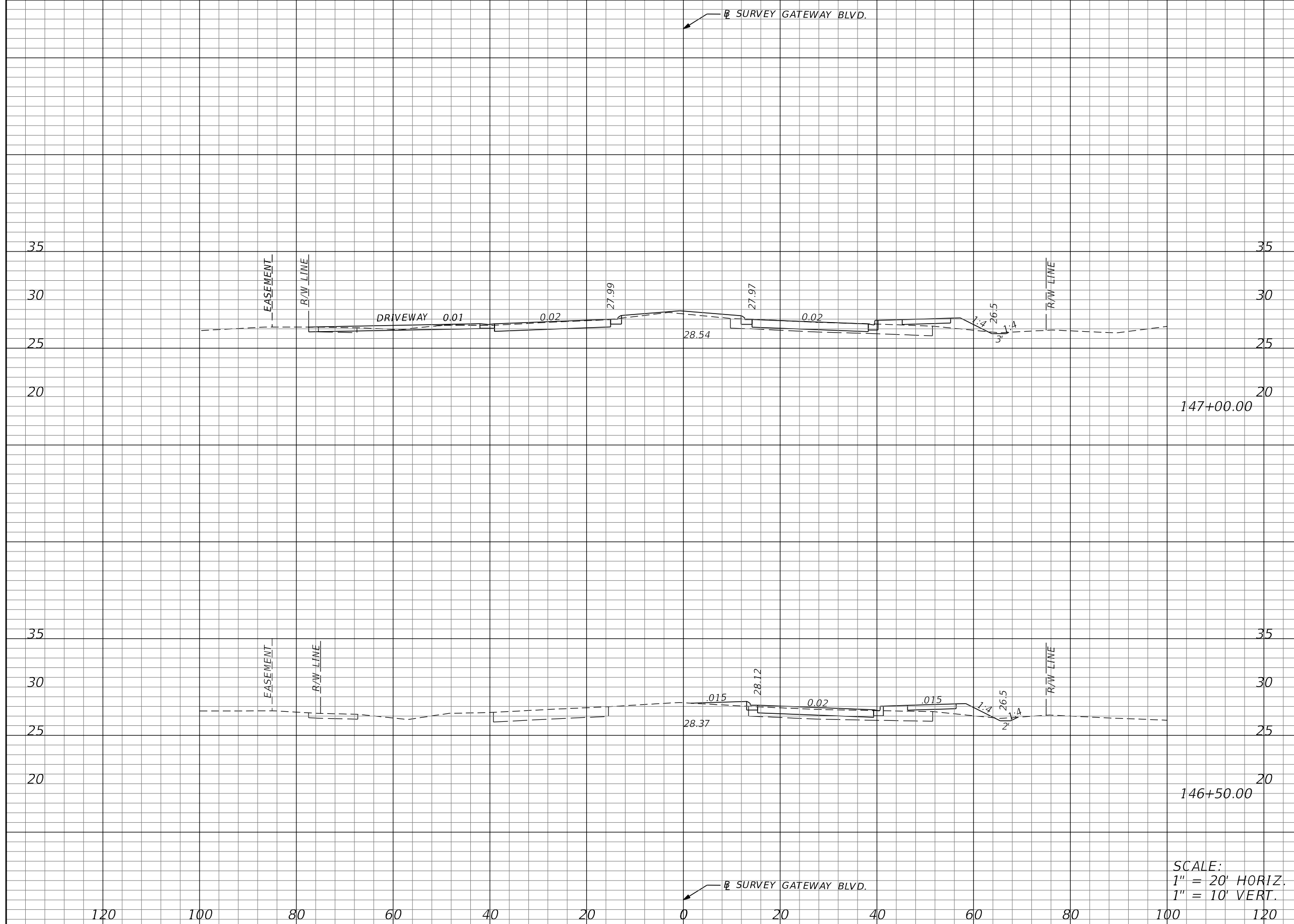
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	34

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Regular		Exc.		Embankment	
A	V	A	V	A	V
40	42	36		61	
5	9	30		53	

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

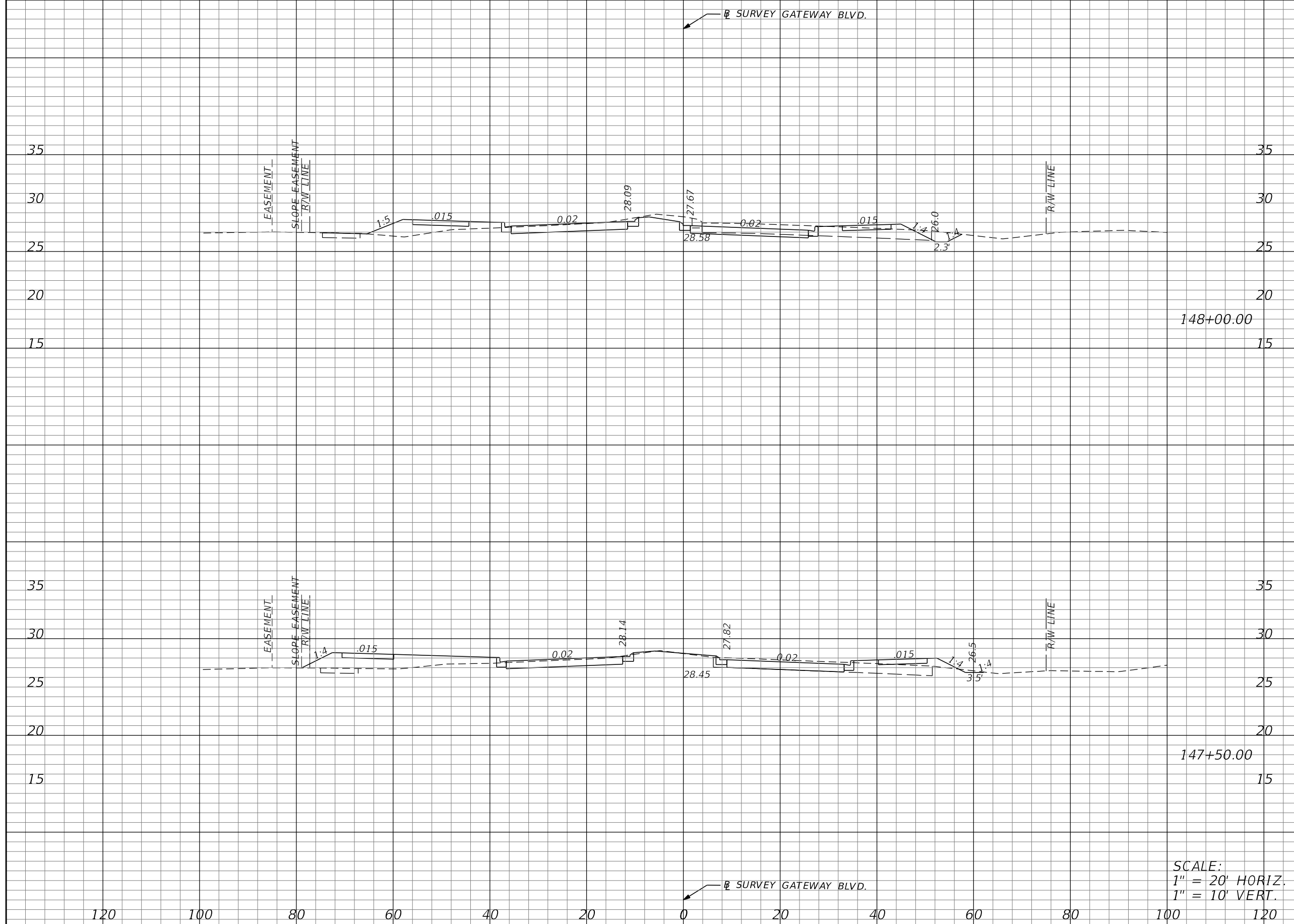
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	35

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
77	108	45	128		
40	74	93	119		

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

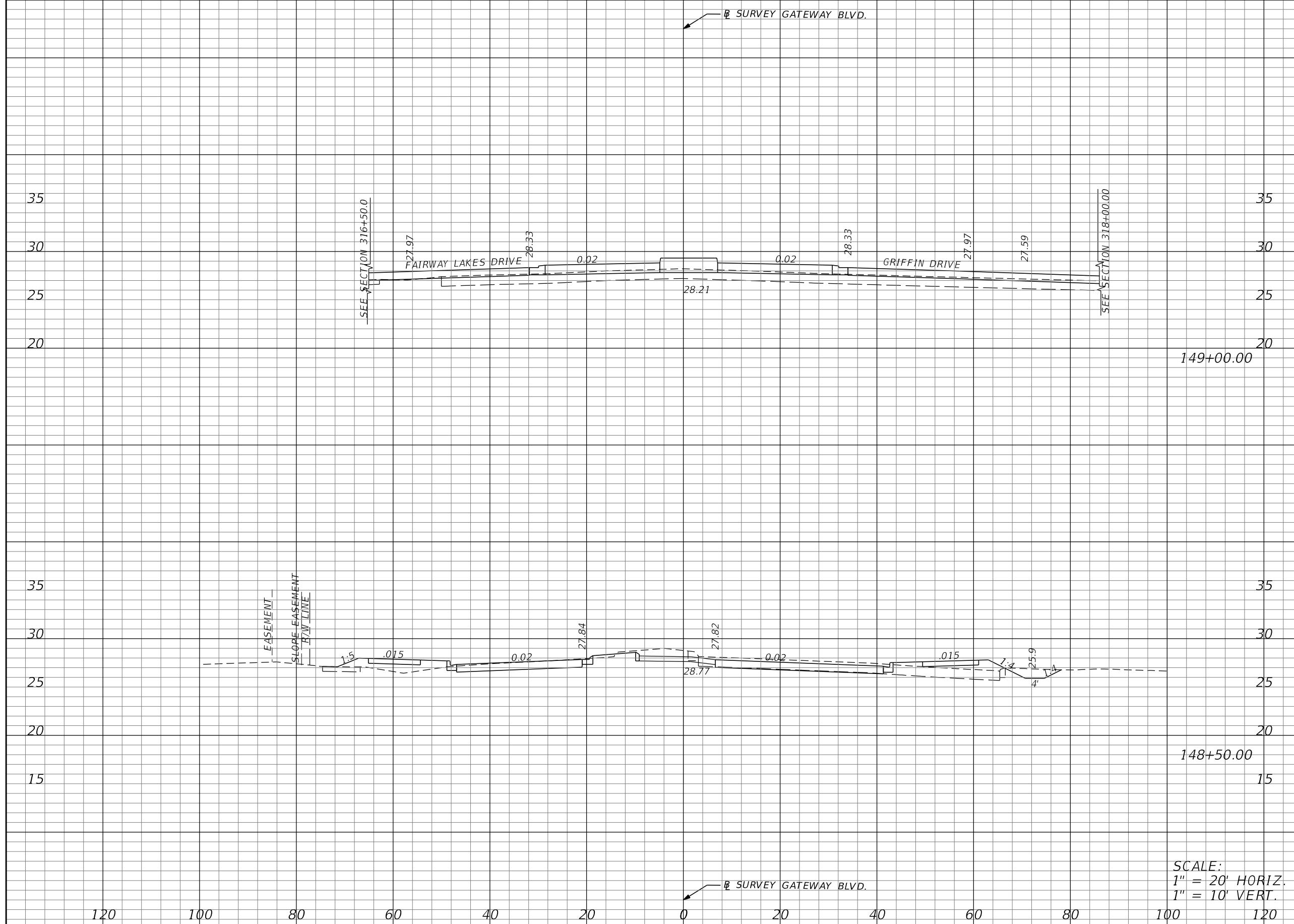
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	36

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
0		73		0	
79		144		52	
					48
					90

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

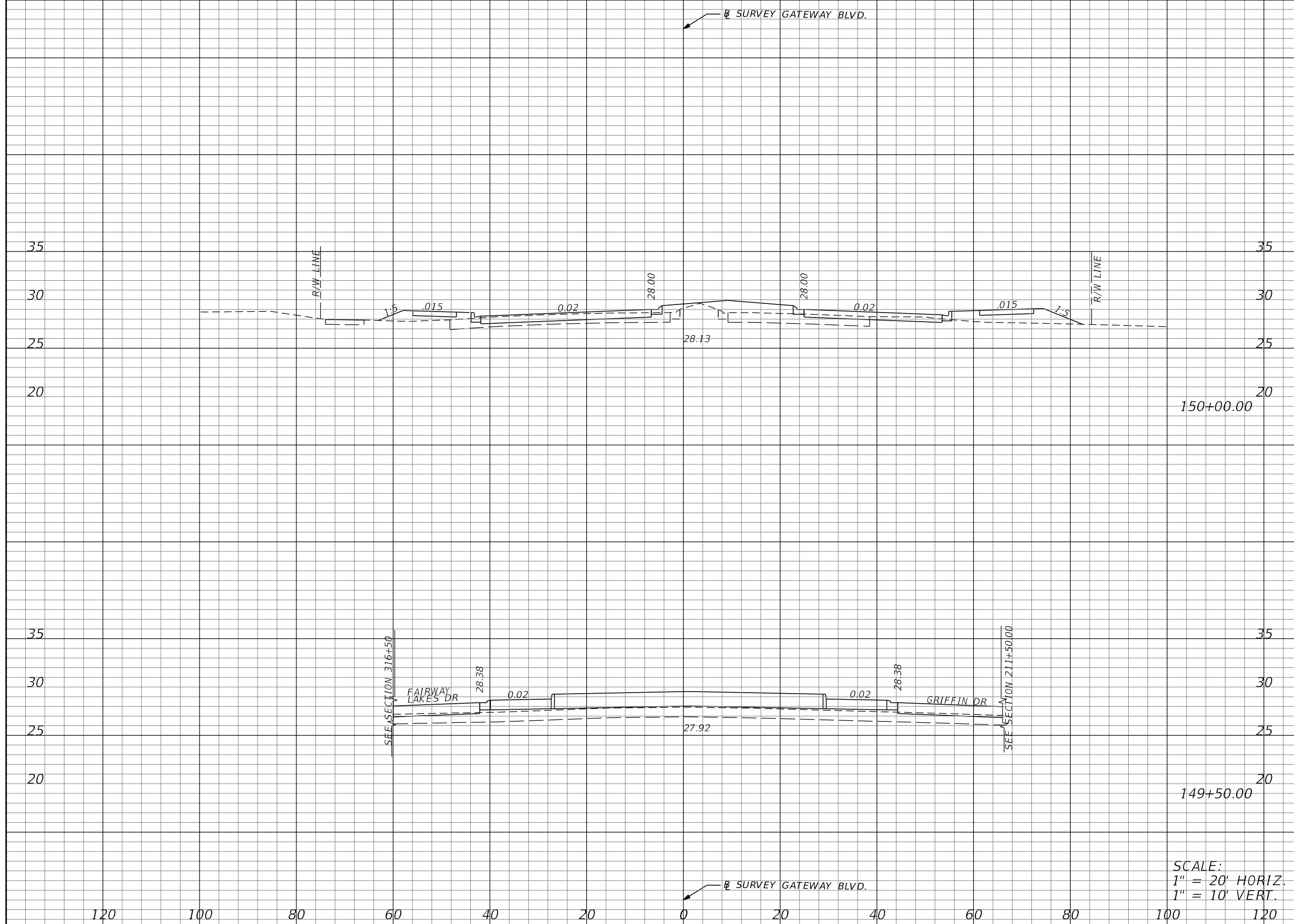
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDABOUT)
CROSS SECTIONS
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	37

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
13			12	67	
0			0	0	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

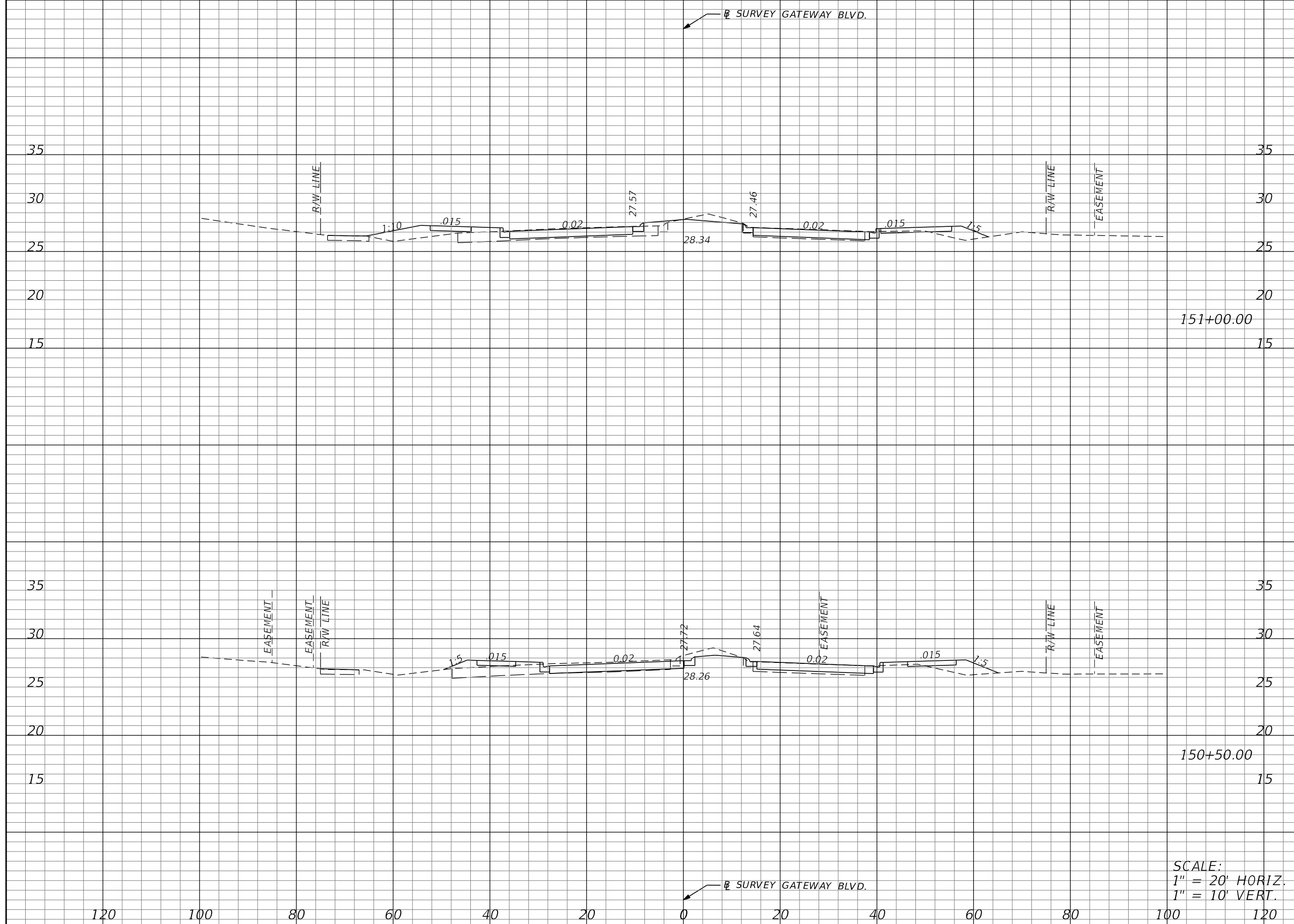
JASON Y. YAM, P.E.
P.E. LICENSE NUMBER 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FLORIDA 33759
CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
(GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	38

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
17	38	32	59		
24	35	33	93		

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

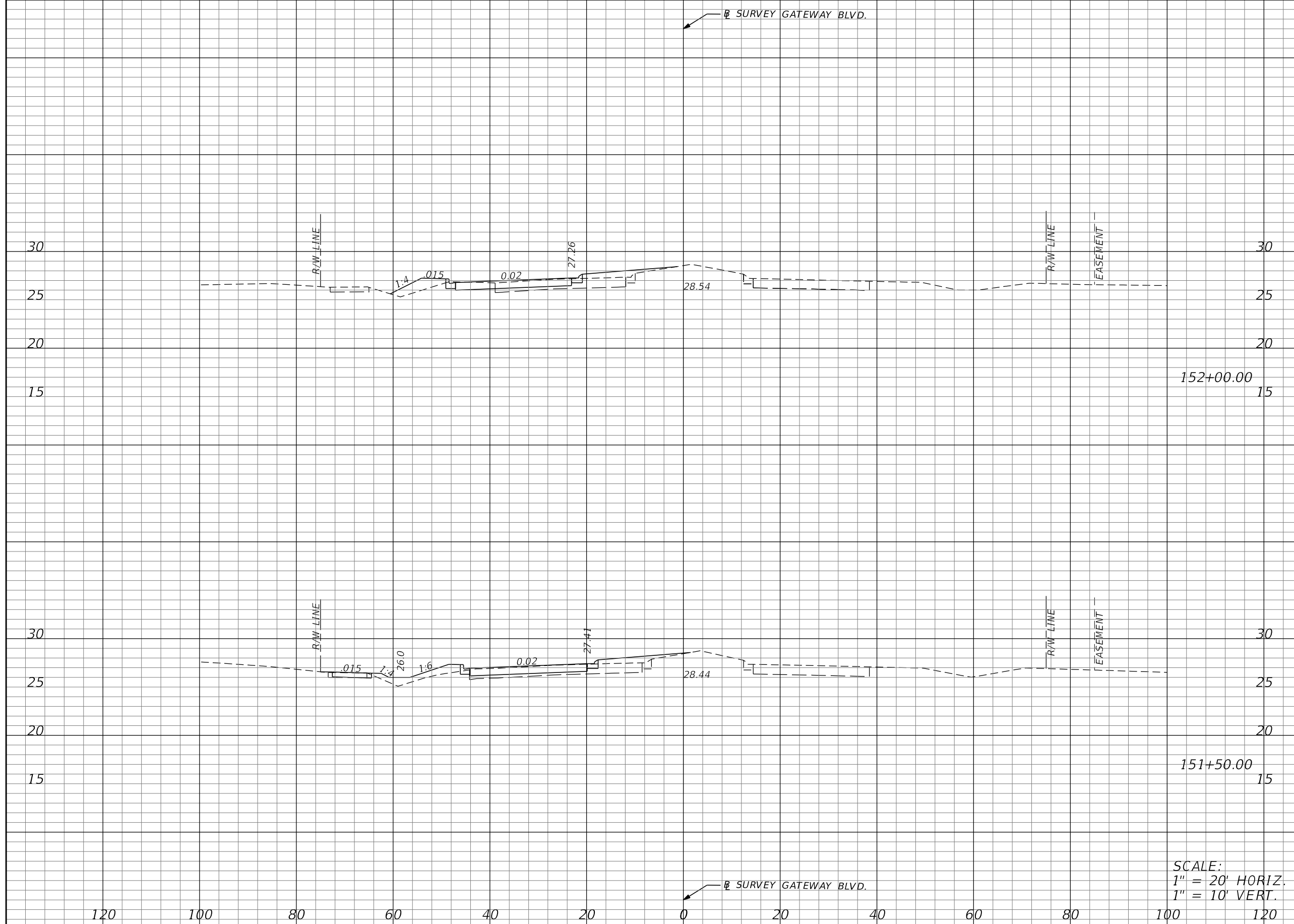
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	39

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
15	16	35		55	
24	35	33		93	

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

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
 CERTIFICATE OF AUTHORIZATION 29915



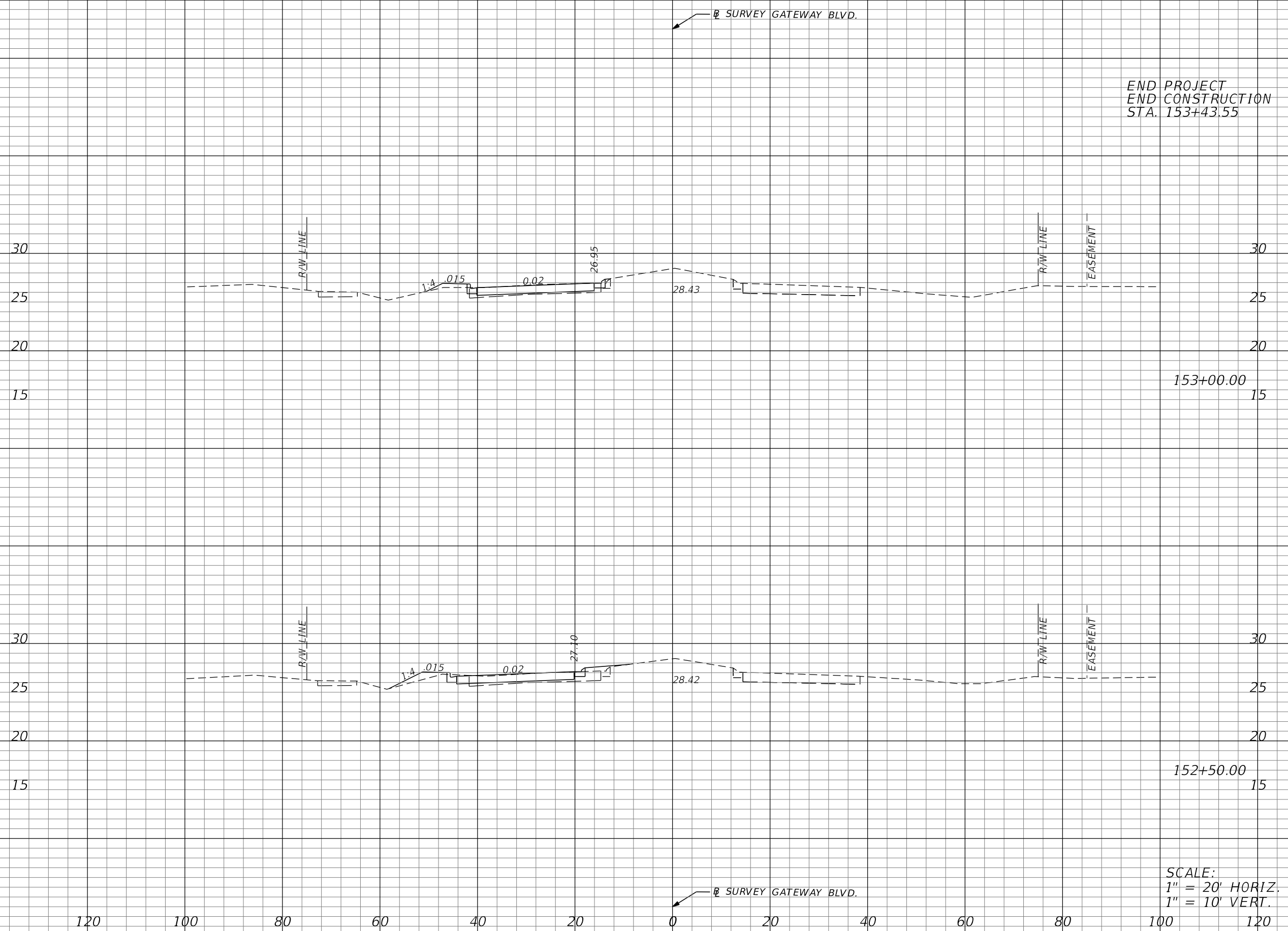
GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
 (GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	40

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

Regular		Exc.		Embankment	
A	V	A	V	A	V

END PROJECT
END CONSTRUCTION
STA. 153+43.55



1	8	6	18
---	---	---	----

8	21	14	45
---	----	----	----

SCALE:
1" = 20' HORIZ.
1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

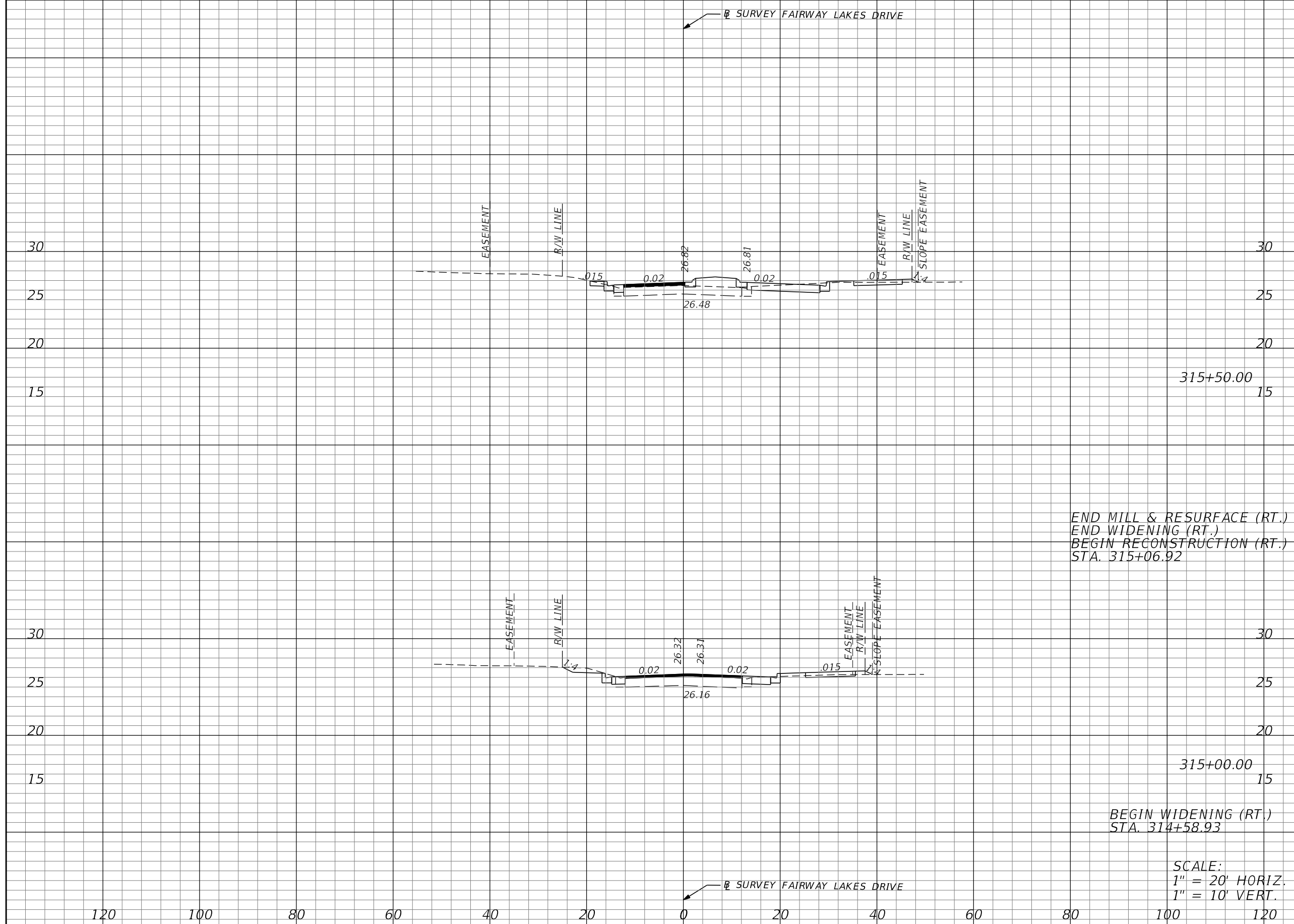
JASON Y. YAM, P.E.
P.E. LICENSE NUMBER 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FLORIDA 33759
CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
(GATEWAY BOULEVARD)

CIP NO.	SHT. NO.
200671	41

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



END MILL & RESURFACE (RT.)
 END WIDENING (RT.)
 BEGIN RECONSTRUCTION (RT.)
 STA. 315+06.92

BEGIN WIDENING (RT.)
 STA. 314+58.93

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

Regular		Exc.		Embankment	
A	V	A	V	A	V
33			51	3	8
23			53	5	5

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

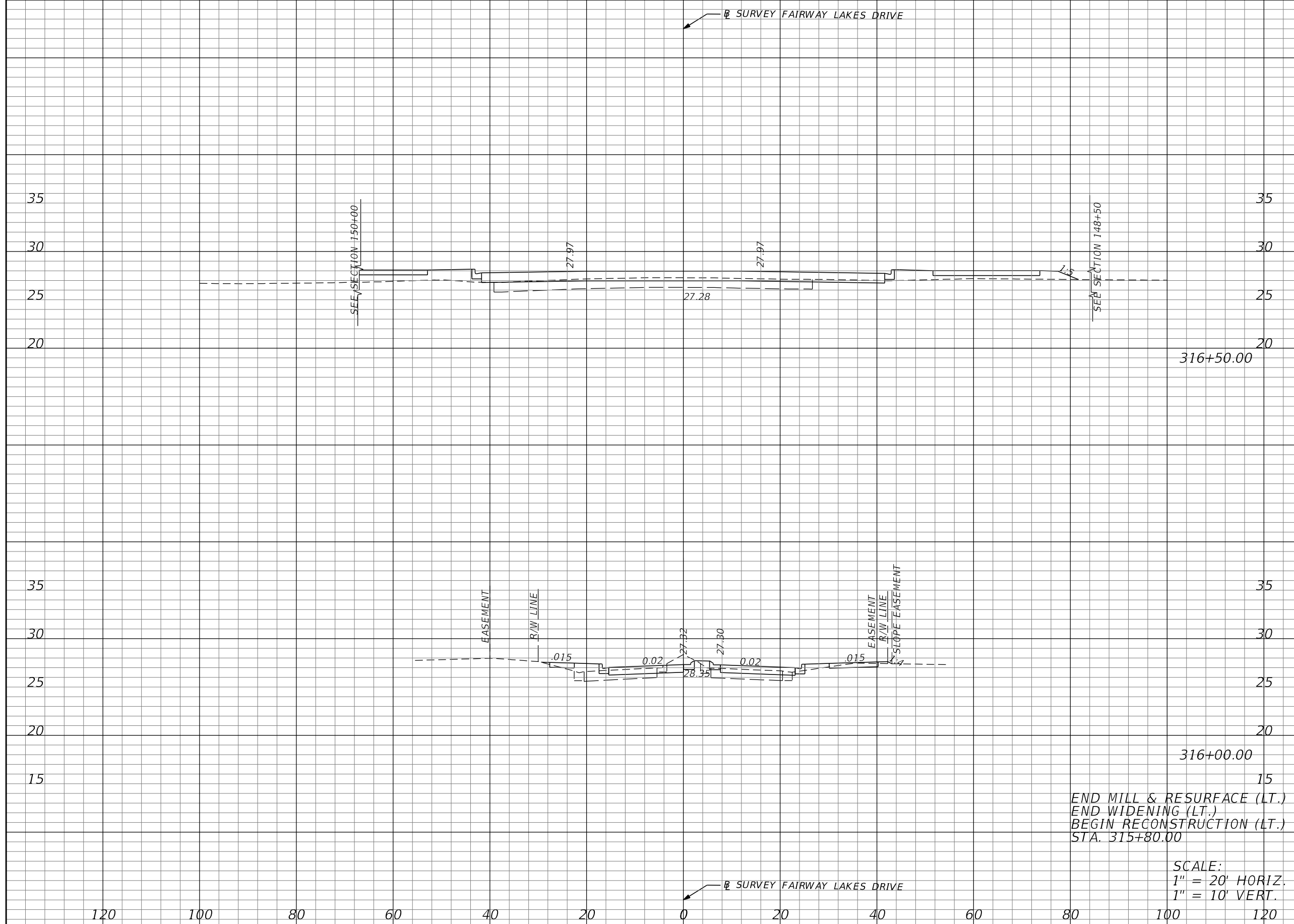
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
 (FAIRWAY LAKES DRIVE)

CIP NO.	SHT. NO.
200671	43

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
8		30		83	
					91
25		53		16	
					17

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

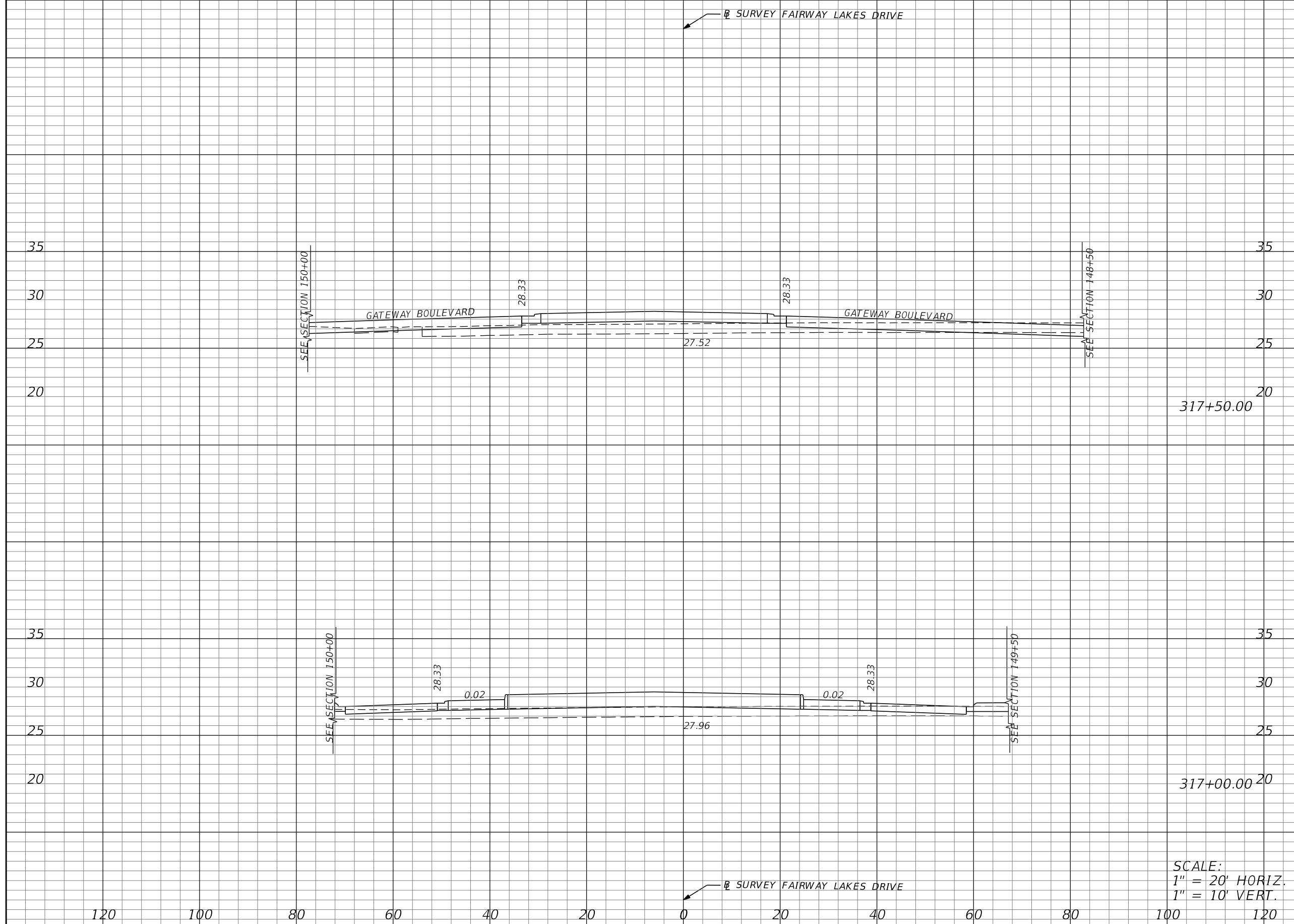
JASON Y. YAM, P.E.
P.E. LICENSE NUMBER 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FLORIDA 33759
CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
(FAIRWAY LAKES DRIVE)

CIP NO.	SHT. NO.
200671	44

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
23		21		19	
					18
0		7		0	
					77

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

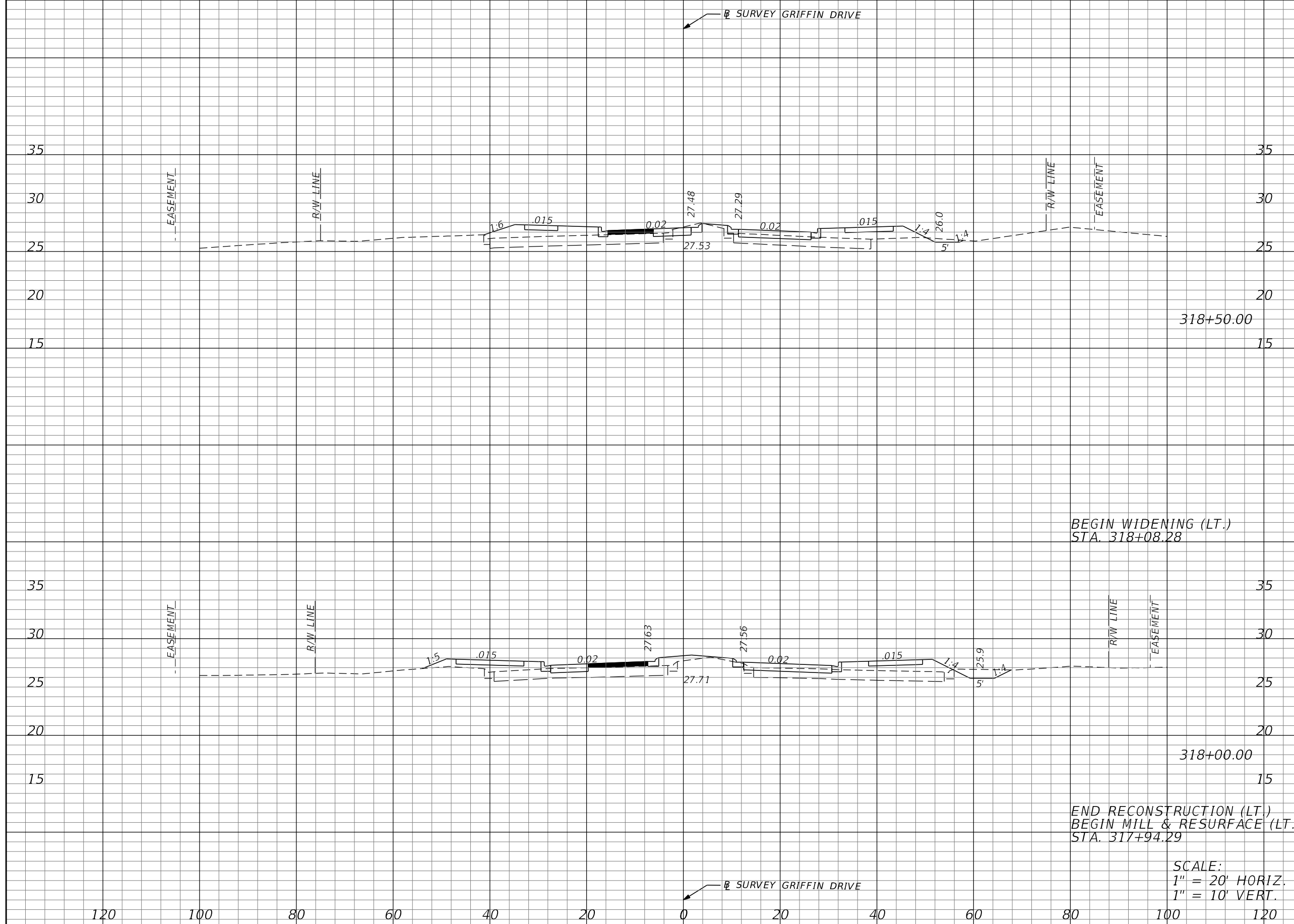
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDABOUT)
CROSS SECTIONS
 (FAIRWAY LAKES DRIVE)

CIP NO.	SHT. NO.
200671	45

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
15	29	74			135
16	36	72			84

BEGIN WIDENING (LT.)
STA. 318+08.28

END RECONSTRUCTION (LT.)
BEGIN MILL & RESURFACE (LT.)
STA. 317+94.29

SCALE:
1" = 20' HORIZ.
1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

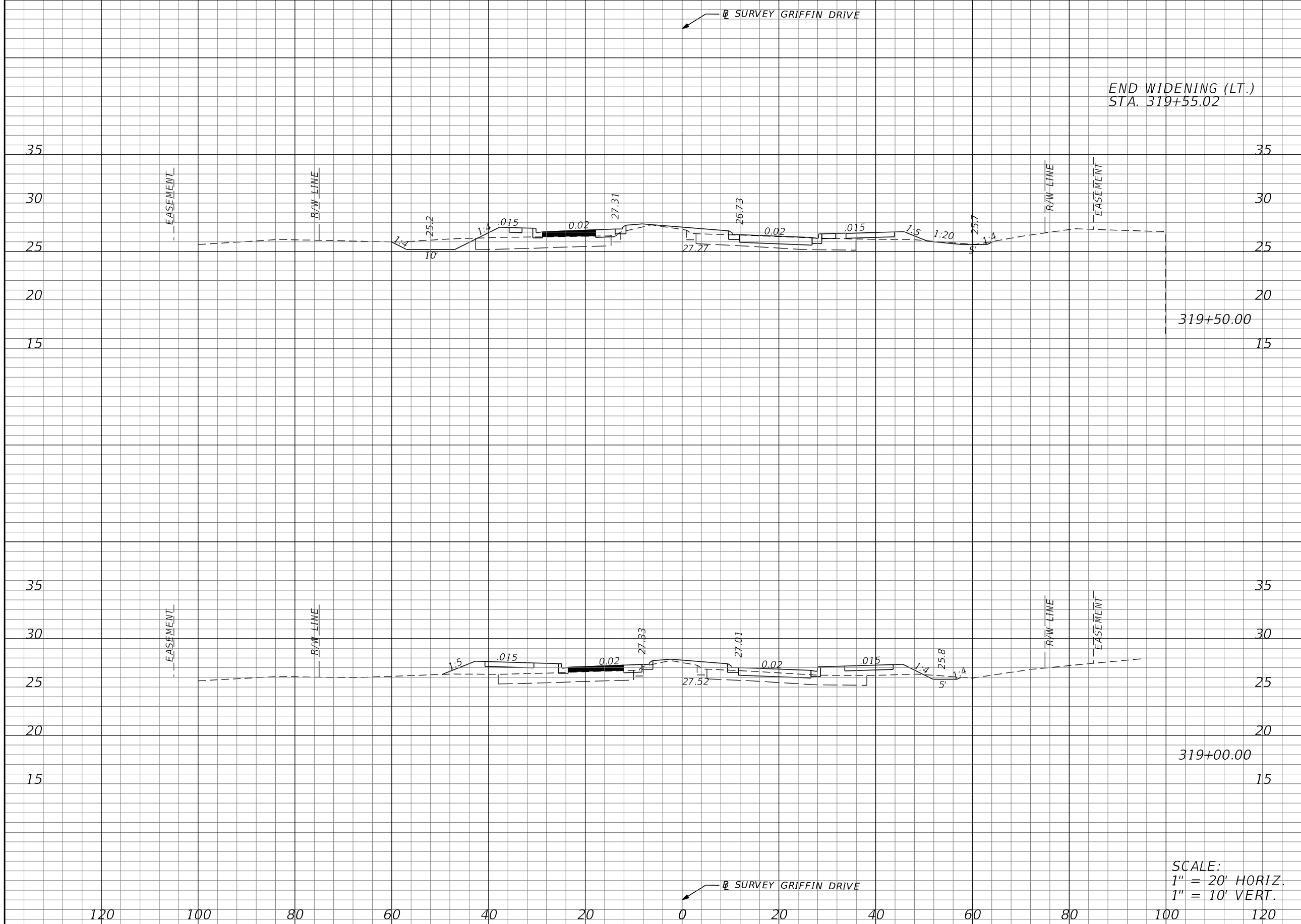
JASON Y. YAM, P.E.
P.E. LICENSE NUMBER 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FLORIDA 33759
CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDABOUT)
CROSS SECTIONS
(GRIFFIN DRIVE)

CIP NO.	SHT. NO.
200671	46

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



END WIDENING (LT.)
STA. 319+55.02

319+50.00

319+00.00

SCALE:
1" = 20' HORIZ.
1" = 10' VERT.

Regular		Exc.		Embankment	
A	V	A	V	A	V
30	33	33		103	
6	19	78		141	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

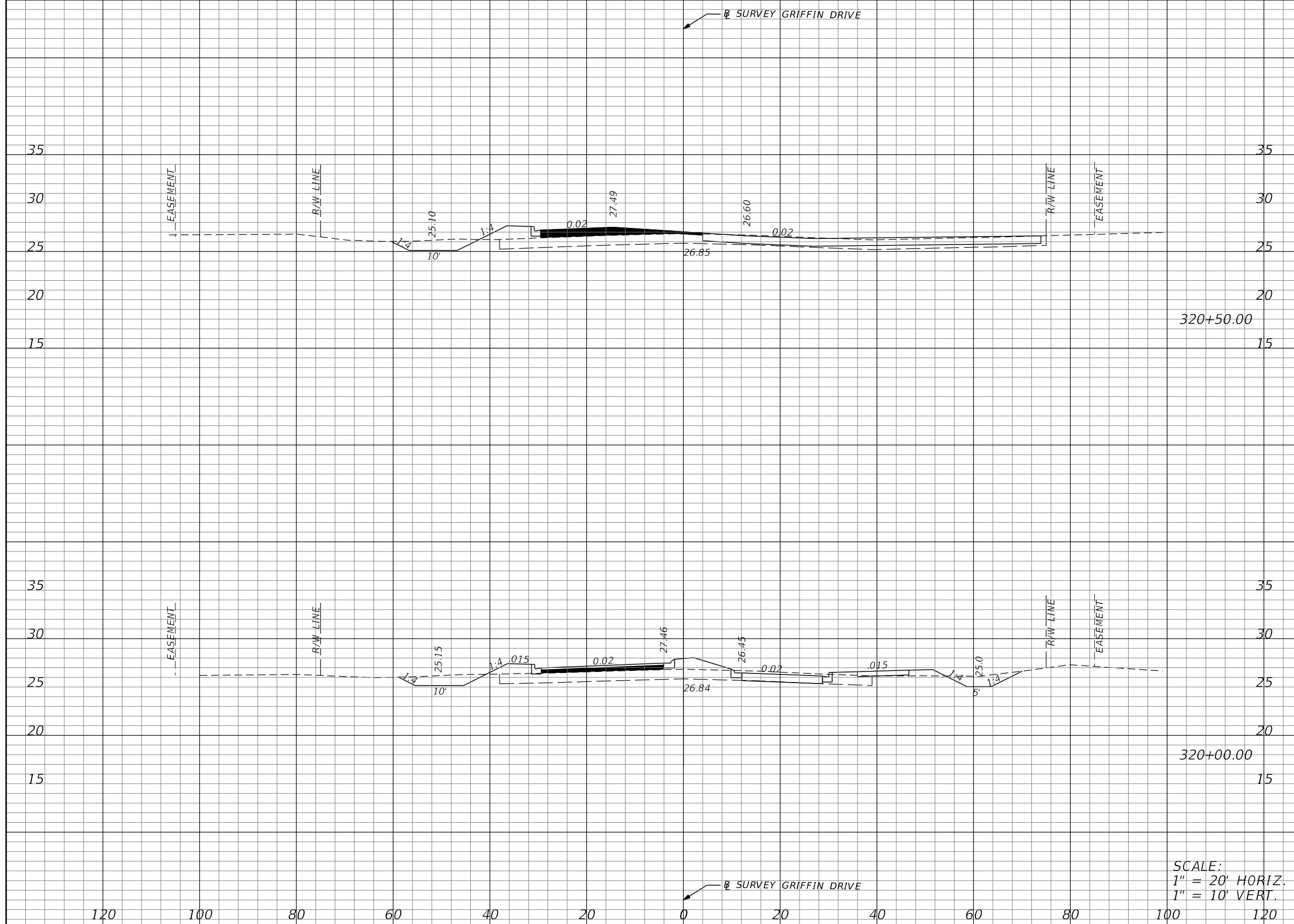
JASON Y. YAM, P.E.
P.E. LICENSE NUMBER 62449
CARDNO, INC.
380 PARK PLACE BOULEVARD, SUITE 300
CLEARWATER, FLORIDA 33759
CERTIFICATE OF AUTHORIZATION 29915



GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDBOUT)
CROSS SECTIONS
(GRIFFIN DRIVE)

CIP NO.	SHT. NO.
200671	47

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



Regular		Exc.		Embankment	
A	V	A	V	A	V
30	73	22		56	
49	73	38		66	

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

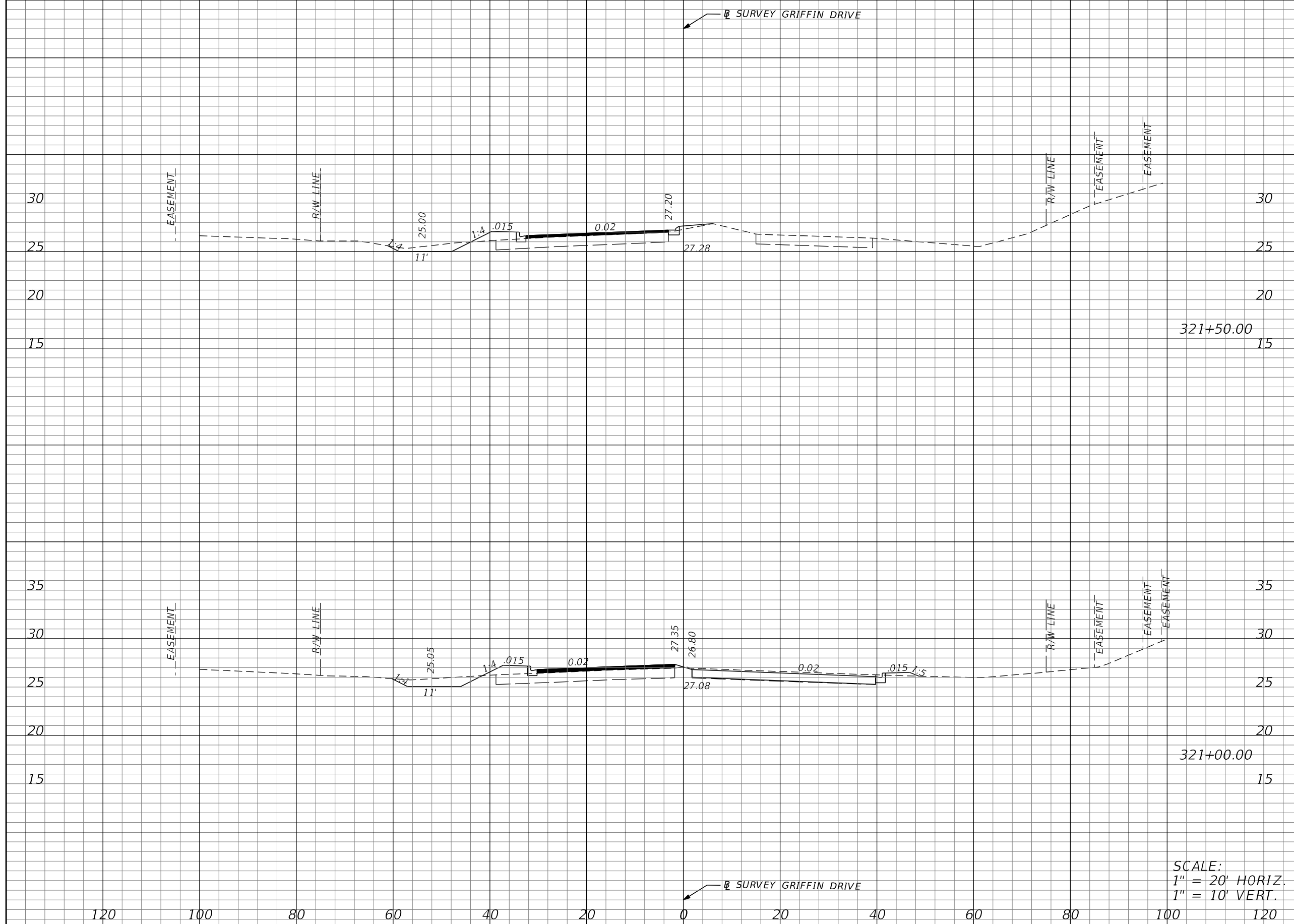
JASON Y. YAM, P.E.
 P.E. LICENSE NUMBER 62449
 CARDNO, INC.
 380 PARK PLACE BOULEVARD, SUITE 300
 CLEARWATER, FLORIDA 33759
 CERTIFICATE OF AUTHORIZATION 29915



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Regular		Exc.		Embankment	
A	V	A	V	A	V
18	43	15		29	
28	54	16		35	

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

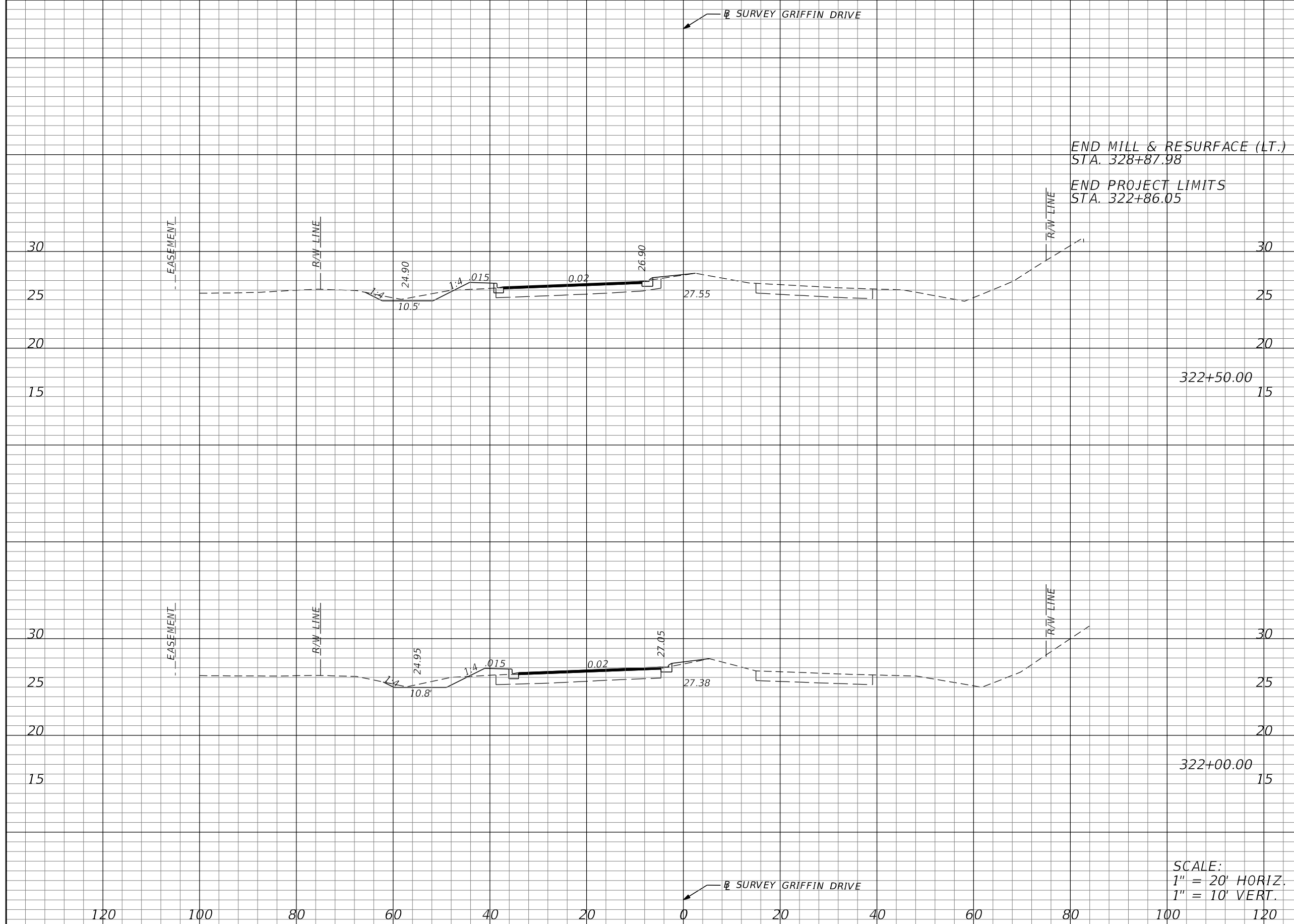
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Regular		Exc.		Embankment	
A	V	A	V	A	V
14	29	10			20
17	32	11			25

SCALE:
 1" = 20' HORIZ.
 1" = 10' VERT.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDABOUT)
CROSS SECTIONS
(GRIFFIN DRIVE)

CIP NO.	SHT. NO.
200671	50

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I. SITE DESCRIPTION:

(1) NATURE OF CONSTRUCTION ACTIVITY
 THE PROPOSED IMPROVEMENTS TO THE INTERSECTION OF GATEWAY BLVD AND GRIFFIN DR IS IN LEE COUNTY. LEE COUNTY DEPARTMENT OF TRANSPORTATION (LCDOT) PROPOSES THE CONSTRUCTION OF A ROUNDABOUT. THIS INVOLVES CONSTRUCTING ROADWAY SURFACE, CURB AND GUTTER, SWALES, SIDEWALK, UNDERGROUND STORM DRAIN SYSTEMS, AND STORMWATER MANAGEMENT FACILITIES. THE PROJECT EXTENDS FROM SOUTH OF GRIFFIN DR TO NORTH OF GRIFFIN DR, A DISTANCE OF APPROXIMATELY 750 FEET.

(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 PROJECT.
 (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 SEDIMENT CONTROL DESIGNER AND REVIEW MANUAL (E&SC MANUAL) LATEST EDITION.
 (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 PROCEED.
 (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	HYDROLOGIC GROUP	DEPTH TO SHWE
119-MALABAR FINE SAND(1.5%)	A/E/Bw/Btg/Cg	0.4'
120-MALABAR FINE SAND, PONDED(0.2%)	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](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 WATER BODY	DRAINAGE AREA (AC)	LATITUDE	LONGITUDE
(A) NW POND	1.45	N26° 34' 22.75"	W81° 44' 58.00"
(B) NE DITCH	1.39	N26° 34' 18.75"	W81° 44' 50.70"
(C) SE DITCH	1.50	N26° 34' 17.70"	W81° 44' 51.90"

(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 CONTROLS.
 (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 0 NTU'S ABOVE BACKGROUND FOR DIRECT DISCHARGES TO OFW'S).
 (C) IF WATER QUALITY STANDARDS ARE VIOLATED, CONSTRUCTION SHALL BE STOPPED IMMEDIATELY, THE ENVIROMENTAL 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 0 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 EDITION.
 (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				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY NO. 200671	SHT. NO. 52
DATE	DESCRIPTION	DATE	DESCRIPTION			STORMWATER POLLUTION PREVENTION PLAN (1)			

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(3) STRUCTURAL PRACTICES FOR EROSION AND SEDIMENT CONTROL

(A) ROLLED EROSION CONTROL PRODUCTS (ARTIFICIAL COVERINGS)

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 CONSTRUCTION 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" 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 CONSTRUCTION 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 LOGS.
- (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 THERE 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.

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY NO. 200671	SHT. NO. 53
DATE	DESCRIPTION	DATE	DESCRIPTION			STORMWATER POLLUTION PREVENTION PLAN (2)			

- (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 OCCURRING 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.

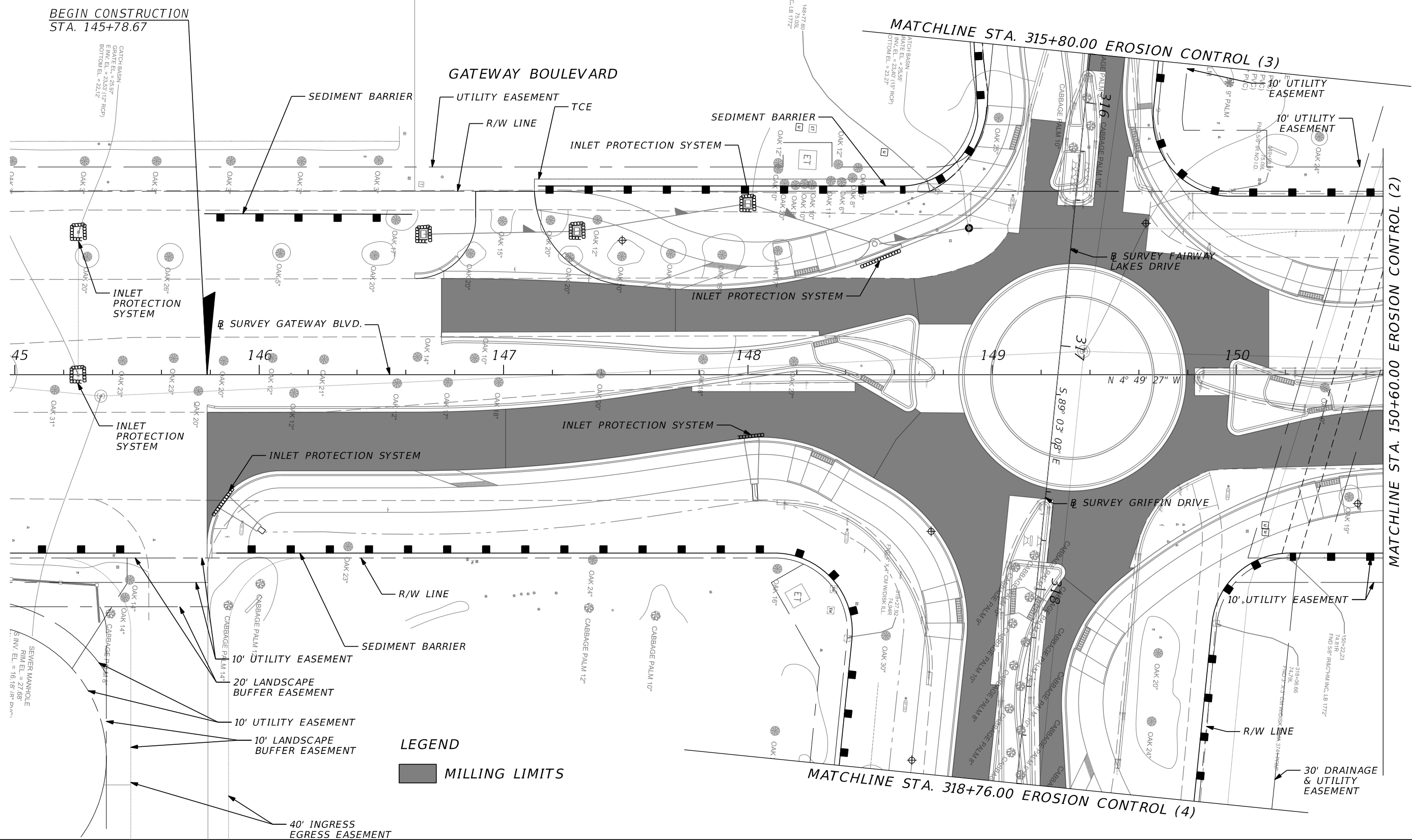
IV. INSPECTION:

- (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.

REVISIONS				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 INTERSECTION CONTROL (ROUNDAABOUT)		COUNTY NO. 200671	SHT. NO. 54
DATE	DESCRIPTION	DATE	DESCRIPTION			STORMWATER POLLUTION PREVENTION PLAN (3)			



LEGEND
 ■ MILLING LIMITS

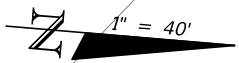
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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

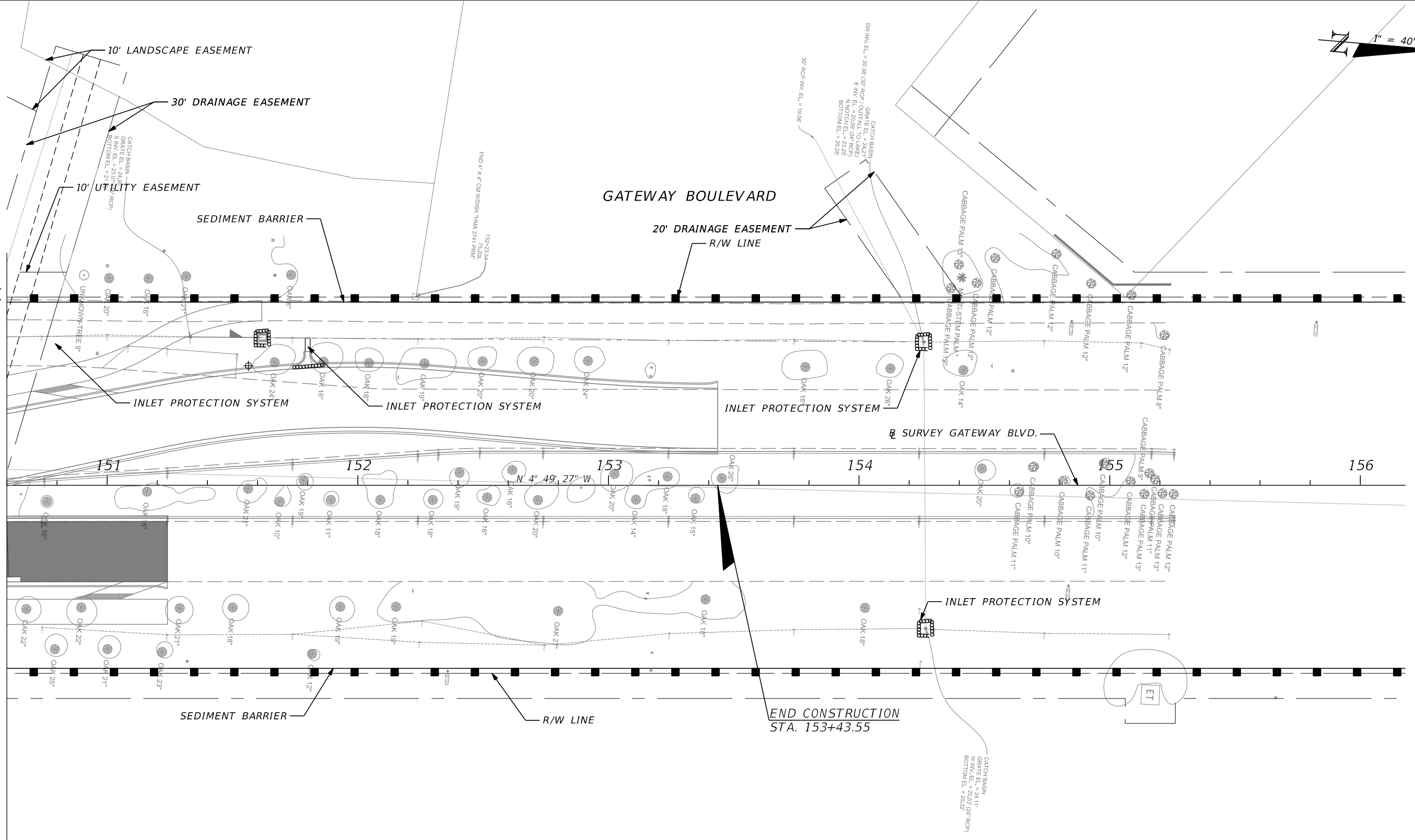


GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDABOUT)
EROSION CONTROL (1)

COUNTY PROJECT NO.	SHT. NO.
200671	55



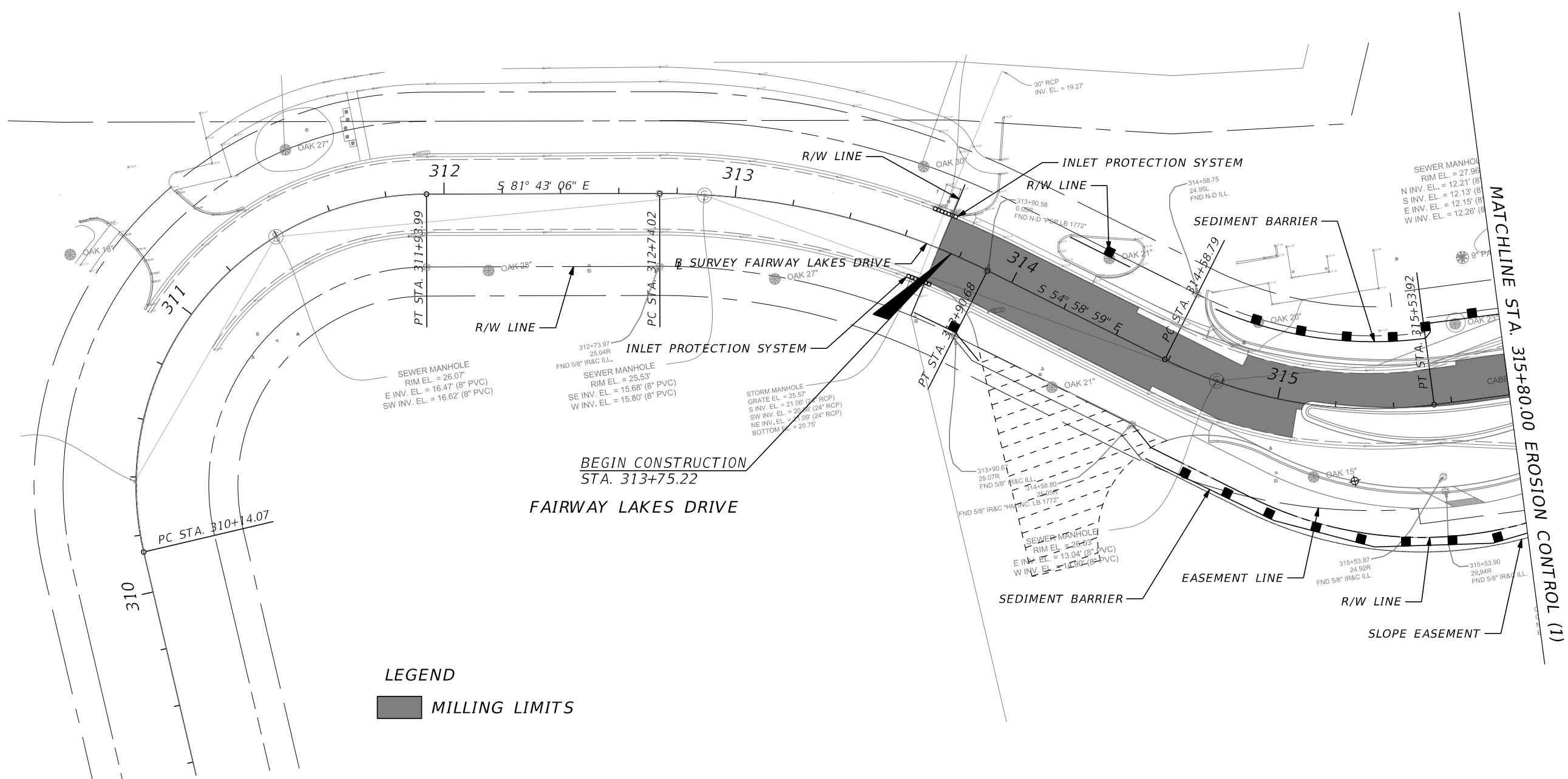
MATCHLINE STA. 150+60.00 EROSION CONTROL (1)



LEGEND
 MILLING LIMITS

REVISIONS				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 INTERSECTION CONTROL (ROUNDBABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			EROSION CONTROL (2)		200671	56

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LEGEND
 ■ MILLING LIMITS

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



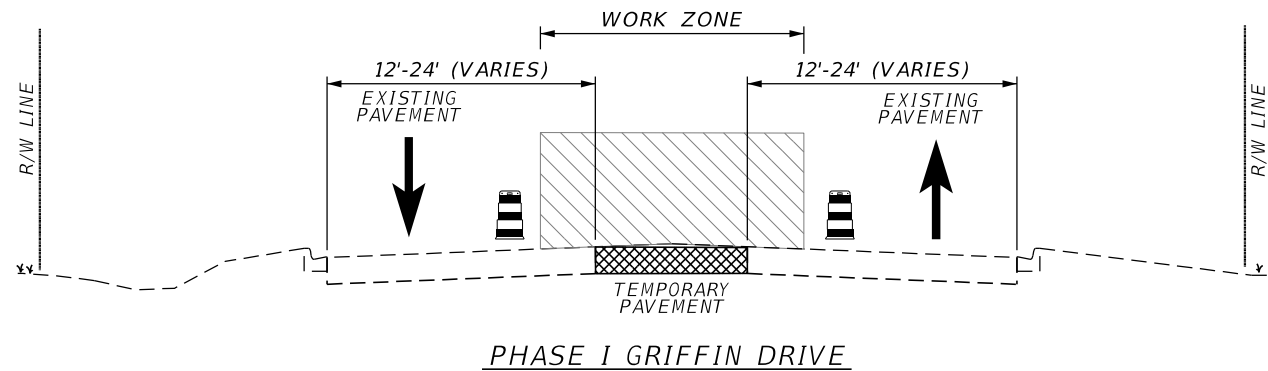
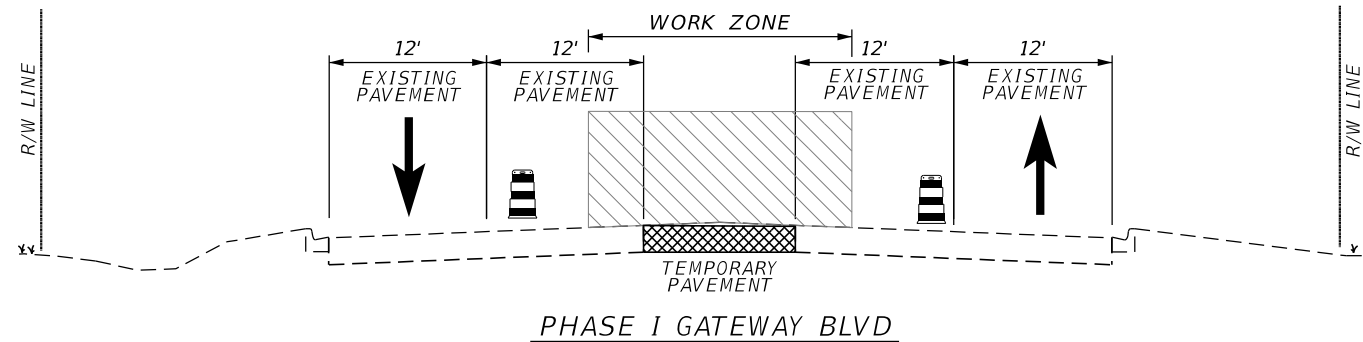
GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDABOUT)
EROSION CONTROL (3)

COUNTY PROJECT NO.	SHT. NO.
200671	57

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CONSTRUCTION GENERAL NOTES

1. REGULATORY SPEED ALONG GATEWAY BLVD IS 35 MPH.
2. THE COST OF MAINTENANCE OF TRAFFIC OPERATIONS, INCLUDING ALL PCMS BOARDS AND OFFICERS, SHALL BE INCLUDED UNDER THE LUMP SUM PAY ITEM FOR MAINTENANCE OF TRAFFIC, UNLESS A SEPARATE PAY ITEM IS PROVIDED.
3. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE MOVEMENT OF PEDESTRIANS AND VEHICLES THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING DELIVERIES AND DROP-OFFS IN WORK ZONES.
4. ACCESS SHALL BE CONTINUOUSLY MAINTAINED AT ALL SIDE STREETS AND DRIVEWAYS FOR THE DURATION OF THE PROJECT, WITH THE EXCEPTION OF THE COUNTY OWNED PORTION OF FAIRWAY LAKES DRIVE WHICH HAS BEEN PREVIOUSLY APPROVED BY LEE COUNTY, HOWEVER THE DRIVEWAY ACCESS FOR 11900 FAIRWAY LAKES DR SHALL BE MAINTAINED AT ALL TIMES.
5. DURING PERIODS OF LANE CLOSURES, THE CONTRACTOR SHALL PROVIDE AN FDOT CERTIFIED WORK SITE TRAFFIC SUPERVISOR FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES (E.G. BARRICADES, SIGNS, ARROW PANELS, ETC.) AS OUTLINED IN THE FDOT STANDARD SPECIFICATIONS AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
6. THE CONTRACTOR SHALL NOTIFY LEE COUNTY PUBLIC WORKS PRIOR TO A LANE CLOSURE THAT WILL EXCEED TWO HOURS.
7. TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT OR REMOVE LANE CLOSURE OR CHANNELIZATION. UNDER THESE CONDITIONS, THE CONTRACTOR SHALL RESPOND AND PROVIDE ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL ALSO RESPOND WITHIN THE CONSTRAINTS OUTLINED IN THE STANDARD SPECIFICATIONS UPON NOTIFICATION BY THE ENGINEER OF ANY REQUESTS FOR CORRECTION, IMPROVEMENT, OR MODIFICATION TO THE TRAFFIC CONTROL PLAN AND/OR DEVICES. THE COST OF THIS SERVICE AND THE MAINTENANCE OF THE TEMPORARY PAVEMENT SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR MAINTENANCE OF TRAFFIC.
8. TEMPORARY PAVEMENT SHALL CONSIST OF 1" STRUCTURAL COURSE TYPE SP (TRAFFIC C) OVER OPTIONAL BASE GROUP 4 OVER A COMPACTED SUBGRADE. THE COST OF THIS SERVICE SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR MAINTENANCE OF TRAFFIC.
9. THE SEQUENCE OF CONSTRUCTION AND METHODS DESCRIBED IN THIS PLAN SET IS A SUGGESTED MAINTENANCE OF TRAFFIC SCHEME. MOT PLAN IS NOT PROVIDED BY THE ENGINEER.



CONSTRUCTION PHASING NOTES

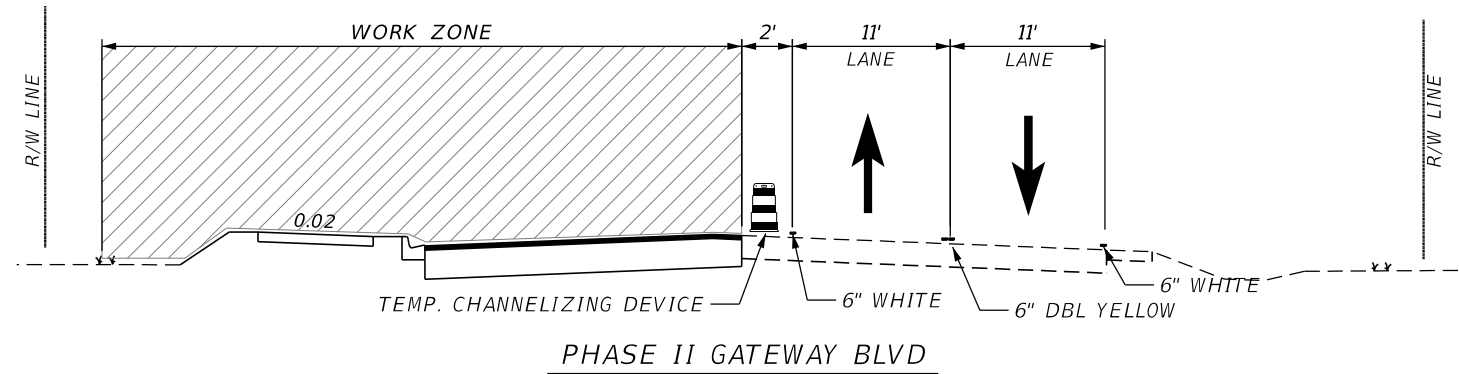
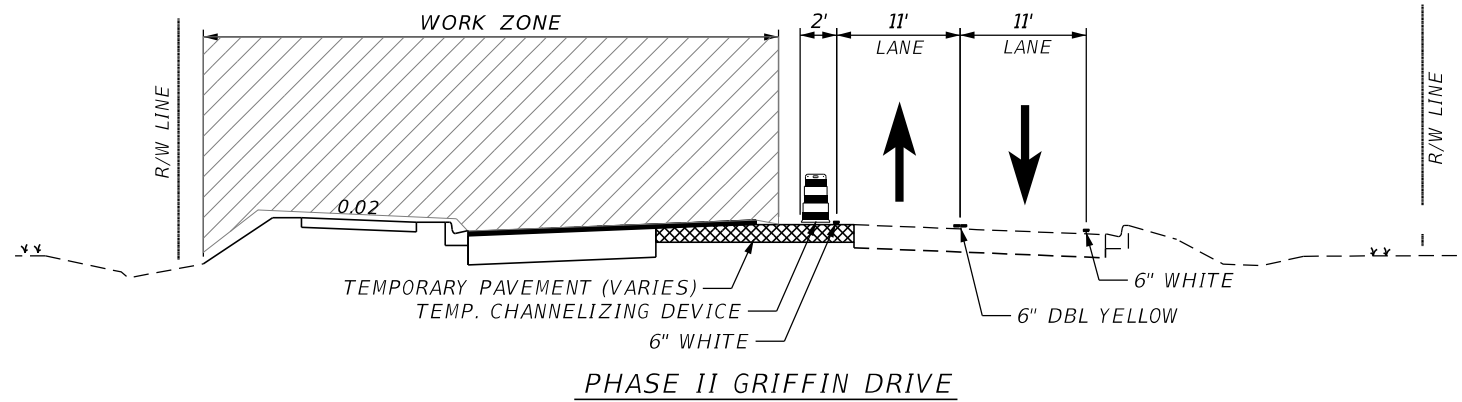
PHASE I - OPERATIONS ARE TO INSTALL TEMPORARY PAVEMENT FOR PHASE II.

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				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 INTERSECTION CONTROL (ROUNDBABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TEMPORARY TRAFFIC CONTROL (1)		200671	59

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CONSTRUCTION PHASING NOTES



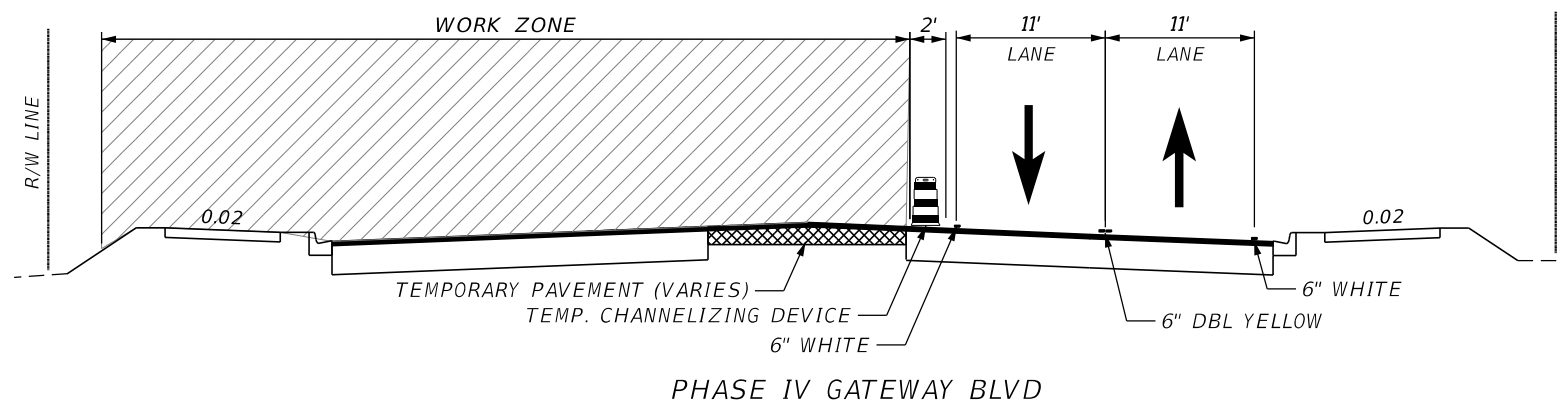
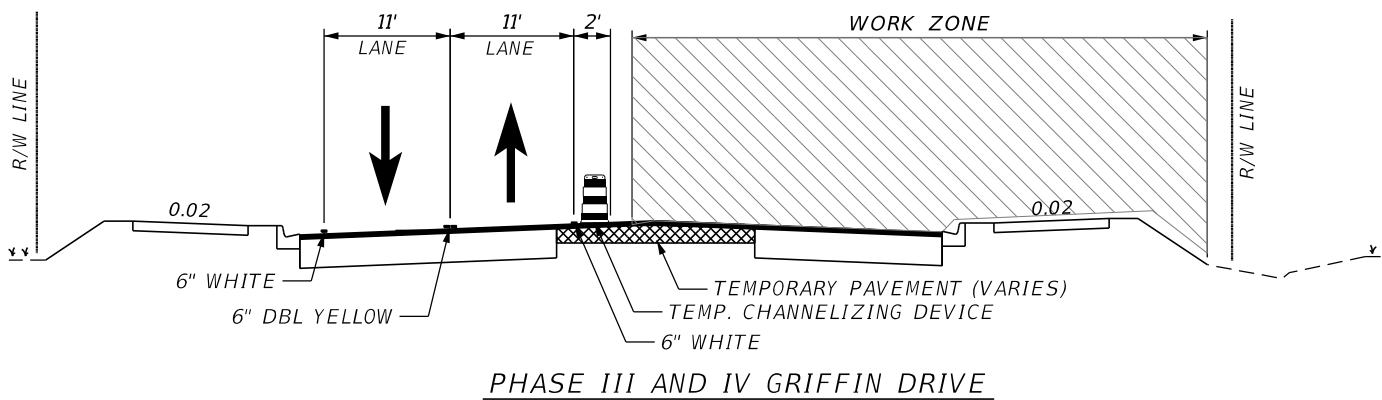
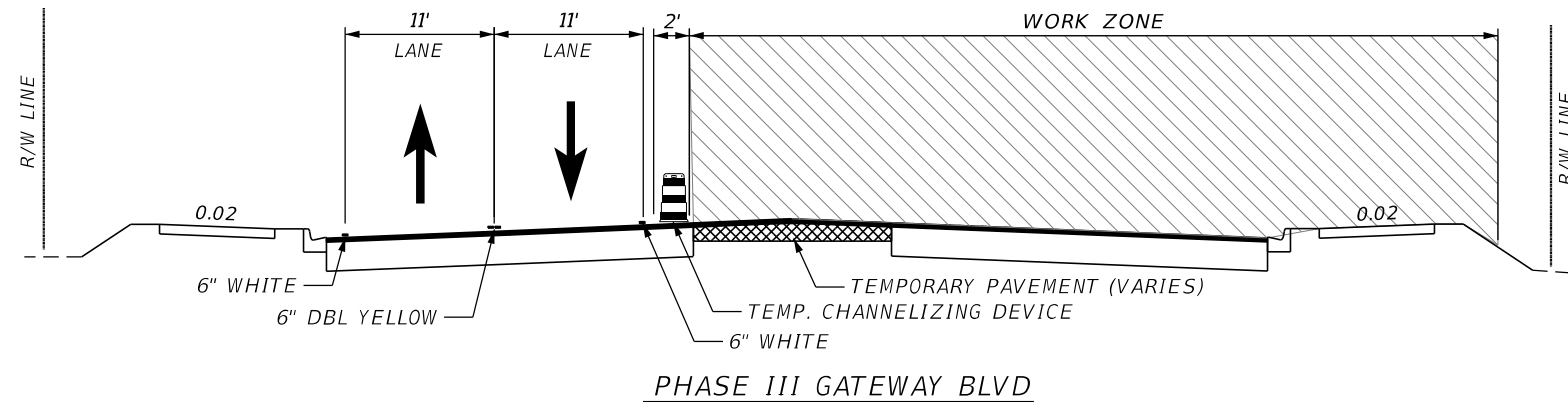
PHASE II - OPERATIONS ARE TO CONSTRUCT GATEWAY BLVD WEST SIDE (SB), FAIRWAY LAKES DRIVE NORTH SIDE (WB), AND GRIFFIN DRIVE NORTH SIDE (WB) NEW ALIGNMENT ALONG WITH TEMPORARY PAVEMENT.

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 GRIFFIN 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.

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TEMPORARY TRAFFIC CONTROL (2)		PROJECT NO.	
						200671			60

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CONSTRUCTION PHASING NOTES



PHASE III - OPERATIONS ARE TO CONSTRUCT GATEWAY BLVD EAST SIDE (NB), FAIRWAY LAKES DRIVE SOUTH SIDE (EB), AND GRIFFIN DRIVE SOUTH SIDE (EB) NEW ALIGNMENT.

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 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, 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.
2. MOVE CHANNELIZING DEVICES AND SHIFT TRAFFIC FOR PHASE IV CONSTRUCTION.
3. CONSTRUCT THE INTERSECTION AREA OF GATEWAY BLVD AND FAIRWAY LAKES DRIVE WHICH WAS NOT ACCESSIBLE DURING PHASES II AND III.

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

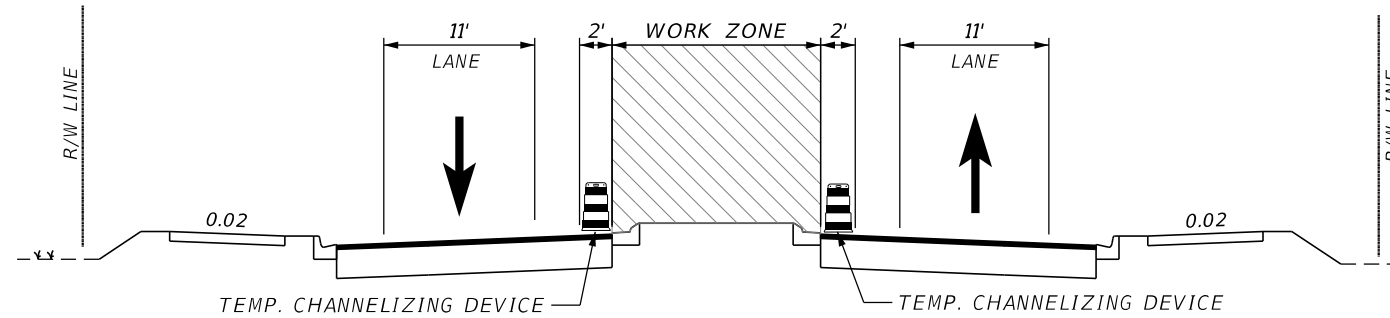


GATEWAY BOULEVARD AT GRIFFIN DRIVE
INTERSECTION CONTROL (ROUNDABOUT)
TEMPORARY TRAFFIC CONTROL (3)

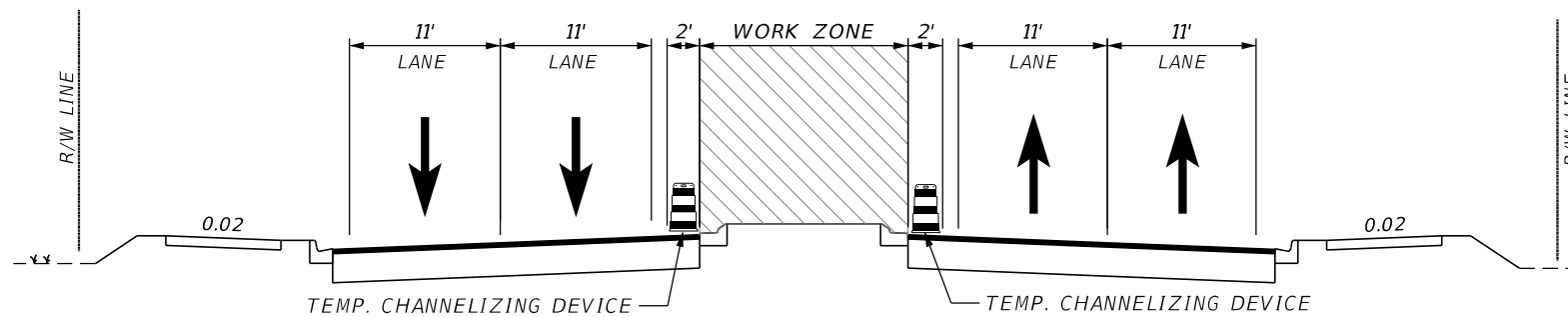
COUNTY PROJECT NO.	SHT. NO.
200671	61

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CONSTRUCTION PHASING NOTES



PHASE V GRIFFIN DRIVE



PHASE V GATEWAY BLVD

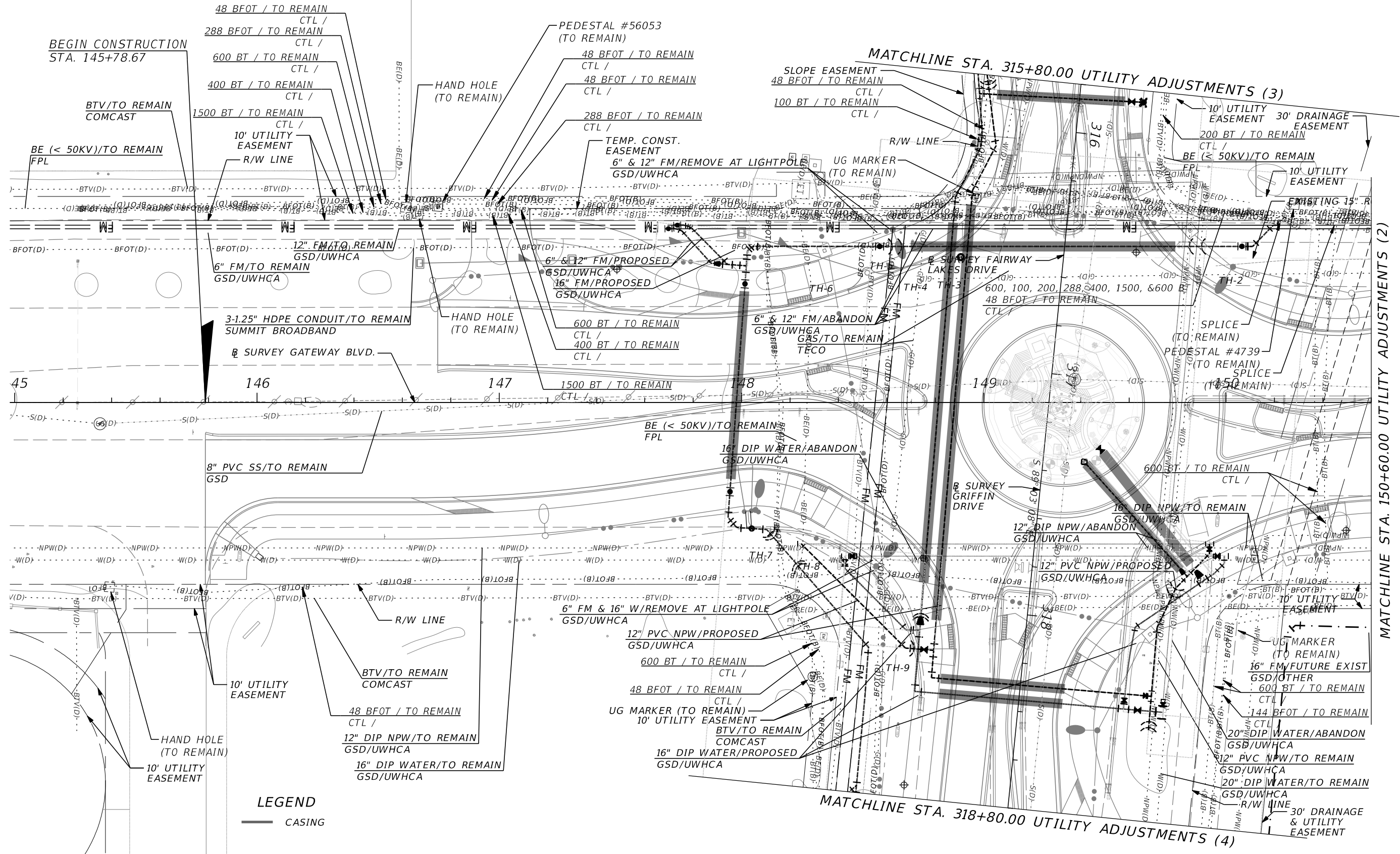
PHASE V - OPERATIONS ARE TO MOVE TRAFFIC ONTO NEWLY CONSTRUCTED ROADWAY AND CONSTRUCT TRAFFIC SEPARATORS, THE CENTER OF THE ROUNDABOUT, COMPLETE ANY REMAINING SIDEWALKS ON GRIFFIN DRIVE AND REMOVE TEMPORARY PAVEMENT FROM THE PREVIOUS PHASES OF CONSTRUCTION.

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 DEVICES 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.

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TEMPORARY TRAFFIC CONTROL (4)		200671	62

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GATEWAY BOULEVARD



LEGEND
 — CASING

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
 INTERSECTION CONTROL (ROUNDBOUT)
UTILITY ADJUSTMENTS (1)

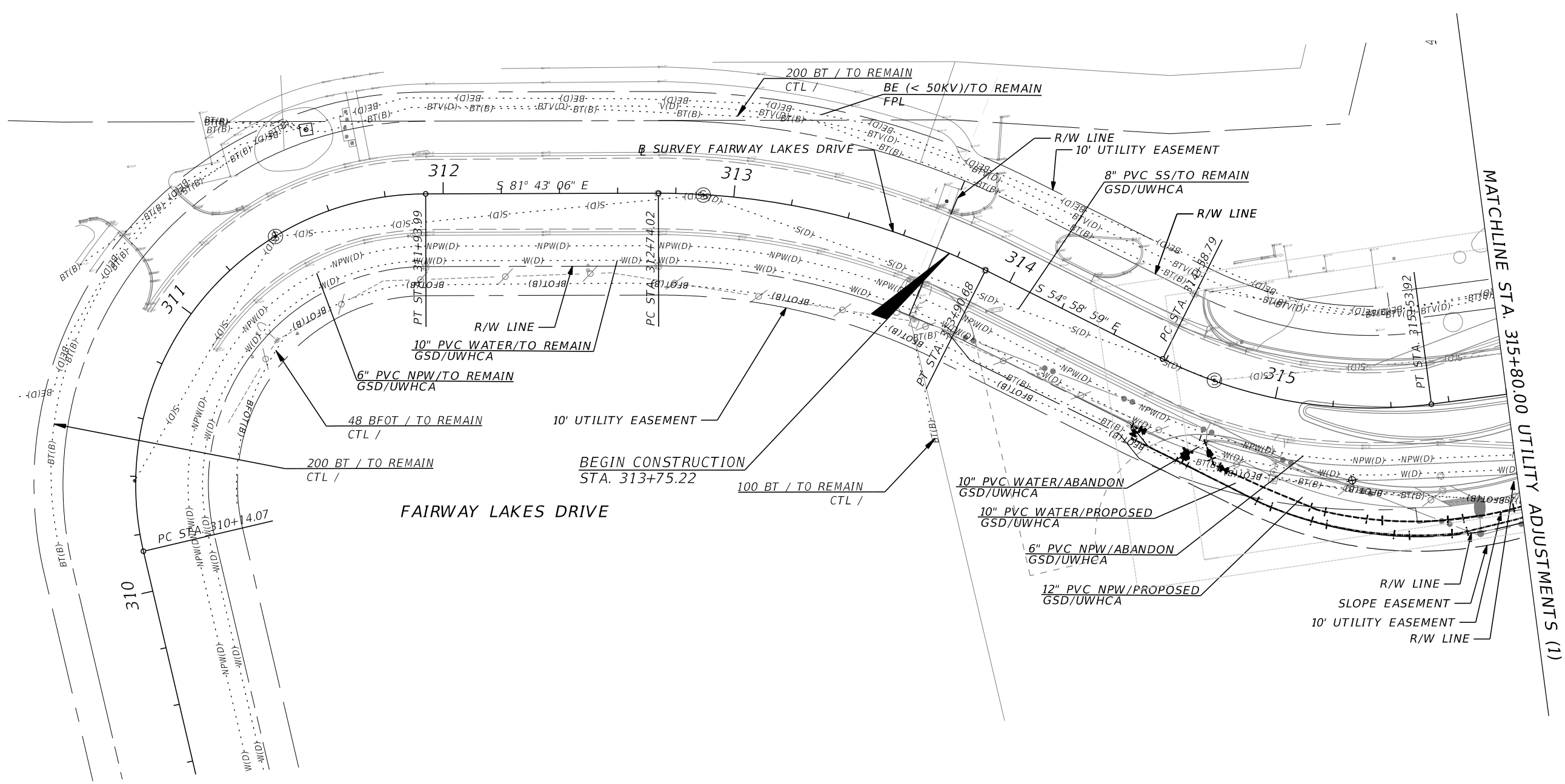
COUNTY PROJECT NO. 200671
 SHT. NO. 63

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MATCHLINE STA. 315+80.00 UTILITY ADJUSTMENTS (3)

MATCHLINE STA. 150+60.00 UTILITY ADJUSTMENTS (2)

MATCHLINE STA. 318+80.00 UTILITY ADJUSTMENTS (4)



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

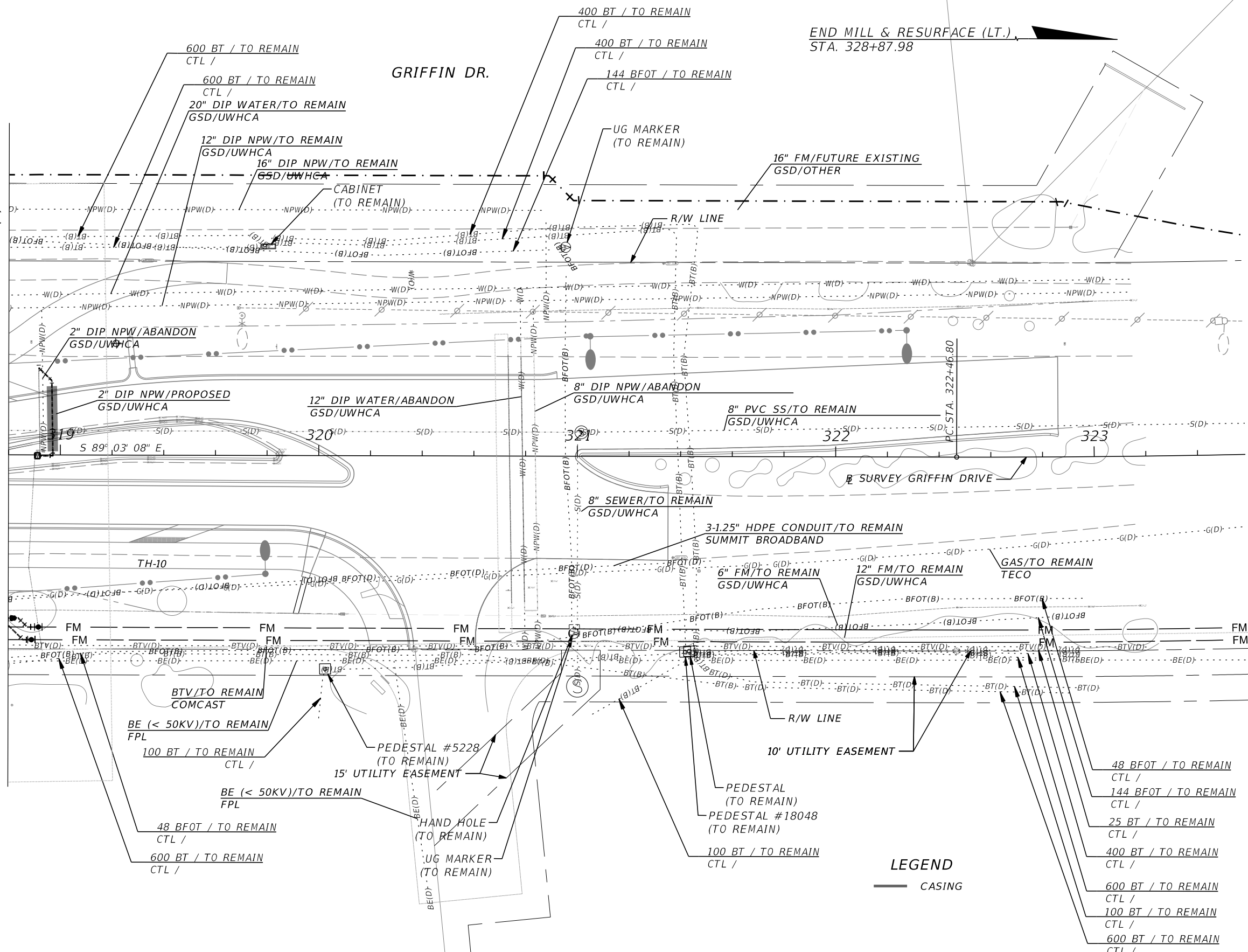


GATEWAY BOULEVARD AT GRIFFIN DRIVE
 INTERSECTION CONTROL (ROUNDAABOUT)
UTILITY ADJUSTMENTS (3)

COUNTY PROJECT NO.	SHT. NO.
200671	65

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MATCHLINE STA. 318+76.00 UTILITY ADJUSTMENTS (1)



- LEGEND**
- CASING

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
INTERSECTION CONTROL (ROUNDBABOUT)
UTILITY ADJUSTMENTS (4)

COUNTY PROJECT NO.	SHT. NO.
200671	66

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T2 UES, Inc

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

Subsurface Utility Engineering Test Hole Field Data


T2 Project No.: 190302
Client Project No.:
Proj. Road Name: GATEWAY BLVD.
Proj. Location: GATEWAY
City, County, State: FORT MYERS, LEE, FLORIDA

Date: 10/2/20&12/8/20
Vac Truck/Trailer No.: 55589
SUE Crew: R.P., J.A.
Prepared By: A.C.
Checked By: C.C.
Units: U.S. Survey Feet
Datum(s): **Horizontal:** NAD 83/11 **Vertical:** NAVD 88

Utility Material:		Utility 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

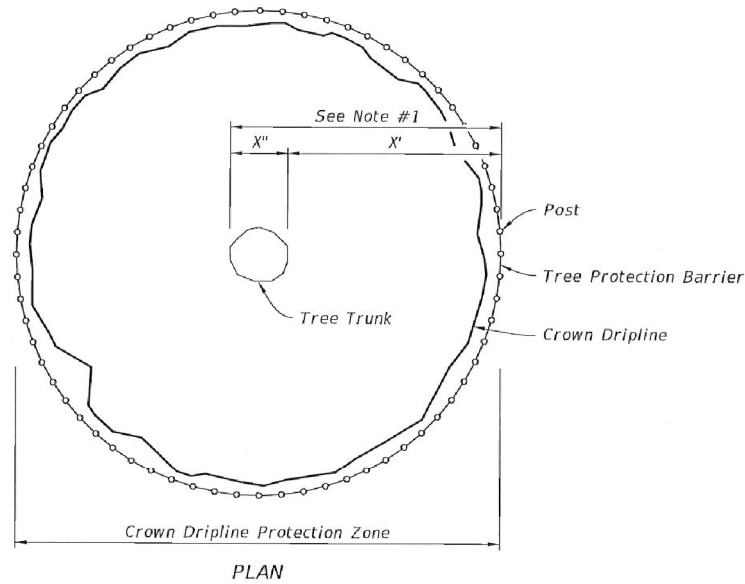
Notes: TH-9 & TH-10 Were Exploratory and closed due to cave in.

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TEST HOLE FIELD DATA		200671	67

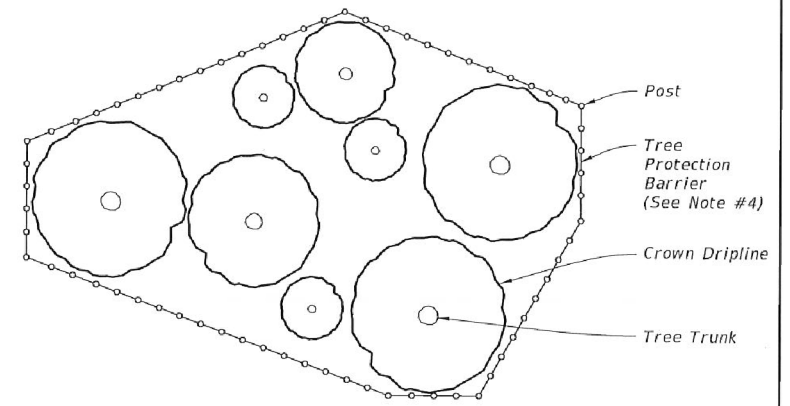
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NOTES:

1. 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.
2. Staging, storage, dumping, washing and operation of equipment is not permitted within the limits of the tree protection barrier, including during barrier installation.
3. 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.
5. 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.
7. 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 protection barrier detailed on this Index.

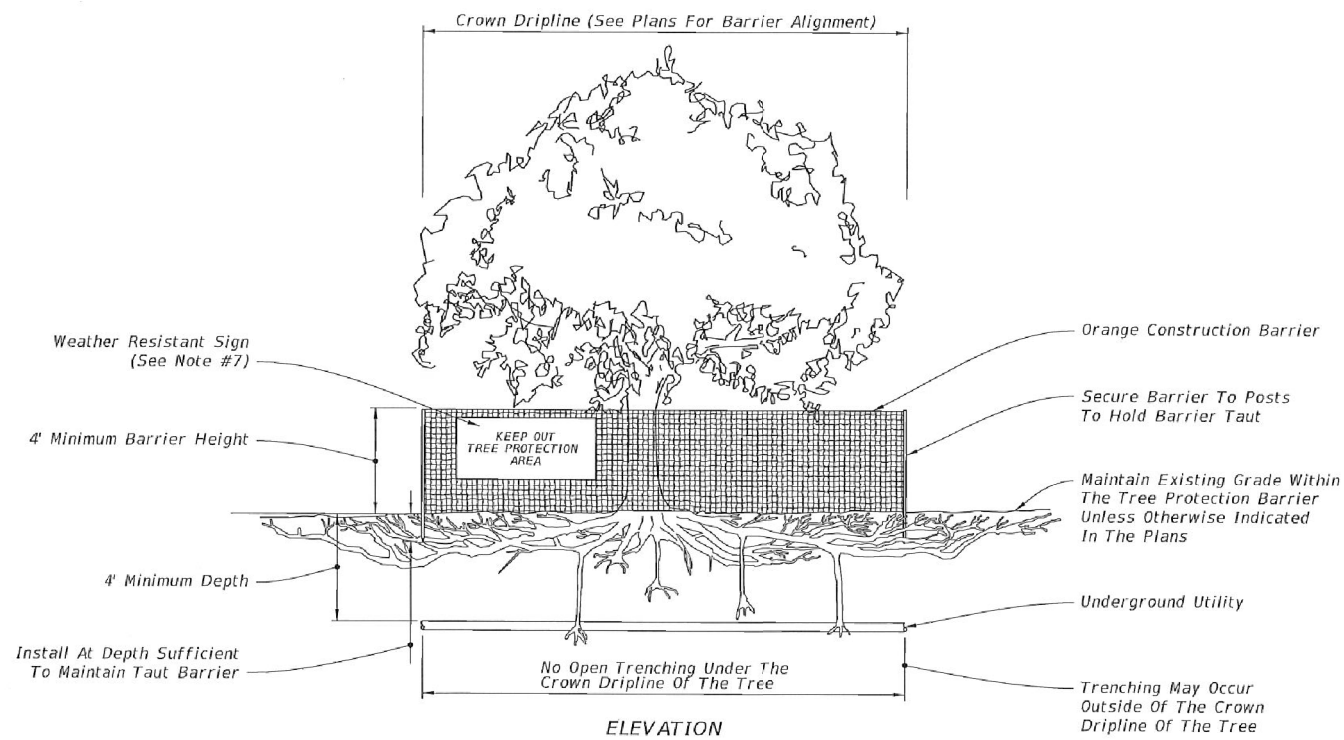


PLAN



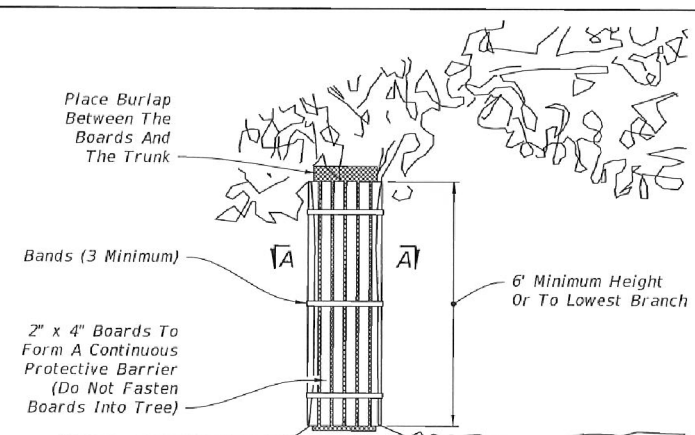
PLAN

PROTECTION BARRIER FOR TREE GROUPINGS

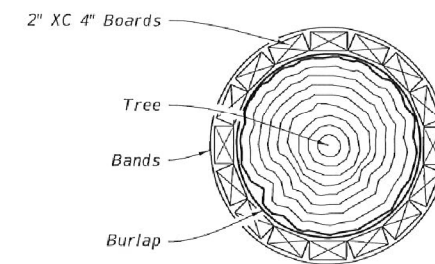


ELEVATION

TREE PROTECTION BARRIER



ELEVATION



SECTION A-A

NOTES:

1. Install trunk protection when Tree Protection Barrier can not be reasonably erected.
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

10/11/2016 9:24:43 AM

LAST REVISION 11/01/16	DESCRIPTION:		FY 2017-18 DESIGN STANDARDS	TREE PROTECTION AND PRESERVATION	INDEX NO. 542	SHEET NO. 1 of 1

REVISIONS				JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759	DEPARTMENT OF TRANSPORTATION	GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDBOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			TREE PROTECTION DETAILS		200671	68

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

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. CLEARING AND GRUBBING INCLUDES THE COST OF ALL TREE AND STUMP REMOVAL. ALSO INCLUDES REMOVING DECORATIVE STREET SIGNS IN MEDIANS.

430-175-118/430-175-124/430-175-130 DESILTING PIPE PRIOR TO PROJECT COMPLETION TO BE INCLUDED IN PROPOSED PIPE PAY ITEMS. CONCRETE PIPE JACKET IS INCLUDED IN THE COST OF THE PIPE PER INDEX 430-001.

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 OF LUMP SUM ITEMS					
PAY ITEM NO.	PAY ITEM DESCRIPTION	QUANTITY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
101-1	MOBILIZATION	1			

SUMMARY OF TEMPORARY TRAFFIC CONTROL PLAN ITEMS								
PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	TOTAL		GRAND TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
			P	F	P	F		
102-1	MAINTENANCE OF TRAFFIC	LS	1		1		485 DA	

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			SUMMARY OF QUANTITIES		200671	SQ-1

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

SUMMARY OF EROSION AND SEDIMENT CONTROL DEVICES

LOCATION STA. TO STA.	SIDE	AREA ID	SEDIMENT BARRIER		STAKED TURBIDITY BARRIER		SOIL TRACKING PREVENTION DEVICE		INLET PROTECTION SYSTEM		DESIGN NOTES	CONSTRUCTION REMARKS
			0104 10 3		0104 12		0104 15		0104 18			
			LF		LF		EA		EA			
P	F	P	F	P	F	P	F	P	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			
146+61.85 to 146+65.50	RT								1			
147+25.86 to 147+30.51	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			
SUB-TOTAL:			4635.5		41.1		4.0		17			
TOTAL:			4636		41		4		17			

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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
SUMMARY OF QUANTITIES		200671	SQ-2

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

SUMMARY OF LITTER REMOVAL AND MOWING

CONST. PHASE	LOCATION STA. TO STA.	SIDE	DURATION (DAYS)	FREQUENCY (DAYS)	LITTER REMOVAL					MOWING					DESIGN NOTES	CONSTRUCTION REMARKS
					0107 1					0107 2						
					AREA ID	CYCLES	AC/CYCLE	AREA		AREA ID	CYCLES	AC/CYCLE	AREA			
								TOTAL (AC)					TOTAL (AC)			
P	F	P	F													
ALL	145+80.67 to 148+56.58	RT		30	24371	12	0.23	21.52								
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	29.49			
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: 21.52					SUB-TOTAL: 29.49						
					TOTAL: 21.5					TOTAL: 29.5						

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			SUMMARY OF QUANTITIES		200671	SQ-3

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

SUMMARY OF REMOVAL ITEMS

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	AREA ID	LENGTH	WIDTH	UNITS	SECONDARY UNITS (IF LUMP SUM)	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS	
		STA. TO STA.						AREA (AC)	P	F	P	F			
110-1-1	CLEARING AND GRUBBING	145+78.59 TO 148+31.76	LT/RT	20653			LS	0.117	2.0		1				
		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							
		317+91.19 TO 320+11.39	LT/RT	24506				0.069							
		320+61.09 TO 321+35.18	RT	24483				0.056							
		321+01.55 TO 322+86.70	LT/RT	24489				0.070							
		110-4-10	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				MEDIAN CURB		
148+11.90 TO 148+74.98	RT			21307					24.4				CURB		
148+31.65 TO 148+75.46	LT			21322					4.4				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				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				MEDIAN CURB		
317+44.85 TO 319+64.49	LT			21250					190.4				SIDEWALK		
317+49.12 TO 318+69.70	LT			21263					28.1				CURB		
317+63.02 TO 319+85.85	LT/RT			21273					51.6				MEDIAN CURB		
317+64.39 TO 319+82.75	RT	21294					49.0				MEDIAN CURB				


SUMMARY OF MAILBOXES

STATION	SIDE	QUANTITY		DESIGN NOTES	CONSTRUCTION REMARKS
		0110	7 1		
		P	F		
314+83	LT	1			
SUB-TOTAL:					
TOTAL:					

SUMMARY OF EARTHWORK

PAY ITEM NO.	PAY ITEM DESCRIPTION	CY		DESIGN NOTES	CONSTRUCTION REMARKS
		P	F		
120-1	REGULAR EXCAVATION	1367			
120-6	EMBANKMENT	1795			


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.

REVISIONS				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 INTERSECTION CONTROL (ROUNDABOUT)	COUNTY PROJECT NO.	SHT. NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			SUMMARY OF QUANTITIES	200671	SQ-4

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

SUMMARY OF PAVEMENT


PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION		SIDE	AREA ID	LENGTH	WIDTH	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.	DESCRIPTION						P	F	P	F		
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 .5")	149+59.86 to 149+59.86		RT	16510			TN	582.84		1915.8			
		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					
		145+80.00 to 150+60.00		LT/RT					200.96				OVERBUILD GATEWAY BLVD	
		315+00.00 to 315+80.00		LT/RT					153.57				OVERBUILD FAIRWAY LAKES DR	
		317+90.00 to 322+86.00		LT/RT					788.65				OVERBUILD GRIFFIN DR	
0337 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					
		317+94.29 to 322+86.06		LT/RT	11994				69.02					
		321+35.17 to 324+45.94		RT	14371				32.58					
		322+86.05 to 328+87.98		LT	11976				84.92					
0350-30-13	CONCRETE PAVEMENT FOR ROUNDABOUT APRON, 12" DEPTH	149+59.86 to 149+59.86		RT	16634			SY	206.64		206.6			

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 INTERSECTION CONTROL (ROUNDABOUT)	COUNTY PROJECT NO.	SHT. NO.
						SUMMARY OF QUANTITIES	200671	SQ-5

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

SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS


PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION STA. TO STA.	SIDE	AREA ID	UNIT	QUANTITY				TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
						GROSS LENGTH	DEDUCTIONS		NET LENGTH		P		
		TYPE					LENGTH	P	F				
0520 1 7	Concrete Curb & Gutter, Type E	145+78.89 to 145+84.67	RT		LF	5.9			5.9	2108			
		145+84.67 to 146+63.54	RT			128.9			128.9				
		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				
		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				

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					<p>JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759</p>		 <p align="center">Lee County Southwest Florida DEPARTMENT OF TRANSPORTATION</p>		<p align="center">GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDABOUT)</p> <p align="center">SUMMARY OF QUANTITIES</p>		<p align="center">COUNTY PROJECT NO. 200671</p>	<p align="center">SHT. NO. SQ-6</p>
DATE	DESCRIPTION	DATE	DESCRIPTION																

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

SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS


PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION STA. TO STA.	SIDE	AREA ID	UNIT	QUANTITY				TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS	
						GROSS LENGTH	DEDUCTIONS		NET LENGTH		P			F
		TYPE					LENGTH	P	F					
0520 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						
0520 1 10	Concrete Curb & Gutter, Type F	145+80.67 to 145+80.67	RT		LF	5.6			5.6	2262				
		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			135.5			135.5					
		147+10.31 to 147+96.03	RT			136.5			136.5					

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	 Lee County Southwest Florida DEPARTMENT OF TRANSPORTATION	GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDABOUT)		COUNTY PROJECT NO.	SHT. NO.
						SUMMARY OF QUANTITIES		200671	SQ-7

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

SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION	SIDE	AREA ID	UNIT	QUANTITY				TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS	
						STA. TO STA.	GROSS LENGTH	DEDUCTIONS		NET LENGTH				P
		TYPE						LENGTH	P	F				
0520 1 10	Concrete Curb & Gutter, Type F (CONT'D)	147+64.00 to 148+54.53	LT		LF		92.3							
		147+96.03 to 148+37.22	RT				42.7							
		148+37.22 to 148+56.58	RT				22.4							
		148+54.53 to 148+76.58	LT				23.7							
		148+56.58 to 148+87.48	RT				72.3							
		148+76.58 to 149+12.38	LT				78.5							
		149+52.58 to 150+09.01	RT				66.4							
		149+55.60 to 149+93.02	LT				87.0							
		149+93.02 to 150+04.46	LT				13.4							
		150+04.46 to 150+62.44	LT				60.2							
		150+09.01 to 150+65.50	RT				58.0							
		150+62.44 to 151+14.07	LT				52.5							
		150+65.50 to 151+18.05	RT				52.5							
		151+14.07 to 151+75.20	LT				61.7							
		151+18.05 to 151+23.90	RT				5.9							
		151+85.11 to 152+35.37	LT				50.3							
		152+35.37 to 152+86.66	LT				51.5							
		152+86.66 to 153+37.55	LT				51.0							
		153+37.55 to 153+43.40	LT				5.9							
		313+91.78 to 314+42.65	RT				50.9							
		314+24.94 to 314+43.12	LT				18.2							
		314+42.65 to 314+81.11	RT				40.7							
		314+43.12 to 314+68.74	LT				24.7							
		314+65.00 to 314+72.37	LT				9.2							
		314+72.37 to 314+86.16	LT				12.6							
		314+86.16 to 315+65.77	LT				72.5							
		314+87.21 to 314+99.13	RT				13.4							
		314+99.13 to 315+01.07	RT				2.3							
		315+01.07 to 315+91.25	RT				100.2							
		315+65.77 to 315+87.56	LT				21.8							
		317+95.04 to 318+48.59	LT				58.2							
		318+23.85 to 319+87.22	RT				163.4							
		318+48.59 to 319+03.65	LT				55.7							
		319+03.65 to 319+23.52	LT				20.0							
		319+33.39 to 319+67.88	LT				34.5							
		319+67.88 to 320+92.14	LT				124.2							
		319+87.22 to 320+34.95	RT				72.9							
0520 2 4	Concrete Curb, Type D	149+30.08 to 149+35.59	LT/RT		LF		205.8			206				
0520 2 8	Concrete Curb, Type RA	148+88.58 to 149+77.08	RT		LF		278.0			278				

<p align="center">REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				DATE	DESCRIPTION	DATE	DESCRIPTION					<p>JASON Y. YAM, P.E. P.E. LICENSE NUMBER 62449 CARDNO, INC. 380 PARK PLACE BOULEVARD, SUITE 300 CLEARWATER, FLORIDA 33759</p>	 <p>DEPARTMENT OF TRANSPORTATION</p>	<p align="center">GATEWAY BOULEVARD AT GRIFFIN DRIVE INTERSECTION CONTROL (ROUNDABOUT)</p> <p align="center">SUMMARY OF QUANTITIES</p>	<p align="center">COUNTY PROJECT NO. 200671</p>	<p align="center">SHT. NO. SQ-8</p>
DATE	DESCRIPTION	DATE	DESCRIPTION													

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

SUMMARY OF SIDEWALK & DETECTABLE WARNINGS

LOCATION STA. TO STA.	SIDE	AREA ID	LENGTH	WIDTH	CONC SIDEWALK 6"		DETECTABLE WARNINGS		DIRECTIONAL INDICATORS		DESIGN NOTES	CONSTRUCTION REMARKS
					0522 2		0527 2		0919-528			
					SY		SF		SF			
					P	F	P	F	P	F		
145+89.11 to 148+54.06	RT	17141			336.0							
147+12.62 to 149+00.59	LT	17118			268.4							
148+26.71 to 148+58.13	LT/RT	12260			37.2							
148+37.26 to 148+67.85	LT/RT	21100			49.1						MEDIAN NOSE	
149+55.81 to 151+18.11	RT	17069			187.2							
149+81.90 to 151+61.74	LT	17046			208.3							
149+98.37 to 150+28.36	LT/RT	20387			42.3						MEDIAN NOSE	
150+12.13 to 150+39.34	LT/RT	12275			30.7							
313+90.96 to 314+81.48	RT	12237			161.2						DRIVEWAY	
314+24.94 to 314+24.94	LT	12229			34.7						DRIVEWAY	
314+66.60 to 316+29.27	RT	17014			245.2							
315+40.29 to 316+47.42	LT	17031			95.7							
316+09.79 to 316+20.32	LT/RT	12288			6.6							
316+20.72 to 316+34.60	LT/RT	20527			13.1						MEDIAN NOSE	
317+70.78 to 317+70.78	RT	17104			323.9							
317+91.15 to 318+03.79	LT/RT	29011			19.4						MEDIAN NOSE	
317+98.50 to 319+64.50	LT	17086			211.8							
317+99.82 to 318+13.12	LT/RT	12253			13.2							
148+18.99 to 148+29.15	LT	20258					19.9					
148+25.69 to 148+35.57	RT	20259					19.8					
148+26.71 to 148+36.89	LT	20264					19.6					
148+45.97 to 148+55.61	RT	20265					19.6					
150+13.59 to 150+23.85	LT/RT	20266					19.6					
150+25.20 to 150+35.69	LT	20263					20.1					
150+28.96 to 150+39.33	RT	20267					19.9					
150+32.26 to 150+42.35	RT	20262					19.8					
316+08.06 to 316+17.97	LT	20256					20.7					
316+11.84 to 316+22.07	RT	20257					20.6					
318+00.68 to 318+11.46	RT	20269					20.2					
318+02.83 to 318+13.12	LT/RT	20270					20.0					
318+06.84 to 318+17.12	RT	20260					20.2					
318+13.23 to 318+23.64	LT	20261					20.2					
146+77.94 to 146+97.79	RT	20275						31.1				
147+81.42 to 147+99.77	LT	20276						28.1				
150+50.03 to 150+52.76	RT	20278						12.5				
150+70.28 to 150+90.75	LT	20277						30.7				
315+53.27 to 315+66.80	RT	20272						22.2				
315+97.40 to 316+00.58	LT	20271						12.5				
318+64.83 to 318+75.35	LT	20273						17.8				
319+26.64 to 319+49.67	RT	20274						35.7				
SUB-TOTAL:					2284.0		280.2		190.6			
TOTAL:					2284		280		191			

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
INTERSECTION CONTROL (ROUNDABOUT)

SUMMARY OF QUANTITIES

COUNTY PROJECT NO.	SHT. NO.
200671	SQ-9

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

SUMMARY OF DITCH PAVEMENT						
LOCATION	SIDE	AREA ID	DITCH PAVEMENT REINFORCED (4")		DESIGN NOTES	CONSTRUCTION REMARKS
			0524	1 29		
STA. TO STA.			SY			
			P	F		
GATEWAY BLVD.						
145+99.33 to 146+02.60	RT	24949	0.9		CLOSED FLUME	
148+01.71 to 148+04.43	RT	20478	3.6		CLOSED FLUME	
151+79.00 to 151+81.00	LT	23043	0.9		OPEN FLUME	
GRIFFIN DR.						
319+25.86 to 319+29.01	LT	14527	3.6		OPEN FLUME	
319+90.25 to 319+95.95	RT	23053	3.6		CLOSED FLUME	
SUB-TOTAL:			12.5			
TOTAL:			13			

SUMMARY OF PERFORMANCE TURF						
LOCATION	SIDE	AREA ID	PERFORMANCE TURF (SOD)		DESIGN NOTES	CONSTRUCTION REMARKS
			0570	1 2		
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			
148+39.09 to 148+85.40	RT	20894	35.3			
149+30.08 to 149+30.08	RT	20436	374.4			
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			
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+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			
SUB-TOTAL:			8901.0			
TOTAL:			8901			

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
INTERSECTION CONTROL (ROUNDABOUT)
SUMMARY OF QUANTITIES

COUNTY PROJECT NO. 200671
SHT. NO. SQ-10

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

SUMMARY OF ROOT BARRIER					
LOCATION	SIDE	ROOT BARRIER		DESIGN NOTES	CONSTRUCTION REMARKS

		LF			
STA. TO STA.		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	LT	56.8			
149+62.93 to 150+15.13	RT	61.4			
149+66.56 to 150+11.90	LT	89.3			
150+11.90 to 150+25.28	LT	14.1			
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			
SUB-TOTAL:		2014.5			
TOTAL:		4249			

SUMMARY OF ROOT BARRIER					
LOCATION	SIDE	ROOT BARRIER		DESIGN NOTES	CONSTRUCTION REMARKS

		LF			
STA. TO STA.		P	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	LT	59.5			
152+86.74 to 153+43.55	LT	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	LT	17.7			
318+75.09 to 318+93.98	LT	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			
SUB-TOTAL:		2234.5			

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
INTERSECTION CONTROL (ROUNDABOUT)
SUMMARY OF QUANTITIES

COUNTY PROJECT NO. 200671
SHT. NO. SQ-11

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