

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

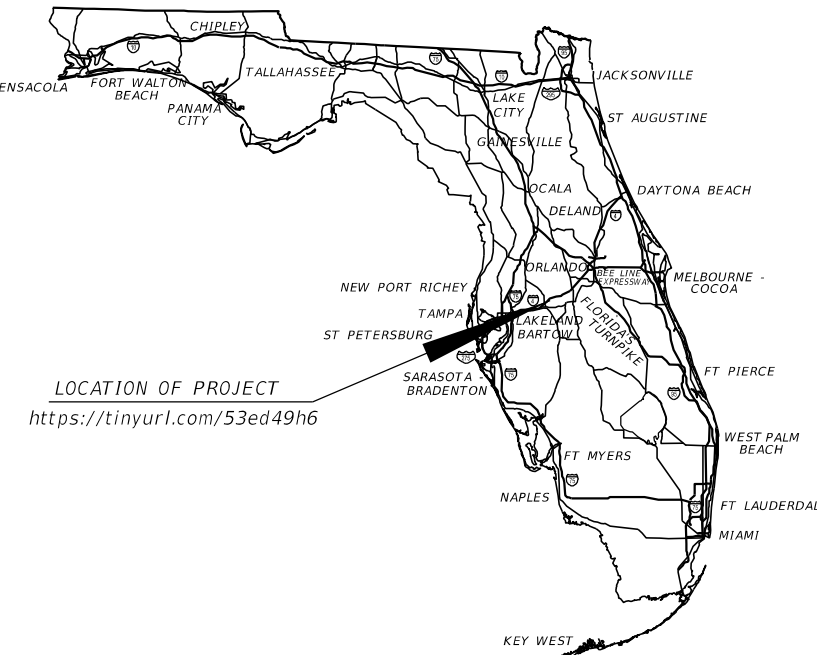
FINANCIAL PROJECT ID 430185-3-52-01
(FEDERAL FUNDS)

POLK COUNTY (16320)

STATE ROAD NO. 400

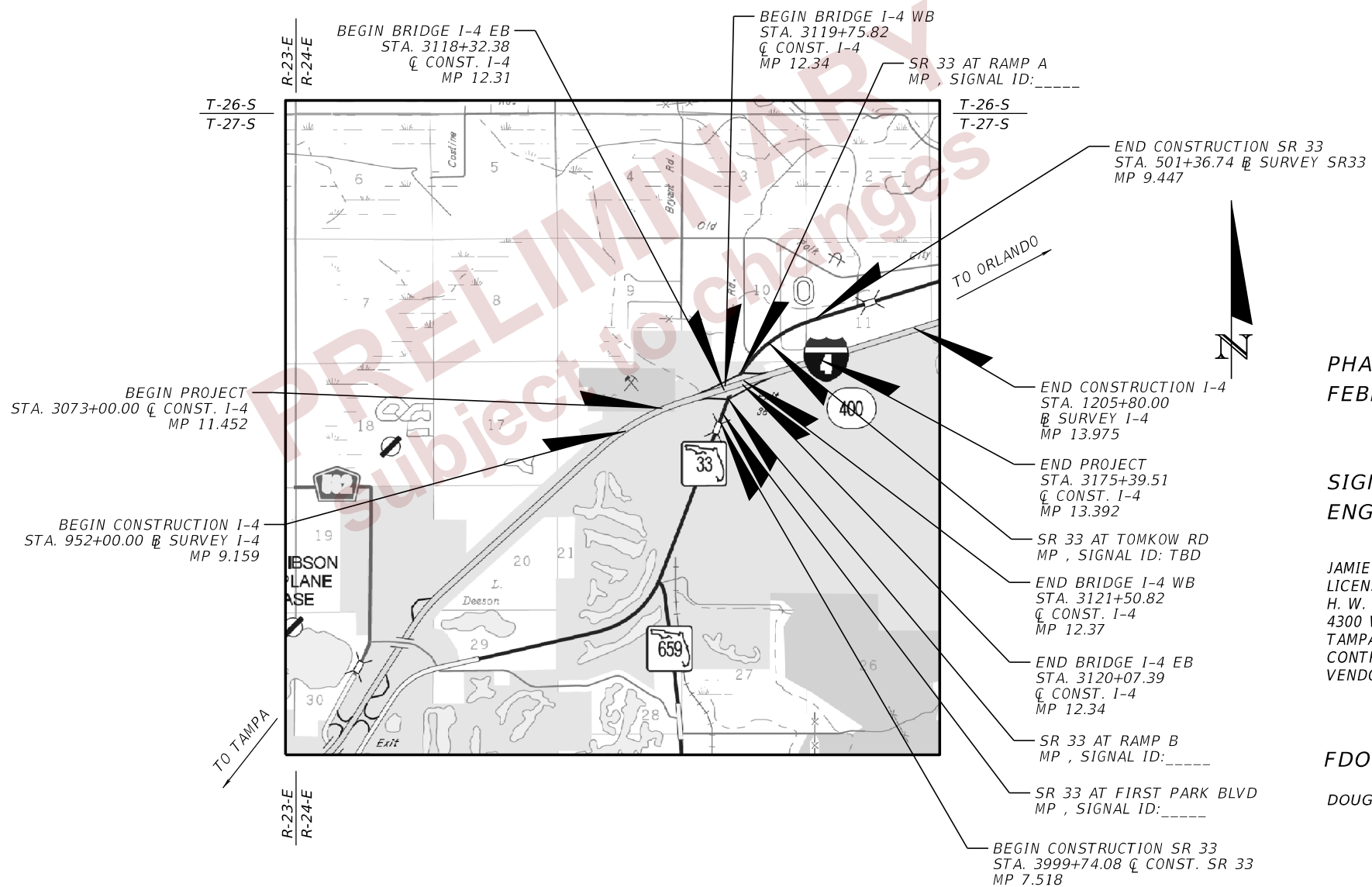
I-4 AT SR 33 INTERCHANGE MODIFICATION

SIGNALIZATION PLANS



INDEX OF SIGNALIZATION PLANS

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PHASE IV PLANS
FEBRUARY 2024

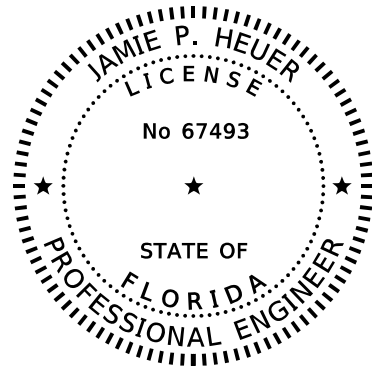
SIGNALIZATION PLANS
ENGINEER OF RECORD:

JAMIE P. HEUER, P.E.
LICENSE NUMBER 67493
H. W. LOCHNER
4300 W. CYPRESS STREET, SUITE 500
TAMPA, FLORIDA 33607
CONTRACT NO.: C9C38
VENDOR NO.: VF362338811001

FDOT PROJECT MANAGER:

DOUG BURKHART, P.E.

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
TBD	25	T-1



THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY

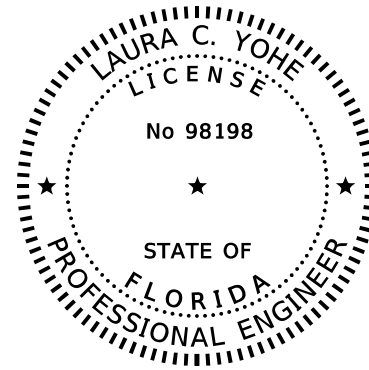
ON THE DATE ADJACENT TO THE SEAL

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

H.W. LOCHNER, INC.
4300 W. CYPRESS STREET, SUITE 500
TAMPA, FL 33607
JAMIE P. HEUER, P.E. NO. 67493

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>
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	GENERAL NOTES
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T-12	STRAIN POLE TABULATION



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H.W. LOCHNER, INC.
4300 W. CYPRESS STREET, SUITE 500
TAMPA, FL 33607
LAURA C. YOHE, P.E. NO. 98198

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>
T-2	SIGNATURE SHEET
T-13	STRAIN POLE DATA TABLE

PRELIMINARY
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REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						SR 400	POLK	430185-3-52-01	T-2

SIGNATURE SHEET

GENERAL NOTES

1. WHERE MAST ARM, STRAIN POLES, OR ANY OTHER SIGNAL EQUIPMENT REQUIRING FOUNDATIONS ARE PROPOSED WITHIN 4 FEET OF ANY UNDERGROUND UTILITY, THE UTILITY SHALL BE LOCATED AND PROTECTED AND THE INITIAL 5 FEET OF THE SHAFT INSTALLATION SHALL BE HAND DUG.
2. FOR REMOVED SIGNAL EQUIPMENT CLAIMED BY MAINTAINING AGENCY, CONTACT CITY OF LAKELAND.
3. MAINTAINING AGENCY: CITY OF LAKELAND.
4. PAVEMENT MARKINGS ARE SHOWN FOR REFERENCE PURPOSES ONLY. FOR PAVEMENT MARKING DESIGN INFORMATION, SEE PAVEMENT MARKING PLANS.
5. CONTACT THE MAINTAINING AGENCY, CITY OF LAKELAND, AT TELEPHONE NUMBER (863) 834-8447, FOR THE ASSIGNMENT OF THE PHYSICAL ADDRESS ONCE THE SERVICE DROP LOCATION HAS BEEN ESTABLISHED.
6. CONTACT REX HARRIS (863-834-6825) WITH LAKELAND TELECOMMUNICATIONS A MINIMUM OF TWO (2) FULL BUSINESS DAYS PRIOR TO REMOVAL AND/OR INSTALLATION OF FIBER/INTERCONNECT.
7. AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, CONTACT THE TRAFFIC SIGNAL INSPECTOR/LIAISON:

AL WEEKS
FLORIDA DEPARTMENT OF TRANSPORTATION
BARTOW OPERATIONS CENTER
2740 SR 60 WEST
BARTOW, FL 33830
PH: 863-519-4159
8. AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, CONTACT CITY OF LAKELAND TRAFFIC ENGINEERING SIGNAL SHOP AT (863) 834-8447.
9. WHEN CONSTRUCTION IS COMPLETE, IN ADDITION TO THE REQUIREMENT OF STANDARD SPECIFICATION 9-8, PROVIDE A SET OF "AS-BUILT" PLANS TO:

CITY OF LAKELAND TRAFFIC OPERATIONS
THERESA SCHWARTZ, MANAGER OF TRAFFIC OPERATIONS
834 E ROSE ST.
LAKELAND, FL 33801
10. WHEN CONSTRUCTION IS COMPLETE, PROVIDE A SET OF "AS-BUILT" PLANS IN ELECTRONIC FORM (PDF) TO:

FDOT TRAFFIC OPERATIONS
NEAL TURNER, P.E., TSM&O ENGINEER - ARTERIALS
801 N. BROADWAY AVE.
P.O. BOX 1249
BARTOW, FL 33830-1249
EMAIL: NEAL.TURNER@DOT.STATE.FL.US
PHONE: 863-519-2746
11. 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 LOCATION / ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN POINTS HAVE NOT BEEN VERIFIED.

PAY ITEM NOTES:

- 635-2-11:
PULL BOXES ARE TO BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, PULL BOXES SHALL BE PLACED A MINIMUM OF 7' FROM THE EDGE OF PAVEMENT.

USE POLYMER CONCRETE CONSTRUCTION PULL BOXES WITH POLYMER CONCRETE COVERS.
- 639-1-112, 639-1-121, 639-1-122, AND 639-3-11:
USE ALUMINUM RIGID ABOVEGROUND CONDUIT FOR ELECTRICAL POWER SERVICE.

THE ELECTRICAL SERVICE DISCONNECT IS 100 AMP, COMPRISING OF A SIX (6) CIRCUIT DISCONNECT BOX WITH TWO CIRCUIT BREAKERS - ONE 50 AMP/120 VOLT FOR CONTROLLER/INTERNALLY ILLUMINATED STREET SIGNS AND ONE 15 AMP/120 VOLT FOR FUTURE USE.
- 639-2-1:
USE A BONDING WIRE FROM ELECTRICAL SERVICE POINT TO CONTROLLER.
- 646-1-11:
USE LOCKING COLLARS WHEN MOUNTING ALUMINUM PEDESTRIAN POLES TO PEDESTRIAN PEDESTAL BASES.

USE BREAKAWAY ALUMINUM SQUARE BASE ASSEMBLIES WITH ALUMINUM DOORS FOR PEDESTRIAN PEDESTALS.
- 649-1-15:
STEEL POLES ARE TO BE SINGLE PIECE CONSTRUCTION.

USE TWO 2" AND ONE 3/4" CONDUITS (EXCEPT FOR THE POLE LOCATED ADJACENT TO THE CONTROLLER CABINET WHICH SHALL HAVE THREE 2" CONDUITS) STUBBED OUT THROUGH STEEL STRAIN POLE FOOTER AND TEMPORARILY SEAL.
- 650-1-11, 650-1-14, 650-1-15, 650-1-16 AND 650-1-19 :
USE RED, YELLOW, GREEN, AND WHITE THHN #14 COPPER WIRES FROM DISCONNECT TO SIGNAL HEAD. PLACE A PERMANENT MARKING ON THE WIRE DESIGNATING THE PHASE USED.
- 653-1-11:
PEDESTRIAN SIGNAL HEADS TO BE 16" INTERNATIONAL SYMBOL, LED COUNTDOWN TYPE.
- 660-2-101, 660-2-102, AND 660-2-106:
PERMANENTLY MARK EACH LOOP PER PHASE AND PER VEHICLE MOVEMENT AT EACH SPLICE POINT AND AT THE CABINET TERMINATION POINT.

FOR INCREASED SENSITIVITY, INDUCTANCE LOOPS TO HAVE A MINIMUM OF THREE TURNS OF WIRE.
- 665-1-11:
USE PEDESTRIAN BUTTON SIGNAL SIGN FTP-68B-06 OR R10-3e. STREET NAME SHALL BE IN ACCORDANCE WITH THE STREET NAMES SHOWN ON THE SIGNALIZATION PLAN SHEETS.

USE TWO TONE TYPE PUSHBUTTONS WITH VISUAL INDICATION AND NON-LATCHING MOMENTARY.
- 670-5-110, 670-5-111, AND 670-5-112:
USE AN ECONOLITE NEMA 170 COBALT CONTROLLER WITH A 333 CABINET. ALL CONTROLLER EQUIPMENT TO BE COMPATIBLE WITH CITY OF LAKELAND'S CENTRACS ADVANCED TRAFFIC MANAGEMENT SYSTEM. CONTACT MAINTAINING AGENCY PRIOR TO ORDERING CONTROLLER ASSEMBLY TO CONFIRM EQUIPMENT COMPATIBILITY.

CONTROLLER MMU (MALFUNCTION MANAGEMENT UNIT) TO BE COMPATIBLE WITH FOUR SECTION HEAD OPERATION/LOGIC.
- 685-1-14:
INCLUDE AN UNINTERRUPTIBLE POWER SUPPLY UNIT (UPS). ATTACH UPS UNIT TO THE OUTSIDE OF THE CONTROLLER CABINET. INSTALL UPS UNIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. UPS EQUIPMENT TO BE COMPATIBLE WITH MAINTAINING AGENCY'S EXISTING SYSTEM.
- 700-5-21 AND 700-5-22:
ALL INTERNALLY ILLUMINATED STREET NAME SIGNS TO BE MOUNTED FREE SWINGING ON POLE BRACKET ARM ATTACHED TO POLE.

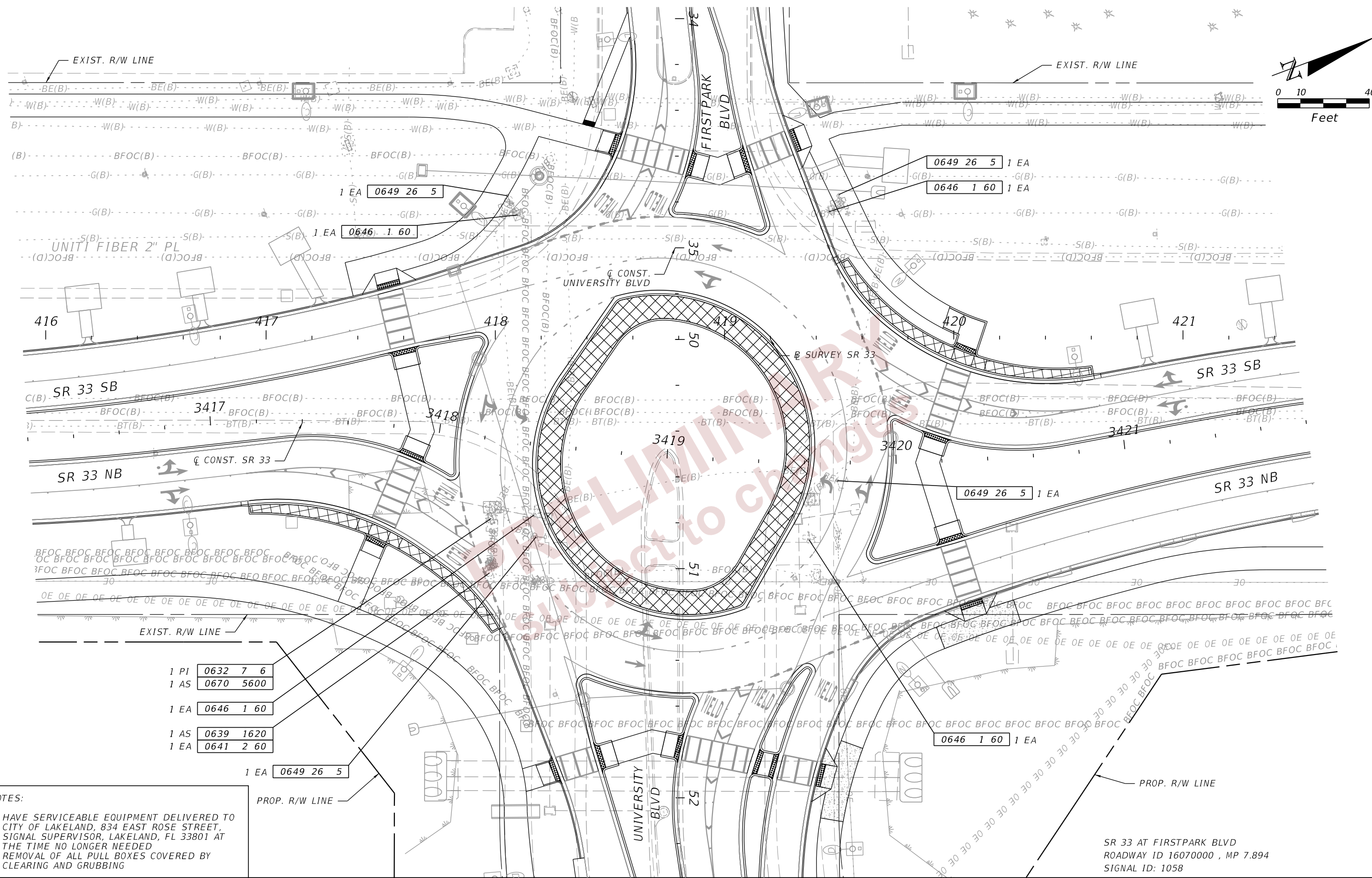
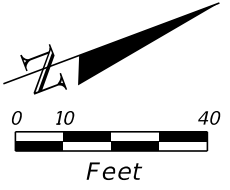
USE LED INTERNALLY ILLUMINATED STREET NAME SIGNS.

PRELIMINARY
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REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
											SR 400

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



- 1 PI 0632 7 6
- 1 AS 0670 5600
- 1 EA 0646 1 60
- 1 AS 0639 1620
- 1 EA 0641 2 60
- 1 EA 0649 26 5

NOTES:
 1. HAVE SERVICEABLE EQUIPMENT DELIVERED TO CITY OF LAKELAND, 834 EAST ROSE STREET, SIGNAL SUPERVISOR, LAKELAND, FL 33801 AT THE TIME NO LONGER NEEDED
 2. REMOVAL OF ALL PULL BOXES COVERED BY CLEARING AND GRUBBING

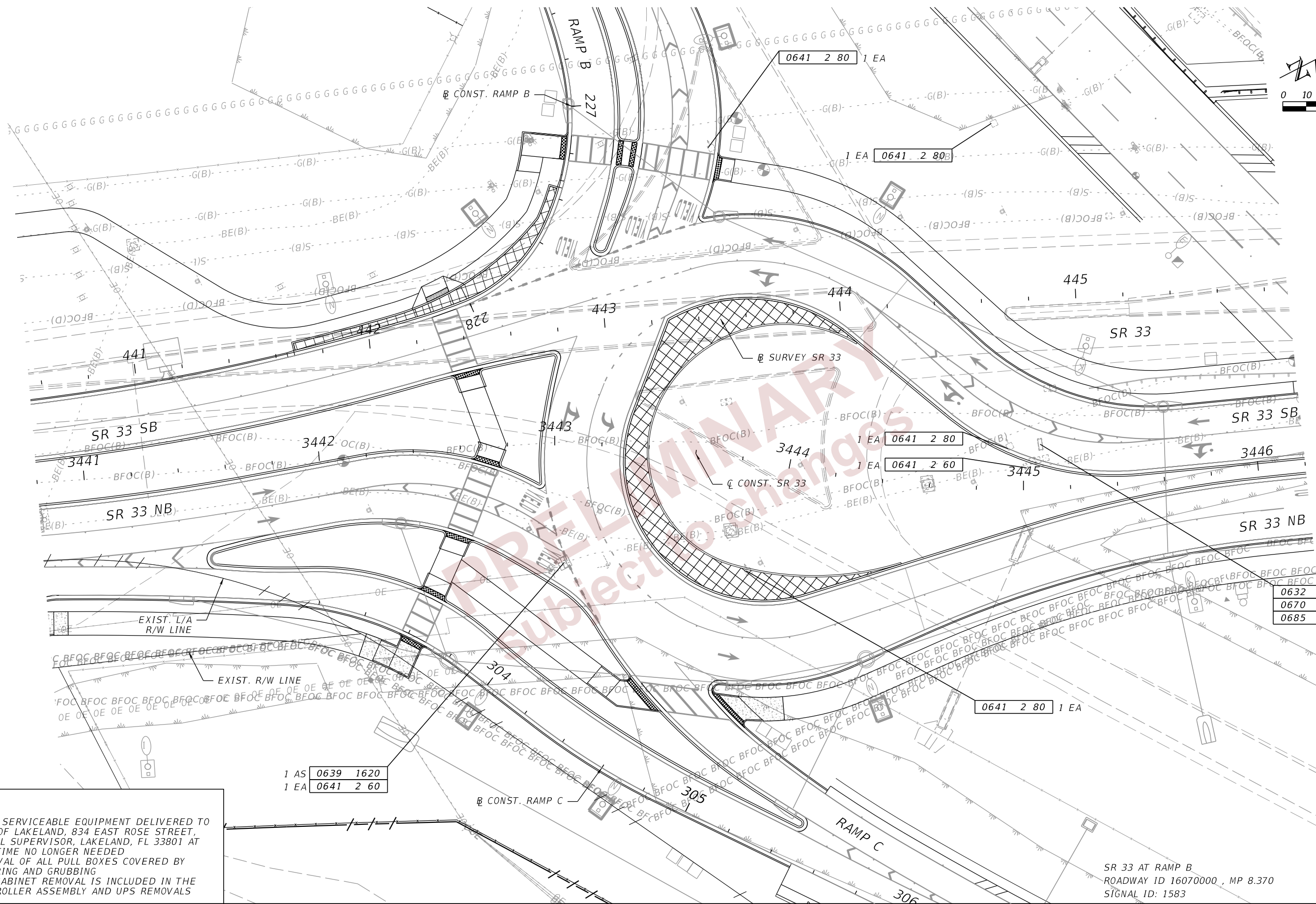
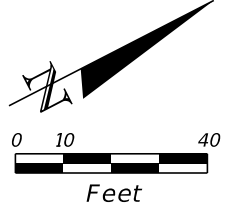
SR 33 AT FIRSTPARK BLVD
 ROADWAY ID 16070000 , MP 7.894
 SIGNAL ID: 1058

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REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
			JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607	SR 400	POLK	430185-3-52-01	T-4

SIGNALIZATION PLAN (01)

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



0632	7	6	1 PI
0670	5600		1 AS
0685	1	60	1 EA

1 AS	0639	1620
1 EA	0641	2 60

- NOTES:**
- HAVE SERVICEABLE EQUIPMENT DELIVERED TO CITY OF LAKELAND, 834 EAST ROSE STREET, SIGNAL SUPERVISOR, LAKELAND, FL 33801 AT THE TIME NO LONGER NEEDED
 - REMOVAL OF ALL PULL BOXES COVERED BY CLEARING AND GRUBBING
 - UPS CABINET REMOVAL IS INCLUDED IN THE CONTROLLER ASSEMBLY AND UPS REMOVALS

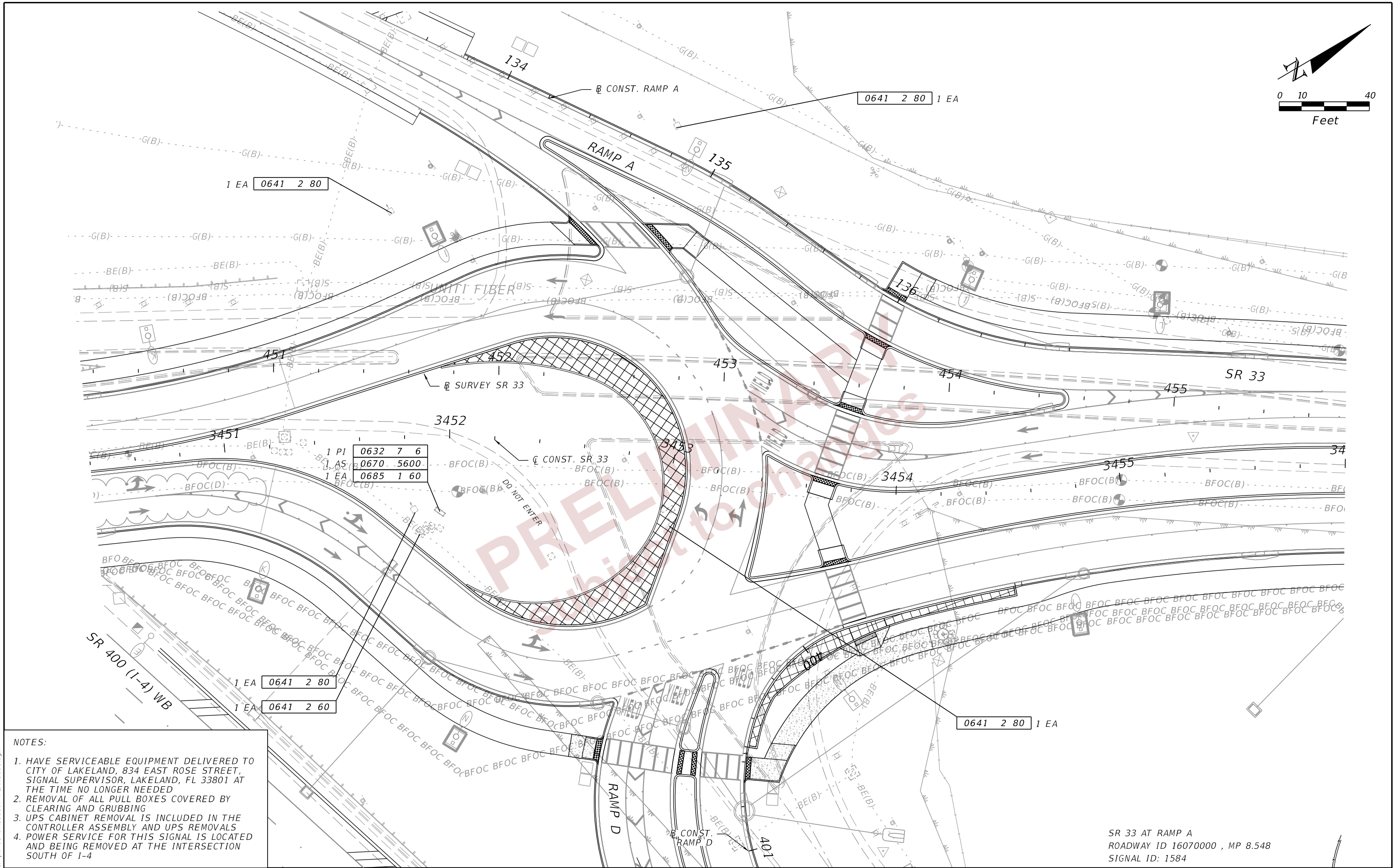
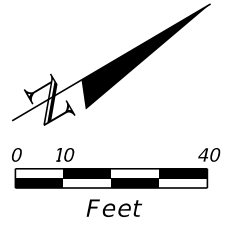
SR 33 AT RAMP B
ROADWAY ID 16070000 , MP 8.370
SIGNAL ID: 1583

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REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607	SR 400	POLK	430185-3-52-01	T-5

SIGNALIZATION PLAN (02)

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



- NOTES:
- HAVE SERVICEABLE EQUIPMENT DELIVERED TO CITY OF LAKELAND, 834 EAST ROSE STREET, SIGNAL SUPERVISOR, LAKELAND, FL 33801 AT THE TIME NO LONGER NEEDED
 - REMOVAL OF ALL PULL BOXES COVERED BY CLEARING AND GRUBBING
 - UPS CABINET REMOVAL IS INCLUDED IN THE CONTROLLER ASSEMBLY AND UPS REMOVALS
 - POWER SERVICE FOR THIS SIGNAL IS LOCATED AND BEING REMOVED AT THE INTERSECTION SOUTH OF I-4

REVISIONS		REVISIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION

ENGINEER OF RECORD
 JAMIE P. HEUER, P.E.
 LICENSE NUMBER: 67493
 H.W. LOCHNER, INC.
 4300 W. CYPRESS STREET, SUITE 500
 TAMPA, FL 33607

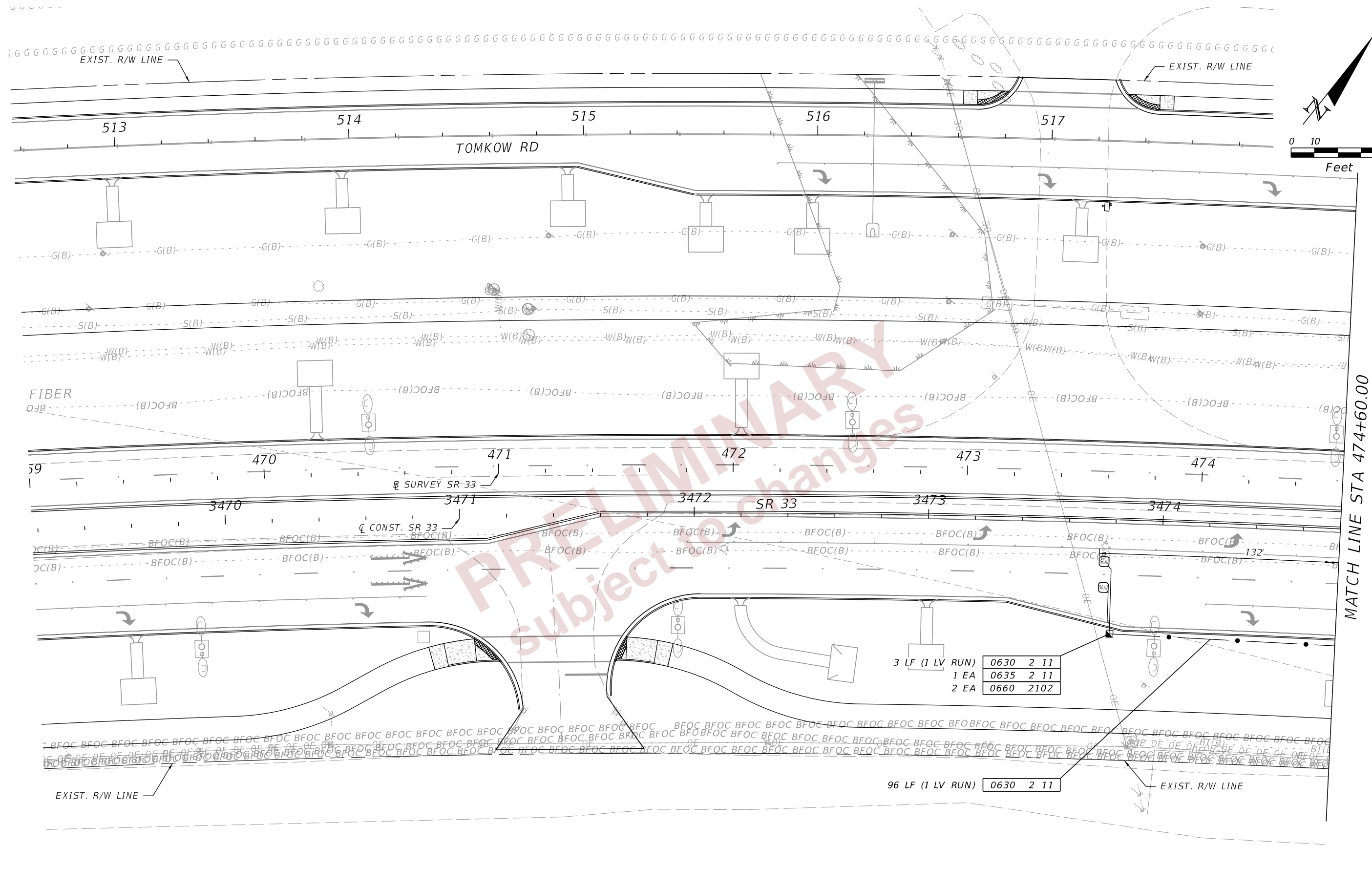
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	POLK	430185-3-52-01

SIGNALIZATION PLAN (03)
 SR 33 AT RAMP A
 ROADWAY ID 16070000 , MP 8.548
 SIGNAL ID: 1584

SHEET NO.
 T-6

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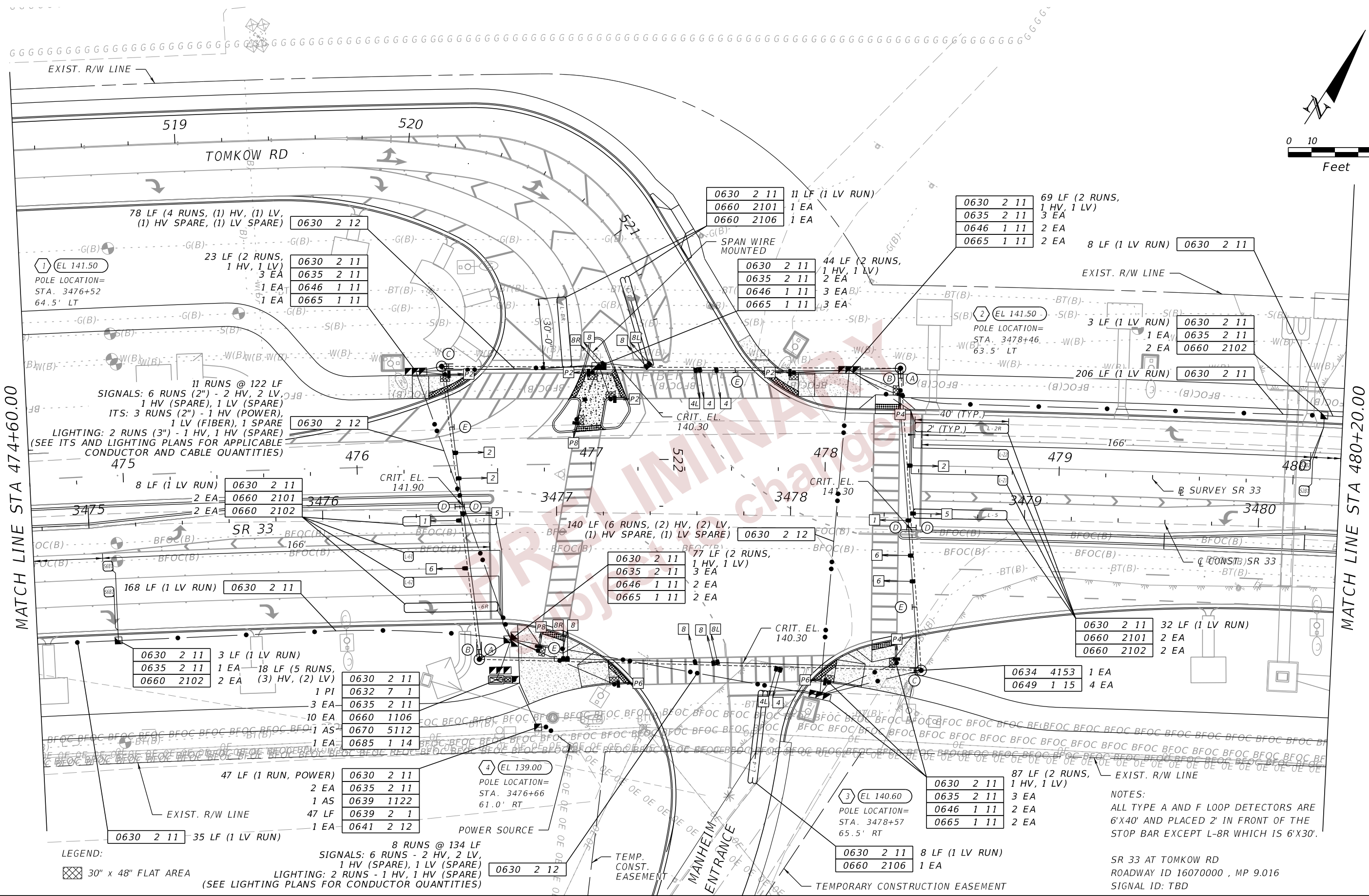
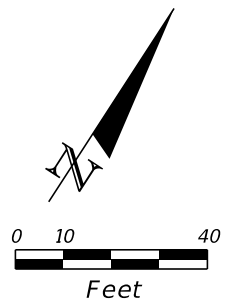


MATCH LINE STA 474+60.00

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REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNALIZATION PLAN (04)	SHEET NO. T-7
DATE	DESCRIPTION	DATE	DESCRIPTION				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607			SR 400	POLK	430185-3-52-01		

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MATCH LINE STA 474+60.00

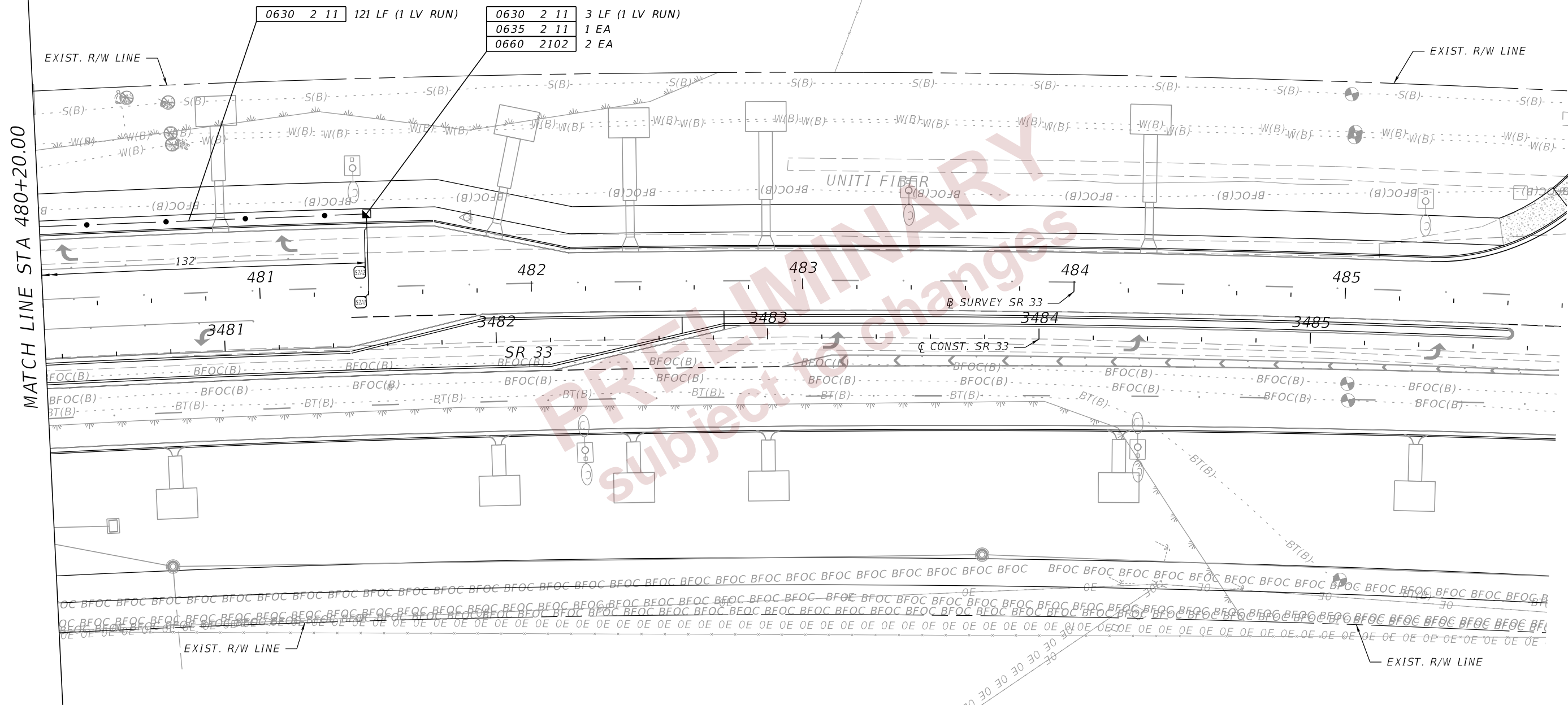
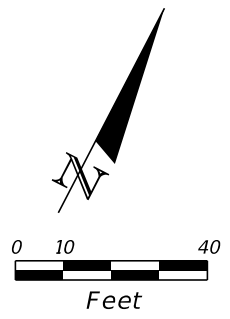
MATCH LINE STA 480+20.00

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REVISIONS		REVISIONS		ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607		SR 400	POLK	430185-3-52-01	

SIGNALIZATION PLAN (05)



MATCH LINE STA 480+20.00

0630	2	11	121 LF (1 LV RUN)
0635	2	11	3 LF (1 LV RUN)
0660	2	102	1 EA
			2 EA

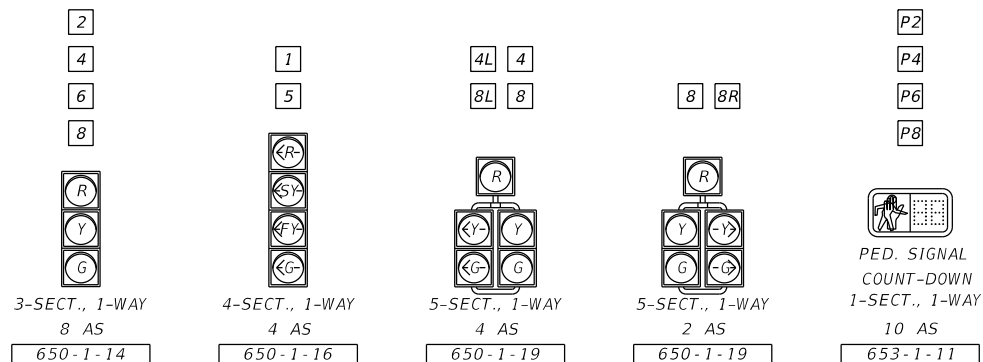
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				JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607			SR 400	POLK	430185-3-52-01	T-9

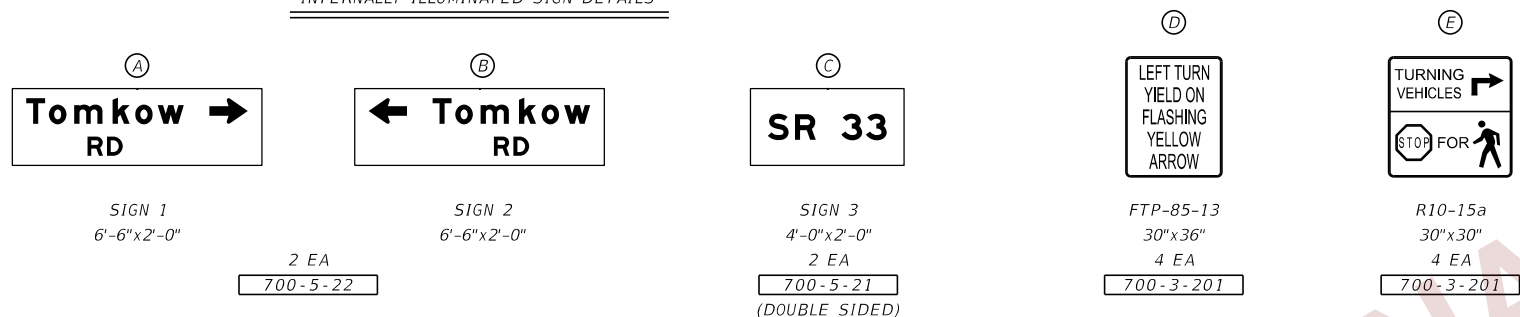
SIGNALIZATION PLAN (06)

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

SIGNAL HEAD DETAILS



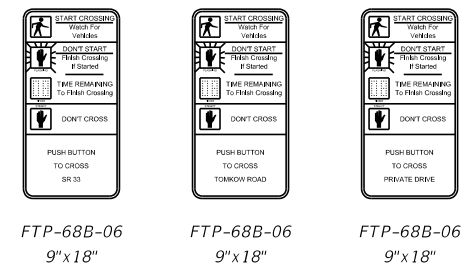
OVERHEAD SIGN DETAILS



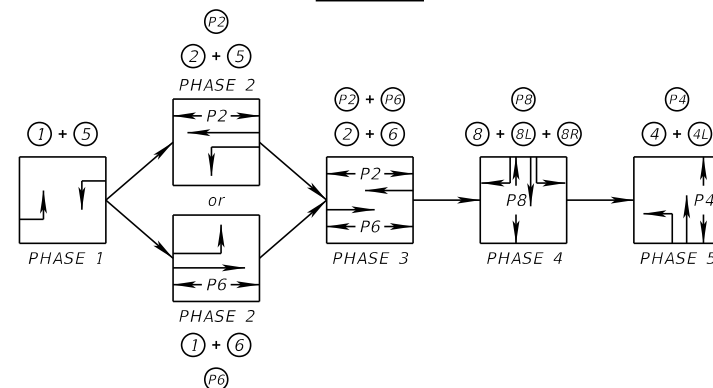
CONTROLLER OPERATIONAL NOTES:

1. MAJOR STREET IS SR 33: MOVEMENTS 1, 2, 5 AND 6. MINOR STREET IS TOMKOW ROAD AND PRIVATE DRIVE: MOVEMENTS 4, 8 AND 8R.
2. POSTED SPEED LIMIT IS 45 MPH ALONG SR 33 AND 35 MPH ALONG TOMKOW ROAD.
3. SIGNAL SHALL OPERATE WITH SIGNAL OPERATIONAL PLAN 9 MOD AS SHOWN.
4. REQUEST UPDATED SIGNAL TIMINGS FROM FDOT TSM&O ENGINEER - ARTERIALS (863-519-2216) WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE FDOT WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR FDOT TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY FDOT.
5. DURING FLASH MODE OPERATION, MOVEMENTS 2 AND 6 SHALL FLASH YELLOW AND ALL OTHER MOVEMENTS SHALL FLASH RED.
6. PROGRAM PHASE RESTRICTIONS TO OMIT MOVEMENT 1 AND REDIRECT CALLS FROM MOVEMENT 1 TO MOVEMENT 6, WHEN MOVEMENT 2 IS GREEN AND TO OMIT MOVEMENT 5 AND REDIRECT CALLS FROM MOVEMENT 5 TO MOVEMENT 2, WHEN MOVEMENT 6 IS GREEN.
7. PROGRAM A START-UP DELAY OF 2 SECONDS FOR THE FLASHING YELLOW ARROW ON MOVEMENTS 1 AND 5 (RELATIVE TO THE OPPOSING THROUGH MOVEMENTS).
8. EACH MOVEMENT SHALL BE WIRED FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE MOVEMENT. THIS INCLUDES LEFT AND RIGHT TURN MOVEMENTS. EACH LEFT AND RIGHT TURN MOVEMENT SHALL HAVE CONDUCTORS AVAILABLE FOR PROTECTED AND PERMISSIVE OPERATION.
9. HIGH VOLTAGE (HV) RUNS INCLUDE: POWER, SIGNALS, PEDESTRIAN SIGNALS, INTERNALLY ILLUMINATED SIGNS, LIGHTING, ITS POWER, AND SPARE CONDUITS.
10. LOW VOLTAGE (LV) RUNS INCLUDE: PEDESTRIAN DETECTORS, VEHICLE DETECTION, ITS FIBER, AND SPARE CONDUITS.
11. LEADING PEDESTRIAN INTERVAL (LPI) OF 3.0 SECONDS SHALL BE PROVIDED FOR MOVEMENTS P4 AND P8 UPON DETECTION ONLY PRIOR TO BEGINNING OF MOVEMENT 4 AND 8 GREEN TIME.

PEDESTRIAN ACTUATION SIGNS



S.O.P. 9 MOD



CONTROLLER TIMINGS								
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
DIRECTION	EBL	WBT	SBL	NBT	WBL	EBT	NBL	SBT
TURN TYPE	PROT/PERM				PROT/PERM			
MINIMUM GREEN	5	20	-	5	5	20	-	10
EXTENSION	3.0	5.0	-	3.0	3.0	5.0	-	3.0
YELLOW CLEARANCE	4.8	4.8	-	4	4.8	4.8	-	4
ALL RED	2	3.1	-	3.5	2	2.9	-	3.1
MAXIMUM GREEN 1	30	60	-	40	15	60	-	60
MAXIMUM GREEN 2	-	-	-	-	-	-	-	-
ADJUST BY	-	-	-	-	-	-	-	-
WALK	-	7	-	7	-	7	-	7
FLASHING DON'T WALK	-	37	-	26	-	25	-	44
DETECTOR MEMORY	-	-	-	-	-	-	-	-
DET. CROSS SWITCH	-	-	-	-	-	-	-	-
DUAL ENTRY	-	-	-	-	-	-	-	-
RECALL	-	MIN	-	-	-	MIN	-	-

TIMING IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY THE ENGINEER.

DETECTORS FOR LOOPS					
LOOP	NO. OF LOOPS	NO. OF NEW DETS.	CHANNEL NUMBER	CONNECT TO MOVEMENT	DELAY TIME (SEC)
S2A1	1	1	1	2	
S2A2	1		2	2	
S2B1	1	1	1	2	
L-21	1	1	2	2	
L-22	1	1	2	2	
L-2R	1	1	1	2	8
L-5	1	1	2	5	
L-61	1	1	1	6	
L-62	1	1	2	6	
L-6R	1	1	1	6	8
L-1	1	1	2	1	
S6A1	1	1	1	6	
S6A2	1	1	2	6	
S6B1	1	1	1	6	
S6B2	1	1	2	6	
L-8	1	1	1	8	
L-8R	1	1	2	8	8
L-4	1	1	1	4	

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY THE ENGINEER.

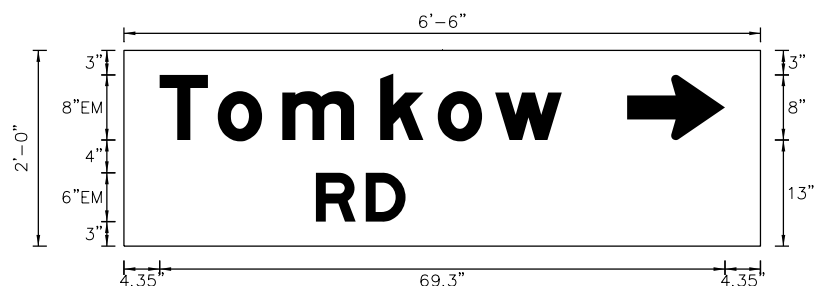
2/29/2024 10:38:49 AM BMAKSUDOV c:\pwl_working\lochner-pw-01\dms18807\PLAN\SG01.dgn

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607		SR 400	POLK	430185-3-52-01	T-10

SIGNALIZATION PLAN (07)

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

SIGN NAME	SIGN 1	QTY	2	SIGN NUMBER		STATION(S)	
PANEL	BORDER						
WIDTH	6'-6"	WIDTH	0"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	White				
COLOR	Green						
SYMBOL(S)	ANGLE	X	Y	WID	HT		
AR_Type D	270	61.6	13	8	12		
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE	AVERAGE LENGTH			



TWO SIGN PANELS PER SIGN REQUIRED . SIGN ASSEMBLY SHALL BE A DOUBLE-PANEL. TWO WAY. INTERNALLY ILLUMINATED STREET SIGN ASSEMBLY

NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY		T	o	m	k	o	w	L												
SPACE	4.4	7.1	7.9	12	7	7	8.2	24.4	49.3											

COPY		R	D	L																
SPACE	23.5	6.1	4.9	43.5	11															

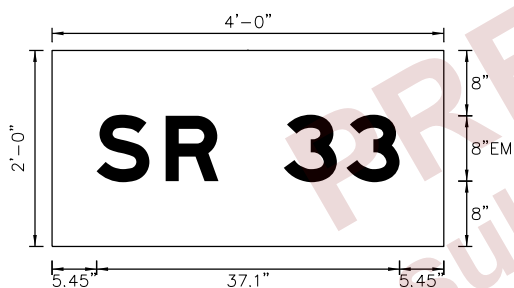
COPY																				
SPACE																				

COPY																				
SPACE																				

COPY																				
SPACE																				

COPY																				
SPACE																				

SIGN NAME	SIGN 3	QTY	4	SIGN NUMBER		STATION(S)	
PANEL	BORDER						
WIDTH	4'-0"	WIDTH	0"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	White				
COLOR	Green						
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Lane	COLUMN SIZE	AVERAGE LENGTH			



TWO SIGN PANELS PER SIGN REQUIRED . SIGN ASSEMBLY SHALL BE A DOUBLE-PANEL. TWO WAY. INTERNALLY ILLUMINATED STREET SIGN ASSEMBLY

NO. OF LIGHT FIXTURES	FIXTURE SPACING	PHOTOMETRIC CURVE	WATT	VOLTAGE

COPY		S	R	3	3	L														
SPACE	5.4	8.5	6.5	8	7.7	6.5	5.4	37.1												

COPY																				
SPACE																				

COPY																				
SPACE																				

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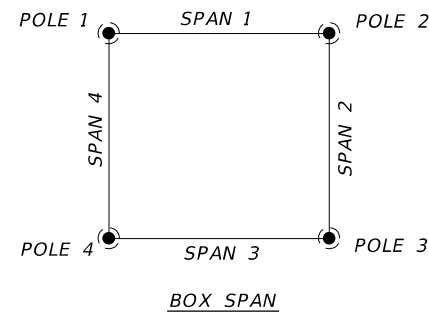
REVISIONS			ENGINEER OF RECORD		
DATE	DESCRIPTION	DATE	DESCRIPTION		

JAMIE P. HEUER, P.E.
LICENSE NUMBER: 67493
H.W. LOCHNER, INC.
4300 W. CYPRESS STREET, SUITE 500
TAMPA, FL 33607

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	POLK	430185-3-52-01

GUIDE SIGN WORKSHEET

SHEET NO.
T-11



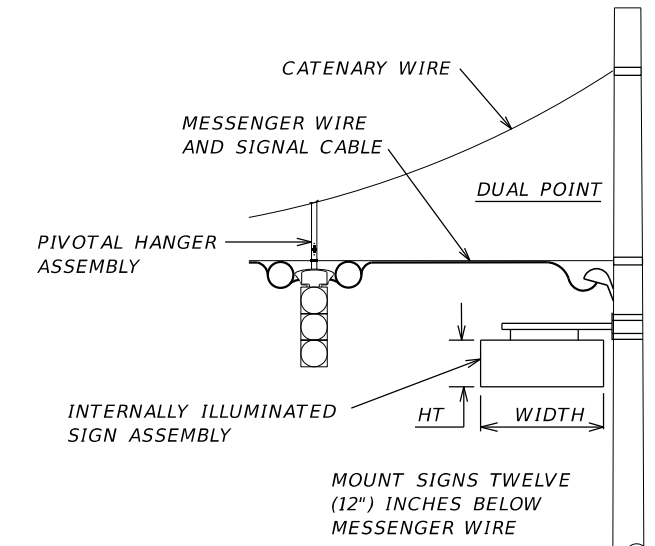
SHOP DRAWINGS AND SUPPORT CALCULATIONS ARE REQUIRED FOR POLE CANTILEVER ARMS AND HARDWARE WHEN INTERNALLY ILLUMINATED STREET NAME SIGNS EXCEED 18 SQUARE FEET AND/OR 144 LBS. SEND SHOP DRAWINGS AND SUPPORT CALCULATIONS TO DISTRICT ONE STRUCTURES DEPARTMENT AT 801 NORTH BROADWAY AVE., BARTOW FLORIDA 33830.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL ELEVATIONS LISTED HEREIN.

INFORMATION BELOW IS FOR DESIGN PURPOSES ONLY. FIELD ADJUSTMENTS MAY BE REQUIRED.

SEE APPROPRIATE PLAN SHEET FOR PROPOSED SIGNAL HEAD ALIGNMENTS AND SIGN CONFIGURATION/LOCATION.

BACKPLATES REQUIRED FOR ALL SIGNALS HEADS.



STEEL STRAIN POLES

OPENING DESIGN LOADING:

LOC. NO.	SHEET NO.	P O L E	LOCATION BY STA.	CRIT. ROAD ELEV.	TOP OF FOUND. ELEV. **	S P A N	SPAN LENGTH	SIGNAL DATA DISTANCE FROM POLE/NUMBER OF SECTIONS																SIGN DATA DISTANCE FROM POLE(*)/HEIGHT & WIDTH (* Enter 0 as indicated above if attached to pole)																																															
								DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.																																					
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																																		
	T-8	1	3476+52, 64.5' LT	140.30	141.50	1	196.17'	1	69.1	5	2	89.0	5	3	109.3	5	4	117.3	3	5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30	
	T-8	2	3478+46, 63.5' LT	141.30	141.50	2	129.47'	1	41.7	3	2	62.2	4	3	65.2	4	4	80.3	3	5	91.3	3	6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30
	T-8	3	3478+57, 65.5' RT	140.30	140.60	3	188.93'	1	60.8	5	2	87.7	5	3	96.5	3	4	152.1	5	5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30	
	T-8	4	3476+66, 61.0' RT	141.90	139.00	4	126.28'	1	39.3	3	2	59.9	4	3	62.9	4	4	78.0	3	5	89.1	3	6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30

** TOP OF FOUNDATION ELEVATIONS FOR POLES 1 & 4 ARE 6" ABOVE FINISHED GROUND ELEVATION.
TOP OF FOUNDATION ELEVATIONS FOR POLES 2 & 3 SHALL BE FLUSH WITH ADJACENT SIDEWALK/SUP ELEVATION.

FUTURE DESIGN LOADING:

LOC. NO.	SHEET NO.	P O L E	LOCATION BY STA.	CRIT. ROAD ELEV.	TOP OF FOUND. ELEV. **	S P A N	SPAN LENGTH	SIGNAL DATA DISTANCE FROM POLE/NUMBER OF SECTIONS																SIGN DATA DISTANCE FROM POLE(*)/HEIGHT & WIDTH (* Enter 0 as indicated above if attached to pole)																																																	
								DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.		DIST.		SEC.																																							
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30																																				
	T-8	1	3476+52, 64.5' LT	140.30	141.50	1	196.17'	1	62.3	4	2	74.6	3	3	93.1	4	4	106.2	4	5	128.2	3	6	136.3	5	7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30	
	T-8	2	3478+46, 63.5' LT	141.30	141.50	2	129.47'	1	24.6	5	2	41.7	3	3	59.9	3	4	62.2	4	5	69.9	3	6	79.9	3	7	89.9	3	8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30
	T-8	3	3478+57, 65.5' RT	140.30	140.60	3	188.93'	1	71.7	3	2	83.4	4	3	83.7	4	4	95.7	3	5	108.1	3	6	152.1	4	7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30	
	T-8	4	3476+66, 61.0' RT	141.90	139.00	4	126.28'	1	37.2	3	2	57.4	3	3	62.9	4	4	78.0	3	5	89.1	3	6	104.2	5	7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30	

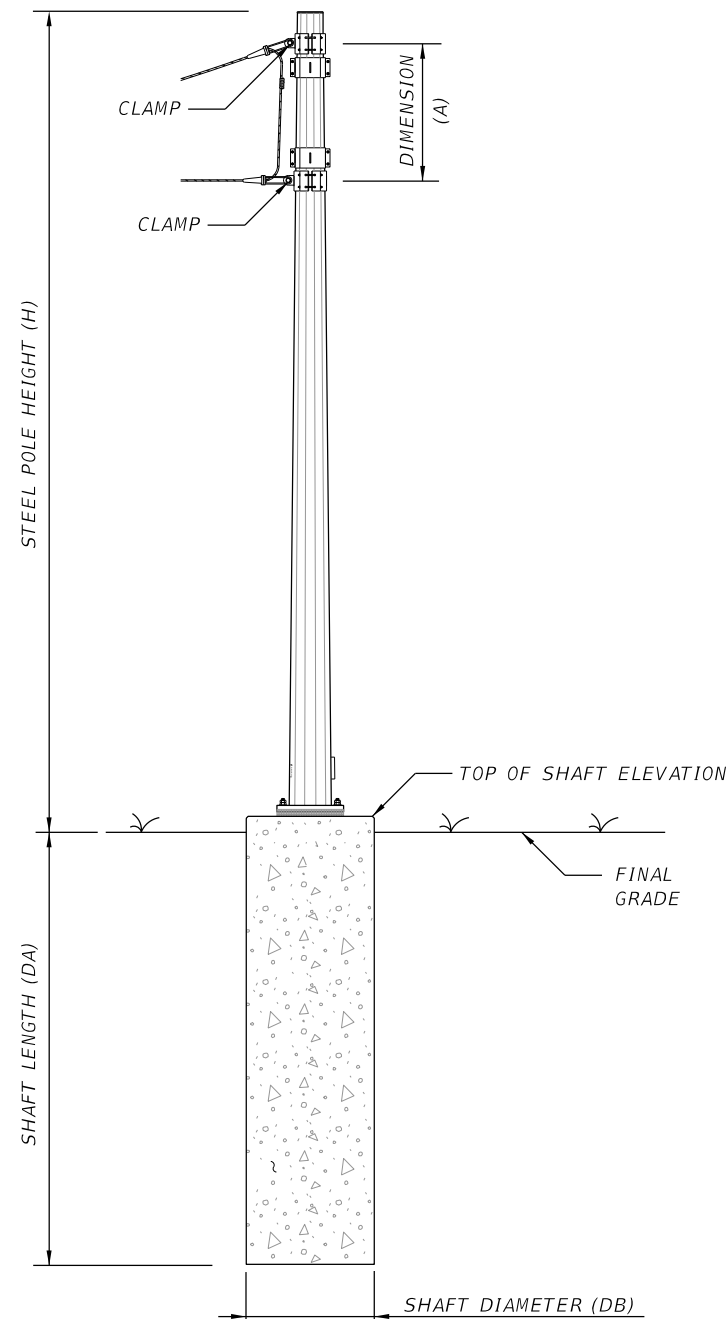
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REVISIONS				ENGINEER OF RECORD				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STRAIN POLE TABULATION	SHEET NO. T-12
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMIE P. HEUER, P.E. LICENSE NUMBER: 67493 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607				ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
								SR 400	POLK	430185-3-52-01		

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

STEEL STRAIN POLE SCHEDULE

ID NO.	SHEET NO.	POLE LOCATION		TOP OF SHAFT ELEVATION	POLE TYPE	STEEL POLE HEIGHT (H)	SHAFT LENGTH (DA)	SHAFT DIAMETER (DB)	DIMENSION (A)	CATENARY WIRE DIA. (IN.)	MESSENGER WIRE DIA. (IN.)
		STATION	OFFSET								
1	T-12	3476+52.00	64.50' LT.	141.50'	PS-VIII	35.92'	17'	4.5'	10.81'	1/2" DIA.	1/2" DIA.
2	T-12	3478+46.00	63.50' LT.	141.50'	PS-VIII	35.92'	17'	4.5'	10.81'	1/2" DIA.	1/2" DIA.
3	T-12	3478+57.00	65.50' RT.	140.60'	PS-VIII	36.82'	17'	4.5'	10.81'	1/2" DIA.	1/2" DIA.
4	T-12	3476+66.00	61.00' RT.	139.00'	PS-VIII	38.42'	17'	4.5'	10.81'	1/2" DIA.	1/2" DIA.



STEEL STRAIN POLE DIMENSIONS
TYPES PS-IV THROUGH PS-X

SCHEDULE NOTES:

- FOR ADDITIONAL DETAILS NOT SHOWN ON THIS SHEET, REFER TO STANDARD PLANS INDEX 649-010.
- DESIGN WIND SPEED = 140 MPH (FDOT STRUCTURES DESIGN GUIDELINES TABLE 2.4.1-1 MINUS 10 MPH PER FDOT MODIFICATIONS TO LRFDLTS-1 SECTION 3.8.2).
- FOUNDATION DESIGN ASSUMPTIONS:
EFFECTIVE SOIL UNIT WEIGHT = 50 PCF
ANGLE OF INTERNAL FRICTION = 30 DEGREES

PRELIMINARY
subject to changes

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REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	LAURA C. YOHE, P.E. LICENSE NUMBER: 98198 H.W. LOCHNER, INC. 4300 W. CYPRESS STREET, SUITE 500 TAMPA, FL 33607			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
							SR 400	POLK	430185-3-52-01	
							T-13			

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