

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

FINANCIAL PROJECT ID 444187-1-52-01
(FEDERAL FUNDS)

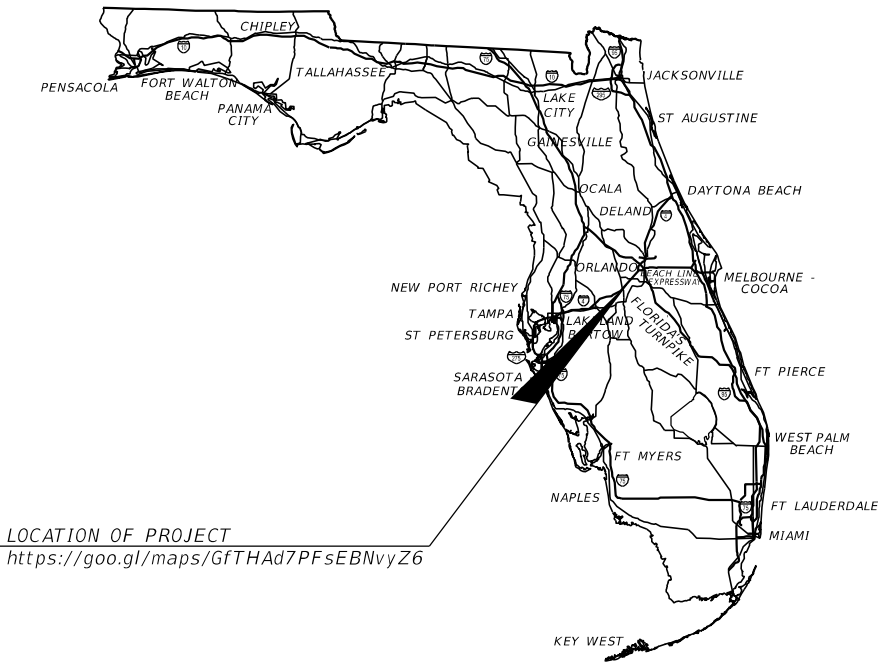
OSCEOLA COUNTY (92000)

COUNTY ROAD NO. 532
DIVERGING DIAMOND INTERCHANGE RETROFIT

LIGHTING PLANS

INDEX OF LIGHTING PLANS

SHEET NO.	SHEET DESCRIPTION
L-1	KEY SHEET
L-2	SIGNATURE SHEET
L-3	TABULATION OF QUANTITIES
L-4	GENERAL NOTES
L-5	LIGHTING DATA TABLE AND LEGEND
L-6 - L-13	LIGHTING PLAN
L-14	PANELBOARD SCHEDULE
L-15	REPORT OF SPT BORING RESULTS



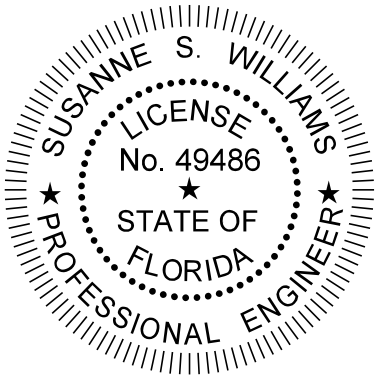
LIGHTING PLANS
ENGINEER OF RECORD:

SUSANNE S. WILLIAMS, P.E. PE No. 49486
Traffic Engineering Data Solutions, Inc.
80 Spring Vista Drive Phone: 386.753.0558
DeBary, FL 32713 Fax: 386.753.0778
CONTRACT NO.: PS-19-11062-DG
VENDOR NO.: F208375642002

OSCEOLA COUNTY PROJECT MANAGER
CONROY JACOBS
(407) 742-0557

FDOT PROJECT MANAGER:
ANTHONY MILLER
(386) 943-5530

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
T 5715	21	L-1



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY

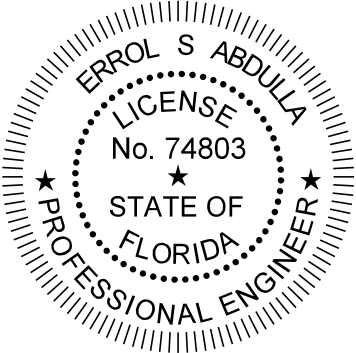
ON THE DATE ADJACENT TO THE SEAL

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

TRAFFIC ENGINEERING DATA SOLUTIONS, INC.
80 SPRING VISTA DRIVE
DEBARY, FL 32713
SUSANNE S. WILLIAMS, P.E. NO. 49486

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>
L-1	KEY SHEET
L-2	SIGNATURE SHEET
L-3	TABULATION OF QUANTITIES
L-4	GENERAL NOTES
L-5	LIGHTING DATA TABLE AND LEGEND
L-6 - L-13	LIGHTING PLAN
L-14	PANELBOARD SCHEDULE



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.

AWK CONSULTING ENGINEERS, INC.
6457 HAZELTINE DR. SUITE 150
ORLANDO, FL 32822
ERROL S. ABDULLA, P.E. NO: 74803

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>
L-2	SIGNATURE SHEET
L-15	REPORT OF SPT BORING RESULTS

REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNATURE SHEET	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		
									L-2

TABULATION OF QUANTITIES

[illegible]

REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-3
					CR 532	OSCEOLA	444187-1-52-01		

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

GENERAL NOTES:

1.

MAINTAINING AGENCY: OSCEOLA COUNTY TRAFFIC OPERATIONS - (407) 742-7516.
CONTRACTOR TO COORDINATE THE DELIVERY OF REMOVED LIGHT POLES TO:
Osceola Traffic Operations
3850 Old Canoe Creek Rd
Saint Cloud, FL 34769
2.

STRUCTURES CONTACTS: DISTRICT FIVE STRUCTURES MAINTENANCE OFFICE - (386) 740-3463

REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-4
					CR 532	OSCEOLA	444187-1-52-01		

LIGHTING DATA TABLE														
POLE NO.	CIRCUIT	STATION	OFFSET	LT/RT	BASELINE	LUMINAIRE LOCATION	LUMINAIRE MODEL	NUMBER OF LUMINAIRES	LUMINAIRE WATTAGE	ARM CONFIGURATION	MOUNTING HEIGHT	ARM LENGTH	FOUNDATION TYPE	PAY ITEM
1	A-6	102+26.8	41.1	RT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
2	A-6	104+98.9	52.0	RT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
3	A-6	106+14.6	57.2	RT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
4	A-6	207+75.8	32.5	RT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
5	A-6	208+59.7	25.1	RT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
6	A-8	212+88.3	34.0	RT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
7	A-8	213+88.3	26.9	RT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
8	A-8	20+90.1	23.2	LT	RAMP B2	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
9	A-8	215+66.2	54.3	RT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
10	A-8	414+72.0	44.3	RT	RAMP B1	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
11	A-2	117+00.8	56.6	RT	EB 532	HIGH MAST	HMLD2_12_4K_XX_X_AW	6	500	HM RING	120	---	CYLINDRICAL	715-19-13
12	A-8	119+11.3	35.7	RT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
13	A-8	120+79.6	33.2	RT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
14	A-8	122+47.3	40.5	RT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
15	A-7	202+50.4	35.0	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
16	A-7	204+65.3	35.3	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
17	A-7	600+72.2	47.6	LT	RAMP D1	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
18	A-7	206+19.0	80.6	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
19	A-7	41+16.7	30.6	RT	RAMP D2	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
20	A-7	108+11.4	33.0	LT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
21	A-9	30+46.1	16.5	LT	RAMP C2	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
22	A-9	115+00.5	32.8	LT	EB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
23	A-9	501+59.6	26.0	RT	RAMP C1	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
24	A-9	216+91.5	30.0	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
25	A-9	218+29.9	59.6	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
26	A-9	220+00.8	61.2	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
27	A-9	221+75.9	60.9	LT	WB 532	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13
28	A-4	608+25.6	49.9	LT	RAMP D1	LIGHT POLE	MGLEDM_P5_40K_480_FT_VH_GRSD	1	206	POLE TOP	40	---	CYLINDRICAL	715-4-13

CONVENTIONAL

LIGHTING DESIGN CRITERIA

Wind Speed 140 MPH
Signalized Intersection Avg Initial Illumination 3.0 Foot Candles
Roadway Avg Initial Illumination 1.5 Foot Candles
Uniformity Ratio Avg./Min. 4:1 Or Less
Max./Min. 10:1 Or Less
Veiling Luminance 0.3:1 Or Less

HIGH MAST

LIGHTING DESIGN CRITERIA

Wind Speed 150 MPH
Signalized Intersection Avg Initial Illumination N/A
Roadway Avg Initial Illumination 0.8-1.0 Foot Candles
Uniformity Ratio Avg./Min. 3:1 Or Less
Max./Min. 10:1 Or Less
Veiling Luminance N/A

LEGEND

SYMBOLS

DESCRIPTION



Pole top conventional shoulder mounted 206 Watt/30,342 Lumens LED luminaire. Designed for Type IV, Short distribution. Luminaire wired for 480 volt operation.



Existing conventional light pole. (See plans for disposition)



Proposed high mast light tower.



Existing high mast light tower.

SYMBOLS

DESCRIPTION



Proposed pull box.



Existing pull box.



Existing high mast conduit lighting system



Open trench conduit with conductors inside (conductor size as shown on plan sheets.)

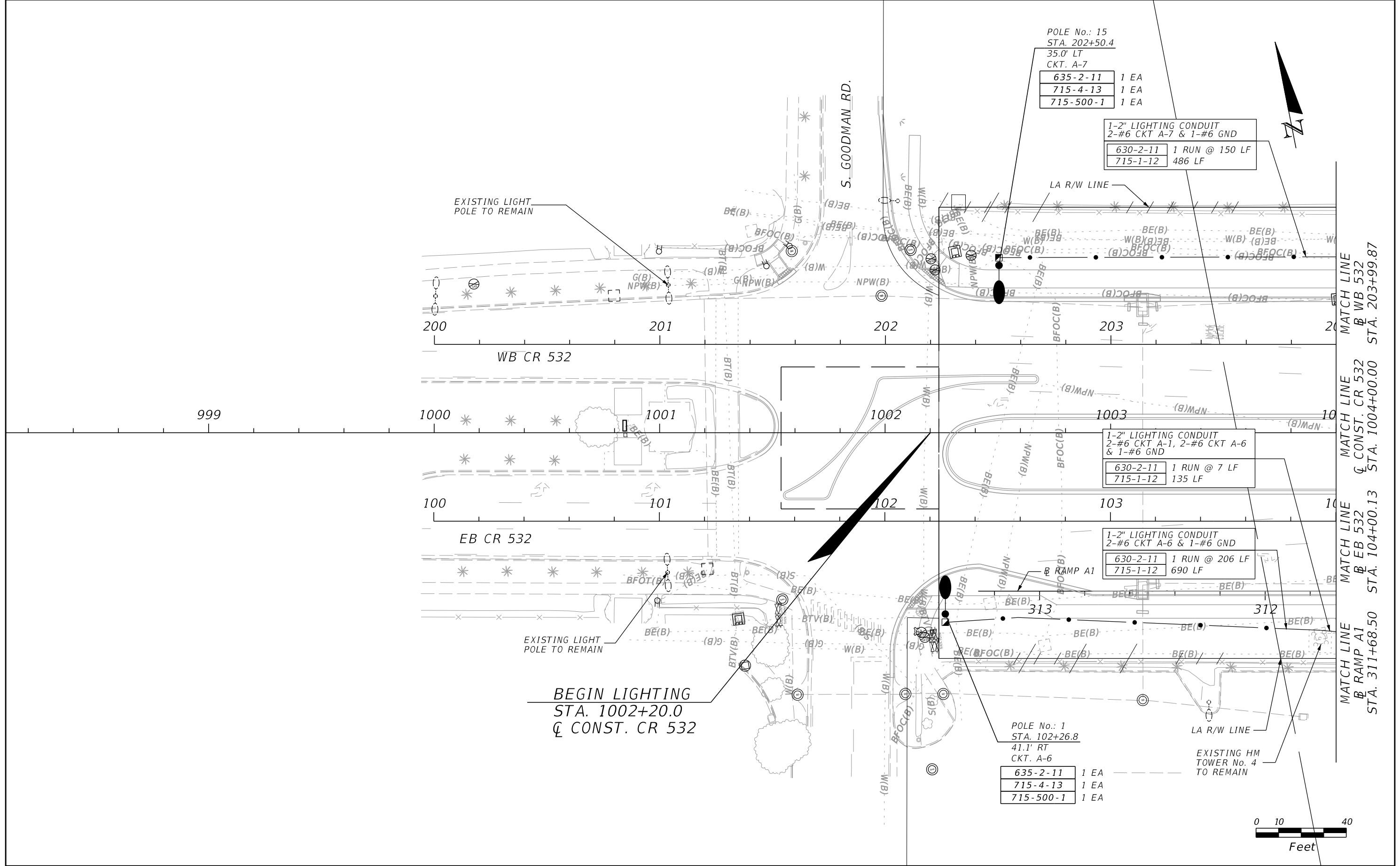


Directional bore conduit with conductors inside (conductor size as shown on plan sheets).

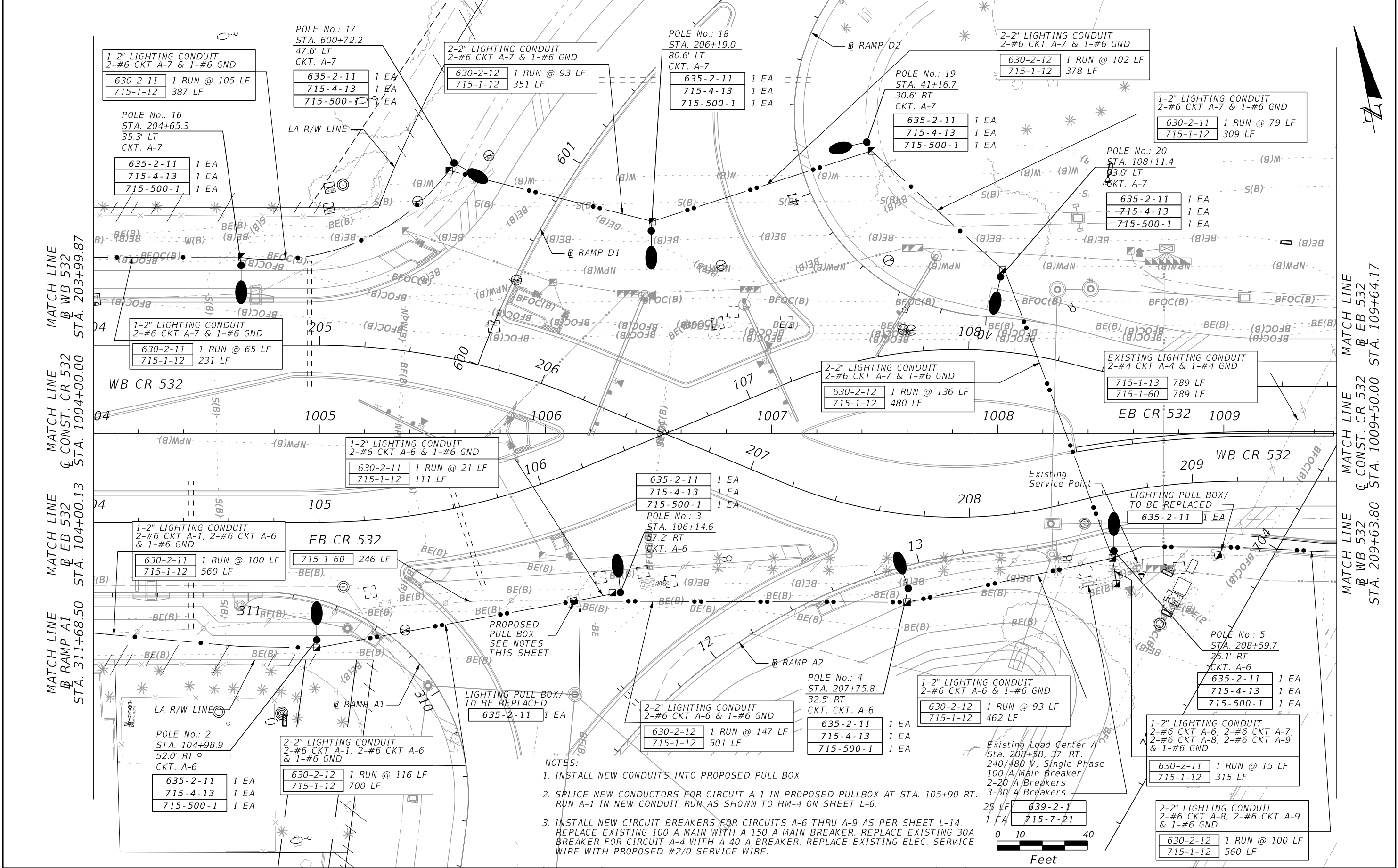


Existing load center.

REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING DATA TABLE AND LEGEND	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-5
					CR 532	OSCEOLA	444187-1-52-01		

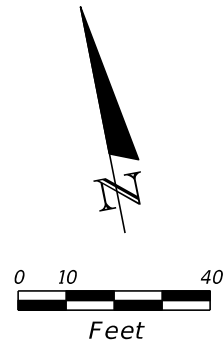
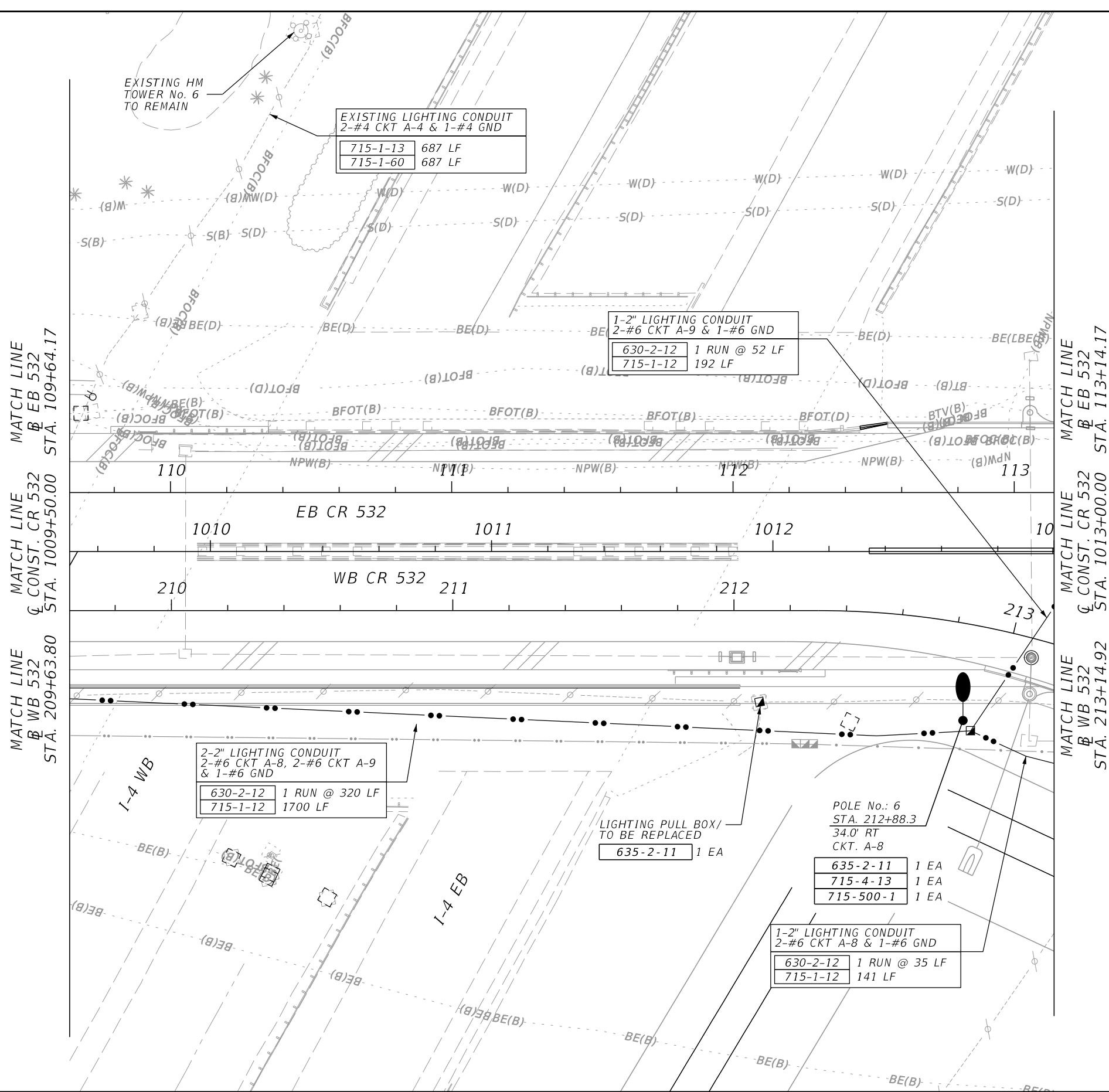


REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO. L-6
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		

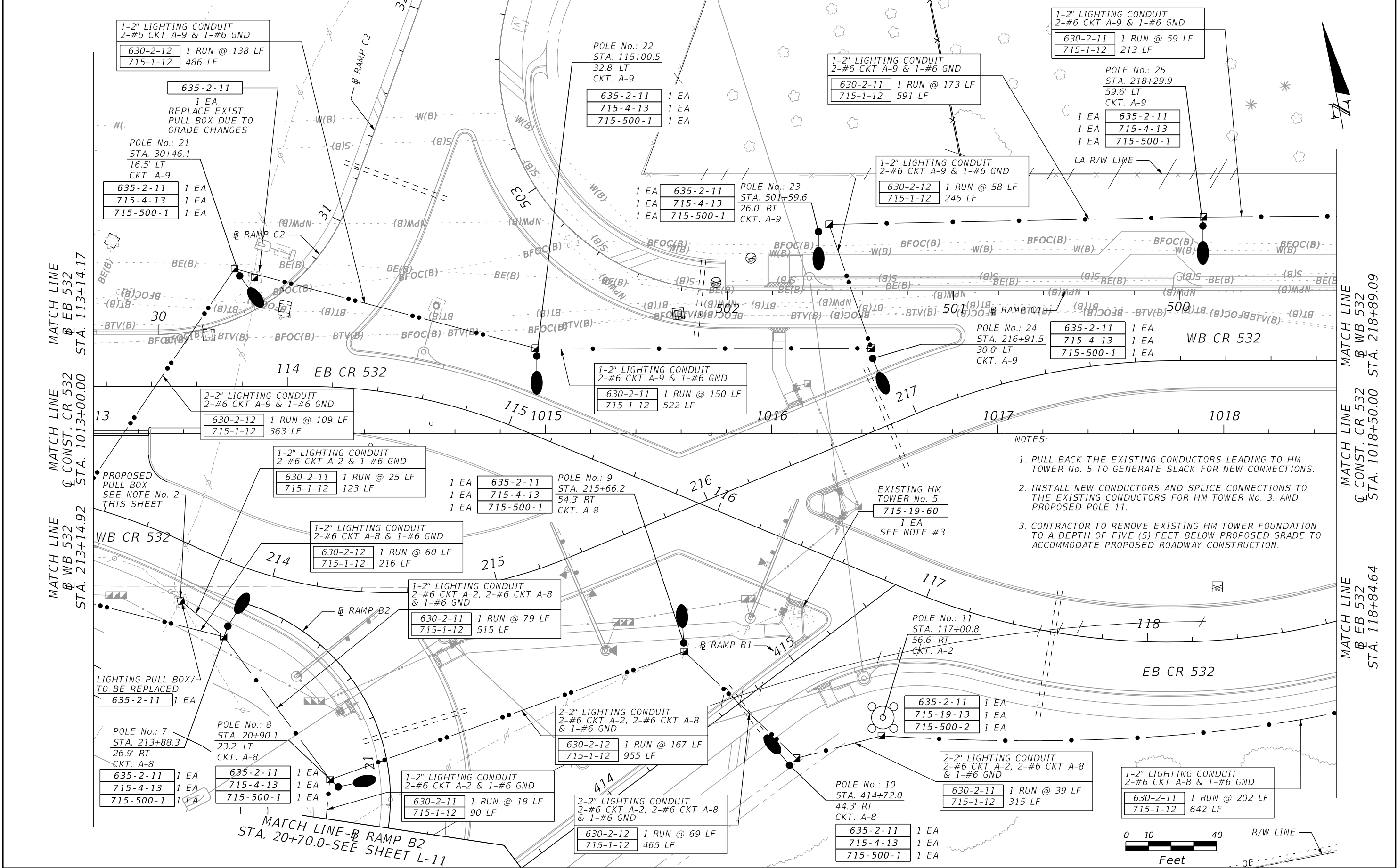


REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO. L-7
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					CR 532	OSCEOLA	444187-1-52-01	

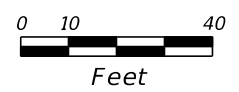
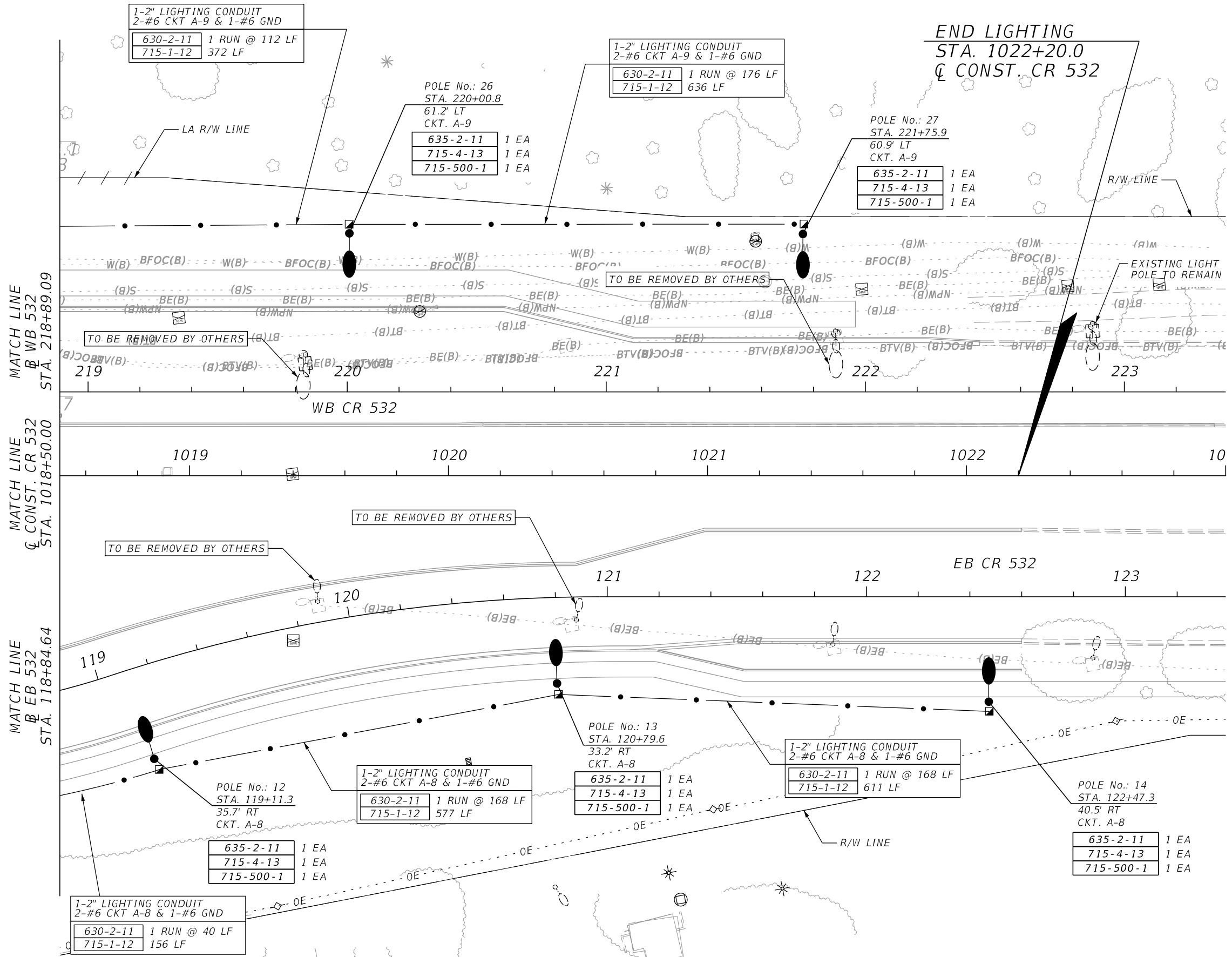
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



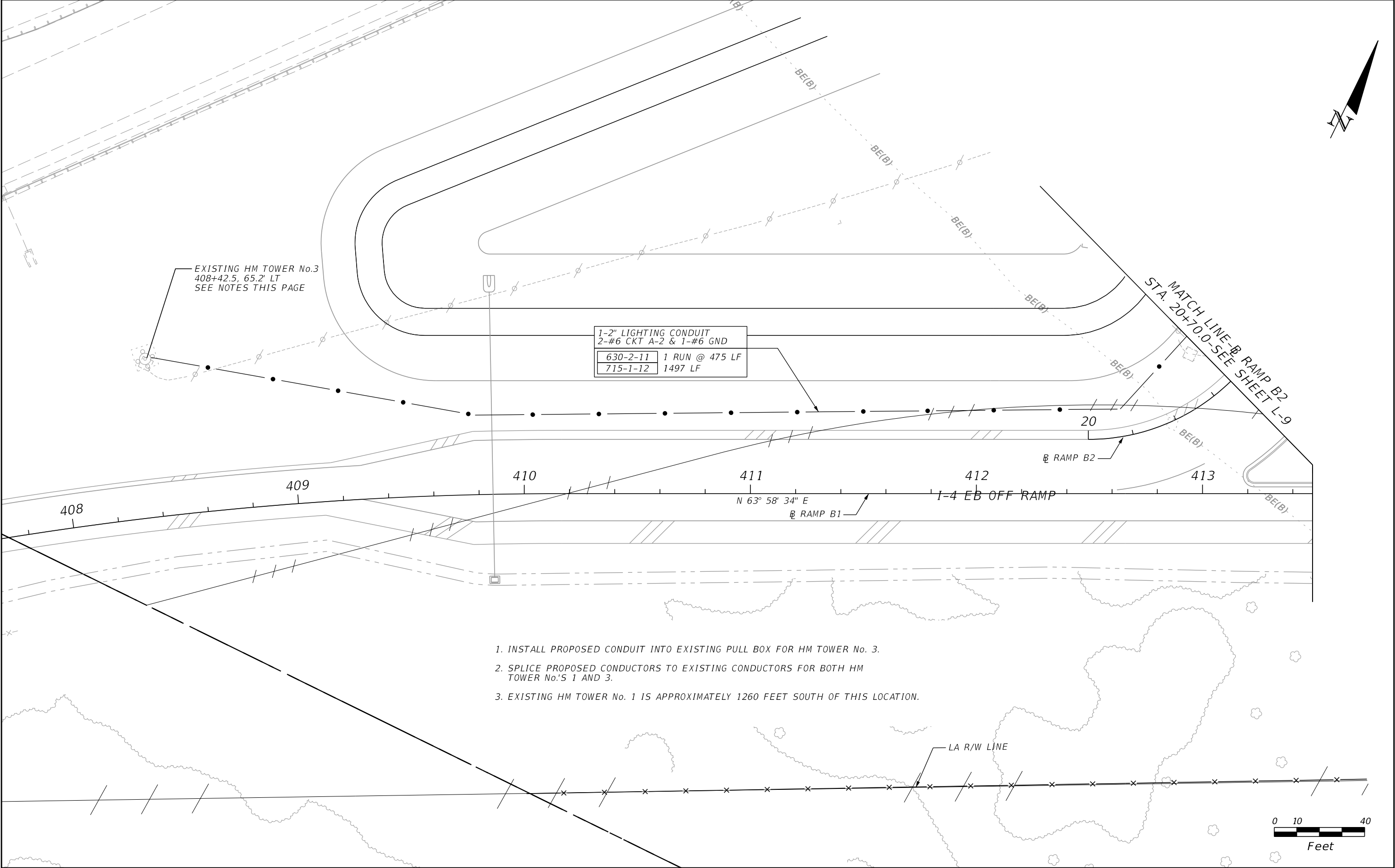
REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO. L-8
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		



REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO. L-9
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		



REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO. L-10
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		



- 1. INSTALL PROPOSED CONDUIT INTO EXISTING PULL BOX FOR HM TOWER No. 3.
- 2. SPLICE PROPOSED CONDUCTORS TO EXISTING CONDUCTORS FOR BOTH HM TOWER No.'S 1 AND 3.
- 3. EXISTING HM TOWER No. 1 IS APPROXIMATELY 1260 FEET SOUTH OF THIS LOCATION.

REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		L-11
					CR 532	OSCEOLA	444187-1-52-01		

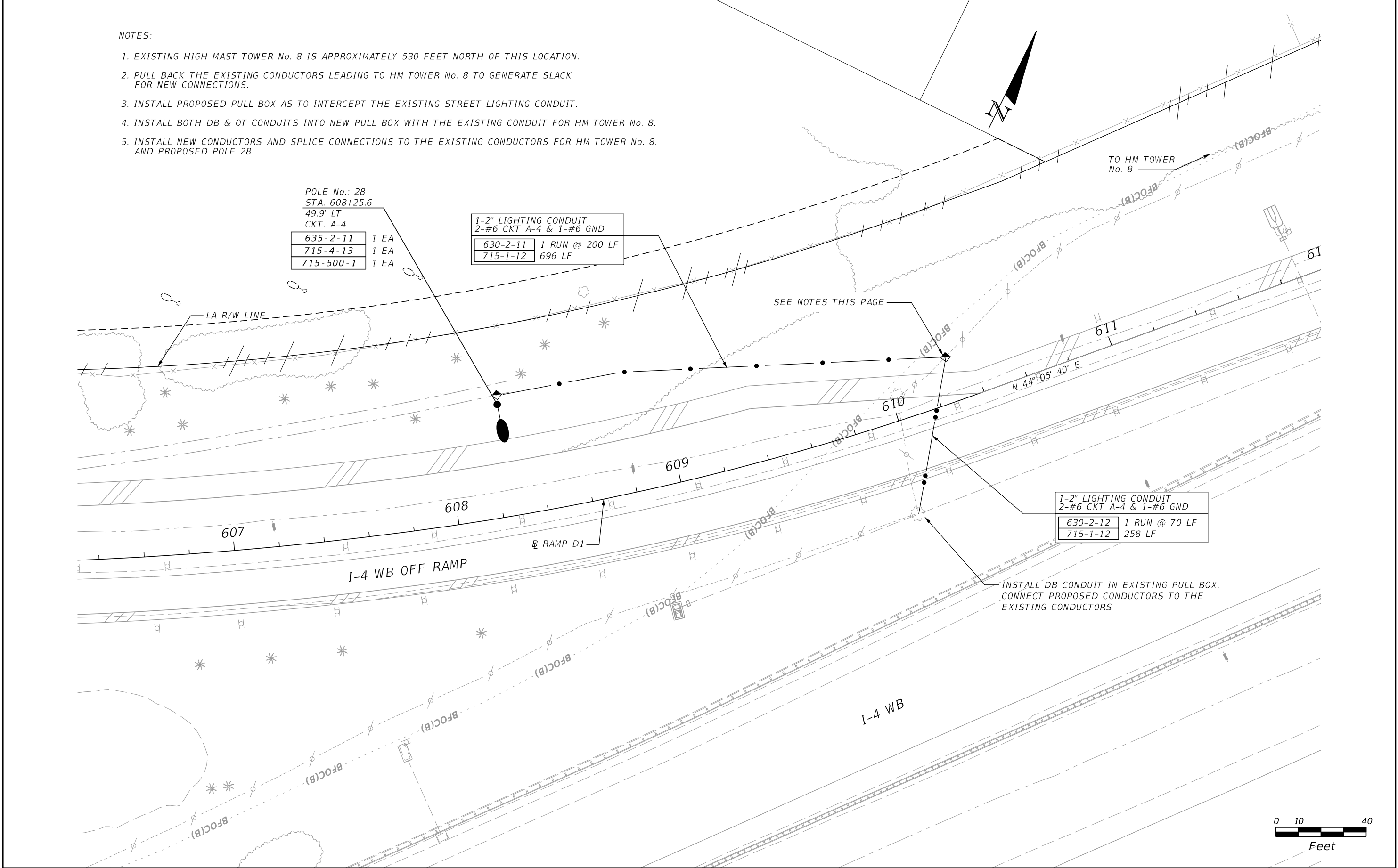
NOTES:

1. EXISTING HIGH MAST TOWER No. 8 IS APPROXIMATELY 530 FEET NORTH OF THIS LOCATION.
2. PULL BACK THE EXISTING CONDUCTORS LEADING TO HM TOWER No. 8 TO GENERATE SLACK FOR NEW CONNECTIONS.
3. INSTALL PROPOSED PULL BOX AS TO INTERCEPT THE EXISTING STREET LIGHTING CONDUIT.
4. INSTALL BOTH DB & OT CONDUITS INTO NEW PULL BOX WITH THE EXISTING CONDUIT FOR HM TOWER No. 8.
5. INSTALL NEW CONDUCTORS AND SPLICE CONNECTIONS TO THE EXISTING CONDUCTORS FOR HM TOWER No. 8. AND PROPOSED POLE 28.

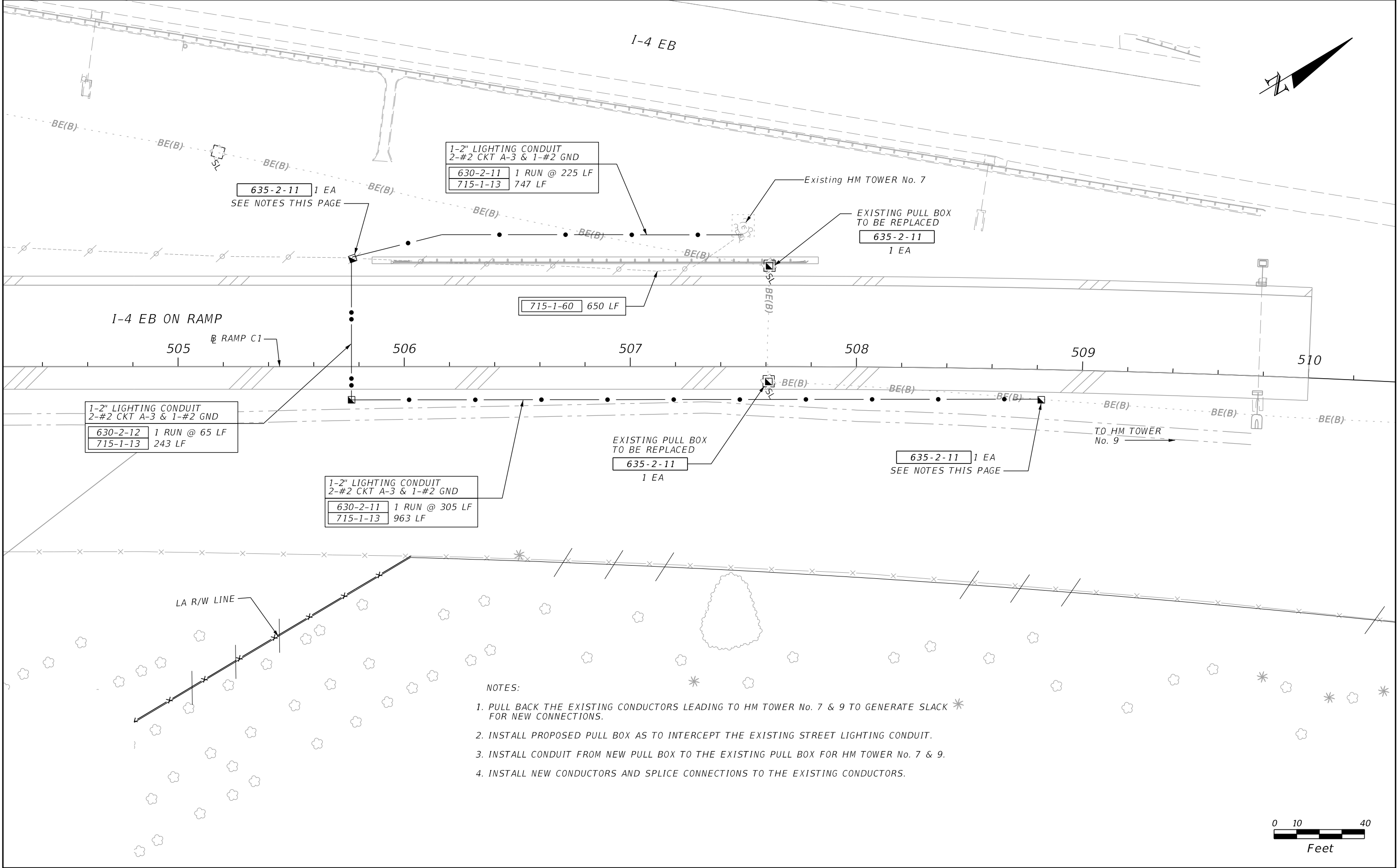
POLE No.: 28	
STA. 608+25.6	
49.9' LT	
CKT. A-4	
635-2-11	1 EA
715-4-13	1 EA
715-500-1	1 EA

1-2" LIGHTING CONDUIT	
2-#6 CKT A-4 & 1-#6 GND	
630-2-11	1 RUN @ 200 LF
715-1-12	696 LF

1-2" LIGHTING CONDUIT	
2-#6 CKT A-4 & 1-#6 GND	
630-2-12	1 RUN @ 70 LF
715-1-12	258 LF



REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO. L-12
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		



REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			LIGHTING PLAN	SHEET NO. L-13
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		

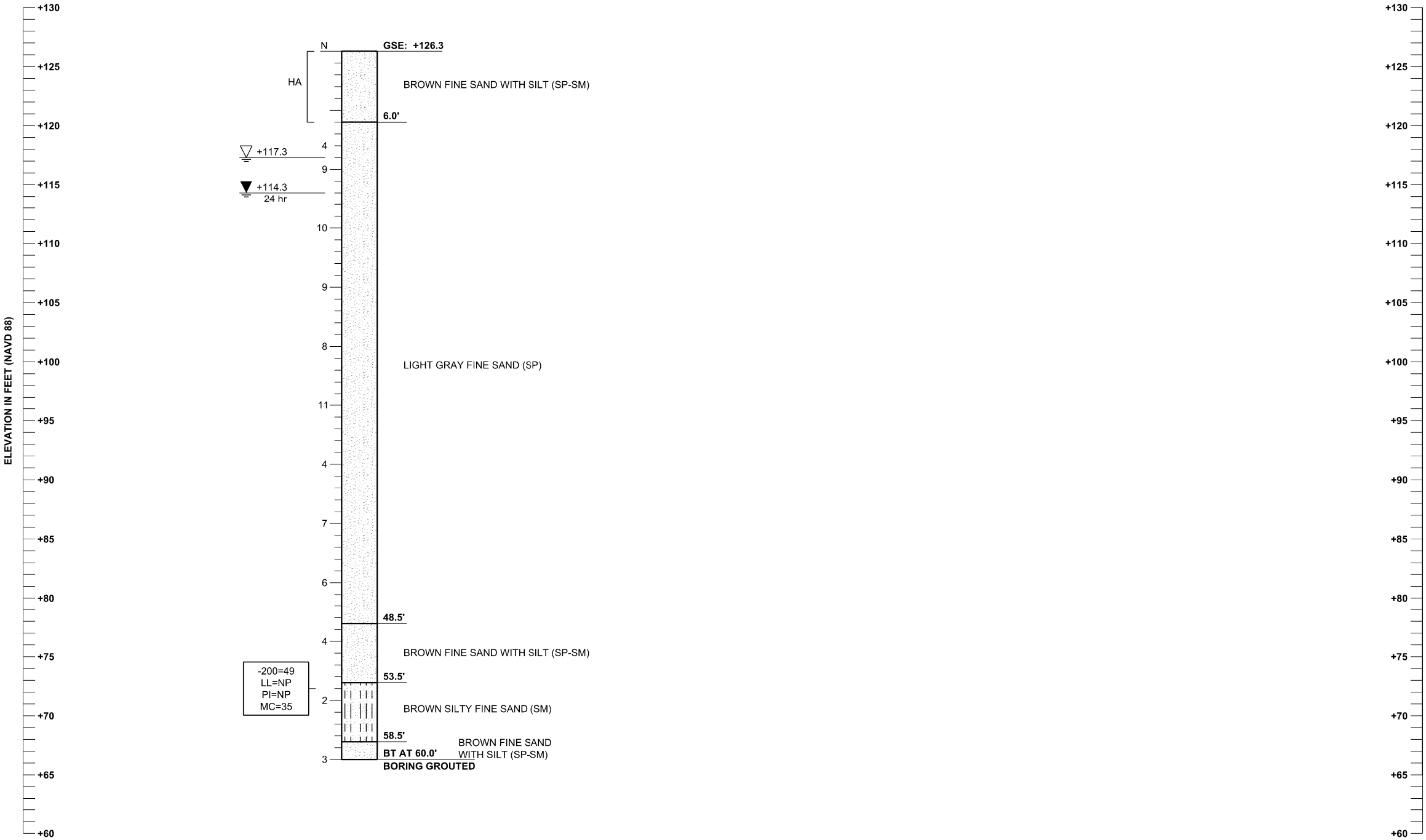
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Voltage: 240/480											Mains Type:		LUG
Phase: 1		PANELBOARD SCHEDULE - A									Mains Rating:		150 A
Wires: 3													
CKT	CKT NAME	CONNECTED LOAD	TRIP	POLES	A LOAD (VA)		B LOAD (VA)		POLES	TRIP	CKT NAME	CONNECTED LOAD	CKT
1	A-1	ROADWAY LIGHTS	20	2	3168	4752			2	30	A-2	ROADWAY LIGHTS	2
---	---	---	---	---			3168	4752	---	---	---	---	---
3	A-3	ROADWAY LIGHTS	30	2	4752	5625.6			2	40	A-4	ROADWAY LIGHTS	4
---	---	---	---	---			4752	5625.6	---	---	---	---	---
5	A-5	ROADWAY LIGHTS	20	2	144	902.4			2	20	A-6	ROADWAY LIGHTS	6
---	---	---	---	---			144	902.4	---	---	---	---	---
7	A-7	ROADWAY LIGHTS	20	2	902.4	1286.4			2	20	A-8	ROADWAY LIGHTS	8
---	---	---	---	---			902.4	1286.4	---	---	---	---	---
9	A-9	ROADWAY LIGHTS	20	2	1159.2	0			2	---	Spare	---	10
---	---	---	---	---			1159.2	0	---	---	---	---	---
		Load per leg:			22692		22692						
		Total Load (VA):			45384								
		Total Amps @ 480V:			94.55								

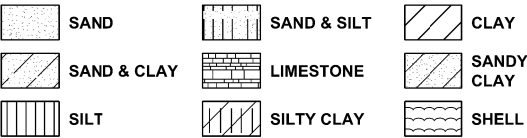
REVISIONS				SUSANNE S. WILLIAMS, P.E. P.E. NO.: 49486 TRAFFIC ENGINEERING DATA SOLUTIONS, INC. 80 SPRING VISTA DRIVE DEBARY, FL 32713 VENDOR NO.: F208375642002	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PANELBOARD SCHEDULE	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					CR 532	OSCEOLA	444187-1-52-01		L-14

HM-1 POLE #11

STA 1016+65.27, 108.74' RT
LAT: N 28.26028
LONG: W 81.61143
GSE: +126.3
RIG TYPE: CME 45 TRACK
HAMMER TYPE: AUTOMATIC
START DATE : 4-30-20
END DATE : 4-30-20
DRILLED BY: P. PLANTIER



LEGEND



- SPT BORING LOCATION
- ▽ +00.0' AGS: APPROXIMATE ELEVATION TO ESTIMATED SEASONAL HIGH GROUND WATER LEVEL
- ▽ +00.0' 00 hr: APPROXIMATE ELEVATION TO ENCOUNTERED GROUND WATER LEVEL AT TIME OF DRILLING
- ▽ AGS: ESTIMATED SEASONAL HIGH GROUNDWATER LEVEL ABOVE GROUND SURFACE
- GSE: GROUND SURFACE ELEVATION
- BT: BORING TERMINATED
- N: STANDARD PENETRATION RESISTANCE BLOWS PER FOOT
- (SP): UNIFIED SOIL CLASSIFICATION SYMBOL
- 200: PERCENT PASSING NUMBER 200 U.S. STANDARD SIEVE
- MC: PERCENT NATURAL MOISTURE CONTENT
- OC: PERCENT ORGANIC CONTENT
- LL: LIQUID LIMIT
- PI: PLASTICITY INDEX
- BOC: BOTTOM OF CASING, FEET
- XX: WEIGHT OF HAMMER
- WOH: WEIGHT OF HAMMER
- HA: HAND AUGERED

SPT - STANDARD PENETRATION TEST
STANDARD PENETRATION RESISTANCE IS THE NUMBER OF BLOWS REQUIRED TO DRIVE A 2-INCH O.D. SPLIT BARREL SAMPLER 12 INCHES USING A 140 POUND HAMMER FALLING FREELY THROUGH 30 INCHES.

- SPT HAMMER TYPE: AUTOMATIC
- NOTES:
- THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS, DEPTHS AND DATES INDICATED. SOIL CONDITIONS AND GROUNDWATER LEVELS AT OTHER LOCATIONS MAY DIFFER FROM THE CONDITIONS OCCURRING AT THESE BORING LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF THE CONDITIONS AT THESE BORING LOCATIONS.
 - THE SPT BORING LOCATIONS WERE SURVEYED FOR HORIZONTAL AND VERTICAL CONTROL BY ECHO JES, INC.
 - THE FDEP MAP "UPPER FLORIDAN AQUIFER POTENTIOMETRIC SURFACE, SEPTEMBER 2016" INDICATES POTENTIAL METRIC LEVEL OF APPROXIMATELY +105 FT NGVD 29 IN THE VICINITY OF THE PROJECT. CONTRACTOR SHALL BE PREPARED TO HANDLE ARTESIAN LEVELS UP TO +105 FT NGVD 29.

GRANULAR MATERIALS:

RELATIVE DENSITY	SPT N-VALUE (BLOWS/12 INCHES)
VERY LOOSE	<4
LOOSE	4-10
MEDIUM DENSE	10-30
DENSE	30-50
VERY DENSE	>50

SILTS, CLAYS, MUCK AND PEAT:

CONSISTENCY	SPT N-VALUE (BLOWS/12 INCHES)
VERY SOFT	<2
SOFT	2-4
FIRM	4-8
STIFF	8-15
VERY STIFF	15-30
HARD	>30

REVISIONS				STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	REPORT OF SPT BORING RESULTS		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION				
				ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				CR 532	OSCEOLA	444187-1-52-01	L-15

ERROL S. ABDULLA, P.E.
P.E. License No. 74803
AWK Consulting Engineers, INC.
6457 Hazeltine National Dr.
Suite 150
Orlando, FL 32822
PH (407) 203-3804 FAX 888-282-9897
VENDOR NO. F251693204

