



# Project Scope

PID

114999

Project Name

D03 LG FY2027(A)

## Lighting

	CRS	Description
1	ASD-SR89-(5.194-5.341)	DEV0000245, DEV0000252 Concrete Base Remove below grade
2	ERI-US250-(2.094-4.32)	<p>Remove existing Acorn luminaries and install ODOT supplied luminaires (25); Pedestrian foundation repair - T7 Pedestal, Sta 133+43.1 (2.527 slm), 55.5' Rt., Eastbound direction make plumb; Pedestrian foundation repair - T8 Pedestal, Sta 228+10.7 (4.320 slm), 48.3' Lt., Westbound direction - Foundation anchor bolt repair.</p> <p>No lane closures 9am - 8pm (June - August), no closures during Ohio Bike Week and Cedar Point Halloweenkends (one hour before open and close)</p>
3	LOR-SR113-(5.493-5.543)	DEV0000343, DEV0000344 Concrete Base Remove below grade, PBX0000163, PBX0000164, PBX0000168, PBX0000171 complete removal and backfill.
4	MED-IR71-(18.8-18.801)	<p>HL0029528 - WK 6 - TOWER HIGH MAST - Replacement of complete tower heading high-mast lowering device: Remove and replace the entire lowering device/assembly for the high-mast lighting. Only the tower itself is to remain. The items shall be provided by Holophane which should include but not limited too; the entire LDV lowering device, heading, power cable, Stainless Steel 3/16IN diameter hoisting cables, Stainless Steel 1/4IN diameter winch cable, lightning arrestor, ring j-box, lightning rod, special winch assembly, breaker box, etc.). The contractor shall confirm the fitment for the replacement items to be installed in the existing tower. The pay item shall include dropping and re-erecting the tower.</p> <p>Lane closures per PLCS</p>
5	MED-SR83-(0.942-0.963)	(2) Strain pole removal East side of intersection; (4) Concrete foundations to be removed below grade, backfilled, seed and mulch - east and west side of intersection.
6	RIC-RE91043-(0-0.302)	Relocate Rest Area control center outside of the facility: (WB) No Control Center ID #
7	RIC-RE91044-(0-0.373)	Relocate Rest Area control center outside of the facility: (EB) No Control Center ID #

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8	RIC-SR39-(11.930-12.210)	See marked up plan sheet attached to the scope form. (2) Concrete foundations to be removed below grade, backfilled, seed and mulch - STA 630+48 and STA 645+45; (3) Pull box assemblies to be completely removed, backfilled, seed and mulch - STA 630+48, 632+48, 645+40; Remove existing aerial cable - Sta 640+70 to 645+30. Do not disturb the power feed & signal cables to existing school flashers at Sta 633+90 & Sta 641+00.
9	RIC-SR39-12.631	DEV0000132 - Reroute underground signal & radar cable from mast arm SP-4 to SP-2. Open cut or Directional Bore, Conduit, Cable. Currently, the cable's conduit goes thru the existing catch basin. The conduit is deteriorated inside the CB.  No lane closures 3pm - 6pm
10	WAY-RE91033-(0-0.615)	Relocate Rest Area control centers outside of the facility: WAY-91033-0.268 (NB) Control Center ID WH-1
11	WAY-RE91032-(0-0.518)	Relocate Rest Area control centers outside of the facility: WAY-91032-0.221 (SB) Control Center ID WH-2
12	WAY-US250(18.684-18.788)	DEV0000192, DEV0000193 Concrete Base Remove below grade, PBX0000041, PBX0000042 complete removal and backfill

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## Maintenance of Traffic (MOT)

MOT Item 1 of 1	MOT Type	Lane Closure	Feature	HIGHWAY LIGHTING	Coordination Needed	Yes
	CRS	Various	Duration	(Days)	Municipality	See Below
	Disincentive	Holiday/Event	\$1,000 / day	(Amt.)	Work Zone Speed Zone	No
	MOT Exception	No		(Desc.)	PLCS	Yes
					LEO No. of Hours	40
	<b>Conflict</b>	<b>Description</b>		<b>Route</b>		<b>Dates to Avoid</b>

Comments	See project locations for lane closure restriction information. Maintain 2-lane with flaggers, multi-lane with lane closures per the appropriate SCD.
	Coordinate with Jeromesville (ASD-89), South Amherst (LOR-113), Mansfield (RIC-39 near 12.00), and Apple Creek (WAY-250)
	Allow 40 hours LEO for MED-IR71-18.8-18.801.

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## Environmental

Environ. Category		Code	Responsibility	D03 LG FY2027(A)																
<b>C1</b>		I	<i>In-House</i>		D03 LG FY2027(A)															
		T	<i>OES Task Order</i>																	
Environmental PM		C	<i>Consultant Services</i>																	
ROSTOFER, DONALD E		-	<i>Not Applicable</i>																	
Cultural	Section 106 - Scoping Request Form (*)			I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Phase 1 Hist./Arch. Survey Rpt. (If Auth.)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Phase 1 Arch. Survey Report (If Auth.)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forms	Determination Request Form			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Individual Section 4(f) Eval.			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Section 6(f) Documentation			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ecology	Ecological Exempt Form (*)			I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Level 1 Ecological Survey Reports			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	UNIONID Mussel Survey Report			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Sole Source Aquifer Coordination			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Farmland Conversion Impact Rating Form			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Waterway Permits	Permit Determination Request Package			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Concp. Stream/Wetland Mitg. Rpts.			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Section 404/401 Applications			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	USACE Pre-Constr. Notification (PCN) Applications			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ohio EPA Isol. Wetland Permit Pre-Act. Notif. (PAN)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Coastguard Section 9 Application			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	ACOE Section 10 Permit			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Floodplain Permit Application			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Floodplain Coordination			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Coastal Waterway Permit			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Site	Regulated Mat. Review (RMR) (*)			I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Phase 1 Env. Site Assess. Rpt. (If Auth.)			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Asbestos Survey/Inspection			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Air	Ozone Analysis			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	MSAT Analysis			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	PM 2.5 Analysis			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Noise	Traffic Noise Analysis Report			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Noise Barrier Public Involvement Summary			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Public	Public Involvement Plan			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Public Meeting Activities			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Public Announce. (webpage, article, news release)			I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Underserved Population Outreach			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Any Known Env. Concerns (ex. historic properties on Nat. Reg., wetlands, underground storage tanks, stream reloc.)

There is no anticipated tree removal on this project.

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## Right-of-Way

R/W Site 1 of 1	Feature CRS	D03 - DISTRICT WIDE		
	Feature Type	H. LIGHTING		
				<b>Responsibility</b>
	R/W Type	EXISTING	Titles	N/A
	Known Relocations?	No	Appraisal	N/A
	Access Modification Req'd?	No	Appraisal Review	N/A
	Estimated No. of Parcels	N/A	R/W Acquisition Services	N/A
	Estimated No. of Owners	N/A	R/W Acquisition Cost Est.	N/A
	Land Use		R/W Plans	N/A
	Comments	<i>There is no anticipated additional right-of-way anticipated with this project as work will be performed within the existing right-of-way.</i>		
Reason for Additional R/W	n/a			

## Survey

Survey Site 1 of 1	CRS	D03 - DISTRICT WIDE	Asset Type	H. LIGHTING	Surveyor	n/a
					<b>Count</b>	<b>Responsibility</b>
			Type 'A' Control Monument		Monuments	In-House
			Type 'B' Control Monument		Monuments	In-House
			Mon. Recovery for Existing CL and R/W		Miles	In-House
			Monument Recovery for Property Lines		Owners	In-House
			Stake R/W for Acquisition/Utilities/Tree Clearing		Owners	In-House
			Pin New R/W Following Construction		Owners	In-House
			Base Mapping (and Field Verify)		Tenths of a Mile	In-House
			Est. Prop. Lines, Tax ID, Owners on Map		Owners	In-House
		Property Owner Notification		Owners	In-House	
		Soil Boring Staking		Borings	In-House	
	Intersects	Select...		Tenths of a Mile	In-House	
				<b>Length Width</b>		
	Topo for	Select...		Tenths of a Mile	Select...	
	Comments	<i>There is no anticipated survey work or control work expected with this project as work to be performed within existing right-of-way.</i>				

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## Utilities

Utilities 1 of 1

Location	D03 - DISTRICT WIDE
Asset	H. LIGHTING

Name of Utility	Location/Description	Buried	Aerial	SUE Needed?	R/W Needed?	Reimbursable?
Power		...	...	...	...	...
Phone		...	...	...	...	...
Gas		...	...	...	...	...
Cable		...	...	...	...	...
Water		...	...	...	...	...
Sanitary		...	...	...	...	...
Comm.		...	...	...	...	...

Comments *Work to be performed around existing utility lines. Contractor shall notify 811.*

*For transmission poles, the contractor as a minimum need to meet the OSHA standard below: The highway contractor will need to use extreme caution while working around any energized conductor. The highway contractor must know and comply with Occupational Safety Health Administration (OSHA), 29 CFR 1926 Subpart CC, safe-working clearances between persons or any conductive object and the energized bare wires. The conductors are rated above 50 kV.*

*For distribution poles, the contractor as a minimum need to meet the OSHA standard below: The highway contractor will need to use extreme caution while working around any energized conductor. The highway contractor must know & comply with Occupational Safety Health Administration (OSHA), 29 CFR 1926 Subpart CC, safe-working clearances between persons or any conductive object and the energized bare wires. The conductors are rated below 50 kV.*

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## Coordination

Leg.	Legislation Type	County	Municipality	Submission Date
	CONSENT	RIC	MANSFIELD	
	CONSENT	LOR	SOUTH AMHERST	

Coordination	FAA	Yes	Railroad	No
	Detour Coordination	No	Floodplain	No
	Innovative Contracting	No	Bike Route or Trail within Project Limits	No
	Maintenance Agreement	No	Assets in Maintenance Agreement	
	Tree Removal	No	Type of Tree Removal Contract	N/A

Local	Comments
	Add FAA note to plans

## Project Schedule

Date		Date	
	Field Review Date	8/1/2026	Stage 2 Plans - Submitted
11/4/2025	In-House Scope Meeting	9/1/2026	Stage 2 Plans - Complete
10/1/2025	Project Initiation Package	-	Compliance R/W Review Approv
11/12/2025	Initial Project Scope Complete	-	Final R/W Plans - Approved
-	Programmatic Date	-	R/W Authorized
1/1/2026	Authorized Design Consultant	-	Waterway Permit Det.-Submit
-	Survey Deliverables Complete	-	404/401 Permits Submitted
-	Feasibility Study - Approved	11/1/2026	Stage 3 Plans - Submitted
-	Alternative Evaluation Report - Appr.	12/1/2026	Stage 3 Plans - Complete
-	Preferred Alternative Approval	-	R/W Acquisition Complete
	Begin In-House Detailed Design	12/15/2026	District R/W Certification
1/1/2026	NEPA Start Date	-	Final Tracings Submitted
-	Pre-Stage 1 - Submitted	-	Final Tracings Complete
-	Pre-Stage 1 - Complete	1/1/2027	Plan Package Received in C.O.
-	Stage 1 Plans - Submitted	4/1/2027	Sale Date
-	Stage 1 Plans - Approved	4/1/2027	Award Date
-	Preliminary R/W Plans - Approved	6/1/2027	Estimated Begin Construction
5/30/2026	Environmental Doc. Approved	6/1/2028	Estimated End Construction

TED Office Required Milestones - All Projects

TED Office Required Milestones - >20M Projects

District Required Milestones - All Projects

Milestone not needed for all projects

Comments

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## Funding

Split / Priority	Name	Plan Split Code	Funding Source 1		Funding Source 1		Cost
			Source 1	Source 2	Source 1	Source 2	
			%	Fund	%	Fund	
1 / 1	CO CO Contr 01	01/STR	100	4CP7	-	-	\$100,000.00
	<i>Descr:</i> <span style="float: right;"><i>Other</i></span>						

## Funding Summary

Project Phase	Funding Source / Description	Percent (%)			FY	Phase Estimate (\$)
		Fed	State	Local		
Preliminary Engineering						
Environmental	PE ENV LABR	0	100	0	26	\$40,000.00
Detailed Design	PE DD LABR	0	100	0	26	\$10,000.00
Right of Way Services						
Right of Way Acquisition						
Utilities Reimbursement						
Construction Contract	CO CO Contr 01	0	100	0	27	\$100,000.00
Construction Engineering	CO CO Engr 01	0	100	0	27	\$10,000.00
<b>Total</b>						<b>\$160,000.00</b>

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## Map

See the project overview map below.



# Project Scope

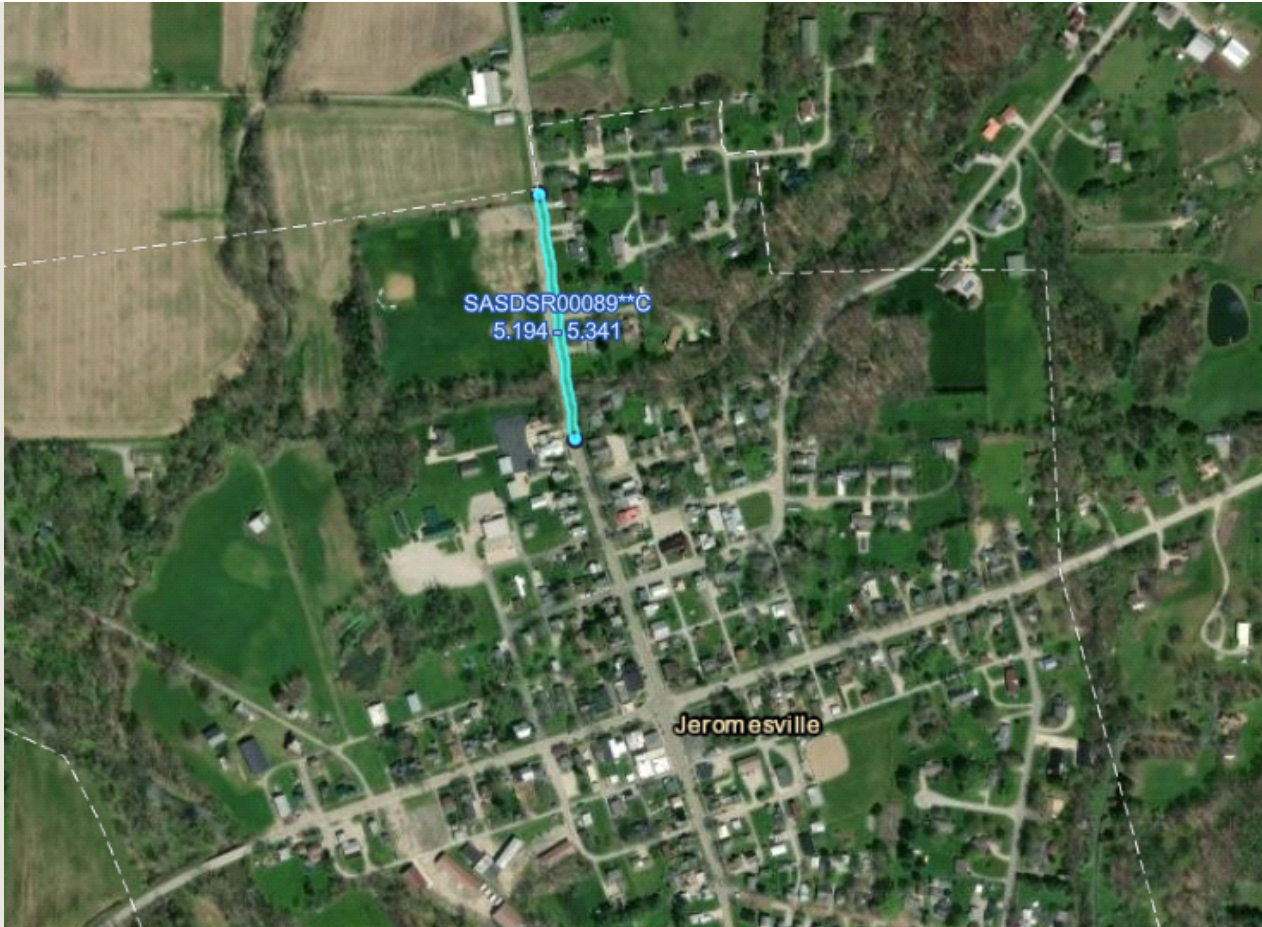
PID

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Project Name

D03 LG FY2027(A)

## Map (continued)



ASD-89-5.194-5.341

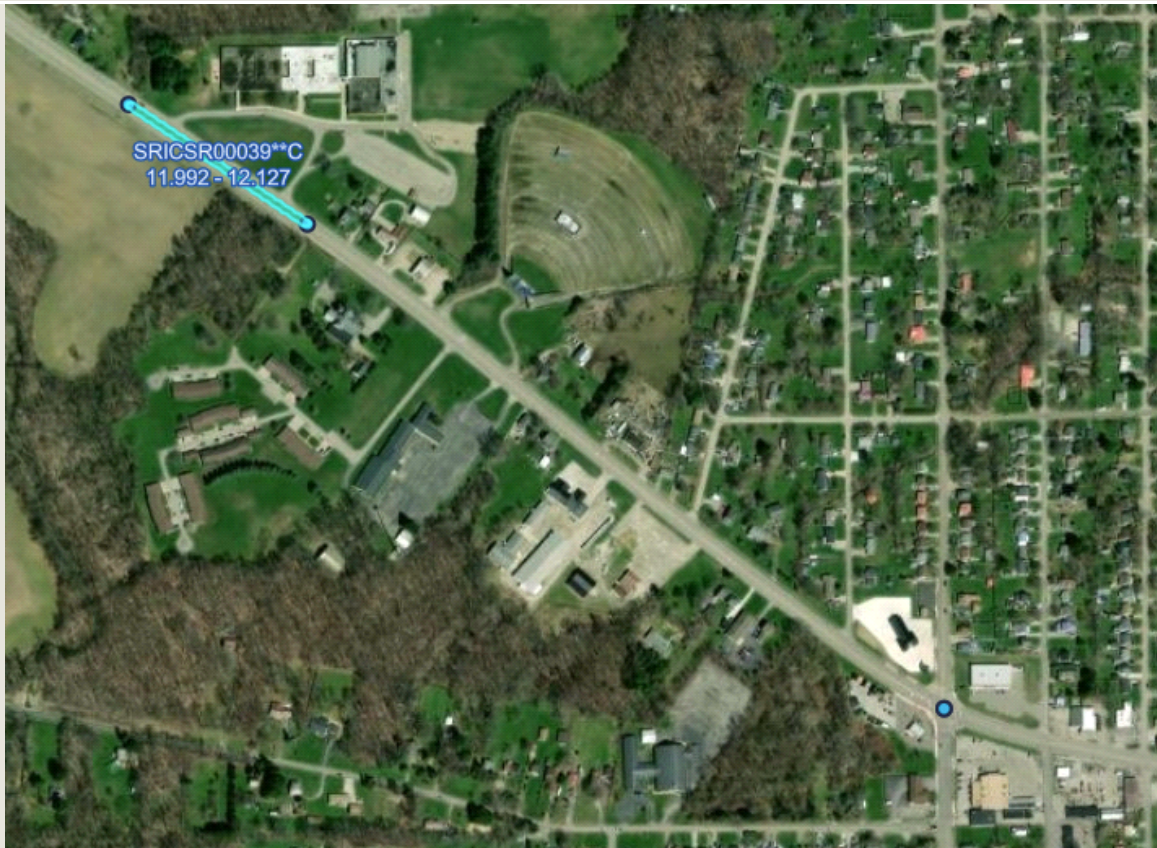


ERI-250-2.094-4.320

Map (continued)



LOR-113-5.493-5.543



RIC-39-11.992-12.127 AND RIC-39-12.631

**Project Scope**

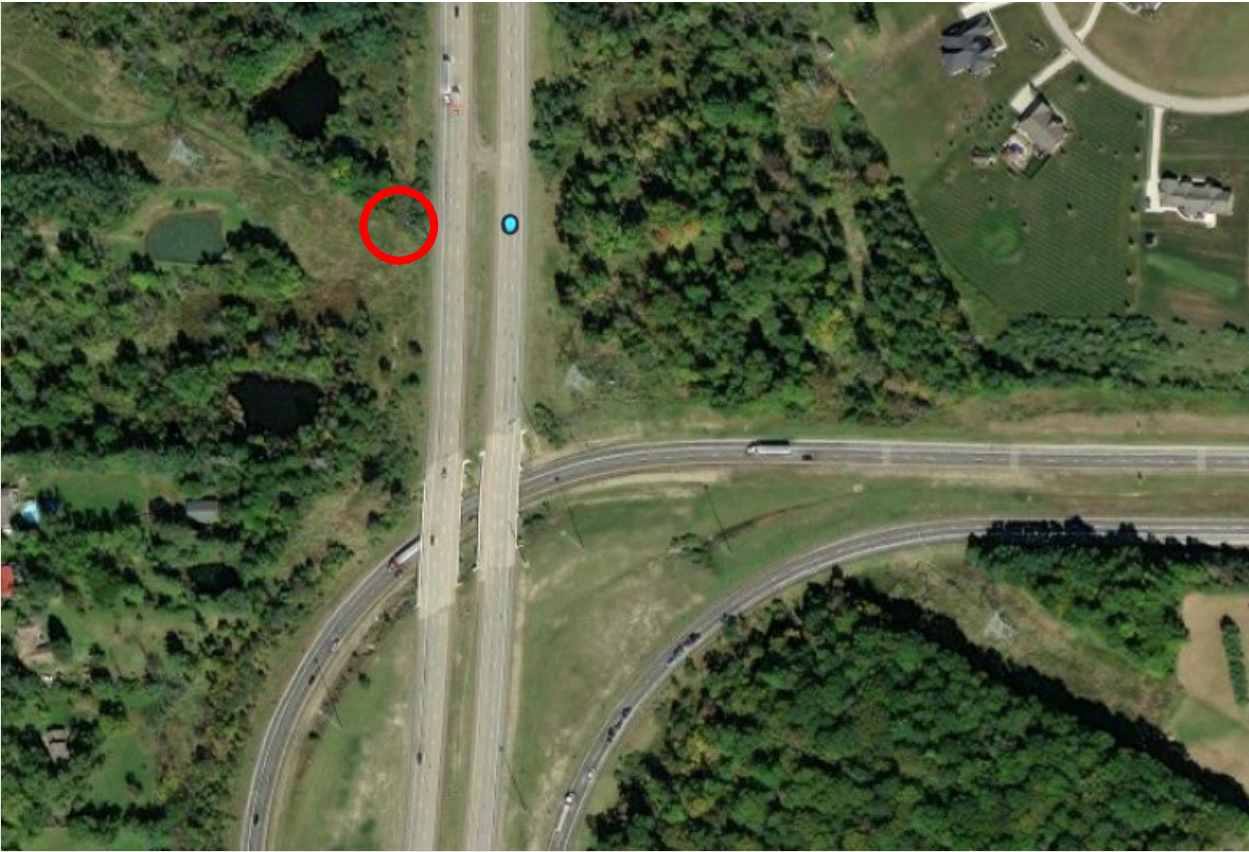
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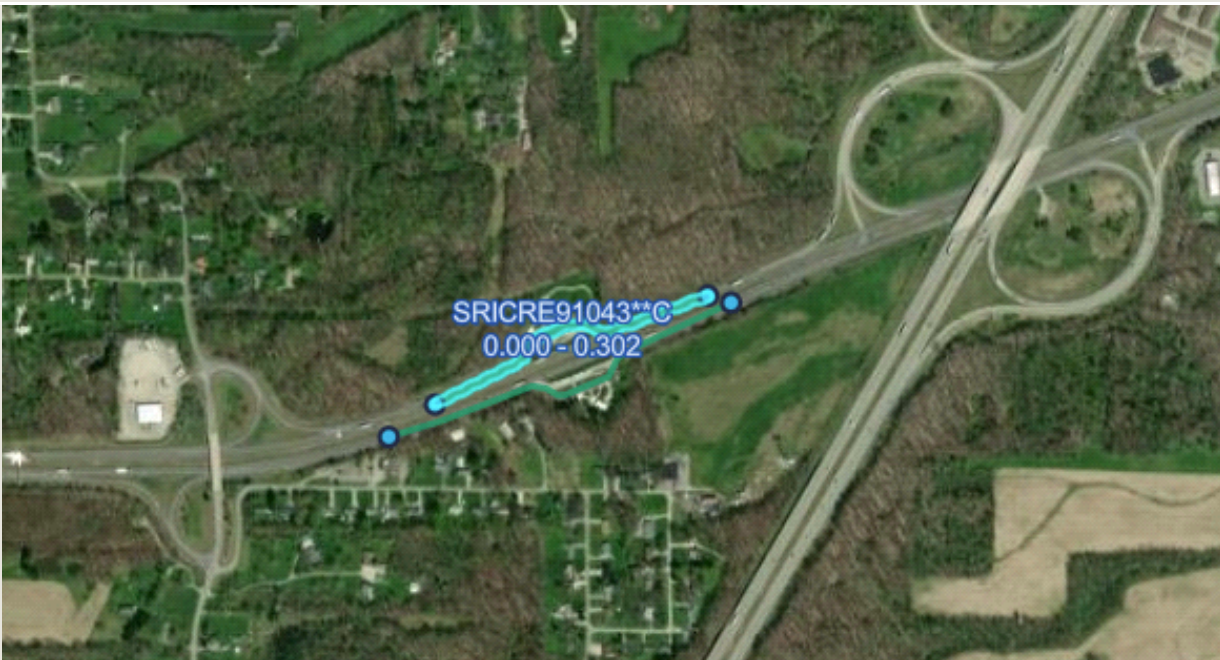
Project  
Name

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**Map (continued)**

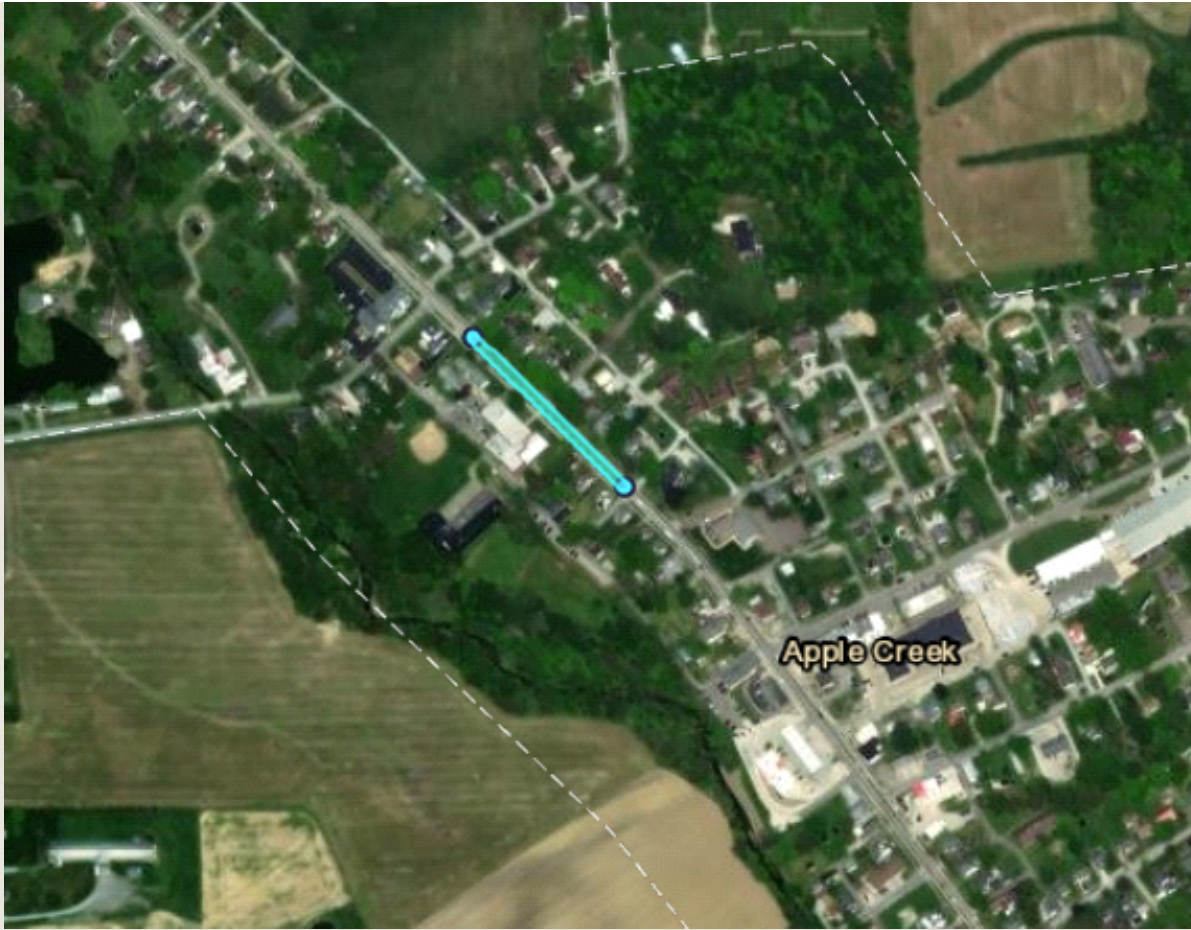


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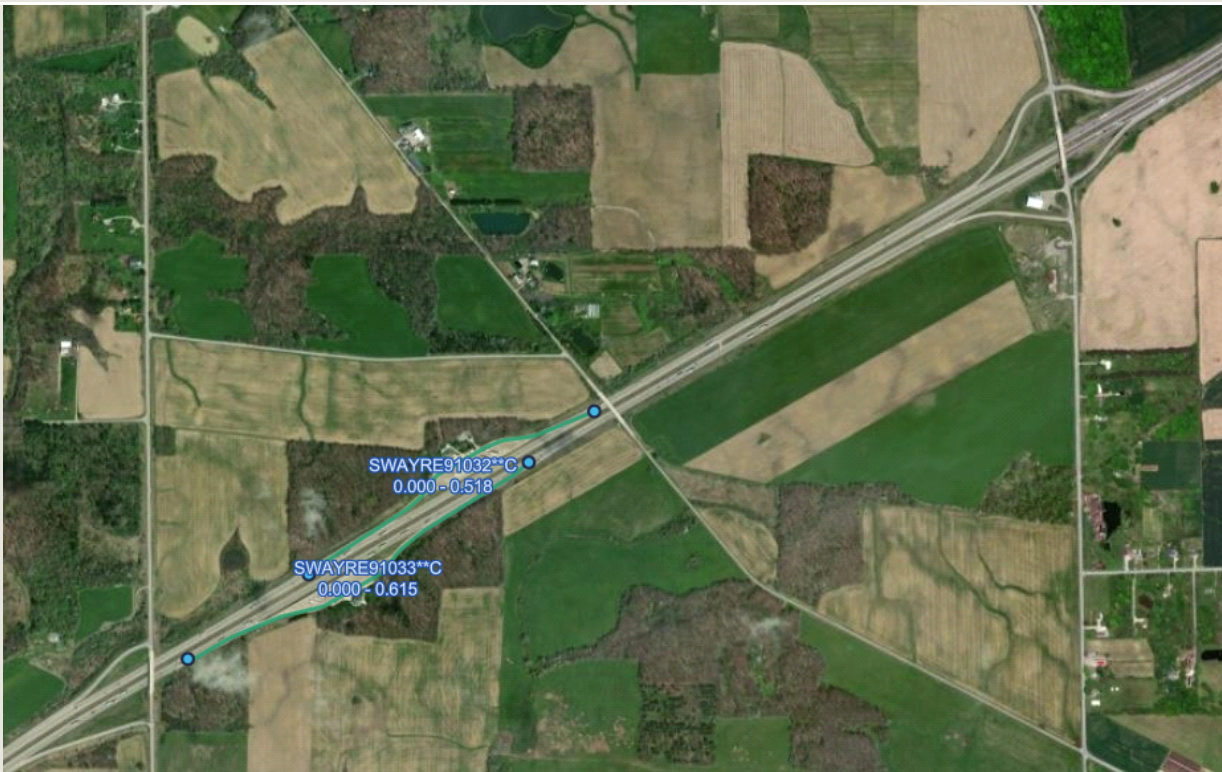


RIC RE91043 AND RE91044 (US 30 JUST WEST OF IR71)

Map (continued)



WAY-250-18.684-18.788



WAY- RE91032 AND RE91032 (IR71 )

**Project Scope**

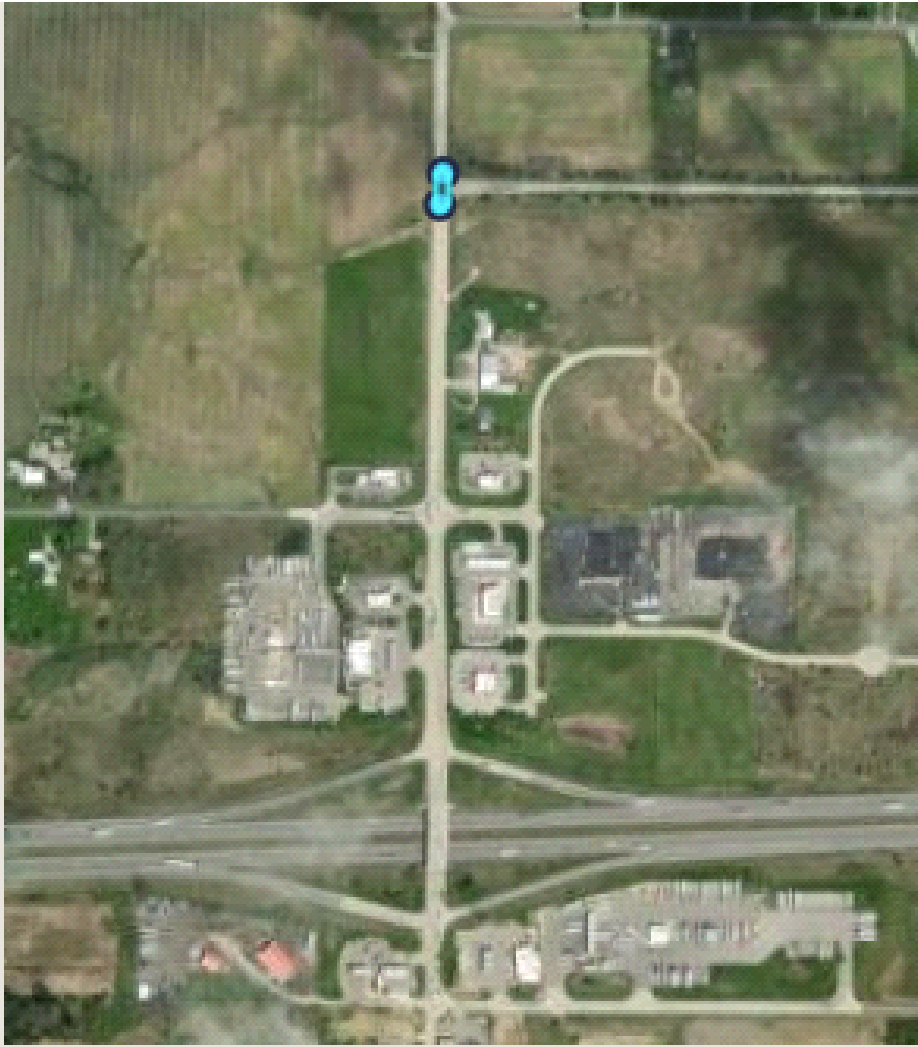
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Name

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**Map (continued)**



MED-83-0.942-0.963

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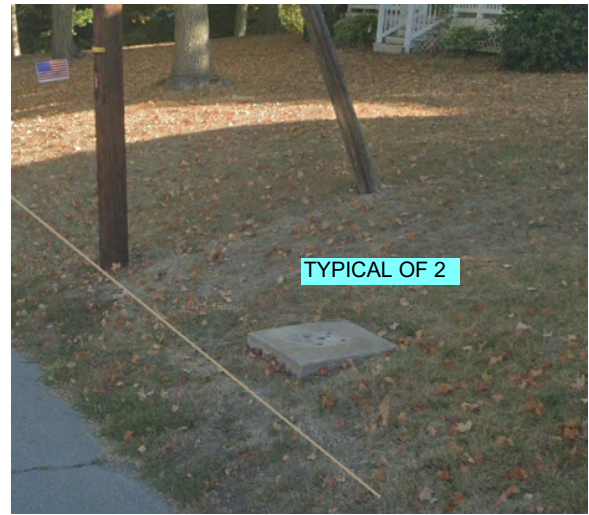
Project Name

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Signatures and Attendance				Approval		Field Visit	Scope Meeting	
		Signature	Date	Approve	Disapprove		11/4/2025	
Work Plan Coord.	Heidi Mertler	<i>Heidi Mertler</i>	11/06/2025	X		-	X	-
ELLIS Coordinator	Heidi Mertler	<i>Heidi Mertler</i>	11/06/2025	X		-	-	-
Environmental PM	Donald E Rostofer	Donald E. Rostofer	11/6/25	X		-	X	-
Bridge Engineer	Kent Kapustar	<b>Kent A. Kapustar</b>	11/6/2025	X		-	-	-
Planning Engineer	Scott Ockunzzi	<i>Scott R Ockunzzi</i>	11/05/2025	X		-	X	-
Design PM	Jamie L Lowery	<i>Jamie Lowery</i>	11/7/2025	X		-	X	-
Roadway Engineer	Charlie Laughrey	<b>Charlie Laughrey</b>	11/12/25	x		-	X	-
Traffic Engineer	Julie Cichello					-	-	-
Survey Op. Mgr.	Scott Hawkins					-	-	-
Utility Coordinator	John Schafrath	<i>John Schafrath</i>	11-6-25	X		-	X	-
Real Estate Admin.	Brad Corder	<i>Bradley S. Corder</i>	11/05/2025	X		-	-	-
Design Engineer	Kenny Knapp					-	X	-
Constr. Area Eng.	Luke T Wysocki	<b>Luke T. Wysocki</b>	11/06/2025	x		-	-	-
Constr. Engineer	Mike Fair	<b>Mike Fair</b>	11/06/2025	X		-	-	-
Cap. Prog. Admin.	Matt Walter	<b>Matt Walter</b>	11/06/2025	X		-	-	-
Rdwy. Serv. Mgr.	Kimberly Conklin					-	-	-
Hwy. Mgt. Admin.	Eric Sheppard	<b>Eric Sheppard</b>	11/05/2025	X		-	-	-
County Manager	Brad Mayes					-	-	-
County Manager	Brendan Schlachter					-	-	-
County Manager	Steve Jacobcik					-	-	-
County Manager	Matt Simon					-	-	-
County Manager	Jason Sutherland	<b>Jason Sutherland</b>	11/5/2025	X		-	-	-
County Manager	Dennis Ryncarz	<b>Dennis Ryncarz</b>	11/7/2025	X		-	-	-
-						-	-	-
Attendee	Anthony Cirigliano	N/A	N/A	N/A	N/A	-	X	-
Attendee	Adam Mellen	N/A	N/A	N/A	N/A	-	X	-
Attendee	Jane Cullen	N/A	N/A	N/A	N/A	-	X	-
Attendee	John Damm	N/A	N/A	N/A	N/A	-	X	-



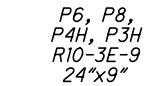
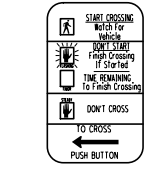
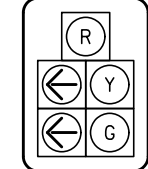
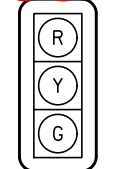
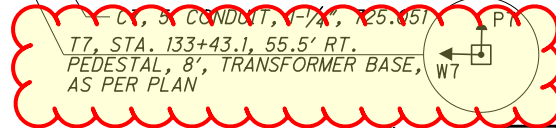
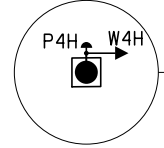
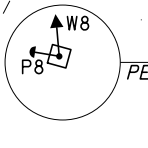
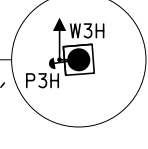
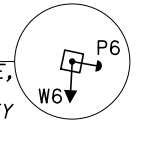
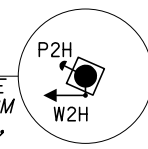
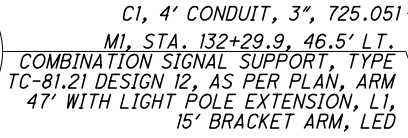
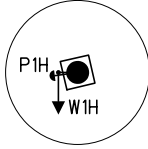
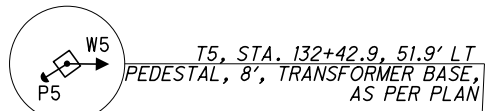
ASD - SR89 - (5.194-5.341)  
 DEV0000245, DEV0000252  
 Concrete Base to be removed below grade, backfilled, seed and mulch.



LOR - SR113 - (5.493-5.543)  
 DEV0000343, DEV0000344  
 Concrete Base to be removed below grade, backfilled, seed and mulch.  
 Pull box assemblies PBX0000163, PBX0000164, PBX0000168, PBX0000171 to be completely removed, backfilled, seed and mulch.



I:\5033\010\88407\signals\sheet\88407CP004.dgn 10/20/2014 11:15:48 AM



**NOTE:**

FOR ROADWAY PLANS SEE SHEET - 167, 274  
 FOR PAVEMENT MARKING PLANS SEE SHEET - 378  
 FOR SIGNING PLANS SEE SHEET - 401  
 FOR OVERHEAD SIGNS SEE SHEETS - 412 & 414

PLAN NORTH

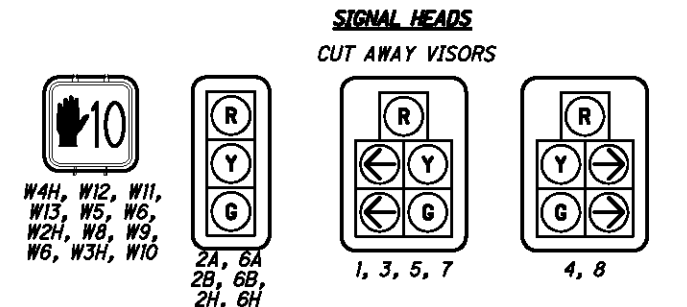
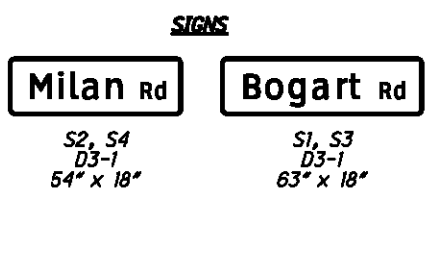
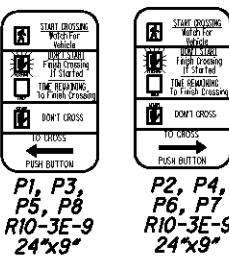
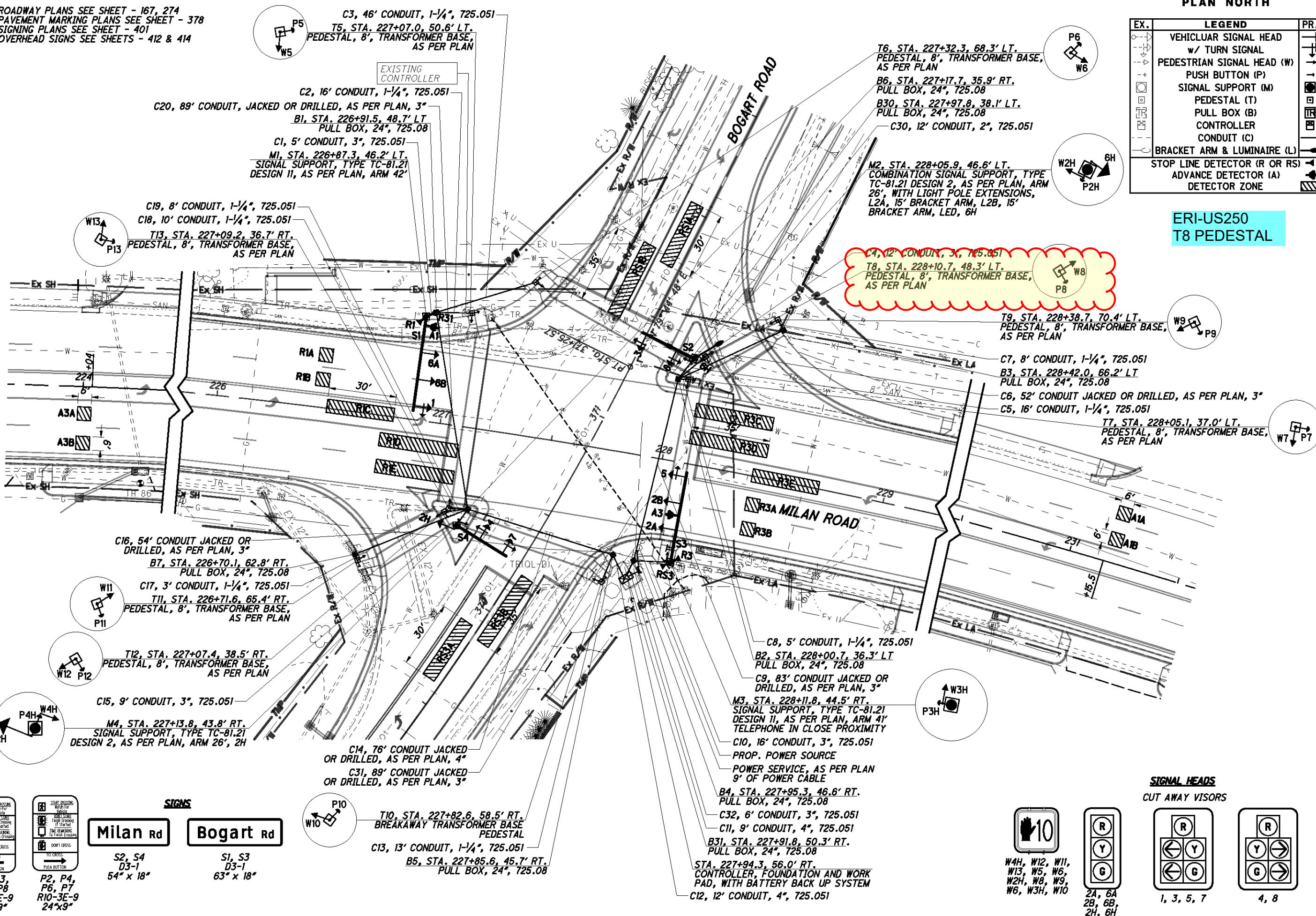
EX.	LEGEND	PR.
	VEHICULAR SIGNAL HEAD	
	PEDESTRIAN SIGNAL HEAD (W)	
	PUSH BUTTON (P)	
	SIGNAL SUPPORT (M)	
	PEDESTAL (T)	
	PULL BOX (B)	
	CONTROLLER	
	CONDUIT (C)	
	BRACKET ARM & LUMINAIRE (L)	
	STOP LINE DETECTOR (R OR RS)	
	ADVANCE DETECTOR (A)	
	DETECTOR ZONE	

ERI-US250  
T8 PEDESTAL

TRAFFIC SIGNAL PLAN  
US-250 (MILAN ROAD) AT BOGART ROAD

ERI-250-0.00

489  
677

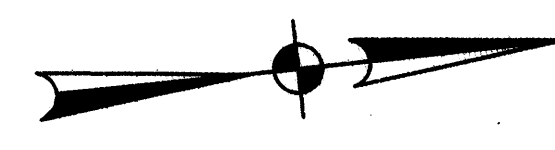
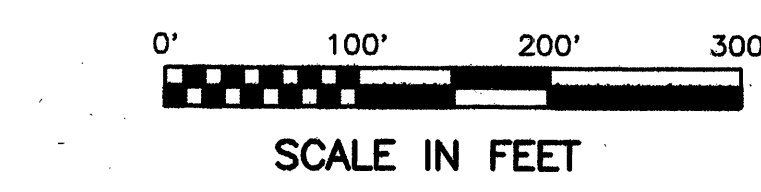


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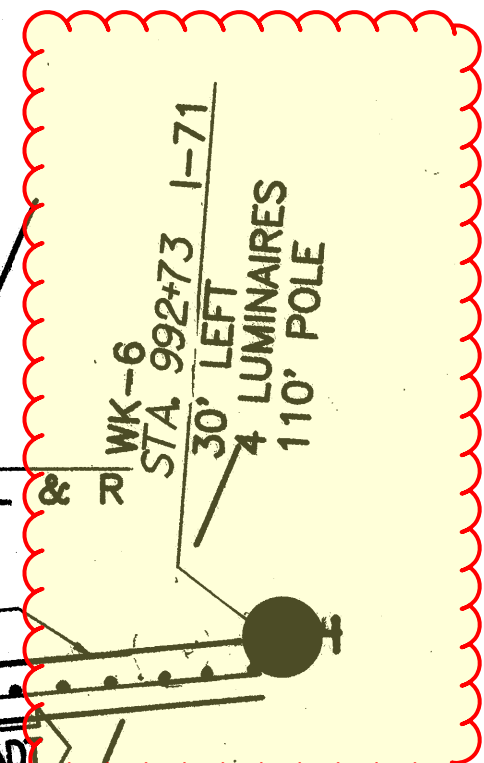
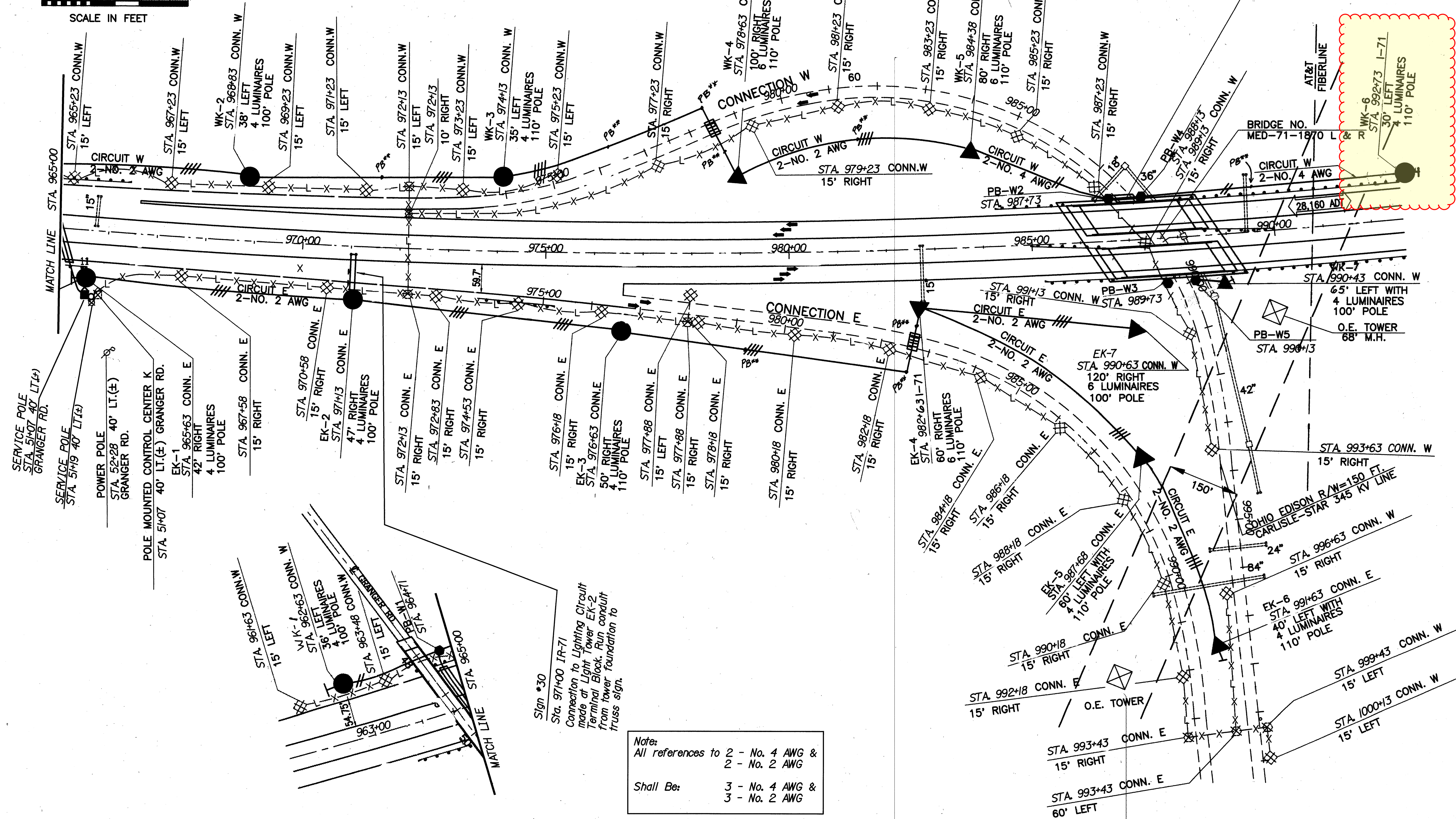
CONTROL CENTER DATA							
CONTROL CENTER	CONNECTED LOAD KVA	SERVICE ENTRANCE CONDUCTOR SIZE-AWG	ENCLOSURE RATING AMPS	CIRCUIT NUMBER	CIRCUIT LOAD AMPS.	CIRCUIT FUSE SIZE AMPS.	MAINTENANCE AGENCY
I-271				E	33.60	100	ODOT
K	33.66	2	100	W	36.52	100	

NOTES: EXISTING POLE MOUNTED CONTROL CENTER AND SERVICE POLE AT STA. 51+07 GRANGER RD. SHALL BE REMOVED. A NEW POLE MOUNTED CONTROL CENTER SHALL BE INSTALLED AT THE SAME LOCATION.  
 FOR LEGEND, SEE SHEET 622



MED-IR71  
HL0029528-WK6

SEE SHEET 630 FOR UNDERPASS LIGHTING DETAILS.



Note:  
 All references to 2 - No. 4 AWG &  
 2 - No. 2 AWG  
 Shall Be: 3 - No. 4 AWG &  
 3 - No. 2 AWG

0 100 200  
HORIZONTAL SCALE IN FEET

CALCULATED

CHECKED

I-271 Interchange  
High Mast Lighting

MED-71-15.78

629

940

I-271 INTERCHANGE  
HIGH MAST LIGHTING

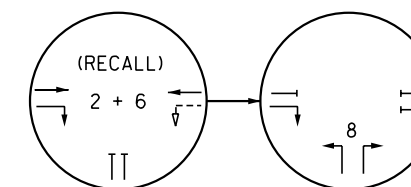
MATERIALS REQUIRED

ITEM	QUANTITY	UNIT	DESCRIPTION	ITEM	QUANTITY	UNIT	DESCRIPTION
625	2	EA	BRACKET ARM, 15'	632	4	EA	BREAKAWAY TETHER CONNECTION
625	1	EA	BRACKET ARM, 25'	632	1	EA	SIGNALIZATION, MISC.: METER BASE, 100 AMP WITH BYPASS
625	24	FT	CONDUIT, 2", 725.04	632	3	EA	SIGNALIZATION, MISC.: VIDEO DETECTION UNIT
625	24	FT	CONDUIT, 3", 725.04	632	1	EA	SIGNALIZATION, MISC.: VIDEO DETECTION TRANSMISSION SUBSYSTEM
625	5	EA	GROUND ROD	632	1	EA	INTERCONNECT, MISC.: FAN-OUT KIT, 6 FIBER
632	572	FT	SIGNAL CABLE, 7-CONDUCTOR, No. 14 AWG	632	2	EA	INTERCONNECT, MISC.: FIBER OPTIC PATCH CORD, 4 FIBER
632	350	FT	MESSENGER WIRE, 7 STRAND, 1/4" DIA. W/ACCESSORIES, A.P.P.	632	1	EA	INTERCONNECT, MISC.: TERMINATION PANEL
632	350	FT	MESSENGER WIRE, 7 STRAND, 3/8" DIA. W/ACCESSORIES	632	6	EA	INTERCONNECT, MISC.: FIBER OPTIC CONNECTOR
632	4	EA	STRAIN POLE FOUNDATION	633	1	EA	CONTROLLER ITEM, MISC.: FIBER OPTIC TRANSCEIVER, MULTIMODE
632	45	FT	POWER CABLE, 2-CONDUCTOR, No. 6 AWG	633	1	EA	CONTROLLER UNIT, TYPE TS2/A2 WITH CABINET, TYPE TSI, A.P.P.
632	33	FT	POWER CABLE, 3-CONDUCTOR, No. 6 AWG	633	1	EA	CABINET FOUNDATION
632	1	EA	POWER SERVICE, AS PER PLAN	633	1	EA	CONTROLLER WORK PAD
632	3	EA	COMBINATION STRAIN POLE, TYPE TC-81.10, DESIGN 10, 34'	633	1	EA	UPS 1000W, INTERNAL, W/ 18" RISER
632	1	EA	STRAIN POLE, TYPE TC-81.10, DESIGN 10, 34'				
632	5	EA	VEH. SIGNAL HEAD, (LED), 3-SECT., 12" LENS, 1-WAY, POLYCARBONATE				
632	1	EA	VEH. SIGNAL HEAD, (LED), 4-SECT., 12" LENS, 1-WAY, POLYCARBONATE				
632	5	EA	BACKPLATE, 3-SECTION				
632	1	EA	BACKPLATE, 4-SECTION				

VIDEO DETECTION ZONES

LOOP	SIZE (WXL)	ASSOC. PHASE	TYPE	CAMERA NO.	EXT. (SEC.)	DELAY (SEC.)	DELAY INHIBITED DURING	LABEL
DZ-1	6' x 8'	2	PULSE	C2				NB EXT THRU
DZ-2	6' x 8'	6	PULSE	C3				SB EXT THRU
SZ-2	6' x 8'	-	PULSE	C3				SYSTEM
DZ-3	10' x 30'	8	PRESENCE	C1		5	8	WB LT
DZ-4	AS SHOWN	8	PRESENCE	C1		10	8	WB RT
DZ-5	8' x 30'	6	PRESENCE	C3				SB LT
DZ-6	6' x 8'	6	PULSE	C3				SB LT EXT

MED - SR83 - (0.942-0.963)



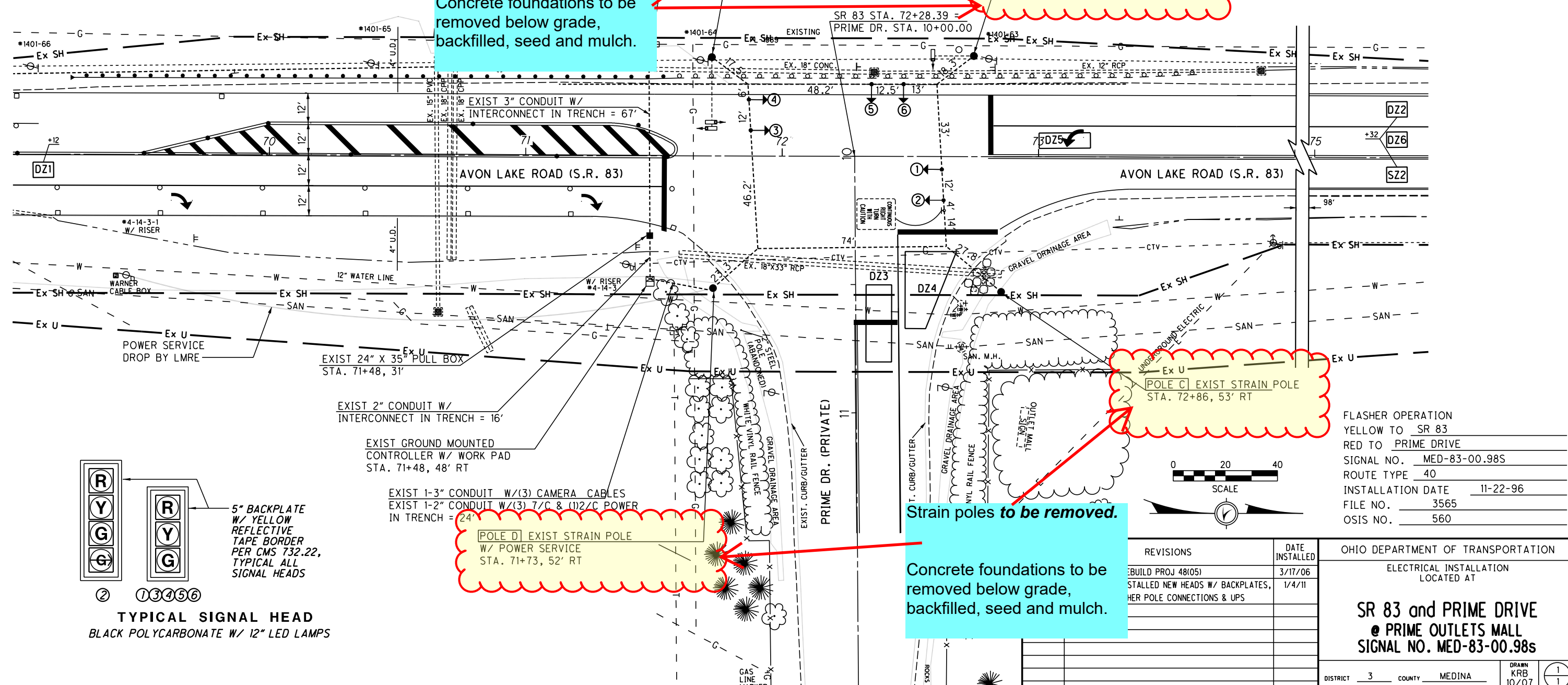
SIGNAL PHASING

Strain poles have been removed already.

Concrete foundations to be removed below grade, backfilled, seed and mulch.

POLE A EXIST STRAIN POLE  
STA. 71+73, 39' LT  
30' ARM W/ IMAGE SENSORS #2 & #3

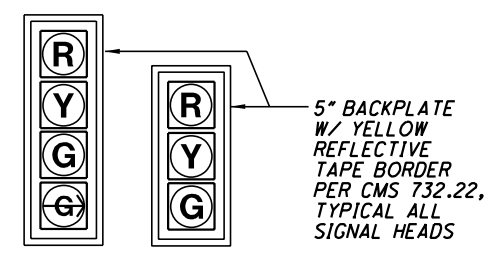
POLE B EXIST STRAIN POLE  
STA. 72+75, 39' LT  
15' ARM W/ IMAGE SENSOR #1



POLE C EXIST STRAIN POLE  
STA. 72+86, 53' RT

Strain poles to be removed.

Concrete foundations to be removed below grade, backfilled, seed and mulch.



TYPICAL SIGNAL HEAD  
BLACK POLYCARBONATE W/ 12" LED LAMPS

FLASHER OPERATION

YELLOW TO SR 83

RED TO PRIME DRIVE

SIGNAL NO. MED-83-00.98S

ROUTE TYPE 40

INSTALLATION DATE 11-22-96

FILE NO. 3565

OSIS NO. 560

REVISIONS	DATE INSTALLED
BUILD PROJ 48(05)	3/17/06
STALLED NEW HEADS W/ BACKPLATES, HER POLE CONNECTIONS & UPS	1/4/11

OHIO DEPARTMENT OF TRANSPORTATION

ELECTRICAL INSTALLATION LOCATED AT

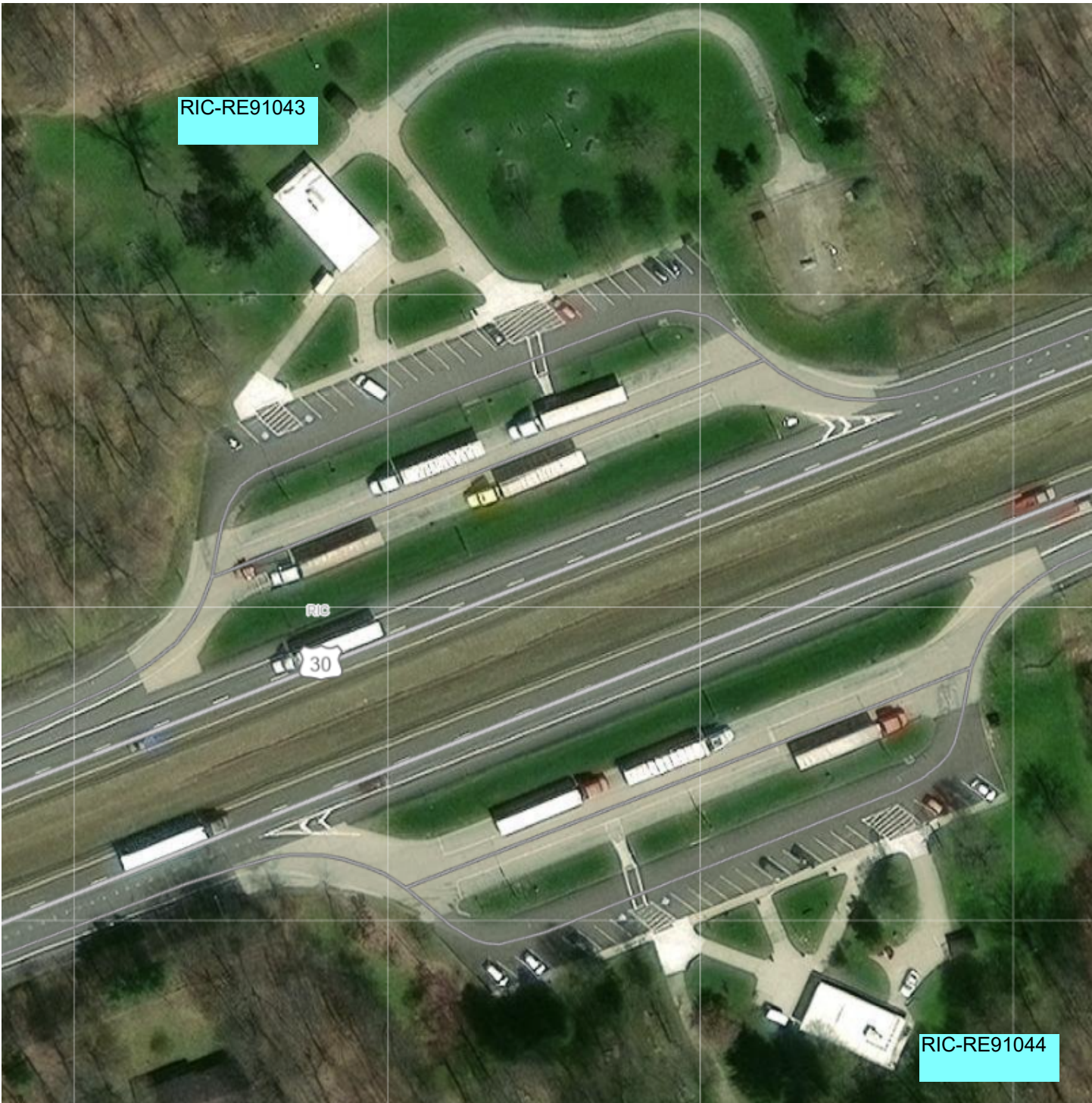
**SR 83 and PRIME DRIVE @ PRIME OUTLETS MALL**

SIGNAL NO. MED-83-00.98s

DISTRICT 3 COUNTY MEDINA

DRAWN KRB 10/07

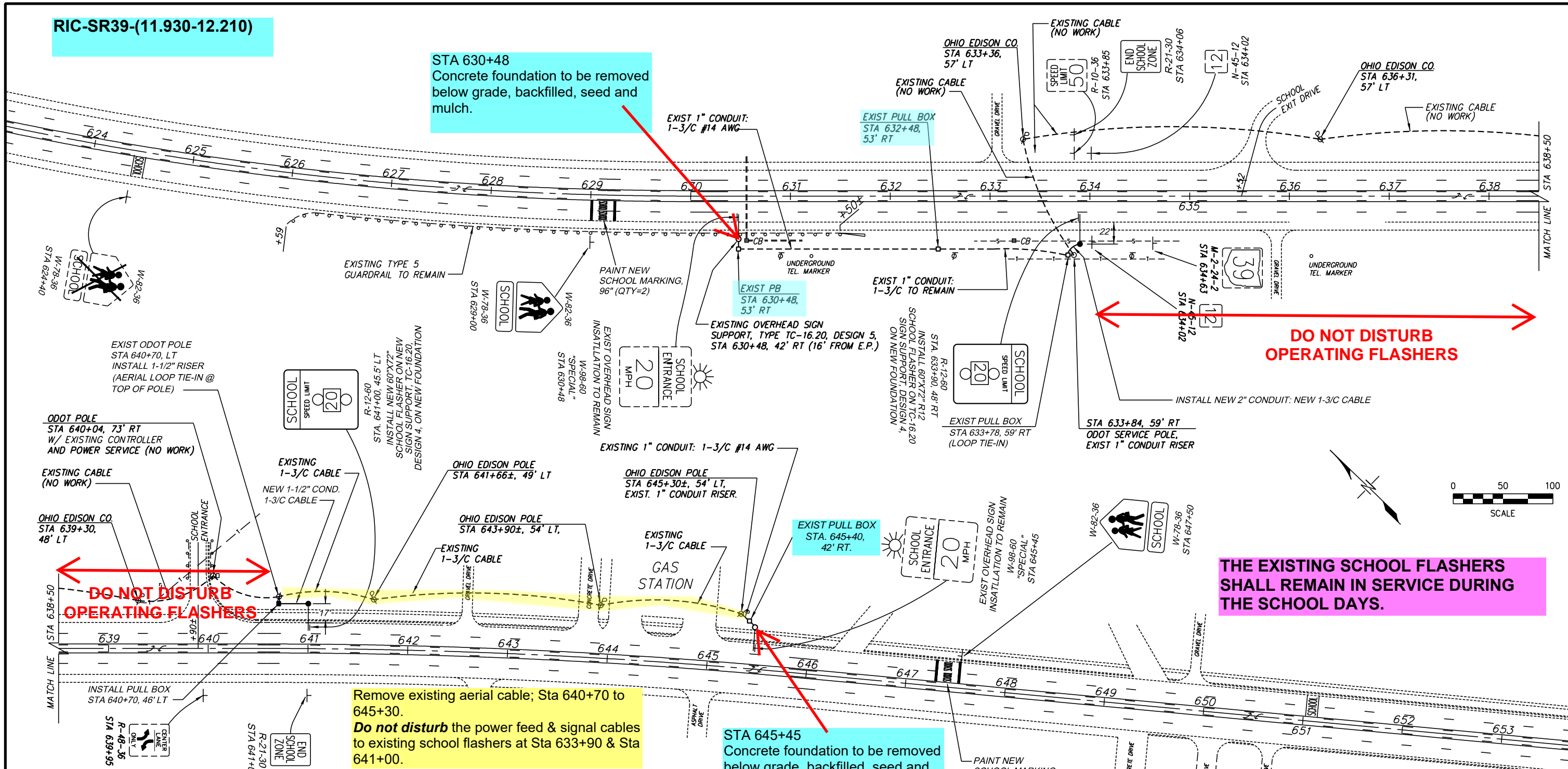
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WORKSTATION: rronev DATE: 1/5/2011



**RICHLAND COUNTY - REST AREAS US 30  
WEST OF IR 71 - ELECTRIC CONTROL CENTERS TO  
BE REMOVED FROM INSIDE THE BUILDING AND  
NEW CONTROL CENTERS TO BE INSTALLED ON  
THE EXTERIOR OF THE BUILDINGS.**

RIC-SR39-(11.930-12.210)

STA 630+48  
Concrete foundation to be removed below grade, backfilled, seed and mulch.



**DO NOT DISTURB OPERATING FLASHERS**

**DO NOT DISTURB OPERATING FLASHERS**

**THE EXISTING SCHOOL FLASHERS SHALL REMAIN IN SERVICE DURING THE SCHOOL DAYS.**

Remove existing aerial cable; Sta 640+70 to 645+30.  
Do not disturb the power feed & signal cables to existing school flashers at Sta 633+90 & Sta 641+00.

STA 645+45  
Concrete foundation to be removed below grade, backfilled, seed and mulch.

Pull box assemblies to be completely removed, backfilled, seed and mulch.  
STATIONS - 630+48, 632+48, 645+40

EXISTING LIST OF MATERIALS

ITEM	UNIT	ITEM DESCRIPTION	QTY.
625	EACH	PULL BOX, 713.08, 18"	3
625	EACH	GROUND ROD, APP	3
630	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.20, DESIGN 5 (24' ARM)	2
632	EACH	SIGN FLASHER ASSEMBLY, 60"x72"	2
632	LIN.FT.	INTERCONNECT CABLE INTEG. MESS. WIRE TYPE, 3/C, NO. 14 AWG, APP	1925
632	LIN.FT.	POWER CABLE, 2/C #6 AWG	10
632	EACH	POWER SERVICE	1
632	EACH	CONDUIT RISER, 1" DIAMETER	2
632	EACH	WOOD POLE, CLASS 5, 35'	2
633	EACH	WEEKLY PROGRAMMER, SOLID STATE DIGITAL, AS PER PLAN	1

LIST OF MATERIALS PROJ 43(01)

REF. NO.	ITEM	UNIT	ITEM DESCRIPTION	SURVEY MEASURE	FIELD MEASURE
7	625	LIN.FT.	CONDUIT, 713.07, 1-1/2"	35	
8	625	LIN.FT.	CONDUIT, 713.04, 2"	16	
12	625	LIN.FT.	TRENCH, APP	51	
15	625	EACH	PULL BOX, 713.08, 18"	1	
18	625	EACH	GROUND ROD, APP	2	
20	630	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.20, DESIGN 4 (30' ARM)	2	
29	632	EACH	SCHOOL SPEED LIMIT SIGN ASSEMBLY, 60"x72"	2	
42	632	LIN.FT.	SIGNAL CABLE, 3/C, #14 AWG	210	
47	632	EACH	STRAIN POLE FOUNDATION (9'X3' DIA)	2	
55	632	EACH	CONDUIT RISER, 1-1/2" DIA.	1	
19	630	LIN.FT.	GROUND MOUNTED SUPPORT, NO. 3 POST	58	
22	630	SQ. FT.	SIGNS, FLAT SHEET, AS PER PLAN	34.5	
23	630	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	4	
24	630	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT & DISPOSAL	6	
94	642	EACH	SCHOOL SYMBOL MARKING, 96", TYPE 2	4	

PROJ. NO. 43(01)  
SIGNAL NO.: RIC-39-1450 F  
COUNTY: RICHLAND  
OSIS NUMBER 2200  
FILE NUMBER: 1069

DATE	REVISIONS	DATE INSTALLED
?	INSTALLED SCHOOL ENTRANCE FLASHERS - PROJ 130-97	?
8-7-00	REINSTALLED 20 MPH SCHOOL FLASHERS - PROJ 16-99 AND REMOVED SCHOOL ENTRANCE FLASHERS	

OHIO DEPARTMENT OF TRANSPORTATION  
ELECTRICAL INSTALLATION  
LOCATED AT  
**SHERMAN SCHOOL**  
SIGNAL NO. RIC-39-1450F  
DISTRICT 3 COUNTY RICHLAND

(REDRAWN)  
RJR 6-12-01

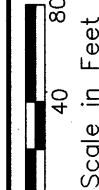
DRAWN  
RJR

REVIEWED

REVISED: 7-31-01

DESIGN FILE: I:\FIELD\N\ELECTRICAL\SCHOOL\Sherman.dgn  
WORKSTATION: rjoney  
DATE: 5/7/2008



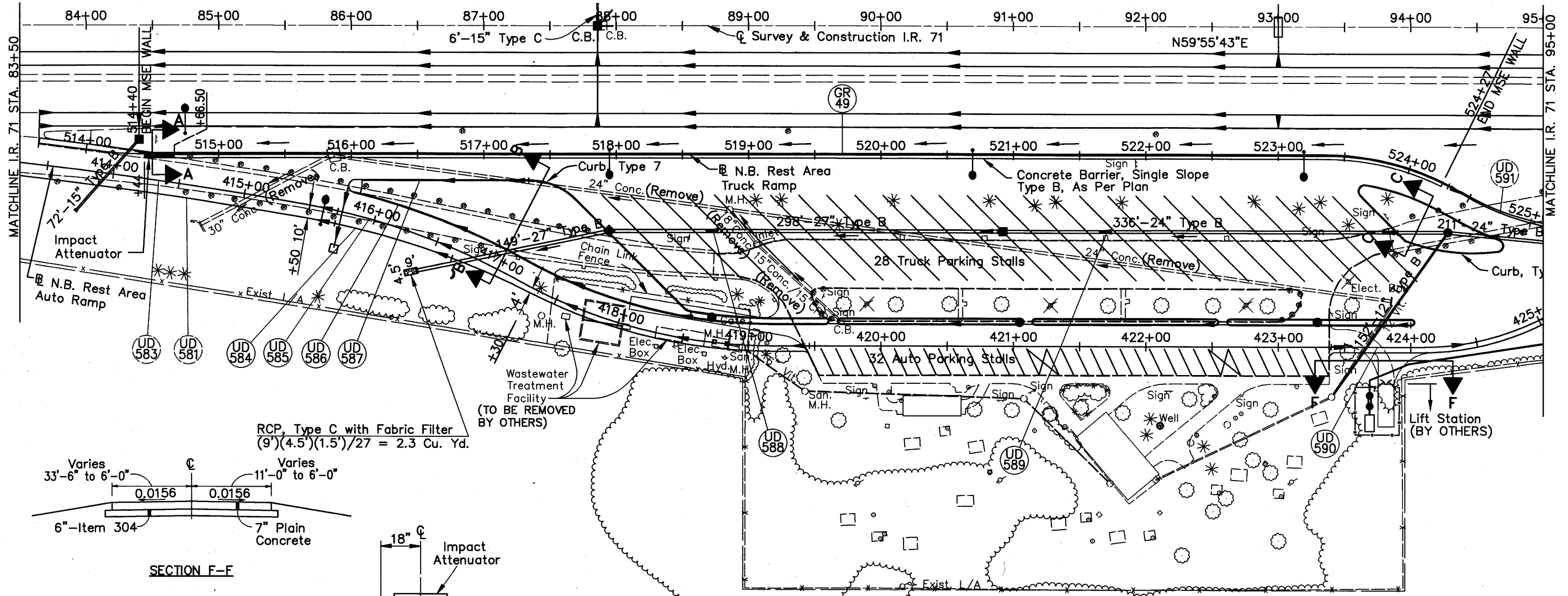


CALCULATED  
SFS  
CHECKED  
GCS

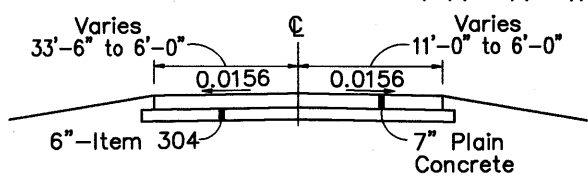
PLAN  
I.R. 71 N.B. REST AREA

WAY-71-0.28

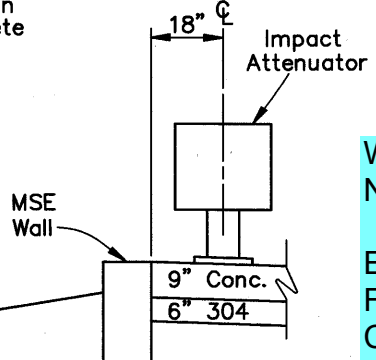
308  
432



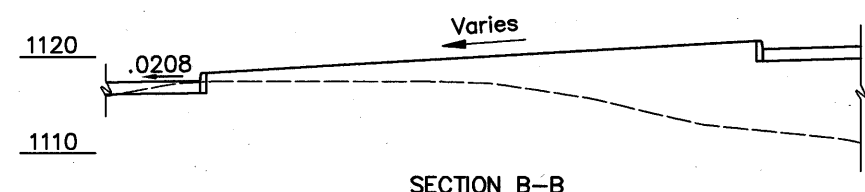
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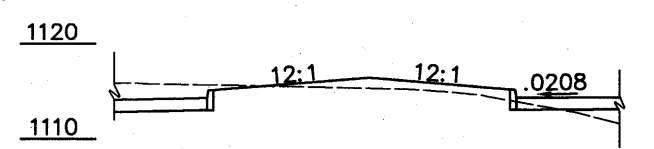
SECTION F-F



SECTION A-A



SECTION B-B



SECTION C-C

WAYNE COUNTY - REST AREA NORTHBOUND I.R. 71  
 NORTHERLY OF SR 301

WAY-RE91033-(0-0.615)

ELECTRIC CONTROL CENTER TO BE REMOVED  
 FROM INSIDE THE BUILDING AND NEW CONTROL  
 CENTER TO BE INSTALLED ON THE EXTERIOR OF  
 THE BUILDING.

FOR REST AREA LIGHTING, SEE SHEET 378.  
 FOR MSE WALL, SEE SHEET 328

REFERENCE	STATION		SIDE	202	202	202	202	202	202	202	601	602	603	603	603	603	604	604	604	830	10" Concrete Traffic Island
	FROM	TO		Walk Removed	Pipe Removed, 24" And Under	Pipe Removed, Over 24"	Manhole Removed	Catch Basin Removed	Inlet Removed	Removal Misc.: Headwall	Rock Channel Protection Type C With Fabric Filter	Concrete Masonry	12" Conduit Type B	15" Conduit Type B	24" Conduit Type B	27" Conduit Type B	Catch Basin No. 4 As Per Plan	Catch Basin No. 6 As Per Plan	Manhole No. 3		
	83+92	84+40	Rt.												72		1				
	84+85	93+86	Rt.		920	112	1	2	1	2											
	85+98	86+08	Rt.																		10
	86+49	87+95	Rt.								2.3	0.5				149		1			
	87+95	90+92	Rt.												298		1				
	90+92	94+28	Rt.										152		336						
	94+28	96+38	Rt.												211				1		
	420+58	421+85	Lt.	176																	
QUANTITIES CARRIED TO SHEET				176	920	112	1	2	1	2	2	1.0	152	72	547	447	1	2	1		10

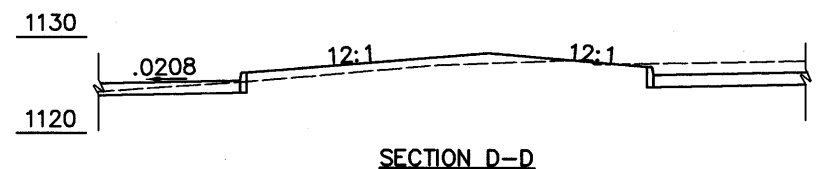
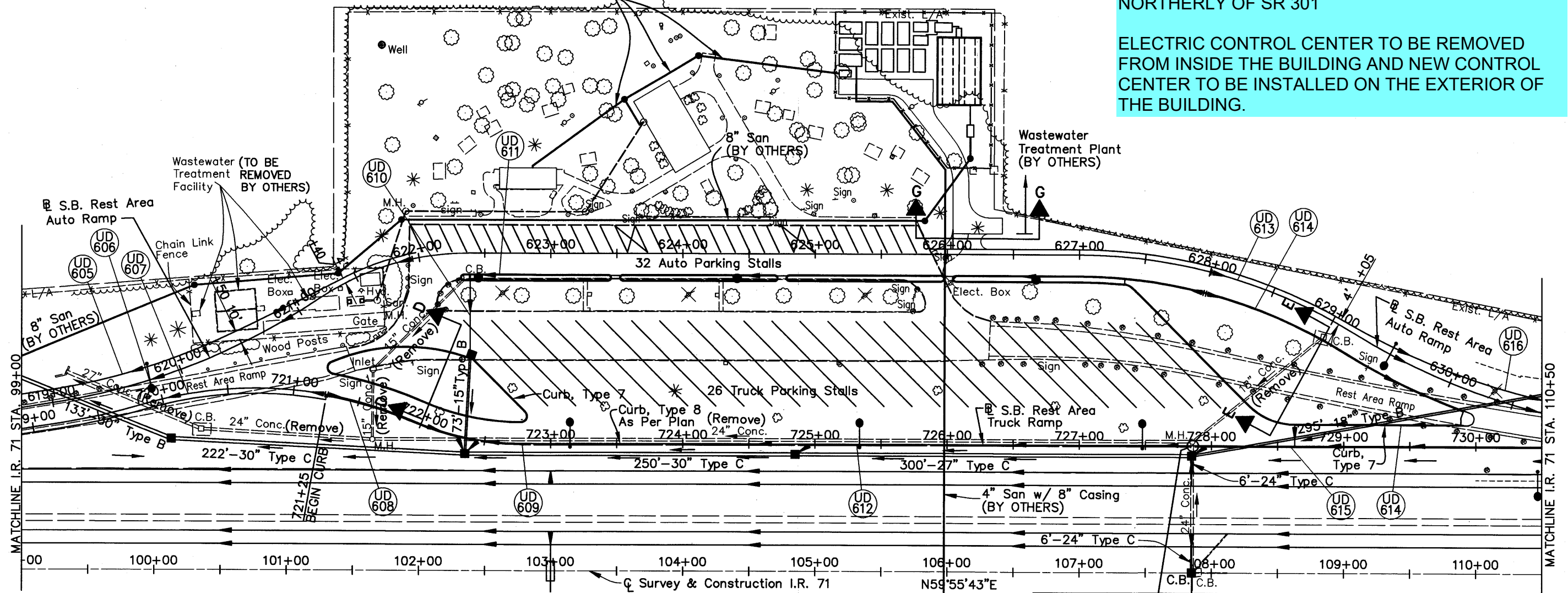
M:\PROJECTS\AUTOCAD\2008\279\PLAN\NB-RA-Long - N.B. REST AREA - May 05, 2009

WAY-RE91032-(0-0.518)

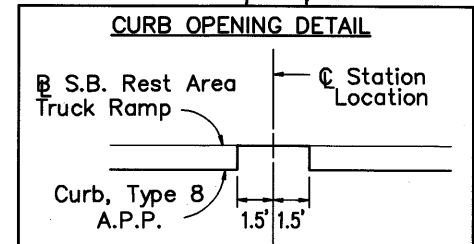
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BY OTHERS)

WAYNE COUNTY - REST AREA SOUTHBOUND I.R. 71  
NORTHERLY OF SR 301

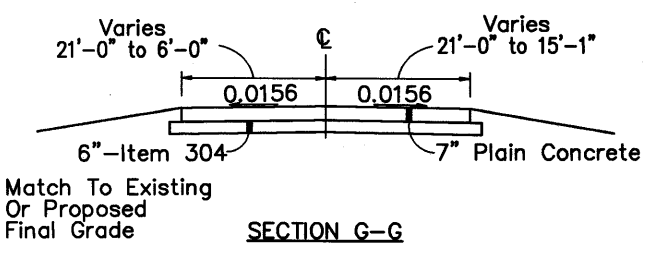
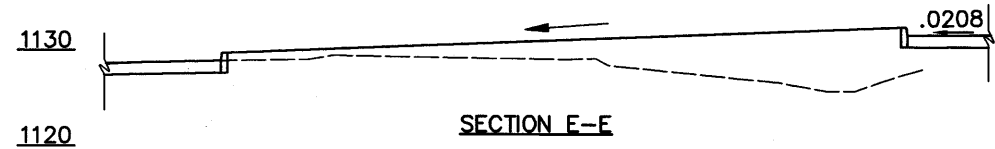
ELECTRIC CONTROL CENTER TO BE REMOVED  
FROM INSIDE THE BUILDING AND NEW CONTROL  
CENTER TO BE INSTALLED ON THE EXTERIOR OF  
THE BUILDING.



LOCATIONS FOR 3' OPENINGS IN CURB, TYPE 8, AS PER PLAN.  
 722+46                      725+86  
 722+86                      726+86  
 723+86                      727+86  
 724+86




FOR REST AREA LIGHTING, SEE SHEET 378.



REFERENCE	STATION		SIDE	202	202	202	202	202	202	202	202	601	602	603	603	603	603	603	604	604	830
	FROM	TO		Walk Removed	Pipe Removed, 24\"/>																
	98+90	100+13	Lt.									2.8	0.6								
	99+25	108+84	Lt.		1025	108	2	3	1	1								133		1	
	100+13	102+35	Lt.											73				222		1	
	102+35	104+85	Lt.															250	1	1	
	104+85	107+85	Lt.												6	300				1	
	107+85	110+75	Lt.																	1	
	109+89	109+99	Lt.																		10
	623+25	624+30	Rt.	174																	
QUANTITIES CARRIED TO SHEET				174	1025	108	2	3	1	1	3	0.6	73	295	6	300	133	472	1	5	10

M:\91032\AUTOCAD\DWG\725\PLAN-SB-RA.dwg - S.B. SHEET 917 - May 05, 2001



Scale in Feet  
0 40 80

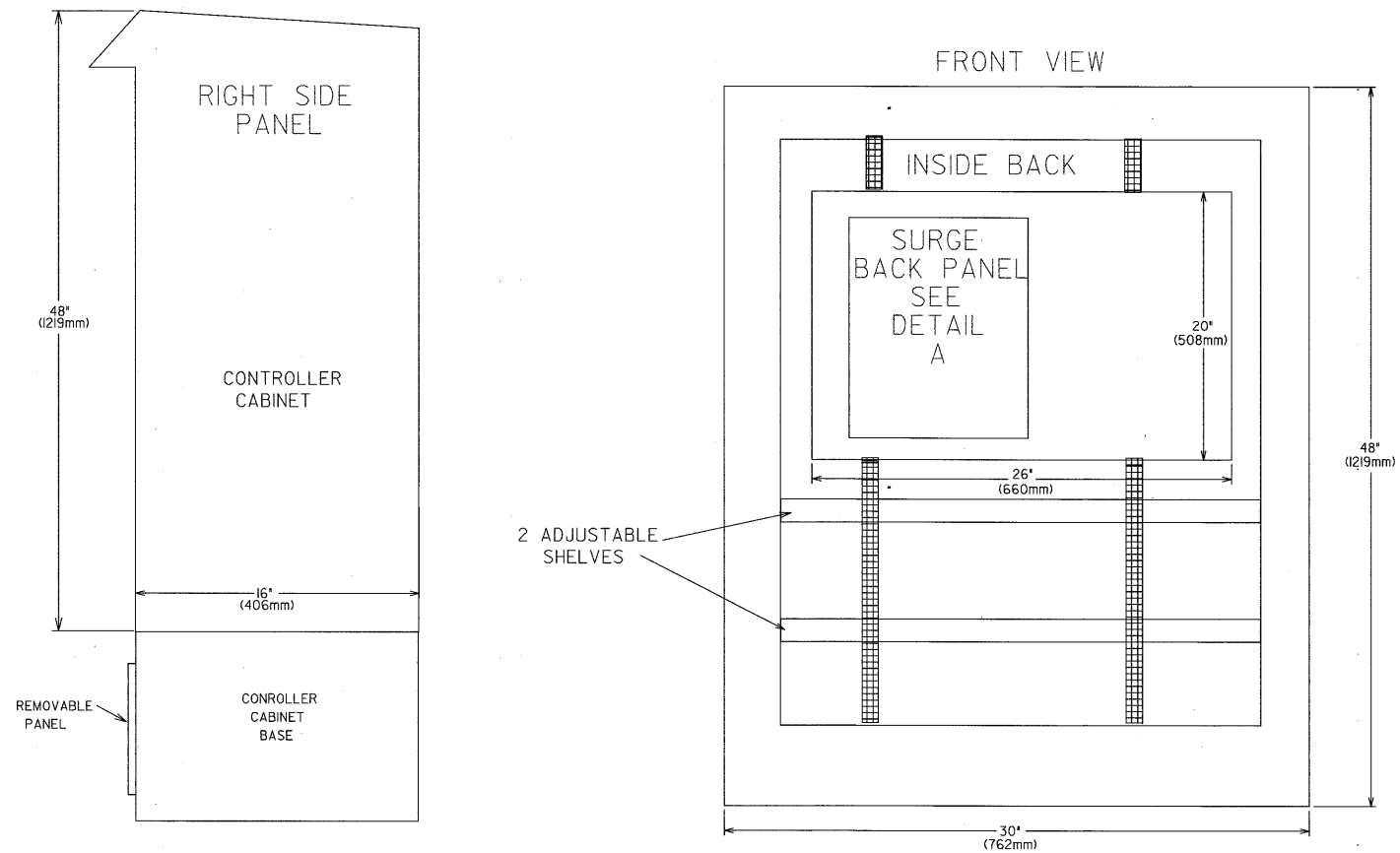
CALCULATED SDS  
CHECKED GCS

PLAN  
I.R. 71 S.B. REST AREA

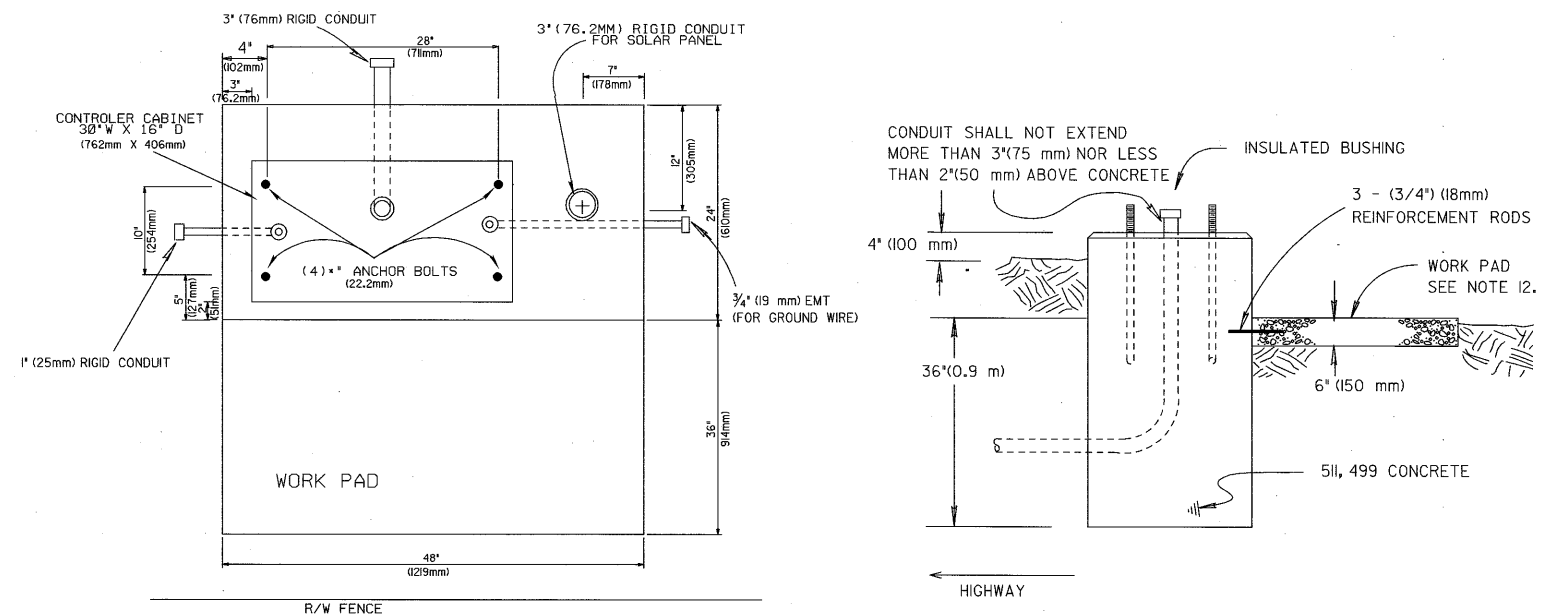
WAY-71-0.28

317  
432

# ATR CABINET NOTES



1. THE ALUMINUM CONTROLLER CABINET SHALL BE A PAD MOUNTED, WITH BASE NEMA 3R RATED, SIZE 5 (48" (1219MM) HIGH BY 30" (762MM) WIDE BY 16" (406MM) DEEP) PER TABLE 7.3-1. THE ALUMINUM CABINET SHALL CONFORM TO NEMA STANDARD PUBLICATION NUMBER TS 2-1992, SECTION NUMBER 7 (CABINETS). IT SHALL BE SHEET ALUMINUM AS DETAILED IN SECTION 7.2.2.1 OR CAST ALUMINUM DETAILED IN SECTION 7.2.2.2. IT SHALL ALSO CONFORM TO SECTIONS: 7.4, 7.5 EXCEPT FOR SECTION 7.5.7. SECTIONS 7.6, 7.7.3, AND 7.8.3. DO NOT APPLY TO THIS CABINET, SEE FOLLOWING DETAILS. ALL WORK AND ITEMS SHALL CONFORM TO CONSTRUCTION AND MATERIAL SPECIFICATIONS 499, 511, 625, 632, 633, 705, 713, 732, AND 733, UNLESS OTHERWISE SPECIFIED.
2. THE ALUMINUM CONTROLLER CABINET SHALL BE MOUNTED ON A TWELVE (12) GAUGE 304 STAINLESS STEEL RISER ADAPTER BASE THAT IS A MINIMUM OF EIGHT (8) INCHES (203MM) HIGH. PROVIDE A LARGE REMOVABLE ACCESS PANEL ON THE FRONT SIDE OF THE RISER. ALL FASTENERS SHALL BE STAINLESS STEEL. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH A NEOPRENE GASKET, A SOLID INTEGRAL BOTTOM, A CONTINUOUS FOURTEEN (14) GAUGE STAINLESS STEEL HINGE, THREE POINT LATCHING SYSTEM, EQUIPPED WITH A TWELVE (12) INCH (304MM) BY EIGHTEEN (18) INCH (457MM) FOLDING SHELF. LOCKS KEYED TO STATE MASTER #2.
3. THE CABINET SHALL BE EQUIPPED WITH A MINIMUM OF SIX (6) ADJUSTABLE "C" CHANNELS. A MINIMUM OF TWO (2) ADJUSTABLE "C" CHANNELS SHALL BE MOUNTED ON EACH OF THE THREE INTERIOR SIDES. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH A TWENTY-SIX (26) INCH (660MM) WIDE BY TWENTY (20) INCH (508MM) BACK PANEL MOUNTED ON ADJUSTABLE RAILS, AND MOUNTED AT THE TOP OF CABINET. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH TWO (2) RAIL MOUNTED SHELVES WHICH ARE FULLY ADJUSTABLE FROM THE TOP TO THE BOTTOM OF THE CABINET WITH THE BACK PANEL AND SURGE PANEL INSTALLED. DESIGN THE SHELVING TO ALLOW FOR THE PASSAGE OF VENTILATION AIR IN THE CABINET.
4. THE GROUND ROD WIRE SHALL BE MECHANICALLY BONDED TO THE CABINET BASE AND CONTROLLER CABINET. LUGS AND TERMINAL STRIPS SHALL BE PROVIDED AND MOUNTED ON THE CABINET SIDE FOR OTHER EQUIPMENT GROUND ATTACHMENTS.
5. INSTALL THE HOUSING CABINET AS TO ALLOW ALL EQUIPMENT TO STAND IN AN UPRIGHT POSITION WITH ALL EQUIPMENT AND DEVICES CAPABLE OF BEING REMOVED BY PULLING STRAIGHT OUT AND NOT TURNING SIDWAYS AND WITHOUT RELOCATING OR DISCONNECTING ONE DEVICE TO REMOVE ANOTHER DEVICE.
6. THE CONTRACTOR SHALL COMPLETELY WIRE UP ALL CONNECTIONS TO THE TERMINAL BLOCKS OF THE SURGE PANEL USING SOLDERED SPADE TYPE CONNECTORS. PROVIDE THAT ALL HOUSING CABINET WIRING AND TERMINALS ARE CLEARLY MARKED AND LABELED AS SHOWN ON THE CABINET WIRING DIAGRAM DETAILS. PROVIDE THAT WIRING IS LACED OR BOUND TOGETHER WITH SELF-LOCKING NYLON TIE-WRAPPS. MAKE A LOOP NUMBERING DIAGRAM WITH CORRESPONDING TERMINAL NUMBERS FOR EACH SITE AND STORE IN A PLASTIC WEATHER PROOF ENVELOP IN THE ENCLOSURE. PROVIDE A DUPLICATE DIAGRAM TO THE ODOT PROJECT INSPECTOR.
7. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH CABINET TOP AND LOWER DOOR GRAVITY VENTILATION. THE CONTROLLER CABINET TOP SHALL BE CONSTRUCTED TO FORM AN OVERHANG TO HOUSE SCREENED ONE EIGHTH (1/8) OF AN INCH (3.2MM) VENTILATION SLOTS AND EQUIPPED WITH REPLACEABLE FILTERS. THE LOWER PORTION OF THE CABINET DOOR SHALL HAVE SCREENED ONE EIGHTH (1/8) OF AN INCH (3.2MM) LOUVERS EQUIPPED WITH REPLACEABLE FILTERS. ALL FILTERS SHALL BE AN INDUSTRY STANDARD SIZE AND SECURED FIRMLY IN PLACE WITH BRACKETS AND CLAMPS. PROVIDE TWO SETS OF SPARE FILTERS. NO FAN IS REQUIRED.
8. PROVIDE SURGE PROTECTION PANEL WITH A MINIMUM OF SIXTEEN (16) LOOP, AND SIXTEEN (16) PIEZO SENSOR CAPACITY. THE SURGE PANEL SHALL HAVE AN INTEGRAL RESETTABLE COMMUNICATION LINE SURGE SUPPRESSOR CAPABLE OF A LESS THAN ONE (1) NANOSECOND TRIP RESPONSE FOR LINE TO LINE AND LINE TO GROUND SURGES. THE COMMUNICATION LINE SURGE SUPPRESSOR SHALL WITH STAND A MINIMUM OF TWO HUNDRED (200) AMPERES AND TWO HUNDRED AND TWENTY (220) VOLTS WITHOUT DERATING OR FAILURE. THE SURGE PANEL SHALL INCORPORATE A VOLTAGE REGULATOR WITH A MINIMUM OUTPUT RATING OF FIFTY-FIVE (55) WATTS AND VOLTAGE OUTPUT RATING OF FOURTEEN AND ONE TENTH (14.1) VOLT PLUS SIXTY (60) MILLIVOLTS WITH AN INPUT VOLTAGE OF THIRTY (30) VOLTS OR LESS. THE REGULATOR SHALL PERFORM AS A BATTERY CHARGE AND BE ABLE TO CHARGE A BATTERY FROM A FULLY DISCHARGED CONDITION TO A FULLY CHARGED CONDITION. THE SURGE PANEL SHALL INCORPORATE LIGHTNING PROTECTION FOR THE SOLAR PANEL CIRCUIT. THE COMPLETE SURGE PROTECTION PANEL SHALL BE SUITABLE FOR USE IN TEMPERATURES RANGING FROM -40°F (-40°C) TO 185°F (+85°C) (FAHRENHEIT/CELSIUS). MODEL 82-1344 16L/16P SURGE PANEL WITH ASC REGULATOR FROM PEEK TRAFFIC INCORPORATED, SARASOTA, FLORIDA OR EQUIVALENT. THIS SURGE PROTECTOR SHALL BE MOUNTED AND WIRED TO BACK PANEL. PROVIDE MANUFACTURES TEST DATA FOR ALTERNATE EQUIVALENT UNIT APPROVAL.



ATR BASE MOUNTED  
CONTROLLER FOUNDATION

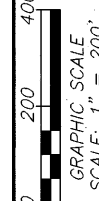
PEDESTAL ANCHOR BOLT  
ASTM A307 STEEL

W	D	FOUNDATION CONCRETE	WORK PAD
48" (1.2 m)	24" (0.6 m)	.99 C.Y. (0.72 m <sup>3</sup> )	1.33 S.Y. (1.11 m <sup>2</sup> ) 0.22 C.Y. (0.17 m <sup>3</sup> )

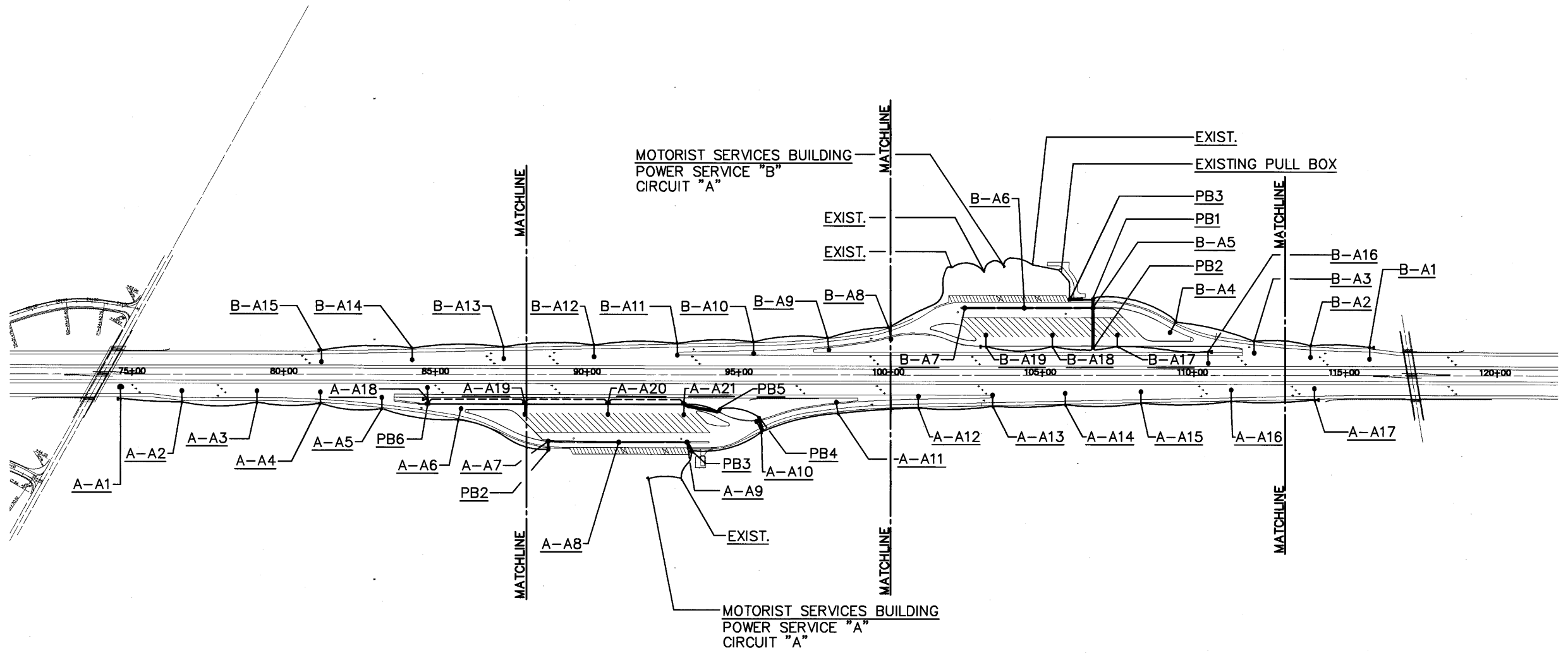
9. THE CONTROLLER CABINET SHALL BE ORIENTED SO THAT THE DOOR OPENS TOWARD THE RIGHT OF WAY FENCE, SO THAT THE FIELD TECHNICIAN CAN OBSERVE TRAFFIC WHILE WORKING ON THE SYSTEM. THE CABINET SHALL BE INSTALLED IN A MANNER TO WITHSTAND ALL WEATHER CONDITIONS AND PREVENT THE INTRUSION OF REPTILES, RODENTS, AND INSECTS.
10. THE DISTANCE BETWEEN THE TOP OF THE CONTROLLER PANEL CABINET AND THE WORK PAD SHALL NOT EXCEED SEVENTY-SIX (76) INCHES (1.9M) AND SHALL NOT BE LESS THAN SEVENTY (70) INCHES (1.8M). THE WORK PAD SHALL NOT BE HIGHER THAN THE CONTROLLER FOUNDATION. IN LEVEL AREAS THE TOP OF THE PAD SHALL BE ONE (1) INCH (25MM) ABOVE THE GROUND LINE. IN STEEPLY SLOPED AREAS THE PAD'S LOCATION SHALL BE ADJUSTED TO PROVIDE ACCESS AND DRAINAGE. THE HEIGHT OF THE CONTROLLER CABINET RISER ADAPTER MAY BE GREATER THAN EIGHT (8) INCHES (203MM).
11. THE CONTROLLER FOUNDATION SHALL BE FORTY (48) INCHES (1.2M) WIDE AND TWENTY-FOUR (24) INCHES (.6M) DEEP. PROVIDE FOUR (4) 3/8" INCH (22.2MM) ANCHOR BOLTS FOR THE CABINET BASE ATTACHMENT AND ONE QUARTER (1/4) INCH (6.3MM) THICK NEOPRENE GASKETS FOR THE BOTH THE TOP AND BOTTOM CABINET BASE ATTACHMENT. THE THREE (3) INCH (76.2MM) SOLAR MAST SHALL BE CAST INTO THIS CONTROLLER PAD.
12. THE CONTROLLER WORK PAD SHALL BE THREE (3) FEET (.9M) BY FOUR (4) FEET (1.2M) BY SIX (6) INCHES (152MM) DEEP AND SHALL BE LEVEL. THE WORK PAD SHALL BE POURED SIMULTANEOUSLY WITH THE CONTROLLER FOUNDATION BASE SO THEY WILL FORM ONE UNIT, AND SHALL BE TIED TOGETHER USING THREE (3) 3/4" (18MM) REINFORCEMENT RODS. A ONE HALF (1/2) INCH (13MM) PREFORMED JOINT FILLER AS PER CONSTRUCTION AND MATERIAL SPECIFICATION 705.03 SHALL BE USED BETWEEN FOUNDATIONS AND ADJACENT PAVED AREAS. THE PLACEMENT OF THE CONTROLLER CABINET FOUNDATION SHALL PROVIDE A MINIMUM OF THIRTY-SIX (36) INCHES (.9M) BETWEEN THE CONTROLLER CABINET AND ANY GROUNDED OBJECT AND THE DOOR SHALL SWING FULLY OPEN.
13. THE CONTROLLER CABINET FOUNDATION SHALL HAVE THE FOLLOWING CONDUITS CAST IN TO IT:
  - ONE THREE (3) INCH (76MM) EXITING TOWARD THE FOUR (4) LANE HIGHWAY.
  - ONE THREE QUARTER (3/4) INCH (19MM) EXITING TOWARD THE GROUND ROD LOCATION.
  - ONE ONE (1) INCH (25MM) EXITING TO THE DIRECTION OF THE CLOSEST TELEPHONE LINE FEED.
 THESE CONDUITS SHALL CONFORM TO STANDARD DRAWING TC -83.20 AND PROJECT AT A NINETY DEGREE (90°) ANGLE TO THE PAD TOP. THESE CONDUITS SHALL BE EXTENDED AND BUSHED IN TO THE BOTTOM OF THE CONTROLLER CABINET USING PLASTIC CONDUIT OR LIQUID TIGHT FLEXIBLE METAL CONDUIT.

CABINET-85-AA-W\*-DGN MAY 4, 2001

CALCULATED	CHECKED
DATE	DATE
NEMA TYPE 3R, SIZE 5 CABINET DETAILS FOR WEIGH IN MOTION & CLASSIFICATION UNITS	
ATR SITE #85-AA-W DRAWING NO. 14016-03 STATION: 220+00FT	
377 432	



CALCULATED  
CHECKED



SCHEMATIC PLAN

WAY-71-0.28

378  
432

# LIGHTING GENERAL NOTES

## EXISTING POWER SERVICE

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

HOLMES-WAYNE ELECTRIC CO-OP  
6060 S.R. 83  
MILLERSBURG, OHIO 44654

ATTN: JOHN PORTER  
(330) 674-1055

ELECTRICAL ENERGY FROM EXISTING POWER SERVICES SHALL CONTINUE TO BE CHARGED TO THE MAINTAINING AGENCY.

THIS SHALL INCLUDE REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT.

## EXISTING UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

THE WASTEWATER TREATMENT PLANT AND LINES AT THE REST AREAS WERE CONSTRUCTED AFTER THESE PLANS WERE FINISHED. UTILITIES IN THESE AREAS MAY VARY FROM PLAN LOCATIONS. THE CONTRACTOR SHALL CONTACT ODOT DISTRICT 3 AT THE ADDRESS LISTED BELOW FOR FURTHER INFORMATION.

## UNDERDRAINS FOR PULL BOXES

REFERENCE IS MADE TO THE STANDARD DRAWINGS FOR DETAILS OF DRAINING PULL BOXES. UNDERDRAINS FOR PULL BOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED APPROXIMATELY 20 FEET. AN ESTIMATED QUANTITY OF 160 LINEAR FEET OF ITEM 603 "4 INCH CONDUIT TYPE E" IS INCLUDED IN THE LIGHTING GENERAL SUMMARY FOR THIS PURPOSE.

## ITEM 713.14 - LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX", WESTINGHOUSE "CERAMALUX", SYLVANIA "LUMALUX" OR EQUAL APPROVED BY THE ENGINEER.

## LOW MAST LUMINAIRES

THE LUMINAIRE ARRAYS AND ASSOCIATED ILLUMINATION TEST AREAS SPECIFIED IN SECTION 713.21 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS ARE HEREBY WAIVED FOR THIS PROJECT. INSTEAD, THE LUMINAIRES FOR THIS PROJECT SHALL MEET THE FOLLOWING REQUIREMENTS.

ASYMMETRIC, TYPE II OR III, LUMINAIRES FOR LOW MAST LIGHTING MAY BE HOLOPHANE "HMST" TEST NO. 46973, OR GENERAL ELECTRIC "HM" TEST NO. 7349, OR COOPER "HMC" TEST NO. 766194.

THE CONTRACTOR MAY ELECT TO USE DIFFERENT LOW MAST LUMINAIRES THAN AS SPECIFIED ABOVE. SUCH LUMINAIRES WILL BE CONSIDERED PROVIDED THEY MEET ALL ODOT LIGHTING DESIGN CRITERIA BASED ON DESIGNED LIGHT POLE LOCATIONS. CONTRACTOR SHALL ALSO SUBMIT PHOTOMETRIC CALCULATIONS AND LIGHT FIXTURE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER.

## ITEM 202 - PULL BOX REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE PULL BOX TO ONE FOOT (1') BELOW THE GROUND LEVEL (REMOVE THE ENTIRE PULL BOX WHERE PULL BOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX) AND RESTORING THE DISTURBED AREA. WHERE A PULLBOX IS TO BE REPLACED WITH A NEW CONCRETE PULL BOX, IT IS THE INTENT OF THIS NOTE TO CUT ALL CONDUITS IN A NEAT FASHION IN ORDER TO REUSE THE EXISTING CONDUITS IN PLACE. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING CIRCUIT CONDUCTORS IF THEY ARE TO BE REUSED. PAYMENT SHALL BE PER EACH ITEM 202 - "PULL BOX REMOVED".

## ITEM 202 - LIGHT POLE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LIGHT POLE INCLUDING THE BRACKET ARM(S) AND TRANSFORMER BASE (IF ANY). THE POLE, BRACKET ARM(S), BASE AND WIRING, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF THE PROJECT SITE. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 - LIGHT POLE REMOVED, AS PER PLAN

## ITEM 202 - LIGHT POLE FOUNDATION REMOVED

THIS ITEM SHALL INCLUDE REMOVING THE LIGHT POLE CONCRETE FOUNDATION TO A DEPTH OF ONE FOOT (1') BELOW GROUND LEVEL, TWO FEET (2') BELOW GROUND LEVEL WHERE IT WOULD INTERFERE WITH PROPOSED TRENCHING AND THREE FEET (3') BELOW GROUND LEVEL WHERE THE FOUNDATION IS TO BE REPLACED BY A PULL BOX, AND RESTORING THE DISTURBED AREA.

PAYMENT SHALL BE PER EACH ITEM 202 - "LIGHT POLE FOUNDATION REMOVED".

## ITEM 202 - LUMINAIRE REMOVED, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF REMOVING AN EXISTING LUMINAIRE. THE LUMINAIRE SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF THE PROJECT SITE. PAYMENTS SHALL BE MADE AT THE UNIT BID PRICE FOR EACH ITEM 202 - "LUMINAIRE REMOVED, AS PER PLAN".

## HIGH VOLTAGE TEST

A LUMP SUM FOR PERFORMING THE HIGH VOLTAGE TEST REQUIRED BY THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS HAS BEEN INCLUDED IN THE GENERAL SUMMARY.

## CONVENTIONAL LUMINAIRES

STYLE B, TYPE III, 310 WATT, 240 VOLT LUMINAIRES SHALL BE GENERAL ELECTRIC M-400 TEST NO. 1015, COOPER OVD TEST NO. 766491, AMERICAN ELECTRIC SERIES 126 TEST NO. AE3846I, OR EQUAL AS APPROVED BY THE ENGINEER.

## ITEM 202 - DISCONNECT EXISTING CIRCUIT

THIS ITEM OF WORK SHALL CONSIST OF THE DISCONNECTION OF AN EXISTING LIGHT CIRCUIT AT A PULL BOX OR AT A LIGHT POLE. DISCONNECTION AT A PULL BOX OR POLE BASE SHALL INVOLVE CUTTING THE EXISTING CIRCUIT AND REMOVING ALL CONNECTOR KITS. ANY CABLE THAT IS TO BE ABANDONED SHALL BE TERMINATED IN A MANNER SUCH THAT NO CABLE IS LEFT REMAINING IN THE PULL BOX OR POLE BASE. ANY CABLE THAT IS TO BE REUSED SHALL BE CUT IN A MANNER SO THAT THERE IS SUFFICIENT LENGTH OF CABLE LEFT FOR RECONNECTION. CONNECTOR KITS SHALL BE PAID FOR SEPARATELY UNDER EACH ITEM 625 - "CABLE SPLICING KIT".

PAYMENT WILL BE MADE AT THE UNIT BID PROVIDED FOR EACH ITEM 202 "DISCONNECT EXISTING CIRCUIT" AND SHALL BE FULL COMPENSATION INCLUDING ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

## LIGHT POLE FOUNDATION, 24" x 10' DEEP, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION, 24" x 10' DEEP, AS PER STANDARD CONSTRUCTION DRAWING HL-20.11M EXCEPT THAT THE TOP OF THE FOUNDATION WILL BE AT 36" ABOVE FINISHED GRADE TO PREVENT DAMAGE FROM VEHICULAR TRAFFIC. TOTAL BURIAL DEPTH OF LIGHT POLE FOUNDATION SHALL BE 10'-0" BELOW FINISHED GRADE. THE UNIT PRICE BID FOR EACH LIGHT POLE FOUNDATION, 24" x 10' DEEP, AS PER PLAN, SHALL INCLUDE PAYMENT FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

## LIGHT POLE FOUNDATION, MISC.: 24" x 25' DEEP, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF PROVIDING A LIGHT POLE FOUNDATION, 24" x 25' DEEP, AS PER STANDARD CONSTRUCTION DRAWING HL-20.13M, MEDIAN LIGHT POLE FOUNDATION, EXCEPT THAT; THE BARRIER SHALL BE A SINGLE SLOPE, TYPE B, THE SIX #6 VERTICAL LONG BARS SHALL BE CHANGED TO EIGHT #7 VERTICAL LONG BARS AND THE 18" SPACING OF THE #4 TIE BARS SHALL BE CHANGED TO 12". IN ADDITION, FORMING AND POURING OF THE LIGHT POLE FOUNDATION SHALL BE CLOSELY COORDINATED WITH THE MECHANICALLY STABILIZED EARTH (MSE) WALL INSTALLATION. REFER TO DETAIL ON SHEET 387/387. THE UNIT PRICE BID FOR EACH LIGHT POLE FOUNDATION, MISC.: 24" x 25' DEEP, AS PER PLAN, SHALL INCLUDE PAYMENT FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN A SATISFACTORY WORKMANLIKE MANNER.

## CONVERSION OF METRIC STANDARD DRAWINGS

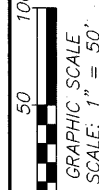
THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 "CONSTRUCTION AND MATERIALS SPECIFICATIONS". THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

CALCULATED  
CHECKED

LIGHTING GENERAL NOTES

WAY-71-0.28

379  
432

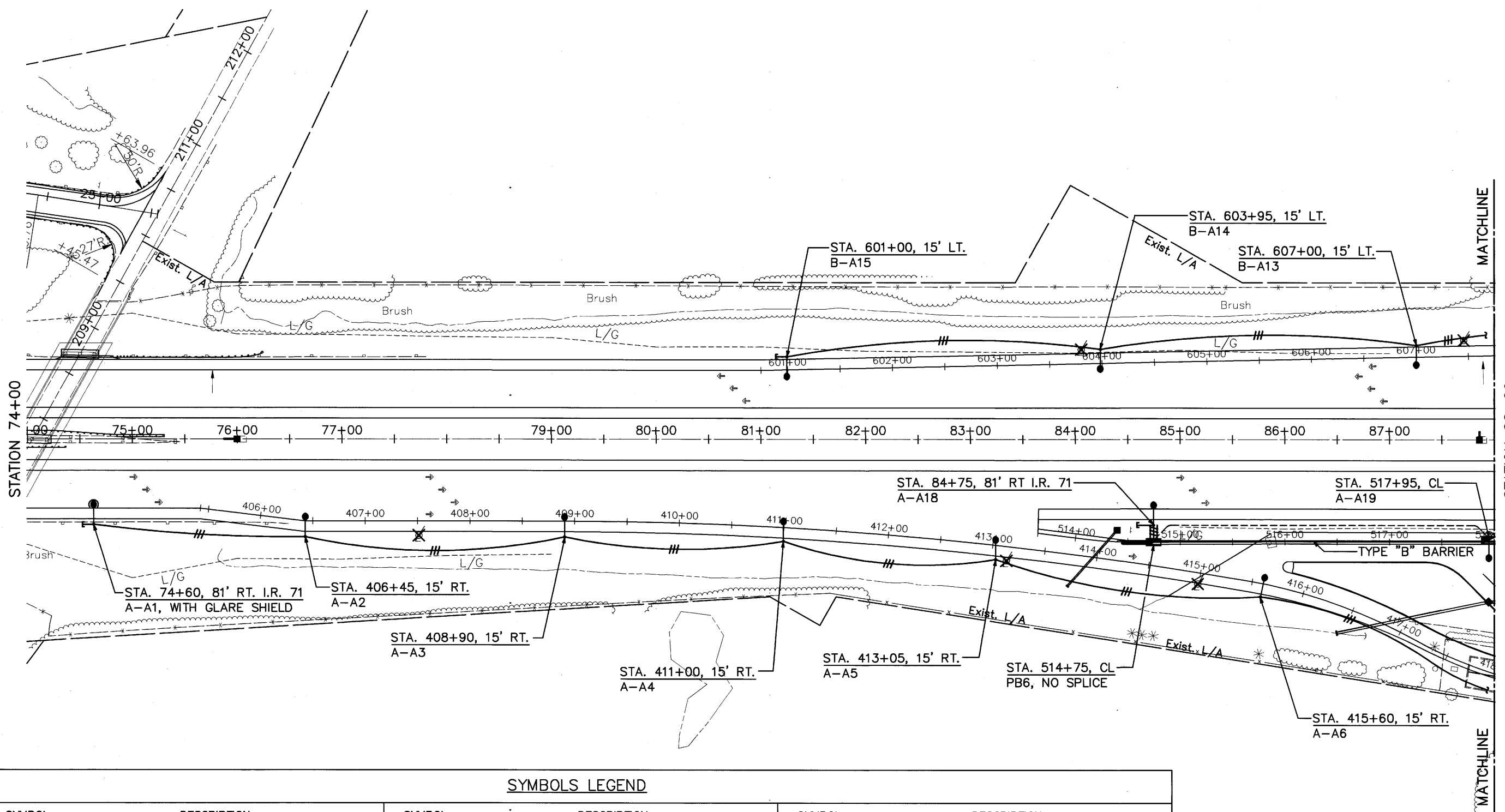


CALCULATED  
CHECKED

LIGHTING PLAN  
STATION 74+00 TO 88+00

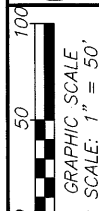
WAY-71-0.28

383  
432



**SYMBOLS LEGEND**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
● ↑	1-400 WATT HPS, TYPE III DISTRIBUTION, 54.7' M.H. LOW MAST, ARROW INDICATES AIMING OF LIGHT FIXTURE	■	PROPOSED PULL BOX	⊗-L-⊗	EXISTING LIGHTING CIRCUIT TO BE ABANDONED
● —	1-310 WATT HPS, TYPE III DISTRIBUTION, 41.7' M.H. CONVENTIONAL	□	EXISTING PULL BOX	- - E - -	EXISTING UNDERGROUND ELECTRIC TO REMAIN
● —	1-310 WATT HPS, TYPE III DISTRIBUTION, 41.7' M.H. CONVENTIONAL WITH GLARE SHIELD.	▣	PROPOSED MEDIAN PULL BOX	— #2 —	PROPOSED LIGHTING CIRCUIT #4 AWG, TICK MARKS INDICATE QUANTITY OF CONDUCTORS, #2 INDICATES CONDUCTOR SIZE IF OTHER THAN #4 AWG
○	EXISTING LIGHT POLE AND LUMINAIRE	▷	EXISTING POWER SERVICE, 240 VOLT, 3 WIRE, GROUNDED NEUTRAL	≡	PROPOSED LIGHTING CIRCUIT IN 3" CONDUIT
⊕	EXISTING UTILITY POLE	⊗	SYMBOL WITH "X" INDICATES ITEM TO BE DEMOLISHED	- - - -	PROPOSED LIGHTING CIRCUIT IN 4" CONDUIT, IN BARRIER
		- - T - -	EXISTING OVERHEAD TELEPHONE	┌	2" CONDUIT STUB-OUT
		- - L - -	EXISTING LIGHTING CIRCUIT TO REMAIN		

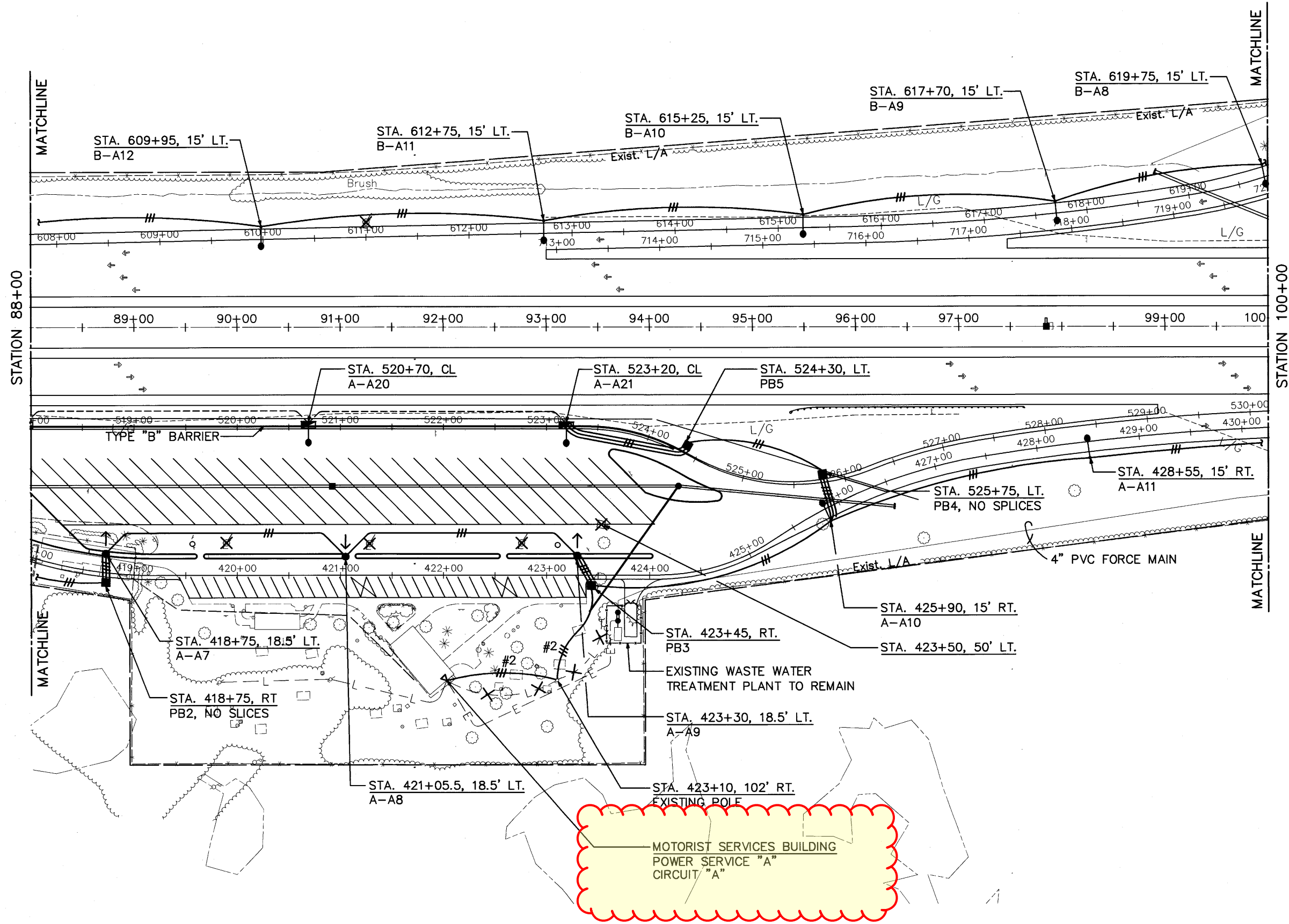


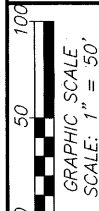
CALCULATED  
CHECKED

LIGHTING PLAN  
STATION 88+00 TO 100+00

WAY-71-0.28

384  
432





CALCULATED  
CHECKED

LIGHTING PLAN  
STATION 100+00 TO 113+00

WAY-71-0.28

385  
432

MOTORIST SERVICES BUILDING  
POWER SERVICE "B"  
CIRCUIT "A"

STA. 623+10, 99' LT.  
EXISTING POLE

STA. 622+00, 115' LT.  
EXISTING POLE

STA. 624+55, 18.5 RT.  
B-A6

STA. 624+70, 123' LT.  
EXISTING POLE

STA. 625+90, 148' LT.  
EXISTING POLE  
MAINTAIN CIRCUIT

STA. 625+60, 105' LT.  
EXISTING PULL BOX

EXISTING WASTE WATER  
TREATMENT PLANT TO REMAIN

STA. 625+90, 10' LT.  
PB3, NO SPLICE

STA. 626+65, 10' LT.  
PB1

STA. 626+65, 18.5' RT.  
B-A5

STA. 629+50, 15' LT.  
B-A4

STA. 110+45, 81' LT. I.R. 71  
B-A16

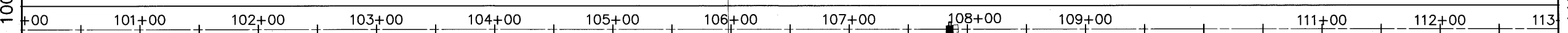
STA. 632+20, 15' LT.  
B-A3

MATCHLINE

MATCHLINE

STATION 100+00

STATION 113+00

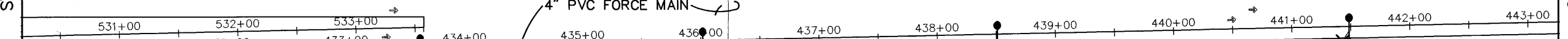


STA. 622+45, 18.5' RT.  
B-A7

STA. 723+20, 3' RT.  
B-A19

STA. 725+35, 3' RT.  
B-A18

STA. 727+45, 3' RT.  
B-A17



STA. 431+20, 15' RT.  
A-A12

STA. 433+60, 15' RT.  
A-A13

STA. 436+05, 15' RT.  
A-A14

STA. 438+50, 15' RT.  
A-A15

STA. 441+45, 15' RT.  
A-A16

MATCHLINE

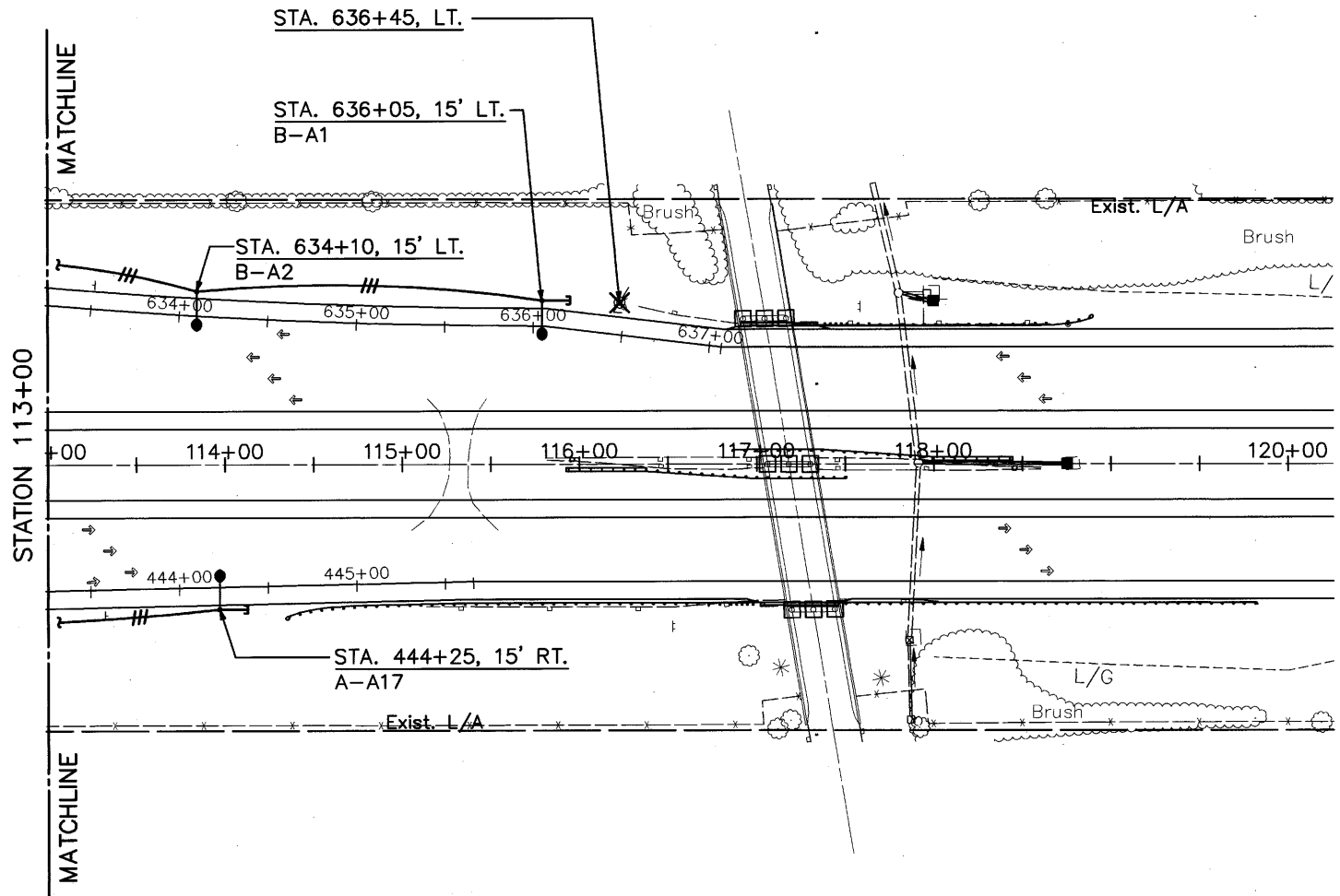
MATCHLINE

4" PVC FORCE MAIN

Exist. L/A

Brush

Brush



CALCULATED

CHECKED

GRAPHIC SCALE  
SCALE: 1" = 50'

0 50 100

LIGHTING PLAN  
STATION 113+00 TO 120+00

WAY-71-0.28

386  
432



WAY-US250(18.684-18.687)  
DEV0000192  
Concrete Base to be removed below grade, backfilled, seed and mulch.  
Pull box assembly PBX0000041, to be completely removed, backfilled, seed and mulch.

WAY-US250(18.788)  
DEV0000193  
Concrete Base to be removed below grade, backfilled, seed and mulch.  
Pull box assembly PBX0000042, to be completely removed, backfilled, seed and mulch.



POLE  
ALREADY  
REMOVED



POLE  
ALREADY  
REMOVED

# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## D03-LG-FY2022

### BROWHELM TOWNSHIP

### LORAIN COUNTY

**EXAMPLE FOR REST AREA CONTROLLER  
REMOVE FROM INSIDE THE BUILDING AND  
INSTALL A NEW CONTROLLER ON THE  
OUTSIDE OF THE BUILDING.**

**FEDERAL PROJECT NUMBER**

E200005

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

REMOVE EXISTING LIGHTING AND INSTALL NEW CONDUIT, PULL BOXES, FOUNDATIONS, POLES AND LED LUMINAIRES.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA: N/A ACRES  
(MAINTENANCE PROJECT)  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A ACRES  
(MAINTENANCE PROJECT)  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES  
(MAINTENANCE PROJECT)

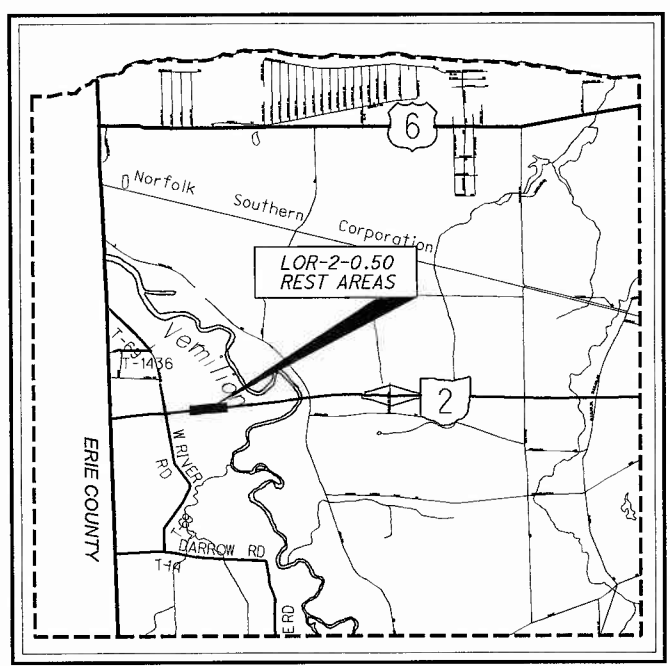
**LIMITED ACCESS**

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

**2019 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.



**LOCATION MAP**

LATITUDE: 41°24'10" LONGITUDE: 82°20'15"



PORTION TO BE IMPROVED	—————
INTERSTATE HIGHWAY	=====
FEDERAL ROUTES	=====
STATE ROUTES	=====
COUNTY & TOWNSHIP ROADS	=====
OTHER ROADS	-----

**DESIGN DESIGNATION**

CURRENT ADT (2022)	28,500
DESIGN YEAR ADT (2042)	38,000
DESIGN HOURLY VOLUME (2042)	4,900
DIRECTIONAL DISTRIBUTION	0.56
TRUCKS (24 HOUR B&C)	0.16
DESIGN SPEED	70
LEGAL SPEED	70
DESIGN FUNCTIONAL CLASSIFICATION: FREEWAYS & EXPRESSWAYS	
NHS PROJECT	YES

**DESIGN EXCEPTIONS**

NONE

**INDEX OF SHEETS:**

TITLE SHEET	1
GENERAL NOTES	2-3
GENERAL SUMMARY	4
LIGHTING SUBSUMMARY	5-6
LIGHTING DETAILS	7-10

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

**OHIO811.org**  
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764  
(Non members must be called directly)

**ENGINEER'S SEAL:**

STATE OF OHIO  
CRAIG A. DEVORE  
E-70370  
REGISTERED PROFESSIONAL ENGINEER

SIGNED: *Craig A. Devore*  
DATE: 2021.0426

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
DM-4.3	1/15/16	MT-95.30	7/19/19	800	4/16/21
DM-4.4	1/15/16	MT-95.45	1/17/20	813	10/19/18
		MT-98.10	1/17/20	825	1/17/20
HL-10.11	1/15/21	MT-98.20	4/19/19	832	10/19/18
HL-10.12	1/20/17	MT-105.10	1/17/20	913	4/21/17
HL-10.13	4/17/20				
HL-20.11	1/15/21				
HL-30.11	1/15/21				
HL-30.21	4/17/20				
HL-30.22	1/15/21				
HL-40.20	7/17/20				
HL-50.11	1/16/15				
HL-60.11	7/21/17				
HL-60.12	1/15/21				
HL-60.31	1/17/20				

PLANS PREPARED BY:

**OHIO DEPARTMENT OF  
TRANSPORTATION**

DISTRICT THREE ENGINEERING

APPROVED: *Robert W. ...* 04/27/21  
DATE: \_\_\_\_\_ DISTRICT DEPUTY DIRECTOR

APPROVED: *Jack ...*  
DATE: 6/15/21 DIRECTOR, DEPARTMENT OF TRANSPORTATION

TITLE SHEET

DESIGN AGENCY	
DESIGNER	MAE
REVIEWER	CAD 04-26-21
PROJECT ID	104164
SHEET	TOTAL
P.1	10

D03 - LG FY2022  
210434 PID - 104164  
Dist 3 7/29/2021

Contract Proposal available @  
www.contracts.dot.state.oh.us

2202FY-F-07-00D  
MODEL: Sheet PAPER SIZE: 11x17 (in.) DATE: 5/3/2021 TIME: 2:40:47 PM USER: mappley  
pww\ohiodot\pw\_bentley.com\ohiodot\pw2\Documents\DOT Active Projects\District 03\DOT104164\400-Engineering\Roadway\Sheets\104164\_G1001.dgn

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

CABLE WIDE OPEN WEST 105 BLAZE INDUSTRIAL PKWY BEREA, OH 44017 866.496.9669	CABLE CHARTER COMMUNICATIONS 5520 WHIPPLE AVENUE NW NORTH CANTON, OH 44720 330.494.9200
COMMUNICATION LUMEN 175 ASHLAND ROAD, P.O. BOX 3555 MANSFIELD, OH 44907 419.755.7956	ELECTRIC OHIO EDISON 1717 ASHLAND ROAD MANSFIELD, OH 44905 419.521.6213
GAS COLUMBIA GAS OF OHIO 3101 NORTH RIDGE RD E LORAIN, OH 44055 440.240.6144	TRAFFIC ODOT DISTRICT THREE 906 CLARK AVENUE ASHLAND, OH 44805 419.207.7045
WATER NORTHERN OHIO RURAL WATER P.O. BOX 96 COLLINS, OH 44826 419.668.7213	

THE AFOREMENTIONED UTILITY COMPANIES AND AGENCIES HAVE VARIOUS FACILITIES IN THE AREA THAT WILL REMAIN IN PLACE DURING CONSTRUCTION.

EXTREME CAUTION SHOULD BE EXERCISED IN AREAS WITH UTILITIES. SECTIONS 105.07 AND 107.16 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS REQUIRE, AMONG OTHER THINGS, THAT THE CONTRACTOR COOPERATE WITH ALL UTILITIES LOCATED WITHIN THE LIMITS OF THIS CONSTRUCTION PROJECT AND TAKE RESPONSIBILITY FOR THE PROTECTION OF THE UTILITY PROPERTY AND SERVICES.

**EXISTING PLANS**

EXISTING PLANS ENTITLED LOR-2-0.00, DATED 1972 & 1983 MAY BE INSPECTED IN THE ODOT DISTRICT THREE OFFICE IN ASHLAND.

**ROUTINE MAINTENANCE**

BETWEEN THE TIME THAT BIDS ARE TAKEN AND THE START OF CONSTRUCTION, THE MAINTAINING AGENCY MAY ENTER UPON THE PROJECT AND PERFORM ROUTINE MAINTENANCE SUCH AS CRACK SEALING, PATCHING, AND BERM AND SHOULDER REPAIR. THE EFFECTS, IF ANY, OF THE PERFORMANCE OF ROUTINE MAINTENANCE SHALL BE CONSIDERED AS INHERENT IN WORK OF THE CHARACTER PROVIDED FOR IN THE PLAN AND THE RESULTING CONDITIONS SHALL NOT BE CONSIDERED AS DIFFERING MATERIALLY FROM THOSE EXISTING AT THE TIME BIDS WERE TAKEN.

**ITEM 201 – CLEARING AND GRUBBING**

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM BID PRICE FOR ITEM 201, CLEARING AND GRUBBING.

**ITEM 201 – TREE REMOVAL RESTRICTIONS**

THIS PROJECT IS WITHIN THE KNOWN SUMMER BREEDING RANGE OF THE FEDERAL ENDANGERED INDIANA BROWN BAT AND MAY IMPACT THAT SPECIES HABITAT. THE SUMMER ROOSTING AND BROOD REARING HABITAT OF THIS SPECIES IS IN LIVING OR STANDING DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING, OR LOOSE BARK, SPLIT TRUNKS AND/OR BRANCHES, OR CAVITIES. ANY UNAVOIDABLE CUTTING OF SUCH TREES SHALL BE PERFORMED ONLY BEFORE APRIL 1ST OR AFTER SEPTEMBER 30TH WHEN THIS SPECIES WOULD NOT BE USING SUCH HABITAT.

**GROUNDING AND BONDING**

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.
  - A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.
  - B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.
  - C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.
  - D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.
  - E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.
  - F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.
2. CONDUITS.
  - a. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.
  - b. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.
  - c. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
  - d. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. WIRE FOR GROUNDING AND BONDING.
  - a. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:
    - i. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.
    - ii. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
    - iii. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.
    - iv. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.
  - b. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.
4. GROUND ROD.
  - a. A 3/4 INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.
  - b. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK STRIPE	YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.
  - a. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.
  - b. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.
    - i. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.
    - ii. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.
7. PAYMENT – ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

**UNDERDRAINS FOR PULLBOXES**

REFERENCE TRAFFIC SCD HL-30.11 FOR DETAILS ABOUT DRAINING PULLBOXES. UNDERDRAINS FOR PULLBOXES SHALL BE USED AS DIRECTED BY THE ENGINEER AND SHALL BE PROVIDED WHERE THE LENGTH REQUIRED FOR A SATISFACTORY OUTLET DOES NOT EXCEED 20 FEET. THE FOLLOWING ESTIMATED QUANTITY IS CARRIED TO THE GENERAL SUMMARY FOR THIS PURPOSE:

ITEM 611 4" CONDUIT, TYPE E, AS PER PLAN .....200 FT.

**MAINTENANCE OF EXISTING SYSTEM**

WHEN THE PROJECT BEGINS AND THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, THEY SHALL PROVIDE ALL REQUIRED LAYOUTS AND LOCATIONS OF THE EXISTING AND PROPOSED ELECTRICAL CIRCUITS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LOCATE AND MARK THE UNDERGROUND ELECTRICAL CIRCUITS, LOOPS AND LOOP LEAD INS DURING THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL LOCATE AND MAINTAIN, DO NOT DISTURB, THE EXISTING ELECTRICAL CIRCUIT FOR THE EXISTING LIFT STATION.

**4" CONDUIT, TYPE E, AS PER PLAN**  
**LIGHT POLE FOUNDATION, 24" X 6" DEEP, AS PER PLAN**  
**CONDUIT, JACKED OR DRILLED, 725.04, 3", AS PER PLAN**  
**TRENCH, AS PER PLAN**  
**PULL BOX 725.08, 18", AS PER PLAN**  
**PULL BOX, 725.08, 24", AS PER PLAN**

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

THE CONTRACTOR SHOULD ANTICIPATE ENCOUNTERING ROCK/SHALE DURING EXCAVATION OPERATIONS.

GENERAL NOTES

D03-LG-FY2022

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DESIGN AGENCY



DESIGNER

MAE

REVIEWER

CAD 04-26-21

PROJECT ID

104164

SHEET TOTAL

P.2 10

**ITEM 625 – POWER SERVICE, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING SHALL APPLY.  
THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

OHIO EDISON  
1717 ASHLAND ROAD  
MANSFIELD, OH 44905  
419.521.6213

POWER SERVICE: 120/240 VOLT, 3 WIRE, SINGLE PHASE WITH GROUND.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 – ARC FLASH CALCULATIONS AND LABEL, POWER SERVICE**

THE SPECIFICATIONS AND REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 825 SHALL APPLY TO THE POWER SERVICE FOR EACH REST AREA LIGHTING CONTROL CENTER.

**PADLOCKS AND KEYS**

PADLOCKS FURNISHED FOR ODOT CONTROL CENTERS SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH CMS 631.06.

**ITEM 625 – LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III, LED, 3000K, 14000 - 16500 LUMENS, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 813 & 913, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES SHALL BE AMERICAN ELECTRIC LIGHTING, AUTOBAHN ATBM, (ATBM-P40-MVOLT-R3-3K) GRAY COLOR, NO PHOTOCONTROL; COOPER LIGHTING, VERDEON, (VERD-G-A02-E-U-T3-7030-AP); GENERAL ELECTRIC, ERLH SERIES, (ERLH-0-15-C3-30) GRAY, NO PHOTOCONTROL

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III, LED, 3000K, 14000 - 16500 LUMENS" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 – LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III, LED, 3000K, 17000 - 19000 LUMENS, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATION 813 & 913, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES SHALL BE AMERICAN ELECTRIC LIGHTING, AUTOBAHN ATBM, (ATBM-P50-MVOLT-R3-3K) GRAY COLOR, NO PHOTOCONTROL; COOPER LIGHTING, VERDEON, (VERD-M-A0385-E-U-T3-7030-AP); GENERAL ELECTRIC, ERL2 SERIES, (ERL2-0-18-C3-30) GRAY, NO PHOTOCONTROL

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), IES-III, LED, 3000K, 17000 - 19000 LUMENS" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 – LUMINAIRE, POST-TOP, AS PER PLAN**

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR POST-TOP LIGHTING UNITS USED IN GREEN SPACES OF REST AREAS SHALL BE AS FOLLOWS:

LUMINAIRES SHALL BE AEL SERIES 245L CONTEMPO LED (245L-P55-AS-30K-R5-GL) , GENERAL ELECTRIC EVOLVE CONTEMPORARY POST TOP (EPTC-02-0-08-A-30-1-B-BLCK) OR AN APPROVED EQUAL, GRAY FINISH. 7,000-8,000 LUMENS, TYPE V DISTRIBUTION, 3000K COLOR.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 625, "LUMINAIRE, POST-TOP, AS PER PLAN, SOLID STATE (LED)" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**ITEM 625 – SPECIAL – MAINTAIN EXISTING LIGHTING**

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

**ITEM 614 – MAINTAINING TRAFFIC LANE CLOSURE/REDUCTION REQUIRED**

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

**ITEM 614 – MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)**

NO WORK SHALL BE PERFORMED, AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

CHRISTMAS	FOURTH OF JULY
NEW YEARS DAY	LABOR DAY
MEMORIAL DAY	THANKSGIVING

THE PERIOD OF TIME THAT LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00N FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	12:00N MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	12:00N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00N WEDNESDAY THROUGH 6:00 AM FRIDAY
THANKSGIVING	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00N FRIDAY THROUGH 6:00 AM MONDAY

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$145 FOR EACH HOUR THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

DESIGN AGENCY



DESIGNER

MAE

REVIEWER

CAD 04-26-21

PROJECT ID

104164


SHEET TOTAL

P.3 10

SHEET NUM.								PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
2	6						01/NHS/OT		EXT	TOTAL				
													<b>ROADWAY</b>	
							LUMP	201	11000	LS			CLEARING AND GRUBBING	
													<b>EROSION CONTROL</b>	
							1,000	832	30000	1,000	EACH		EROSION CONTROL	
													<b>DRAINAGE</b>	
200							200	611	00401	200	FT		4" CONDUIT, TYPE E, AS PER PLAN	2
													<b>LIGHTING</b>	
	2						2	202	75800	2	EACH		DISCONNECT EXISTING CIRCUIT	
	90						90	625	00450	90	EACH		CONNECTION, FUSED PULL APART	
	72						72	625	00480	72	EACH		CONNECTION, UNFUSED PERMANENT	
	10						10	625	10480	10	EACH		LIGHT POLE, DECORATIVE	
	27						27	625	10490	27	EACH		LIGHT POLE, CONVENTIONAL, AT8B35	
	8						8	625	10490	8	EACH		LIGHT POLE, CONVENTIONAL, AT15B35	
	45						45	625	14001	45	EACH		LIGHT POLE FOUNDATION, 24" X 6" DEEP, AS PER PLAN	2
	30						30	625	23200	30	FT		NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
	12,549						12,549	625	23302	12,549	FT		NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
	5,283						5,283	625	23400	5,283	FT		NO. 10 AWG POLE AND BRACKET CABLE	
	6,419						6,419	625	24324	6,419	FT		1-1/2" DUCT CABLE WITH THREE NO. 6 AWG 2400 VOLT CABLES	
	2,856						2,856	625	25400	2,856	FT		CONDUIT, 2", 725.04	
	907						907	625	25903	907	FT		CONDUIT, JACKED OR DRILLED, 725.04, AS PER PLAN, 3"	2
	27						27	625	26253	27	EACH		LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III, 3000K, 14000 - 16500 LUMENS	3
	8						8	625	26253	8	EACH		LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, IES-III, 3000K, 17000 - 19000 LUMENS	3
	10						10	625	27403	10	EACH		LUMINAIRE, POST TOP, SOLID STATE (LED), AS PER PLAN, IES-V, 3000K, 7000 - 8000 LUMENS	3
	4,518						4,518	625	29000	4,518	FT		TRENCH	
	4,518						4,518	625	29001	4,518	FT		TRENCH, AS PER PLAN	2
	13						13	625	30701	13	EACH		PULL BOX, 725.08, 18", AS PER PLAN	2
	7						7	625	30707	7	EACH		PULL BOX, 725.08, 24", AS PER PLAN	2
	13						13	625	31510	13	EACH		PULL BOX REMOVED	
	45						45	625	32000	45	EACH		GROUND ROD	
	2						2	625	34001	2	EACH		POWER SERVICE, AS PER PLAN	3
	9,035						9,035	625	36010	9,035	FT		UNDERGROUND WARNING/MARKING TAPE	
							LUMP	SPECIAL	62540000	LS			MAINTAIN EXISTING LIGHTING	3
	43						43	625	75400	43	EACH		LIGHT POLE REMOVED	
	43						43	625	75500	43	EACH		LIGHT POLE FOUNDATION REMOVED	
	42						42	625	75506	42	EACH		LUMINAIRE REMOVED	
	9,942						9,942	625	75550	9,942	FT		DISTRIBUTION CABLE REMOVED	
	2						2	625	76000	2	EACH		ARC FLASH CALCULATIONS AND LABEL (REST AREAS)	
	2						2	633	67200	2	EACH		CONTROLLER WORK PAD	
													<b>INCIDENTALS</b>	
							LUMP	614	11000	LS			MAINTAINING TRAFFIC	
							10	619	16000	10	MNTH		FIELD OFFICE, TYPE A	
							LUMP	623	10000	LS			CONSTRUCTION LAYOUT STAKES AND SURVEYING	
							LUMP	624	10000	LS			MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER  
MAE

REVIEWER  
CAD 04-26-21

PROJECT ID  
104164

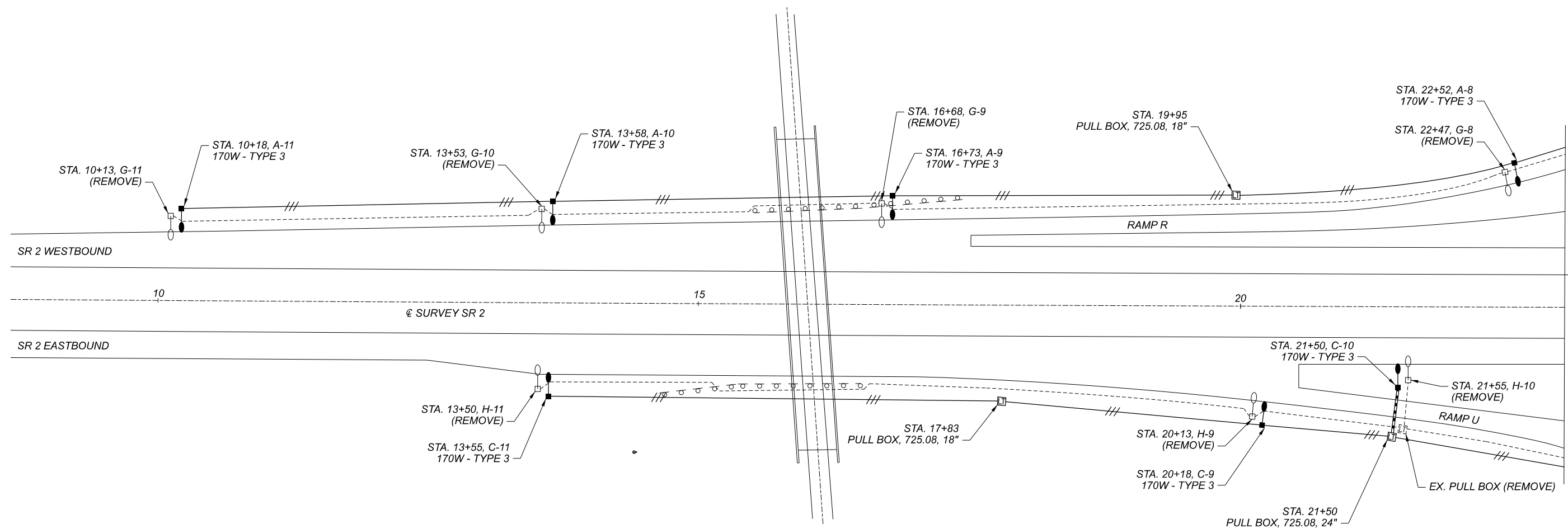
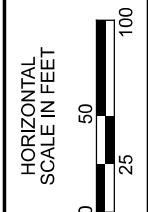
SHEET TOTAL  
P.4 | 10





**NOTES:**

- EXISTING LIGHTING SHALL BE MAINTAINED DURING CONSTRUCTION.
- PROPOSED POLE LOCATIONS ARE OFFSET 2' BACK & 5' OVER FROM THE EXISTING LIGHT POLES. DO NOT PLACE PROPOSED POLES OR PULLBOXES IN EXISTING DITCH.
- REMOVE EXISTING CABLE AND PULLBOXES AND ABANDON EXISTING CONDUIT.



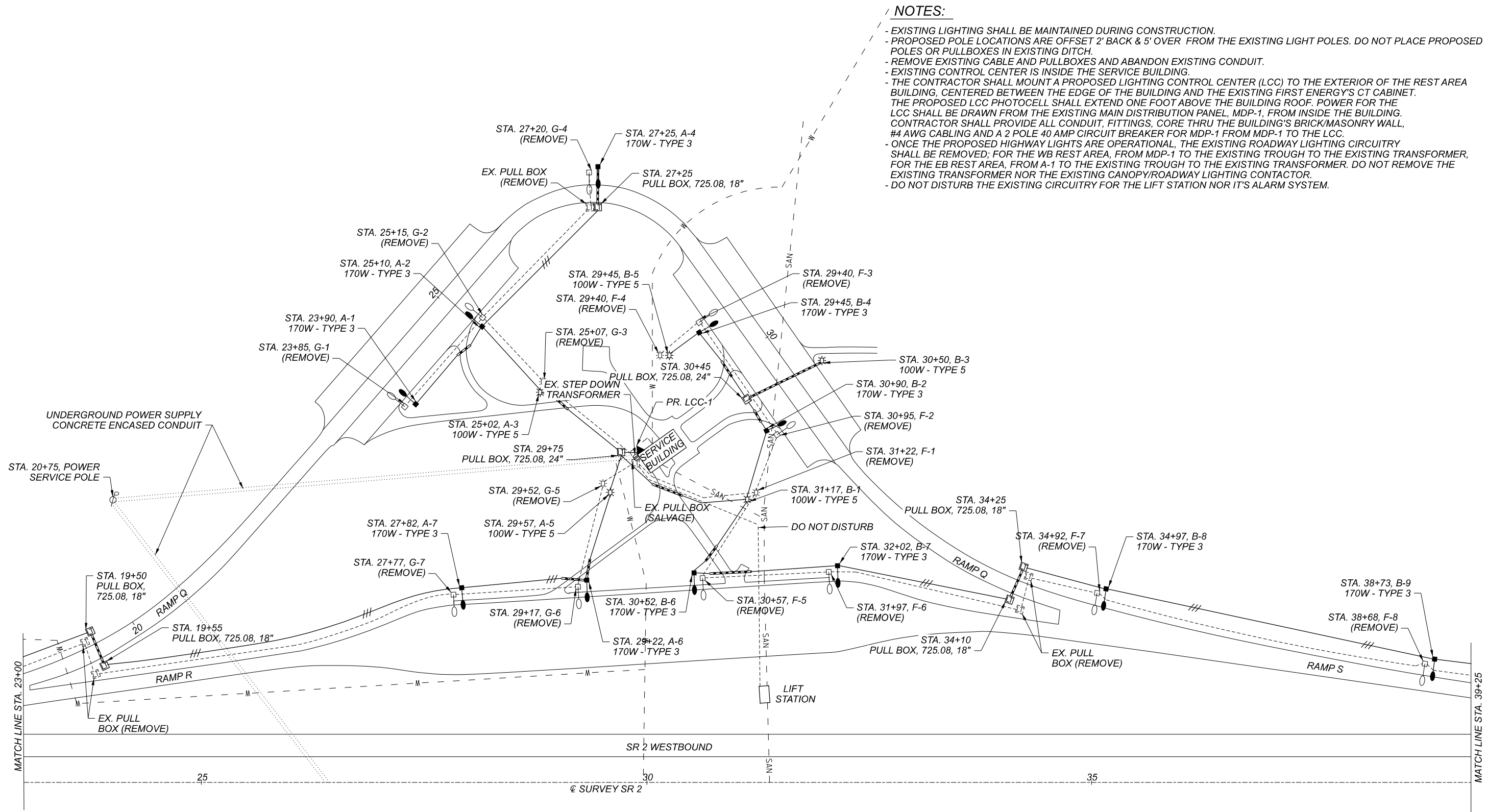
**LIGHTING DETAILS**

- LEGEND**
- PROPOSED GROUND MOUNTED LIGHT POLE AT15B35/AT8B35, PER HL-10.11 WITH 1-CONVENTIONAL LED LUMINAIRE AND TRANSFORMER BASE
  - PROPOSED GROUND MOUNTED LIGHT POLE AT020, PER HL-10.11 WITH 1-POST TOP LED LUMINAIRE AND TRANSFORMER BASE
  - PROPOSED 1-1/2" DUCT CABLE W/3 NO. 6 AWG 2400V CABLES (2 CONDUCTORS, 120/240V & 1 GROUND)
  - PROPOSED 3" JACKED OR DRILLED CONDUIT W/ LIGHTING CABLES

D03-LG-FY2022

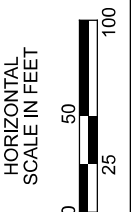
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DESIGN AGENCY	
DESIGNER	MAE
REVIEWER	CAD 04-26-21
PROJECT ID	104164
SHEET	TOTAL
P.7	10



NOTES:

- EXISTING LIGHTING SHALL BE MAINTAINED DURING CONSTRUCTION.
- PROPOSED POLE LOCATIONS ARE OFFSET 2' BACK & 5' OVER FROM THE EXISTING LIGHT POLES. DO NOT PLACE PROPOSED POLES OR PULLBOXES IN EXISTING DITCH.
- REMOVE EXISTING CABLE AND PULLBOXES AND ABANDON EXISTING CONDUIT.
- EXISTING CONTROL CENTER IS INSIDE THE SERVICE BUILDING.
- THE CONTRACTOR SHALL MOUNT A PROPOSED LIGHTING CONTROL CENTER (LCC) TO THE EXTERIOR OF THE REST AREA BUILDING, CENTERED BETWEEN THE EDGE OF THE BUILDING AND THE EXISTING FIRST ENERGY'S CT CABINET. THE PROPOSED LCC PHOTOCELL SHALL EXTEND ONE FOOT ABOVE THE BUILDING ROOF. POWER FOR THE LCC SHALL BE DRAWN FROM THE EXISTING MAIN DISTRIBUTION PANEL, MDP-1, FROM INSIDE THE BUILDING. CONTRACTOR SHALL PROVIDE ALL CONDUIT, FITTINGS, CORE THRU THE BUILDING'S BRICK/MASONRY WALL, #4 AWG CABLING AND A 2 POLE 40 AMP CIRCUIT BREAKER FOR MDP-1 FROM MDP-1 TO THE LCC.
- ONCE THE PROPOSED HIGHWAY LIGHTS ARE OPERATIONAL, THE EXISTING ROADWAY LIGHTING CIRCUITRY SHALL BE REMOVED; FOR THE WB REST AREA, FROM MDP-1 TO THE EXISTING TROUGH TO THE EXISTING TRANSFORMER, FOR THE EB REST AREA, FROM A-1 TO THE EXISTING TROUGH TO THE EXISTING TRANSFORMER. DO NOT REMOVE THE EXISTING TRANSFORMER NOR THE EXISTING CANOPY/ROADWAY LIGHTING CONTACTOR.
- DO NOT DISTURB THE EXISTING CIRCUITRY FOR THE LIFT STATION NOR IT'S ALARM SYSTEM.



LIGHTING DETAILS

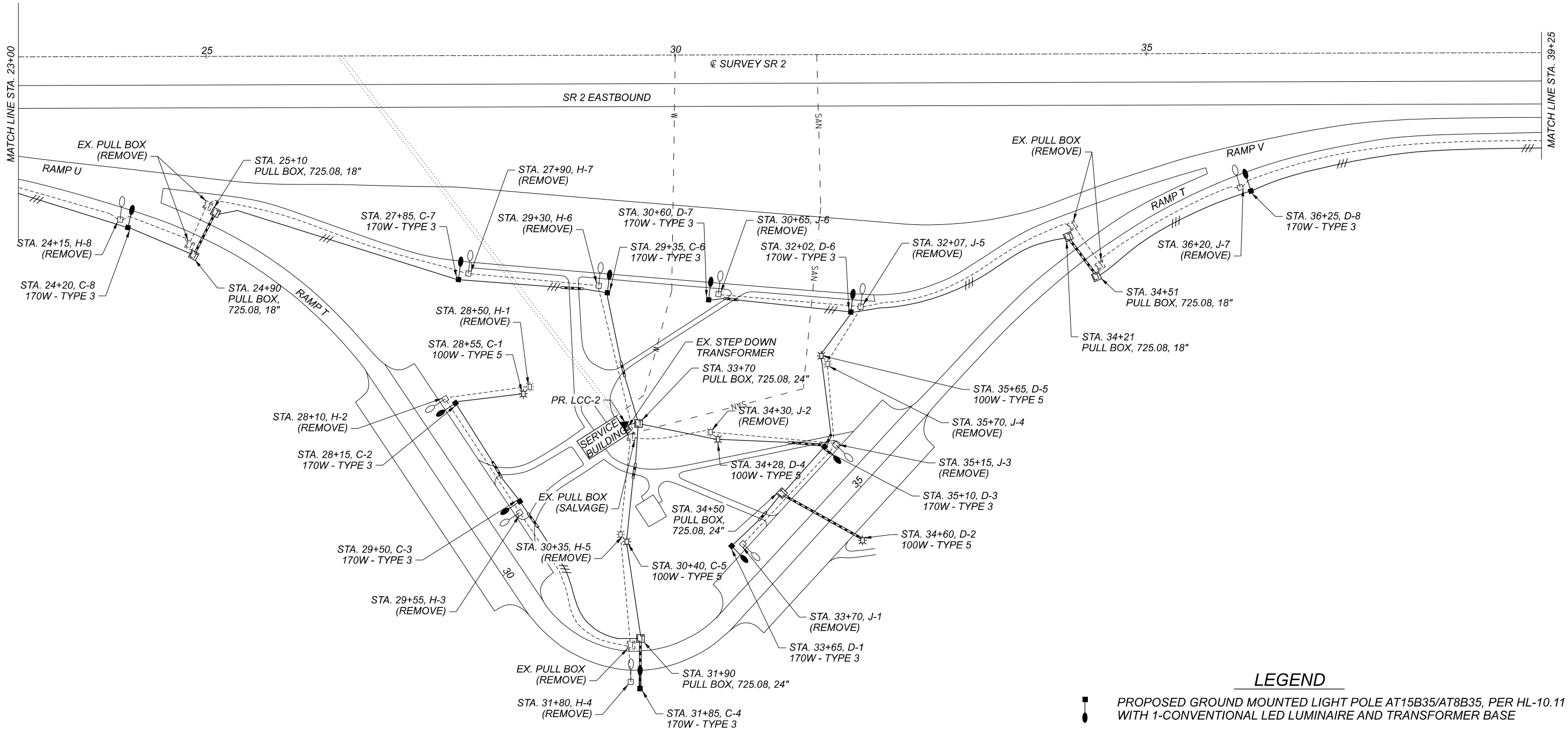
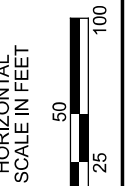
LEGEND

- PROPOSED GROUND MOUNTED LIGHT POLE AT15B35/AT8B35, PER HL-10.11 WITH 1-CONVENTIONAL LED LUMINAIRE AND TRANSFORMER BASE
- PROPOSED GROUND MOUNTED LIGHT POLE ATON20, PER HL-10.11 WITH 1-POST TOP LED LUMINAIRE AND TRANSFORMER BASE
- PROPOSED 1-1/2" DUCT CABLE W/3 NO. 6 AWG 2400V CABLES (2 CONDUCTORS, 120/240V & 1 GROUND)
- PROPOSED 3" JACKED OR DRILLED CONDUIT W/ LIGHTING CABLES

DESIGN AGENCY	
DESIGNER	MAE
REVIEWER	CAD
PROJECT ID	104164
SHEET	P.8
TOTAL	10

**NOTES:**

- EXISTING LIGHTING SHALL BE MAINTAINED DURING CONSTRUCTION.
- PROPOSED POLE LOCATIONS ARE OFFSET 2' BACK & 5' OVER FROM THE EXISTING LIGHT POLES. DO NOT PLACE PROPOSED POLES OR PULLBOXES IN EXISTING DITCH.
- REMOVE EXISTING CABLE AND PULLBOXES AND ABANDON EXISTING CONDUIT.
- EXISTING CONTROL CENTER IS INSIDE THE SERVICE BUILDING.
- THE CONTRACTOR SHALL MOUNT A PROPOSED LIGHTING CONTROL CENTER (LCC) TO THE EXTERIOR OF THE REST AREA BUILDING, CENTERED BETWEEN THE EDGE OF THE BUILDING AND THE EXISTING FIRST ENERGY'S CT CABINET. THE PROPOSED LCC PHOTOCELL SHALL EXTEND ONE FOOT ABOVE THE BUILDING ROOF. POWER FOR THE LCC SHALL BE DRAWN FROM THE EXISTING MAIN DISTRIBUTION PANEL, MDP-1, FROM INSIDE THE BUILDING. CONTRACTOR SHALL PROVIDE ALL CONDUIT, FITTINGS, CORE THRU THE BUILDING'S BRICK/MASONRY WALL, #4 AWG CABLING AND A 2 POLE 40 AMP CIRCUIT BREAKER FOR MDP-1 FROM MDP-1 TO THE LCC.
- ONCE THE PROPOSED HIGHWAY LIGHTS ARE OPERATIONAL, THE EXISTING ROADWAY LIGHTING CIRCUITRY SHALL BE REMOVED; FOR THE WB REST AREA, FROM MDP-1 TO THE EXISTING TROUGH TO THE EXISTING TRANSFORMER, FOR THE EB REST AREA, FROM A-1 TO THE EXISTING TROUGH TO THE EXISTING TRANSFORMER. DO NOT REMOVE THE EXISTING TRANSFORMER NOR THE EXISTING CANOPY/ROADWAY LIGHTING CONTACTOR.
- DO NOT DISTURB THE EXISTING CIRCUITRY FOR THE LIFT STATION NOR ITS ALARM SYSTEM.



**LEGEND**

- PROPOSED GROUND MOUNTED LIGHT POLE AT 15B35/AT8B35, PER HL-10.11 WITH 1-CONVENTIONAL LED LUMINAIRE AND TRANSFORMER BASE
- PROPOSED GROUND MOUNTED LIGHT POLE AT 20\", PER HL-10.11 WITH 1-POST TOP LED LUMINAIRE AND TRANSFORMER BASE
- PROPOSED 1-1/2" DUCT CABLE W/3 NO. 6 AWG 2400V CABLES (2 CONDUCTORS, 120/240V & 1 GROUND)
- PROPOSED 3" JACKED OR DRILLED CONDUIT W/ LIGHTING CABLES

**LIGHTING DETAILS**

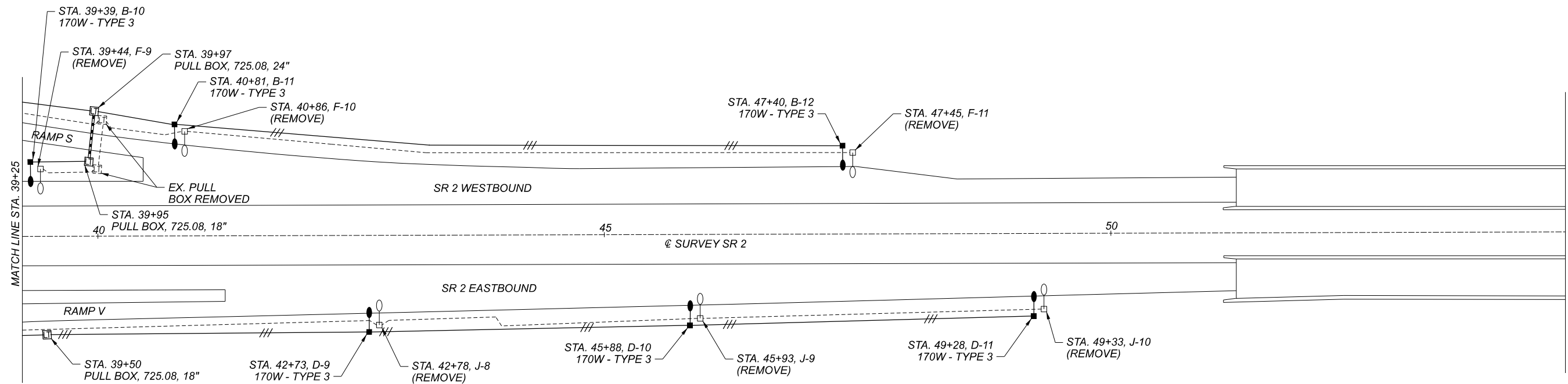
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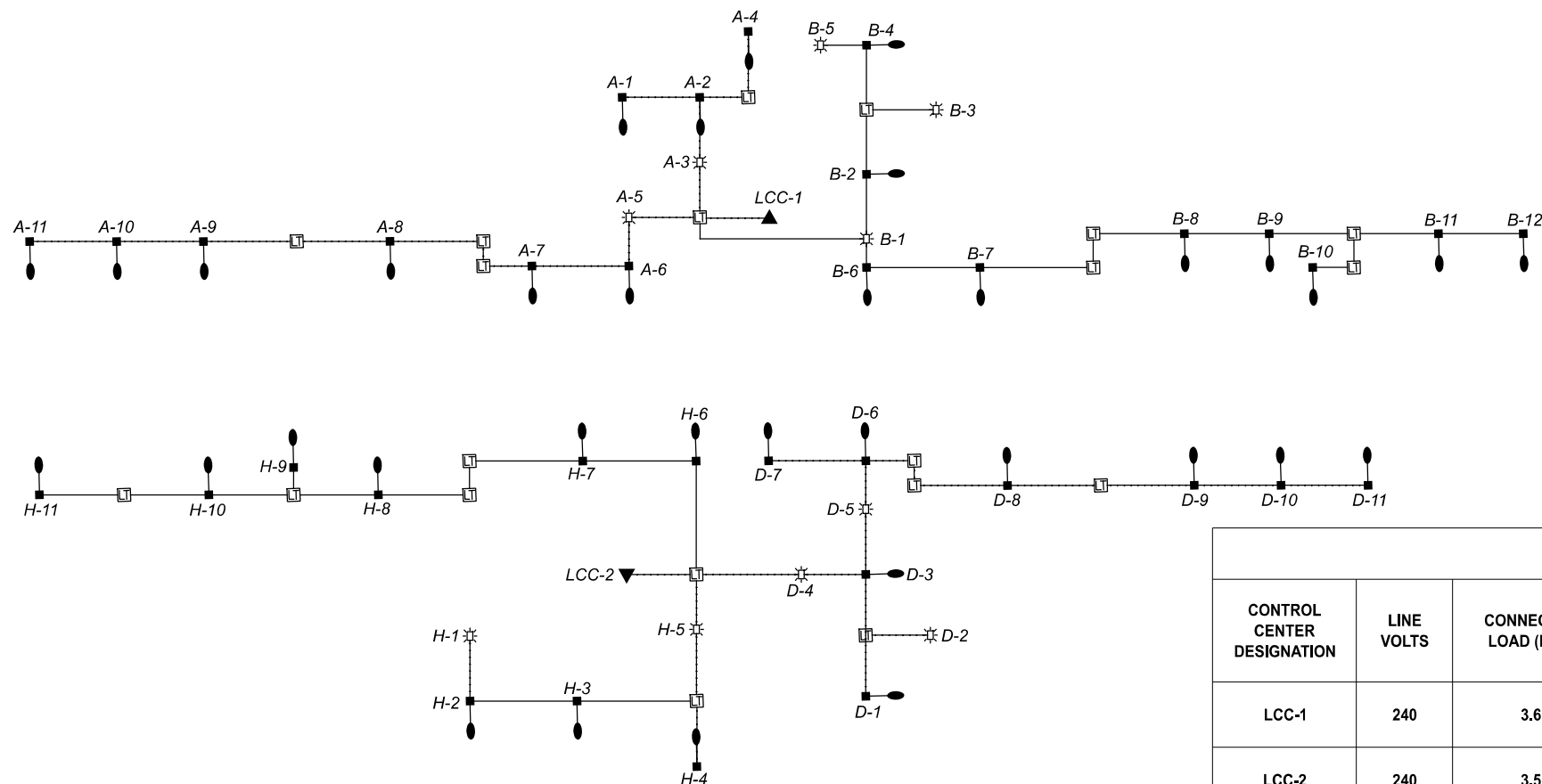
DESIGN AGENCY	
DESIGNER	MAE
REVIEWER	CAD 04-26-21
PROJECT ID	104164
SHEET	TOTAL
P.9	10

**NOTES:**

- EXISTING LIGHTING SHALL BE MAINTAINED DURING CONSTRUCTION.
- PROPOSED POLE LOCATIONS ARE OFFSET 2' BACK & 5' OVER FROM THE EXISTING LIGHT POLES. DO NOT PLACE PROPOSED POLES OR PULLBOXES IN EXISTING DITCH.
- REMOVE EXISTING CABLE AND PULLBOXES AND ABANDON EXISTING CONDUIT.



**CIRCUIT DIAGRAM**



**LEGEND**

- PROPOSED GROUND MOUNTED LIGHT POLE AT 15B35/AT8B35, PER HL-10.11 WITH 1-CONVENTIONAL LED LUMINAIRE AND TRANSFORMER BASE
- ⊛ PROPOSED GROUND MOUNTED LIGHT POLE AT ON20, PER HL-10.11 WITH 1-POST TOP LED LUMINAIRE AND TRANSFORMER BASE
- PROPOSED 1-1/2" DUCT CABLE W/3 NO. 6 AWG 2400V CABLES (2 CONDUCTORS, 120/240V & 1 GROUND)
- PROPOSED 3" JACKED OR DRILLED CONDUIT W/ LIGHTING CABLES

**CONTROL CENTER DATA**

CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
LCC-1	240	3.6	As per Ohio Edison or NEC Article 310	60	A	7.21	10	6	ODOT
					B	7.63	10	6	
LCC-2	240	3.5	As per Ohio Edison or NEC Article 310	60	C	7.21	10	6	ODOT
					D	7.21	10	6	

**LIGHTING DETAILS**

DESIGN AGENCY



DESIGNER: MAE  
 REVIEWER: CAD 04-26-21  
 PROJECT ID: 104164  
 SHEET TOTAL: P.10 | 10