

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

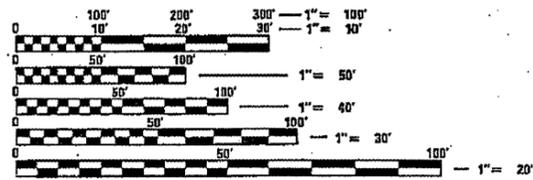
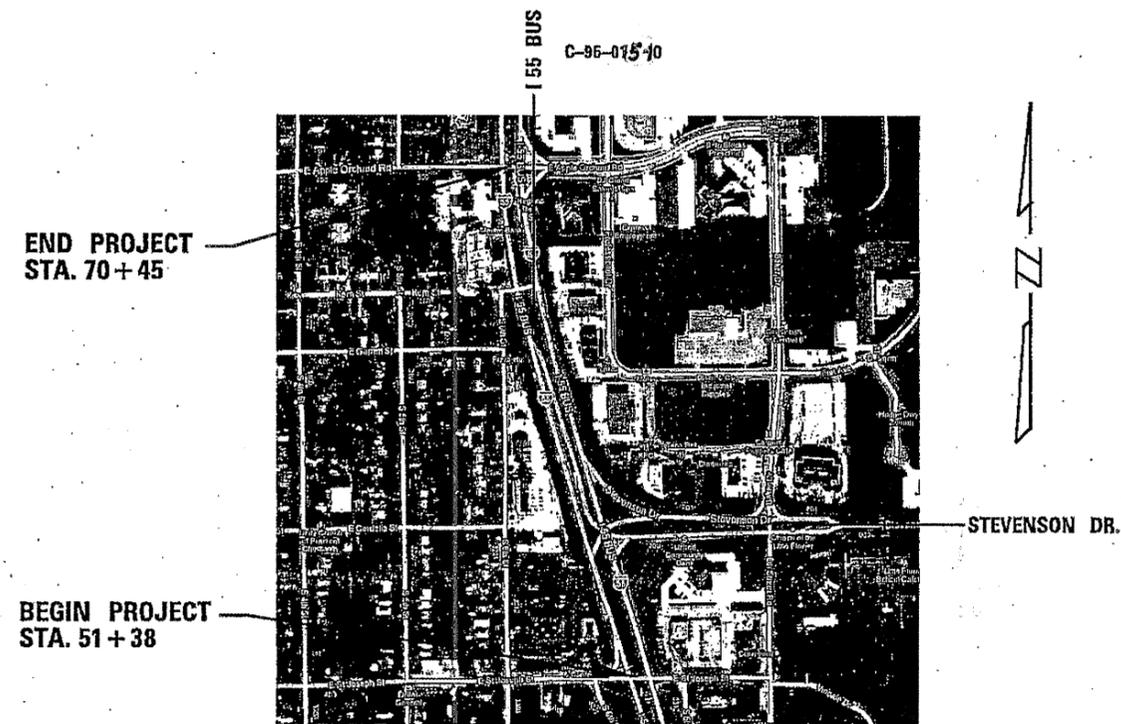
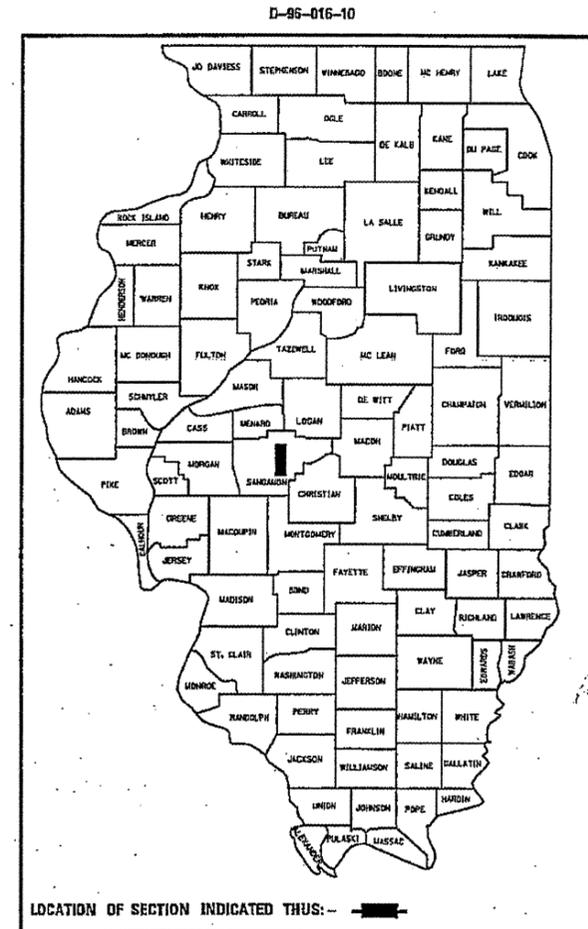
**PROPOSED
CONTRACT MAINTENANCE**

FAP 666 I-55 BUSINESS
SECTION (15,110X)L

SANGAMON COUNTY

XXX RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
XXX	15,110X(L)	SANGAMON	16	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 72D80		

FOR INDEX OF SHEETS, SEE SHEET NO. 2



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PLAN AND CONTRACT TECHNICIAN
TIMOTHY SHARP (217)782-7743

CONTRACT NO. 72D80

GROSS LENGTH = 1,907.00 FT. = 0.361 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 8 2010
Roger P. Kelly
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 13 2010
Scott E. Stitt, P.E., J.E.
ENGINEER OF DESIGN AND ENVIRONMENT

August 13 2010
Christina M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX

- 1 COVER
- 2 INDEX/STANDARDS/SIGNATURES/LEGEND
- 3-4 QUANTITIES
- 5 SCHEMATICS
- 6-12 PLANS
- 13-14 DETAILS
- 15-16* NIGHTIME LIGHTING INSPECTION

16 - NOT USED

STANDARDS

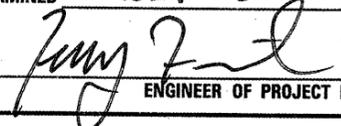
- 701101-02 701106-02 701601-06
- 701602-04 701606-06 701701-06
- 701901-01 836001 825016

ELECTRICAL SYMBOLS LEGEND

-  ELECTRICAL SERVICE INSTALLATION, 240/480V, 1 PHASE, FOUR WIRE
-  PROPOSED LIGHTING CONTROLLER
-  LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT DAVIT ARM WITH 400W HPS LUMINAIRE, BREAKAWAY COUPLINGS
-  LIGHT POLE, ALUMINUM, 50 FT. M.H., TWIN 15 FT. DAVIT ARMS WITH 400W HPS LUMINAIRES
-  UNIT DUCT IN TRENCH, SIZE AND TYPE AS INDICATED.
-  UNIT DUCT IN CONDUIT, SIZE AND TYPE AS INDICATED.
-  CONDUIT PUSHED, 2" DIA., PVC SCH. 80.

CABLE SCHEDULE

- (A) UNIT DUCT, 600V, 2-1C NO. 10, 1/C NO. 10 GROUND, (XLP - TYPE USE), 3/4" DIA. POLYETHYLENE.
- (B) UNIT DUCT, 600V, 2-1C NO. 8, 1/C NO. 8 GROUND, (XLP - TYPE USE), 3/4" DIA. POLYETHYLENE.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS DISTRICT 6	
EXAMINED <u>July 12</u> 20 <u>10</u>	
 ENGINEER OF OPERATIONS	
EXAMINED <u>July 2</u> 20 <u>10</u>	
 ENGINEER OF PROJECT IMPLEMENTATION	
EXAMINED <u>July 2</u> 20 <u>10</u>	
 ENGINEER OF PROGRAM DEVELOPMENT	

INDEX/STDS/SIGN/LEGEND
STEVENSON DR/I 55 BUS
SECTION (15,110X)L
SANGAMON COUNTY

Rev.

S U M M A R Y O F Q U A N T I T I E S

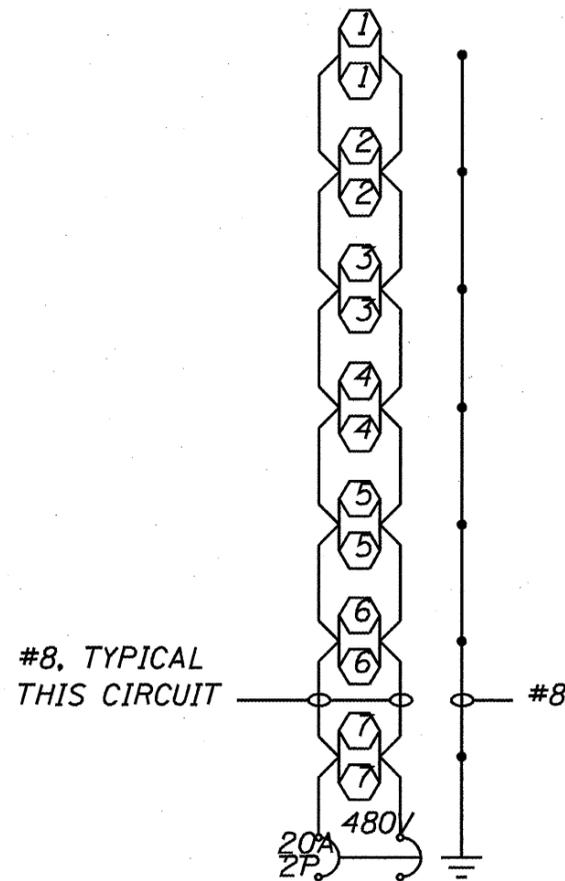
CODE NO.	ITEM	UNIT	URBAN
			100% STATE
			Y030-IE
			TOTAL QTY
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
81021330	CONDUIT PUSHED, 2" DIA., PVC	FOOT	351
81603000	UNIT DUCT, 600V, 2-1C NO.8, 1/C NO.8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	1,819
81603010	UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	1,163
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	2,406
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	23
82106700	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT (MATERIAL ONLY)	EACH	3
82500340	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 480VOLT, 60 AMP	EACH	1
83053150	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT. DAVIT ARM - TWIN	EACH	11
67100100	MOBILIZATION	L SUM	1
X8303150	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT. DAVIT ARM, TWIN (MATERIAL ONLY)	EACH	1
83004601	LIGHT POLE, ALUMINUM, 50 FT. M.H., 15 FT. DAVIT ARM (MATERIAL ONLY)	EACH	2

QUANTITIES
STEVENSON DR/I 55 BUS
SECTION (15,110X)L
SANGAMON COUNTY

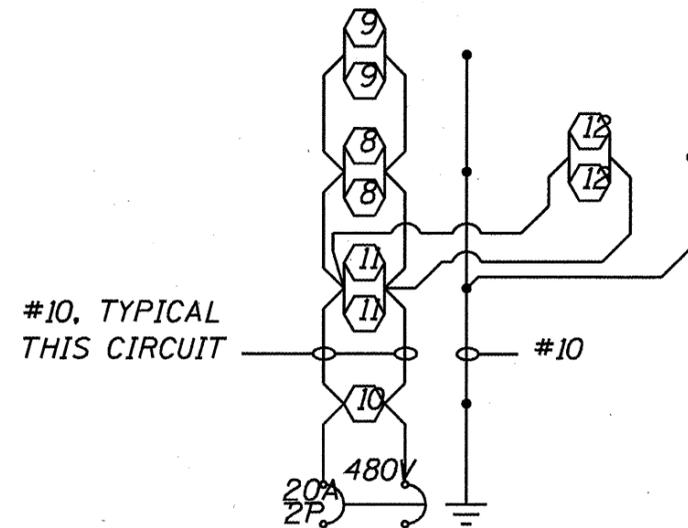
Rev.

GENERAL LIGHTING NOTES

1. ALL PROPOSED LIGHTING UNITS SHALL BE LABELED ACCORDING TO THE STANDARD SPECIFICATIONS, WITH POLE NUMBERS ATTACHED WITH STAINLESS STEEL BANDING. LIGHTING UNIT NUMBERING SHALL BE AS DIRECTED BY THE ENGINEER.
- ~~2. EXISTING LIGHT POLES AND FOUNDATIONS TO BE REMOVED, AND ALL ASSOCIATED HARDWARE AND APPURTENANCES, SHALL NOT BE SALVAGED BUT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.~~
2. CONTRACTOR SHALL INSTALL LIGHT POLES AT THE LOCATIONS INDICATED ON THE PLANS, MAINTAINING ADEQUATE CLEARANCE FROM OVERHEAD UTILITY LINES. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CLEARANCES PER THE NATIONAL ELECTRICAL SAFETY CODE AND/OR THE REQUIREMENTS OF THE UTILITY COMPANIES. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE "TRENCH AND BACKFILL FOR ELECTRICAL WORK" PAY ITEM.
4. UNDERGROUND CABLE MARKING TAPE SHALL BE INSTALLED ACCORDING TO SECTION 819 OF THE STANDARD SPECIFICATIONS. THE COST OF THIS WORK IS TO BE INCLUDED IN THE "TRENCH AND BACKFILL FOR ELECTRICAL WORK" PAY ITEM.
5. CONTRACTOR SHALL INSTALL UNIT DUCT AT A MINIMUM OFFSET OF FIVE FEET FROM ALL EXISTING STORM SEWERS.
6. THE CONTRACTOR SHALL LOCATE THE TWIN DAVIT ARM POLES IN THE MEDIAN IN A STRAIGHT LINE TO PRODUCE A CLEAN VISUAL APPEARANCE WHENEVER POSSIBLE. IF CONFLICTS WITH UNDERGROUND FACILITIES ARE ENCOUNTERED, CONSULT THE ENGINEER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE LIGHTING SYSTEM UNTIL IDOT HAS TAKEN ACCEPTANCE OF THE SYSTEM. ALL EXISTING CIRCUITS AND CABLES TO THE LIGHT POLES SHALL BE MAINTAINED AS NEEDED AND THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.



#8, TYPICAL
THIS CIRCUIT



#10, TYPICAL
THIS CIRCUIT

LIGHTING CKT 1
PROPOSED LIGHTING CONTROLLER NO. 1

LIGHTING CKT 2
PROPOSED LIGHTING CONTROLLER NO. 1

NOTES:

1. ALL NECESSARY REVISIONS TO THE WIRING SHOWN ON THIS SHEET SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER.

⬡ 400W ROADWAY LUMINAIRE

SCHEMATICS
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY

Rev.

MATCH LINE STA. 53+50

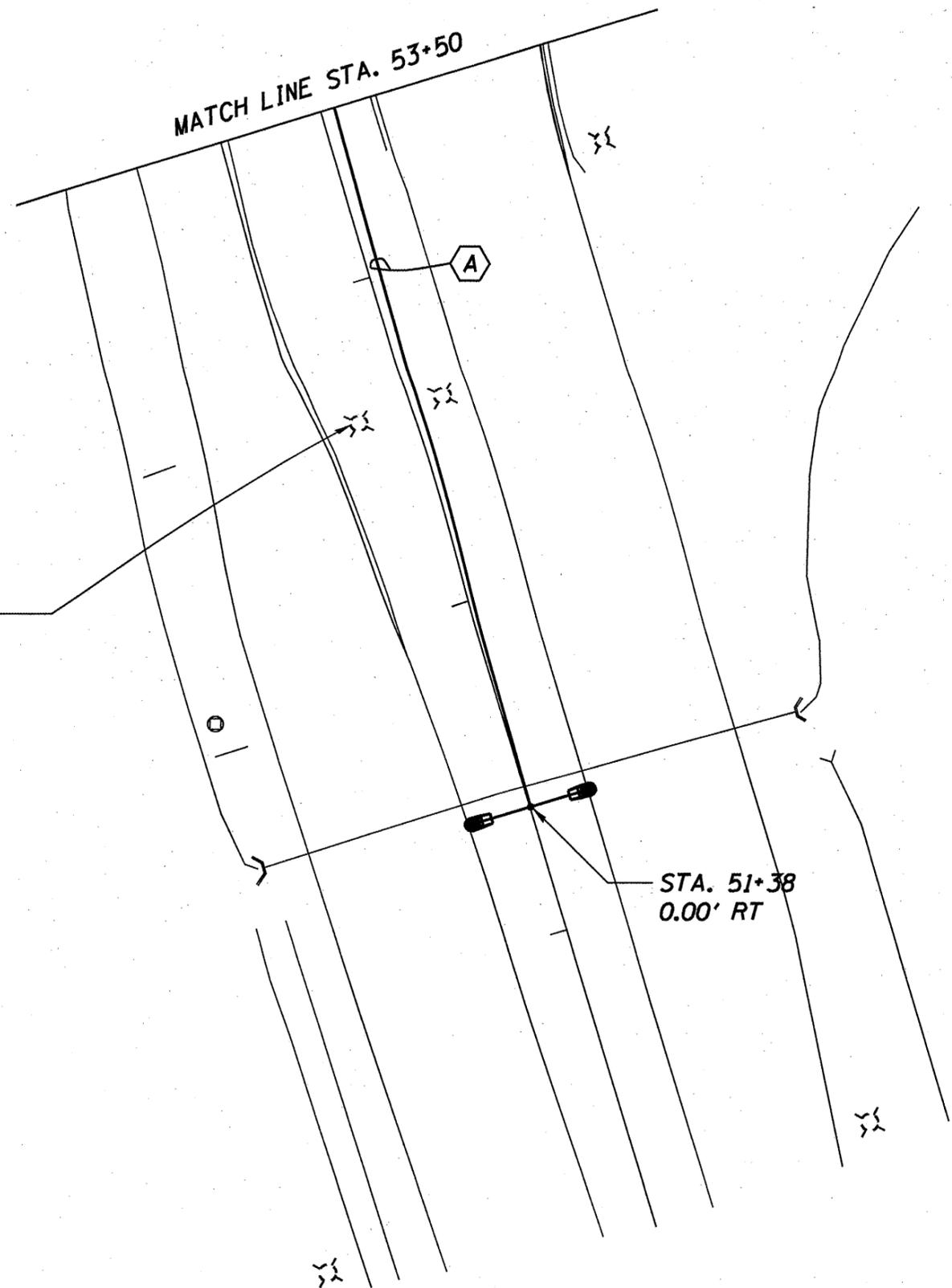
EXIST. LIGHTING UNIT
TO BE REMOVED. NO
SALVAGE. TYP.

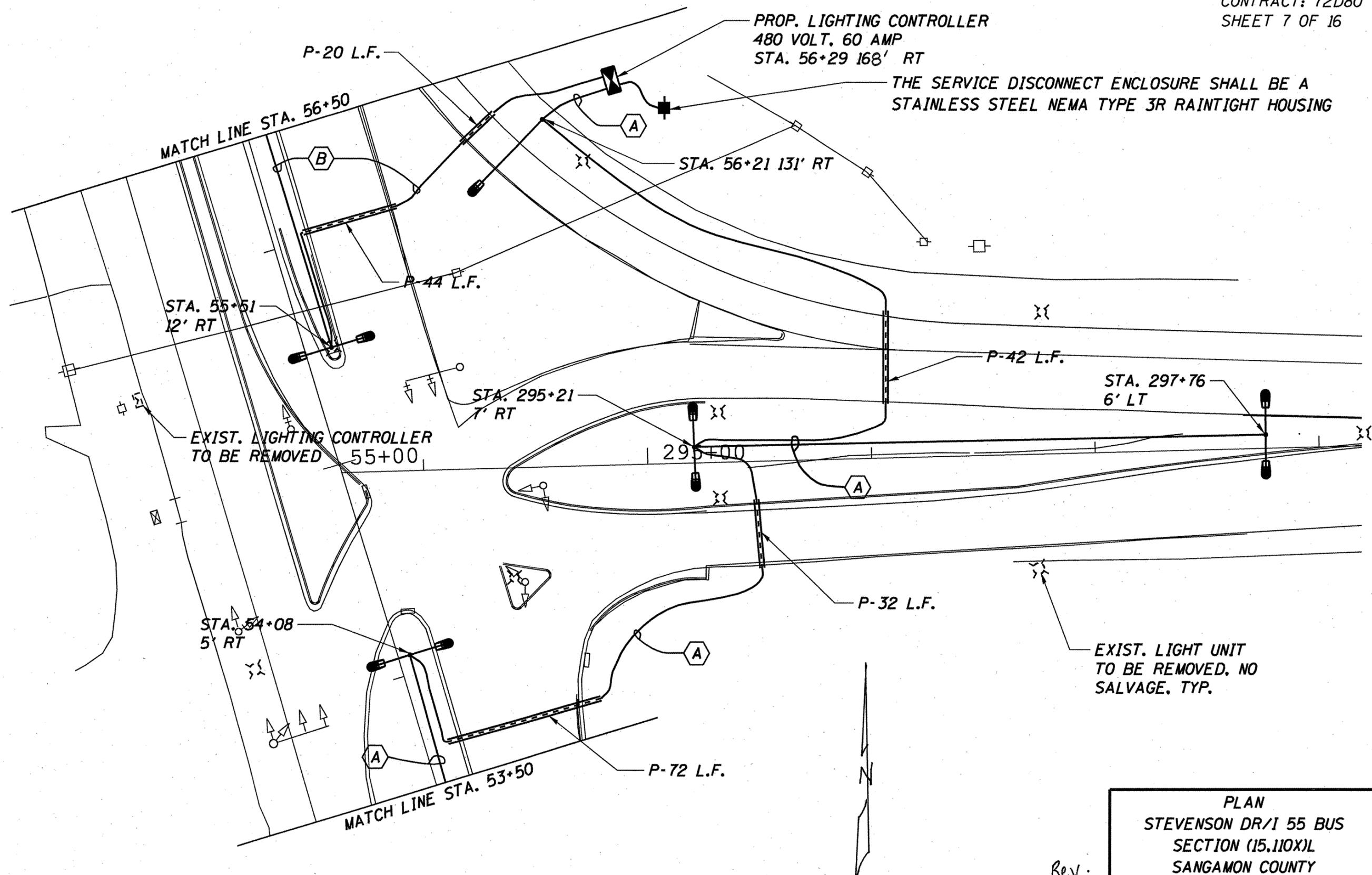
A

STA. 51+38
0.00' RT



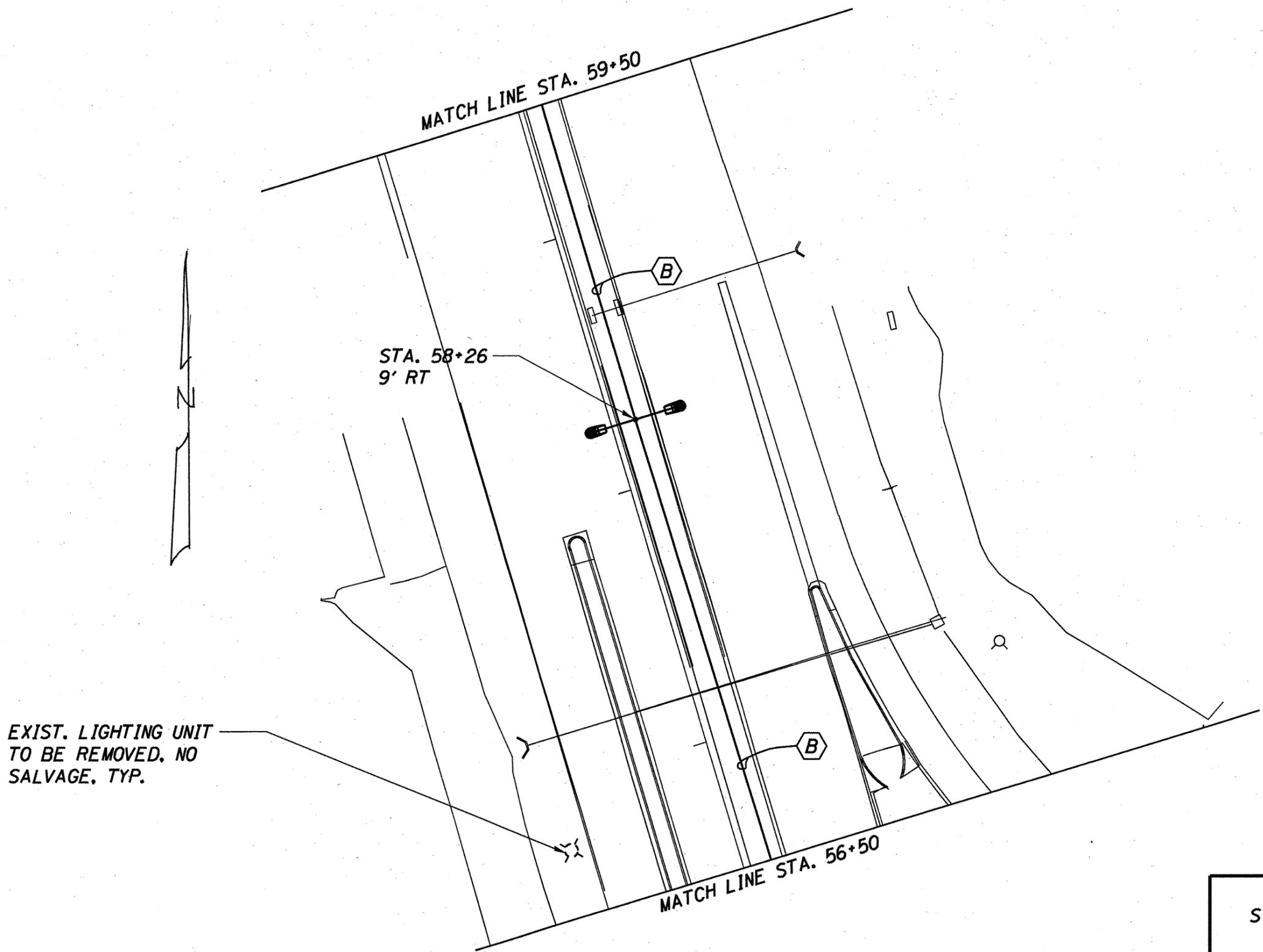
PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY





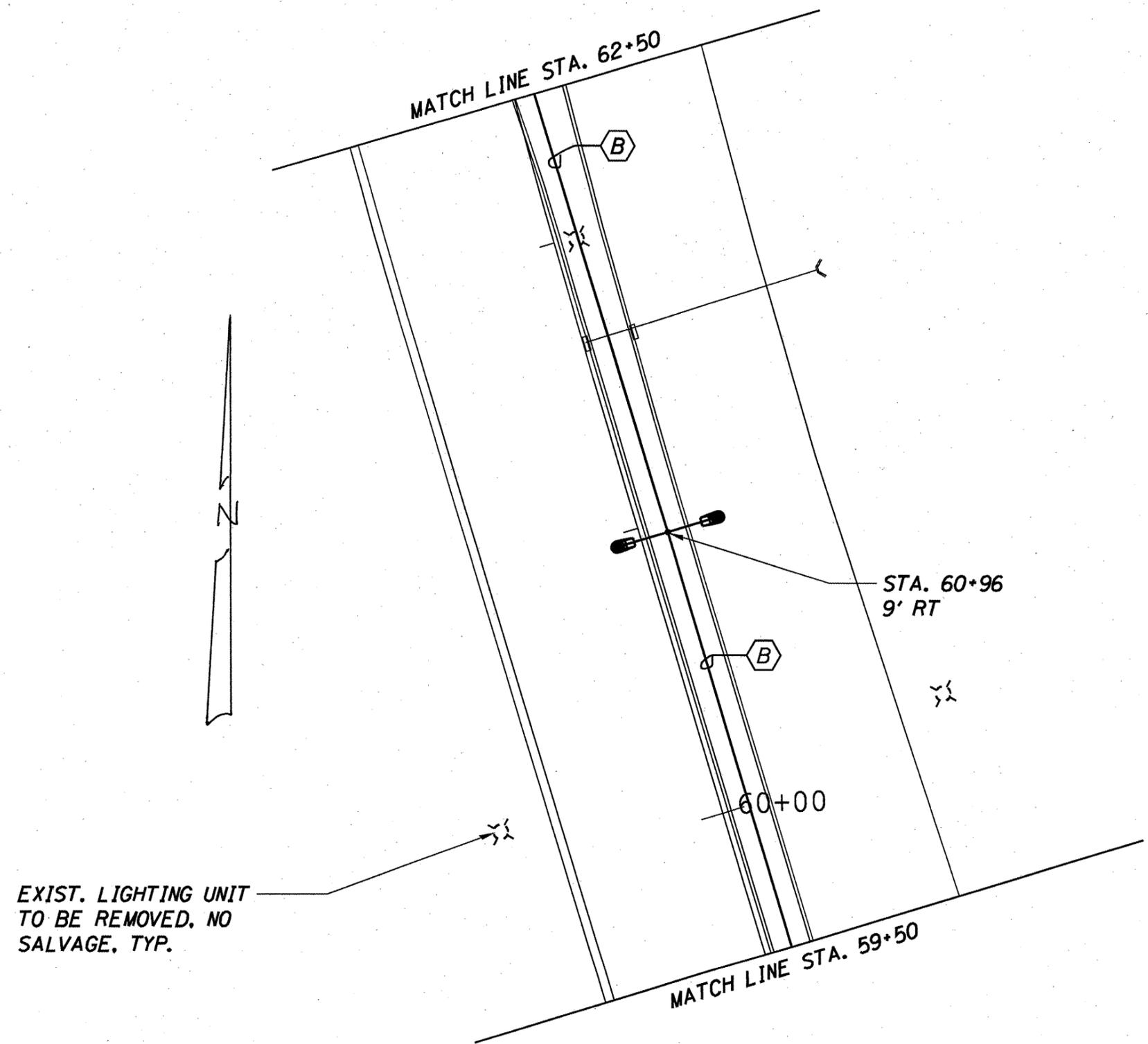
PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY

Rev.

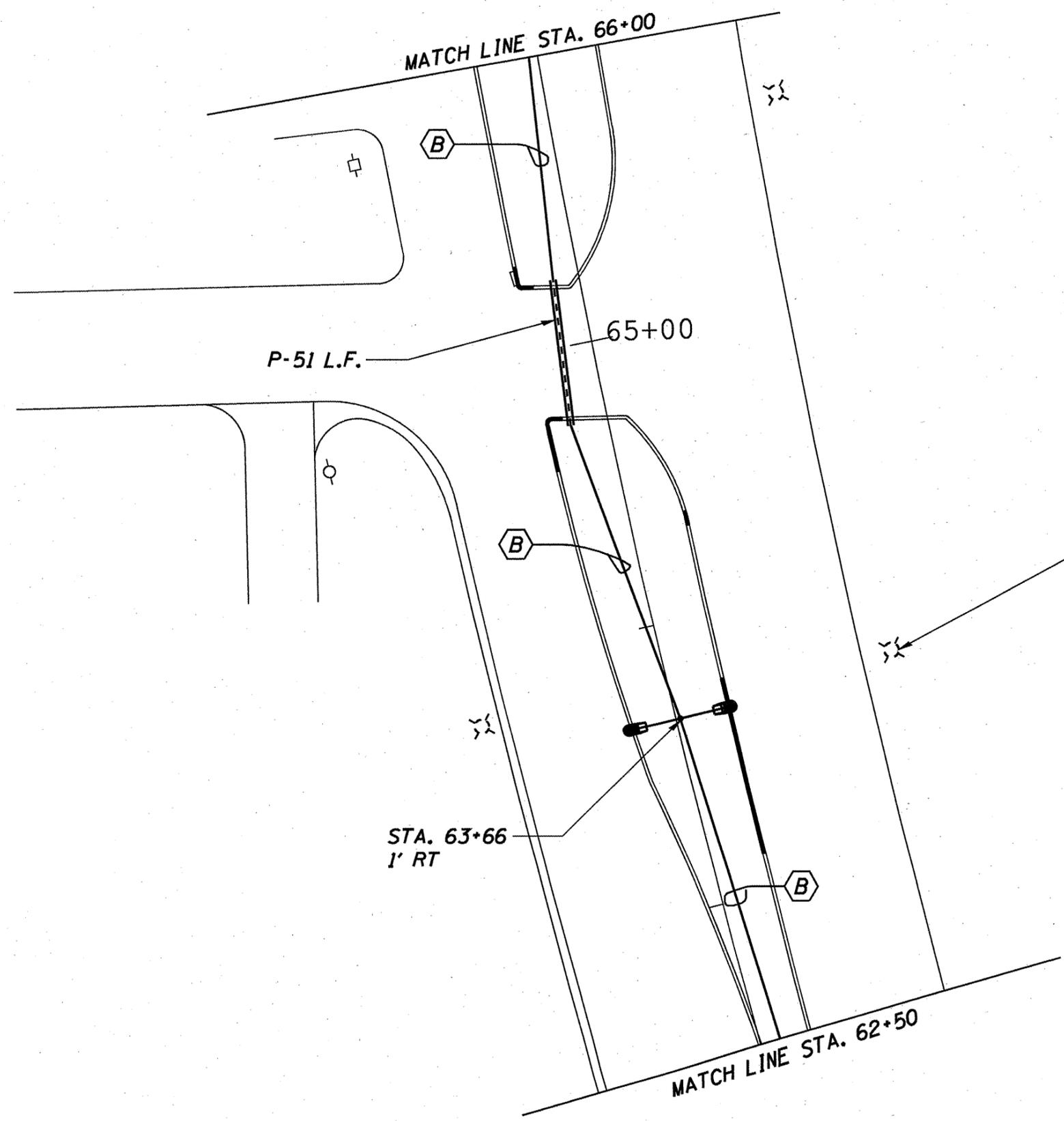
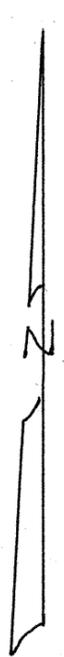


EXIST. LIGHTING UNIT
TO BE REMOVED, NO
SALVAGE, TYP.

PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY

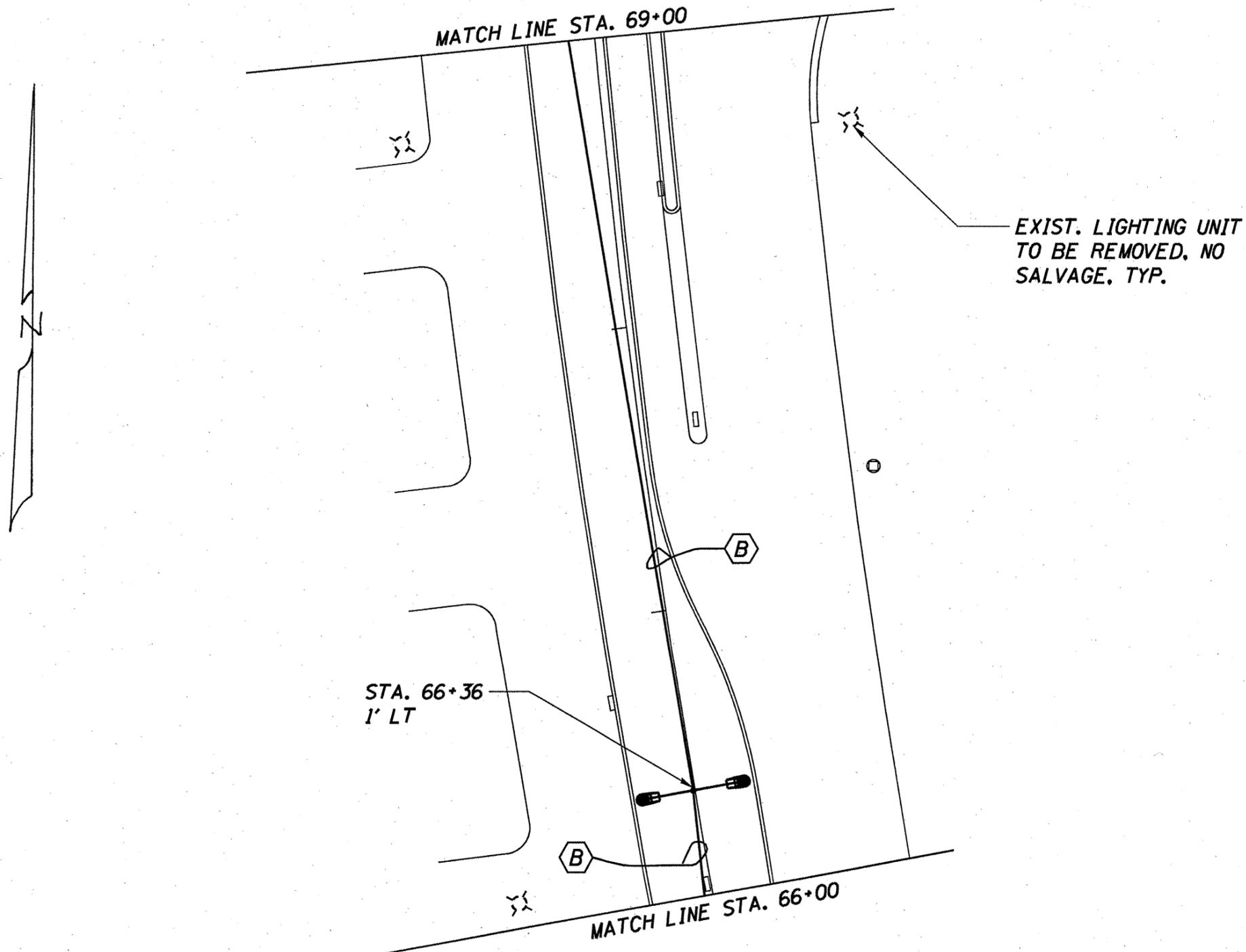


PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY



EXIST. LIGHTING UNIT
TO BE REMOVED, NO
SALVAGE, TYP.

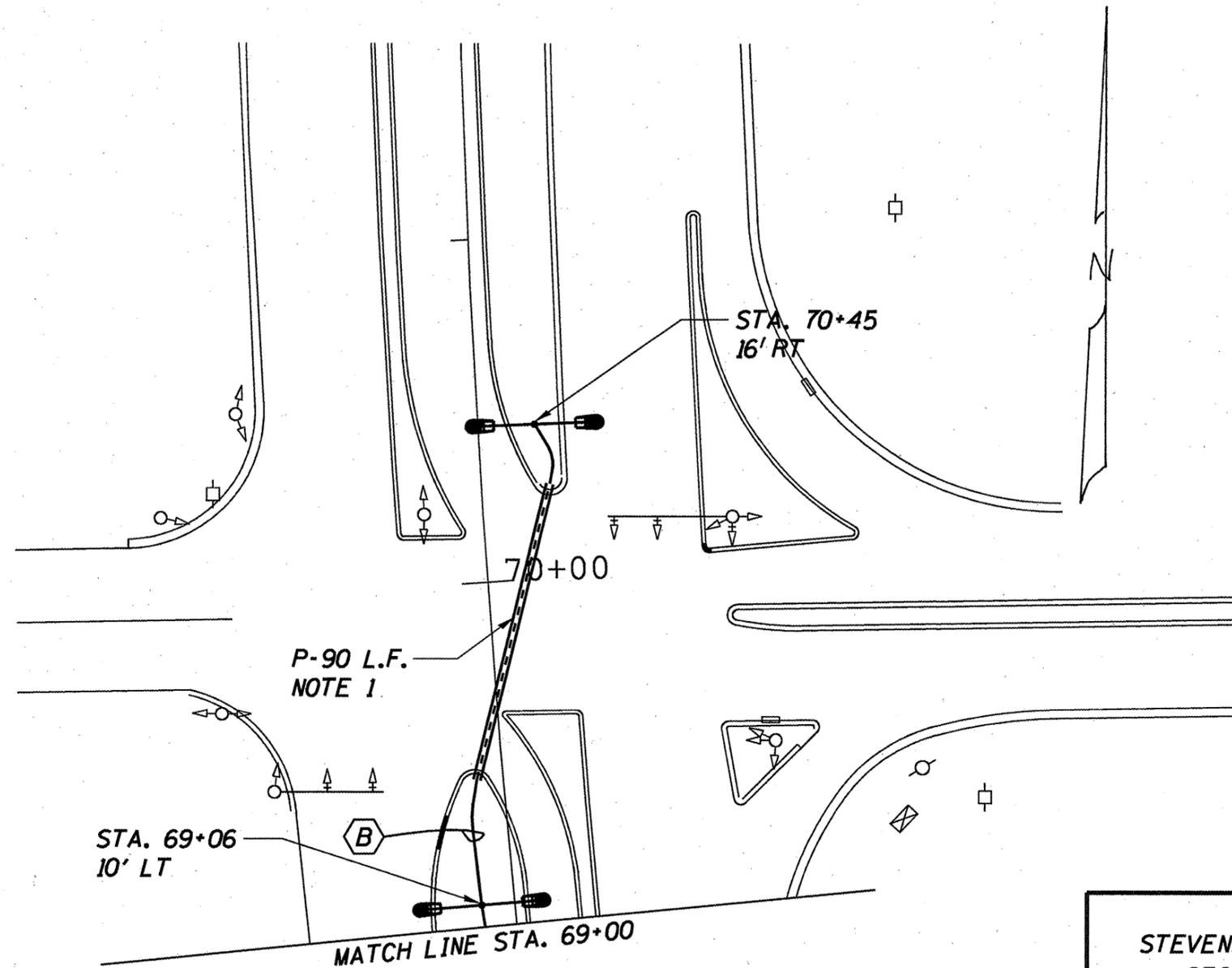
PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY



PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY

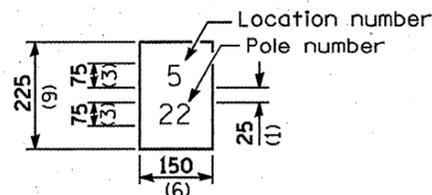
NOTES:

1. CONDUIT SHALL HAVE A MINIMUM DEPTH OF 5 FEET BELOW FINISHED GRADE.



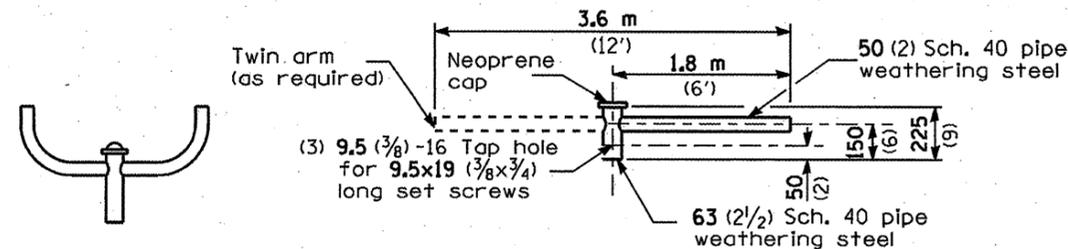
PLAN
STEVENSON DR/I 55 BUS
SECTION (15.110X)L
SANGAMON COUNTY

Rev.



The contractor shall furnish and install a light pole identification of each new light pole, as shown above, incidental to the respective light pole pay item. The numerals shall be 75 (3) series "D", black, screened on silver-white type B pressure sensitive reflective sheeting conforming to the requirements of section T602.01 of the Standard Specifications for Traffic Control Items. The numerals shall conform to the FHWA "Standard Alphabets for Highway Signs".

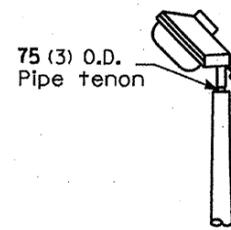
The light pole identification shall be applied to sign base material as specified in section 1069.06 of the Standard Specifications, approximately 180 (7) above the adjacent pavement grade visible to approaching traffic in accordance with Highway Standard 720001.



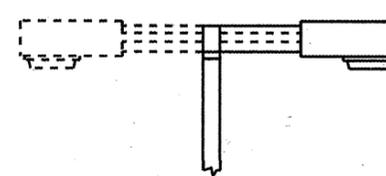
TWIN TENON

TENON MOUNT BRACKET ARM

NOTE: Single or twin arm assembly shall be tilted 3° above horizontal.

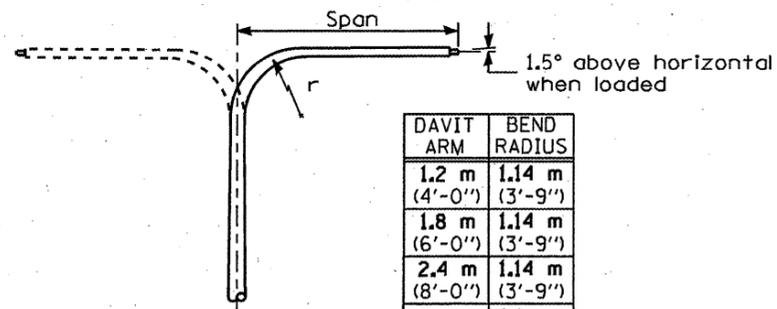


TENON



SHORT BRACKET

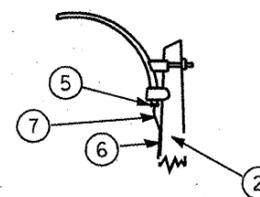
SHORT BRACKET - TWIN



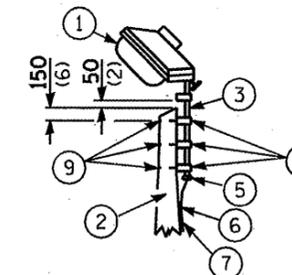
DAVIT ARM	BEND RADIUS
1.2 m (4'-0")	1.14 m (3'-9")
1.8 m (6'-0")	1.14 m (3'-9")
2.4 m (8'-0")	1.14 m (3'-9")
3.6 m (12'-0")	1.14 m (3'-9")

DAVIT ARM

DAVIT ARM-TWIN

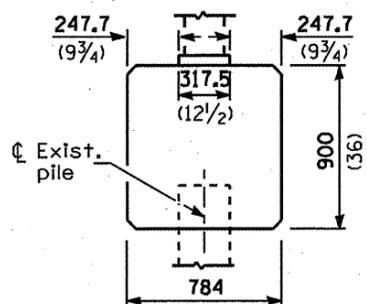
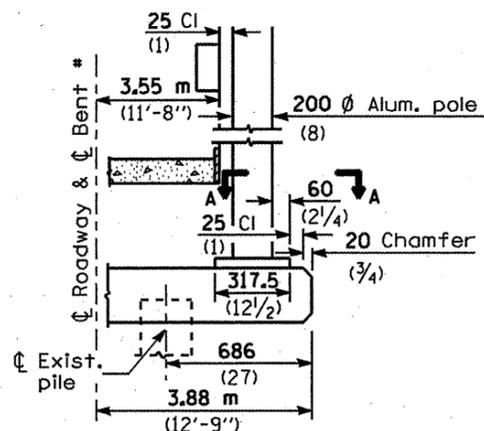


MAST ARM

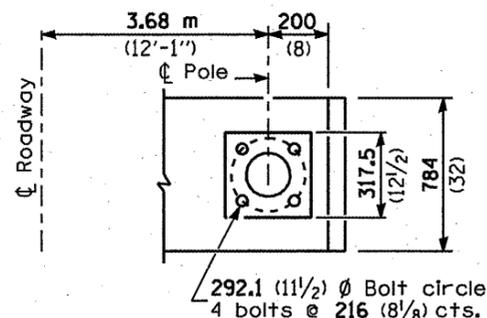


TENON

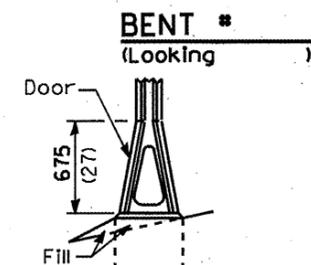
- ① Luminaire
- ② Wood pole, class 3 or better
- ③ 63 (2 1/2) Galv. steel conduit
- ④ Single offset pole band
- ⑤ Conduit bushing
- ⑥ Cable clamps on 600 (24) centers
- ⑦ 2/c #12 Type use cable
- ⑧ 25 (1) Galv. steel conduit 3.0 m (10') in length
- ⑨ 16 (5/8) Ø hot dipped galvanized bolt with flat washer & locknut (3 req'd)
- ⑩ Conduit clamps on 900 (36) centers
- ⑪ Unit duct
- ⑫ Threaded reducer
- ⑬ "C" Condulet, threaded
- ⑭ 40 (1 1/2) Galv. steel conduit for 1 unit duct or 75 (3) galv. steel conduit for 2 or 3 unit ducts.



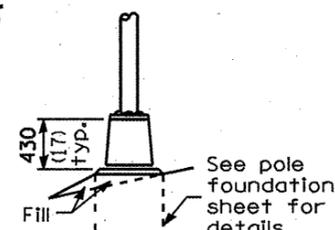
BRIDGE PIER MOUNT



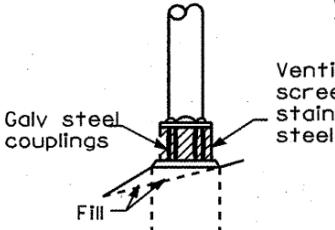
SECTION A-A



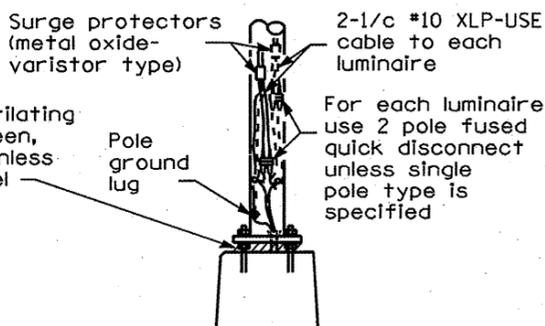
STAINLESS STEEL FLAIR BASE



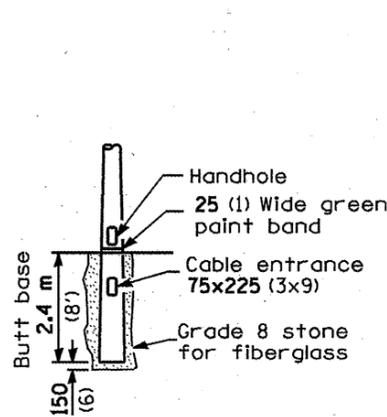
TRANSFORMER BASE



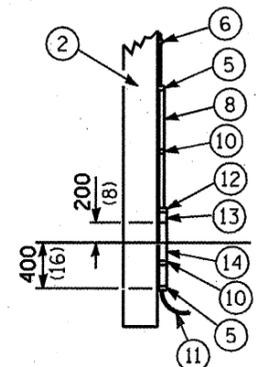
BREAKAWAY COUPLING



ANCHOR



BUTT BASE



POLE, WOOD

POLE LENGTH	DEPTH IN GROUND
19.8 m (65')	3.6 m (12')
18.0 m (60')	3.0 m (10')
16.8 m (55')	2.7 m (9')
16.0 m (50')	2.4 m (8')
13.7 m (45')	2.1 m (7')
12.0 m (40')	2.0 m (6.5')
10.7 m (35')	1.8 m (6')
9.0 m (30')	1.7 m (5.5')

All dimensions are in millimeters (inches) unless otherwise shown.

FRANGIBLE

METAL OR CONCRETE

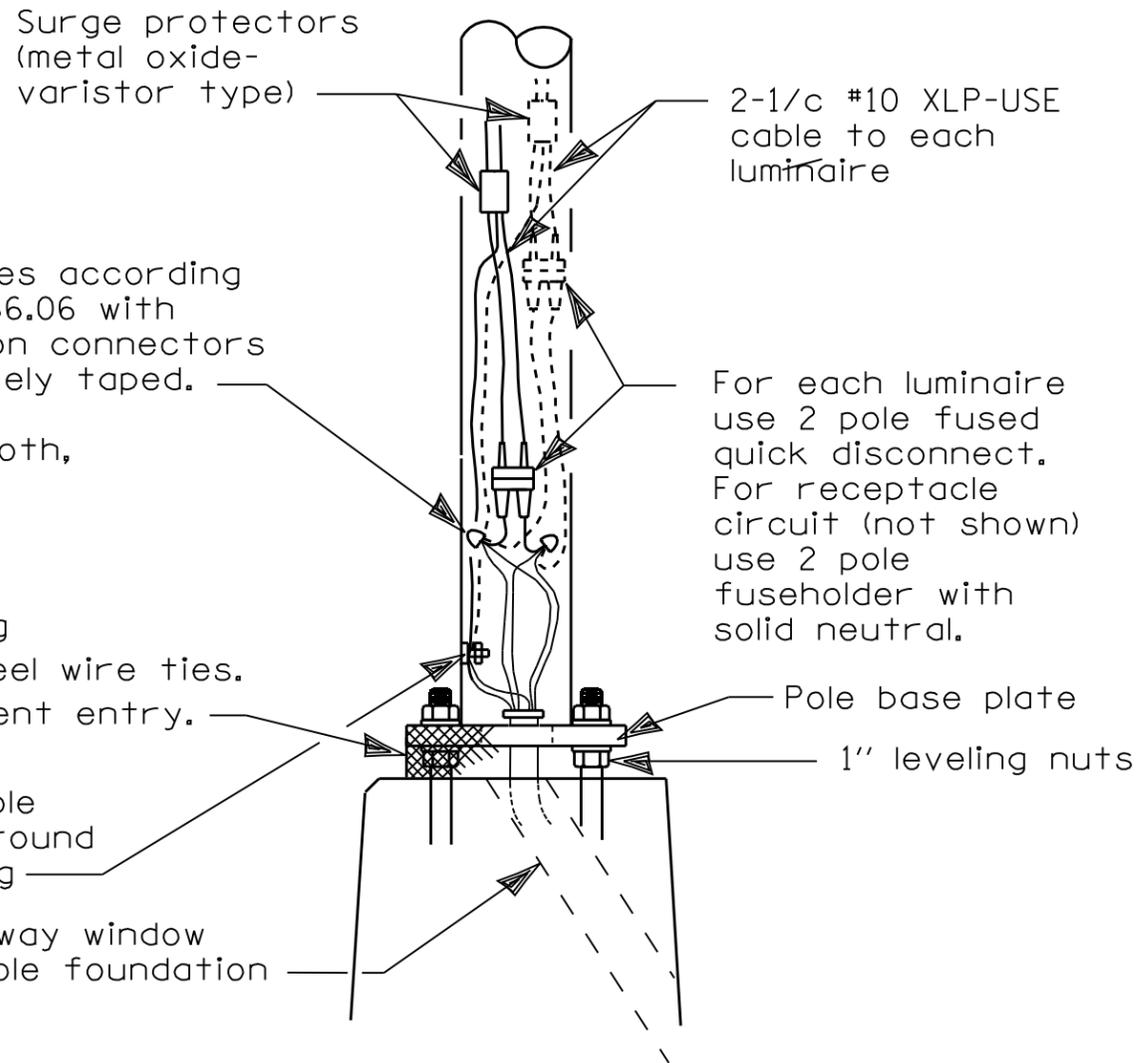
Details for underground distribution if required

CONTRACT: 72D80
SHEET 13 OF 16

DATE	REVISIONS
	Corrected 6/24/09

POLE STANDARDS

Rev.



Cable splices according to Art 1066.06 with compression connectors appropriately taped.

Stainless steel standard grade wire cloth, 6x6 (1/4") mesh or less with #16 gauge (0.062") diameter or heavier wire.

Attach with 1/2" stainless steel banding or tie back on itself with stainless steel wire ties. Finished installation must prevent rodent entry.

Pole ground lug
Wireway window in pole foundation

2-1/2" #10 XLP-USE cable to each luminaire

For each luminaire use 2 pole fused quick disconnect. For receptacle circuit (not shown) use 2 pole fuseholder with solid neutral.

Pole base plate
1" leveling nuts

WIRING DETAIL

NO SCALE

GENERAL NOTES

All taped splices shall use 2 layers of electrical tape over 3 layers of rubber tape as required by the Standard Specifications. Coat the finished taped splice with bonding compound.

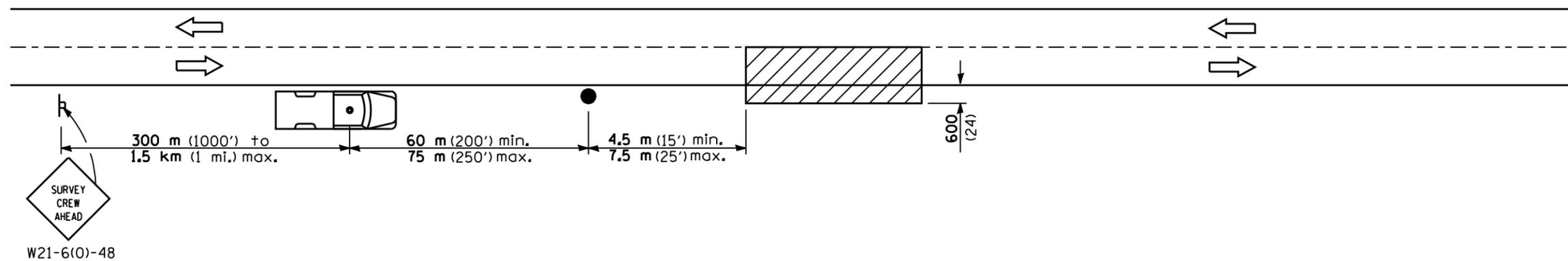
All cable splices shall be taped unless another method has been specifically approved by the Engineer.

For example purposes the pole is shown on an anchor base. If the pole is required to be set on a breakaway base, consult the Standard Specifications.

All dimensions are in millimeters (inches) unless otherwise shown.

CONTRACT: 72D80
SHEET 14 OF 16

DATE	REVISIONS	POLE HANDHOLE WIRING
7/31/08	Updated	



SYMBOLS



Work area



Sign on portable or permanent support



Truck with flashing amber light and dual emergency flashers



Flagger with traffic control sign

TYPICAL APPLICATIONS

Utility operations

All dimensions are in millimeters (inches)
unless otherwise shown.

CONTRACT: 72D80
SHEET 15 OF 16

DATE	REVISIONS

DETAIL FOR
NIGHTTIME LIGHTING
INSPECTION