TENN. STATE HIGHWAYS		
Plans Divn.	File No.	IN-212

REV.10-21-80: ADDED SHEETS 24 & 25 TO INDEX.

FED. ROAD DIST. NO.	TENN	YEAR	SHEET NO.
3		1978	1
FED. AID PROJ. NO.		I-240-1(160)4	
STATE PROJ. NO.		79007-3140-44	

STATE OF TENNESSEE

DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

SHELBY COUNTY

FROM VOLLINTINE AVENUE TO I-40 NEAR SUMMER AVENUE
ON INTERSTATE ROUTE 240

-LIGHTING PLANS-

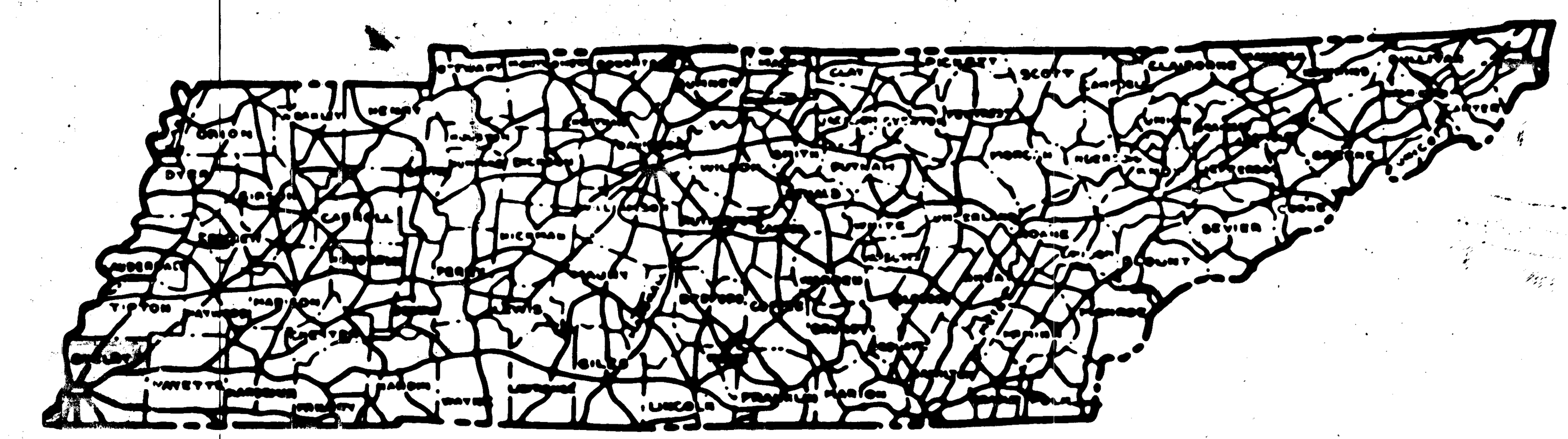
FEDERAL AID PROJECT NO. I-240-1(160)4
STATE PROJECT NO. 79007-3140-44

INTERSTATE HIGHWAY NO. 240 F.A.H.S NO. 79007-3140-44

INDEX OF SHEETS

STANDARD ROADWAY DRAWINGS

DRWG. NO.	CURRENT REVISION DATE	TITLE
S-F-10	2-25-77	STANDARD RIGHT-OF-WAY STOCK FENCE AND CHAIN LINK FENCE
M-8-149	11-20-75	STANDARD DRAWING LIGHT STANDARD SUPPORT DETAILS
RD-A-1	1-1-76	STANDARD ABBREVIATIONS
RD-L-1	3-15-76	STANDARD LEGEND



EQUATIONS	
STATION (BK.) = STATION (AH.)	
℄ STA. 221+75	E.B. ℄ STA. 224+61.07
℄ STA. 221+75	W.B. ℄ STA. 217+46.41
E.B.℄ & W.B.℄ STA. 324+73.66	℄ STA. 324+73.66
℄ STA. 684+85.27	N.B. ℄ STA. 684.85.27
℄ STA. 684+85.27	S.B. ℄ STA. 684.85.27
N.B. ℄ STA. 697+03.71	℄ STA. 784+94
S.B. ℄ STA. 697+67.60	℄ STA. 784+47.84
NET EFFECT ON ENUMERATION = 0.00	

0 1000 2000 4000
SCALE 1" = 2000'

PROJECT LENGTH - 10.8 MILES
NOTE: ALL LENGTHS BASED ON THE AVERAGE LENGTH OF EAST BOUND AND WEST BOUND LANES.

SPECIAL NOTES:
PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN TRAFFIC AT ALL TIMES ON ALL CROSSING ROADS AND FRONTAGE ROADS DURING THE CONSTRUCTION OF THIS PROJECT.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (FORMERLY DEPARTMENT OF HIGHWAYS) DATED JANUARY 1, 1968 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

DESIGNER HARLAND BARTHOLOMEW & ASSOCIATES

J. ROBERT MOORE
PE NO. 3747 STATE OF TENNESSEE

APPROVED Richard L. Iddins Jr.
DESIGN ENGINEER

DATE

APPROVED Lewis Evans
DIRECTOR, BUREAU OF HIGHWAYS

DATE

APPROVED Eddie Shaw
COMMISSIONER

US DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ENGINEER DATE

DESIGNED:
CHECKED:
SURVEY NO.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	2A

REV.7-25-79: CHANGED NOTES CONCERNING HIGH MAST LIGHTING DESIGN.

LIGHTING DESIGN CRITERIA

THE CONVENTIONAL ROADWAY LIGHTING UTILIZES LUMINAIRES WITH A HORIZONTAL BURNING CLEAR HIGH PRESSURE SODIUM VAPOR LAMP. THE LIGHTING DESIGN IS BASED UPON THE CRITERIA DESCRIBED BELOW.

1. MINIMUM AVERAGE HORIZONTAL FOOTCANDLES MAINTAINED ON THE PAVEMENT AT THE END OF RELAMPING PERIOD: 0.6 FOOTCANDLES MAINTAINED (FCM).
2. LUMINAIRE AND LAMP MAINTENANCE FACTOR: 0.72.
3. UNIFORMITY RATIO FOR ROADWAY PAVEMENT: 3:1 OR BETTER.

THE HIGH MAST LIGHTING DESIGN FOR INTERCHANGES UTILIZES LUMINAIRES WITH 1000 WATT CLEAR HIGH PRESSURE SODIUM VAPOR LAMP. THE LIGHTING DESIGN IS BASED UPON THE CRITERIA DESCRIBED BELOW.

1. MINIMUM AVERAGE HORIZONTAL FOOTCANDLES MAINTAINED WITHIN INTERCHANGE PAVEMENT BOUNDARIES AT THE END OF RELAMPING PERIOD: 0.6 FCM.
2. LUMINAIRE AND LAMP MAINTENANCE FACTOR: 0.74.
3. UNIFORMITY RATIO FOR THE INTERCHANGE AREA BOUNDED BY THE PAVEMENT: 4:1 OR BETTER.

THE COMPLETED INSTALLATION SHALL MEET THE CRITERIA DESCRIBED HEREIN.

THE CONTRACTOR SHALL VERIFY THAT THE INSTALLATION MEETS THE LIGHTING DESIGN CRITERIA. COMPUTER PRINTOUTS SHOWING ILLUMINATION FOR SAMPLE ROADWAY SECTIONS AND THE INTERCHANGE ROADWAYS ARE ACCEPTABLE. ILLUMINATION CHARACTERISTICS FOR EACH TYPE LUMINAIRE AND LAMP WHICH ARE COMPATIBLE WITH TENNESSEE D.O.T. PRACTICES SHALL BE FURNISHED TO THE ENGINEER.

WORK PERFORMED BY OTHERS

CERTAIN PORTIONS OF THE CONDUIT SYSTEM FOR STRUCTURES HAVE BEEN INSTALLED UNDER PREVIOUS CONTRACTS. CONDUIT UNDER THE ROADWAY HAS BEEN INSTALLED IN CERTAIN LOCATIONS. THE CONDUIT LOCATIONS HAVE BEEN NOTED BY LIGHTING CABLE MARKERS.

THE CONTRACTOR SHALL COORDINATE HIS REQUIREMENTS FOR WORK TO BE PERFORMED BY MEMPHIS LIGHT, GAS AND WATER DIVISION (MLG&W) WITH ELECTRIC ENGINEERING DEPARTMENT OF THAT UTILITY.

ROADWAY LIGHTING STANDARDS

ALL ROADWAY LIGHTING STANDARDS SHALL HAVE BREAKAWAY BASES MEETING REQUIREMENTS OF THE SPECIAL PROVISIONS AND THE DETAILS SHOWN ON THE PLANS.

LIGHTING STANDARDS SHALL GENERALLY BE SET BACK FROM THE EDGE OF THE ROADWAY OR RAMP PAVEMENT. UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER, THE FOLLOWING SETBACK AND BRACKET ARM LENGTH CRITERIA APPLY:

A. ROADWAY LIGHTING STANDARDS NOT LOCATED BEHIND GUARDRAIL SHALL NORMALLY BE SET BACK 20 FEET FROM THE EDGE OF THE ROADWAY OR RAMP PAVEMENT. BRACKET ARM LENGTHS SHALL BE 15'0" OR 20'0" AS INDICATED ON THE PLANS.

B. ROADWAY LIGHTING STANDARDS LOCATED BEHIND GUARDRAIL SHALL NORMALLY BE SET BACK THREE FEET BEHIND THE GUARDRAIL. BRACKET ARM LENGTHS SHALL BE 10'0" OR 15'0" AS INDICATED ON THE PLANS.

C. EXCEPTIONS TO THE ABOVE ARE INDICATED ON THE PLAN SHEETS. THE LOCATION AND BRACKET ARM LENGTH DATA SHOWN FOR THE SPECIFIC LOCATION SHALL APPLY.

NORMAL MOUNTING HEIGHT FOR ROADWAY LIGHTING LUMINAIRES IS 45 FEET IN ELEVATION AT EDGE OF TRAVELED WAY TO THE CENTER OF THE LUMINAIRE. THE CONTRACTOR SHALL DETERMINE, BY FIELD CHECK, SLOPE CONDITIONS AT EACH STANDARD LOCATION FOR EFFECT ON TOP OF FOUNDATION ELEVATION. HE SHALL DETERMINE EQUIPMENT REQUIREMENTS TO OBTAIN THE MOUNTING HEIGHT. VARIATIONS IN MOUNTING HEIGHT SHALL NOT EXCEED ± 1'0". THE ROADWAY LIGHTING STANDARD FOUNDATION SHOWN ON THE PLANS IS BASED ON 45-FOOT MOUNTING HEIGHT. WHERE SOIL CONDITIONS DO NOT MEET THE ENGINEER'S APPROVAL, THE FOUNDATION SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

HIGH MAST LIGHT STANDARDS

HIGH MAST LIGHT STANDARDS SHALL GENERALLY BE SET BACK FROM THE PAVEMENT EDGE A MINIMUM DISTANCE OF 50 FEET WHERE NOT PROTECTED BY GUARDRAIL.

STANDARDS FOR ALL LOCATIONS SHALL BE FABRICATED OF GALVANIZED STEEL.

THE MOUNTING HEIGHT FOR THE LUMINAIRES IS SHOWN ON THE PLANS. THIS HEIGHT SHALL BE DEFINED AS THE ASSEMBLED LENGTH OF THE MONOTUBE SECTIONS INCLUDING THE BASEPLATE. FOR HIGH MAST LIGHT STANDARD FOUNDATIONS, THE CONTRACTOR SHALL CONSTRUCT FOUNDATIONS ACCORDING TO DETAILED DRAWINGS INCLUDED IN THIS ASSEMBLY. THE STATED HEIGHT IS THE MAXIMUM POLE HEIGHT ALLOWED FOR THE FOUNDATION.

THE GENERAL REQUIREMENTS FOR HIGH MAST STANDARDS ARE DETAILED IN THE PLANS AND SHALL BE FURNISHED TO FUNCTION AS A COMPLETE ASSEMBLY.

OPTICAL CHARACTERISTICS OF LUMINAIRE MANUFACTURERS MAY PERMIT THE CONTRACTOR TO MEET THE DESIGN CRITERIA BY REDUCING MOUNTING HEIGHTS OR INCREASING THE NUMBER OF LUMINAIRES. THE 50-FOOT MINIMUM OFFSET FROM PAVEMENT SHALL BE MAINTAINED; THE MOUNTING HEIGHTS SHALL NOT BE INCREASED; AND THE NUMBER OF LUMINAIRES SHALL NOT BE REDUCED. ADJUSTMENTS TO USE A SPECIFIC PRODUCT TO MEET DESIGN CRITERIA WHICH INCREASE QUANTITIES OF HIGH MAST STANDARDS OR LUMINAIRES WILL NOT BE ELIGIBLE FOR ADDITIONAL PAYMENT BUT SHALL BE ABSORBED IN STATED PAY ITEMS AND QUANTITIES.

STRUCTURE LIGHTING

THE STRUCTURE LIGHTING FOR BRIDGES SHALL CONSIST OF STANDARDS MOUNTED ON LIGHT STANDARD SUPPORTS WHICH WERE PROVIDED ON PREVIOUS CONTRACTS. REQUIRED LOCATIONS ARE SHOWN ON THE PLANS. THE BOLT CIRCLE DIAMETER VARIES. THE PLANS AND DETAILS INDICATE BOLT CIRCLE DIAMETER WHERE NECESSARY.

WHERE EXISTING CONDUIT IN STRUCTURES IS USED FOR ROADWAY LIGHTING CIRCUITS, THERE ARE CASES WHERE THE CABLES WILL LOOP THROUGH THE SUPPORT. AT LOCATIONS WHERE STANDARDS ARE NOT REQUIRED AND CABLES LOOP THROUGH THE SUPPORT, AN ALUMINUM BASE SHALL BE INSTALLED AS DETAILED IN THE PLANS ON SHEET 2L.

UNDERPASS LIGHTING SHALL BE INSTALLED ON CERTAIN STRUCTURES. THE CONTRACTOR SHALL INSTALL WIRING IN THE EXISTING CONDUIT SYSTEM FOR STRUCTURES AND LUMINAIRES SHALL BE MOUNTED AS DETAILED. THE CONTRACTOR SHALL EXTEND CONDUIT AND WIRING AS NECESSARY TO SERVE UNDERPASS LUMINAIRES FROM ROADWAY LIGHTING CIRCUITS.

ELECTRICAL SERVICE

THE COSTS FOR WORK PERFORMED BY MLG&W TO EXTEND LINES, INSTALL TRANFORMERS AND MAKE CONNECTIONS WILL BE CHARGED TO THE CONTRACTOR. THE UNIT PRICE IS ESTABLISHED FOR EACH LOCATION AND INCLUDED IN THE PROPOSAL DOCUMENTS. SEE SPECIAL PROVISION REGARDING ELECTRICAL CONNECTIONS.

GROUNDING

ALL EXPOSED NONCURRENT CARRYING PARTS OF METALLIC EQUIPMENT SHALL BE GROUNDED WITH DRIVEN RODS AND COPPER CONDUCTORS.

FENCING

FENCING IN THIS PROJECT INCLUDES 6 FT. CHAIN LINK FENCE AND GATES. LOCATIONS OF THE VARIOUS FENCE TYPES SHALL BE AT THE CONTROL CENTERS. PLANS FOR FENCE ARE SHOWN ON CONTROL CENTER DETAIL DRAWINGS. MLG&W SHALL BE CONTACTED TO PROVIDE LOCKS.

EXISTING CONDITIONS AND UTILITIES

IN THE VICINITY OF HIGH MAST LIGHTING STANDARDS EXISTING DRAINAGE STRUCTURES AND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND WHERE NECESSARY, WILL BE PERMITTED TO ADJUST FOUNDATION LOCATIONS A DISTANCE NOT EXCEEDING 25 FEET FROM THE POINT SHOWN ON THE PLANS. A 50 FOOT OFFSET FROM PAVEMENT OF INTERSTATE HIGHWAY AND RAMPS SHALL BE MAINTAINED. HIGH MAST STANDARDS SHALL NOT BE LOCATED IN RIGHT OF WAY DESIGNATED FOR TRANSMISSION LINES. CAUTION SHALL BE EXERCISED IN ERECTING LIGHTING STANDARDS IN THE VICINITY OF TRANSMISSION LINES.

TRAFFIC CONTROL

CONTROL OF TRAFFIC IN THE I-240, I-40, SUMMER AVENUE INTERCHANGE AND ON CROSS STREETS SHALL BE PAID FOR IN PAY ITEM 713-20.

EQUIPMENT REMOVED FROM SERVICE

BETWEEN VOLLINTINE AND CHELSEA AND IN THE I-40 SUMMER AVENUE INTERCHANGE, LIGHTING STANDARDS AND EQUIPMENT SHALL BE REMOVED. LIGHTING STANDARDS, BRACKETS AND LUMINAIRES SHALL REMAIN PROPERTY OF CITY OF MEMPHIS FOR HIGHWAY LIGHTING PURPOSES. THE MATERIAL SHALL BE STOCKPILED ON THE PROJECT SITE IN LOCATIONS DESIGNATED BY THE ENGINEER.

EXISTING 45 FT. POLE WITH 700 WATT MERCURY LAMP TO BE REMOVED

EXISTING 45 FT. POLE WITH 700 WATT MERCURY LAMP TO REMAIN IN SERVICE

EXISTING 35 FT. POLE WITH 400 WATT MERCURY LAMP TO REMAIN IN SERVICE

PROPOSED 35 FT. WOOD POLE AND LUMINAIRE, 400 WATT MERCURY LAMP

PROPOSED 35 FT. CONCRETE POLE AND LUMINAIRE, 400 WATT MERCURY LAMP

PROPOSED STEEL POLE AND LUMINAIRE, 400 WATT MERCURY LAMP (MOUNTING HEIGHT AS SHOWN ON PLANS)

EXISTING 35 FT. POLE WITH 400 WATT MERCURY LAMP TO BE REPLACED WITH 45 FT. POLE AND 250 WATT SODIUM LAMP

PROPOSED 45 FT. POLE AND LUMINAIRE, 250 WATT HIGH PRESSURE SODIUM LAMP

PROPOSED 35 FT. POLE AND LUMINAIRE, 250 WATT HIGH PRESSURE SODIUM LAMP

PROPOSED UNDERPASS LUMINAIRE

PROPOSED HIGH MAST POLE WITH 1000 WATT LUMINAIRES (SEE PLANS FOR MOUNTING HEIGHT AND NO. OF FIXTURES)

PROPOSED SERVICE POINT

EXISTING SERVICE POINT

EXISTING BRIDGE PULL BOX

PROPOSED UNDERGROUND PULL BOX

PROPOSED BASE ON EXISTING BRIDGE LIGHT STANDARD SUPPORT

EXISTING WIRING

PROPOSED ROADWAY CONDUIT CROSSING

PROPOSED WIRING (NUMBER OF CONDUCTORS AND SIZE INDICATED ON PLANS AND DETAIL SHEETS)

PROPOSED WIRING IN EXISTING CONDUIT

EXISTING CONDUIT CROSSING

P — PROPOSED OVERHEAD POWER LINE

P — EXISTING OVERHEAD POWER LINE

EXISTING CONDUIT MARKER

OVERHEAD SIGN STRUCTURE (PULL BOX REQUIRED WHERE INDICATED ON PLANS)

PROPOSED CABLE MARKER

HIGH MAST POLE & FIXTURE

①

STA. 390 + 20 LT. 150'± ℄ I-240

130 HT., PH 4, AB, ASYM.

② ③④⑤ ⑦

① LOCATION
② MOUNTING HEIGHT, HIGH MAST ONLY
③ CONTROL CENTER
④ CIRCUIT NUMBER
⑤ CIRCUIT PHASE TO NEUTRAL OR BOTH PHASES WHERE REQUIRED
⑥ BRACKET ARM LENGTH, ROADWAY AND BRIDGES ONLY
⑦ LIGHT DISTRIBUTION TYPE

ROADWAY POLE & FIXTURE

①

STA. 355 + 30 RT. ℄ I-240

PL 2, AN, 15, II

③④ ⑤ ⑥ ⑦

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GENERAL NOTES AND LEGEND

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2B

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

SUMMARY OF QUANTITIES / TABULATED QUANTITIES

ITEM NO.	DESCRIPTION	(As Built)	UNIT	QUANTITY	SHEET 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
~~109-10.01~~	Trainee	0	Hour	~~4000~~																				
201-02	Mobilization		L.S.	1																				
713-20	Traffic Control Devices (Construction)		L.S.	1																				
714-02.01	Encased Conduit (2" Rigid Metallic)	80	Lin. Ft.	~~100~~ ①																				
714-03	Jacked or Bored Conduit	990	Lin. Ft.	~~650~~																			100	550
714-04.01	Conduit (Structures) (2" Rigid Metallic)	70	Lin. Ft.	~~90~~																				
714-04.02	Conduit (Structures) (1" Rigid Metallic)	0	Lin. Ft.	~~50~~ ①																				90
714-04.03	Conduit (Structures) (1" Liquid tight Flexible)	45	Lin. Ft.	~~36~~																	36			
714-05.01	Pull Boxes		Each	27						2			3		1			2					8	11
714-06.01	Cable (Copper - 1/0 Ga. RHW)	124,815	Lin. Ft.	~~113,760~~					3,555	7,545	13,575	17,150	16,160	300	6,180	7,845	4,185		4,710	165	19,830		3,720	8,850
714-06.03	Cable (Copper - 2 Ga. RHW)	211,100	Lin. Ft.	~~190,540~~				1,605	16,155	19,285	7965		13,825	14,480	19,595	3,495	2,655	5,895	14,640	37,240	11,085	11,355	3,705	6,780
714-06.05	Cable (Copper - 4 Ga. RHW)	58,093	Lin. Ft.	~~55,225~~			1,110	10,095	9,625				3005	1,705	2,430	19,230	7,425							
714-06.07	Cable (Copper - 6 Ga. RHW)	83,245	Lin. Ft.	~~62,345~~		18,050	6,440	8,910			6,200							8,750	945		1,395	6,330	690	4,035
714-06.08	Cable (Copper - 6 Ga. THW)	164,331	Lin. Ft.	~~142,865~~		6,000	2,600	7,170	9,640	8,370	9,350	5,830	11,170	6,075	9,350	10,350	4,960	5,550	6,175	12,300	10,375	7,050	2700	7,850
714-06.09	Cable (Copper - 10 Ga. THW)	7,038	Lin. Ft.	~~6860~~						840			1,560					2,840			1,620			
714-08.01	Light Standard (Prestressed Concrete)		Each	6							6													
714-08.04	Light Standard (Wood)		Each	4						4														
714-08.05	Light Standard (Steel--45' Ht.)		Each	230		20	10	12	6	2	26	22	2	14		16	17		12	42	4	25		
714-08.13	Light Standard (Galvanized Steel 130' Ht. with Lowering Device)		Each	52				2	6	7			8	1	8		1	6	1		4		3	5
714-08.14	Light Standard (Galvanized Steel 120' Ht. with Lowering Device)		Each	4					2				1											1
714-08.15	Light Standard (Galvanized Steel 100' Ht. with Lowering Device)		Each	1																				1
714-08.16	Light Standard (Galvanized Steel 90' Ht. with Lowering Device)		Each	18					1	3			2		2		1	3	1		3			2
714-08.17	Light Standard (Steel--30' Ht.)		Each	5							5													
714-08.18	Light Standard (Steel--35' Ht.)	47	Each	~~48~~		2		10					1	9		24				2				
714-08.21	Replace Light Pole		Each	12	8	4																		
714-08.32	Removal of Light Standard and Foundation	90	Each	~~87~~																			21	66
714-09.01	Luminaire (400 watt Mercury Horizontal)		Each	31						4	11					16								
714-09.02	Luminaire (250 watt H. P. Sodium Horizontal)	279	Each	~~277~~	8	26	10	22	6	2	26	22	3	23		24	17		12	44	4	25	3	
714-09.03	Luminaire (1000 watt H. P. Sodium Vertical)		Each	262				8	34	34			40	4	36		6	30	6		22		12	30
714-09.04	Luminaire (150 watt H. P. Sodium Underpass)		Each	62						14			12					24			12			
714-10.01	Overhead Conductors (ACSR-2GA. WP)		Lin. Ft.	2,445						2,445														
714-11	Cable Markers		Each	23									1										6	16
714-12.01	Control Center (Primary Service)	4	Each	~~5~~							1		+		1	1					1			
714-12.02	Control Center (Secondary Service)	0	Each	~~4~~			+		+	+									+					
714-12.11	Modify Existing Control Center		Each	2																			2	
714-20.01	Aluminum or Transformer Base	25	Each	~~16~~ ②						6			4					4			2			
714-25.01	Electrical Connection (Levee Access Rd.)		L.S.	1			1																	
714-25.02	Electrical Connection (Hindman Avenue, West)		L.S.	1					1															
714-25.03	Electrical Connection (Hindman Avenue, East)		L.S.	1						1														
714-25.04	Electrical Connection (Watkin, North)		L.S.	1						1														
714-25.05	Electrical Connection (McLean, North)		L.S.	1							1													
714-25.06	Electrical Connection (Hollywood, North)		L.S.	1									1											
714-25.07	Electrical Connection (Warford, North)		L.S.	1											1									
714-25.08	Electrical Connection (Highland North)		L.S.	1												1								
714-25.09	Electrical Connection (Tant Street South)		L.S.	1															1					
714-25.10	Electrical Connection (Covington Pike South)		L.S.	1																	1			
714-25.11	Electrical Connection (I-40, Summer Ave., East)		L.S.	1																			1	
714-25.12	Electrical Connection (I-40, Summer Ave., West)		L.S.	1																			1	
714-30	As Built Plans (Lighting)		Each	2																				
714-05.015	PULL BOXES S.A. #2		EACH	46																				
714-12.021	CONTROL CENTER (SECOND SERVICE) S.A. #4		EACH	4			1		1	1									1					
714-12.015	CONTROL CENTER (PRIMARY SERVICE) S.A. #3		EACH	1									1											

Note:
① Contingency Item
② See sheet no. 2L for details.

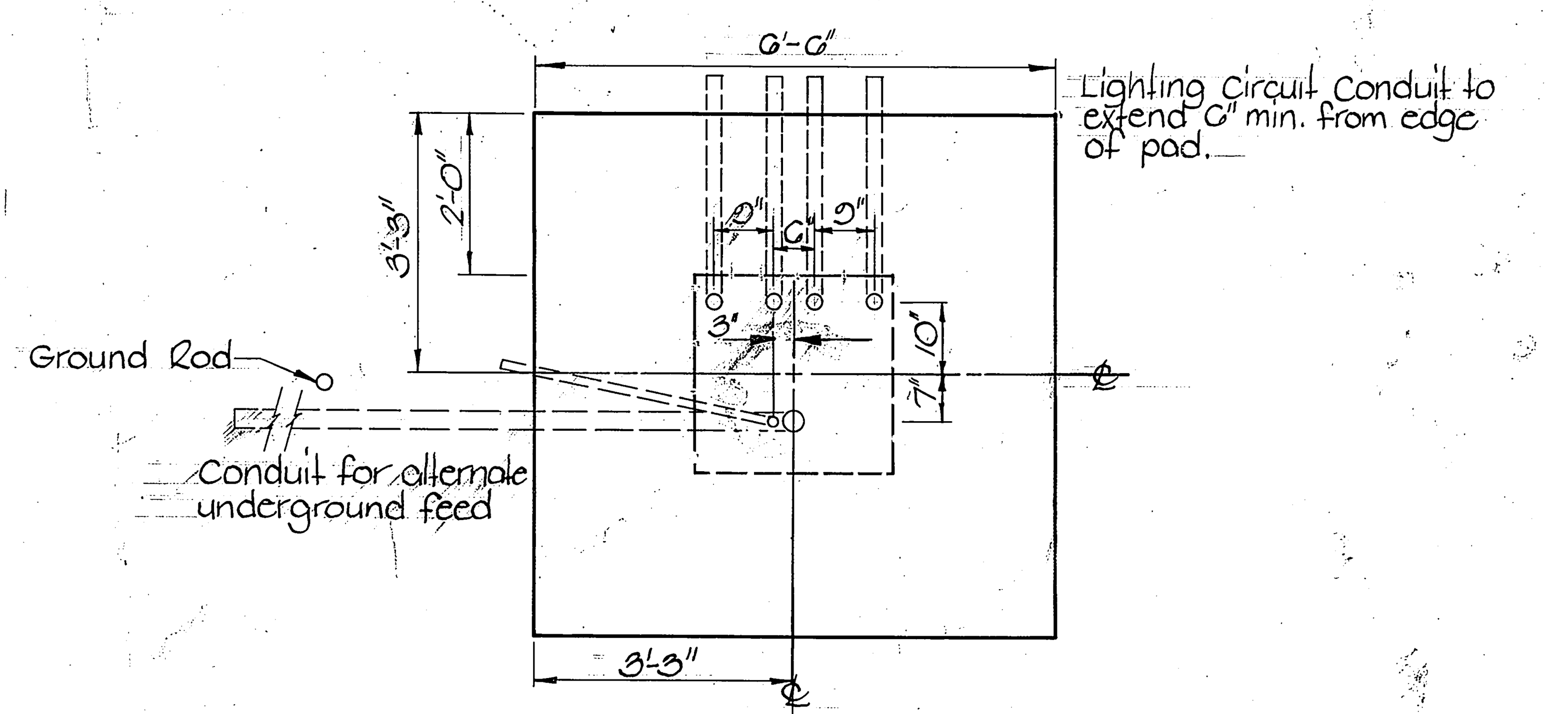
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

QUANTITIES

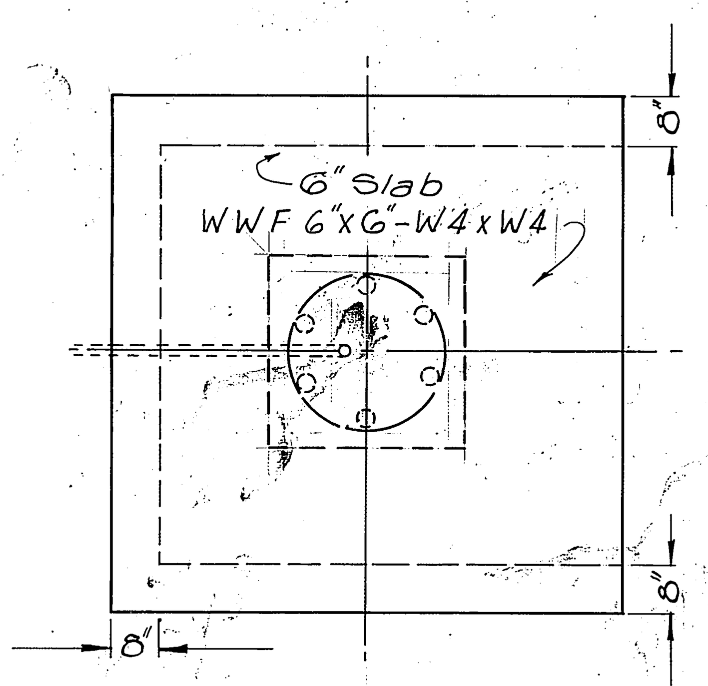
ROADWAY

TENN. STATE HIGHWAYS
Plans Divn. | File No. IN-2/2

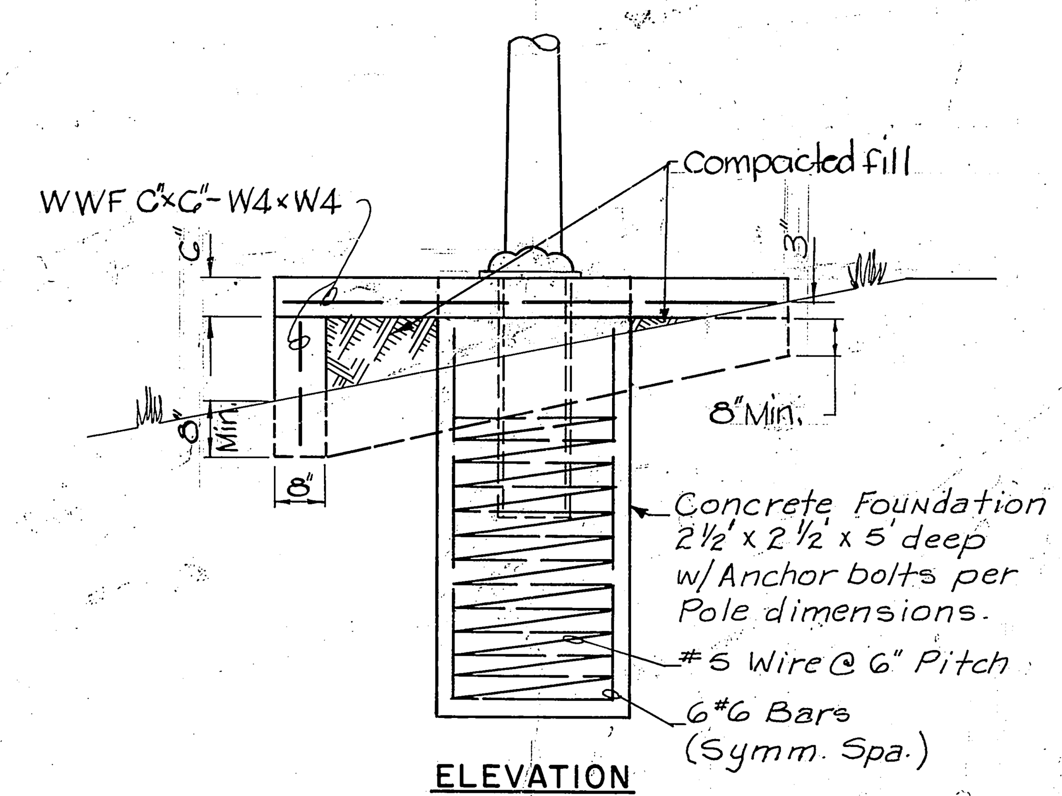
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	2C



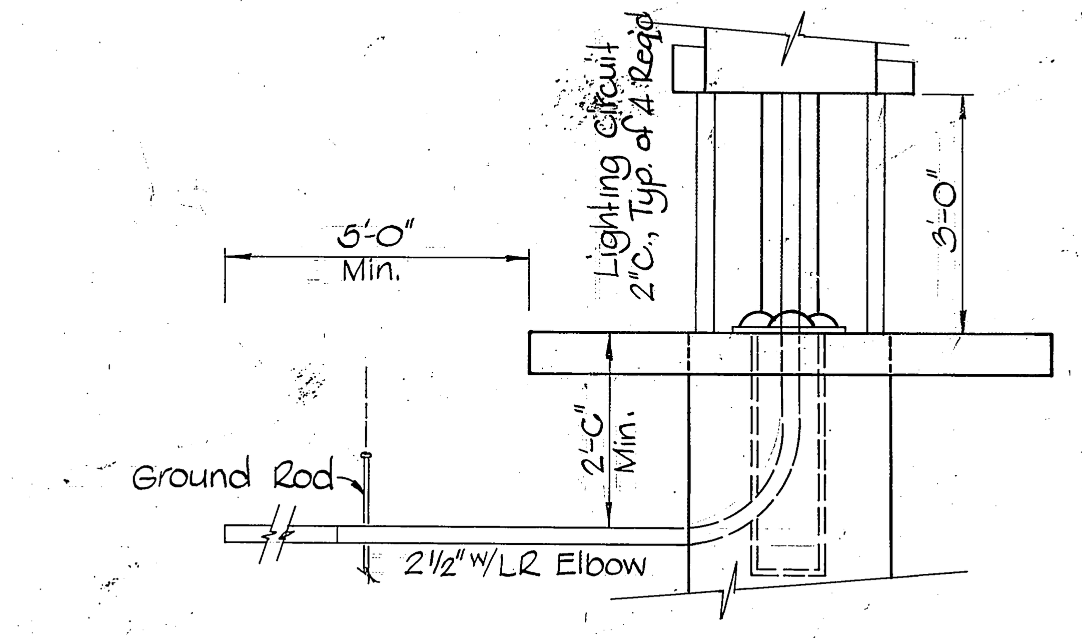
PLAN OF PAD
No Scale



PLAN



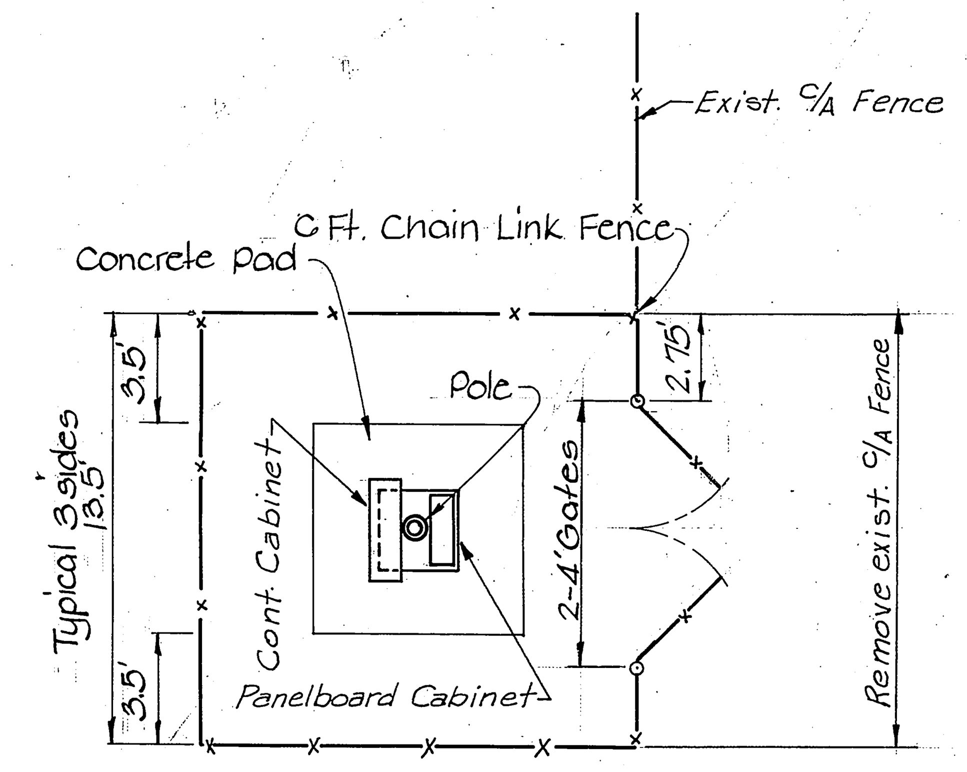
ELEVATION
FOUNDATION DETAILS
No Scale



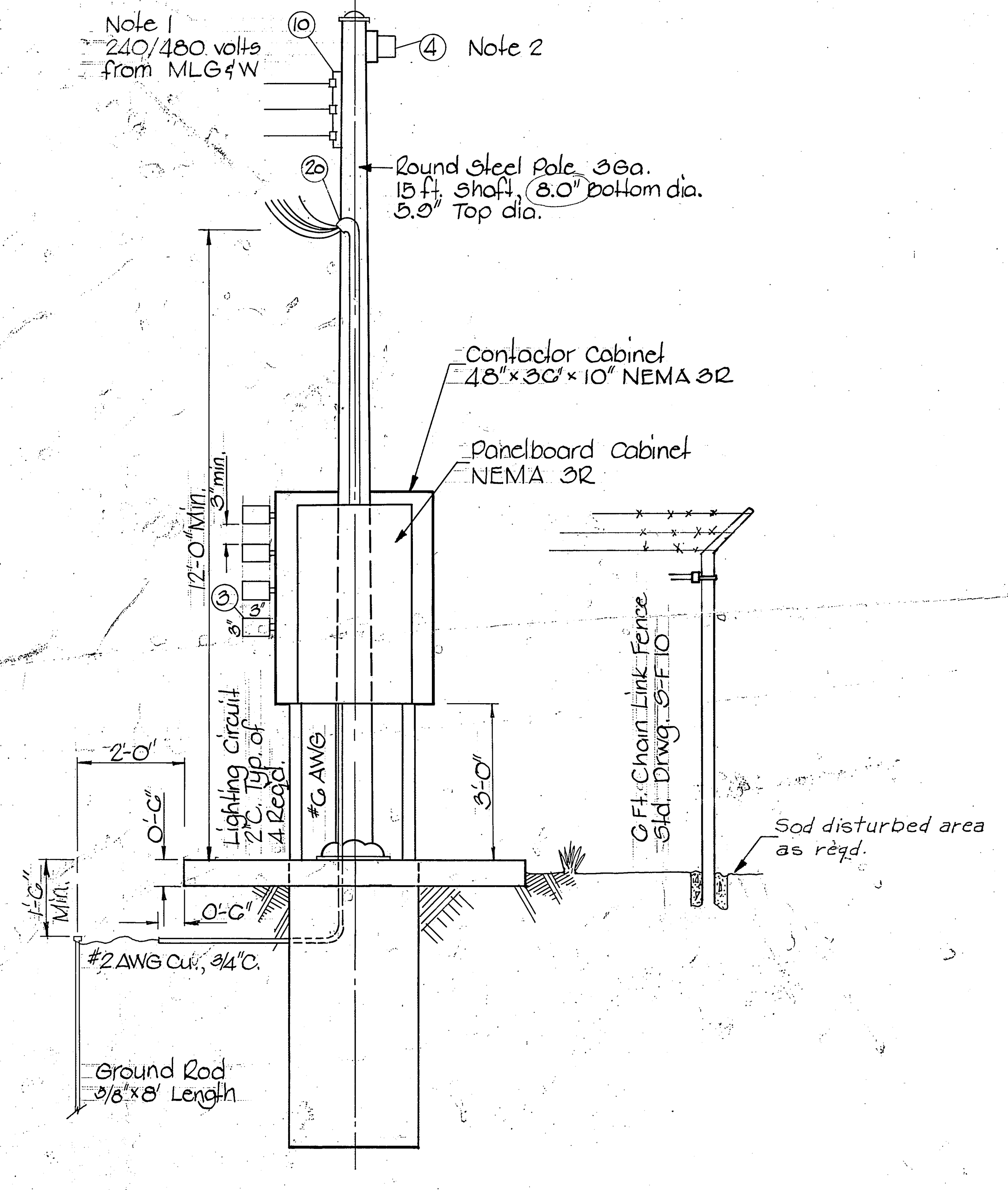
ALTERNATE UNDERGROUND FEED
No Scale

Estimated Foundation And Pad Quantities
Class A Concrete 4.3 Cu. yds.
Steel Wire and Bar Reinf. 142 lbs.
Dry Excavation 5.0 Cu. yds.

Estimated Fence And Gate Quantities
Chain Link Fence (6' Ht.) w/3 Strands Barb Wire 46 Linear Ft.
Chain Link Gates (6' Ht.) 8 Linear Ft.

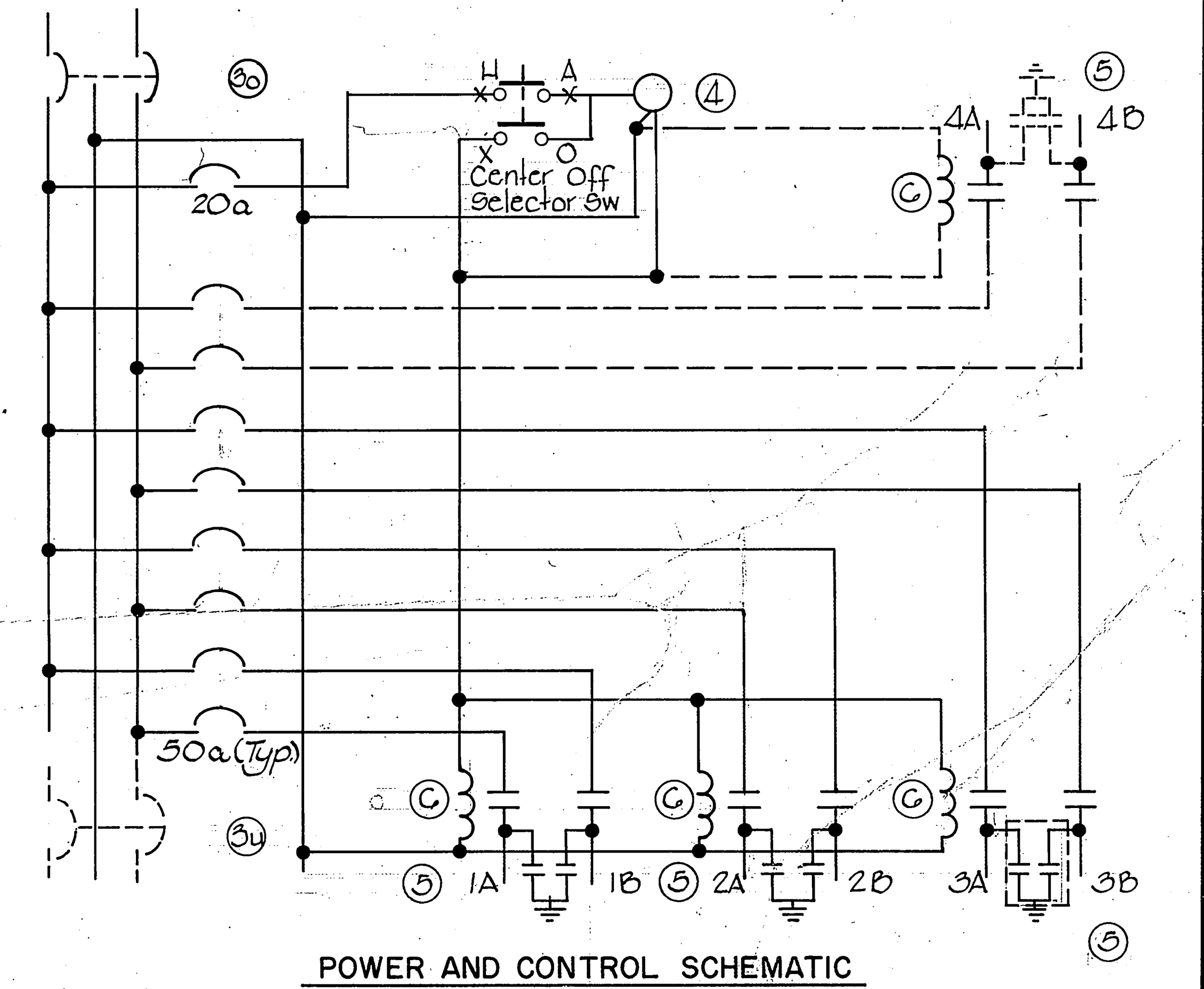


LOCATION PLAN
Scale 1"=5.0'
Note: Offset and Station References on Plans to Center of Pole



CONTROL CENTER DETAIL
Scale ½"=1'-0"

CONTROL CENTER AT 240/480V.



POWER AND CONTROL SCHEMATIC

Electrical Material

(1) Secondary Service Rack, w/insulators, 8" Spacing, 3 wire. (Note 1.)

(2) Galvanized 2½" C. and Weatherhead. (Note 1.)

(3a) (3b) Panelboard-- 12 Circuits w/Main Breaker Rated 480 vac w/225a Mains, Circuit Breakers Fed. Spec. W-C-375a Mains 2P, Class 3b Branches 1P & 2P Class 2a, 2d (For overhead top entry, for underground bottom entry.)

(4) Photoelectric Relay 105-285 volts Supply, 1800 va Rating.

(5) Lightning Arrester indoor-outdoor types with nipple mounting. Single Phase 2 pole, 650v. between phases Max.

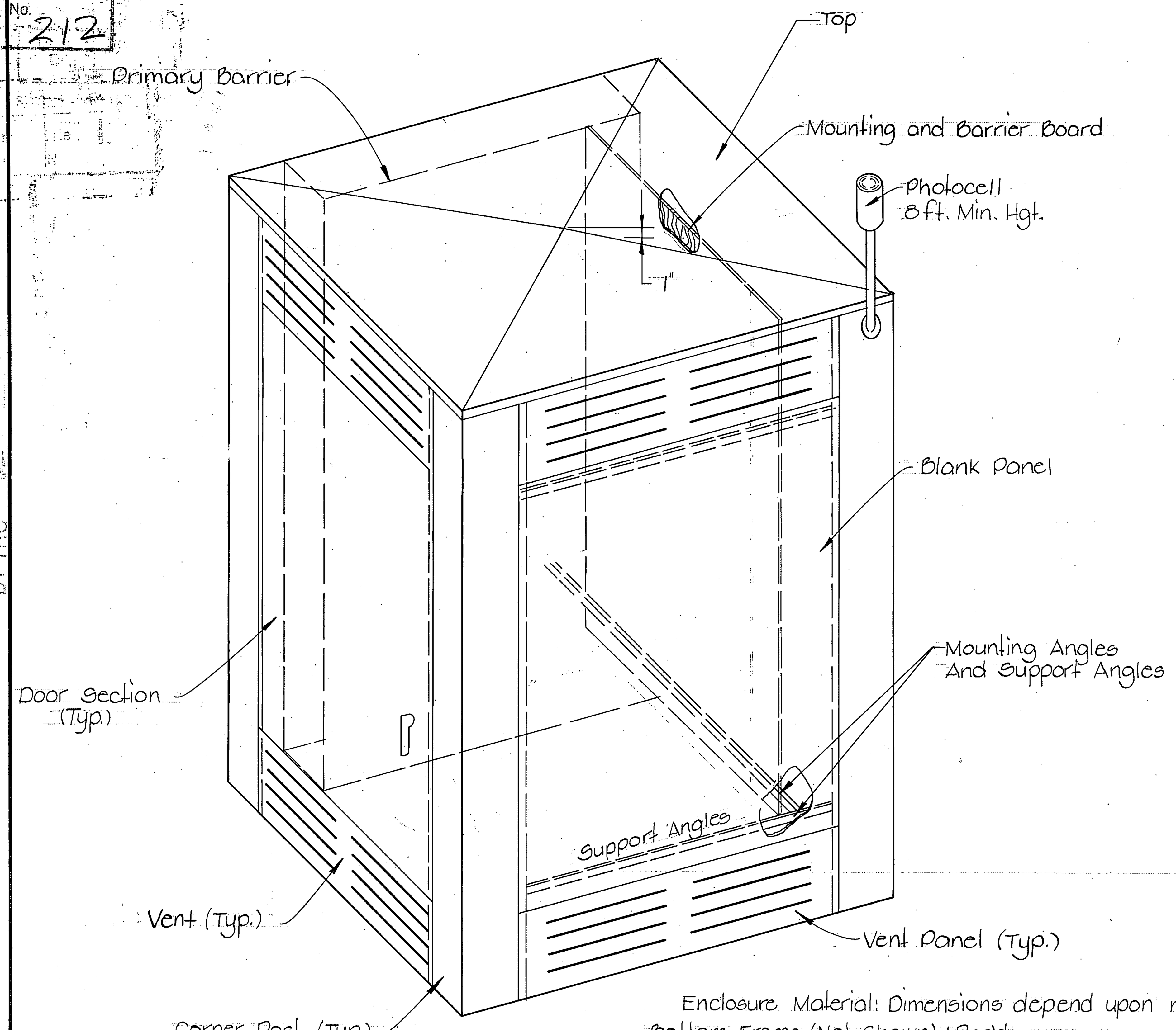
(C) AC Lighting Contactor-- 600 v., 60 amp., 240 volts, 60 hz., Control, 2 poles Enclosure NEMA 1 each. (See Note 3.)

NOTES:
1. Service shown is overhead. The Contractor shall contact MLG&W Division to determine necessity for underground feed at any location. If necessary for underground feed; secondary service rack, 2½"C. and weatherhead shall be replaced with underground 2½" conduit entry per underground feed detail.
2. Contractor to contact MLG&W Division for acceptable photoelectric controller and mounting arrangements.
3. Contractor shall install terminal block for wiring from lighting system. Connections between terminal block and contactor lug shall be made with maximum wire size which can be connected to the lug.
4. All labor, material & equipment reqd. to construct control center to be included in unit price for Item 714-12.02. See special provisions.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SECONDARY SERVICE CONTROL CENTER DETAIL

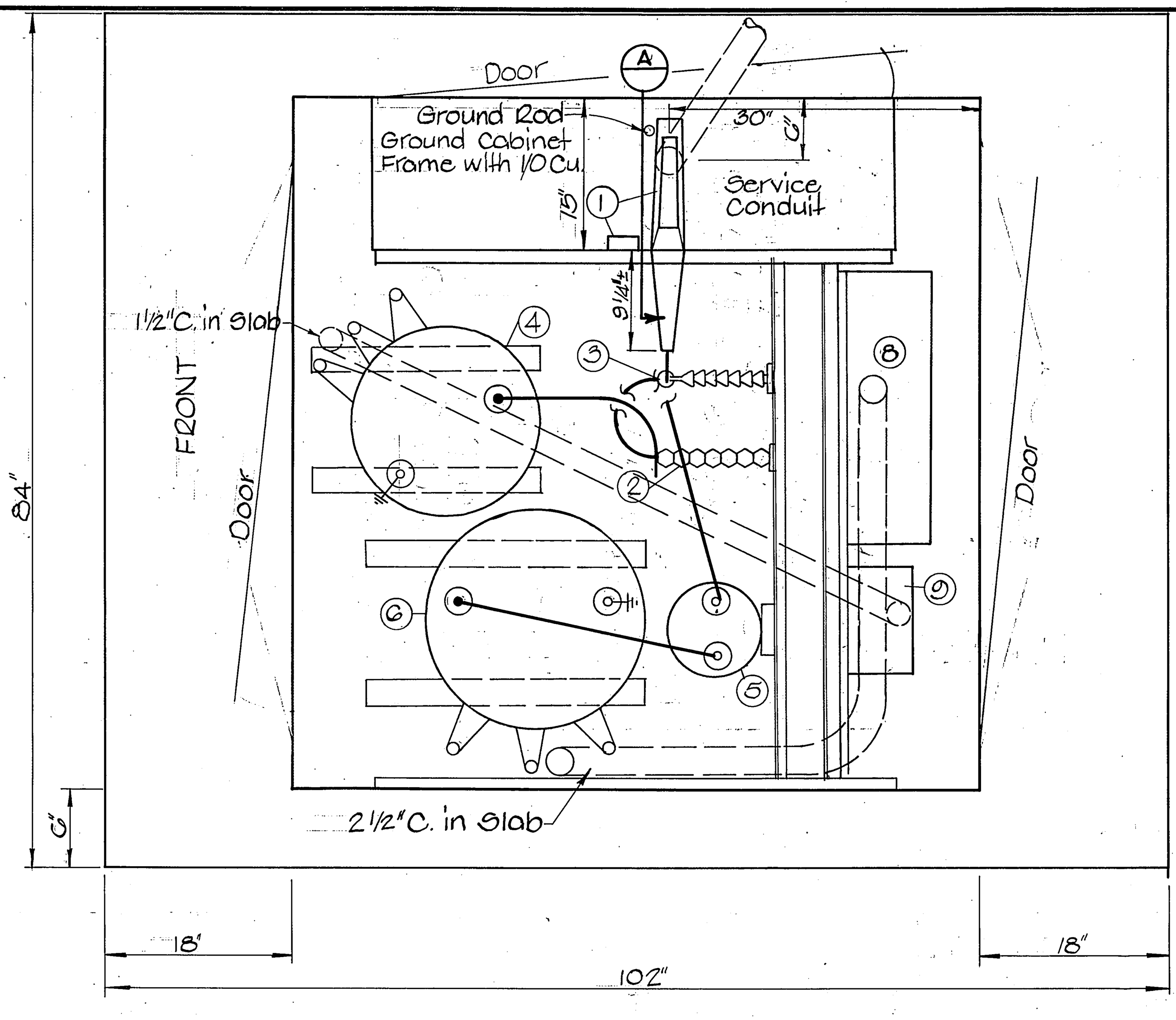
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2D



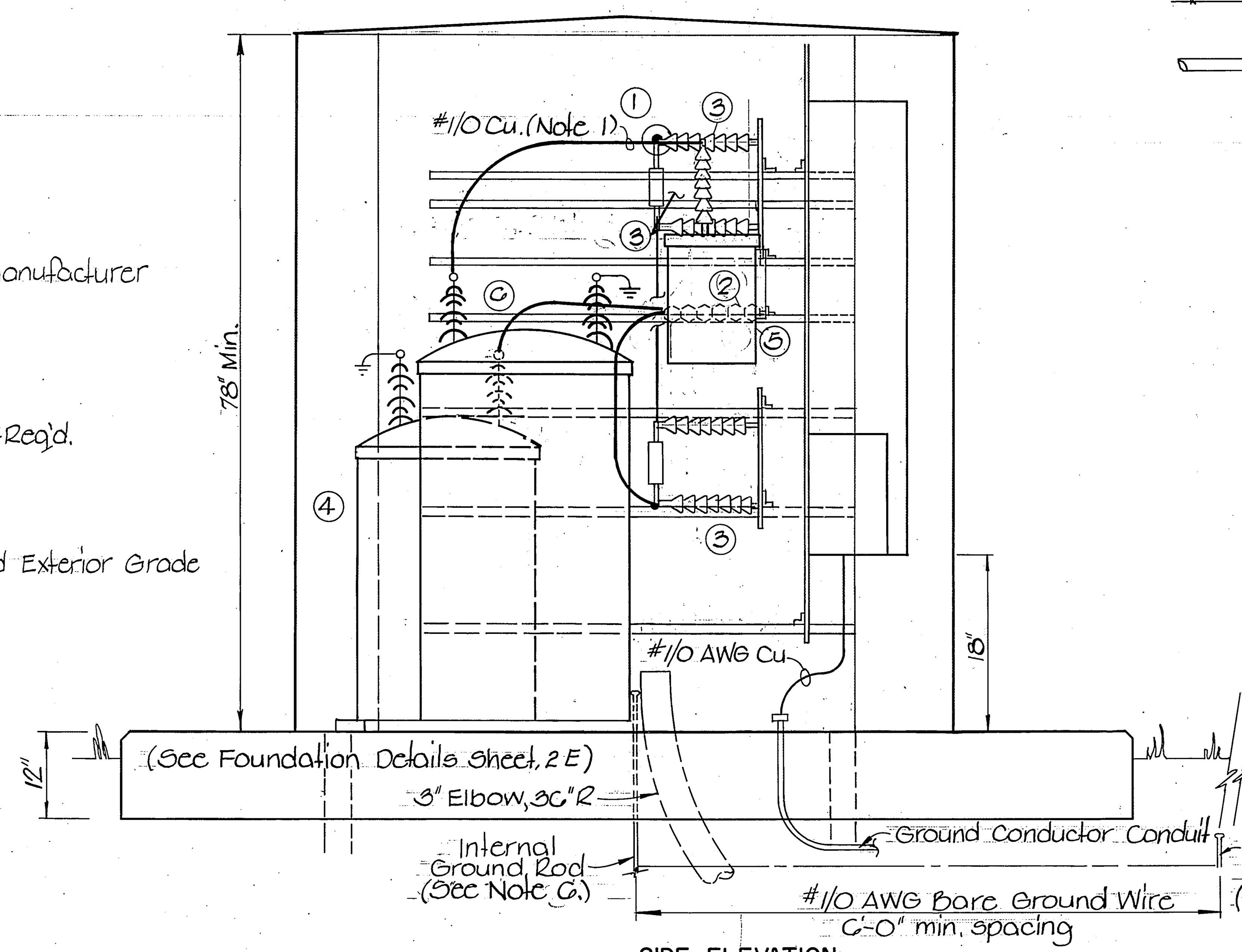
Enclosure Material: Dimensions depend upon manufacturer
- Bottom Frame (Not Shown), 1 Req'd.
- Top Frame (Not Shown), 1 Req'd.
- Top, 1-Req'd.
- Corner Posts, 4-Req'd.
- Primary Barrier, 1-Req'd.
- Door Sections, Minimum opening 1900 sq. in., 3-Req'd.
- Blank Panel, 1-Req'd.
- Vent Panels, 2-Req'd. (Note 4)
- Support Angles As Req'd.
- Mounting Angles As Req'd.
- Mounting And Barrier Board, 48"x60"x1/2", Plywood Exterior Grade
- Mounting Channels

TRANSFORMER ENCLOSURE DETAIL

Note: If contractor proposes to use alternate configurations. MLG&W approval required prior to bidding.

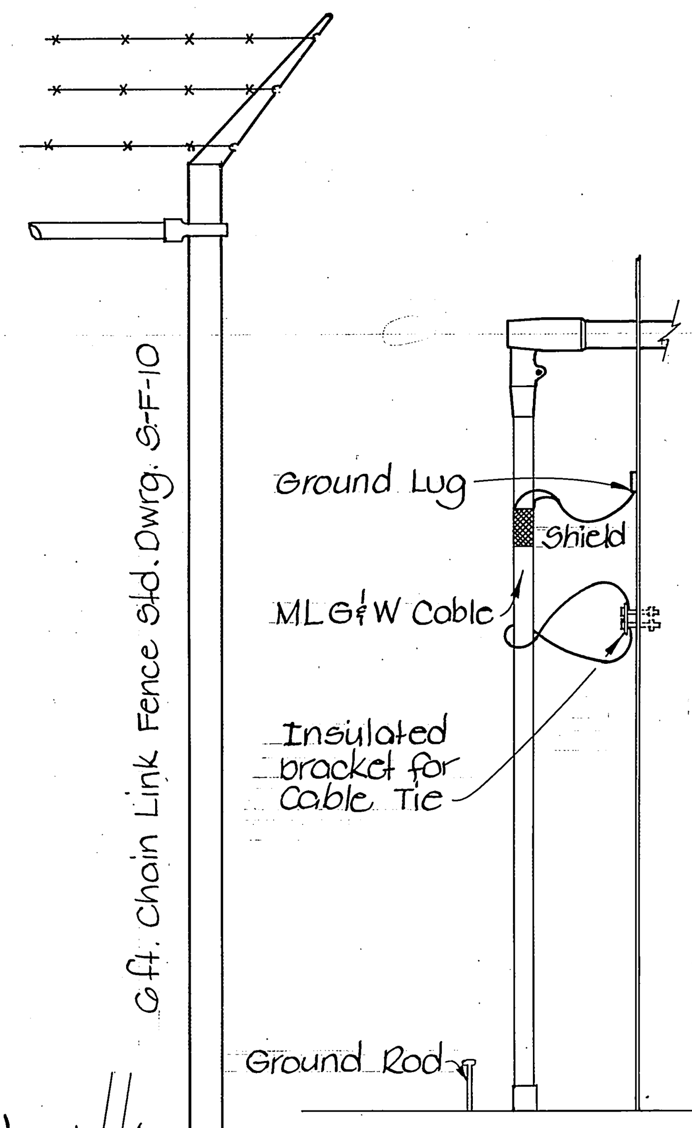


TOP VIEW



SIDE ELEVATION

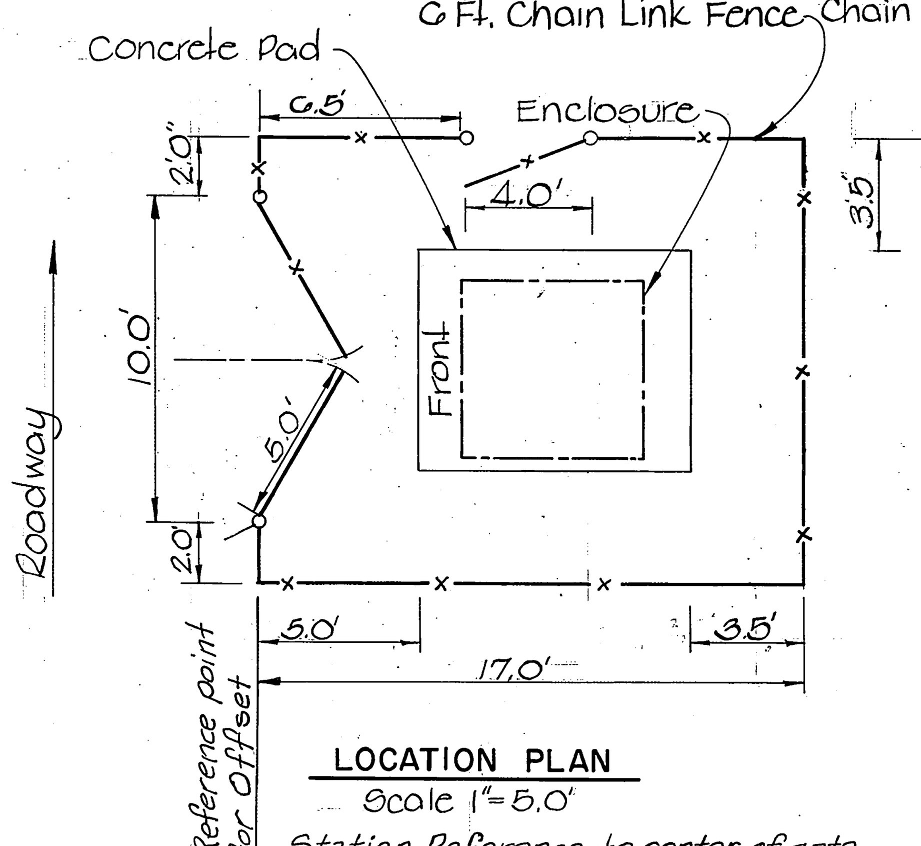
Scale 1"=1'-0"



SECTION A

Estimated Fence and Gate Quantities

Chain Link Fence 6 Ft. Ht. w/3 Strands Barb Wire	48 lf
Chain Link Gate 6 Ft. Ht.	10 lf
Chain Link Gate 6 Ft. Ht.	4 lf



LOCATION PLAN

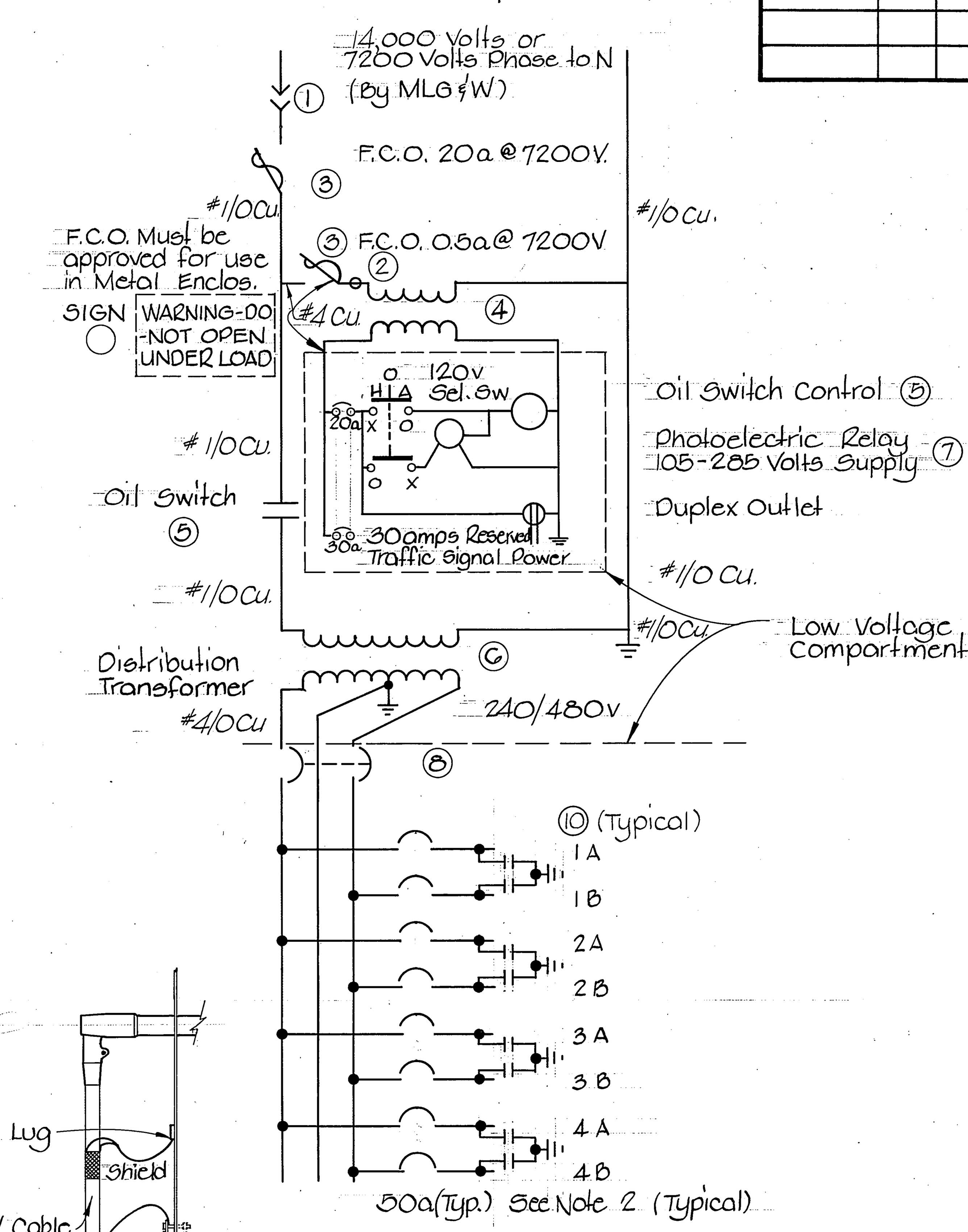
Scale 1"=5.0'

Station Reference to center of gate

Electrical Material

1. Load break Elbow Connector, Bushing insert for 25 KV with In-Air Bushing Well. Provide adjacent parking stand.
2. Bus Support 25KV
3. High Voltage Power Fuse-- Disconnecting type both terminals front connected indoor application non-expulsion 15,000V., Amps as shown.
4. Transformer-- 5 KVA, Type S, Class A, Primary Voltage 13200/22860 Grnd YX 7200/12470 Grnd Y Secondary Voltage 120v.
5. Oil Switch-- Single Pole electrically operated with 5 prong low-voltage connector 120v. hold closed operation rating for 200 amps at 7200 v., 50 amps at 15000 v. Contact to open with loss of control power.
6. Distribution Transformer-- 50 KVA, Type S, Class A (No overcurrent protection, Two HV Bushings) Primary Voltage 13200/22860 Grnd. Y x 7200/12470 Grnd Y Secondary Voltage 240/480v.
7. Photoelectric Relay 105-285 volts Suppy 1800 va. Rating.
8. Panelboard-- 12 Circuit w/Main breaker Rated 480 vac w/. 225 amp Mains, Circuit Breakers Fed. Spec. W-C-375a Main, 2P Class, 3b. Branches 1P and 2P Class, 2a, 2d
9. Control Enclosure w/ Duplex outlet, fuse, selector switch, 2 breakers, 1P Class, 2b
10. Lightning Arrester indoor-outdoor type, with nipple mounting single Phase, 2 pole, 650 v, between phase Max.

P SERIES CONTROL CENTER



POWER AND CONTROL SCHEMATIC

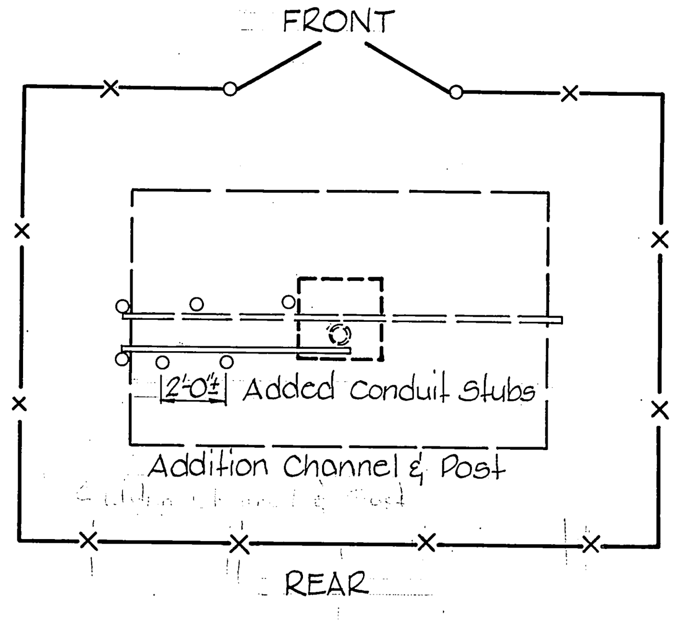
NOTES:
1. Provide insulated stingers and taped terminations for primary cable connections.
2. The contractor shall install terminal blocks for wiring from Lighting system. Connections between terminal block and breaker lug shall be made with maximum wire size which can be connected to lug.
3. Clearance from live parts to ground to meet NEC requirements for 23 kv system. Minimum Clearance 10 inches.
4. Vents & panels shall be sufficient to provide a total of 375 sq. inches minimum vented area.
5. ALL labor, material & equipment reqd. to construct control center to be included in unit price for Item 714-12.01. See Special provisions.
6. Use sectional 3/4" ϕ Ground Rods. Drive the number of sections necessary to obtain maximum 25 ohms ground resistance.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

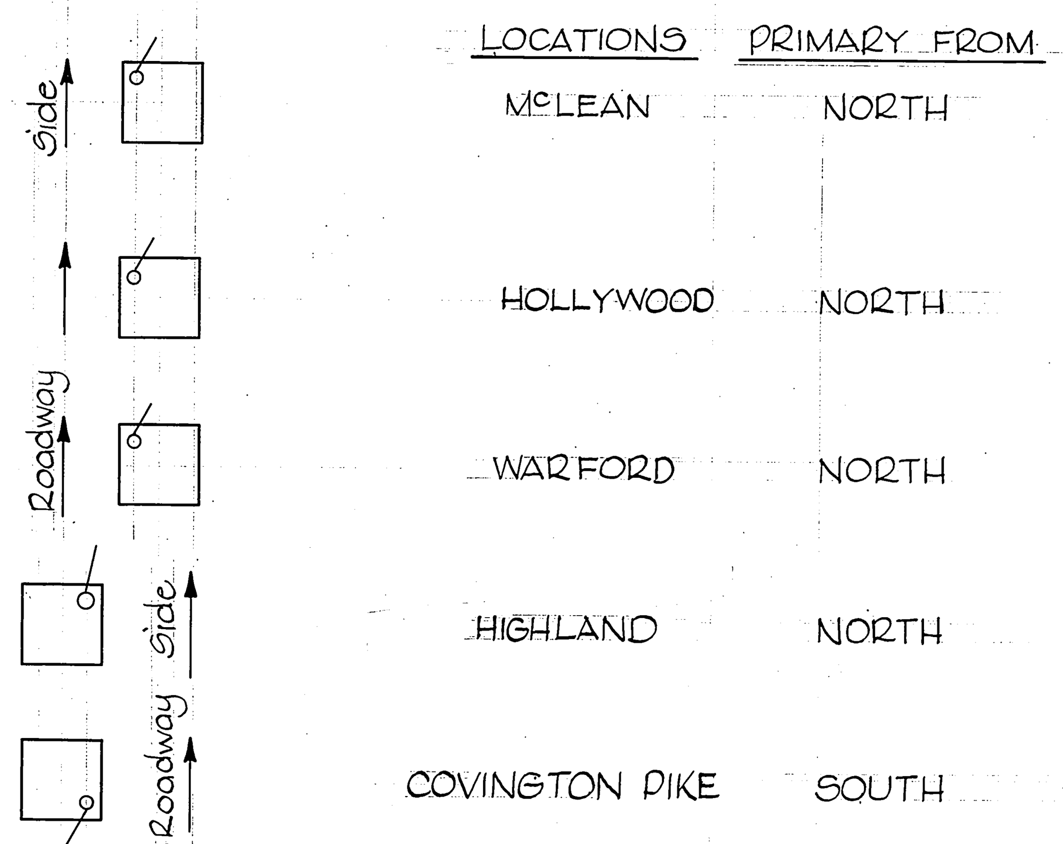
PRIMARY SERVICE CONTROL CENTER DETAIL

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2E

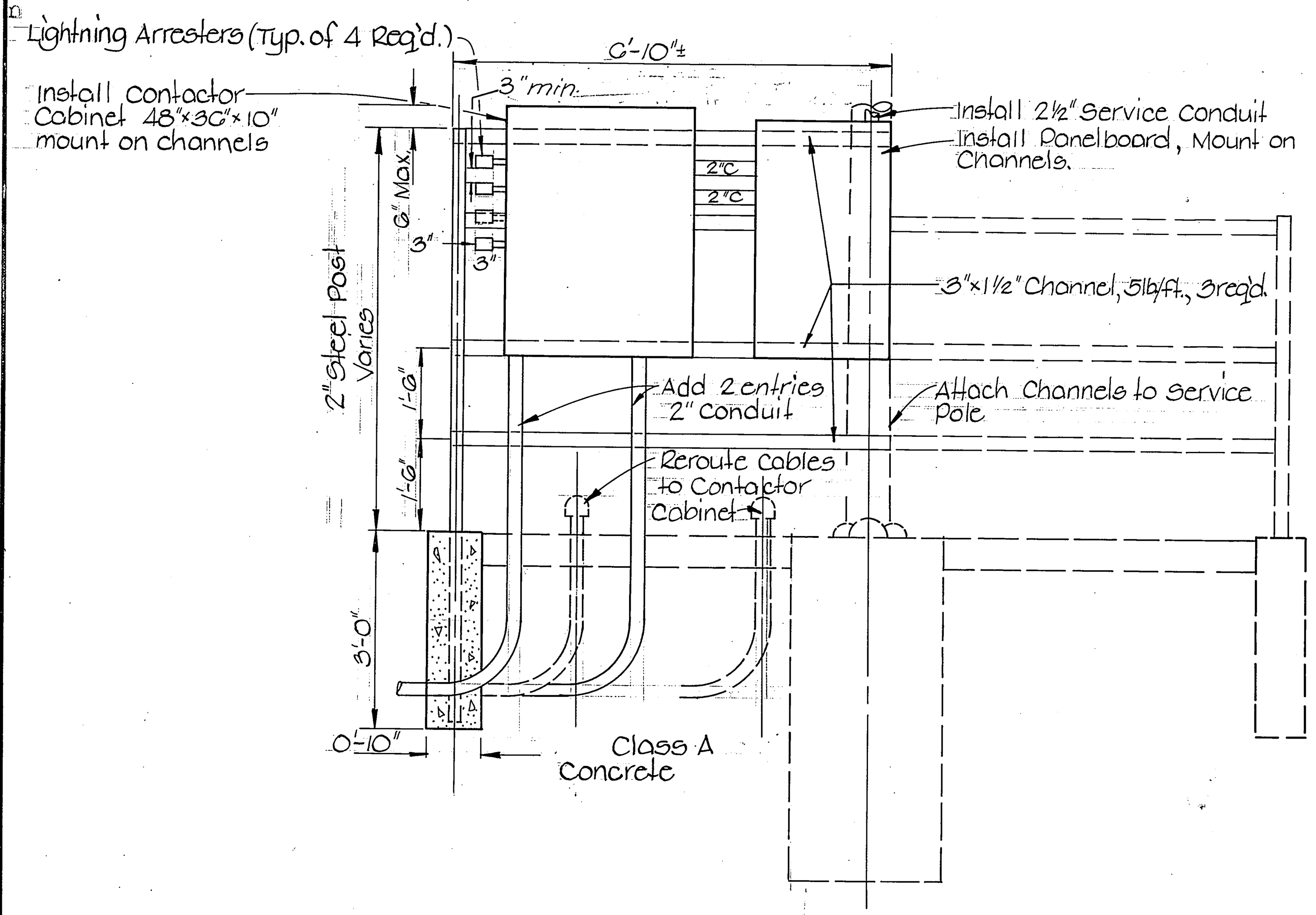
Notes:
A. Disconnect existing equipment and leave in place
B. Electrical Materials are shown on Secondary Service Control Center Detail
C. Power and Control Schematic are shown on Secondary Service Control Center Detail with additional connections as shown.



PLAN VIEW
Scale 1"=5.0'

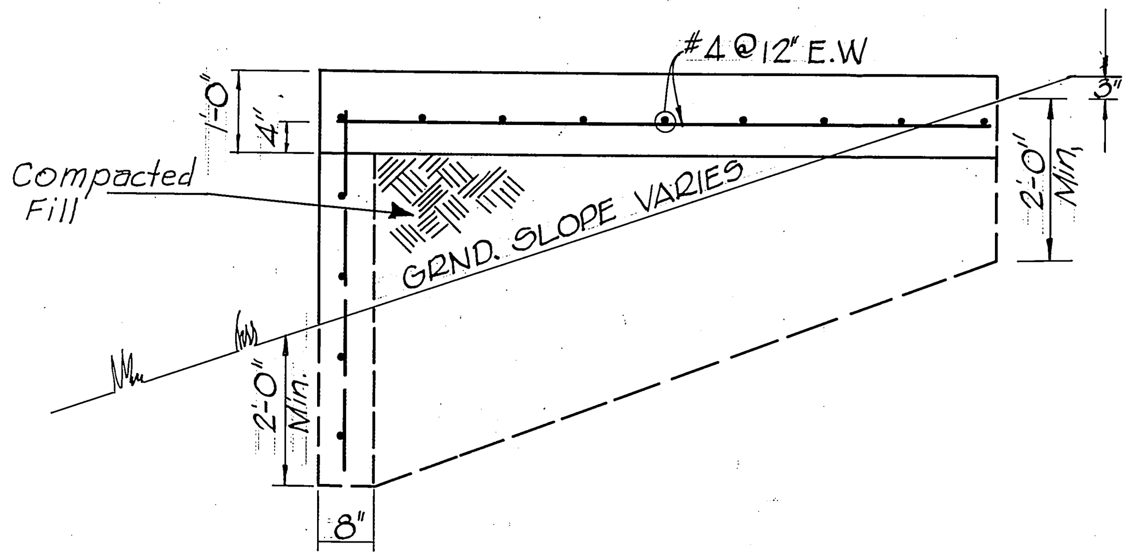


REFERENCE TO ROADWAY FOR PRIMARY CONDUIT

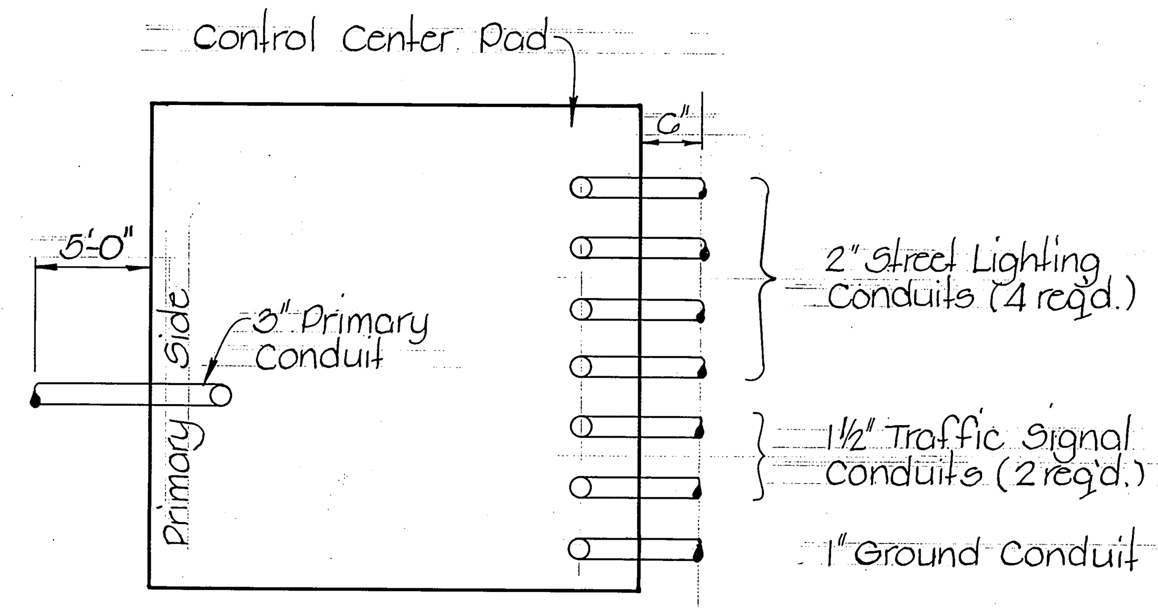


REAR ELEVATION
Scale ½"= 1'-0"

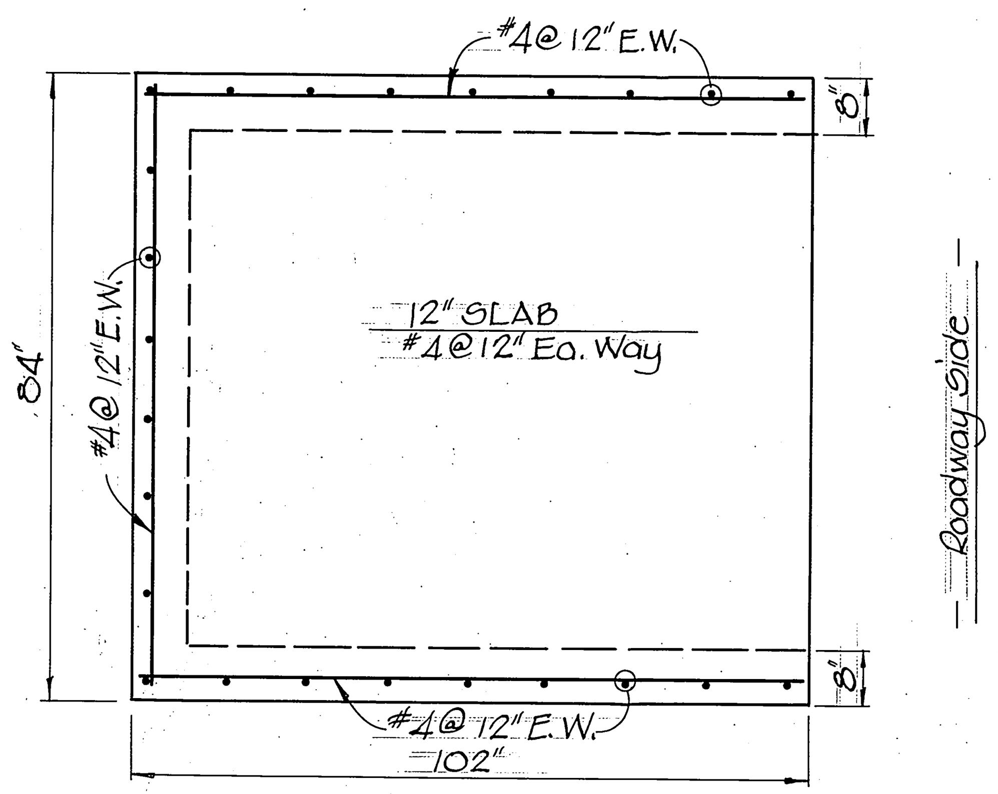
Estimated Foundation Quantities:
Class A Concrete 4.5 Cu. yds.
Steel Wire and Bar Reinf. 200 Lbs.
Dry Excavation 100.0 Cu. yds. (See Individual Plan Sheets.)
Include in Primary Service Control Center Pay Item



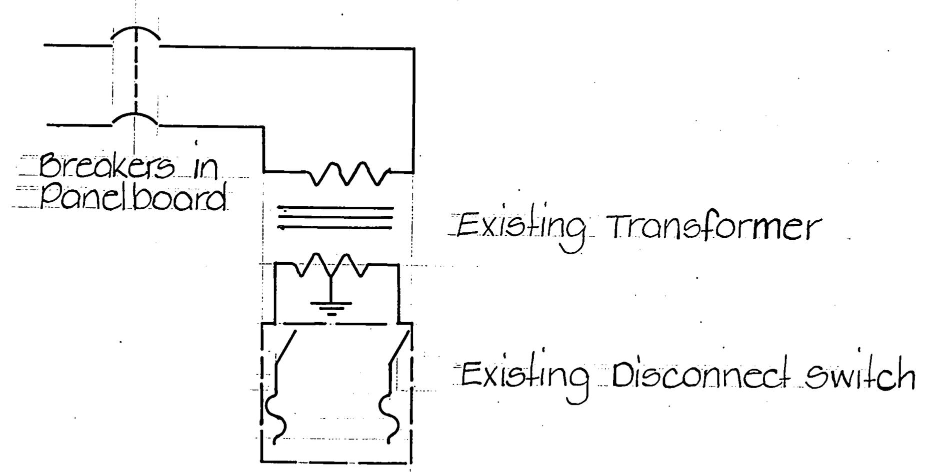
ELEVATION
Scale ½"=1'-0"



CONTROL CENTER CONDUIT LOCATIONS
Typical Primary Control Centers



PLAN
Scale ½"=1'-0"



CONNECTIONS TO EXISTING TRANSFORMER AND DISCONNECT SWITCH
See Notes A, B & C.

MODIFIED EXISTING SERVICE CONTROL CENTER

TYPICAL I-40, SUMMER AVENUE

PAD & FOUNDATION DETAILS

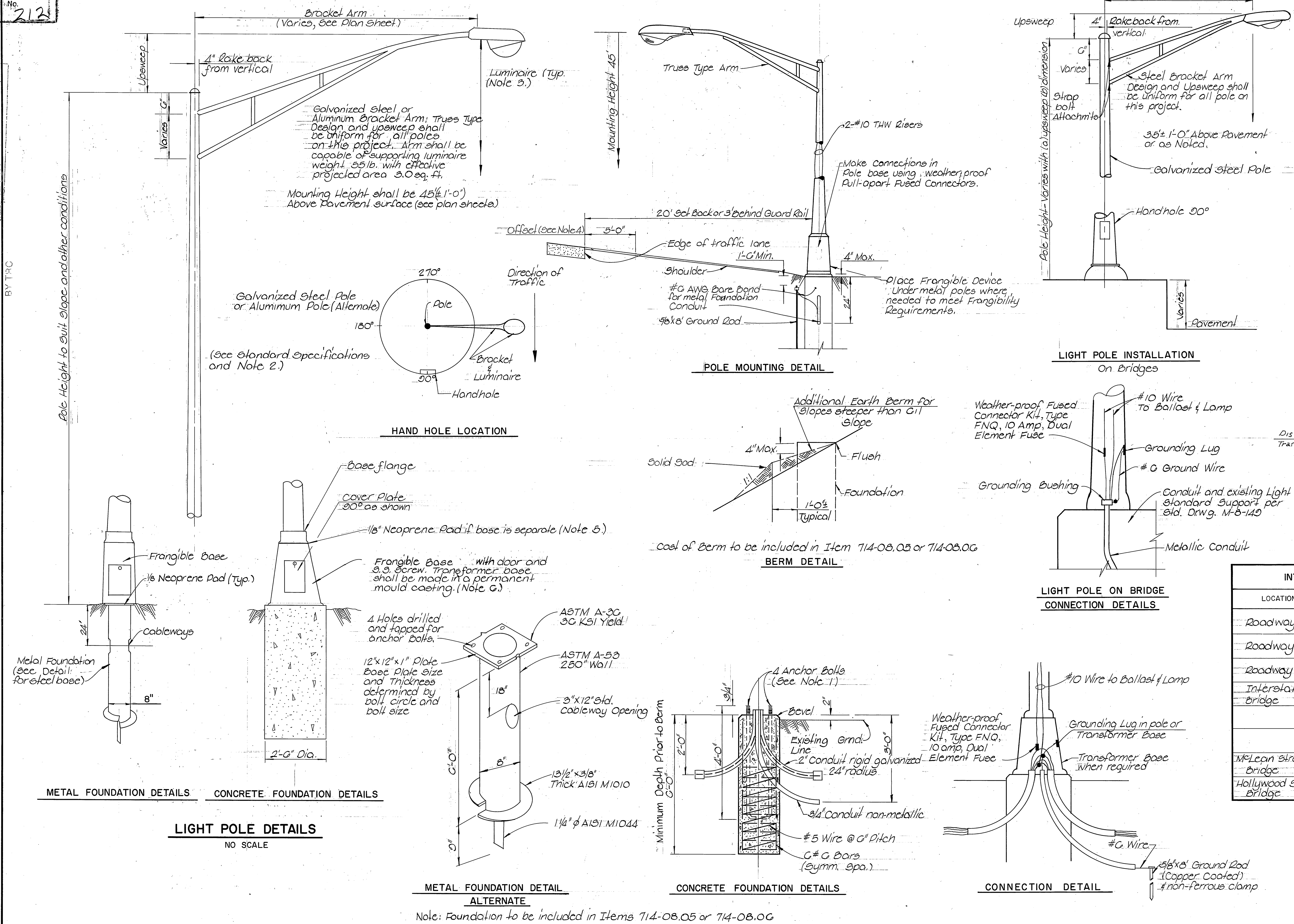
—PRIMARY SERVICE CONTROL CENTER—

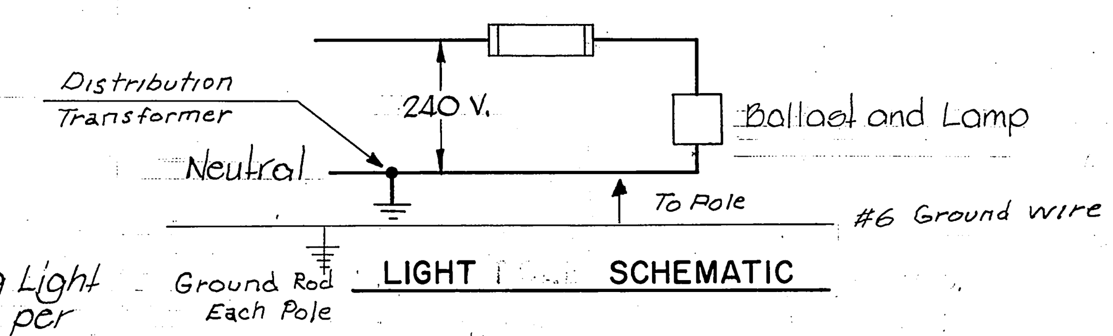
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

MISCELLANEOUS
CONTROL CENTER
DETAILS

REV. 12-11-78: CHANGED DIMENSION OF METAL FOUNDATION FROM 10" TO 8".
REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2F





NOTES

1. The diameter length, bolt circle, and projection of the anchor bolts for roadway light standards shall be according to manufacturer's recommendations for the anchor base or breakaway base of the approved standard.
2. Light standard structural designs shall meet requirements of AASHTO 1975 Specifications for Structural Support For Highway Signs, Luminaires and Traffic Signals.
3. Luminaire shall have horizontal lamp burning position with side entry slipfitter designed for 1 1/4" to 2" bracket size.
4. Luminaires shall be offset from pavement approximately 5 feet except in section between Watkins St. and Hollywood St. interchanges where no offset will be provided. Pole set-back shall be maintained in all cases as detailed.
5. Neoprene pad shall be installed between connections of metal which are subject to chemical reaction from contact.
6. Breakaway bases shall be installed. Testing shall be per AASHTO Standard Specifications latest edition and have FHWA approval.

INTERSTATE ROADWAY AND BRIDGE LIGHTING STANDARD

LOCATION	MOUNTING HEIGHT	BRACKET ARM LENGTH	BRACKET ARM TYPE		ALLOWABLE UPSWEEP OF ARM
Roadway	45 ft.	10 ft.	Truss		2'-3" min. to 6'-9" max.
Roadway	45 ft.	15 ft.	Truss		2'-3" min. to 6'-0" max.
Roadway	45 ft.	20 ft.	Truss		3'-0" min. to 7'-0" max.
Interstate Bridge	35 ft.	6 ft.	Truss		1'-6" min. to 4'-0" max.
McLean Street Bridge	30 ft.	10 ft.	Shaft		3'-0" min. to 7'-0" max.
Hollywood Street Bridge	35 ft.	10 ft.	Shaft		3'-0" min. to 7'-0" max.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

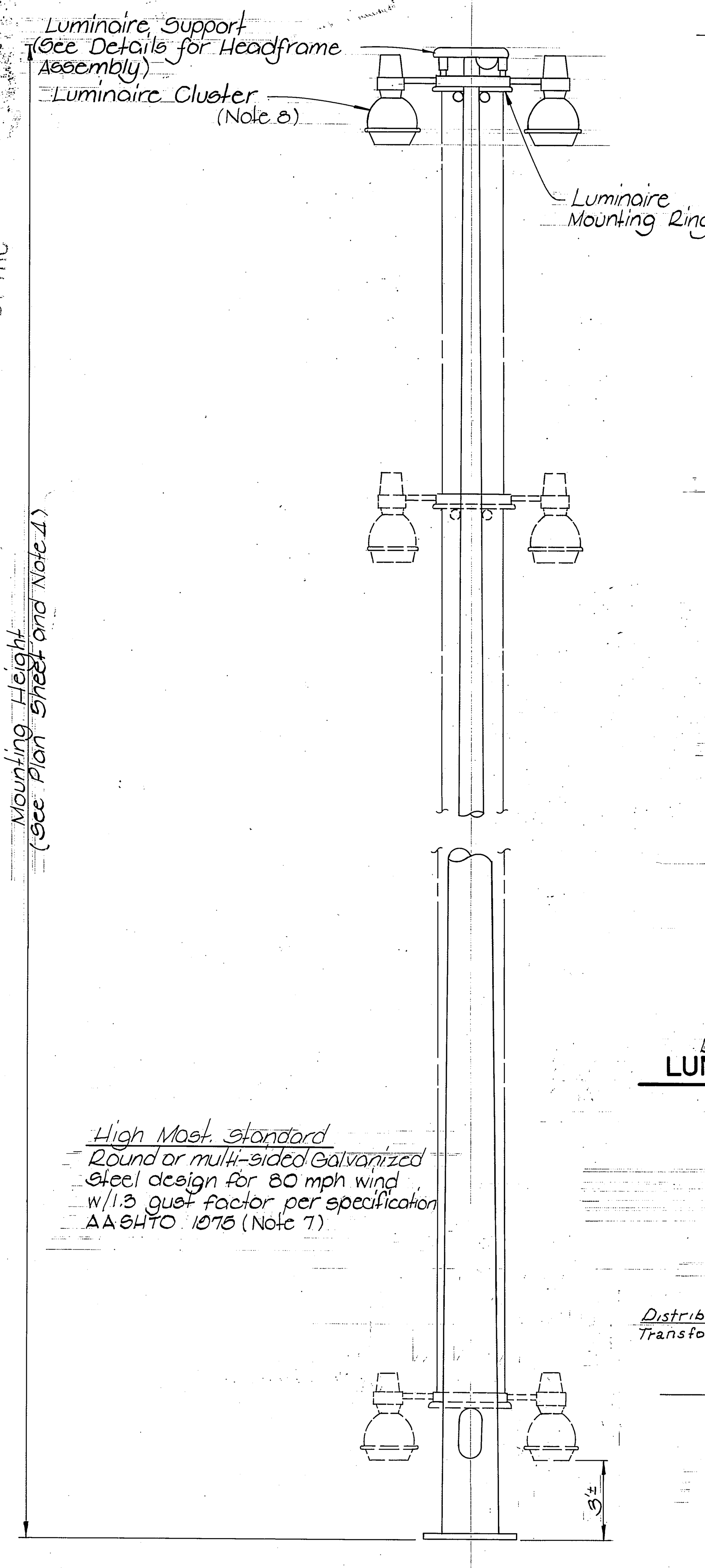
TYPICAL POLES FOR INTERSTATE ROADWAY SECTIONS AND BRIDGES

NO SCALE

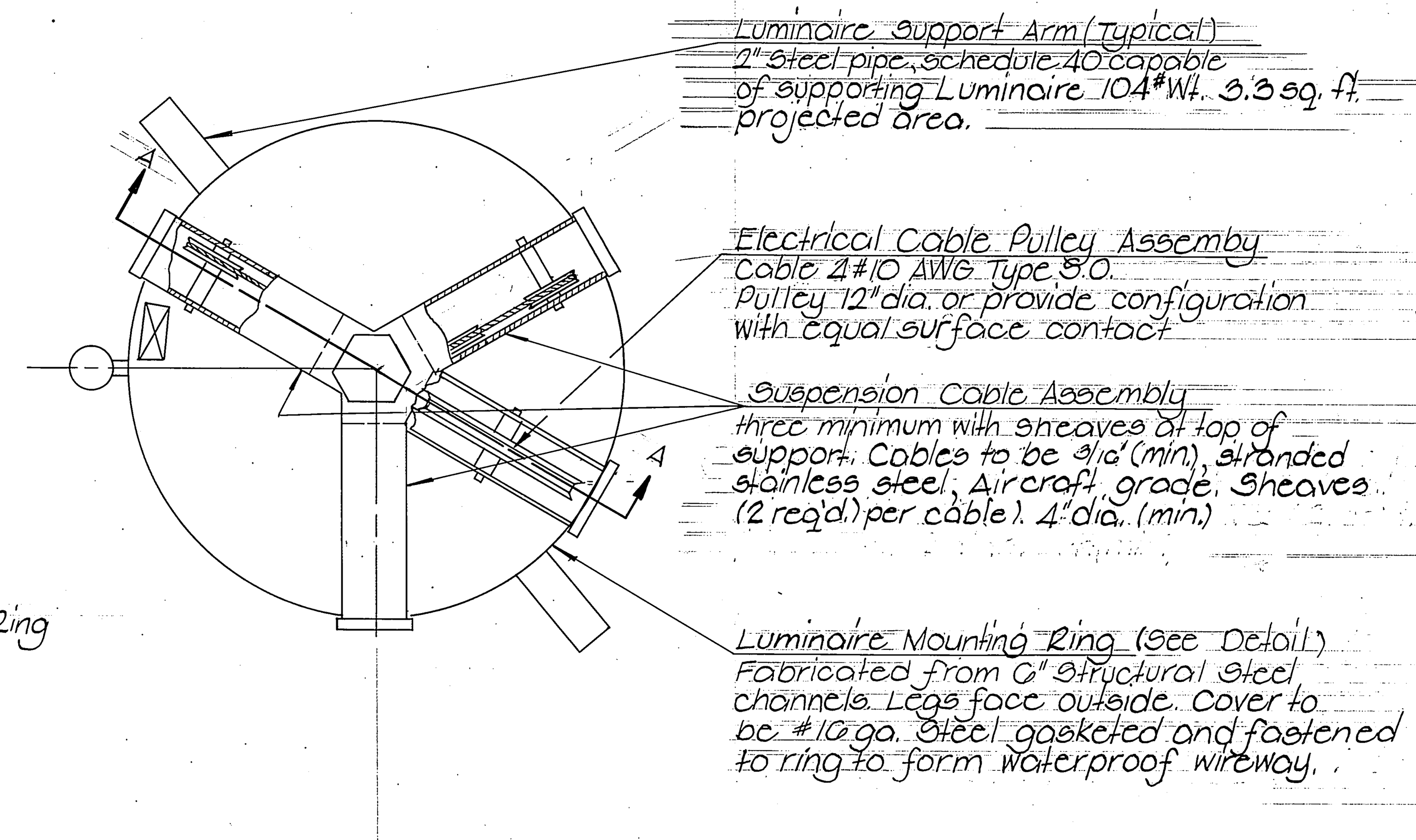
TENN. STATE HIGHWAYS Plans Divn. File No. IN-212
SCANNED
TYPE | YEAR | PROJECT NO. | SHEET NO.
CONST. | 1978 | I-240-1(160) 4 | 2G
NOTE
1. There shall be a 3" cable raceway required between Cable Entrance and Handhole, and a 1" cable raceway from Handhole to top of pole. Handhole cover shall be Aluminum with Stainless steel round head machine screw at top and bottom, with inserts.
Hole For Ground Connection
Photo-Electric Control
400 watt, Mercury Luminaire with ballast and Clear Lamp, IES Type II distribution
Acrylic Refractor
2"x10' Bracket Arm
Connect to Secondary
LUMINAIRE DETAIL
Neutral
Guy
CONNECTION DETAIL
Varies
4"
12'
Top of Pole
Weld
3 1/8" O.D.
2" Aluminum Pipe Schedule 40 (Length Varies)
13'
15"
8"
1"
18"
4 3/16" O.D.
Drill & Tap for 5/16" Bolt
5/16"x 5/16" Hex. Top Bolt of Stainless Steel (4 Req.)
4 3/16" I.D.
Note: Point welded joints on Bracket Aluminum
CONCRETE POLE BRACKET DETAIL
See Detail
400 watt Mercury Luminaire with ballast and clear lamp IES Type II distribution.
30' above pavement
Concrete Pole See Note 1 this sheet.
1'-6"
Handhole at 90° 8"x2 3/4" See Note 1 this sheet.
Future 6' Sidewalk
2'-8"
Cable Entrance 8"x2 3/4"
5'-0"
3'-0"
Pole Section
At top 4"x4" At bottom 9.7"x9.7" Beveled Edges approx. 1/2"
CONCRETE LIGHT POLE
(McLEAN BOULEVARD ONLY)
Pole & Bracket to Ballast & Lamp
Fused Connector Kit
Leave slack in all cable enable splices to be made and maintained outside of pole base.
24" min.
Phase Cable
Neutral
Loop to handhole
Note: Grounding not required for concrete poles.
SECTION OF CONCRETE LIGHT POLE SHOWING CABLE AND SPLICES
10'-0" Bracket Arm
4'-0" Rise
1'-0" Below Top
35' Wood Pole Class IV
Locate Pole in Back Half of Sidewalk.
Existing Fence
Sidewalk
S. B. Lane Watkins St.
5'-6"
Note See Sidewalk Replacement Detail This Sheet.
1'-6"
WOOD POLE DETAIL
(WATKINS STREET ONLY)
No Scale
24'-0"
12'-0"
Highland Roadway (Typical 2 sides)
10'-0" Shoulder
3'-0"
Galv. Steel Pole
Guardrail
POLE LOCATION, HIGHLAND ROAD ONLY
Note: Foundation details on Sheet 2F
Roadway
Score Joints
Pole
1'-6"
Sidewalk
SIDEWALK REPLACEMENT
Note: Replace Concrete Sidewalk Between Score Joints. Sidewalk Construction shall meet City of Memphis Requirements. Removal & Replacement of Sidewalks will not be paid for separately but shall be included in unit price for item 714-08.04.
Handhole & Cover
Clay
Cable Entrance
2'
Damp, Compacted Crushed Stone
6"
16"
BUTT BASE
FOUNDATION DETAIL FOR CONCRETE LIGHT POLES
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
CROSS-STREET LIGHTING DETAILS

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS

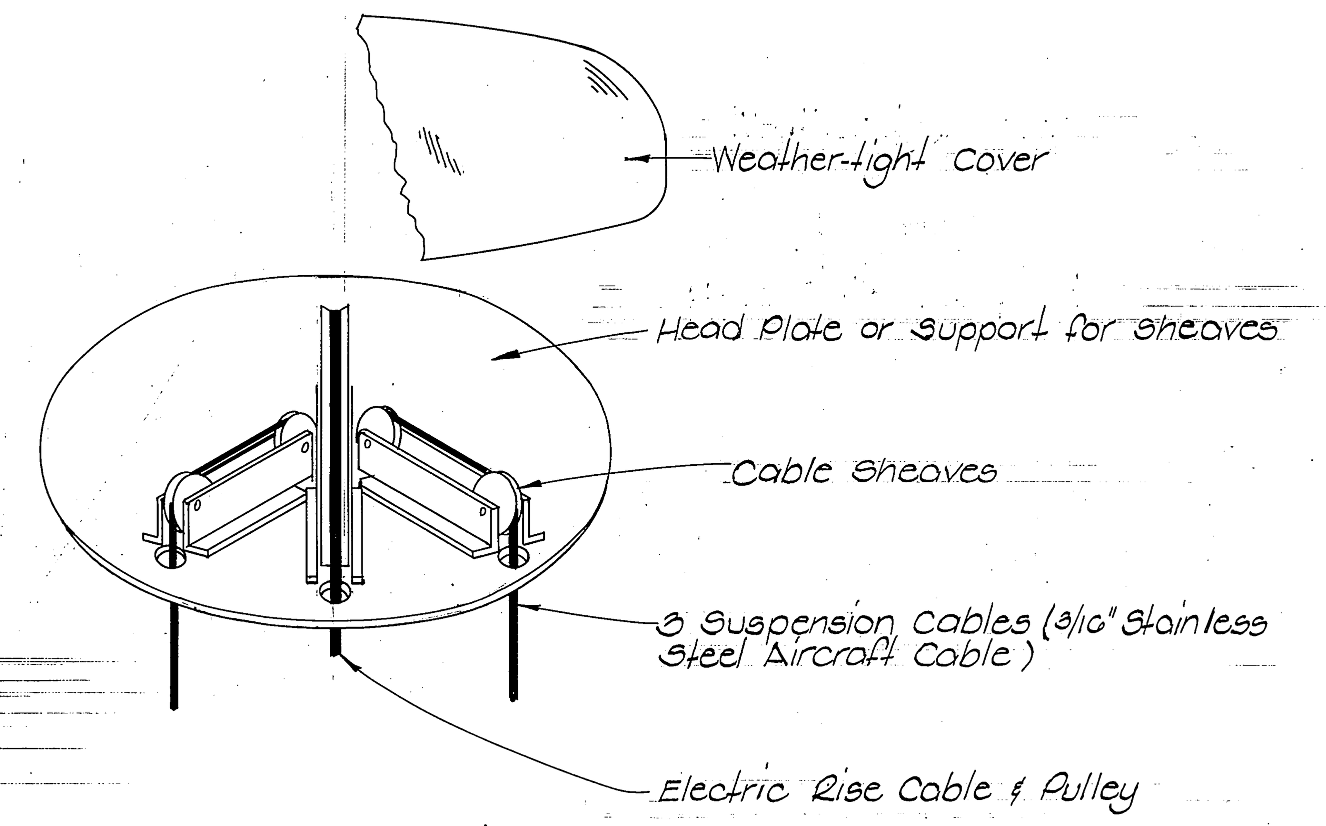
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2H



HIGH MAST LIGHTING STANDARD

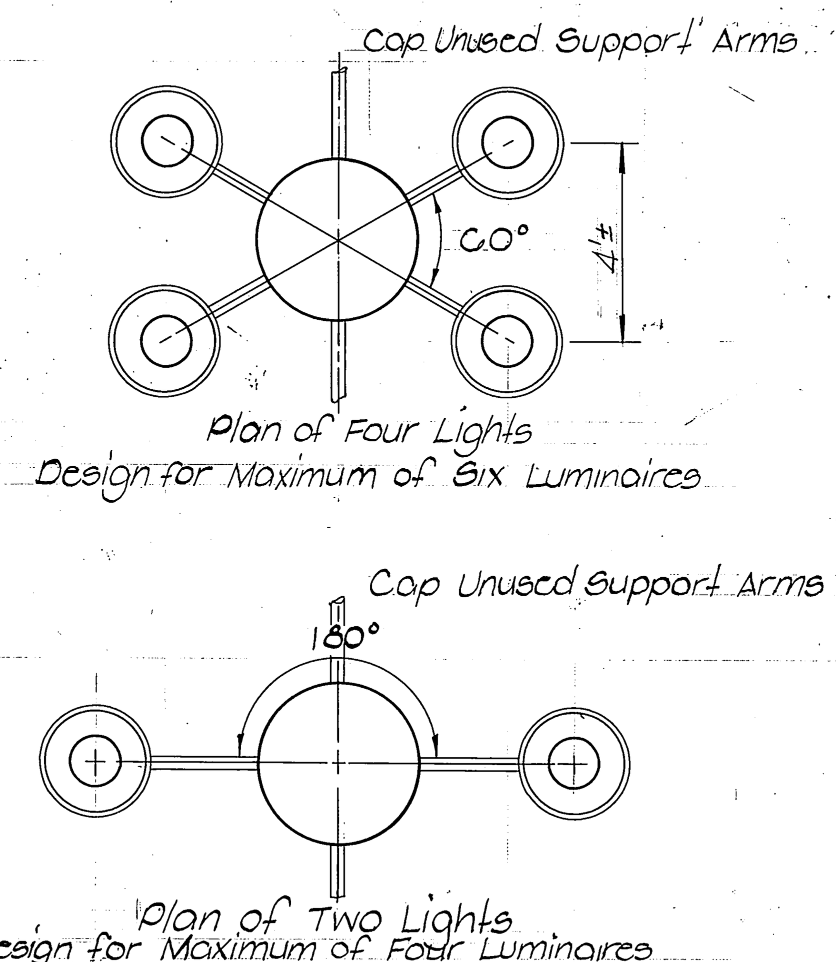


HEADFRAME ASSEMBLY (Note 5)

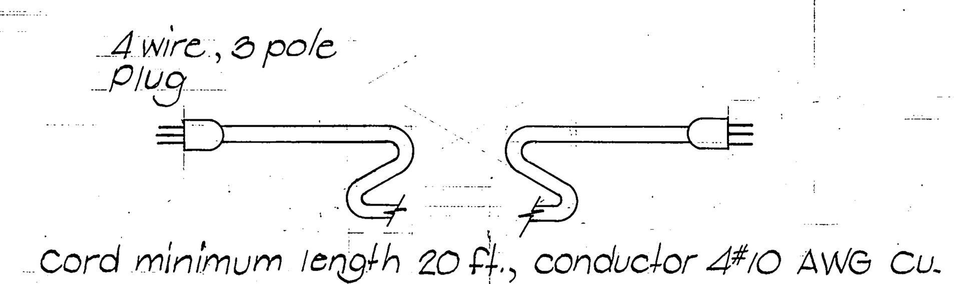


NOTES

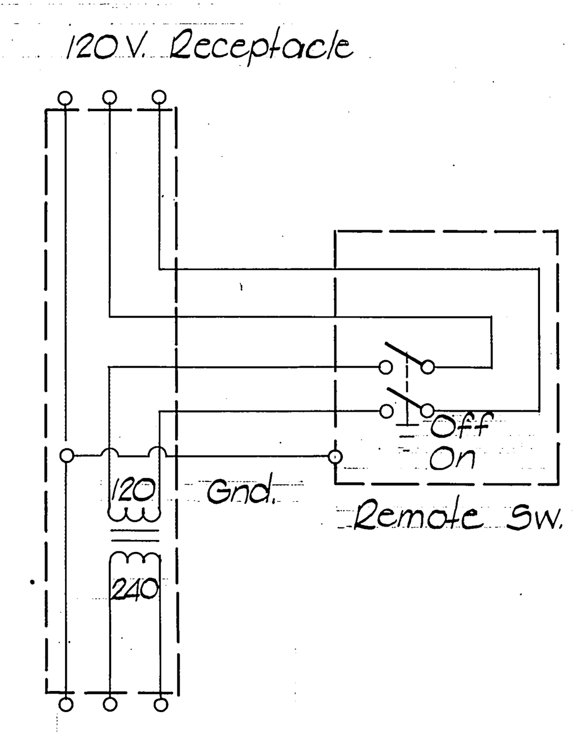
1. No counterweights will be allowed in light standard.
2. Two portable power units are necessary for this project. The portable power unit is to be supplied with metal carrying case.
3. All disconnect plugs and receptacles to be 4 wire, 3 pole, 30 amp., 600 volts., U.L. rated.
4. The mounting height of the high mast standard shall be the assembled length of the monotube sections including the base plate.
5. Alternate headframe assembly designs shall be approved by Tennessee Department of Transportation prior to installation.
6. Contractor shall assure compatibility by requiring one manufacturer to furnish and accept prime responsibility for entire high mast pole and lowering device except the Luminaires.
7. Ref: AASHTO 1975 "Specification for Structural Supports for Highway Signs, Luminaires and Traffic Signals"
8. Luminaire shall be vertical burning lamp base up with side entry slipfitter designed for two inch pipe.
9. The High Mast Pole installation shall include the foundation for the pole size shown or greater pole size. Cost of foundation shall be included in pay Item for Light Standard (with Lowering Device).



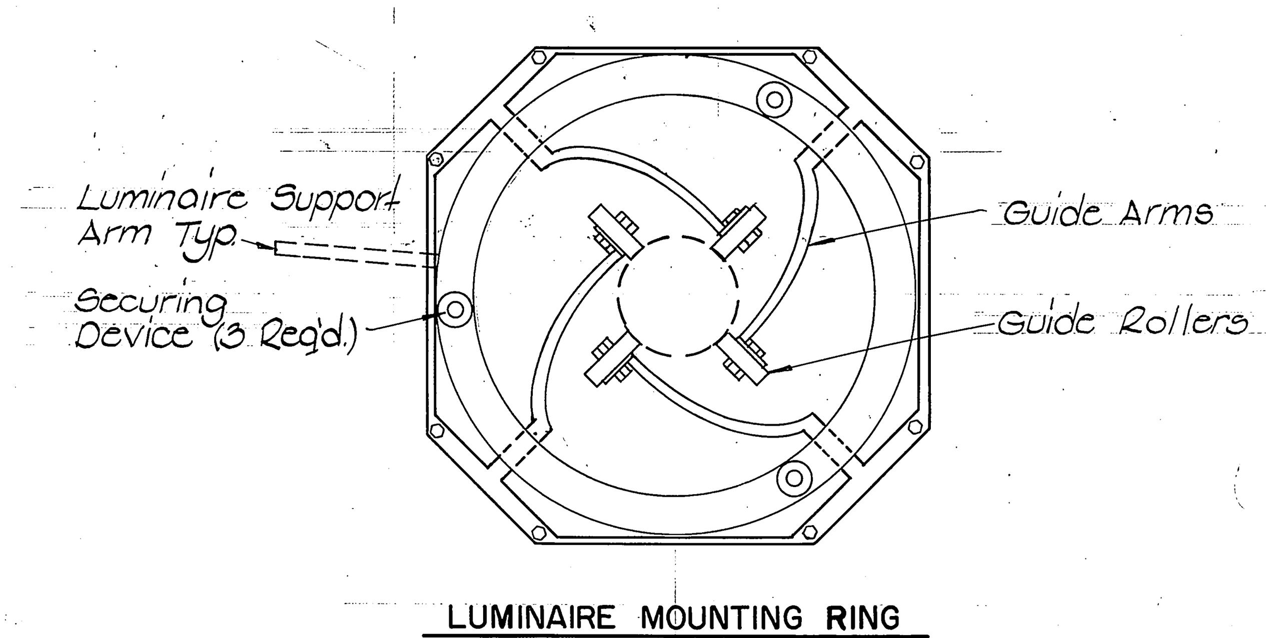
LUMINAIRE CLUSTER CONFIGURATIONS



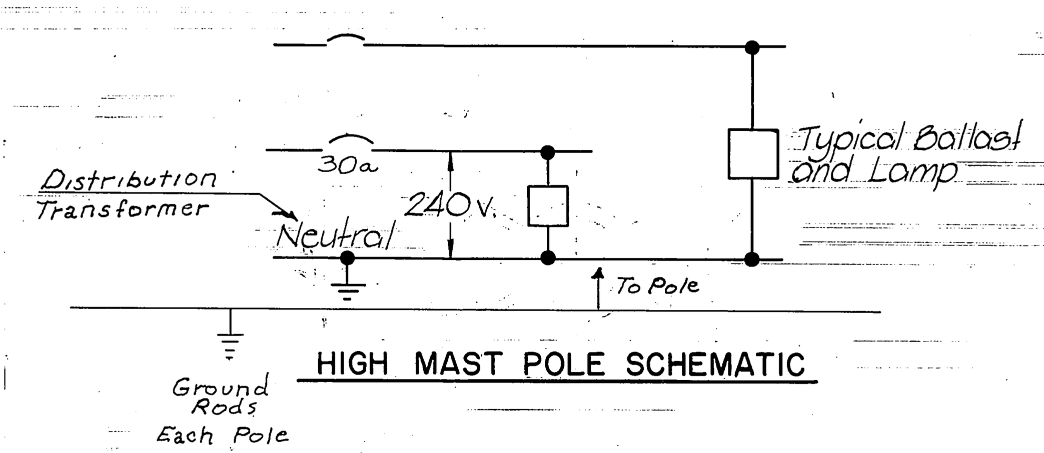
SERVICE CORD



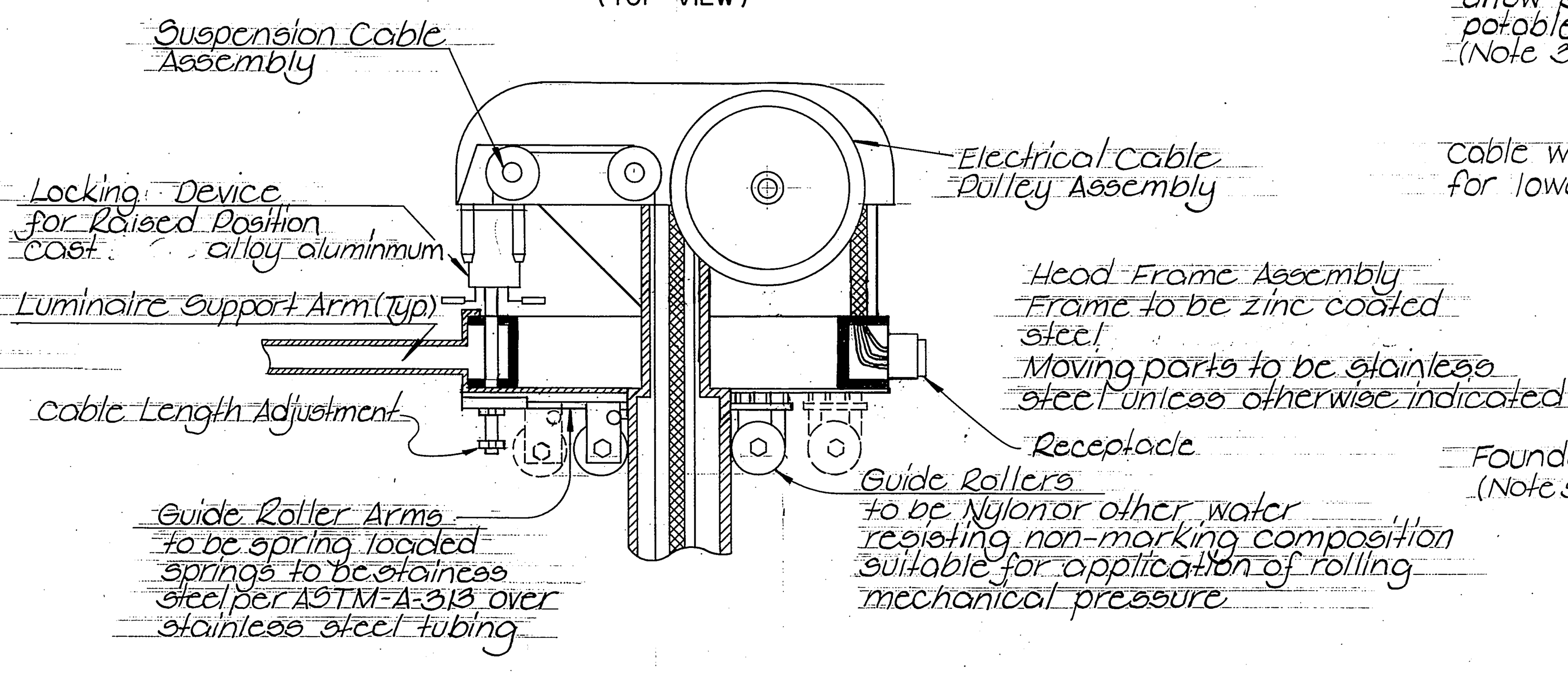
SUPPLY RECEPTACLE
TYPICAL SCHEMATIC-REMOTE AUX. POWER UNIT



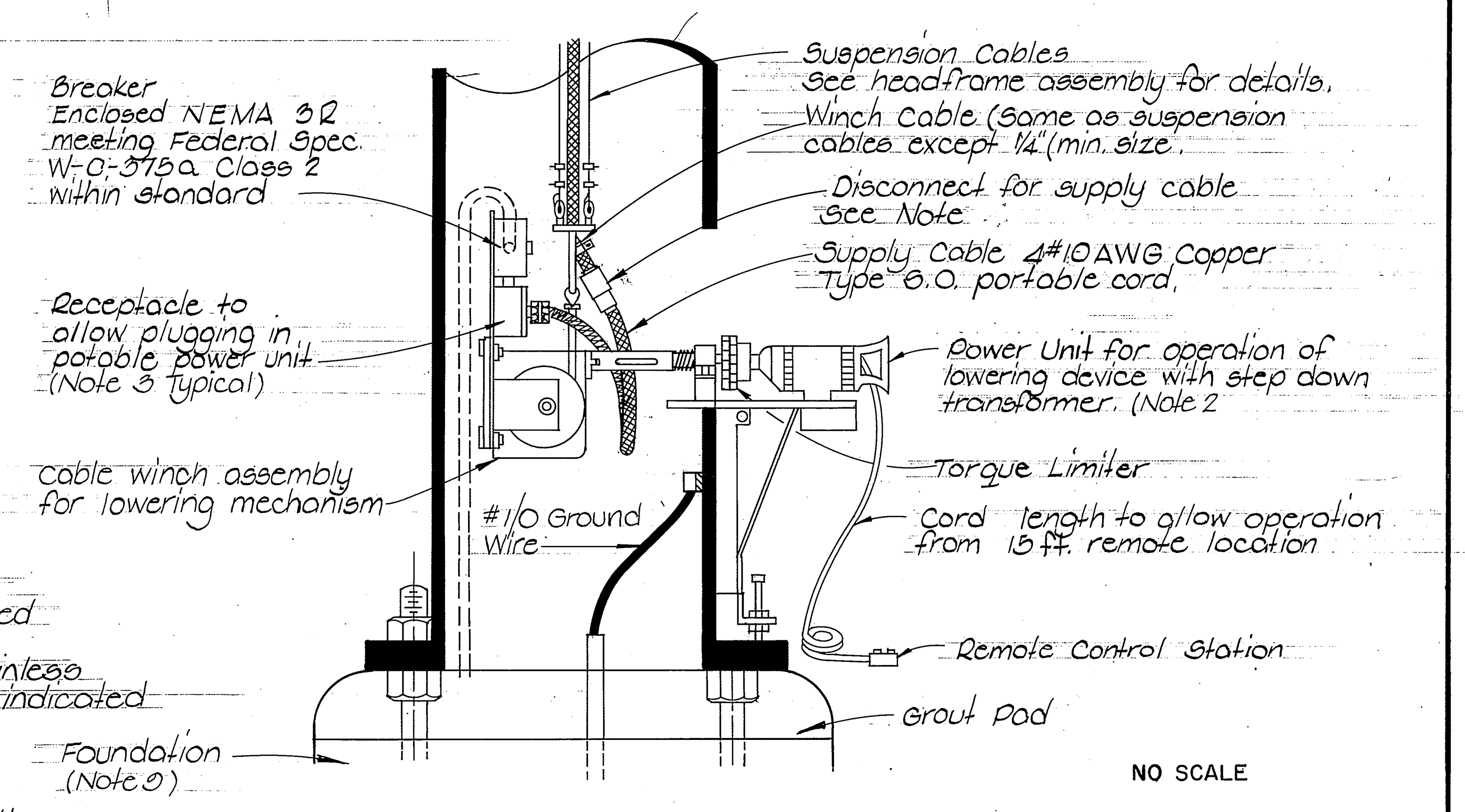
LUMINAIRE MOUNTING RING
(TOP VIEW)



HIGH MAST POLE SCHEMATIC



LATCH TYPE HEADFRAME ASSEMBLY
SECTION A-A



SECTION AT BOTTOM OF STANDARD
SCALE 1"=1'-0"

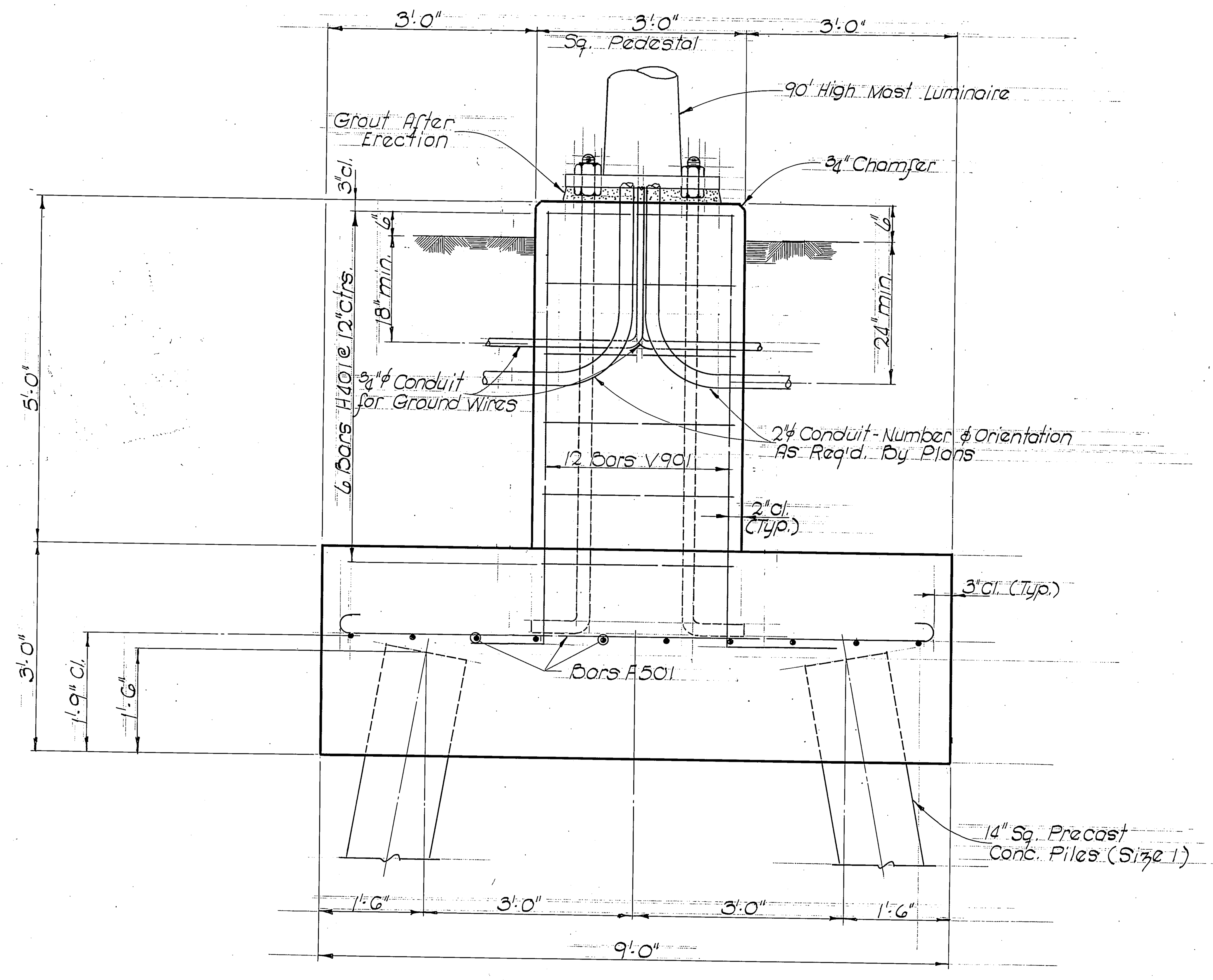
NO SCALE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

HIGH MAST POLE FOR INTERCHANGES
DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	21

REV. 12-11-78: REMOVED TEST PILE, CHANGED PILE NOTE, & PILE QUANTITIES. ⚠



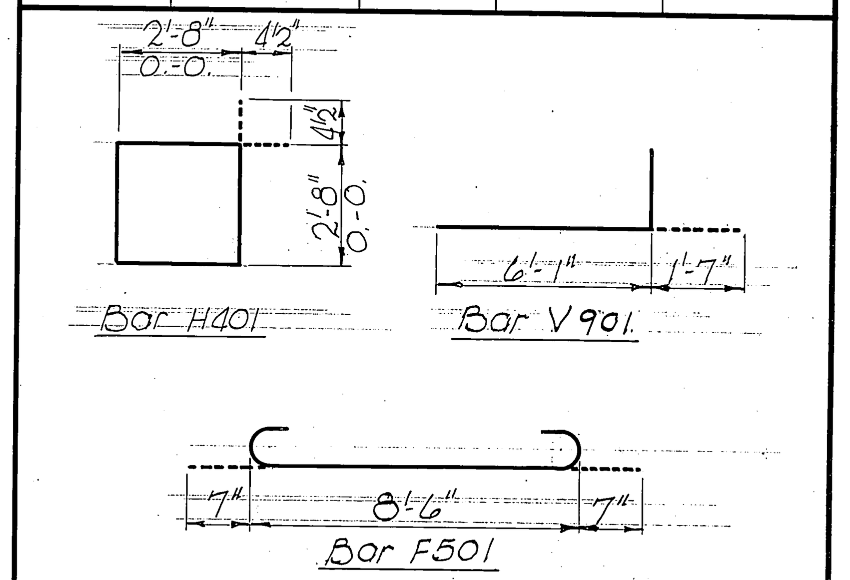
ELEVATION

GENERAL NOTES

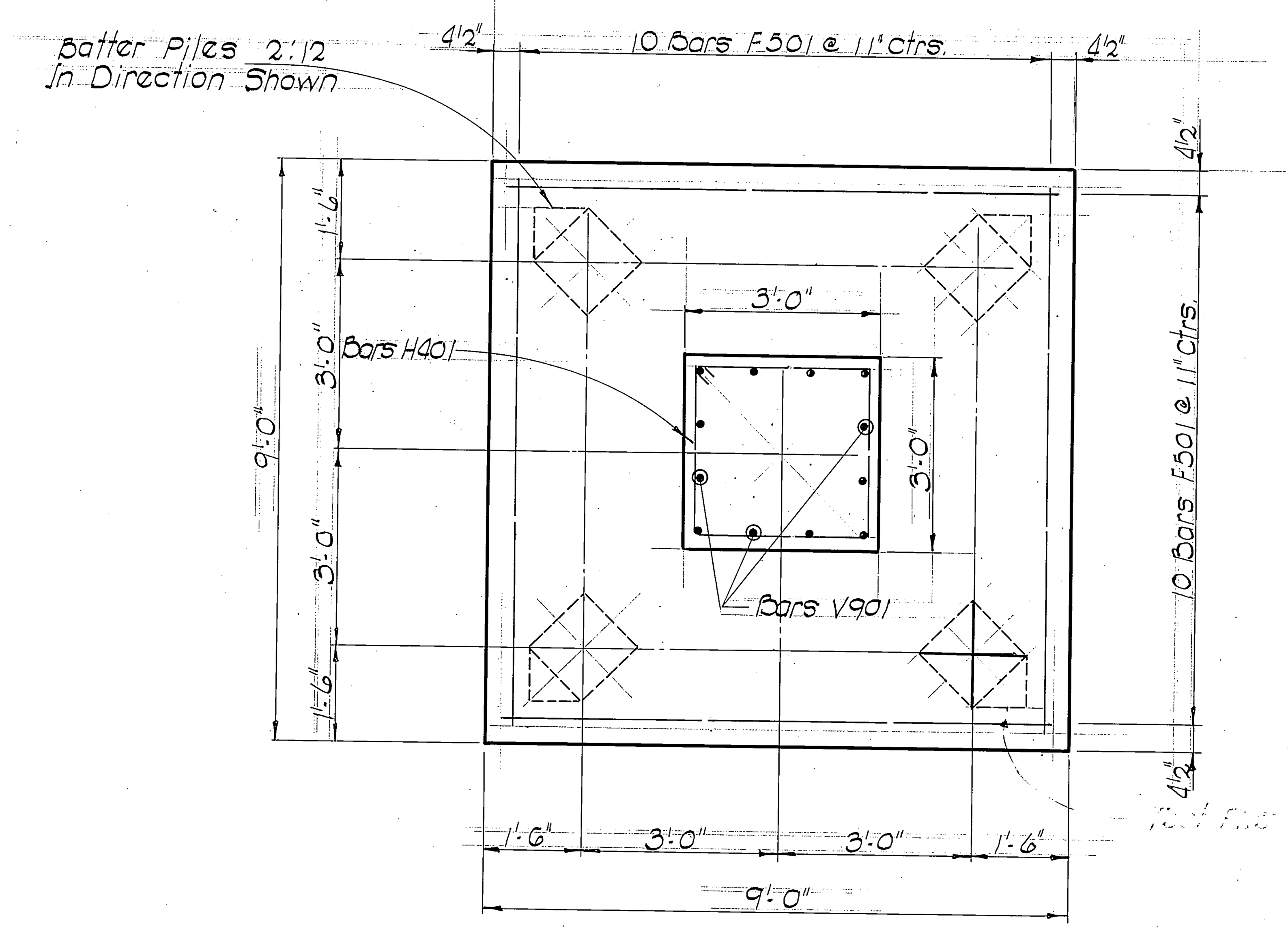
1. GENERAL SPECIFICATIONS: Standard Road And Bridge Specifications of the Tennessee Department of Highways (1968 Edition)
2. DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges 1973 Edition With Addenda And AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires And Traffic Signals (1975)
3. DESIGN LOADING: Basic Wind Velocity of 80 M.P.H. on 90' High Mast Luminaire.
4. CONCRETE: To Be Class "A" f'c = 3000 psi for All Concrete.
5. REINFORCING STEEL: To Be ASTM A 615 Grade 60. Standard C.R.S.I. Hook Details Apply Unless Otherwise Noted. Bending Dimensions Are Based On Grade 60. Spacing Dimensions Are Center To Center Unless Otherwise Noted.
6. ⚠ FRICTION PILES: All Piles Shall Be 14" Square Precast Concrete Piling (Size 1). THEY SHALL BE DRIVEN TO A BEARING CAPACITY OF 30 TONS AND A MINIMUM PENETRATION OF 20 FEET.
7. GROUND ROD: Install G.U.L. Approved ⅝"x 8' Ground Rods Around Base To Form A 12' Square. Rods Shall Be Connected By A # 1/0 AWG Bare Stranded Copper Band. Band Shall Be Connected To Ground Lug in Pole Base From Two Sides Of Pole.
8. ANCHOR BOLTS: Anchor Bolts will Be Supplied in order to be compatible for each required pole. Submittals Shall Be Supplied To The Engineer Prior To Purchase. See Manufacturer's Specifications And Drawings for Number, Diameter, Length And Bolt Circle Placement of Anchor Bolts.

BILL OF STEEL FOR ONE FOOTING

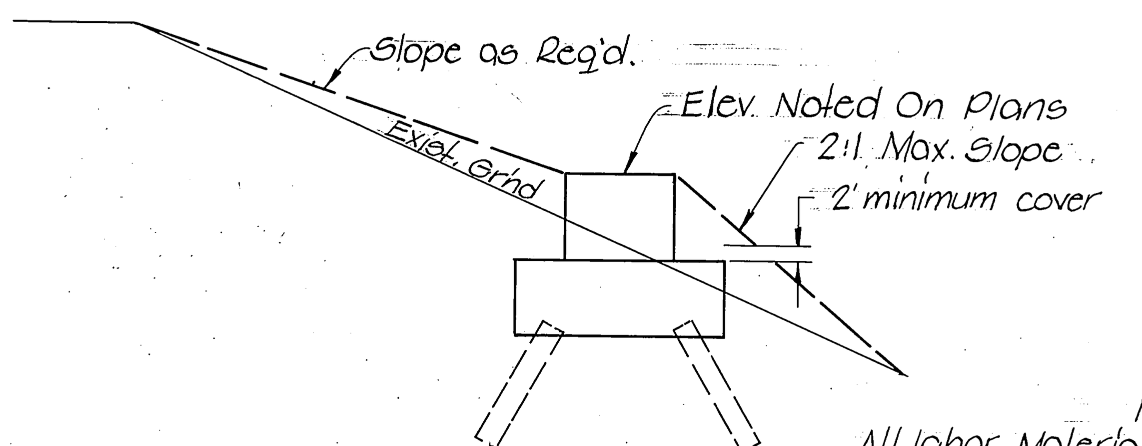
Mark	No. Req'd	Size	Length	Shape
H401	6	4	11'-5"	◻
V901	12	9	7'-8"	⌋
F501	20	5	9'-8"	⊂⊃



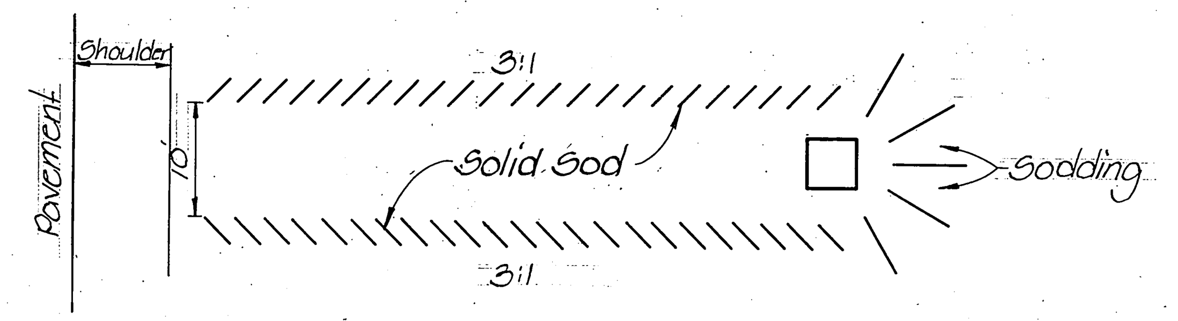
BAR BENDING DIAGRAMS



FOOTING PLAN



NOTE
All labor, Material & equipment req'd to construct and sod built-up access ramp to be included in Unit price for Item 714-08.1C.



DETAIL OF FOUNDATION IN ADVERSE SLOPE CONDITIONS
(As noted in plans)

SUMMARY OF ESTIMATED QUANTITIES ⚠

Item	Unit	Quantity
Class "A" Concrete	Cu. Yds.	8.7
Steel Bar Reinforcement	Lbs.	560
Precast Concrete Piling - Size 1	Lin. Ft.	120
Dry Excavation	Cu. Yds.	50

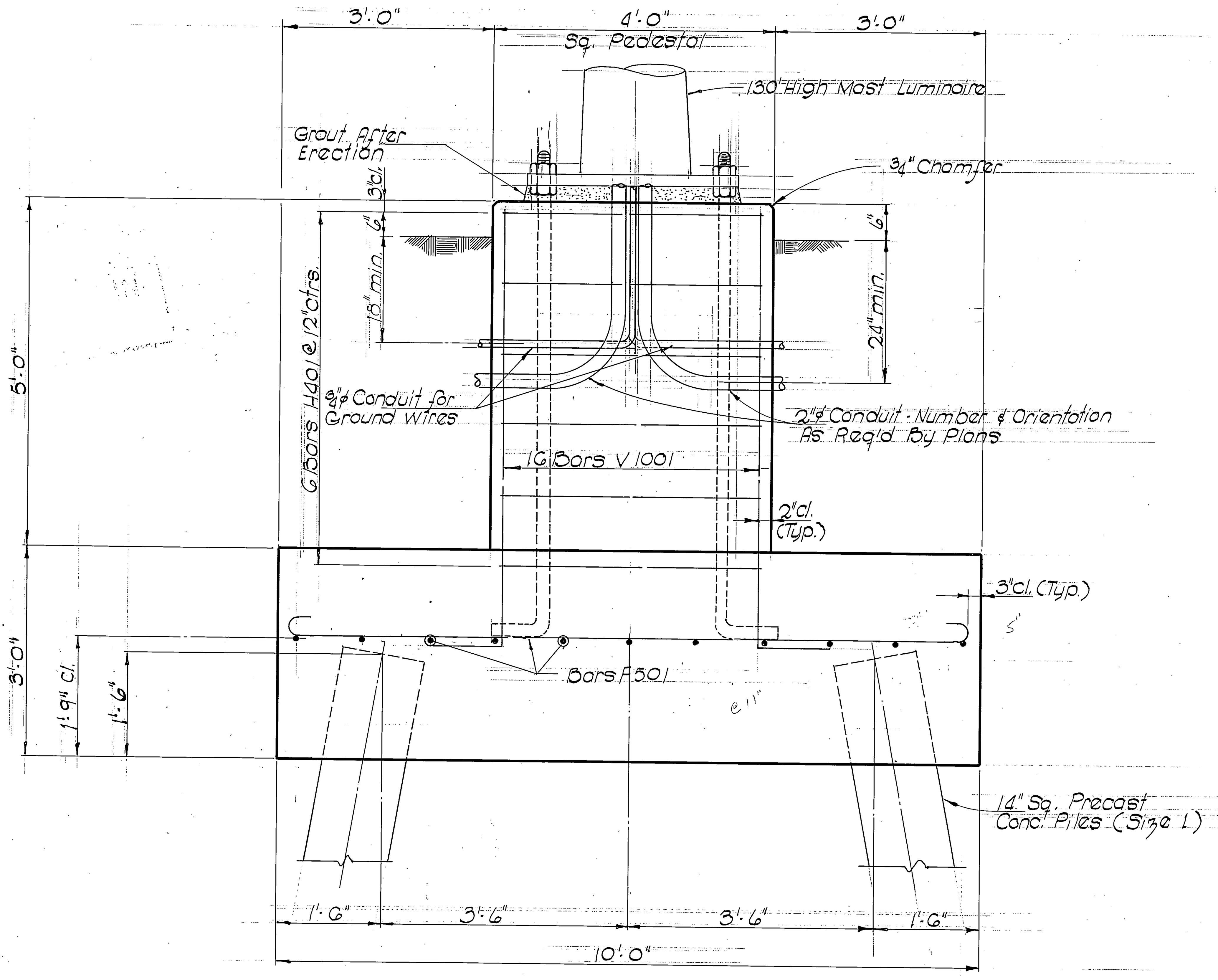
NOTE: PILE PAYMENT INCLUDED IN UNIT PRICE FOR HIGH MAST POLE.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

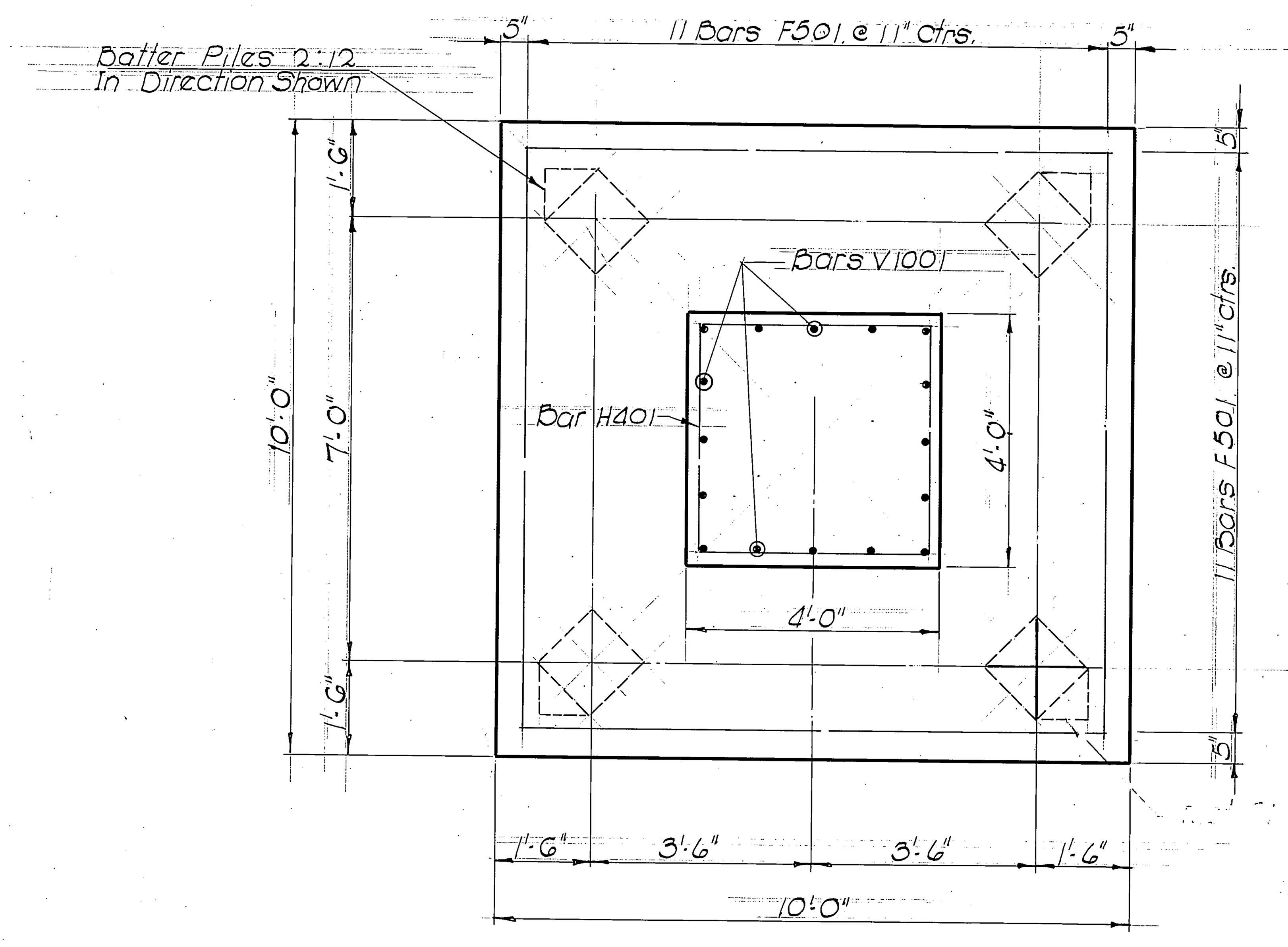
90' HIGH MAST POLE FOUNDATION

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2J

REV. 12-11-78: REMOVED TEST PILES, CHANGED PILE NOTE & CHANGED PILE QUANTITIES. △



ELEVATION



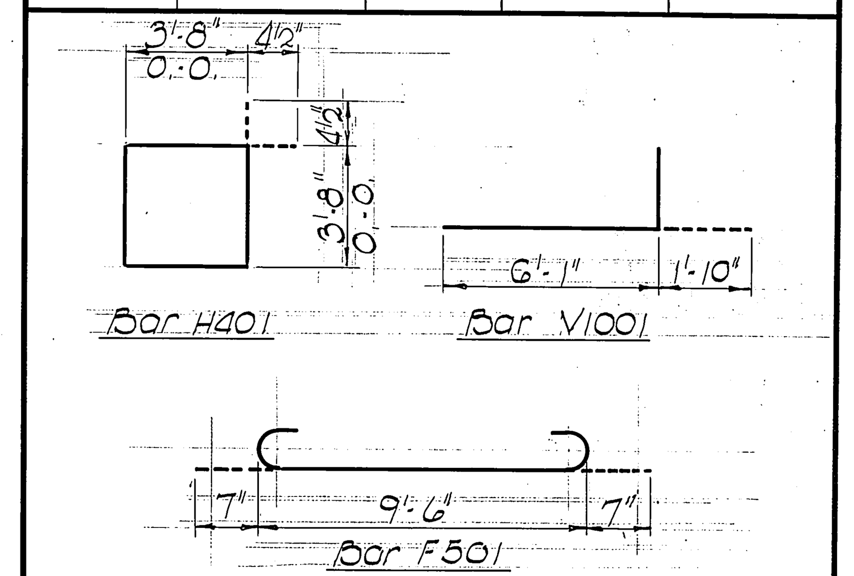
FOOTING PLAN

GENERAL NOTES

1. GENERAL SPECIFICATIONS: Standard Road And Bridge Specifications of the Tennessee Department of Highways (1968 Edition).
2. DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges 1973 Edition with Addenda And AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires And Traffic Signals (1975).
3. DESIGN LOADING: Basic Wind Velocity of 80 M.P.H. on 130' High Mast Luminaire.
4. CONCRETE: To Be Class "A" f'c = 3000 psi. for All Concrete.
5. REINFORCING STEEL: To Be ASTM A615 Grade 60. Standard C.R.S.I. Hook Details Apply Unless Otherwise Noted. Bending Dimensions Are Based on Grade 60. Spacing Dimensions Are Center To Center Unless Otherwise Noted.
6. △ FRICTION PILES: All Piles Shall Be 14" Square Precast Concrete Piling (Size 1). THEY SHALL BE DRIVEN TO A BEARING CAPACITY OF 40 TONS AND A MINIMUM PENETRATION OF 20 FEET.
7. GROUND ROD: Install 6 U.L. Approved 5/8" x 8' Ground Rods Around Base To Form A 12' Square. Rods Shall Be Connected By A # 1/0 A.W.G. Bare Stranded Copper Band. Band Shall Be Connected To Ground Lug in Pole Base From Two Sides of Pole.
8. ANCHOR BOLTS: Anchor Bolts will Be Supplied in order to be compatible for each required pole. Submittals Shall Be Supplied To The Engineer Prior To Purchase. See Manufacturer's Specifications And Drawings for Number, Diameter, Length And Bolt Circle, Placement of Anchor Bolts.

BILL OF STEEL FOR ONE FOOTING

Mark	No. Req'd.	Size	Length	Shape
H401	6	4	15'-5"	□
V1001	16	10	7'-11"	˩
F501	22	5	10'-8"	⊂⊃



BAR BENDING DIAGRAMS

SUMMARY OF ESTIMATED QUANTITIES △

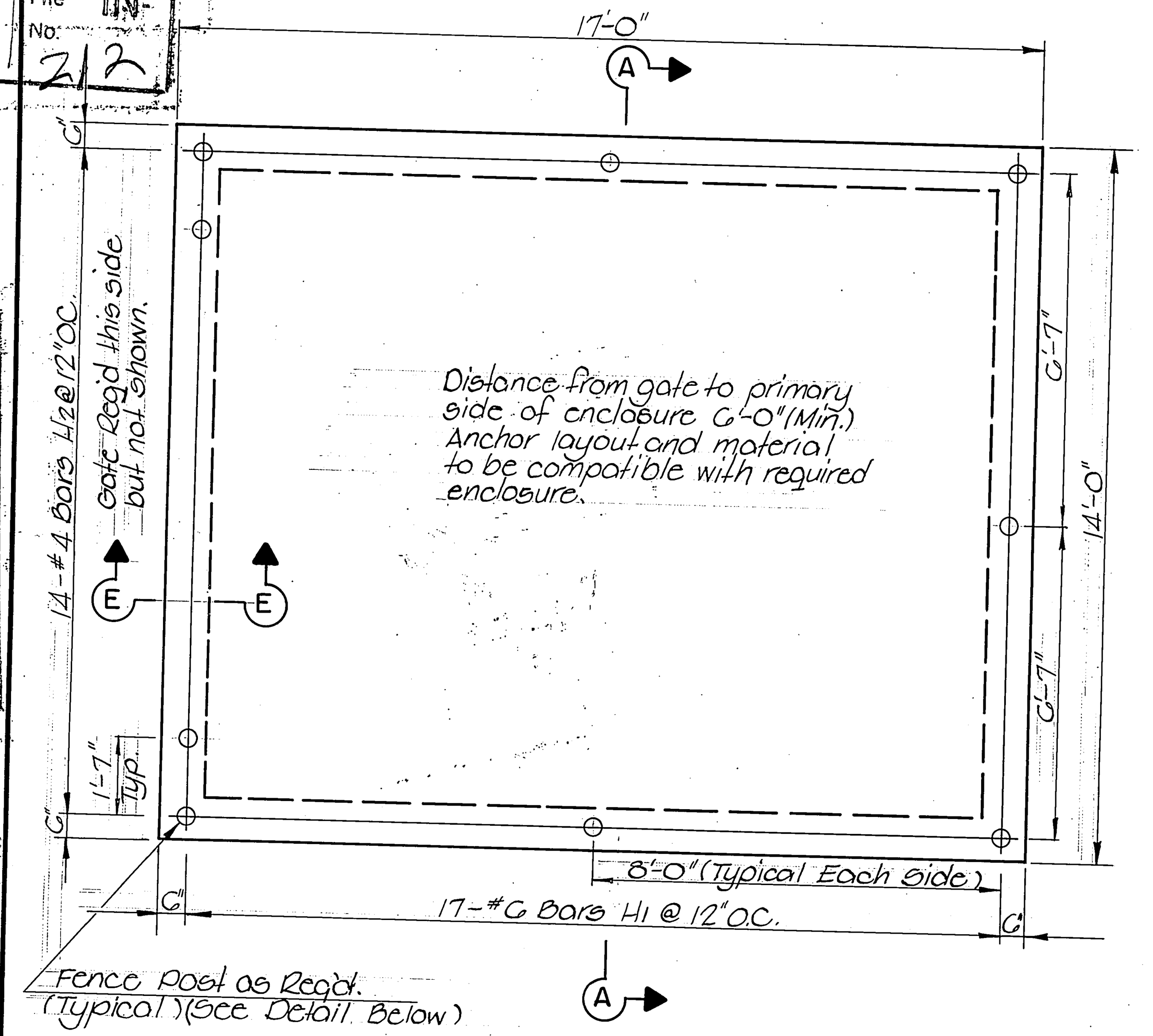
Item	Unit	Quantity
Class "A" Concrete	Cu. Yds.	13.9
Steel Bar Reinforcement	Lbs.	850
Precast Concrete Piling - Size 1	Lin. Ft.	120
Dry Excavation	Cu. Yds.	58

NOTE: PILE PAYMENT INCLUDED IN UNIT PRICE FOR HIGH MAST POLE.

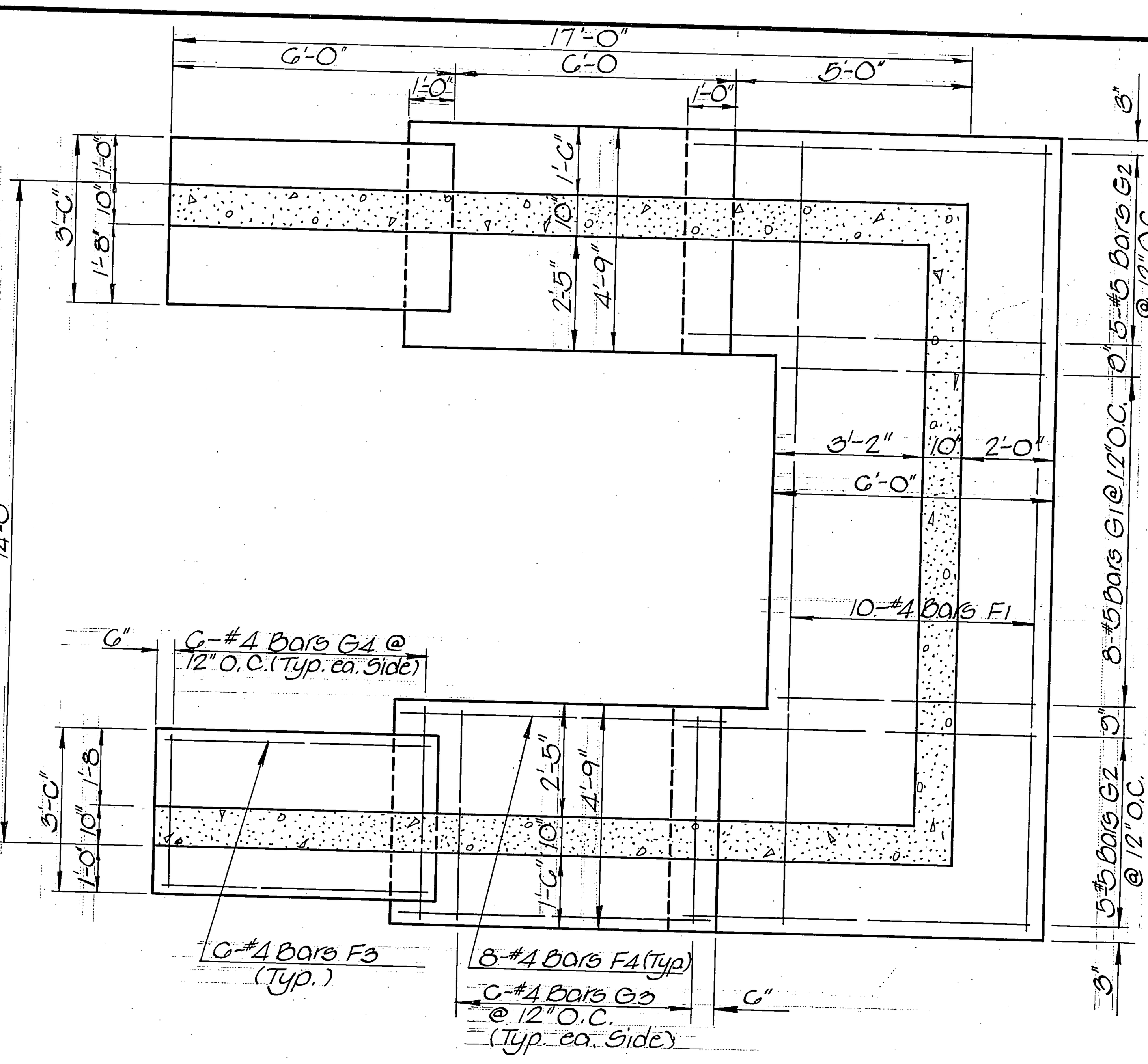
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

130' HIGH MAST
POLE FOUNDATION

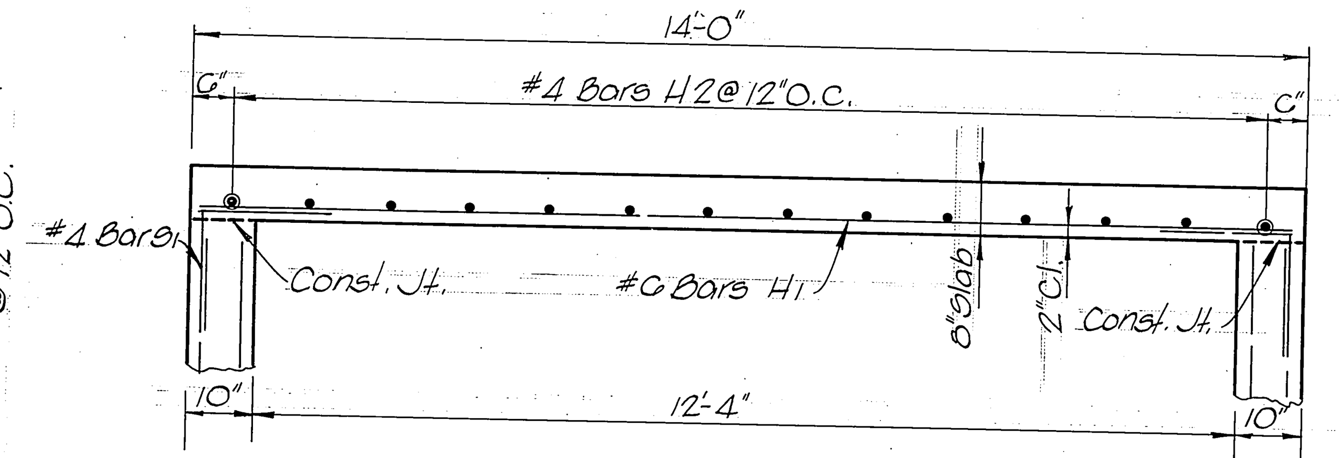
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	2K



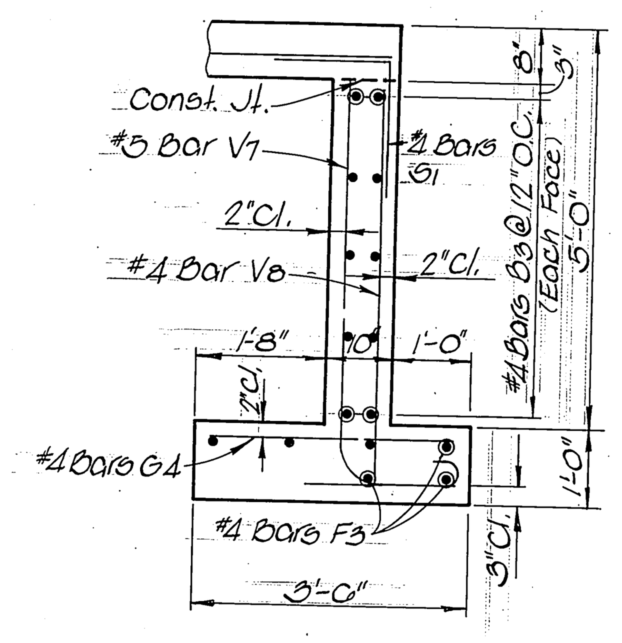
SLAB PLAN



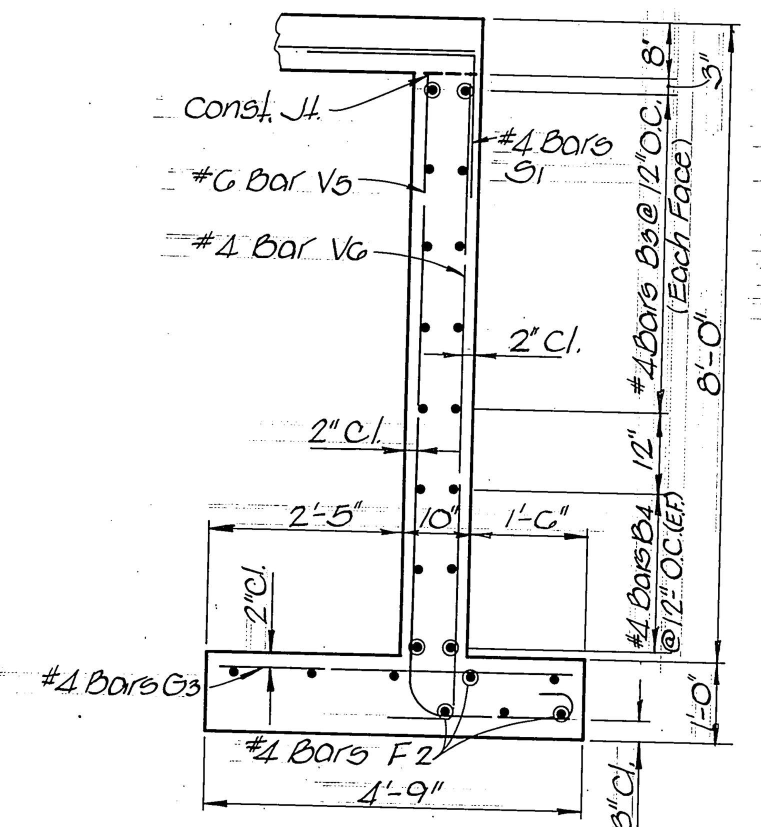
FOOTING PLAN



SECTION A-A



SECTION B-B

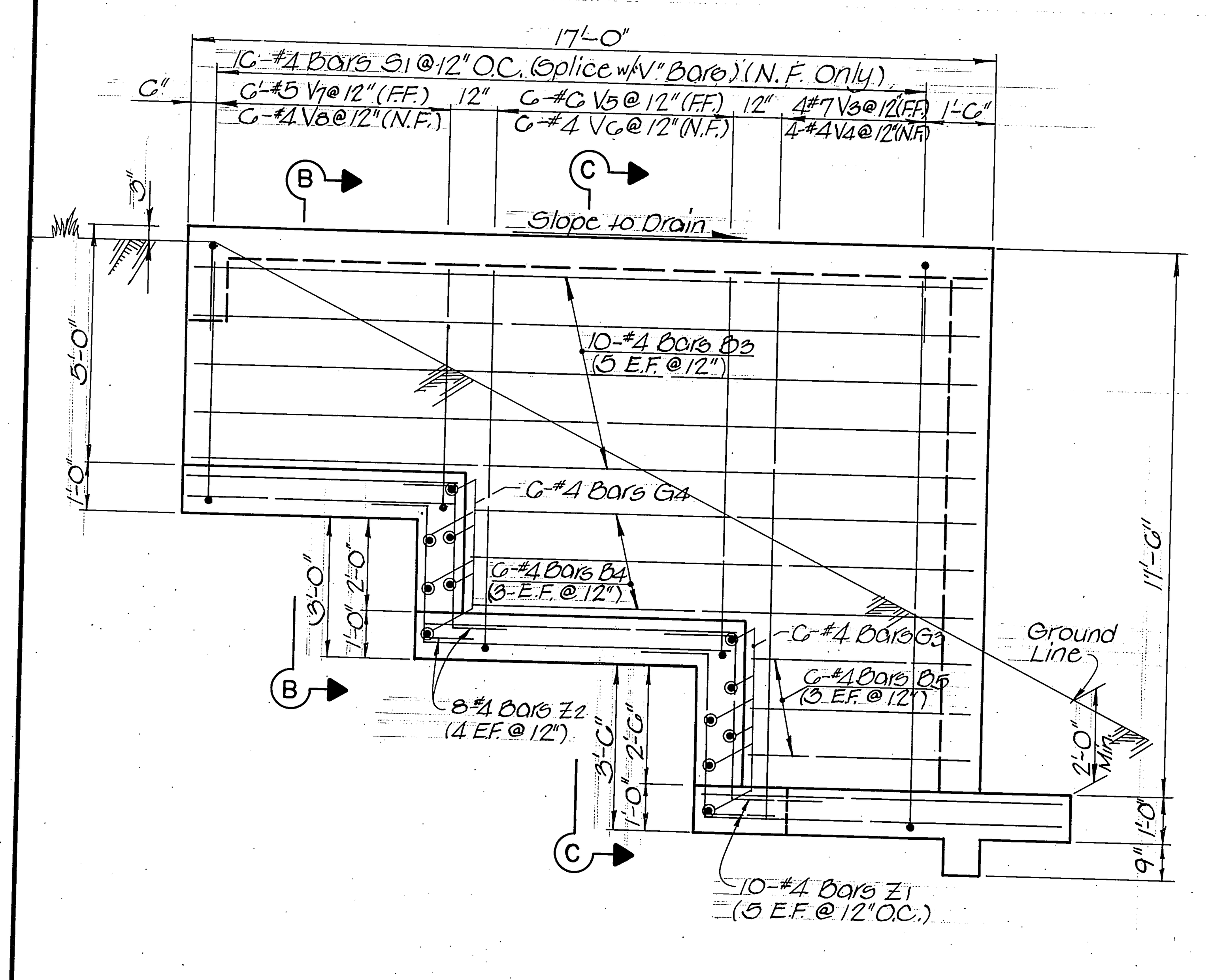


SECTION C-C

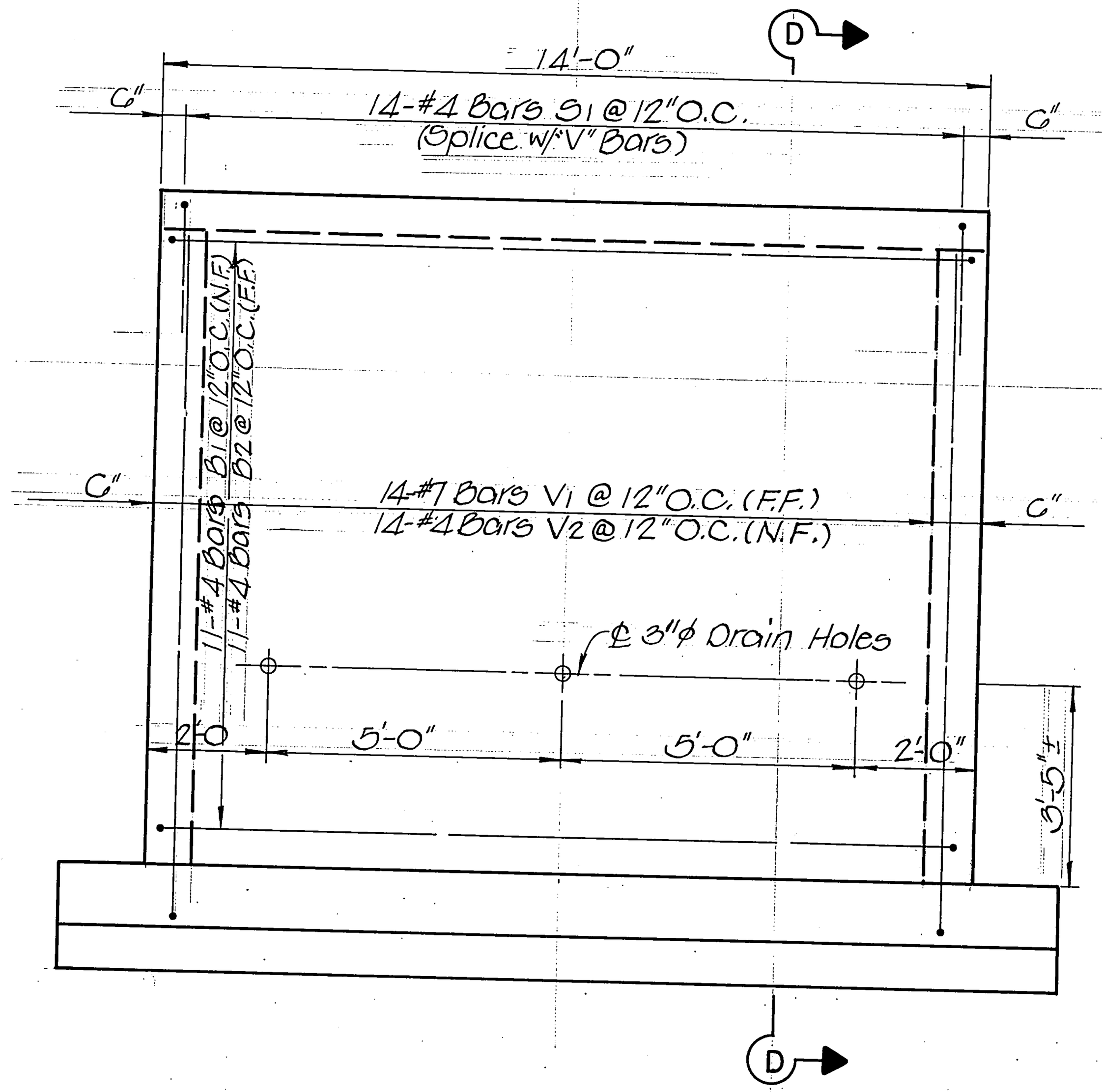
1. Two Ground rods shall be installed. One rod shall be within the area of the enclosure. An external rod shall be located in undisturbed soil adjacent to the foundation. Size shall be 3/4"x10 ft. length.
2. Equipment layout shall be as shown on Sheet 2D.
3. Conduit Orientation shall be as shown on Sheet 2E.
4. Fence and Gate layout shall be per Std. Dwg. S-F-10 for 6 ft. Chain Link Fence with two 5 ft. gates.
5. Concrete shall be Class "A" f'c = 3,000 psi.
6. Reinforcing Steel shall be ASTM-A615 Grade 60. Standard CRSI Hook Details apply unless otherwise noted. Bending Dimensions are based on Grade 60. Spacing Dimensions are Center to Center unless otherwise noted. Bending Dimensions are out-to-out.

BILL OF REINFORCING

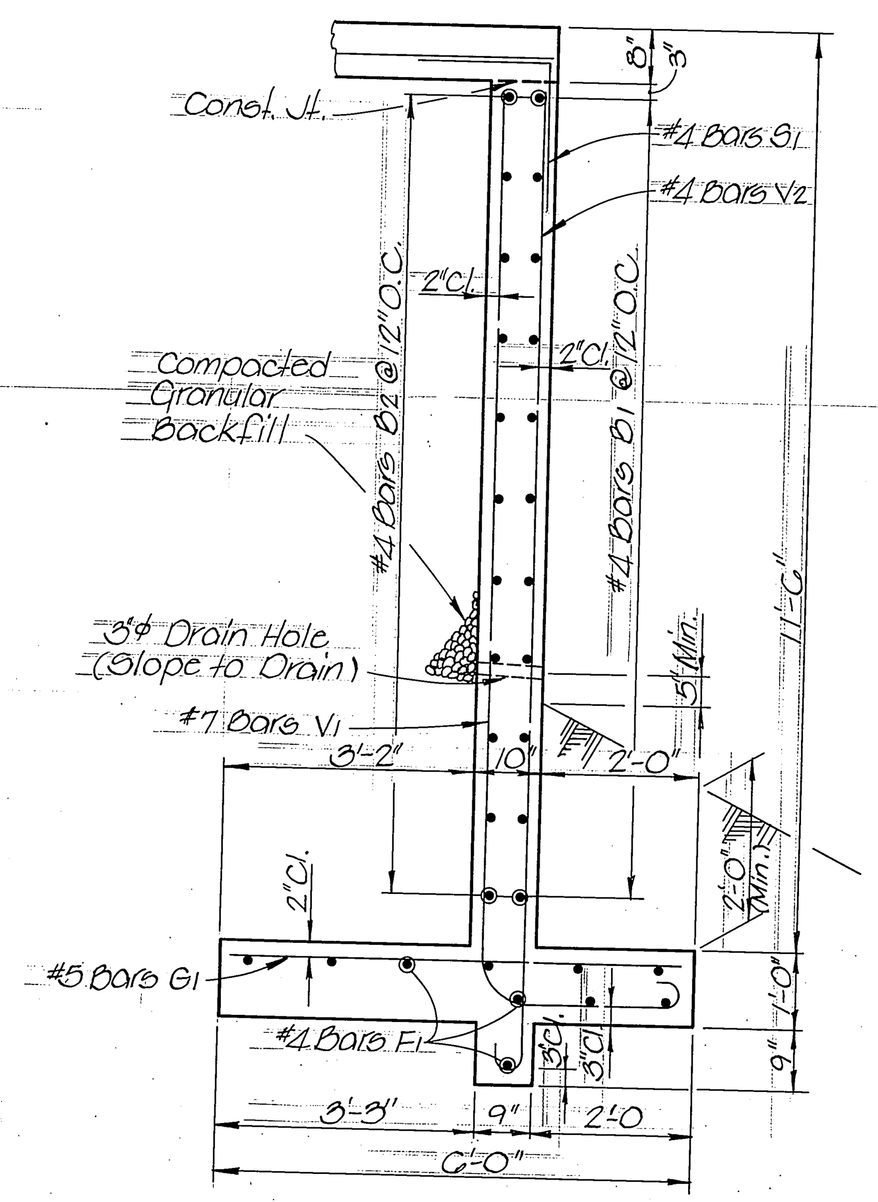
BAR	NO.	SIZE	LENTGH	SHAPE
H1	19	6	16'-8"	
H2	14	4	13'-8"	
V1	14	7	14'-8"	
V2	14	4	12'-8"	
V3	8	7	14'-2"	
V4	8	4	12'-8"	
V5	12	6	10'-6"	
V6	12	4	9'-2"	
V7	12	5	6'-11"	
V8	12	4	6'-2"	
B1	11	4	16'-2"	
B2	11	4	13'-8"	
B3	20	4	16'-8"	
B4	12	4	10'-8"	
B5	12	4	4'-8"	
F1	10	4	16'-8"	
F2	16	4	6'-8"	
F3	12	4	5'-8"	
G1	8	5	5'-8"	
G2	10	5	7'-8"	
G3	24	4	4'-5	
G4	24	4	3'-2"	
S1	60	4	3'-0"	
Z1	20	4	6'-0'	
Z2	16	4	5'-6"	



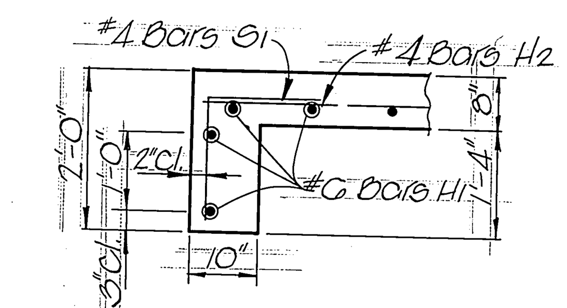
SIDE WALL ELEVATION



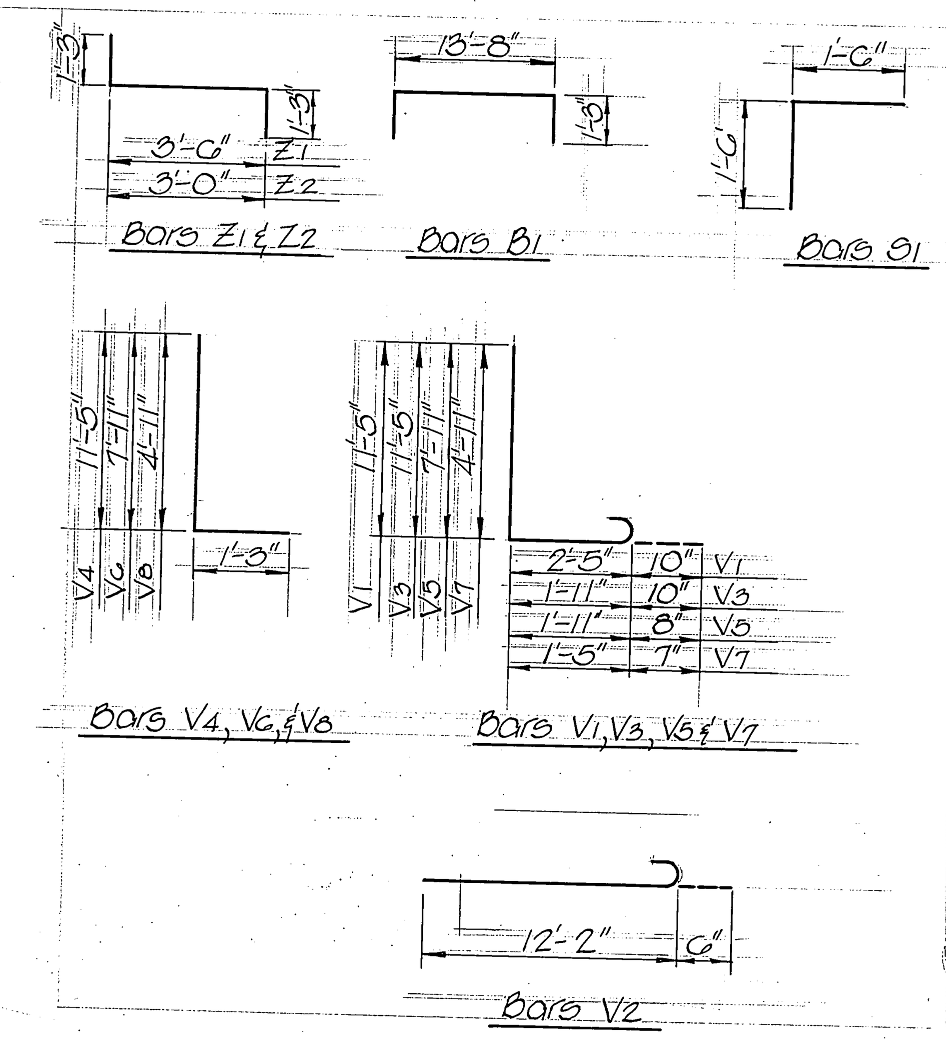
BACK WALL ELEVATION

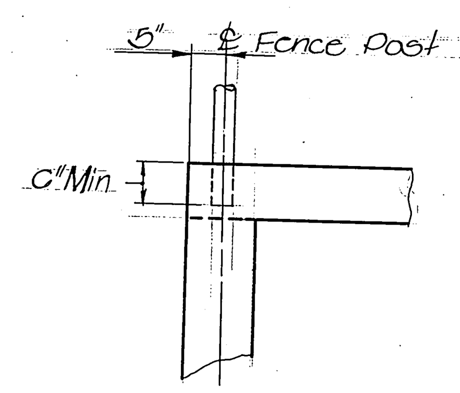


SECTION D-D



SECTION E-E





FENCE POST EMBEDMENT DETAIL

SUMMARY OF ESTIMATED QUANTITIES

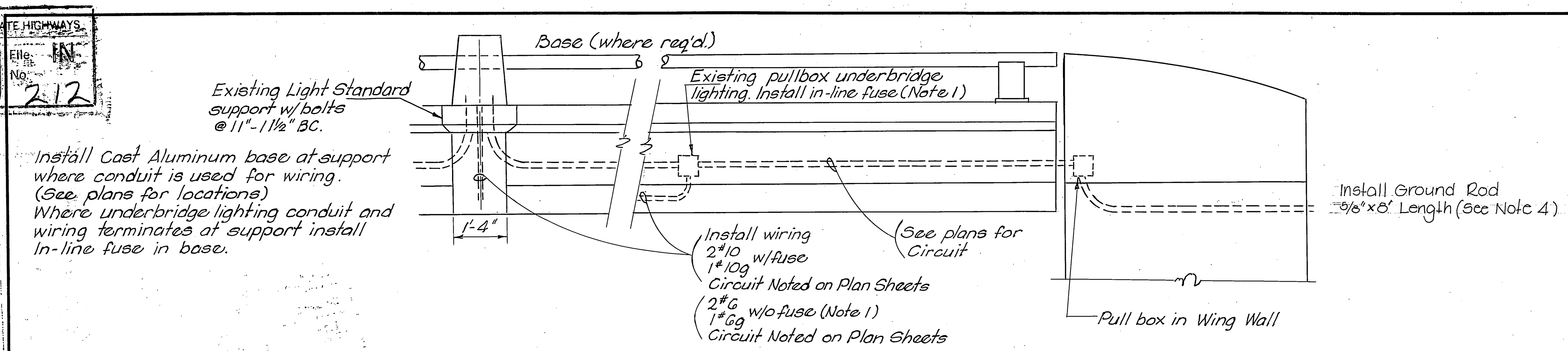
Item	Unit	Quantity
Class "A" Concrete	Cu. Yds.	25.2
Steel Bar Reinforcement	Lbs	3141
Dry Excavation	Cu. Yds.	65.6

Note: The foundation and pad shall be included in the Unit Price for the Primary Control Center Pay Item.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CONTROL CENTER PAD AND FOUNDATION- McLEAN AND HIGHLAND

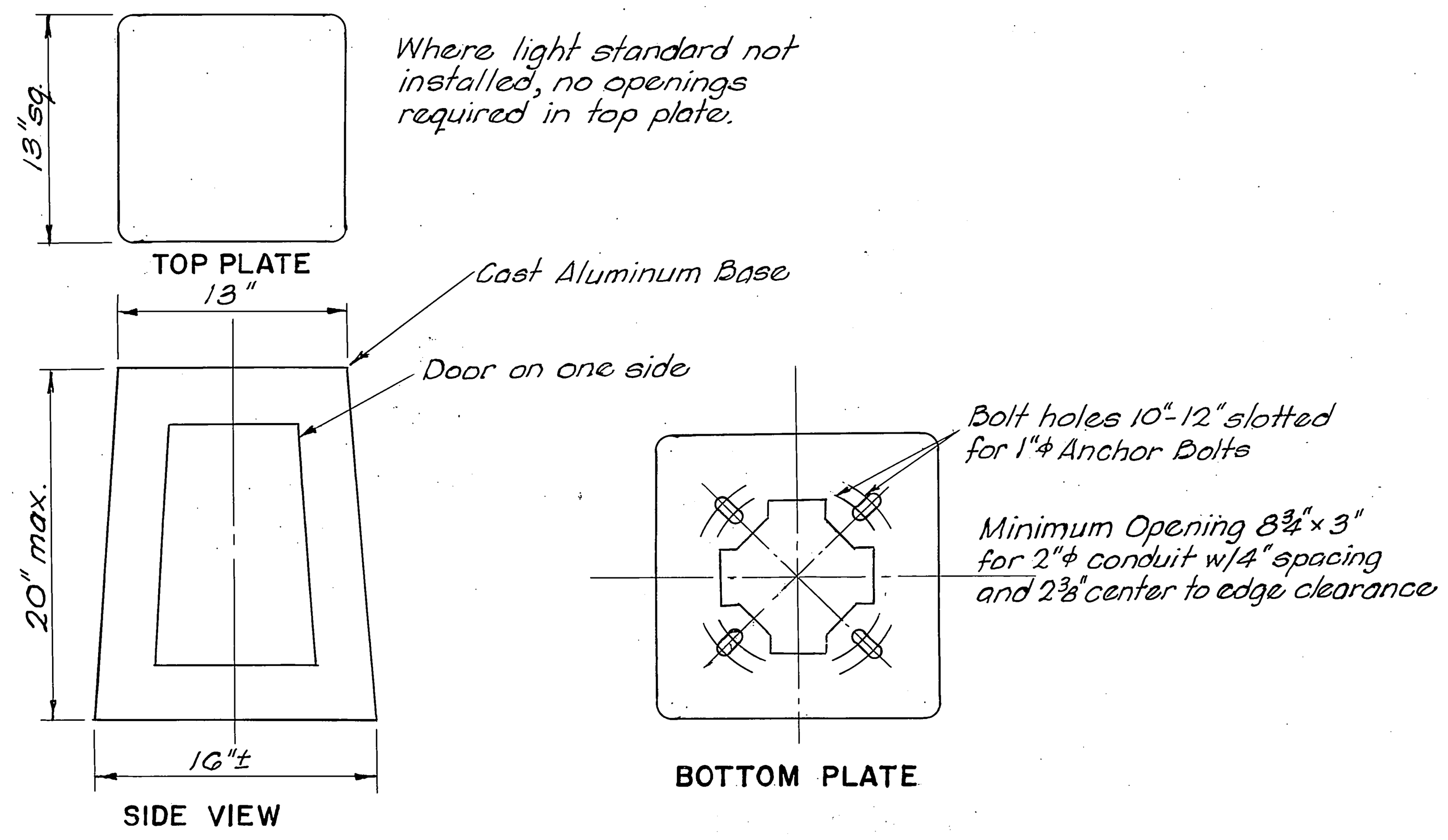
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	2L



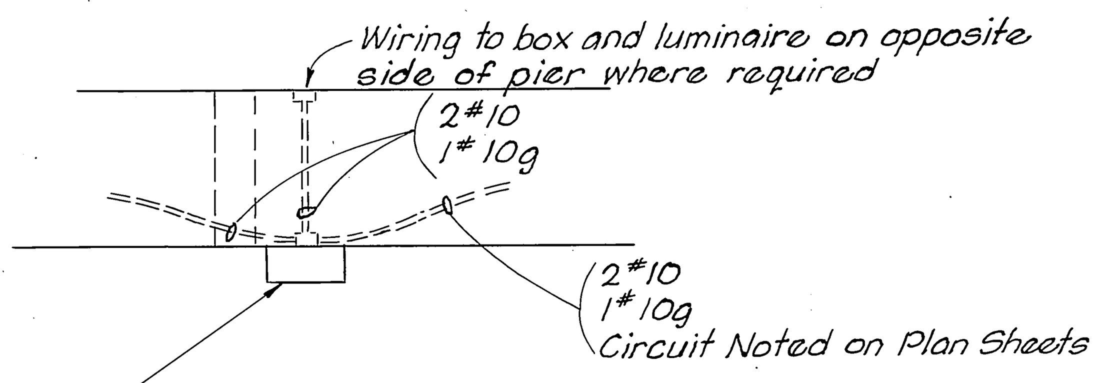
ELEVATION AT ABUTMENT
No Scale

NOTES

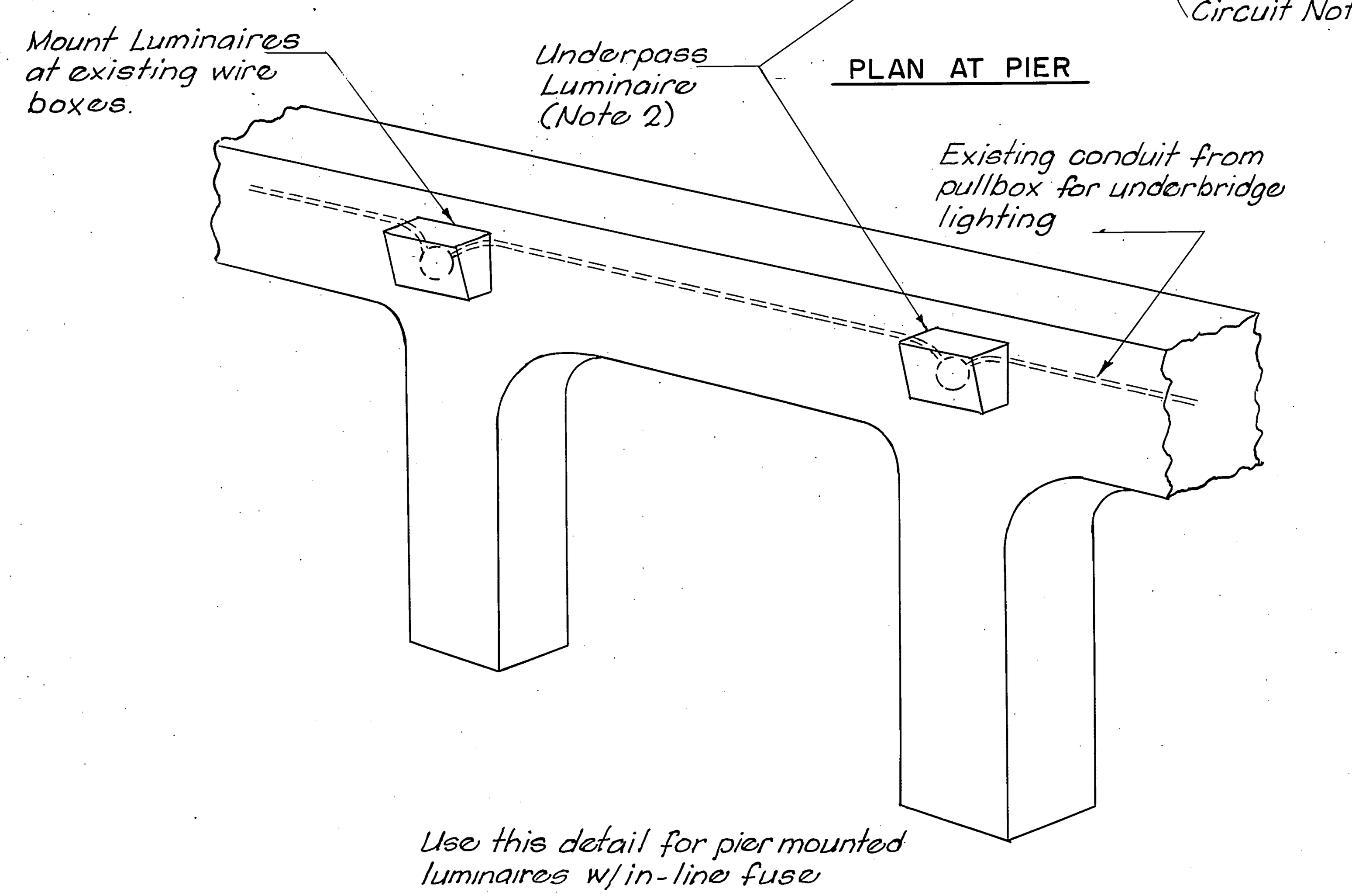
1. The underpass lighting fuse shall be installed in the existing pullbox for underbridge lighting or in the cast aluminum base as required.
2. Underpass luminaire shall be surface mounted. For pier mount use side conduit entry and rear box entry.
3. For slab mount use vertical bracket and side or top conduit entry.
4. A ground rod shall be installed at the end of wingwall conduit run for each underbridge lighting circuit.



CAST ALUMINUM BASE DETAIL
Scale: 1½" = 1'-0"

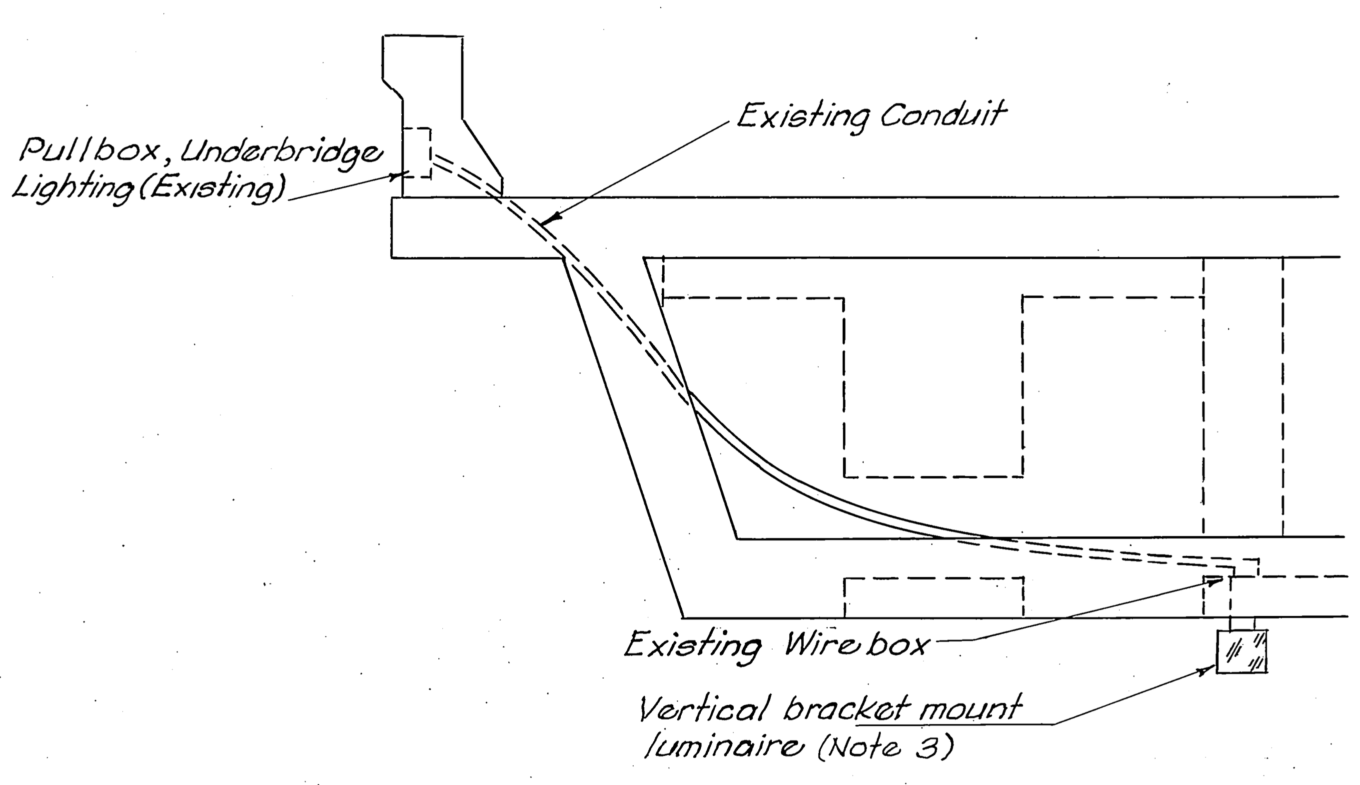


PLAN AT PIER



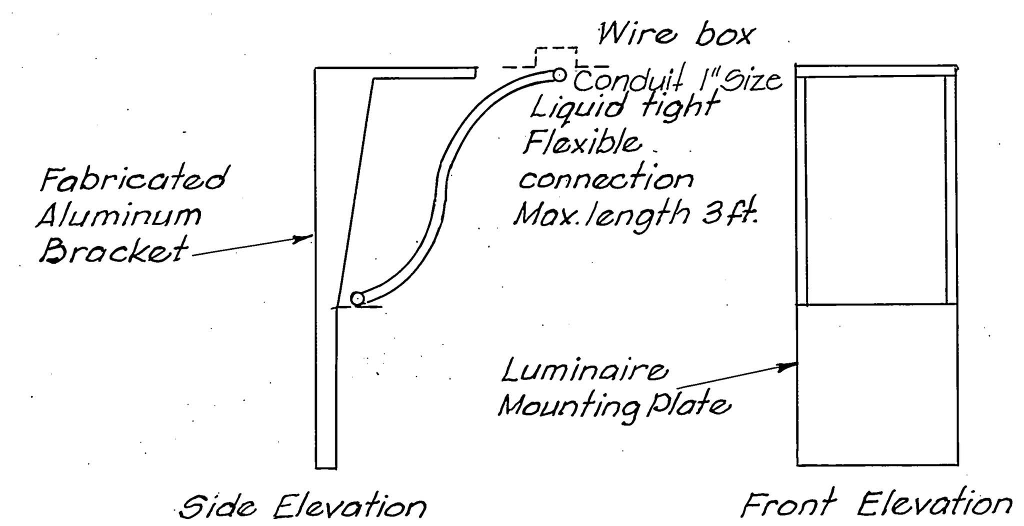
Use this detail for pier mounted luminaires w/in-line fuse

PIER MOUNTED UNDERPASS LUMINAIRE
No Scale



Elevation Section
I-240 over Covington Pike

SLAB MOUNTED UNDERPASS LUMINAIRE
No Scale



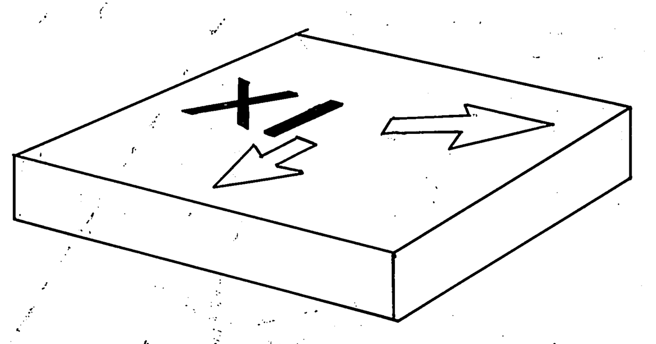
VERTICAL BRACKET FOR SLAB
No Scale

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

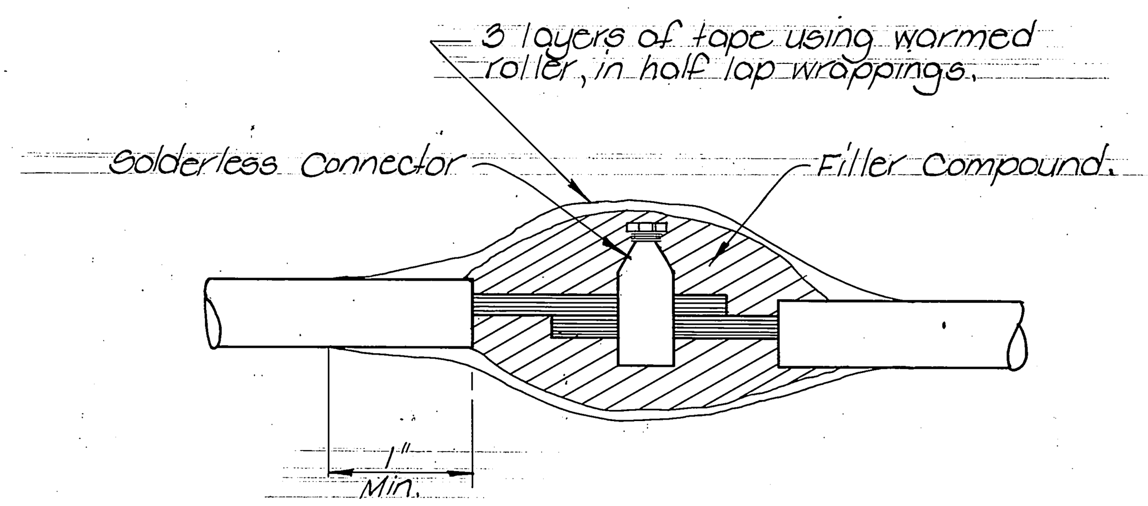
STRUCTURE AND UNDERPASS LIGHTING DETAILS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	2M

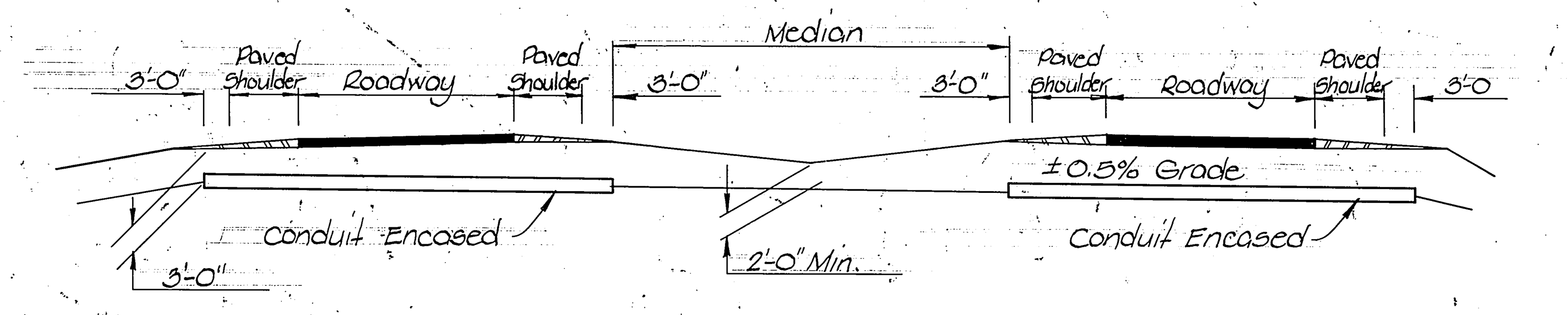
Note:
1. All splices must be located in Pull Boxes or Lighting standard bases.
2. This contract includes boring or jacking conduit under roadway at locations noted on the plans. See Special Provisions. All other conduit under roadways and on bridges has been installed under previous contracts. Contractor shall locate existing conduit and he shall extend wire as shown on plans.



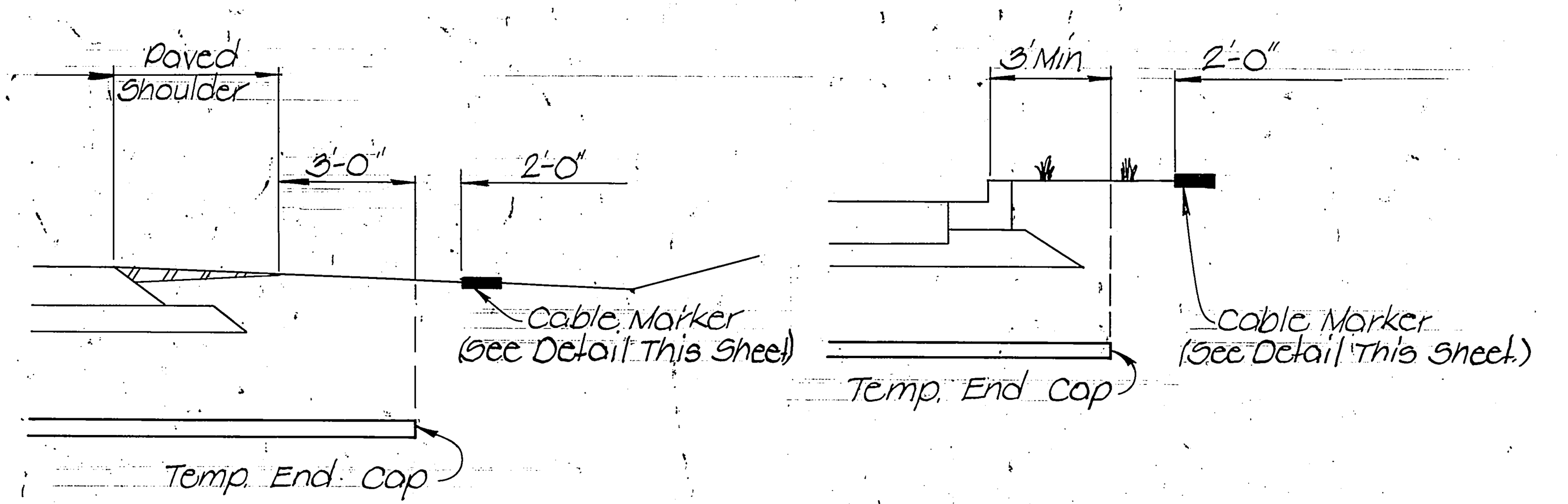
24"x24"x4" Class A Concrete
CABLE MARKER
No Scale



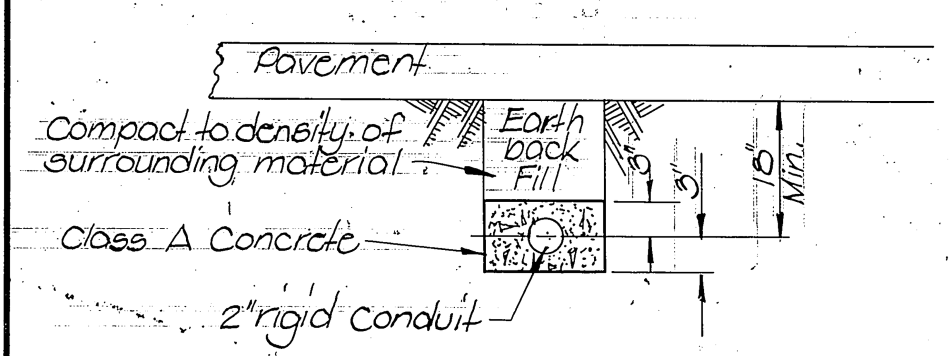
TYPICAL SPLICING & TAPING DETAIL
(Compression Fitting Connector Kits may be used as Alternate.



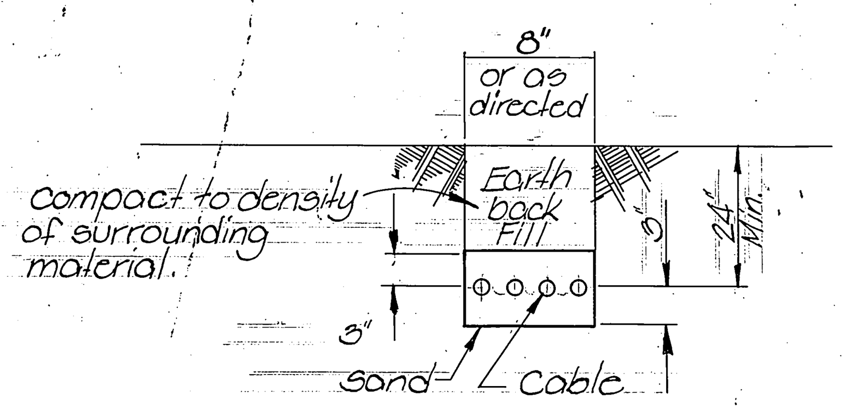
ELEVATION SHOWING CONDUIT PLACEMENT



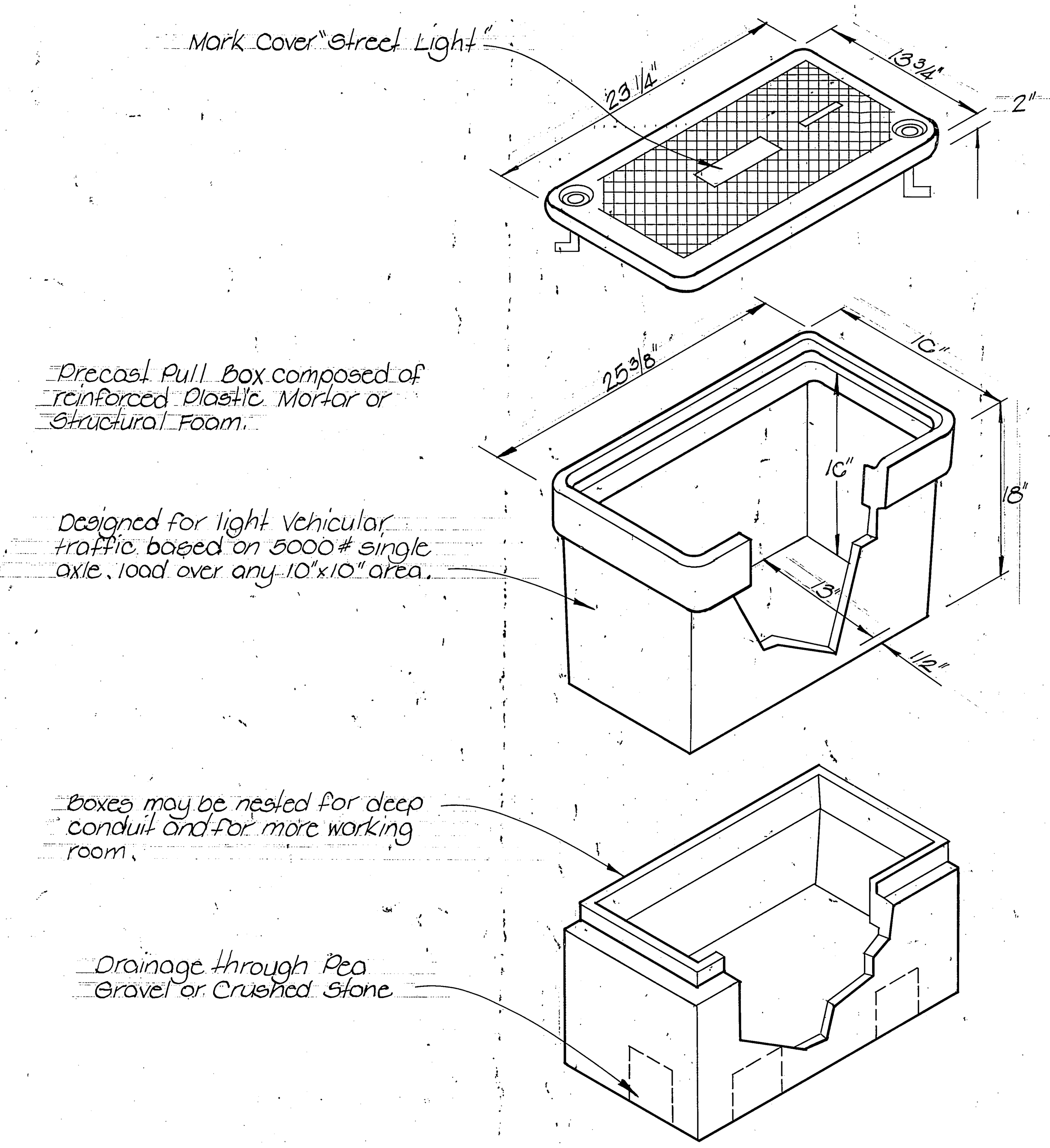
CONDUIT CROSSING
Cable Marker Locations
No Scale



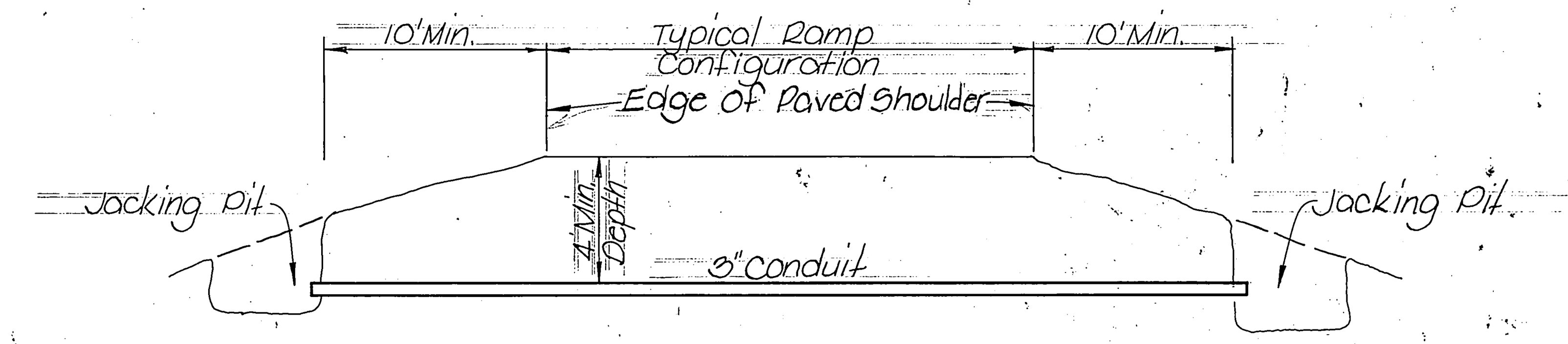
UNDER ROADWAY CONDUIT TRENCH



DIRECT BURIED CABLE TRENCH



UNDERGROUND PULL BOX DETAIL



JACKING AND BORING DETAIL

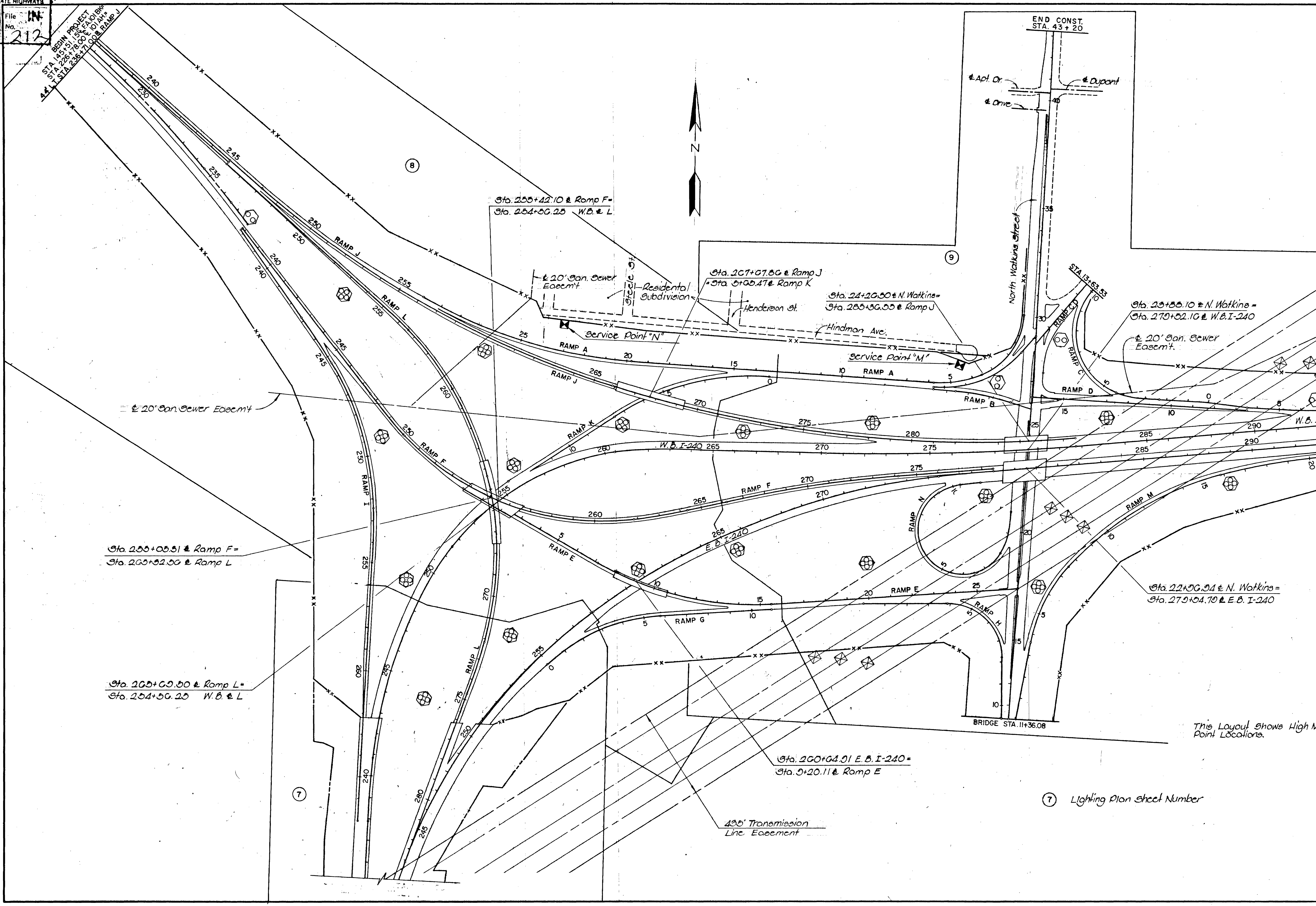
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

CONDUIT, CABLE, TRENCHING AND UNDERGROUND PULL BOX DETAILS

TENN. STATE HIGHWAYS

Plans Divn.	File No. IN 212

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	3A



This Layout Shows High Mast Lighting and Service Point Locations.

150 50
200 100 0 200
SCALE IN FEET

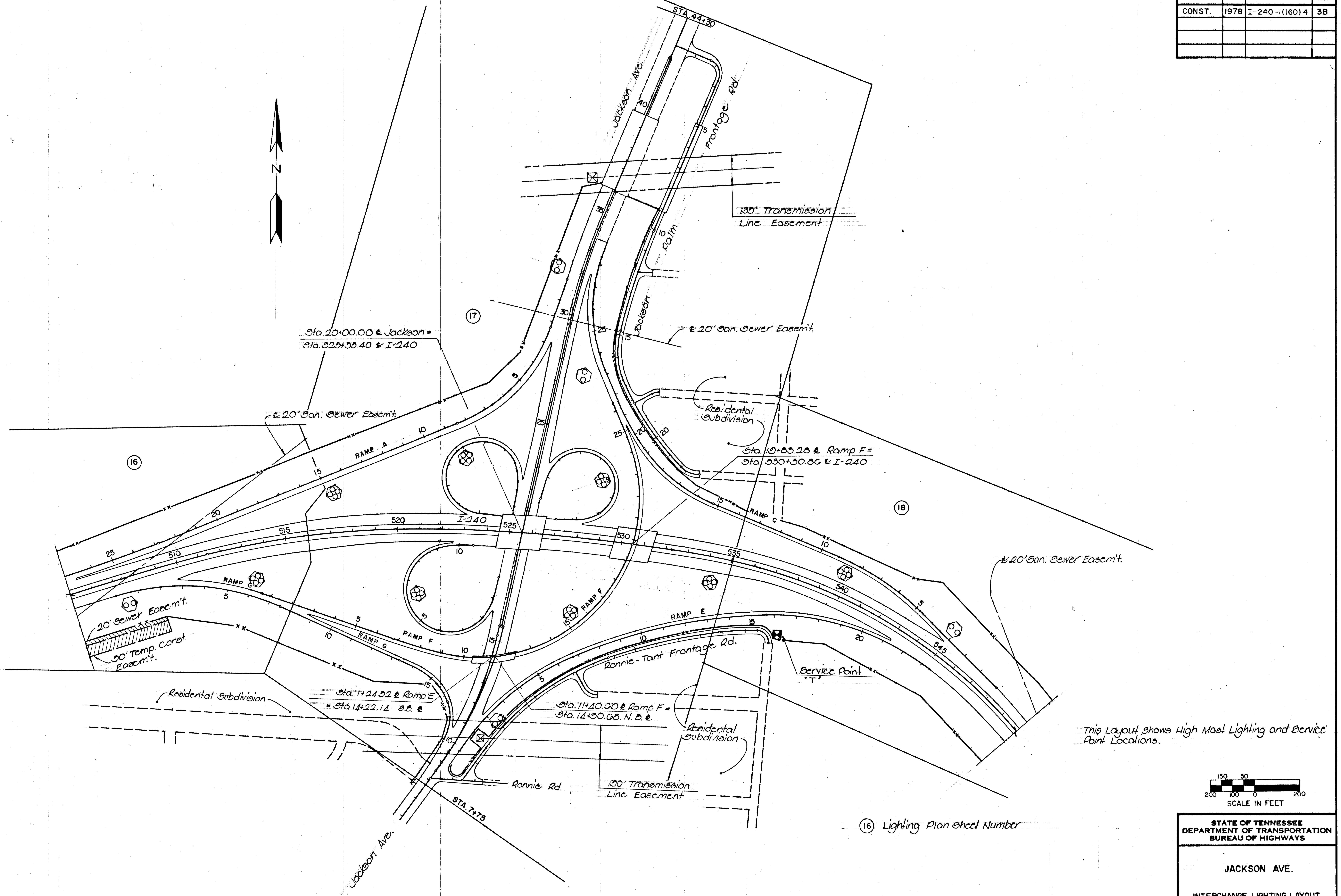
(7) Lighting Plan Sheet Number

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240, F.A. 101, N. WATKINS ST.

INTERCHANGE LIGHTING LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	3B



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

JACKSON AVE.

INTERCHANGE LIGHTING LAYOUT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	3C

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240, I-40, SUMMER AVE.

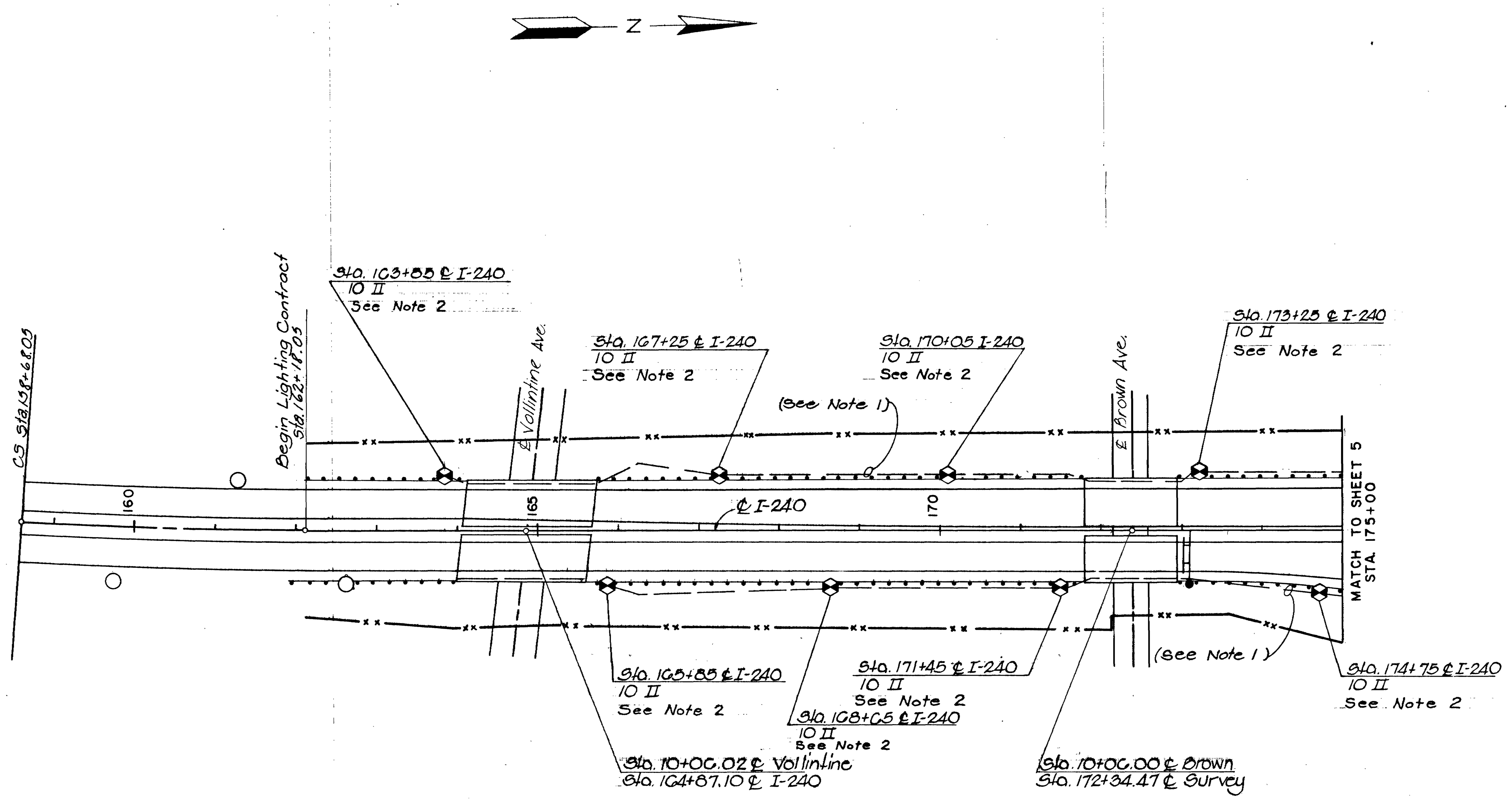
INTERCHANGE LIGHTING LAYOUT

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLAN.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	4

Notes:

1. Conduit, wire, and circuit number are to remain the same.
2. The Contractor shall install a frangible base adapter with existing foundation bolt circle and required lighting standard bolt circle.



0 50 100 200
SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 162+18.05 TO STA. 175+00

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	5

Notes:
1. Conduit, wire and circuit number are to remain the same.
2. The contractor shall install a frangible base adapter with existing foundation bolt circle and required lighting standard bolt circle.
3. The bolt circle indicated by diagonal center to center bolt spacings is a nominal 11 1/2". Hole slots for poles or bases shall be sufficient for existing bolt circles.

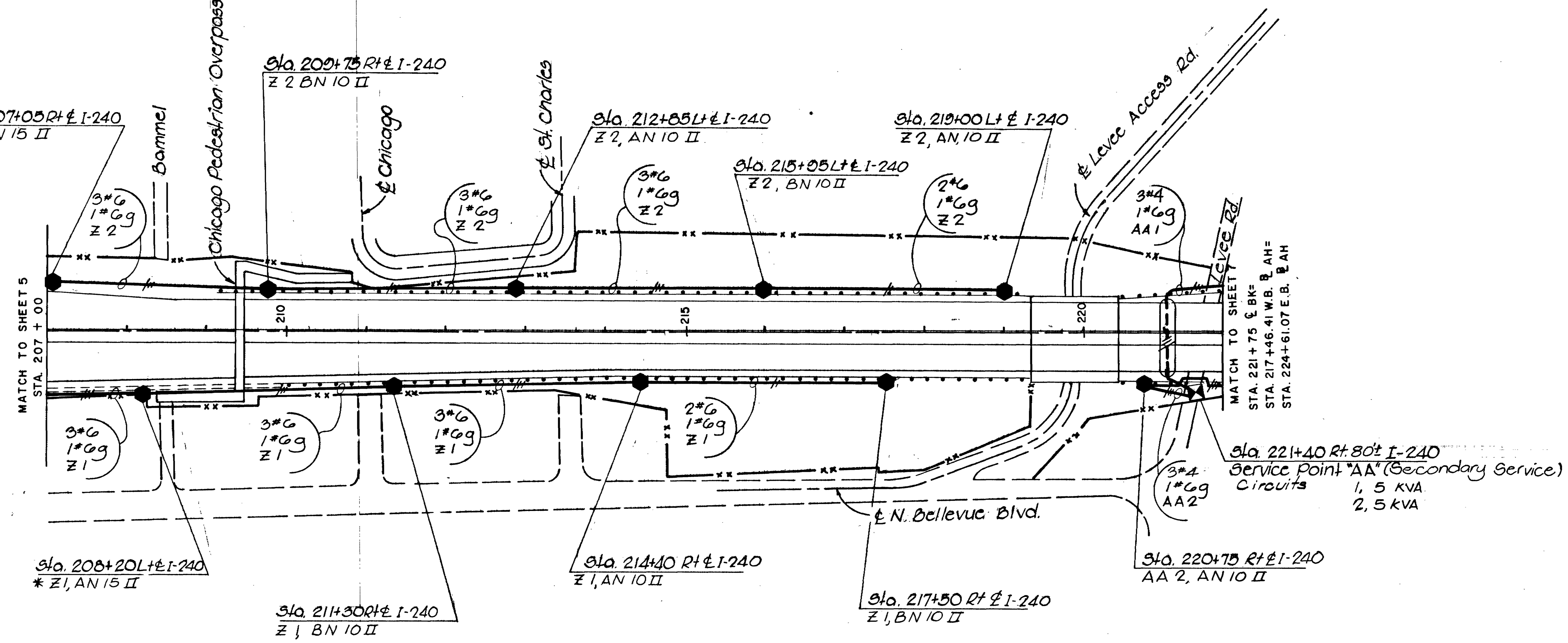
0 50 100 200
SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

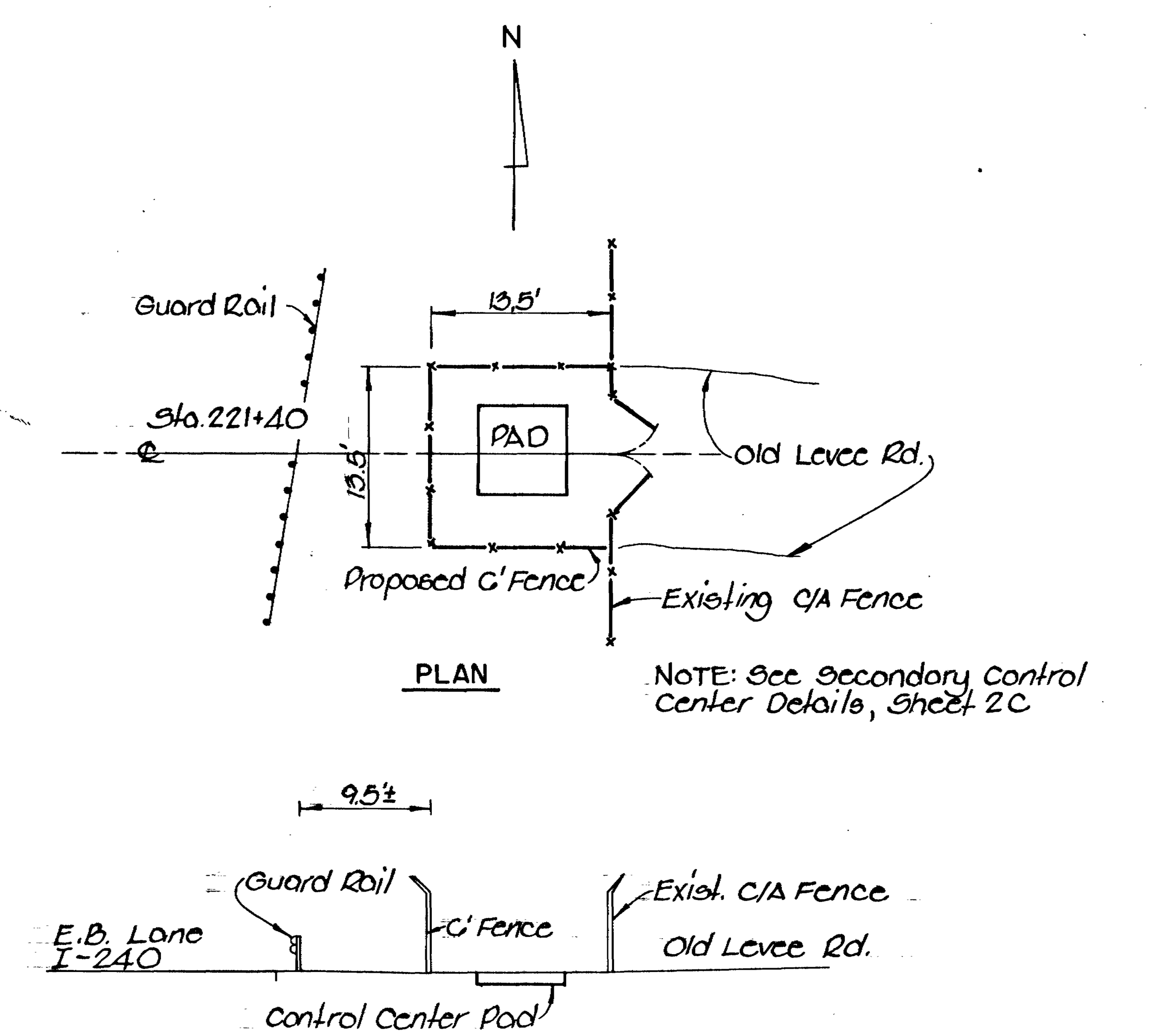
I-240 LIGHTING PLAN

STA. 175+00 TO STA. 207+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	6



* This Fixture Mounted Behind Retaining Wall, Pole Height To Be Adjusted Accordingly To Maintain 45 Ft. Mounting Above Pavement.



PLAN

NOTE: See Secondary Control Center Details, Sheet 2C

ELEVATION

SERVICE POINT "AA"

0 50 100 200
SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 207+00 TO STA. 221+75

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	7

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

Note:
1. The bolt circle indicated by diagonal center to center bolt spacings varies from 10½" to 11". The spacing within a Lighting Standard support vary by as much as ½". Hole slots for poles or bases shall be sufficient for existing bolt circles.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 F.A. 101

I-240 LIGHTING PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	8

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS

I-240 F.A. 101

I-240 LIGHTING PLAN

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	9

NOTES:
1. Underbridge Lighting terminates at this support - See Detail Sheet
2. The bolt circle indicated by diagonal center to center bolt spacing is a nominal 11". Hole slots for poles and bases shall be sufficient for existing bolt circles.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS

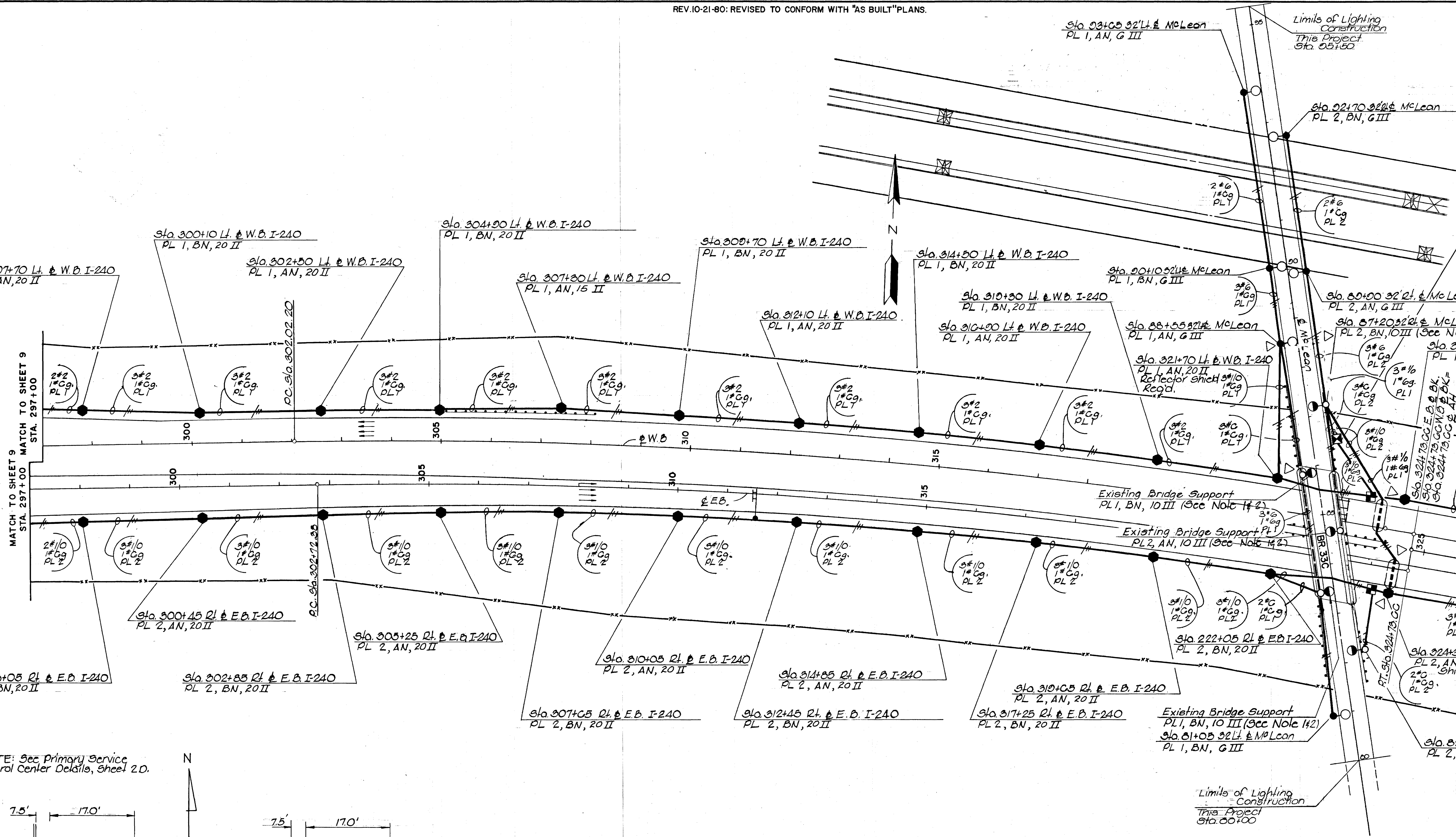
I-240, F.A. 101,
N. WATKINS ST.

I-240 LIGHTING PLAN

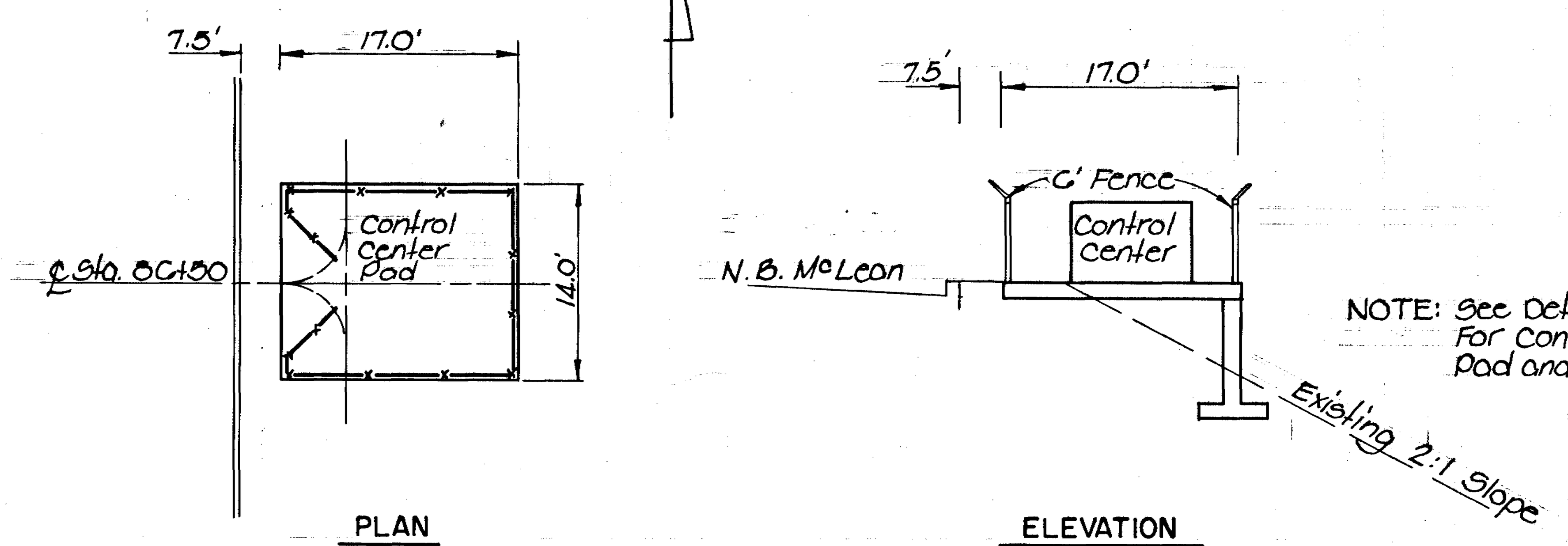
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	10

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

Note:
1. Mounting height shall be 30 ft.
2. The bolt circle indicated by diagonal center to center bolt spacings is a nominal 11¾". Hole slots for poles or bases shall be sufficient for existing bolt circles.



NOTE: See Primary Service Control Center Details, Sheet 2D.



NOTE: See Detail Sht. 2K For Control Center Pad and Foundation.

SERVICE POINT "PL"

0 50 100 200
SCALE IN FEET

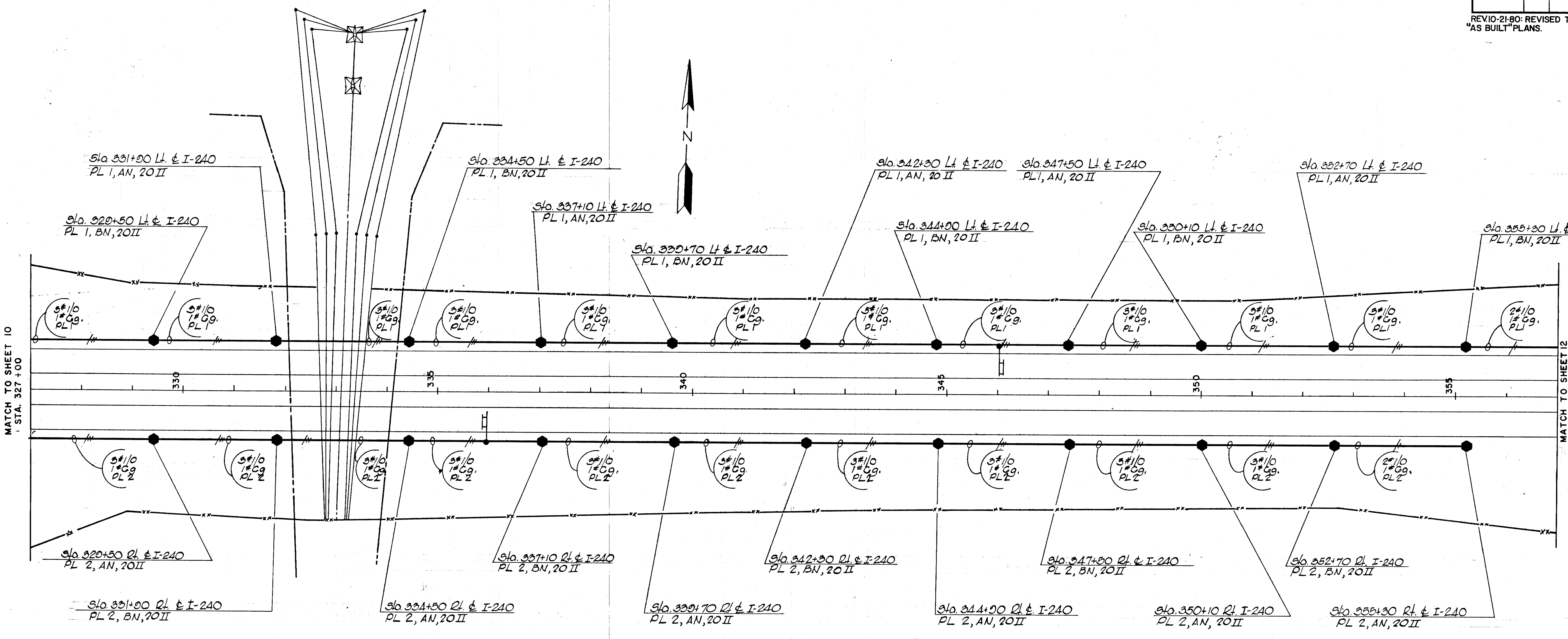
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 297+00 TO STA. 327+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	11

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.



0 50 100 200

SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

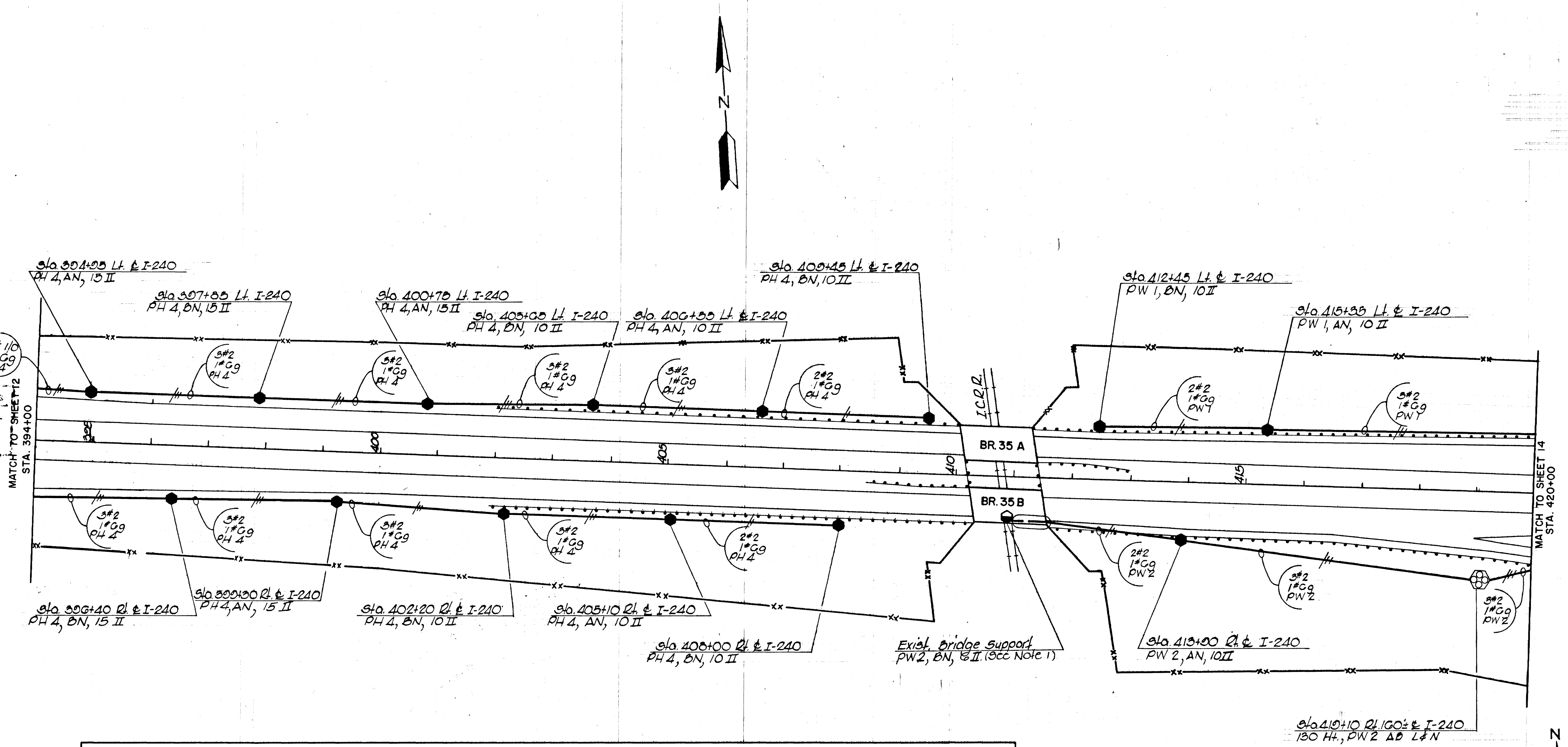
I-240 LIGHTING PLAN

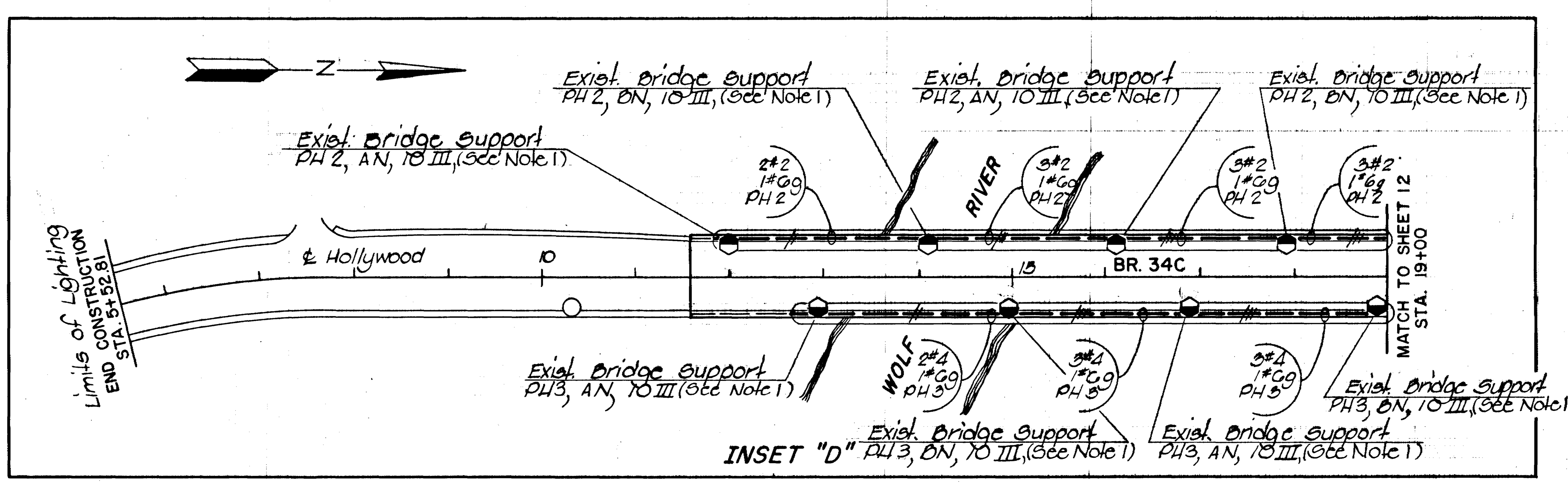
STA. 327+00 TO STA. 357+00

TENN. STATE HIGHWAYS
Plans File No. IN-212
Divn.
TYPE | YEAR | PROJECT NO. | SHEET NO.
CONST. | 1978 | I-240-1(160)4 | 12
REV. 10-21-80: REVISED TO CONFORM WITH
NOTES
1. Omit
2. The bolt circle indicated by diagonal center to center bolt spacings, varies from 11" to 11½". The spacings within a Lighting Standard support vary by as much as ½". Hole slots for poles and bases shall be sufficient for existing bolt circle.
INSET B
MATCH LINE STA. 38+00
END CONSTRUCTION STA. 44+16.10 LIMITS OF LIGHTING
INSET C
STA. 393+00 MATCH LINE
MATCH TO SHEET 13 STA. 394+00
Sta. 393+50 Rt. ℄ I-240
PH4, AN, 15 II
INSET A
MATCH TO SHEET 11 STA. 357+00
MATCH LINE STA. 360+00
358+40
Sta. 357+50 Rt. ℄ I-240
PL1, AN, 20 II
Sta. 37+00 Lt. 120'± ℄ Hollywood
120 Ht, PH1, AB, L&N
MATCH TO INSET B STA 38+00
Sta. 35+50 Rt. ℄ Hollywood
Service Point "PH" (Primary Service)
(For Detail, See Sheet 13)
Circuits 1, 15 KVA
2, 10 KVA
3, 10 KVA
4, 15 KVA
Sta. 23+20 ℄ Ramp C
2" Primary Conduit Crossing
42" Min. Depth
Sta. 360+50 Rt. 170'± ℄ I-240
130 Ht, PH1, AB, L&N
Sta. 32+80 Lt. 120'± Hollywood
30 Ht, PH1, AB, Sym
Sta. 372+00 Lt. 170'± ℄ I-240
130 Ht, PH1, AB, Sym
Sta. 31+00 Rt. 275'± ℄ Hollywood
130 Ht, PH3, AB, Sym
Sta. 384+00 Lt. 140'± ℄ I-240
130 Ht, PH4, AB, Sym
Sta. 390+20 Lt. 180'± ℄ I-240
130 Ht, PH4, AB, L&N
Sta. 366+80 Rt. 140'± ℄ I-240
130 Ht, PH2, AB, Sym
Sta. 25+00 Rt. 180'± ℄ Hollywood St.
130 Ht, PH3, AB, Sym.
Sta. 24+50± Lt. 300'± Hollywood St.
130 Ht, PH2, AB, Sym
Sta. 21+60± Rt. 180'± Hollywood St.
30 Ht, PH3 AB, L&N
Built-up ramp required to Elev. 228. See Detail of Foundation in adverse slope conditions.
Existing Bridge Support
PH2, AN, 10 III (See Note 2)
BR. 34 B
See Detail "A"
BR. 34 A
BR. 34 C
MATCH TO INSET D STA. 19+00 SHEET 13
MATCH TO INSET A STA 360+00
MATCH TO INSET C STA 393+00
RAMP A
RAMP B
RAMP C
RAMP D
RAMP E
RAMP F G
RAMP H
Hollywood St.
N 316,000
N 315,500
N 315,000
N 314,500
E 811,000
E 811,500
E 812,000
E 812,500
E 813,500
Underpass Lighting Detail "A"
Phase A
Phase B
See Note 2
Abutment Mounted Lights
℄ I-240
SCALE IN FEET
0 50 100 200
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
HOLLYWOOD ST.
INTERCHANGE
I-240 LIGHTING PLAN

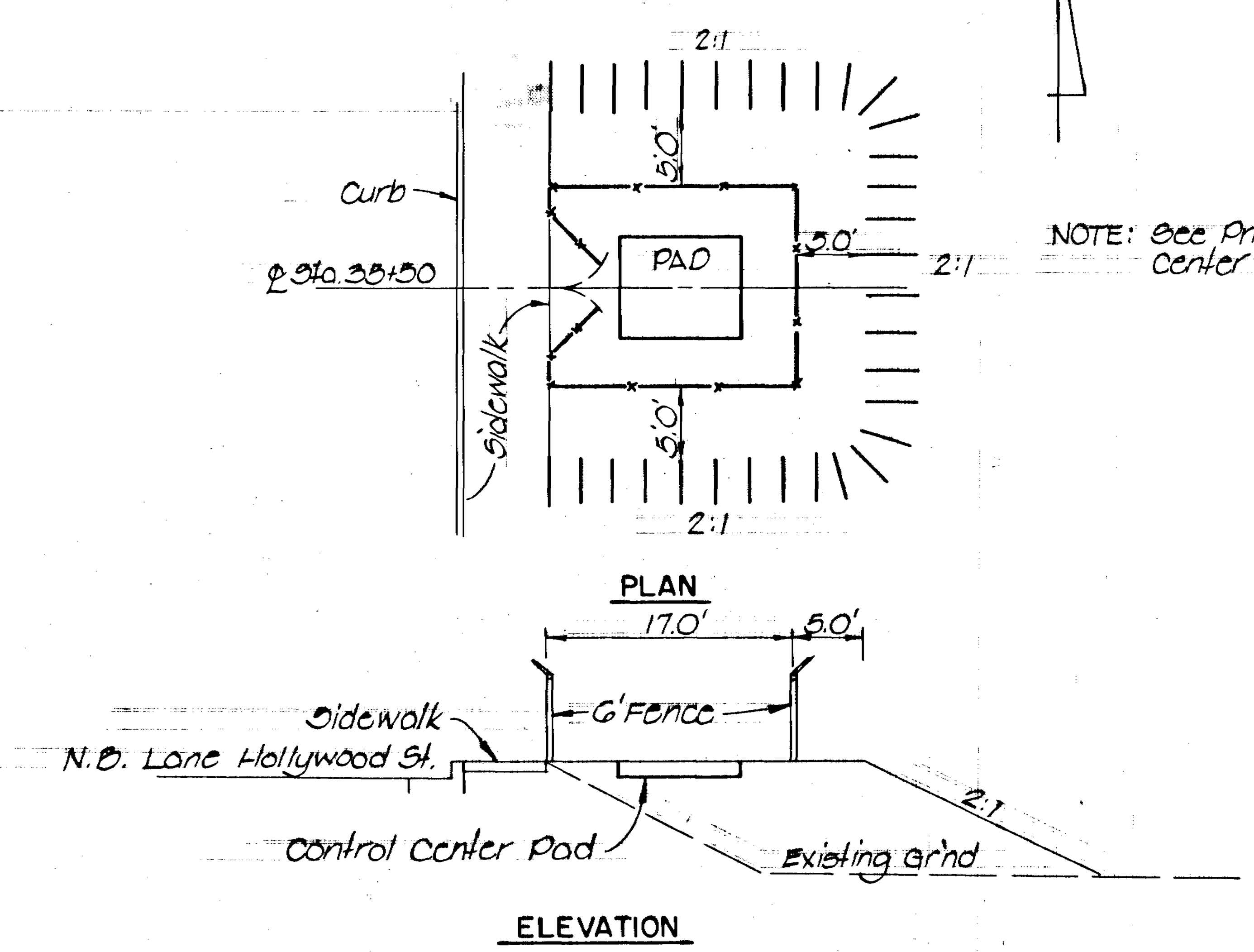
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	13

Note:
1. The bolt circle indicated by diagonal center to center bolt spacings is a nominal 11½". Hole slots for poles or bases shall be sufficient for existing bolt circles.





INSET "D"



SERVICE POINT "PH"

NOTE: See Primary Service Control Center Detail, Sheet 2D.

0 50 100 200
SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 394+00 TO STA. 420+00

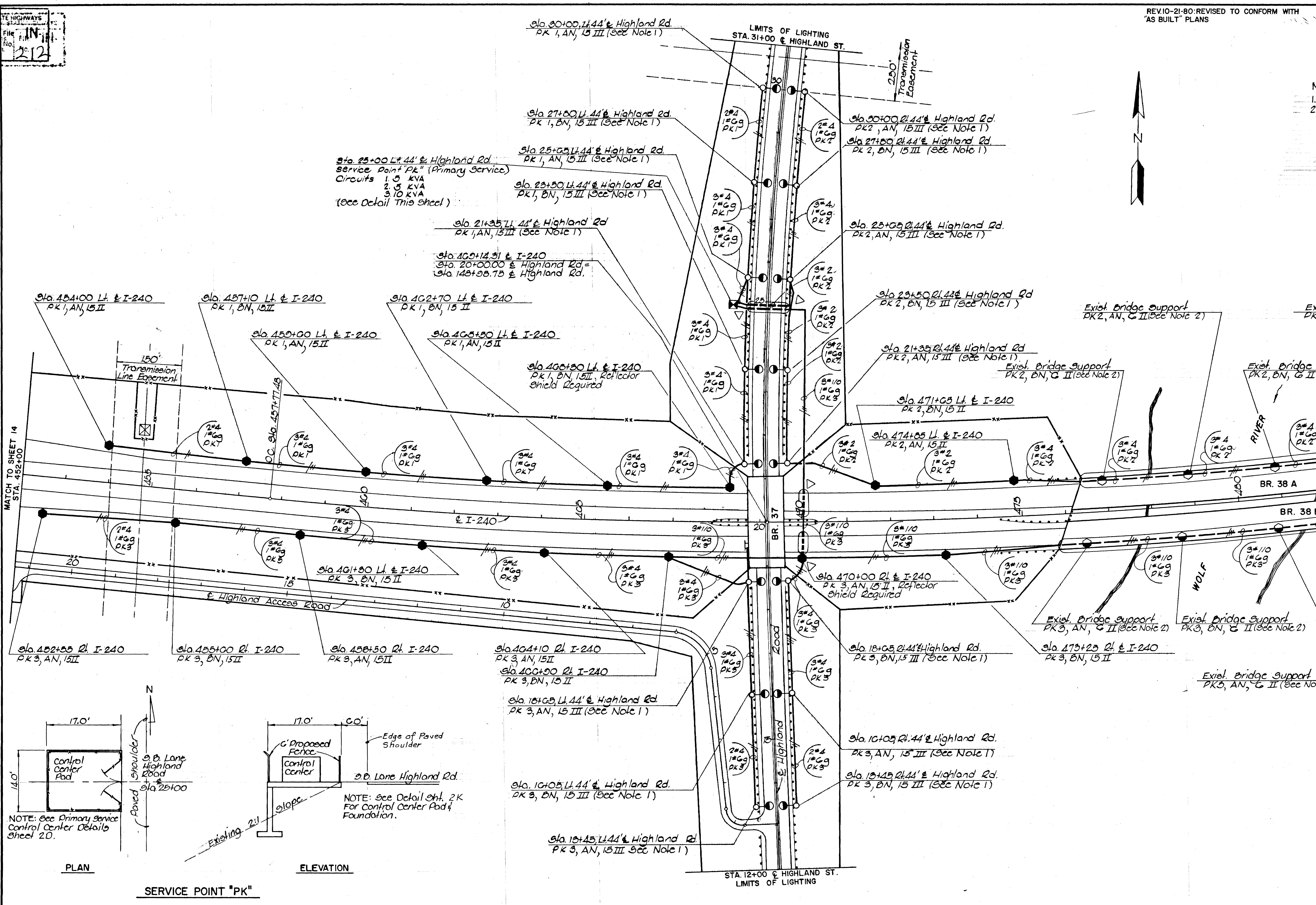

TYPE | YEAR | PROJECT NO. | SHEET NO.
CONST. | 1978 | I-240-1(160)4 | 14
REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.
Sta. 31+00 Rt. 61' Warford St.
Service Point "PW" (Primary Service)
Circuits 1. 10 KVA
2. 10 KVA
3. 15 KVA
4. 15 KVA
(See Detail This Sheet)
Limit of Lighting
END CONSTRUCTION
STA. 31+00
250' TVA Easement
INSET B
MATCH LINE
Abandoned Wolf River Channel
Limits of Lighting
BEGIN CONSTRUCTION
STA. 7+00
PROPOSED WOLF RIVER STRUCTURE (BY OTHERS)
INSET A
MATCH TO INSET B
Sta. 28+00 Lt. 160' ℄ Warford
130' Ht., PW 1, AB, Sym.
Sta. 23+00 Rt. 380' ℄ Warford
130' Ht., PW 4, AB, Sym
Sta. 431+30 Lt. 190' ℄ I-240
130' Ht., PW 1, AB, Sym
Sta. 449+40 Lt. 180' ℄ I-240
130' Ht., PW 4, AB, L&N
Sta. 442+00 Lt. 115' ℄ I-240
130' Ht., PW 4, AB, Sym
Ramp A
Ramp B
Ramp C
Ramp D
Ramp E
Ramp F
Ramp G
Ramp H
BR 36A
BR 36B
℄ I-240
℄ Warford St.
MATCH TO SHEET 13
STA. 420+00
MATCH TO SHEET 15
STA. 452+00
Sta. 425+70 Rt. 120' ℄ I-240
130' Ht., PW 2, AB, Sym
Sta. 436+80 Rt. 180' ℄ I-240
130' Ht., PW 3 AB, Sym
Sta. 13+00 Rt. 80' ℄ Warford St.
50' Ht., PW 3, AB, Sym
Sta. 15+70 Lt. 265' ℄ Warford St.
130' Ht., PW 3, AB, Sym
Pull Box
Sta. 13+50
Sta. 0+50 Lt. 125' ℄ Warford St.
50' Ht., PW 3, AB, Sym
MATCH TO INSET A
Abandoned Wolf River Channel
3#2 1#6g PW 1
3#2 1#6g PW 2
3#1/0 1#6g PW 3
3#2 1#6g PW 4
3#4 1#6g PW 3
Sta. 31+00 ℄
PAD
Paved Shoulder
NOTE: See Primary Service Center Details, Sheet 20.
PLAN
Edge of Paved Shoulder
6.0' 17.0' 5.0'
6' Fence
N.B. Warford Street
Control Center Pad
Existing Slope 4:1
ELEVATION
SERVICE POINT "PW"
SCALE IN FEET
TENN. STATE HIGHWAYS
Plans Divn.
File No. IN-212
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
WARFORD ST. INTERCHANGE
I-240 LIGHTING PLAN

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	15

Notes:

1. Mounting height shall be 35 ft.
2. The bolt circle indicated by diagonal center to center bolt spacings varies from 10½ to 12". The spacings within a Lighting Standard support vary by as much as ⅞" inch. Hole slots for poles or bases shall be sufficient for existing bolt circles.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 452+00 TO STA. 485+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	16

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

TENN. STATE HIGHWAYS Plans Divn. File No. IN-212

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 485+00 TO STA 516+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1 (160) 4	17

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

NOTES:

1. Underbridge Lighting Terminates at this Support - See Detail Sheet.
2. Extend Existing Feeder Circuit.
3. The bolt circle indicated by diagonal center to center bolt spacing varies 10¾" to 11¾". The spacings, within a Light Standard support vary by as much as 1 inch. Hole slot for pole and base shall be sufficient for existing bolt circles.

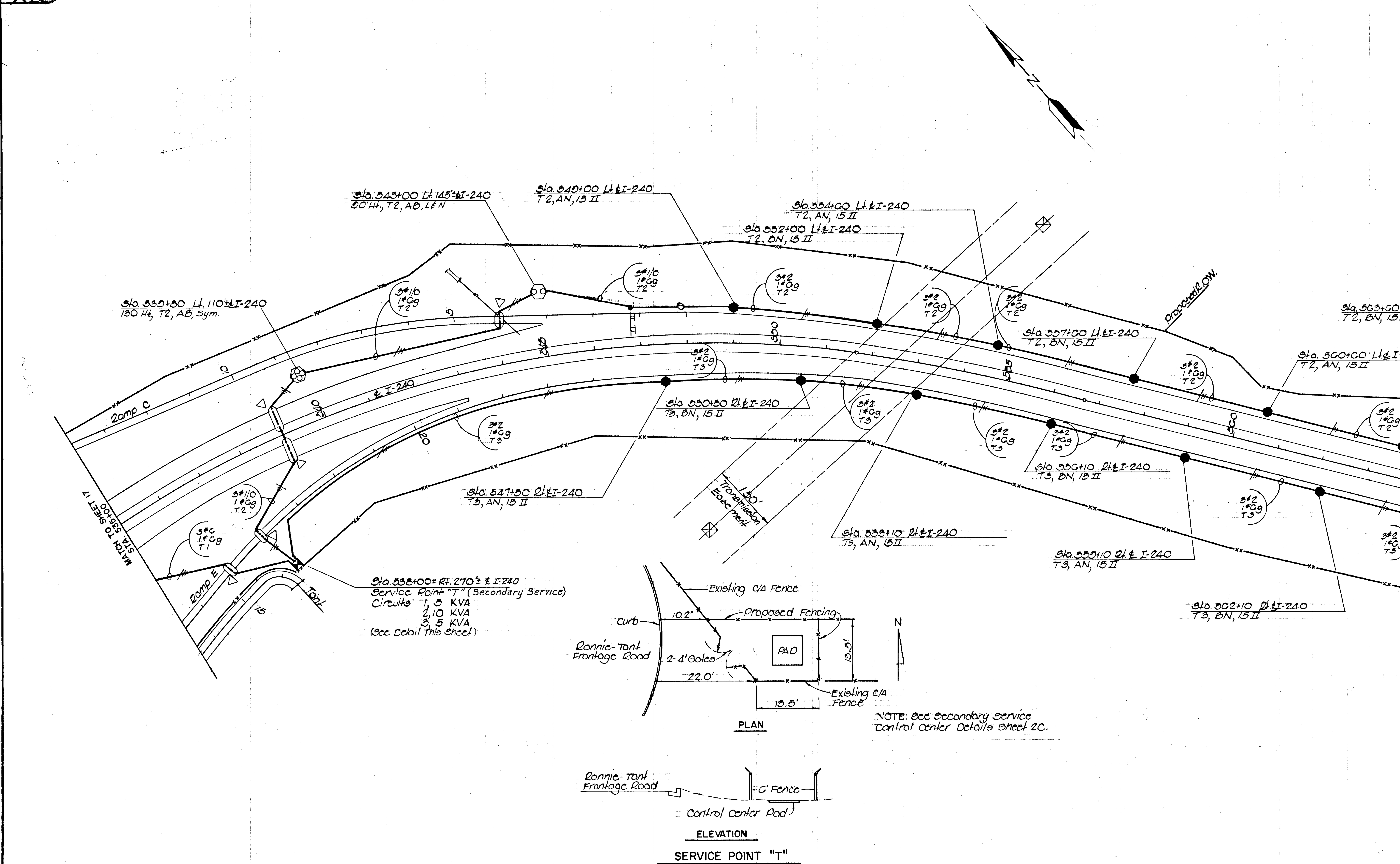
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

JACKSON AVE. INTERCHANGE

I-240 LIGHTING PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	18

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.



NOTE: See Secondary Service Control Center Details Sheet 2C.

SERVICE POINT "T"

0 50 100 200
SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 535+00 TO STA. 565+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	19

0 50 100 200
SCALE IN FEET

Note:
1. The bolt circle indicated by diagonal center to center bolt spacings varies from 11 inches to 11½ inches. The spacings within a Lighting Standard support vary as much as ½ inch. Hole slots for poles or bases shall be sufficient for existing bolt circles.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

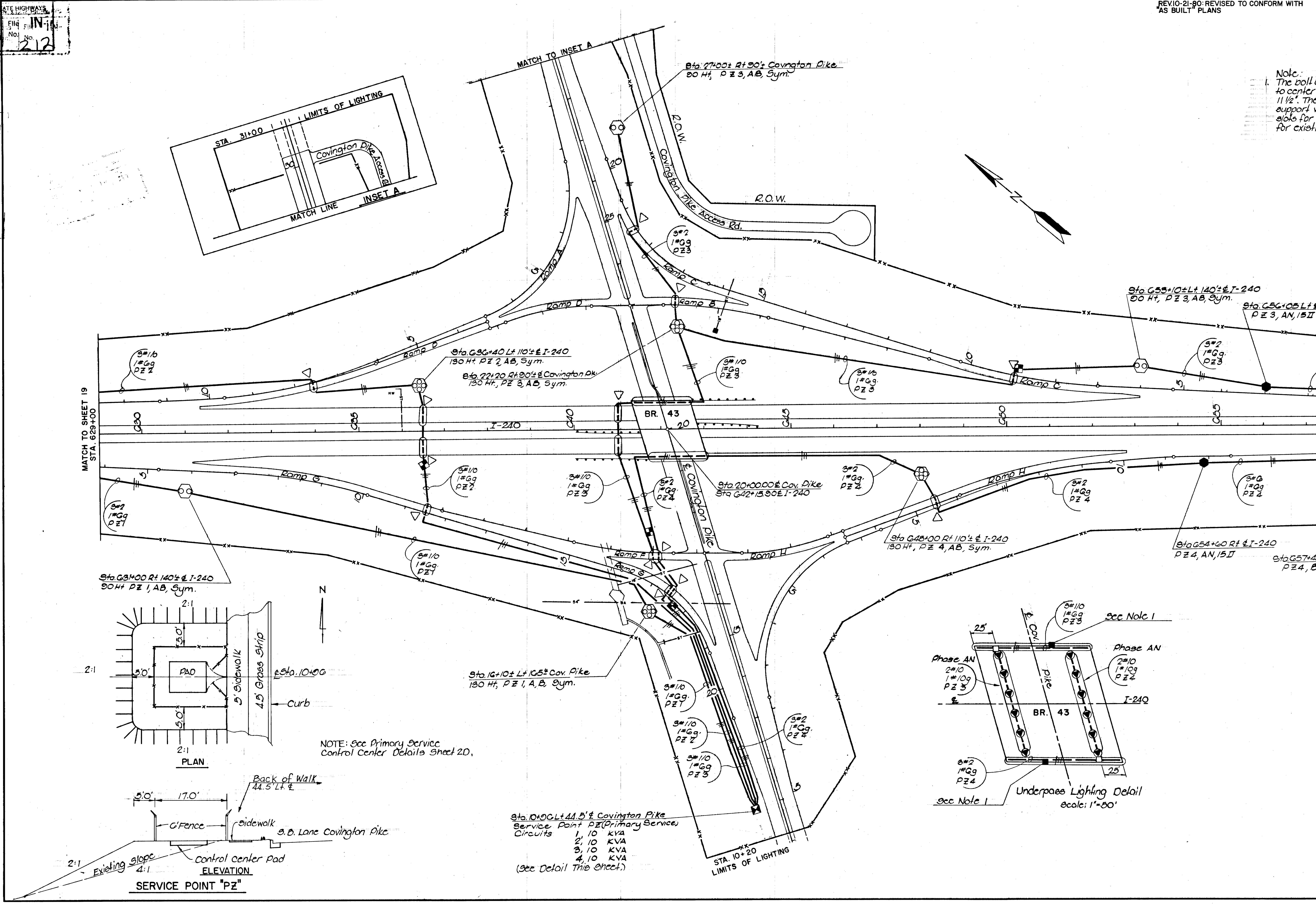
I-240 LIGHTING PLAN

STA. 565+00 TO STA. 629+00

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	20

REV 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS

Note:
1. The bolt circle indicated by diagonal center to center bolt spacings varies from 11¼" to 11½". The spacings within Lighting Standard support vary by as much as ¼ inch. Hole slots for poles or bases shall be sufficient for existing bolt circles.



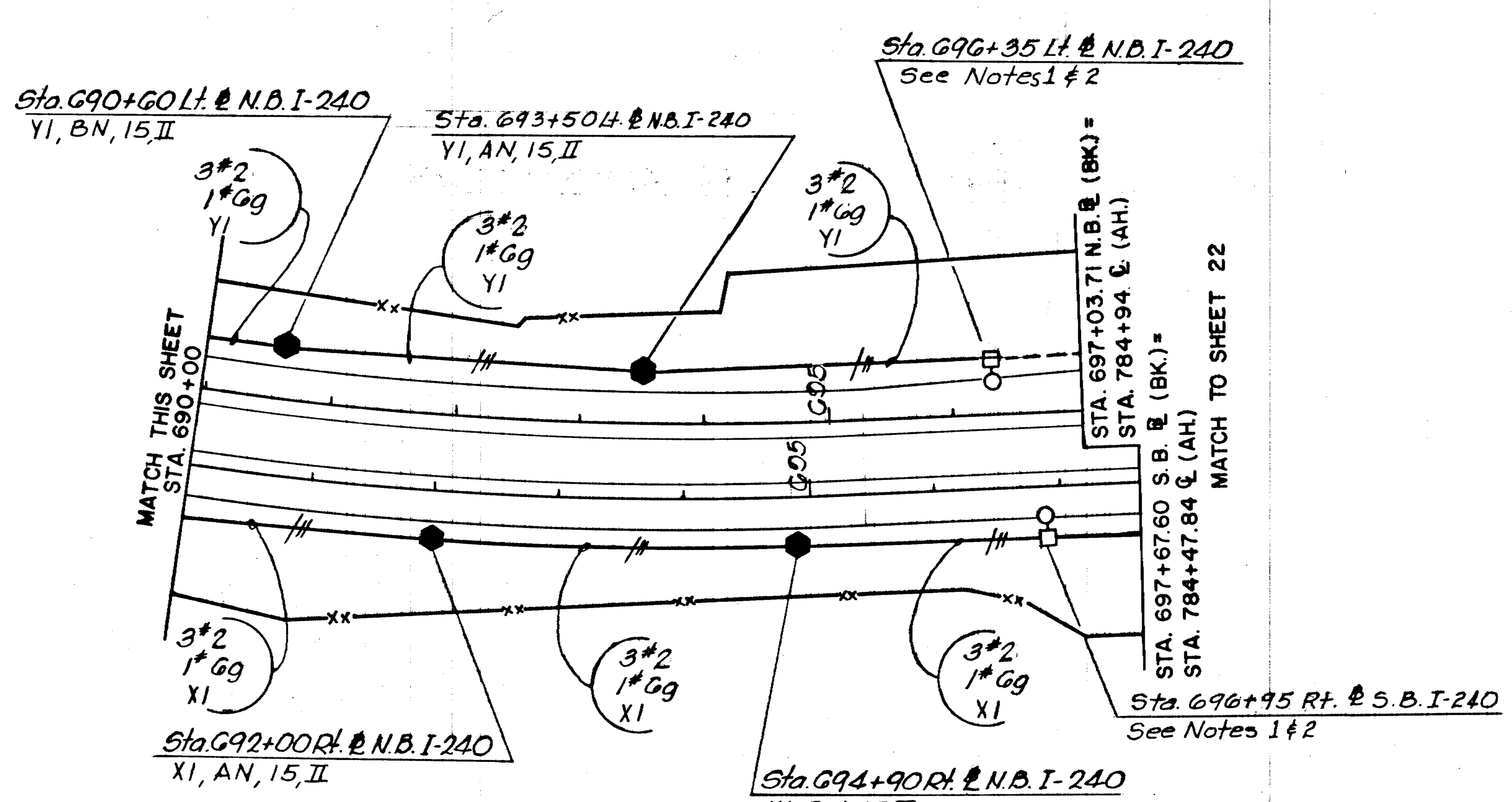
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

COVINGTON PIKE INTERCHANGE

I-240 LIGHTING PLAN

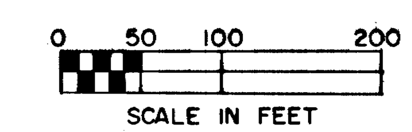
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160) 4	21

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS



Notes:

1. Existing 45 ft. pole will remain in service. Luminaire will be replaced with 250 watt sodium Luminaire.
2. Extend existing feeder circuits.



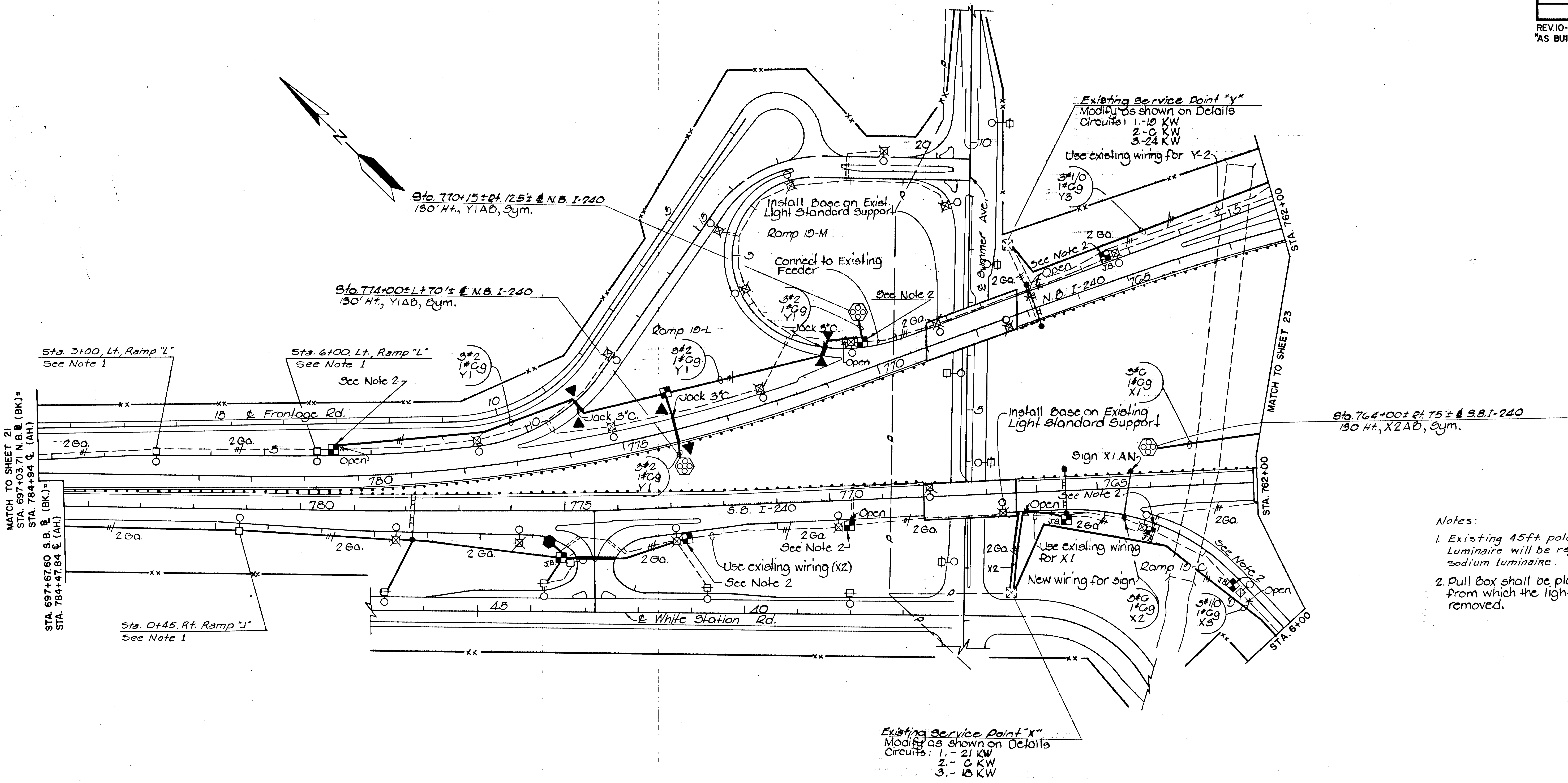
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240 LIGHTING PLAN

STA. 659+00 TO STA. 697+03.7 N.B. & STA. 697+67.60 S.B.

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1(160)4	22

REV.10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.



Notes:

1. Existing 45ft. pole will remain in service. Luminaire will be replaced with 250 watt sodium luminaire.
2. Pull Box shall be placed in the same location from which the light pole foundation was removed.

0 50 100 200
SCALE IN FEET

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240, I-40, SUMMER AVE. INTERCHANGE

I-240 LIGHTING PLAN

TENN. STATE HIGHWAYS		
Plans	File	IN-
Divn.	No.	212

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	1978	I-240-1 (160)4	23

REV. 10-21-80: REVISED TO CONFORM WITH "AS BUILT" PLANS.

Note:
1. Pull Box shall be placed in the location from which the light pole foundation was removed.

0 50 100 200
SCALE IN FEET

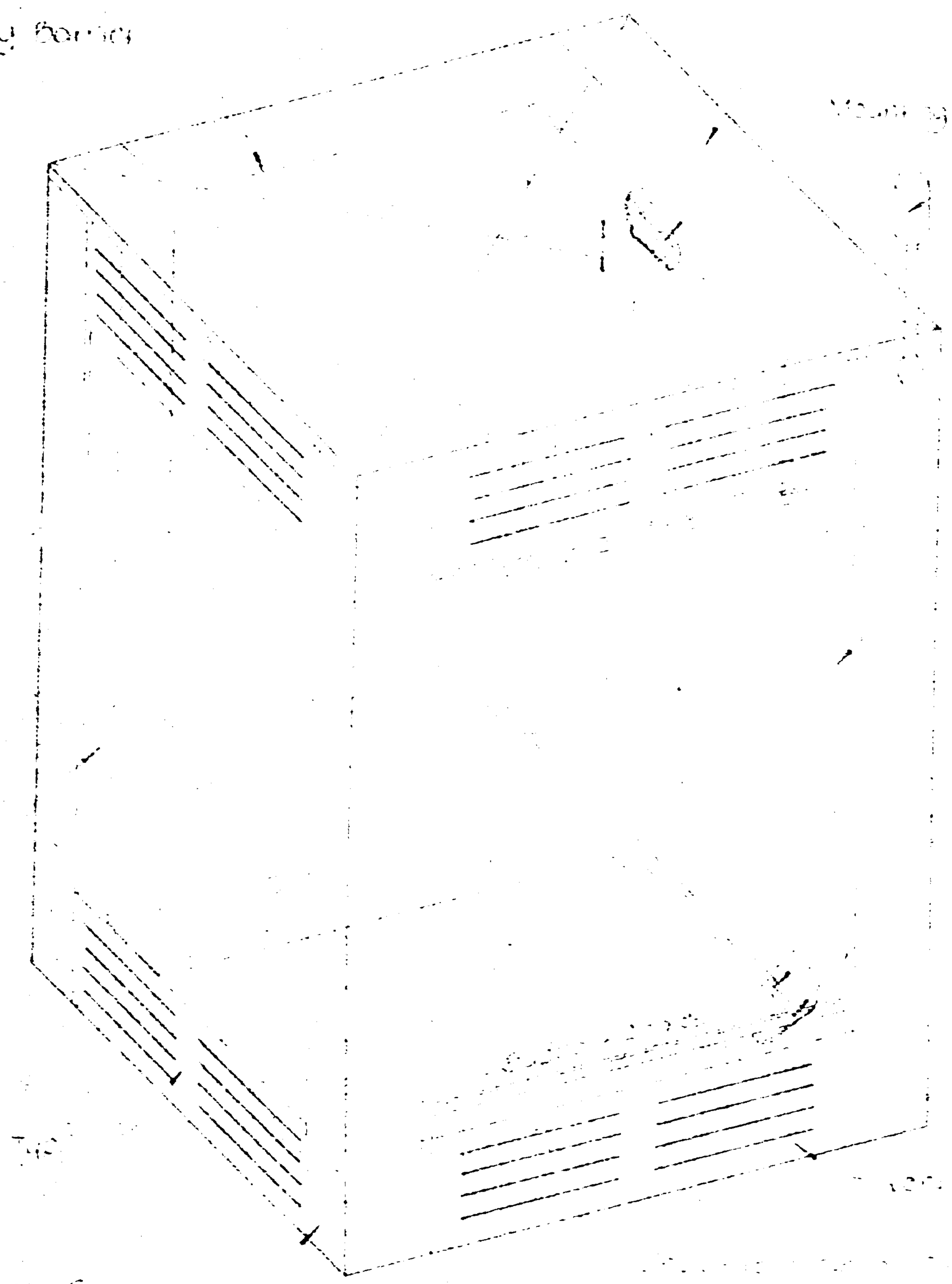
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

I-240, I-40, SUMMER AVE. INTERCHANGE

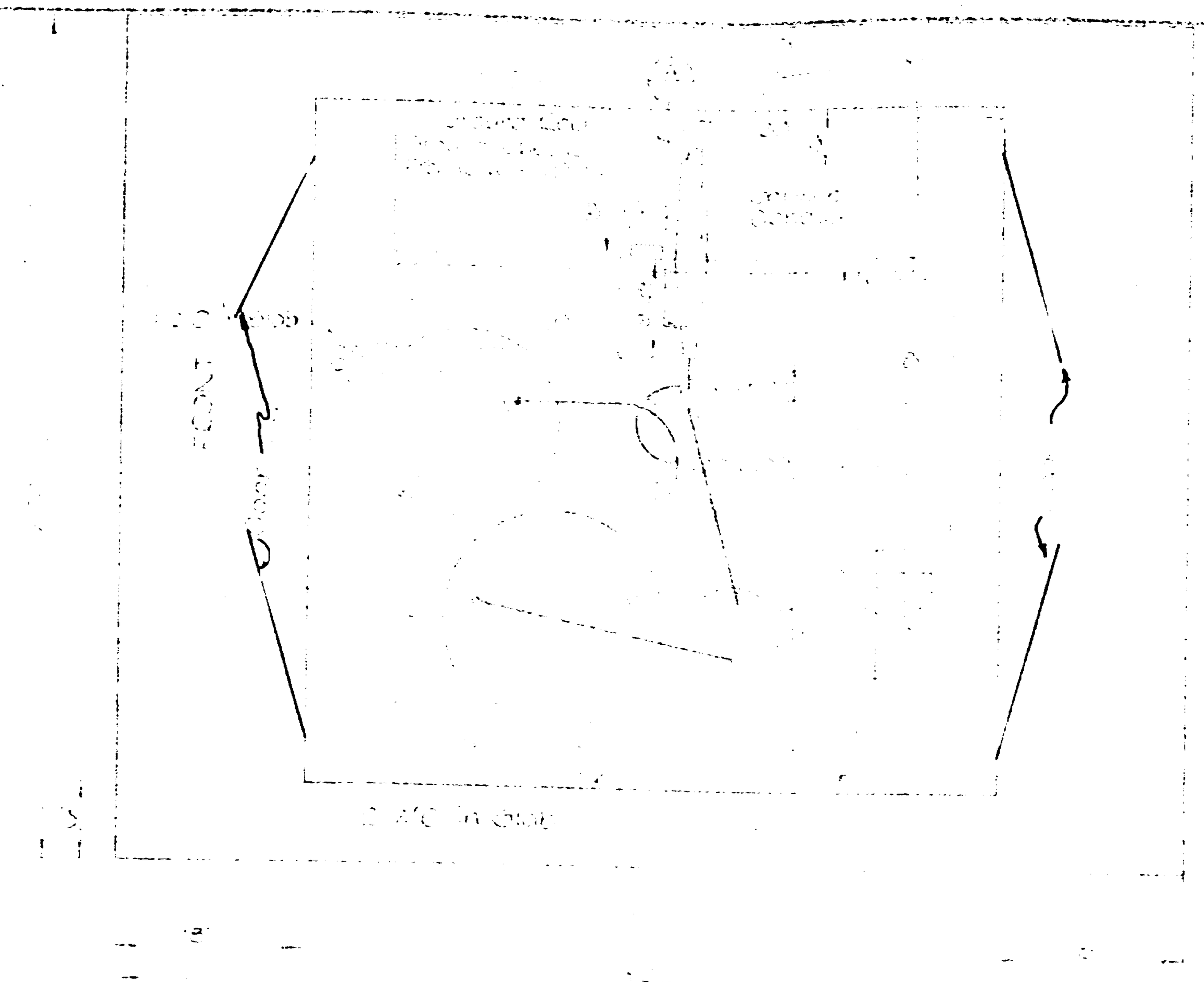
I-240 LIGHTING PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	1978	I-240-1(160)14	24

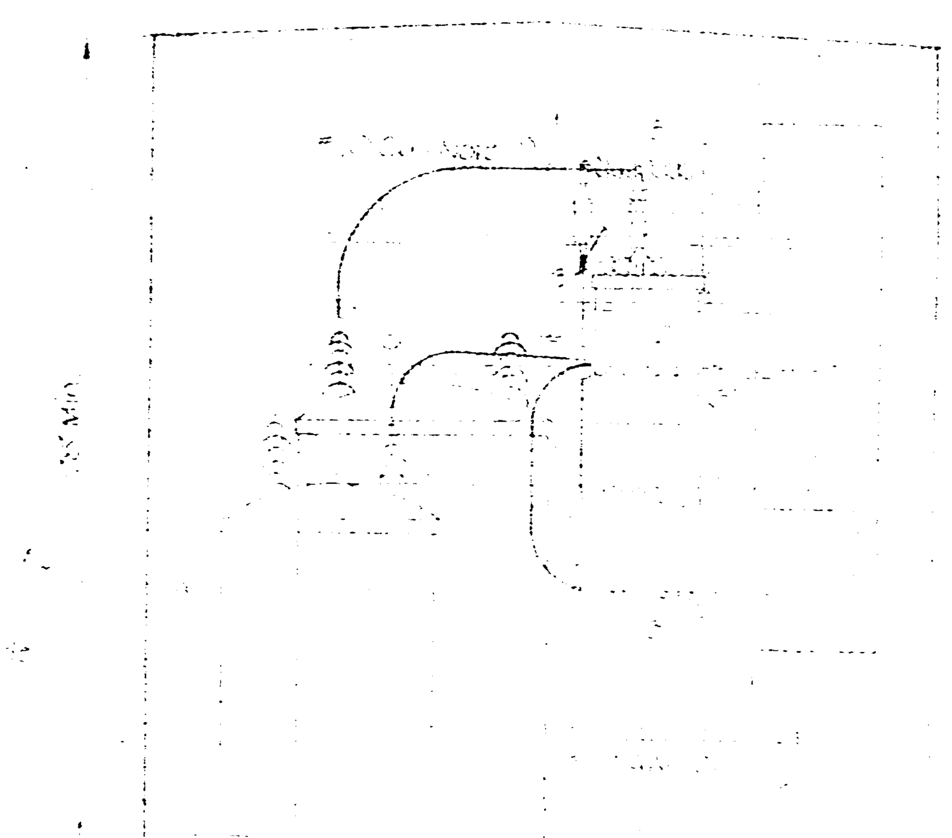
REV. 10-21-80: ADDED SHEET TO PLANS.

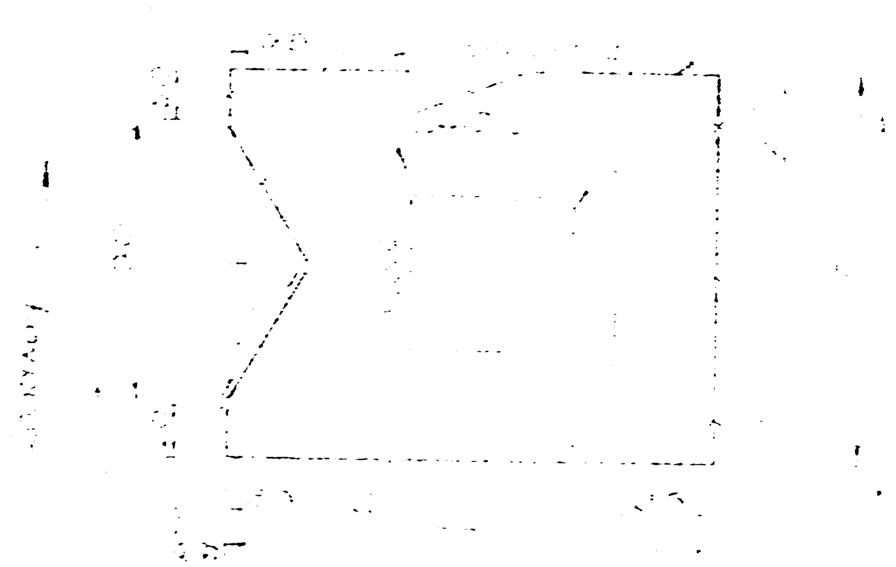


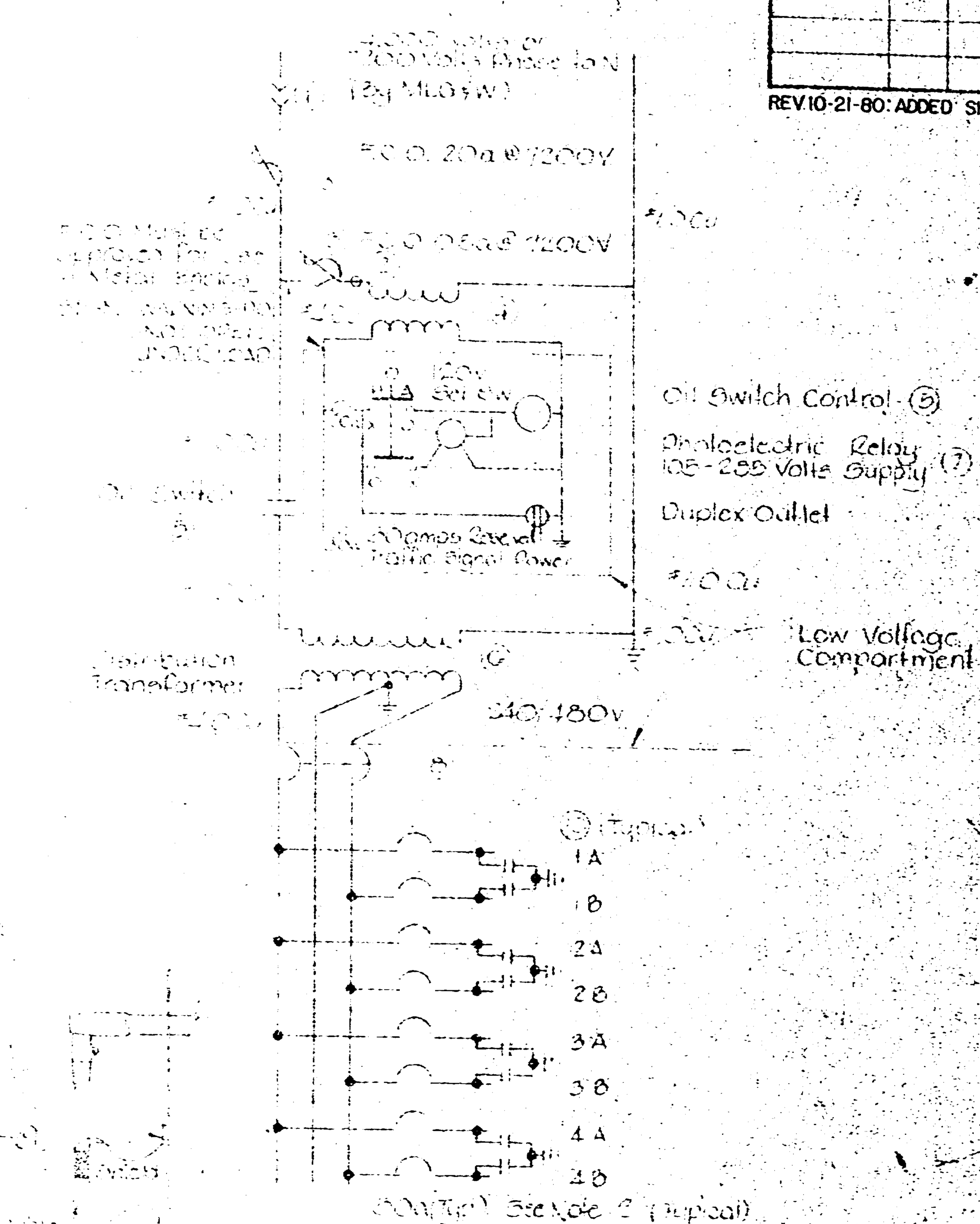
TRANSFORMER ENCLOSURE DETAIL



TOP VIEW







POWER AND CONTROL SCHEMATIC

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PRIMARY SERVICE CONTROL CENTER DETAIL
HOLLYWOOD STREET

REV.10-21-80: ADDED SHEET TO PLANS.

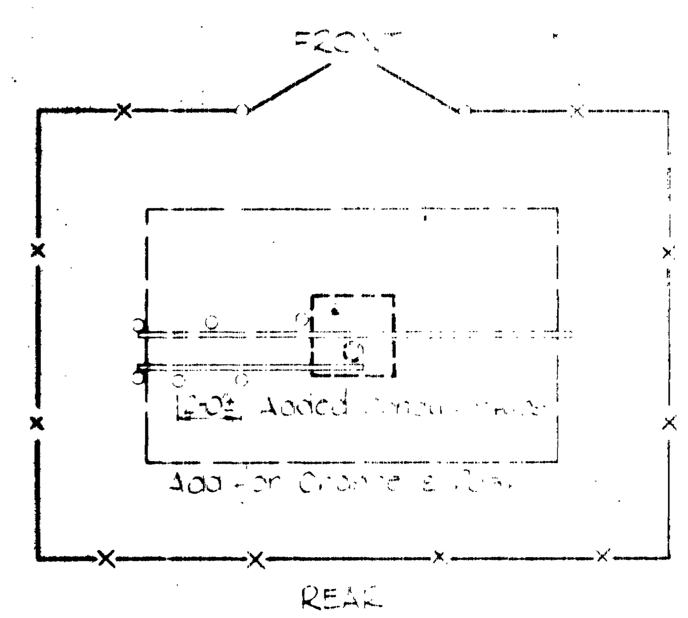
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST	1978	I-240-1(160) 4	25

Notes:

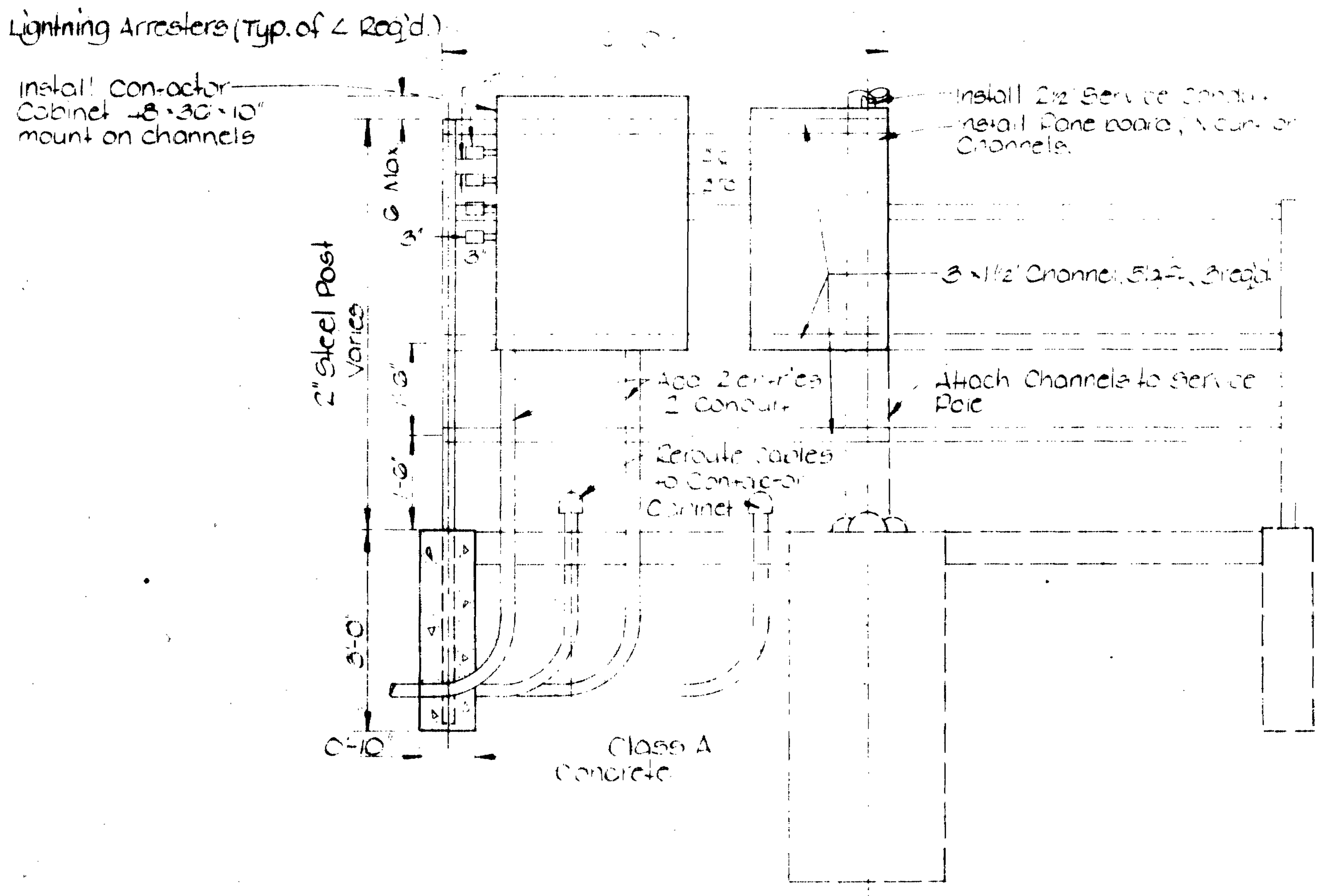
A. Disconnect existing equipment and leave in place.

B. Electrical Materials are shown on Secondary Service Control Center Detail.

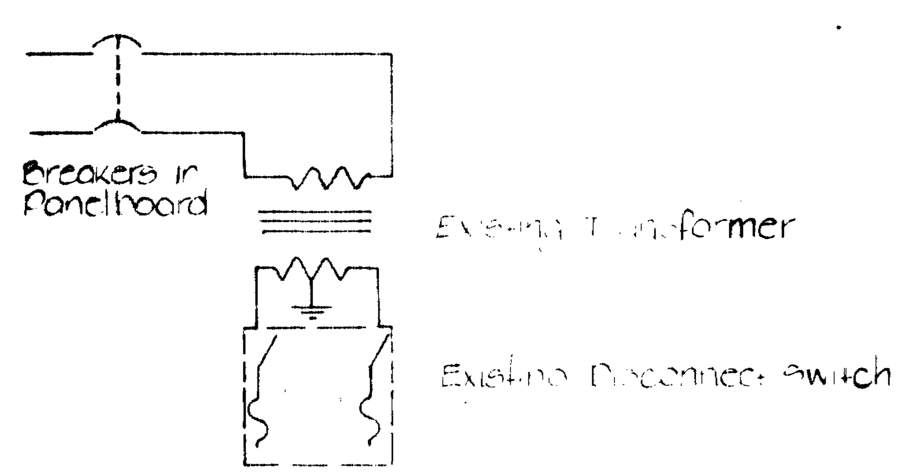
C. Power and Control Schematic are shown on Secondary Service Control Center Detail with additional connections as shown.



PLAN VIEW
Scale 1:5.0



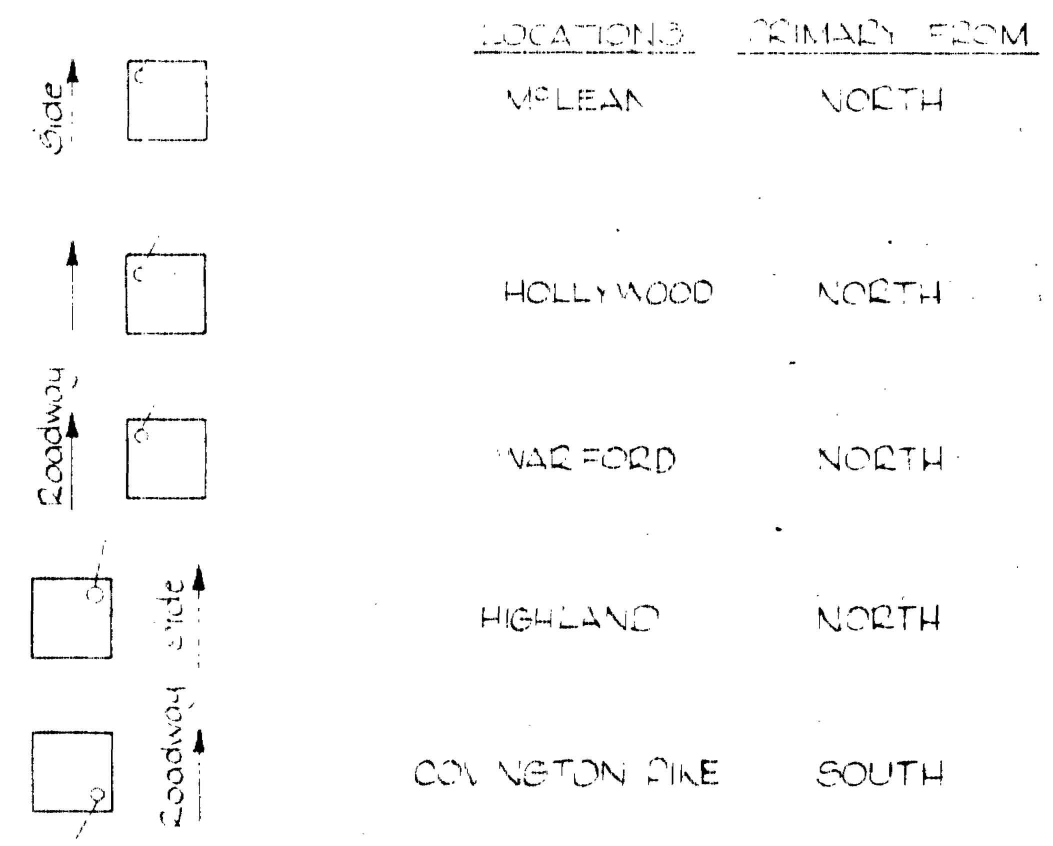
REAR ELEVATION
Scale 1/2"=1'-0"



CONNECTIONS TO EXISTING TRANSFORMER AND DISCONNECT SWITCH
See Notes A, B & C

MODIFIED EXISTING SERVICE CONTROL CENTER

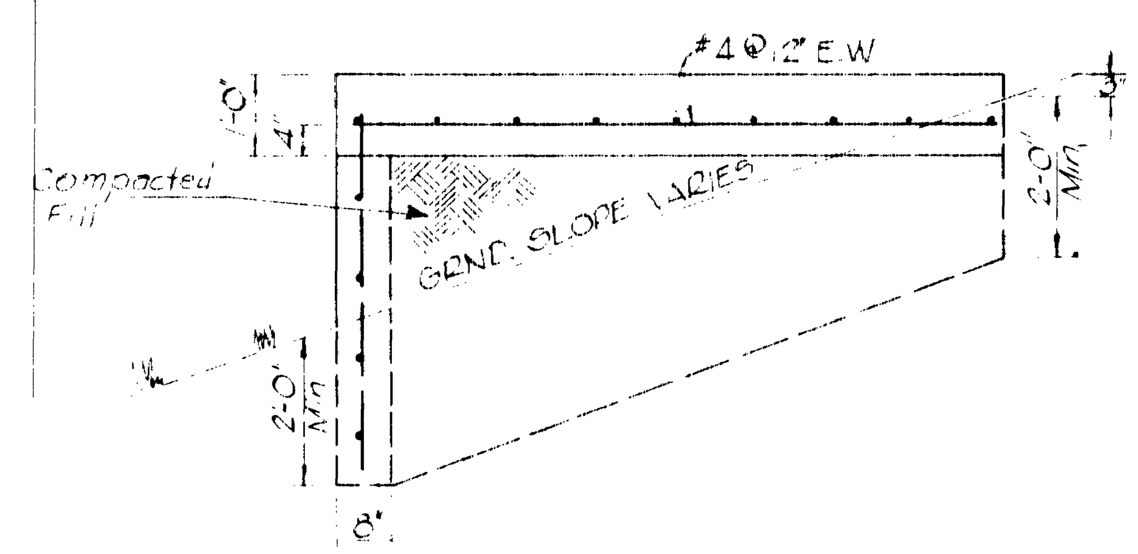
TYPICAL I-40, SUMMER AVENUE



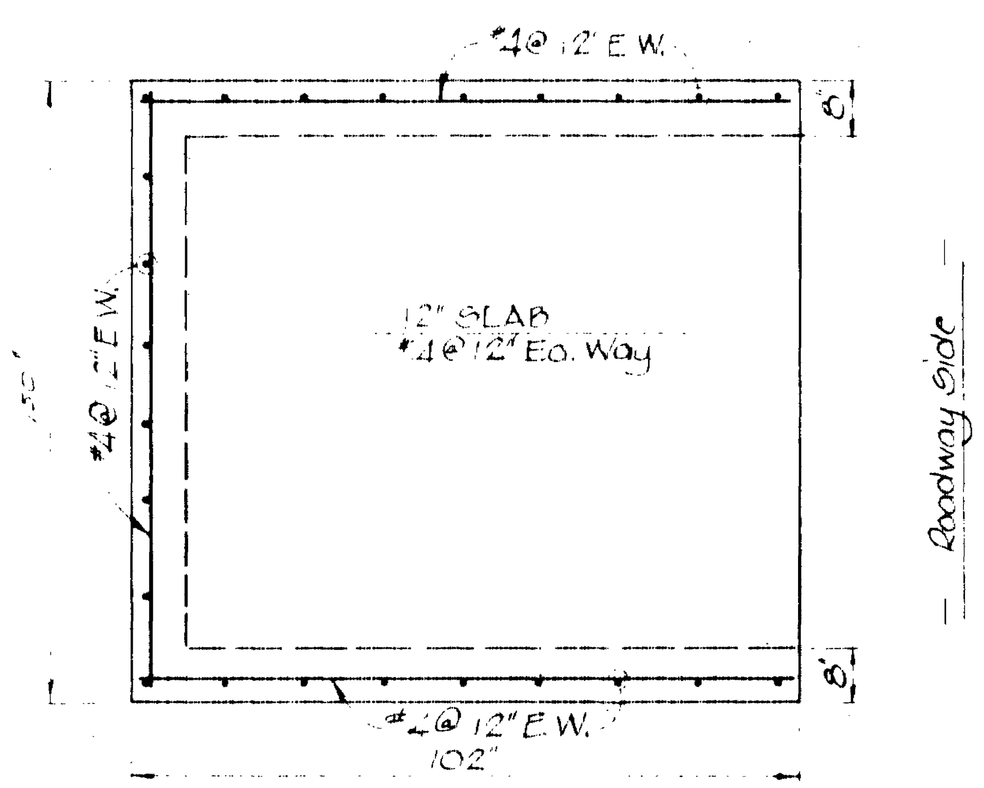
REFERENCE TO ROADWAY FOR PRIMARY CONDUIT

Estimated Foundation Quantities:

Class A Concrete [illegible] Cu. yds.
Steel Wire and Bar Reinf. 260 Lbs.
Dry Excavation 100.0 Cu. yds. (See Individual Plan Sheets)
Include in Primary Service Control Center Pay Item



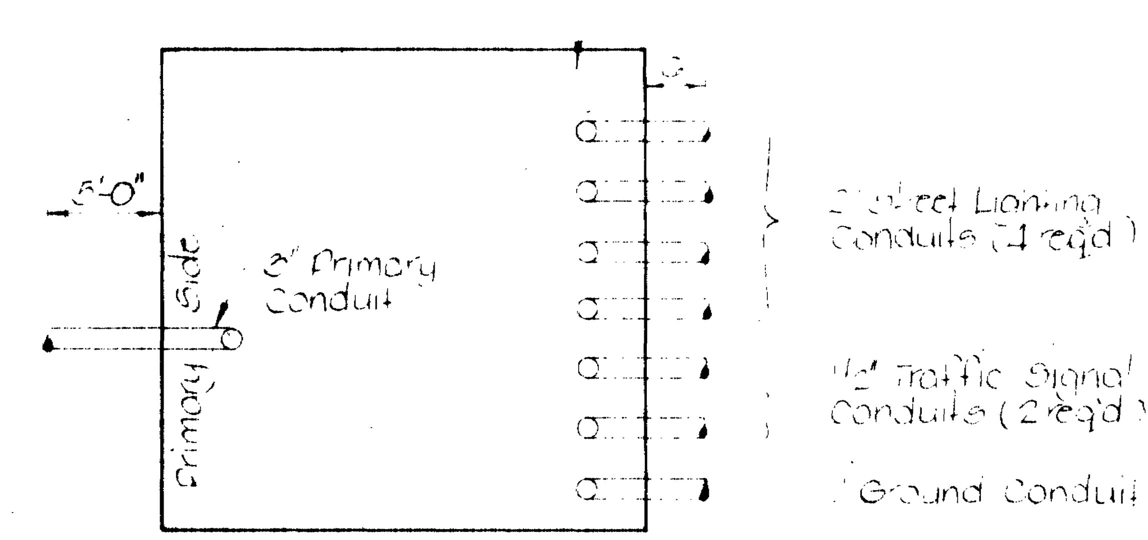
ELEVATION
Scale 1/2"=1'-0"



PLAN
Scale 1/2"=1'-0"

PAD & FOUNDATION DETAILS

—PRIMARY SERVICE CONTROL CENTER—
HOLLYWOOD STREET



CONTROL CENTER CONDUIT LOCATIONS
Typical Primary Control Centers

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

MISCELLANEOUS
CONTROL CENTER
DETAILS