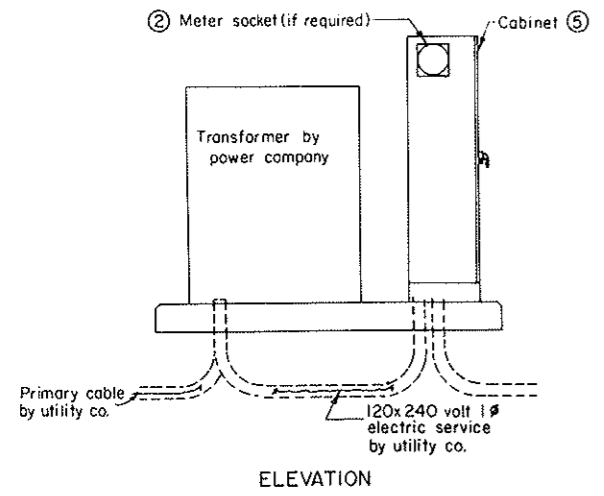


FEED POINTS (ROADWAY LIGHTING)

F.H.W.A. REGION	STATE	PROJECT NO.	SCALE
8	N. D.	F-1-094(03)	///



ELEVATION

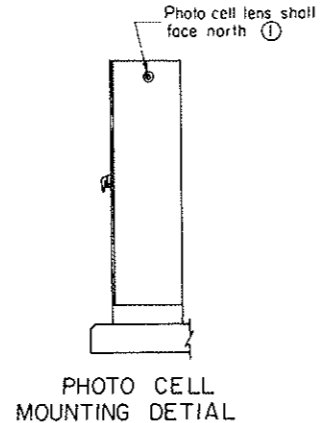
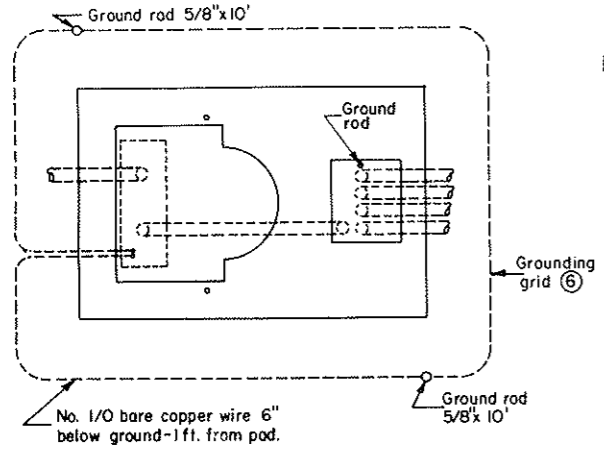
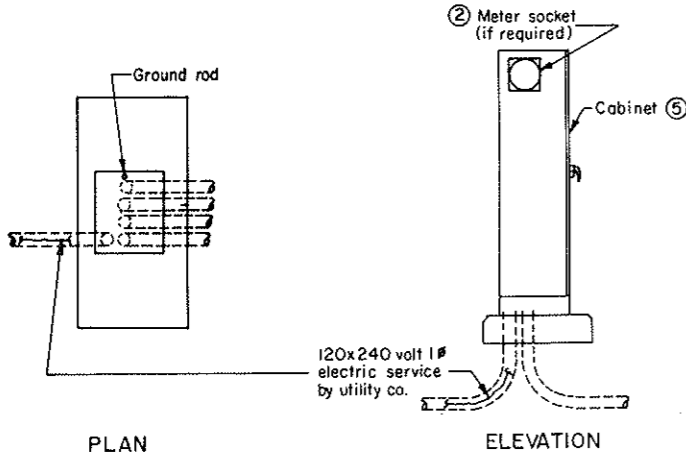


PHOTO CELL MOUNTING DETAIL



PLAN

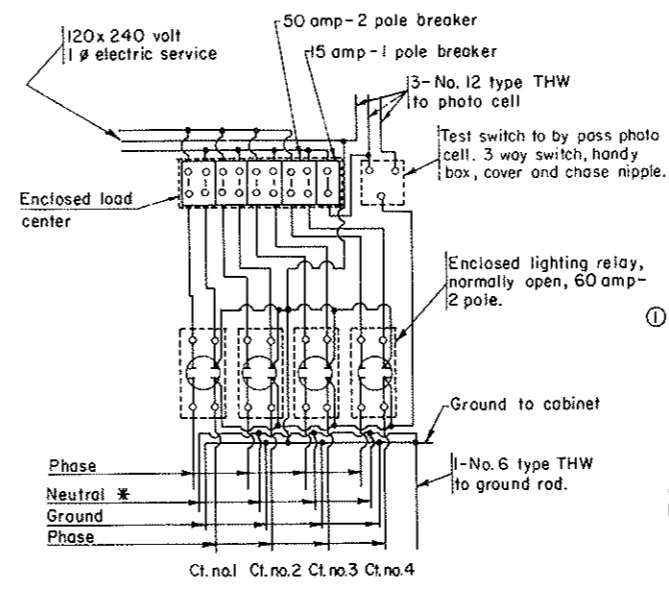
TRANSFORMER AND CIRCUIT BREAKER
CABINET PAD MOUNTED



PLAN

ELEVATION

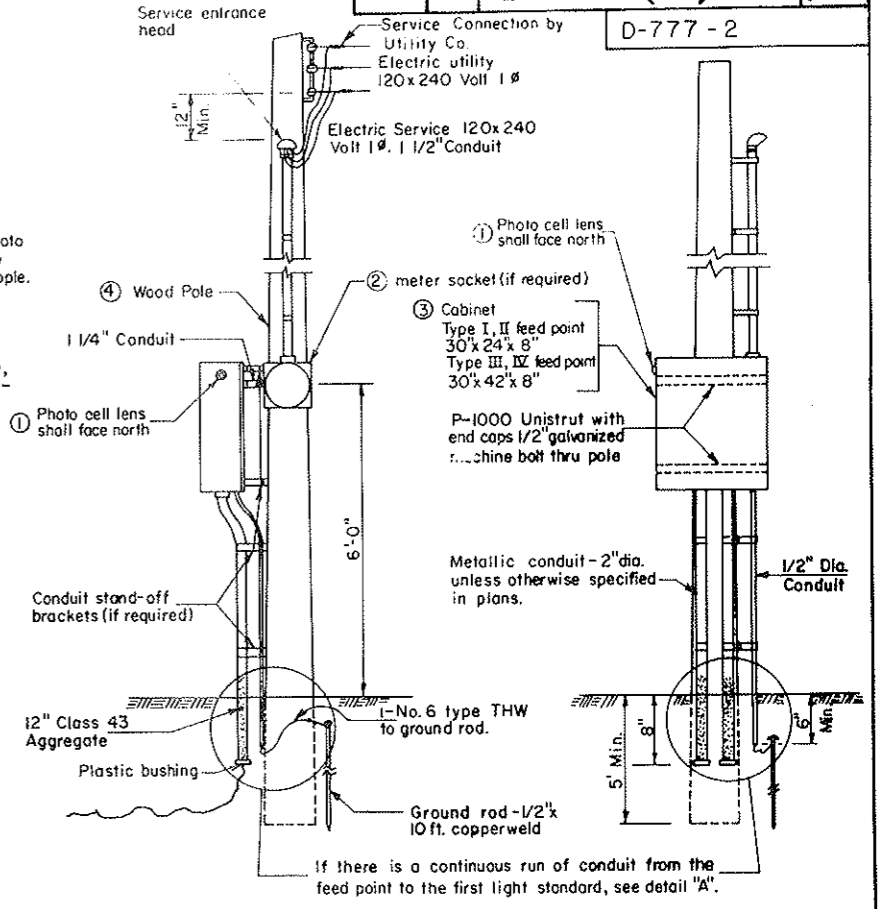
CIRCUIT BREAKER CABINET PAD MOUNTED



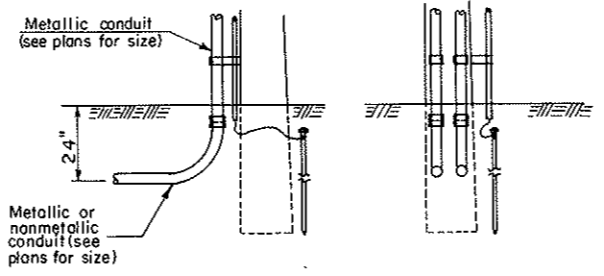
FEED POINT
TYPE IV

* Install when festoon circuit is required.

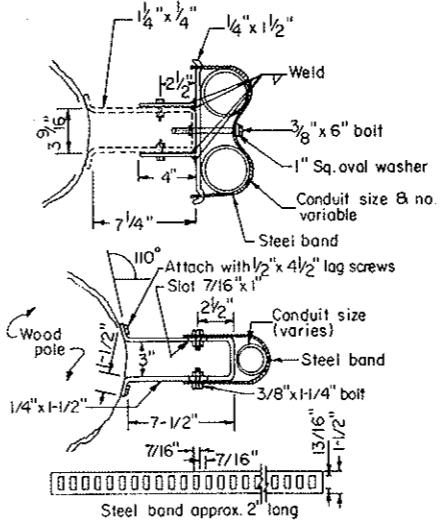
Type I feed point is similar to type IV except only one electrical circuit, one 50 amp-2 pole breaker and one lighting relay, normally open, shall be installed. Type II feed point is similar to type IV except only two electrical circuit, two 50 amp-2 pole breaker and two lighting relays, normally open, shall be installed. Type III feed point is similar to type IV except only three electrical circuits, three 50 amp-2 pole breakers and three lighting relays, normally open, shall be installed.



POLE MOUNTED



DETAIL "A"



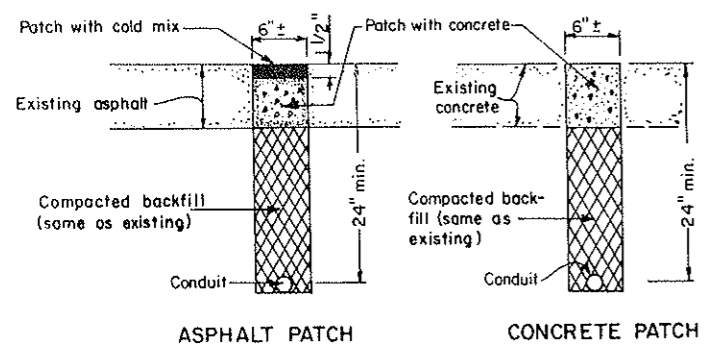
CONDUIT STANDOFF BRACKET

The conduit standoff brackets may be omitted if not required by the local utility company.

- NOTES:
- PHOTO CELL: The Electrical Contractor shall furnish and install the photoelectric cell.
 - METER SOCKET: The contractor shall install the meter socket and trim if meter is required by local utility company. Meter to be furnished and installed by utility company.
 - CABINET: Cabinet shall be N.E. M.A. 12 rating with lock drip shield and 1/2" plywood backing, stainless steel hardware. Paint plywood with 2 coats of oil base gray. Cabinet shall be shop coated with one coat of red lead and have two coats of exterior gray enamel.
 - WOOD POLE: Minimum 20ft. Class VII full length pressure treated wood pole. (if required, see layout sheets)
 - CABINET: Cabinet shall be 56" high x 26" wide x 14" deep. Minimum 12 ga. steel with provisions for padlock. Cabinet shall be weatherproof. Cabinet shall have one shop coat of red lead and two field coat of exterior dark green enamel.
 - GROUNDING GRID: The grounding grid shall have a ground resistance not to exceed 25 ohms. This shall be obtained by one or more 5/8" x 10' copperweld ground rods in parallel or series at two corners. Minimum distance between ground unit assemblies shall be 6'-0".

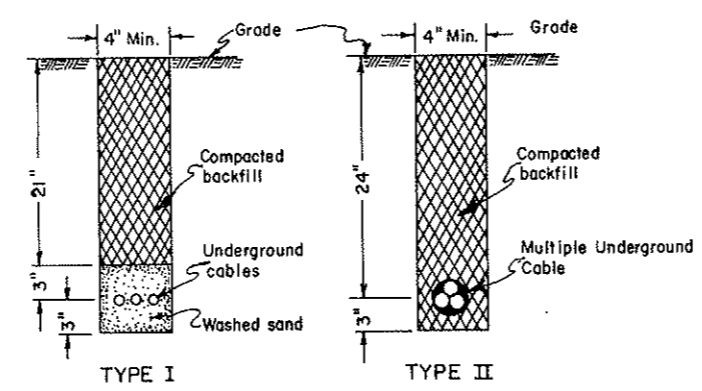
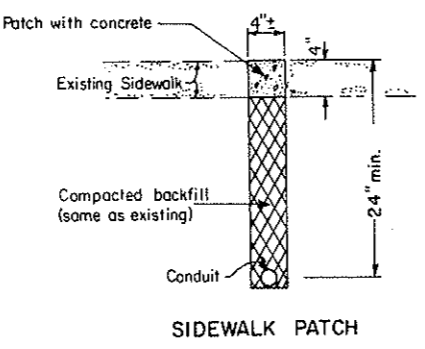
November 16, 1976		NORTH DAKOTA STATE HIGHWAY DEPARTMENT
REVISIONS		
DATE	CHANGES	Submitted: <i>Shirley Holt</i> Design Engineer
11-13-78	Cabinet & Photo cell	
Approved: <i>McDonald</i> Chief Engineer		Recommended: Asst. Chief Engineer, Pre-Const.

LIGHTING & SIGNAL DETAILS



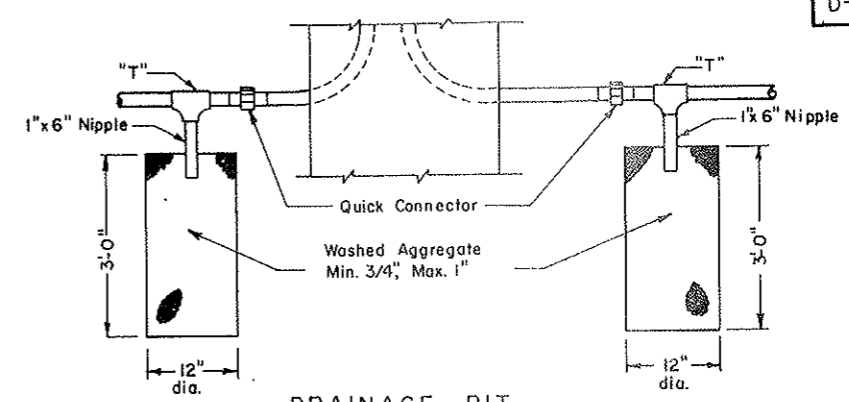
STREET PATCH DETAILS

NOTE:
PATCHES: All trenches shall be saw-cut. The replacement concrete shall be P.C.C. pavement and the coarse aggregate gradation, maximum size and method of curing shall be as approved by the Engineer. The cost shall be included in the price bid for Conduit.
 Immediately prior to pouring replacement concrete, all surfaces shall be painted with an approved epoxy compound.



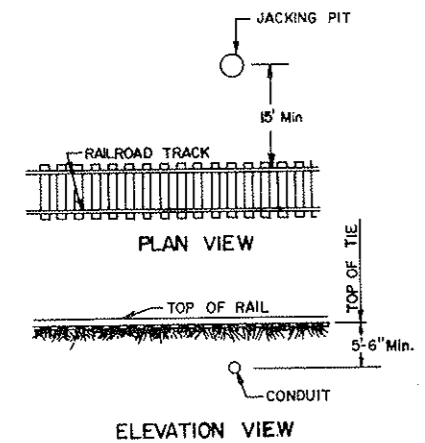
CABLE TRENCH

The entire area which is disturbed by the trenching shall be sodded, or as directed by the Engineer. The cost shall be included in the price bid for "Cable Trench".

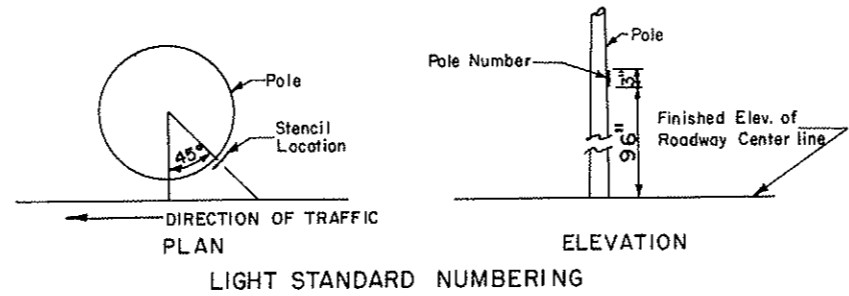


DRAINAGE PIT

Drainage pits shall be installed in both ends of the conduit runs. Except where conduit slopes enough for drainage to one end. (To be used for Traffic Signal Conduit Runs Only)

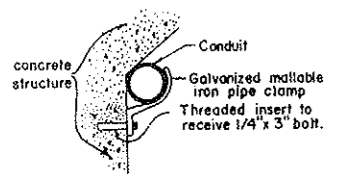


RAILROAD TRACK CONDUIT PLACEMENT

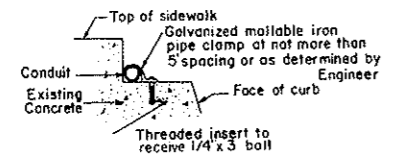


LIGHT STANDARD NUMBERING

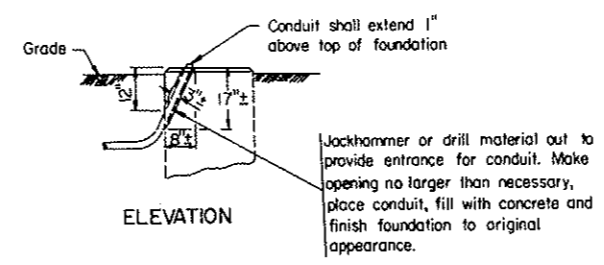
NOTE:
POLE NUMBERING: The contractor shall stencil on each light standard the pole number in black paint on the roadway side of the pole. See layout sheets for pole numbers.



BRIDGE MOUNTED CONDUIT HANGER



CURB MOUNTED CONDUIT



REVISE CONCRETE FOUNDATION

January 19, 1977		REVISIONS	
DATE	CHANGES		
2-25-77	Pole Numbering note added Revise Concrete Foundation added.	Submitted: <i>John D. Stog</i> Design Engineer	
9-28-77	Added Cable Trench note	Recommended:	
9-15-78	Conduit Placement Details	Asst. Chief Engineer, Pre-Const.	
		Approved: <i>Richard J. ...</i> Chief Engineer	