

Alternate designs may be submitted to the Engineer for approval.

Lighting circuits consist of single conductor phase lines with bare ground wires installed in continuous underground ducts.

Locate standard trenches for lighting distribution circuits 3 feet outside the line of the light pole foundations, except for roadway crossing, access to connection points, or other cases detailed on the project plans or approved by the Engineer.

The Engineer may allow variation from minimum depths for roadway crossings, access to connection points, soil conditions, or other special cases. Where rock is encountered, a minimum trench depth of 2 feet is required.

Ducts installed under pavement slabs, drives, and other similar locations detailed in the project plans are designated as "crossings" and distinguished from other underground circuit ductwork. Refer to [LI-141](#) for additional details.

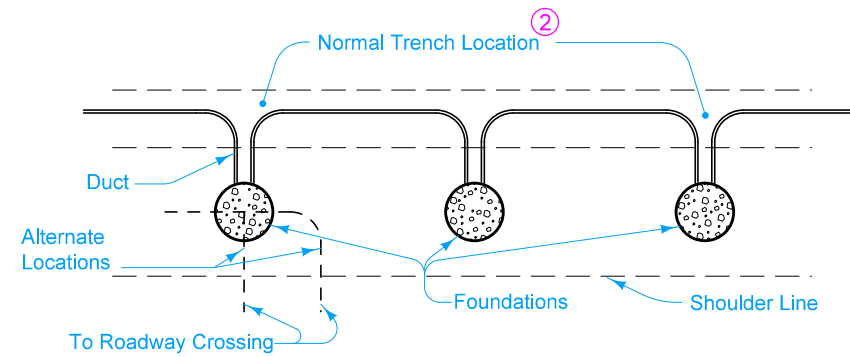
Use Y-1 connectors for all load taps in phase lines and use Y-3 connectors for all circuit branch taps, unless specified or detailed otherwise. When the method of in-line splicing is not specified on the project plans, the Engineer may approve the use of connector assemblies or field molded splices.

Provide 600 volt fuses as specified, 5 amperes for each Type Y-1 connector.

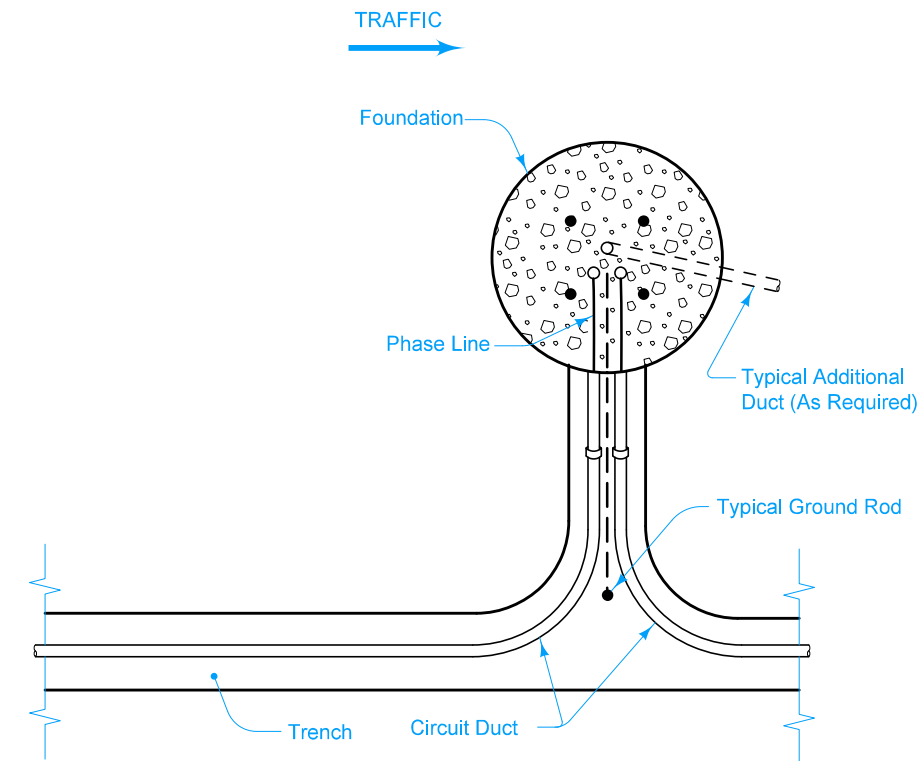
Seal all unused connector openings against entry of moisture as directed by the Engineer.

① Use a separate access duct for each connection to pole foundation.

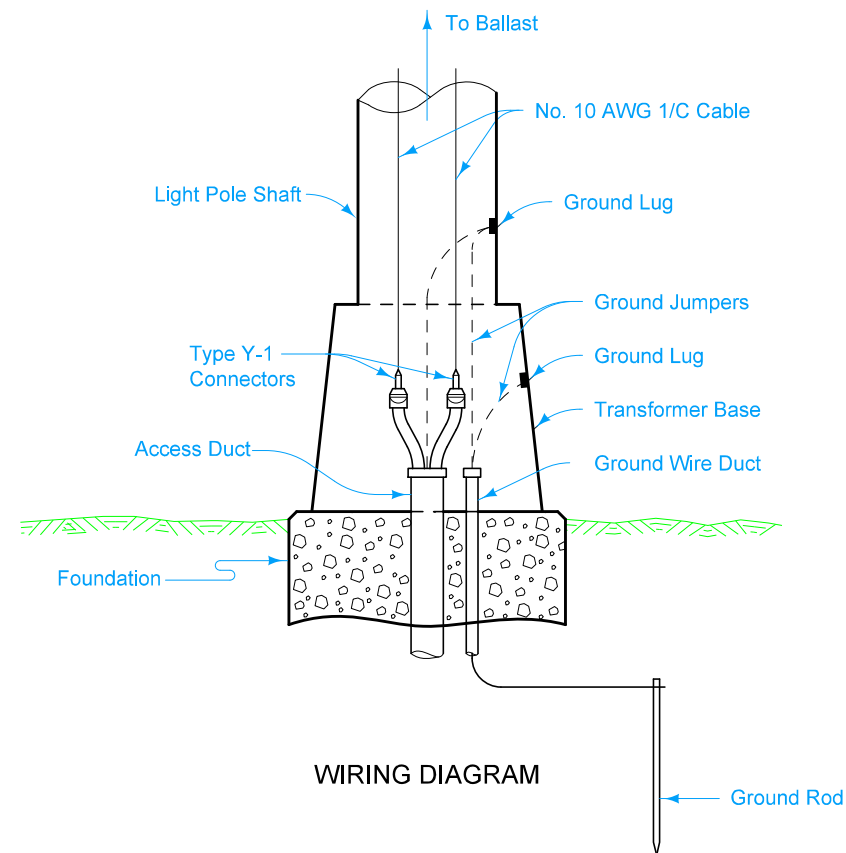
② Refer to NEC requirements for trench depth.



TYPICAL LAYOUTS ①
CONNECTIONS TO FOUNDATIONS



PLAN VIEW



WIRING DIAGRAM

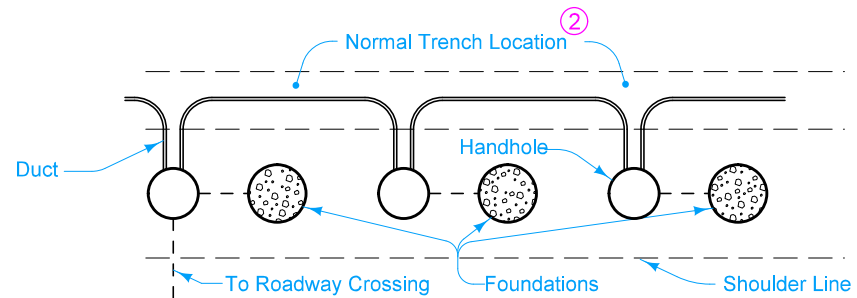
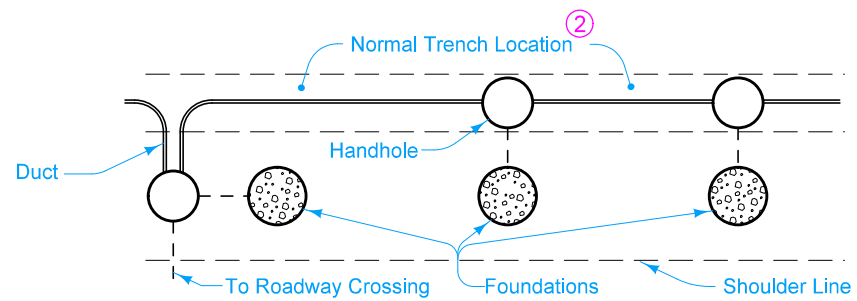
TRANSFORMER BASE

 STANDARD ROAD PLAN	REVISION	
	1	04-21-15
	LI-142 SHEET 1 of 2	

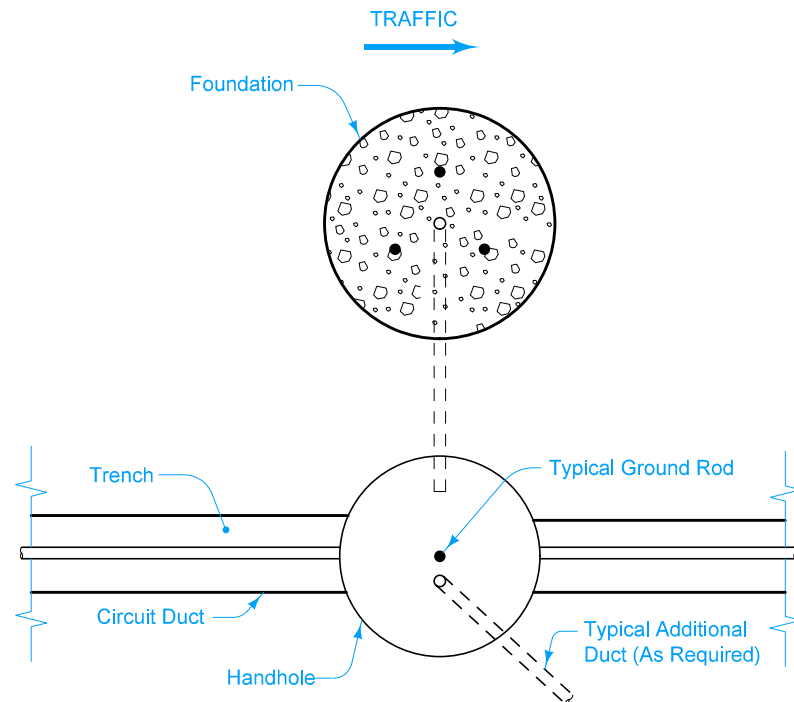
REVISIONS: Changed reference from LS-401 to LI-141 in the General Notes.

Shawn Miller
APPROVED BY DESIGN METHODS ENGINEER

**ELECTRICAL INSTALLATION
(BASES)**

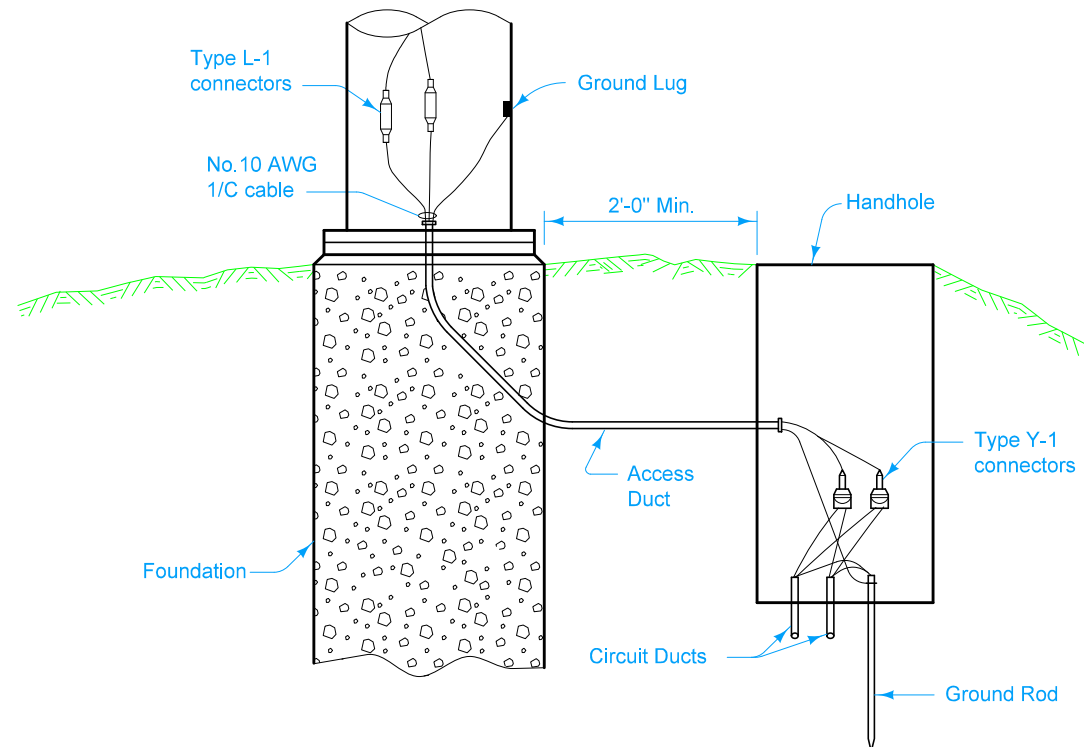


TYPICAL LAYOUTS ①③
CONNECTIONS TO FOUNDATIONS

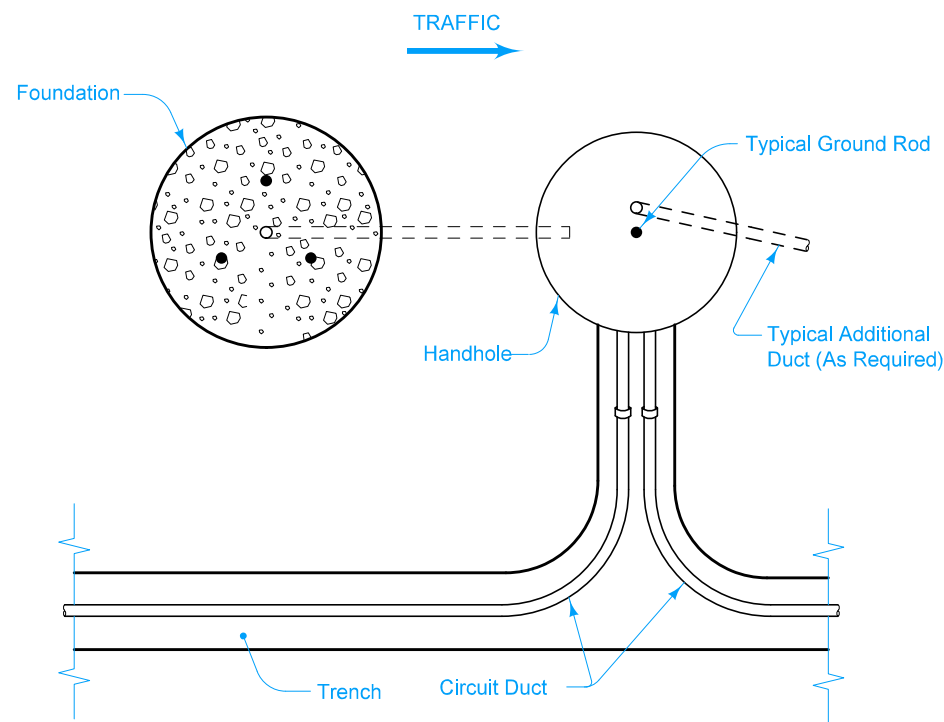


PLAN VIEW ③

- ① Use a separate access duct for each connection to pole foundation.
- ② Refer to NEC requirements for trench depth.
- ③ Handhole may be placed behind pole. Meet the requirements of Article 2523.03, O, of the Standard Specifications.



WIRING DIAGRAM



PLAN VIEW

SLIP BASE

IOWA DOT	REVISION	
	1	04-21-15
STANDARD ROAD PLAN		LI-142
		SHEET 2 of 2

REVISIONS: Changed reference from LS-401 to LI-141 in the General Notes.

Shawn Miller
APPROVED BY DESIGN METHODS ENGINEER

**ELECTRICAL INSTALLATION
(BASES)**