



# 10A8: Electrical Details Structure Mount Light Poles Isolated Neutral Systems

## HANDHOLE FUSE SCHEDULES

LINE VOLTAGE φ-GROUND	BALLAST WATTAGE	
	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

## GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

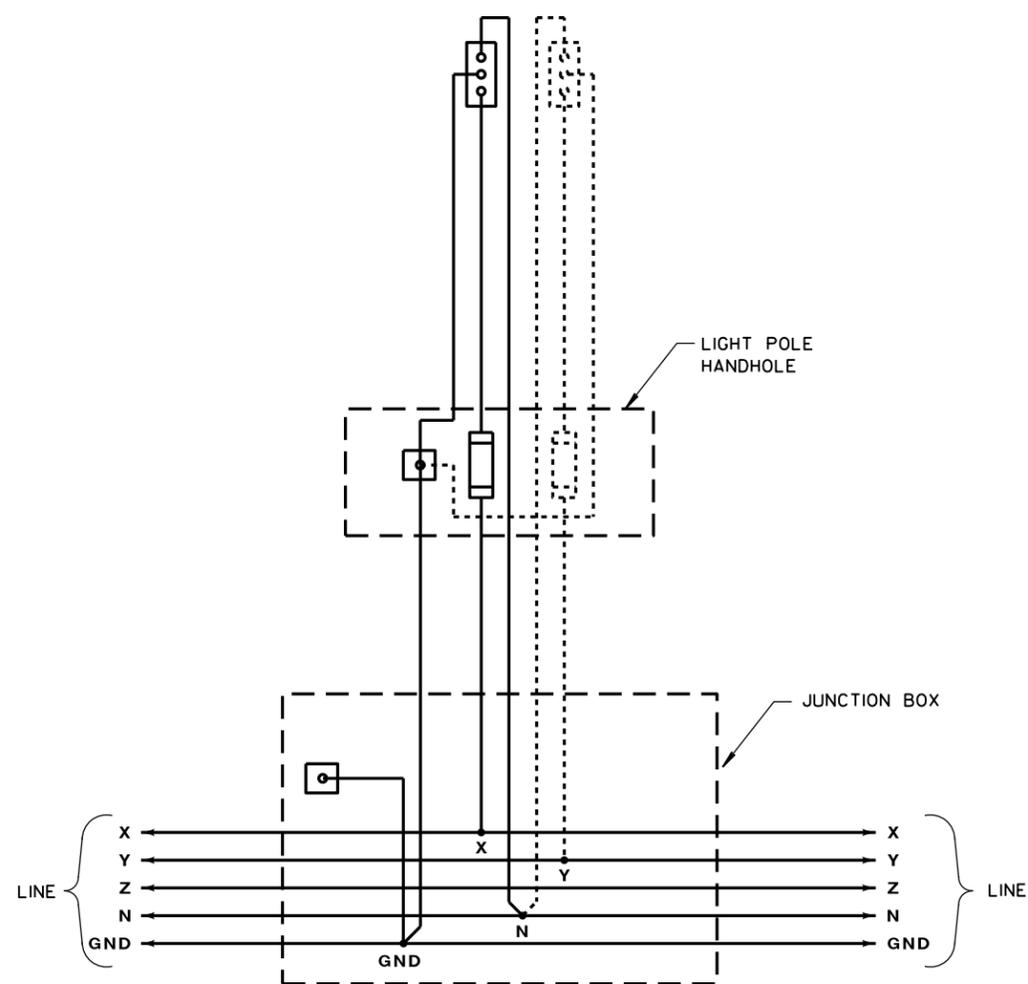
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

WIRE SIZE FROM THE JUNCTION BOX TO THE POLE HANDHOLE SHALL EQUAL THE SIZE OF THE POLE WIRE.

THE INTENT OF JUNCTION BOX SPLICES AS SHOWN IN THIS DETAIL IS FOR LIGHTING SYSTEMS WITH HEAVY LINE WIRE TOO LARGE TO PULL THROUGH THE CONDUIT INTO THE POLE HANDHOLE, DUE TO CONDUIT FILL REQUIREMENTS OF N.E.C., AND/OR THE STIFFNESS OF THE WIRE COMPARED TO THE NUMBER OF BENDS IN THE CONDUIT. IN CASES WHERE LINE WIRE IS LIGHTER, SUCH AS SMALLER SYSTEMS OR TOWARD THE FURTHEST END OF A LARGER SYSTEM, PULL THE LINE WIRE INTO THE POLE HANDHOLE FOR SPLICING.

## LEGEND

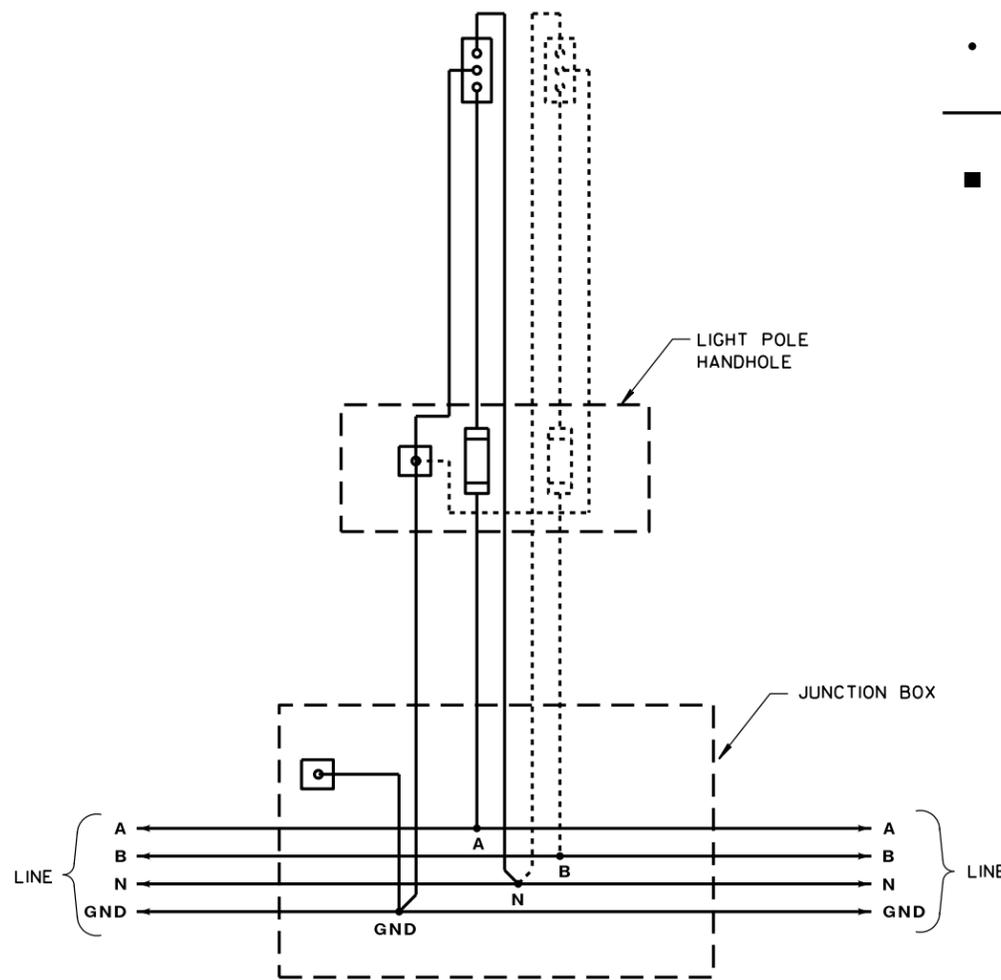
A.B.X.Y.Z	UNGROUNDING CIRCUIT CONDUCTORS
N	GROUNDING CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
○	TERMINAL
•	SPLICE
—	CONDUCTOR
■	EXOTHERMIC WELD



### TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM

3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE



### TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM

1-φ 120/240VAC OR 240/480VAC 3 WIRE

ELECTRICAL DETAILS  
STRUCTURE MOUNT LIGHT POLES  
ISOLATED NEUTRAL SYSTEMS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/25/2010 /S/ John Corbin  
DATE STATE ELECTRICAL ENGINEER FOR HWYS  
FHWA

*Electrical Details Structure Mount Light Poles Isolated Neutral Systems*

**References:**

NONE

**Bid items associated with this drawing:**

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
659.1100 - 1199	Luminaires Utility LED (Category).....	EACH

**Standardized Special Provisions associated with this drawing:**

<u>STSP NUMBER</u>	<u>TITLE</u>
NONE	

**Other SDDs associated with this drawing:**

[SDD 10a1](#) Electrical Handhole Wiring

**Design Notes:**

Use in conjunction with SDD for Electrical Handhole Wiring

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