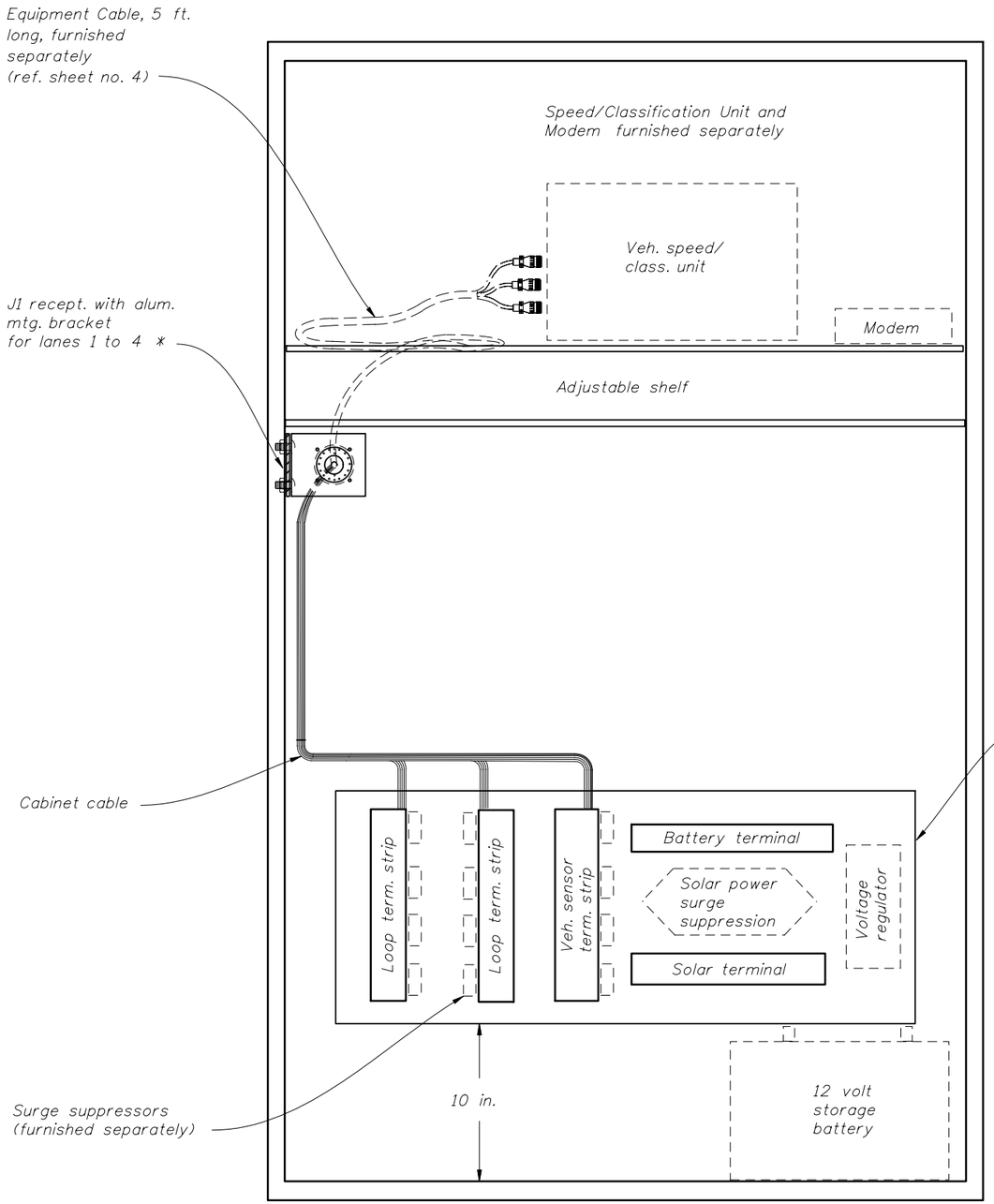

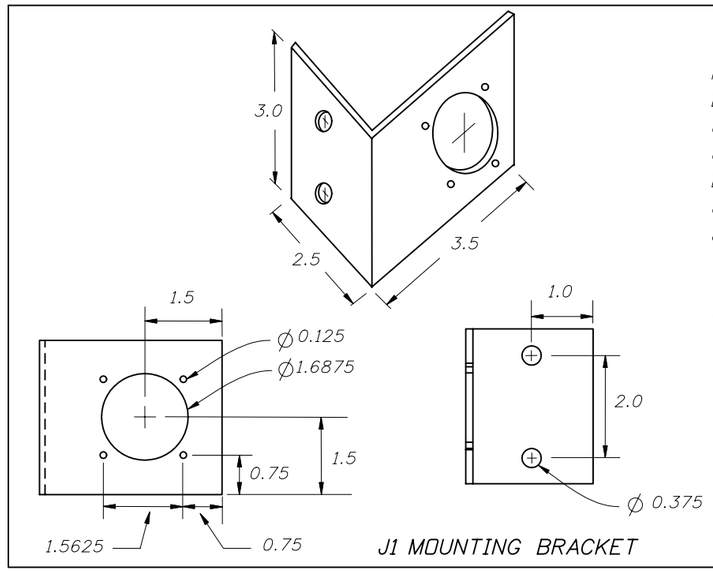

J1 MOUNTING BRACKET

Note:
Bracket shall be fabricated of 0.090 – 0.125 inch thick aluminum.
Dimensions may vary depending on the manufacturer of the J1 receptacle being furnished.
The cabinet manufacturer will construct the mtg. bracket to fit the receptacle.

All bracket dimensions are in inches

1. Traffic monitoring site cabinet includes:
   - A. One adjustable shelf; (equipped as shown)
   - B. One backplane ass'y;
   - C. One J1 receptacle with mounting bracket;
   - D. All associated wiring and wiring harnesses.

2. Basic backplane assembly consists of:
   - A. Two inductive loop terminal strips;
   - B. One vehicle sensor terminal strip;
   - C. One battery terminal strip;
   - D. One solar panel terminal strip.

* The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.

CABINET LAYOUT DETAIL (For Up To Four Lanes)

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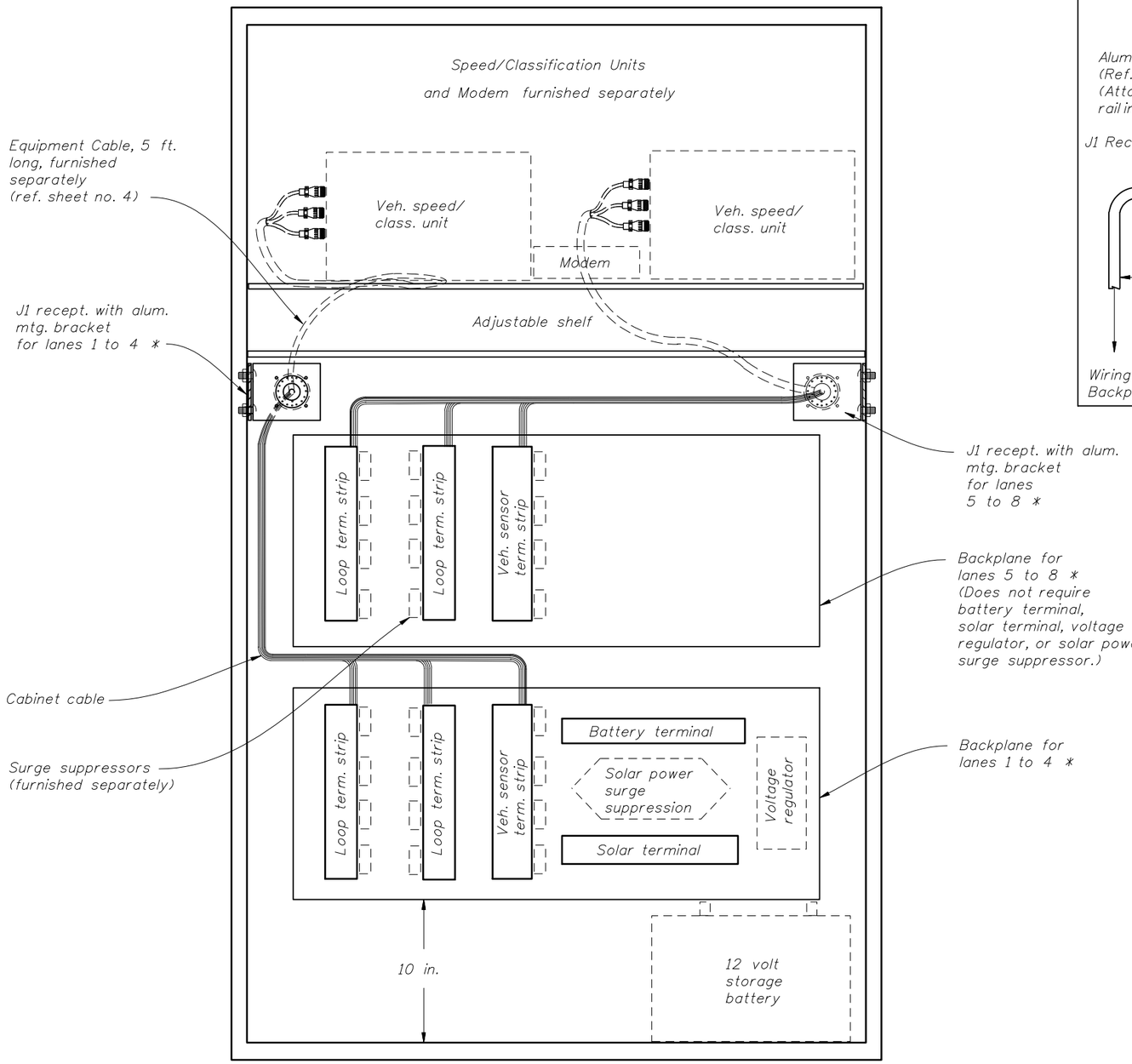
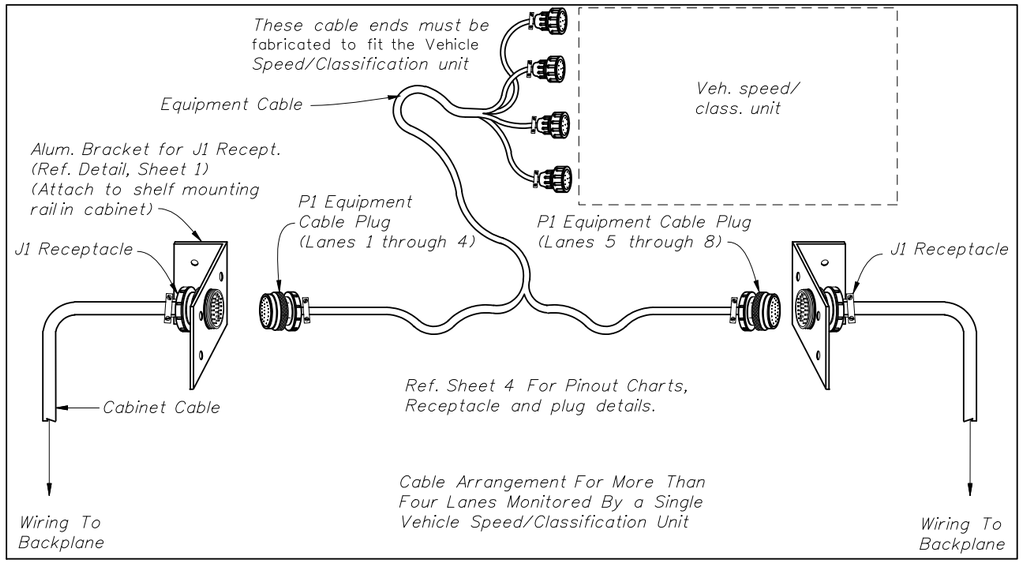




1. Traffic monitoring site cabinet includes:

   A. One adjustable shelf;

   B. Two backplane assemblies (equipped as shown);

   C. Two J1 receptacles with mtg. brackets;

   D. All associated wiring and wiring harnesses.

2. Basic backplane assembly consists of:

   A. Two inductive loop terminal strips;

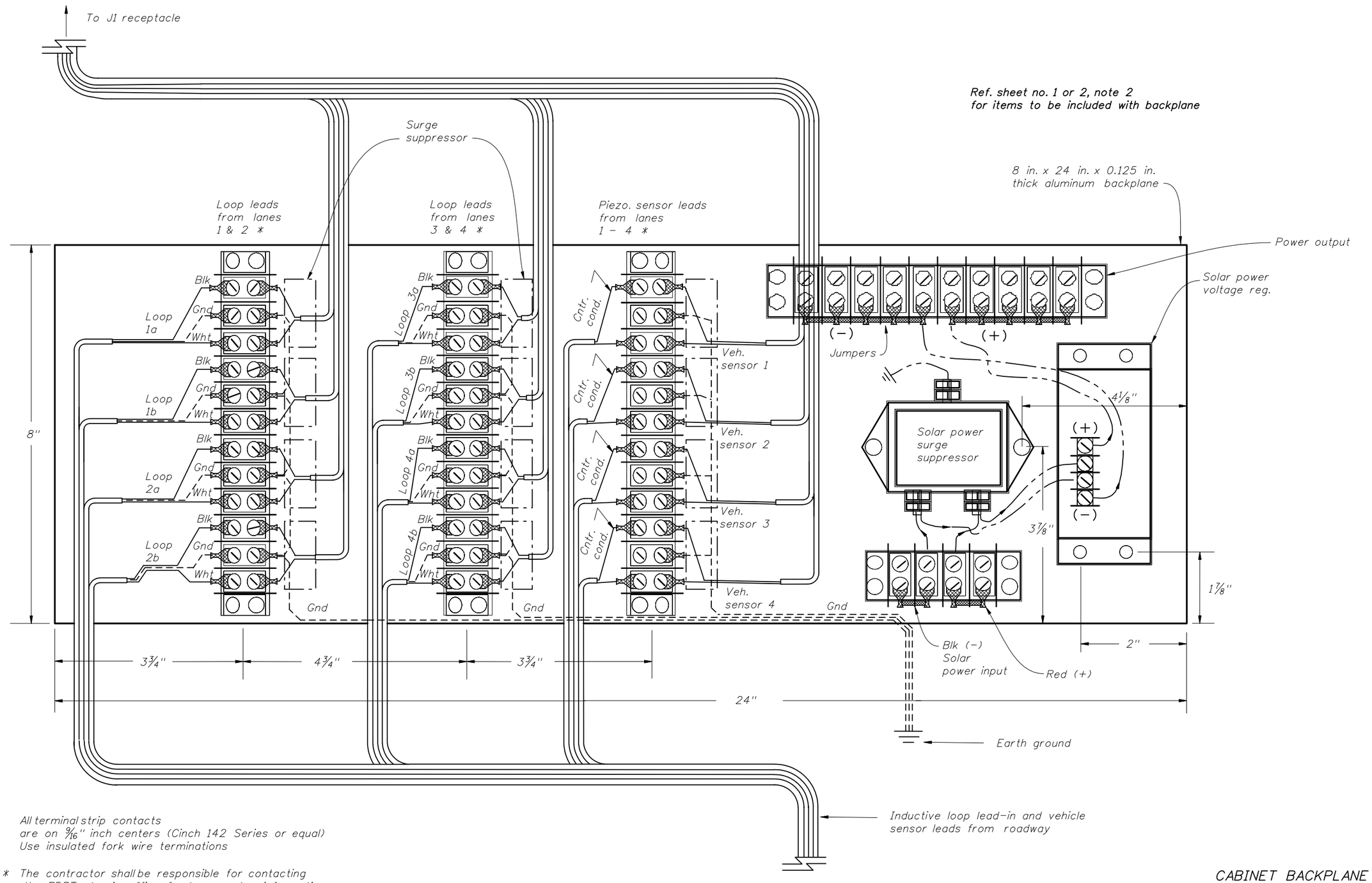
   B. One vehicle sensor terminal strip;

   C. One battery terminal strip;

   D. One solar panel terminal strip.

* The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.

CABINET LAYOUT DETAIL (For More Than Four Lanes And Up To Eight Lanes)



All terminal strip contacts are on 9/16" inch centers (Cinch 142 Series or equal) Use insulated fork wire terminations

* The contractor shall be responsible for contacting the FDOT plannig office for lane number information and verification.

CABINET BACKPLANE DETAIL

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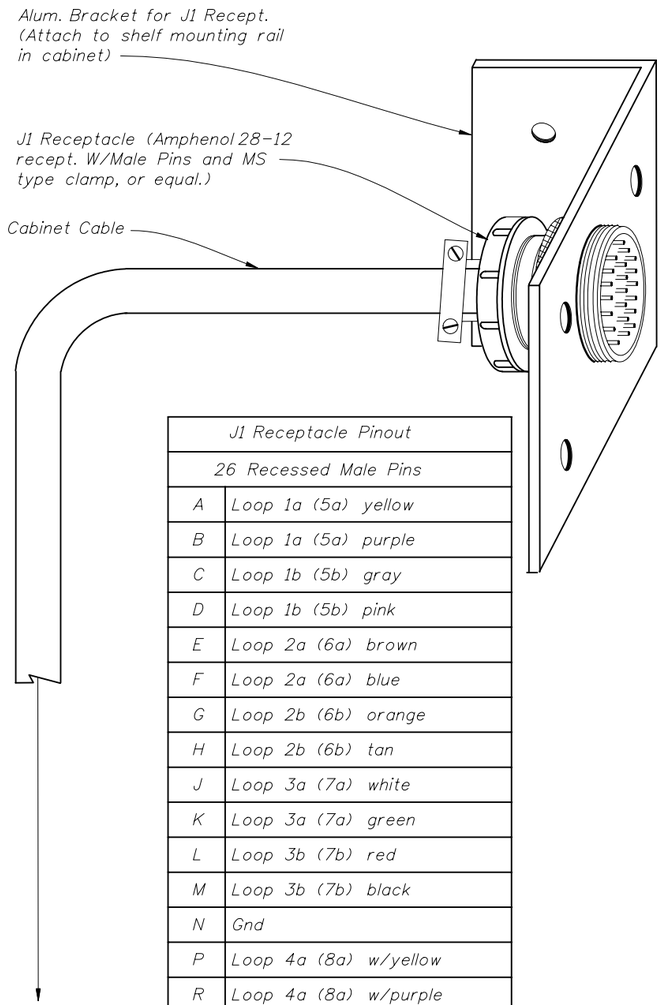
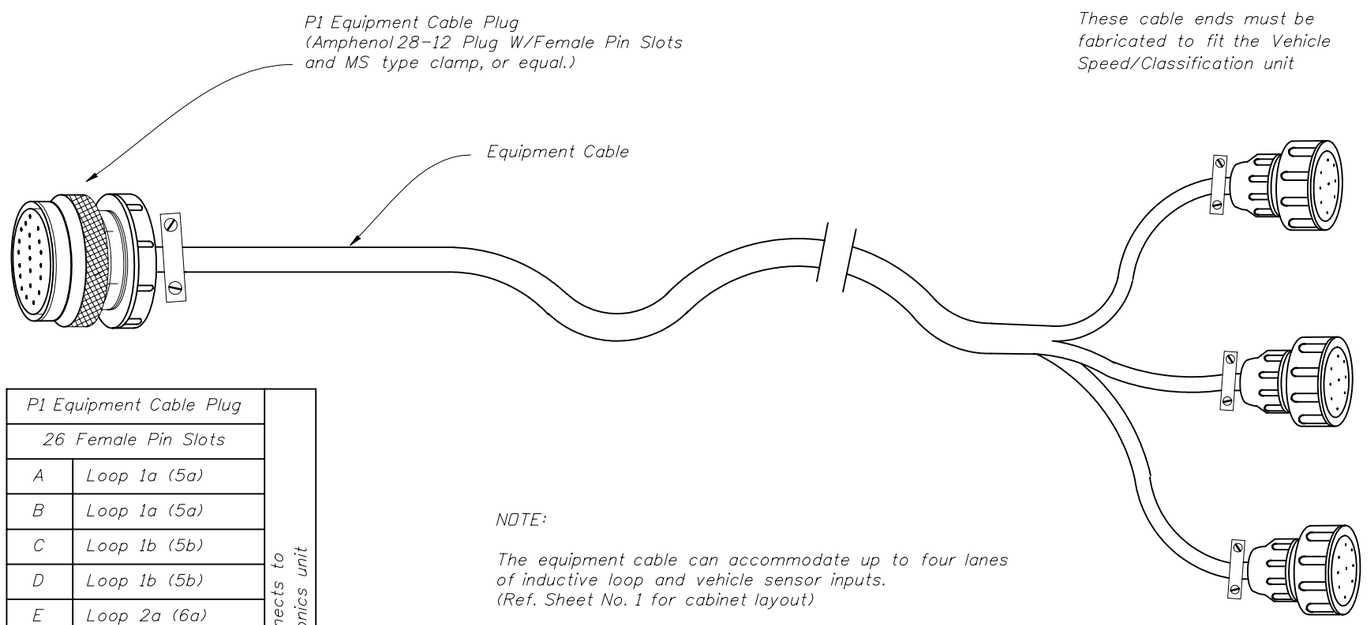


J1 Receptacle Pinout	
26 Recessed Male Pins	
A	Loop 1a (5a) yellow
B	Loop 1a (5a) purple
C	Loop 1b (5b) gray
D	Loop 1b (5b) pink
E	Loop 2a (6a) brown
F	Loop 2a (6a) blue
G	Loop 2b (6b) orange
H	Loop 2b (6b) tan
J	Loop 3a (7a) white
K	Loop 3a (7a) green
L	Loop 3b (7b) red
M	Loop 3b (7b) black
N	Gnd
P	Loop 4a (8a) w/yellow
R	Loop 4a (8a) w/purple
S	Loop 4b (8b) w/gray
T	Loop 4b (8b) w/brown
U	Piezo 1 (5) (+) w/blue
V	Piezo 1 (5) sh w/orange
W	Piezo 2 (6) (+) w/green
X	Piezo 2 (6) sh w/red
Y	Piezo 3 (7) (+) w/black
Z	Piezo 3 (7) sh w/red/blk
a	Piezo 4 (8) (+) red/green
b	Piezo 4 (8) sh red/yellow
d	Gnd red/black



P1 Equipment Cable Plug		
26 Female Pin Slots		
A	Loop 1a (5a)	Connects to electronics unit
B	Loop 1a (5a)	
C	Loop 1b (5b)	
D	Loop 1b (5b)	
E	Loop 2a (6a)	
F	Loop 2a (6a)	
G	Loop 2b (6b)	
H	Loop 2b (6b)	
N	Gnd	
J	Loop 3a (7a)	Connects to electronics unit
K	Loop 3a (7a)	
L	Loop 3b (7b)	
M	Loop 3b (7b)	
P	Loop 4a (8a)	
R	Loop 4a (8a)	
S	Loop 4b (8b)	
T	Loop 4b (8b)	
d	Gnd	
U	Piezo 1 (5) (+)	Connects to electronics unit
V	Piezo 1 sh	
W	Piezo 2 (6) (+)	
X	Piezo 2 sh	
Y	Piezo 3 (7) (+)	
Z	Piezo 3 sh	
a	Piezo 4 (8) (+)	
b	Piezo 4 sh	

NOTE:

The equipment cable can accommodate up to four lanes of inductive loop and vehicle sensor inputs. (Ref. Sheet No. 1 for cabinet layout)

For more than four lanes and up to eight lanes of inputs, the following options are available:

1. A second Vehicle Speed/Class. Unit and separate equipment cable connecting to a second J1 receptacle; or

2. A single Vehicle Speed/Class. Unit capable of up to eight lanes of inputs and a single equipment cable with split ends to fit two J1 receptacles. (Ref. Sheet 2 detail)

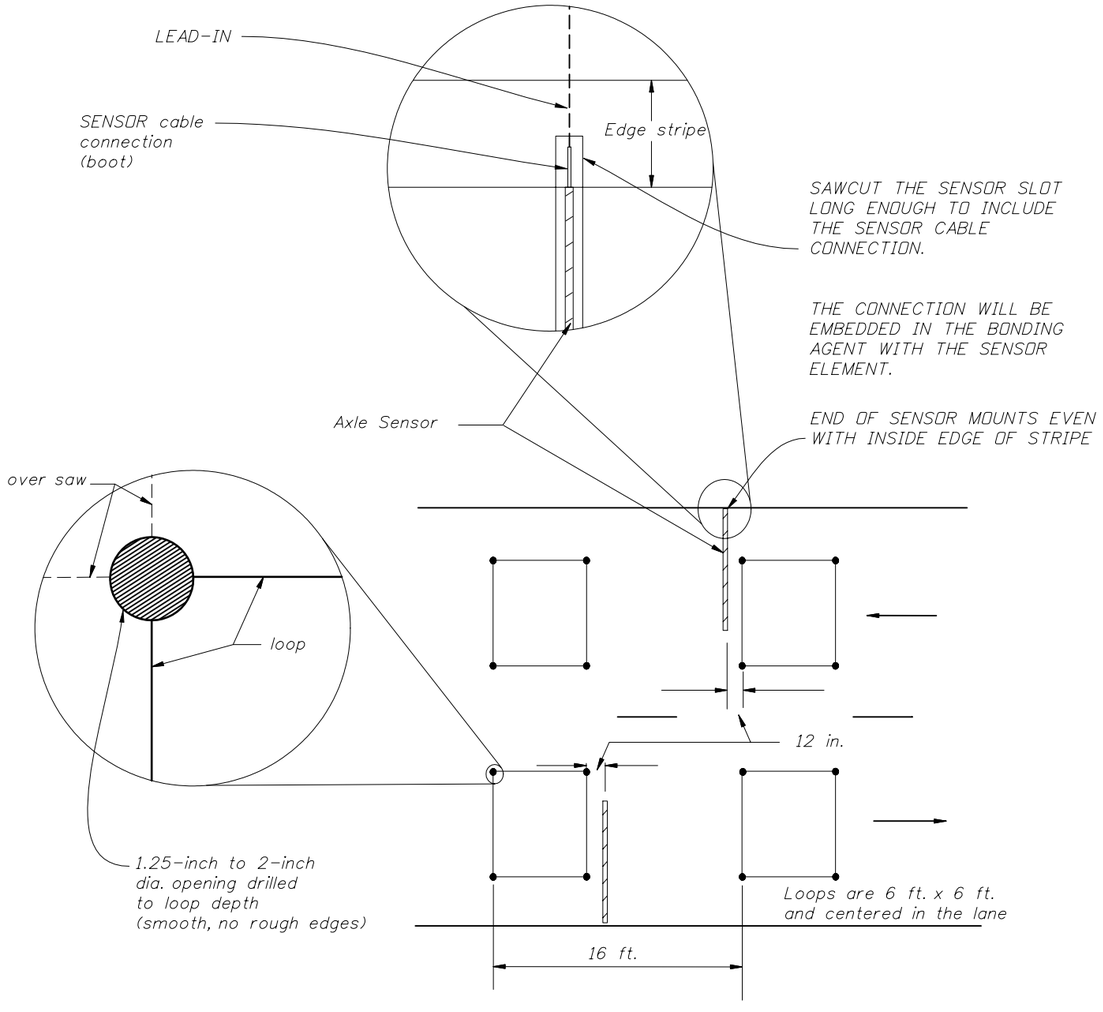
Numbers in parenthesis in the pinout chart identify lane numbers when a second backplane for lanes 5 through 8 is required.

NOTE:

The contractor shall be responsible for contacting the FDOT planning office for lane number information and verification.

EQUIPMENT CABLE DETAIL

SPEED/CLASSIFICATION LOOP ASSEMBLY WITH AXLE SENSORS PLACEMENT DETAIL

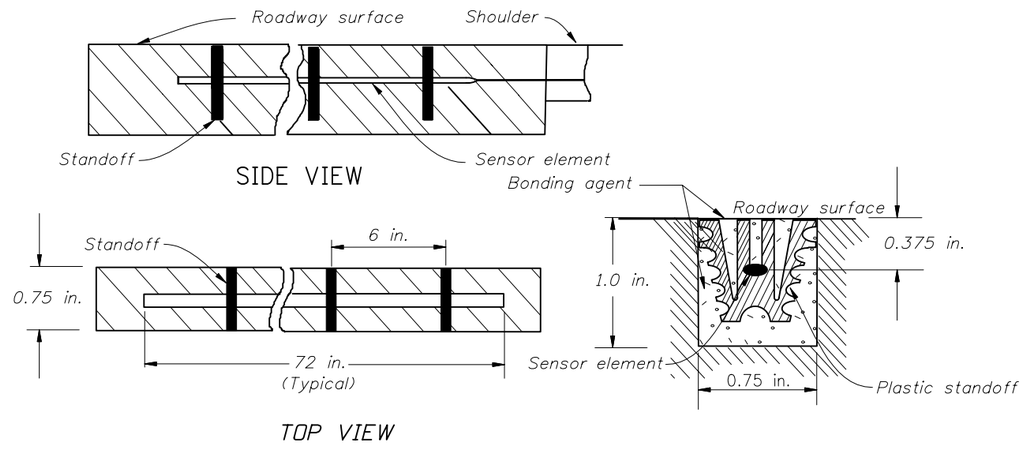


Note:
Loop slots shall be 0.25 inches wide (max.) by 1.5 inches to 2 inches deep. Four turns of #12 AWG, type XHHW stranded copper wire shall be placed in the slot. Backer rod shall be used to hold the loop wire in the bottom of the slot.

Loop leads shall be twisted at the rate of 10 to 12 twists per foot. The twisted pair shall extend to the pull box with three feet of spare length coiled in the pull box.

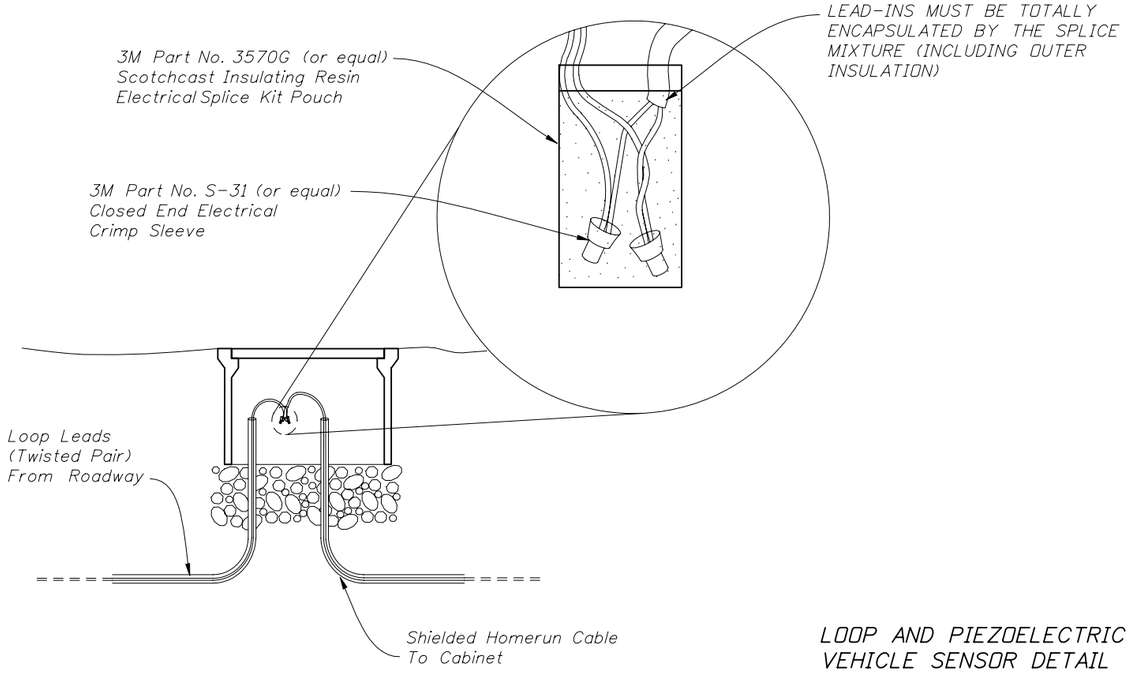
The contractor shall be responsible for contacting the FDOT office for lane number information and verification. All leads shall be labeled with permanent marker to indicate their lane number and position. For example: The leading loop in lane 1 is marked as "1A". The trailing loop (if present) is marked as "1B". The axle sensor (if present) is marked as "P1". And so on for all lanes.

TYPICAL UNENCAPSULATED CLASS II VEHICLE SENSOR



Note:
These are typical dimensions. actual dimensions, element cross-sections and standoffs may vary depending on manufacturer and model.

LOOP WIRE / HOMERUN CABLE SPLICES



LOOP AND PIEZOELECTRIC VEHICLE SENSOR DETAIL

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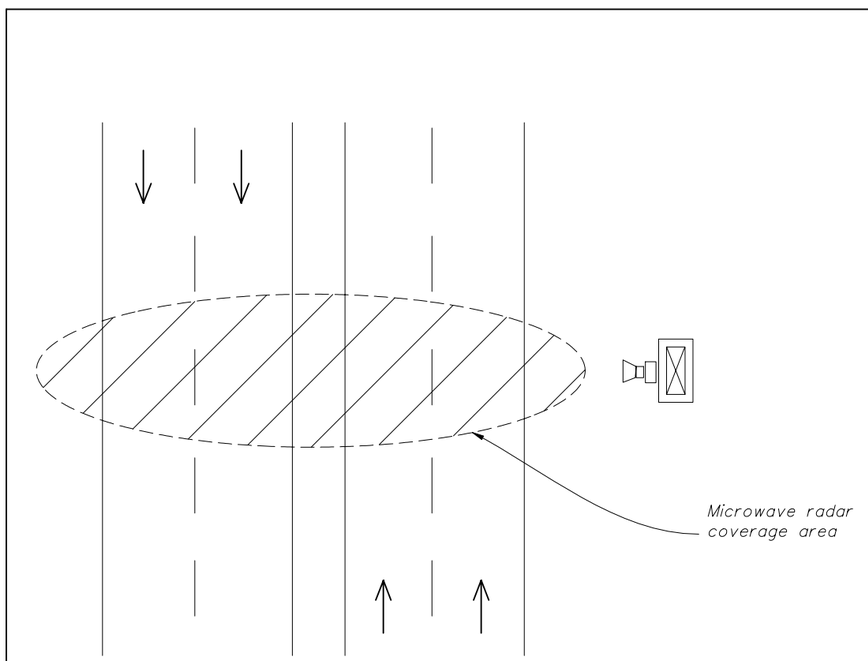
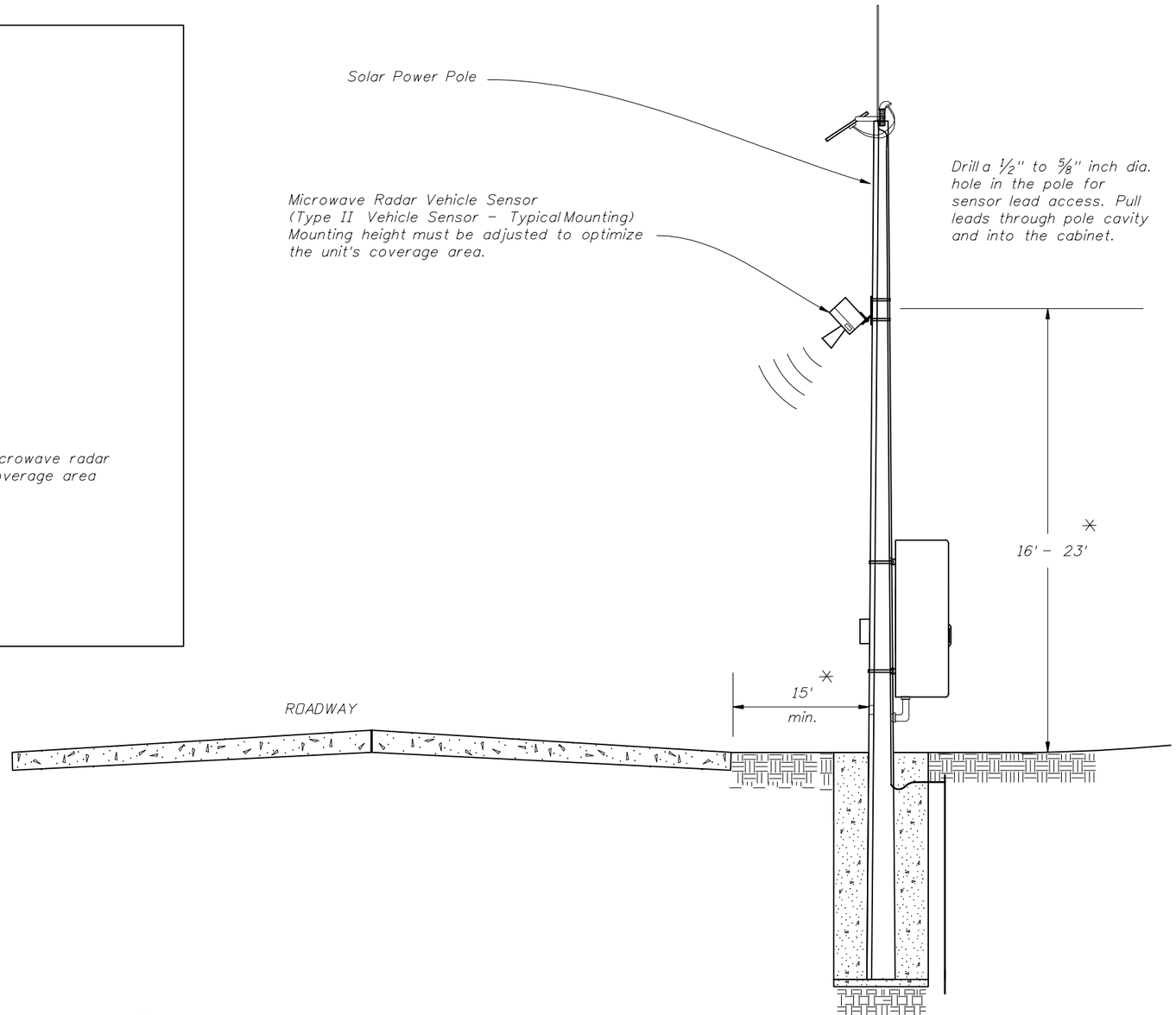


PLAN VIEW



The unit must be capable of detecting up to eight lanes of traffic (in either or both directions) when mounted perpindicular to the roadway.

Coverage area of the unit is affected by the roadway geometry: distance from the travellanes, median type and width, barrier walls, etc.

Mounting height of the unit and offset from the roadway must be determined on a site-by-site basis, in accordance with the manufacturer's recommended guidlines and existing clear zone requirements.

TYPE II VEHICLE SENSOR MICROWAVE RADAR

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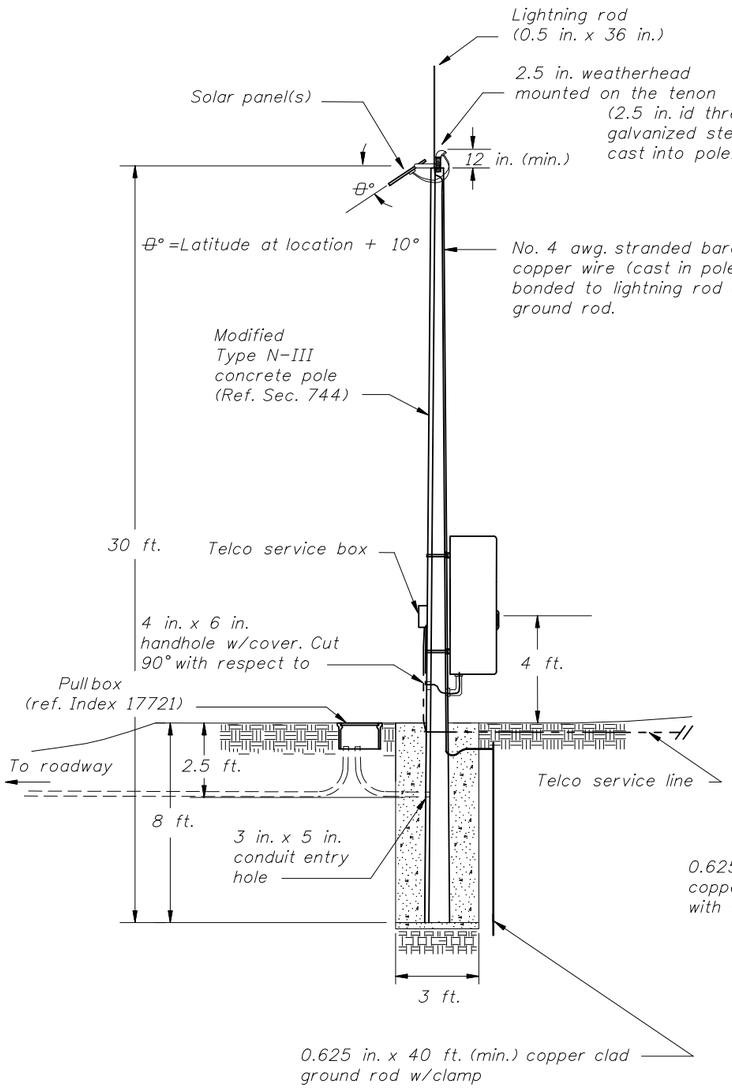
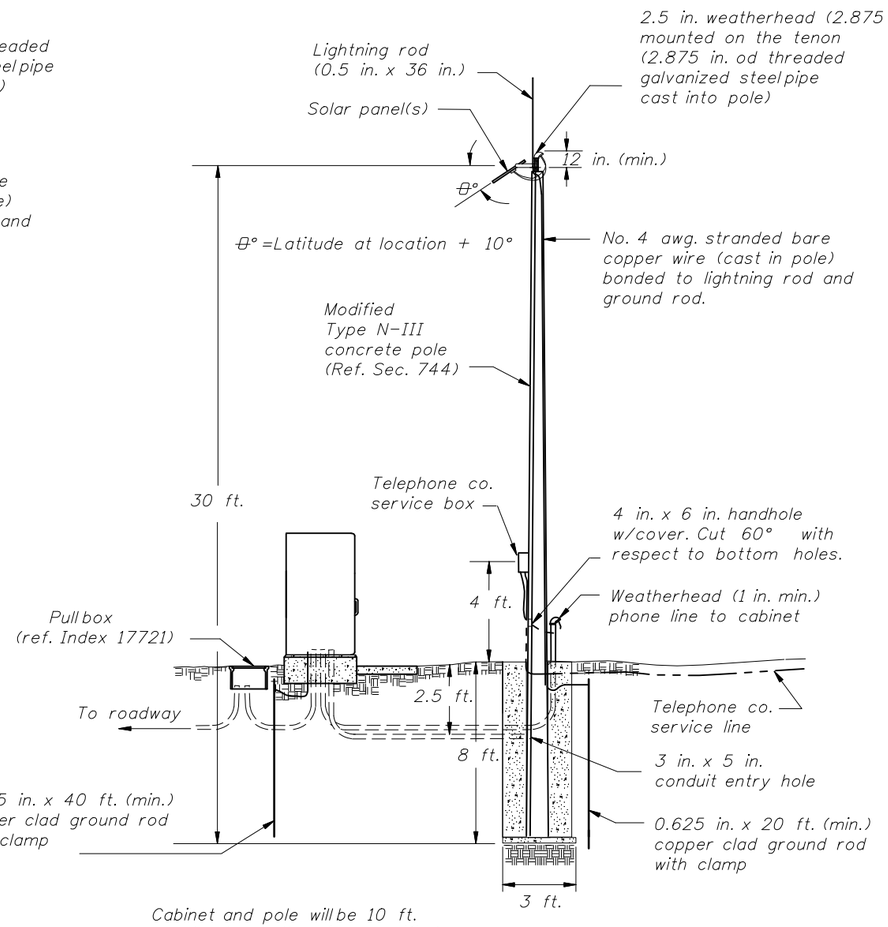
Note: Cabinet installed per Index 17841 except cabinet center will be 4 feet above grade.

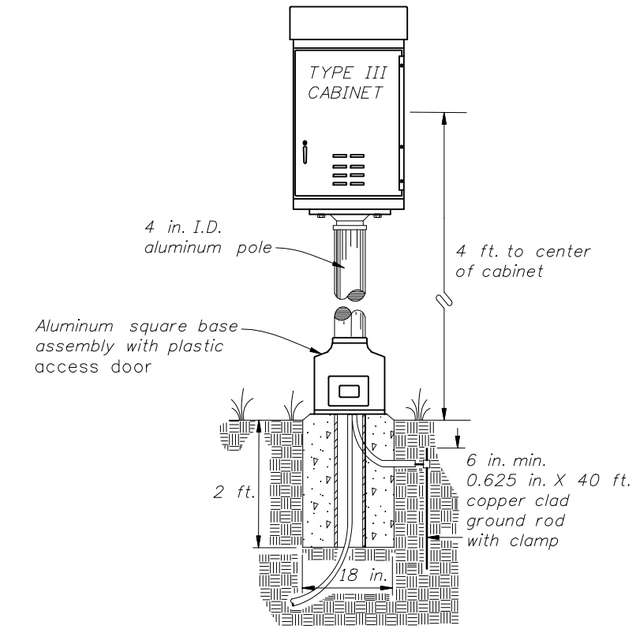


SOLAR POWER POLE
WITH POLE MTD. CABINET



Cabinet and pole will be 10 ft. apart unless otherwise specified in the plans

SOLAR POWER POLE
WITH BASE MTD. CABINET



PEDESTAL MTD. CABINET

Wire for Solar Panel Array installations shall be #10 AWG stranded copper, Red insulation is THHN or THWN for positive 12 volts wiring, Black insulation is THHN or THWN for negative, 12 volts wiring, Green insulation is THHN or THWN for ground bonding of the solar panel frame to the pole and earth.

Pole placement shall be in accordance with section 125.4 and 125.8.2.

SOLAR POWER POLE DETAIL

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