Mooney Road WIM Site

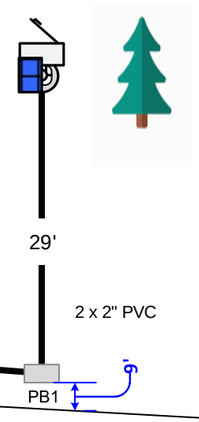
(Cabinet Location GPS Coordinates: 40.35220, -120.99780)

Construction Plan

Work to be Performed:

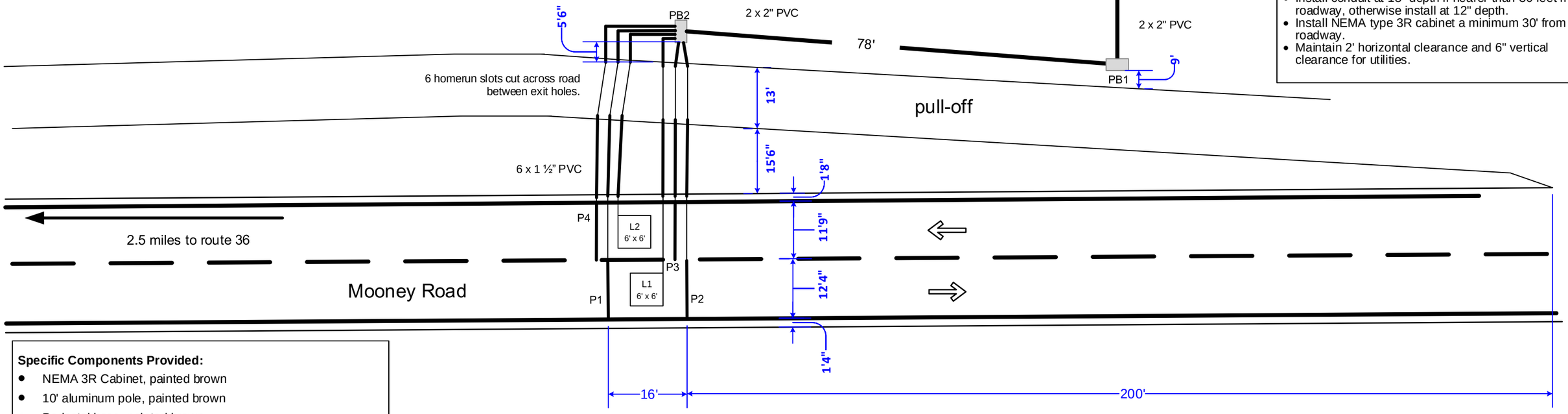
1. Excavate and install cabinet foundation, including J-bolts, conduit stubs and ground wire/rod at location shown on the construction plan.
3. Excavate for 3 pull boxes at locations provided on the construction plan.
4. Drill loop exit holes 18" from roadway edge at each loop and piezo location to the roadside pull box.
5. Trench/install 10' of 1 ½" PVC conduit from each loop and piezo exit hole to the nearest roadside pull box, and on either side of pull-off roadway, as shown on the construction plan.
6. Trench/install approximately 2x100' of 2" PVC conduits from PB3 to PB2 and 2x40' of 2" PVC from PB2 to PB1, and 2x5' of 2" PVC from PB1 to cabinet.
7. Install 3 concrete pull boxes with bolted steel lids at locations shown on the construction plan.
8. Install new pedestal-mount cabinet (NEMA 3R), painted brown, on the new foundation, including aluminum pedestal (painted brown), and aluminum pole, painted brown, 10 feet in height, at the location shown on the construction plan.
9. Install 2 loops, 6' x 6', at locations shown on the construction plan. All loops will have 3 turns. Run loop wire from the loop homeruns from exit holes, to pull-off exit holes, across slots in pull-off to exit holes on opposite side off pill-off and to PB3. Label each loop homerun with colored tape before cables are pulled through conduits.
10. Install 4, 11-foot BL piezo WIM sensors (Type 1), at locations shown on the construction plan. Run piezo wires from the sensors to PB3 in the same manner as the loop homeruns. Label each wire with colored tape prior to pulling cable through conduits.
11. Run loop (L1, L2) homerun cables, piezo (P1 and P2) cables from roadside pull box PB3 thru PB2 and PB1 to cabinet location making sure to label them with colored tape and alphanumeric decals in each pullbox. Test sensors and record electrical readings prior to sealing road.
12. Seal loops with Pro-Seal 6006EX as approved. Test loops again and record electrical readings after sealing road.
13. Install WIM and solar power equipment inside the cabinet, including charging devices, terminal block, loop surge arrestors, WIM controller (supplied by ARA) and associated cabling (supplied by ARA).
14. Install 1 new solar panel bracket, painted dark green, and 1 x 40-watt, 12 Volt solar panel on top of the cabinet pole.
15. Hook up solar panel, install new battery inside the cabinet.

WIM controller located in cabinet with terminal panel, battery charging circuit and modem.



General Installation Notes:

- Install loops square in lane, centered, perpendicular and parallel to centerline
- If lane width is less than 12' maintain 3' minimum distance to edge of lane and reduce loop size accordingly
- For 10' lanes, provide 5' x 5' loop size and maintain 2'6" clearance to edge of lane.
- Install loop exit holes 18" from pavement edge
- Maintain 2' minimum distance between loop lead-in sawcuts.
- 18' leading edge to leading edge loop spacing for double-loop installations
- Drill loop corners of loops 1 ½" and smooth rough edges.
- Loop homerun sawcuts = ½", wash and clean.
- Loop sawcuts = ¼" wide, 2 to 2 ½" deep, wash and clean.
- Mark each sensor wire in each pullbox and in cabinet with colored tape and alphanumeric decals.
- Twist loop leads 5x per 12".
- Test each loop prior to sealing.
- Install 6" of granular backfill under pullbox with 6" overspill on each side
- Install pullbox 5' from roadway (typ), flush with grade, maximum of 75' from pavement edge.
- Install pullboxes a maximum 150' apart.
- Install conduit at 18" depth if nearer than 30 feet from roadway, otherwise install at 12" depth.
- Install NEMA type 3R cabinet a minimum 30' from roadway.
- Maintain 2' horizontal clearance and 6" vertical clearance for utilities.



Specific Components Provided:

- NEMA 3R Cabinet, painted brown
- 10' aluminum pole, painted brown
- Pedestal base, painted brown
- (4) Class I, 11', BL piezo WIM sensors (2 per lane)
- (2) Inductive loops (1 per lane)
- ~300 feet of 2" PVC
- ~180 feet of 1 ½" PVC
- (3) concrete pullboxes
- (1) 40-watt solar panel, frame and back painted dark green.
- (1) 40-watt solar panel bracket, painted dark green.
- (1) CDMA modem/antenna

Specific Site Installation Notes:

- All loops will be 6' x 6'.
- All loops will have 3 turns.
- Piezo sensor will run continuously to cabinet without splices.
- Loops will be spliced in PB3.

Loop Lengths/turns:

- L1 = 200'/3
- L2 = 200'/3

2" PVC Conduit length =135'x2

1½" PVC Conduit length = 30'x6

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NOT TO SCALE