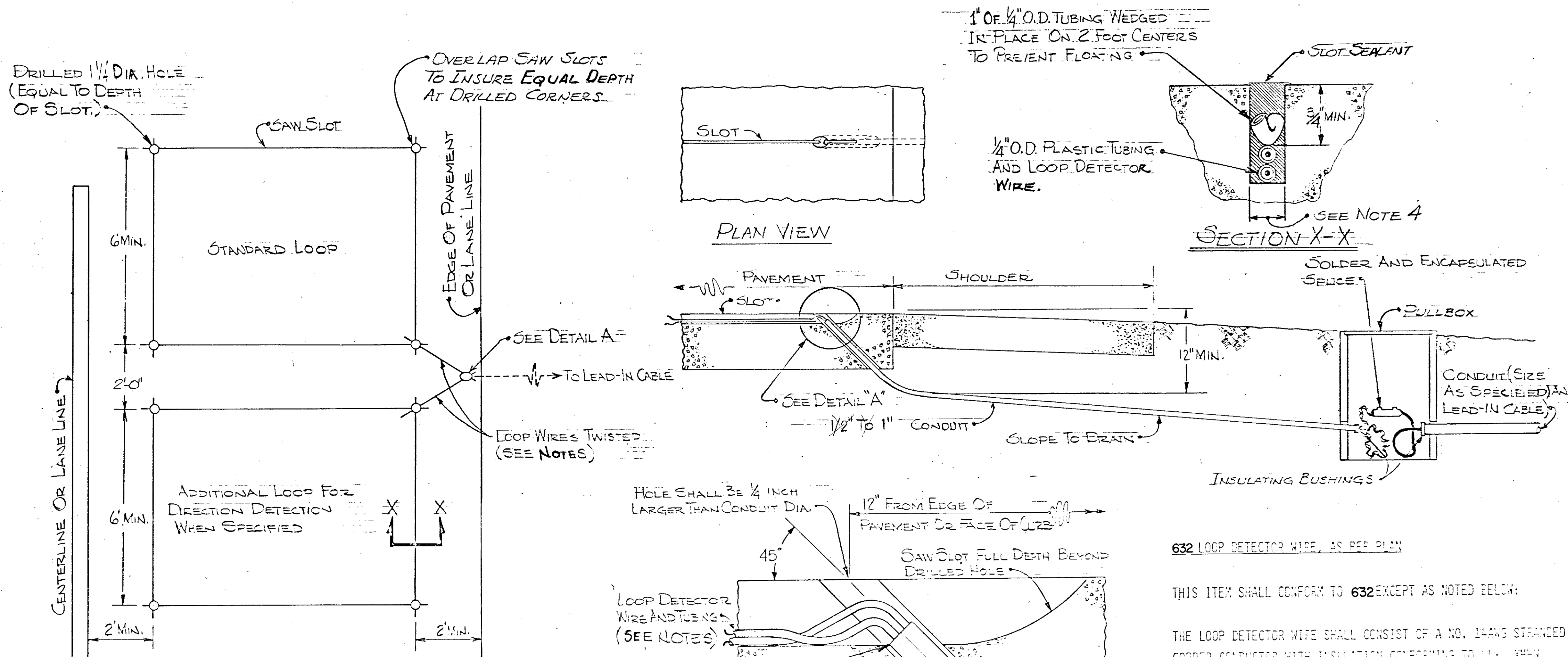


LAKE COUNTY
LAK-306-474

632- LOOP DETECTOR PAVEMENT CUTTING, AS PER PLAN

THE WORK UNDER THIS ITEM SHALL COMPLY WITH ITEM 632 EXCEPT AS MODIFIED BELOW:

1. Sawslots shall be carefully cleaned and dried prior to installation of wires.
2. When the plans require surfacing, or resurfacing, with asphalt pavement, loops shall (when feasible as determined by the Engineer) be placed prior to the final paving course. The sawslotting and sealing shall be performed in the existing pavement (provided it is stable) or in the second last paving course. All work shall otherwise comply with the requirements hereon. The location of the loop shall be marked on the adjacent curb.
3. The necessity for diagonal cuts at corners as required by the specifications is deleted. However, saw cuts are to intersect at holes drilled or bored in the pavement at loop corners. Holes are to be approximately 1 1/4" diameter and the same depth as the sawslot. All sharp edges at turn points shall be chamfered or chiseled out.
4. The depth of the sawslot shall be sufficient to allow for the required number of turns of loop wire, encased in tubing, and still maintain a minimum cover of 3/4". The width of the sawslot will normally be between 1/4" and 1/2", but shall be approximately 1/8" wider than the outside diameter of the tubing.
5. Field adjustments of detector locations or sizes shall be made to avoid detector locations which would pass through or encompass major obstructions such as manholes. In order to minimize crossing or cutting adjacent to pavement joints, no sawslot shall be located within 12" of a longitudinal or transverse joint in PCC pavements, if the slot is parallel to the joint. In areas of poor pavement condition, the sawslot depth shall be increased to insure adequate wire embedment. All field adjustments shall be subject to approval of the Engineer.
6. Prior to pouring the loop sealant, the loop wires shall be gently wedged into the slot at intervals of not less than 2' to prevent the loop wire from floating to the top of the sealant.



632 LOOP DETECTOR WIRE, AS PER PLAN

THIS ITEM SHALL CONFORM TO 632 EXCEPT AS NOTED BELOW:

THE LOOP DETECTOR WIRE SHALL CONSIST OF A NO. 14 AWG STRANDED COPPER CONDUCTOR WITH INSULATION CONFORMING TO UL 100, THIN OR THIN INSERTED INTO A FLEXIBLE PLASTIC TUBING WITH A MINIMUM WALL THICKNESS OF 0.025 INCHES. THE TUBING SHALL HAVE A NOMINAL O.D. OF 1/4 INCH. THE TUBING SHALL EXTEND CONTINUOUSLY FROM THE SPLICE AT THE LOOP DETECTOR LEAD-IN CABLE, THROUGH THE ENTIRE LOOP AND BACK TO THE SPLICE. BOTH ENDS OF THE TUBING SHALL EXTEND INTO THE POURED EPOXY SPLICE AND BE SEALED THEREIN. IF THE SPLICE BETWEEN LOOP WIRE AND LOOP DETECTOR LEAD-IN CABLE IS NOT MADE IMMEDIATELY, THE ENDS OF THE TUBING SHALL BE SEALED AT THE TIME THE LOOP WIRE IS PLACED INTO THE SAWSLOTS.

THE TUBING SHALL BE CAPABLE OF RESISTING DETERIORATION FROM OILS AND SOLVENTS. THE TUBING SHALL BE HIGHLY ABRASION RESISTANT AND HAVE A SMOOTH BORE. ALL LENGTHS OF LOOP WIRE WITH TUBING THAT IS NOT EMBEDDED IN THE PAVEMENT SHALL BE TWISTED UNIFORMLY AT THREE TO FIVE TURNS PER FOOT, INCLUDING LENGTHS IN CONDUITS AND PULLBOXES. IF WIRES FROM MORE THAN ONE LOOP ARE CONTAINED IN A CONDUIT, THE TWO WIRES OF EACH LOOP SHALL BE TWISTED SEPARATELY FROM THE WIRE PAIR OF THE OTHER LOOP(S). THE PAIR OF WIRES FROM EACH LOOP SHALL BE TAGGED AT THE SPLICE POINT TO DISTINCTLY IDENTIFY THE LOOP WHICH THEY SERVE.

THE POLARITY OF EACH LOOP SHALL BE IDENTIFIED BY MEANS OF A TAG PLACED ON ONE OF THE LOOP WIRES AT THE SPLICE POINT. THE LOOP WIRE WHICH IS NOMINALLY TO BE IDENTIFIED AS POSITIVE (+) SIGN SHALL BE THE ONE WHICH, IF FOLLOWED FROM THE SPLICE AND AROUND THE LOOP, TRACES A CLOCKWISE PATTERN.

LOOP WIRE CONSTRUCTION	
LOOP PERIMETER	NUMBER OF TURNS
LESS THAN 40 FEET	3
40 TO 160 FEET	2
OVER 160 FEET	1

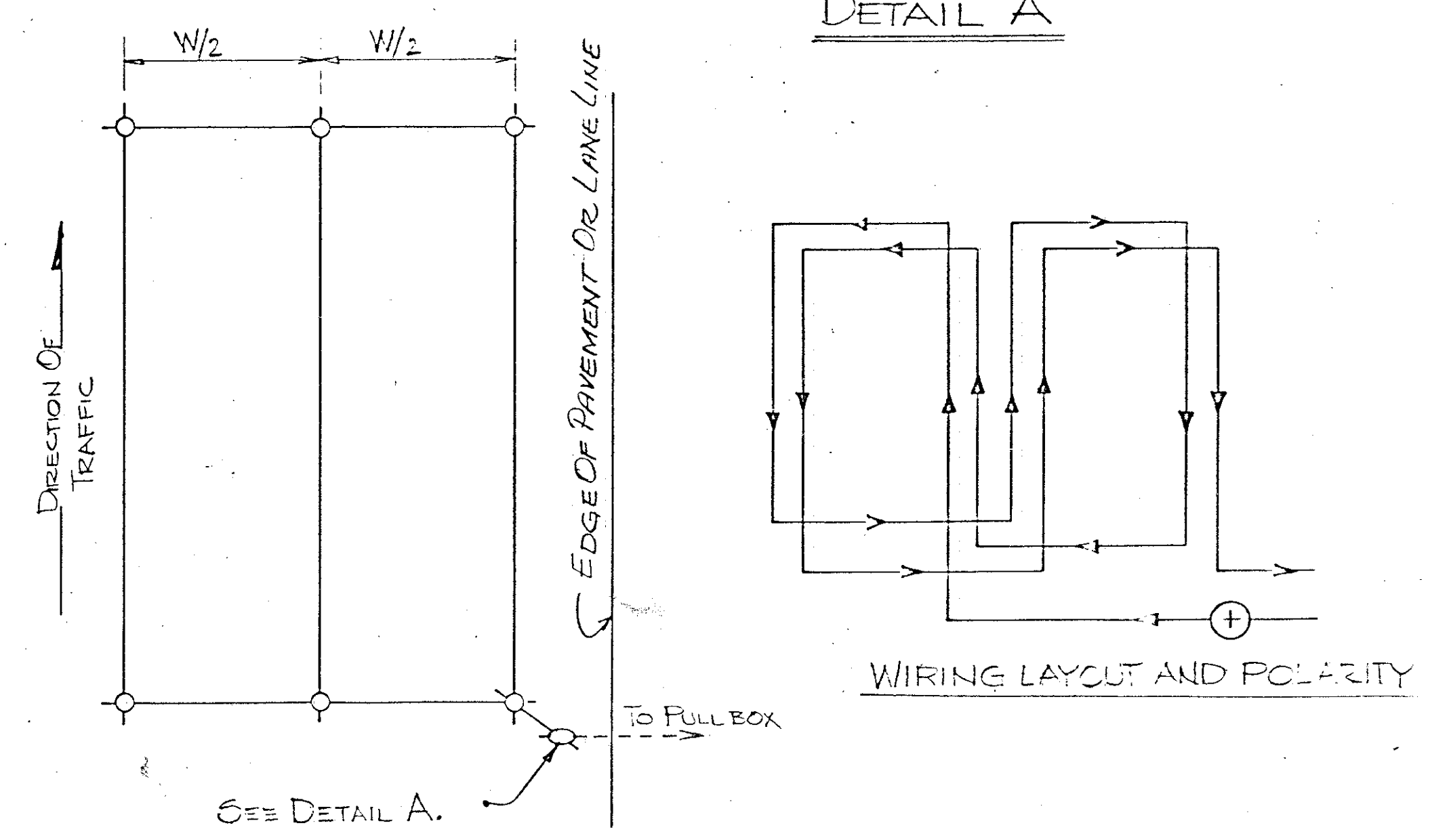
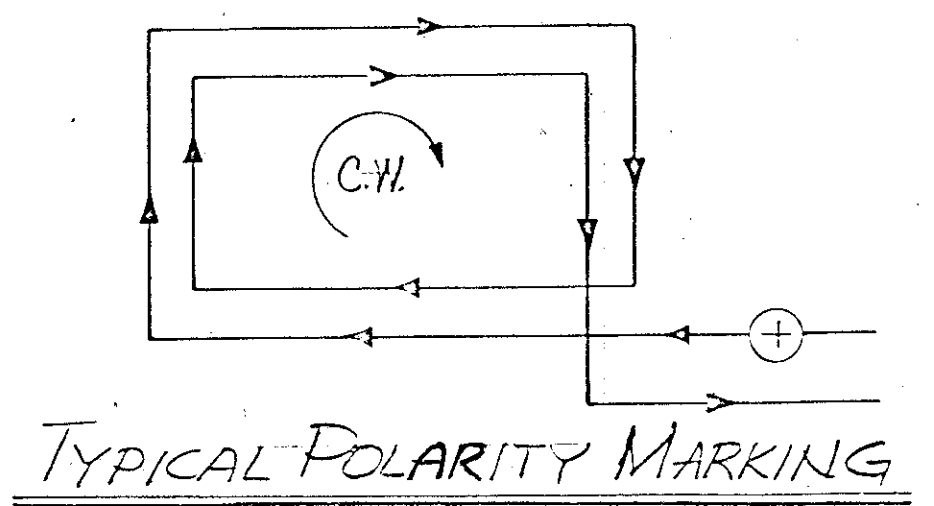


FIGURE 8 LOOP DETAILS

BUREAU OF DESIGN SERVICES 9/31