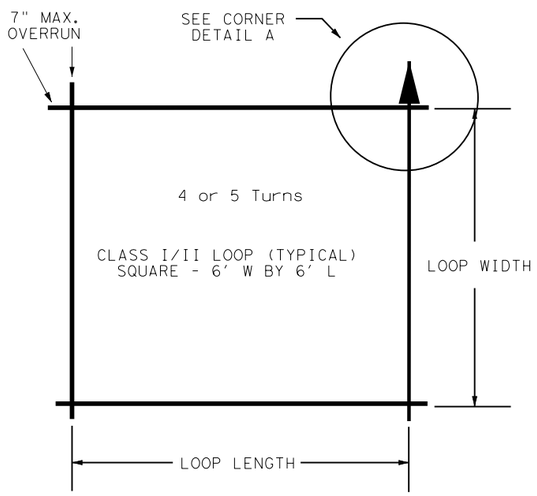
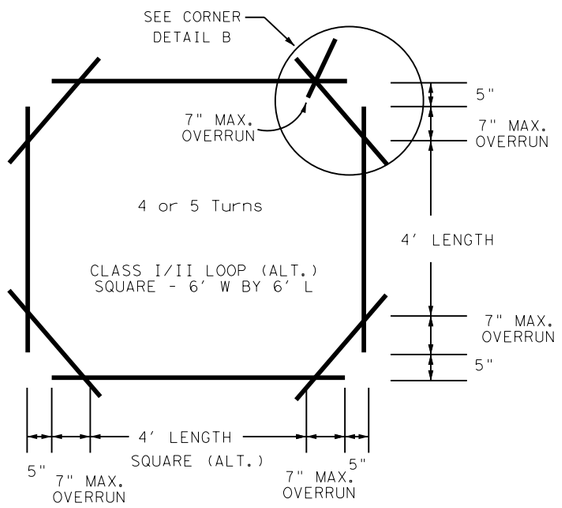
DATE:
FILE:

TYPICAL LOOP DETECTOR LAYOUTS

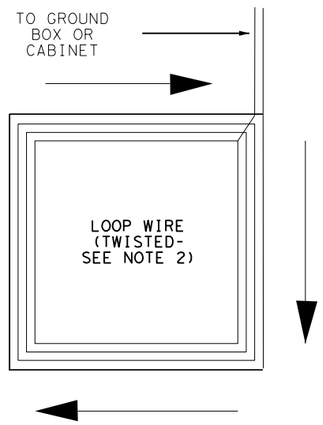
(AS SPECIFIED IN PLANS)



RECTANGULAR
OR SQUARE

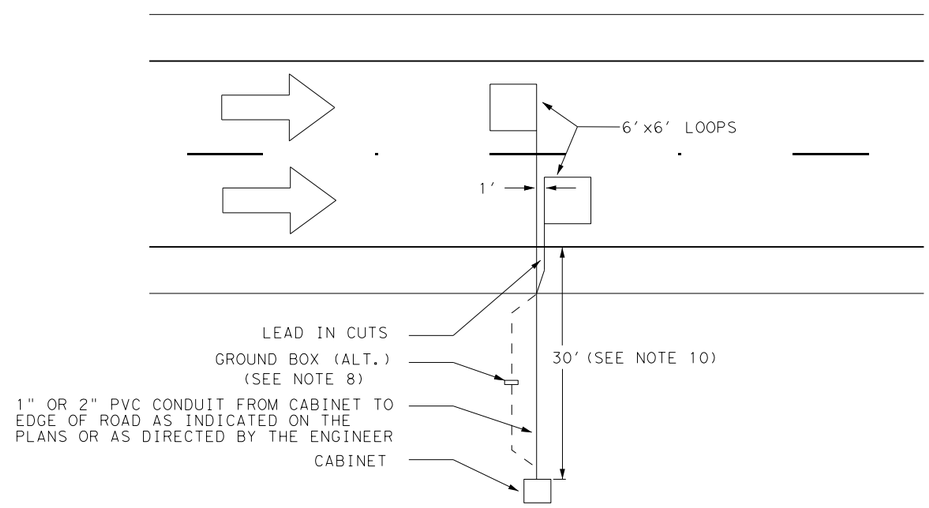


LOOP WINDING DETAILS



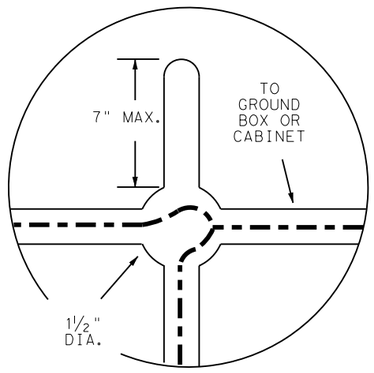
4 OR 5
CLOCKWISE
TURNS

TYPICAL VOLUME LOOP ONLY SITE EXAMPLE



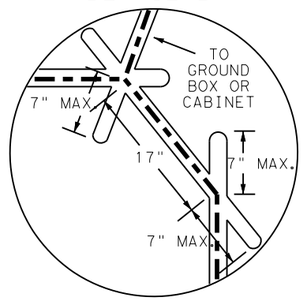
TYPICAL CORNER DETAILS

DETAIL A



RECTANGULAR & SQUARE LOOP
DRILLED CORNER DETAIL

DETAIL B



SQUARE LOOP (ALT.)
SAWCUT CORNER DETAIL

7" OVERRUN BASED ON
24" DIAMETER SAW BLADE

GENERAL NOTES:

1. Make pavement cuts with a concrete saw. Create neat lines and remove loose materials. Clean and dry cut prior to placing wire and sealing compound.
2. Fully encapsulate wires, lead ins, and sensors placed with acceptable sealants. Sealing compound shall be in accordance with DMS 6340. The sensors and epoxy will be provided by TxDOT.
3. Make separate saw cut from each loop to pavement edge or as directed by the Engineer. Run each cable in their own 1" or 2" PVC conduit from the pavement edge to either the ground box or cabinet or as directed by the Engineer. Install two 2" PVC conduits or one 3" PVC conduit at the cabinet unless otherwise directed by Engineer. Consolidate wires from the ground box to the cabinet.
4. Loop wire shall be 14 AWG IMSA 51-3 Stranded 600 v Type XHHW. Twist wire from the loop to the ground box or cabinet a minimum of five turns per foot. No splices are permitted in the loop wire to the ground box.
5. The lead in cable, if installed, from the ground box to the cabinet shall be 14 AWG Stranded Copper twisted shielded pair with 600 v polyethylene insulation and jacket. Solder the lead in cable to the loop wire and seal joints with Scotchcast or other method acceptable to the Engineer.
6. The loop location, configuration, and number of turns shall be as indicated on the plans or as directed by the Engineer.
7. Place four turns of cable for loops in asphalt and five turns in concrete unless otherwise directed by the Engineer.
8. Make splices between the loop wire and lead in cable only in the ground box or as directed by the Engineer. Run wire into ground box then directly to cabinet with a maximum of one splice between loop and cabinet.
9. Refer also to LD(1) Loop Detector Installation Details.
10. Set back cabinet 30' from edge of traveled lane unless otherwise directed by Engineer.

Texas Department of Transportation

Transportation Planning Programming Division

TRAFFIC DATA COLLECTION LOOP DETAILS

TDC(3)-22

FILE: tdc(3)-21.dgn	DN:	CK:	DW:	CK:
© TxDOT August 2021	CONT	SECT	JOB	HIGHWAY
REVISIONS				
October 2022	DIST	COUNTY		SHEET NO.