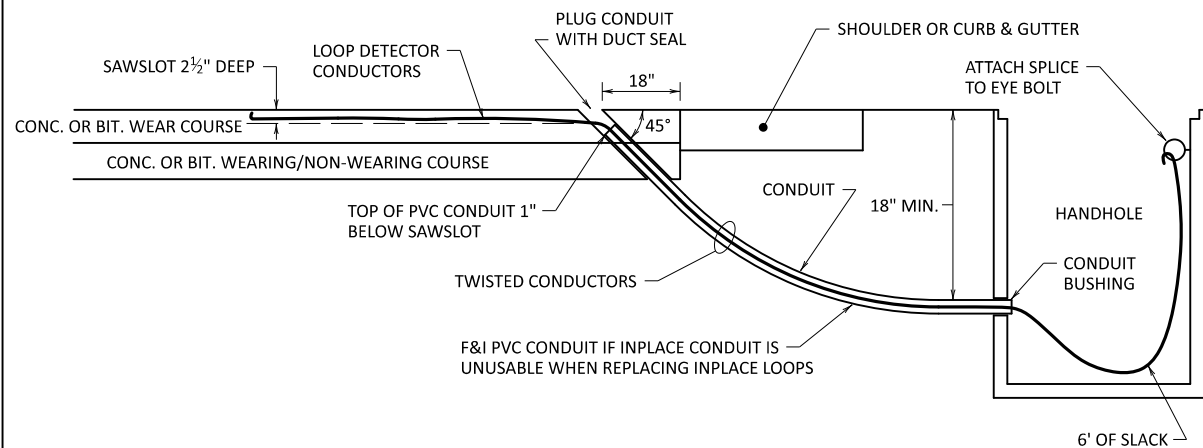
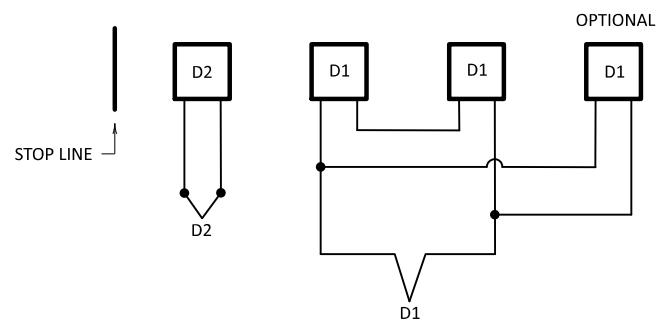


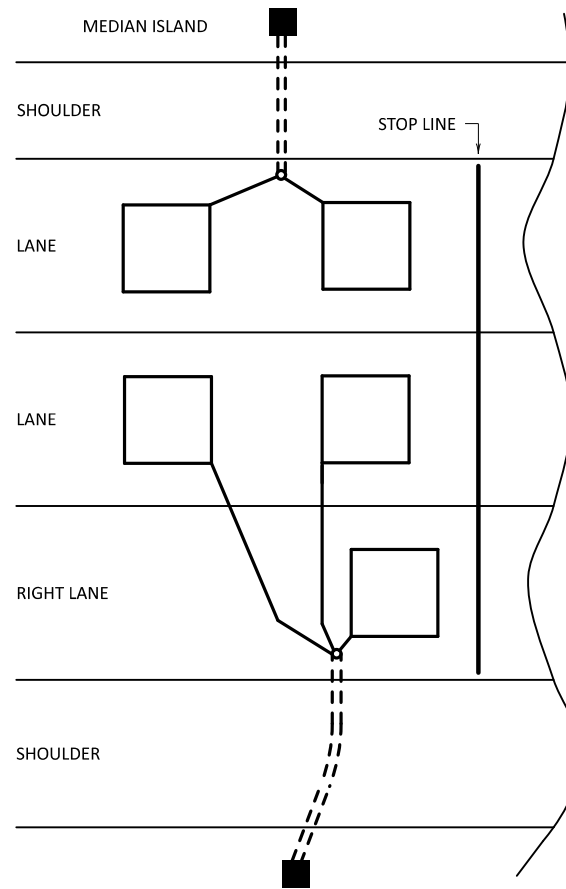
LOOP/HANDHOLE INSTALLATION FOR MILL & OVERLAY CONSTRUCTION



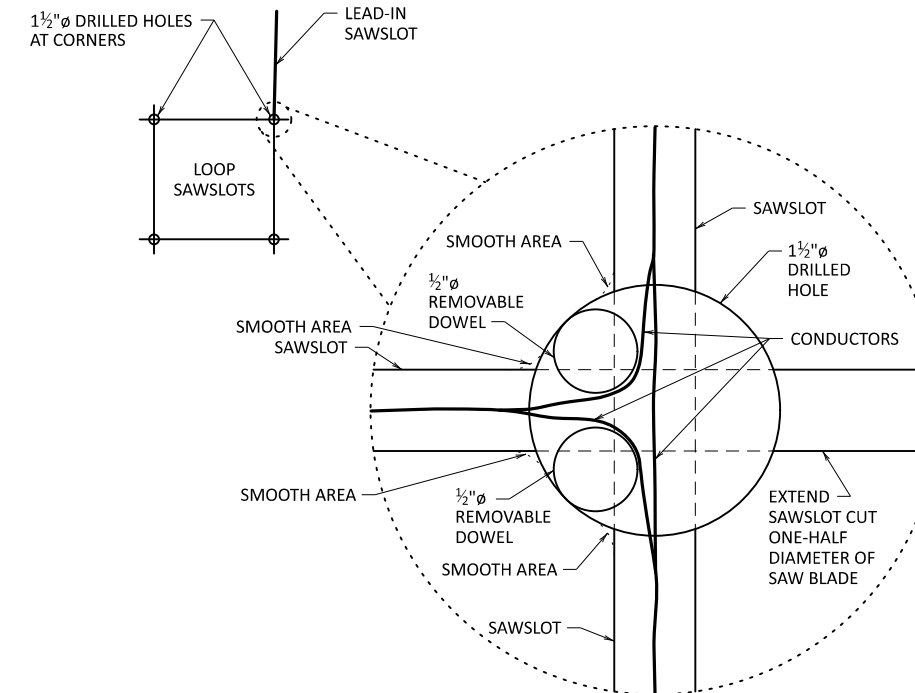
LOOP/HANDHOLE INSTALLATION FOR INPLACE ROADWAYS



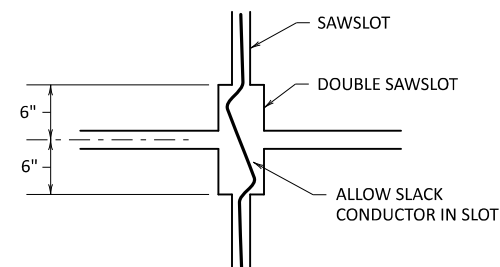
MULTIPLE LOOP SERIES HOOKUP



APPROACH DETECTORS



DRILL SAWCUT CORNERS



JOINT/CRACK INSTALLATION

NOTES:

- FURNISH AND INSTALL LOOP DETECTORS IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- FOR ROADWAYS BEING RESURFACED, SAWCUT AND REPLACE SEALANT MATERIAL BEFORE THE BITUMINOUS WEARING COURSE IS PLACED UNLESS OTHERWISE APPROVED BY THE ENGINEER TO NOT PLACE THE LOOP DETECTORS UNTIL AFTER PAVEMENT MARKINGS AND LANE STRIPING HAVE BEEN ESTABLISHED.
- SWEEP, WASH, AND BLOW CLEAR OF DIRT AND DEBRIS THE SURFACE AREA BEFORE SAWCUTTING.
- MARK THE LOOP DETECTORS AND HOME RUN ON THE PAVEMENT.
- MARK SAWCUTS AT A UNIFORM DEPTH BETWEEN 2 3/4" AND 2 3/4" AND 1/8" WIDER THAN THE OUTER DIAMETER OF THE TUBING.
- AVOID CROSSING CONCRETE JOINTS AND CRACKS WHENEVER POSSIBLE. USE THE JOINT CRACK DETAIL SHOWN WHEN A JOINT OR CRACK CROSSING CANNOT BE AVOIDED.
- SAWCUT LOOP CORNERS SQUARE AND WITH A 1 1/2" DIAMETER DRILL BIT, DRILL EACH CORNER 1/2" DEEPER THAN THE SAW CUT. ENSURE THE INSIDE CORNERS HAVE BEEN ROUNDED TO PREVENT DAMAGE TO THE CABLE.
- CLEAN AND FLUSH THE SAWSLOTS OF FOREIGN MATERIAL USING A COMBINATION OF COMPRESSED AIR AND WATER AND DRY THE SAWSLOTS WITH COMPRESSED AIR BEFORE PLACING THE LOOP DETECTOR CABLE.
- APPLY A BEAD OF APPROVED LOOP DETECTOR SEALANT INTO THE SAWCUT SLOT AND WITHIN 6" OF WHERE THE CONDUITS RUN FROM THE END OF THE SAWCUT SLOT TO THE ADJACENT HANDHOLE BEFORE INSERTING THE LOOP DETECTOR CONDUCTORS.
- ENSURE LOOP CONDUCTORS ARE CLEAN AND DRY BEFORE PLACING INTO THE SAWSLOT.
- PUSH THE LOOP DETECTOR CONDUCTORS TO THE BOTTOM OF THE SAWSLOT USING A BLUNT INSTRUMENT TO PREVENT DAMAGE TO THE CONDUCTORS.
- AFTER PLACING THE CONDUCTORS INTO THE SAWSLOT, PLACE 3/4"x2" BACKER ROD IN 2' INTERVALS INTO THE SAWSLOT TO ENSURE CONDUCTORS STAY AT THE BOTTOM OF THE SAWSLOT.
- TWIST THE LOOP DETECTOR CONDUCTORS FROM THE DETECTOR TO THE HANDHOLE IN THREE TURNS PER FOOT. FROM THE END OF THE SAWSLOT TO THE ADJACENT HAND HOLE, FURNISH AND INSTALL A 3/4" OR LARGER PVC CONDUIT IN ACCORDANCE WITH NEC CONDUIT FILL RATIO FOR THE NUMBER LOOP DETECTORS CONDUCTORS PLACED IN ONE CONDUIT. PLACE THE TWISTED CONDUCTORS INSIDE THE CONDUIT.
- TO PREVENT LOOP DETECTOR SEALANT FROM ENTERING INTO THE CONDUIT, USE DUCT SEAL OR OBTAIN ENGINEERS APPROVAL TO USE ALTERNATE SEAL.
- DO NOT PLACE LOOP LEADS ACROSS CONCRETE PAVEMENT TRANSVERSE JOINTS. MOVE THE LOOP TO THE NEXT PANEL AND PLACE A SEPARATE CONDUIT TO THE HAND HOLE IF LOOPS WILL NOT FIT IN ONE PANEL, AND MAINTAIN SEPARATIONS SHOWN.
- SEE PLAN LAYOUT FOR ACTUAL DETECTOR SIZE AND PLACEMENT LOCATION.

LEAD EXPERT OFFICE
BRIAN SORENSON
STATE TRAFFIC ENGINEER
OFFICE OF TRAFFIC ENGINEERING

SAWCUT LOOP DETECTORS

APPROVED:
10-04-2024

THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN
5-297.873

1 OF 1



STANDARD PLAN

STATE PROJ. NO.
TRUNK HWY.

SHEET NO.
TOTAL SHEETS