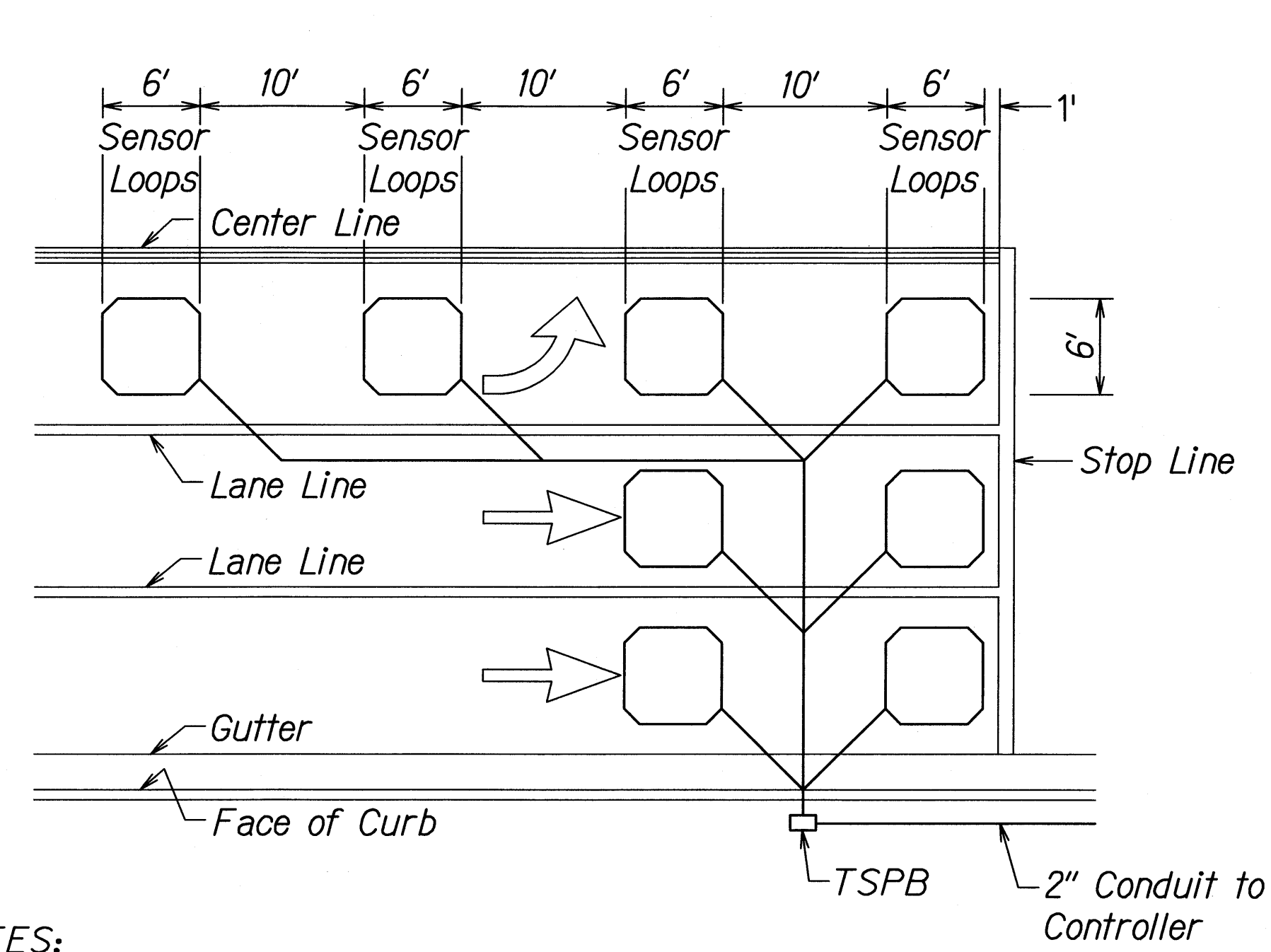
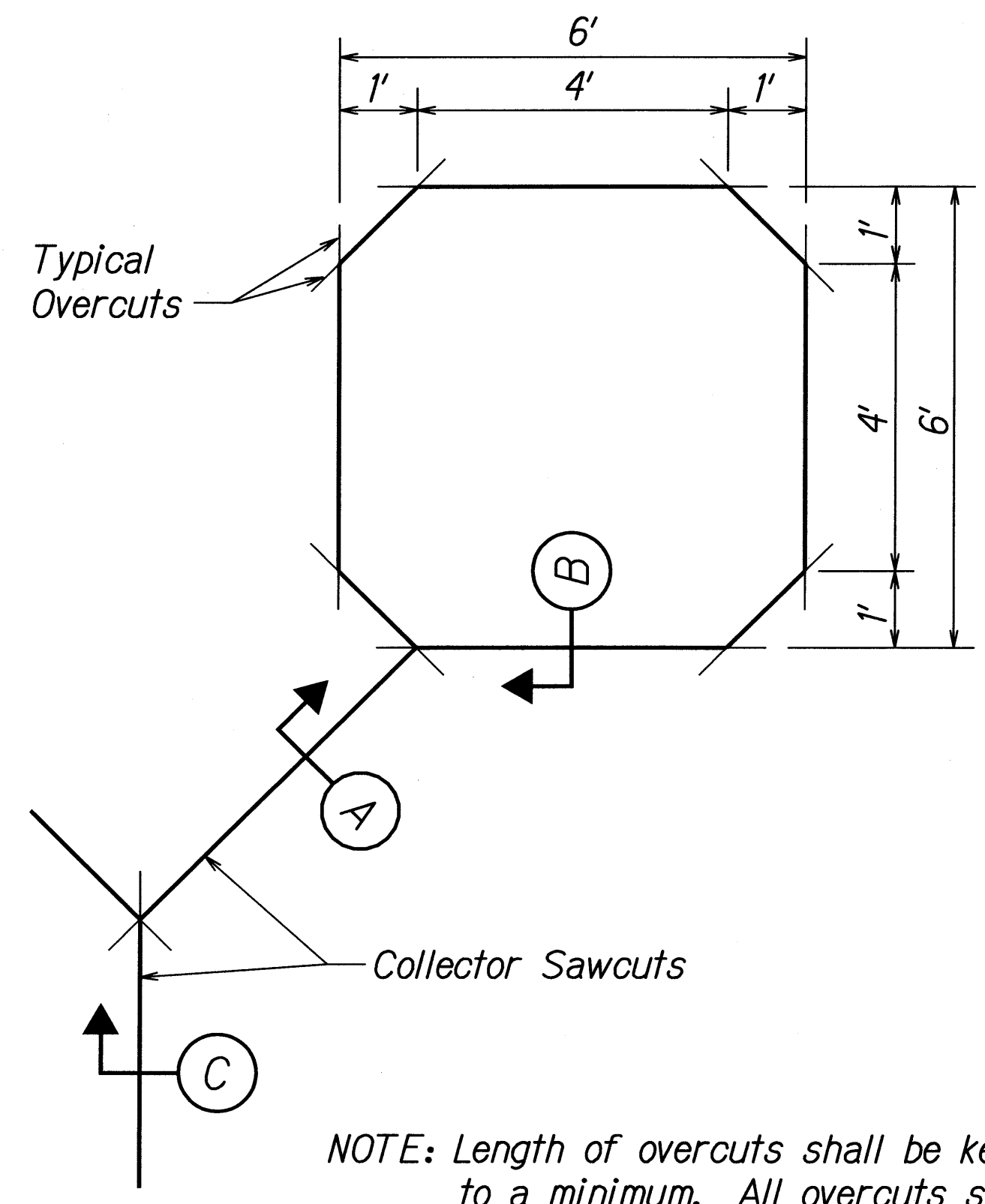


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-M-01-08	2010	6	17



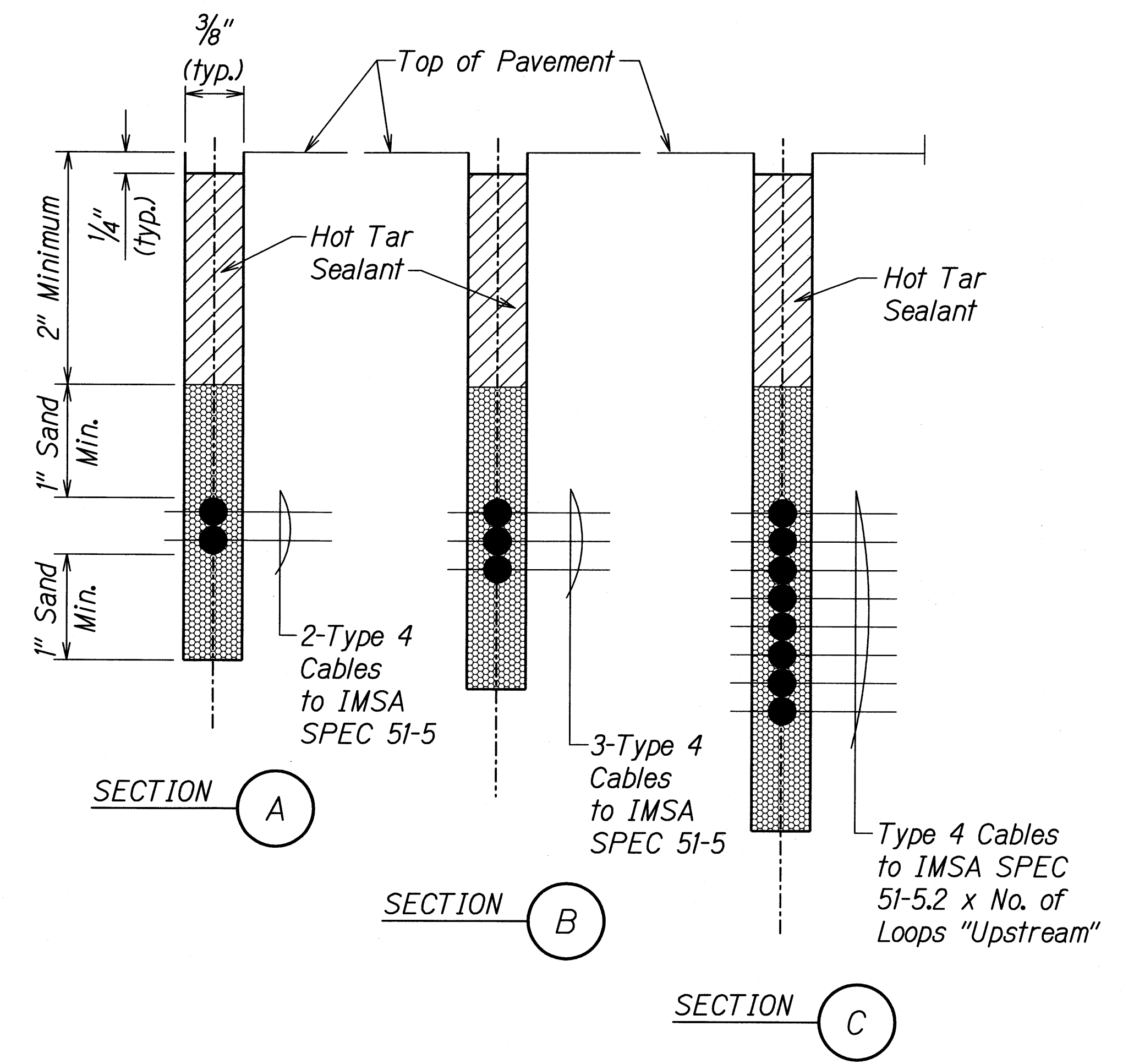
- NOTES:**
1. Center sensor loops in lanes.
 2. Collector cables shall be twisted 2 turns per foot.
 3. Number of loops and locations vary. See project plans.
 4. Number and locations of collector sawcuts may be varied in the field to suit.

TYPICAL SENSOR LOOP LAYOUT

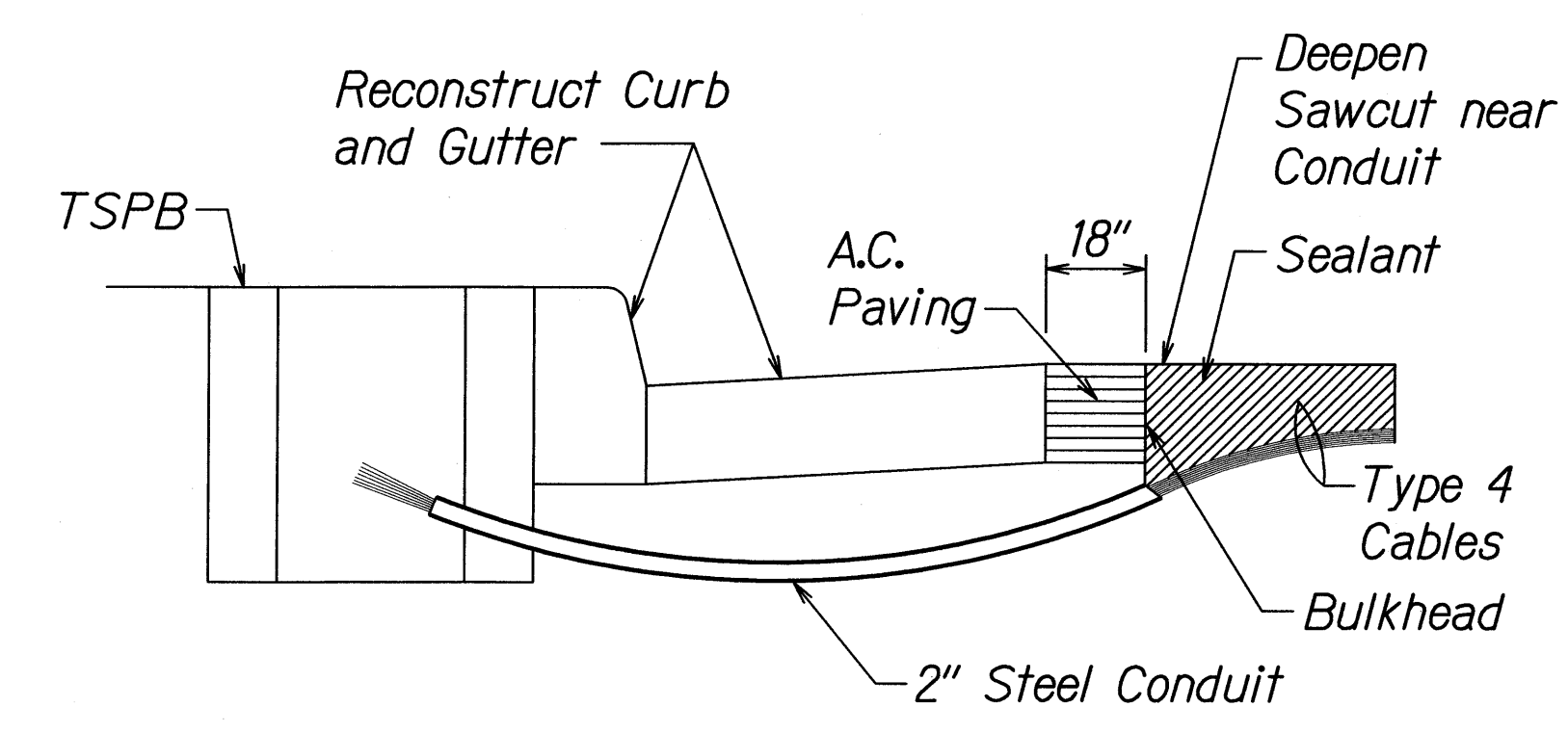


NOTE: Length of overcuts shall be kept to a minimum. All overcuts shall be back filled with hot tar.

TYPICAL SENSOR LOOP SAWCUT DETAIL

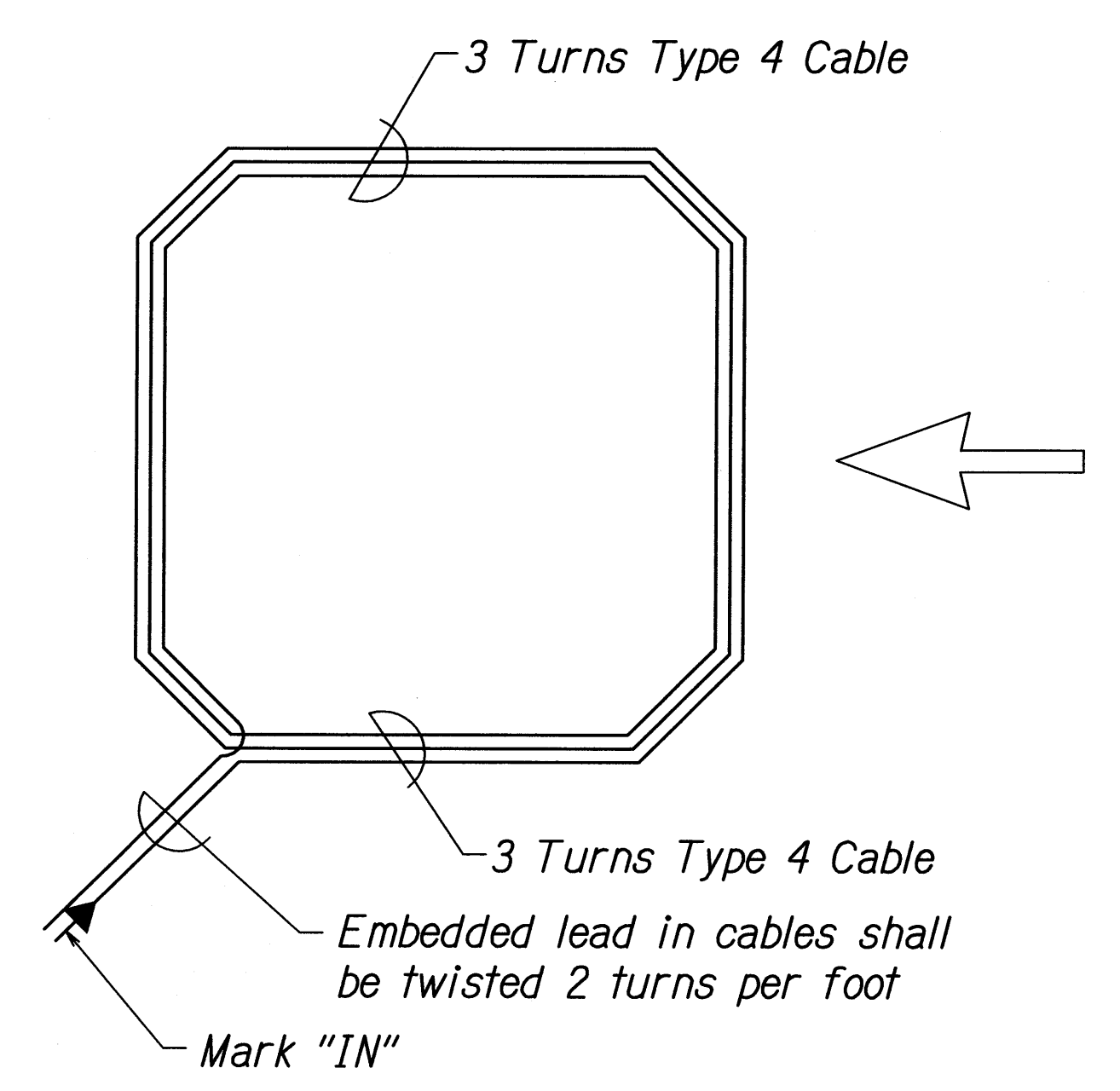


TYPICAL SECTION THROUGH SENSOR LOOP



- NOTES ON CONSTRUCTION AT END OF SAWCUT**
1. Seal roadway end of conduit after installation of conductors.
 2. Install bulkhead across conduit trench.
 3. Place hot tar in sawcut.
 4. Backfill over conduit with new A.C.
 5. Reconstruct curb and gutter as required.

DETAIL OF SENSOR LOOP INSTALLATION AT EDGE OF ROADWAY



TYPICAL SENSOR LOOP WIRING DIAGRAM

TYPES OF CABLES

- Type 1 Signal Loop Cable: Stranded No. 14, 26 conductors
- Type 2 Detector lead in cable and pedestrian push button circuit cable: Stranded, No. 14, two conductors
- Type 3 Interconnect Cable: Solid No. 19, 12 pairs
- Type 4 Loop Sensor Cable: Solid No. 12, single conductor to IMSA spec. 51-5
- Type 5 Cable from signal loop to signal head: Stranded, No. 14, four conductors
- Type 6 Service Cable: Solid, No. 6, three conductors
- Type 7 Optical Detector Cable: Berktek Type B, Stranded, No. 20, three conductors
- Type 8 Drop Cable: Solid, No. 14, four conductors

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXPIRATION DATE OF THE LICENSE: 04/30/12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LOOP DETECTOR DETAILS

HANA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS AT WAKEA AVENUE
PROJECT NO. HWY-M-01-08

Scale: None Date: May, 2010