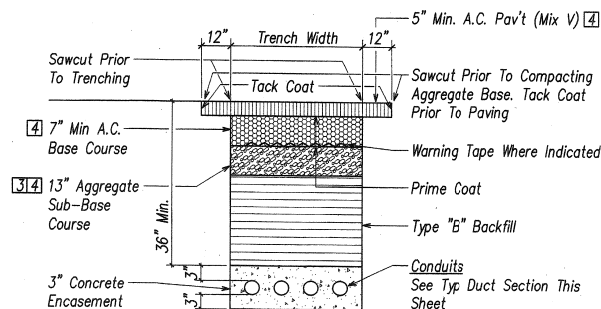
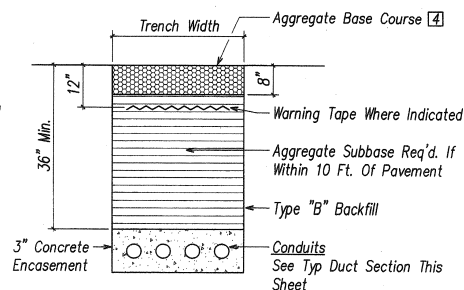


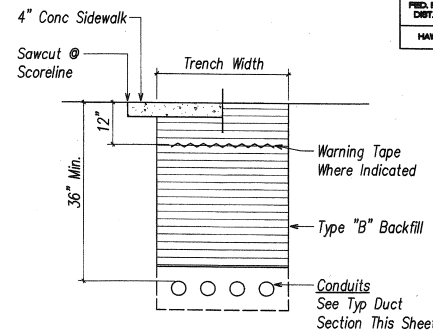
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-M-04-00	2002	20	63



① BACKFILL SECTION
Within State Right-of-Way
Under Existing Roadway &
Paved Shoulder



② BACKFILL SECTION
Within State Right-of-Way
Under Unpaved Shoulder



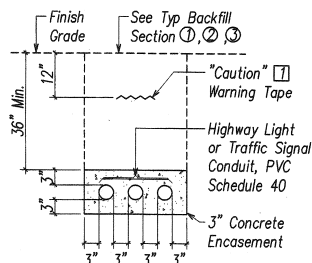
③ BACKFILL SECTION
Within State Right-of-Way
Beyond Unpaved Shoulder
Or Under Concrete Sidewalk

STATE RIGHT-OF-WAY BACKFILL NOTES

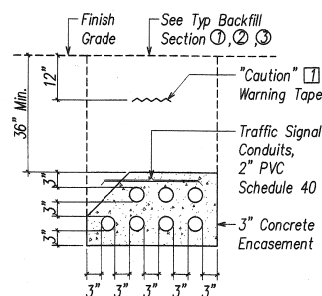
- ▨ Trench Backfill Material "B"
1. Sand Equivalent ≥ 2
2. 8" Max. Lift Loose
3. 95% Compaction
- ▨ Trench Backfill Material "A"
1. Not Equivalent To Backfill
2. 8" Max. Lift Loose
3. 95% Compaction
- ▨ If Material Below Duct
Is Not Equivalent To Backfill
Material "A", Excavate Material
& Provide 3" Backfill Material
"A", See Above
- ▨ Concrete - 3" Encasement,
3000 PSI Compressive
Strength @ 3 Days.

Notes:

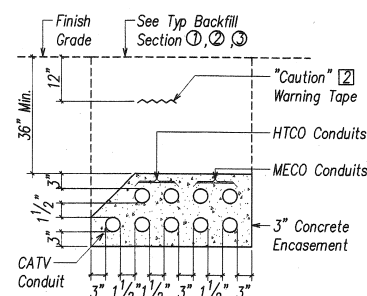
- ① The Metal Detectable Red Warning Tape shall be a Minimum of 5 Mils Thick and 4" Wide with a Continuous Metallic Backing and Corrosion Resistant 1 $\pm$ Mil Thick Foil Core. The Message on the Tape shall Read, "Caution - State Traffic Signal and/or Hwy Lighting Buried Below," Utilizing 2 Inch Series "C" Black Lettering. The Message will be Repeated with a 36-inch Spacing.
- ② Warning Tape Per Verizon Hawaii Standards.
- ③ Base Course & Sub-Base Course Per 1994 State Standard Specifications For Highway Construction.
- ④ A.C. Pavement And Base Course, & Aggregate Sub-Base To Match Existing Thickness Or The Minimum Thickness Shown, Whichever Is Greater.



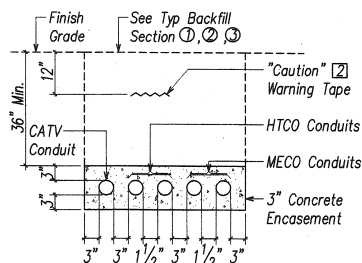
SECTION 5-1



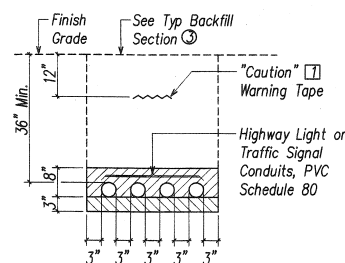
SECTION 5-2



SECTION 5-3



SECTION 6-1

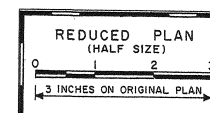


SECTION 6-2

Note: For Size & Quantity of Conduits, See Plan Sheets.

TYPICAL DUCT SECTIONS (STATE)

NOT TO SCALE



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
Steven H. Sato

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DUCT SECTIONS

TRAFFIC OPERATIONAL IMPROVEMENTS
AT VARIOUS LOCATIONS
PUUNENE AVENUE AND
KAAHUMANU AVENUE

Scale: AS NOTED Date: April 2002
SHEET No. E-11 OF 22 SHEETS