

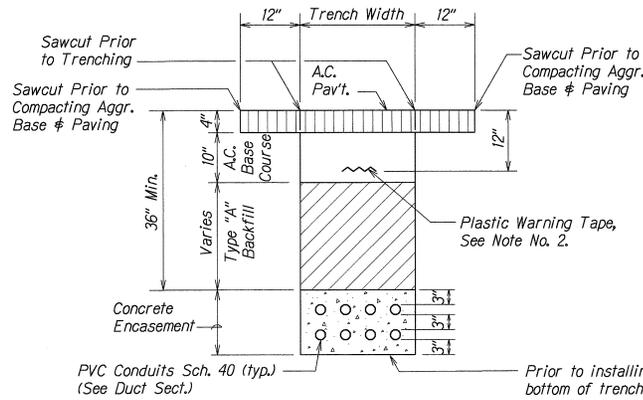
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-05-98	1998	8	9

**STATE RIGHT-OF-WAY BACKFILL NOTES**

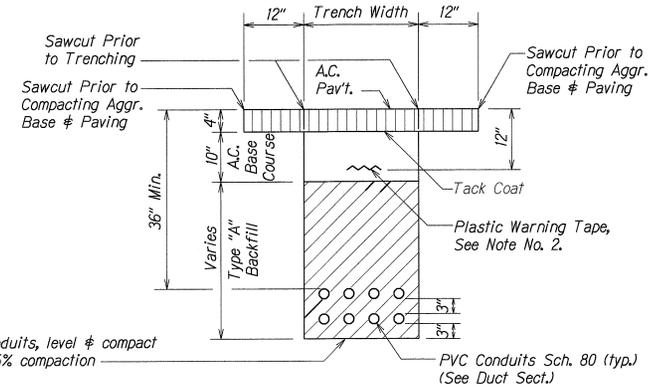
 Trench Backfill Material "A" Beach Sand, Earth, or Earth and Gravel if Earth and Gravel used, the maximum shall contain not more than 50% by volume of rock particles. Maximum 8" loose fill per lift. Obtain 95% compaction for each lift.

 Concrete 3000 psi compressive strength @ 3 days.

NOTE: Base Course & Sub-Base Course per 1994 State Standard Specifications for Highway Construction.



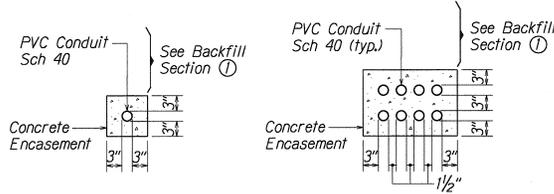
① TYPICAL BACKFILL SECTION WITH CONCRETE ENCASED DUCTS



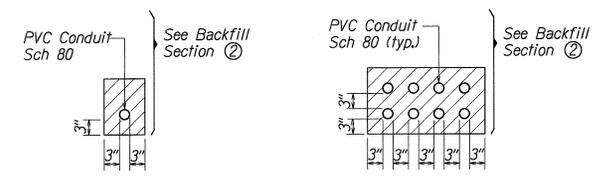
② TYPICAL BACKFILL SECTION DIRECT BURIED

**GENERAL NOTES**

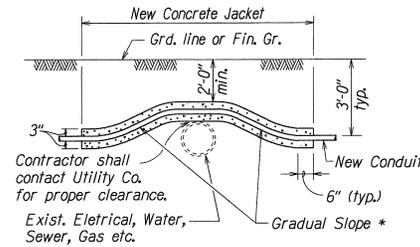
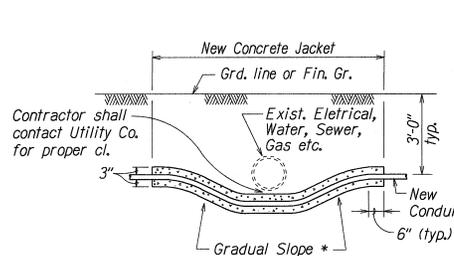
1. If trench is located on unpaved area, the Contractor shall replace with Type "A" backfill material and 6" topsoil and sod.
2. The Metal Detectable High Fluorescence Yellow Plastic Warning Tape shall be a minimum 5 mils thick and 4" wide with a continuous metallic backing and corrosion resistant 1 mil thick foil core. The tape shall read, "CAUTION - STATE TRAFFIC SIGNAL AND/OR HWY LIGHTING BURIED BELOW," utilizing 3 inch series "C" lettering. The message will be repeated with a 12-inch spacing between the end and beginning of repeated message.
3. The Contractor may begin backfilling the conduit trench when the concrete reaches 3000 psi compressive strength after 3 days.
4. Maximum four (4) Conduits per Row for multiple conduit duct section.
5. For the direct buried duct section, the concrete required by-pass detail at various utilities shall not be paid for separately but considered incidental to the direct buried conduit duct section.
6. After installing all the traffic signal cables, the Contractor shall duct seal all conduits in the pullboxes, traffic signal standards and traffic signal controller cabinet concrete base. The duct seal material shall be approved by the Traffic Signal Inspector/Engineer and shall not be paid for separately but considered incidental to the direct buried and/or concrete encased conduits.



SINGLE CONDUIT MULTIPLE CONDUIT  
DUCT SECTIONS - CONC. ENCASED



SINGLE CONDUIT MULTIPLE CONDUIT  
DUCT SECTIONS - DIRECT BURIED



\* To be determined by County Electrical Inspector/Engineer  
CONDUIT BY-PASS DETAIL AT VARIOUS UTILITIES  
Not to Scale

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
IN CHARGE	
APPROVED BY	
DATE	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL DETAIL**

FARRINGTON HIGHWAY  
Installation of Flashing Beacon at Laaloa Street  
Project No. 93A-05-98

Not to Scale Date: Jan., 1998  
SHEET No. 1 OF 1 SHEETS