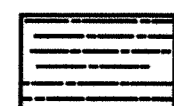



FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-1500(35)	2008	30	41

STATE RIGHT-OF-WAY BACKFILL NOTES

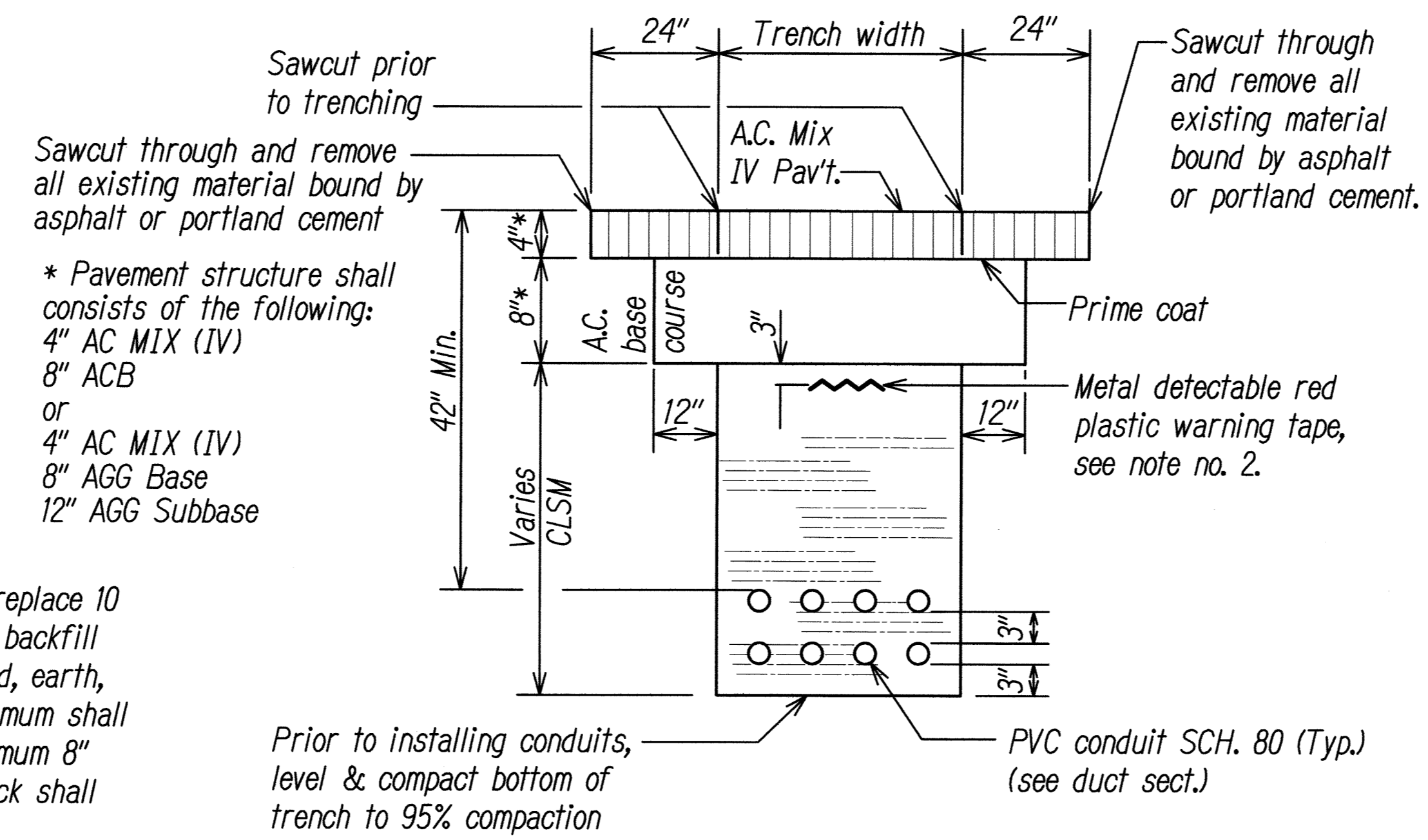
 Controlled low strength material (CLSM) approximately 50-150 PSI compressive strength at 28 days. CLSM shall comply with sections 314 and 601 of the special provisions.

 Concrete 3000 PSI compressive strength @ 28 days.

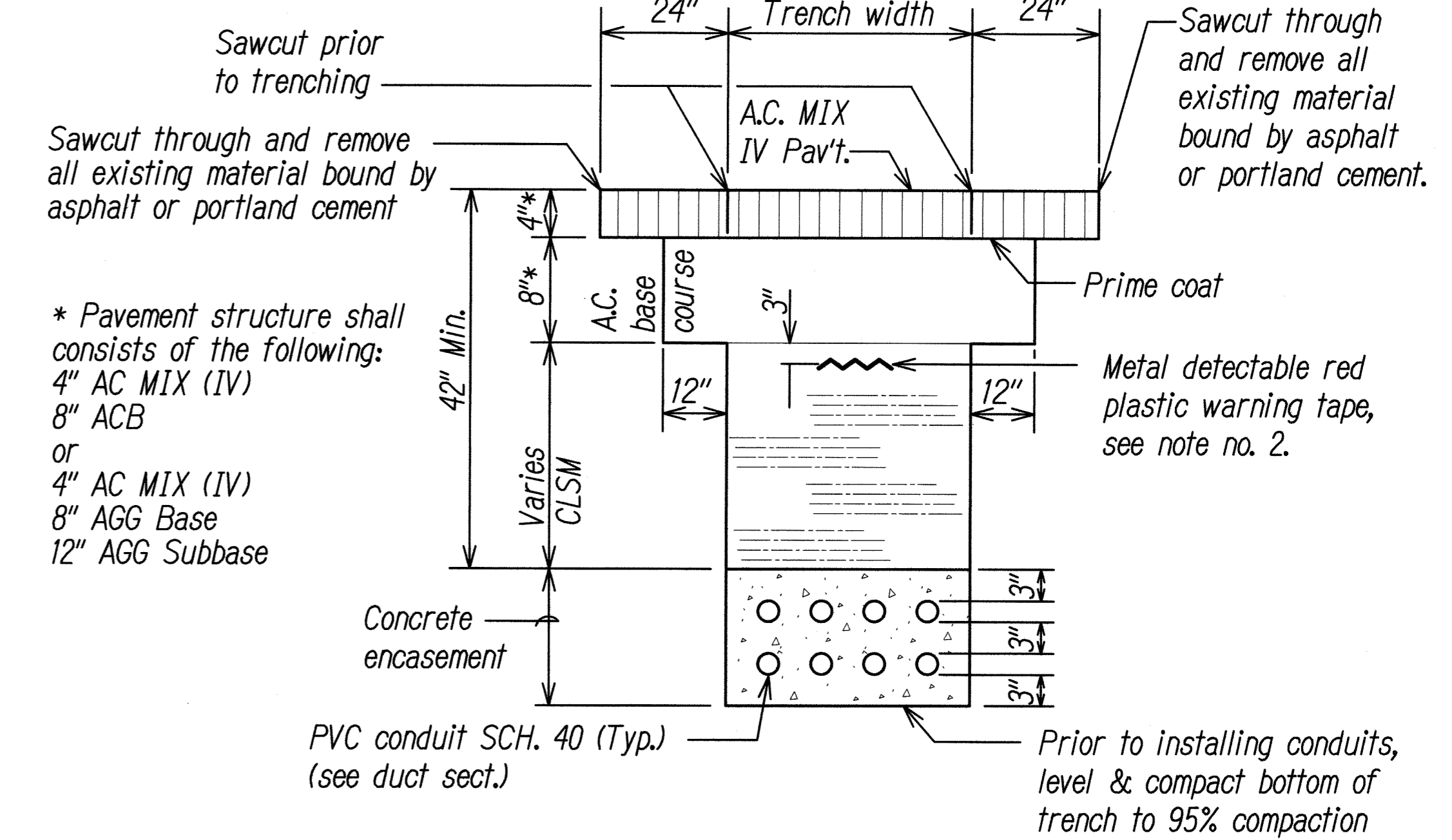
NOTE:
Base course & sub-base course per 2005 State Standard Specifications for highway construction.

GENERAL NOTES

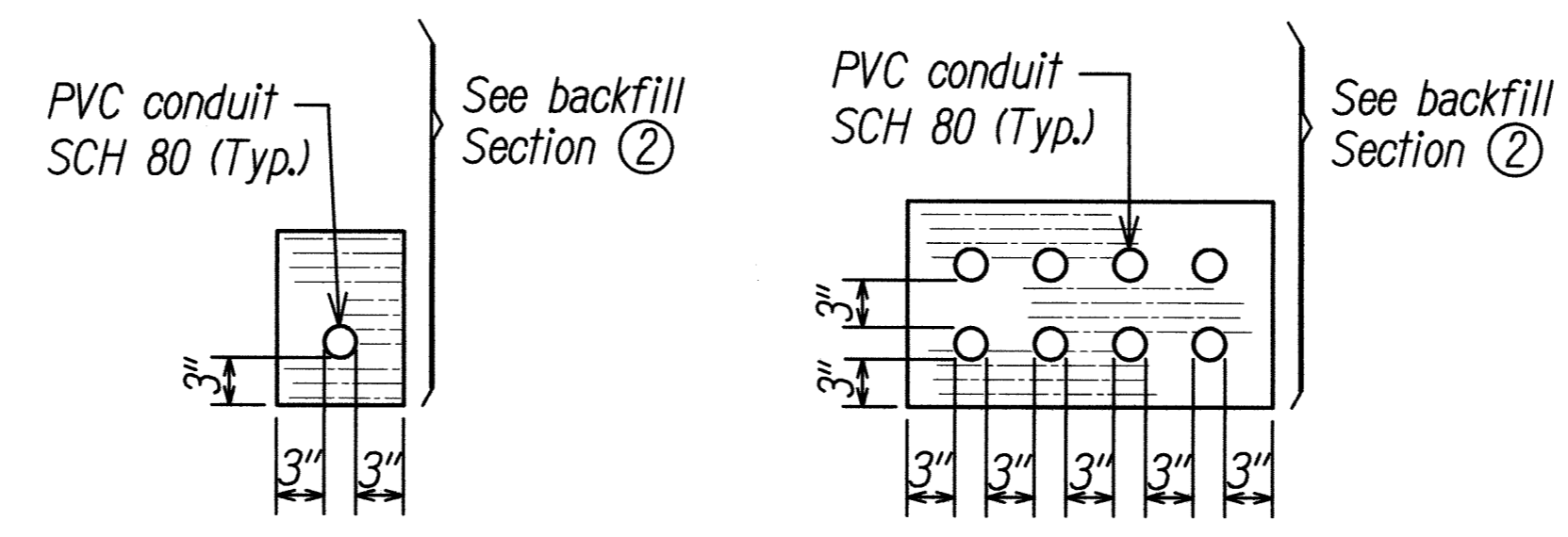
- If trench is located on unpaved area, the contractor shall replace 10 A.C. base course and 4" A.C. pavement with type "A" trench backfill material. (Trench backfill material "A" consist of beach sand, earth, or earth and gravel. if earth and gravel is used, the maximum shall contain not more than 50% by volume of rock particle. Maximum 8" loose fill per lift obtain 95% compaction for each lift. Rock shall not exceed 1" ϕ .)
- The metal detectable red 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 message on the tape shall read, "CAUTION - STATE TRAFFIC SIGNAL OR HWY LIGHTING BURIED BELOW", utilizing 1/2 inches series "C" black lettering. The message will be repeated with a 4 1/4" spacing between top line of message 4 and start of next repeat.
- The contractor may begin backfilling the conduit trench before the concrete reaches 2500 psi compressive strength but after concrete has hardened sufficiently enough that backfilling will not damage the concrete jacket.
- Maximum four (4) conduits per row for multiple conduit duct section. ducts shall be installed with spacers and anchored to the ground before pouring concrete. Spacers shall be a maximum of 5' apart. joints shall be staggered.
- For direct buried duct sections, the concrete jacket required at the conduit by-pass for various utilities, shall be at the contractor's expense.
- 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.
- All saw-cutting slurry shall be wet vacuumed, either simultaneous with or immediately following the saw-cutting work, and the collected slurry disposed of appropriately (i.e., either, placed in a filter fabric lined filtration box or in a filter fabric lined dug up retention/percolation basin, and after filtration/percolation the filter fabric and the retained sediments, disposed of appropriately).



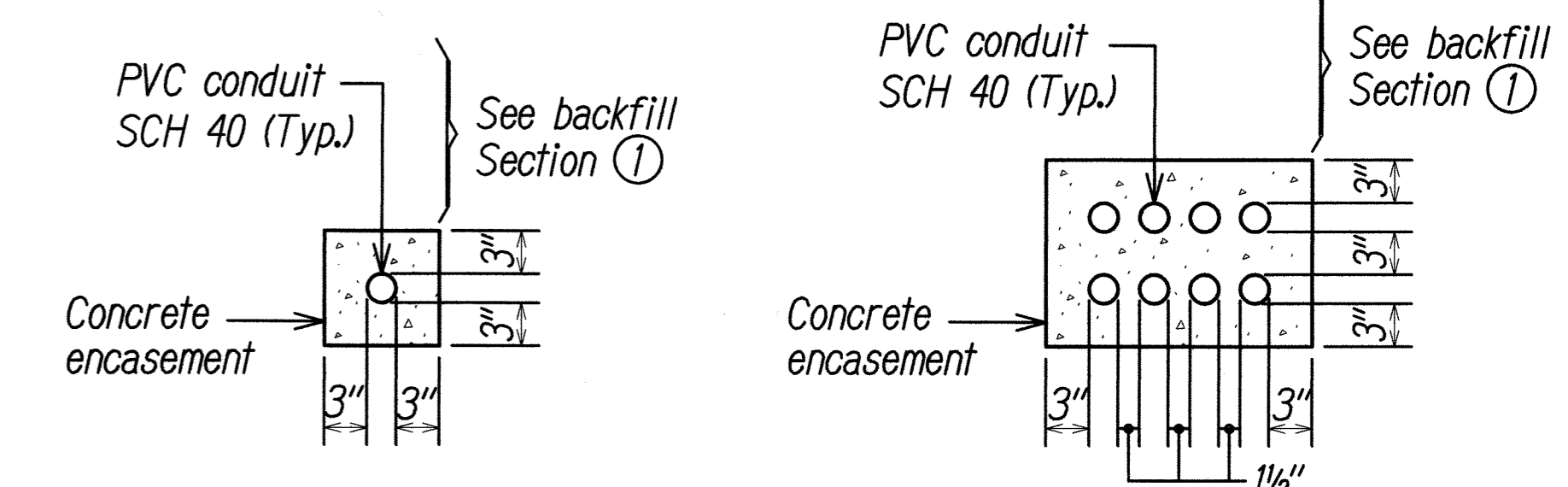
② TYPICAL BACKFILL SECTION DIRECT BURIED DUCTS



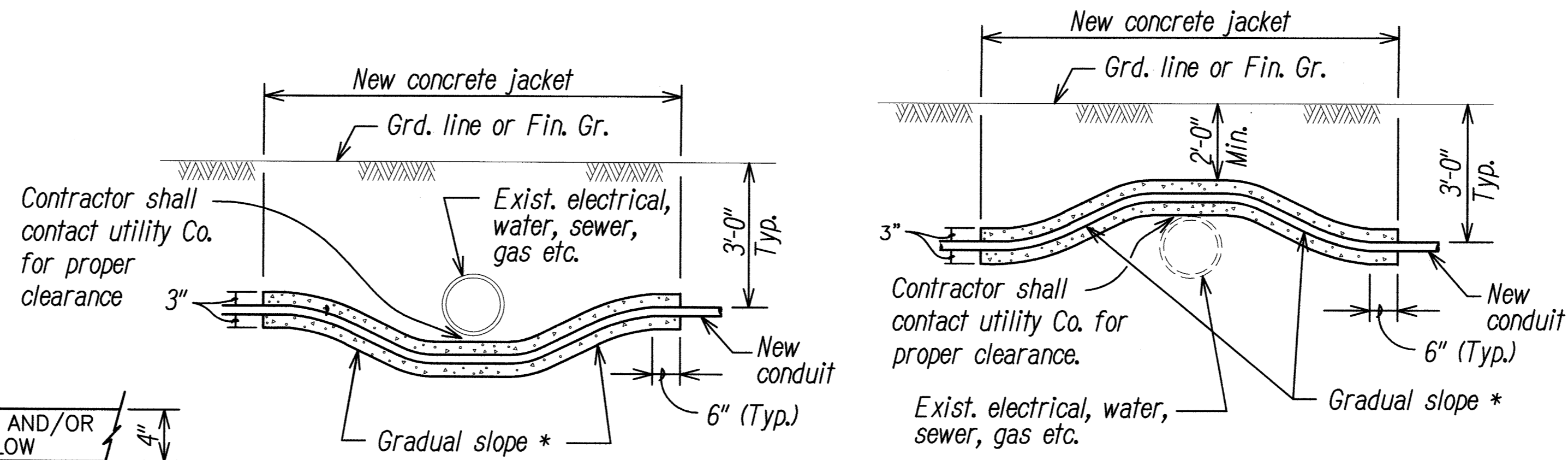
① TYPICAL BACKFILL SECTION WITH CONCRETE ENCASED DUCTS



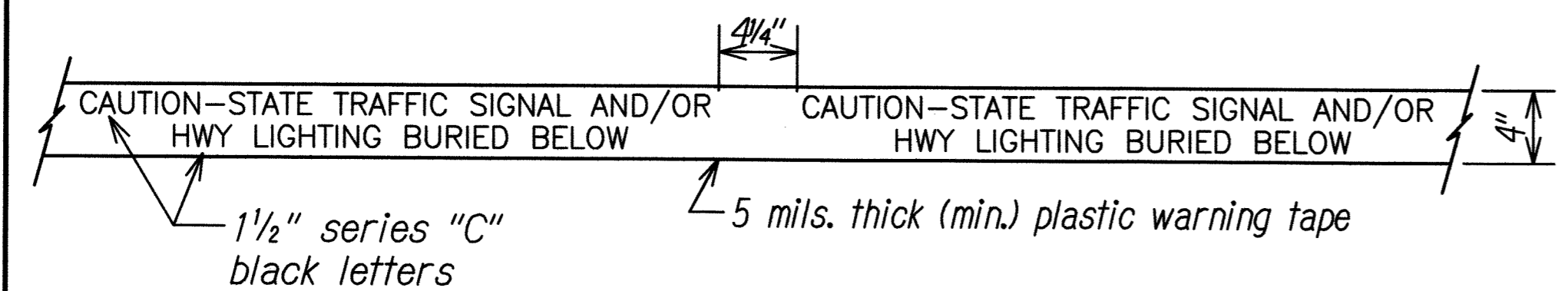
DUCT SECTIONS - DIRECT BURIED



DUCT SECTIONS - CONG. ENCASED



CONDUIT BY-PASS DETAIL AT VARIOUS UTILITIES
Not to Scale



METAL DETECTABLE RED PLASTIC WARNING TAPE
For additional information see note no. 2.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
NOTE BOOK	
CHECKED BY	
No.	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRENCH DETAILS

TRAFFIC COUNTING STATIONS
AT VARIOUS LOCATIONS
F.A.P. NO. STP-1500(35)

Scale: As Shown Date: June 2008