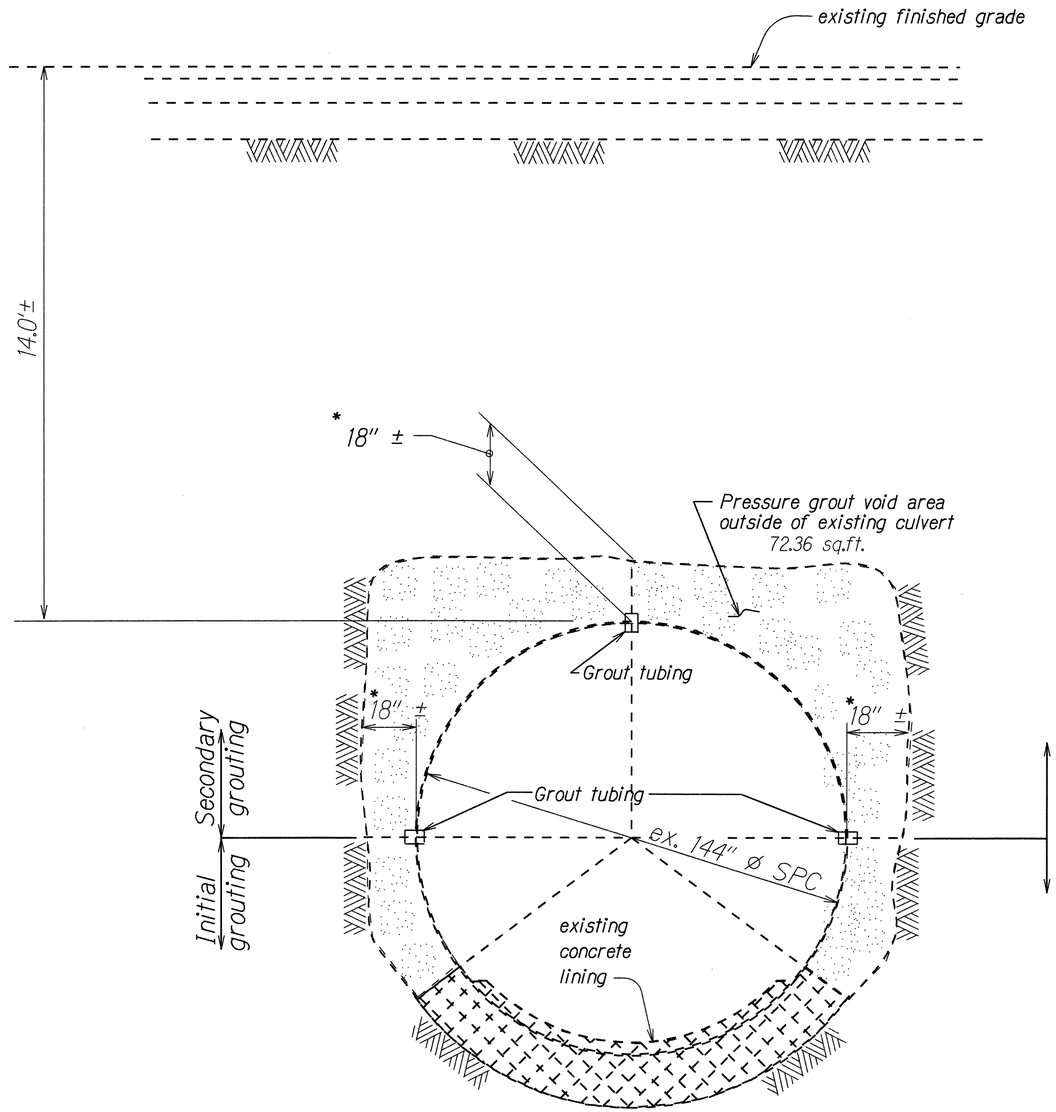
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56C-01-96M	1996	4	4



*

These dimensions are assumed dimensions and are based on field observations and may be smaller or greater than indicated on the drawings.

CROSS SECTION OF 144" SECTIONAL PLATE CULVERT

Scale: ½" = 1'-0"

CONSTRUCTION NOTES:

Contractor shall pressure grout void space outside of culvert as follows:

a. Void space at outside bottom half of culvert shall be filled initially. Holes shall be drilled in sides of culvert for insertion of grout tubing

b. Holes shall be drilled at 5.0' on centers and shall be large enough to accomodate grout tubing.

c. Inspection holes shall be drilled above the grout tubing holes to check status of grout fill on either side of culvert.

d. Grout shall be allowed to set for at least 48-hours before void space above top half of culvert is filled.

e. Filling of void space above top half of culvert shall be accomplished by drilliing holes @ 5.0' o.c. at the soffit of the culvert.

f. If necessary, addtional holes shall be drilled in the culvert sides to act as pressure relief vents during the grouting operation.

h. All drilled holes in culvert shall be covered by lapping a section of culvert plate over the drilled holes and fillet welding the cover plate to the culvert wall with a continuous weld. Cover plate shall overlap the holes by at least one-inch all around.

i. Pressure shall be just sufficient to move the grout, and pressure must be monitored so that the operation can be stopped if the pressure builds up because of a blockage in the pipes.

j. Prior to grouting, Contractor shall install I-beam bracing in the interior of the culvert to prevent displacement of culvert walls during the grouting operation. Bracing sets shall include cross and diagonal bracings, tackwelded to the sides of the culvert and spaced at 10', max. o.c. Payment for furnishing, installing & removal of temporary braces shall not be paid for separately, but shall be included in the bid price for Item No. 653.0100-Repair Existing 144-Inch Sectional Plate Culvert.

k. After completion of the grouting operations, the Contractor shall restore the roadway shoulders/embankment. Restoration of shoulders/embankment shall not be paid for separtately but shall be included in the bid price for Item 653.0100-Repair of 144-Inch Sectional Plate Culvert.

l. After completing grouting operations, the Contractor shall remove nine (9) temporary WF bracings that have been tack welded to the sides of the culvert. After removal of bracings, Contractor shall clean culvert at areas where tack weld occurred, to white metal, and apply 2-coats of galvanized painting to cover weld spots. Contractor shall deliver the nine (9) WF bracings, seven (7) Type II baricades and seven (7) traffic cones (18" high) to: 1656 Haleukaana St., Puhi Industrial Park, Puhi, Kauai.
Removal of braces, painting and delivery of items mentioned herein shall not be paid for separately but shall be included in the bid price for Item No. 653.0100-Repair Existing 144-Inch Sectional Plate Culvert.

Length of Culvert = 100'

Estimated Volume of Void Space
Outside of Culvert= 72.36 sq.ft. x 100' = 7236 cu.ft.
= 268 cu. yd.

ORIGINAL PLAN
SURVEY PLOTTED BY — DATE 1/96
DRAWN BY smorikawa
TRACED BY
NOTE BOOK
DESIGNED BY smorikawa
QUANTITIES BY
CHECKED BY

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CULVERT REPAIR SECTION
KUHIO HIGHWAY
STORM DAMAGE REPAIRS
Project No. 56C-01-96M

Scale: As Shown Date: May, 1995

SHEET No. 1 OF 1 SHEETS