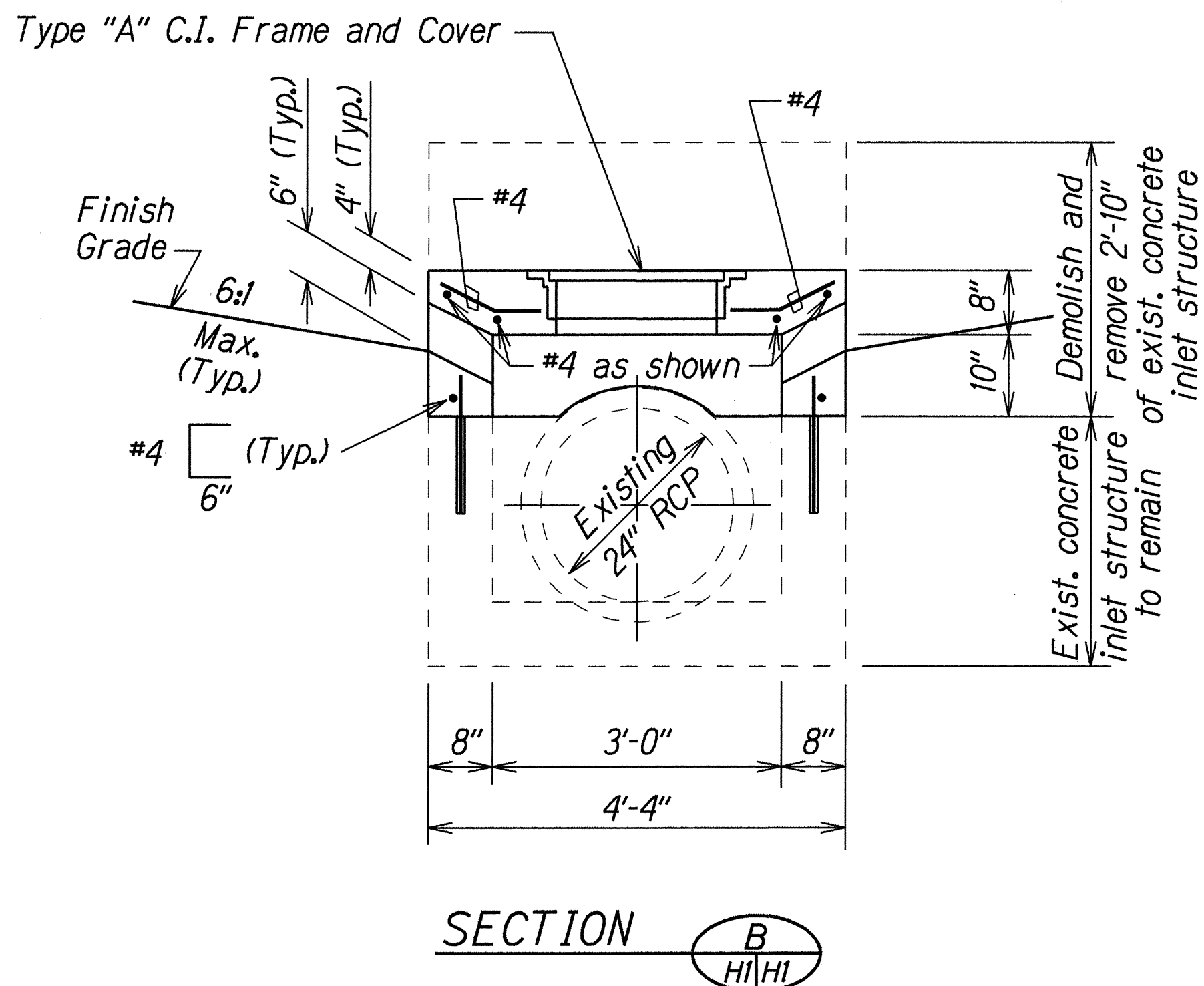
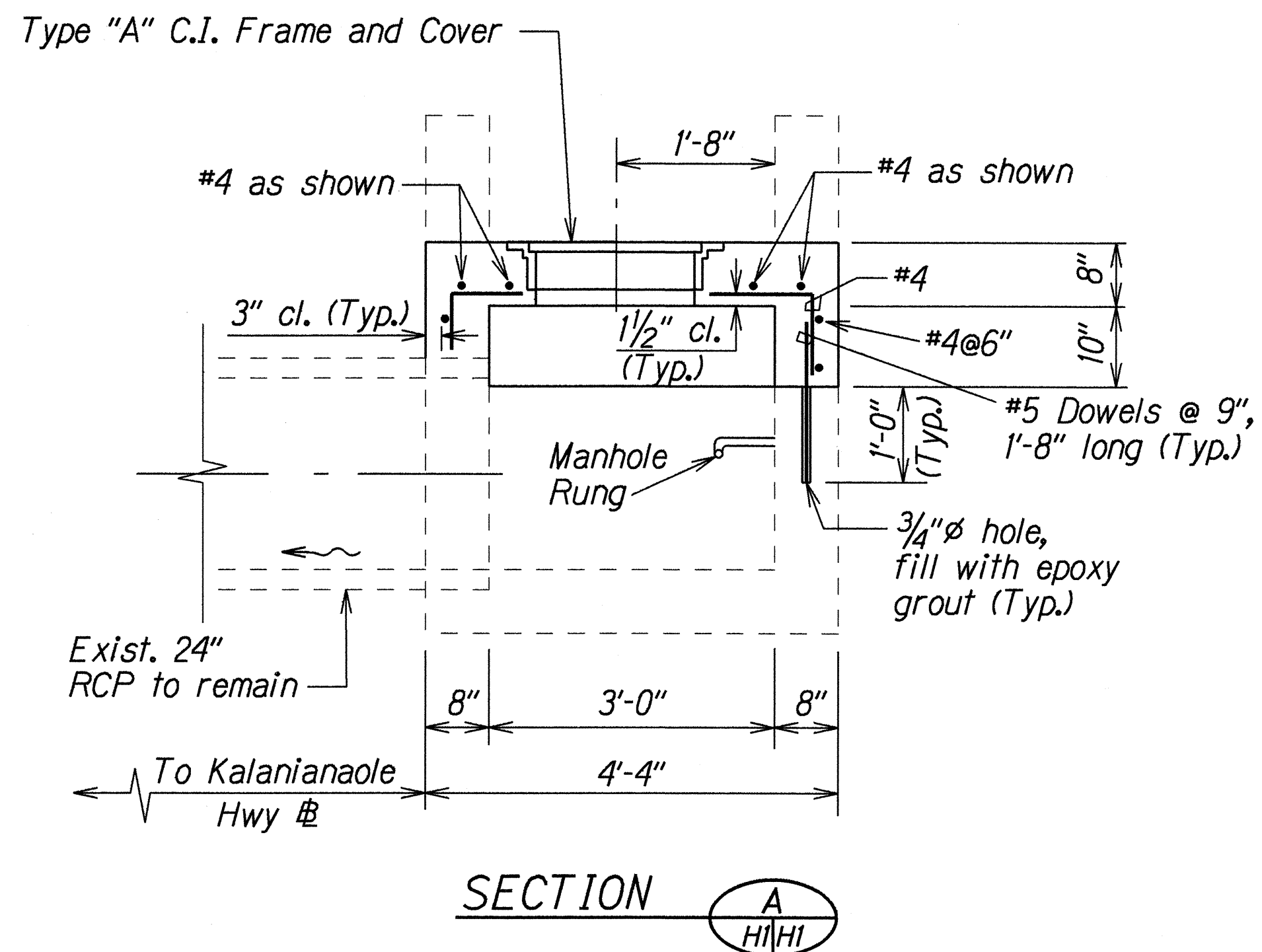
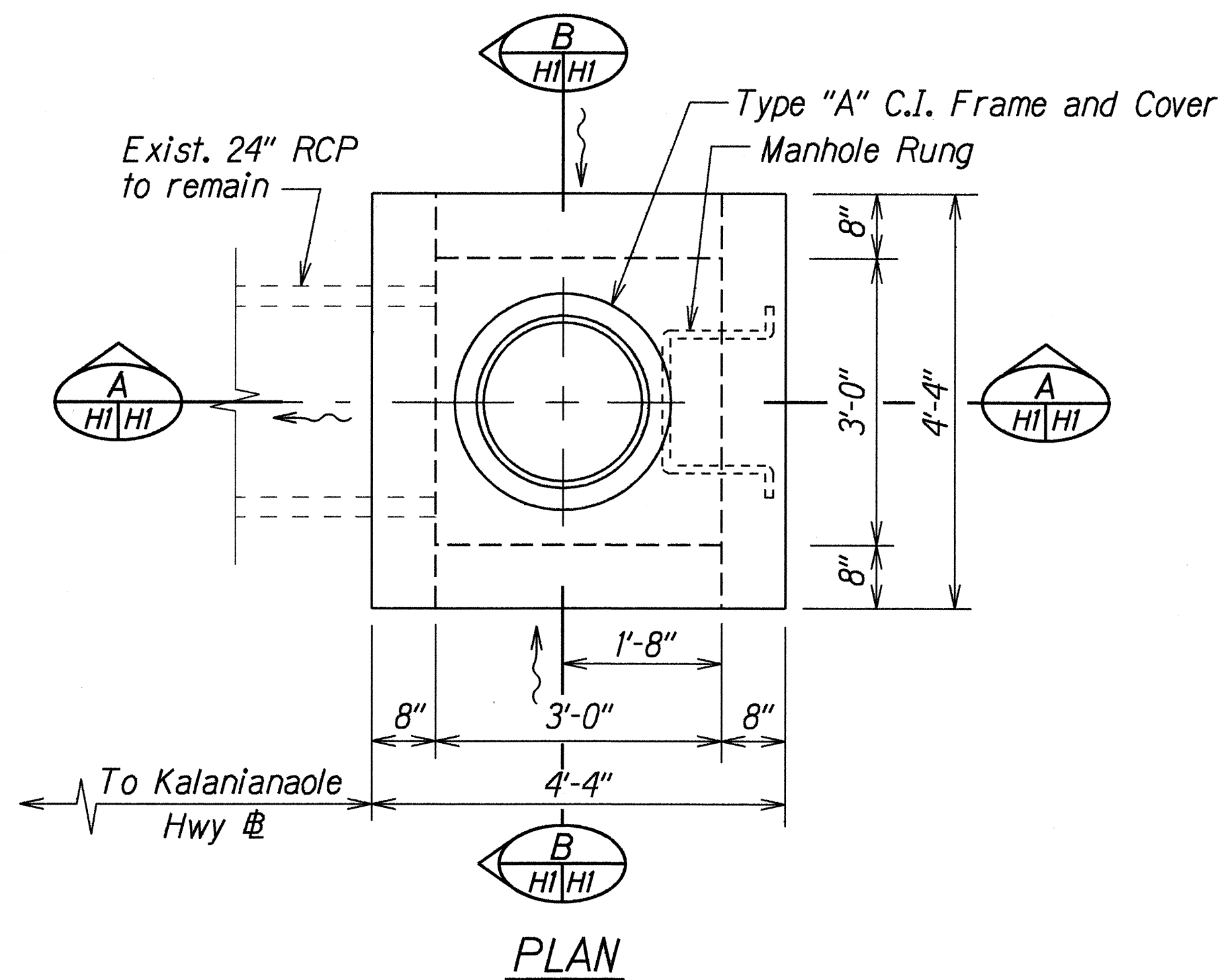


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-072-1(45)	1999	12	33

DRAINAGE NOTES

- Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
- The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- Only non-pneumatic type of drill as approved by the Engineer will be permitted for drilling holes in concrete. Where indicated on plans, the approximate diameter of drilled holes for installation of dowels shall be $\frac{3}{4}$ ", and voids after installing dowels shall be filled with epoxy grout.
- Demolishing, removing and disposing portions of existing drainage structure shall not be paid for separately, but shall be considered incidental to Modified Type "I" Catch Basin.
- For added reinforcing around manhole openings, see Standard Plan H-04.



DETAILS OF MODIFIED TYPE "I" CATCH BASIN AT # STA. 224+40± RT.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

KALANIANA'OLE HIGHWAY
SHOULDER IMPROVEMENTS
Makapuu Lookout to Kealahou St.
Fed. Aid Project No. STP-072-1(45)

Scale: $\frac{3}{4}$ "=1'-0" Date: Feb. 1998

SHEET No. HI OF 1 SHEETS