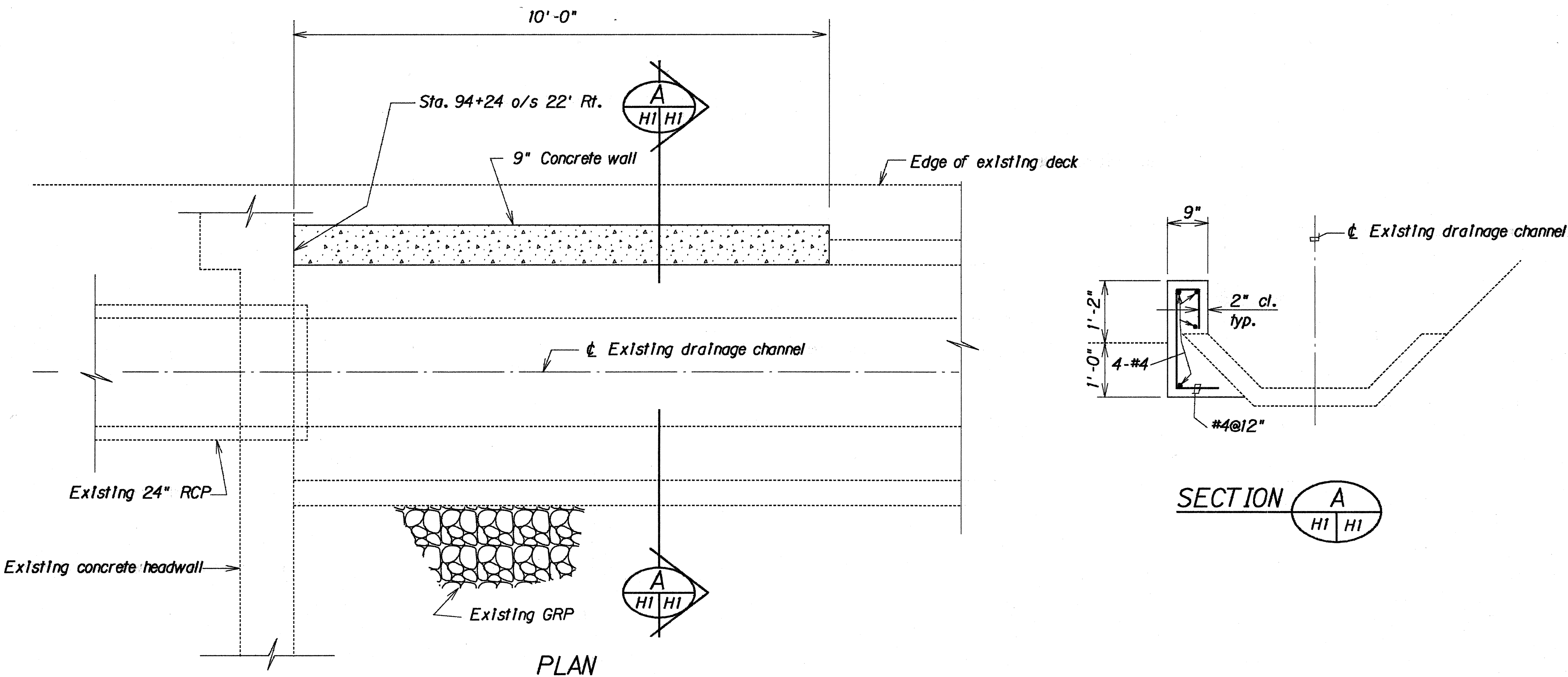


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	460A-01-90M	1990	20	23



GENERAL NOTES:

- Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the 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/replaced by the Contractor at his own expense.
- The Contractor shall verify all inverts at Sta. 98+88 Rt. after work has been completed.
- The exact location of the Type 61614B GDI and 24" RCP, Cl. III, shall be adjusted to provide a minimum clearance of 1'-6" from the existing metal guardrail post.
- The Contractor shall be permitted to remove sections of the existing metal guardrail to construct the drainage system. After completion of his work, he shall restore/replace the existing ground and the metal guardrail to its original state and to the satisfaction of the Engineer. This work shall not be measured and paid for separately, but shall be considered incidental to the various contract items.
- Concrete shall be Class A unless otherwise noted.
- Construct Culvert Seat and Install additional steel reinforcing at 24" RCP connection to Type 61614B GDI. For details see Standard Plan H-05.

DETAIL OF CONCRETE WALL AT STA. 94+24 O/S 22' RT.

Scale: 3/4" = 1'-0"

ITEM NO.		203	206	503	602	603	604	609	612
UNIT USED		0210	2020	0020	1020	1010	5045	2614	0100
		CY	CY	CY	LB	LF	EA	LF	CY
STATION FROM	STATION TO	Imported Borrow	Structure Excavation for Drainage System	Class A Concrete for Drainage System	Reinforcing Steel for Drainage System	24-Inch Reinforced Concrete Pipe, Class III	Type 61614B GDI 4.00 Ft. to 4.99 Ft.	Gutter, Type 2(61614)	Grouted Rubble Paving
94 + 24 Lt	95 + 34 Lt		16.0	12	277				2
94 + 24 Rt	95 + 40 Rt	94	0.5	1	52				
98 + 03 Rt	98 + 13 Rt	13							
98 + 88 Rt	101 + 50 Rt		35.0	5	217	37	1	260	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

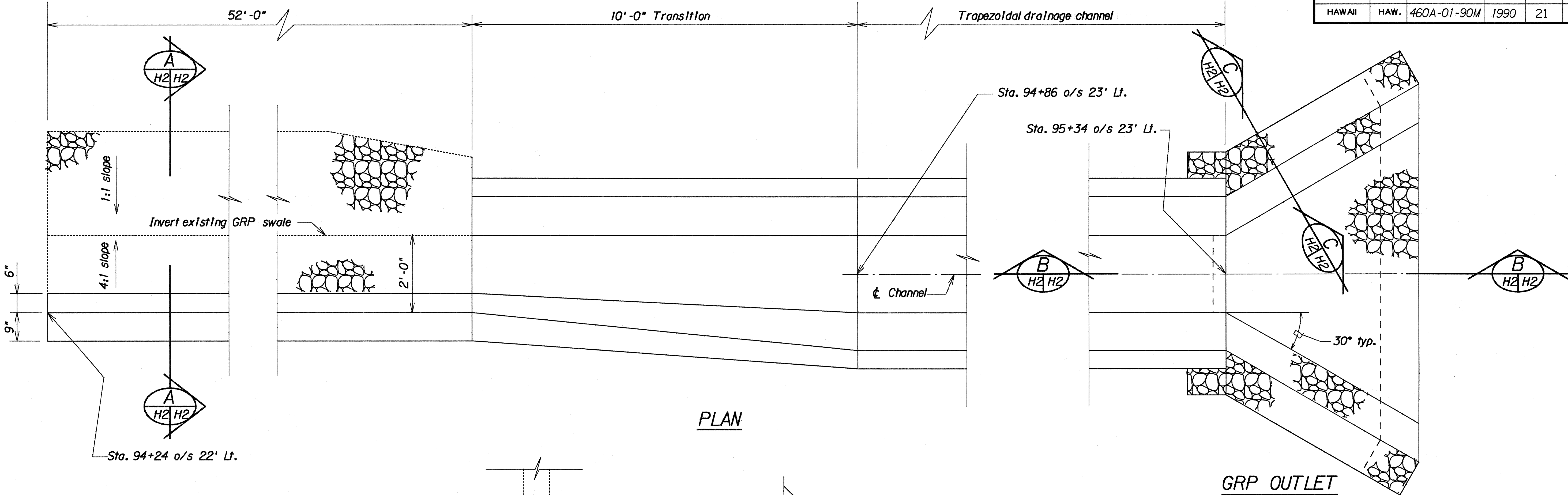
DRAINAGE DETAILS
MAUNALO A HIGHWAY
SHOULDER PAVING
Kaunakakai to Keonelele Ave.
PROJ. NO. 460A-01-90M

Scale: 3/4" = 1'-0" Date: Apr 11, 1990

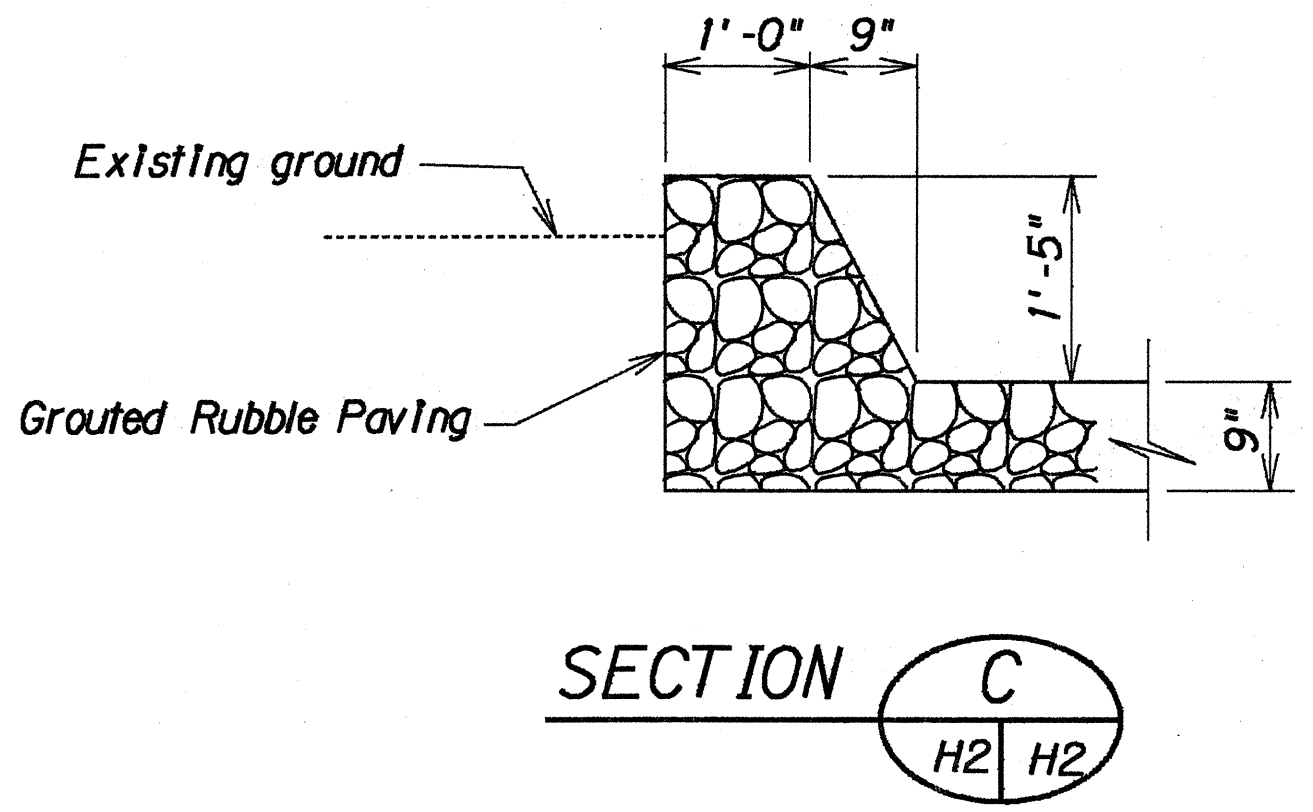
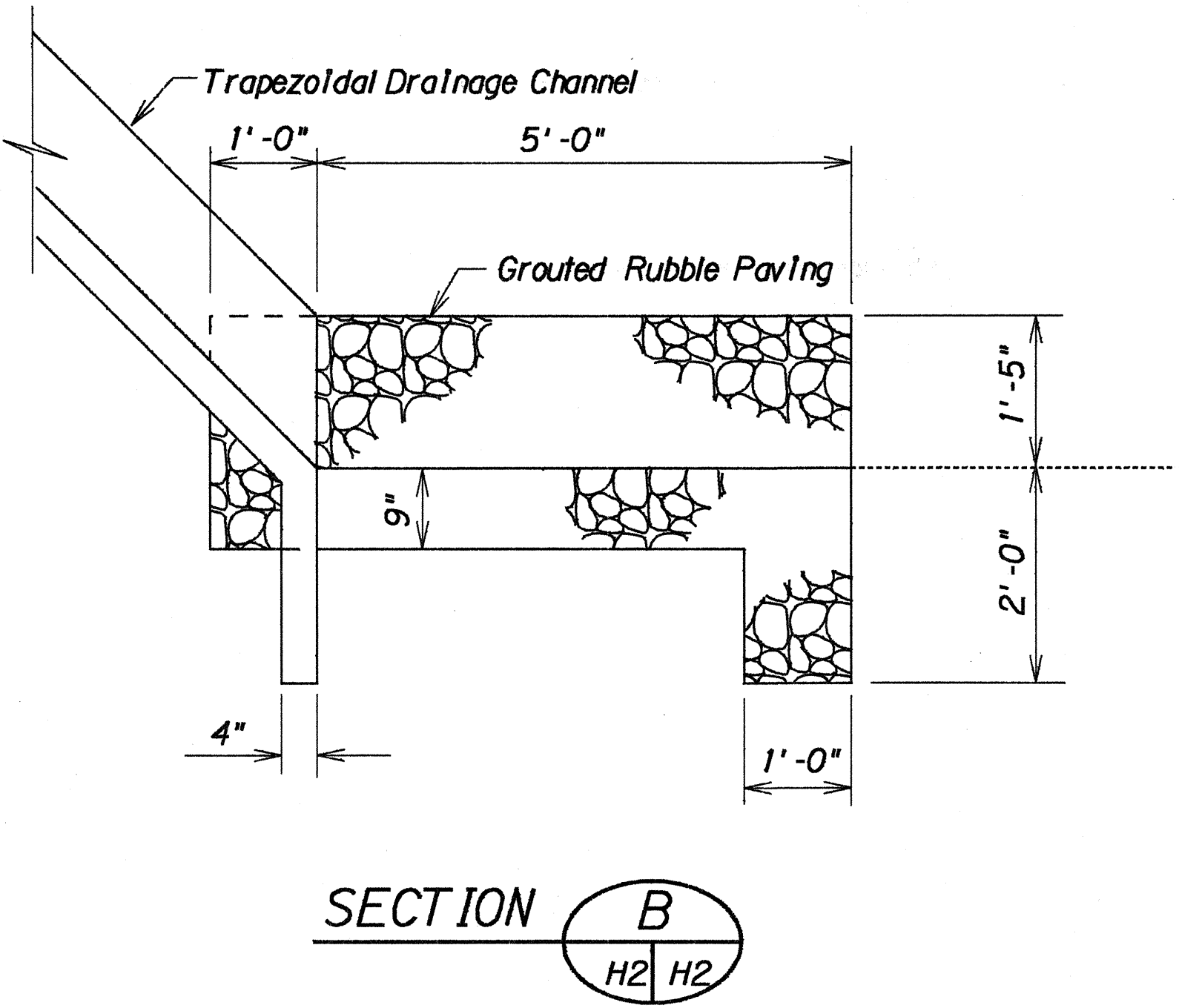
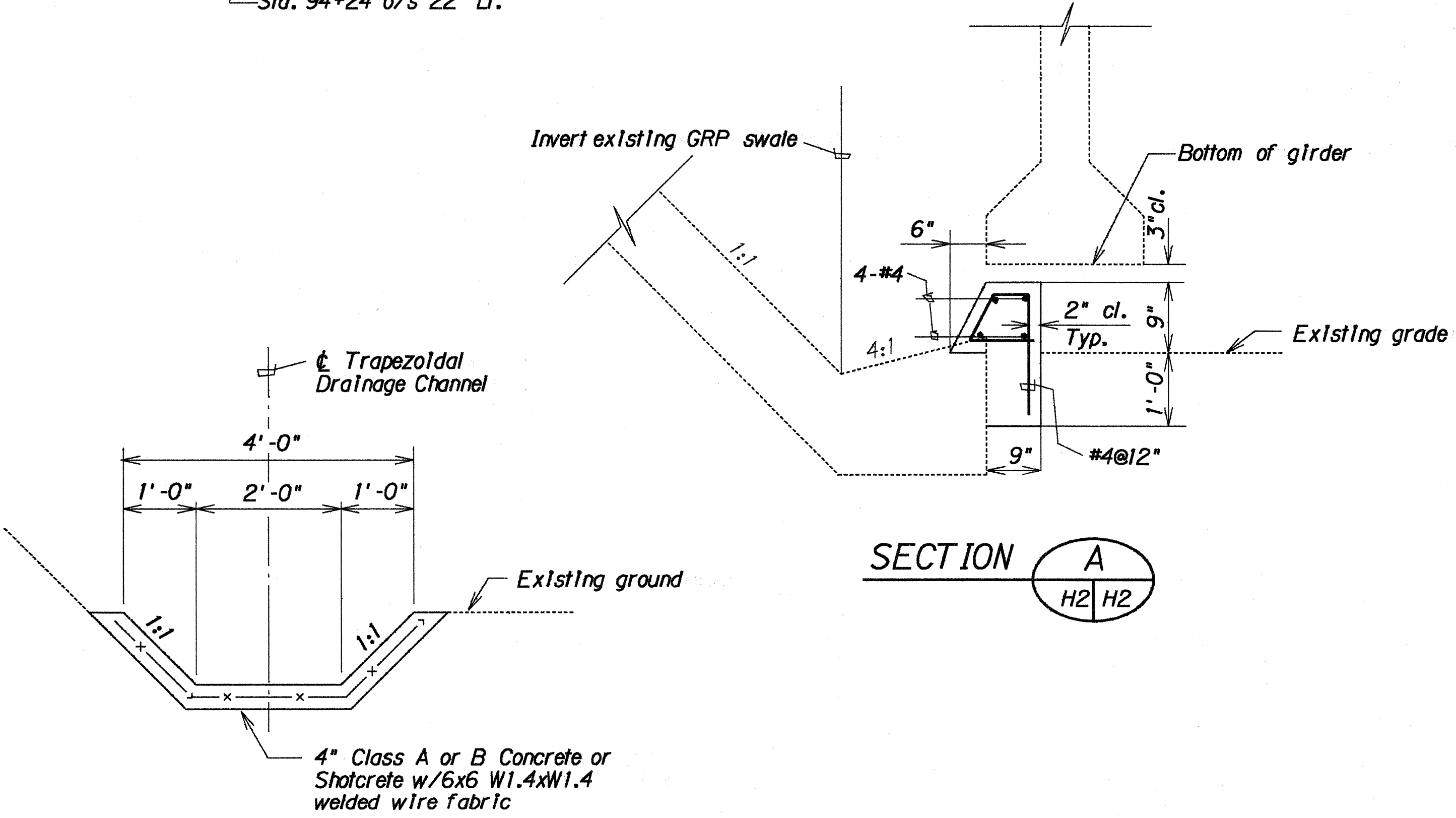
SHEET No. H1 OF 3 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	460A-01-90M	1990	21	23



PLAN



DETAIL OF TRAPEZOIDAL DRAINAGE CHANNEL

DETAILS OF OUTLET AT STA. 94+24 TO STA. 95+34 LT.

Scale: 3/4" = 1'-0"

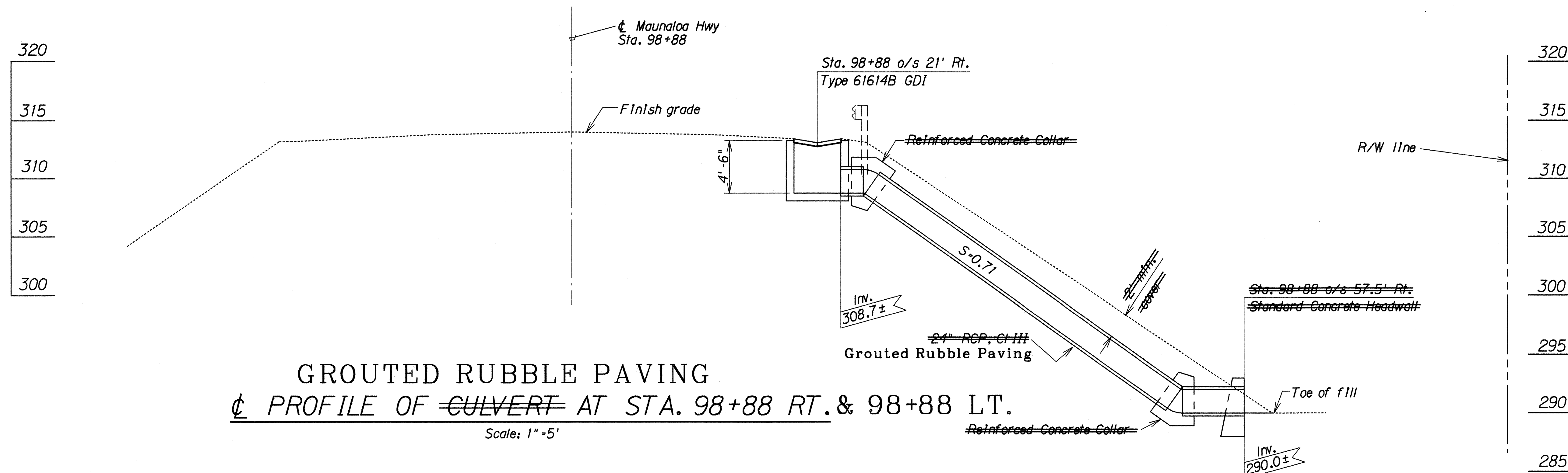
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS
MAUNALOA HIGHWAY
SHOULDER PAVING
Kaunakakai to Keonelele Ave.
PROJ. NO. 460A-01-90M

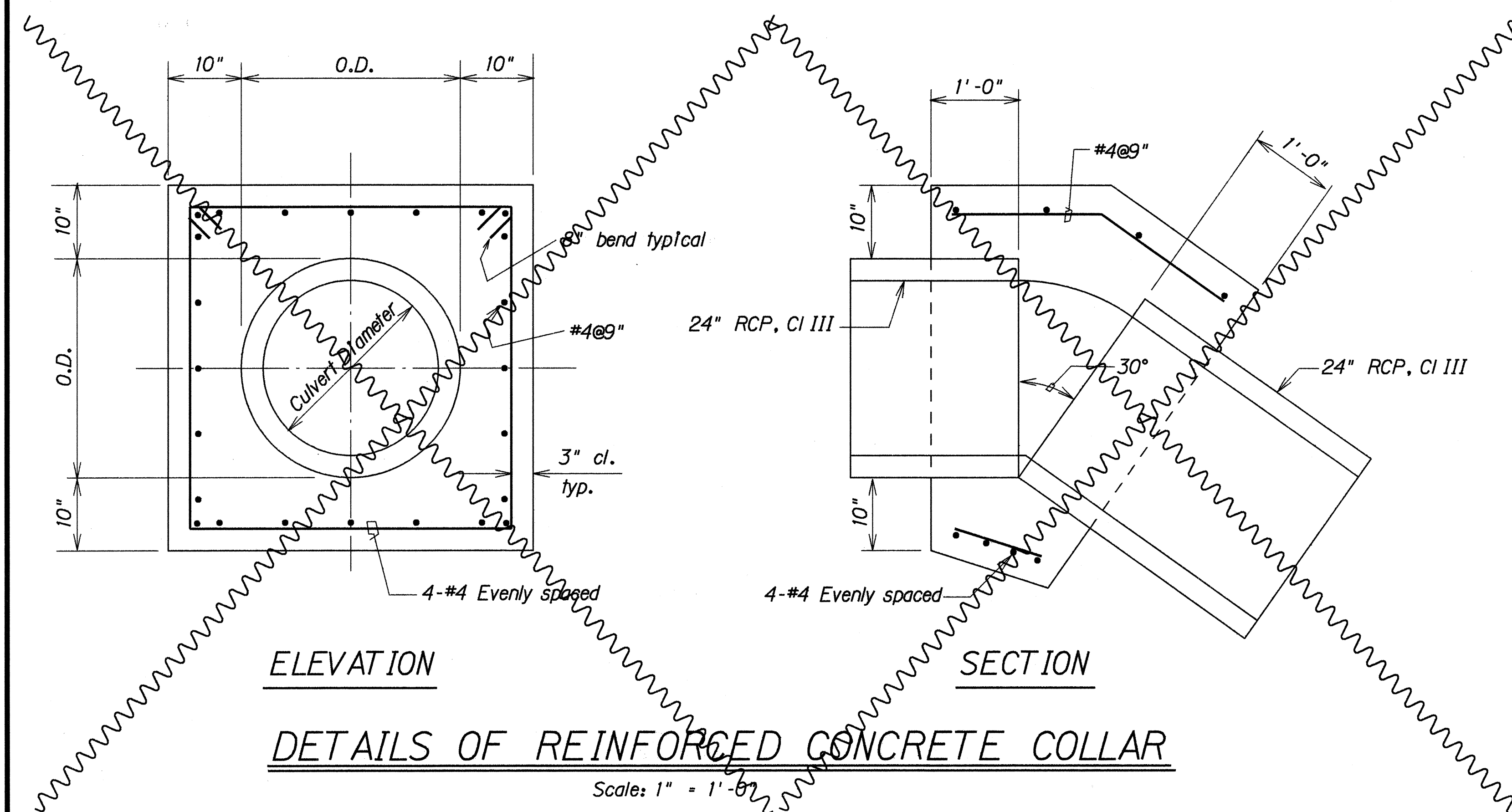
Scale: 3/4" = 1'-0"
Date: April 11, 1990
SHEET No. H2 OF 3 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
APPROVED BY	
DATE	

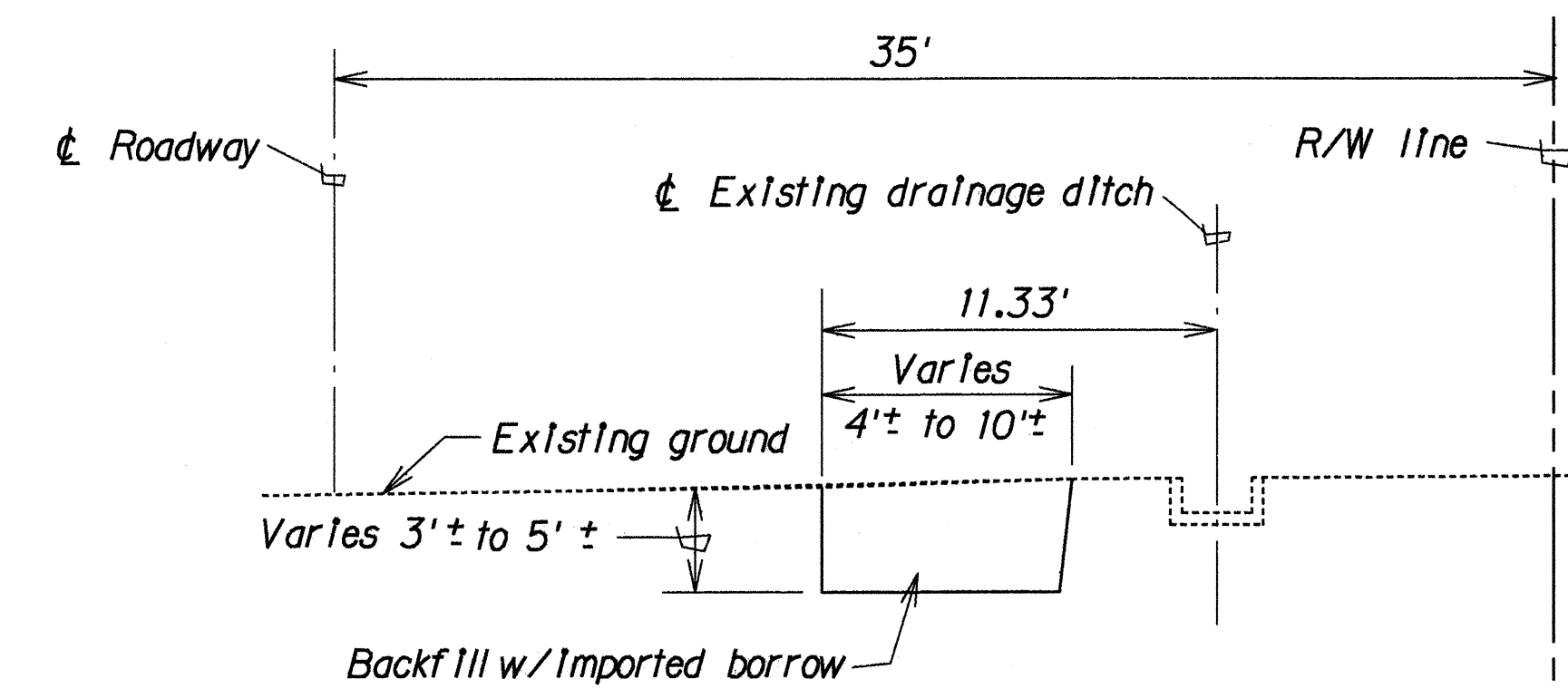
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	460A-01-90M	1990	22	23



GROUTED RUBBLE PAVING
 PROFILE OF ~~CULVERT~~ AT STA. 98+88 RT. & 98+88 LT.
 Scale: 1" = 5'

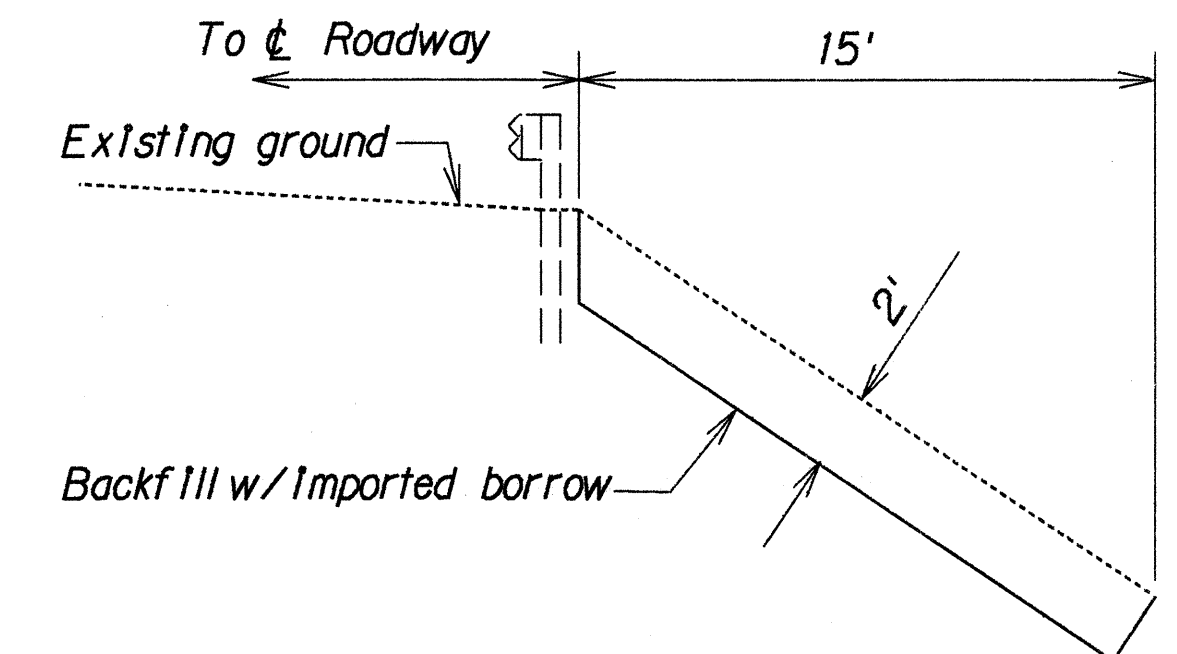


ELEVATION
 SECTION
 DETAILS OF REINFORCED CONCRETE COLLAR
 Scale: 1" = 1'-6"



STA 94+50 TO STA 95+40 RT.

TYPICAL SECTION OF ERODED AREA
 Scale: 1" = 5'



STA. 98+08

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DRAINAGE DETAILS
 MAUNALOA HIGHWAY
 SHOULDER PAVING
 Kaunakakai to Keonelele Ave.
 PROJ. NO. 460A-01-90M

Scale: As Noted Date: April 11, 1990
 SHEET No. H3 OF 3 SHEETS