

| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | R5-0340(2) | 1980        | 2         | 5            |

## GENERAL NOTES

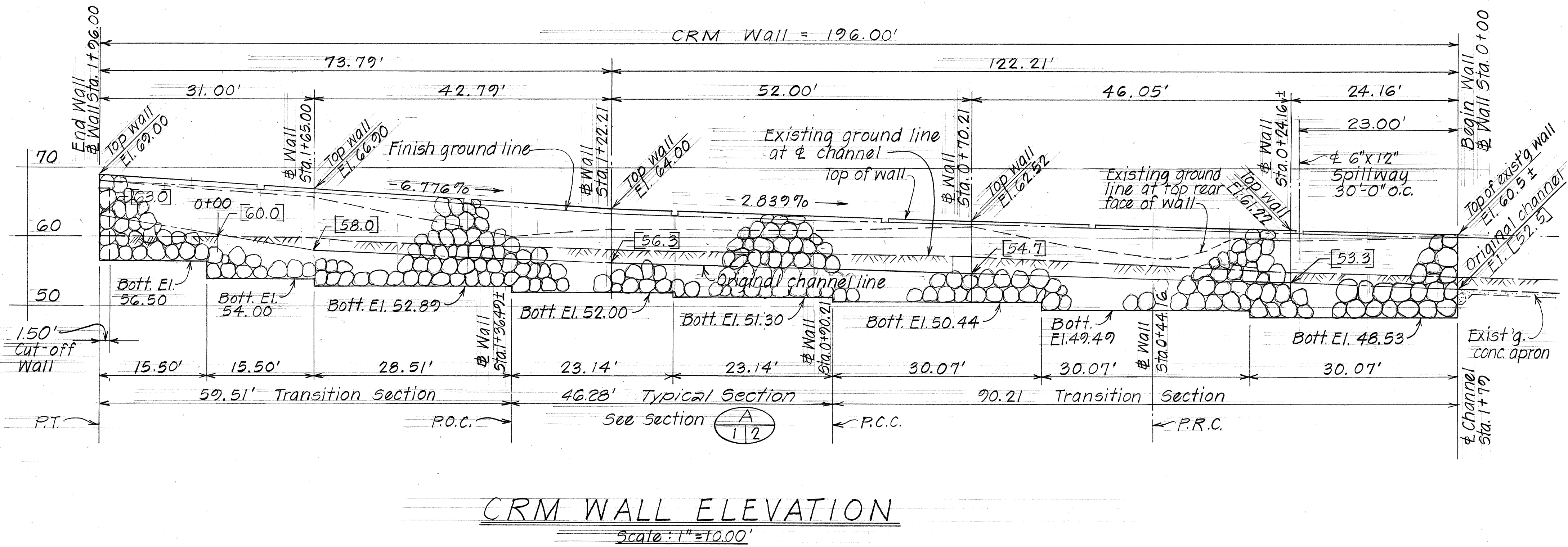
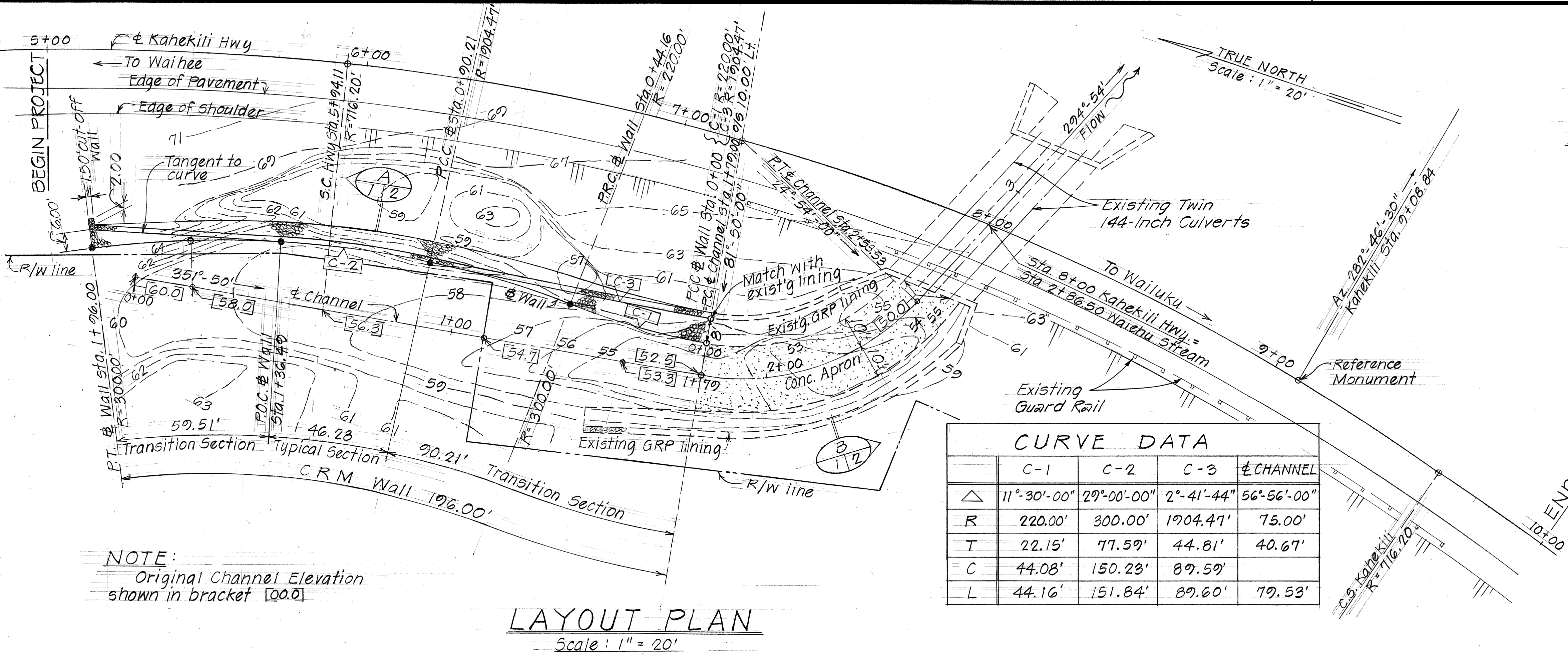
### CONSTRUCTION REQUIREMENTS

- See Standard Specifications for road and bridge construction.
- Vertical intersection at top of wall shall be constructed to a fairly smooth vertical curve, as directed by the Engineer.
- The contractor shall remove and dispose of the debris at the entrance of the existing twin 144" culvert as directed by the Engineer. The Contractor shall also provide 1-foot openings between each guardrail post along the existing A.C. berm between Sta. 7+00± to Sta. 10+00 R+. The above work shall not be paid for separately but shall be considered incidental to the various contract items.

| CURVE DATA |             |             |            |             |
|------------|-------------|-------------|------------|-------------|
|            | C-1         | C-2         | C-3        | ± CHANNEL   |
| △          | 11°-30'-00" | 29°-00'-00" | 2°-41'-44" | 56°-56'-00" |
| R          | 220.00'     | 300.00'     | 1904.47'   | 75.00'      |
| T          | 22.15'      | 77.59'      | 44.81'     | 40.67'      |
| C          | 44.08'      | 150.23'     | 89.59'     |             |
| L          | 44.16'      | 151.84'     | 89.60'     | 79.53'      |

## ESTIMATED QUANTITIES

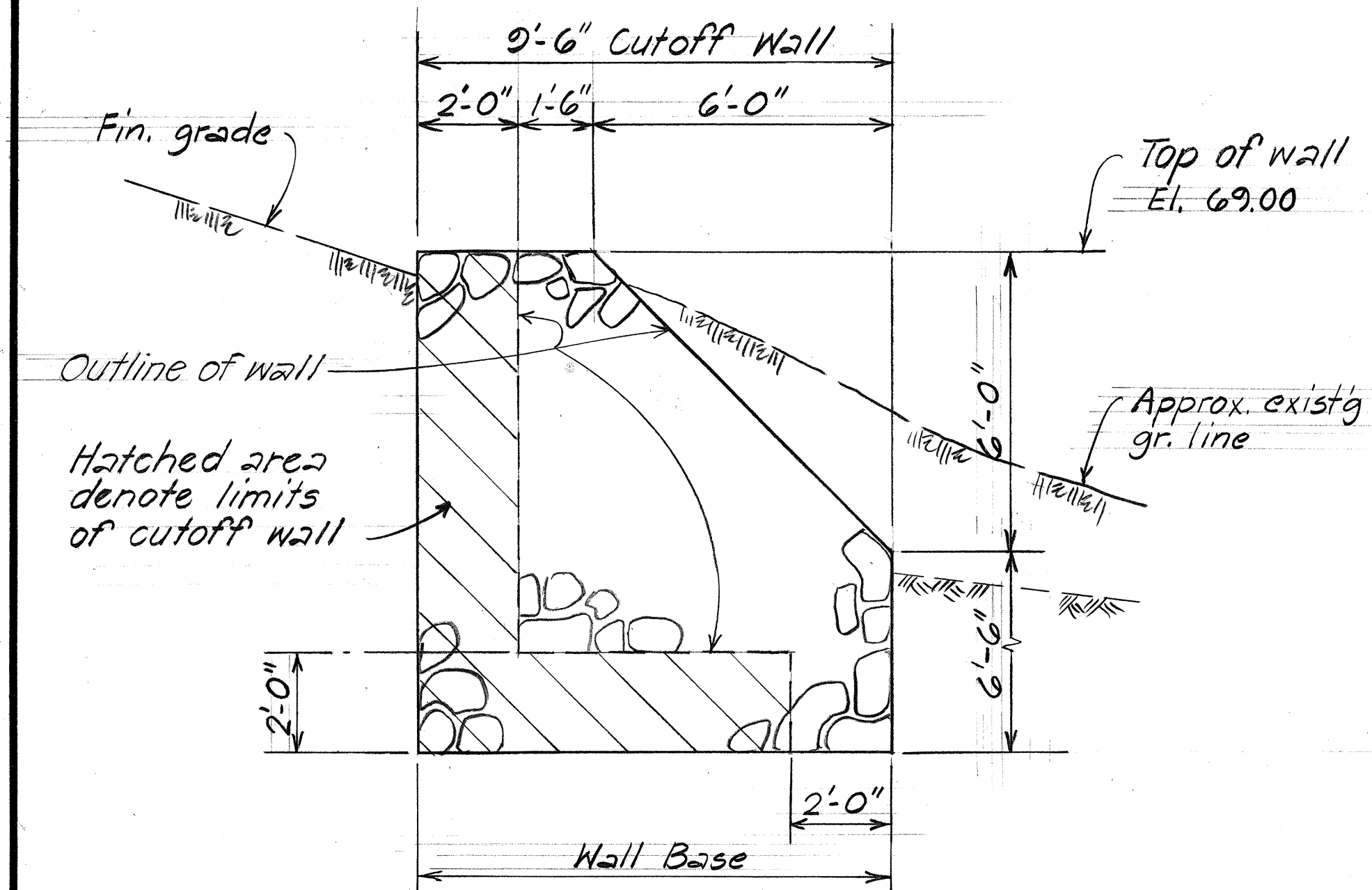
| ITEM NO. | ITEM                                | UNIT   | QUANTITY |
|----------|-------------------------------------|--------|----------|
| 203.0210 | Imported Borrow (Ordinary Backfill) | Cu.Yd. | 495 cy.  |
| 206.5500 | Structure Excavation for CRM Wall   | Cu.Yd. | 550 cy.  |
| 206.7000 | Structure Backfill                  | Cu.Yd. | 160 cy.  |
| 508.0100 | CRM                                 | Cu.Yd. | 415 cy.  |



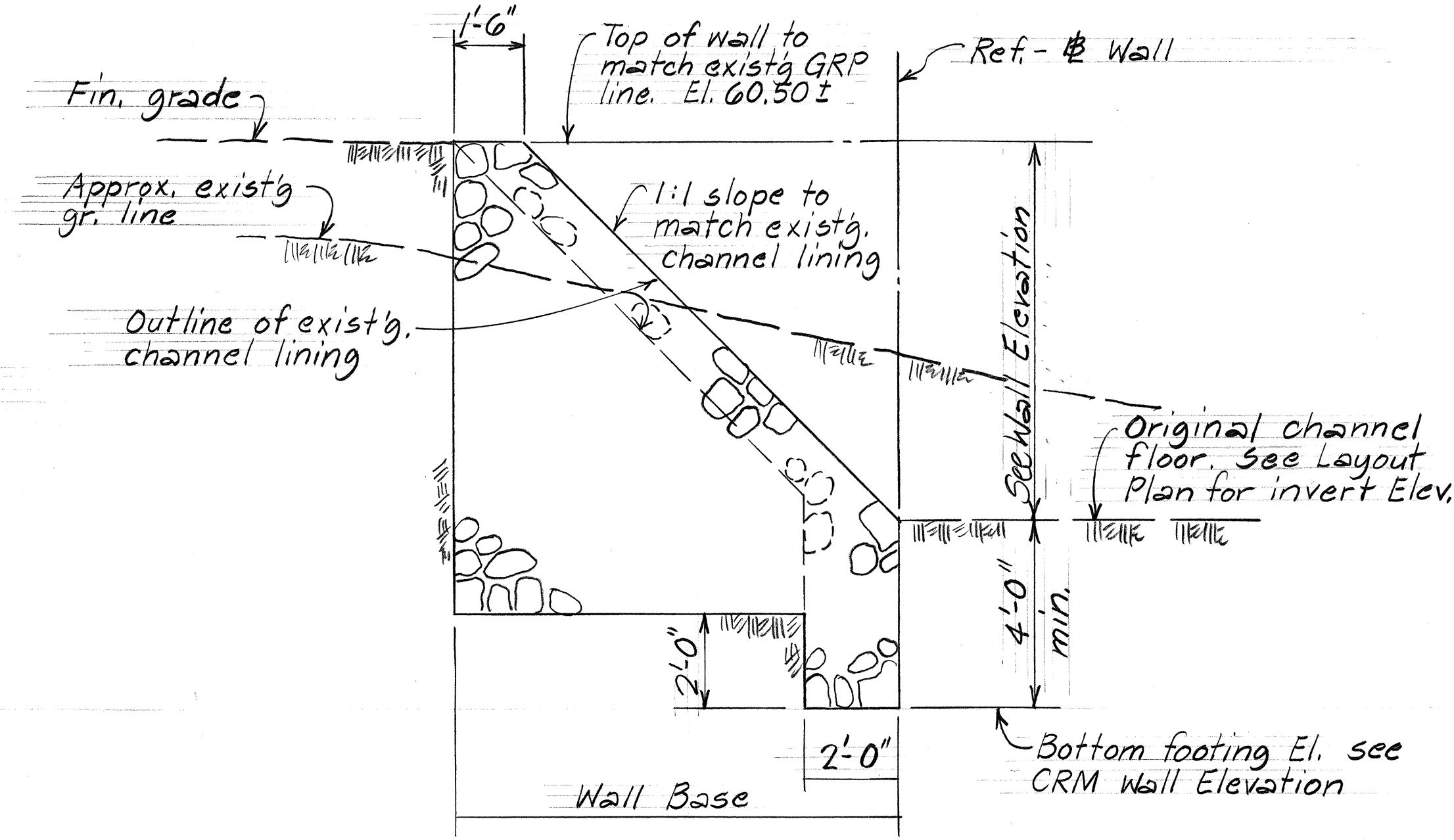
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**KAHEKILI HIGHWAY, DRAINAGE IMPROVEMENTS AT WAIEHU STREAM**  
C.R.M. WALL - LAYOUT PLAN AND ELEVATION  
F.A.S. Project No. R5-0340(2)  
Scale: As Noted Date: \_\_\_\_\_  
SHEET NO. 1 OF 3 SHEETS



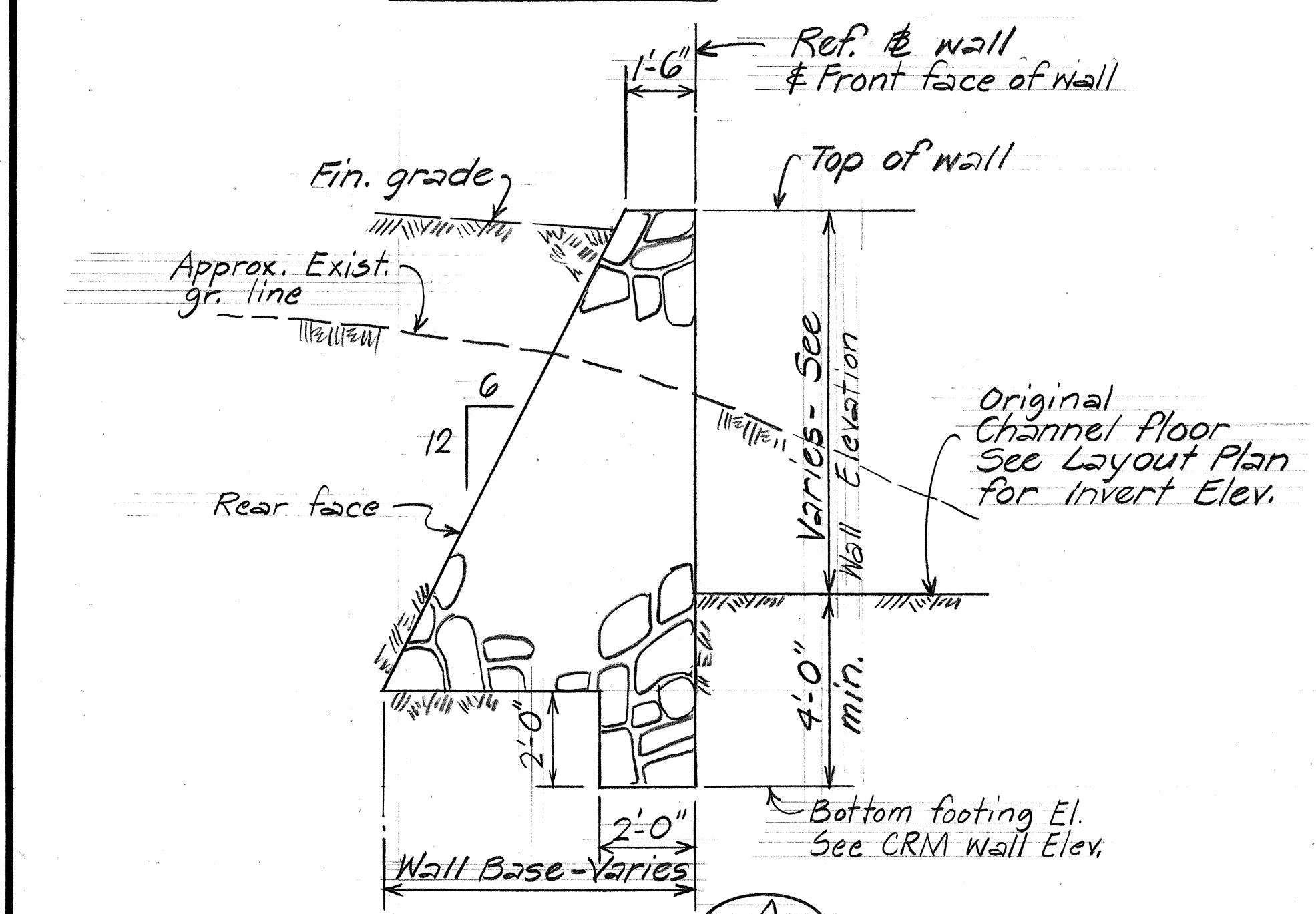
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| HAWAII              | HAW.  | RS-0340(2) | 1980        | 3         | 5            |



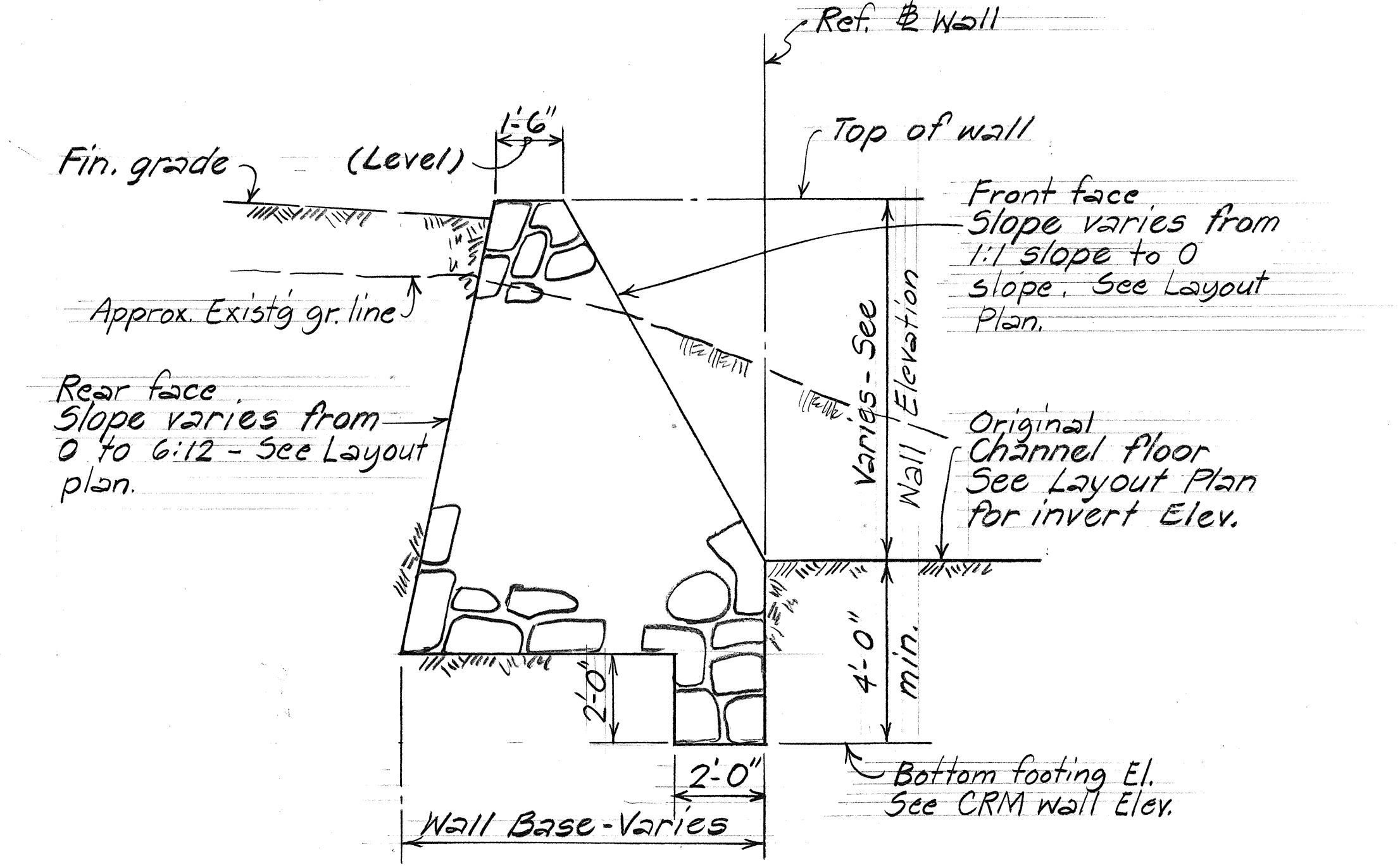
**CUT-OFF WALL ELEVATION  
AT END OF WALL**



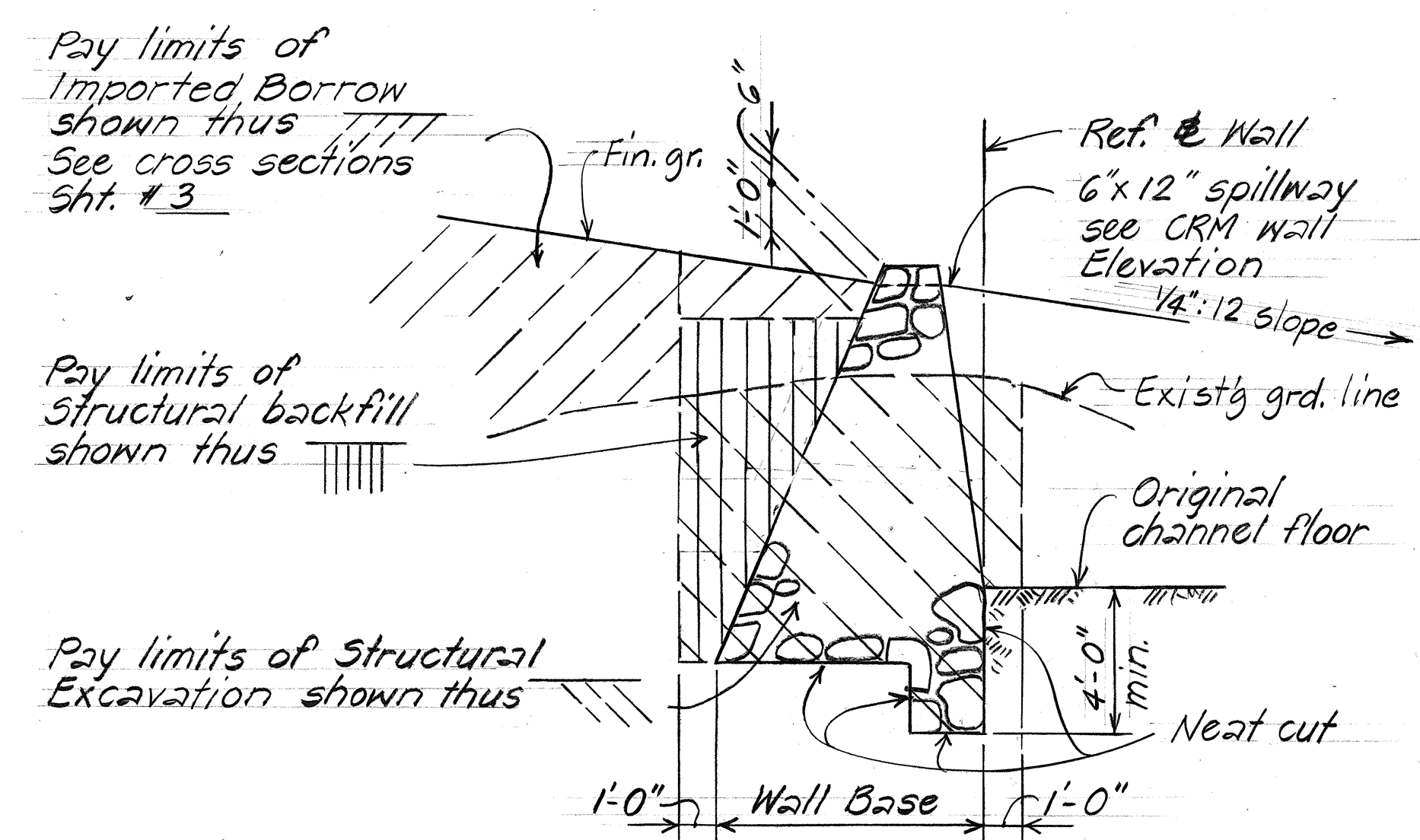
**CRM WALL SECTION AT BEGINING OF WALL**  
Scale: 3/8" = 1'-0"



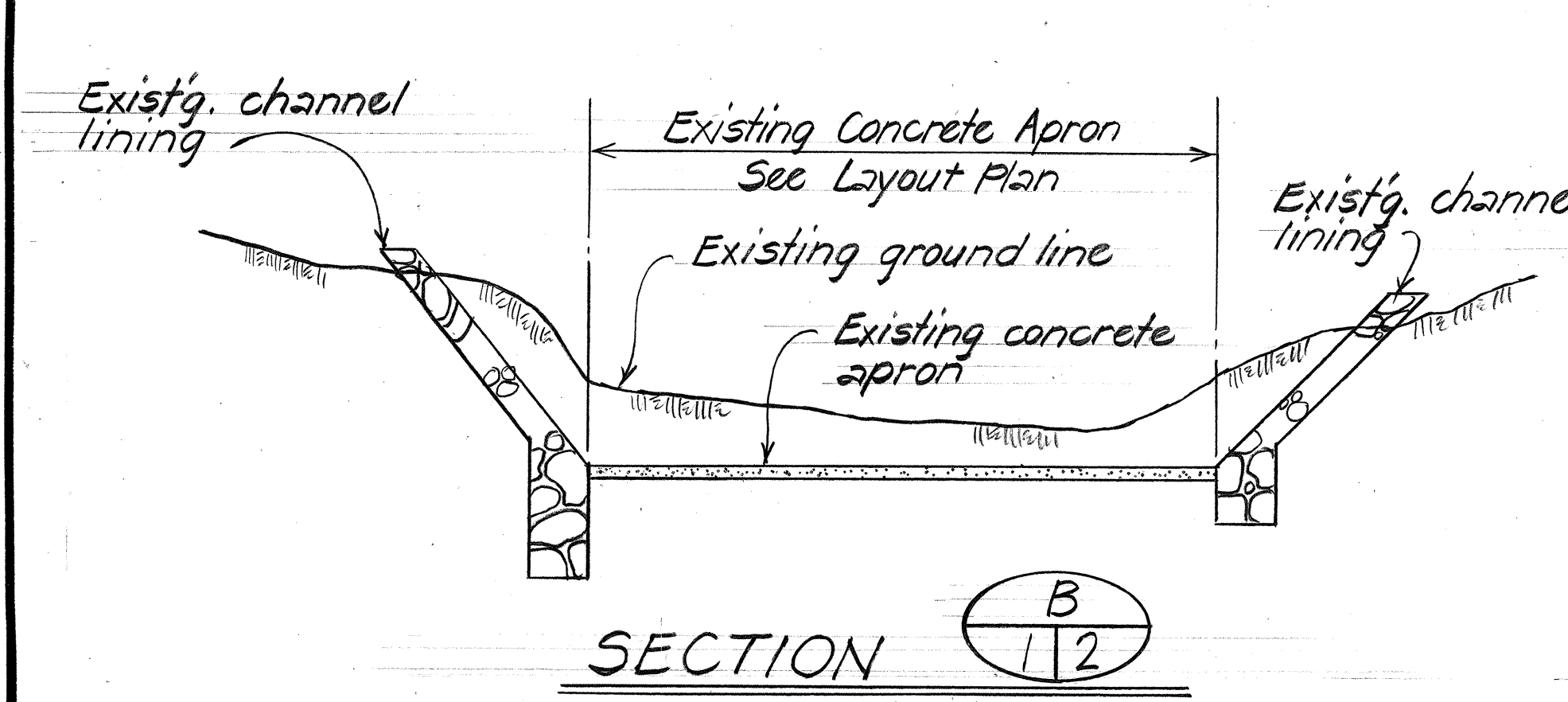
**TYPICAL SECTION A**



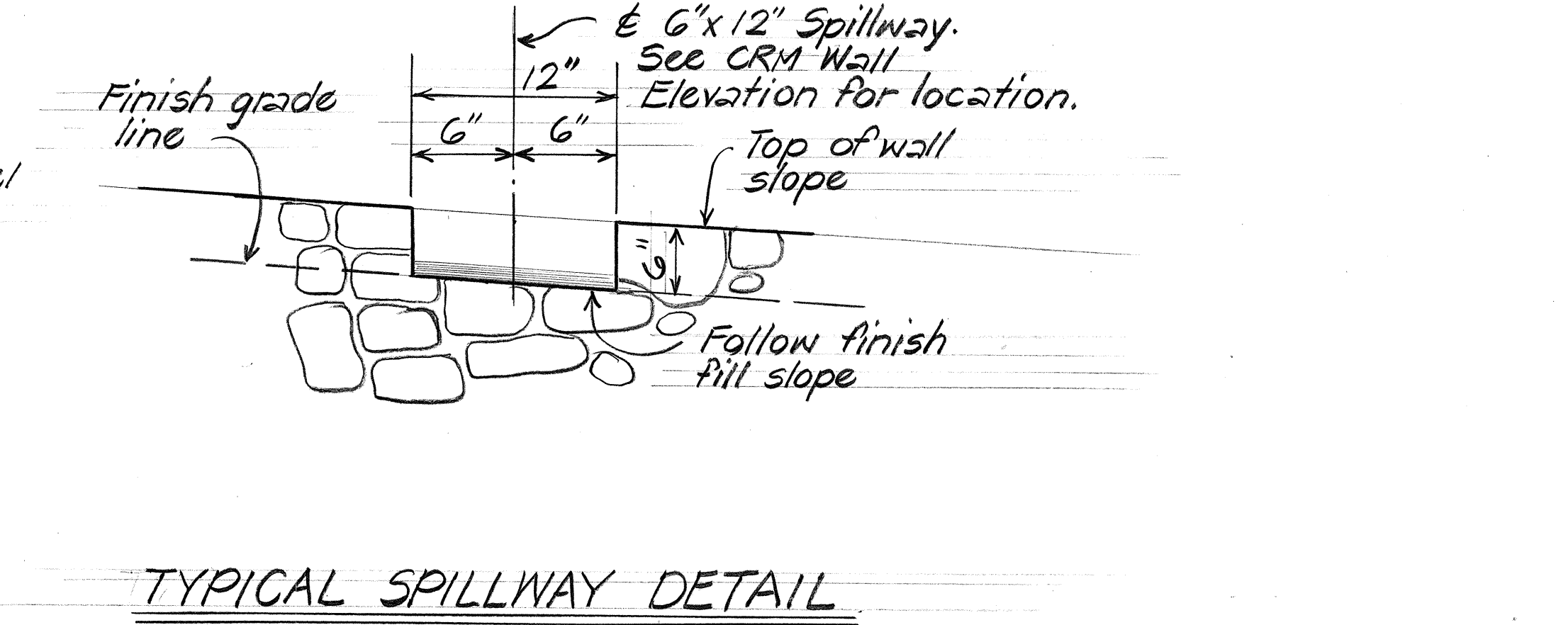
**TRANSITION SECTION**



**TYPICAL CRM WALL  
EXCAVATION PAY LIMITS**  
Not to Scale



**SECTION B**  
Scale: 3/16" = 1'-0"

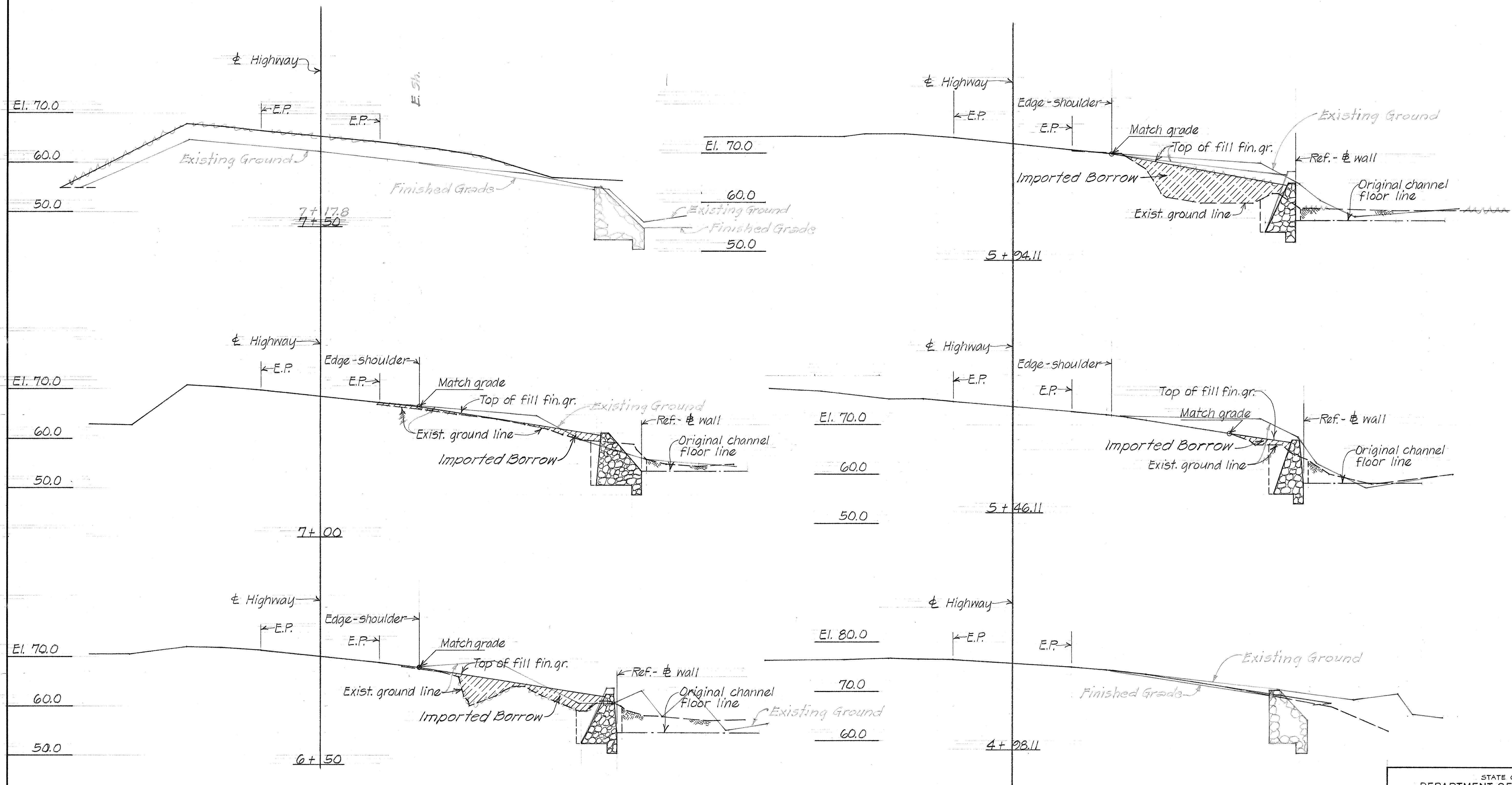


**TYPICAL SPILLWAY DETAIL**  
Scale: 1/2" = 1'-0"

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**KAHEKILI HIGHWAY DRAINAGE**  
**IMPROVEMENTS AT WAIIEHU STREAM**  
**TYPICAL CRM WALL DETAILS**  
F.A.S. Project No. RS-0340 (2)  
Scale: As Noted Date: June 1979  
SHEET NO. 2 OF 3 SHEETS



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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**KAHEKILI HIGHWAY, DRAINAGE  
IMPROVEMENTS AT WAIIEHU STREAM**

**ROADWAY & BACKFILL SECTIONS**  
F.A.S. Project No. RS-0340(2)

Scale: 1" = 10'-0" Date: \_\_\_\_\_

SHEET NO. 3 OF 3 SHEETS