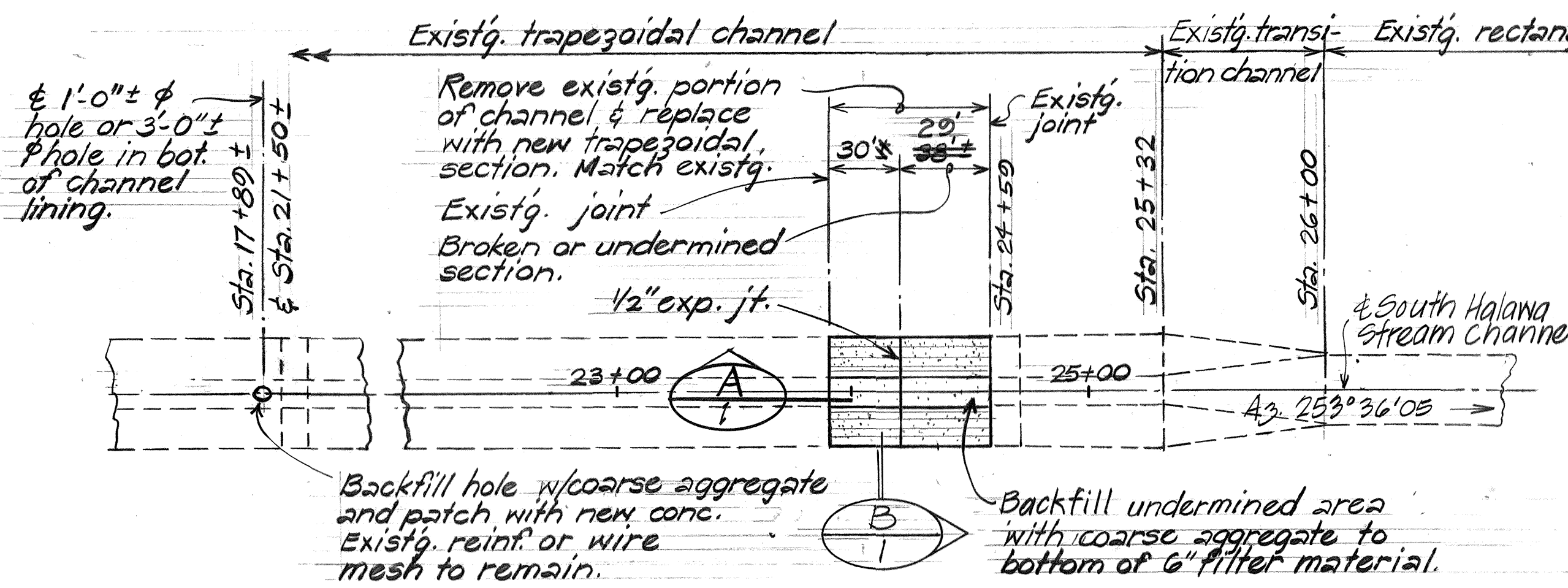
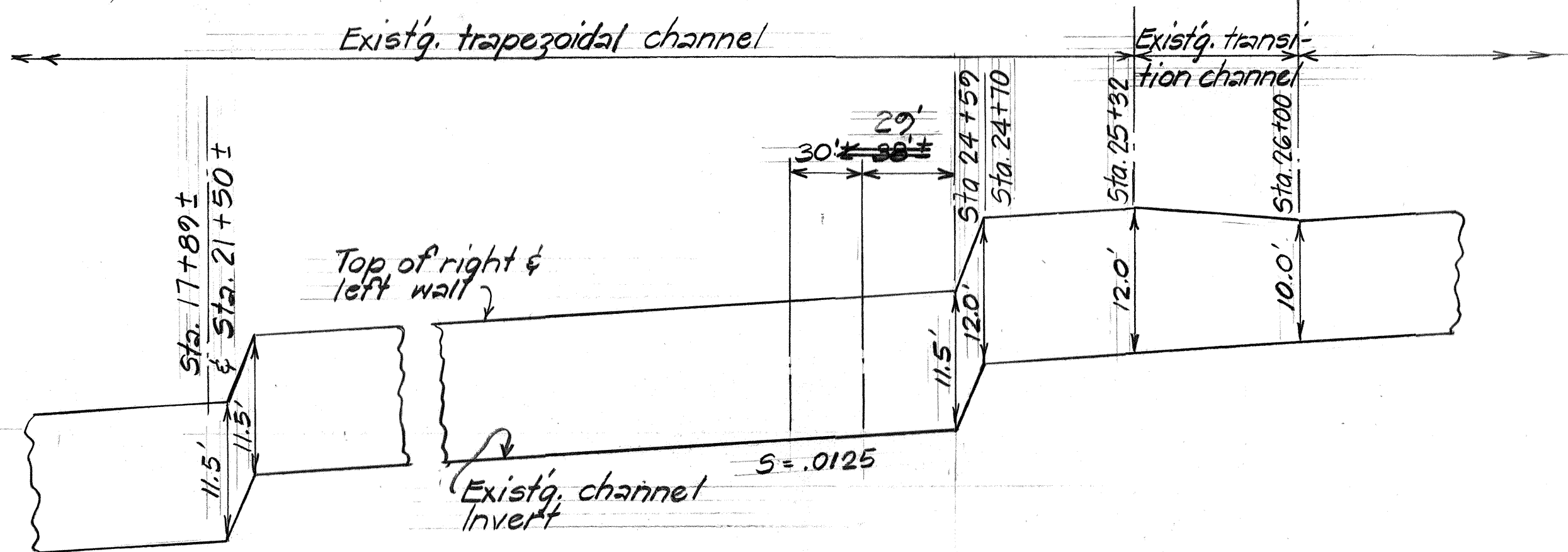


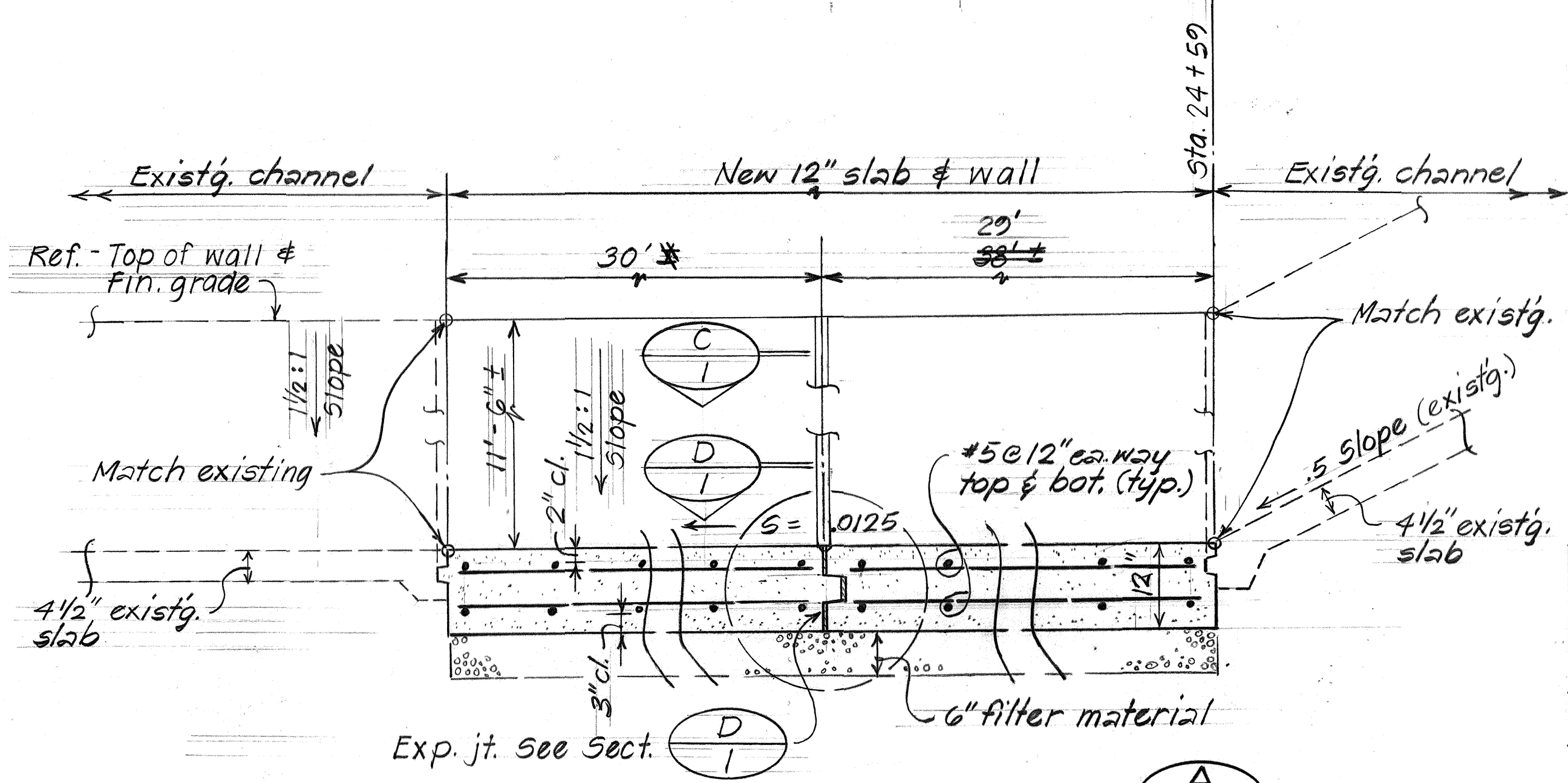
| FED. ROAD DIST. NO. | STATE | PROJ. NO.  | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | HIF-01-81M | 198         | 2         | 2            |



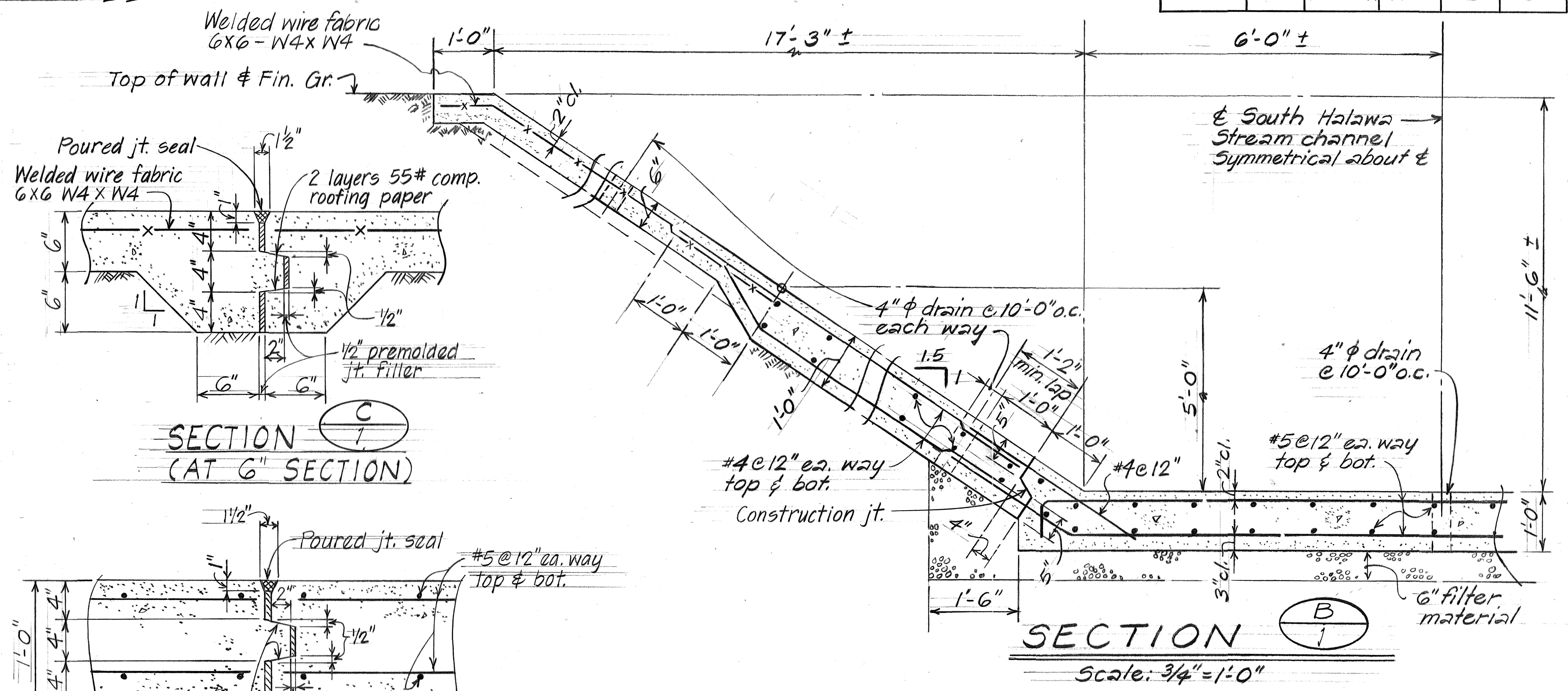
**PLAN**  
Scale: 1" = 50'-0"



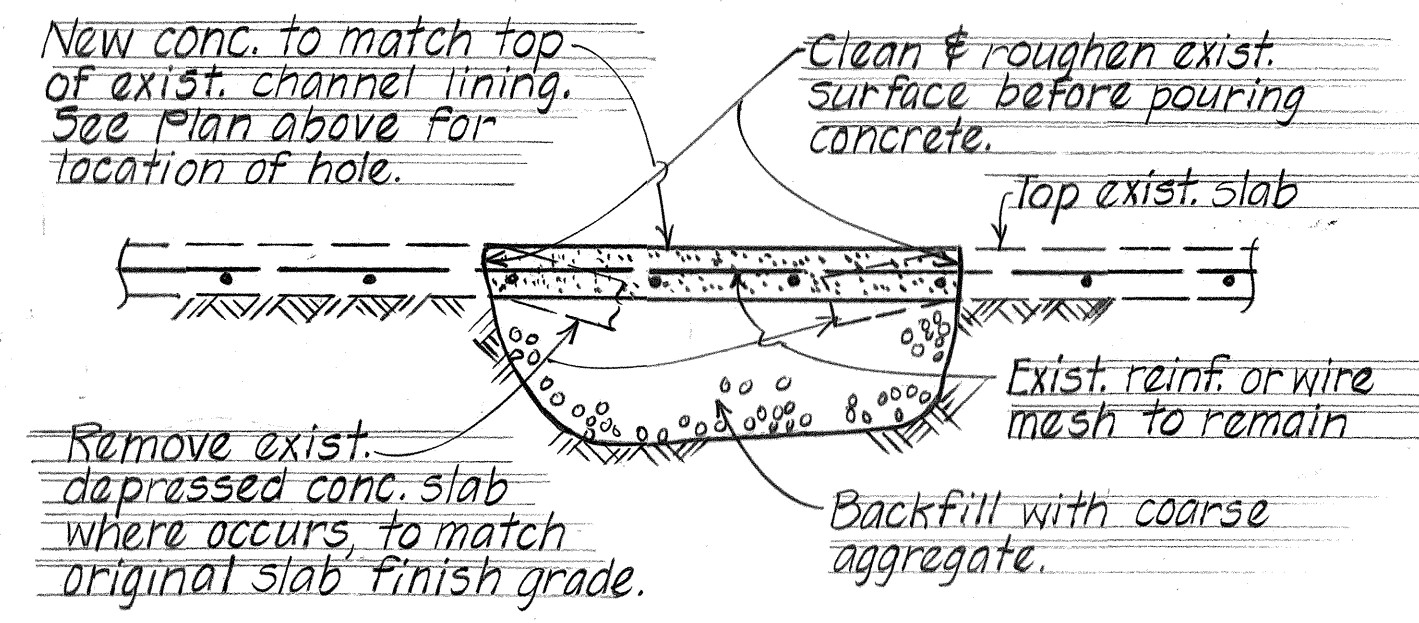
**PROFILE - SOUTH HALAWA STREAM CHANNEL**  
Scale: Horiz. 1" = 50'-0"  
Vert. 1" = 10'-0"



**LONGITUDINAL SECTION**  
Scale: 3/4" = 1'-0"



**EXPANSION JOINT DETAILS**  
Scale: 1 1/2" = 1'-0"



**REPAIR DETAIL OF SLAB HOLE**  
(AT STA. 17+89± & STA. 21+50±)  
Not to Scale

- GENERAL NOTES**
- DESIGN SPECIFICATIONS:**
- Standard Specifications for Highway Bridges as adopted by the American Association of State Highway and Transportation Officials (12th Edition, with 1978, 1979 and 1980 Interims.)
- DESIGN STRESSES:**
- Reinforced concrete: See AASHTO Specifications.  
f'c = 3,000 psi  
fs = 20,000 psi
- MATERIALS:**
- Cast in place concrete - Class A
  - Reinforcing Steel - ASTM A-615 Grade 40
  - Welded wire fabric - ASTM A-185
- CONSTRUCTION METHODS:**
- Refer to Hawaii Standard Specifications for Road and Bridge Construction (1976), and Special Provisions.
  - Damaged or undermined channel lining and other items designated for removal shall be removed in such a manner as to preclude any damage to the remaining structure. Any damage to the existing structure due to the Contractor's operation, and or negligence shall be repaired to the Engineer's satisfaction, by the Contractor at his expense, with no additional cost to the State.
  - Concrete designated for removal shall be removed up to the nearest expansion or contraction joint. Any existing reinforcing extending from the joints shall be utilized in the new work for a minimum distance of 18".
  - Backfilling of holes and undermined areas w/coarse aggregate shall be incidental to conc. and will not be paid for separately.
  - Holes at Sta. 17+89± and Sta. 21+50± shall be cleaned entirely within one foot beyond the hole edge. Measurement and payment shall be incidental to Item No. 202.0100 REMOVAL OF STRUCTURES AND OBSTRUCTIONS.

| ESTIMATED QUANTITIES |                                               |       |            |
|----------------------|-----------------------------------------------|-------|------------|
| ITEM NO.             | ITEM                                          | UNIT  | QUANTITIES |
| 202.0100             | Removal of Structures and Obstructions        | L. F. | 118 L.F.   |
| 206.8                | Filter Material                               | C.Y.  | 40 C.Y.    |
| 503.65               | Concrete in S. Halawa Stream Channel          | C.Y.  | 111 C.Y.   |
| 602.65               | Reinforcing Steel in S. Halawa Stream Channel | lb.   | 8400 lb.   |

| DATE    | REVISION                                                                                           |
|---------|----------------------------------------------------------------------------------------------------|
| 6/22/81 | Revised table of "Estimated Quantities" and added Construction Methods 5 and 6 per addendum No. 3. |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
LAND TRANSPORTATION FACILITIES DIVISION

**PLAN & DETAILS**

**ROUTE HI, HALAWA INTERCHANGE**

**REPAIR OF HALAWA STREAM CHANNEL**

Proj. No. HIF-01-81M

Scale: As noted Date: Apr. 1981

SHEET NO. 1 OF 1 SHEETS

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY          |      |
| CHECKED BY        |      |
| NOTED BY          |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     |      |
| NOTE BOOK         |      |
| No.               |      |