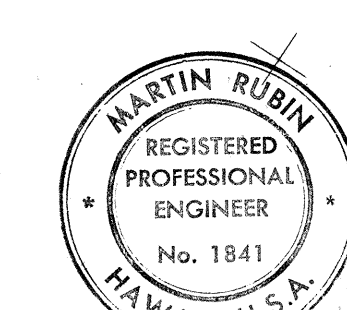
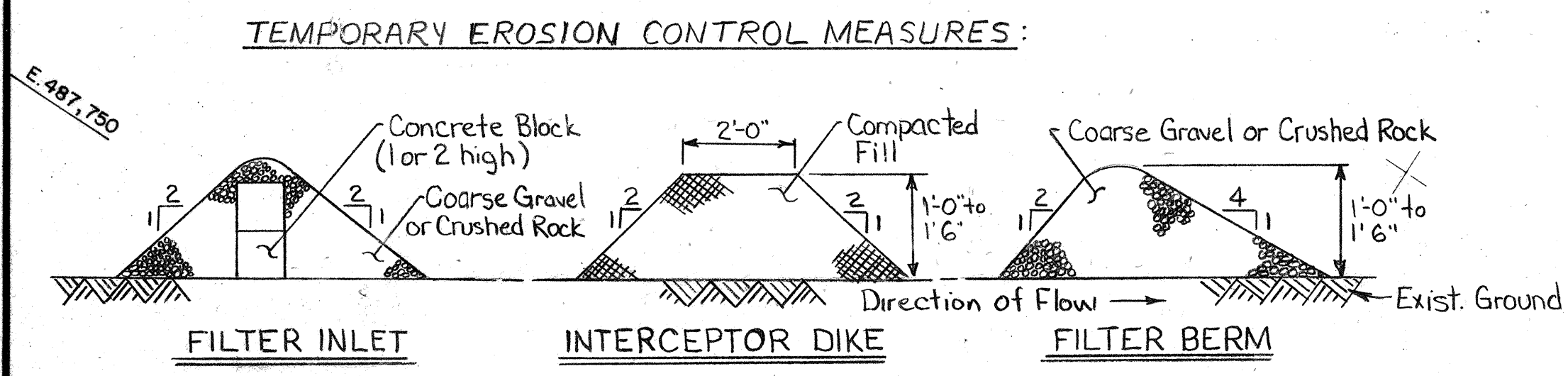
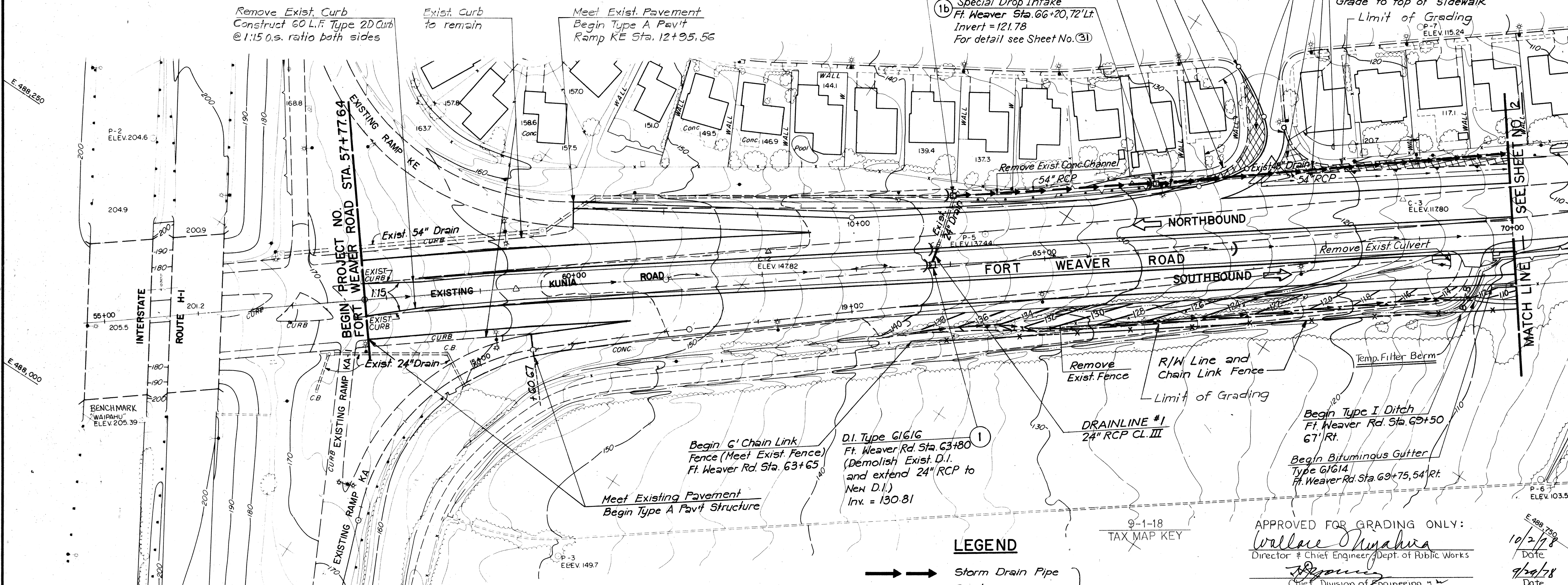


GENERAL NOTES

- All grading work shall be done in accordance with Chapter 23, Grading, Soil Erosion & Sediment Control, of the Revised Ordinances of Honolulu, 1969, as amended (Ordinance Nos. 3968, 4294, and 4538) and soil Engineering Report prepared by the Department of Transportation, Land Transportation Facilities Division, Materials Testing & Research Branch, Date March 1977.
- All graded areas shall have temporary or permanent ground cover.
- The Contractor shall remove all silt & debris resulting from his work and deposited in drainage facilities, roadways & other areas. The costs incurred for any necessary remedial action by the Chief Engineer shall be payable by the Contractor.
- The Contractor, at his own expense, shall keep the project area & surrounding area free from dust nuisance. The work shall be in conformance with the air pollution control standards & regulations of the State Department of Health.
- The underground pipes, cables or ductlines known to exist by the engineer from his search of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.

- All slopes and exposed areas shall be sodded or planted immediately after the grading work has been completed.
- Fills on slopes steeper than 5:1 shall be keyed.
- The City shall be informed of the location of the borrow/disposal site for the project when the application for a grading permit is made. The borrow/disposal site must also fulfill the requirements of the grading ordinance.
- No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to the Chief Engineer.
- The limits of the graded area shall be flagged before the commencement of the grading work.
- All grading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control and Water Quality Standards contained in the Public Health Regulations, State Department of Health, on Water Pollution Control and Water Quality Standards.
- Temporary Erosion Control Procedures shall be submitted for approval prior to application for a grading permit.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	1	8



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Martin Rubin

- ### LEGEND
- Storm Drain Pipe
 - Swale
 - Paved Gutter
 - Concrete Ditch
 - Existing Concrete Ditch Lining
 - Scarify and Remove Existing Pavement
 - Temporary Filter Inlet
 - Temporary Filter Berm
 - Temporary Interceptor Dike
 - Existing Contour
 - Proposed Contour
- Permanent Drainage System
- Temporary Erosion Control Structures

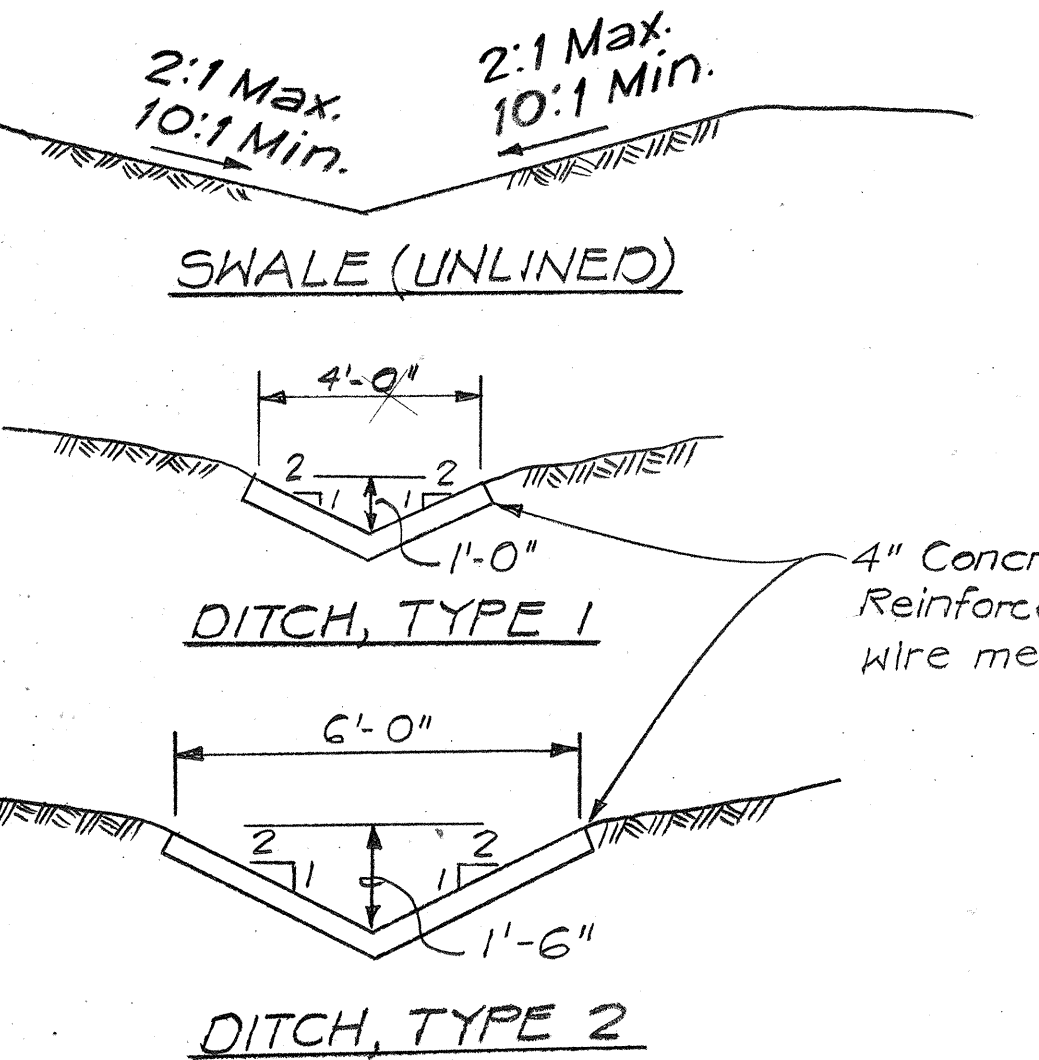
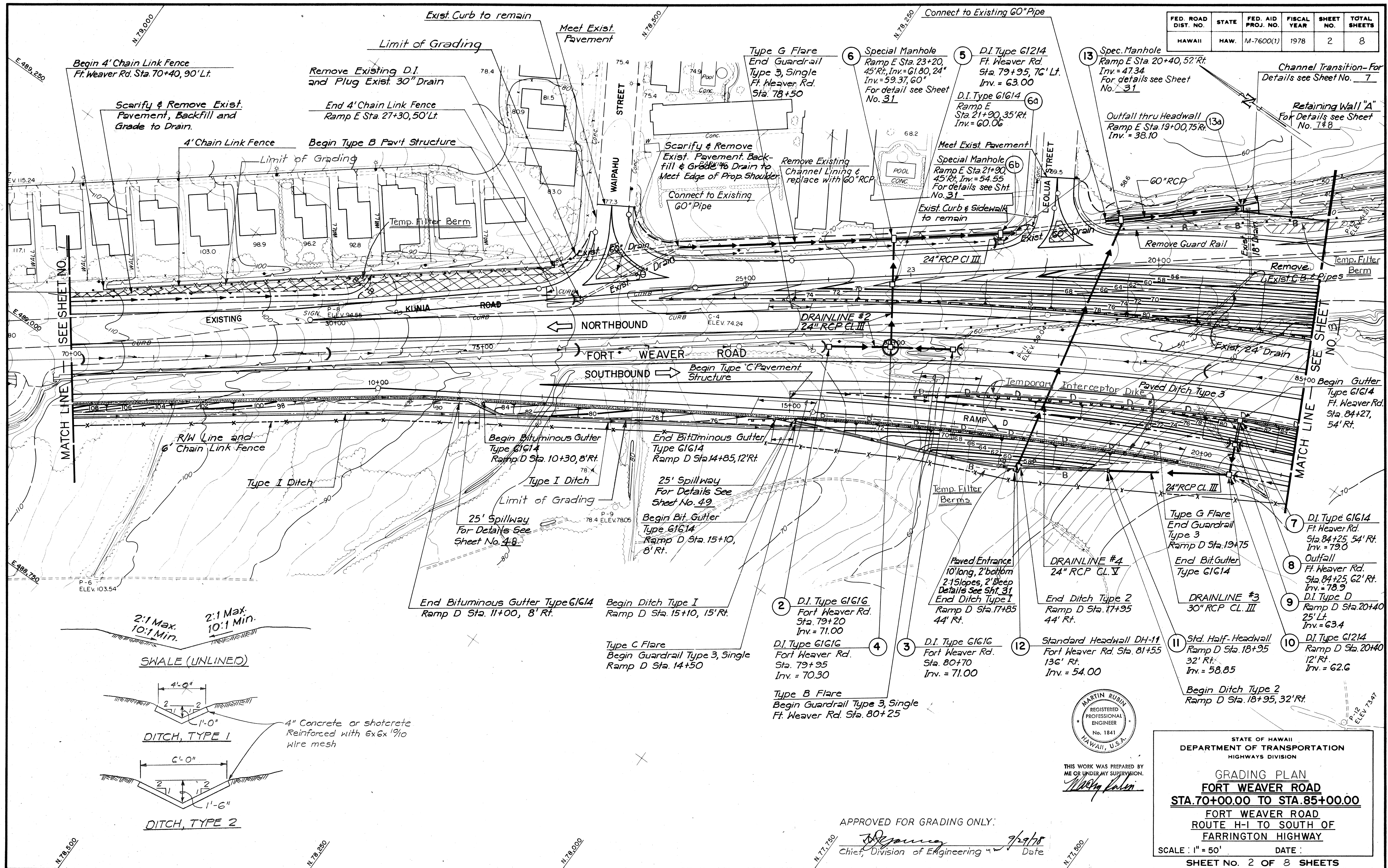
APPROVED FOR GRADING ONLY:
Wallace Ohigahwa
 Director & Chief Engineer, Dept. of Public Works
[Signature]
 Chief, Division of Engineering

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

GRADING PLAN
FORT WEAVER ROAD
STA. 57+77.64 TO STA. 70+00.00
FORT WEAVER ROAD
ROUTE H-1 TO SOUTH OF
FARRINGTON HIGHWAY

SCALE: 1" = 50' DATE: 10/2/78
 SHEET NO. 1 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	2	8



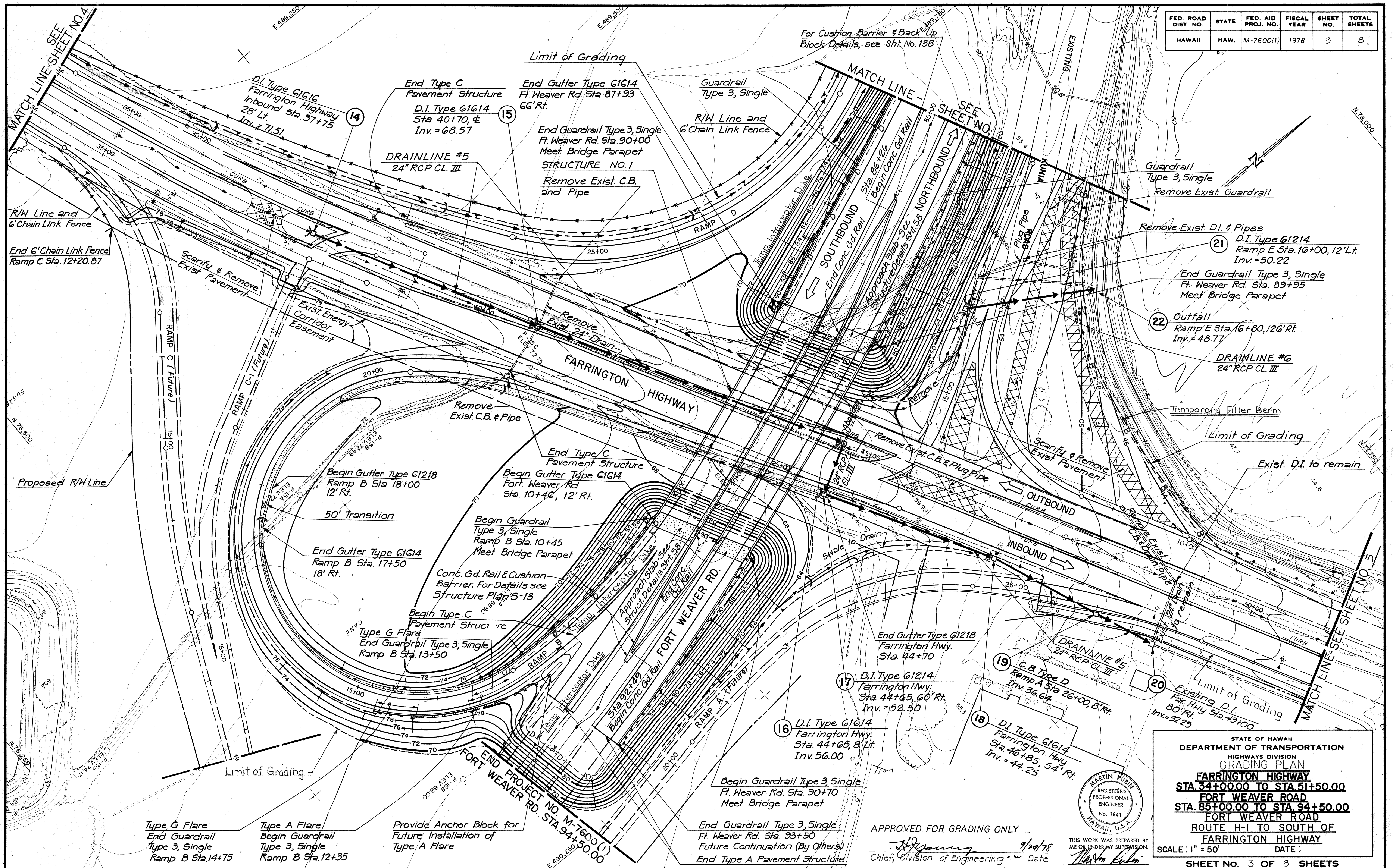
APPROVED FOR GRADING ONLY:
[Signature] 7/29/78
 Chief, Division of Engineering Date

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

GRADING PLAN
FORT WEAVER ROAD
STA. 70+00.00 TO STA. 85+00.00
 FORT WEAVER ROAD
 ROUTE H-1 TO SOUTH OF
 FARRINGTON HIGHWAY

SCALE: 1" = 50' DATE:
 SHEET NO. 2 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	3	8



DATE
SURVEY PLOTTED BY
DRAWN BY
DESIGNED BY
CHECKED BY
NOTE BOOK
No.

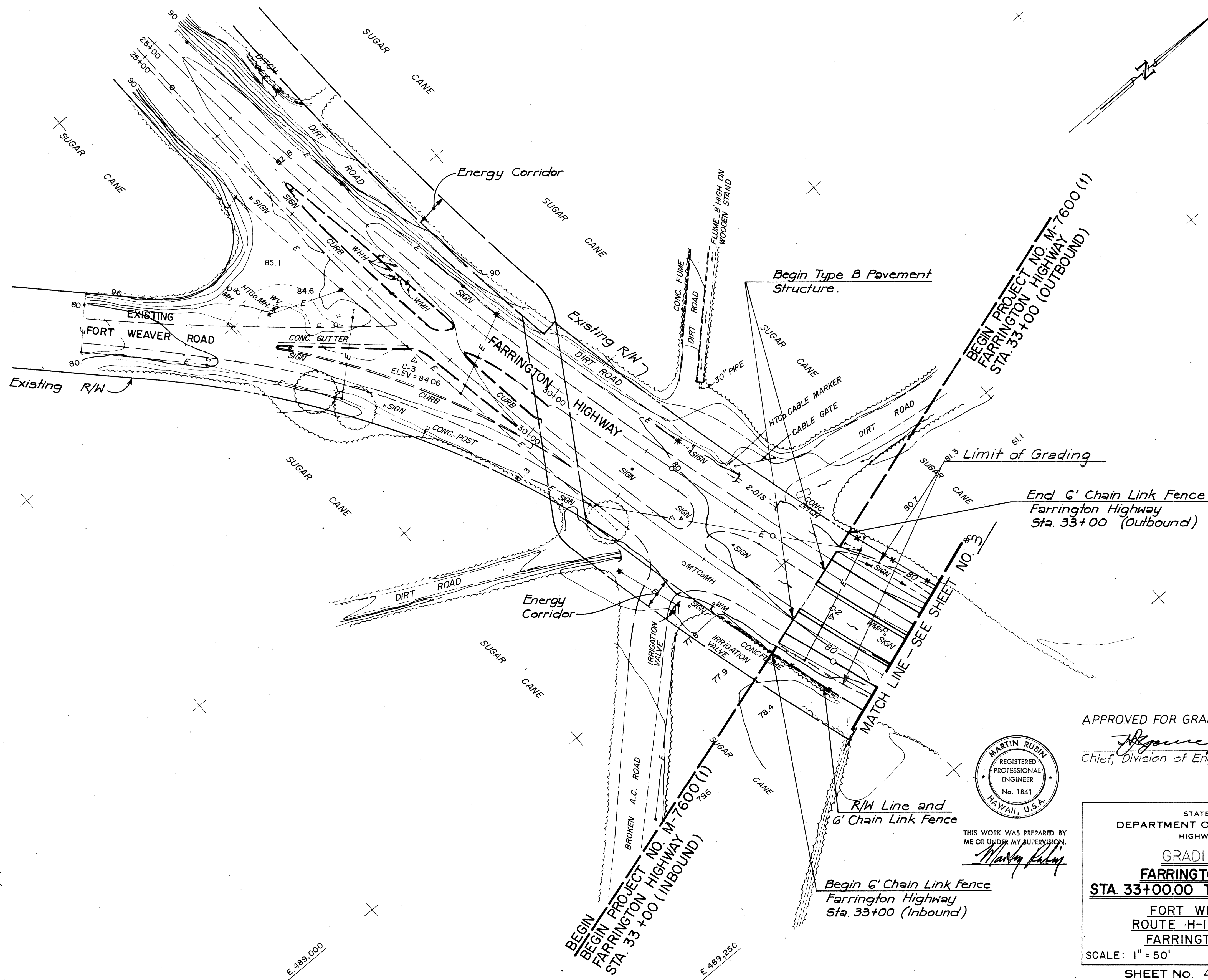
APPROVED FOR GRADING ONLY

[Signature] 7/2/78
Chief, Division of Engineering Date

MARTIN RUBIN
REGISTERED
PROFESSIONAL
ENGINEER
No. 1841
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GRADING PLAN
FARRINGTON HIGHWAY
STA. 34+00.00 TO STA. 51+50.00
FORT WEAVER ROAD
STA. 85+00.00 TO STA. 94+50.00
FORT WEAVER ROAD
ROUTE H-1 TO SOUTH OF
FARRINGTON HIGHWAY
SCALE: 1" = 50' DATE:
SHEET NO. 3 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	4	8



APPROVED FOR GRADING ONLY
[Signature] 7/29/78
 Chief, Division of Engineering Date



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[Signature]

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

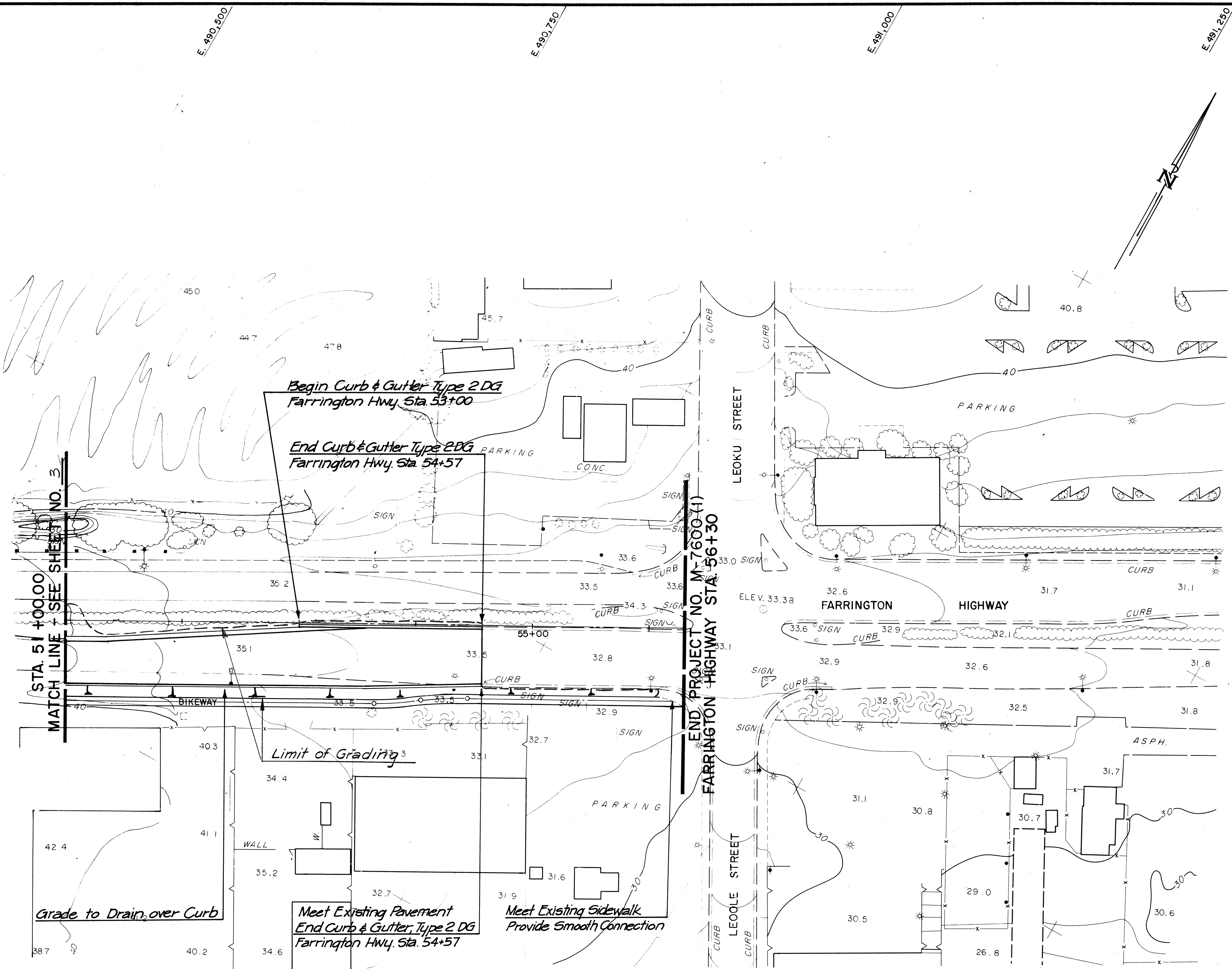
GRADING PLAN
FARRINGTON HIGHWAY
STA. 33+00.00 TO STA. 34+00.00

FORT WEAVER ROAD
 ROUTE H-1 TO SOUTH OF
 FARRINGTON HIGHWAY

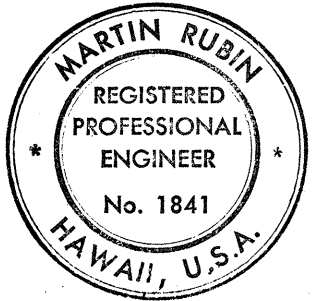
SCALE: 1" = 50' DATE:
 SHEET NO. 4 OF 8 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	5	8



DRAWN BY	PLAN
DESIGNED BY	NOTE BOOK
CHECKED BY	NO.



APPROVED FOR GRADING ONLY
[Signature] 4/9/78
 Chief, Division of Engineering Date:

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 ME OR UNDER MY SUPERVISION.
[Signature]

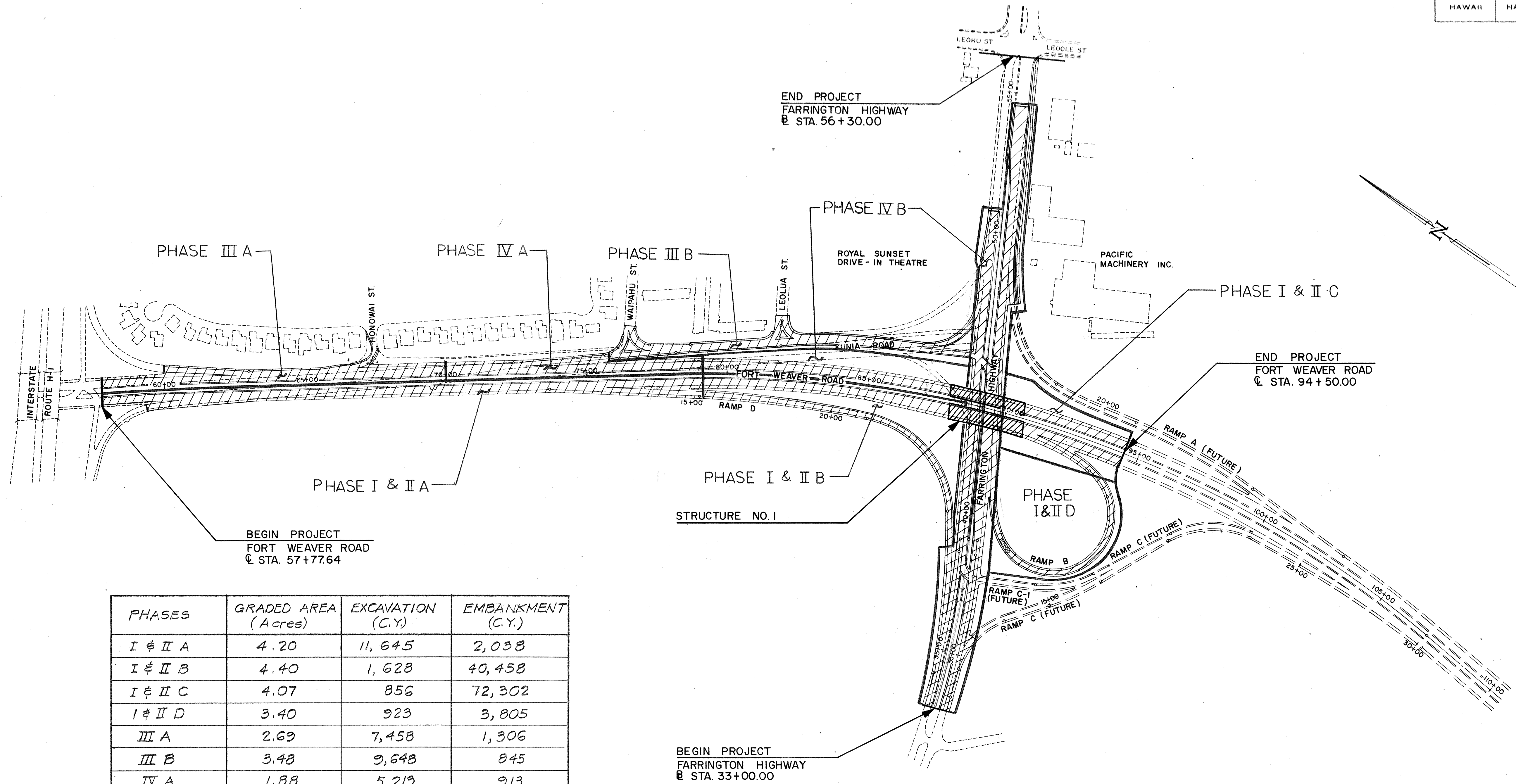
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

GRADING PLAN
FARRINGTON HIGHWAY
STA. 51+00.00 TO STA. 56+30.00

FORT WEAVER ROAD
ROUTE H-1 TO SOUTH OF
FARRINGTON HIGHWAY

SCALE: 1" = 50' DATE:
 SHEET NO. 5 OF 8 SHEETS

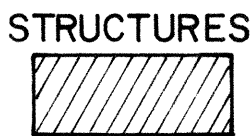
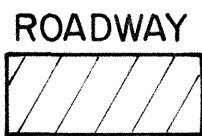
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	6	8



PHASES	GRADED AREA (Acres)	EXCAVATION (C.Y.)	EMBANKMENT (C.Y.)
I & II A	4.20	11,645	2,038
I & II B	4.40	1,628	40,458
I & II C	4.07	856	72,302
I & II D	3.40	923	3,805
III A	2.69	7,458	1,306
III B	3.48	9,648	845
IV A	1.88	5,213	913
IV B	2.78	3,329	61,233
TOTAL	26.90	40,700	182,900

LEGEND

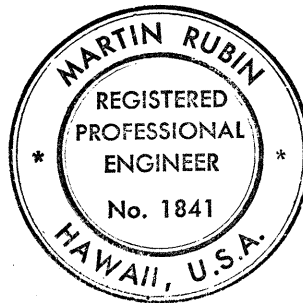
PERMANENT CONSTRUCTION
THIS PROJECT



NOTE: Phases shown on this plan are
for Sequence of Construction.

APPROVED FOR GRADING ONLY:

[Signature] 9/24/78
Chief, Division of Engineering Date

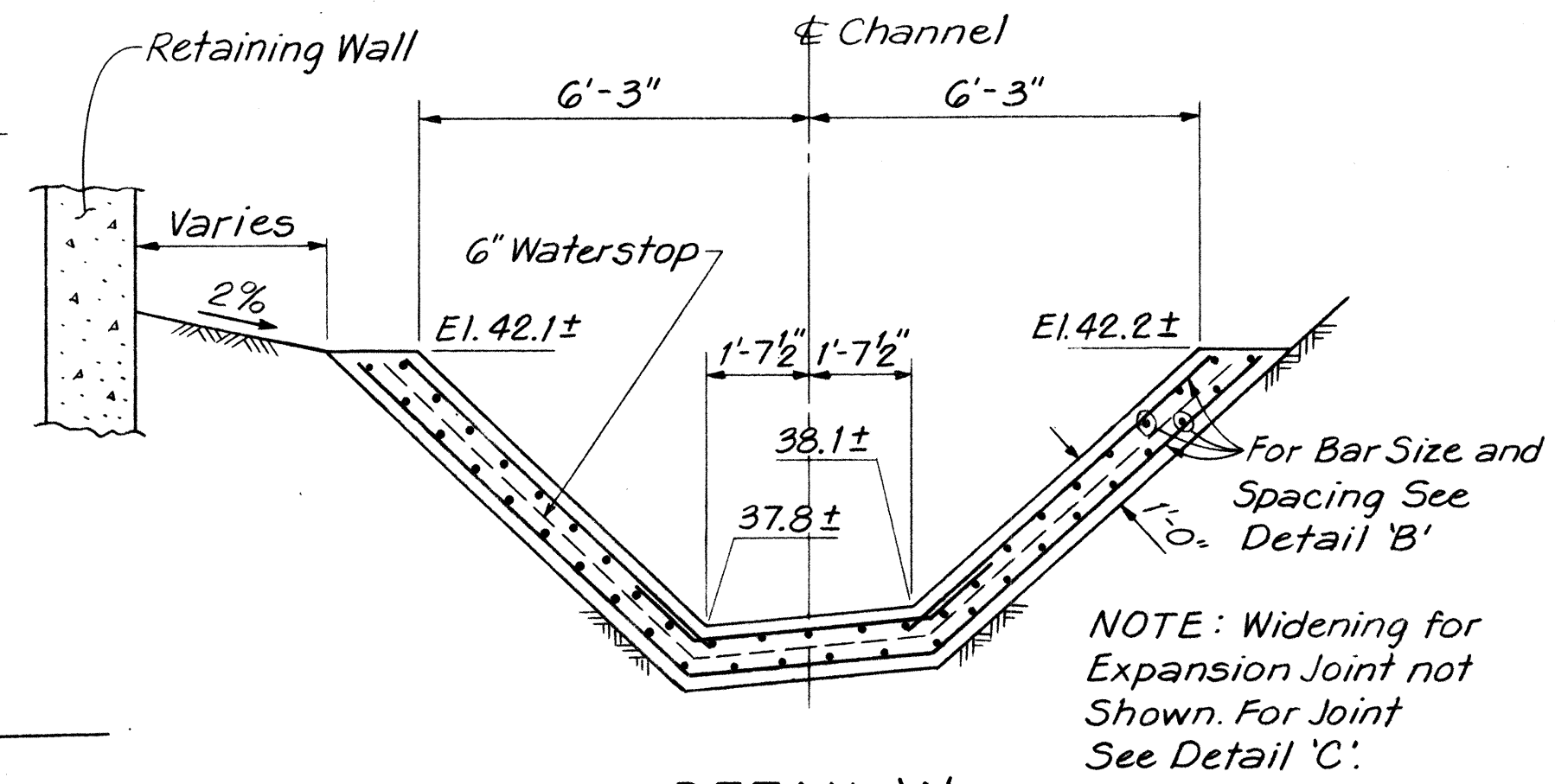
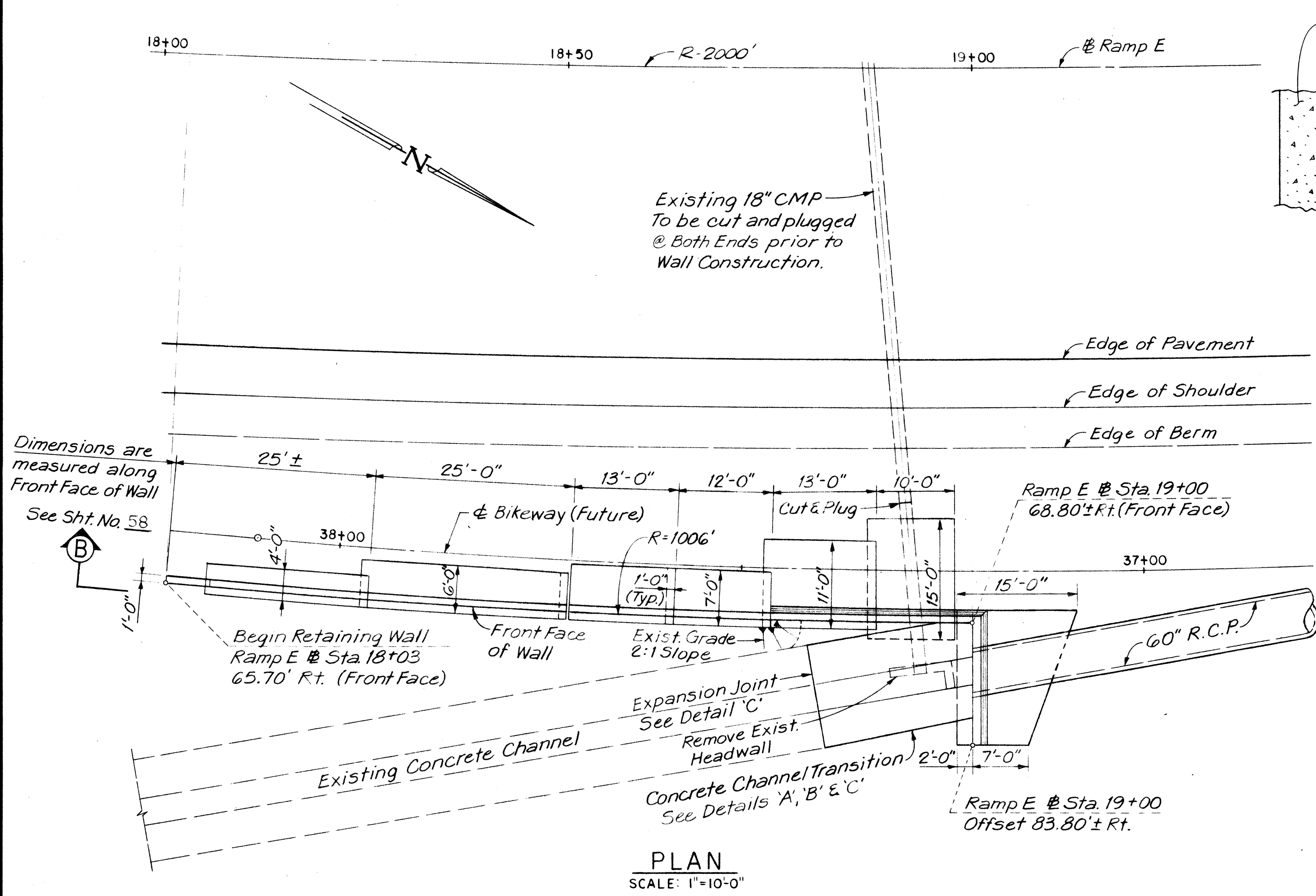


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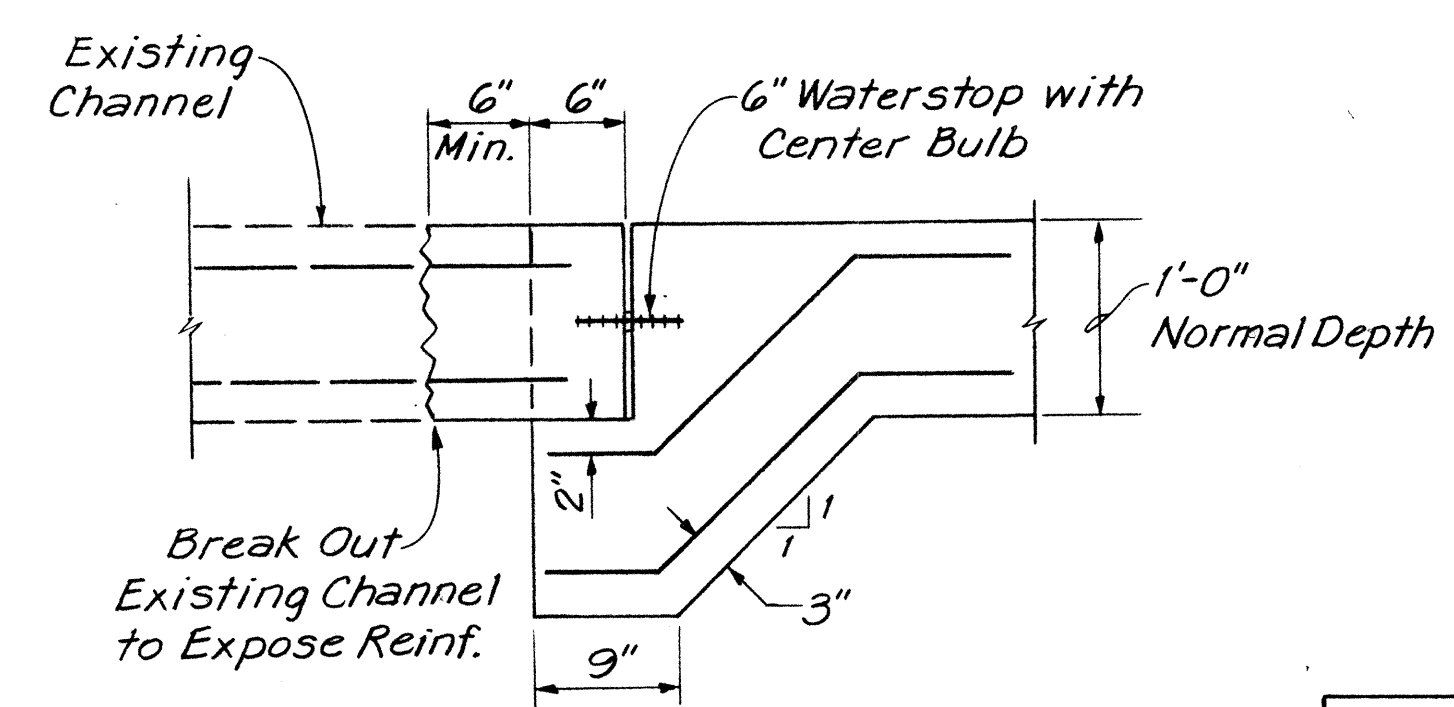
[Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GRADING PLAN
FORT WEAVER ROAD
STA. 57+77.64 TO STA. 94+50.00
FARRINGTON HIGHWAY
STA. 33+00.00 TO STA. 51+50.00
FORT WEAVER ROAD
ROUTE H-1 TO SOUTH OF
FARRINGTON HIGHWAY
SCALE: 1" = 200' DATE:
SHEET No. 6 OF 8 SHEETS

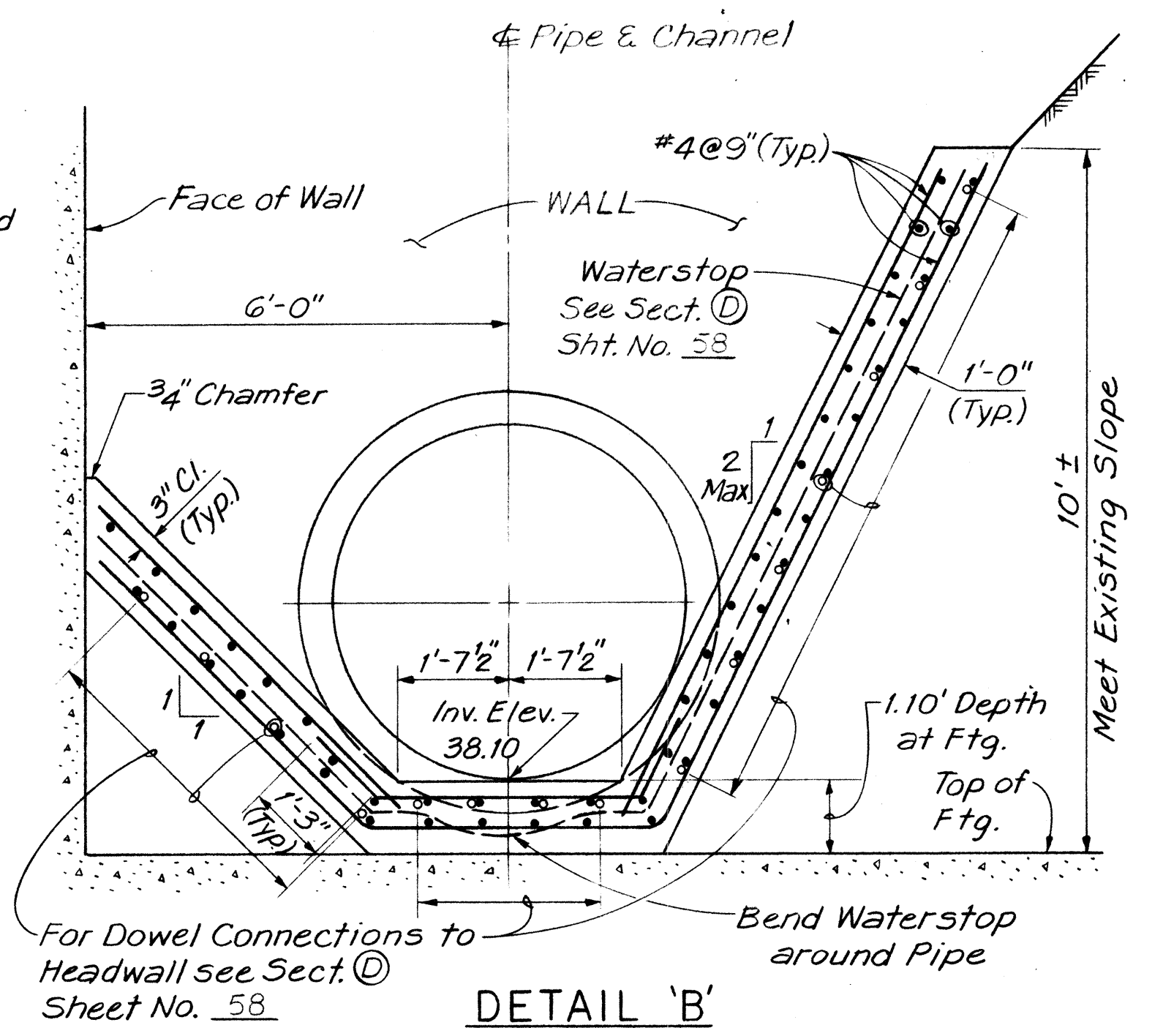
FED. ROAD DIST NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	M-7600(1)	1978	7	8



DETAIL 'A'
CHANNEL TRANSITION CROSS SECT.
AT EXISTING CHANNEL END
N.T.S.

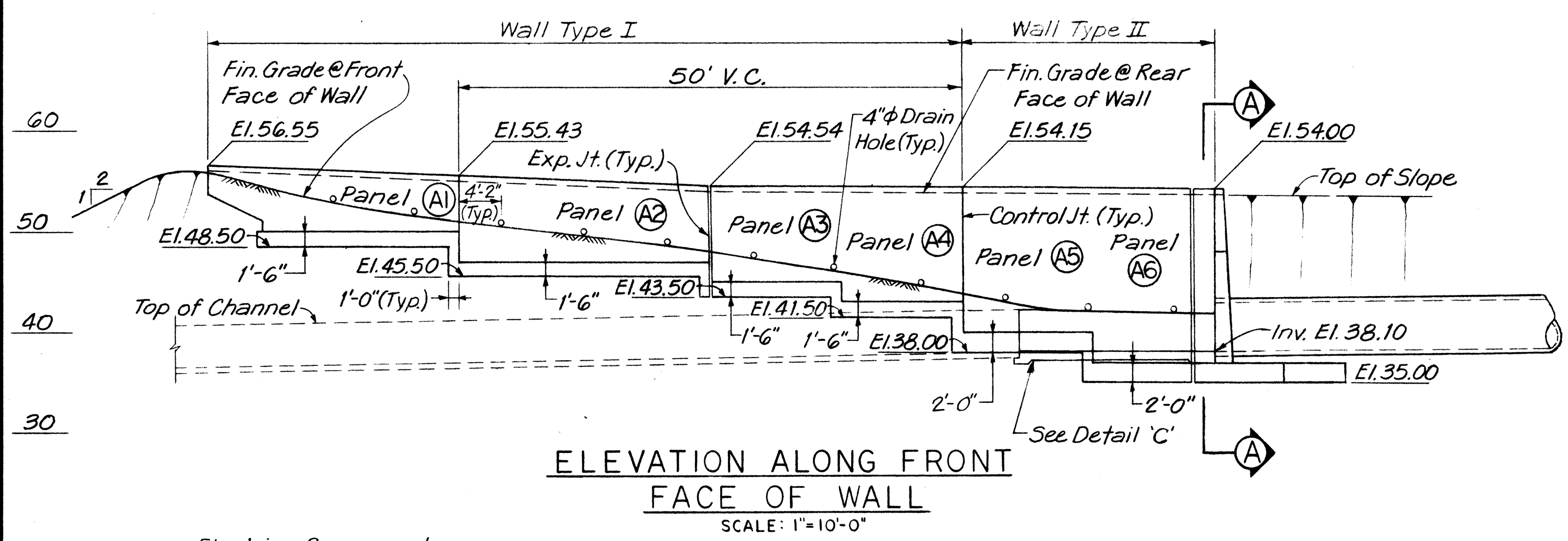


DETAIL 'C'
EXPANSION JOINT
N.T.S.

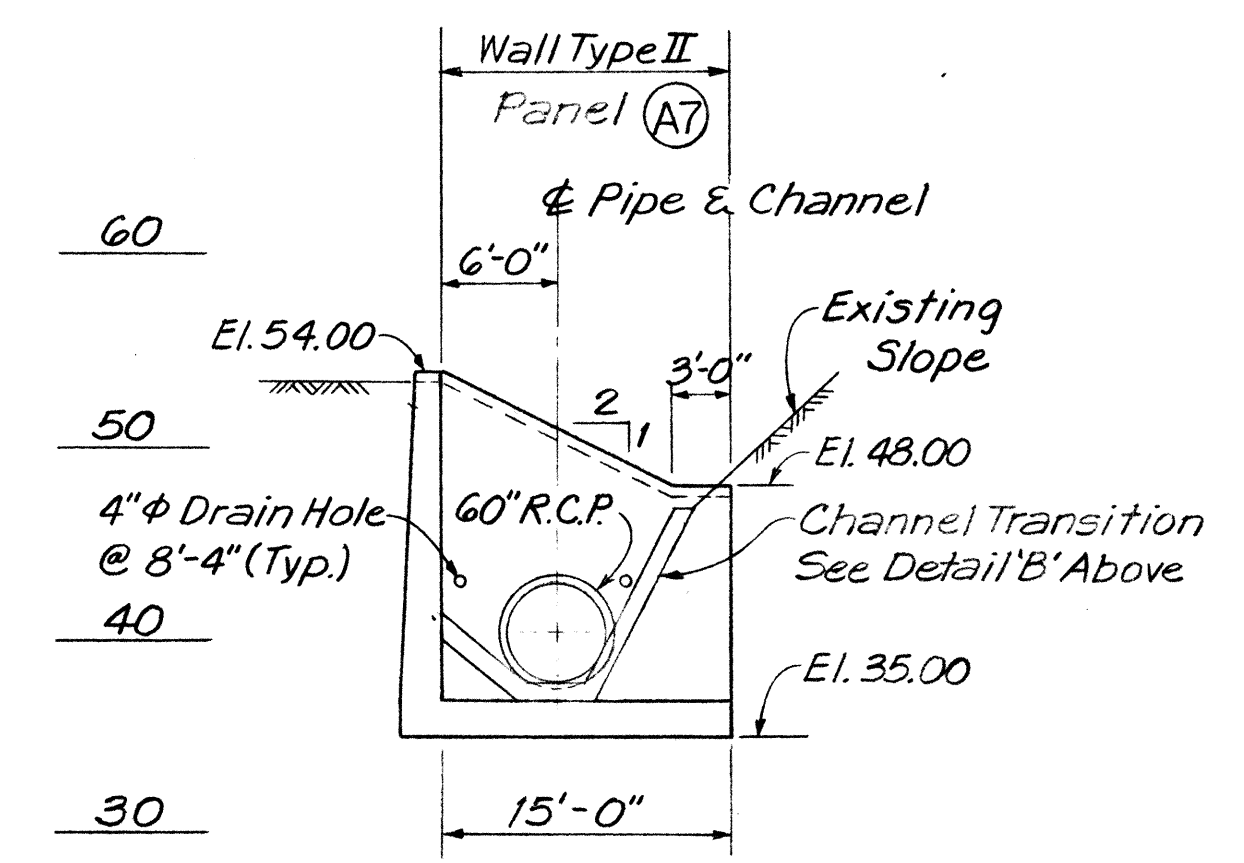


DETAIL 'B'
CHANNEL TRANSITION
CROSS SECTION AT HEADWALL
SCALE: 1"=2'-0"

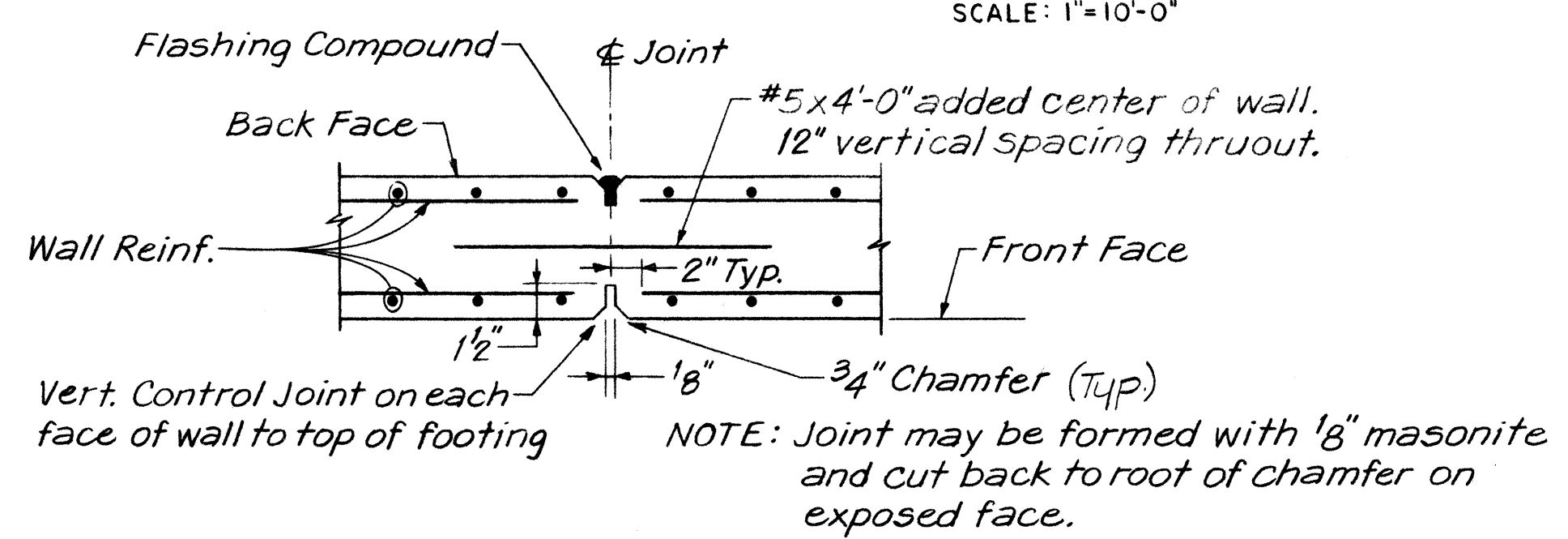
ESTIMATED QUANTITIES			
ITEM NO.	ITEM.	UNIT	QUANTITY
206.5100	Structure Excavation for Retaining Wall	Cu. Yd.	400
206.7000	Structure Backfill	Cu. Yd.	350
206.8000	Filter Material	Cu. Yd.	23
503.1051	Conc. in Retaining Wall (Except Footings)	L. S.	(51 cy)
503.1052	Conc. in Retaining Wall Footings	L. S.	(64 cy)
602.0050	Reinforcing Steel in Retaining Walls	L. S.	(9400 lbs.)
507.3600	Bikeway Railing	Lin. Ft.	117



**ELEVATION ALONG FRONT
FACE OF WALL**
SCALE: 1"=10'-0"



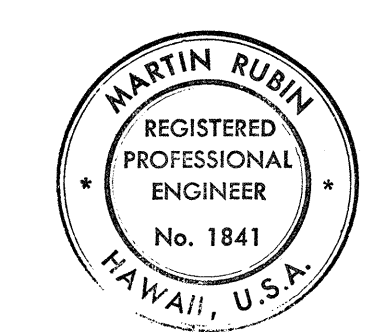
SECTION (A)
SCALE: 1"=10'-0"



CONTROL JOINT
N.T.S.

- NOTES:**
1. All Concrete shall be Class A with a minimum ultimate cylinder compressive strength of 3000 psi at 28 days. The allowable design stress: $f_c = 1200$ psi and $n = 9$.
 2. Reinforcing Steel shall be ASTM A615 Grade 40.
 3. All exposed edges of wall to be chamfered $\frac{3}{4}$ ".
 4. Stem of Wall shall be constructed to follow the curved alignment, the footing of Wall may be constructed on a series of Chords to fit the curved alignment @ max. chord length = 25 ft.

APPROVED FOR GRADING ONLY:
[Signature] 9/29/78
Chief, Division of Engineering Date



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
RETAINING WALL "A" DETAILS
FORT WEAVER ROAD
ROUTE H-1 TO SOUTH OF
FARRINGTON HIGHWAY
SCALE: AS SHOWN DATE:
SHEET NO. 7 OF 8 SHEETS

