

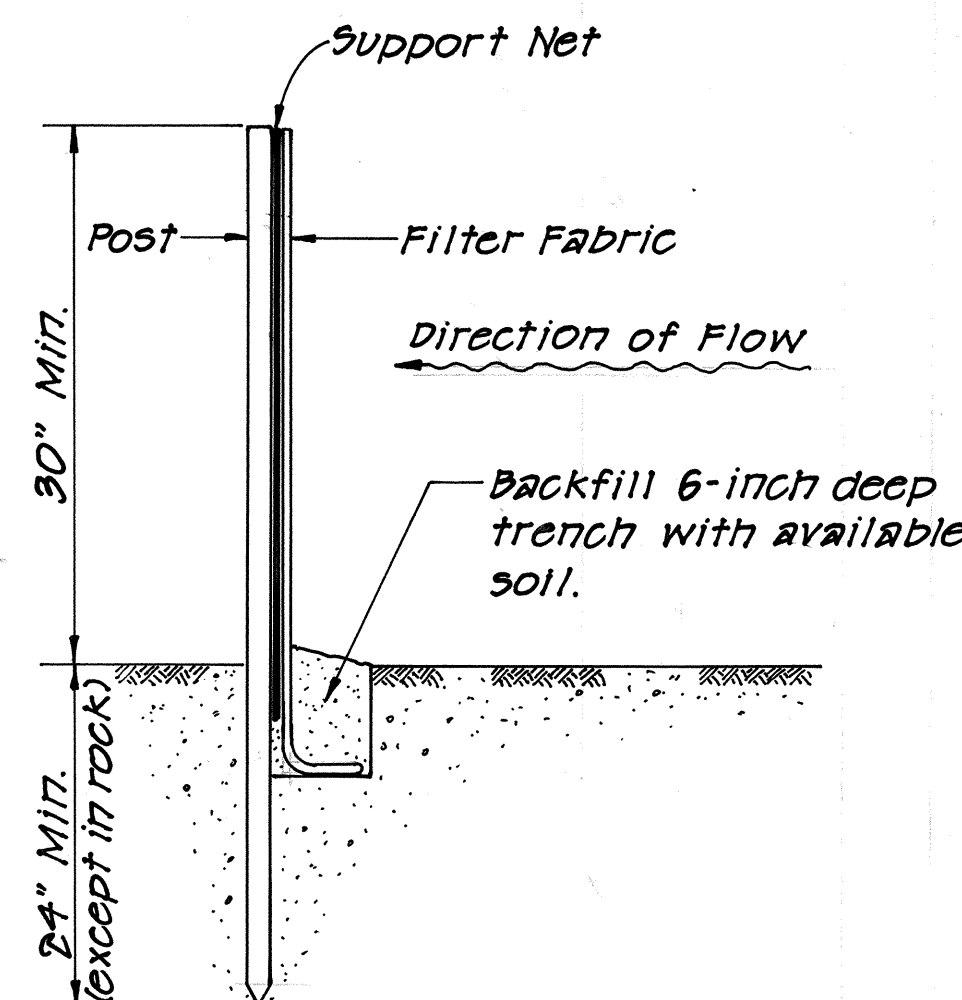
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

GRADING NOTES

- ALL GRADING WORK SHALL BE DONE IN ACCORDANCE WITH CHAPTER 23, GRADING, SOIL EROSION AND SEDIMENT CONTROL, OF THE REVISED ORDINANCES OF HONOLULU, 1978 AS AMENDED (ORDINANCE NO. 81-13), AND THE SOILS REPORT BY ERNEST HIRATA AND ASSOCIATES, INC. DATED JULY 23, 1984.
- THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS AND OTHER AREAS. THE COSTS INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE CHIEF ENGINEER, DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU SHALL BE PAYABLE BY THE CONTRACTOR.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCES. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND 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 TOPSOILED, GRASSED AND COVERED WITH EROSION MAT AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA, WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED, SHALL BE PLANTED.
- 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.
- TEMPORARY EROSION CONTROLS SHALL NOT BE REMOVED BEFORE PERMANENT EROSION CONTROLS ARE IN-PLACE AND ESTABLISHED.
- 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 WILL BE SUBMITTED BY THE STATE OF HAWAII, D.O.T., HIGHWAYS DIVISION FOR APPROVAL PRIOR TO APPLICATION FOR A GRADING PERMIT.
- THE BENCH MARK FOR THIS PROJECT WILL BE FURNISHED AND ESTABLISHED BY THE STATE DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION.
- THE CONTRACTOR, AT HIS EXPENSE, SHALL FLAG LIMITS OF GRADING BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMANCE TO CHAPTER 37 AND 37A OF PUBLIC HEALTH REGULATIONS, STATE DEPARTMENT OF HEALTH.
- ALL TOP AND BOTTOM OF SLOPES AND CHANGES IN PROFILE OF THE FINISHED GRADING WORK SHALL BE SMOOTHLY GRADED AND ROUNDED WITH A MINIMUM RADIUS OF 10 FEET.
- THE STATE OF HAWAII, D.O.T., HIGHWAYS DIVISION WILL OBTAIN A GRADING PERMIT PRIOR TO THE COMMENCEMENT OF GRADING WORK.

TEMPORARY EROSION
CONTROL PROCEDURES

- FOLLOW SEQUENCE OF OPERATION AS RECOMMENDED ON PAGES 26 OF THE "SOIL EROSION STANDARDS AND GUIDELINES". CITY & COUNTY OF HONOLULU, NOVEMBER 1975.
- THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF LAND TO BE EXPOSED AT ANY ONE TIME.
- THE GRADING OPERATIONS SHALL PROCEED FROM THE HIGHER GROUND AREA FIRST, WHERE EXCAVATION OPERATIONS ARE NECESSARY. THE VEGETATION ON THE LOWER AREA SHALL BE LEFT IN PLACE AS LONG AS FEASIBLE TO SERVE AS A FILTERING MEDIUM.
- IF THE EXCAVATED MATERIAL FROM THE HIGHER AREA IS NEEDED TO FILL THE LOWER AREAS DESCRIBED IN NO. 2 ABOVE, FILLING OPERATIONS SHALL BE DONE IN PHASES IN ORDER THAT EROSION AND SEDIMENTATION PROBLEMS CAN BE HELD TO A MINIMUM.
- HYDROMULCH SEEDING FOR PERMANENT GRASSING SHALL BE DONE IMMEDIATELY AFTER FINAL GRADES ARE ESTABLISHED.
- GRADED AREAS THAT ARE NOT AT FINAL GRADE AND ARE EXPECTED TO BE EXPOSED FOR MORE THAN 15 DAYS, SHALL BE MULCHED (AT THE RATE OF 45 POUNDS PER 1000 SQUARE FEET) IN ORDER TO PREVENT EROSION AND SILT RUNOFF.
- WHEN INSTALLING THE DRAINAGE SYSTEM FOR THE PROJECT, FILTERING MATERIAL (JUTE STRIPS OR EQUAL) AT THE INLETS TO THE SYSTEM SHALL BE PROVIDED TO PREVENT SILT FROM ENTERING THE SYSTEM.
- THE ABOVE PROCEDURE FOR EROSION AND SEDIMENT CONTROL MAY BE REVISED BY THE CONTRACTOR TO CONFORM TO HIS GRADING OPERATION PROCEDURE. BUT ANY REVISION TO THE ABOVE SHALL BE SUBMITTED TO THE CHIEF ENGINEER, DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU FOR APPROVAL, BY THE CONTRACTOR.



SILT FENCE DETAIL
N.T.S.

* Some manufacturers only supply silt fence with wooden posts. Precautions shall be taken to avoid damage from driving into hard ground or termite. to be installed as directed.

NOTES:

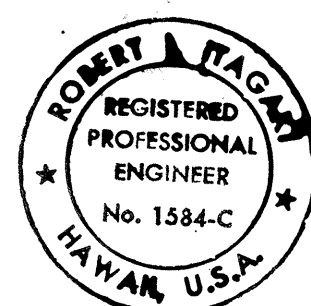
- Filter fabric shall be of the type specified and installed in combination with a support net of polyester netting or approved equal. The filter fabric shall be a minimum of 36 inches wide and the support net a minimum of 30 inches.
- If Silt Fence is obtained from manufacturer as a package (ie. fabric attached to posts) the manufacturer's installation instructions shall be adhered to.
- Posts shall be metal * wherever possible. Cross section of post will be substantial enough to support a loaded silt fence without bending. Post spacing shall be 4' to 8' depending on post size.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(53)	1988	12	124

ESTIMATED IN-PLACE EARTHWORK QUANTITIES

ROADWAY EXCAVATION	=	264,800	CU. YDS.
TUNNEL EXCAVATION	=	180,400	CU. YDS.
TOTAL EXCAVATION	=	445,200	CU. YDS.
ROADWAY EMBANKMENT	=	181,200	CU. YDS.
TUNNEL EMBANKMENT	=	129,300	CU. YDS.
TOTAL EMBANKMENT	=	310,500	CU. YDS.
AREA OF GRADING	=	16.5	ACRES

- THE EARTHWORK QUANTITIES ABOVE ARE APPROXIMATE AND ARE SHOWN FOR PERMIT PURPOSES ONLY. THE CONTRACTOR SHALL MAKE HIS OWN DETERMINATIONS AND VERIFY THESE FIGURES.
- THE ABOVE QUANTITIES ARE COMPUTED TO FINISH GRADE AS SHOWN ON THE GRADING PLAN, AND HAVE BEEN ADJUSTED FOR BASE COURSE, CONCRETE PAVEMENT AND UNDERDRAINS. NO CORRECTIONS HAVE BEEN MADE FOR TOPSOIL, IF REQUIRED.
- THESE FIGURES DO NOT INCLUDE QUANTITIES FOR THE RELOCATED HAIKU ACCESS ROAD.



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

Robert J. Hargis

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING AND
EROSION CONTROL NOTES

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(53)

SCALE: AS NOTED DATE: AUG., 1988

SHEET No. 1 OF 5 SHEETS

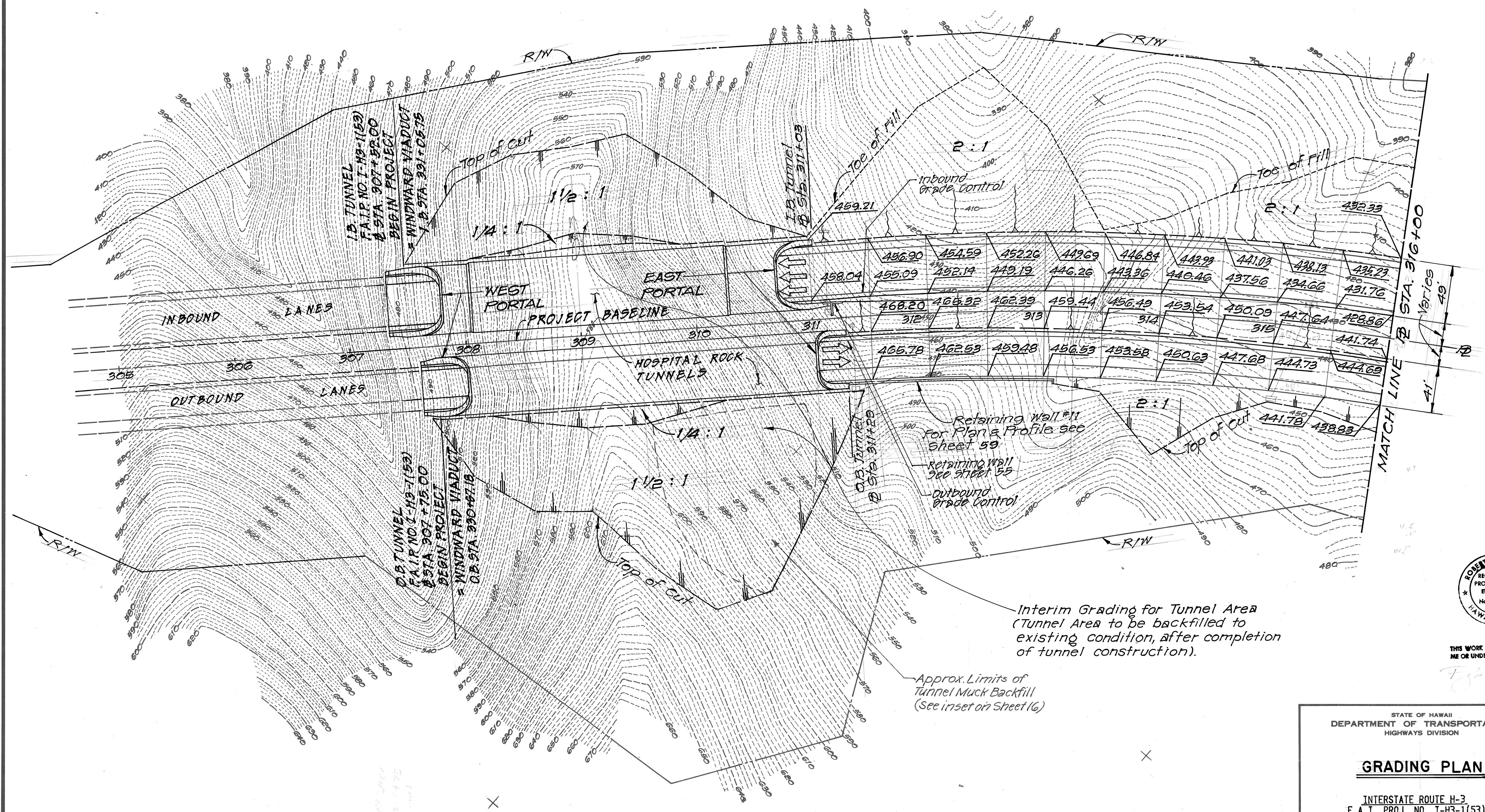
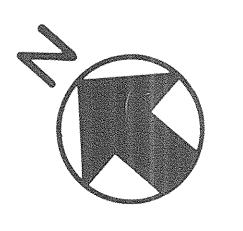
10/31/88 Added Silt Fence Detail & Title
DATE REVISION

ADD. 12

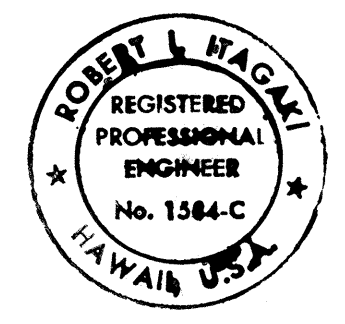
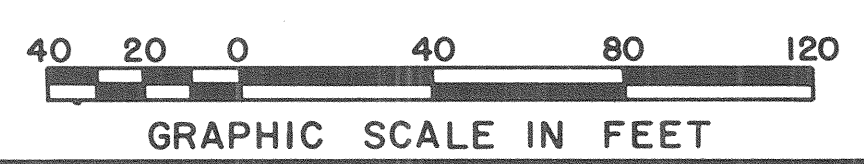
NOTES:

- 1. Elevations noted (Sta 311+00 to Sta 329+50) are radially projected along Project Baseline Stations. (Left & Right)
- 2. See Typical Roadway Sections, sheet 3 for Elevation Point Locations.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(53)	1988	13	124



SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

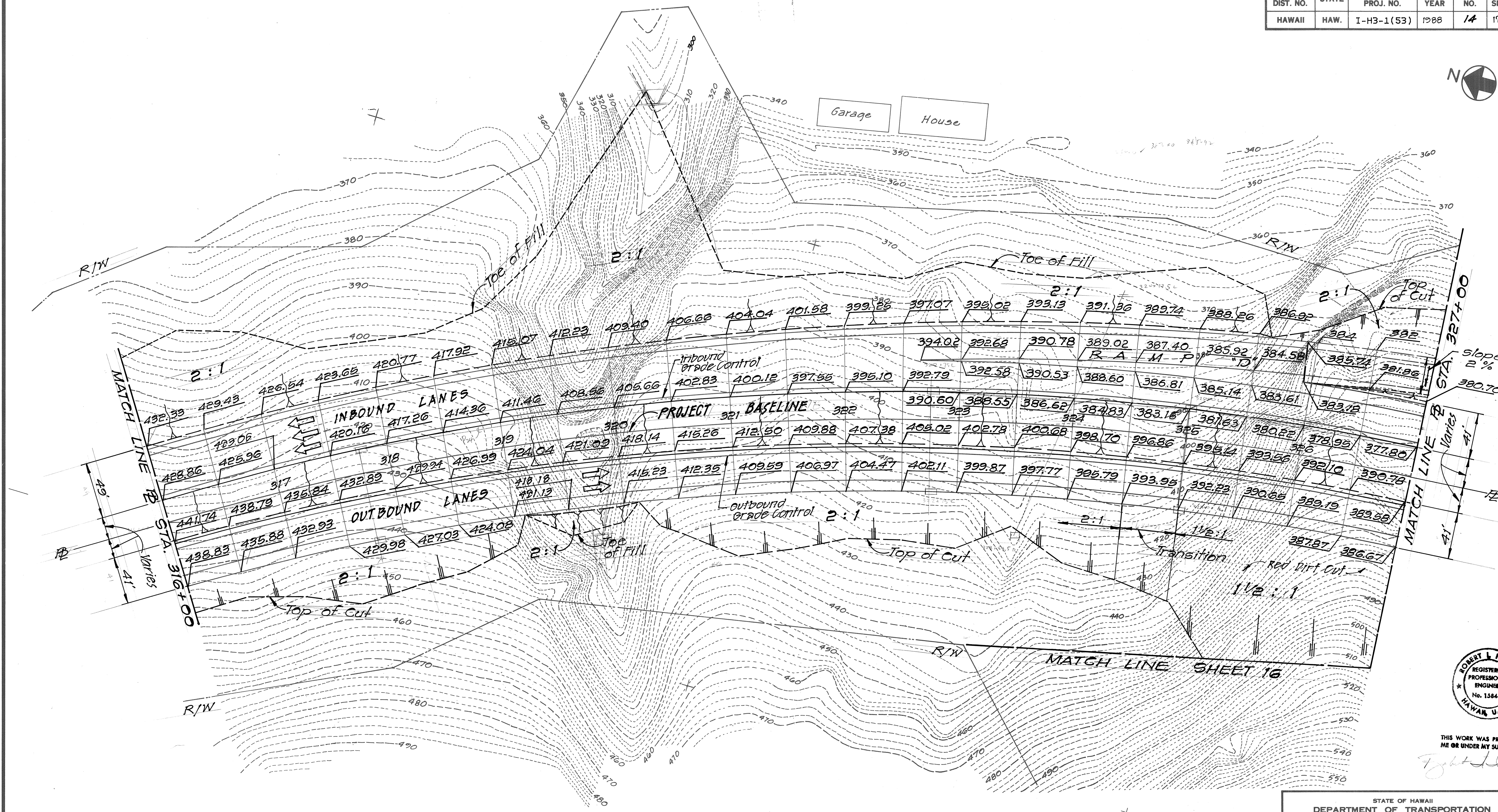
GRADING PLAN

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(53)

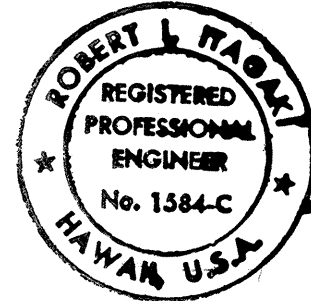
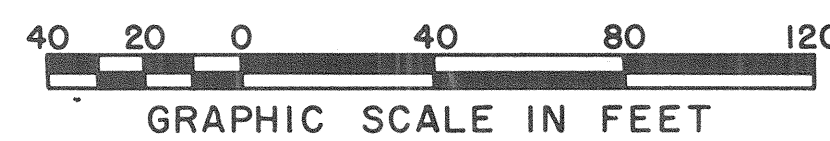
SCALE: AS NOTED DATE: AUG., 1988

SHEET No. 2 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(53)	1988	14	124



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



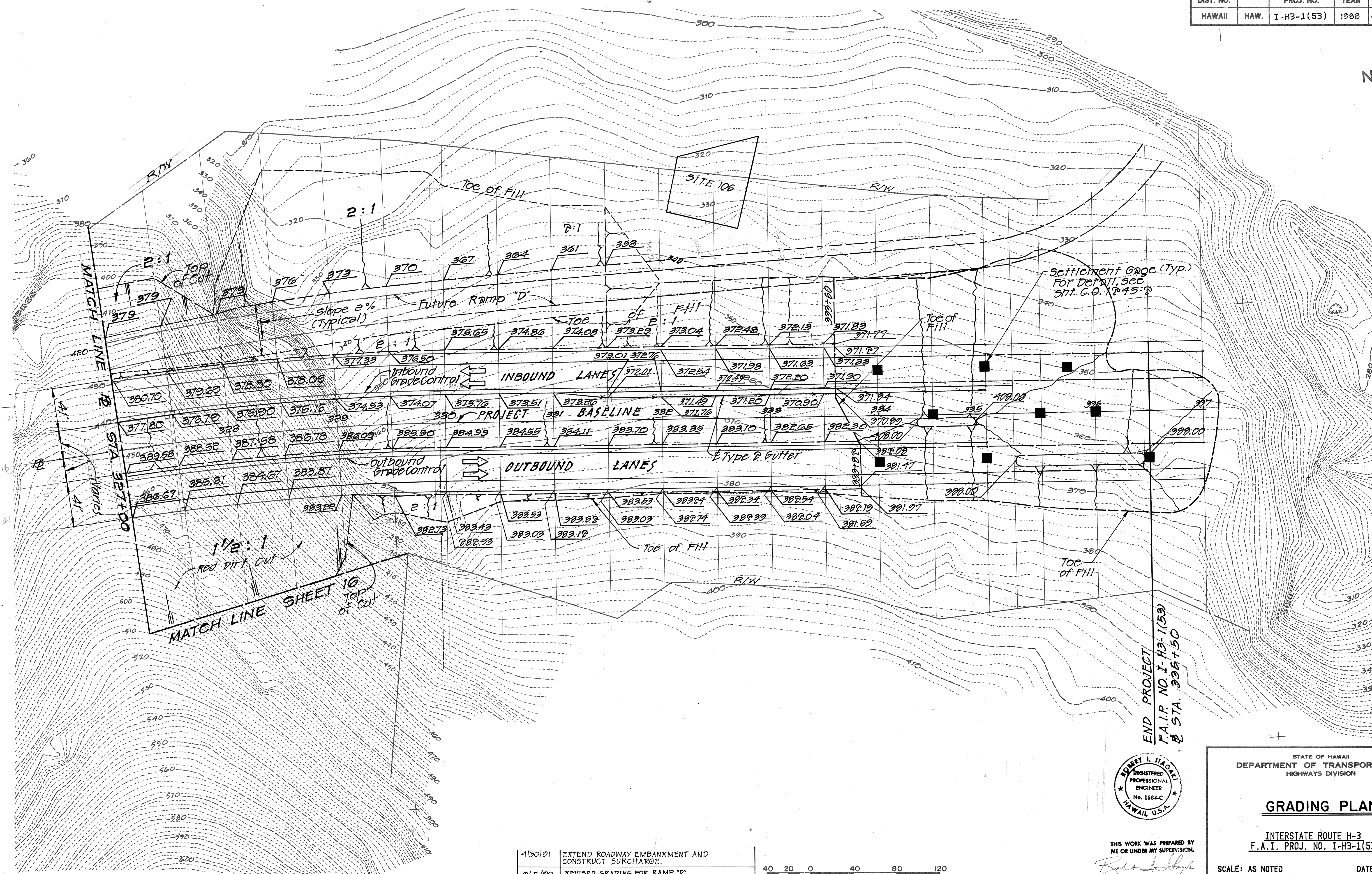
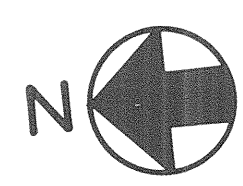
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Robert L. Rasmussen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(53)

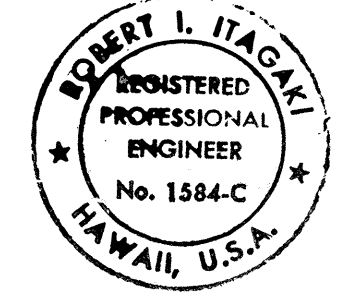
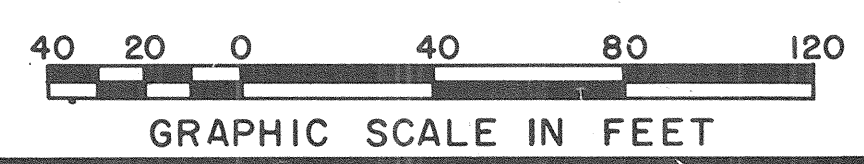
SCALE: AS NOTED
DATE: AUG., 1988
SHEET No. 3 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(53)	1988	C.O.15	124



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

4/30/91	EXTEND ROADWAY EMBANKMENT AND CONSTRUCT SURCHARGE.
9/5/90	REVISED GRADING FOR RAMP "D"
DATE	REVISION



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Robert L. Hagani

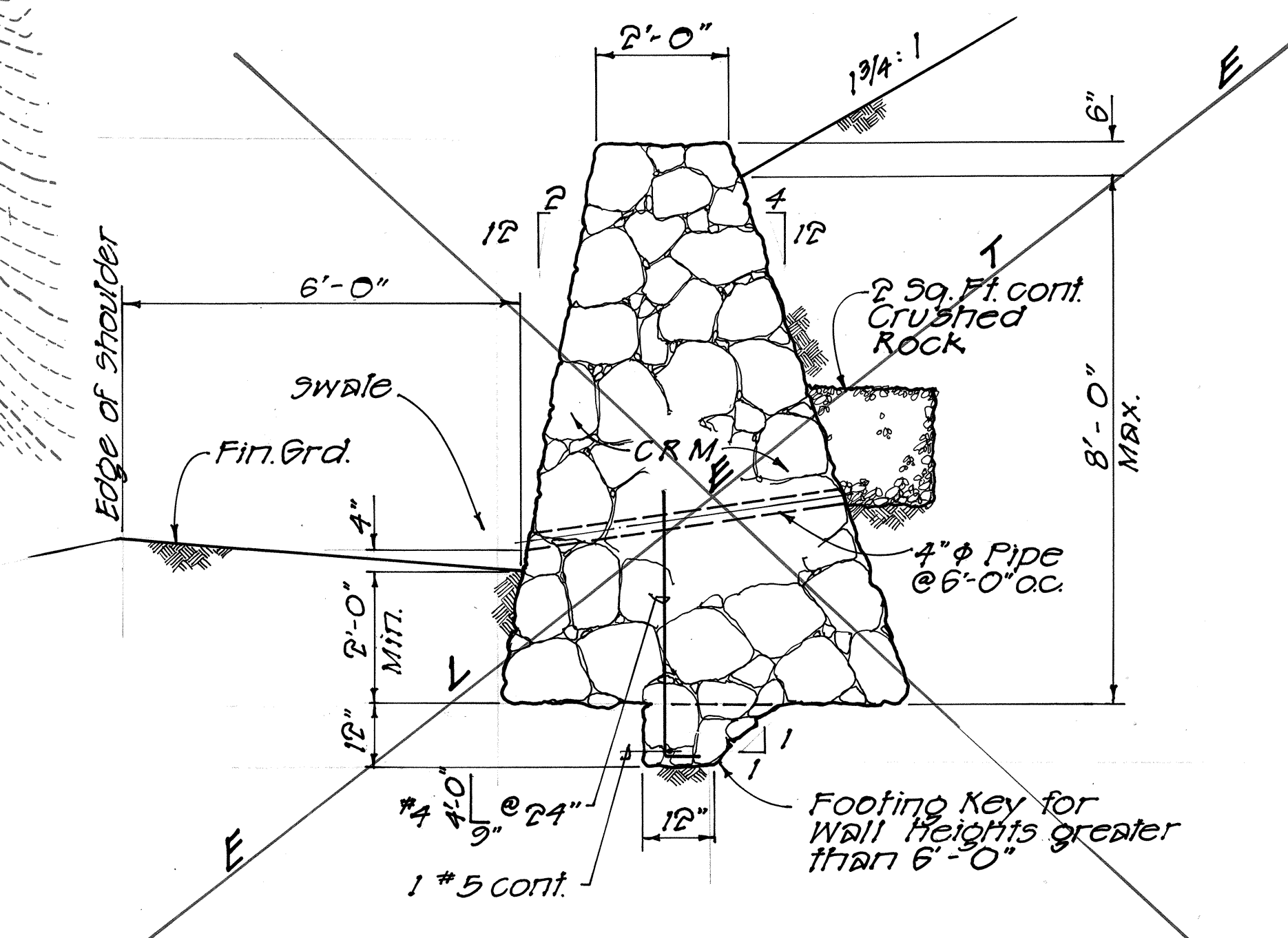
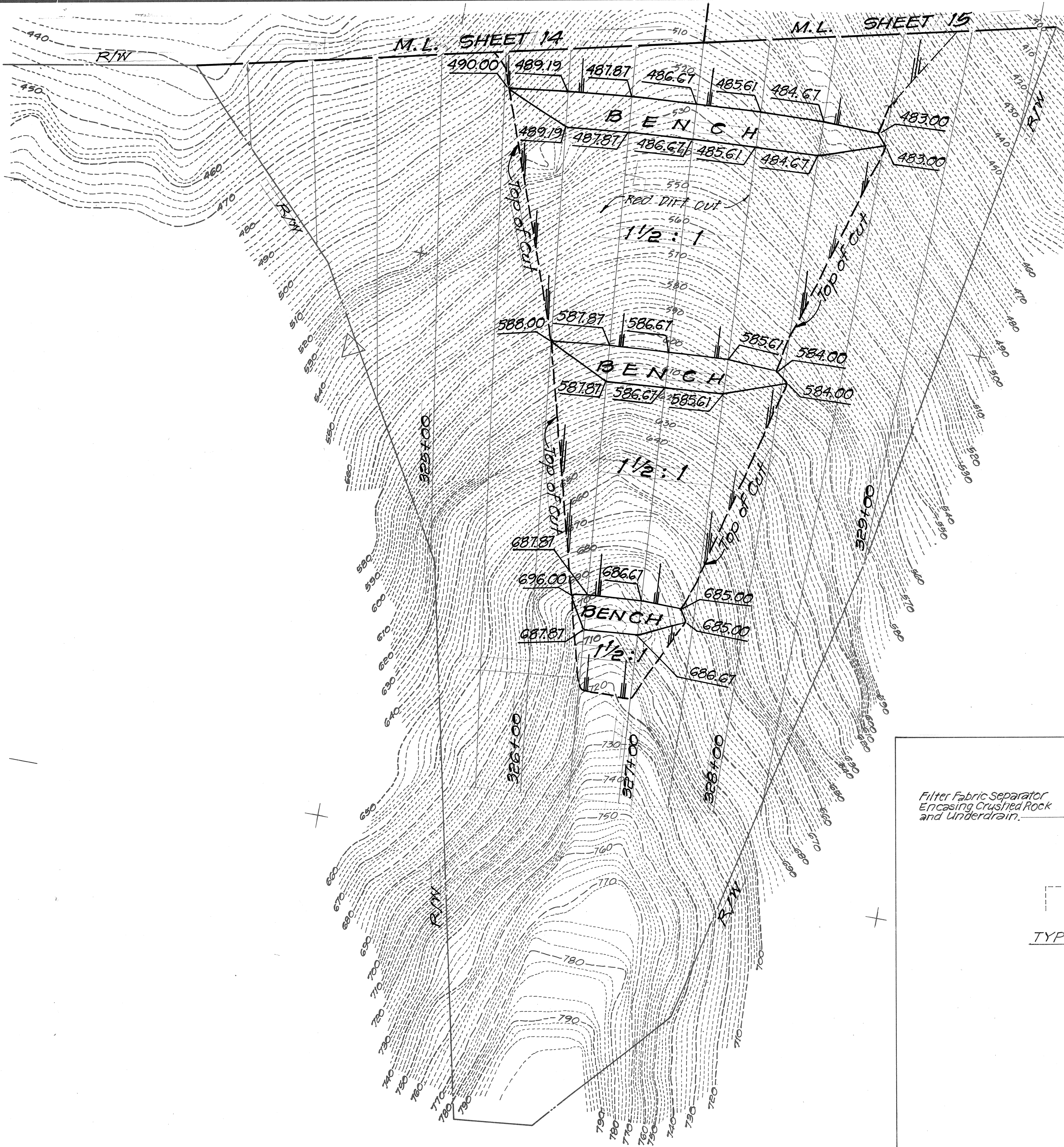
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GRADING PLAN
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(53)

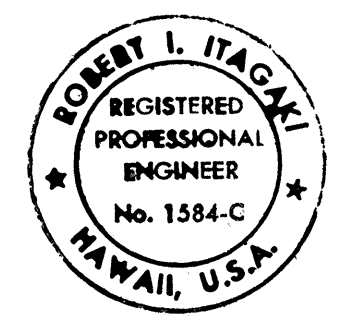
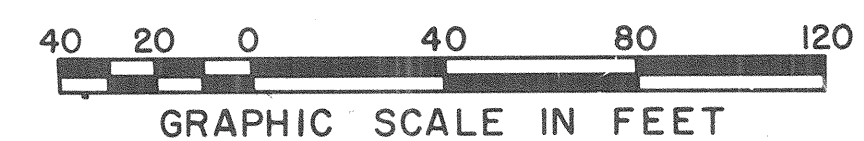
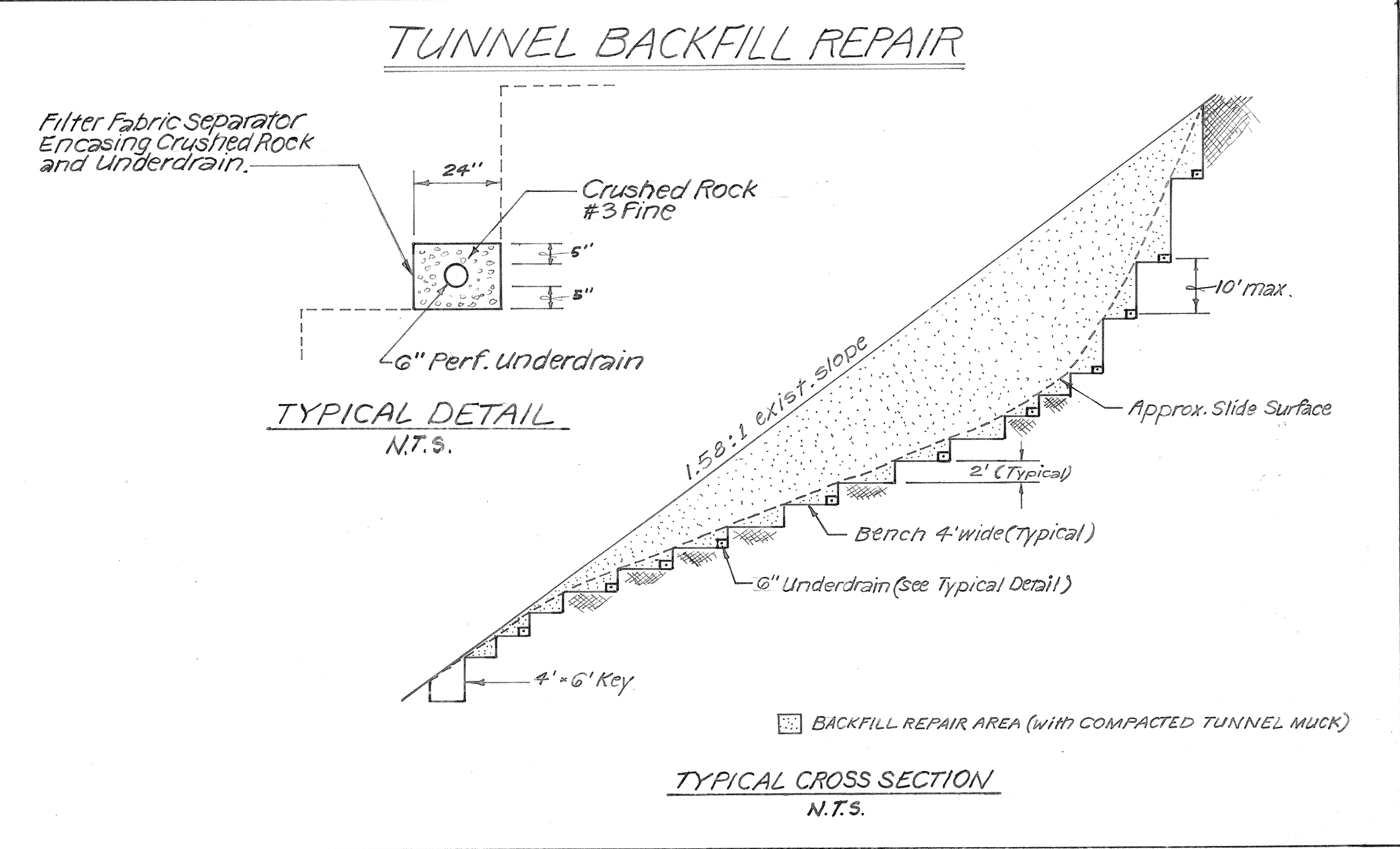
SCALE: AS NOTED
DATE: AUG., 1988
SHEET No. 4 OF 5 SHEETS

C.O.15

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(53)	1988	16	124



CRM RETAINING WALL ALONG RAMP "D"
 (± STA. 334+40 TO ± STA. 336+00)
 Scale: 1/8" = 1'-0"



THIS WORK WAS PREPARED BY
 ME OR UNDER MY SUPERVISION.
Robert L. Itagaki

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

**GRADING PLAN
 & DETAILS**
 INTERSTATE ROUTE H-3
 F.A.I. PROJ. NO. I-H3-1(53)

SCALE: AS NOTED DATE: AUG., 1988
SHEET NO. 5 OF 5 SHEETS

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