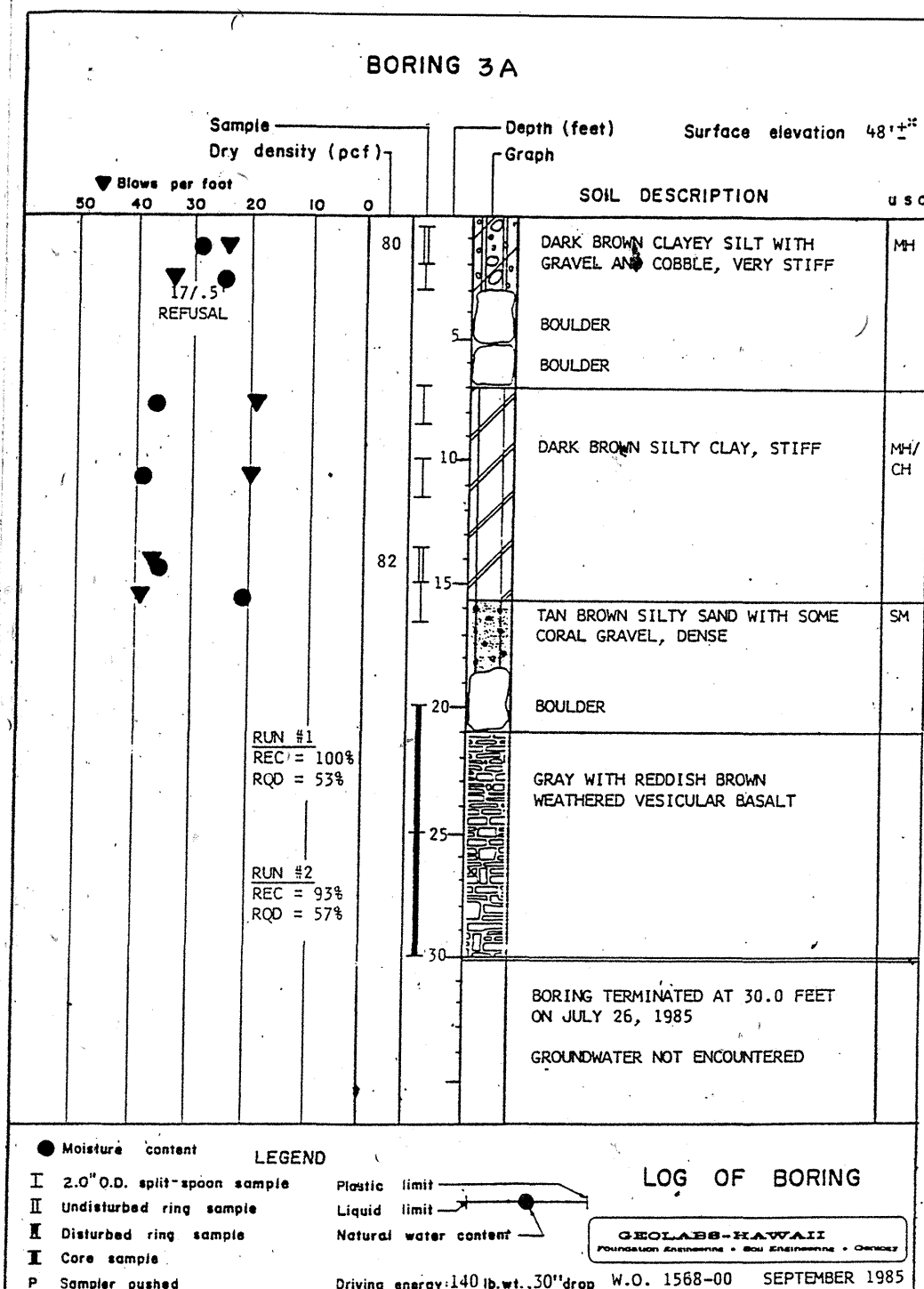
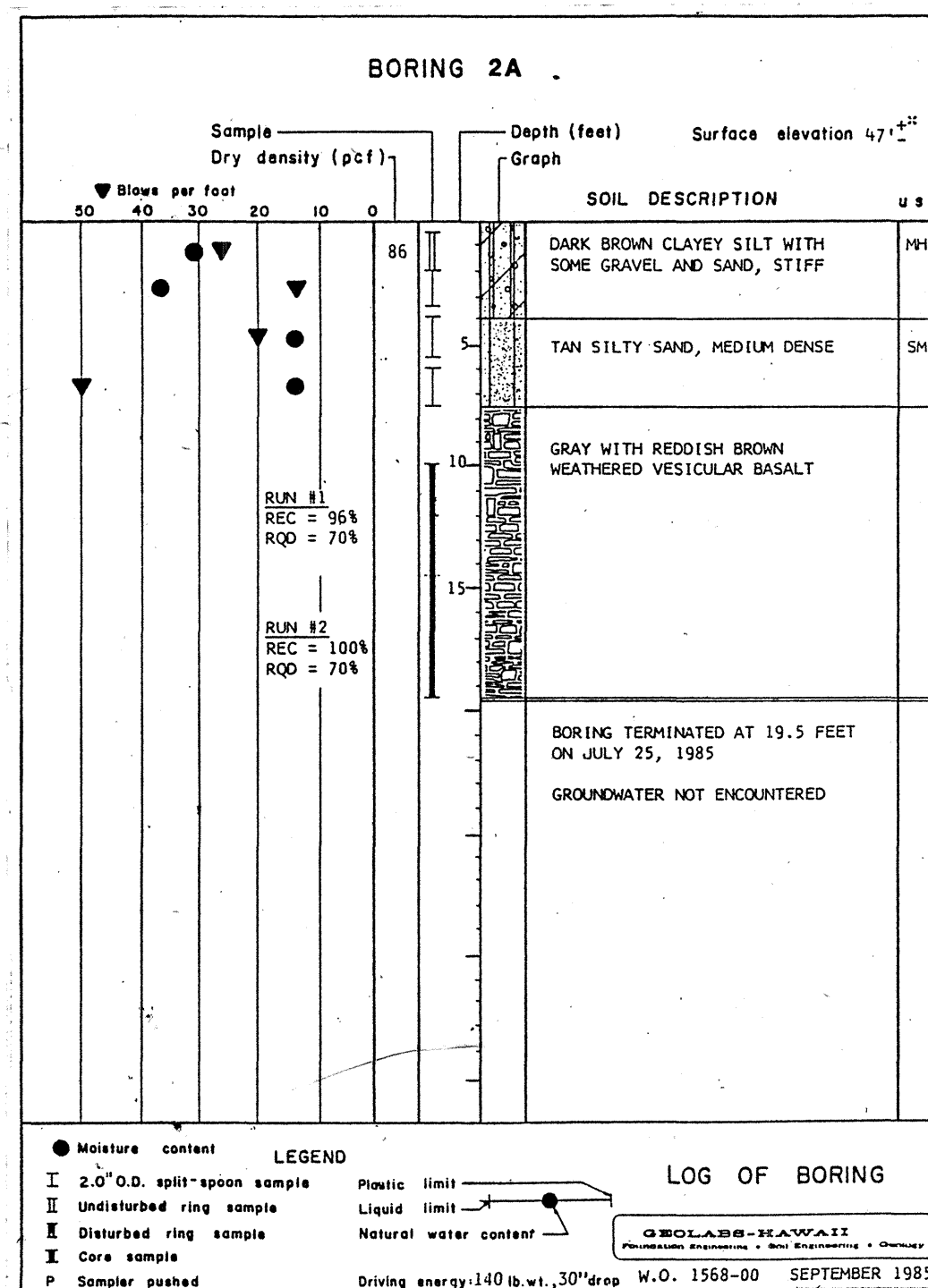
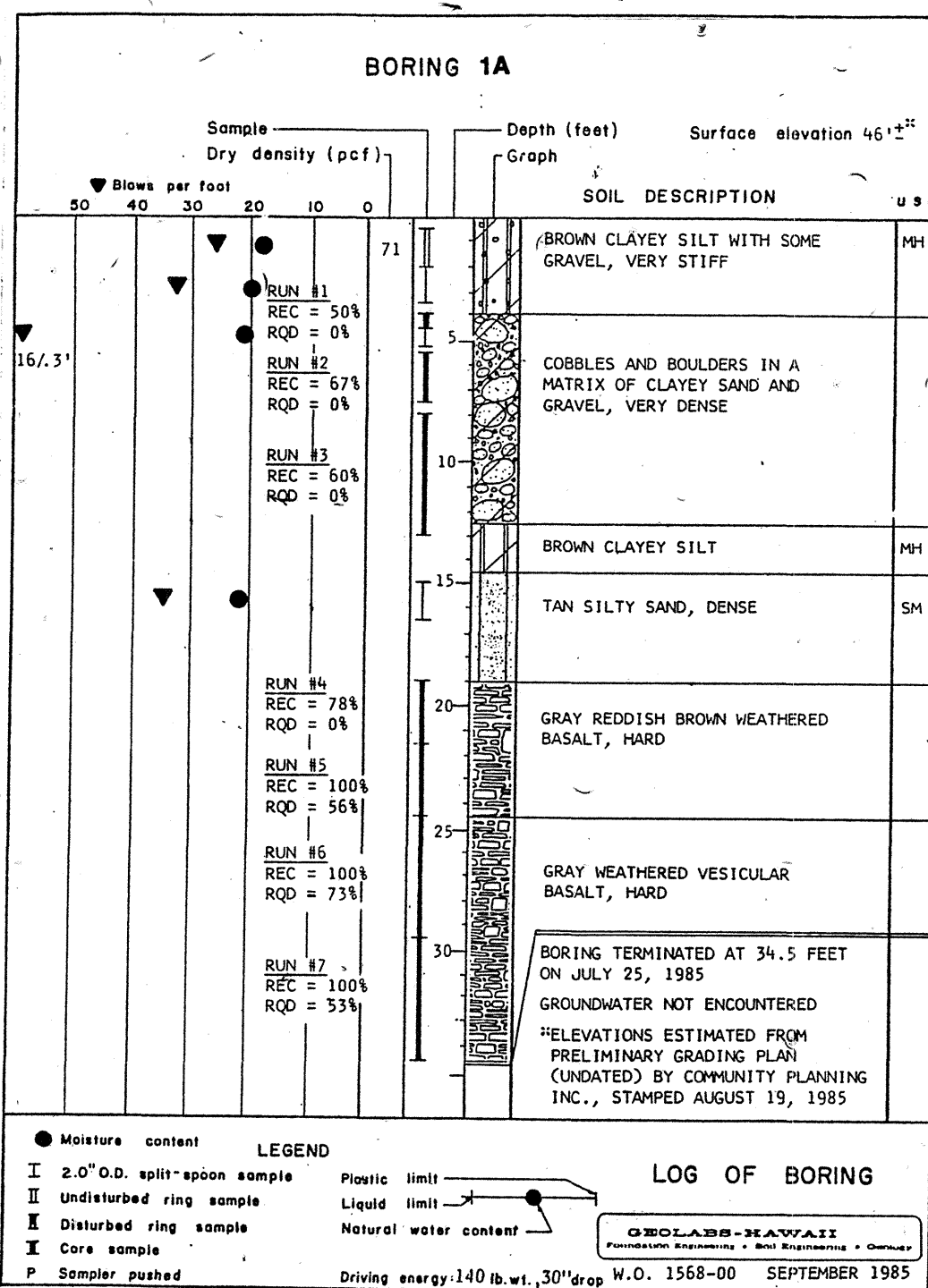


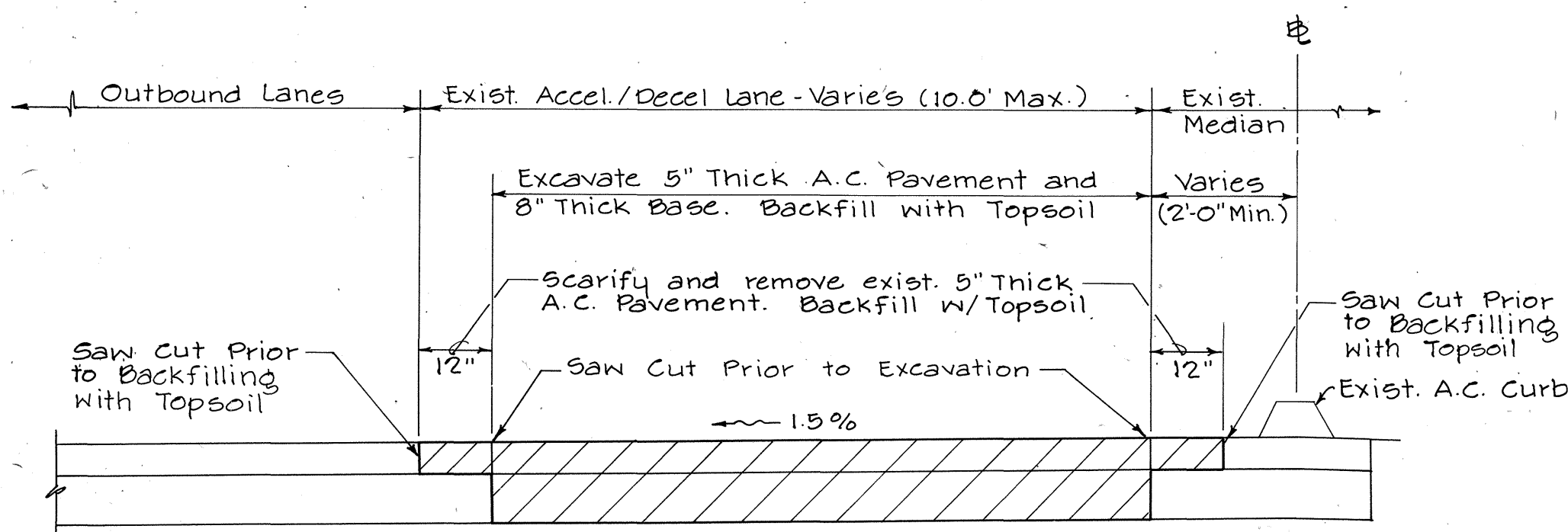
NOTE:

Boring Logs are presented for general subsurface information only and does not represent the total project subsurface conditions either expressed or implied. Unanticipated soil conditions are commonly encountered and cannot be fully determined by borings and soil samples. For detailed information see "Soil Engineering Investigation Proposed Interchange at Farrington Highway" by Geolabs-Hawaii, dated May 14, 1986.



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. 8Y-13) AND SOIL REPORT BY GEOLABS-HAWAII, INC., DATED MAY 14, 1986 AND SUPPLEMENTED BY LETTER DATED AUG. 11, 1987.
- 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 SHALL BE PAYABLE BY THE CONTRACTOR.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE. 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 SODDED OR PLANTED 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.
- THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
- 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 CHAPTER 54, WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL, OF TITLE 11, ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH.
- TEMPORARY EROSION CONTROL PROCEDURES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO APPLICATION FOR A GRADING PERMIT.

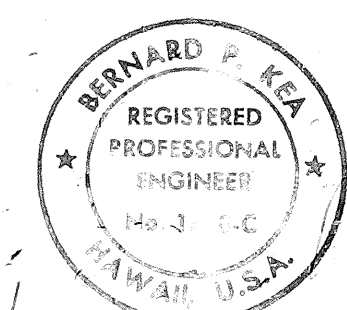


LEGEND

- sp 0-0-0 Exist. Electric Pole w/Guy Wire
- fh 0-0-0 Exist. Fire Hydrant
- 0-0-0 Exist. Fence
- 0-0-0 Exist. Guard Rail
- 0-0-0 Exist. Contour
- 0-0-0 Finished Contour
- 0-0-0 Right-of-Way Line
- 0-0-0 Baseline
- 0-0-0 Exist. Drainage Flow Direction
- 0-0-0 Boring Location

EARTHWORK SUMMARY

Excavation = 213,800 cu. yds.
 Embankment = 4,200 cu. yds.
 Area to be Graded = 7.3 Acres



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

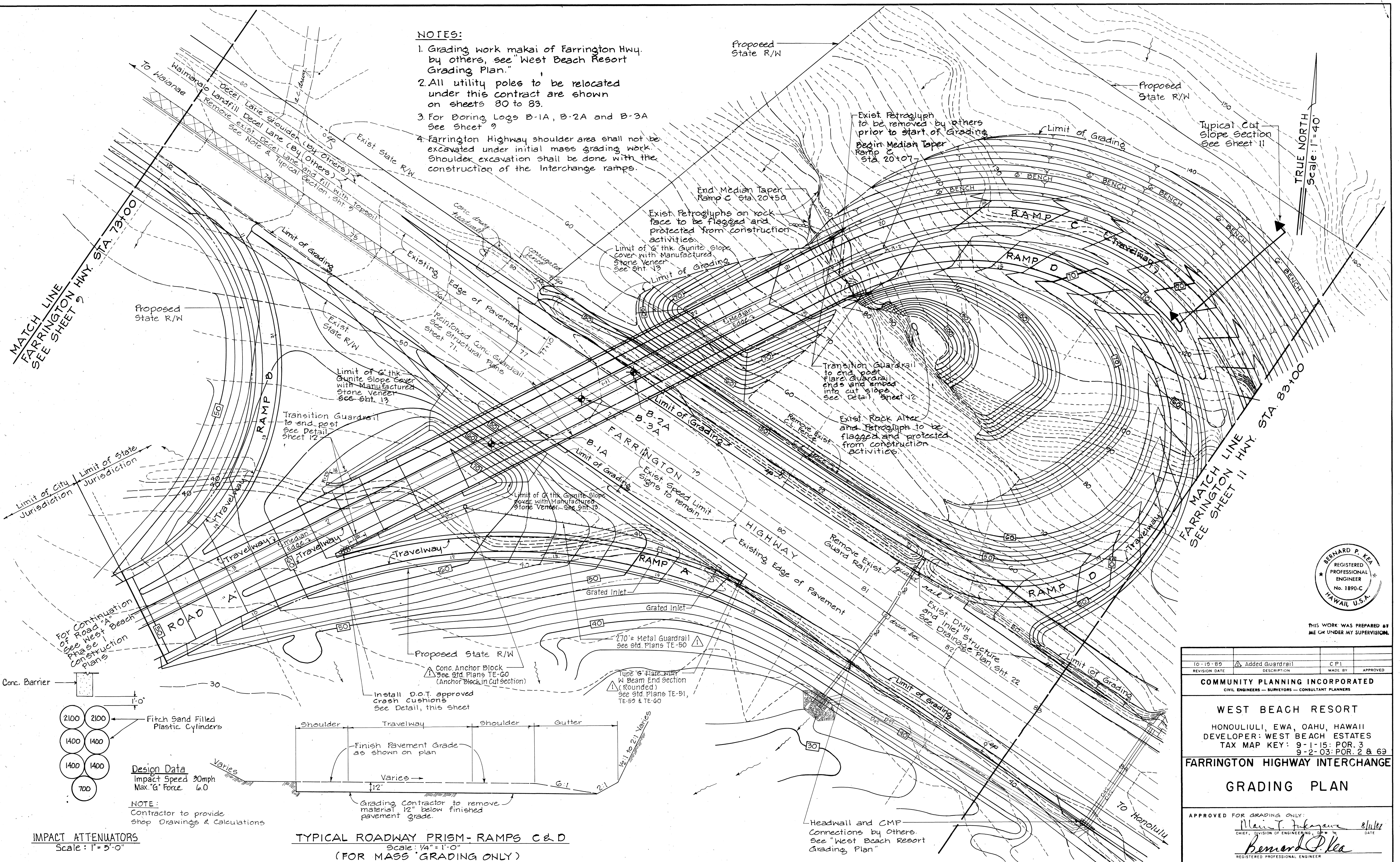
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COMMUNITY PLANNING INCORPORATED CIVIL ENGINEERS — SURVEYORS — CONSULTANT PLANNERS			
WEST BEACH RESORT HONOLULU, EWA, OAHU, HAWAII DEVELOPER: WEST BEACH ESTATES TAX MAP KEY: 9-1-15: POR 3 9-2-03: POR 2 & 69			
FARRINGTON HIGHWAY INTERCHANGE			
GRADING PLAN			
APPROVED FOR GRADING ONLY: Main T. Fukunaga CHIEF, DIVISION OF ENGINEERING (DOWH) DATE: 8/11/87 Bernard P. Kela REGISTERED PROFESSIONAL ENGINEER			
FILE	POCKET	FOLDER	NO.

RECORD PLATINGS

SHEET 2 OF 22 SHEETS

NOTES:

1. Grading work makai of Farrington Hwy. by others, see "West Beach Resort Grading Plan."
2. All utility poles to be relocated under this contract are shown on sheets 80 to 83.
3. For Boring Logs B-1A, B-2A and B-3A See Sheet 9
4. Farrington Highway shoulder area shall not be excavated under initial mass grading work. Shoulder excavation shall be done with the construction of the interchange ramps.



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10-19-89	Added Guardrail	CPI	MADE BY	APPROVED
REVISION DATE DESCRIPTION				
COMMUNITY PLANNING INCORPORATED				
CIVIL ENGINEERS - SURVEYORS - CONSULTANT PLANNERS				
WEST BEACH RESORT				
HONOLULU, EWA, OAHU, HAWAII				
DEVELOPER: WEST BEACH ESTATES				
TAX MAP KEY: 9-1-15: POR. 3				
9-2-03: POR. 2 & 63				
FARRINGTON HIGHWAY INTERCHANGE				
GRADING PLAN				
APPROVED FOR GRADING ONLY:				
Main T. Fukunaga				8/11/87
CHIEF, DIVISION OF ENGINEERING, DOW IN				DATE
Bernard P. Kua				
REGISTERED PROFESSIONAL ENGINEER				
FILE	POCKET	FOLDER	NO.	

RECORD DRAWINGS

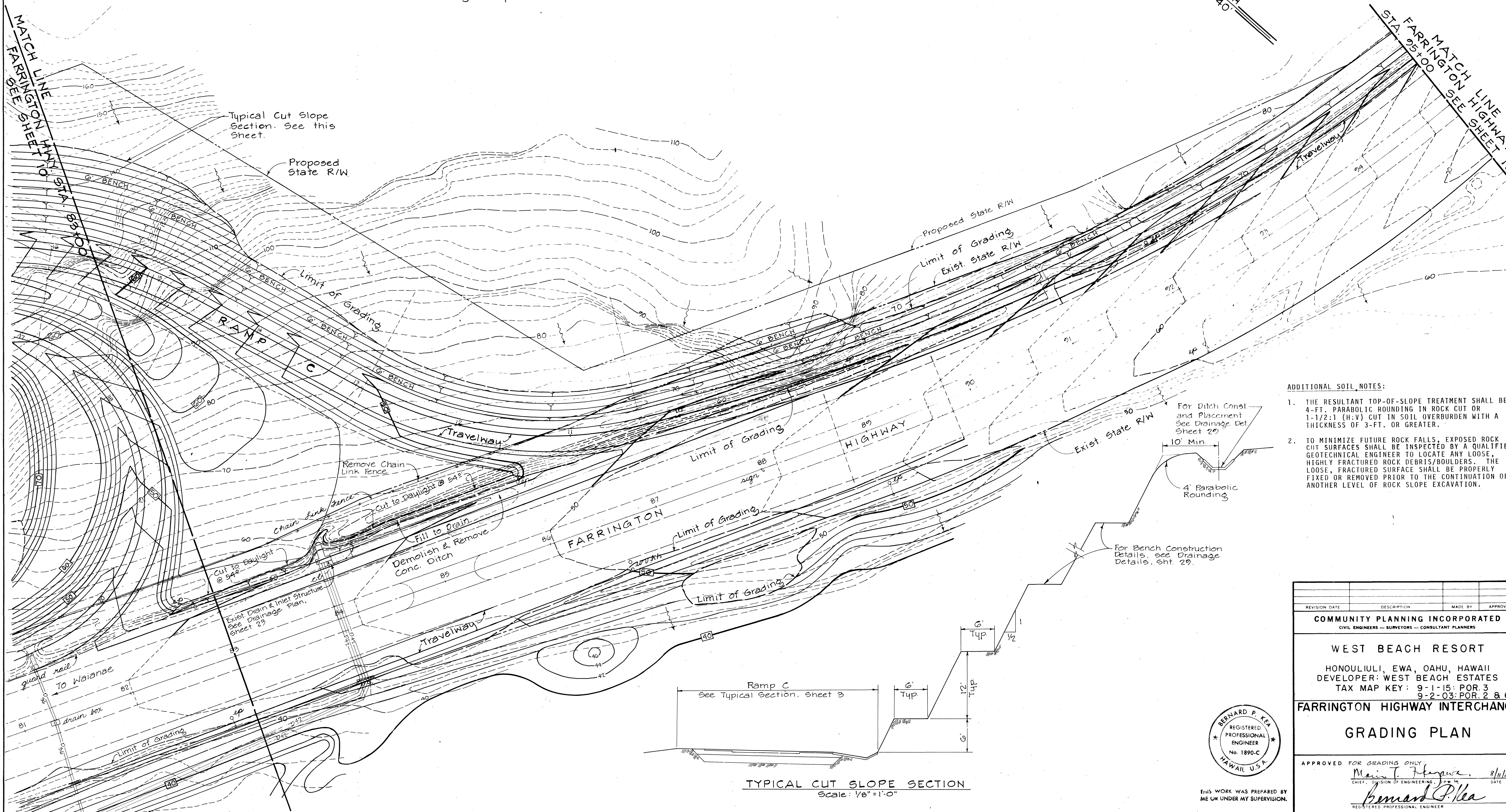
SHEET 10 OF 20 SHEETS

1. Grading work makai of Farrington Hwy. by Others, see "West Beach Resort Grading Plan."
2. All utility poles to be relocated under this contract are shown on sheets 80 to 83.
3. Farrington Highway shoulder area shall not be excavated under initial mass grading work. Shoulder excavation shall be done with the construction of the Interchange ramps.

TRUE NORTH
Scale: 1" = 40'

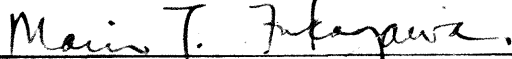
STA 95+00 MATCH LINE
FARRINGTON SEE HIGHWAY
SHEET 15

MATCH LINE
FARRINGTON SHEET 10
SEE



ADDITIONAL SOIL NOTES:

1. THE RESULTANT TOP-OF-SLOPE TREATMENT SHALL BE 4-FT. PARABOLIC ROUNDING IN ROCK CUT OR 1-1/2:1 (H:V) CUT IN SOIL OVERBURDEN WITH A THICKNESS OF 3-FT. OR GREATER.
2. TO MINIMIZE FUTURE ROCK FALLS, EXPOSED ROCK CUT SURFACES SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER TO LOCATE ANY LOOSE, HIGHLY FRACTURED ROCK DEBRIS/BOULDERS. THE LOOSE, FRACTURED SURFACE SHALL BE PROPERLY FIXED OR REMOVED PRIOR TO THE CONTINUATION OF ANOTHER LEVEL OF ROCK SLOPE EXCAVATION.

REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED CIVIL ENGINEERS — SURVEYORS — CONSULTANT PLANNERS			
WEST BEACH RESORT HONOLULU, EWA, OAHU, HAWAII DEVELOPER: WEST BEACH ESTATES TAX MAP KEY: 9-1-15: POR. 3 9-2-03: POR. 2 & 63			
FARRINGTON HIGHWAY INTERCHANGE			
GRADING PLAN			
APPROVED FOR GRADING ONLY:  8/11/87 CHIEF, DIVISION OF ENGINEERING, D.P.W. HI DATE  REGISTERED PROFESSIONAL ENGINEER			

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ME OR UNDER MY SUPERVISION

RECORDS SECTION

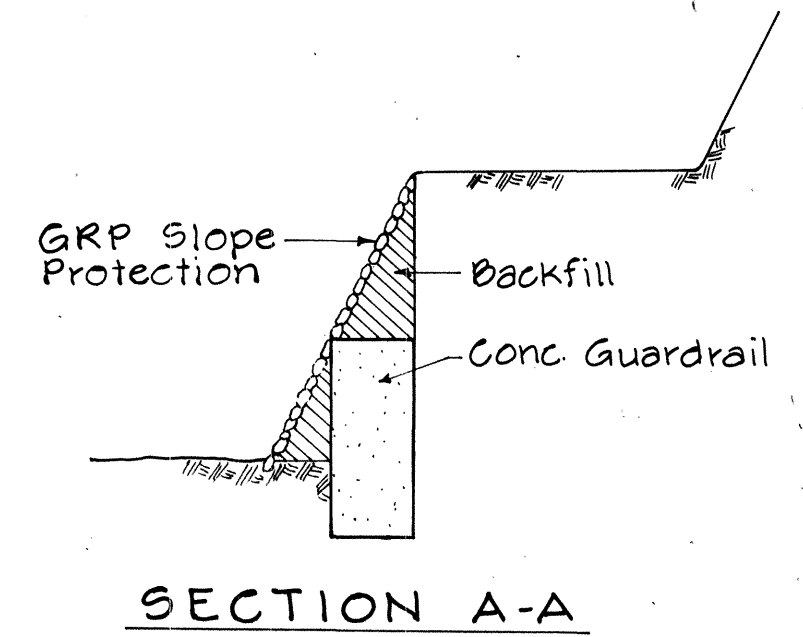
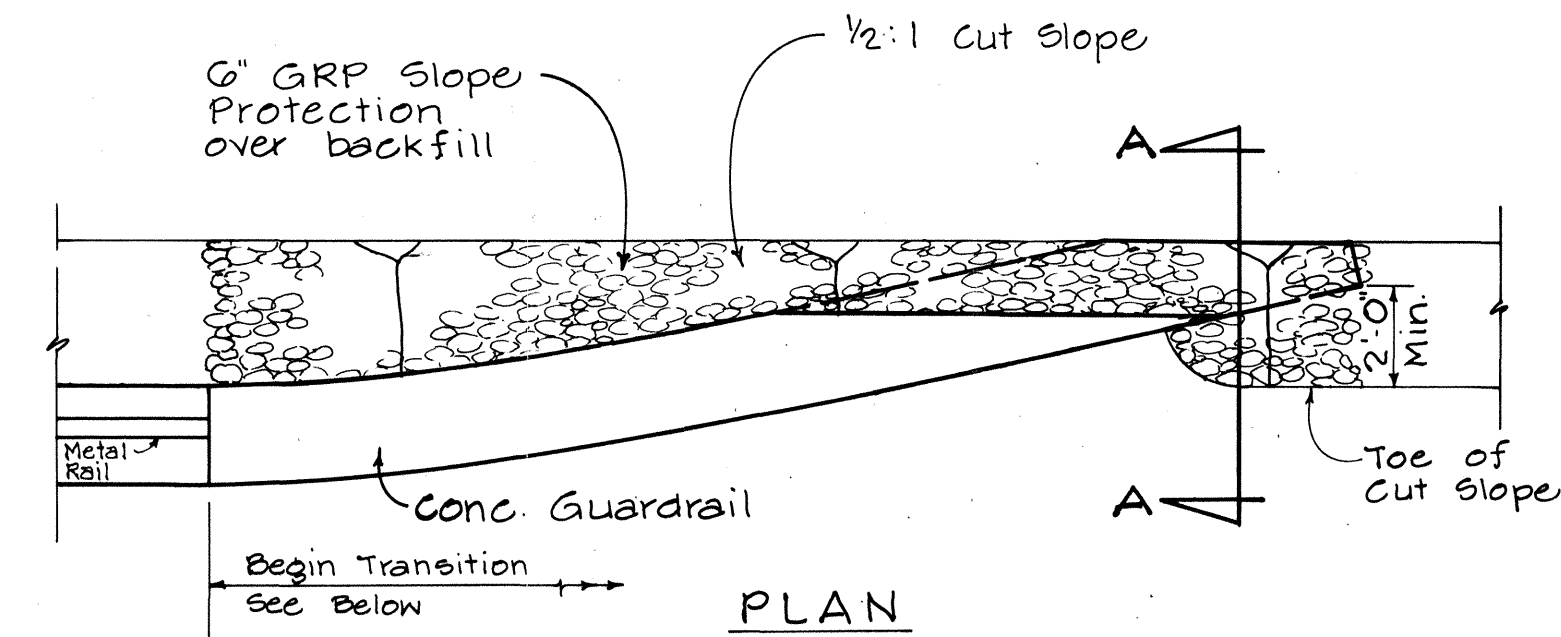
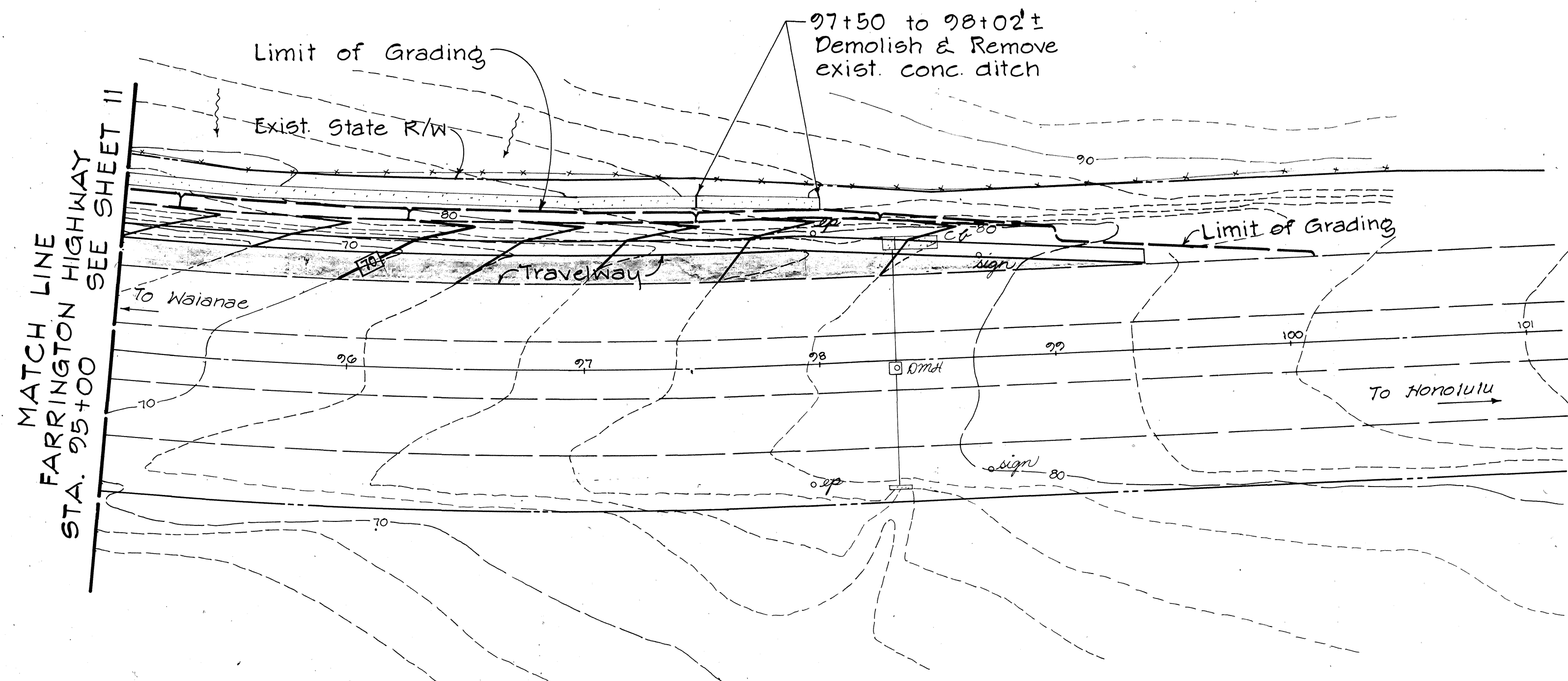
SHEET 11 OF 89 SHEET

12

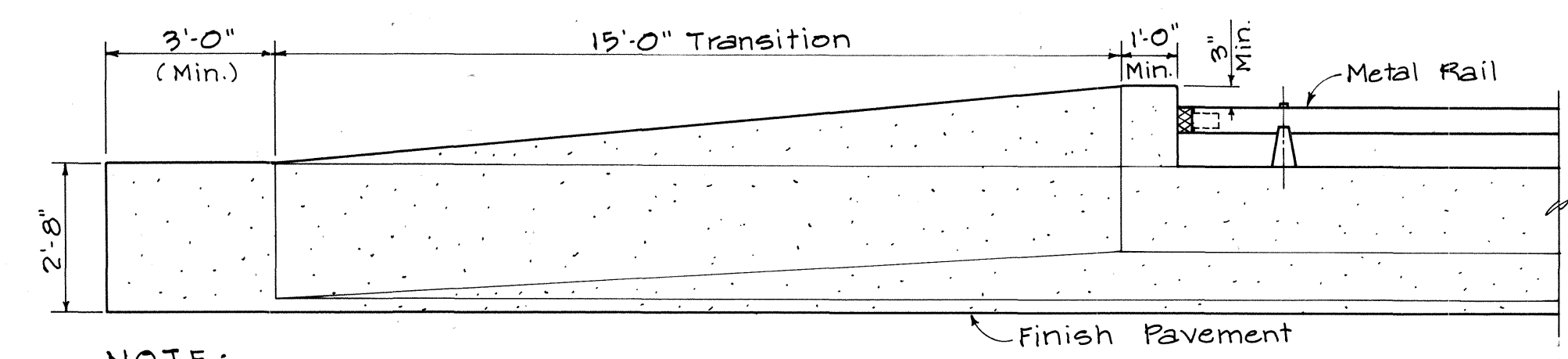
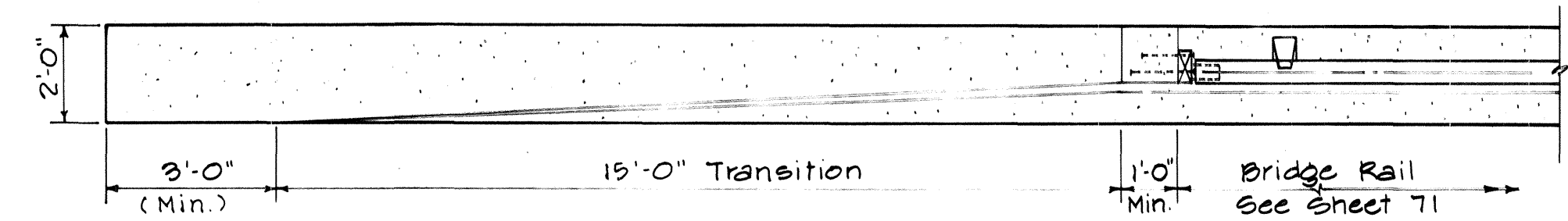
NOTES:

1. Grading work makai of Farrington Hwy. by Others, See "West Beach Resort Grading Plan."
2. All utility poles to be relocated under this Contract are shown on Sheets 80 to 83.
3. Farrington Highway shoulder area shall not be excavated under initial mass Grading work. Shoulder excavation shall be done with the construction of the Interchange Ramps.

TRUE NORTH
Scale: 1"=40'

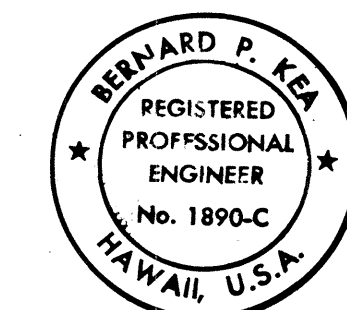


FLARE AND EMBEDMENT
Scale: 1/4" = 1'-0"



NOTE:
For Footing Detail
See Guardrail Section
Sheet 71

GUARDRAIL END POST TRANSITION
Scale: 3/8" = 1'-0"



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REVISION DATE	DESCRIPTION	MADE BY	APPROVED
COMMUNITY PLANNING INCORPORATED CIVIL ENGINEERS — SURVEYORS — CONSULTANT PLANNERS			
WEST BEACH RESORT HONOLULU, EWA, OAHU, HAWAII DEVELOPER: WEST BEACH ESTATES TAX MAP KEY: 9-1-15:POR.3 9-2-03:POR.2 & 69			
FARRINGTON HIGHWAY INTERCHANGE GRADING PLAN			
APPROVED FOR GRADING ONLY:			
CHIEF, DIVISION OF ENGINEERING, D.P.W. <i>Bernard P. Kea</i> REGISTERED PROFESSIONAL ENGINEER		DATE	