

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-89	1991	3	28

CONSTRUCTION NOTES

WATER NOTES:

- UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND CONSTRUCTION OF WATER SYSTEM FACILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 1985, AS AMENDED, OF THE HAWAII HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION AND THE CITY AND COUNTY OF HONOLULU BOARD OF WATER SUPPLY'S "WATER SYSTEM STANDARDS", VOLUME 1, DATED 1985, AND THE "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION", VOLUME 2, DATED 1985, AND ALL SUBSEQUENT AMENDMENTS AND ADDITIONS.
- THE CONTRACTOR SHALL NOTIFY THE BOARD OF WATER SUPPLY IN WRITING ONE WEEK PRIOR TO COMMENCING WORK ON THE WATER SYSTEM.
- ALL PLANS APPROVED BY THE BOARD OF WATER SUPPLY ARE BASED SOLELY ON THE ADEQUACY OF THE WATER SUPPLY. ALL OTHER FEATURES OF THE WATER SYSTEM, SUCH AS LINES, GRADES, FITTINGS ETC., AND DRAINAGE AND OTHER FEATURES OF IMPROVEMENTS SHALL NOT BE THE RESPONSIBILITY OF THE BOARD OF WATER SUPPLY.
- THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES AS SHOWN ON THE PLAN ARE FROM THE LATEST AVAILABLE DATA BUT IS NOT GUARANTEED TO THE ACCURACY OR THE ENCOUNTERING OF OTHER OBSTACLES DURING THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO EXISTING UTILITIES.
- PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY BOARD OF WATER SUPPLY, THE MANUFACTURER'S CERTIFICATION THAT ALL CAST IRON (GRAY OR DUCTILE) FITTINGS FOR THE PROJECT CONFORM IN ALL RESPECTS TO WATER SYSTEM STANDARDS, DATED 1985.
- CONTRACTOR SHALL HAVE EXISTING WATER MAINS TONED BEFORE CONSTRUCTION OF WORK IN VICINITY OF WATER MAINS. CALL DISPATCH AT 527-5207 FOR TONING SERVICES. TONING SHALL BE DONE TO ASSURE THAT GUARDRAIL POST LOCATIONS ARE KEPT TO A MINIMUM CLEAR DISTANCE OF 18 INCHES BETWEEN THE WATER MAIN AND POST. NO POST DRIVING WILL BE ALLOWED WHEN POST IS TO BE INSTALLED CLOSER THAN 3 FEET FROM WATER MAIN.
- THE CONTRACTOR SHALL CUT AND PLUG ALL EXISTING UNUSED LATERALS AT THE MAIN WHETHER OR NOT SHOWN ON THE PLANS. METER AND VALVE BOXES TO BE OR ALREADY ABANDONED SHALL BE DEMOLISHED OR REMOVED AND PROPERLY DISPOSED OF. THE DAMAGED AREA SHALL BE REPAIRED TO AN EQUAL OR BETTER CONDITION THAN THE IMMEDIATE AREA. ALL WORK SHALL BE DONE AT EXPENSE OF THE CONTRACTOR.
- AFTER INSTALLATION OF TAPPING SLEEVE AND VALVE PRIOR TO ACTUAL TAPPING OPERATIONS, THE ASSEMBLY SHALL BE TESTED AT 150 PSI ON BOTH SIDES OF THE VALVE.

GAS FACILITIES:

- THE GASCO, INC. GAS PIPELINES IN THE PROJECT AREA ARE PLASTIC COATED AND CATHODICALLY PROTECTED. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHEN WORKING NEAR THESE GAS PIPELINES.
- PRIOR WRITTEN CLEARANCE MUST BE OBTAINED FROM GASCO INC. AT LEAST FIVE WORKING DAYS BEFORE STARTING EXCAVATION NEAR THESE GAS LINES. SINCE GAS LINE LOCATIONS ON FIELD MAPS ARE APPROXIMATE, THE CONTRACTOR, AFTER OBTAINING WRITTEN CLEARANCE, SHALL CALL GASCO, INC., A MINIMUM OF 48 HOURS BEFORE STARTING EXCAVATION TO ARRANGE FOR FIELD LOCATION OF EXISTING GAS LINES. THE TELEPHONE NUMBER IS 547-3575 DURING BUSINESS HOURS, AND 526-0066 AFTER HOURS. THE CONTRACTOR SHALL EXCAVATED AND BACKFILL AROUND GAS PIPELINES IN THE PRESENCE OF A GASCO, INC. REPRESENTATIVE. ALL BACKFILL WITHIN SIX INCHES OF ANY GAS PIPELINE SHALL BE SELECT CUSHION MATERIAL APPROVED BY GASCO, INC.
- FOR RELOCATION OF ANY GAS PIPELINE, THE CONTRACTOR SHALL NOTIFY GASCO, INC. FIVE WORKING DAYS BEFORE STARTING WORK. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EXCAVATION AND BACKFILL, ARRANGE FOR TRAFFIC PERMITS, AND RESTORE SIDEWALK, PAVEMENT, OR OTHER FACILITIES. ANY RELOCATION OF GAS FACILITIES SHALL BE DONE BY GASCO, INC.
- THE CONTRACTOR SHALL NOTIFY GASCO, INC. IMMEDIATELY AFTER ANY DAMAGE HAS BEEN CAUSED TO EXISTING GAS PIPELINES, THEIR COATINGS OR THEIR CATHODIC PROTECTION DEVICES. REPAIR WORK ON THIS DAMAGE SHALL BE DONE BY GASCO, INC. WITH PAYMENT FOR THIS WORK TO BE BORNE BY THE CONTRACTOR.
- MINIMUM VERTICAL OR HORIZONTAL CLEARANCE BETWEEN GAS PIPELINES AND OTHER PIPELINES, CONDUITS, OR DUCTILES EXPOSED SHALL BE 12 INCHES. ADEQUATE SUPPORT AND PROTECTION FOR GAS PIPELINES EXPOSED IN THE TRENCH SHALL BE PROVIDED AND APPROVED BY GASCO, INC.
- THE CONTRACTOR SHALL WORK IN AN EXPEDITIOUS MANNER IN ORDER TO KEEP UNCOVERED GAS PIPELINES EXPOSED FOR AS SHORT A PERIOD OF TIME AS POSSIBLE.

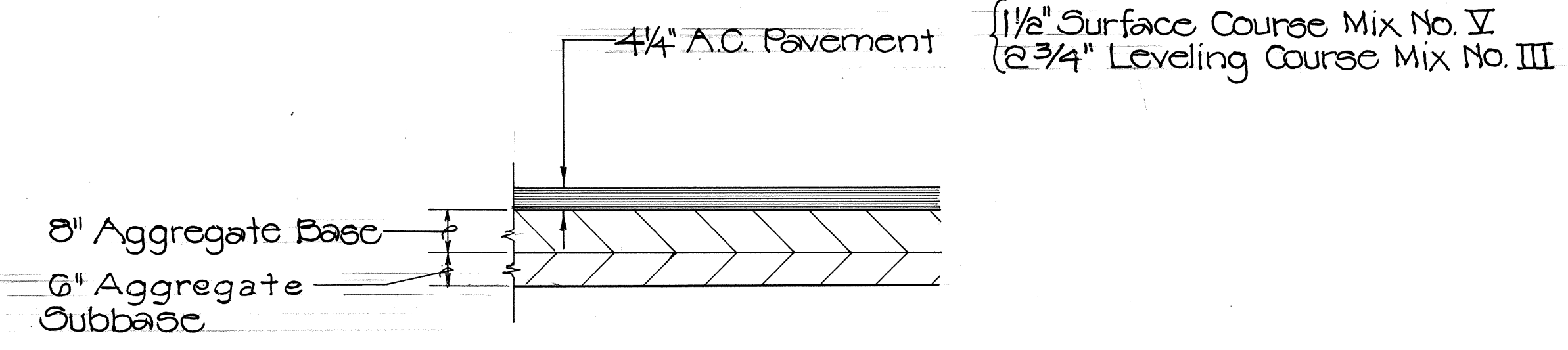
WORK WITHIN CITY JURISDICTION

- ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY AND COUNTY OF HONOLULU DEPARTMENT OF PUBLIC WORKS' "STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1986 AND THE CITY AND COUNTY OF HONOLULU'S "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION", DATED SEPTEMBER 1984 AND ALL SUBSEQUENT SUPPLEMENTS AND AMENDMENTS THERETO.
- THE UNDERGROUND PIPES, CABLES OR DUCTS 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 CONNECTION TO VERIFY THEIR LOCATIONS AND DEPTHS PRIOR TO EXCAVATION FOR THE NEW LINES.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS' DIVISION OF ENGINEERING CONSTRUCTION BRANCH SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.

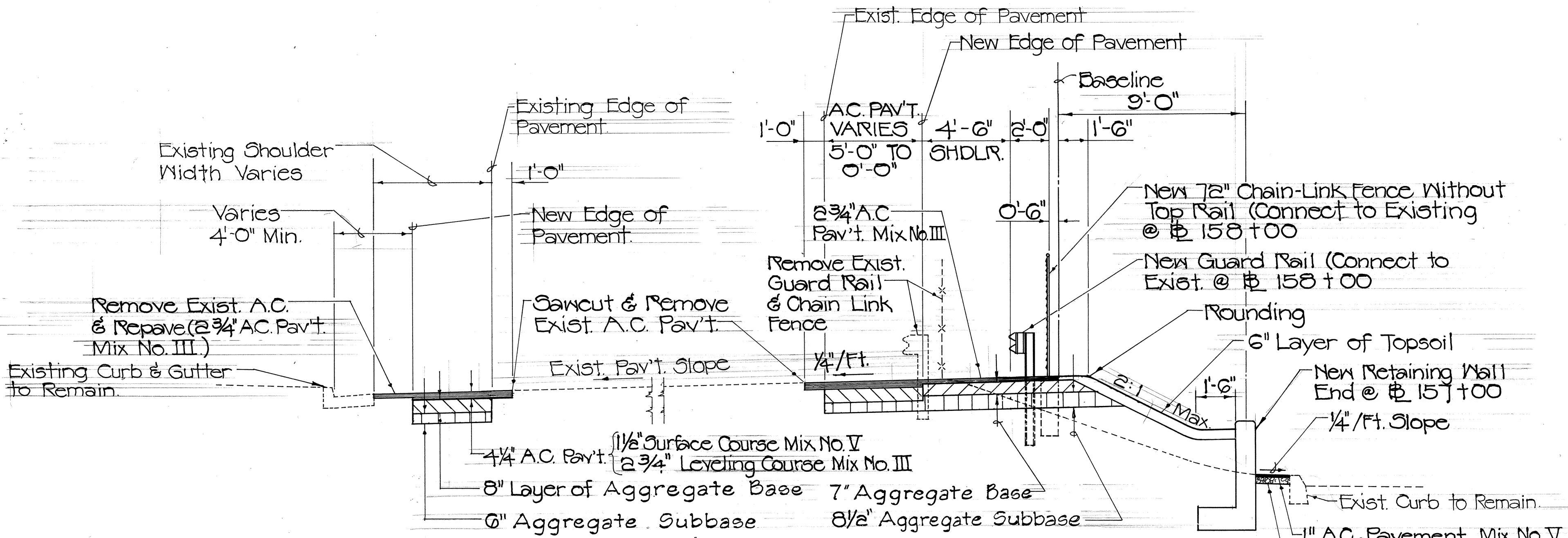
ELECTRICAL & MAINTENANCE SERVICES DIVISION NOTES:

- THE CONTRACTOR SHALL NOTIFY THE JOINT POLE COMMITTEE TWO(2) WEEKS IN ADVANCE OF ANY RELOCATION OF UTILITY POLE(S) THAT MAY BE NECESSARY.
- THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL AND MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE STREET LIGHTING SYSTEM (PHONE 527-5002).
- STREET LIGHTING SHALL BE KEPT OPERATIONAL DURING CONSTRUCTION. ANY RELOCATION REQUIRED SHALL BE APPROVED BY THE ELECTRICAL AND MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES AND PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING STREET LIGHTING FACILITIES AND DAMAGES SHALL BE REPAIRED BY THE CONTRACTOR.

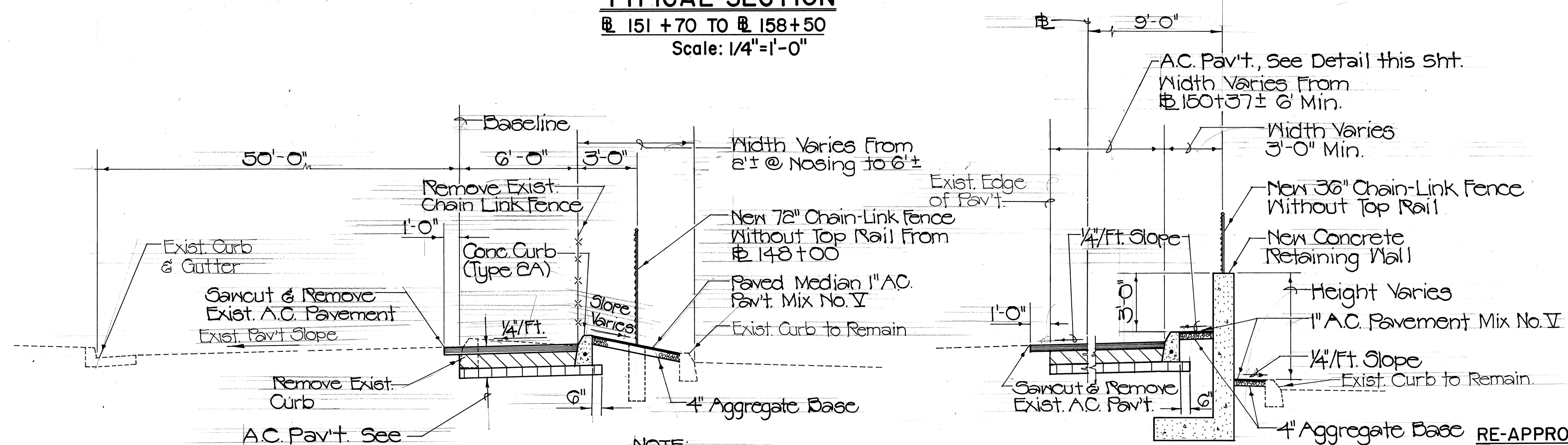
FOR ADDITIONAL NOTES, SEE SHT. 18.



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



TYPICAL SECTION  
@ 151 + 70 TO @ 158 + 50  
Scale: 1/4" = 1'-0"



NOTE:  
Refer to Landscape Irrigation and Planting Plans for Irrigation and Planting Under Paved Median.

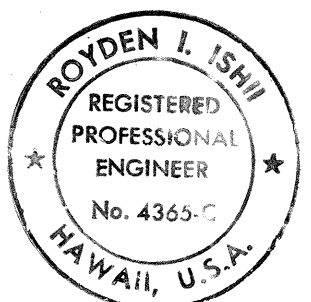
TYPICAL SECTION  
@ 147 + 33 TO @ 151 + 70  
Scale: 1/4" = 1'-0"

RE-APPROVED:

*[Signature]* 4/25/89  
Chief, Planning and Engineering, BWS Date

APPROVED:

*[Signature]* 6-26-87  
Chief, Planning and Engineering, BWS Date  
*[Signature]* 2-1-90  
Manager of Engineering, GASCO Date  
*[Signature]* 6/21/89  
Chief, Division of Engineering, DPW (For Work Within City Jurisdiction Only) Date



*[Signature]*  
THE WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

TYPICAL SECTIONS  
& WATER NOTES

VINEYARD - PUNCHBOWL  
TRAFFIC IMPROVEMENT PROJECT  
PROJECT NO. 98A-01-89

SCALE: AS SHOWN DATE: APRIL 1990

SHEET NO. 1 OF 1 SHEETS

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