

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SOS - 0900 (21)	1984	2	12

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL OBTAIN A PERMIT TO WORK ON COUNTY HIGHWAY FROM THE LAND USE AND CODES DIVISION FOUR (4) WEEKS PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK.
- VERIFY AND CHECK ALL DIMENSIONS AND DETAILS OF THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION, ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION AND ANY DAMAGE TO THEM SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR SHALL RESTORE TO THEIR ORIGINAL CONDITION, ALL IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION, INCLUDING PAVEMENTS, CURB, SIGNS, LANDSCAPING, STRUCTURES, UTILITIES, FENCES, ETC. UNLESS PROVIDED FOR SPECIALLY IN THE PROPOSAL DEMOLITION AND RESTORATION OF EXISTING ITEMS SHALL BE INCIDENTAL TO THE VARIOUS ITEMS OF THE BID.
- THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, BARRICADES, AND OTHER PROTECTIVE DEVICES IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 1978."
- SOME UNDERGROUND WATERLINE LATERALS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOT ASSUME THAT WHERE NO LATERALS ARE SHOWN, NONE EXIST.
- SMOOTH RIDING CONNECTIONS SHALL BE CONSTRUCTED AT THE BEGINNING AND THE END OF THE PROJECT AND AT ALL CONNECTING APPROACHES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL CONSTRUCT TAPERS AT DRIVEWAYS AND SIDE-ROADS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR UNDER ITEM NO. 401.01, A.C. PAVEMENT MIX NO.V.
- SHOULDER TREATMENT SHALL BE CONSIDERED INCIDENTAL TO ROADWAY EXCAVATION AND WILL NOT BE PAID FOR SEPARATELY.
- THE CONTRACTOR SHALL PAVE THE FULL TRAVEWAY OR TOTAL WIDTH OF ROADWAY EACH DAY SO AS NOT TO LEAVE A HAZARDOUS LONGITUDINAL PAVEMENT DROP BETWEEN LANE PASSES OF THE PAVER.
- ~~THE CONCRETE STRUCTURES AT THE END OF GUARD RAILS WILL NOT BE PAID FOR SEPARATELY, IT SHALL BE INCIDENTAL TO GUARD RAIL.~~
- TYPE J PAVEMENT MARKERS WILL BE REPLACED WITH PAINTED TRAFFIC STRIPE.

WATER SUPPLY: (NOT IN CONTRACT)

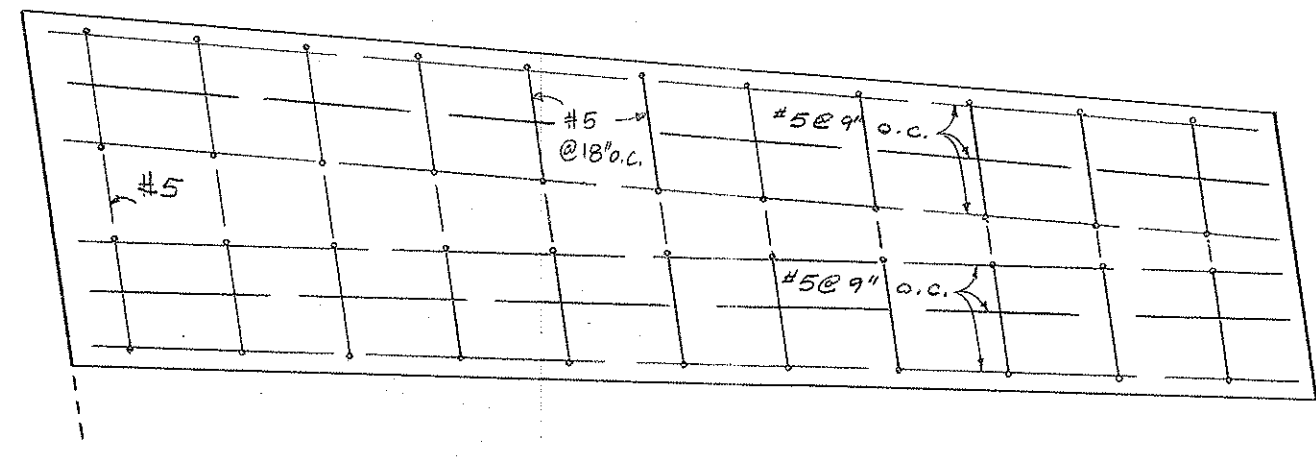
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF WATER SUPPLY IN WRITING, ONE WEEK PRIOR TO COMMENCEMENT OF WORK.
- MINIMUM COVER OVER WATER MAIN, 6" OR LARGER, EQUALS 3'0" MINIMUM COVER, FOR 4" OR LESS = 2'6".
- CONCRETE FOR REACTION BLOCKS SHALL BE CLASS "C".
- ALL MATERIALS USED AND METHOD OF CONSTRUCTION OF WATER SYSTEM FACILITIES SHALL BE IN ACCORDANCE WITH DEPARTMENT OF WATER SUPPLY STANDARDS. CONTRACTOR TO OBTAIN LATEST D.W.S. STANDARD DETAILS BEFORE COMMENCING CONSTRUCTION.
- THE EXACT DEPTH AND LOCATION OF EXISTING WATERLINES, SERVICE LATERALS AND OTHER FACILITIES ARE NOT KNOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE SAME, PRIOR TO TRENCHING OF NEW WATERLINE. THE COST OF LOWERING, RELOCATING, OR ADJUSTING EXISTING WATERLINE SERVICE LATERALS (UNLESS OTHERWISE NOTED) AND OTHER UTILITIES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE NEW WATERLINE AND WILL NOT BE PAID FOR SEPARATELY. FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS EXPENSE.
- CONNECTION TO DEPARTMENT OF WATER SUPPLY SYSTEM:
 - THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, DEPTH, TYPE AND CONDITION OF THE EXISTING LINE BEFORE ORDERING MATERIALS FOR THE HOOKUP. HOWEVER, HE SHALL CHECK WITH THE DEPARTMENT OF WATER SUPPLY BEFORE EXCAVATING FOR VERIFICATION PURPOSES. HE SHALL BE RESPONSIBLE FOR FURNISHING THE CORRECT FITTINGS, ADAPTORS, NIPPLES AND OTHER MATERIALS, AS REQUIRED, FOR THE HOOKUP.
 - WHENEVER FEASIBLE, MECHANICAL JOINT FITTINGS SHALL BE USED.
 - AUTHORIZED DEPARTMENT OF WATER SUPPLY PERSONNEL WILL MAKE THE FINAL CONNECTION TO THE EXISTING LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED BY THE DEPARTMENT OF WATER SUPPLY FOR SAID WORK, INCLUDING THE COST OF PRESSURE TESTING.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS, EQUIPMENT AND LABOR FOR CHLORINATION, TRENCH EXCAVATION, BACKFILLING, PAVING, AND OTHER WORK NECESSARY TO COMPLETE THE HOOKUP, AS DIRECTED BY AND TO THE SATISFACTION OF THE DEPARTMENT OF WATER SUPPLY.
- THE CONTRACTOR SHALL SUBMIT MATERIALS LIST TO DEPARTMENT OF WATER SUPPLY FOR APPROVAL PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL SUBMIT A COST LIST ALONG WITH AFFIDAVIT FOR THE WATER SYSTEM PRIOR TO ACCEPTANCE.
- ALL BURIED METALS TO BE WRAPPED WITH POLY-WRAP.
- ALL NUTS AND BOLTS TO BE COATED WITH PAINT (ASPHALTUM).

CHLORINATION OF WATER SYSTEMS: (N.I.C.)

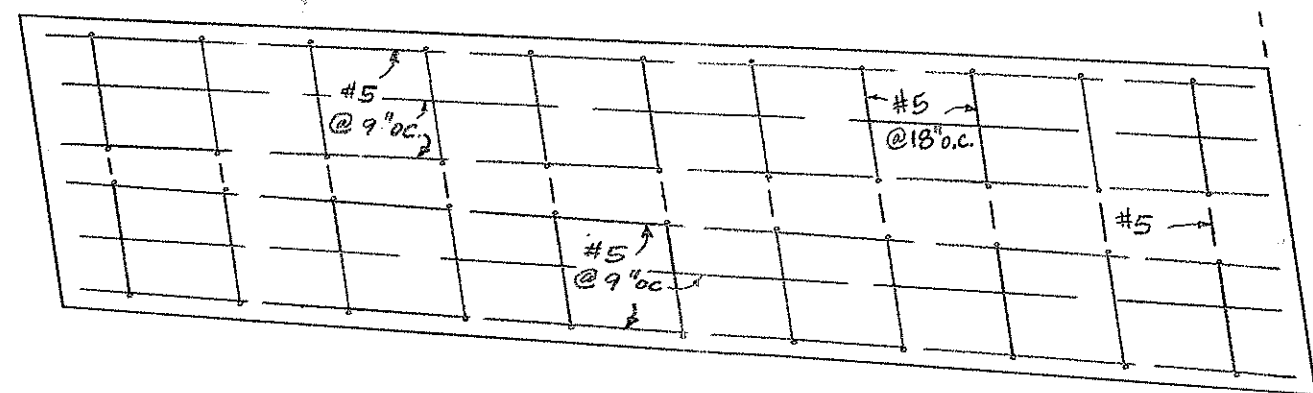
- LIQUID CHLORINE OR CALCIUM HYPOCHLORITE, CONFORMING TO AWWA STANDARDS SHALL BE USED FOR THE CHLORINATION OF THE PROJECT.
- PRIOR TO CHLORINATION, THE PROJECT SHALL BE THOROUGHLY FLUSHED.
- THE INTERIOR SURFACES OF THE PROJECT SHALL BE EXPOSED TO THE CHLORINATING SOLUTION FOR A MINIMUM OF 24 HOURS AND THE CHLORINE RESIDUAL SHALL NOT BE LESS THAN 10 PPM AFTER SUCH TIME.
- SHOULD CALCIUM HYPOCHLORITE BE USED, NO SOLID AND/OR UNDISSOLVED PORTION OF THE COMPOUND SHALL BE INTRODUCED INTO ANY SECTION OF THE PROJECT TO BE CHLORINATED.
- AT THE END OF THE 24 HOUR PERIOD, REPRESENTATIVE SAMPLES SHALL BE TAKEN AND ANALYZED TO ASSURE A CHLORINE RESIDUAL OF AT LEAST 10 PPM.
- SHOULD THE RESULTS INDICATE ADEQUATE CHLORINATION, THE PROJECT SHALL BE THOROUGHLY FLUSHED AND FILLED WITH WATER FROM THE EXISTING SYSTEM AND AGAIN TESTED FOR CHLORINE RESIDUAL. THE FLUSHING SHALL BE CONSIDERED ADEQUATE IF THE TEST RESULTS INDICATE THAT THE WATER IN THE PROJECT HAS A COMPARABLE CHLORINE RESIDUAL AS THE WATER IN THE EXISTING SYSTEM.
- ON THE FIRST AND THIRD DAYS FOLLOWING THE ACCEPTABLE FLUSHING OF THE PROJECT, SAMPLES FROM REPRESENTATIVE POINTS IN THE PROJECT SHALL BE TAKEN AND SUBJECTED TO MICROBIOLOGICAL TESTS. POSITIVE RESULTS WILL NOT BE ACCEPTABLE AND THE PROCESS WILL BE REPEATED.
- ANALYZES FOR RESIDUAL CHLORINE SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER," AMERICAN PUBLIC HEALTH ASSOCIATION, 13TH EDITION, PP. 117-123.
- MICROBIOLOGICAL TESTS SHALL BE MADE IN ACCORDANCE WITH "STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER," AMERICAN PUBLIC HEALTH ASSOCIATION, 13TH EDITION, PP. 662-688.
- ALL MEASUREMENTS FOR CHLORINE RESIDUAL AND MICROBIOLOGICAL TESTS SHALL BE PERFORMED BY A LABORATORY APPROVED BY THE DIRECTOR.
- THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ALL OF THE FOREGOING.

PUBLIC HEALTH, SAFETY AND CONVENIENCE:

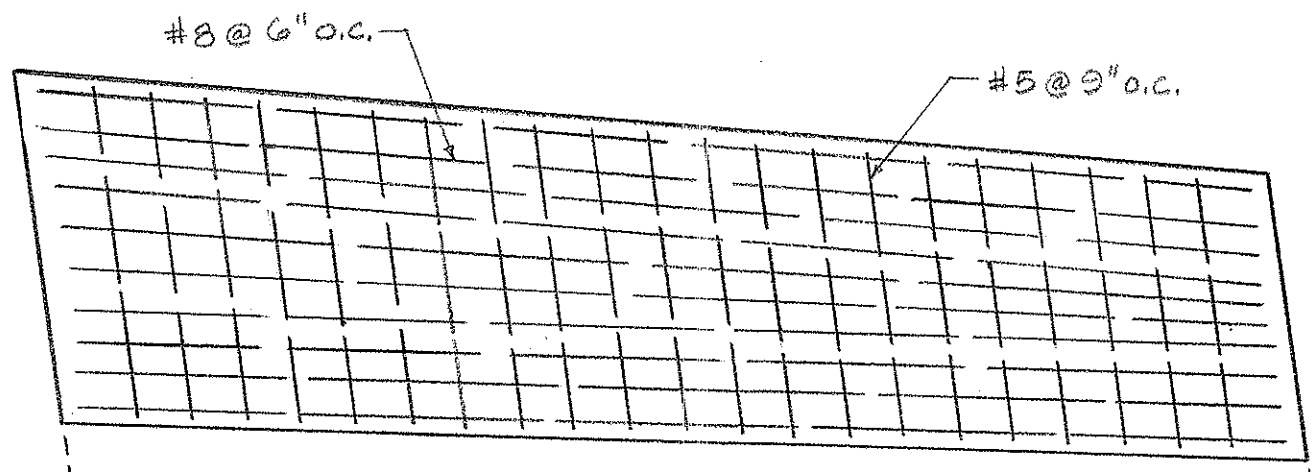
- THE CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH AND SAFETY AND ENVIRONMENTAL QUALITY.
- THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND ITS SURROUNDING AREAS FREE FROM DUST NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION STANDARDS OF THE STATE DEPARTMENT OF HEALTH. THE COUNTY OF MAUI SHALL REQUIRE SUPPLEMENTARY MEASURES AS NECESSARY.



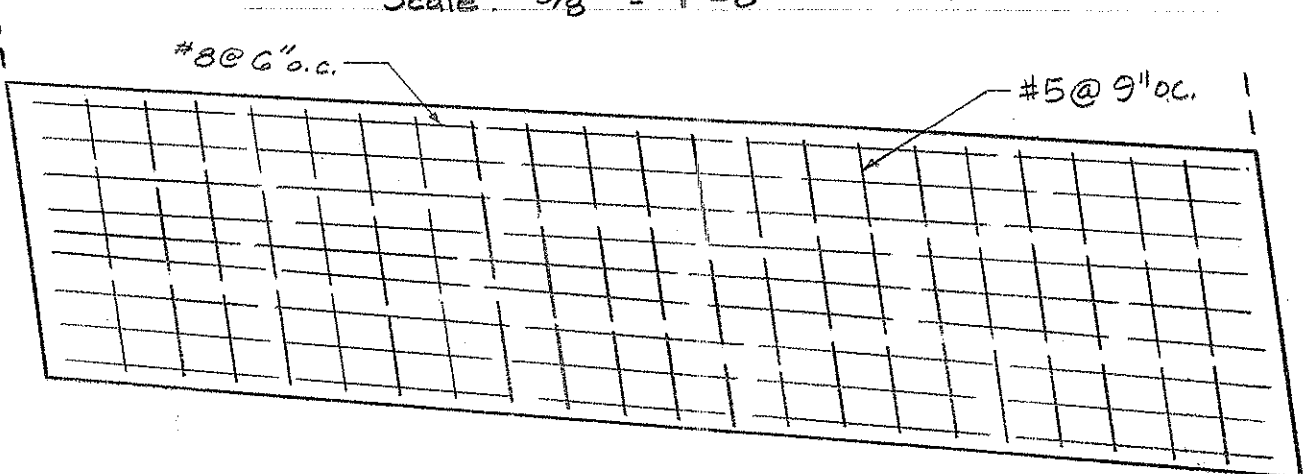
WEST ADDITION TOP STEEL (INCL. STIRRUPS)
Scale: 3/8" = 1'-0"



EAST ADDITION TOP STEEL (INCL. STIRRUPS)
Scale: 3/8" = 1'-0"



WEST ADDITION BOTTOM STEEL
Scale: 3/8" = 1'-0"



EAST ADDITION BOTTOM STEEL
Scale: 3/8" = 1'-0"

ESTIMATED QUANTITIES

	SECTION I	SECTION G
ROADWAY EXCAVATION	58 c.y.	49 c.y.
STRUCTURE EXCAVATION	8 c.y.	20 c.y.
CLASS A CONCRETE	3.5 c.y.	14 c.y.
CRM		16 c.y.
REINFORCING STEEL	176 lb.	1582 lb.

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS

NOTES
BRIDGE STEEL LAYOUT