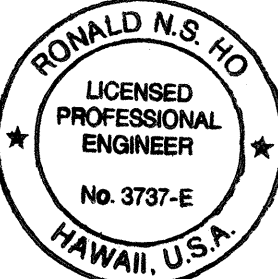


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | IM-H2-1(29) | 1997 | 100 | 129 |

ELECTRICAL SYMBOLS

| ITEM | DESCRIPTION |
|------|--|
| | EXST 400W HIGH PRESSURE SODIUM HIGHWAY LIGHT, SEE <u>2</u> & <u>3</u> FOR BASE REQUIREMENTS <u>E-1E-9</u> <u>E-1E-9</u> |
| | 250W HIGH PRESSURE SODIUM STREET LIGHT, SEE <u>1</u> <u>E-1E-10</u> |
| | 150W HIGH PRESSURE SODIUM HIGHWAY LIGHT, SEE <u>1</u> <u>E-1E-9</u> |
| | EXST LIGHT |
| | EXST LIGHT TO BE REMOVED/RELOCATED |
| | HIGHWAY LIGHTING DUCTS AND WIRING |
| | EXST HIGHWAY LIGHTING DUCTS AND WIRING |
| | EXST HIGHWAY DUCTS TO BE ABANDONED AND WIRES TO BE REMOVED |
| | EXST OVERHEAD POWER LINES TO BE REMOVED BY HECO |
| | OVERHEAD POWER LINE (BY HECO) |
| | ELEC/SIGNAL DUCTLINE |
| | EXST ELEC/SIGNAL DUCTLINE |
| | TRAFFIC SIGNAL DUCTS AND WIRING |
| | EXST TRAFFIC SIGNAL DUCTS AND WIRING |
| | PULLBOX, HIGHWAY DIVISION TYPE "B", 19" X 28", SEE <u>5</u> <u>E-1E-10</u> |
| | PULLBOX, HIGHWAY DIVISION TYPE "D", 2' X 4', SEE <u>5</u> <u>E-1E-10</u> |
| | HECO 6' X 14' MANHOLE |
| | HTCO 2' X 4' PULLBOX, TYPE 435TB |
| | EXST PULLBOX |
| | EXST HECO MANHOLE |
| | EXST HTCO MANHOLE |
| | J-BX, WEATHER PROOF |
| | METERING ENCLOSURE |
| | HECO XFMR PAD, SEE <u>D</u> <u>E-1E-8</u> |
| | UTILITY POLE WITH GUY ANCHOR (BY HECO) |
| | EXST UTILITY POLE WITH GUY ANCHOR |
| | EXST UTILITY POLE WITH GUY ANCHOR TO BE REMOVED BY HECO |
| | LIGHT CKT INDICATOR - CONNECTED TO CKT #4, SEE TYPICAL CONNECTION DIAGRAM <u>4</u> <u>E-1E-10</u> |
| | DUCT SECTION DESIGNATOR; INDICATES DUCT SECTION "A", SEE <u>A</u> <u>E-1E-6</u> |

NOTES: 1. DASHED SYMBOLS INDICATES EXISTING. "X" THRU DASHED SYMBOLS INDICATES EXISTING TO BE REMOVED.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature]
DATE 3/21/96

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL SITE PLAN,
SYMBOLS AND GENERAL NOTES

INTERSTATE ROUTE H-2
MILILANI INTERCHANGE
SOUTHBOUND ON-AND-OFF RAMP
F.A.I. PROJECT NO. IM-H2-1(29)
SCALE: AS NOTED DATE: MAR. 1997
SHEET No. E-1 OF 19 SHEETS

GENERAL NOTES:

- THE CONTRACTOR IS TO COMPLY WITH THE DIRECTIONS OF THE STATE OF HAWAII OCCUPATIONAL SAFETY AND HEALTH LAW (DOSH).
- THE LOCATION OF UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND LINES. ANY DAMAGES TO THE EXISTING UNDERGROUND FACILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
- THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATION AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF HIS OPERATIONS.
 - ALL HAWAIIAN ELECTRIC CO. UNDERGROUND FACILITIES SHOWN ON THESE PLANS OR WHOSE APPROXIMATE LOCATIONS WITHIN THE PROJECT BOUNDARIES HAVE BEEN MADE KNOWN BY ANY REASONABLE MEANS AT ANY TIME TO THE CONTRACTOR SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES TO HAWAIIAN ELECTRIC CO. FACILITIES AND SHALL IMMEDIATELY REPORT SUCH DAMAGES TO HAWAIIAN ELECTRIC CO.'S TROUBLE DISPATCHER AT 548-7961. REPAIR WORK SHALL BE DONE BY HAWAIIAN ELECTRIC CO. OR BY THE CONTRACTOR UNDER HAWAIIAN ELECTRIC CO.'S SUPERVISION.
 - THE CONTRACTOR IS TO CONTACT THE HAWAIIAN ELECTRIC CO. UNDERGROUND DIVISION AT 548-7395 A MINIMUM OF 72 HOURS IN ADVANCE TO VERIFY THE LOCATION OF UNDERGROUND DUCT LINES AND FOR ASSISTANCE IN PROVIDING PROPER SUPPORT AND PROTECTION OF THE UNDERGROUND DUCT LINES.
 - THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGEMENT DEPARTMENT TWO WEEKS PRIOR TO WORK ON HAWAIIAN ELECTRIC CO. FACILITIES, AT 543-5668.
 - FOR FIELD LOCATION OF HAWAIIAN TELEPHONE CO. FACILITIES, CONTRACT HAWAIIAN TELEPHONE OUTSIDE PLANT ENGINEERING SECTION, A MINIMUM OF 72 HOURS IN ADVANCE, PRIOR TO START OF EXCAVATION.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. ANY WORK INVOLVING EXISTING UTILITY COMPANY CABLES OR DUCTS SHALL BE DONE IN THE PRESENCE OF THE RESPECTIVE UTILITY COMPANY INSPECTOR OR HIS REPRESENTATIVE.
- WHEN TRENCH EXCAVATION IS ADJACENT TO EXISTING STRUCTURES OR FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SHEETING AND BRACING THE EXCAVATION AND STABILIZING THE EXISTING GROUND TO RENDER IT SAFE AND SECURE FROM POSSIBLE SLIDES, CAVE-INS, AND SETTLEMENT, AND FOR PROPERLY SUPPORTING EXISTING STRUCTURES AND FACILITIES WITH BEAMS, STRUTS, OR UNDERPINNING TO FULLY PROTECT IT FROM DAMAGE.
- SHOULD IT BECOME NECESSARY, ANY WORK REQUIRED TO RELOCATE HAWAIIAN ELECTRIC CO. FACILITIES SHALL BE DONE BY HAWAIIAN ELECTRIC CO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION.
- ALL WORK REQUIRED TO RELOCATE HAWAIIAN TELEPHONE CO. FACILITIES SHALL BE PERFORMED BY HAWAIIAN TELEPHONE CO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION.
- ALL WORK REQUIRED TO RELOCATE CATV FACILITIES SHALL BE PERFORMED BY THE CATV COMPANY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING STREET LIGHTING AND TRAFFIC SIGNAL FACILITIES, AND ANY AND ALL DAMAGES TO THESE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF HAWAII.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF TRANSPORTATION SERVICES THREE WORKING DAYS BEFORE WORKING ON THE TRAFFIC SIGNAL SYSTEM (527-5004).
- LUMINAIRES TO BE 150 WATT HIGH PRESSURE SODIUM, 250 WATT HIGH PRESSURE SODIUM OR 400 WATT HIGH SODIUM, AS INDICATED ON THE DRAWINGS.
- CONTRACTOR TO SUBMIT COMPUTERIZED FOOTCANDLE ARRAYS FOR THE RAMP AND ROADWAYS FOR REVIEW.
- CONTRACTOR TO MAINTAIN THE HIGHWAY/STREET LIGHTS FOR EXISTING RAMP/ROADWAY AND THEY SHALL BE KEPT OPERATIONAL UNTIL THE NEW RAMP ARE OPENED AND THE EXISTING RAMP ARE CLOSED.
- HIGHWAY/STREET LIGHTS SHALL NOT BE REMOVED OR DE-ENERGIZED UNTIL ITS REPLACEMENT HAS BEEN INSTALLED AND IS OPERATIONAL.
- EXISTING HIGHWAY/STREET LIGHT BRACKET ARMS, LUMINAIRES, AERIAL CABLES AND APPURTENANCES SHALL BE FULLY DISMANTLED AND STOCKPILED AT DOT'S PEARL CITY BASEYARD AS DIRECTED BY THE ENGINEER. EXISTING PULLBOXES AND POLE FOOTINGS OR FOUNDATIONS SHALL BE REMOVED AND SHALL BE DISPOSED OF BY THE CONTRACTOR.
- VERIFY EXISTING CIRCUIT PRIOR TO ANY DEMOLITION WORK. DISCONNECT POWER AS REQUIRED TO REMOVE LT.
- CONSTRUCTION WILL BE DONE IN PHASES. SEE CIVIL DRAWINGS FOR THE PHASING SEQUENCE. IN ADDITION TO THE PHASING SEQUENCE THE CONTRACTOR SHALL COORDINATE HIS WORK WITH HECO AND ADJUST HIS SCHEDULE ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE HECO WITH ACCESS AND ADEQUATE TIME TO COMPLETE WORK AS REQUIRED.
- EXISTING ELECTRICAL EQUIPMENT ARE IN-USE AND MUST REMAIN IN OPERATION DURING THE CONSTRUCTION UNTIL THE PROPOSED PERMANENT FACILITIES WHICH REPLACES THE EXISTING EQUIPMENT ARE COMPLETED AND ENERGIZED. COSTS FOR ANY TEMPORARY RELOCATIONS ARISING DURING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR. WORK BY THE CONTRACTOR IN AREAS WITH ENERGIZED ELECTRICAL EQUIPMENT OR CONDUCTORS SHALL BE PERFORMED WITH EXTREME CAUTION TO PREVENT ACCIDENTS AND TO AVOID DISTURBING OR DAMAGING THIS EQUIPMENT OR CONDUCTORS OR ANY TEMPORARY SUPPORTS OR PROTECTIVE GUARDS THAT ARE CONSTRUCTED. THE CONTRACTOR SHALL HAVE THE SOLE RESPONSIBILITY FOR MAINTAINING SAFE AND EFFICIENT WORKING CONDITIONS AND PROCEDURES IN THESE AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING SURFACE AND SUBSURFACE UTILITIES AND POLES WITHIN AND ABUTTING THE PROJECT SITE. ANY UTILITIES THAT THE CONTRACTOR ENCOUNTERS DURING THE PROGRESS OF THE WORK, SUCH AS TELEPHONE DUCTS, ELECTRIC DUCTS, WATER LINES SEWER LINES, ELECTRICAL LINES, GAS LINES, CABLE TV AND DRAINAGE PIPES, WHETHER OR NOT SHOWN ON THE PLANS, SHALL NOT BE DISTURBED OR DAMAGED UNLESS OTHERWISE INSTRUCTED IN THE PLANS AND SPECIFICATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE AFFECTED UTILITY COMPANY IMMEDIATELY OF ANY DAMAGED OR DISTURBED UTILITY. ANY EXISTING OR NEW FACILITIES INCLUDING EQUIPMENT OR CONDUCTORS, DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

APPROVED BY:

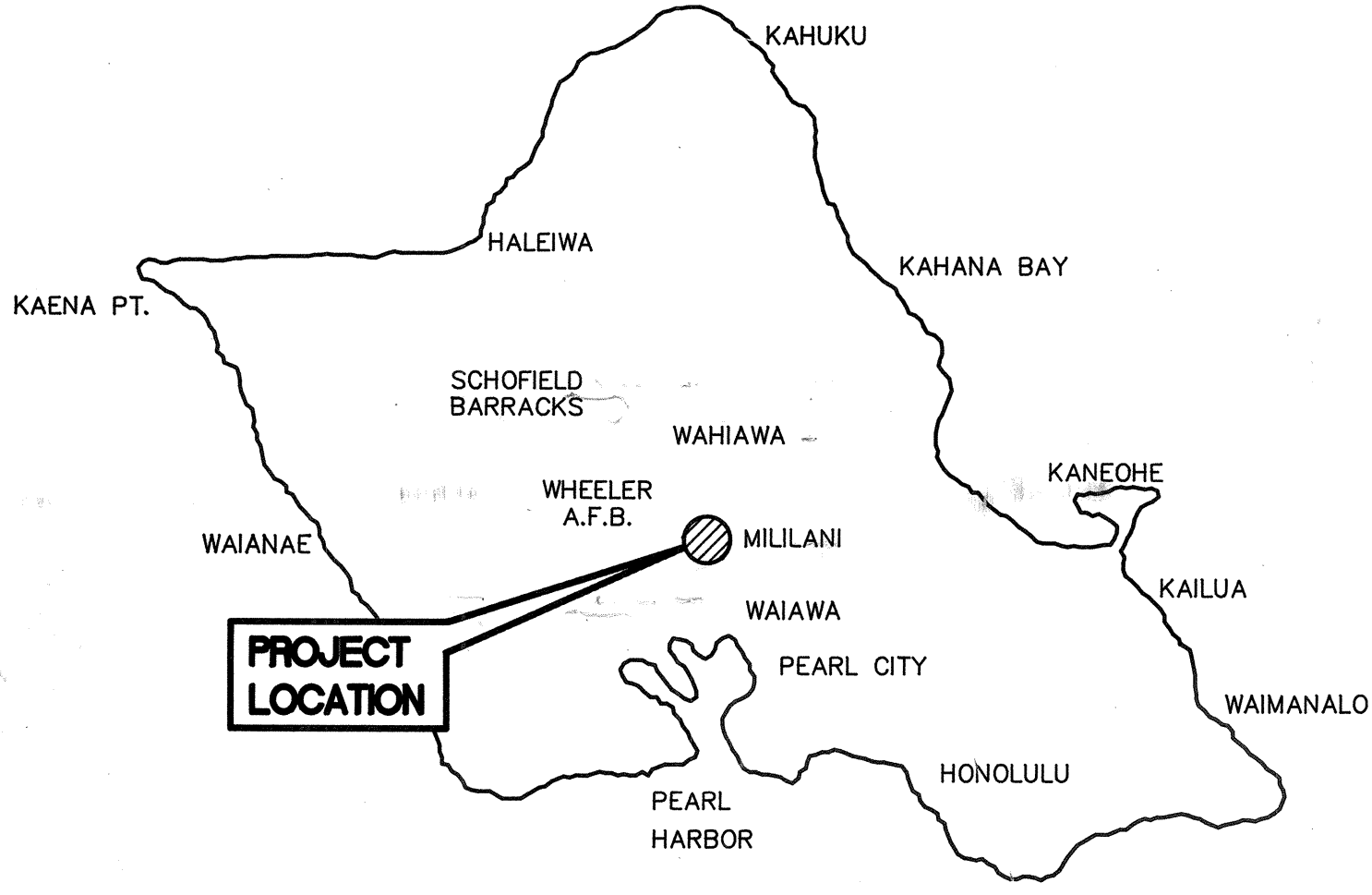
ADMINISTRATOR HIGHWAYS DIVISION
STATE DEPARTMENT OF TRANSPORTATION (APPROVAL GRANTED FOR WORK WITHIN STATE RIGHT-OF-WAY ONLY). ID NO. , LETTER OF APPROVAL NO. HWY-CM
DATED

DATE 3/21/96
DATE

DRAWING REVIEW
Reviewed for HECO's
Facilities Only
Date 3/11/96 By *[Signature]*
Hawaiian Electric Company, Inc.

DRAWING REVIEW
Reviewed for HECO's
Facilities Only
Date 2/23/96 By *[Signature]*
Engineering & Project Management Dept.
Hawaiian Electric Company, Inc.

HECO's review of these drawings shall in no way relieve the Customer, its Consultant, its Contractor or anyone acting on the Customer's behalf from the responsibility for engineering, design, materials and any liability associated with this project.

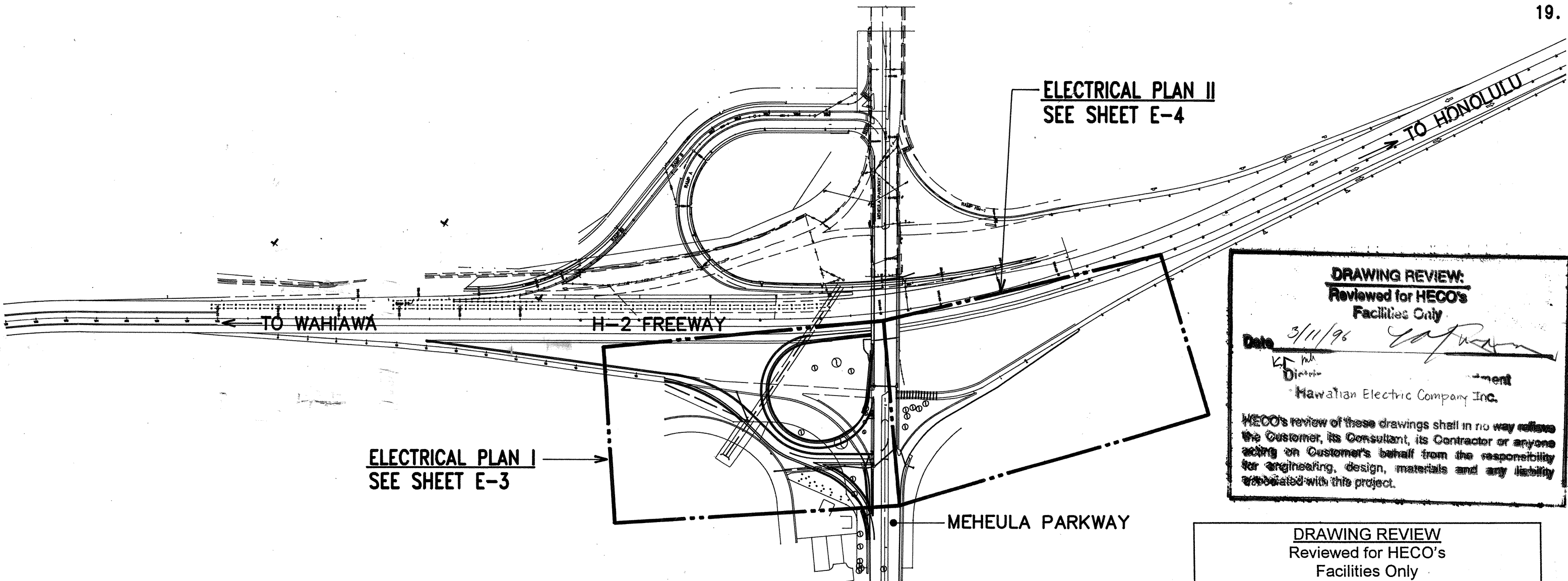


ISLAND OF OAHU MAP

EQUIPMENT SCHEDULE

THE HAWAIIAN ELECTRIC CO., HAWAIIAN TELEPHONE CO. AND STREET LIGHTING PULLBOXES, HANDHOLES, TRANSFORMER PAD LOTS AND SWITCHING EQUIPMENT PAD LOTS SHALL BE CONSTRUCTED BY THE CONTRACTOR AS SHOWN IN THESE DRAWINGS AND IN ACCORDANCE WITH THE FOLLOWING STANDARD DRAWINGS:

| TYPE | DESCRIPTION |
|-----------------------|---|
| 6' X 14' HECO MANHOLE | 6'-0" X 14'-0" REINFORCED CONCRETE MANHOLE WITH TRAFFIC RATED FRAME AND COVER, PROVIDED IN ACCORDANCE WITH HECO STANDARD DRAWING NO. 71467. |
| 2' X 4' HTCO PULLBOX | 2'-0" X 4'-0" TYPE 435TB PRECAST CONCRETE PULLBOX WITH 2-PIECE "SLIP-NOT" GRIP COVERS, GROUND ROD, PER HTCO STANDARD DRAWING NO. 34056. A MINIMUM OF 2 PRECAST CONCRETE PULLBOX SECTIONS SHALL BE REQUIRED. |



ELECTRICAL SITE PLAN

NOT TO SCALE TMK: 9-5-01

DATE
SURVEY PLOTTED BY
DRAWN BY
DESIGNED BY
CHECKED BY
ORIGINAL PLAN
NOTE BOOK
No.
Last Date: 02/05/96
G:\CADD\PROJECTS\H2\H2E1.DWG

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY:

1. THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE STATE'S HIGHWAY DISTRICT ENGINEER AT 727 KAKOI ST. HONOLULU PRIOR TO COMMENCEMENT OF WORK WITHIN THE STATE HIGHWAY RIGHT-OF-WAY.
2. CONSTRUCTION AND RESTORATION OF ALL EXISTING HIGHWAY FACILITIES WITHIN STATE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE CURRENT 1994 "HAWAII STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION," AND THE "SPECIFICATION FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS," OF THE STATE HIGHWAYS DIVISION.
3. ALL LANES SHALL BE OPENED TO TRAFFIC DURING MORNING PEAK HOURS FROM 5:00 AM TO 8:30 AM AND THE AFTERNOON PEAK HOURS FROM 3:00 PM TO 6:00 PM, AND DURING NON-WORKING HOURS EXCEPT AS SPECIFIED IN SPECIFICATIONS SECTION 645-TRAFFIC CONTROL. ONLY ONE LANE OF MEHEULA PARKWAY SHALL BE CLOSED AT ANY OTHER TIME.
4. THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION AND FOR THE CONVENIENCE AND SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH THE "ADMINISTRATIVE RULES OF HAWAII GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS" ADOPTED BY THE DIRECTOR OF TRANSPORTATION, AND THE CURRENT U.S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PART VI - TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS". IF LANE CLOSURES ARE REQUIRED DURING CONSTRUCTION, A TRAFFIC CONTROL PLAN SHALL BE INCORPORATED INTO THE CONSTRUCTION PLANS AND MUST BE APPROVED BY THE DIVISION PRIOR TO THE ISSUANCE OF THE PERMIT.
5. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN HIGHWAY RIGHTS-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE DISTRICT ENGINEER.
6. COMPACTION TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE SPECIFICATIONS FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS AND AS DIRECTED BY THE STATE'S HIGHWAY DISTRICT ENGINEER.
7. PRIOR TO COMMENCING TRENCH EXCAVATION WORK, THE CONTRACTOR SHALL TAKE A PROFILE ALONG THE NEW CENTERLINE OF UTILITY TRENCH AND THAT SUCH INFORMATION SHALL BE USED IN THE VERIFICATION OF RESTORING THE ROADWAY TO ITS ORIGINAL CONDITION. A COPY OF THE PROFILE SHALL BE SUBMITTED TO THE DISTRICT ENGINEER.
8. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE, SAFE, NON-SKID BRIDGING MATERIAL OVER TRENCH, INCLUDING SHORING, WHEN TRENCHING IN PAVEMENT AREAS TO HANDLE ALL TYPES OF VEHICULAR TRAFFIC.
9. NO TRENCH SHALL BE OPENED IN ADVANCE OF THE INSTALLED AND TESTED PIPE AND/OR DUCTLINE MORE THAN THE LENGTH DIRECTED BY THE STATE'S HIGHWAY DISTRICT ENGINEER.
10. LONGITUDINAL DRAINAGE ALONG THE HIGHWAY SHALL BE MAINTAINED.
11. PAVEMENT STRIPING SHALL BE DONE BY CONTRACTOR.
12. APPROVAL OF PERMIT CONSTRUCTION PLANS SHALL BE VALID FOR A PERIOD OF ONE YEAR THEREOF FROM THE DATE OF NOTIFICATION OF APPROVAL TO THE APPLICANT. IN THE EVENT CONSTRUCTION DOES NOT COMMENCE WITHIN THIS ONE-YEAR PERIOD, THE APPLICANT WILL BE REQUIRED TO RESUBMIT THIS CONSTRUCTION PLANS FOR DIVISION'S REVIEW AND APPROVAL.
13. ALL REGULATORY, GUIDE AND CONSTRUCTION SIGNS AND BARRICADES SHALL BE OF HIGH INTENSITY REFLECTIVE SHEETING.
14. THE CONTRACTOR SHALL SAWCUT THE PAVEMENT PRIOR TO COMMENCING TRENCH OR ROADWAY EXCAVATION WORK.
15. THE CONTRACTOR SHALL PLACE A "NOTICE TO MOTORISTS" ANNOUNCEMENT IN THE TWO MAJOR DAILY NEWSPAPERS FOR AT LEAST THREE CONSECUTIVE DAYS, ONE WEEK PRIOR TO START OF CONSTRUCTION. THE NOTICE SHALL BE PREPARED IN ACCORDANCE WITH STATE DOT HIGHWAYS DIVISION STANDARDS AND SUBMITTED TO THE CONSTRUCTION AND MAINTENANCE BRANCH FOR APPROVAL AT LEAST FOUR (4) WEEKS BEFORE PUBLISHING IN THE NEWSPAPER. THE NOTICE SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING INFORMATION:
1. DATE ON WHICH THE CLOSURE WILL START.
2. THE NUMBER OF DAYS OF THE CLOSURE.
3. THE HOURS AND DAYS OF WORK.
4. A DIAGRAM OF THE AFFECTED ROADWAY.
16. THE CONTRACTOR SHALL PLACE A "NOTICE TO MOTORISTS" ANNOUNCEMENT IN THE TWO MAJOR DAILY NEWSPAPERS FOR AT LEAST THREE CONSECUTIVE DAYS, ONE WEEK PRIOR TO CLOSURE OF RAMP MH-1 AND ROUTING THE TRAFFIC TO THE LOOP RAMP R-3. THE NOTICE SHALL BE PREPARED IN ACCORDANCE WITH STATE DOT HIGHWAYS DIVISION STANDARDS AND SUBMITTED TO THE CONSTRUCTION AND MAINTENANCE BRANCH FOR APPROVAL AT LEAST FOUR (4) WEEKS BEFORE PUBLISHING IN THE NEWSPAPER. THE NOTICE SHALL INCLUDE BUT SHALL NOT BE LIMITED TO THE FOLLOWING INFORMATION:
1. DATE ON WHICH THE CLOSURE AND THE RE ROUTING WILL START.
2. A DIAGRAM OF THE AFFECTED ROADWAY.
17. THE CONTRACTOR SHALL INFORM THE STATE PERMIT OFFICE (831-6712) AT LEAST TWO (2) DAYS PRIOR TO CLOSING ANY LANES.
18. WHERE PEDESTRIAN WALKWAYS EXIST, THEY SHALL BE MAINTAINED IN PASSABLE CONDITION OR OTHER FACILITIES FOR PEDESTRIANS SHALL BE PROVIDED. PASSAGE BETWEEN WALKWAYS AT INTERSECTIONS SHALL LIKEWISE BE PROVIDED.
19. THE CONTRACTOR SHALL REFERENCE TO THE SATISFACTION OF THE DISTRICT ENGINEER, ALL EXISTING TRAFFIC SIGNS, POSTS AND PAVEMENT MARKINGS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNS, POSTS, AND PAVEMENT MARKINGS DISTURBED BY HIS ACTIVITIES, UNLESS DIRECTED OTHERWISE BY THE DISTRICT ENGINEER OR HIS REPRESENTATIVE.
20. THE CONTRACTOR SHALL EXERCISE CARE WHEN EXCAVATING IN THIS AREA. DAMAGES TO THE EXISTING FACILITIES SHALL BE IMMEDIATELY REPORTED TO THE RESPECTIVE UTILITY COMPANIES, CITY OR STATE AGENCY. THE REPAIR WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
21. THE CONTRACTOR SHALL NOTIFY THE HIGHWAY LIGHTING AND TRAFFIC SIGNAL SUPERVISOR, SDOT, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK IN THE AREA (834-4581).
22. THE MINIMUM PAVEMENT STRUCTURE SHALL BE BY CIVIL ENGINEER.
23. LONGITUDINAL DRAINAGE ALONG THE HIGHWAY SHALL BE MAINTAINED.

HECO GENERAL NOTES

1. FOR CONSTRUCTION OF UNDERGROUND FACILITIES REFER TO SPECIFICATIONS CS 7003 AND CS 7001.
2. FOR WATER AND STORM DRAIN NOTES, SEE SECTIONS 7 AND 8 OF SPECIFICATION CS 7003. DELETE REFERENCE TO SECTIONS 7.9 & 7.10.
3. NO CONTRACTOR SHALL PERFORM ANY TRENCHING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATER-COURSES. SHOULD SUCH VIOLATION OCCUR, THE COSTS INCURRED BY AN REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFORMITY WITH THE APPLICABLE PROVISIONS OF THE CHAPTER 54, WATER QUALITY STANDARDS, AND CHAPTER 55, WATER POLLUTION CONTROL, OF TITLE 11, ADMINISTRATIVE RULES OF THE STATE DEPARTMENT OF HEALTH.
5. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT 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.
6. SPECIAL NOTE: THE CABLES IN THESE AREAS ARE ENCASED BURIED AND ENERGIZED. THESE ENERGIZED ENCASED BURIED CABLES ARE TO REMAIN IN PLACE DURING CONSTRUCTION. CABLES IN SERVICE BOXES, TRANSFORMER VAULTS AND HANDHOLES ARE ALSO ENERGIZED. ONLY HAWAIIAN ELECTRIC CO. MEN ARE TO HANDLE THESE CABLES AND ERECT TEMPORARY GUARDS TO PROTECT THESE CABLES FROM DAMAGE. CONTRACTOR IS TO EXERCISE DUE CARE AND PRECAUTIONS TO AVOID DISTURBANCE OF ENERGIZED CABLES AND TEMPORARY GUARDS AND SHALL WORK CAUTIOUSLY TO AVOID ACCIDENTS. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH HECO U.G. DIVISION AND INSPECTION DIVISION. (PHONE: 543-5668)
7. ALL CONSTRUCTION, RESTORATION WORK AND INSPECTION SHALL BE SUBJECT TO WHICHEVER GOVERNMENTAL AGENCY HAS AUTHORITY OVER THE WORK.
8. ALL DUCT LINE INSTALLATION SHALL BE ENCASED IN CONCRETE, PVC SCHEDULE 40 UNLESS OTHERWISE SPECIFIED.
9. ALL MATERIALS SHALL BE NEW AND MANUFACTURED IN THE UNITED STATES OF AMERICA.
10. SCOPE OF WORK: THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND SERVICES TO PROPERLY PERFORM AND FULLY COMPLETE ALL WORK SHOWN ON CONTRACT, DRAWINGS AND SPECIFICATIONS.

HECO GENERAL NOTES (CONTINUATION)

11. WHERE NECESSARY, RECONSTRUCTION OF SIDEWALK, GUTTER AND DRIVEWAY AREAS SHALL CONFORM TO THE STANDARD DETAILS OF THE GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK.
12. WHENEVER 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.
13. WATER NOTES: REFER TO SPECIFICATION NO. CS 7003, APPENDIX D. DELETE NOTES 2, 3 & 8. DELETE THE PHRASE "WITH BWS APPROVAL" IN NOTE 4.
14. THE CONTRACTOR SHALL PROVIDE TWO SETS OF AS-BUILT DRAWINGS SHOWING THE OFFSETS, STATIONING AND VERTICAL ELEVATION OF THE DUCT LINE(S) CONSTRUCTED TO THE HAWAIIAN ELECTRIC COMPANY.
15. THE CONTRACTOR SHALL STAKEOUT ALL FACILITIES FOR VERIFICATION BEFORE PROCEEDING.
16. THE LOCATION AND DEPTH OF ALL MANHOLES AND PULLBOXES AND THE ROUTING OF ALL DUCTLINES SHALL BE VERIFIED BEFORE EXCAVATION STARTS.
17. ALL MANHOLES, PULLBOXES, AND DUCTLINES TO BE INSTALLED IN CONCRETE SHALL BE INSPECTED AND APPROVED BY HECO BEFORE PLACING CONCRETE. NOTIFY HECO'S INSPECTION DIVISION (PHONE 543-5668) 48 HOURS BEFORE PLACING CONCRETE.
18. MANHOLE DEPTHS SHOWN ON PLANS REFER TO INSIDE DEPTH OF MANHOLE.
19. ALL COMPLETED DUCTLINES SHALL BE MANDREL TESTED BY THE CONTRACTOR IN THE PRESENCE OF HECO'S INSPECTOR.
20. THE CONTRACTOR SHALL INSTALL A 1/8" POLYOLEFIN PULL LINE IN ALL COMPLETED DUCTLINES AFTER MANDREL TESTING IS COMPLETE.
21. WHEN WORKING NEAR UTILITY POLES, THE CONTRACTOR SHALL PROTECT, SUPPORT, SECURE, AND TAKE ALL PRECAUTIONS TO PREVENT DAMAGE TO OR LEANING OF THESE POLES. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED TO REPAIR OR STRAIGHTEN POLES.
22. FOR HECO FACILITIES NOT INDICATED ON THE PLANS TO BE TEMPORARILY RELOCATED, HECO SHALL NOT BE RESPONSIBLE FOR DELAYS THAT ARE BEYOND THEIR CONTROL. ALL HECO TEMPORARY RELOCATIONS NOT SHOWN ON PLANS ARE AT THE CONTRACTOR'S COST.
23. THE CONTRACTOR SHALL GIVE HECO FORTY FIVE (45) WORKING DAYS NOTICE TO PROCEED WITH ITS PORTION OF THE WORK. (DOES NOT INCLUDE ADDITIONAL TEMPORARY RELOCATION WORK THAT IS NOT SHOWN ON PLANS.)
24. BARRICADING OF HECO'S FACILITIES, IF REQUIRED, SHALL BE DONE BY THE CONTRACTOR. BREAKING INTO EXISTING HECO FACILITIES SHALL BE DONE BY HECO.

ELECTRICAL & MAINTENANCE SERVICES DIVISION NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE JOINT POLE COMMITTEE TWO (2) WEEKS IN ADVANCE OF ANY RELOCATION OF UTILITY POLES(S) THAT MAY BE NECESSARY.
2. THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL & MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE STREET LIGHTING SYSTEM (PHONE 527-5002).
3. THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL & MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE TRAFFIC SIGNAL SYSTEM (PHONE 527-5007).
4. THE CONTRACTOR SHALL NOTIFY THE ELECTRICAL & MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE FIBER OPTIC SYSTEM (PHONE 527-5007).
5. THE STREET LIGHTING AND TRAFFIC SIGNALS SHALL BE KEPT OPERATIONAL DURING CONSTRUCTION. ANY RELOCATION OR CHANGEOVER REQUIRED SHALL BE APPROVED BY THE ELECTRICAL & MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES, AND PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING STREET LIGHTING AND TRAFFIC SIGNAL FACILITIES, INCLUDING THE TRAFFIC SIGNAL INTERCONNECT SYSTEM, AND ANY AND ALL DAMAGES TO THESE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND COUNTY OF HONOLULU.

APPROVED BY:

Dance 7. Hageishi
GTE HAWAIIAN TEL

3/21/96
DATE

DRAWING REVIEW
Reviewed for HECO's
Facilities Only
Date 2/23/96 By J.K. W
Engineering & Project Management Dept.
Hawaiian Electric Company, Inc.
HECO's review of these drawings shall in no way relieve the Customer, its Consultant, its Contractor or anyone acting on the Customer's behalf from the responsibility for engineering, design, materials and any liability associated with this project.

DRAWING REVIEW
Reviewed for HECO's
Facilities Only
Date 3-11-96 By J.K. W
Distribution Engineering Department
Hawaiian Electric Company, Inc.
HECO's review of these drawings shall in no way relieve the Customer, its Consultant, its Contractor or anyone acting on the Customer's behalf from the responsibility for engineering, design, materials and any liability associated with this project.

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | IM-H2-1(29) | 1997 | 101 | 129 |

HAWAIIAN TELEPHONE COMPANY NOTES

1. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENT TO THE DUE AND LAWFUL PROTECTION OF THE WORK.
2. THE LOCATION OF UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN THE EXCAVATION AND CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND TELEPHONE AND SIGNAL CABLE FACILITIES AND MAINTAIN ADEQUATE CLEARANCE FOR HIS EQUIPMENT WHILE WORKING CLOSE TO AND/OR UNDER THE OVERHEAD FACILITIES. ANY DAMAGE TO THE EXISTING UNDERGROUND FACILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
3. THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATION AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF HIS OPERATIONS. ADJUSTMENTS TO THE NEW DUCTLINE ALIGNMENT, IF REQUIRED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.
- a. PRIOR TO THE EXCAVATION OF THE DUCTLINE, THE CONTRACTOR SHALL REQUEST THE HAWAIIAN TELEPHONE COMPANY TO LOCATE EXISTING DUCTLINE WHEREVER REQUIRED.
- b. FOR FIELD LOCATION OF HTCO FACILITIES, CONTACT HTCO OUTSIDE PLANT ENGINEERING SECTION, A MINIMUM OF 72 HOURS IN ADVANCE PRIOR TO START OF EXCAVATION. PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR IS TO OBTAIN AN EXCAVATION PERMIT FROM HAWAIIAN TELEPHONE CO.
4. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. ANY WORK INVOLVING EXISTING CABLES OR DUCTS SHALL BE DONE IN THE PRESENCE OF THE HAWAIIAN TELEPHONE COMPANY INSPECTOR OR HIS REPRESENTATIVE.
5. WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES PRIOR TO EXCAVATION OF THE MAIN TRENCHES TO VERIFY THEIR LOCATIONS AND DEPTHS.
6. THE CONTRACTOR SHALL SAW-CUT A.C. PAVEMENT AND CONCRETE CUTTER WHEREVER NEW MANHOLES OR DUCTLINES ARE TO BE PLACED AND SHALL RESTORE TO EXISTING CONDITION OR BETTER.
7. THE CONTRACTOR SHALL COMPLY WITH THE POLICY ADOPTED BY THE DEPARTMENT OF PUBLIC WORKS, CITY AND COUNTY OF HONOLULU, CONCERNING RESTORING PAVEMENTS AND OTHER IMPROVEMENTS AFTER EXCAVATION WORK.
8. CONTRACTOR SHALL PROVIDE ALL MATERIALS, AND FURNISH ALL LABOR AND EQUIPMENT NECESSARY TO INSTALL THE DUCTLINE IN PLACE COMPLETE.
9. WHEN CONNECTING TO MANHOLE WALLS, ALL EXISTING REINFORCING BARS SHALL BE LEFT INTACT. DUCT SHALL BE ADJUSTED IN THE FIELD IN ORDER TO CLEAR REINFORCING.
10. THE CONTRACTOR SHALL NOTIFY THE HAWAIIAN TELEPHONE COMPANY INSPECTOR 24 HOURS PRIOR TO THE POURING OF CONCRETE OR BACKFILLING: J. PAI 834-6258.
11. THE CONTRACTOR SHALL PUMP ALL MANHOLES DRY DURING FINAL INSPECTION.
12. SHOULD IT BECOME NECESSARY, ANY WORK REQUIRED TO RELOCATE UNDERGROUND OR OVERHEAD FACILITIES SHALL BE DONE BY HTCO AND PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
13. SHOULD FIELD CONDITIONS AND CONSTRUCTION PROCEDURES REQUIRE THAT UTILITY POLES BE BRACED, THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSON FOR POLE BRACING INSTRUCTIONS A MINIMUM OF 72 HOURS IN ADVANCE OF ACTUAL REQUIRED BRACING:

CALVIN CHOY — HTCO AREA CONSTRUCTION SUPERVISOR, AT 546-3381



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
GENERAL NOTES
INTERSTATE ROUTE H-2
MILLANIL INTERCHANGE
SOUTHBOUND ON-AND-OFF RAMP
F.A.I. PROJECT NO. IM-H2-1(29)
SCALE: AS NOTED DATE: MAR. 1997
SHEET No. E-2 OF 19 SHEETS

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3/16/96

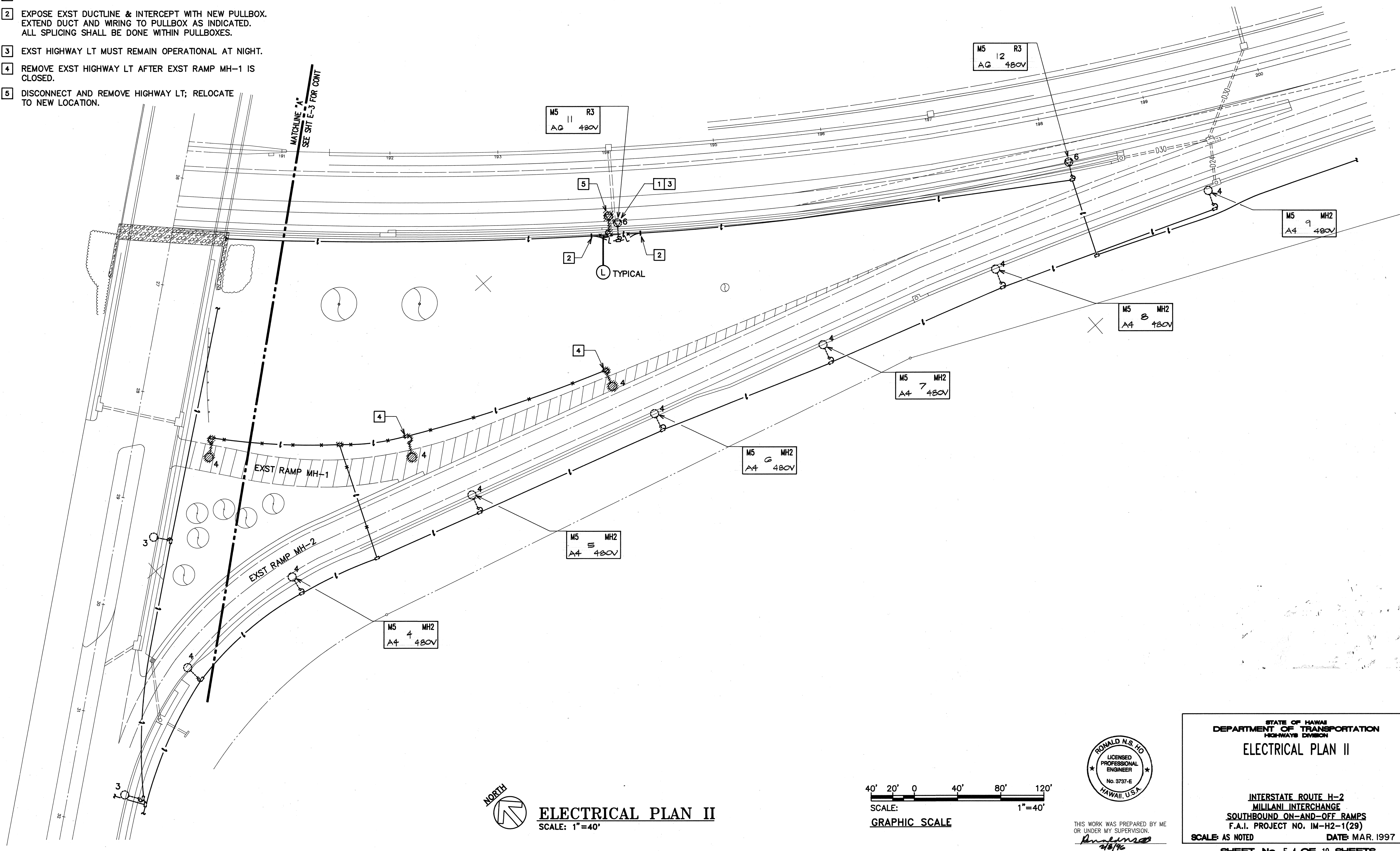
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|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | IM-H2-1(29) | 1997 | 103 | 129 |

NOTES:

- 1 RELOCATED HIGHWAY LT.
- 2 EXPOSE EXST DUCTLINE & INTERCEPT WITH NEW PULLBOX. EXTEND DUCT AND WIRING TO PULLBOX AS INDICATED. ALL SPlicing SHALL BE DONE WITHIN PULLBOXES.
- 3 EXST HIGHWAY LT MUST REMAIN OPERATIONAL AT NIGHT.
- 4 REMOVE EXST HIGHWAY LT AFTER EXST RAMP MH-1 IS CLOSED.
- 5 DISCONNECT AND REMOVE HIGHWAY LT; RELOCATE TO NEW LOCATION.

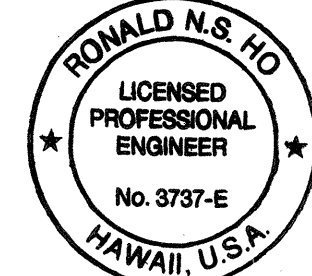
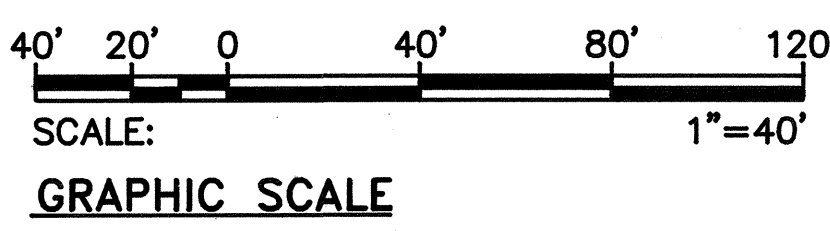
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| ORIGINAL PLAN | DATE |
| DRAWN BY | |
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| DESIGNED BY | |
| QUANTITIES BY | |
| CHECKED BY | |

Let date: 02/05/98
S. KADO PROJECT VLS/SL/LE/PL/2



ELECTRICAL PLAN II

SCALE: 1"=40'



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Ronald N.S. Ho
2/6/98

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN II

INTERSTATE ROUTE H-2
MILILANI INTERCHANGE
SOUTHBOUND ON-AND-OFF RAMP
F.A.I. PROJECT NO. IM-H2-1(29)

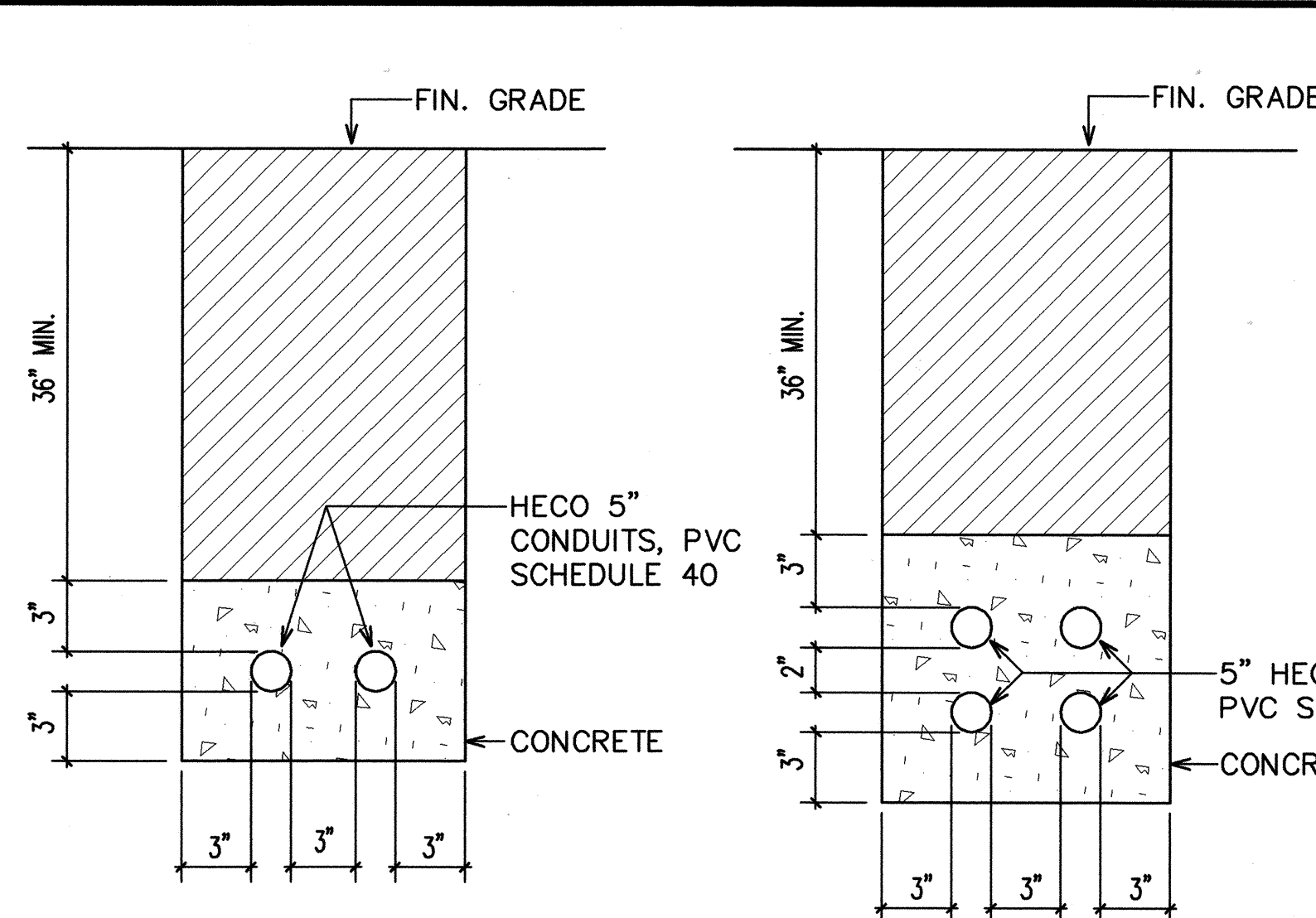
SCALE: AS NOTED DATE: MAR. 1997

SHEET No. E-4 OF 19 SHEETS

BACKFILL NOTES:

- TRENCH BACKFILL MATERIAL "A"
1. SAND EQUIVALENT ≥ 20
2. 8" MAX. LIFT
3. 95% COMPACTION
- IF MATERIAL BELOW DUCT IS NOT EQUIVALENT TO BACKFILL MATERIAL "A" EXCAVATE MATERIAL & PROVIDE 3" BACKFILL MATERIAL "A". SEE ABOVE
- CONCRETE - 3" ENCASEMENT, 3000 PSI COMPRESSIVE STRENGTH @ 28 DAYS.

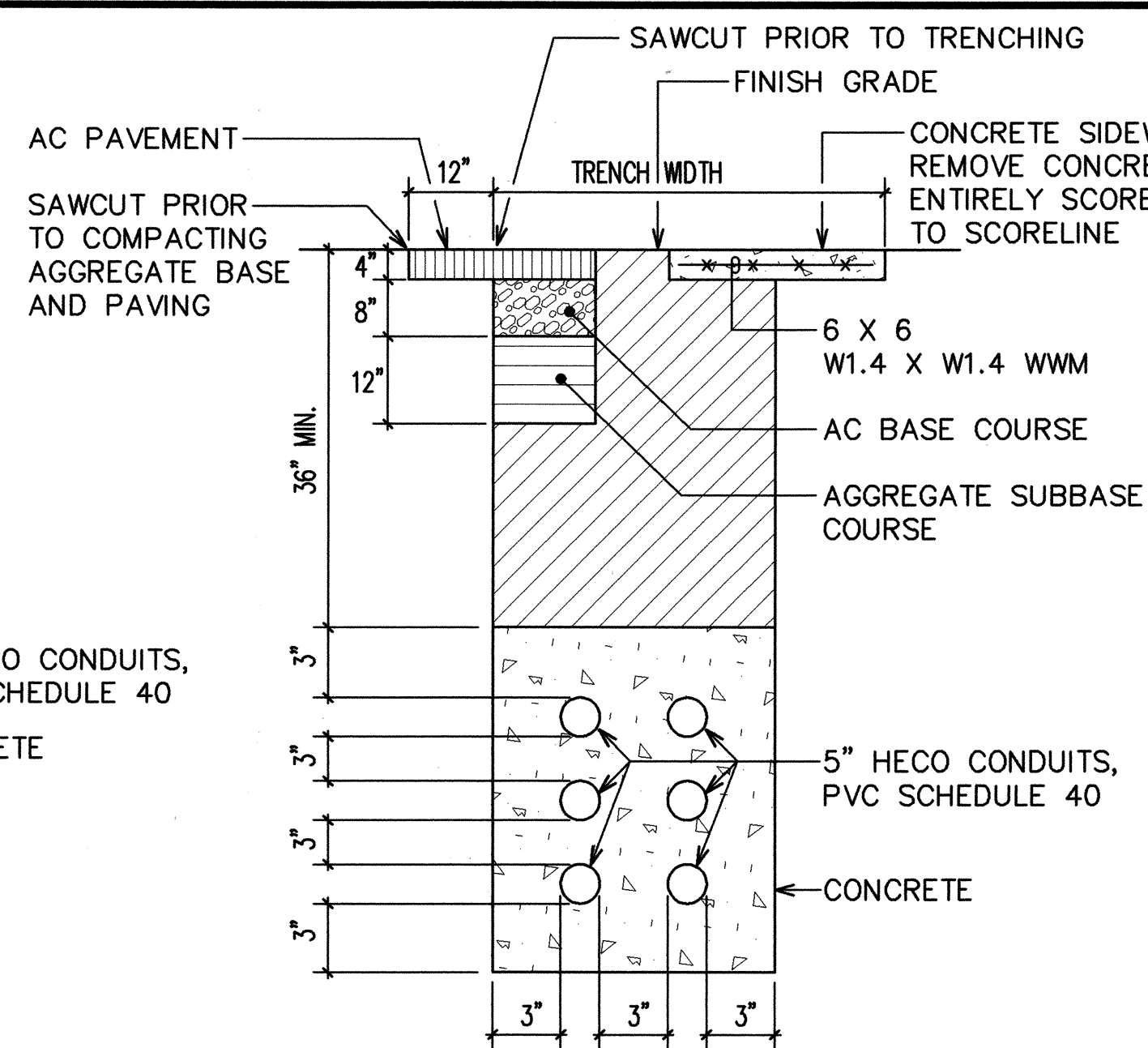
NOTE: BASE COURSE & SUB-BASE COURSE PER 1985 STATE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.



SECTION A

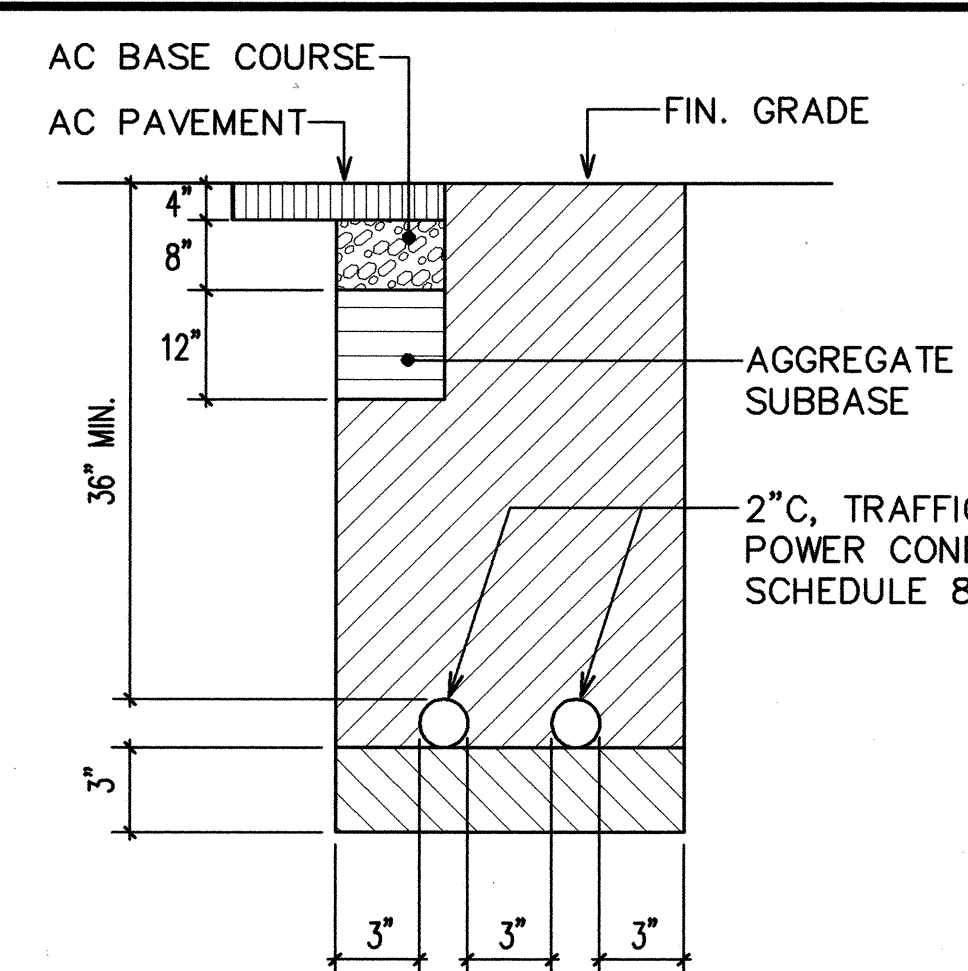
SECTION B

SECTION (A) SIMILAR TO (A) EXCEPT WITH 2-4" HECO CONDUITS, PVC SCHEDULE 40



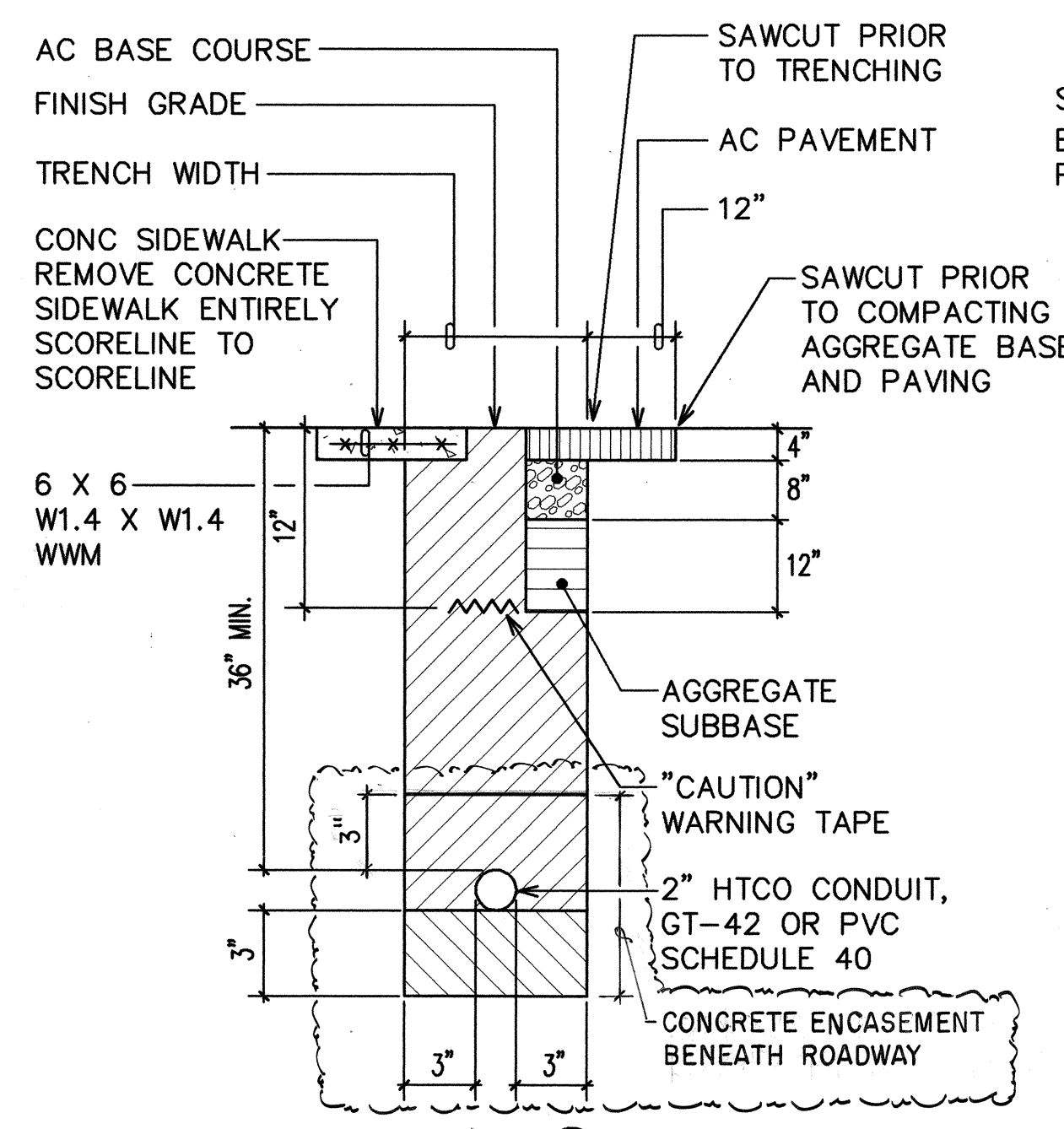
SECTION C

MATCH EXISTING PAVEMENT STRUCTURE WHICHEVER IS GREATER



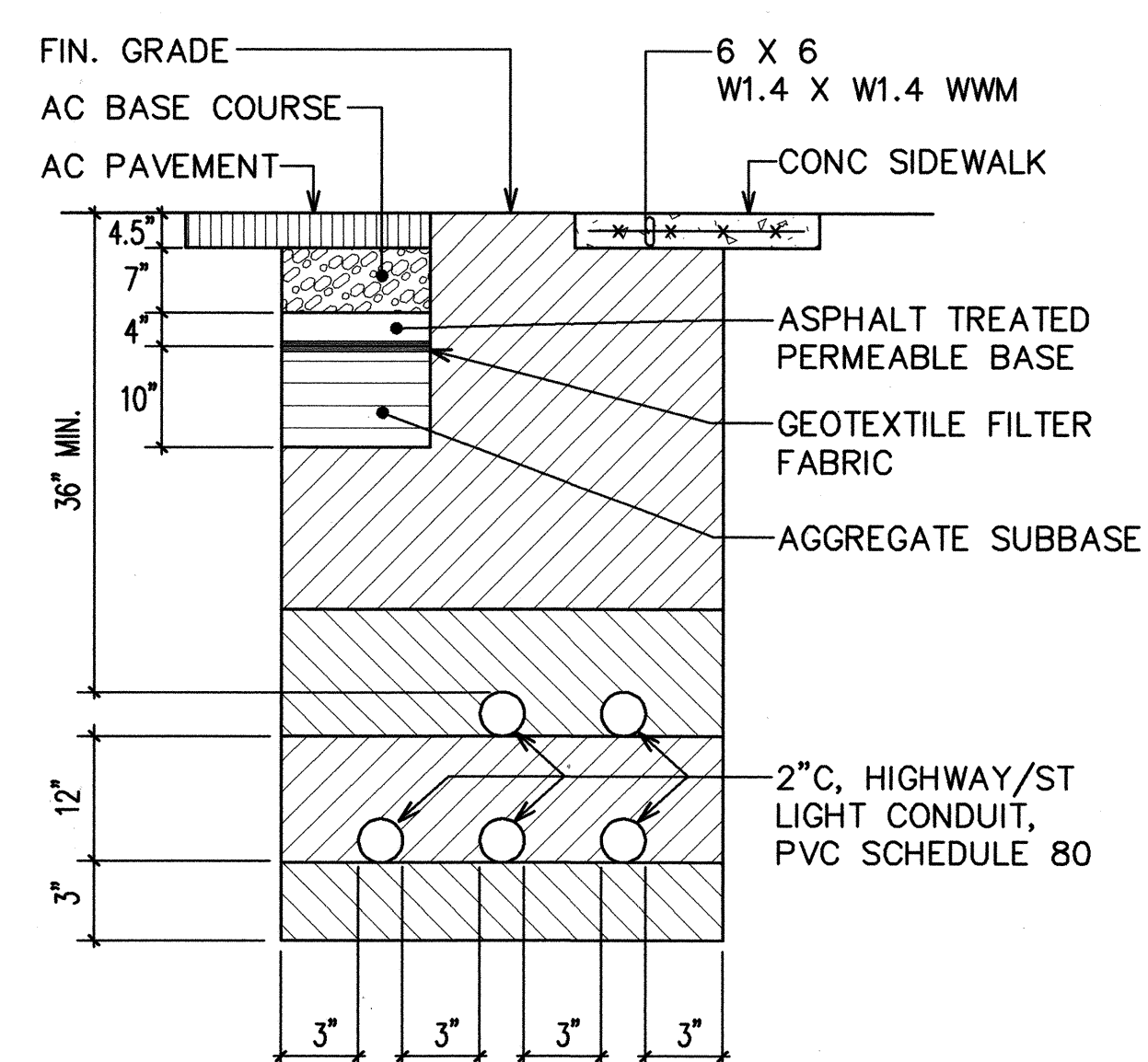
SECTION D

MATCH EXISTING PAVEMENT STRUCTURE WHICHEVER IS GREATER

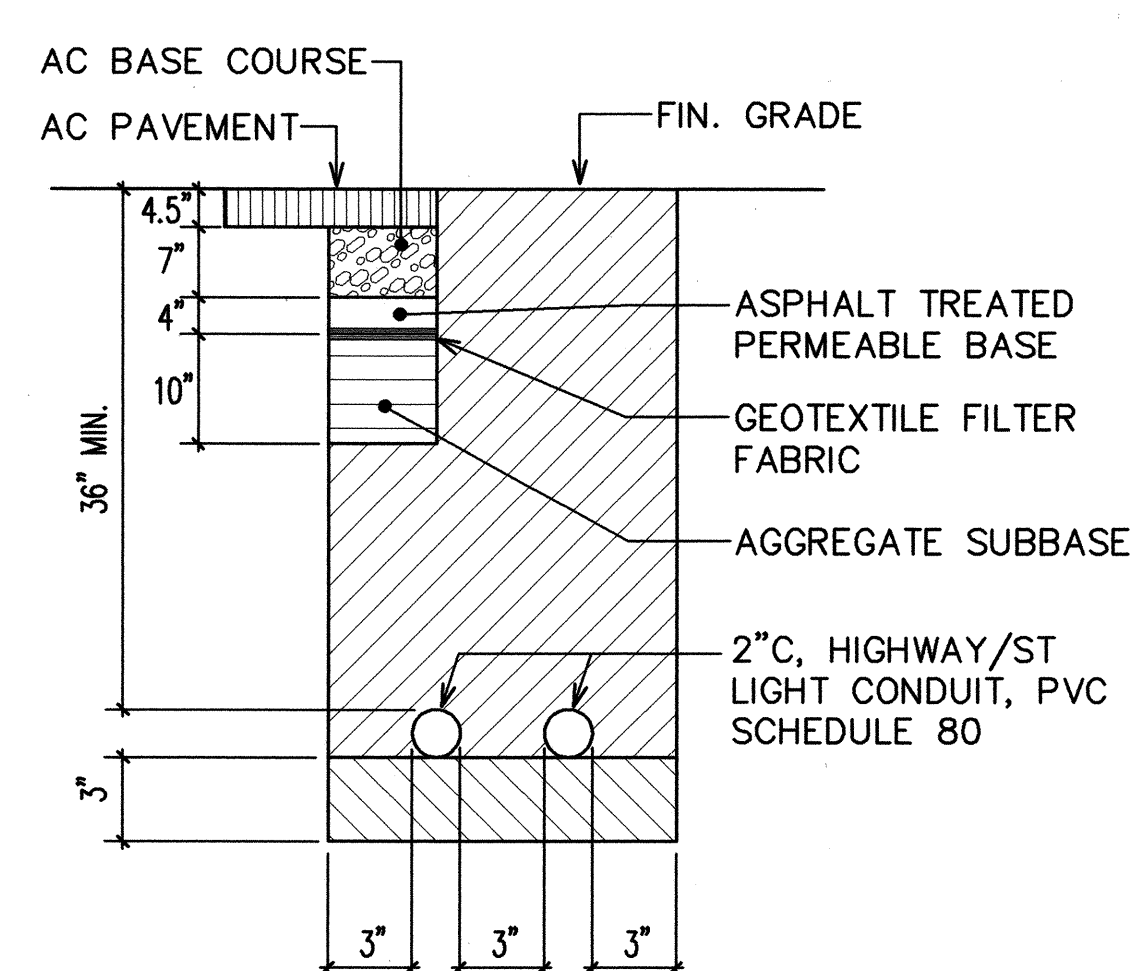


SECTION E

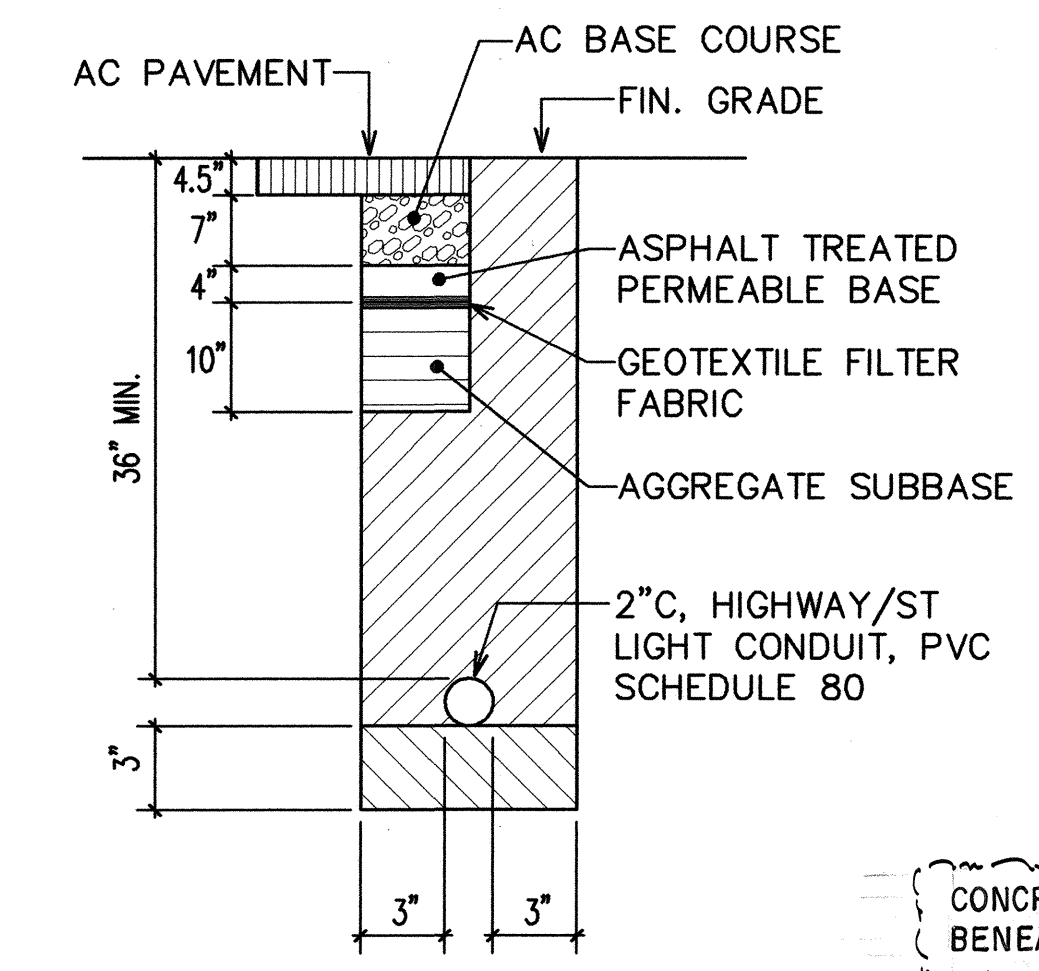
MATCH EXISTING PAVEMENT STRUCTURE WHICHEVER IS GREATER



SECTION F

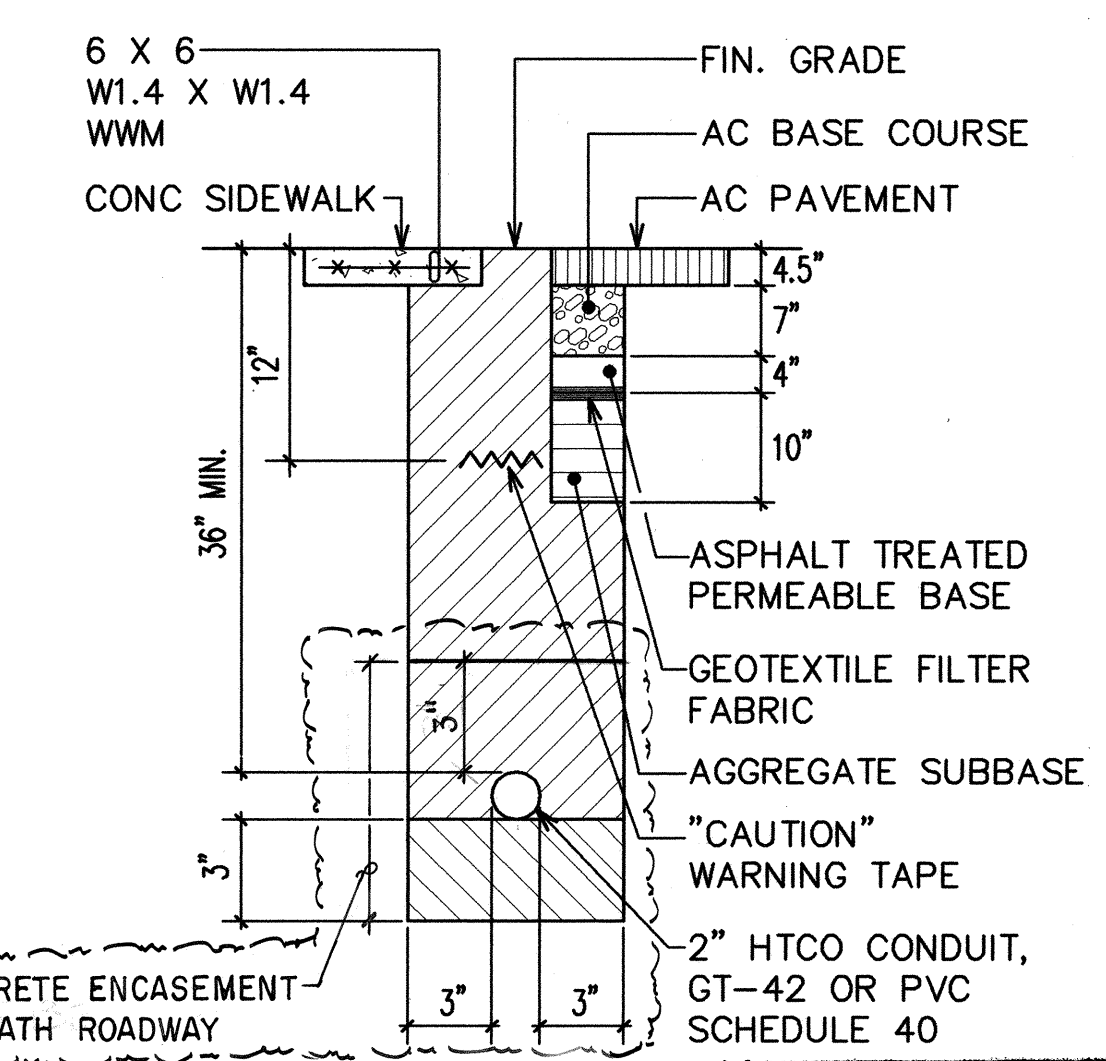


SECTION G



SECTION H

SECTION (I) SIMILAR TO (H) EXCEPT WITH 1-3" HECO CONDUIT, PVC SCHEDULE 40



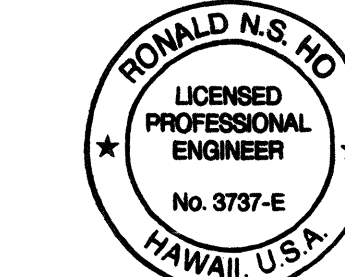
SECTION J

DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date 3/11/96 By [Signature]
Distribution Engineering Department
Hawaiian Electric Company, Inc.
HECO's review of these drawings shall in no way relieve the Customer, its Consultant, its Contractor or anyone acting on Customer's behalf from the responsibility for engineering, design, materials and any liability associated with this project.

APPROVED BY:

[Signature] DATE 3/21/96
GTE HAWAIIAN TEL

DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date 2/23/96 By [Signature]
Engineering & Project Management Dept.
Hawaiian Electric Company, Inc.
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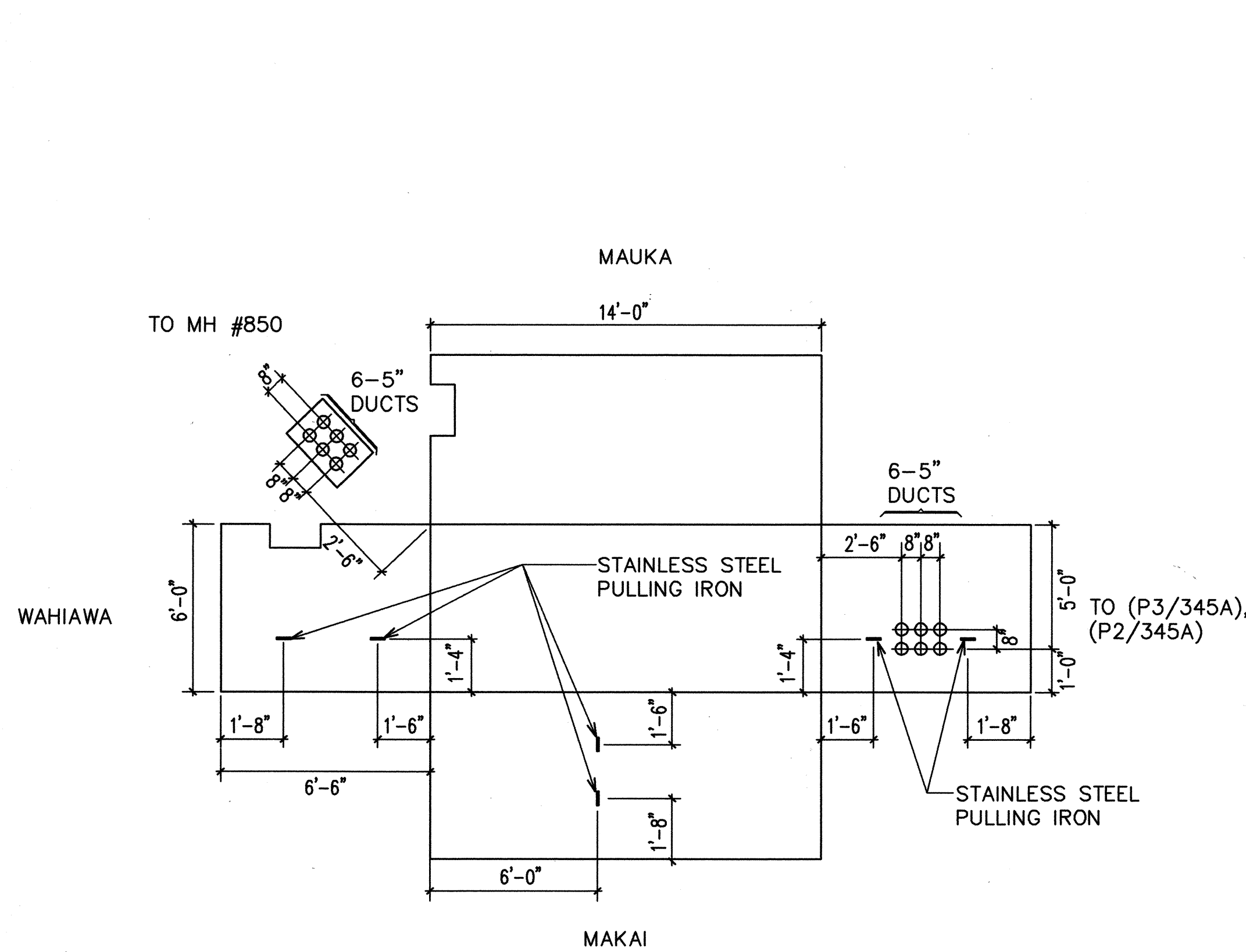
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature] 2/18/96

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL DUCT SECTIONS
INTERSTATE ROUTE H-2
MILLANI INTERCHANGE
SOUTHBOUND ON-AND-OFF RAMP
F.A.I. PROJECT NO. IM-H2-1(29)
SCALE: AS NOTED DATE: MAR. 1997
SHEET No. E-6 OF 19 SHEETS

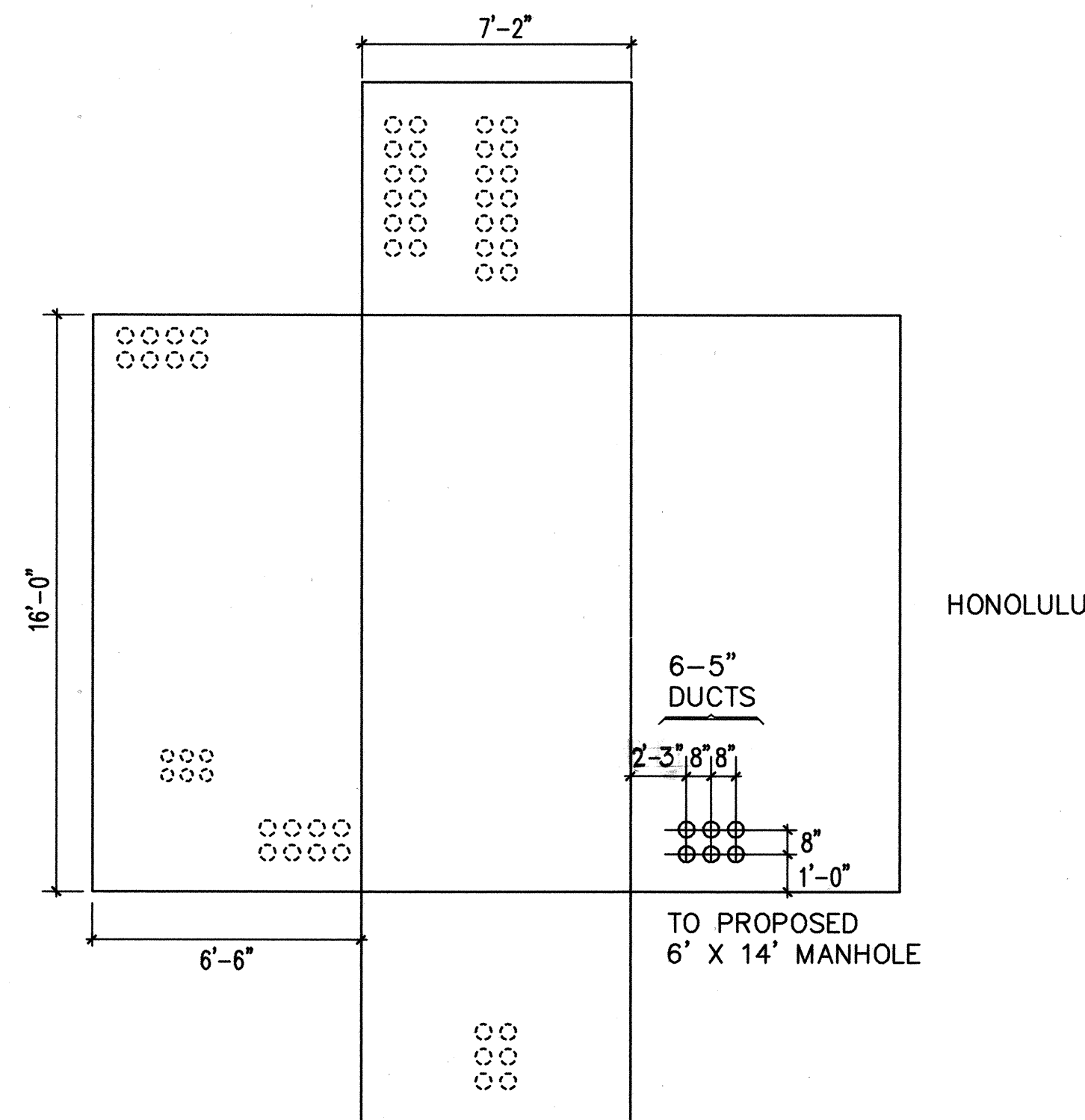
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| CHECKED BY | _____ |
| ORIGINAL PLAN | _____ |
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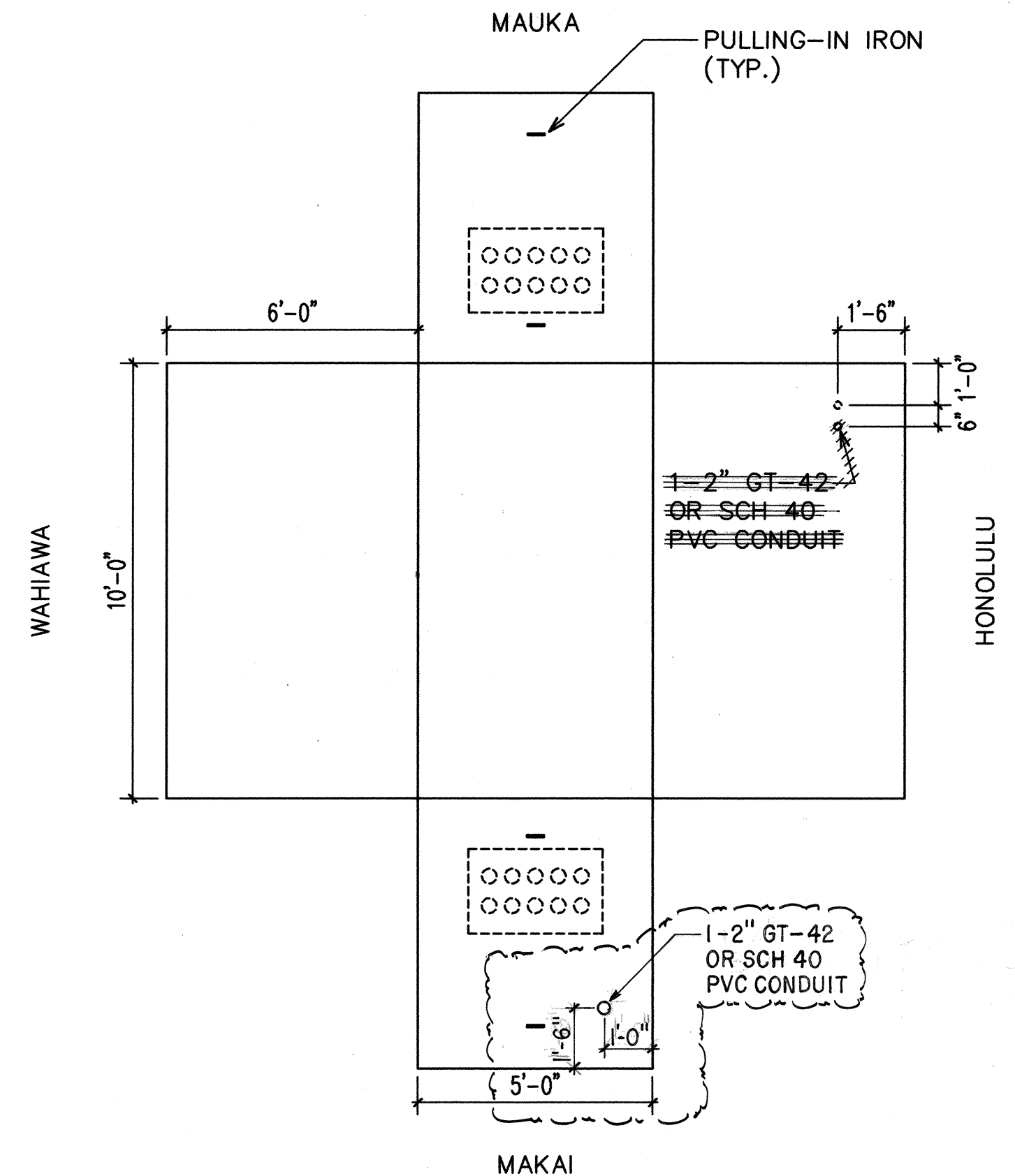
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | IM-H2-1(29) | 1997 | 106 | 129 |



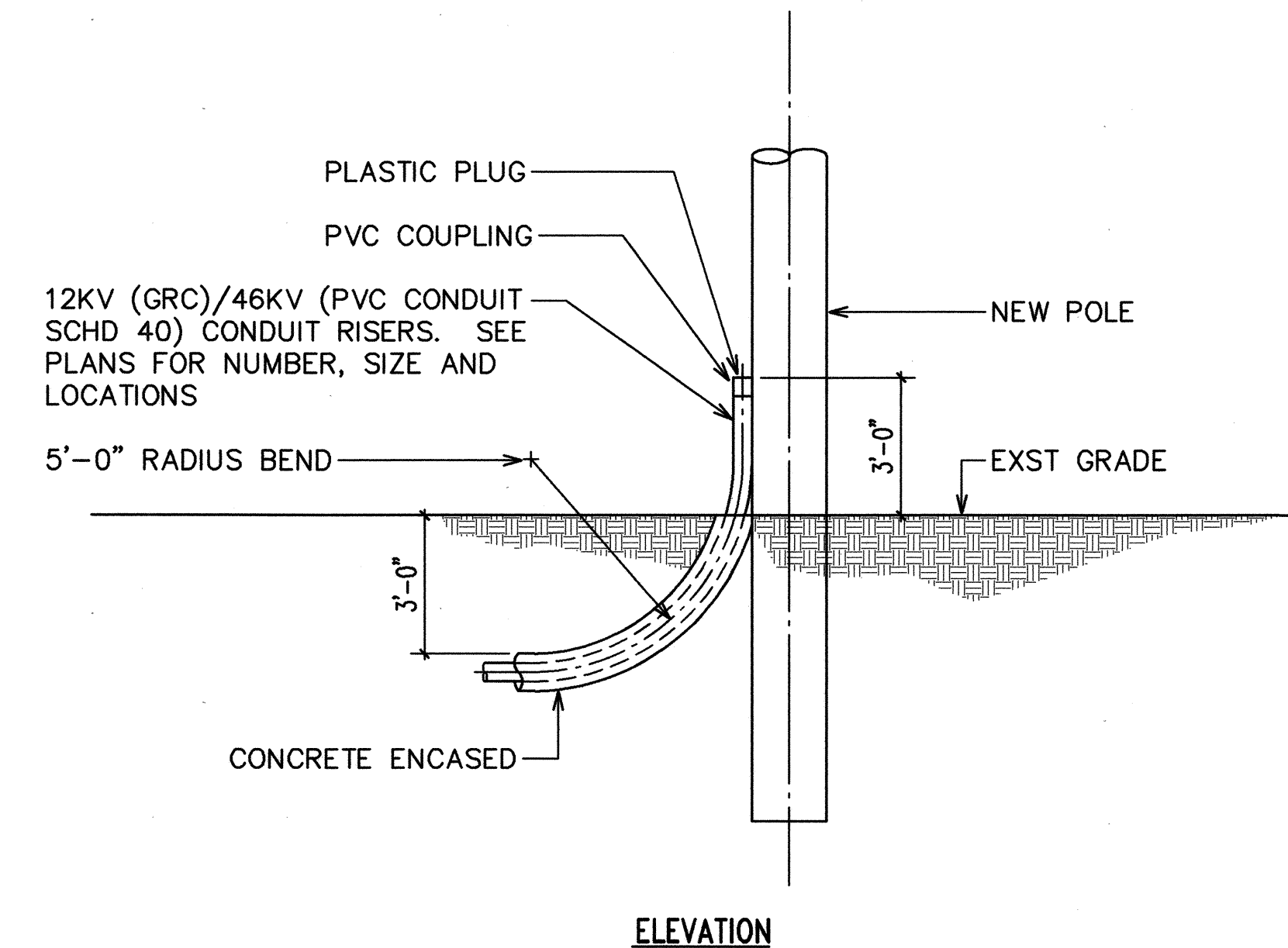
1 HECO MH #850D (6' X 14')



2 EXST MH #850



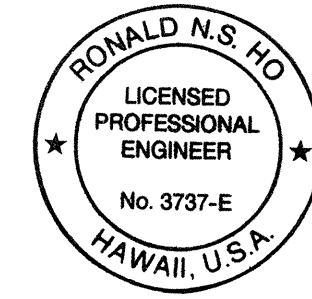
3 EXST TELEPHONE MH NO. 2



4 TYPICAL RISER DETAIL

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Date 2/23/96 By J.K. Li
Engineering & Project Management Dept.
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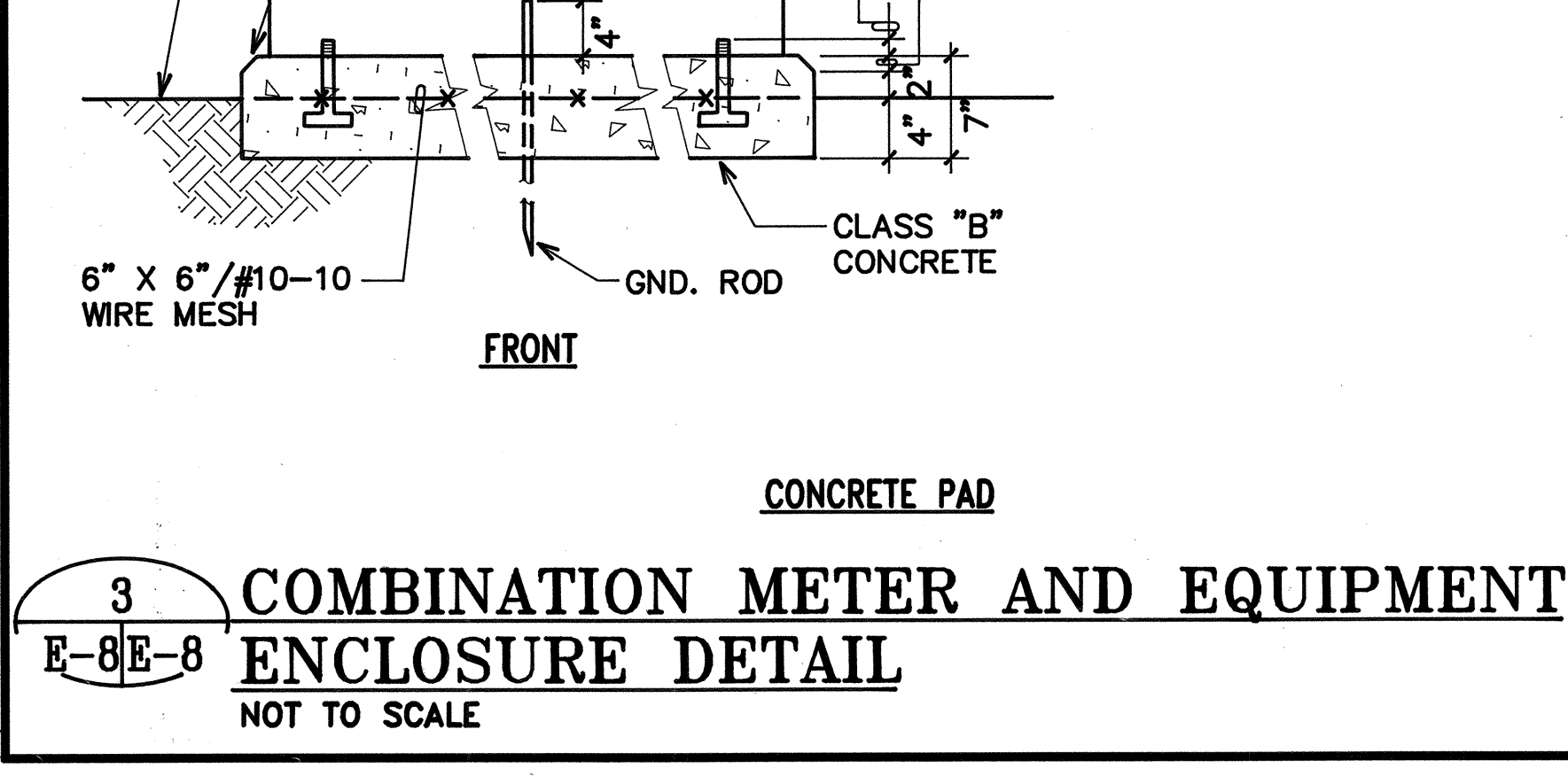
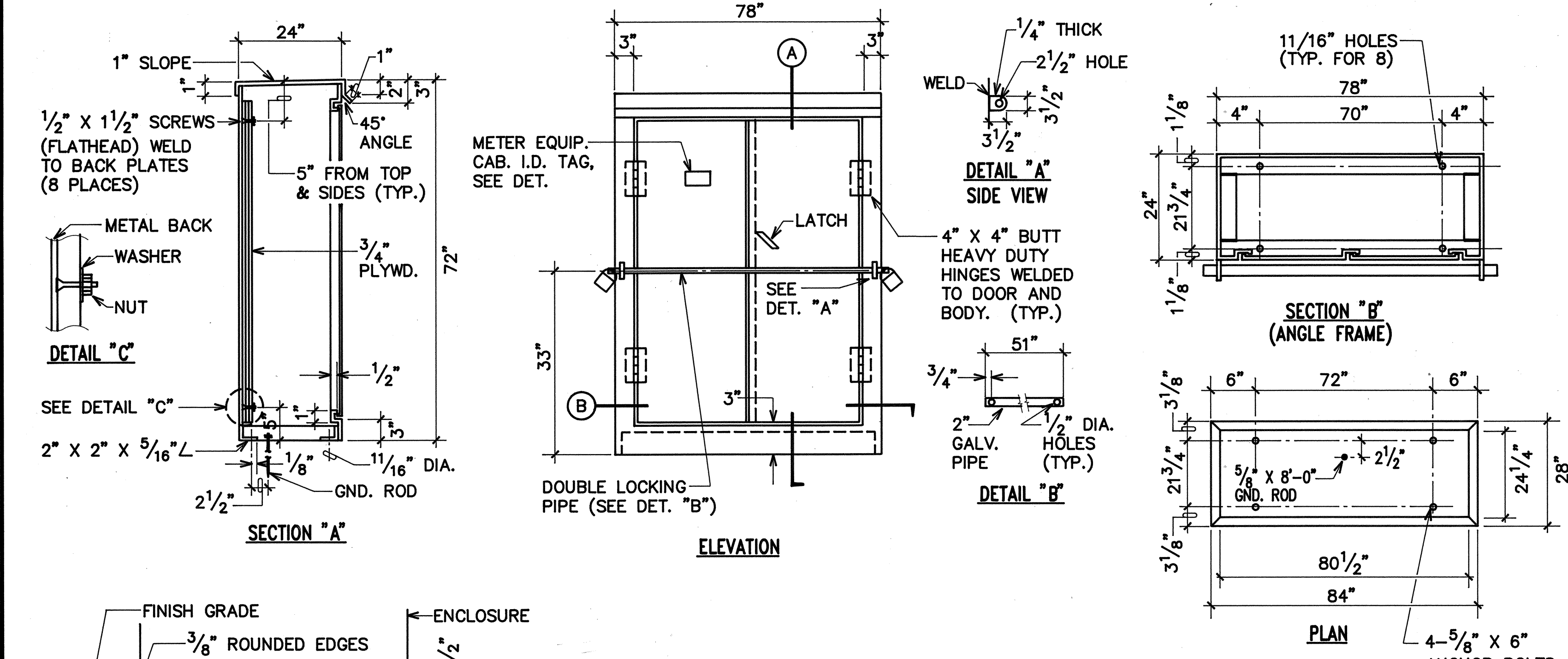
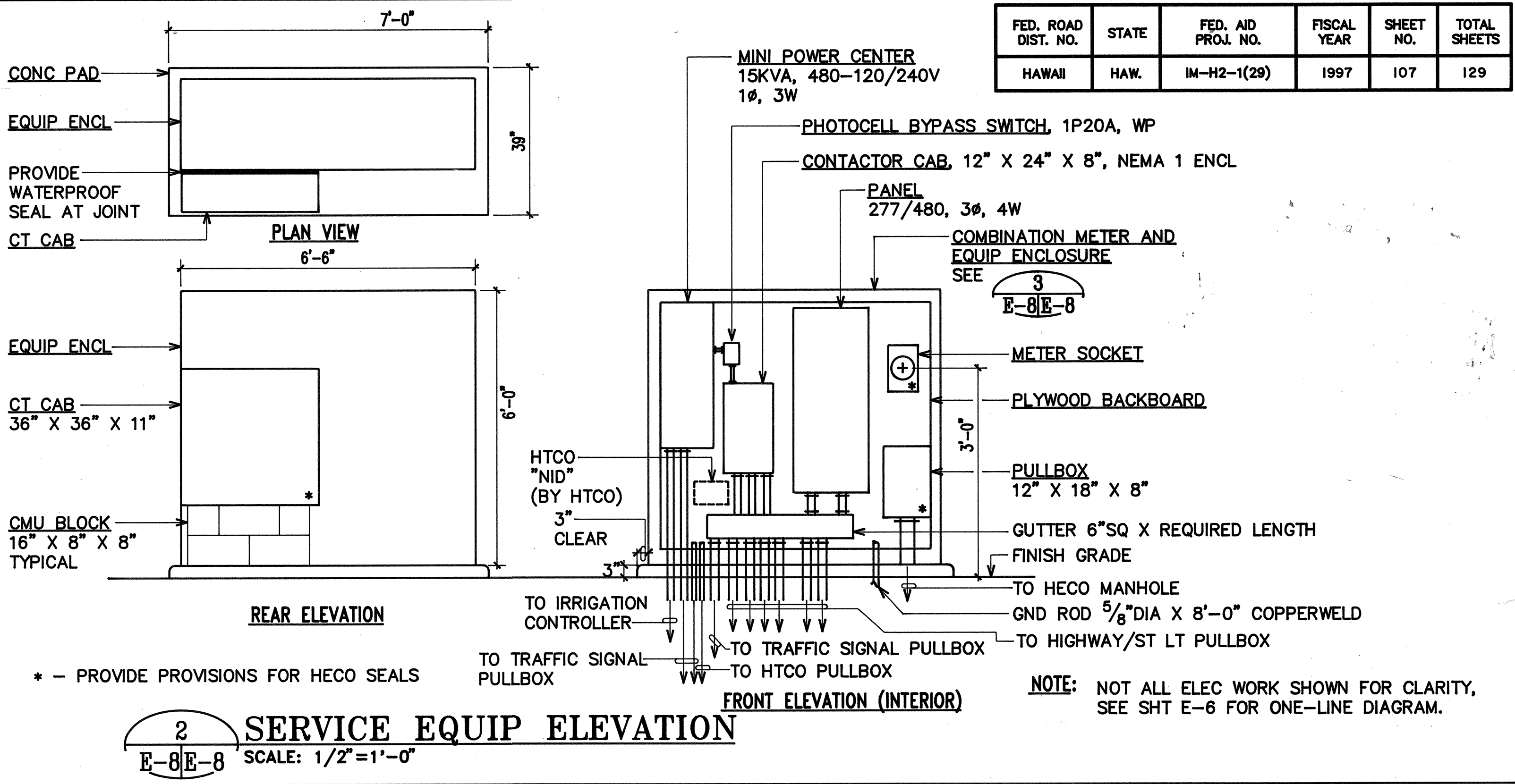
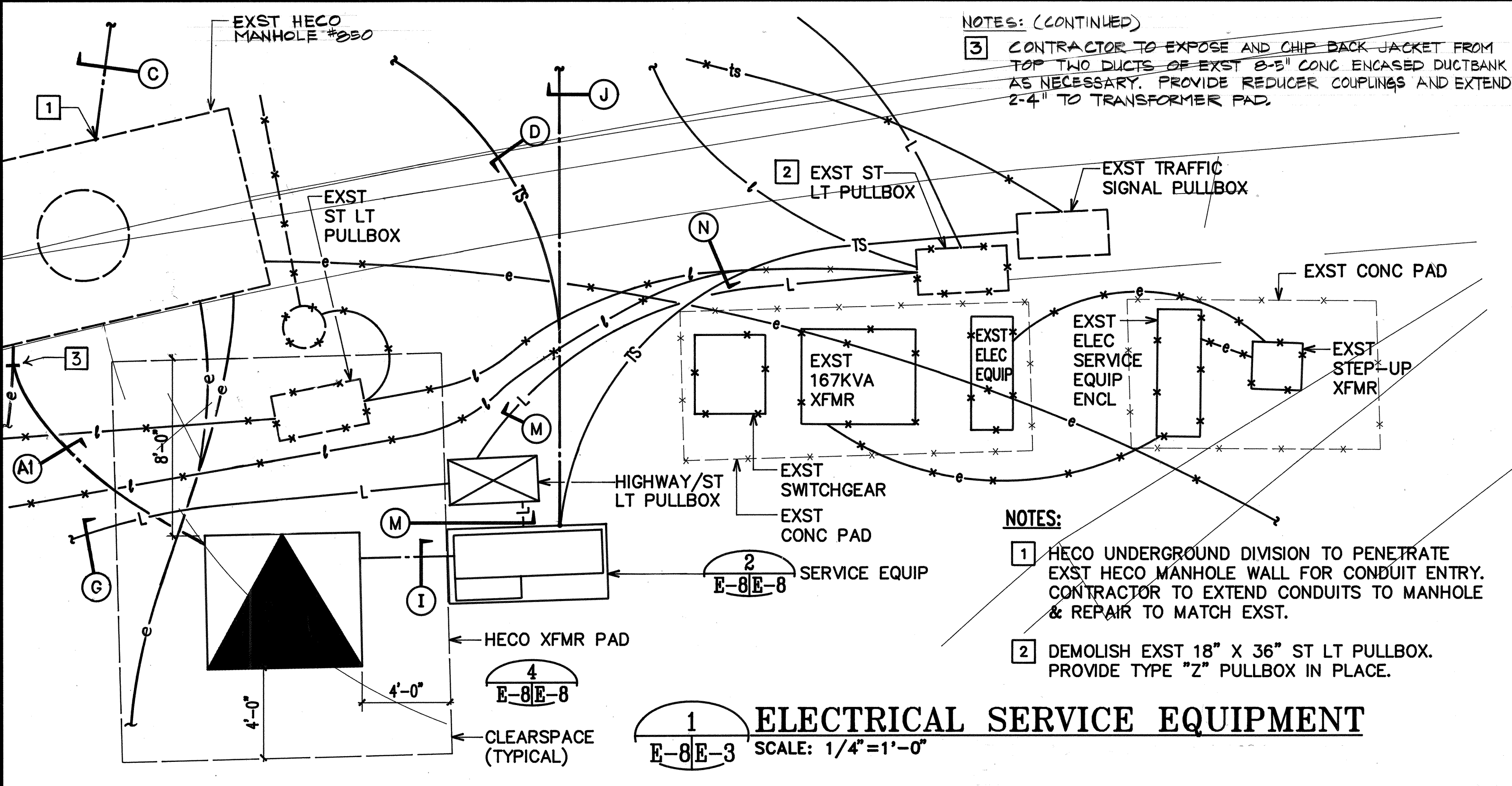
APPROVED BY:
Doreen T. Hagashi
GTE HAWAIIAN TEL
3/21/96
DATE



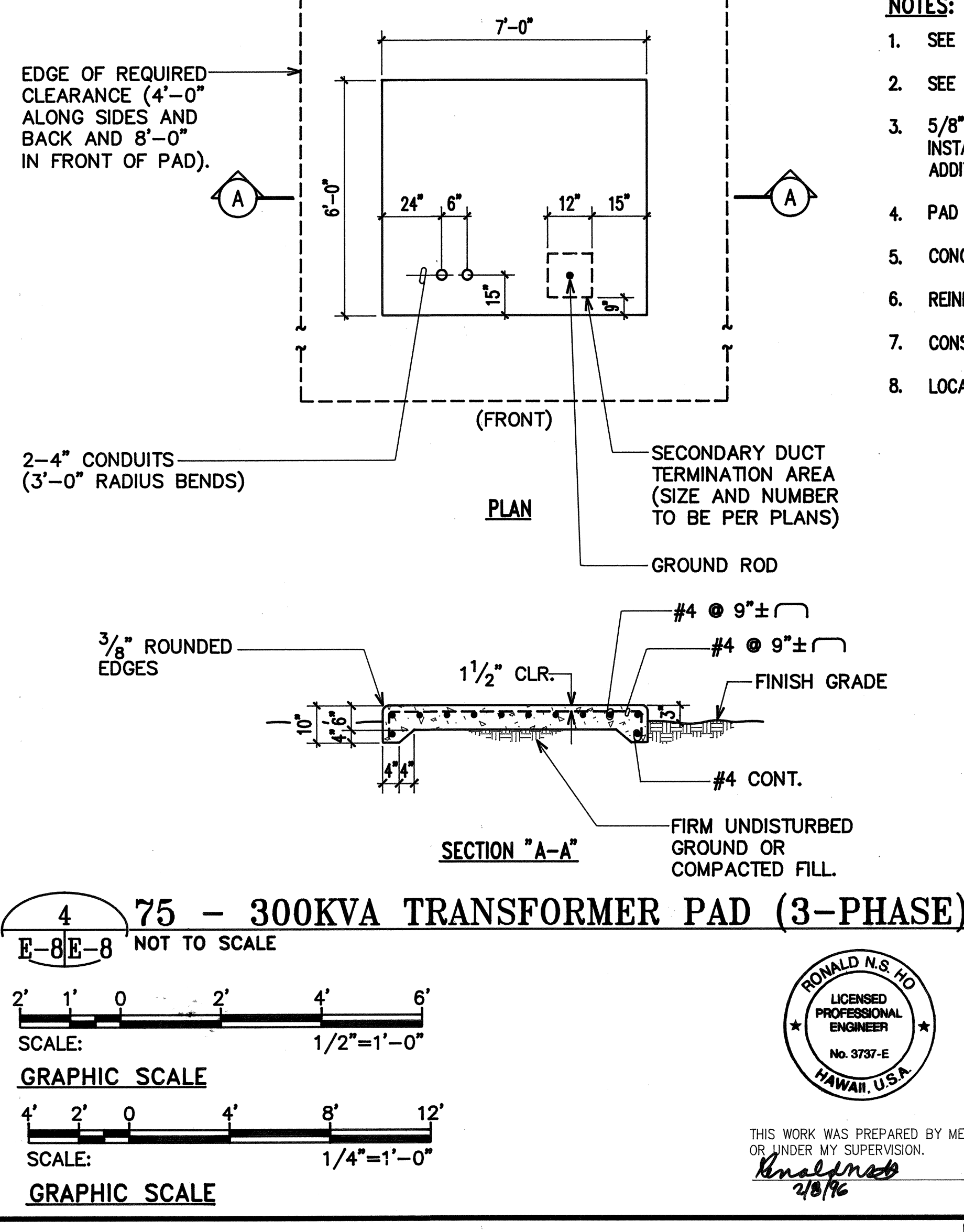
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MANHOLE DETAILS
INTERSTATE ROUTE H-2
MILILANI INTERCHANGE
SOUTHBOUND ON-AND-OFF RAMP
F.A.I. PROJECT NO. IM-H2-1(29)
SCALE: AS NOTED DATE: MAR. 1997
SHEET No. E-7 OF 19 SHEETS

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|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | IM-H2-1(29) | 1997 | 107 | 129 |



- NOTES:**
- CABINET TO BE PRIMED WITH ONE COAT SHOP PRIMER.
 - PLYWOOD TO BE TREATED (WAXED) PLYWOOD.
 - MADE FROM 10 GA. GALV. SHEET STEEL.
 - PROVIDE EPOXY ENAMEL FINISH, COLOR TO MATCH TRANSFORMER.
 - ENCLOSURE SHALL BE NEMA 3R WITH NEOPRENE GASKETING.
 - PADLOCKS:
 - 1 - HECO FURNISHED
 - 2 - CONTRACTOR FURNISHED
 - SHOP FABRICATION DRAWINGS SHALL BE SUBMITTED FOR APPROVAL.
 - PROVIDE 1 5/8" SQ. GALV. CHANNEL STEEL IN ENCLOSURE. CHANNEL STEEL TO SUPPORT EQUIP. & EXTERIOR MTD. CT CABINET.
 - MOUNT BOTTOM OF CT CABINET 12" MIN. ABOVE FIN. GR.

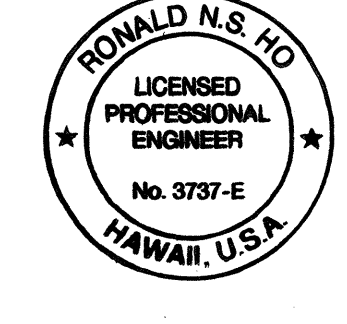


- NOTES:**
- SEE HECO STANDARD DWG. NO. 30-5000 FOR LOCATIONS AND CLEARANCES.
 - SEE HECO STANDARD DWG. NO. 22-2005 FOR ADDITIONAL REQUIREMENTS.
 - 5/8" DIA. X 8'-0" GROUND ROD FURNISHED BY HECO AND CONTRACTOR INSTALLED. IF GROUND RESISTANCE EXCEEDS 25 OHMS, PROVIDE ADDITIONAL GROUND ROD OR GROUND WIRE.
 - PAD TO BE PER HECO STANDARD DWG. NO. 30-5014.
 - CONCRETE: 3000 PSI IN 28 DAYS.
 - REINFORCING: CLEAN AND NEW ROUND DEFORMED BARS.
 - CONSTRUCTION TO COMPLY WITH ACI 318 AS AMENDED.
 - LOCATE, SECURE, AND CAP ALL CONDUITS BEFORE POURING PAD.

DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date: 3-11-96 By: [Signature]
Distribution Engineering Department
Hawaiian Electric Company, Inc.
HECO's review of these drawings shall in no way release the Customer, its Consultant, its Contractor or anyone acting on Customer's behalf from the responsibility for engineering, design, materials and any liability associated with this project.


APPROVED BY: [Signature]
GTE HAWAIIAN TEL. 3/21/96 DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ELECTRICAL SERVICE EQUIPMENT DETAILS
INTERSTATE ROUTE H-2
MILILANI INTERCHANGE
SOUTHBOUND ON-RAMP
F.A.I. PROJECT NO. IM-H2-1(29)
SCALE: AS NOTED DATE: MAR. 1997
SHEET No. E-8 OF 19 SHEETS



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2/8/96

NOTES:

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OR UNDER MY SUPERVISION:
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 2/8/96

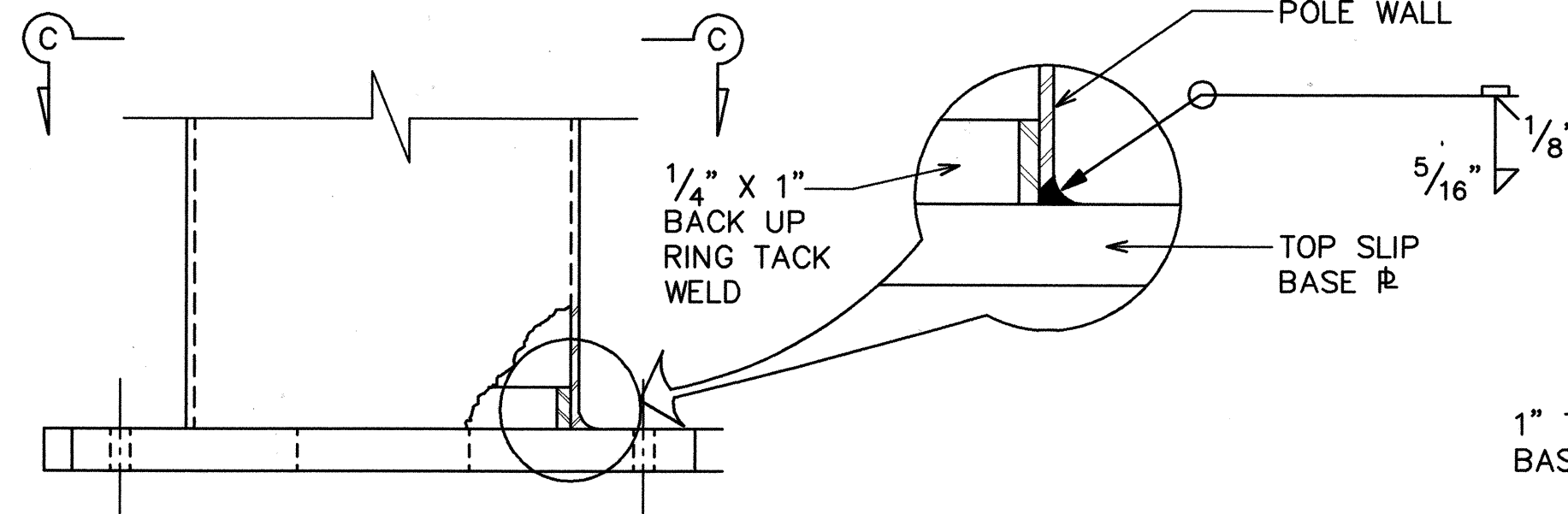
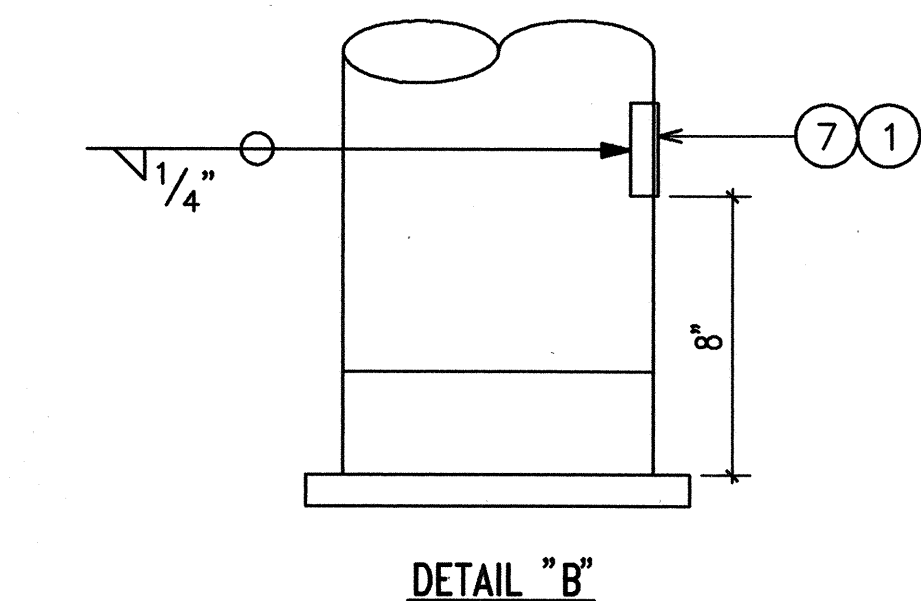
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INTERSTATE ROUTE H-2
MILILANI INTERCHANGE
SOUTHBOUND ON-AND-OFF RAMP
F.A.I. PROJECT NO. IM-H2-1(29)

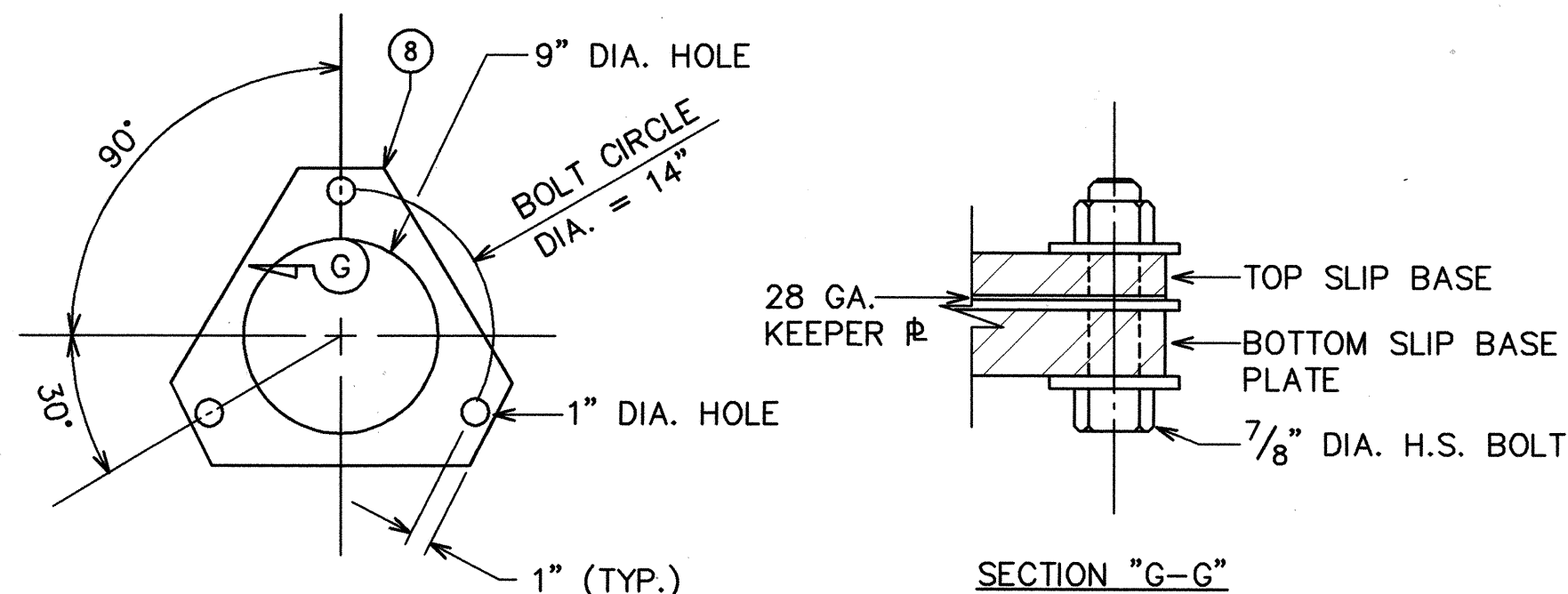
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SHEET No. E-11 OF E-19 SHEETS

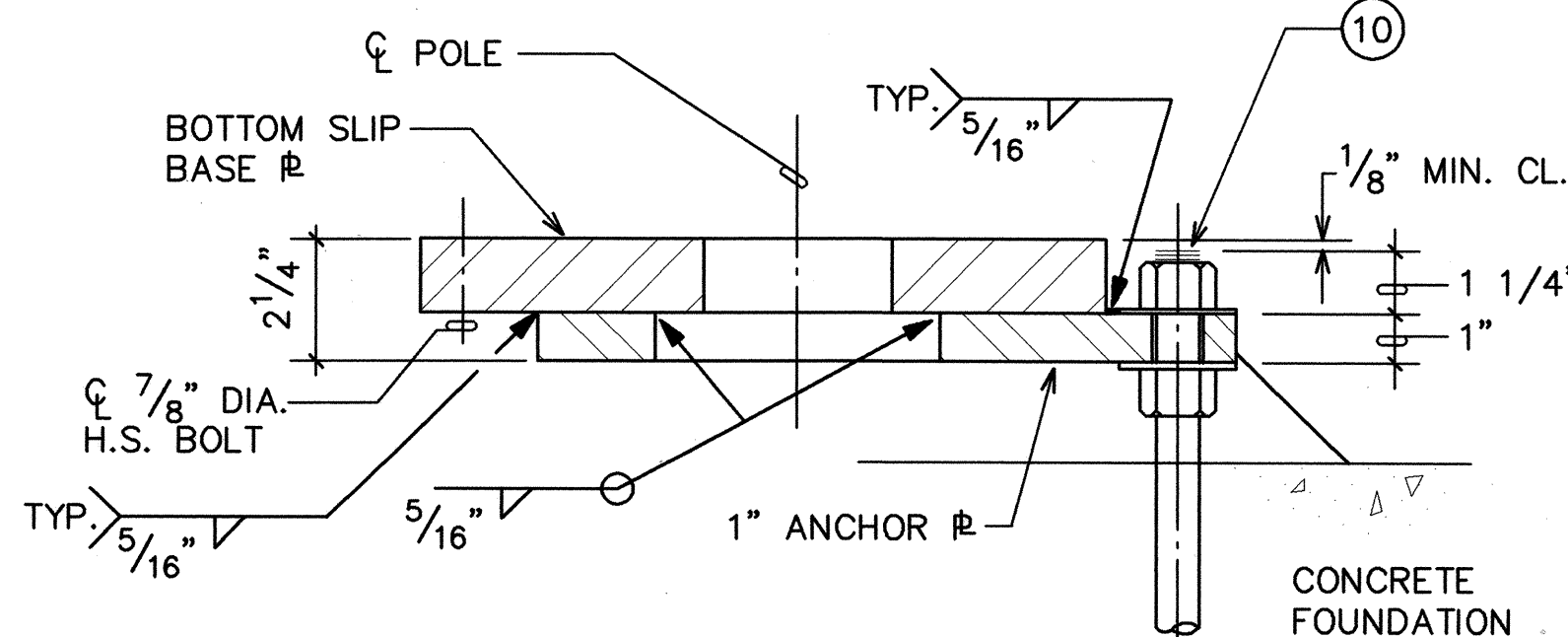
"AS-BUILT" 110



NOTE: TOP SLIP BASE ϕ TOP SLIP BASE PLATE
NOT SHOWN.



20 GA. KEEPER PLATE



NOTE: TOP SLIP BASE &
NOT SHOWN.

VIEW "E-E"

WELDED OPTIO

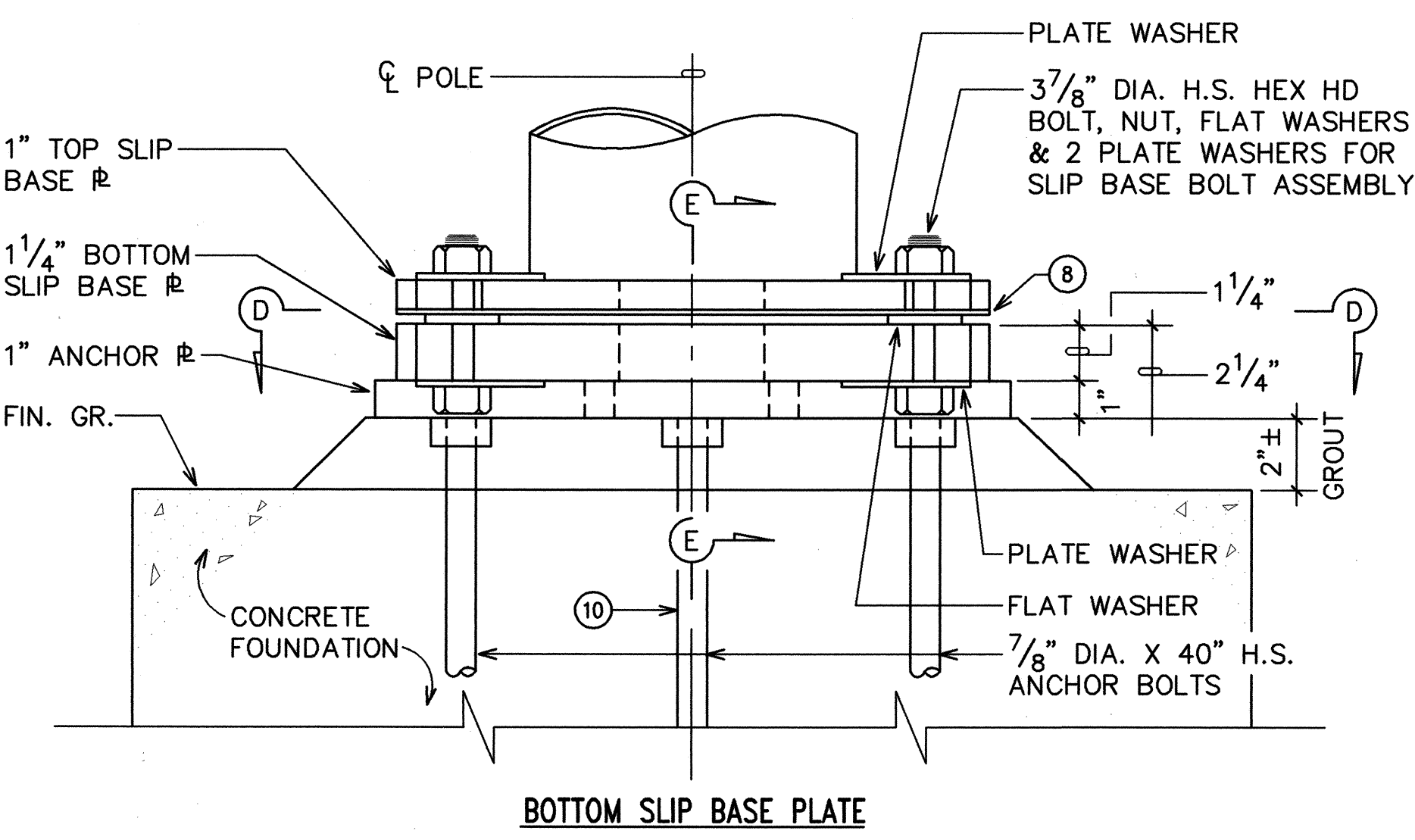
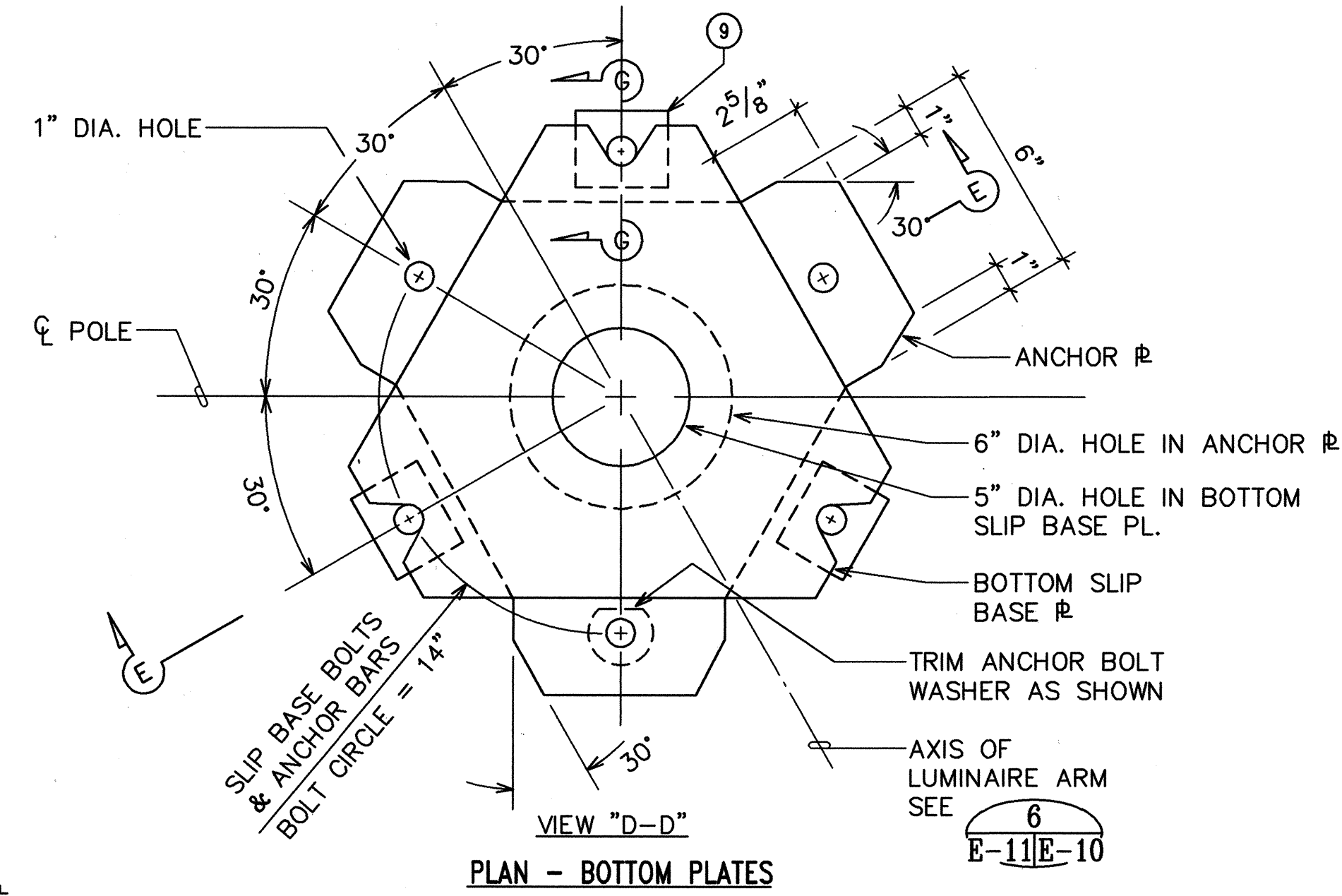
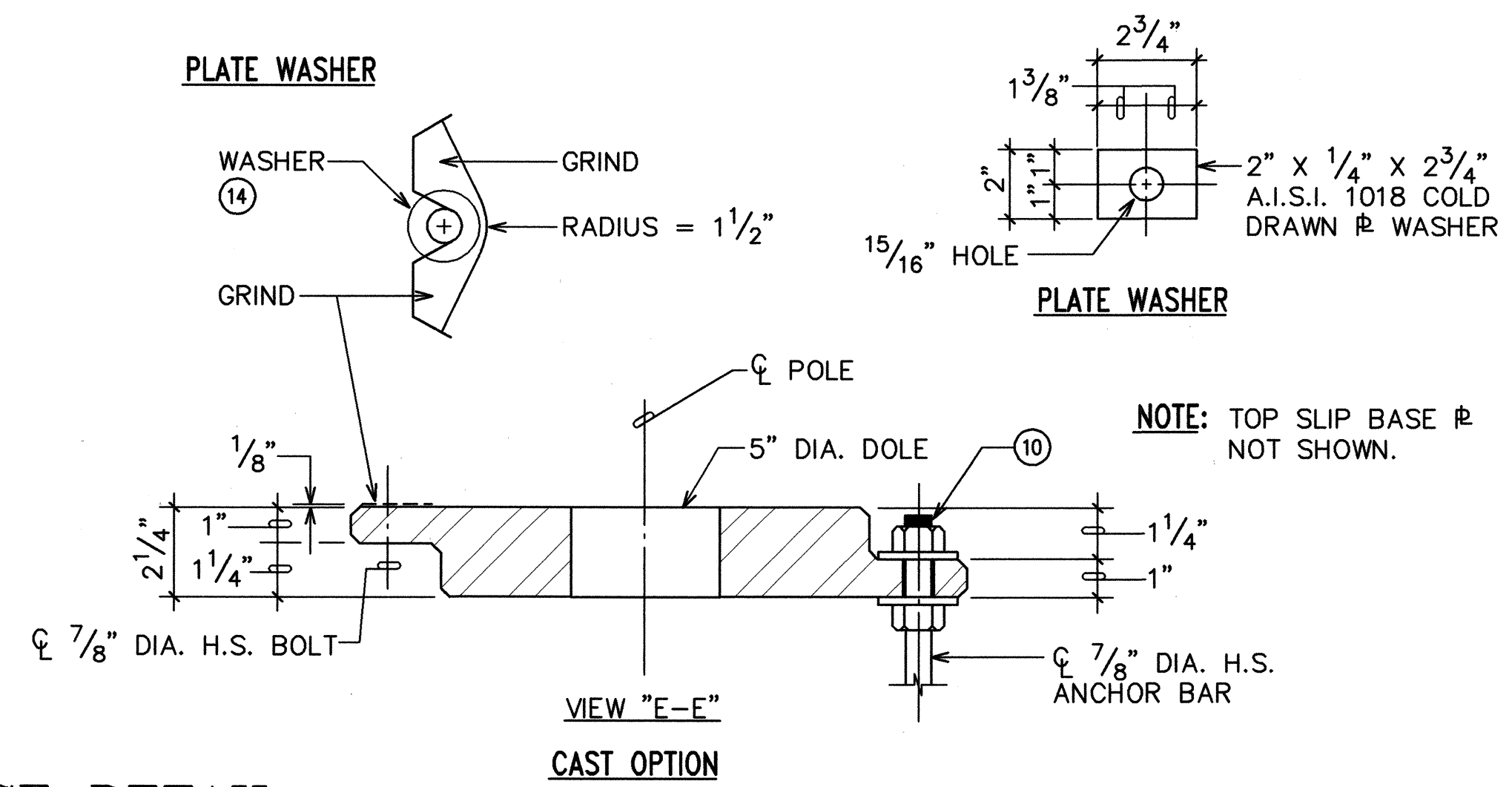


PLATE WASHER



NOTE: TOP SLIP BASE &
NOT SHOWN.

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E-9 E-11

SLIP BASE DETAIL

NOT TO SCALE

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