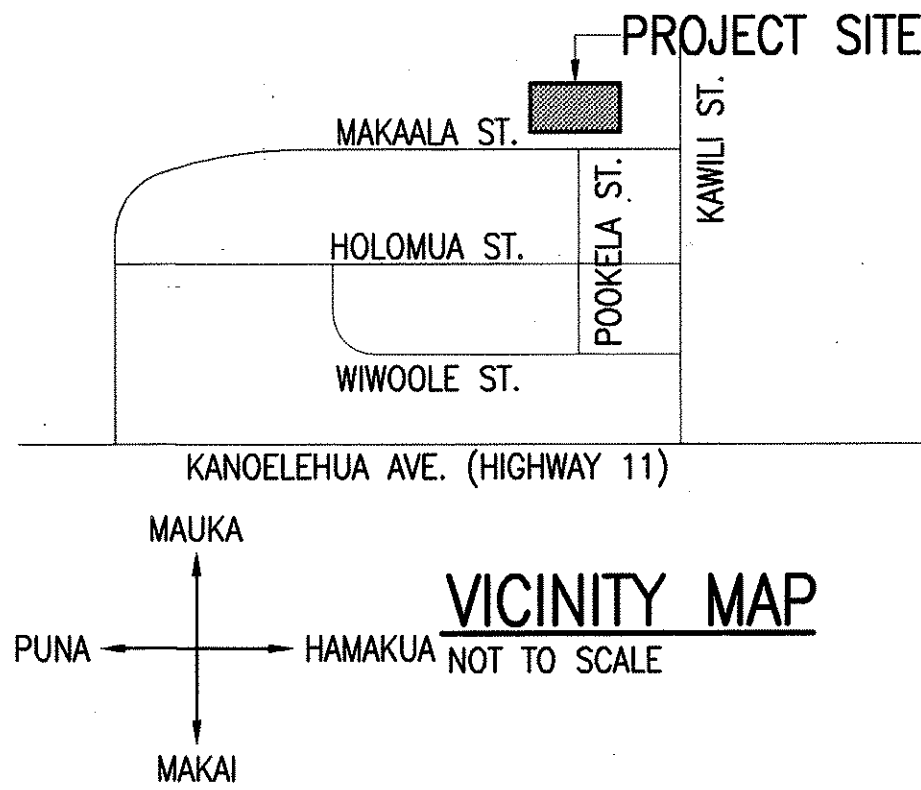
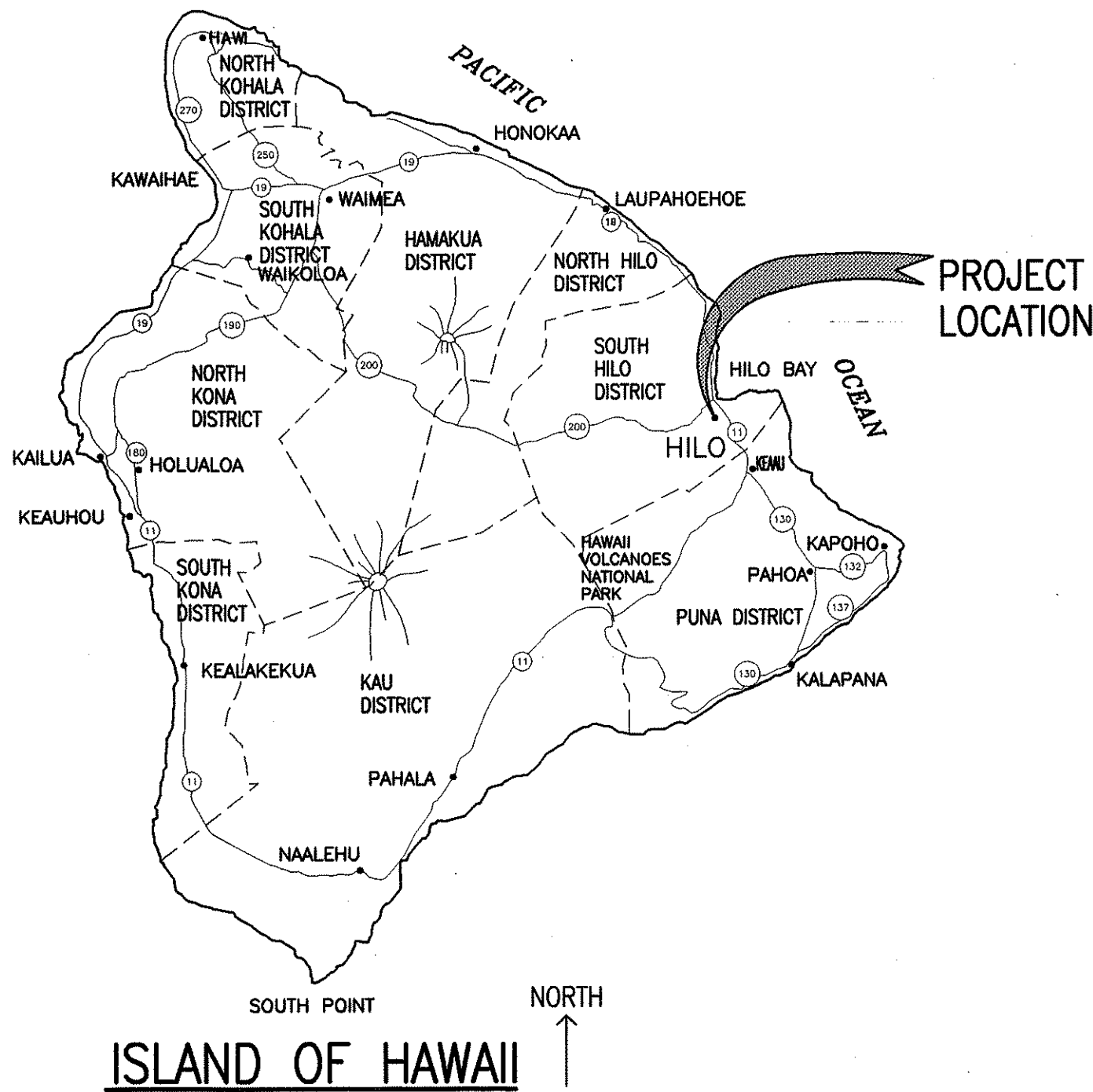


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	37	73



DEFINITIONS

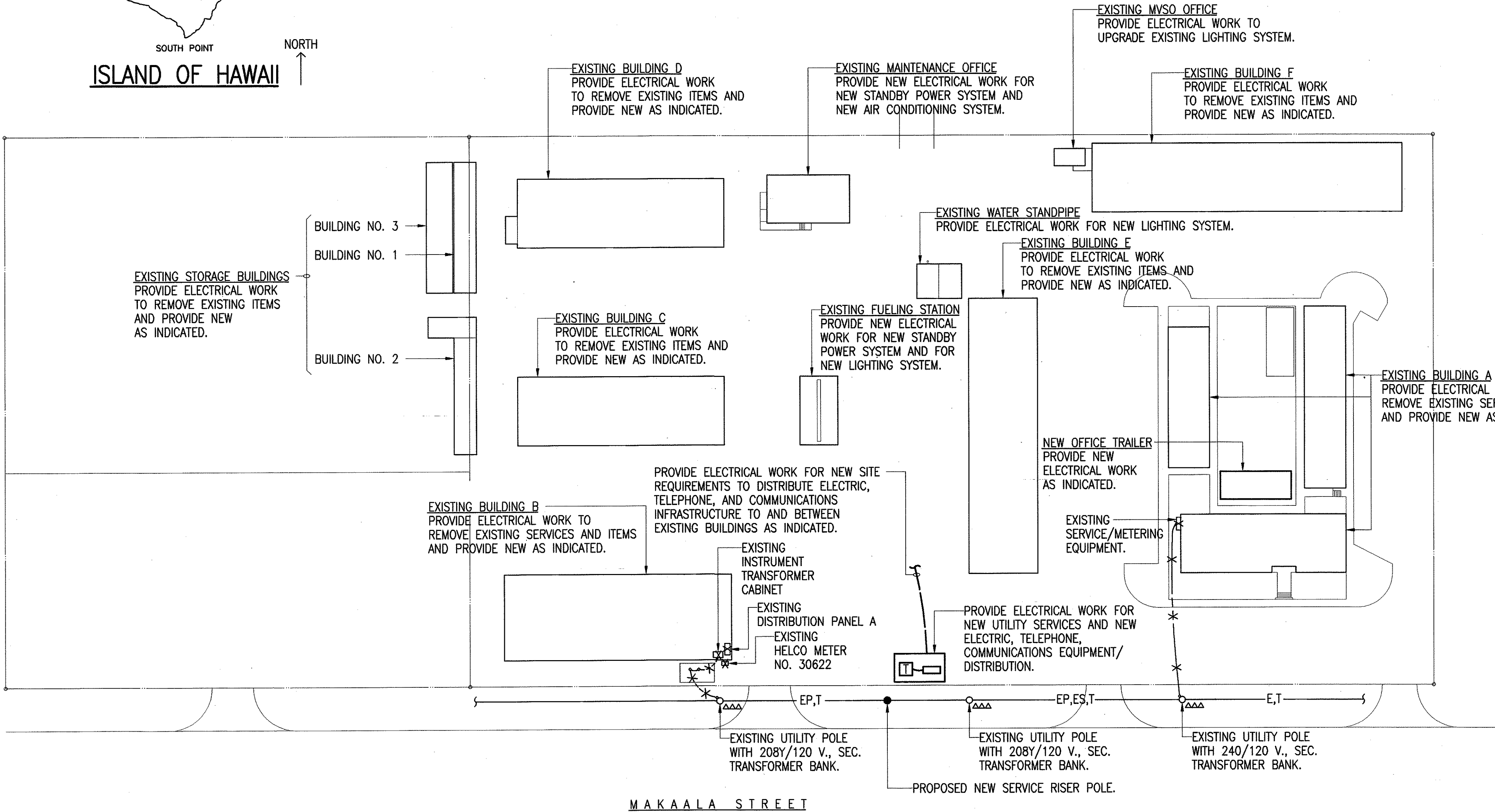
PROVIDE - FURNISH AND INSTALL.
WIRING - ALL CONDUITS, RACEWAYS, CONDUCTORS, FITTINGS, PULLBOXES, JUNCTION BOXES, OUTLET BOXES, DEVICES, AND OTHER MATERIALS OR ITEMS AS NECESSARY FOR A COMPLETED AND OPERATIONAL ELECTRICAL CIRCUIT OR SYSTEM; OR THAT WHICH COMPRISES AN ELECTRICAL CIRCUIT OR SYSTEM.
OUTLET - IN ADDITION TO DEFINITION IN THE NEC, OUTLET SHALL MEAN THE REQUIRED OUTLET BOXES, CONDUCTORS, TERMINATIONS, WIRING DEVICES, AND COVER PLATES, TO PROVIDE FOR THE INTENDED USE, APPLICATION, OR UTILIZATION EQUIPMENT.

PROPRIETARY NOTE

THESE PLANS SHALL NOT BE COPIED, REPRODUCED, OR USED IN ANY FORM OR MANNER WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER. ANY USE OF MATERIAL ON THE PLANS BY MINOR ALTERATIONS, RE-WORDING, OR REVISIONS TO OBTAIN ORIGINALLY INTENDED MEANINGS OR RESULTS SHALL BE PROHIBITED.

GENERAL NOTES:

- ALL ELECTRICAL ITEMS INDICATED ON THE DRAWINGS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNLESS INDICATED AS "EXISTING", OR AS OTHERWISE NOTED.
- ALL CONDUIT ROUTINGS AND EQUIPMENT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL ROUTE, LOCATE CONDUITS, AND MOUNT EQUIPMENTS TO SUIT FIELD CONDITIONS, AVOIDING INTERFERENCES WITH ELECTRICAL EQUIPMENT, PIPING, STRUCTURAL STEEL, AND OTHER BUILDING ELEMENTS AND ELECTRICAL ITEMS.
- CONTRACTOR SHALL INDICATE THE FINAL CONDUIT ROUTINGS AND EQUIPMENT LOCATIONS ON THE "AS-BUILT" DRAWINGS WHERE THEY DIFFER FROM THAT SHOWN ON THE DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.
- CONTRACTOR SHALL CHECK AND MAINTAIN ORIGINAL PHASE ROTATION AND PHASE RELATIONSHIPS ON ALL CIRCUITS.
- CONTRACTOR SHALL INVESTIGATE AND TONE AREA BEFORE DIGGING OR EXCAVATING.
- ALL ELECTRICAL EQUIPMENT SHALL BE NEW AND WARRANTED BY THE MANUFACTURER.
- THE CONTRACTOR SHALL PROVIDE FOR THE ADDITIONAL COSTS TO PERFORM WORK DURING SCHEDULED AND AUTHORIZED OUTAGES AFTER NORMAL HOURS AND ON WEEKENDS AND HOLIDAYS AS APPLICABLE.
- EXISTING CONDITIONS, MATERIALS, SIZES, LOCATIONS, AND DIMENSIONS SHOWN ON THESE DRAWINGS REPRESENT THE BEST AVAILABLE INFORMATION OBTAINED FROM EXISTING DRAWINGS AND FIELD INVESTIGATION. PRIOR TO ORDERING MATERIALS AND EQUIPMENT, THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, MATERIALS, SIZES, LOCATIONS, AND DIMENSIONS THAT AFFECT THE WORK OF THIS PROJECT. NOTIFY THE ENGINEER OF ALL QUESTIONS IN WRITING AND RESOLVE ALL CONTRACTOR'S QUESTIONS AND CONCERNS PRIOR TO PROCUREMENT AND BEFORE START OF CONSTRUCTION.
- ALL ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, AND FEDERAL, STATE, AND COUNTY GOVERNMENT STANDARDS, REGULATIONS, AND ORDINANCES.
- EXISTING UNDERGROUND WATER, SEWER, DRAINAGE, GAS, ETC. LINES ARE NOT INDICATED OR KNOWN. CONTRACTOR SHALL PROVIDE FOR THE REQUIRED MAN-HOURS TO INVESTIGATE AND TONE ALL AFFECTED AREAS PRIOR TO DIGGING OR EXCAVATING. CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO LOCATE ALL EXISTING BURIED ITEMS INTERFERING WITH NEW WORK. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGED BURIED ITEM TO THE SATISFACTION AND ACCEPTANCE OF THE ENGINEER. TOPOGRAPHIC SURVEY NOT USED OR AVAILABLE TO INDICATE ABOVE GROUND FEATURES SUCH AS FENCES, SHRUBS, BUSHES, TREES, PLANTS ETC. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE WORKING CONDITIONS AND PROVIDE THE REQUIRED MAN-HOURS TO REMOVE AND REPLACE AND/OR REPAIR ANY AND ALL EXISTING ABOVE GROUND FEATURES AFFECTED BY THE NEW WORK. REPLACEMENT/REPAIR SHALL MATCH EXISTING CONDITIONS AND SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.
- ALL EXPOSED CONDUITS AND FITTINGS, AND METAL PORTIONS OF EQUIPMENT ENCLOSURE SHALL BE FIELD PAINTED FOR CORROSION PROTECTION.
- ALL EQUIPMENT SHALL BE PROPERLY MOUNTED, ANCHORED, AND SUPPORTED BY APPROVED METHODS FOR SEISMIC RESTRAINT OF .3G FORCES.
- ACCESS TO AREAS OF WORK WILL BE LIMITED AND CONGESTED DUE TO EXISTING DESKS, FURNITURE, PORTABLE CORD WIRING, DATA WIRING, ETC. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SITE WORKING CONDITIONS PRIOR TO BIDDING AND COORDINATE SCHEDULE WITH OWNER TO HAVE ACCESS TO AREAS OF WORK WITHOUT AFFECTING OPERATIONS/FUNCTIONS OF "HILO BASEYARD" OF THE STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION.
- THE EXISTING "HILO BASEYARD" SHALL REMAIN OPERATIONAL AT ALL TIMES. POWER OUTAGES WILL BE ALLOWED ONLY AS SCHEDULED AND ONLY FOR THE DURATION AGREED TO.



ELECTRICAL PLAN - LOCATION/GENERAL WORK SCOPE

1" = 40'

SURVEY PLOTTED BY	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	

Wallace T. Oki
THIS WORK WAS PREPARED
BY ME OR UNDER MY
SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN

**HILO BASEYARD
IMPROVEMENTS**

PROJECT NO. HWY-H-04-99M

Scale: Noted Date: April 2000

DWG. No. **E-1** SHEET No. 1 OF 37 SHEETS

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

ELECTRICAL PLAN SYMBOLS	
	ELECTRICAL DETAIL INDICATOR. (A = NUMBER OR LETTER IDENTIFICATION, B = DRAWING OR SHEET WHERE SHOWN.)
	DRAWING REVISION
	MATCHING INDICATOR FOR WIRING CONTINUATION
	* - EQUIPMENT AS IDENTIFIED
	MOTOR CONTROLLER - COMBINATION OR STARTER ONLY AS IDENTIFIED
	DISCONNECT SWITCH, FUSED OR NON-FUSED AS IDENTIFIED
	TRANSFORMER
	MANUAL MOTOR CONTROLLER, HP RATED, USED FOR MOTOR DISCONNECT, EQUIPPED W/LOCK-OUT PROVISIONS.
	PANELBOARD OR LDCTR AS IDENTIFIED
	UNDERGROUND SERVICE DUCTLINE. REFER DETAIL INDICATOR WHERE SHOWN
	EMBEDDED CONDUIT, BELOW FLOOR SLAB, EXTERIOR FINAL GRADE
	EXPOSED CONDUIT. WHERE USED, HASH LINES INDICATE QTY OF WIRES
	CONCEALED WIRING IN CEILING OR WALL SPACES
	FLEXIBLE METAL CONDUIT, LIQUIDTIGHT WHERE REQUIRED OR INDICATED
	HOMERUN AND CIRCUITING INDICATOR. HASH LINES=QTY. OF CONDUCTORS, A-PNLBD, 1-CIR. NO.
	CIRCUITING INDICATOR. HASH LINES = QTY. OF CONDUCTORS, A-PNLBD, 1-CIR. NO., (HOMERUN/HOMERUN GROUPINGS ARRANGED BY CONTRACTOR)
	WIRING AND ELECTRICAL ITEMS AS IDENTIFIED TO BE DISCONNECTED/REMOVED/RELOCATED AS INDICATED
	DUPLEX RECEPTACLE OUTLET, 125 VOLT, SINGLE PHASE (3 = PANELBOARD CIRCUIT NUMBER)
	QUADRUPLEX (4) RECEPTACLE OUTLET, 125 VOLT, SINGLE PHASE (3 = PANELBOARD CIRCUIT NUMBER)
	DUPLEX RECEPTACLE WITH WEATHERPROOF, PAD-LOCKING COVER
	250 VOLT RECEPTACLE OUTLET (RATING OR USE AS INDICATED)
	LIGHTING SWITCH OUTLET [a = CONTROLLED LIGHTING FIXTURE(S)], S-SINGLE POLE, S2-DOUBLE POLE SINGLE THROW, S3-SINGLE POLE DOUBLE THROW, S4-DOUBLE POLE DOUBLE THROW
	LIGHTING FIXTURE/OUTLETS, CEILING MOUNTED, INCANDESCENT, FLUORESCENT, OR HID, SURFACE OR RECESSED AS INDICATED. (a = SWITCH IDENT., 3 = CIR. NO.) (* = TYPE IDENT BY NUMBER)
	LIGHTING FIXTURE/OUTLET, WALL MOUNTED, INCANDESCENT, FLUORESCENT, OR HID, SURFACE OR FLUSH, AS INDICATED. (* = TYPE IDENT BY NUMBER)
	LIGHTING FIXTURE/OUTLET, CEILING MOUNTED, FLUORESCENT, EXPOSED LAMP (* = TYPE IDENT BY NUMBER)
	LIGHTING FIXTURE/OUTLET, CEILING MOUNTED, FLUORESCENT, ENCLOSED LAMP, SURFACE OR RECESSED, AS INDICATED. (* = TYPE IDENT BY NUMBER)
	LIGHTING FIXTURE/OUTLET, CEILING OR WALL MOUNTED; INCANDESCENT, FLUORESCENT, OR HID; SPOT OR FLOODLIGHT; ENCLOSED OR LAMPHOLDER; AS IDENTIFIED (* = TYPE IDENT BY NUMBER)

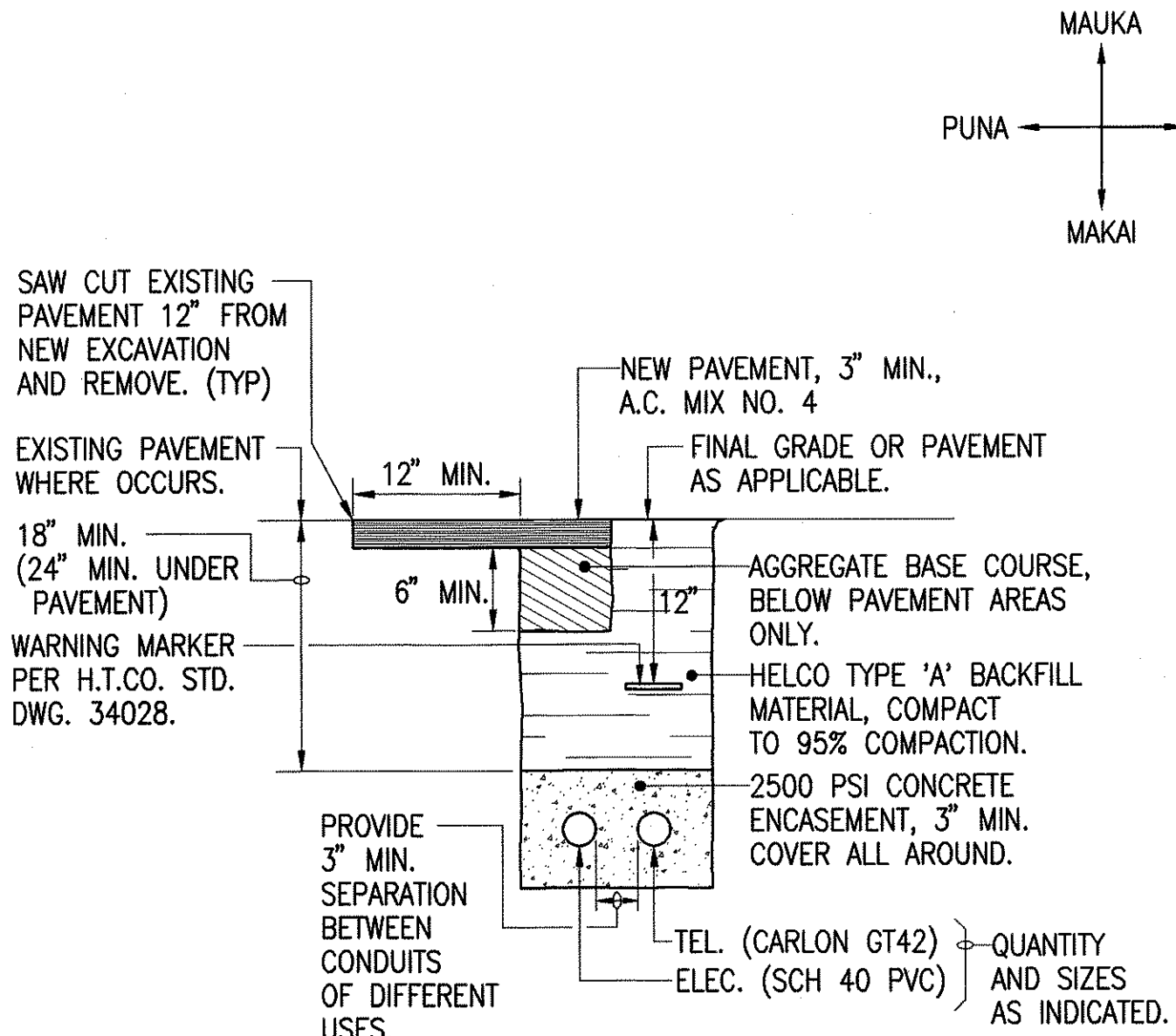
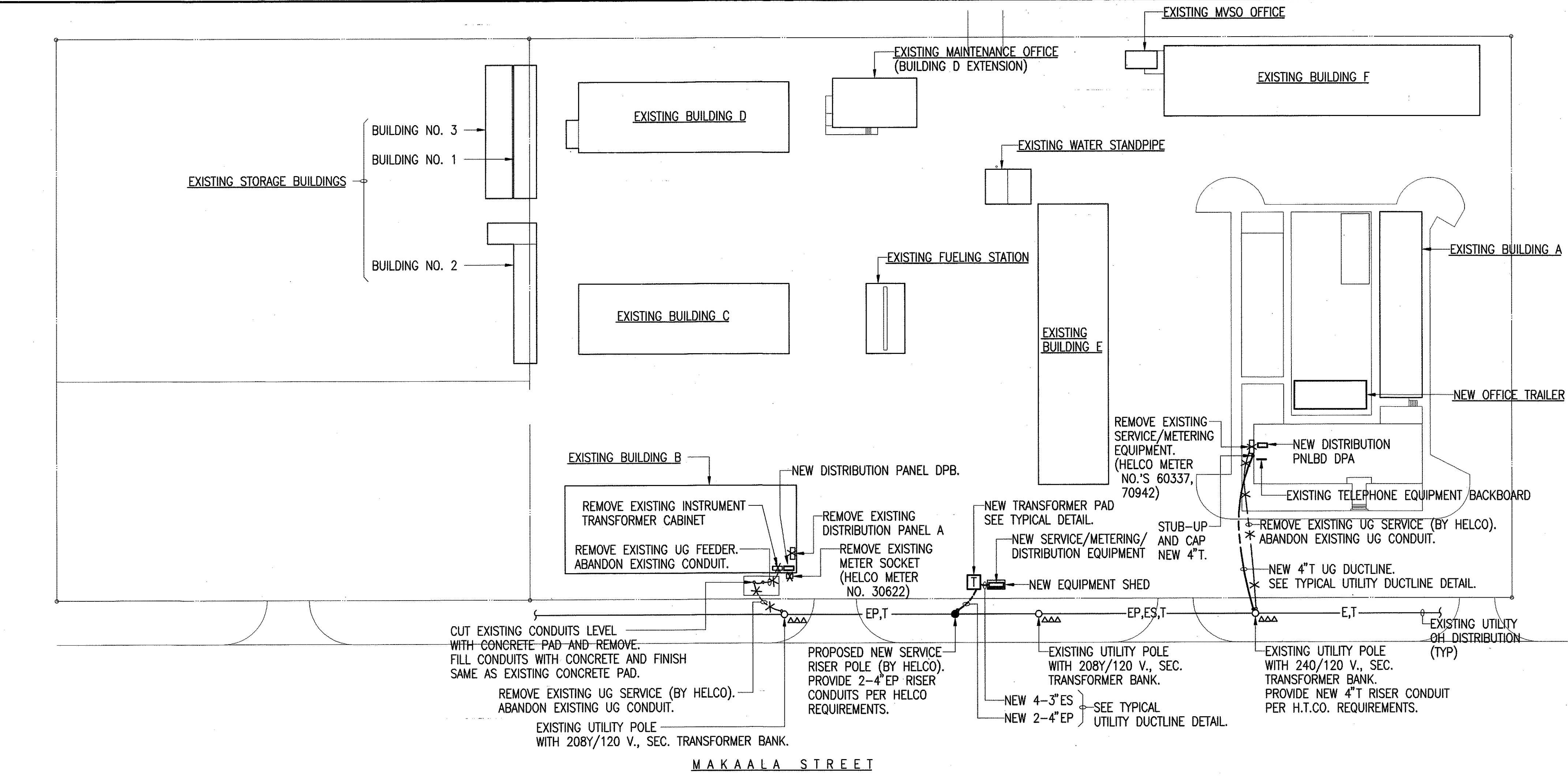
ELECTRICAL PLAN SYMBOLS (CONT'D)	
	EQUIPMENT OR OTHER ELECTRICAL CONNECTION AS INDICATED
	PHOTO - ELECTRIC SWITCH

A B B R E V I A T I O N S	
A	AMPERE
AC	AIR CONDITIONING OR ALTERNATING CURRENT
ACCU	AIR COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
AF	AMPERE FRAME
AHU	AIR HANDLING UNIT
ATC	AMPERE INTERRUPTING CAPACITY
AT	AMPERE TRIP
C	CONDUIT
C	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	39	73

NOTES TO CONTRACTOR -
GTE H.T.CO. REQUIREMENTS:

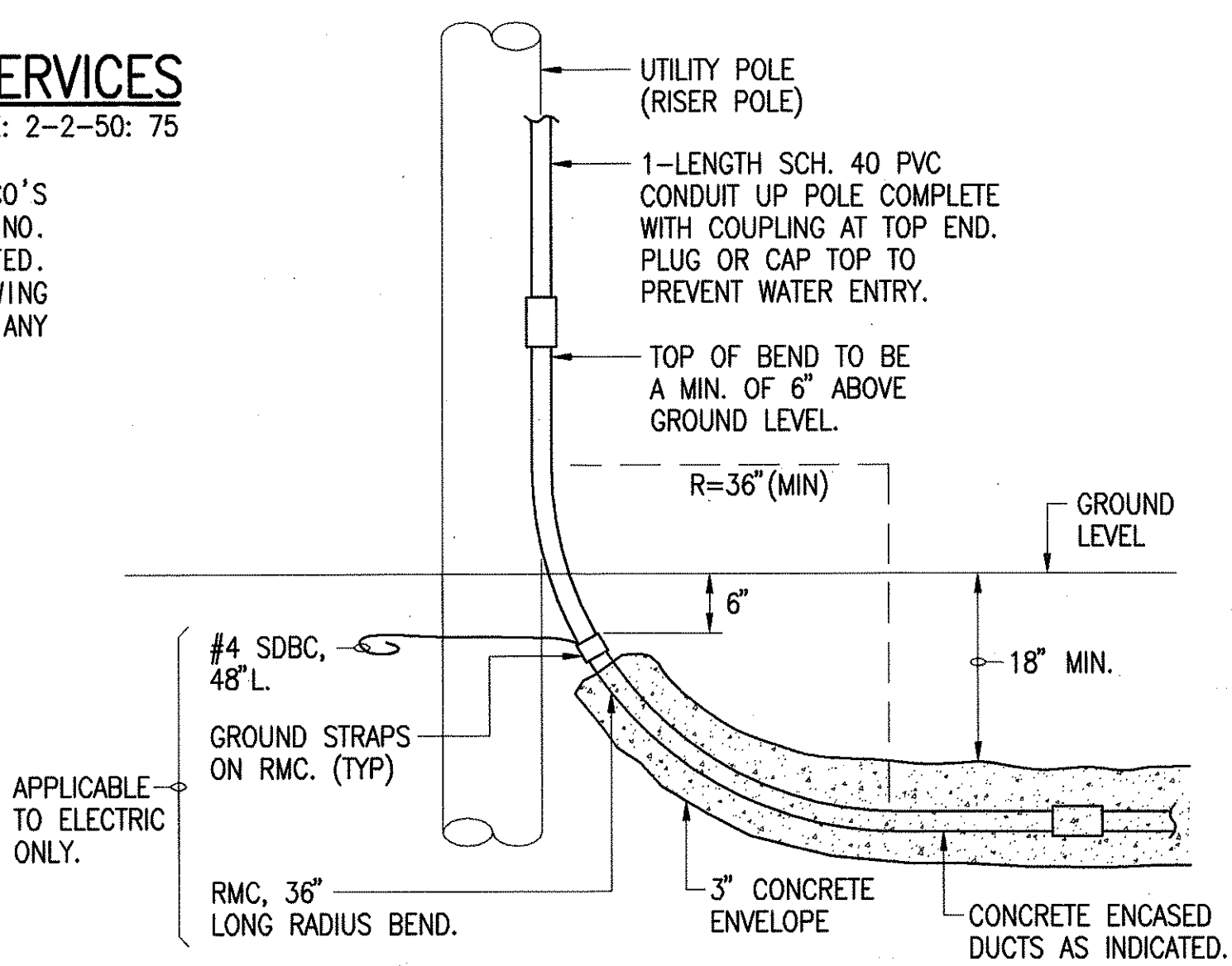
- ALL WORK SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND REQUIREMENTS OF GTE H.T.CO. FOR THE FACILITIES WITHIN THEIR JURISDICTION.
 - THE CONTRACTOR SHALL CLOSELY COORDINATE ALL WORK WITH GTE H.T.CO. ALL TRENCHES MUST BE INSPECTED BY H.T.CO. PRIOR TO BACKFILLING THE CONCRETE ENCASING OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE H.T.CO. INSPECTOR AT KONA TELEPHONE NUMBER 329-4756 OR HILO TELEPHONE NUMBER 935- 9557 AT LEAST 72 HOURS PRIOR TO POURING OF CONCRETE OR BACKFILLING.
 - UNLESS OTHERWISE INDICATED, ALL CONDUITS, SWEEPS, COUPLINGS, ADAPTERS, AND BELL ENDS SHALL BE CARLON GT42, 4-INCH PVC CONDUIT MEETING GTE SPECIFICATION GTS-8342. ALL POLE RISERS AND RISER BENDS SHALL BE 4-INCH PVC SCHEDULE 40 CONDUIT. FOUR INCH SCHEDULE 40 BENDS ARE AVAILABLE WITH A 36-INCH OR 48-INCH RADIUS. REFER TO H.T.CO. STANDARD DRAWING 34028 FOR INSTALLATION.
 - STONES, ROCKS, ETC. SHALL NOT BE USED WITH BACKFILL MATERIAL, ONLY SELECT MATERIALS SHALL BE USED AS BACKFILL MATERIAL.
 - A 4-INCH WIDE WARNING TAPE ORANGE IN COLOR WITH A BLACK IMPRINTED MESSAGE "WARNING STOP DIGGING-CALL GTE, COMMUNICATIONS CABLE BURIED BELOW. FAILURE TO COMPLY COULD RESULT IN LEGAL ACTION" SHALL BE PLACED 12-INCHES BELOW THE SURFACE OVER THE DUCT OR CONCRETE JACKET FOR THE ENTIRE LENGTH OF DUCT INSTALLATIONS. SEE H.T.CO. STANDARD DRAWING 34028. RECOMMENDED TAPE IS MANUFACTURED BY THOR ENTERPRISES, INC., SUN PRAIRIE, WE 53590 (1- 800-827-8467) PART NUMBERS DTGTE-41 (1000-FT.) AND DTGTE-46 (6000-FT.).
 - MAIN DUCT RUNS EXCEPT RISER CONDUITS SHALL BE CONSTRUCTED WITH MINIMUM 20 FOOT RADIUS CURVES.
 - AFTER THE CONDUITS ARE INSTALLED, A ROUND SOLID TEST MANDREL NOT LESS THAN 12-INCHES LONG AND HAVING A DIAMETER OF ONE-FOURTH INCH LESS THAN THE DIAMETER OF THE CONDUIT SHALL BE PULLED THROUGH EACH CONDUIT AFTER WHICH A BRUSH WITH STIFF BRISTLES SHALL BE PULLED THROUGH TO MAKE CERTAIN THAT NO PARTICLES OF EARTH, SAND, OR GRAVEL HAVE BEEN LEFT IN THE CONDUIT.
- RECOMMENDED 4-INCH MANDRELS/BRUSHES ARE MADE BY GENERAL MACHINE PRODUCTS CO. (GMP), TREVOSE, PA (215-357-5500). RECOMMENDED GMP PART NO. 81824R (TEST MANDREL FOR 4-INCH CONDUIT), AND GMP PART NO. 17094 (BRUSH FOR 4-INCH CONDUIT).
- INSTALL NEPTCO WP1800P MULETAPE IN ALL NEW CONDUITS AND CAP ALL CONDUITS AFTER TESTING. THE NEPTCO MULETAPE IS AVAILABLE IN 3000 FT., 6500 FT., AND 10000 FT. REELS. THE NEPTCO MULETAPE IS PRELUBRICATED AND PRINTED WITH SEQUENTIAL FOOTAGE MARKINGS.
- USING THE NEPTCO MULETAPE, THE CONTRACTOR SHALL MEASURE AT LEAST ONE CONDUIT OF A COMMON DUCT RUN. THE DISTANCE SHALL BE MARKED ON THE RECORD PRINTS AND SUBMITTED TO THE H.T.CO. INSPECTOR FOR RECORD KEEPING.



GENERAL ARRANGEMENT (TYP) -
UTILITY DUCTLINE DETAIL

NOT TO SCALE
NOTES

- ALL ELECTRIC DUCTLINES SHALL CONTAIN A POLYOLEFIN PULL LINE (JET LINE CAT. NO. 232 OR EQUIVALENT) (200 LB. MINIMUM TEST STRENGTH). ALL TELEPHONE DUCTLINES SHALL CONTAIN A NEPTCO WP1800P MULETAPE. MEASURE DISTANCE OF ONE DUCTLINE AND PROVIDE MEASUREMENTS TO H.T.CO. INSPECTOR. (DO NOT SUBSTITUTE MULETAPE.)
- ALL TELEPHONE DUCTS SHALL BE CARLON GT42.



GENERAL ARRANGEMENT (TYP)-
RISER CONDUIT DETAIL

NOT TO SCALE
NOTE:

- PROVIDE QUANTITY AND SIZES AS INDICATED ON THE DRAWINGS.
- REFER TO HELCO'S DRAWINGS FOR ADDITIONAL RISER DETAIL REQUIREMENTS.
- TYPICAL FOR TELEPHONE EXCEPT STUB-UP TO 12-INCHES ABOVE FINISH GRADE, UNLESS OTHERWISE REQUIRED BY H.T.CO.
- COORDINATE PLACEMENT OF RISER CONDUIT ON POLE WITH SERVING UTILITY COMPANY.

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

WALLACE T. OKI
LICENSED PROFESSIONAL ENGINE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	40	73

SERVICE/LOAD DATA

1. EXISTING SERVICE VOLTAGE: 208Y/120 V., 3 PH., 4 W. (SERVICE IS PROVIDE TO 2, SEPARATE LOCATIONS.)
EXISTING HELCO METER NO.'S 60337, 70942, 30622 TO BE REMOVED, AND REPLACED WITH NEW 3 PH. SERVICES.

2. TYPE OF SERVICE: UNDERGROUND

3. ESTIMATED CONNECTED KVA: ESTIMATED DEMAND KVA:

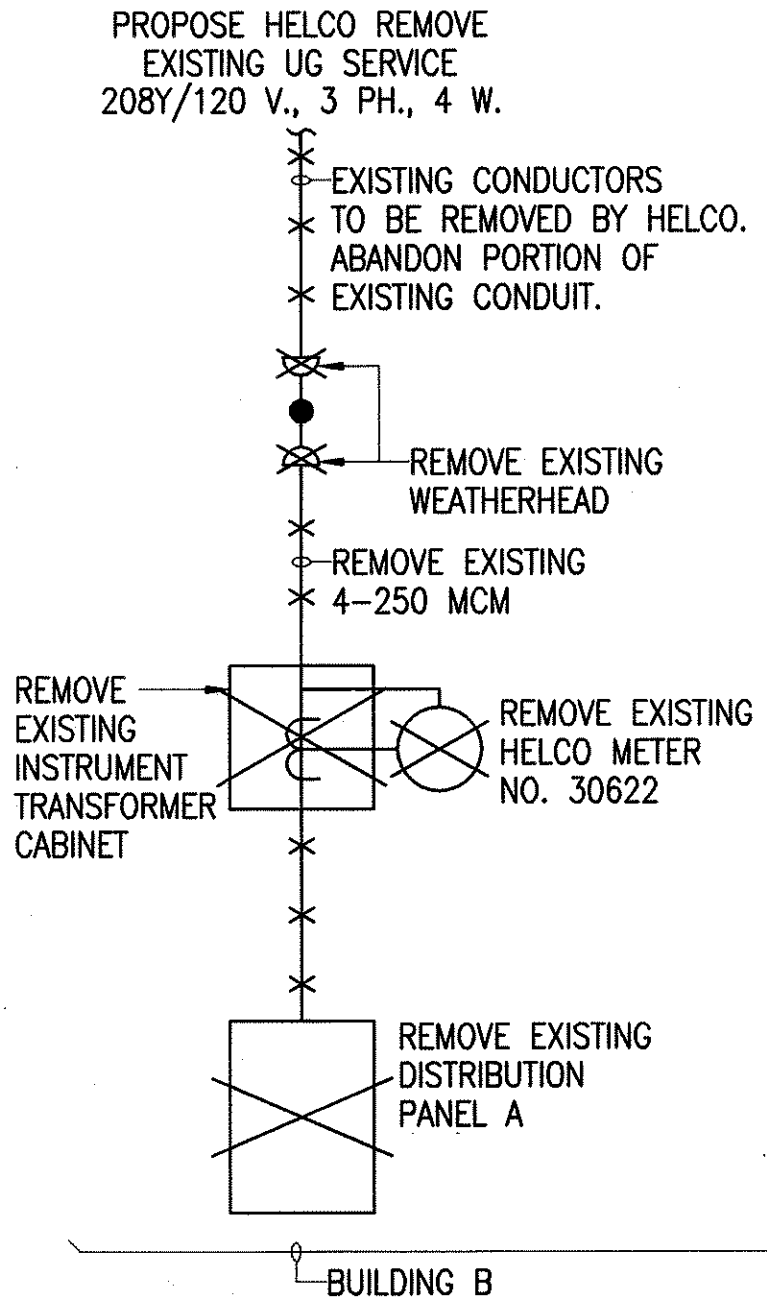
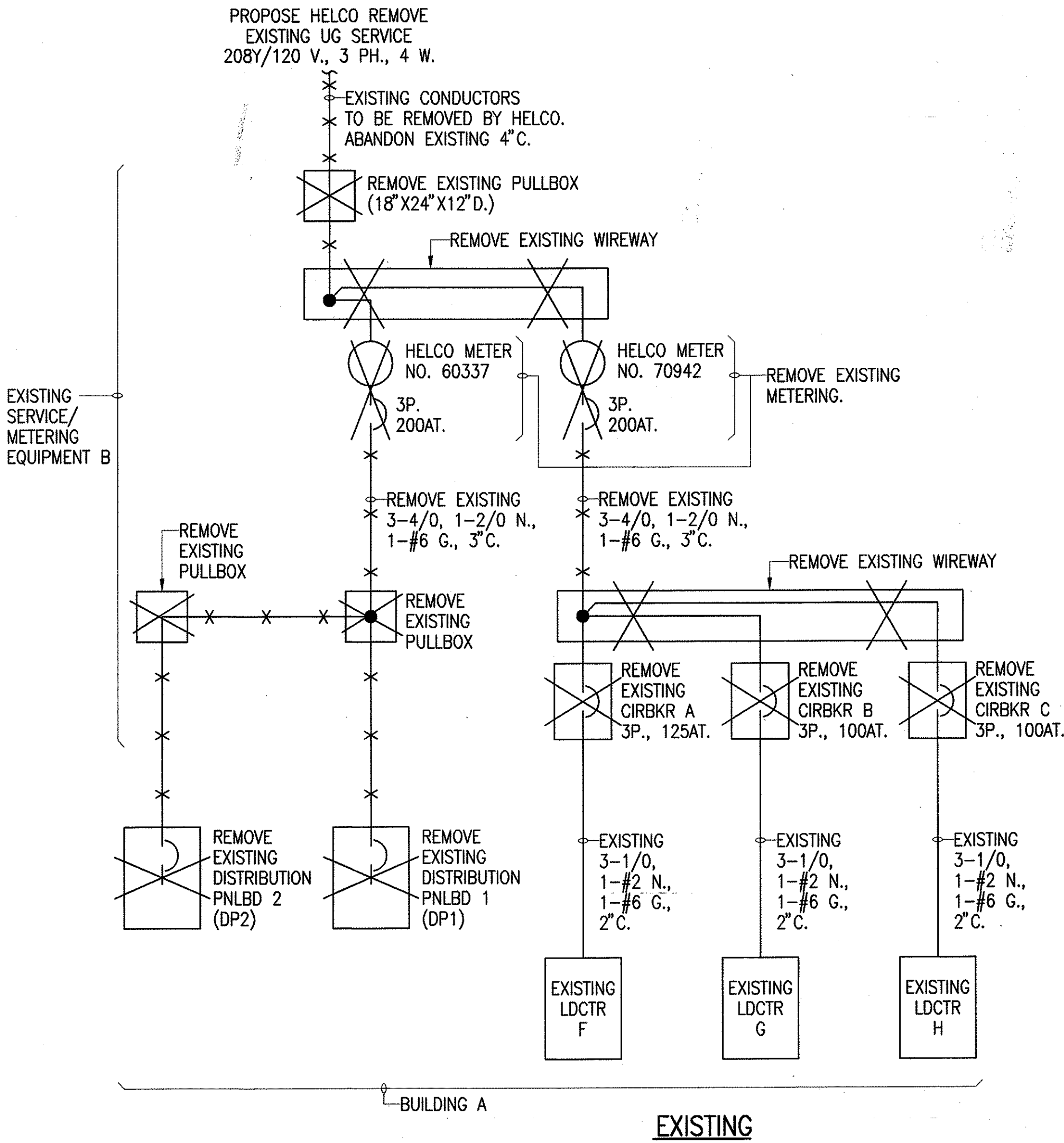
BUILDING A		
GENERAL LIGHTING/RECEPTACLE	25.0	15.0
AIR CONDITIONING	75.0	75.0
SUB-TOTALS	100.0	90.0
BUILDING B		
GENERAL LIGHTING/RECEPTACLE	23.5	14.0
AIR CONDITIONING	2.5	2.5
WELDERS	45.0	45.0
AIR COMPRESSOR	8.0	8.0
LATHE	1.0	1.0
SUB-TOTALS	80.0	70.5
BUILDING C		
GENERAL LIGHTING/RECEPTACLE	29.0	18.0
AIR CONDITIONING	40.0	40.0
AIR COMPRESSOR	5.0	5.0
SAWS	15.0	7.5
JOINTER	1.0	1.0
SUB-TOTALS	90.0	71.5
BUILDING D		
GENERAL LIGHTING/RECEPTACLE	22.0	14.0
AIR CONDITIONING	50.0	50.0
AIR COMPRESSOR	3.0	3.0
SUB-TOTALS	75.0	67.0
BUILDING E		
GENERAL LIGHTING/RECEPTACLE	21.6	13.0
VEHICLE WASH RACK	2.0	1.0
SUB-TOTALS	23.6	14.0
BUILDING F		
GENERAL LIGHTING/RECEPTACLE	21.6	12.9
MVSO OFFICE	4.0	2.5
SUB-TOTALS	25.6	15.4
MAINTENANCE OFFICE		
GENERAL LIGHTING/RECEPTACLE	4.5	2.7
AIR CONDITIONING	13.6	13.6
SUB-TOTALS	18.1	16.3
TOTALS	412.3	344.7

4. ESTIMATED TOTAL DEMAND: 180 KVA

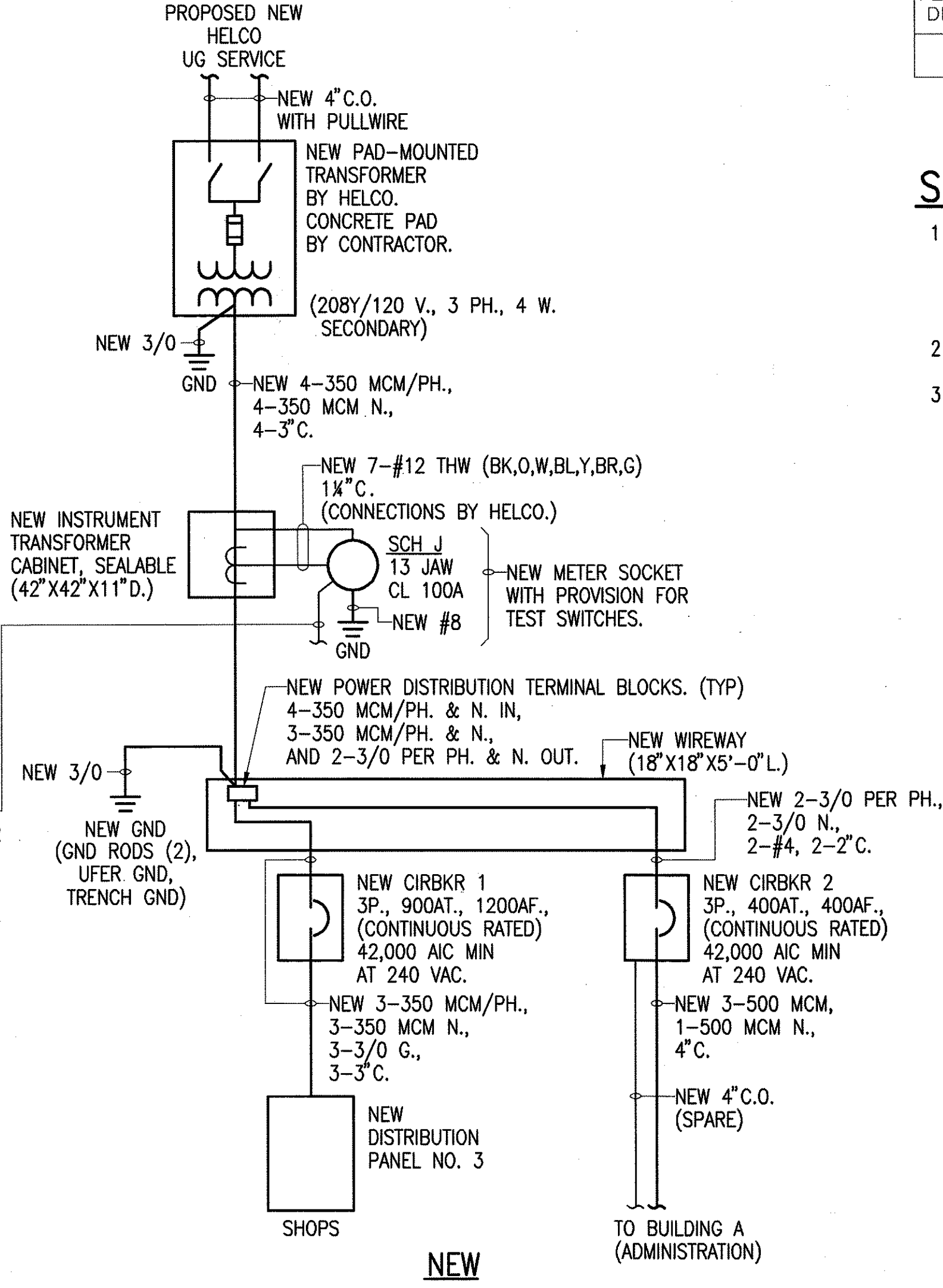
5. DESIGN SERVICE CAPACITY: 1200 AMPERES
SERVICE CONDUCTORS: 4-350 MCM/PH.

6. METERING: RATE SCH J, HELCO STD. B-16
(INSTRUMENT TRANSFORMER METERING
13 JAW, CL100 A. METER SOCKET)

7. BILLING ADDRESS: SAME AS FOR HELCO METER NO.'S
30622, 60337, 70942



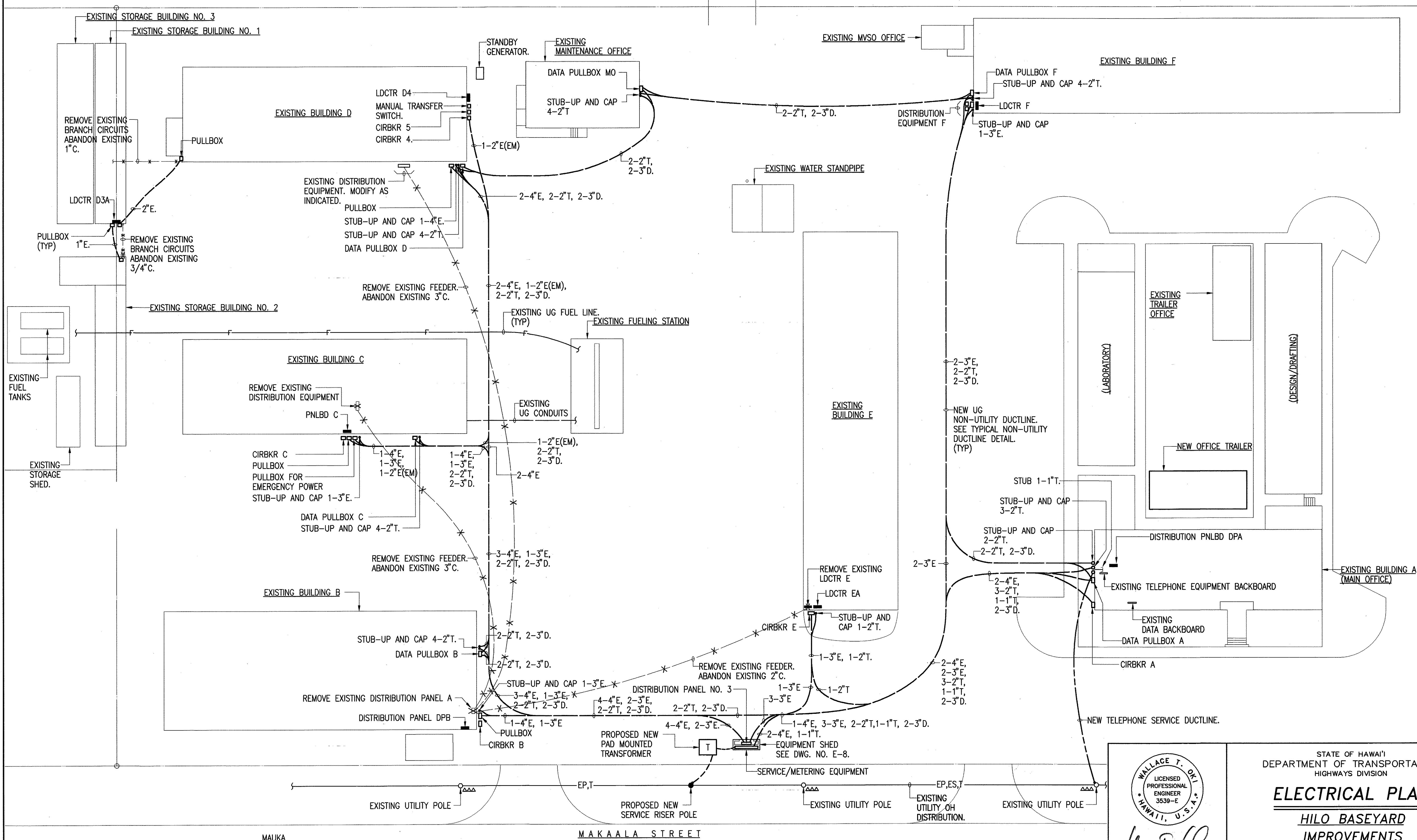
SHARED ANALOG TELEPHONE LINE TO METER SOCKET FOR REMOTE METER INTERROGATION AND RATE PUROSES (200 KW OR LARGER LOADS). CUSTOMER IS TO PROVIDE THE PHONE NUMBER OF SHARED TELEPHONE LINE. FAX OR MODEM HOOKED UP TO THE SHARED TELEPHONE LINE IS OKAY.



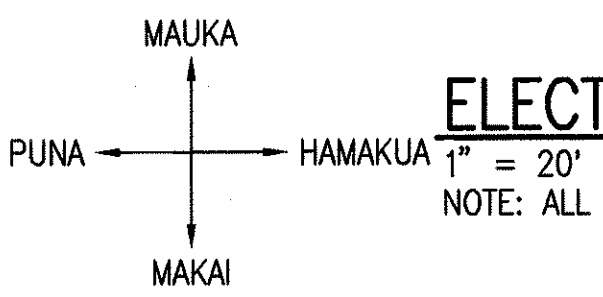
ONE-LINE DIAGRAM - ELECTRIC - SERVICE

DESIGNED BY	DATE
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
QUANTITIES BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
ORIGINAL PLAN	
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NOTED BY	
ORIGINAL PLAN	
NOTE BOOK	
QUANTITIES BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	42	73



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



ELECTRICAL PLAN - SITE WORK - DISTRIBUTION
1" = 20'
NOTE: ALL ITEMS ARE NEW EXCEPT AS INDICATE.

W.T. Oki
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN
HILO BASEYARD IMPROVEMENTS
PROJECT NO. HWY-H-04-99M

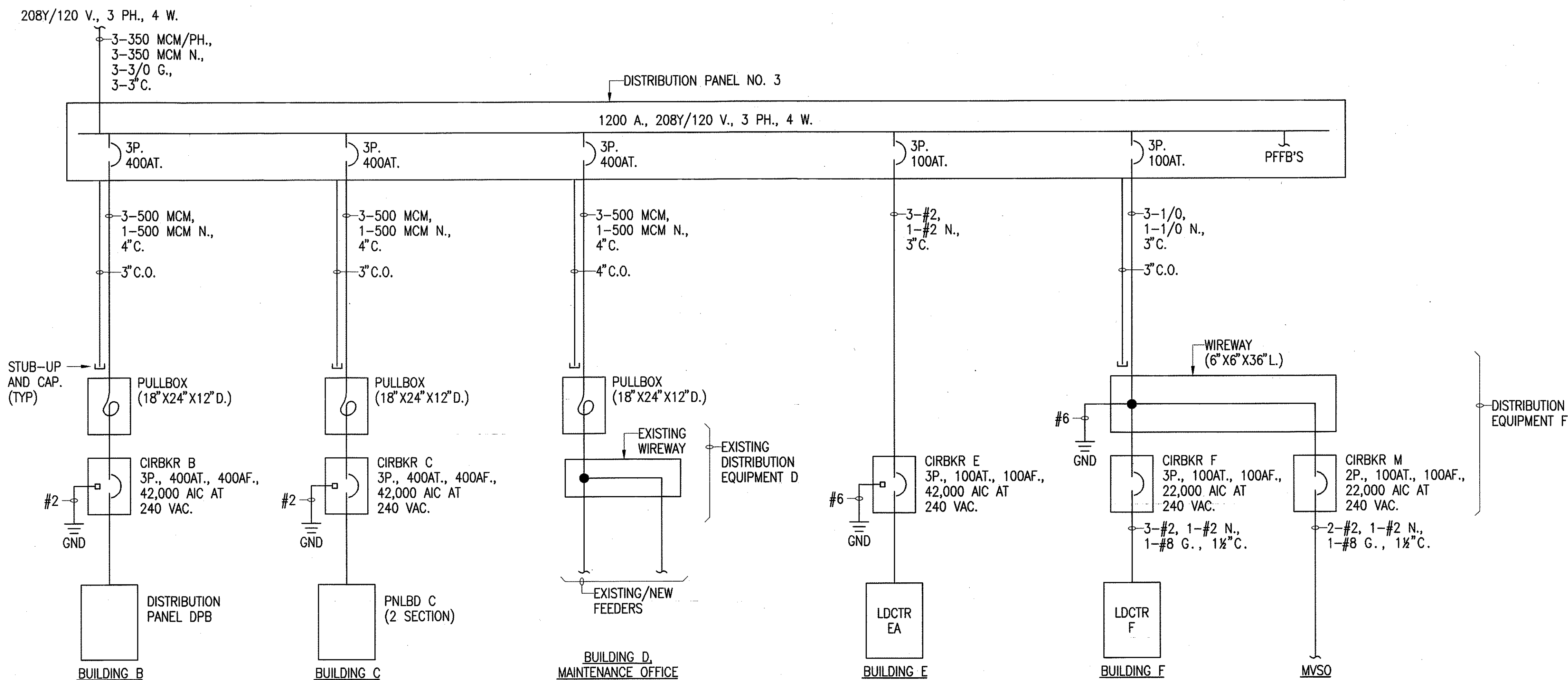
Scale: Noted Date: April 2000

DWG. No. **E-6** SHEET No. **6** OF **37** SHEETS

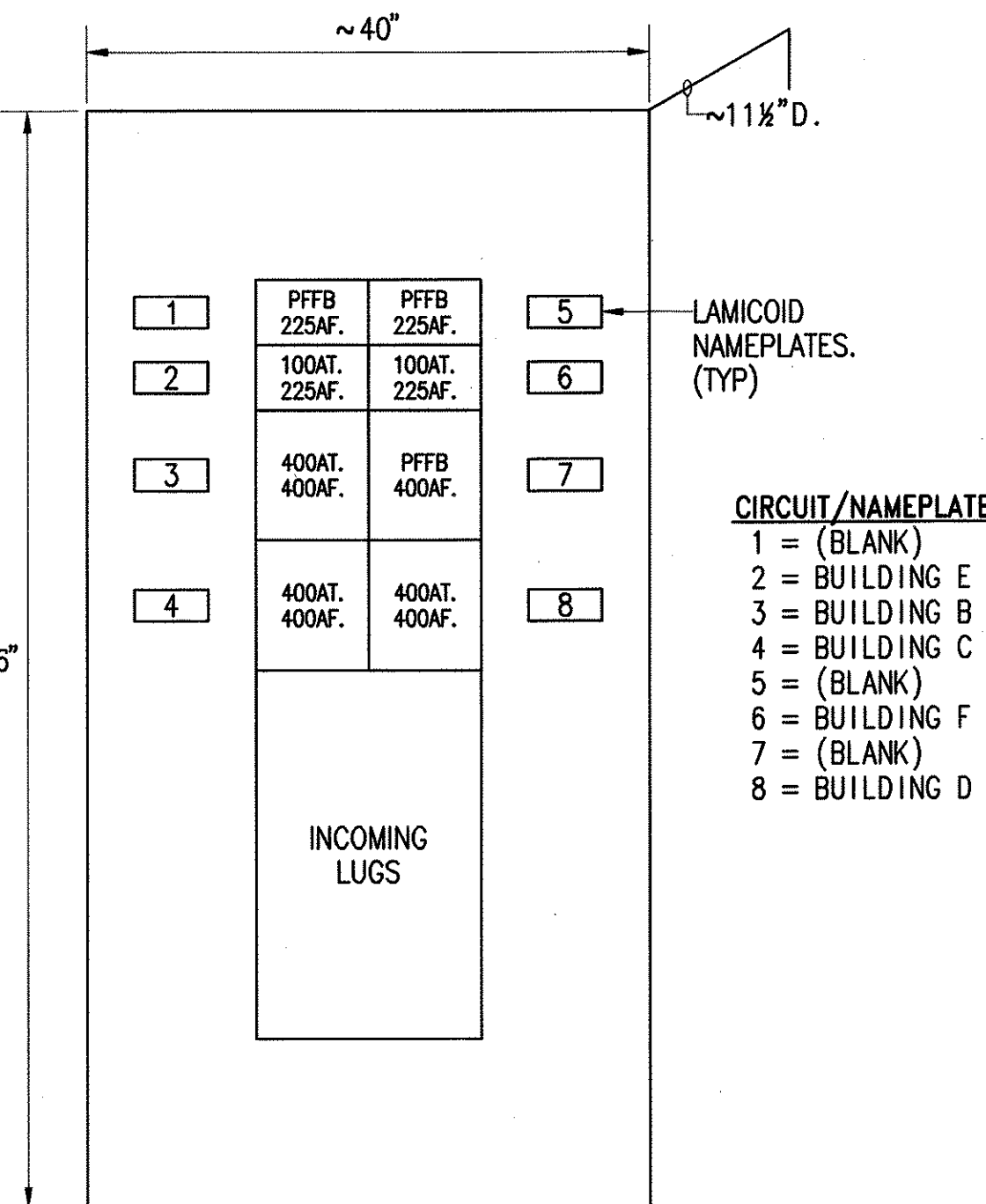
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	43	73

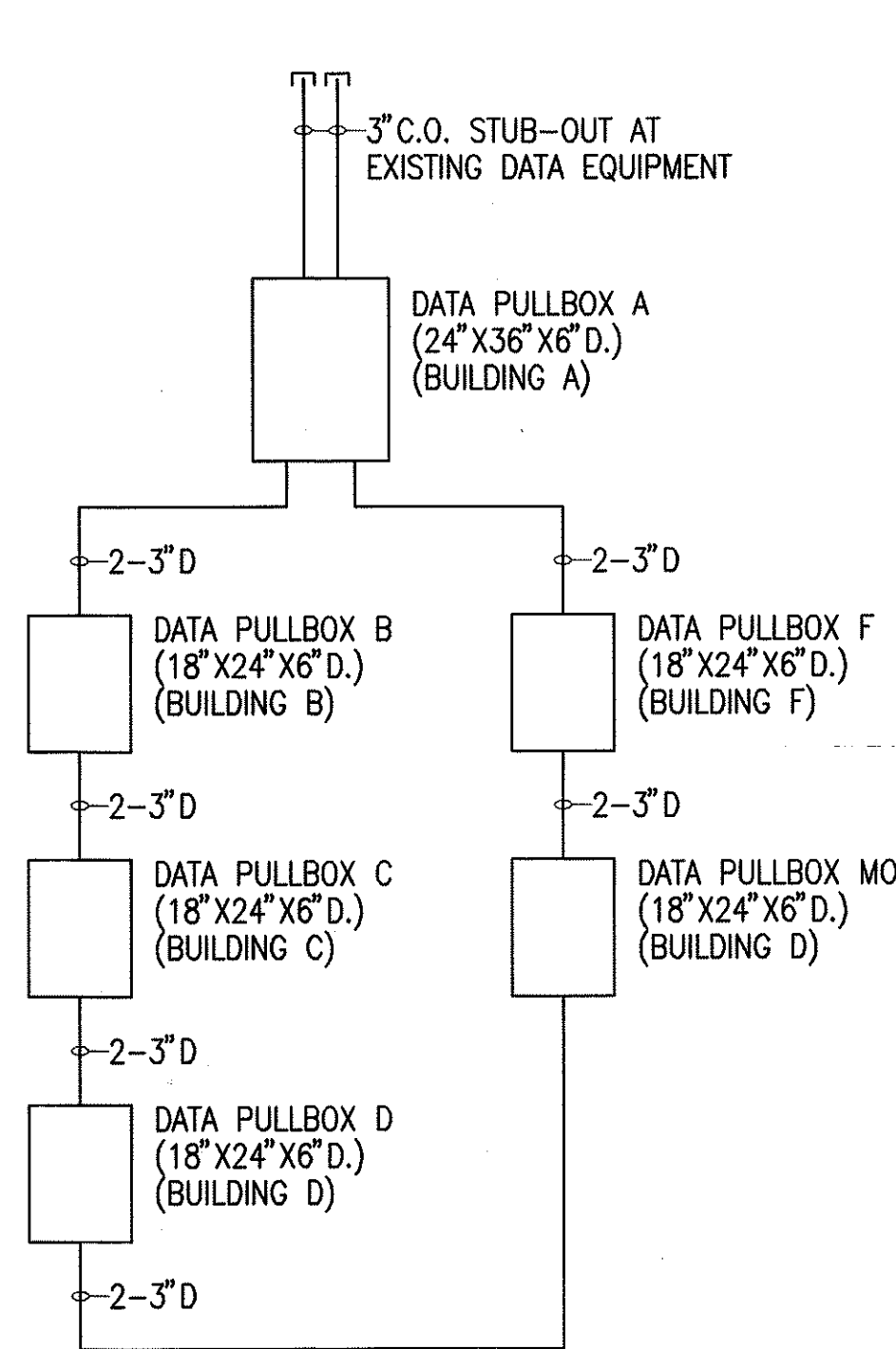


ONE-LINE DIAGRAM - ELECTRIC - DISTRIBUTION

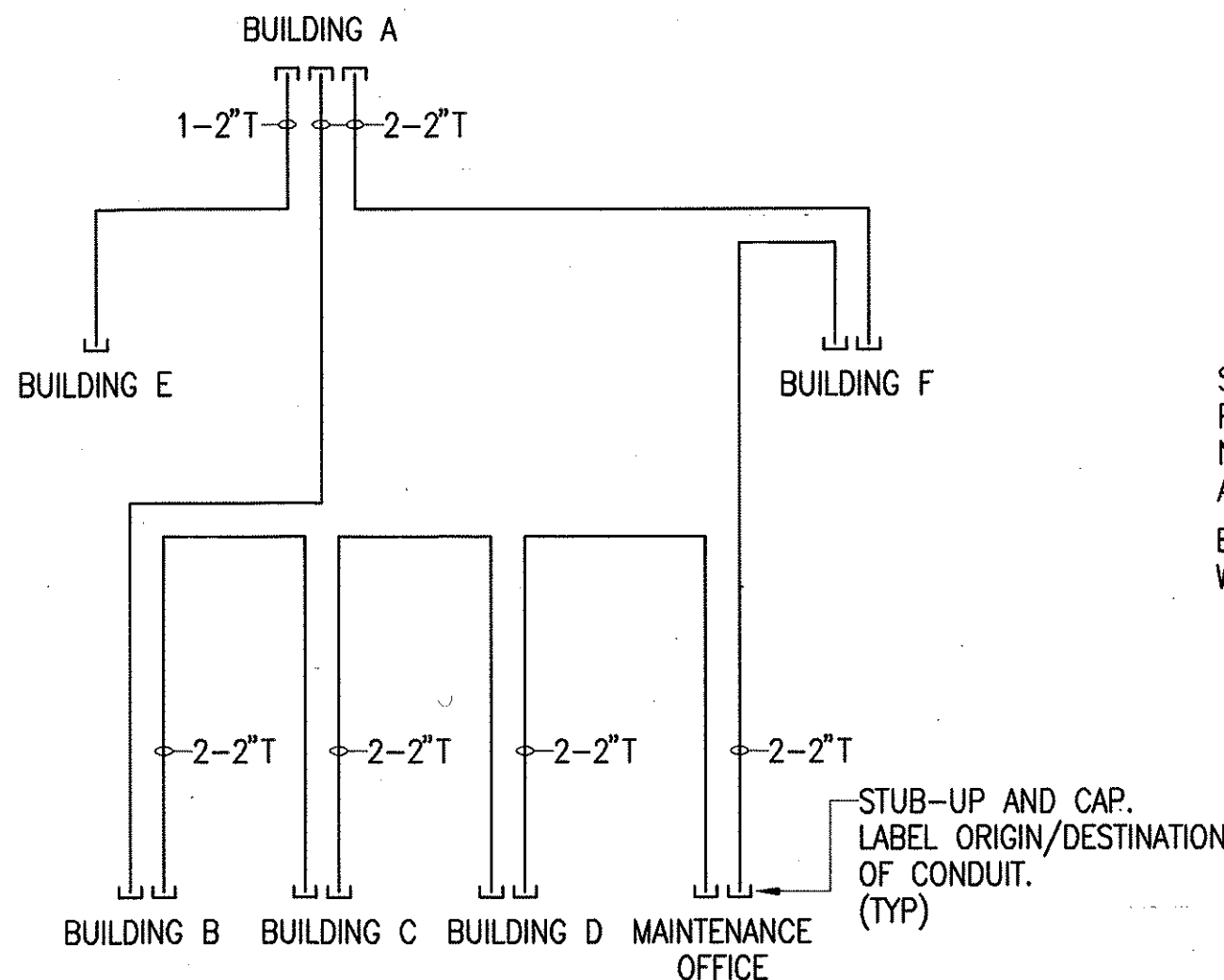


GENERAL ARRANGEMENT (TYP) -
DISTRIBUTION PANEL NO. 3
NOT TO SCALE

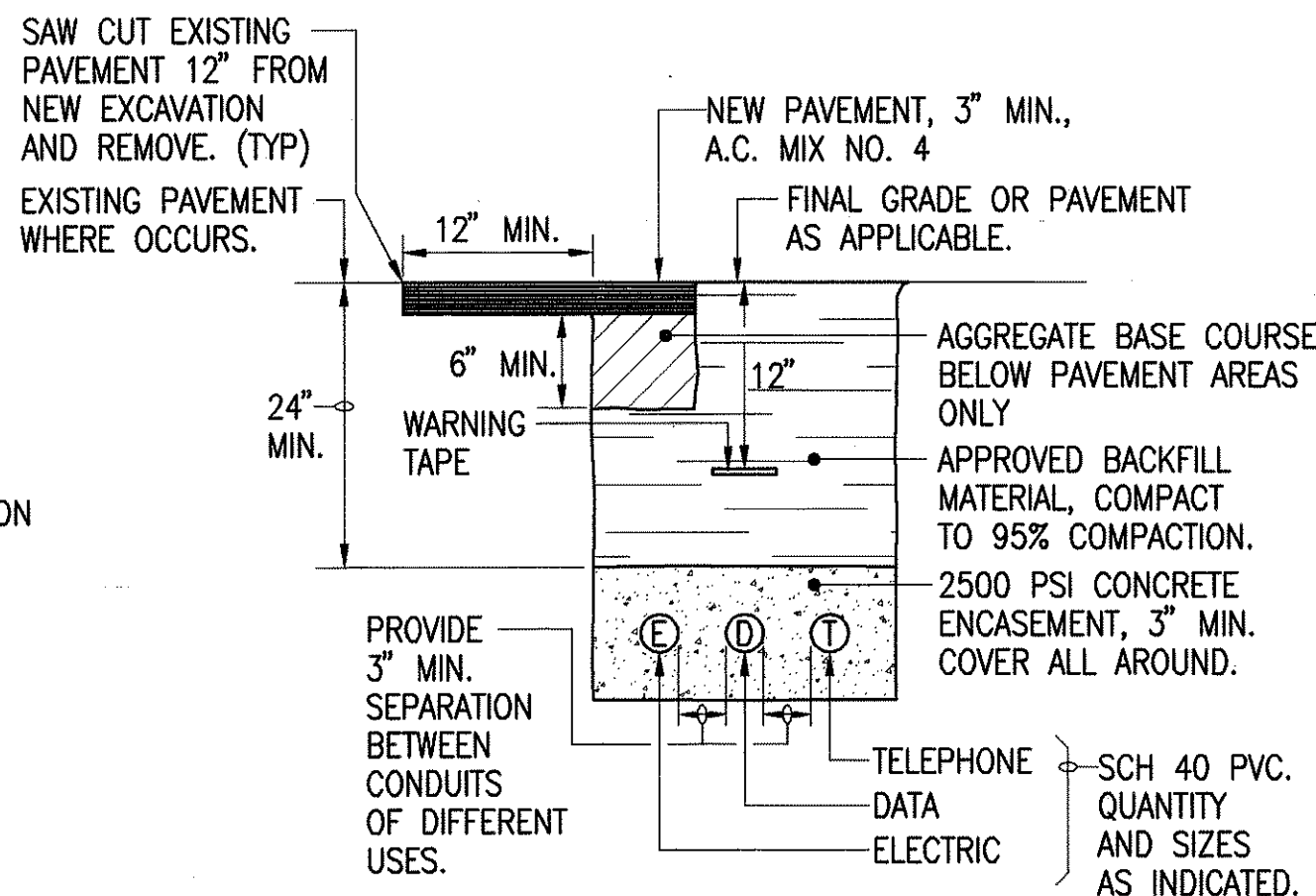
- DISTRIBUTION PANEL NO. 3**
- 600 VOLT RATED, 208Y/120 VOLT, 3 PHASE, 4 WIRE SERVICE
 - 1200 AMPERES MAINS, 1200 AMPERE NEUTRAL
 - COPPER BUS THROUGH-OUT
 - GROUND BUS WITH LUGS FOR 3-3/0 COPPER
 - LUGS FOR INCOMING 3-350 MCM/PHASE COPPER
 - SHORT CIRCUIT RATING: 42,000 AIC MINIMUM AT 240 VOLTS (SYMMETRICAL)
 - BRANCH CIRCUIT BREAKERS MOLDED CASE, THERMAL MAGNETIC WITH "LOCK-OUT" PROVISIONS.
 - ENCLOSURE: SURFACE, STANDARD BOX, DOOR, AND TRIM, NEMA TYPE 3R.
 - U.L. LABELLED FOR SERVICE ENTRANCE.
 - CHALLENGER TYPE PM4, GENERAL ELECTRIC TYPE CCB, WESTINGHOUSE "POW-R-LINE 4"



ONE-LINE DIAGRAM -
DATA - DISTRIBUTION



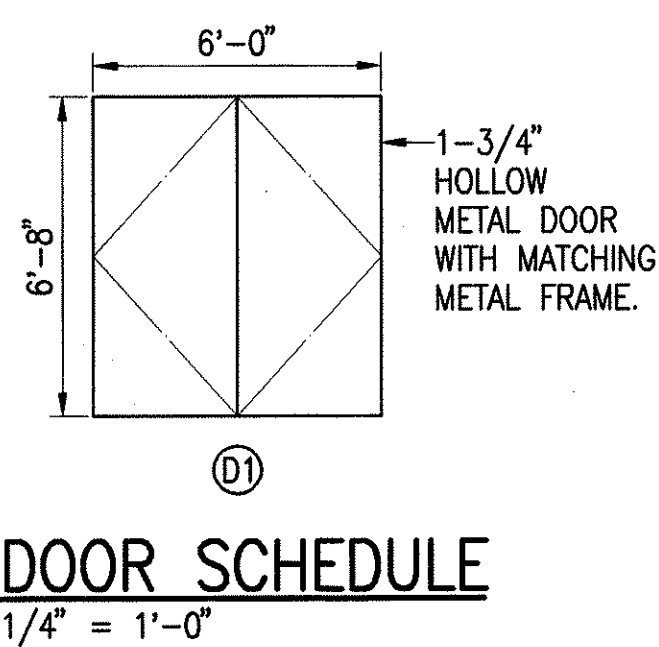
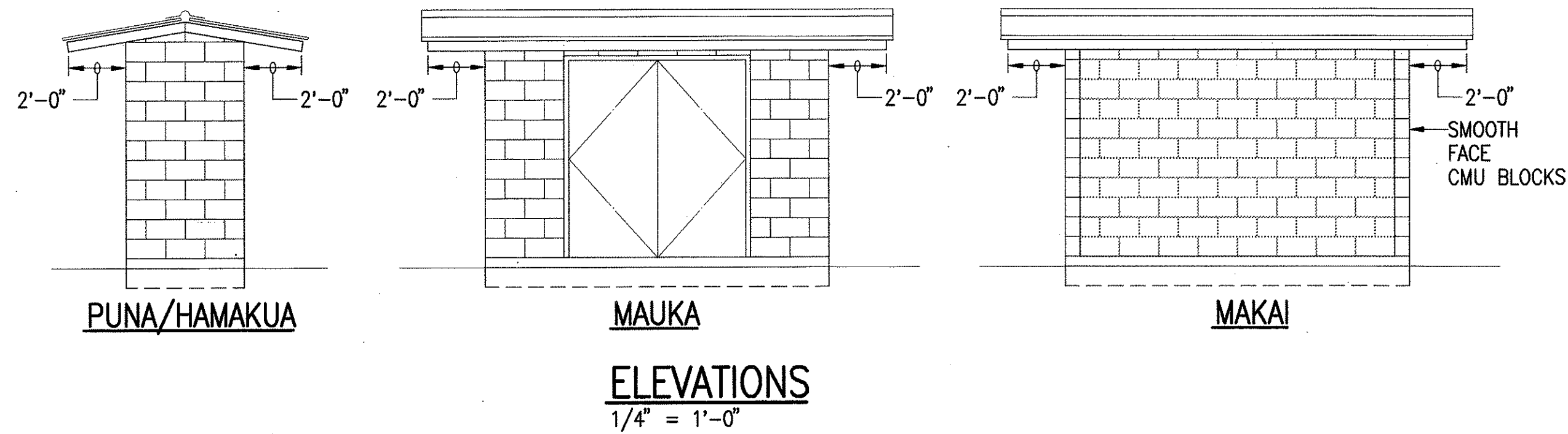
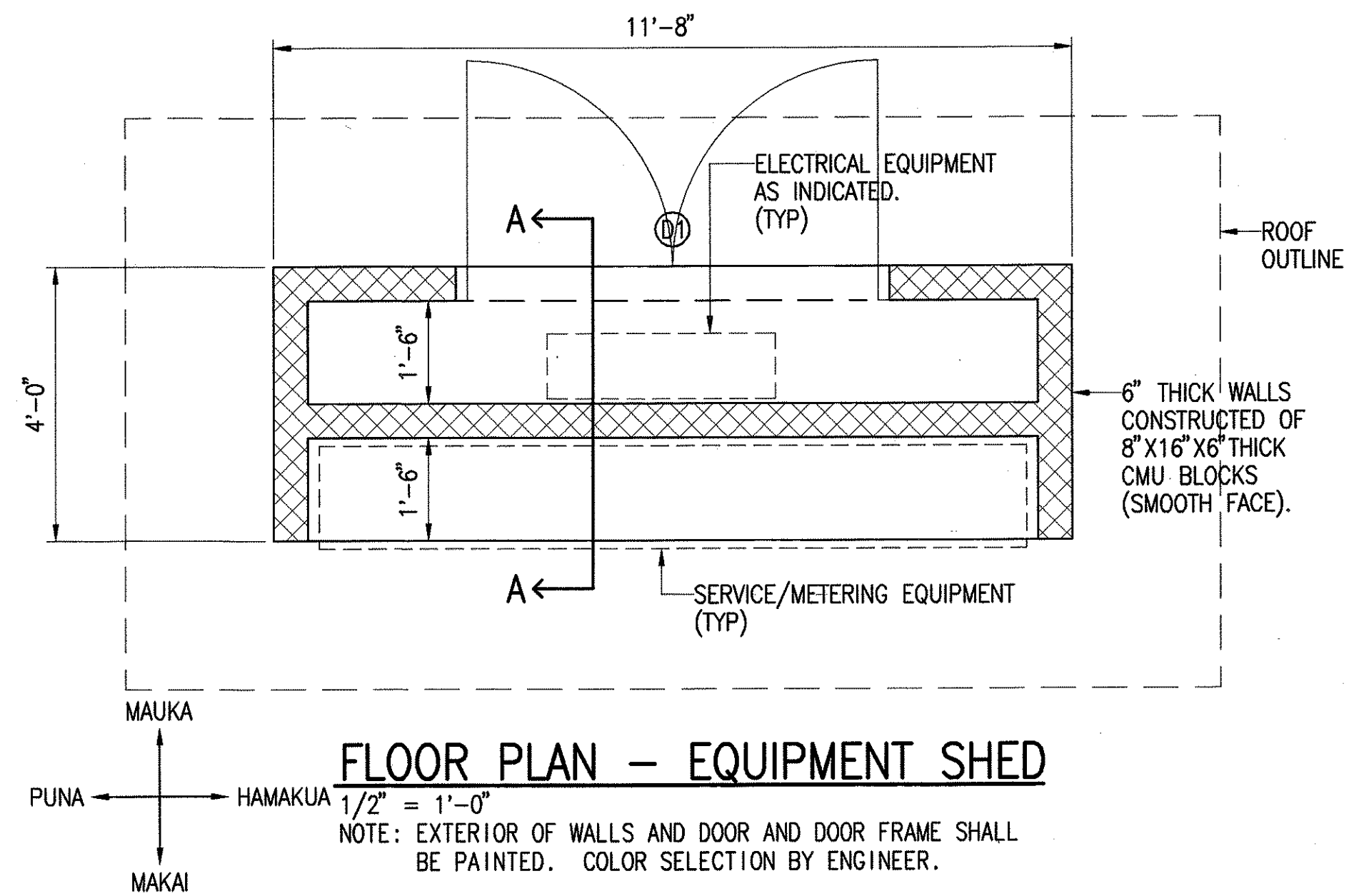
ONE-LINE DIAGRAM -
TELEPHONE - DISTRIBUTION



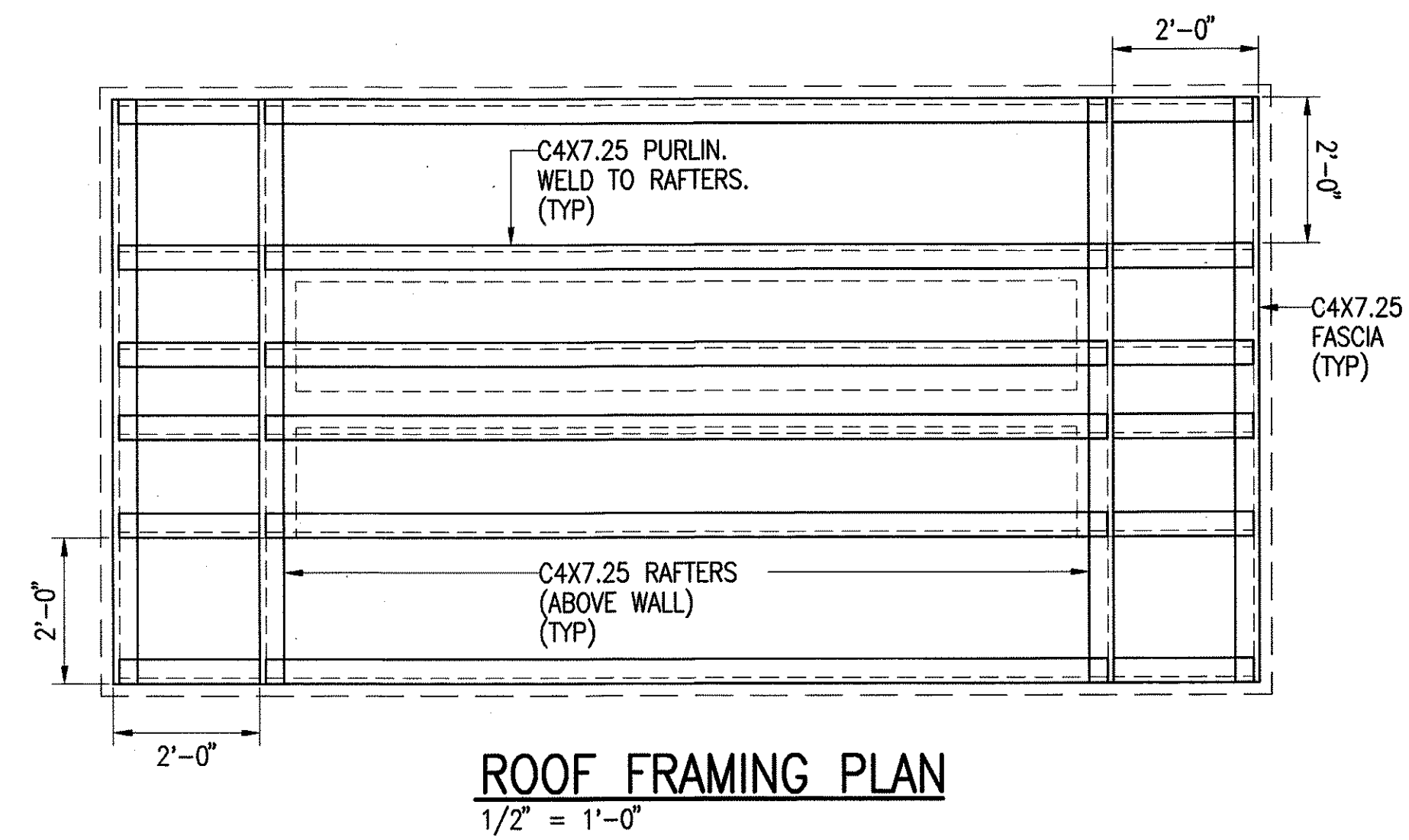
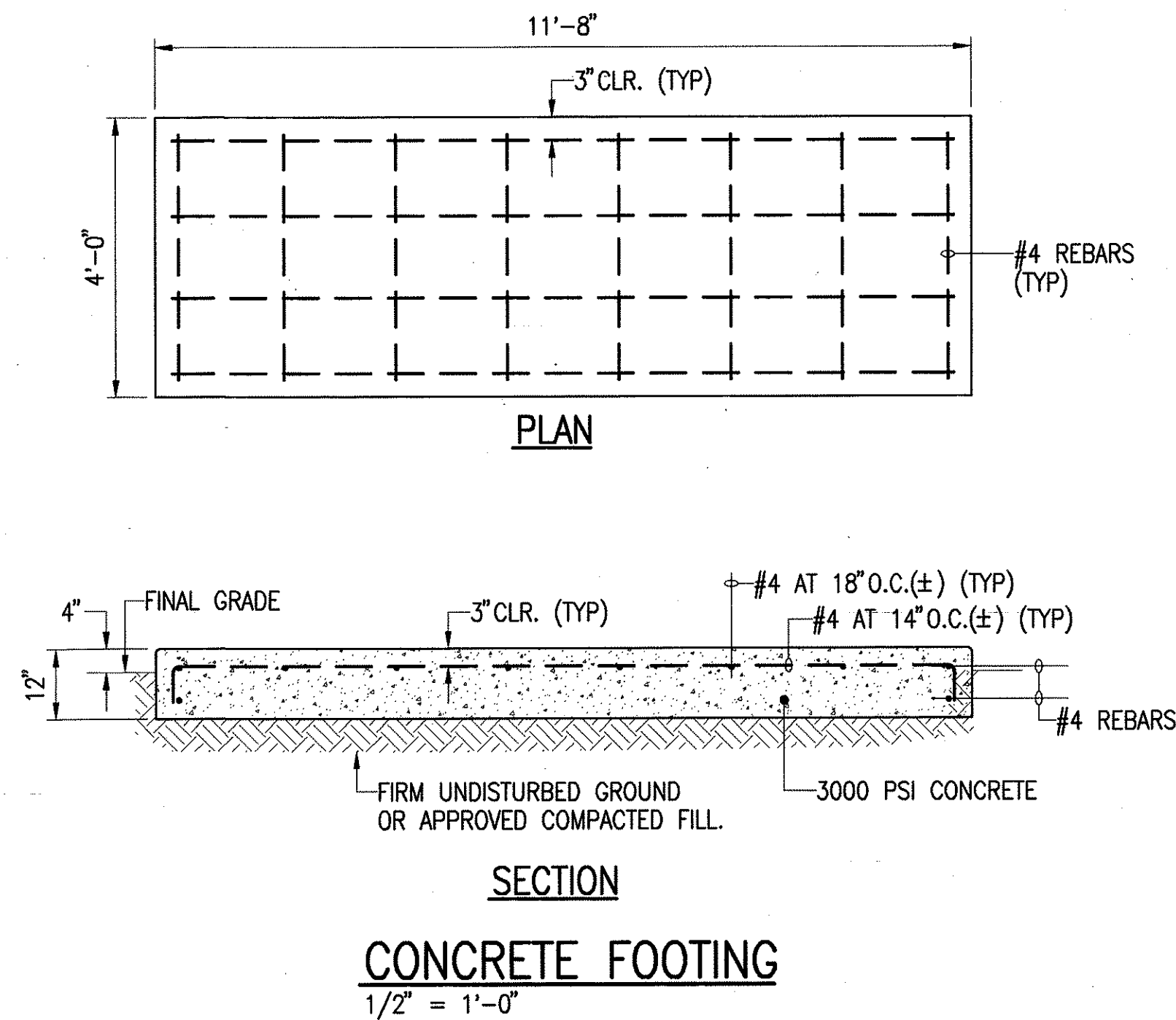
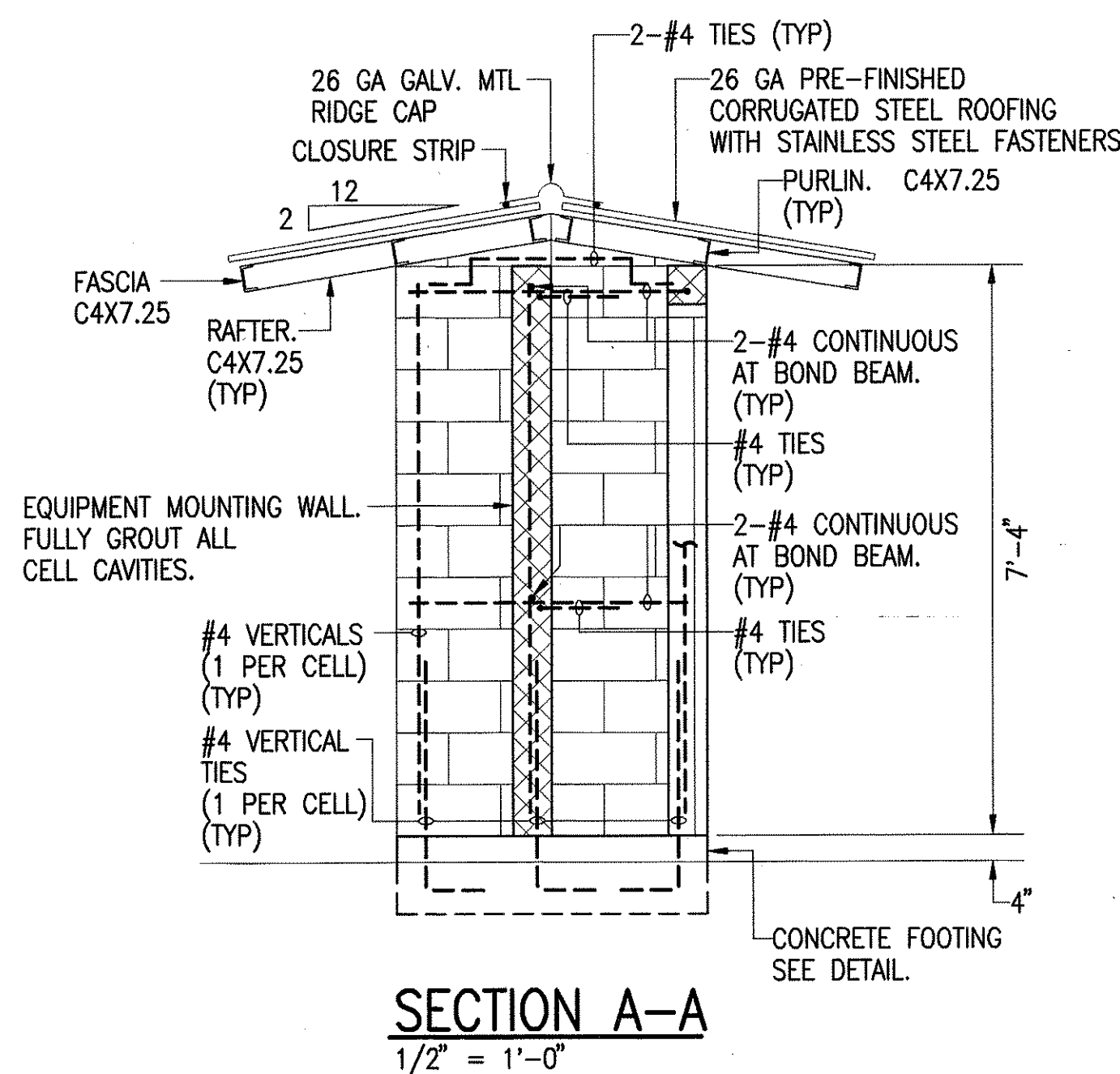
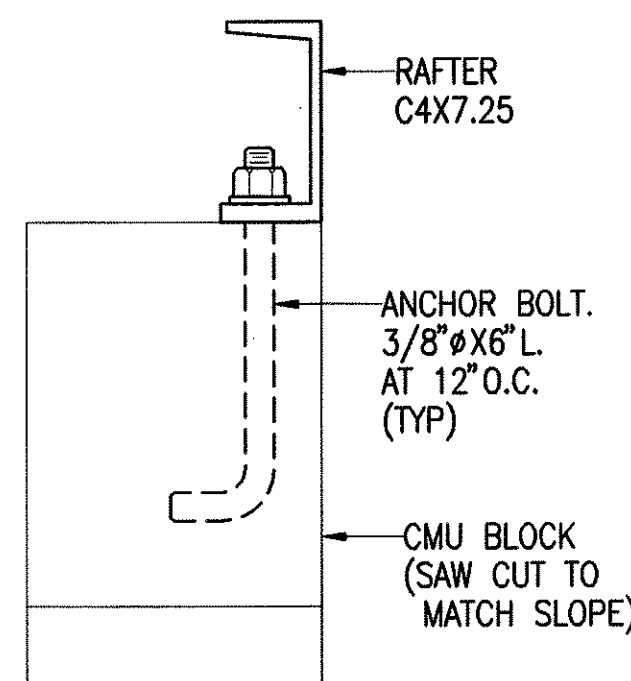
GENERAL ARRANGEMENT (TYP) -
NON-UTILITY DUCTLINE DETAIL
NOT TO SCALE

 <i>Wallace T. Oki</i> THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
	ELECTRICAL PLAN	
	HILO BASEYARD IMPROVEMENTS	
	PROJECT NO. HWY-H-04-99M	
	Scale: Noted	Date: April 2000
DWG. No. E-7	SHEET No. 7 OF 37 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	44	73



QTY	DESCRIPTION	MANUFACTURER
6 EA.	HINGES, B1191 4-1/2 X 4-1/2 NRP AWS	HAGER
1 EA.	LOCKSET, D80PD RHO	SCHLAGE
2 EA.	FLUSH BOLT, 1358	QUALITY
1 E.	DUSTPROOF STRIKE, 1226	QUALITY



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

WALLACE T. OKI
LICENSED PROFESSIONAL ENGINEER
3539-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN

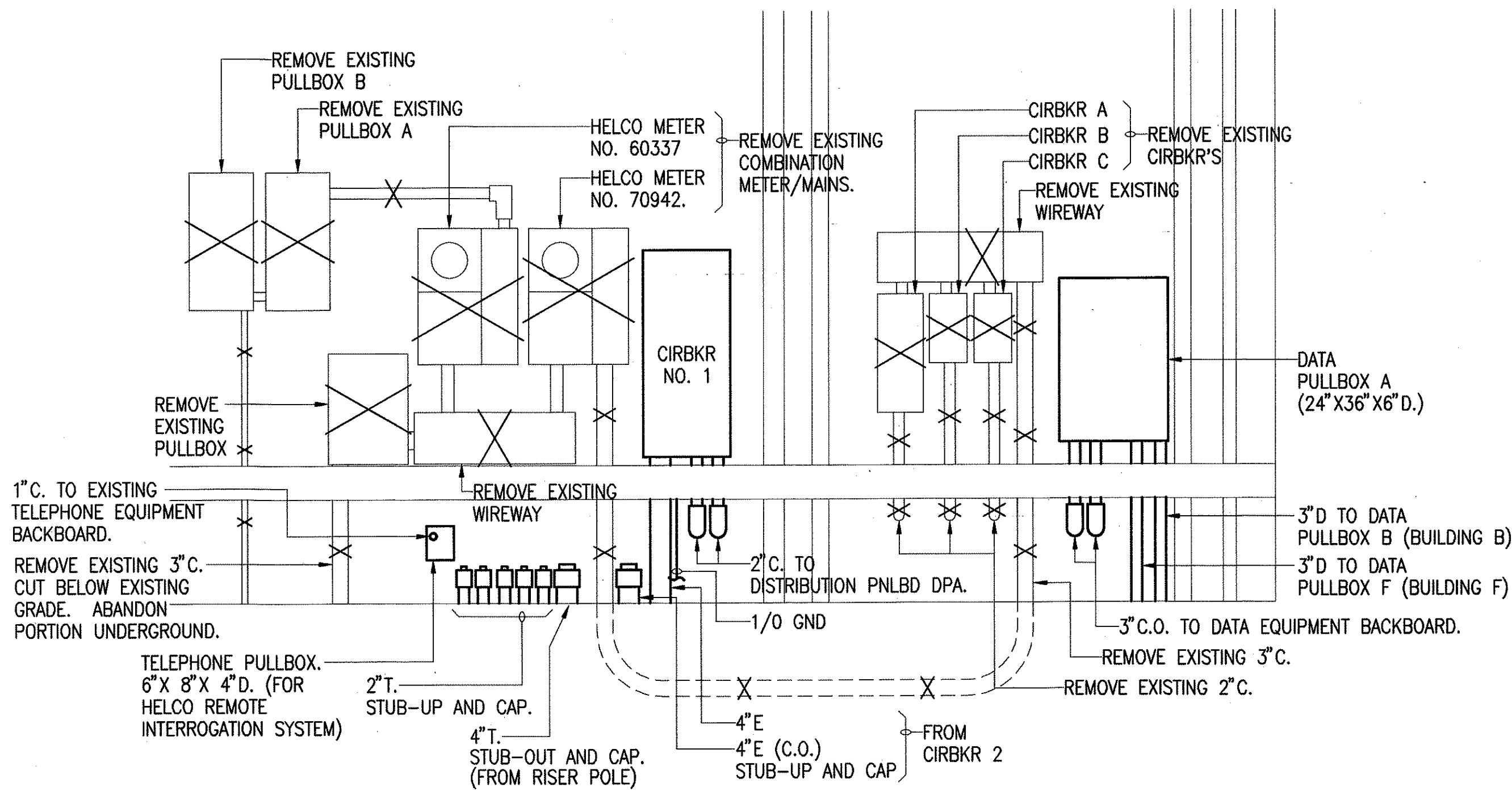
HILO BASEYARD IMPROVEMENTS

PROJECT NO. HWY-H-04-99M

Scale: Noted Date: April 2000

DWG. No. **E-8** SHEET No. **8** OF **37** SHEETS

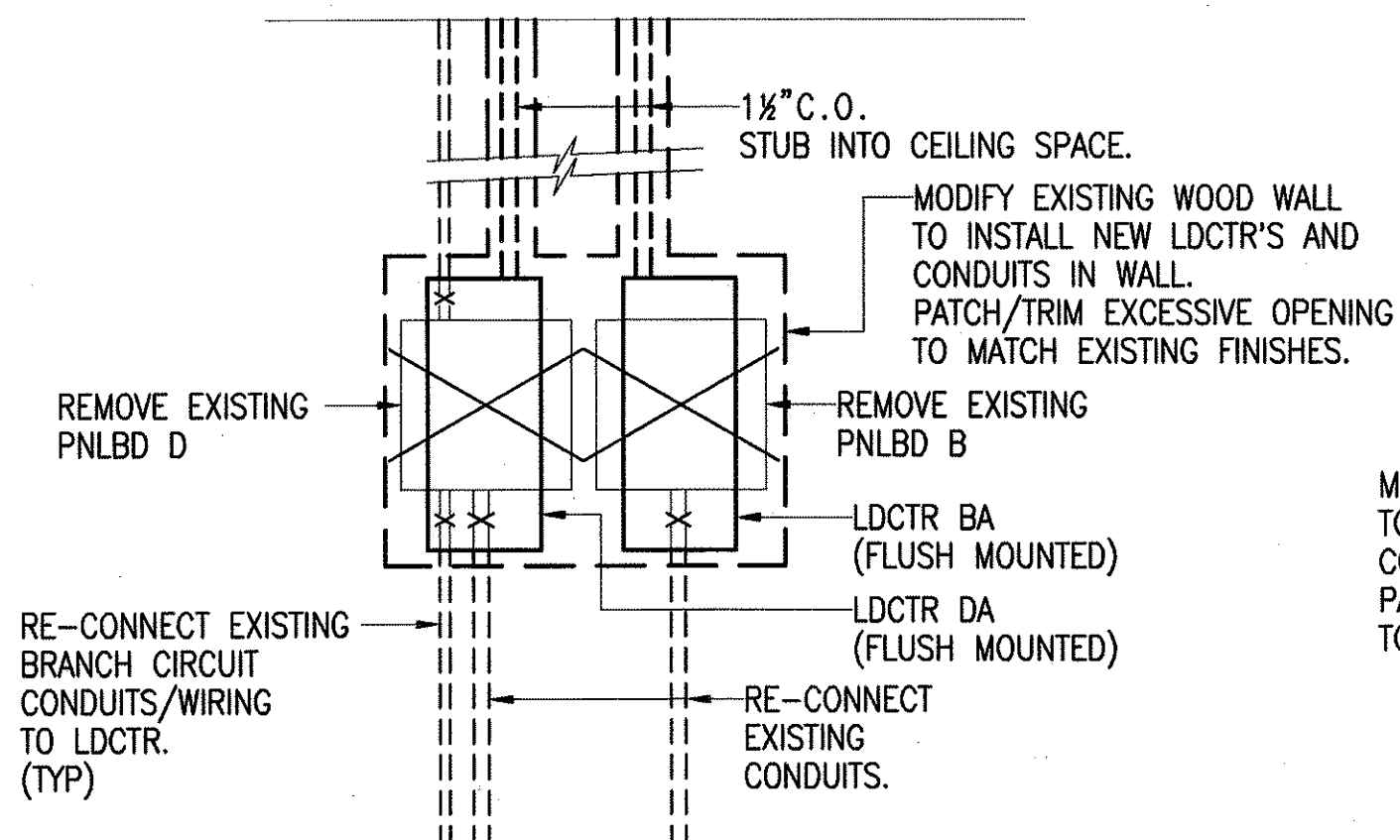
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-04-99M	2000	46	73



GENERAL ARRANGEMENT (TYP) - EXISTING SERVICE/METERING EQUIPMENT A

NOT TO SCALE
NOTES:

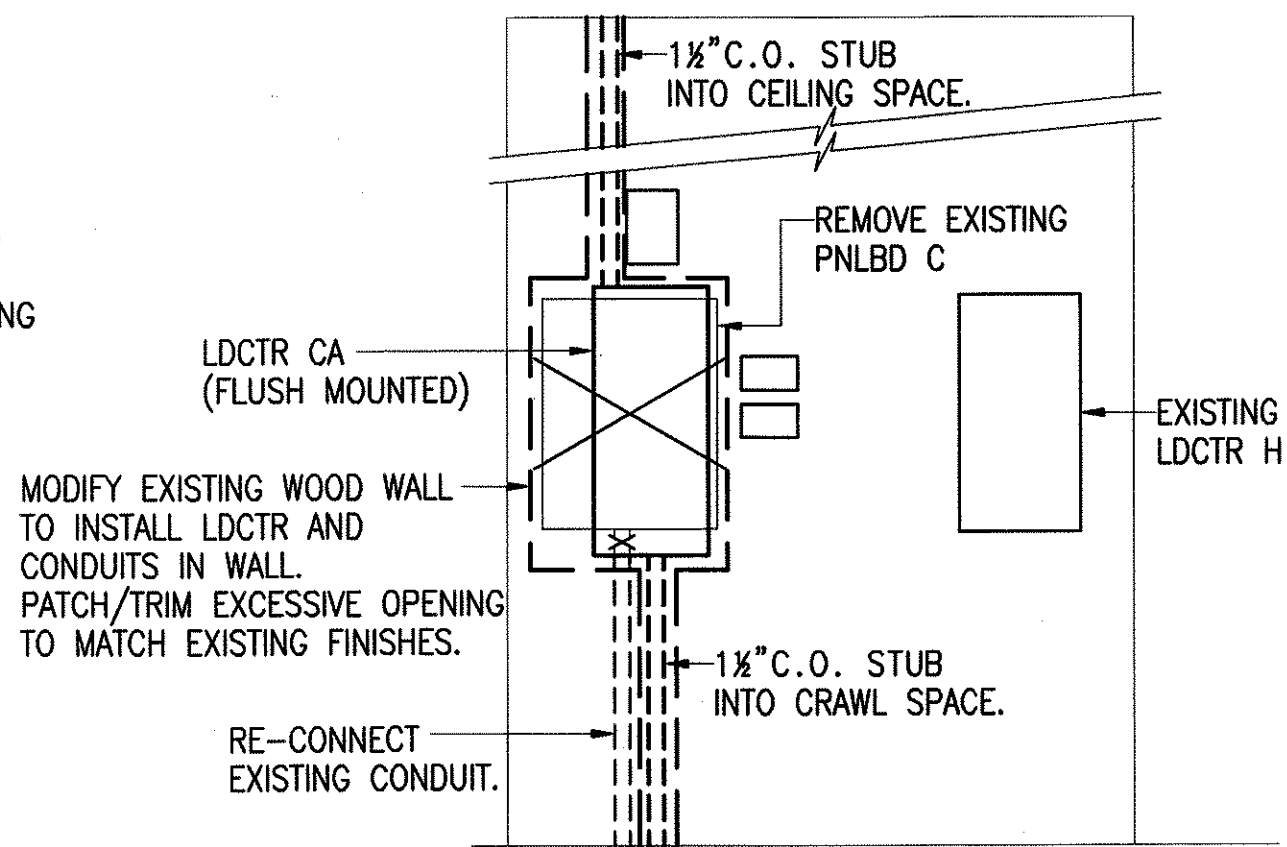
1. ALL EQUIPMENT ENCLOSURES SHALL BE SUITABLE FOR OUTDOOR USE AND HAVE NEMA 3R ENCLOSURES AS A MINIMUM REQUIREMENT.
2. ALL ITEMS ARE NEW EXCEPT AS INDICATED.



GENERAL ARRANGEMENT (TYP) - NEW LDCTR'S B & D

NOT TO SCALE

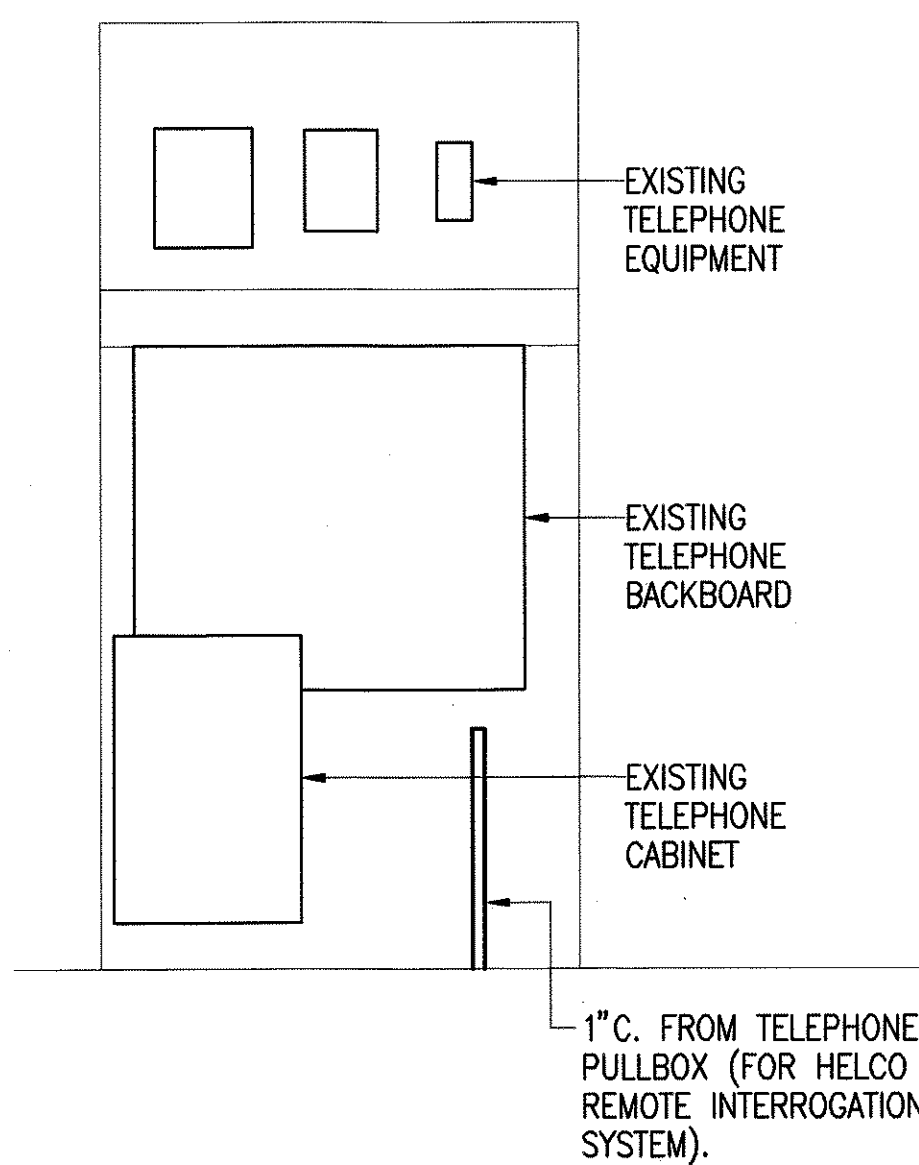
NOTE: ALL ITEMS ARE NEW EXCEPT AS INDICATED.



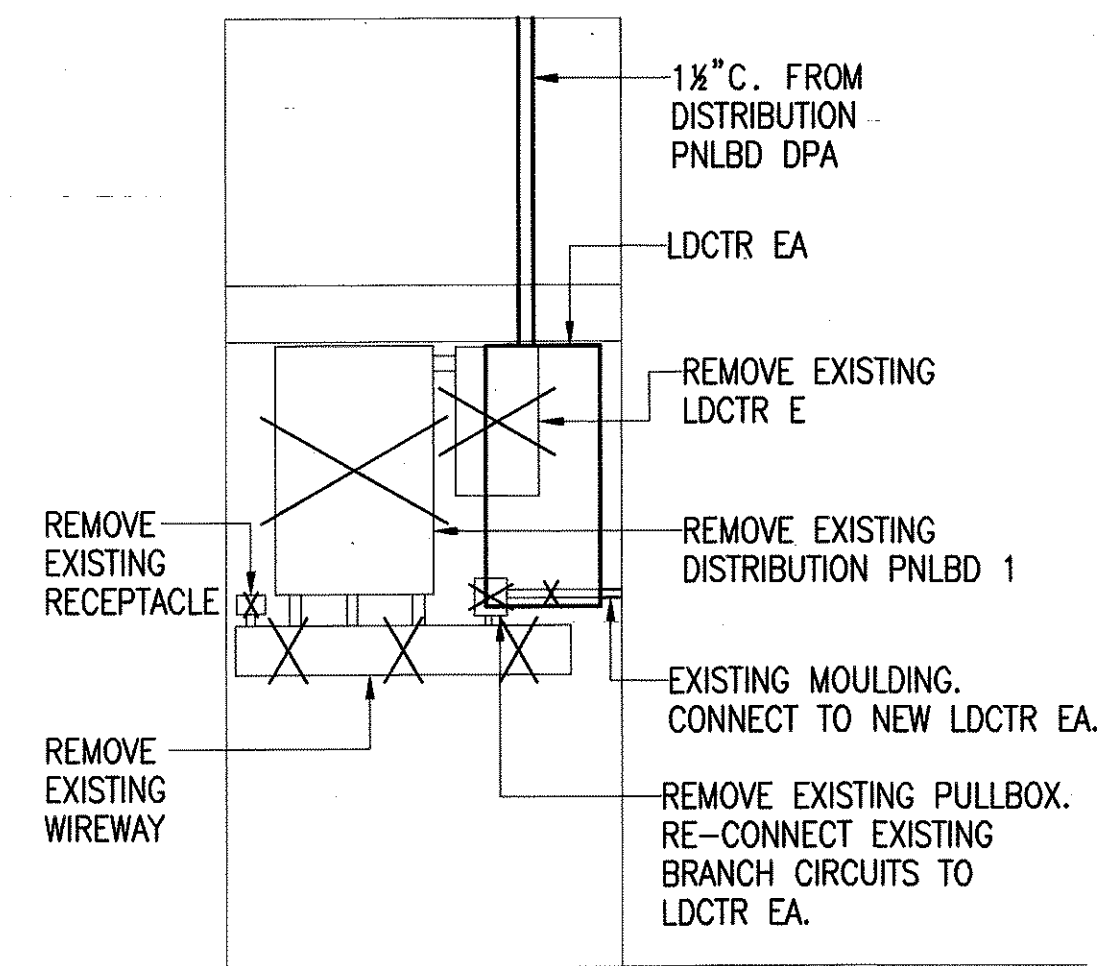
GENERAL ARRANGEMENT (TYP) - EXISTING LDCTR H, NEW LDCTR CA

NOT TO SCALE

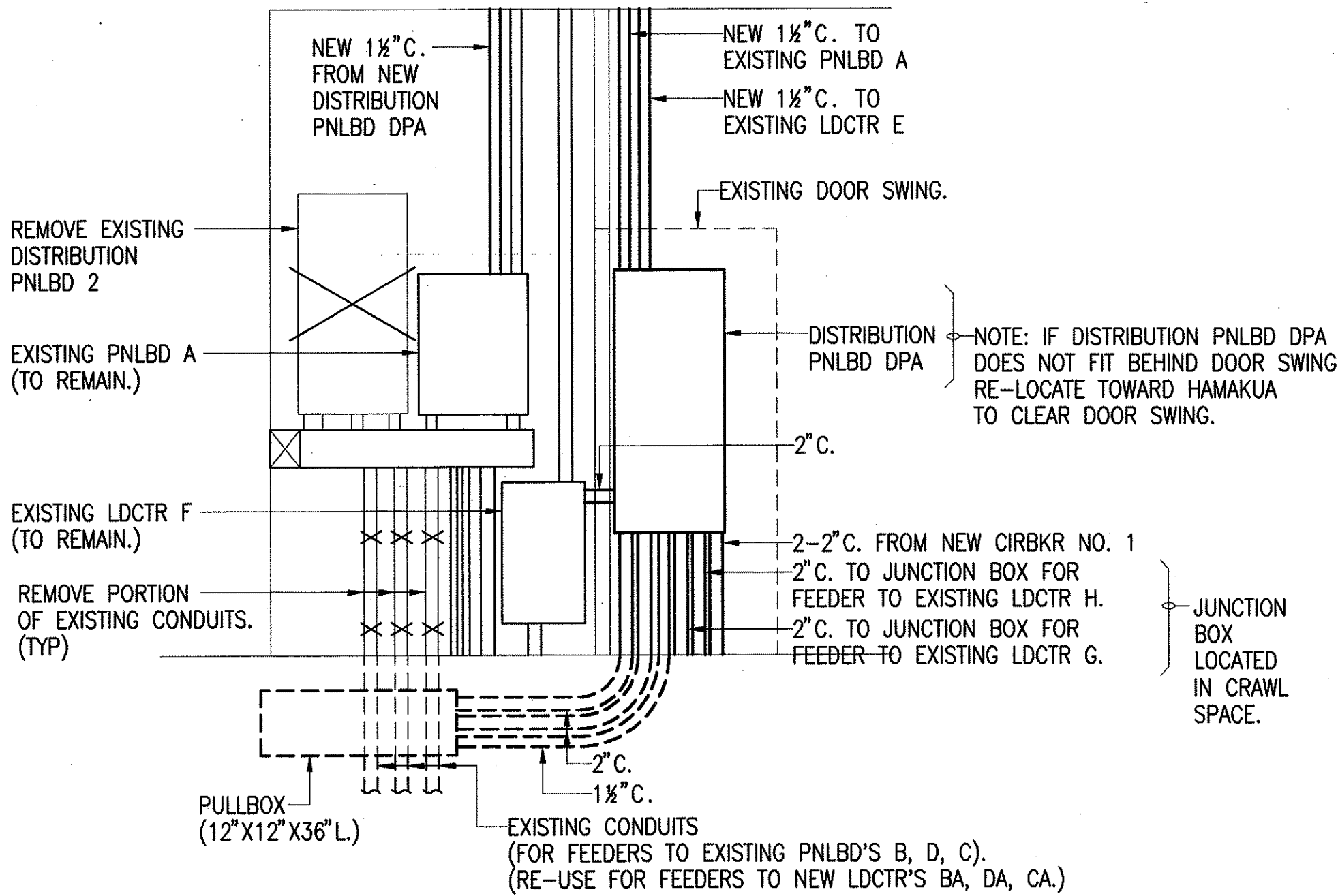
NOTE: ALL ITEMS ARE NEW EXCEPT AS INDICATED.



MAKAI WALL



PUNA WALL



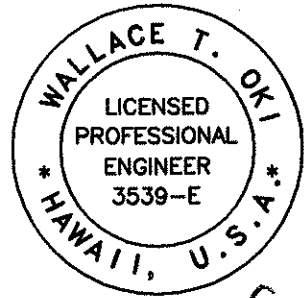
MAUKA WALL

GENERAL ARRANGEMENT (TYP) - ELECTRICAL ROOM

NOT TO SCALE

NOTE: ALL ITEMS ARE NEW EXCEPT AS INDICATED.

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

 <i>Wallace T. Oki</i> THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION ELECTRICAL PLAN HILO BASEYARD IMPROVEMENTS PROJECT NO. HWY-H-04-99M Scale: Noted Date: April 2000	
	BUILDING A	DWG. No. E-10
	SHEET No. 10	OF 37 SHEETS
	OKI 22000285.dwg	

