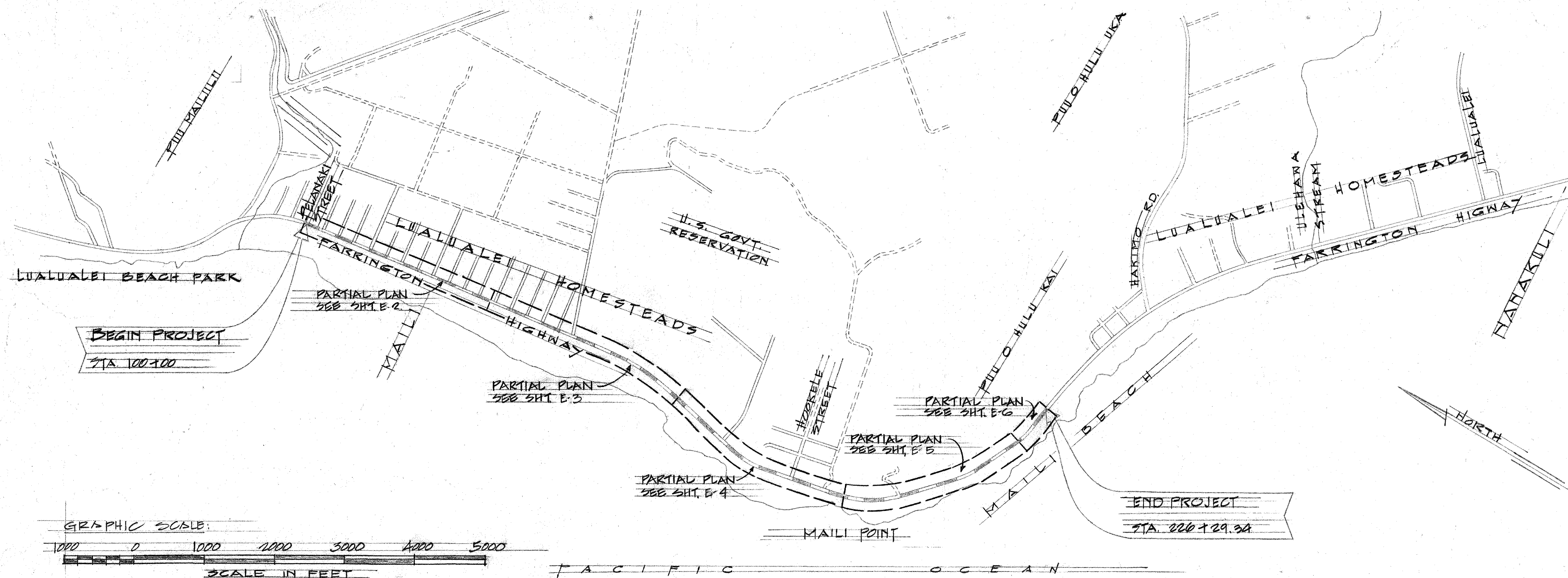




SHEET LAYOUT
SCALE: 1" = 1000'

ABBREVIATIONS

TP	TELEPHONE POLE
EP	ELECTRIC POLE
HECO	HAWAIIAN ELECTRIC CO.
HTCO	HAWAIIAN TELEPHONE CO.
SC	COMMUNICATION CABLE (U.S. ARMY SIGNAL CORP.)
JP	JOINT UTILITY POLE
CPB	SIGNAL CORP. PULLBOX
PH	FIRE HYDRANT
WV	WATER VALVE
WVMH	WATER VALVE MANHOLE
W12	12" WATER LINE
R/W	HIGHWAY RIGHT-OF-WAY LINE

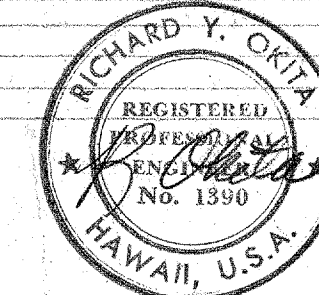
ELECTRICAL SYMBOLS

●	NEW UTILITY POLE. EXCAVATION AND BACKFILL BY CONTRACTOR. POLE INSTALLATION BY UTILITY COMPANY. ANNOTATION IS POLE ADDRESS, HEIGHT & CLASS.
○	EXISTING UTILITY POLE
—○—	EXISTING POLE ANCHOR
⊕	GROUNDING SYSTEM FOR HTCO SEE DETAIL (P. 10)
□	PULLBOX OR HANDHOLE, TYPE AS INDICATED ON PLAN
—○—	NEW POLE GUY & ANCHOR. EXCAVATION AND BACKFILL BY CONTRACTOR. ANCHOR ZINC AND ROD FURNISHED BY UTILITY COMPANY AND INSTALLED BY CONTRACTOR. ANCHOR LEAD AS NOTED ON PLAN.
⊕	DETAIL INDICATOR. TOP HALF - DETAIL ASSIGNMENT, BOTTOM HALF - SHEET NUMBER
⊕	NOTE INDICATOR. ANNOTATION IS NOTE ASSIGNMENT. SEE GENERAL NOTES THIS SHEET.
---	EXISTING UNDERGROUND RACEWAY, TYPE AS NOTED ON PLAN.
---	NEW UNDERGROUND RACEWAY, DETAIL AS SHOWN ON PLAN.
⊕	RACEWAY SECTION INDICATOR, NUMBER INDICATES RACEWAY DETAIL ASSIGNMENT.

GENERAL NOTES

- CONTRACTOR SHALL HAVE EXISTING UNDERGROUND UTILITIES LOCATION TONED AND STAKED OUT BY THE RESPECTIVE UTILITY COMPANY PRIOR TO EXCAVATING FOR PLOTLINE, DIRECT BURIED CABLE, POLES AND ANCHORS.
- CONTRACTOR SHALL COORDINATE ALL WORK TO BE PERFORMED BY THE UTILITY COMPANIES.
- ALL UNDERGROUND UTILITY WORK SHALL BE PROVIDED AS FOLLOWS:
 - ALL RACEWAYS AND STRUCTURES SHALL BE PROVIDED BY THIS CONTRACTOR.
 - ALL CABLES AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED BY THE RESPECTIVE UTILITY COMPANY.
- DRAWINGS ISSUED BY THE RESPECTIVE UTILITY COMPANY SHALL BE INCLUDED AS PART OF DOCUMENTS OF THIS PROJECT.
- ALL WORK RELATED TO THE ADJUSTMENT REMOVAL & RELOCATION OF THE EXISTING STREET LIGHT EQUIPMENT AND THE INSTALLATION OF NEW STREET LIGHT EQUIPMENT SHALL NOT BE A PART OF THE WORK OF THIS CONTRACT.
- ALL WORK TO RELOCATE EXISTING AND INSTALLING UTILITY COMPANY'S NEW OVERHEAD EQUIPMENT SHALL BE PERFORMED AS FOLLOWS:
 - EXCAVATION AND BACKFILL FOR POLES SHALL BE BY CONTRACTOR.
 - POLES SHALL BE FURNISHED AND INSTALLED BY UTILITY COMPANY.
 - POLE ANCHORS AND ROD SHALL BE FURNISHED BY UTILITY COMPANY AND INSTALLED BY THE CONTRACTOR. ALL ANCHOR RODS SHALL BE 1" DIA. COPPER WELD TYPE.
 - ALL OTHER OVERHEAD WORK WILL BE PROVIDED BY UTILITY COMPANY.
- ALL WORK TO RELOCATE EXISTING UNDERGROUND SIGNAL CORP. CABLE SHALL BE PERFORMED BY CONTRACTOR TO INCLUDE EXCAVATION, BACKFILL AND PHYSICAL RELOCATION OF CABLE TO NEW LOCATION. SPLICING AND TONING OF CABLE LOCATION SHALL BE BY HTCO.
- TRIM OR REMOVE TREES AS SHOWN ON PLAN TO CLEAR WAY FOR INSTALLATION OF UTILITY COMPANIES OVERHEAD EQUIPMENT. COORDINATE TREE TRIMMING WITH RESPECTIVE UTILITY COMPANY.

- ADJUST EXISTING MANHOLE FRAME AND COVER TO MATCH NEW FINISHED GRADE.
- ADJUST EXISTING PULLBOX TO MATCH NEW FINISHED GRADE. ADJUSTMENT OF DUCTS AND/OR CABLES EXISTING FROM PULLBOX SHALL BE INCIDENTAL TO THE WORK.
- EXISTING POLES TO BE REMOVED BY RESPECTIVE UTILITY COMPANY.
- REMOVE EXISTING HECO PULLBOX AND PROVIDE SPLIT DUCTS, CONCRETE ENCASED AROUND EXISTING CABLES. WORK SHALL BE PERFORMED UNDER THE SURVEILLANCE OF UTILITY COMPANY REPRESENTATIVE.
- ALL SALVABLE EQUIPMENT AND MATERIAL REMOVED BY THE CONTRACTOR, SHALL BE RETURNED TO THE RESPECTIVE UTILITY COMPANY. COORDINATE RETURN WITH THE RESPECTIVE UTILITY COMPANY'S REPRESENTATIVE.
- ALL POLE HOLES AND ANCHORS SHALL BE PROVIDED WITHIN THE HIGHWAY RIGHT OF WAY. ANCHOR LEADS SHALL BE 4'-6" UNLESS INDICATED OTHERWISE ON PLAN. LOCATION OF POLES AND ANCHORS SHALL BE STAKED BY CONTRACTOR AND APPROVED BY THE RESPECTIVE UTILITY COMPANY PRIOR TO STARTING EXCAVATION.



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APPROVED: VERN E. CRANKHYTE PER E 900

HAWAIIAN ELECTRIC CO. DATE 6/10/69

HAWAIIAN TELEPHONE DATE 6-18-69

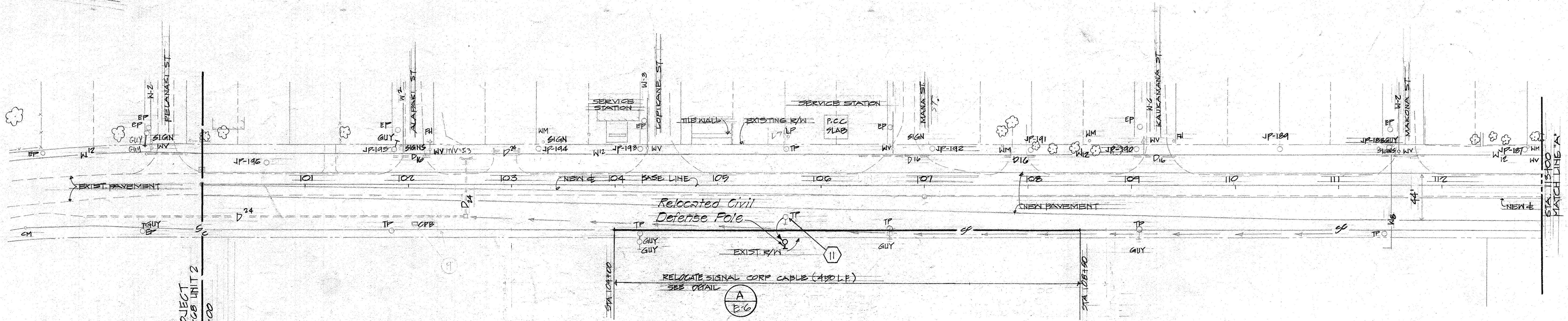
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL ELECTRICAL & TELEPHONE
RELOCATION PLAN
SHEET LAYOUT
FARRINGTON HIGHWAY WIDENING
PROJECT 900B-02-68
UNIT 2

SCALE: 1" = 1000'

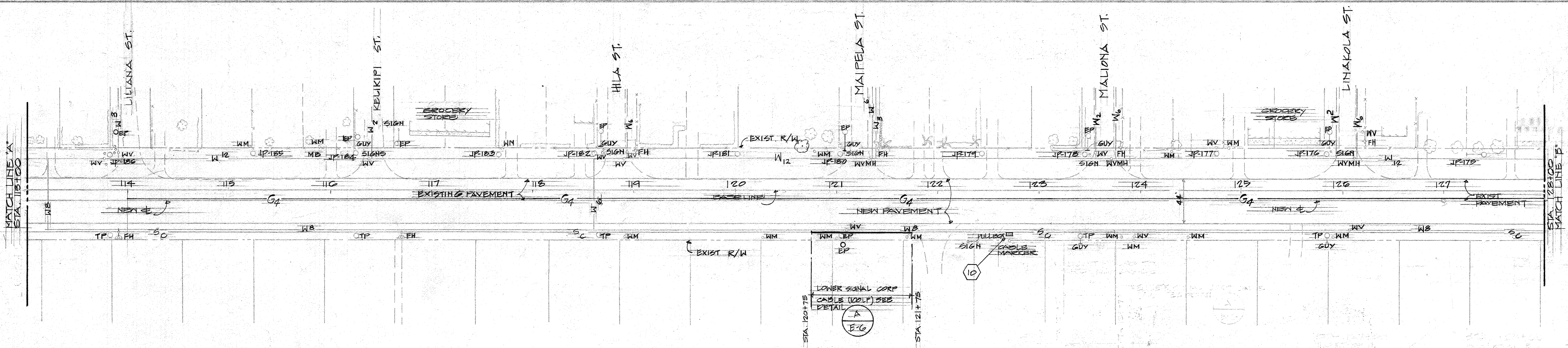
SHEET No. 91 OF 96 SHEETS

TRUE NORTH
SCALE: 1"=50'



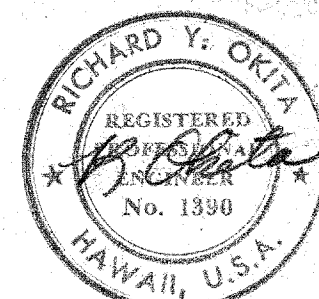
PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN
SECTION "A"

STA. 100+00 TO STA. 113+00



PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN
SECTION "B"

STA. 113+00 TO STA. 128+00



THIS WORK WAS PREPARED BY
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APPROVED: VERN E. CRANKHITE per 02400

HAWAIIAN ELECTRIC CO. DATE 6/10/69

HAWAIIAN TELEPHONE CO. DATE 6-18-69

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**PARTIAL ELECTRICAL & TELEPHONE
RELOCATION PLAN**
SECTION "A" AND "B"

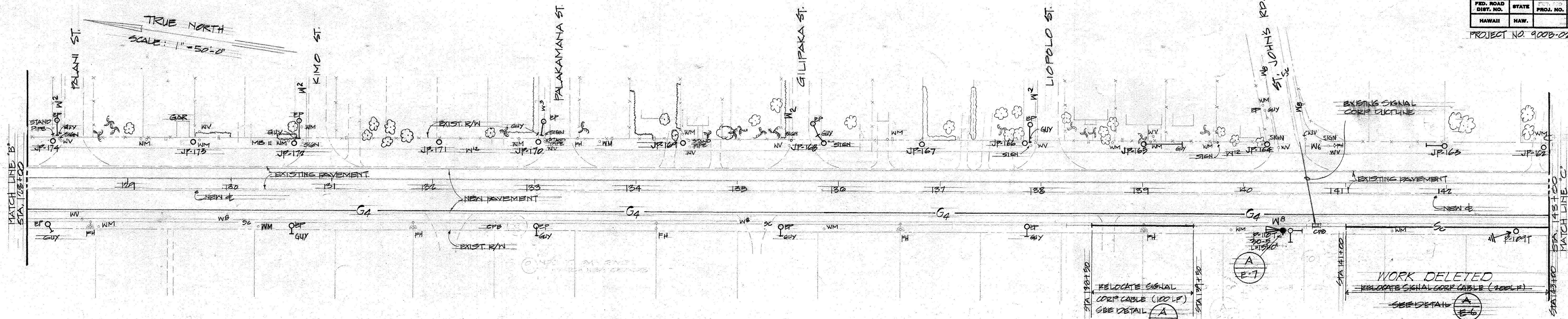
FARRINGTON HIGHWAY WIDENING
PROJECT 900B-02-08
UNIT 2

SCALE: 1"=50'

SHEET No. 02 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.		1969	98	104

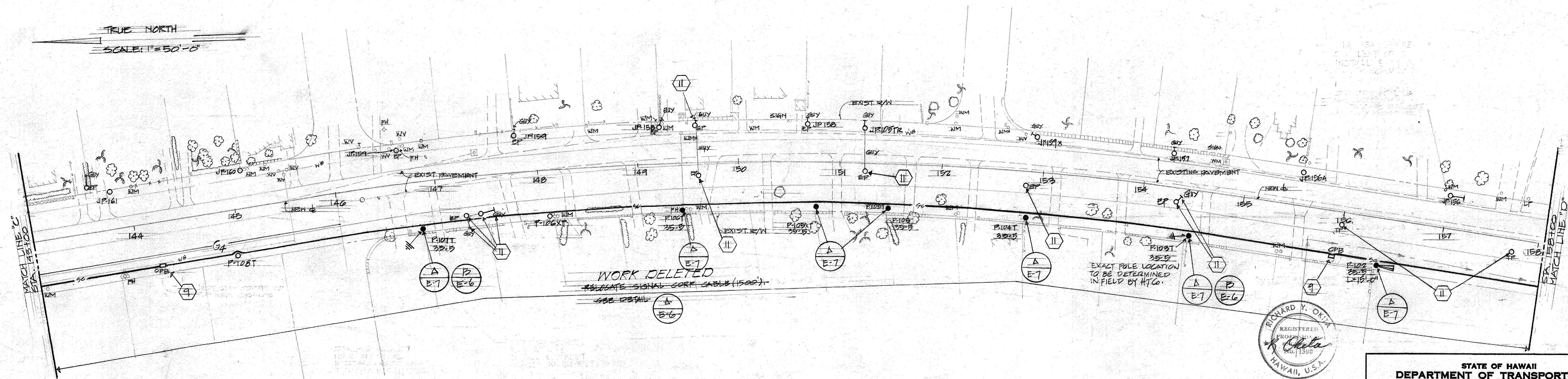
PROJECT NO. 900B-02-G8 UNIT 2



PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN

SECTION "C"

STA. 128+00 TO STA. 143+00



PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN

SECTION "D"

STA. 143+00 TO STA. 158+00

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION,

APPROVED: VERN E CRONKHITE PER 68900

HAWAIIAN ELECTRIC CO. DATE 6/10/69

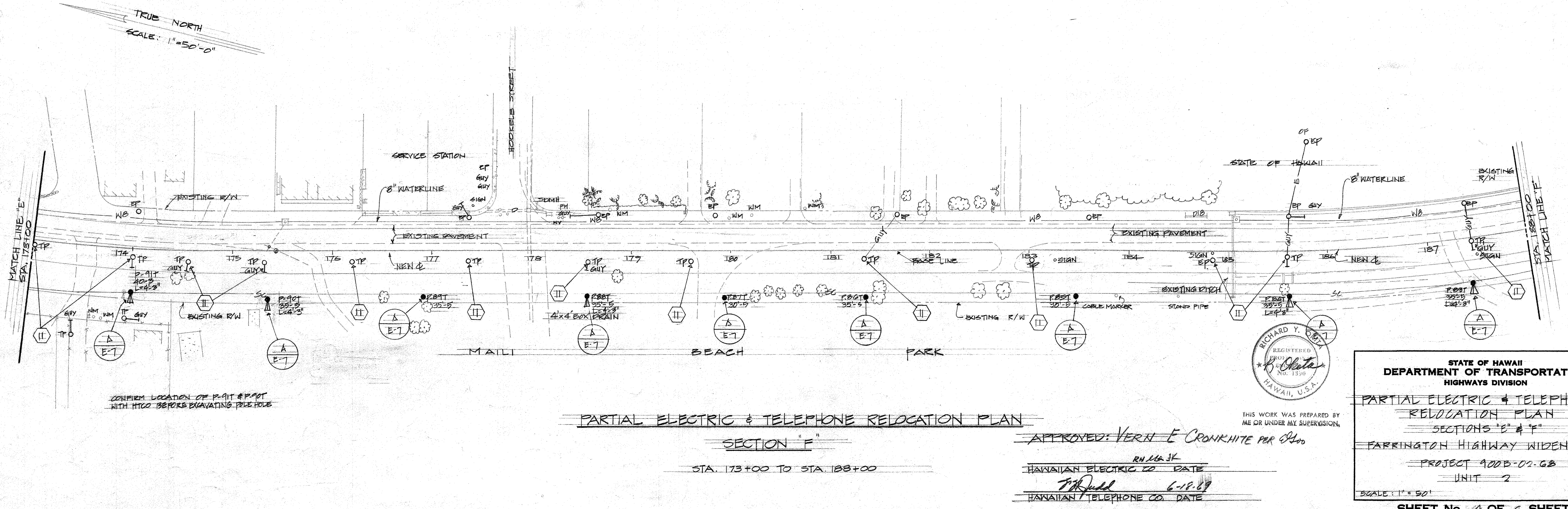
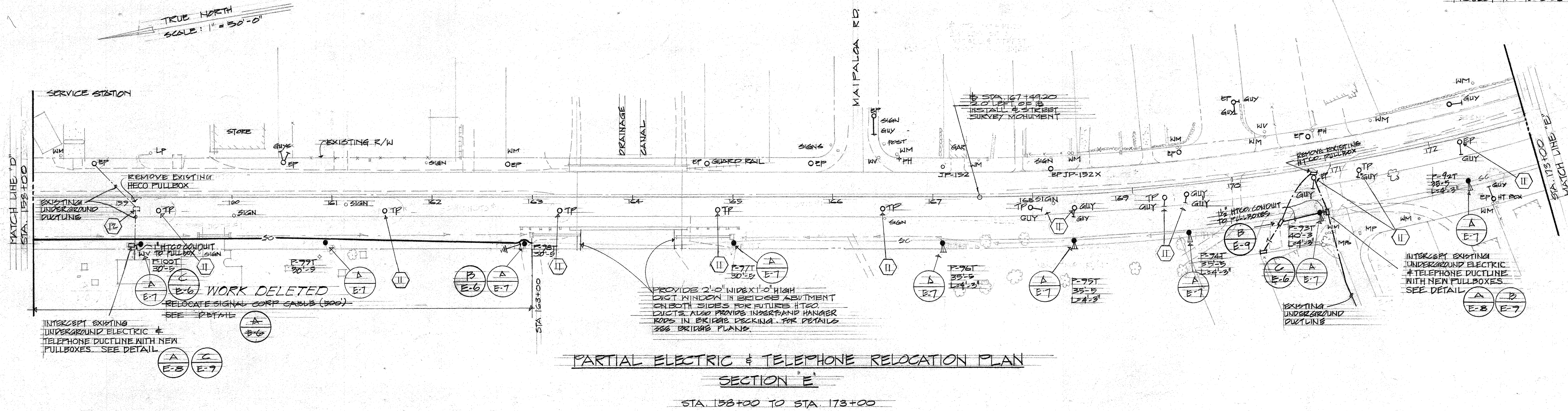
HAWAIIAN TELEPHONE CO. DATE 6-18-69

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL ELECTRIC & TELEPHONE
RELOCATION PLAN
SECTIONS "C" & "D"
FARRINGTON HIGHWAY WIDENING
PROJECT 900B-02-G8
UNIT 2

SCALE: 1"=50'

SHEET No. 3 OF 6 SHEETS



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

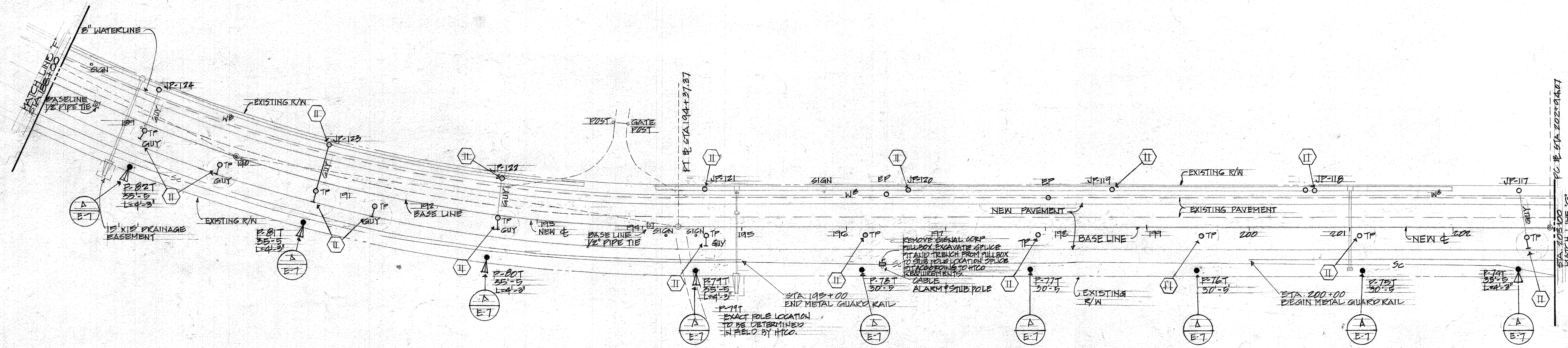
APPROVED: VERN E CRONKHITE PER 0400
RNL/CLK
HAWAIIAN ELECTRIC CO. DATE
6-18-69
HAWAIIAN TELEPHONE CO. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

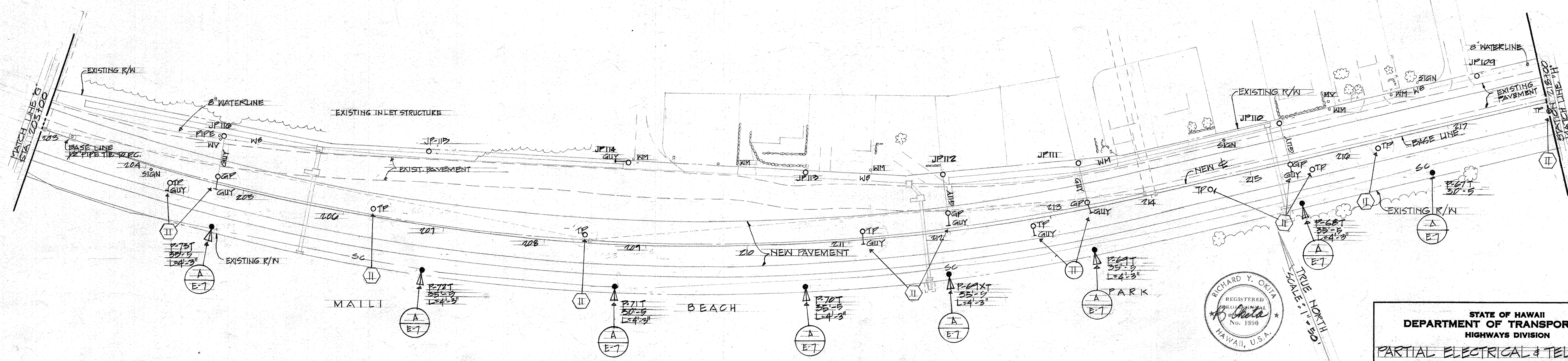
PARTIAL ELECTRIC & TELEPHONE
RELOCATION PLAN
SECTIONS "E" & "F"
FARRINGTON HIGHWAY WIDENING
PROJECT 900B-02-G8
UNIT 2

SCALE: 1" = 50'

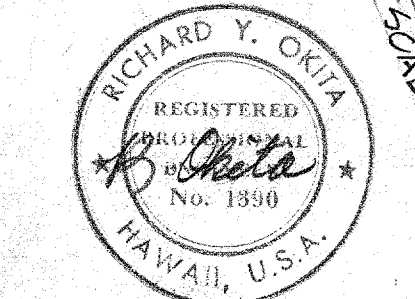
SHEET No. 4 OF 6 SHEETS



PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN
SECTION "G"
 STA. 188+00 TO STA. 203+00



PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN
SECTION "H"
 STA. 203+00 TO STA. 218+00



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APPROVED: *Vern E. Cronkrite* PER *[Signature]*
 RN. 11.2. 6/16/69
 HAWAIIAN ELECTRIC CO. DATE
[Signature] 6-18-69
 HAWAIIAN TELEPHONE CO. DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

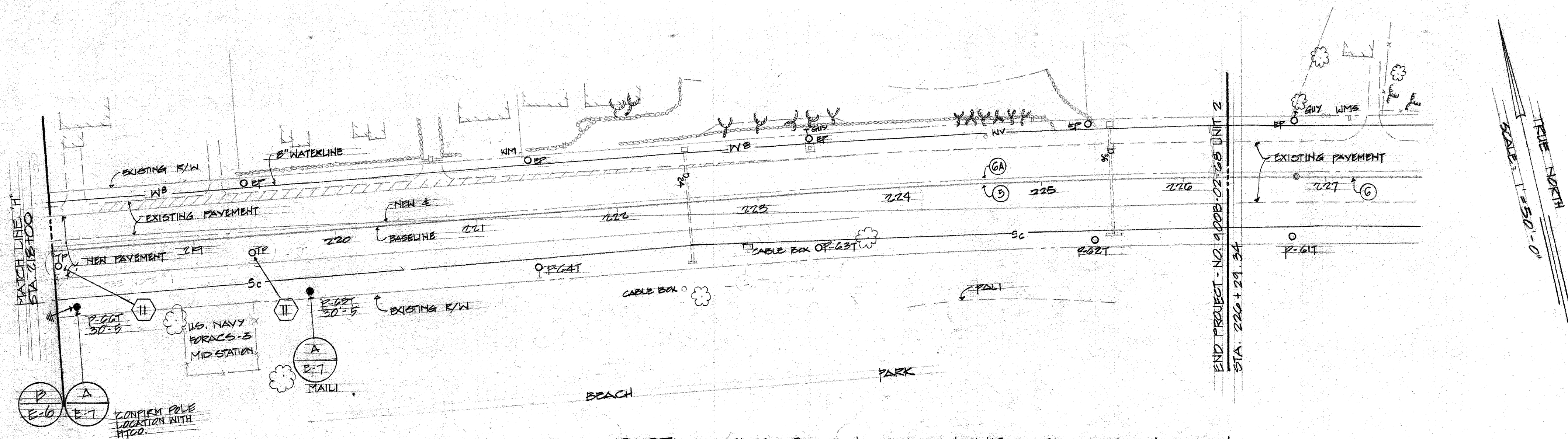
PARTIAL ELECTRICAL & TELEPHONE RELOCATION PLAN
 SECTION "G" AND "H"

FARRINGTON HIGHWAY WIDENING
 PROJECT 100B-02-68
 UNIT 2

SCALE: 1"=30'

SHEET No. 95 OF 6 SHEETS

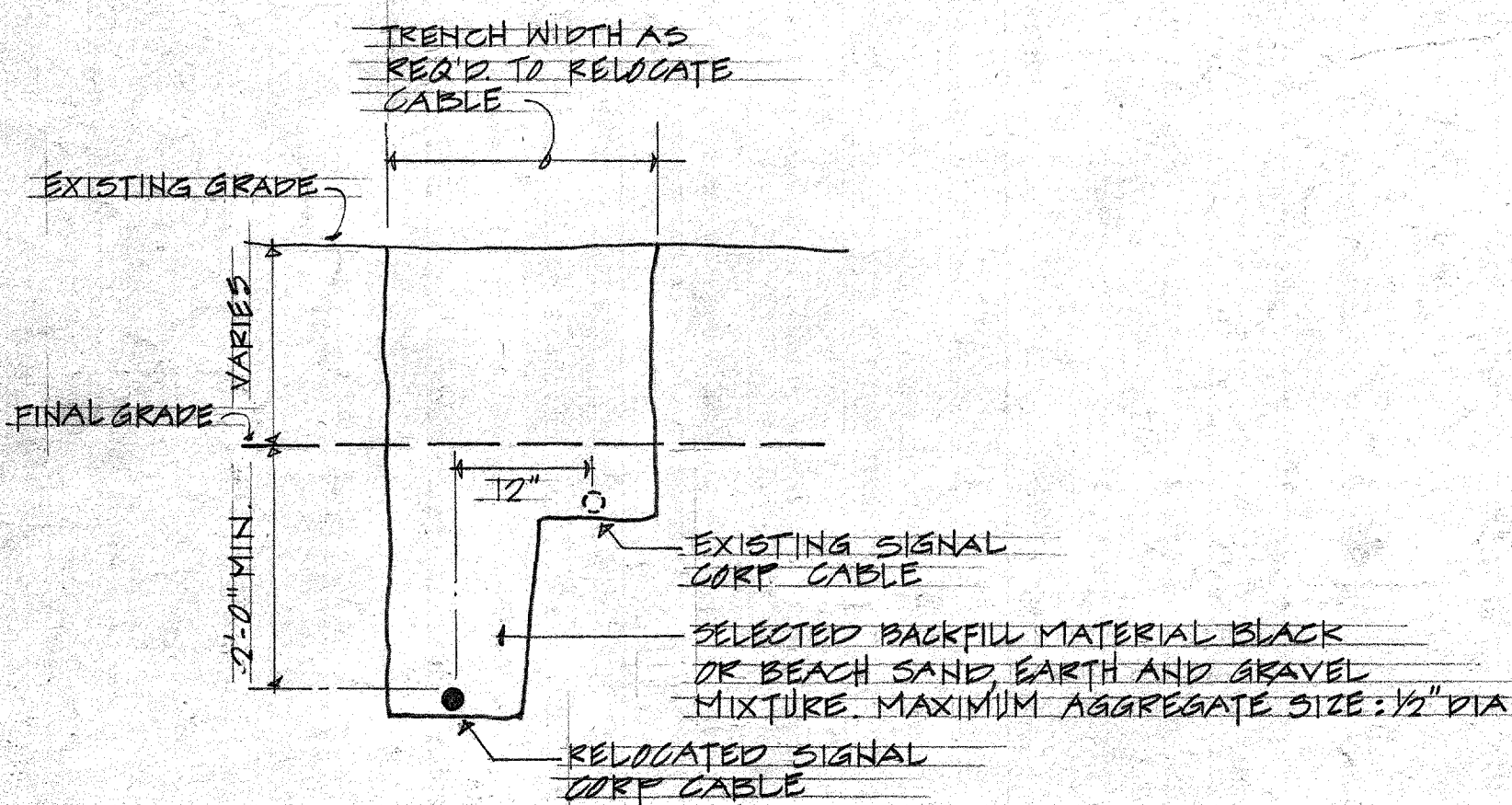
DATE: _____
 SURVEY PLOTTED BY: _____
 DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: _____
 ORIGINAL PLAN No. _____



PARTIAL ELECTRIC & TELEPHONE RELOCATION PLAN

SECTION "I"

STA. 218+00 TO STA. 226+29.34

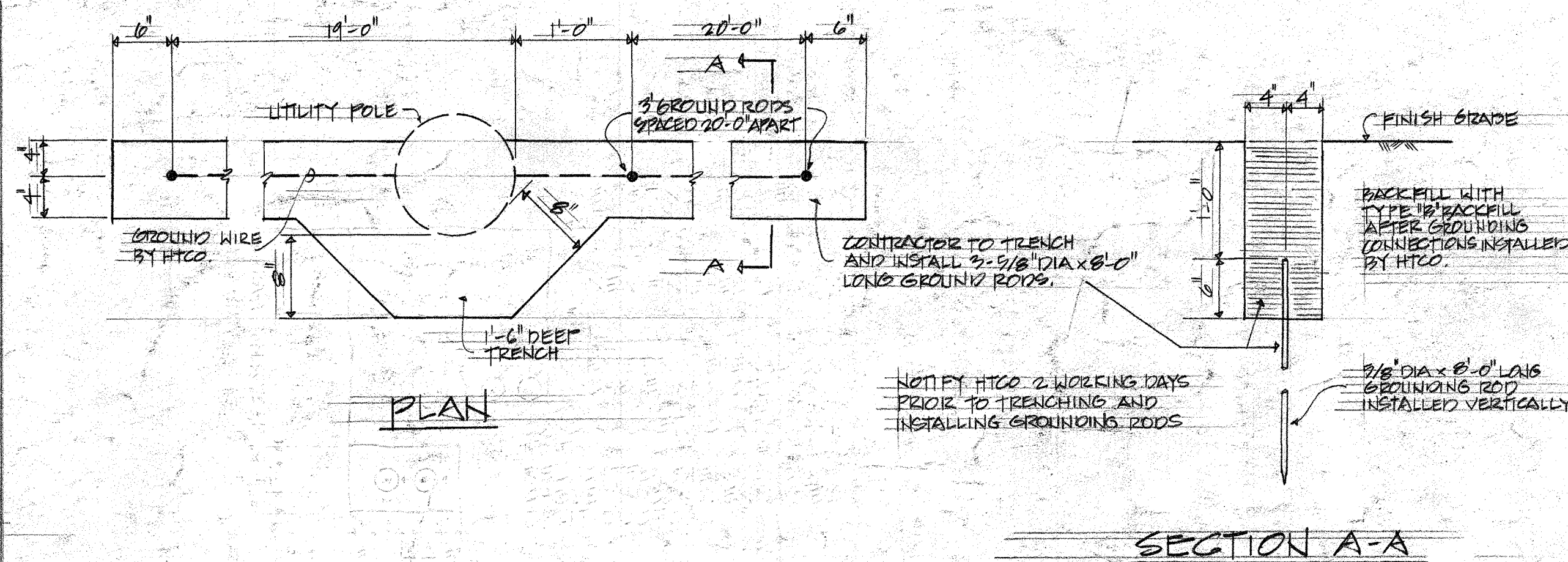


A TYPICAL TRENCH DETAIL FOR SIGNAL CORE CABLE RELOCATION

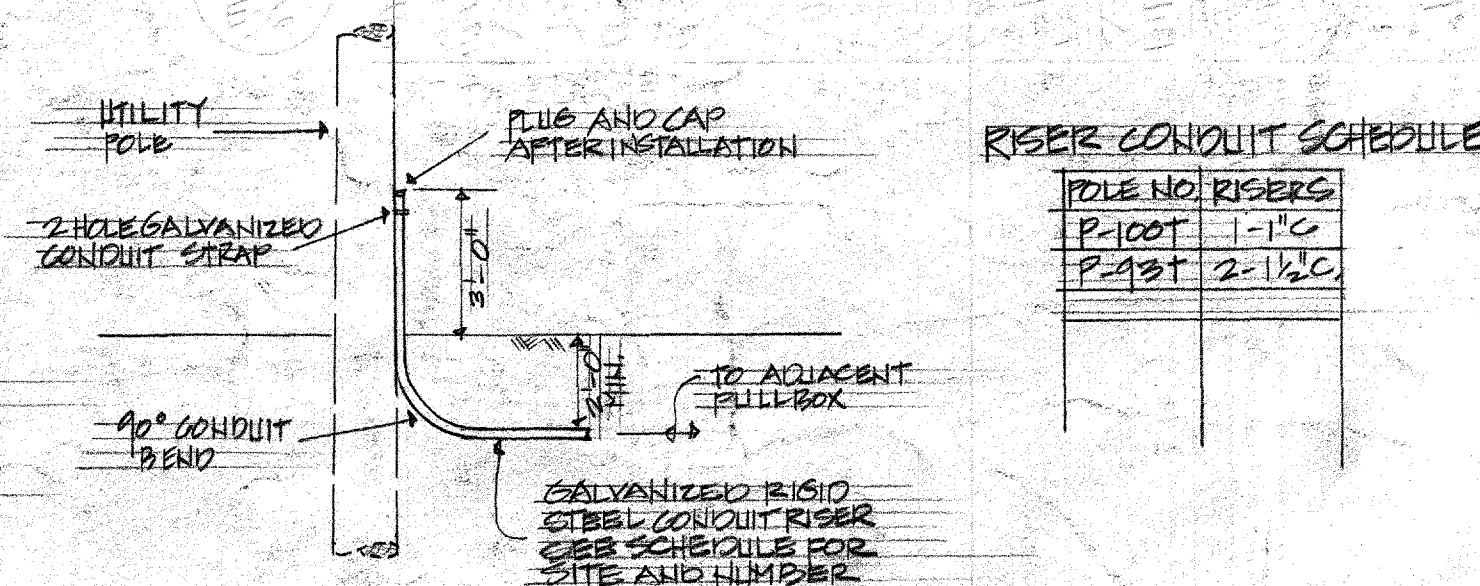
NOT TO SCALE

NOTES FOR CABLE RELOCATION

1. CONTACT HTCO FOR STAKE OUT OF EXISTING CABLE LOCATION.
2. EXCAVATE AND LOCATE EXISTING CABLE. HAND TRENCH LAST 12" TO PREVENT DAMAGE TO CABLE.
3. EXCAVATE TRENCH FOR NEW CABLE LOCATION. PROVIDE MINIMUM COVER AS SHOWN IN DETAIL ABOVE.
4. MOVE CABLE TO NEW TRENCH UNDER SUPERVISION OF HTCO.
5. BACKFILL TRENCH AND COMPACT AS REQ'D.



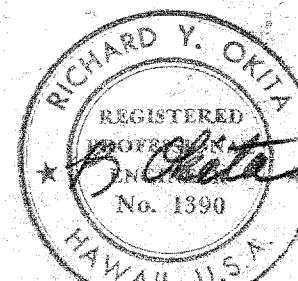
B TYPICAL HTCO GROUNDING DETAIL



C RISER CONDUIT DETAIL

RISER CONDUIT SCHEDULE

POLE NO.	RISER
P-100T	1-1" C
P-99T	2-1 1/2" C



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APPROVED: VERN E CRONKITE PER 6/10/69

HAWAIIAN ELECTRIC CO. DATE 6/10/69

HAWAIIAN TELEPHONE CO. DATE 6-18-69

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARTIAL ELECTRICAL & TELEPHONE
RELOCATION PLAN
SECTION "I"

FARRINGTON HIGHWAY WIDENING
PROJECT 900B-02-GS
UNIT 2

SCALE: 1" = 50'

SHEET No. 6 OF 6 SHEETS