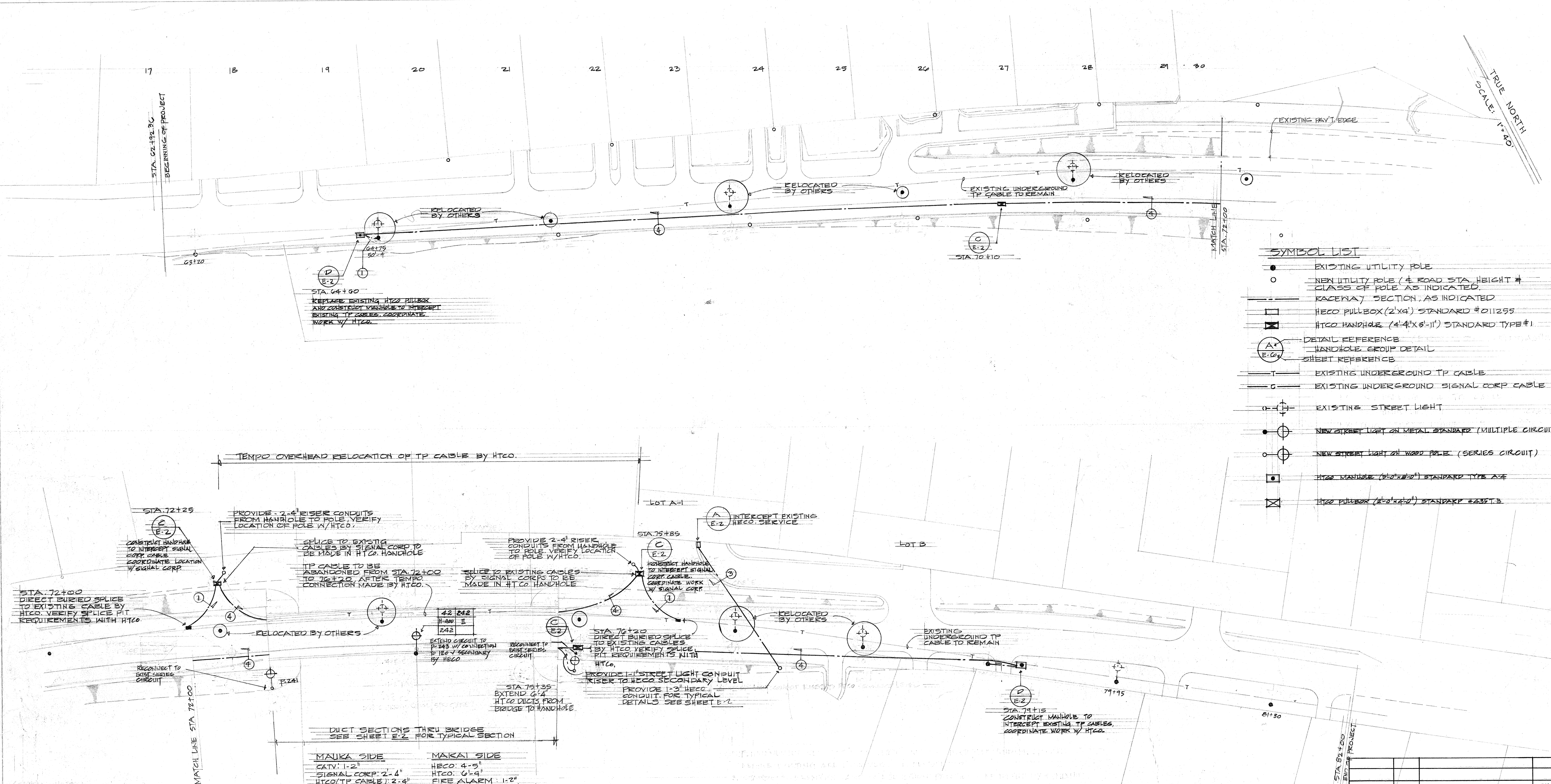




- SYMBOL LIST**
- EXISTING UTILITY POLE
 - NEW UTILITY POLE (± ROAD STA, HEIGHT #, CLASS OF POLE AS INDICATED, RACEWAY SECTION AS INDICATED)
 - HECO PULL BOX (2'x4') STANDARD #011295
 - ⊠ HECO HANDHOLE (4'x4'x6'-11") STANDARD TYPE #1
 - ⊙ DETAIL REFERENCE
 - ⊙ HANDHOLE GROUP DETAIL
 - ⊙ SHEET REFERENCE
 - T — EXISTING UNDERGROUND TP CABLE
 - C — EXISTING UNDERGROUND SIGNAL CORP CABLE
 - ⊙ EXISTING STREET LIGHT
 - ⊙ NEW STREET LIGHT ON METAL STANDARD (MULTIPLE CIRCUIT)
 - ⊙ NEW STREET LIGHT ON WOOD POLE (SERIES CIRCUIT)
 - ⊙ HECO HANDHOLE (2'x2'x2') STANDARD TYPE A-2
 - ⊙ HECO PULL BOX (2'x2'x2') STANDARD TYPE A-2

GENERAL NOTES:

1. SCOPE OF WORK
 - A. SIGNAL CORP EQUIPMENT
 - 1) TRENCHING, BACKFILLING & REROUTING OF CABLES SHALL BE BY SIGNAL CORP AND PAID FOR BY OTHERS.
 - 2) CONDUITS THROUGH BRIDGE STRUCTURE SHALL BE BY CONTRACTOR.
 - B. HAWAIIAN ELECTRIC CO. EQUIPMENT
 - 1) ALL OVERHEAD RELOCATION SHALL BE BY HECO.
 - 2) SPACE CONDUITS THROUGH BRIDGE STRUCTURE SHALL BE BY CONTRACTOR.
 - 3) UNDERGROUND RACEWAYS AND STRUCTURES FOR EXISTING SERVICE TO EXISTING SERVICE SHALL BE BY CONTRACTOR. CABLES BY HECO.
 - C. HAWAIIAN TELEPHONE CO. EQUIPMENT
 - 1) ALL RELOCATION SHALL BE BY HECO.
 - 2) SPACE CONDUITS THROUGH BRIDGE STRUCTURE SHALL BE BY CONTRACTOR.
 - 3) UNDERGROUND RACEWAYS AND STRUCTURES FOR EXISTING SERVICE AND TP CABLE REROUTING SHALL BE BY CONTRACTOR. REROUTING OF TP CABLE SHALL BE PAID FOR BY OTHERS. CABLES SHALL BE BY HECO.
 - D. CATV EQUIPMENT
 - 1) TRENCHING, BACKFILLING & REROUTING OF CABLES SHALL BE BY OTHERS.
 - 2) CONDUITS THROUGH BRIDGE STRUCTURE SHALL BE BY CONTRACTOR.
 - E. STREET LIGHT AND FIRE ALARM EQUIPMENT
 - 1) ALL OVERHEAD RELOCATION SHALL BE BY TRAFFIC DEPT, C#C OF HONOLULU.
 - 2) CONDUITS THROUGH BRIDGE STRUCTURE SHALL BE BY CONTRACTOR.
 - F. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND SCHEDULING OF ALL WORK BY OTHERS.
 2. CONTRACTOR SHALL INSURE THAT CONTINUITY OF ALL EXISTING SERVICE CAN BE MAINTAINED DURING CONSTRUCTION. TEMPORARILY AND PERMANENTLY RELOCATED FACILITIES MUST BE INSTALLED AND BE OPERATIONAL BEFORE EXISTING ARE REMOVED OR DEMOLISHED.
 3. STANDARD DRAWINGS AND CONSTRUCTION PRACTICES OF THE UTILITY COMPANIES AND GOVERNMENT AGENCIES REFERRED TO IN THESE DRAWINGS AND SPECIFICATIONS, SHALL BE APPLICABLE TO THE WORK OF THIS PROJECT.
 4. ALL SPACE CONDUITS IN BRIDGE SHALL BE STUBBED AND CAPPED 12" OUTSIDE OF STRUCTURE FOR FUTURE EXTENSION, UNLESS NOTED OTHERWISE.

MAUIA SIDE	MAIKAI SIDE
CATV: 1-2"	HECO: 4-5"
SIGNAL CORP: 2-4"	HTCO: 6-4"
HTCO (TP CABLE): 2-4"	FIRE ALARM: 1-2"
TRAFFIC CONTROL: 1-2"	STREET LIGHT: 1-2", 1-1"
STREET LIGHT: 1-2"	



DESIGN
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

APPROVED BY: *[Signature]* DATE: 7/27/97
HAWAIIAN ELECTRIC CO. DATE: 8-1-97
HAWAIIAN TELEPHONE CO. DATE: 8-1-97

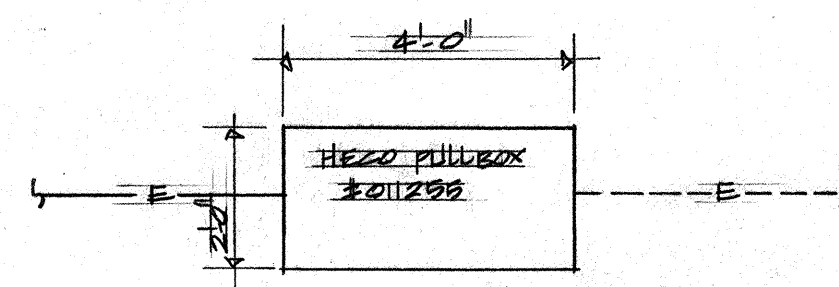
TRAFFIC ENGINEER DATE: *[Signature]*

FILE	POCKET	FOLDER	NO.

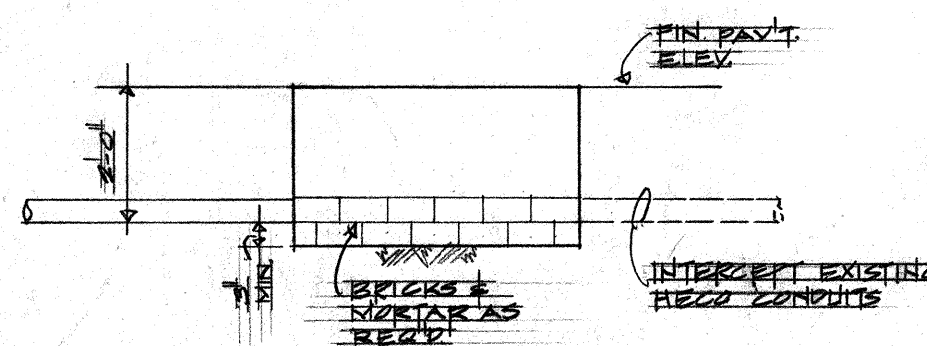
REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

DRAWING NO. E-1

SHEET 10 OF 31 SHEETS



PLAN

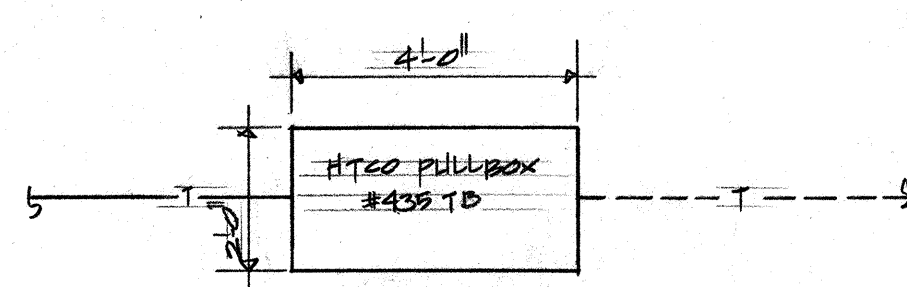


ELEVATION

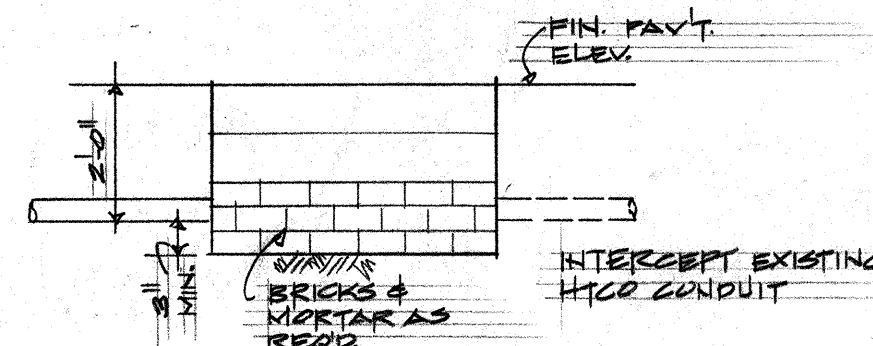
NOTE:
CONSTRUCT IN ACCORDANCE WITH HECO
STANDARD DRAWING #21255 WITH 3/8"
THICK GALVANIZED STEEL CHECKERED
PLATE COVER

HANDHOLE GROUP

A
E-2



PLAN

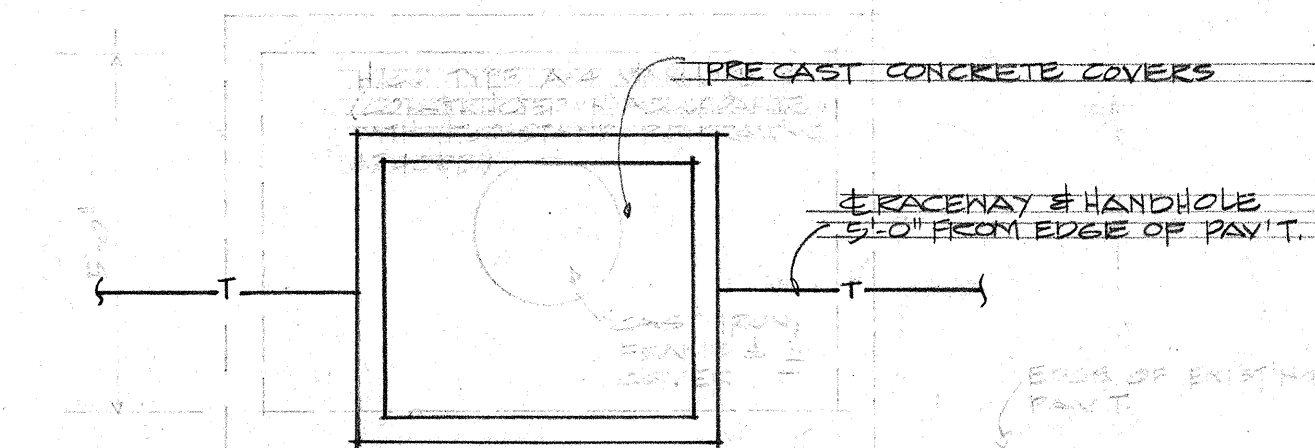


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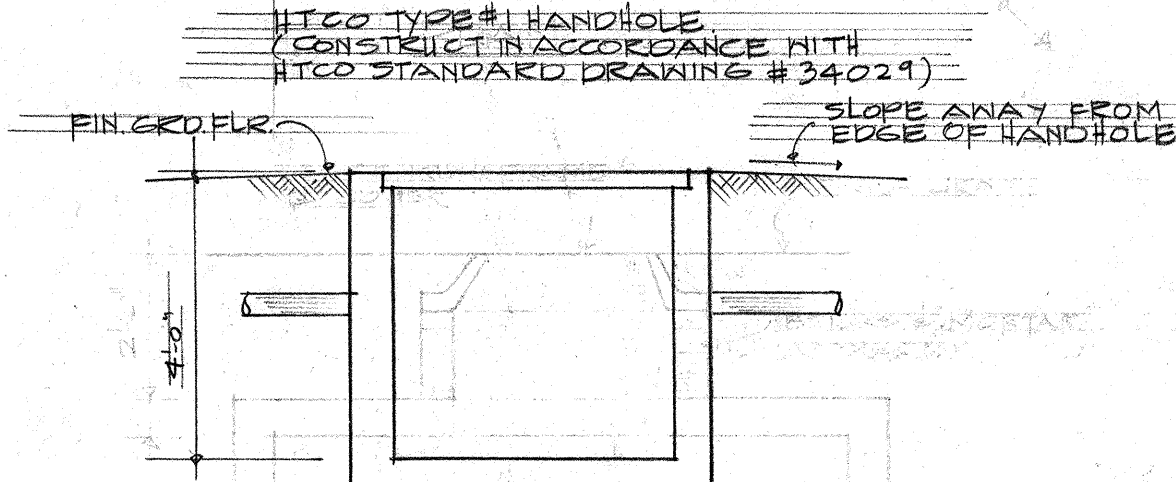
NOTE:
CONSTRUCT IN ACCORDANCE WITH
HECO STANDARD DRAWING #24056

HANDHOLE GROUP

B
E-2



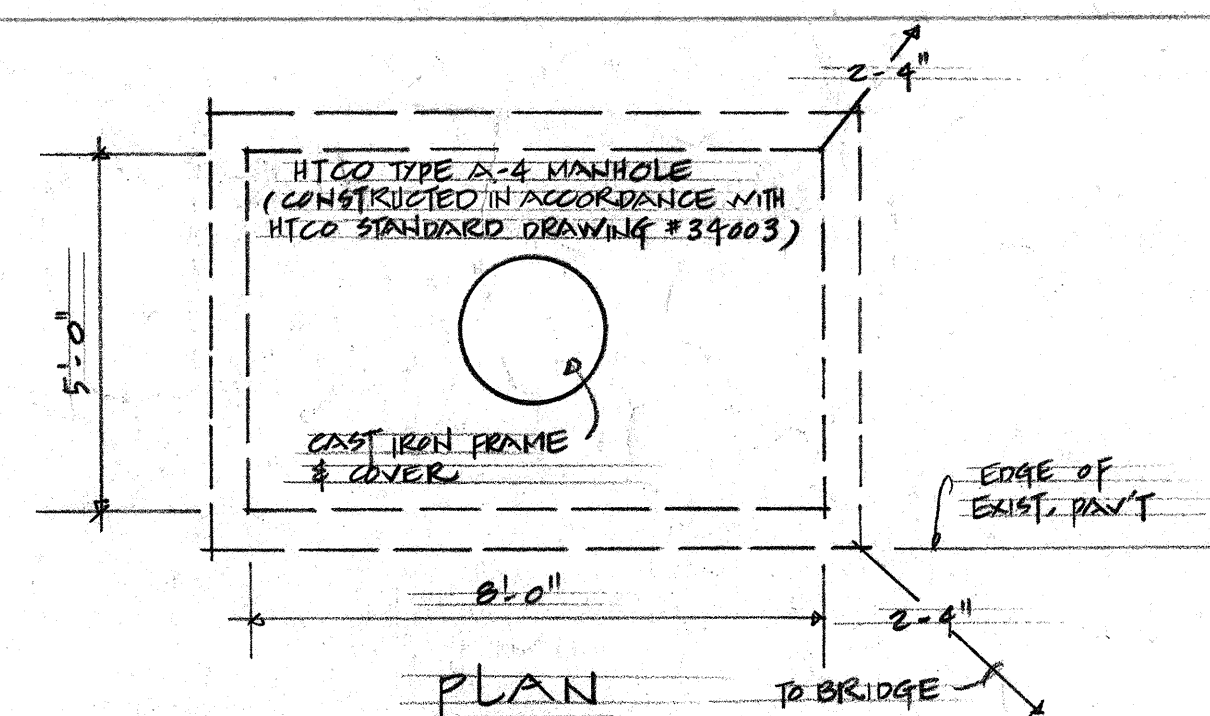
PLAN



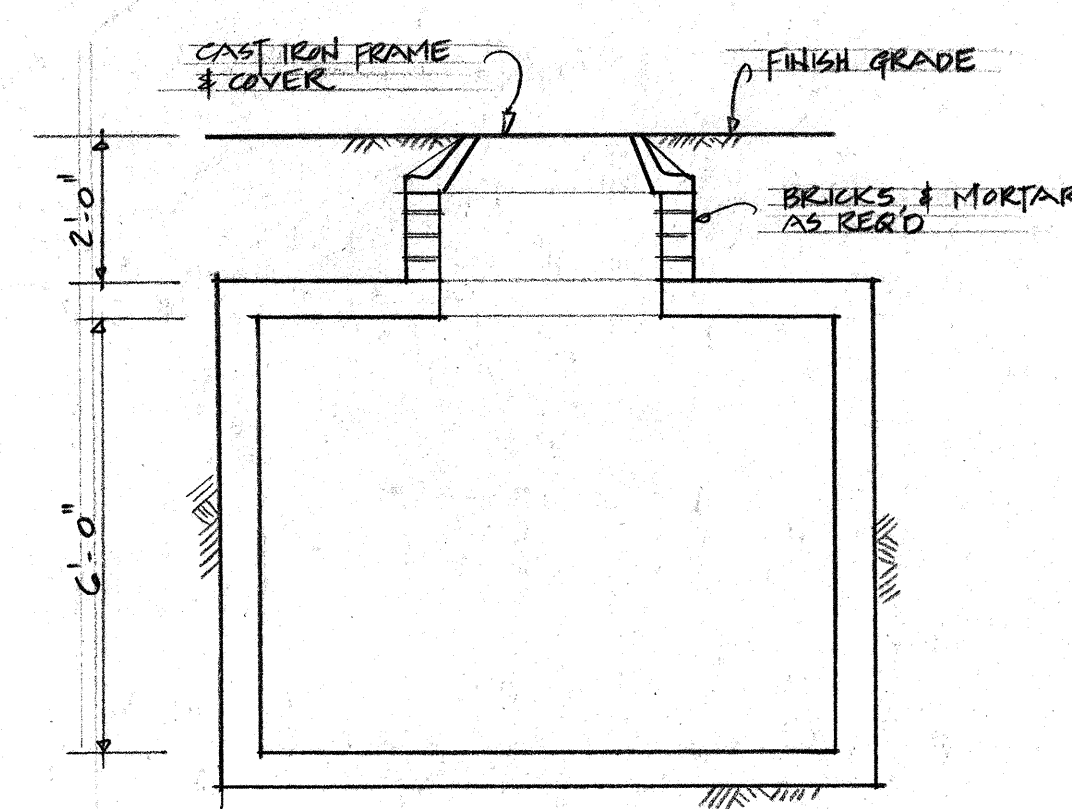
ELEVATION

HANDHOLE GROUP

C
E-2



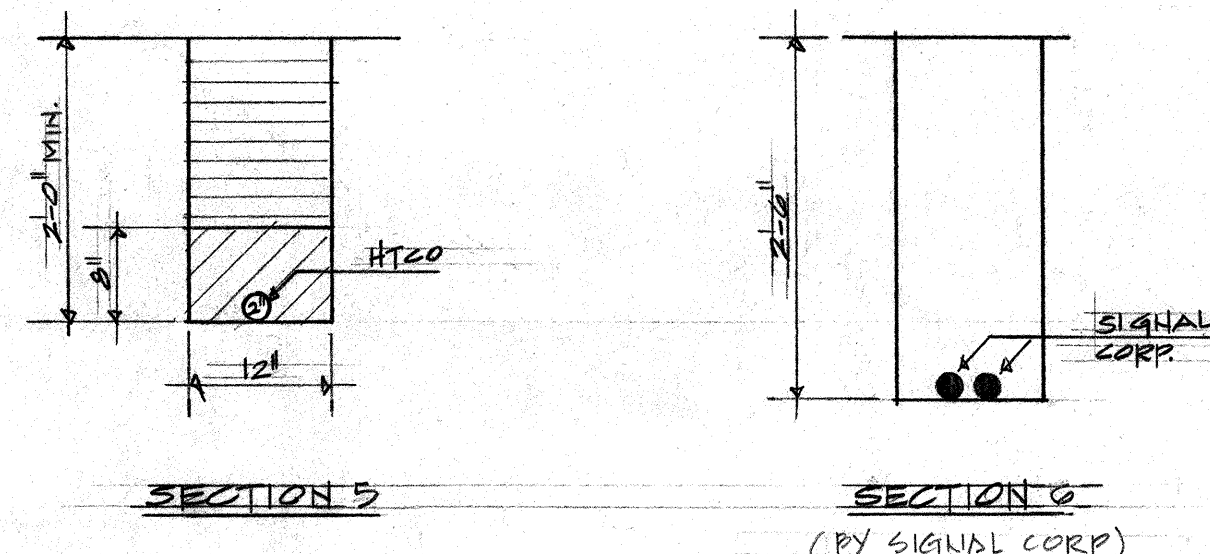
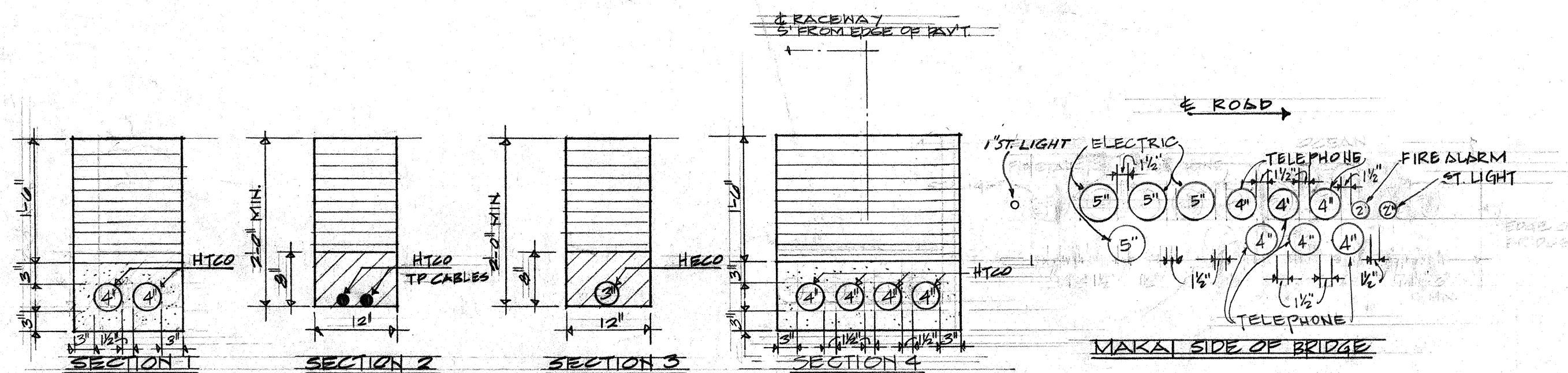
PLAN



ELEVATION

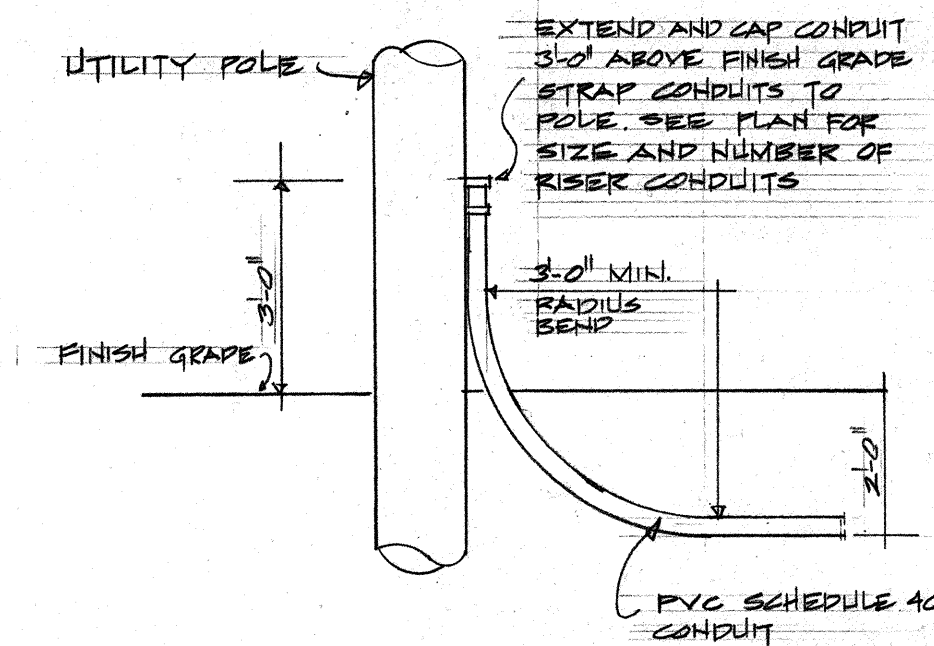
HANDHOLE GROUP

D
E-2

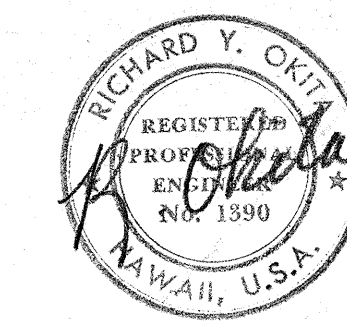


RACEWAY SECTIONS

NOTES:
1. MINIMUM 3" CONCRETE COVER AROUND DUCTS.
2. SEE BRIDGE DRAWINGS FOR LOCATION OF DUCTS IN BRIDGE.



TYPICAL RISER DETAIL AT JOINT POLE



DESIGN
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

REVISION	DATE	BRIEF	BY	APPR'D
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PROJECT NO. 72C-02-68				
HAWAII - KAI MARINA BRIDGE & CHANNEL MAUNALUA, OAHU, HAWAII				
ELECTRICAL, COMMUNICATIONS AND ILLUMINATION SECTION MISCELLANEOUS DETAILS				
DRAWN BY		ENGINEER		
APPROVED BY:		DATE		
HAWAIIAN ELECTRIC CO.		DATE		
HAWAIIAN TELEPHONE CO.		DATE		
FILE	POCKET	FOLDER	NO.	

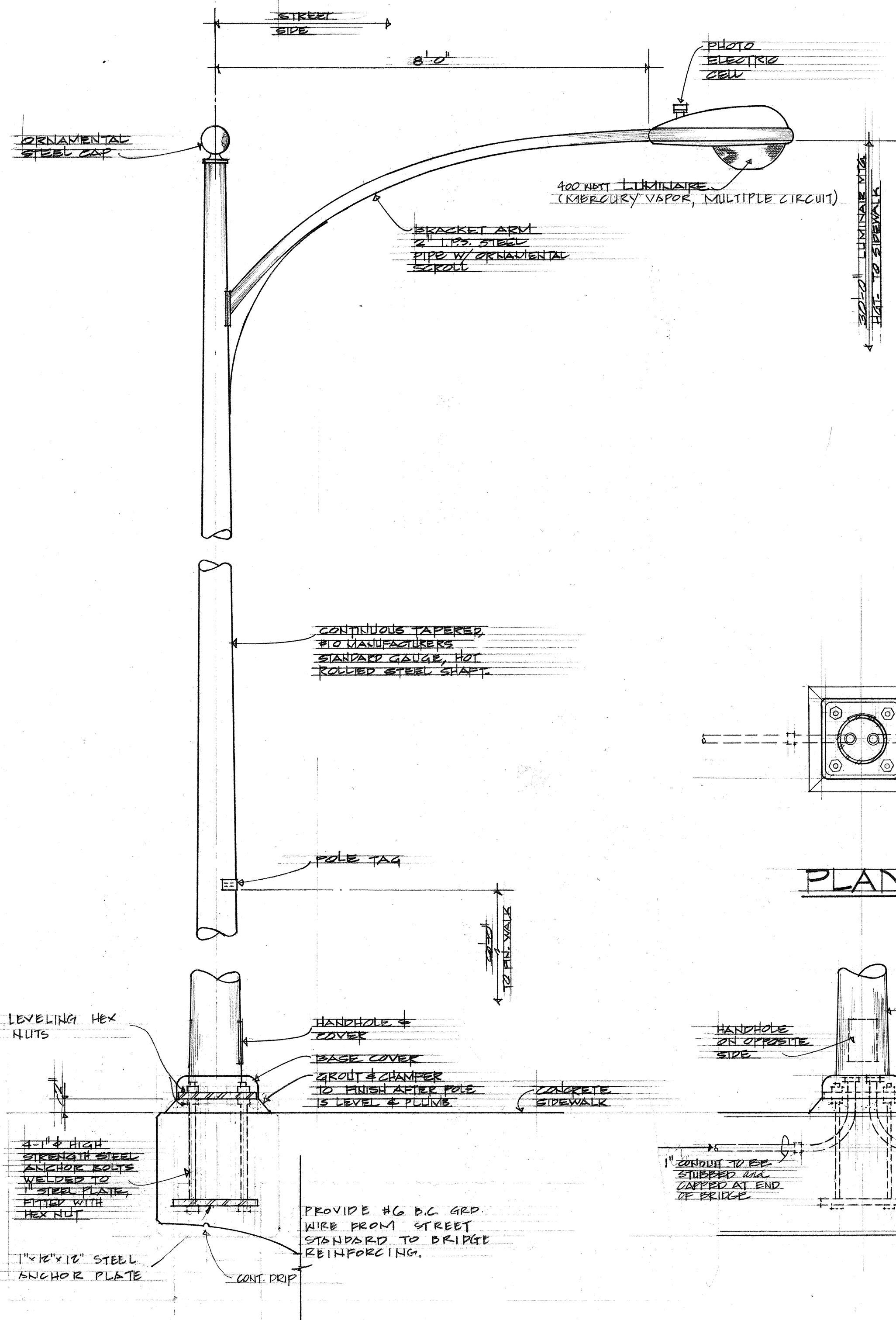
REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

DRAWING NO. E-2

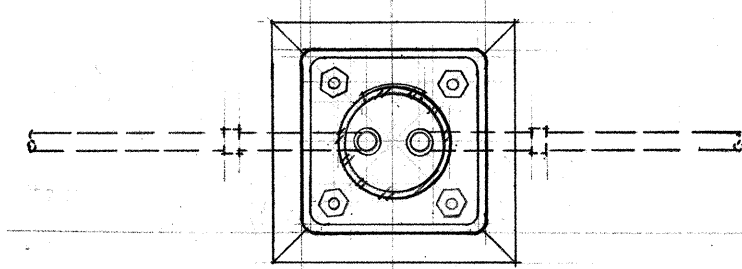
SHEET 20 OF 31 SHEETS

E-7

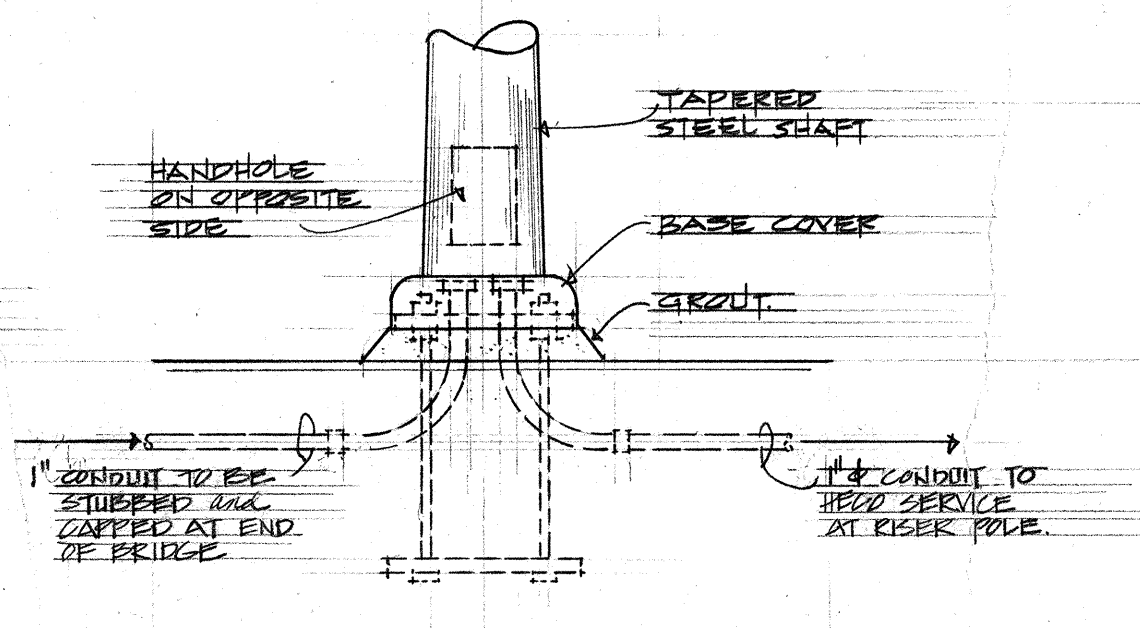
ELECTRICAL, COMMUNICATIONS & ILLUMINATION
MISC. DETAILS



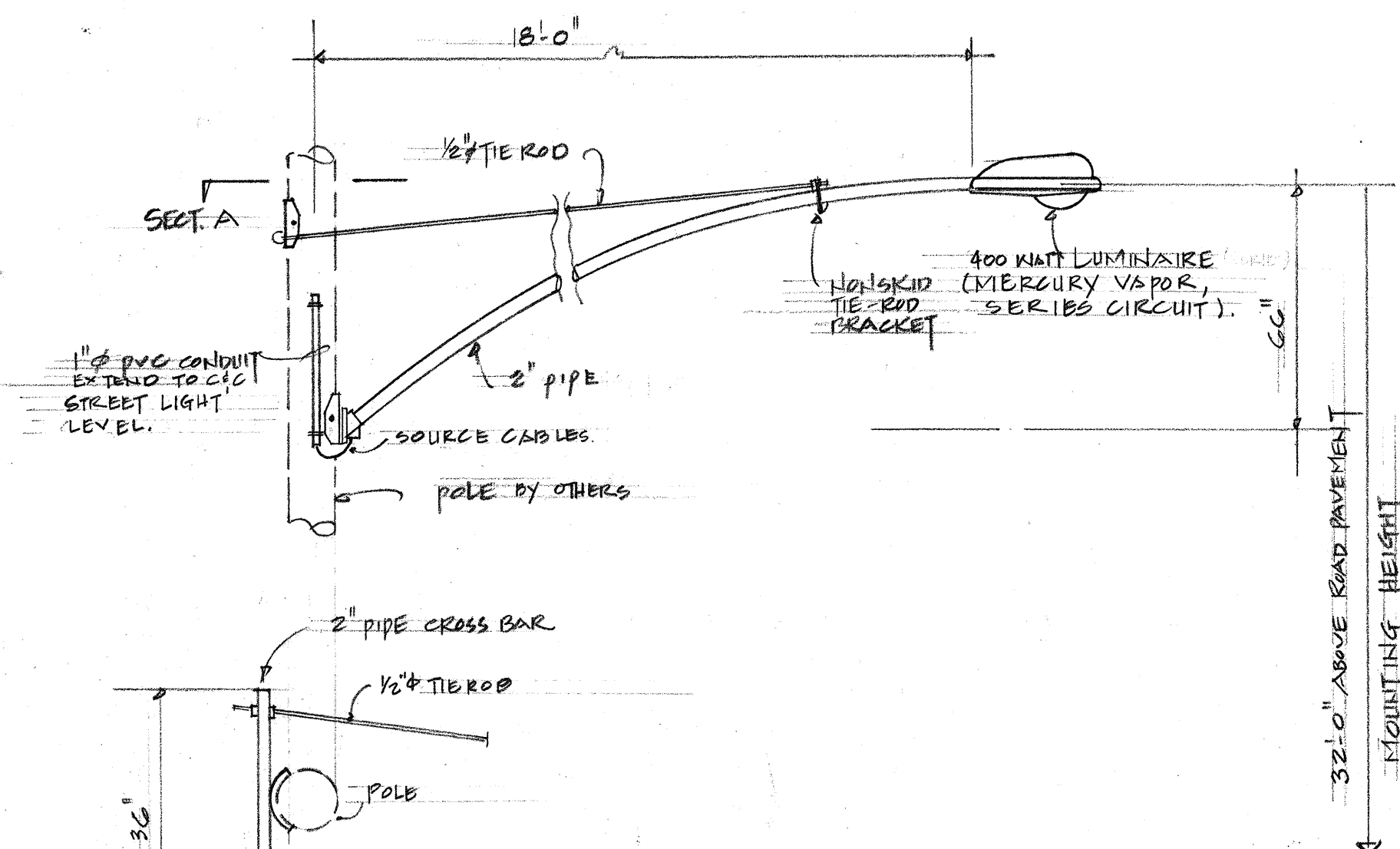
**LUMINAIRE POST
STANDARD DETAIL**
NOT TO SCALE



PLAN

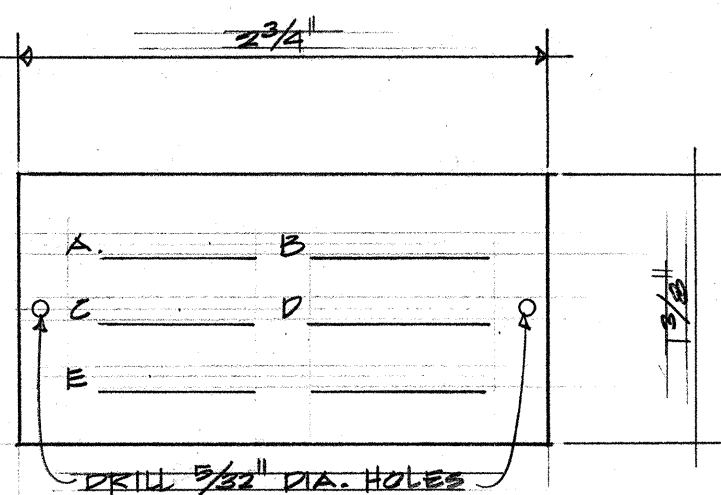


ELEVATION



SECTION "A"

**LUMINAIRE & BRACKET ARM MOUNTING
FOR WOOD POLES**
NOT TO SCALE



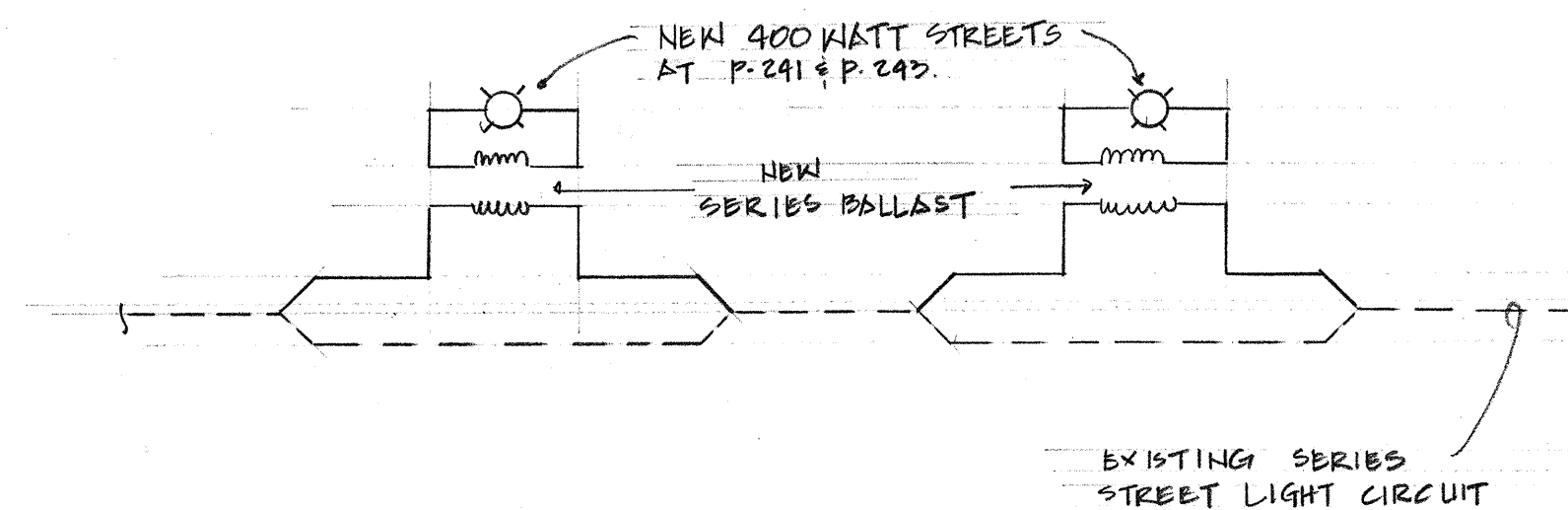
POLE TAG

1. MAKE FROM 0.040\"/>

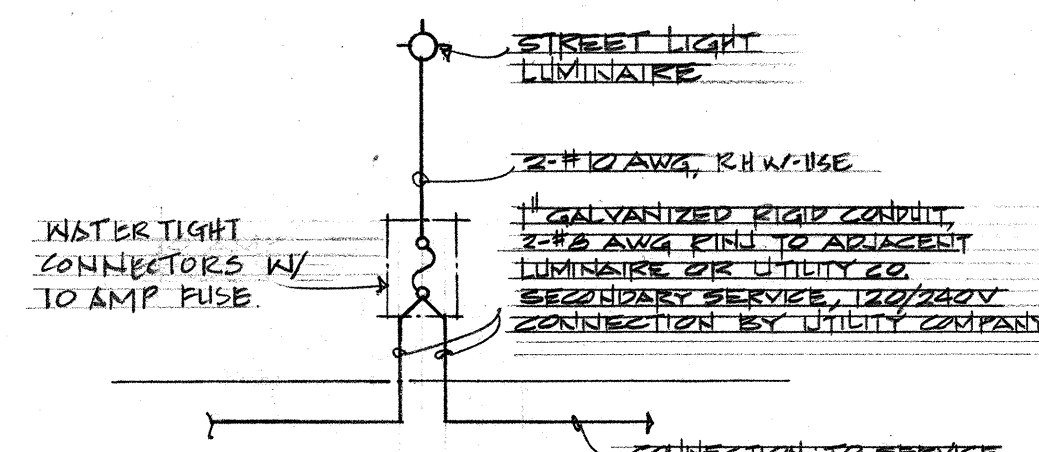
ENGRAVING SCHEDULE

- A. CONTRACT NUMBER (OBTAIN FROM HECO)
- B. LIGHT NUMBER
- C. LAMP DATA
- D. REFRACTOR NUMBER (IES ROMAN NUMERALS AS SHOWN ON PLAN)
- E. POST NUMBER (AS SHOWN ON PLAN)

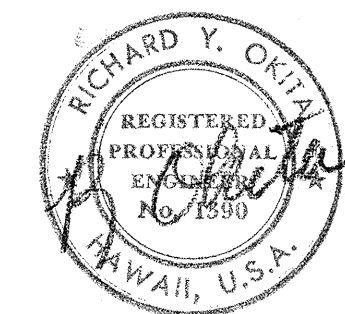
**IDENTIFICATION TAG FOR
MULTIPLE STREET LIGHTING**
NOT TO SCALE



**SERIES
LUMINAIRE CONNECTION
SCHEMATIC DIAGRAM**



**MULTIPLE
LUMINAIRE CONNECTION
SCHEMATIC DIAGRAM**
NOT TO SCALE



DESIGN
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

REVISION	DATE	BRIEF	BY	APPR'D
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PROJECT NO. 72C-02-68				
HAWAII - KAI MARINA BRIDGE & CHANNEL MAUNALUA, OAHU, HAWAII				
ELECTRICAL, COMMUNICATIONS AND ILLUMINATION SECTION LIGHTING DETAILS				
DRAWN BY _____ ENGINEER _____ APPROVED BY <i>for Traffic Engineer</i> _____ DATE 9-20-67				
FILE	POCKET	FOLDER	No.	

REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS

DRAWING No. E-3

SHEET 21 OF 31 SHEETS

100000 E-3 Hawaii Kai Marina Bridge