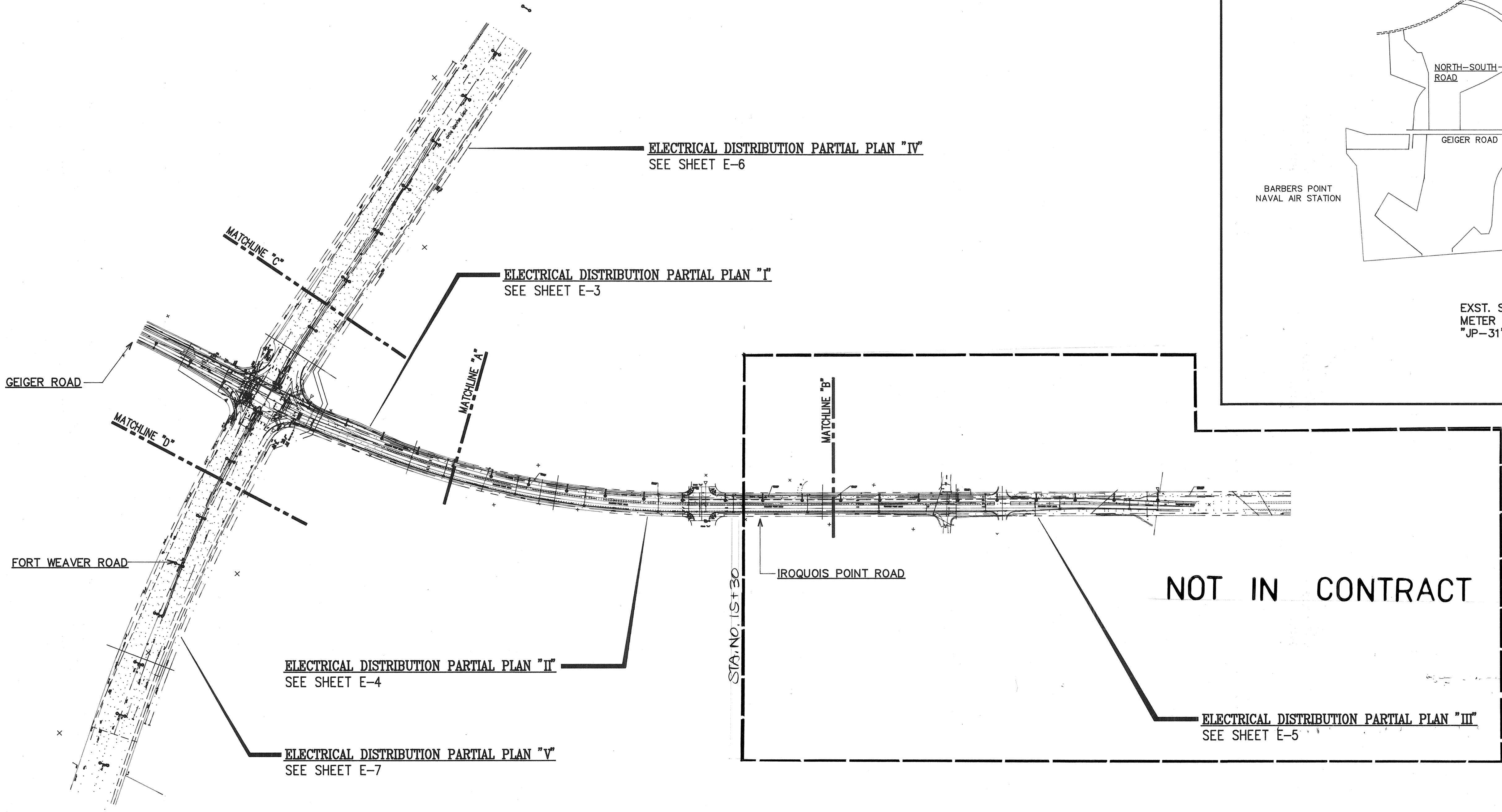
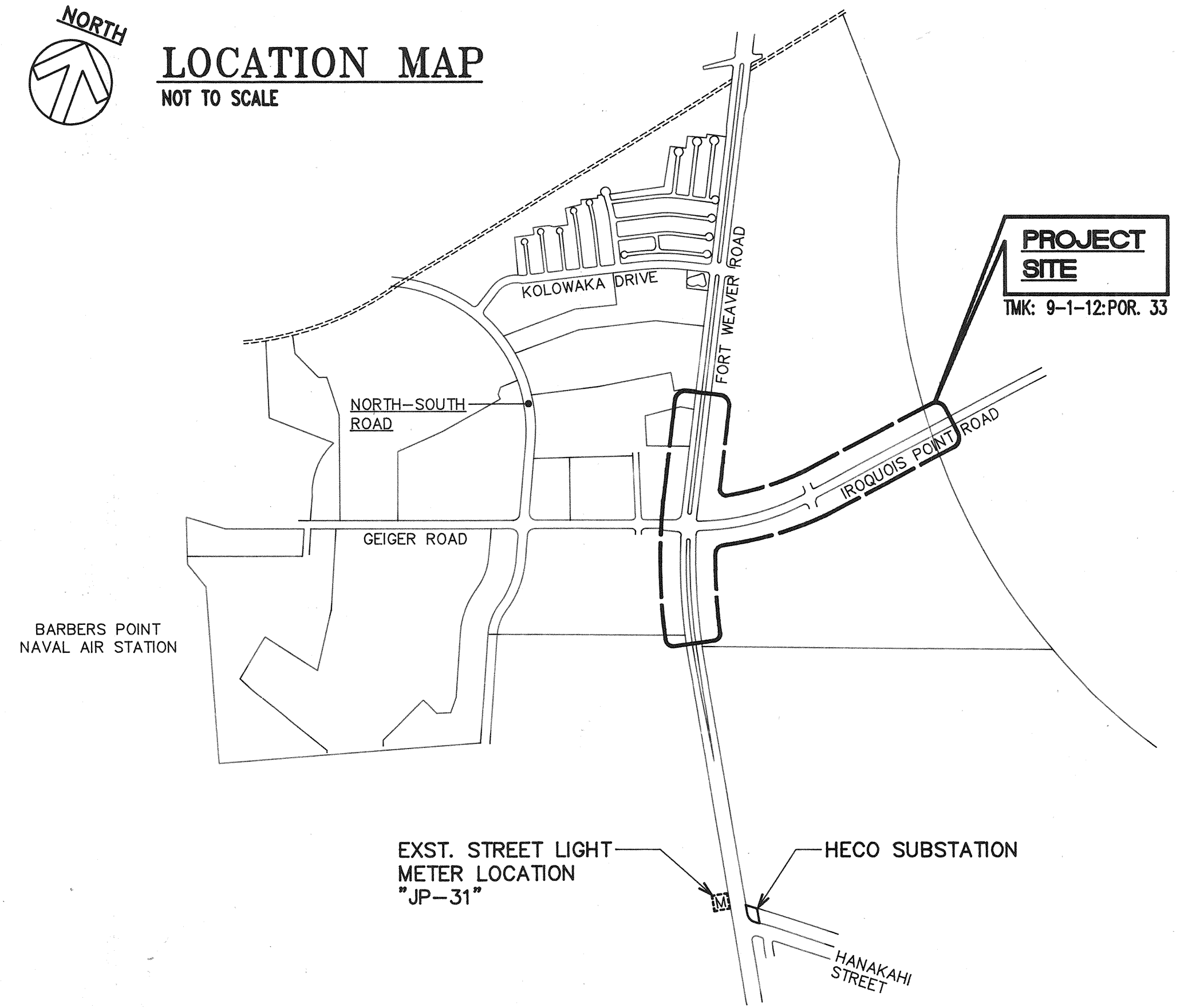




LOCATION MAP
NOT TO SCALE



ELECTRICAL DISTRIBUTION PARTIAL PLAN "IV"
SEE SHEET E-6

ELECTRICAL DISTRIBUTION PARTIAL PLAN "I"
SEE SHEET E-3

ELECTRICAL DISTRIBUTION PARTIAL PLAN "II"
SEE SHEET E-4

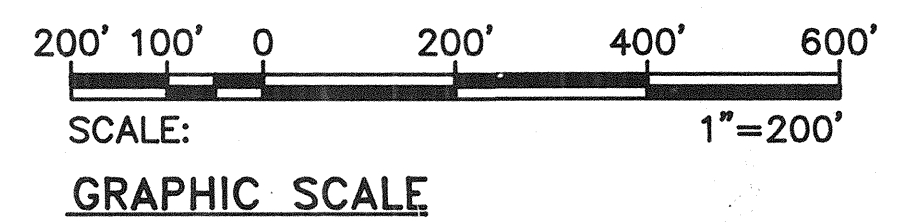
ELECTRICAL DISTRIBUTION PARTIAL PLAN "V"
SEE SHEET E-7

ELECTRICAL DISTRIBUTION PARTIAL PLAN "III"
SEE SHEET E-5



ELECTRICAL SITE PLAN
SCALE: 1"=200'-0"

DRAWING REVIEW:
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Facilities Only
Date: 2/1/95 By: [Signature]
Distribution Engineering Department
Hawaiian Electric Company, Inc.
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PMT-76A-01-97

BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)921-5361 Telex: BELTH 7430474 Fax: (808)538-7819

Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

Client:
**GENTRY DEVELOPMENT CO.,
A HAWAII LIMITED PARTNERSHIP**
P. O. BOX 2805
HONOLULU, HAWAII 96808

**FORT WEAVER ROAD INTERSECTION AND
IROQUOIS POINT ROAD IMPROVEMENTS**
PHASE A
LOCATION MAP, ELECTRICAL SITE PLAN

Designed by: GN Date: _____
Drawn by: GN Proj. no.: (BCA)
Approved: [Signature] Date: 5/13/95
Date: _____ Date: _____

Plot date: 05/02/95 • 10:11:26 by: EA
K:\ADDP\PROJECTS\02005 SITE-PLAN

EQUIPMENT SCHEDULE

- THE HAWAIIAN ELECTRIC CO. INC., HAWAIIAN TELEPHONE CO., COMMUNITY ANTENNA TELEVISION & STREET LIGHTING PULLBOXES, HANDHOLES, MANHOLES, & SWITCHING EQUIPMENT PADS TO BE PROVIDED BY THE CONTRACTOR AS SHOWN IN THESE DRAWINGS & IN ACCORDANCE WITH THE FOLLOWING STANDARD DRAWINGS:

TYPE	DESCRIPTION
3' X 5' HECO HANDHOLE	3' X 5' TYPE 35 REINFORCED CONCRETE HANDHOLE WITH PRECAST CONCRETE COVERS, PROVIDED IN ACCORDANCE WITH HECO STANDARD DRAWING NO. 15501.
6' X 11' HECO MANHOLE	6'-0" X 11'-0" REINFORCED CONCRETE MANHOLE WITH CAST IRON FRAME & COVER, PROVIDED IN ACCORDANCE WITH HECO STANDARD DRAWING NO. 18775.
4' X 6' HECO HANDHOLE	4' X 6' TYPE 1 REINFORCED CONCRETE HANDHOLE WITH STEEL COVERS, PER HECO STANDARD DRAWING NO. 34029.
5' X 8' HECO MANHOLE	5' X 8' REINFORCED CONCRETE MANHOLE PROVIDED IN ACCORDANCE WITH HECO STANDARD DRAWING NO. 34062.
5' X 10' HECO MANHOLE	5' X 10' REINFORCED CONCRETE MANHOLE PROVIDED IN ACCORDANCE WITH HECO STANDARD DRAWING NO. 34064.
2' X 4' CATV PULLBOX	2'-0" X 4'-0" PRECAST CONCRETE PULLBOX WITH TWO PIECE CHECKERED STEEL PLATE COVERS, SIMILAR TO HECO 2'X4' PULLBOX, HECO DRAWING NO. 34056 WITH "CATV" INSCRIBED ON COVER
19" X 28" STREET LIGHT PULLBOX (STATE)	19" X 28" TYPE "B" PRECAST CONCRETE PULLBOX WITH CAST IRON FRAME AND COVER, PROVIDED IN ACCORDANCE WITH THE STATE OF HAWAII, DEPT. OF TRANSPORTATION, HIGHWAYS DIVISION & AS INDICATED ON THESE DRAWINGS.
24" X 32" STREET LIGHT PULLBOX (STATE)	24" X 32" TYPE "A" PRECAST CONCRETE PULLBOX WITH CAST IRON FRAME AND COVER, PROVIDED IN ACCORDANCE WITH THE STATE OF HAWAII, DEPT. OF TRANSPORTATION, HIGHWAYS DIVISION & AS INDICATED ON THESE DRAWINGS.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	STREET LIGHT, 250W HIGH PRESSURE SODIUM LUMINAIRE, GALV. STEEL POLE WITH BRACKET ARM, TRANSFORMER BASE, SEE DETAIL A/E-14		ELECTRIC/SIGNAL DUCTLINE WITH DESIGNATORS; INDICATES TYPE "A" DUCT SECTION WITH "2-4E" DUCTS. SEE SHEET E-12 & 13 FOR DUCT SECTIONS AND CONDUIT SCHEDULES
	STREET LIGHT, 250W HIGH PRESSURE SODIUM LUMINAIRE, GALV. STEEL POLE WITH BRACKET ARM, SLIP BASE, SEE DETAIL A/E-15		STUB, CAP, & MARK CONDUITS; PROVIDE PULLWIRE
	STREET LIGHT, 250W HIGH PRESSURE SODIUM LUMINAIRE, GALV. STEEL POLE WITH BRACKET ARM, TRANSFORMER BASE TO BE MOUNTED ON EXST. CONC. BASE, SEE DET A/E-15		EXST. ELEC/SIGNAL DUCTLINE & WIRING
	FUTURE CITY & COUNTY 100W HPS STREET LIGHT		EXST. WIRING TO BE ABANDONED IN PLACE.
	EXST. 150W HPS STREET LIGHT		EXST. OVERHEAD ELEC/SIGNAL LINES
	EXST. 250W HPS STREET LIGHT		EXST. TRAFFIC SIGNAL DUCTLINE
	STREET LIGHT, 250W HIGH PRESSURE SODIUM LUMINAIRE W/GALV. STEEL BRACKET ARM (10 FT) MTD ON TYPE III TRAFFIC SIGNAL STANDARD, SEE SHT. T-1.		STREET LIGHT DUCTLINE & WIRING
	EXST. 250W STREET LIGHT TO BE REMOVED		TRAFFIC SIGNAL DUCTLINE
	EXST. 150W STREET LIGHT TO BE REMOVED		EXST. STREET LIGHT DUCTLINE & WIRING
	EXST. TWIN ARM STREET LIGHT STANDARD TO BE REMOVED & CONCRETE BASE DEMOLISHED		EXST. STREET LIGHT DUCTLINE & WIRING TO BE ABANDONED
	RELOCATED ST. L.T., SEE DETAIL B/E-14, RELOCATED ST. L. POLE, ARM & LUMINAIRE w/ NEW CONCRETE BASE		EXST. SIGNAL CABLE, HTCO, JTS, TO REMAIN
			EXST. SIGNAL CABLE TO BE RELOCATED
			RELOCATED SIGNAL CABLE LOCATION
			CONCRETE STUB-OUT MARKER, SEE DETAIL E/E-14
			EXST. METERING EQUIPMENT
	HECO 3' X 5' HANDHOLE		
	HECO 6' X 11' MANHOLE		
	EXST. HECO MANHOLE		
	HTCO 4' X 6' HANDHOLE		
	HTCO 5' X 8' MANHOLE		
	HTCO 5' X 10' MANHOLE		
	EXST. HTCO 5' X 8' MANHOLE		
	CATV 2' X 4' HANDHOLE		
	EXST. CATV 2' X 4' HANDHOLE		

BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)521-5361 Telex: BELTH 7430474 Fax: (808)536-7819

Consultant:

 **RONALD N. S. HO & ASSOCIATES, INC.**
Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

Client: **GENTRY DEVELOPMENT CO.,
A HAWAII LIMITED PARTNERSHIP
P. O. BOX 295
HONOLULU, HAWAII 96809**

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

PHASE A
EQUIPMENT SCHEDULE, ELECTRICAL SYMBOLS,
GENERAL NOTES

Designed by: GF Date: _____

Drawn by: CAT/EDA Proj. no.: (BCA)

Approved: _____

5/3 Mark K. Samsade 5:13 PM
HAWAIIAN TELEPHONE COMPANY Date: _____

_____ Date: _____

_____ Date: _____

DRAWING REVIEW:
Reviewed for HECO's
Facilities Only

Date 4/1/95 By M. J. [Signature]
45 mg

Distribution Engineering Department
Hawaiian Electric Company, Inc.

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Rev.	Date	Description	Eng. App.		



Revised
3/9/96



Ronald N.S. Ho
5/4/94

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PROJECT RECORD DRAWINGS

SHEET E-2 of Sheets

Last save: 05/03/94 @ 10:14:30 by: EA
K:\ACAD\PROJECTS\92005\SITE

NOTES:

- 1 PROVIDE COUPLING(S) & EXTEND DUCT(S).
- 2 EXTEND EXIST. 1-2" TRAFFIC SIGNAL CONDUIT INTO TRAFFIC SIGNAL PULLBOX, SEE TRAFFIC SIGNAL PLAN SHEET T2, PULLBOX BY OTHERS.
- 3 EXST. 2' X 4' HECO P.B., REPAIR TO MATCH EXST., ADJUST P.B. AS NECESSARY TO FINISH GRADE.
- 4 EXST. HTCO HUT 53B TO BE RAISED BY OTHERS.
- 5 EXST. 2' X 4' CATV P.B.
- 6 EXST. PULLBOX, HANDHOLE OR MANHOLE COVERS TO BE ADJUSTED BY CONTRACTOR TO NEW FINISH GRADE.
- 7 EXST. 12" X 20" HTCO P.B. TO BE REMOVED.
- 8 NEW 2' X 4' HTCO P.B., CONTRACTOR TO COORDINATE POWER OUTAGE WITH HTCO (KEVIN AYANO-483-8027).
- 9 INTERCEPT EXST. 1-2" COUPLING & EXTEND DUCTS INTO NEW PULLBOX, SEE DUCT SECTION S-C.
- 10 EXST. 12" X 20" HTCO P.B. ADJUST P.B. AS NECESSARY TO FINISH GRADE. NEW 2' X 4' HTCO P.B.
- 11 REMOVE EXST. WIRING & INSTALL NEW #4 WIRE AS NECESSARY.

- 12 TRAFFIC SIGNAL CONTROLLER BY OTHERS, CONTRACTOR TO PROVIDE NEW POWER CONDUIT TO EXST. METER SOCKET AT "JP-17" VIA NEW 2' X 4' T.S. PULLBOX
- 13 EXST. TRAFFIC SIGNAL METER SOCKET, CONTRACTOR TO ADJUST TO PROVIDE MINIMUM HEIGHT PER HECO REQUIREMENTS METER #414982, PROVIDE NEW 2' X 4' T.S. PULLBOX @ BASE OF "JP-17"
- 14 EXST. 4' X 6' HTCO HANDHOLE, CONTRACTOR TO CONSTRUCT NEW 4' X 6' HTCO MANHOLE AROUND EXST. HTCO HANDHOLE & DEMOLISH EXST. 4' X 6'. PROVIDE ALL CONNECTIONS, EXST. TELEPHONE CONDUITS & STUB UP TO "JP-17". PER HTCO REQUIREMENTS, COORDINATE WITH HTCO, KEVIN AYANO PHONE: 483-8027 (HTCO MH. #34107, CAST IN PLACE)
- 15 EXST. HTCO METER SOCKET, CONTRACTOR TO ADJUST TO PROVIDE MINIMUM HEIGHT PER HECO REQUIREMENTS METER #405049. COORDINATE ELEC. OUTAGE W/ HTCO, CONTRACTOR TO PROVIDE GENERATOR.
- 16 EXST. POLE GUYWIRE, CONTRACTOR TO PROVIDE NEW GUYWIRE PER HTCO REQUIREMENTS, COORDINATE W/ HTCO.
- 17 EXST. 4' X 6' HTCO HANDHOLE, CONTRACTOR TO CONSTRUCT NEW 5' X 8' HTCO MANHOLE AROUND EXST. HTCO HANDHOLE & DEMOLISH EXST. 4' X 6'. PROVIDE ALL CONNECTIONS, EXST. TELEPHONE CONDUITS. PER HTCO REQUIREMENTS, COORDINATE WITH HTCO, KEVIN AYANO PHONE: 483-8027.

MATCHLINE "C"
SEE SHEET E-6 FOR CONT.

FORT WEAVER ROAD
EXST. UTILITY POLE
"JP-16"

EDGE OF TRAVELWAY
EXST. 2' X 4' CATV P.B.
EXST. UTILITY POLE
"JP-16X"

EXST. 4' X 6' HTCO H.H.
EXST. 10' X 10' HTCO M.H.
EXST. 6' X 11' HECO M.H.

EXST. HTCO
SPLICE PIT

GEIGER ROAD

STATION NO.
41+65

EXST. 2' X 4' HECO P.B.

RELOCATE EXST. ST. LT.

CITY & COUNTY JURISDICTION STATE JURISDICTION

EXST. 2' X 4' HECO P.B.

EXST. UTILITY POLE
"JP-17"

EXST. 4' X 6' HTCO H.H. #2968

EXST. 2' X 4' HECO P.B.

EXST. UTILITY POLE
"JP-17X"

EXST. UTILITY POLE
"JP-18"

MATCHLINE "D"
SEE SHEET E-7 FOR CONT.

EDGE OF TRAVELWAY

STATE RIGHT-OF-WAY LINE

EDGE OF TRAVELWAY

STATE RIGHT-OF-WAY LINE

STATION NO.
2+66

STATION NO.
5+03

EXST. SPECIAL SMH #10
TOP = 33.0
INV. = 16.6±

EXST. HTCO
SPLICE PIT

EXST. FUEL PIT

STATE RIGHT-OF-WAY LINE

IROQUOIS POINT ROAD

STATION NO.
3+84

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WATER METER BOXES CONTAINING BRASS CAP CALIBRATION STATIONS (BCCS) AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO THE BCCS AND BOXES.
2. EXISTING NAVY WATER LINE WITHIN PROJECT VICINITY IS EQUIPPED WITH CATHODIC PROTECTION SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION SYSTEM. THE CONTRACTOR SHALL NOT DISTURB THE EXISTING WIRE CONNECTIONS TO THE PIPES/STRUCTURES. CONTINUITY PIPE JOINT BONDS, AND OTHER INTEGRAL PARTS OF THE CATHODIC PROTECTION SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO THE EXISTING CATHODIC PROTECTION SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE EXISTING CATHODIC PROTECTION (CP) TEST BOXES AND EXERCISE PROPER CARE IN EXCAVATING IN THE AREA. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL PAY FOR ALL DAMAGES TO THE CP TEST BOXES.

Rev.	Date	Description	Eng. App.

DRAWING REVIEW:
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Date: 2/1/95 By: M. Lee
Distribution Engineering Department
Hawaiian Electric Company, Inc.
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RONALD N. S. HO
LICENSED PROFESSIONAL ENGINEER
No. 2937-E
HAWAII, U.S.A.
2/21/95
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RONALD N. S. HO
REGISTERED PROFESSIONAL ENGINEER
No. 2937-E
HAWAII, U.S.A.
5/14/94
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PMT-76A-01-97
40' 20' 0 40' 80' 120'
SCALE: 1"=40'
GRAPHIC SCALE

BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)521-5361 Telex: BELTH 7430474 Fax: (808)538-7819

Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P.O. BOX 285
HONOLULU, HAWAII 96809

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

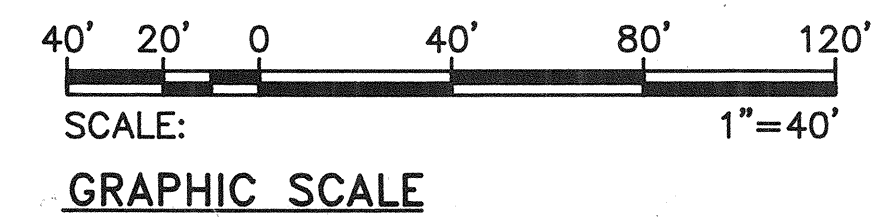
ELECTRICAL DISTRIBUTION PARTIAL PLAN "I"

Designed by: GF Date: _____
Drawn by: _____ Proj. no.: (BCA)
Approved: _____
Date: _____
Date: _____



ELECTRICAL DISTRIBUTION PARTIAL PLAN "I"
SCALE: 1"=40'

- 1 PROVIDE COUPLING & EXTEND CONDUITS.
- 2 1-2" WITH PULLWIRE HTCO CONDUIT TO INTERCONNECT TRAFFIC SIGNAL SYSTEM TO HTCO TEL. LINE VIA HTCO MANHOLE.
- 3 SEE DETAIL C/E-11.
- 4 SEE DETAIL B/E-11.
- 5 1-4" HTCO CONDUIT STUBBED & CAPPED @ HTCO SPLICE PIT. CONTRACTOR SHALL BACKFILL SPLICE PIT AS REQUIRED BY HTCO.



RONALD N. S.
LICENSED
PROFESSIONAL
ENGINEER
NO. 2737-E
HAWAII, U.S.A.
2/29/76

DEPT. OF PUBLIC SAFETY
STATE OF HAWAII
5/14/74
Rineen

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OR UNDER MY SUPERVISION

THIS WORK WAS PREPARED BY
or under my supervision

PHASE A
ELECTRICAL DISTRIBUTION PARTIAL PLAN "I"

Designed by: GF

Dated: _____

Drawn by: LRA

Proj. no.: (BCA)

Approved: _____

Date: _____

HAWAIIAN TELEPHONE COMPANY

Date: _____

Date: _____

DRAWING REVIEW:
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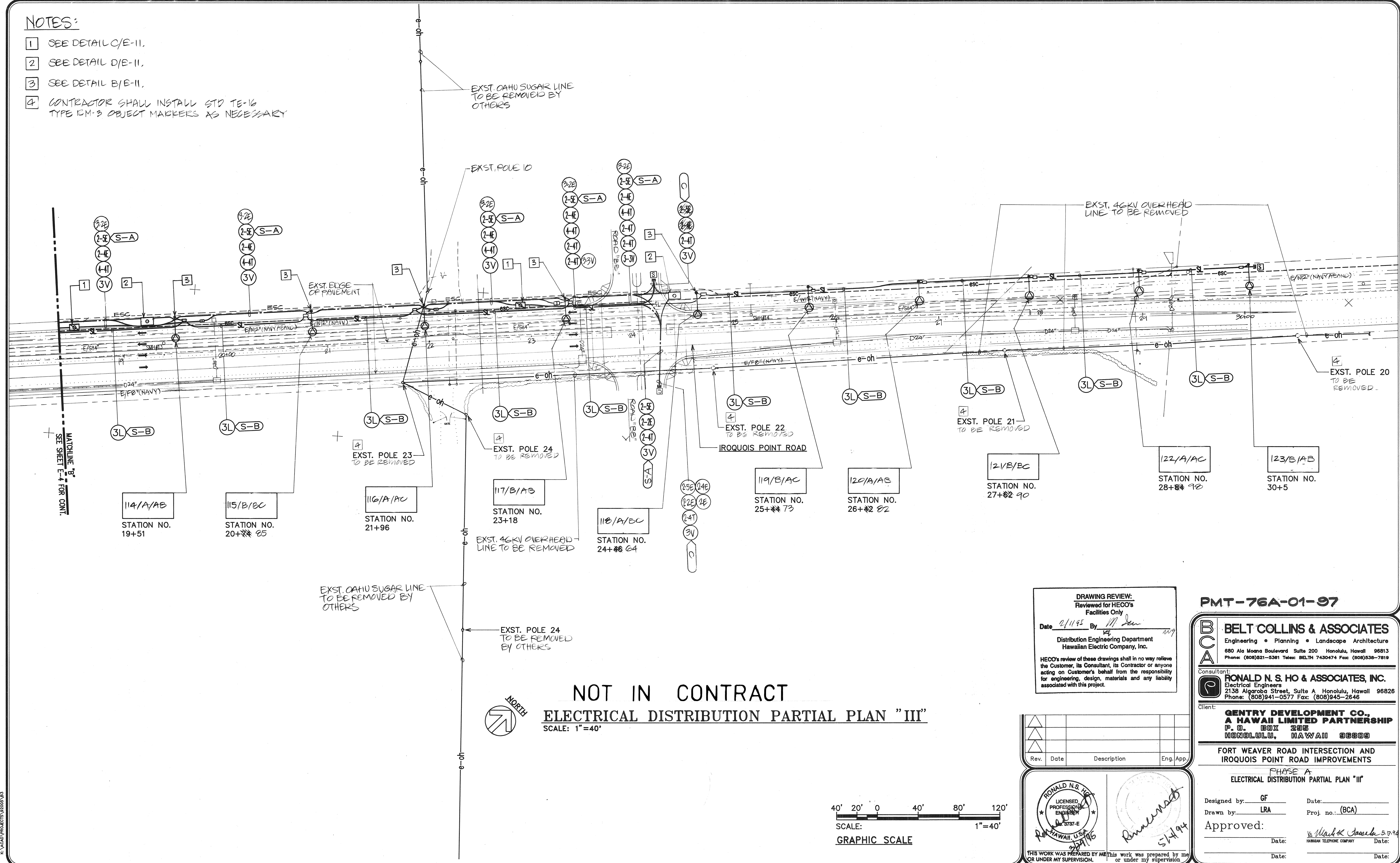
Date 2/11/75 By M. J. Shaw *MS*

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Hawaiian Electric Company, Inc.

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PMT-76A-01-97

- 1 SEE DETAIL C/E-II.
- 2 SEE DETAIL D/E-II.
- 3 SEE DETAIL B/E-II.
- 4 CONTRACTOR SHALL INSTALL STD TE-16 TYPE CM-3 OBJECT MARKERS AS NECESSARY



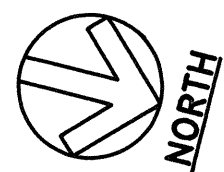
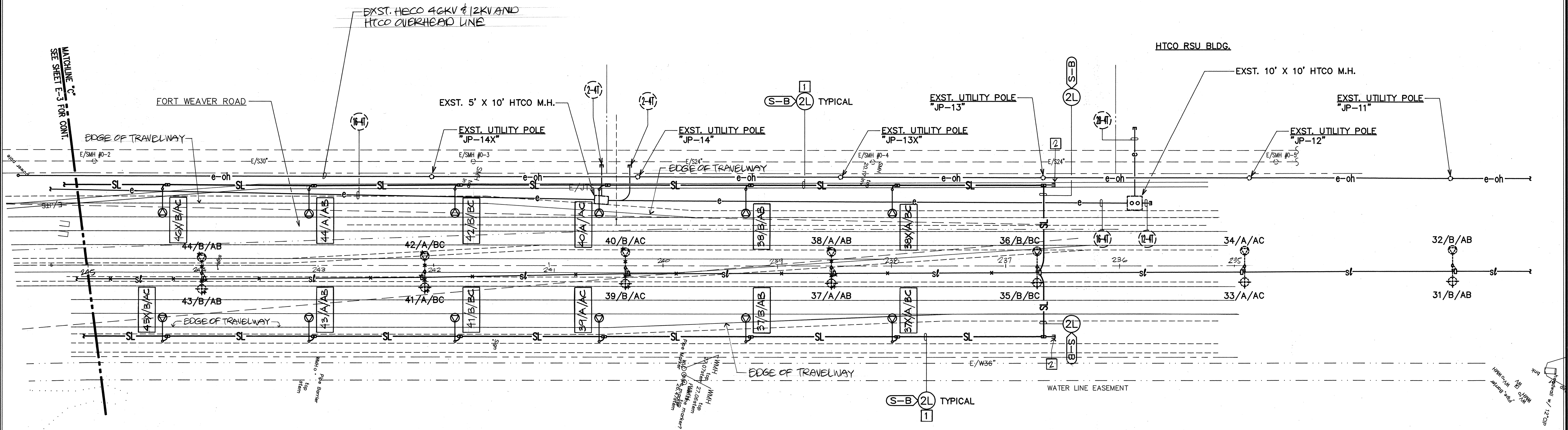
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Trim: 22" x 36"

PROJECT RECORD DRAWINGS

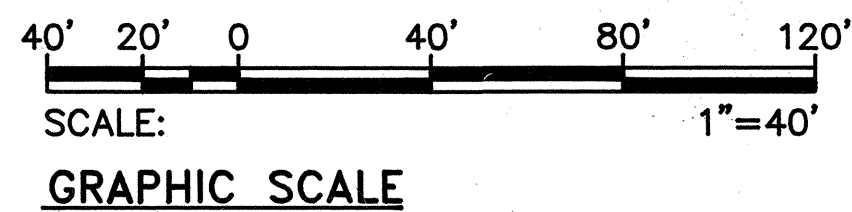
SHEET E-5 of Sheets

- NOTES:
- 1 STREET LIGHT CONDUIT W/6#2.
 - 2 STUB, CAP & MARK 2" STREET LIGHT CONDUIT FOR FUTURE USE.

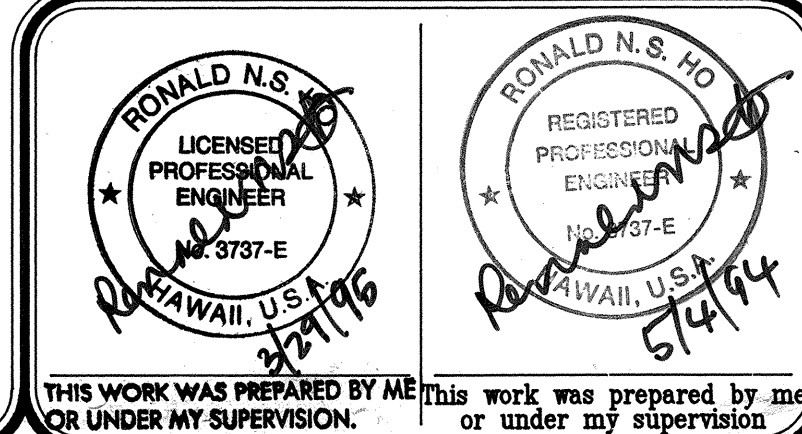


ELECTRICAL DISTRIBUTION PARTIAL PLAN "IV"
SCALE: 1"=40'-0"

DRAWING REVIEW:
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Facilities Only
Date 2/1/95 By M. Jan
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BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)521-5381 Telex: BELTH 7430474 Fax: (808)538-7819

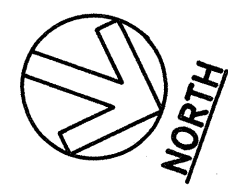
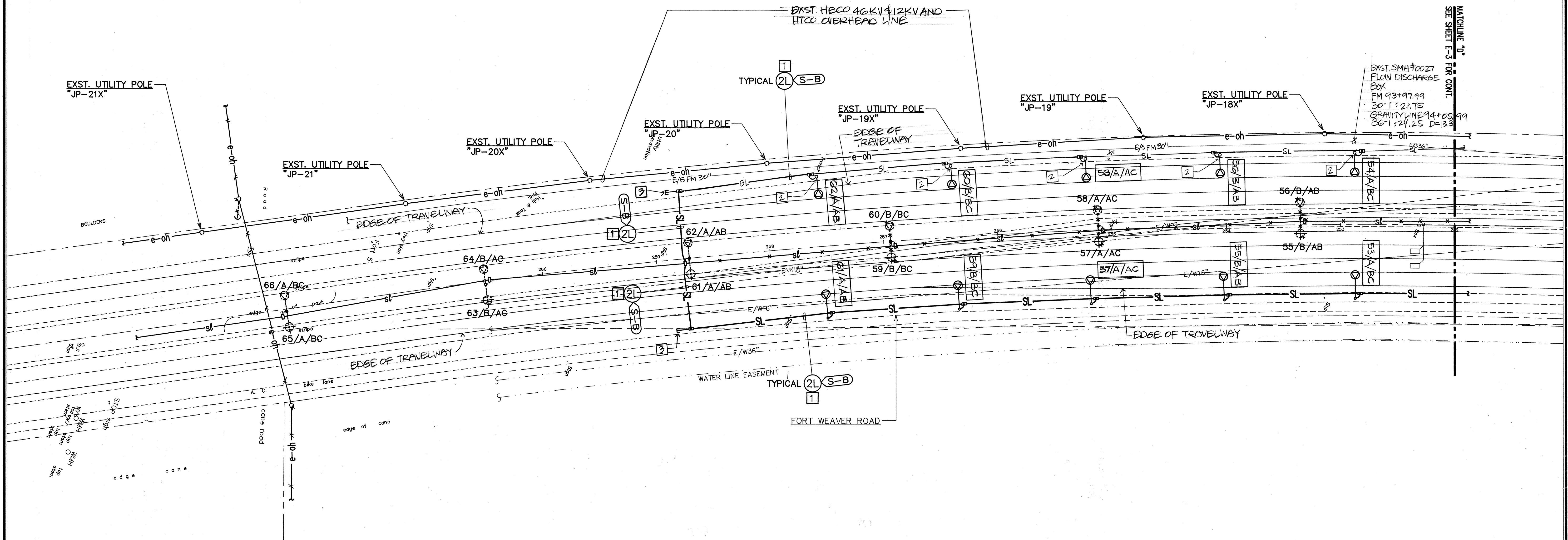
Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Algoroba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

Client:
**GENTRY DEVELOPMENT CO.,
A HAWAII LIMITED PARTNERSHIP**
P. O. BOX 285
HONOLULU, HAWAII 96808

**FORT WEAVER ROAD INTERSECTION AND
IROQUOIS POINT ROAD IMPROVEMENTS**
PHASE A
ELECTRICAL DISTRIBUTION PARTIAL PLAN "IV"

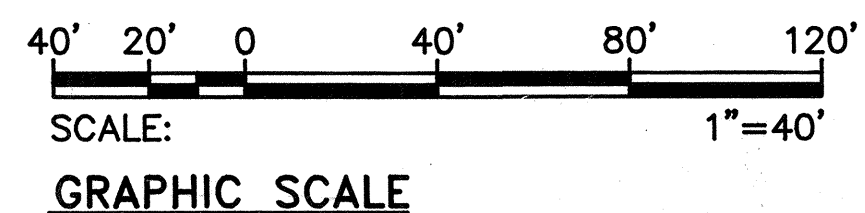
Designed by: GF Date: _____
Drawn by: _____ Proj. no.: (BCA) _____
Approved: _____ Date: _____
HAWAIIAN TELEPHONE COMPANY Date: _____

- NOTES:
- 1 STREET LIGHT CONDUIT W/6#2.
 - 2 STREET LIGHT MIN. QFT. CLEAR OF 30" SEWERLINE.
 - 3 UTOS CAP & MARK 2" STREET LIGHT CONDUIT FOR FUTURE USE.



ELECTRICAL DISTRIBUTION PARTIAL PLAN "V" SCALE: 1"=40'

DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date: 2/11/95 By: M. [Signature]
Distribution Engineering Department
Hawaiian Electric Company, Inc.
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Rev.	Date	Description	Eng. App.

RONALD N.S. HO
LICENSED PROFESSIONAL ENGINEER
No. 2737-E
HAWAII, U.S.A.

RONALD N.S. HO
REGISTERED PROFESSIONAL ENGINEER
No. 2737-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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Consultant: **RONALD N. S. HO & ASSOCIATES, INC.**
Electrical Engineers
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Phone: (808)941-0577 Fax: (808)945-2646

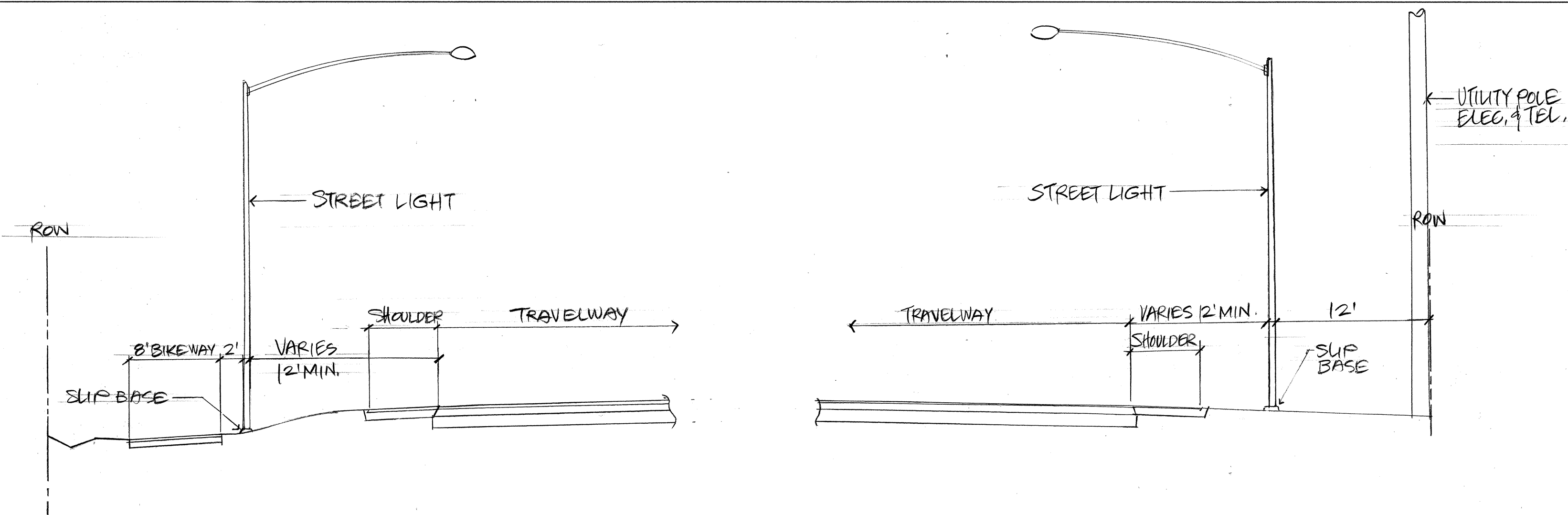
Client: **GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP**
P.O. BOX 205 HONOLULU, HAWAII 96809

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

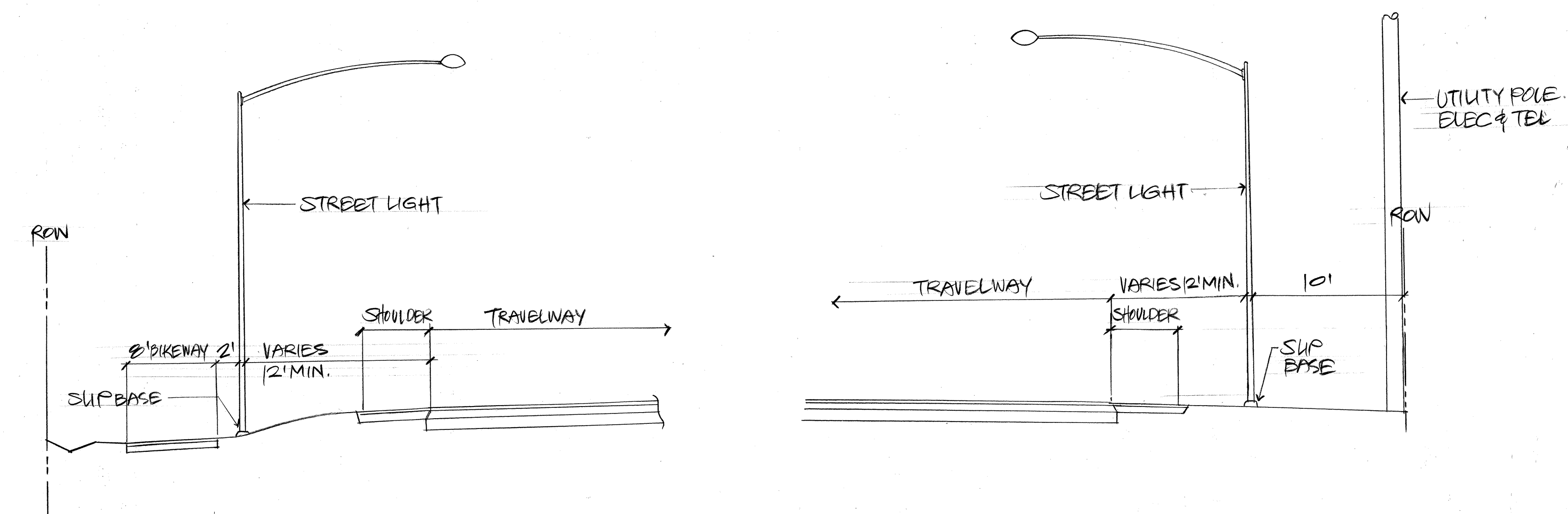
PHASE A
ELECTRICAL DISTRIBUTION PARTIAL PLAN "V"

Designed by: **GF** Date: _____
Drawn by: _____ Proj. no.: **(BCA)**
Approved: _____ Date: _____
Date: _____ Date: _____

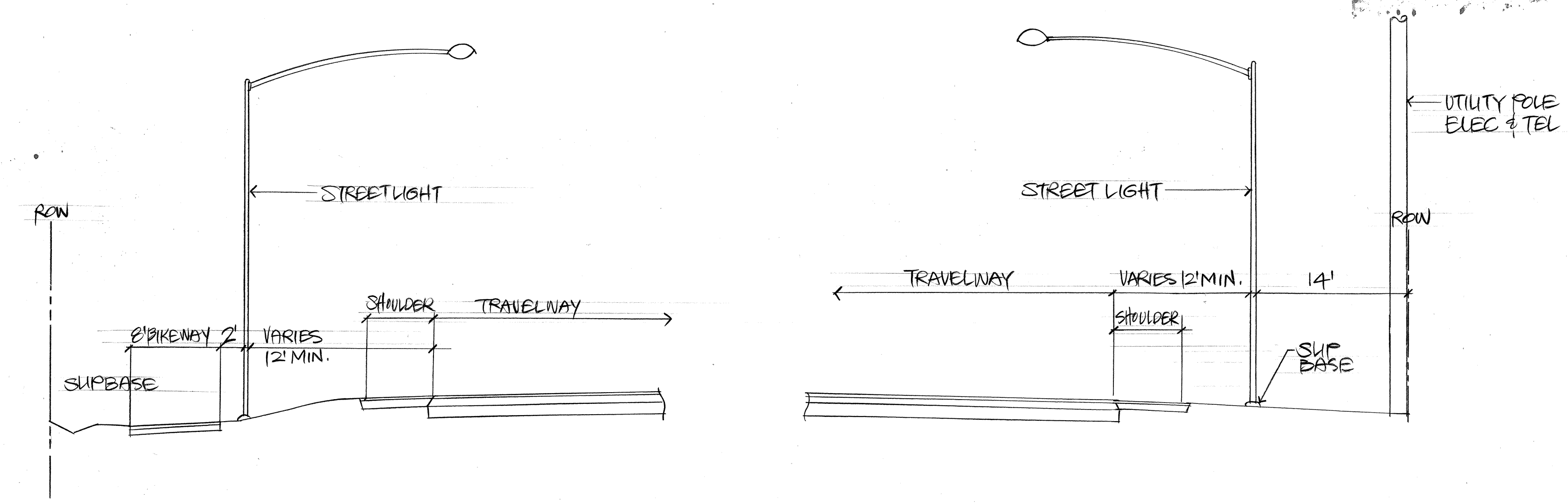
Plot Date: 05/13/94 11:23:02 by: EA
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(A) FORT WEAVER ROAD - STA. NO. 237 TO 247
E-8 N.T.S.



(B) FORT WEAVER ROAD - STA. NO. 250 TO 252
E-8 N.T.S.



(C) FORT WEAVER ROAD - STA. NO. 252 TO 258
E-8 N.T.S.

PMT-76A-01-97

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P.O. BOX 285
HONOLULU, HAWAII 96808

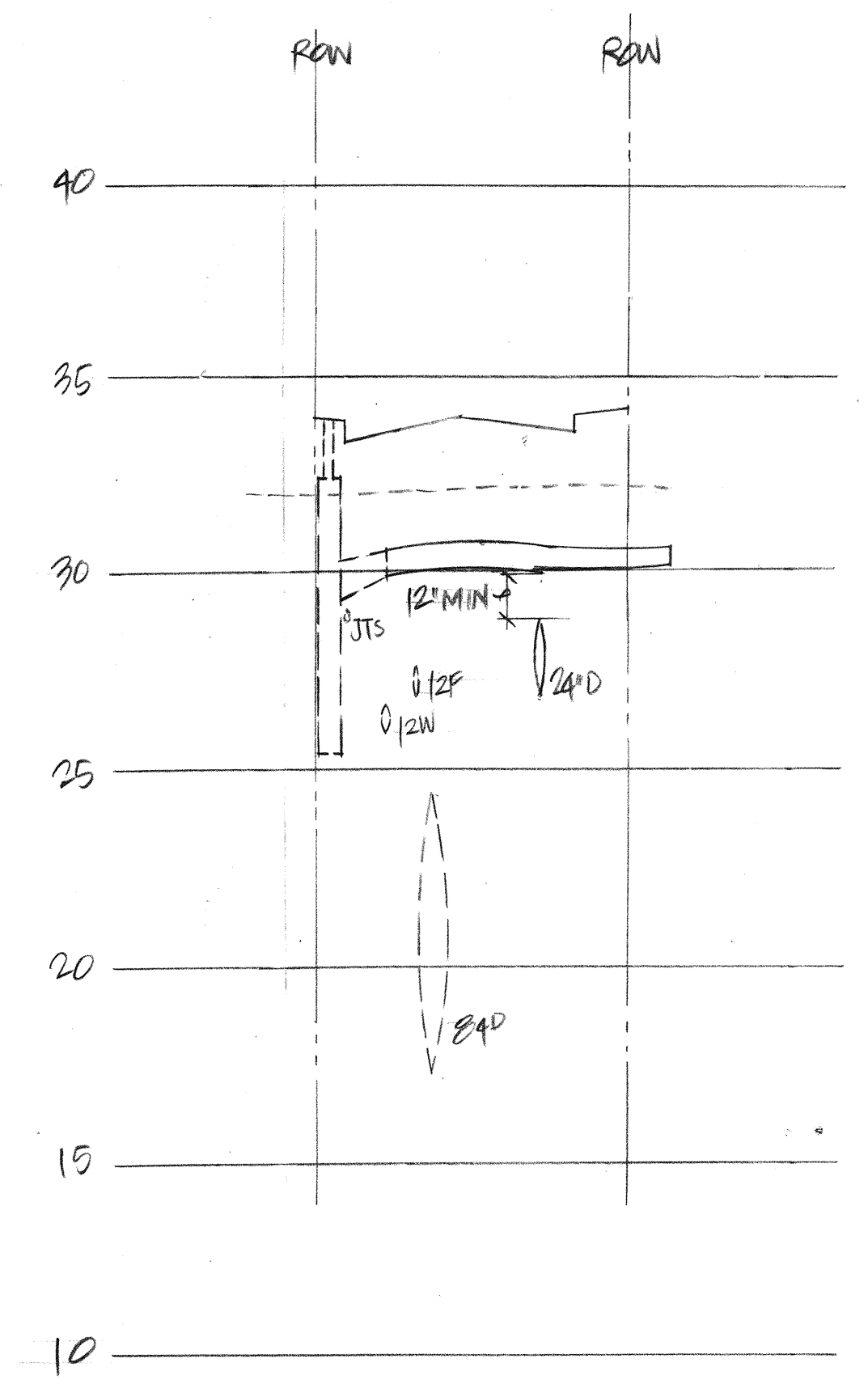
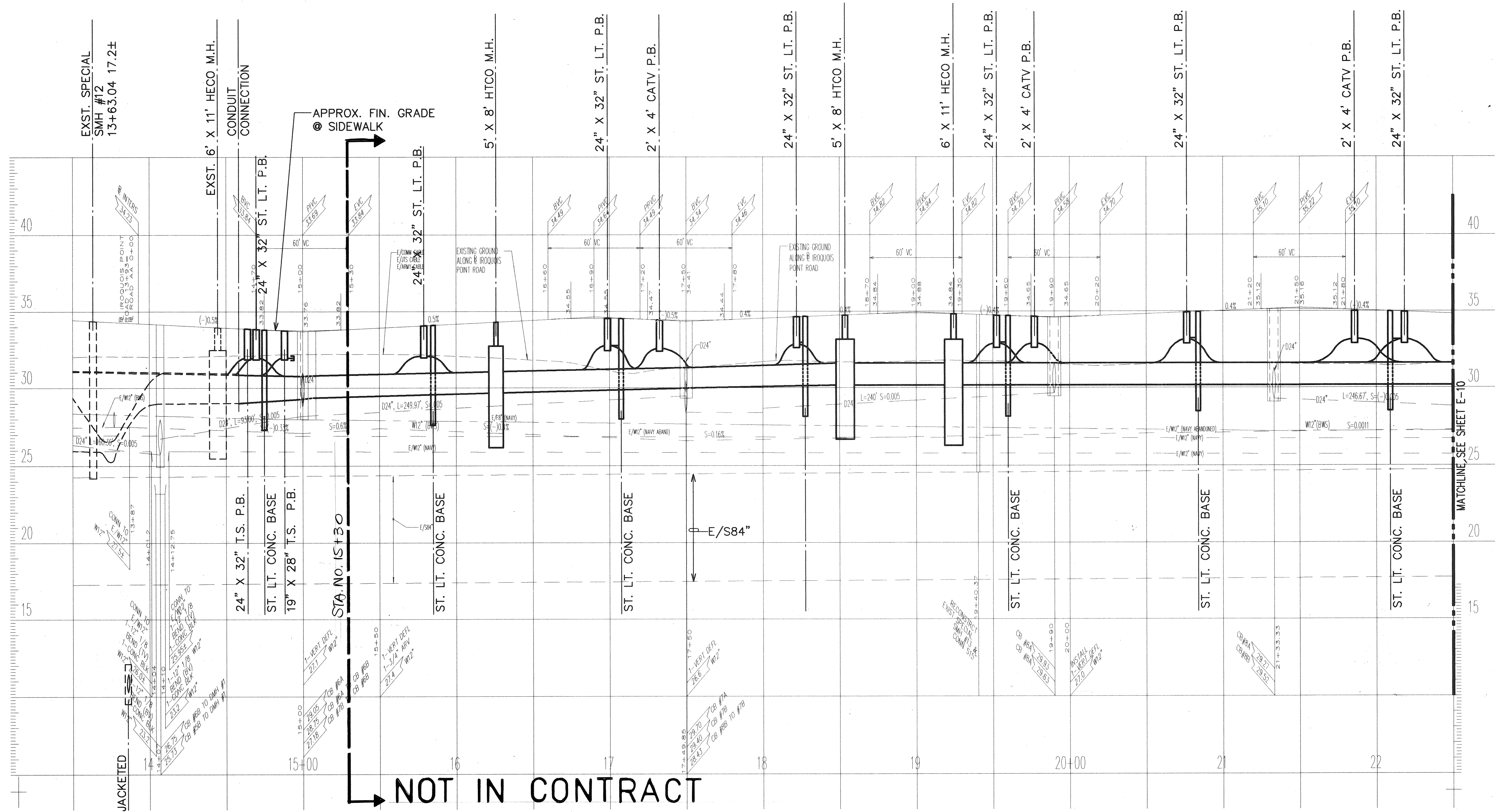
FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS
PHASE A
MISCELLANEOUS ELECTRICAL DETAILS

Designed by: GF Date: _____
Drawn by: CAT Proj. no.: (BCA) _____
Approved: _____
HAWAII ELECTRIC COMPANY Date: _____ Date: _____
Date: _____ Date: _____

Rev.	Date	Description	Eng. App.

RONALD N. S. HO
LICENSED PROFESSIONAL ENGINEER
No. 3737-E
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

RONALD N. S. HO
REGISTERED PROFESSIONAL ENGINEER
No. 3737-E
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.



ELECTRICAL DUCTLINE CROSSING @
IROQUOIS POINT ROAD - STA. NO.
14+40
HORIZ: 1"=40'
VERT: 1"=4'

ELECTRICAL DUCTLINE PROFILE AT IROQUOIS POINT ROAD - PLAN "A"
HORIZ: 1"=40'
VERT: 1"=4'

DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date: 2/11/95 By: M. Lee
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.

Rev.	Date	Description	Eng.	App.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

PMT-76A-01-97

BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)521-5361 Telex: BELTH 7430474 Fax: (808)538-7819

Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Algoroba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

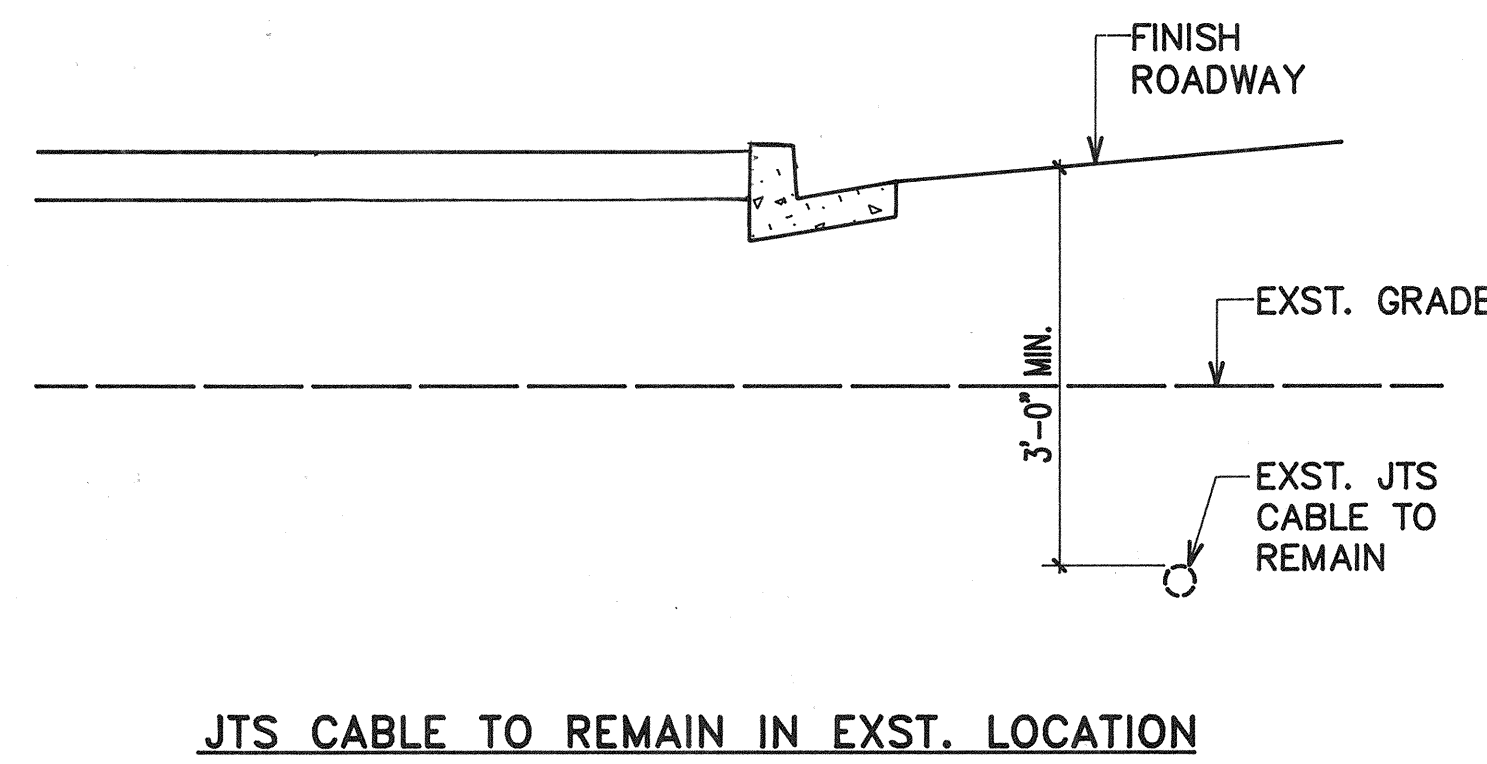
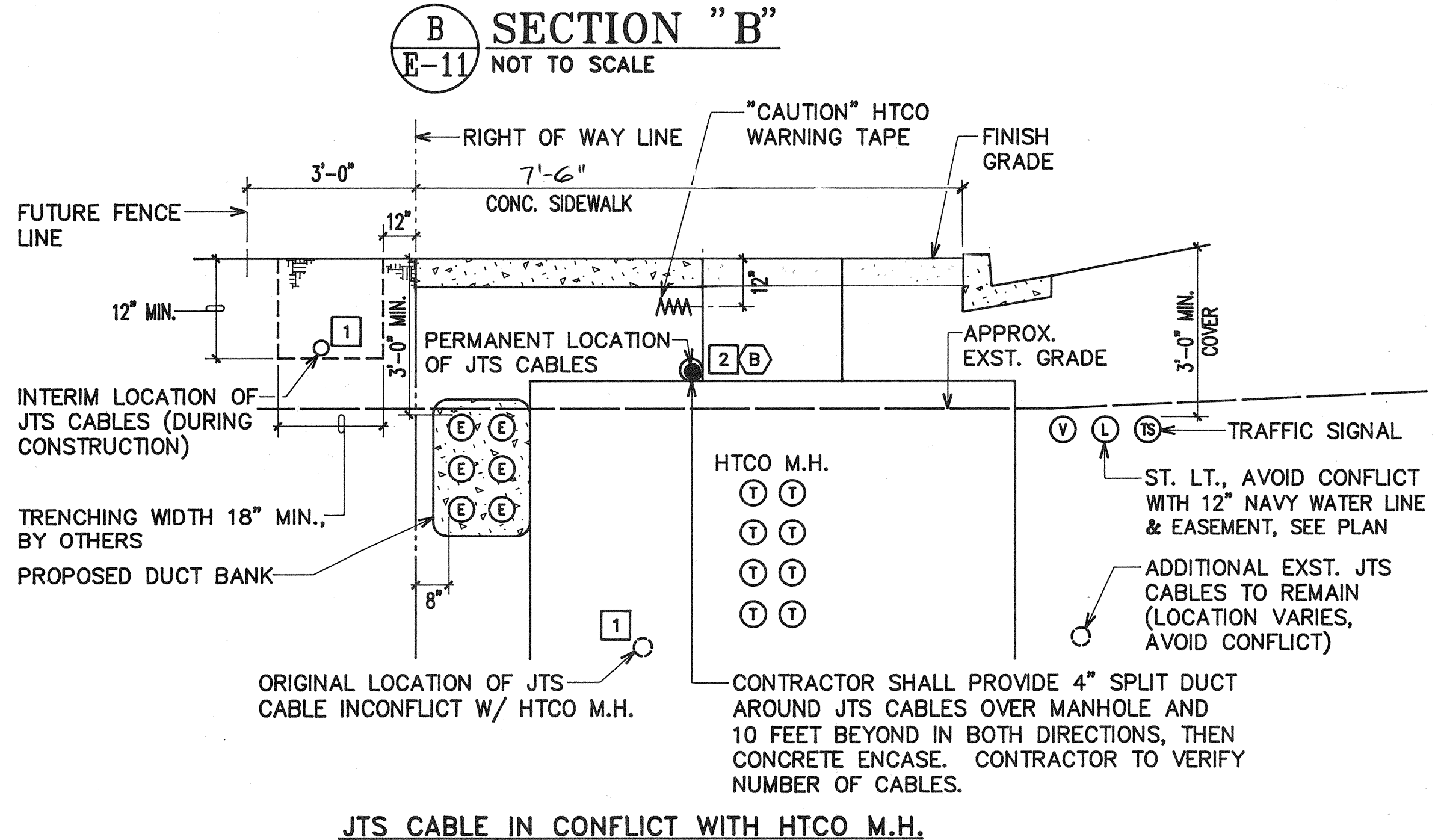
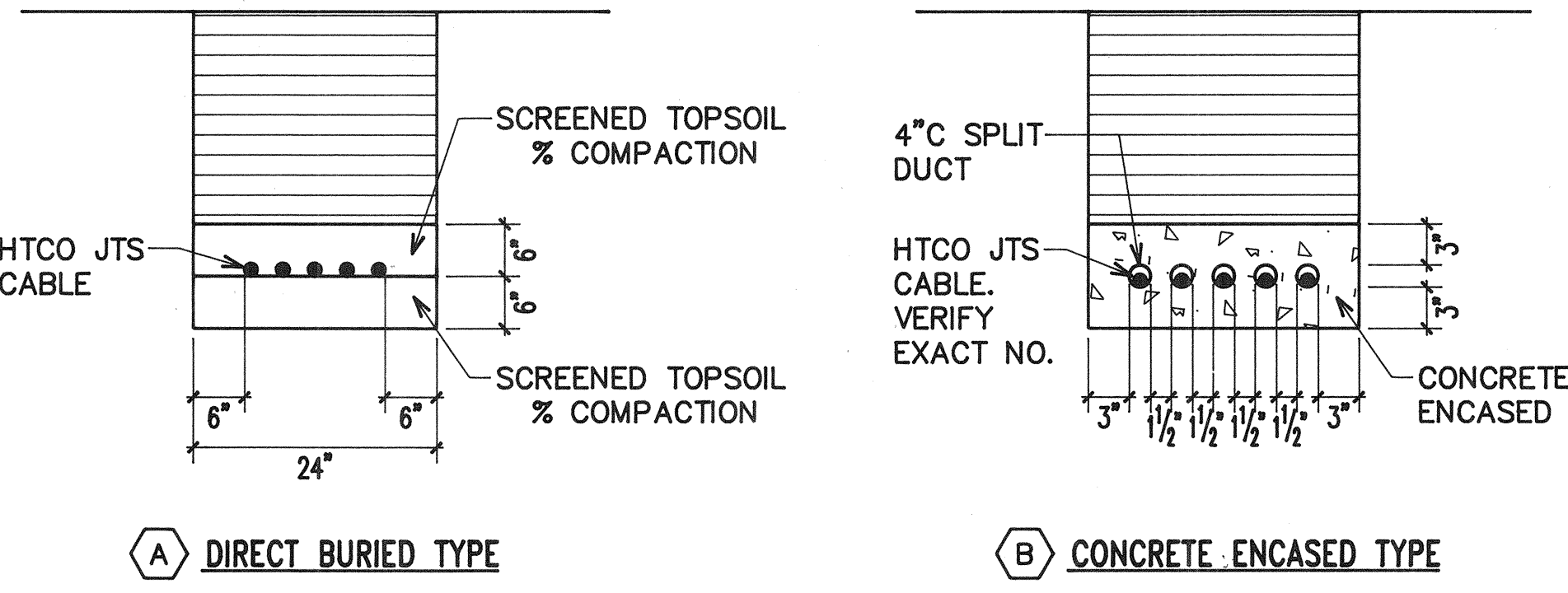
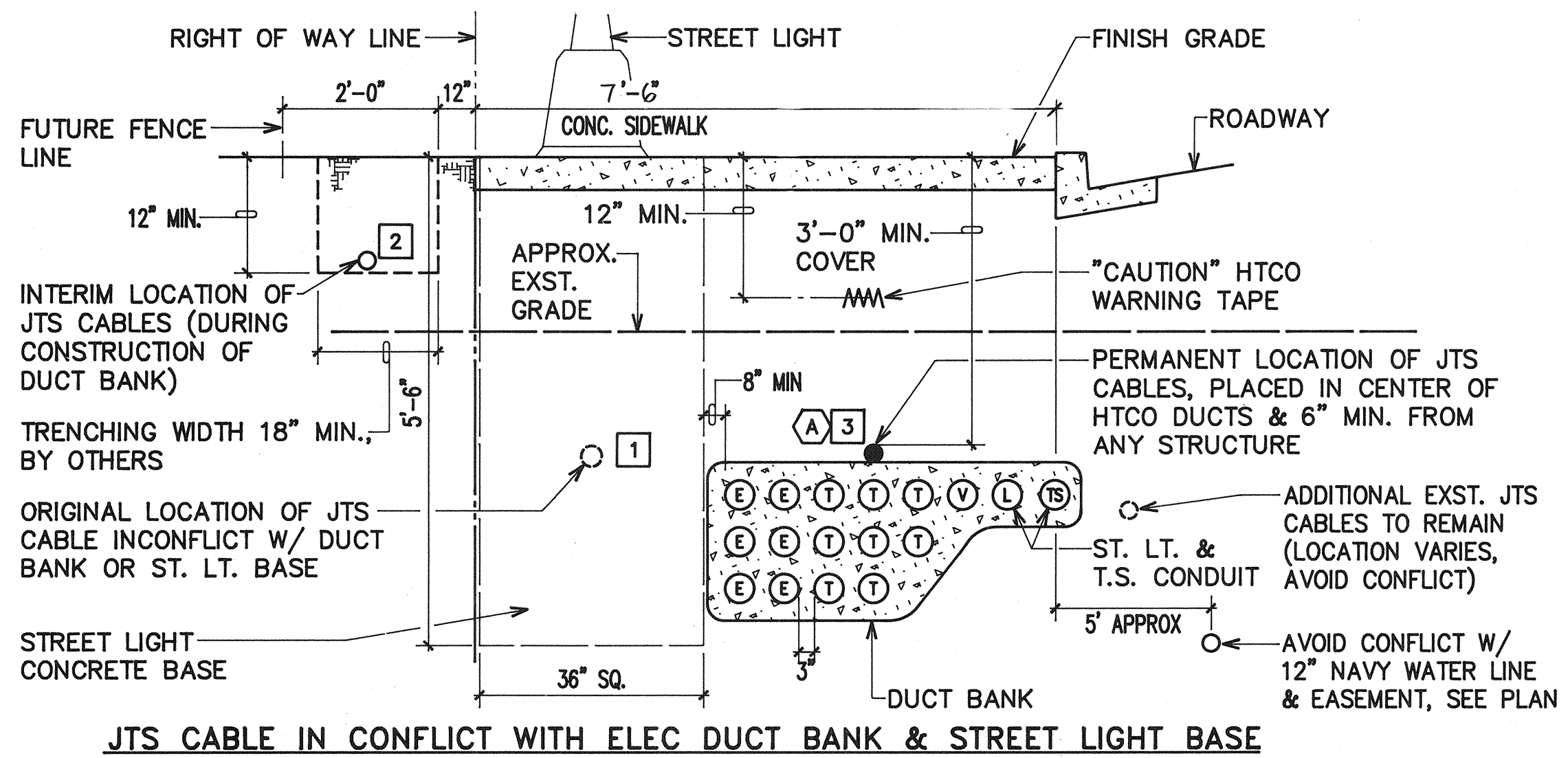
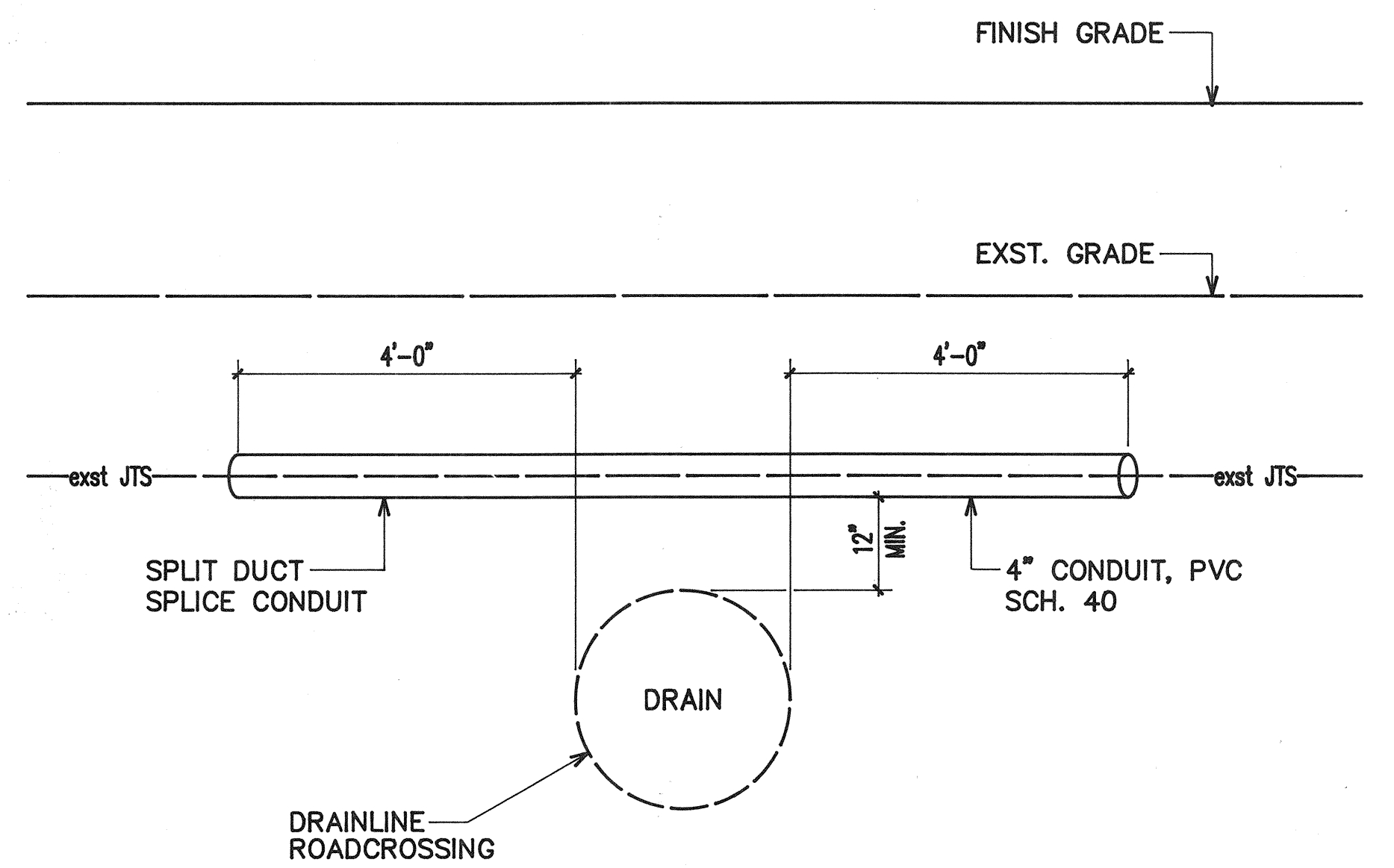
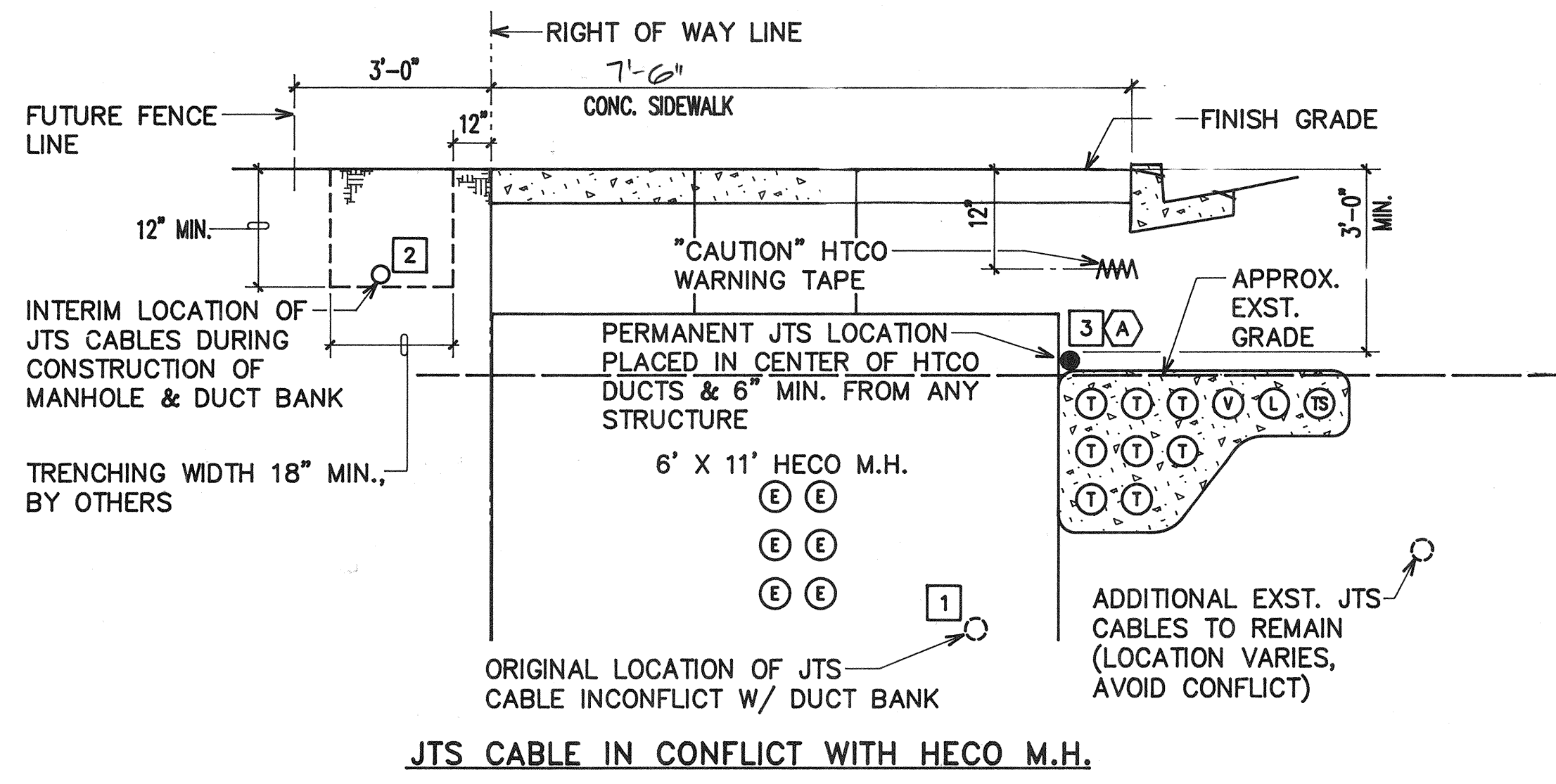
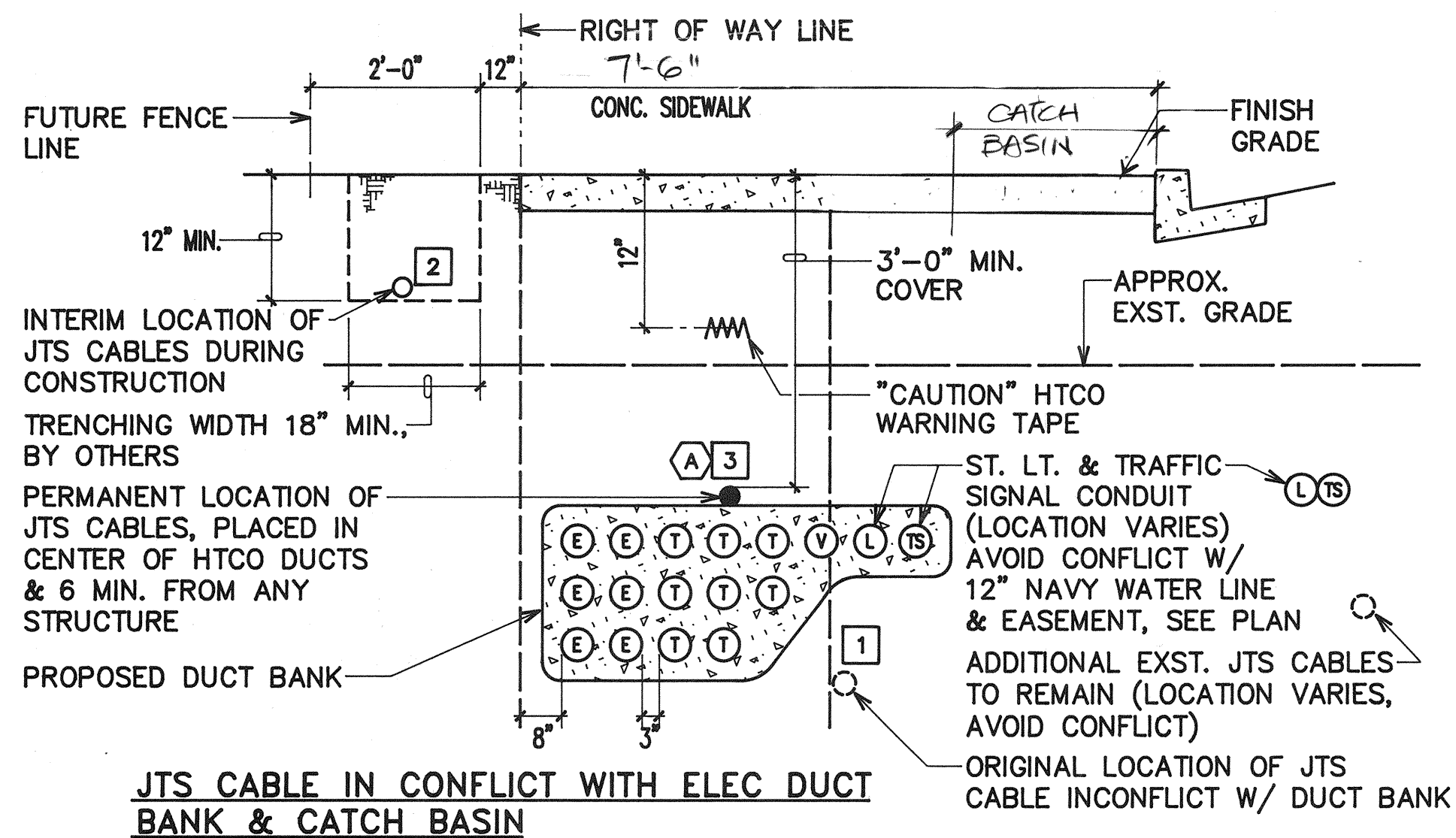
Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P. O. BOX 295 HONOLULU, HAWAII 96809

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

PHASE A
ELECTRICAL DUCTLINE PROFILE AT IROQUOIS POINT ROAD - PLAN "A"

Designed by: CAT Date: _____
Drawn by: EDA Proj. no.: (BCA)
Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ HAWAIIAN TELEPHONE COMPANY Date: _____

Last save: 09/15/94 11:22:38 by: EA
K:\AEC\PROJECTS\0000\YTH002A



DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date: 2/1/95 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.

REVISIONS:

Rev.	Date	Description	Eng.	App.
1	2/1/95	Initial Issue		

APPROVED:
[Signature]
5/1/94

PMT-76A-01-97

BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)821-5361 Telex: BELTH 7430474 Fax: (808)836-7816

Consultant: **RONALD N. S. HO & ASSOCIATES, INC.**
Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2846

Client: **GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP**
P.O. BOX 285 HONOLULU, HAWAII 96808

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS
PHASE A
MISCELLANEOUS ELECTRICAL DETAILS

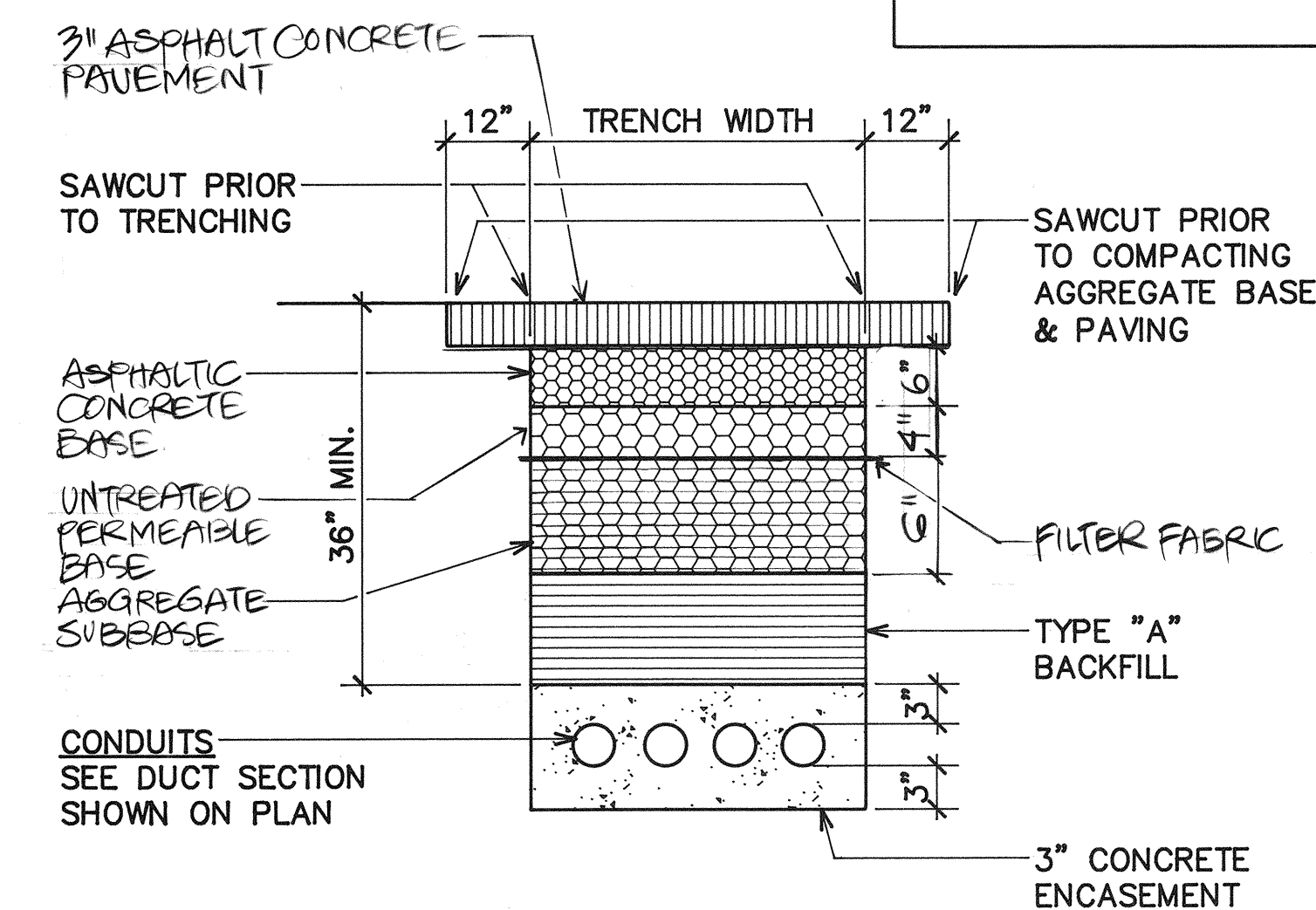
Designed by: GF Date: _____
Drawn by: _____ Proj. no.: (BCA)
Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ HAWAIIAN TELEPHONE COMPANY Date: _____

K:\ACAD\PROJECTS\2000\JTS-DUCT

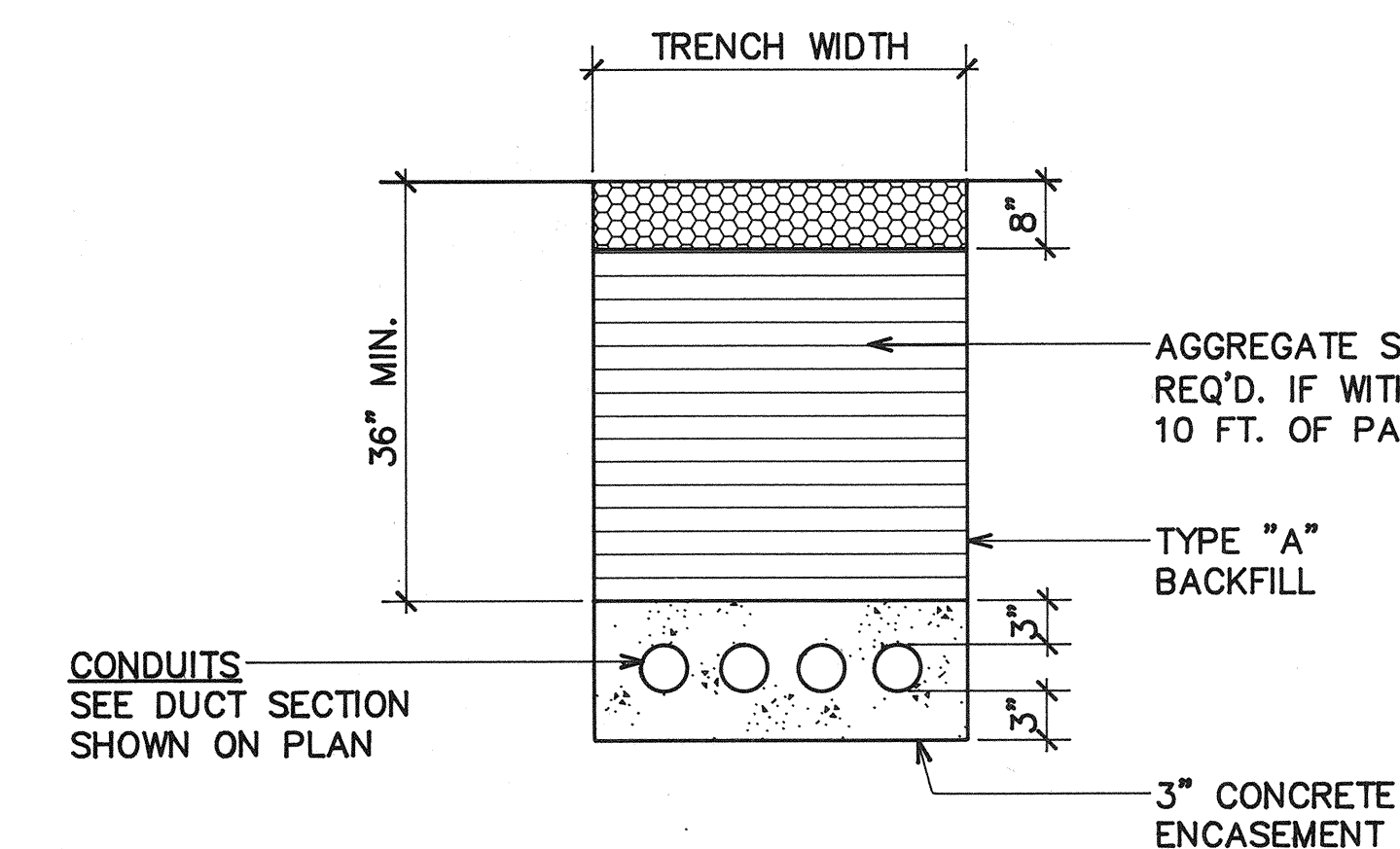
A **E-12** **STATE RIGHT-OF-WAY BACKFILL NOTES** N.T.S.

- TRENCH BACKFILL MATERIAL "B"
1. SAND EQUIVALENT ≥ 2
2. 8" MAX. LOOSE LIFT
3. 95% COMPACTION
- TRENCH BACKFILL MATERIAL "A"
1. SAND EQUIVALENT ≥ 20
2. 8" MAX. LOOSE 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.

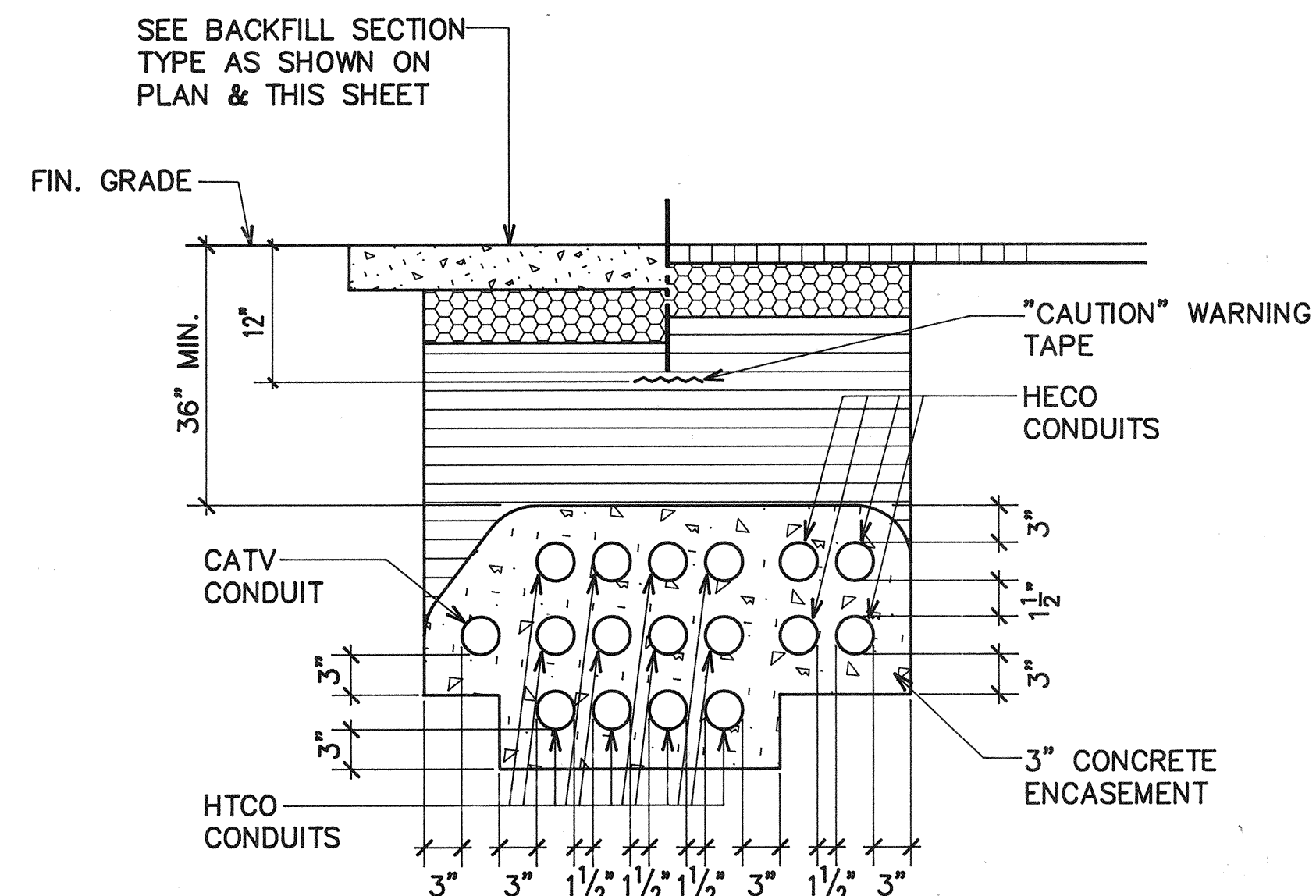


1 BACKFILL SECTION @ IROQUOIS POINT ROAD
WITHIN STATE RIGHT-OF-WAY UNDER ROADWAY

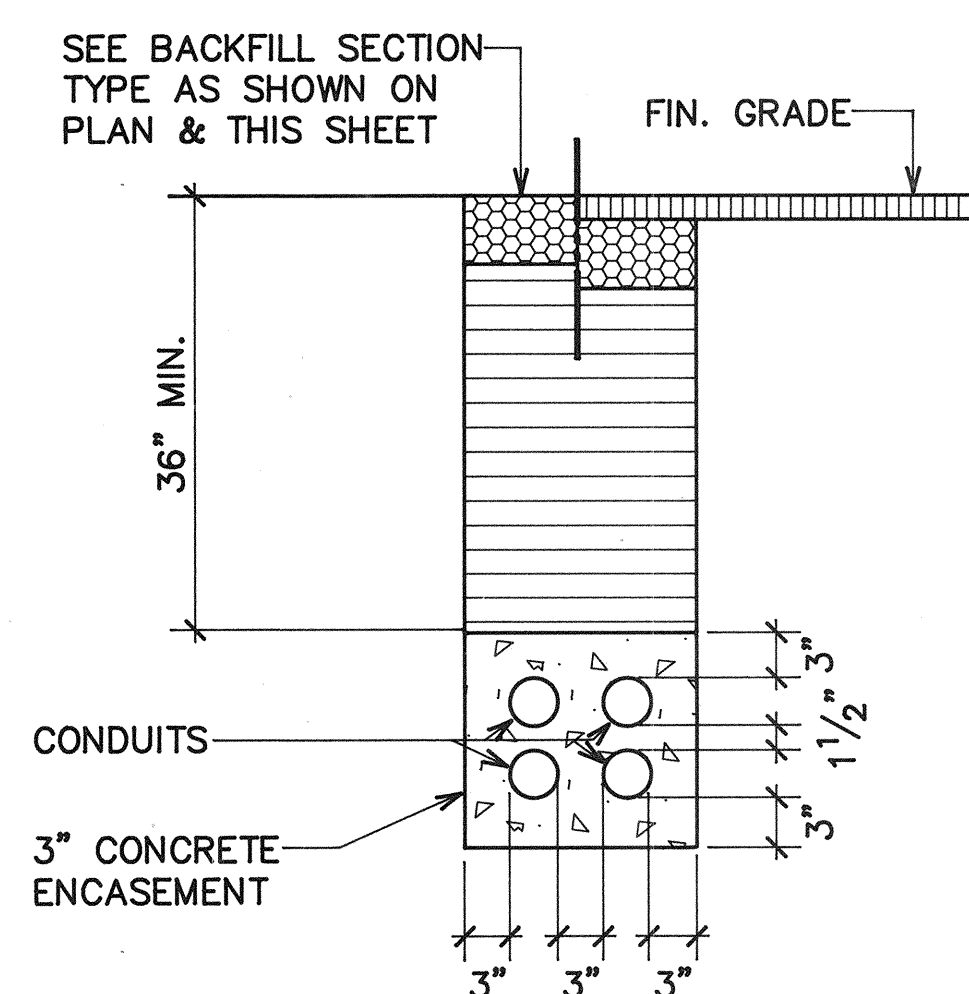


2 BACKFILL SECTION @ FORT WEAVER RD.
WITHIN STATE RIGHT-OF-WAY UNDER UNPAVED SHOULDER

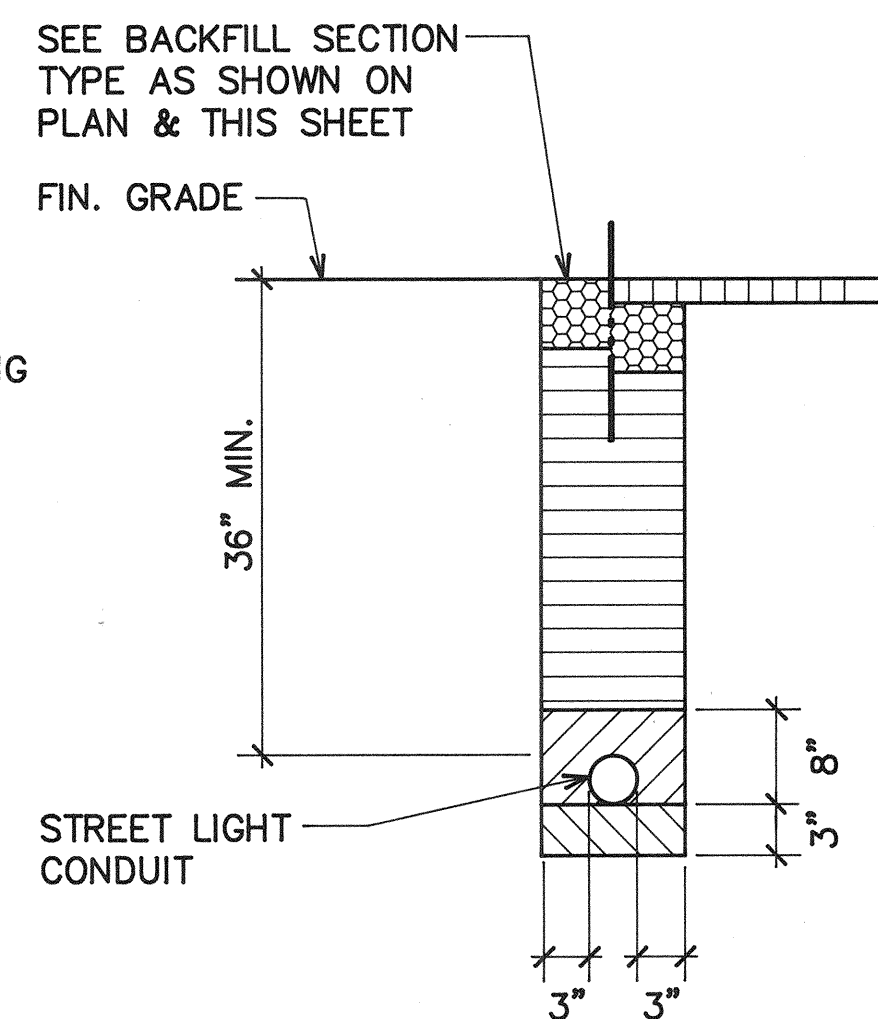
B **E-12** **DUCT SECTIONS (STATE) - TYPICAL** N.T.S.



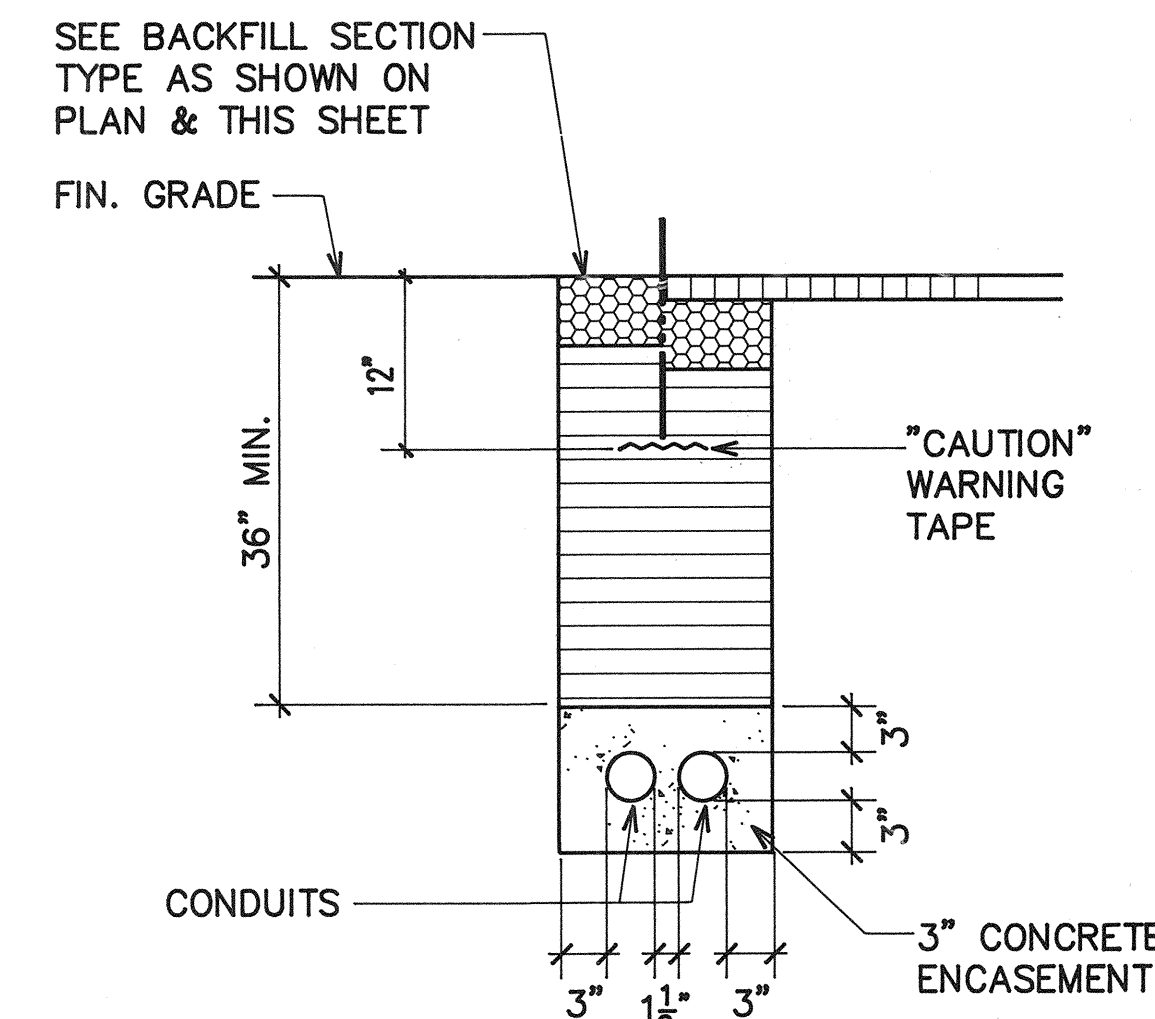
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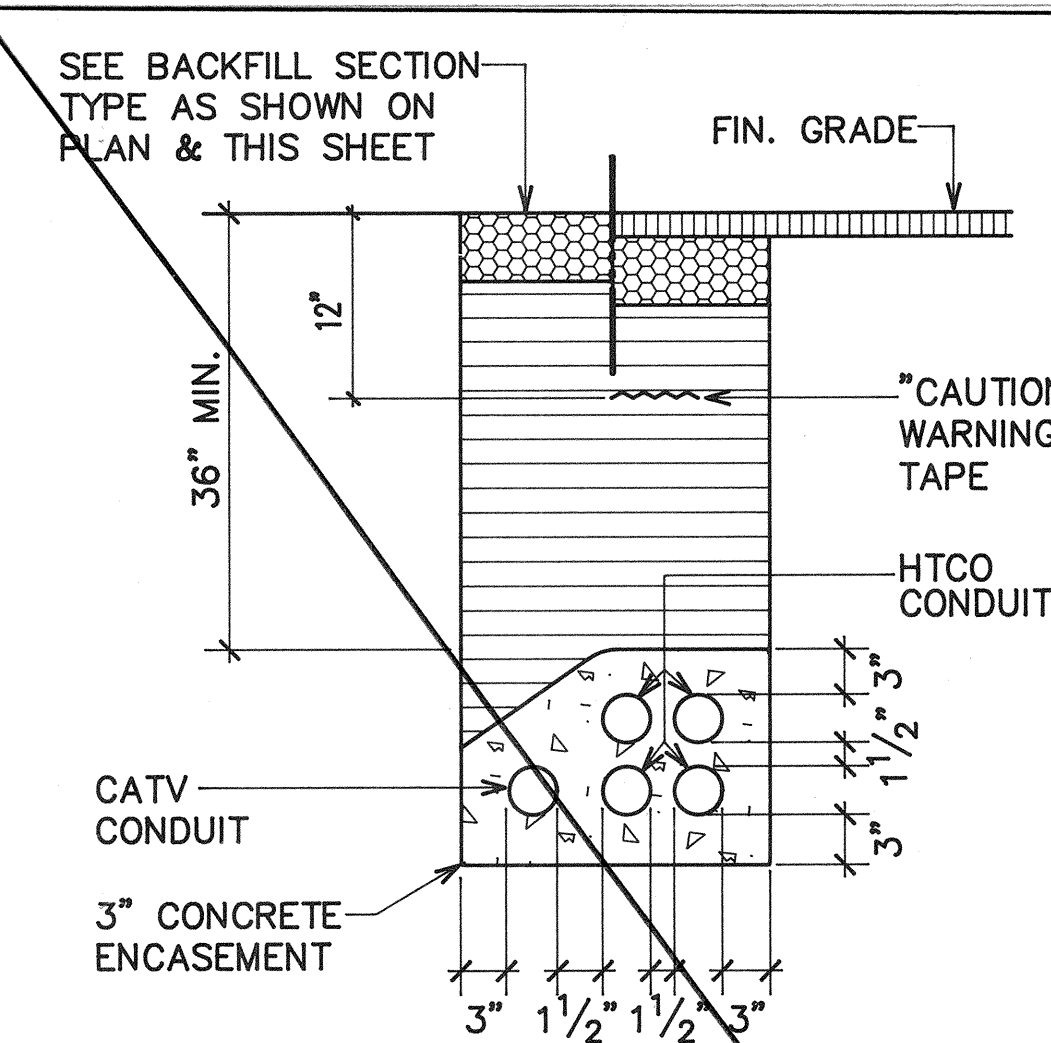
SECTION (S-D)



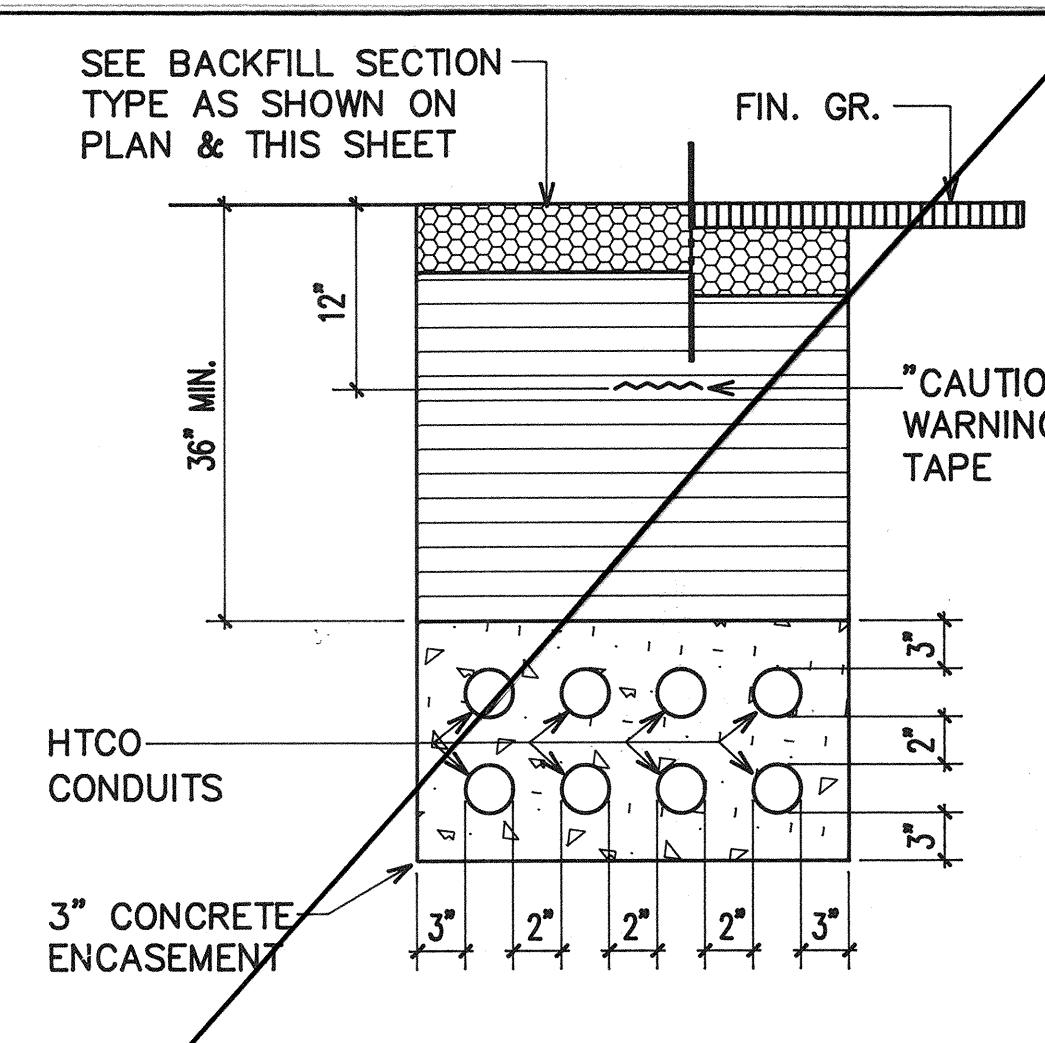
SECTION (S-B)



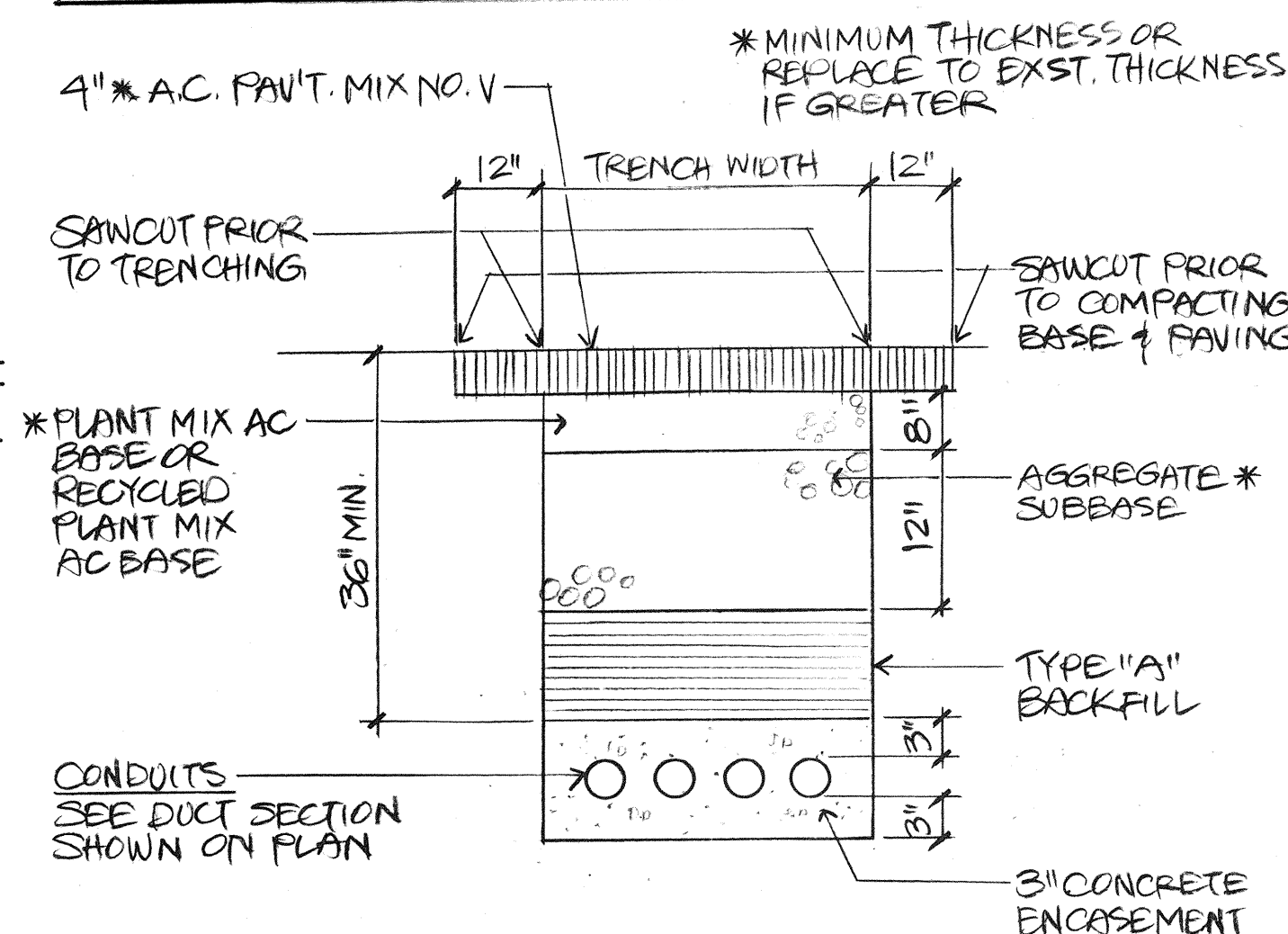
SECTION (S-C)



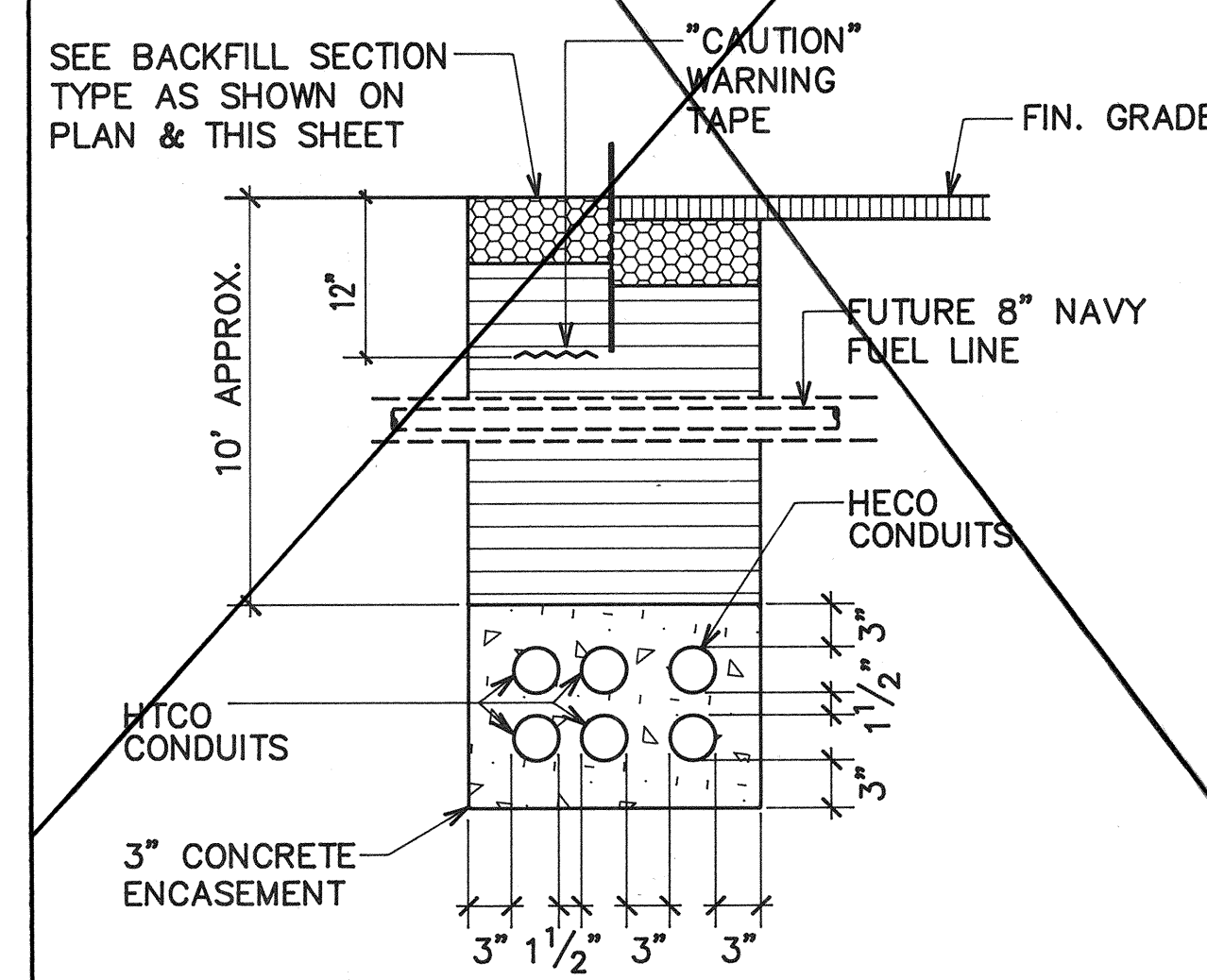
SECTION (S-E)



SECTION (S-F)



3 BACKFILL SECTION @ FT. WEAVER & GELBER RD
WITHIN STATE RIGHT OF WAY - UNDER ROADWAY & PAVED SHOULDER



SECTION (S-H)

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY:

- CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM STATE'S HIGHWAY DISTRICT ENGINEER AT 727 KAKOI STREET PRIOR TO COMMENCEMENT OF WORK WITHIN THE STATE RIGHT-OF-WAY.
- CONSTRUCTION & RESTORATION OF ALL EXISTING HIGHWAY FACILITIES WITHIN STATE RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE CURRENT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", & THE "SPECIFICATION FOR INSTALLATION OF MISCELLANEOUS IMPROVEMENTS WITHIN STATE HIGHWAYS", OF THE STATE HIGHWAYS DIVISION.
- ALL LANES SHALL BE OPEN TO TRAFFIC DURING MORNING PEAK HOURS FROM 6:00 AM TO 8:30 AM & DURING AFTERNOON PEAK HOURS FROM 3:00 PM TO 6:00 PM, & DURING OFF-WORK HOURS, ONLY ONE LANE OF FT. WEAVER ROAD SHALL BE CLOSED AT ANY OTHER TIME.
- CONTRACTOR SHALL PROVIDE, INSTALL & MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES, & OTHER PROTECTIVE FACILITIES & SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION & FOR THE CONVENIENCE & SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES & 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 & HIGHWAYS" ADOPTED BY THE DIRECTOR OF TRANSPORTATION, & THE CURRENT U.S. FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS, PART VI - TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION & MAINTENANCE OPERATIONS", DATED 1985. 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.
- THE MINIMUM PAVEMENT STRUCTURE VERIFY WITH CIVIL PLANS
- NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN HIGHWAY RIGHT-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING & APPROVED BY THE DISTRICT ENGINEER.
- CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE, SAFE, NON-SKID BRIDGING MATERIAL OVER TRENCHES, INCLUDING SHORING, WHEN TRENCHING IN PAVEMENT AREAS TO HANDLE ALL TYPES OF VEHICULAR TRAFFIC.
- LONGITUDINAL DRAINAGE ALONG THE HIGHWAY SHALL BE MAINTAINED.
- 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 THESE CONSTRUCTION PLANS FOR DIVISION'S REVIEW AND APPROVAL.
- ALL REGULATORY, GUIDE AND CONSTRUCTION SIGNS AND BARRICADES SHALL BE OF HIGH INTENSITY REFLECTIVE SHEETING.

DRAWING REVIEW:
Reviewed for HECO's Facilities Only
Date: 2/11/95 By: M. Sen
Distribution Engineering Department
Hawaiian Electric Company, Inc.
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Rev.	Date	Description	Eng. App.

RONALD N. S. HO
LICENSED PROFESSIONAL ENGINEER
No. 13737-E
HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Date: 5/14/94
This work was prepared by me or under my supervision.

PMT-76A-01-97

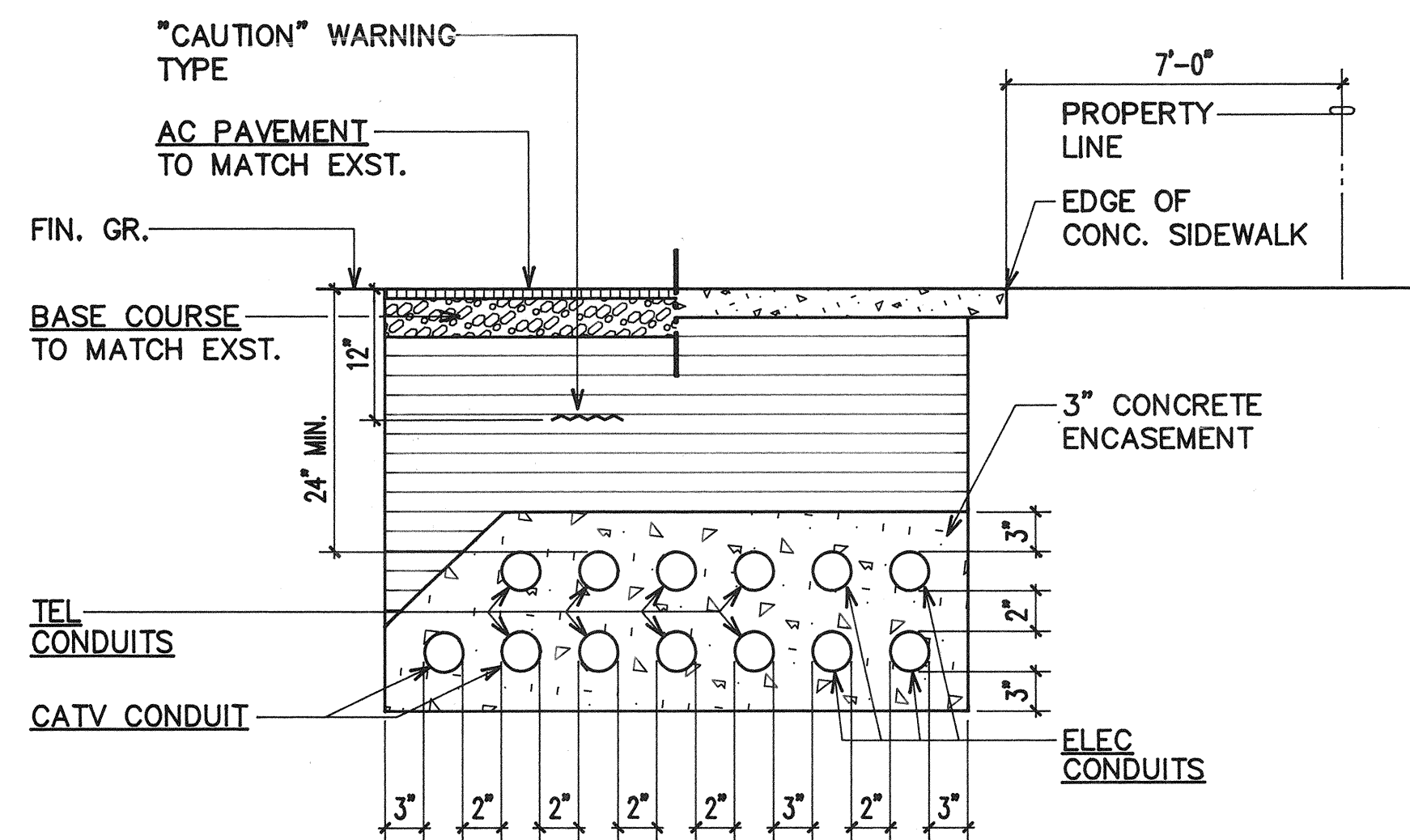
BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)821-5361 Telex: BELTH 7430474 Fax: (808)536-7818

Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

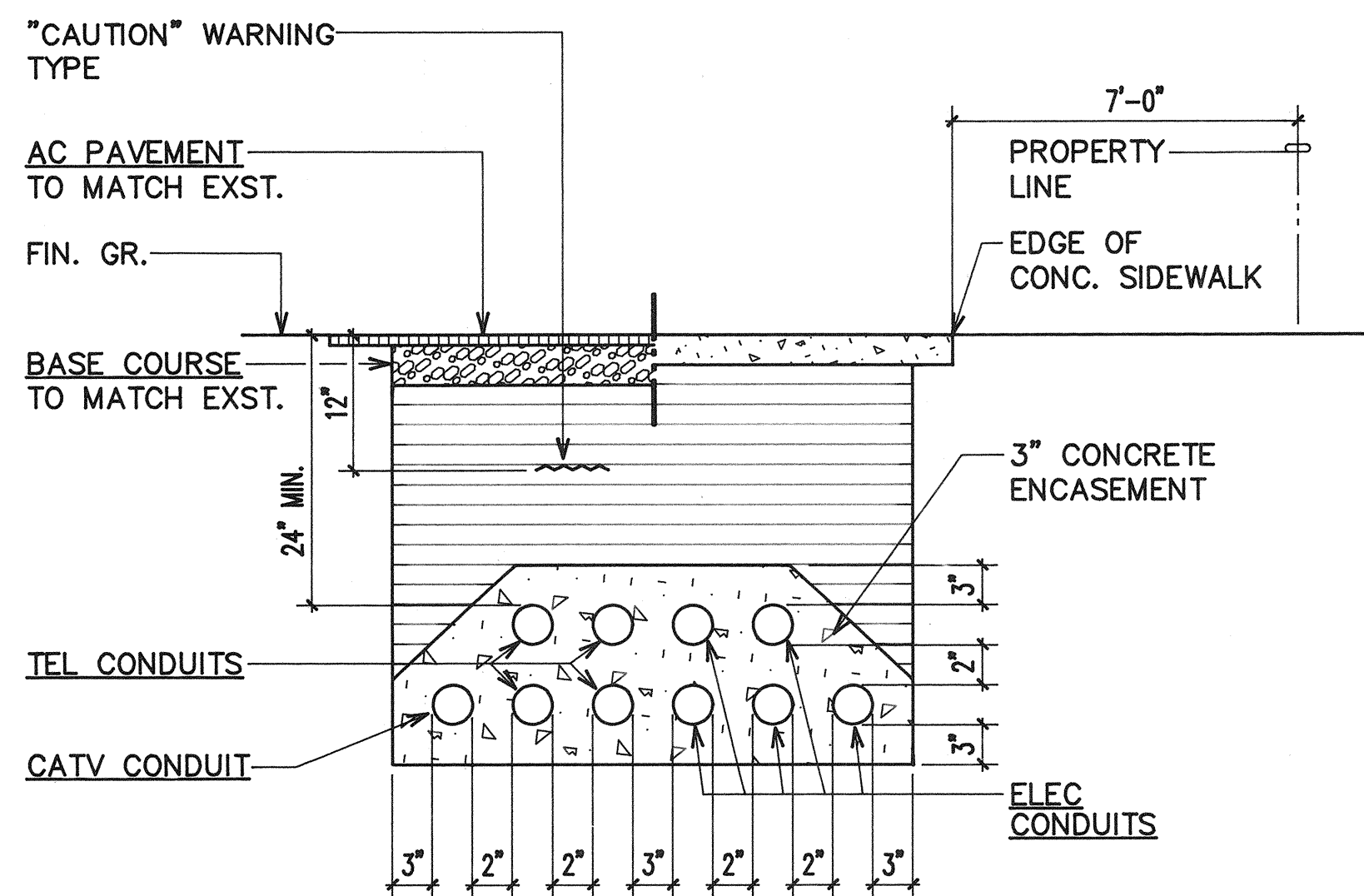
Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P.O. BOX 295 HONOLULU, HAWAII 96808

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS
PHASE A
DUCT SECTIONS (STATE)

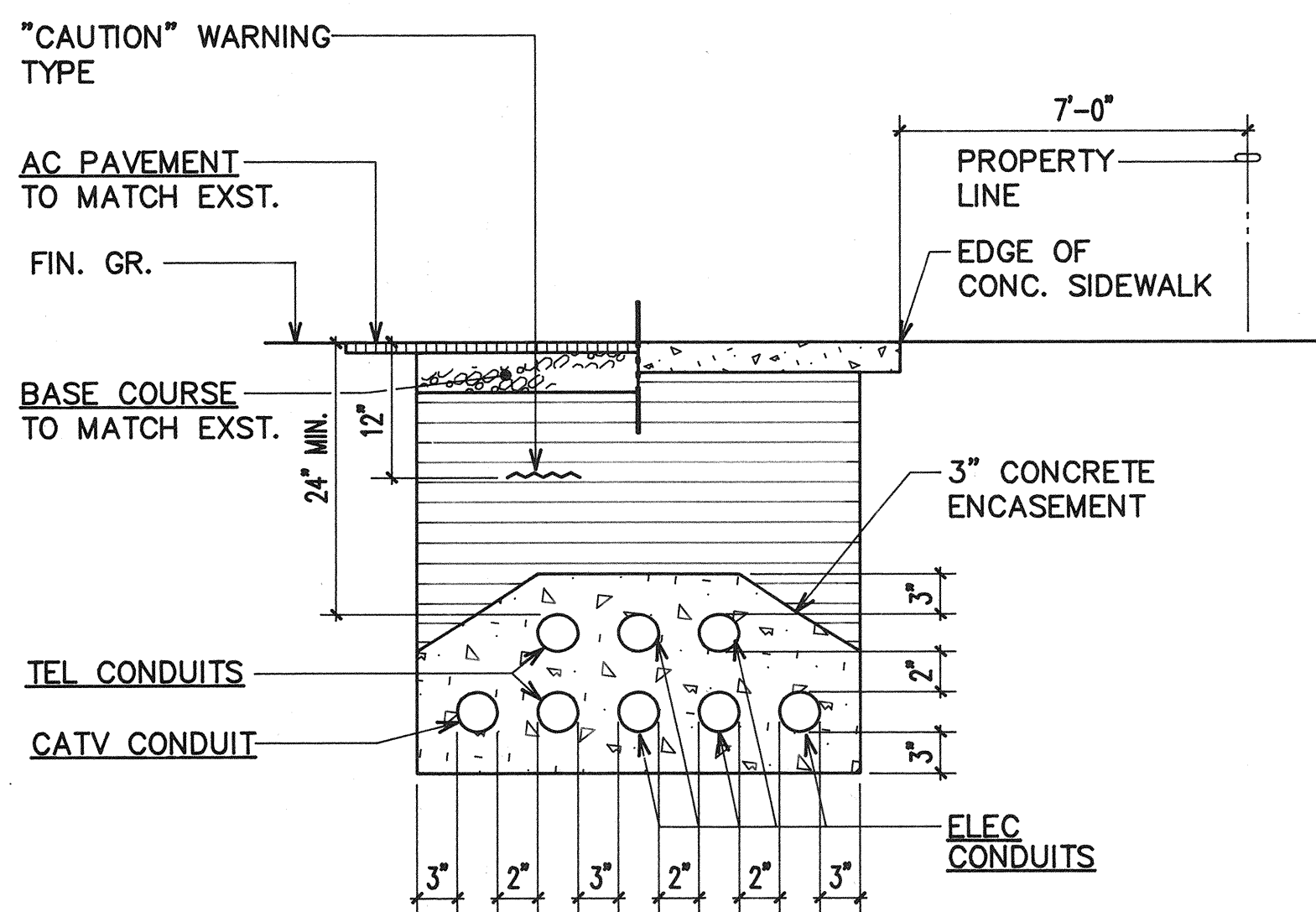
Designed by: GF Date: _____
Drawn by: _____ Proj. no.: (BCA)
Approved: _____
Date: _____ Date: 5.13.94
Date: _____ Date: _____



SECTION A

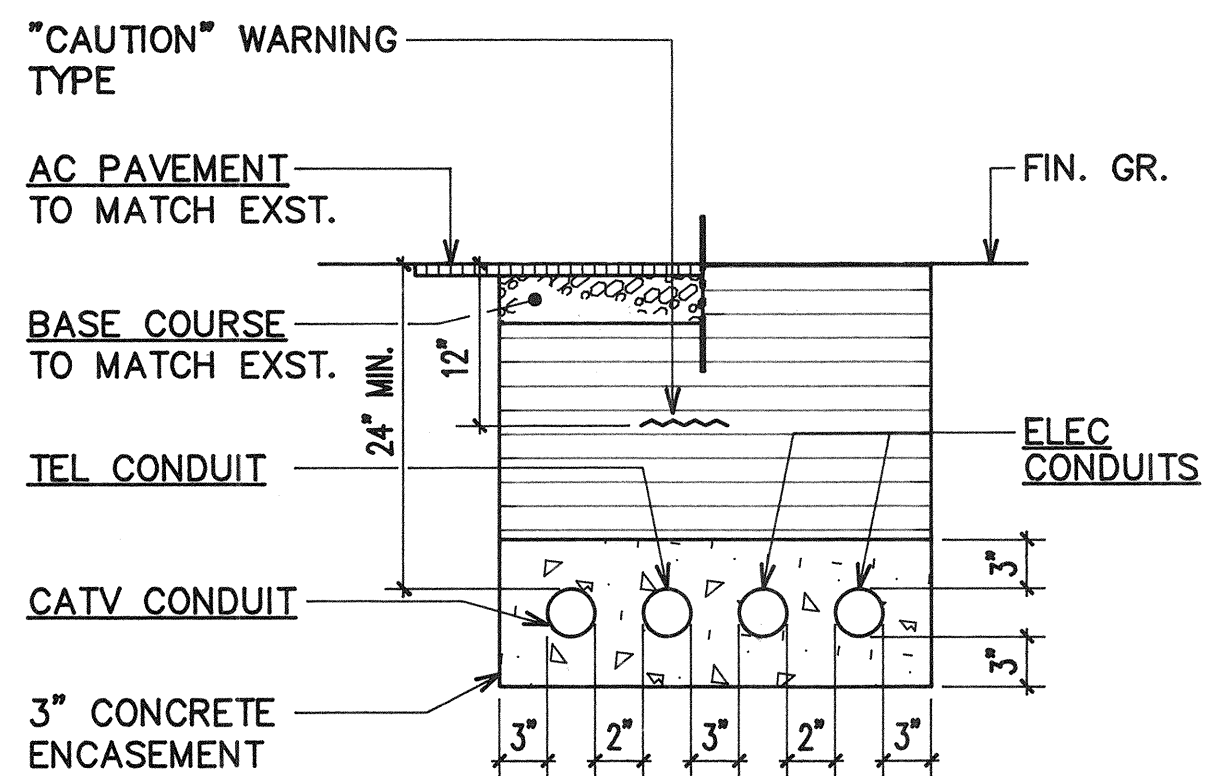


SECTION B

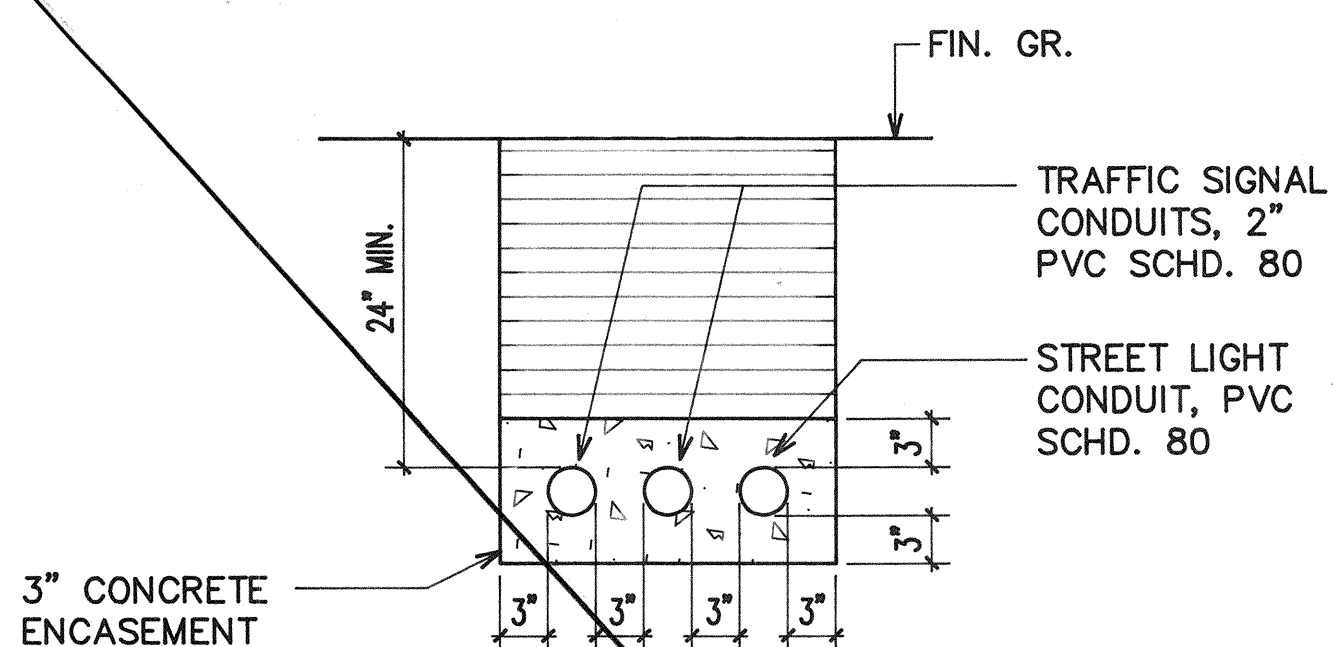


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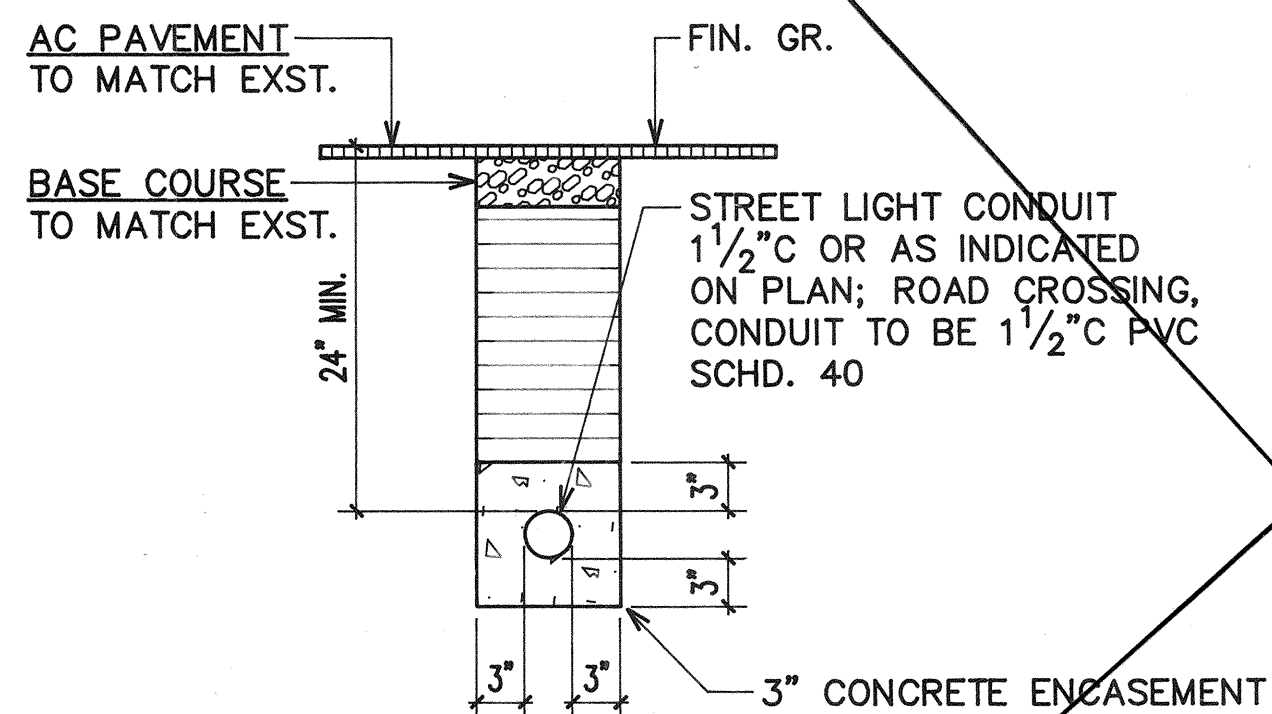
A TYPICAL DUCT SECTIONS (CITY & COUNTY ROADWAY)
E-13 N.T.S.



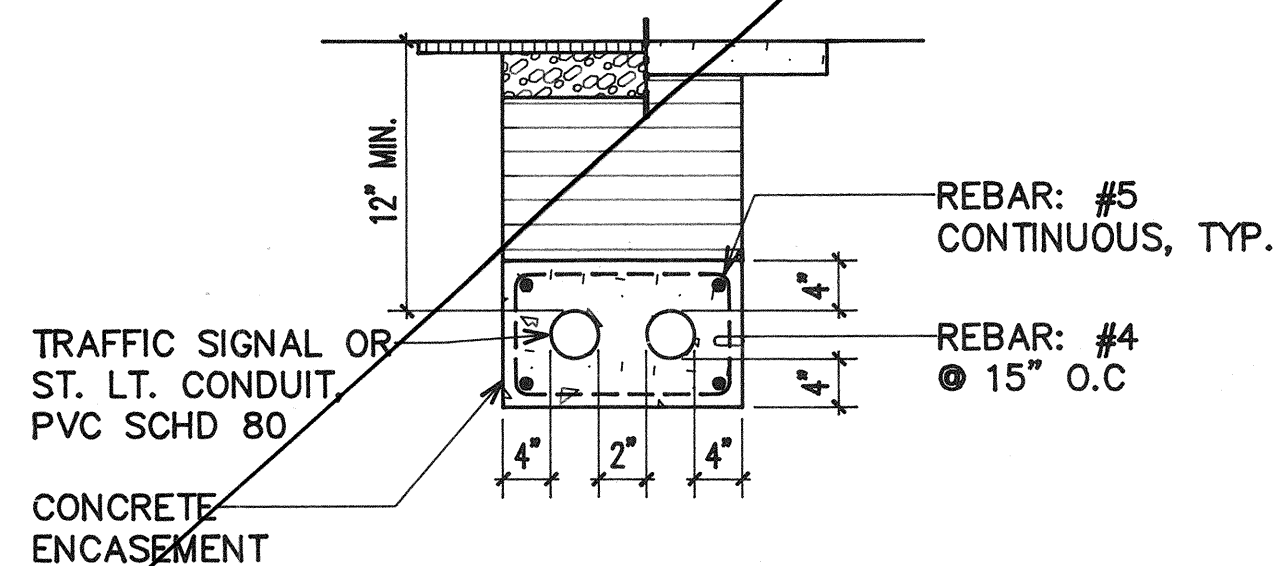
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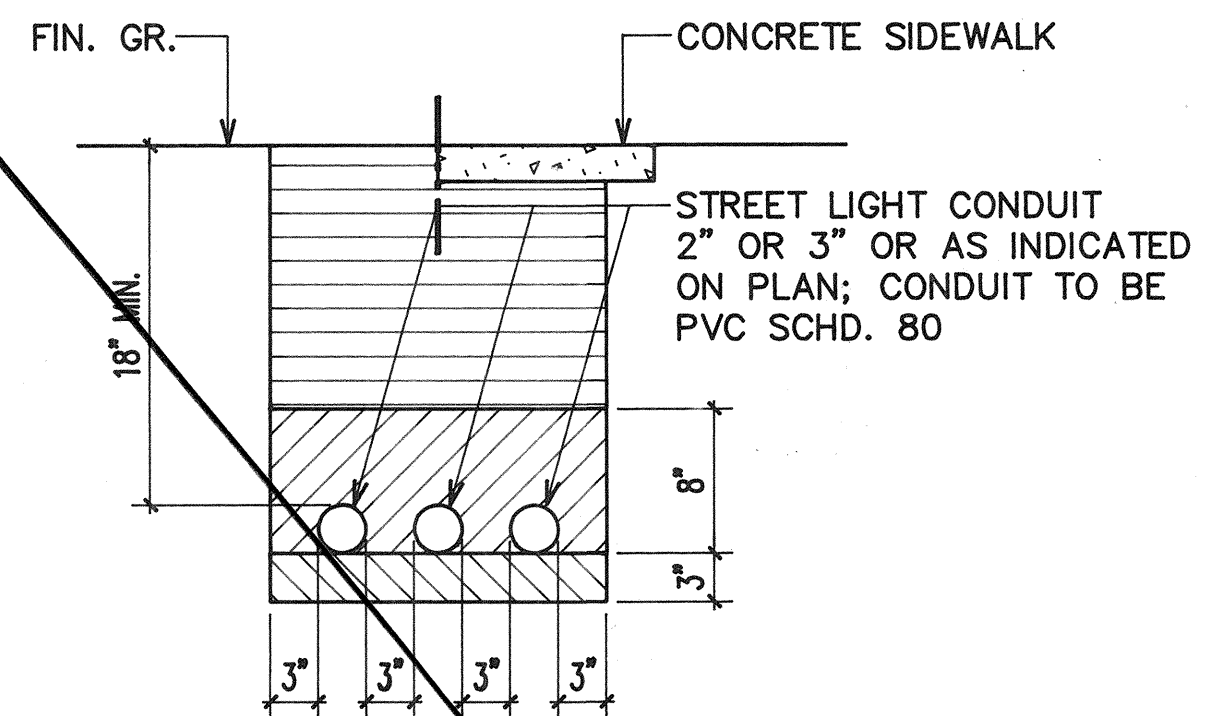
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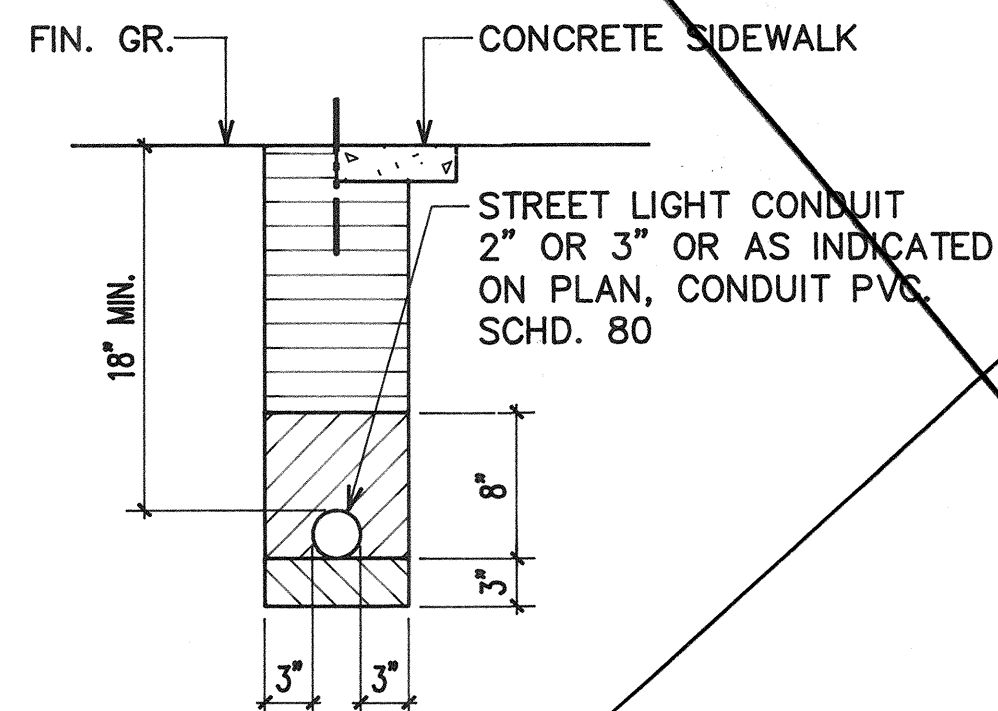
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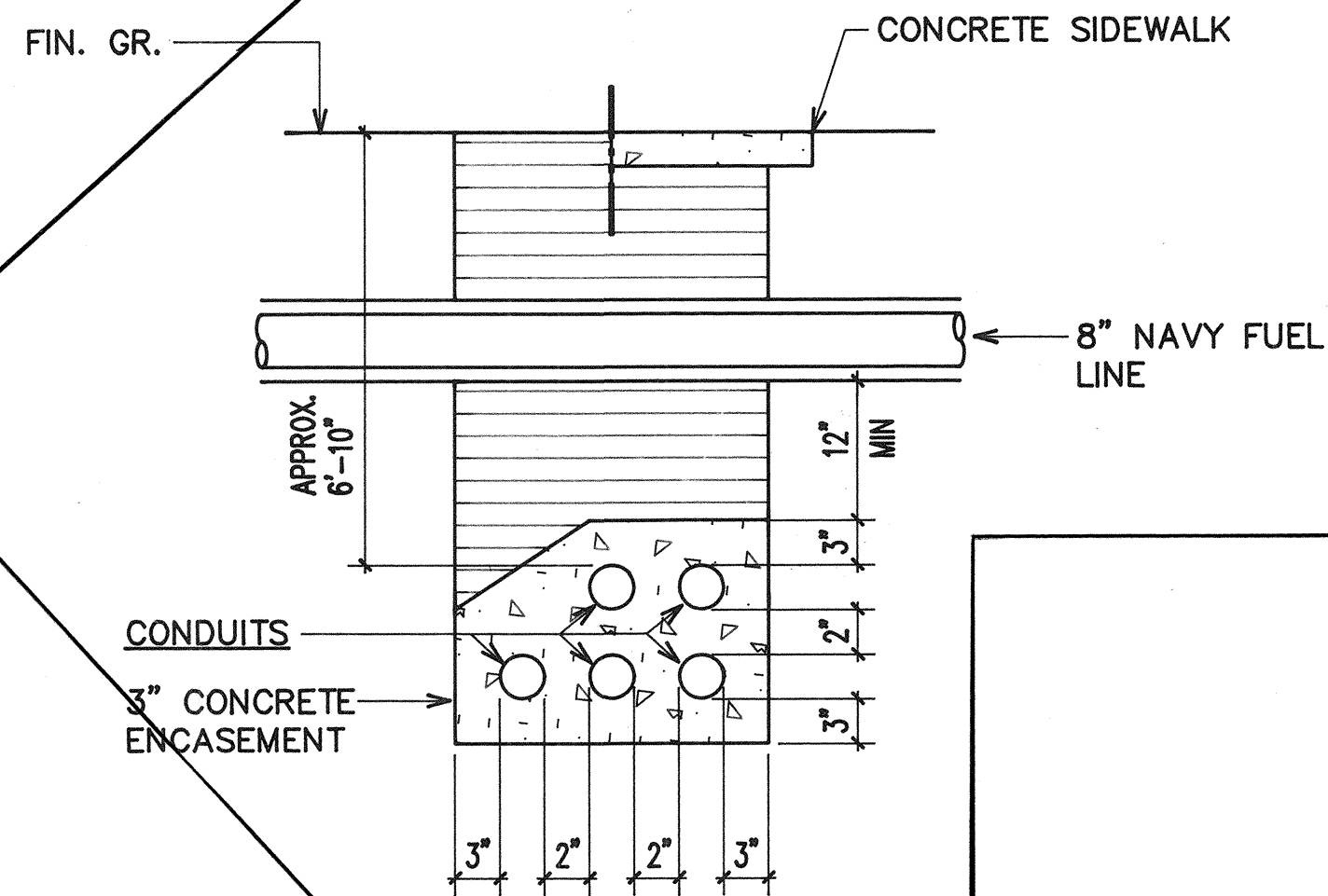
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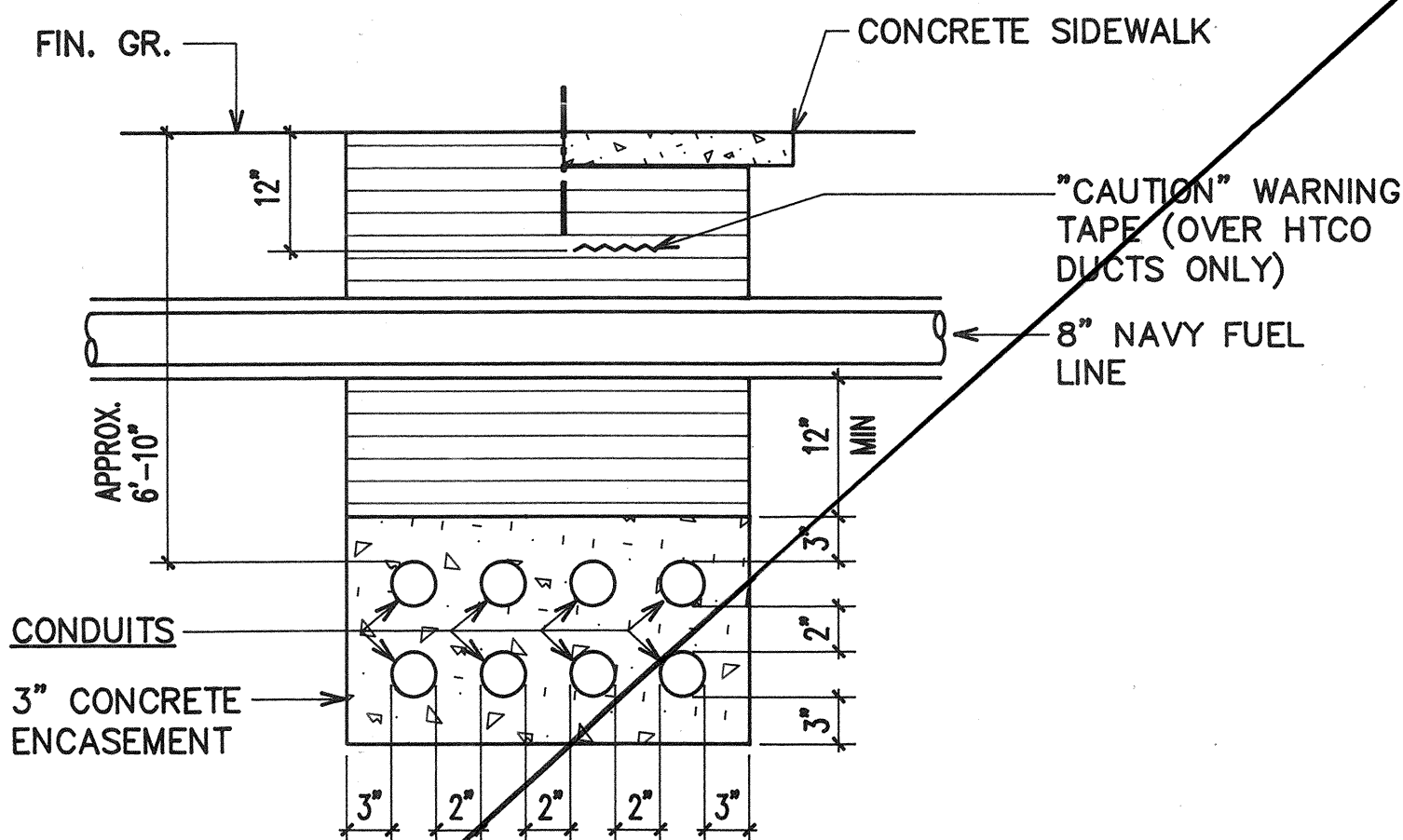
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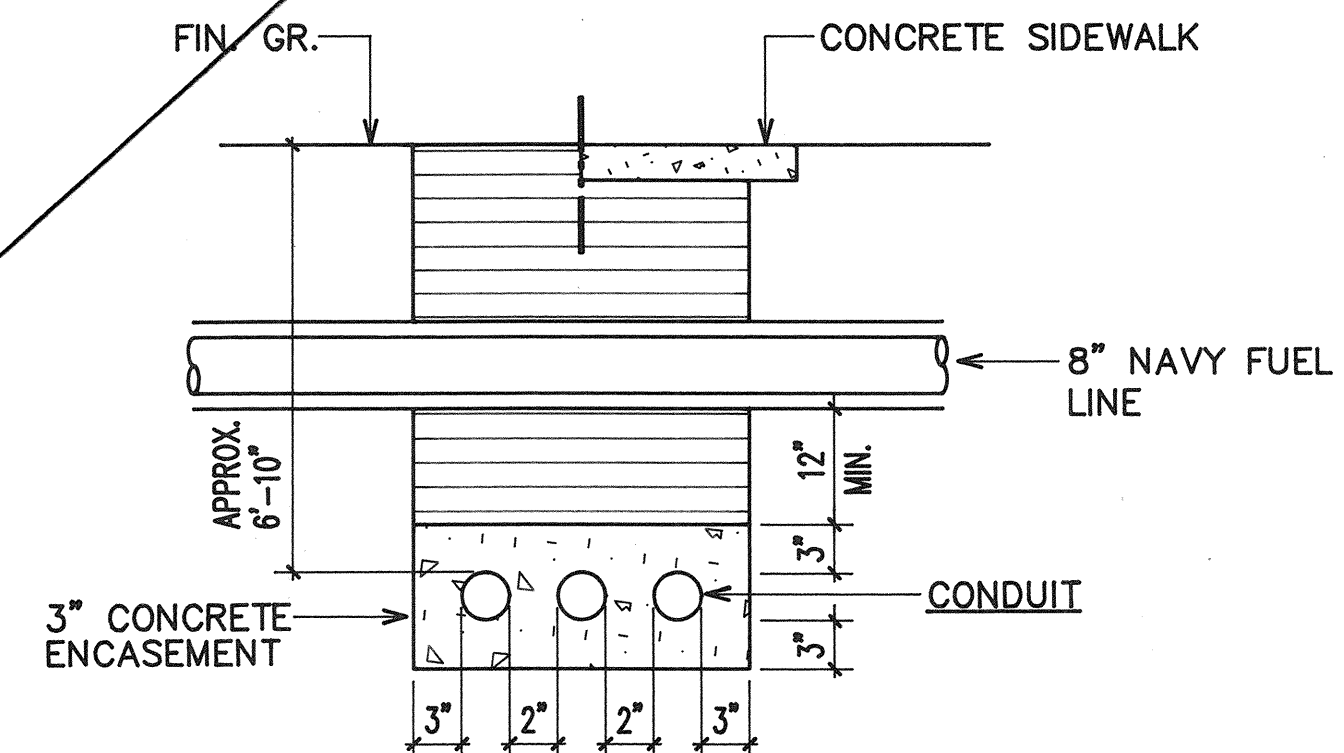
SECTION H



SECTION I



SECTION J



SECTION K

BACKFILL NOTES:

- TYPE "A" BACKFILL - EARTH & GRAVEL. ROCK SIZE TO BE 1" MAX. & THE MIXTURE TO CONTAIN NOT MORE THAN 50% BY VOLUME OF ROCK PARTICLES. 95% COMPACTION.
- TYPE "B" BACKFILL - EARTH & GRAVEL. MIXTURE MUST PASS A 1/2" MESH SCREEN & CONTAIN NOT MORE THAN 20% BY VOLUME OF ROCK PARTICLES. 95% COMPACTION.
- NOTE - IF NORMAL MATERIAL AT BOTTOM OF TRENCH IS NOT TYPE "B", AN ADDITIONAL 3" SHALL BE EXCAVATED & TYPE "B" BACKFILL PROVIDED.
- CONCRETE - 3" ENCASUREMENT, 3000 PSI COMPRESSIVE STRENGTH @ 28 DAYS.

DRAWING REVIEW:
Reviewed for HECO's
Facilities Only
Date 4/1/95 By M. J. [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.

Rev.	Date	Description	Eng. App.

RONALD N.S. HO
LICENSED PROFESSIONAL ENGINEER
No. 4737-E
HAWAII, U.S.A.
5/14/94
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)821-5361 Telex: BELTH 7430474 Fax: (808)538-7819

Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

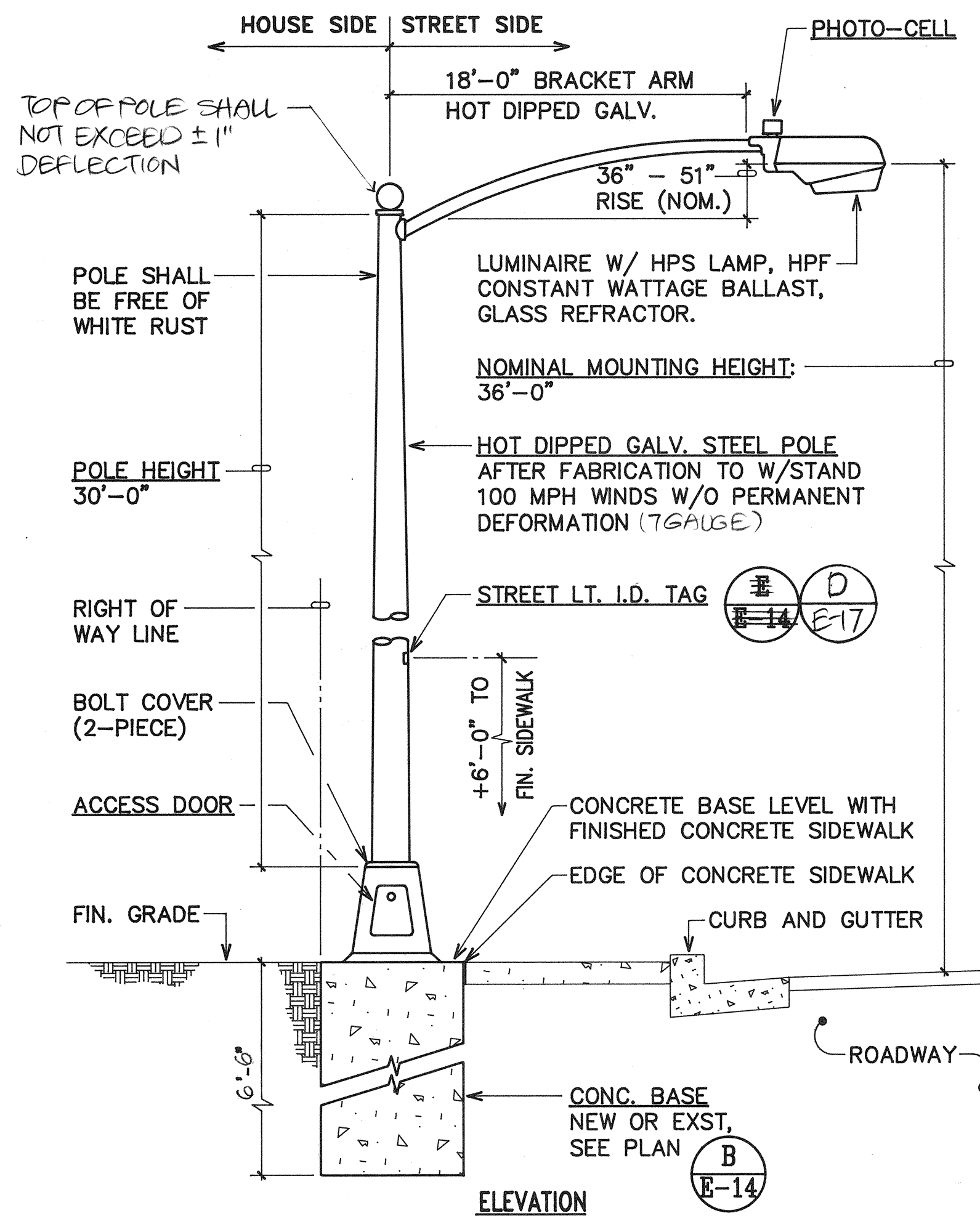
Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P. O. BOX 2805 HONOLULU, HAWAII 96808

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS
PHASE A
DUCT SECTIONS (CITY & COUNTY)

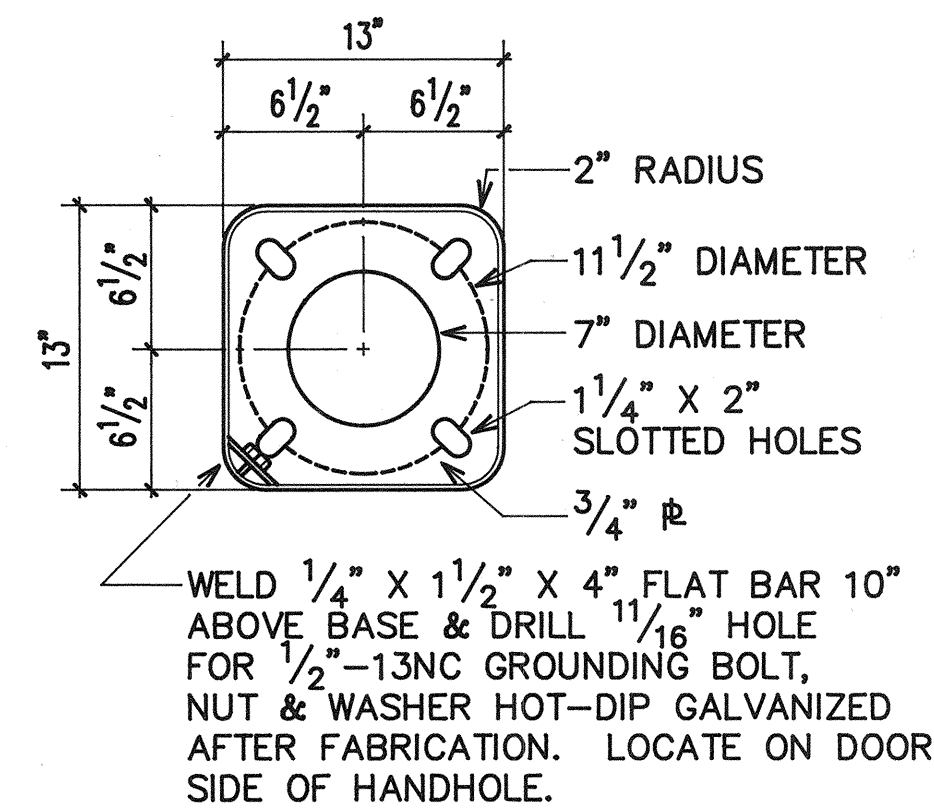
Designed by: GF Date: _____
Drawn by: _____ Proj. no.: (BCA)
Approved: _____ Date: _____
HAWAIIAN ELECTRIC COMPANY Date: _____
HAWAIIAN TELEPHONE COMPANY Date: _____

PMT-76A-01-97

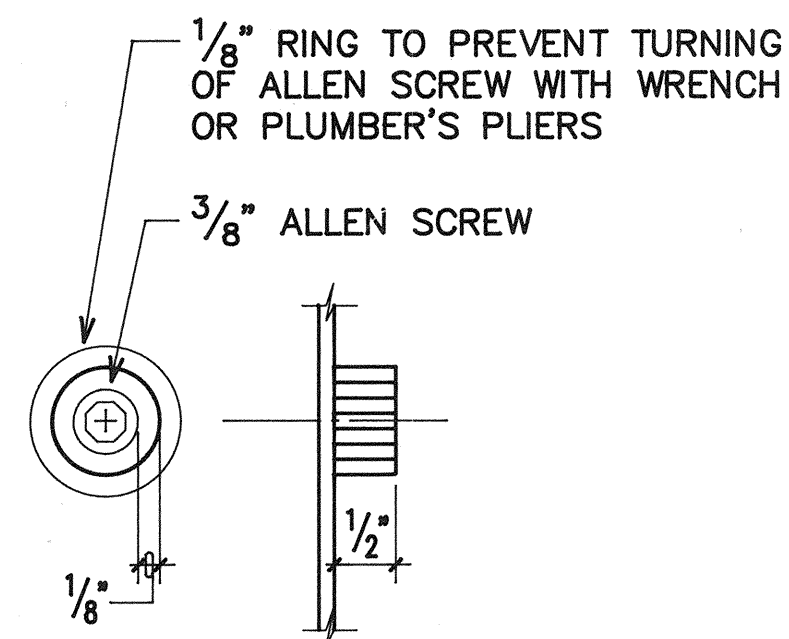
NOTE: LUMINAIRE SHALL BE SEMI-CUT OFF TYPE WITH IES TYPE II DISTRIBUTION RATED FOR 400W LAMP & PROVIDED WITH HOUSE-SIDE SHIELD.



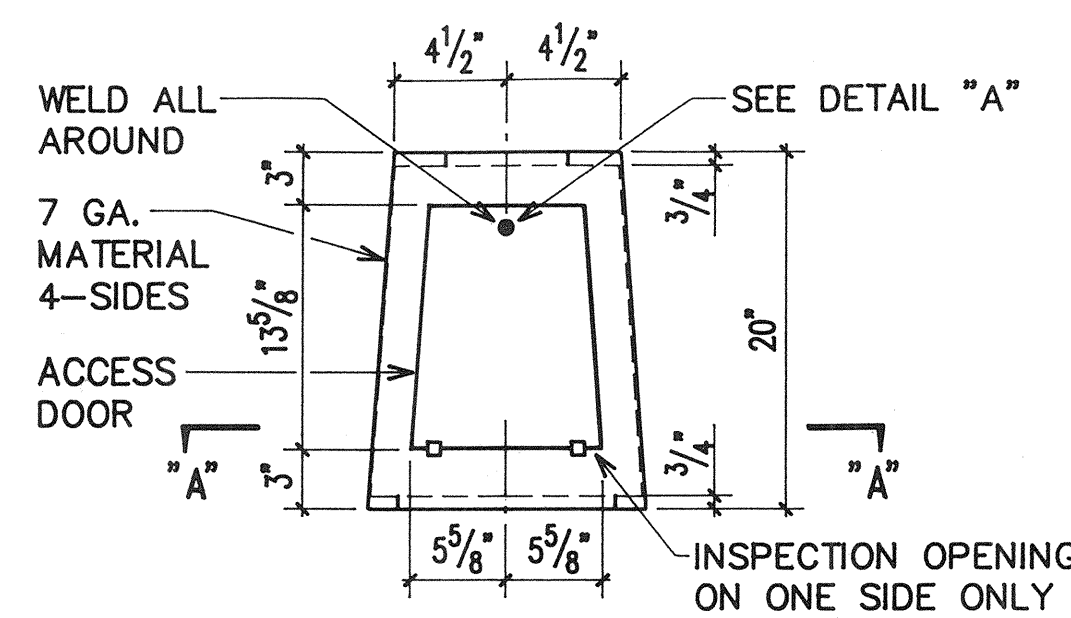
A STREET LIGHT STANDARD
E-14 N.T.S.



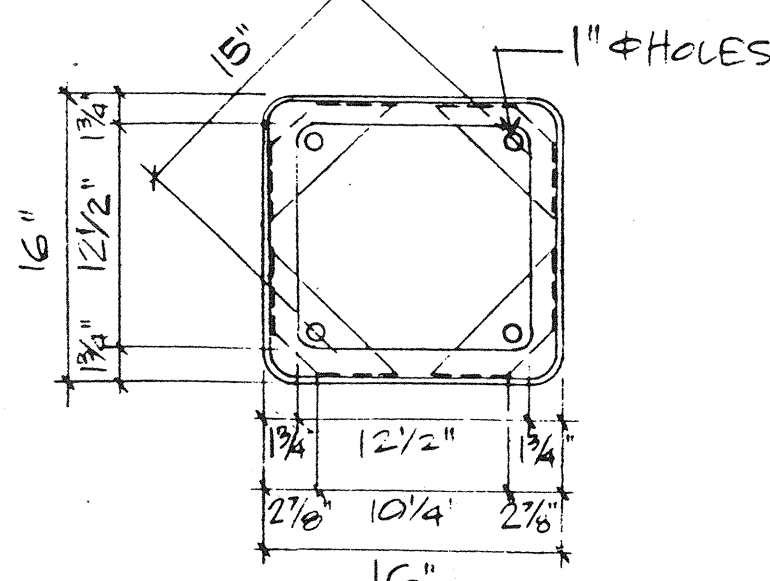
TOP VIEW



DETAIL "A"



SIDE VIEW

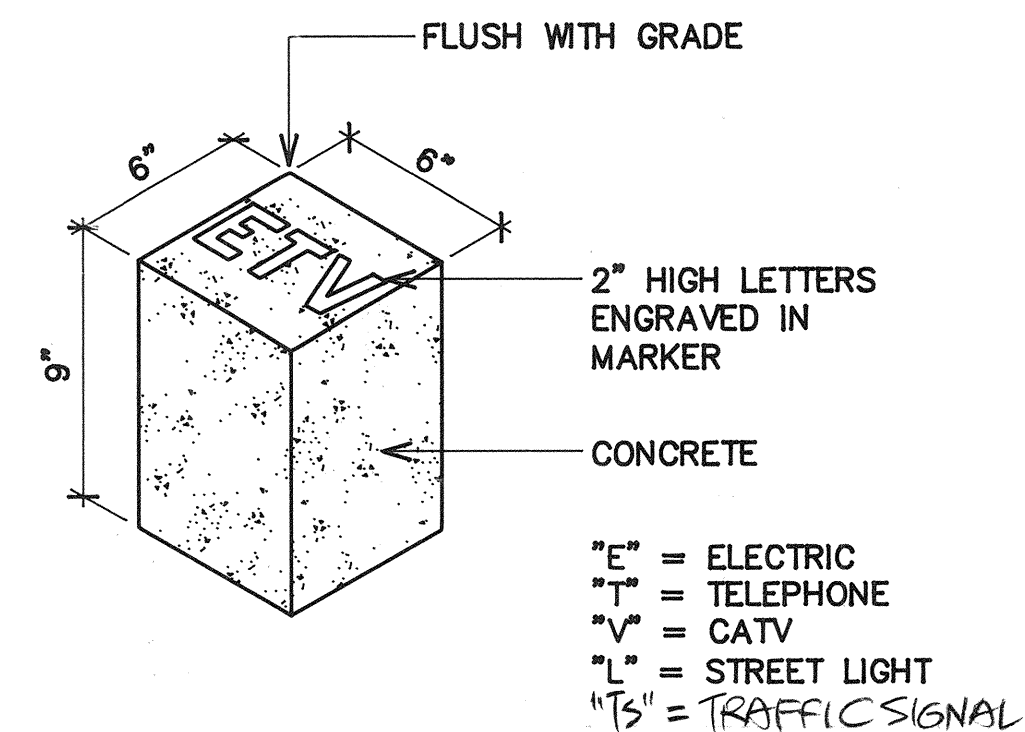


SECTION "A"- "A"

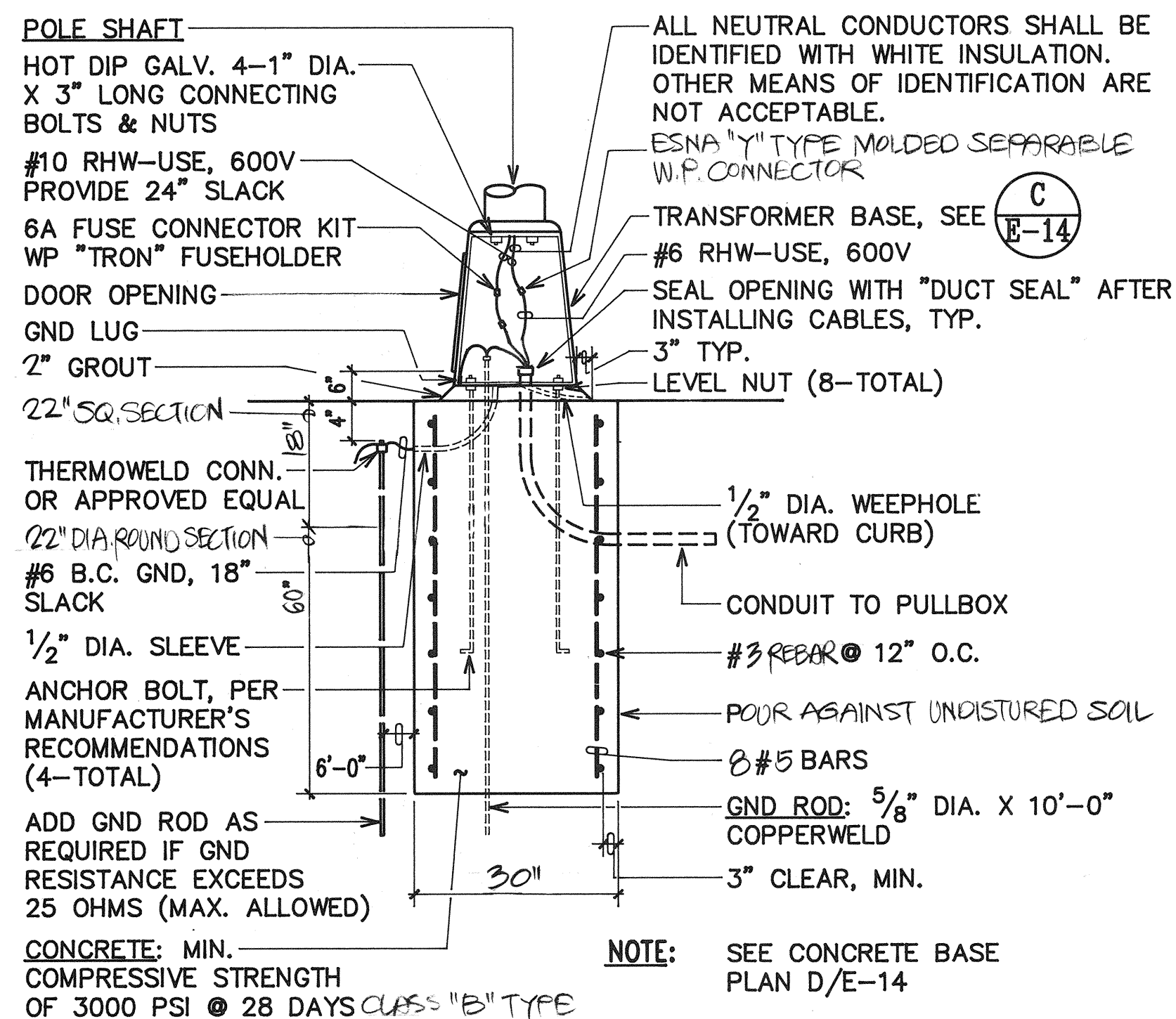
NOTE:

1. ALL STEEL SHALL CONFORM TO REQUIREMENTS OF ASTM A36 STEEL.
2. ALL WELDS SHALL BE PERFORMED BY A CERTIFIED WELDER.
3. BOLTS FOR BOLTING POLE FLANGE INCLUDED 4-1" X 3" HEX. BOLT WITH NUT & WASHER SHALL BE HOT-DIPPED GALV.
4. ENTIRE ASSEMBLY SHALL BE HOT-DIPPED GALV. AFTER FABRICATION.

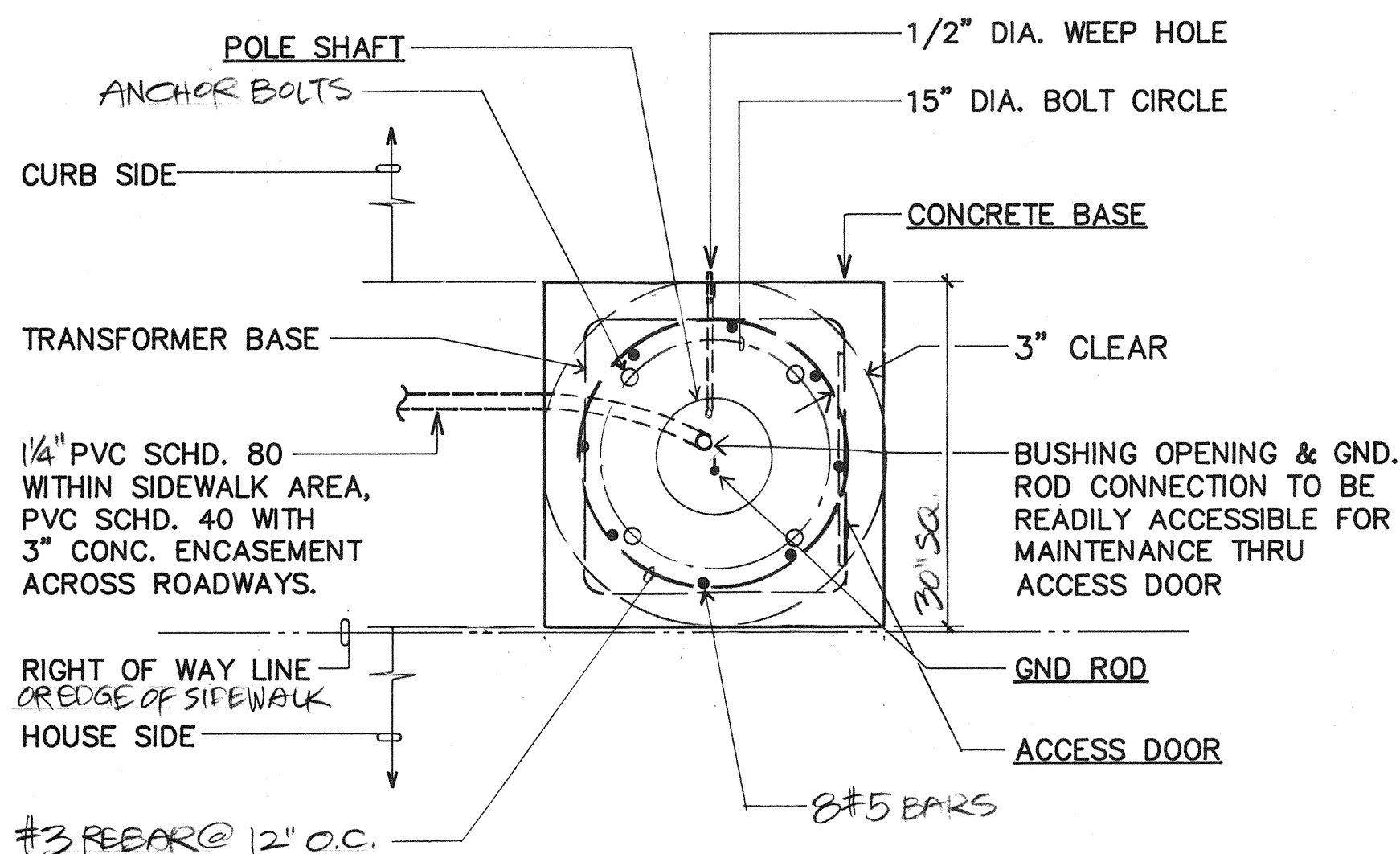
C TRANSFORMER BASE DETAIL
E-14 N.T.S.



E-14 CONCRETE STUB UP MARKER
N.T.S.

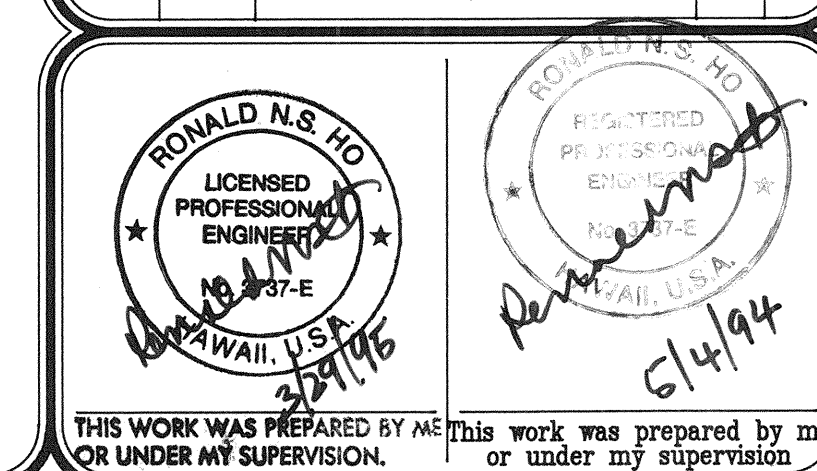


B CONCRETE BASE ELEVATION
E-14 N.T.S.



D CONCRETE BASE PLAN
E-14 N.T.S.

Rev.	Date	Description	Eng. App.



PMT-76A-01-97

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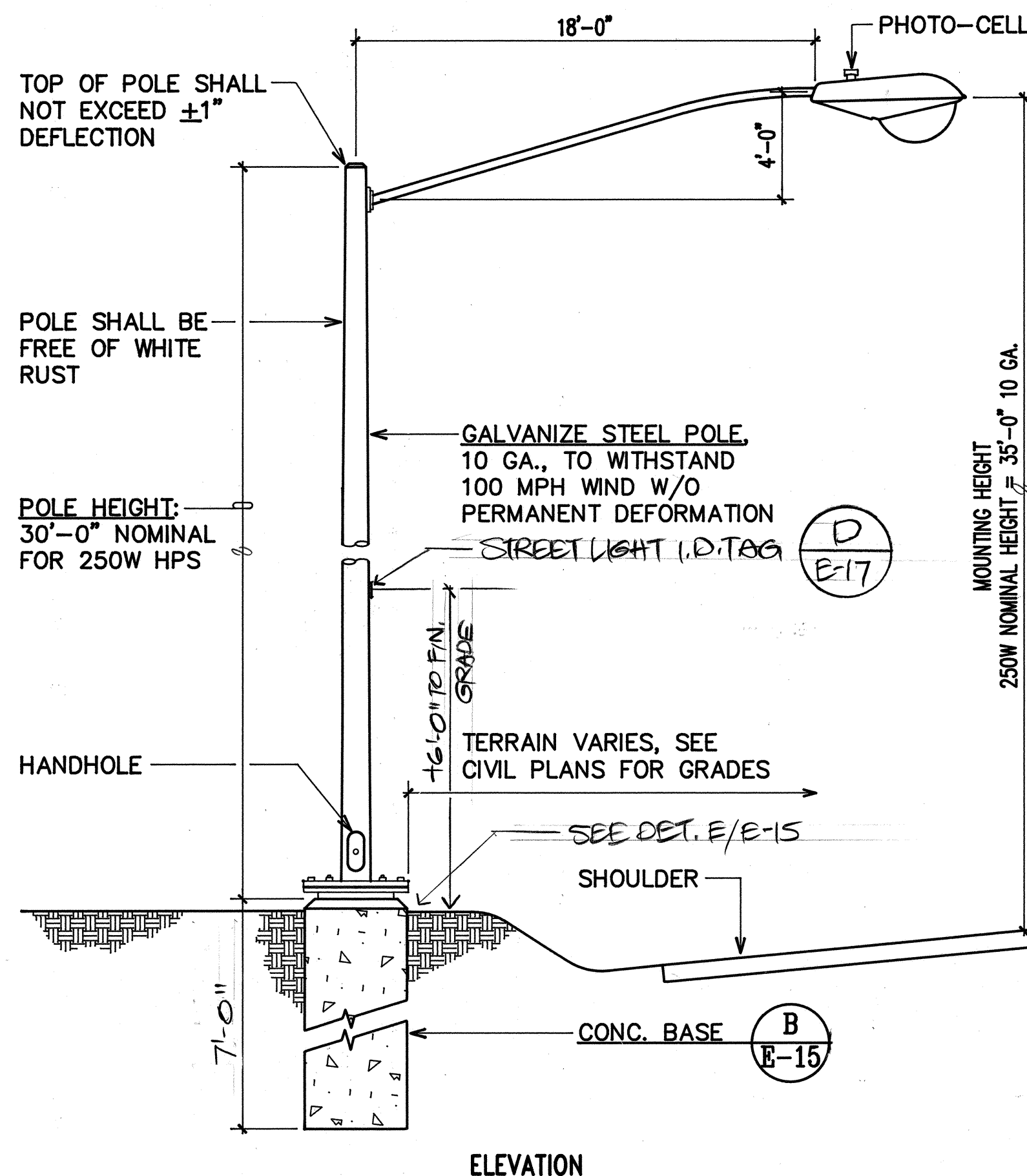
Consultant: **RONALD N. S. HO & ASSOCIATES, INC.**
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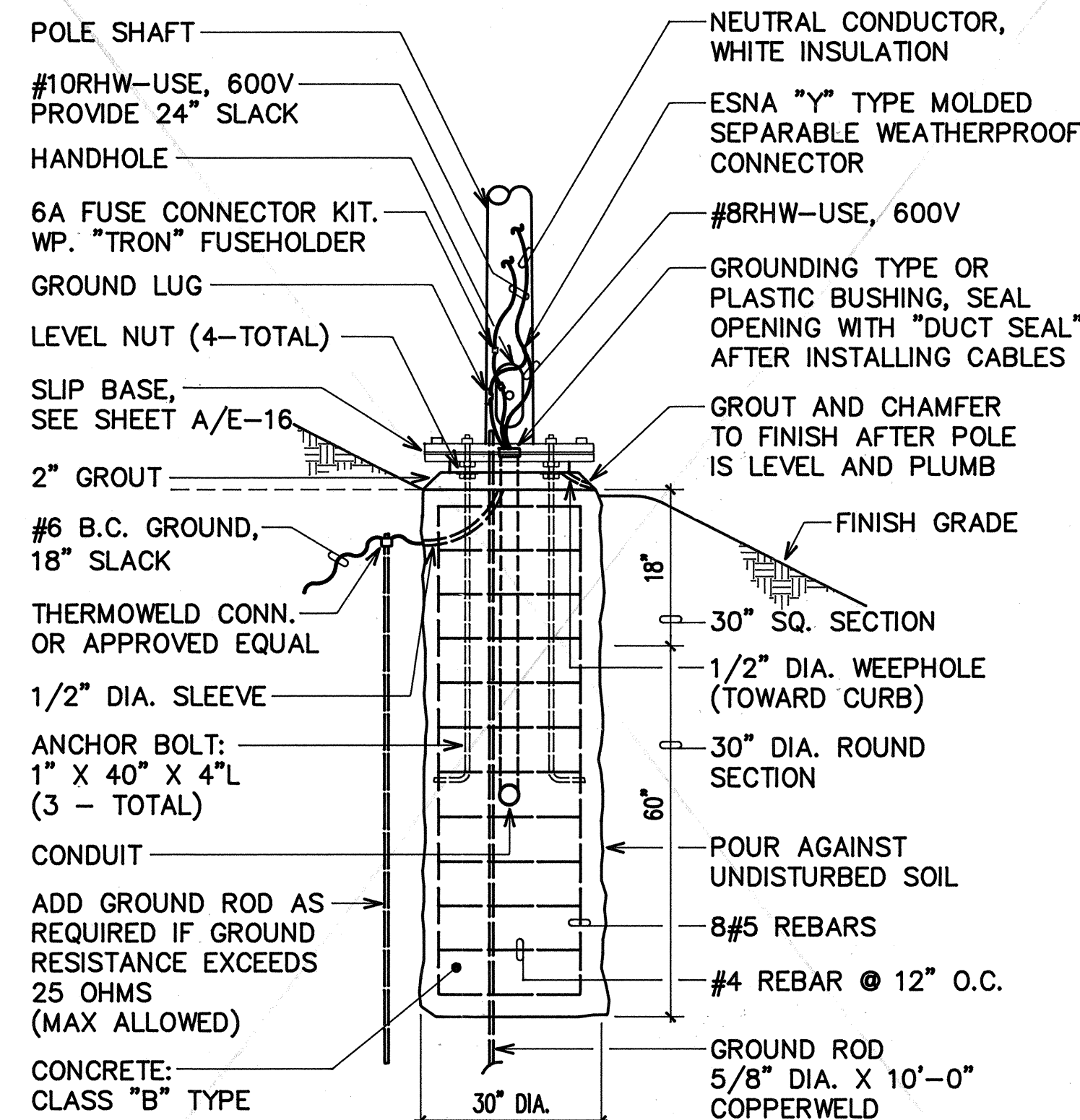
FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

PHASE A
MISCELLANEOUS STREET LIGHTING DETAILS

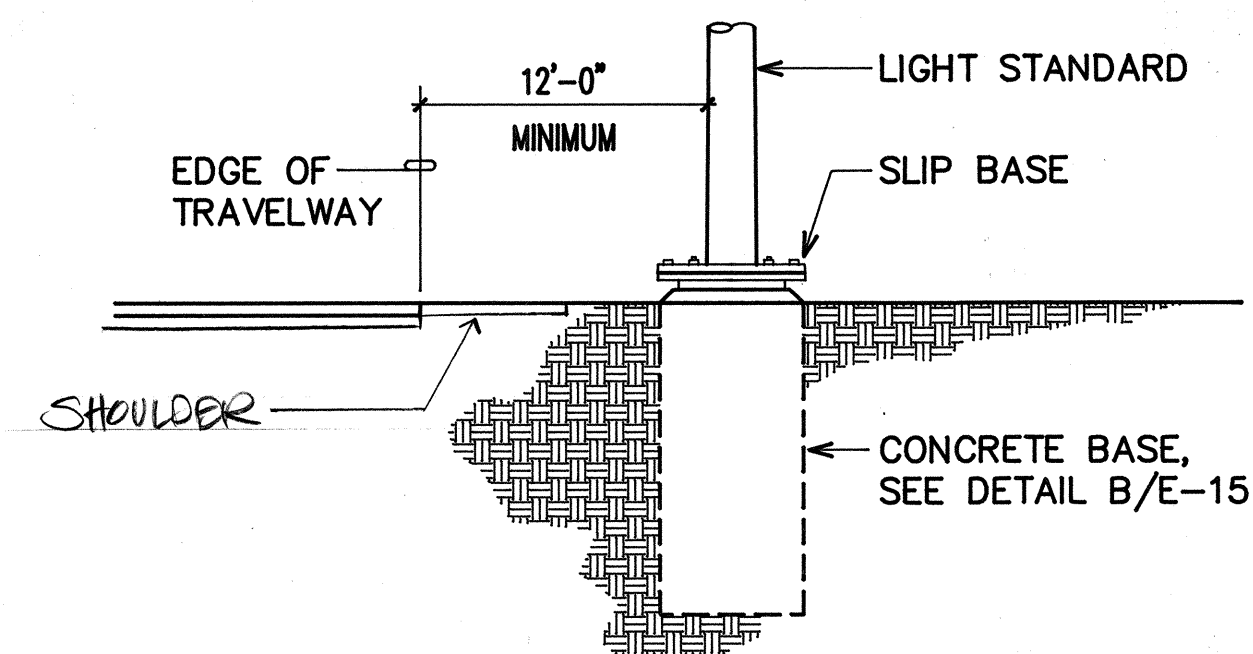
Designed by: **GF** Date: _____
Drawn by: _____ Proj. no.: **(BCA)**
Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ Date: _____



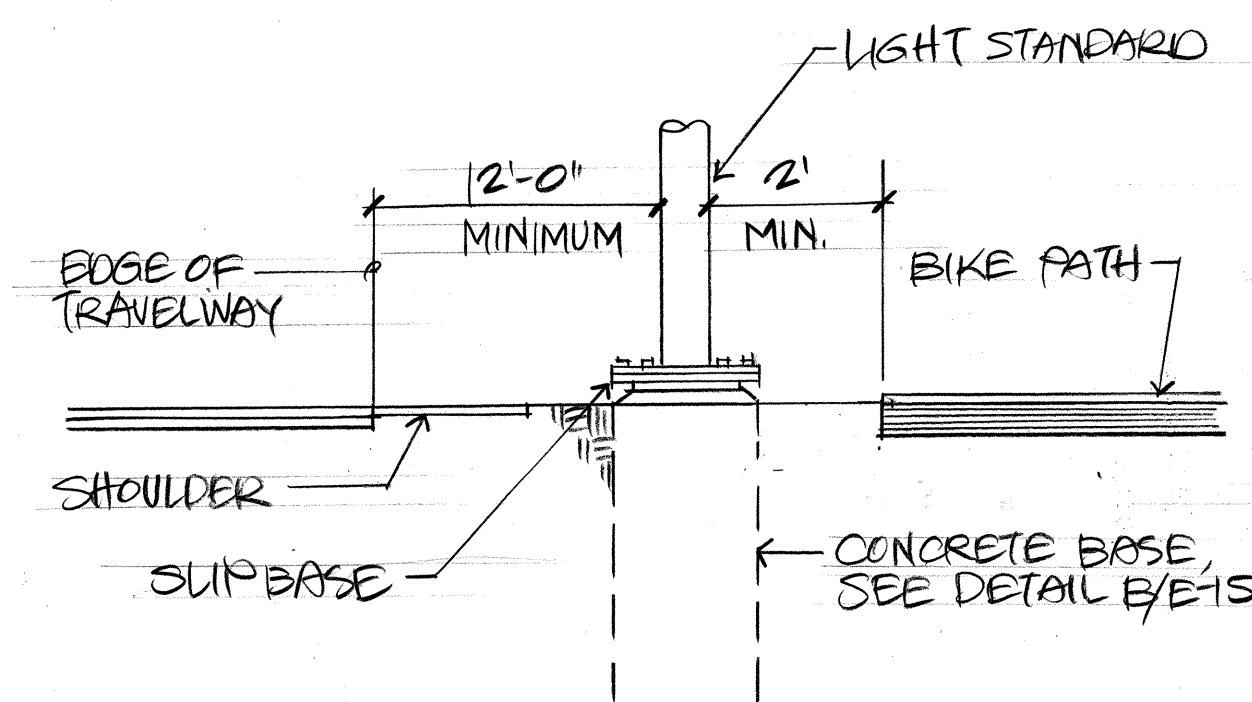
A STREET LIGHT STANDARD
E-15 NOT TO SCALE



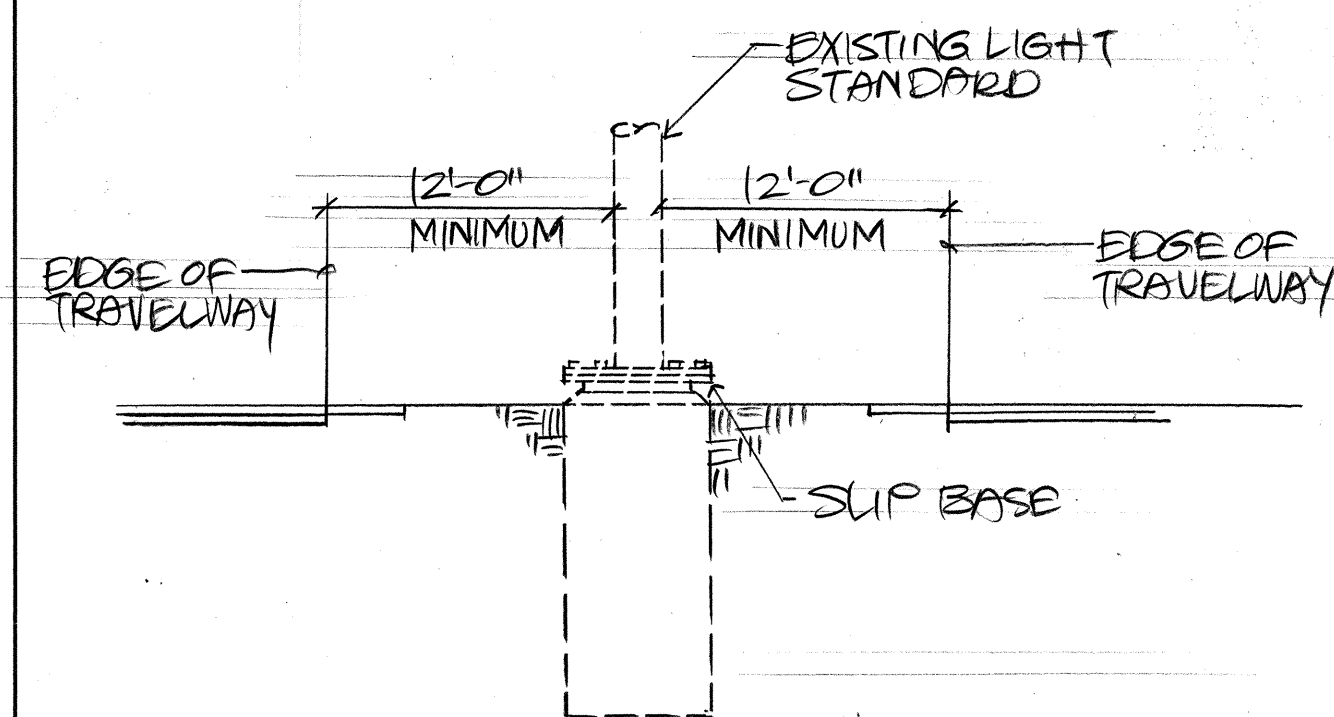
C CONCRETE BASE ELEVATION
E-15 NOT TO SCALE (FILL OR CUT SLOPE)



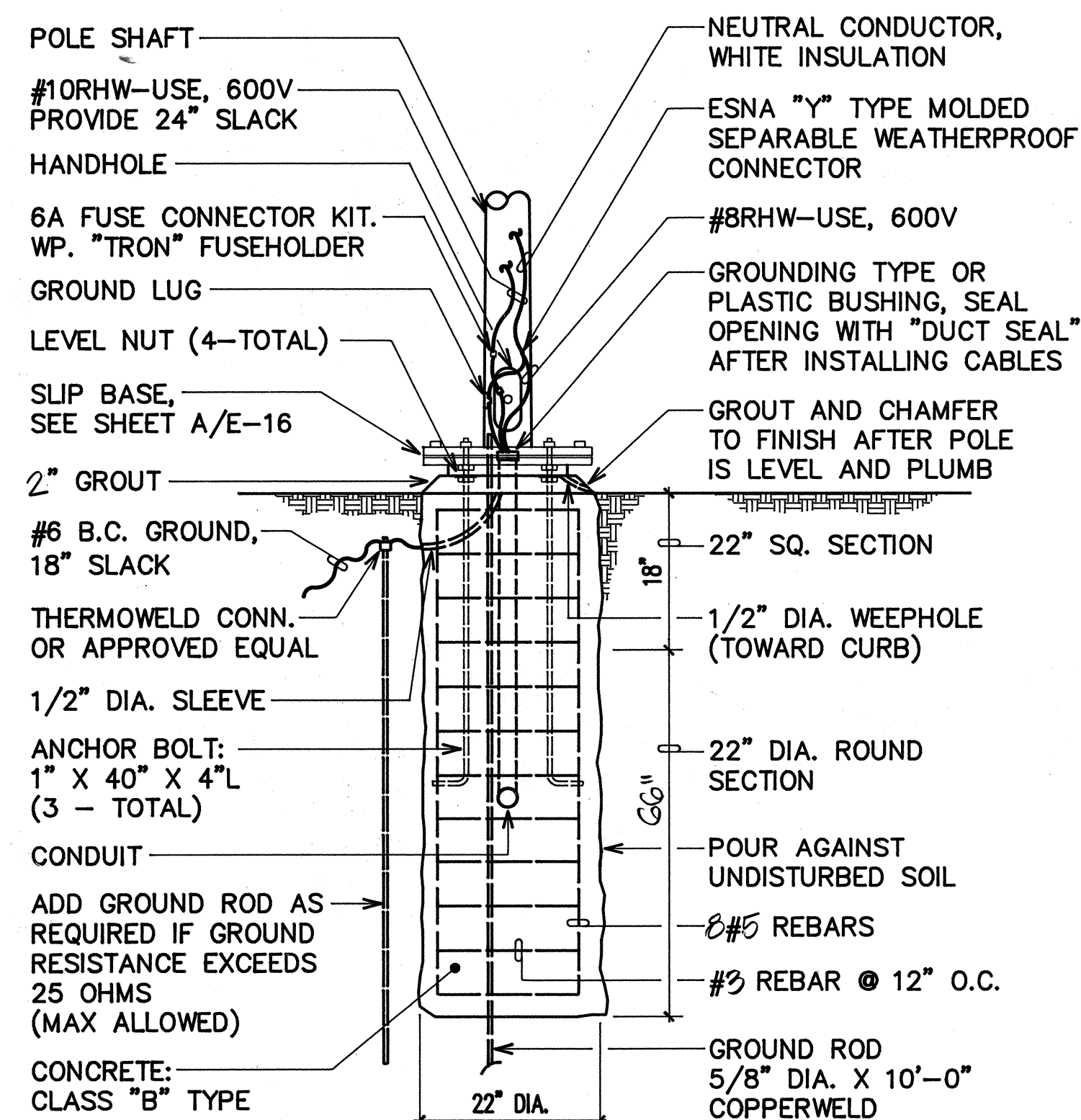
FORT WEAVER ROAD
TYPICAL LIGHT STANDARD SECTION WITH SLIP BASE
E-15 NOT TO SCALE



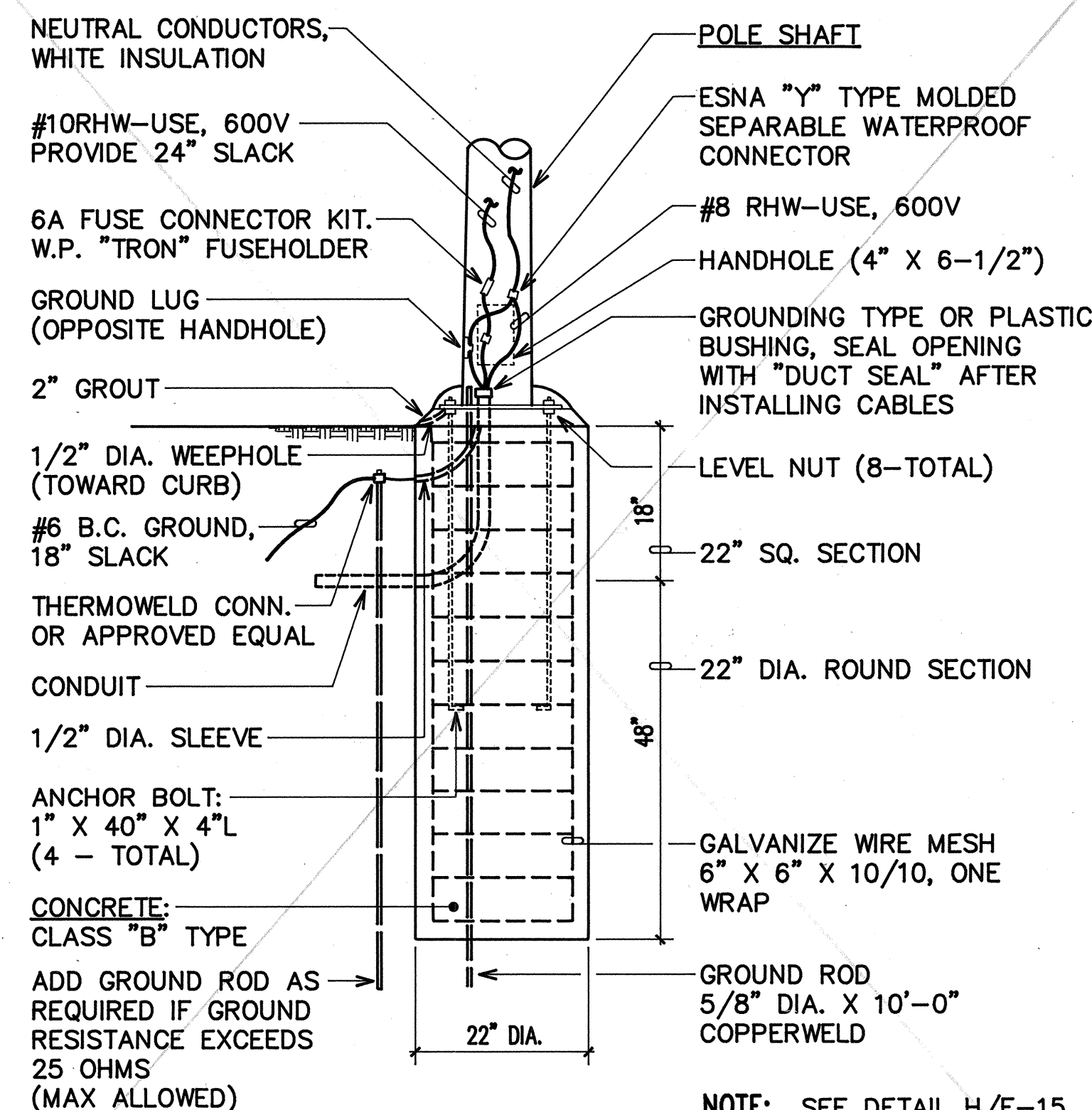
FORT WEAVER ROAD
TYPICAL LIGHT STANDARD @ BIKE PATH
E-15 NOT TO SCALE



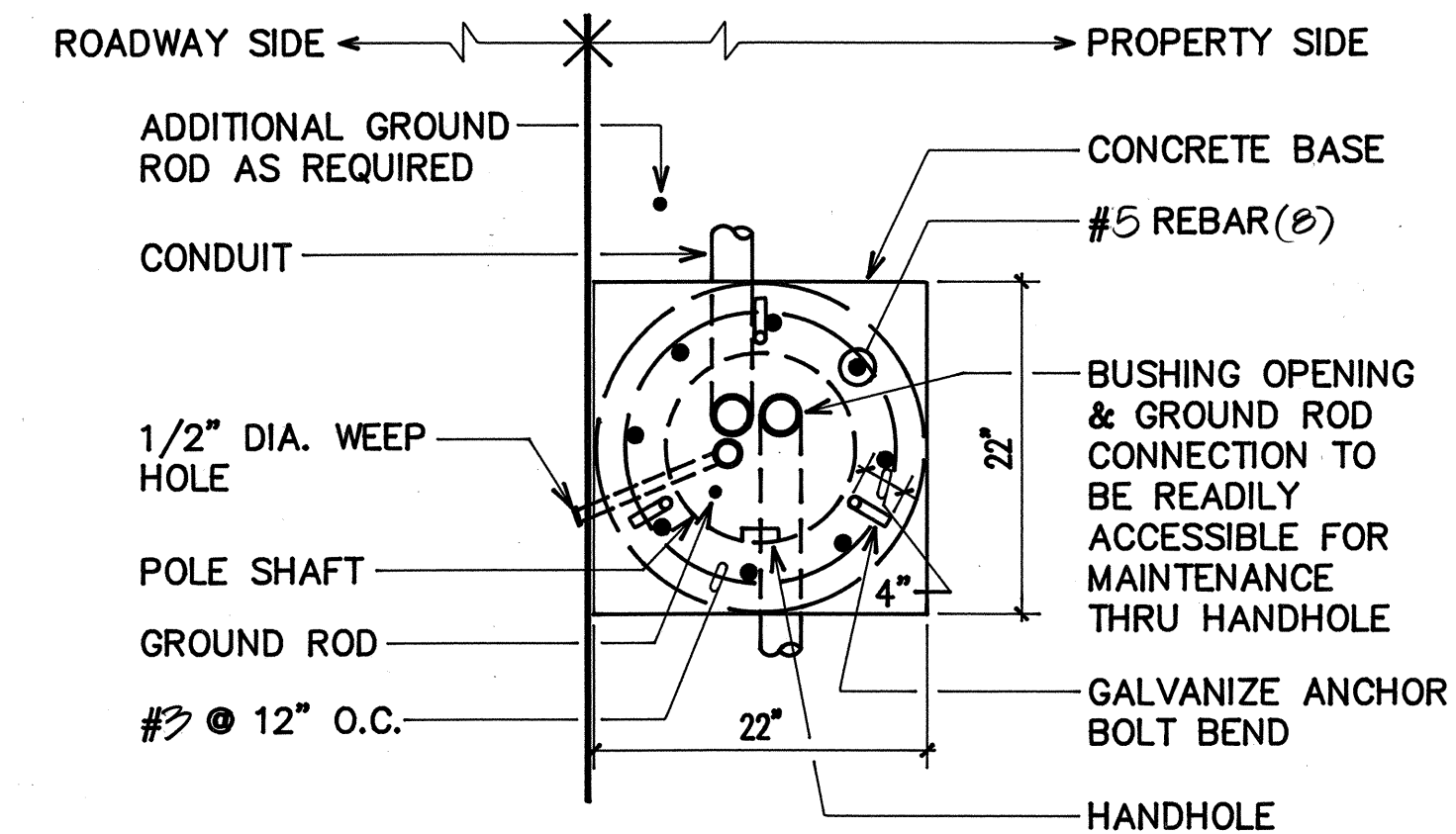
FORT WEAVER ROAD
EXISTING LIGHT STANDARD @ MEDIAN
E-15 NOT TO SCALE



B CONCRETE BASE ELEVATION
E-15 NOT TO SCALE



D CONCRETE BASE ELEVATION
E-15 NOT TO SCALE



H CONCRETE BASE PLAN
E-15 NOT TO SCALE

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Engineering • Planning • Landscape Architecture
880 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)941-5361 Tele: BELTH 7430474 Fax: (808)945-7619

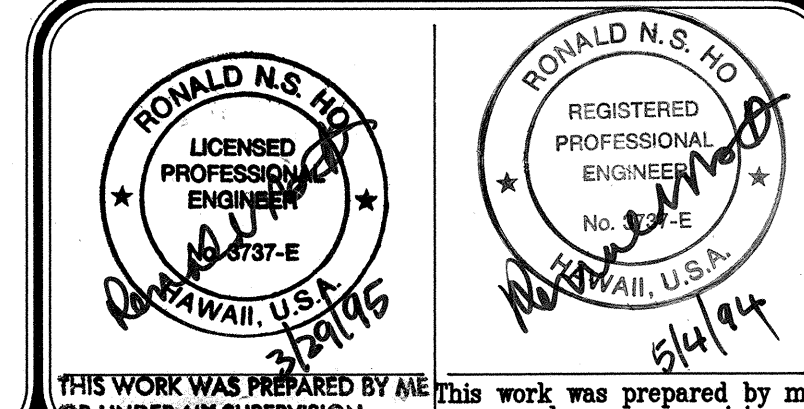
Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Alagaba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

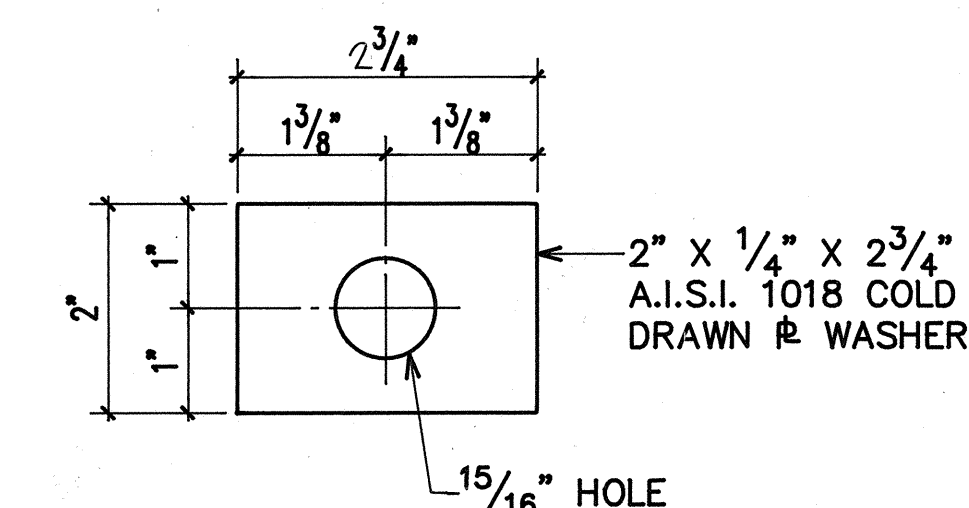
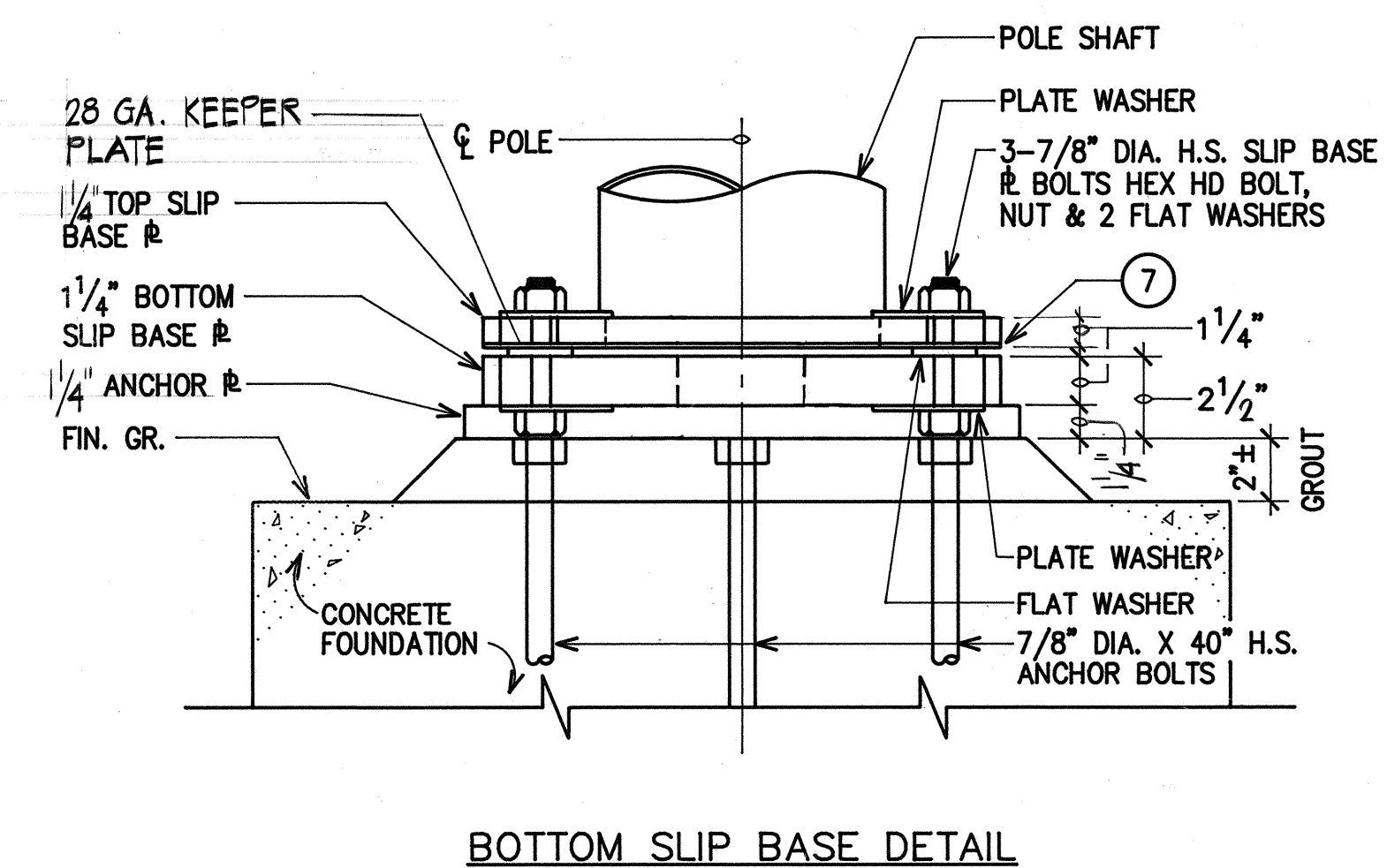
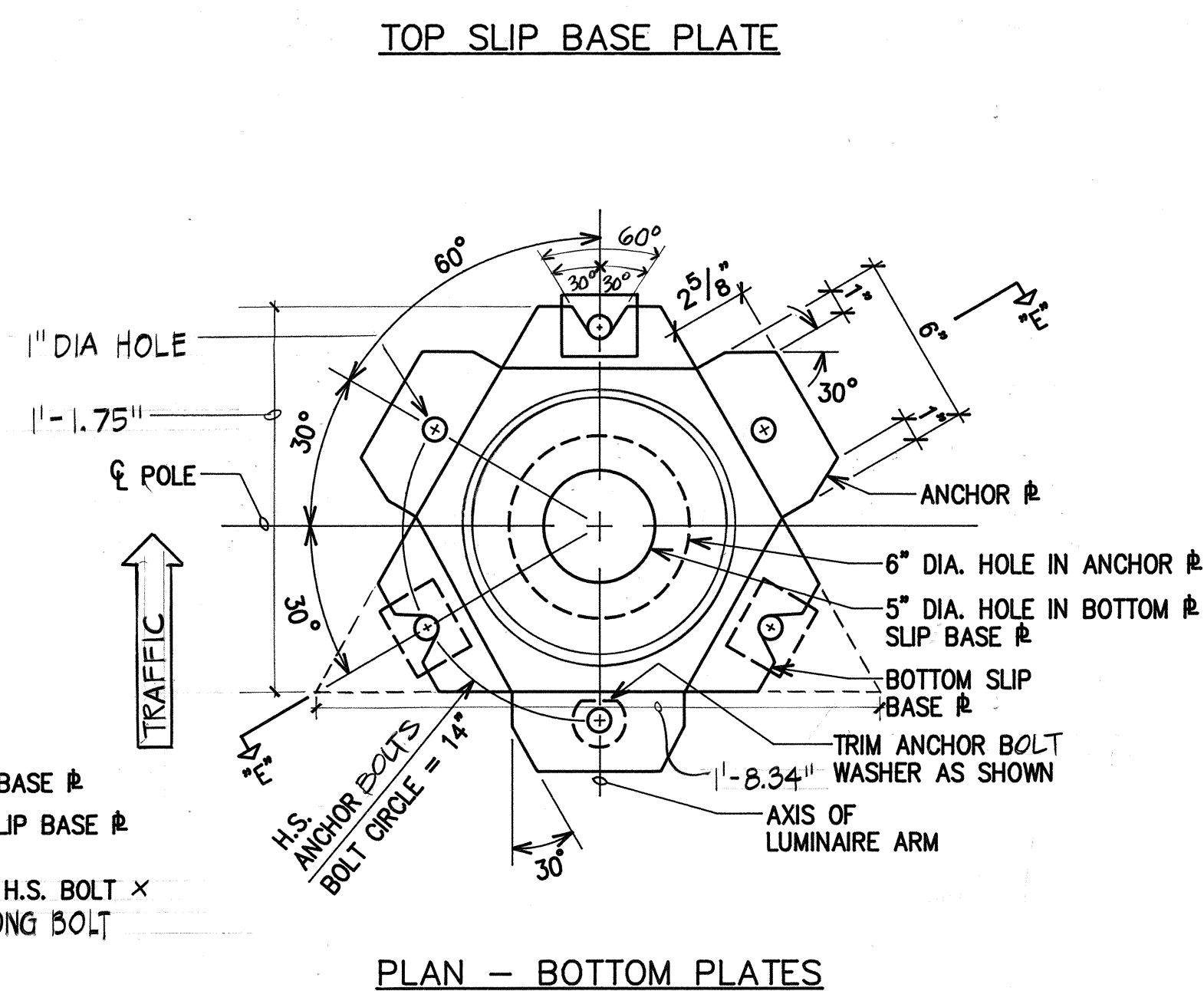
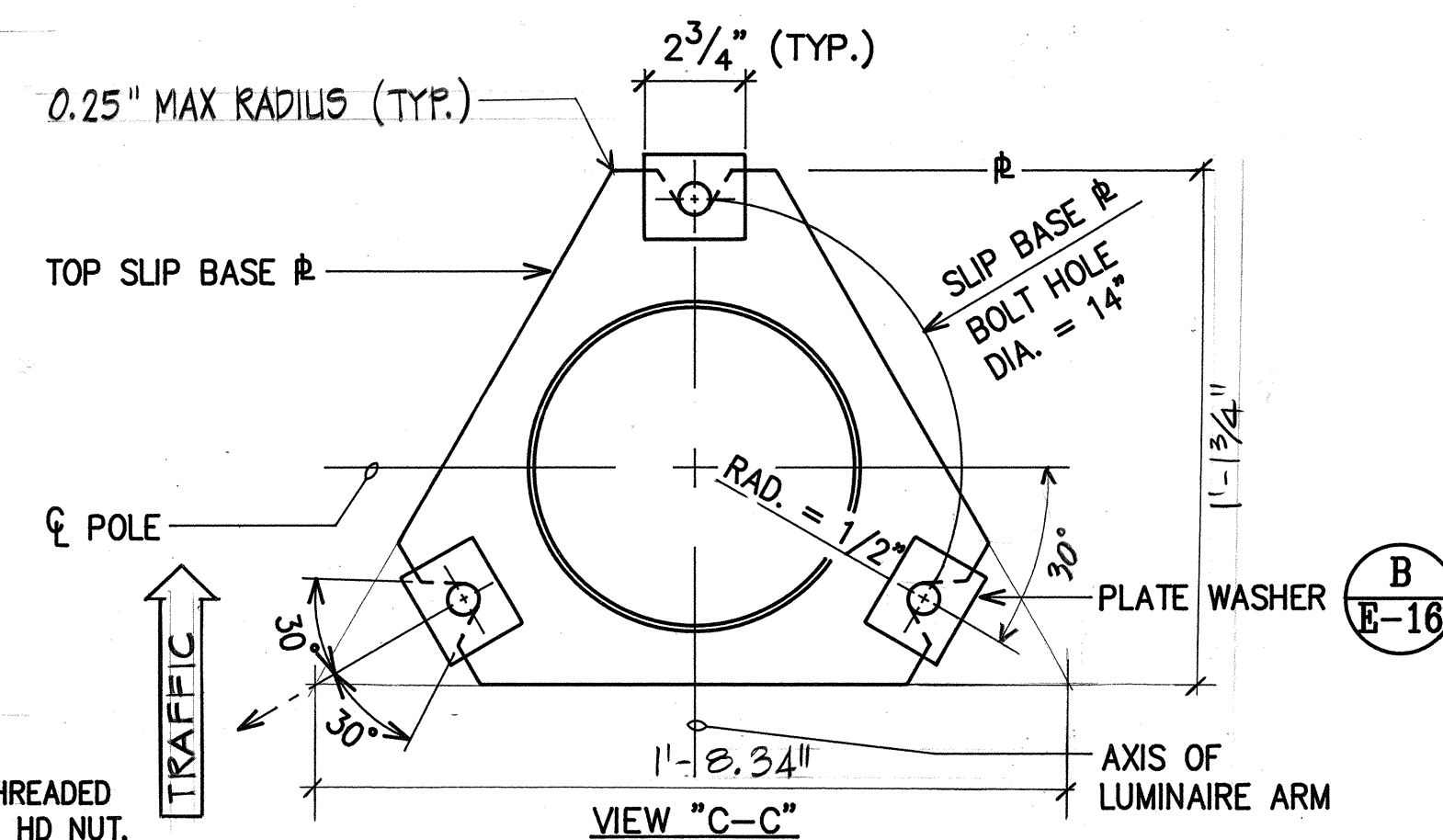
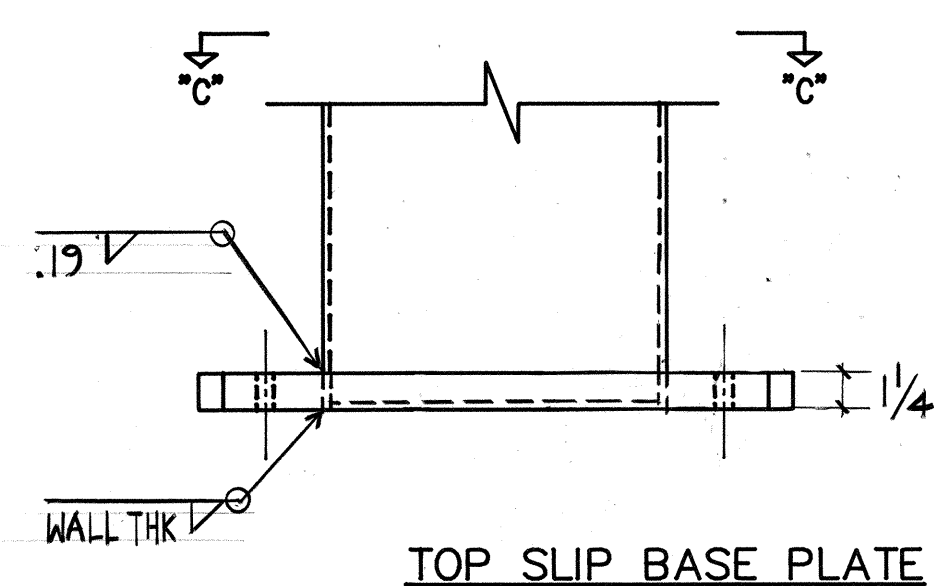
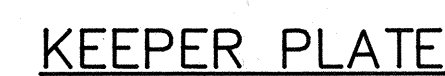
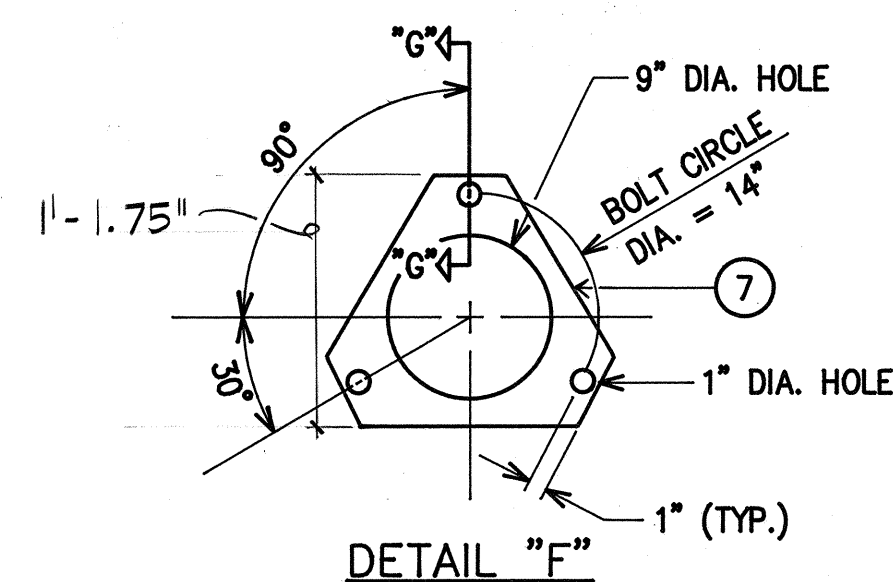
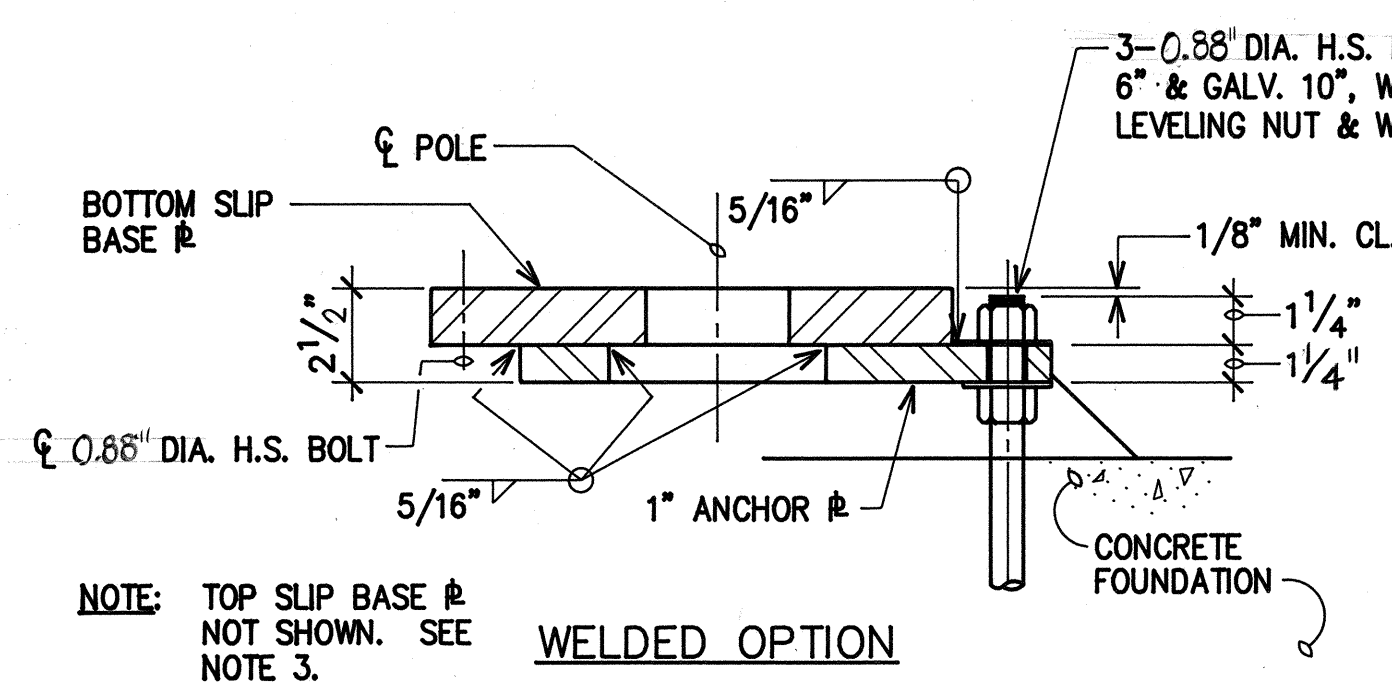
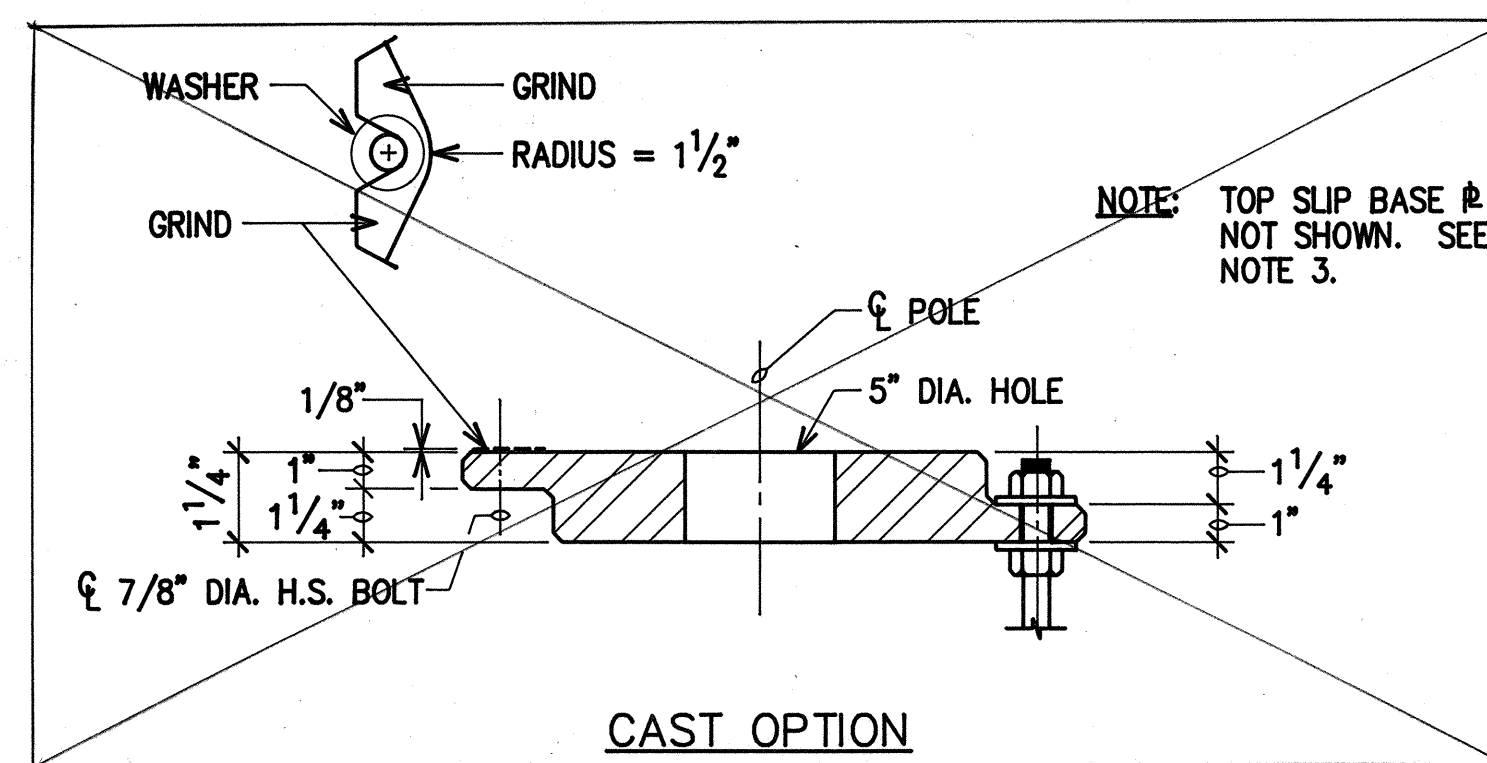
Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P.O. BOX 285
HONOLULU, HAWAII 96808

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS
PHASE A
MISCELLANEOUS STREET LIGHT STANDARD DETAILS

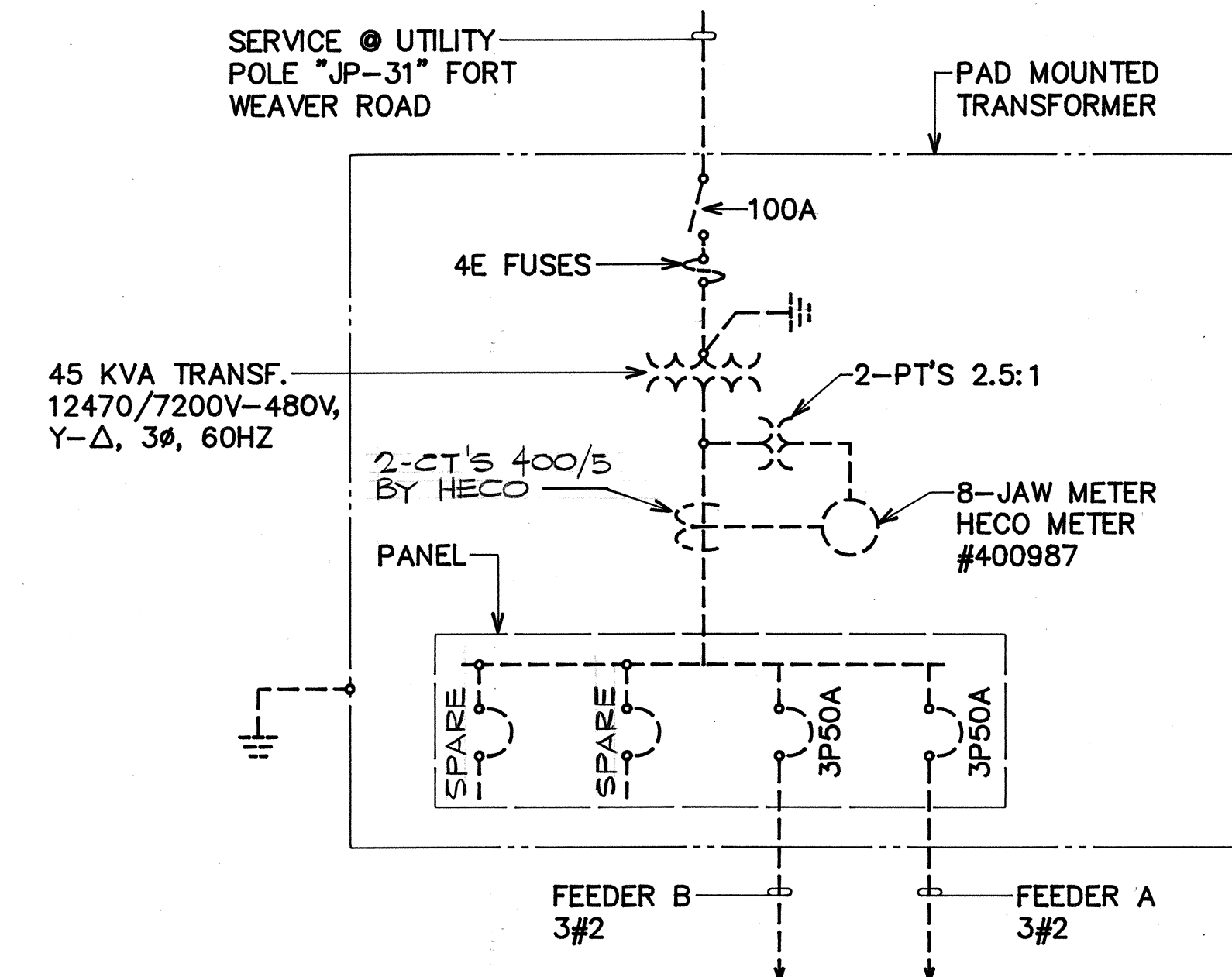
Designed by: **GF** Date: _____
Drawn by: **CAT/EDA** Proj. no.: **(BCA)**
Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ HAWAIIAN TELEPHONE COMPANY Date: _____

Rev.	Date	Description	Eng. App.

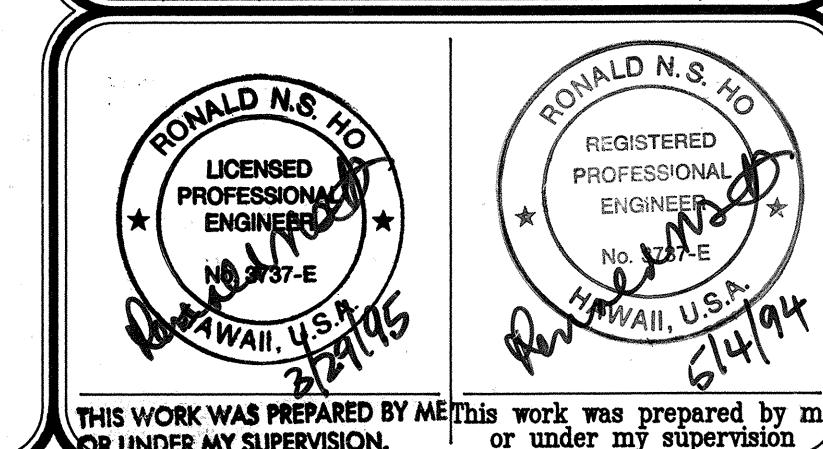




- NOTES:**
- ① ALL STEEL SHAFTS, ϕ 'S, MAST ARMS, BOLTS, SCREWS, NUTS & WASHERS TO BE GALVANIZED AFTER FABRICATION OR MODIFICATION.
 - ② ϕ 'S TO CONFORM TO ASTM A-36.
 - ③ CAST OPTION TO CONFORM TO ASTM A-486 CL 90.
 - ④ TORQUE 7/8" DIA. H.S. SLIP BASE ϕ BOLTS TO 84 FT-LBS.
 - ⑤ 7/8" DIA. H.S. ANCHOR BOLTS WRENCH TIGHTEN - TORQUE REQUIREMENT WAIVED.
 - ⑥ FABRICATORS ELECTING LARGER THAN MINIMUM ARM DIAMETERS MUST ADJUST DETAILS AS REQUIRED TO PERMIT SOLID SEATING OF CAP SCREWS. IN LIEU OF TORQUE REQUIREMENTS FOR H.S. BOLTS, CAP SCREWS SHALL BE TIGHTENED BY THE TURN OF NUT METHOD, 1/6 TURN FROM SNUG TIGHT CONDITION. NO WASHER WILL BE REQUIRED.
 - ⑦ 28" GA. KEEPER ϕ , PLACE ON TOP OF MIDDLE FLAT WASHER, ASTM A-526 125 COMMERCIAL.
 - ⑧ HEX HEAD NUT SHOWN; AS AN ALTERNATE DETAIL, ANCHOR PLATES MAY BE RETAINED WITH 5/16" FILLET WELDS ALL AROUND OR FORMED HEADS.



△			
△			
△			
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BELT COLLINS & ASSOCIATES
Engineering • Planning • Landscape Architecture
880 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808) 521-5361 Telex: BELTH 7430474 Fax: (808) 538-7819

Consultant:
 **RONALD N. S. HO & ASSOCIATES, INC.**
 Electrical Engineers
 2138 Alagorba Street, Suite A Honolulu, Hawaii 96826
 Phone: (808)941-0577 Fax: (808)945-2646

Client: **GENTRY DEVELOPMENT CO.,
A HAWAII LIMITED PARTNERSHIP
P. O. BOX 295
HONOLULU, HAWAII 96809**

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

PHASE A
STREET LIGHT STANDARD SLIP BASE,
MISCELLANEOUS STREET LIGHT DETAILS

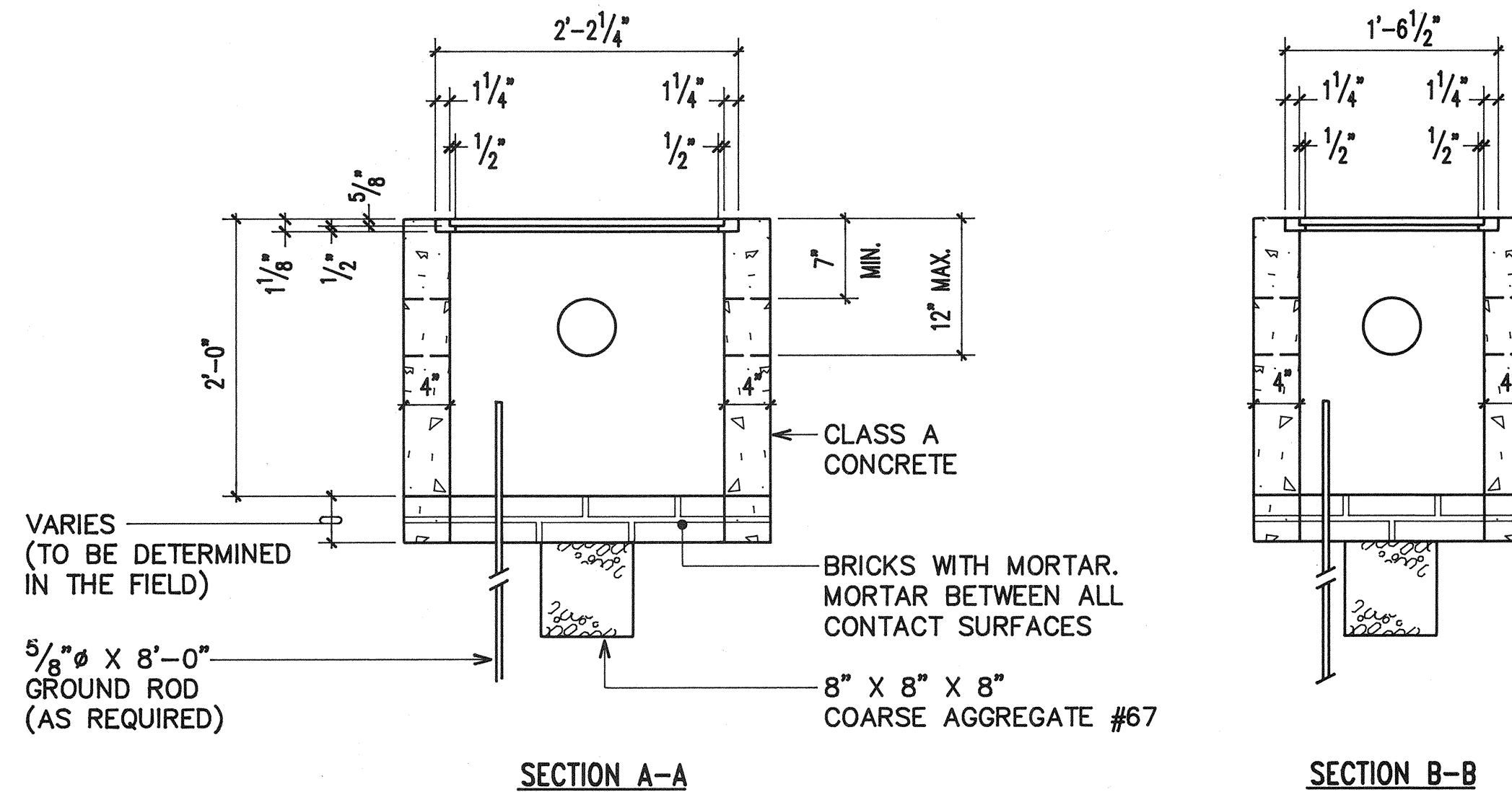
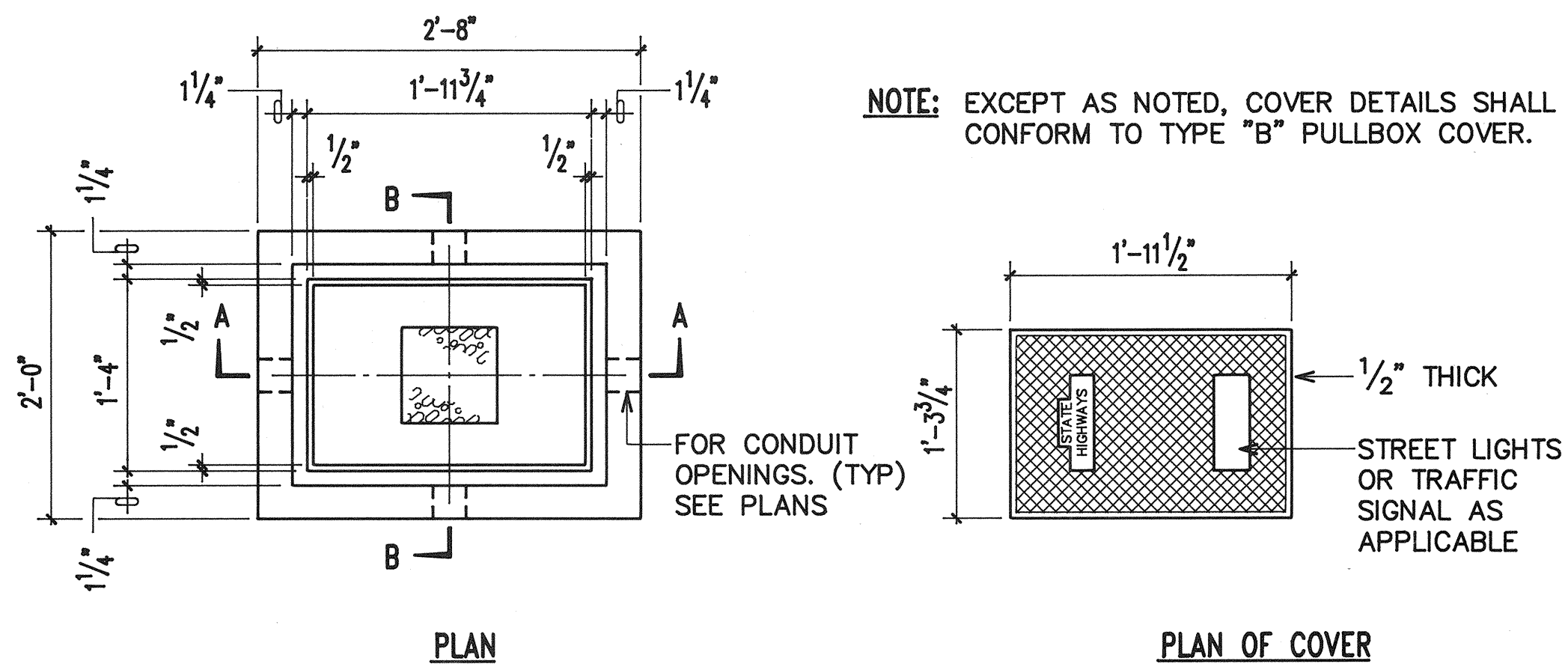
Designed by: GF Date: _____

Drawn by: _____ Proj. no.: (BCA)

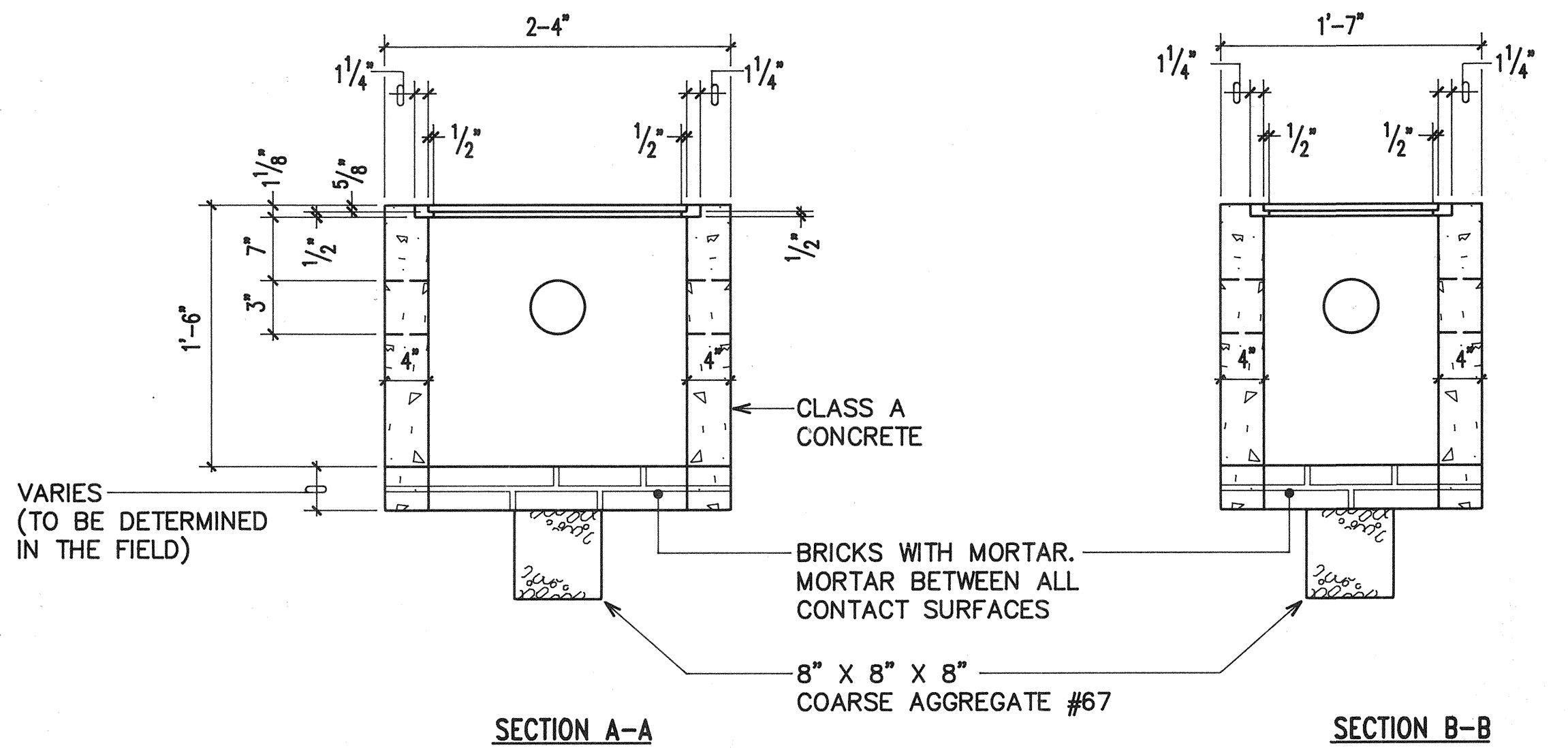
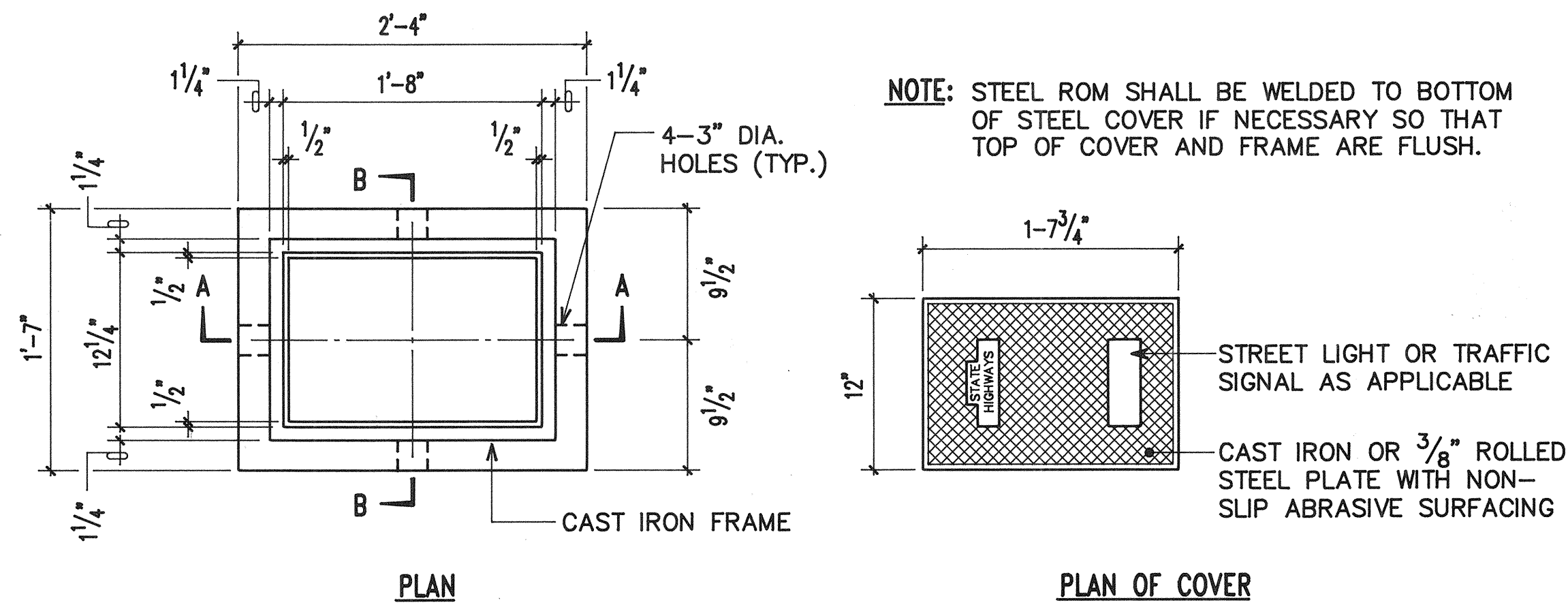
Approved: _____

HANAMAN ELECTRIC COMPANY Date: _____

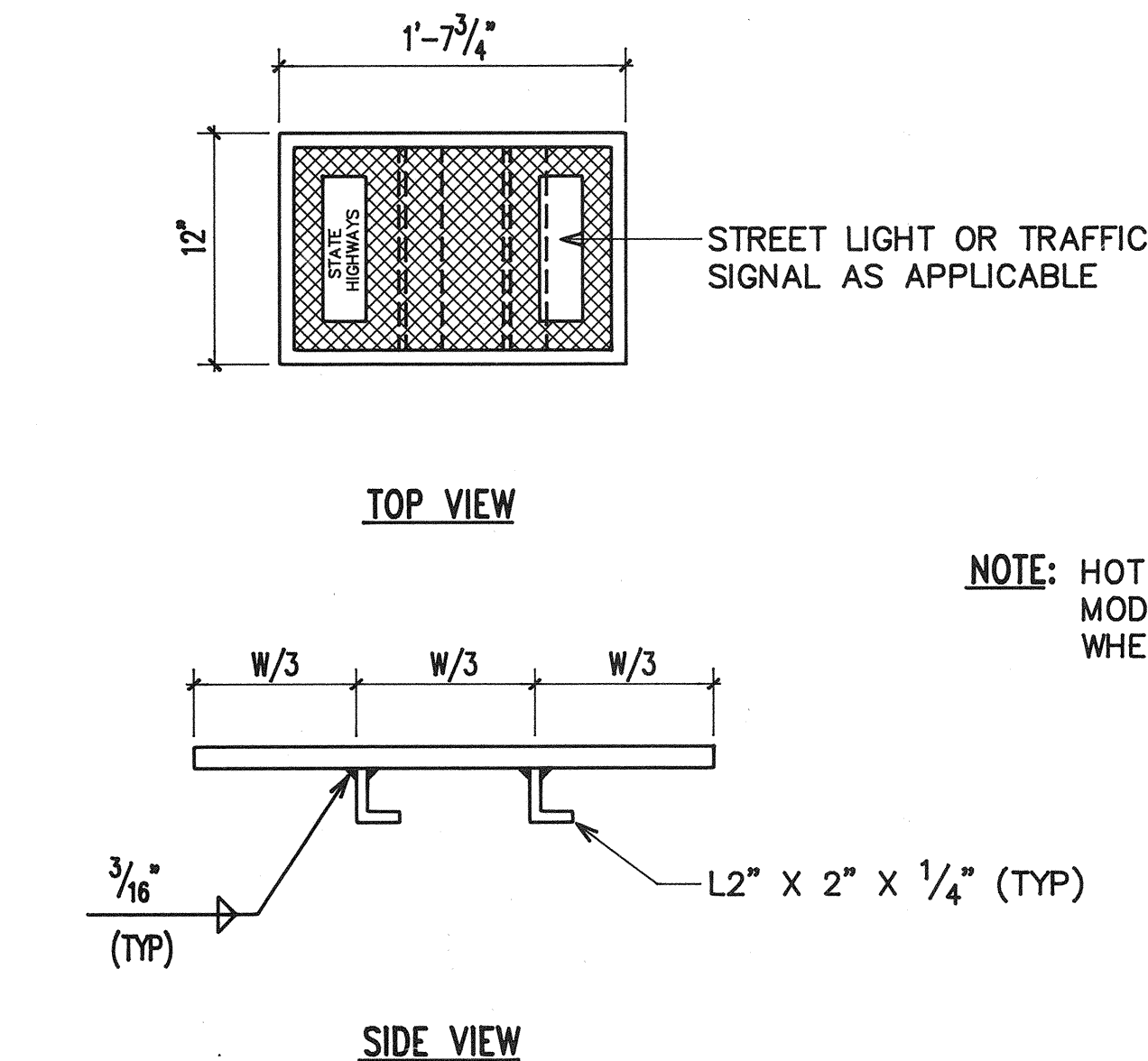
_____ Date: _____



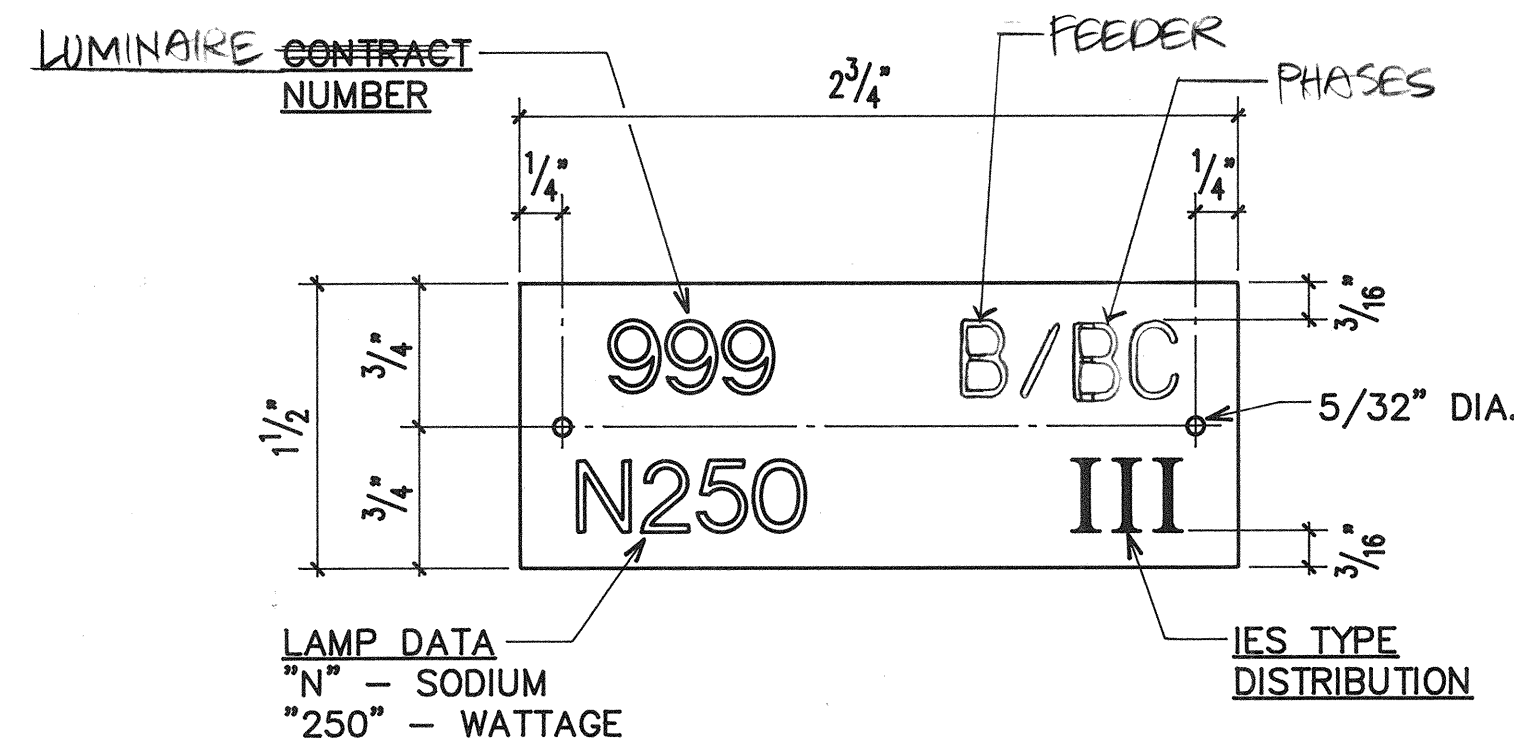
A TYPE "A" PULLBOX
E-17 N.T.S.



C TYPE "B" PULLBOX
E-17 N.T.S.



B MODIFIED COVER DETAIL
E-17 N.T.S.



NOTES:

- USE 3 PLY LAMINATED FLEXIBLE PLASTIC, BLACK-WHITE-BLACK. THICKNESS: BLACK CAP & BASE SHEET - 0.010", WHITE MIDDLE SHEET - 0.052".
- LETTERS AND NUMBERS SHALL BE ENGRAVED 1/4" HIGH, 1/16" STROKE, WHITE IN COLOR.
- ATTACH TO STEEL POLE WITH NO. 8 STAINLESS STEEL. 1/2" LONG DRIVE SCREWS IN 1/8" DRILL HOLE.
- LETTERS AND NUMBERS SHALL BE ENGRAVED THROUGH "BLACK CAP SHEET" TO EXPOSE "WHITE" LETTERS.

D STATE - STREET LIGHT I.D. TAG DETAIL (METERED SYSTEM)
E-17 N.T.S.

PMT-76A-01-97

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Engineering • Planning • Landscape Architecture
880 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)521-5361 Telex: BELTH 7430474 Fax: (808)538-7819

Consultant:
RONALD N. S. HO & ASSOCIATES, INC.
Electrical Engineers
2138 Alagorba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P. O. BOX 295 HONOLULU, HAWAII 96809

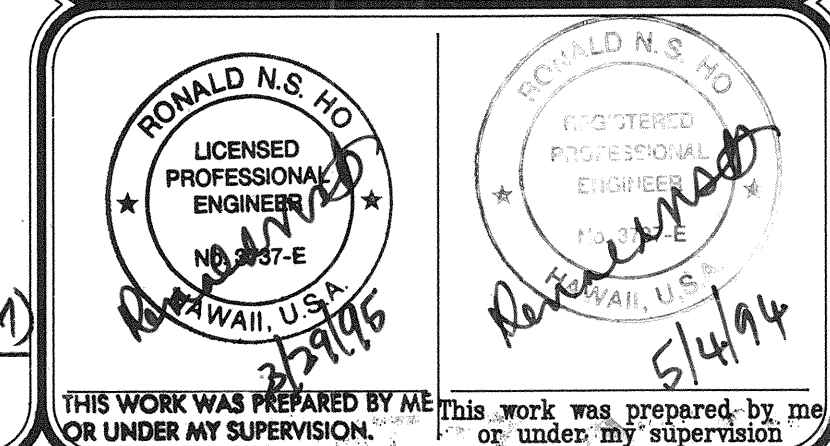
FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

PHASE A PULLBOX DETAILS, MISCELLANEOUS STREET LIGHT DETAILS

Designed by: **GF** Date: _____
Drawn by: _____ Proj. no.: **(BCA)**

Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ Date: _____

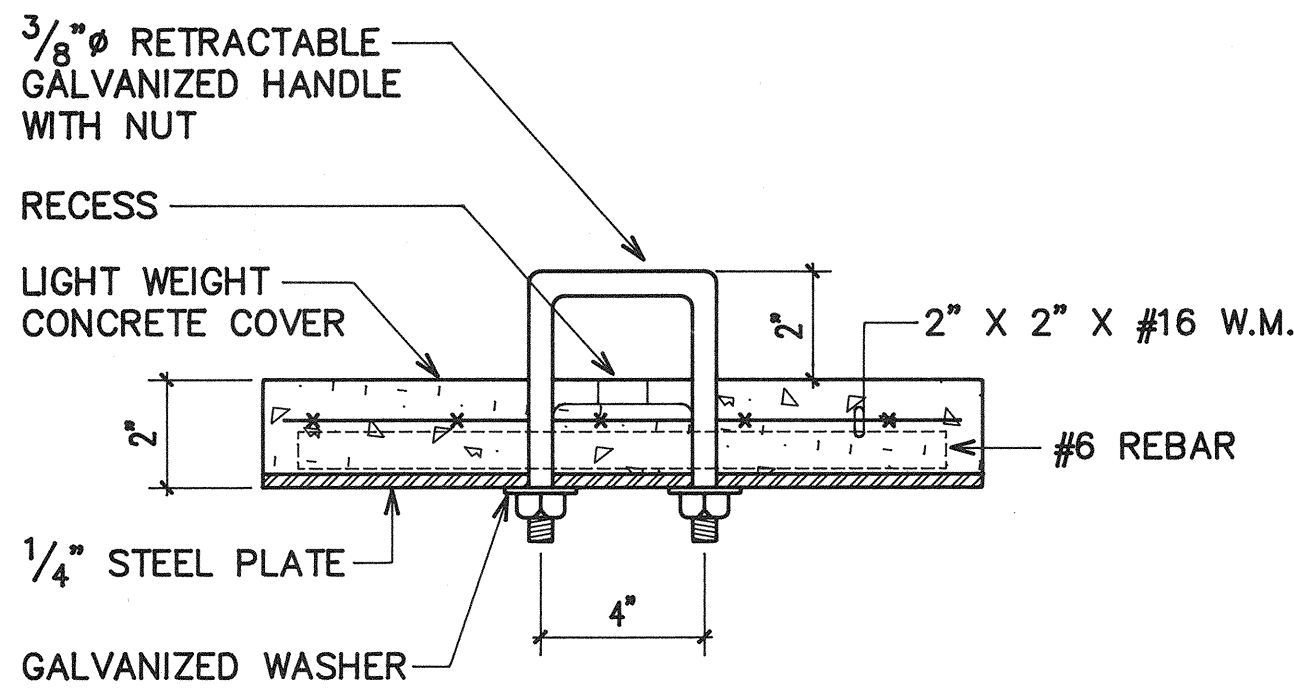
Rev.	Date	Description	Eng. App.



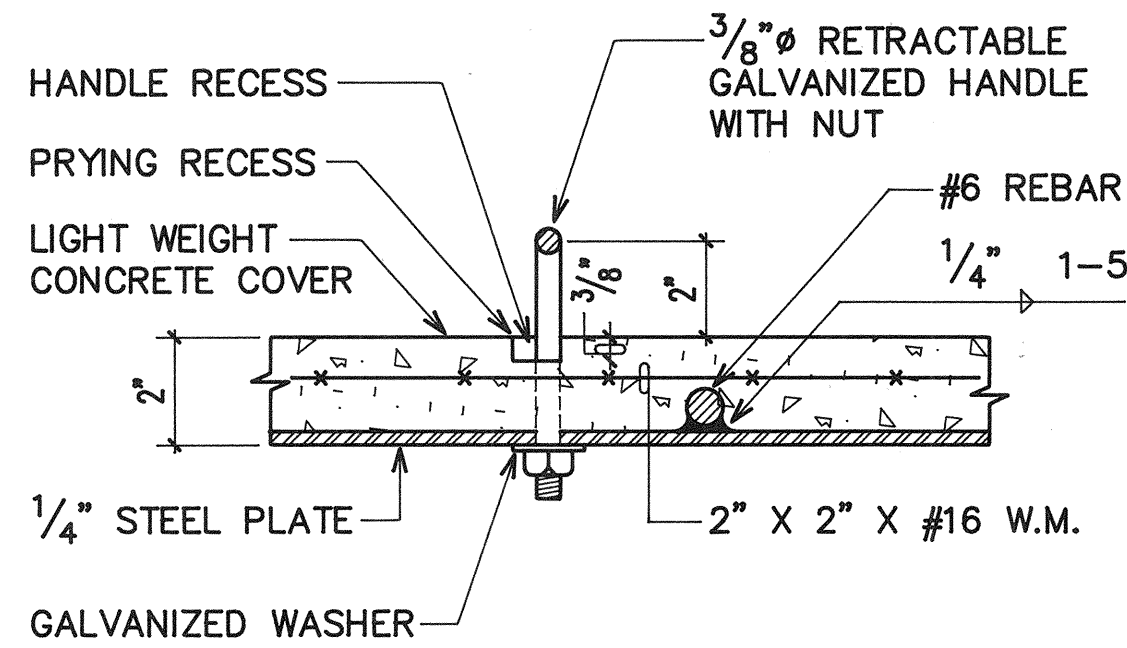
PROJECT RECORD DRAWINGS

SHEET E-17 of ___ Sheets

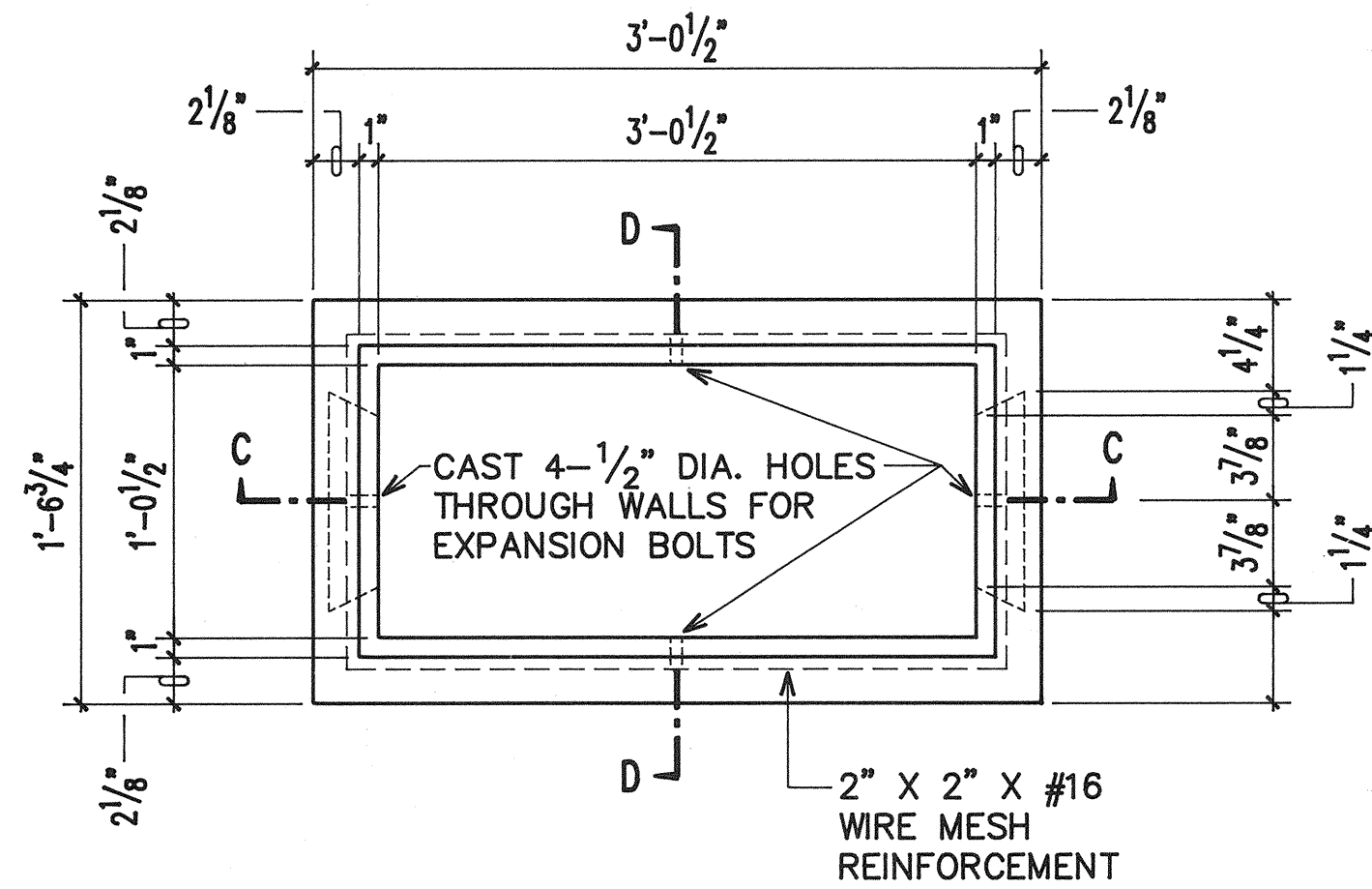
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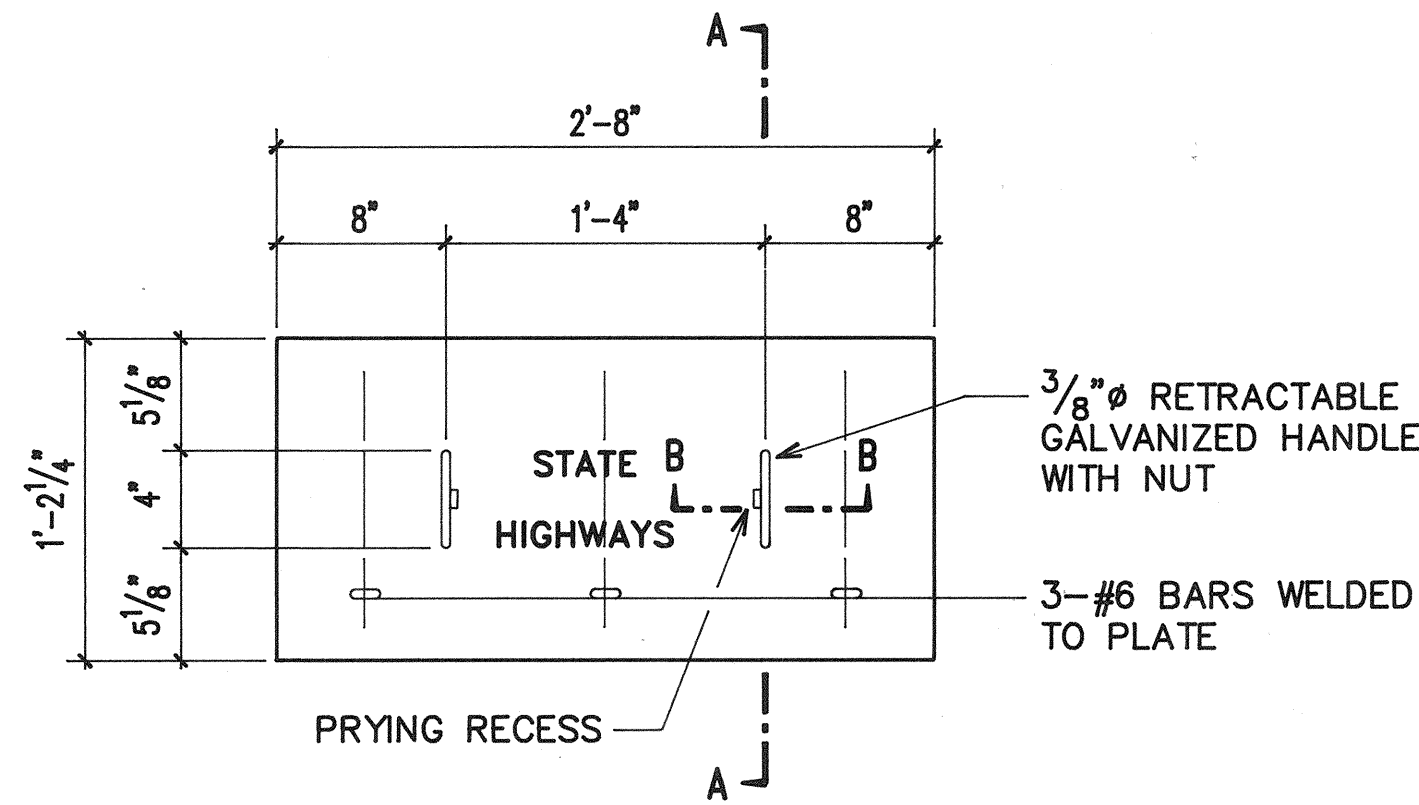
SECTION A-A



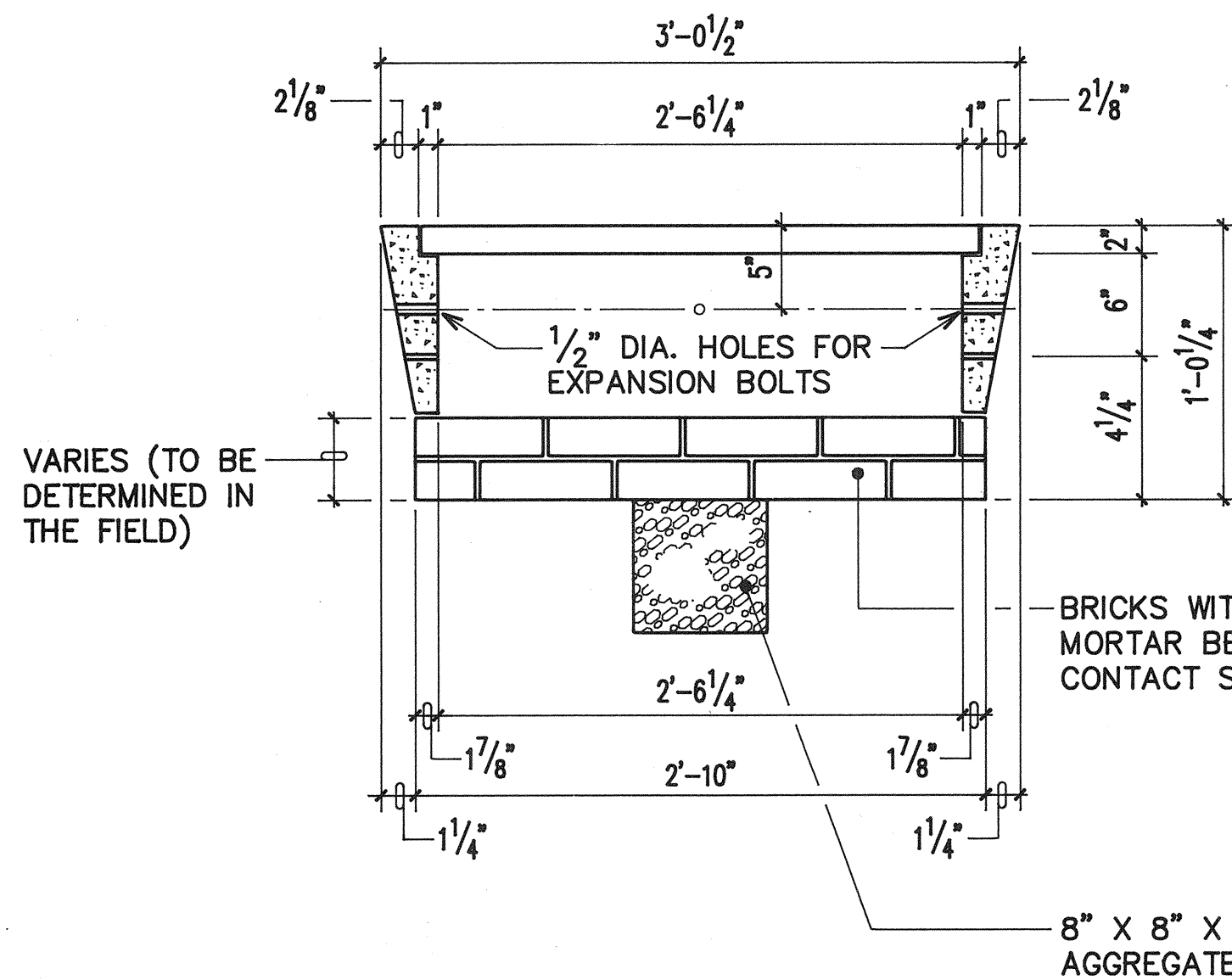
SECTION B-B



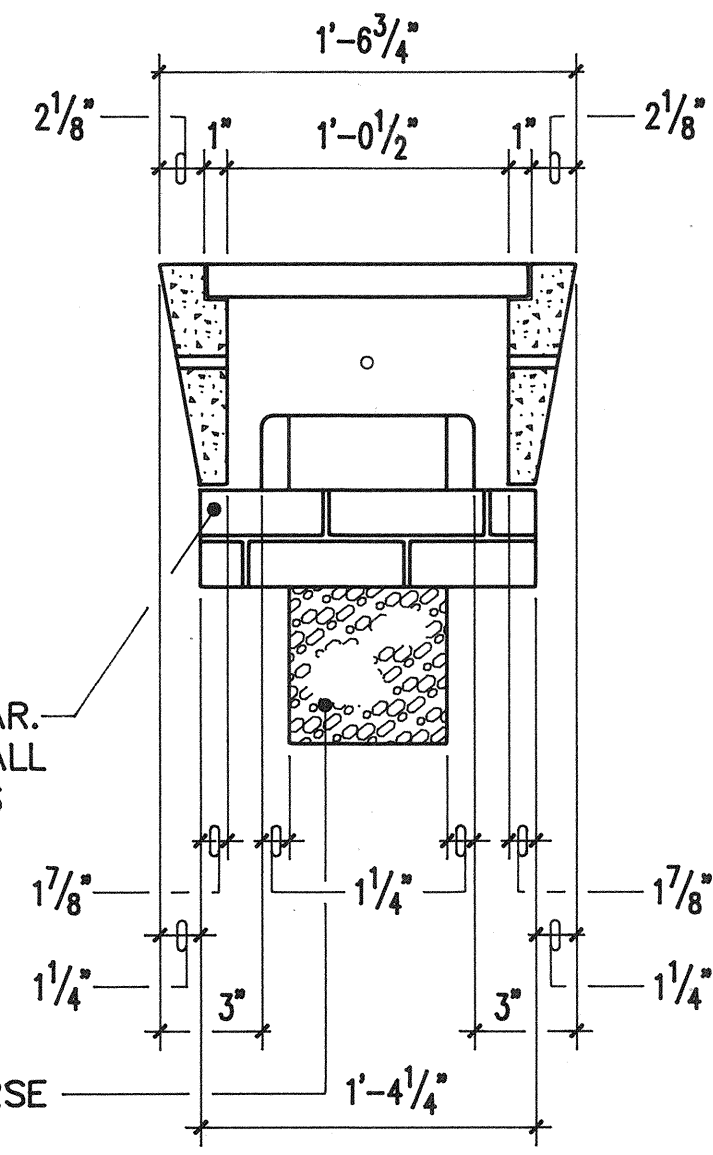
PLAN



PLAN OF COVER

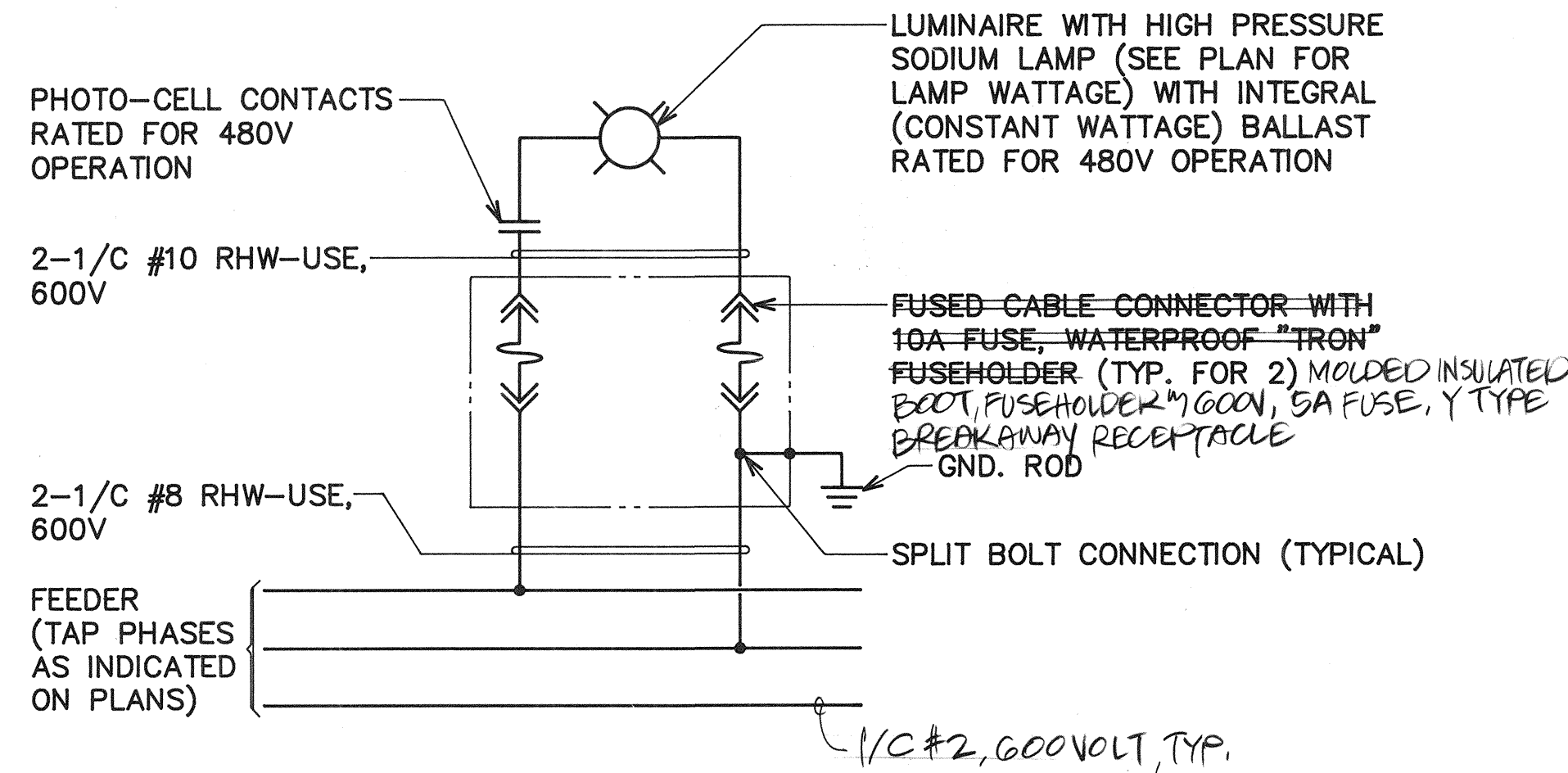


SECTION C-C



SECTION D-D

A TYPE "C" PULLBOX
E-18 NOT TO SCALE



B FORT WEAVER ROAD METERED STREET LIGHT CONNECTION DIAGRAM
E-18

CONDUIT SCHEDULE

ITEM	DESCRIPTION
(2-2)	HECO 2-2" CONDUITS
(3E)	HECO 3" CONDUIT
(3-3)	HECO 3-3" CONDUITS
(2-4)	HECO 2-4" CONDUITS
(2-5)	HECO 2-5" CONDUITS
(3-5)	HECO 3-5" CONDUIT
(6-6)	HECO 6-6" CONDUITS
(4T)	HTCO 4" CONDUIT
(2-4)	HTCO 2-4" CONDUITS
(4-4)	HTCO 4-4" CONDUITS
(8-4)	HTCO 8-4" CONDUITS
(16-4)	HTCO 16-4" CONDUITS
(1/4)	STREET LIGHT 1 1/4" CONDUIT
(1/2)	STREET LIGHT 1 1/2" CONDUIT
(2L)	STREET LIGHT 2" CONDUIT
(2-2)	STREET LIGHT 2-2" CONDUITS
(3L)	STREET LIGHT 3" CONDUIT
(2V)	CATV 2" CONDUIT
(3V)	CATV 3" CONDUIT
(2-2)	TRAFFIC SIGNAL 2-2" CONDUITS, PVC SCHD. 80
(3-2)	TRAFFIC SIGNAL 3-2" CONDUITS, PVC SCHD. 80
(2F)	FIRE ALERT 2" CONDUIT
(3P)	SECONDARY ELEC. 3" CONDUIT, PVC. SCHD. 80

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Engineering • Planning • Landscape Architecture
880 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)921-5381 Telex: BELTH 7430474 Fax: (808)536-7819

Consultant: **RONALD N. S. HO & ASSOCIATES, INC.**
Electrical Engineers
2138 Aligaba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

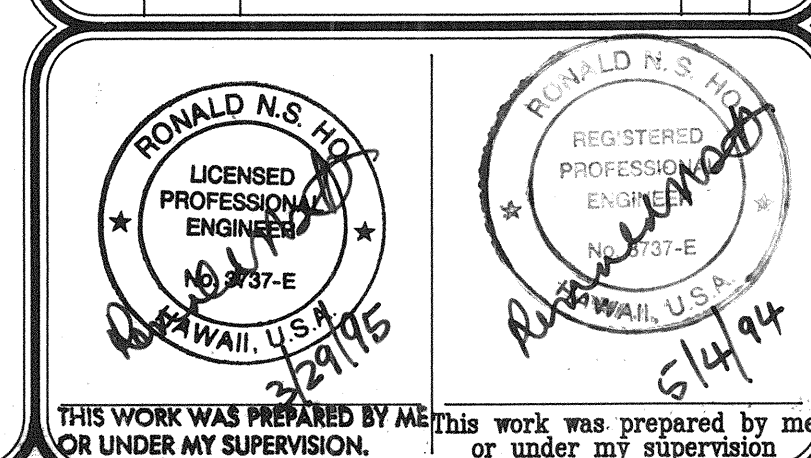
Client: **GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP**
P. O. BOX 2805
HONOLULU, HAWAII 96808

FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

PULLBOX DETAILS, MISCELLANEOUS STREET LIGHT DETAILS, CONDUIT SCHEDULE

Designed by: **GF** Date: _____
Drawn by: _____ Proj. no.: **(BCA)**
Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ HAWAIIAN TELEPHONE COMPANY Date: _____

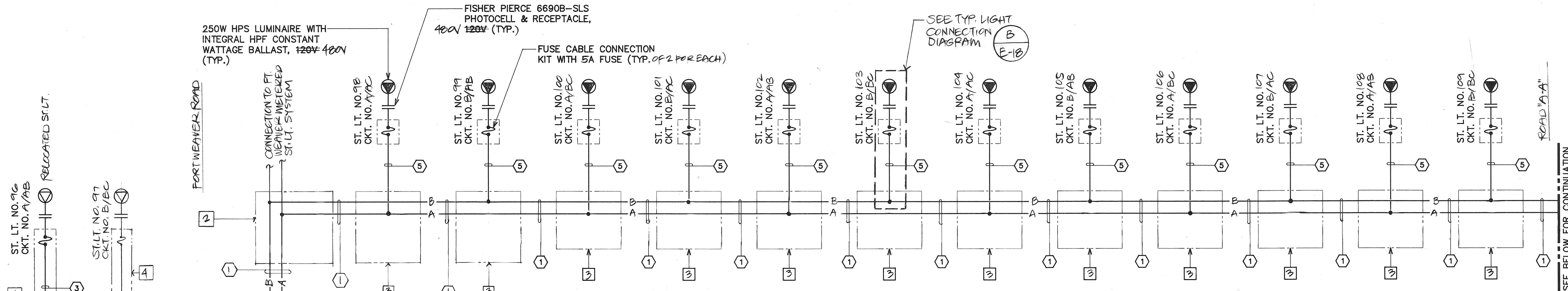
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PROJECT RECORD DRAWINGS

SHEET E-18 of 18 Sheets



STREET LIGHT NOTES:

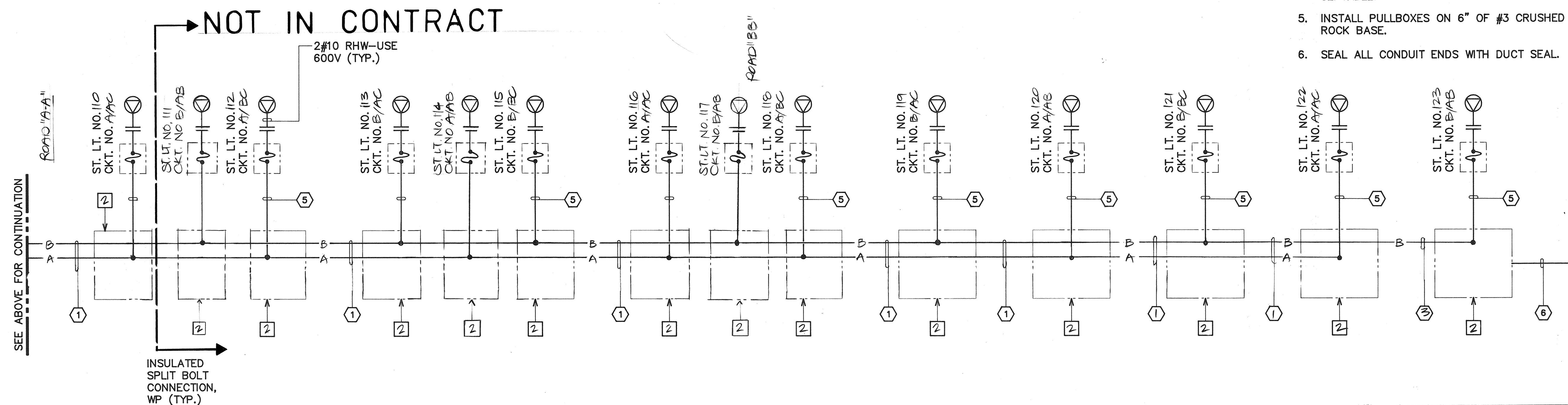
1. WIRE TO BE RHW-USE, 600V WITH OUTER COVERING.
2. CONDUIT-PVC SCHD. 80 DIRECT BURIED @ SIDEWALK.
PVC SCHD. 40 WITH 3" CONC. JACKET @ ROAD CROSSINGS.
3. CONTRACTOR SHALL IDENTIFY ALL CIRCUIT CABLES WITH LEAD TAG IN EACH PULLBOX AS SHOWN.
4. ALL NEUTRAL CONDUCTORS SHALL BE IDENTIFIED WITH WHITE INSULATION. OTHER MEANS OF IDENTIFICATION ARE NOT ACCEPTABLE.
5. INSTALL PULLBOXES ON 6" OF #3 CRUSHED ROCK BASE.
6. SEAL ALL CONDUIT ENDS WITH DUCT SEAL.

CONDUIT & WIRE SCHEDULE

ITEM	DESCRIPTION
①	3"C, 6#2 RHW-USE, #2 GND
②	5#1 RHW-USE, #1 GND
③	3"C, 3#2 RHW-USE, #2 GND
④	3"C, 2#1 RHW-USE, #1 GND
⑤	1 1/2"C, 2#8 RHW-USE, #8 GND
⑥	3"C, WITH PULLWIRE
⑦	3"C, 8#1 RHW-USE, #1 GND.
⑧	

EQUIPMENT SCHEDULE

ITEM	DESCRIPTION
1	19" X 28" STREET LIGHT PULLBOX
2	24" X 32" STREET LIGHT PULLBOX
3	EXST. 24" X 32" STREET LIGHT PULLBOX
4	ST. LT. TRANSFORMER BASE



GEIGER/IROQUOIS POINT ROAD STREET LIGHT CONNECTION DIAGRAM △
NON-METERED

PMT-76A-01-97

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Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)921-5361 Telex: BELTH 7430474 Fax: (808)538-7819

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Electrical Engineers
2138 Alagoraba Street, Suite A Honolulu, Hawaii 96826
Phone: (808)941-0577 Fax: (808)945-2646

Client:
GENTRY DEVELOPMENT CO., A HAWAII LIMITED PARTNERSHIP
P.O. BOX 205
HONOLULU, HAWAII 96809

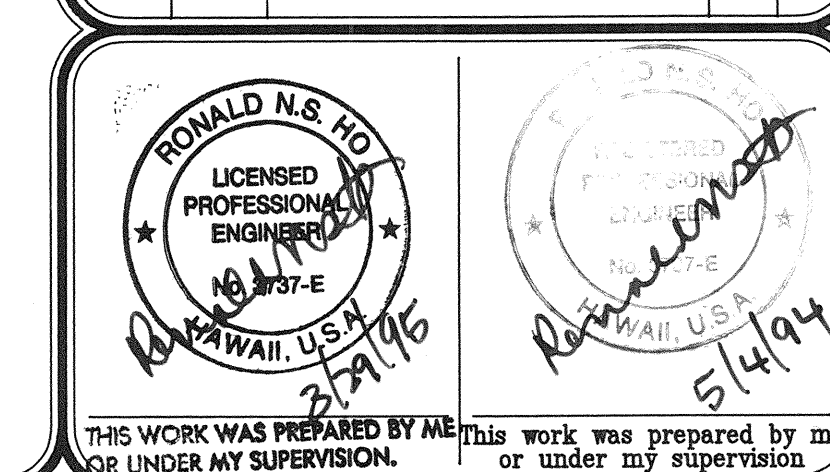
FORT WEAVER ROAD INTERSECTION AND IROQUOIS POINT ROAD IMPROVEMENTS

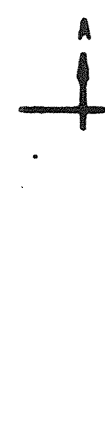
PHASE A
GEIGER/IROQUOIS POINT ROAD STREET LIGHT CONNECTION DIAGRAM

Designed by: GF Date: _____
Drawn by: GN Proj. no.: (BCA)

Approved: _____
HAWAIIAN ELECTRIC COMPANY Date: _____ HAWAIIAN TELEPHONE COMPANY Date: _____

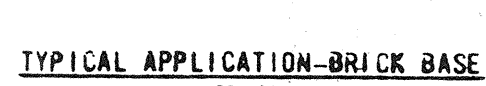
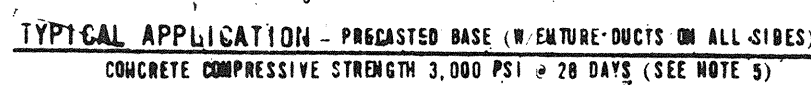
Rev.	Date	Description	Eng. App.





INSTALLATION NOTES

1. A MINIMUM OF TWO PRECAST SECTIONS MUST BE USED ON ALL INSTALLATIONS.
2. THE UNIFORM LAYERS OF BRICKS TO BE USED SHALL ALWAYS BE AT LEAST ONE (1) LAYER LOWER THAN THE LOWEST JOINT ENTERING AND FOLLOWING AT AN ANGLE TO THE WALL OR SMALLER WALLS THAN THE WALL.
3. TWO LAYERS OF BRICKS, ON EACH INSTALLATION.
4. AT NO TIME SHALL CEMENT MORTAR, WOOD OR ANY OTHER MATERIAL BE USED BETWEEN PRECAST SECTIONS. LEVELING OR MIXING OF BRICKS TO BE DONE MUST BE DONE AT BACKGROUND SECTION USING CEMENT MORTAR. THE PRESENT INSTALLATION OF THE JOINTS WEDGES TO ACCOMPLISH THIS PURPOSE MUST NOT BE ACCEPTED.
5. INSERT DOWELS (3" DIA., 90°) INTO EXISTING TOP 3/4" HOLES IN JOINTS OF BOX AS SHOWN IN TOP APPL. FIG. THIS IS A METHOD OF KEYING THE INSTALLED BOX TO THE SURROUNDING CONCRETE THAT MAY BE PLACED.
6. CONCRETE PRECASTED BASE MAY BE USED AS AN ALTERNATIVE TO JOINTS



Rev.	Date	Description	Eng. App.
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Plan Checker	This work was prepared by me or under my supervision
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Engineering • Planning • Landscape Architecture
680 Ala Moana Boulevard Suite 200 Honolulu, Hawaii 96813
Phone: (808)821-5361 Telex: BELTH 7430474 Fax: (808)538-7819

Consultant:
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Phone: (808)941-0577 Fax: (808)945-2646

Client: **GENTRY DEVELOPMENT CO.,
A HAWAII LIMITED PARTNERSHIP
P. O. BOX 295
HONOLULU, HAWAII 96809**

FORT WEAVER ROAD INTERSECTION AND
IROQUOIS POINT ROAD IMPROVEMENTS

PHASE A
ELECTRICAL REFERENCE DETAIL

Designed by: CAT Date: _____
 Drawn by: _____ Proj. no.: (BCA) _____
 Approved: _____ Date: _____
 _____ Date: _____
 _____ Date: _____