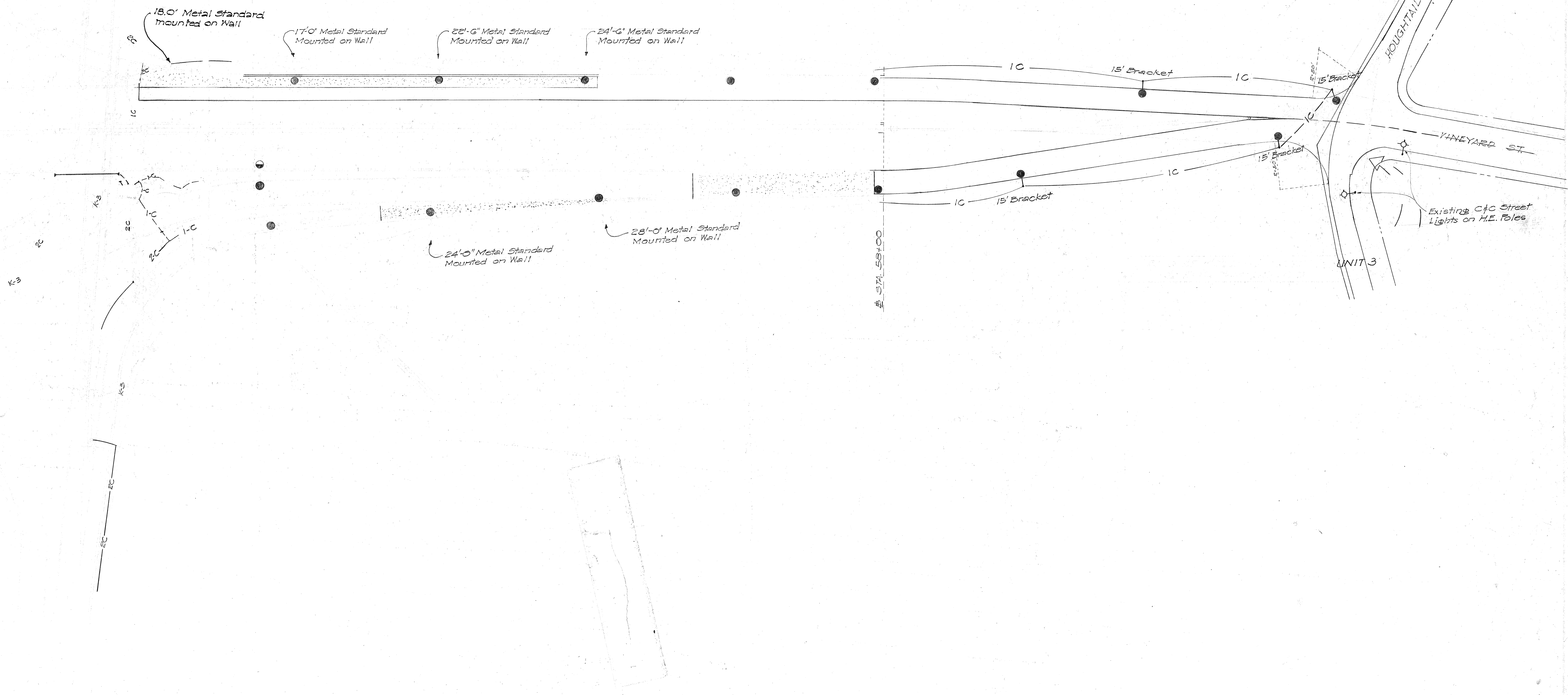


NOTE:

- 1.- For Detail of Extra Reinforcing of Walls See Sheet
- 2.- Standard to be mounted on top of Walls shall be anchor base standards, and the base shall not exceed 11 1/2" square with bolt circle not over 11" in Diameter.

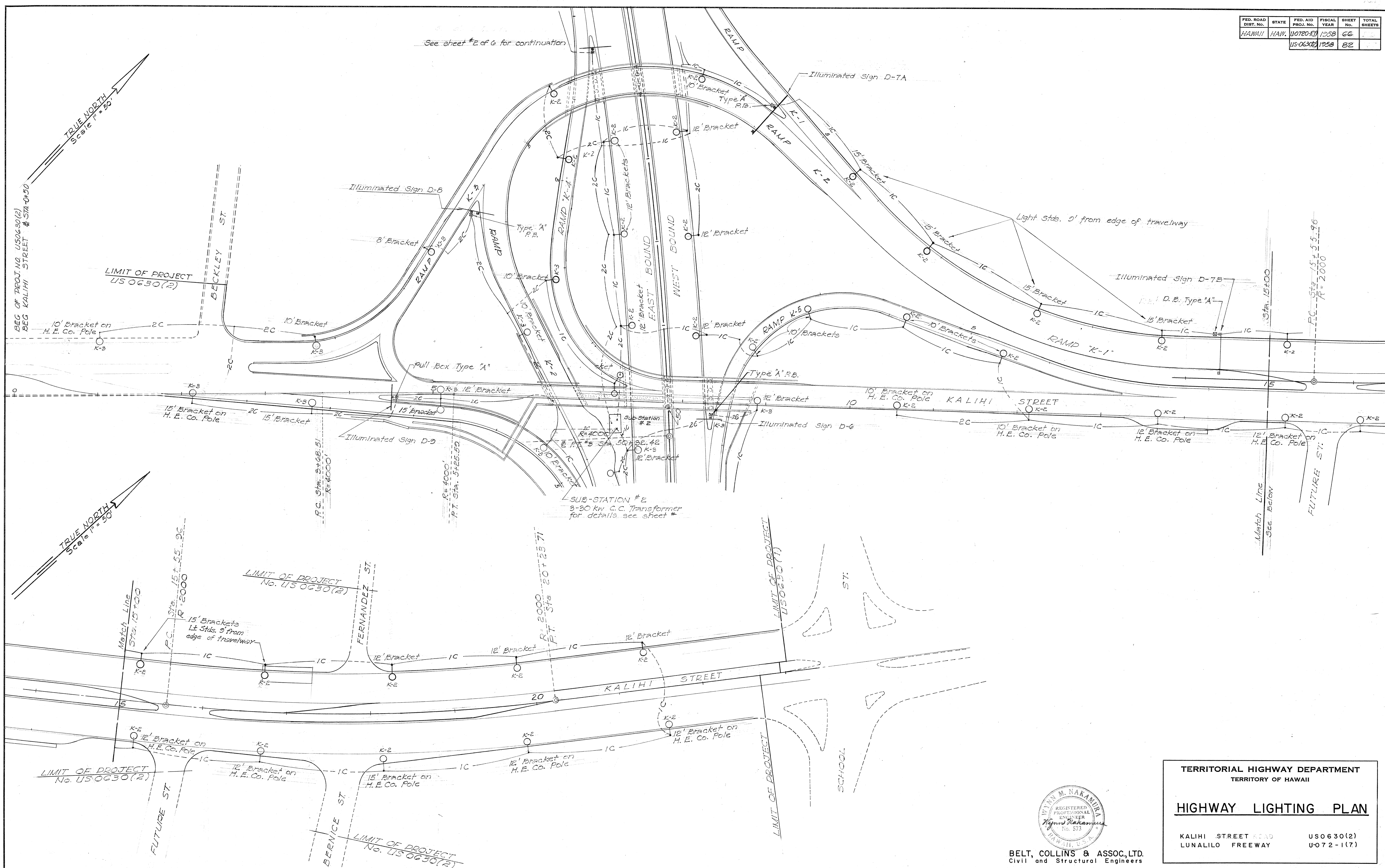


FEDERAL HIGHWAY DEPARTMENT
 U-072-1(7) UNIT 3
 8-8-58

65

2
79

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOT SHE
HAWAII	HAW.	110720-1(K)	1958	66	
		115-06302	1958	82	



ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
	DESIGNED BY <i>W. D. Neumann</i>	" <i>2-57</i>
	DRAWN BY _____	" <i>2-57</i>
	TRACED BY _____	" _____
NOTE BOOK	QUANTITIES BY _____	" _____
No. _____	QUANTITIES CHECKED BY _____	" _____
	CHECKED BY _____	" _____



TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

HIGHWAY LIGHTING PLAN

KALIHI STREET ROAD US0630(2)
LUNALILO FREEWAY U-072-1(7)

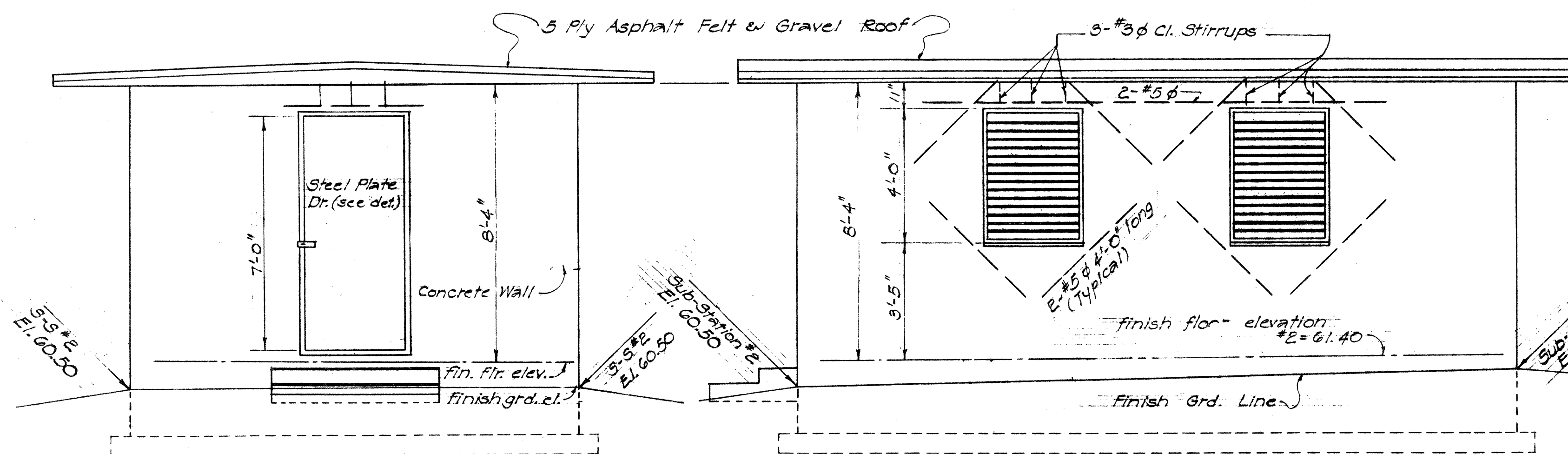
SHEET No. 3 OF 3 SHEETS

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Civil and Structural Engineers

59 § 3.

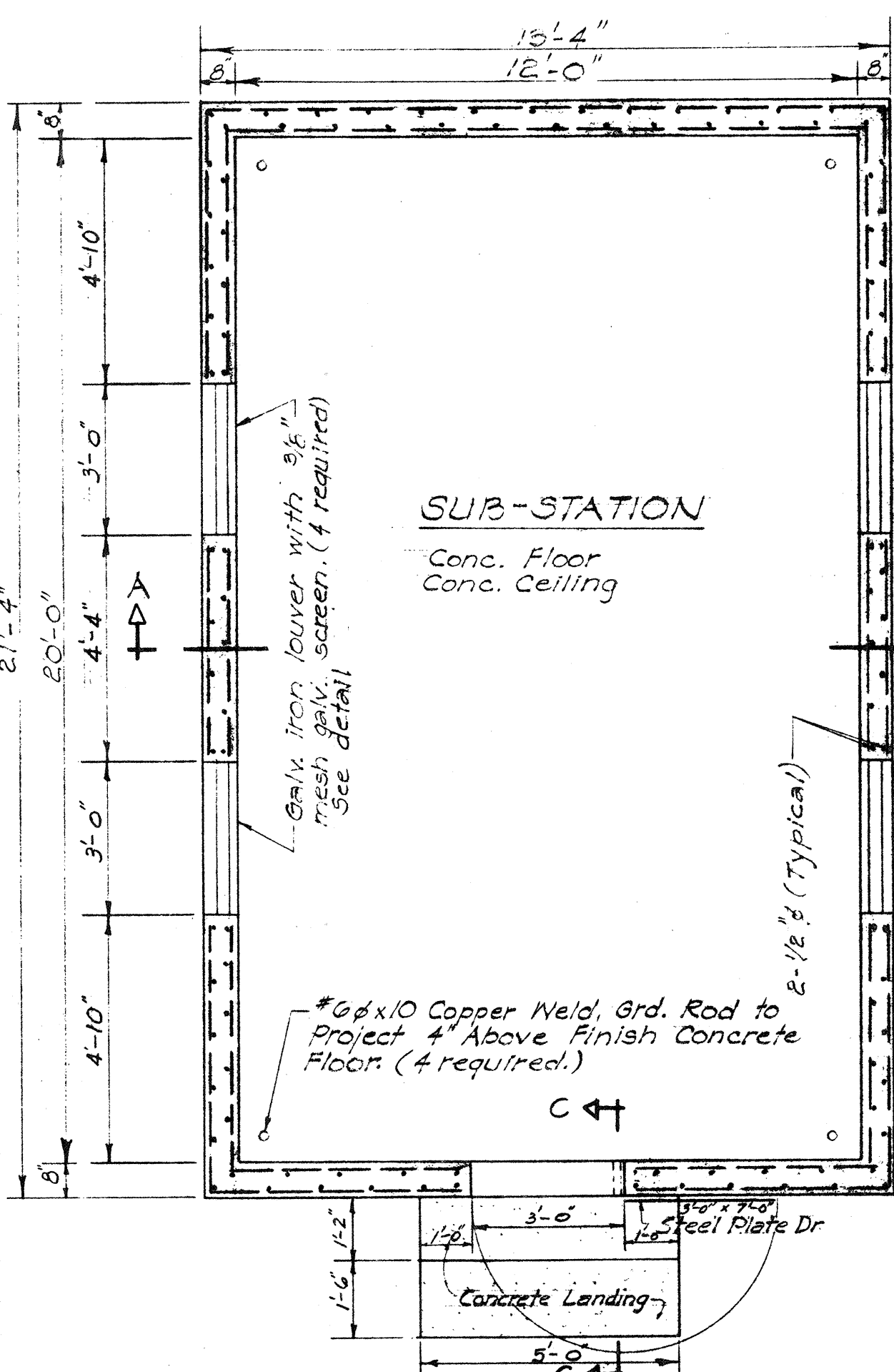
101

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1072-10	1958	66	80
		US-0630(2)	1958	80	103



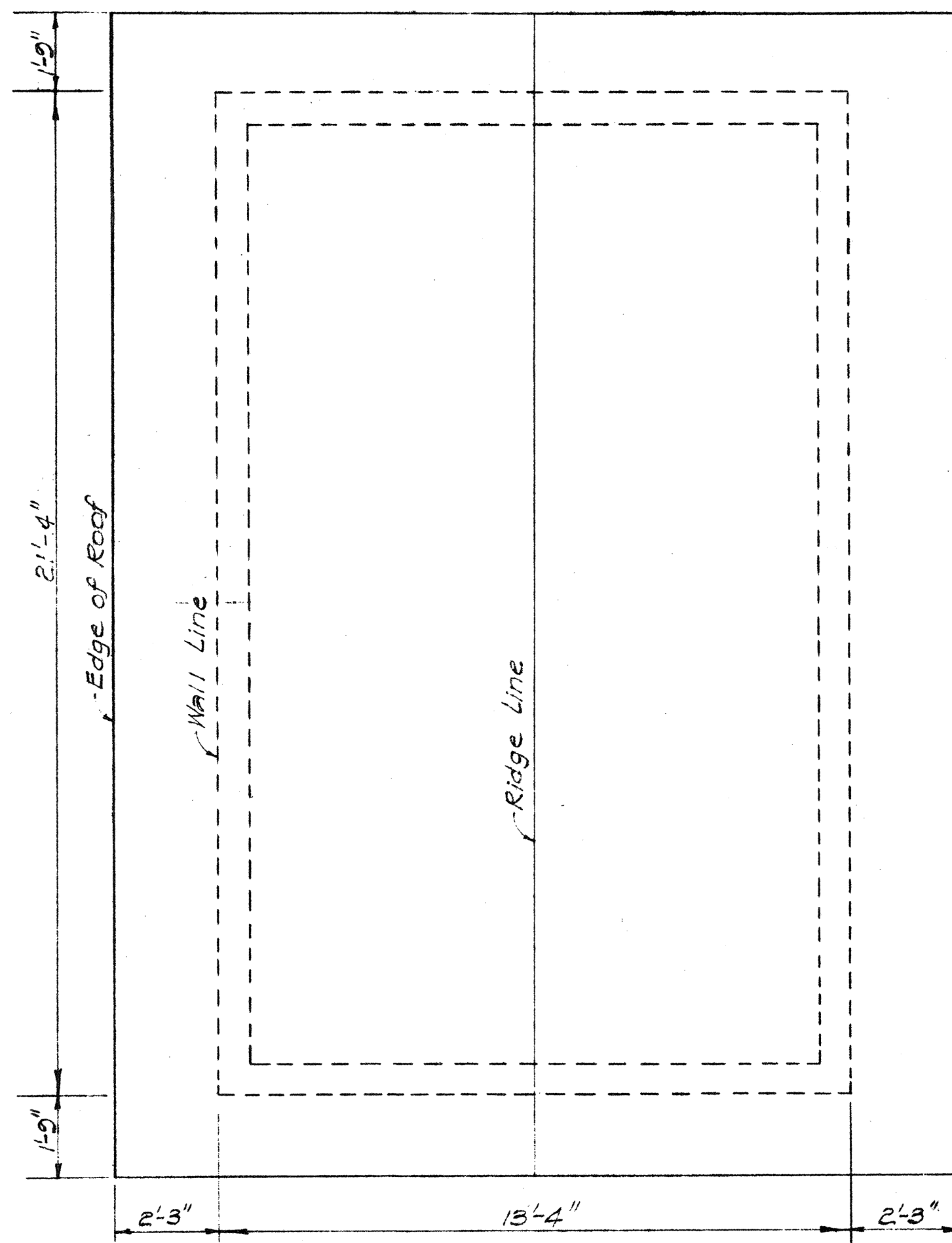
FRONT ELEVATION
Scale: 3/8"=1'-0"

SIDE ELEVATION
Scale: 3/8"=1'-0"

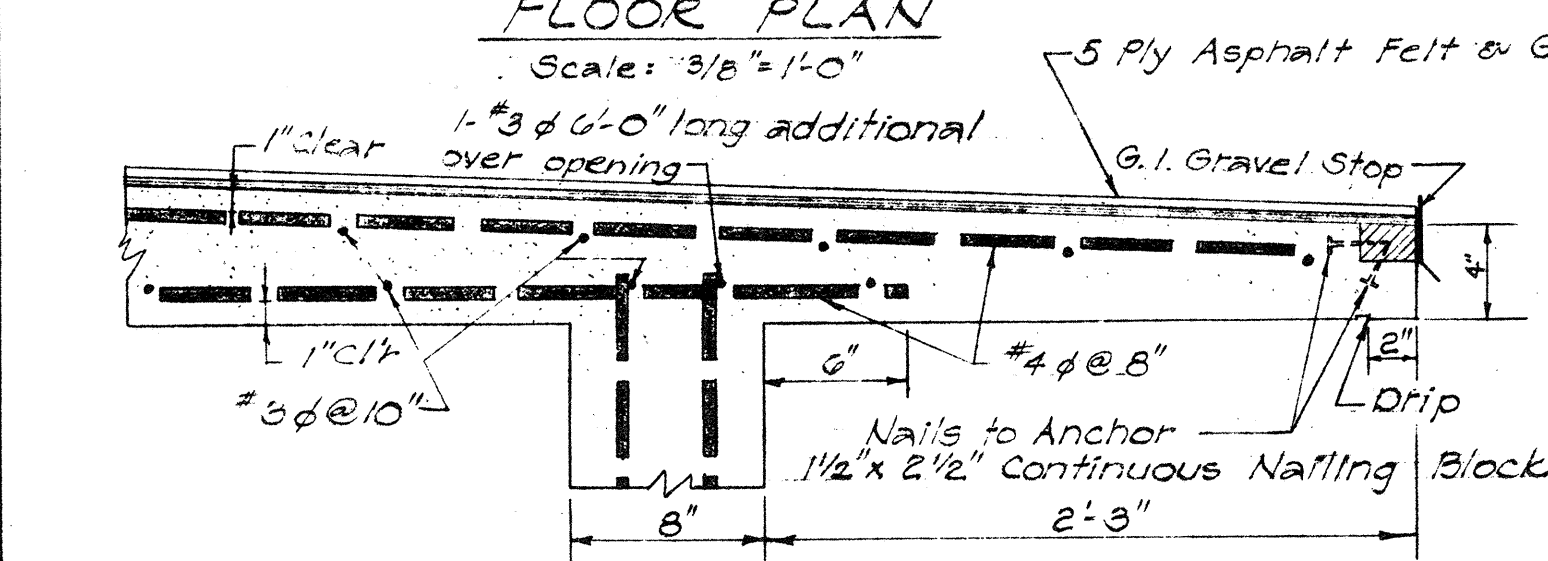


SUB-STATION
Conc. Floor
Conc. Ceiling

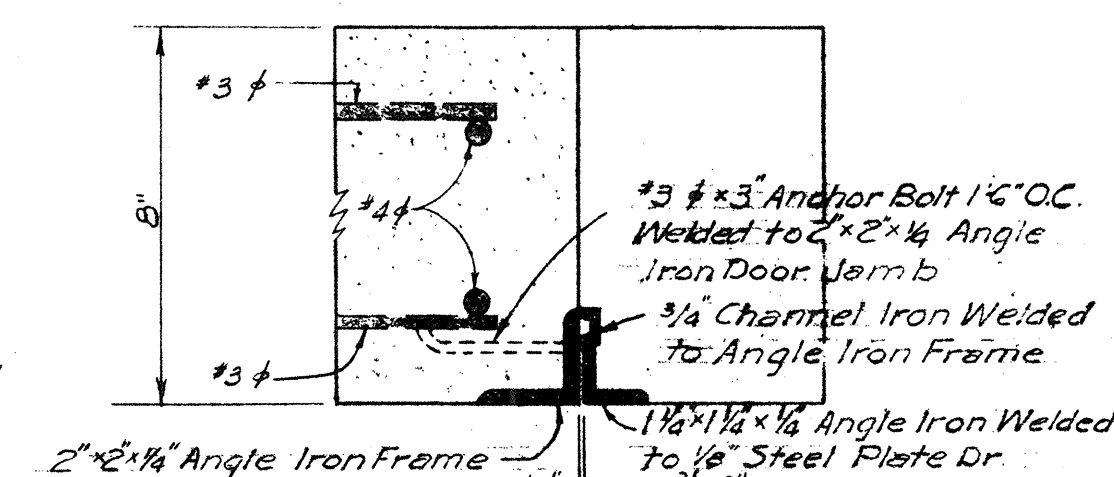
FLOOR PLAN
Scale: 3/8"=1'-0"



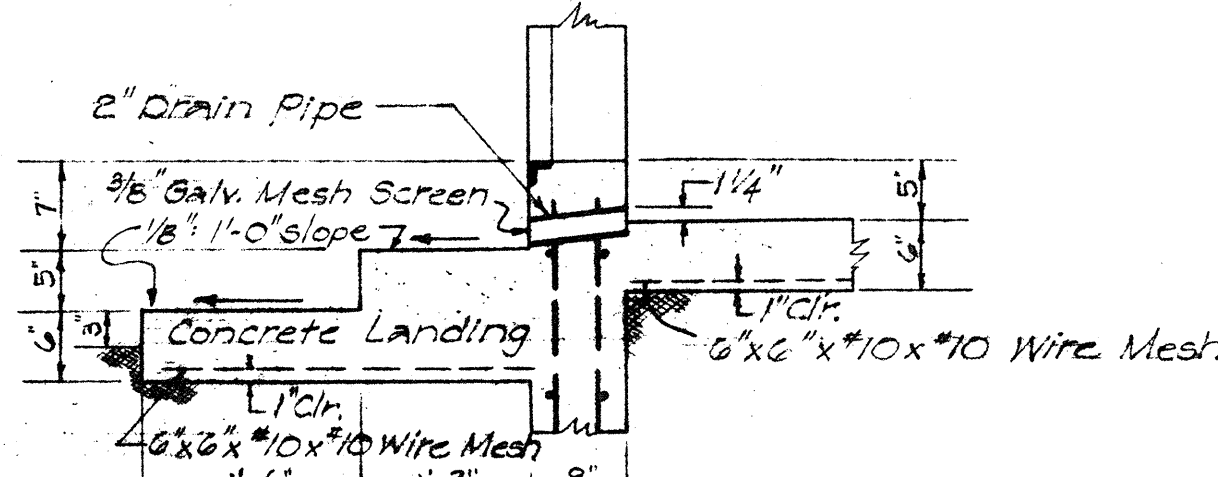
ROOF PLAN
Scale: 3/8"=1'-0"



DETAIL A
Scale: 1 1/2"=1'-0"

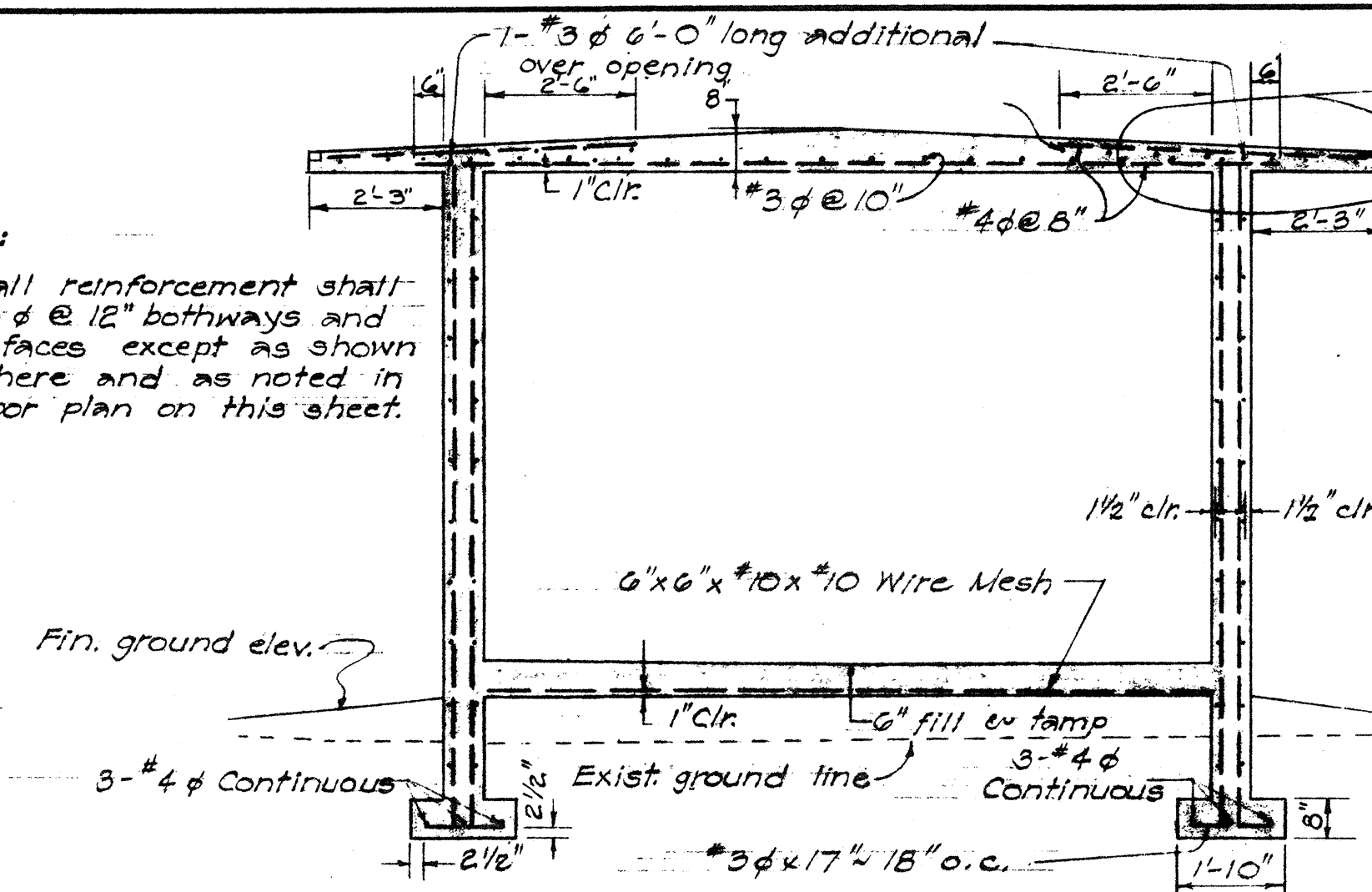


SECTION B-B
Scale: 3/4"=1'-0"

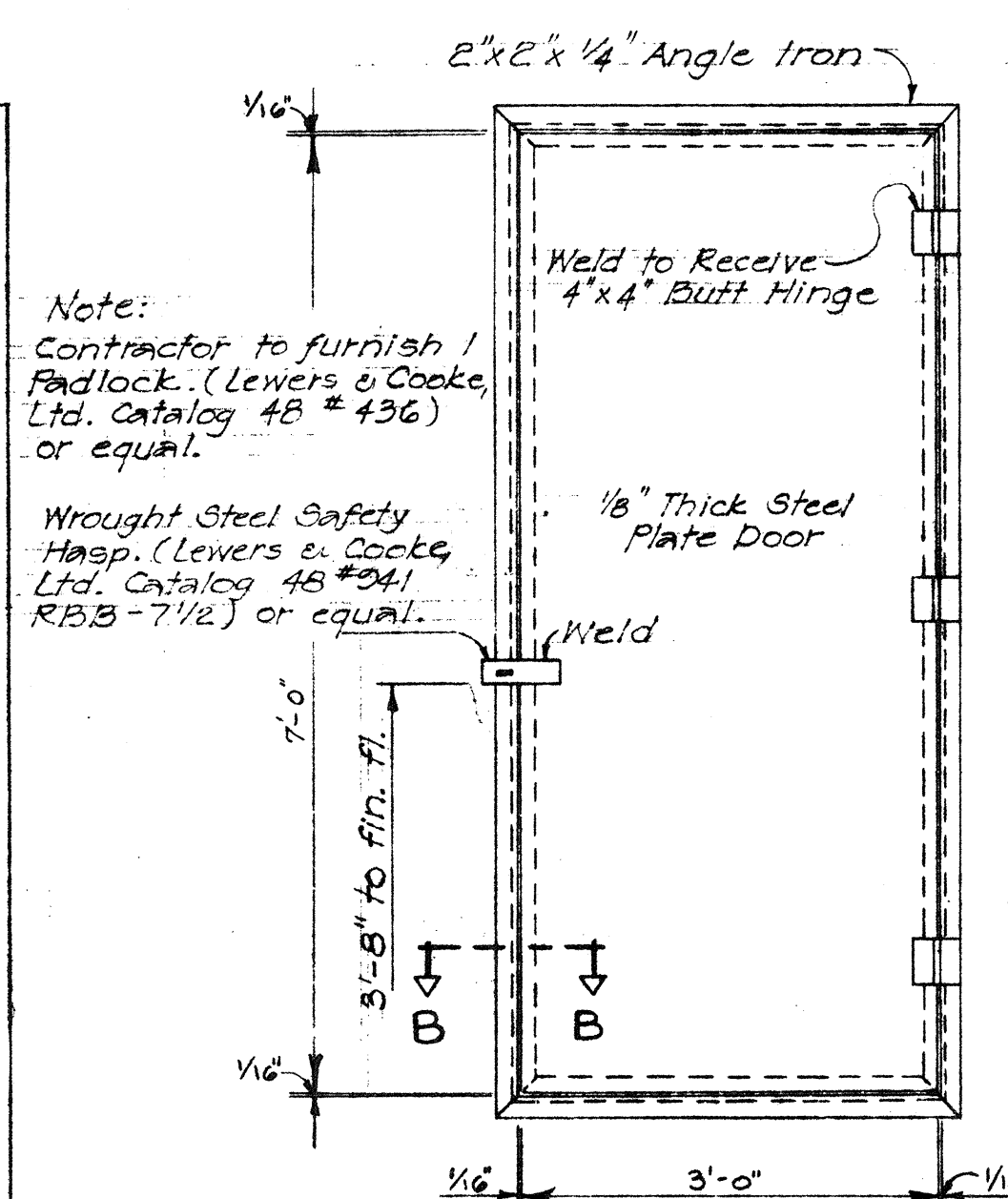


SECTION C-C
Scale: 3/4"=1'-0"

Note:
All wall reinforcement shall be #3 @ 12" both ways and both faces except as shown elsewhere and as noted in the floor plan on this sheet.

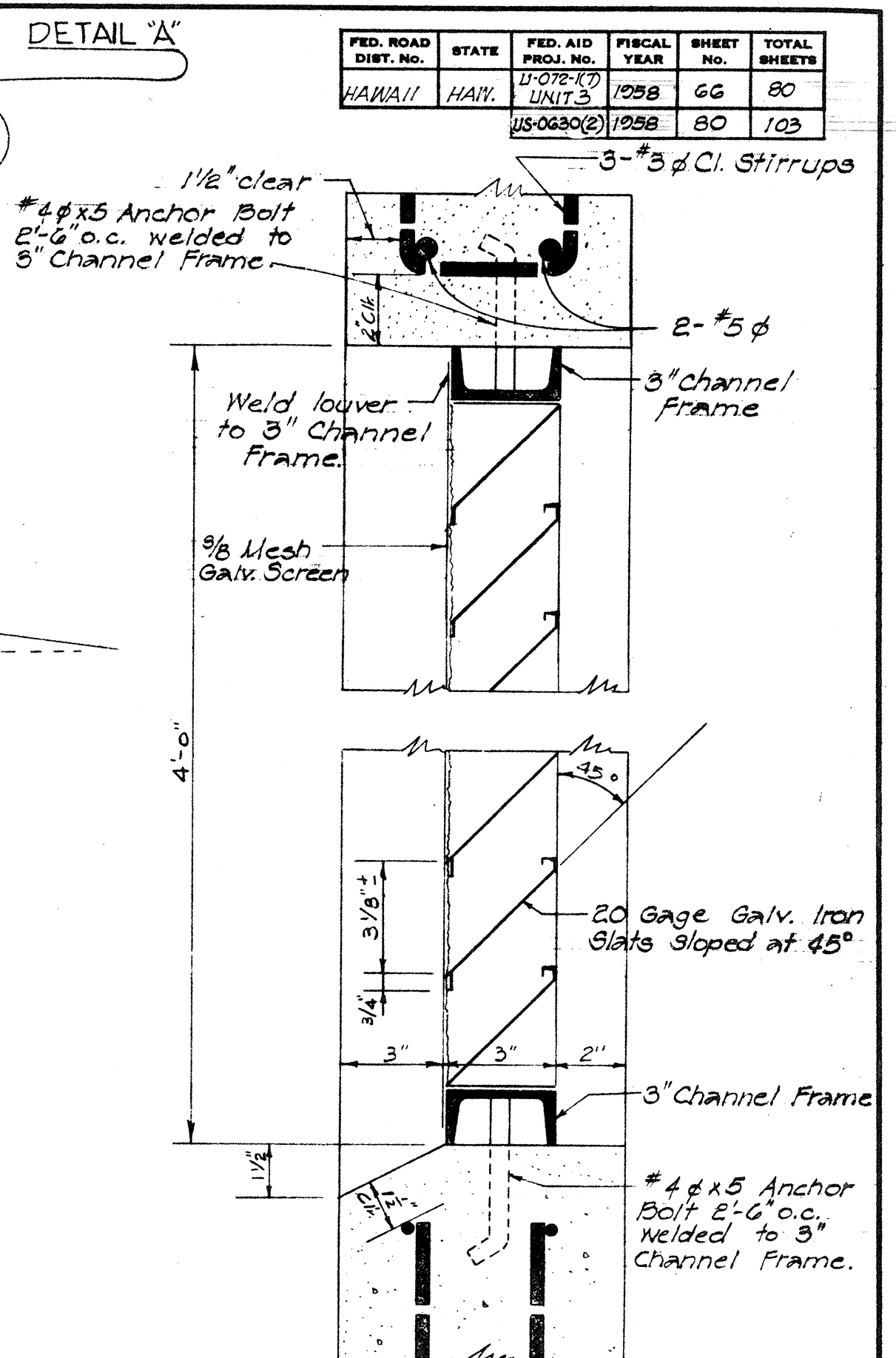


SECTION A-A
Scale: 3/8"=1'-0"

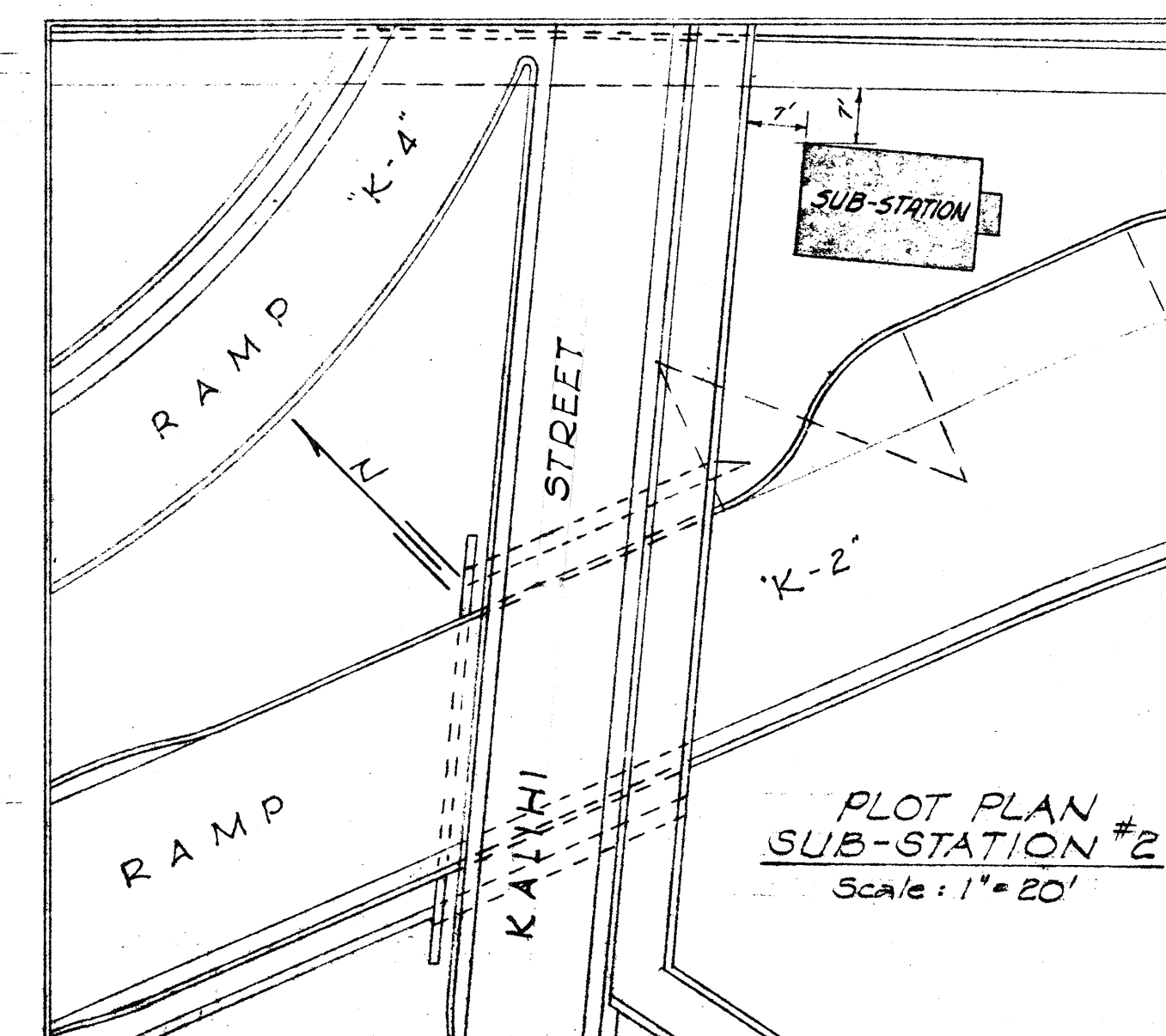


DOOR DETAIL
Scale: 3/4"=1'-0"

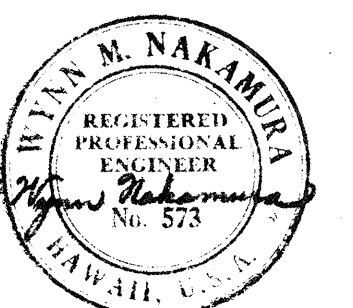
Note:
All concrete shall be Class "A-1" unless otherwise noted. All exposed exterior surfaces of concrete walls and roof shall be given "Class 2" rubbed finish.



LOUVER DETAIL
Scale: 5"=1'-0"



PLOT PLAN
SUB-STATION #2
Scale: 1"=20'



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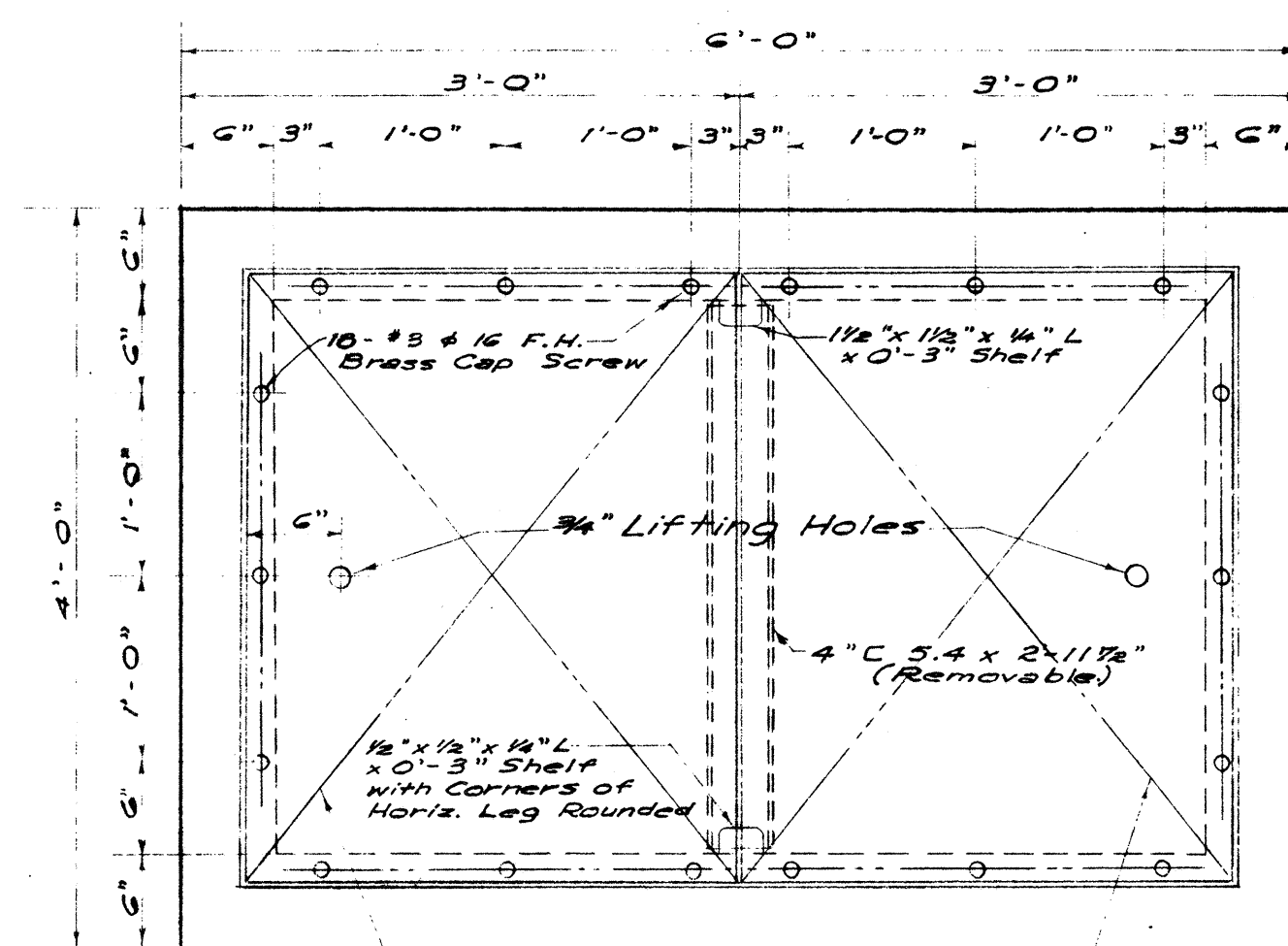
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
ELECTRICAL SUB STATIONS
LOCATION PLAN & DETAILS

LUNALILO FREEWAY U-072-1(7) UNIT 3
KALIHI STREET US0630 (2)

SHEET No. 1 OF 4 SHEETS

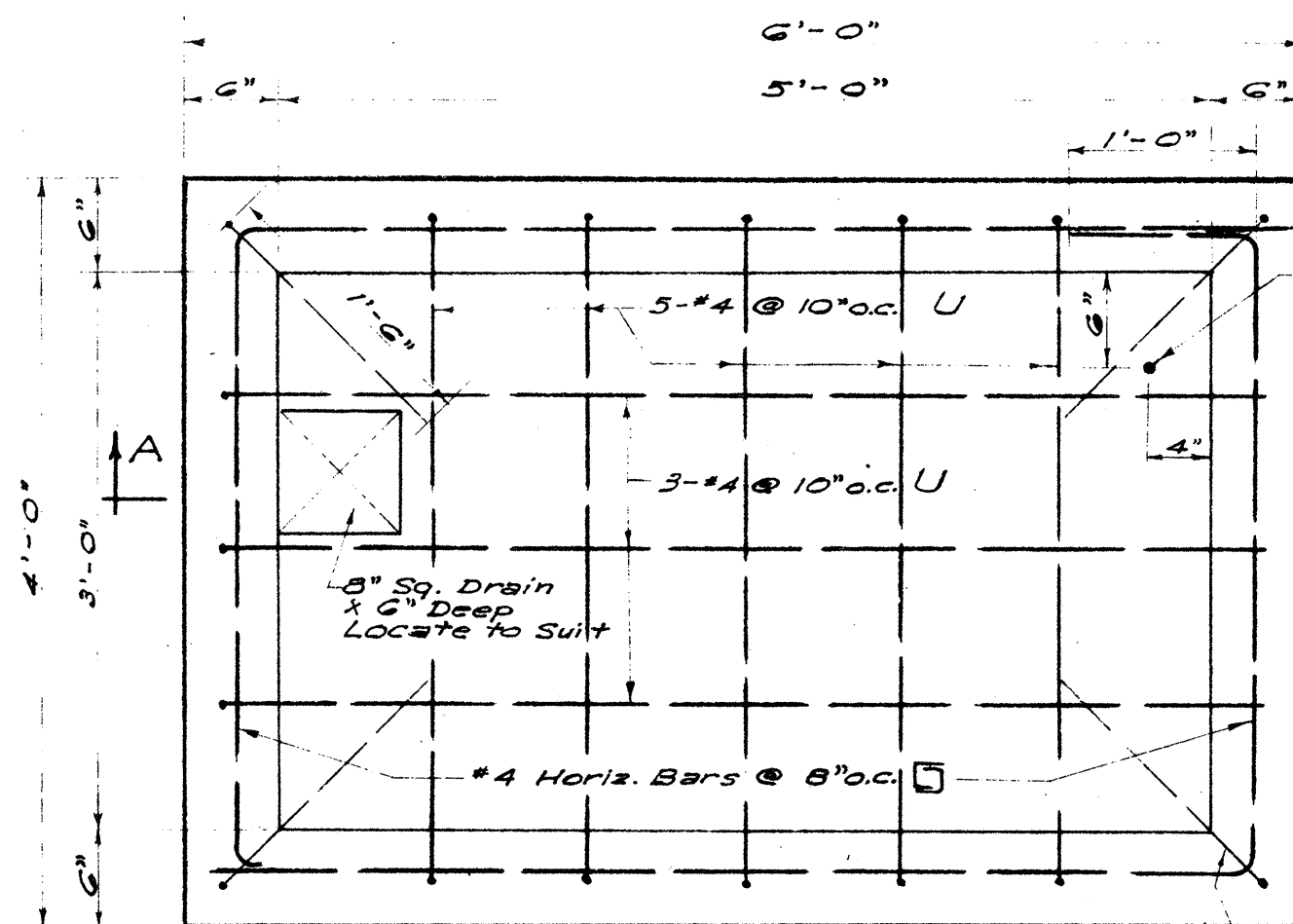
5953.66 5954.80

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

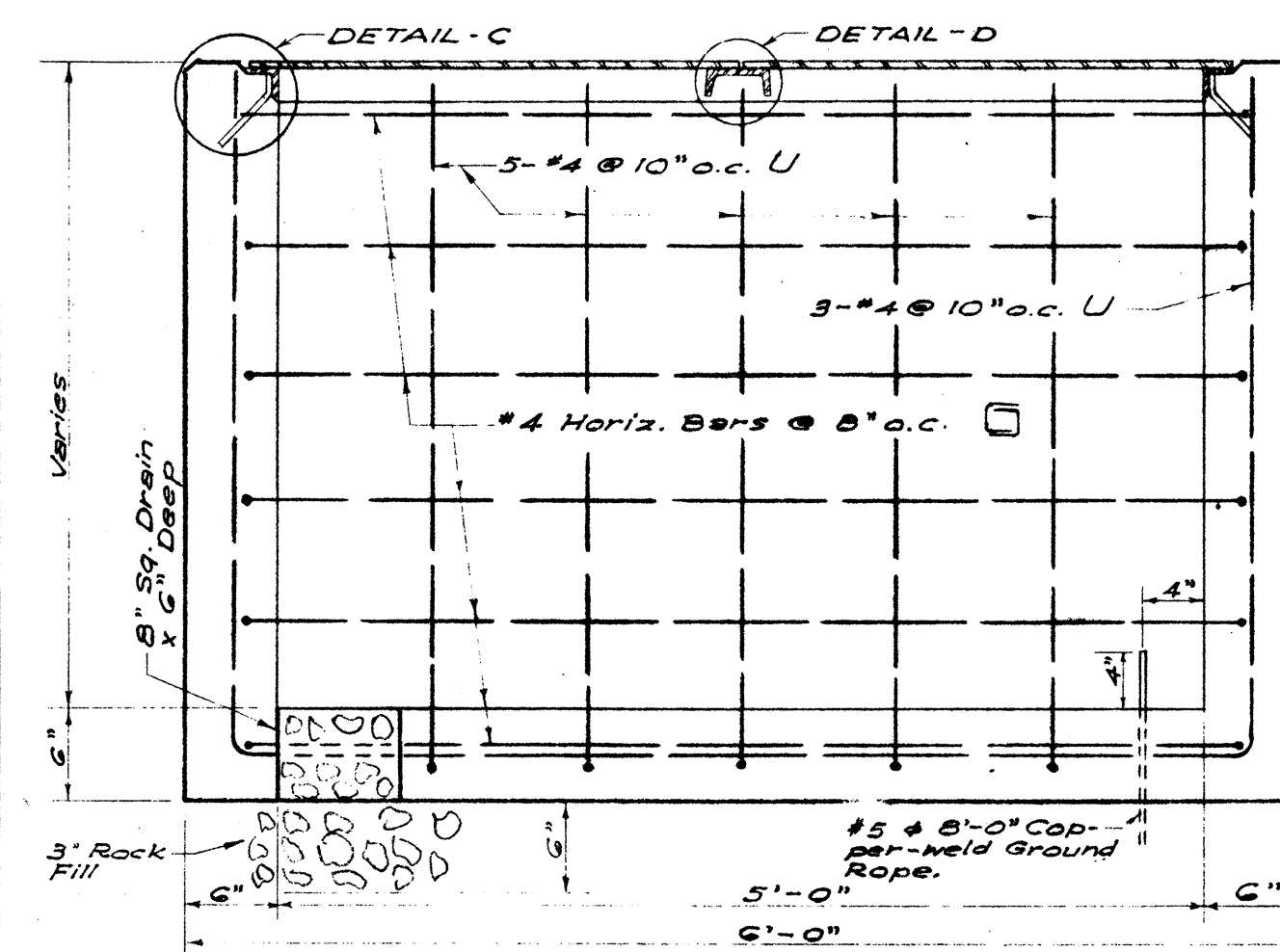


TOP PLAN
1" = 1'-0"

NOTE:
Size and Location of
Ducts on plan of
Project Required.

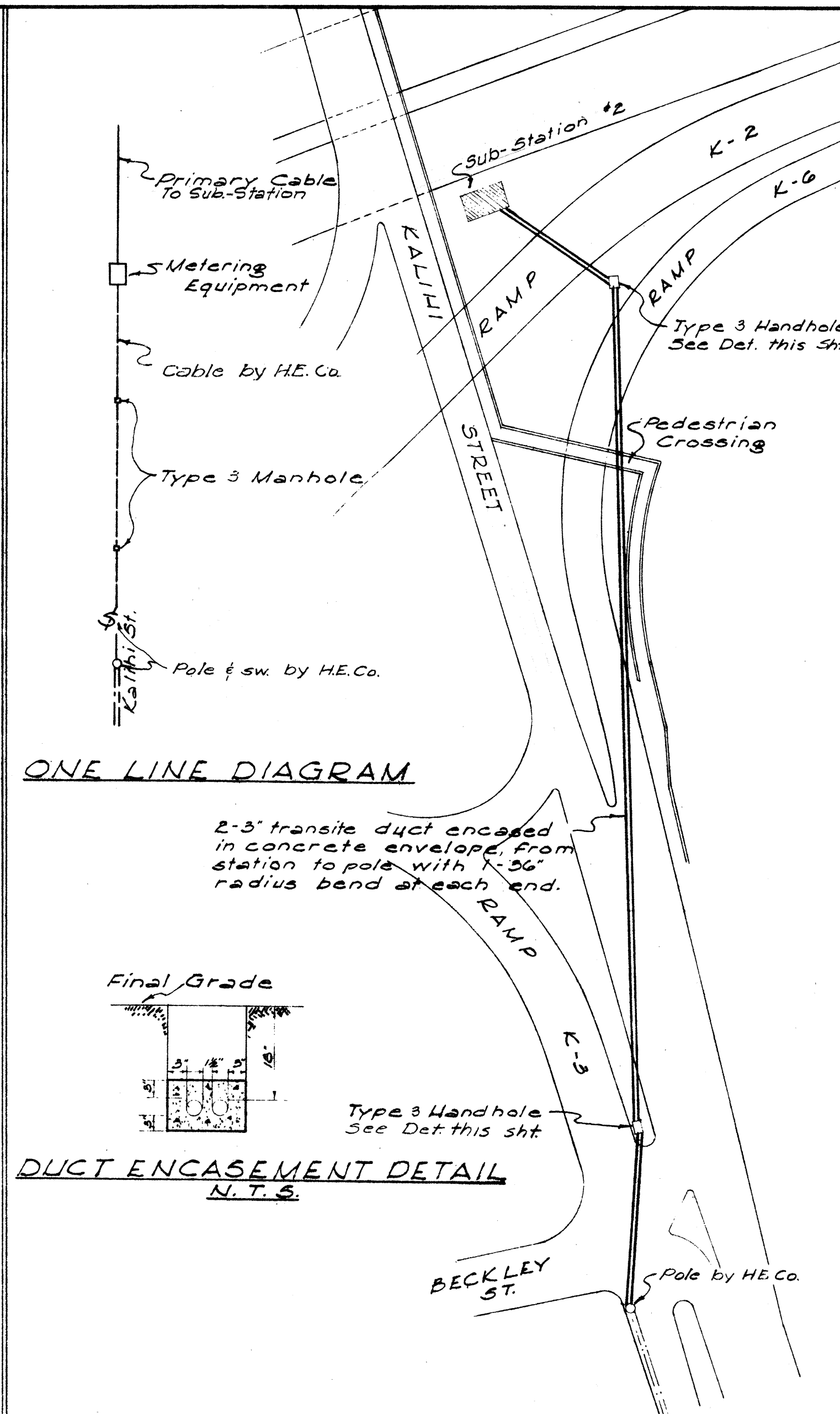


SECTIONAL PLAN
1" = 1'-0"



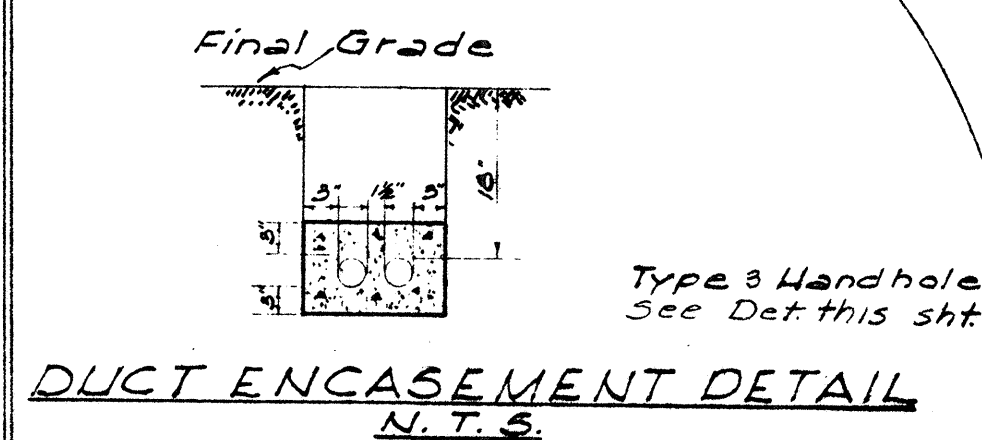
SECTION A-A
1" = 1'-0"

HANDHOLE TYPE #3
3'-0" x 5'-0" INSIDE



ONE LINE DIAGRAM

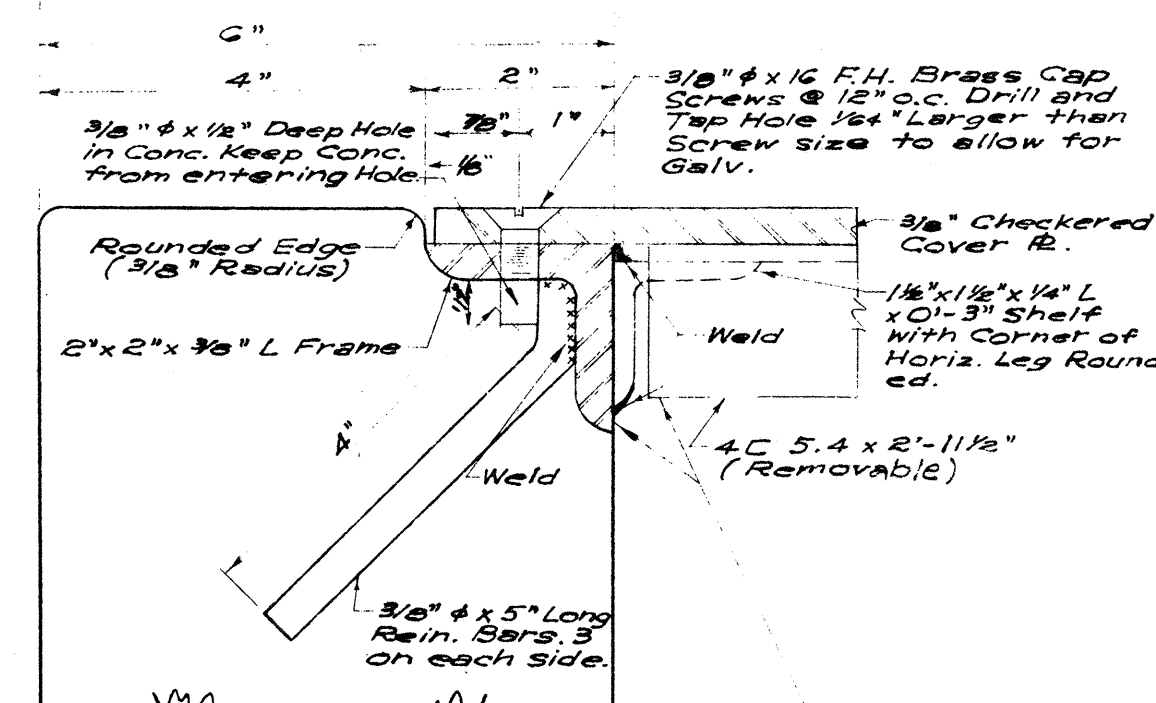
2-5' transite duct encased
in concrete envelope, from
station to pole with 1'-0" radius
bend at each end.



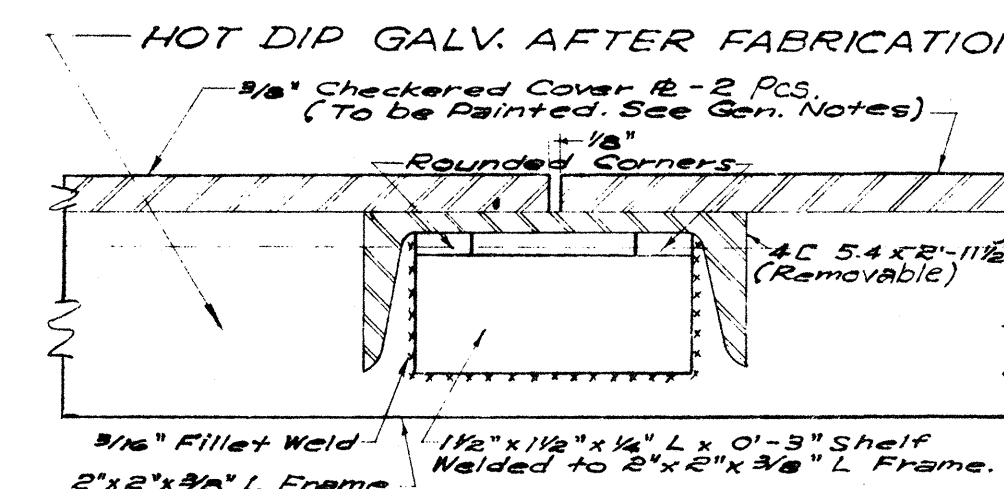
DUCT ENCASEMENT DETAIL
N.T.S.

UNDERGROUND DISTR. SYS
SUB - STA #2
Scale: 1" = 50'

NOTE:
Section Ap-
plies all a-
round Box.

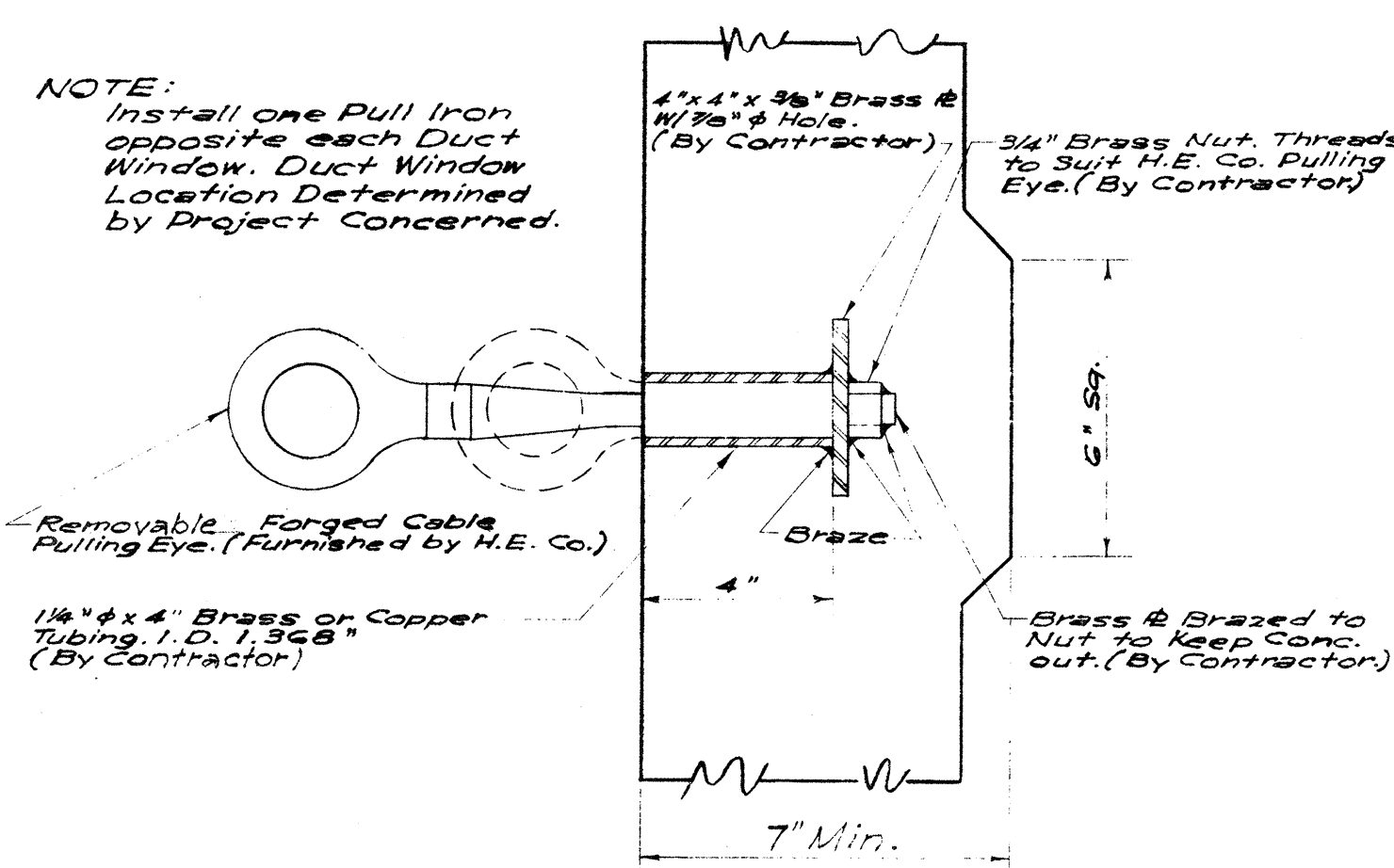


DETAIL C
1/2" Size



DETAIL D
1/2" Size

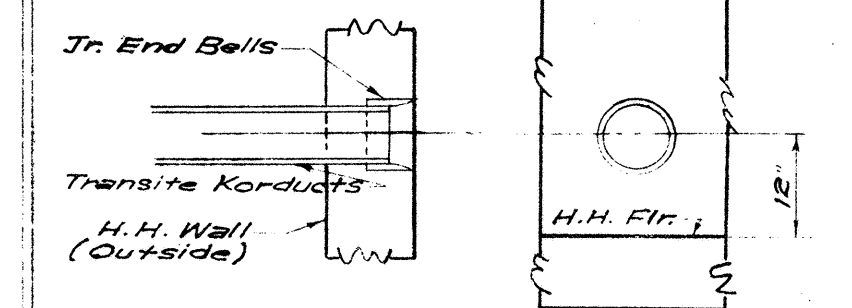
NOTE:
Install one Pull Iron
opposite each Duct
Window. Duct Window
Location Determined
by Project Concerned.



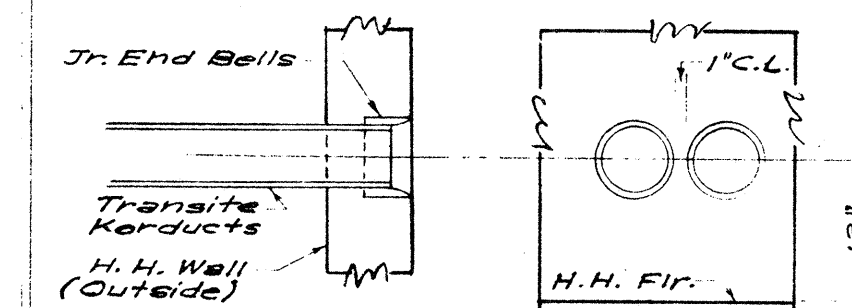
PULL IRON DETAIL
3" = 1'-0"

NOTE:
Size and location of Ducts on
Plan of Project Concerned.

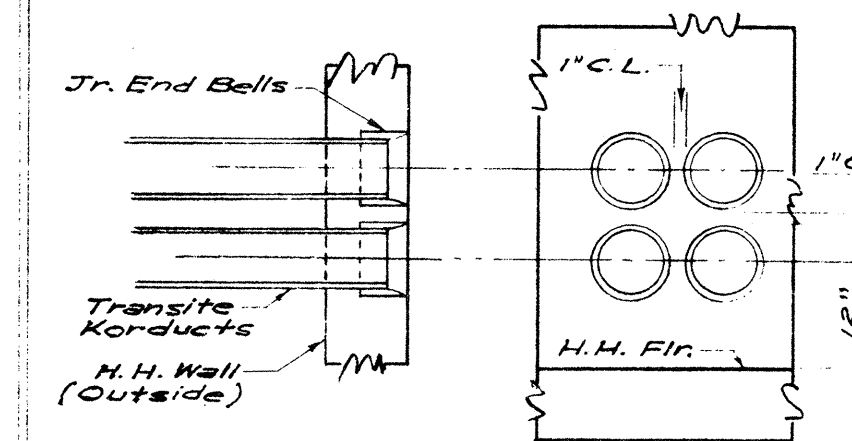
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	U-072-1(7) UNIT 3	1958	68	80
		US0630(2)	1958	82	103



SIDE ELEV. TOP PLAN FRONT VIEW
1-DUCT



SIDE ELEV. TOP PLAN FRONT VIEW
2-DUCT



SIDE ELEV. TOP PLAN FRONT VIEW
4-DUCTS
DUCT ENTRANCE DETAILS

GENERAL NOTES:

- 1- CONCRETE FINISH:
FLOORS - Smooth Metal Trowelled.
EXPOSED WALL SURFACES & EDGES - Smooth and free from defects.
- 2- Concrete to Develop Compressive Strength of 3000 P.S.I. in 28 days.
- 3- FINISH STEEL WORK AS FOLLOWS:
A - 2" Angle Frame and 4" Channel to be Hot Dip Galvanized After Fabrication.
B - 3/8" Checkered R. Covers to be thoroughly cleaned and given one base coat of Quigley's Triple A No. 10 and one finish coat of Quigley's Triple A No. 20.
- 4- For Duct Line Construction Standards, see H.E. Co. Dwg. U-18244, Rev. #2 and Specs. Sheet U-18244A.
- 5- These handholes are designed for installation in areas other than Roadways.



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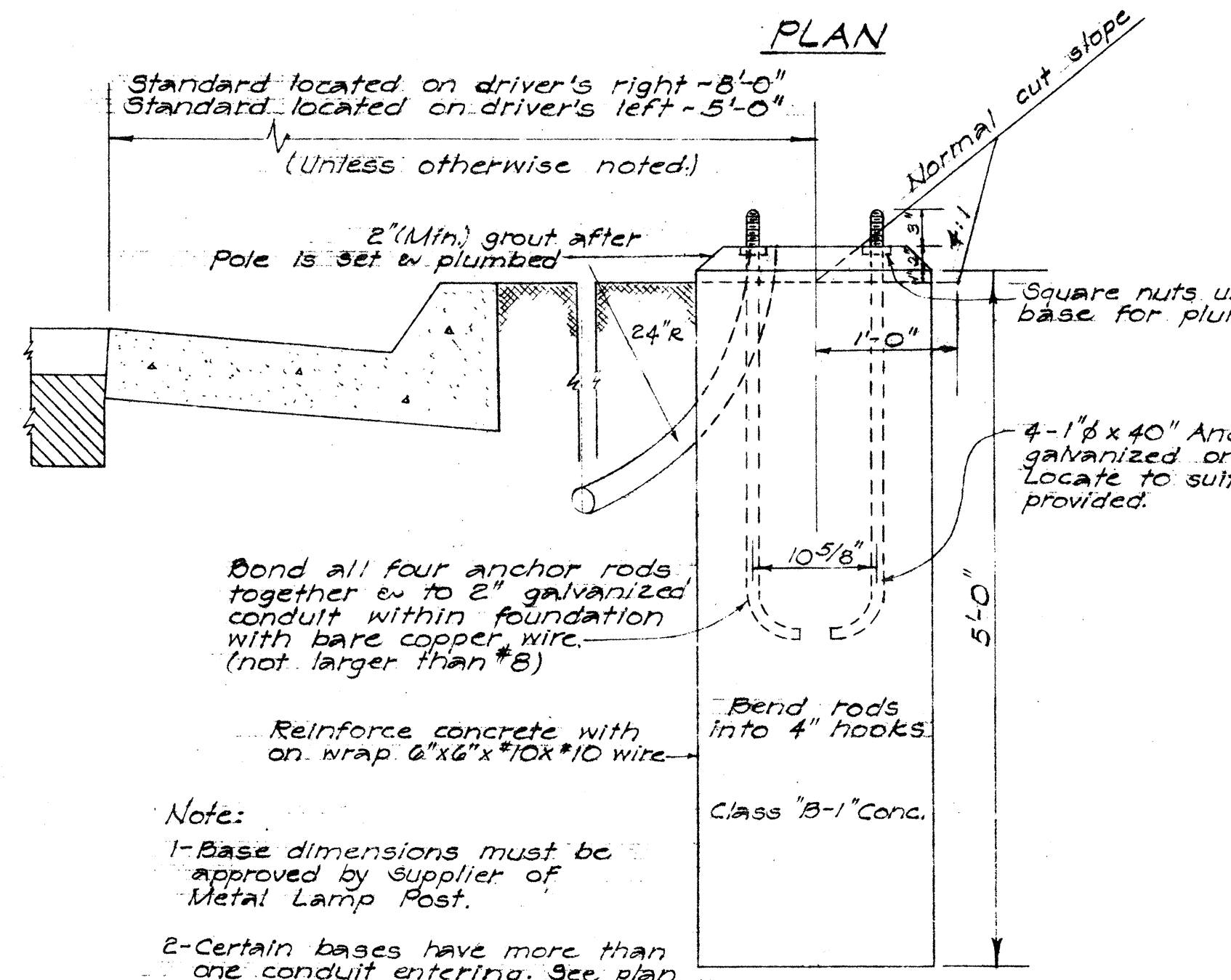
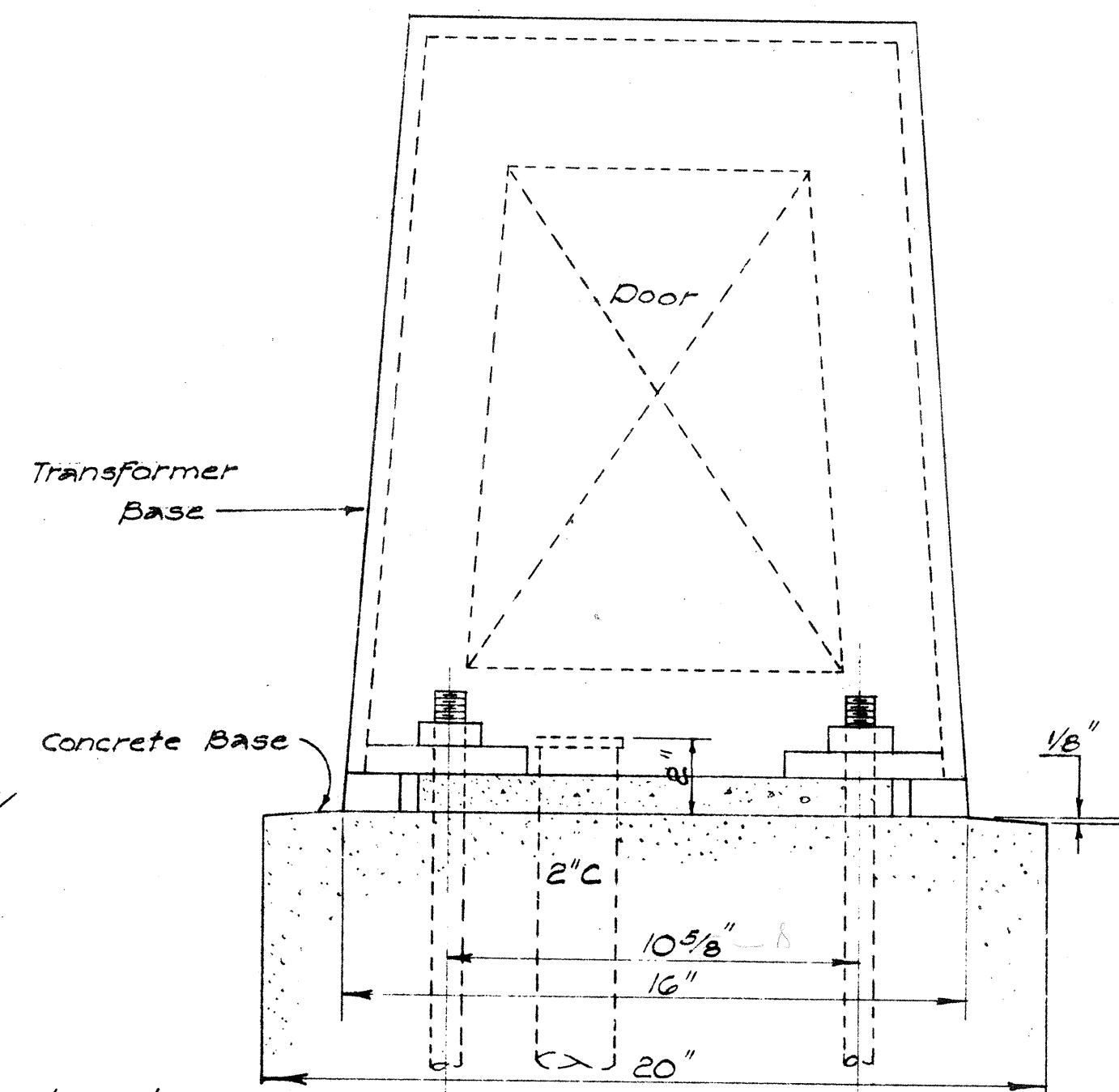
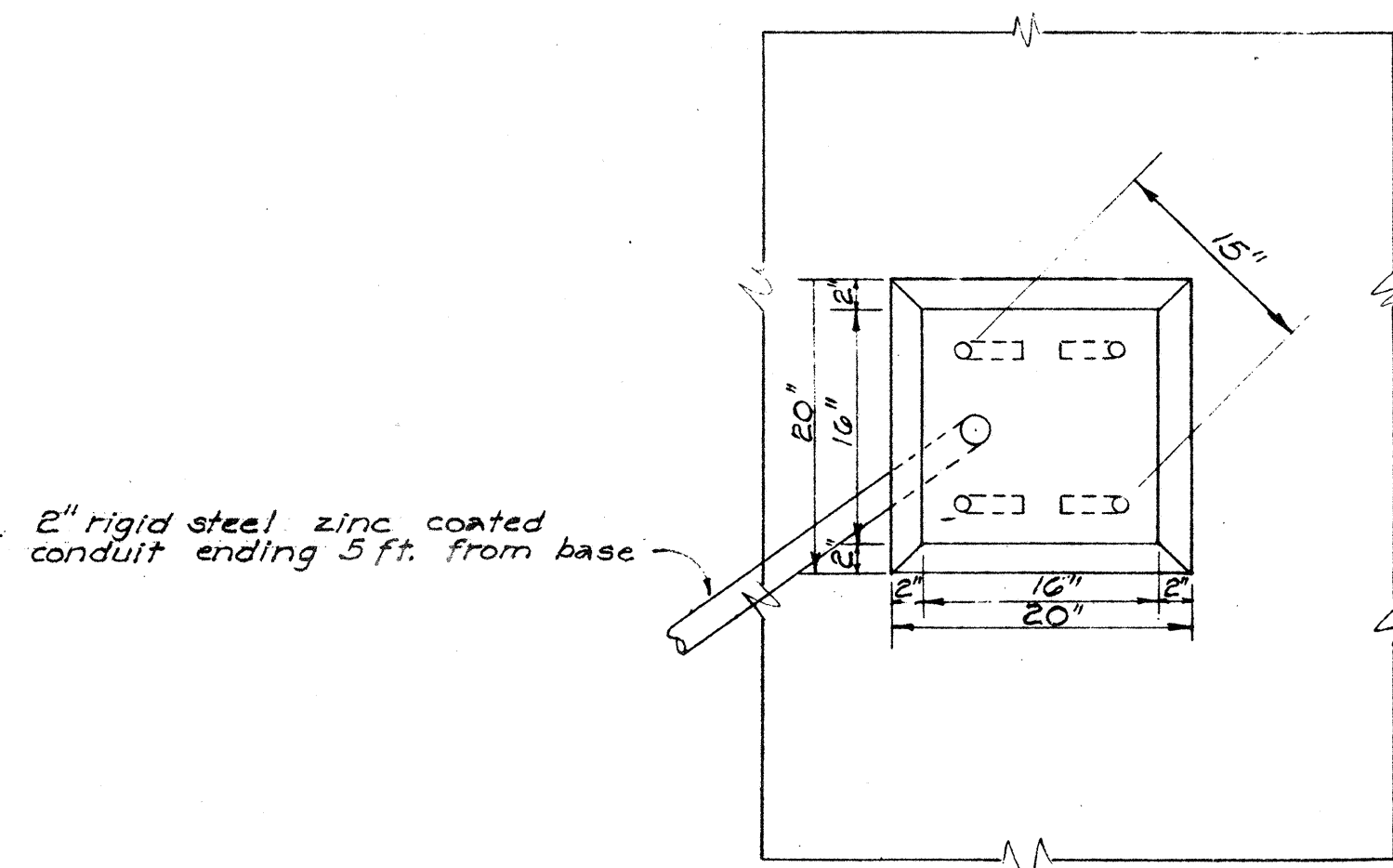
TERRITORIAL HIGHWAY DEPARTMENT TERRITORY OF HAWAII	
ELECTRICAL DETAILS HANDHOLE & DUCT ENTRANCE DETAIL	
LUNALILO FREEWAY	U-072-1(7) UNIT 3
KALIHI STREET	US0630(2)

SHEET NO. 3 OF 4 SHEETS

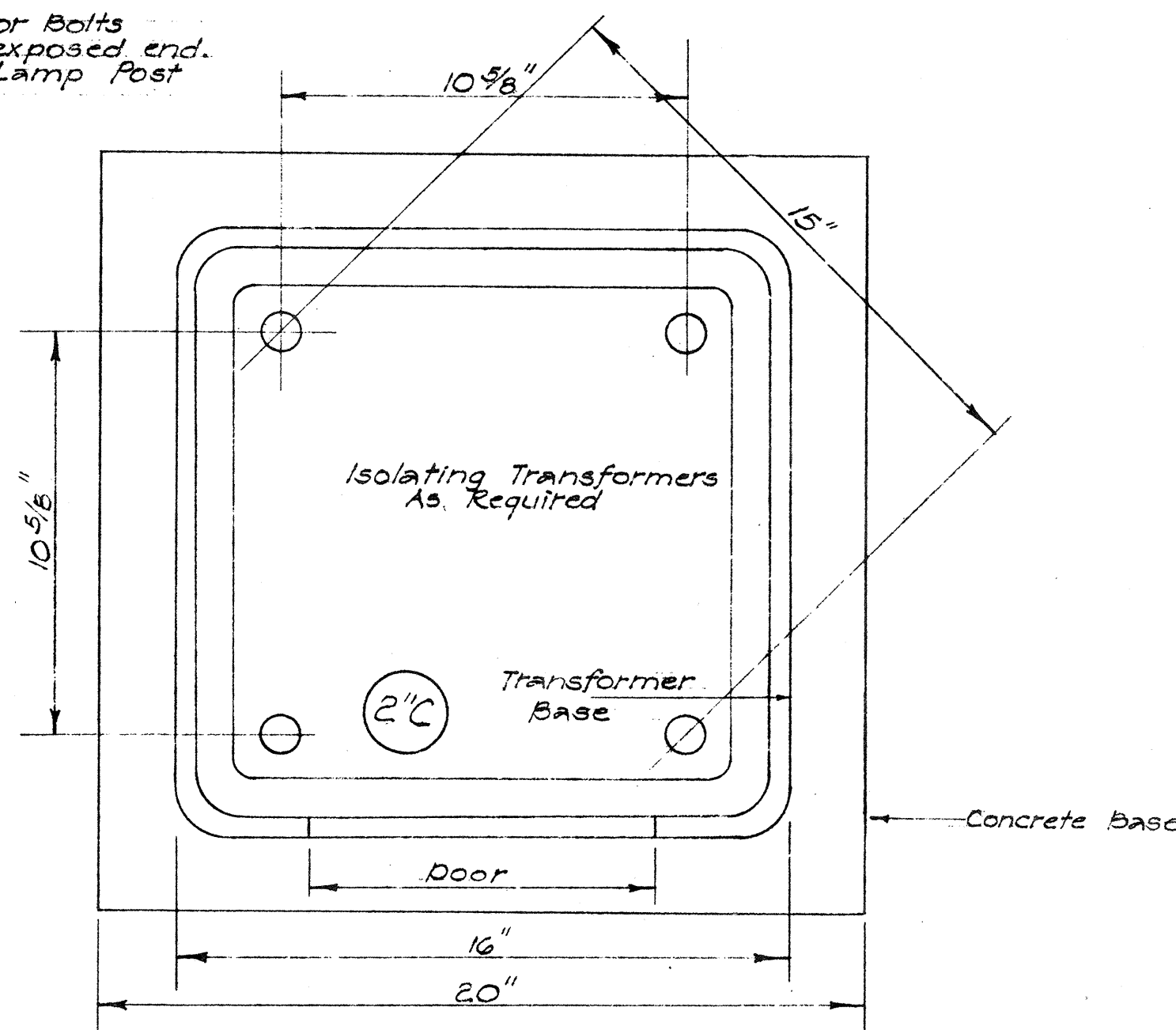
5953.68 5954.82

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(7) UNIT 3	1958	60	80
		US-06302	1958	83	103

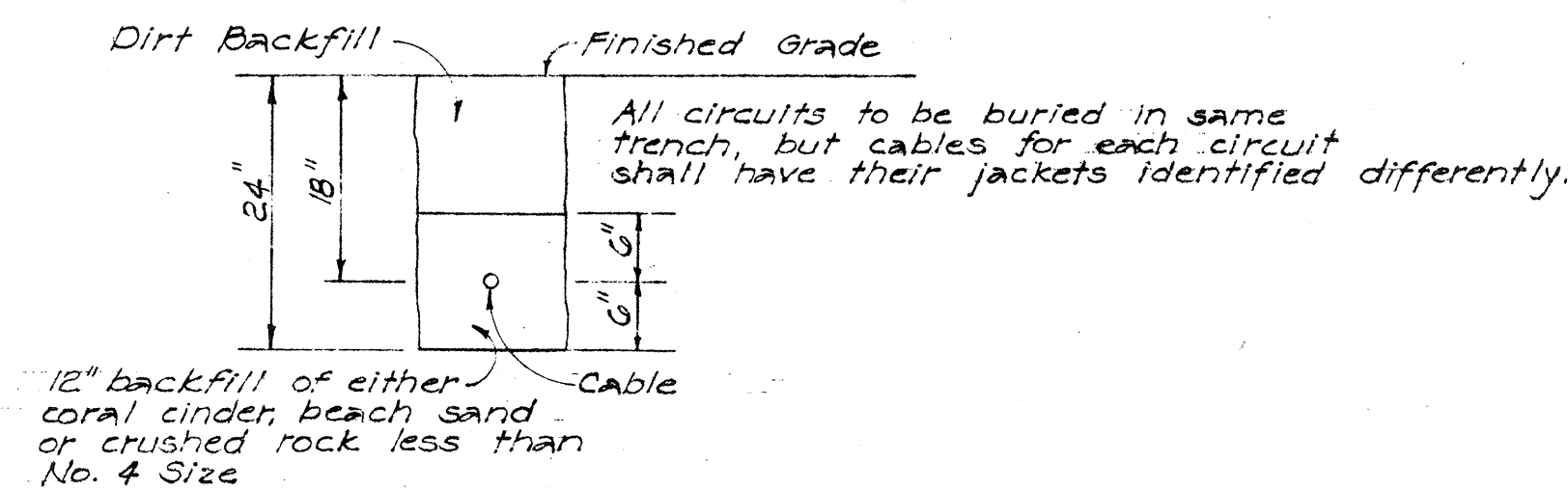
8-8-58
Revised 10-8-58



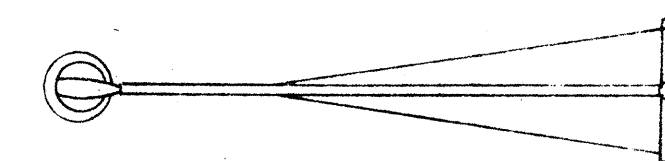
CONCRETE BASE FOR METAL ST. LT. STD.
Scale: 1"=1'-0"



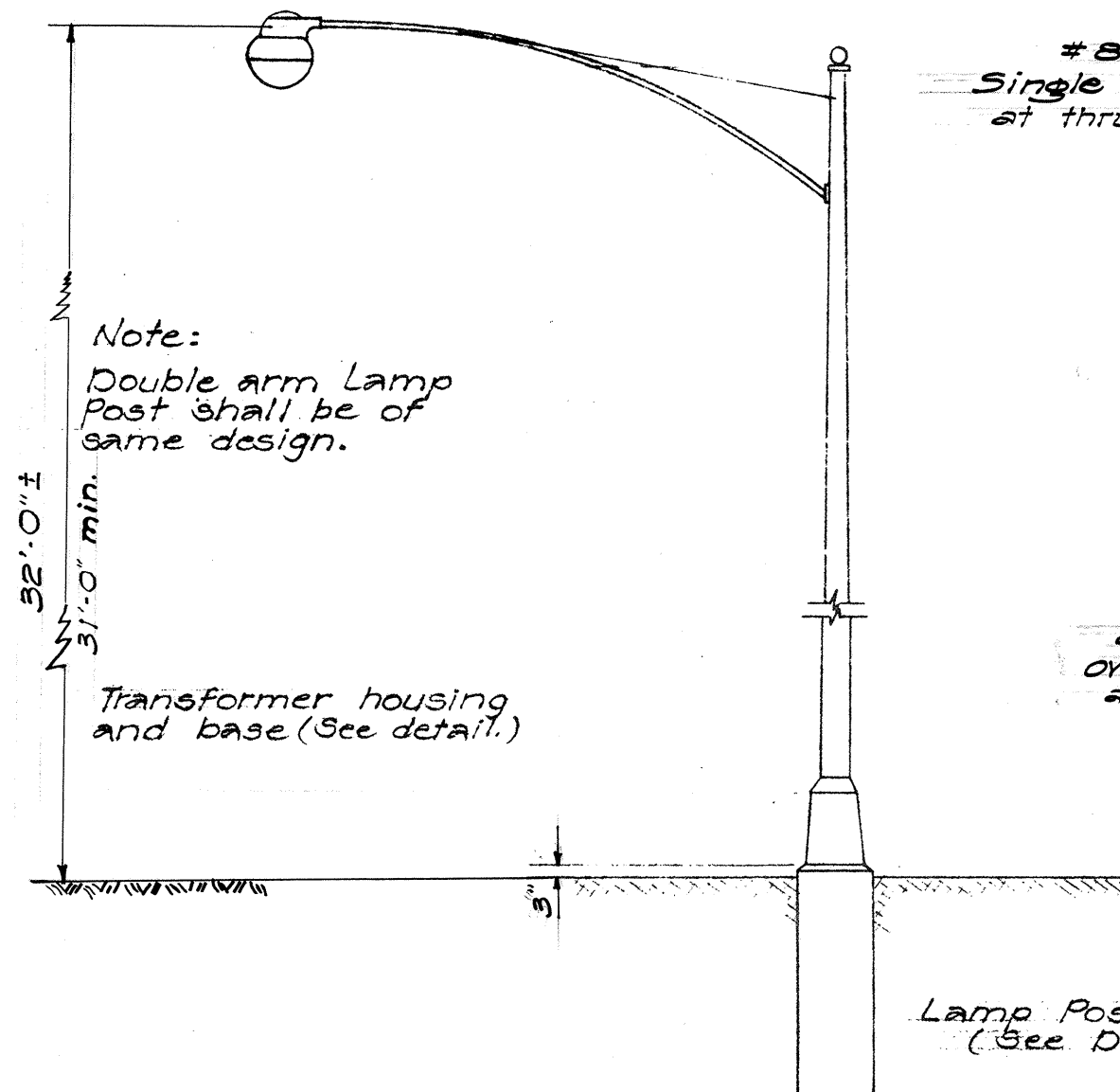
TYPICAL DETAIL OF TRANSFORMER BASE FOR METAL LAMP POST
Scale: 3"=1'-0"



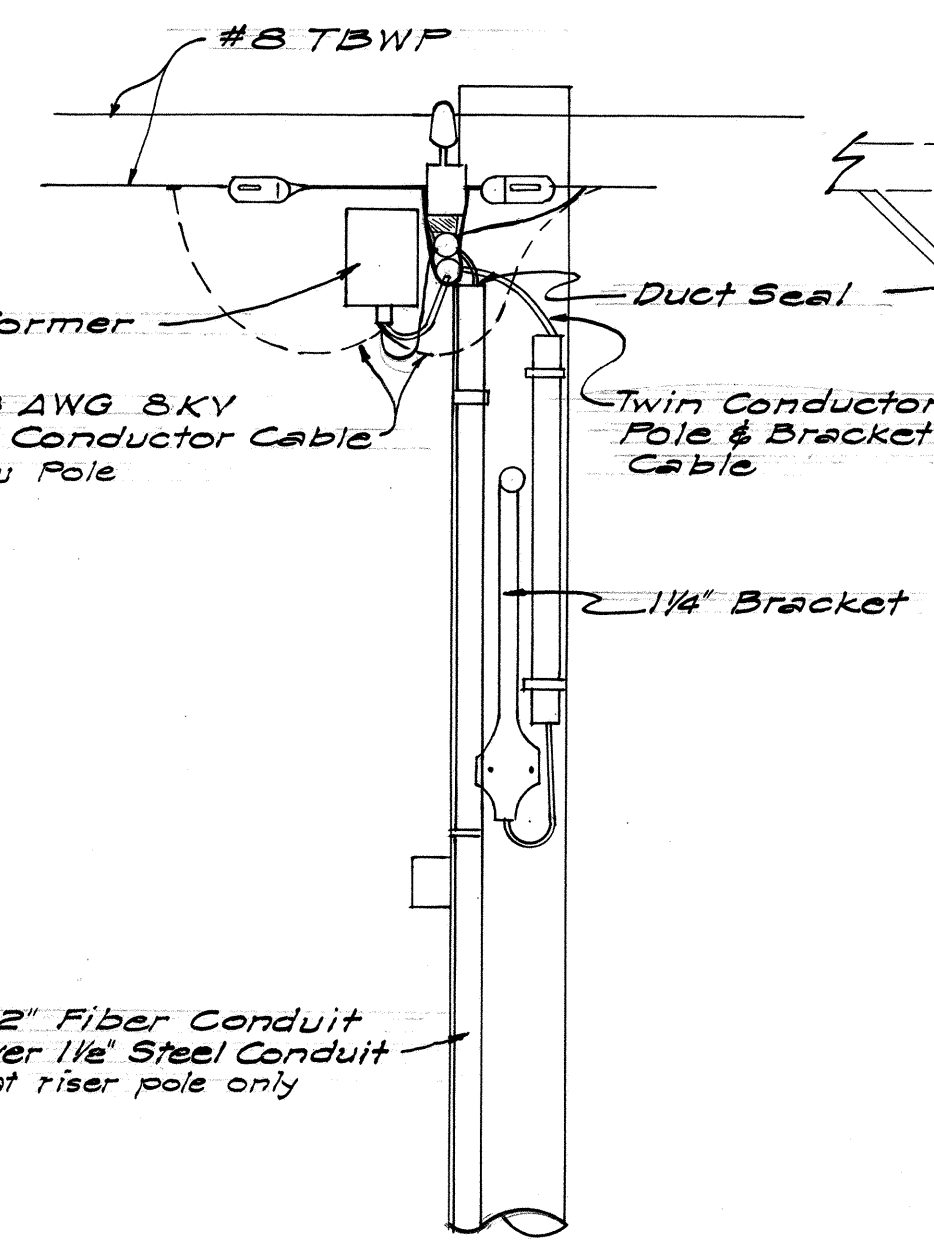
DETAIL OF BACKFILL FOR DIRECTLY BURIED CABLES
Scale: 3/4"=1'-0"



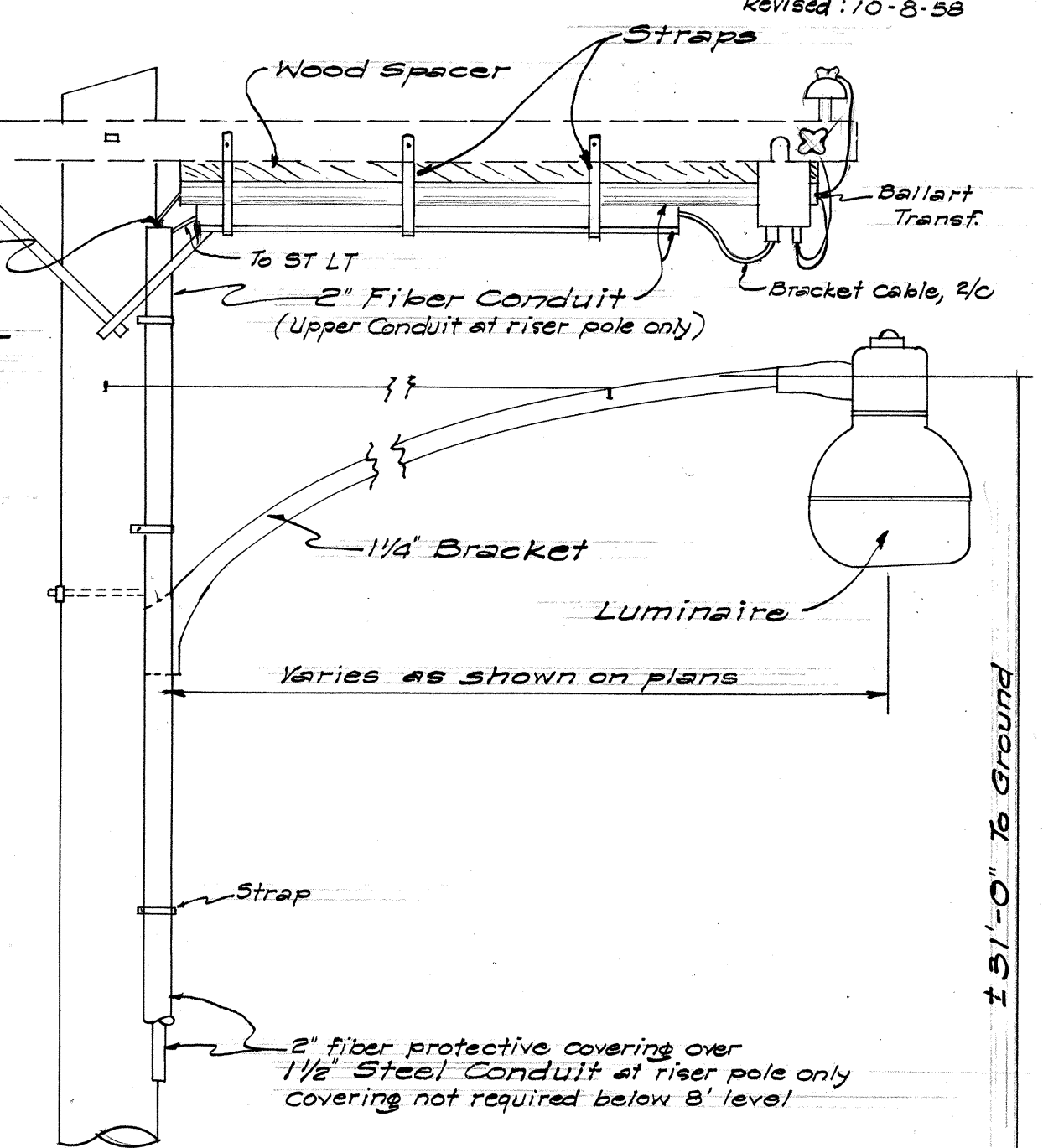
PLAN



TYPICAL SINGLE ARM METAL LAMP POST
Scale: 1/4"=1'-0"



FRONT ELEVATION



SIDE ELEVATION

MOUNTING DETAIL OF LUMINAIRE BRACKET ON UTILITY POLE



BELT, COLLINS & ASSOC., LTD.
Civil and Structural Engineers

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
ELECTRICAL DETAILS
LUNALILO FREEWAY U-072-1(7) UNIT 3
KALIHI STREET US-0630(2)

SHEET No. 4 OF 4 SHEETS

5983.69 5984.83 104