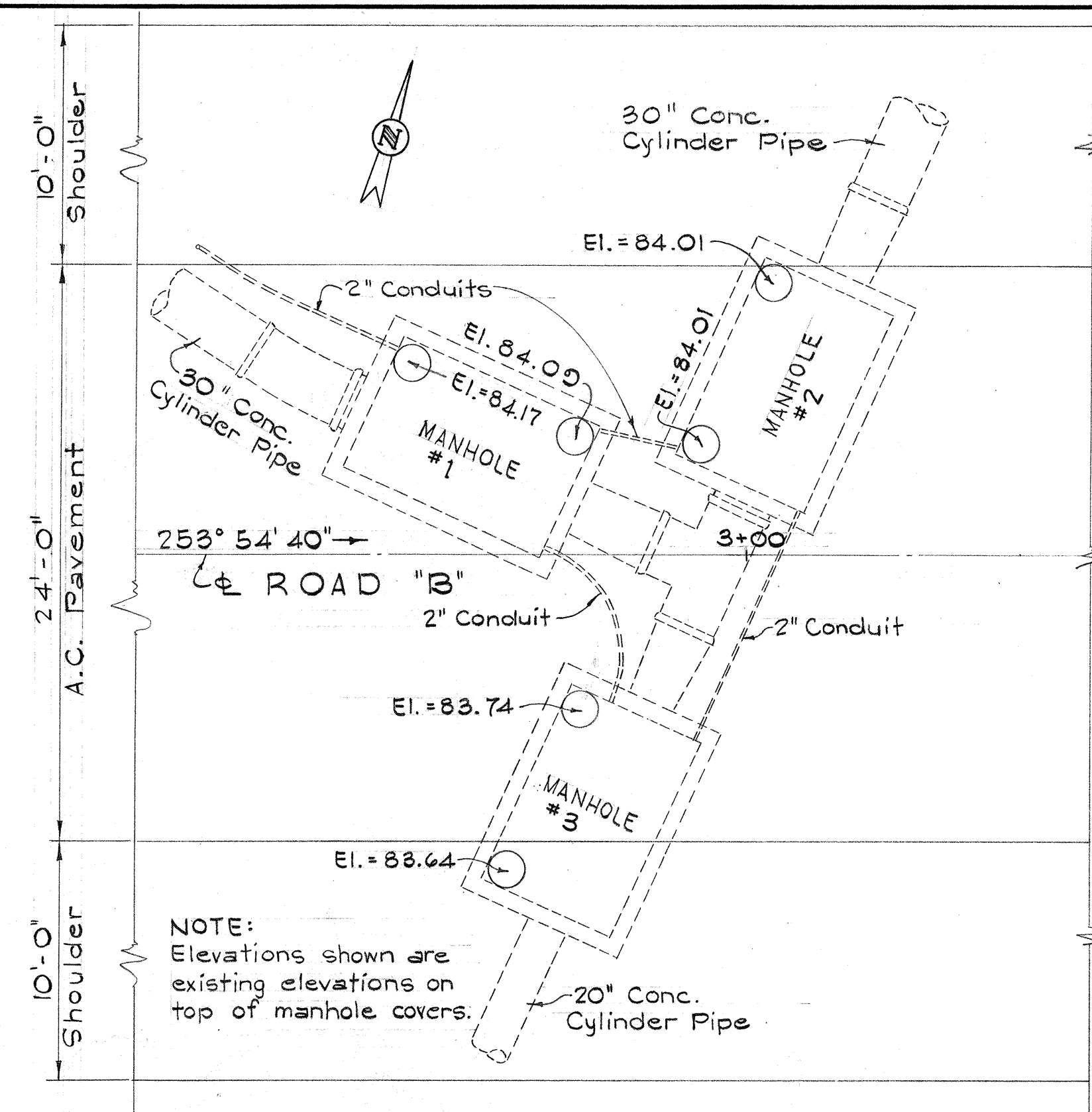
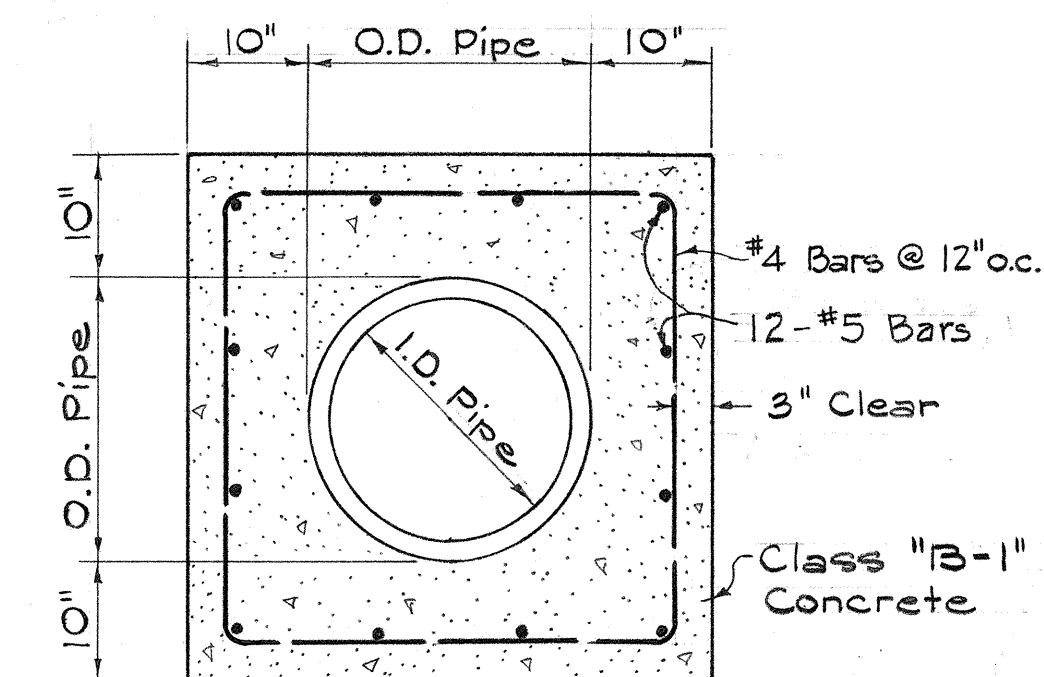


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(20)	1965	15	55



PLAN OF EXIST. WATER MANHOLES
@ ROAD "B" & STA. 2+05

Scale: 3/16"=1'-0"



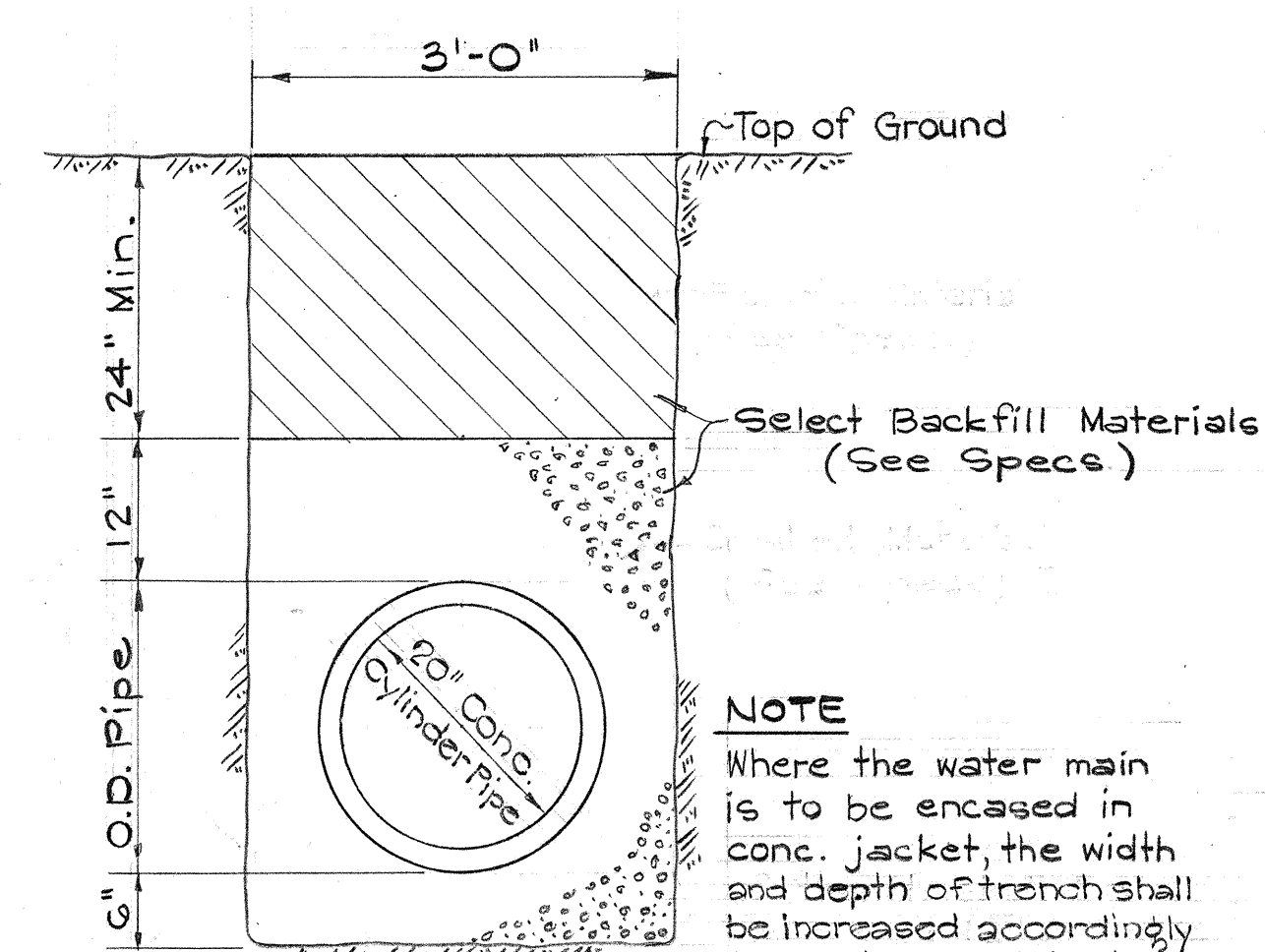
SECTION
TYP. REINF. CONC. JACKET

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

Wherever construction joints are required in concrete jackets, G' rubber or neoprene waterstops shall be installed. Waterstop shall be of the type specified and manufactured by the Servicized Products Corp., Gates Rubber Co., or approved equal.

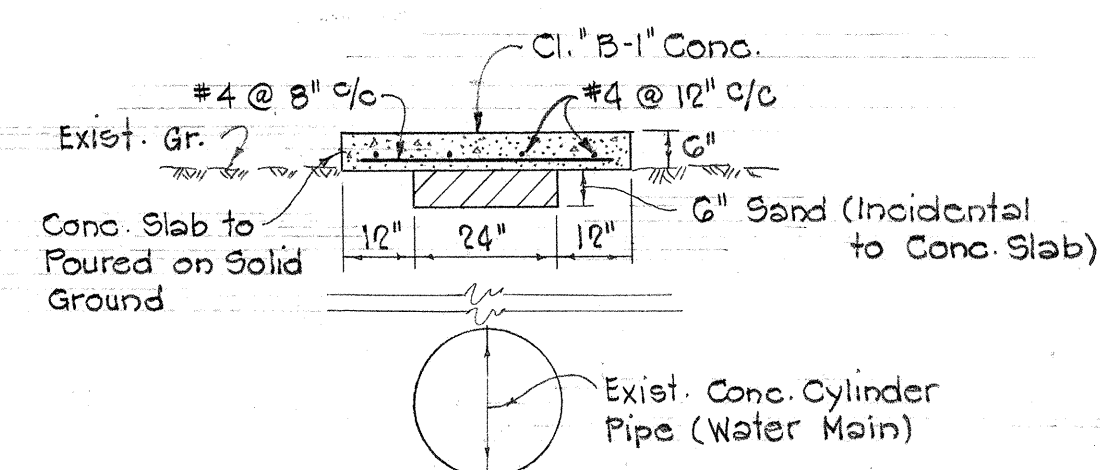
NOTES:

- 3-existing manhole top slabs to be adjusted to new grades. Reuse frames & covers.
- In the event that the top slab should be damaged during adjustment work, and the Engineer finds top slab unfit for reuse, the Contractor shall construct new top slab at his own expense using plans shown below.
- Raising of top slab shall be incidental to brickwall construction.
- Adjusting Manhole frames and covers shall be paid for separately.



SECTION
TYPICAL TRENCH

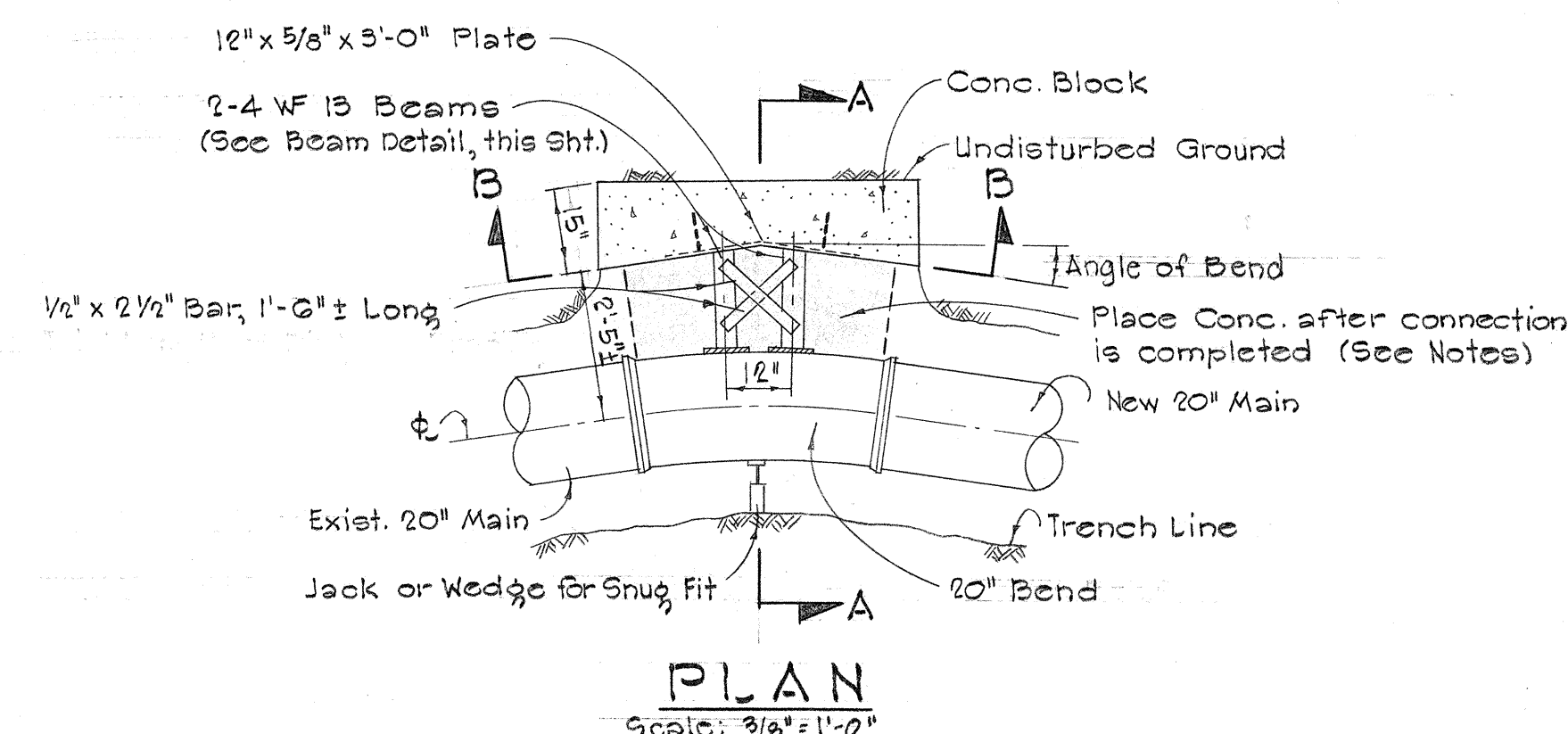
Scale: 3/4"=1'-0"



TYPICAL SECTION-REINF. CONC. SLAB

(Where Fill over Pipe exceeds 8')

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



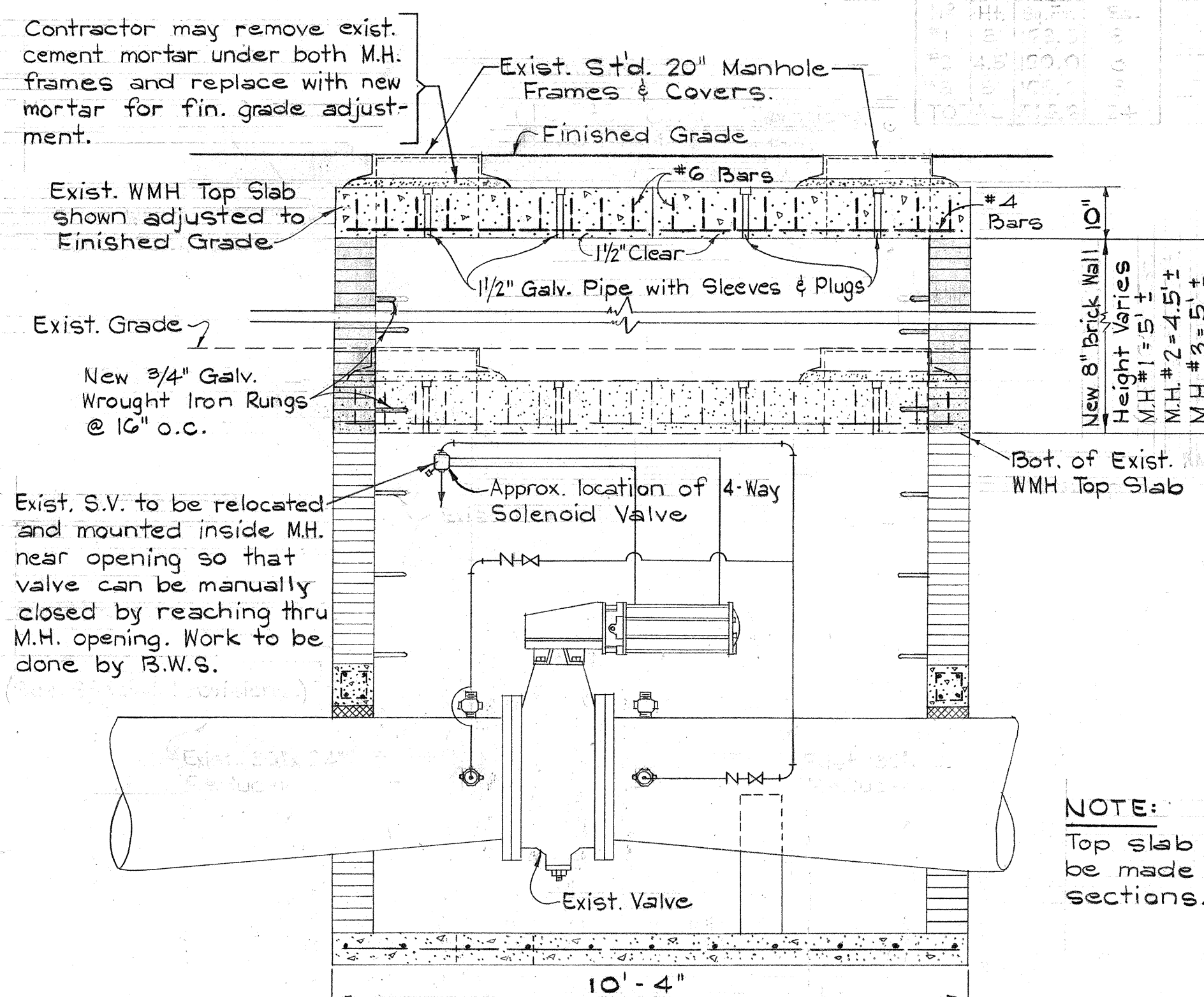
SECTION "A-A"

SPECIAL CONC. BLOCK DETAIL FOR 20"
CONCRETE CYLINDER PIPE

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

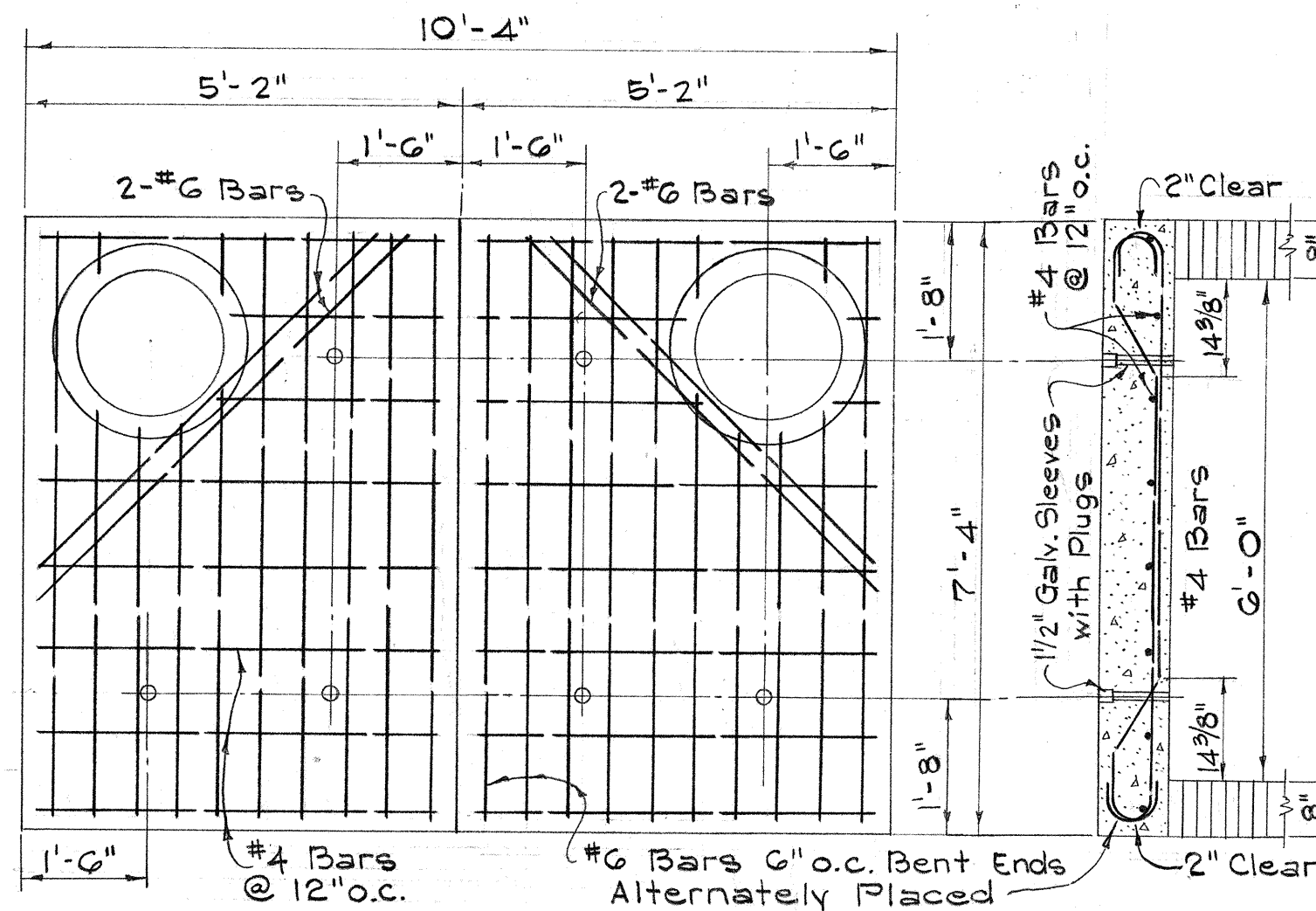
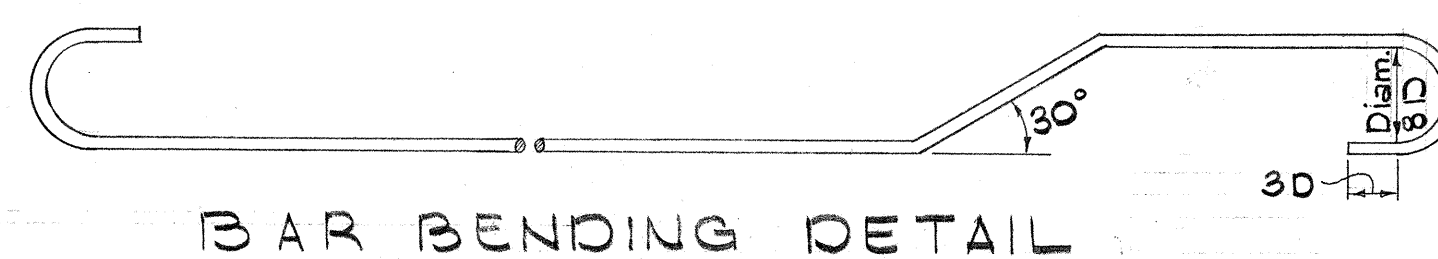
NOTES:

- Design Pressure in 20" @ 70 p.s.i.
- Minimum Cover Over Reinf. Shall be 3'
- Concrete Shall Be Class 'B-1'
- Shaded Area To Be Filled With Concrete After Connection is Completed.
- Special Conc. Block to be installed only Where Directed by the Engineer.



TYPICAL FRONT SECTION VIEW

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



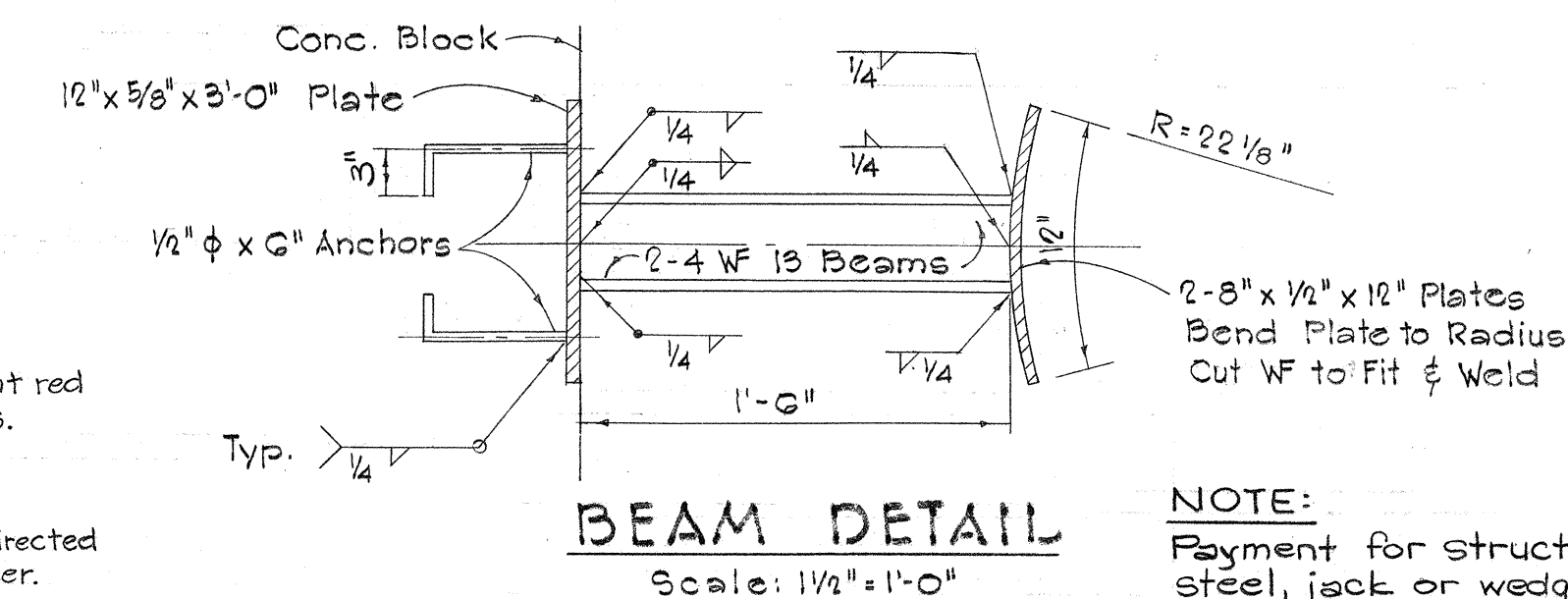
TYPICAL PLAN VIEW
OF M.H. TOP SLAB

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

SIDE SECTION

DETAIL OF VALVE MARKER

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



BEAM DETAIL

Scale: 1/4"=1'-0"

NOTE:
Payment for structural steel, jack or wedge shall be incidental to Cl. 'B-1' concrete.



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

APPROVED:

Assistant Chief Engineer B.W.S.

11/9/65
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

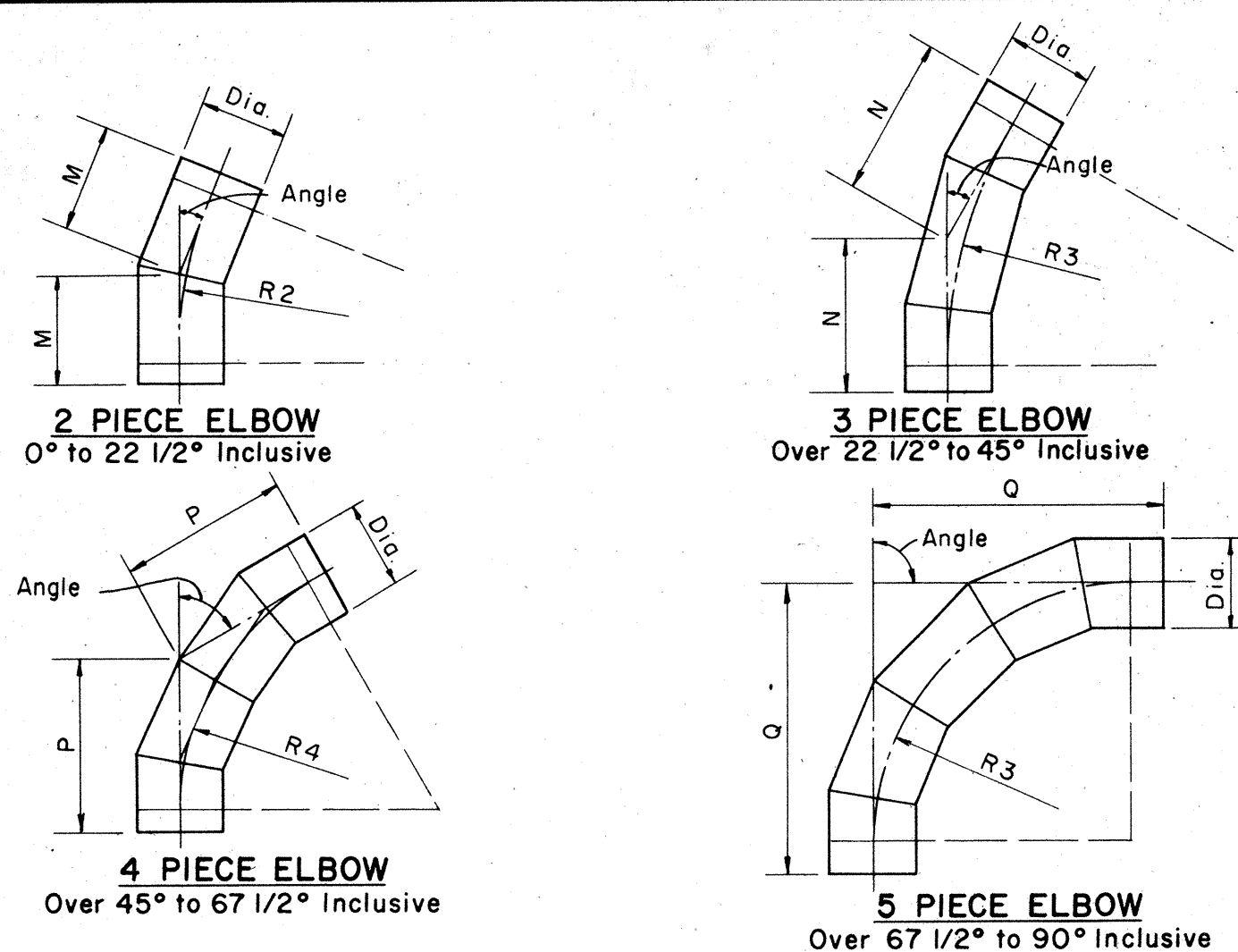
WATER DETAILS

INTERSTATE ROUTE H-1
F.A.I. Proj. N2 I-HI-1 (20)

Scale: As Noted Date: JULY, 1964

SHEET No. 1 OF 9 SHEETS

ORIGINAL PLAN	DATE
FRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	



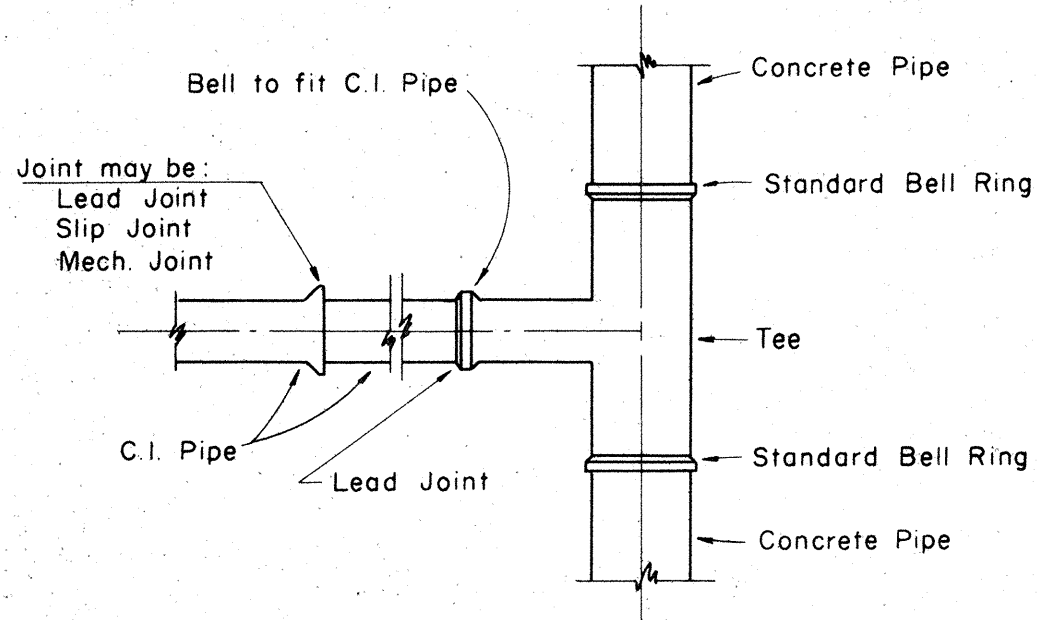
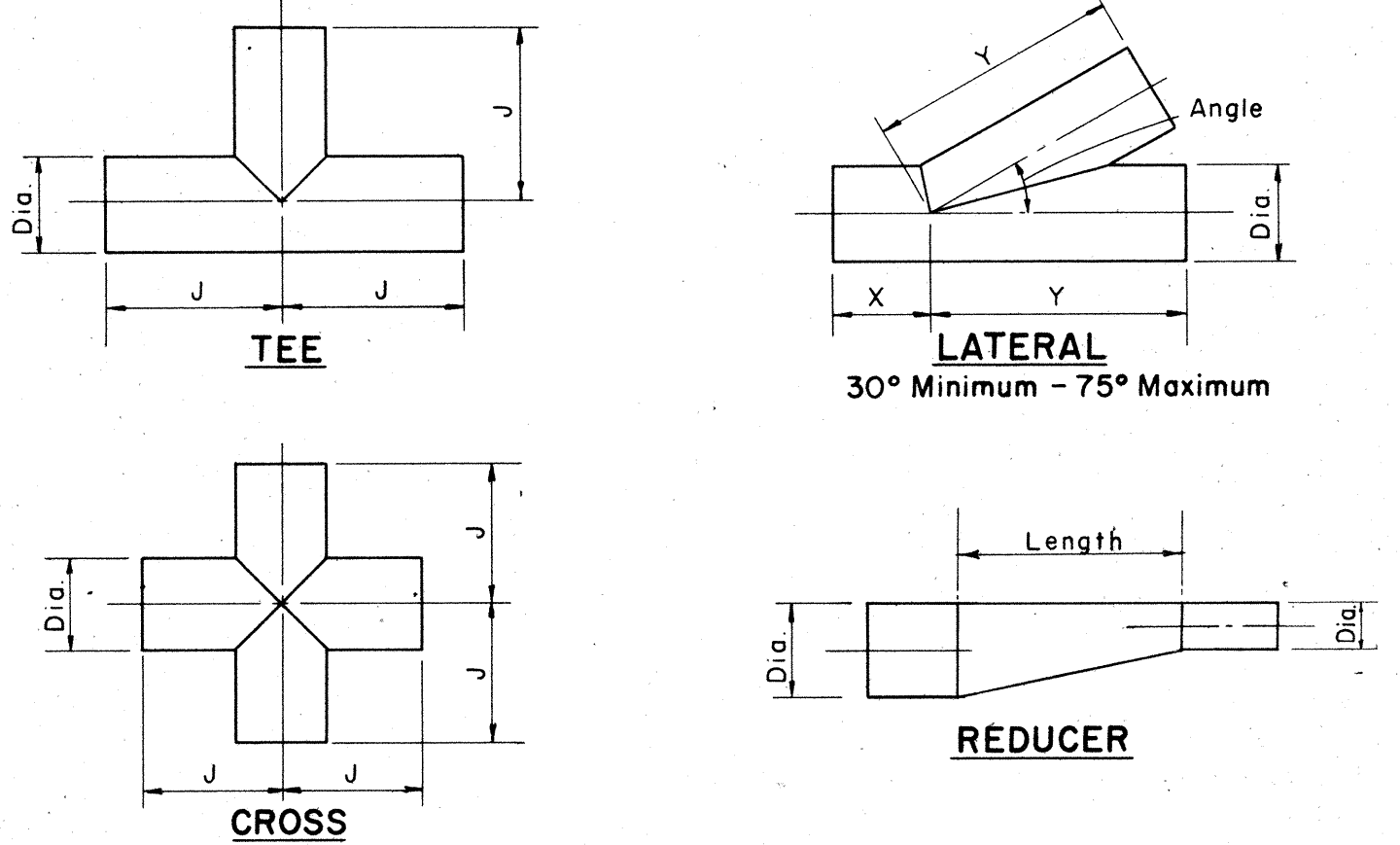
STANDARD FITTING DIMENSIONS													
DIAMETER	TEE		CROSS (Both Ways) J+J	LATERAL (30° to 75°)		ELBOWS (Center to End)							
	Run J+J	Outlet J		Run X+Y	Outlet Y	2 Piece (up to 22 1/2°)		3 Piece (22 1/2° to 45°)		4 Piece (45° to 67 1/2°)		5 Piece (67 1/2° to 90°)	
						M	R2	N	R3	P	R4		
16"	34"	17"	34"	62"	52"	12"	60"	18"	44"	26"	39"	34"	
18"	36"	18"	36"	66"	56"	12"	60"	19"	47"	27"	41"	36"	
20"	38"	19"	38"	72"	60"	13"	65"	20"	49"	28"	42"	39"	
22"	40"	20"	40"	78"	66"	13"	65"	21"	51"	30"	45"	41"	
24"	42"	21"	42"	84"	72"	14"	70"	22"	54"	32"	48"	44"	
30"	60"	30"	60"	96"	84"	15"	75"	25"	61"	37"	51"	51"	
36"	66"	33"	66"	110"	96"	16"	80"	27"	66"	40"	60"	56"	

DIMENSIONS FOR ECCENTRIC REDUCER REDUCING SECTION

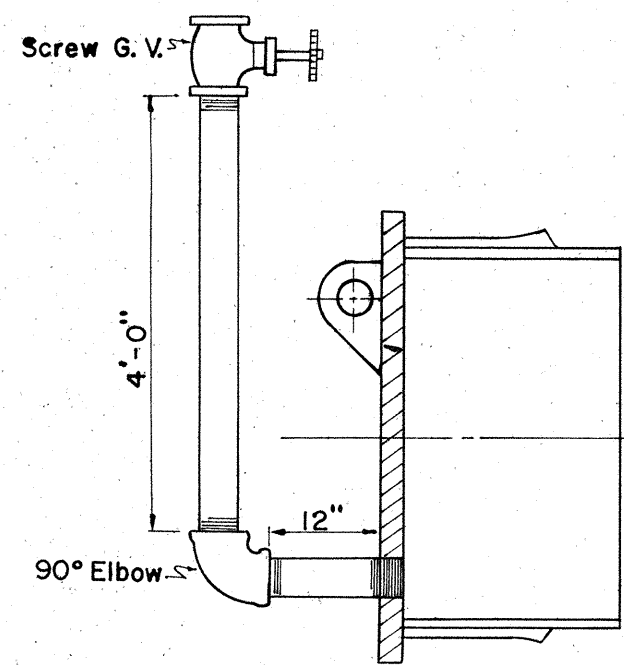
36" X 30" Eccentric Reducer - Length 66"
 30" X 24" Eccentric Reducer - Length 66"
 24" X 20" Eccentric Reducer - Length 26"
 20" X 16" Eccentric Reducer - Length 26"

NOTE:

All dimensions shown are laying lengths.
 All fittings and specials shall be fabricated independent from pipe sections and in accordance with the dimensions shown.
 All fittings and specials shall be all bell unless otherwise noted.
 All tees, wyes, crosses and reducers 16-inch in diameter and larger shall be reinforced with steel ribs or steel crotch plates welded continuously to the cylinder or by other methods to withstand the longitudinal crushing effect caused by the test pressure as called for in the plans.

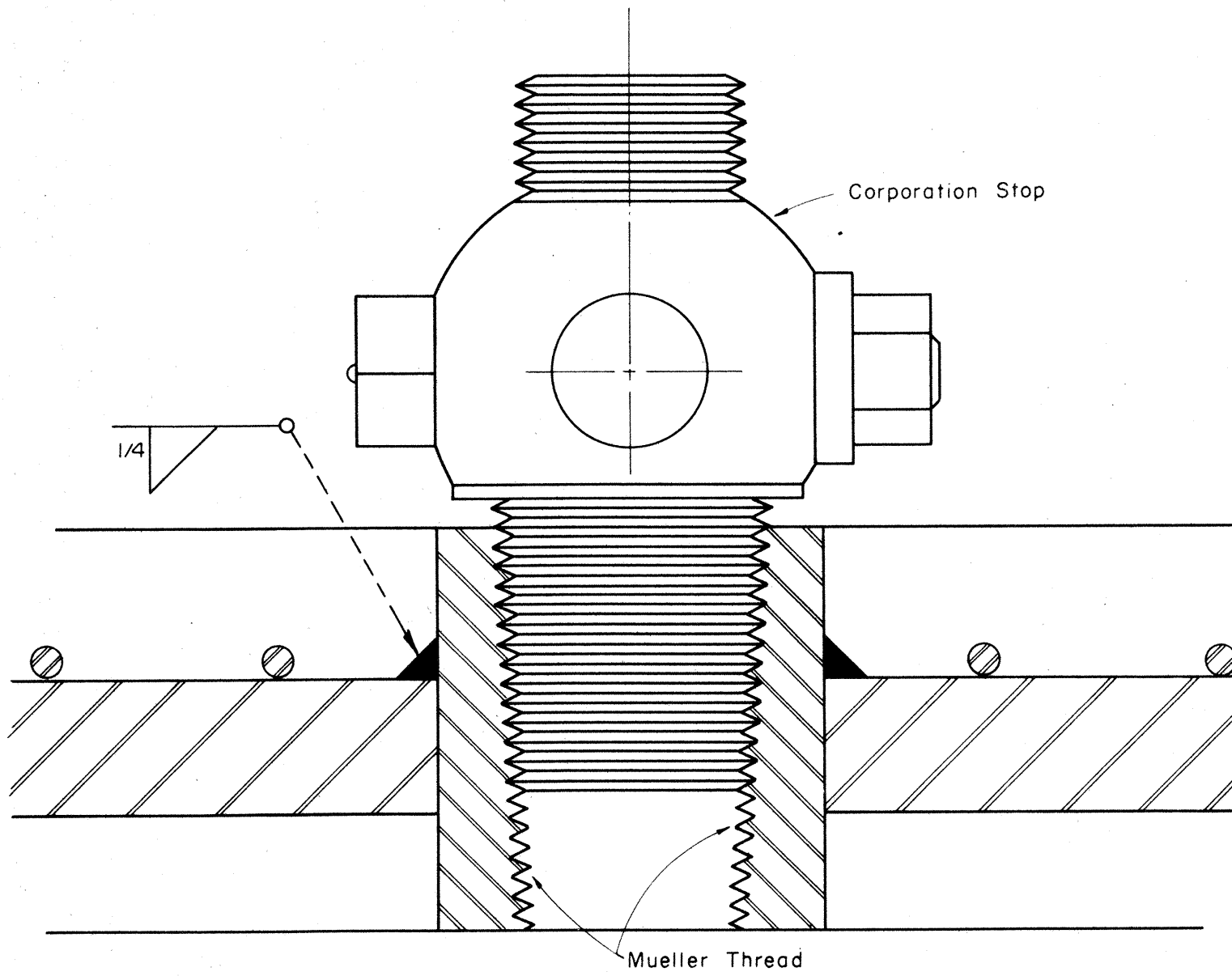
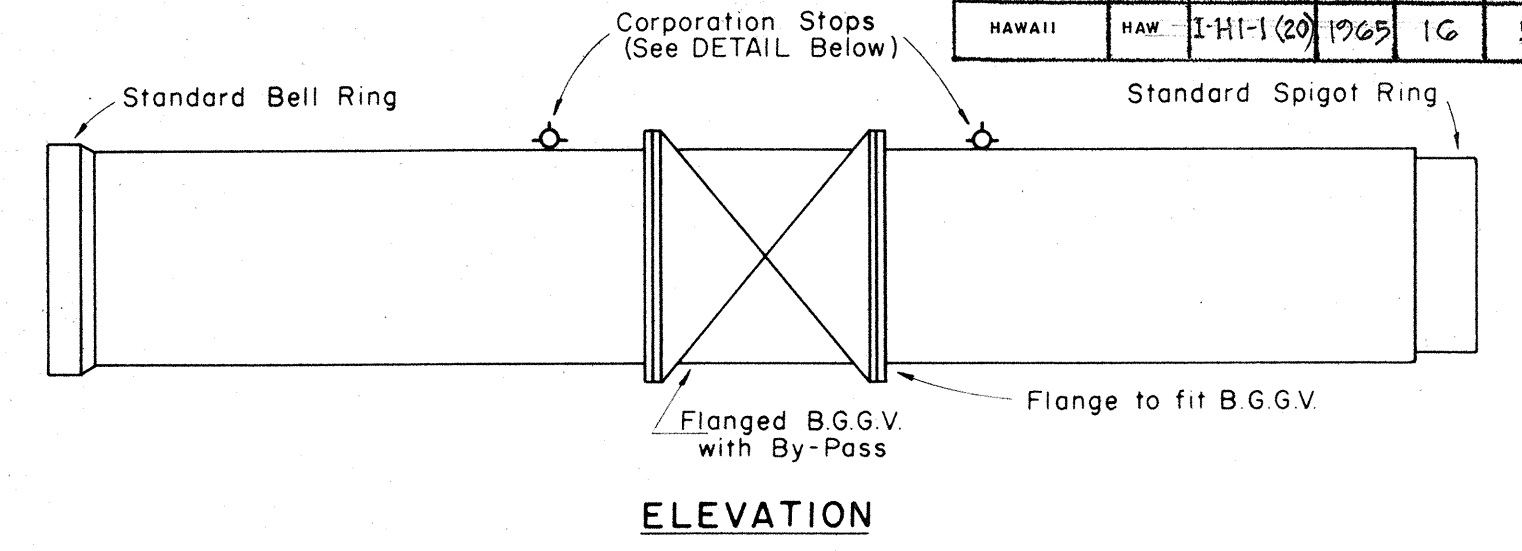


TYPICAL CAST IRON PIPE CONNECTION TO CONCRETE CYLINDER PIPE

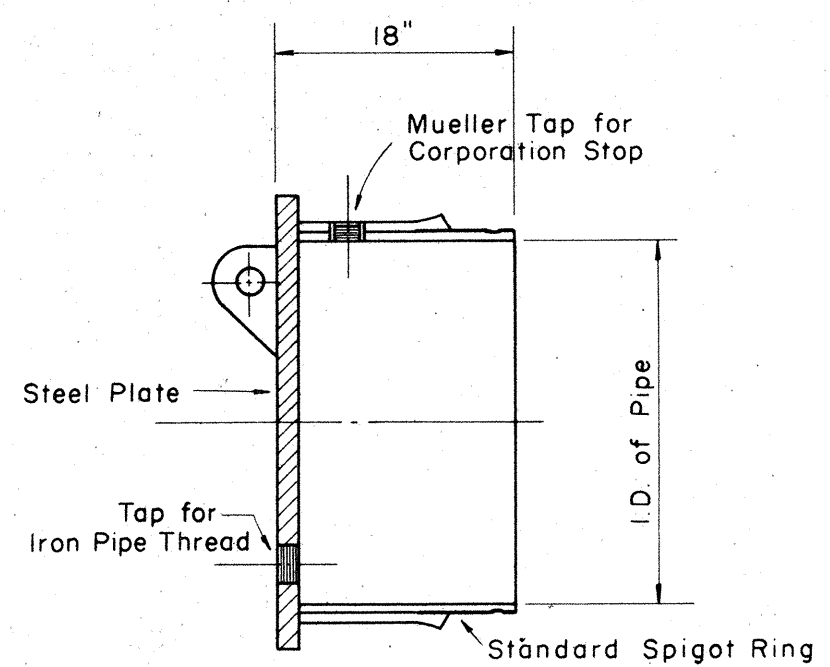
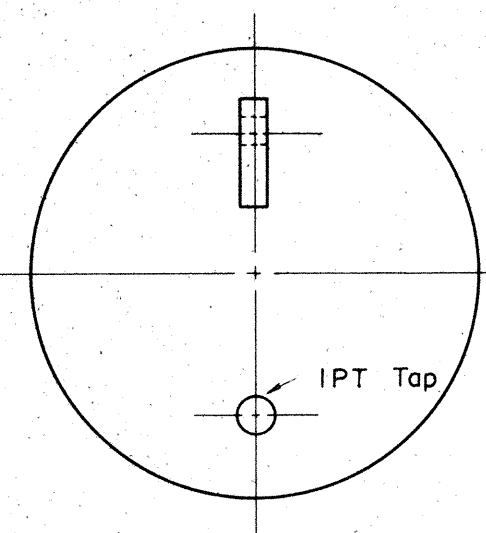


TYPICAL SECTION OF TEMPORARY CLEANOUT

NOTE:
 For Pipe Sizes 12" And Below - 2 1/2" Cleanout
 For Pipe Sizes 16" And Above - 4" Cleanout

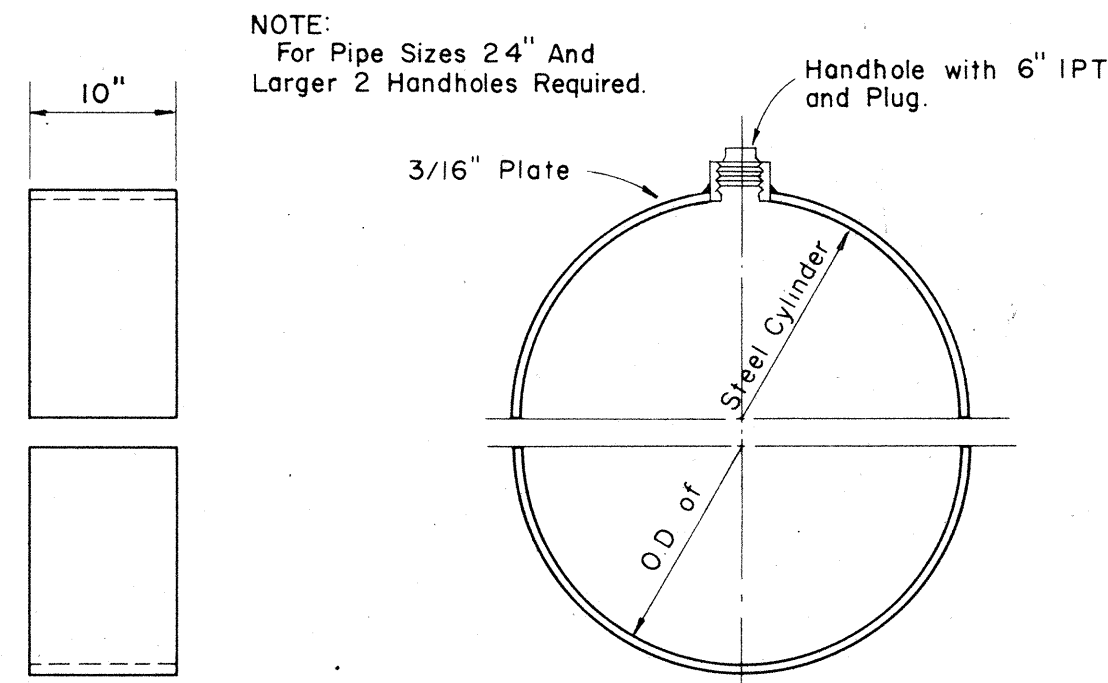


TYPICAL SECTION THRU CONCRETE PIPE AT CORPORATION STOP

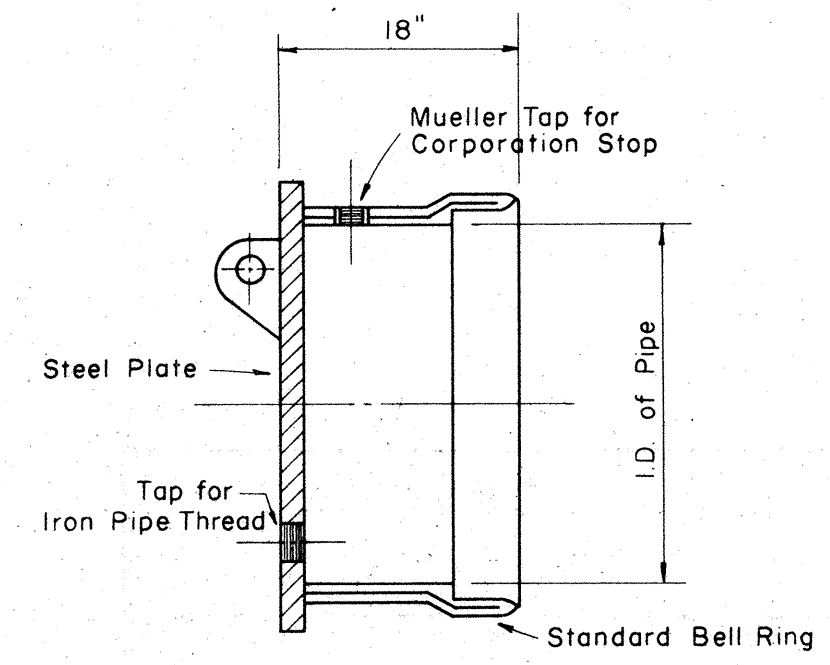
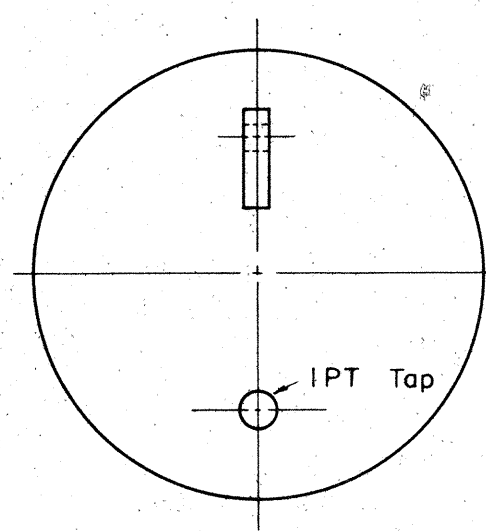
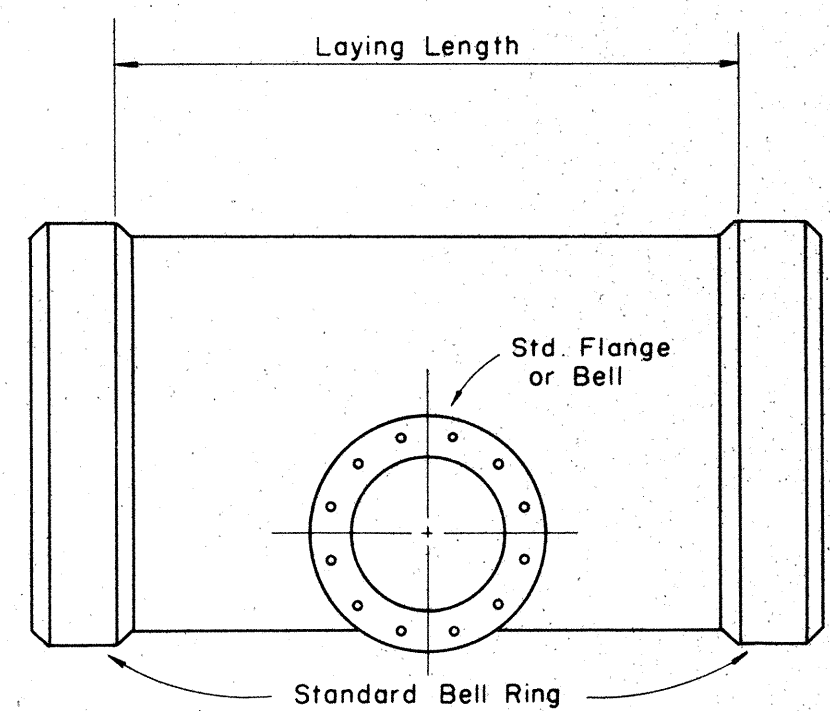
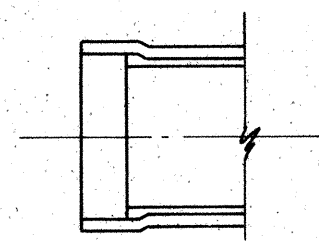
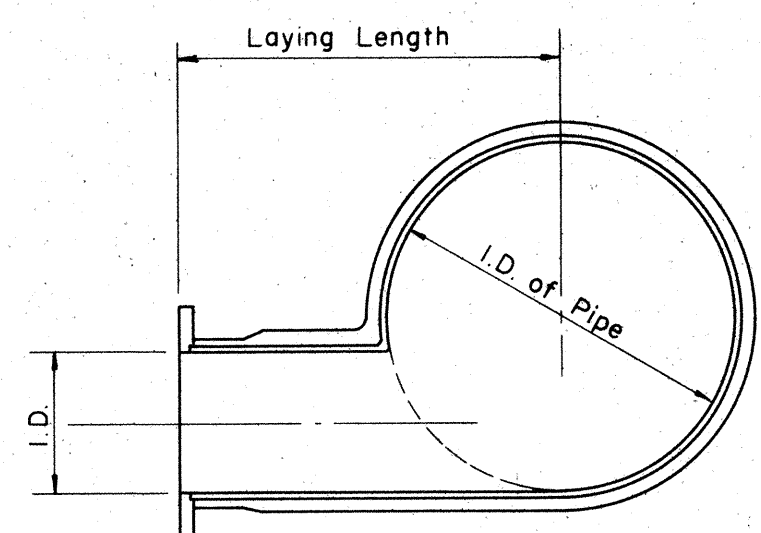
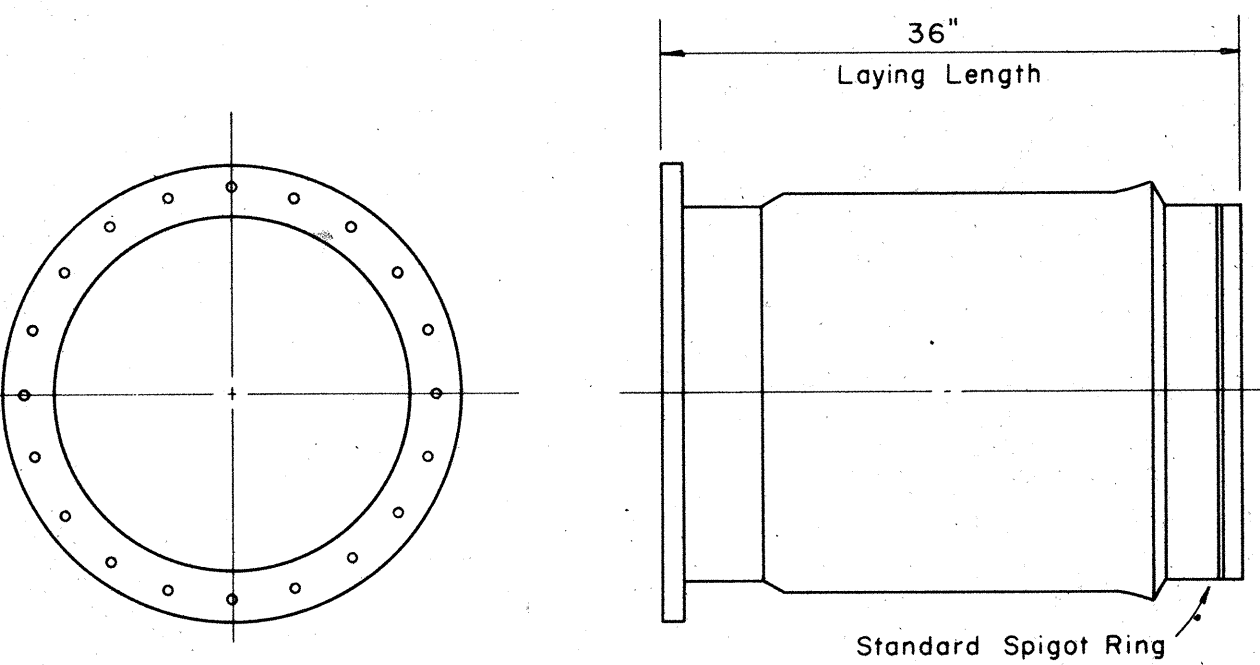


PLAN OF STEEL PLATE

DETAIL OF PLUG

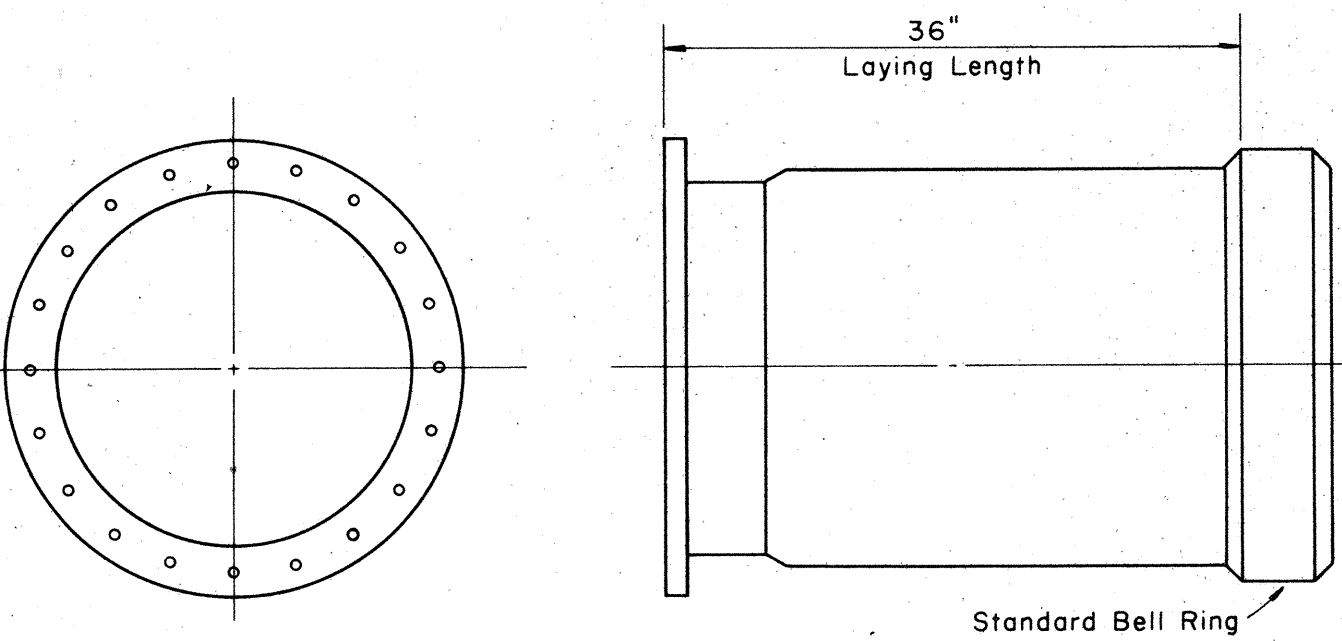


DETAIL OF SPLIT BUTT STRAP



PLAN OF STEEL PLATE

DETAIL OF CAP



TYPICAL DETAIL OF ADAPTER

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION PALAILAI INTERCHANGE F.A.I. Proj. No. I-HI-1(20)			
WATER DETAILS		SURVEYED BY	
CONCRETE CYLINDER PIPE		DRAWN BY: L.K.	
MISCELLANEOUS DETAILS		TRACED BY: L.K.	
APPROVED: <i>[Signature]</i>		ENGINEER	
SCALE: No Scale		CHECKED BY:	
DATE: April 25, 1962		FILE	
SHEET 2 OF 9 SHEETS		POCKET FOLDER NO	
BOARD OF WATER SUPPLY HONOLULU, HAWAII			
FIELD BOOK NO			

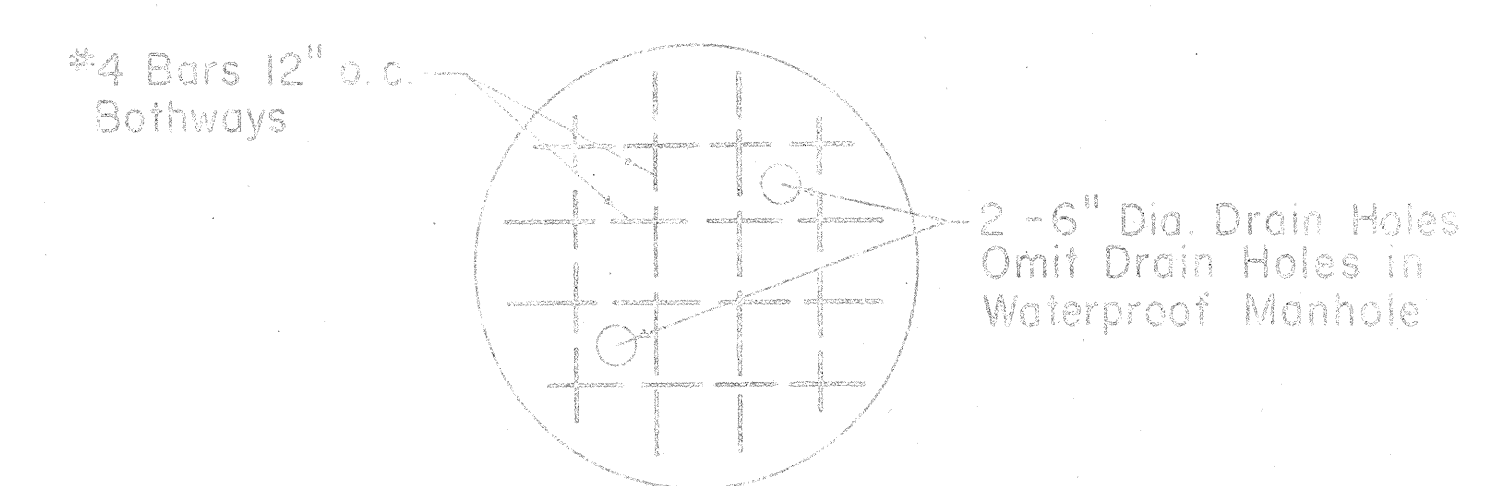
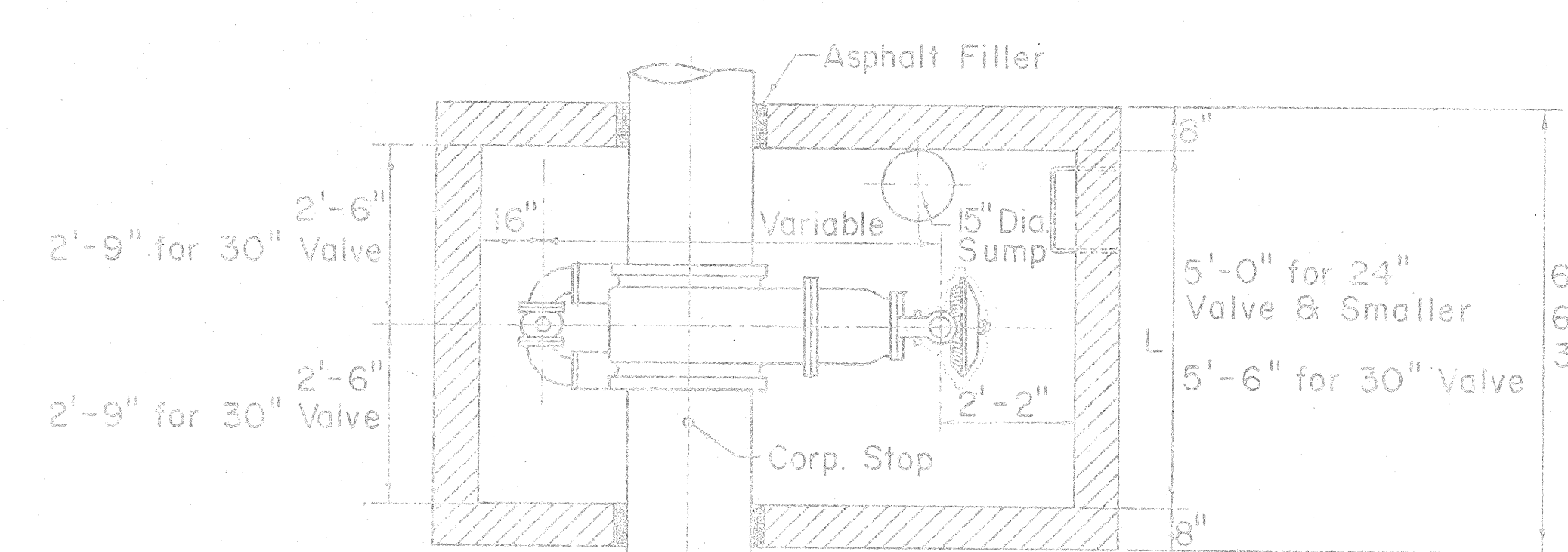
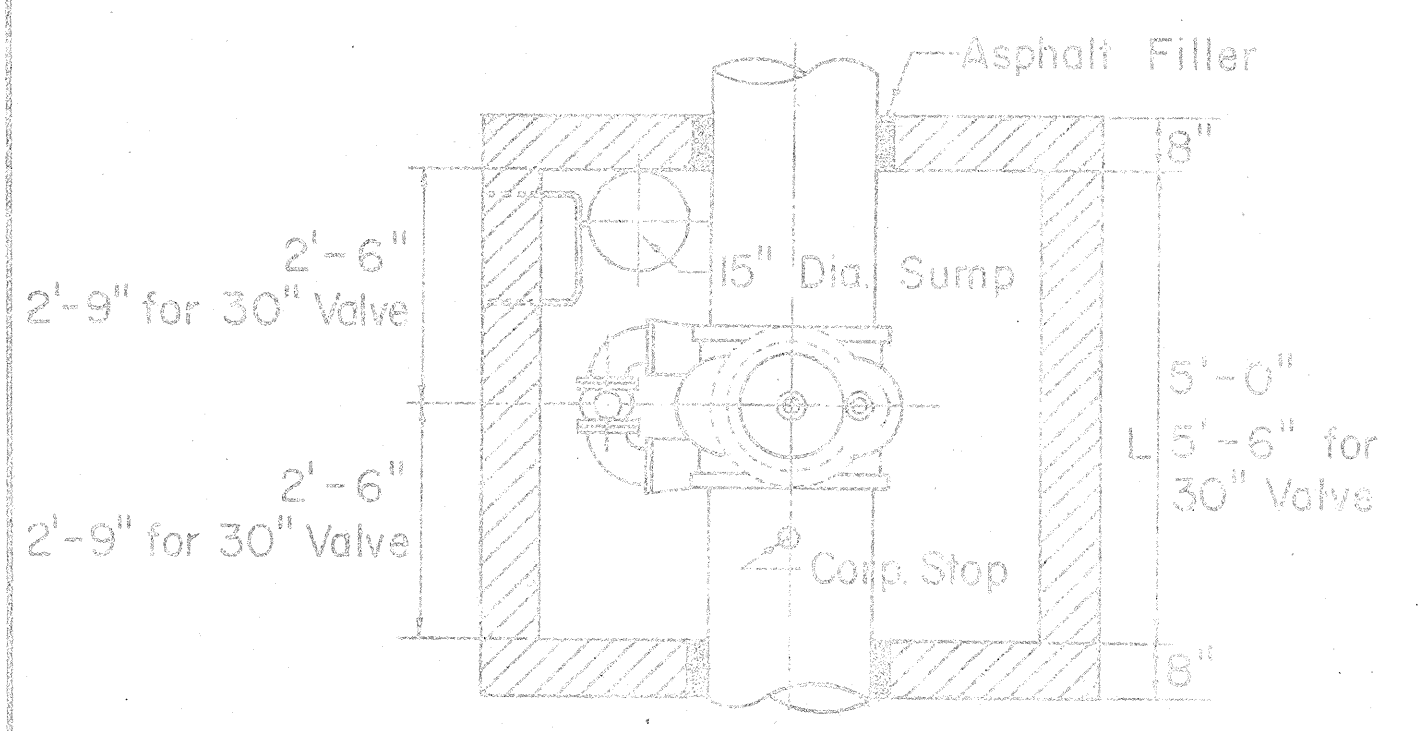
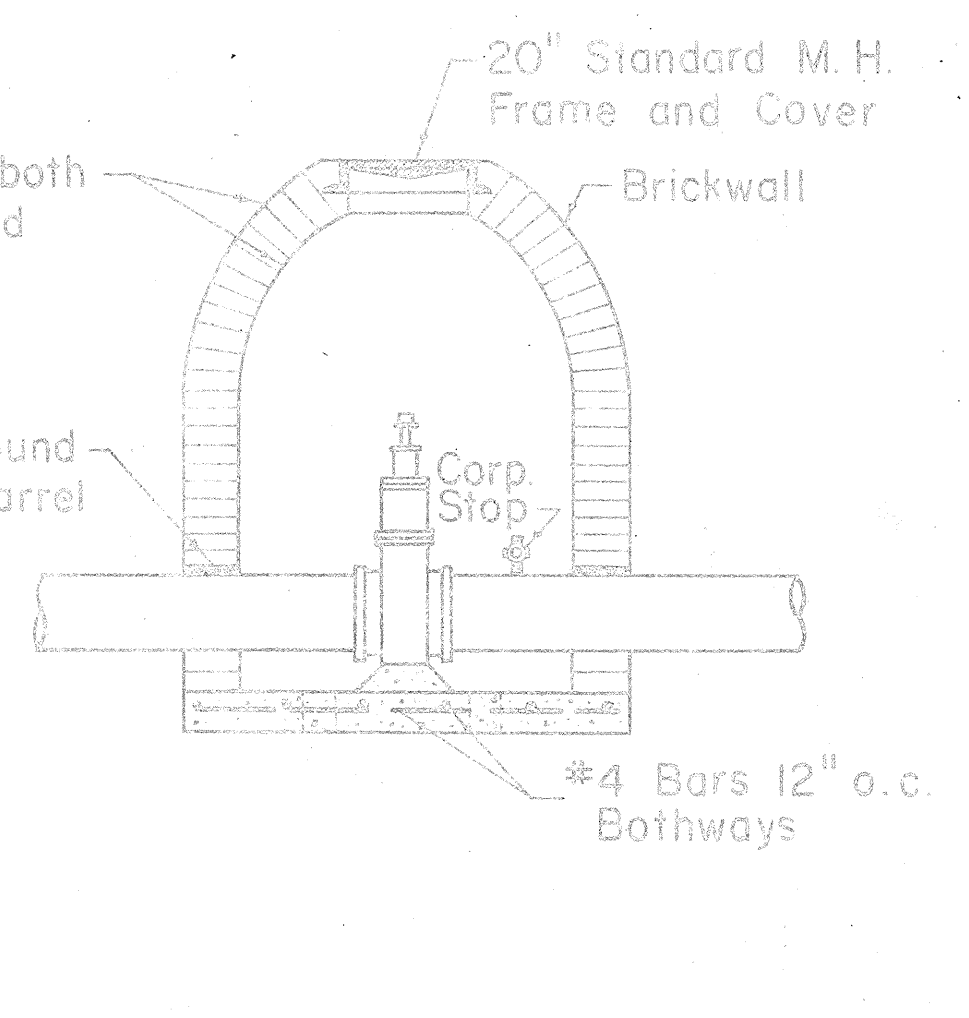
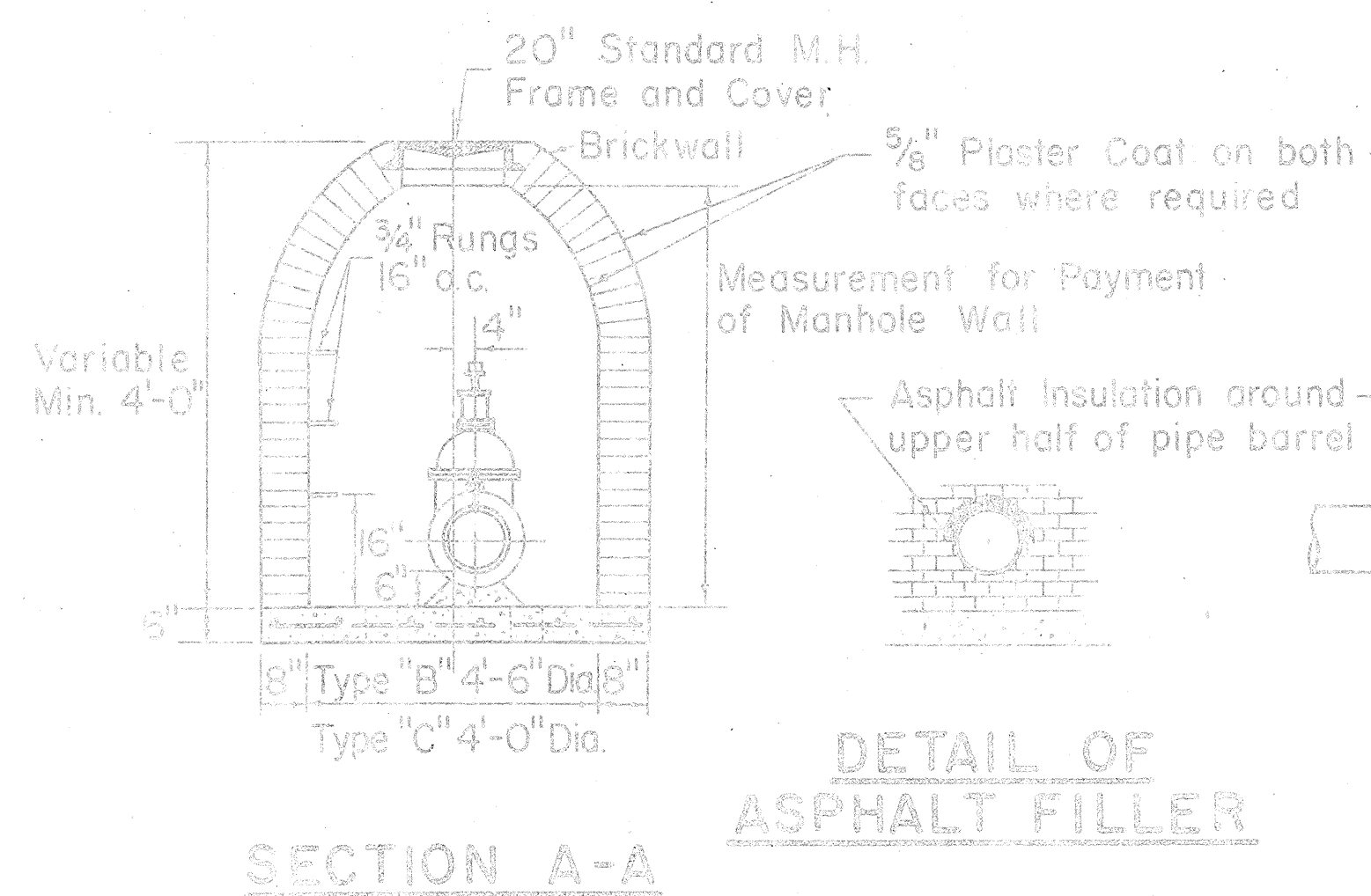
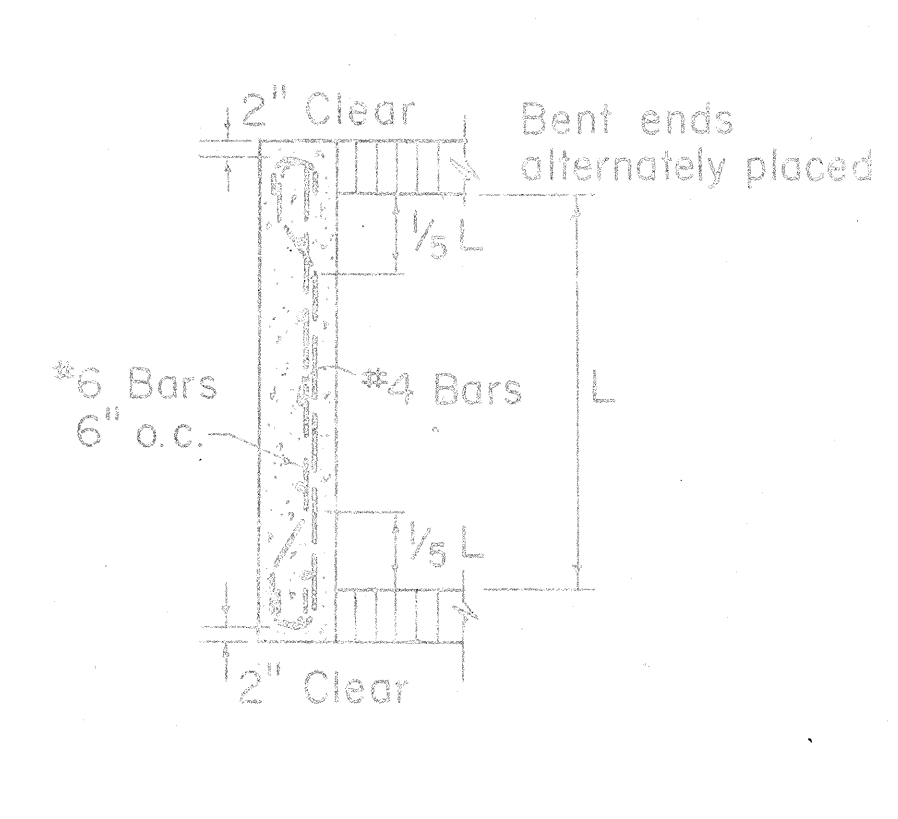
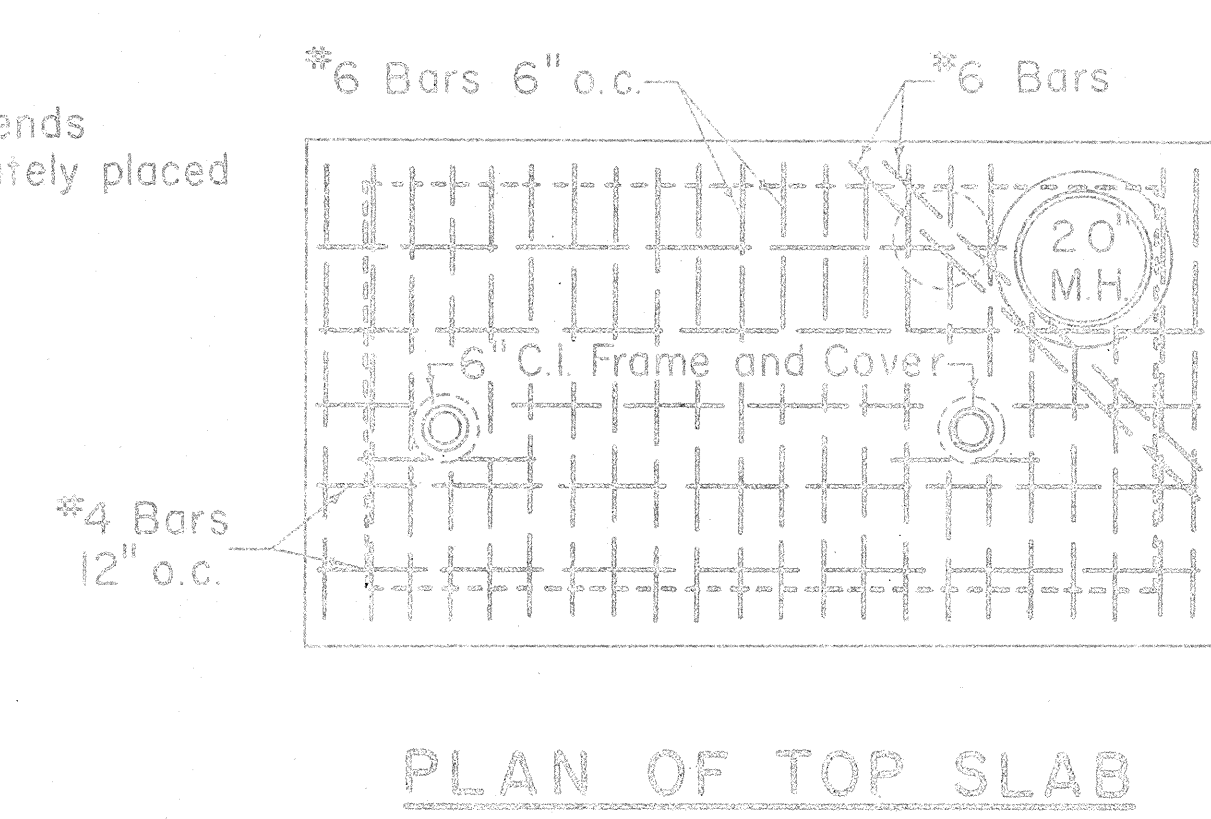
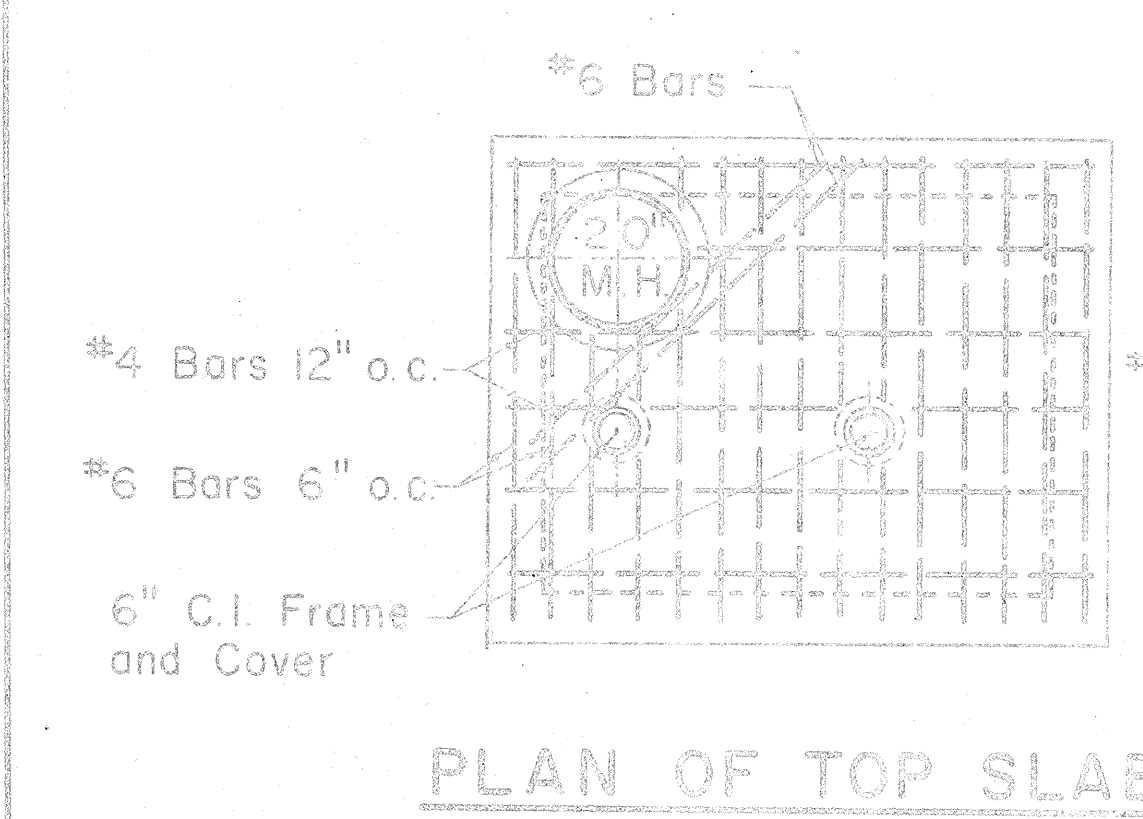
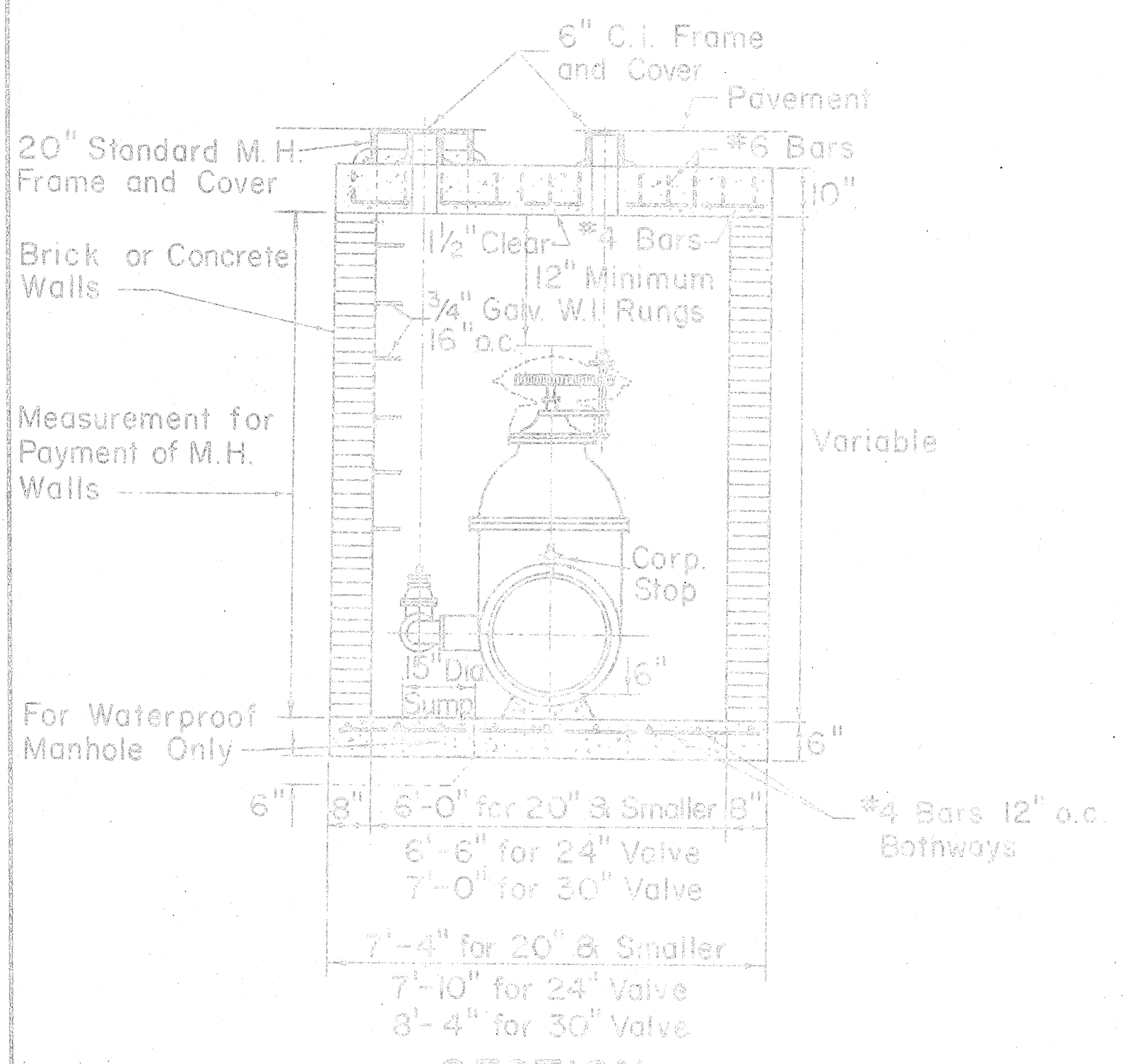
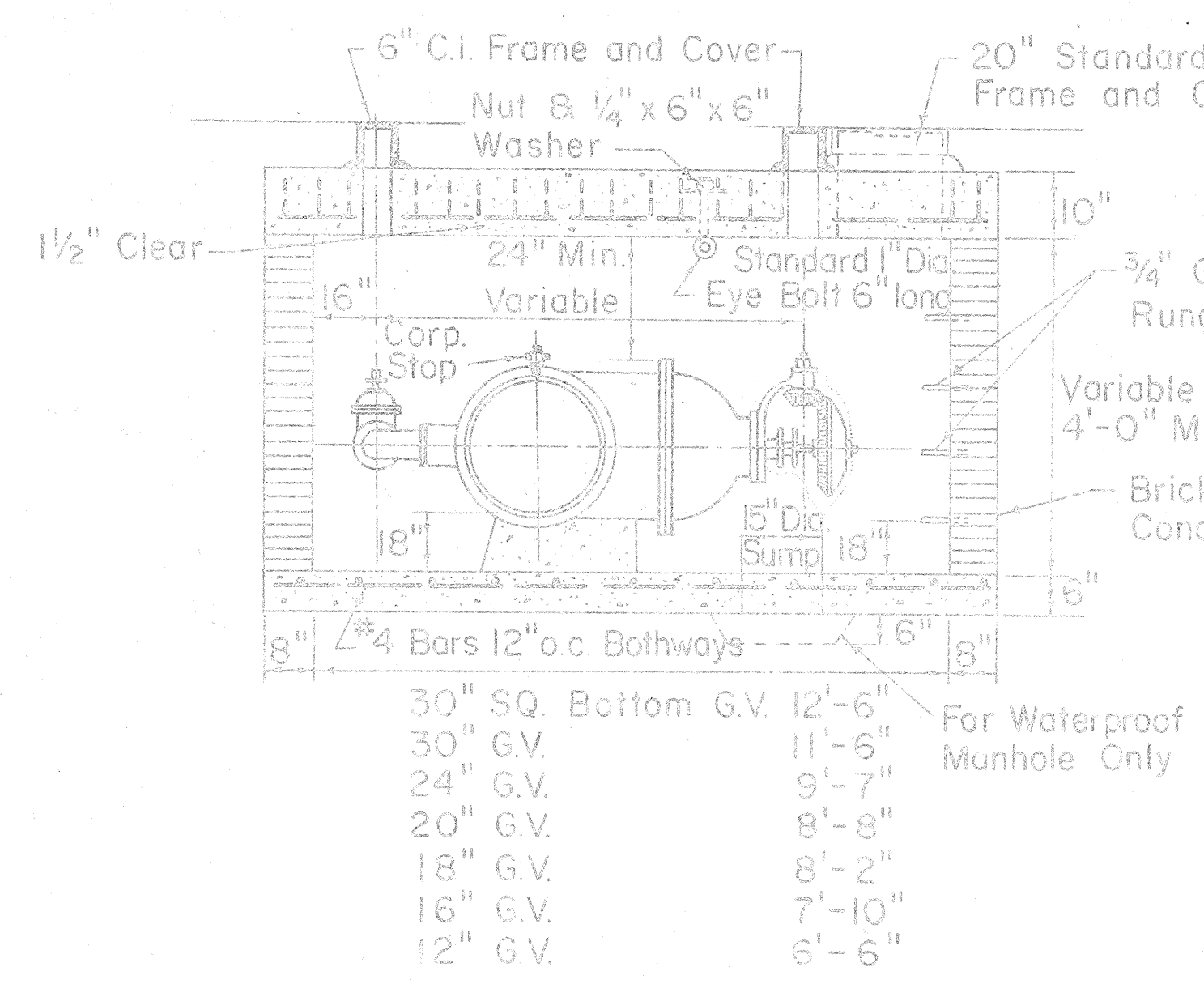


TABLE "A"
REQUIRED CORPORATION STOP SIZES AT GATE VALVE

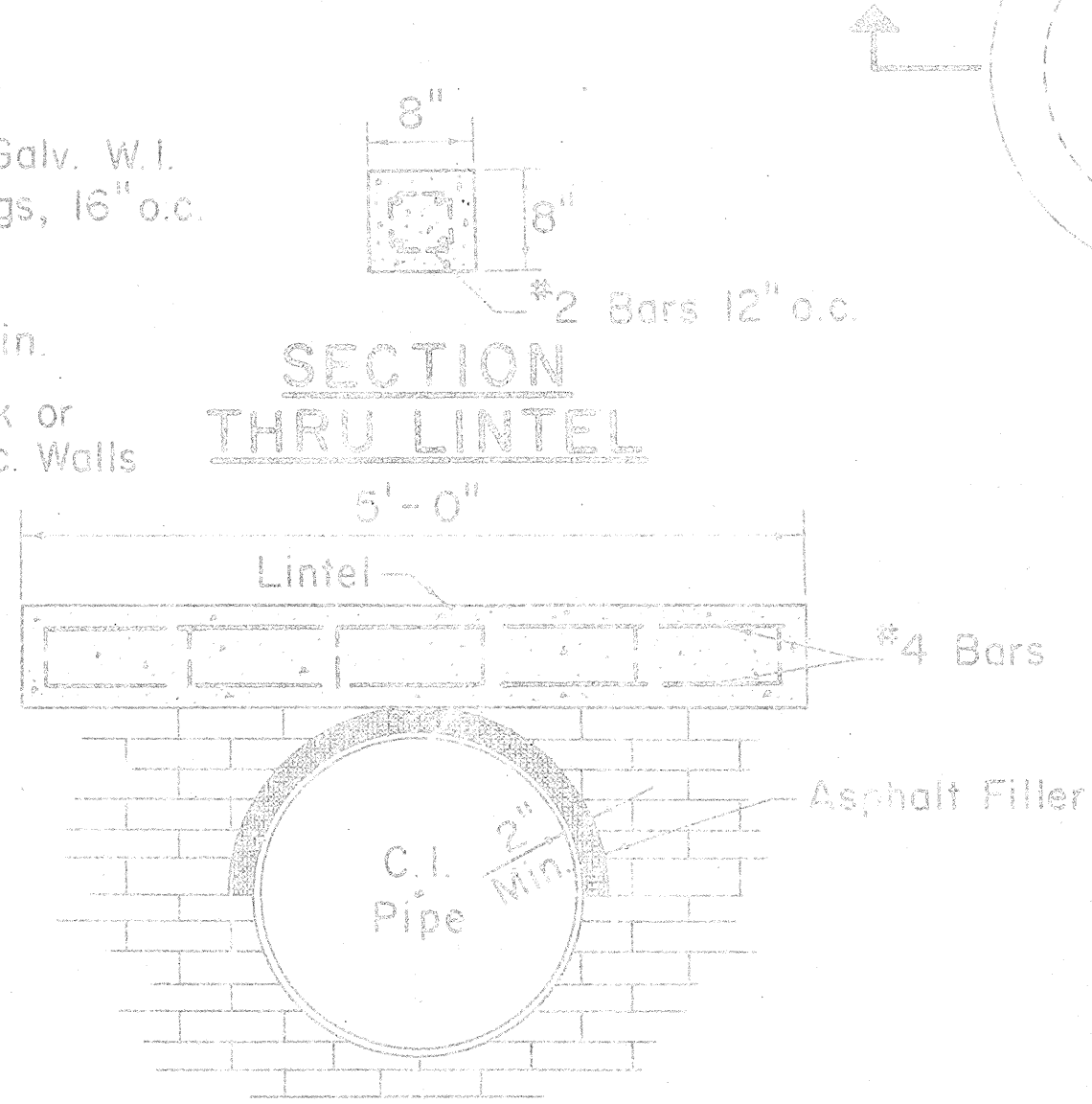
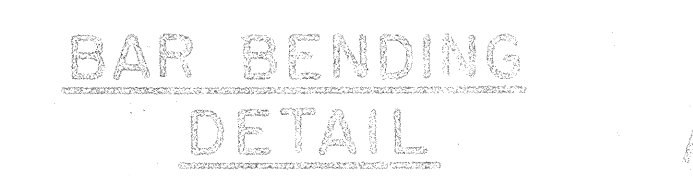
DIA. OF MAIN INCHES	SIZE OF CORP. STOP
4	1" x 1 1/4"
6	1" x 1 1/4"
8	1" x 1 1/4"
12	1" x 1 1/4"
16	1" x 1 1/4"
20	1" x 1 1/4"
24	1 1/2" x 2"
36	1 1/2" x 2"
42	1 1/2" x 2"



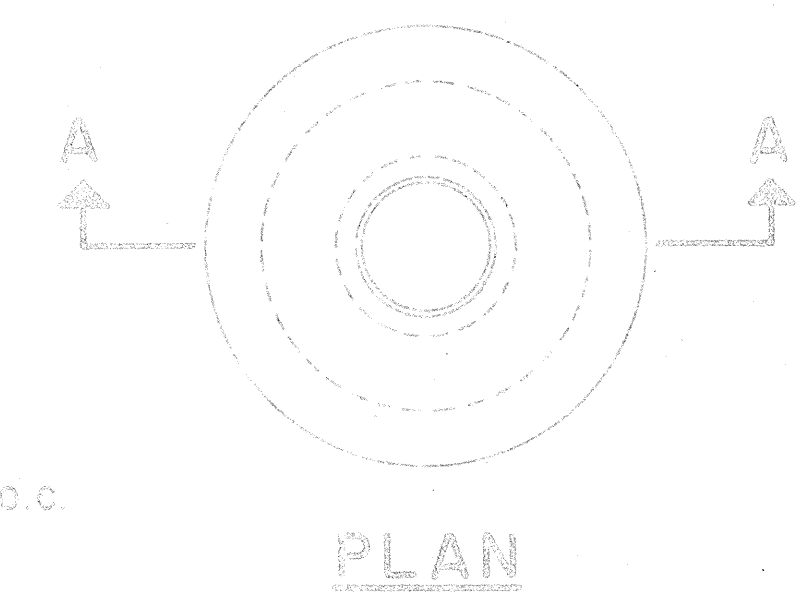
SECTION
TYPE "A" MANHOLE
FOR SPUR GEARED GATE VALVES



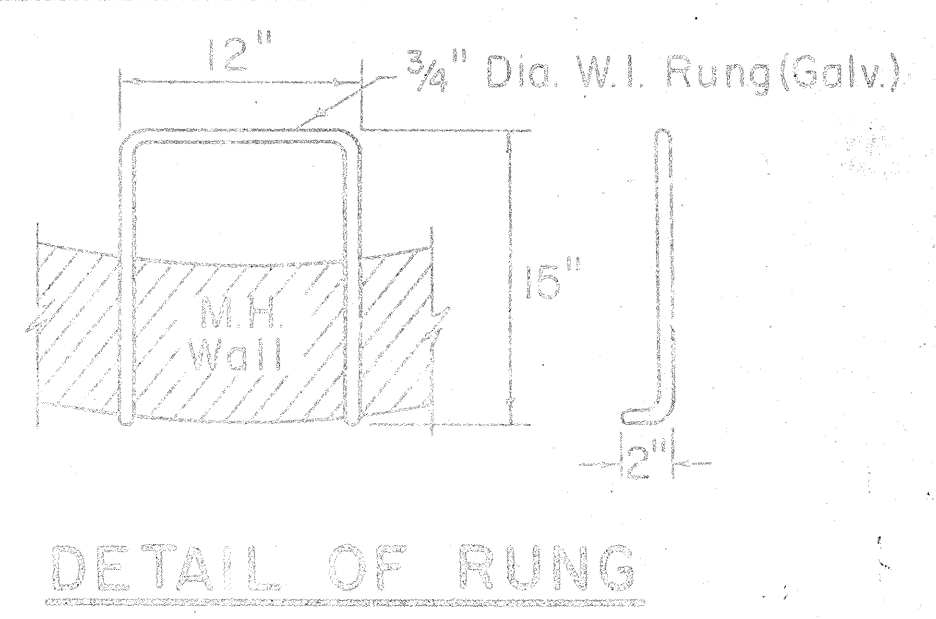
SECTION
TYPE "A" MANHOLE
FOR BEVEL GEARED GATE VALVES



DETAIL OF LINTEL AND ASPHALT FILLER



PLAN
TYPE "B" AND "C" MANHOLES
TYPE "B" 4'-6" DIA. (FOR 12" G.V.)
TYPE "C" 4'-0" DIA. (FOR 6" & 8" G.V.)



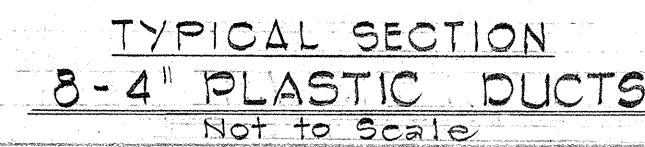
DETAIL OF RUNG

APPROVED:
[Signature]
ASSISTANT CHIEF ENGINEER
BOARD OF WATER SUPPLY
DATE 11/24/65

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
BOARD OF WATER SUPPLY
CITY & COUNTY OF HONOLULU
MANHOLE DETAILS
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(20)
Not to Scale Date Oct. 1965
SHEET NO. 3 OF 9 SHEETS

1. Existing poles to be removed by others.
2. Proposed poles to be installed by others.
3. The Contractor will stake out proposed duct line and anchor locations; H.T. Co. to check locations before Contractor undertakes excavations.
4. All ducts called for installation in concrete jacket shall be inspected and approved by H.T. Co. before placing of concrete. 24 hr. (min.) notice shall be given before placing of concrete.
5. Utility poles and duct lines to have minimum of three feet lateral clearance from water mains. Duct line crossing water main to have minimum 6" vertical clearance.
6. Depth of all manholes to be determined in the field.
7. Anchor holes are taken from finish grade.
8. Backfill of anchor holes by the Contractor.
9. The contractor shall give one week notice in writing to Ewa Plantation Company before constructing ductline crossing existing irrigation ditches.
10. Existing electric and telephone systems shown on these plans are located from the best sources available. The contractor shall check and verify the exact location and depth of same.
11. The Contractor shall install C.I. Bends from the M.H. to Pole No. P-1G (T), the cost of which shall be incidental to the ductline.

Legend	
	Proposed Duct Line Encased in Concrete New Hawaiian Telephone Co. Manhole
	Proposed Pole by others
	Existing Pole
	Proposed Pole with Proposed Anchor
	Existing Pole w/Existing Anchor
	Proposed Pole & Anchor by others
	Existing Pole to be removed by others



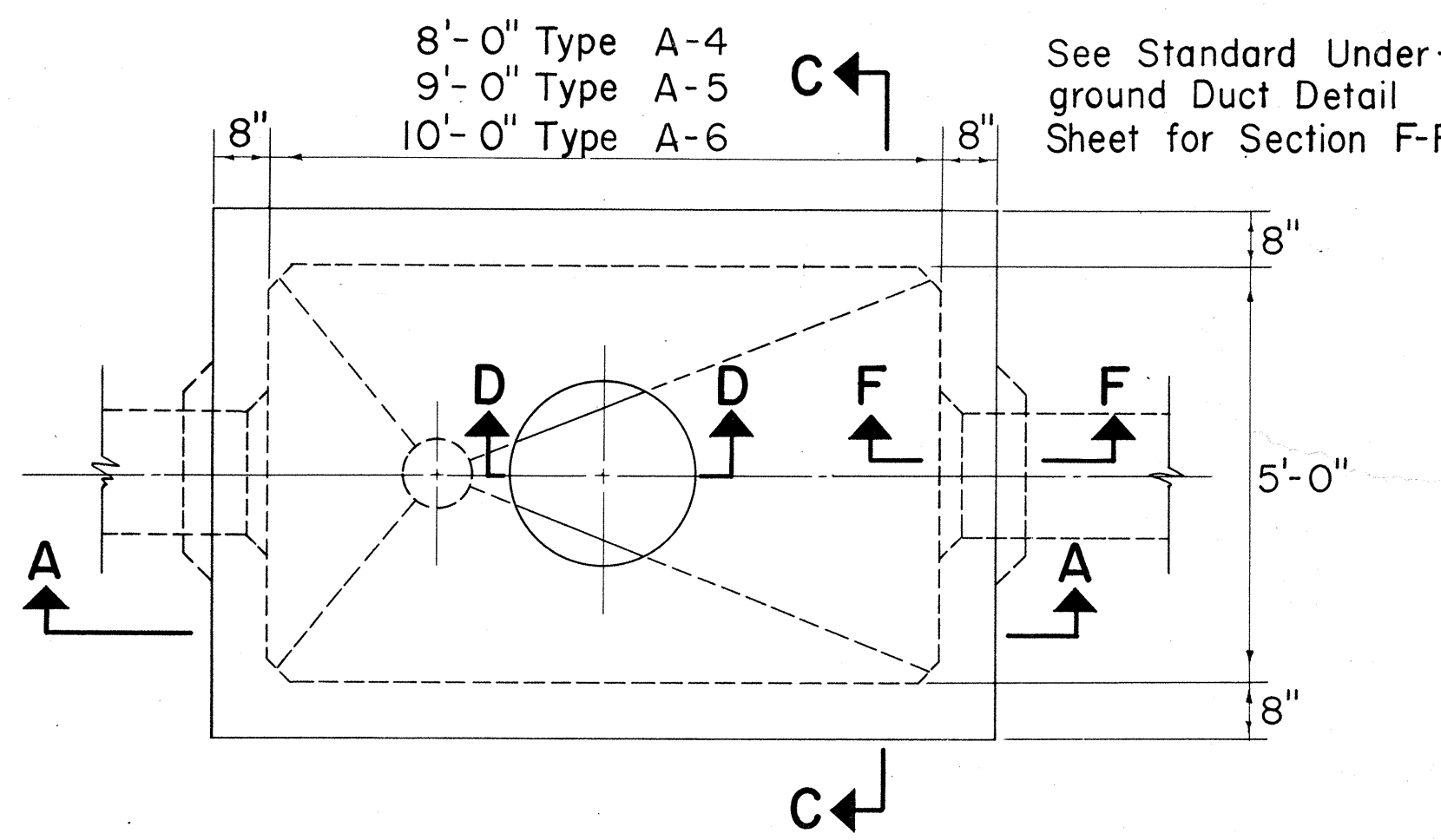
11/22/65
Date



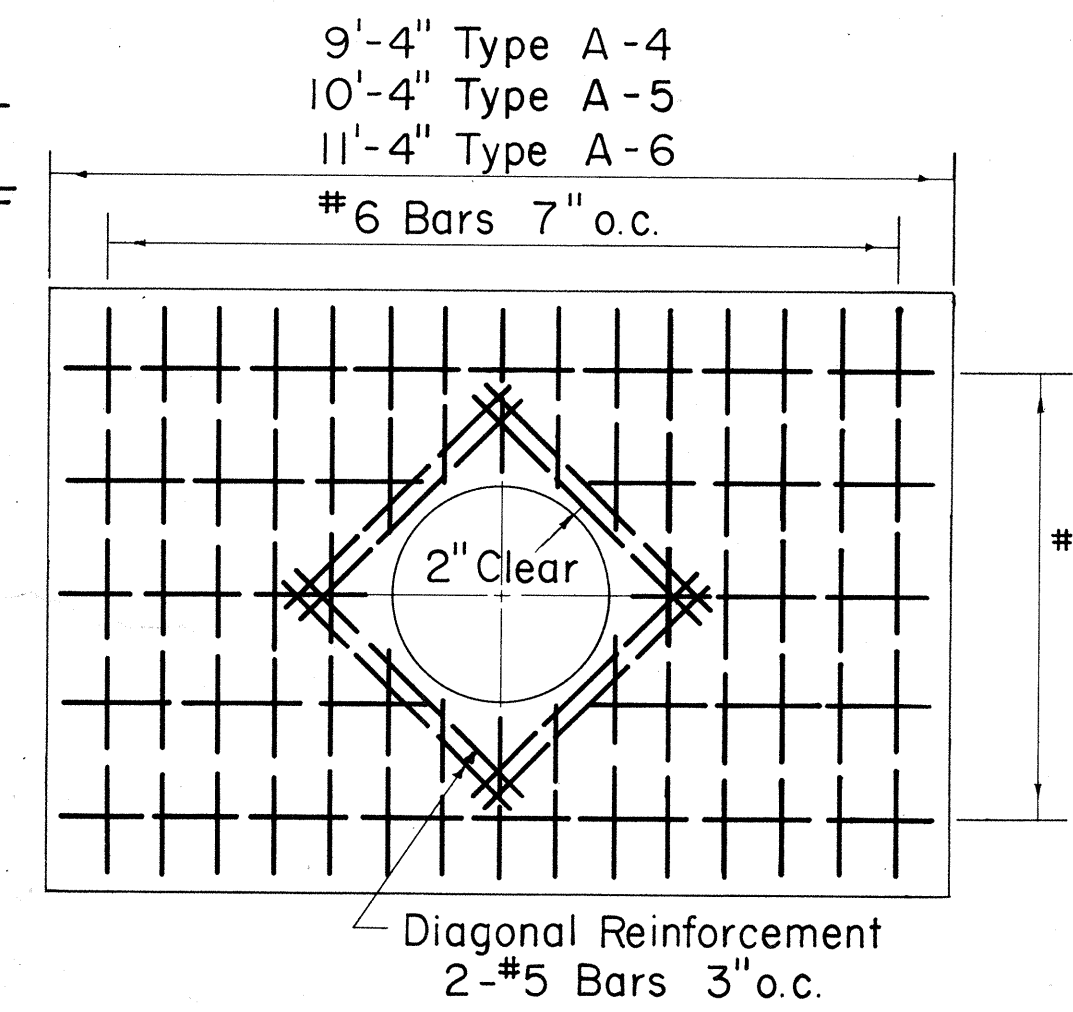
Scale: As Shown July, 1964

SHEET No. 4 OF 9 SHEETS

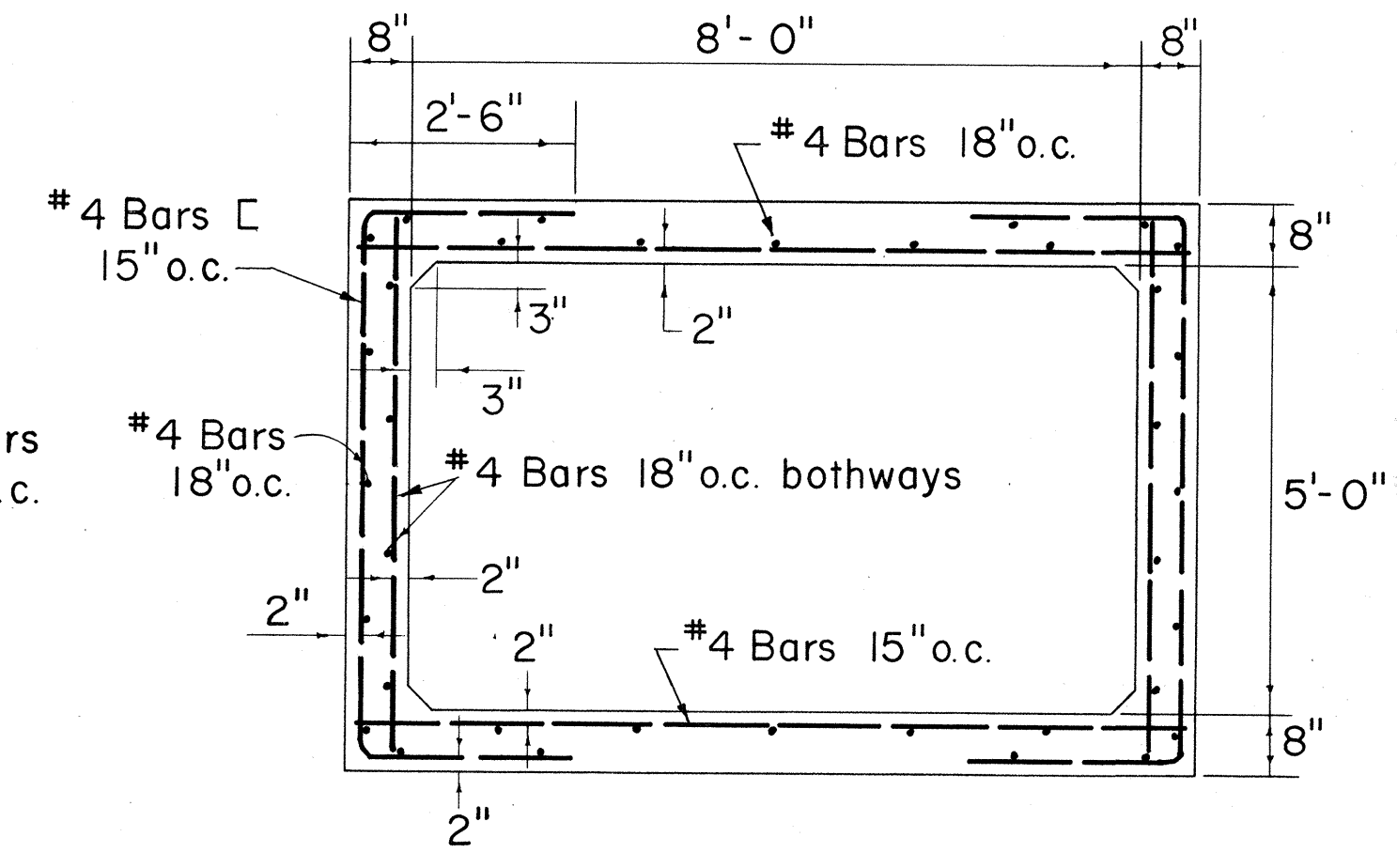
FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	I-HI-1(20)	1965	19	55



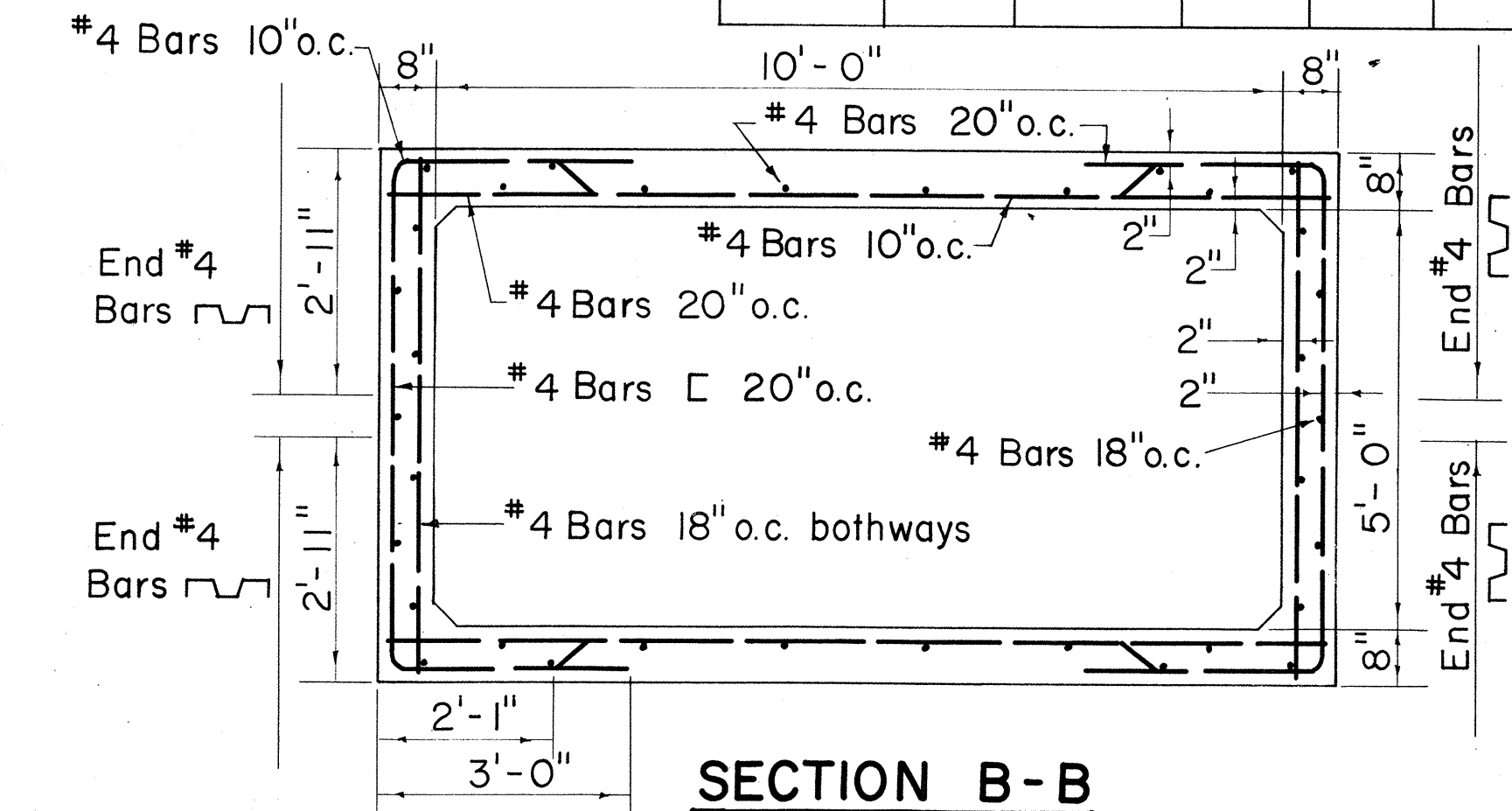
**PLAN
TYPE "A" MANHOLE
FOR ROADWAY AREAS**
Scale: 1/2" = 1'-0"



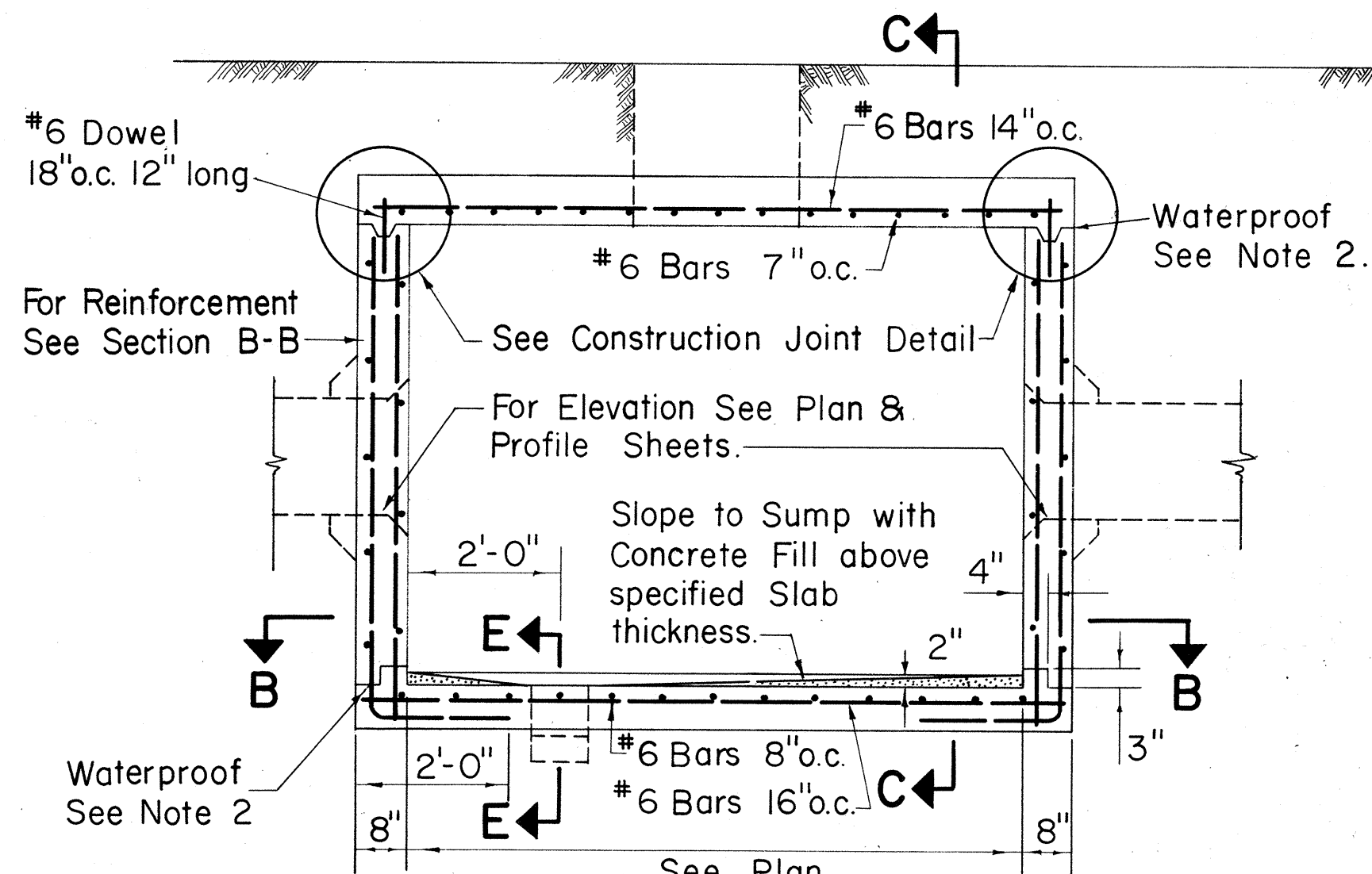
ROOF SLAB REINF. PLAN
Scale: 1/2" = 1'-0"



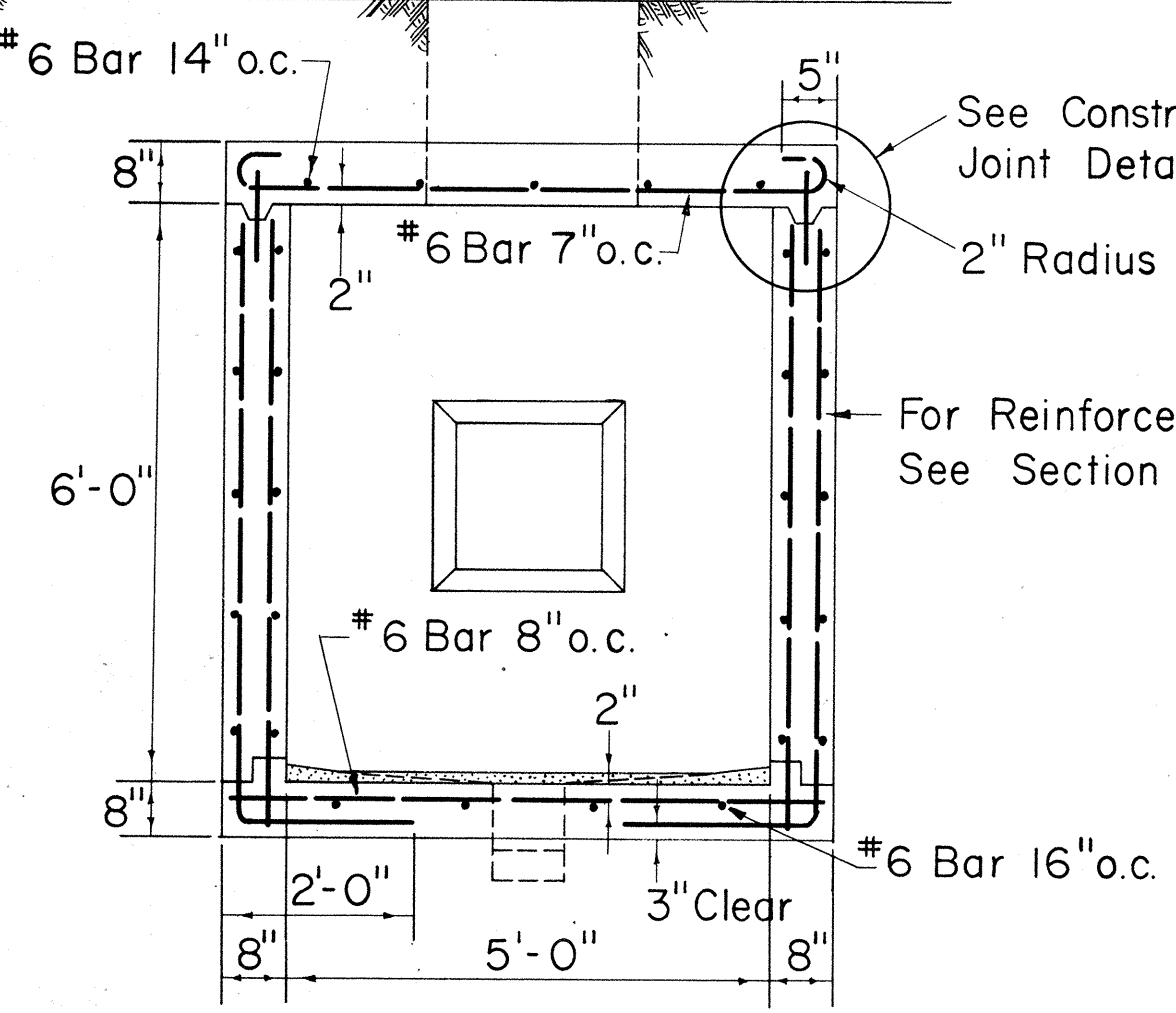
**SECTION B-B
TYPE A-4**
Scale: 1/2" = 1'-0"



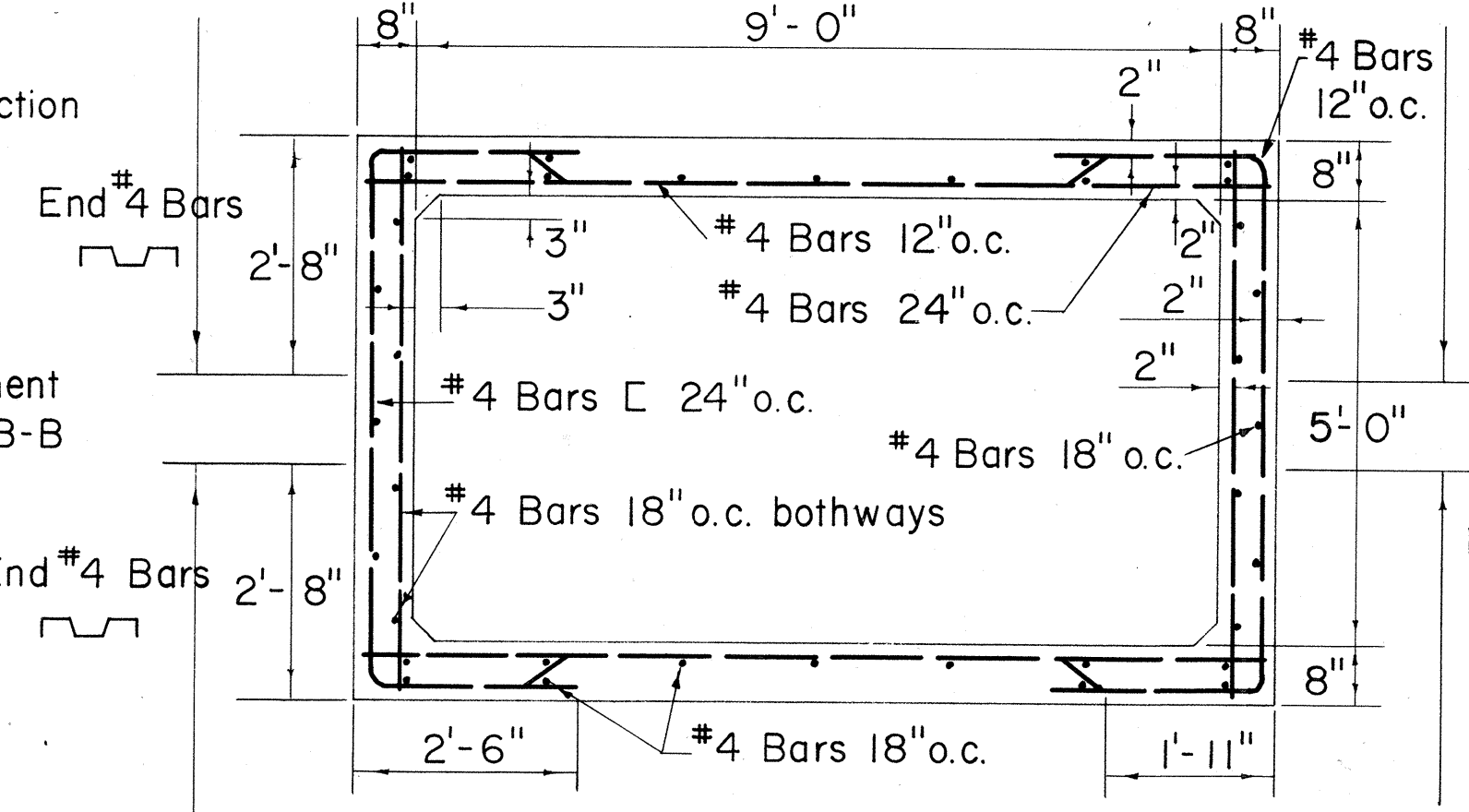
**SECTION B-B
TYPE A-6**
Scale: 1/2" = 1'-0"



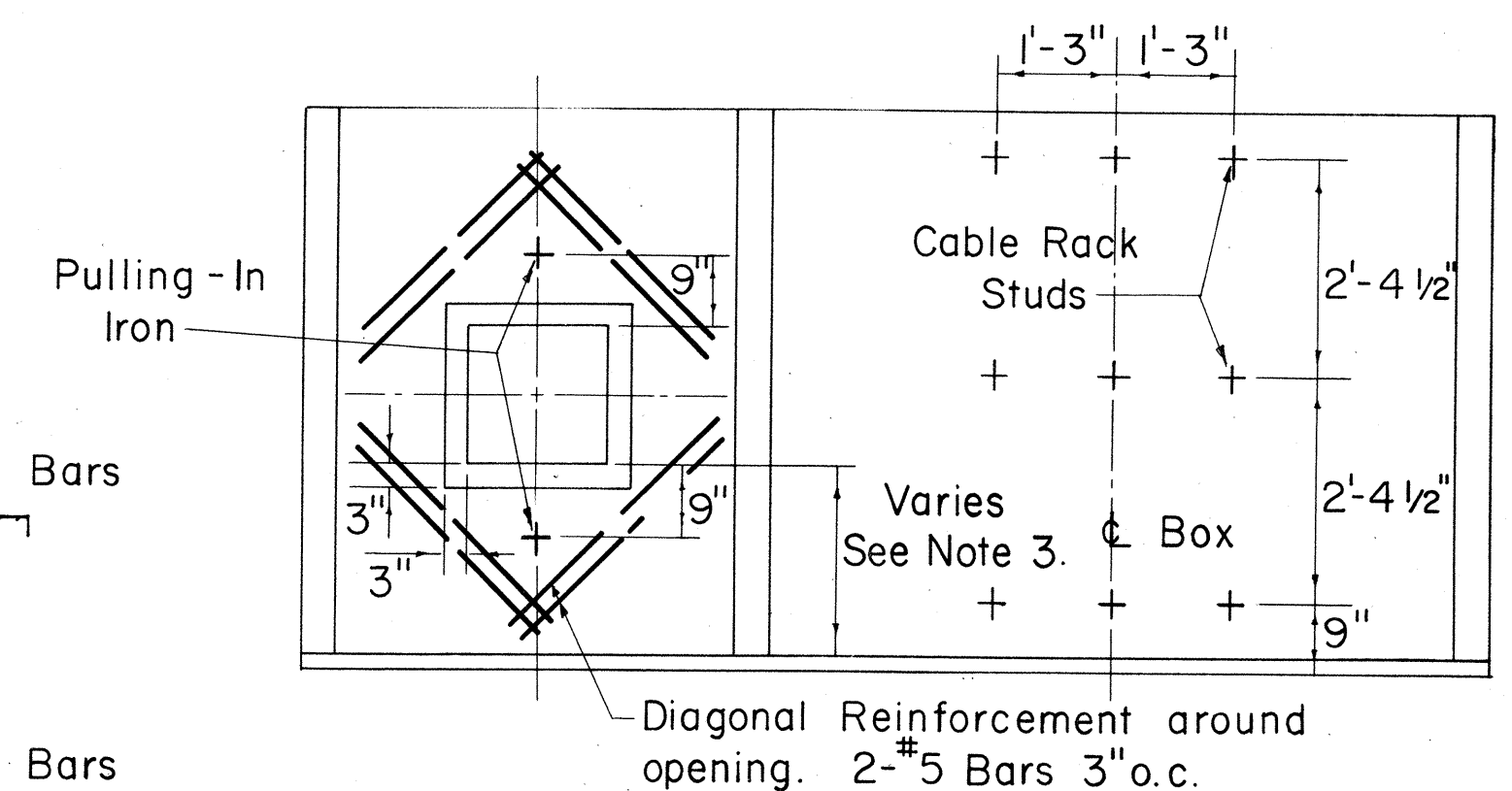
SECTION A-A
Scale: 1/2" = 1'-0"



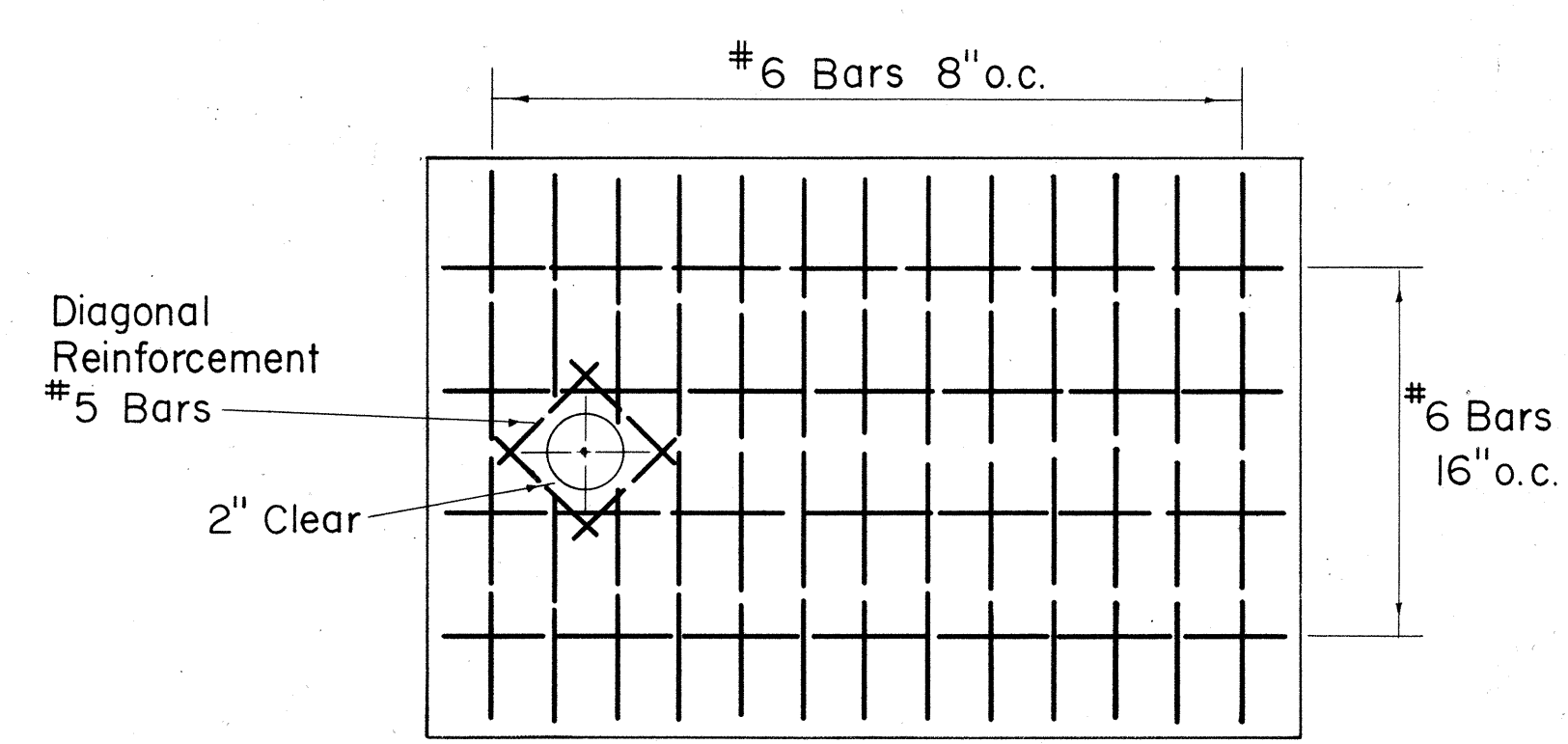
SECTION C-C
Scale: 1/2" = 1'-0"



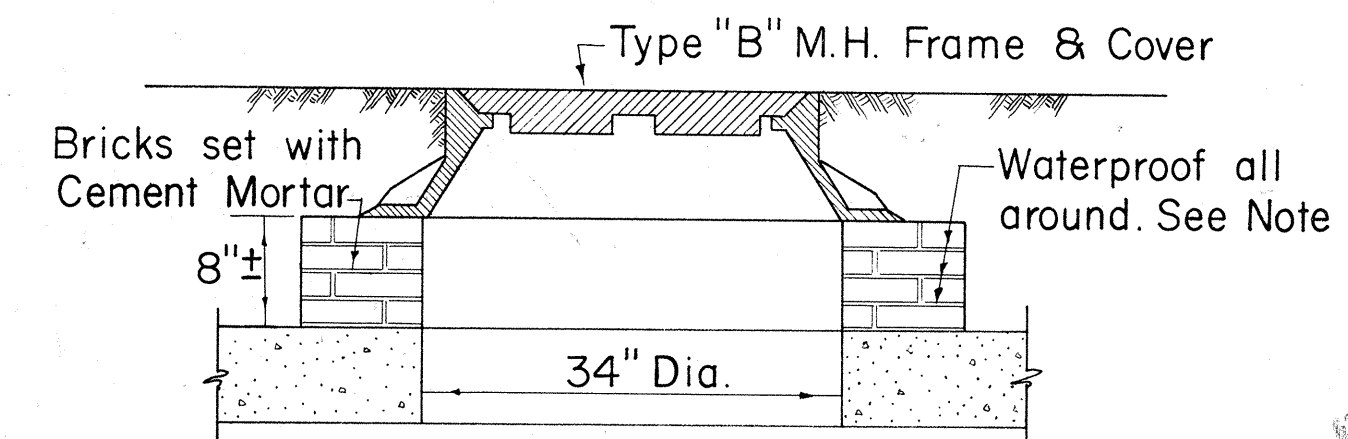
**SECTION B-B
TYPE A-5**
Scale: 1/2" = 1'-0"



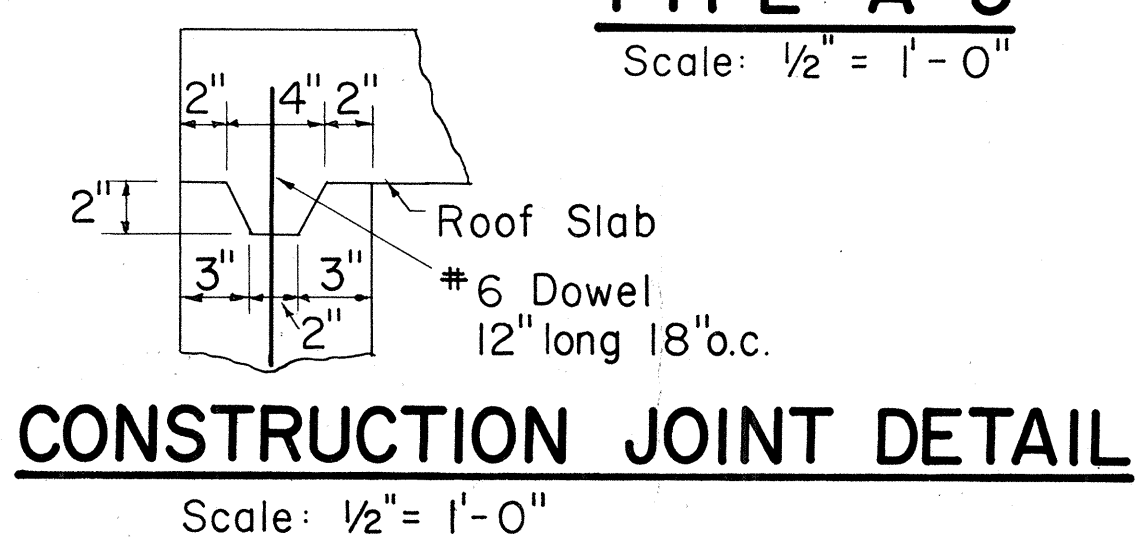
**ELEVATION OF INSIDE WALLS
TYPE A-4**
Scale: 1/2" = 1'-0"



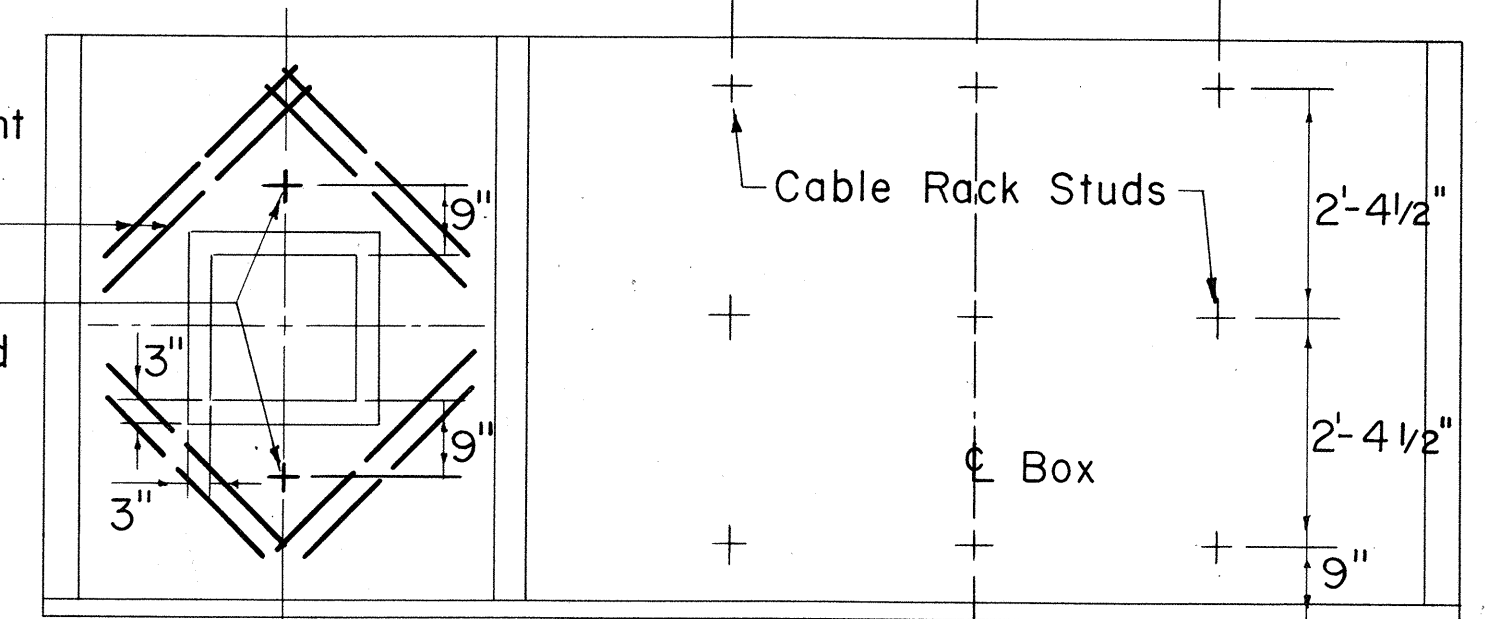
FLOOR SLAB REINF. PLAN
Scale: 1/2" = 1'-0"



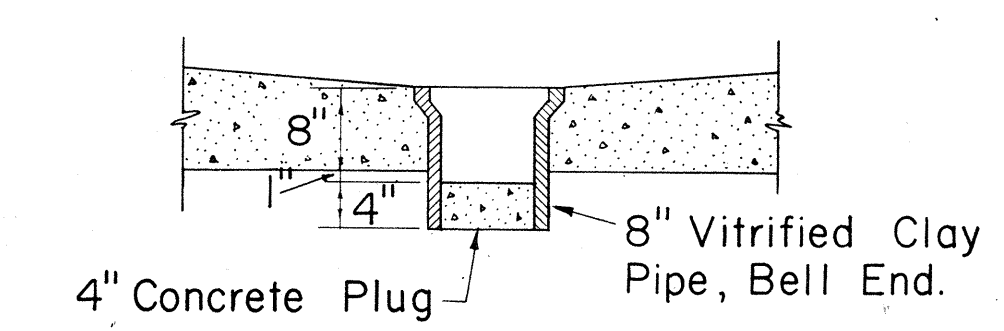
SECTION D-D
Scale: 3/4" = 1'-0"



CONSTRUCTION JOINT DETAIL
Scale: 1/2" = 1'-0"



**ELEVATION OF INSIDE WALLS
TYPES A-5, A-6**
Scale: 1/2" = 1'-0"



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

GENERAL NOTES

- DESIGN DATA
f_s = 20,000 psi; f_c = 3000 psi; f_c = 1200 psi.
n = 10; w = Equivalent Fluid Pressure = 30 psf.
- All Construction Joints shall be Waterproofed with 2 applications of Thoro Seal or equal.
- For Duct Window Location see Plan & Profile Shts.
- Duct Window to suit. See Plan & Profile & Standard Detail Sheets for Location and Details.
- For Duct Window Details see Section F-F, Standard Underground Detail Sheet.

APPROVED:

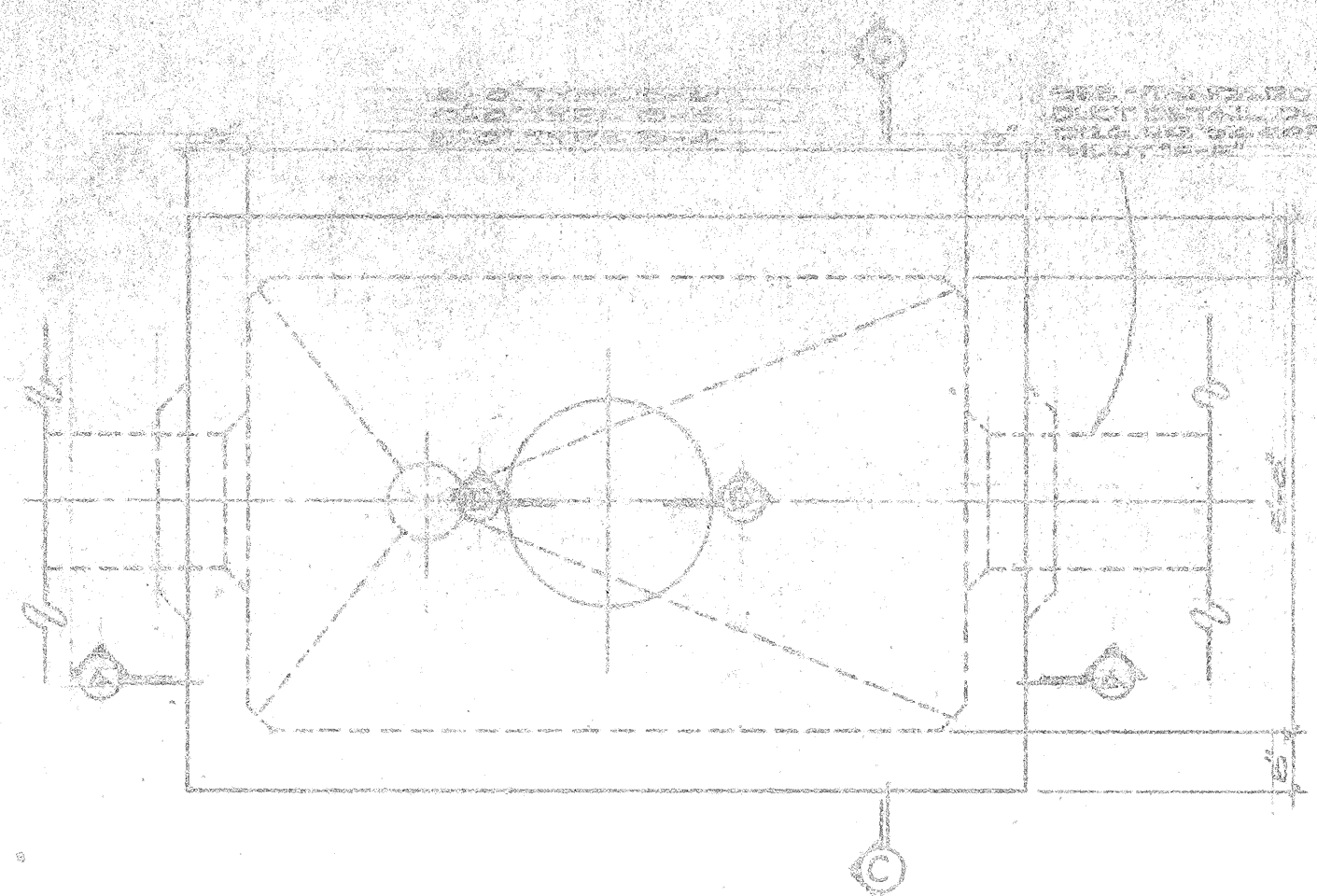
Reman for F.H. build
HAWAIIAN TELEPHONE CO., LTD. 11/23/65
DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

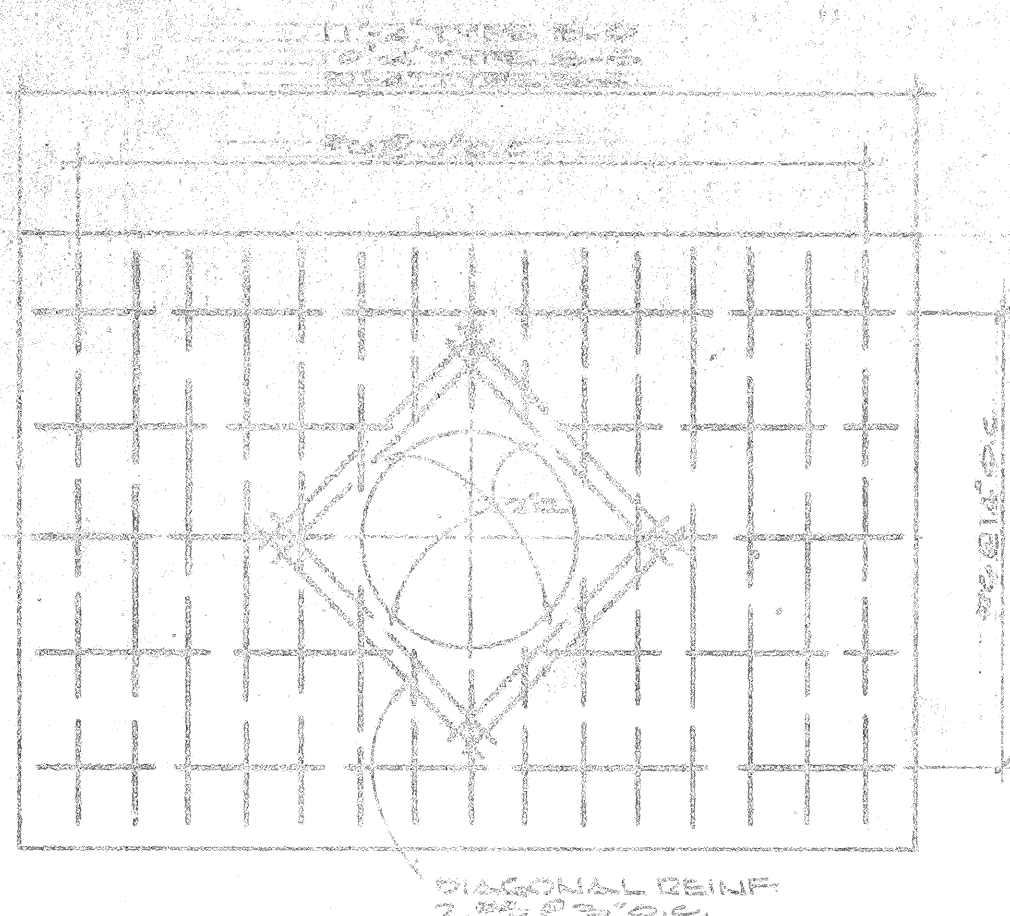
STANDARD DETAILS

**TYPE "A" MANHOLE
FOR ROADWAY AREAS**

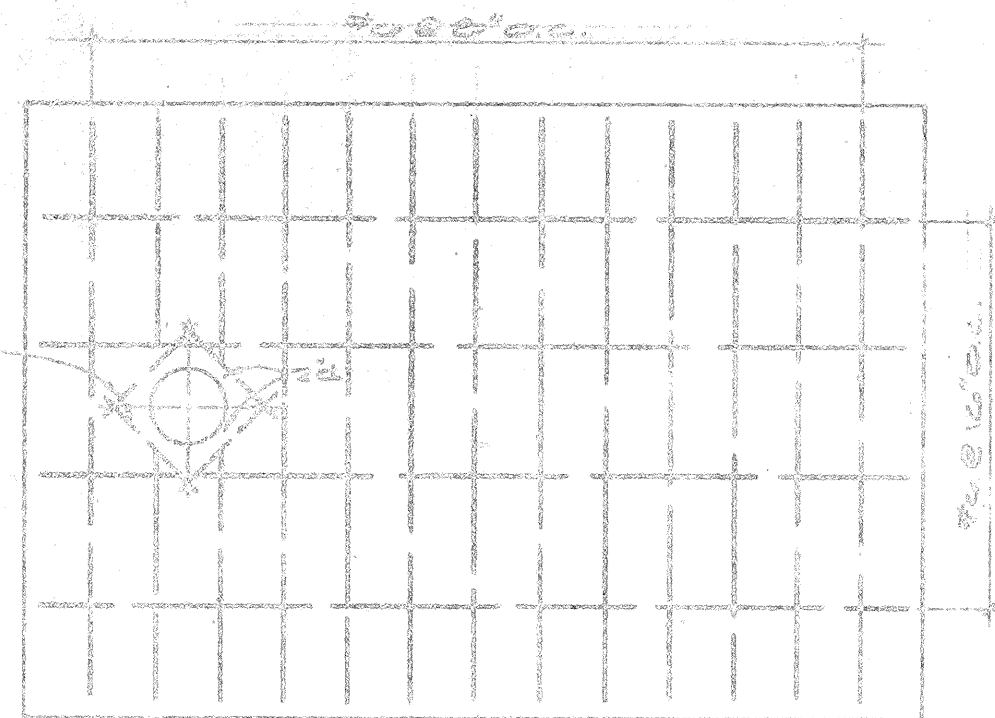
Scales: As Noted Date July, 1964



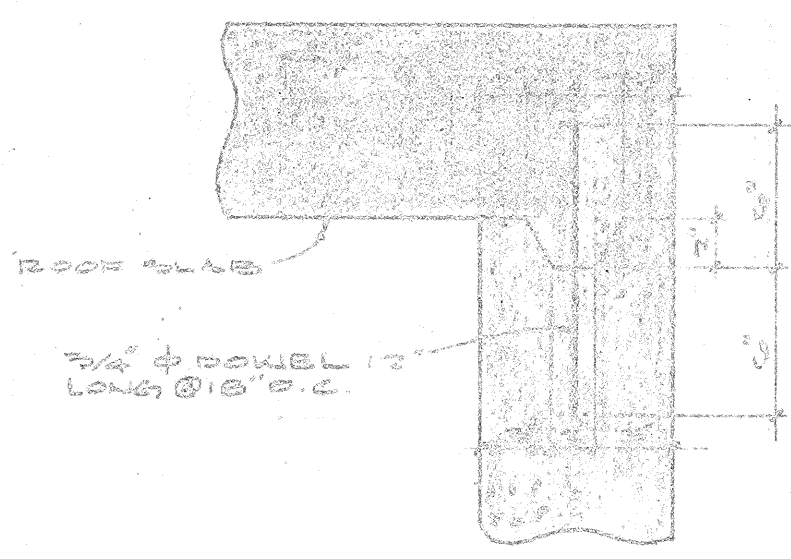
PLAN-MH TYPE "B"
FOR ROADWAY & SIDEWALK AREAS
SCALE: 1/2"=1'-0"



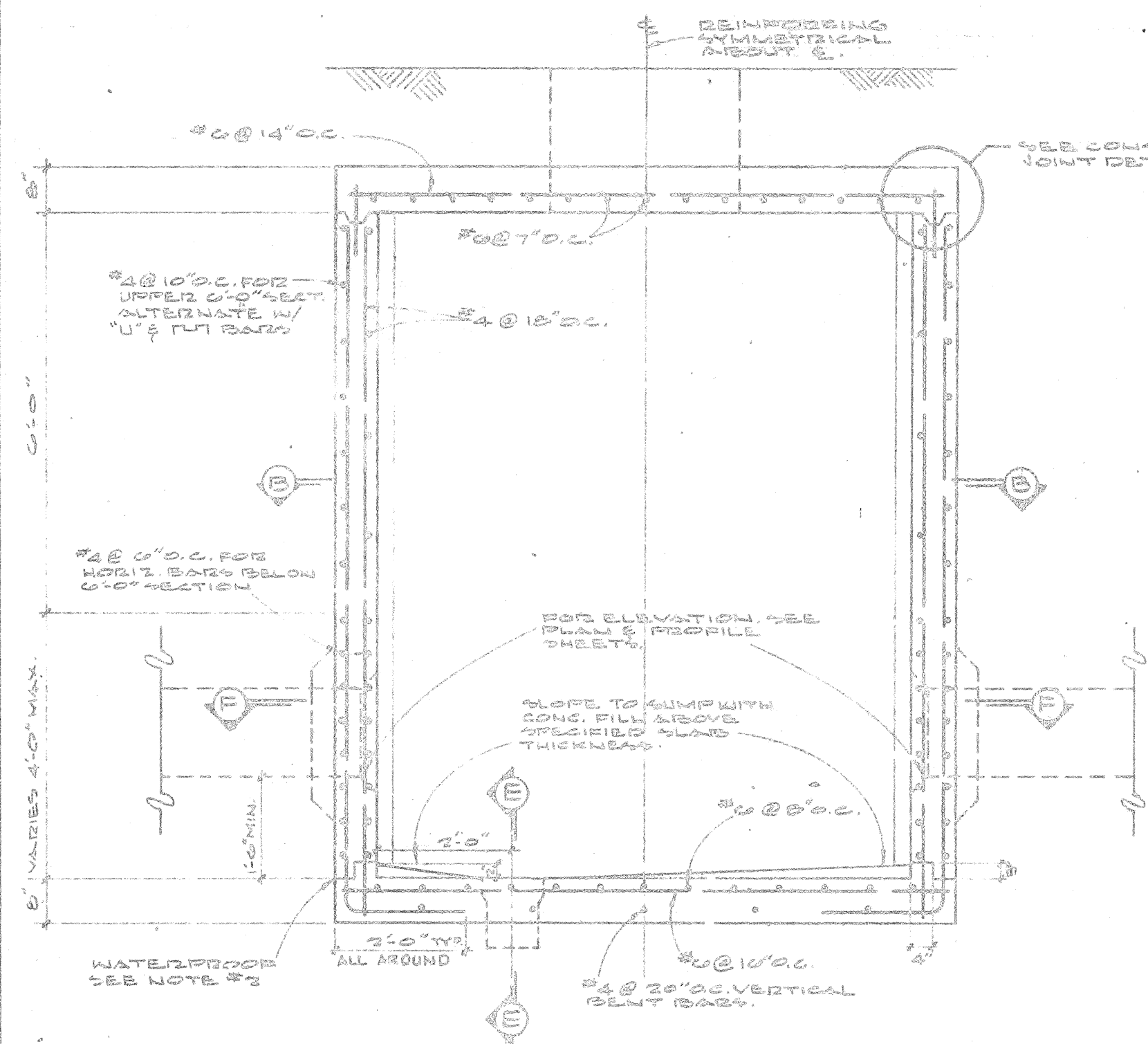
ROOF SLAB REINF. PLAN
SCALE: 1/2"=1'-0"



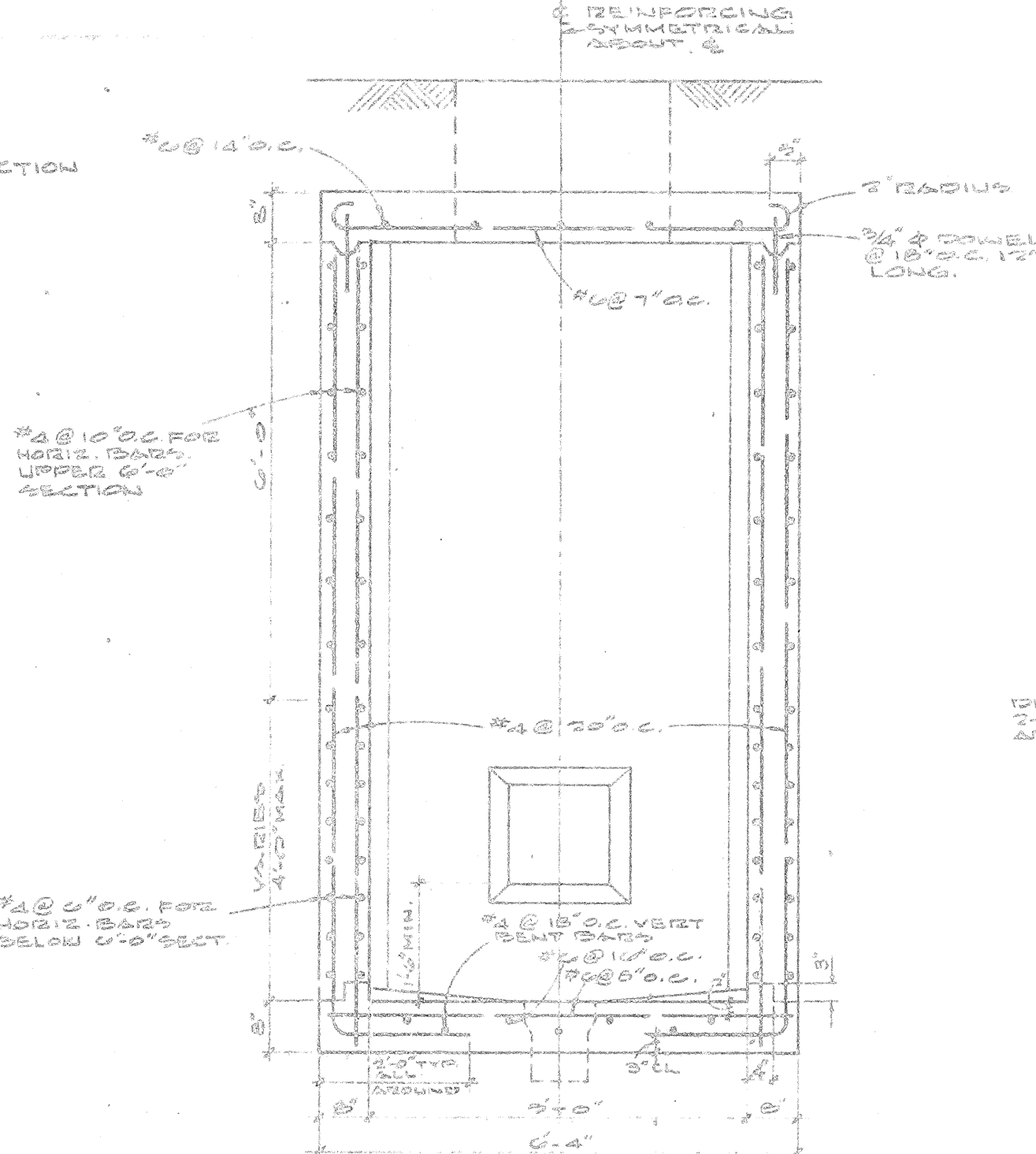
FLOOR SLAB REINF. PLAN
SCALE: 1/2"=1'-0"



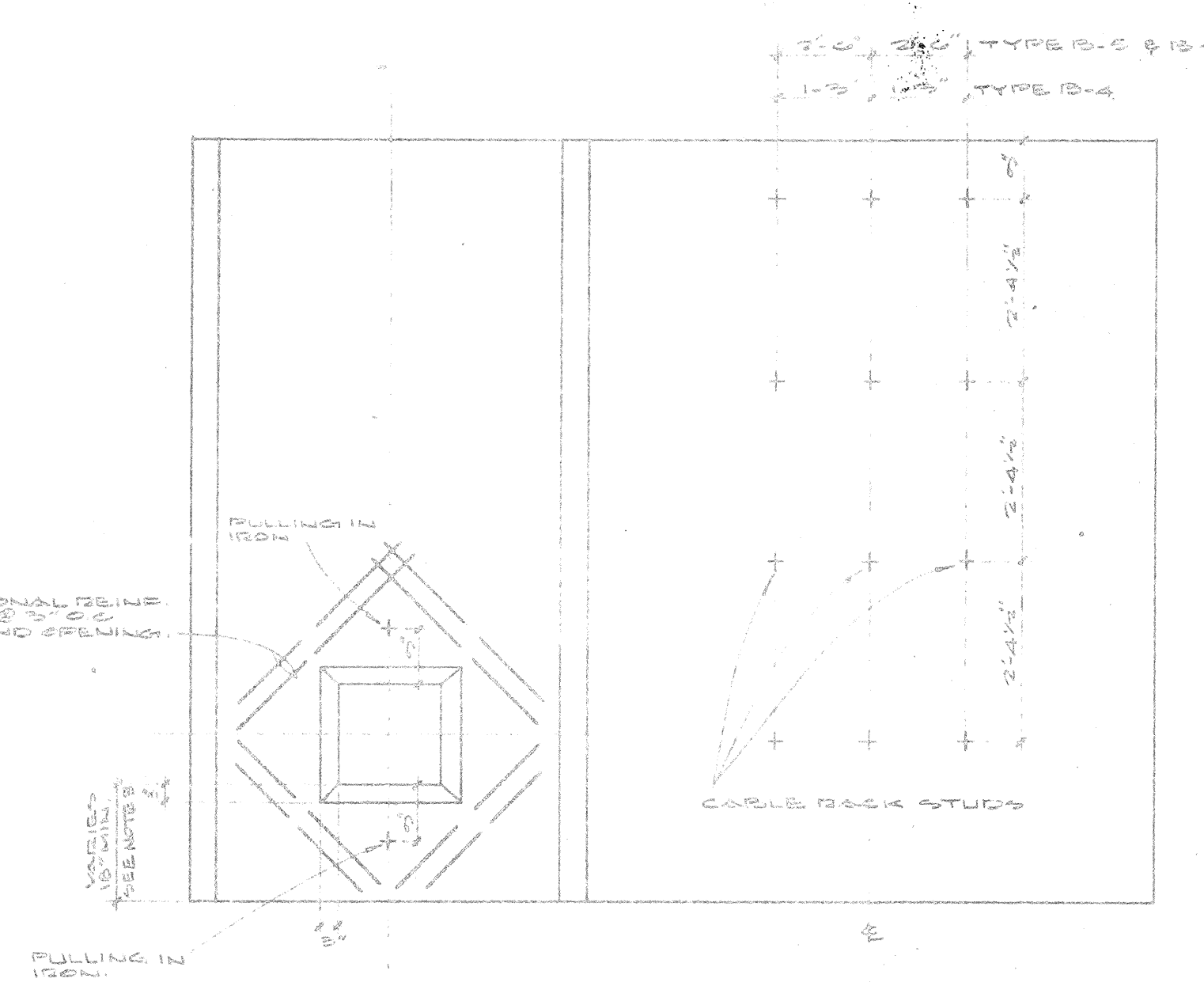
CONST. JOINT DETAIL
SCALE: 1/2"=1'-0"



SECTION "A-A"
SCALE: 1/2"=1'-0"



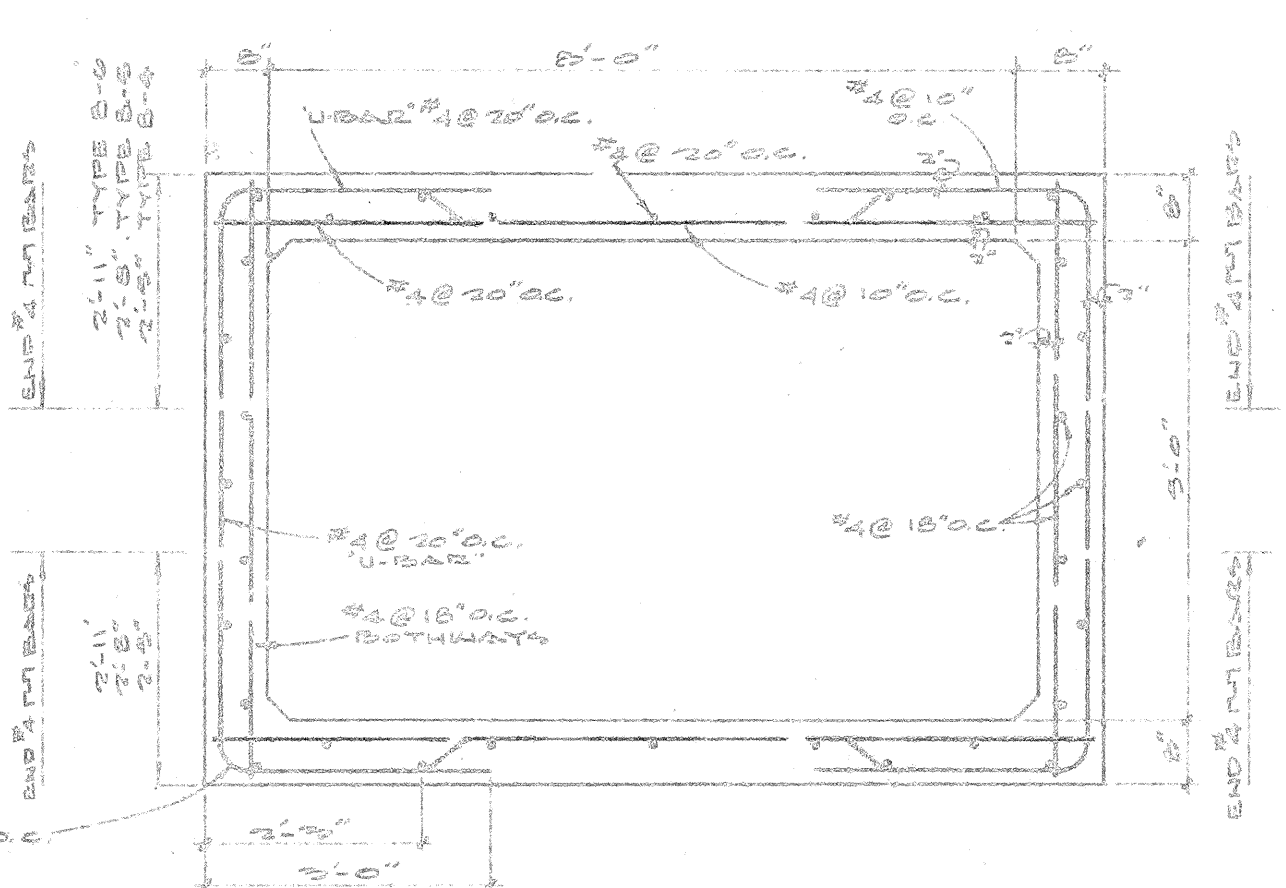
SECTION "C-C"
SCALE: 1/2"=1'-0"



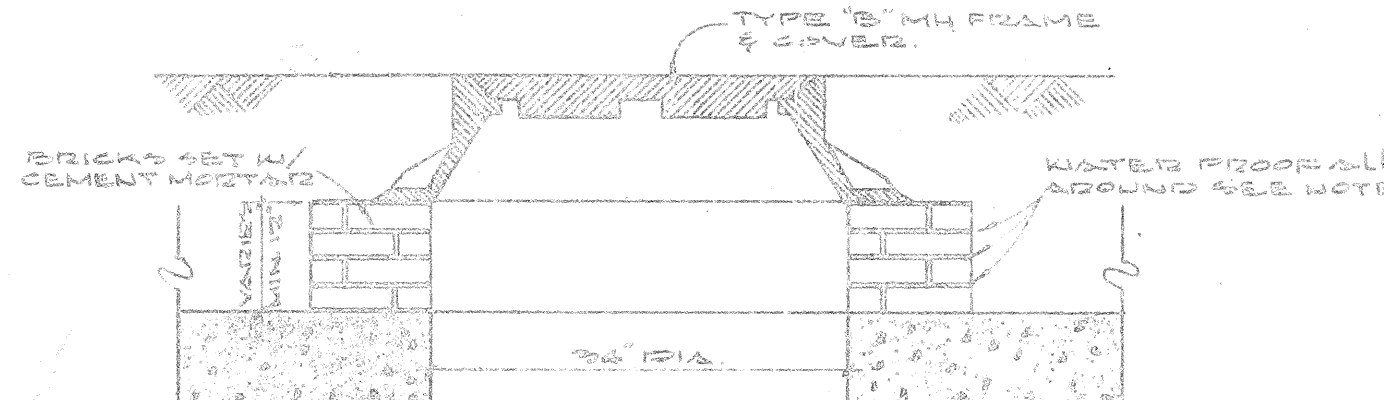
ELEVATION OF INSIDE WALLS TYPES B-4, B-5 & B-6
(OPPOSITE WALLS SIMILAR)
SCALE: 1/2"=1'-0"

APPROVED:
R. Man for F. H. Judd
HAWAIIAN TELEPHONE Co. Ltd. Date: 12/13/65

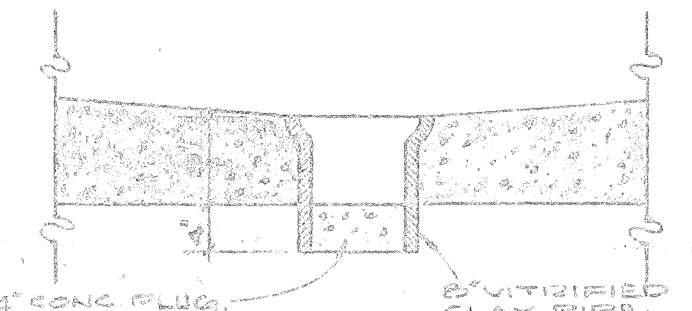
- GENERAL NOTES:
- DESIGN DATA:
f_c = 3000 PSI
f_s = 3000 PSI
n = 10
W = EQUIV FLUID PRESS = 2.57/FT²
 - ALL CONSTRUCTION JOINTS SHALL BE WATER-TIGHTED WITH TWO APPLICATIONS OF THORO SEAL OR EQUAL.
 - FOR DUCT WINDOW LOCATION SEE PLAN PROFILE SHEETS FOR ELEVATIONS.
 - DUCT WINDOW TO SUIT. SEE PLAN & PROFILE & STANDARD DETAIL SHEETS FOR LOCATION & DETAILS.
 - FOR DUCT WINDOW DETAILS SEE SECTION "F-F", STANDARD UNDERGROUND DETAIL SHEET.



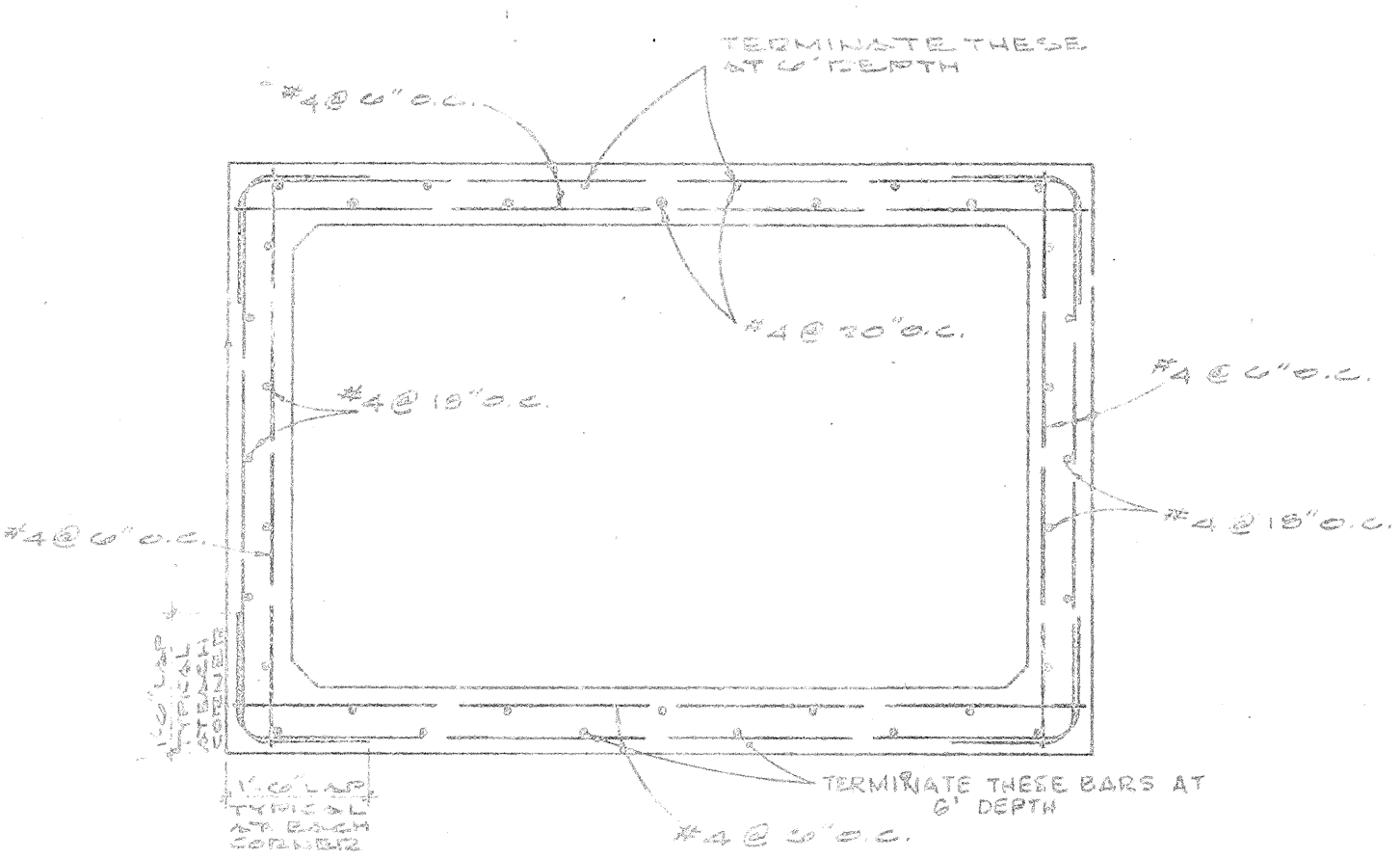
SECTION "B-B"
SCALE: 1/2"=1'-0"



SECTION "D-D"
MH COVER DETAIL
SCALE: 3/4"=1'-0"



SECTION "E-E"
SCALE: 3/4"=1'-0"



SECTION "F-F"
SCALE: 1/2"=1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TYPE "B" TELEPHONE MANHOLE
FOR ROADWAY & SIDEWALK AREA**
INTERSTATE ROUTE H-1
F.A.I. Proj. No. I-HI-1(20)
Scale: As Shown Date: Dec. 1965
SHEET No. 6 OF 9 SHEETS

FILE	DR.	ENGINEER	DATE
ASSIGNMENT	CHK	12/13/65	
CONSTRUCTION	INDEX		
MAINTENANCE			
TOTAL PAGES			

FOR 25' & 30' POLES WITH 8'-0" ANCHOR RODS				
"A"	"B"	"C"		"D" = ("A" + "B")
LEAD-ANCHOR ROD TO C.O.F POLE	ANCHOR ROD TO C.O.F HOLE	VERTICAL DEPTH 18" D.M.	24" D.M.	TOTAL DISTANCE POLE TO HOLE
5'-0"	1'-8"	7'-1"	7'-4"	6'-8"
10'-0"	3'-0"	6'-7"	7'-0"	13'-0"
15'-0"	4'-0"	6'-1"	6'-6"	19'-0"
20'-0"	4'-8"	5'-6"	5'-10"	24'-8"
25'-0"	5'-2"	4'-11"	5'-4"	30'-2"
FOR 35' THRU 70' POLES WITH 8'-0" ANCHOR RODS				
5'-0"	1'-0"	7'-3"	7'-4"	6'-0"
10'-0"	1'-11"	7'-1"	7'-3"	11'-11"
15'-0"	2'-8"	6'-9"	7'-1"	17'-8"
20'-0"	3'-3"	6'-6"	6'-10"	23'-3"
25'-0"	3'-10"	6'-2"	6'-7"	28'-10"
FOR 40' THRU 70' POLES WITH 1 1/4" x 10'-0" ANCHOR RODS				
5'-0"	1'-7"		9'-4"	6'-7"
10'-0"	3'-0"		9'-0"	13'-0"
15'-0"	4'-2"		8'-6"	19'-2"
20'-0"	5'-3"		7'-11"	25'-3"
25'-0"	6'-2"		7'-3"	31'-2"

D. M. = Deadman

TABLE 2 ANCHOR ROD - ANCHOR SLUG - SQUARE WASHER COMBINATION

H.E. CODE NO.	ANCHOR ROD	WORKING TENSION 1/2 ULT (LBS.)	H.E. CONC. NO.	CONC. (IN.)	H.E. CODE NO.	WASHER SIZE	QTY.
617	5/8" x 8'-0" Steel	8,000	518	18	2320	4" x 4" x 3/16"	2
615	5/8" x 8'-0" Cu Cov Stl	9,250	518	18	**	3" x 3" x 1/8"	2
618	3/4" x 8'-0" Steel	11,500	518	18	2330	6" x 6" x 3/8"	1
619	1" x 8'-0" Steel	18,000	524	24	2331	6" x 6" x 1/2"	1
616	1" x 8'-0" Cu Cov Stl	22,500	524	24	**	4" x 4" x 3/16"	2
613	1 1/4" x 10'-0" Steel	29,000	524	24	2330	6" x 6" x 3/8"	2

** Use bronze square washers included in anchor rod assembly on copper covered steel (Cu Cov Stl) anchor rods.

ANCHORING DATA

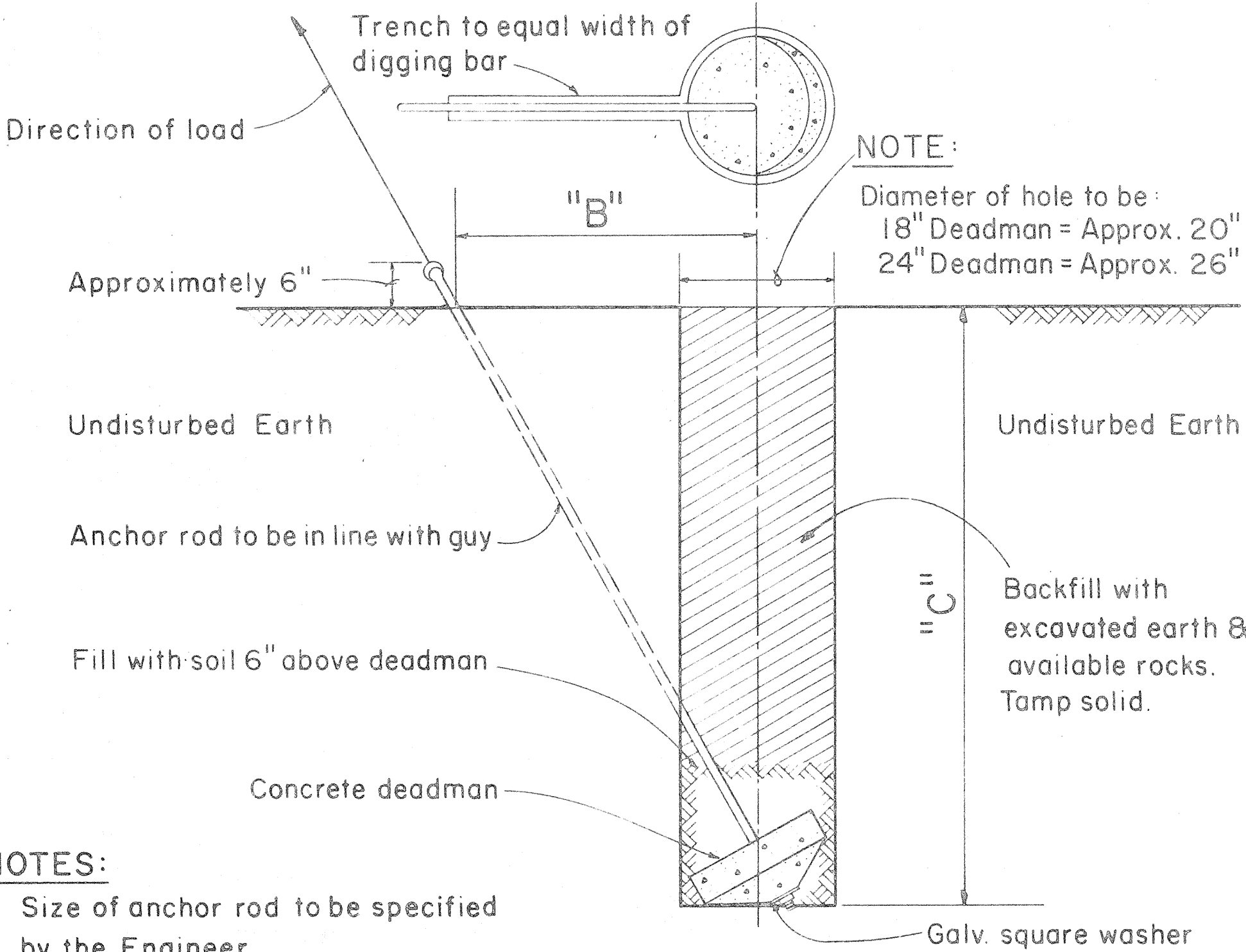
APPROVED:

HAWAIIAN TELEPHONE CO., LTD.
For F.H. Gudel
 HAWAIIAN TELEPHONE CO., LTD.
 DATE 11/22/65

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 STANDARD DETAILS
 H.E. Co. AND H.T. Co.
 ANCHOR DETAILS AND
 ANCHORING DATA

Scales: As Noted Date Oct. 1965

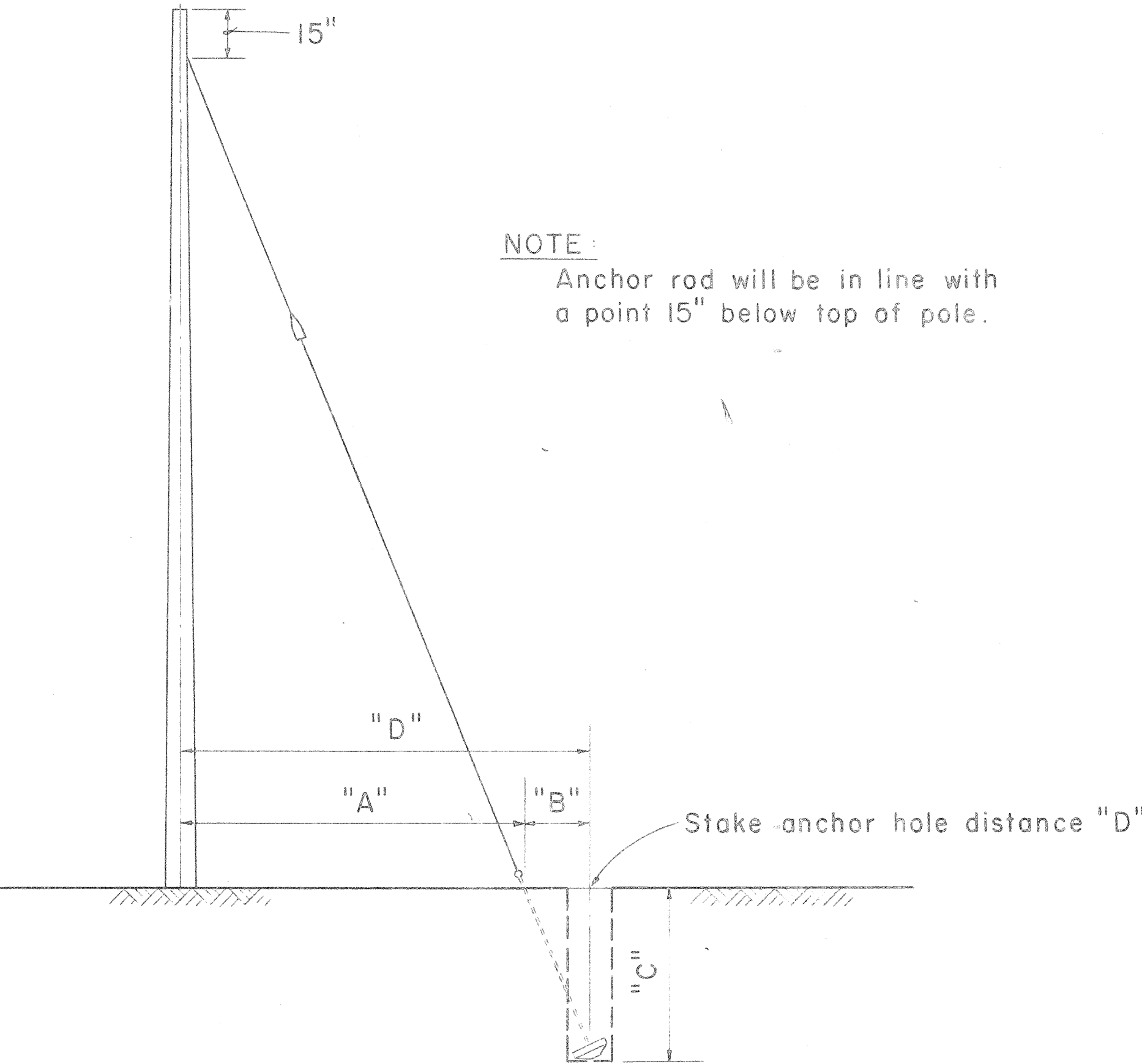
SHEET No. 7 OF 9 SHEETS



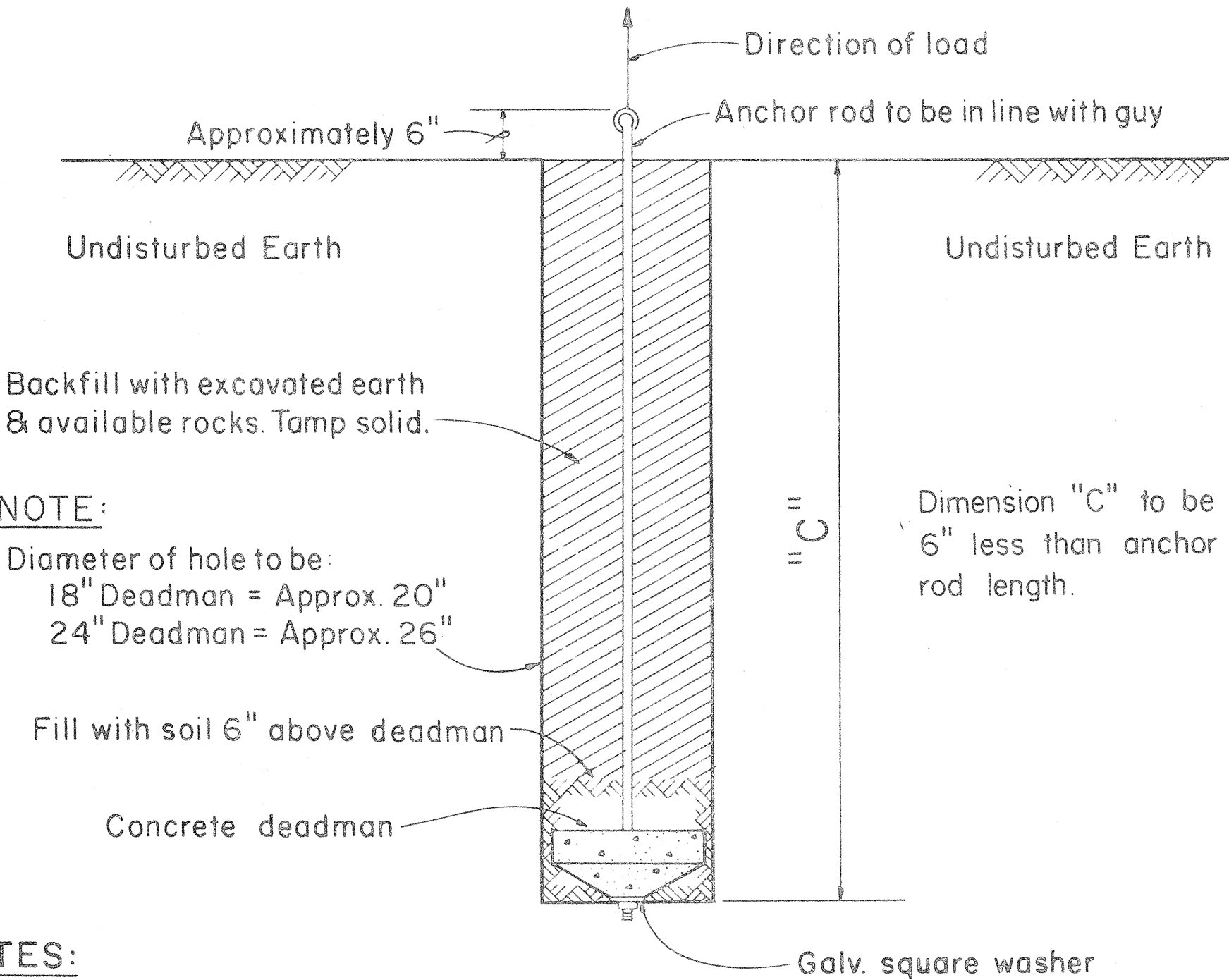
- NOTES:
1. Size of anchor rod to be specified by the Engineer
 2. Use Anchoring Data.

GUY ANCHOR DEADMAN

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



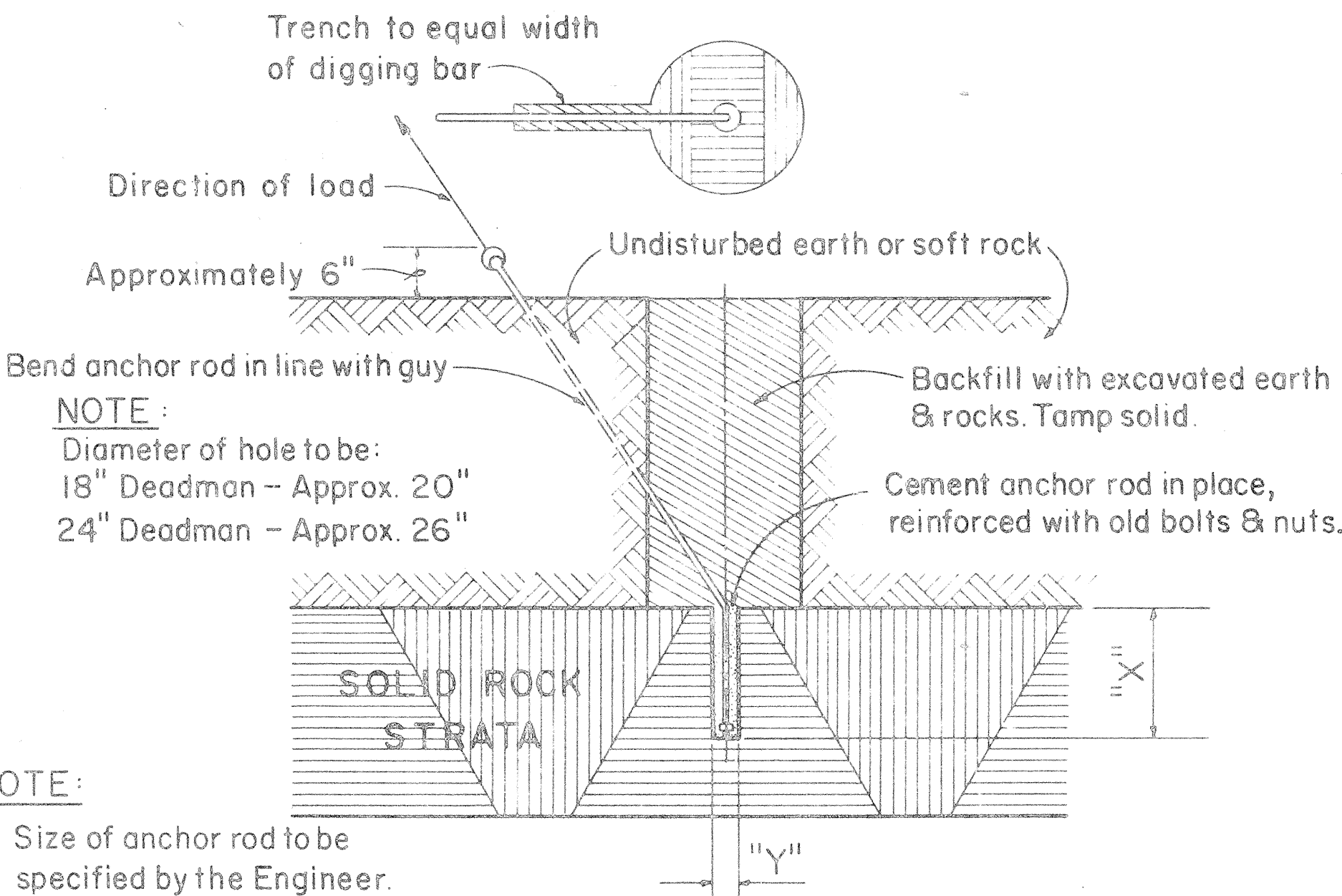
Not to Scale



- NOTES:
1. Size of anchor rod to be specified by the Engineer.
 2. Use Anchoring Data.

SIDE - WALK ANCHOR

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

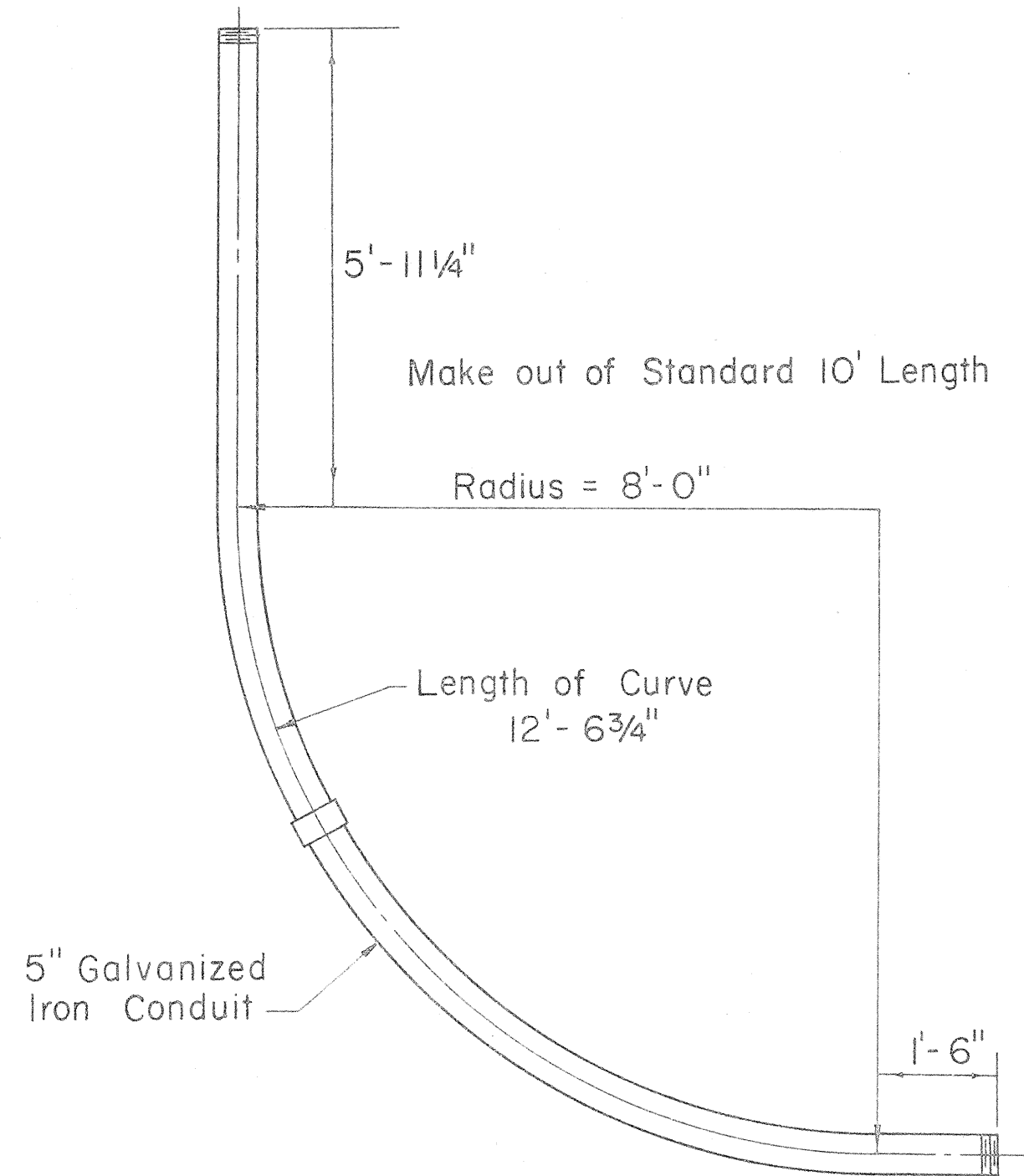


- NOTE:
1. Size of anchor rod to be specified by the Engineer.
 2. "X" Should not be less than 24". If "X" is less than 24" complete hole & install anchor.
 3. "Y" 5/8" Anchor rod drill 2" hole 3/4" Anchor rod drill 2" hole 1" Anchor rod drill 2 1/2" hole 1 1/4" Anchor rod drill 3" hole
 4. Use Anchoring Data.

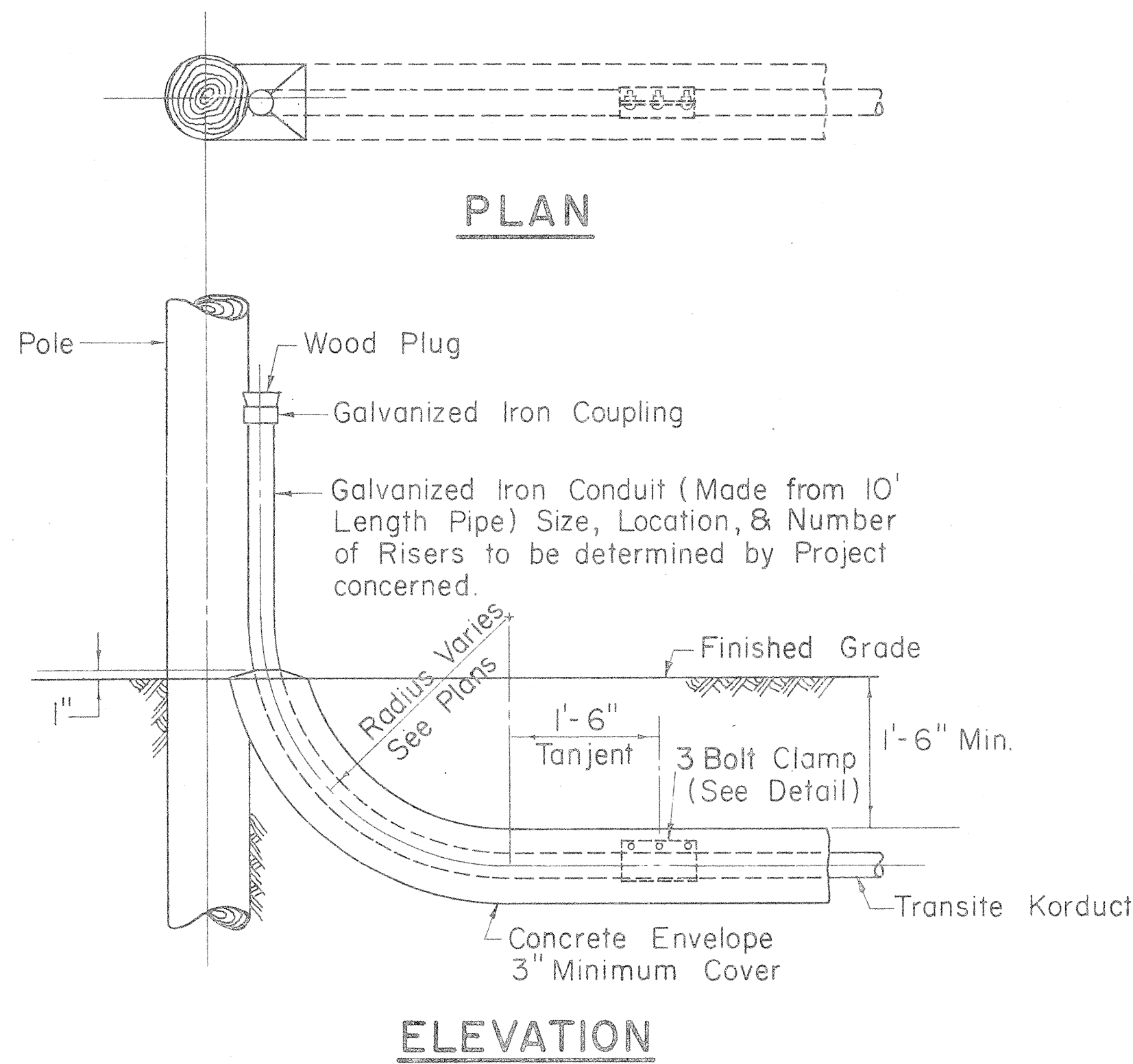
ROCK ANCHOR

Not to Scale

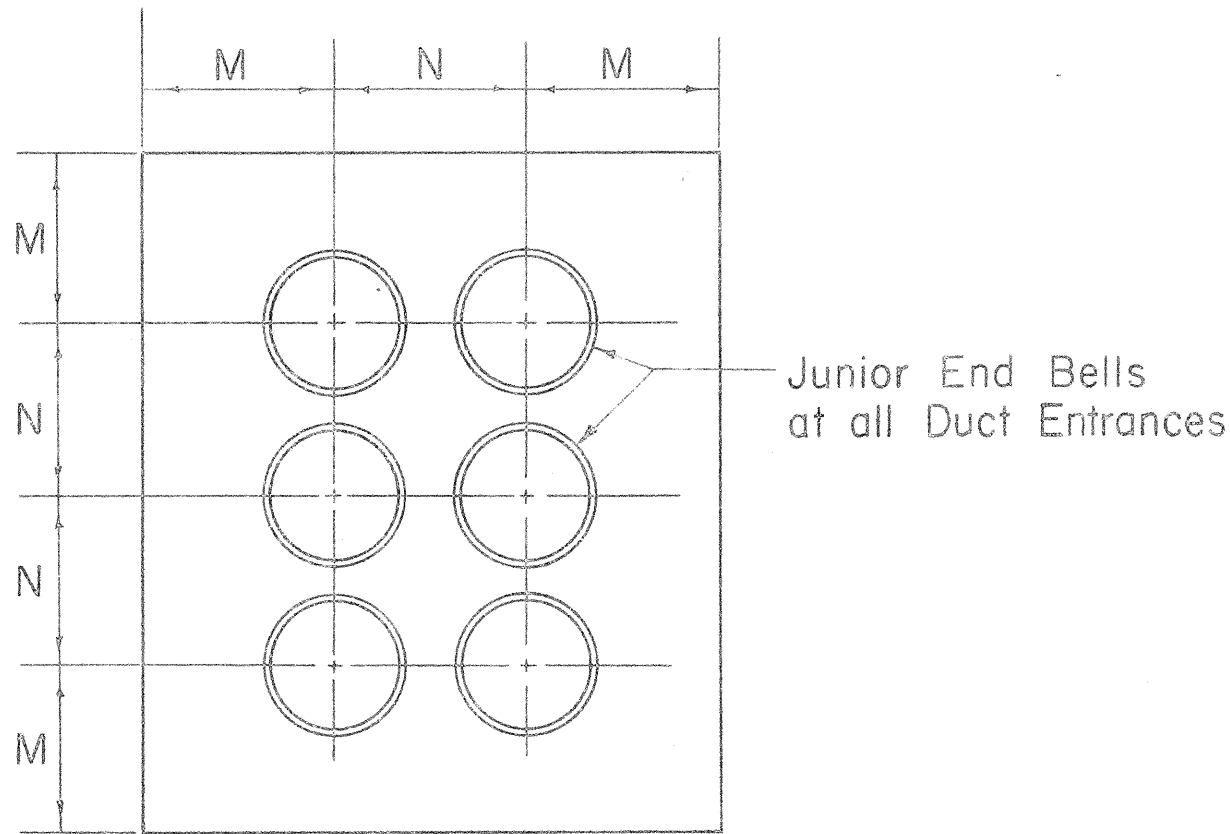
FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	I-HI-1(20)	1965	22	55



46 KV RISER CONDUIT BEND
(8'-0" RADIUS)
Not to Scale



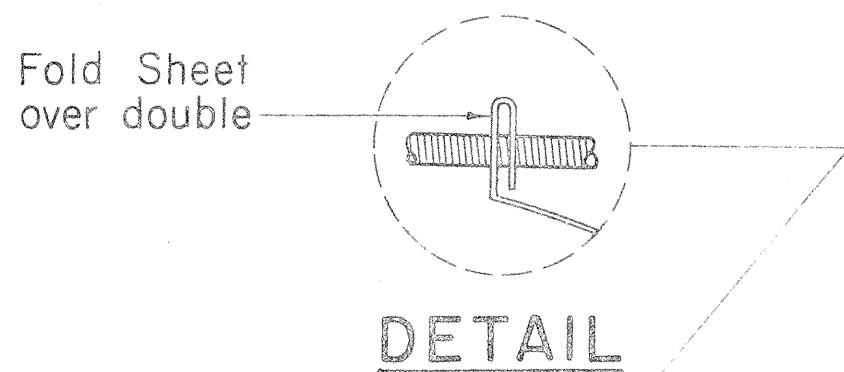
TYPICAL POLE RISER DETAIL
Scale: 3/4" = 1'-0"



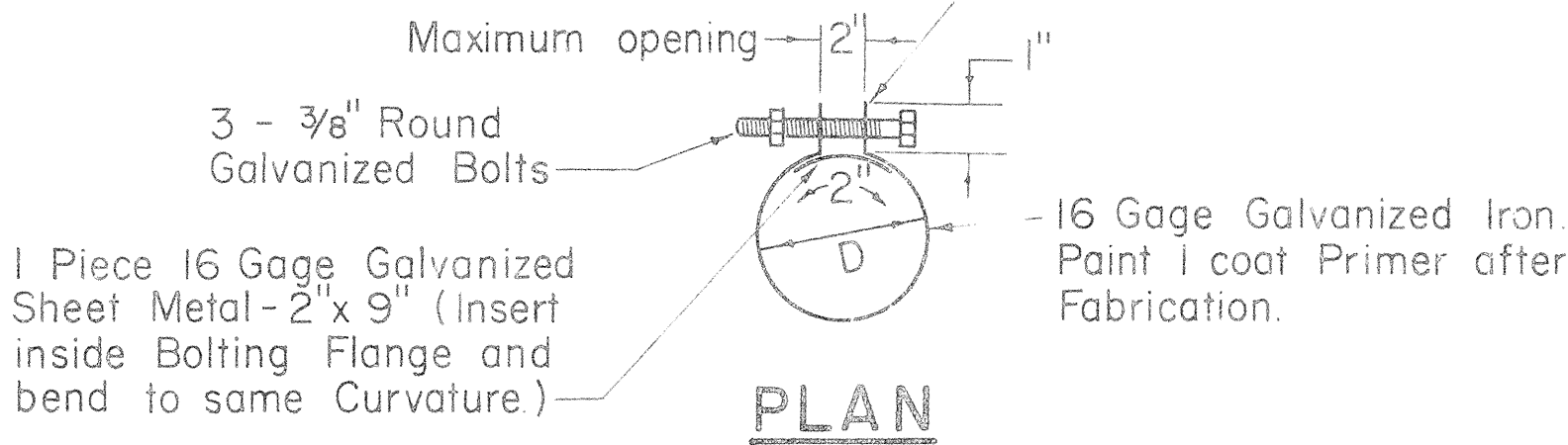
TYPICAL DUCT DETAIL AT MANHOLE WALL

Not to Scale

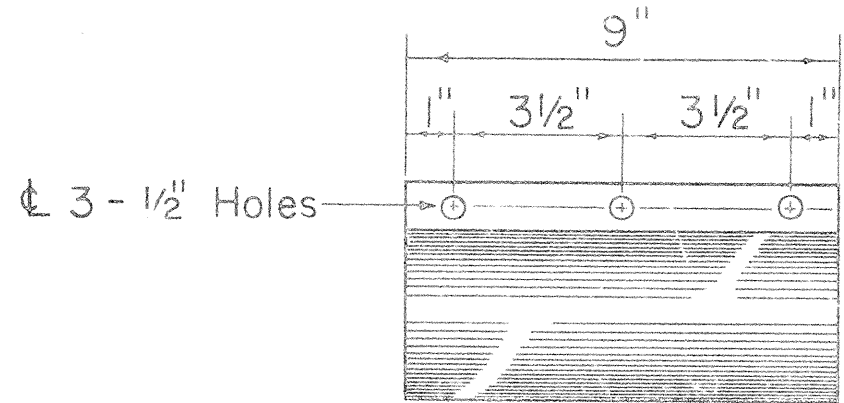
SIZE	M	N
3"	5"	6"
4"	5 1/2"	7"
4 1/2"	5 1/2"	7 1/2"
5"	6"	8"



DETAIL

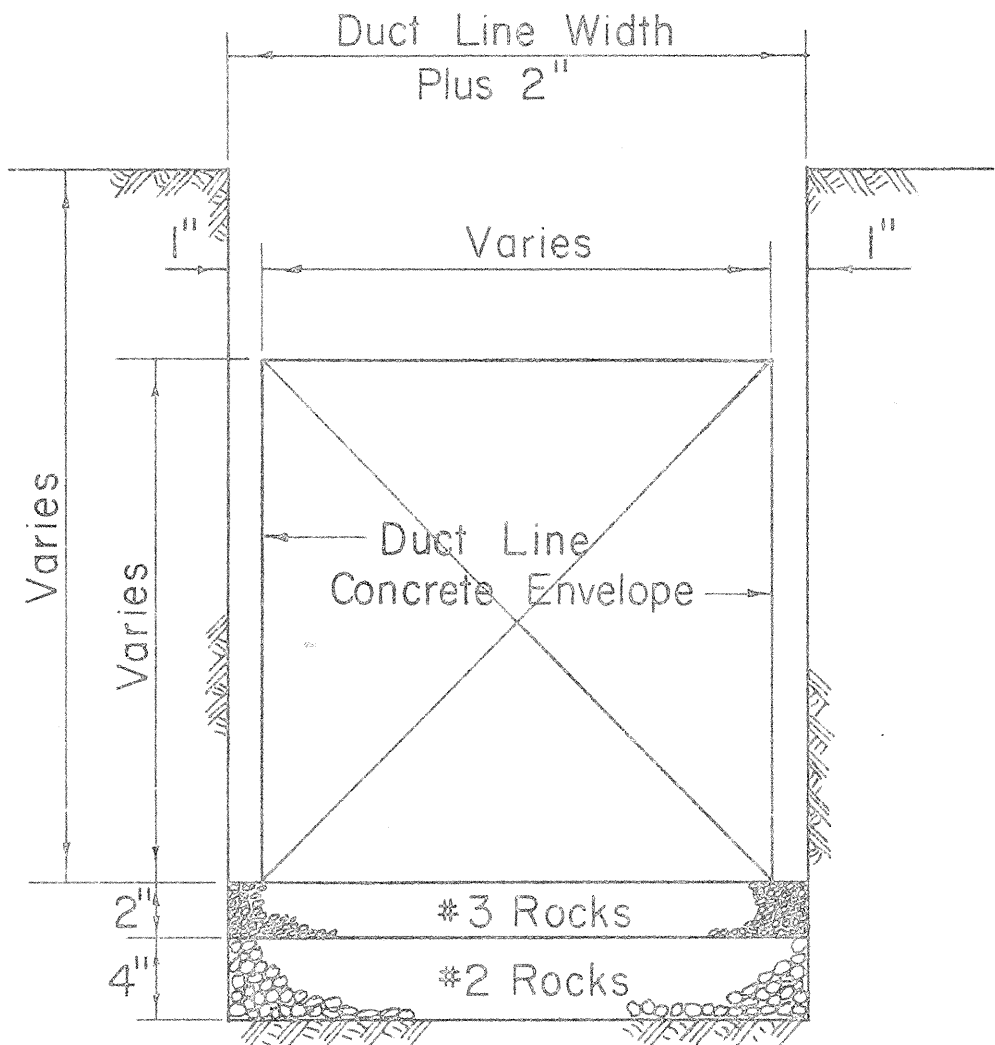


PLAN



ELEVATION

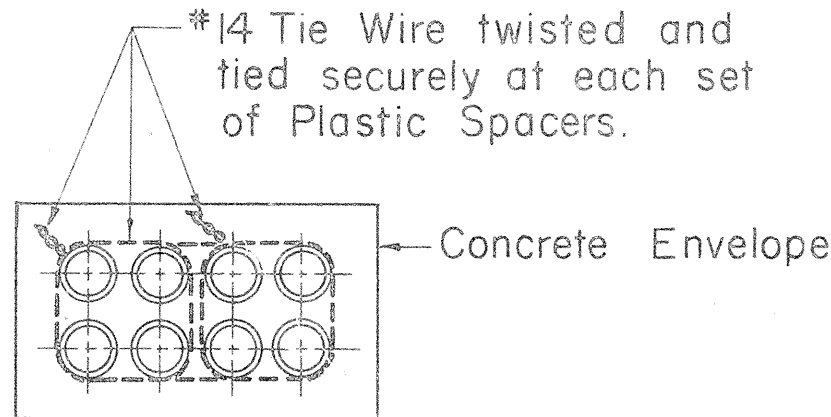
3 BOLT CLAMP DETAIL
Scale: 3" = 1'-0"



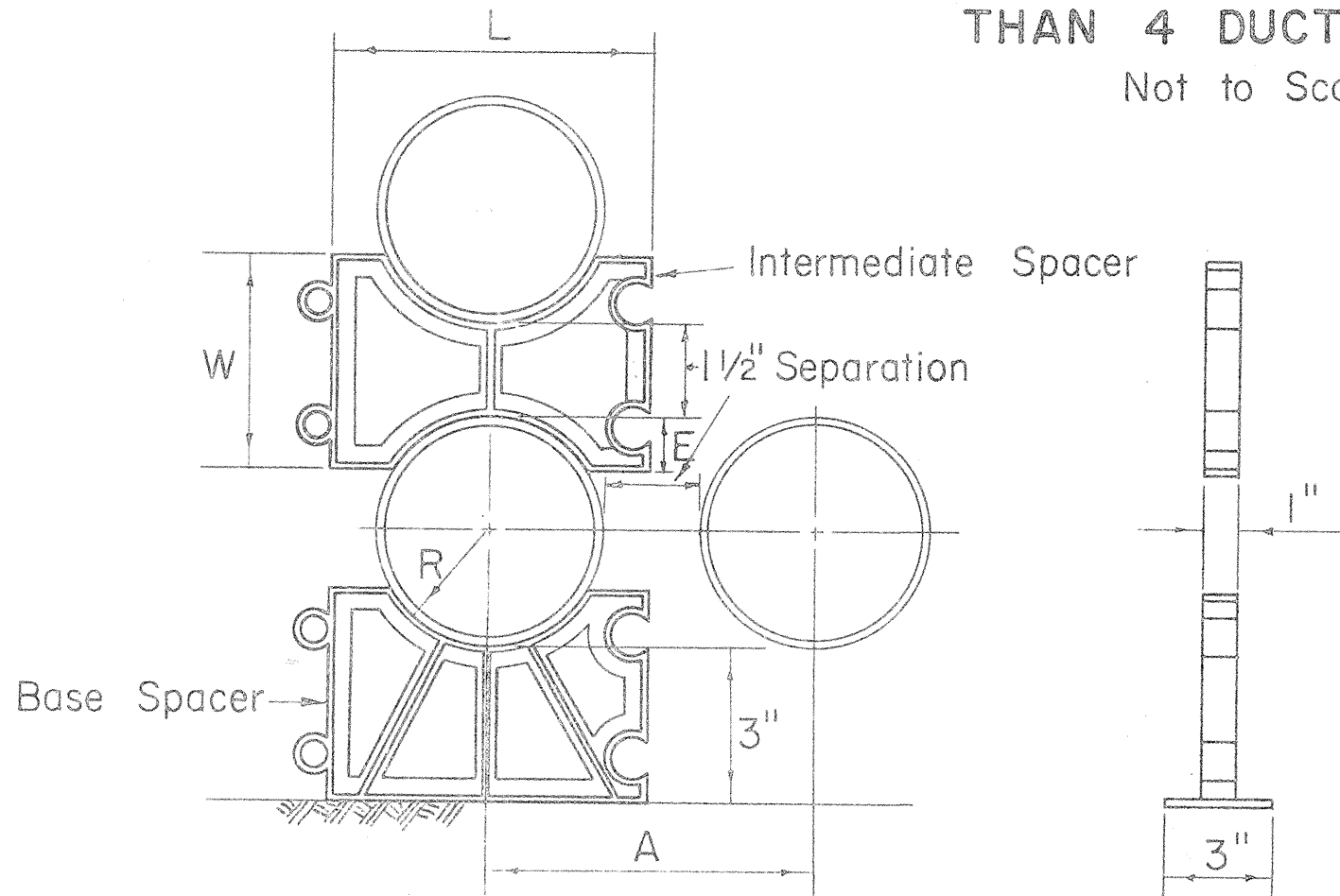
TYPICAL EXCAVATION DETAIL
Not to Scale

NOTES

1. Size of Concrete Envelope and Depth of Excavation to be determined by Project concerned.
2. Widen Trench Excavation when Forms are used.
3. Rock Foundation required only when Water is encountered.



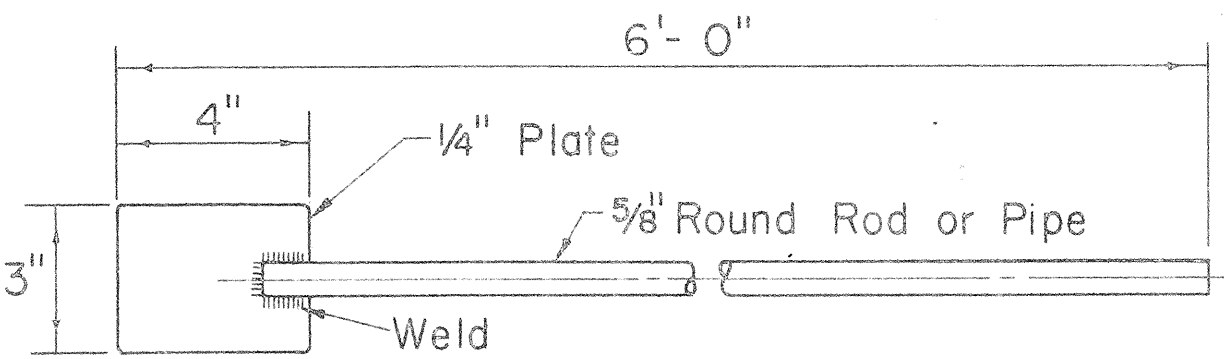
TIE WIRE DETAIL
FOR DUCT LINE MORE THAN 4 DUCTS WIDE
Not to Scale



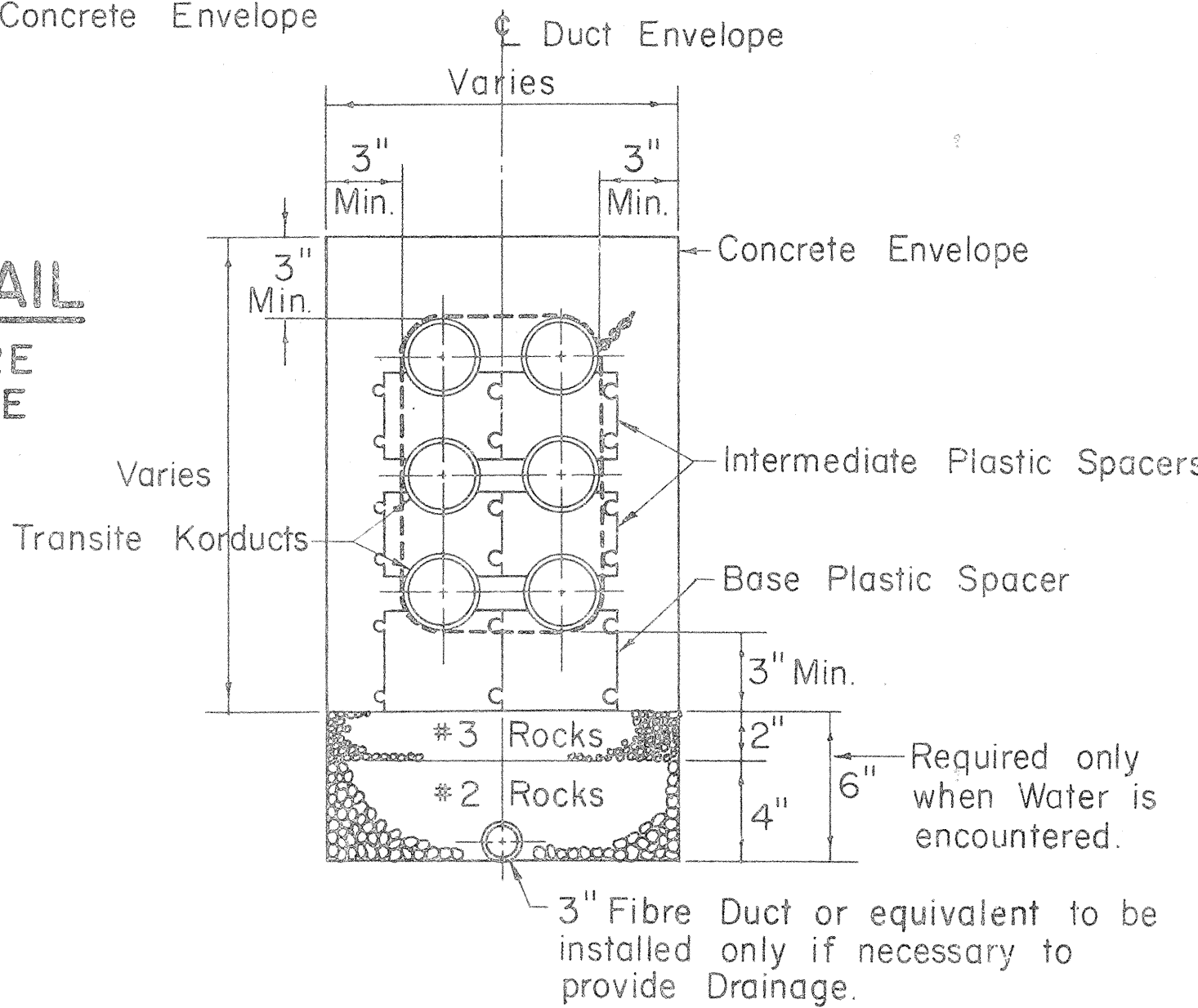
TYPICAL PLASTIC SPACERS
Not to Scale

SIZE	R	E	W	A	L
3"	1 27/32"	7/8"	3 1/4"	5 1/8"	5"
4"	2 13/32"	1 1/8"	3 3/4"	6 1/4"	6 1/8"
4 1/2"	2 23/32"	1 1/4"	4"	6 7/8"	6 3/4"
5"	3 1/16"	1 3/8"	4 1/4"	7 5/8"	7 1/2"

For 1 1/2" Separation



CONCRETE DUCT ENVELOPE TAMPING ROD
Scale: 3" = 1'-0"



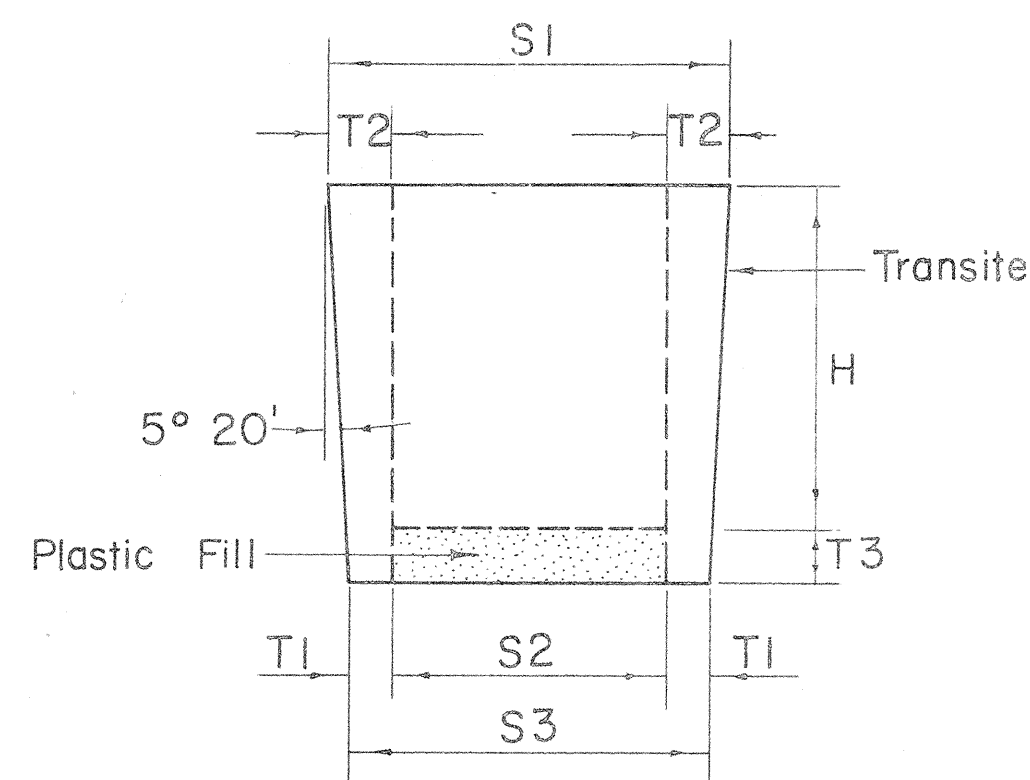
TYPICAL DUCT PLASTIC SPACERS & DRAINAGE SECTION
(6 WAY DUCT SHOWN - 3 HIGH - 2 WIDE)
Not to Scale

APPROVED:

R. M. Maw for F. H. Maw
HAWAIIAN TELEPHONE CO., LTD. DATE

HECo., Inc. Drawing Number	
18585	SHEET No. 1 OF 2 SHEETS
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS	
CONSTRUCTION STANDARDS TRANSITE KORDUCTS UNDERGROUND DUCT LINES	
Scales: As Noted	Date: Oct. 1965

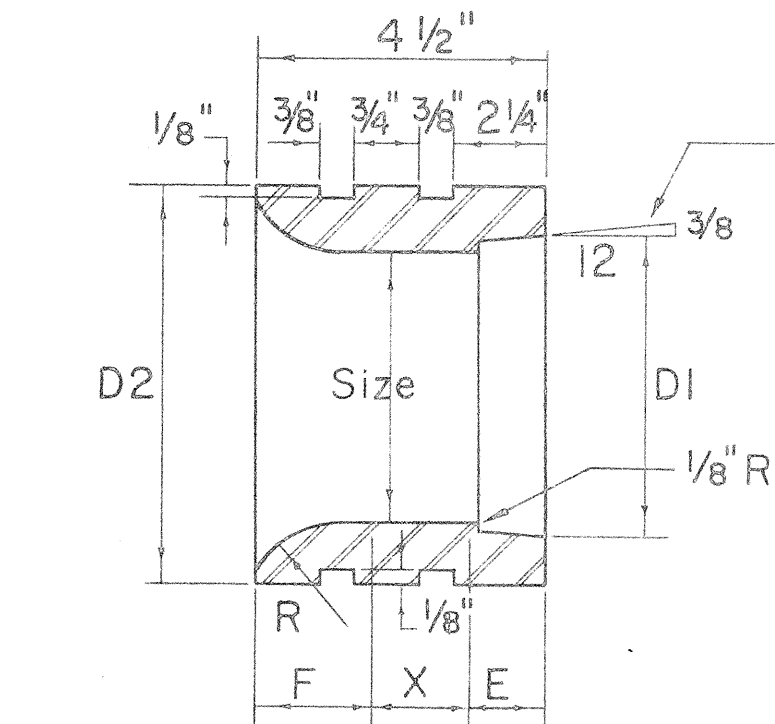
SHEET NO. 8 OF 9 SHEETS



PLUGS FOR TRANSITE KORDUCTS

Not to Scale

SIZE	H	S1	S2	S3	T1	T2	T3
3"	4"	3 3/8"	2"	2 5/8"	5 1/16"	11 1/16"	3 3/4"
4"	4 1/2"	4 27/64"	2 3/4"	3 37/64"	13 3/32"	27 3/32"	3 3/4"
4 1/2"	4 1/2"	4 59/64"	3"	4 5/64"	35 3/64"	31 3/32"	3 3/4"
5"	4 1/2"	5 27/64"	3 1/2"	4 37/64"	35 3/64"	31 3/32"	3 3/4"



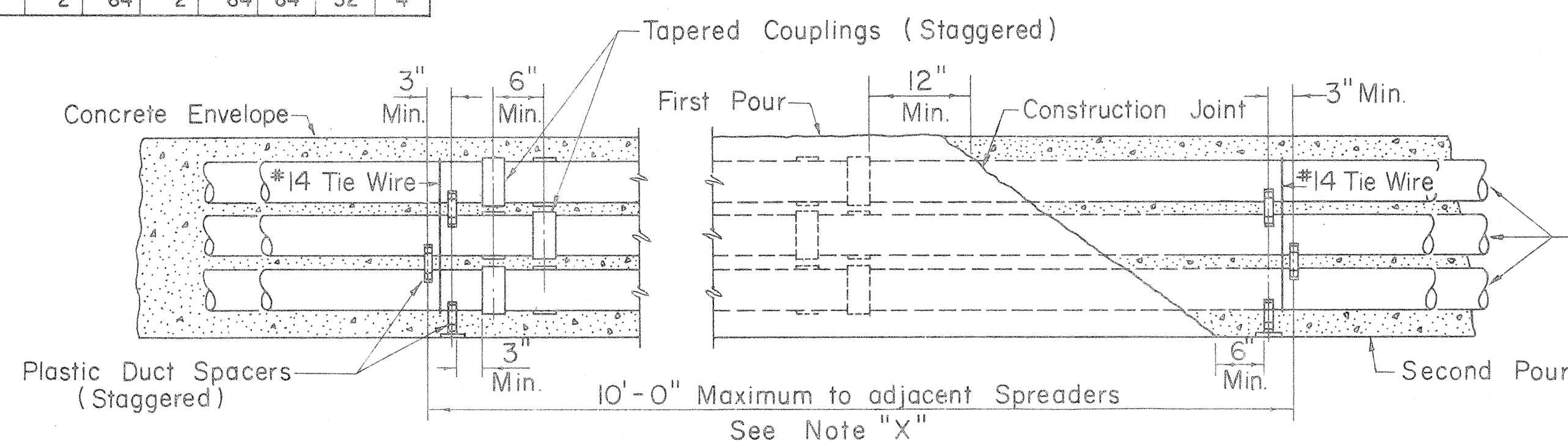
JUNIOR END BELLS

Not to Scale

SIZE	D1	D2	F	X	E	R
3"	3 25/64"	4 1/2"	1 11/32"	2 9/32"	1 1/4"	1 3/4"
4"	4 25/64"	5 3/4"	1 9/16"	1 9/16"	1 3/8"	2"
4 1/2"	4 57/64"	6 1/4"	1 9/16"	1 9/16"	1 3/8"	2"
5"	5 29/64"	7"	1 9/16"	1 7/16"	1 1/2"	2"

Note "X"

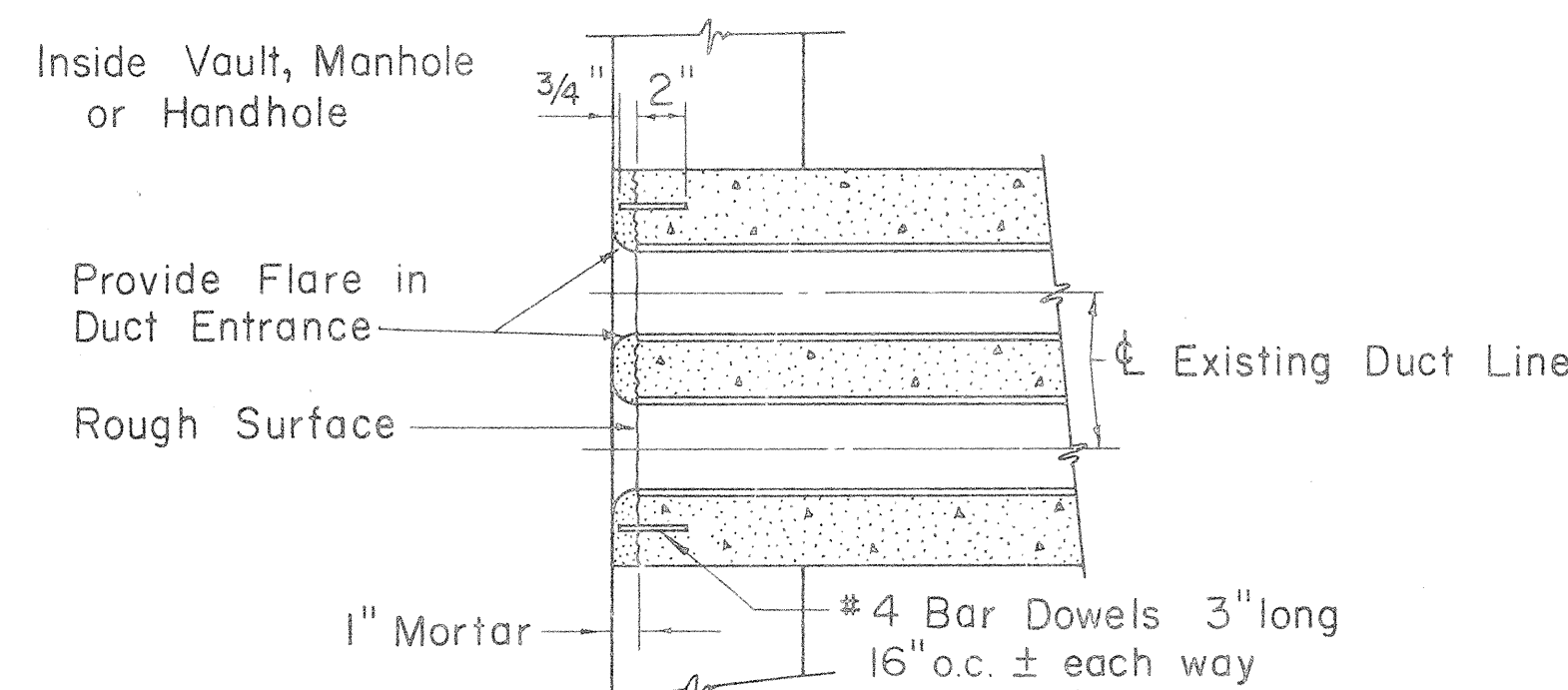
- Provide one set of Spacers
- 10 Ft. straight run for 4 Ducts high or less.
 - 5 Ft. straight run for 5 Ducts high or more.



TYPICAL DUCT ENVELOPE ELEVATION

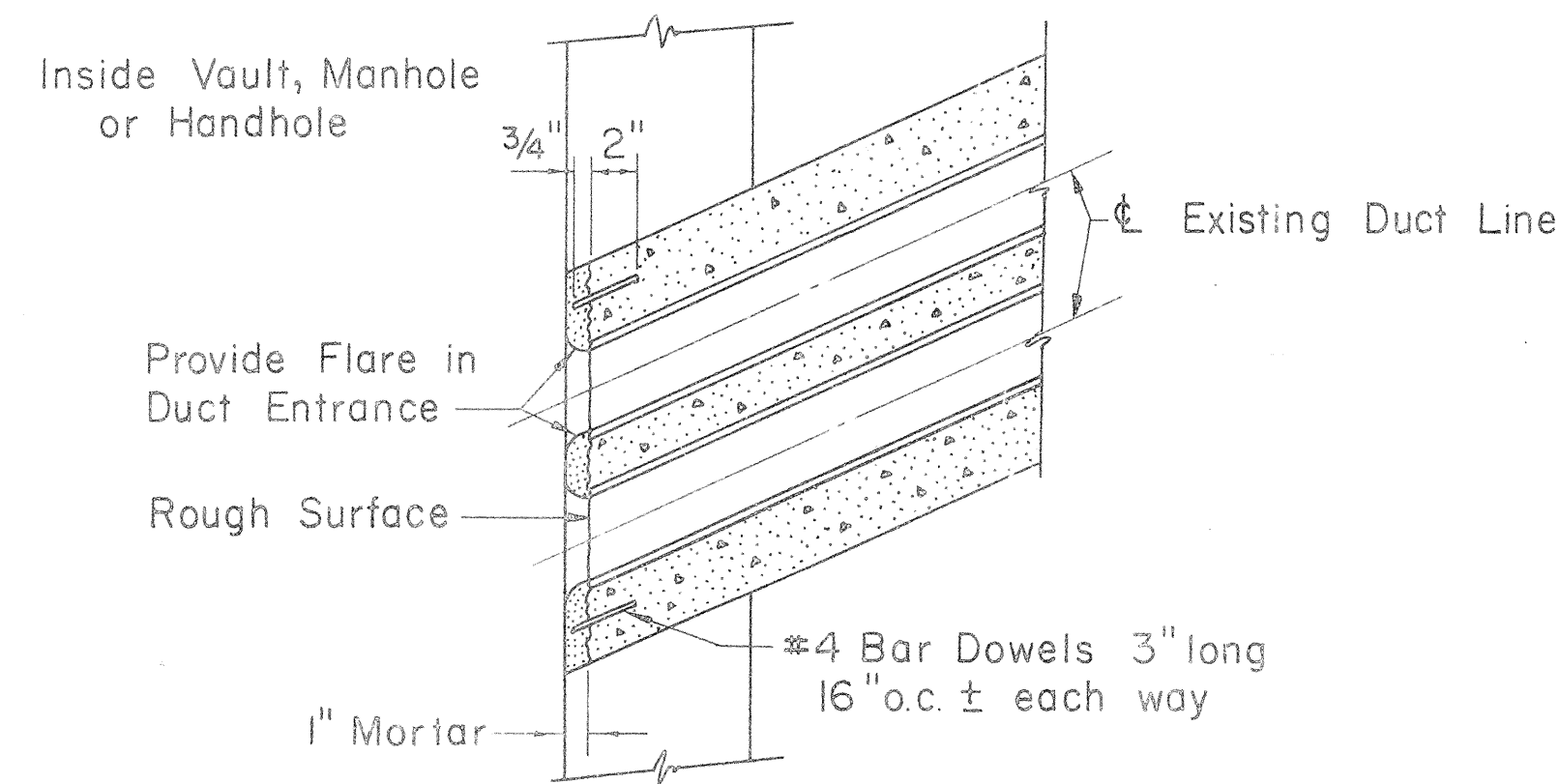
(6 WAY DUCT LINE SHOWN)

Not to Scale



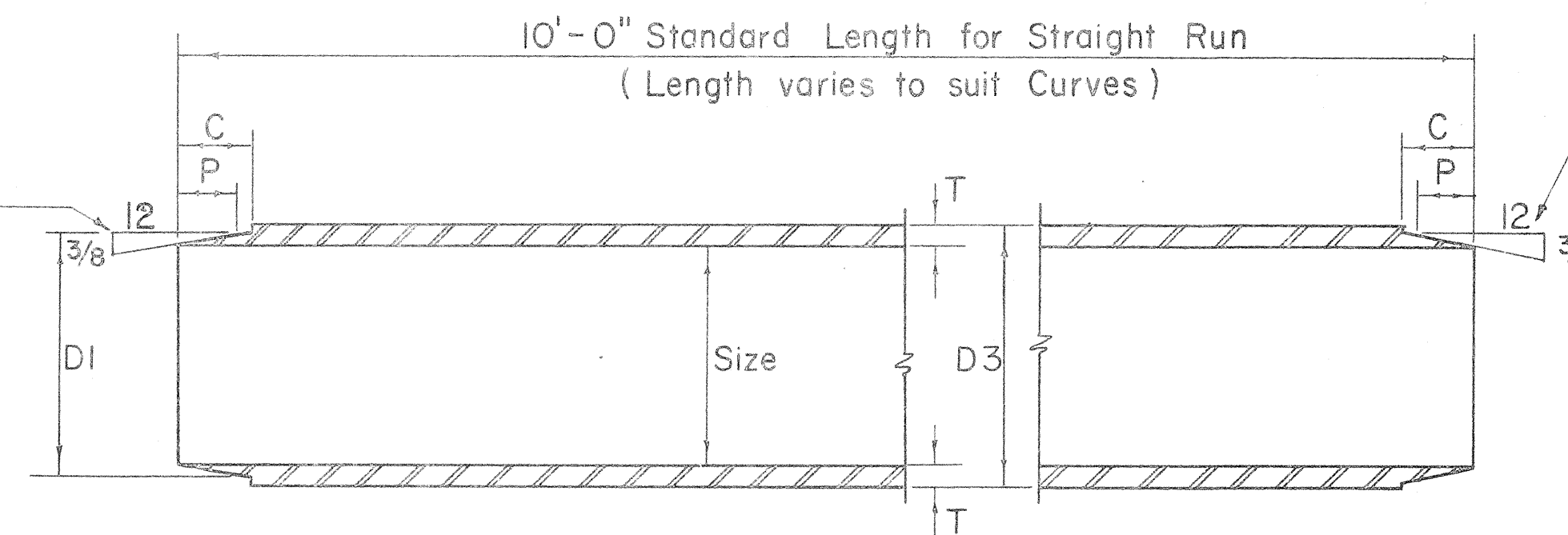
DUCT LINE ENTRANCE AT EXISTING DUCT LINE

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



DUCT LINE DIAGONAL ENTRANCE

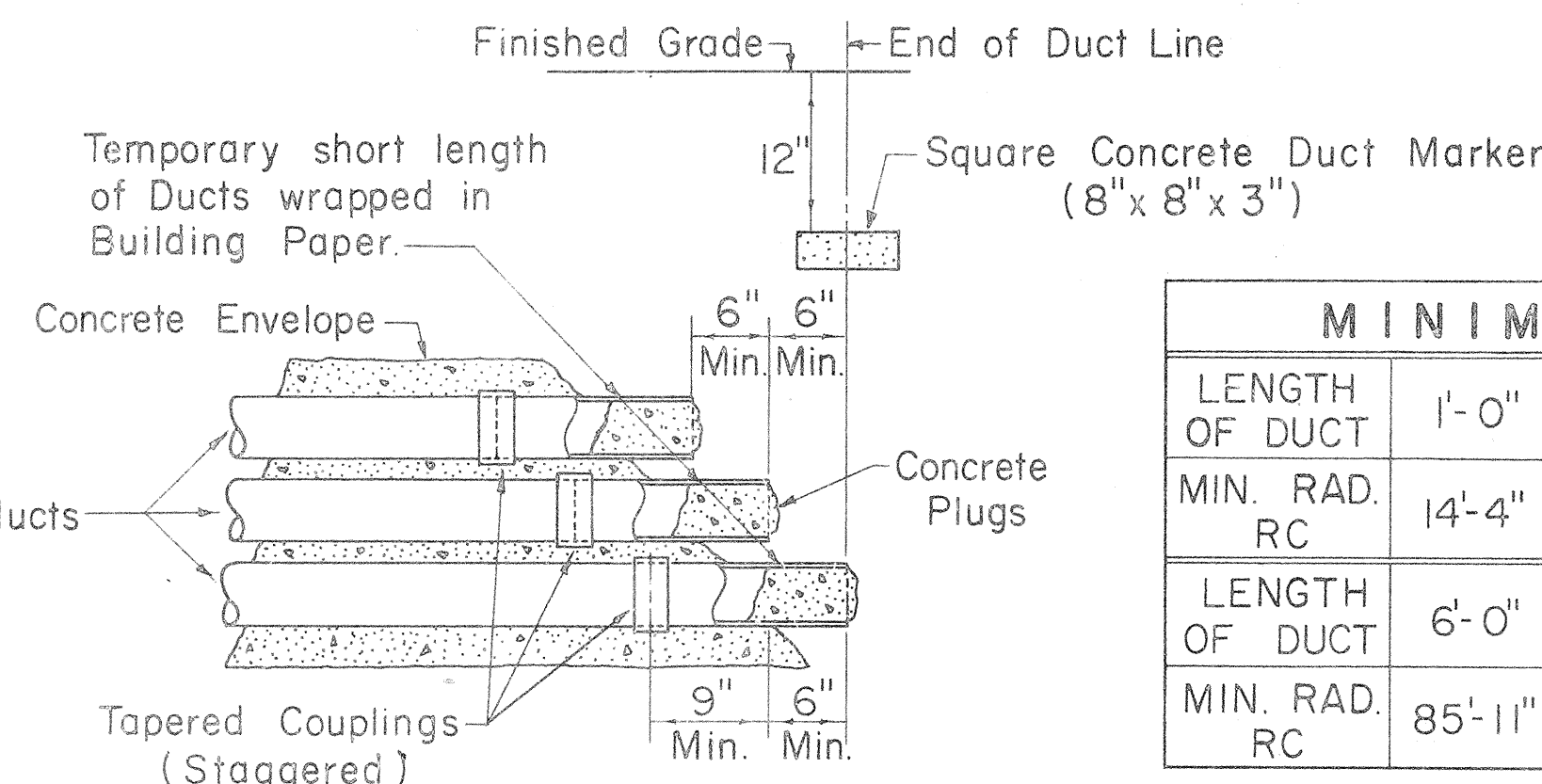
Scale: 1 1/2" = 1'-0"



TRANSITE KORDUCTS

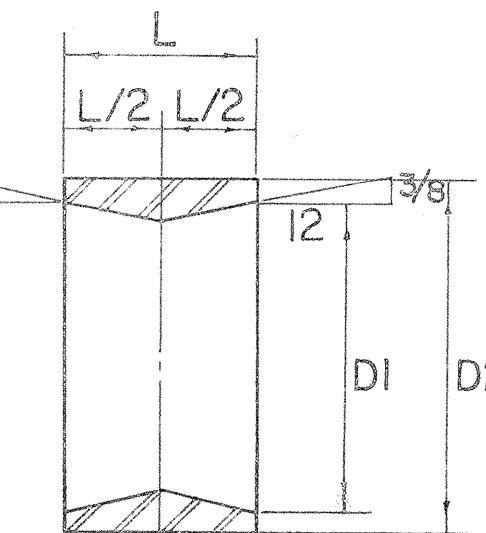
Not to Scale

SIZE	D1	D3	C	P	T
3"	3 25/64"	3 35/64"	1 1/8"	7 7/8"	17 1/64"
4"	4 25/64"	4 35/64"	1 1/4"	1"	17 1/64"
4 1/2"	4 57/64"	5 3/64"	1 1/4"	1"	17 1/64"
5"	5 29/64"	5 39/64"	1 1/8"	1 1/8"	19 1/64"



TYPICAL STUB OUT DETAIL

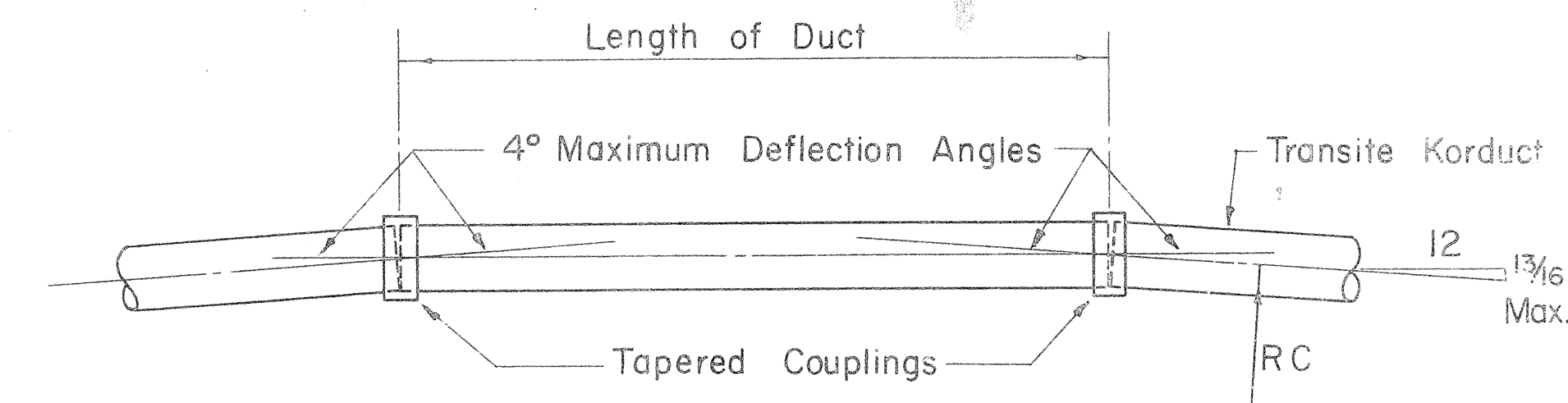
Not to Scale



TAPERED COUPLINGS

Not to Scale

SIZE	D1	D2	L
3"	3 25/32"	4 11/64"	2 1/4"
4"	4 25/64"	5 3/16"	2 1/2"
4 1/2"	4 57/64"	5 49/64"	2 1/2"
5"	5 29/64"	6 21/64"	2 3/4"



METHOD OF FORMING CURVES

Not to Scale

	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
LENGTH OF DUCT	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
MIN. RAD. RC	14'-4"	21'-6"	28'-8"	35'-10"	42'-11"	50'-1"	57'-3"	64'-5"	71'-7"	78'-9"
LENGTH OF DUCT	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	
MIN. RAD. RC	85'-11"	93'-1"	100'-3"	107'-5"	114'-7"	121'-8"	128'-10"	136'-0"	143'-2"	

APPROVED:

R. P. Maw for F. H. Judd
HAWAIIAN TELEPHONE CO., LTD.

11/22/65
DATE

HECo., Inc. Drawing Number
18585 SHEET No. 2 OF 2 SHEETS
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
CONSTRUCTION STANDARDS
TRANSITE KORDUCTS
UNDERGROUND DUCT LINES

Scales: As Noted

Date: Oct. 1965

SHEET NO. 2 OF 2 SHEETS

23. 185