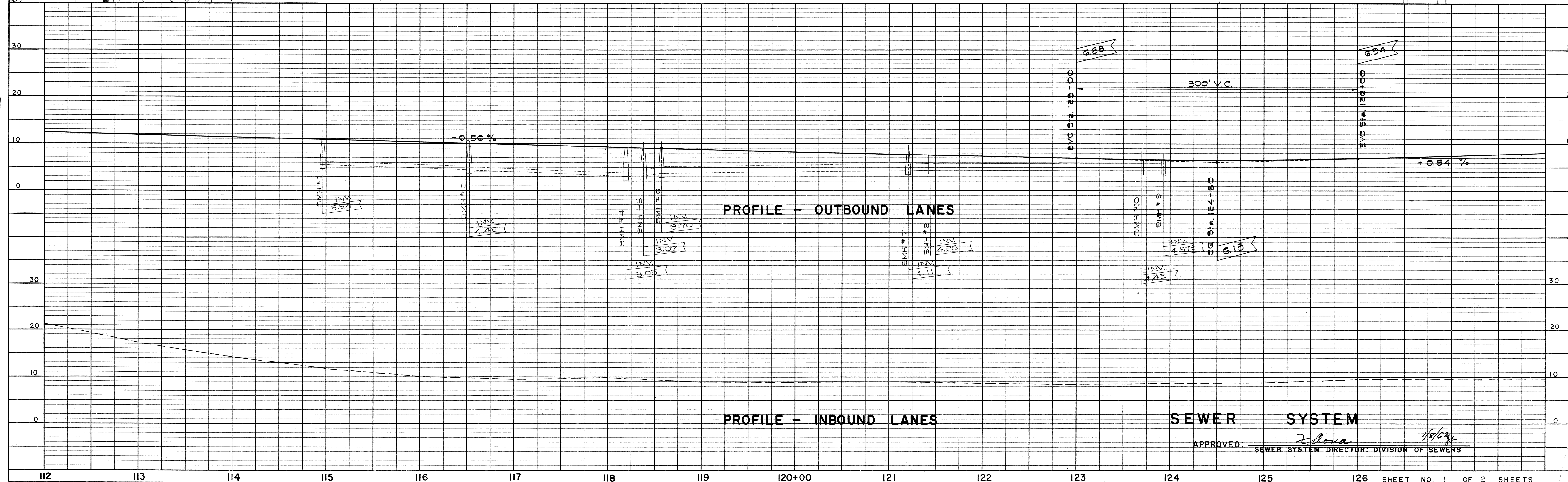
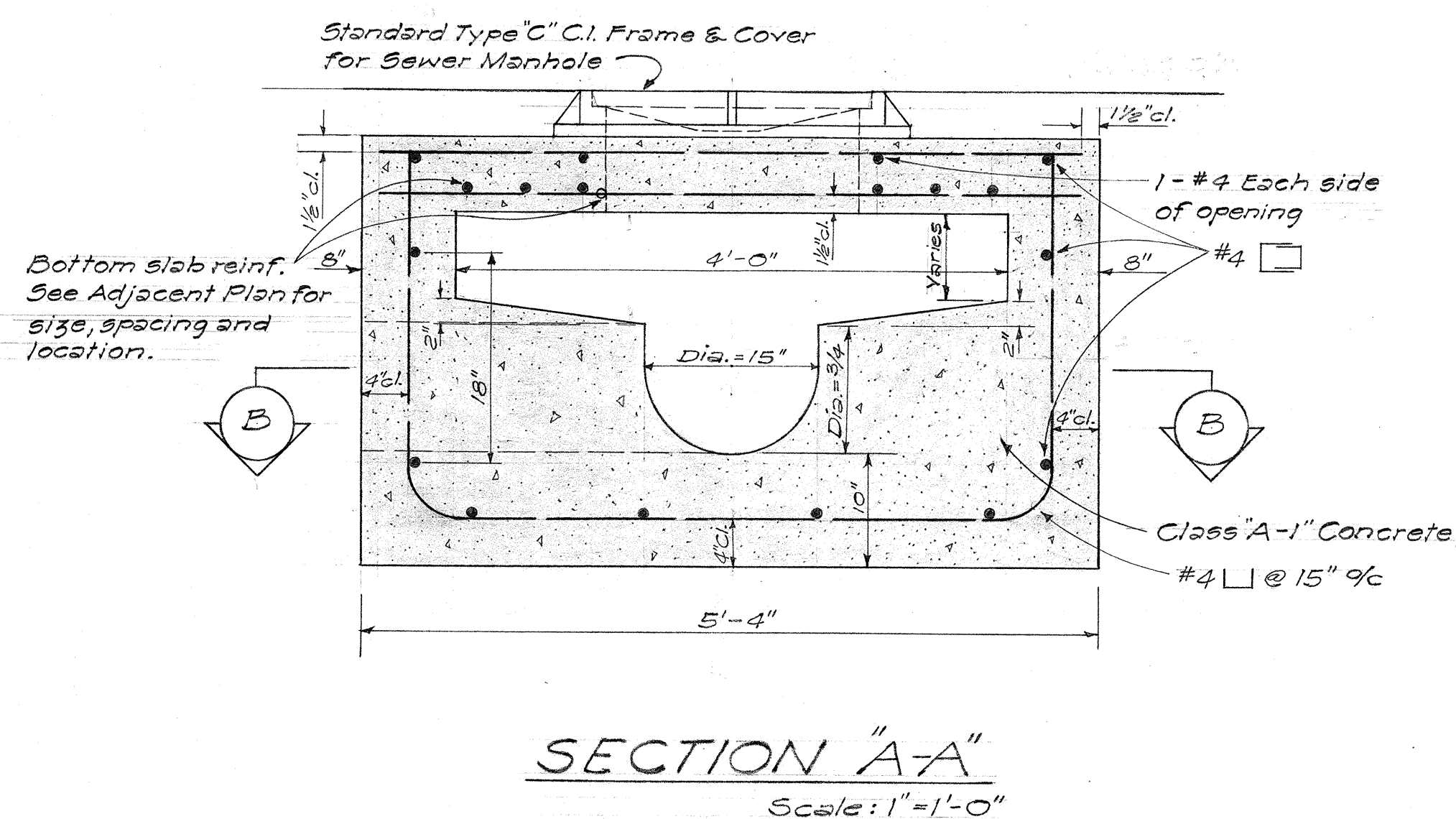
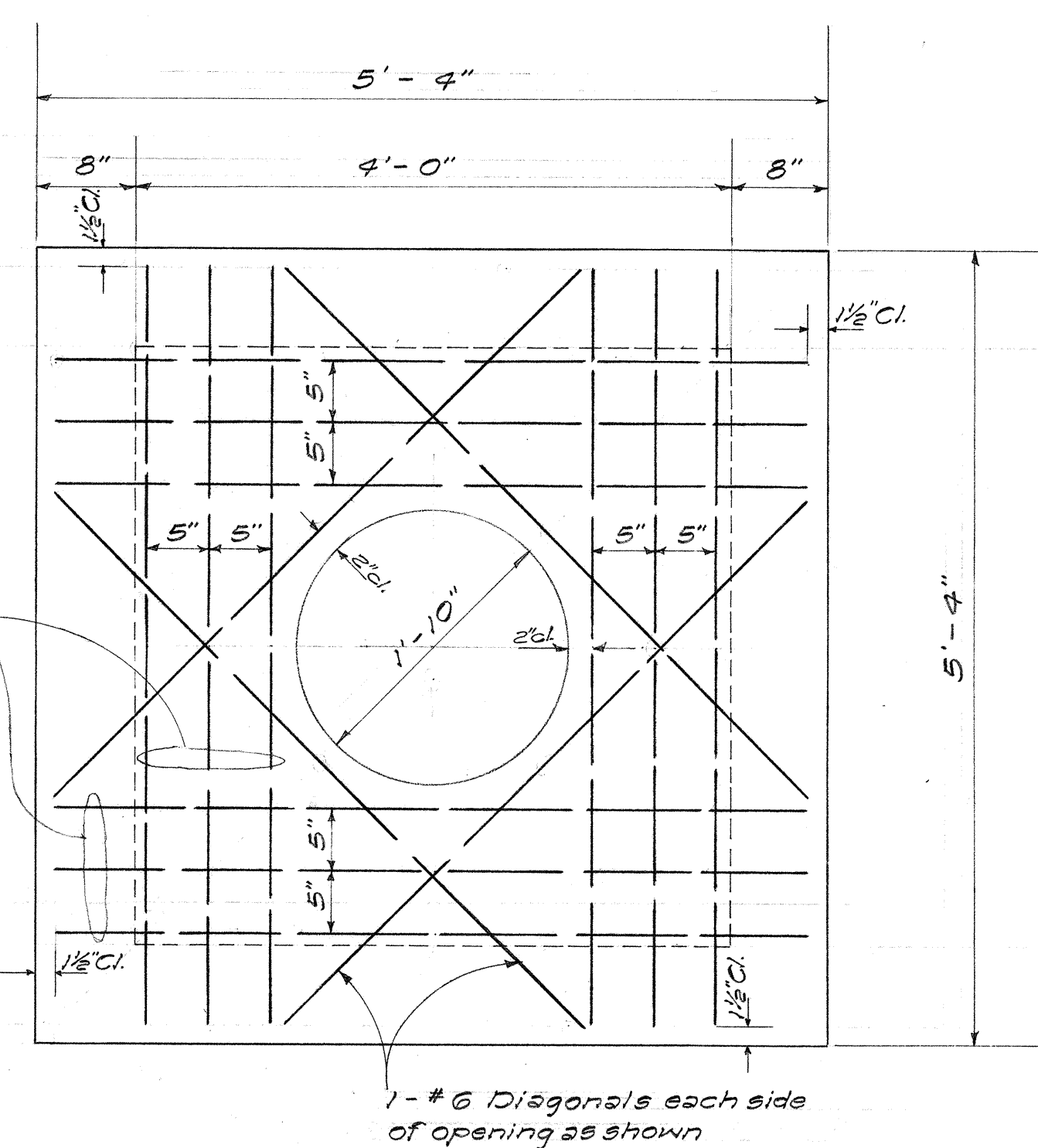
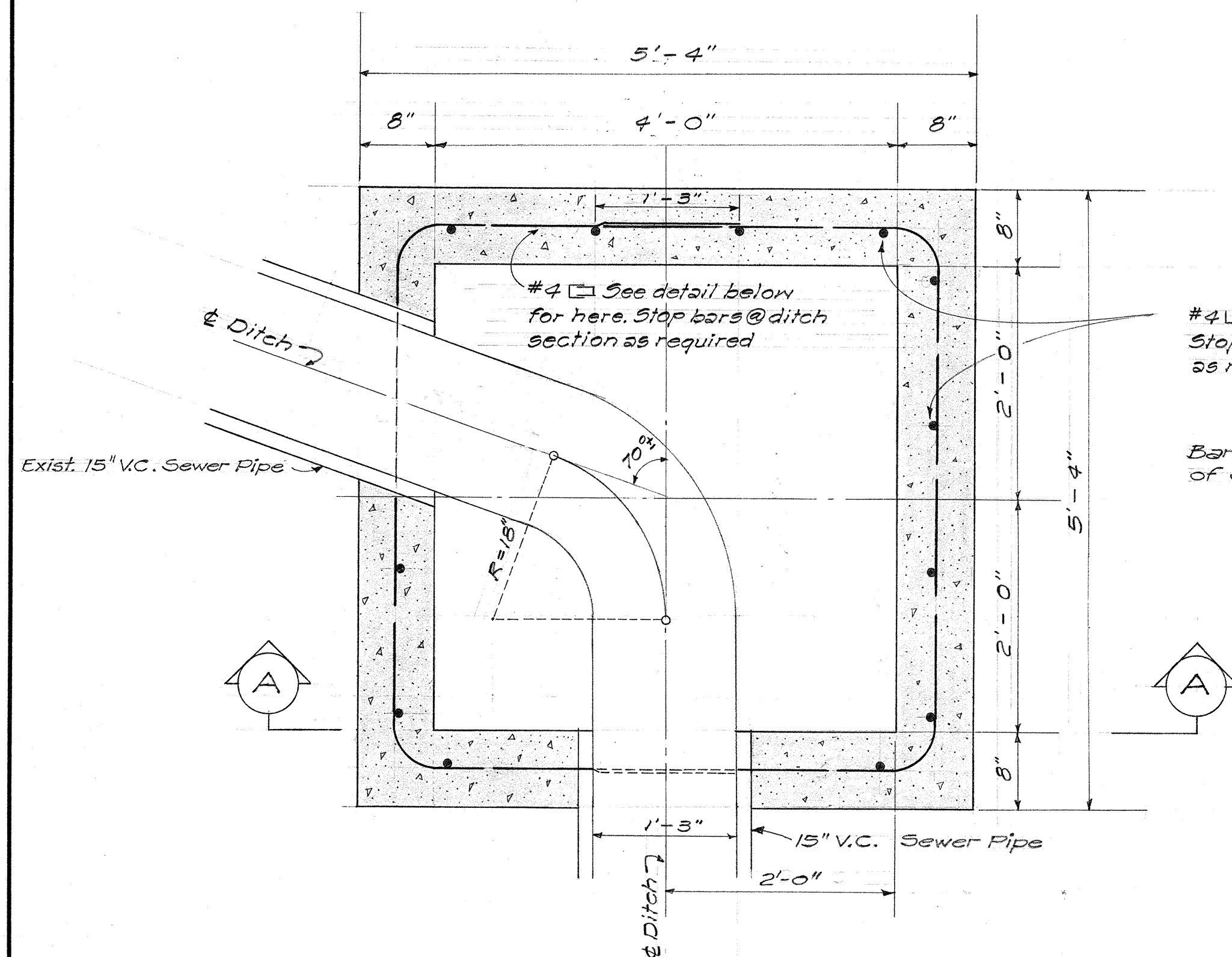


PLAN	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
	NOTE BOOK _____		
	NO. _____		
	ALIGNMENT CHECKED _____		
	RT. OF WAY CHECKED _____		

PROFILE		BY	DATE
NOTE BOOK NO. _____	SURVEYED _____		
	PLOTTED _____		
	GRADES CHECKED _____		
	B. M.'S NOTED _____		
	STRUCTURE NOTATIONS CH'KD. _____		



K & E Co. No. 346-IC
"IMPERIAL" TRACING CLOTH
1A201



SPECIAL SEWER MANHOLE DETAIL Scale: 1" = 1'-0"

APPROVED: E. Lowe 1/8/62
SEWER SYSTEM DIRECTOR: DIVISION OF SEWERS

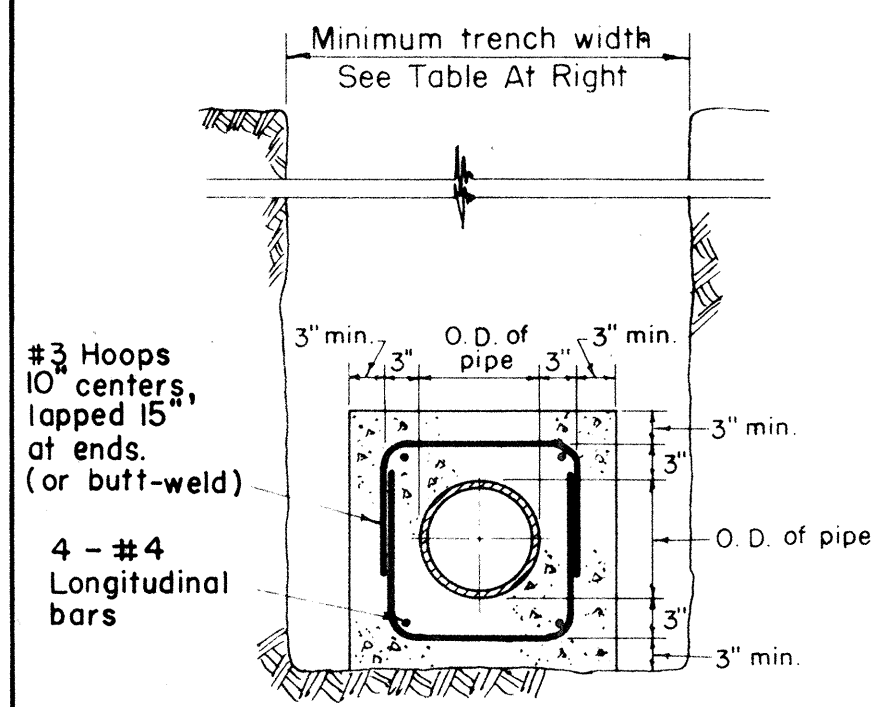
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STATE OF HAWAII

SPECIAL SEWER MANHOLE DETAIL

FARRINGTON HIGHWAY
PROJECT NO. F-090-1(7)

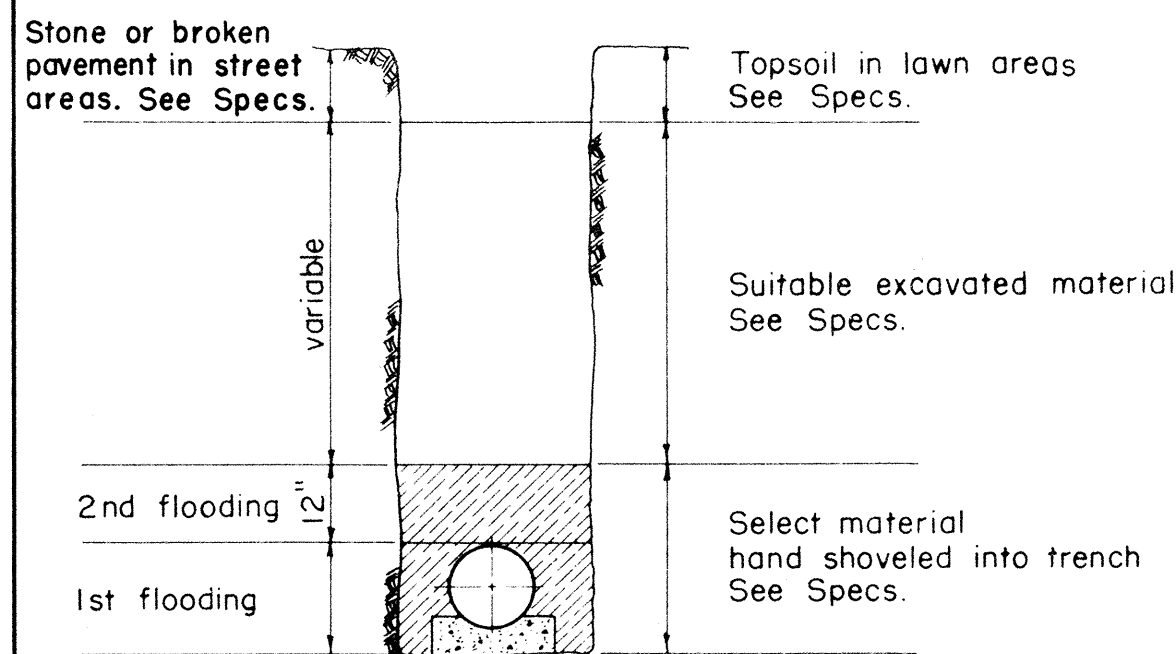
Scale: As Noted: December 1961

SHEET NO. 2 OF 2 SHEETS



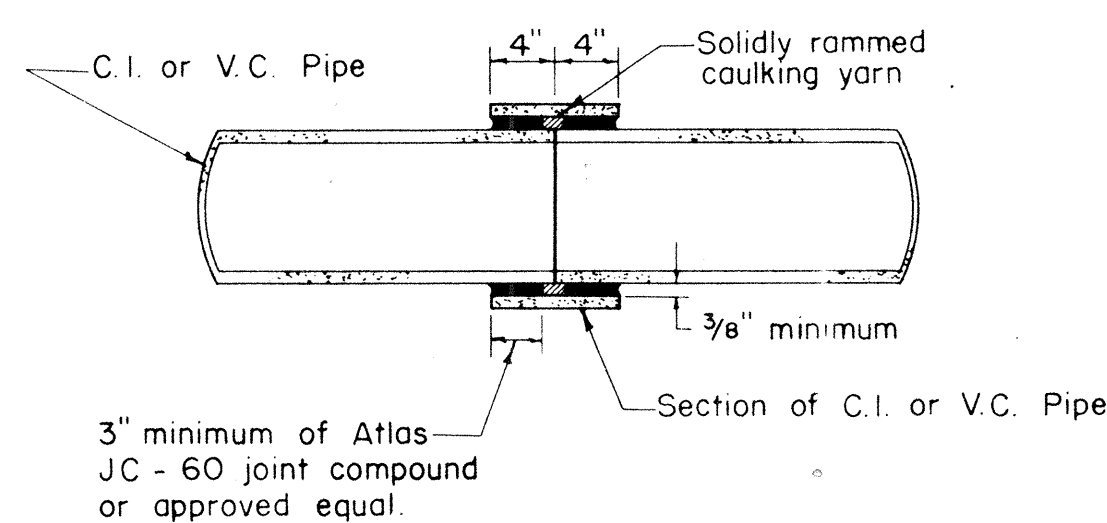
DETAIL OF CONCRETE JACKET

Scale: $\frac{3}{4}" = 1' - 0"$



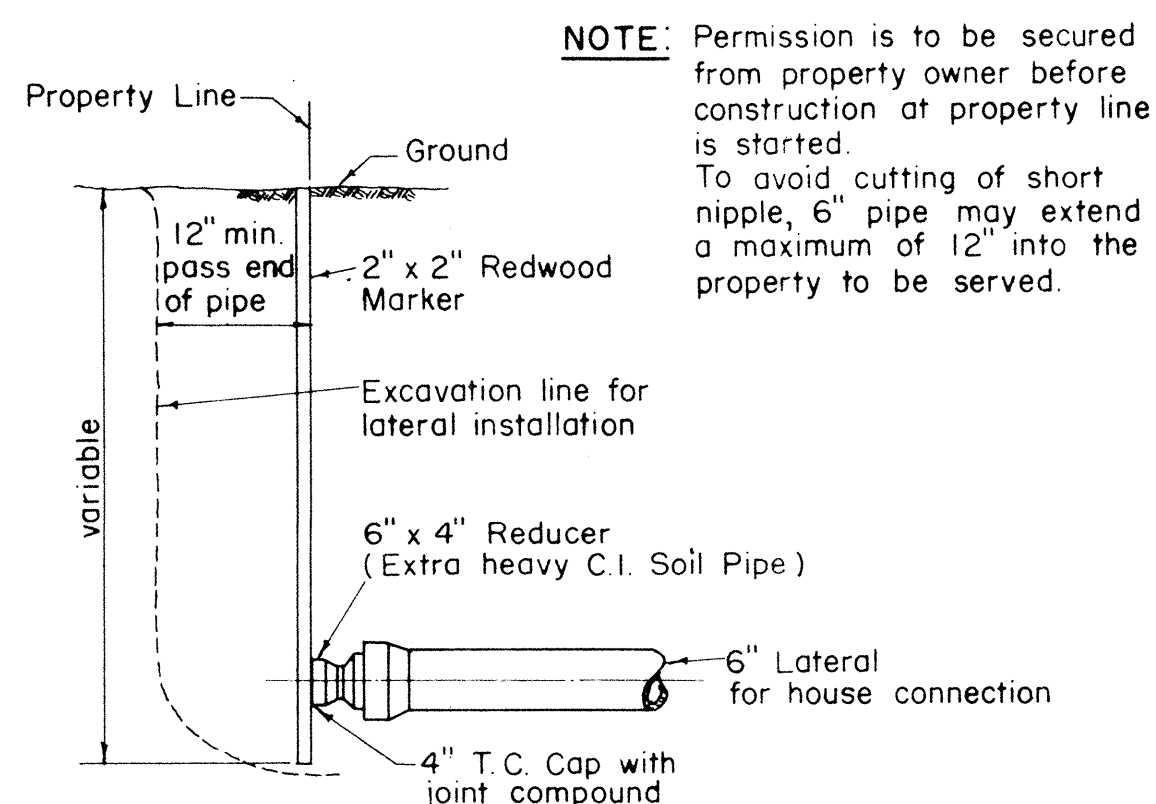
METHOD OF BACKFILL

Not To Scale



BUTT JOINT DETAIL

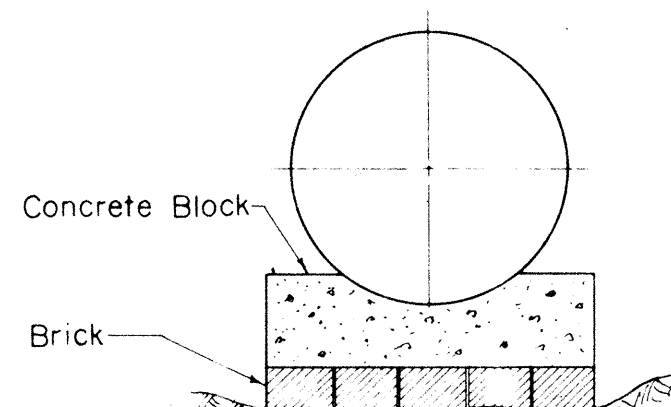
Scale: $1" = 1' - 0"$



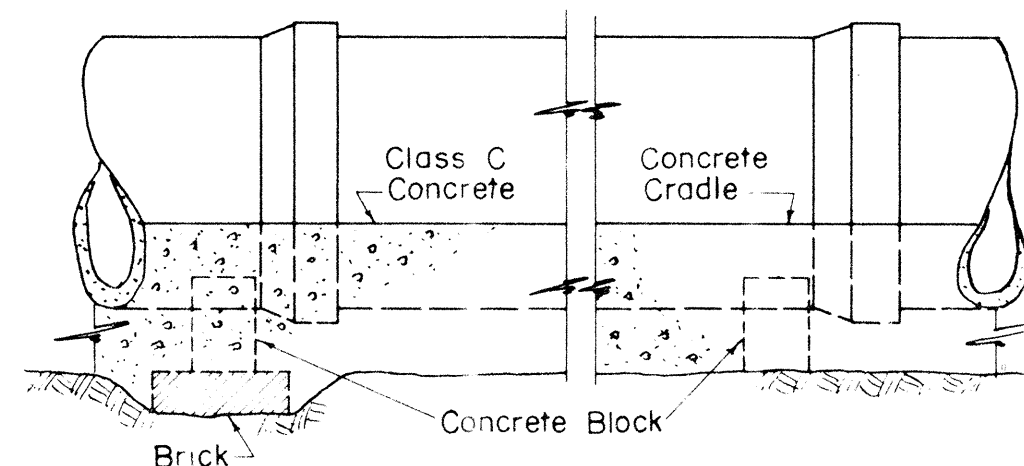
DETAIL AT PROPERTYLINE

CONSTRUCTION OF LATERALS

Not To Scale



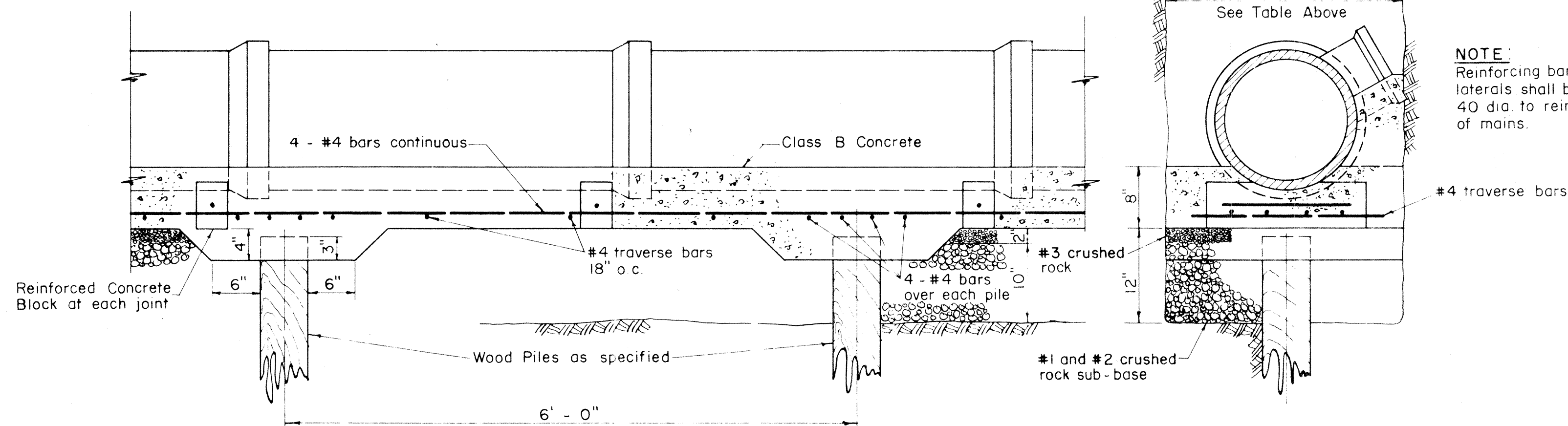
METHOD OF USING BRICKS UNDER CONCRETE BLOCKS



ELEVATION SHOWING METHOD OF LAYING PIPE

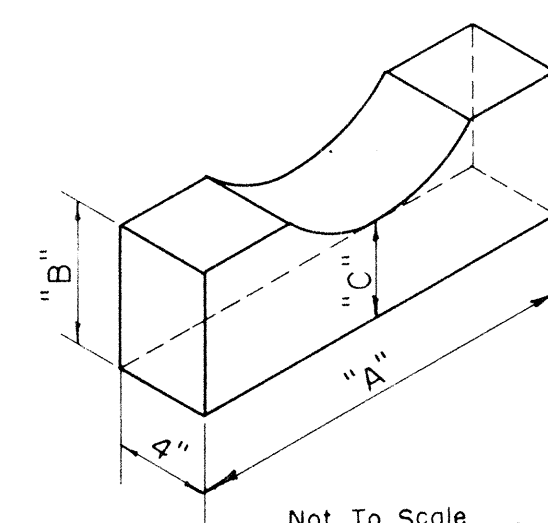
Not To Scale

Contractor shall set Concrete Blocks on undisturbed ground. Where ground is too low, the contractor shall not heap up dirt under the Concrete Block but use Concrete Bricks to take up the deficiency, scraping away beneath Concrete Block to give sufficient room for Brick.



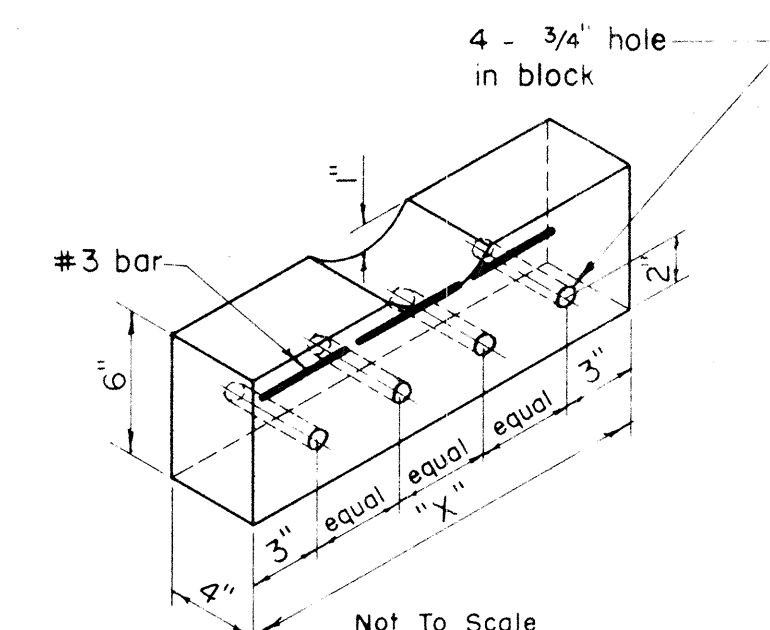
DETAIL OF REINFORCED CONCRETE CRADLE ON WOOD PILES (FOR 6, 8, 10, & 12 IN. V.C. PIPE)

DETAIL OF REINFORCED CONCRETE CRADLE WITHOUT PILES SIMILAR EXCEPT FOR WOOD PILES AND PILE CAPS



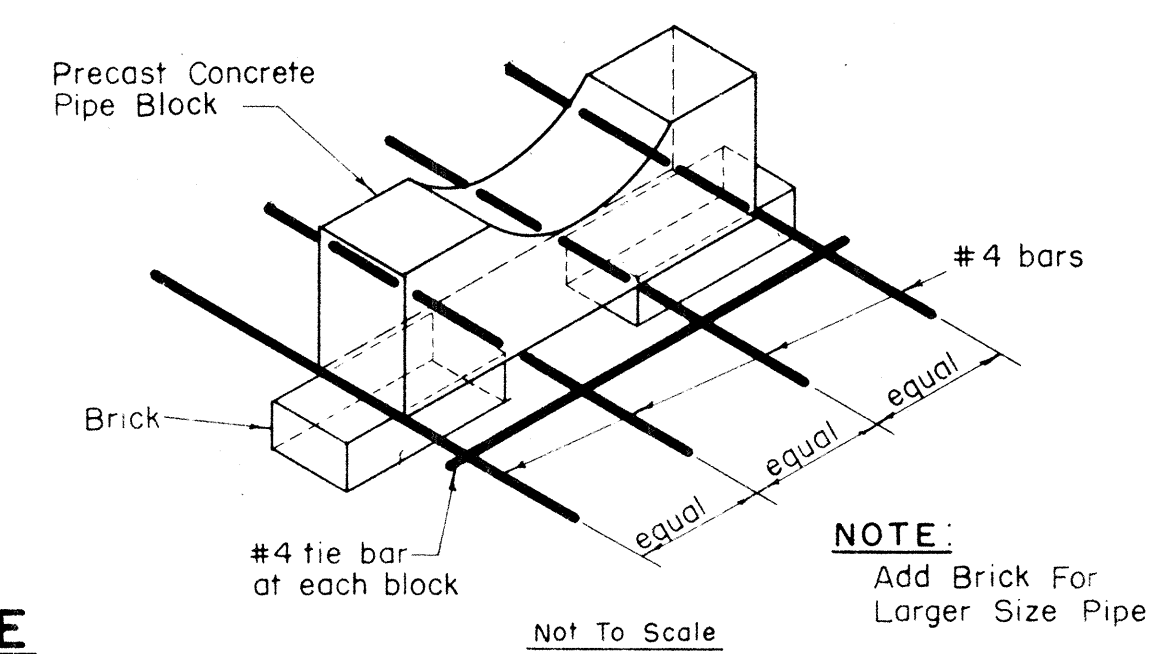
DETAIL OF PRECAST CONCRETE PIPE BLOCK

CONCRETE BLOCK DIMENSIONS			
Pipe Size	"A"	"B"	"C"
6"	1' - 2"	6"	3"
8"	1' - 5"	6"	3"
10"	1' - 7"	6"	3"
12"	1' - 7"	6"	3"
15"	1' - 9"	6"	4"
18"	1' - 9"	6"	4"
21"	1' - 10"	6"	4"
24"	1' - 11"	6"	4"
27"	2' - 0"	6"	4"
30"	2' - 3"	6"	4"



DETAIL OF CONC. PIPE BLOCK FOR REINF. CRADLE

DIM. OF REINF. CONCRETE BLOCK		
Pipe Size	"X"	
6"	1' - 6"	
8"	1' - 6"	
10"	1' - 8"	
12"	1' - 8"	
15"	1' - 10"	
18"	1' - 10"	
21"	1' - 10"	
24"	2' - 0"	
27"	2' - 0"	
30"	2' - 0"	

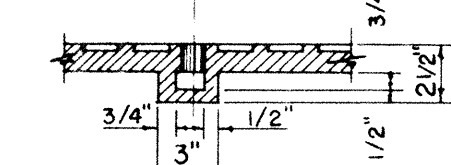


ALTERNATE DETAIL OF CONC. PIPE BLOCK FOR REINF. CRADLE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION			
FARRINGTON HIGHWAY PROJECT NO. F-090-1(7)			
DEPARTMENT OF PUBLIC WORKS CITY AND COUNTY OF HONOLULU DIVISION OF SEWERS			
REVISED STANDARD DETAILS (SUPERSEDES STANDARD DATED 11-1-54)			
ENGINEER <i>A. T. Jones</i>	DATE <i>OCTOBER 4, 1957</i>		
DRAFTSMAN <i>A. T. Jones</i>	CHECKED BY <i>A. T. Jones</i>		
SCALE <i>As Shown</i>	TRACER <i>A. T. Jones</i>		
APPROVED <i>A. T. Jones</i>	APPROVED <i>A. T. Jones</i>		
CHIEF ENGINEER	DIVISION ENGINEER		
W. S. <i>A. T. Jones</i>	PROFILE <i>A. T. Jones</i>	C. B. <i>A. T. Jones</i>	
CR. SEC. <i>A. T. Jones</i>	F. B. <i>A. T. Jones</i>	S. B. <i>A. T. Jones</i>	
W. M. BY <i>A. T. Jones</i>	F. W. BY <i>A. T. Jones</i>	S. BY <i>A. T. Jones</i>	



Scale: $1\frac{1}{2}" = 1' - 0"$



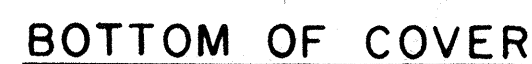
SECTION H-H

BOTTOM VIEW OF COVER

Scale: $1\frac{1}{2}" = 1' - 0"$



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



DROP MANHOLE
CHIMNEY CASTINGS

Scale: $1\frac{1}{2}" = 1' - 0"$



Scale: $1\frac{1}{2}" = 1' - 0"$



TYPE A MANHOLE RUNGS
WROUGHT IRON

Scale: $1\frac{1}{2}" = 1' - 0"$



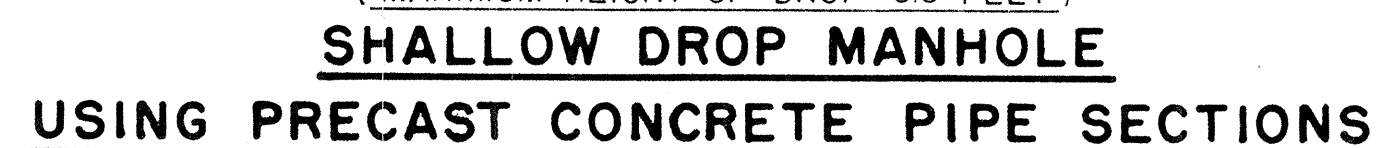
SECTION K - K SECTION L - L

TYPE B MANHOLE RUNGS
(CAST IRON)

Scale: 3" = 1' - 0"



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

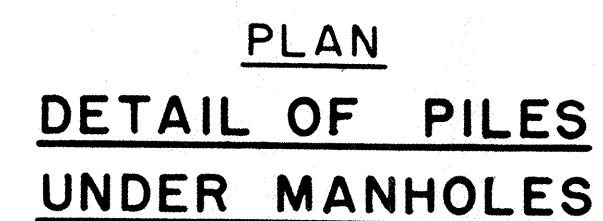


Scale: $1/2" = 1' - 0"$

NOTE:

1. When backfilling around Precast Manhole, material shall be deposited in such a manner that the difference in elevation on the side of the manhole shall not exceed the elevation on the other side by more than 5 feet.
2. Pipe Sections may be made in heights other than 16 inches if desired.
3. Size of drop pipe shall be same as influent pipe.

NOTE: Reinforcing steel shall be the same as that required for plain manhole except as noted.



Scale: $1/2'' = 1' = 0'$

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FARRINGTON HIGHWAY
PROJECT NO. F-090-1(7)

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
DIVISION OF SEWERS

REVISED
STANDARD DETAILS
(SUPERSEDES STANDARD DATED 11-1-54)

ENGINEER *A. Tanti* DATE *October 4, 1957*
DRAFTSMAN *T. Mearle* CHECKED BY *L. Finlay*
SCALE *AS SHOWN* TRACER *P.M.*
APPROVED *J. Swan* APPROVED *J. Bone*

W. S.	PROFILE	C. B.
CR. SEC.	F. B.	S. B.
W. M. BY:	F. W. BY:	S. RY.