CITY OF

ALBUQUERQUE—NEW MEXICO

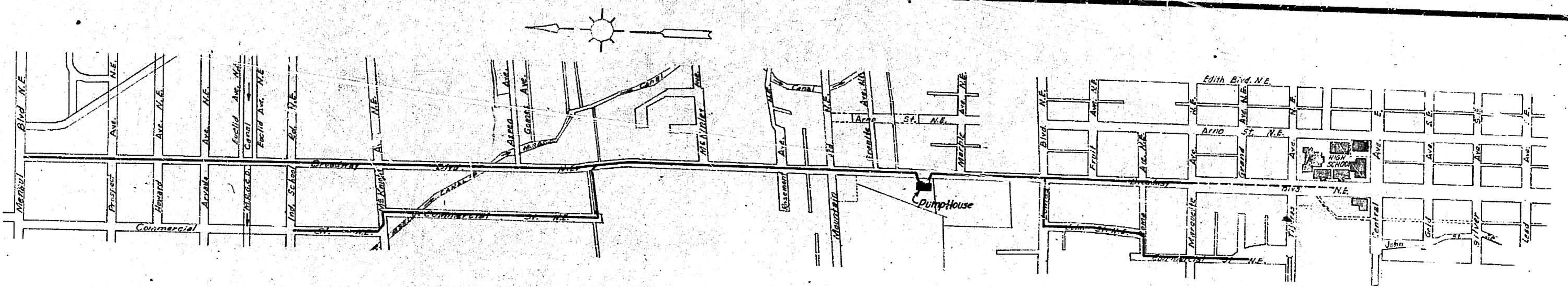
NORTH BROADWAY STORM SEWER
AND
PUMP STATION

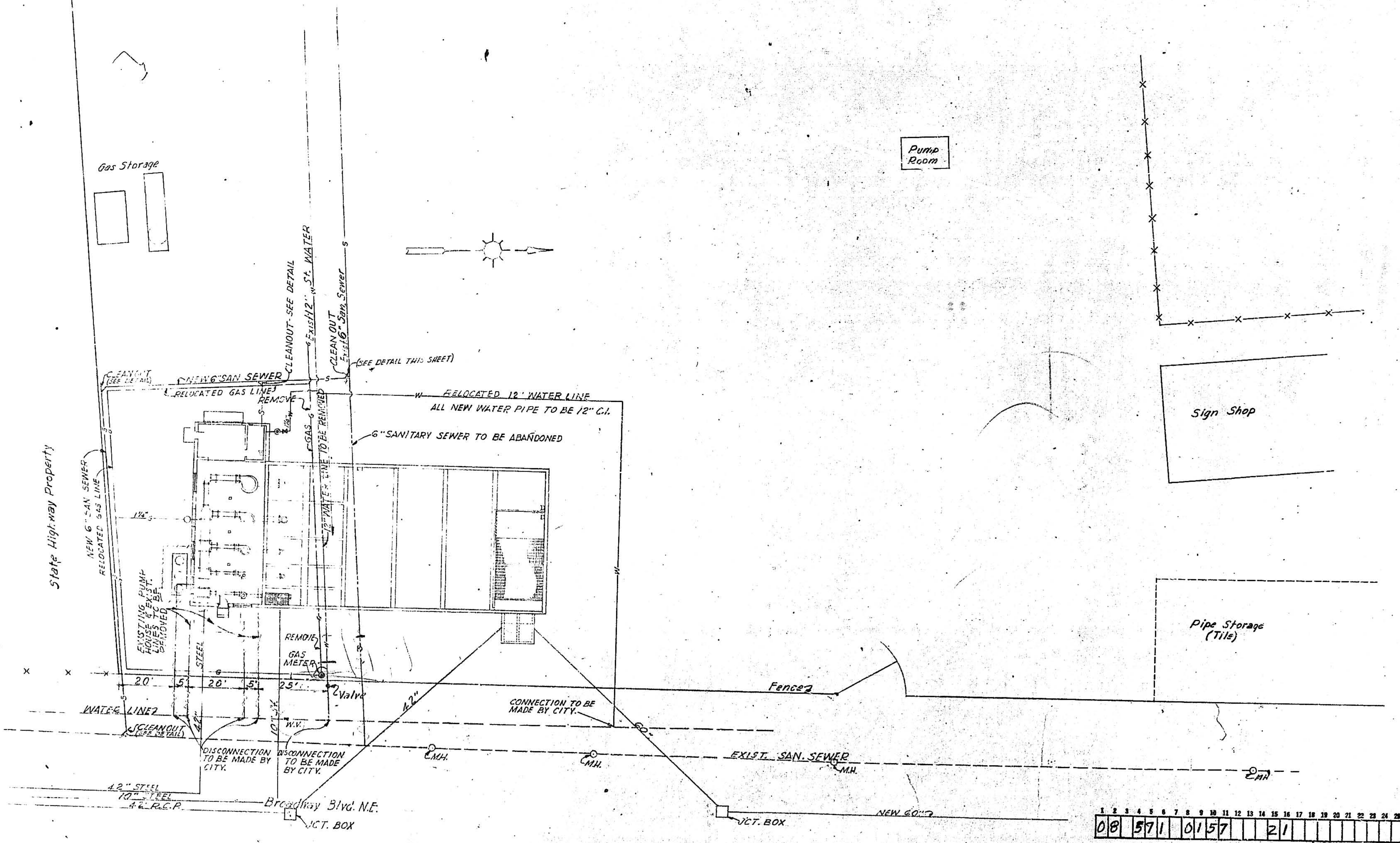
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		0	0	5	7				2	0													

193

GORDON HERKENHOFF AND ASSOCIATES INC. CONSULTING ENGINEERS

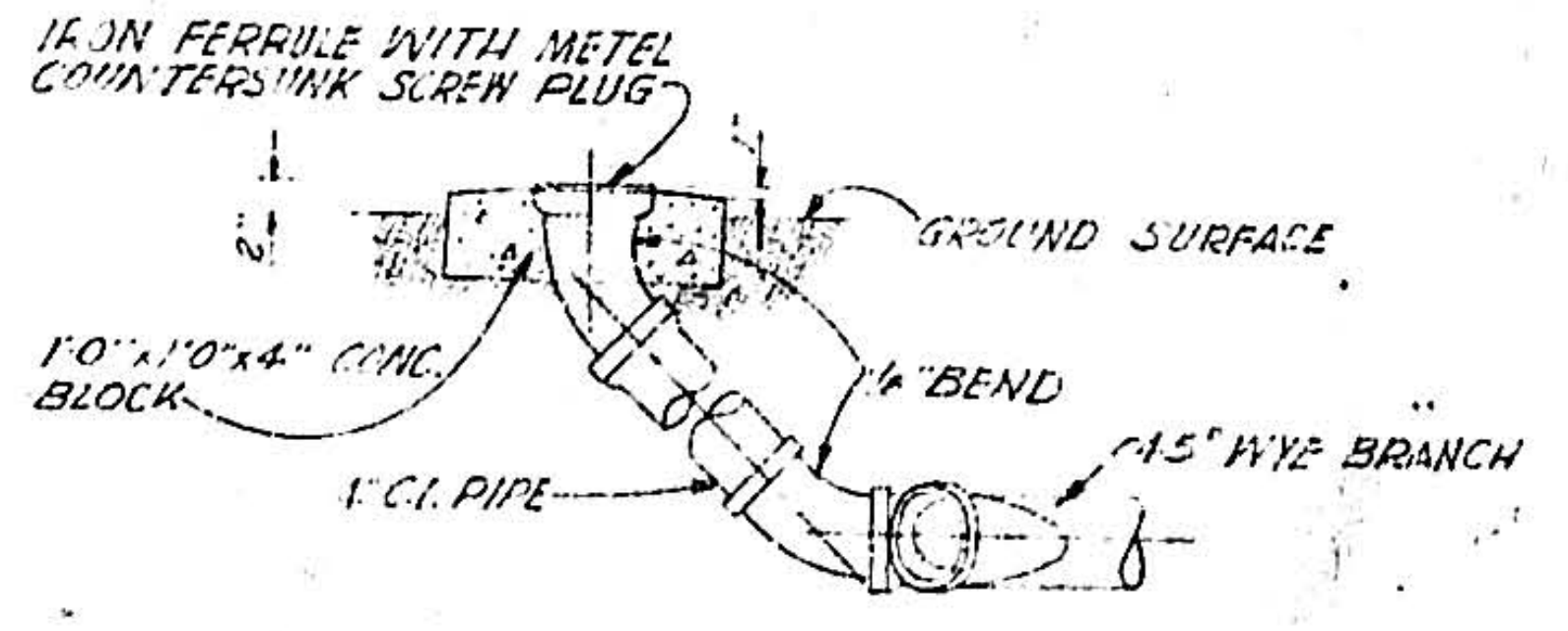
SHT 00 OF 15


Menaul Blvd N.E.
Prospect Ave.
Howard Ave. N.E.
Aryada Ave. N.E.
Euclid Ave. N.E.
Canal
M.R.G.C.D.
Euclid Ave. N.E.
Ind. School Rd. N.E.
McKnight Av. N.E.
Broadway Blvd. N.E.
Commercial St. N.E.
Canal
Aspen Ave.
Goethe Ave.
McKinley Ave.
Rosemont Ave.
Mountain Rd N.E.
Arno St. N.E.
Granite Ave. N.E.
Marble Ave. N.E.
Pump House
Edith Blvd. N.E.
Fruit Ave. N.E.
Arno St. N.E.
Grand Ave.
High School
Marquette Ave.
Tijeras Ave.
John St. N.E.
Central Ave.
Gold Ave.
Silver Ave.
Lead Ave.
John St.


Gas Storage
Pump Room
Sign Shop
Pipe Storage (Tile)
State Highway Property
NEW 6" SAN SEWER
RELOCATED GAS LINE
CLEANOUT (SEE DETAIL)
NEW 6" SAN SEWER
RELOCATED GAS LINE
CLEANOUT - SEE DETAIL
Exist 12" St. WATER
CLEAN OUT Exist 16" San Sewer
(SEE DETAIL THIS SHEET)
RELOCATED 12" WATER LINE
ALL NEW WATER PIPE TO BE 12" C.I.
6" SANITARY SEWER TO BE ABANDONED
REMOVE
GAS
12" WATER LINE TO BE REMOVED
1¼"
EXISTING PUMP HOUSE & EXIST. LINES TO BE REMOVED
STEEL
REMOVE
GAS METER
Valve
20'
5'
20'
5'
25'
Fence
WATER LINE
CLEANOUT (SEE DETAIL)
42"
10" St.
W.V.
DISCONNECTION TO BE MADE BY CITY.
DISCONNECTION TO BE MADE BY CITY.
42"
CONNECTION TO BE MADE BY CITY.
60"
MH.
MH.
EXIST. SAN. SEWER
MH.
MH.
42" STEEL
10" STEEL
42" R.C.P.
Broadway Blvd. N.E.
JCT. BOX
JCT. BOX
NEW 60"

LEGEND

DESCRIPTION	NEW	EXISTING
MUELLER PRESSURE REDUCEING VALVE & BOX (H-9000)	—◉—	
GATE VALVE & BOX	—⋈—	
1¼" REGULATOR	—○—	
GAS LINE	—G—	----G-
WATER LINE	—W—	----W-
SEWER LINE	—S—	----S-
SEWER CLEANOUT	—∠	
CHAIN LINK FENCE	—/—/—	


IRON FERRULE WITH METEL COUNTERSUNK SCREW PLUG
2"
GROUND SURFACE
1'0"x1'0"x4" CONC. BLOCK
¼" BEND
4" C.I. PIPE
45° WYE BRANCH

SEWER CLEANOUT DETAIL
NOT TO SCALE

08 571 0157 21

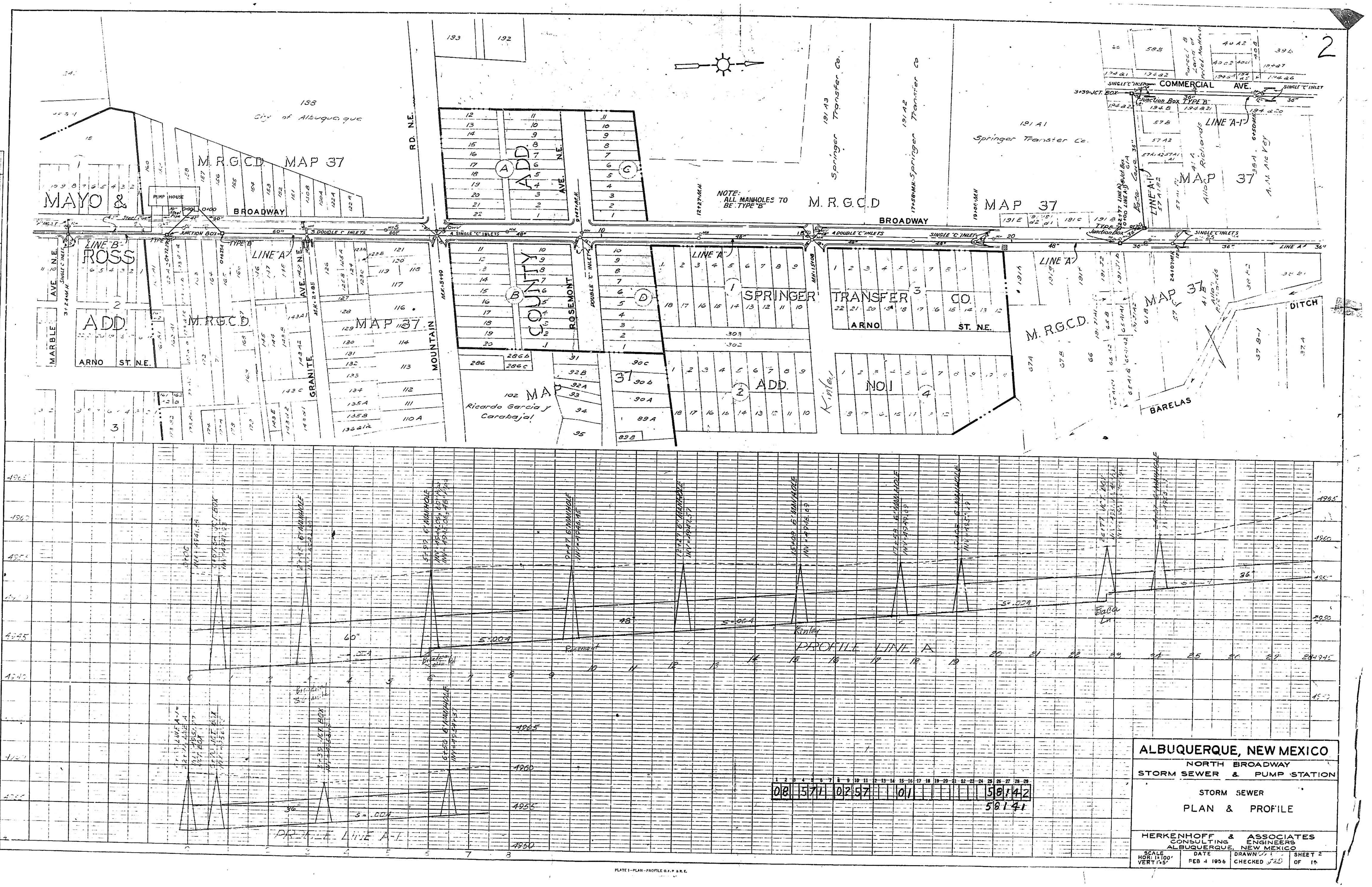
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

LOCATION PLAN & GENERAL LAYOUT

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 1
AS SHOWN	FEB. 4, 1956	CHACKED	OF 15


2
M.R.G.C.D. MAP 37
City of Albuquerque
MAYO &
ROSS
ADD
PUMP HOUSE
BROADWAY
JUNCTION BOX
TYPE "B"
LINE "A"
LINE "B"
MARBLE AVE. N.E.
ARNO ST. N.E.
GRANITE AVE. N.E.
MOUNTAIN RD. N.E.
COUNTY ADD.
ROSEMONT AVE. N.E.
SPRINGER TRANSFER CO.
Springer Transfer Co.
ADD. NO. 1
Kinley
Ricardo Garcia y Carabajal
NOTE: ALL MANHOLES TO BE TYPE "B"
4 SINGLE "C" INLETS
2 DOUBLE "C" INLETS
4 DOUBLE "C" INLETS
SINGLE "C" INLETS
DOUBLE "C" INLET
COMMERCIAL AVE.
LINE "A-1"
Junction Box TYPE "B"
Baca Lane
BARELAS DITCH
60"
48"
36"
6' MANHOLE
JCT. BOX
Rosemont
Baca Ln
PROFILE LINE A
PROFILE LINE A-1
S=.004
4965
4960
4955
4950
4945
PLATE I—PLAN—PROFILE

ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 2
HOR: 1"=100' VERT 1"=5'	FEB 4 1956	CHECKED JAD	OF 15

08 571 0257 01 58142
58141

2
A.T. & S.F. RY.
A.T. & S.F. RY.
M.R.G.C.D.
Parcel A
Lands of
Pete L. Matteucci
MAP 37
Gaspar Garcia
MAP 36
Henry Springer
76A
COMMERCIAL
ST. N.E.
BARELAS
DITCH
LINE A-1
DOUBLE "C" INLET
19+29 M.H.
JUNCTION BOX
18+39 JCT. BOX
TYPE "B"
FRANCISCAN
ACRES
MC KNIGHT
AVE. N.E.
City of Albuquerque
Donaciano Perea
A. M. McVey
INDIAN SCHOOL
RD. N.E.
44+19 M.H.
UNDERGROUND TELEPHONE CONDUIT CONTACT MT. STS. BEFORE EXCAVATING.
M.R.G.C.D. CANAL
ARVADA AVE. N.E.
CUTLER AVE. N.E.
PROSPECT AVE. N.E.
BROADWAY
BROADWAY
SINGLE "C" INLET
LINE "A"
NOTE: ALL MANHOLES TO BE TYPE "B".
36"
27"
PROFILE LINE A
36" RCP
S=.004
PROFILE LINE A-1
S=.005
S=.0066
PLAN
PROFILE

08 571 0357 01 58141

59142

ALBUQUERQUE, NEW MEXICO

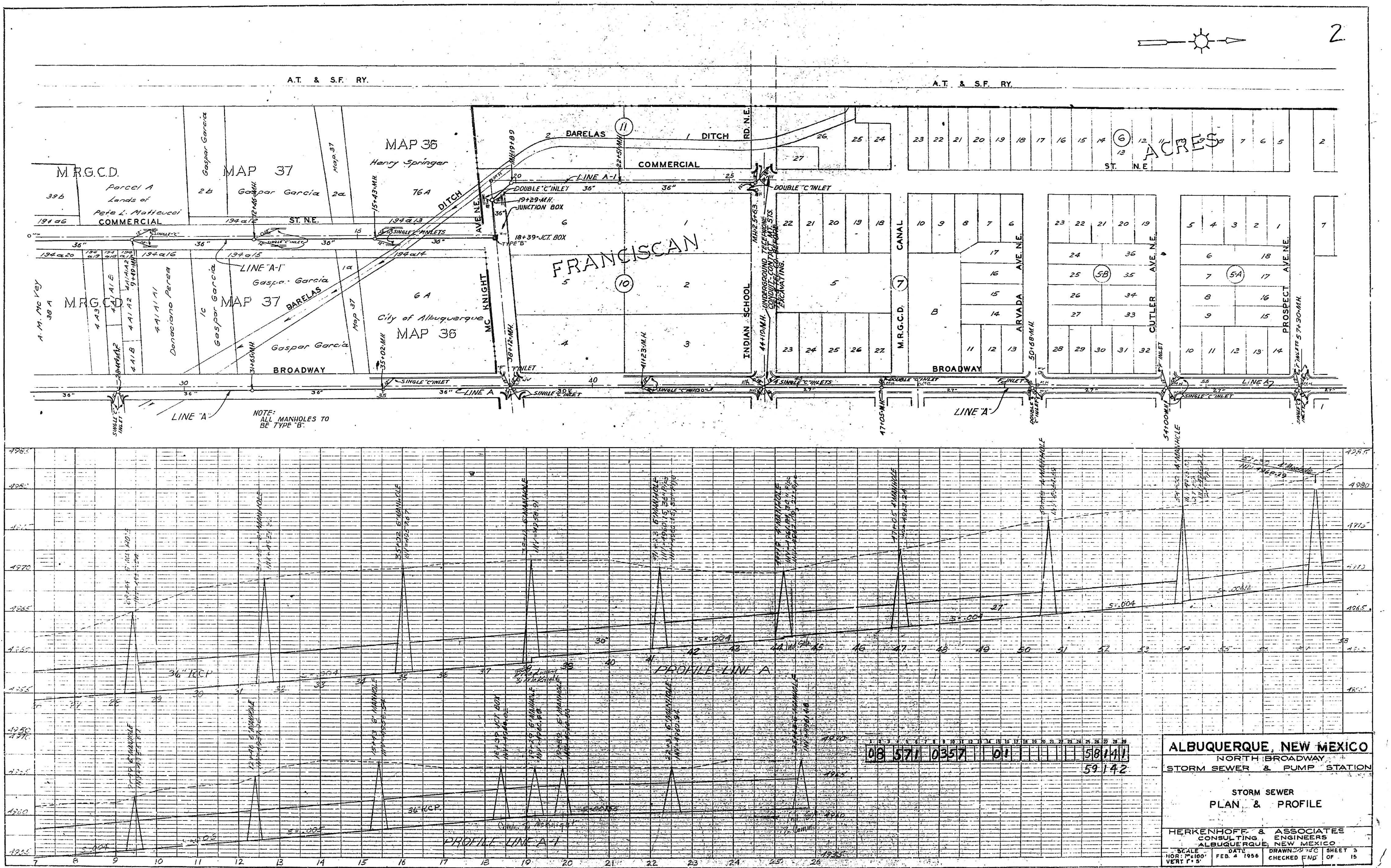
NORTH BROADWAY
STORM SEWER & PUMP STATION

STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 3
HOR: 1"=100' VERT 1"=5'	FEB. 4 1956	CHECKED FND	OF 15

2


A.T. & S.F. RY.
BARELAS DITCH
COMMERCIAL ST. N.E.
M.R.G.C.D.
MAP 37
MAP 36
Parcel A Lands of Pete L. Matteucci
Gaspar Garcia
Henry Springer
76A
6A
City of Albuquerque
A. M. Mc Vey 38A
Donaciano Perea
LINE "A-1"
LINE "A"
MC KNIGHT AVE. N.E.
19+29 M.H.
JUNCTION BOX
18+39 JCT. BOX
DOUBLE "C" INLET
SINGLE "C" INLET
FRANCISCAN
ACRES
INDIAN SCHOOL RD. N.E.
UNDERGROUND TELEPHONE CONDUIT-CONTACT MT. STS. TEL. & TEL. CO. BEFORE EXCAVATING.
M.R.G.C.D. CANAL
ARVADA AVE. N.E.
CUTLER AVE. N.E.
PROSPECT AVE. N.E.
BROADWAY
NOTE: ALL MANHOLES TO BE TYPE "B".
36"
27"
36" RCP
S=.004
PROFILE LINE A
PROFILE LINE A-1

ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY

STORM SEWER & PUMP STATION

STORM SEWER

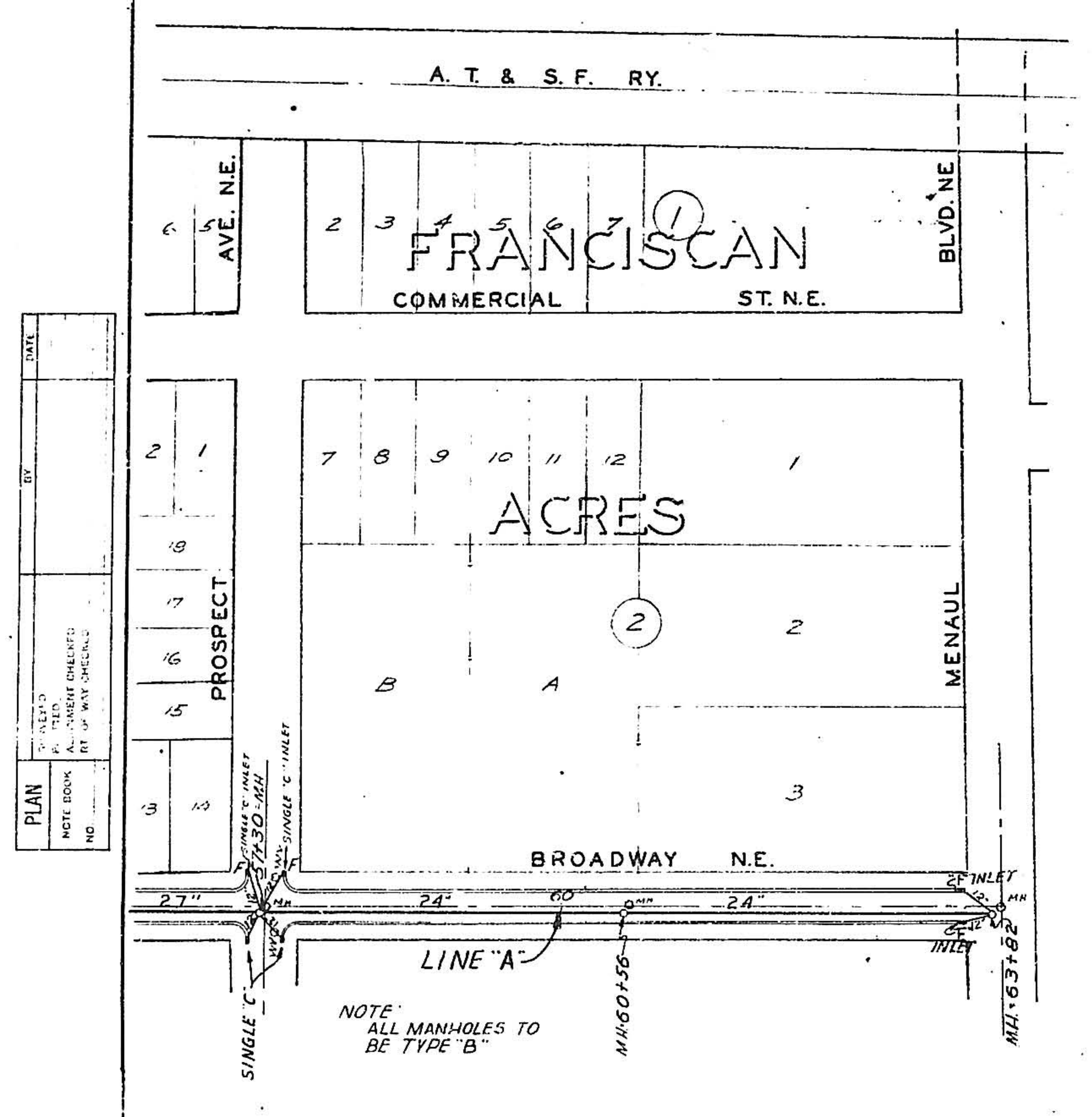
PLAN & PROFILE

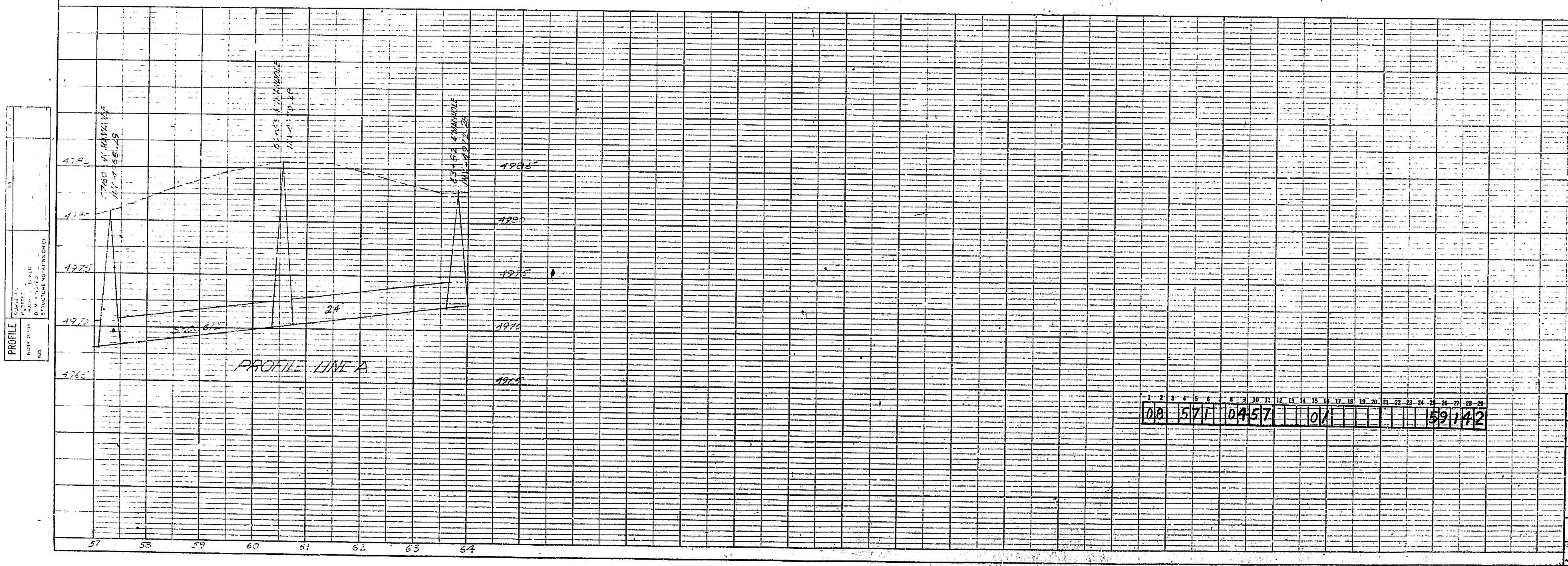
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 3
HOR: 1"=100' VERT 1"=5'	FEB. 4 1956	DRAWN [illegible] CHECKED FND	SHEET 3 OF 15

08 571 0357 01 58141
59142

1


A. T. & S. F. RY.
FRANCISCAN
ACRES
COMMERCIAL ST. N.E.
AVE. N.E.
PROSPECT
BLVD. NE
MENAUL
BROADWAY N.E.
①
②
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A
B
27"
24"
60
24"
12"
MH
INLET
SINGLE "C" INLET
57+30=MH
SINGLE "C" INLET
WYE
SINGLE "C"
LINE "A"
MH 60+56
MH 63+82
NOTE
ALL MANHOLES TO
BE TYPE "B"
PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT OF WAY CHECKED
DATE
BY


57+60 4' MANHOLE
INV 4968.49
60+53 4' MANHOLE
INV 4970.28
63+52 4' MANHOLE
INV 4972.28
4985
4980
4975
4970
4965
24"
S=.0061
PROFILE LINE A
57
58
59
60
61
62
63
64
PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADE
B.M. NOTED
STRUCTURE NOTATIONS CH'CK

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		0	4	5	7				0	1									5	9	1	4	2

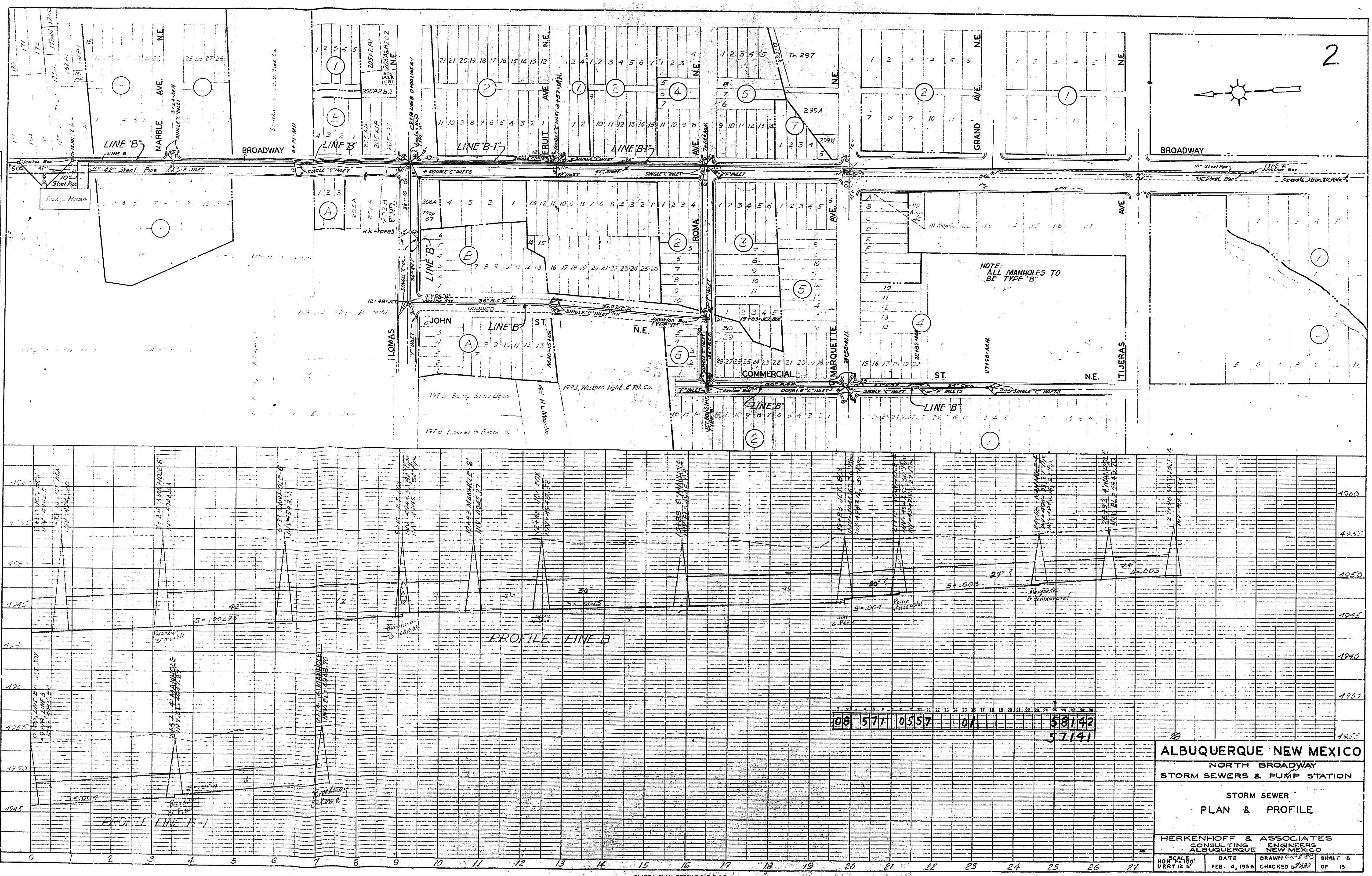
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 4
HOR 1"=100' VERT 1"=5'	FEB 4 1956	DRAWN CHECKED	SHEET 4 OF 15


2
BROADWAY
LINE "B"
LINE "B-1"
MARBLE AVE. N.E.
FRUIT AVE. N.E.
ROMA AVE. N.E.
GRAND AVE. N.E.
LOMAS BLVD.
JOHN ST. N.E.
COMMERCIAL ST. N.E.
MARQUETTE AVE.
TIJERAS AVE.
Junction Box
42" Steel Pipe
10" Steel Pipe
Pump House
SINGLE "C" INLET
4 DOUBLE "C" INLETS
"F" INLET
36" R.C.P.
UNPAVED
NOTE: ALL MANHOLES TO BE TYPE "B"
PROFILE LINE B
PROFILE LINE B-1
06 571 0557 01 58142
57141
PLAN
PROFILE
NOTE BOOK
NO.

ALBUQUERQUE NEW MEXICO

NORTH BROADWAY
STORM SEWERS & PUMP STATION

STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE	DATE	DRAWN	SHEET 5
HOR 1" = 100' VERT 1" = 5'	FEB. 4, 1956	CHECKED	OF 15

PLATE 1–PLAN–PROFILE O. P. R. & R. E.
100% RAG PAPER–MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC

2
BROADWAY
MARBLE AVE. N.E.
FRUIT AVE. N.E.
ROMA AVE. N.E.
GRAND AVE. N.E.
LOMAS BLVD. N.E.
JOHN ST. N.E.
COMMERCIAL ST. N.E.
MARQUETTE AVE.
TIJERAS AVE.
LINE "B"
LINE "B-1"
42" Steel Pipe
10" Steel Pipe
Pump House
Junction Box
SINGLE "C" INLET
DOUBLE "C" INLETS
"F" INLET
TYPE "B" Junction Box
Tr. 297
299A
Western Light & Tel. Co.
NOTE: ALL MANHOLES TO BE TYPE "B"
PLAN
PROFILE
PROFILE LINE B
PROFILE LINE B-1
42"
36"
30"
27"
24"
1960
1955
1950
1945
1940
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		0	5	5	7				0	1									5	8	1	4	2

57141

ALBUQUERQUE NEW MEXICO

NORTH BROADWAY
STORM SEWERS & PUMP STATION

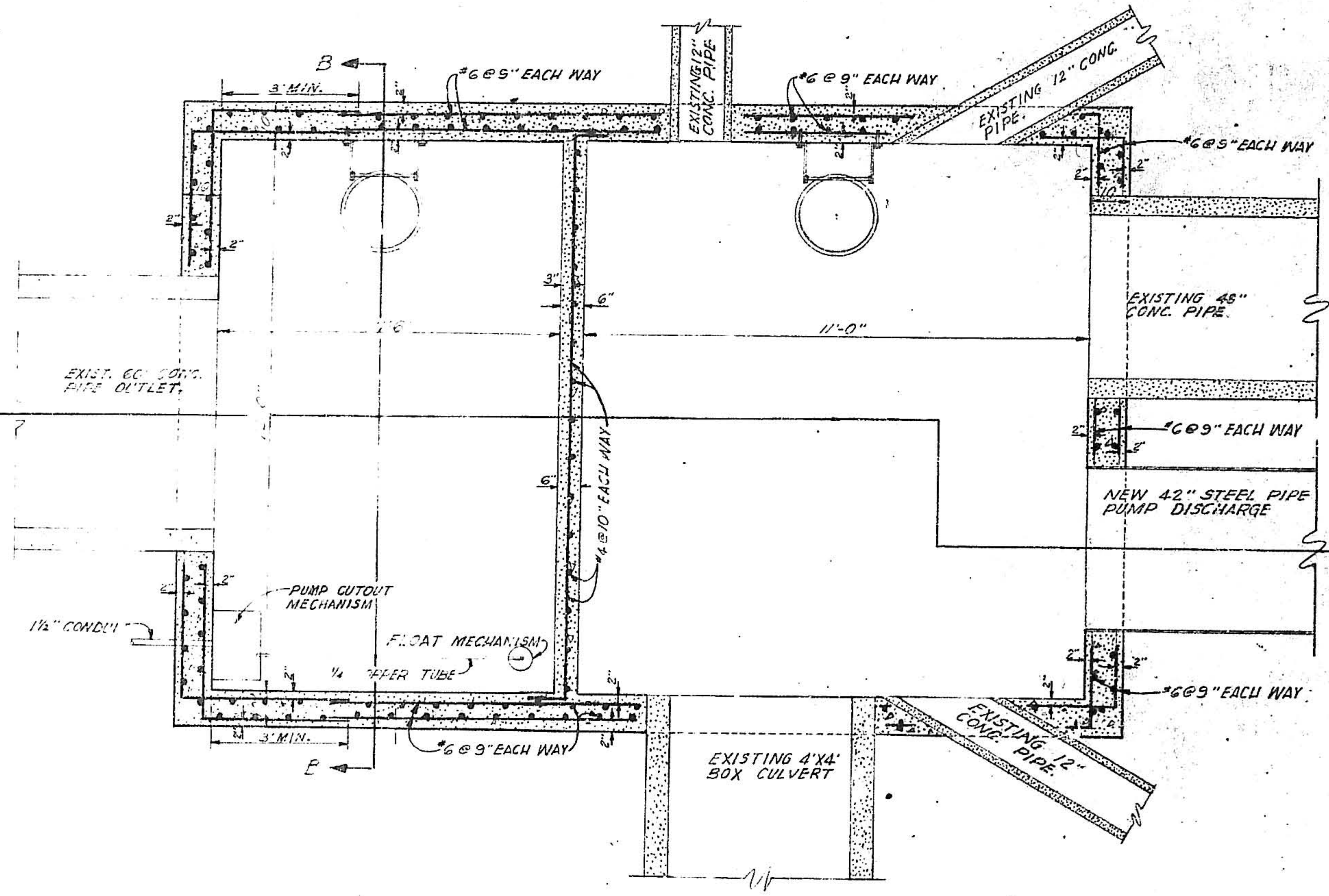
STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

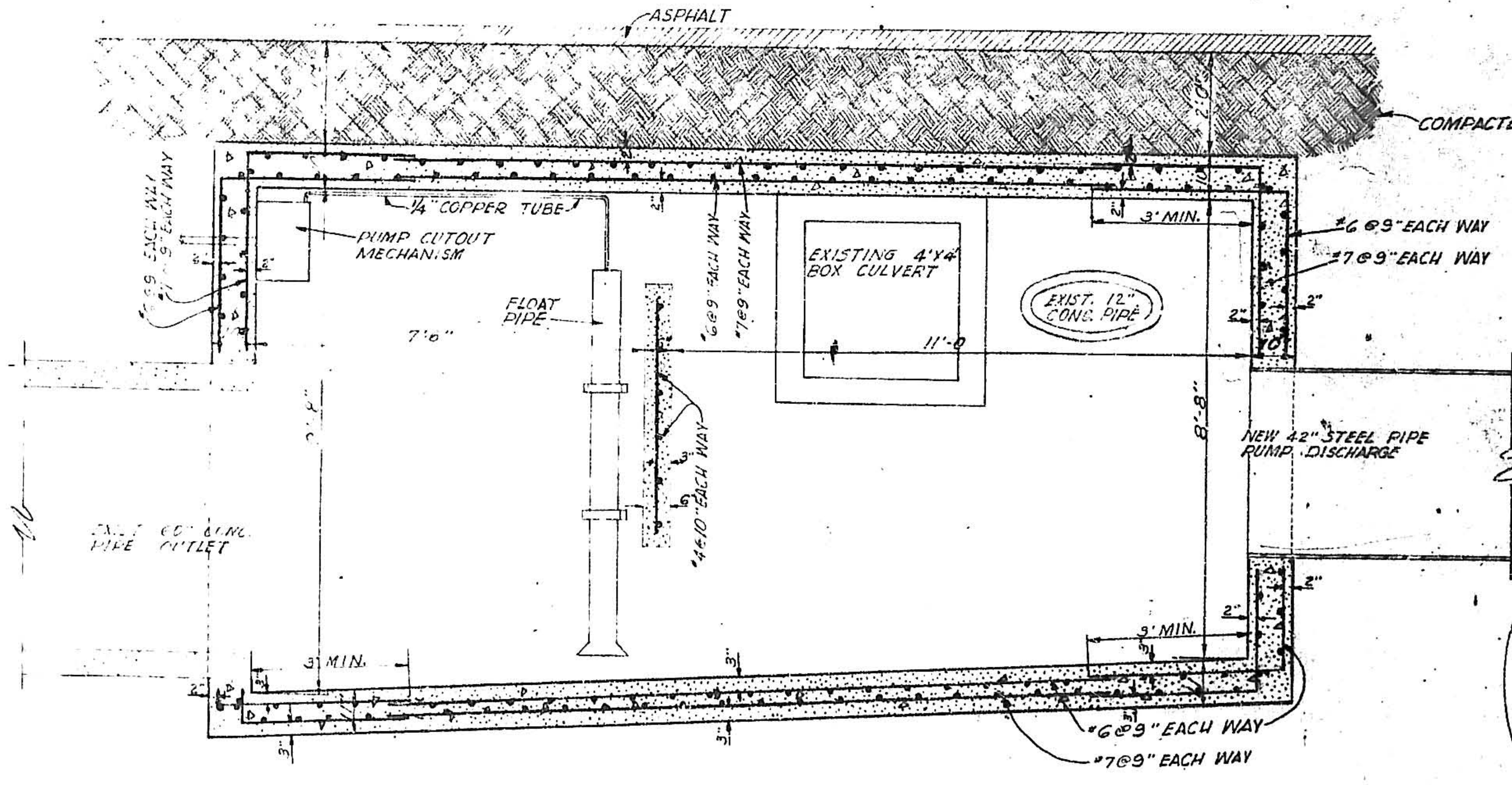
SCALE	DATE	DRAWN	SHEET 6
HOR 1"= 100' VERT 1"= 5'	FEB. 4, 1956	CHECKED	OF 15

PLATE 1-PLAN-PROFILE O. P. R. & R. E.
100% RAG PAPER—MADE AND PRINTED IN U. S. A.
CHARLES BRUNING COMPANY, INC.

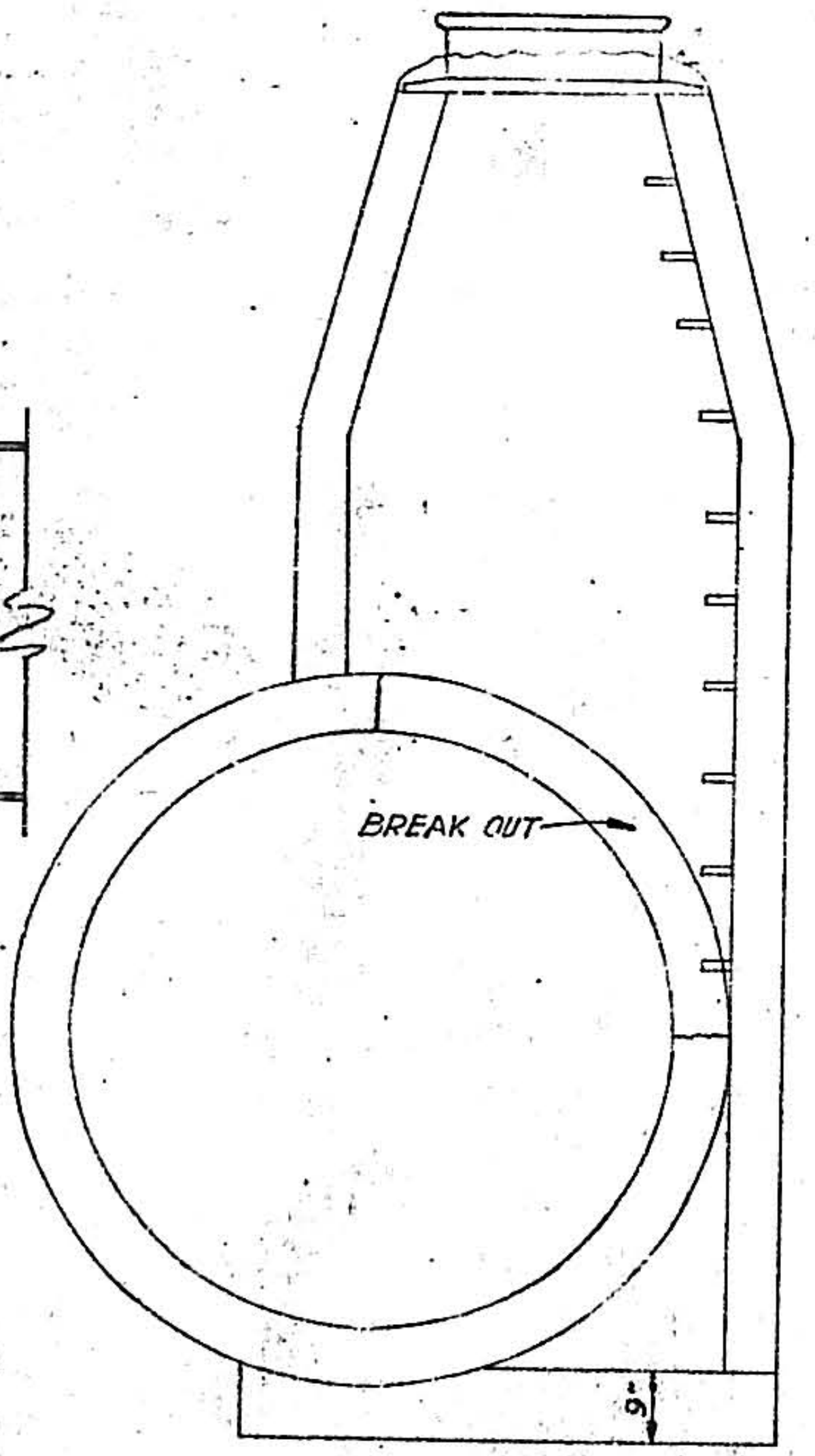
1


B
3' MIN.
#6@9" EACH WAY
EXISTING 12" CONC. PIPE
#6@9" EACH WAY
EXISTING 12" CONC. PIPE.
#6@9" EACH WAY
EXISTING 48" CONC. PIPE.
11'-0"
7'-6"
3"
6"
EXIST. 60" CONC. PIPE OUTLET.
A
#4@10" EACH WAY
#6@9" EACH WAY
NEW 42" STEEL PIPE PUMP DISCHARGE
PUMP CUTOUT MECHANISM
1½" CONDUIT
FLOAT MECHANISM
¼" COPPER TUBE
#6@9" EACH WAY
#6@9" EACH WAY
EXISTING 4'X4' BOX CULVERT
EXISTING 12" CONC. PIPE.
3' MIN.
B
2"

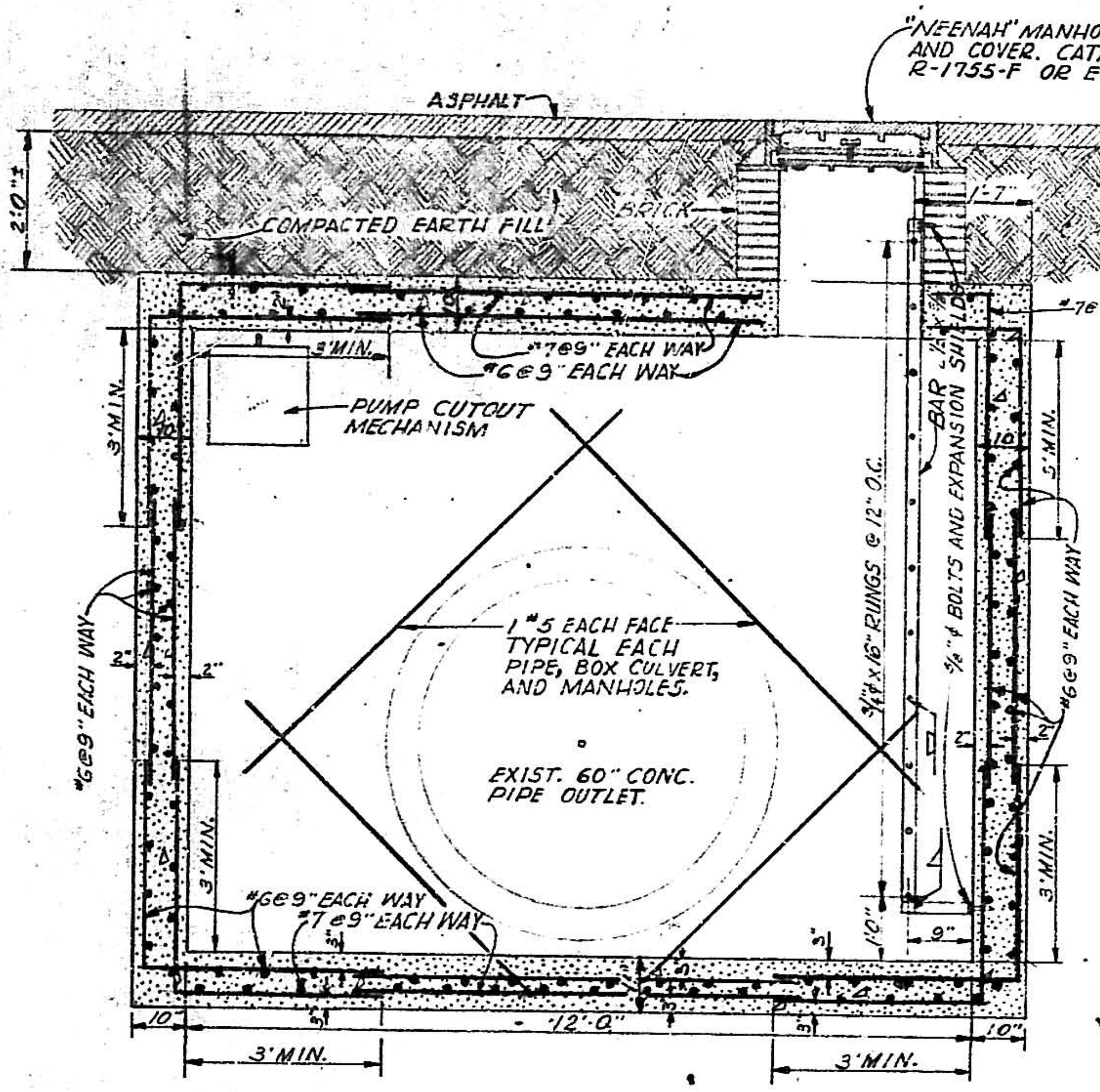
PLAN
13'-8" X 20'-8" CONC. JUNCTION BOX
TYPE "A"


ASPHALT
COMPACTED EARTH FILL
¼" COPPER TUBE
PUMP CUTOUT MECHANISM
FLOAT PIPE
7'-6"
#6@9" EACH WAY
#7@9" EACH WAY
EXISTING 4'X4' BOX CULVERT
EXIST. 12" CONC. PIPE
11'-0
3' MIN.
#6@9" EACH WAY
#7@9" EACH WAY
8'-8"
NEW 42" STEEL PIPE PUMP DISCHARGE
#4@10" EACH WAY
EXIST. 60" CONC. PIPE OUTLET
3' MIN.
3' MIN.
#6@9" EACH WAY
#7@9" EACH WAY

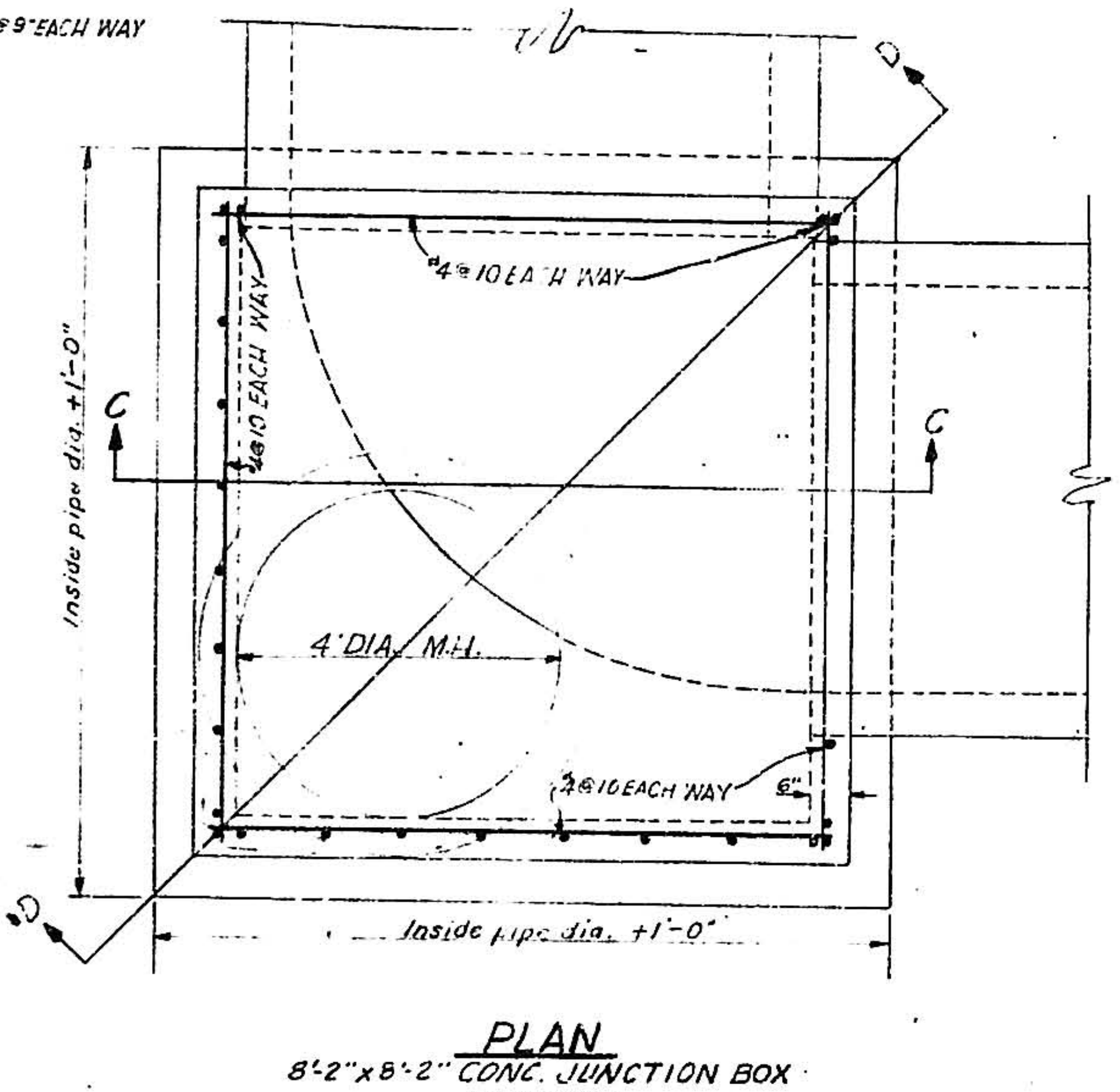
SECTION A-A



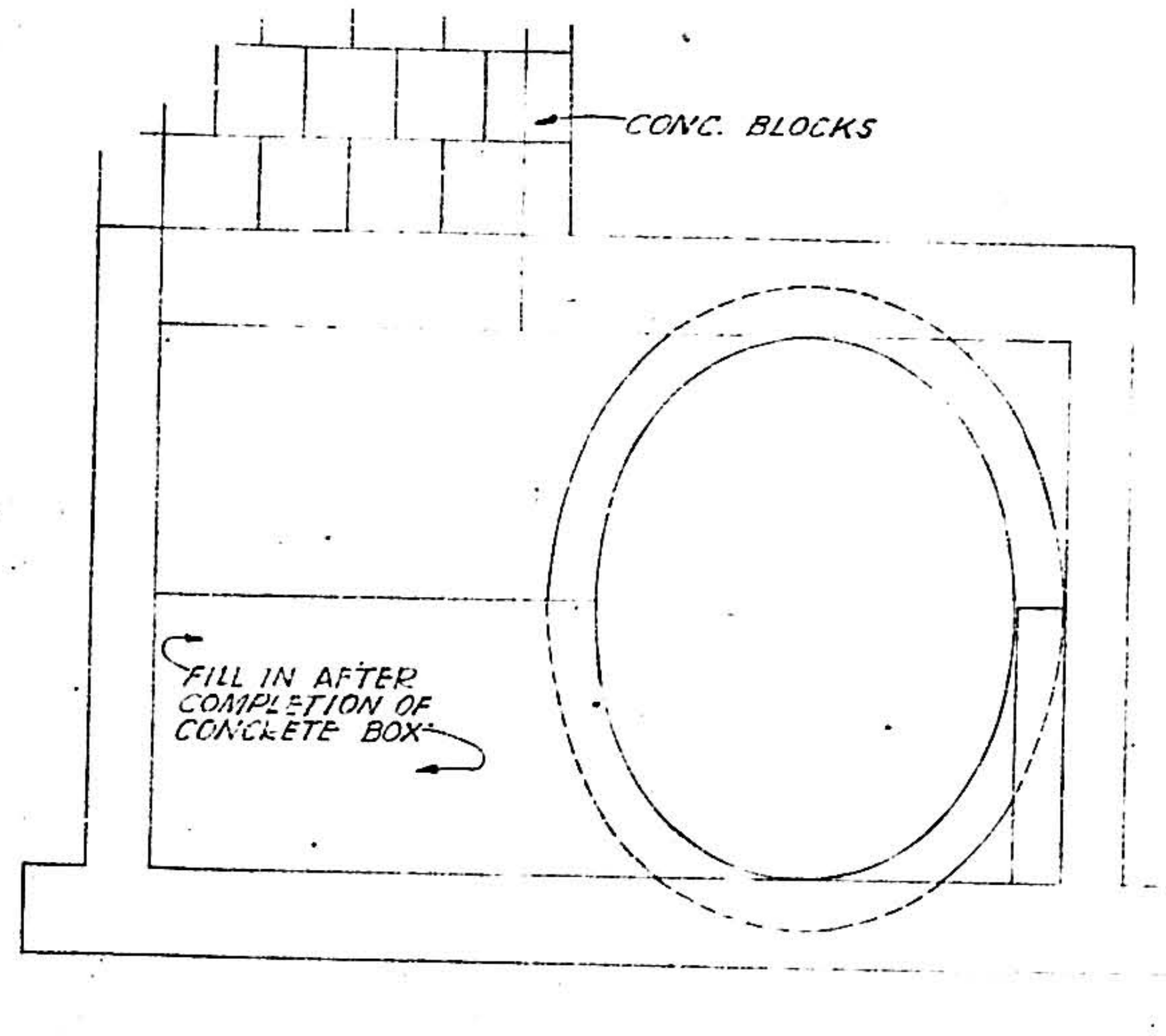
MANHOLE
4' DIA.


"NEENAH" MANHOLE FRAME AND COVER. CATALOGUE NO. R-1755-F OR EQUAL.
ASPHALT
2'-0"±
COMPACTED EARTH FILL
BRICK
1'-7"
#7@9" EACH WAY
#7@9" EACH WAY
#6@9" EACH WAY
3' MIN.
PUMP CUTOUT MECHANISM
BAR ½" SHIELD
3/4"x16" RUNGS @ 12" O.C.
5/8" BOLTS AND EXPANSION SHIELD
1 #5 EACH FACE TYPICAL EACH PIPE, BOX CULVERT, AND MANHOLES.
EXIST. 60" CONC. PIPE OUTLET.
#6@9" EACH WAY
#6@9" EACH WAY
#6@9" EACH WAY
#7@9" EACH WAY
12'-0"
10"
3' MIN.
3' MIN.
1'-0"
9"

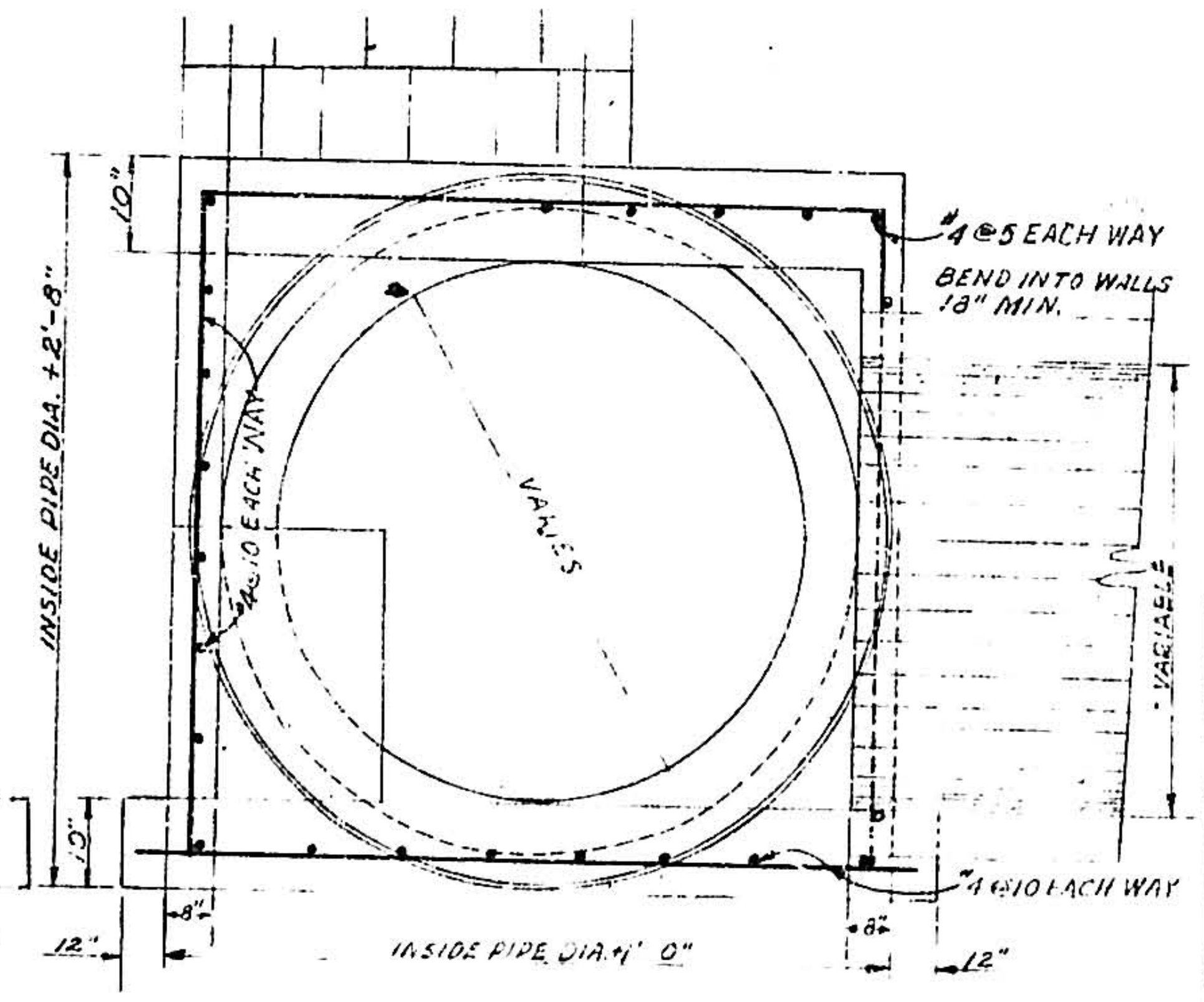
SECTION B-B
TYPE A JUNCTION BOX


D
C
C
#4@10 EACH WAY
#4@10 EACH WAY
#4@10 EACH WAY
Inside pipe dia. +1'-0"
4' DIA. M.H.
6"
Inside pipe dia. +1'-0"
D

PLAN
8'-2" x 8'-2" CONC. JUNCTION BOX
TYPE "B"


CONC. BLOCKS
FILL IN AFTER COMPLETION OF CONCRETE BOX

SECTION D-D


#4@5 EACH WAY
BEND INTO WALLS 18" MIN.
10"
INSIDE PIPE DIA. +2'-8"
#4@10 EACH WAY
VARIES
VARIABLE
#4@10 EACH WAY
8"
12"
INSIDE PIPE DIA. +1'-0"
8"
12"

SECTION C-C

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		0	6	5	7			1	0														

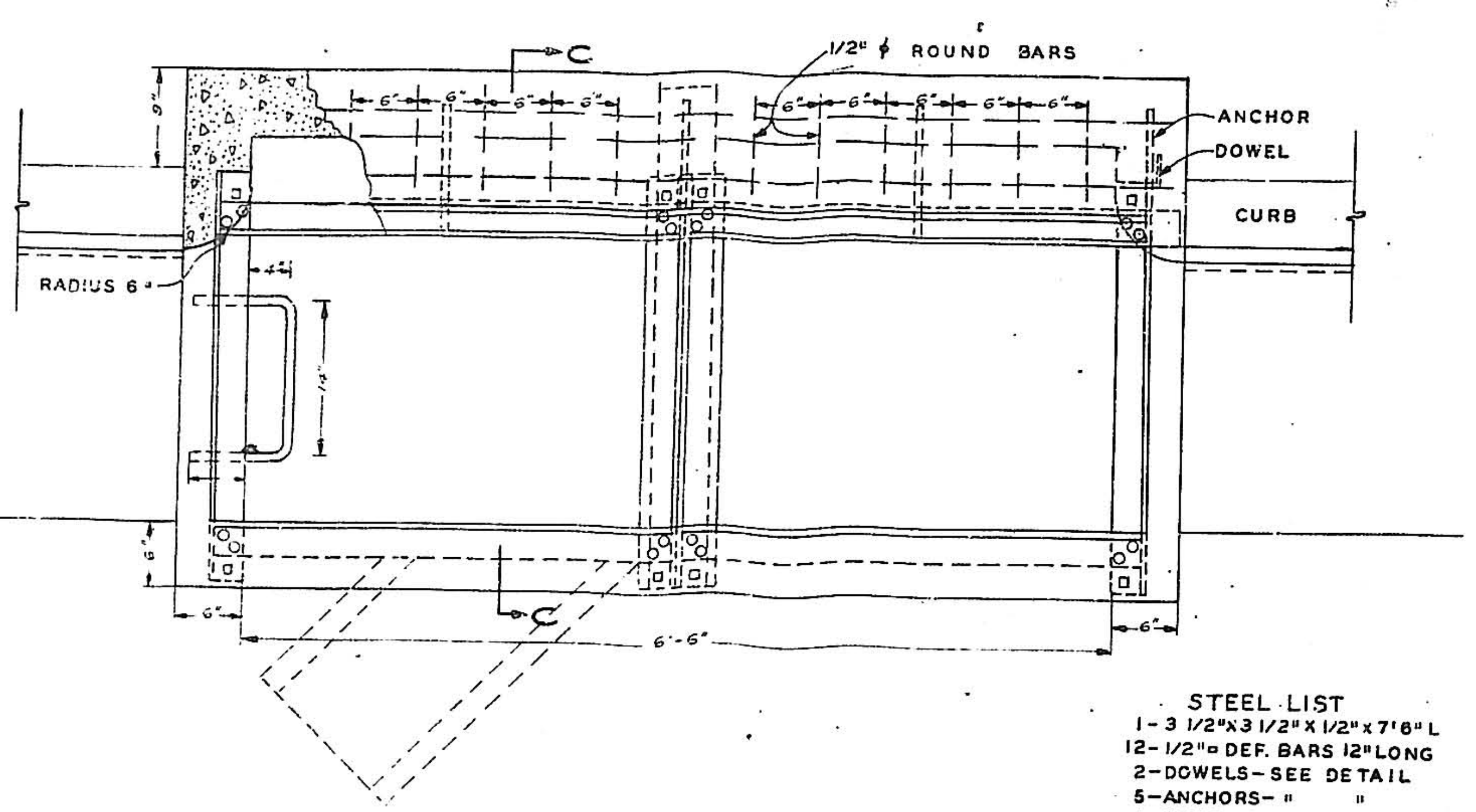
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

STORM SEWER
JUNCTION BOX DETAILS

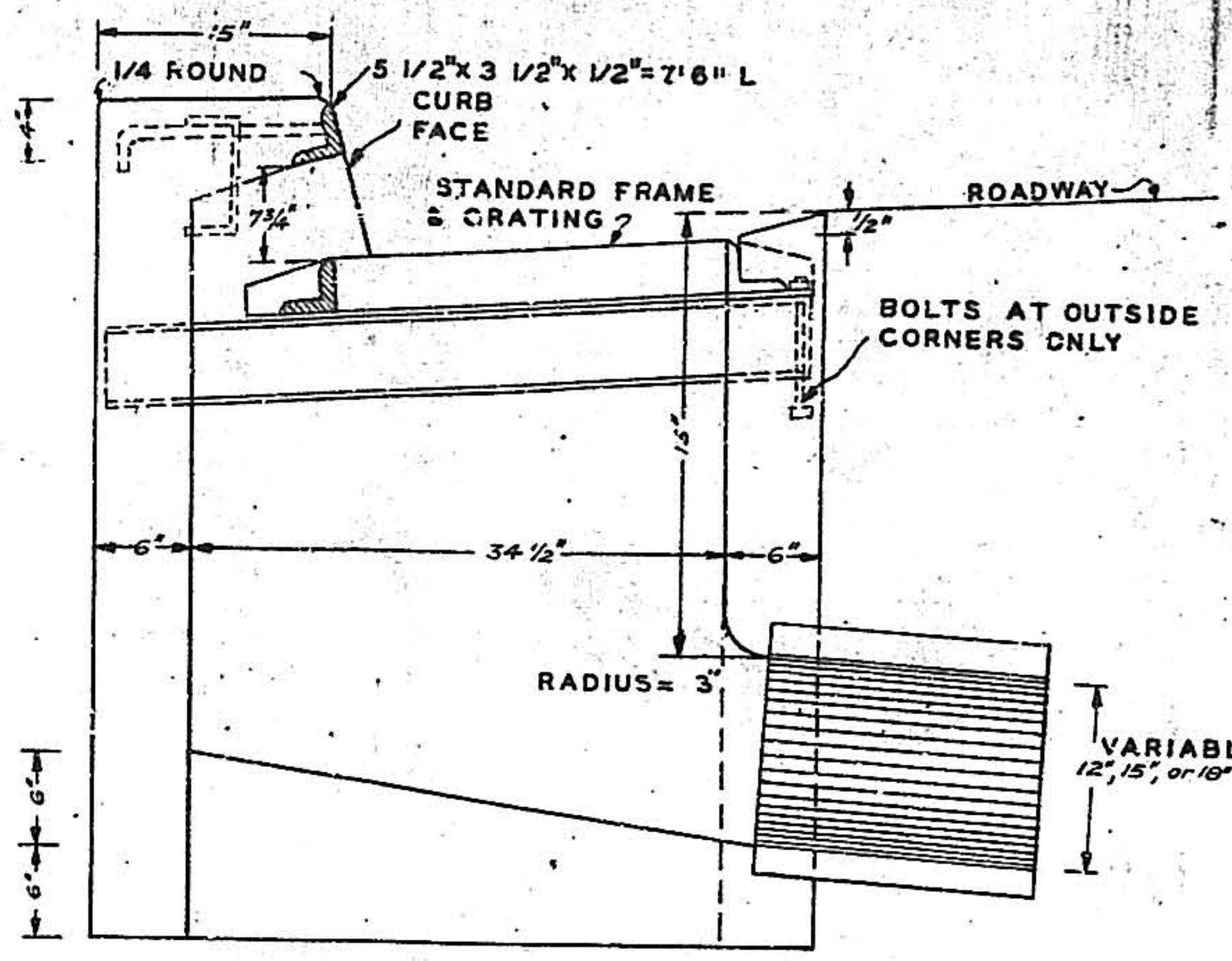
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN EPC	SHEET 6
½" = 1'-0"	FEB. 4 1956	CHECKED 7.D	OF 15

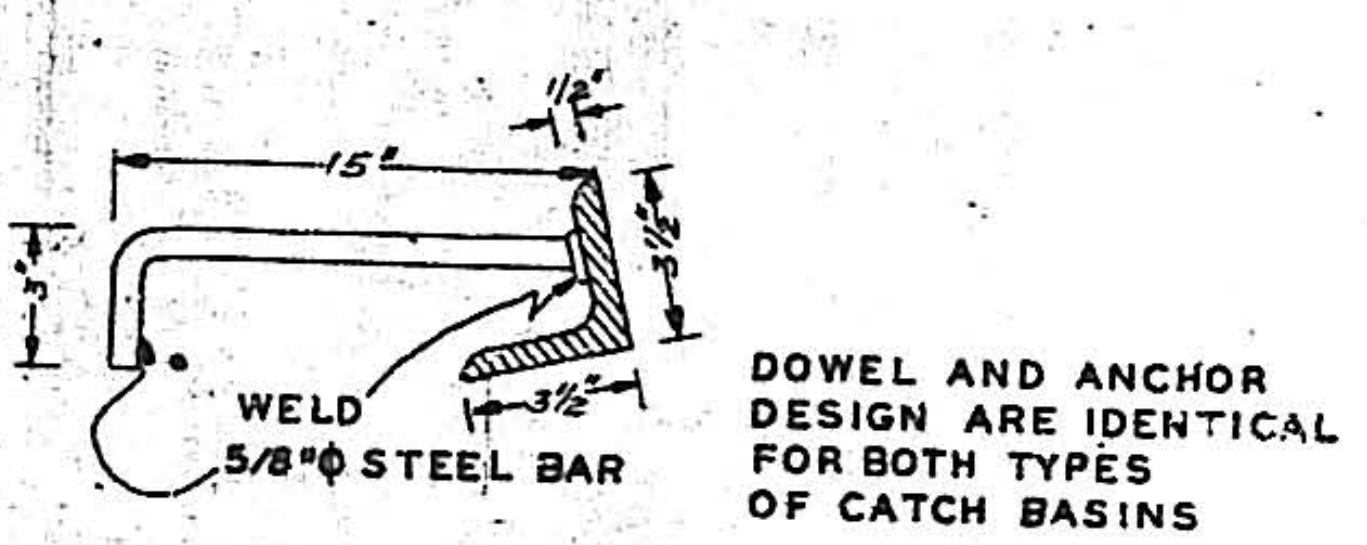

C
1/2" ϕ ROUND BARS
ANCHOR
DOWEL
CURB
RADIUS 6"
6'-6"
C

STEEL LIST
1-3 1/2"x3 1/2"x1/2"x7'6" L
12-1/2"▫ DEF. BARS 12" LONG
2-DOWELS-SEE DETAIL
5-ANCHORS- " "
1-STEP-3/4" ROUND-SEE PLAN

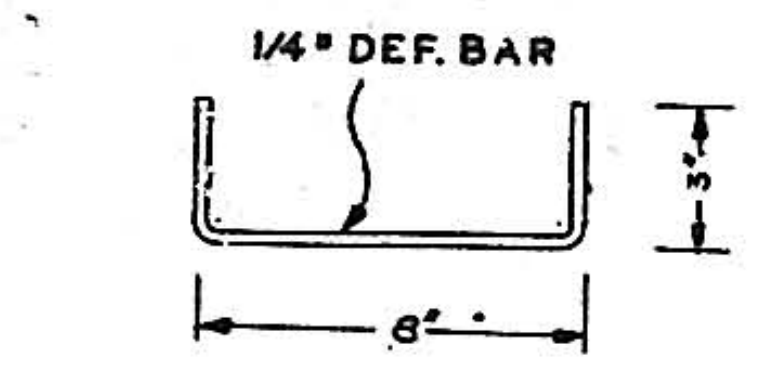
PLAN
DOUBLE GRATE STANDARD CATCH BASIN-TYPE C
SCALE 1"=12"


15"
1/4 ROUND
5 1/2"x3 1/2"x1/2"=7'6" L
CURB
FACE
STANDARD FRAME
& CRATING
ROADWAY
BOLTS AT OUTSIDE
CORNERS ONLY
34 1/2"
RADIUS= 3"
VARIABLE
12", 15", or 18"

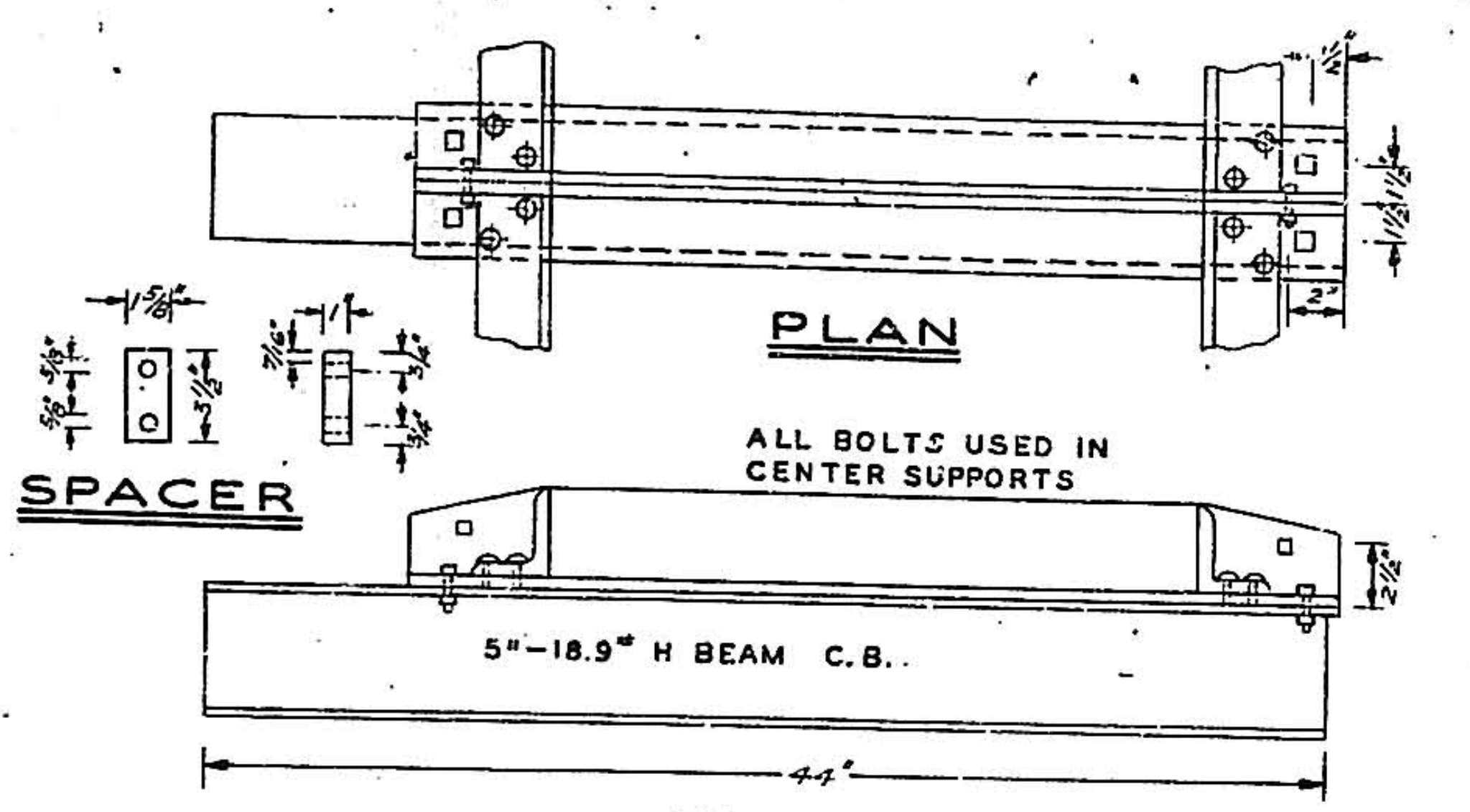
SECTION C-C
[TYPE C]


15"
WELD
5/8"ϕ STEEL BAR
DOWEL AND ANCHOR
DESIGN ARE IDENTICAL
FOR BOTH TYPES
OF CATCH BASINS

DETAIL OF ANCHOR



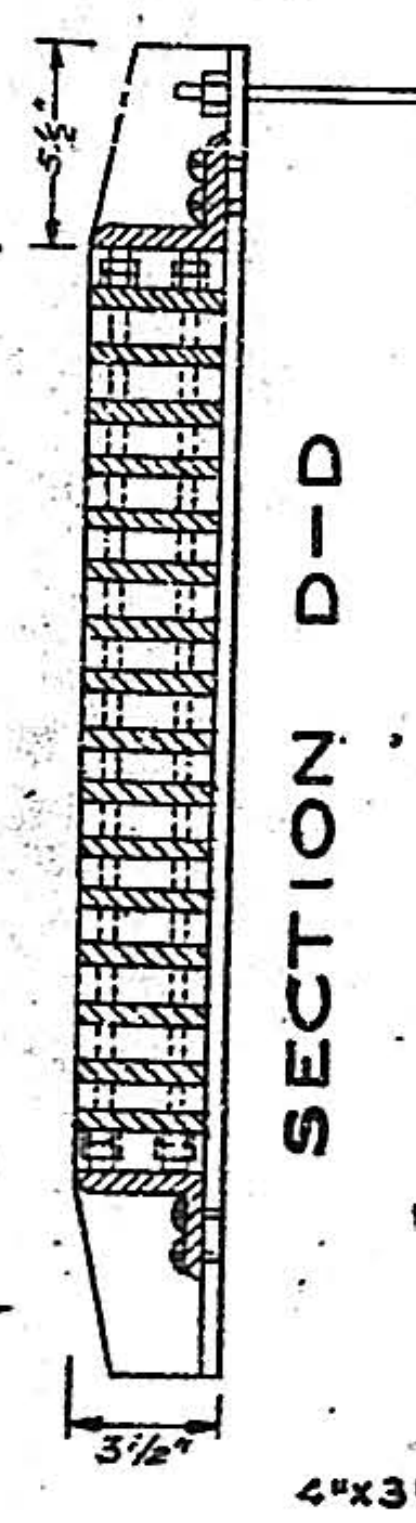
DETAIL OF DOWEL
TO BE USED WHEN TOP
IS POURED SEPARATE


ALL BOLTS USED IN
CENTER SUPPORTS
5"-18.9" H BEAM C.B.
4'-1"

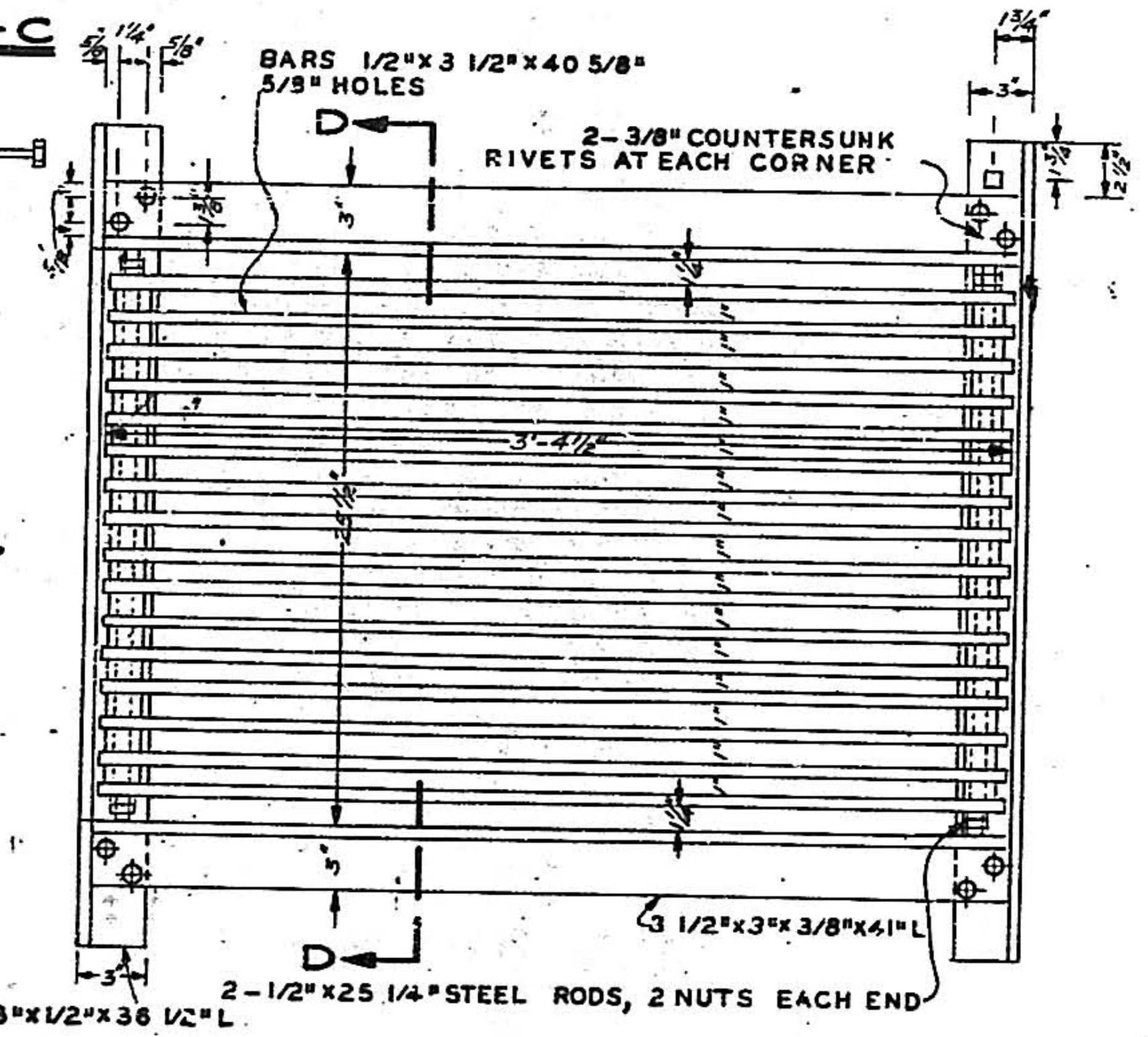
SPACER

PLAN

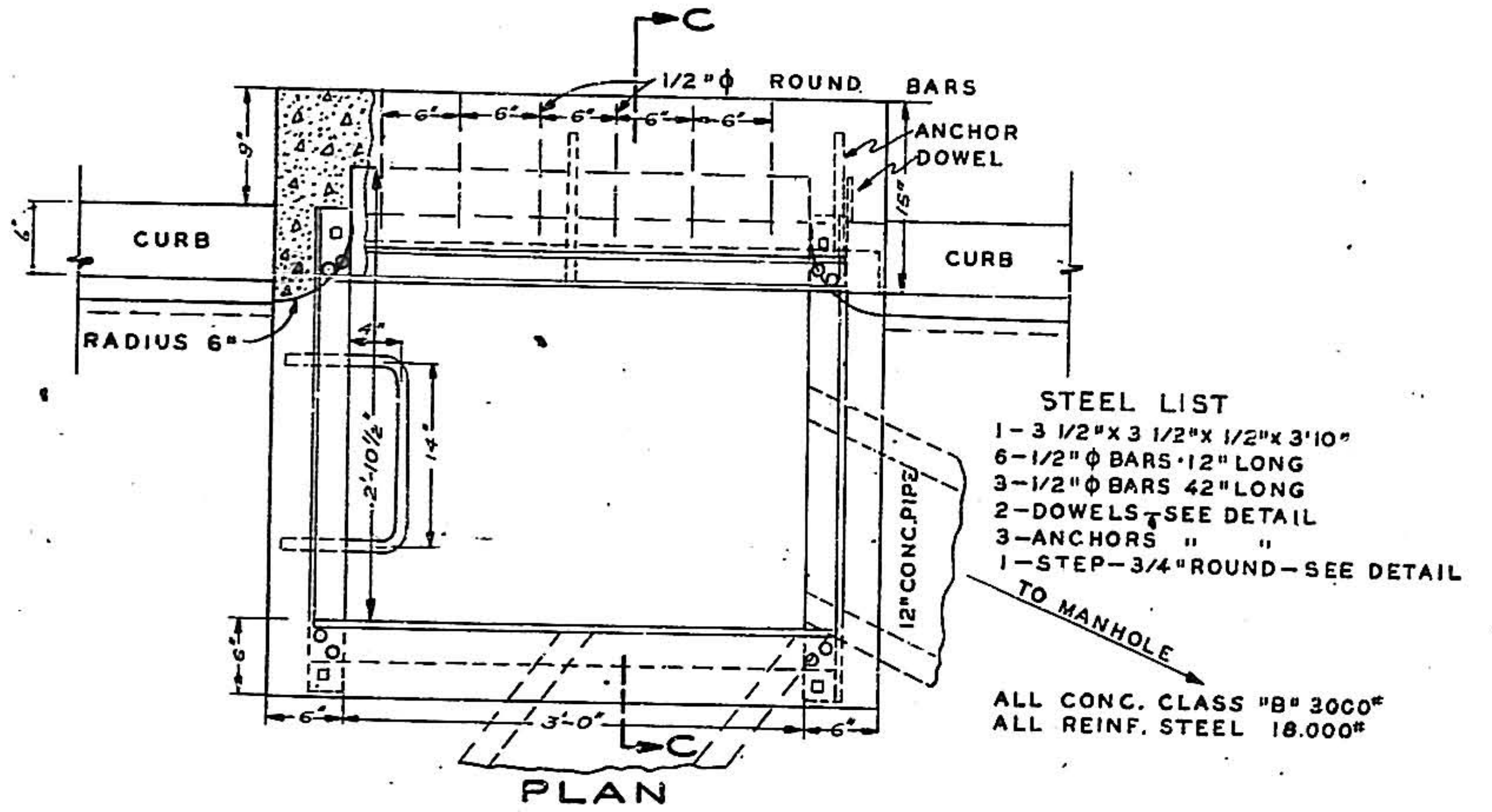
ELEVATION
CENTER SUPPORT ASSEMBLY



SECTION D-D


BARS 1/2"x3 1/2"x40 5/8"
5/8" HOLES
2-3/8" COUNTERSUNK
RIVETS AT EACH CORNER
D
D
3'-4 1/2"
3 1/2"x3"x3/8"x41"L
4"x3"x1/2"x36 1/2"L
2-1/2"x25 1/4" STEEL RODS, 2 NUTS EACH END

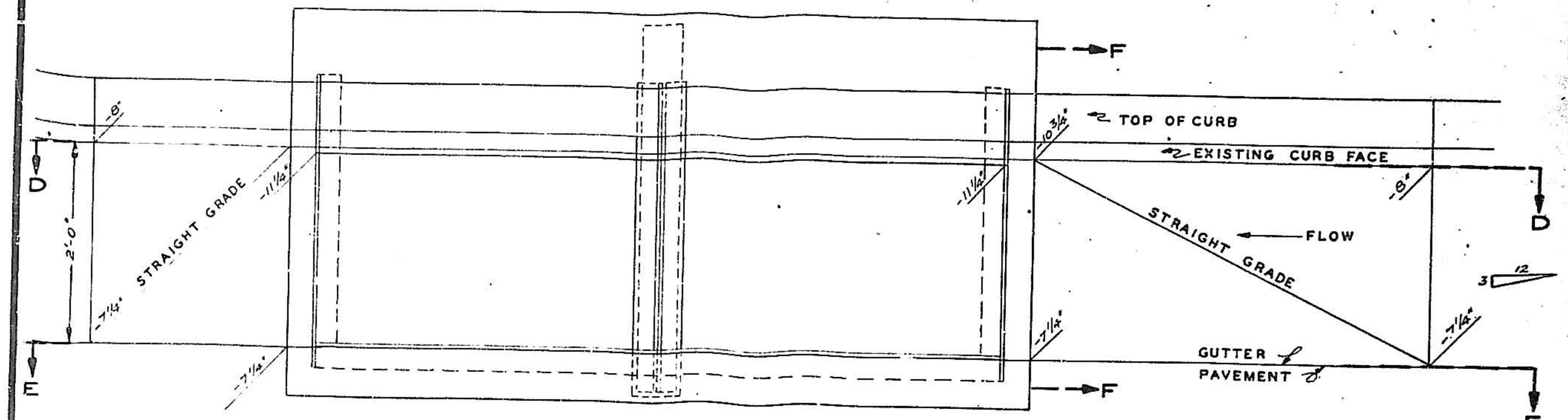
PLAN
STANDARD FRAME AND GRATING
SCALE 1/8"=1"


C
1/2"ϕ ROUND BARS
ANCHOR
DOWEL
CURB
CURB
RADIUS 6"
12" CONC.PIPE
TO MANHOLE
3'-0"
C

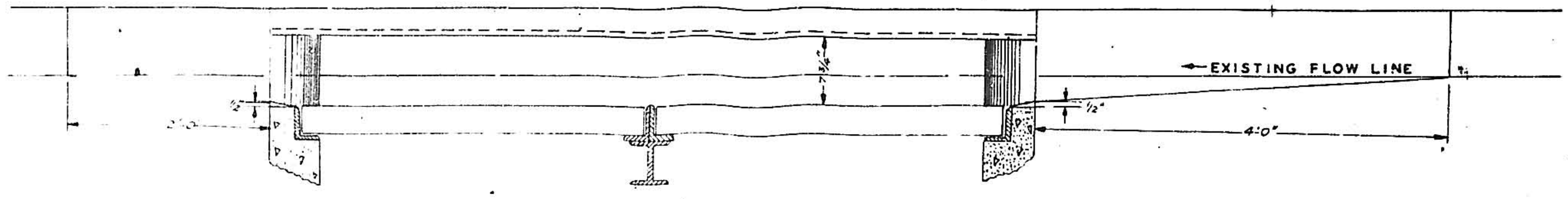
STEEL LIST
1-3 1/2"x3 1/2"x1/2"x3'10"
6-1/2"ϕ BARS·12" LONG
3-1/2"ϕ BARS 42" LONG
2-DOWELS-SEE DETAIL
3-ANCHORS " "
1-STEP-3/4" ROUND-SEE DETAIL

ALL CONC. CLASS "B" 3000#
ALL REINF. STEEL 18.000#

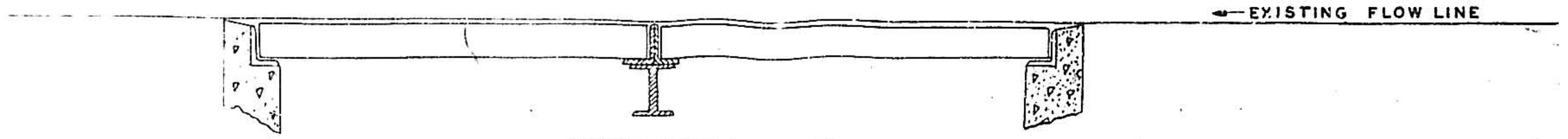
PLAN
SINGLE GRATE INLET & CATCH BASIN-TYPE "C"-ONE HALF STANDARD SIZE
SCALE: 1 INCH=1 FOOT


F
D
TOP OF CURB
EXISTING CURB FACE
STRAIGHT GRADE
FLOW
STRAIGHT GRADE
D
2'-0"
GUTTER ℄
PAVEMENT ℄
E
F
E

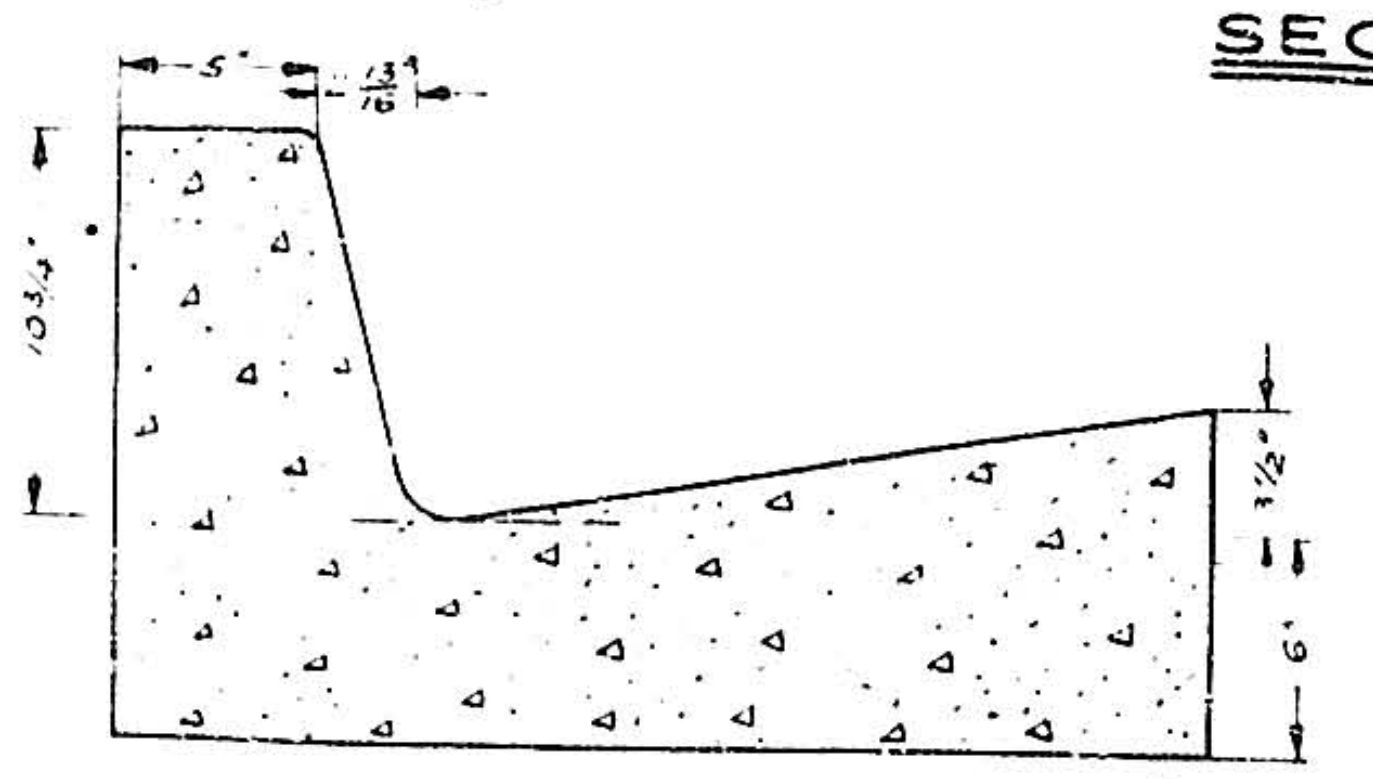
PLAN
STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS
TYPES A, B AND C & C-1


EXISTING FLOW LINE
4'-0"

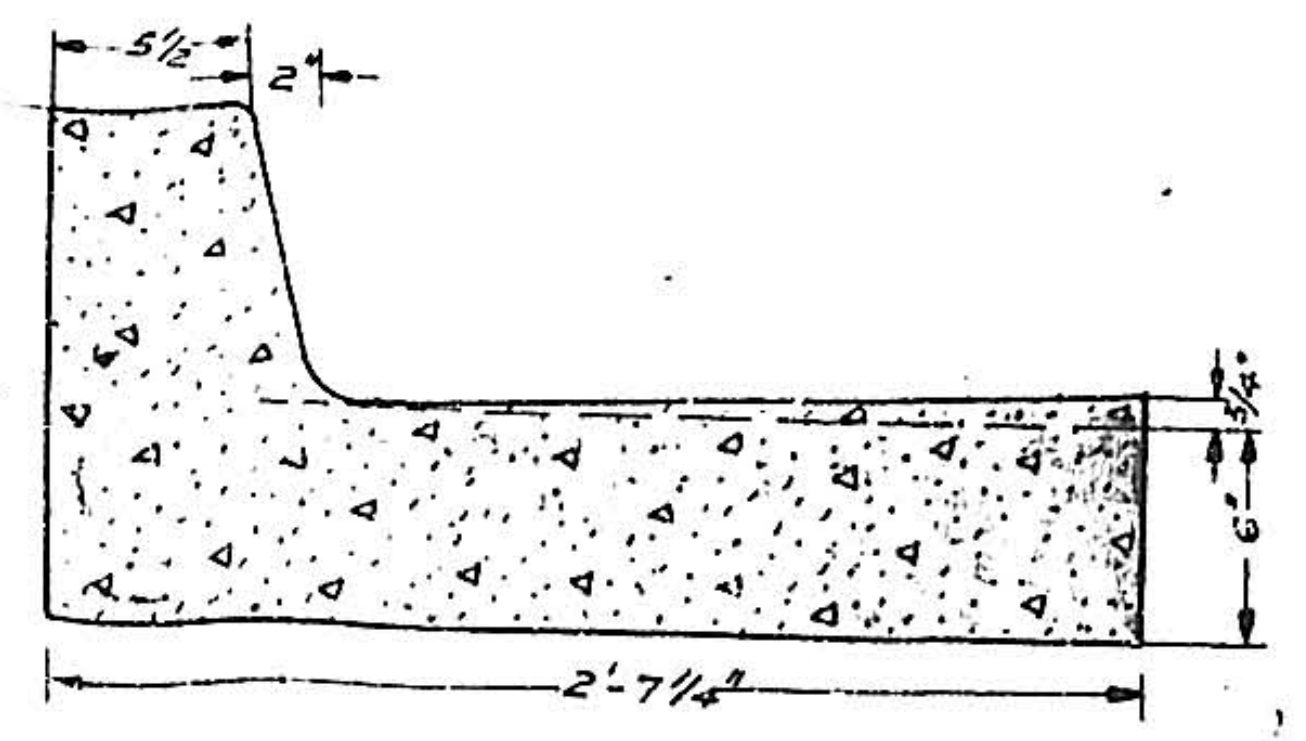
SECTION D-D


EXISTING FLOW LINE

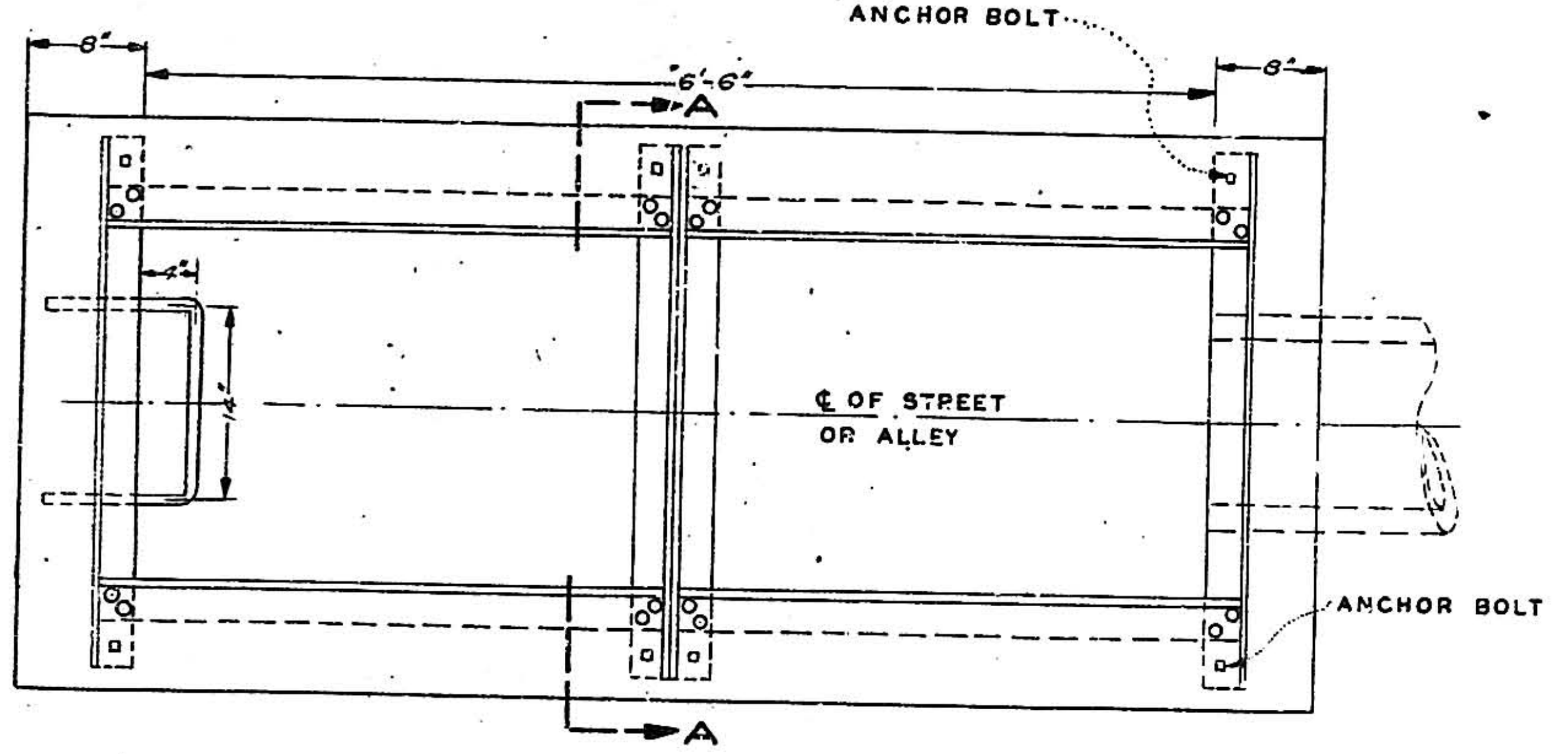
SECTION E-E



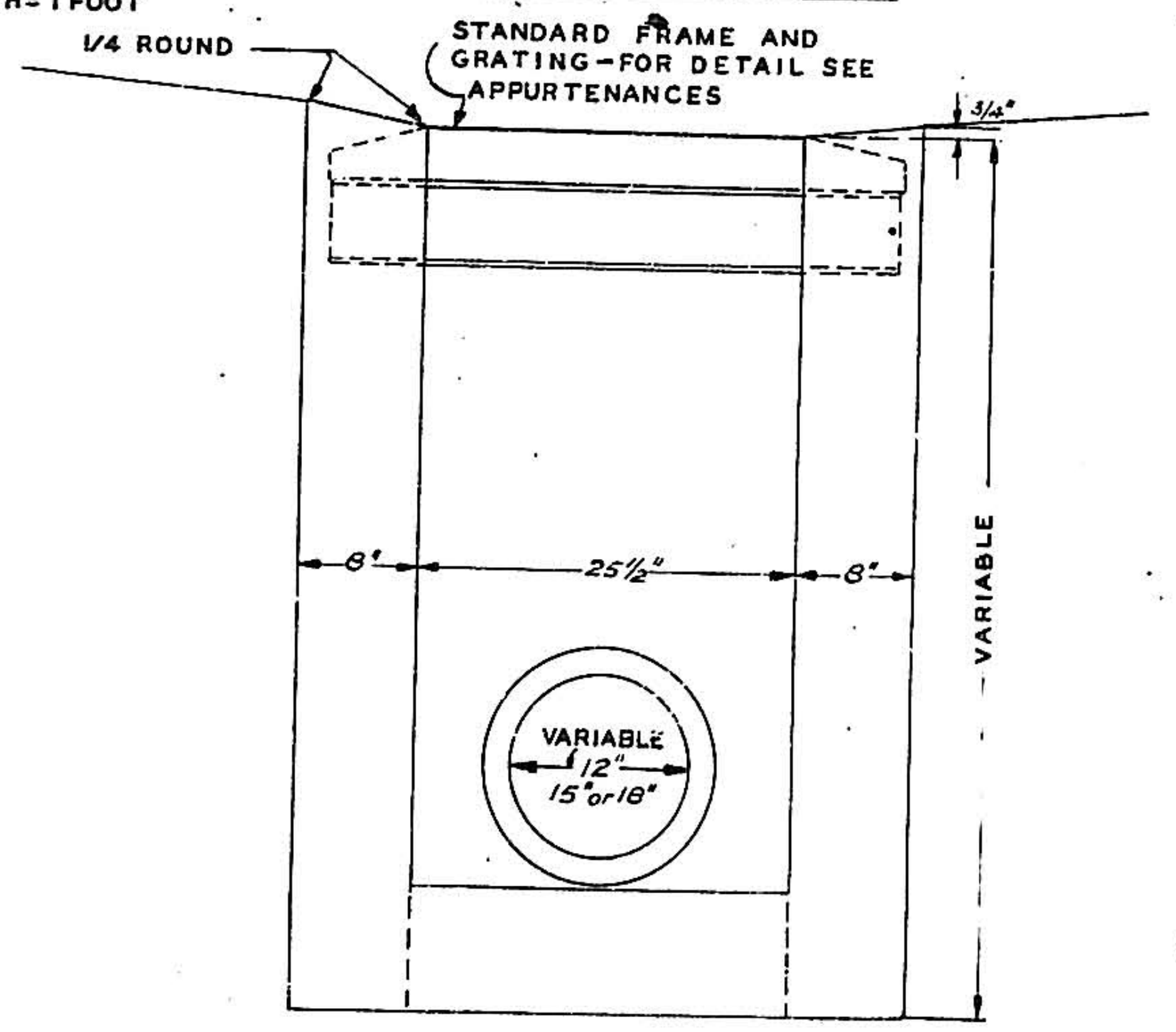
SECTION F-F



STANDARD SECTION
CURB AND GUTTER


ANCHOR BOLT
8"
6'-6"
8"
A
℄ OF STREET
OR ALLEY
ANCHOR BOLT
A

PLAN
STANDARD CATCH BASIN TYPE-D


STANDARD FRAME AND
GRATING-FOR DETAIL SEE
APPURTENANCES
1/4 ROUND
8"
25 1/2"
8"
VARIABLE
12"
15" or 18"
VARIABLE

SECTION A-A
TYPE-D

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8	5	7	1	0	7	5	7						1	0													

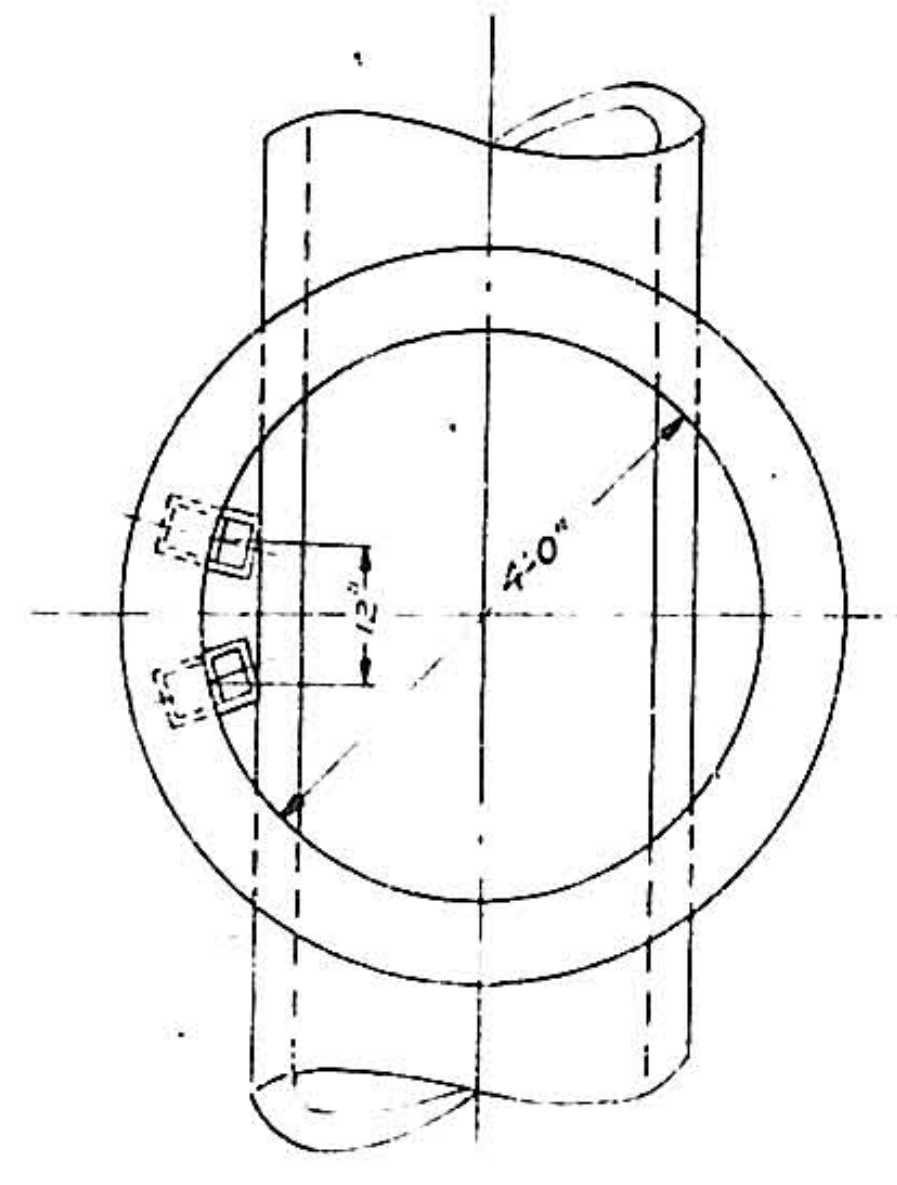
ALBUQUERQUE, NEW MEXICO

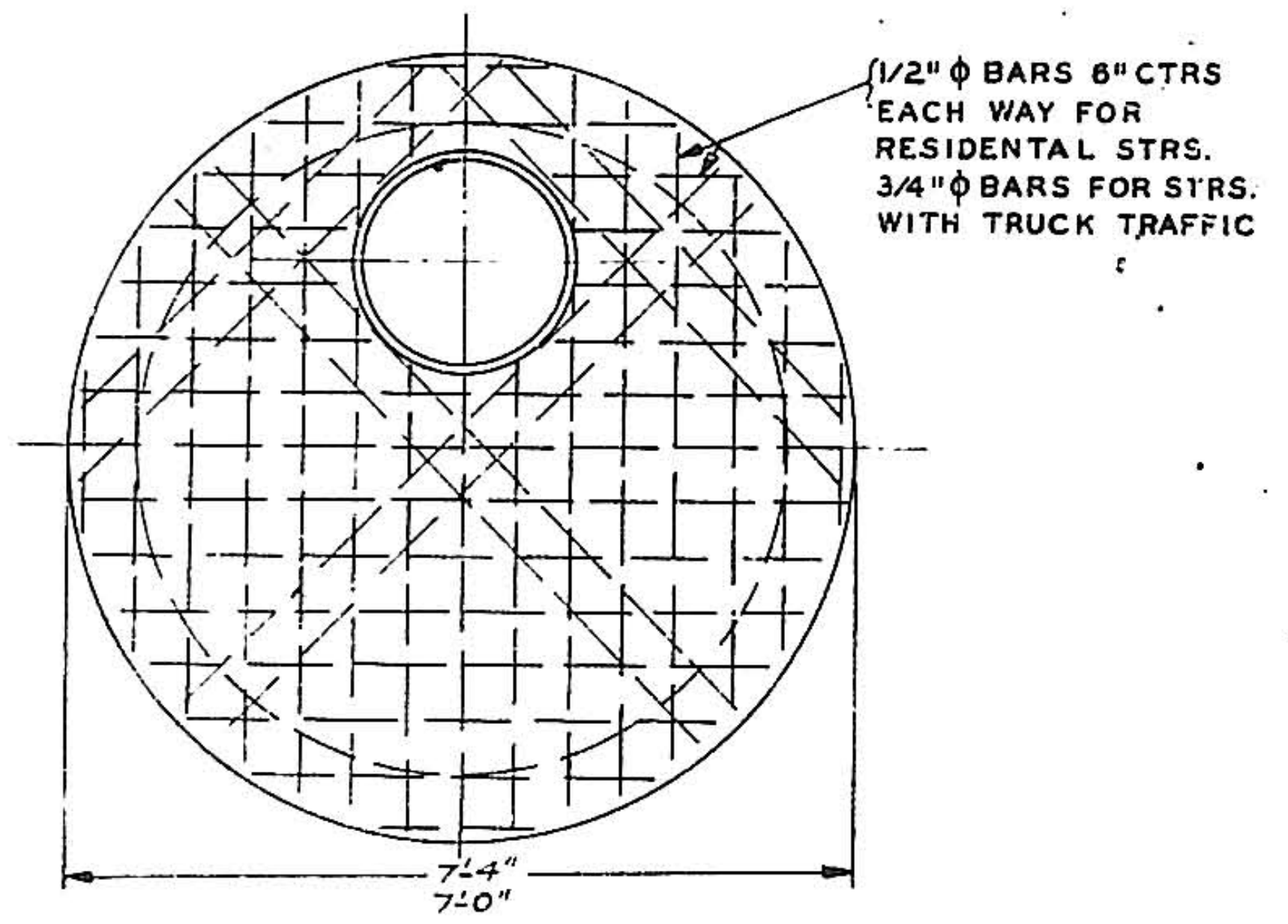
STORM SEWER STANDARDS

CATCH BASIN DETAILS

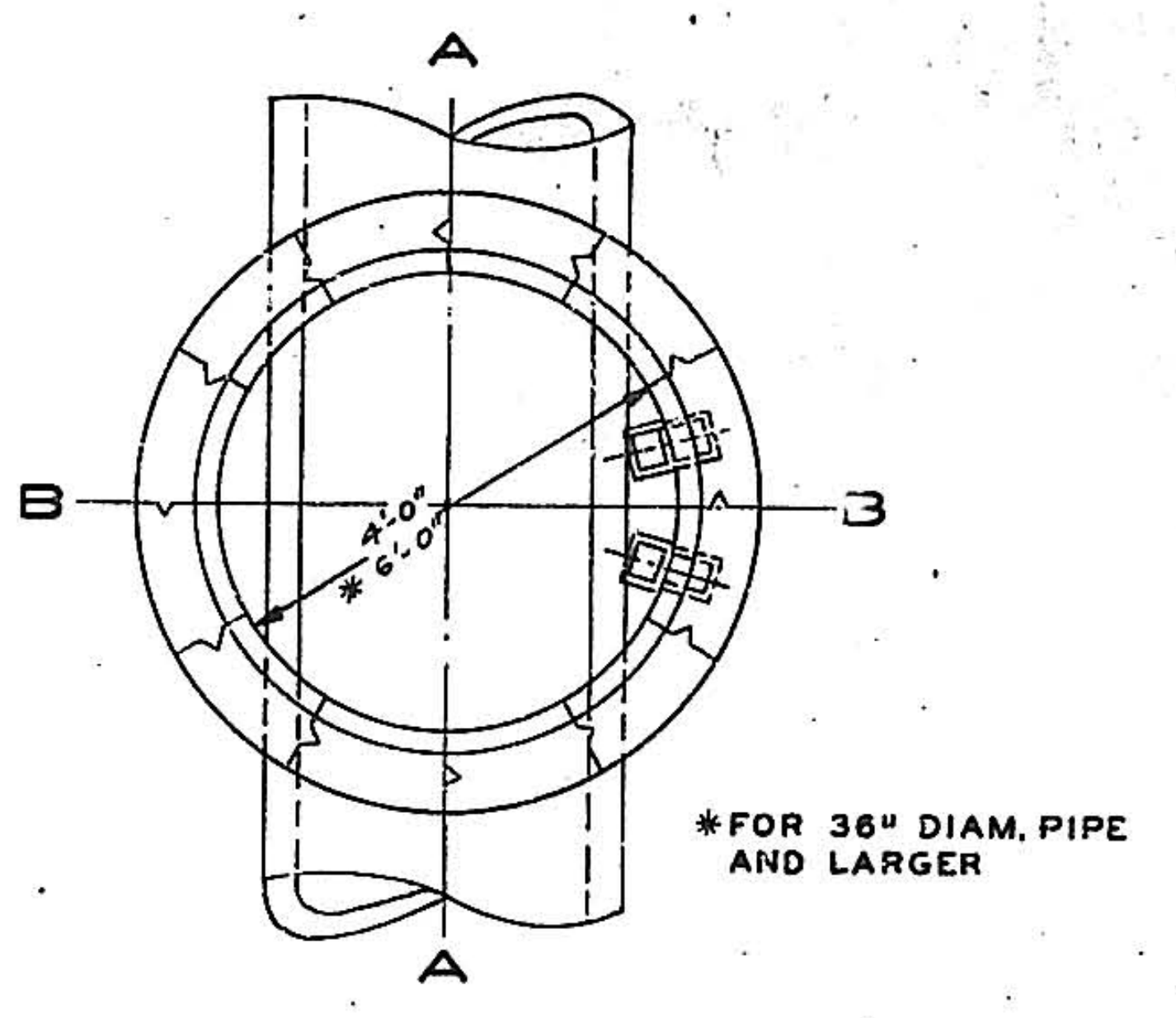
HERKENHOFF & CONSULTING ENGINEERS
SANTA FE ALBUQUERQUE

SCALE	DATE	DRAWN	SHEET 7
AS SHOWN	FEB. 4, 1958	CHECKED G.H.	OF 16

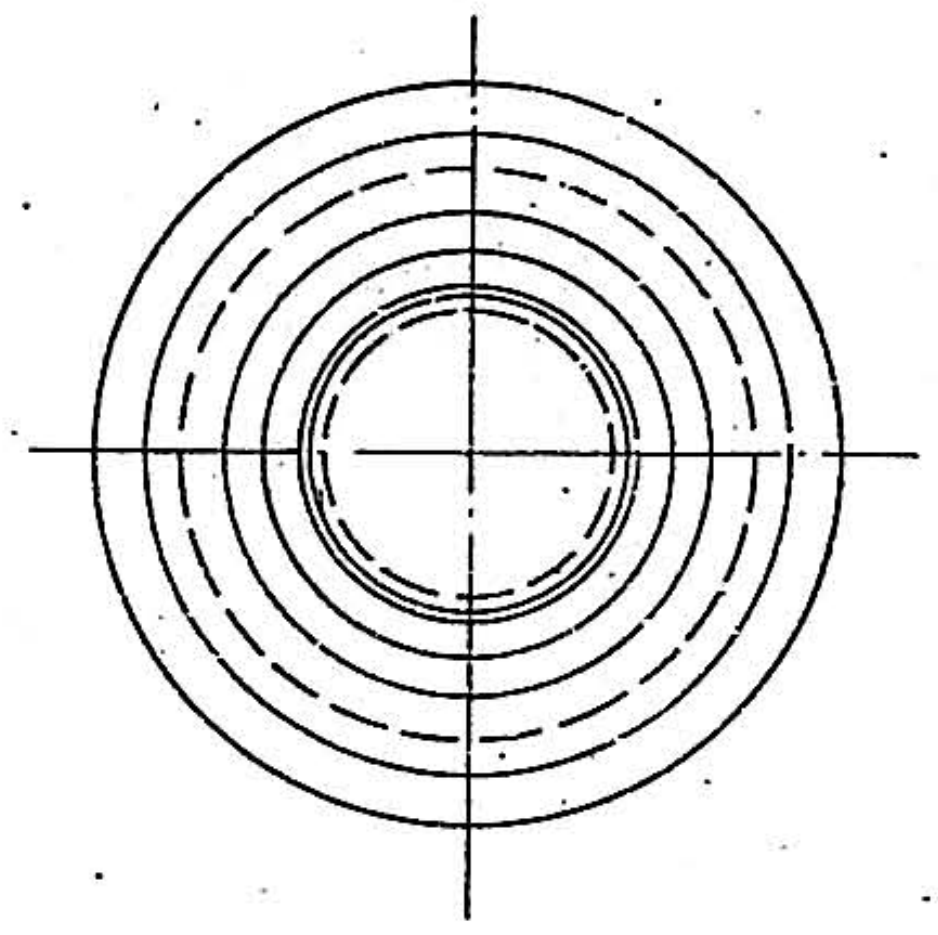


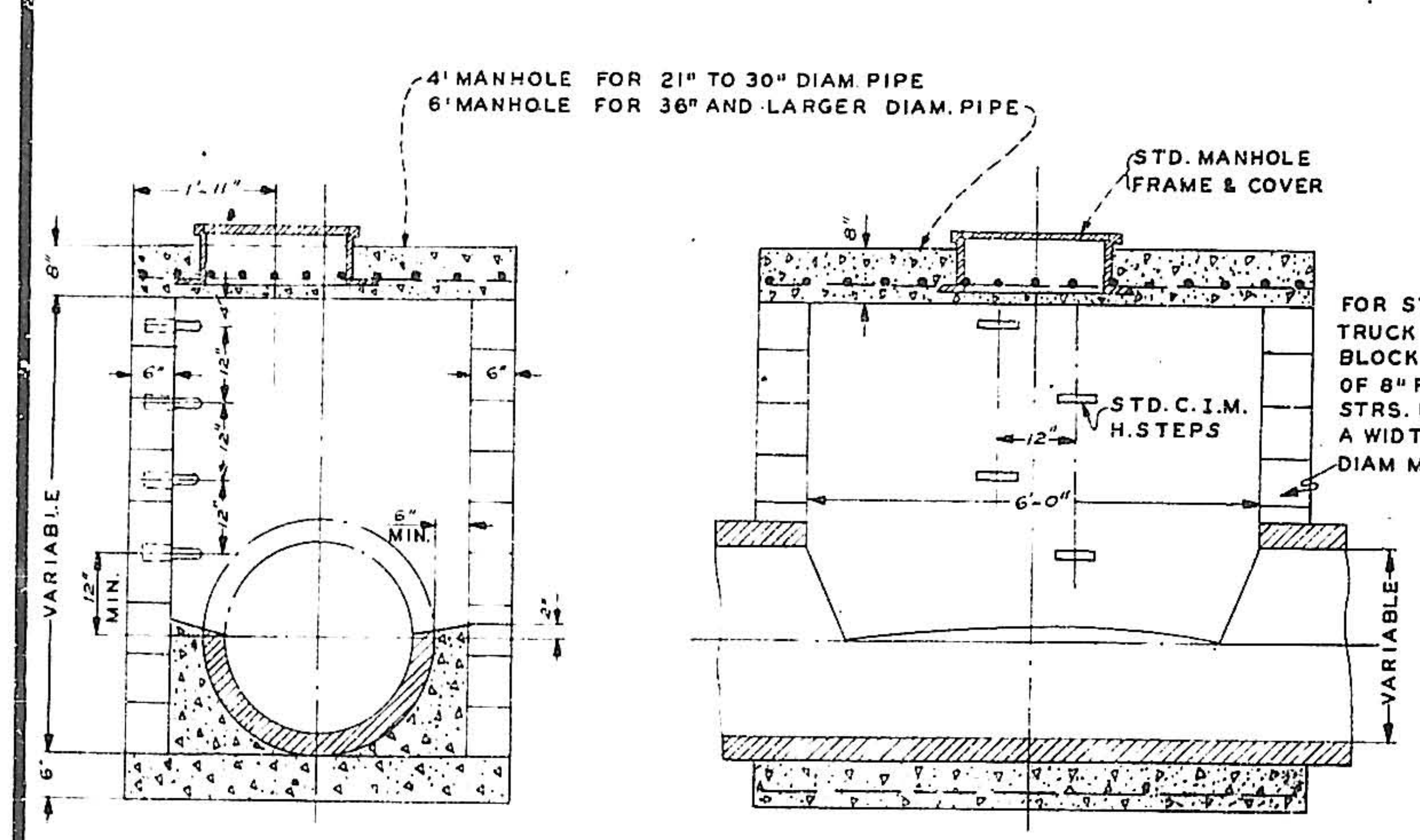

1/2"ϕ BARS 6" CTRS EACH WAY FOR RESIDENTAL STRS. 3/4"ϕ BARS FOR STRS. WITH TRUCK TRAFFIC
7'-4"
7'-0"

PRECAST CONC. COVER


A
B
B
A
4'-0"
*6'-0"
*FOR 36" DIAM. PIPE AND LARGER

SECTION PLAN

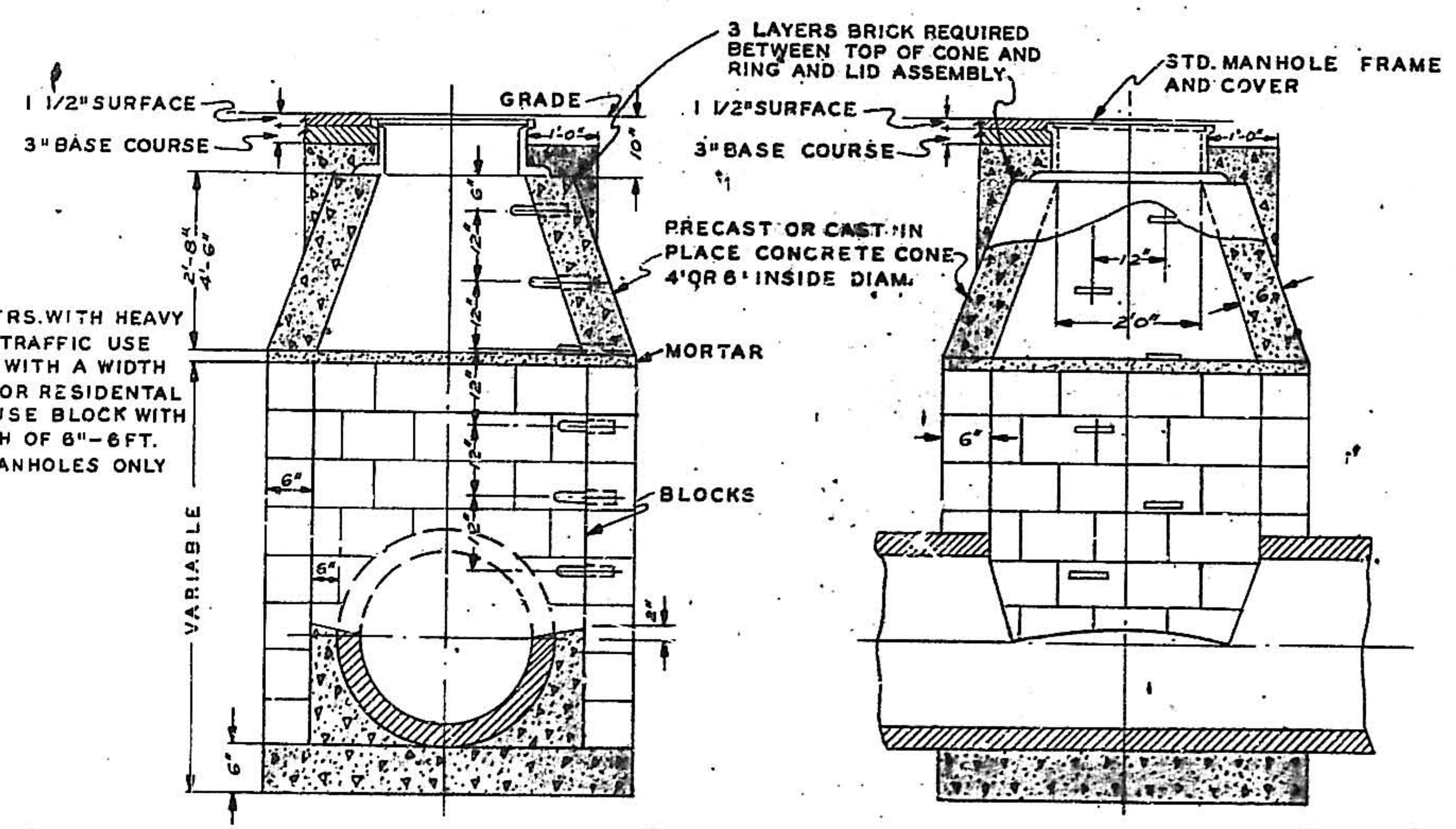



4' MANHOLE FOR 21" TO 30" DIAM. PIPE
6' MANHOLE FOR 36" AND LARGER DIAM. PIPE
STD. MANHOLE FRAME & COVER
FOR STRS. WITH HEAVY TRUCK TRAFFIC USE BLOCK WITH A WIDTH OF 8" FOR RESIDENTAL STRS. USE BLOCK WITH A WIDTH OF 6"- 6 FT. DIAM MANHOLES ONLY
STD. C.I.M. H. STEPS
1'-11"
6'-0"
VARIABLE
12" MIN.
6" MIN.
6"
VARIABLE

SECT. 4 FOOT M.H.

SECT. 6 FOOT M.H.

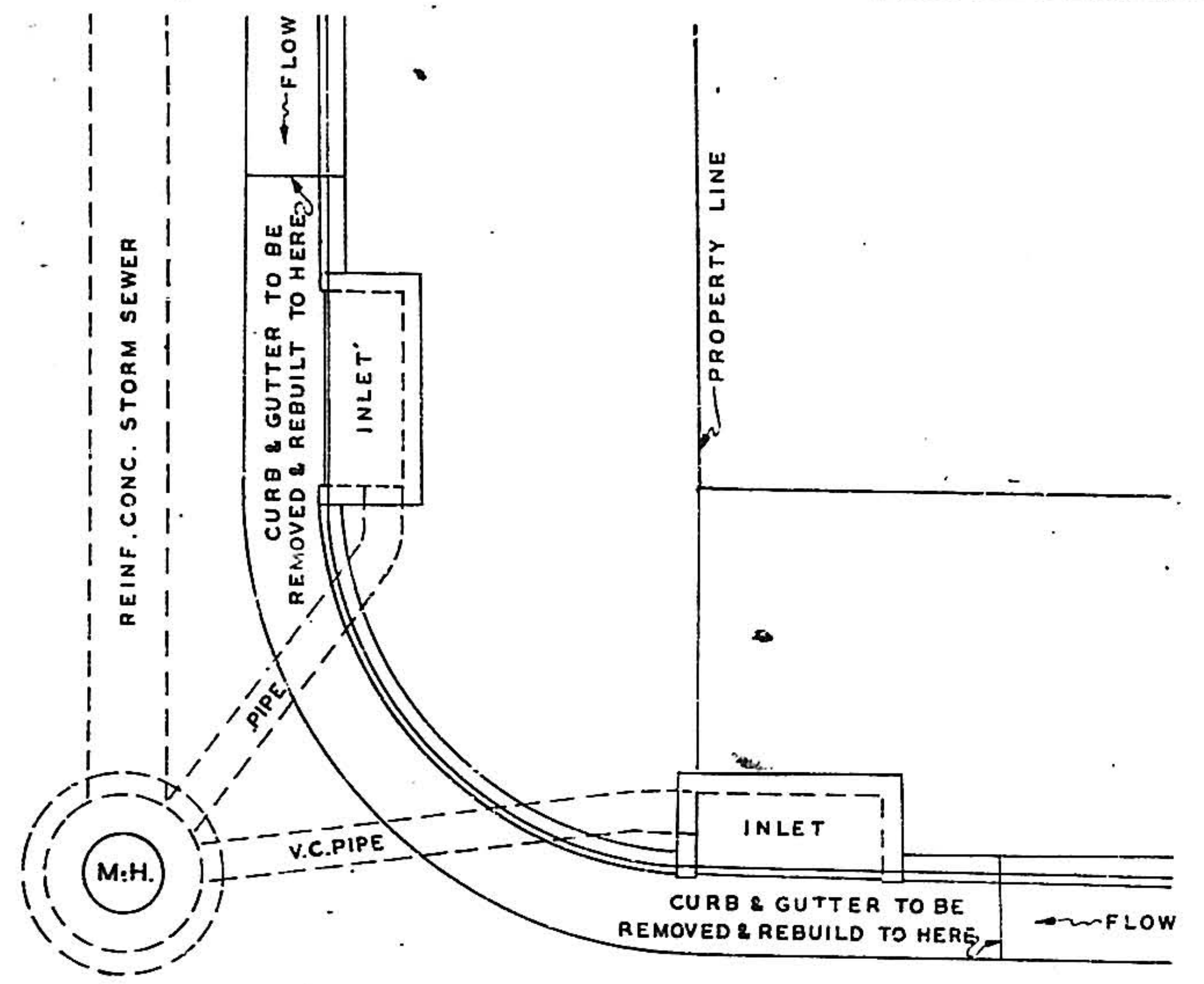
STANDARD STORM SEWER MANHOLE TYPE "A"


3 LAYERS BRICK REQUIRED BETWEEN TOP OF CONE AND RING AND LID ASSEMBLY
1 1/2" SURFACE
3" BASE COURSE
GRADE
STD. MANHOLE FRAME AND COVER
PRECAST OR CAST IN PLACE CONCRETE CONE 4' OR 6' INSIDE DIAM.
MORTAR
BLOCKS
VARIABLE
2'-8"
4'-6"
2'-0"
6"

SECTION B-B

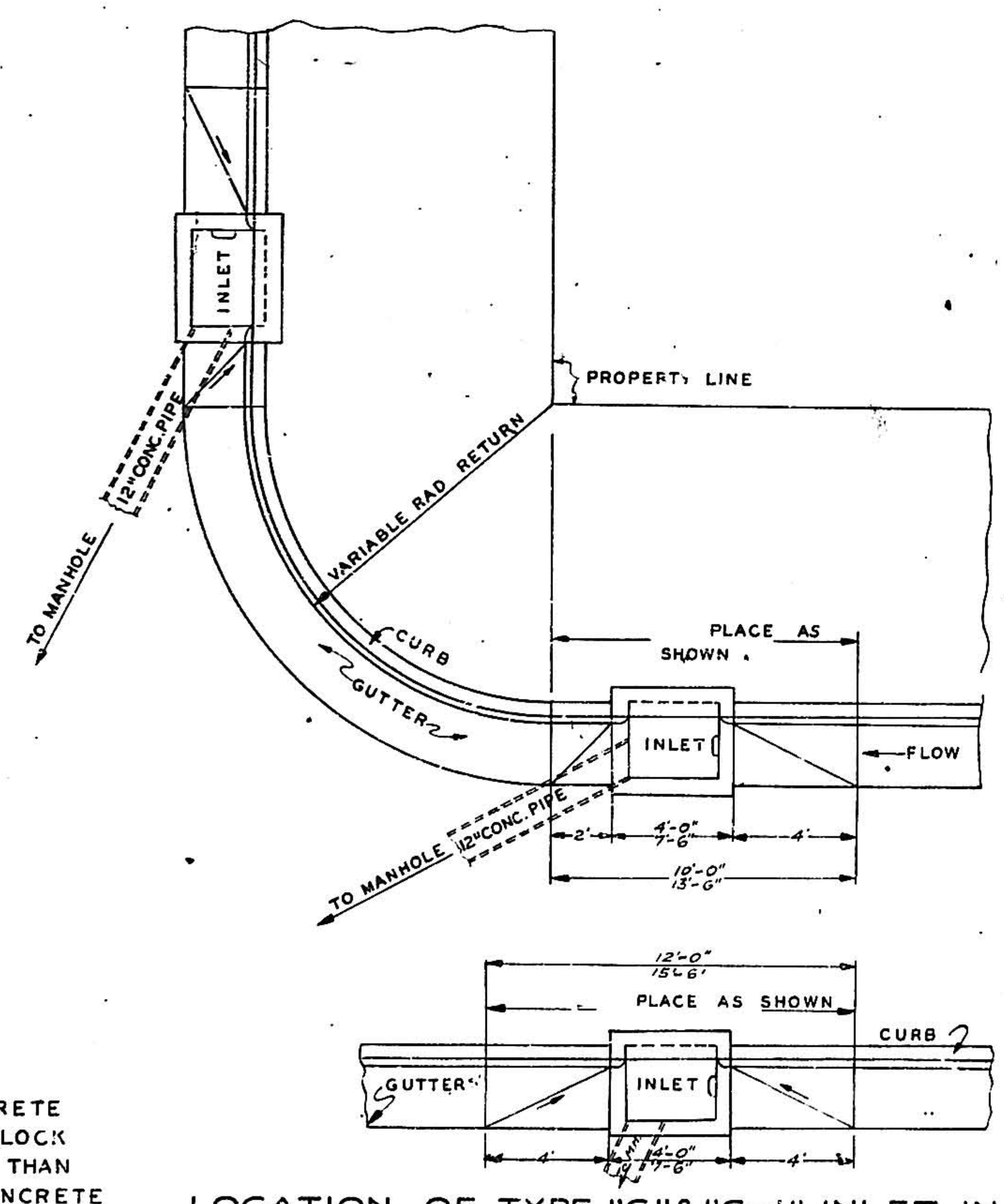
SECTION A-A

STANDARD STORM SEWER MANHOLE TYPE "B"

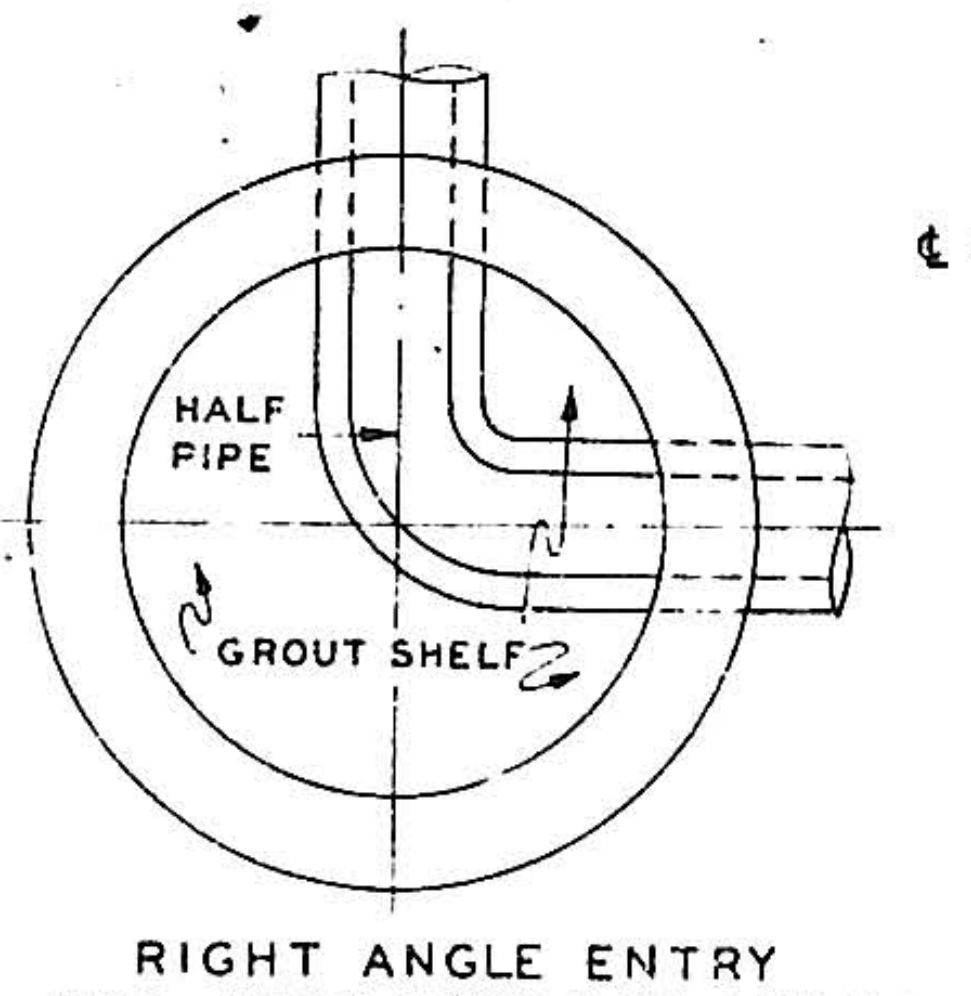

REINF. CONC. STORM SEWER
CURB & GUTTER TO BE REMOVED & REBUILT TO HERE
FLOW
INLET
PROPERTY LINE
PIPE
M.H.
V.C. PIPE
INLET
CURB & GUTTER TO BE REMOVED & REBUILD TO HERE
FLOW

LOCATION OF INLETS IN STREET TYPE "A"

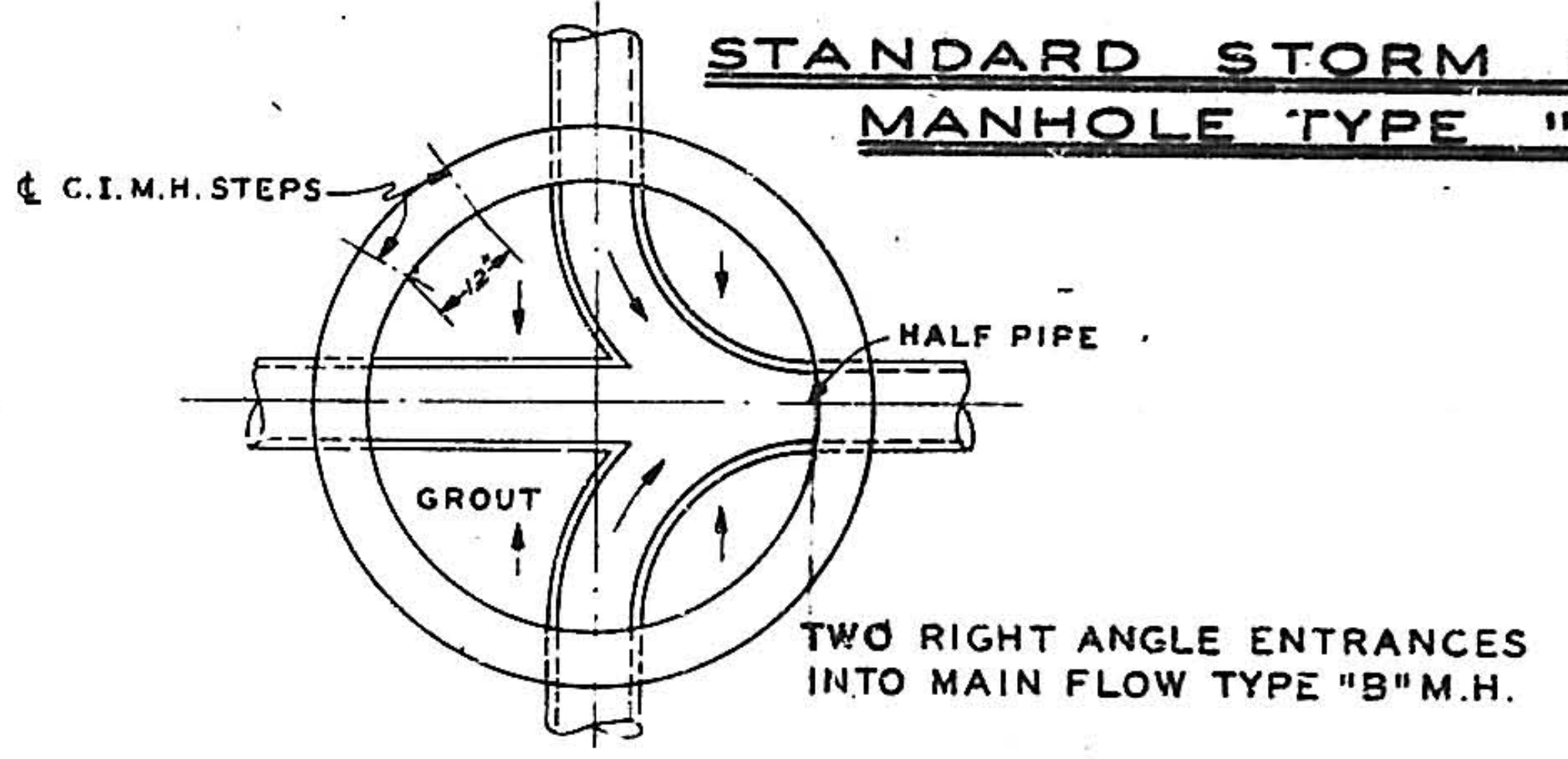
SCALE: 1/4"= 1'-0"


INLET
PROPERTY LINE
12" CONC. PIPE
TO MANHOLE
VARIABLE RAD RETURN
CURB
GUTTER
PLACE AS SHOWN
INLET
FLOW
TO MANHOLE 12" CONC. PIPE
4'-0"
7'-6"
10'-0"
13'-6"
12'-0"
15'-6"
PLACE AS SHOWN
CURB
GUTTER
INLET
4'
4'-0"
7'-6"
4'

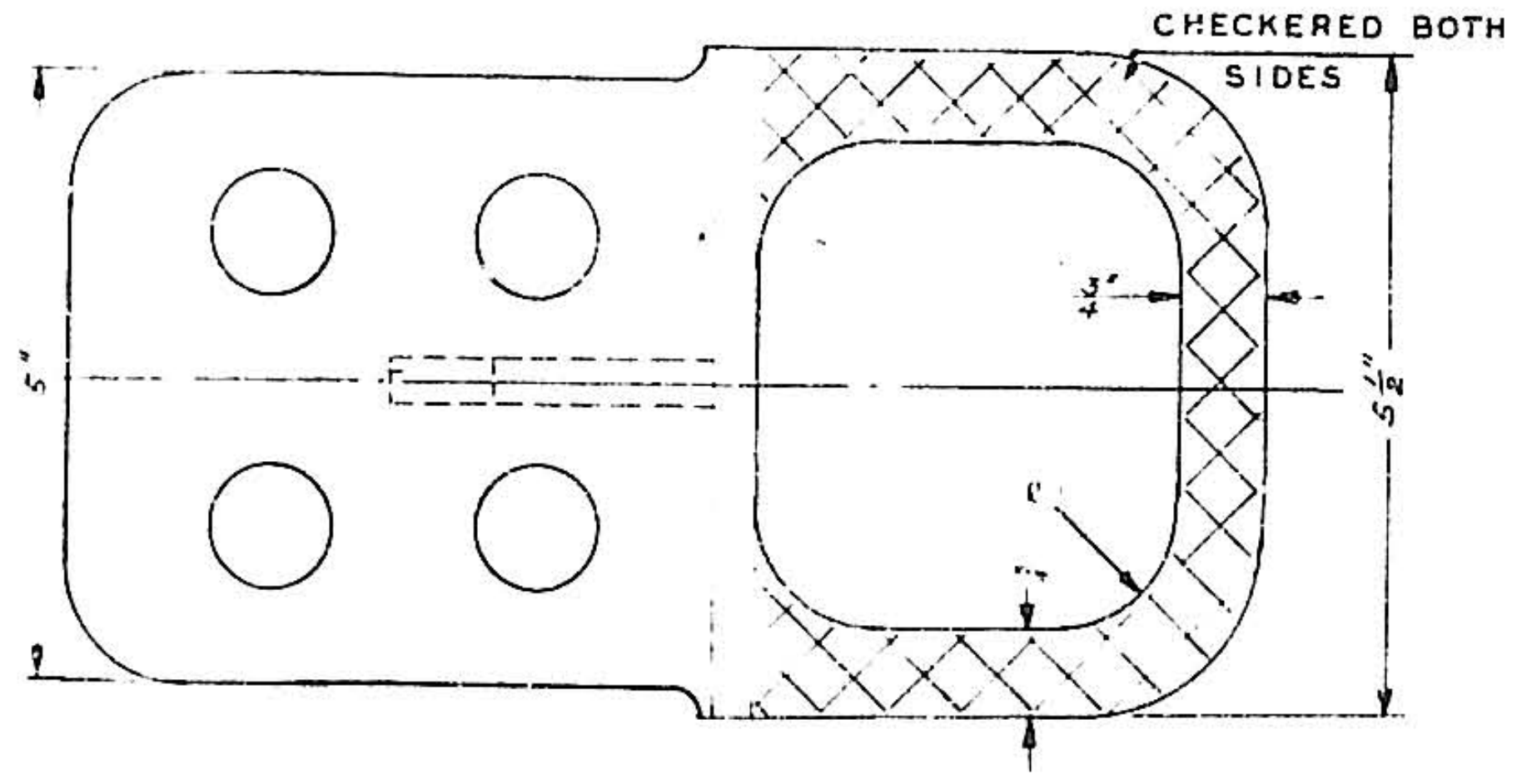
LOCATION OF TYPE "C" & "C-1" INLET IN STREET TANGENT


HALF PIPE
GROUT SHELF

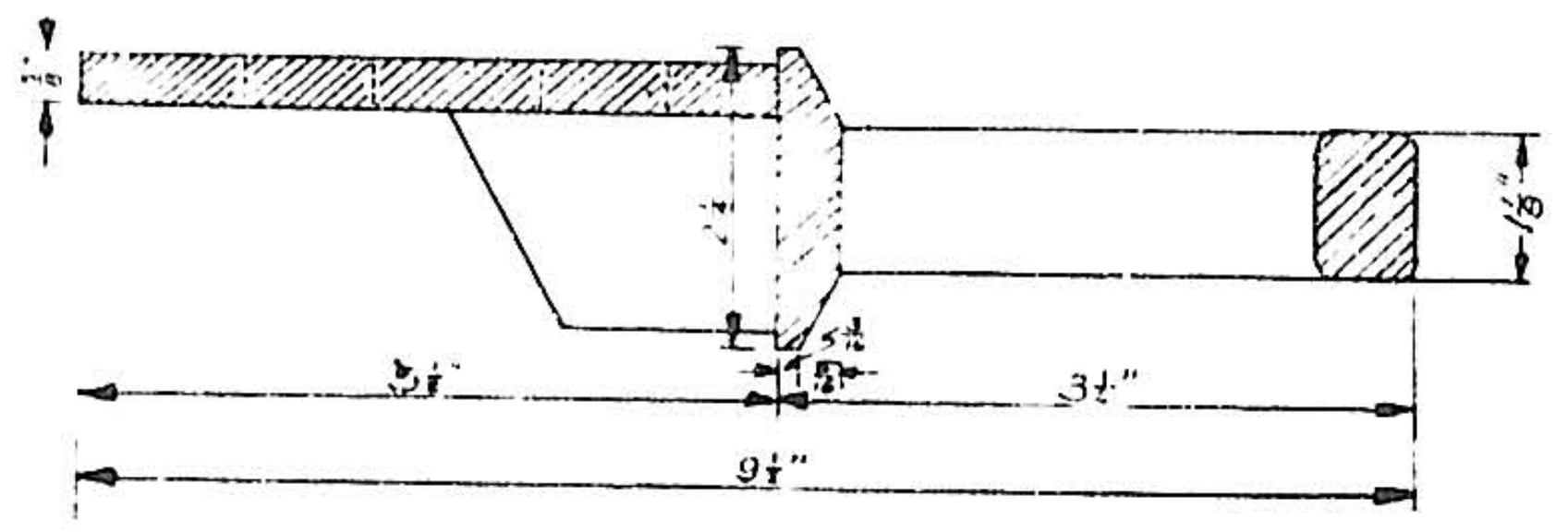
RIGHT ANGLE ENTRY AND EXIT TYPE "B" MANHOLE

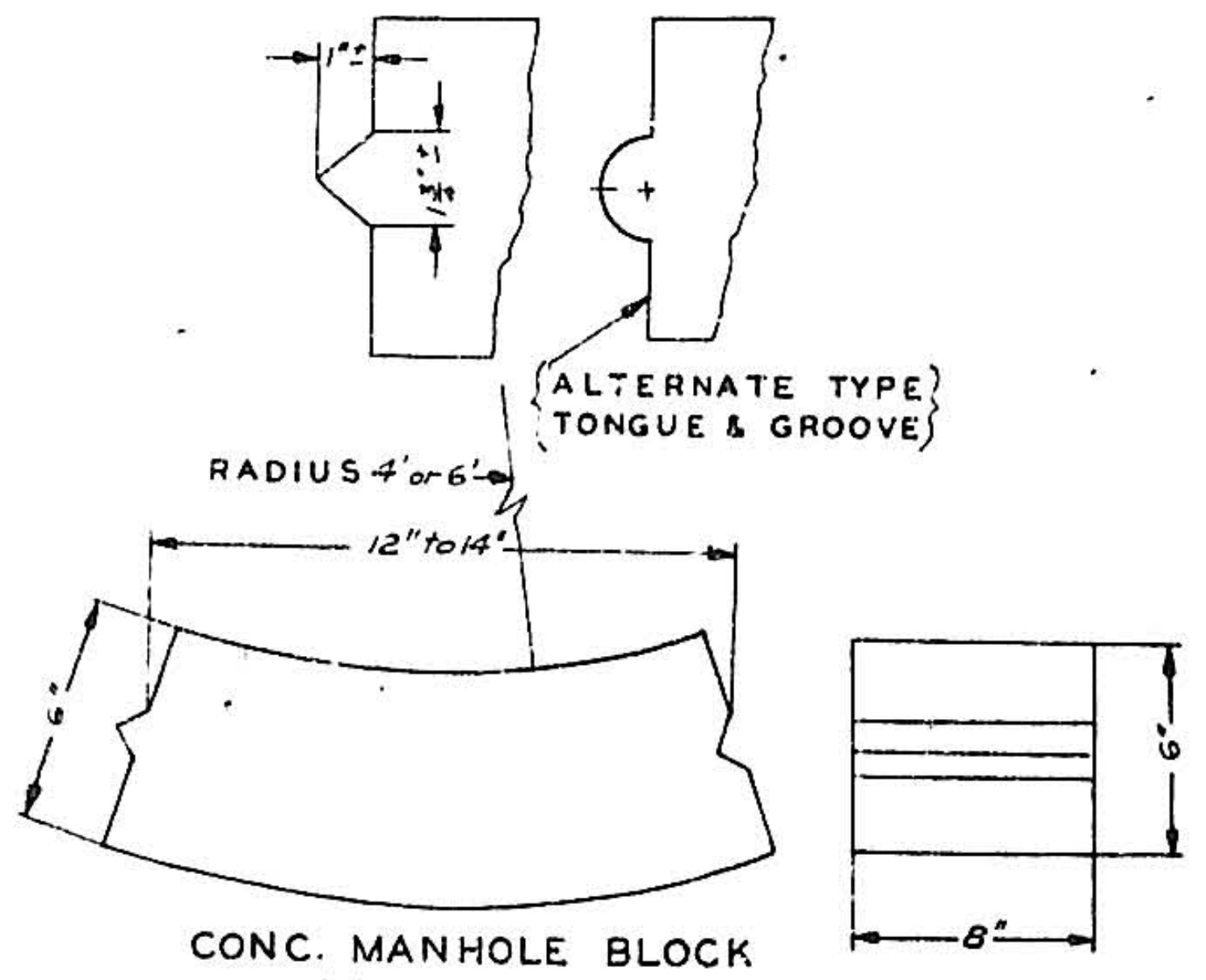

℄ C.I.M.H. STEPS
12"
HALF PIPE
GROUT

TWO RIGHT ANGLE ENTRANCES INTO MAIN FLOW TYPE "B" M.H.


CHECKERED BOTH SIDES
5"
5 1/2"
3"

STANDARD MANHOLE STEP




ALTERNATE TYPE TONGUE & GROOVE
RADIUS 4' or 6'
12" to 14"
6"
6"
8"

CONC. MANHOLE BLOCK LOCK JOINT

MANHOLE SPECIFICATIONS:

THE CONTRACTOR HAS THE OPTION OF BUILDING THE MASONRY WALLS OF ALL MANHOLES OF SOLID CONCRETE OR BLOCK. IF SOLID CONCRETE IS USED, THE WALLS MUST HAVE A THICKNESS OF NOT LESS THAN SIX INCHES. BLOCK FOR SIX INCH WALLS MUST HAVE A THICKNESS OF NOT LESS THAN EIGHT-8"-INCHES, AND A WIDTH OF NOT LESS THAN SIX-6"-INCHES, A LENGTH OF TWELVE-12"-TO FOURTEEN-14"-INCHES AND SHALL BE LOCK JOINT TYPE. THE CONCRETE FROM WHICH SUCH BLOCKS ARE CONSTRUCTED SHALL MEET THE SPECIFICATIONS FOR THIS PROJECT. TYPE OF BLOCK MUST BE APPROVED BY THE ENGINEER AND EACH BLOCK SHALL BE MOLDED WITH A CURVATURE EQUAL TO AND MATCHING EXACTLY THAT AT THE MANHOLE BEING BUILT. ALL CONCRETE BLOCKS SHALL CONFORM IN ALL RESPECTS TO THE STANDARD SPECIFICATIONS FOR "CONC. MASONRY UNITS FOR CONSTRUCTION OF CATCH BASIN & MANHOLES" A.S.T.M. DESIGNATION C-139-39 OR ANY SUBSEQUENT REVISIONS THEREOF. CONES MAY BE POURED IN PLACE, OR PRECAST AND THEN GROUTED TO MANHOLE BARREL. ALL MANHOLE FRAMES, COVERS AND STEPS TO BE STANDARD CAST IRON AS SHOWN. IN WET SEWER CONSTRUCTION MANHOLE BARRELS SHALL BE CONSTRUCTED OF POURED CONC. TO A PRE-DETERMINED ELEVATION AS SHOWN ON PLAN & PROFILE SHEETS. REMAINDER OF BARREL MAY BE CONSTRUCTED OF CURVED CONC. BLOCK SET IN WATER PROOF MORTAR.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		0	8	5	7				1	0		.											

ALBUQUERQUE, NEW MEXICO

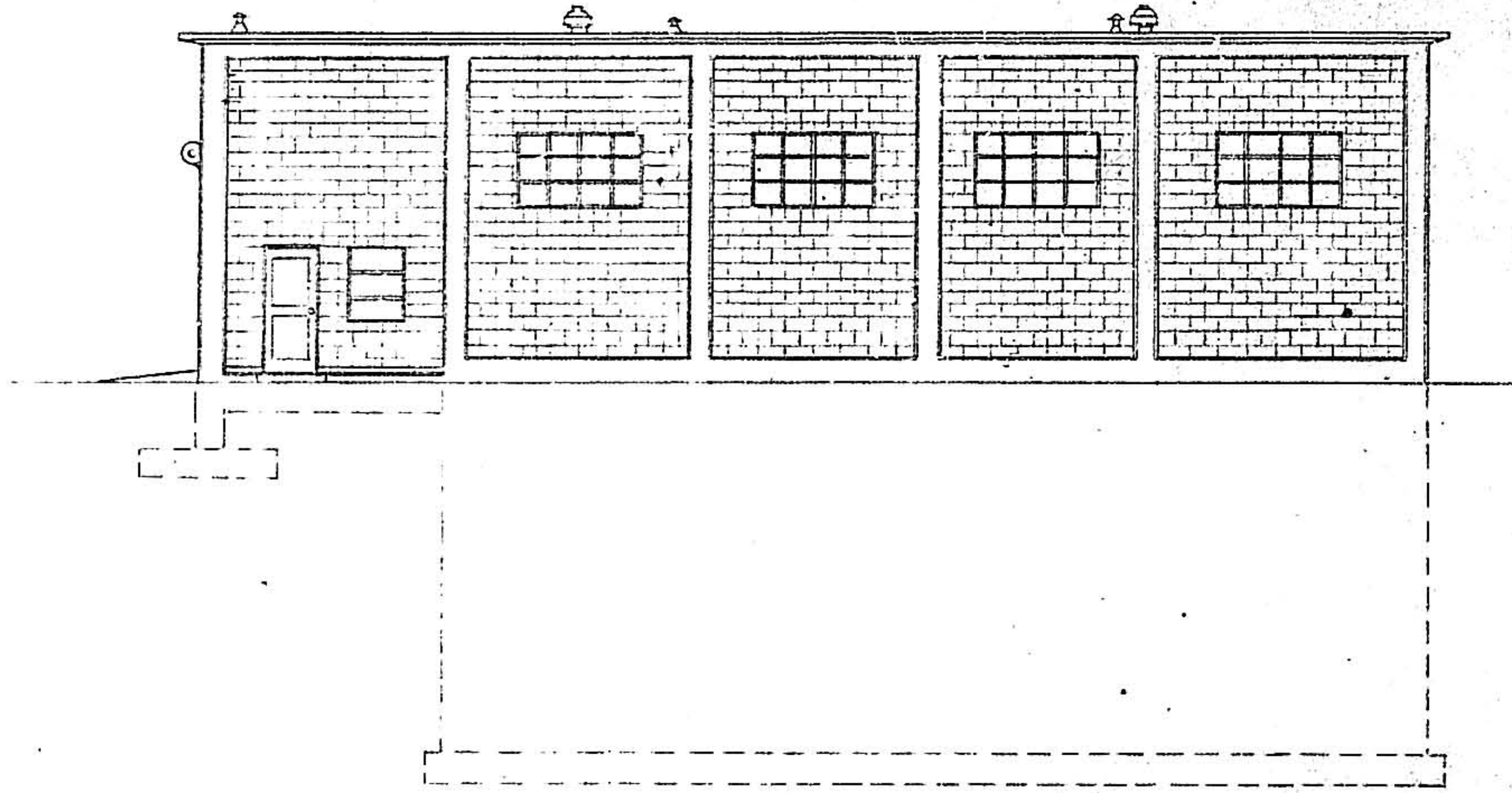
STORM SEWER STANDARDS

MANHOLE DETAILS

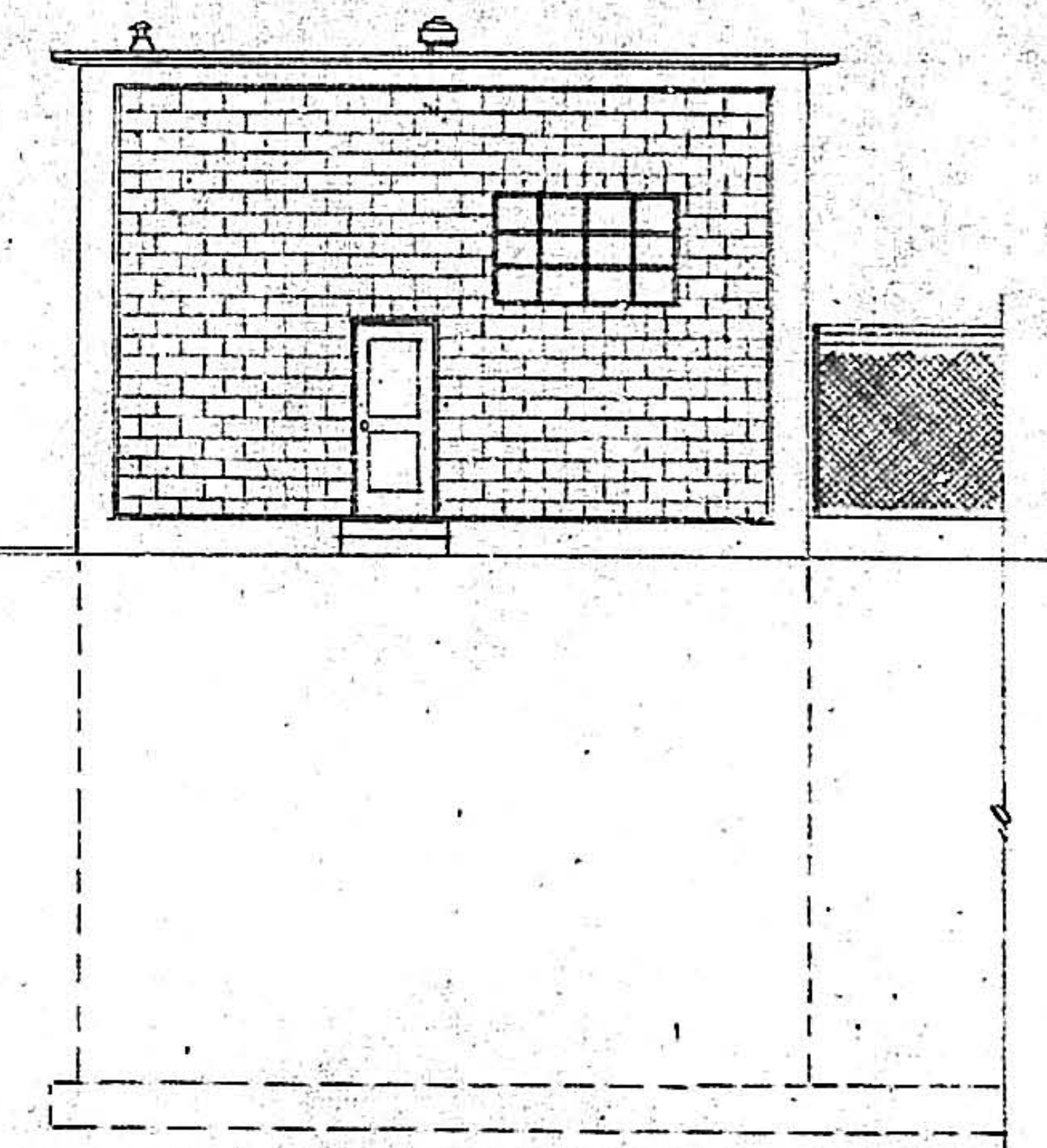
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
SANTA FE ALBUQUERQUE

SCALE	DATE	DRAWN	SHEET 8
AS SHOWN	FEB. 4, 1956	CHECKED	OF 15

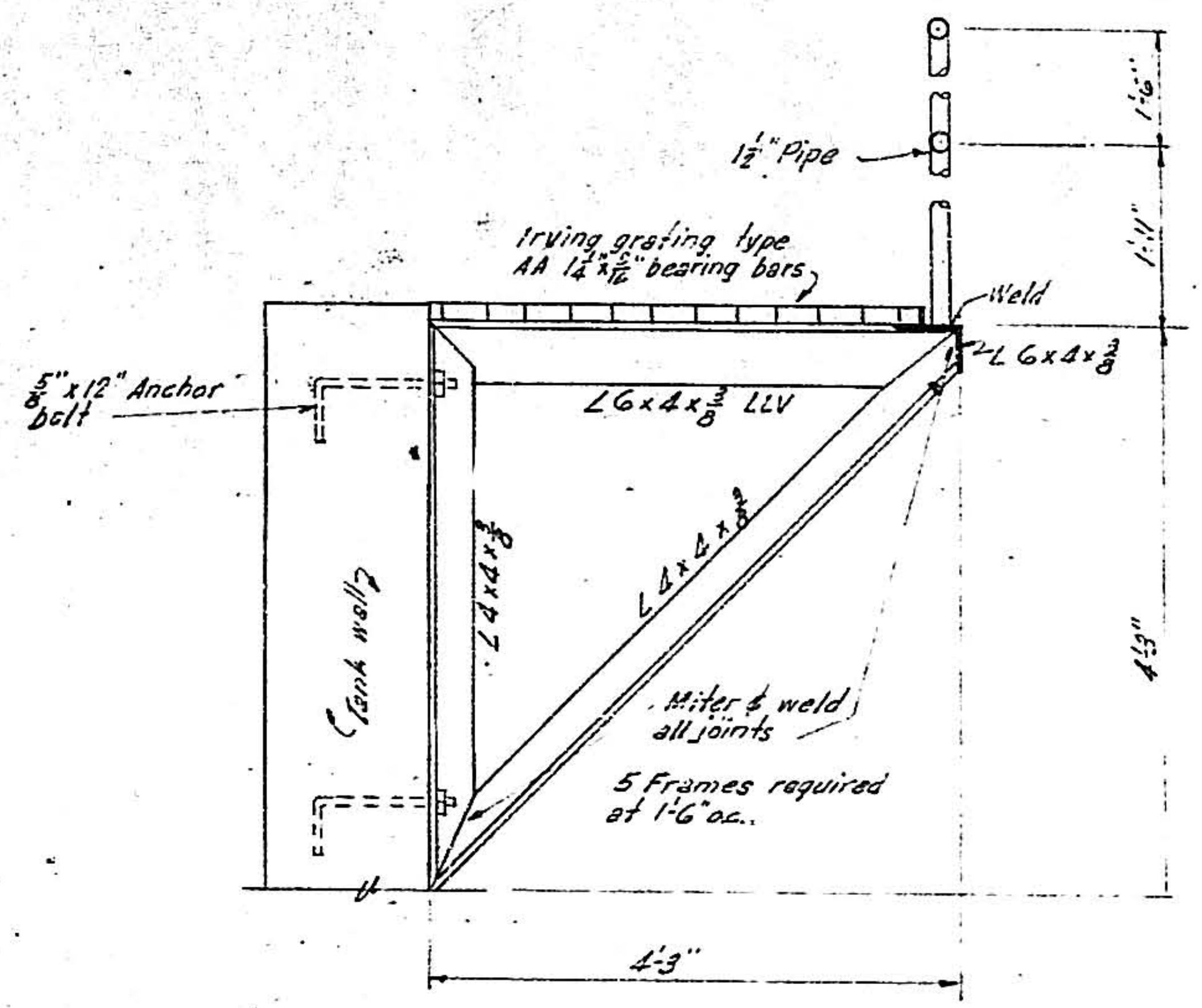
1



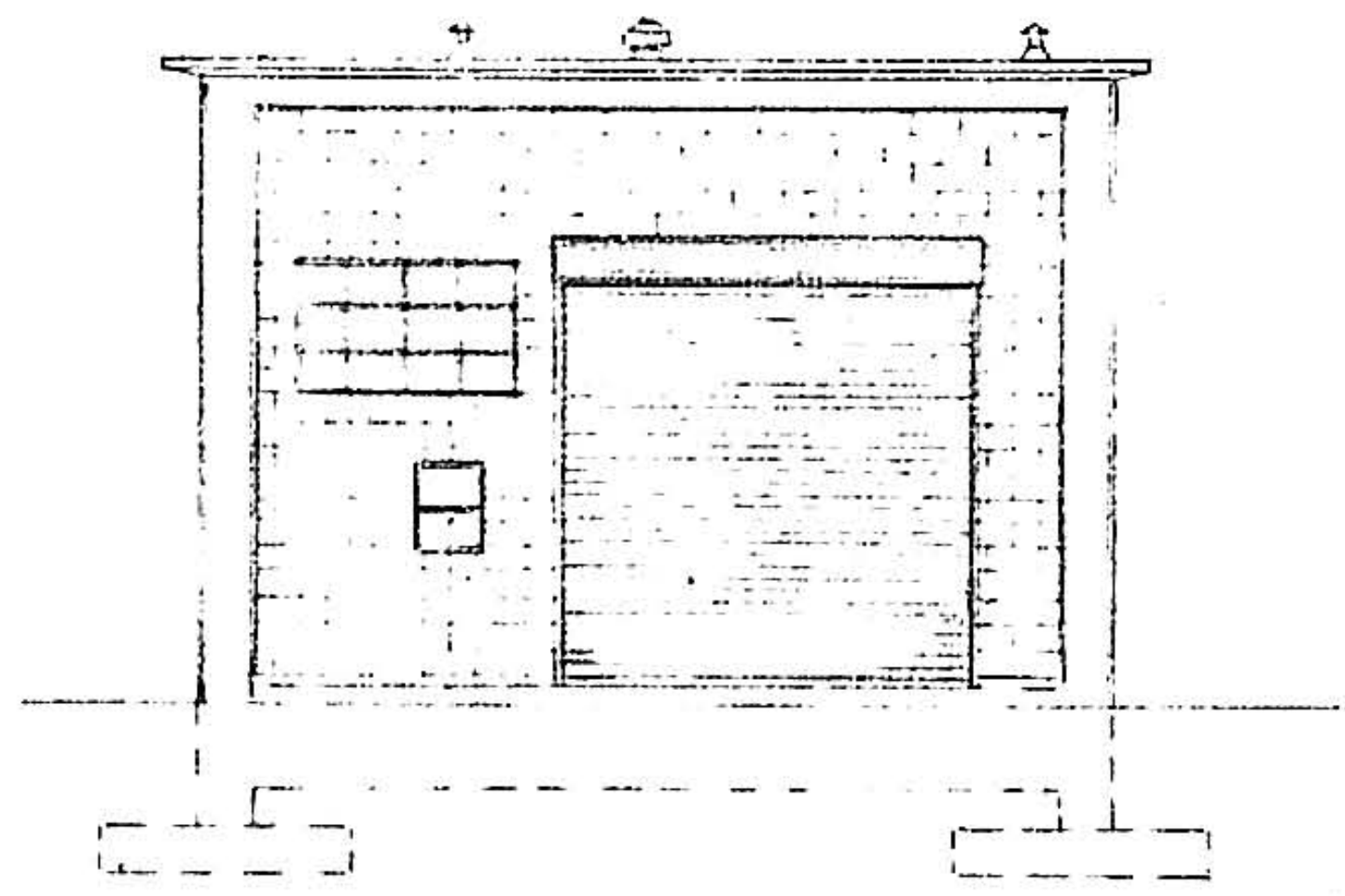
SOUTH ELEVATION



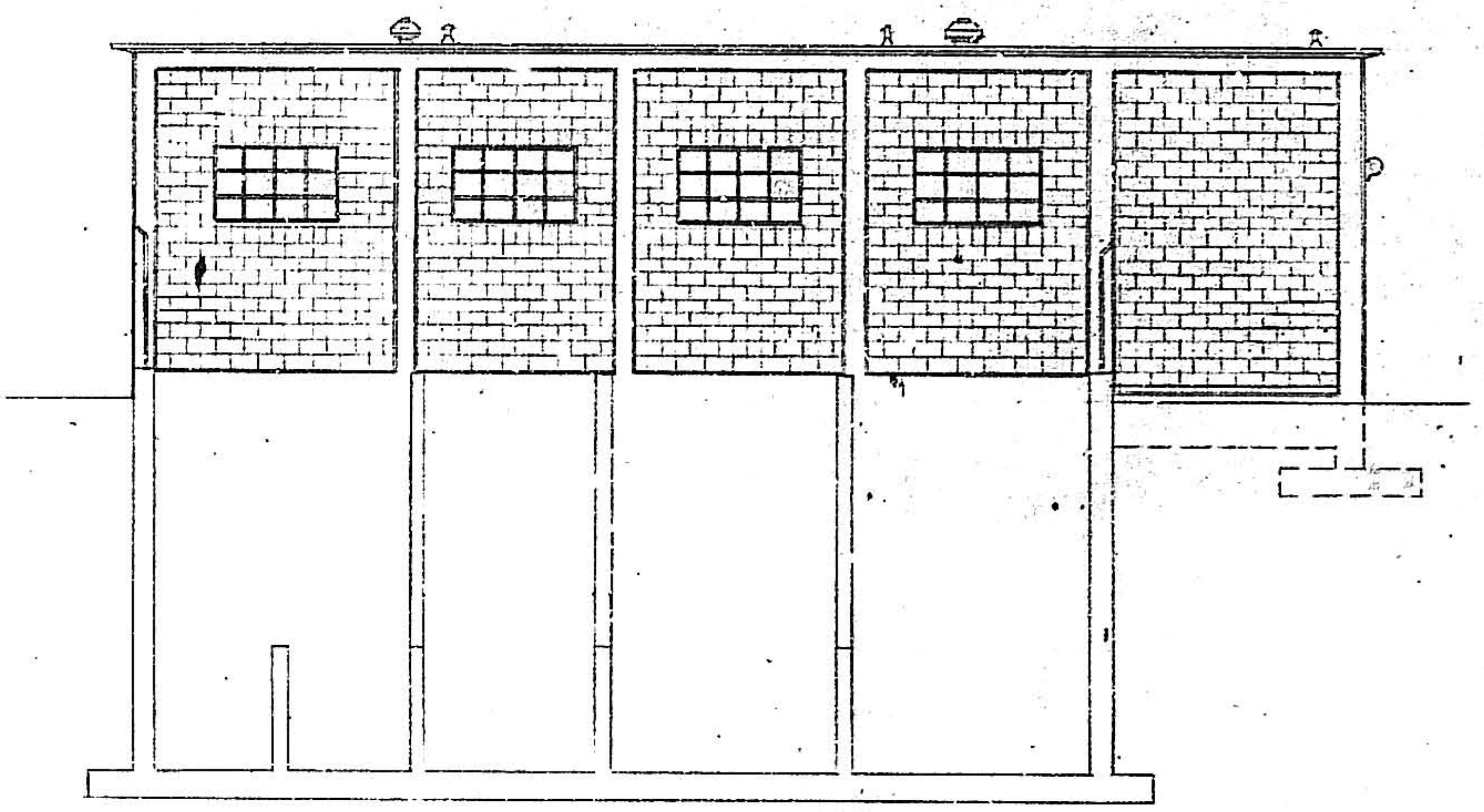
EAST ELEVATION


1½" Pipe
Irving grating type AA 1¼"x$\frac{5}{16}$" bearing bars
Weld
⅝"x12" Anchor bolt
L 6x4x⅜ LLV
L 6x4x⅜
L 4x4x⅜
L 4x4x⅜
Tank wall
Miter & weld all joints
5 Frames required at 1'-6" oc.
1'-6"
1'-11"
4'-3"
4'-3"

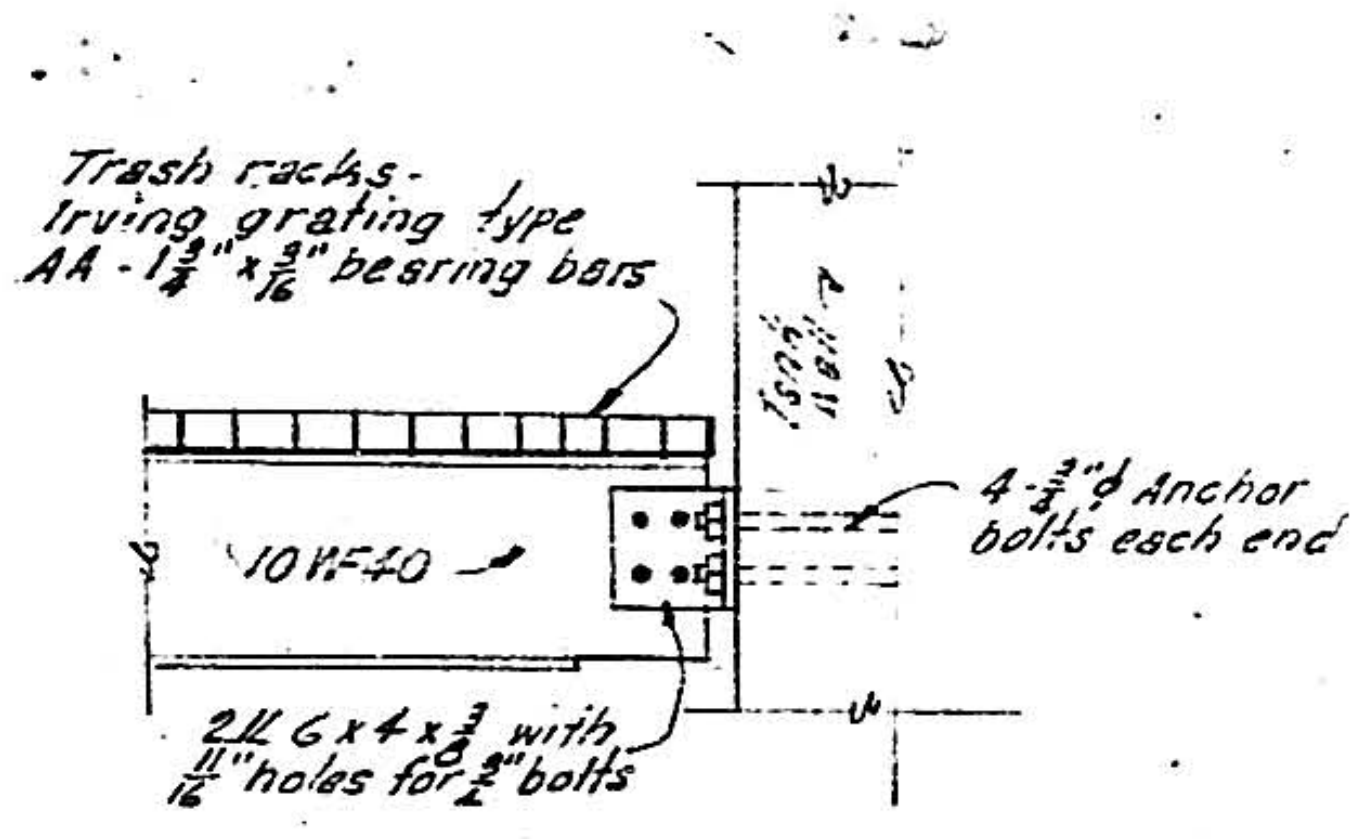
FLOAT AND PUMP PLATFORM SUPPORT FRAME



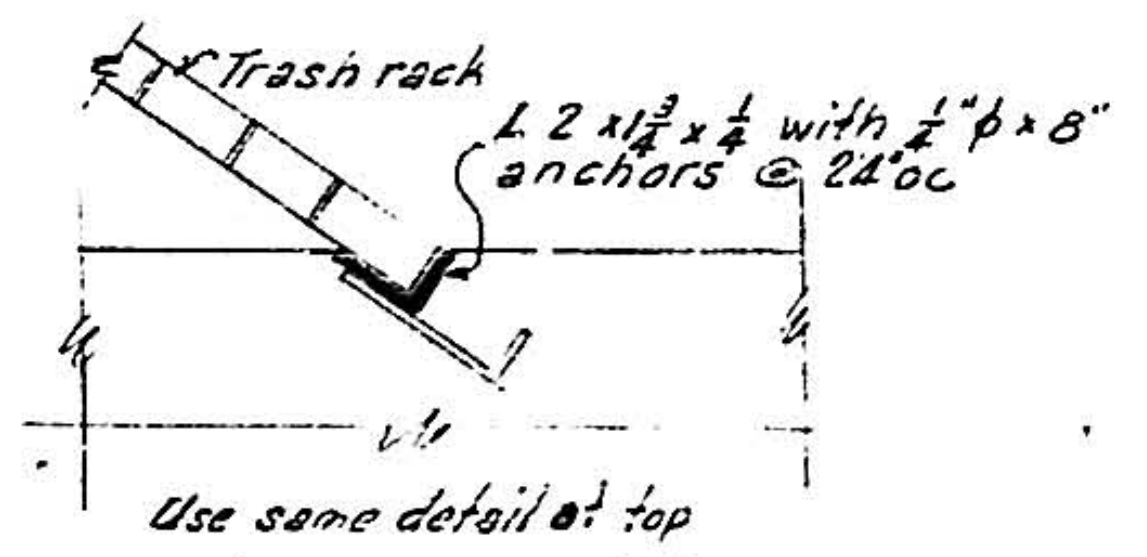
WEST ELEVATION



NORTH ELEVATION

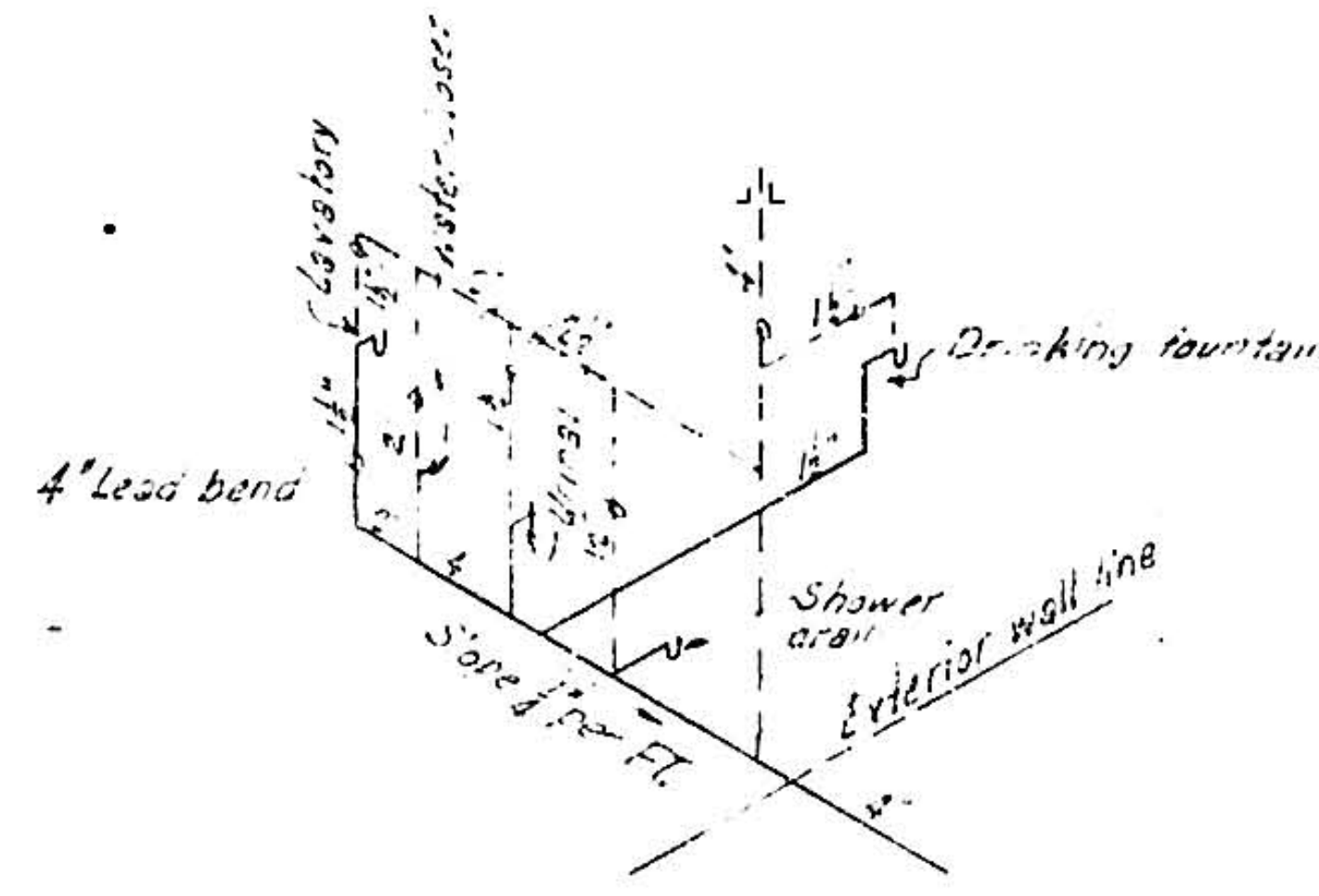

Trash racks-
Irving grating type AA - 1¾"x$\frac{3}{16}$" bearing bars
10WF40
4-¾"φ Anchor bolts each end
2L 6x4x⅜ with $\frac{11}{16}$" holes for ⅝" bolts

SUPPORT DETAIL

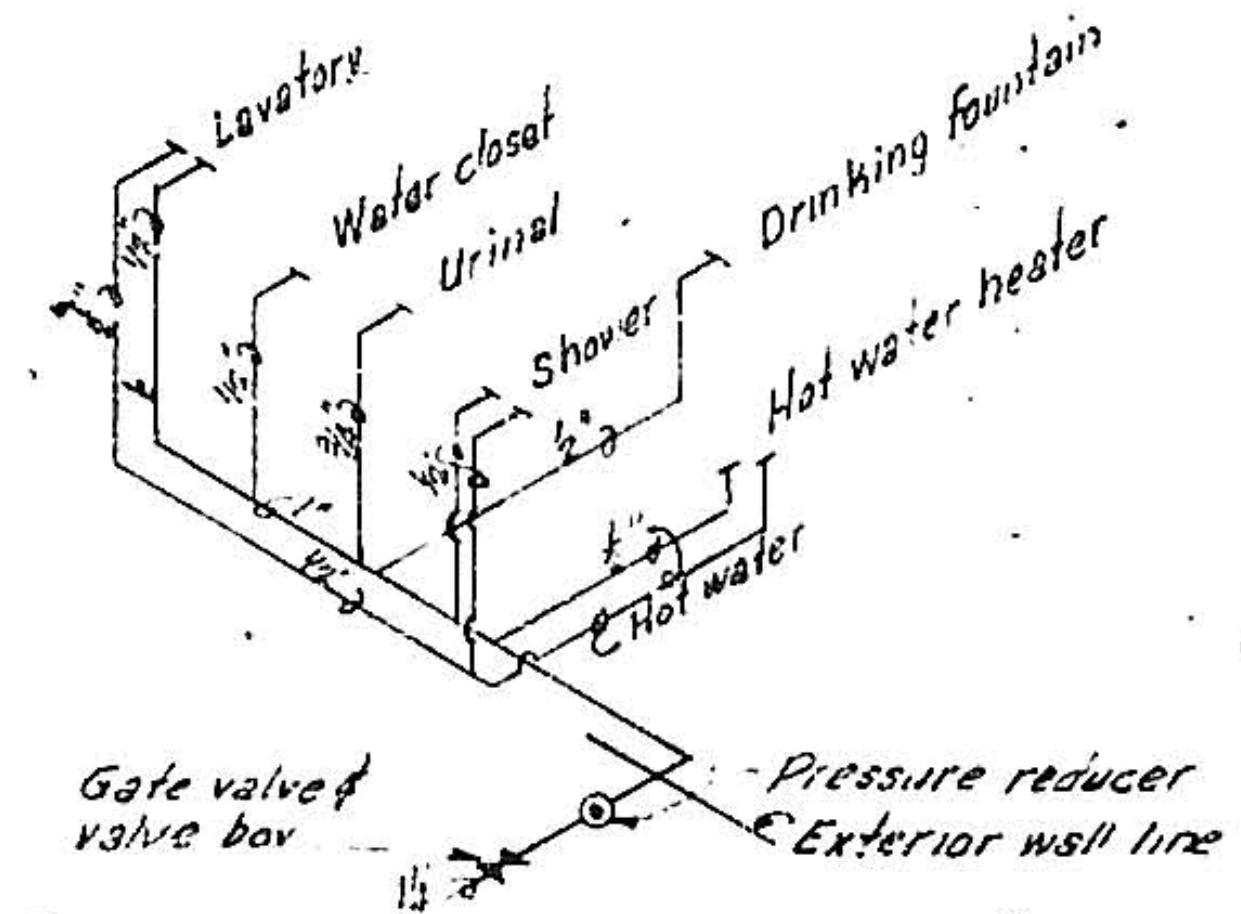

Trash rack
L 2x1¾x¼ with ¼"φx8" anchors @ 24" oc
Use same detail at top

FLOOR DETAIL

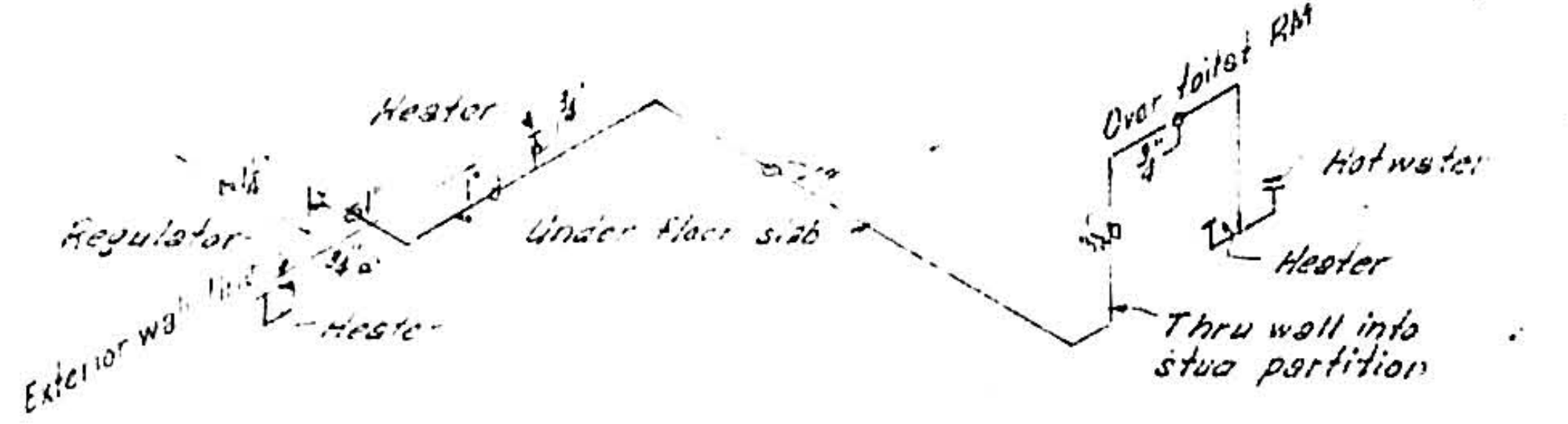
TRASH RACK DETAIL


Lavatory
Water closet
Drinking fountain
4" Lead bend
Shower drain
Exterior wall line
Stone line Fl.

WASTE - SCHEMATIC DIAGRAM


Lavatory
Water closet
Urinal
Shower
Drinking fountain
Hot water heater
Hot water
Gate valve & valve box
Pressure reducer
Exterior wall line

WATER - SCHEMATIC DIAGRAM


Heater
Regulator
Exterior wall line
Heater
Under floor slab
Over toilet RM
Hot water
Heater
Thru wall into stud partition

GAS - SCHEMATIC DIAGRAM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		0	9	5	7				0	8													

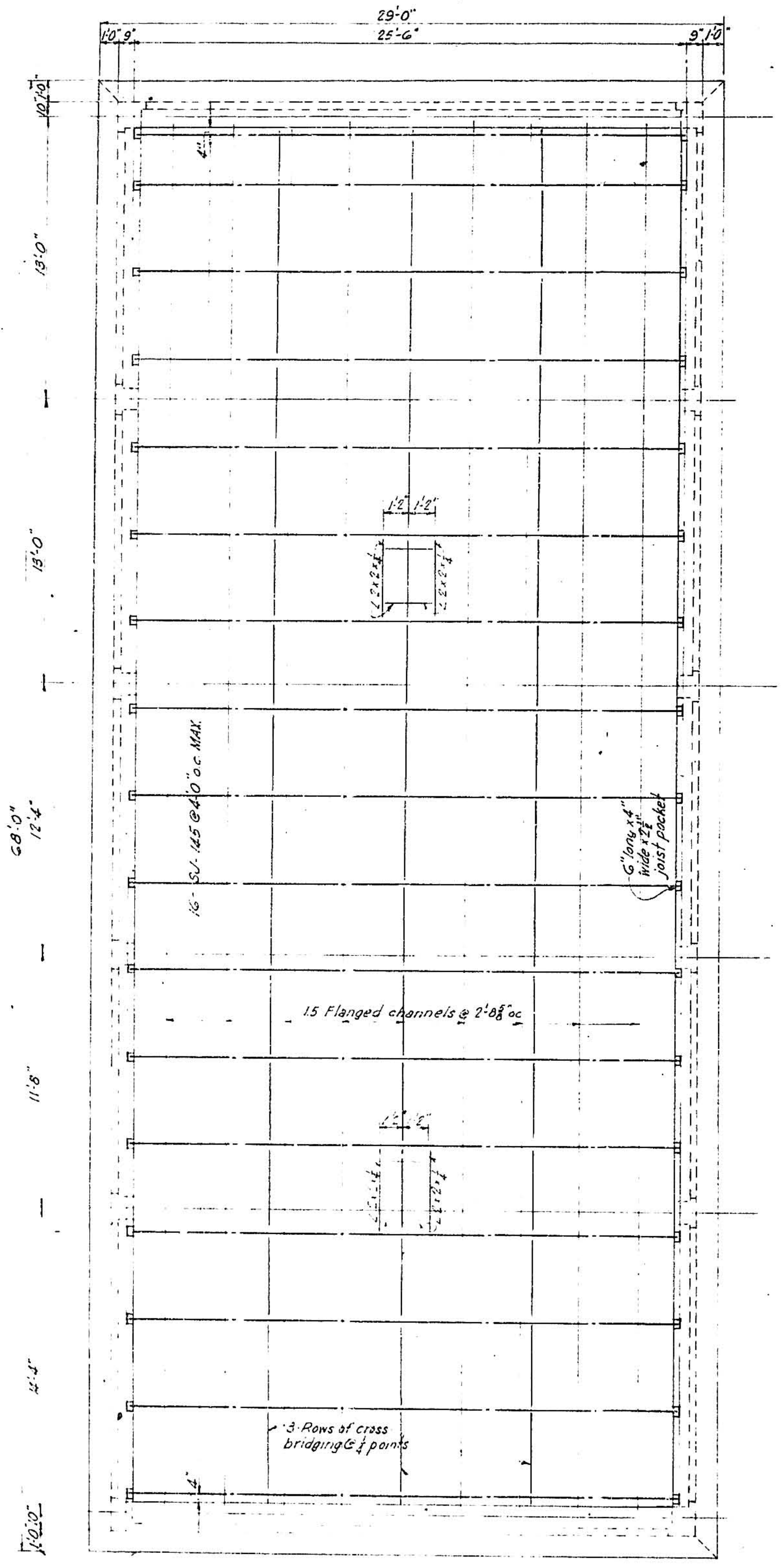
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
ELEVATION & DETAILS

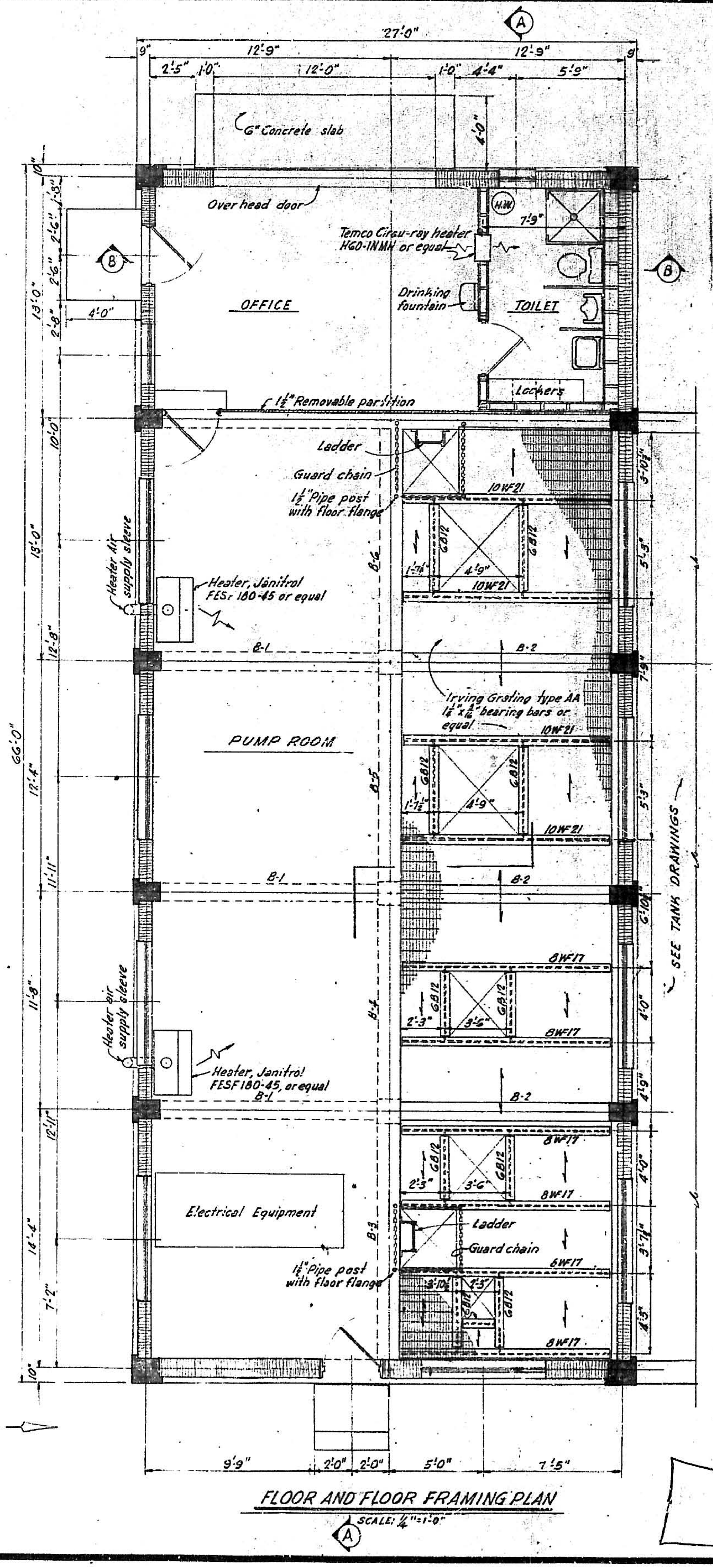
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 9
AS SHOWN	FEB. 4 1956	CHECKED JYW	OF 15


29'-0"
25'-6"
1'-0" 9"
9" 1'-0"
13'-0"
13'-0"
68'-0"
12'-4"
11'-6"
14'-4"
16 - S.J. 145 @ 4'-0" o.c. MAX.
6" long 4" wide x 2" joist packet
15 Flanged channels @ 2'-8" oc
3 Rows of cross bridging @ ⅓ points

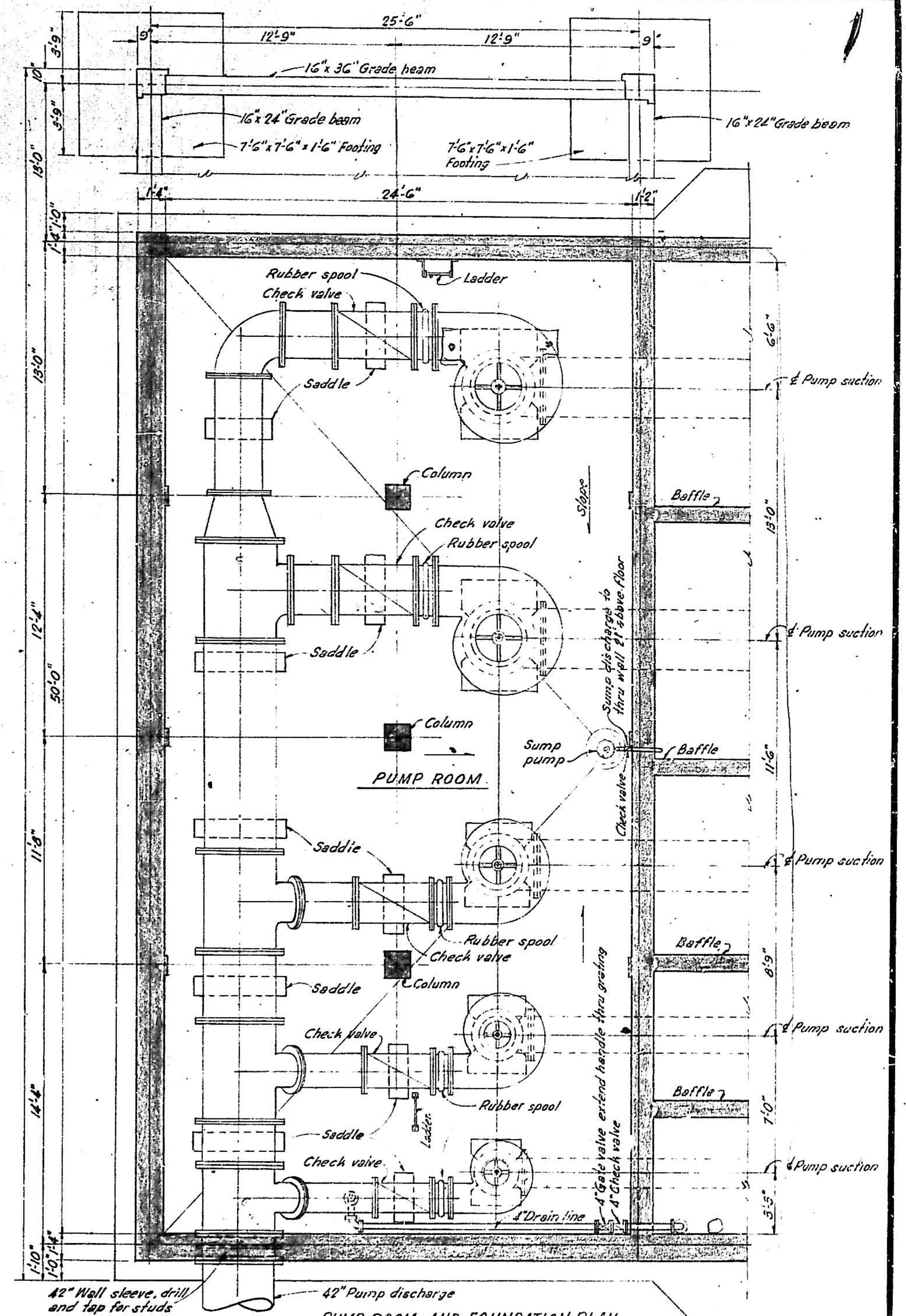
ROOF FRAMING PLAN

SCALE: ¼"=1'-0"


A
27'-0"
9" 12'-9" 12'-9" 9"
2'-5" 1'-0" 12'-0" 1'-0" 4'-4" 5'-9"
6" Concrete slab
4'-0"
Over head door
Temco Circu-ray heater HGD-INMH or equal
H.W.
7'-9"
B
OFFICE
Drinking fountain
TOILET
4'-0"
Lockers
1½" Removable partition
Ladder
Guard chain
1½" Pipe post with floor flange
10WF21
GB12
4'-9"
Heater air supply sleeve
Heater, Janitrol FESF 180-45 or equal
B-1
B-2
Irving Grating type AA 1½"x3/16" bearing bars or equal
PUMP ROOM
B-5
10WF21
B-4
8WF17
3'-6"
2'-3"
Heater, Janitrol FESF 180-45, or equal
Electrical Equipment
1½" Pipe post with Floor flange
SEE TANK DRAWINGS
66'-0"
13'-0"
10'-0"
12'-8"
12'-4"
11'-11"
11'-8"
12'-11"
14'-4"
7'-2"
10"
9'-9" 2'-0" 2'-0" 5'-0" 7'-5"

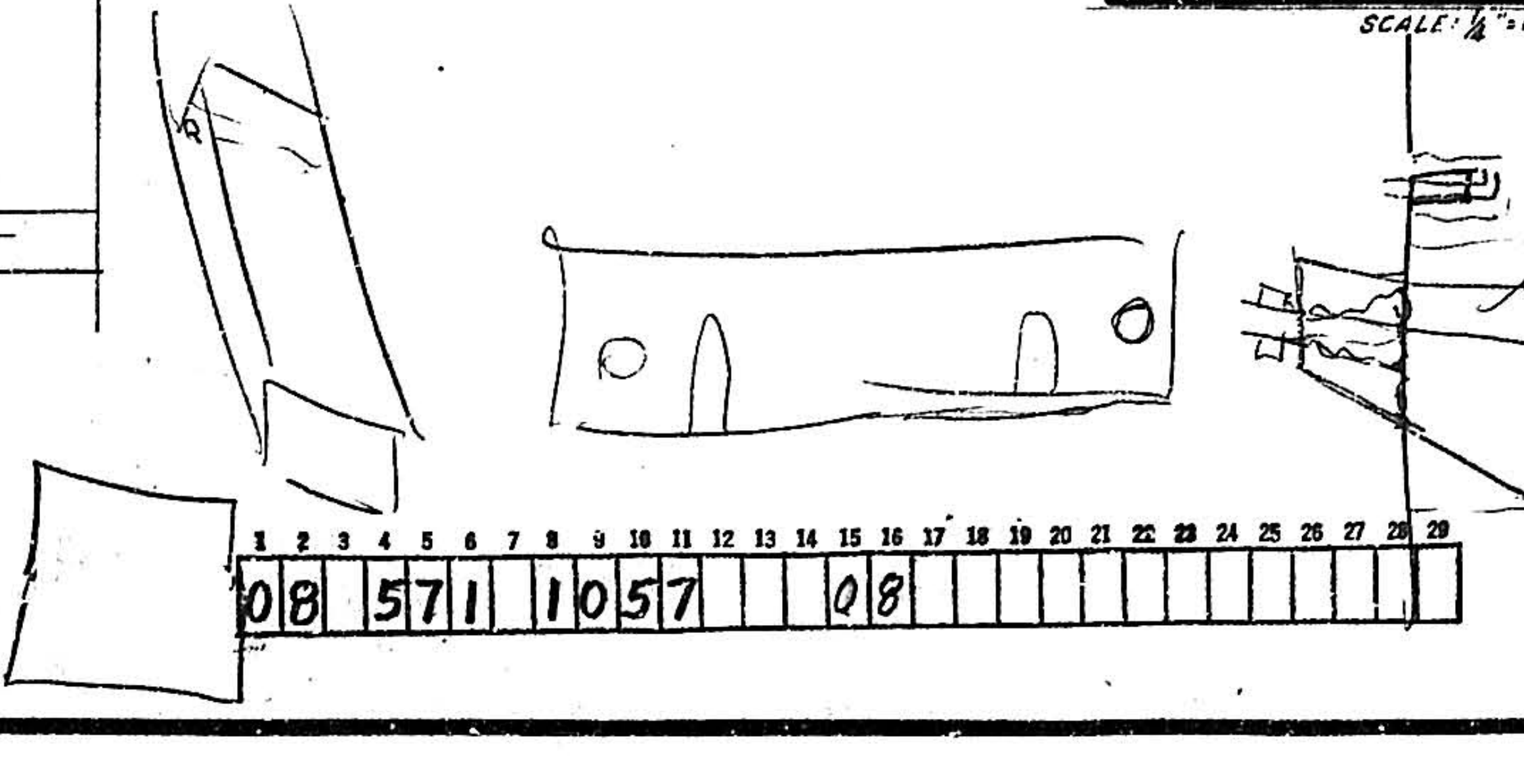
FLOOR AND FLOOR FRAMING PLAN

SCALE: ¼"=1'-0"


25'-6"
9" 12'-9" 12'-9" 9"
16"x36" Grade beam
16"x24" Grade beam
7'-6"x7'-6"x1'-6" Footing
7'-6"x7'-6"x1'-6" Footing
16"x24" Grade beam
1'-4" 24'-6" 1'-2"
Rubber spool
Check valve
Ladder
Saddle
℄ Pump suction
Column
Check valve
Rubber spool
Baffle
Slope
Saddle
Sump discharge to thru wall 2" sleeve floor
Column
Sump pump
Baffle
PUMP ROOM
Check valve
Saddle
Rubber spool
Check valve
Column
Baffle
Saddle
Check valve
Rubber spool
Saddle
Check valve
Ladder
4" Gate valve extend handle thru grating
4" Check valve
4" Drain line
50'-0"
13'-0"
12'-4"
11'-6"
14'-4"
42" Wall sleeve, drill and tap for studs
42" Pump discharge

PUMP ROOM AND FOUNDATION PLAN

SCALE: ¼"=1'-0"



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		1	0	5	7				0	8													

ALBUQUERQUE, NEW MEXICO

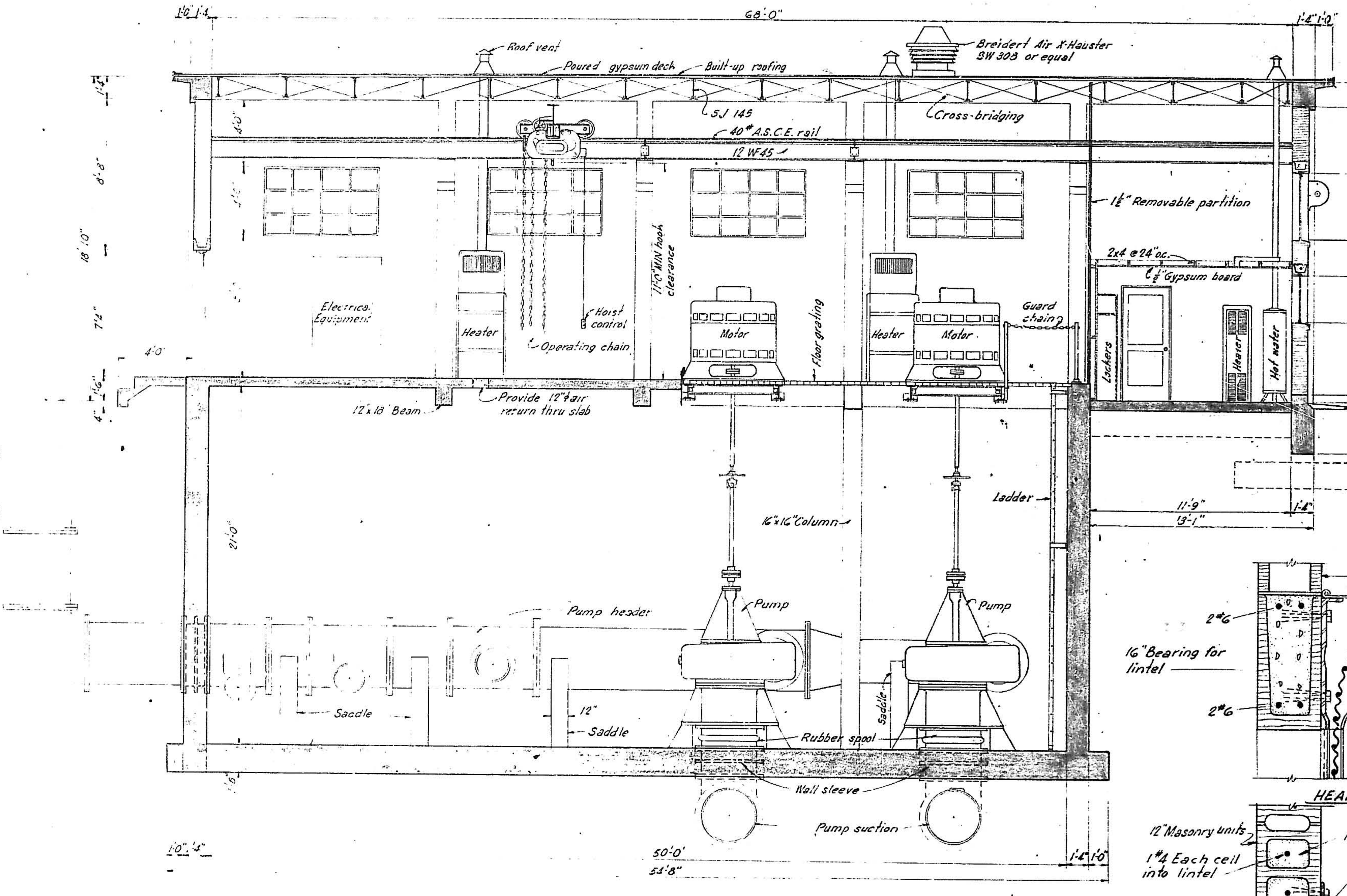
NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
ROOF FLOOR & FOUNDATION
PLAN

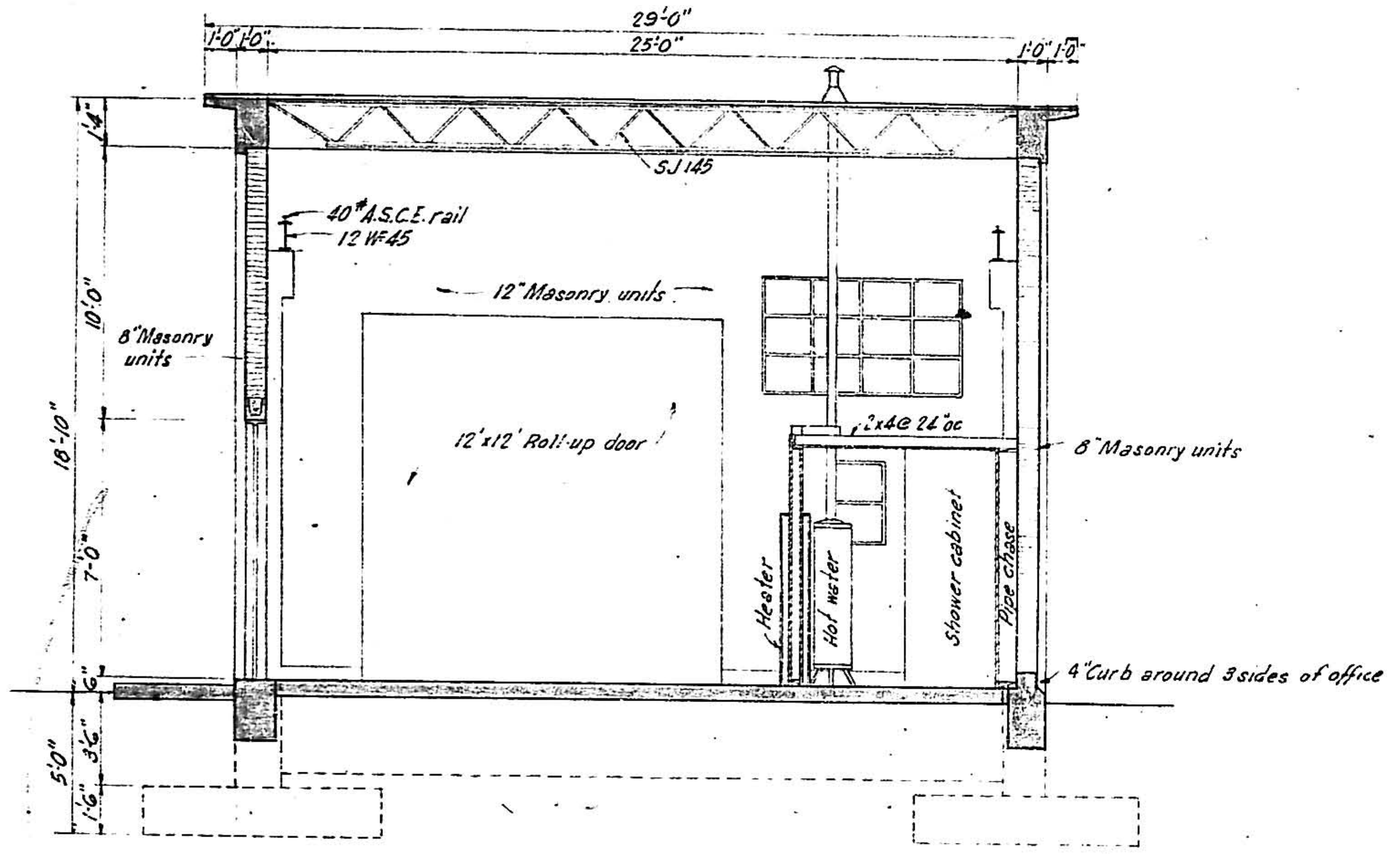
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN	SHEET 10
AS SHOWN	FEB 4. 1956	CHECKED	OF 15

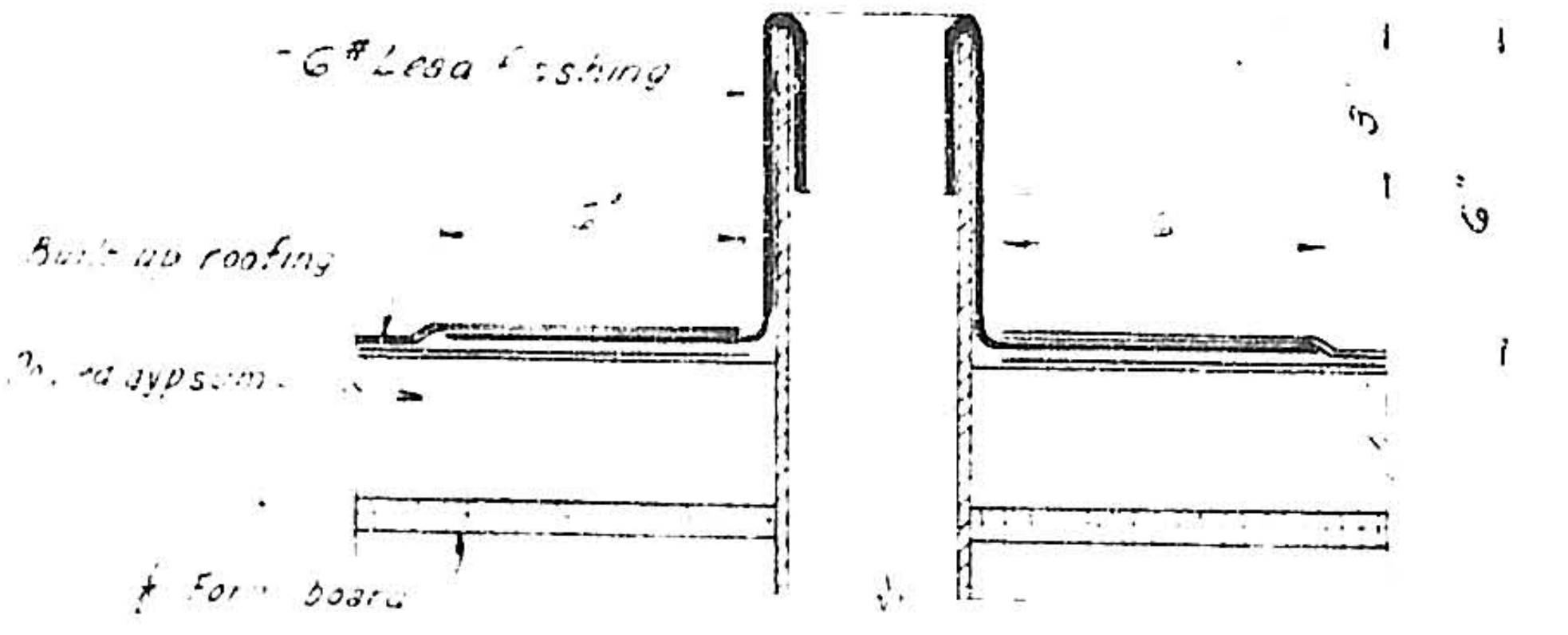
1


1'0" 1'4"
68'0"
1'4" 1'0"
Roof vent
Poured gypsum deck
Built-up roofing
Breidert Air X-Hauster SW 308 or equal
SJ 145
40# A.S.C.E. rail
12 WF45
Cross-bridging
1½" Removable partition
2x4 @ 24" o.c.
½" Gypsum board
11'0" MIN hook clearance
Electrical Equipment
Heater
Hoist control
Operating chain
Motor
Floor grating
Guard chains
Lockers
Heater
Hot water
12"x18" Beam
Provide 12" air return thru slab
4'0"
16"x16" Column
Ladder
11'9"
13'1"
1'4"
Pump header
Pump
Saddle
12"
Saddle
Rubber spool
Wall sleeve
Pump suction
50'0"
54'8"
1'4" 1'0"
1'0" 1'4"
18'0"
8'6"
7'5"
21'0"
4'0"
6'0"
4'0"
2'0"
2'8"
4'0"
3'0"
1'6"
18'10"

SECTION A-A
SCALE: ¼"=1'0"

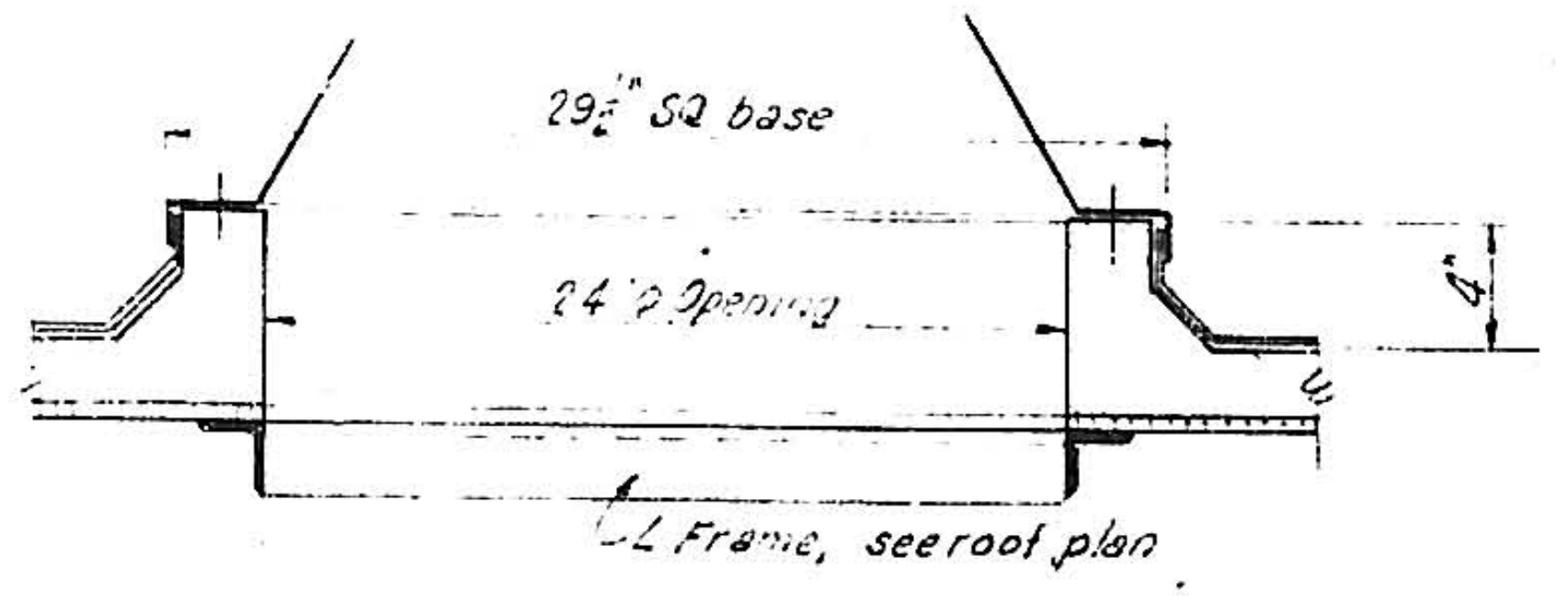

29'0"
25'0"
1'0" 1'0"
1'0" 1'0"
SJ 145
40# A.S.C.E. rail
12 WF45
12" Masonry units
8" Masonry units
12'x12' Roll-up door
2x4 @ 24" oc
8" Masonry units
Heater
Hot water
Shower cabinet
Pipe chase
4" Curb around 3 sides of office
10'0"
18'10"
7'0"
5'0"
3'6"
1'6"

SECTION B-B
SCALE: ¼"=1'0"

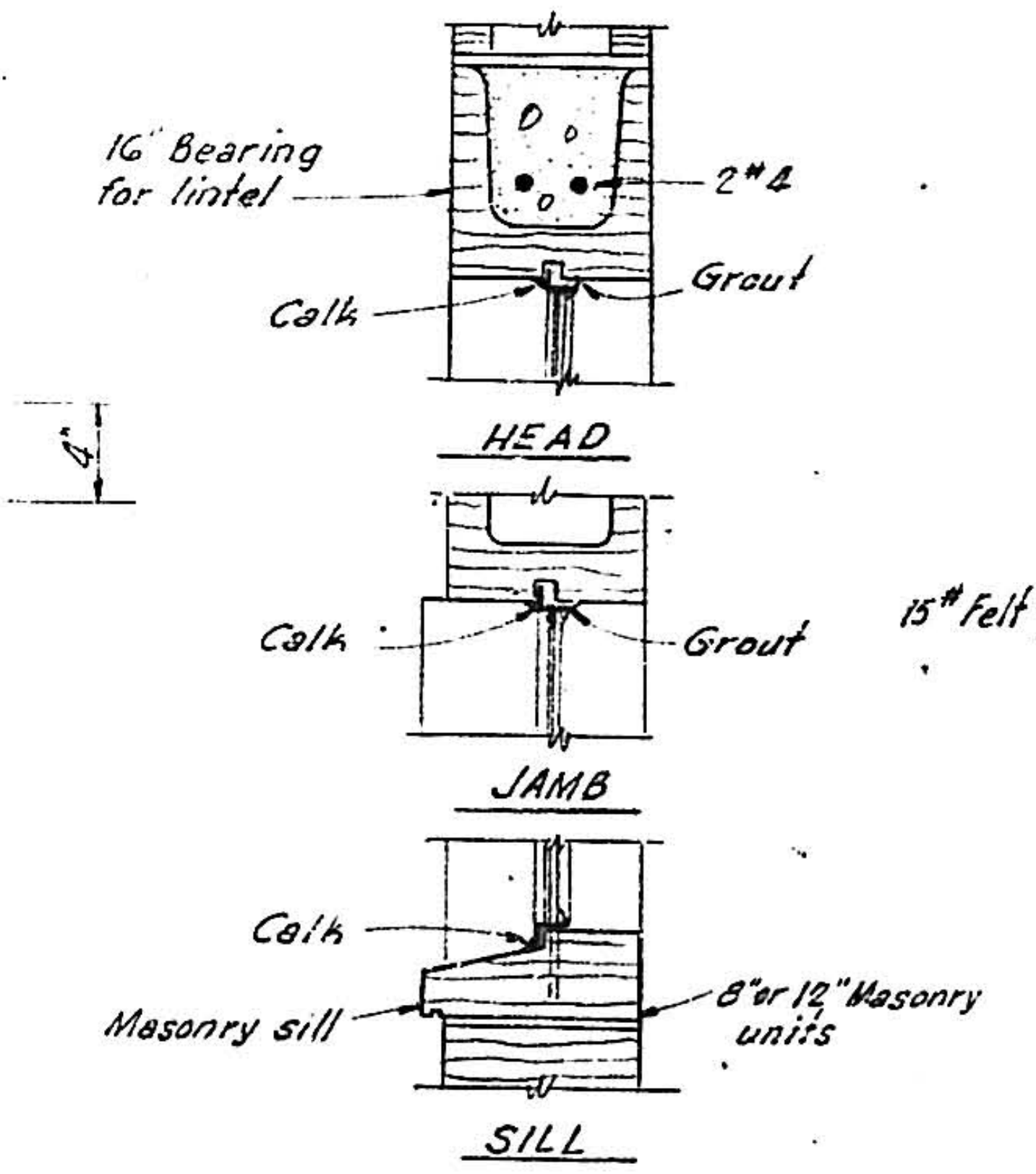

6# Lead flashing
Built-up roofing
Poured gypsum
Form board
3"
6"

WASTE VENT FLASHING DETAIL
SCALE: 3"=1'0"

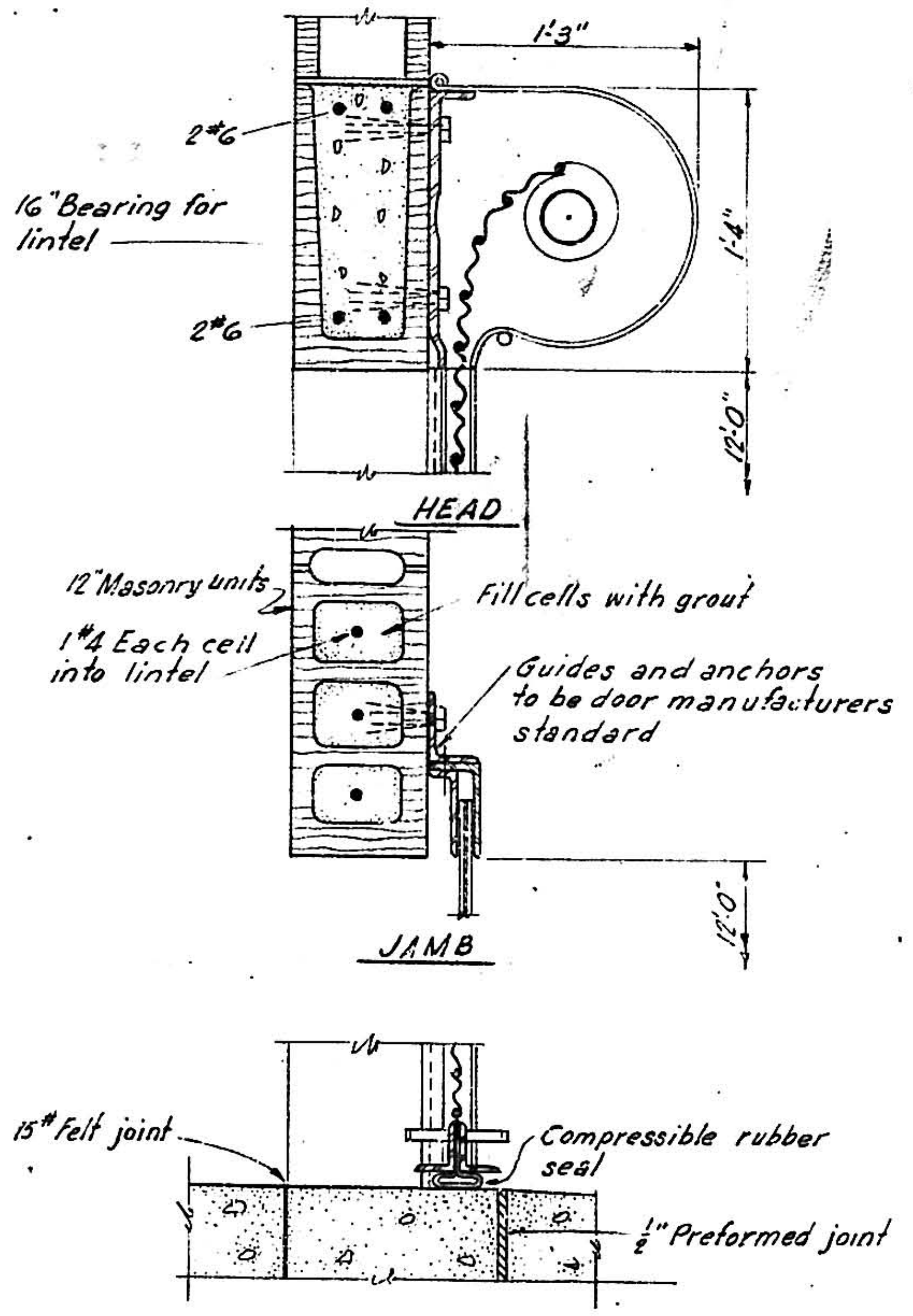
4133


29½" SQ base
24½" Opening
6"
L Frame, see roof plan

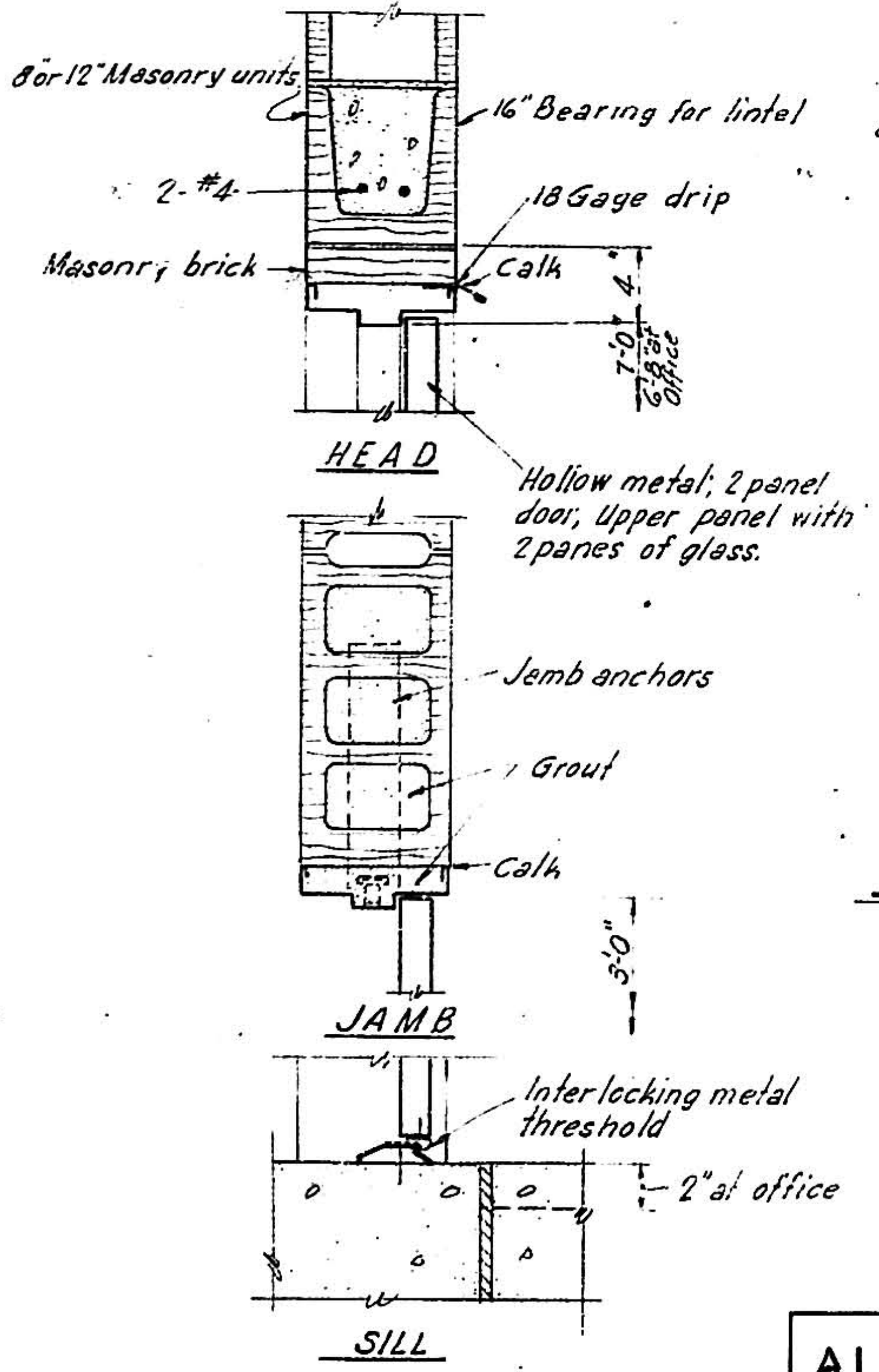
CURB FOR AIR X-HAUSTER
SCALE: 1½"=1'0"


16" Bearing for lintel
2#4
Grout
Calk
HEAD
Calk
Grout
JAMB
Calk
Masonry sill
8" or 12" Masonry units
SILL

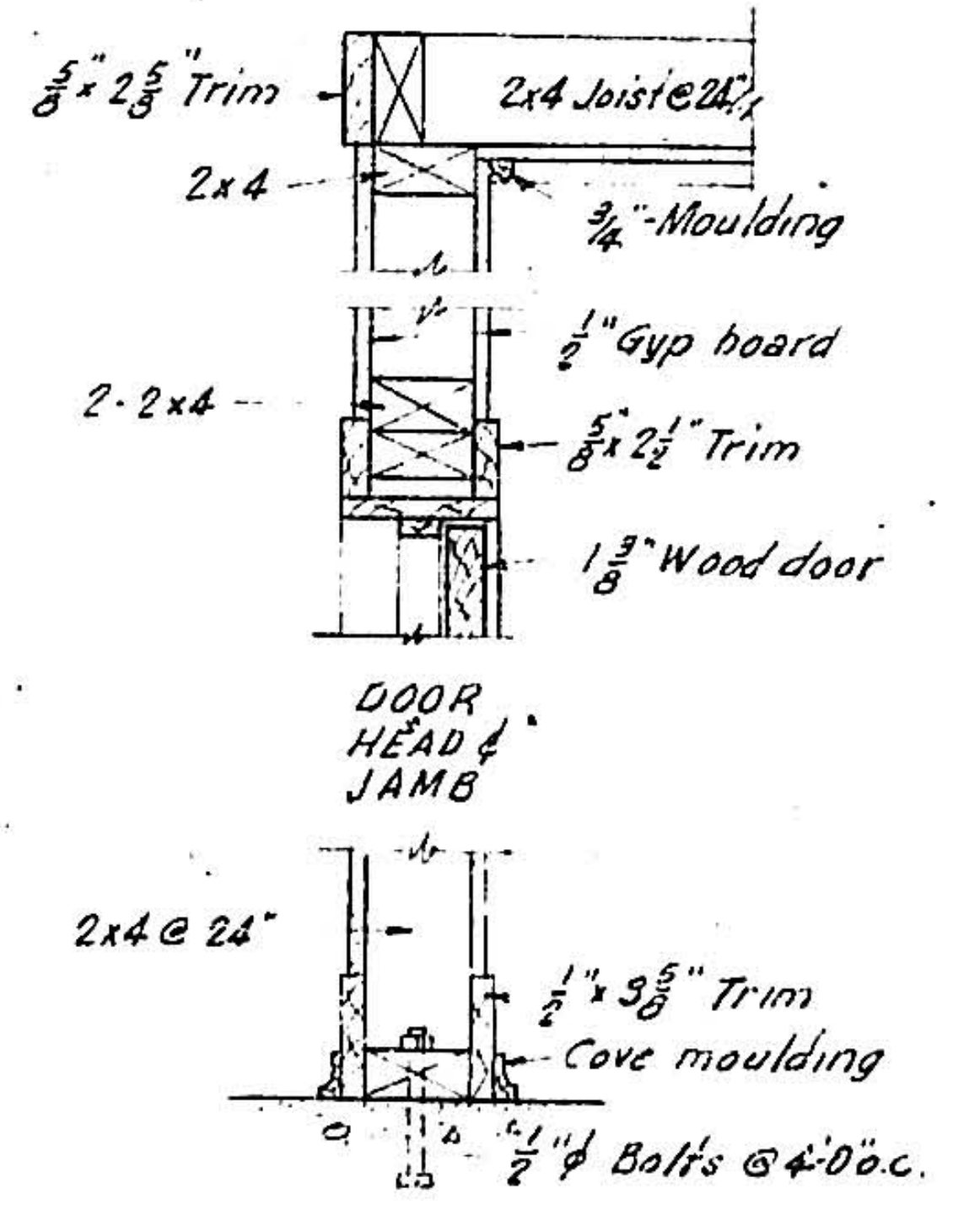
WINDOW DETAILS
SCALE: 1½"=1'0"


1'3"
2#6
16" Bearing for lintel
2#6
1'4"
12'0"
HEAD
12" Masonry units
Fill cells with grout
1#4 Each cell into lintel
Guides and anchors to be door manufacturers standard
JAMB
12'0"
15# Felt joint
Compressible rubber seal
½" Preformed joint
SILL

ROLL-UP DOOR DETAILS
NOT TO SCALE


8" or 12" Masonry units
16" Bearing for lintel
2-#4
18 Gage drip
Masonry brick
Calk
7'0" 4"
HEAD
Hollow metal; 2 panel door, upper panel with 2 panes of glass.
Jamb anchors
Grout
Calk
3'0"
JAMB
Interlocking metal threshold
2" at office
SILL

PERSONNEL DOOR DETAILS
NOT TO SCALE


⅝"x2⅝" Trim
2x4 Joist @ 24"
2x4
¾" Moulding
½" Gyp board
2-2x4
⅝"x2½" Trim
1⅜" Wood door
DOOR HEAD & JAMB
2x4 @ 24"
½"x3⅝" Trim
Cove moulding
½"x4" Bolts @ 4'0" o.c.

TOILET ROOM PARITITION
NOT TO SCALE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8	5	7	1	1	1	5	7				0	8															

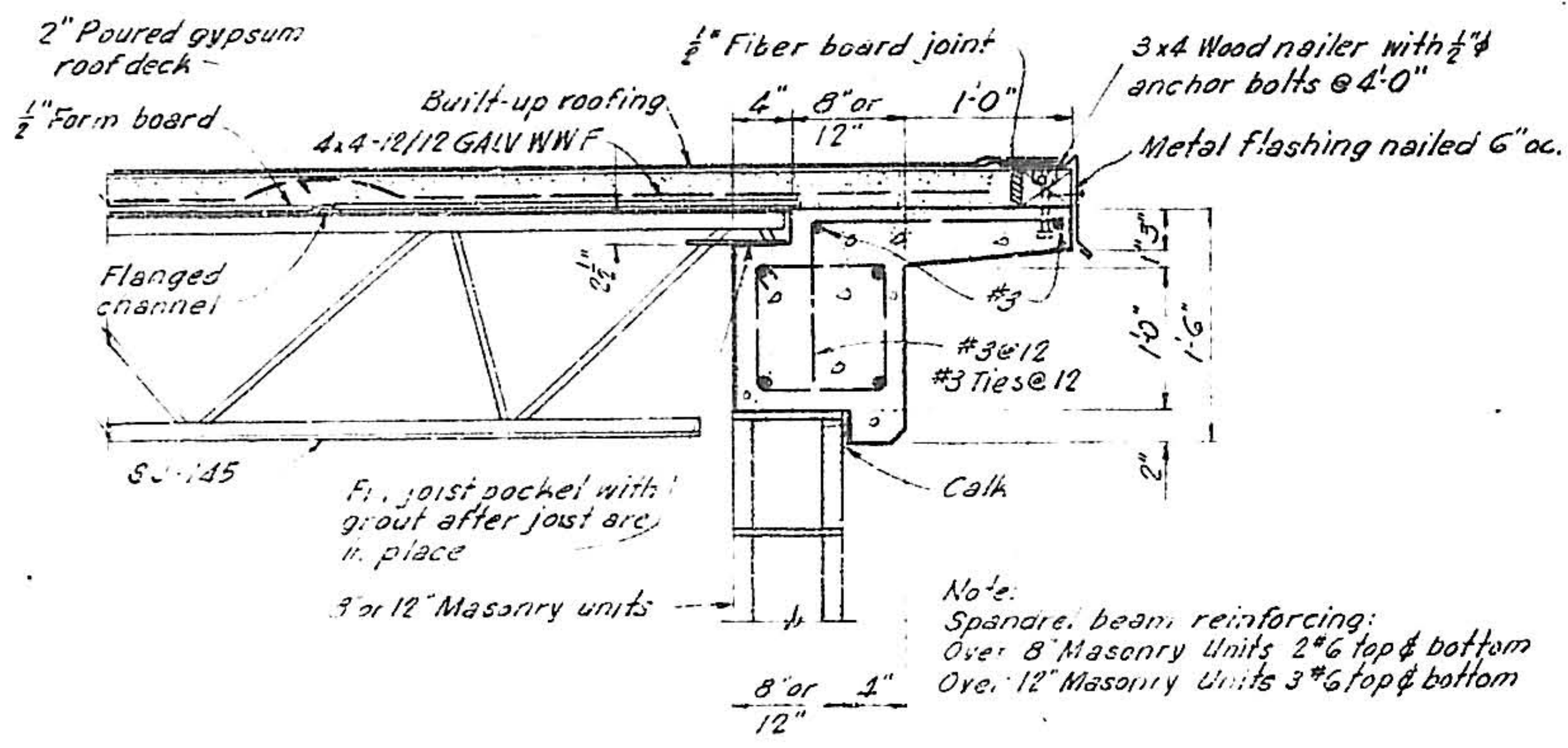
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

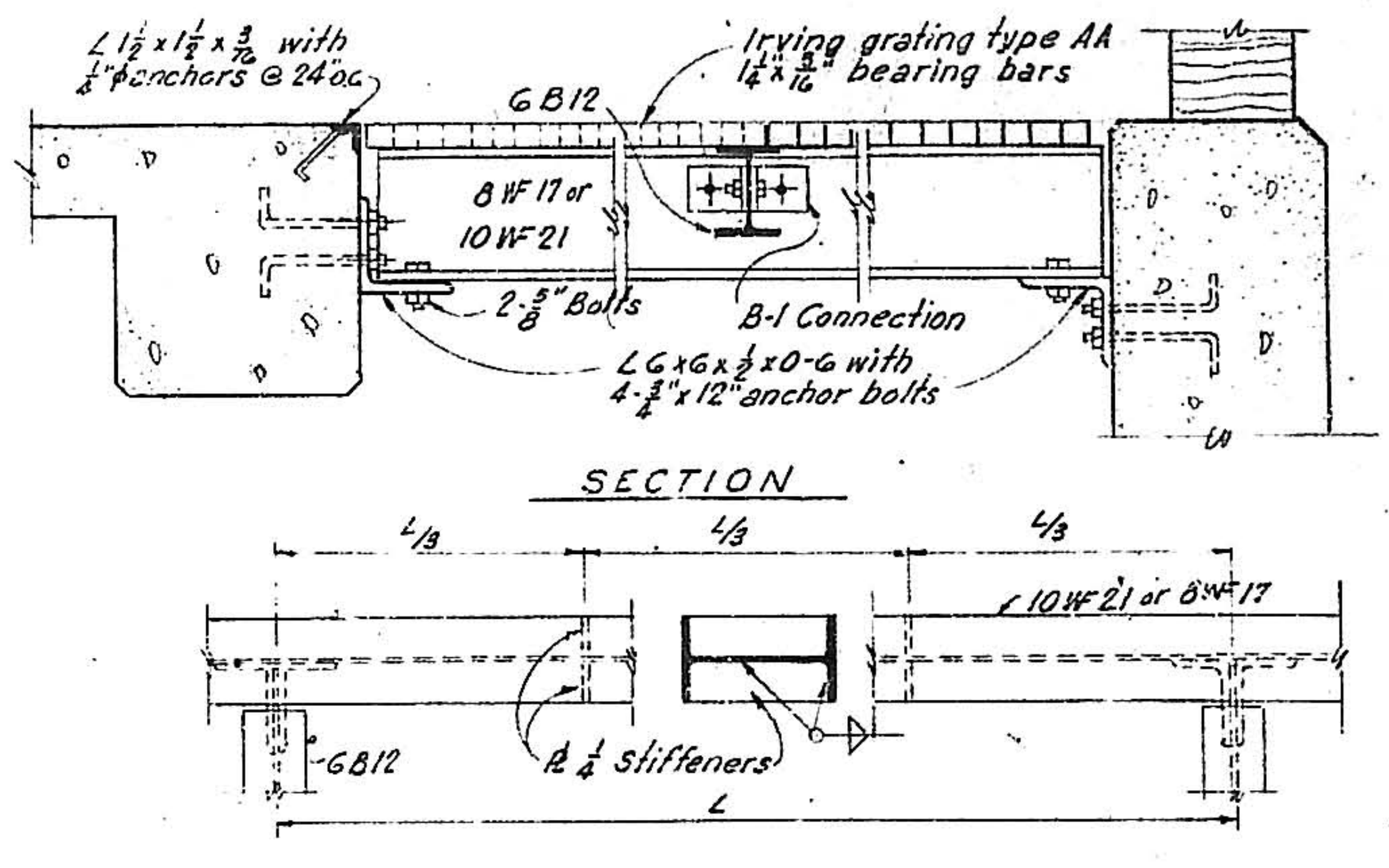
PUMP STATION
SECTION & DETAILS

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

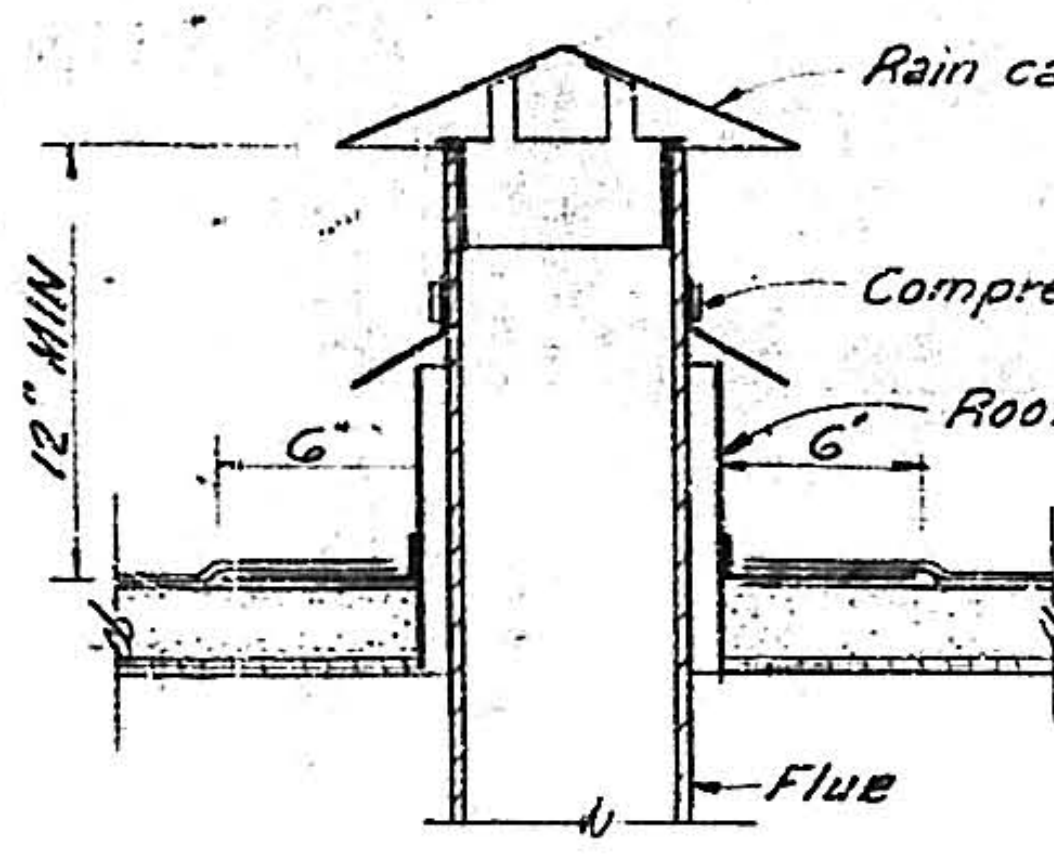
SCALE	DATE	DRAWN CHECKED	SHEET 11 OF 15
AS SHOWN	FEB. 4, 1956		


2" Poured gypsum roof deck
½" Form board
4x4-12/12 GALV WWF
Built-up roofing
½" Fiber board joint
4"
8" or 12"
1'-0"
3x4 Wood nailer with ½"ϕ anchor bolts @ 4'-0"
Metal flashing nailed 6" oc.
Flanged channel
2½"
#3
#3@12
#3 Ties@12
1'-3"
1'-0"
1'-6"
2"
SJ-145
Fill joist pocket with grout after joist are in place
Calk
8 or 12" Masonry units
8" or 12"
4"
Note:
Spandrel beam reinforcing:
Over 8" Masonry Units 2#6 top & bottom
Over 12" Masonry Units 3#6 top & bottom

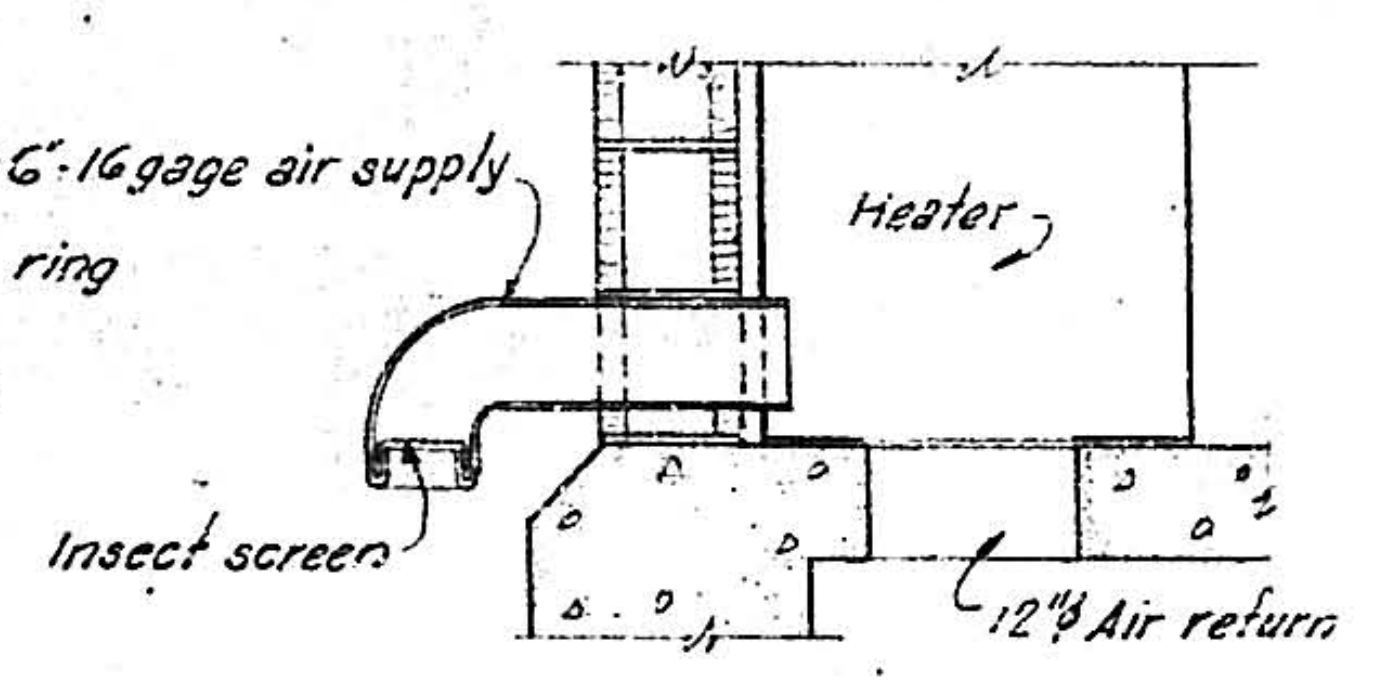
TYPICAL EAVE DETAIL
SCALE: 1"=1'-0"


L 1½ x 1½ x 3/16 with ¼"ϕ anchors @ 24" o.c.
6B12
Irving grating type AA 1¼" x 3/16" bearing bars
8 WF 17 or 10 WF 21
2-⅝" Bolts
B-1 Connection
L 6x6x½x0-6 with 4-¾"x12" anchor bolts
SECTION
L/3
L/3
L/3
10 WF 21 or 8 WF 17
6B12
PL ¼ Stiffeners
L

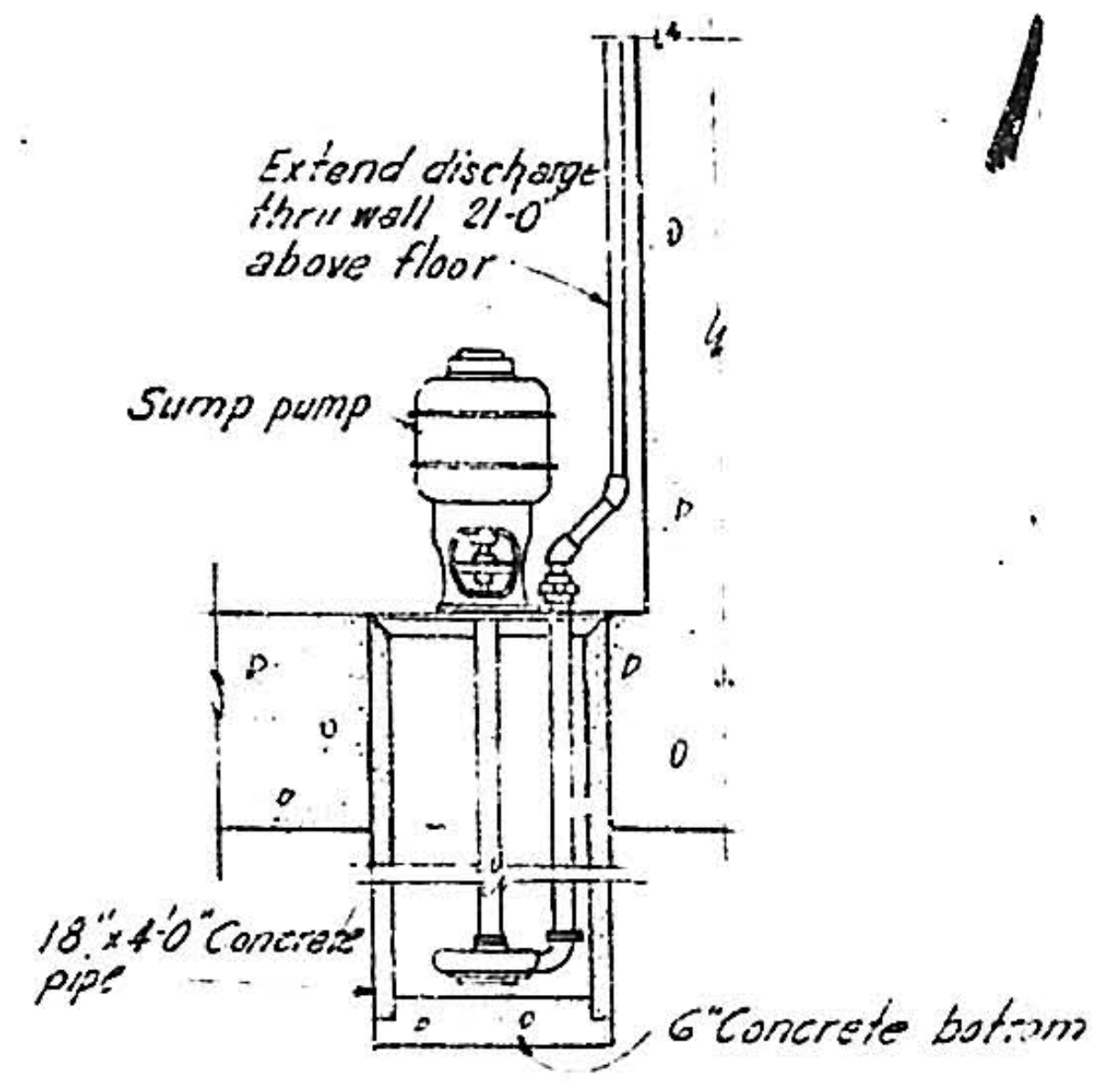
MOTOR SUPPORT FRAMING
SCALE: 1"=1'-0"


Rain cap
Compression ring
Roof Jack
12" MIN
6"
6"
Flue

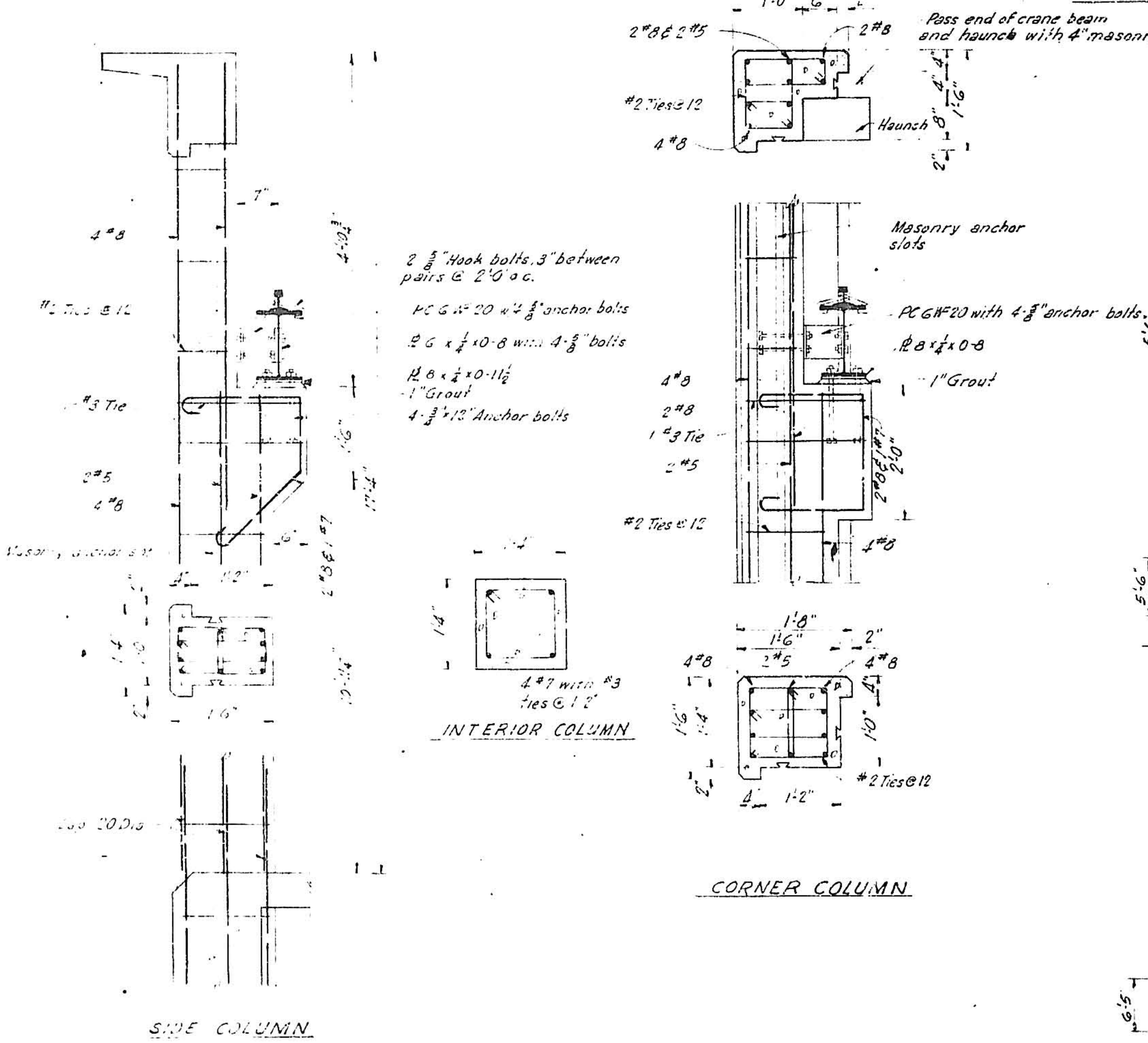
FLUE FLASHING
SCALE: 1½"=1'-0"


6"x6"-16 gage air supply
Heater
Insect screen
12"ϕ Air return

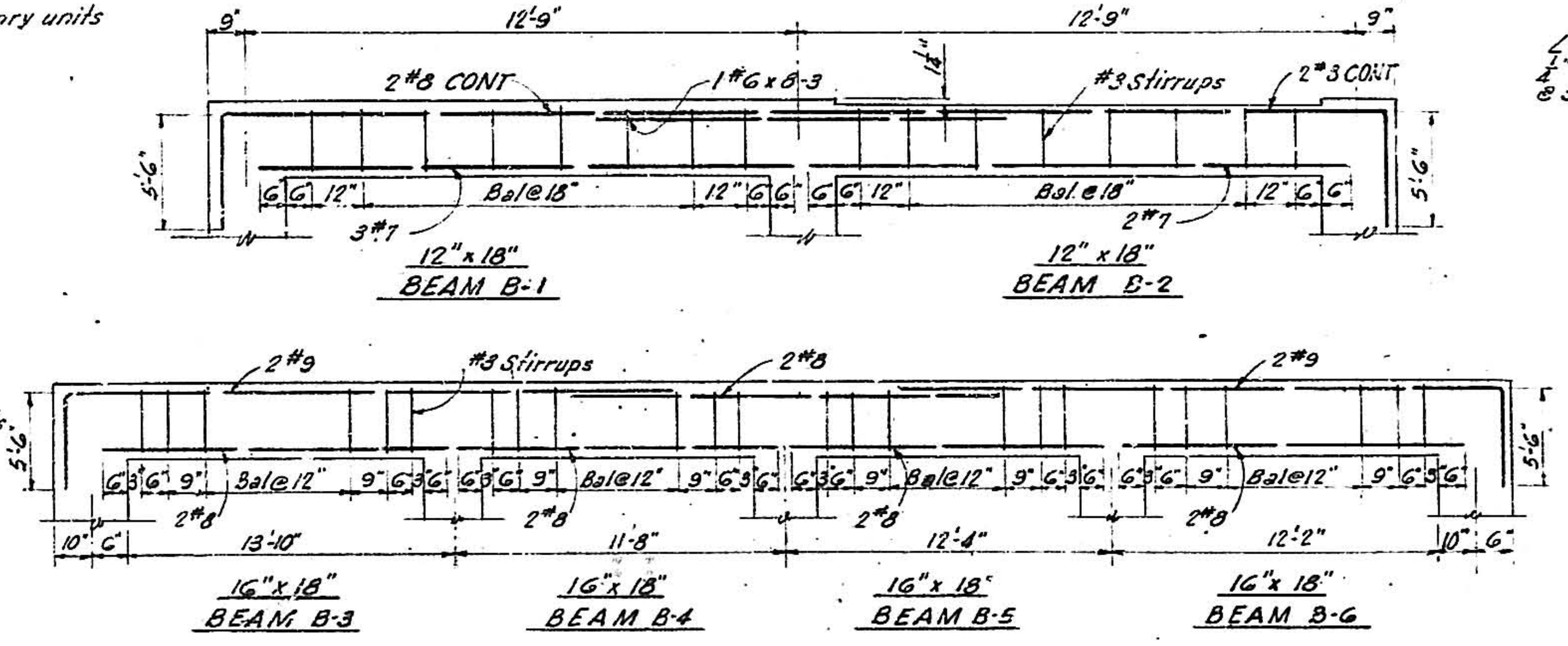
AIR SUPPLY DUCT
SCALE: ¾"=1'-0"

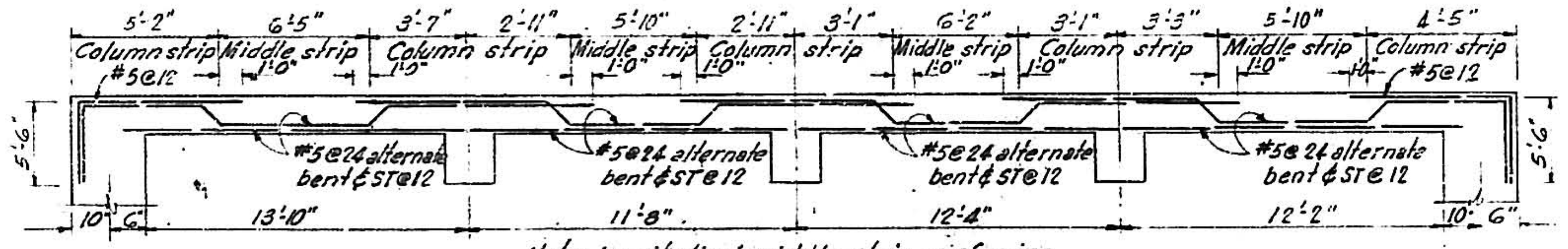

Extend discharge thru wall 21'-0" above floor
Sump pump
18"x4'-0" Concrete pipe
6" Concrete bottom

SUMP DETAILS
SCALE: ½"=1'-0"


1'-8"
1'-0"
6"
2"
2#8 & 2#5
2#8
#2 Ties@12
4#8
Haunch
Pass end of crane beam and haunch with 4" masonry units
4#8
#3 Ties @ 12
7"
2 ⅝" Hook bolts, 3" between pairs @ 2'-0" o.c.
PC 6 WF 20 with 4-⅝" anchor bolts
PL 6 x ¼ x 0-8 with 4-⅝" bolts
PL 8 x ¼ x 0-11½
1" Grout
4-¾"x12" Anchor bolts
#3 Tie
2#5
4#8
Masonry anchor slots
2#8 & 1#7
1'-6"
1'-4"
INTERIOR COLUMN
4#7 with #3 ties @ 12"
SIDE COLUMN
Masonry anchor slots
PC 6 WF 20 with 4-⅝" anchor bolts
PL 8 x ¼ x 0-8
1" Grout
4#8
2#8
1 #3 Tie
2#5
#2 Ties @ 12
2#8 & 1#7
2'-0"
4#8
1'-8"
1'-6"
2"
2#5
4#8
4#8
1'-0"
#2 Ties@12
4"
1'-2"
CORNER COLUMN

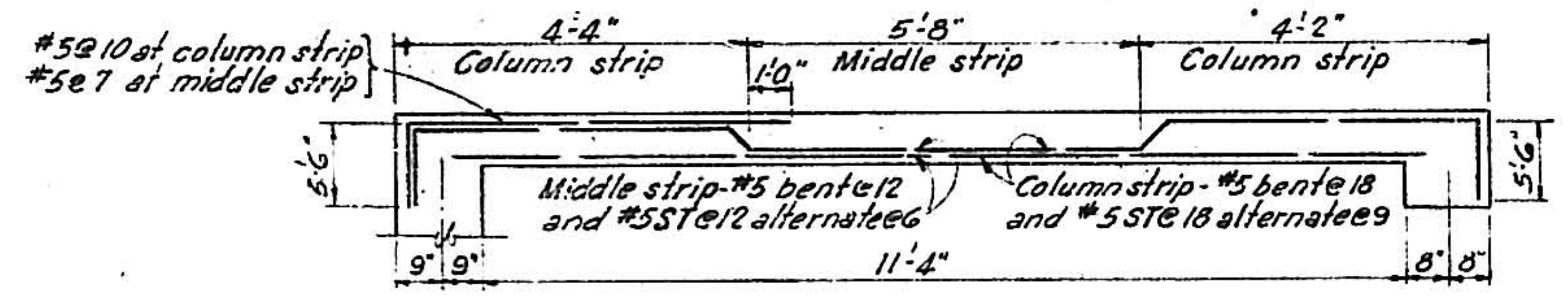
TYPICAL COLUMN DETAILS
SCALE ¾"=1'-0"


9"
12'-9"
12'-9"
9"
2#8 CONT
1#6 x 8-3
#3 Stirrups
2#3 CONT
5'-6"
6 6 12" Bal@18" 12" 6 6
6 6 12" Bal.@18" 12" 6 6
3#7
2#7
12" x 18"
BEAM B-1
12" x 18"
BEAM B-2
2#9
#3 Stirrups
2#8
2#9
6 3 6 9" Bal@12" 9" 6 3 6
2#8
10" 6"
13'-10"
11'-8"
12'-4"
12'-2"
16" x 18"
BEAM B-3
16" x 18"
BEAM B-4
16" x 18"
BEAM B-5
16" x 18"
BEAM B-6

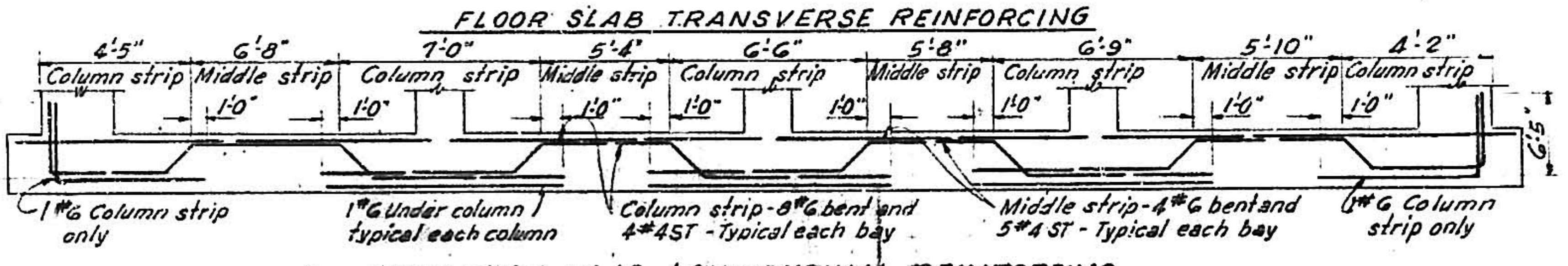

5'-2"
6'-5"
3'-7"
2'-11"
5'-10"
2'-11"
3'-1"
6'-2"
3'-1"
3'-3"
5'-10"
4'-5"
Column strip
Middle strip
Column strip
Middle strip
Column strip
Middle strip
Column strip
Middle strip
Column strip
1'-0"
#5@12
#5@24 alternate bent & ST@12
5'-6"
10" 6"
13'-10"
11'-8"
12'-4"
12'-2"

Note: Longitudinal middle strip reinforcing to be #5 bent @16 and #5 straight @16" alternated @8. Column strip as shown.

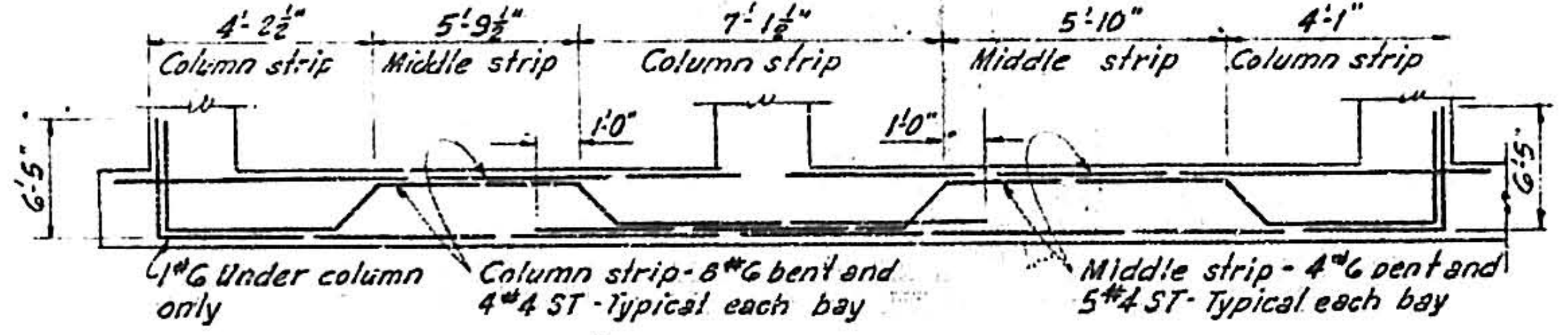
FLOOR SLAB LONGITUDINAL REINFORCING


#5@10 at column strip
#5@7 at middle strip
4'-4"
Column strip
5'-8"
Middle strip
4'-2"
Column strip
1'-0"
5'-6"
Middle strip-#5 bent@12 and #5ST@12 alternate@6
Column strip-#5 bent@18 and #5ST@18 alternate@9
9" 9"
11'-4"
8" 8"

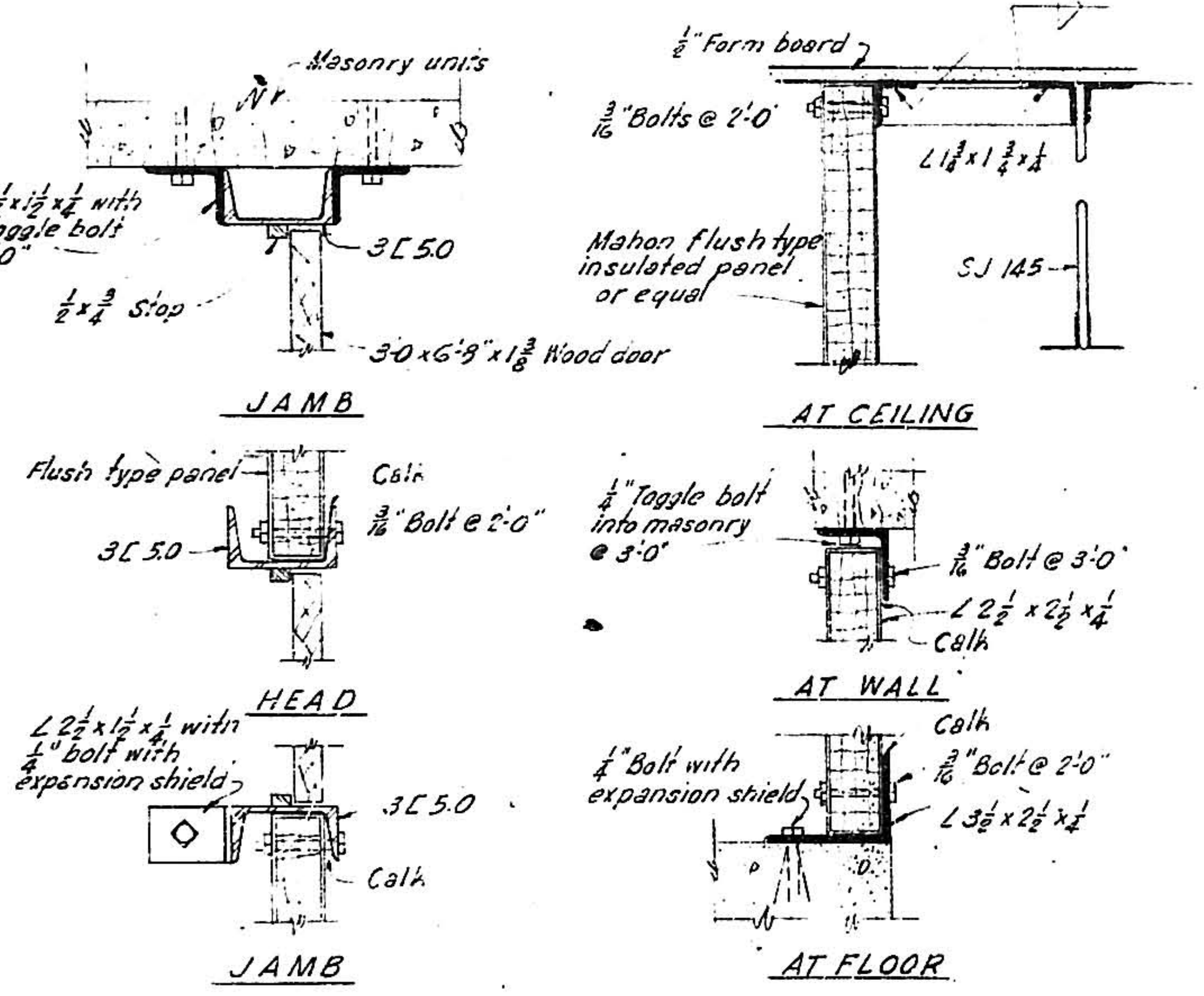
FLOOR SLAB TRANSVERSE REINFORCING


4'-5"
6'-8"
7'-0"
5'-4"
6'-6"
5'-8"
6'-9"
5'-10"
4'-2"
Column strip
Middle strip
Column strip
Middle strip
Column strip
Middle strip
Column strip
Middle strip
Column strip
1'-0"
6'-5"
1#6 Column strip only
1#6 Under column typical each column
Column strip-8#6 bent and 4#4ST - Typical each bay
Middle strip-4#6 bent and 5#4 ST - Typical each bay
1#6 Column strip only

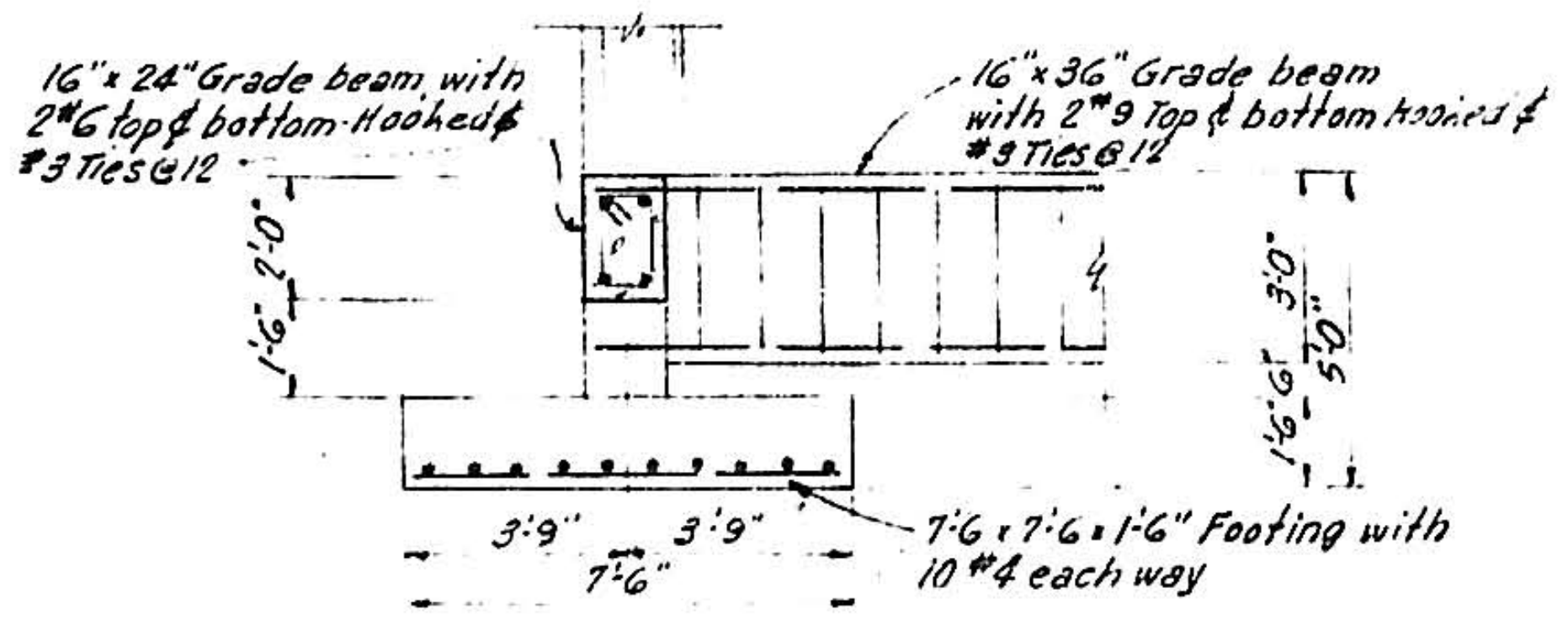
FOUNDATION SLAB LONGITUDINAL REINFORCING


4'-2½"
5'-9½"
7'-1½"
5'-10"
4'-1"
Column strip
Middle strip
Column strip
Middle strip
Column strip
1'-0"
6'-5"
1#6 Under column only
Column strip-8#6 bent and 4#4 ST-Typical each bay
Middle strip-4#6 bent and 5#4 ST-Typical each bay

FOUNDATION SLAB TRANSVERSE REINFORCING


Masonry units
L 2½x1½x¼ with ¼" Toggle bolt @ 3'-0"
3[5.0
½x¾ Stop
3'-0 x 6'-8" x 1⅜ Wood door
JAMB
½" Form board
3/16" Bolts @ 2'-0"
L 1¾x1¾x¼
Mahon flush type insulated panel or equal
SJ 145
AT CEILING
Flush type panel
Calk
3[5.0
3/16" Bolt @ 2'-0"
HEAD
¼" Toggle bolt into masonry @ 3'-0"
3/16" Bolt @ 3'-0"
L 2½ x 2½ x ¼
Calk
AT WALL
L 2½x1½x¼ with ¼" bolt with expansion shield
3[5.0
Calk
JAMB
Calk
¼" Bolt with expansion shield
3/16" Bolt @ 2'-0"
L 3½ x 2½ x ¼
AT FLOOR

REMOVABLE PARTITION DETAILS
SCALE: 3"=1'-0"


16"x24" Grade beam with 2#6 top & bottom-Hooked & #3 Ties@12
16"x36" Grade beam with 2#9 Top & bottom hooked & #3 Ties@12
2'-0"
1'-6"
3'-0"
5'-0"
1'-6"
3'-9"
3'-9"
7'-6"
7'-6 x 7'-6 x 1'-6" Footing with 10 #4 each way

FOOTING FOR CORNER COLUMN
SCALE. ¼"=1'-0"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		1	2	5	7				0	8													

ALBUQUERQUE NEW MEXICO

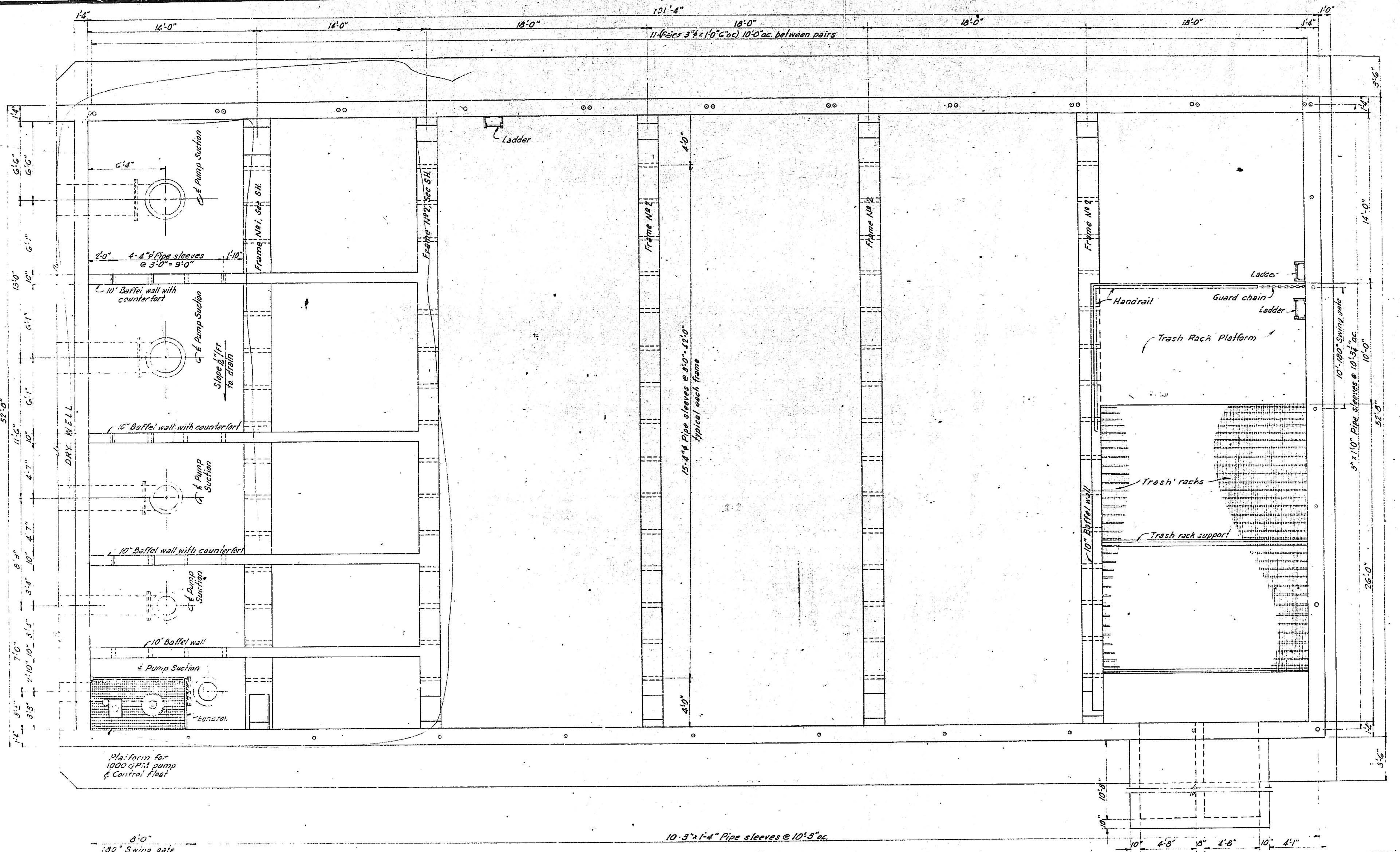
NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
SECTIONS & DETAILS

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

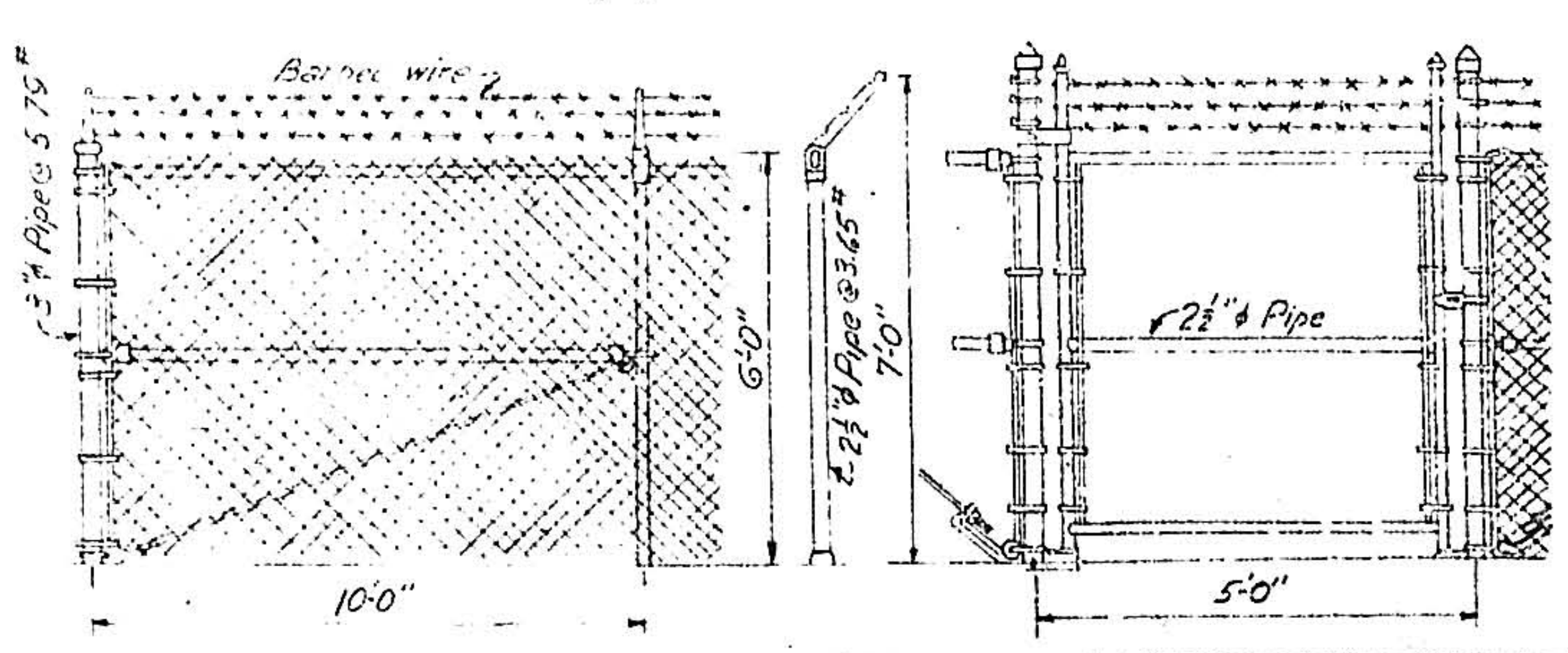
SCALE	DATE	DRAWN	SHEET 12
AS SHOWN	FEB. 4 1956	CHECKED	OF 15

1


1'-4"
101'-4"
14'-0"
14'-0"
18'-0"
18'-0"
18'-0"
18'-0"
1'-4"
1'-0"
11-Pairs 3"φ x 1'-0" 6" oc) 10'-0" oc. between pairs
3'-6"
1'-4"
Ladder
6'-6"
6'-6"
6'-4"
℄ Pump Suction
Frame No1, See SH.
Frame No2, See SH.
Frame No2
Frame No2
Frame No2
4'-0"
6'-1"
2'-0"
4-4"φ Pipe sleeves @ 3'-0" = 9'-0"
1'-10"
13'-0"
10"
10" Baffel wall with counterfort
6'-1"
℄ Pump Suction
Slope 1/16"/Ft to drain
6'-1"
52'-8"
DRY WELL
11'-6"
10"
10" Baffel wall with counterfort
15-4"φ Pipe sleeves @ 3'-0" = 42'-0" typical each frame
4'-7"
℄ Pump Suction
4'-7"
10"
8'-9"
10" Baffel wall with counterfort
3'-4"
℄ Pump Suction
3'-4"
10"
7'-0"
10" Baffel wall
2'-10"
℄ Pump Suction
3'-3"
3'-3"
Handrail
1'-4"
4'-0"
Platform for 1000 GPM pump & Control float
14'-0"
Ladder
Guard chain
Ladder
Handrail
Trash Rack Platform
10'-180° Swing gate
3"x1'-0" Pipe sleeves @ 10'-3¼" o.c.
10'-0"
52'-8"
Trash racks
Trash rack support
10" Baffel wall
26'-0"
1'-4"
5'-6"
10'-8"
10"
10"
4'-8"
8"
4'-8"
10"
4'-1"
10-3"x1-4" Pipe sleeves @ 10'-3" oc.

TANK PLAN

SCALE: 1/8"=1'-0"

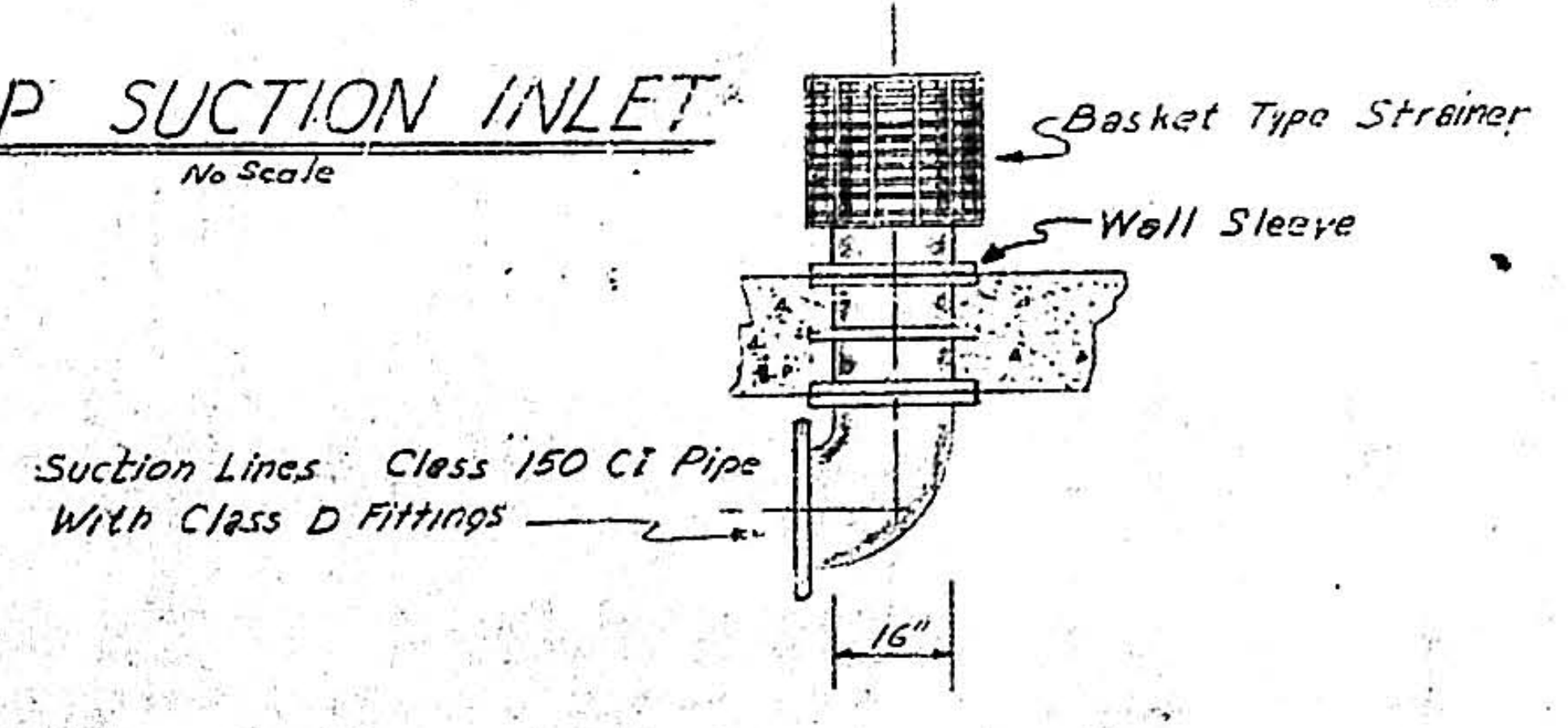

8'-0"
180° Swing gate
Barbed wire
3" φ Pipe 5.79#
6'-0"
2½" φ Pipe @ 3.65#
7'-0"
10'-0"
2½" φ Pipe
5'-0"

FENCE DETAILS

No Scale

PUMP SUCTION INLET

No Scale


Basket Type Strainer
Wall Sleeve
16"

Suction Lines: Class 150 CI Pipe With Class D Fittings

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		1	3	5	7				0	8													

ALBUQUERQUE, NEW MEXICO

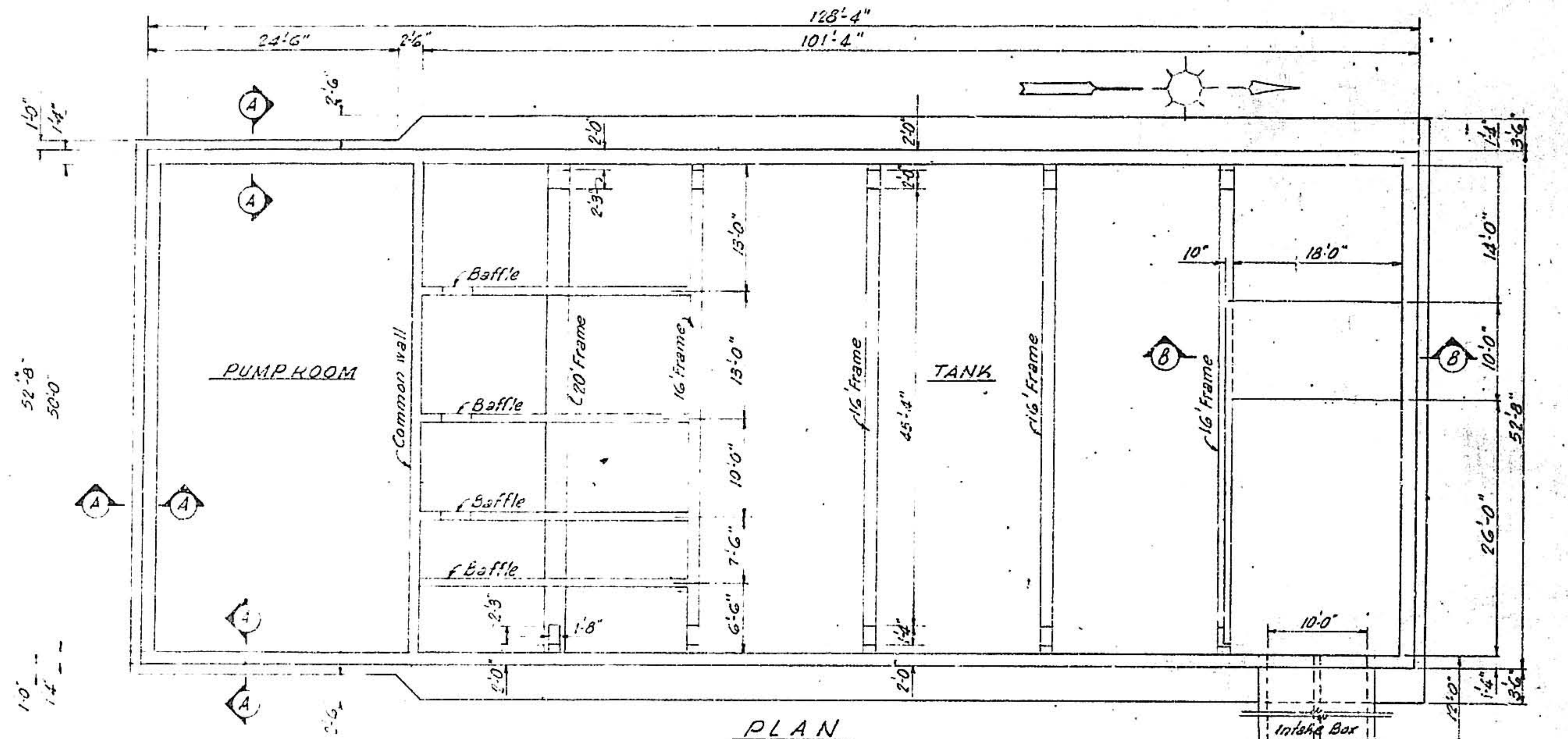
NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
TANK PLAN

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

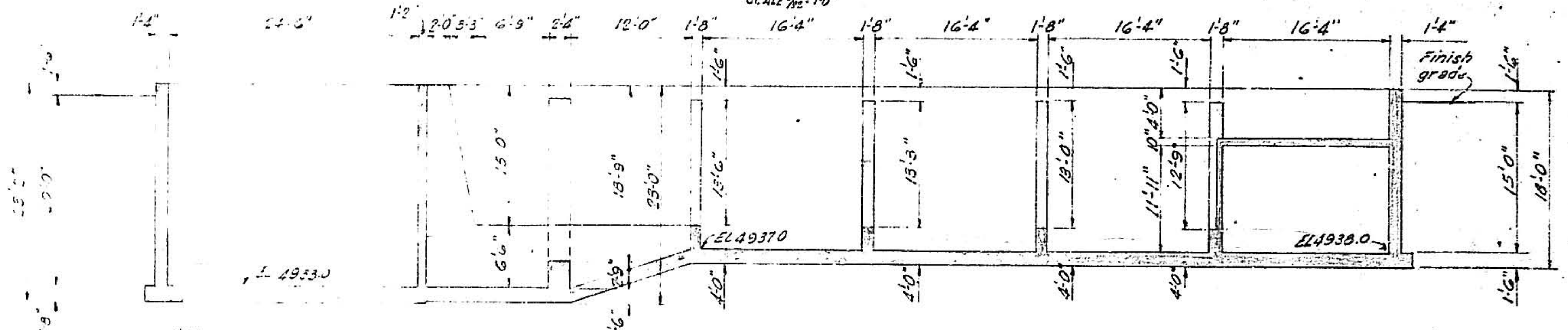
SCALE	DATE	DRAWN	SHEET
AS SHOWN	FEB 4 1956	DRAWN. r.a. CHECKED. J.W.D.	13 OF 15

1


128'-4"
24'-6"
2'-6"
101'-4"
PUMP ROOM
Common wall
Baffle
20' Frame
16' Frame
TANK
18'-0"
10'-0"
Intake Box
52'-8"
50'-0"

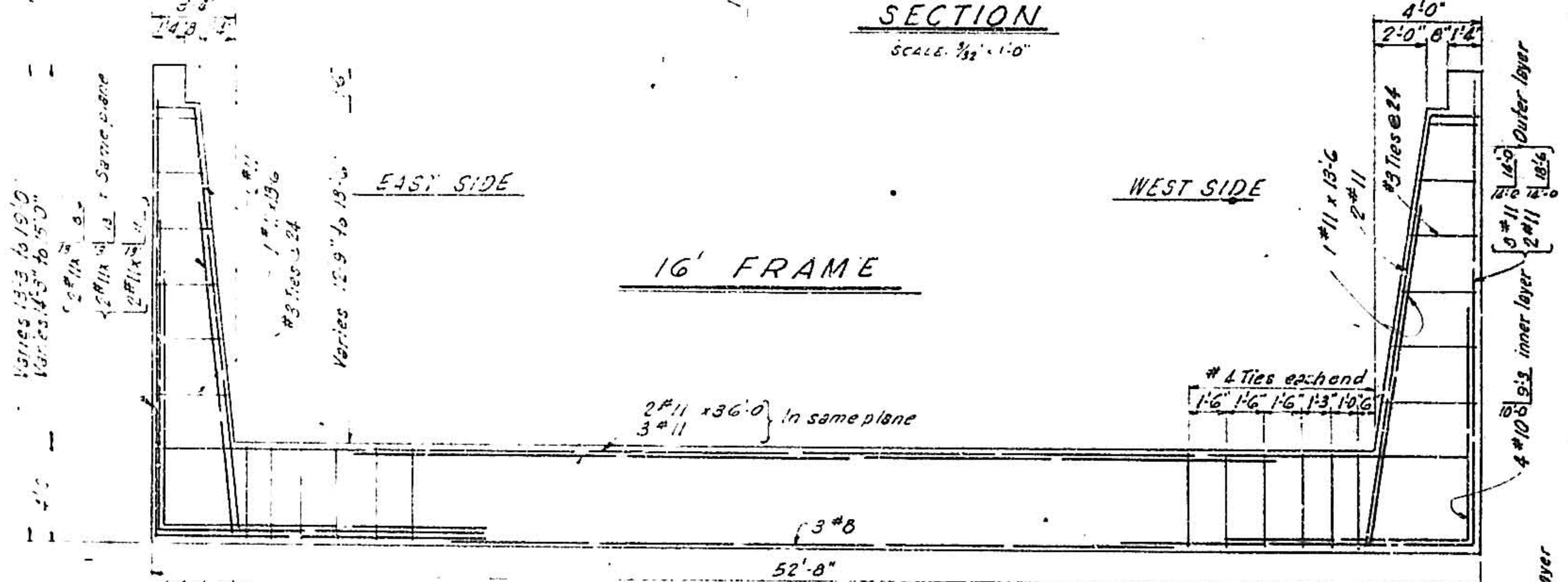
PLAN

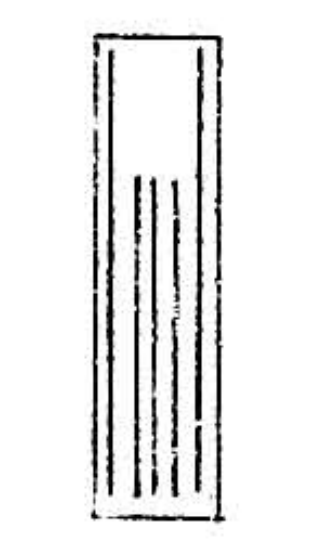
SCALE 3/32" = 1'-0"


Finish grade
EL 4937.0
EL 4938.0
EL 4933.0

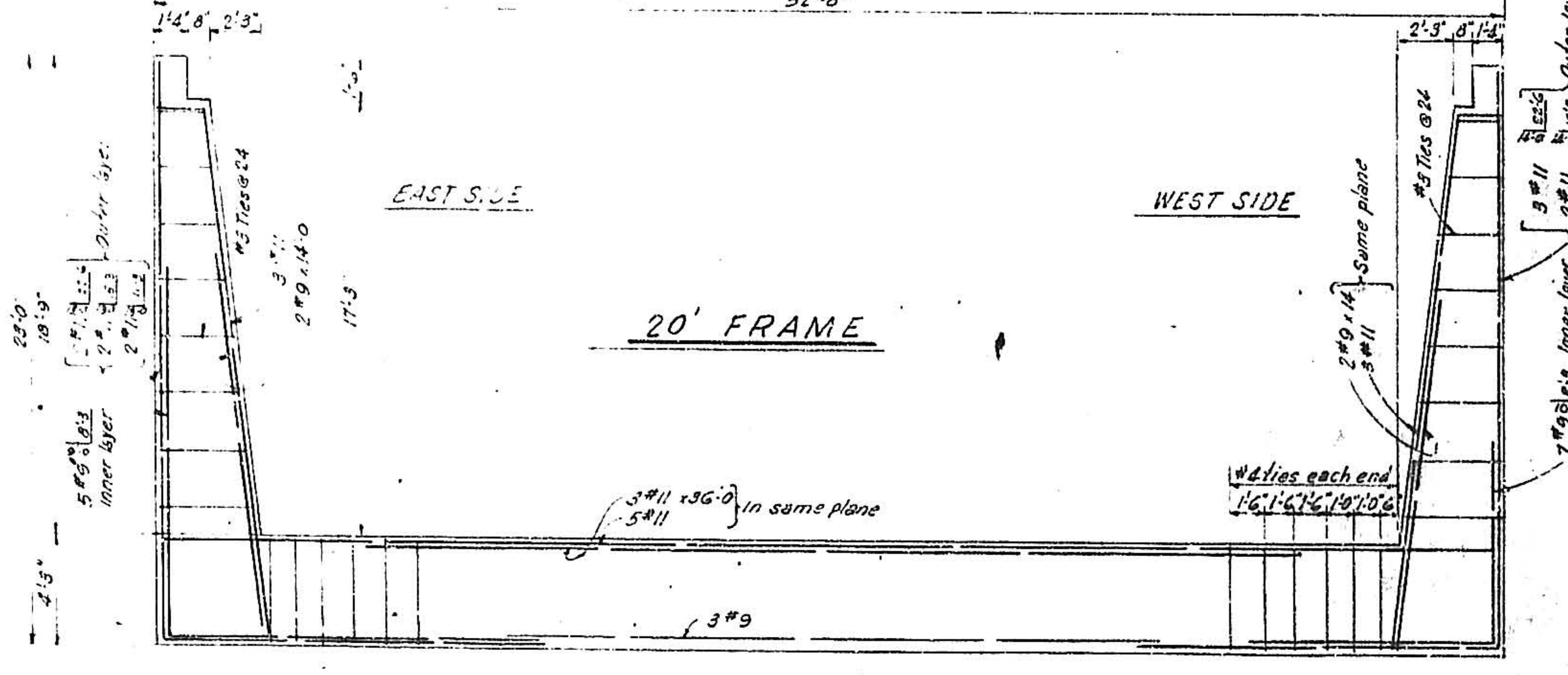
SECTION

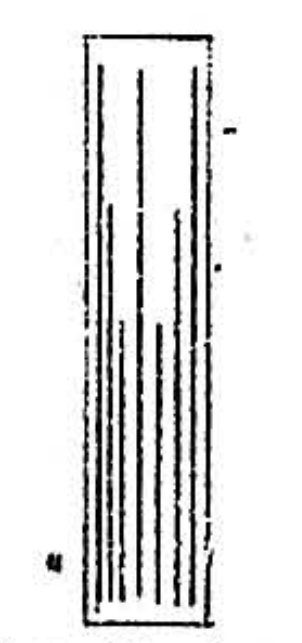
SCALE 3/32" = 1'-0"


EAST SIDE
WEST SIDE
16' FRAME
#4 Ties each end
In same plane
Outer layer
Inner layer
52'-8"

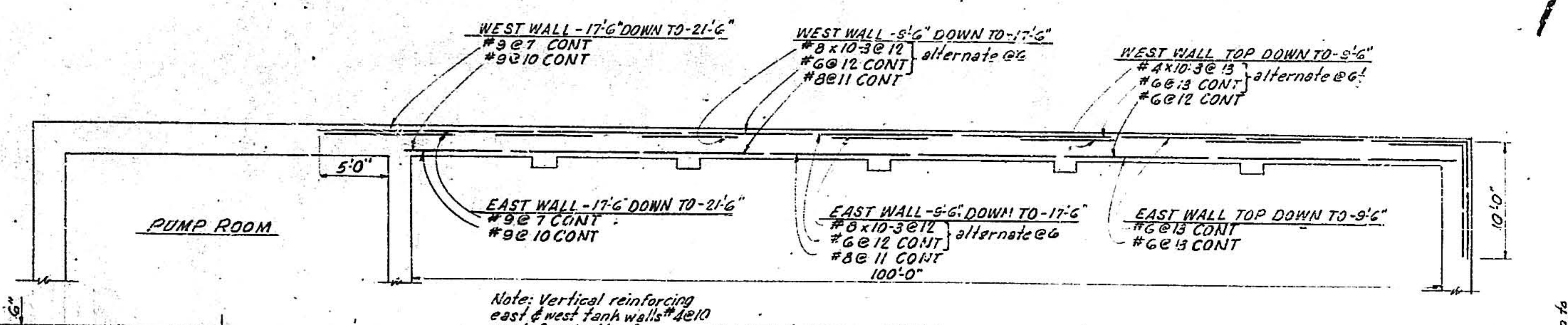


Bar Placing Diagram


EAST SIDE
WEST SIDE
20' FRAME
#4 ties each end
In same plane
Same plane
Outer layer
Inner layer

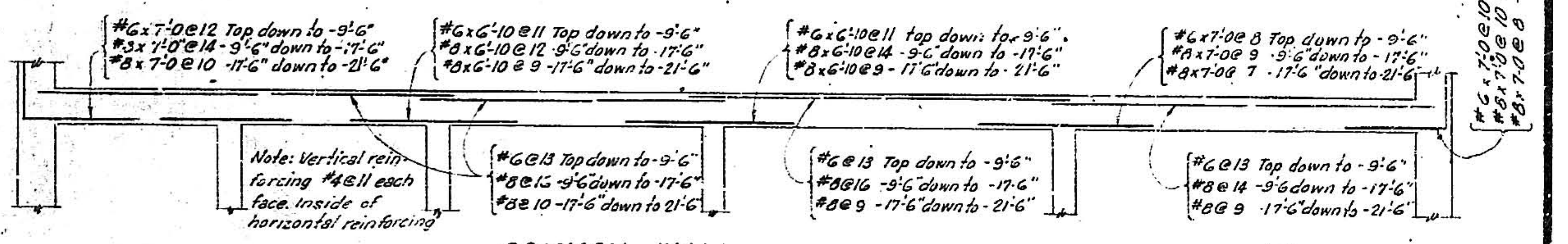


Bar Placing Diagram


WEST WALL - 17'-6" DOWN TO -21'-6"
#9 @ 7 CONT
#9 @ 10 CONT
WEST WALL -9'-6" DOWN TO -17'-6"
#8 x 10'-3 @ 12
#6 @ 12 CONT
#8 @ 11 CONT
alternate @ 6
WEST WALL TOP DOWN TO -9'-6"
#4 x 10'-3 @ 13
#6 @ 13 CONT
#6 @ 12 CONT
alternate @ 6
5'-0"
PUMP ROOM
EAST WALL - 17'-6" DOWN TO -21'-6"
#9 @ 7 CONT
#9 @ 10 CONT
EAST WALL -9'-6" DOWN TO -17'-6"
#8 x 10-3 @ 12
#6 @ 12 CONT
#8 @ 11 CONT
alternate @ 6
100'-0"
EAST WALL TOP DOWN TO -9'-6"
#6 @ 13 CONT
#6 @ 13 CONT
10'-0"

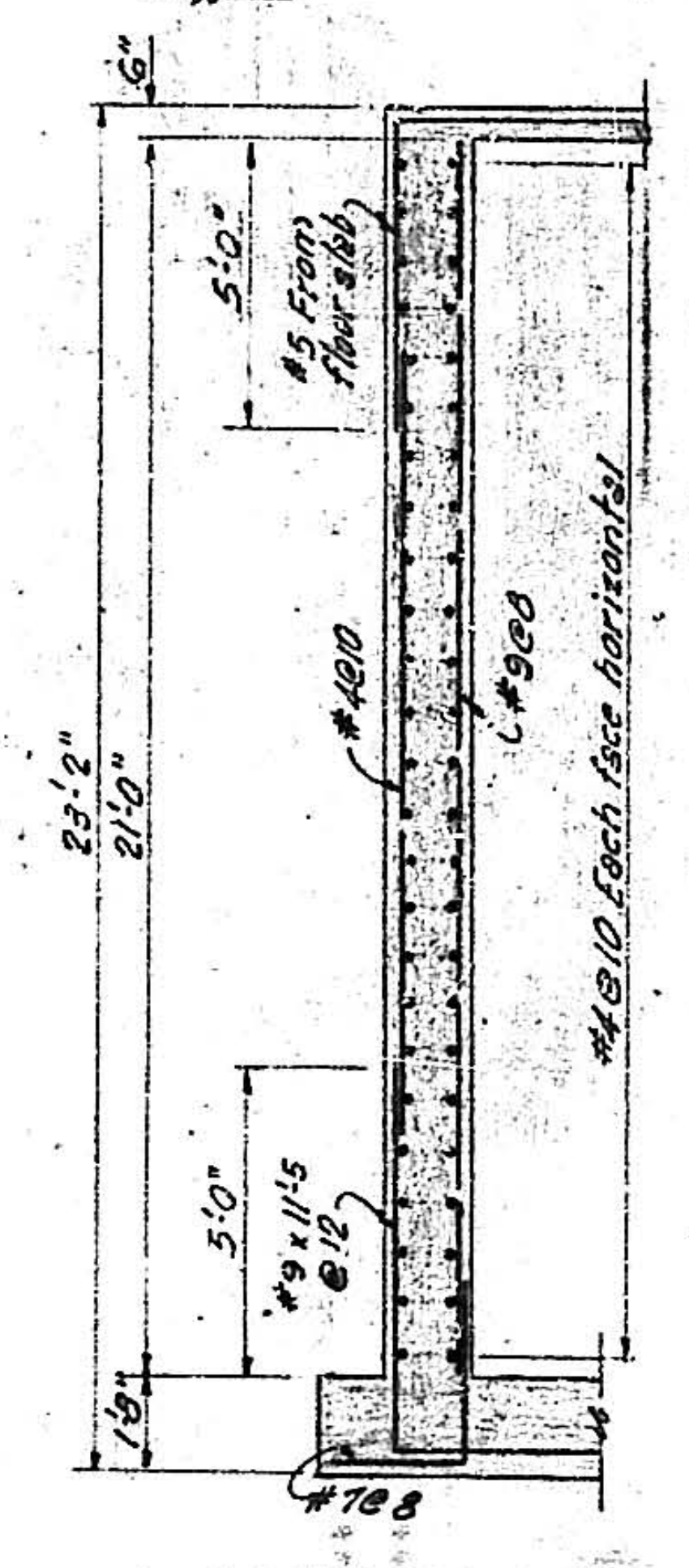
Note: Vertical reinforcing east & west tank walls #4 @ 10 each face inside of horizontal reinforcing.

EAST & WEST TANK WALLS

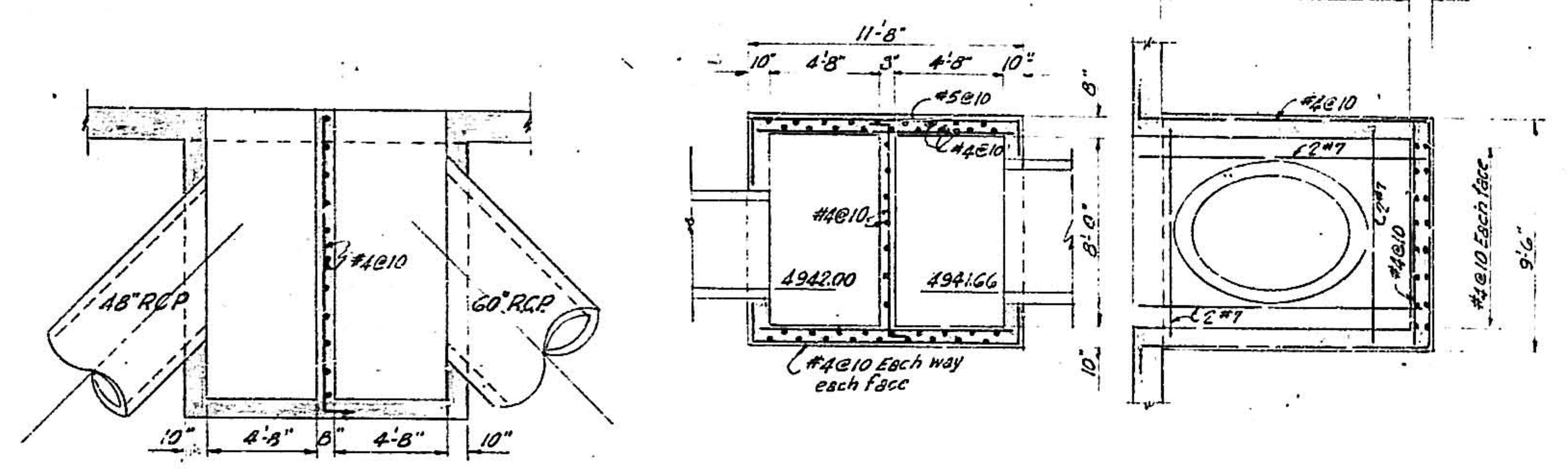

#6 x 7'-0 @ 12 Top down to -9'-6"
#3 x 7'-0" @ 14 - 9'-6" down to -17'-6"
#8 x 7'-0 @ 10 -17'-6" down to -21'-6"
#6 x 6'-10 @ 11 Top down to -9'-6"
#8 x 6'-10 @ 12 -9'-6" down to -17'-6"
#8 x 6'-10 @ 9 -17'-6" down to -21'-6"
#6 x 6'-10 @ 11 top down to -9'-6"
#8 x 6'-10 @ 14 -9'-6" down to -17'-6"
#8 x 6'-10 @ 9 - 17'-6" down to -21'-6"
#6 x 7'-0 @ 8 Top down to -9'-6"
#8 x 7'-0 @ 9 -9'-6" down to -17'-6"
#8 x 7'-0 @ 7 -17'-6" down to -21'-6"
#6 x 7'-0 @ 10 Top down to
#8 x 7'-0 @ 10 down to
#8 x 7'-0 @ 8 - down to
#6 @ 13 Top down to -9'-6"
#8 @ 15 -9'-6" down to -17'-6"
#8 @ 10 -17'-6" down to -21'-6"
#6 @ 13 Top down to -9'-6"
#8 @ 16 -9'-6" down to -17'-6"
#8 @ 9 -17'-6" down to -21'-6"
#6 @ 13 Top down to -9'-6"
#8 @ 14 -9'-6" down to -17'-6"
#8 @ 9 -17'-6" down to -21'-6"

Note: Vertical reinforcing #4 @ 11 each face. Inside of horizontal reinforcing

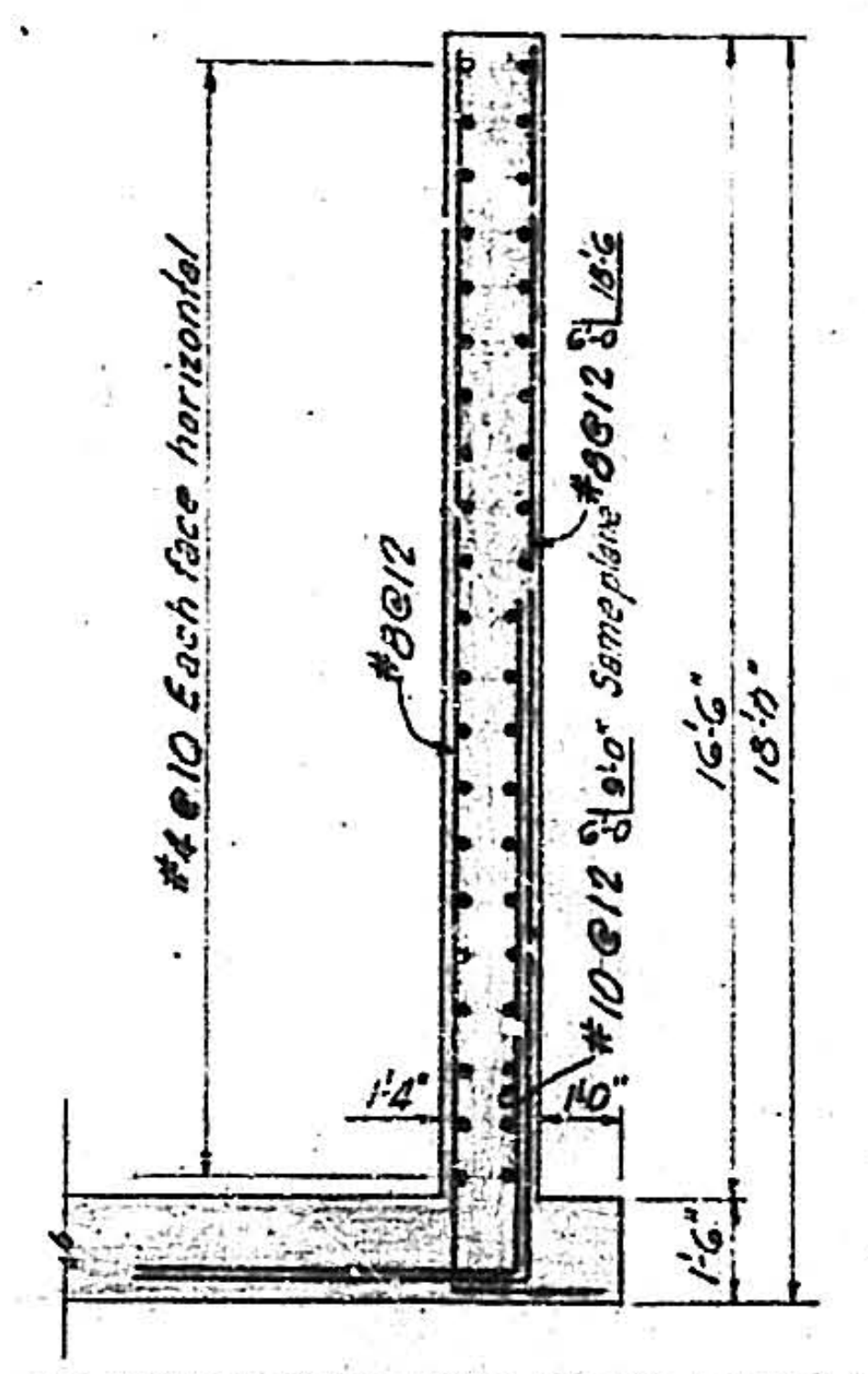
COMMON WALL


6"
5'-0"
#5 From floor slab
#4 @ 10
#8 @ 12
#4 @ 10 Each face horizontal
23'-2"
21'-0"
#7 @ 8

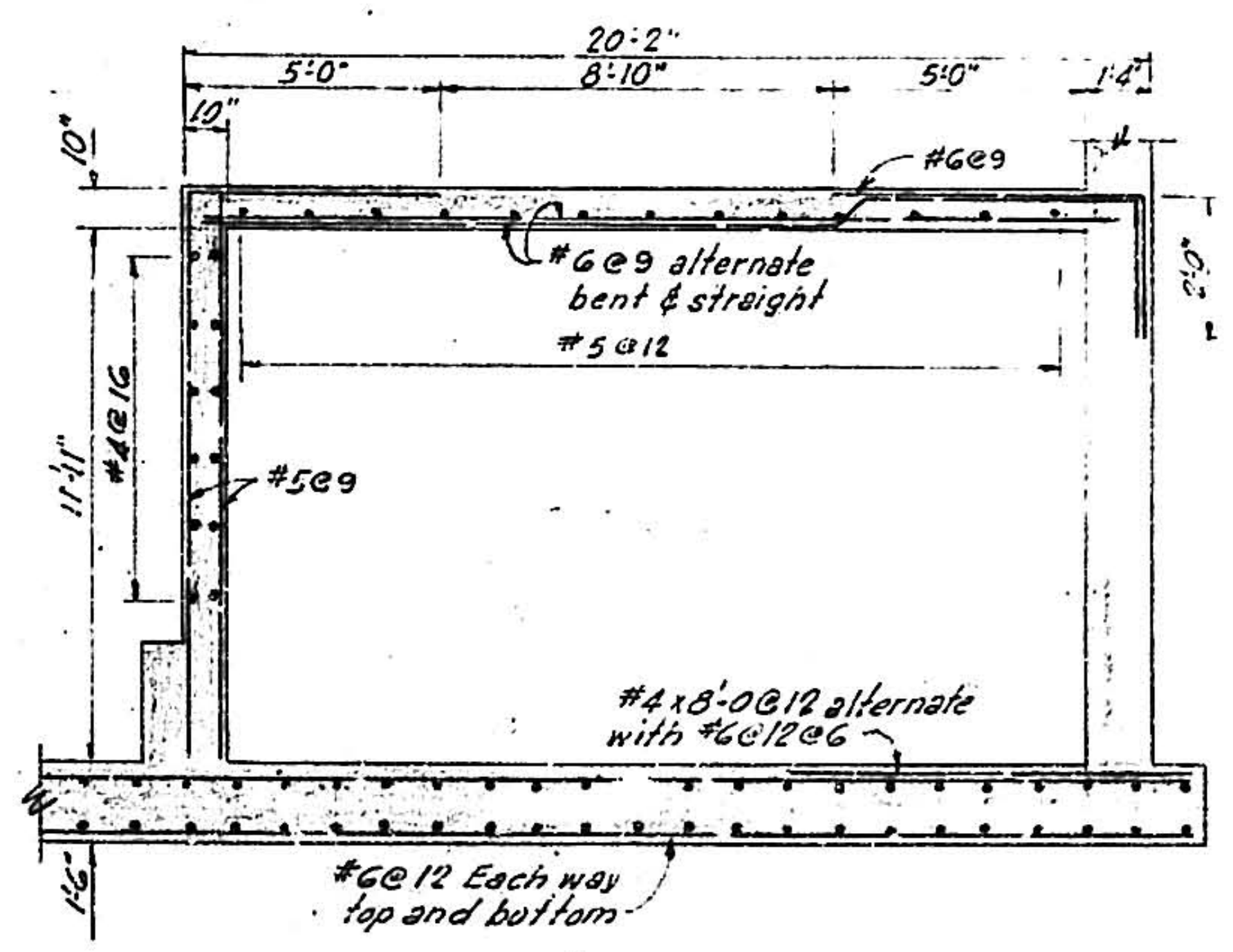
SECTION A-A


48" RCP
60" RCP
#4 @ 10
11'-8"
#5 @ 10
4942.00
4941.66
#4 @ 10 Each way each face
12'-10"
10'-8"
#4 @ 10 Each face

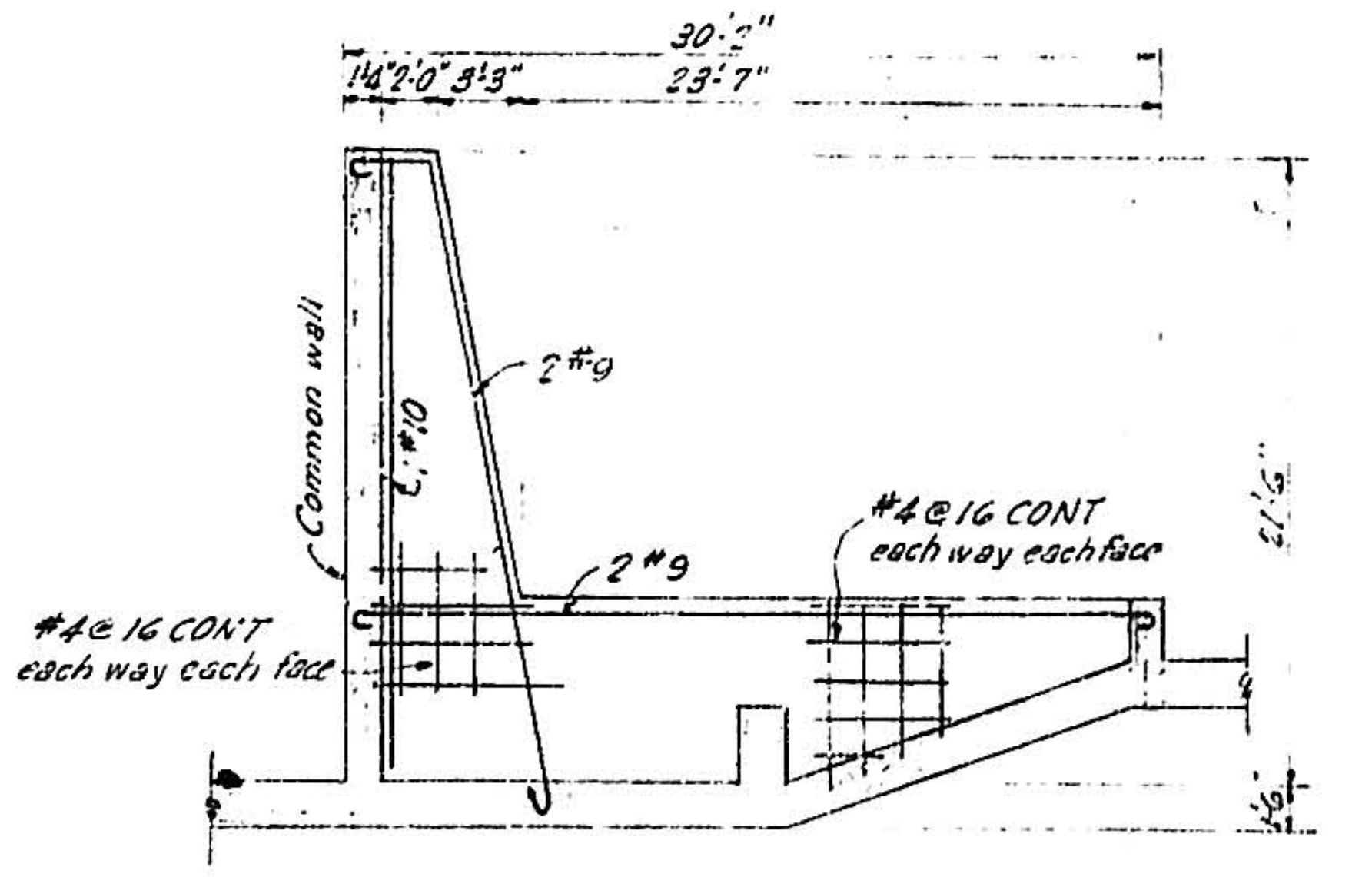
INTAKE BOX DETAILS


#4 @ 10 Each face horizontal
#8 @ 12
#10 @ 12
16'-6"
18'-0"

SECTION-NORTH WALL


20'-2"
5'-0"
8'-10"
5'-0"
#6 @ 9
#6 @ 9 alternate bent & straight
#5 @ 12
#4 @ 16
#5 @ 9
#4 x 8'-0 @ 12 alternate with #6 @ 12 @ 6
#6 @ 12 Each way top and bottom

SECTION B-B


30'-2"
29'-7"
Common wall
2 #9
#4 @ 16 CONT each way each face
#4 @ 16 CONT each way each face

BAFFLE DETAIL

Cover on reinforcing:
Tank wall, frames and floor slab to be 3" clear
Counterfort baffels 2" clear. Outside face
of common wall 3" clear; Intake box 5" top, 3" or side
Cover on all reinforcing for building as
recommended by A.C.I code.

08 571 1457 08

ALBUQUERQUE, NEW MEXICO

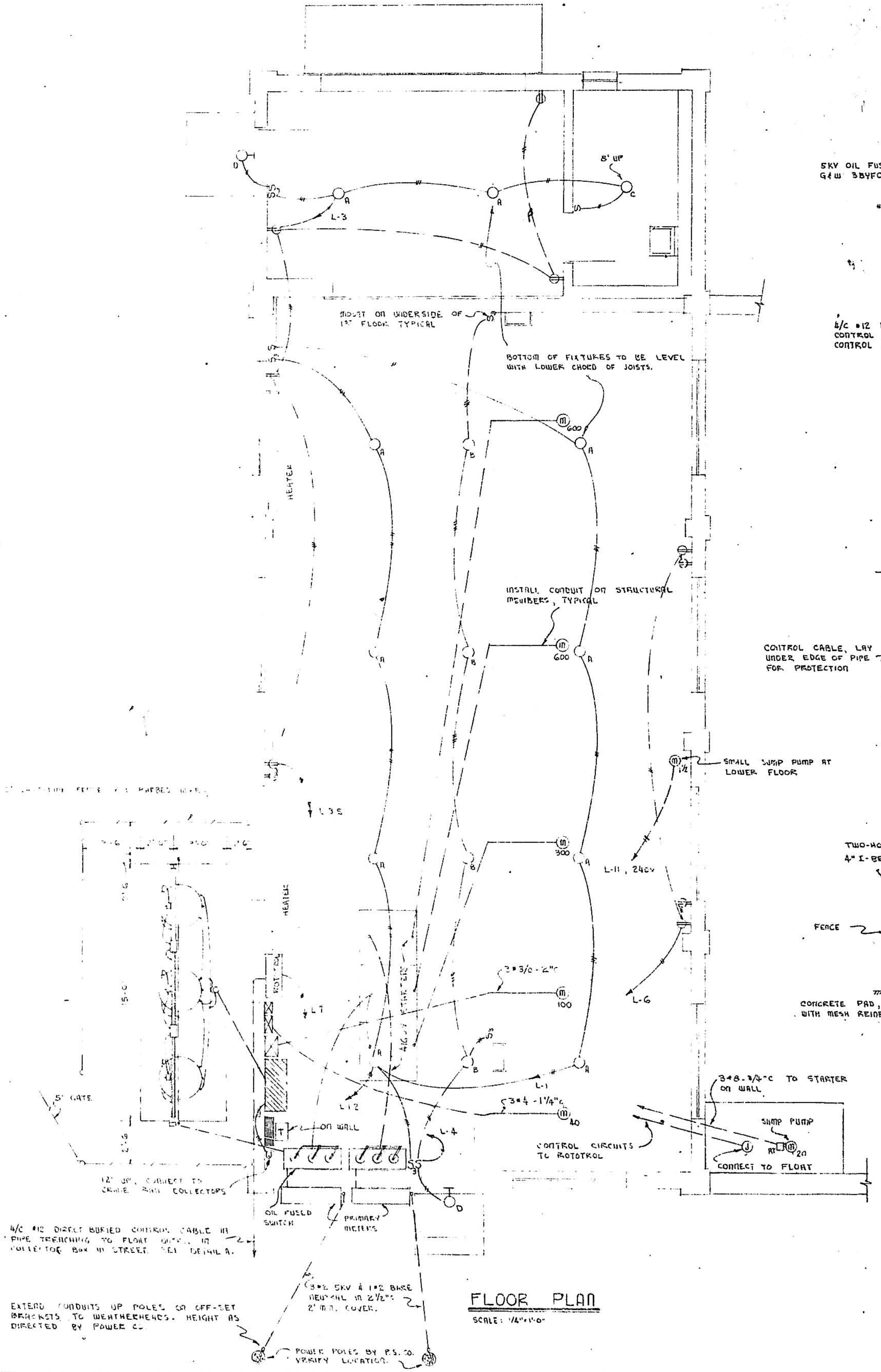
NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
PLAN & DETAILS

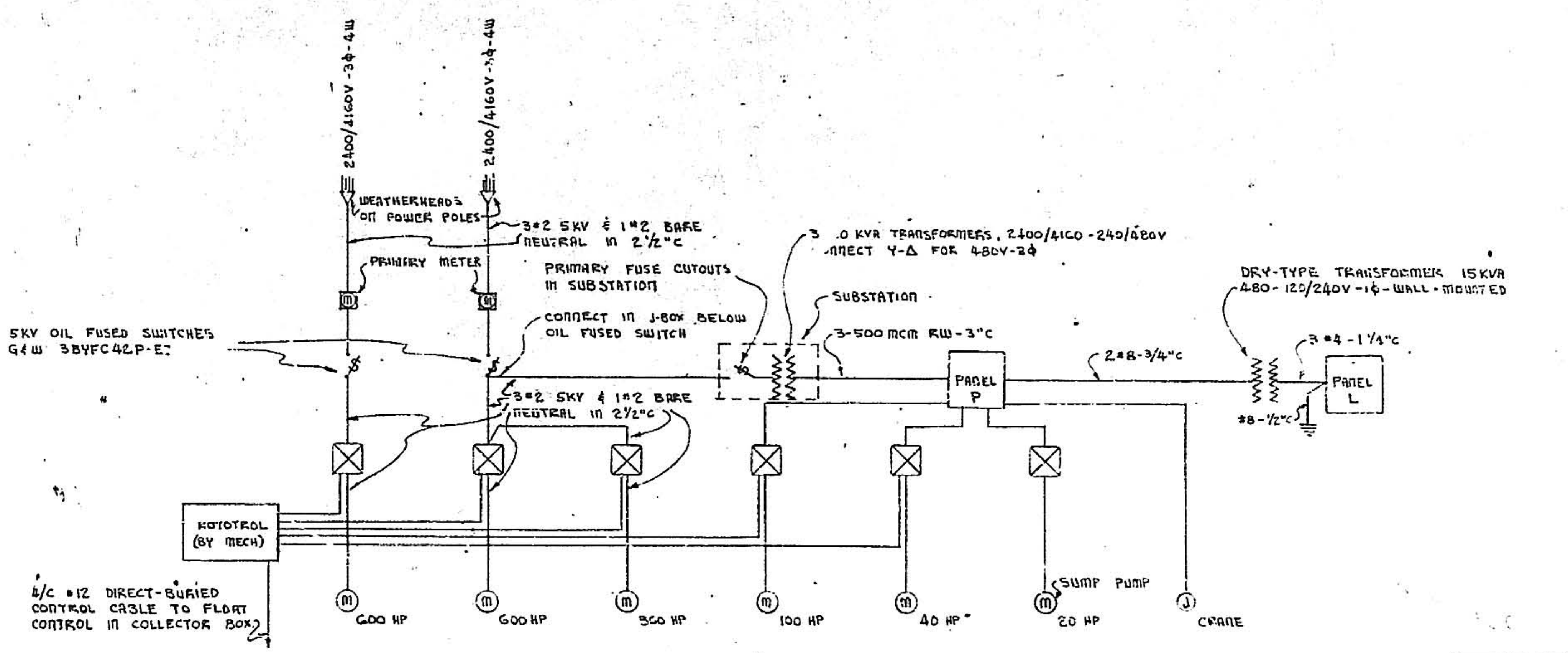
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

SCALE	DATE	DRAWN GAJ	SHEET 14
AS SHOWN	FEB 4 1956	CHECKED	OF 15

1


8' UP
D
A
C
L-3
MOUNT ON UNDERSIDE OF 1ST FLOOR TYPICAL
BOTTOM OF FIXTURES TO BE LEVEL WITH LOWER CHORD OF JOISTS.
HEATER
B
600
INSTALL CONDUIT ON STRUCTURAL MEMBERS, TYPICAL
SMALL SUMP PUMP AT LOWER FLOOR
1/2
L 3 S
300
L-11, 240V
3#3/0 - 2"C
100
L-6
L-7
S3
L-1
L-12
3#4 - 1¼"C
40
5' GATE
15'-0"
ROTOTROL
ON WALL
L-4
12' UP, CONNECT TO CRANE RAIL COLLECTORS
OIL FUSED SWITCH
PRIMARY METERS
4/C #12 DIRECT BURIED CONTROL CABLE IN PIPE TRENCHING TO FLOAT CONTROL IN COLLECTOR BOX IN STREET. SEE DETAIL A.
3#8-3/4"C TO STARTER ON WALL
CONTROL CIRCUITS TO ROTOTROL
SUMP PUMP
RT
20
CONNECT TO FLOAT
3#2 5KV & 1#2 BARE NEUTRAL IN 2½"C 2' MIN. COVER.
EXTEND CONDUITS UP POLES ON OFF-SET BRACKETS TO WEATHERHEADS. HEIGHT AS DIRECTED BY POWER CO.
POWER POLES BY P.S. CO. VERIFY LOCATION.

FLOOR PLAN
SCALE: 1/4"=1'-0"


2400/4160V-3φ-4W
2400/4160V-3φ-4W
WEATHERHEADS ON POWER POLES
3#2 5KV & 1#2 BARE NEUTRAL IN 2½"C
PRIMARY METER
5KV OIL FUSED SWITCHES G&W 3BYFC42P-E
CONNECT IN J-BOX BELOW OIL FUSED SWITCH
PRIMARY FUSE CUTOUTS IN SUBSTATION
3 50 KVA TRANSFORMERS, 2400/4160-240/480V CONNECT Y-Δ FOR 480V-3φ
SUBSTATION
3-500 MCM RW-3"C
PANEL P
2#8-3/4"C
DRY-TYPE TRANSFORMER 15KVA 480-120/240V-1φ-WALL-MOUNTED
3#4-1¼"C
PANEL L
#8-½"C
3#2 5KV & 1#2 BARE NEUTRAL IN 2½"C
ROTOTROL (BY MECH)
4/C #12 DIRECT-BURIED CONTROL CABLE TO FLOAT CONTROL IN COLLECTOR BOX
600 HP
600 HP
300 HP
100 HP
40 HP
SUMP PUMP
20 HP
CRANE

RISER DIAGRAM
NO SCALE

PANEL P		
FRAME	FUSE	LOAD
200A3P	150A	100 HP PUMP
100A3P	60A	40 HP PUMP
60A3P	30A	20 HP PUMP
60A 2P	35A	PANEL L
30A3P	20A	CRANE

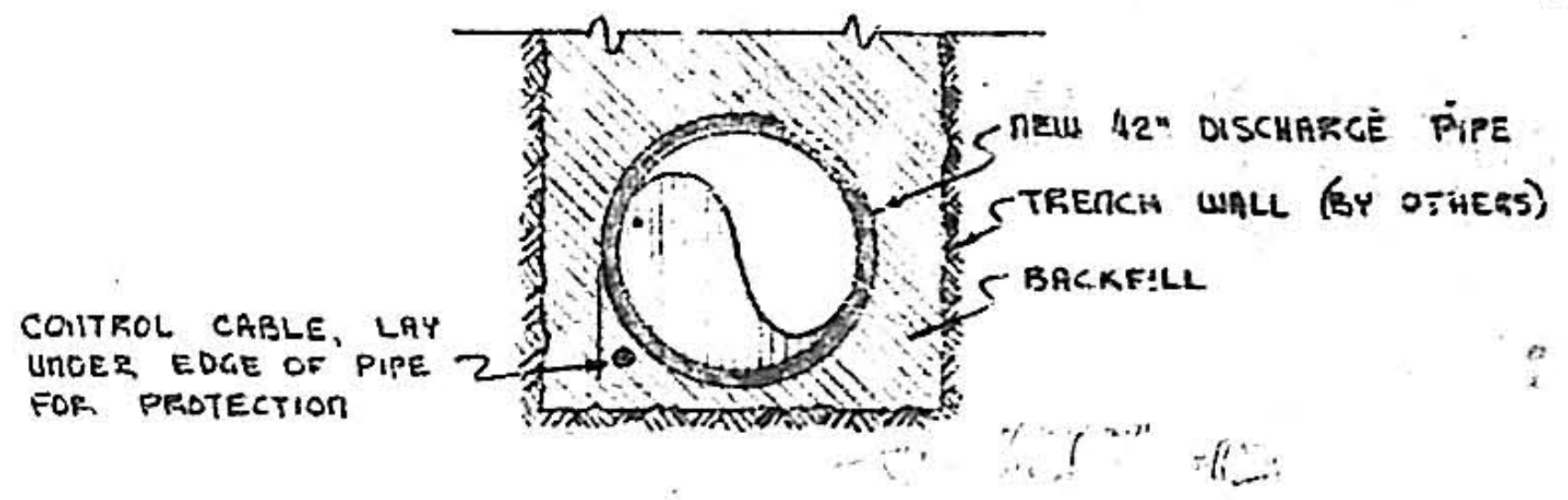
480V-3W-3φ, FUSIBLE, 400A MAINS, 400A3P MAIN SWITCH FUSED 350A, SURFACE, BOTTOM LUGS

PANEL L

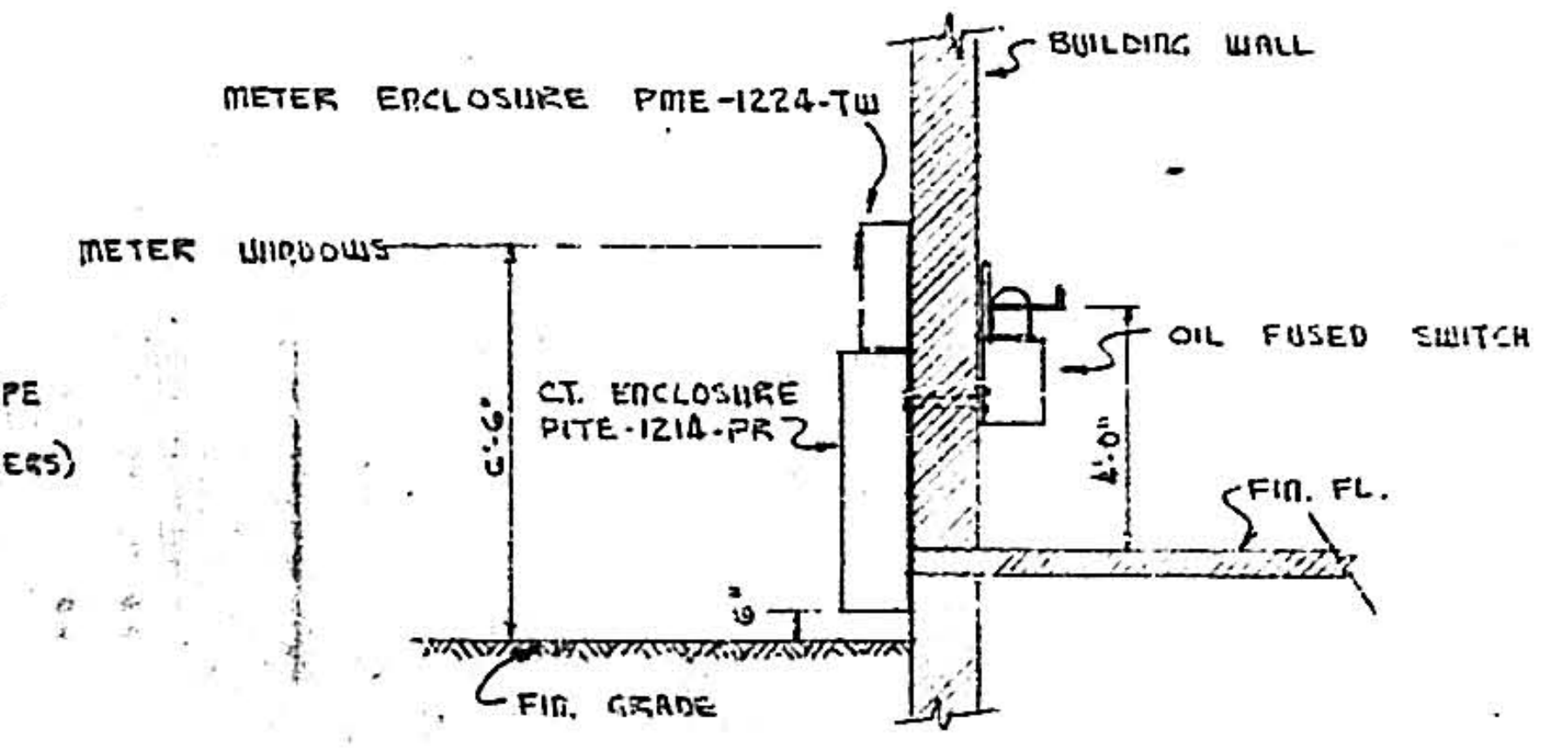
10-20A5P
1-20A2P

120/240V-3W-1φ CIRCUITBREAKER TYPE 100A MAINS, LUGS ONLY, SURFACE

Lot Bk 3 -


NEW 42" DISCHARGE PIPE
TRENCH WALL (BY OTHERS)
BACKFILL
CONTROL CABLE, LAY UNDER EDGE OF PIPE FOR PROTECTION

DETAIL A
NO SCALE


BUILDING WALL
METER ENCLOSURE PME-1224-TW
METER WINDOWS
OIL FUSED SWITCH
C.T. ENCLOSURE PITE-1214-PR
6'-6"
4'-0"
FIN. FL.
FIN. GRADE

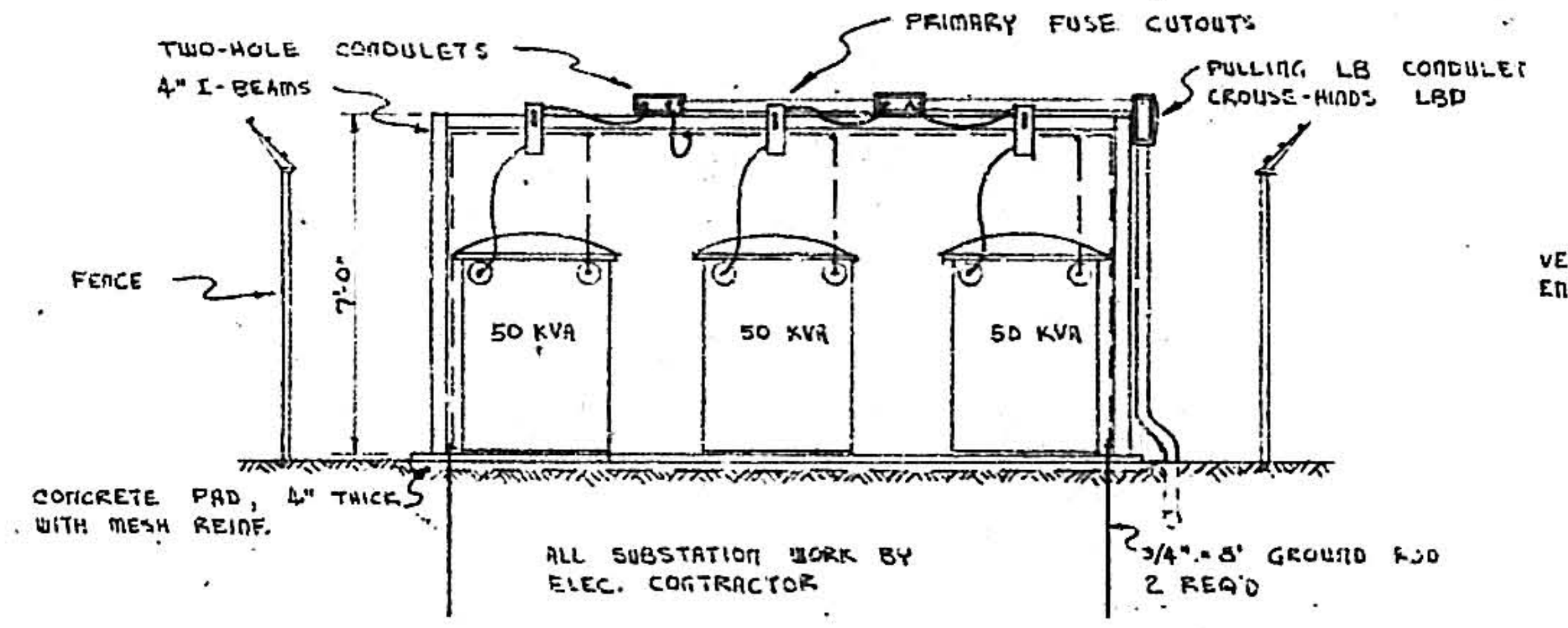
METER DETAIL
NO SCALE

LEGEND

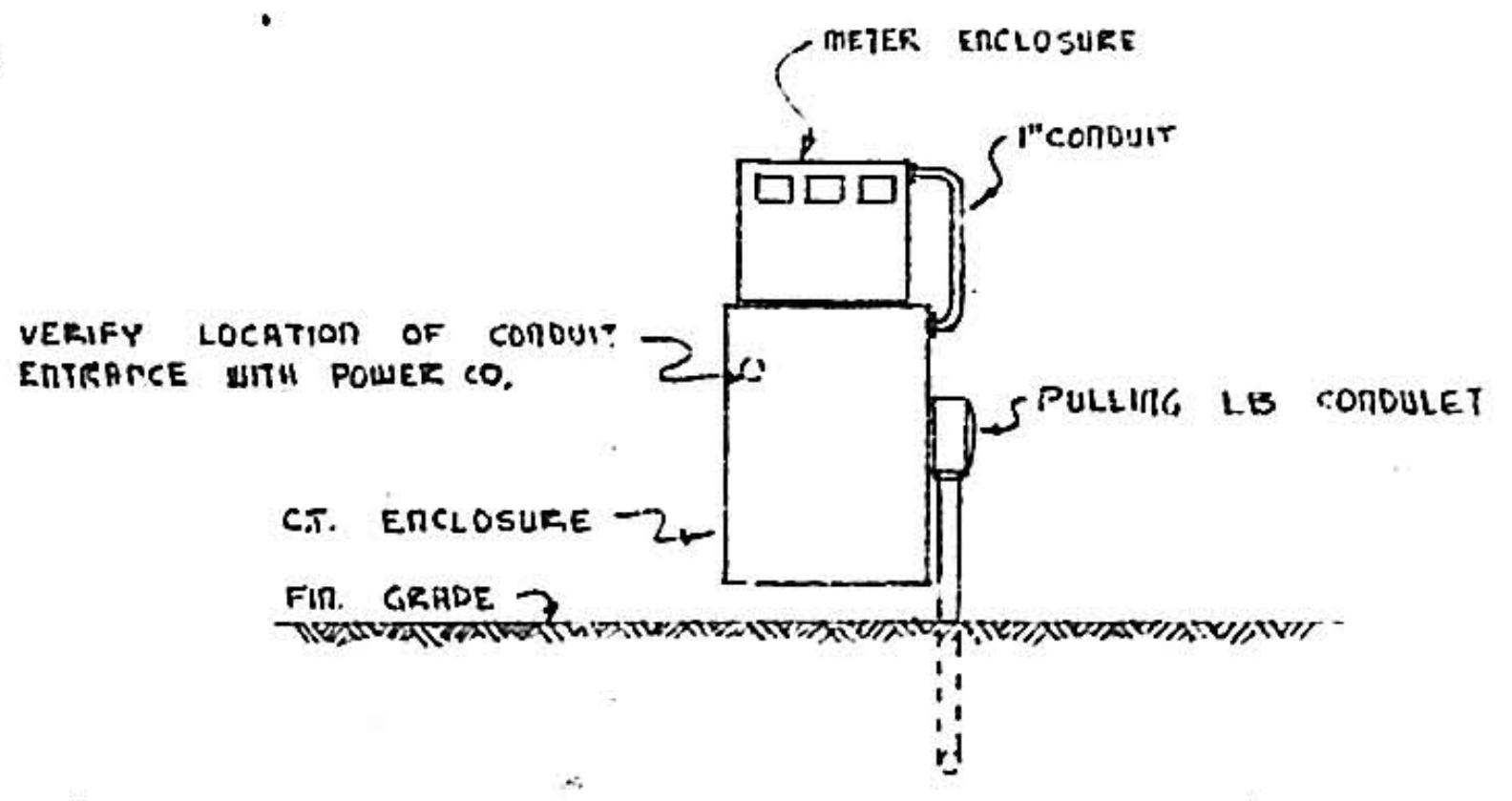
○	CEILING OUTLET
○┤	WALL OUTLET
⊖┤	DUPLEX OUTLET, GROUNDED, 1'-0" ABOVE UPPER FLOOR
◌	CEILING OUTLET IN LOWER FLOOR
⊖┤	DUPLEX OUTLET GROUNDED, 4'-0" ABOVE LOWER FLOOR
Ⓙ	JUNCTION BOX
ⓜ	MOTOR OUTLET & SIZE IN HP
S	WALL SWITCH, 4'-6" UP UNLESS NOTED
S_3	THREE-WAY WALL SWITCH, 4'-6" UP UNLESS NOTED
⊠	MOTOR CONTROLLER
■	PANEL L
▨	PANEL P
T	DRY-TYPE TRANSFORMER
——	RACEWAY ON WALL OR CEILING
— —	RACEWAY IN FLOOR OR WALL
←—	HOMERUN TO PANEL
☐	SAFETY SWITCH RT = RAINTIGHT

FIXTURE SCHEDULE

TYPE	LAMPS	MANUFACTURER
A	500W	APPLETON G-72518
B	300W	APPLETON G-72518
C	100W	BRYANT 5226
D	150W	ART METAL 26812, 1'-0" OVER DOOR


TWO-HOLE CONDULETS
4" I-BEAMS
PRIMARY FUSE CUTOUTS
PULLING LB CONDULET CROUSE-HINDS LBD
FENCE
7'-0"
50 KVA
50 KVA
50 KVA
CONCRETE PAD, 4" THICK WITH MESH REINF.
ALL SUBSTATION WORK BY ELEC. CONTRACTOR
3/4"×8' GROUND ROD 2 REQ'D

SUBSTATION ELEVATION
SCALE: 1/4"=1'-0"


METER ENCLOSURE
1" CONDUIT
VERIFY LOCATION OF CONDUIT ENTRANCE WITH POWER CO.
PULLING LB CONDULET
C.T. ENCLOSURE
FIN. GRADE

METER ELEVATION
NO SCALE

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0	8		5	7	1		1	5	5	7				0	8													

ROBERT J. UHL
1632

ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
ELECTRICAL DETAILS

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW

SCALE	DATE
AS SHOWN	FEB

SHT 15 OF 15