CITY OF

ALBUQUERQUE—NEW MEXICO

NORTH BROADWAY STORM SEWER

AND

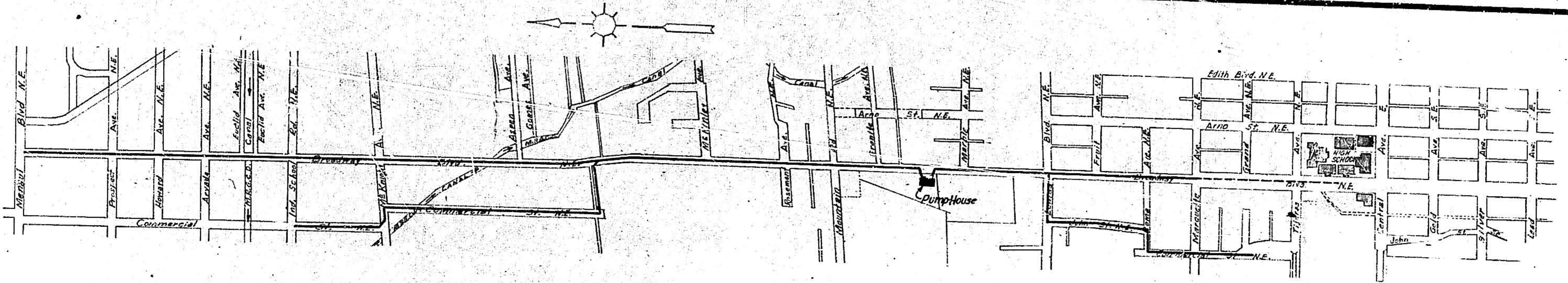
PUMP STATION

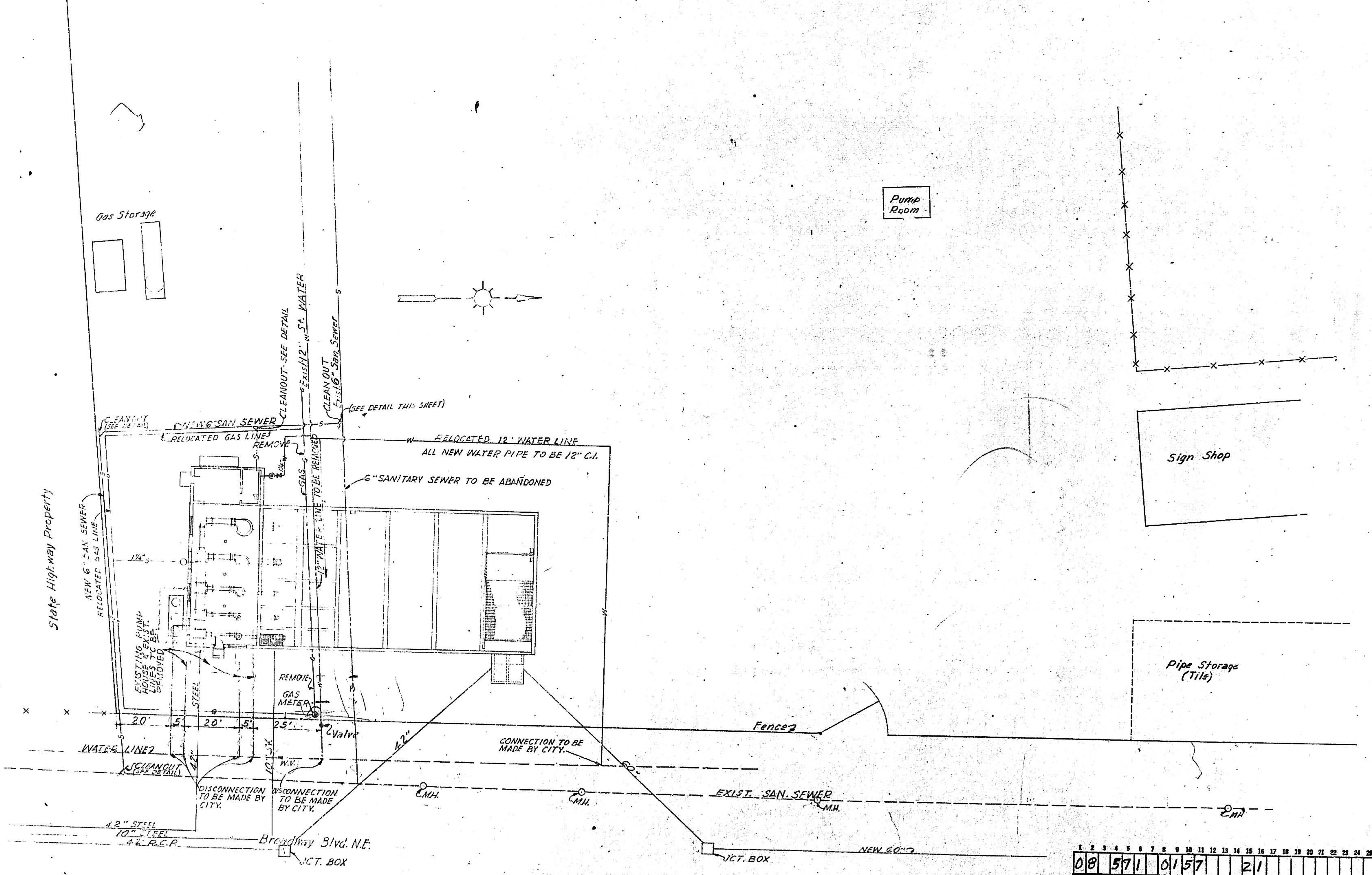
183

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	9													

GORDON HERKENHOFF AND ASSOCIATES INC. CONSULTING ENGINEERS

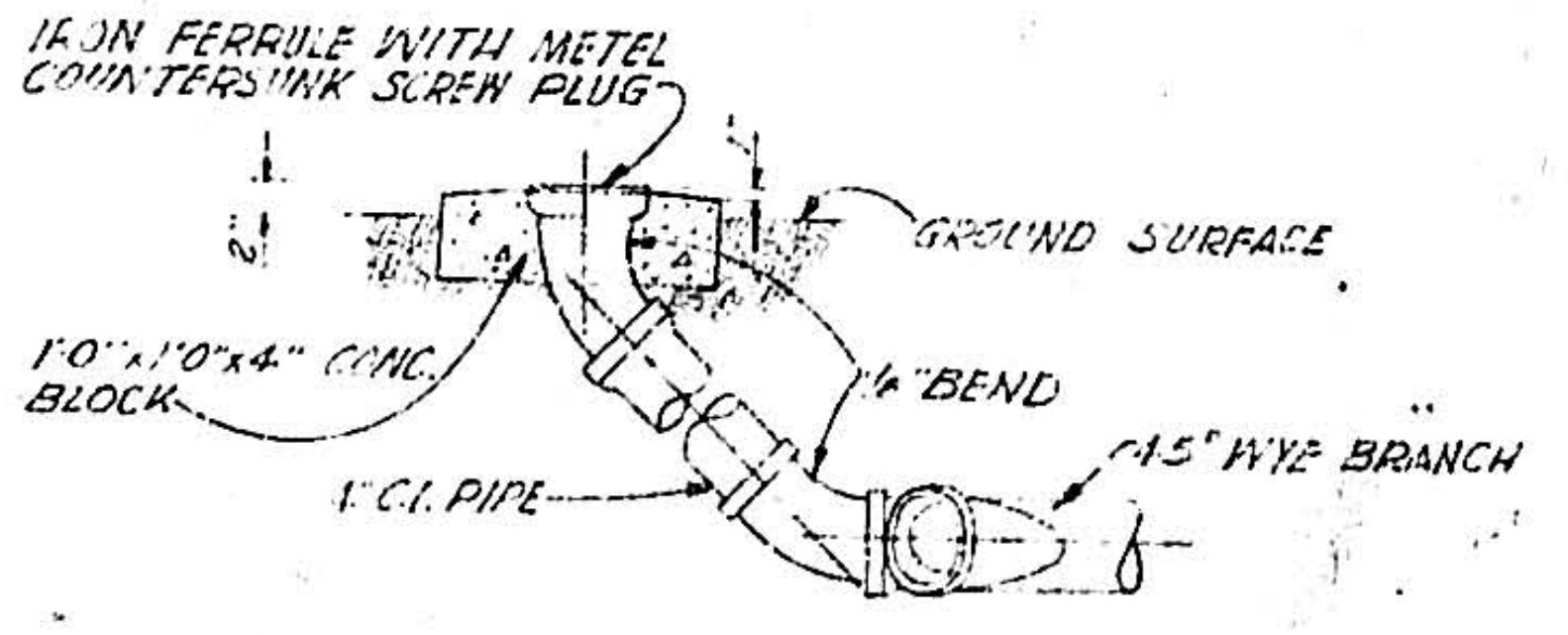
SHT 00 OF 15


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


Pump Room
Gas Storage
State Highway Property
Sign Shop
Pipe Storage (Tile)
Fence
CLEANOUT (SEE DETAIL)
NEW 6" SAN SEWER
RELOCATED GAS LINE
CLEANOUT-SEE DETAIL
Exist 12" St. WATER
CLEAN OUT
Exist 6" San. Sewer
(SEE DETAIL THIS SHEET)
REMOVE
RELOCATED 12" WATER LINE
ALL NEW WATER PIPE TO BE 12" C.I.
GAS
12" WATER LINE TO BE REMOVED
6" SANITARY SEWER TO BE ABANDONED
NEW 6" SAN SEWER
RELOCATED GAS LINE
1¼"
EXISTING PUMP HOUSE & EXIST. LINES TO BE REMOVED
STEEL
REMOVE
GAS METER
Valve
20'
5'
20'
5'
25'
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"
M.H.
M.H.
EXIST. SAN. SEWER
M.H.
M.H.
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
C.I. PIPE
45° WYE BRANCH

SEWER CLEANOUT DETAIL
NOT TO SCALE

08 571 0157 21

ALBUQUERQUE, NEW MEXICO

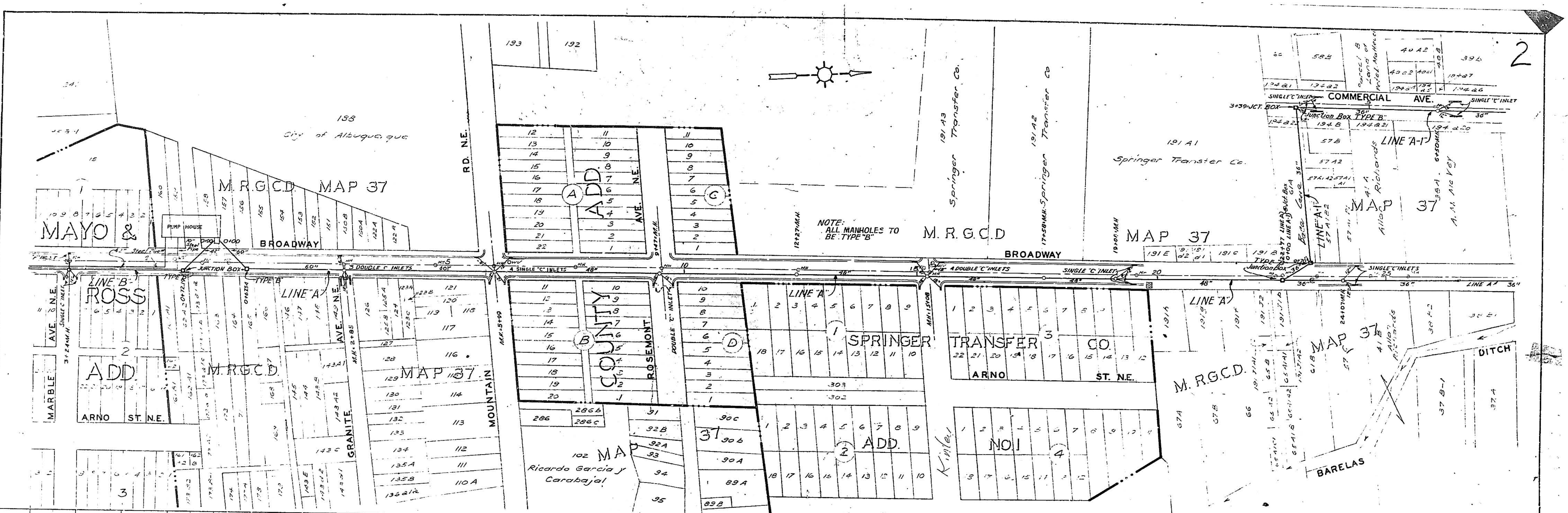
NORTH BROADWAY
STORM SEWER & PUMP STATION

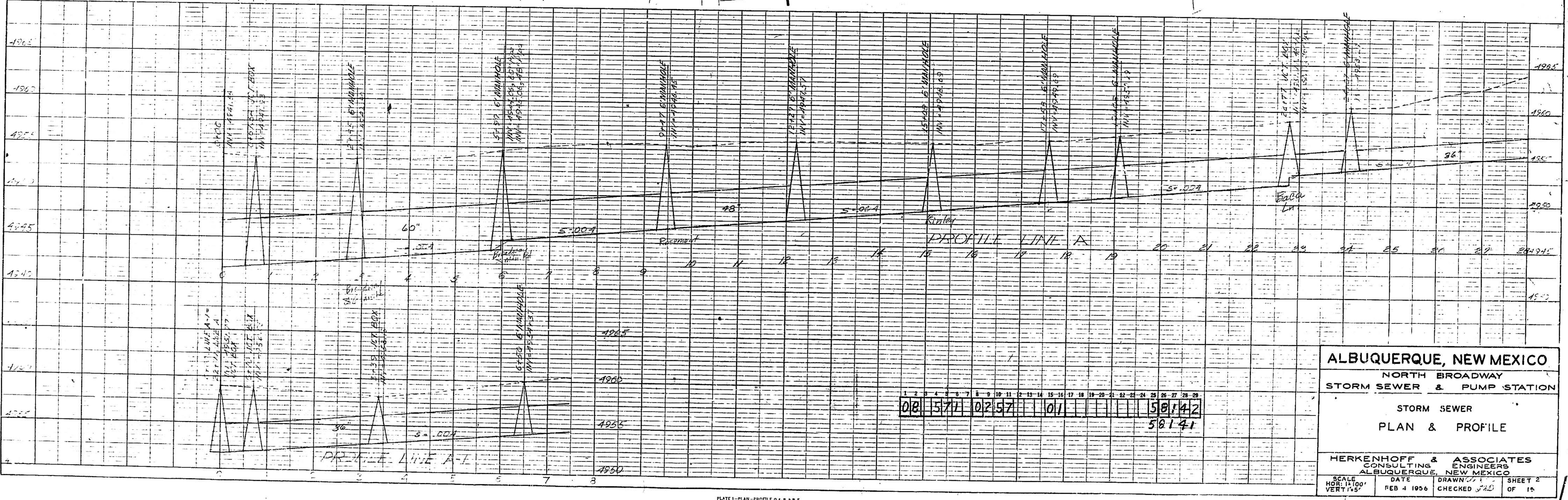
LOCATION PLAN
&
GENERAL LAYOUT

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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

2


PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
City of Albuquerque
M.R.G.C.D. MAP 37
MAYO & ROSS ADD
PUMP HOUSE
BROADWAY
JUNCTION BOX
TYPE "B"
LINE "B"
LINE "A"
LINE "A-1"
DOUBLE "C" INLETS
SINGLE "C" INLETS
MARBLE AVE. N.E.
ARNO ST. N.E.
GRANITE AVE. N.E.
MOUNTAIN RD. N.E.
A COUNTY ADD.
ROSEMONT AVE. N.E.
NOTE: ALL MANHOLES TO BE TYPE "B"
Springer Transfer Co.
SPRINGER TRANSFER CO. ADD. NO. 1
Kinley
102 MAP 37
Ricardo Garcia y Carabajal
COMMERCIAL AVE.
Junction Box TYPE "B"
SINGLE "C" INLET
Baca Lane
BARELAS
DITCH
A. M. Alcvey
Allen Richards
60"
48"
36"


PROFILE
PROFILE LINE A
PROFILE LINE A-1
6' MANHOLE
JCT. BOX
60"
48"
36"
S=.004
Rosemont
Kinley
Baca Ln
4965
4960
4955
4950
4945
4940
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	2	5	7				0	1									5	8	1	4	2

58141

ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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

PLATE I—PLAN—PROFILE

2

A.T. & S.F. RY.
A.T. & S.F. RY.
BARELAS
DITCH
COMMERCIAL
ST. N.E.
LINE A-1
DOUBLE "C" INLET
JUNCTION BOX
18+39 JCT. BOX
TYPE "B"
M.R.G.C.D.
Parcel A
Lands of
Pete L. Mattcucci
MAP 37
MAP 36
Gaspar Garcia
Henry Springer
City of Albuquerque
Donaciano Perea
A. M. McVey
FRANCISCAN
ACRES
MC KNIGHT AVE. N.E.
INDIAN SCHOOL RD. N.E.
M.R.G.C.D. CANAL
ARVADA AVE. N.E.
CUTLER AVE. N.E.
PROSPECT AVE. N.E.
BROADWAY
LINE "A"
SINGLE "C" INLET
UNDERGROUND TELEPHONE CONDUIT. CONTACT MT. STS. BEFORE EXCAVATING.
NOTE: ALL MANHOLES TO BE TYPE "B".
36"
27"
PROFILE LINE A
PROFILE LINE A-1
36" RCP
S=.004
S=.0055
PLAN
PROFILE
SURVEYED
PLOTTED
NOTE BOOK
ALIGNMENT CHECKED
NO.
BY
DATE

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 FNG	OF 15

PLATE 1—PLAN—PROFILE G.P. R & R.I.
CHARLES BRUNING COMPANY INC.

2

A.T. & S.F. RY.
BARELAS DITCH
COMMERCIAL ST. N.E.
LINE A-1
DOUBLE "C" INLET
19+29 M.H.
JUNCTION BOX
18+39 JCT. BOX
TYPE "B"
MAP 36
Henry Springer
76A
MAP 37
Gaspar Garcia
M.R.G.C.D.
Parcel A
Lands of
Pete L. Matteucci
A. M. McVey
Donaciano Perea
City of Albuquerque
6A
MC KNIGHT AVE. N.E.
FRANCISCAN
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.
ACRES
BROADWAY
LINE "A"
SINGLE "C" INLET
4 SINGLE "C" INLETS
NOTE: ALL MANHOLES TO BE TYPE "B".
6' MANHOLE
4' MANHOLE
36" RCP
S=.004
27"
PROFILE LINE A
PROFILE LINE A-1
PLAN
PROFILE

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	3	5	7			0	1											5	8	1	4	1

59 142

ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

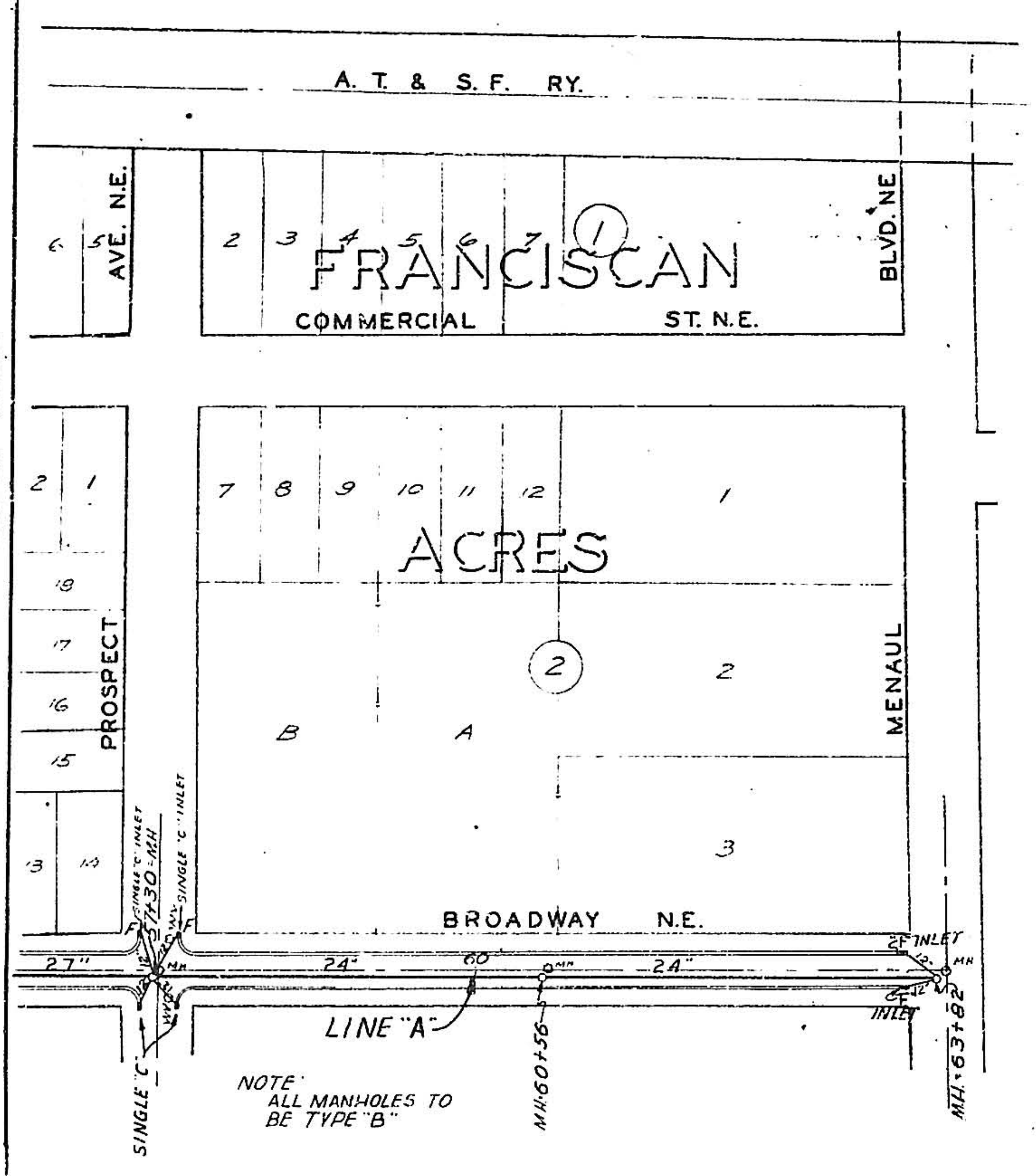
STORM SEWER
PLAN & PROFILE

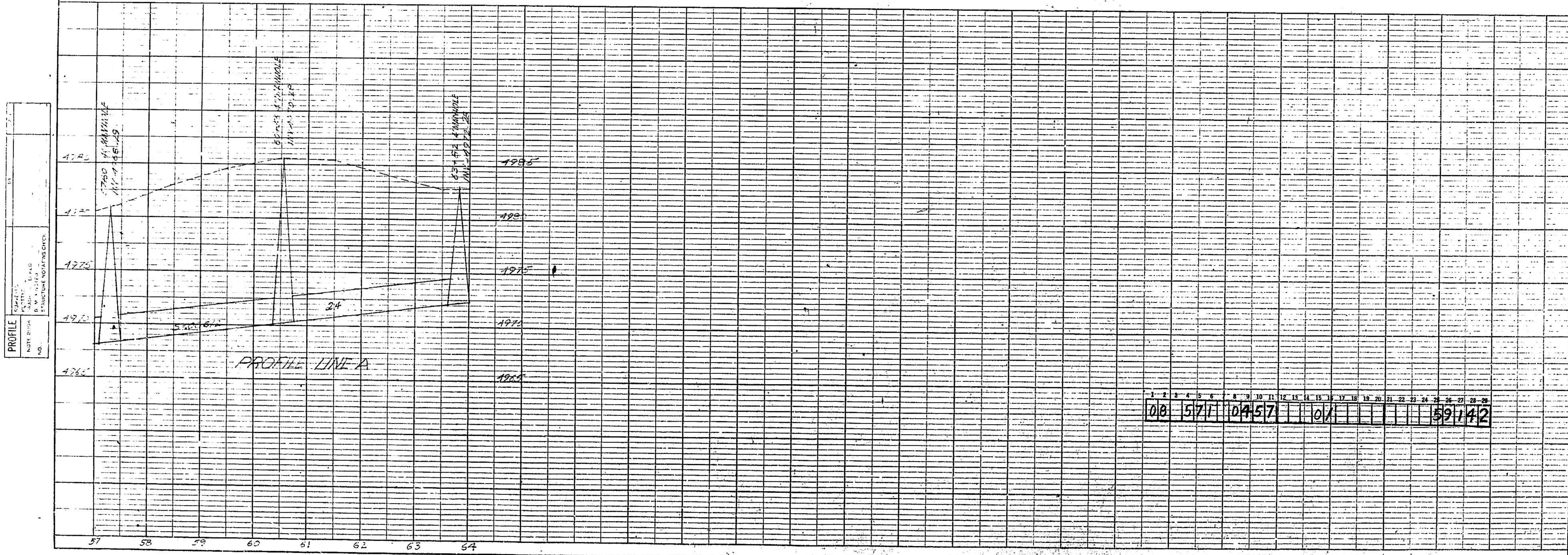
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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

PLATE 1—PLAN—PROFILE G.P. # S.R.E.
CHARLES BRUNING COMPANY INC.

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
7 8 9 10 11 12
13 14 15 16 17 18
A B
27"
24"
24"
60
SINGLE "C" INLET
57+30 MH
SINGLE "C" INLET
WY
SINGLE "C"
LINE "A"
MH 60+56
MH 63+82
INLET
INLET
NOTE:
ALL MANHOLES TO BE TYPE "B"
PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED


57+30 4' MANHOLE
INV. 4968.29
60+55 4' MANHOLE
INV. 4970.28
63+82 4' MANHOLE
INV. 4972.28
24"
S=.0061
PROFILE LINE A
4985
4980
4975
4970
4965
57
58
59
60
61
62
63
64
PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADE FIXED
B. M. ADJUSTED
STRUCTURE NOTATIONS CH'CK

00 571 0457 01 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
HOR 1" = 100' VERT 1" = 5'	FEB 4 1956	DRAWN CGS CHECKED JHD	SHEET 4 OF 15

PLATE I—PLAN—PROFILE O.F.R.& E.
CHARLES BRUNING COMPANY INC.

2
LINE "B"
LINE "B-1"
BROADWAY
MARBLE AVE. N.E.
FRUIT AVE. N.E.
ROMA AVE. N.E.
GRAND AVE. N.E.
TIJERAS AVE.
LOMAS BLVD.
JOHN ST. N.E.
COMMERCIAL ST. N.E.
MARQUETTE AVE.
42" Steel Pipe
10" Steel Pipe
Pump House
Junction Box
SINGLE "C" INLET
4 DOUBLE "C" INLETS
DOUBLE "C" INLETS
"F" INLET
36" R.C.P.
UNPAVED
Tr. 297
299A
NOTE: ALL MANHOLES TO BE TYPE "B"
PROFILE LINE B
PROFILE LINE B-1
PLAN
PROFILE
08 571 0557 01 58142
57141
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

ALBUQUERQUE NEW MEXICO

NORTH BROADWAY
STORM SEWERS & PUMP STATION

STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

SCALE HOR 1"=100' VERT 1"=5'	DATE FEB. 4, 1956	DRAWN CHECKED	SHEET 6 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.
LOMAS BLVD.
FRUIT AVE. N.E.
ROMA AVE. N.E.
MARQUETTE AVE. N.E.
GRAND AVE. N.E.
TIJERAS AVE.
JOHN ST. N.E.
COMMERCIAL ST. N.E.
LINE "B"
LINE "B-1"
Pump House
42" Steel Pipe
10" Steel Pipe
SINGLE "C" INLET
DOUBLE "C" INLETS
"F" INLET
36" R.C.P.
Junction Box TYPE "B"
PROFILE LINE B
PROFILE LINE B-1
PLAN
PROFILE
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

NOTE:
ALL MANHOLES TO
BE TYPE "B"

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

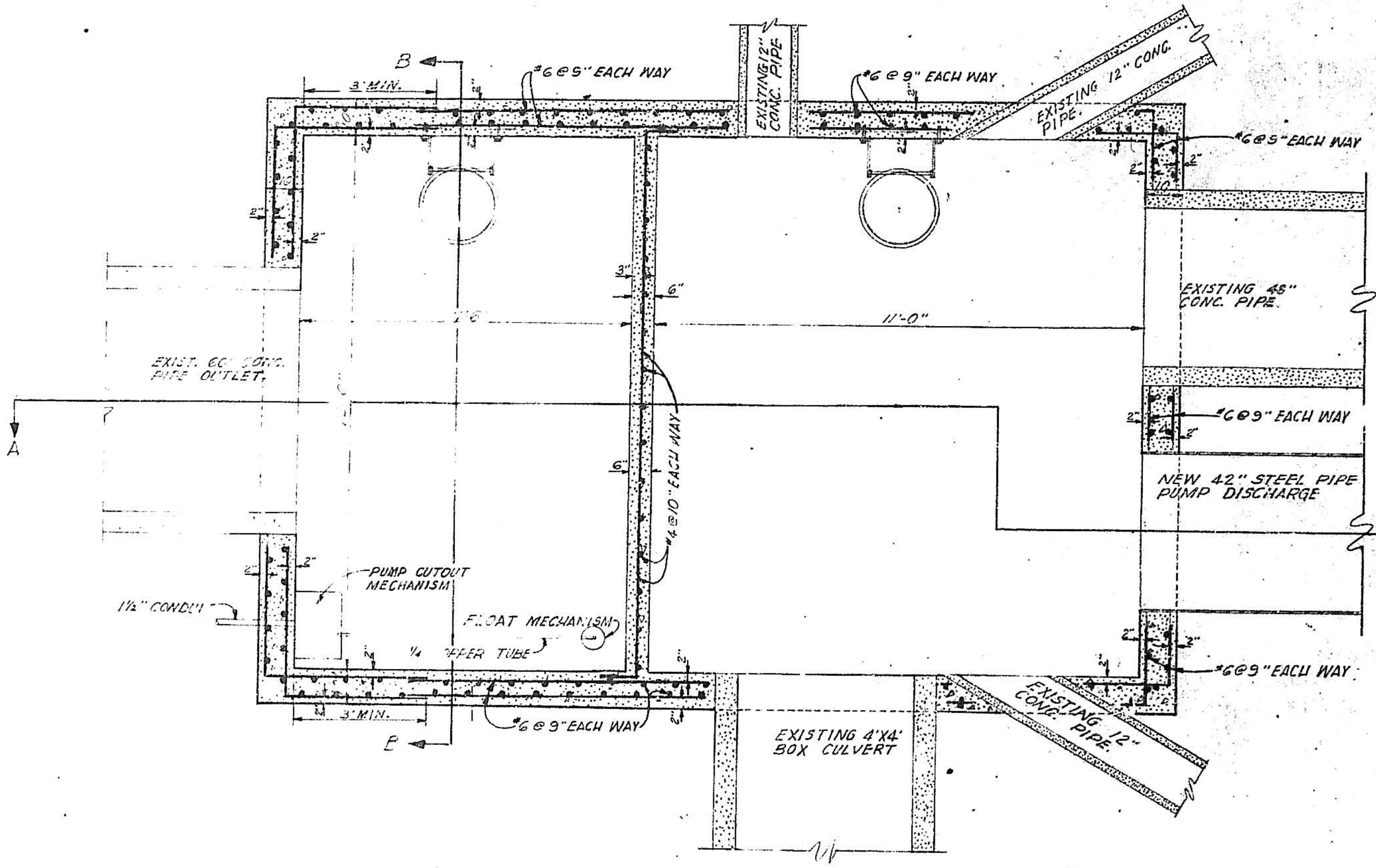
STORM SEWER
PLAN & PROFILE

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

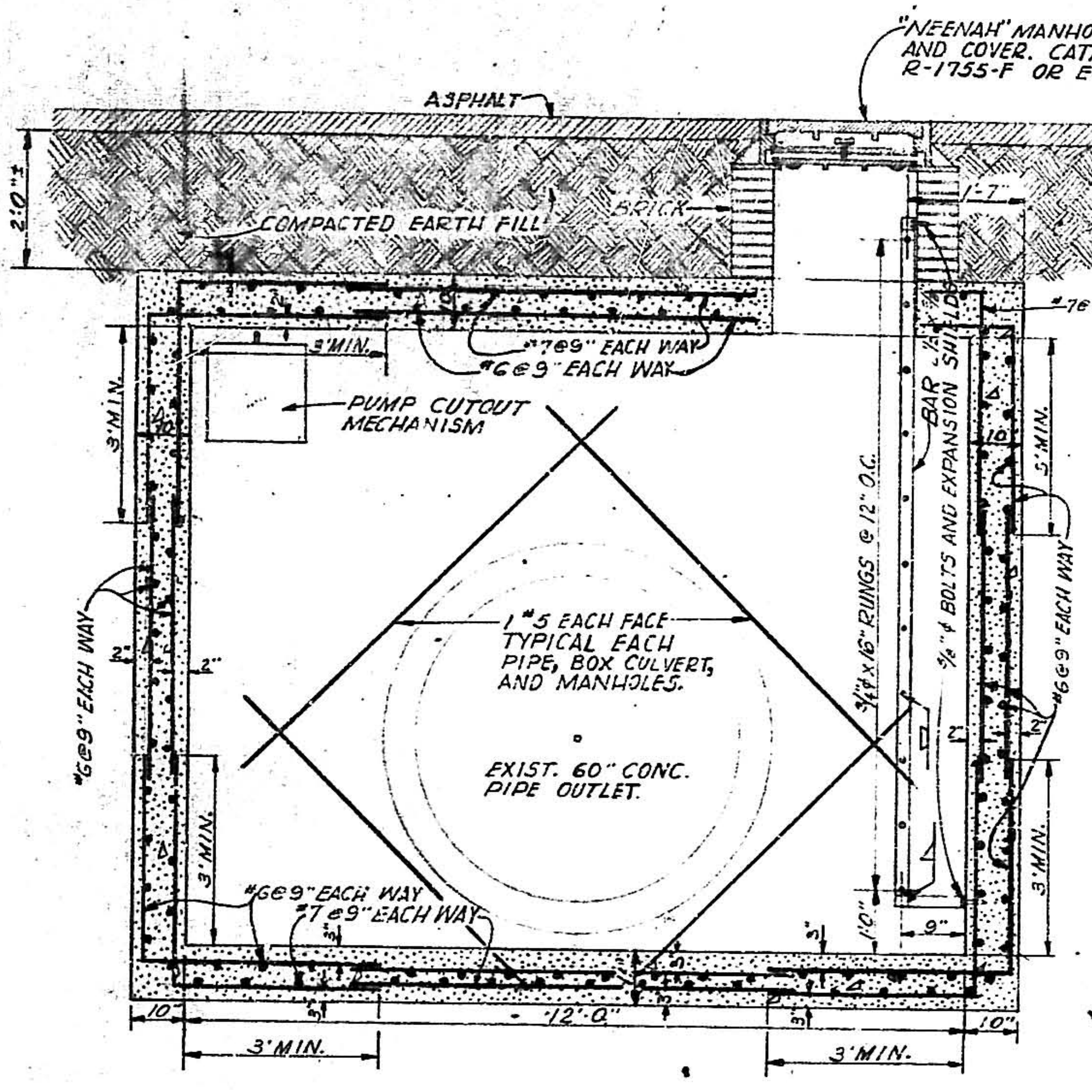
SCALE	DATE	DRAWN	SHEET 6
HOR 1"=100' VERT 1"= 5'	FEB. 4, 1956	CHECKED	OF 15

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

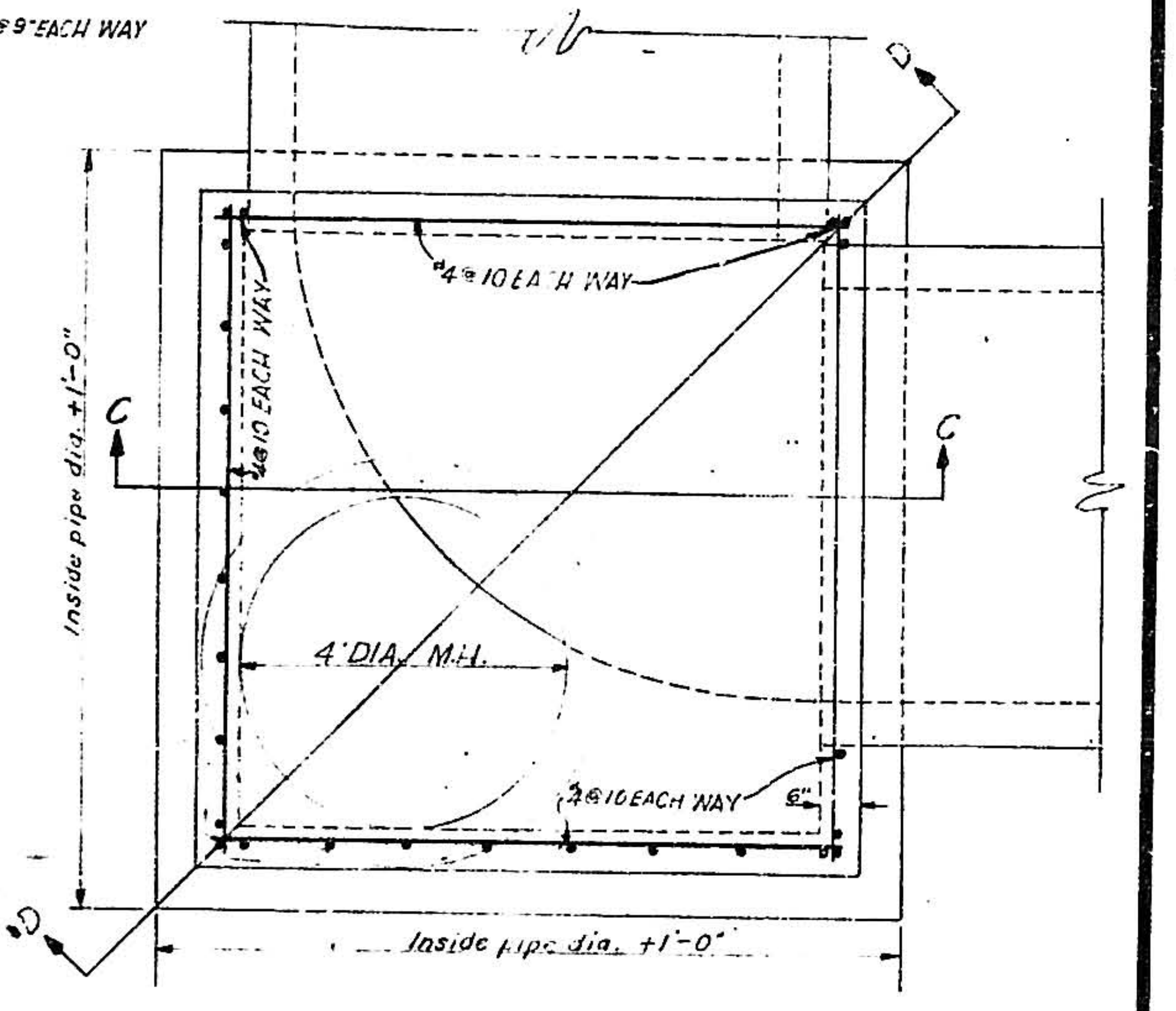
1


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

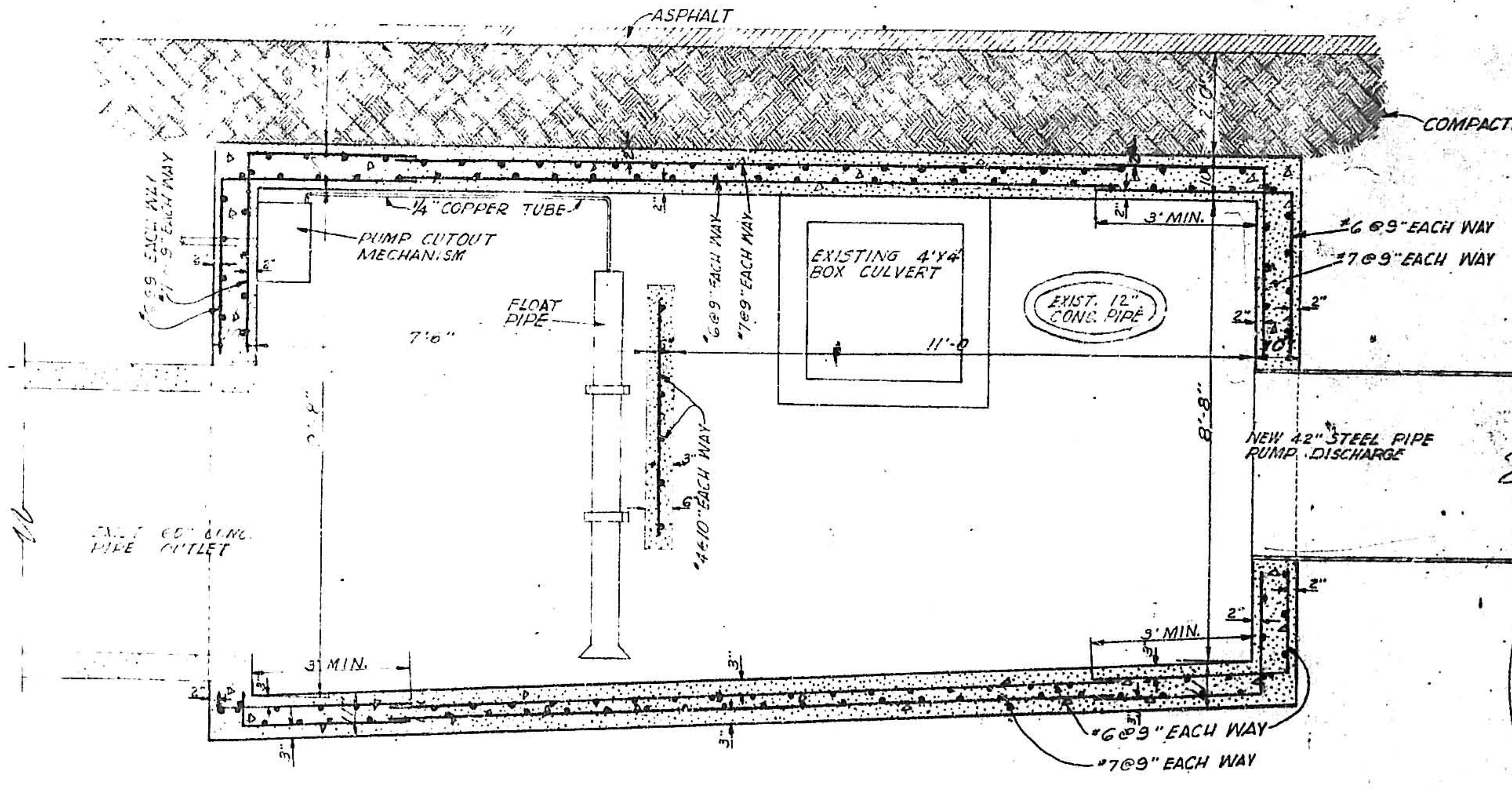
PLAN
13'-8" X 20'-8" CONC. JUNCTION BOX
TYPE "A"


"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 SHIELD
¾" x 16" RUNGS @ 12" O.C.
⅝" # BOLTS AND EXPANSION SHIELD
#6@9" EACH WAY
1 #5 EACH FACE TYPICAL EACH PIPE, BOX CULVERT, AND MANHOLES.
EXIST. 60" CONC. PIPE OUTLET.
#6@9" EACH WAY
#6@9" EACH WAY
#7@9" EACH WAY
3'MIN.
2"
3"
10"
9"
12'-0"
3'MIN.
3'MIN.

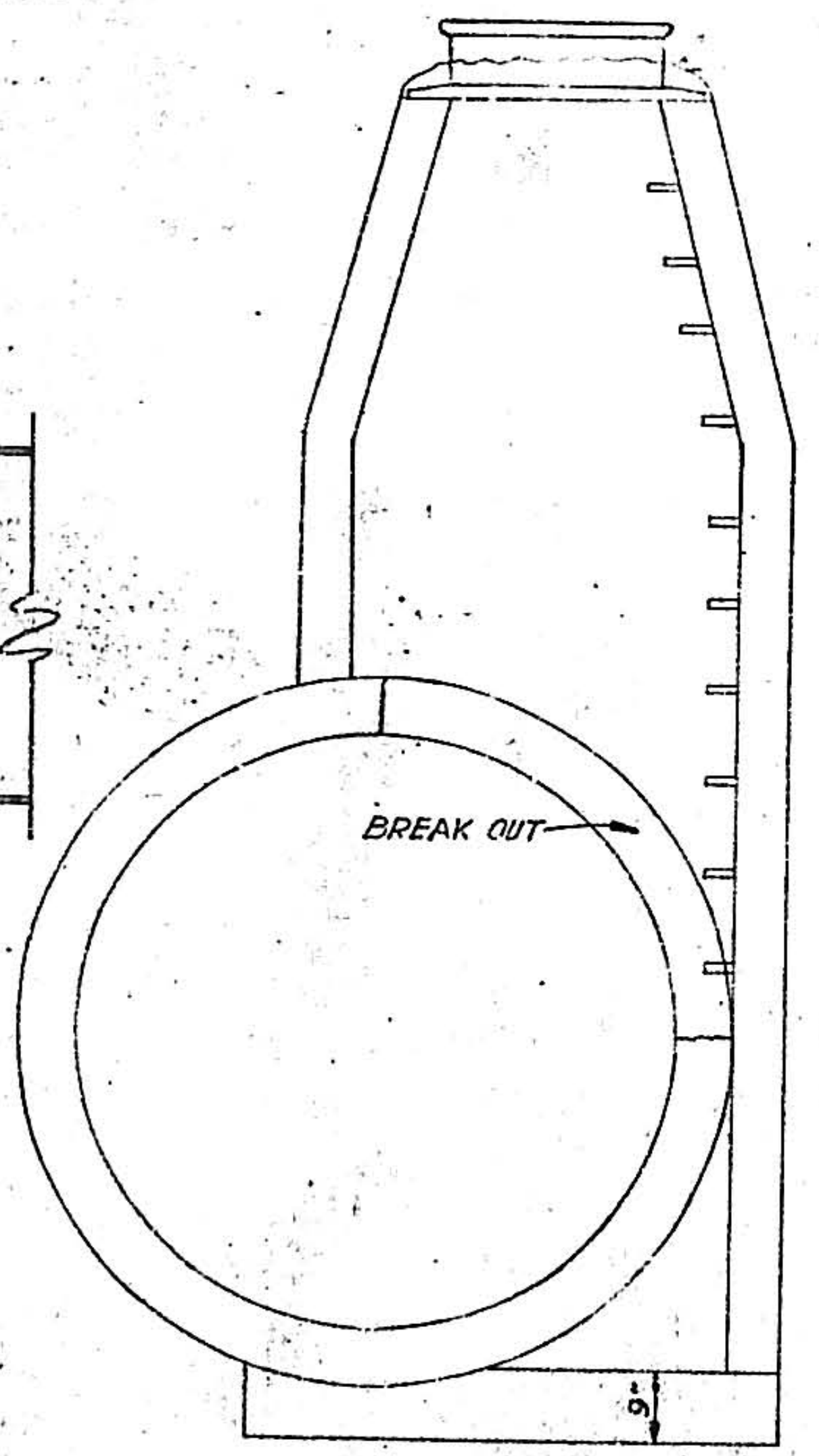
SECTION B-B
TYPE A JUNCTION BOX


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

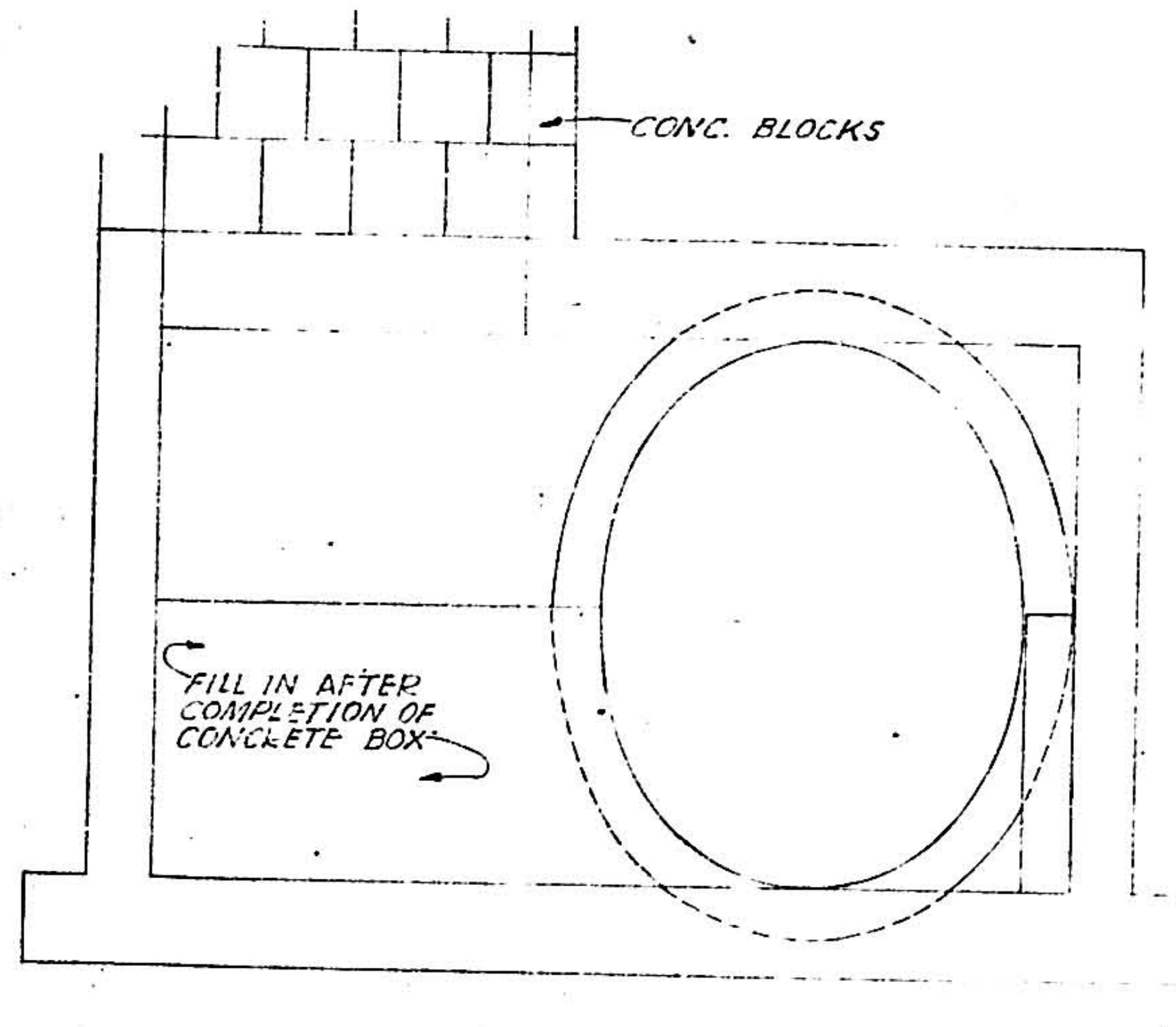
PLAN
8'-2" x 8'-2" CONC. JUNCTION BOX
TYPE "B"


ASPHALT
COMPACTED EARTH FILL
2'-0"
¼" COPPER TUBE
PUMP CUTOUT MECHANISM
#6@9" EACH WAY
#7@9" EACH WAY
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
#4@10" EACH WAY
8'-8"
NEW 42" STEEL PIPE PUMP DISCHARGE
EXIST. 60" CONC. PIPE OUTLET
3'MIN.
3'MIN.
#6@9" EACH WAY
#7@9" EACH WAY

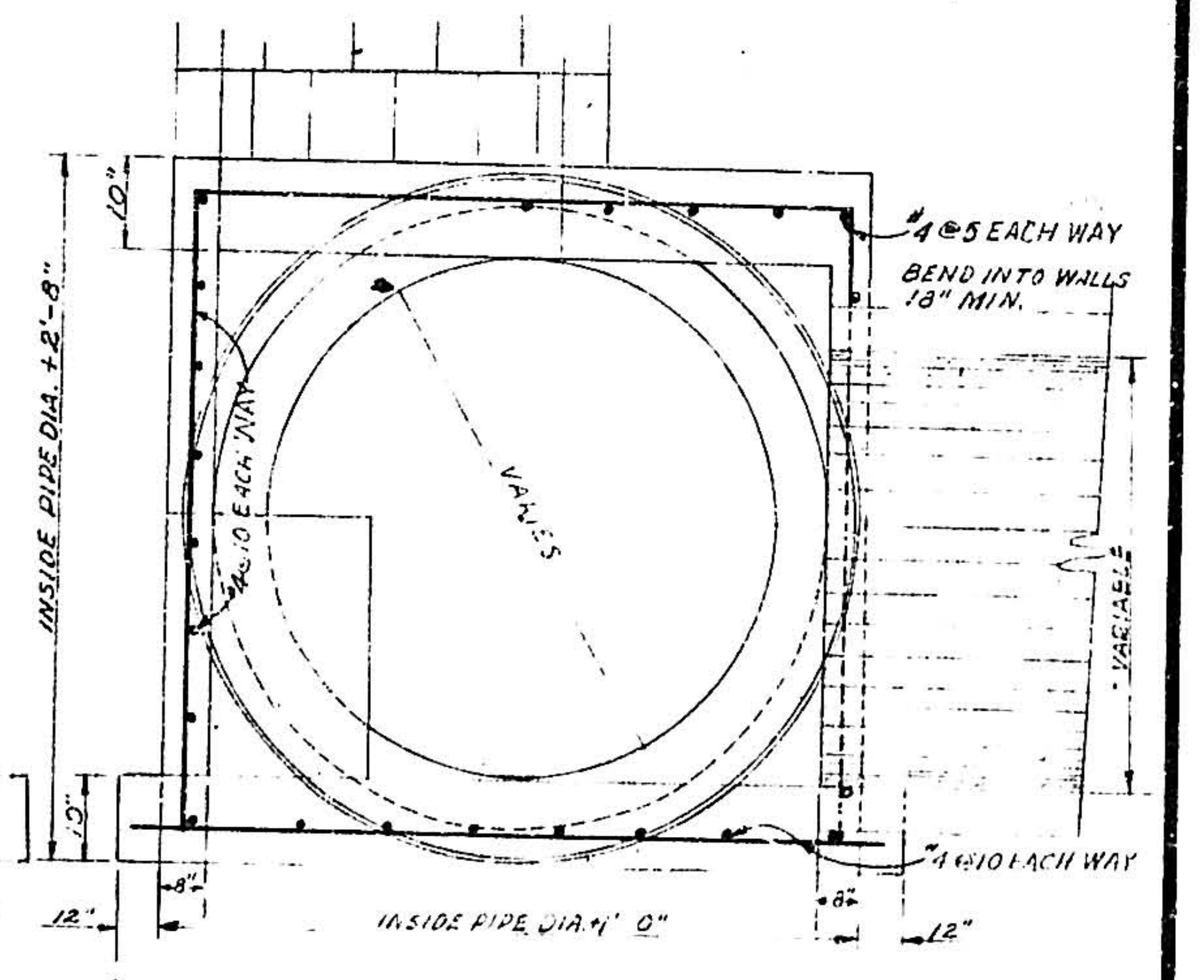
SECTION A-A



MANHOLE
4' DIA.


CONC. BLOCKS
FILL IN AFTER COMPLETION OF CONCRETE BOX

SECTION D-D


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

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													

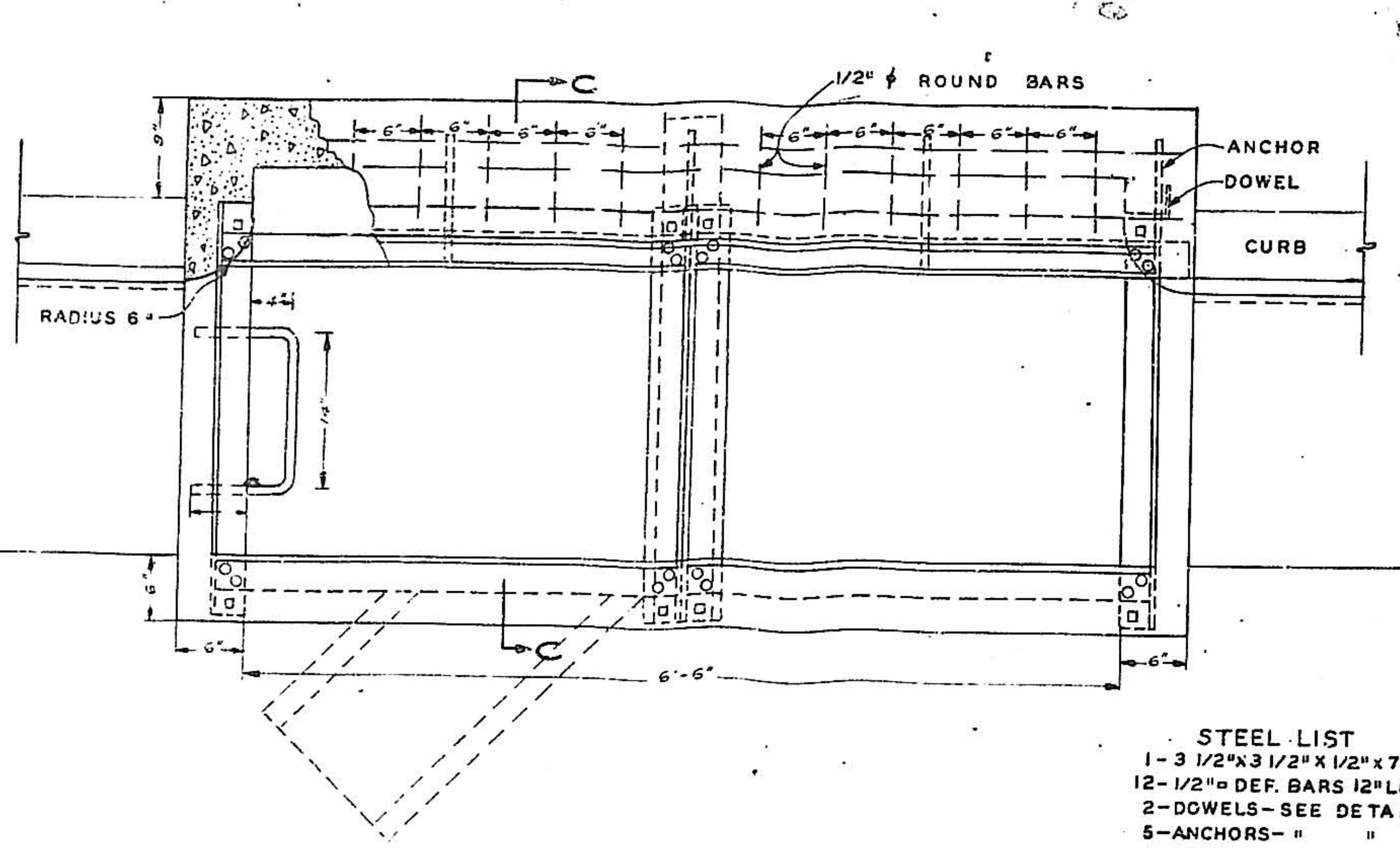
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

STORM SEWER
JUNCTION BOX DETAILS

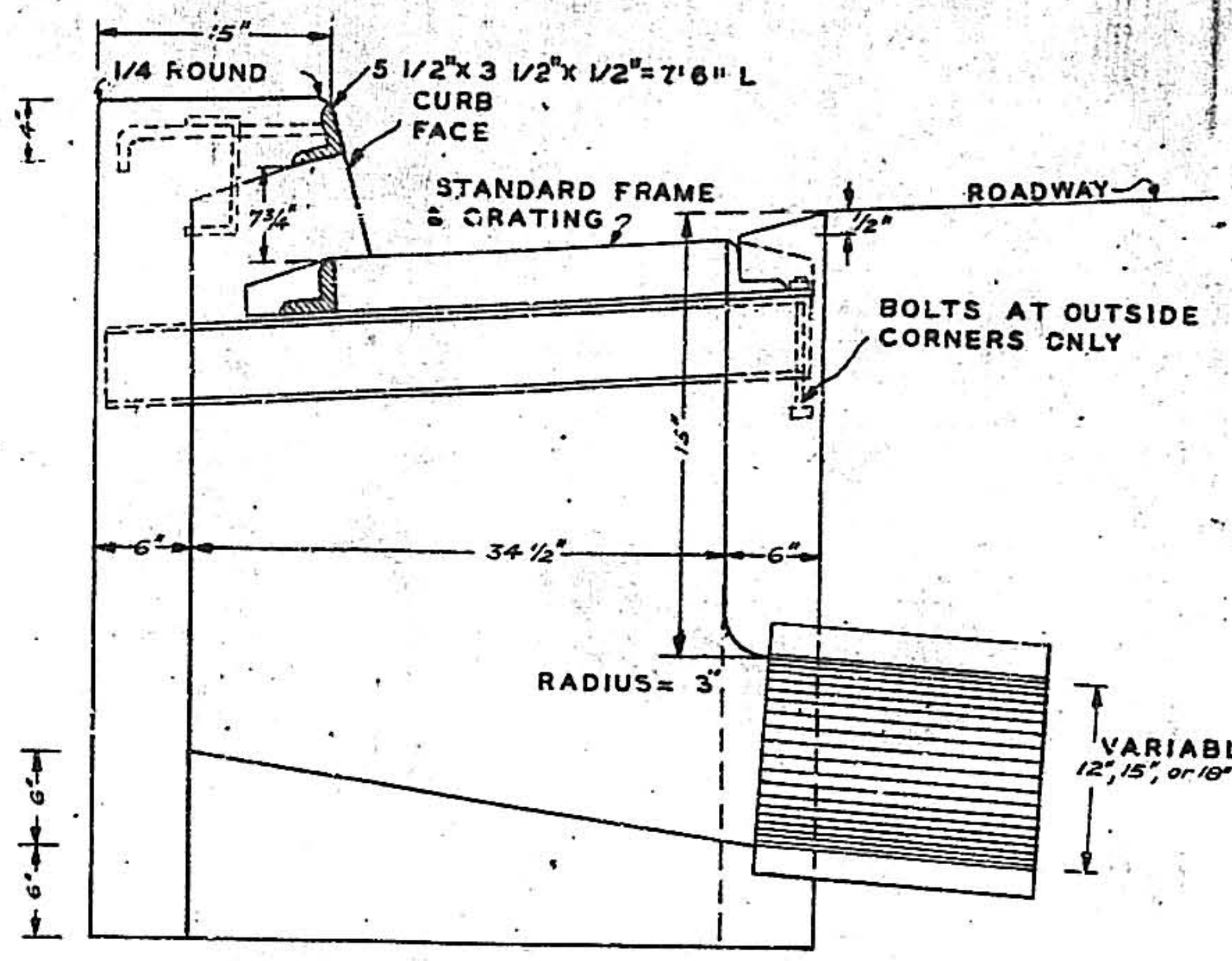
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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

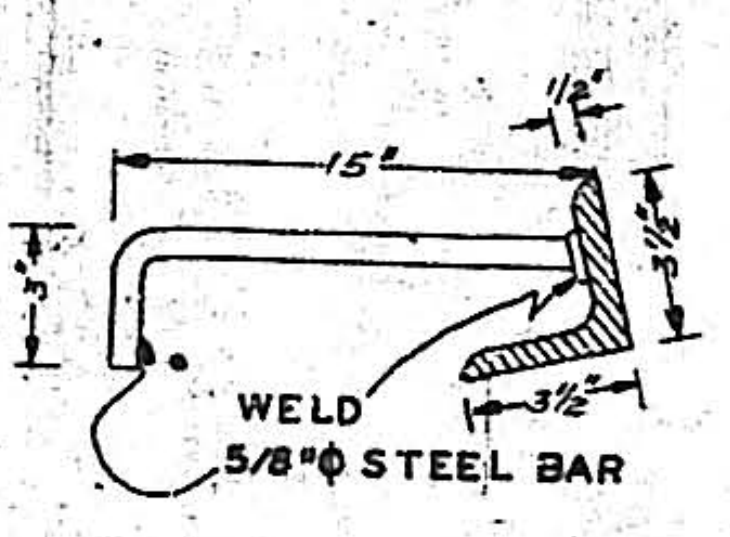

C
1/2" ϕ ROUND BARS
ANCHOR
DOWEL
CURB
RADIUS 6"
6'-6"
6"
C

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"

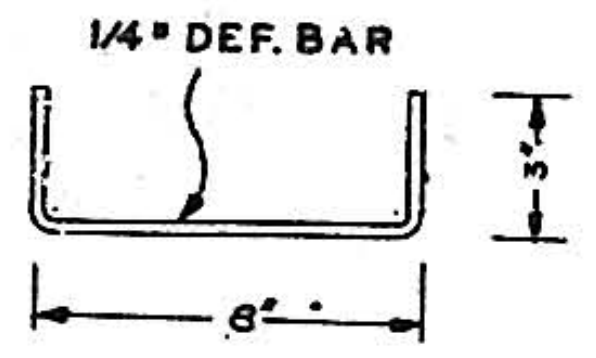

15"
1/4 ROUND
5 1/2"x3 1/2"x 1/2"=7'6" L
CURB FACE
STANDARD FRAME & CRATING
ROADWAY
BOLTS AT OUTSIDE CORNERS ONLY
6"
34 1/2"
6"
RADIUS= 3"
VARIABLE 12", 15", or 18"

SECTION C-C
[TYPE C]

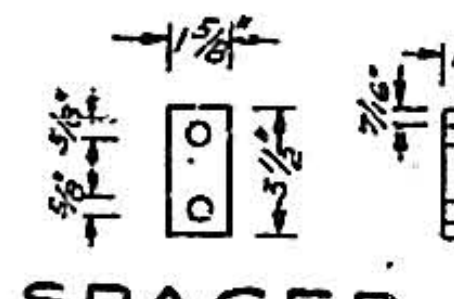

15"
WELD
5/8"ϕ STEEL BAR

DOWEL AND ANCHOR DESIGN ARE IDENTICAL FOR BOTH TYPES OF CATCH BASINS

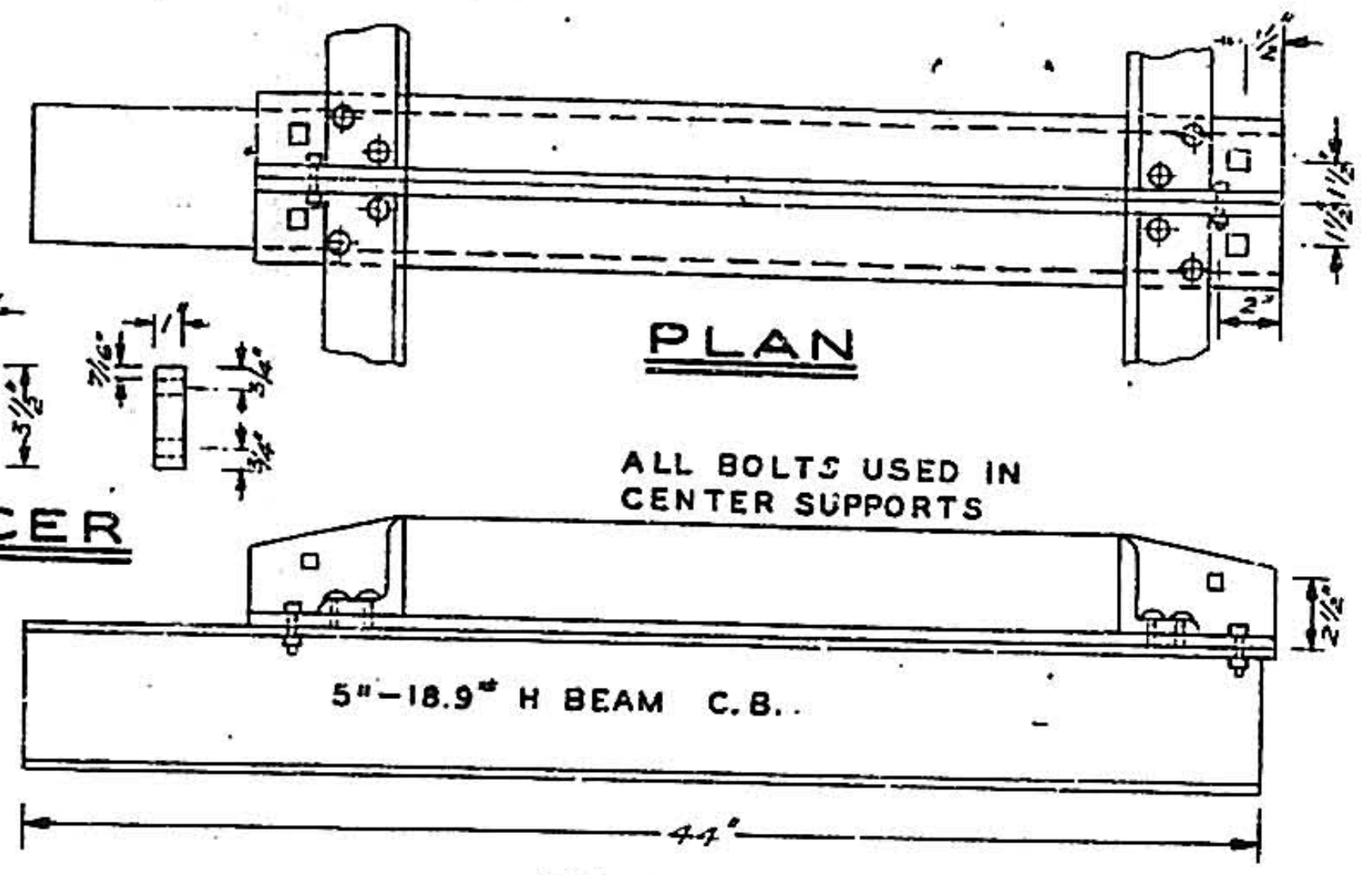
DETAIL OF ANCHOR



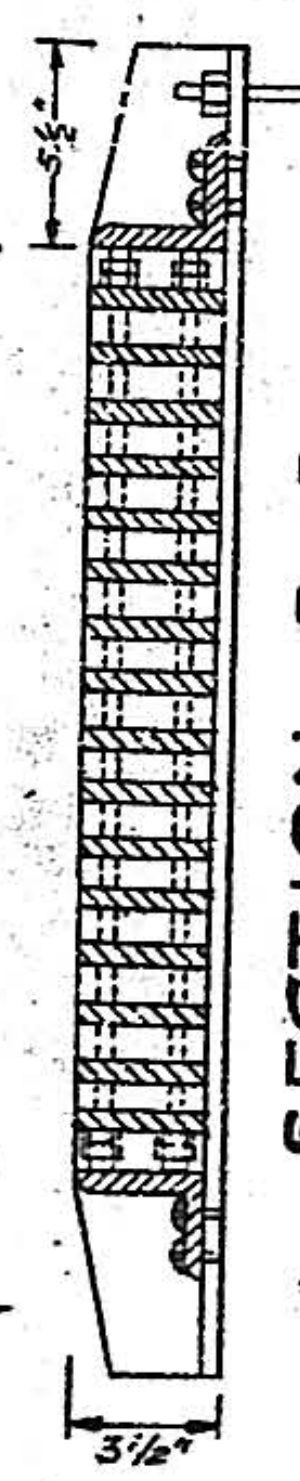
DETAIL OF DOWEL
TO BE USED WHEN TOP IS POURED SEPARATE



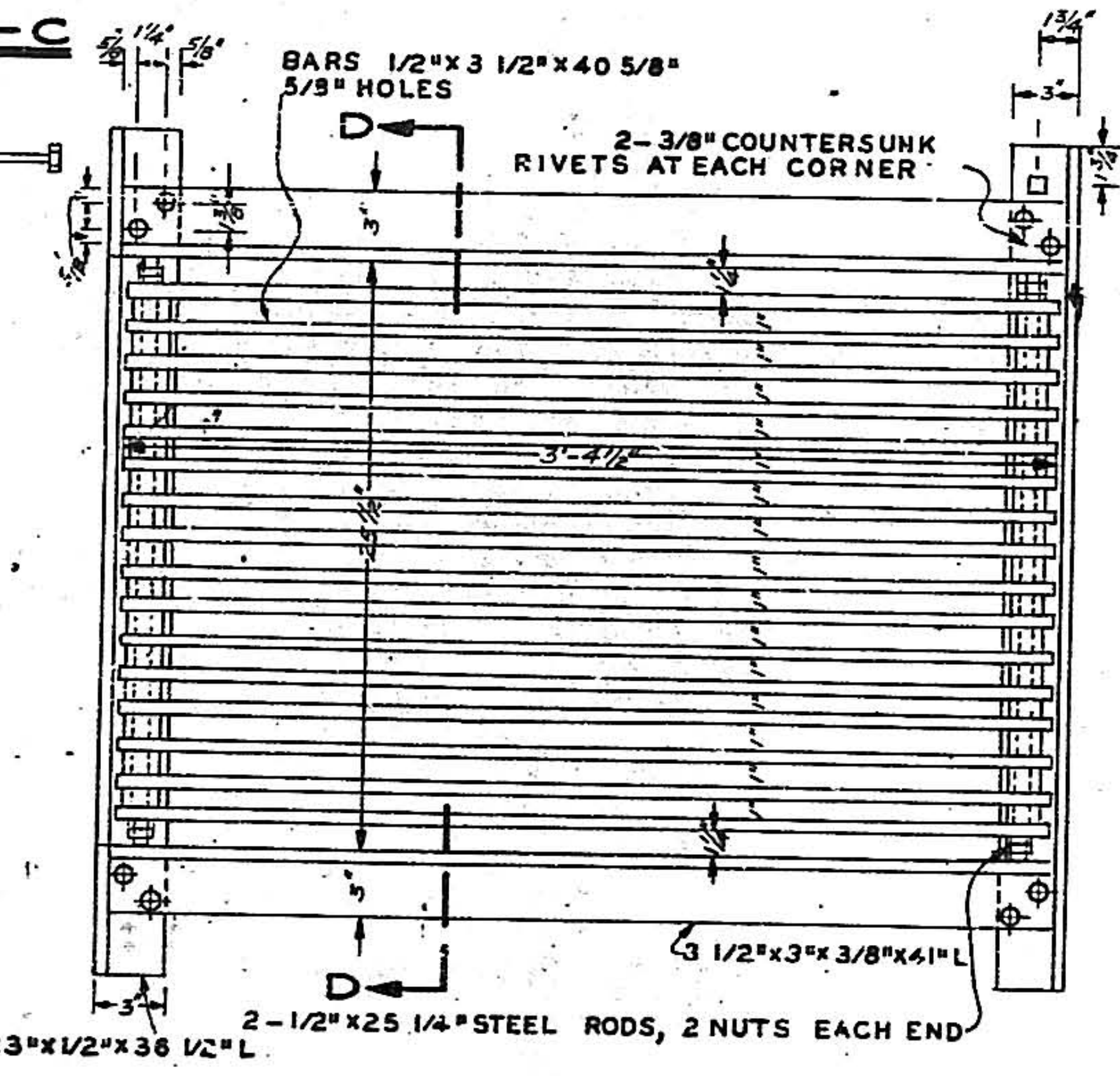
SPACER


PLAN
ALL BOLTS USED IN CENTER SUPPORTS
5"-18.9" H BEAM C.B.
41"

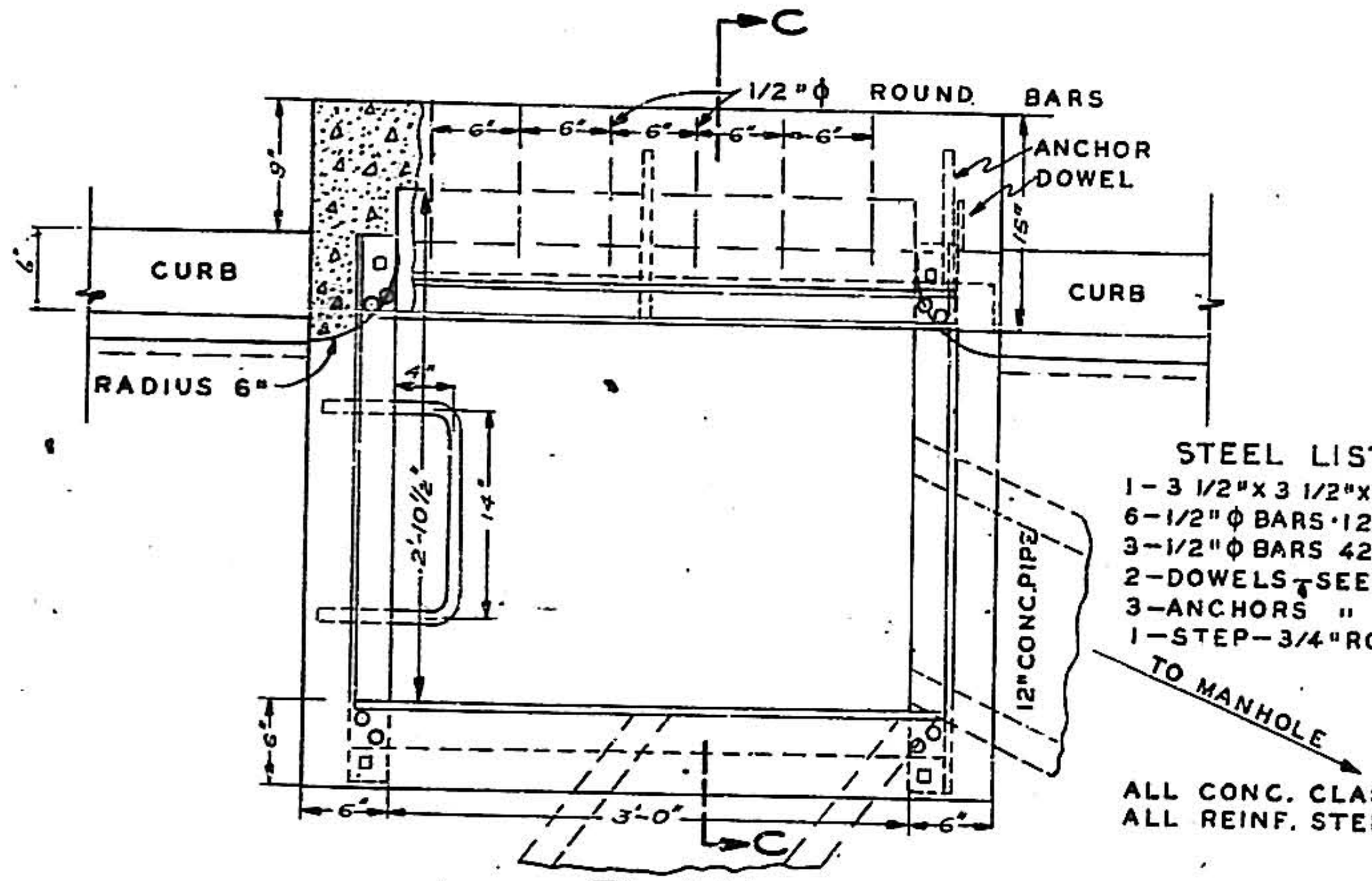
ELEVATION
CENTER SUPPORT ASSEMBLY



SECTION D-D


BARS 1/2"x3 1/2"x40 5/8" 5/8" HOLES
2-3/8" COUNTERSUNK RIVETS AT EACH CORNER
D
3'-4 1/2"
1 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
D

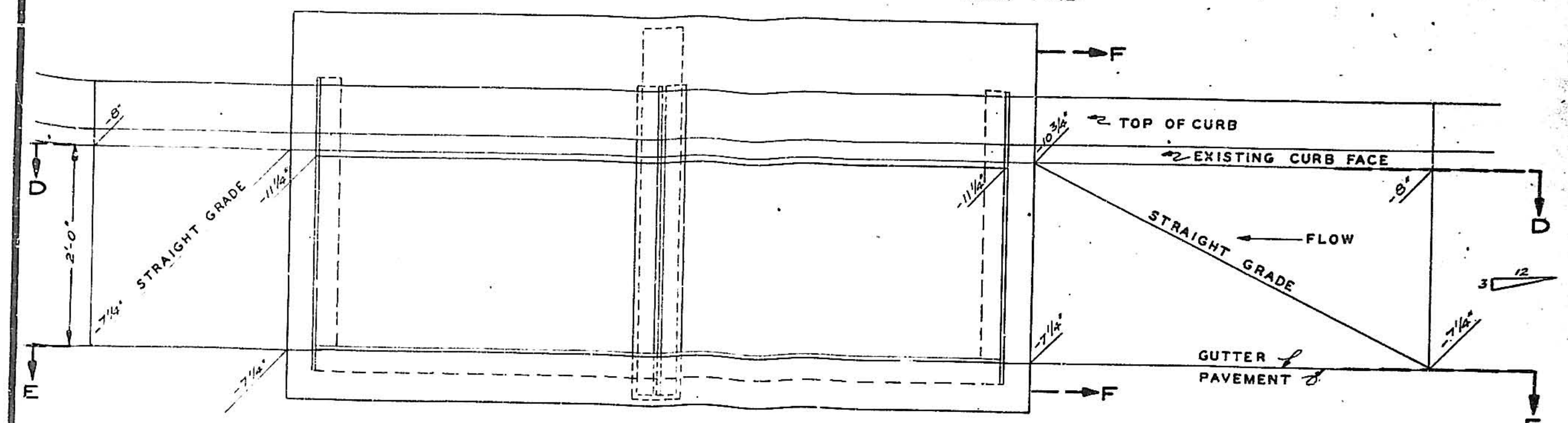
PLAN
STANDARD FRAME AND GRATING
SCALE 1/8"=1"


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

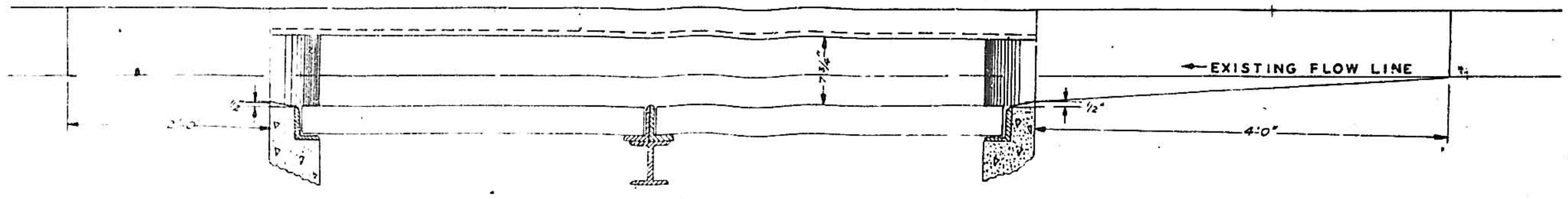
STEEL LIST
1-3 1/2"x3 1/2"x 1/2"x 3'10"
6-1/2"ϕ BARS·12" LONG
3-1/2"ϕ BARS 42" LONG
2-DOWELS-SEE DETAIL
3-ANCHORS " "
1-STEP-3/4" ROUND-SEE DETAIL

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

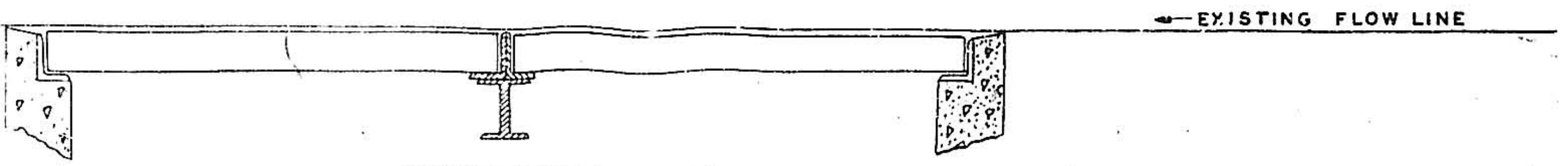
PLAN
SINGLE GRATE INLET & CATCH BASIN-TYPE "C"-ONE HALF STANDARD SIZE
SCALE: 1 INCH=1 FOOT


F
TOP OF CURB
EXISTING CURB FACE
D
STRAIGHT GRADE
FLOW
STRAIGHT GRADE
D
GUTTER ℄ PAVEMENT ℄
E
F
E

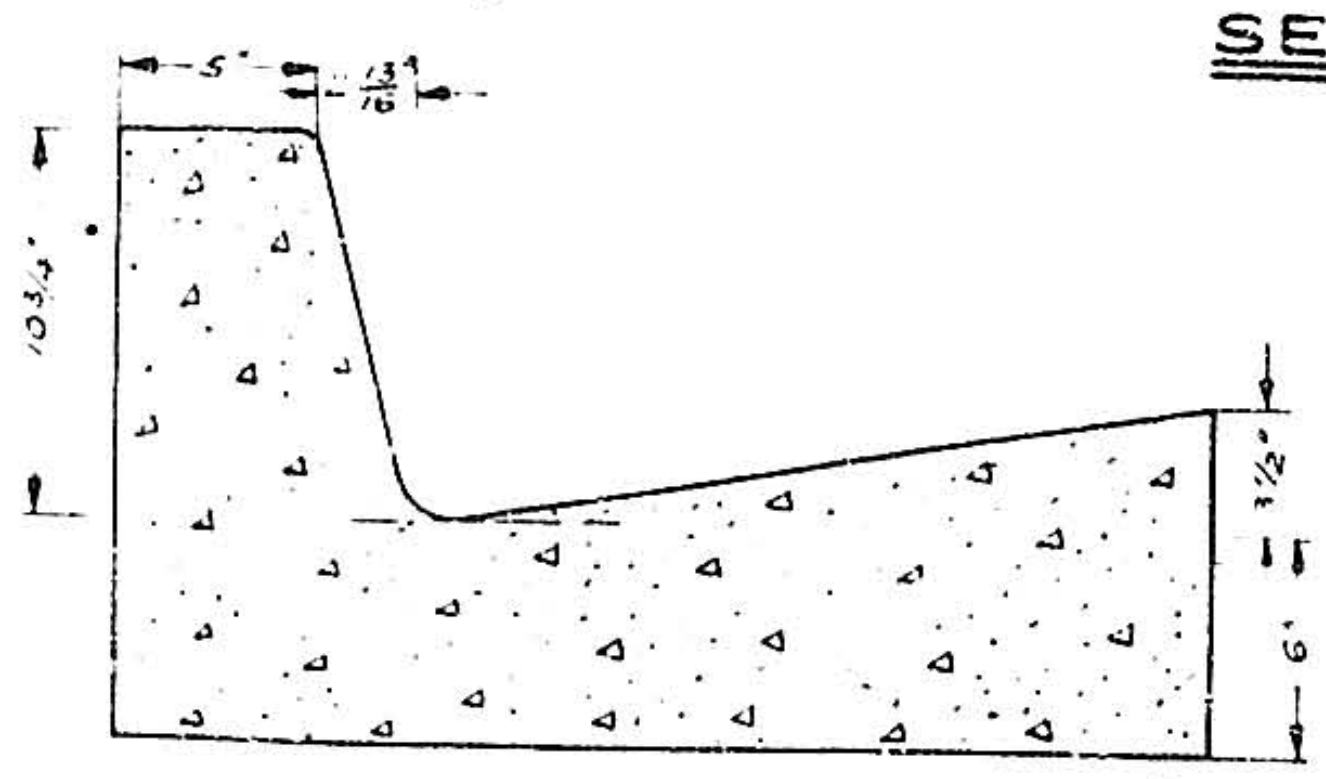
PLAN
STANDARD LOCAL DEPRESSIONS FOR CATCH BASINS
TYPES A,B AND C&C-1


EXISTING FLOW LINE
4'-0"

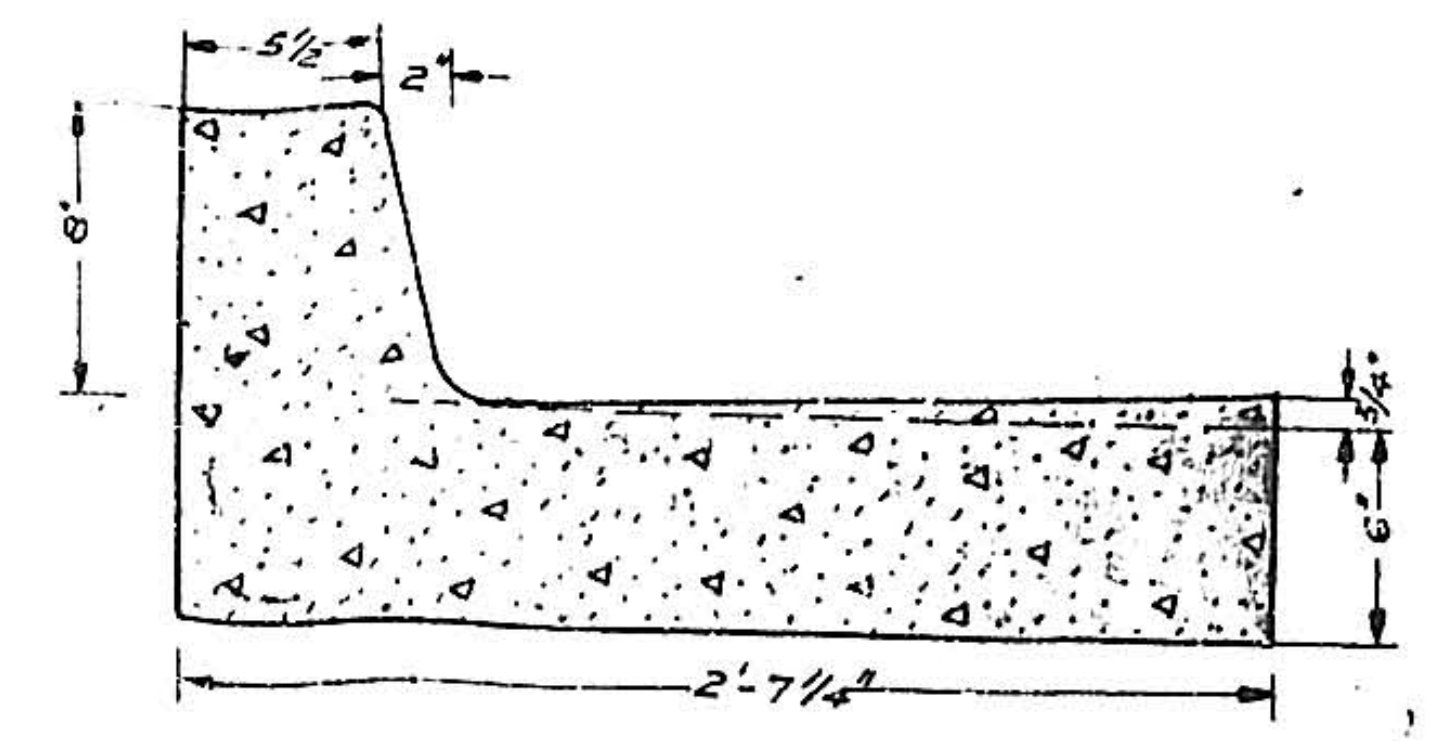
SECTION D-D


EXISTING FLOW LINE

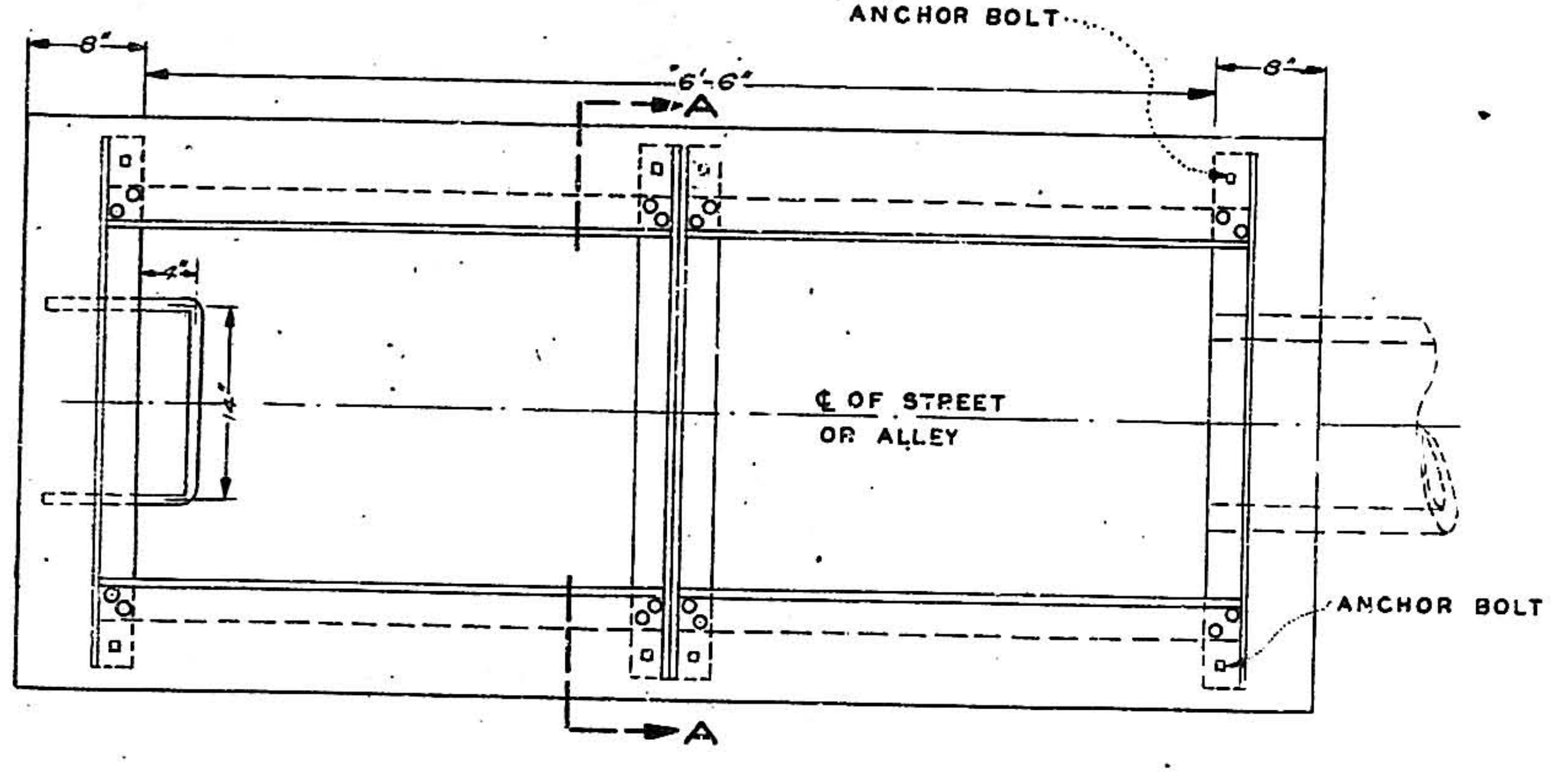
SECTION E-E



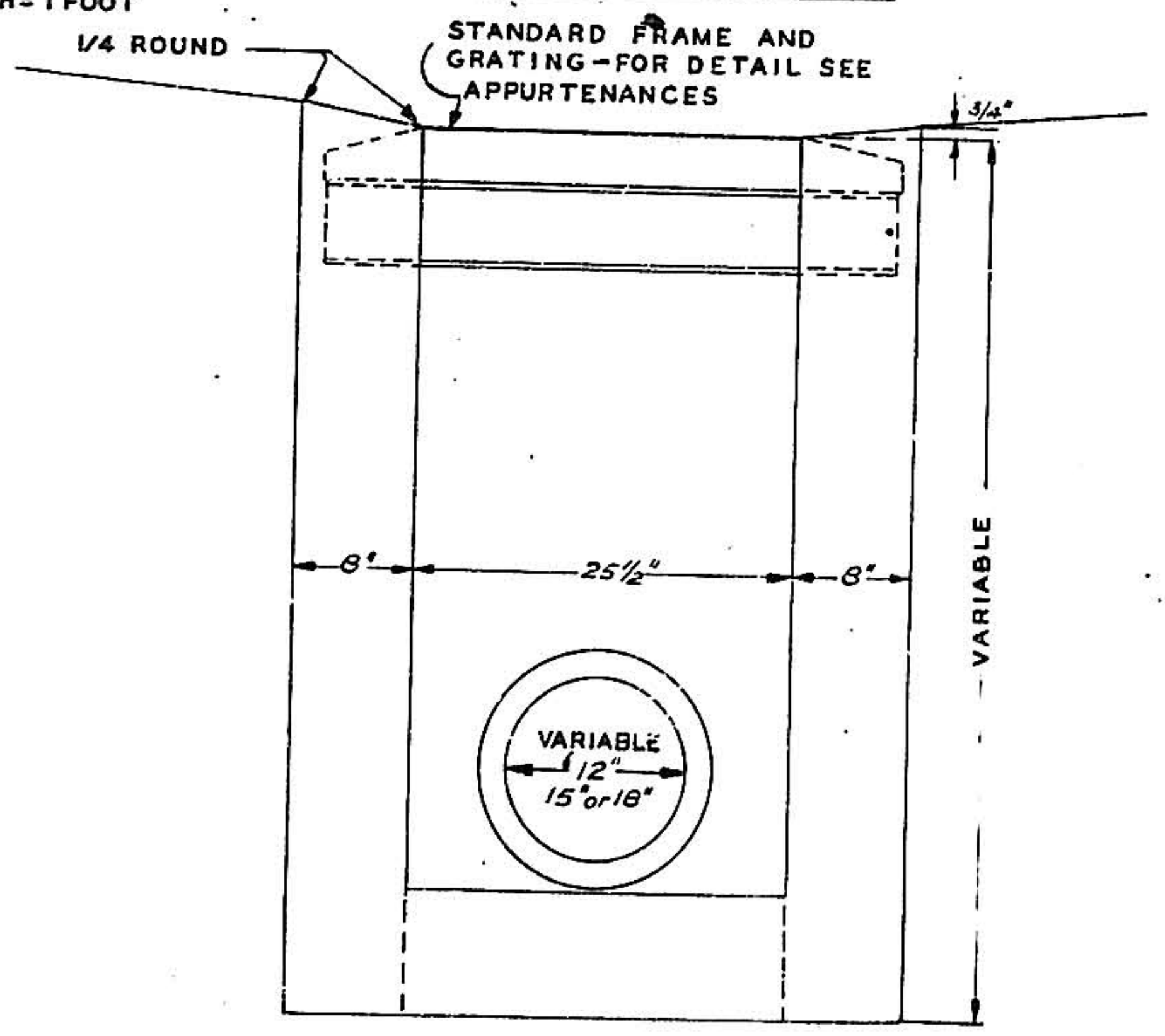
SECTION F-F



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


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

SECTION A-A
TYPE-D

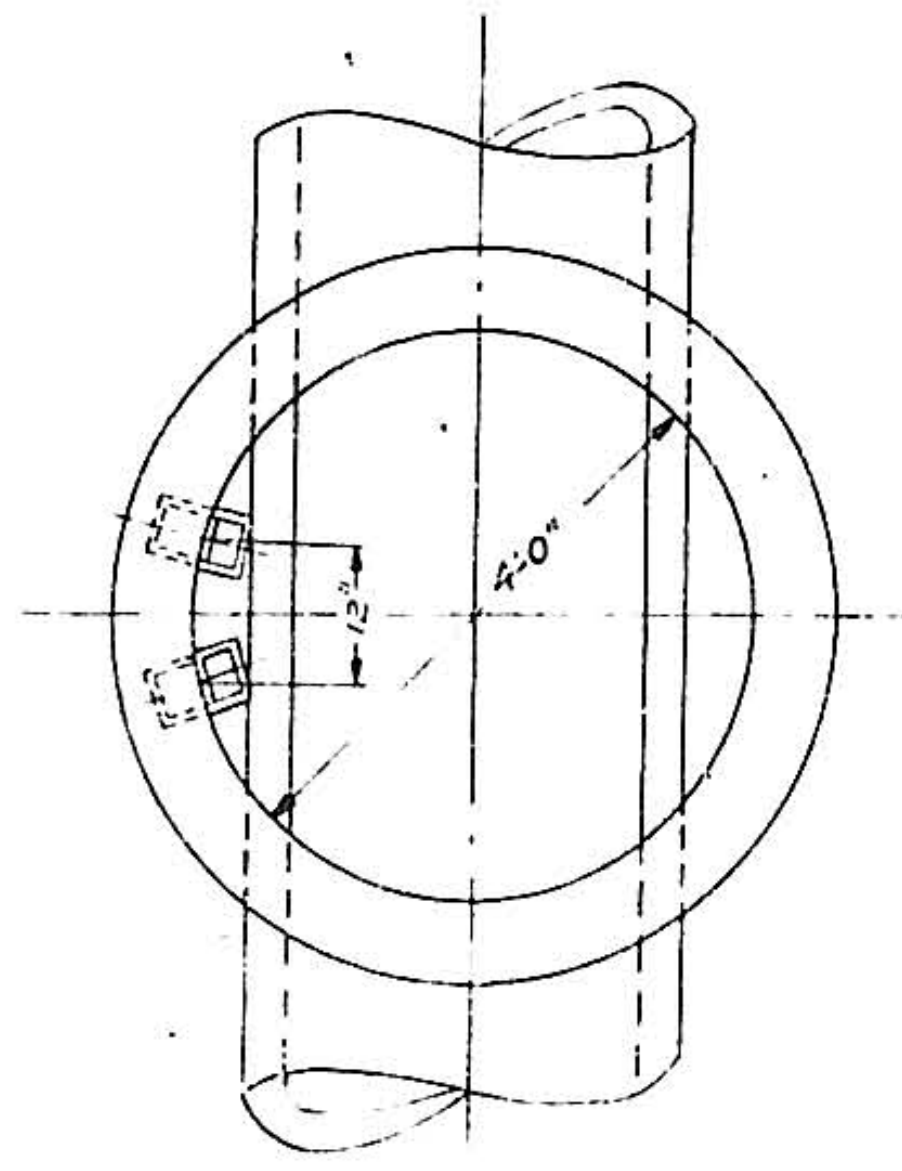
1 2	3 4	5 6 7	8 9 10 11	12	13 14 15 16 17	18 ... 29
08	57	1	0757		10	

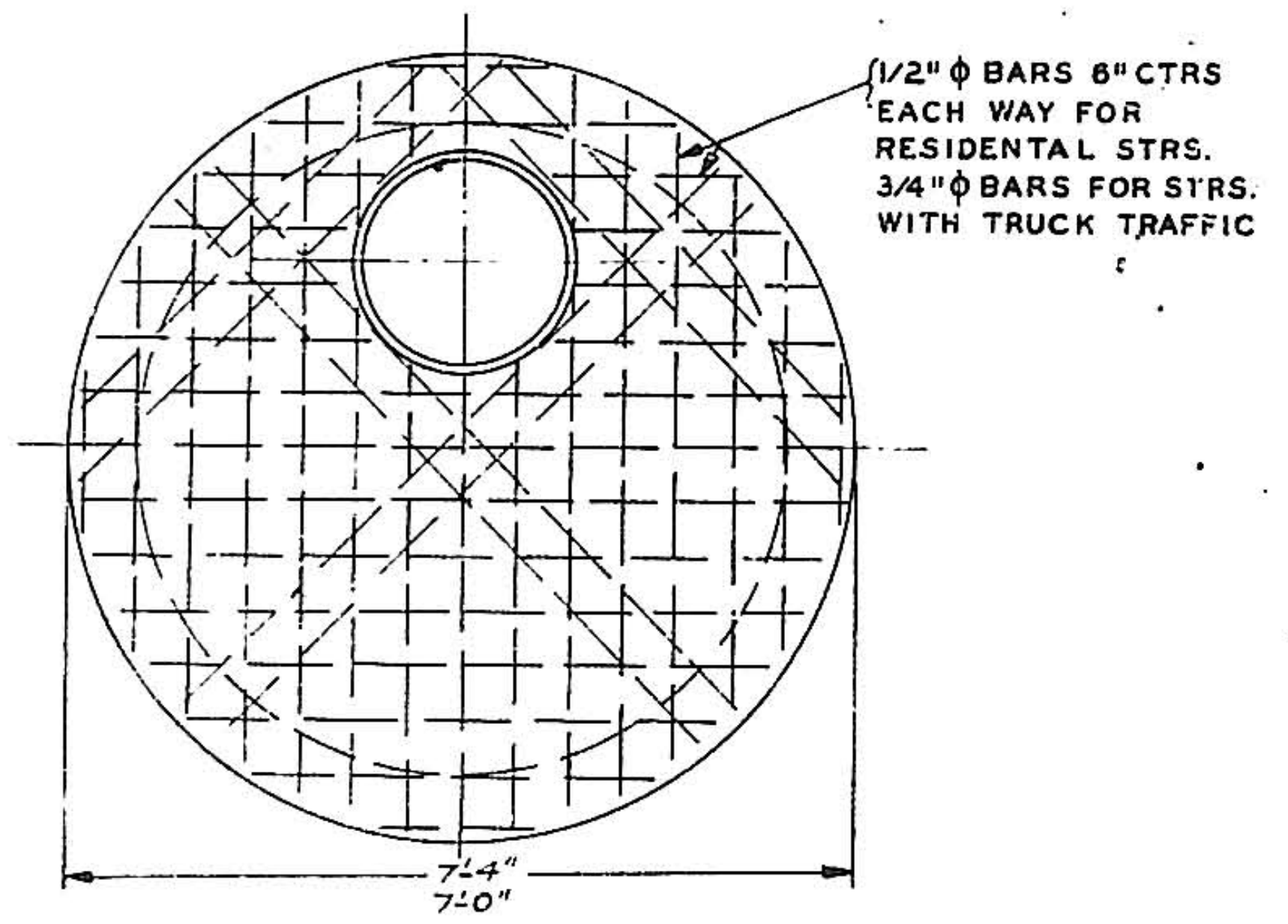
ALBUQUERQUE, NEW MEXICO
STORM SEWER STANDARDS

CATCH BASIN DETAILS

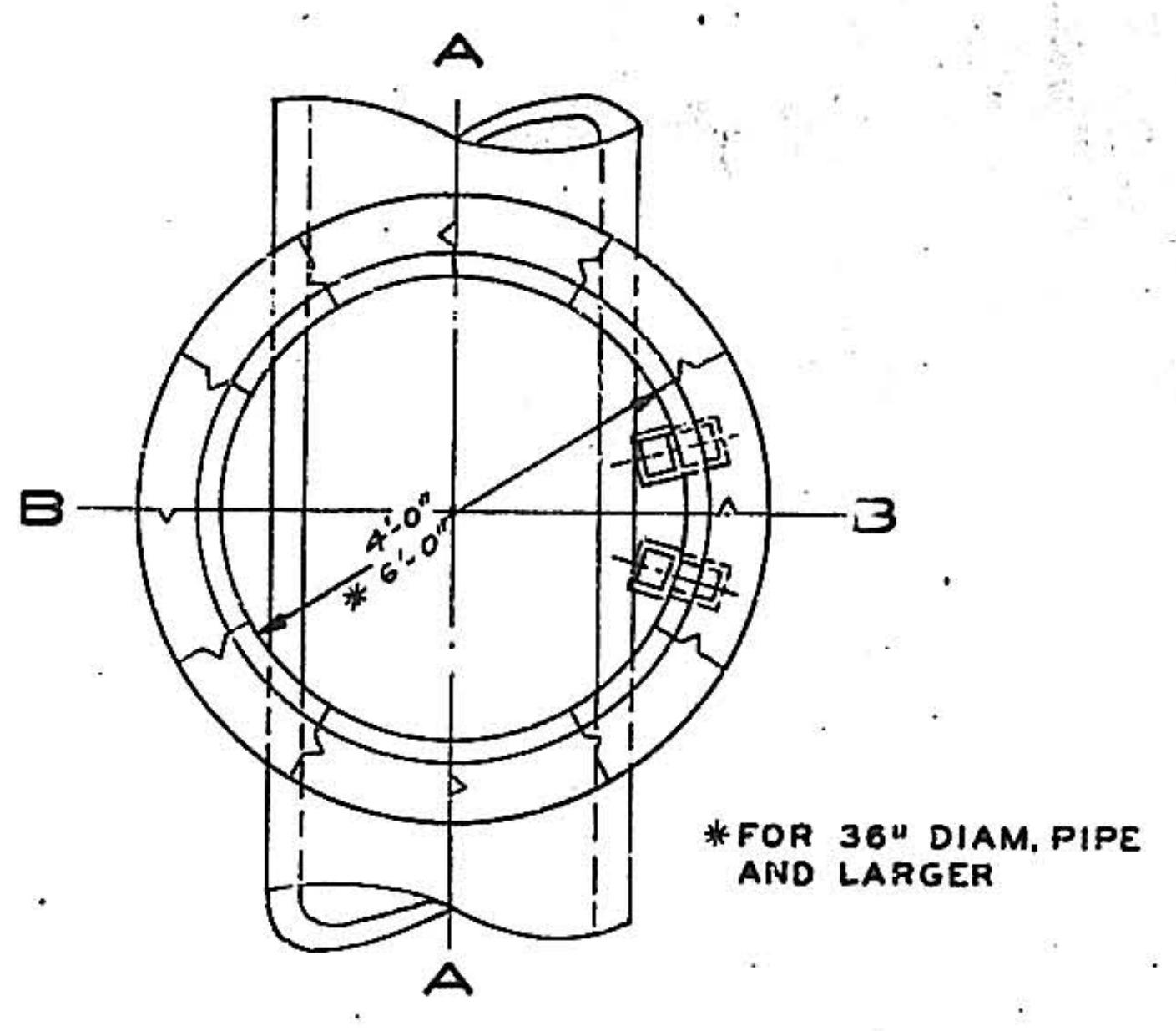
HERKENHOFF & CONSULTING ENGINEERS
SANTA FE ALBUQUERQUE

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

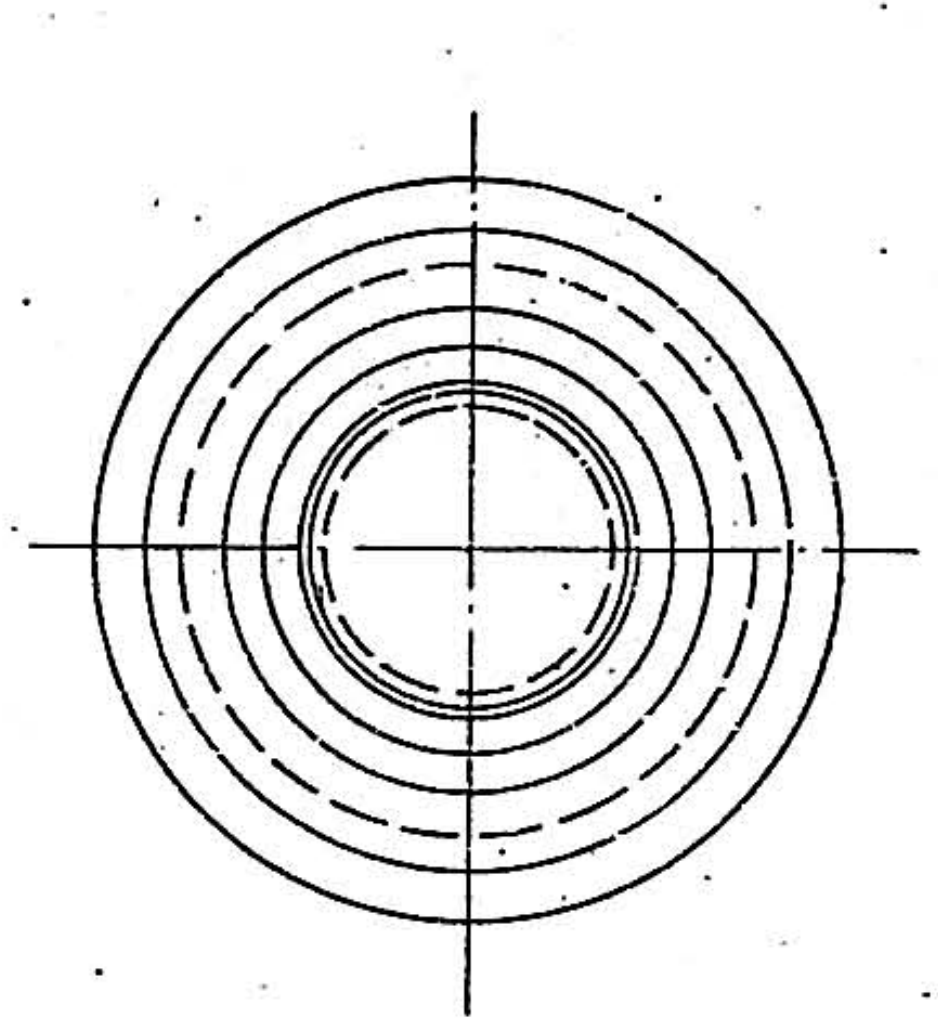


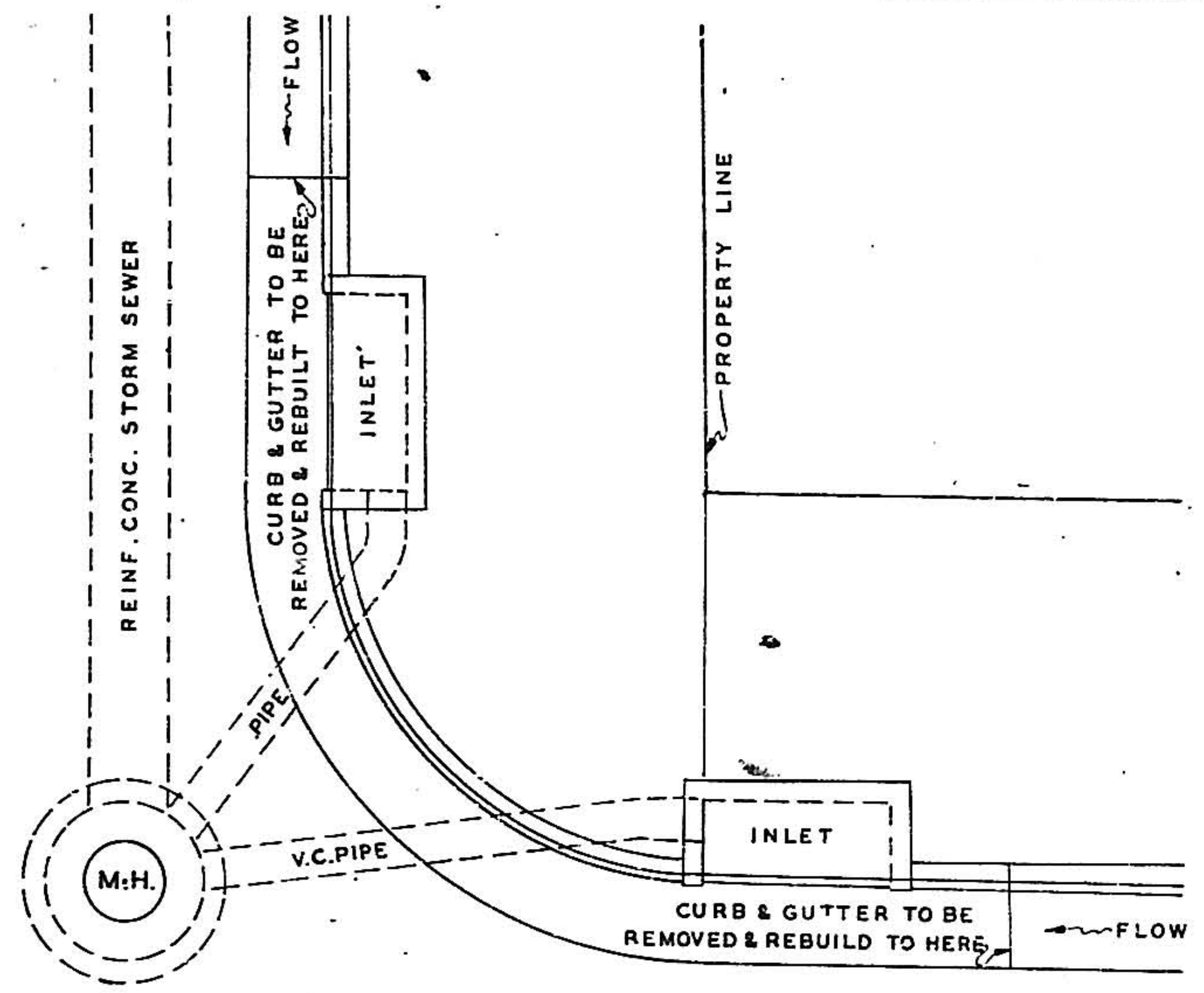

1/2"ϕ BARS 6" CTRS EACH WAY FOR RESIDENTAL STRS.
3/4"ϕ BARS FOR STRS. WITH TRUCK TRAFFIC
7'-4"
7'-0"

PRECAST CONC. COVER


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

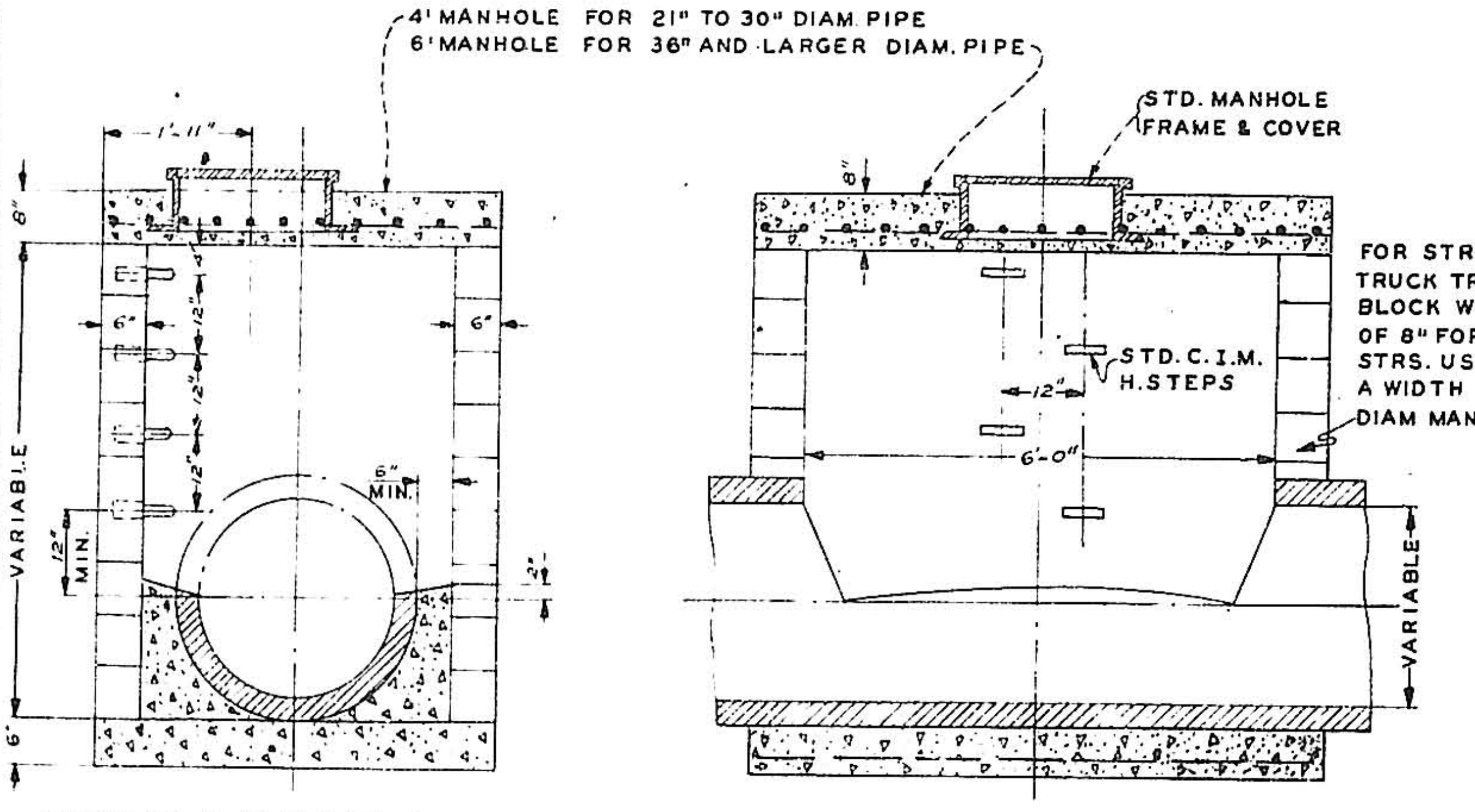
SECTION PLAN




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"

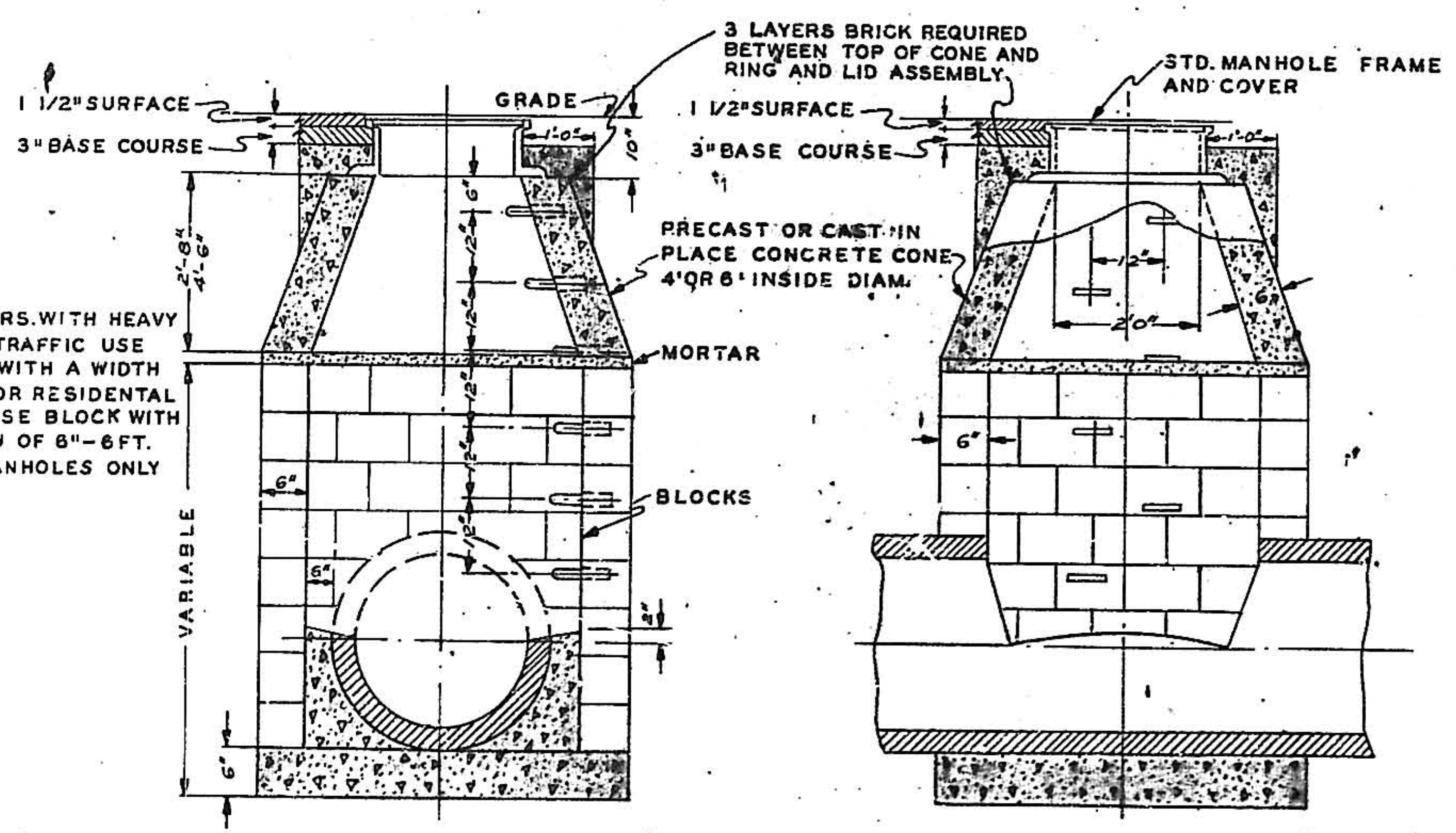
SCALE: 1/4"= 1'-0"


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

SECT. 4 FOOT M.H.

SECT. 6 FOOT M.H.

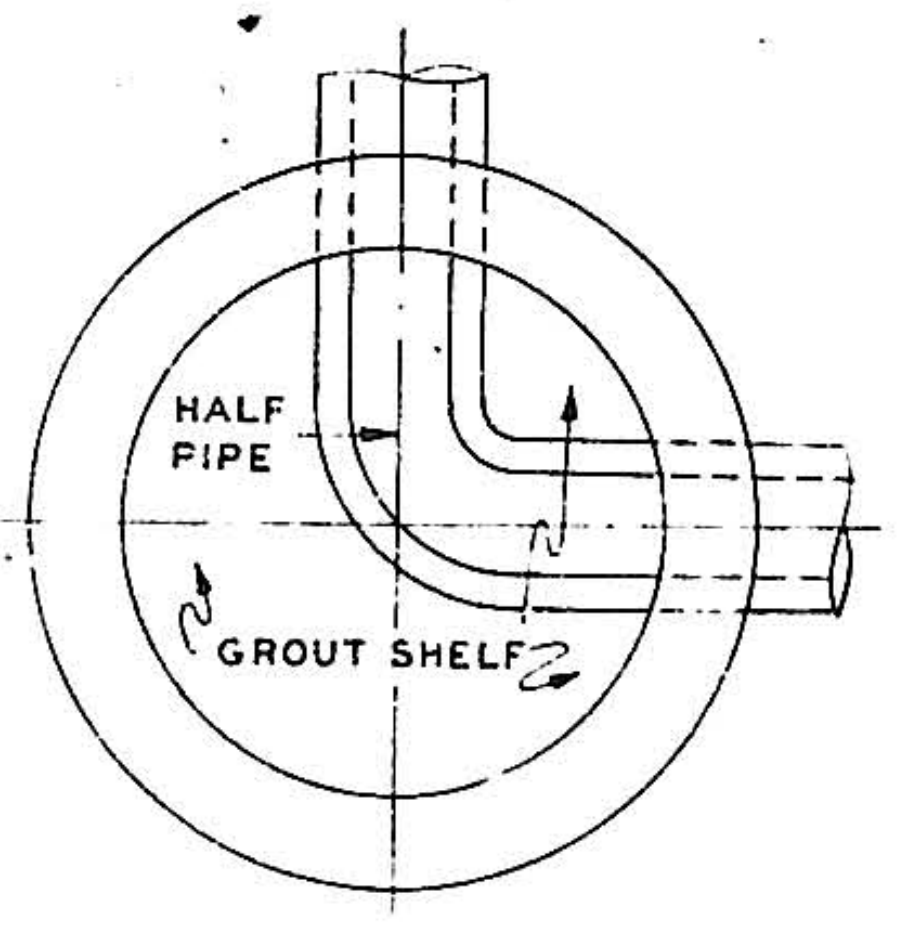
STANDARD STORM SEWER MANHOLE TYPE "A"


1 1/2" SURFACE
3" BASE COURSE
GRADE
3 LAYERS BRICK REQUIRED BETWEEN TOP OF CONE AND RING AND LID ASSEMBLY
1 1/2" SURFACE
3" BASE COURSE
STD. MANHOLE FRAME AND COVER
1'-0"
2'-8"
4'-6"
PRECAST OR CAST IN PLACE CONCRETE CONE 4' OR 6' INSIDE DIAM.
MORTAR
BLOCKS
VARIABLE
6"
6"
12"
2'-0"
6"

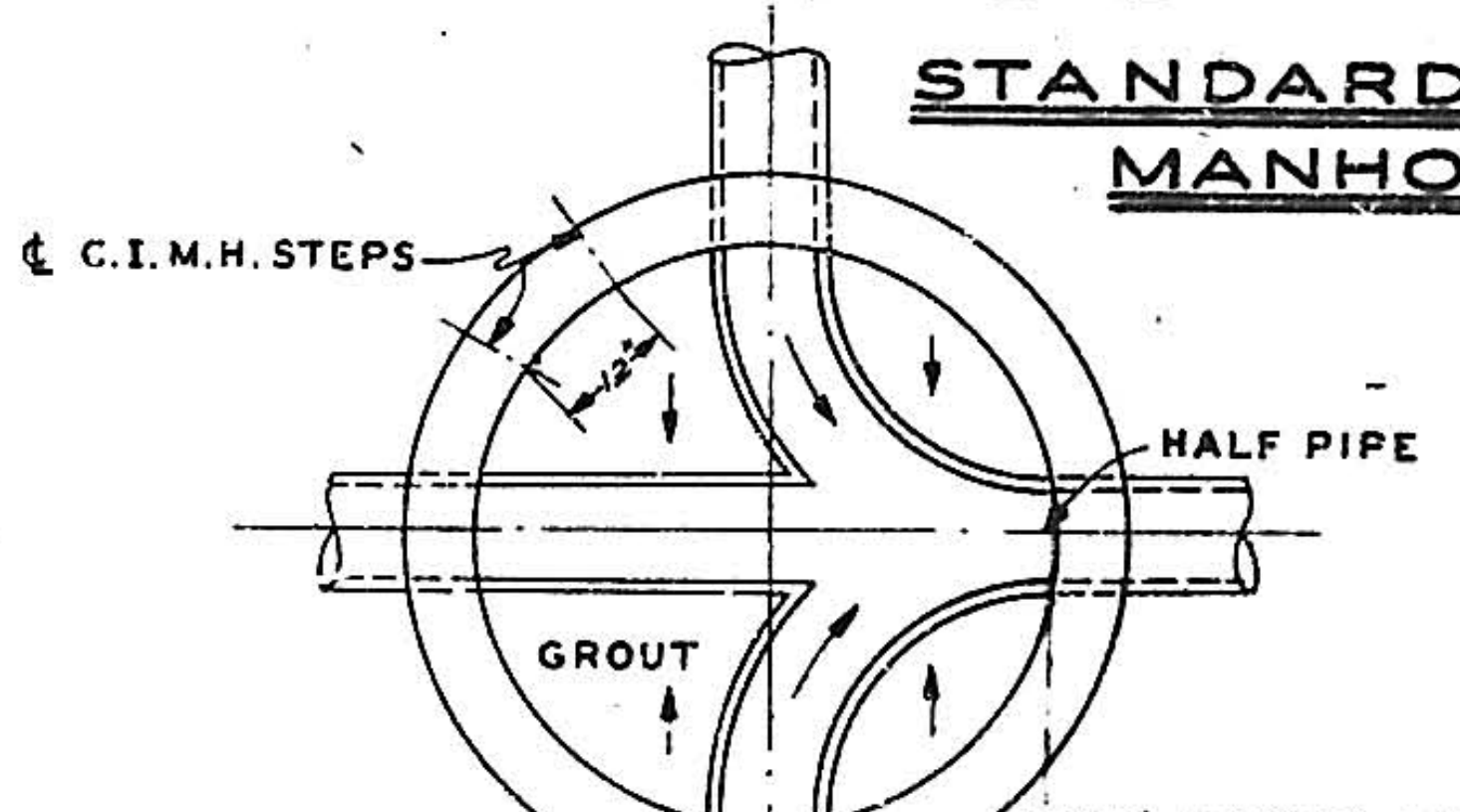
SECTION B-B

SECTION A-A

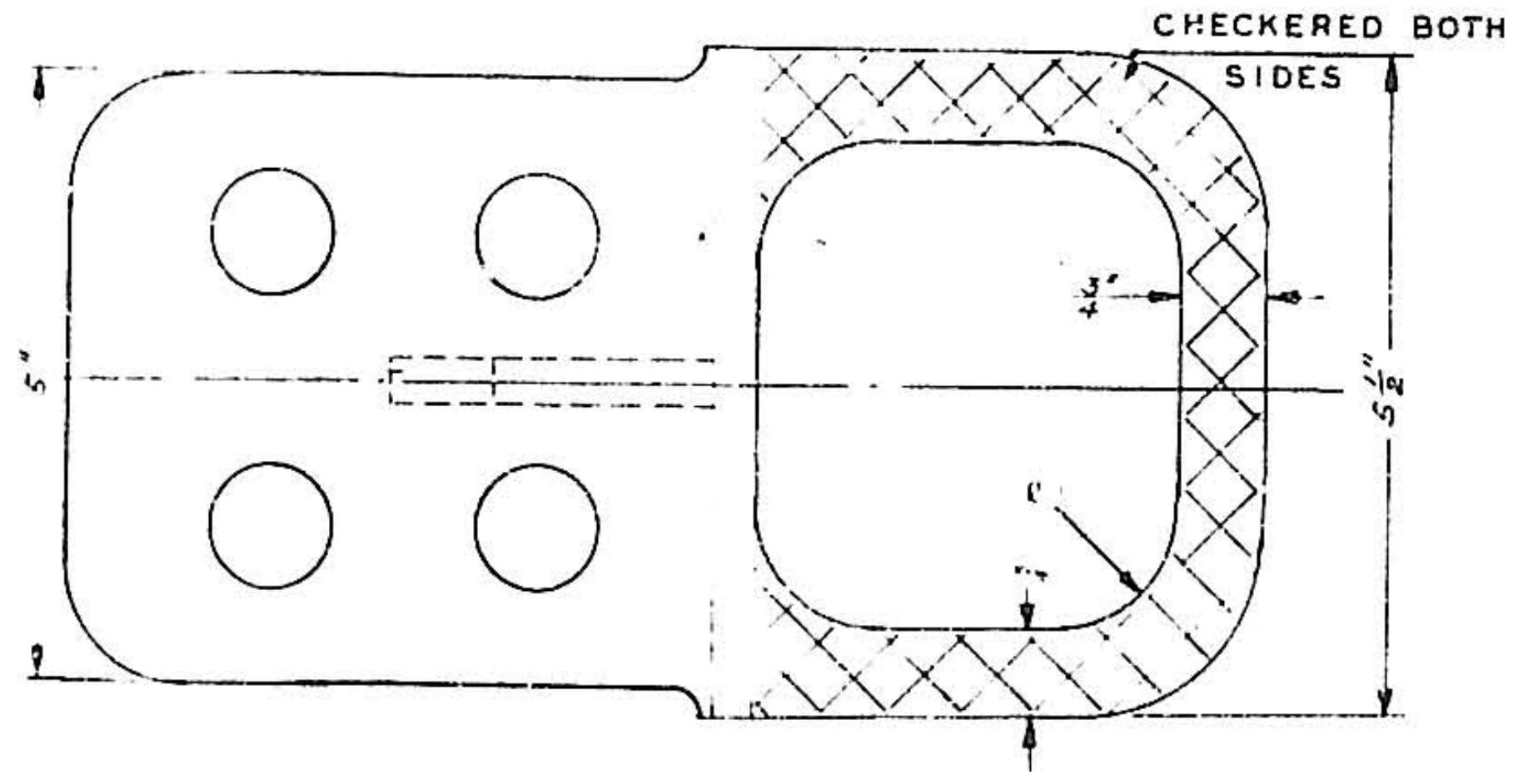
STANDARD STORM SEWER MANHOLE TYPE "B"


HALF PIPE
GROUT SHELF

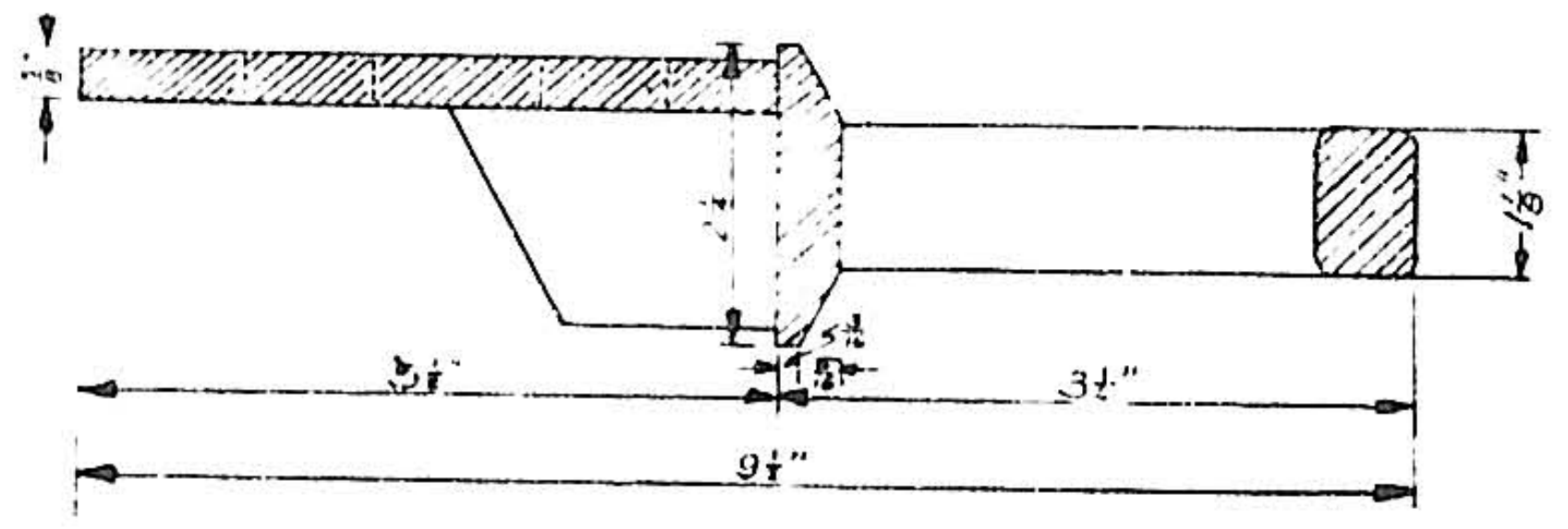
RIGHT ANGLE ENTRY AND EXIT TYPE "B" MANHOLE

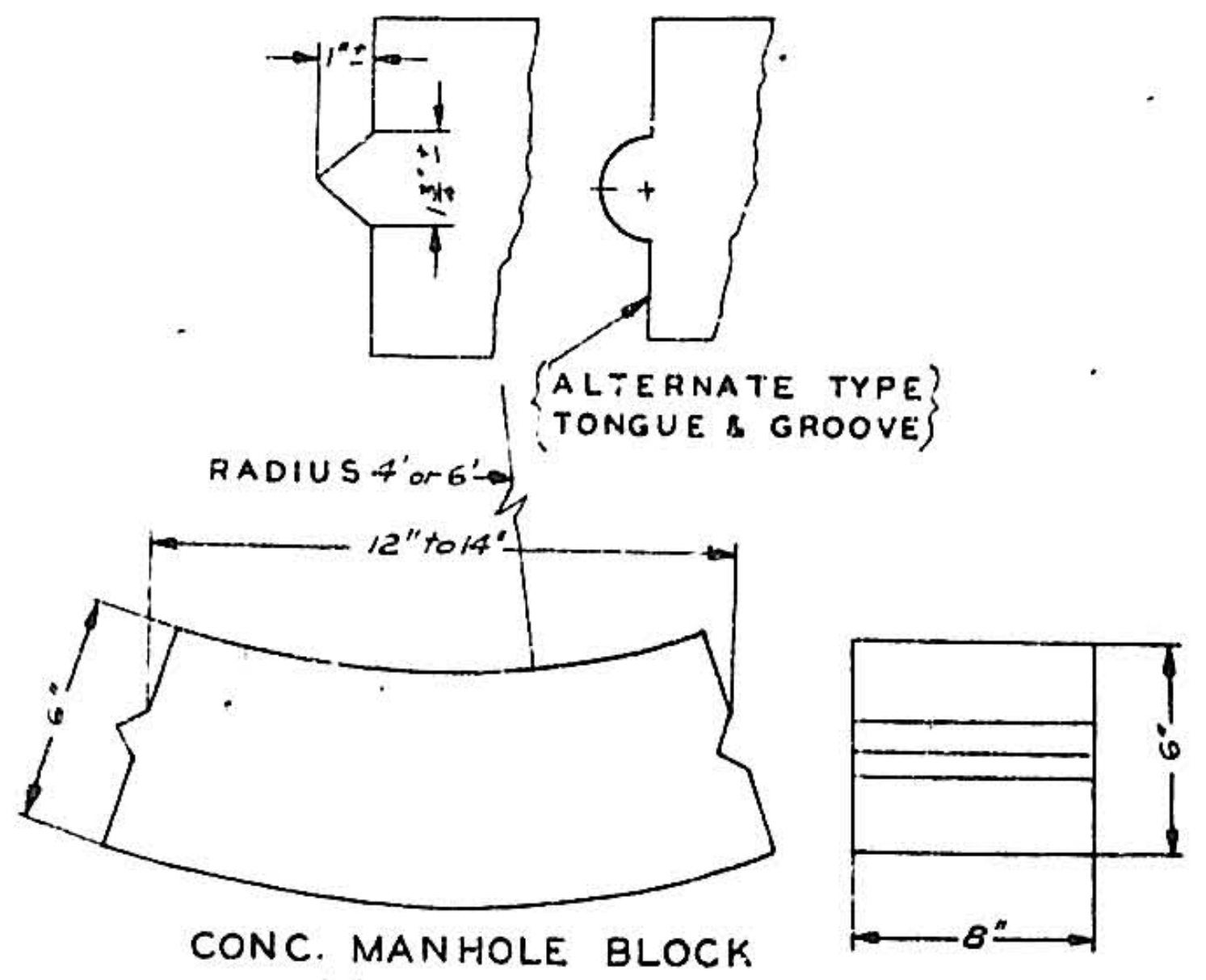

℄ C.I.M.H. STEPS
12"
HALF PIPE
GROUT

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


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

STANDARD MANHOLE STEP


1"
5 1/2"
3 1/2"
9 1/2"

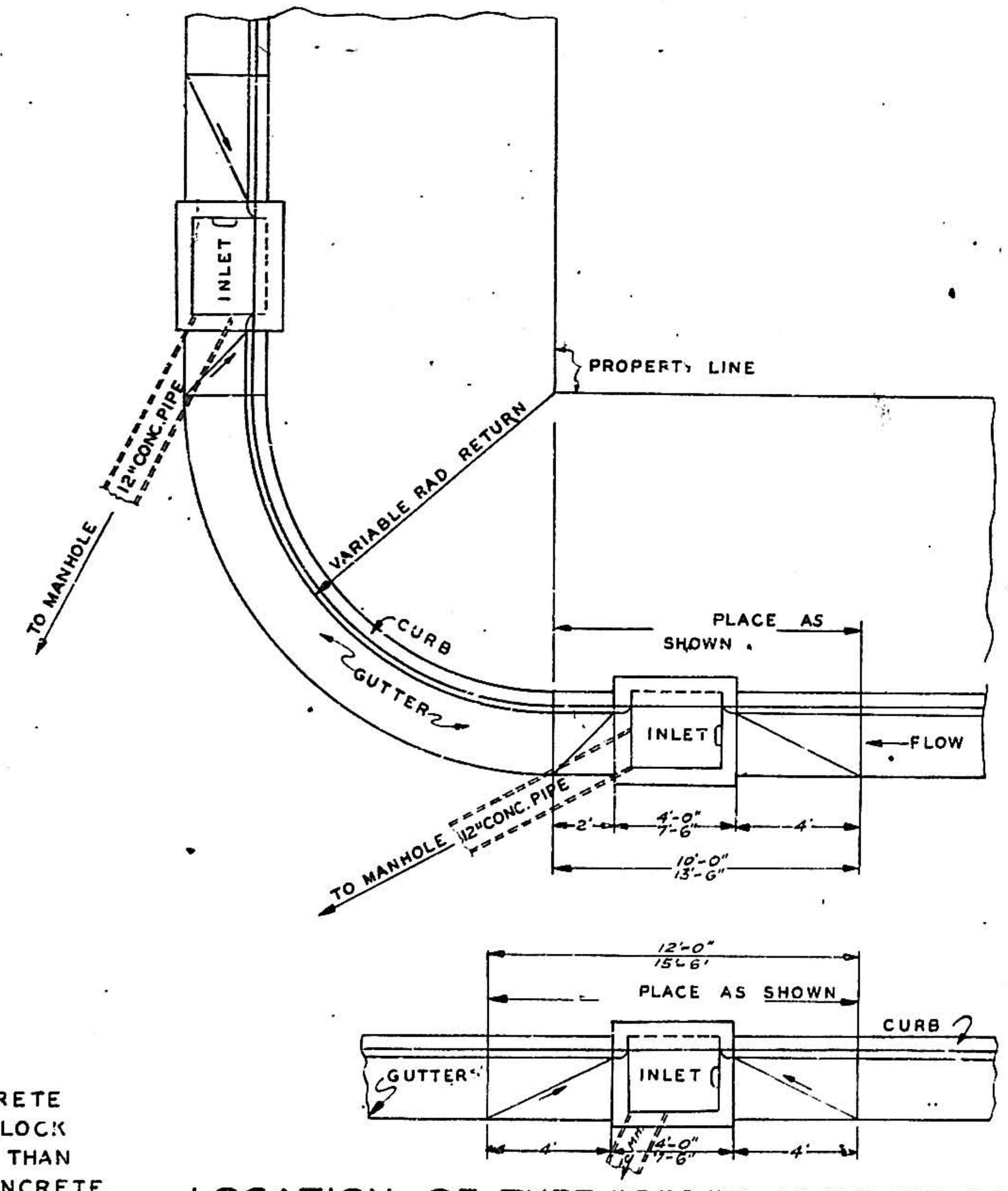

ALTERNATE TYPE TONGUE & GROOVE
RADIUS 4' or 6'
12" to 14"
6"
6"
8"

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		.											


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

ALBUQUERQUE, NEW MEXICO

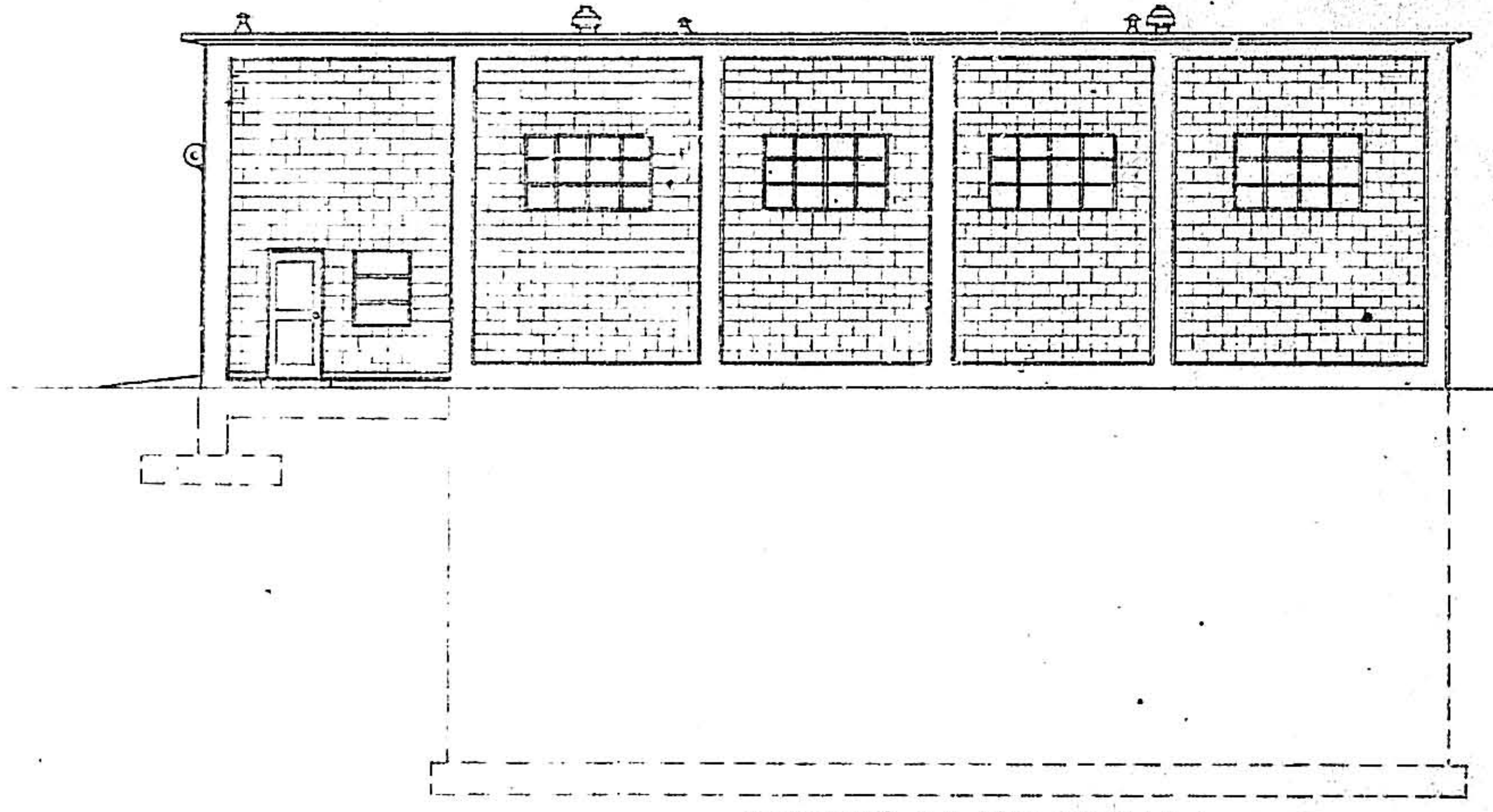
STORM SEWER STANDARDS

MANHOLE DETAILS

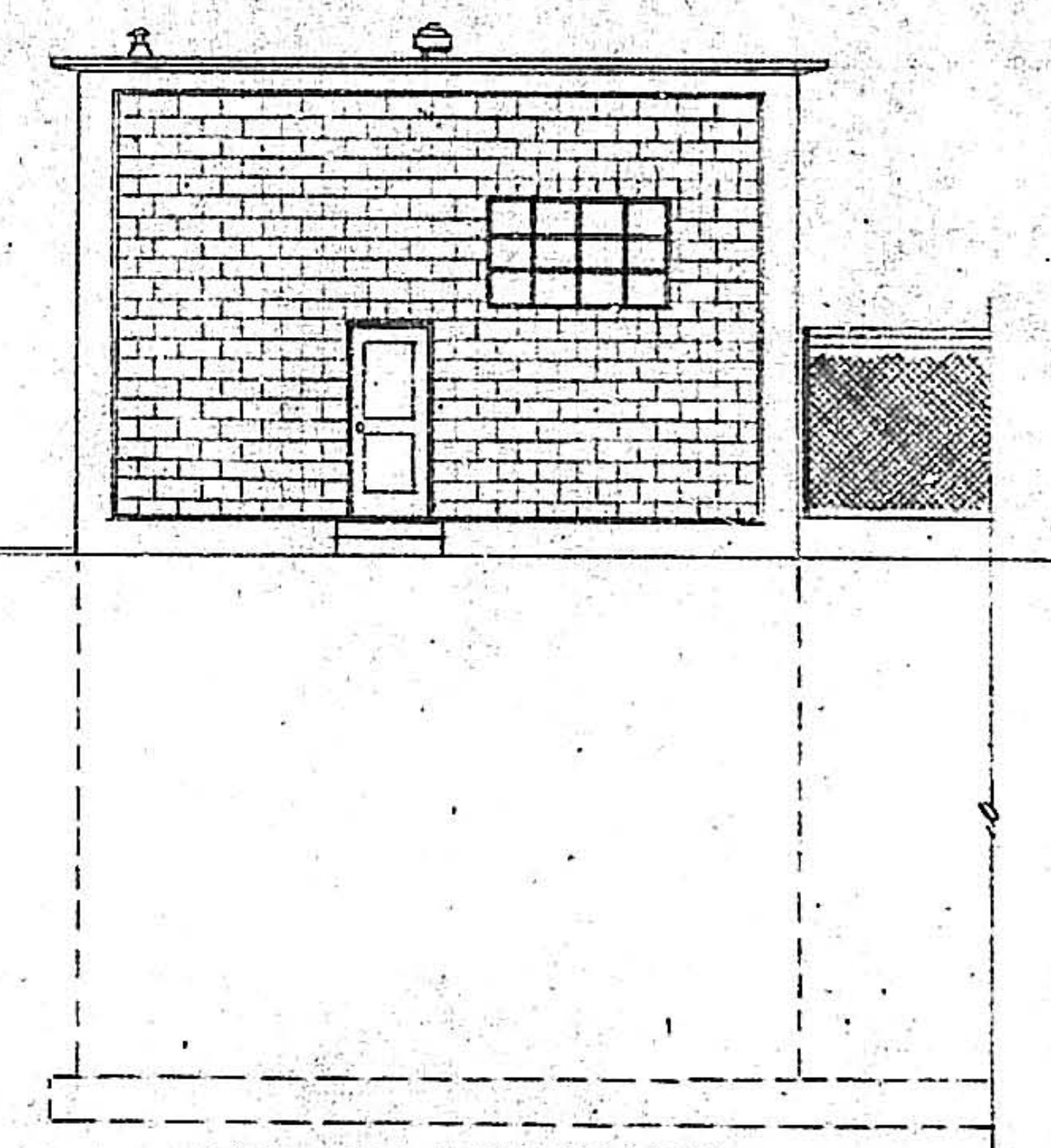
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
SANTA FE ALBUQUERQUE

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

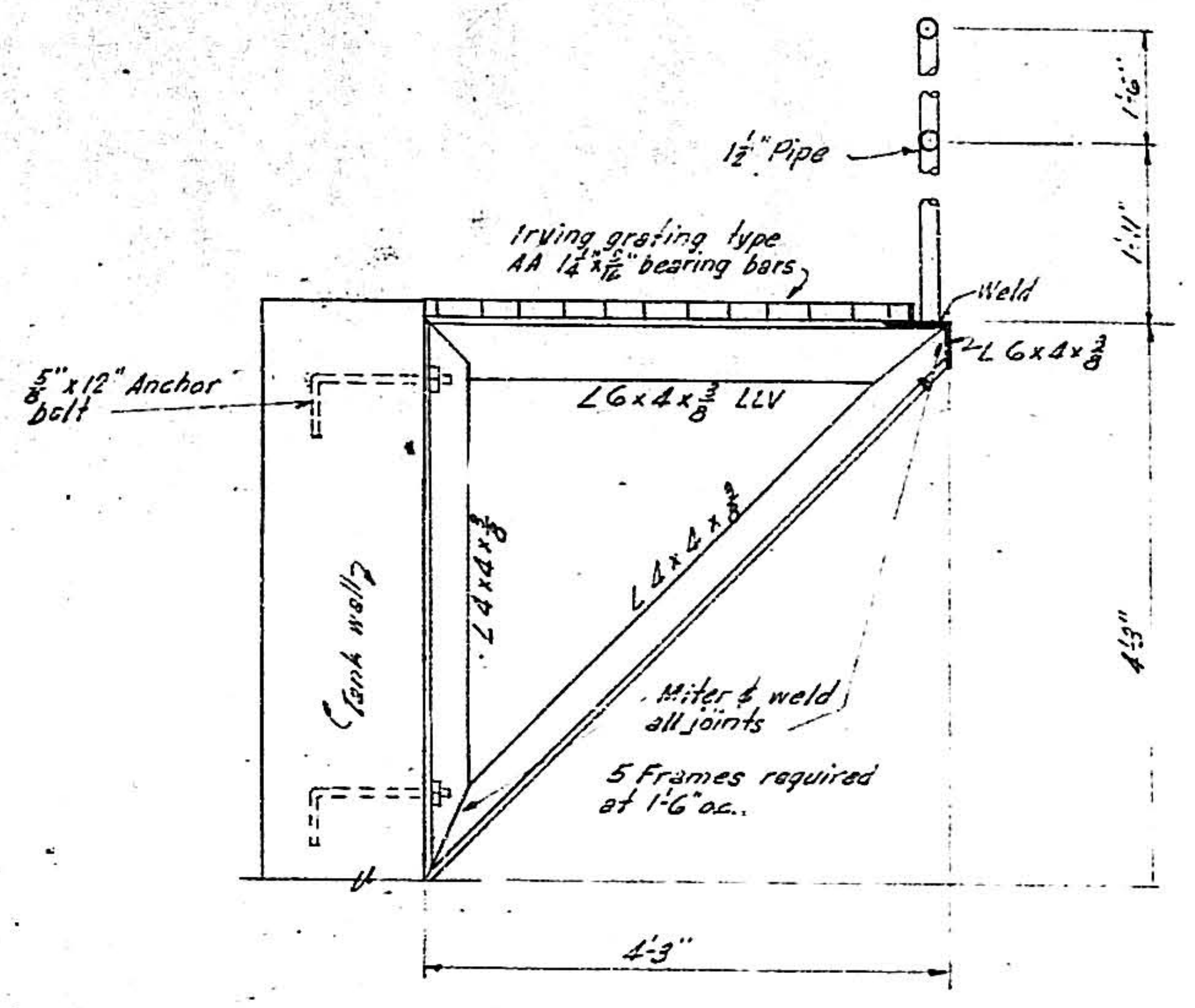
1



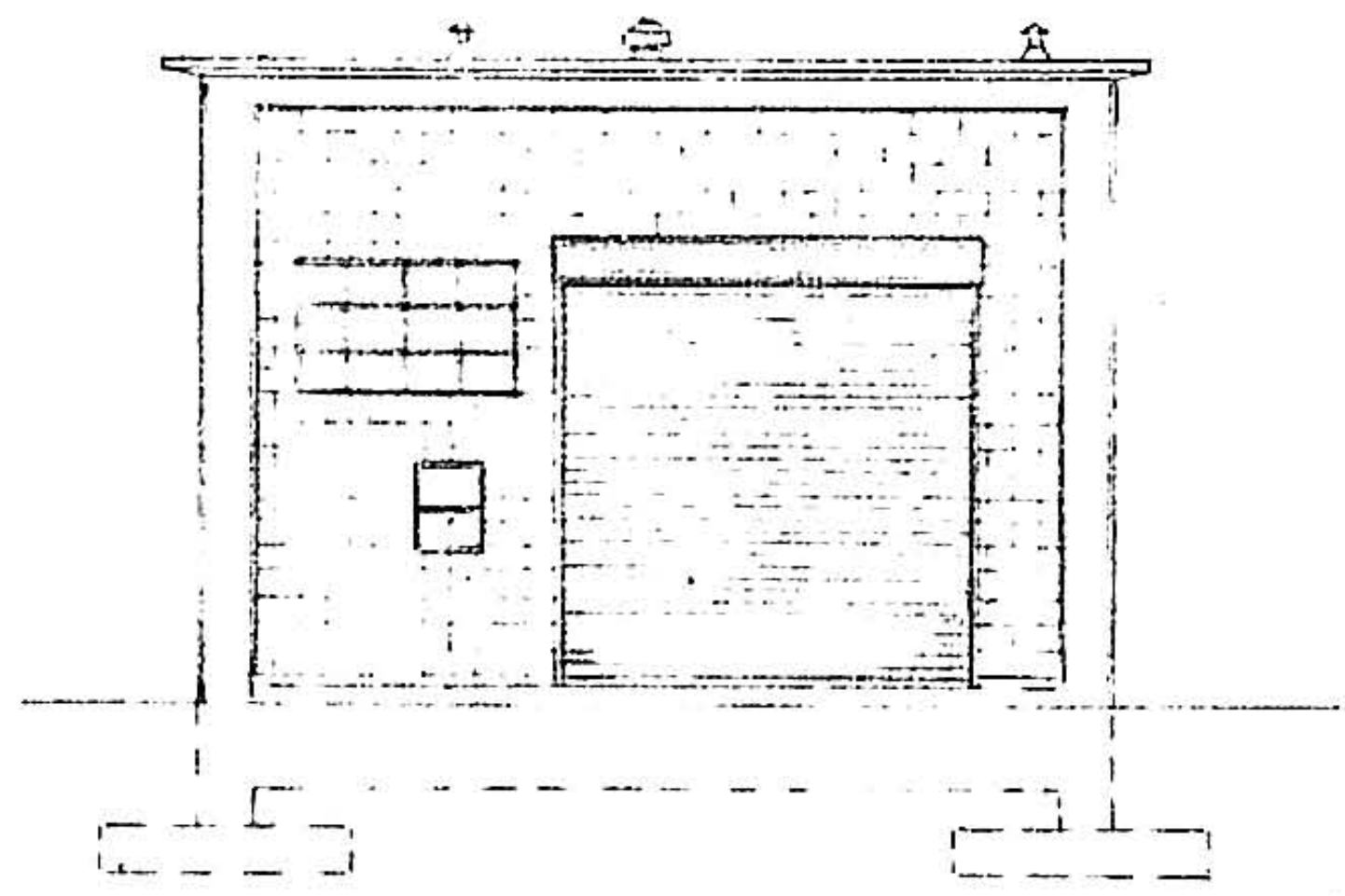
SOUTH ELEVATION



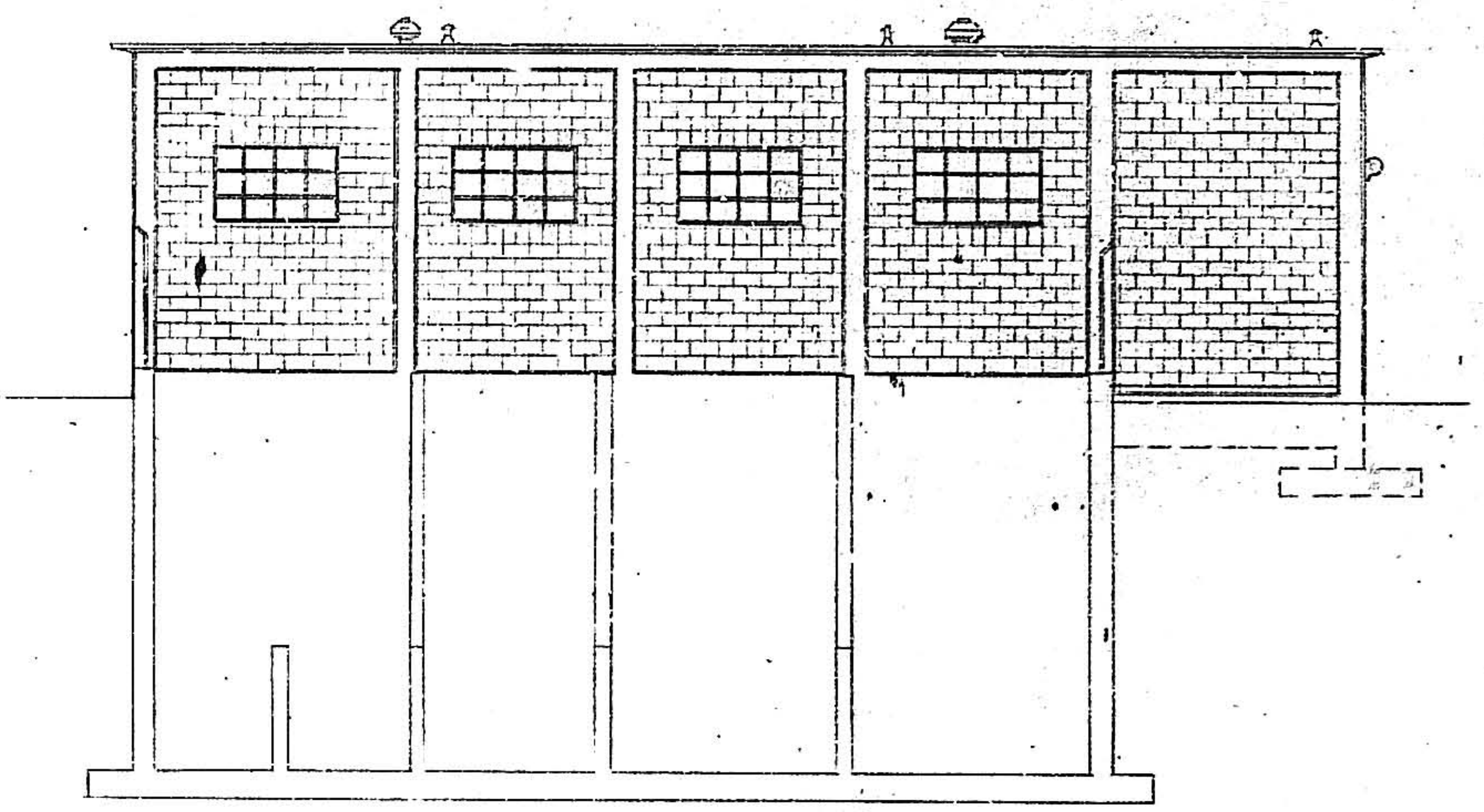
EAST ELEVATION


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

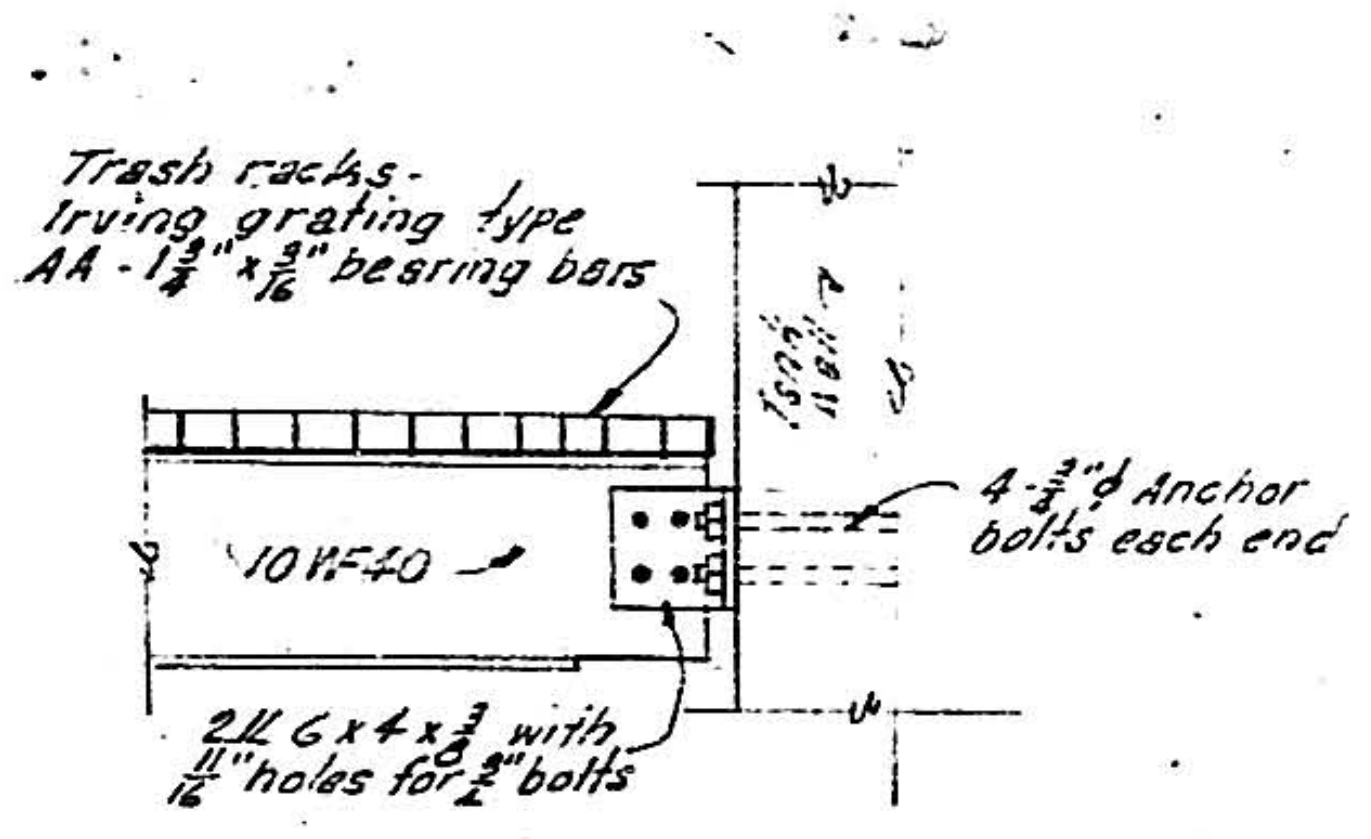
FLOAT AND PUMP PLATFORM
SUPPORT FRAME



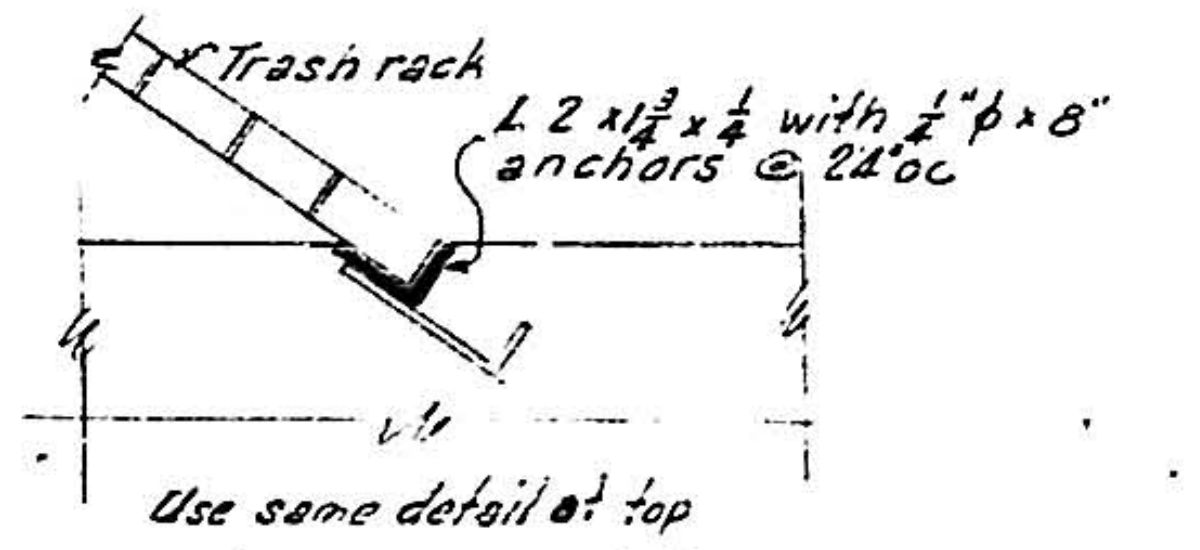
WEST ELEVATION



NORTH ELEVATION


Trash racks-
Irving grating type
AA - 1¾"x$\frac{3}{16}$" bearing bars
10 WF 40
4-¾" ϕ Anchor bolts each end
2 L 6x4x⅜ with $\frac{11}{16}$" holes for ⅝" bolts

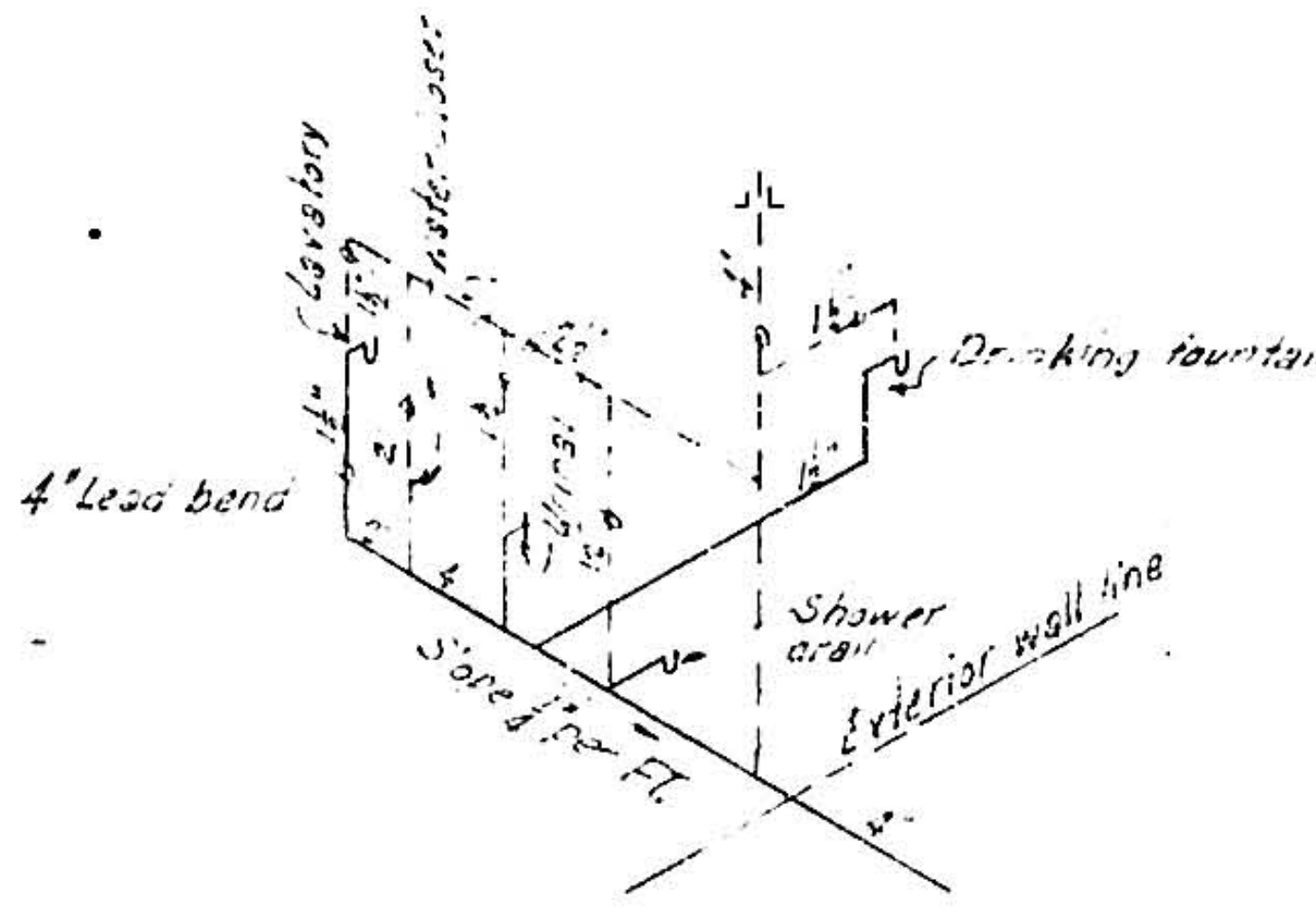
SUPPORT DETAIL


Trash rack
L 2x1¾x¼ with ½" ϕ x 8" anchors @ 24" oc

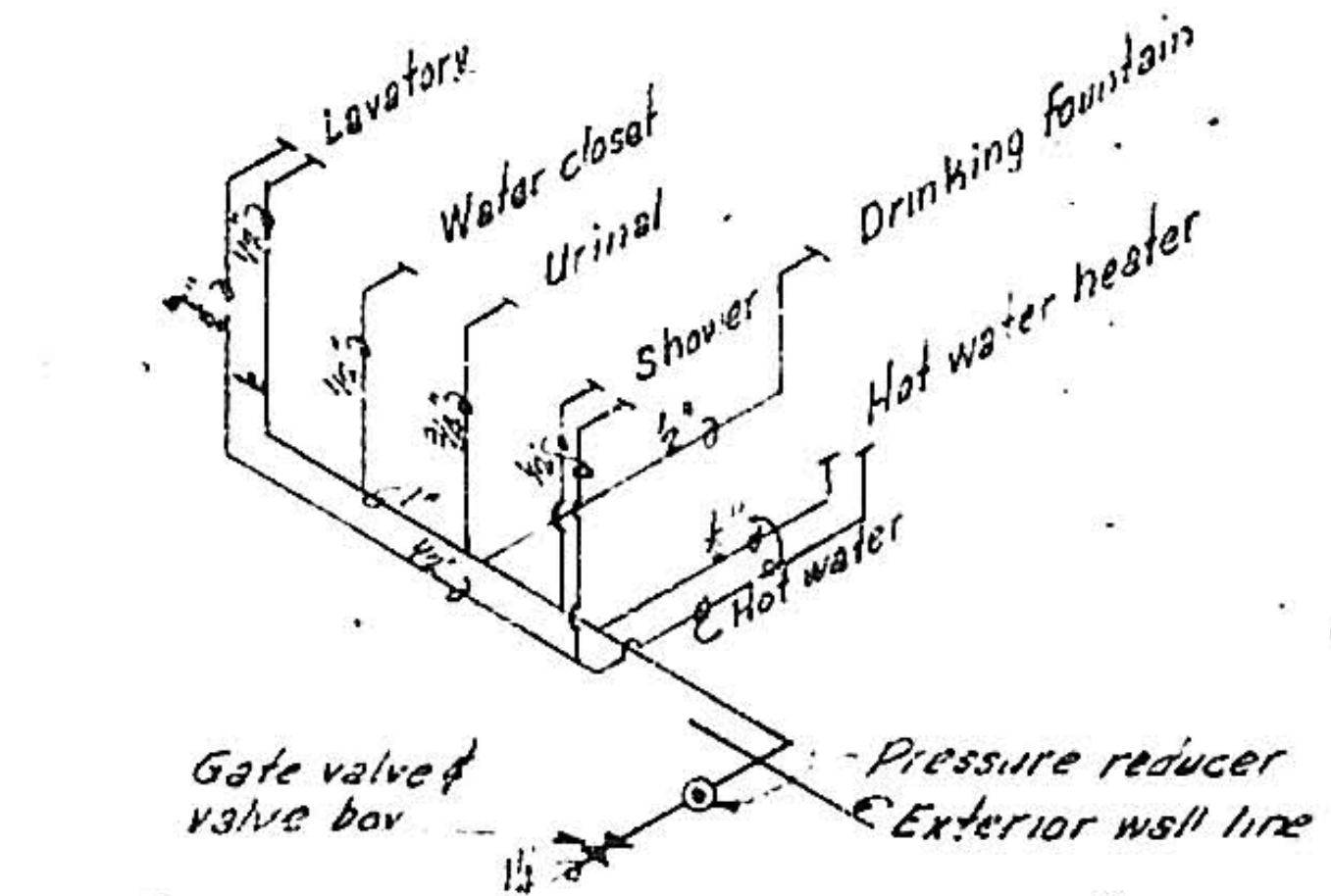
Use same detail at top

FLOOR DETAIL

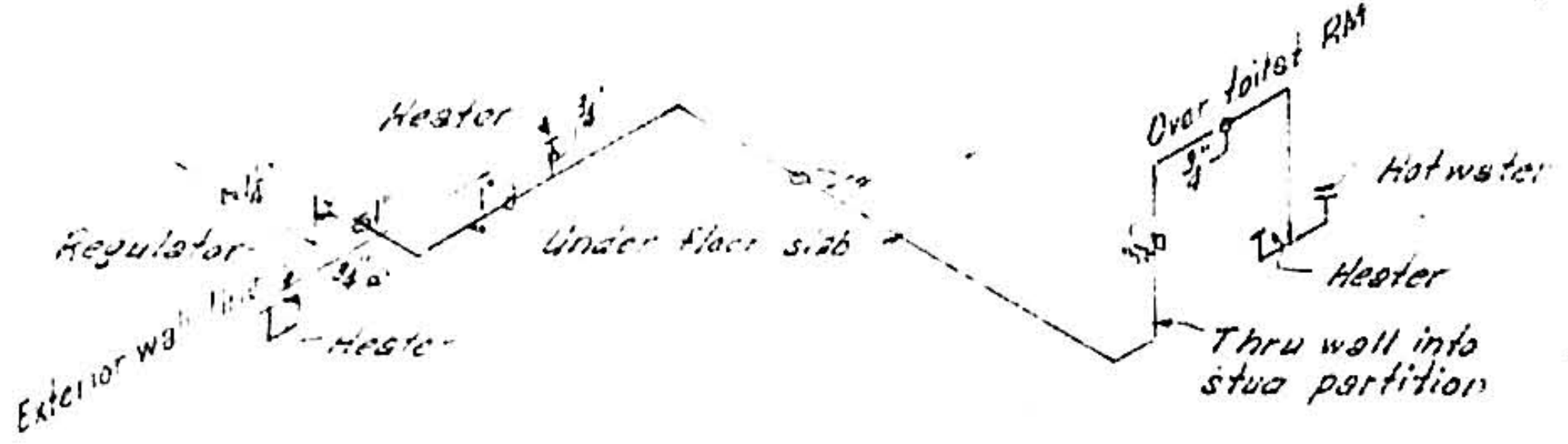
TRASH RACK DETAIL


Lavatory
Water closet
Drinking fountain
4" Lead bend
Urinal
Shower drain
Exterior wall line
Slope 1/8" per Ft.

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													

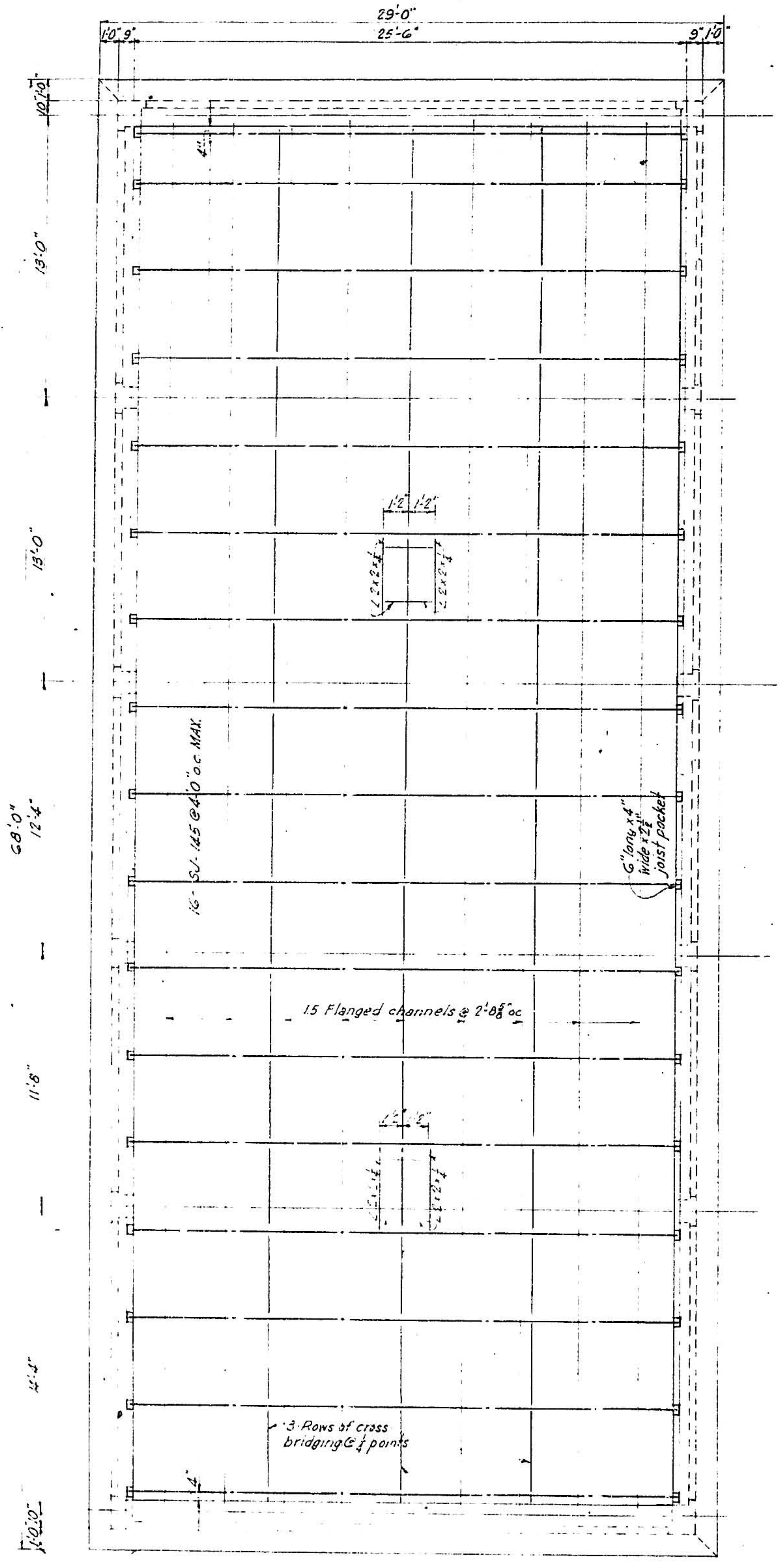
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
ELEVATION & DETAILS

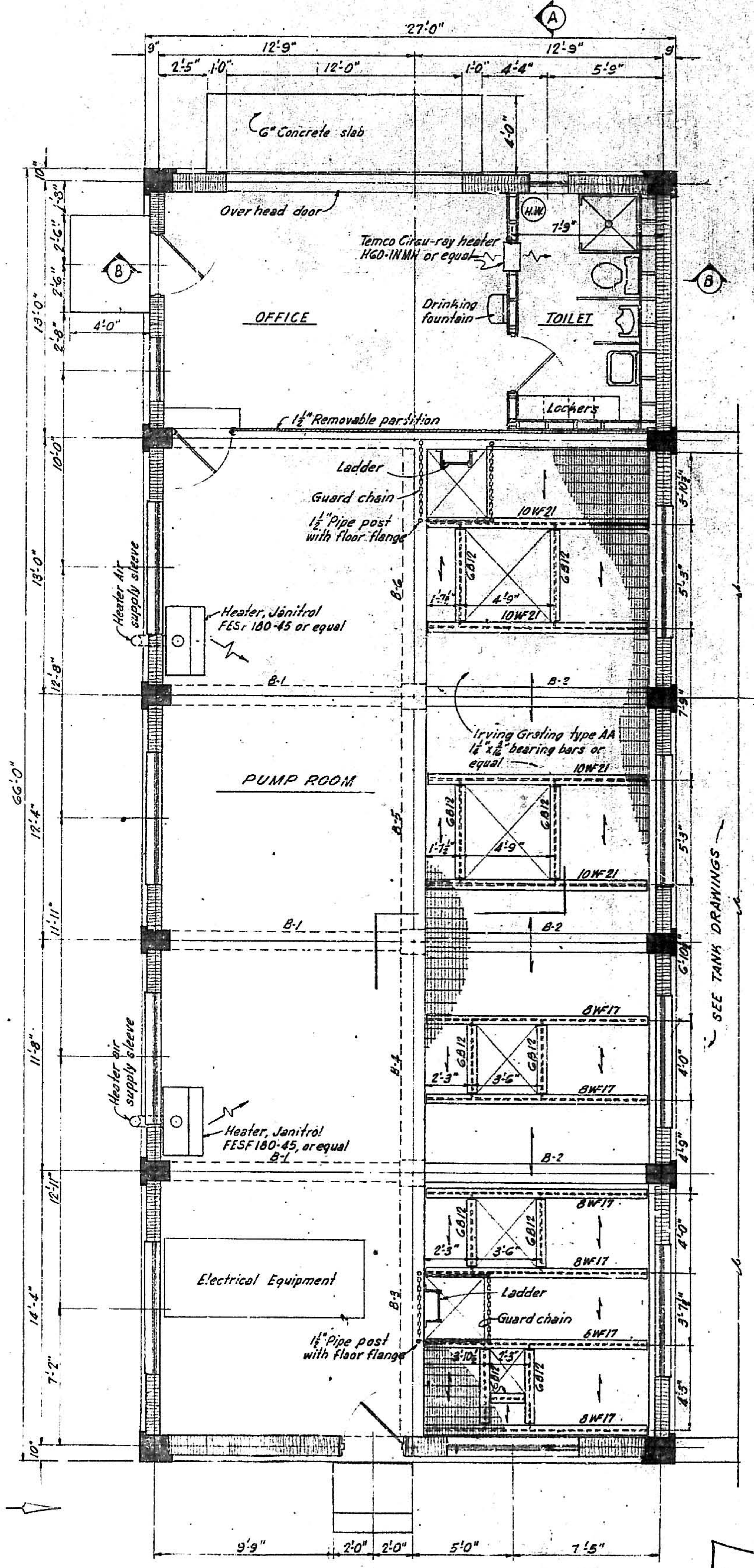
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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


29'-0"
25'-6"
1'-0" 9"
9" 1'-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 1/2" joist packer
15 Flanged channels @ 2'-8 5/8" oc
3 Rows of cross bridging @ 1/4 points

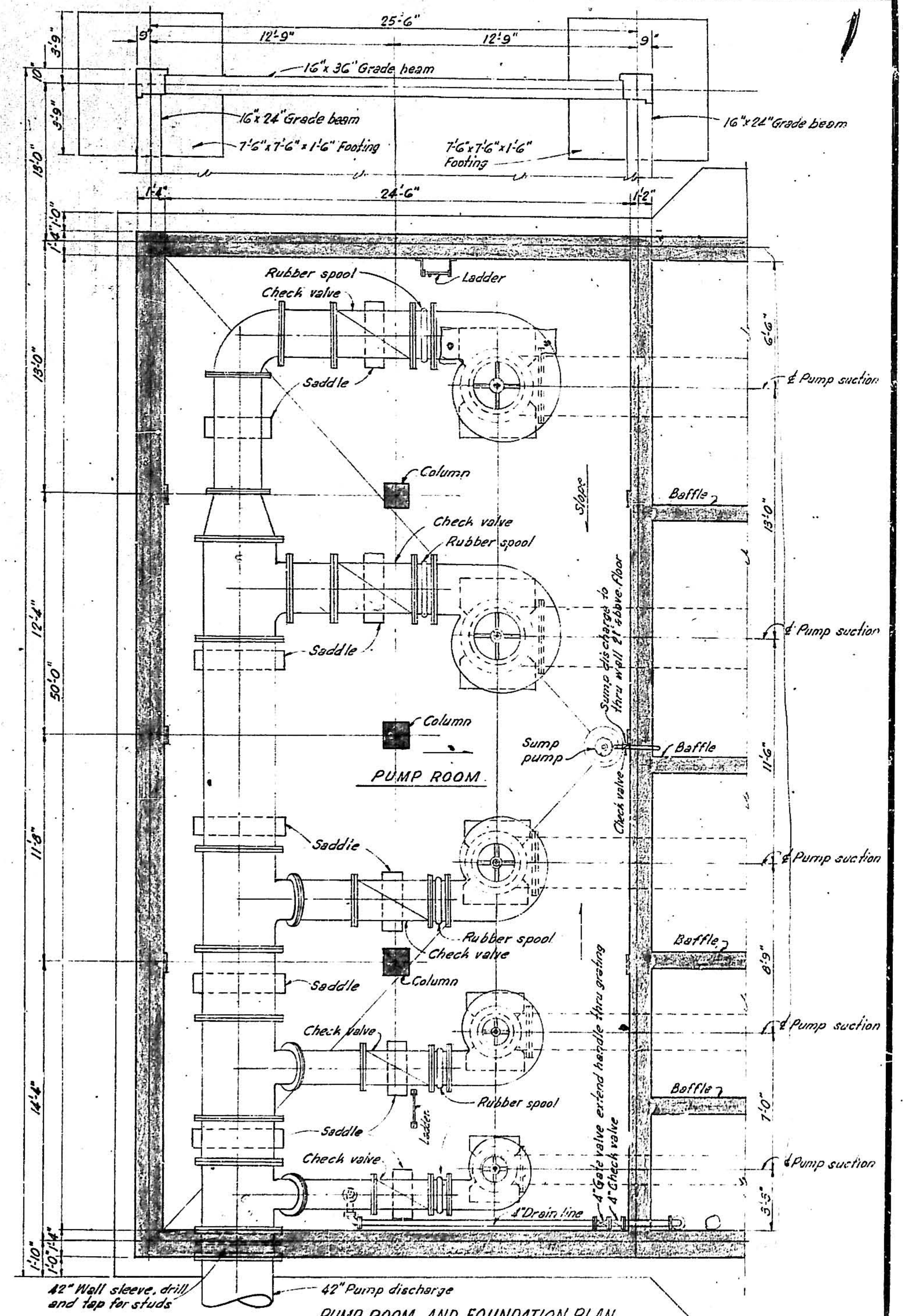
ROOF FRAMING PLAN

SCALE: 1/8"=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
Lockers
4'-0"
1 1/2" Removable partition
Ladder
Guard chain
1 1/2" Pipe post with floor flange
10WF21
GB12
4'-9"
Heater air supply sleeve
Heater, Janitrol FES F 180-45 or equal
B-1
B-2
Irving Grating type AA 1 1/4" x 1/4" bearing bars or equal
PUMP ROOM
B-3
66'-0"
SEE TANK DRAWINGS
8WF17
2'-3"
3'-6"
Heater air supply sleeve
Heater, Janitrol FESF 180-45, or equal
Electrical Equipment
Ladder
Guard chain
1 1/2" Pipe post with floor flange
9'-9" 2'-0" 2'-0" 5'-0" 7'-5"
A

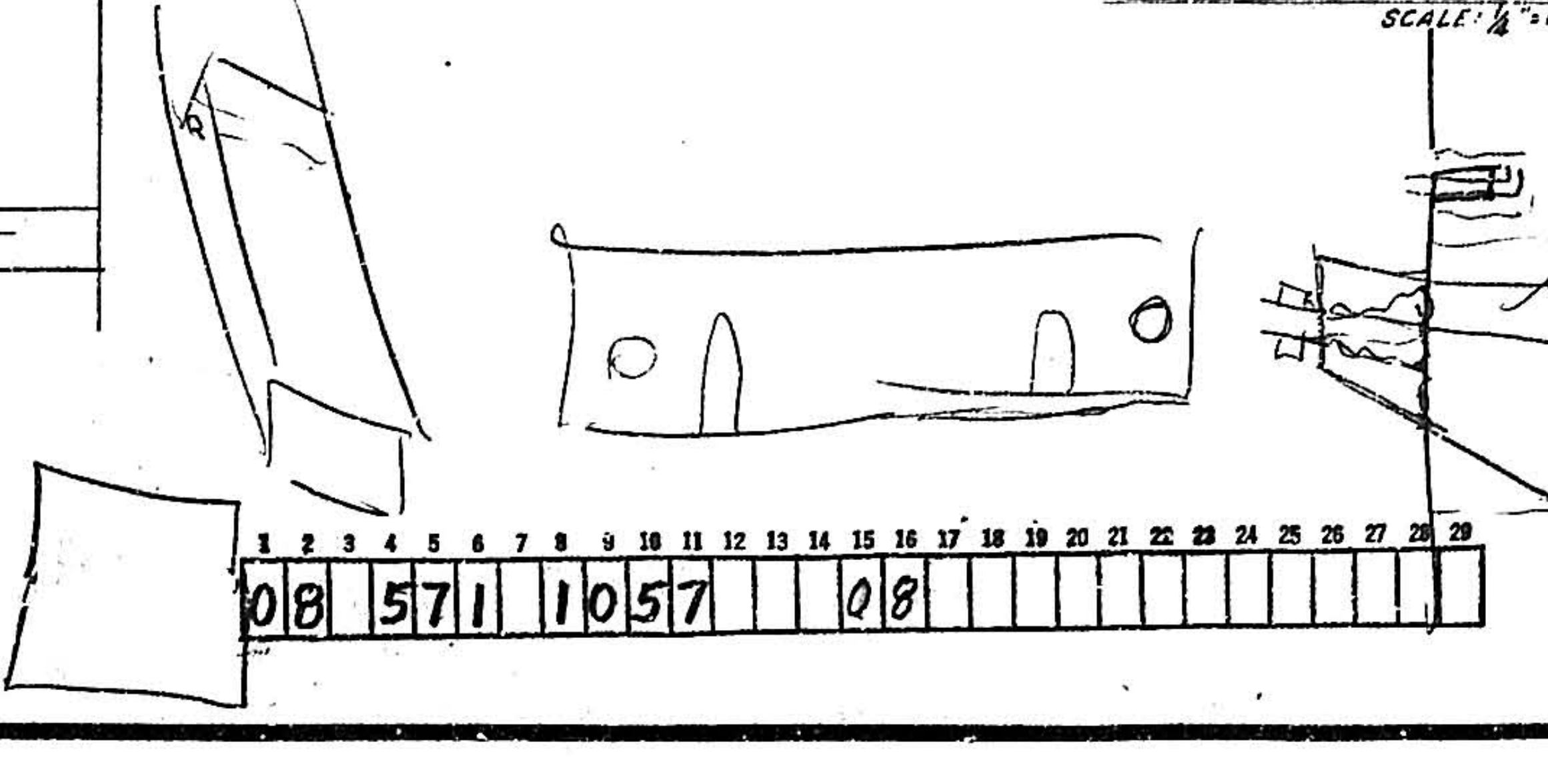
FLOOR AND FLOOR FRAMING PLAN

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


25'-6"
9" 12'-9" 12'-9" 9"
16" x 36" Grade beam
16" x 24" Grade beam
7'-6" x 7'-6" x 1'-6" Footing
7'-6" x 7'-6" x 1'-6" Footing
16" x 24" Grade beam
1'-4" 24'-6" 1'-2"
Rubber spool
Check valve
Ladder
Saddle
℄ Pump suction
Column
Check valve
Rubber spool
Saddle
Slope
Baffle
Sump discharge to thru wall 2' above floor
Column
Sump pump
Check valve
PUMP ROOM
Baffle
Saddle
Rubber spool
Check valve
Column
Saddle
Check valve
Ladder
Rubber spool
Saddle
Check valve
4" Gate valve extend handle thru grating
4" Check valve
4" Drain line
42" Wall sleeve, drill and tap for studs
42" Pump discharge
50'-0"

PUMP ROOM AND FOUNDATION PLAN

SCALE: 1/4"=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

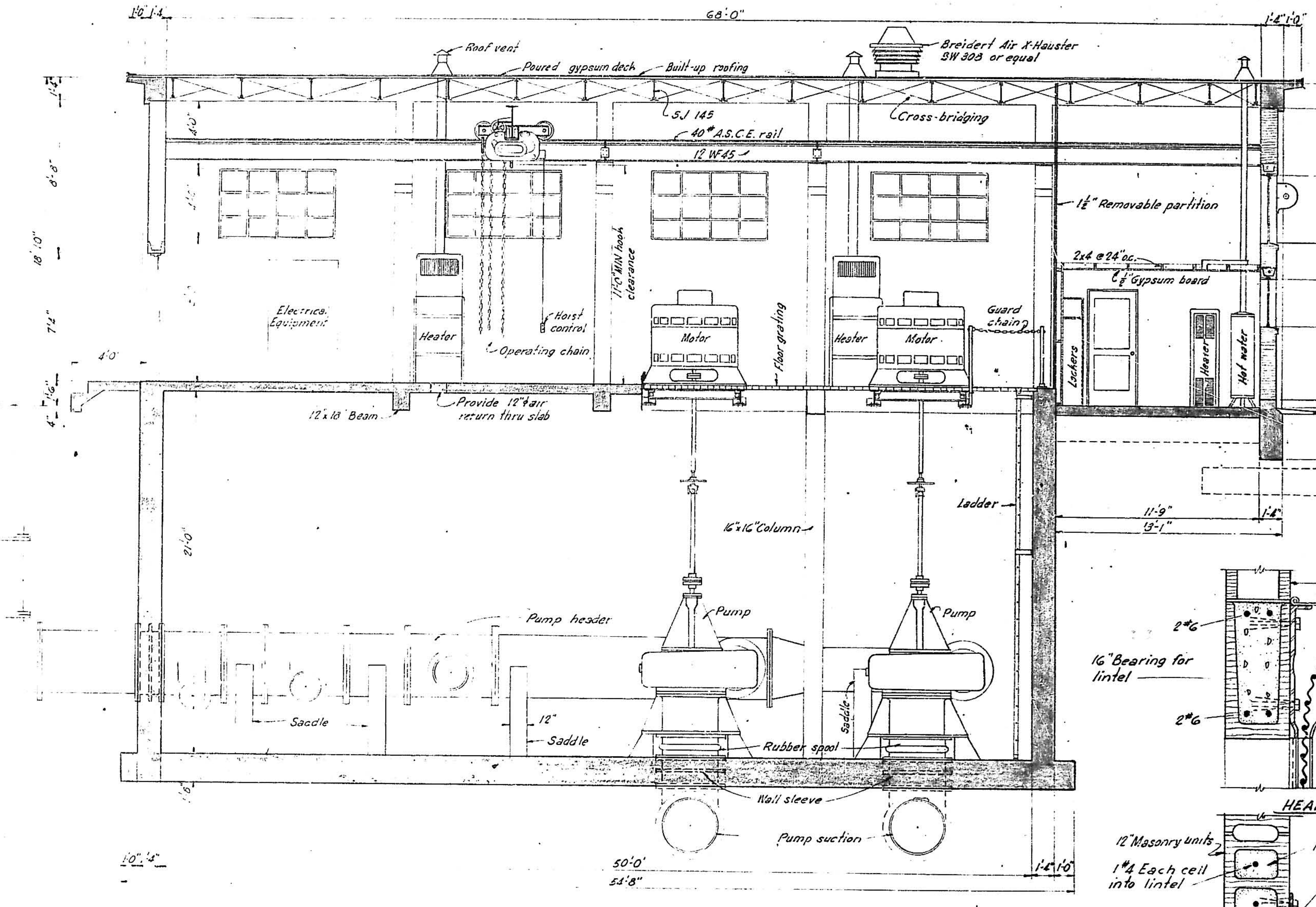
NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
ROOF FLOOR & FOUNDATION PLAN

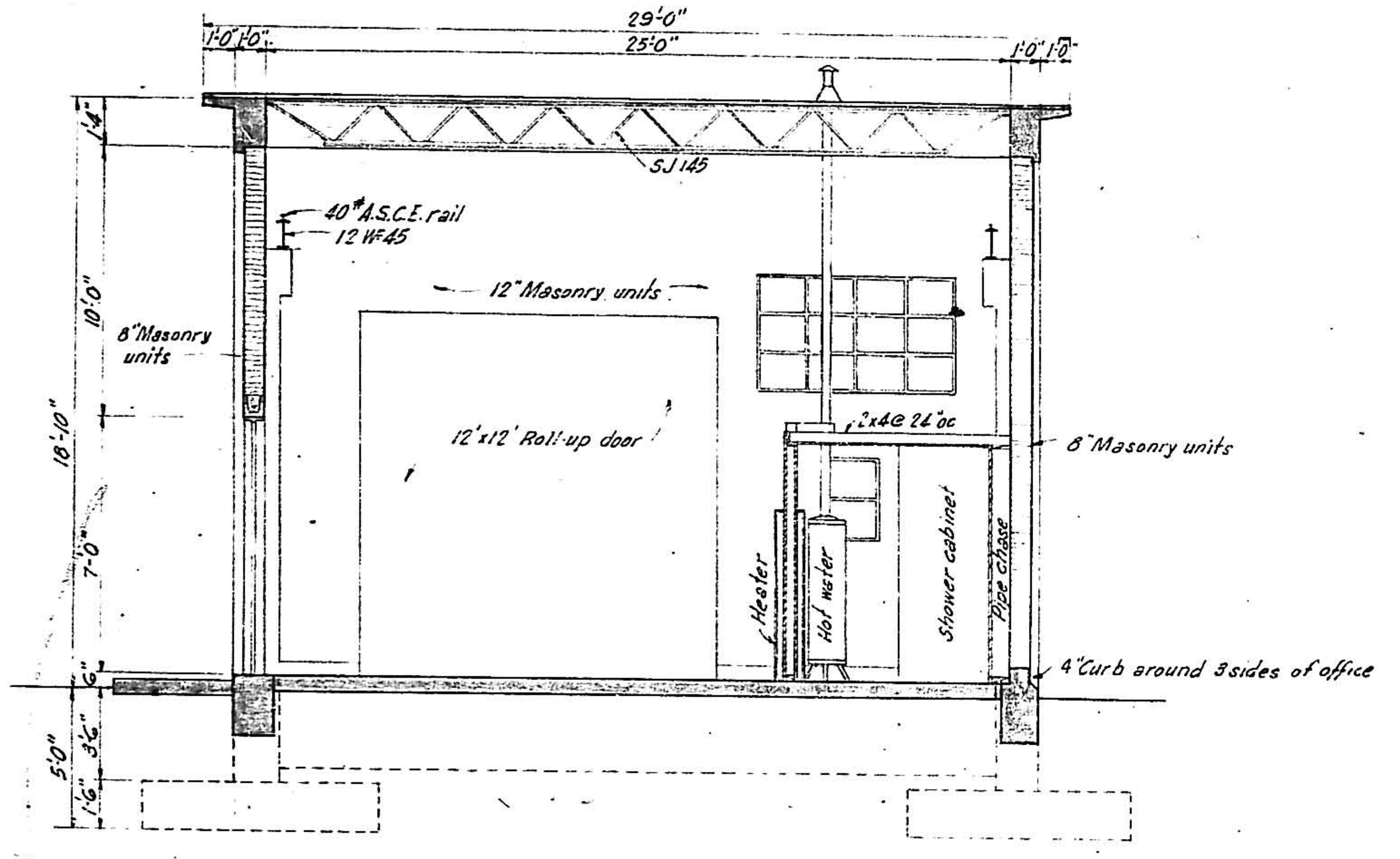
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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

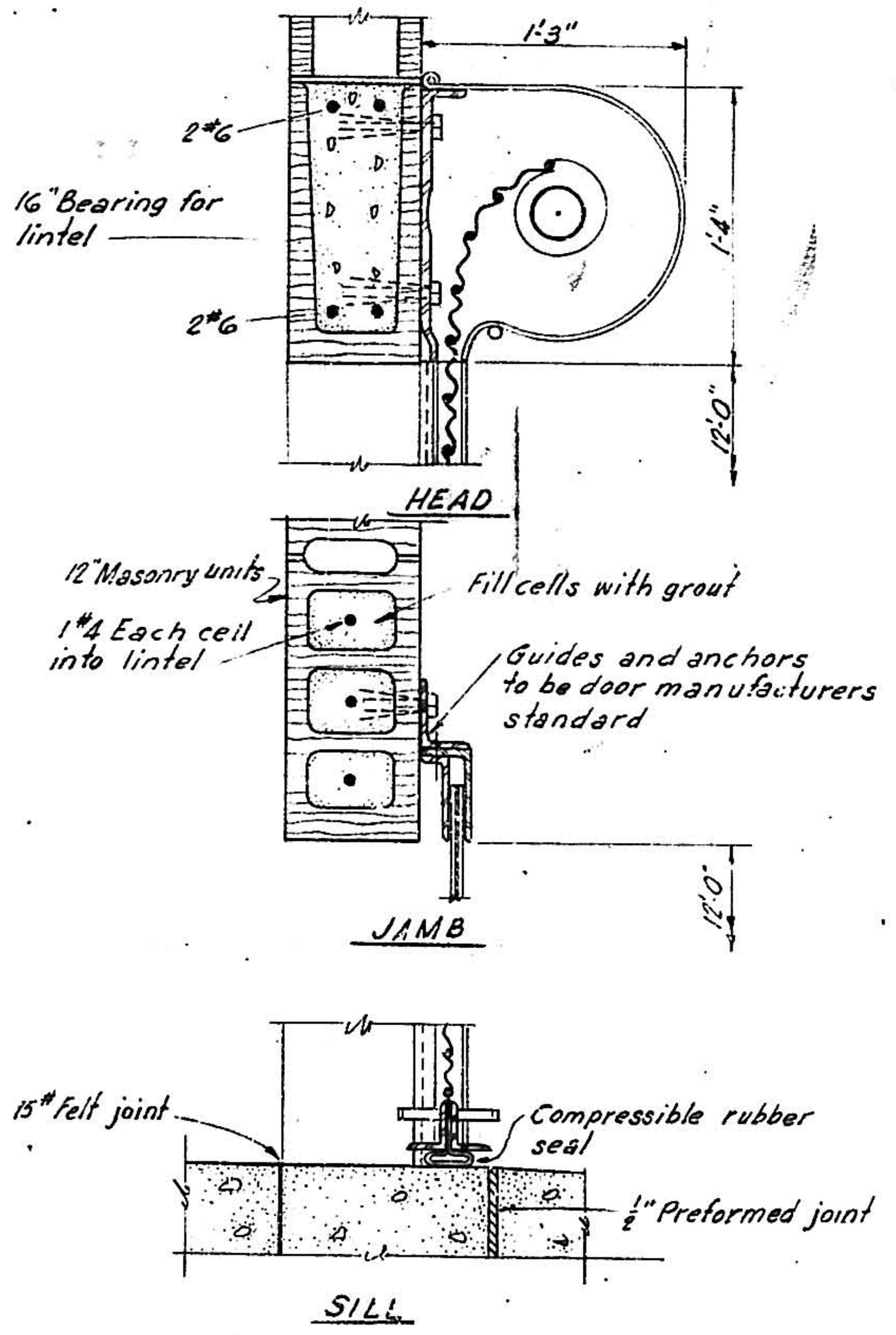
1


68'-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
16"x16" Column
Ladder
Pump header
Pump
Saddle
12"
Rubber spool
Wall sleeve
Pump suction
11'-9"
13'-1"
50'-0"
54'-8"
18'-10"
21'-0"

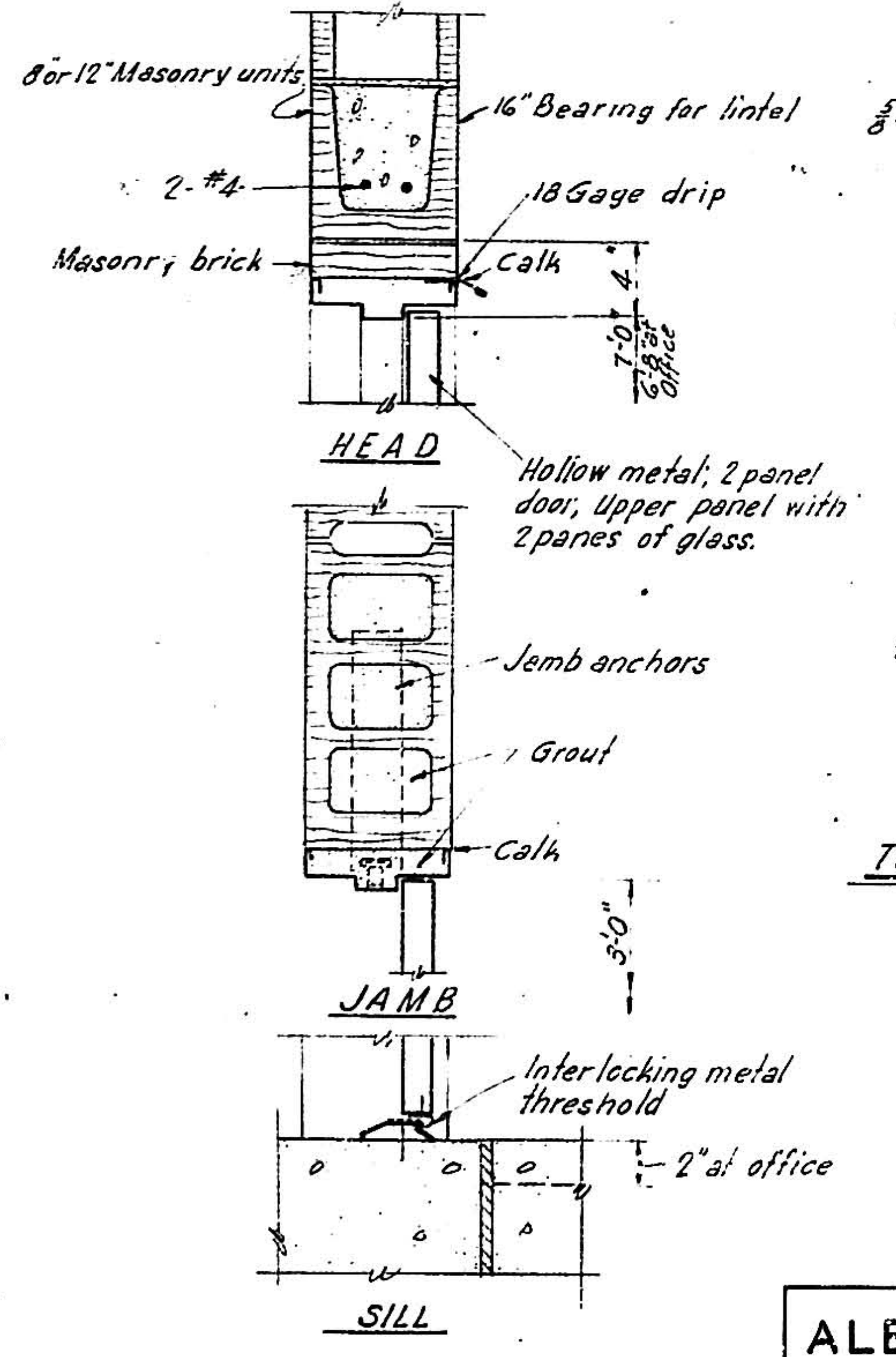
SECTION A-A
SCALE: ¼"=1'-0"


29'-0"
25'-0"
SJ 145
40# A.S.C.E. rail
12 WF45
8" Masonry units
12" 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

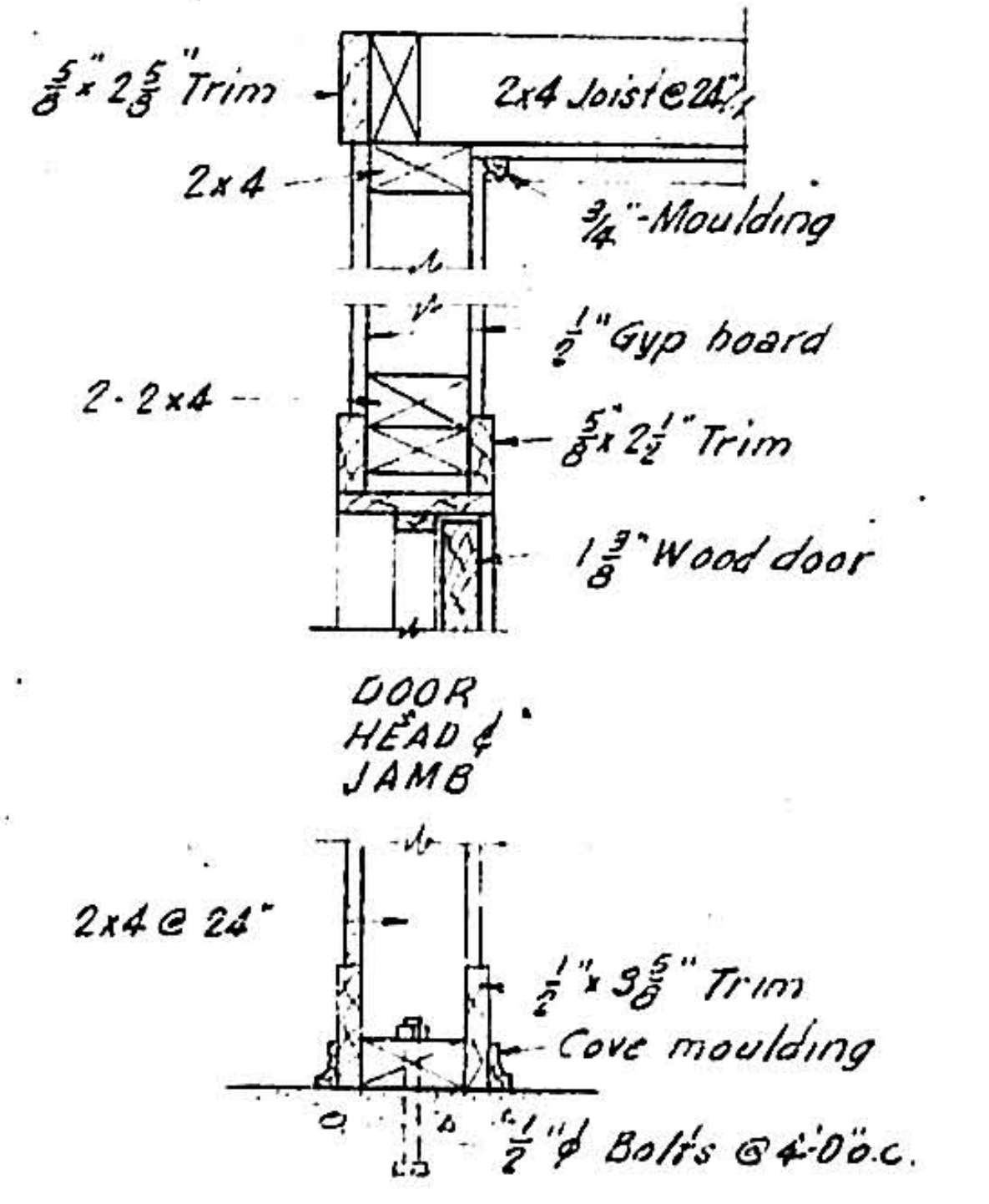
SECTION B-B
SCALE: ⅛"=1'-0"


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

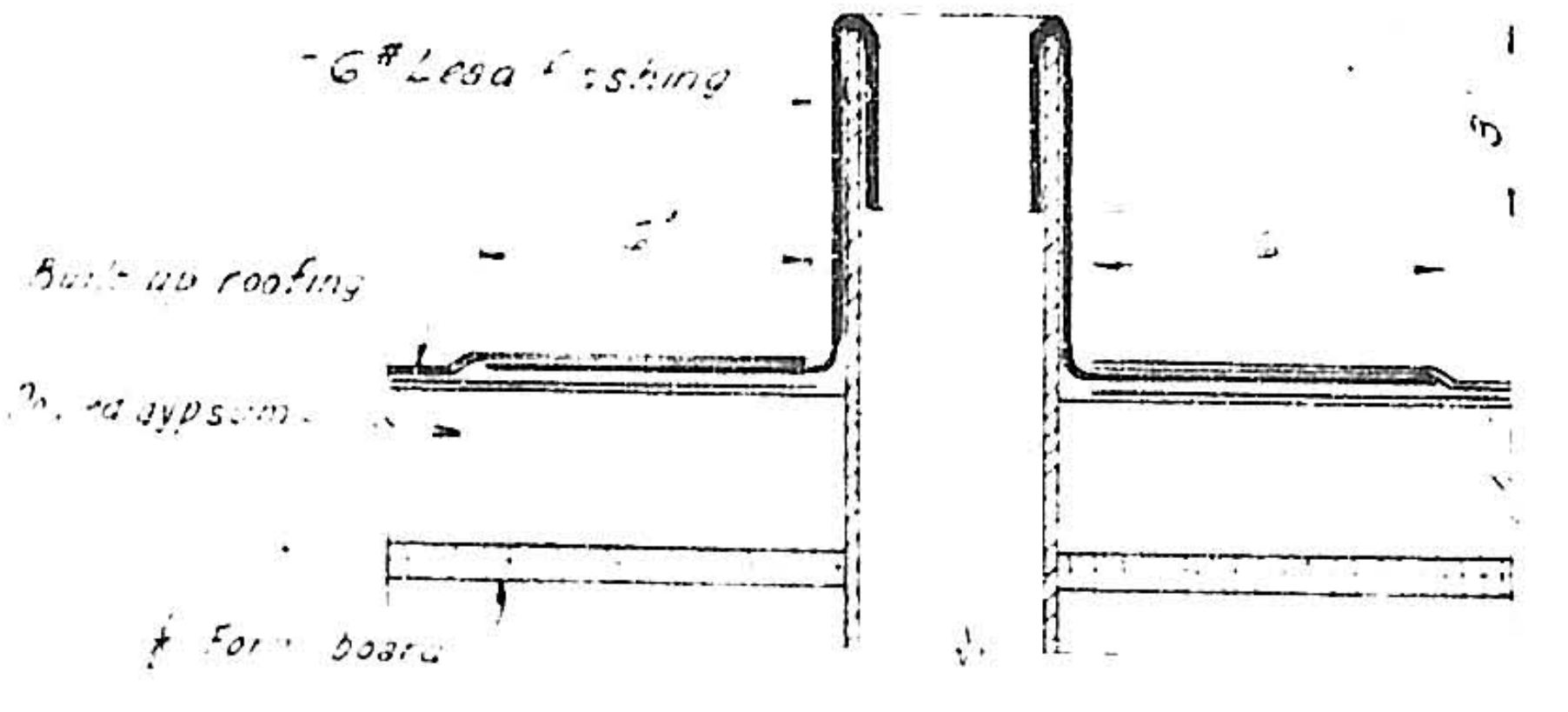
ROLL-UP DOOR DETAILS
NOT TO SCALE


8" or 12" Masonry units
16" Bearing for lintel
2-#4
18 Gage drip
Masonry brick
Calk
7'-0"
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

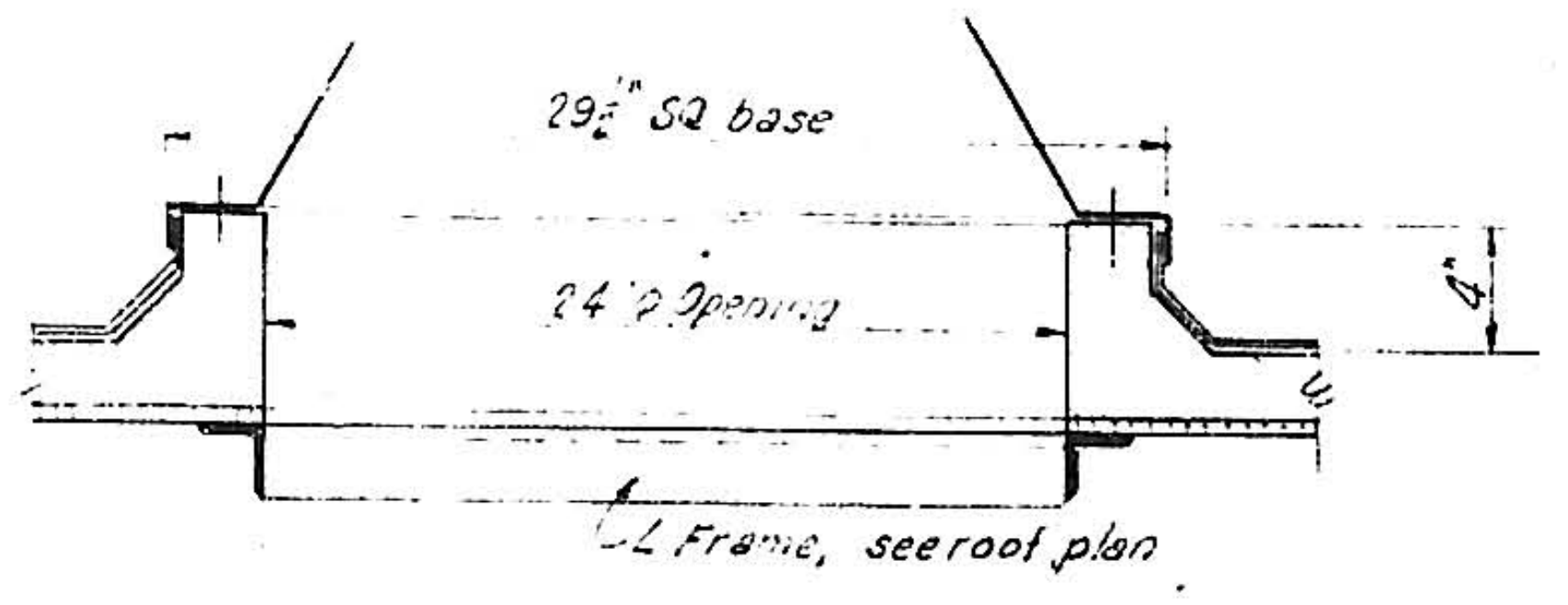

⅝"x 2⅝" Trim
2x4 Joist @ 24"
2x4
¾" Moulding
½" Gyp board
2-2x4
⅝"x 2½" Trim
1⅜" Wood door
DOOR HEAD & JAMB
2x4 @ 24"
½"x 3⅝" Trim
Cove moulding
½" Bolts @ 4'-0" o.c.

TOILET ROOM PARITITION
NOT TO SCALE

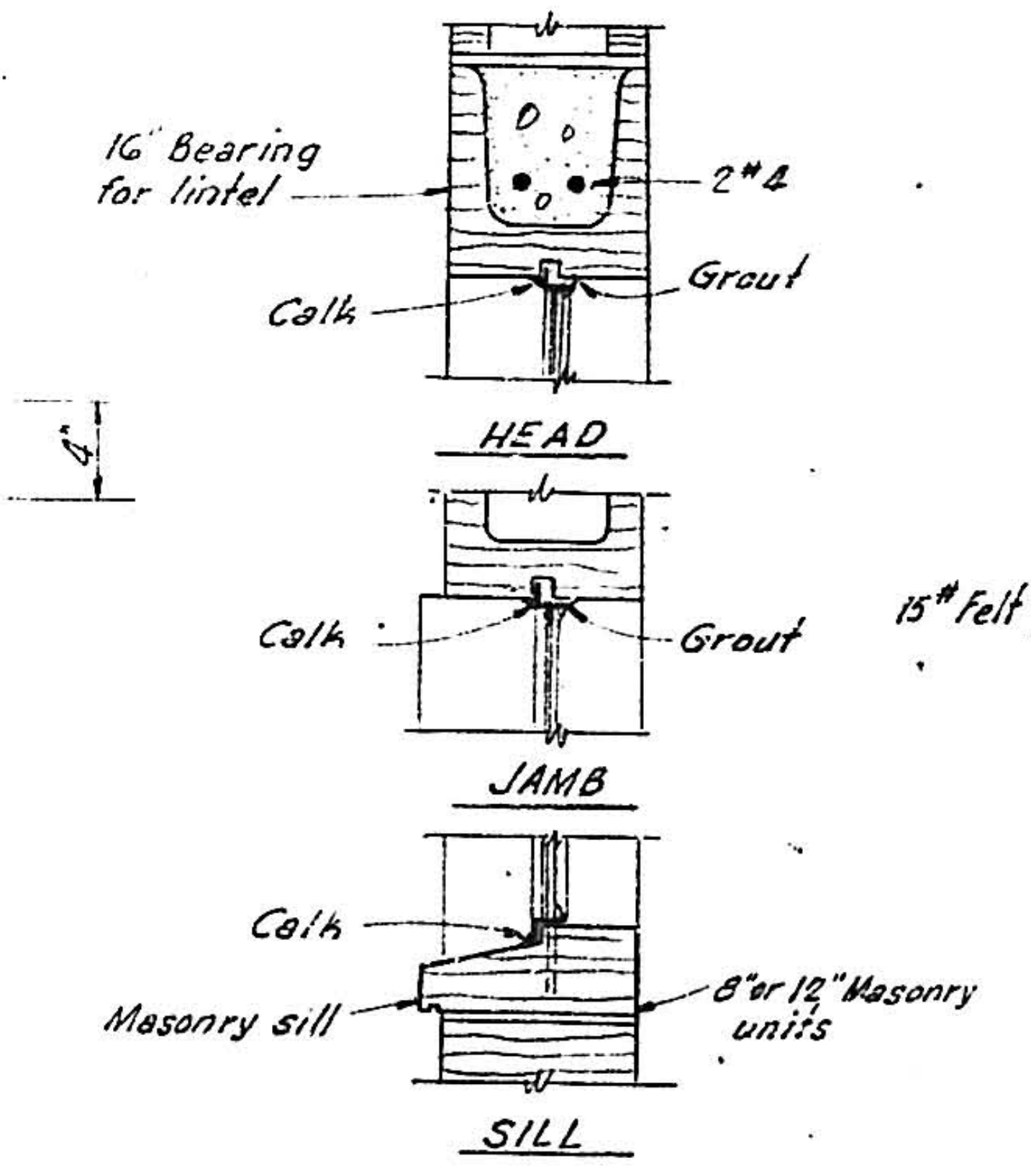

6# Lead flashing
Built-up roofing
Poured gypsum
Form board

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

4/33


29½" SQ base
24"□ Opening
6"
∠ Frame, see roof plan

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


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

WINDOW DETAILS
SCALE: 1½"=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	1	5	7				0	8													

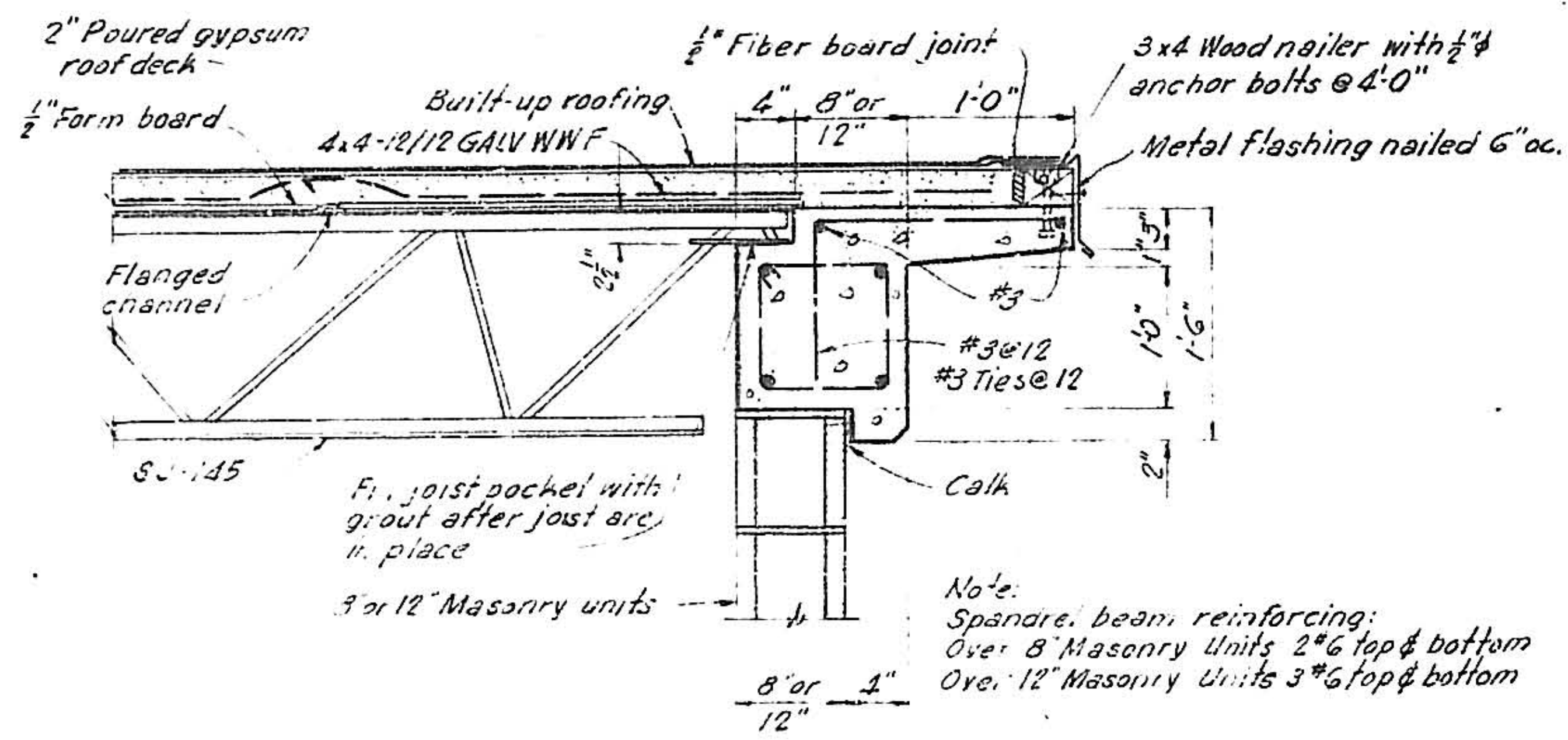
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
SECTION & DETAILS

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

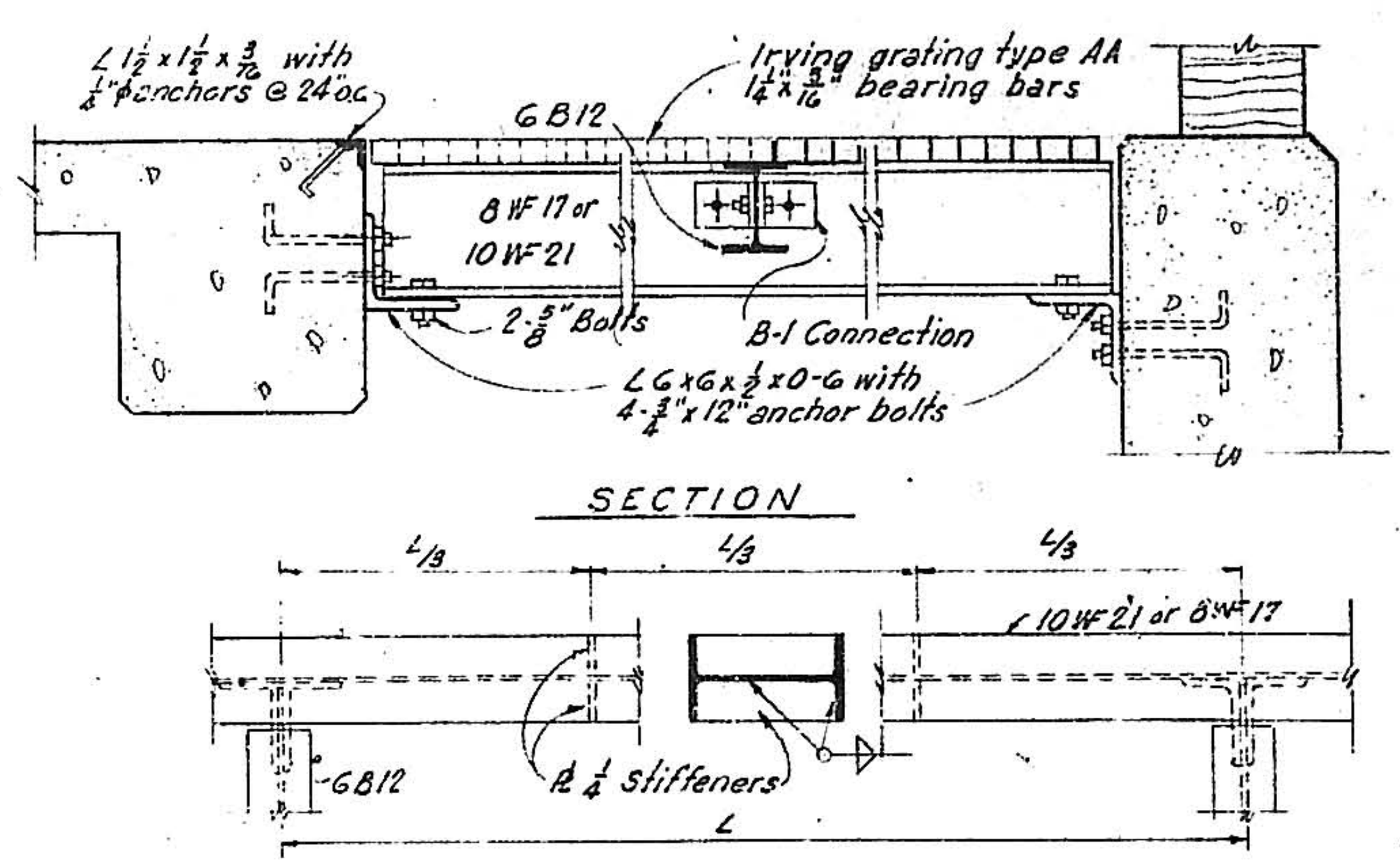
SCALE AS SHOWN
DATE FEB. 4, 1956
DRAWN
CHECKED
SHEET 11 OF 15


2" Poured gypsum roof deck
½" Form board
Built-up roofing
4x4-12/12 GALV WWF
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

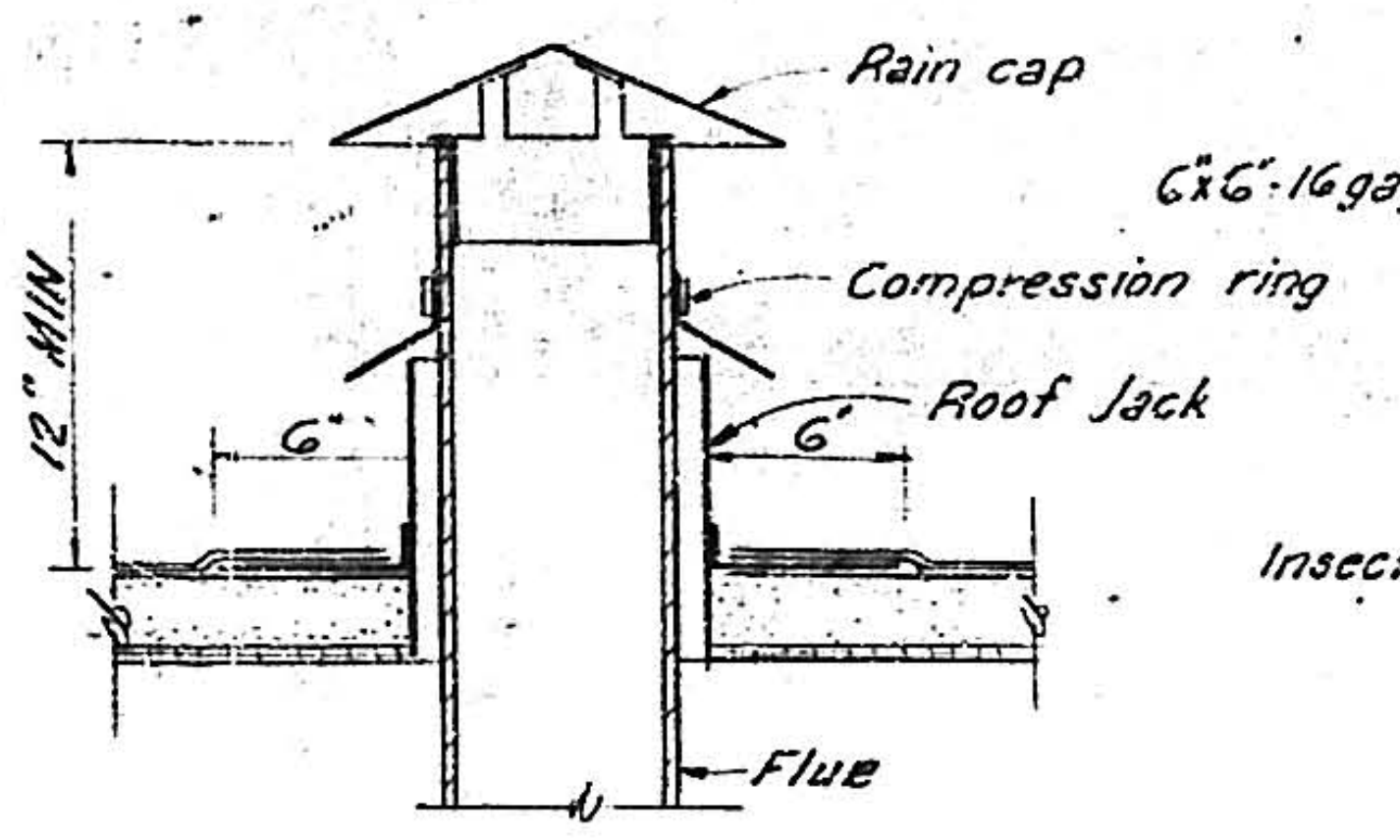
TYPICAL EAVE DETAIL

SCALE: 1"=1'-0"


∠1½ x 1½ x 3/16 with ¼"φ anchors @ 24" oc.
6B12
Irving grating type AA 1¼" x 3/16" bearing bars
8WF17 or 10WF21
2-⅝" Bolts
B-1 Connection
∠6x6x½x0-6 with 4-¾" x 12" anchor bolts
SECTION
L/3
L/3
L/3
10WF21 or 8WF17
6B12
PL ¼ Stiffeners
L

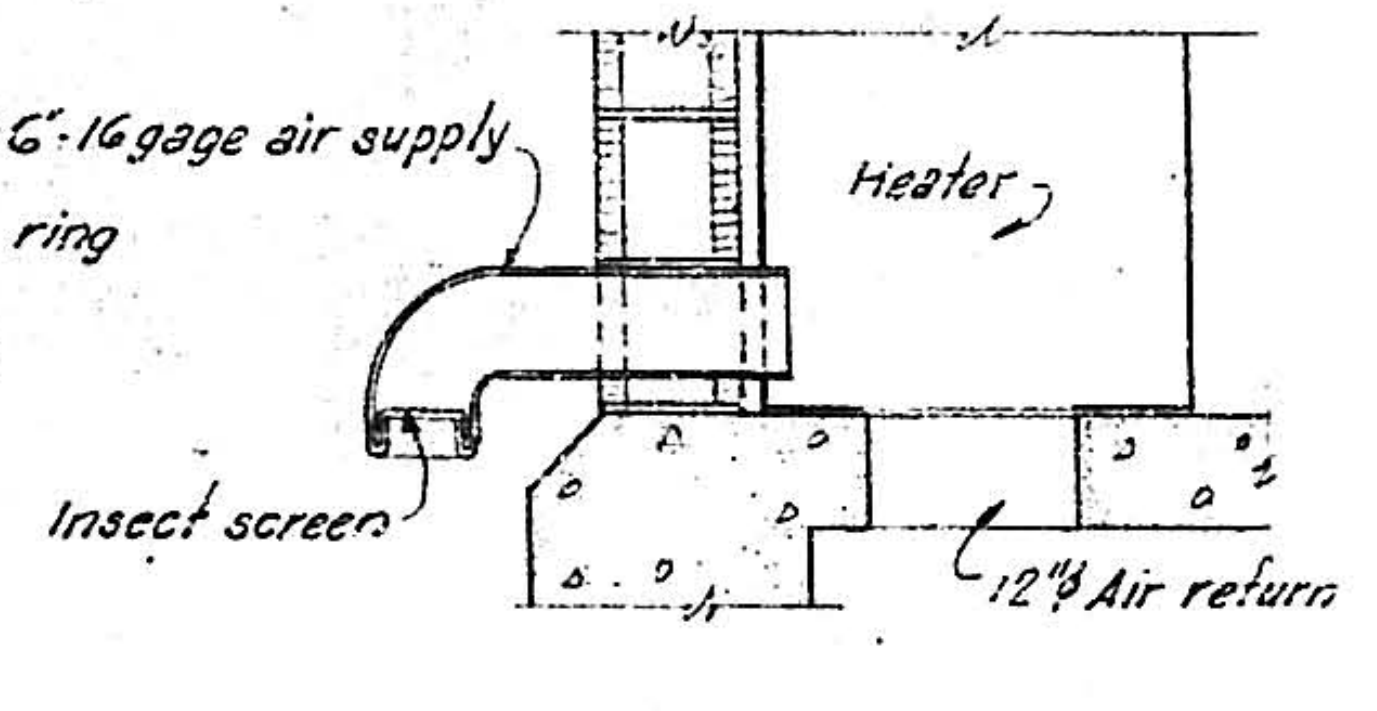
MOTOR SUPPORT FRAMING

SCALE: 1"=1'-0"


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

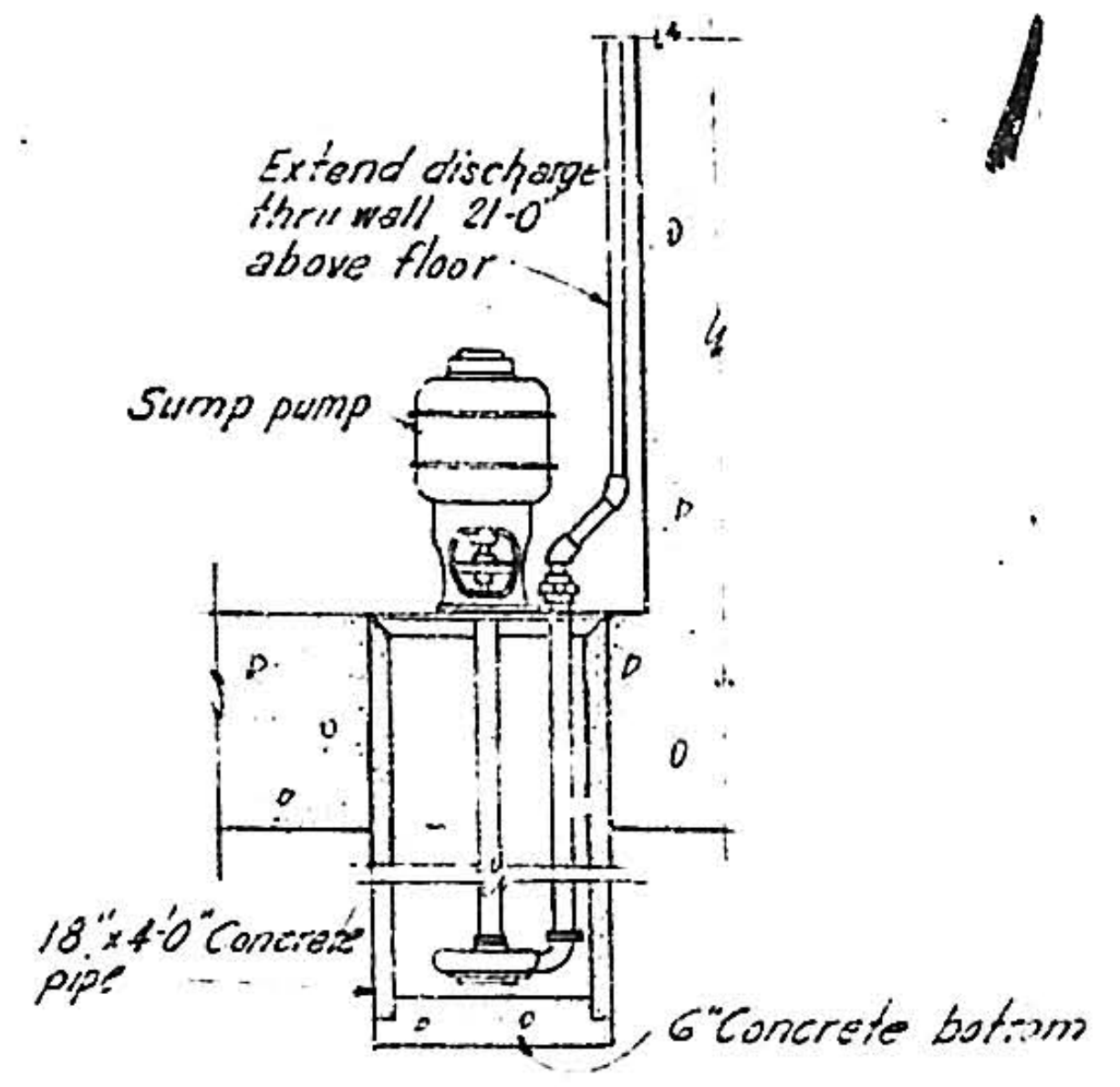
FLUE FLASHING

SCALE: 1½"=1'-0"


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

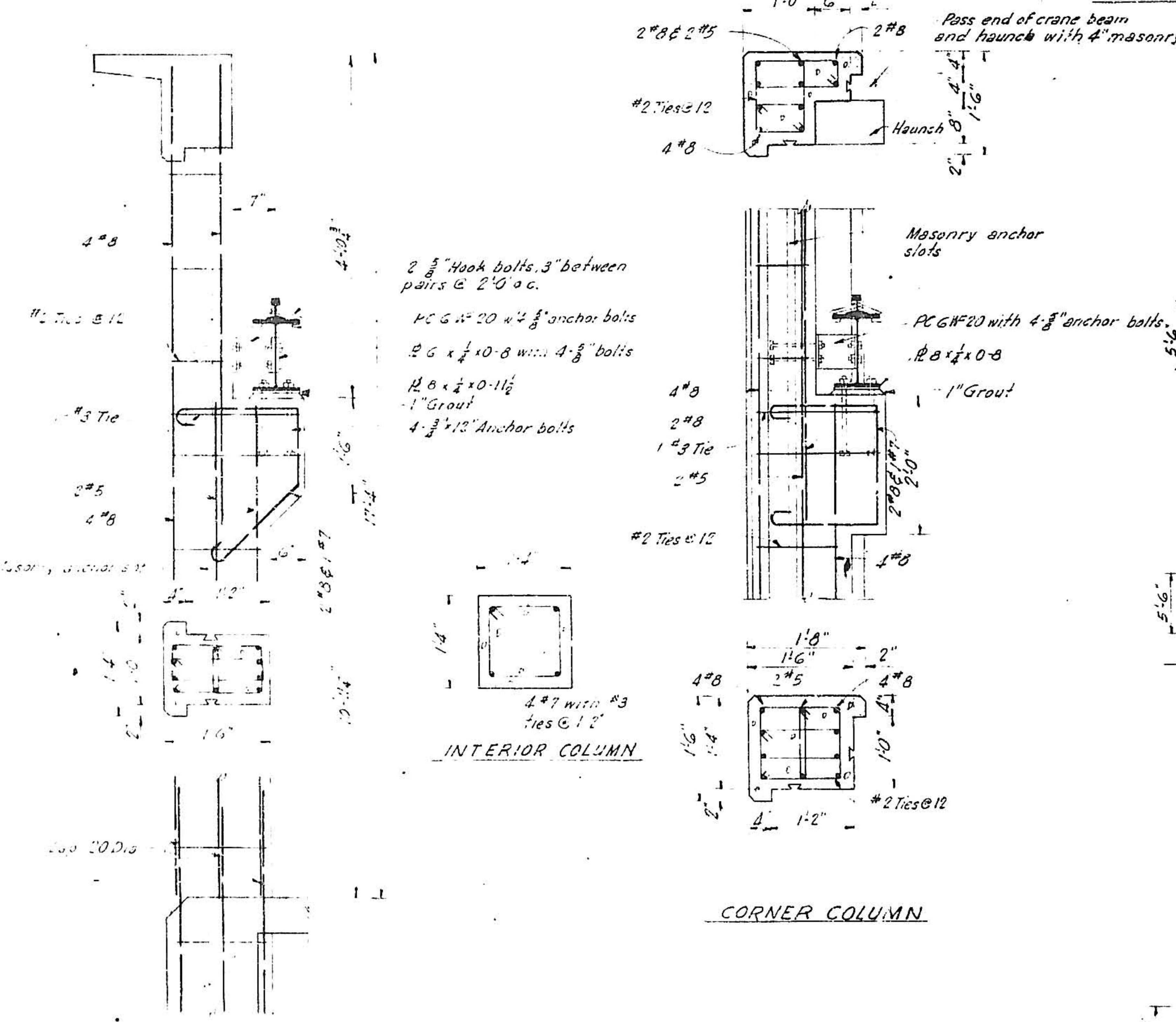
AIR SUPPLY DUCT

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
4"
4"
1'-6"
8"
2"
Pass end of crane beam and haunch with 4" masonry units
4#8
#2 Ties @ 12
7"
4'-0¾"
2 ⅝" Hook bolts, 3" between pairs @ 2'-0" o.c.
PC 6WF20 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" x 12" Anchor bolts
#3 Tie
2#5
4#8
1'-6"
1'-4"
Masonry anchor slots
2#3 & 1#7
4"
1'-2"
1'-4"
1'-0"
1'-6"
1'-4"
1'-4"
4#7 with #3 ties @ 12"
Masonry anchor slots
PC 6WF20 with 4-⅝" anchor bolts
PL 8 x ¼ x 0-8
1" Grout
4#8
2#8
1 #3 Tie
2#5
2#8 & 1#7
2'-0"
#2 Ties @ 12
4#8
1'-8"
1'-6"
2"
4#8
2#5
4#8
4"
1'-0"
1'-6"
1'-4"
2"
4"
1'-2"
#2 Ties@12

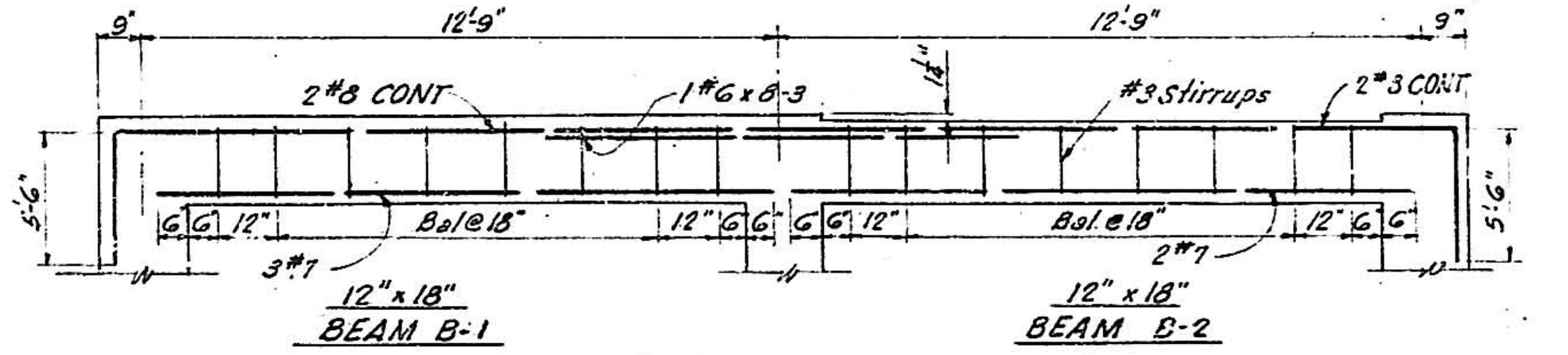
SIDE COLUMN

INTERIOR COLUMN

CORNER COLUMN

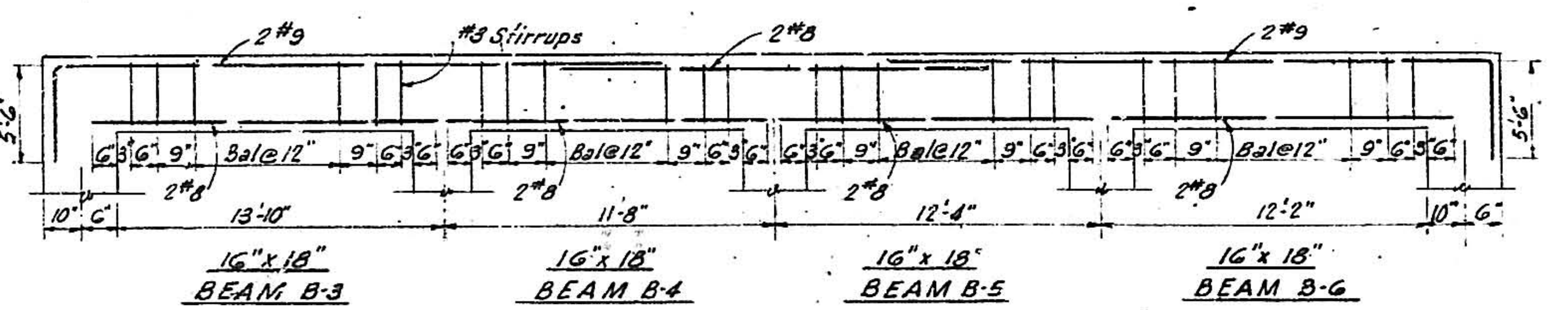
TYPICAL COLUMN DETAILS

SCALE ¾"=1'-0"


9"
12'-9"
12'-9"
9"
2#8 CONT
1#6 x 8-3
#3 Stirrups
2#3 CONT
14"
5'-6"
6 6 12"
Bal @ 18"
12" 6 6
6 6 12"
Bal. @ 18"
12" 6 6
3#7
2#7
5'-6"

12" x 18"
BEAM B-1

12" x 18"
BEAM B-2

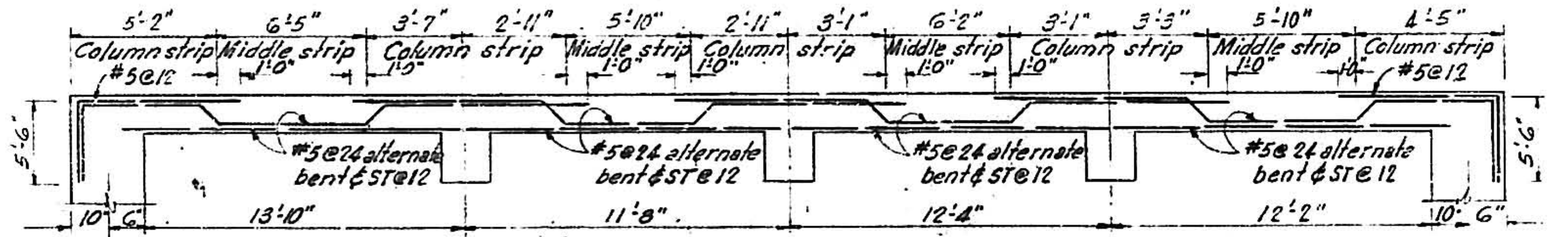

2#9
#3 Stirrups
2#8
2#9
5'-6"
6 3 6 9"
Bal@12"
9" 6 3 6
2#8
2#8
2#8
2#8
10"
6"
13'-10"
11'-8"
12'-4"
12'-2"
10"
6"
5'-6"

16" x 18"
BEAM B-3

16" x 18"
BEAM B-4

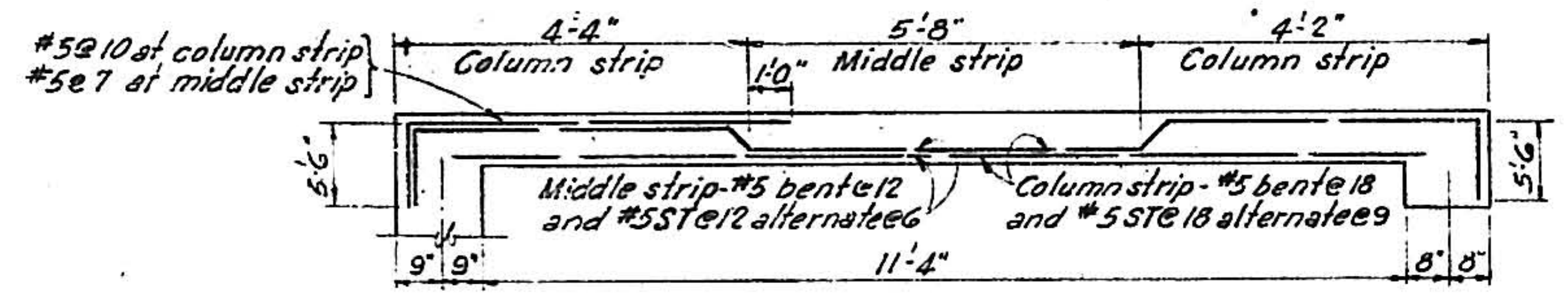
16" x 18"
BEAM B-5

16" x 18"
BEAM B-6

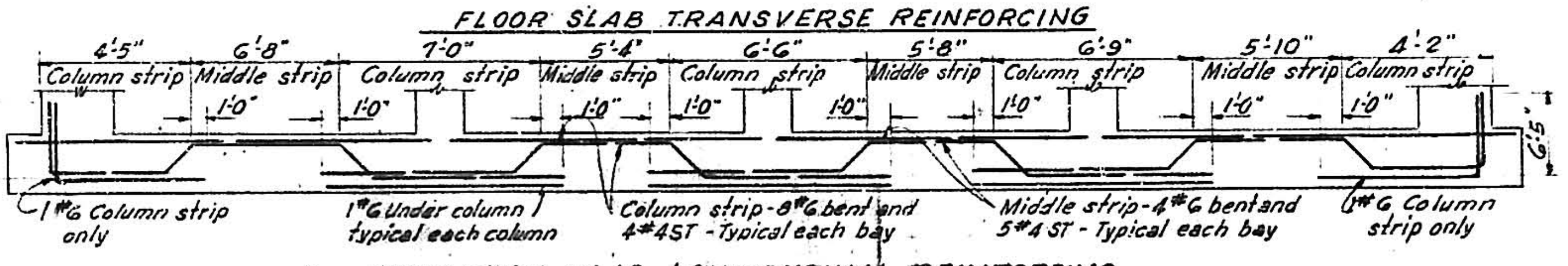

5'-2"
6'-5"
3'-7"
2'-11"
5'-10"
2'-11"
3'-1"
6'-2"
3'-1"
3'-3"
5'-10"
4'-5"
Column strip
Middle strip
Column strip
Middle strip
Column strip
Middle strip
Column strip
Middle strip
Column strip
#5@12
1'-0"
#5@12
#5@24 alternate bent & ST@12
#5@24 alternate bent & ST@12
#5@24 alternate bent & ST@12
#5@24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

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

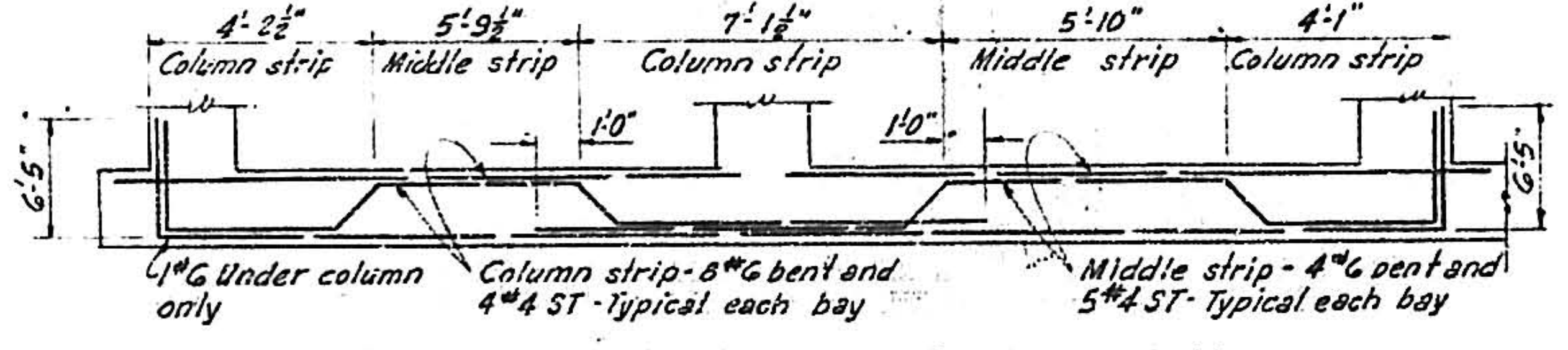
FLOOR SLAB LONGITUDINAL REINFORCING


#5@10 at column strip
#5@7 at middle strip
4'-4"
5'-8"
4'-2"
Column strip
1'-0"
Middle strip
Column strip
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"
5'-6"

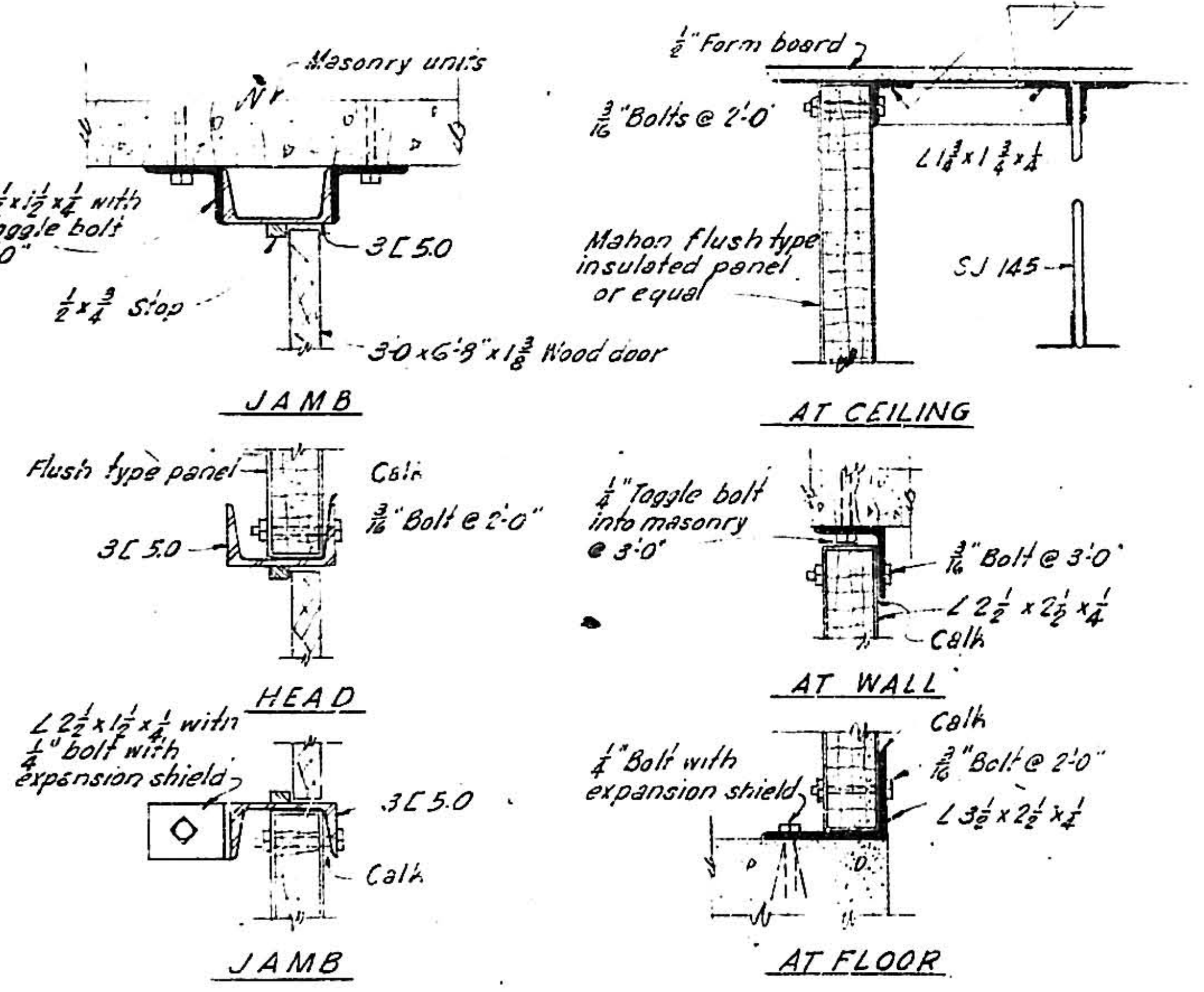
FLOOR SLAB TRANSVERSE REINFORCING


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
6'-5"

FOUNDATION SLAB LONGITUDINAL REINFORCING

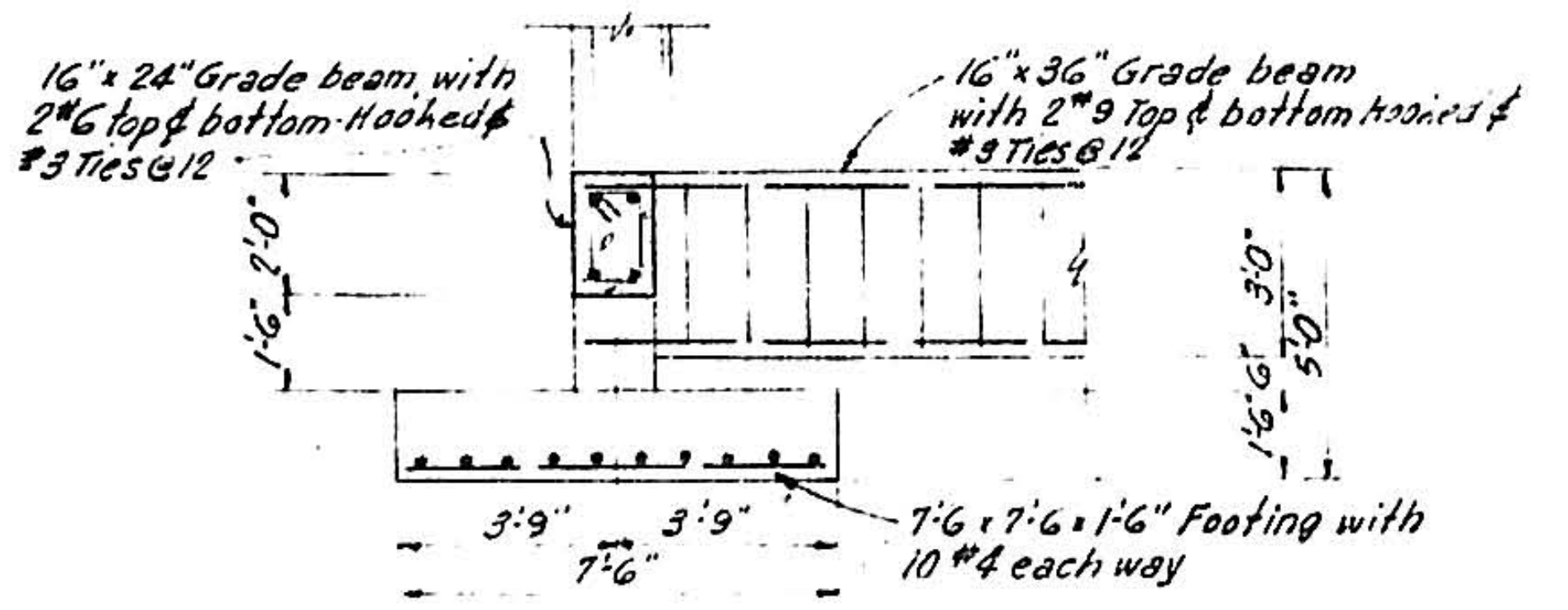

4'-2½"
5'-9½"
7'-1½"
5'-10"
4'-1"
Column strip
Middle strip
Column strip
Middle strip
Column strip
1'-0"
1'-0"
6'-5"
1#6 Under column only
Column strip-8#6 bent and 4#4 ST-Typical each bay
Middle strip-4#6 bent and 5#4 ST-Typical each bay
6'-5"

FOUNDATION SLAB TRANSVERSE REINFORCING


Masonry units
∠2½ x 1½ x ¼ with ¼" Toggle bolt @ 3'-0"
3[5.0
½ x ¾ Stop
3'-0 x 6'-8" x 1⅜ Wood door
JAMB
Flush type panel
Calk
3/16" Bolt @ 2'-0"
3[5.0
HEAD
∠2½ x 1½ x ¼ with ¼" bolt with expansion shield
3[5.0
Calk
JAMB
½" Form board
3/16" Bolts @ 2'-0
∠1¾ x 1¾ x ¼
Mahon flush type insulated panel or equal
SJ 145
AT CEILING
¼" Toggle bolt into masonry @ 3'-0"
3/16" Bolt @ 3'-0"
∠2½ x 2½ x ¼
Calk
AT WALL
Calk
¼" Bolt with expansion shield
3/16" Bolt @ 2'-0"
∠3½ x 2½ x ¼
AT FLOOR

REMOVABLE PARTITION DETAILS

SCALE: 3"=1'-0"


16" x 24" Grade beam with 2#6 top & bottom-Hooked & #3 Ties@12
16" x 36" Grade beam with 2#9 Top & bottom hooked & #3 Ties@12
1'-6"
2'-0"
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

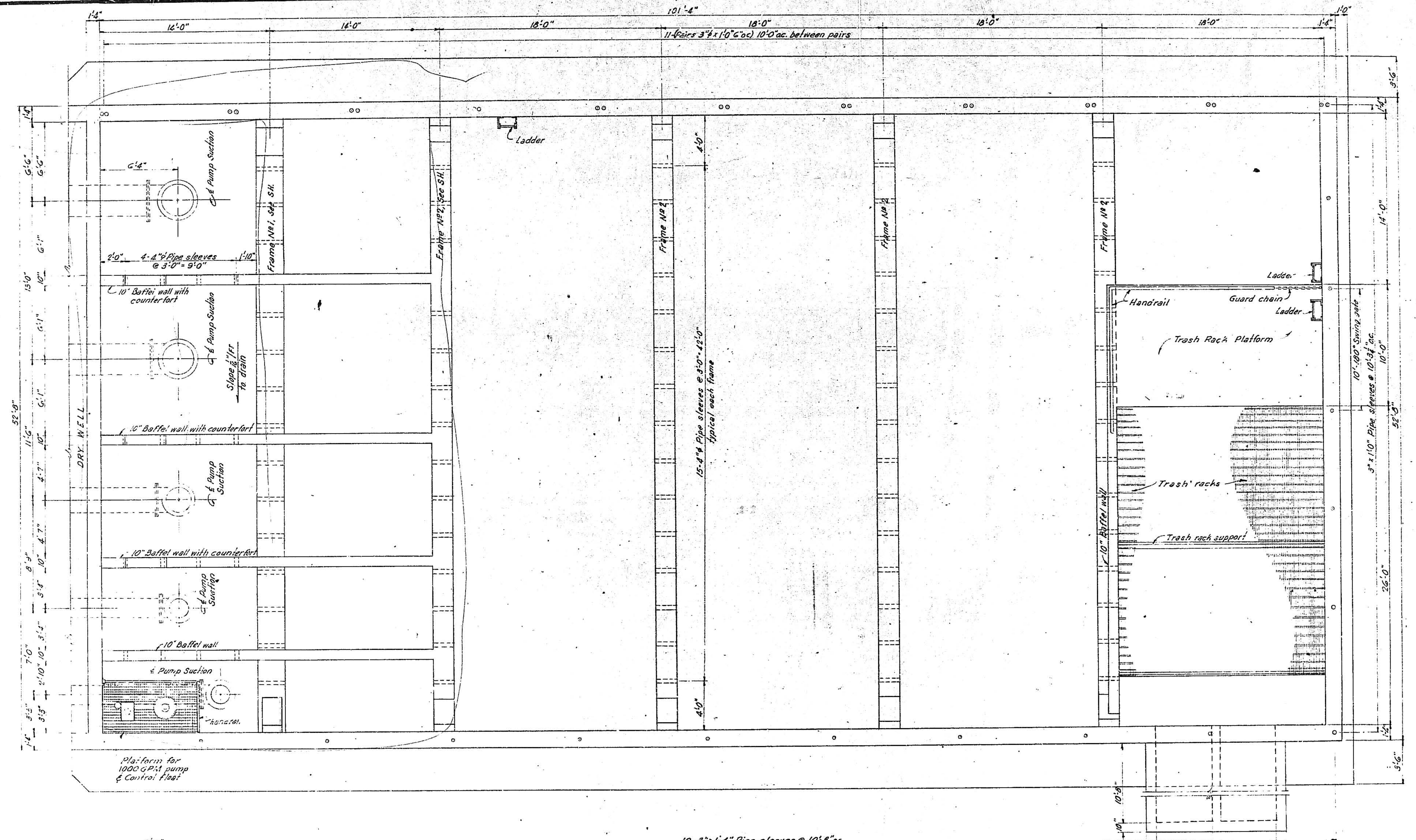
NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
SECTIONS & DETAILS

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

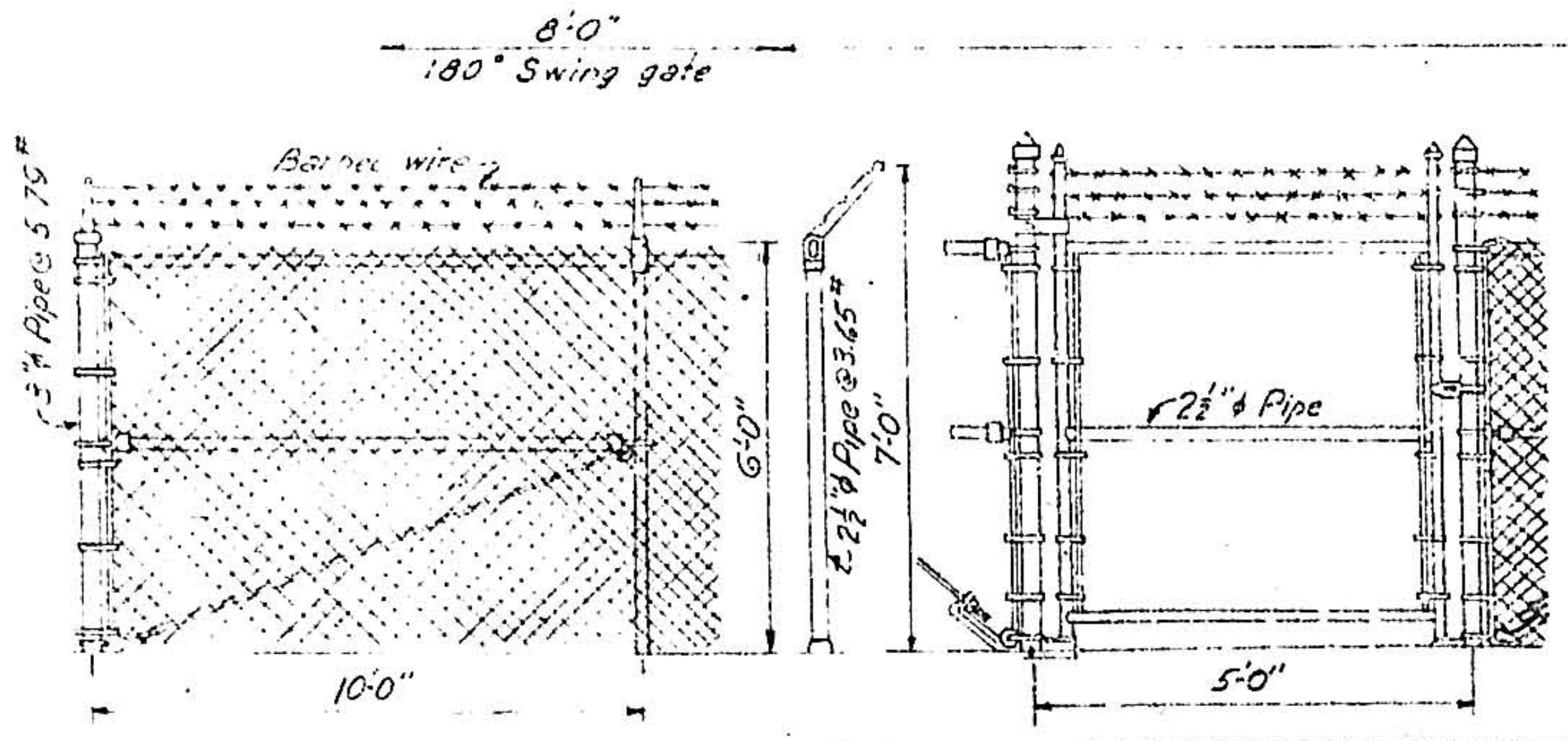
SCALE	DATE	DRAWN	SHEET 12
AS SHOWN	FEB. 4 1956	CHECKED	OF 15

1


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

TANK PLAN

SCALE: ¼" = 1'-0"

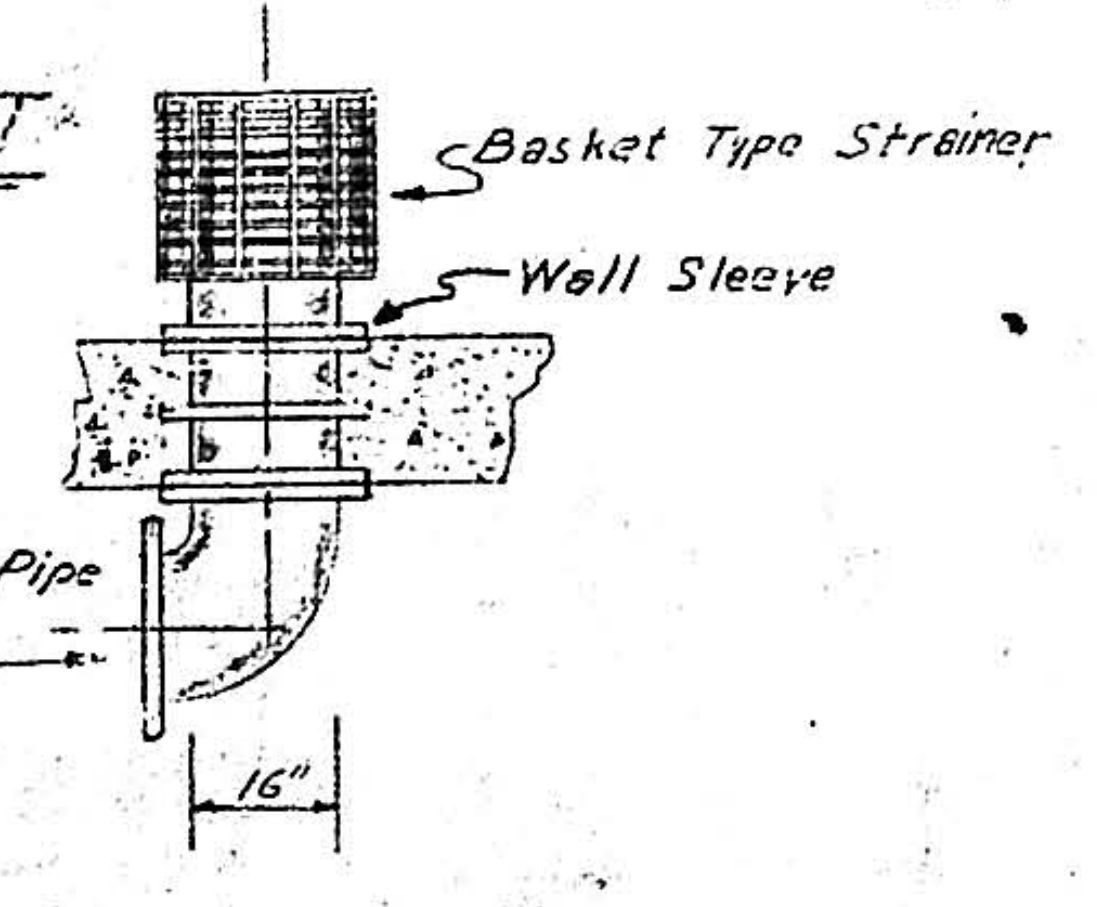

8'-0"
180° Swing gate
Barbed wire
3"ϕ Pipe @ 5.79#
6'-0"
2½"ϕ Pipe @ 3.65#
7'-0"
10'-0"
2½"ϕ Pipe
5'-0"

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													

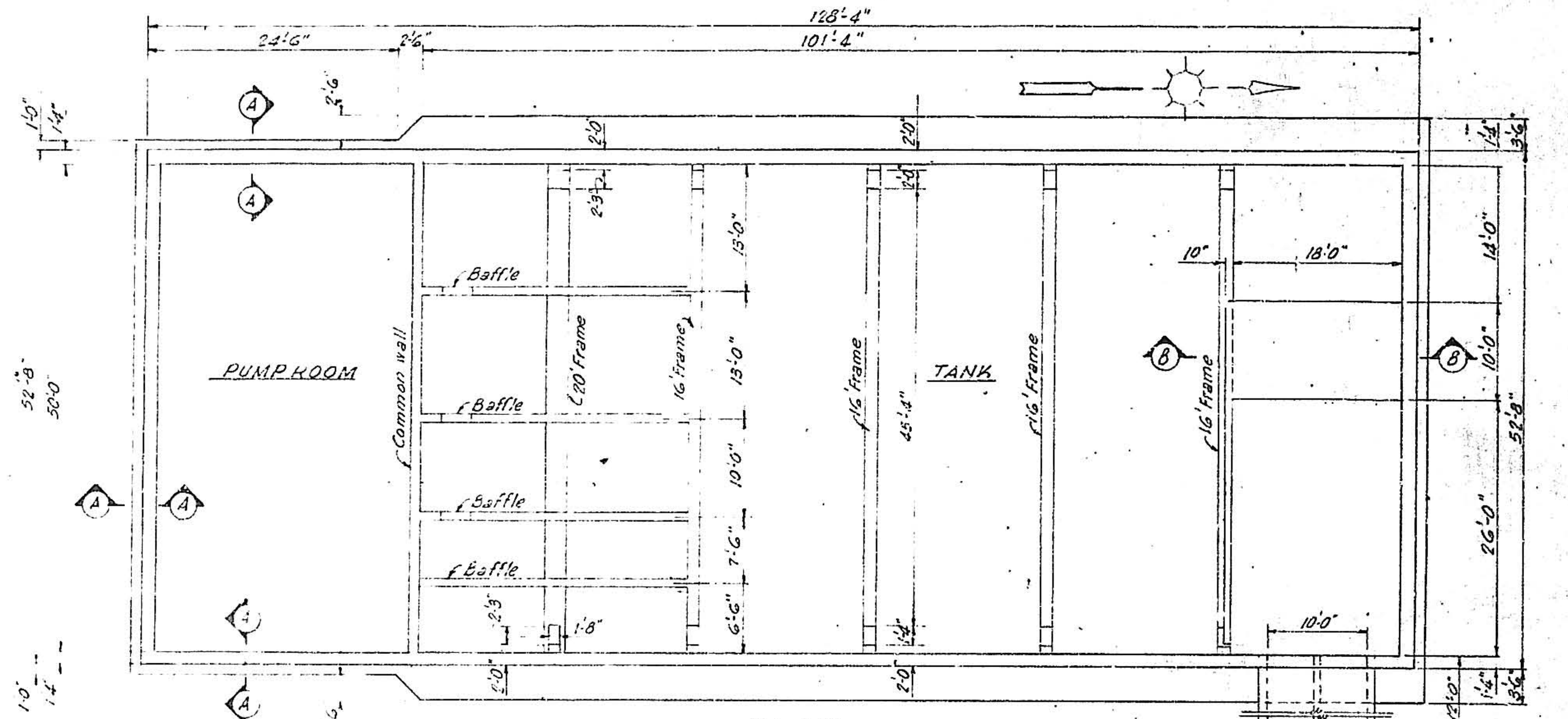
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

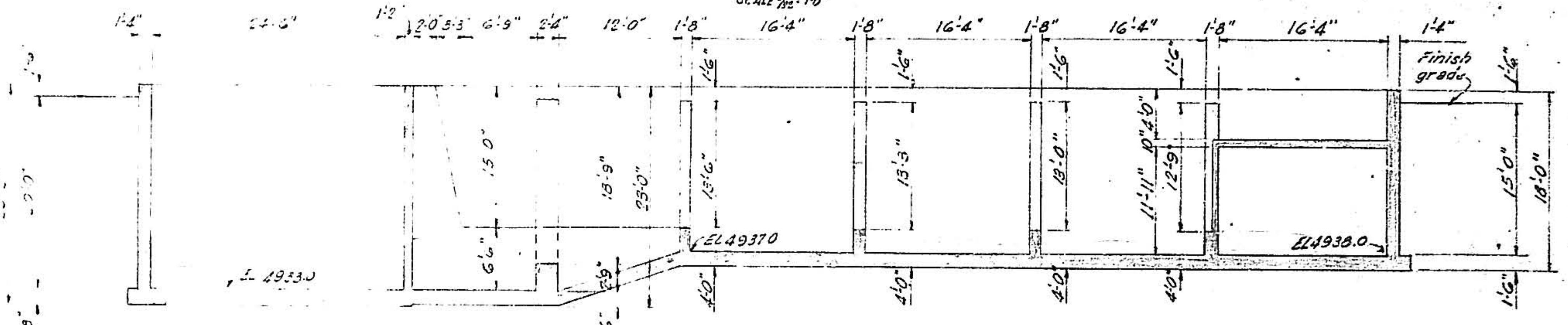
PUMP STATION
TANK PLAN

HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE NEW MEXICO

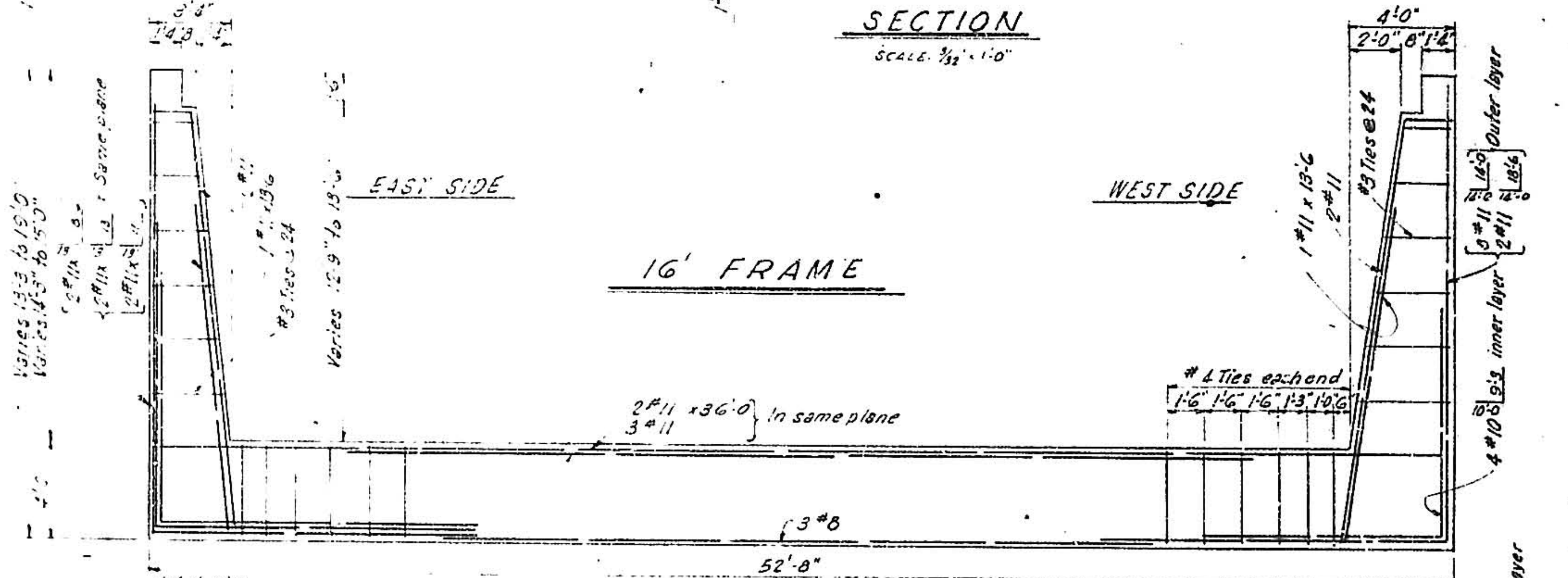
SCALE	DATE	DRAWN	SHEET 13
AS SHOWN	FEB 4 1956	CHECKED	OF 15


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

PLAN
SCALE 3/32" = 1'-0"

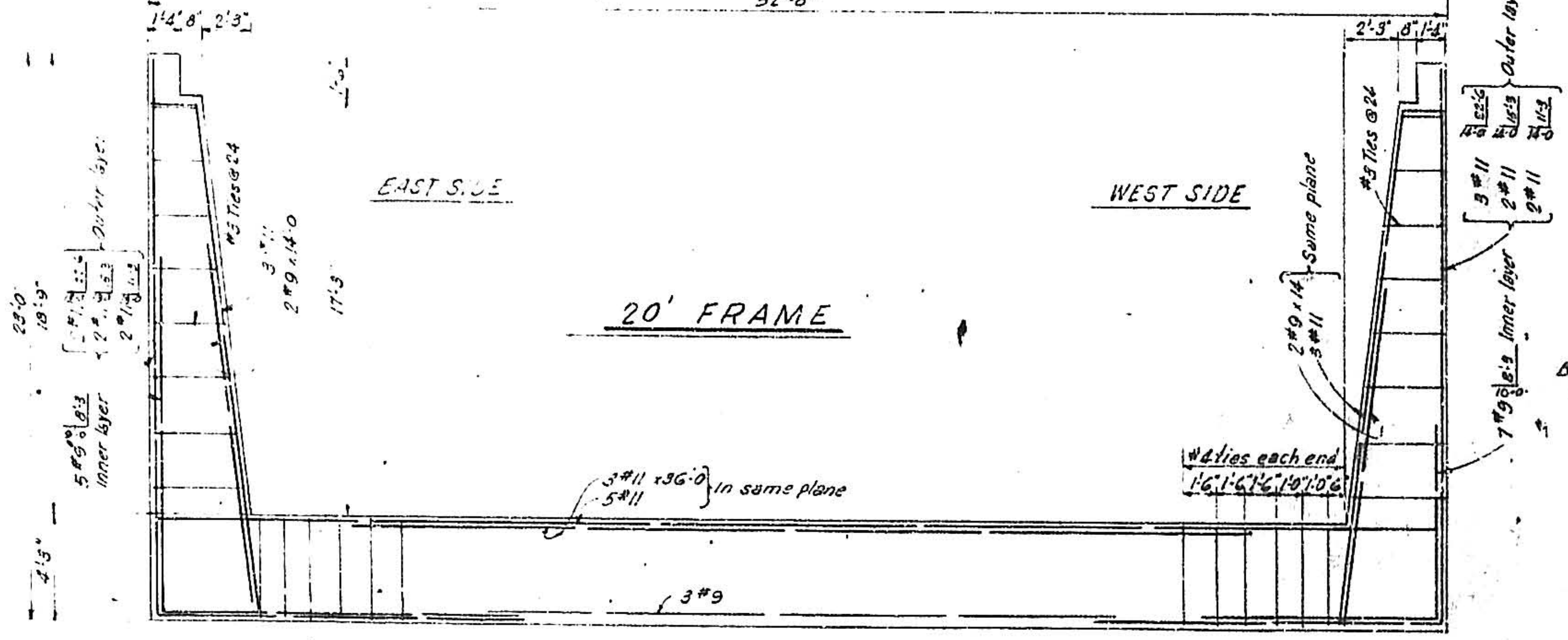

Finish grade
EL 4937.0
EL 4938.0
15'-0"
18'-0"

SECTION
SCALE 3/32" = 1'-0"


EAST SIDE
WEST SIDE
2#11 x 36'-0
3#11 In same plane
#4 Ties each end
#3 Ties @ 24
Outer layer
Inner layer
3#8
52'-8"

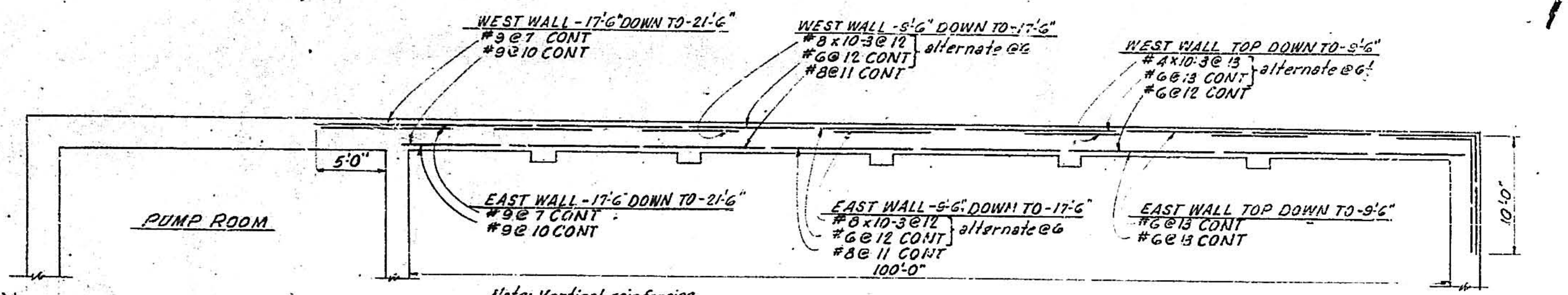
16' FRAME

Bar Placing Diagram


EAST SIDE
WEST SIDE
#3 Ties @ 24
Outer layer
Inner layer
Same plane
3#11 x 36'-0
5#11 In same plane
#4 ties each end
3#9

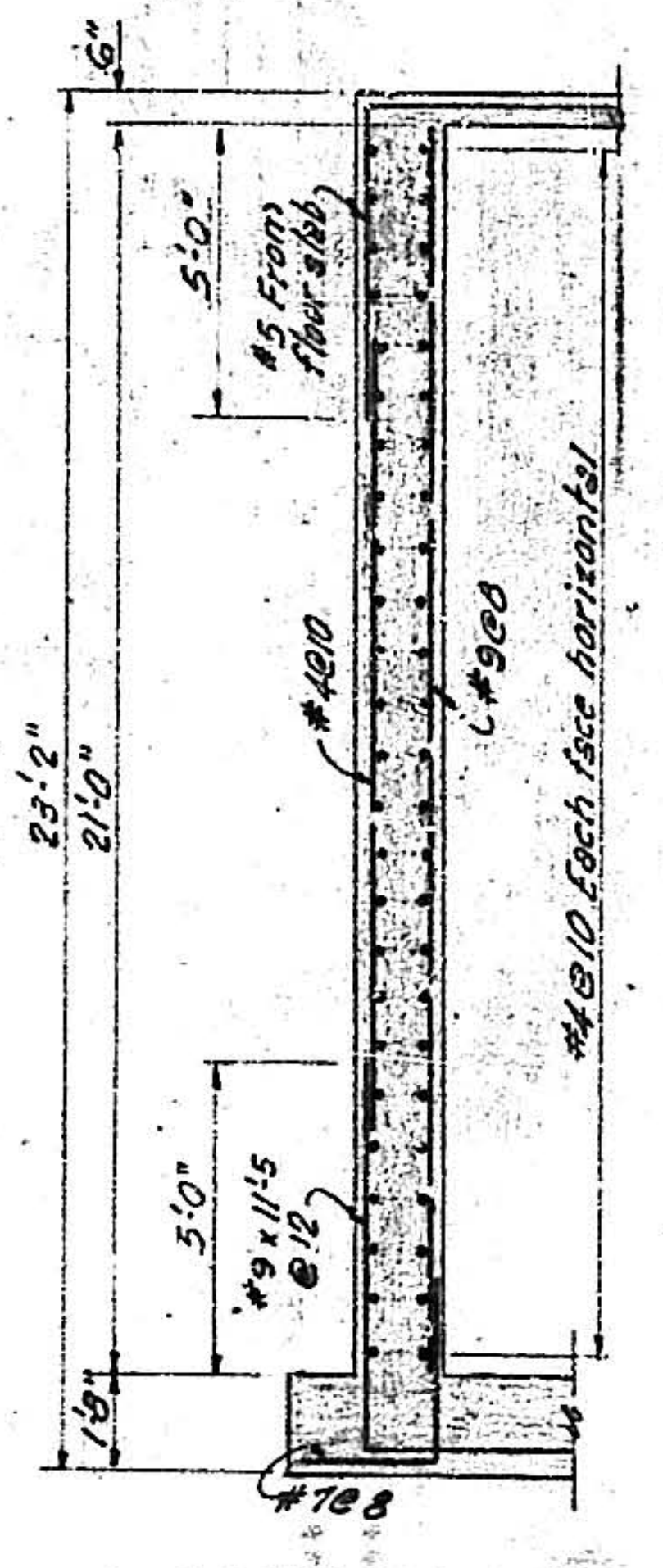
20' FRAME

Bar Placing Diagram

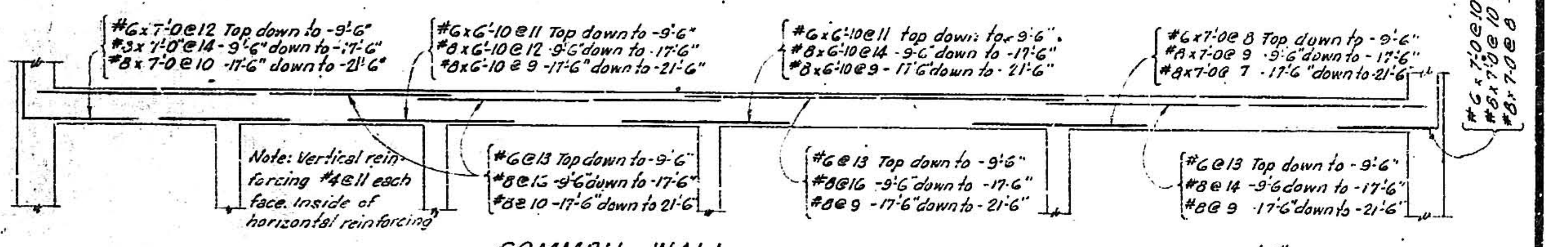

WEST WALL - 17'-6" DOWN TO -21'-6"
#9@7 CONT
#9@10 CONT
WEST WALL -9'-6" DOWN TO -17'-6"
#8x10-3@12
#6@12 CONT
alternate @6
#8@11 CONT
WEST WALL TOP DOWN TO -9'-6"
#4x10-3@13
#6@13 CONT
alternate @6
#6@12 CONT
5'-0"
PUMP ROOM
EAST WALL - 17'-6" DOWN TO -21'-6"
#9@7 CONT
#9@10 CONT
EAST WALL -9'-6" DOWN TO -17'-6"
#8x10-3@12
#6@12 CONT
alternate @6
#8@11 CONT
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

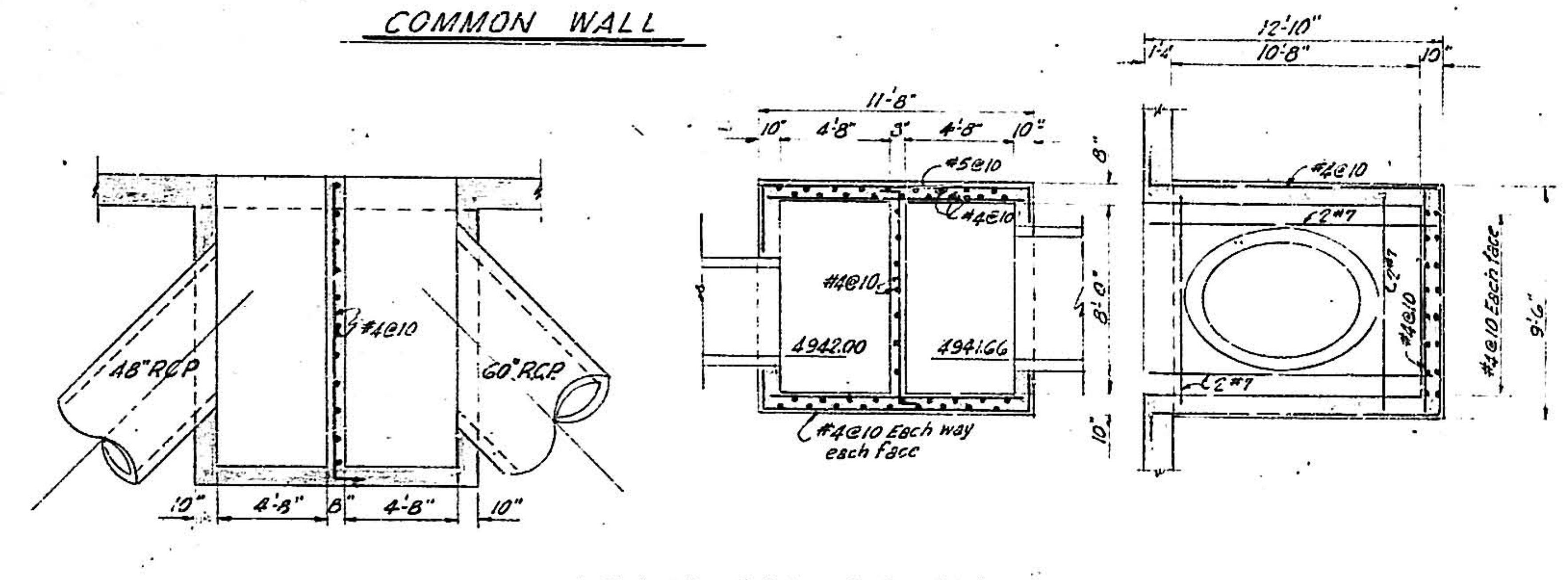

5'-0"
#5 From floor slab
#4@10
#8@8
#4@10 Each face horizontal
#9x11'-5 @12
5'-0"
23'-2"
21'-0"
#7@8

SECTION A-A

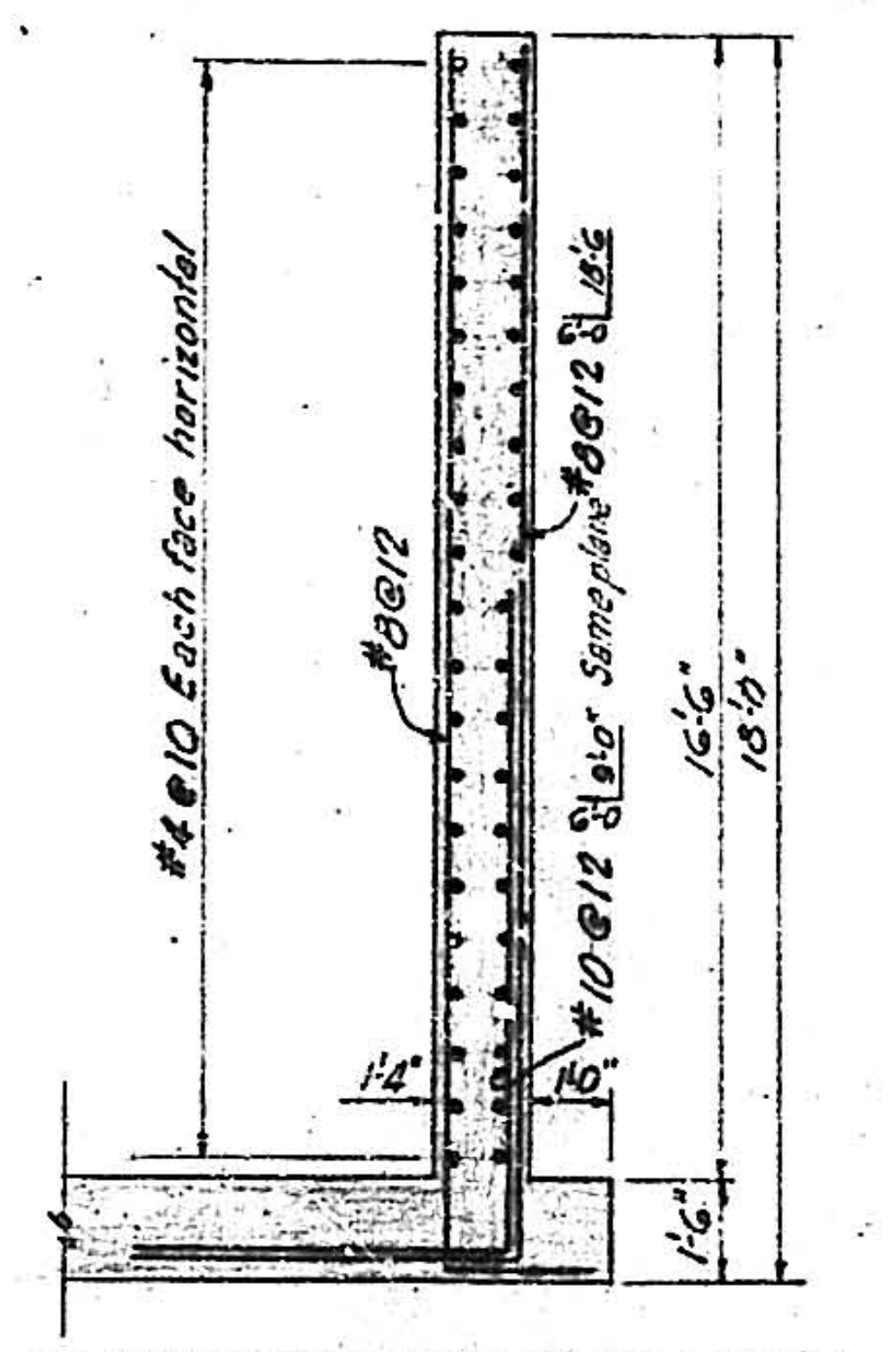

#6x7'-0@12 Top down to -9'-6"
#3x7'-0@14 -9'-6" down to -17'-6"
#8x7-0@10 -17'-6" down to -21'-6"
#6x6'-10@11 Top down to -9'-6"
#8x6'-10@12 -9'-6" down to -17'-6"
#8x6'-10@9 -17'-6" down to -21'-6"
#6x6'-10@11 top down to -9'-6"
#8x6'-10@14 -9'-6" down to -17'-6"
#8x6'-10@9 -17'-6" down to -21'-6"
#6x7'-0@8 Top down to -9'-6"
#8x7'-0@9 -9'-6" down to -17'-6"
#8x7'-0@7 -17'-6" down to -21'-6"
#6@13 Top down to -9'-6"
#8@16 -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"
#6x7'-0@10 Top down to
#8x7'-0@10 down to
#8x7-0@8 down to

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

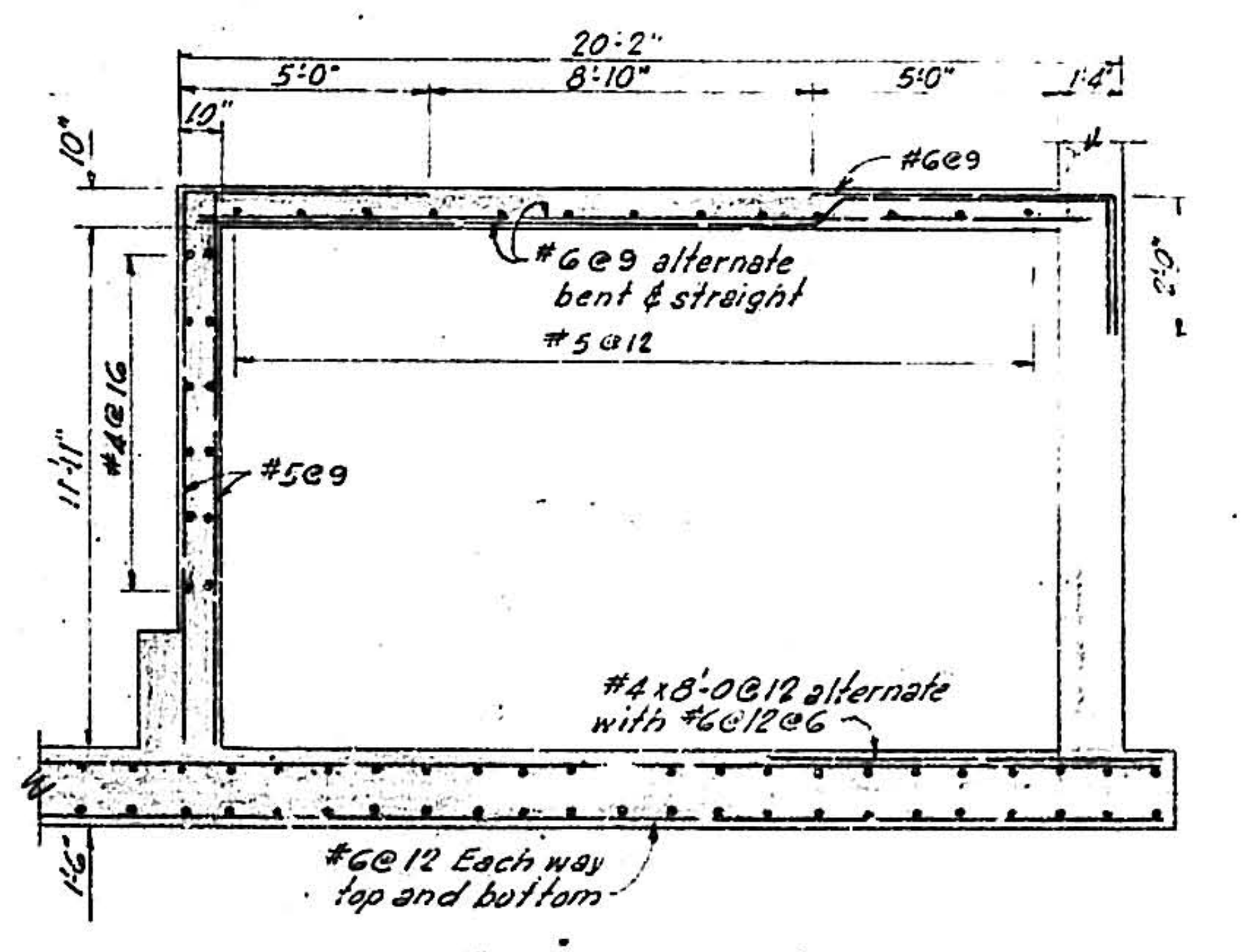
COMMON WALL


48" RCP
#4@10
60" RCP
10"
4'-8"
8"
4'-8"
10"
11'-8"
#5@10
#4@10
4942.00
4941.66
#4@10 Each way each face
12'-10"
10'-8"
#4@10
#4@10 Each face
9'-6"

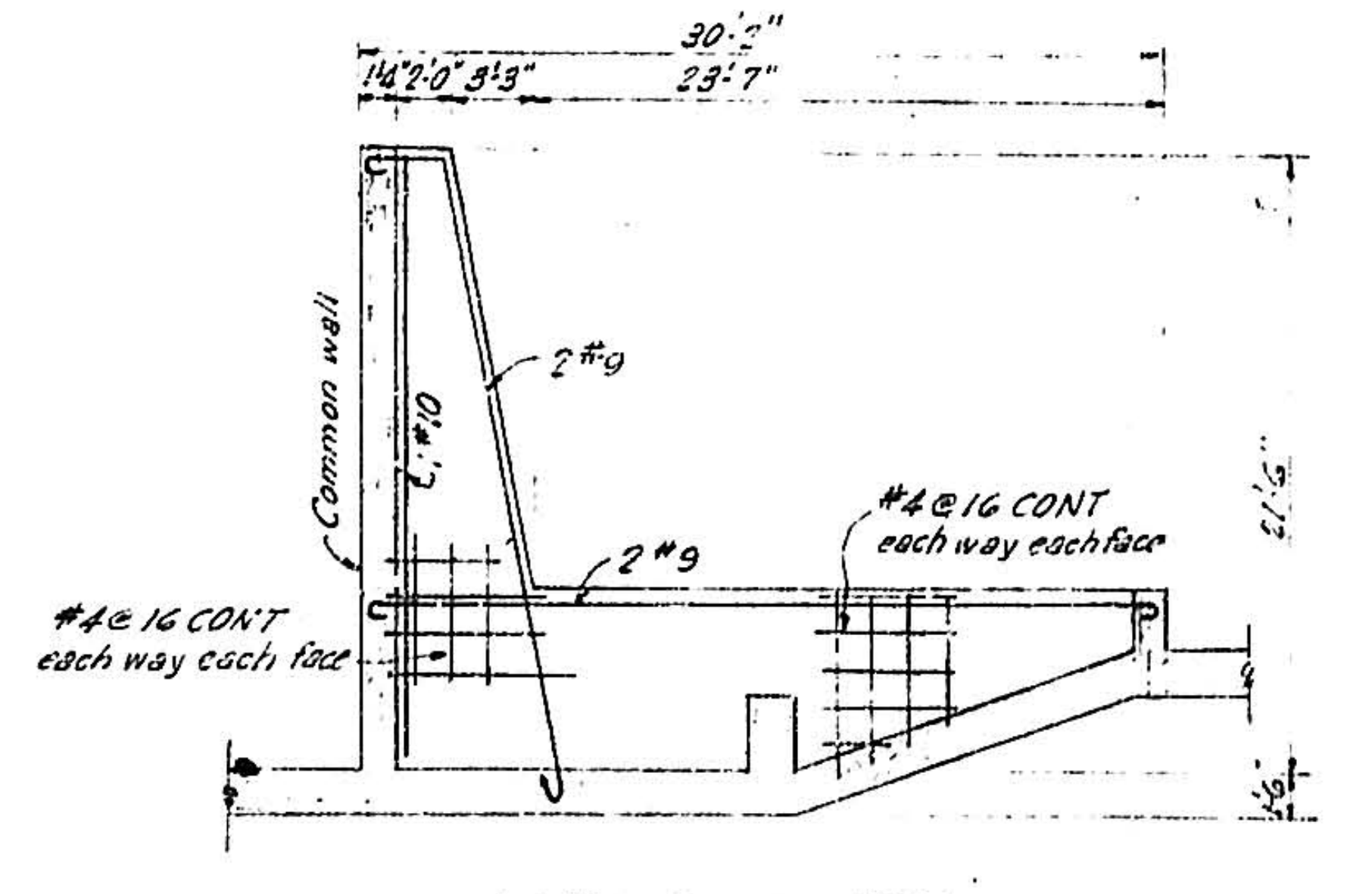
INTAKE BOX DETAILS


#4@10 Each face horizontal
#8@12
#8@12 Same plane
#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
#4x8'-0@12 alternate with #6@12@6
#6@12 Each way top and bottom
11'-1"

SECTION B-B


30'-2"
29'-7"
Common wall
2#9
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

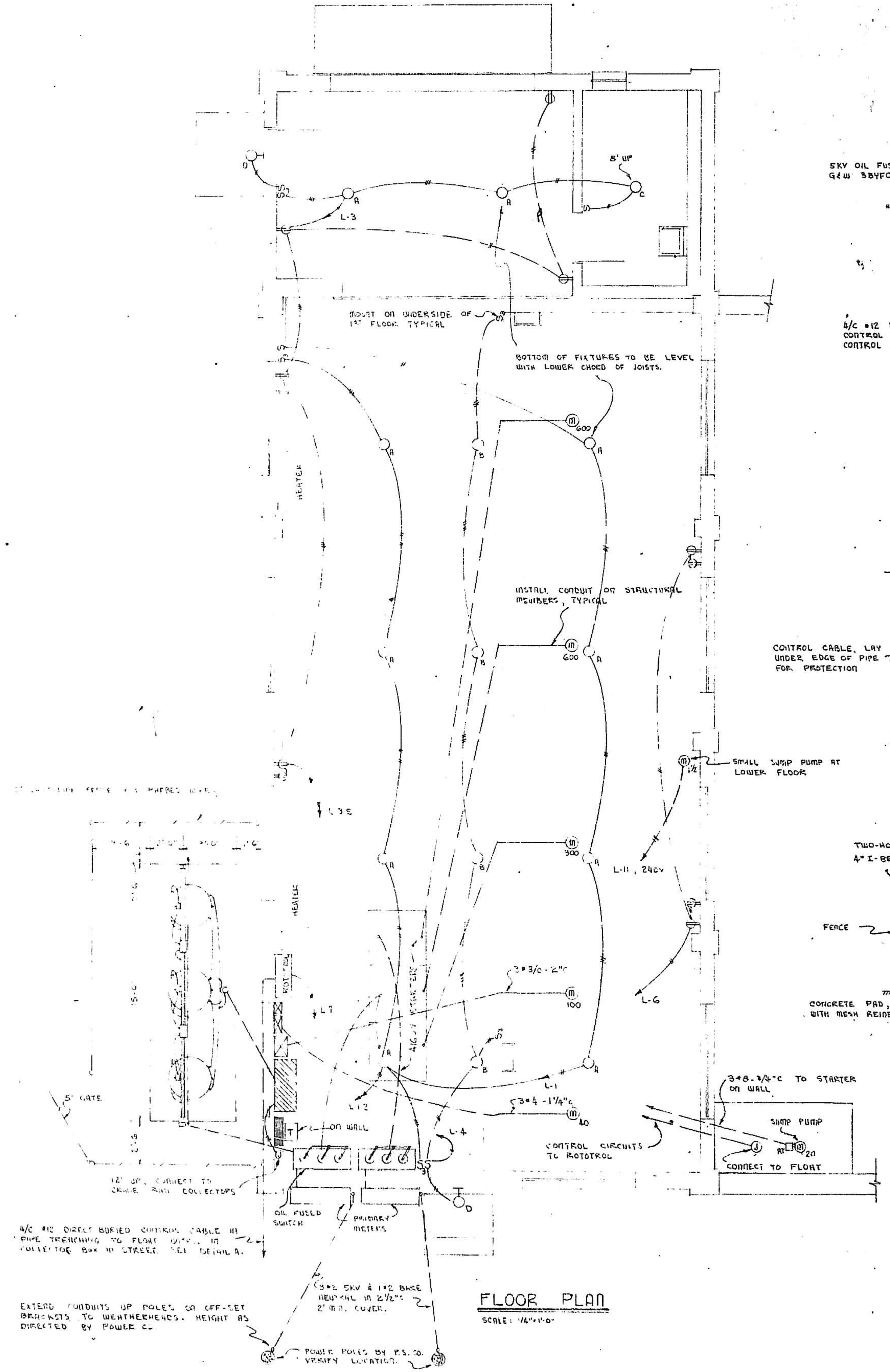
ALBUQUERQUE, NEW MEXICO

NORTH BROADWAY
STORM SEWER & PUMP STATION

PUMP STATION
PLAN & DETAILS

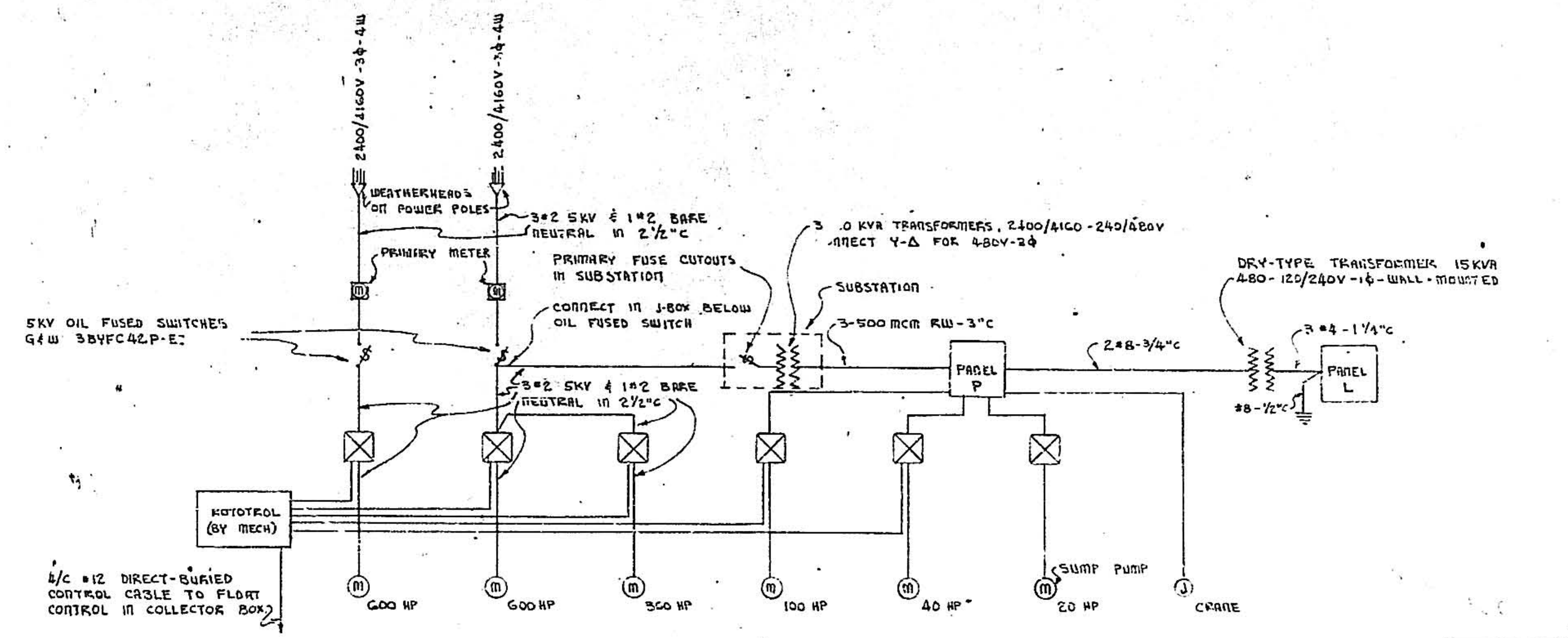
HERKENHOFF & ASSOCIATES
CONSULTING ENGINEERS
ALBUQUERQUE, NEW MEXICO

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


HEATER
L-3
8' UP
MOUNT ON UNDERSIDE OF 1ST FLOOR TYPICAL
BOTTOM OF FIXTURES TO BE LEVEL WITH LOWER CHORD OF JOISTS.
600
INSTALL CONDUIT ON STRUCTURAL MEMBERS, TYPICAL
600
SMALL SUMP PUMP AT LOWER FLOOR
L 3 S
300
L-11, 240V
3#3/c-2"c
100
L-6
L-1
L-2
L-4
3#4-1¼"c
40
5' GATE
ON WALL
12' UP, CONNECT TO CRANE RAIL COLLECTORS
OIL FUSED SWITCH
PRIMARY METERS
3#8-¾"c TO STARTER ON WALL
SUMP PUMP
20
CONNECT TO FLOAT
CONTROL CIRCUITS TO ROTOTROL
4/C #12 DIRECT BURIED CONTROL CABLE IN PIPE TRENCHING TO FLOAT OUTLET IN COLLECTOR BOX IN STREET. SEE DETAIL A.
3#2 5KV & 1#2 BARE NEUTRAL IN 2½"c 2' MIN. COVER.
EXTEND CONDUITS UP POLES OR OFF-SET BRACKETS TO WEATHERHEADS. HEIGHT AS DIRECTED BY POWER CO.
POWER POLES BY P.S. CO. VERIFY LOCATION.

FLOOR PLAN

SCALE: ¼"=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
PRIMARY FUSE CUTOUTS IN SUBSTATION
CONNECT IN J-BOX BELOW OIL FUSED SWITCH
5KV OIL FUSED SWITCHES G&W 3BYFC42P-E
3#2 5KV & 1#2 BARE NEUTRAL IN 2½"C
3 .0 KVA TRANSFORMERS, 2400/4160-240/480V CONNECT Y-Δ FOR 480V-3φ
SUBSTATION
3-500 MCM RW-3"C
PANEL P
2#8-¾"C
DRY-TYPE TRANSFORMER 15KVA 480-120/240V-1φ-WALL-MOUNTED
3#4-1¼"C
#8-½"C
PANEL L
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

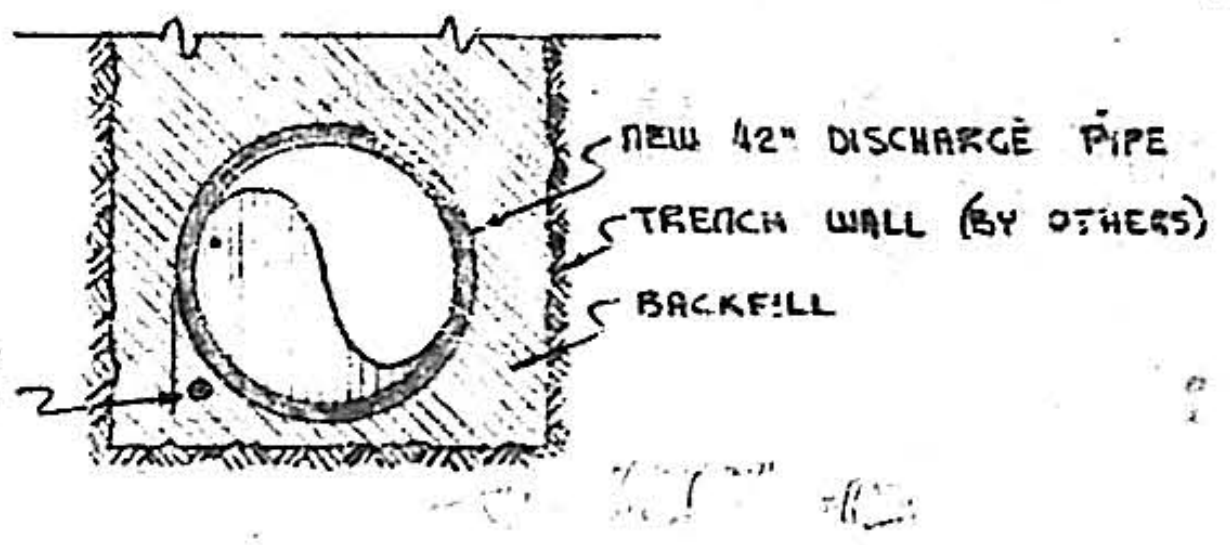
480V-3W-3φ, FUSIBLE, 400A MAINS, 400A3P MAIN SWITCH FUSED 350A, SURFACE, BOTTOM LUGS

PANEL L

10-20A5P
1-20A2P

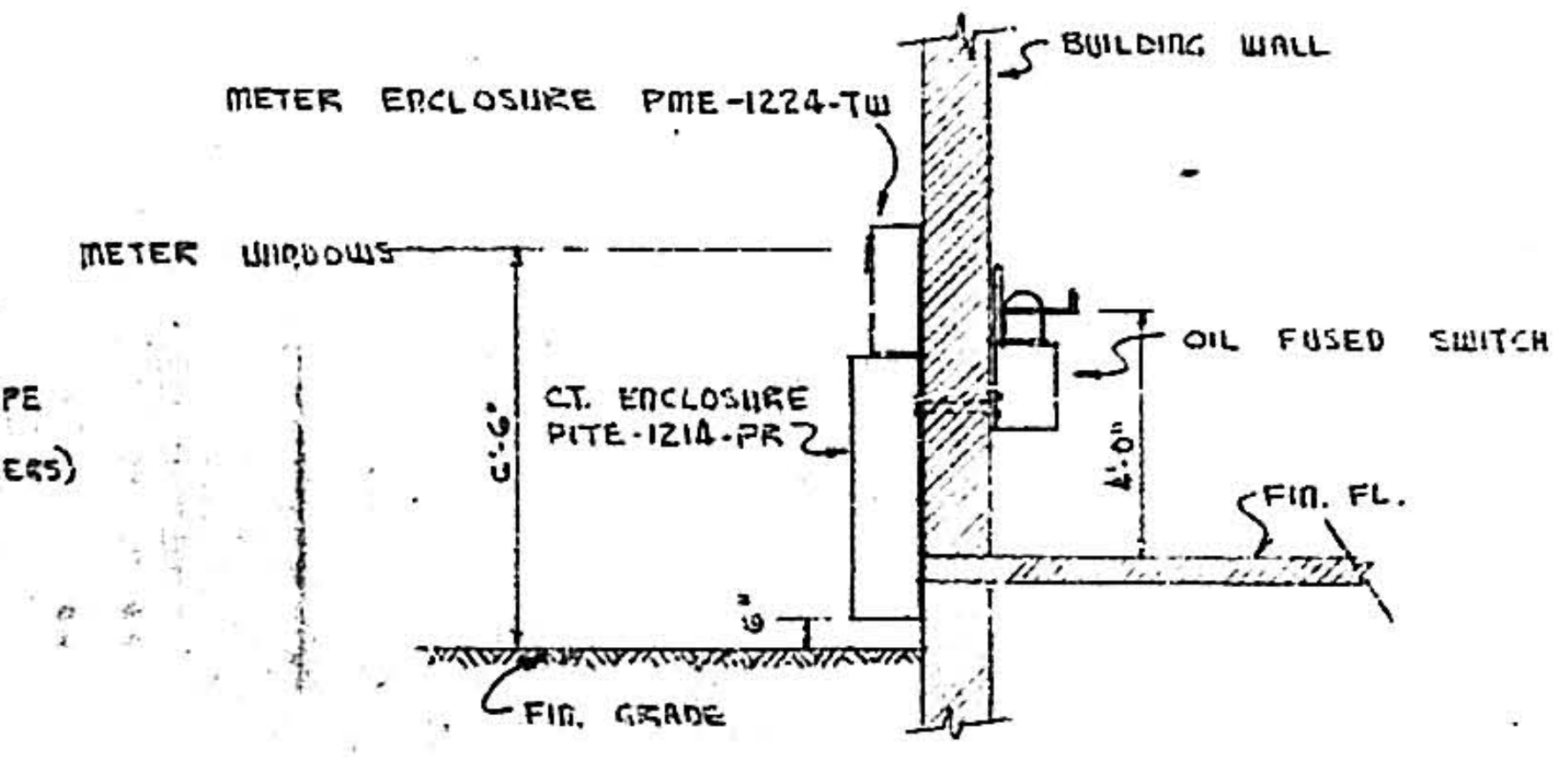
120/240V-3W-1φ CIRCUITBREAKER TYPE 100A MAINS, LUGS ONLY, SURFACE

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
5'-6"
4'-0"
FIN. FL.
6"
FIN. GRADE

METER DETAIL

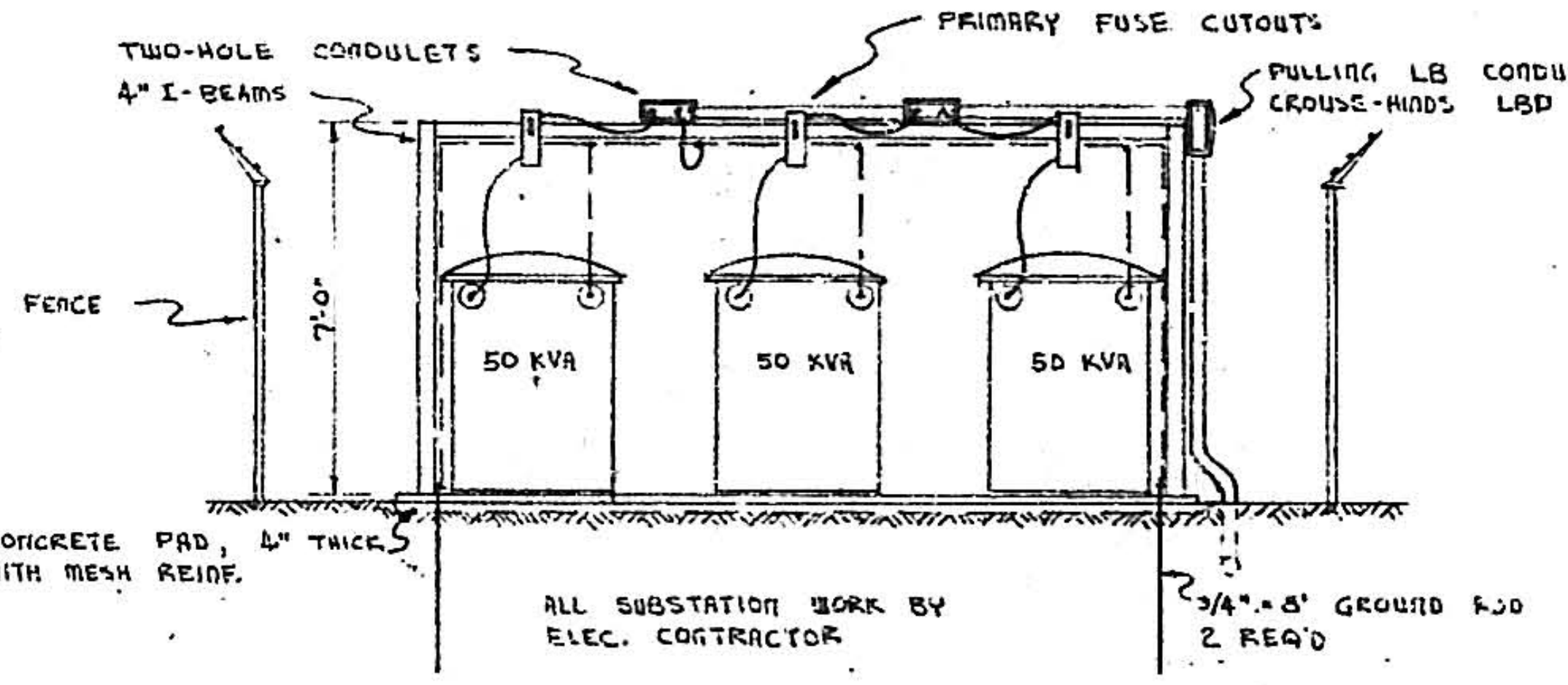
NO SCALE

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

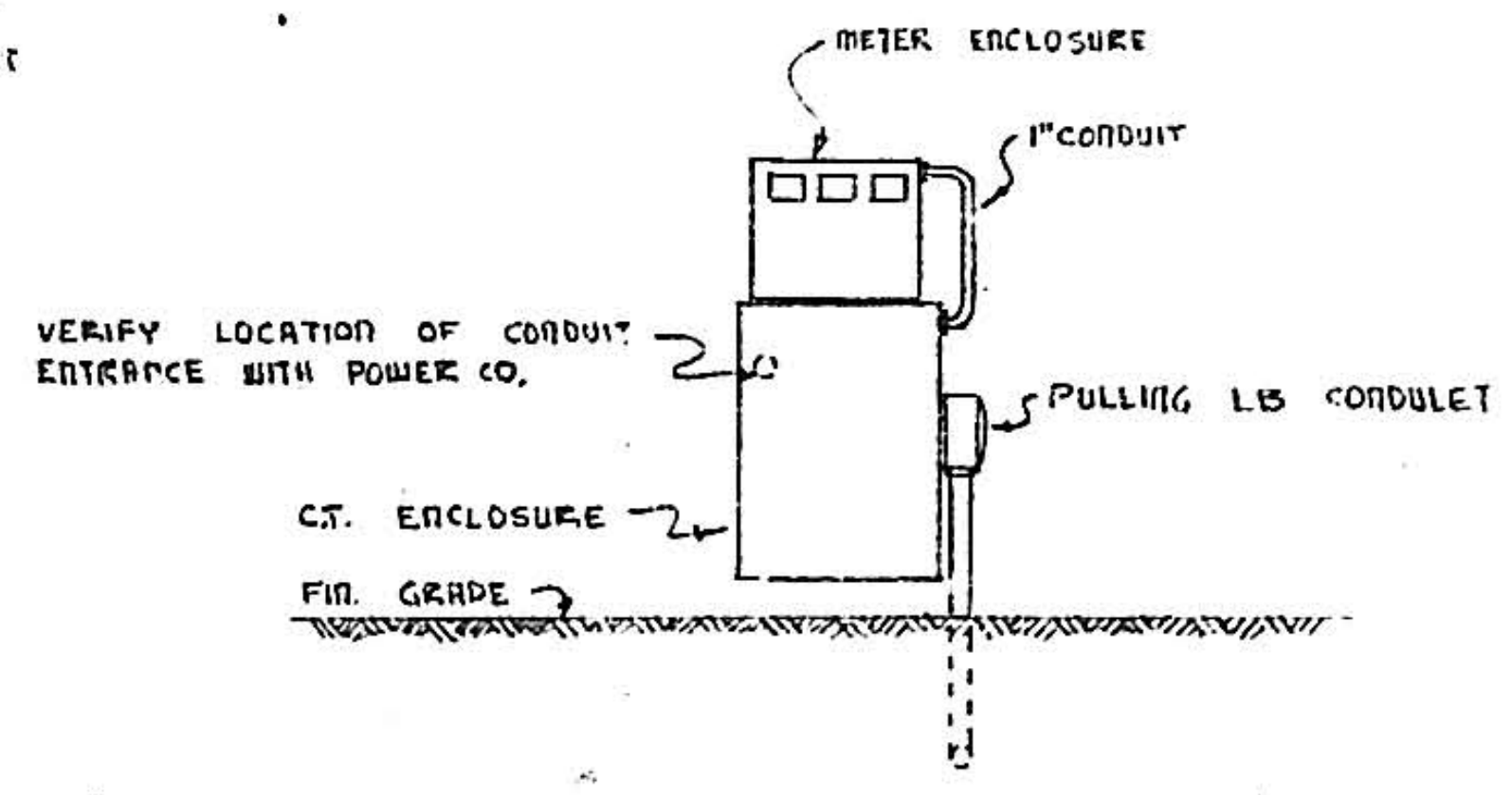
FIXTURE SCHEDULE

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: ¼"=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

08 571 1557 08

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