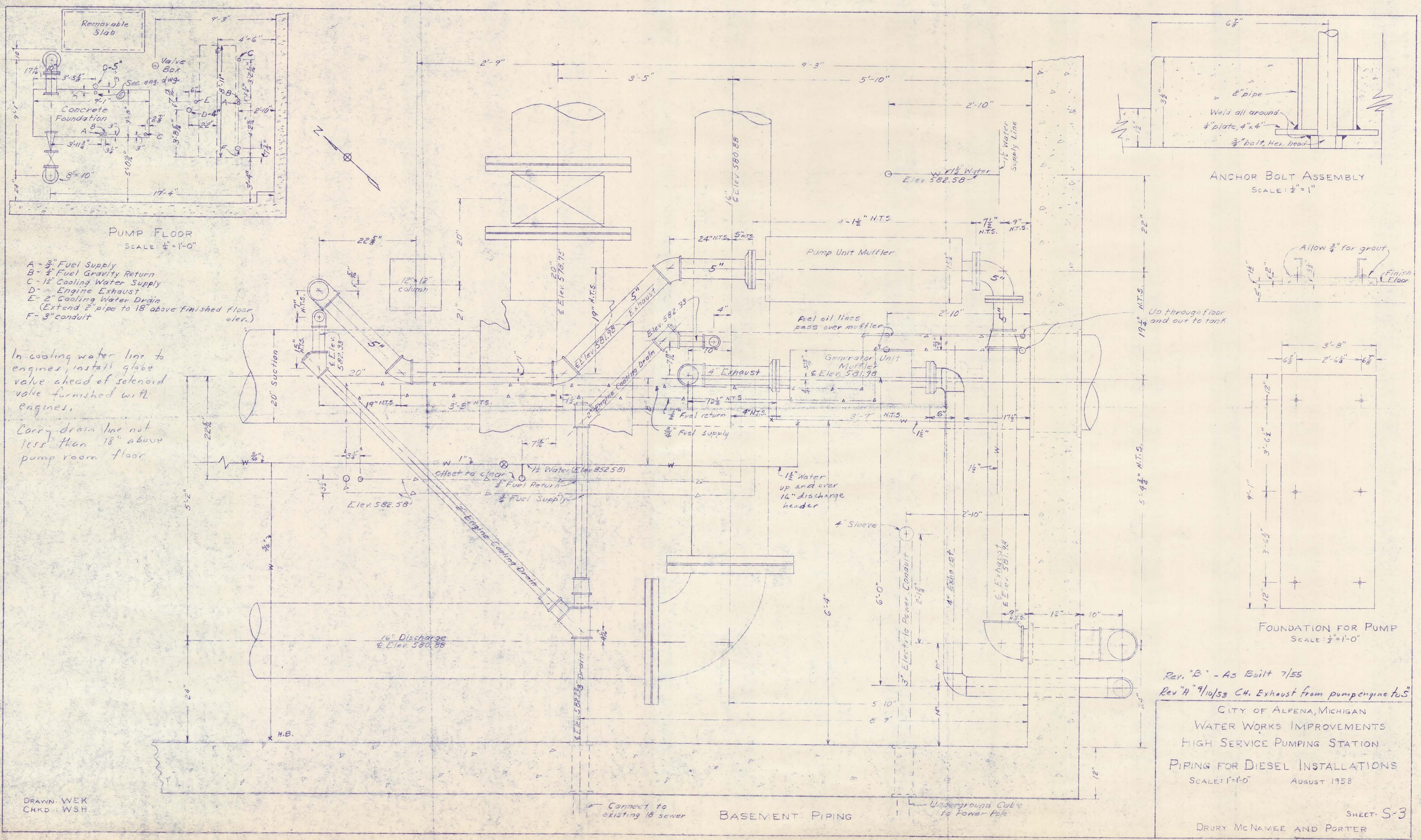


Drawn - Doany
CH'd - WSA

WILKINSON, MOHAWE AND BULLER

CITY OF ALPENA, MICHIGAN
WATER WORKS IMPROVEMENT
HIGH SERVICE SUCTION PIPING
SCALE 1/4" = 1'-0" VERT. # HOR.
AUGUST 12, 1953

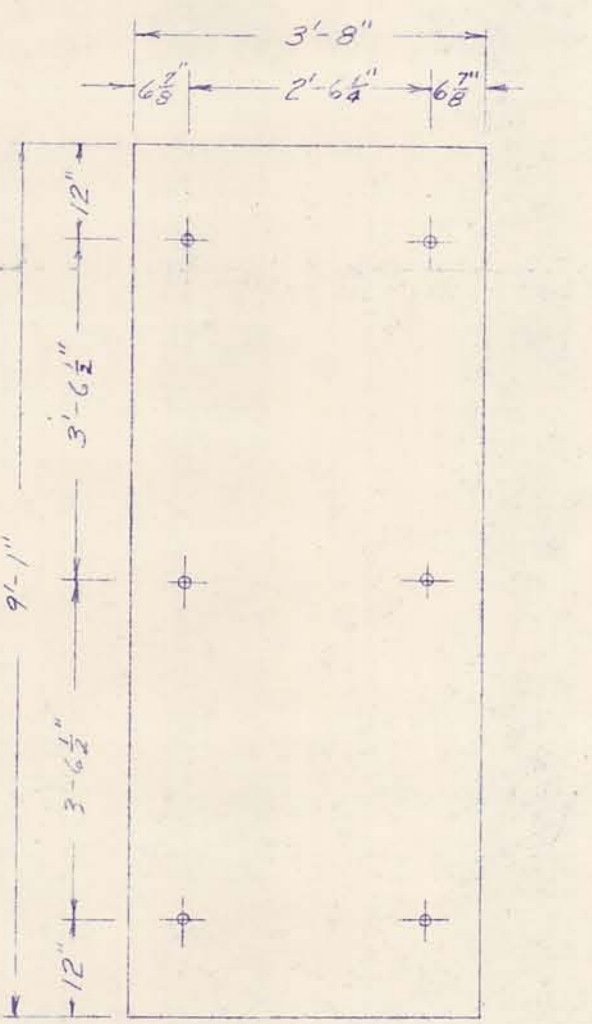
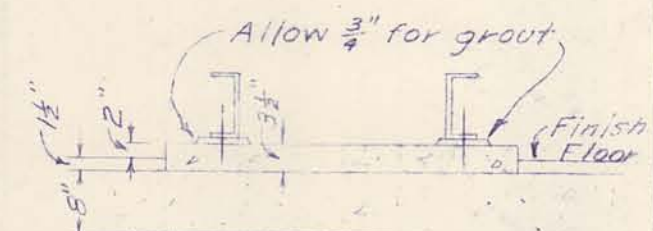


PUMP FLOOR
 SCALE: 1/4" = 1'-0"

- A - 3/4" Fuel Supply
- B - 1/2" Fuel Gravity Return
- C - 1 1/2" Cooling Water Supply
- D - Engine Exhaust
- E - 2" Cooling Water Drain
 (Extend 2" pipe to 18" above finished floor elev.)
- F - 3" conduit

In cooling water line to engines, install globe valve ahead of solenoid valve furnished with engines.
 Carry drain line not less than 18" above pump room floor

ANCHOR BOLT ASSEMBLY
 SCALE: 1/2" = 1"



FOUNDATION FOR PUMP
 SCALE: 1/2" = 1'-0"

Rev. "B" - As Built 7/55
 Rev. "A" 9/10/53 CH. Exhaust from pump engine to S

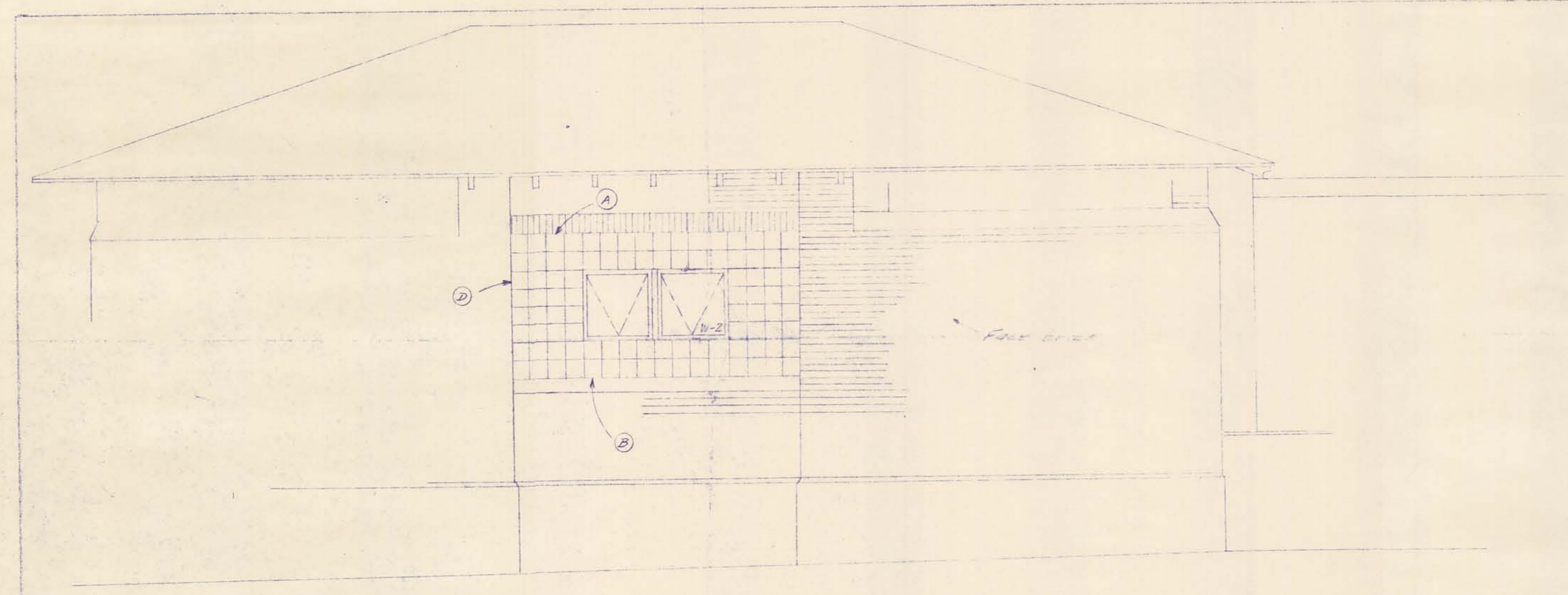
CITY OF ALPENA, MICHIGAN
 WATER WORKS IMPROVEMENTS
 HIGH SERVICE PUMPING STATION
 PIPING FOR DIESEL INSTALLATIONS
 SCALE: 1" = 1'-0" AUGUST 1953

DRAWN: WEK
 CHKD: WSH

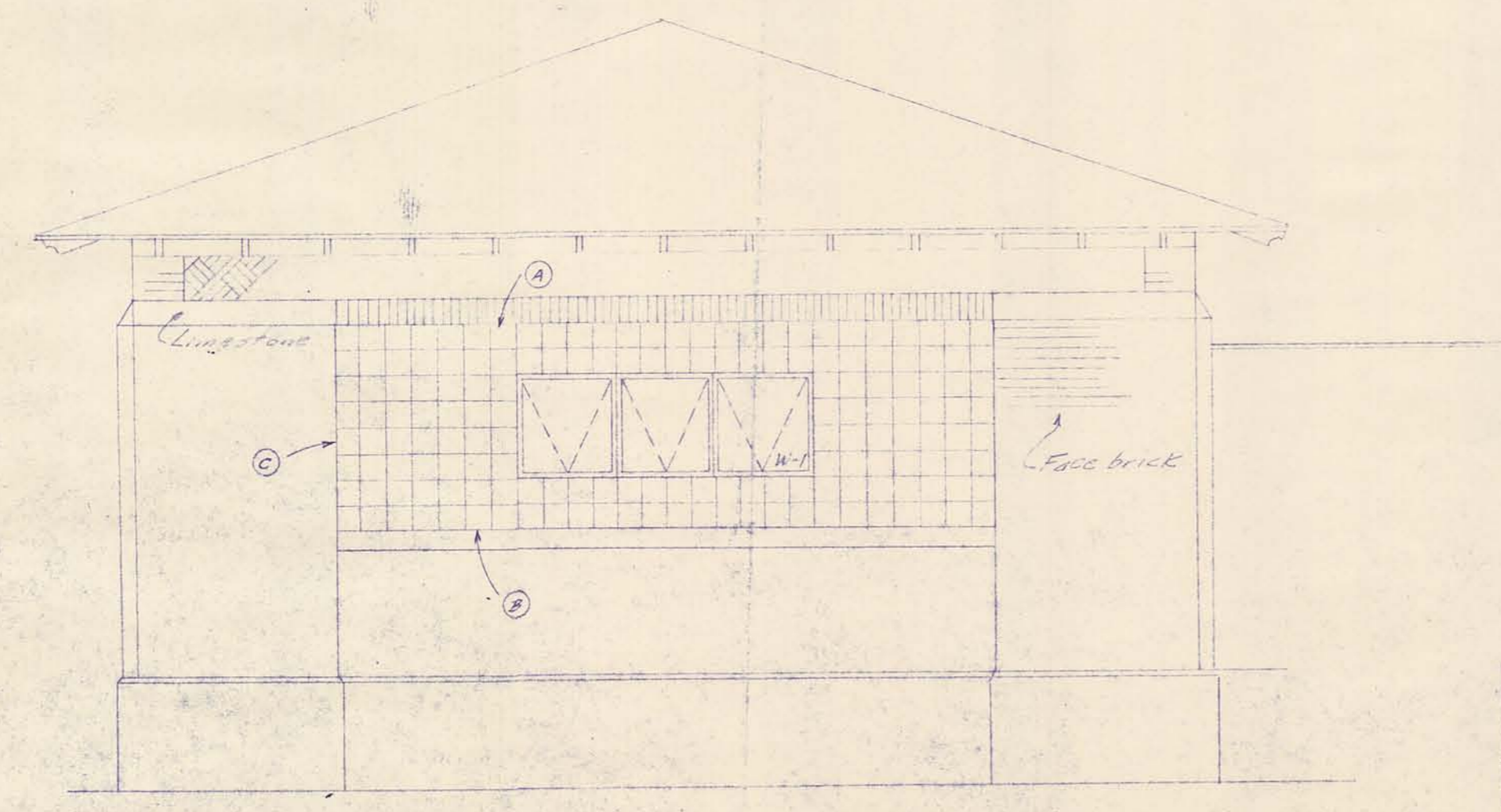
Connect to existing 18" sewer

BASEMENT PIPING

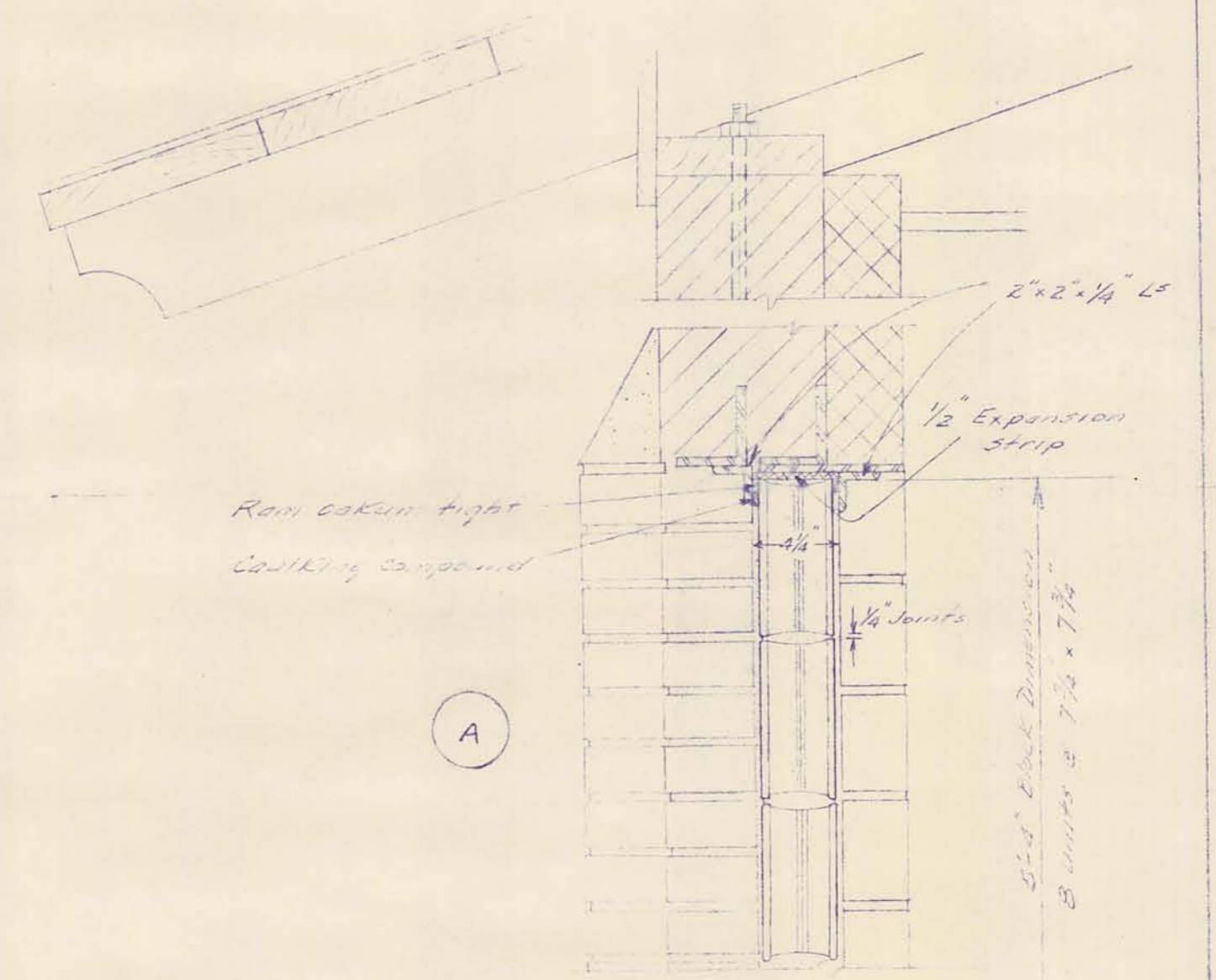
Underground cable to Power Pole



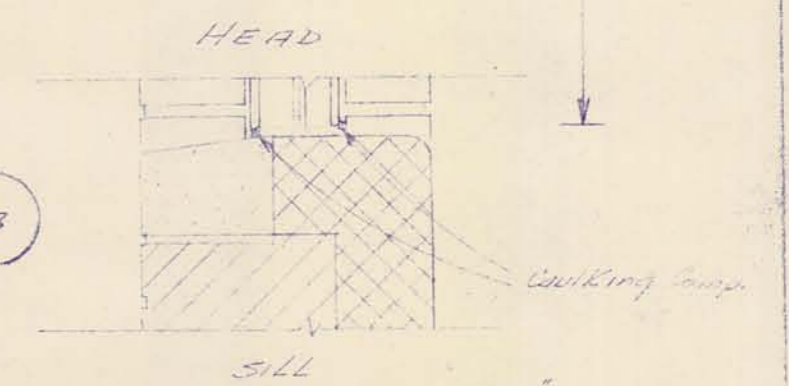
NORTH ELEVATION



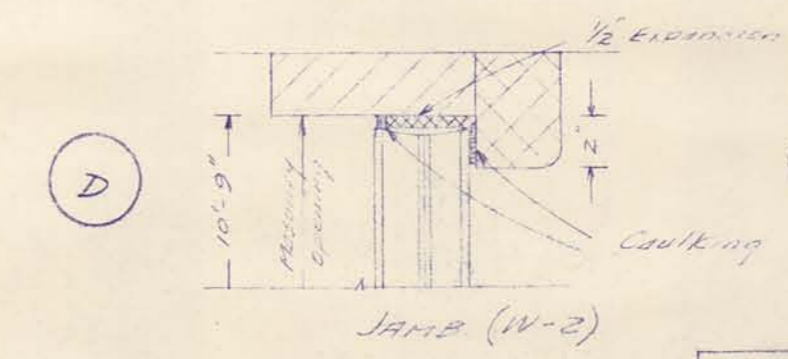
WEST ELEVATION



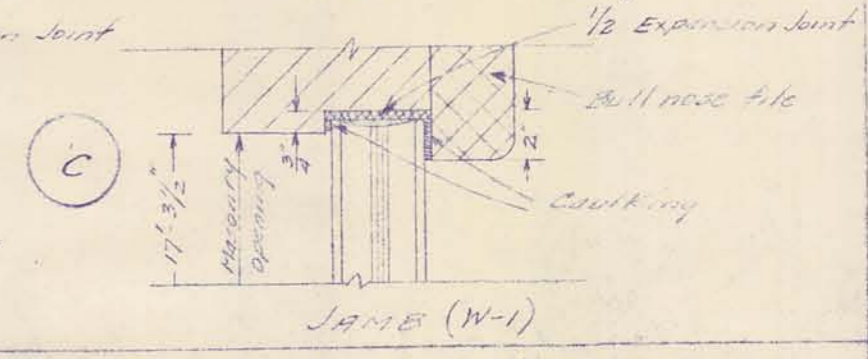
A



B



D



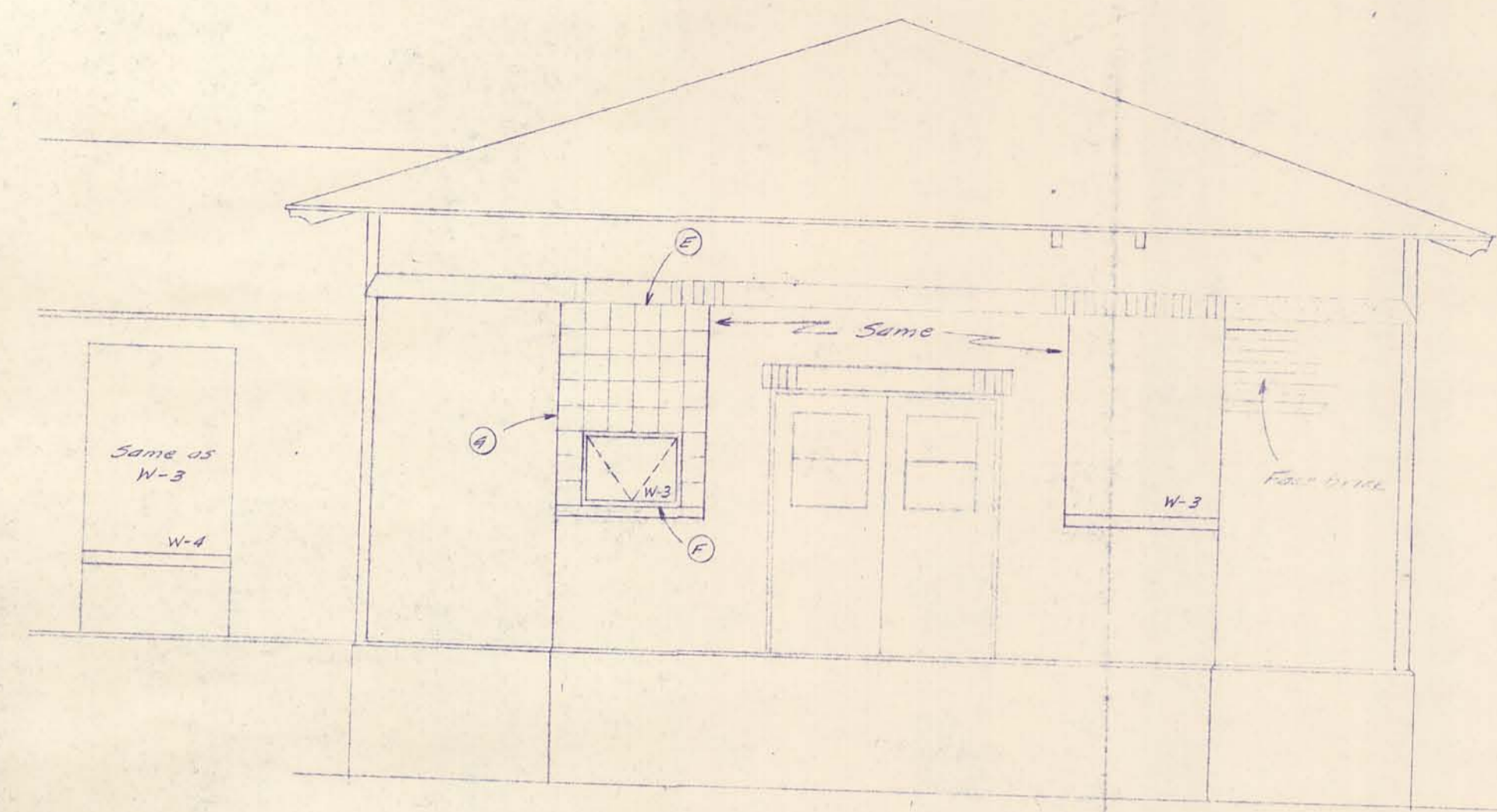
C

Notes:
 Use aluminum windows, ribbon type,
 as manufactured by the "Marine" Corp.
 Wausau, Wisconsin, having stainless mullions.

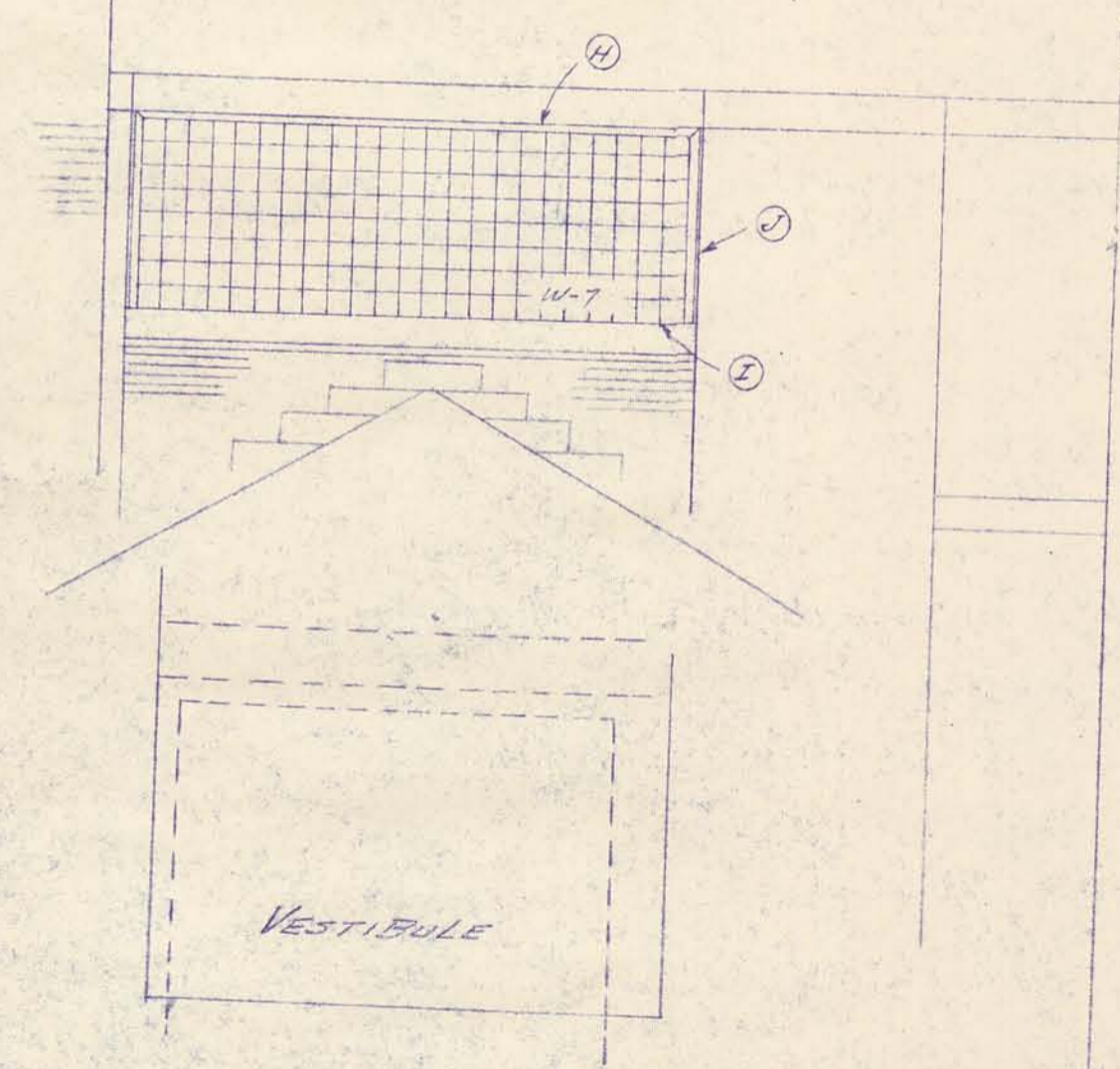
WINDOW SCHEDULE

| Mark | Type | Panel size | Max. open | Remarks |
|------|-------------|----------------|--------------------|------------------|
| W-1 | Glass Block | 17'-4" x 5'-4" | 17'-3 1/2" x 5'-5" | 3 vent. sections |
| W-2 | Glass Block | 10'-8" x 5'-4" | 10'-9" x 5'-5" | 2 vent. sections |

| | | |
|--|----------|-----|
| CITY OF ALPENA, MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION ELEVATIONS | | |
| CONTRACT 2 | REVISION | S-4 |



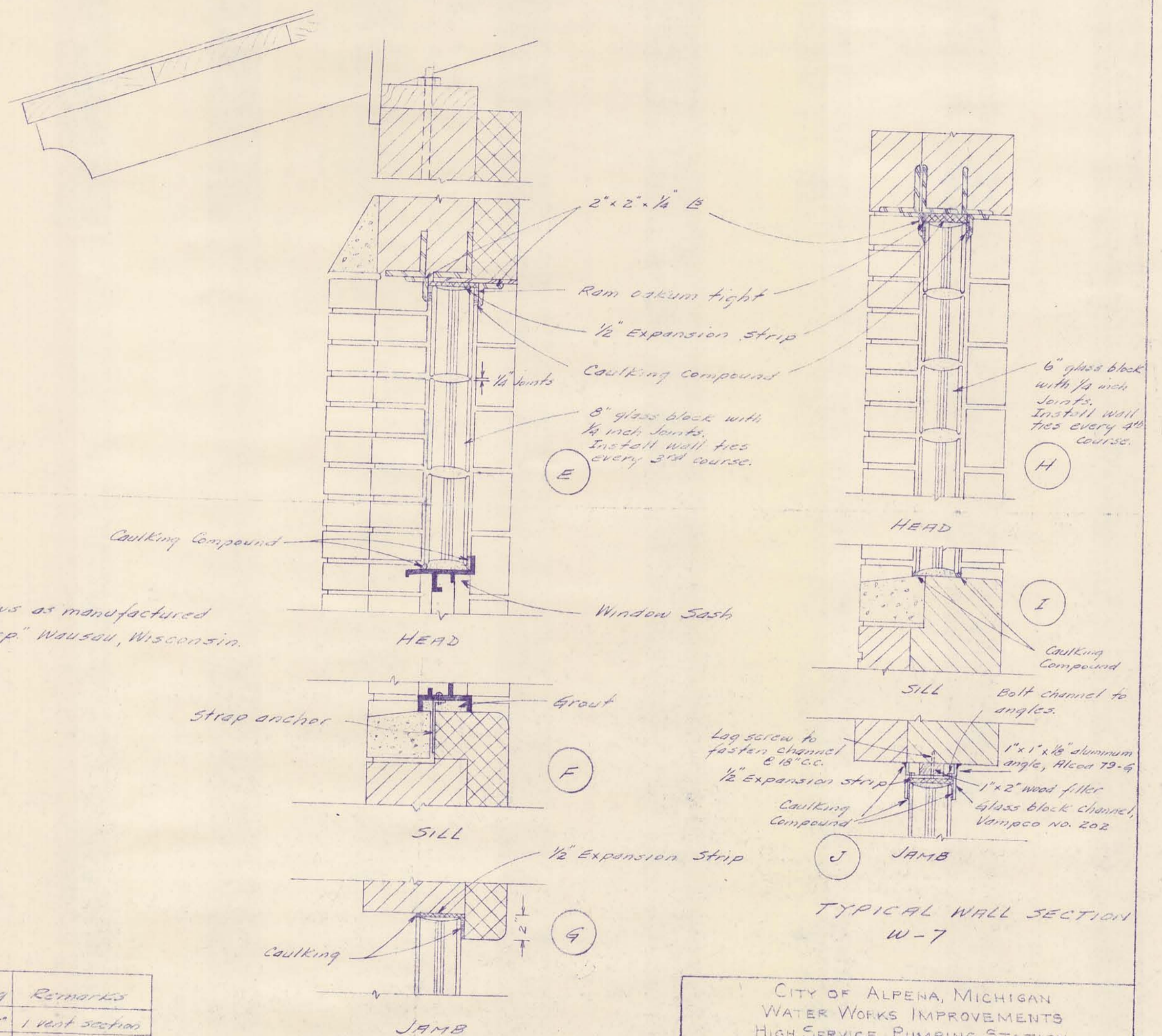
EAST ELEVATION



SECTION E-E

Note:
Use aluminum windows as manufactured
by the "Mermet Corp." Wausau, Wisconsin.

| Mark | Type | Panel Size | Max. opening | Remarks |
|------|-------------|----------------|---------------------|----------------------|
| W-3 | glass block | 4'-0" x 5'-4" | 4'-0 3/8" x 5'-5" | 1 vent section |
| W-4 | do | do | do | do |
| W-7 | do | 11'-6" x 4'-0" | 11'-10 3/4" x 4'-1" | Replacing prev. sash |

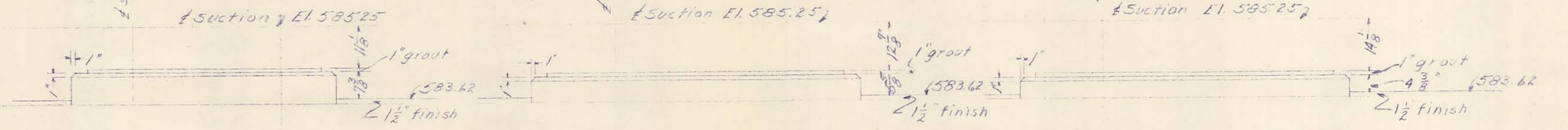
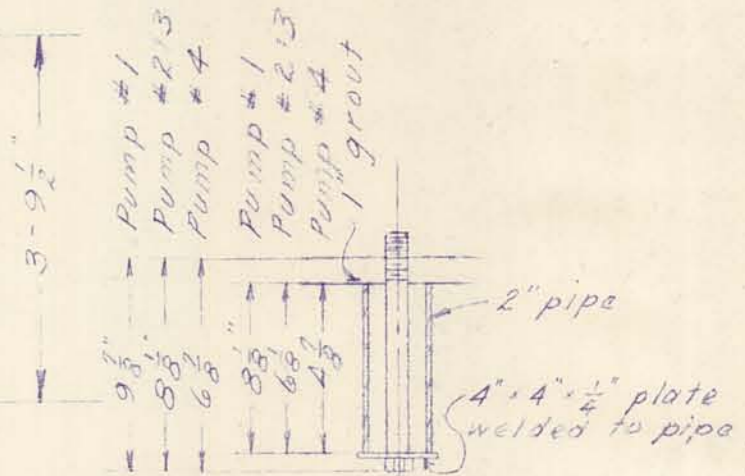
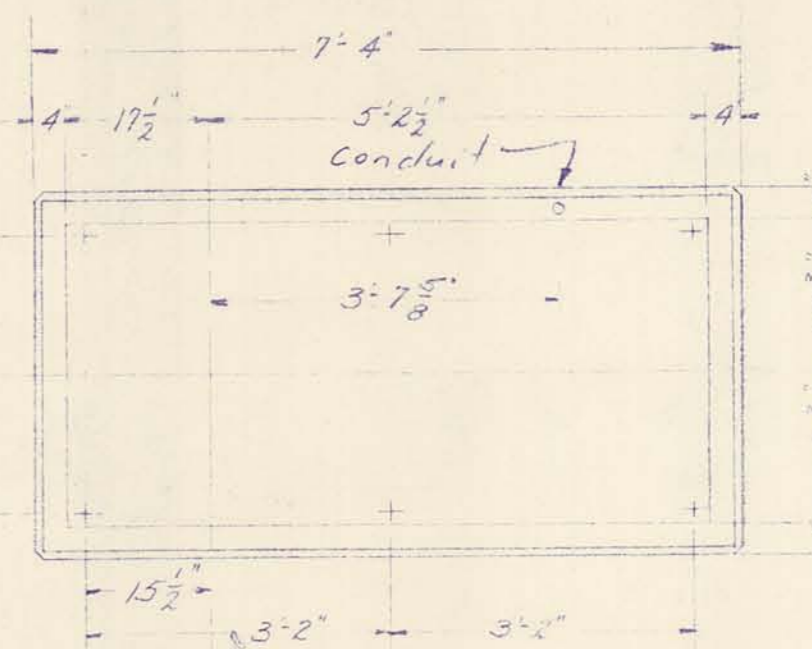
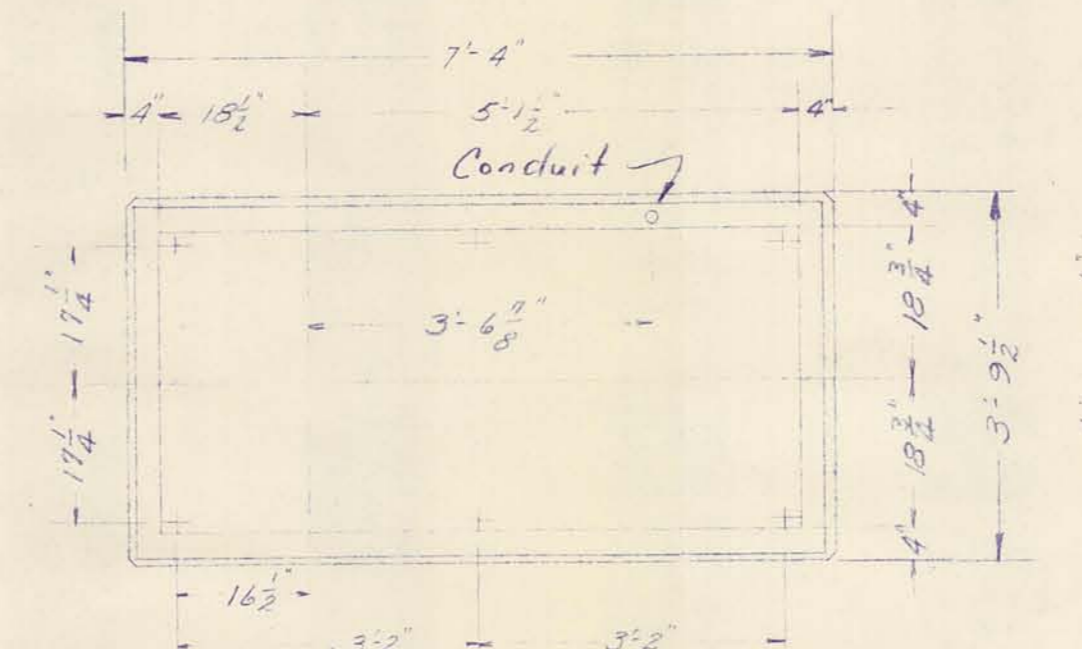
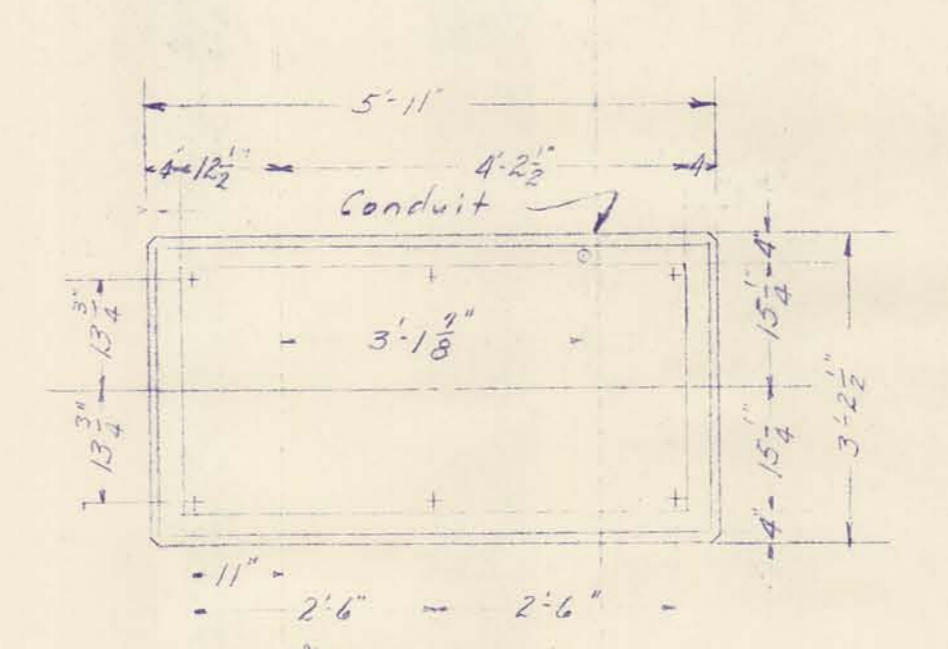
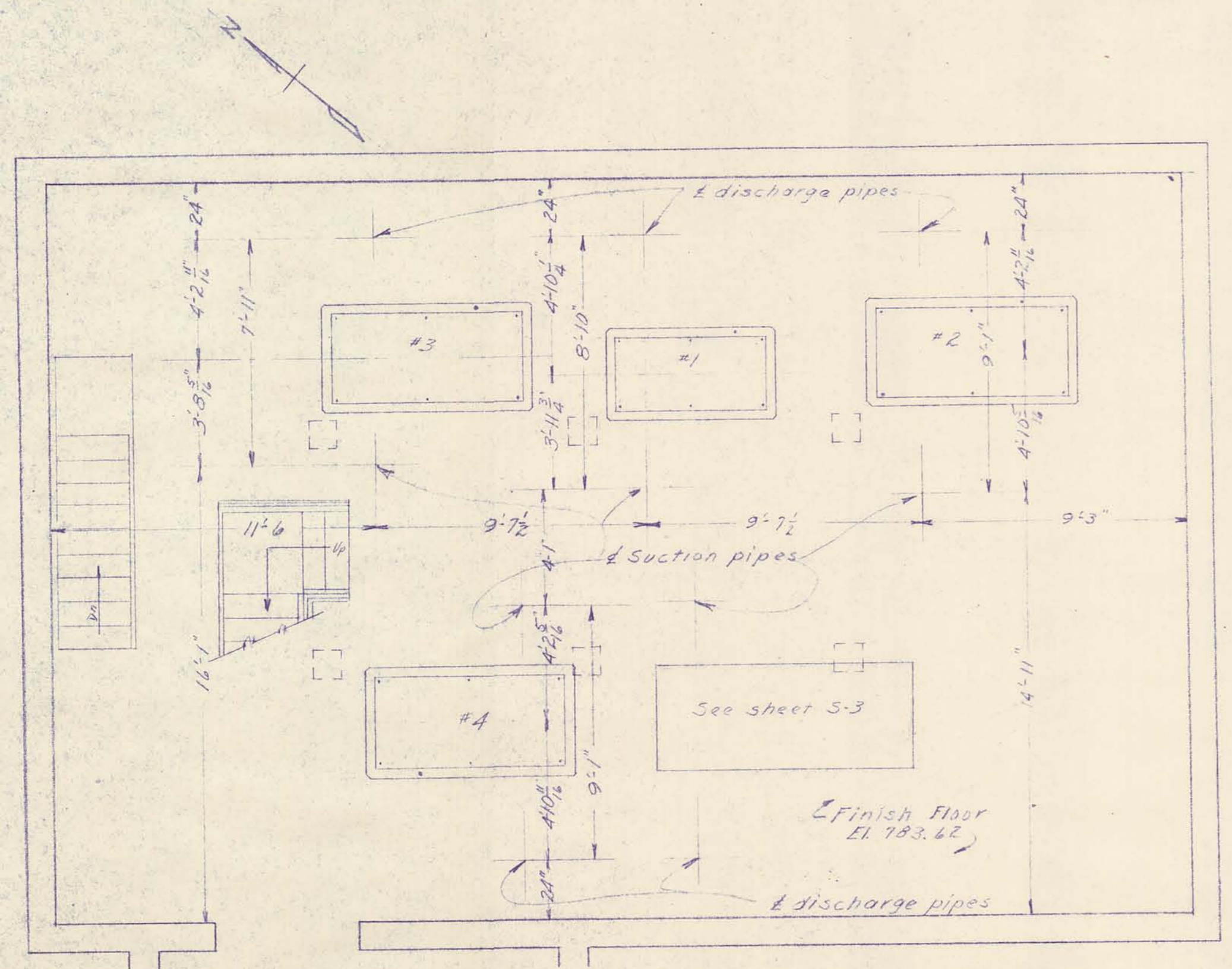


TYPICAL WALL SECTION
W-3 & W-4

TYPICAL WALL SECTION
W-7

CITY OF ALPENA, MICHIGAN
WATER WORKS IMPROVEMENTS
HIGH SERVICE PUMPING STATION
ELEVATIONS

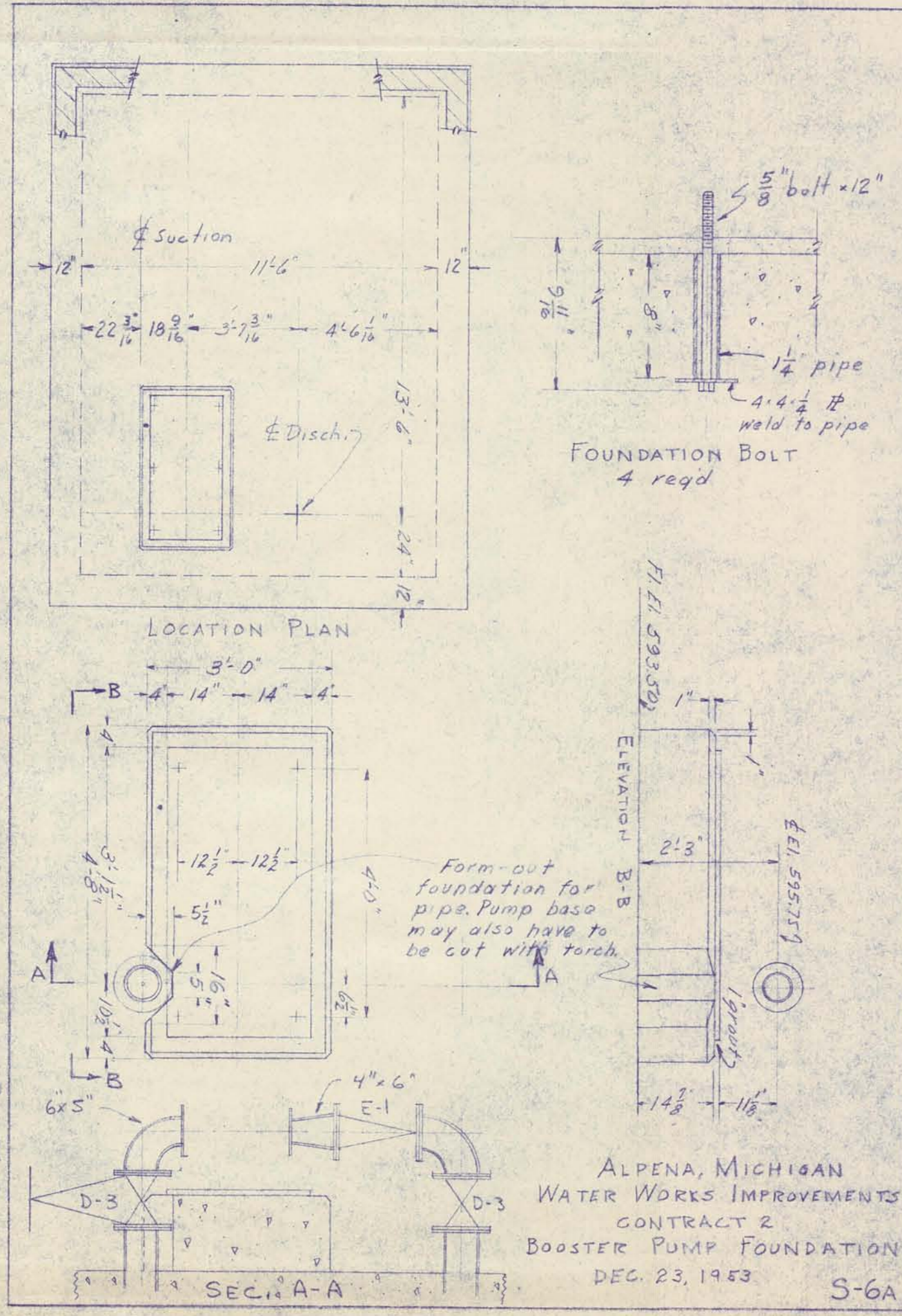
| | | | |
|----------|----------|----------|-----|
| CONTRACT | REVISION | DATE | NO. |
| 2 | | 11-17-53 | S-5 |
| | | 10-23-53 | |



ALPENA, MICHIGAN
 WATER WORKS IMPROVEMENTS
 CONTRACT NO. 2
 PUMP FOUNDATIONS
 SCALE: AS NOTED
 DEC. 22, 1953

DRURY, McNAMEE AND PORTER

SHEET 5-6



ALPENA, MICHIGAN
 WATER WORKS IMPROVEMENTS
 CONTRACT 2
 BOOSTER PUMP FOUNDATION
 DEC. 23, 1953
 S-6A

Checked WSH
 Drawn SWL

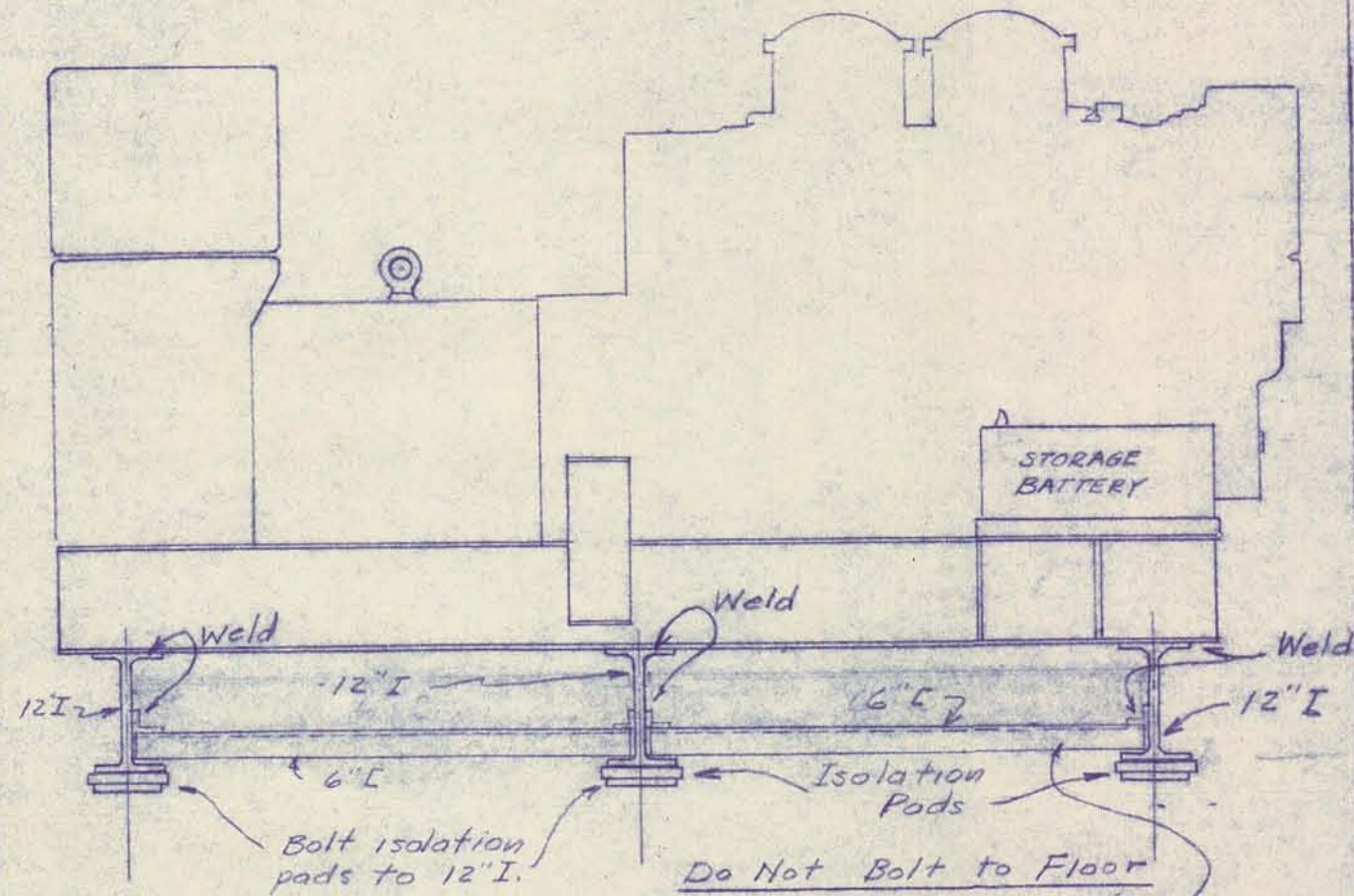
DRAWING NUMBER

Water Works Improvement
Contract #2
Diesel Generator Foundation

1954 S-7

SAFOD PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

POSITION EDGE OF PRINT ON THIS LINE



DIESEL DRIVEN GENERATOR

2-6" I stiffeners
between each I.

Do Not Bolt to Floor

ALPENA, MICHIGAN
WATER WORKS IMPROVEMENT
CONTRACT #2
DIESEL GENERATOR FOUNDATION
2-18-54

S-7

NUMBER

HOPE, MINNESOTA
NUMBER 6552

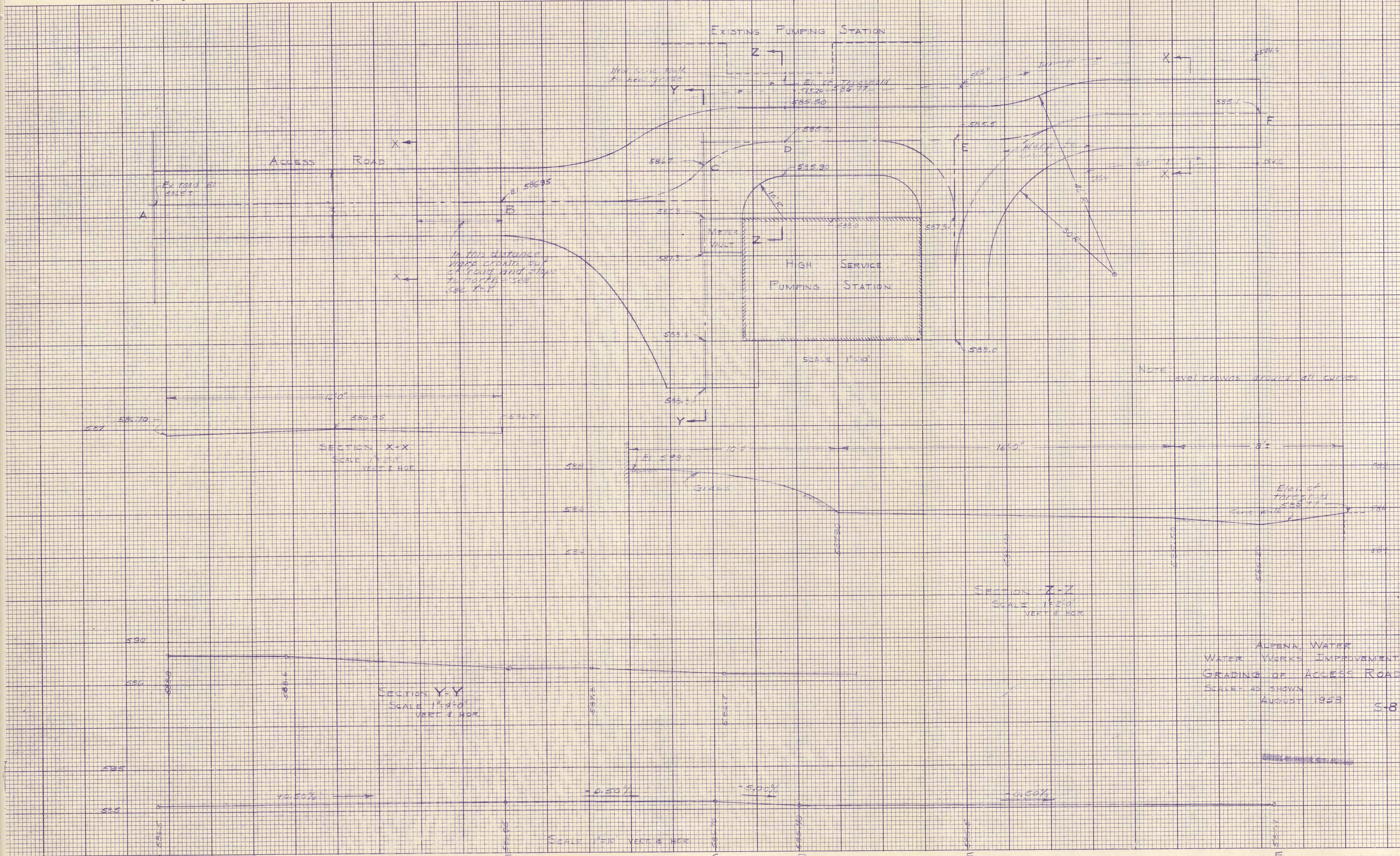
ON THIS LINE

SARGO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

SARGO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6532

Alpena Water Works
Improvements Grading of
Access Road 1953

HOPE, MINNESOTA
6532

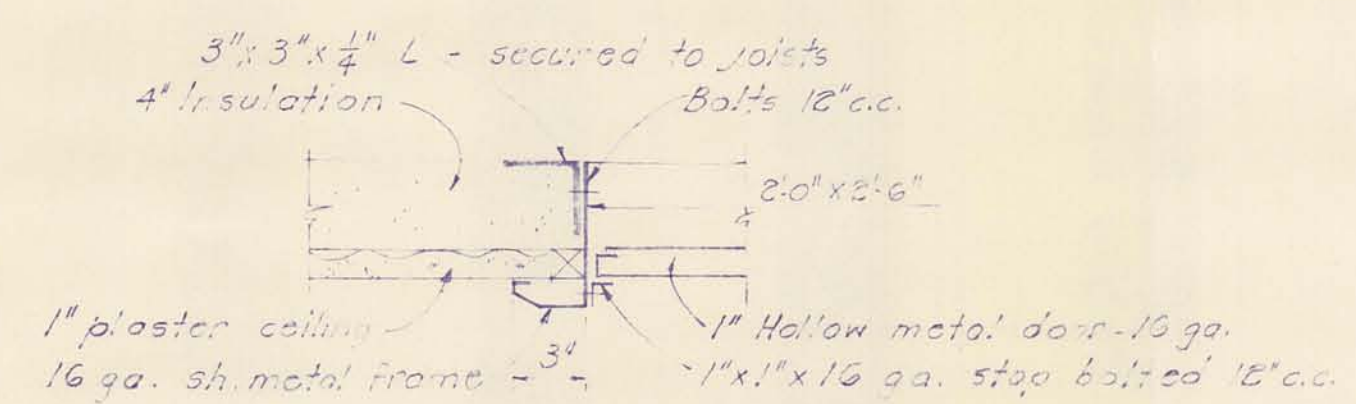
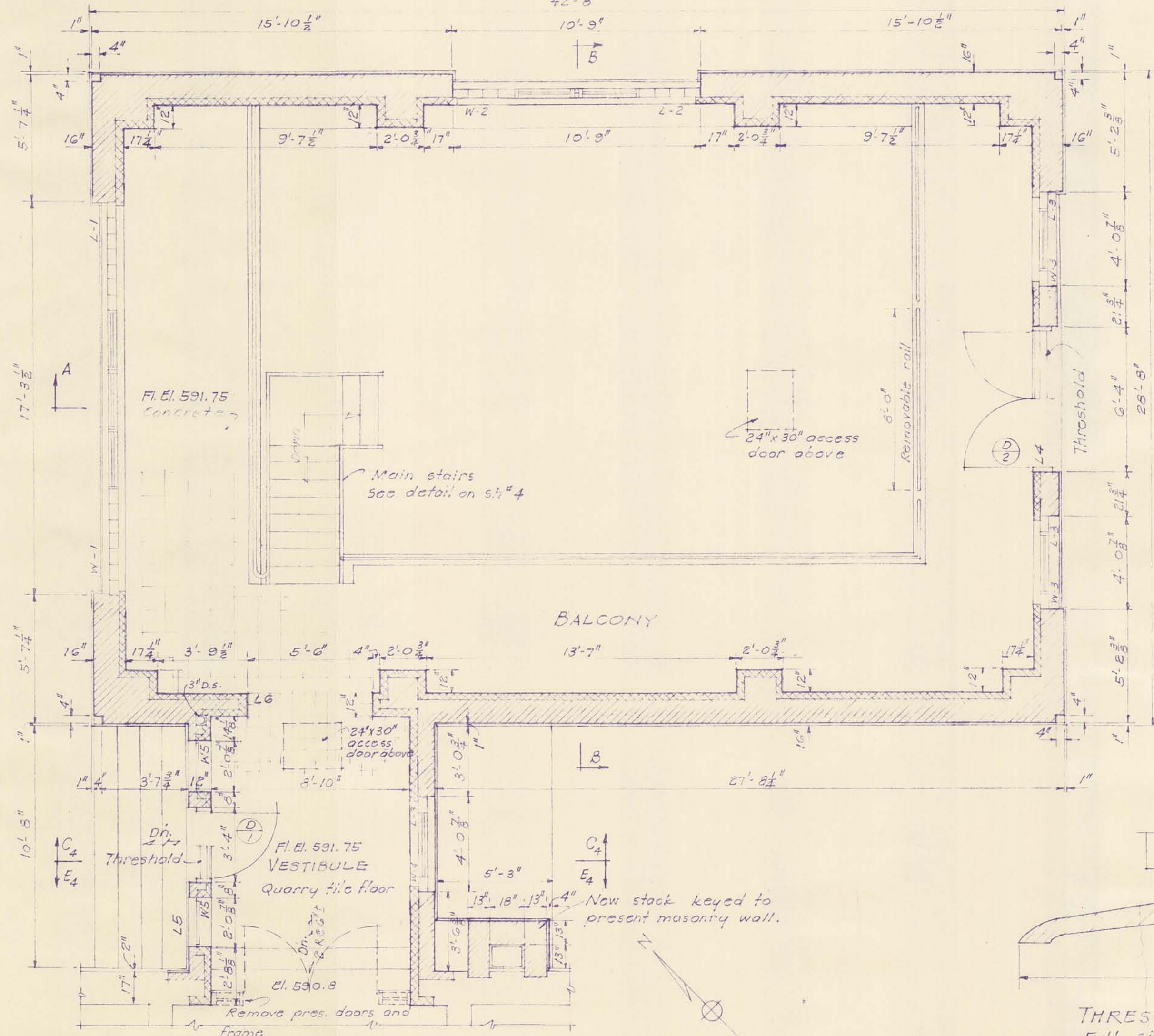
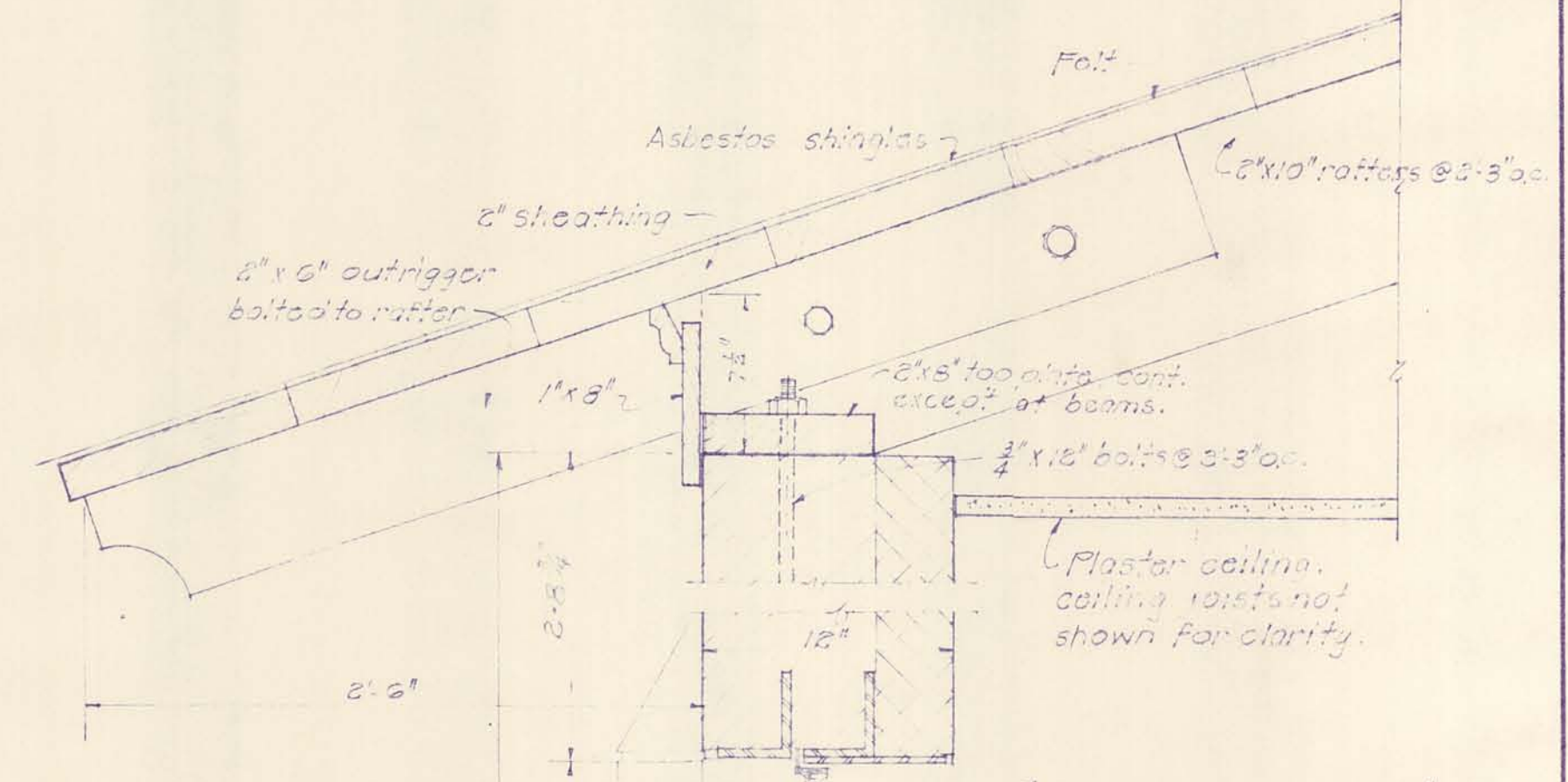
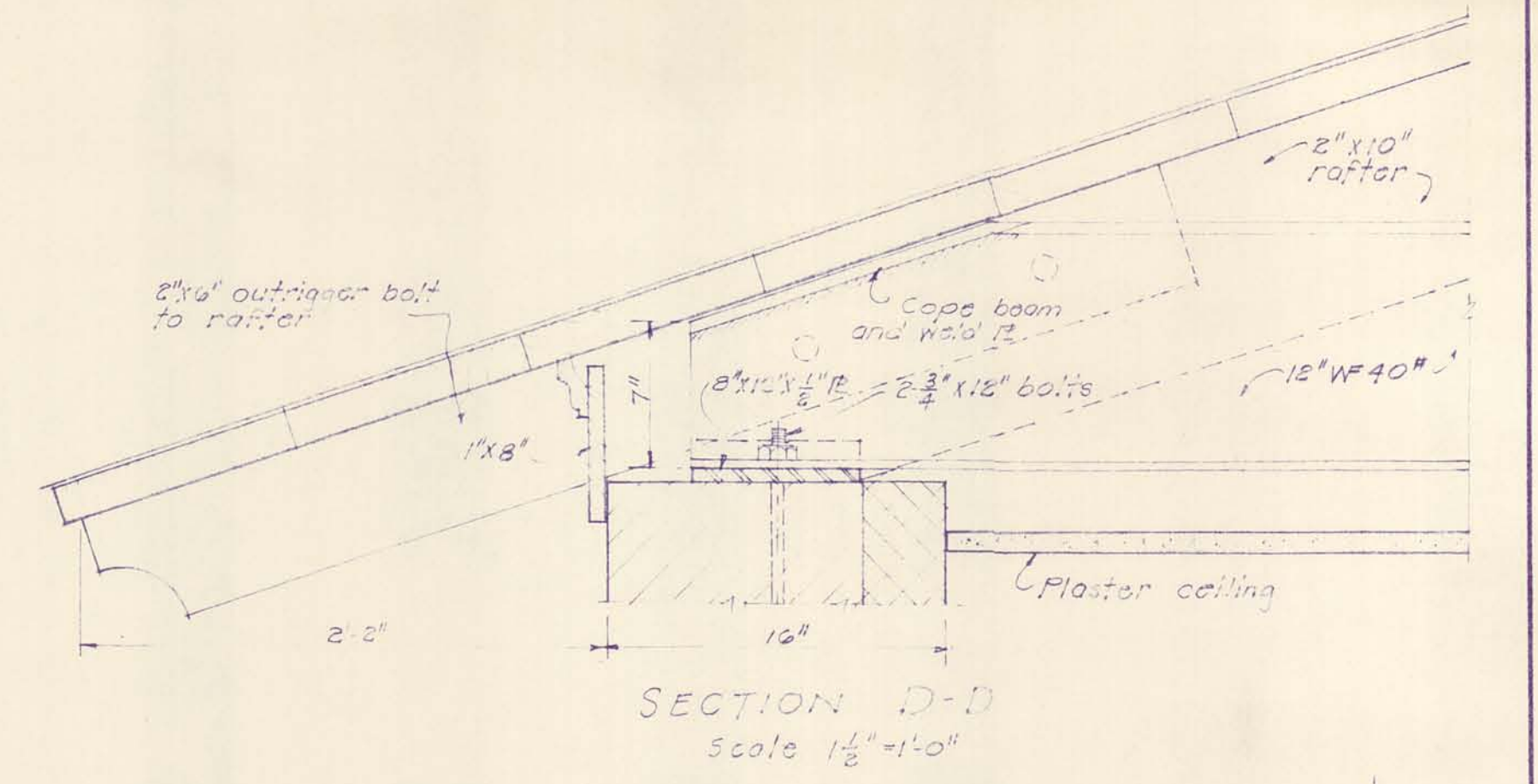
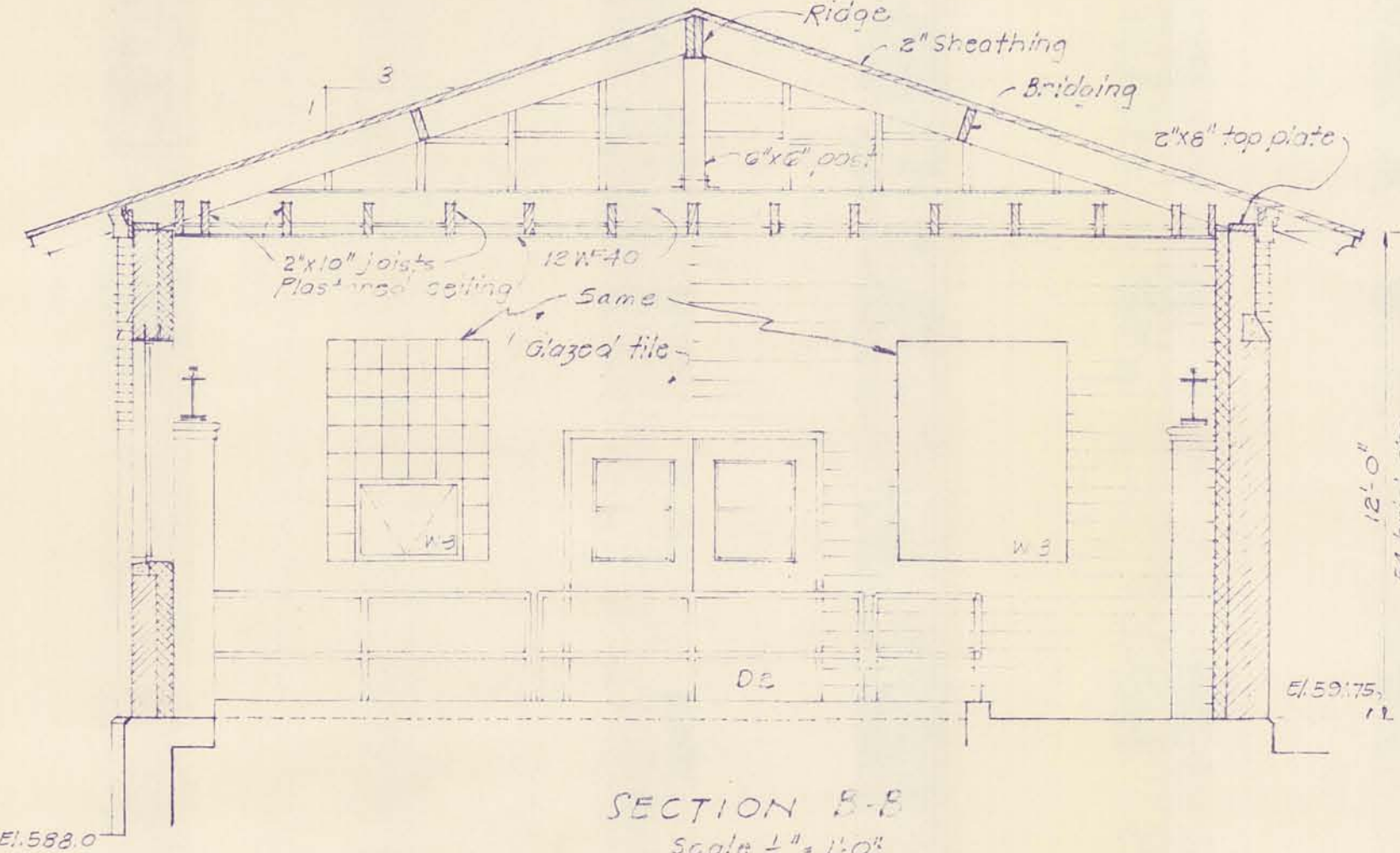
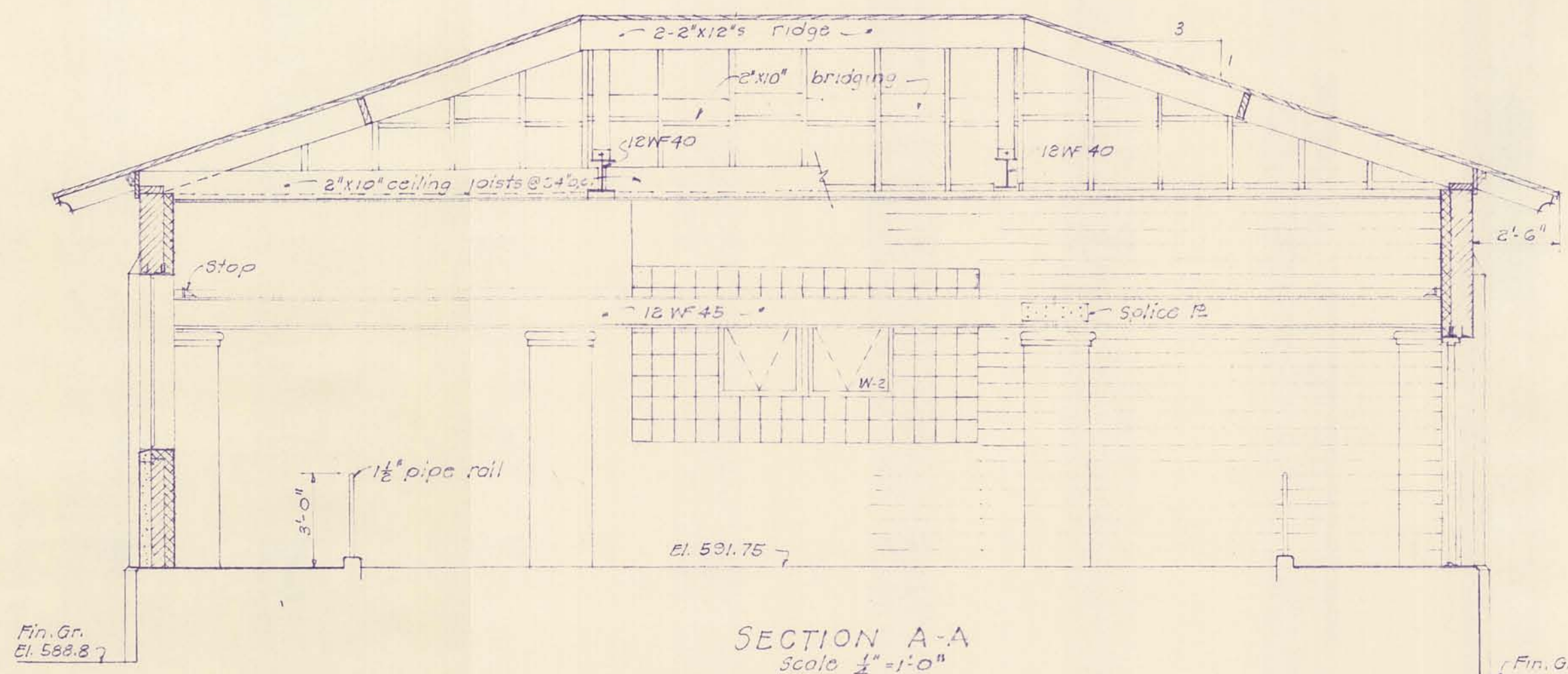


NOTE: level grounds around all curves

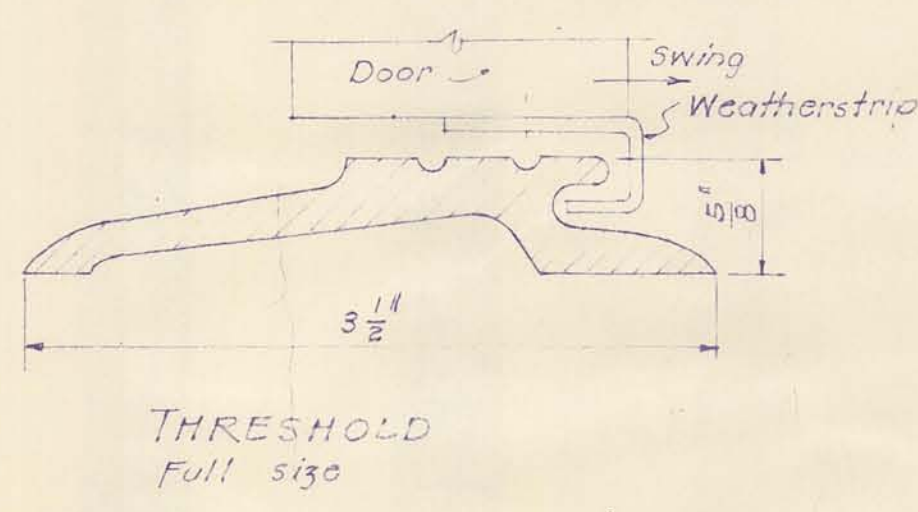
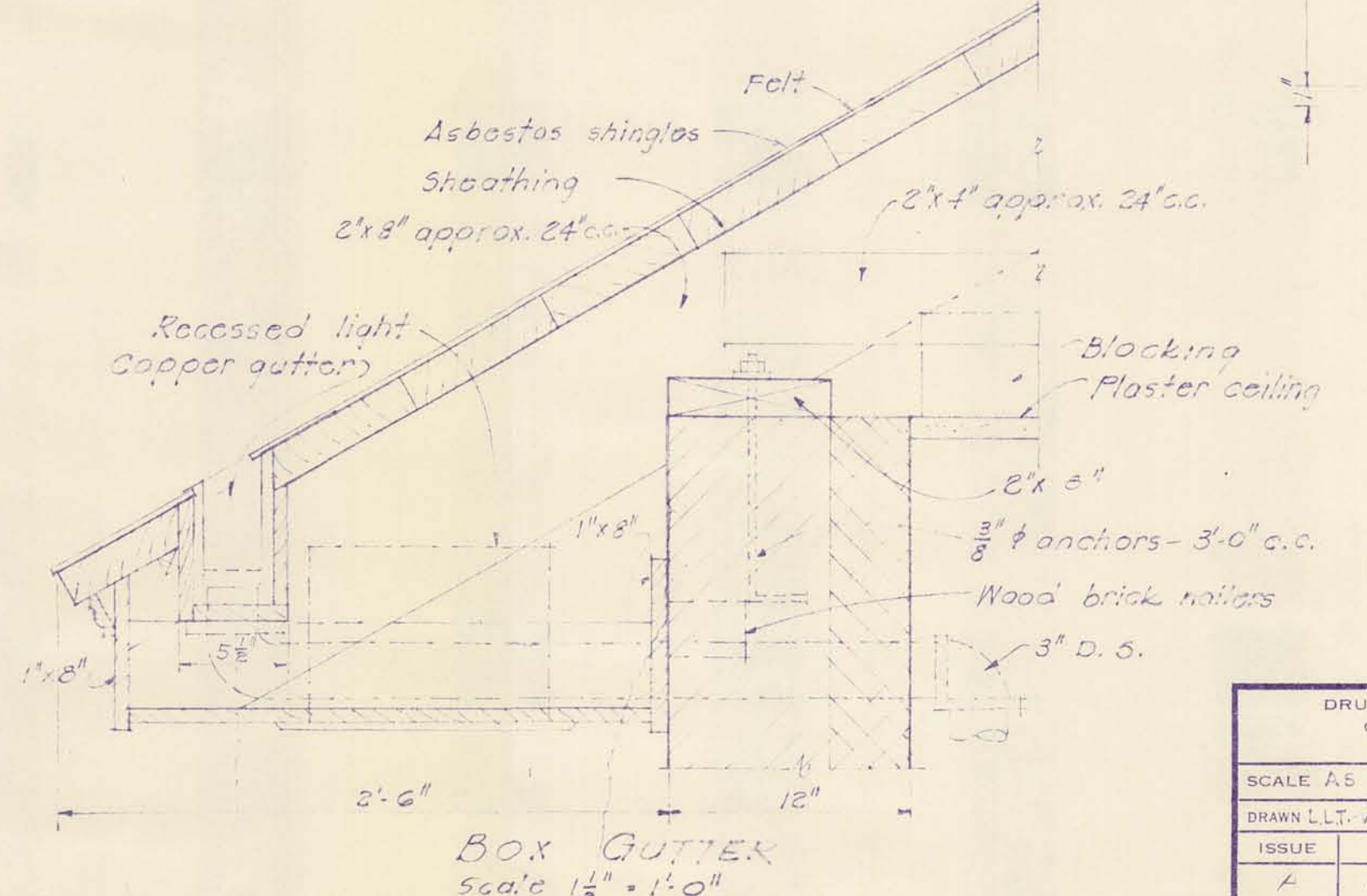
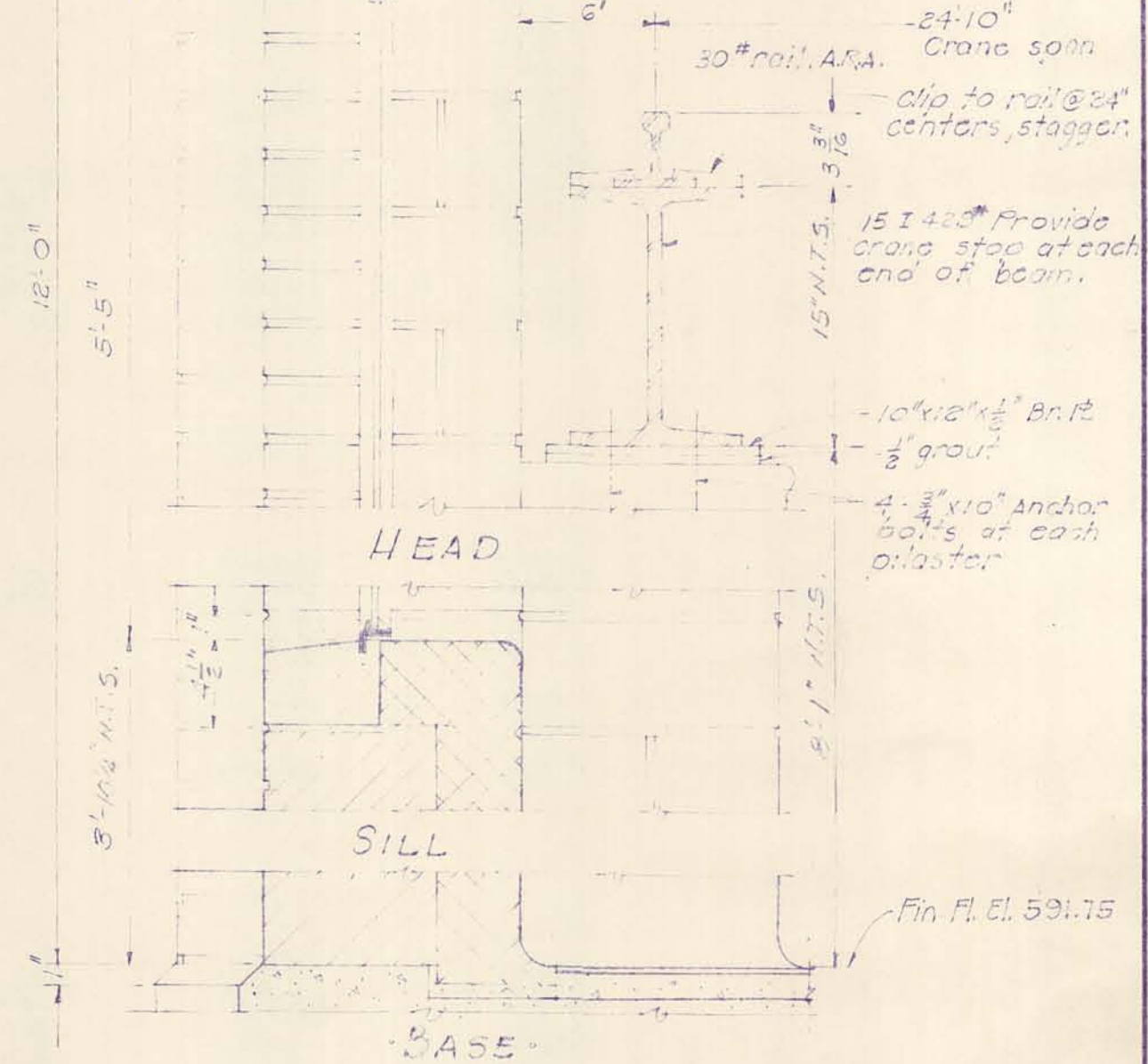
ALPENA, WATER
WORKS IMPROVEMENT
GRADING OF ACCESS ROAD
SCALE AS SHOWN
AUGUST 1953
S-8

PROFILE A-C-D-E-F

SACO PRODUCTS • NEW HOPE, MINNESOTA
 REPRODUCED BY PART NUMBER 6552
 POSITION EDGE OF PRINT ON THIS LINE
 CITY OF ALPENA, MICHIGAN
 WATER WORKS IMPROVEMENTS
 HIGH SERVICE PUMPING STATION
 BALCONY PLAN
 & SECTIONS
 DRURY, MCNAMEE AND PORTER
 CONSULTING ENGINEERS
 ANN ARBOR, MICHIGAN
 SCALE AS NOTED ISSUED MAY 1935
 DRAWN L.L.W.B. TRACED W.T.B. CHECKED H.A.V.
 ISSUE NATURE OF REVISION DATE
 1 AS-BUILT 7-55
 CONTRACT 2 SHEET 2 OF 10



Notes:
 For window details see S 5 4 & 5-5.



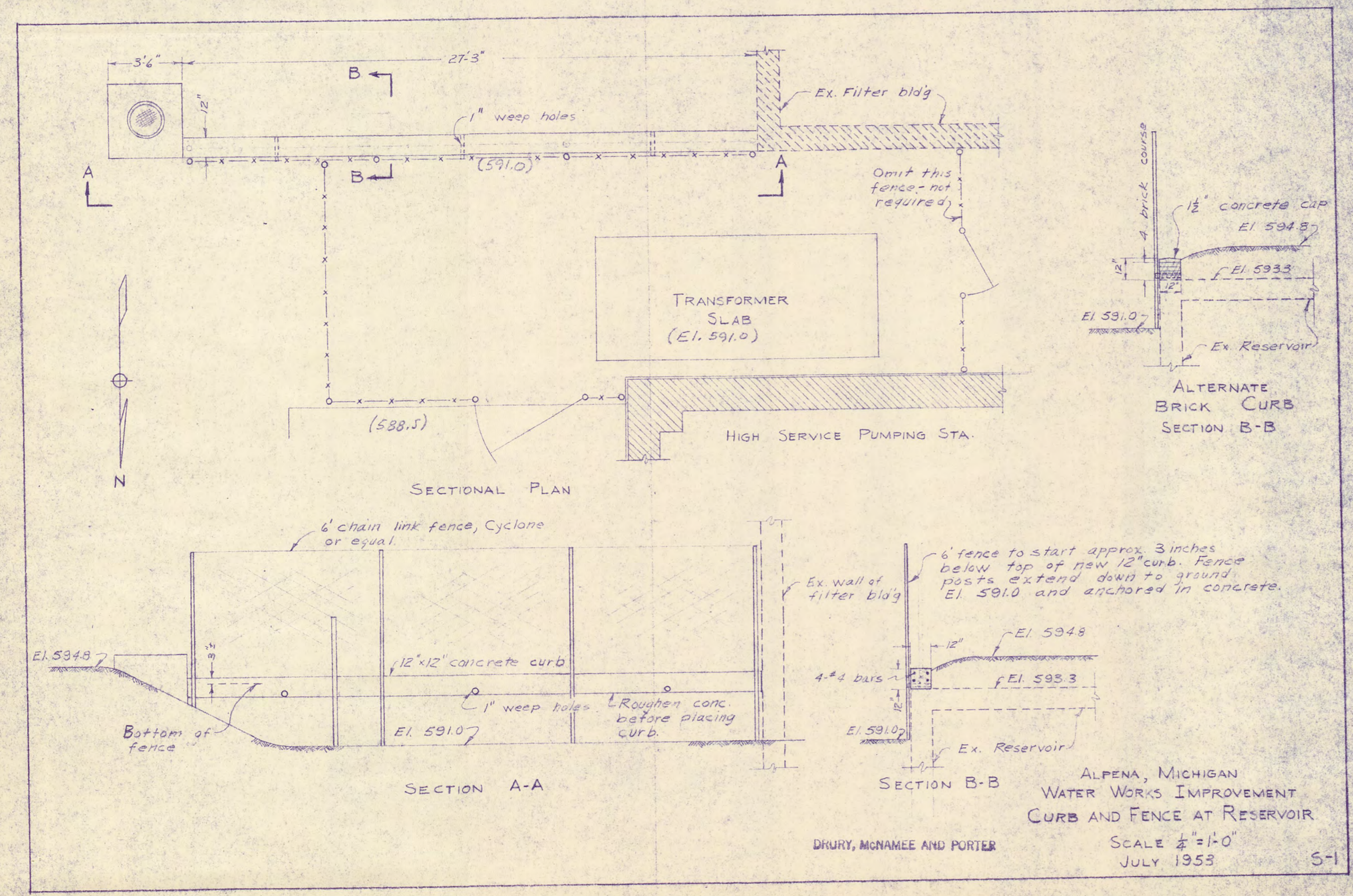
SYMBOLS

| | | | |
|--|-------|--|-------------|
| | BRICK | | CONCRETE |
| | TILE | | STEEL |
| | STONE | | QUARRY TILE |

| | | | | | |
|--|---------------|-----------------|------|---|--|
| DRURY, MCNAMEE AND PORTER CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | | | CITY OF ALPENA MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION BALCONY PLAN & SECTIONS | |
| SCALE AS NOTED | | ISSUED MAY 1935 | | CONTRACT 2 | |
| DRAWN L.L.W.B. | TRACED W.T.B. | CHECKED H.A.V. | DATE | SHEET 2 OF 10 | |
| 1 | AS-BUILT | | 7-55 | | |

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
 REORDER BY PART NUMBER 6552
 POSITION EDGE OF PRINT ON THIS LINE

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
 REORDER BY PART NUMBER 6552
 POSITION EDGE OF PRINT ON THIS LINE



DRAWING NUMBER

SAPCO PRODUCTS • NEW HARBOR, MINNESOTA
Division of Water Treatment Works

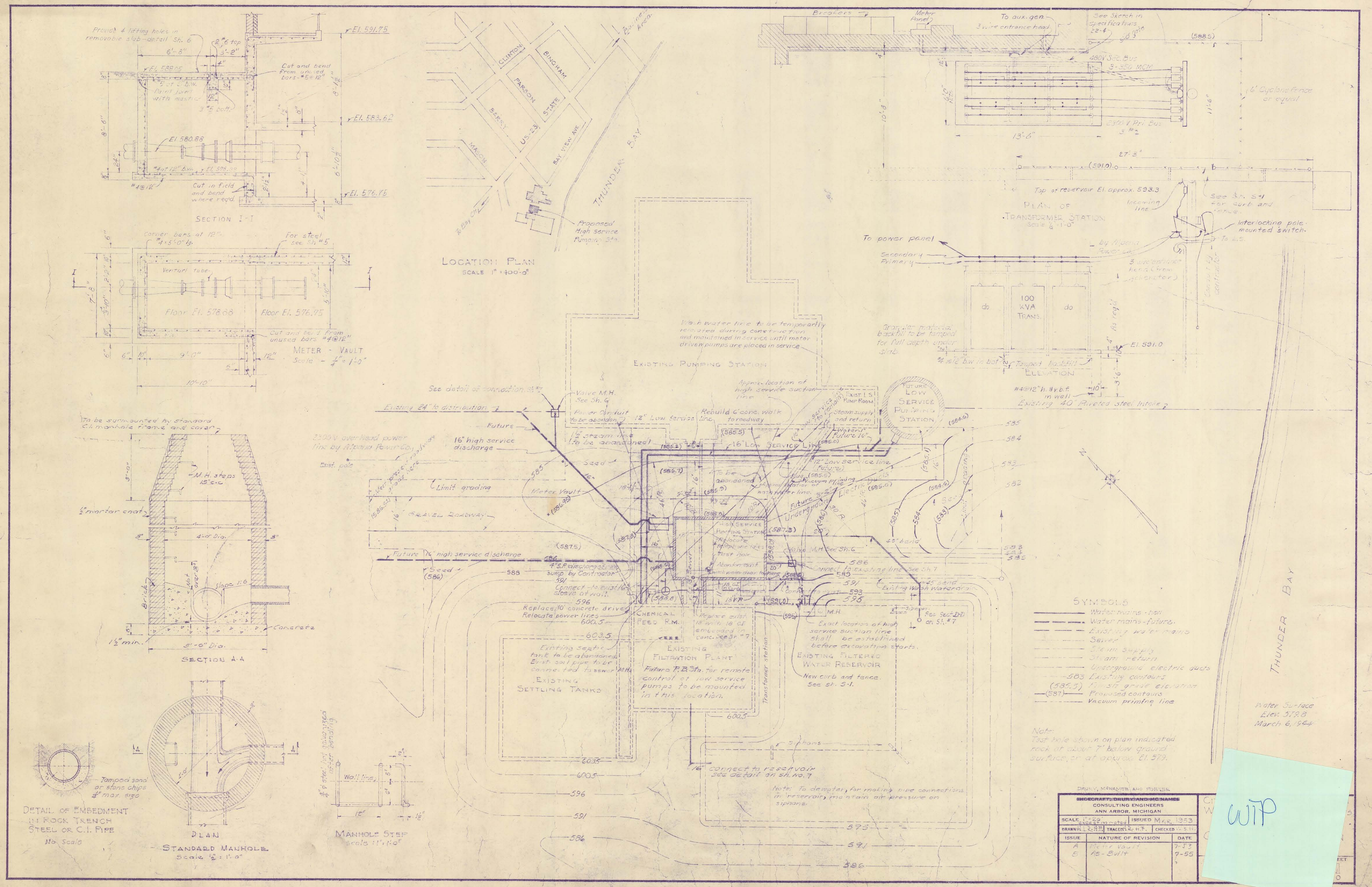
DRAWING NUMBER

SAPCO PRODUCTS • NEW HARBOR, MINNESOTA
Division of Water Treatment Works

DRAWING NUMBER

City of Alpena 1-6-10
Water Works
Layout

SAPCO PRODUCTS • NEW HARBOR, MINNESOTA
Division of Water Treatment Works



- SYMBOLS
- Water mains - now
 - Water mains - future
 - - - Existing water mains
 - - - Sewer
 - - - Steam supply
 - - - Steam return
 - - - Underground electric ducts
 - - - Existing contours (585.5)
 - - - Proposed contours (587)
 - - - Vacuum printing line

Note: Test hole shown on plan indicated rock at about 7' below ground surface, or at approx. El. 579.

| | | |
|---|--------------------|----------------|
| DRAWN, MONUMENTED AND REVISION | | |
| MICHAEL DRUMMOND & McNAMEE CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | |
| SCALE 1" = 20' (except as noted) | ISSUED | MAR 1953 |
| DRAWN L.S.H. | TRACED R.H.F. | CHECKED L.S.H. |
| ISSUE | NATURE OF REVISION | DATE |
| A | Water Vault | 7-53 |
| B | As-Built | 7-55 |

WTP

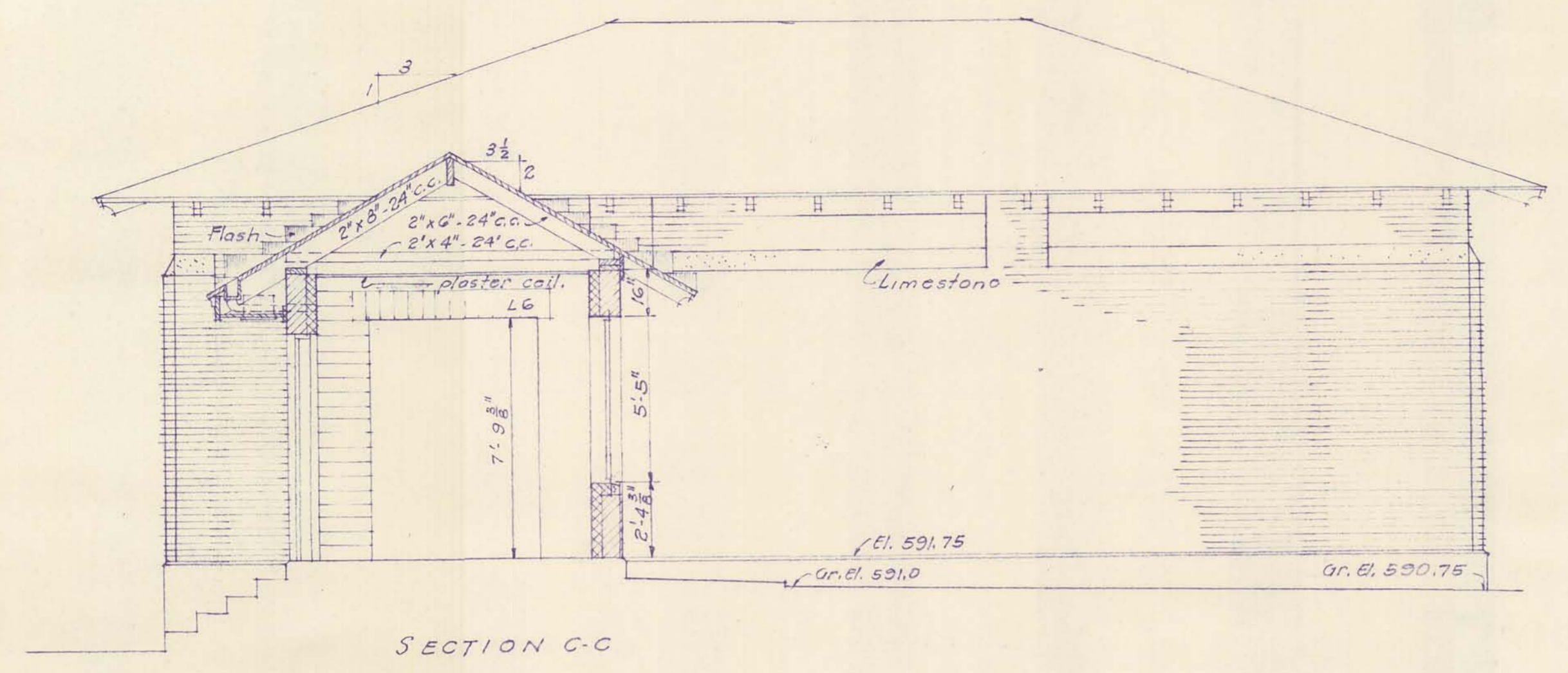
Water Surface Elev. 579.8
March 6, 1944

SAFCO PRODUCTS • NEW HOPE, MINNESOTA
 REFERRED BY PART NUMBER 652E

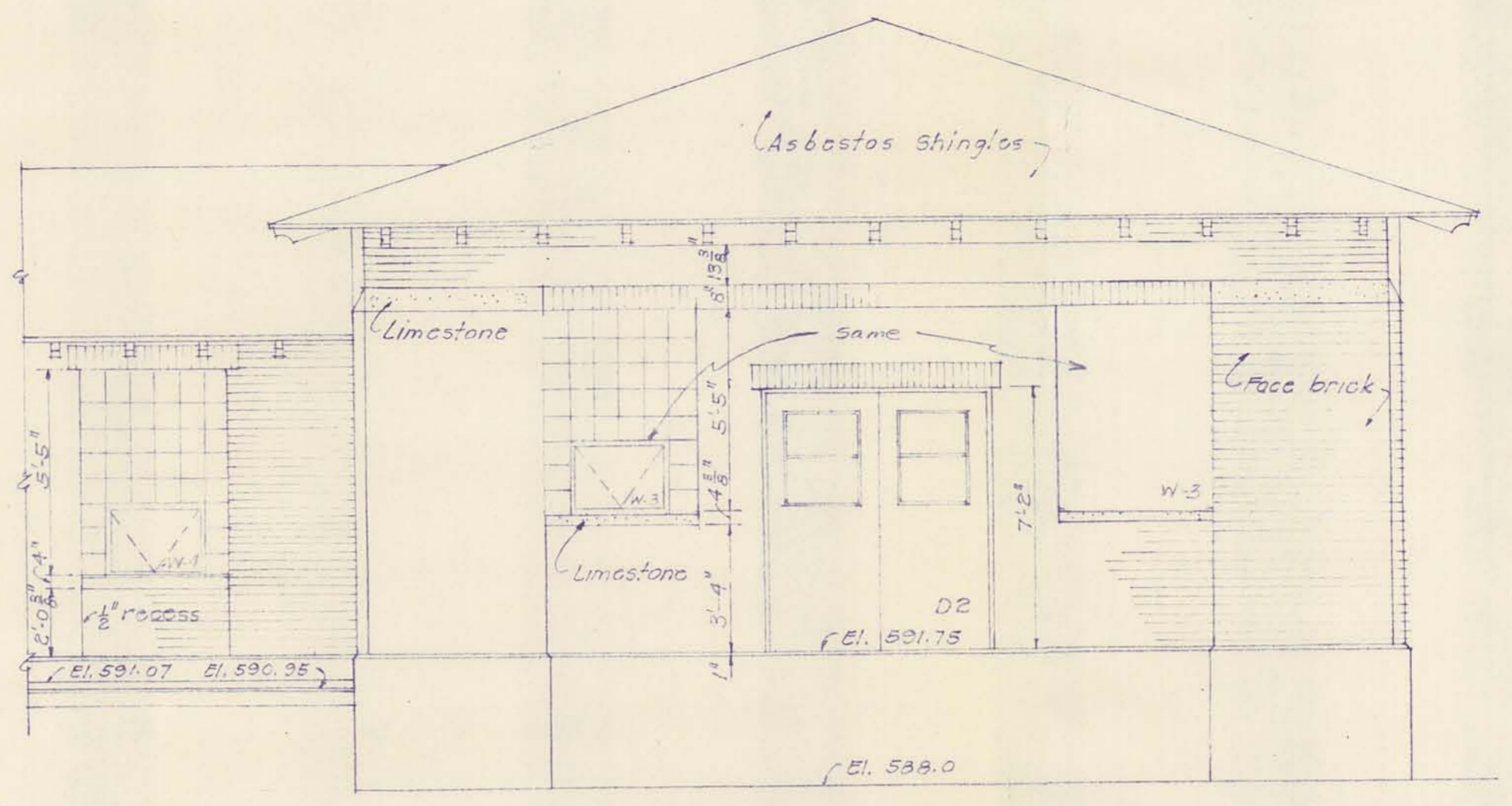
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
 REFERRED BY PART NUMBER 652E

Water Works Improvements
 High Service Pumping Station
 Roof Plans 4 of 10
 1955

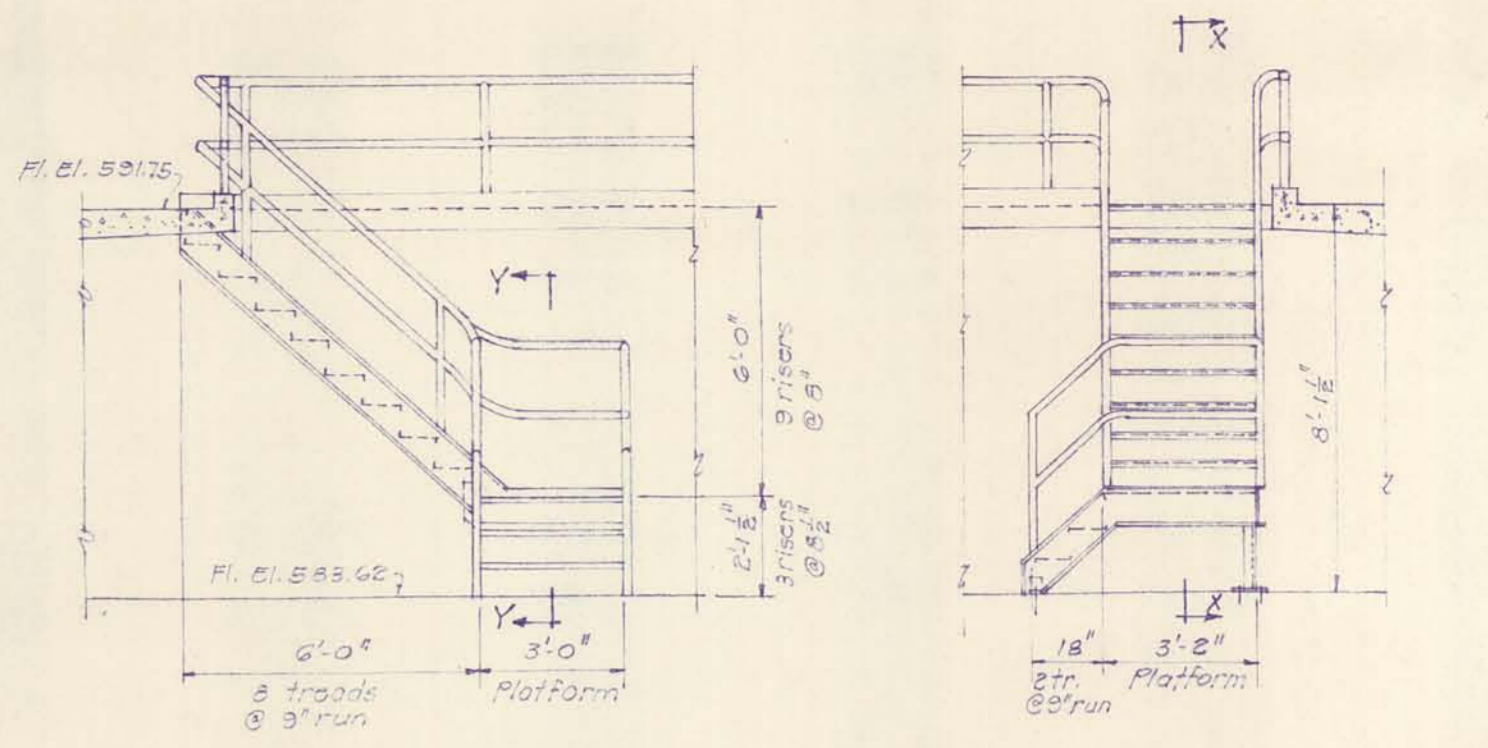
SAFCO PRODUCTS • NEW HOPE, MINNESOTA
 REFERRED BY PART NUMBER 652E



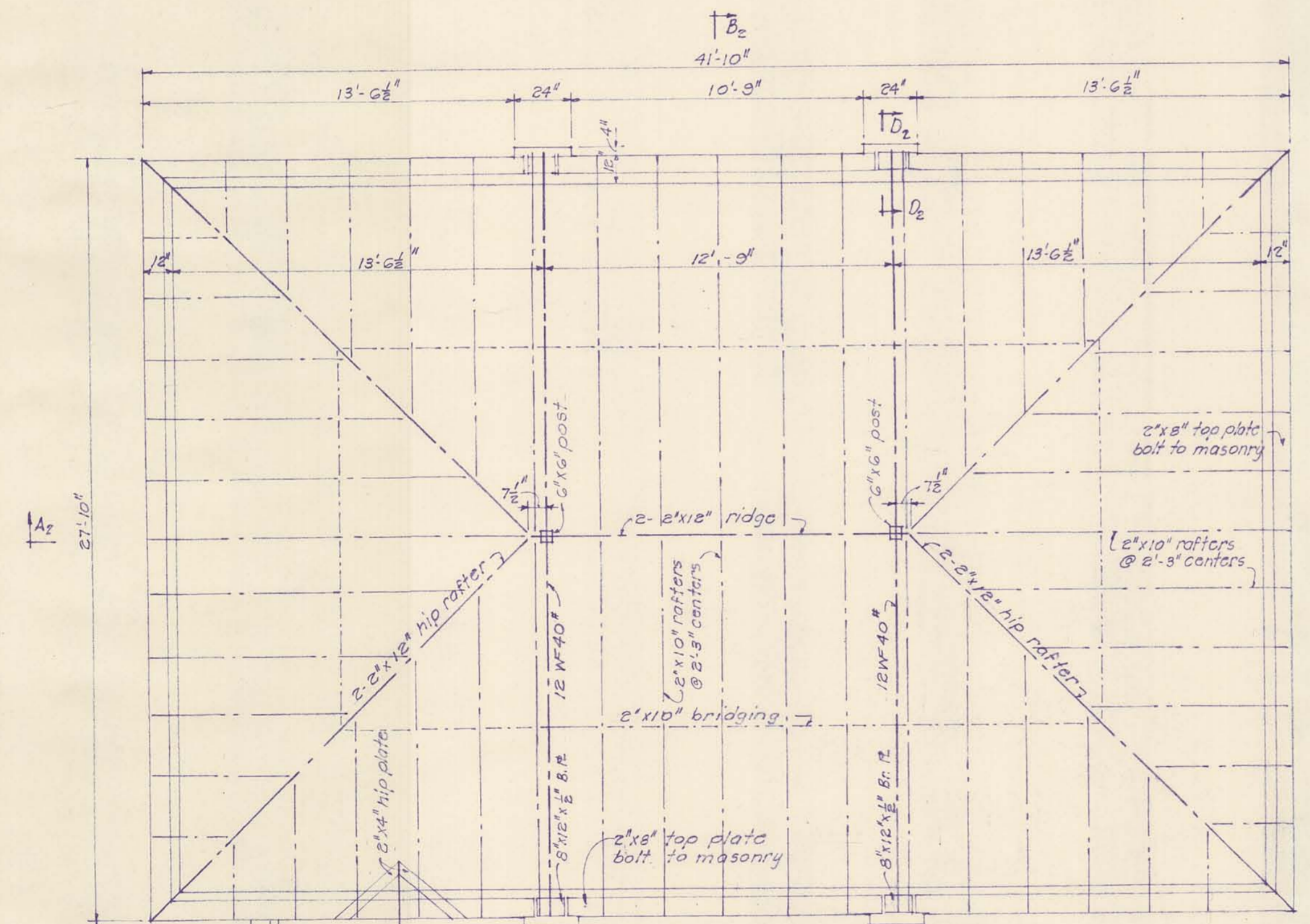
SECTION C-C
 SOUTH ELEVATION
 scale 1/4" = 1'-0"



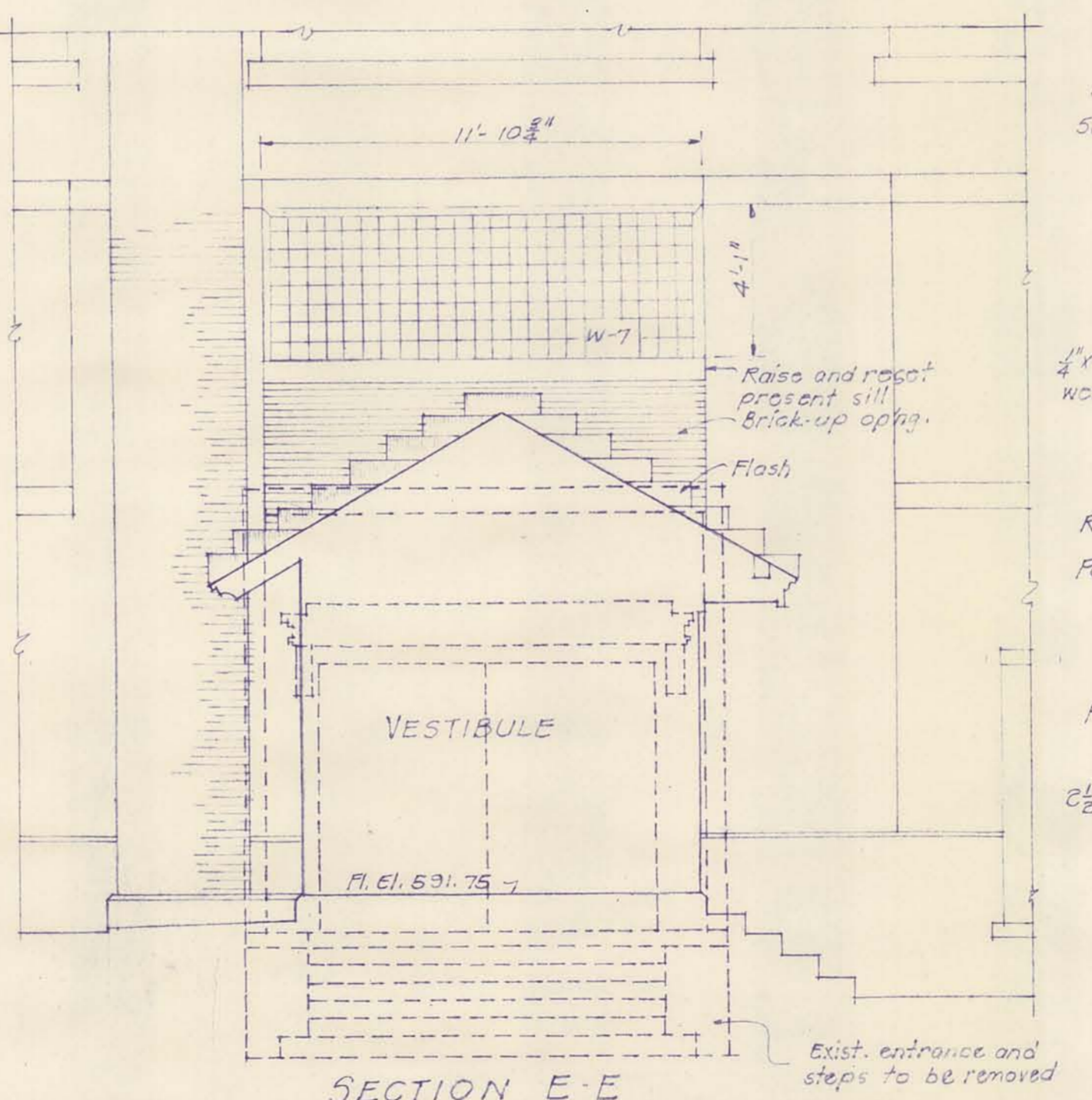
EAST ELEVATION
 scale 1/4" = 1'-0"



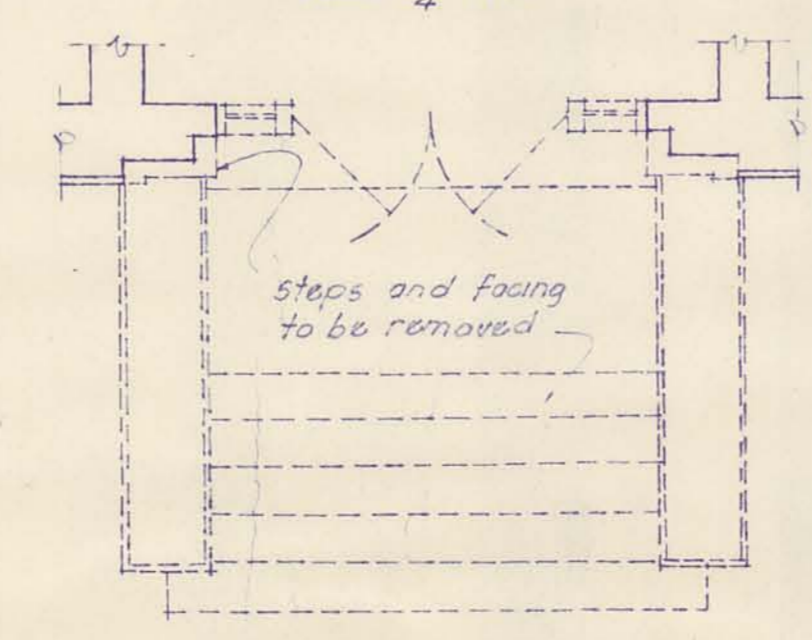
ELEVATIONS OF MAIN STAIRS
 scale 1/4" = 1'-0"



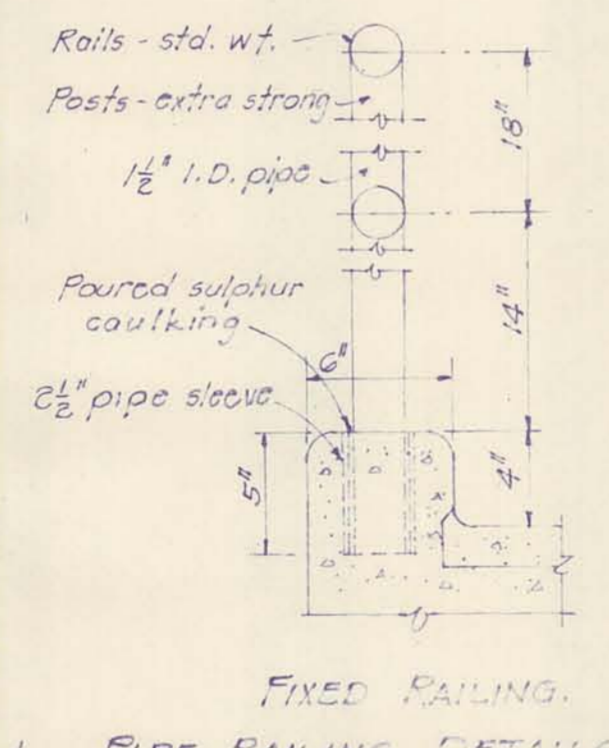
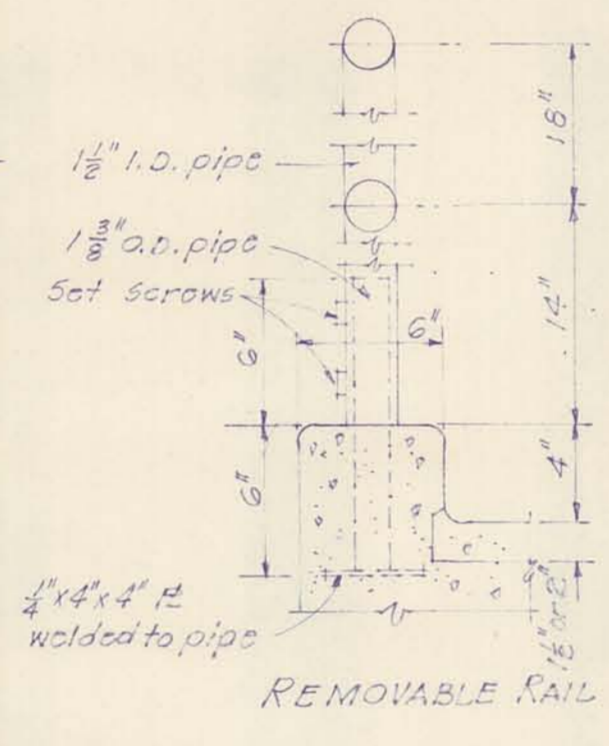
ROOF FRAMING PLAN
 scale 1/4" = 1'-0"



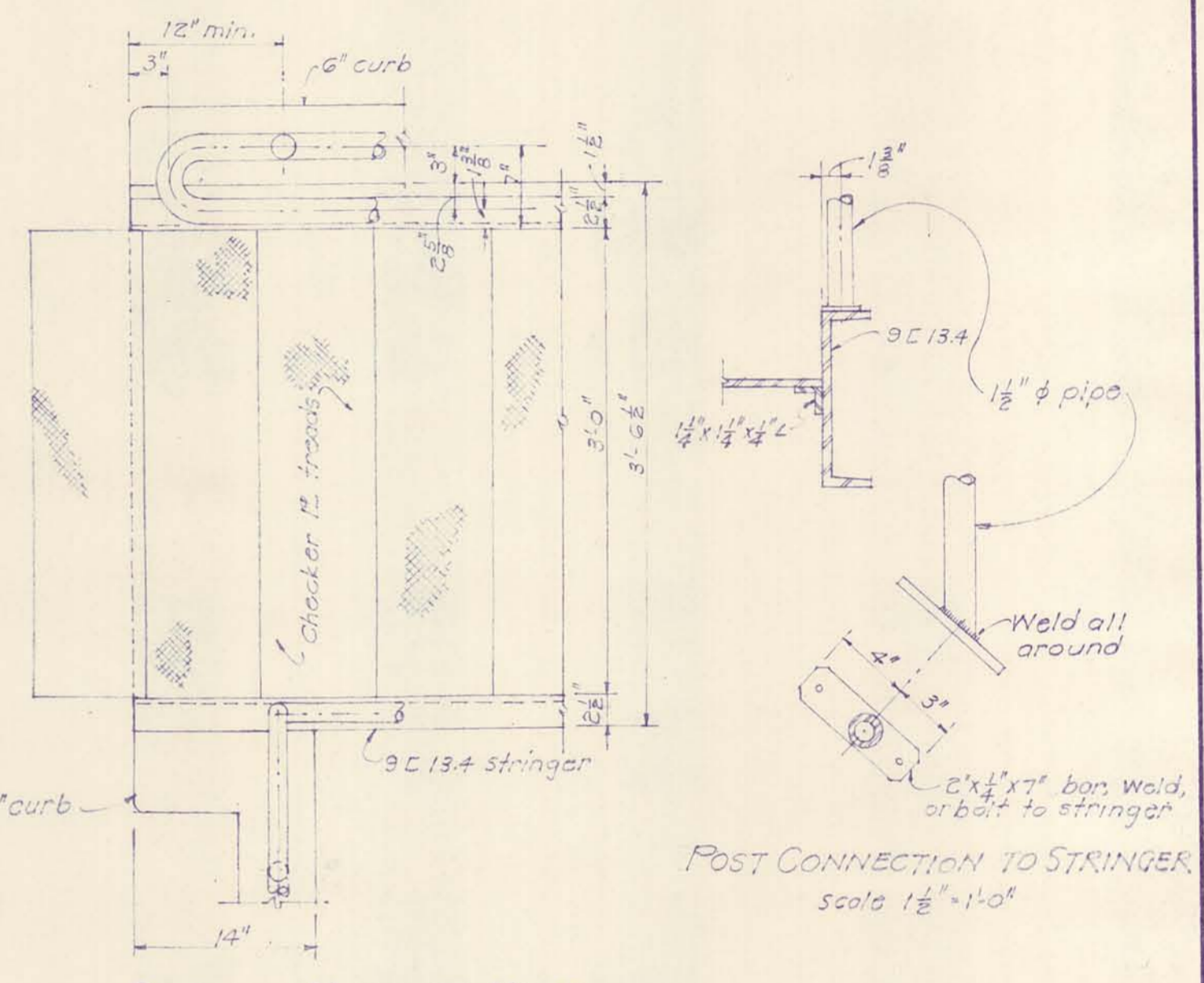
SECTION E-E
 scale 1/4" = 1'-0"



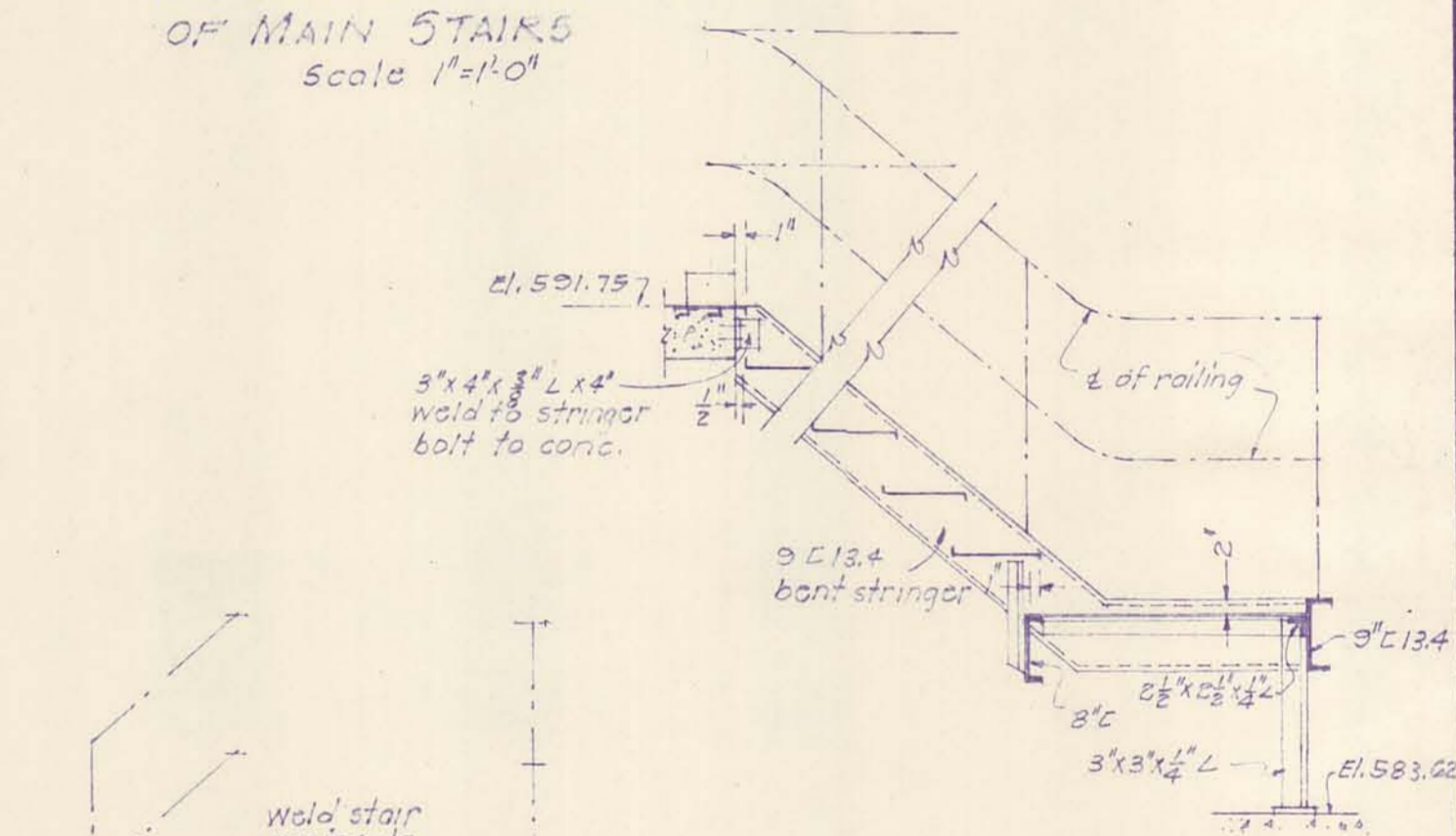
PLAN OF EXISTING STEPS
 scale 1/4" = 1'-0"



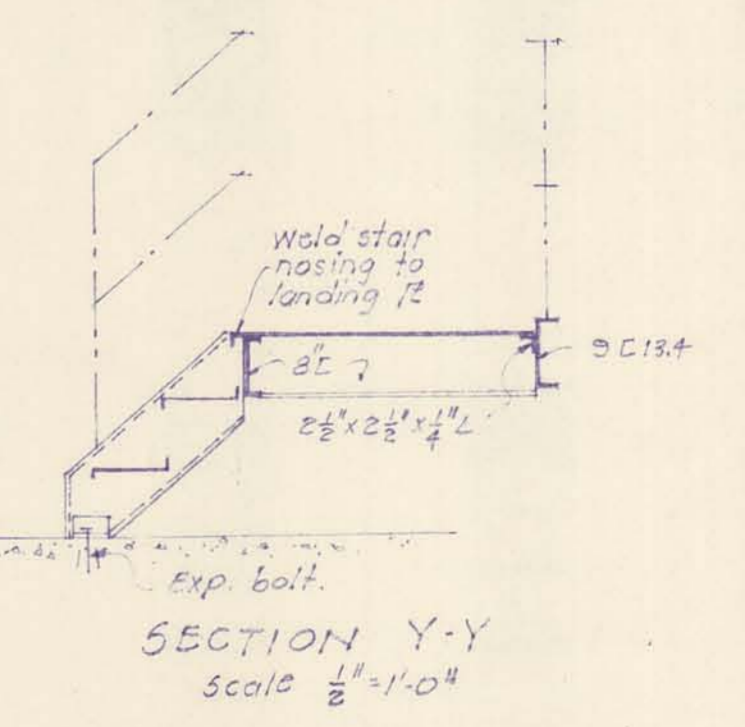
FIXED RAILING
 PIPE RAILING DETAILS
 scale 1/2" = 1'-0"



DETAIL PLAN AT HEAD OF MAIN STAIRS
 scale 1" = 1'-0"

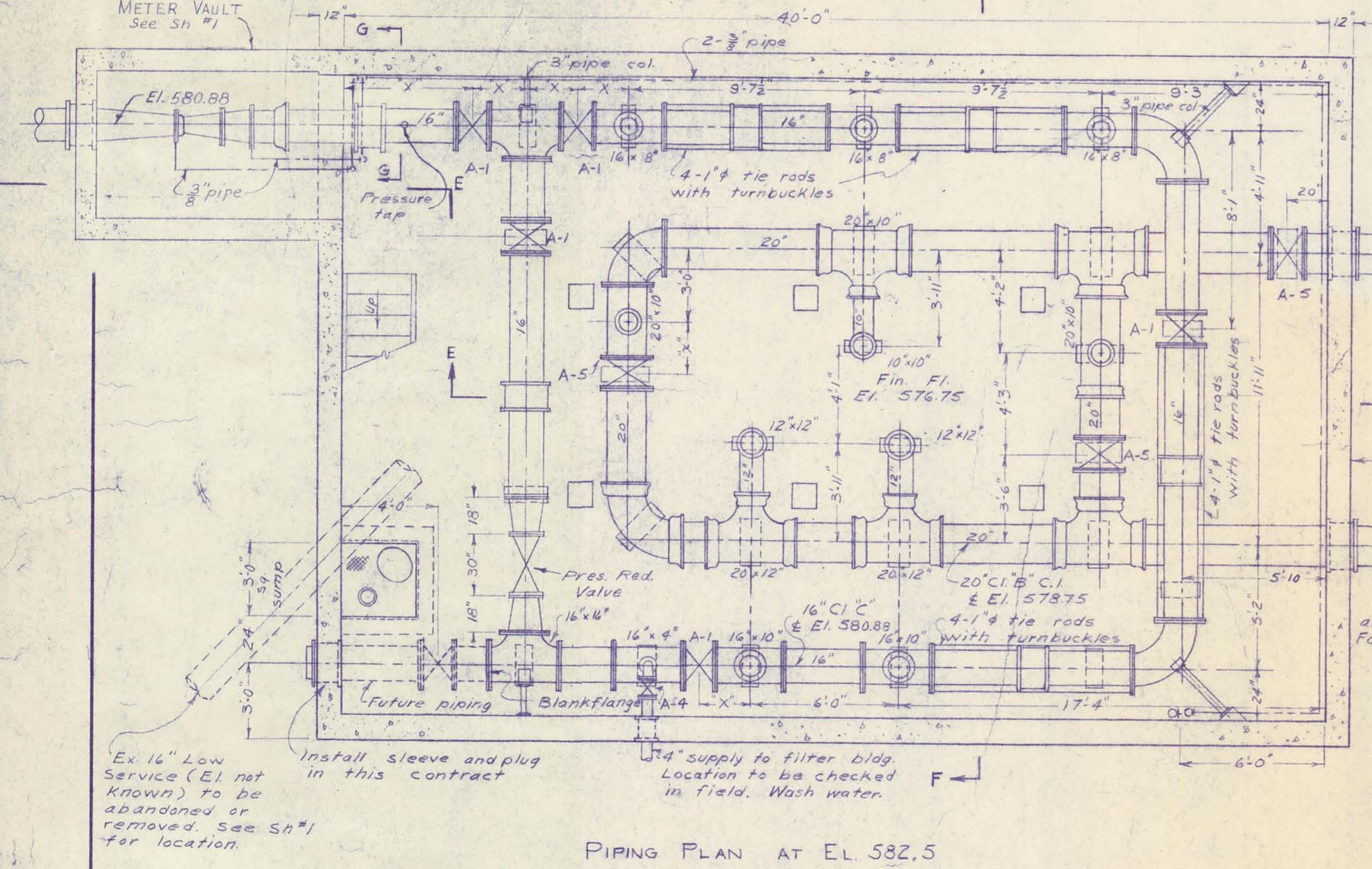
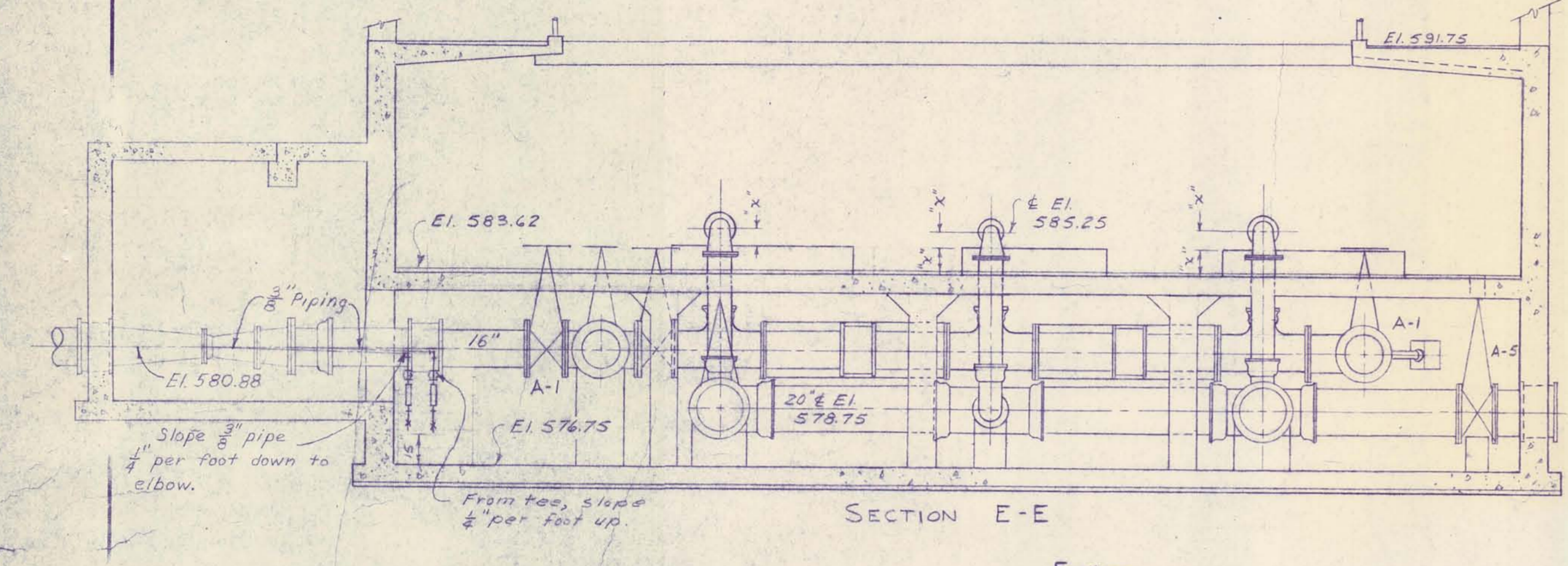
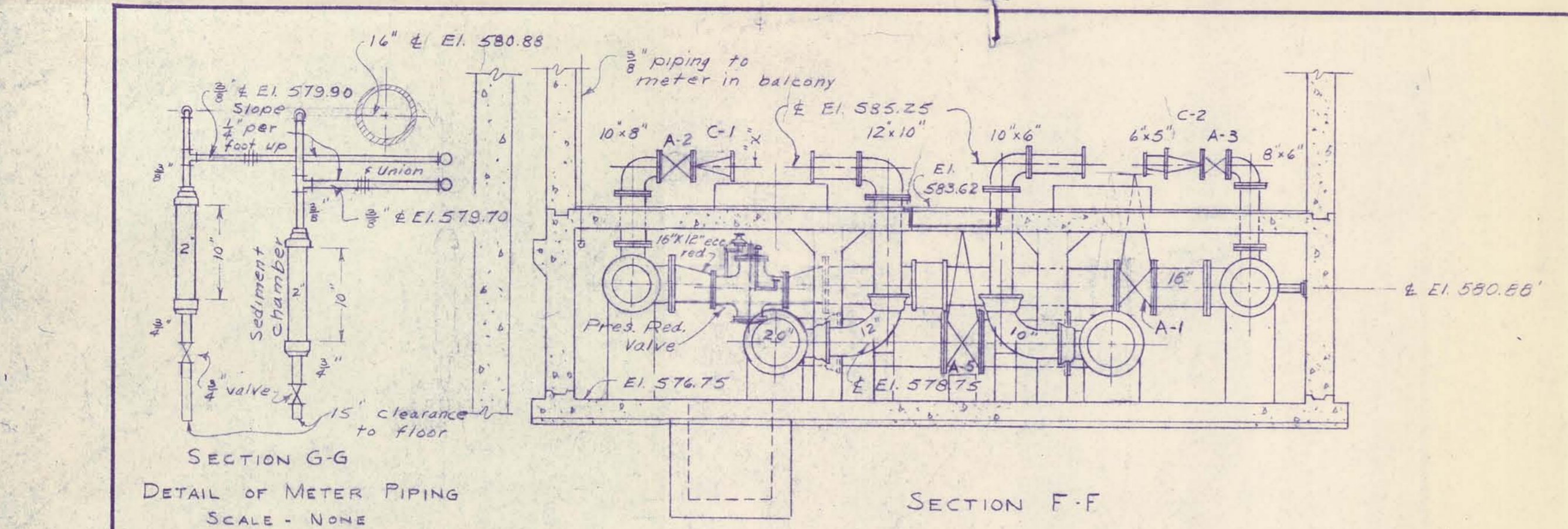


SECTION X-X
 scale 1/2" = 1'-0"



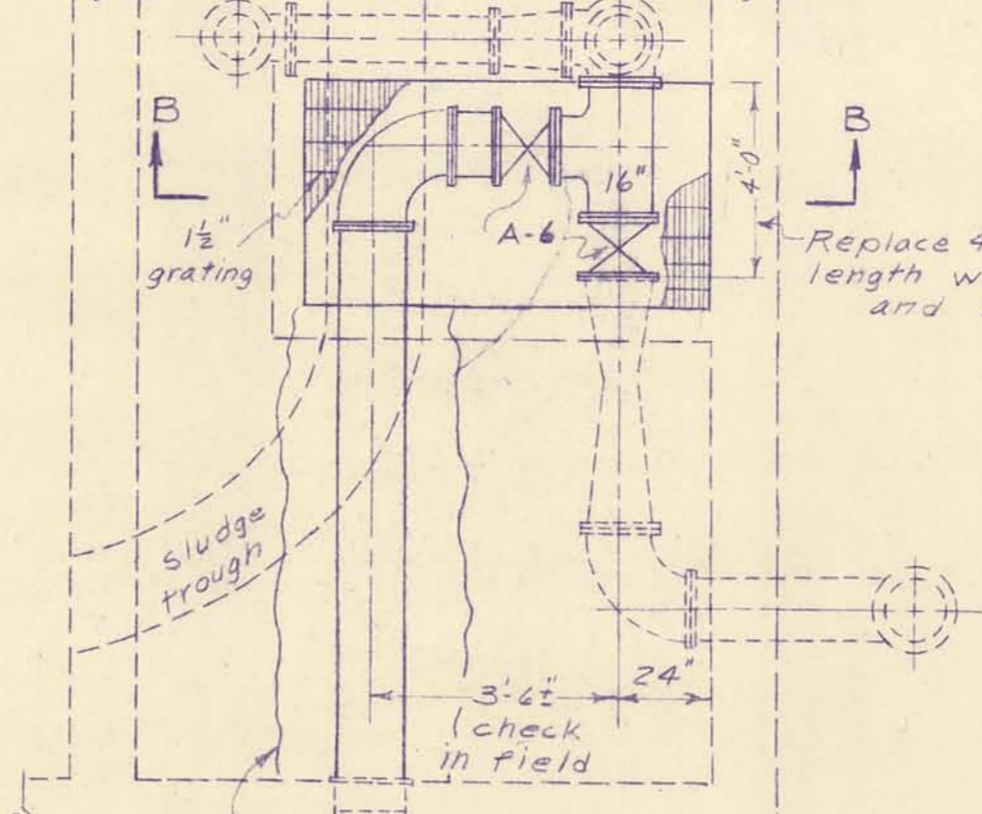
SECTION Y-Y
 scale 1/2" = 1'-0"

| | | | |
|--|--------------------|----------------|--|
| DRURY, MCNAMEE AND PORTER CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | | CITY OF ALPENA MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION ROOF FRAMING PLAN ELEVATIONS |
| SCALE AS NOTED | ISSUED MAR 1953 | | |
| DRAWN L.W.B. | TRACED W.T.B. | CHECKED H.A.W. | |
| ISSUE | NATURE OF REVISION | DATE | |
| A | As Built | 7-55 | |
| CONTRACT | | | SHEET |
| 2 | | | 4 OF 10 |

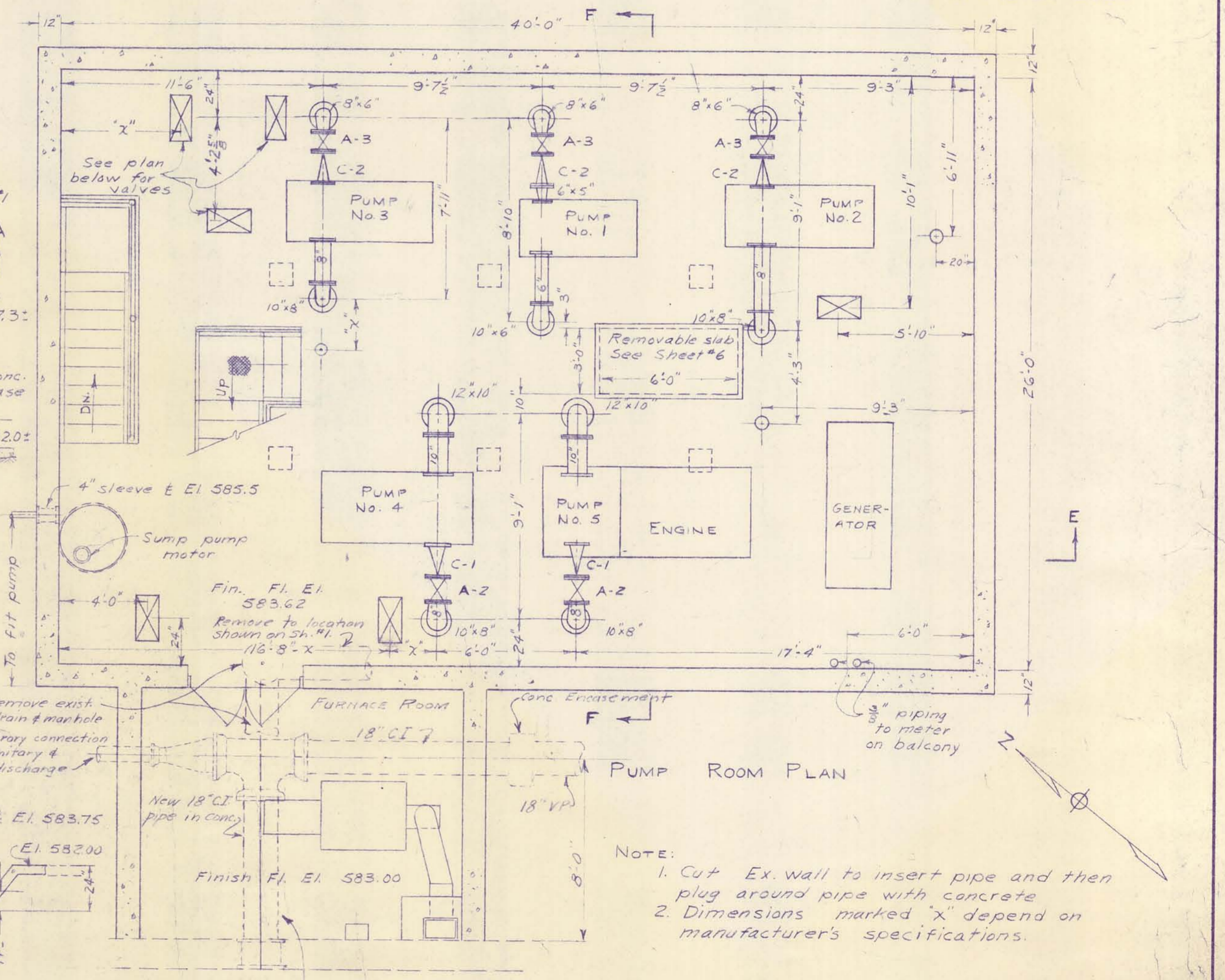
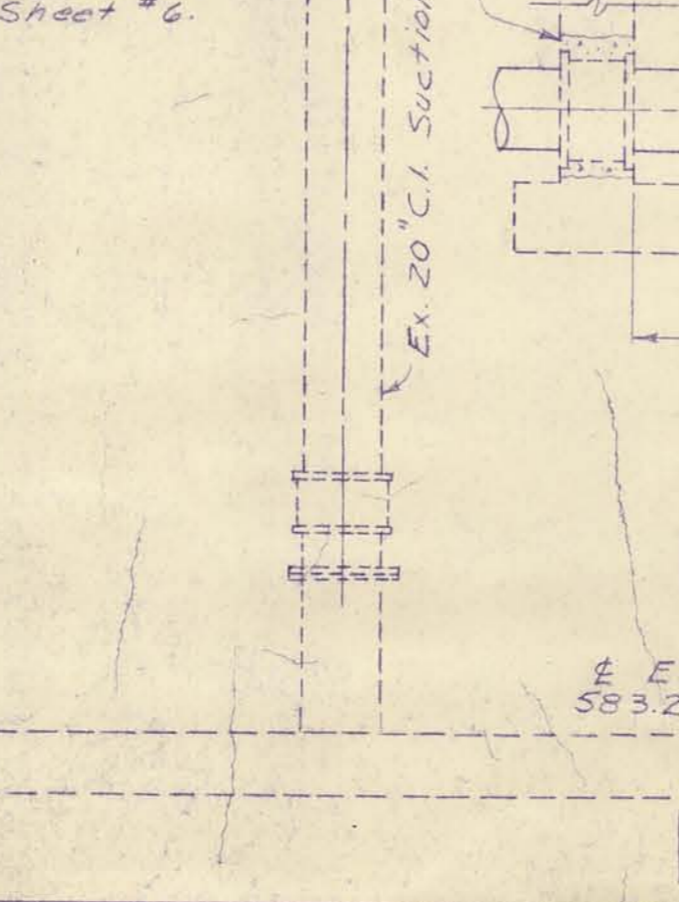
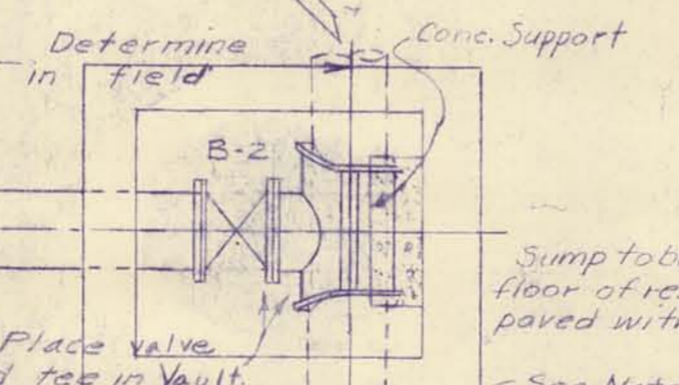
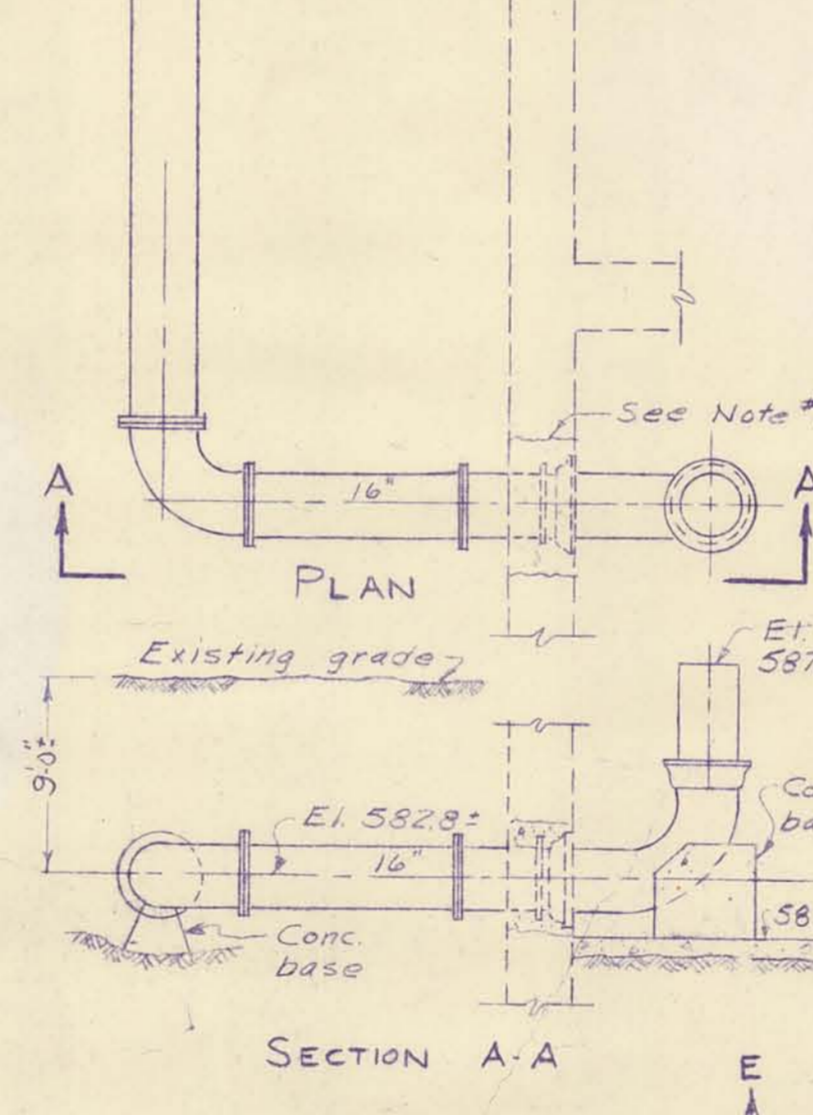
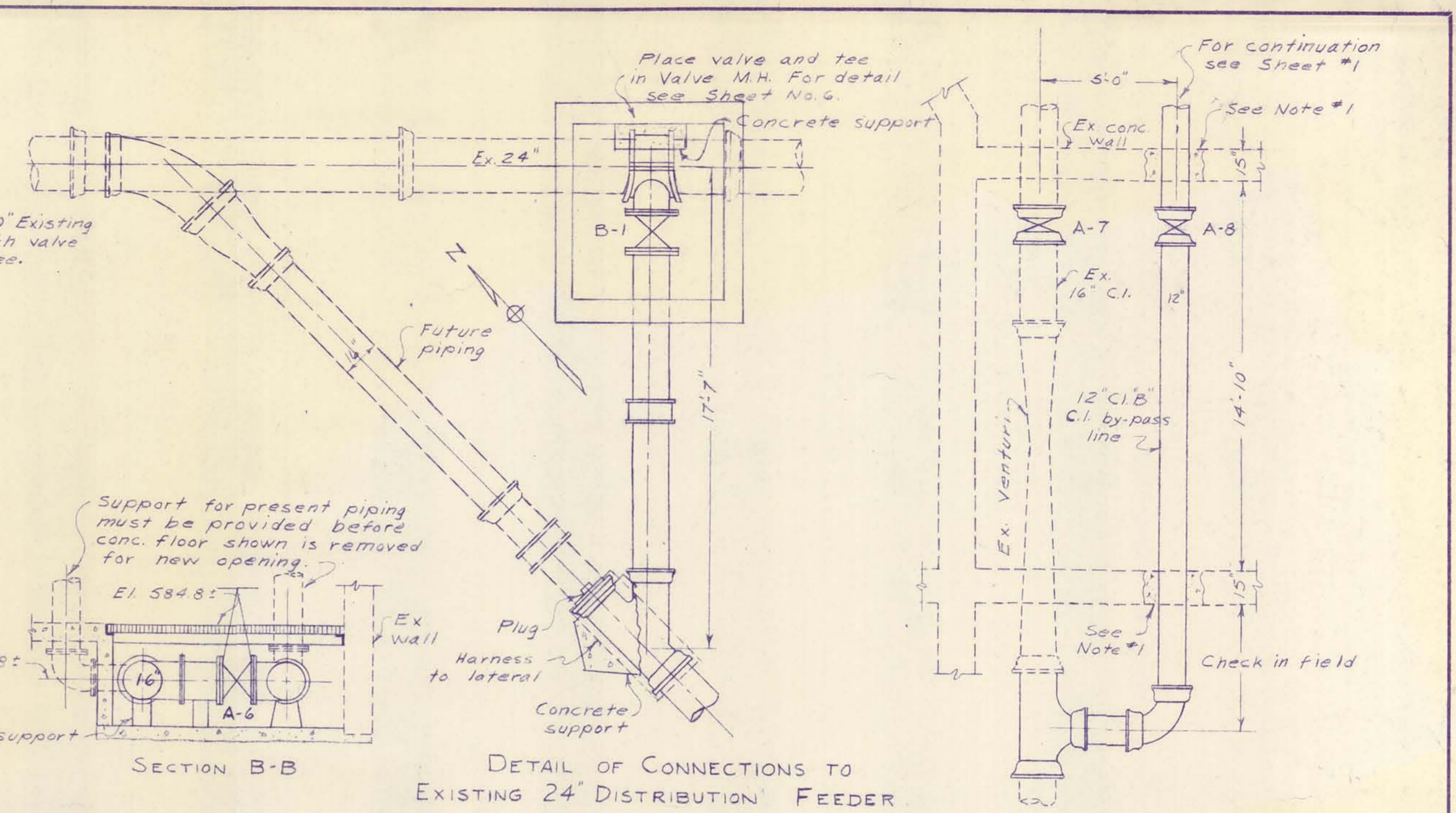


NOTE: Pressure reducing valve
 Ross Model 40W.R, their dwg. #1014

DETAIL OF PIPING CONNECTION TO
 RESERVE FILTERED WATER RESERVOIR

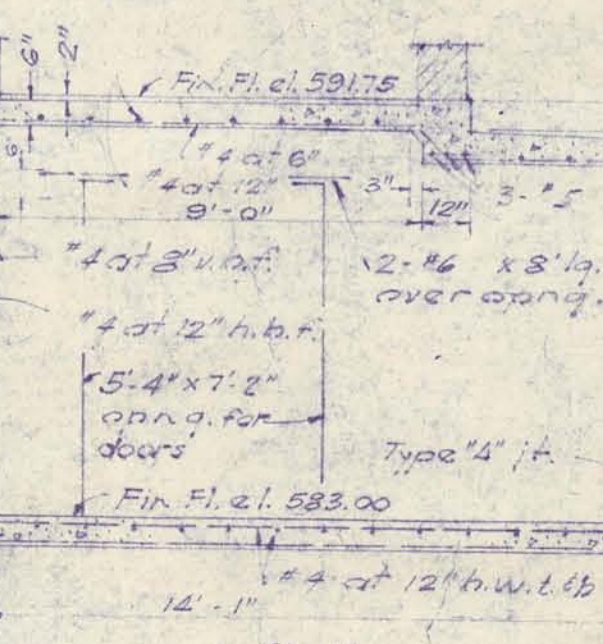
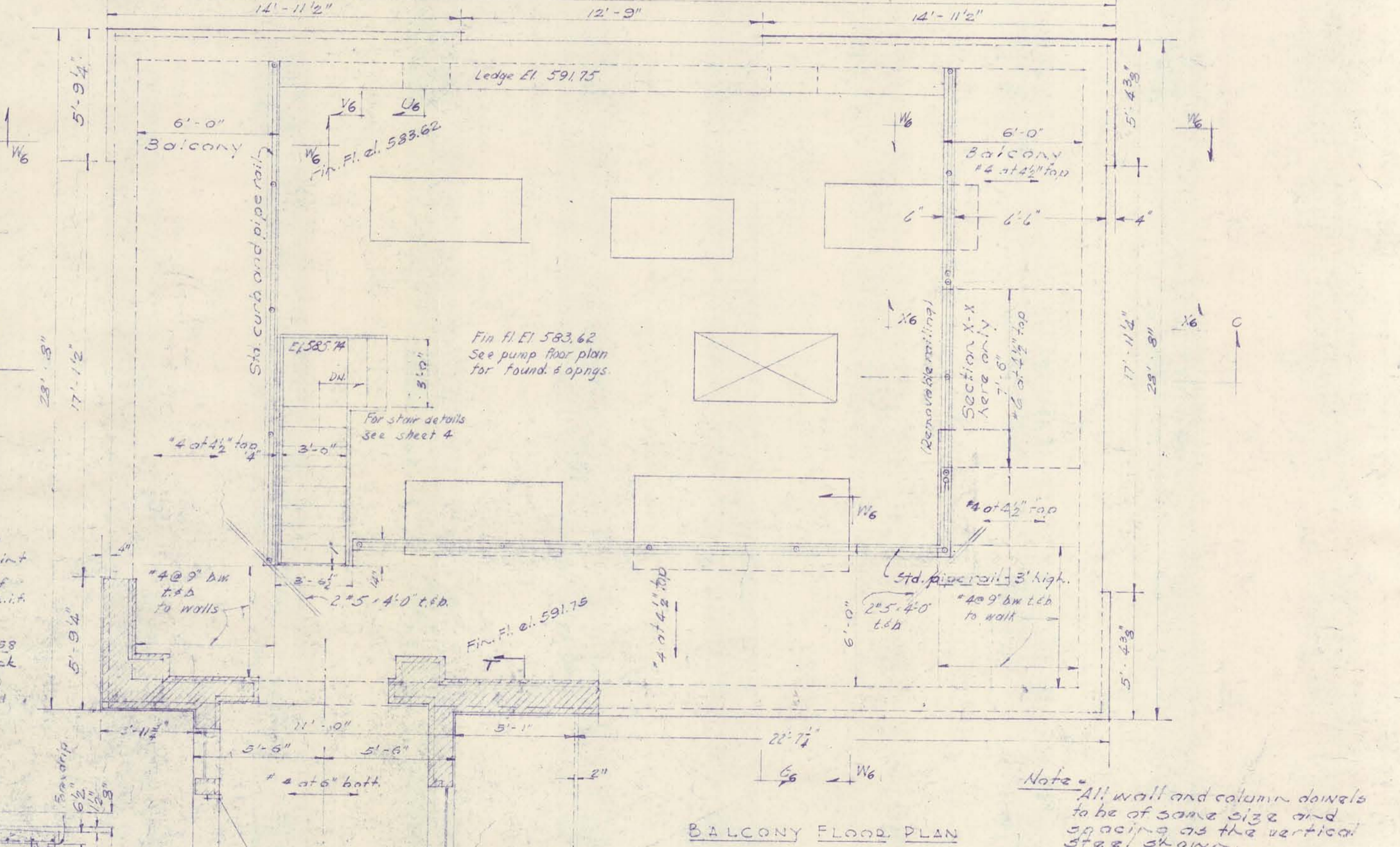
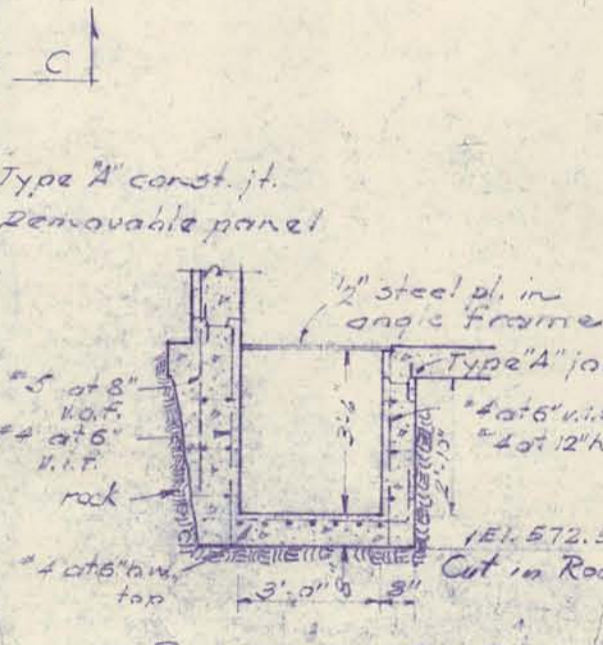
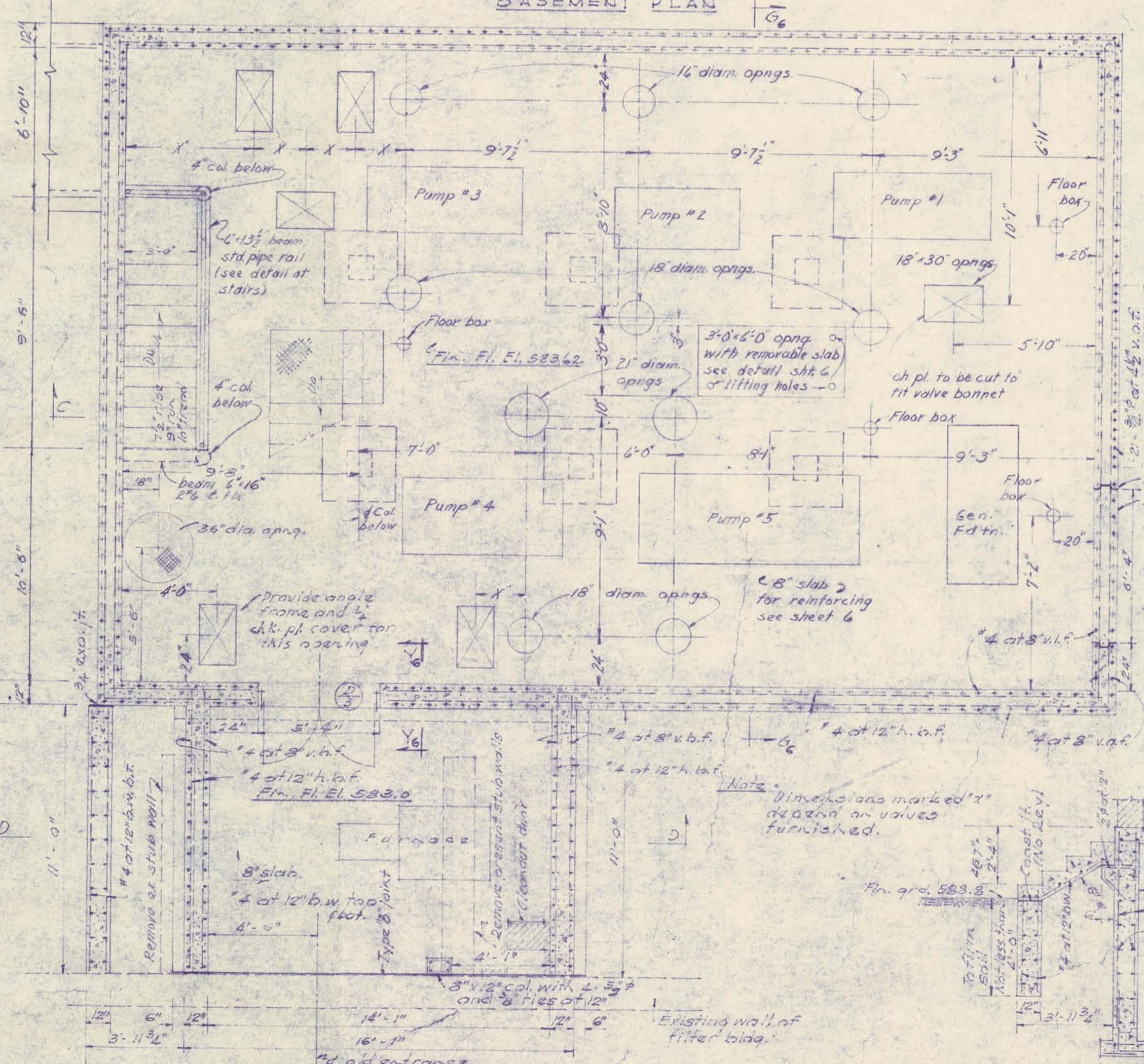
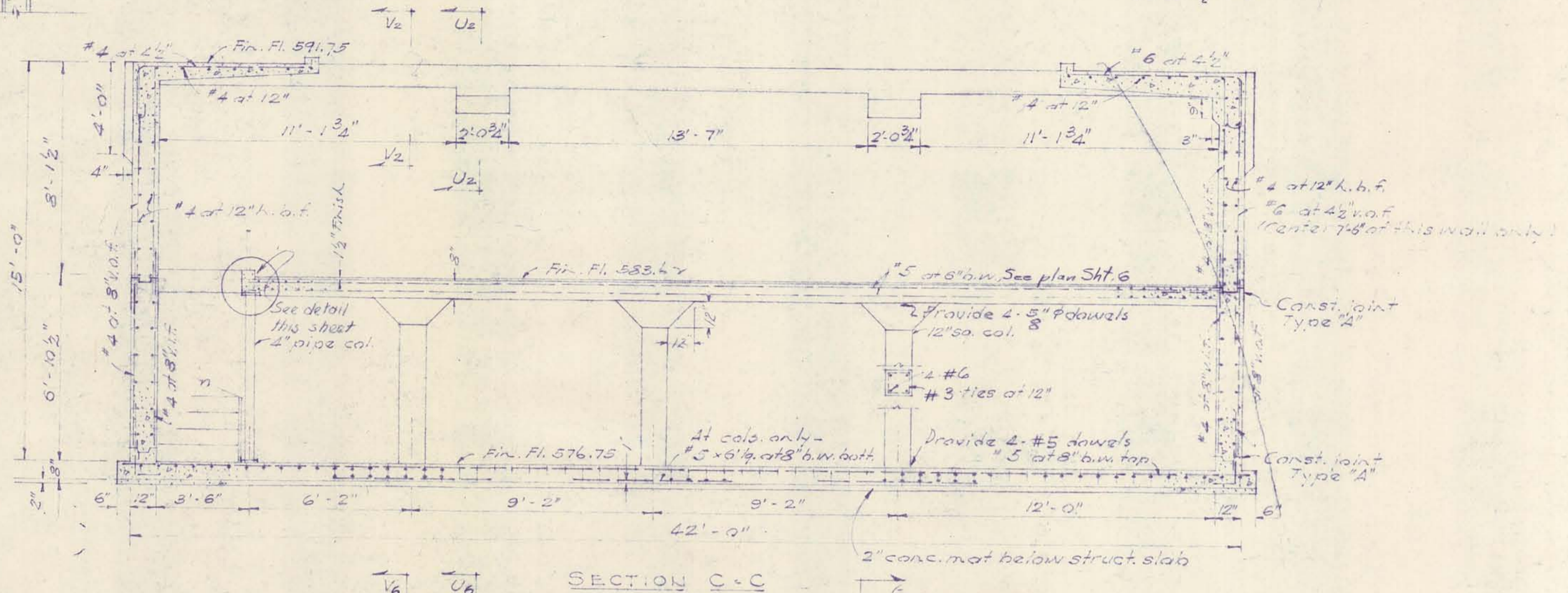
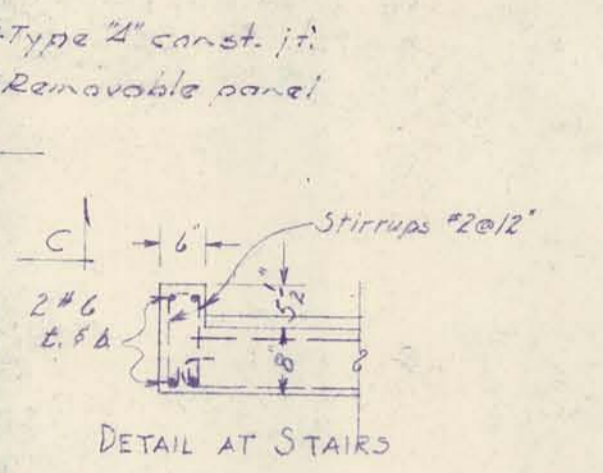
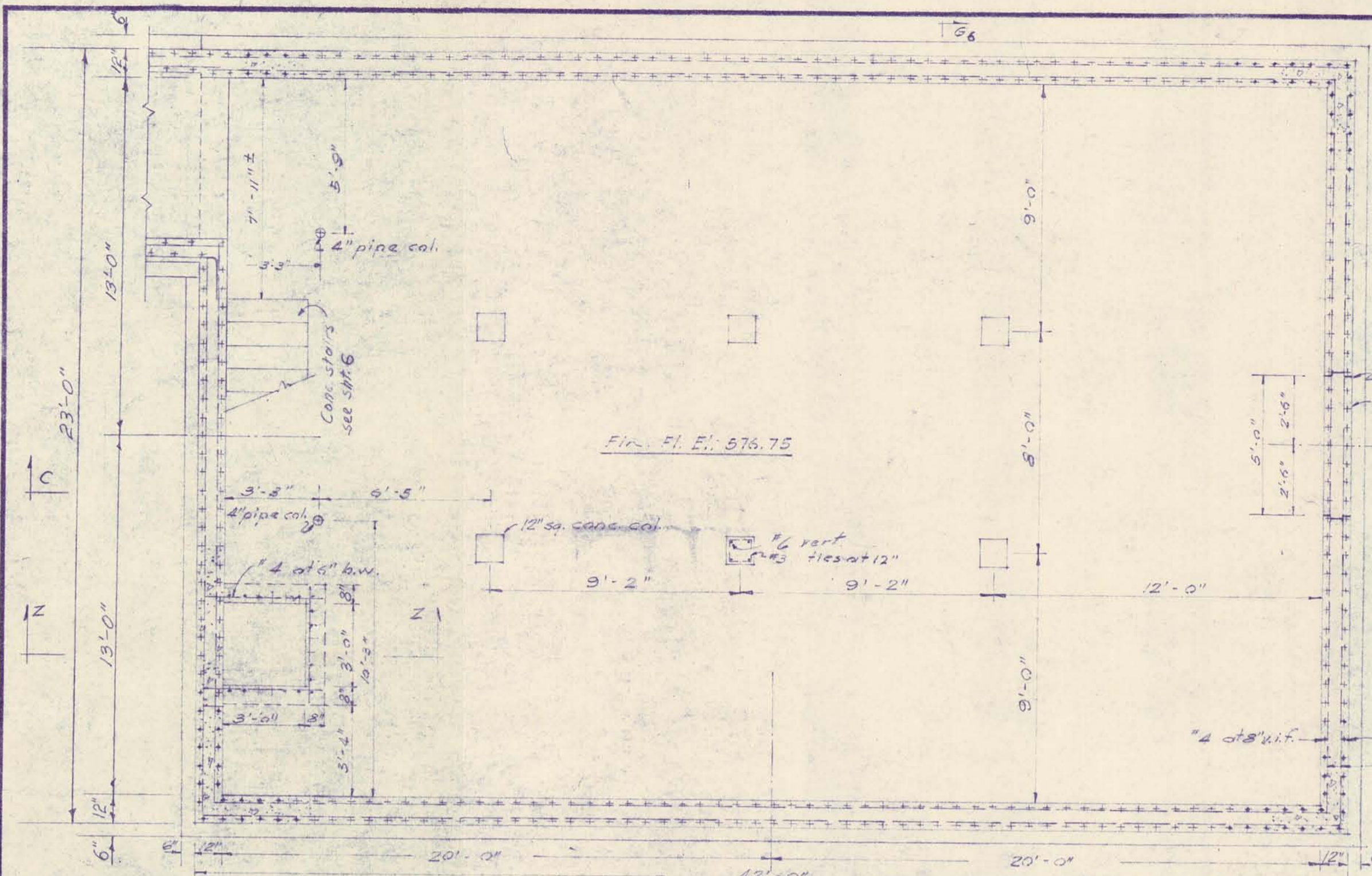


Backfill trench with tamped sandy fill and pave surface with 6" conc. slab to match existing slab.



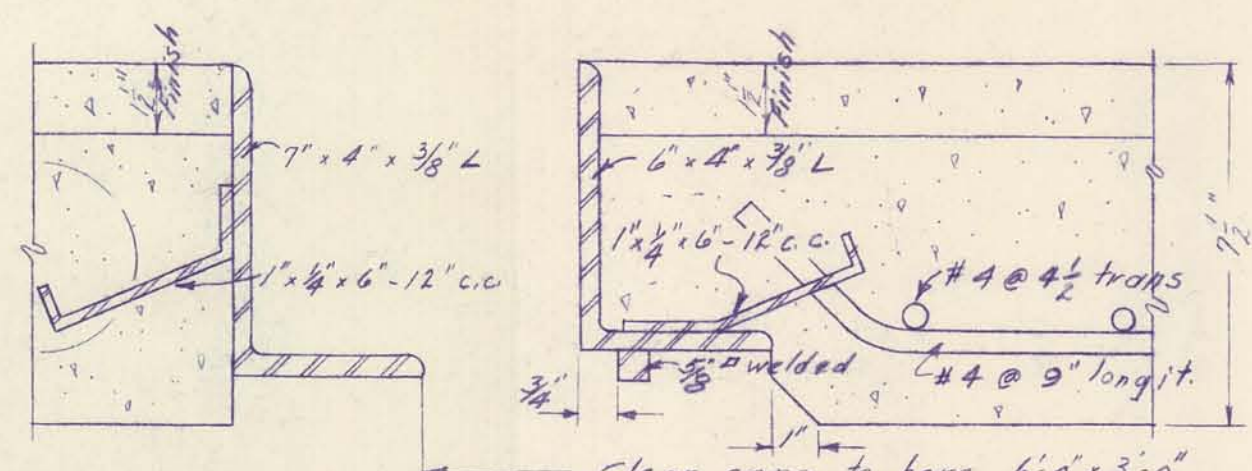
NOTE:
 1. Cut Ex. wall to insert pipe and then plug around pipe with concrete
 2. Dimensions marked 'x' depend on manufacturer's specifications.

| | | | | | |
|--|---------------------|--------------|------|--|---------------|
| DRURY, MCNAMEE AND PORTER CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | | | CITY OF ALPENA, MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION | |
| SCALE 1/4" = 1'-0" | ISSUED MAR 1953 | | | PIPING PLANS & SECTIONS | |
| DRAWN V.T.B. | TRACED L.D. | CHECKED H.W. | DATE | CONTRACT | |
| A | Addendum #1 | 6-58 | | 2 | SHEET 7 OF 10 |
| B | Meter Vault | 7-53 | | | |
| C | Pressure Red. Valve | 6-54 | | | |
| D | As-Built | 7-55 | | | |

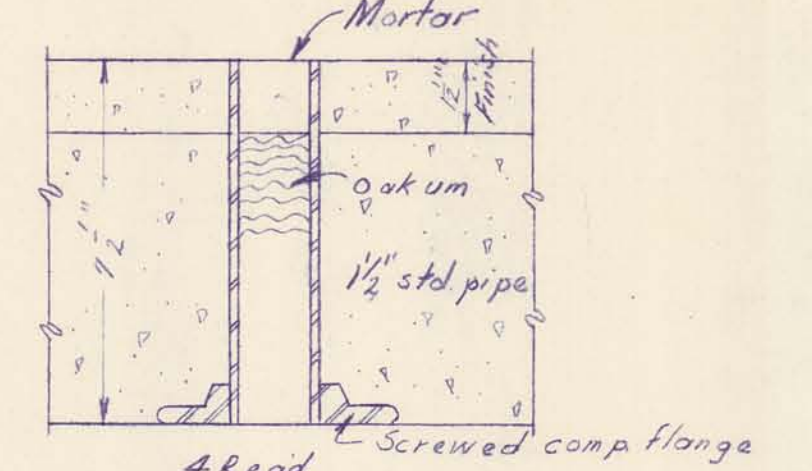


Note: All wall and column dowels to be of same size and spacing as the vertical steel shown. All tie steel in slabs #4 @ 12", except as noted.

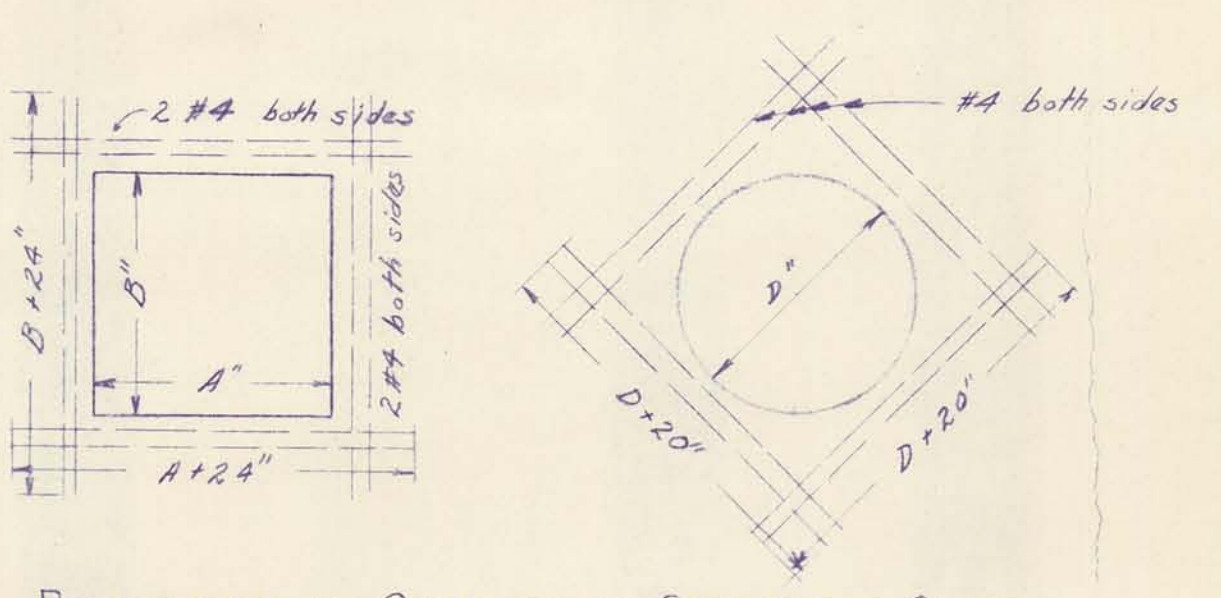
| | | | |
|--|--------------------|--|---------------|
| DRURY, McNAMEE AND PORTER | | | |
| SHOENKRAFT, DRURY AND McNAMEE CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | CITY OF ALPENA MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION STRUCTURAL PLANS & SECTIONS | |
| SCALE 1/4" = 1'-0" | ISSUED MAR. 1953 | | |
| DRAWN H. E. E. | TRACED E. E. E. | CHECKED H. E. E. | |
| ISSUE | NATURE OF REVISION | DATE | |
| A | Addendum #1 | 6-53 | |
| B | Water Vault | 7-53 | |
| C | As-Built | 7-55 | |
| CONT. 2 | | | SHEET 5 OF 10 |



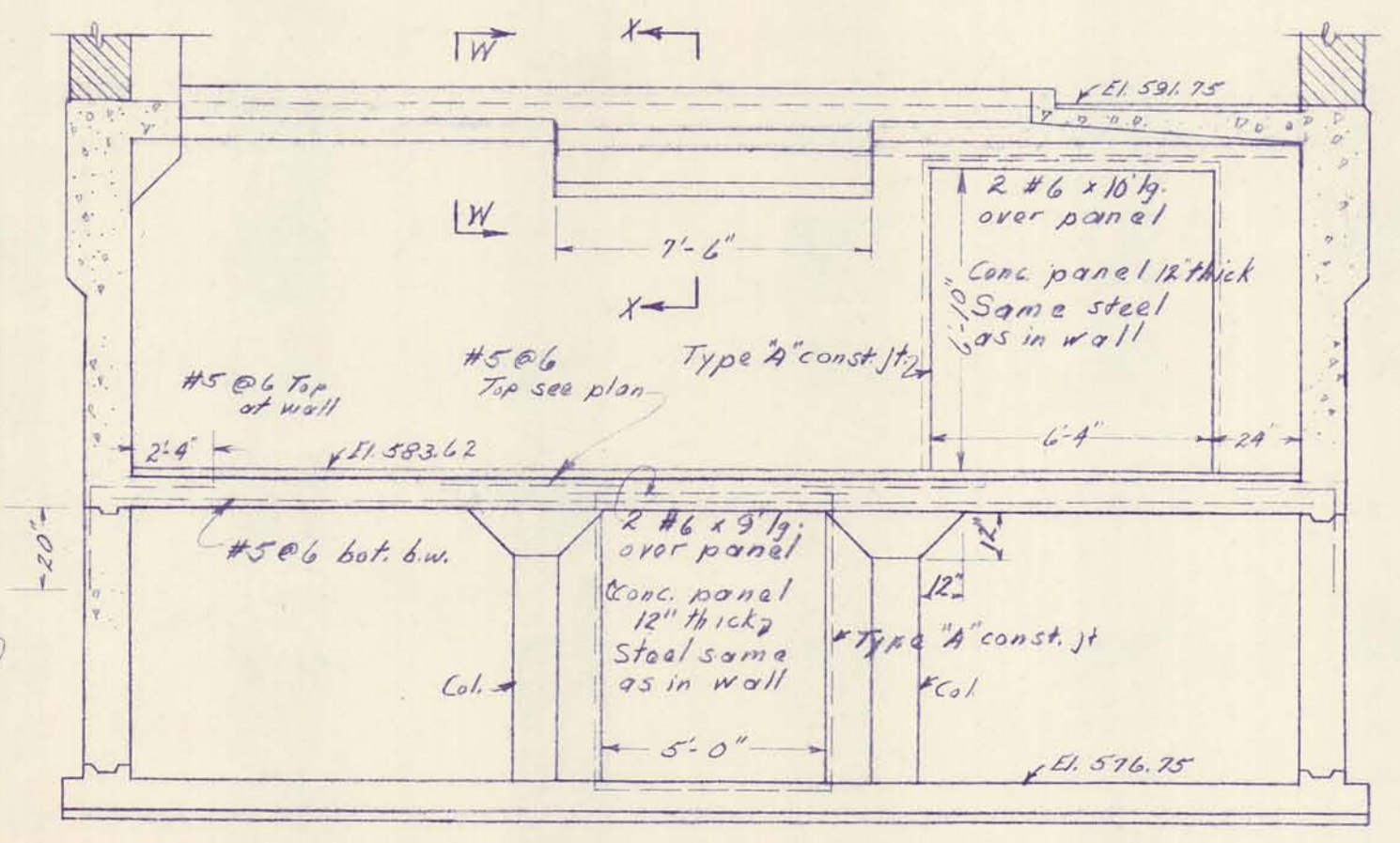
DETAIL OF ACCESS OPENING AND REMOVABLE SLAB
SCALE: 3"=1'-0"



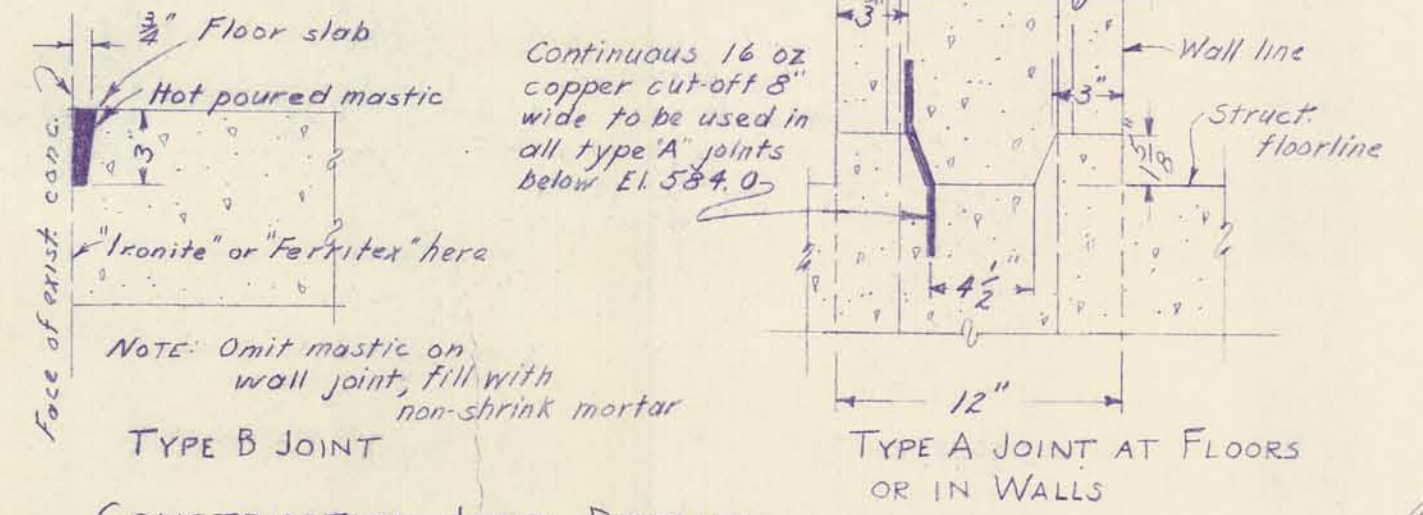
LIFTING HOLE IN REMOVABLE SLAB
SCALE: 3"=1'-0"



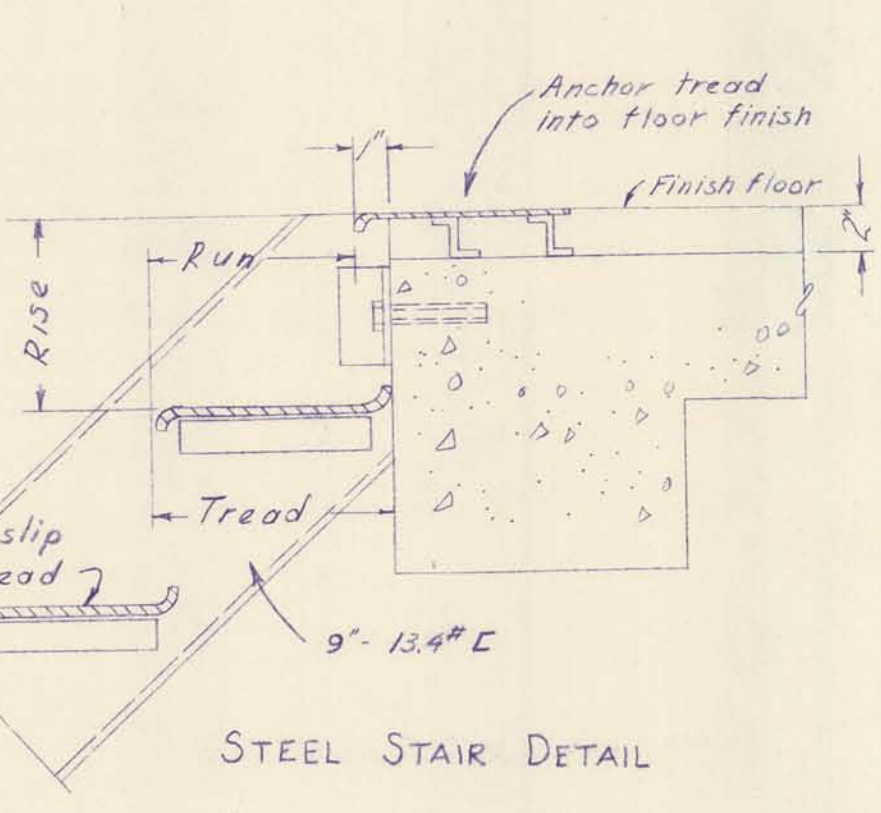
REINFORCING AT OPENINGS IN CONCRETE SLABS
SCALE: 3"=1'-0"



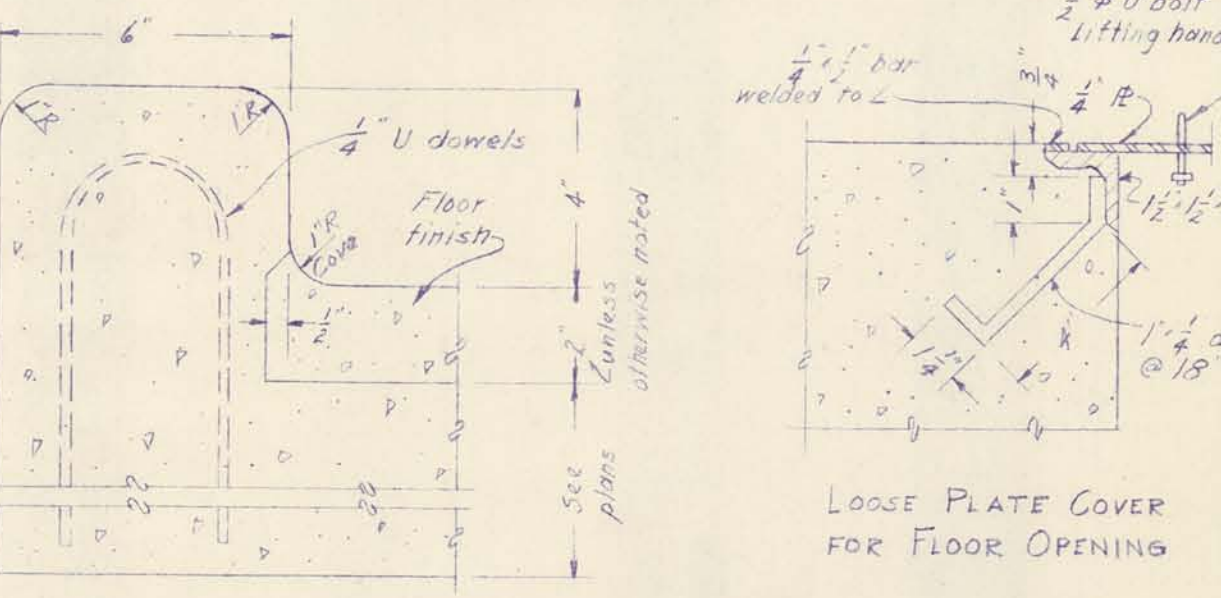
SECT G-G
SCALE: 1/2"=1'-0"



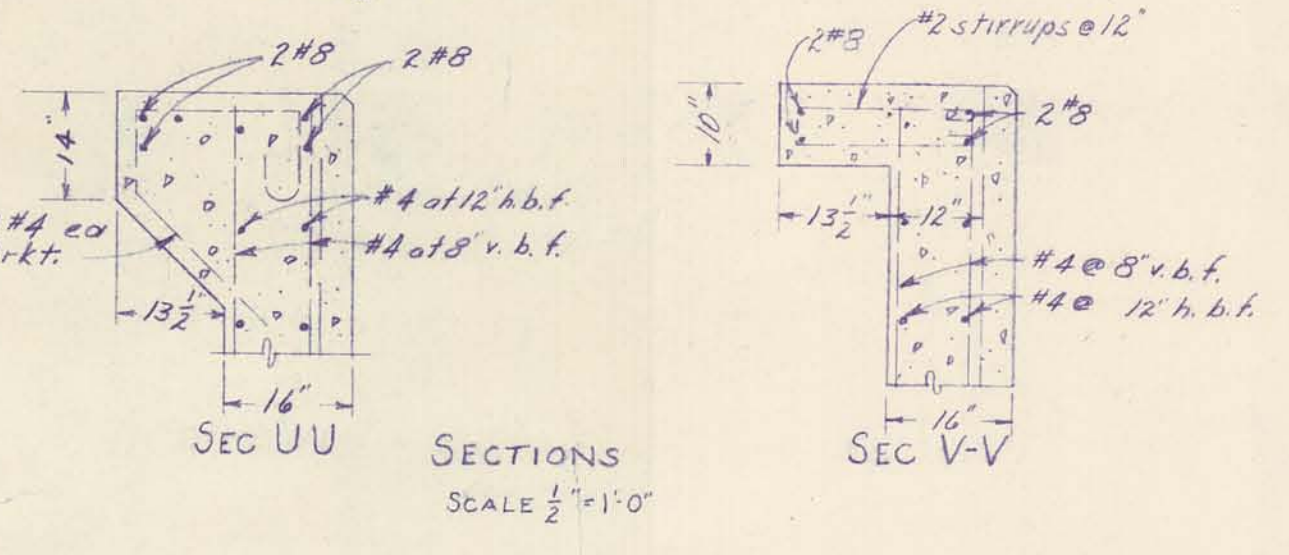
CONSTRUCTION JOINT DETAILS
SCALE: 1/2"=1'-0"



STEEL STAIR DETAIL
SCALE: 3/4"=1'-0"



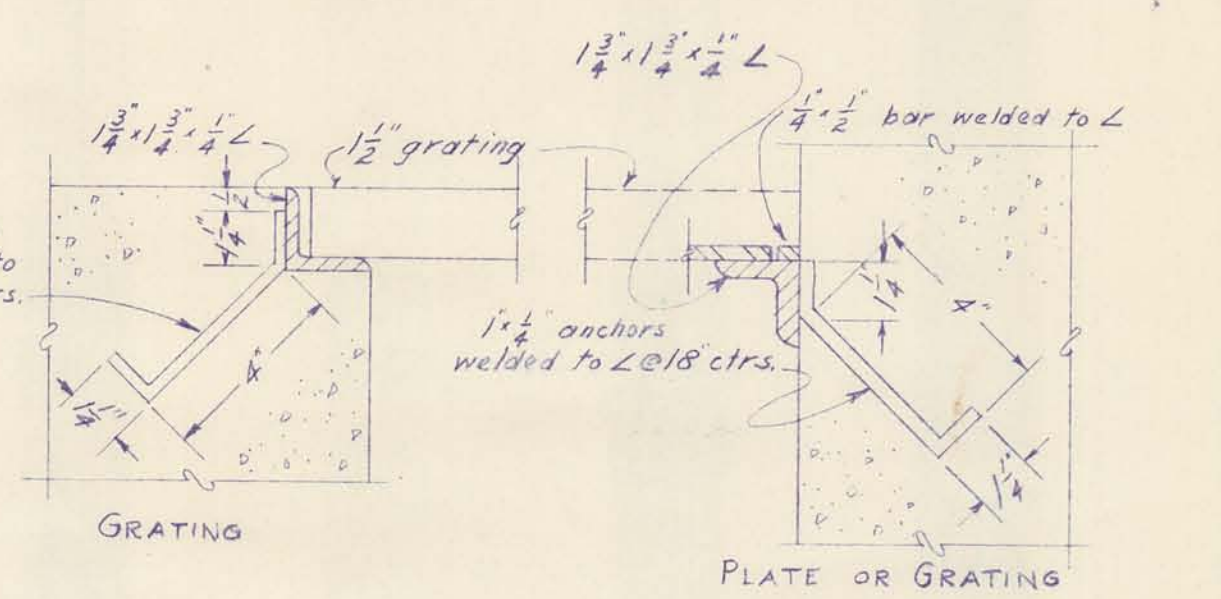
CURB DETAIL
SCALE: 3"=1'-0"



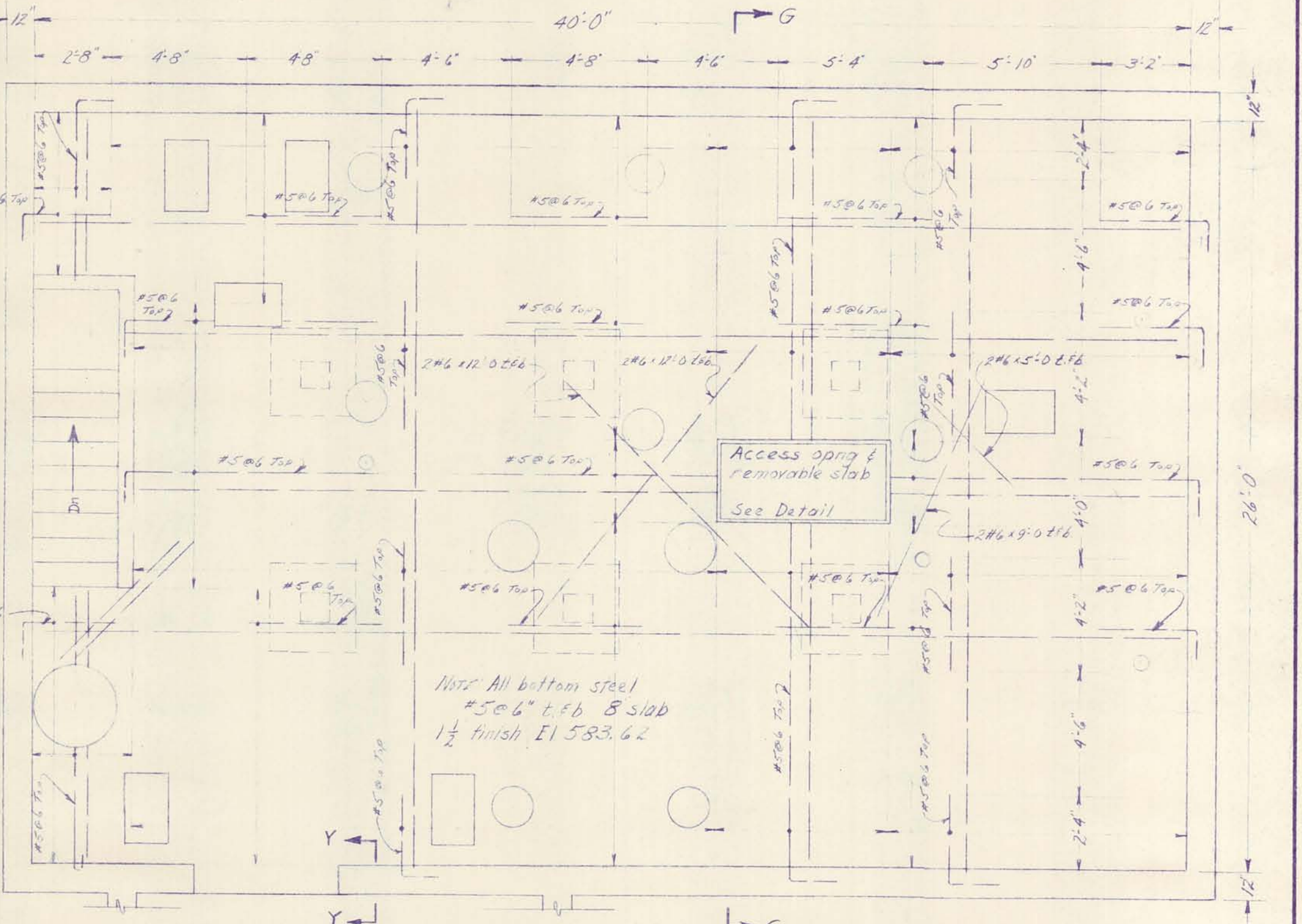
SECTIONS
SCALE: 1/2"=1'-0"



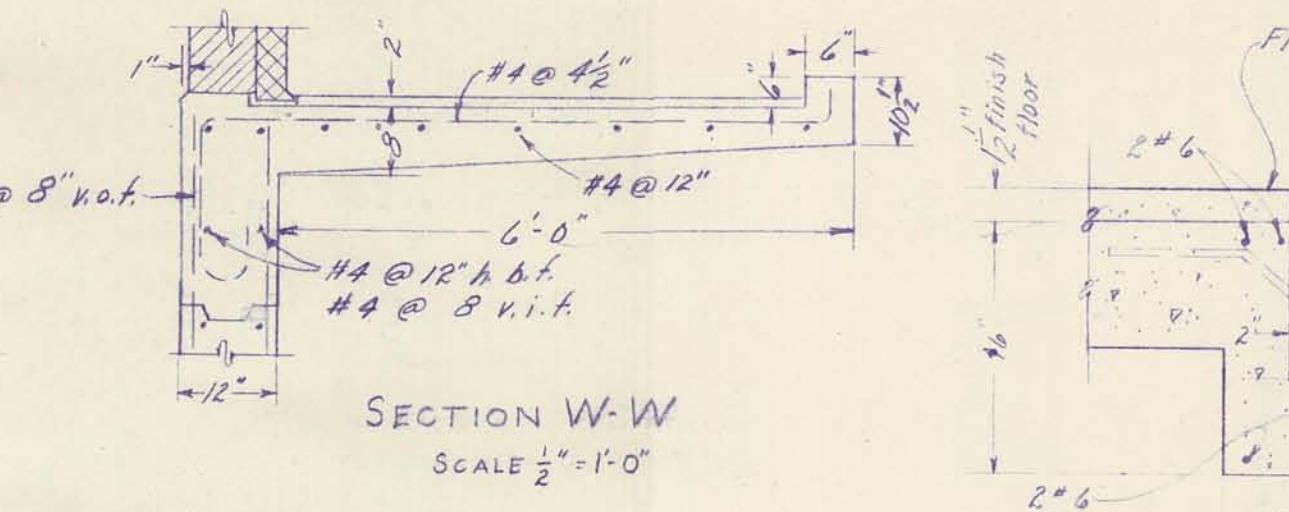
TYPICAL CORNER REINFORCEMENT
SCALE: 1/4"=1'-0"



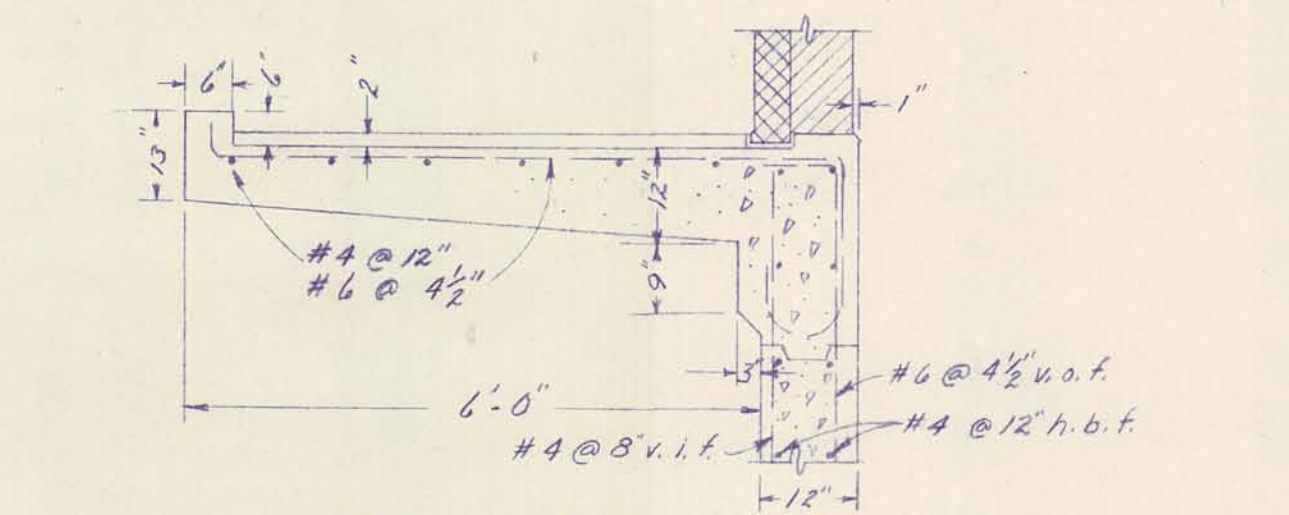
FRAMES AND COVERS FOR FLOOR OPENINGS
SCALE: 3"=1'-0"



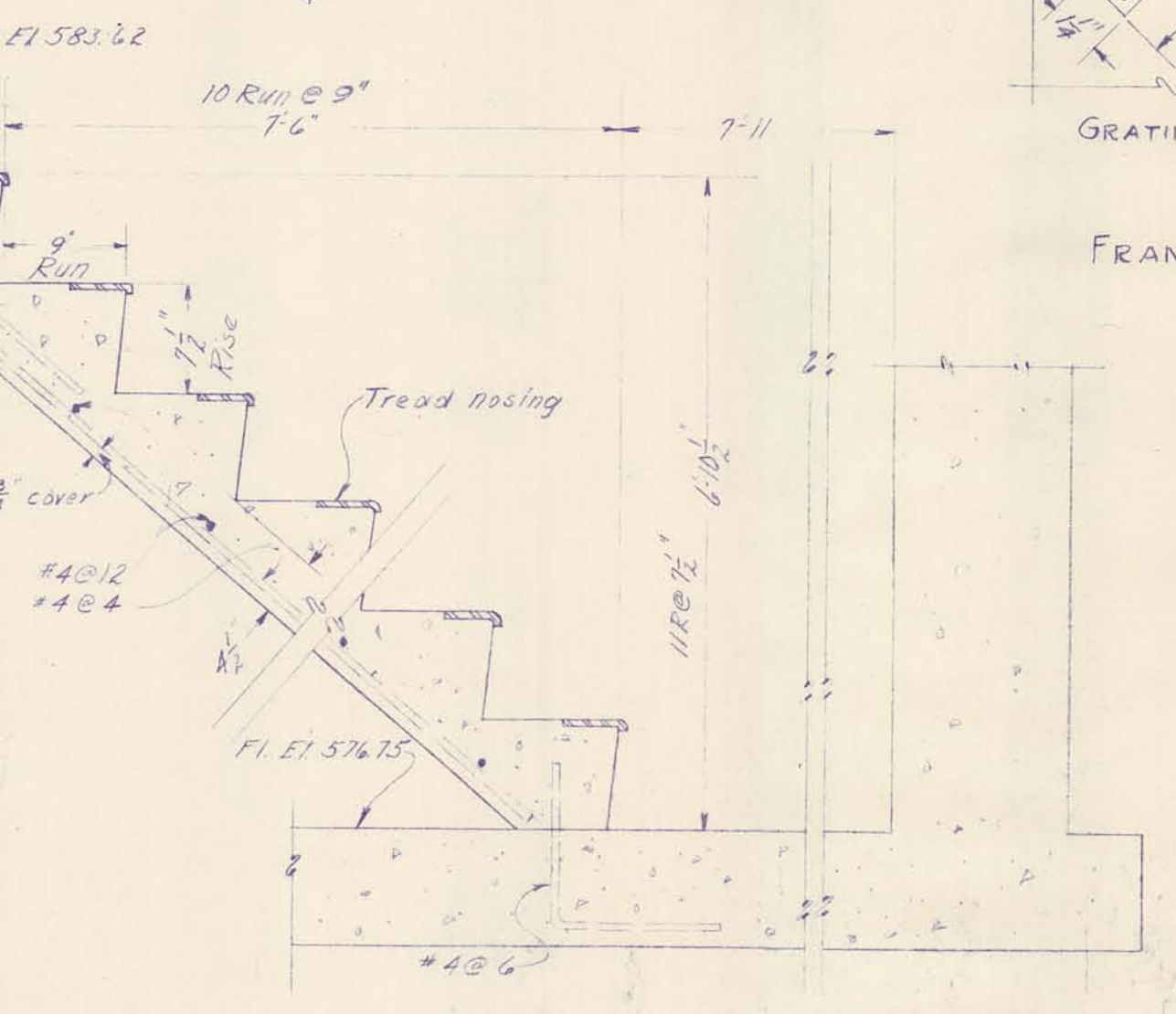
PLAN OF PUMP FLOOR
SCALE: 1/4"=1'-0"



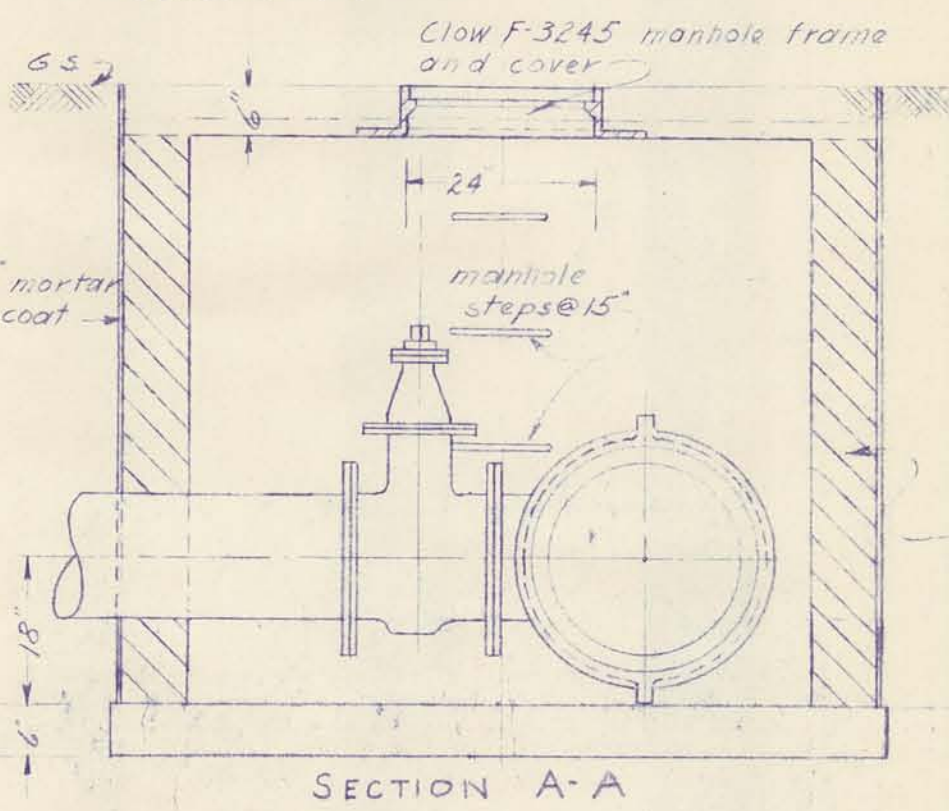
SECTION W-W
SCALE: 1/2"=1'-0"



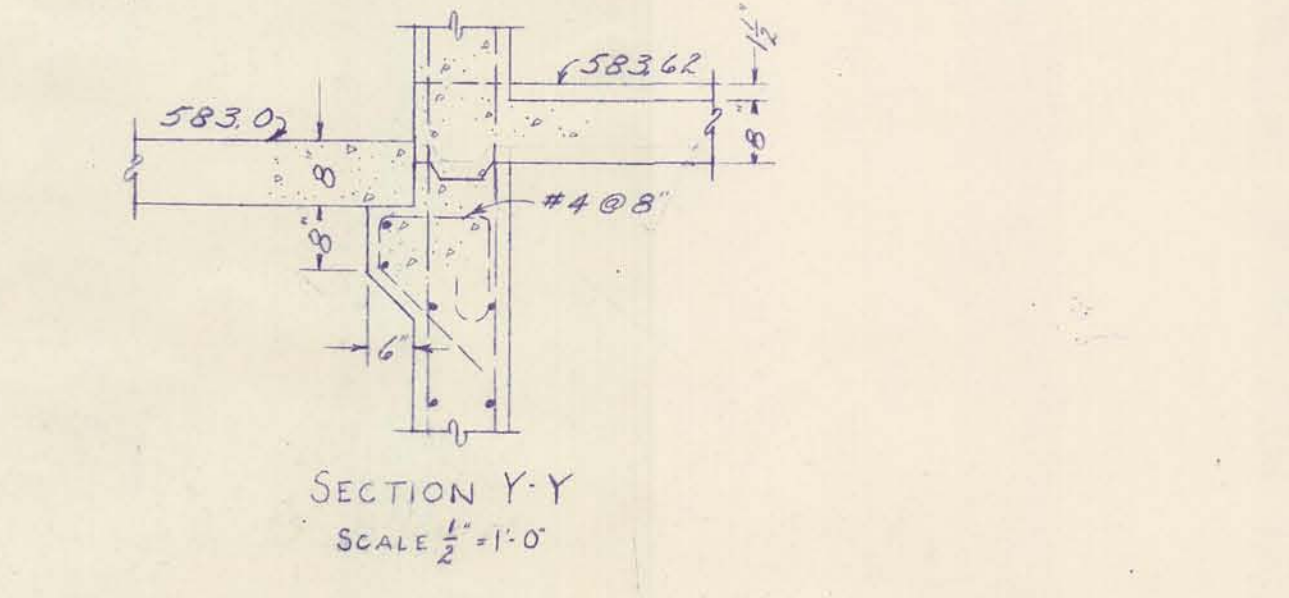
SECTION X-X
SCALE: 1/2"=1'-0"



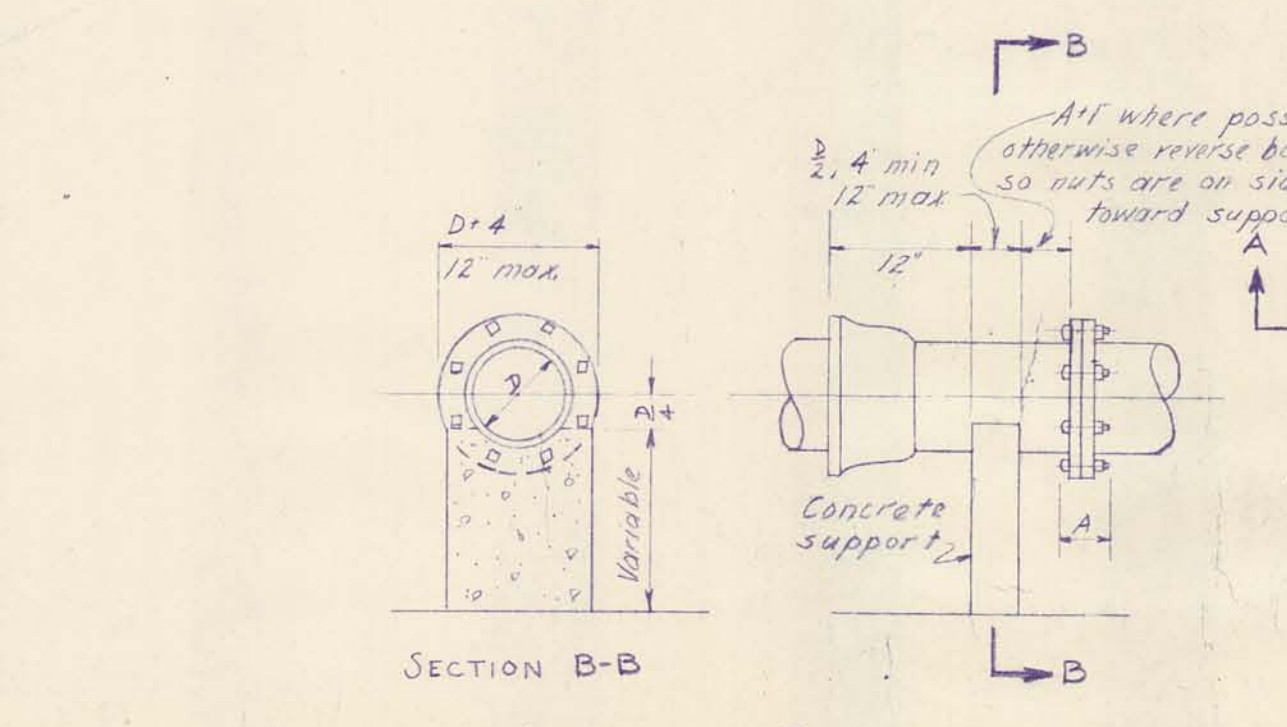
CONCRETE STAIR DETAIL
SCALE: 1"=1'-0"



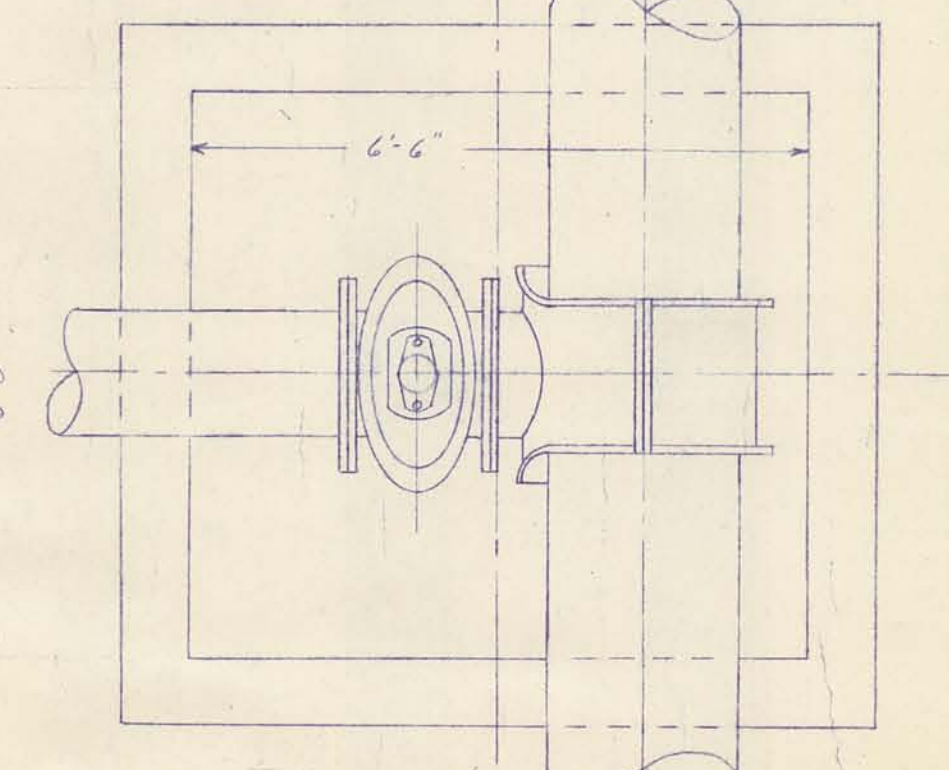
SECTION A-A
SCALE: 3/4"=1'-0"



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



CONCRETE PIPE SUPPORT
SCALE: 3/4"=1'-0"



DETAIL OF WATER VALVE MANHOLE (2 REQ'D)
SCALE: 3/4"=1'-0"

| | | | | | |
|--|--------------------|----------------|------|--|----------------|
| DRURY, MCNAMEE AND PORTER CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | | | CITY OF ALPENA, MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION | |
| SCALE AS NOTED | ISSUED MAR 1953 | CHECKED H.V.V. | | STRUCTURAL SECTIONS AND DETAILS | |
| DRAWN H.F.F. | TRACED S.W.L. | DATE | 7-55 | CONTRACT | |
| ISSUE | NATURE OF REVISION | | | 2 | SHEET OF 10 |

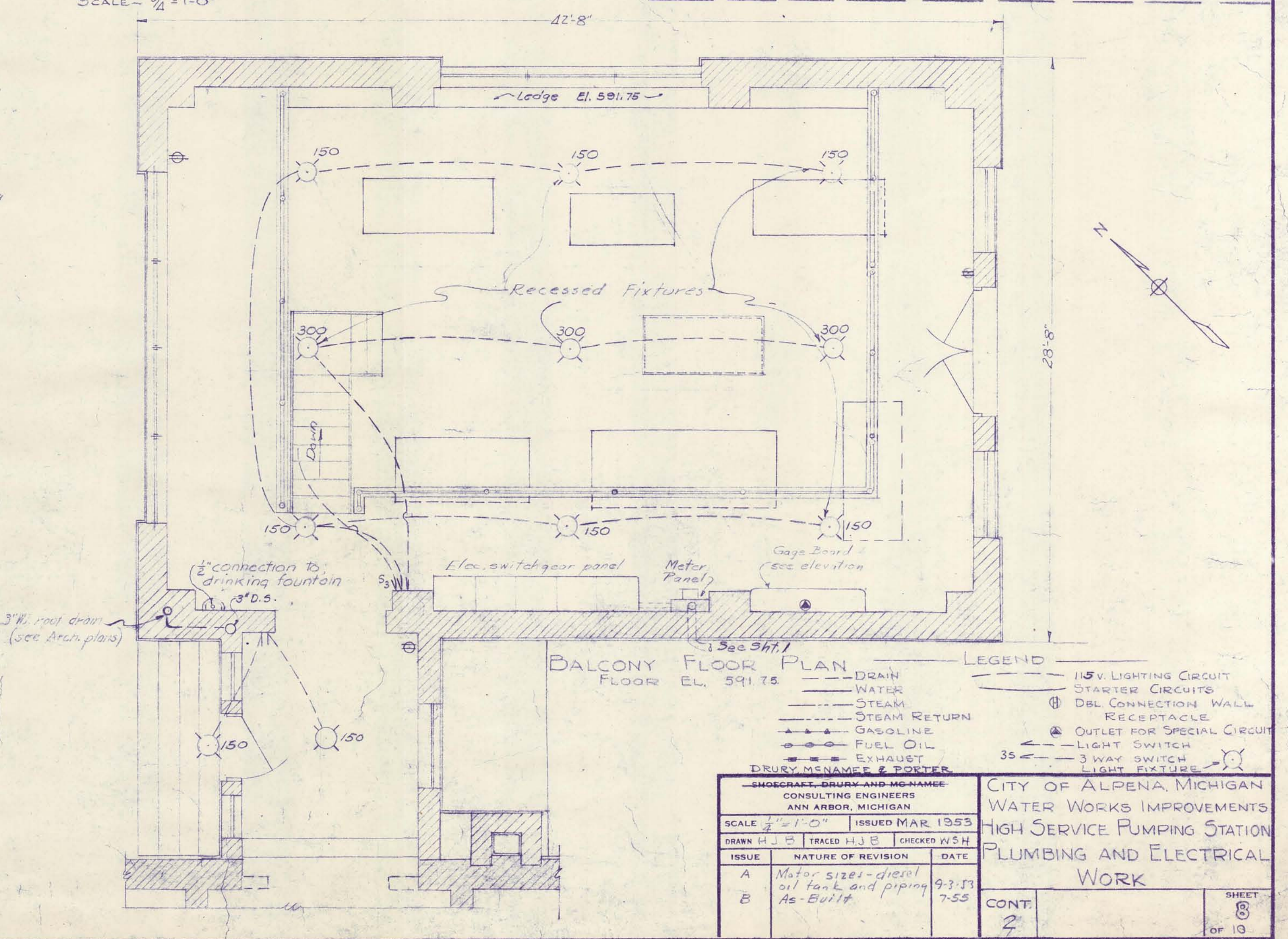
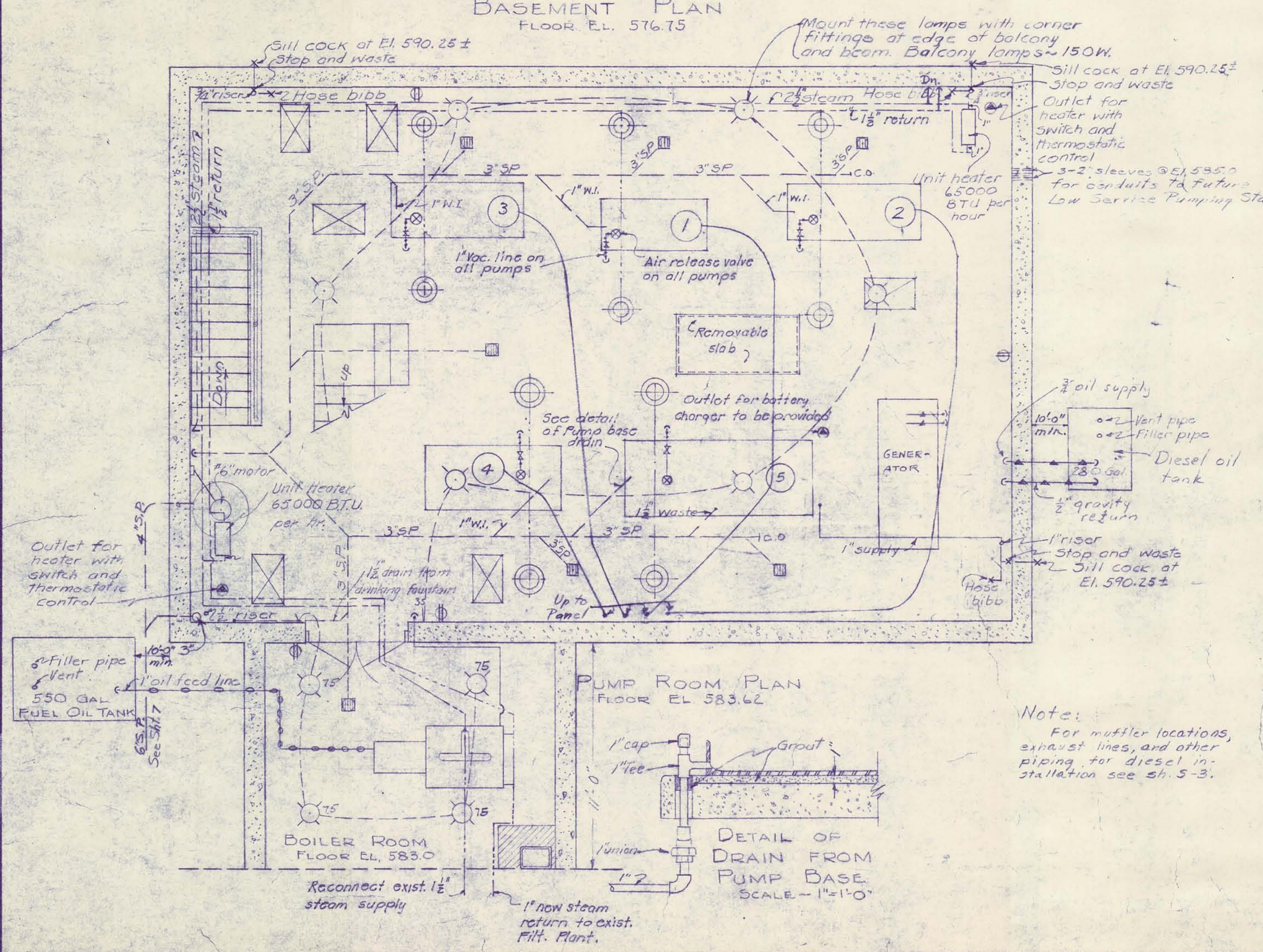
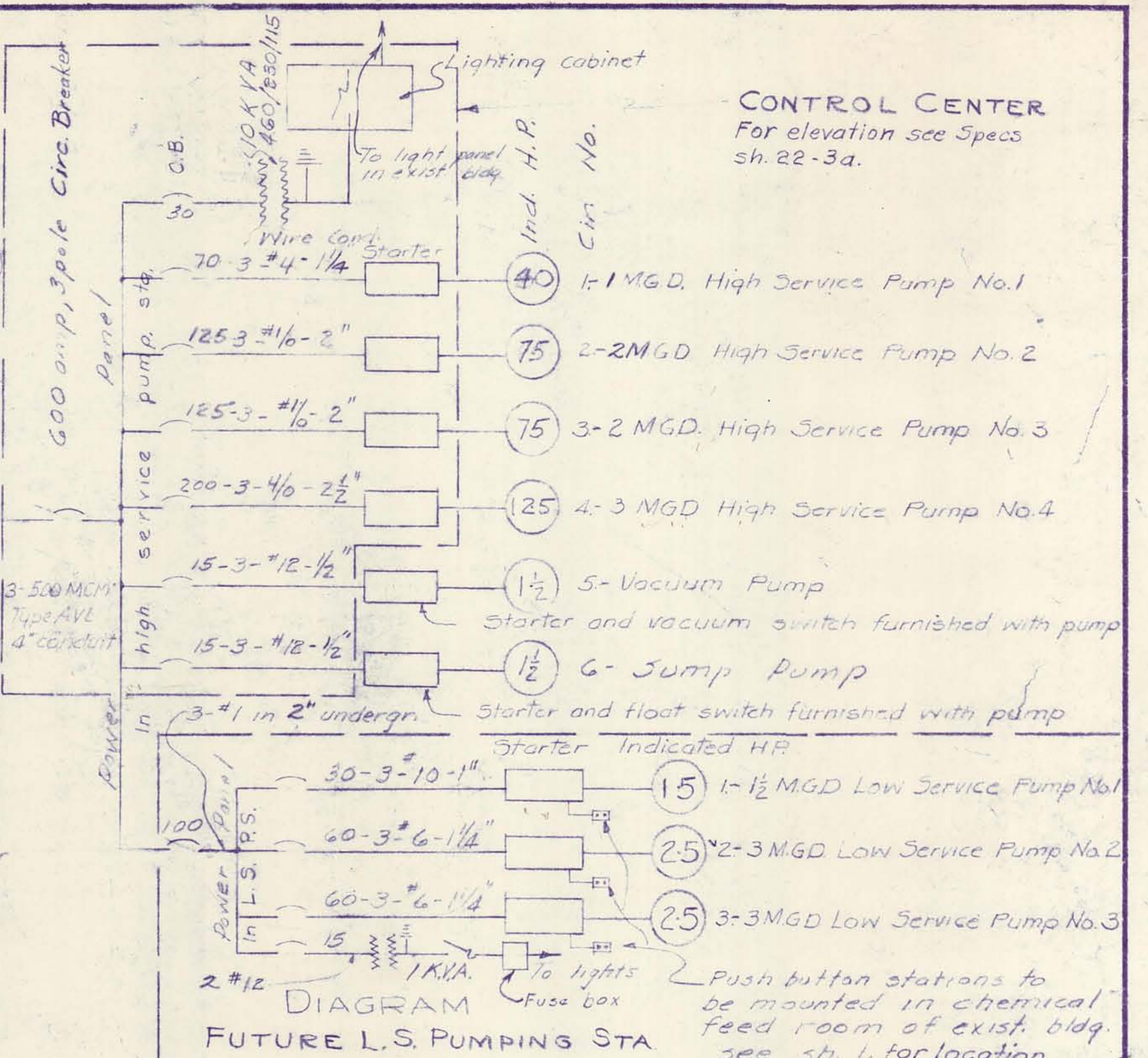
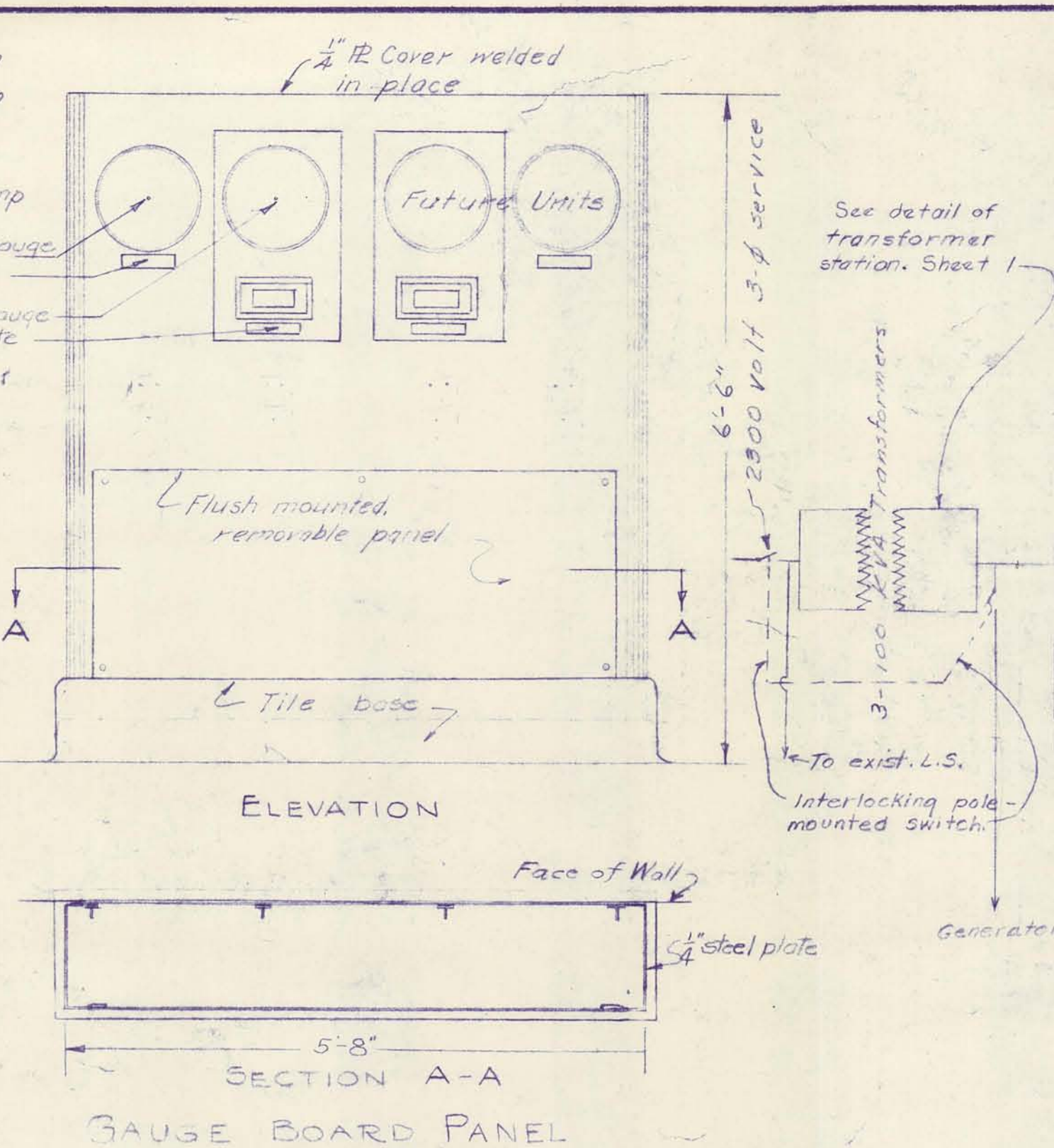
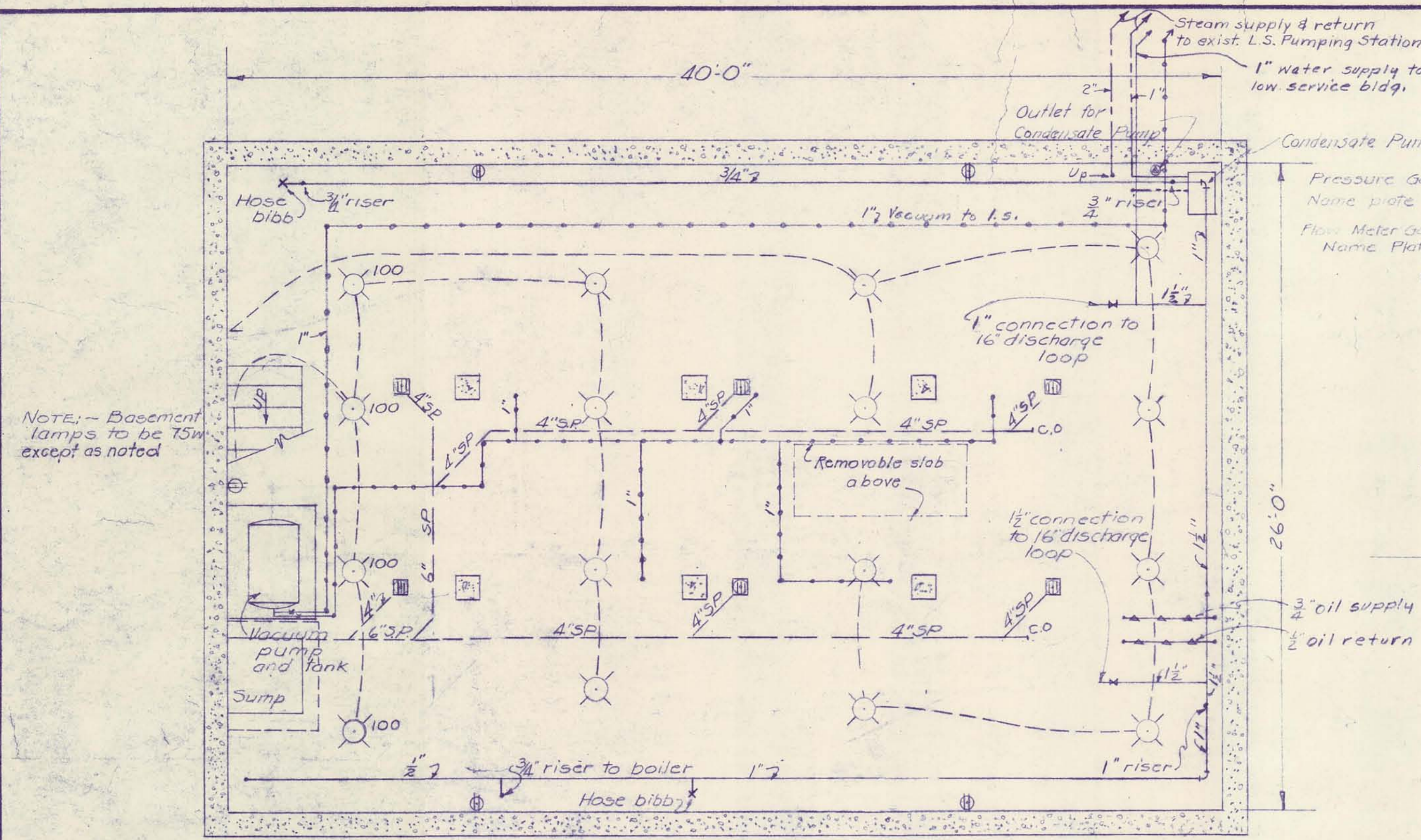
Water Works Improvements
High Service Pumping Station
Structural Sections & Details

SACCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

SACCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

SACCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552

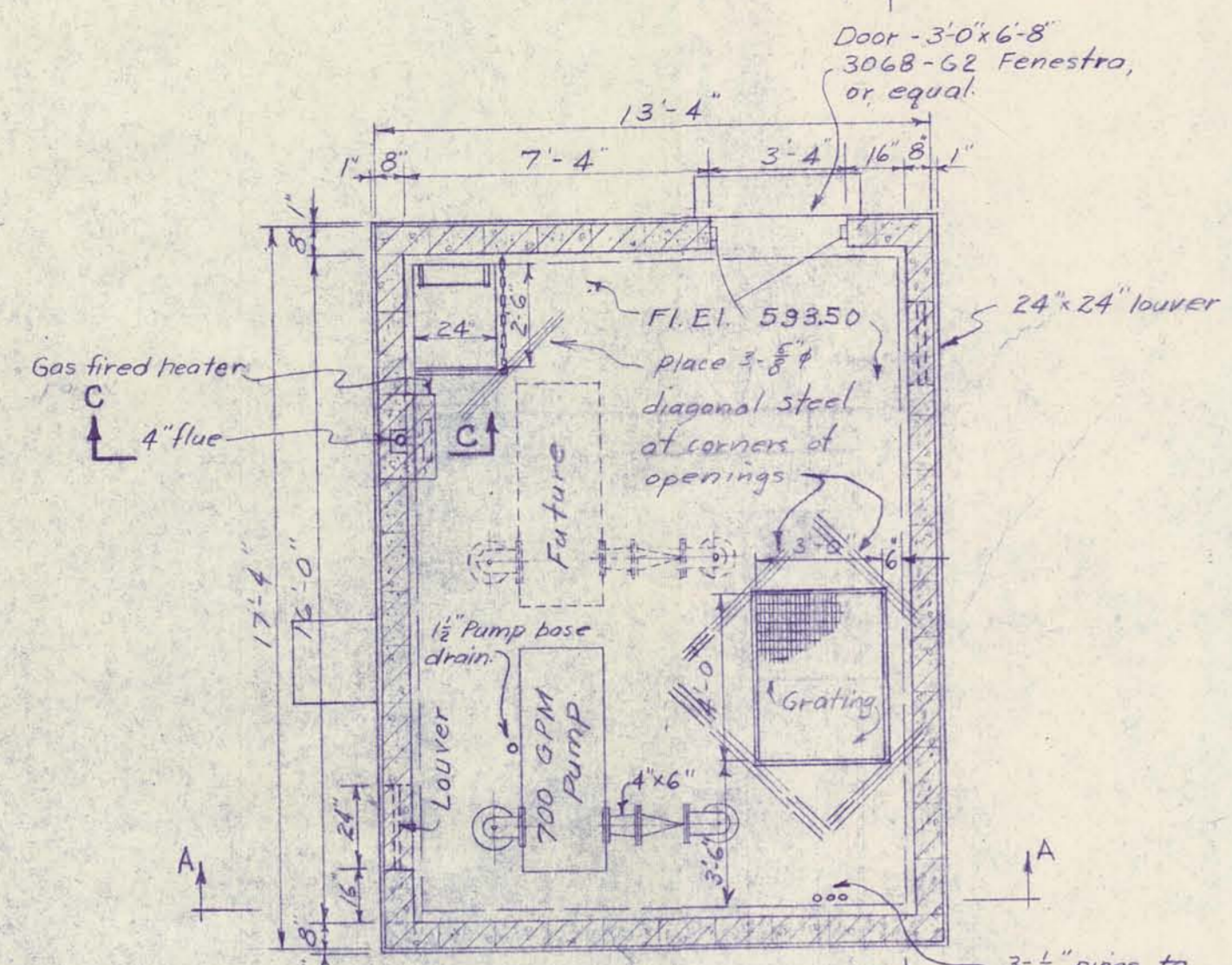
SACCO PRODUCTS • NEW HOPE, MINNESOTA
REORDER BY PART NUMBER 6552



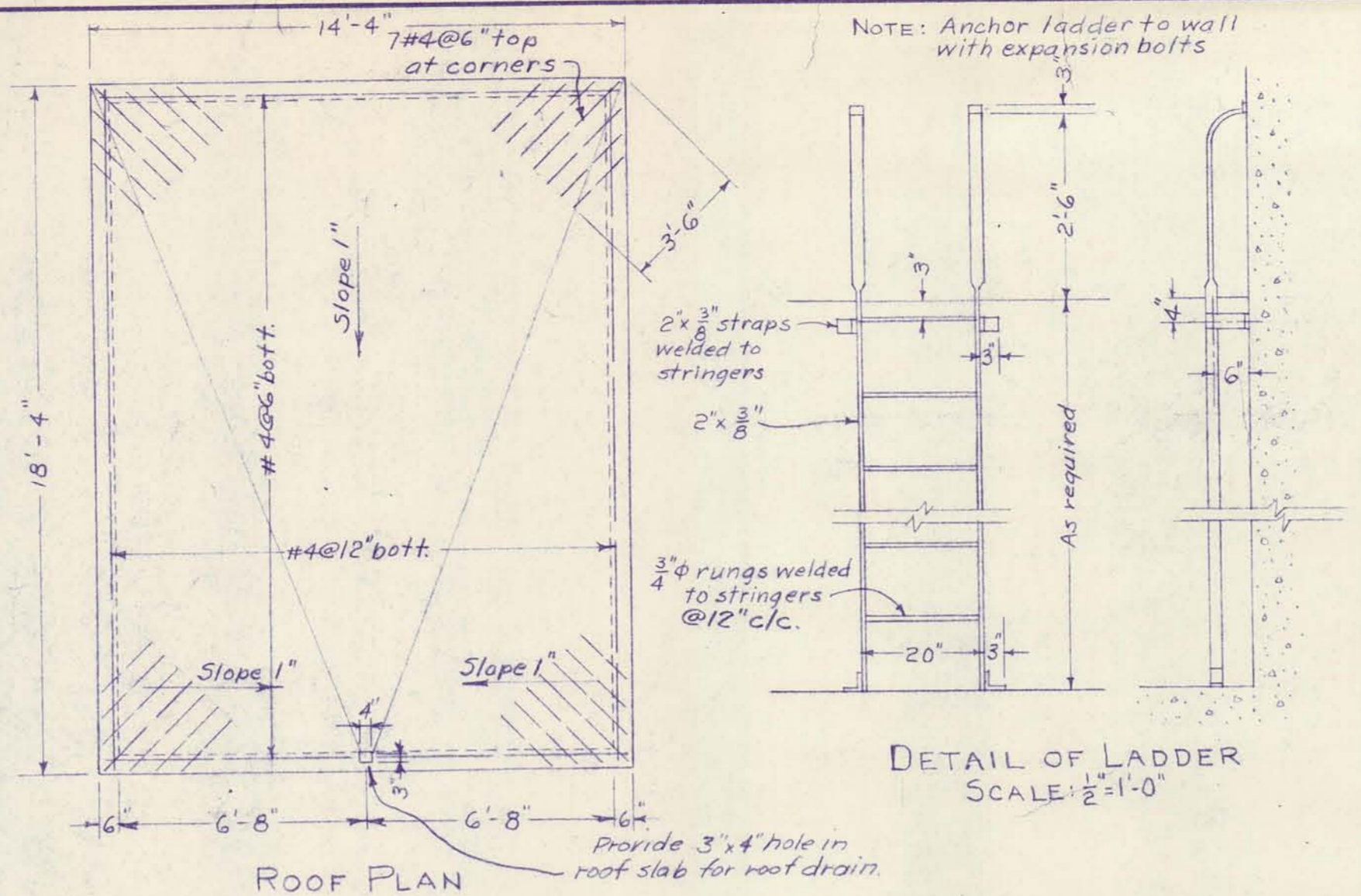
| | | | |
|--|--|---|--|
| DRURY, McNAMEE & PORTER ENGINEERS-ARCHITECTS-PLUMBERS CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | CITY OF ALPENA, MICHIGAN WATER WORKS IMPROVEMENTS HIGH SERVICE PUMPING STATION PLUMBING AND ELECTRICAL WORK | |
| SCALE 1/2" = 1'-0" | ISSUED MAR 1953 | | |
| DRAWN HJB | TRACED HJB | CHECKED WSH | |
| ISSUE | NATURE OF REVISION | DATE | |
| A | Motor sizes - diesel oil tank and piping | 9-3-53 | |
| B | As-Built | 7-55 | |
| CONT. 2 | | SHEET 8 OF 10 | |

SAFCO PRODUCTS • NEW HIRE, MINNESOTA
 REORDER BY PART NUMBER 6532
 SAFCO PRODUCTS • NEW HIRE, MINNESOTA
 REORDER BY PART NUMBER 6532
 SAFCO PRODUCTS • NEW HIRE, MINNESOTA
 REORDER BY PART NUMBER 6532
 SAFCO PRODUCTS • NEW HIRE, MINNESOTA
 REORDER BY PART NUMBER 6532

Note: Floors to have monolithic finish.



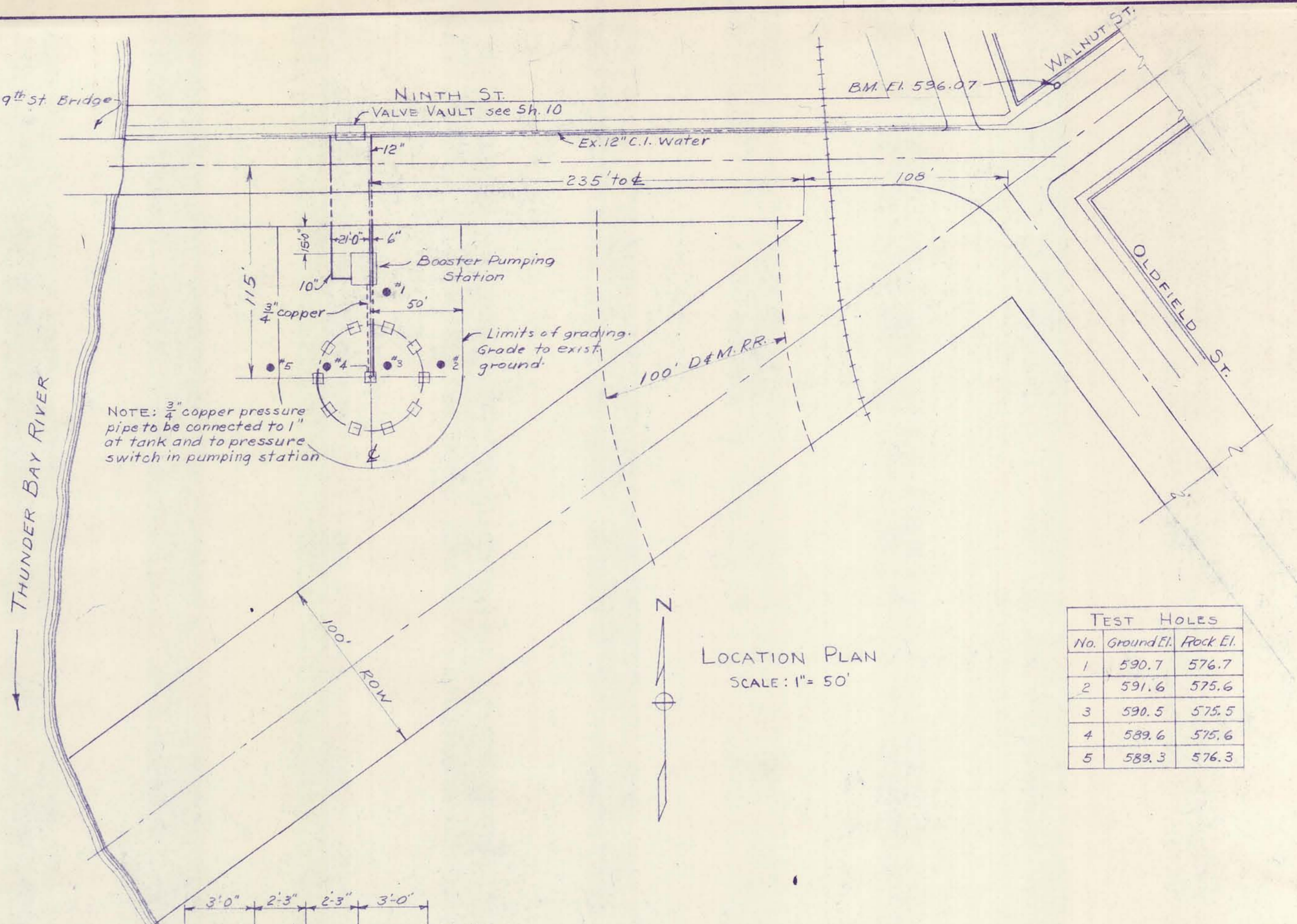
PLAN FIRST FLOOR



ROOF PLAN

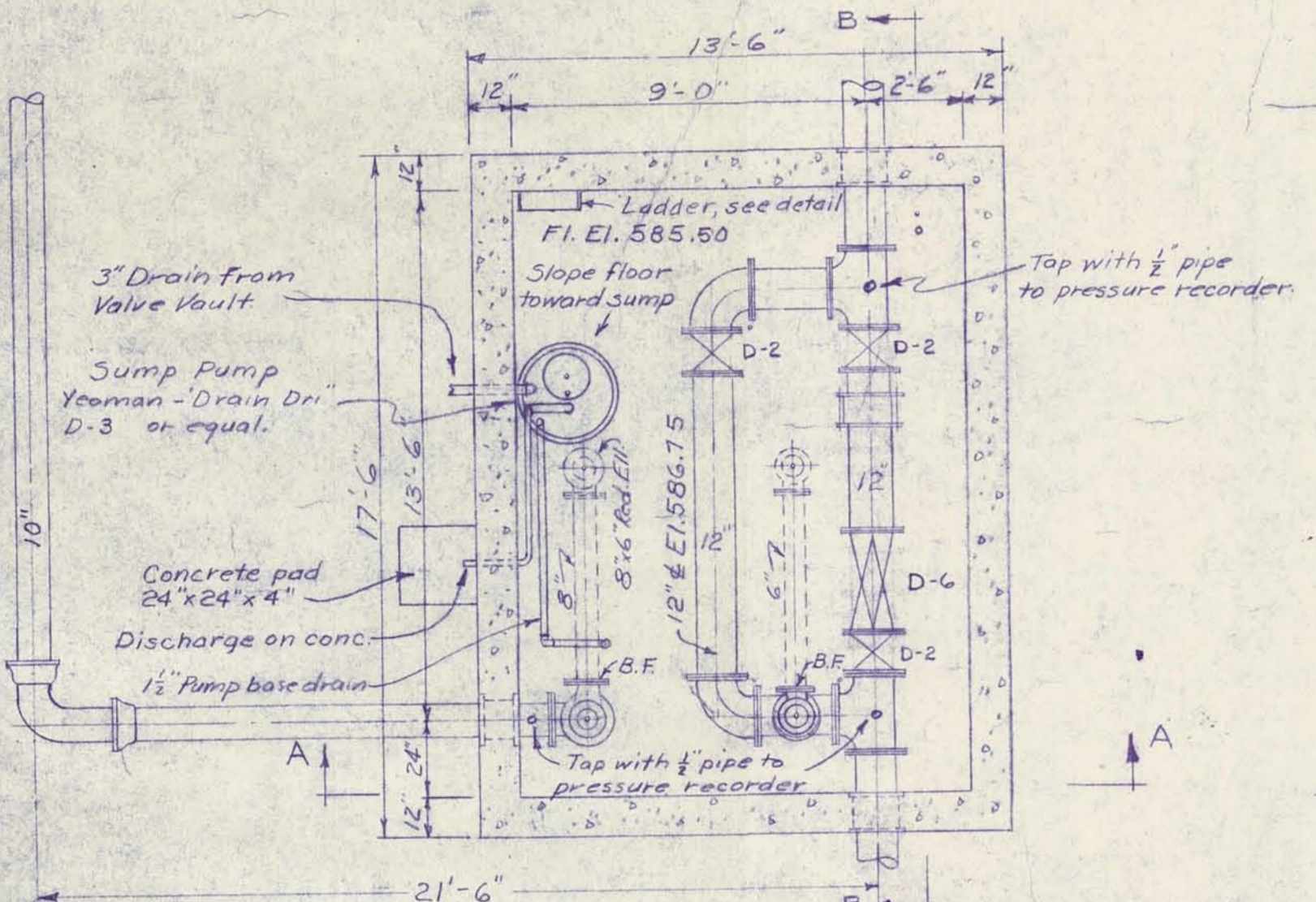
NOTE: Anchor ladder to wall with expansion bolts

DETAIL OF LADDER SCALE: 1/2" = 1'-0"



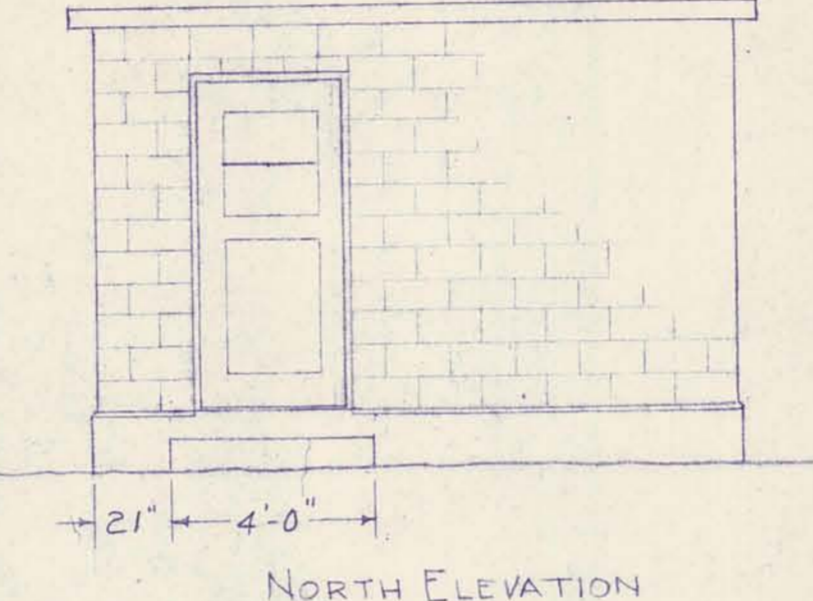
LOCATION PLAN SCALE: 1" = 50'

| TEST HOLES | | |
|------------|------------|----------|
| No. | Ground El. | Rock El. |
| 1 | 590.7 | 576.7 |
| 2 | 591.6 | 575.6 |
| 3 | 590.5 | 575.5 |
| 4 | 589.6 | 575.6 |
| 5 | 589.3 | 576.3 |

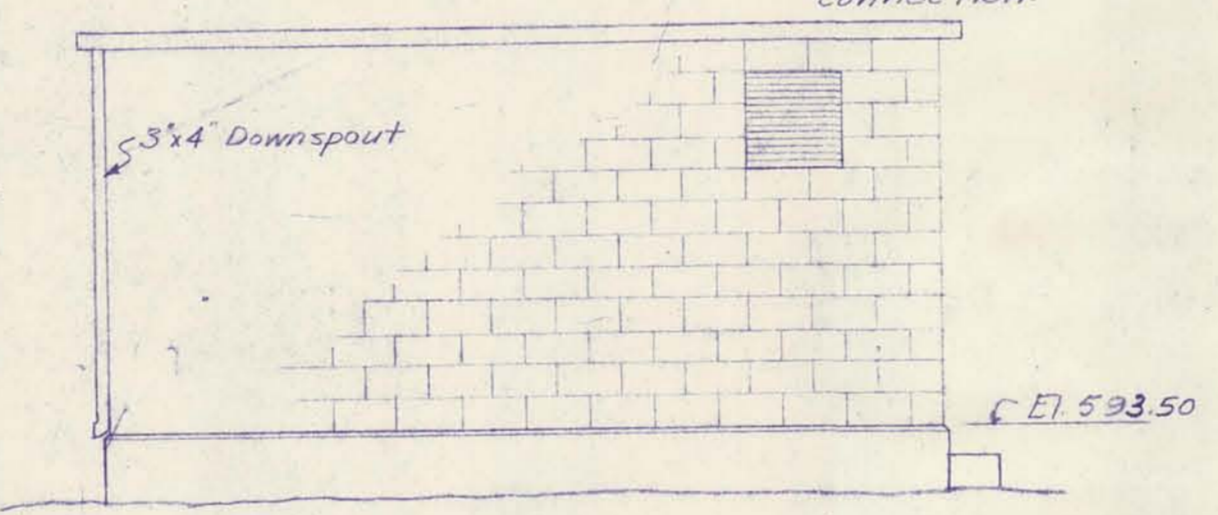


PLAN BASEMENT

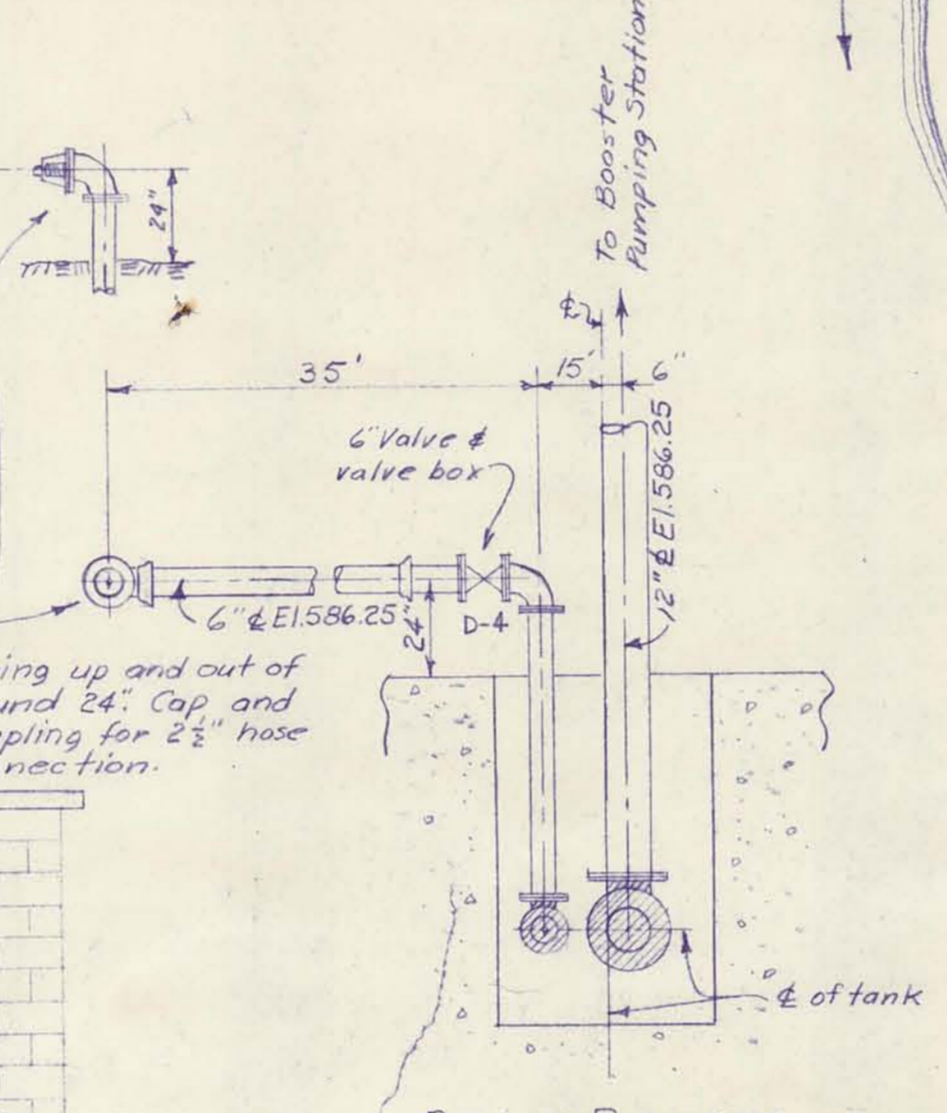
NOTE: Pipe shown dotted indicates future installation



NORTH ELEVATION

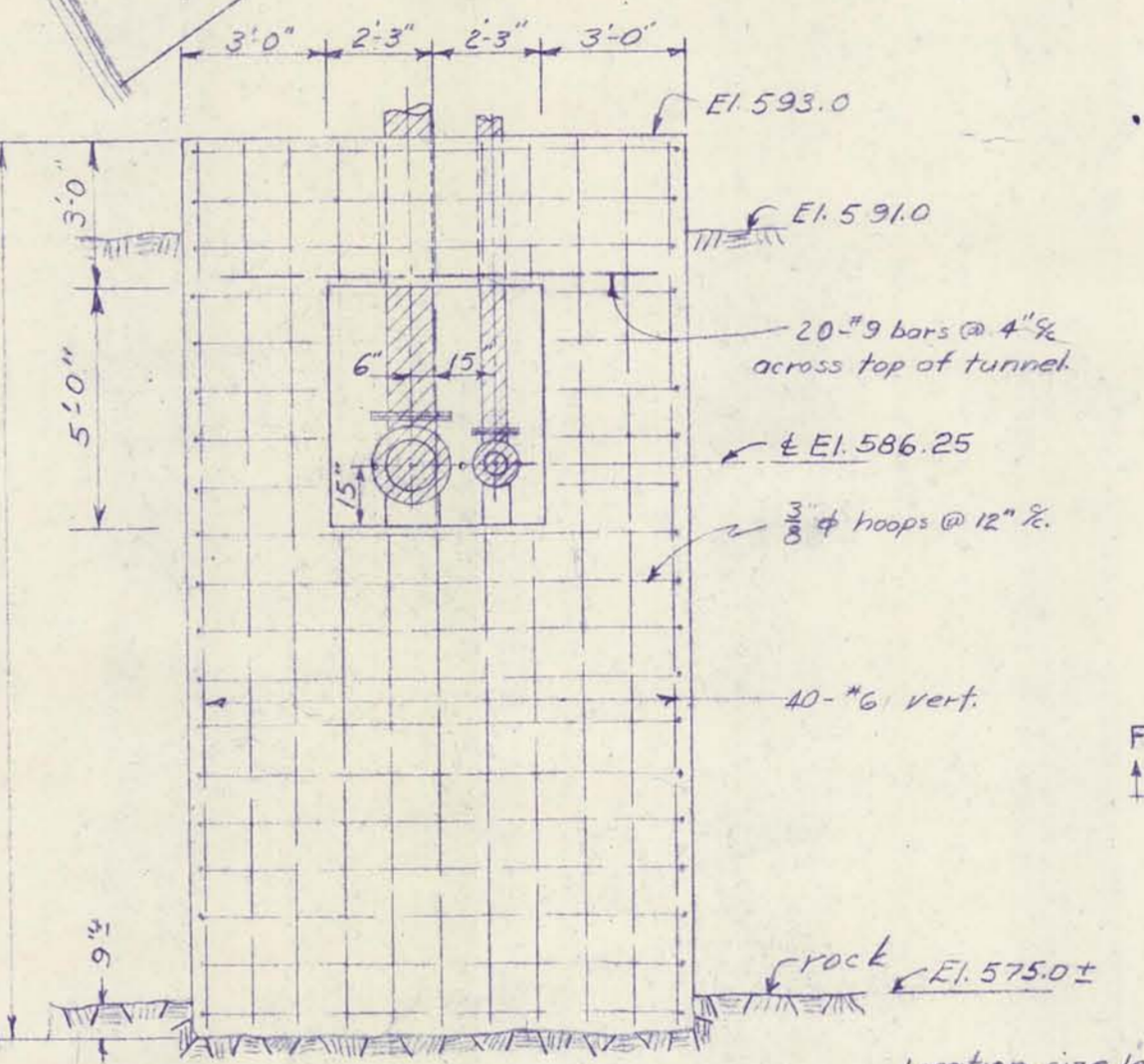


EAST ELEVATION



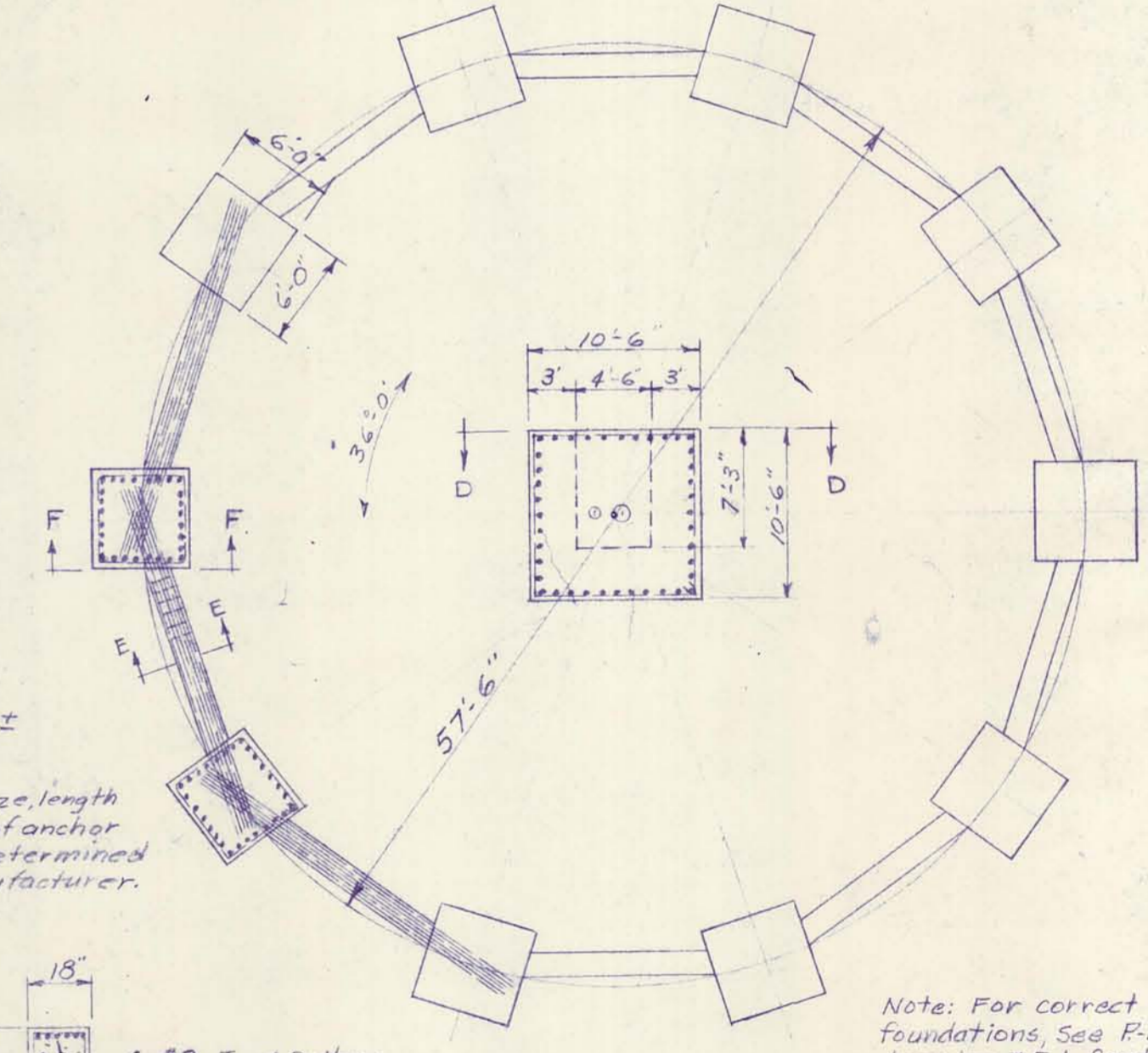
PLAN OF PIPING IN CENTER PIER

Note: Cross hatched piping furnished with tank



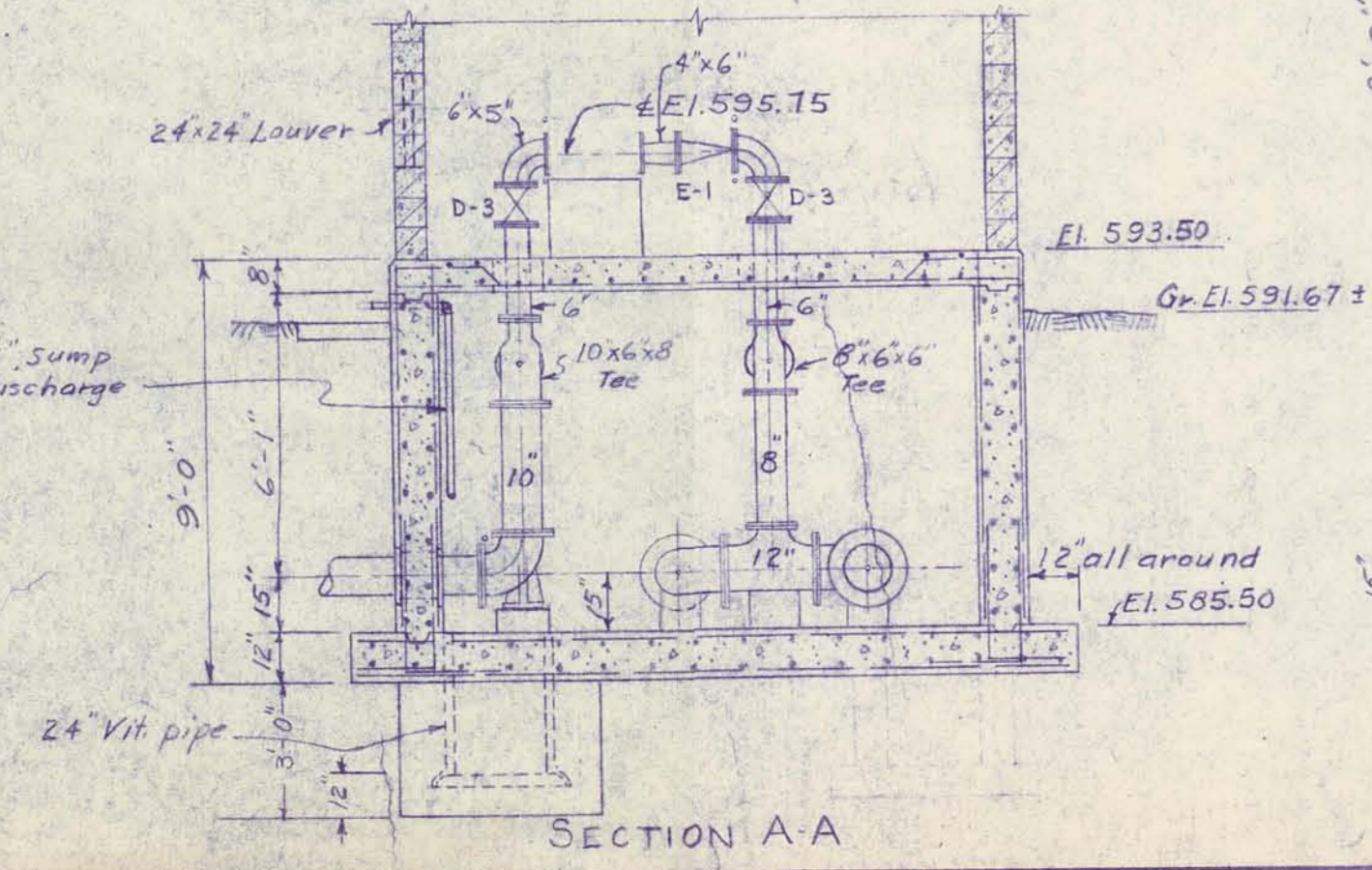
SECTION D-D

Location, size, length and number of anchor bolts to be determined by Tank Manufacturer.

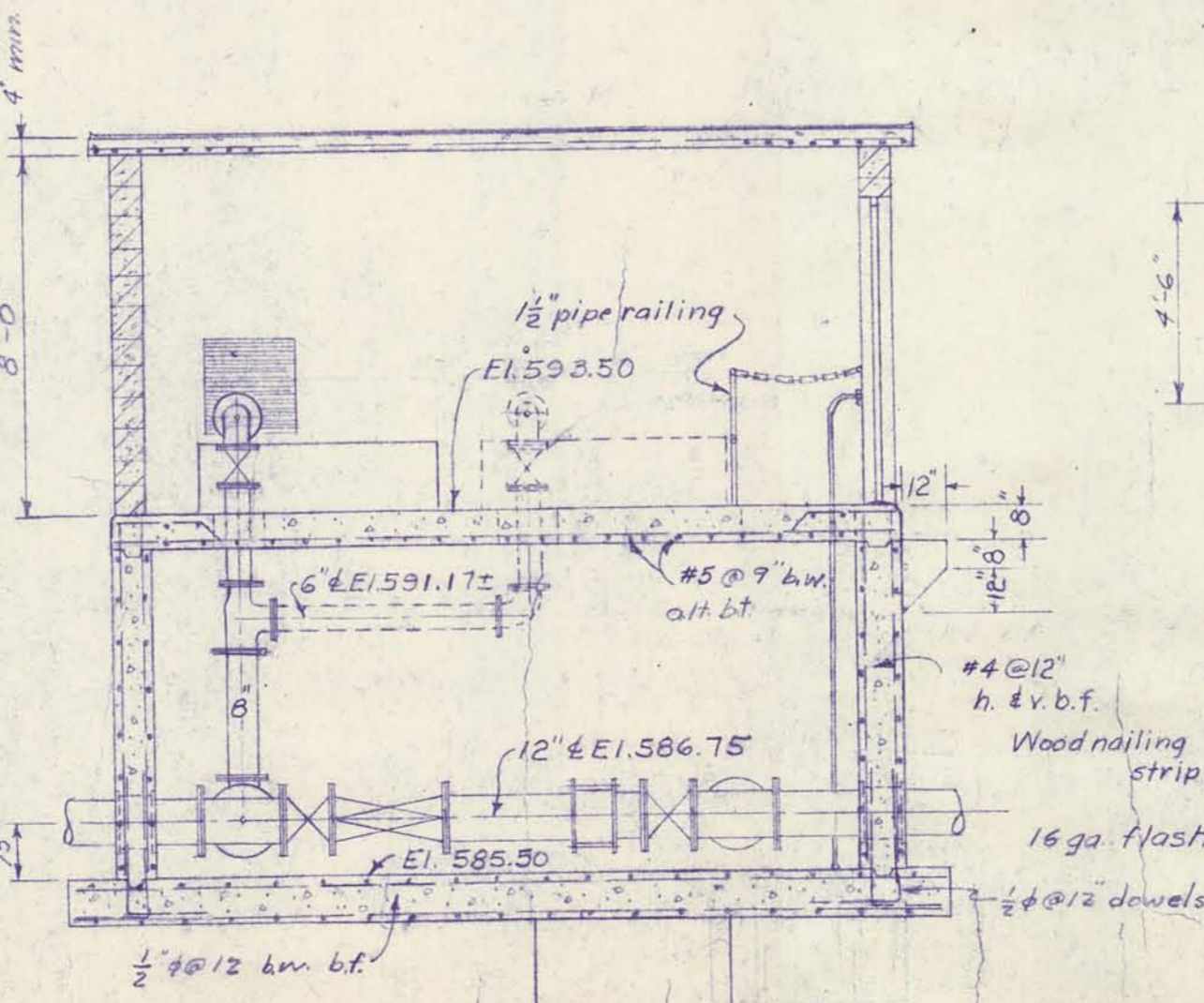


FOUNDATION PLAN ELEVATED STORAGE TANK SCALE: 1" = 10'

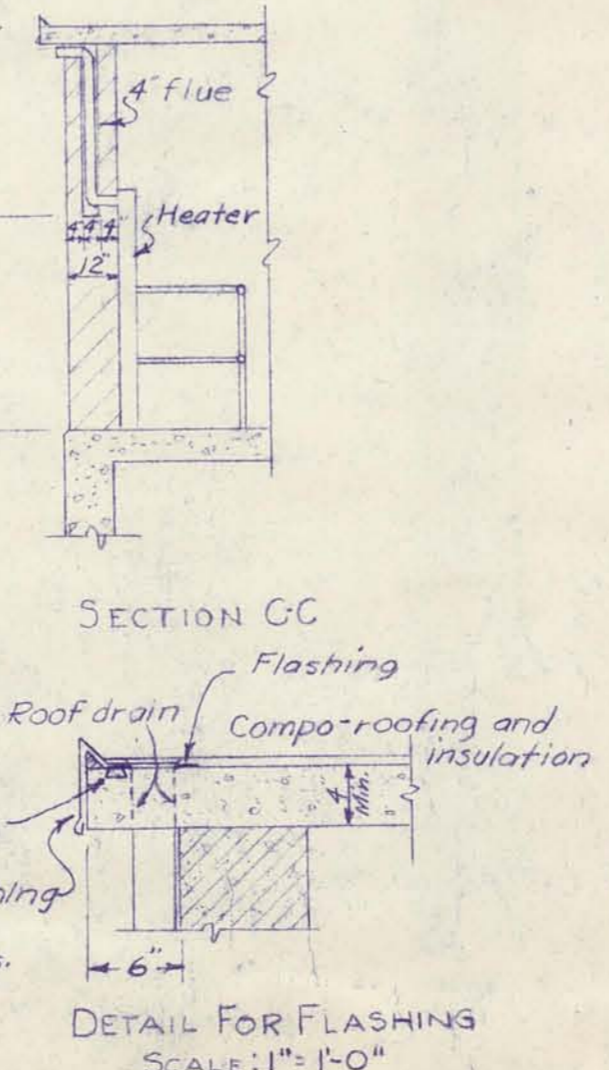
Note: For correct tank foundations, see F.D.M. Co. drawing #E-1 Contract N 656-53. (Only 3 piers used.)



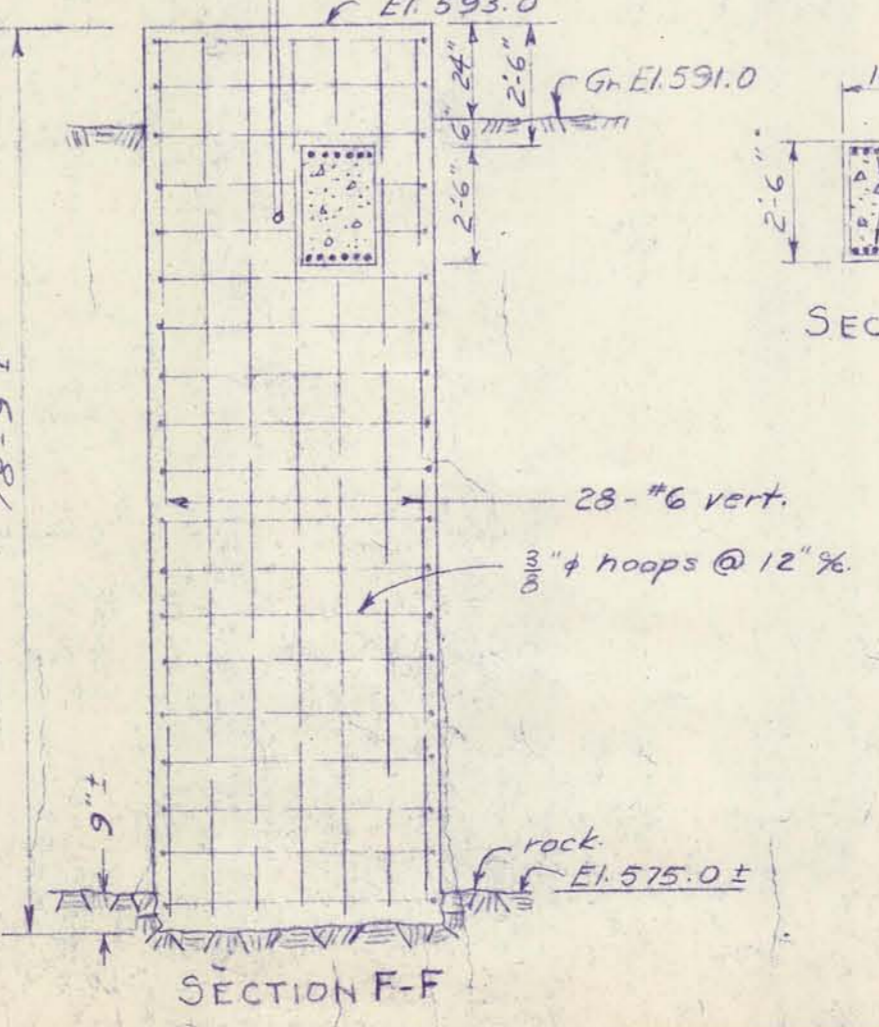
SECTION A-A



SECTION B-B



DETAIL FOR FLASHING SCALE: 1" = 1'-0"



SECTION F-F

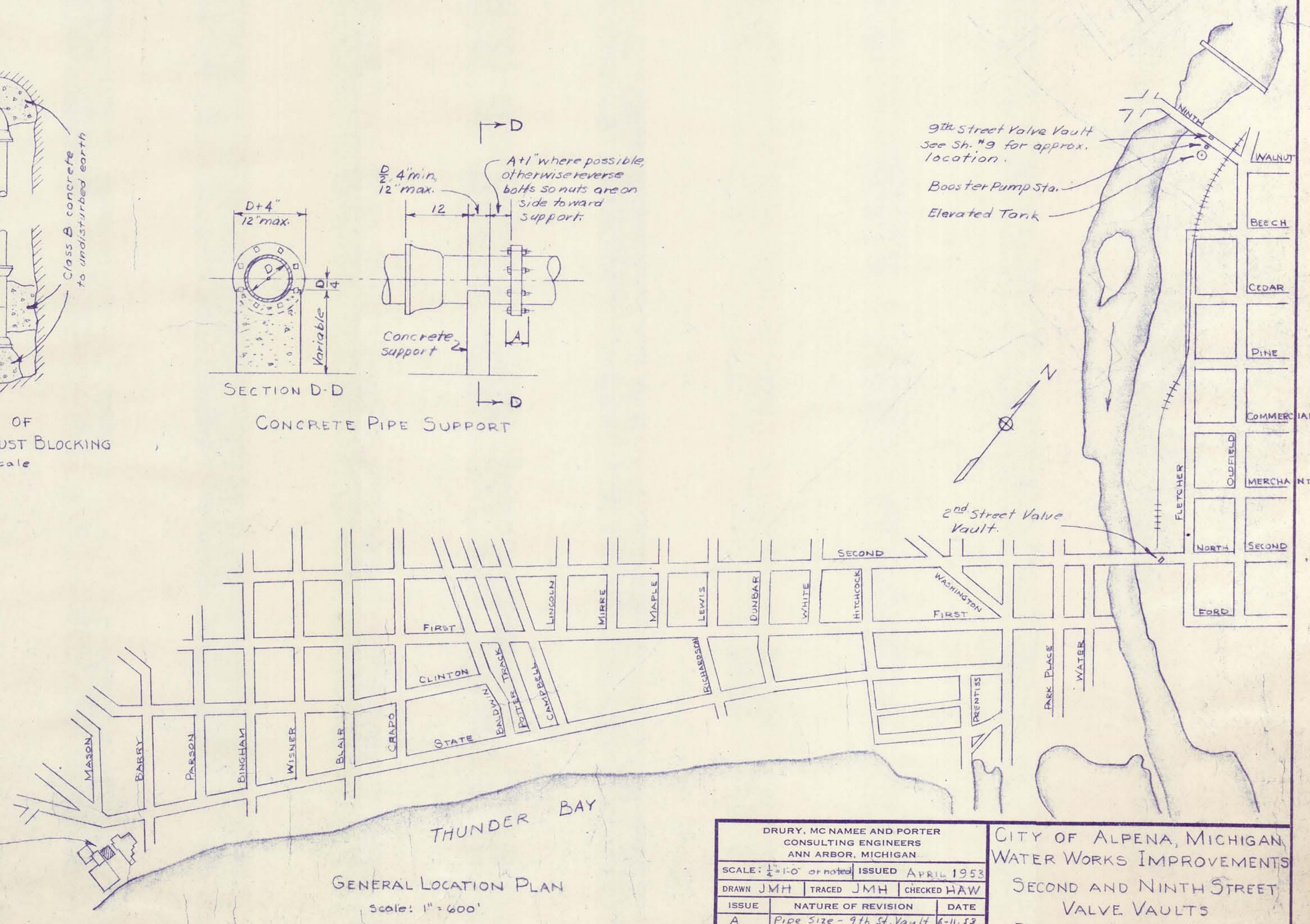
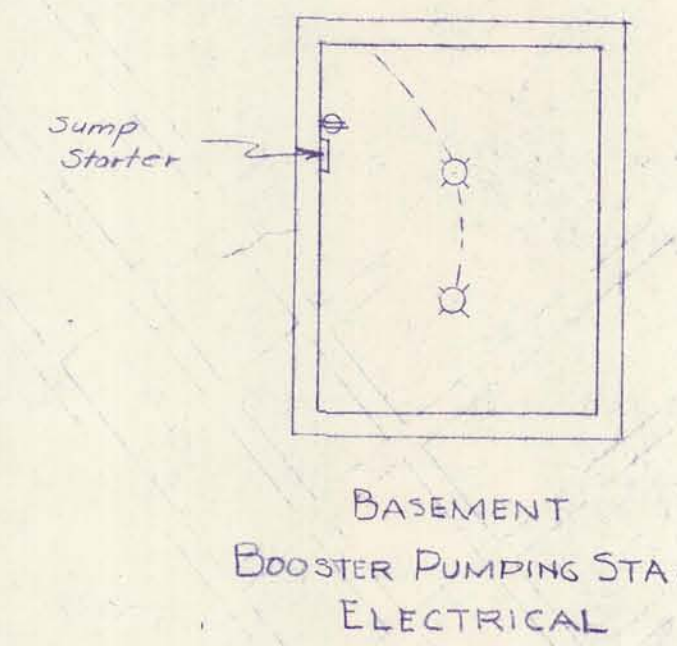
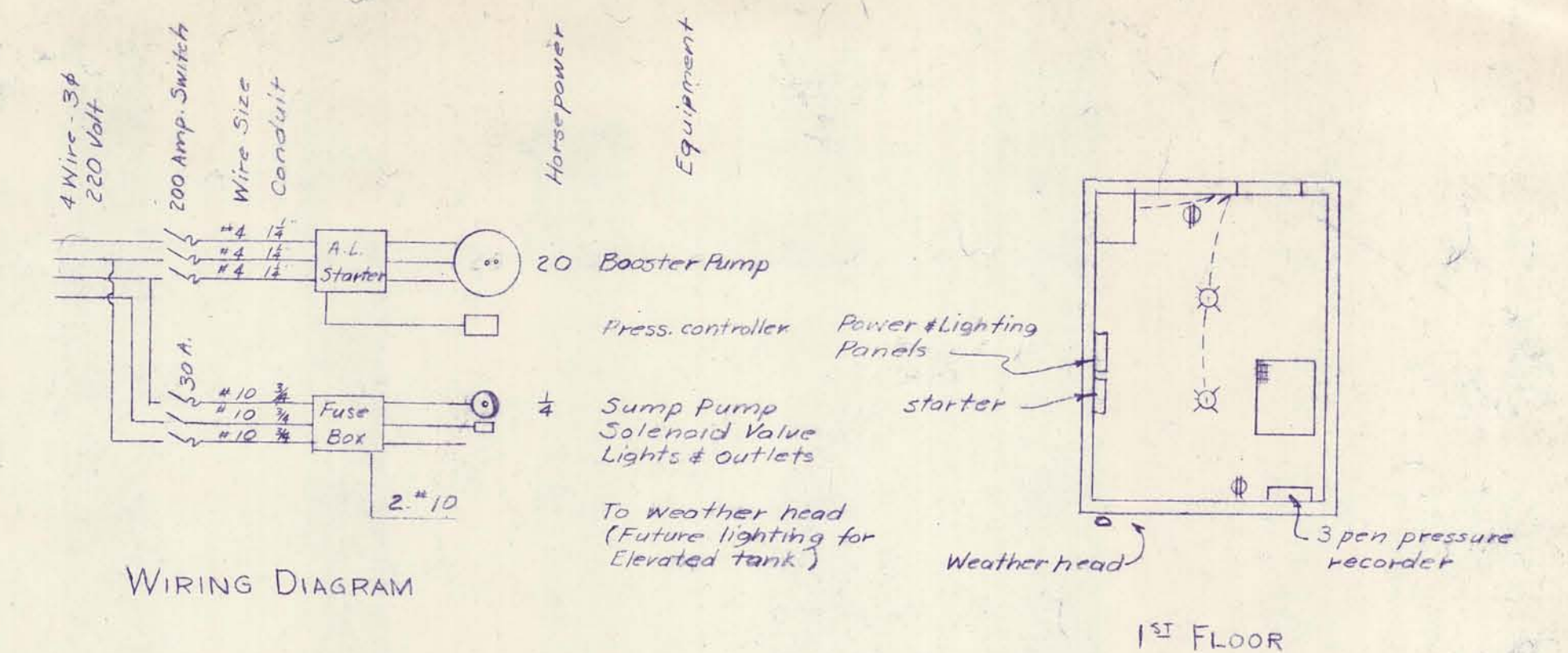
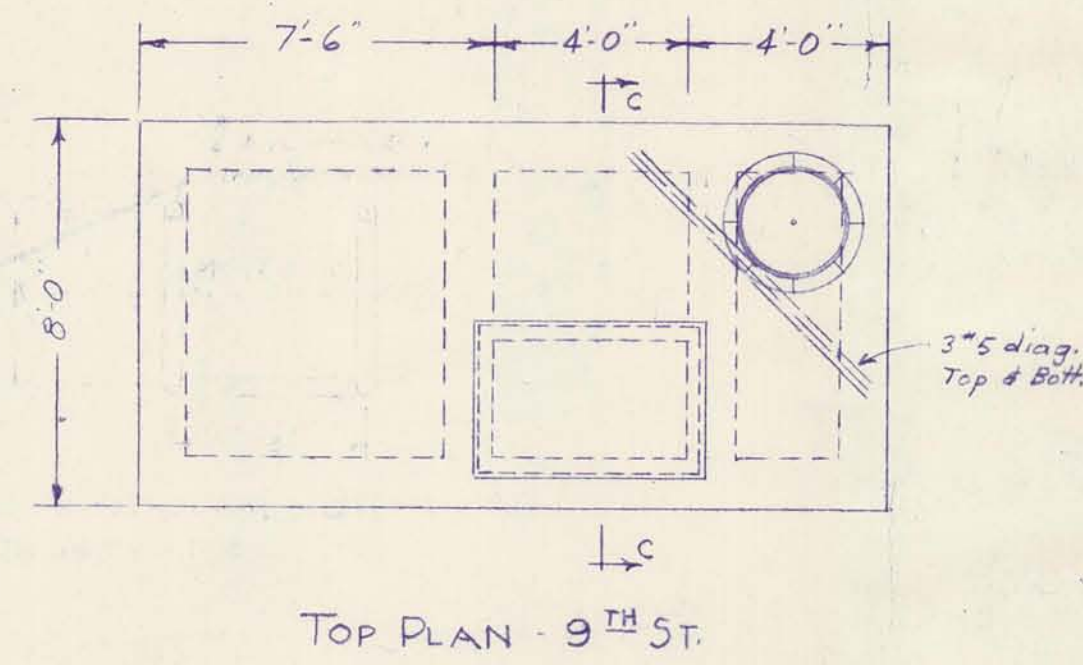
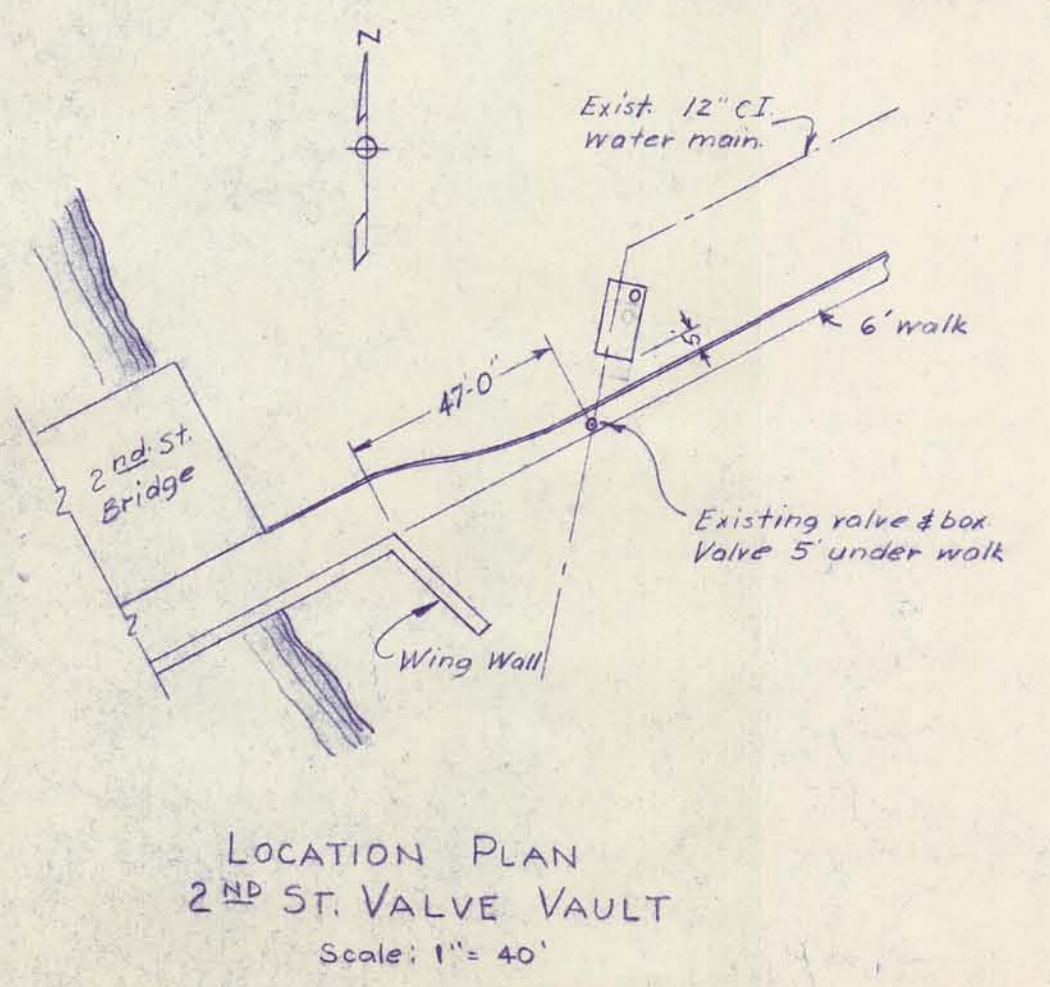
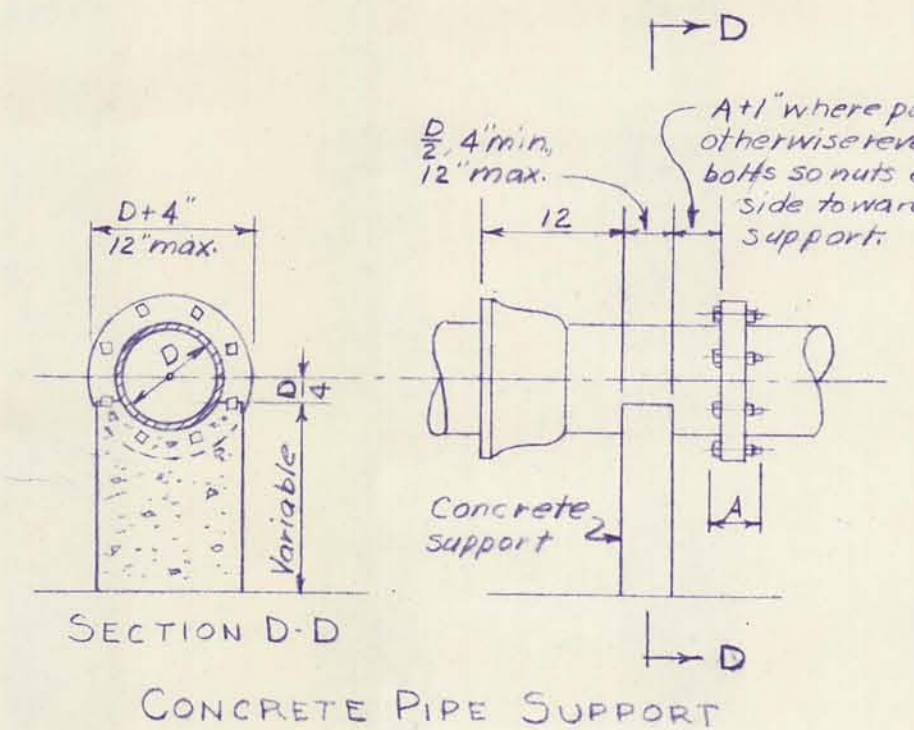
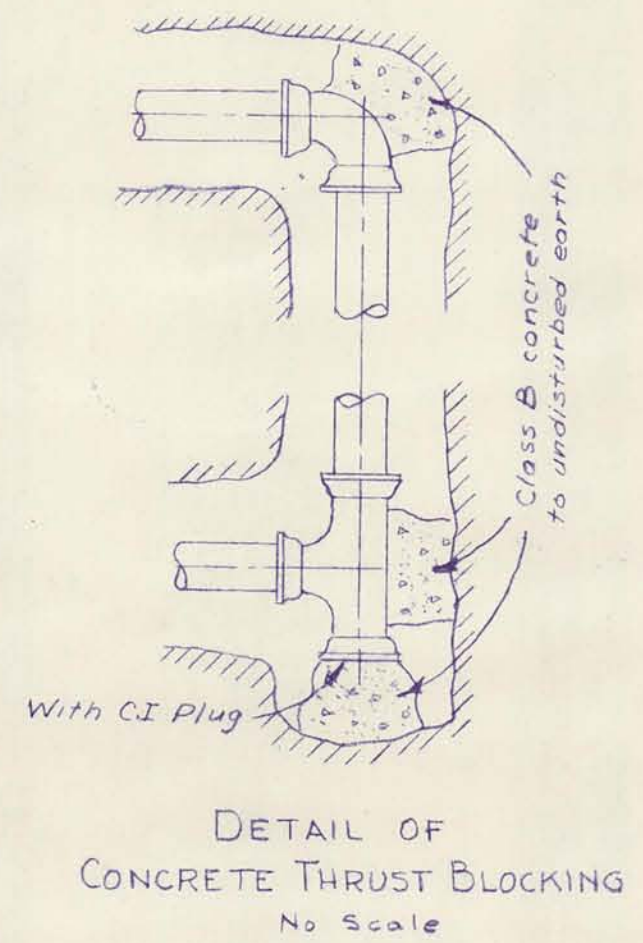
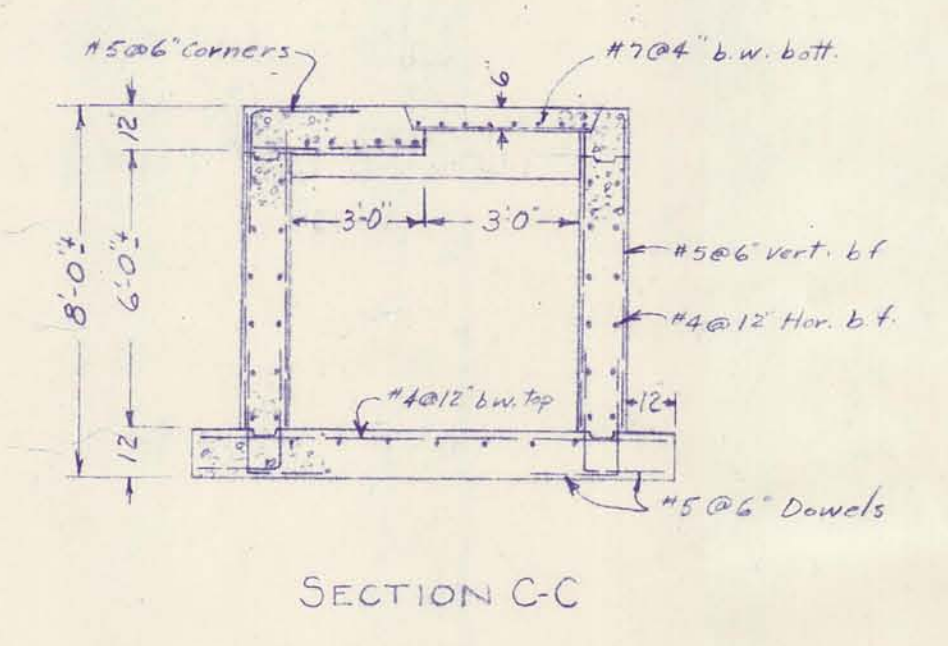
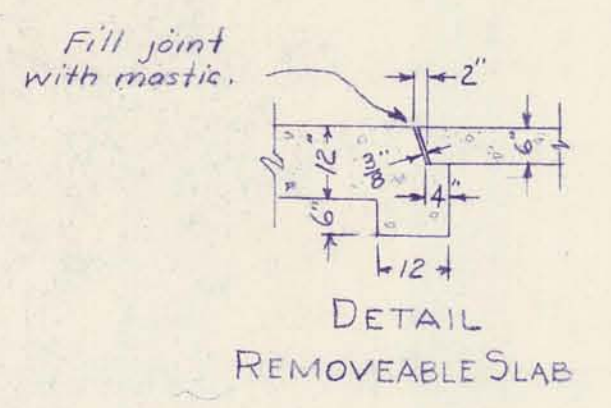
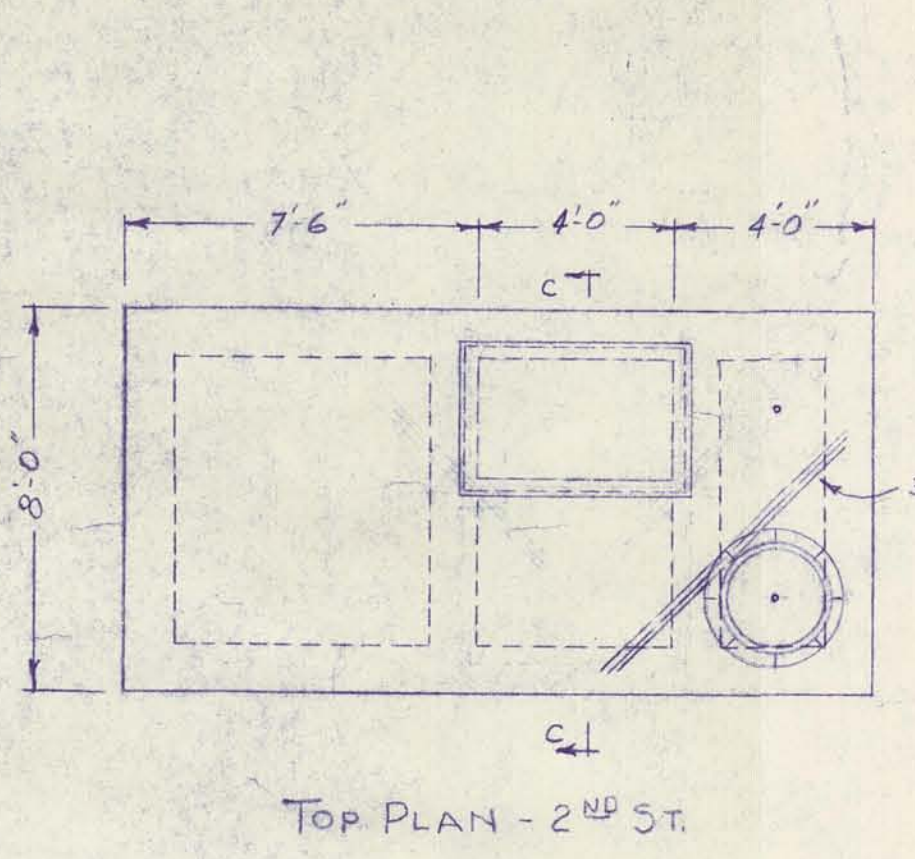
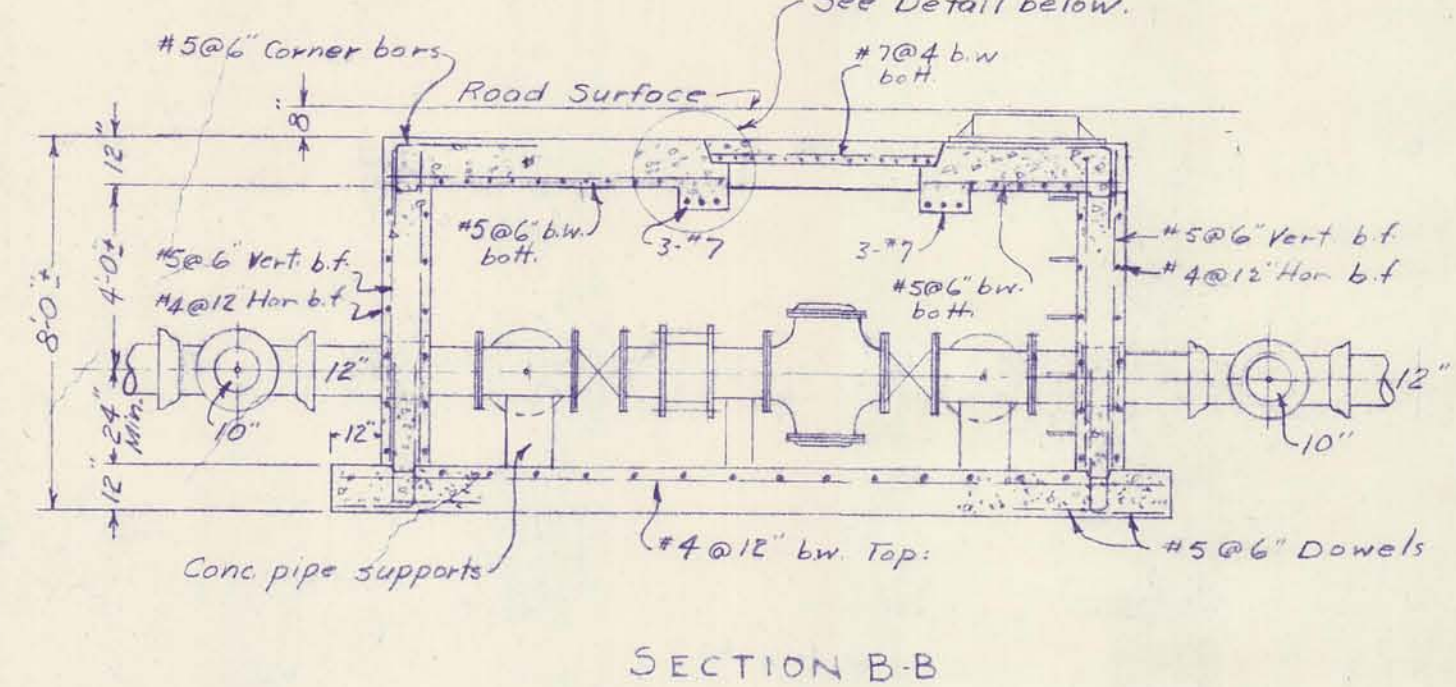
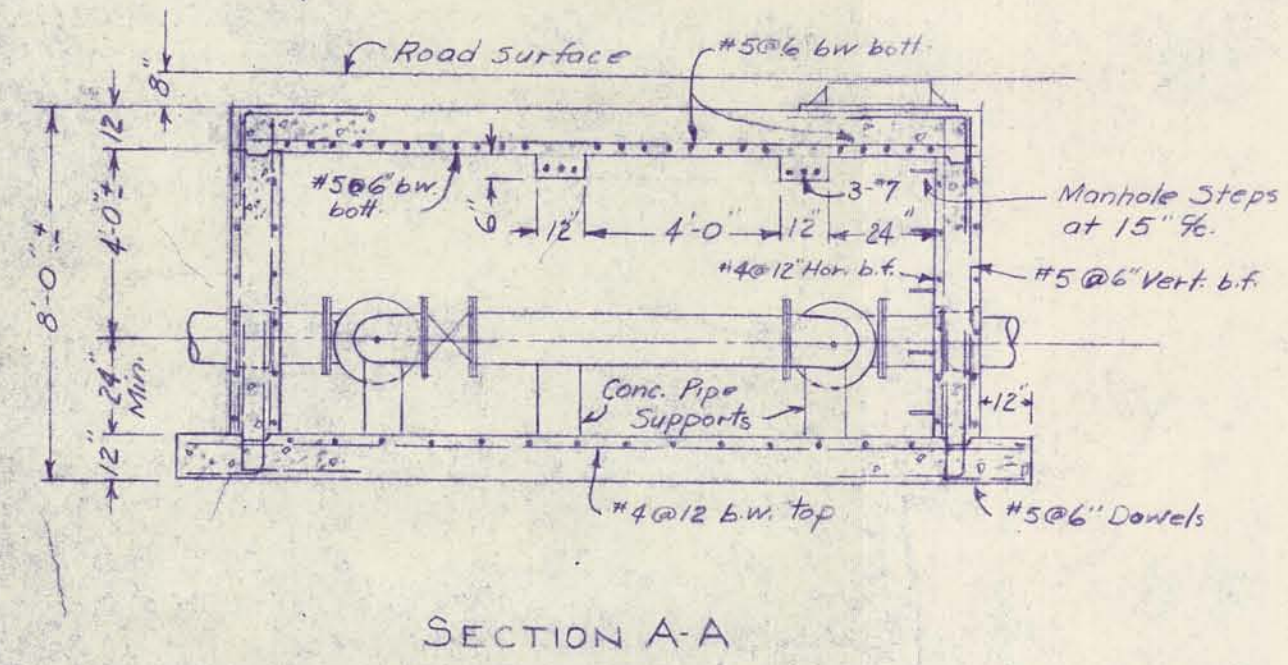
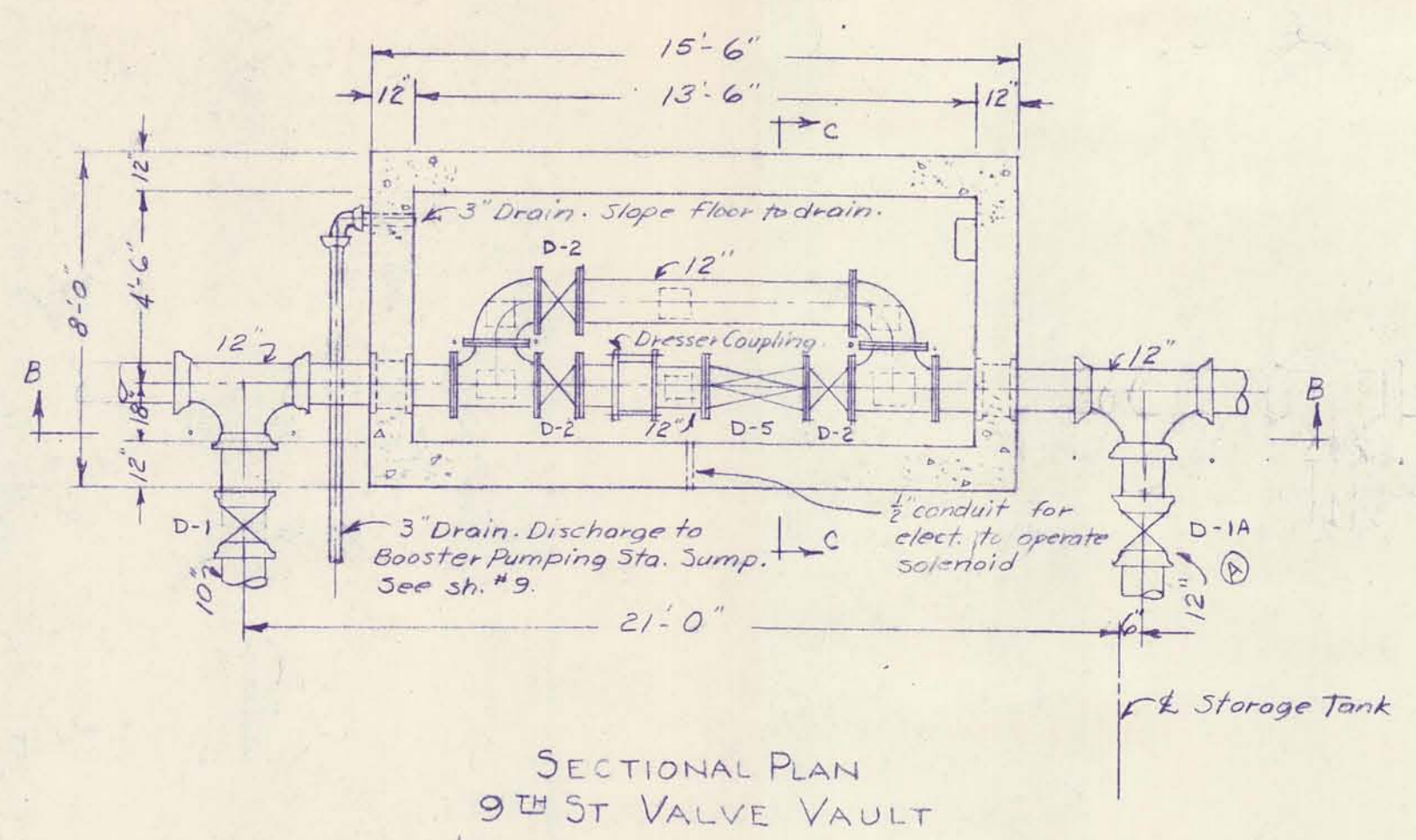
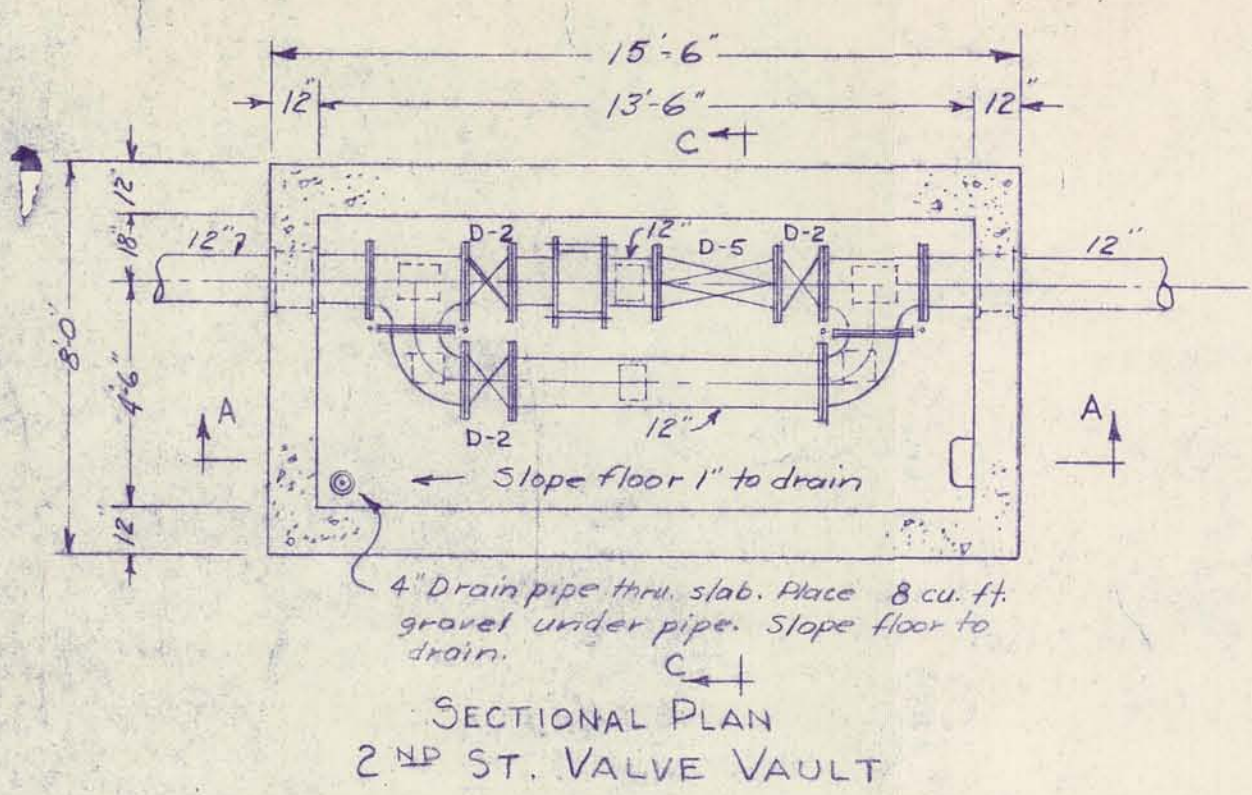
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|--|------------------------------------|---------|---|-------|
| DRURY, MCNAMEE AND PORTER CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | | CITY OF ALPENA, MICHIGAN WATER WORKS IMPROVEMENTS | |
| SCALE: 1/4" = 1'-0" or noted | | | ISSUED March 1953 | |
| DRAWN J.M.H. TRACED J.M.H. CHECKED P.V. | | | TANK FOUNDATIONS & BOOSTER PUMPING STATION | |
| ISSUE | NATURE OF REVISION | DATE | CONTRACT | SHEET |
| A. | Pumping station raised 6" As-Built | 8/24/53 | 2 | 9 |
| B | | 7-55 | | OF 10 |

Water Works Improvements
 2nd & 9th St. Valve Vaults
 Booster Station Electrical

SACCO PRODUCTS • NEW HOPE, MINNESOTA
 REFER BY PART NUMBER 8552

SACCO PRODUCTS • NEW HOPE, MINNESOTA
 REFER BY PART NUMBER 8552

SACCO PRODUCTS • NEW HOPE, MINNESOTA
 REFER BY PART NUMBER 8552



| | | | | | |
|--|---------------------------|---------|--|--|--|
| DRURY, MCNAMEE AND PORTER CONSULTING ENGINEERS ANN ARBOR, MICHIGAN | | | CITY OF ALPENA, MICHIGAN WATER WORKS IMPROVEMENTS | | |
| SCALE: 1" = 10' or notes | | | ISSUED APRIL 1953 | | |
| DRAWN JMH | | | TRACED JMH | | |
| CHECKED HAW | | | DATE | | |
| ISSUE | NATURE OF REVISION | DATE | | | |
| A | Pipe Size - 9th St. Vault | 6-11-53 | | | |
| B | As-Built | 7-55 | | | |
| CONTRACT | | | SHEET | | |
| 2 | | | 10 | | |
| | | | OF 10 | | |