

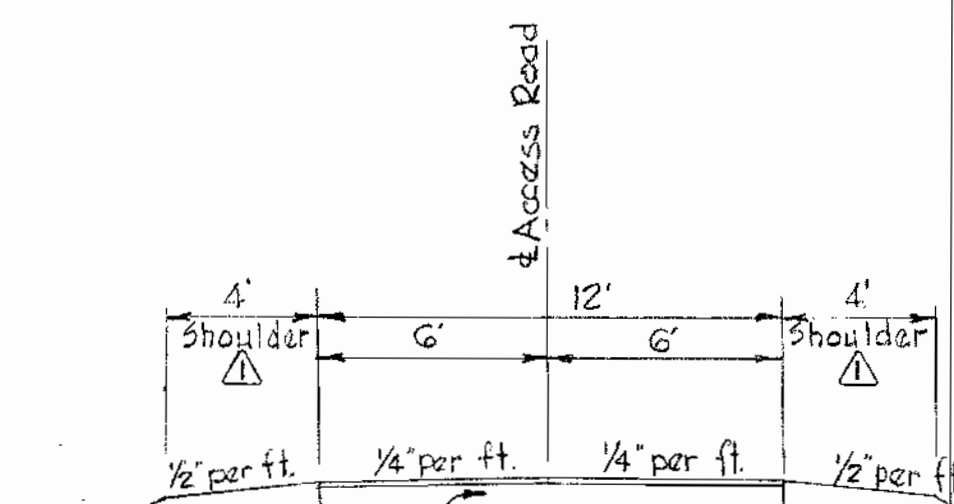
CONTRACT 63-W
WATER PUMPING STATION
HOWARD COUNTY METROPOLITAN COMMISSION
ELLICOTT CITY SUB-DISTRICT

WS 63W/1

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION Aug 31, 1964 <small>DATE</small> <i>W. O. Libbert</i> <small>CHIEF ENGINEER</small>	CONTRACT NO. 63-W	LOCATION MAP OF WATER PUMPING STATION	ELLICOTT CITY SUB-DISTRICT	DRAWING NO. <u>1</u> OF <u>6</u>	SCALE AS SHOWN
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W. O. 5918-2

AUG 31, 1964



3" Crush Run Stone Base Course.
2" Calcium Chloride per sq. yd. leave 30 days.

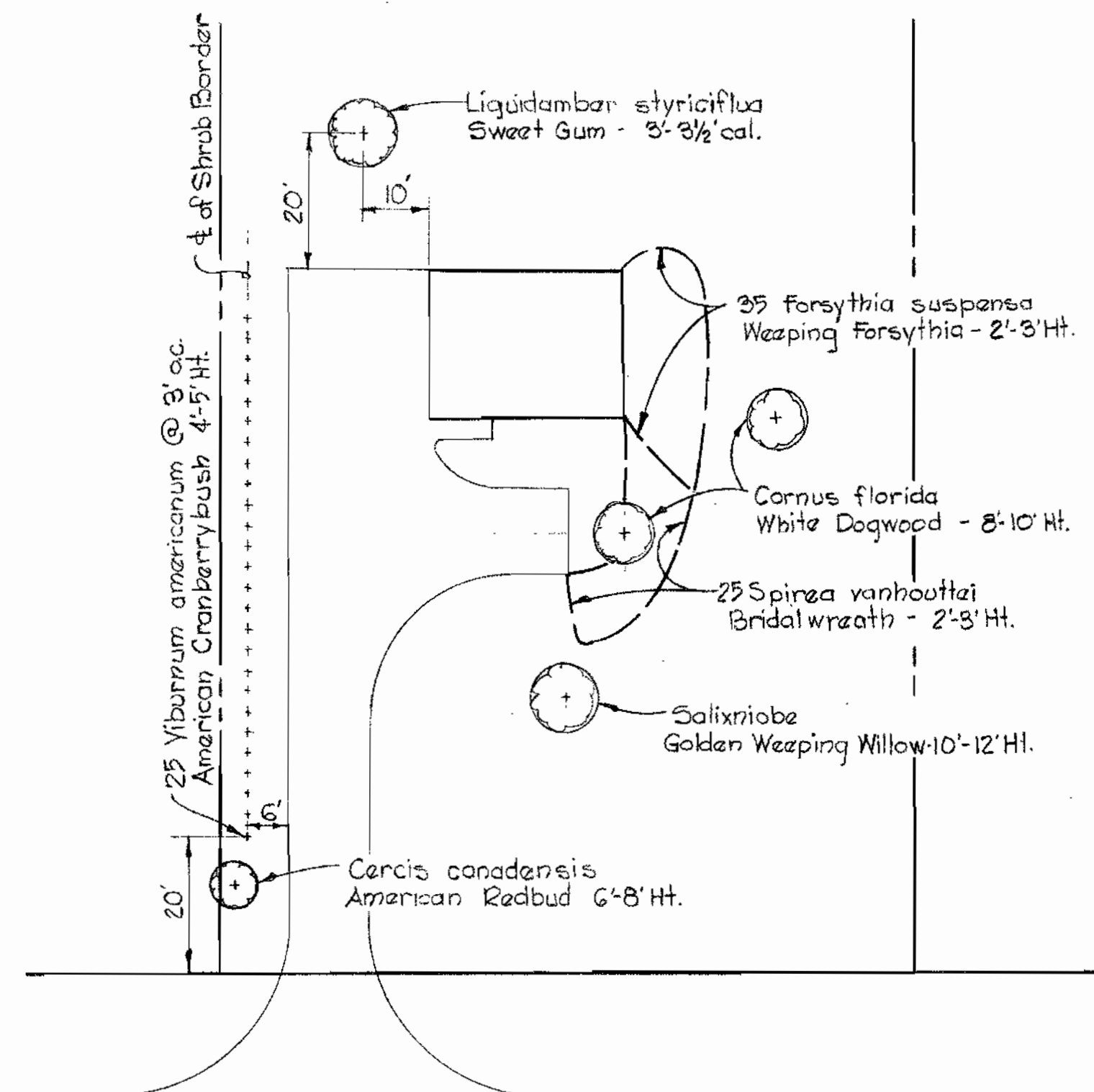
SURFACE TREATMENT
1. 5/8 gal. R.C. - 1/4 sq. yd. * 3 stone - 75#/sq. yd.
2. 7/16 gal. R.C. - 1/4 sq. yd. * 4 stone - 30#/sq. yd.
3. 7/16 gal. R.C. - 1/4 sq. yd. * 7 stone - 30#/sq. yd.

SECTION THRU ACCESS ROAD

Scale: 1"=5'H&V.

GENERAL NOTES

1. Approximate location of existing mains are shown. The Contractor shall take all necessary precautions to protect the existing mains and services and maintain uninterrupted supply; any damage incurred shall be repaired immediately.
2. All pipe elevations shown are invert elevations.
3. The contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in vicinity of utilities.
4. For all standard details, see Standards bound in Specifications.
5. Block all fittings in concrete, see standard details bound in Specifications.
6. Bury line elevation on Fire Hydrants shall be set the same as edge of paving or as directed by the Engineer in the field.
7. The location of all valves, fittings etc. have been located in plan and dimensions shall be strictly adhered to unless otherwise directed by the Engineer in writing.
8. Buttress fire Hydrants with concrete; provide copper pipe at weep holes as required for positive drainage. For Buttress dimensions see Standard Detail W-8 Buttress For Caps.

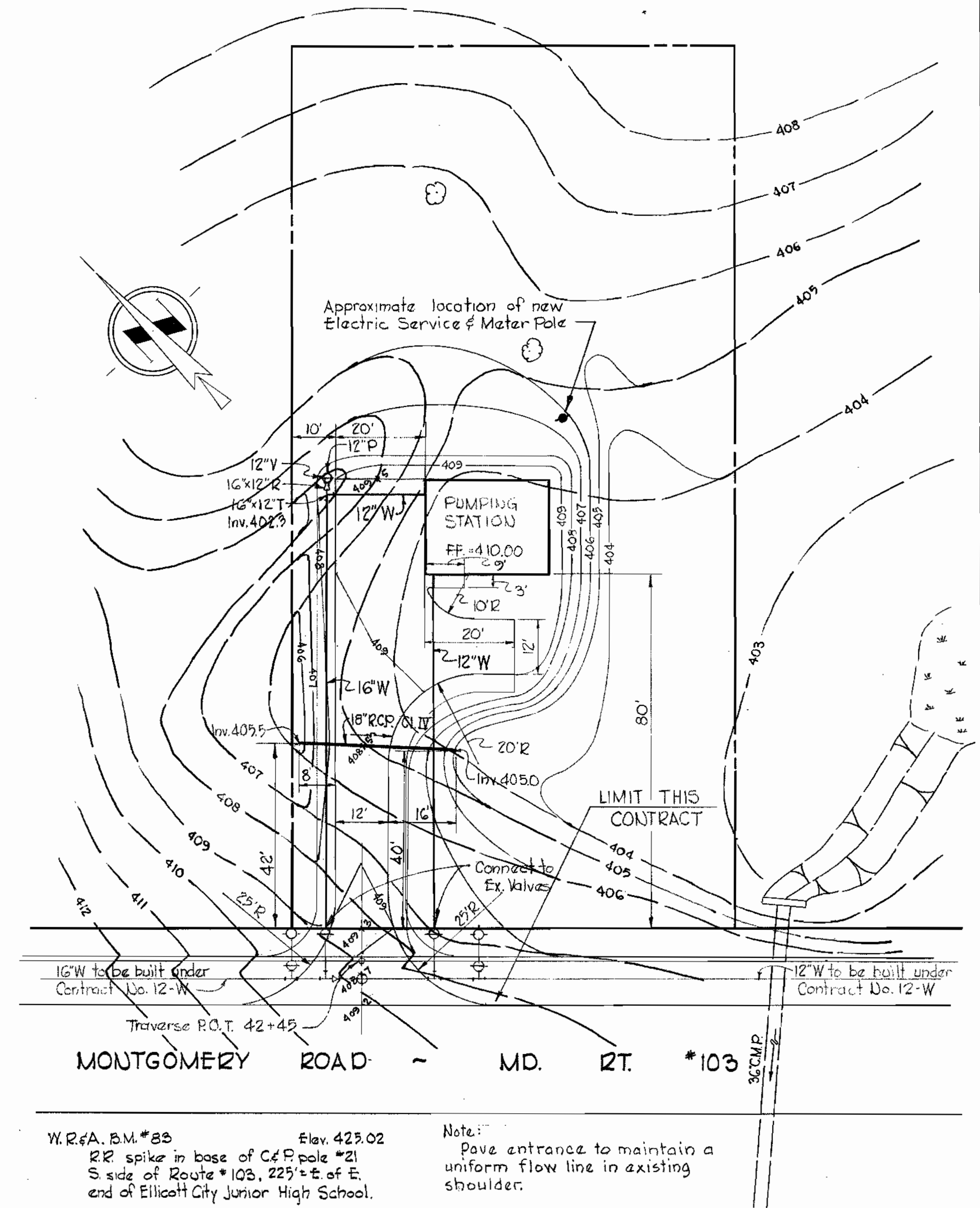


PLANTING NOTES

1. All trees shall be staked according to horticultural methods.
2. All trees and shrubs to be balled and burlapped on arrival at site.
3. A mixture of 5 parts top soil and 2 parts peatmoss shall be used for each plant hole.

PLANTING PLAN

Scale: 1"=20'



W.R.A. E.M. #88 Elev. 425.02
RR spike in base of C&P pole #21
S. side of Route #103, 225' E. of E.
end of Ellicott City Junior High School.

Note:
Pave entrance to maintain a uniform flow line in existing shoulder.

SITE PLAN

Scale: 1"=20'

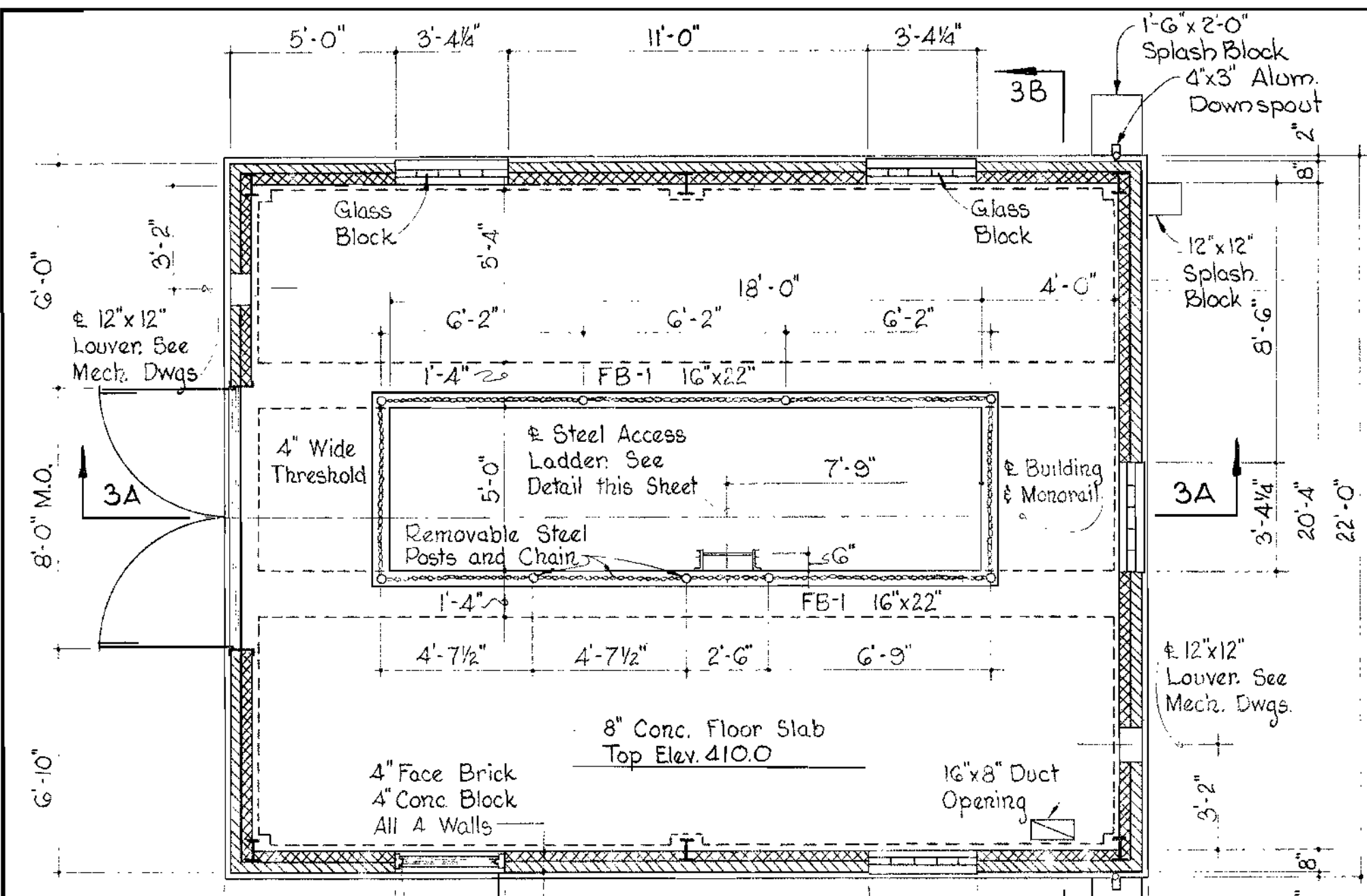
1	9-30-64	Shoulder added to road section.
Nº	Date	Revision

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION Aug. 31, 1964 <i>W. O. Peltz</i> CHIEF ENGINEER	CONTRACT NO. 63-W	SITE PLAN & DETAILS	ELLICOTT CITY SUB-DISTRICT	DRAWING NO. 2	SCALE AS SHOWN
					OF 6	

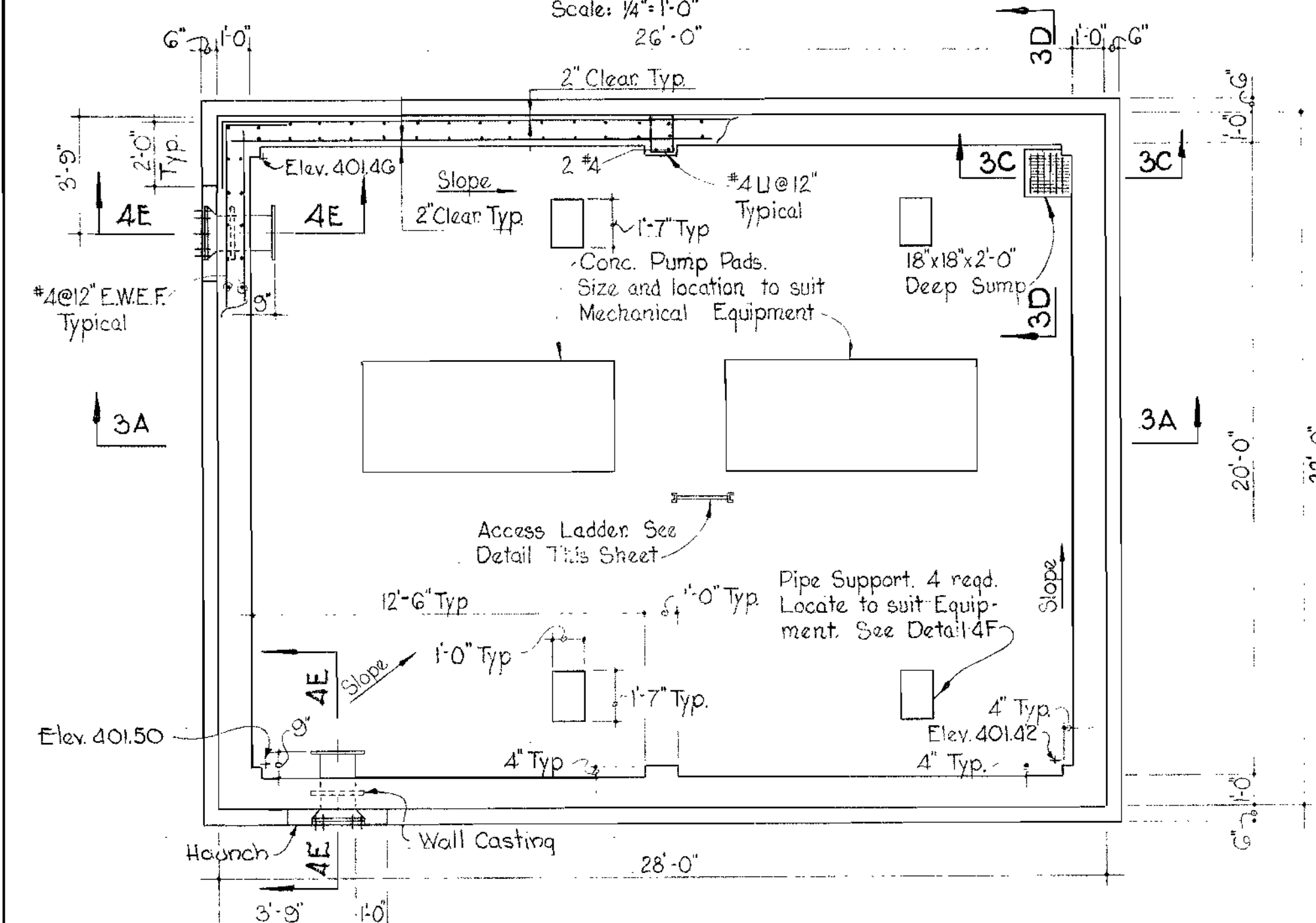
W. O. 3918-2

REV. 30 SEPT. 64

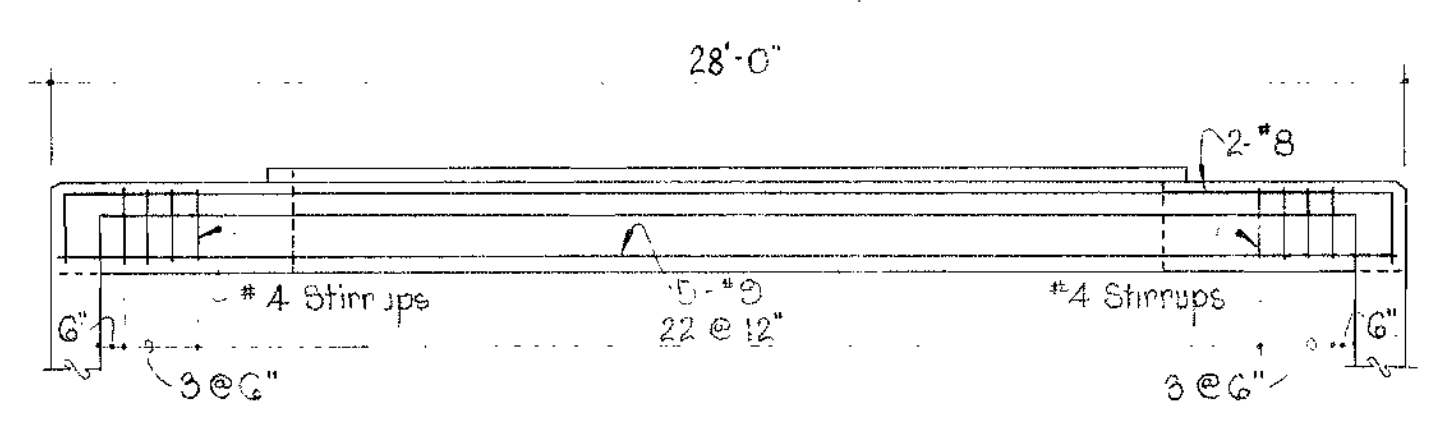
WS 63W/2



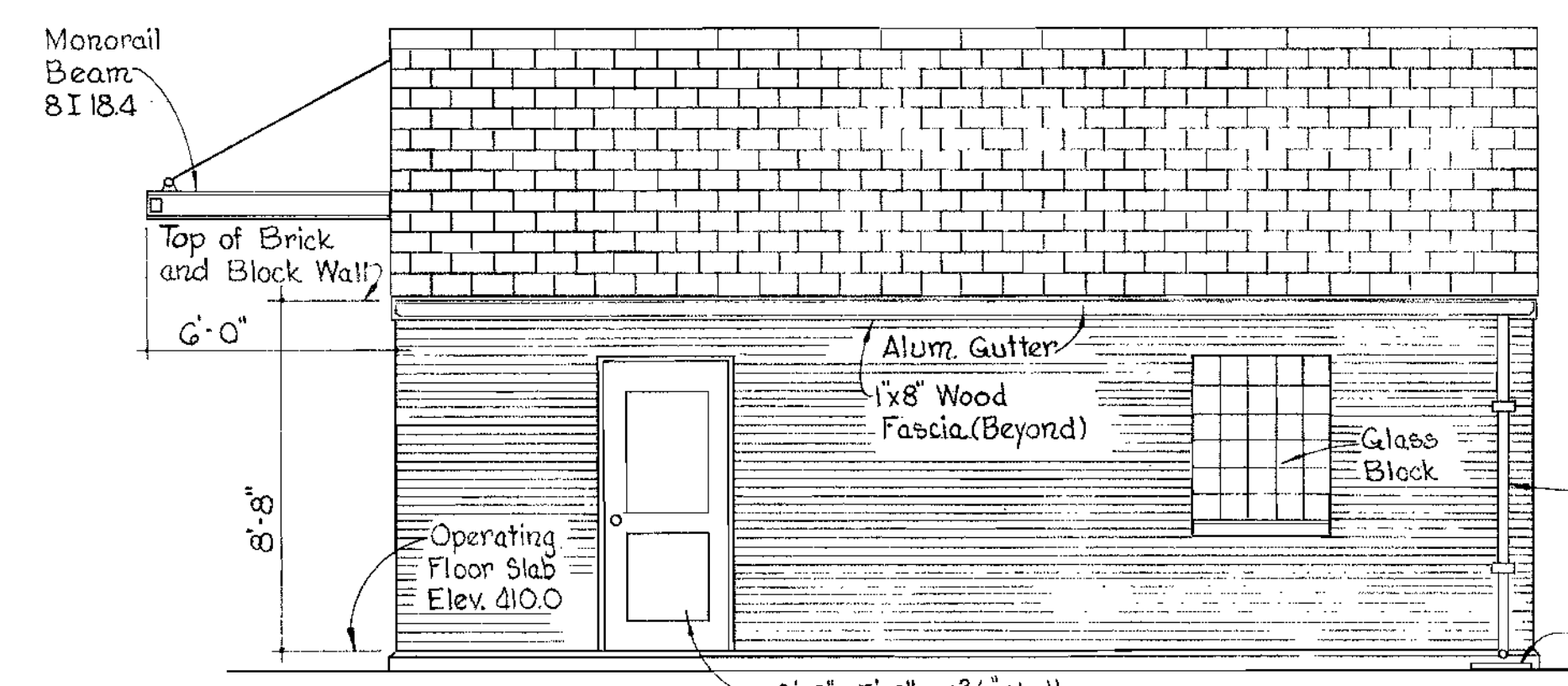
OPERATING FLOOR PLAN
Scale: 1/4" = 1'-0"



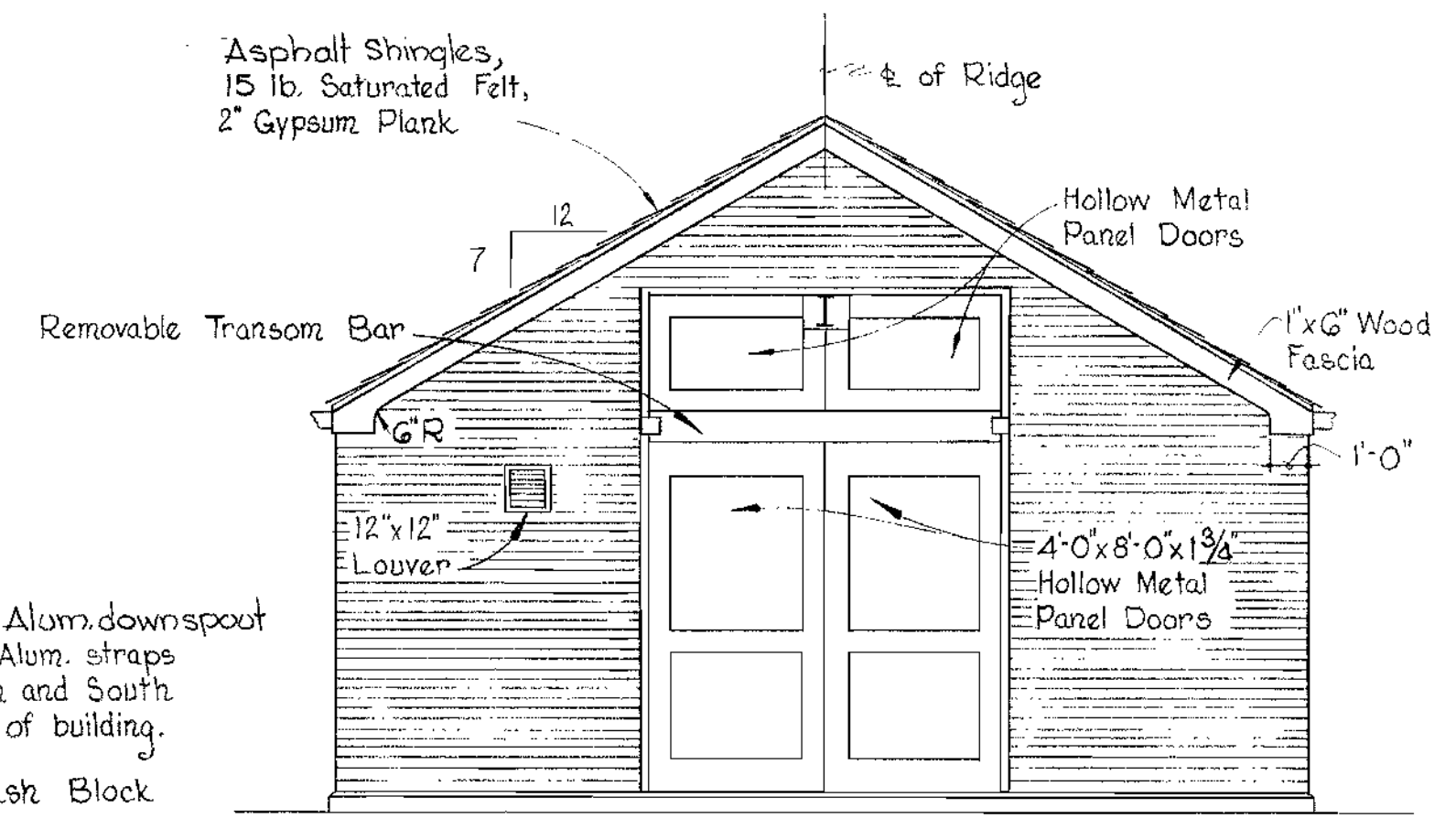
LOWER PLAN
Scale: 1/4" = 1'-0"



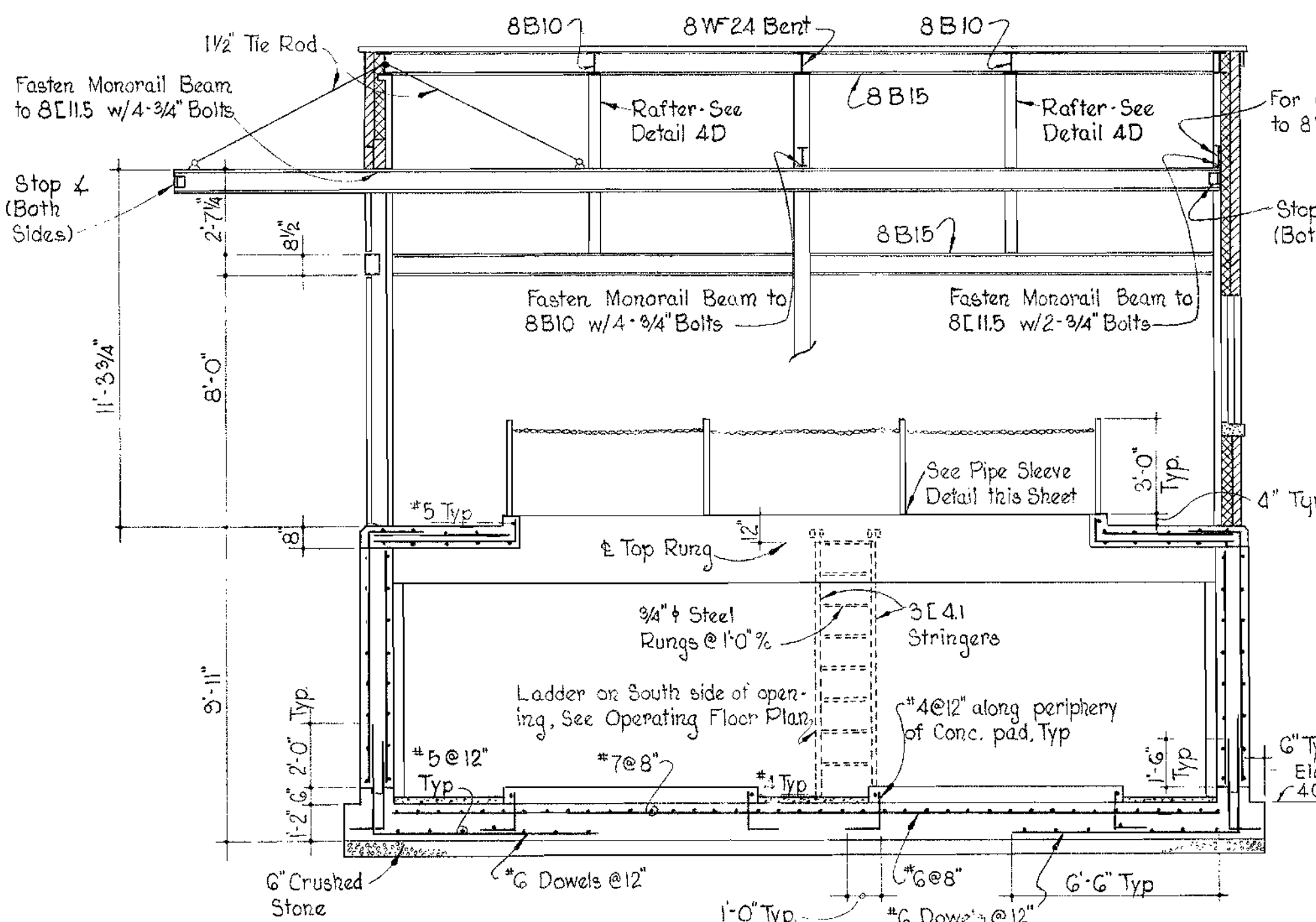
FB-1 (16" x 22")
Scale: 1/4" = 1'-0"



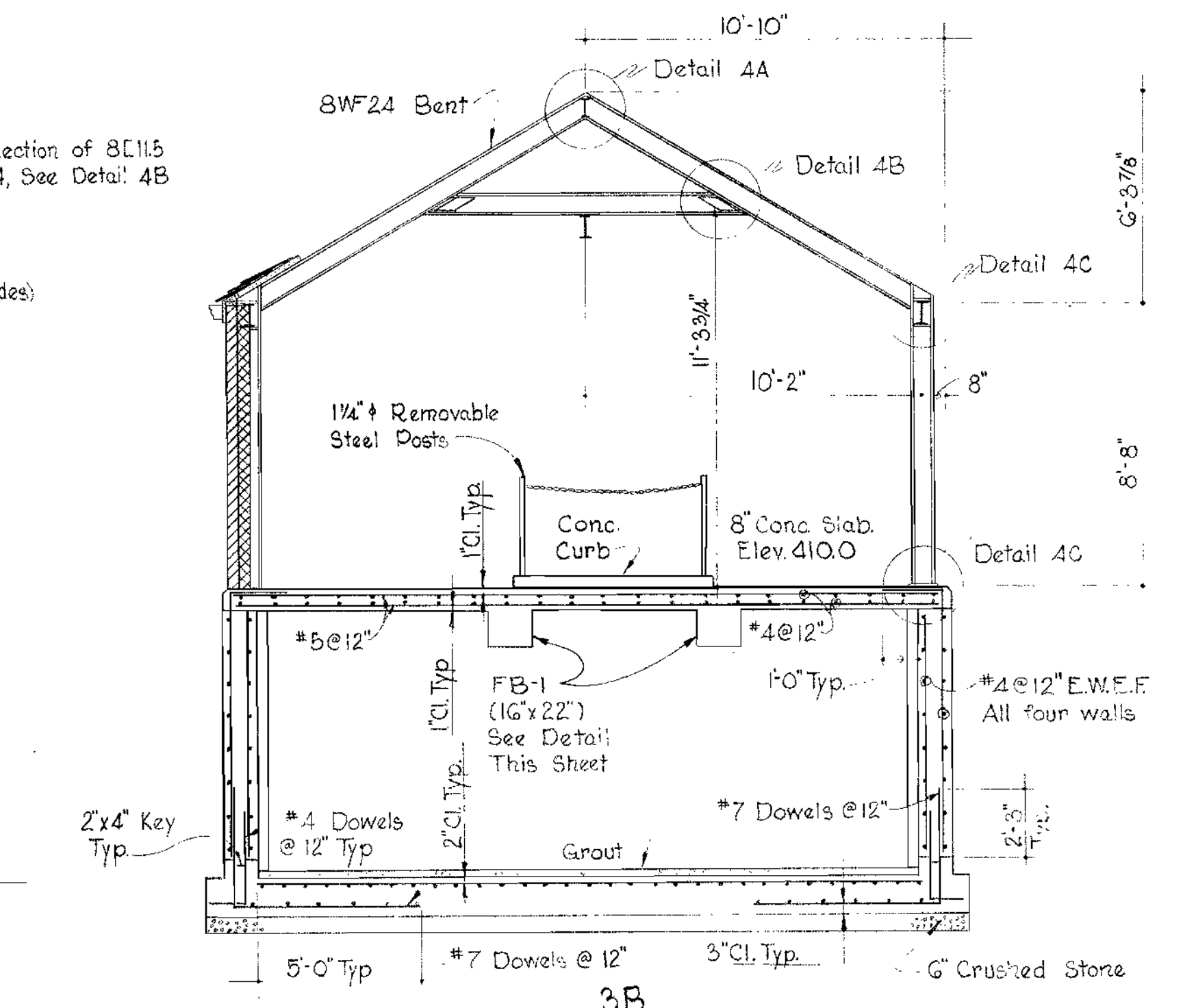
SOUTH ELEVATION
Scale: 1/4" = 1'-0"



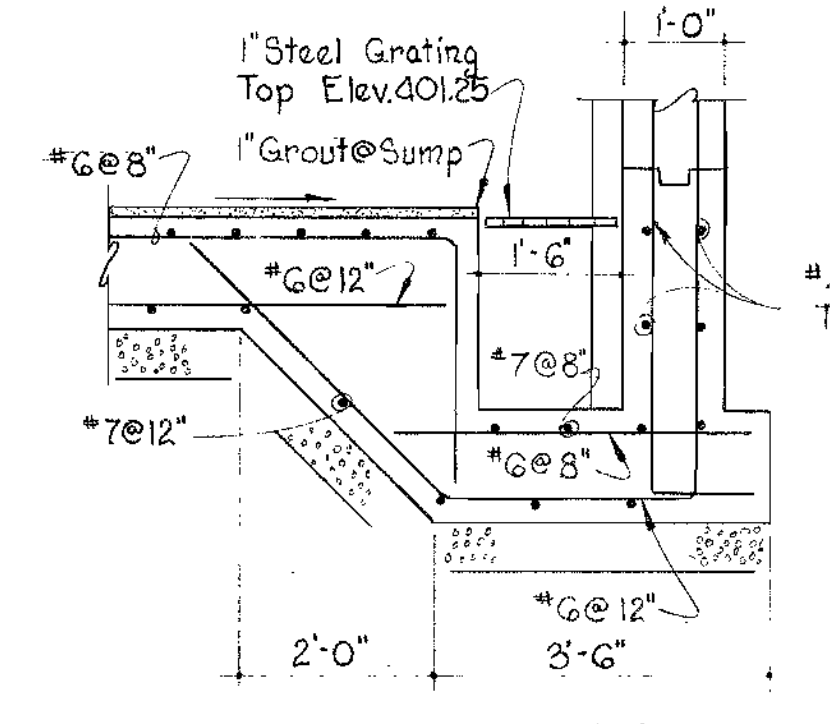
WEST ELEVATION
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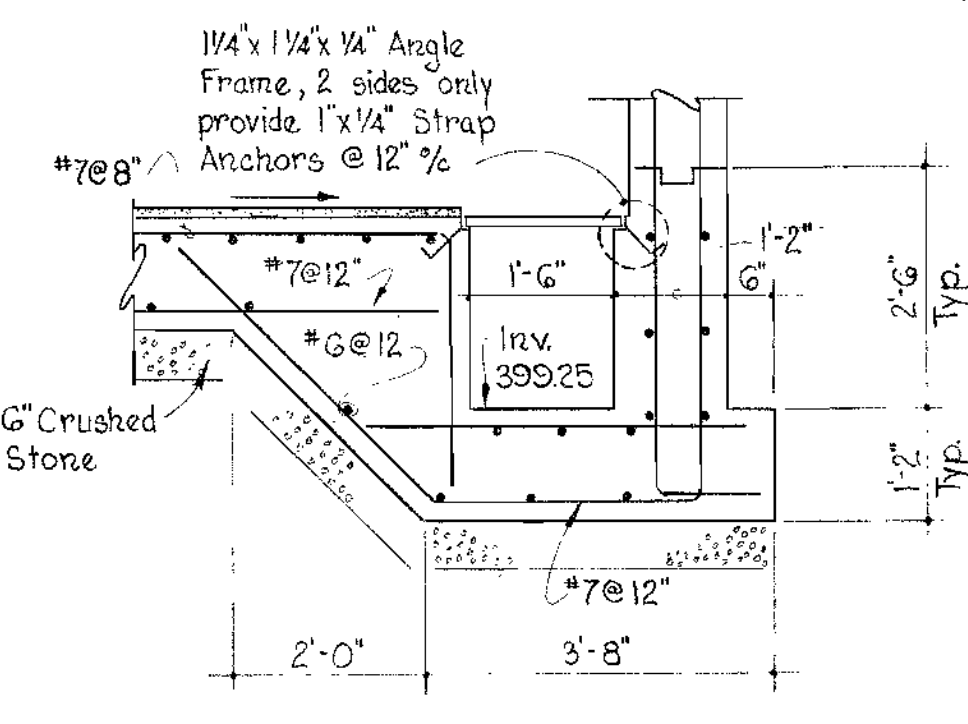
SECTION 3,4
Scale: 1/4" = 1'-0"



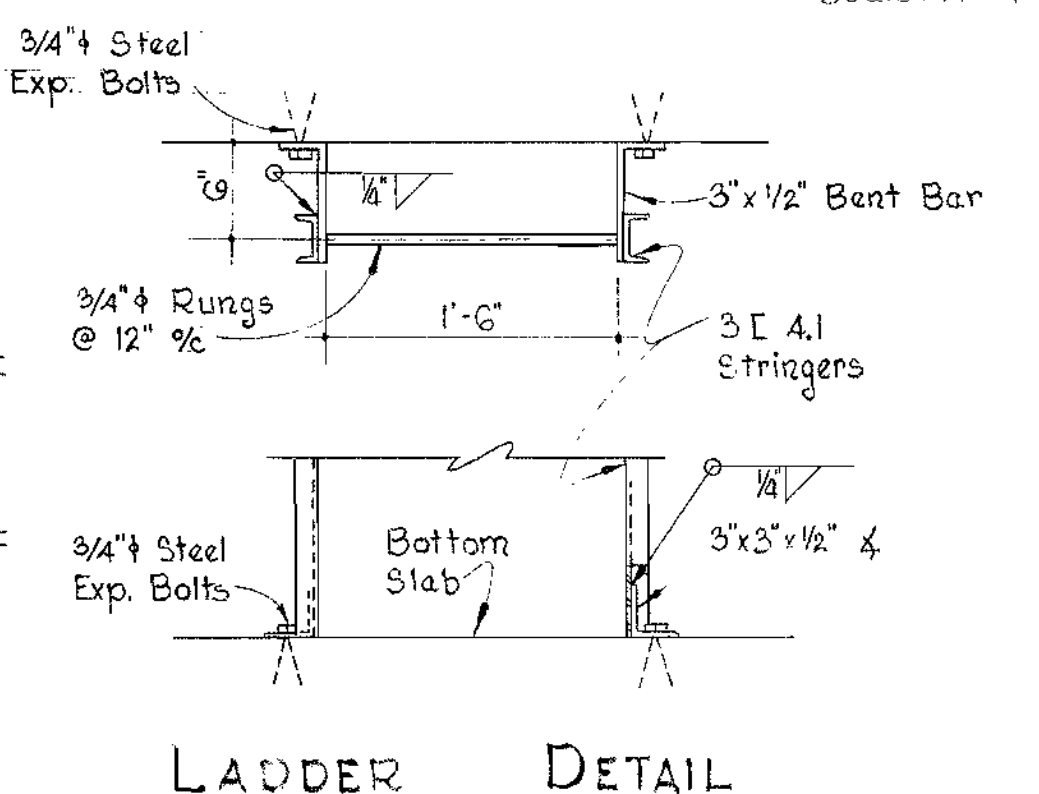
SECTION 3,4
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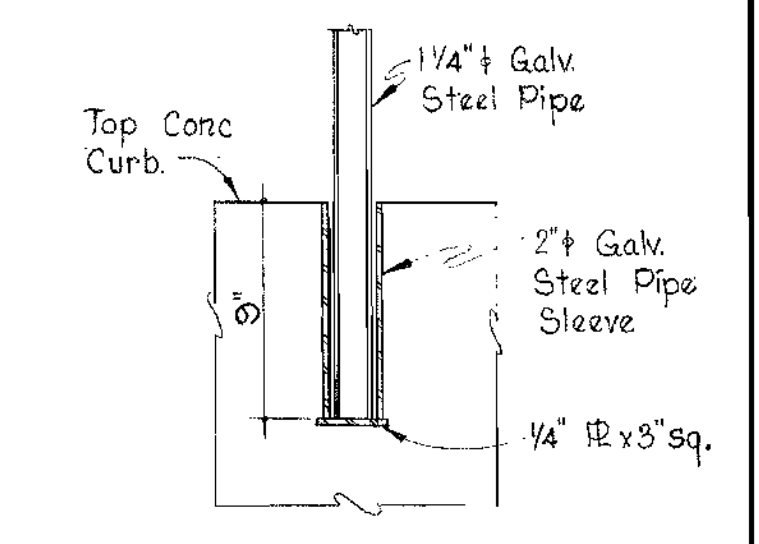
SECTION 3,3
Scale: 1/2" = 1'-0"



SECTION 3,3
Scale: 1/2" = 1'-0"

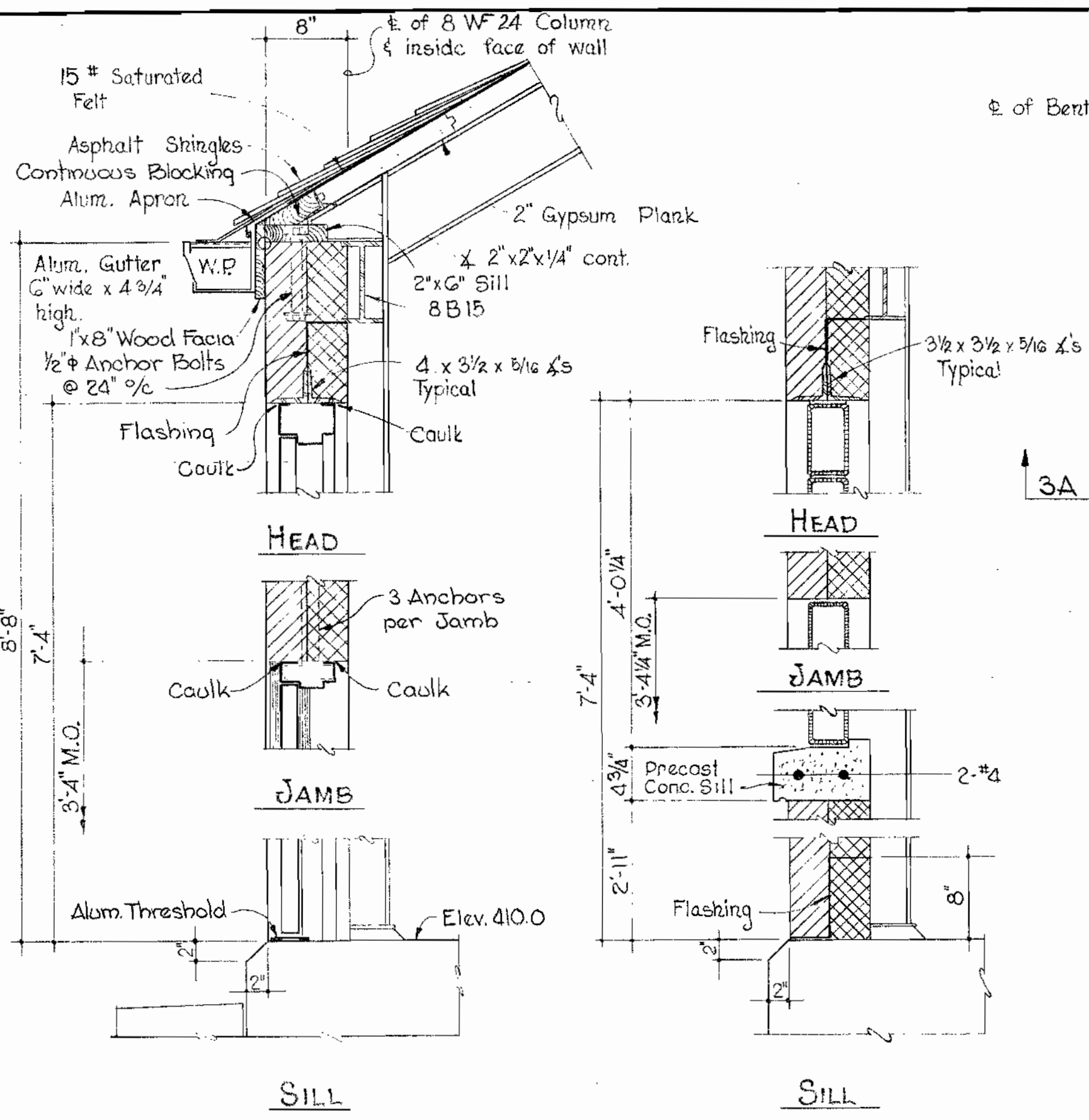


LADDER DETAIL
Scale: 1" = 1'-0"

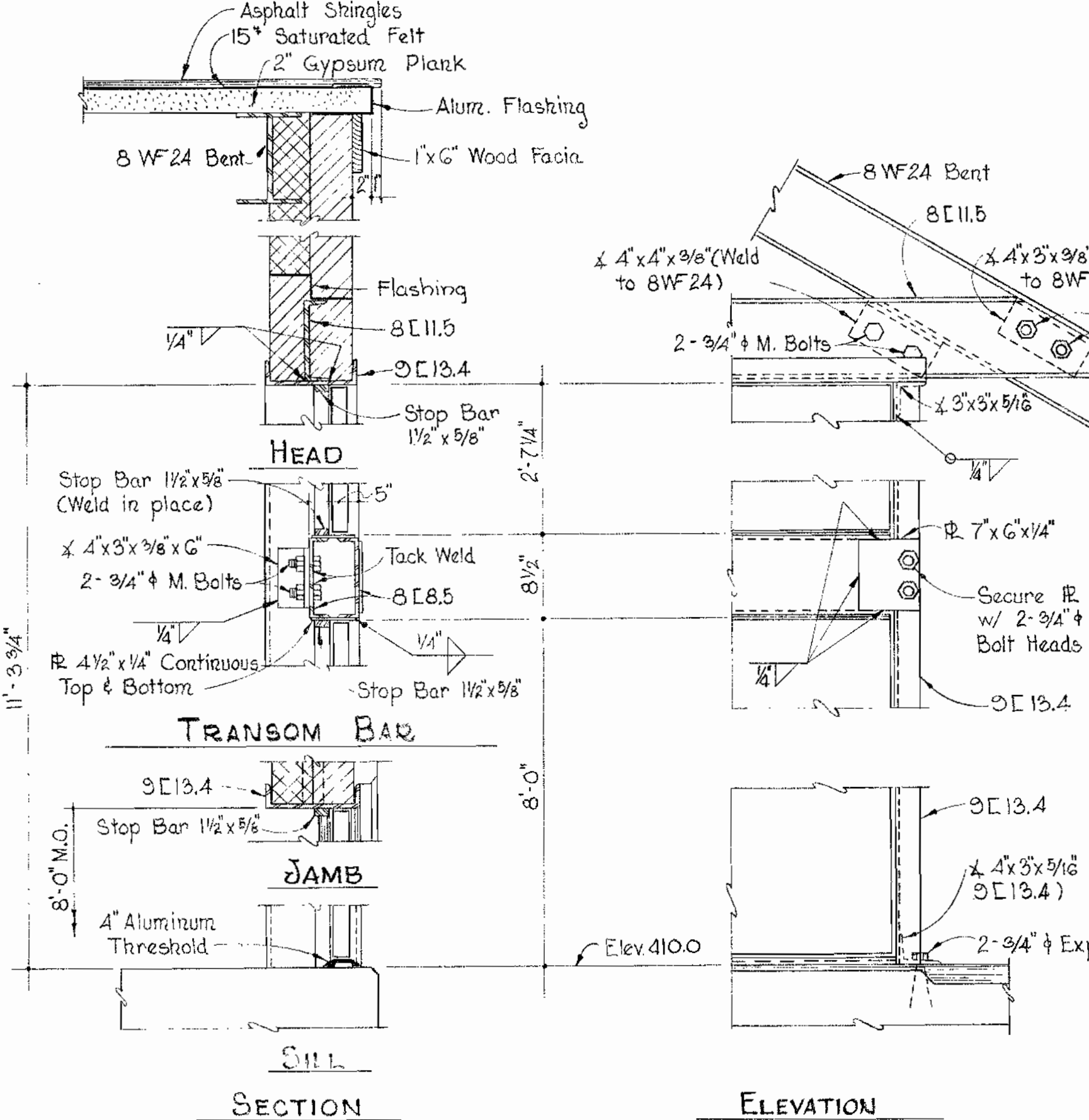


PIPE SLEEVE DETAIL
Scale: 1 1/2" = 1'-0"

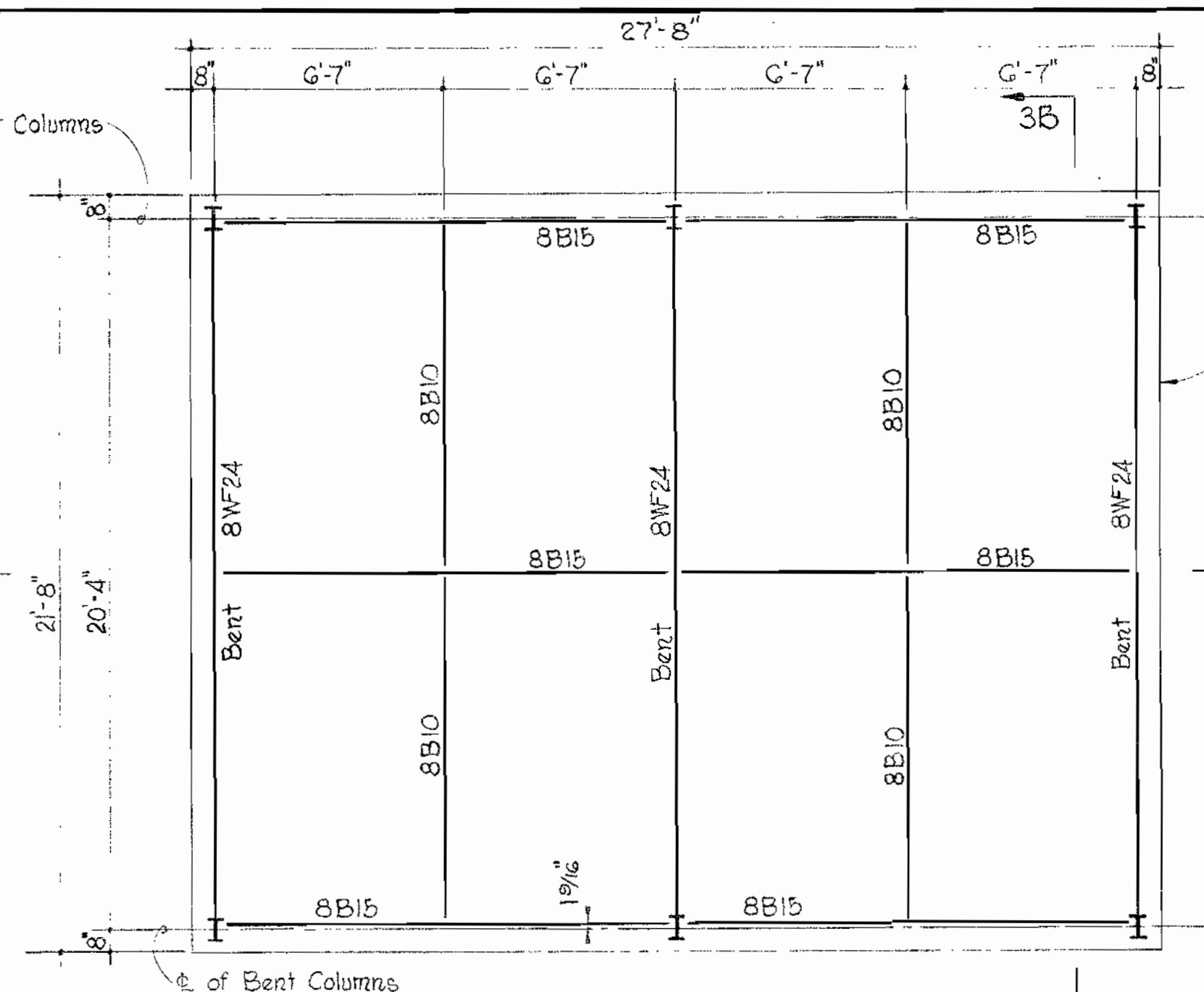
<p>WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND</p>	<p>HOWARD COUNTY METROPOLITAN COMMISSION Aug. 31, 1964 DATE <i>W. O. Gilbert</i> CHIEF ENGINEER</p>	<p>CONTRACT NO. 63-W</p>	<p>STRUCTURAL PLANS, ELEVATIONS & SECTIONS</p>	<p>ELLCOTT CITY SUB-DISTRICT</p>	<p>DRAWING NO. 3 OF 6 SCALE AS SHOWN</p>
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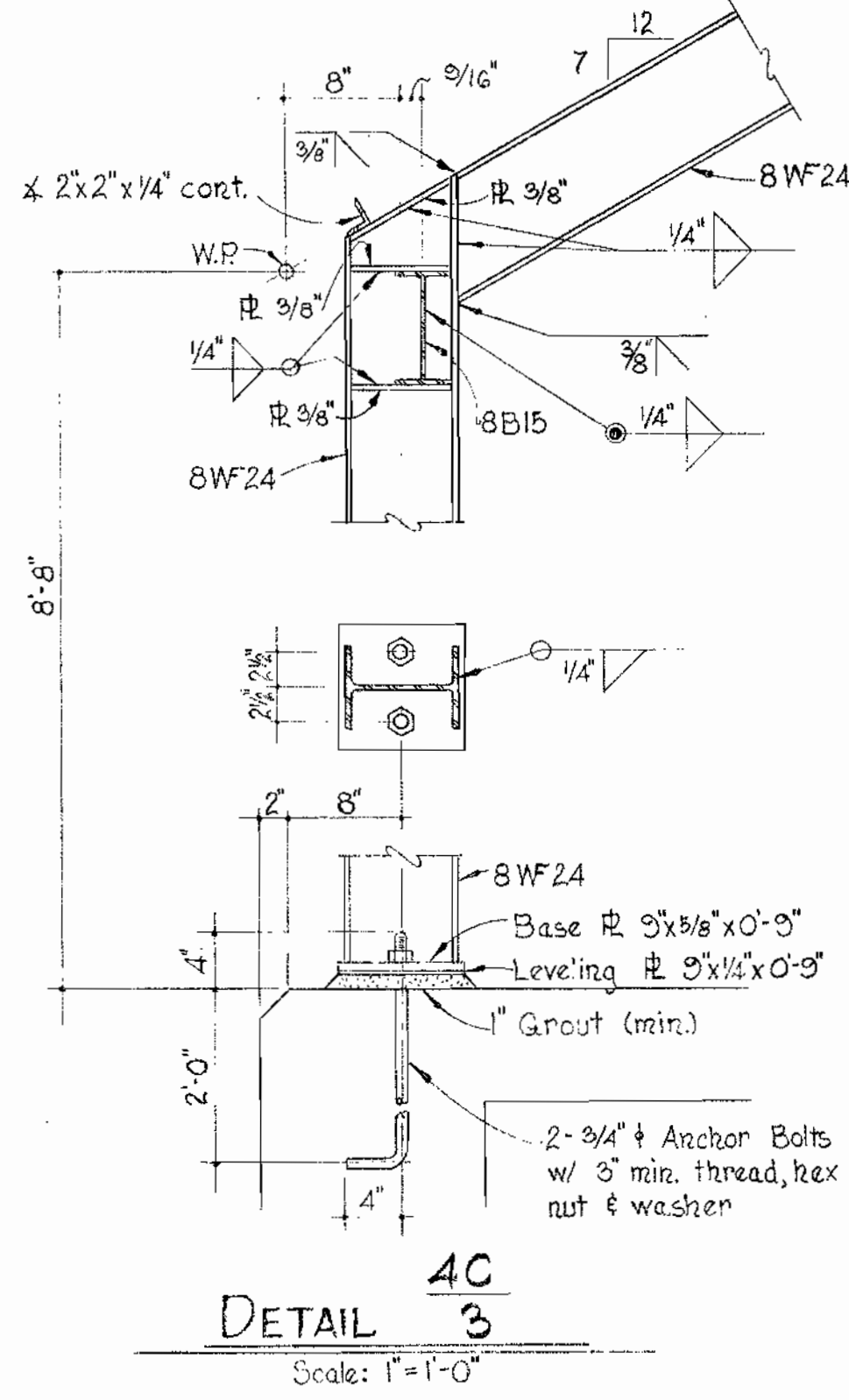
DOOR SECTION ~ SOUTH WALL Scale: 1"=1'-0"
 GLASS BLOCK PANEL Scale: 1"=1'-0"



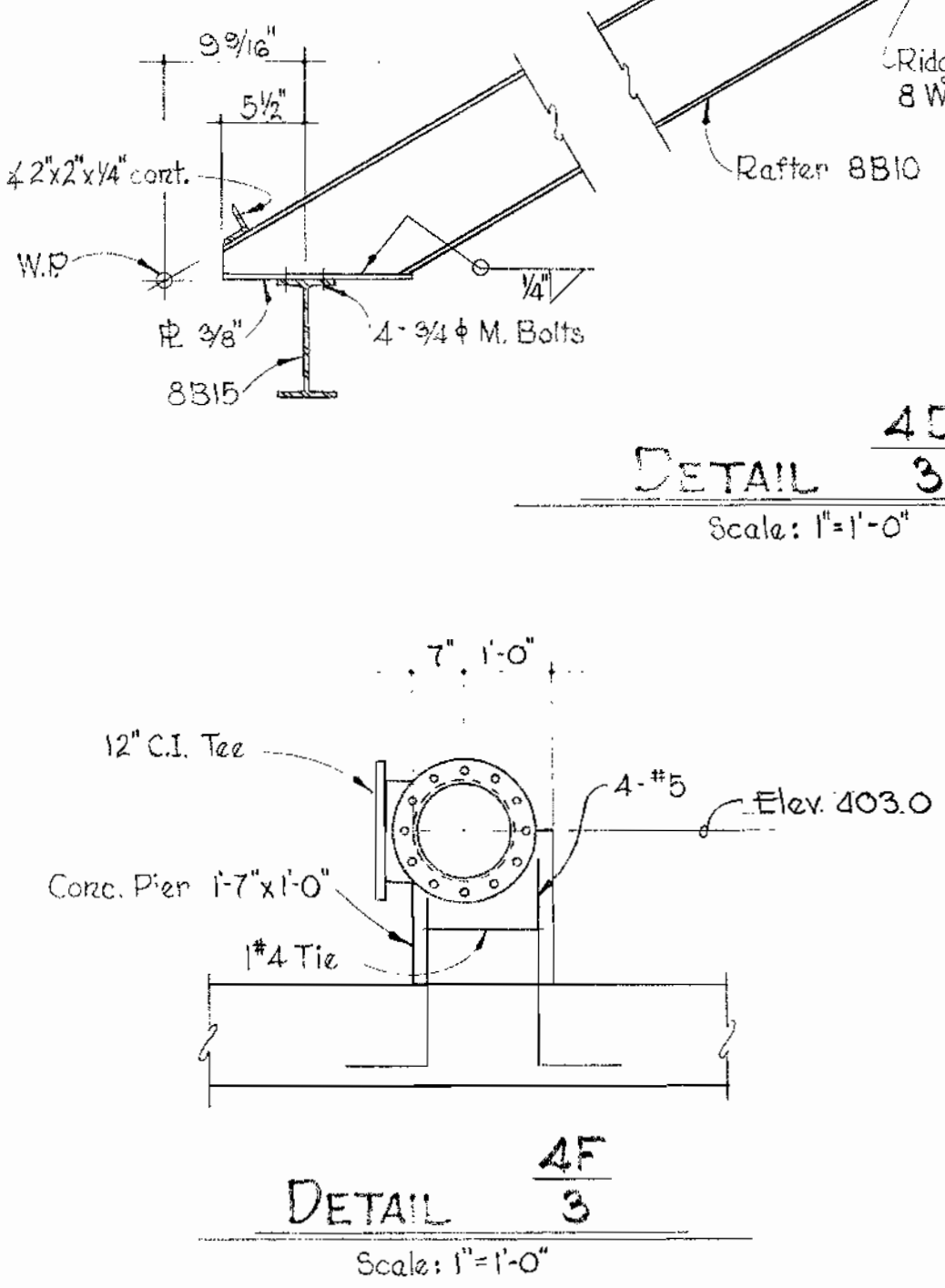
DOOR DETAIL ~ WEST WALL Scale: 1"=1'-0"



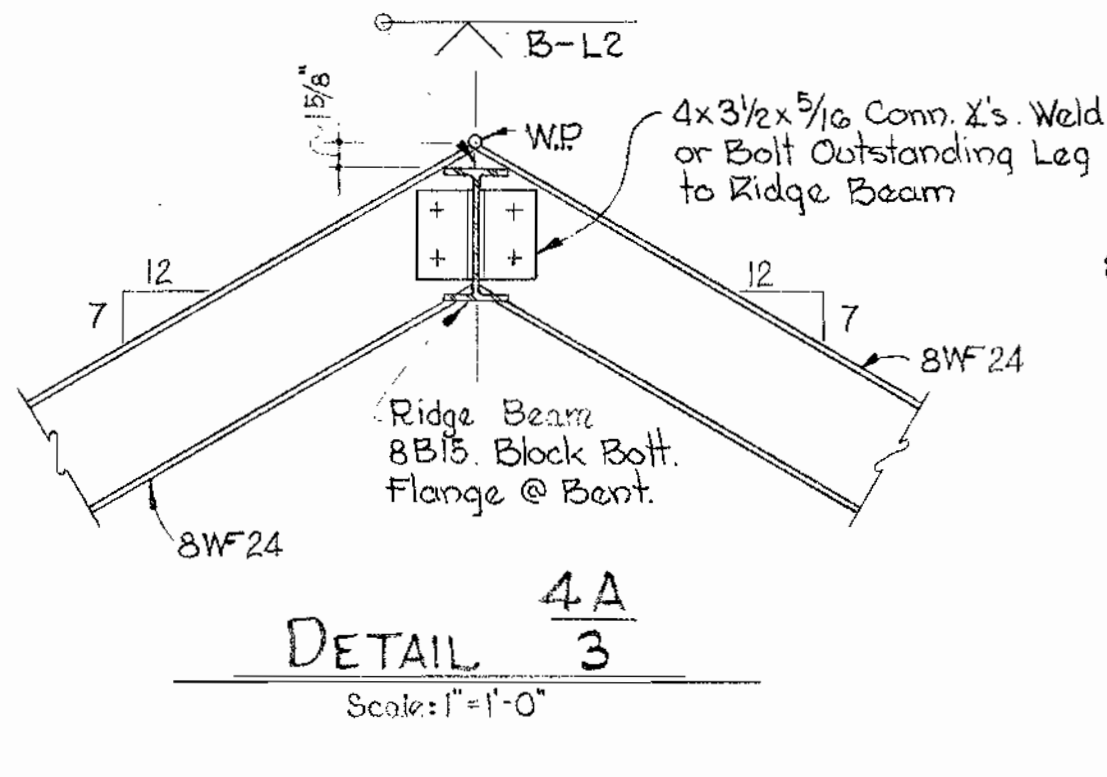
ROOF FRAMING PLAN Scale: 1/4"=1'-0"



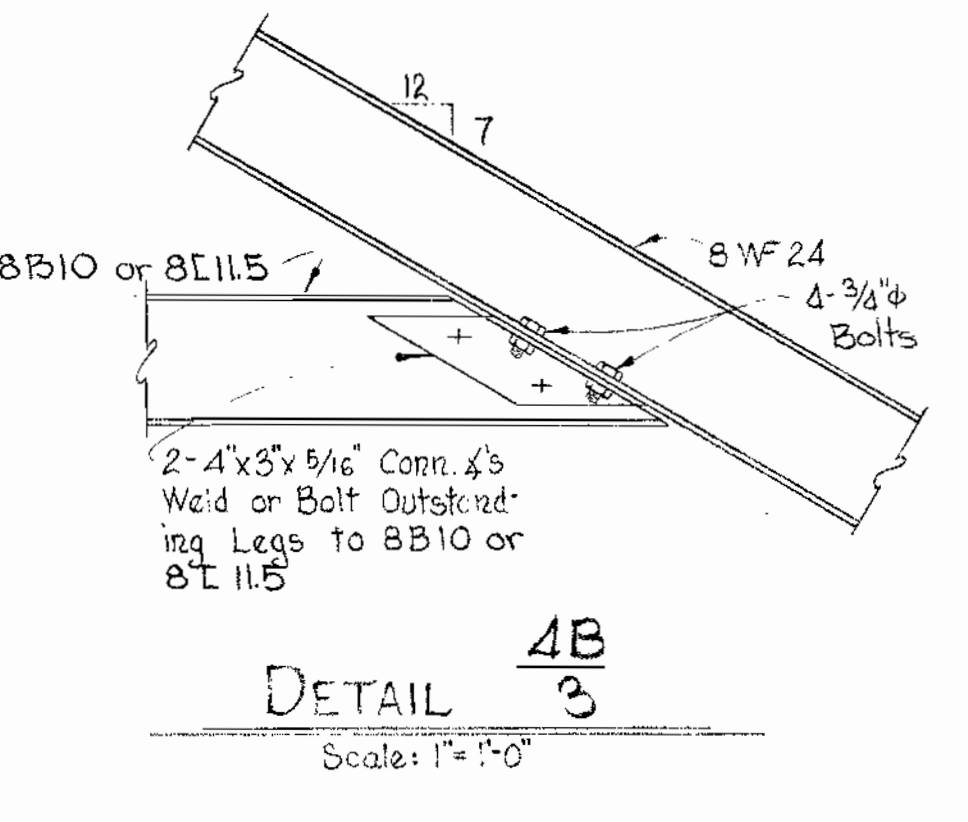
DETAIL 4C Scale: 1"=1'-0"



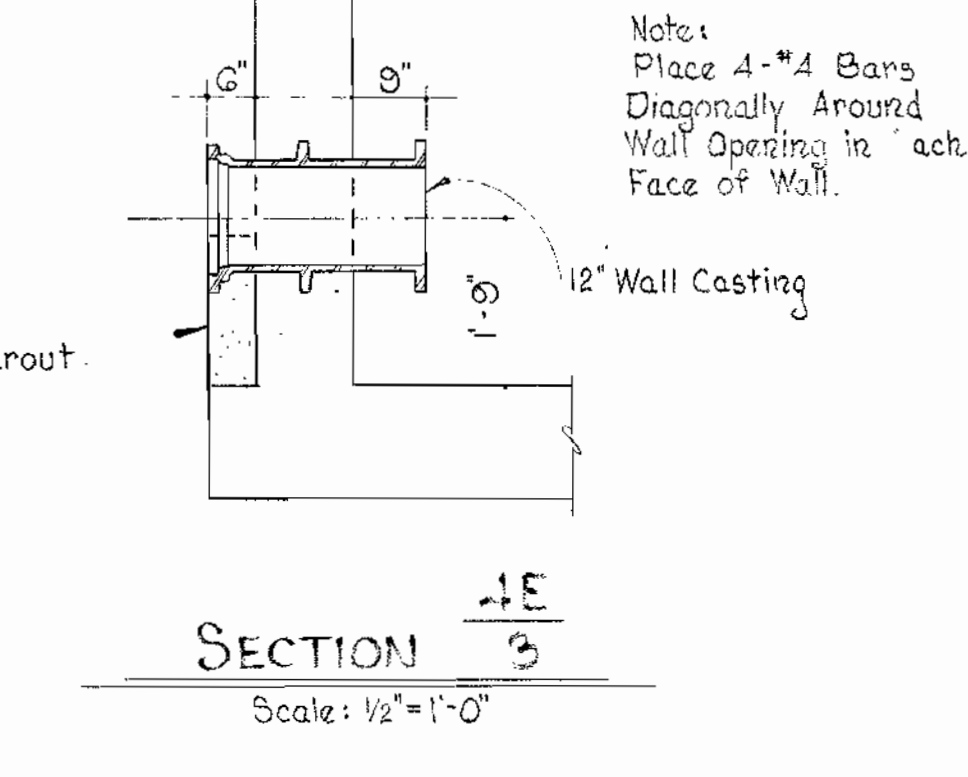
DETAIL 4F Scale: 1"=1'-0"



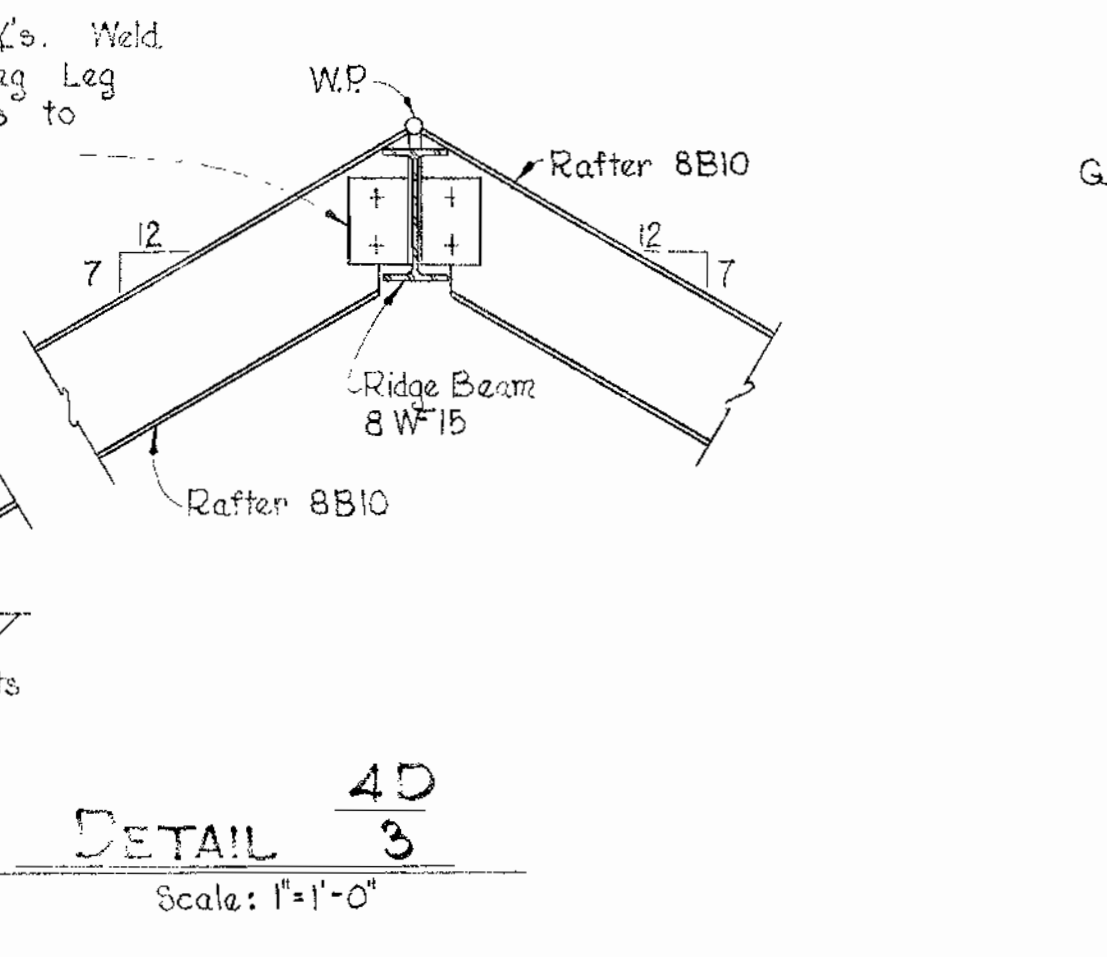
DETAIL 4A Scale: 1"=1'-0"



DETAIL 4B Scale: 1"=1'-0"



SECTION 4E Scale: 1/2"=1'-0"



DETAIL 4D Scale: 1"=1'-0"

- CONCRETE NOTES**
- All concrete shall have a minimum compressive strength of 3500 psi at 28 days. See specifications for other requirements.
 - Reinforcement shall be of intermediate grade steel conforming to ASTM-A15 with deformations conforming to ASTM-A305.
 - Reinforcing Bars shall be embedded and/or lapped a minimum of 30 diameters.
 - All exposed surfaces of floor slabs shall receive hardener.

- STRUCTURAL STEEL NOTES**
- All Structural Steel shall be ASTM-A36 and shall be detailed, fabricated and erected in accordance with the current AISC Code for Buildings. See Specifications for other requirements. All bolted connections shall be made with 3/4" bolts.

WHITMAN, REQUARDT & ASSOCIATES
 ENGINEERS
 1304 ST. PAUL ST.
 BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION
 Aug. 31, 1964
 DATE
 W. O. Libbert
 CHIEF ENGINEER

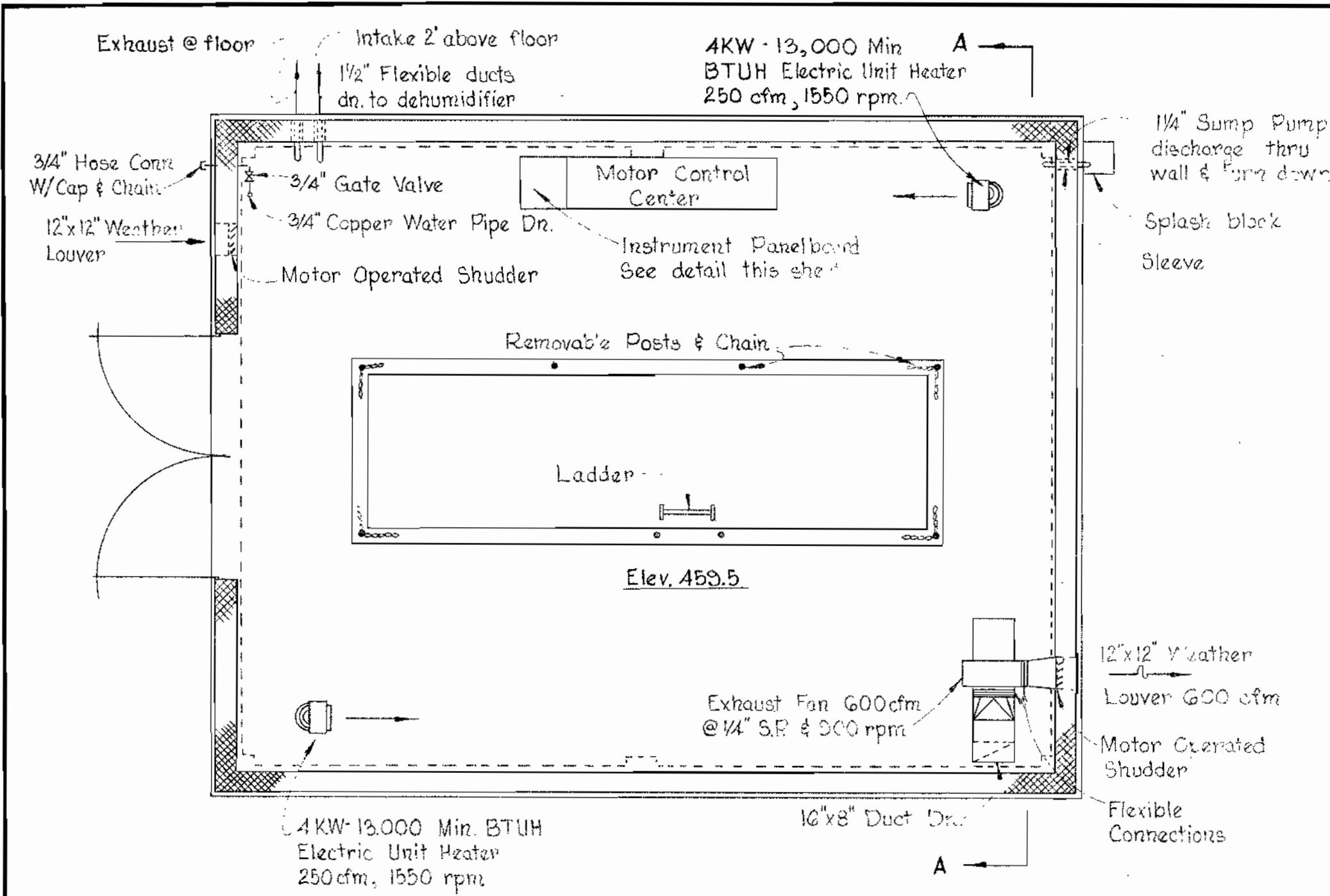
CONTRACT NO. 63-W

STRUCTURAL
 ROOF FRAMING PLAN & DETAILS

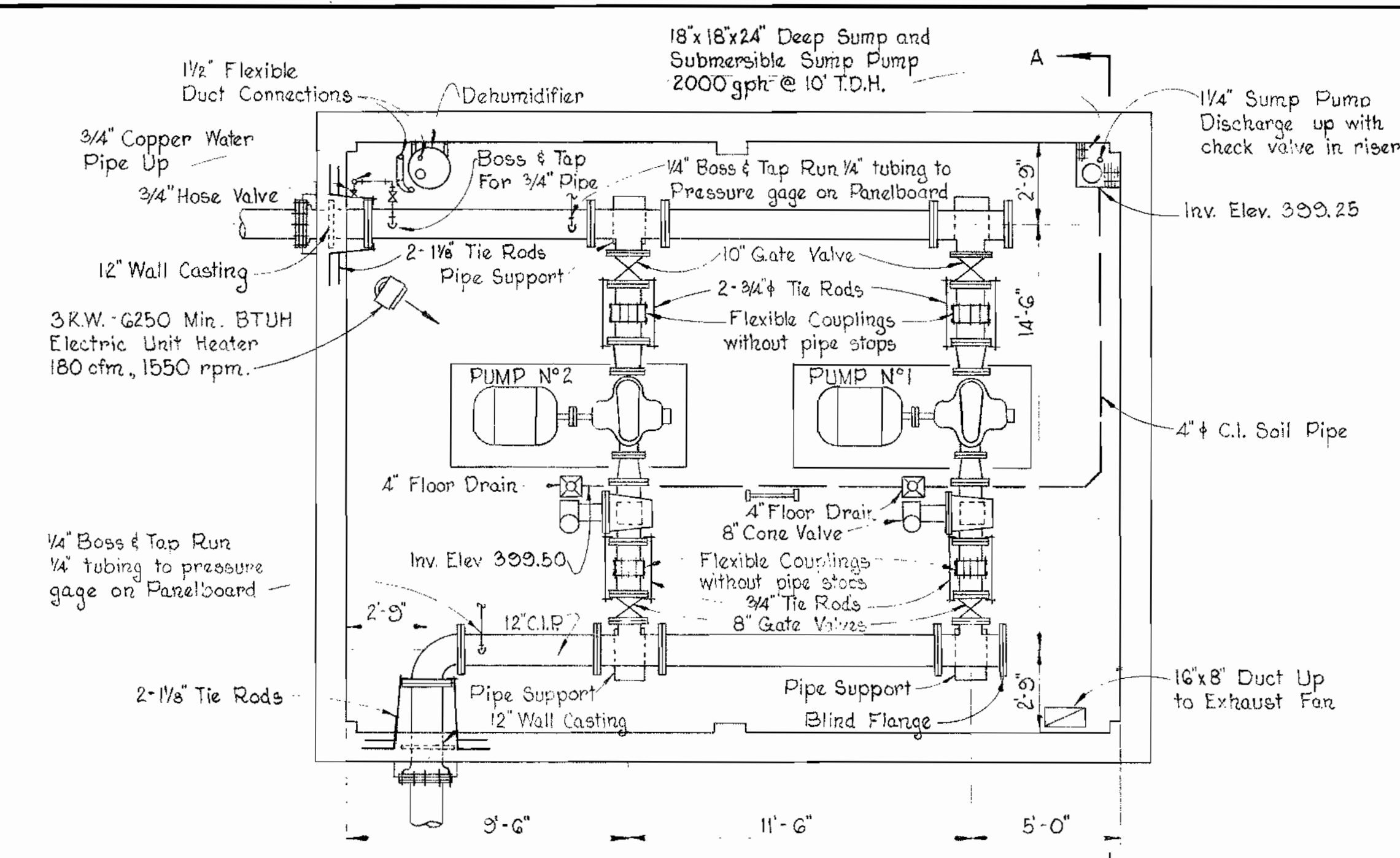
ELLCOTT CITY SUB-DISTRICT

DRAWING NO. 4 OF 6 SCALE AS SHOWN

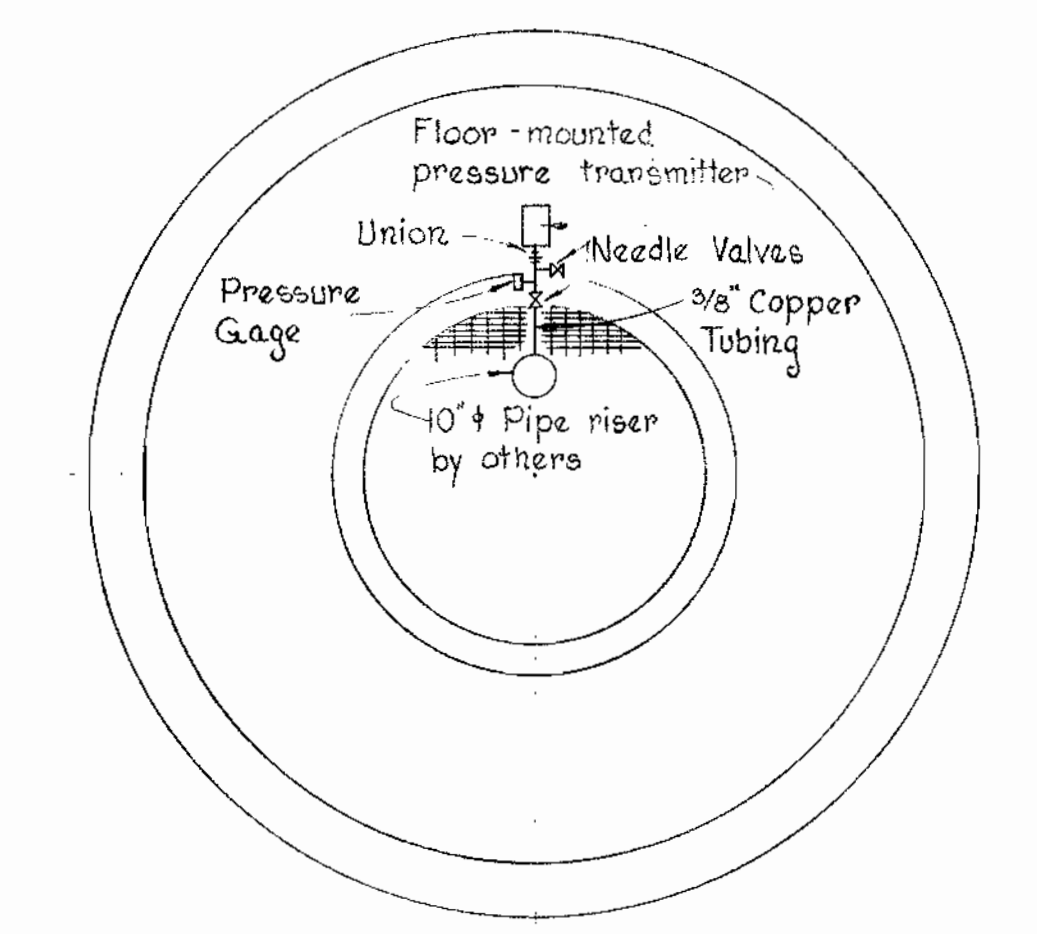
WS 63W/4



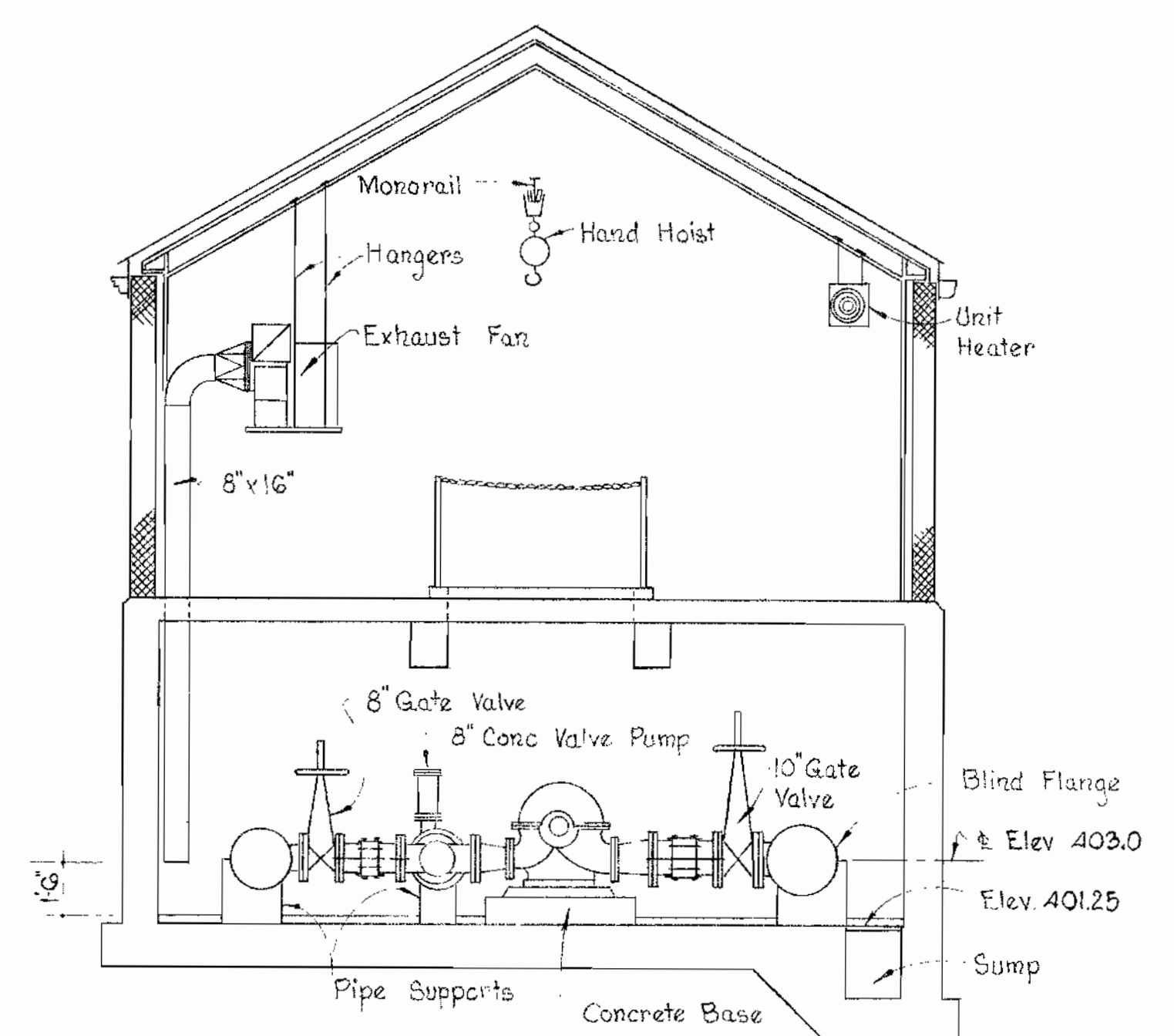
OPERATING FLOOR PLAN
Scale: 1/4" = 1'-0"



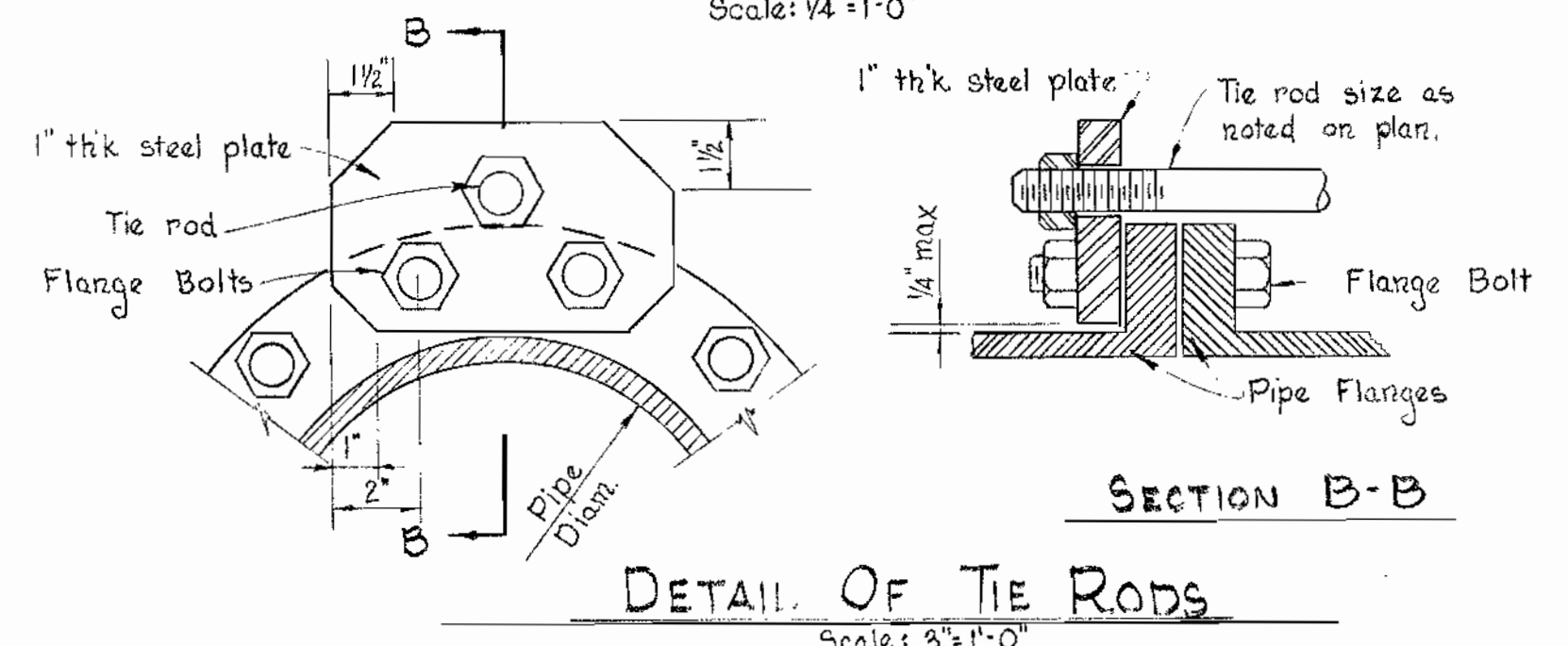
PUMP AND PIPING PLAN
Scale: 1/4" = 1'-0"



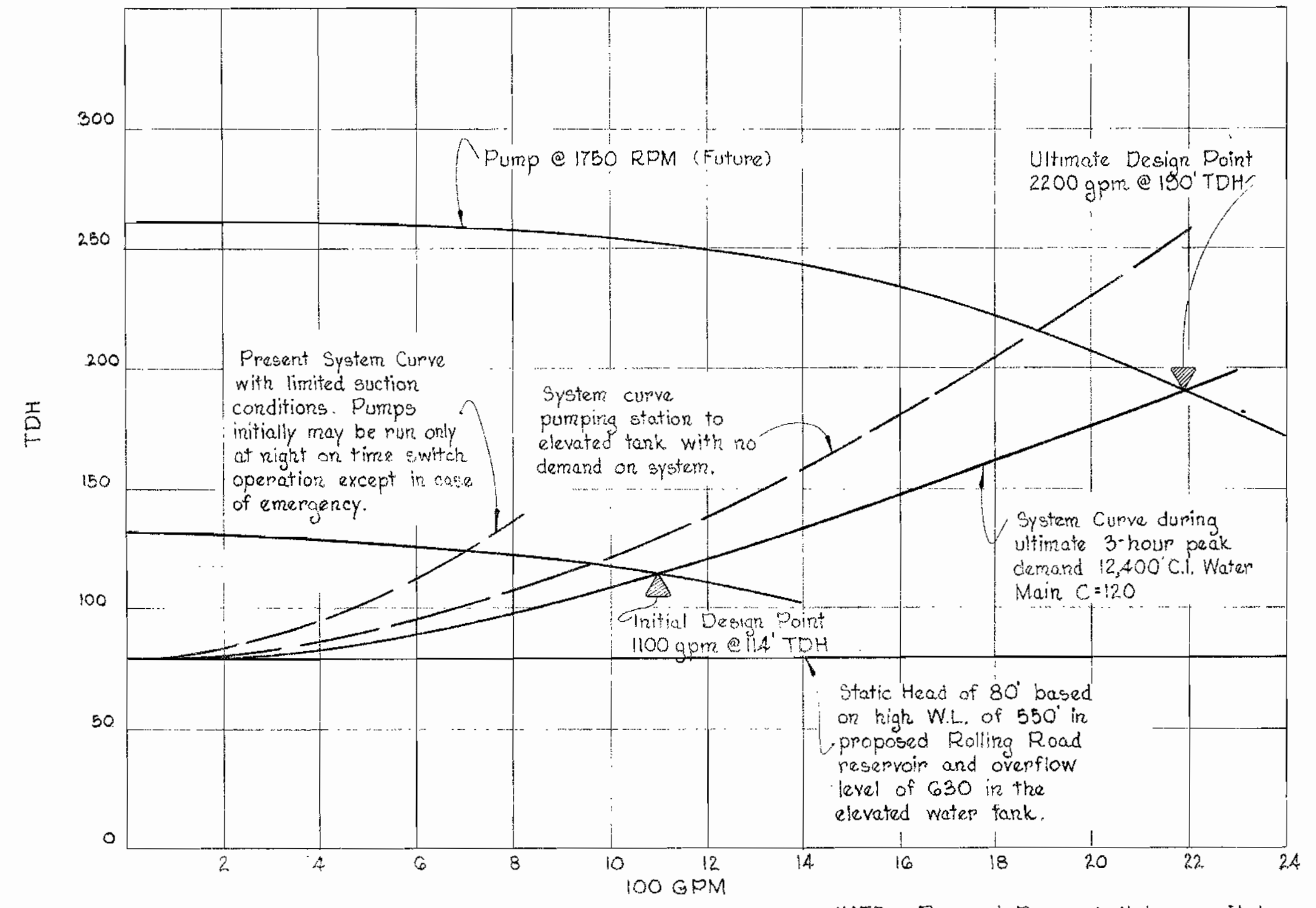
PLAN AT ELEVATED TANK BASE
Showing connection of transmitter under this contract.



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

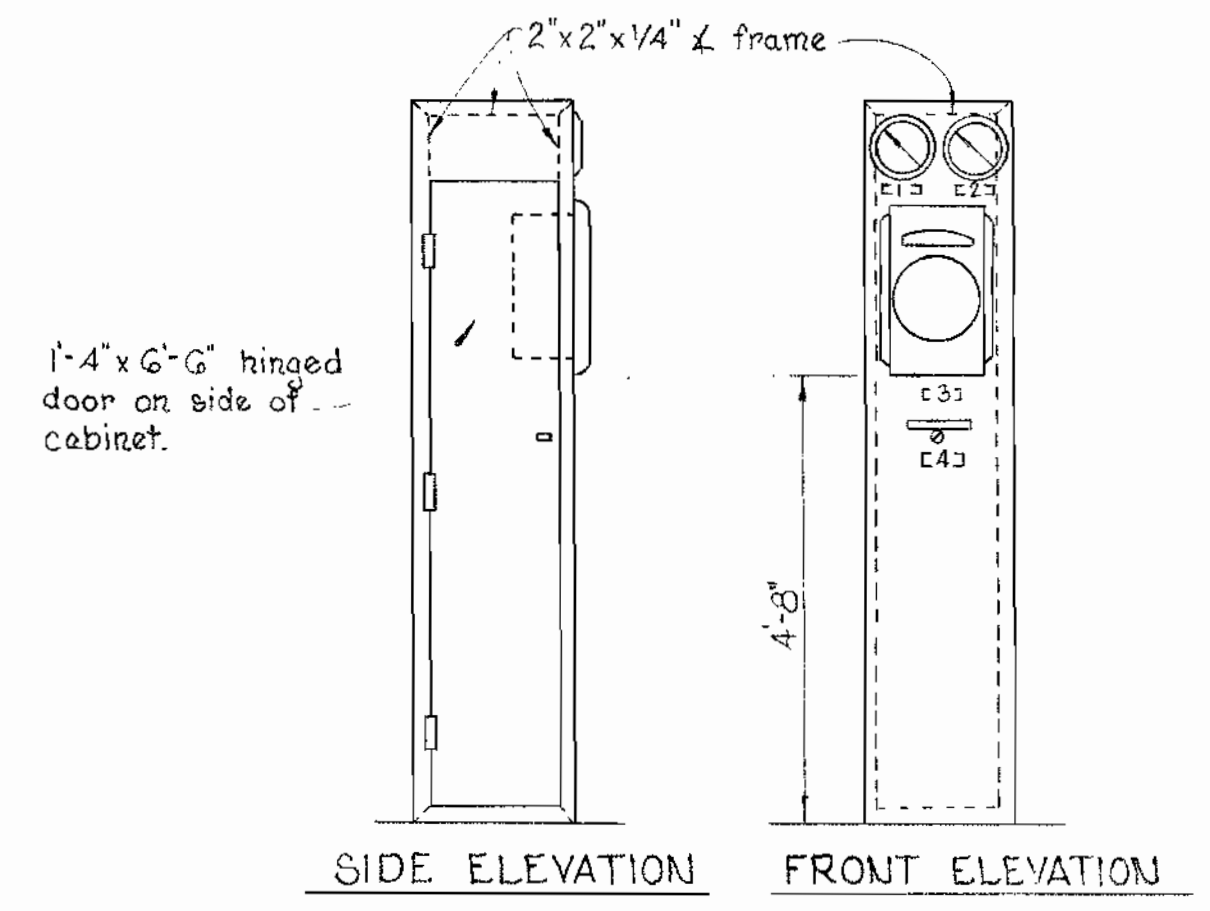


DETAIL OF TIE RODS
Scale: 3/8" = 1'-0"



SYSTEM CURVE

NOTE: Pump & Base shall be provided for ultimate design point and initially installed with motor & impeller to meet initial design point.

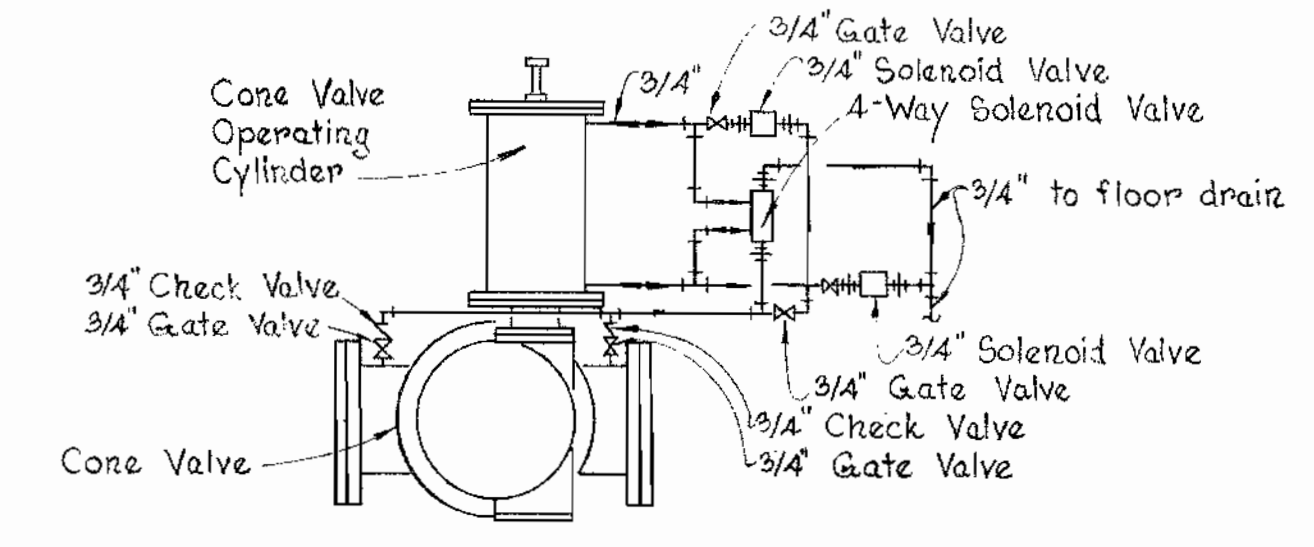


SIDE ELEVATION FRONT ELEVATION

LEGEND:
1- Suction pressure indicator
2- Discharge pressure indicator
3- Elevated tank level (indicator - recorder)
4- Pump selector switch

- INITIAL OPERATING WATER LEVELS**
- Elev. 630.0 Tank Overflow
 - Elev. 629.75 High Water Level Alarm
 - Elev. 629.5 Pump stop
 - Elev. 610.0 Pump start normal
 - Elev. 615.0 Low Water Level Alarm
 - Elev. 610.0 Pump start over-ride time switch on normal start.
 - Elev. 600.0 Tank Empty

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



CONE VALVE PIPING DIAGRAM
No Scale

WHITMAN, REQUARDT & ASSOCIATES
ENGINEERS
1304 ST. PAUL ST.
BALTIMORE, MARYLAND

HOWARD COUNTY METROPOLITAN COMMISSION
Aug. 31, 1964
DATE

CONTRACT NO. 63-W

MECHANICAL PLANS, SECTIONS & DETAILS

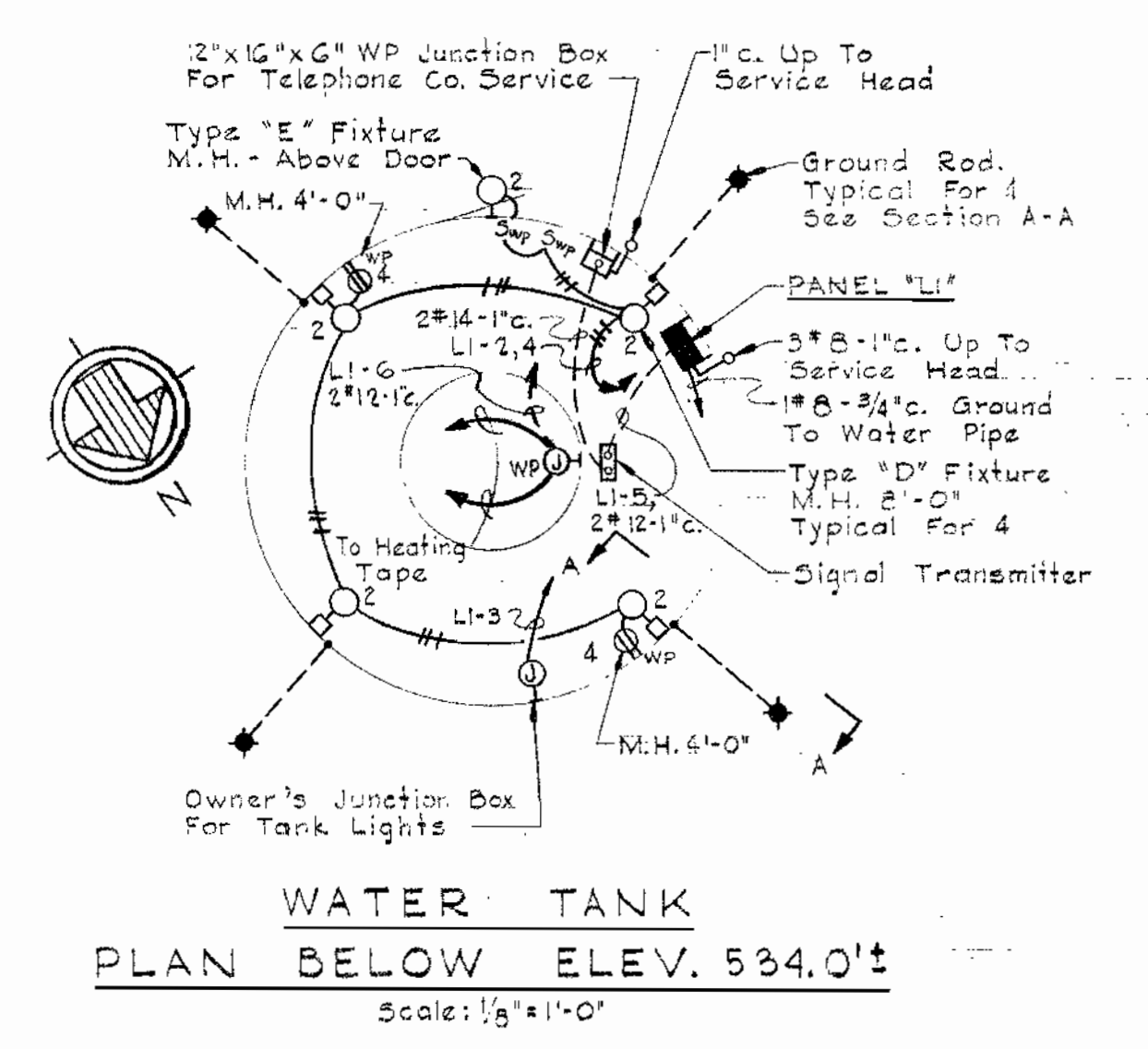
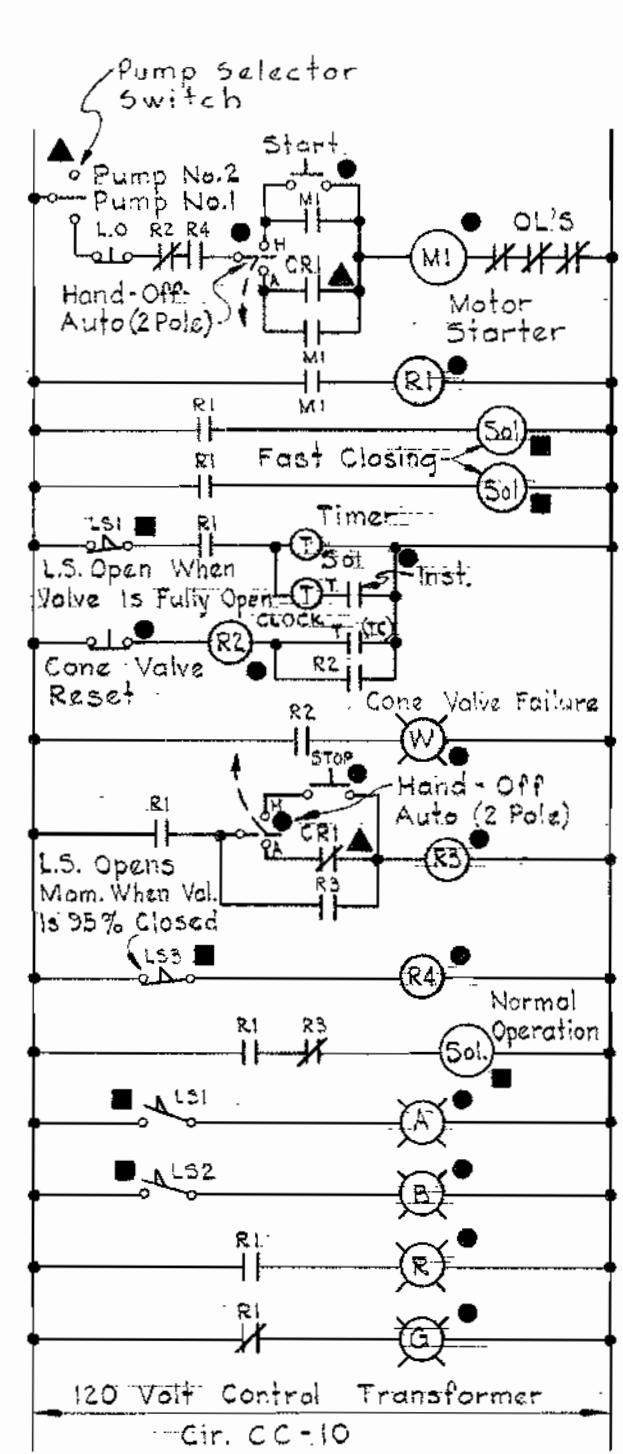
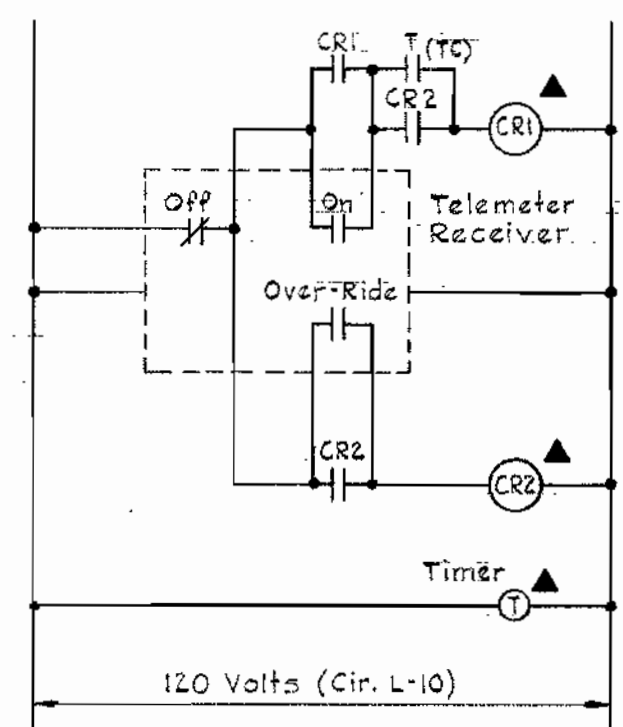
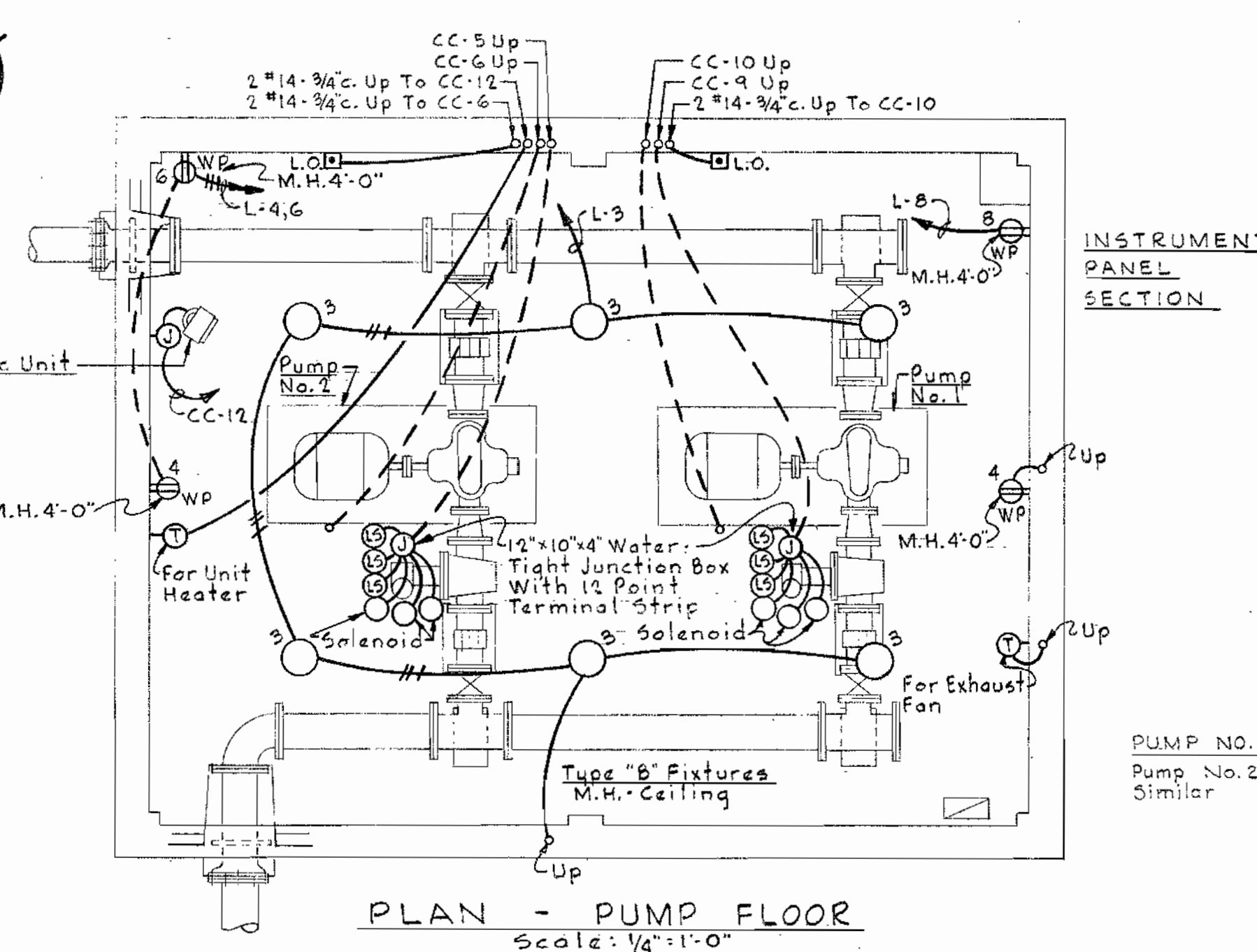
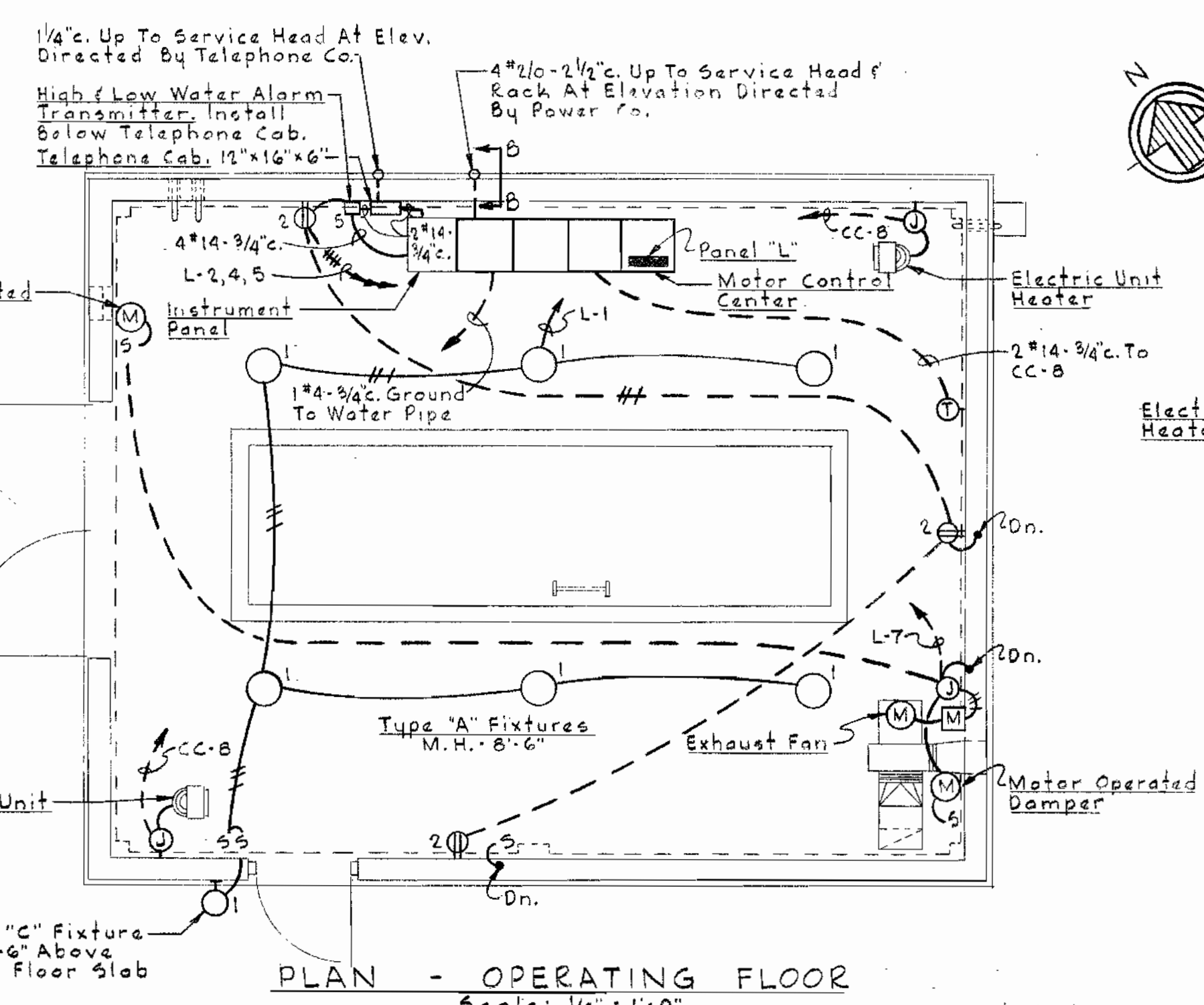
ELLCOTT CITY SUB-DISTRICT

DRAWING NO. 5 OF 6
SCALE AS SHOWN

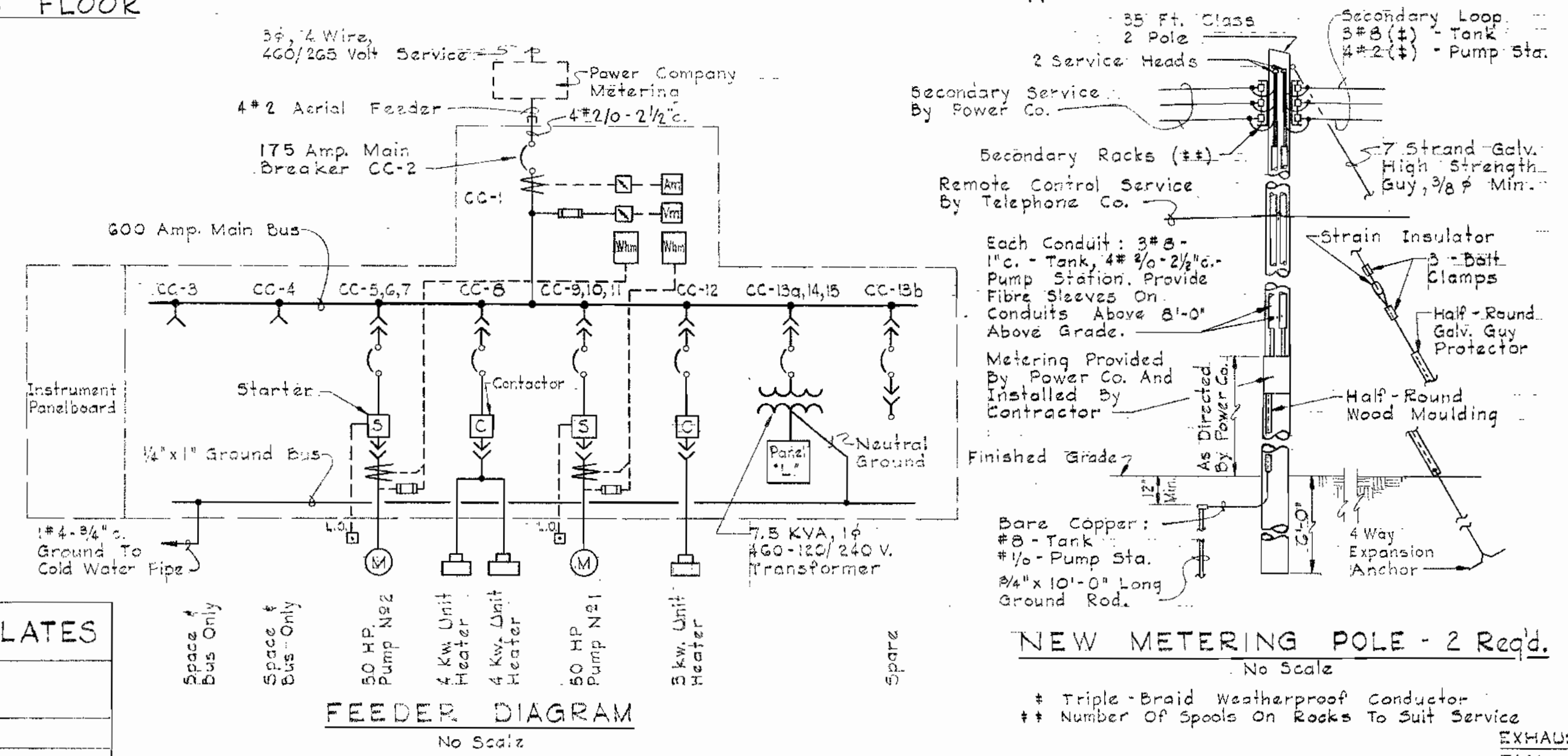
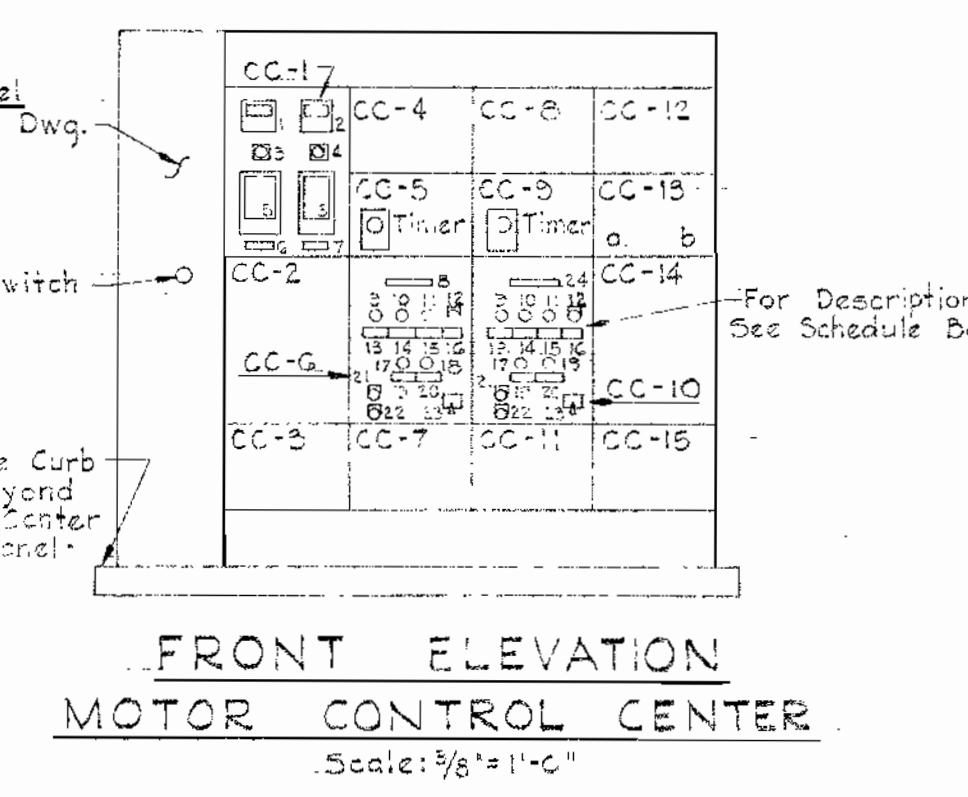
WS 63W/5

LEGEND

- Incandescent Lighting Fixture, Ceiling - Wall
- ⊖ Single Pole Toggle Switch, M.H. 4'-6" Unless Noted
- ⊕ Duplex Receptacle M.H. 18" Unless Noted
- ⊙ Motor
- ⊞ Lockout Pushbutton
- ⊞ Manual Motor Starter
- ⊞ Thermostat - M.H. 6'-0"
- ⊞ Weatherproof
- Conduit In Or On Ceiling Or Wall, See Specifications
- - - Conduit Concealed In Or Under Floor
- Home Run To Panelboard, Number Of Arrows Indicates Number Of Circuits; Number Of Cross Mark Indicates Number Of Conductors.
- Home Run To Motor Control Center, See Schedule For Number And Size Of Conductors And Conduit.
- ⊞ Limit Switch
- ⊞ Ground Rod
- ⊞ Junction Box



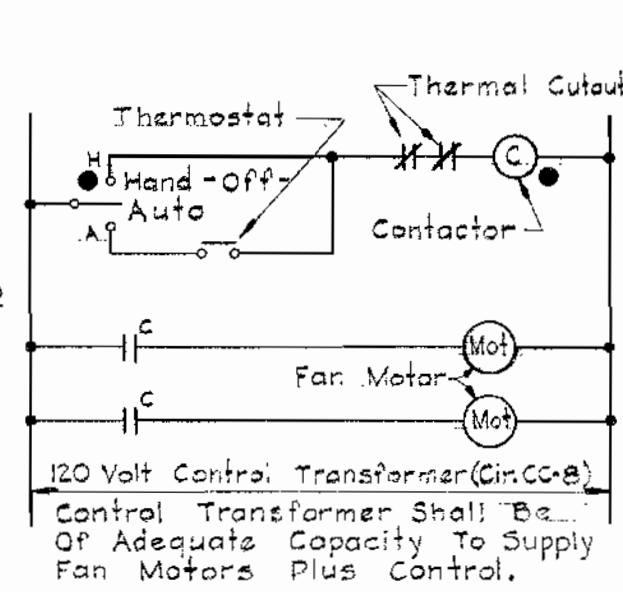
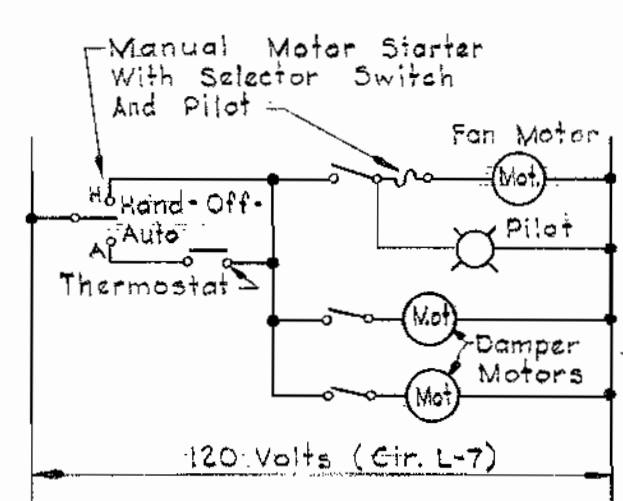
NOTE
Install Service Heads At Elevations Directed By Power & Telephone Companies. Install Rack For Power Service & Approved Termination For Telephone Service.



MOTOR CONTROL CENTER SCHEDULE

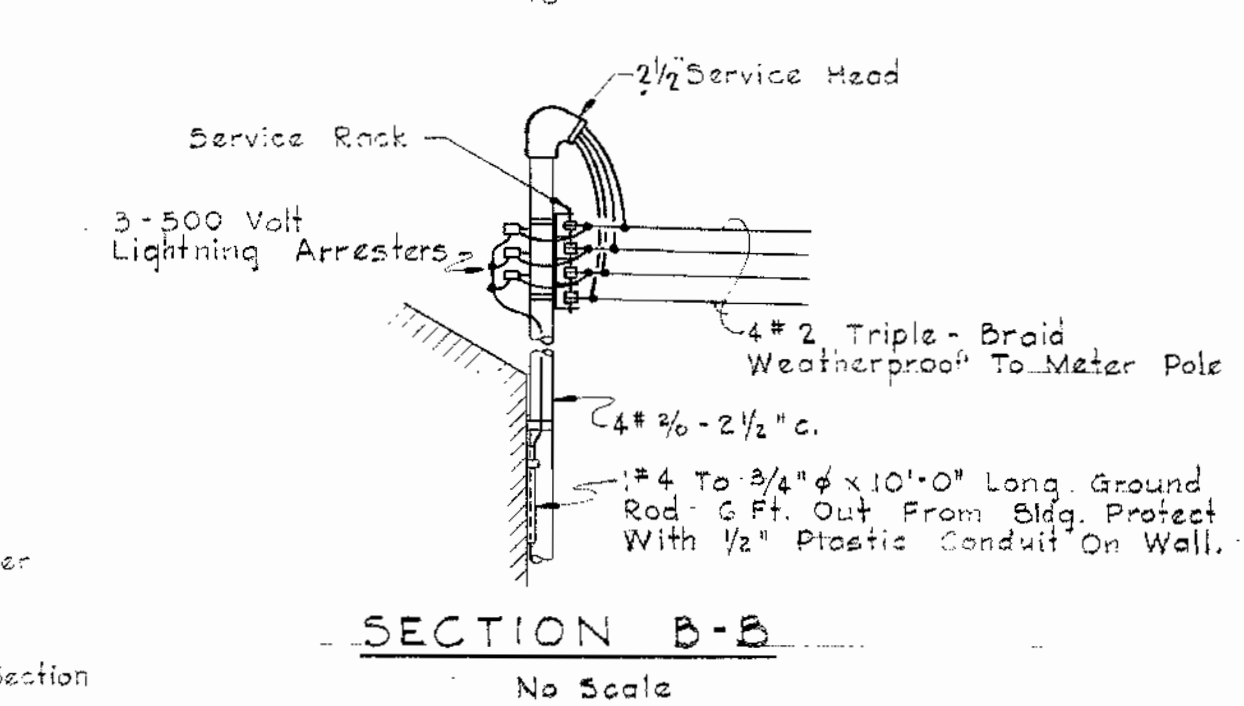
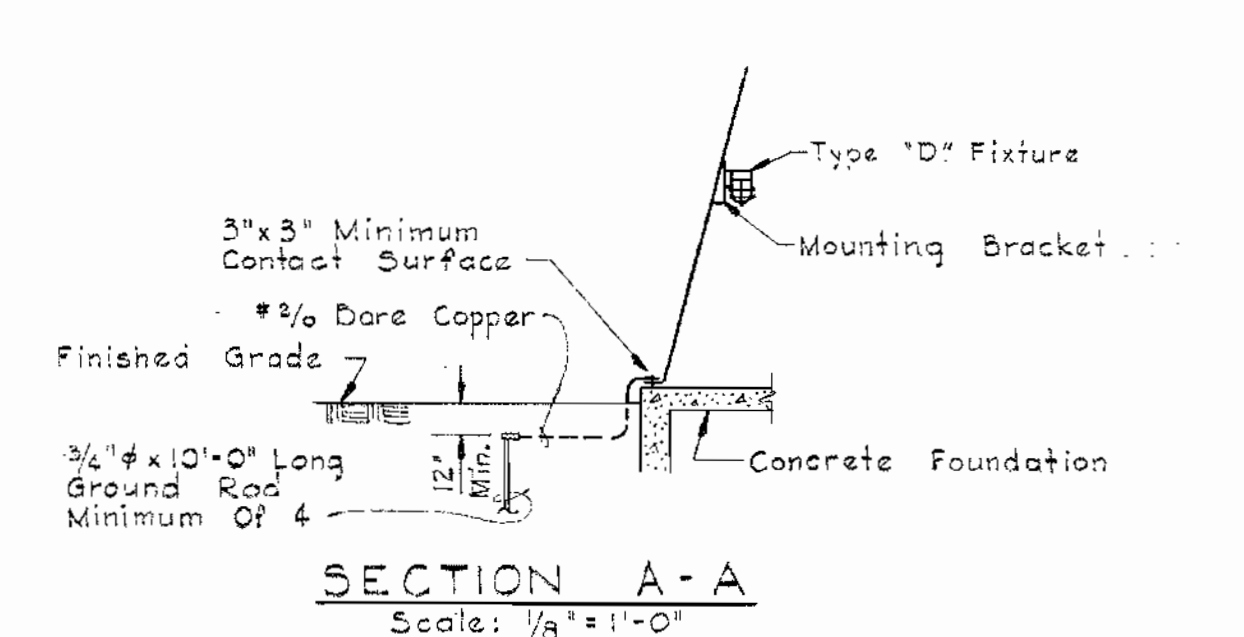
CIR. NO.	EQUIPMENT DESCRIPTION	H.P.	BASIC DEVICE	AUXILIARY DESCRIPTION	CIRCUIT BREAKER FRAME POLES	CALIB. NO.	WIRE SIZE	COND. SIZE	GRND. WIRE SIZE
CC-1	Meter Section		Meters, Switches, Etc.	See Front Elev.					
CC-2	Main Breaker	*	Circuit Breaker		225	3	175		
CC-3	Space & Bus Only	**	Future Size 1 Starter						
CC-4	Space & Bus Only	**	Future Size 1 Starter						
CC-5	Cone Valve Relays, Pump No. 2		Relays, Timers, Etc.						
CC-6	Pump No. 2	50	Comb. Starter Size 3, FVNR	See Front Elev.	225	3	125	3	14 1/2"
CC-7	Current Transformers	*	Metering CT's & Fuses						
CC-8	Unit Heaters	2 @ 4 Kw	Comb. Contactor Size 1		100	3	20	5	12 1/2"
CC-9	Cone Valve Relays, Pump No. 1		Relays, Timer, Etc.						
CC-10	Pump No. 1	50	Comb. Starter Size 3, FVNR	See Front Elev.	225	3	125	3	14 1/2"
CC-11	Current Transformers	*	Metering CT's & Fuses						
CC-12	Unit Heater	5 Kw	Comb. Contactor Size 1		100	3	15	5	12 1/2"
CC-13a	Transformer Primary Breaker	*	Circuit Breaker		100	2	20	By Mfg.	
CC-13b	Spare	**	Circuit Breaker		100	3	30	By Mfg.	
CC-14	Panel "L"	*	12 Cir. Panelboard - 14, 5W, 120/240 V.						
CC-15	7.5 KVA Transformer	*	16.60" Transformer 460-120/240 V.						

AUXILIARY DESCRIPTION
* Provide Engraved Legend Plate With Wording As Shown.
** Provide Blank Legend Plate
c. HAND-OFF-AUTO Selector Switch



CONTROL DIAGRAMS

- Device Located At Motor Control Center
- Device Located At Cone Valve
- ▲ Device Located In Instrument Panel Section



SCHEDULE - CONTROLS, METERS, LEGEND PLATES

ITEM NO.	DESCRIPTION	LEGEND
1	Voltmeter, Scale 0-600 Volts	
2	Ammeter, Scale 0-200 Amperes	
3	Voltmeter Switch - Four Position	OFF, 1-2, 2-3, 3-1
4	Ammeter Switch - Four Position	OFF, 1, 2, 3
5	Watthour Meter	
6	Legend Plate	Pump Motor No. 2
7	Legend Plate	Pump Motor No. 1
8	Legend Plate	Cone Valve No. 2 & Pump Motor No. 2
9	Blue Indicating Light	
10	White Indicating Light	
11	Amber Indicating Light	
12	N.C. Momentary Contact Pushbutton	Reset
13	Legend Plate	Cone Valve Closed
14	Legend Plate	Cone Valve Failure
15	Legend Plate	Cone Valve Open
16	Legend Plate	Cone Valve Reset
17	Red Indicating Light	
18	Amber Indicating Light	
19	Legend Plate	Pump Motor On
20	Legend Plate	Pump Motor Off
21	N.O. Momentary Contact Pushbutton	Start
22	N.O. Momentary Contact Pushbutton	Stop
23	Two-Pole, 3-Position Selector Switch	Hand-Off - Auto
24	Legend Plate	Cone Valve No. 1 & Pump Motor No. 1

WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 1304 ST. PAUL ST. BALTIMORE, MARYLAND	HOWARD COUNTY METROPOLITAN COMMISSION Aug. 31, 1964 DATE CHIEF ENGINEER	CONTRACT NO. 63-W	ELECTRICAL PLAN, DETAILS & WIRING DIAGRAMS	ELLCOTT CITY SUB-DISTRICT	DRAWING NO. 6 OF 6	SCALE AS SHOWN
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WS 63W/6