

ADDENDUM NO. 1

PROJECT: Fort Thomas Treatment Plant Basin Improvements

ISSUE DATE: Monday February 9, 2015

BID OPENING: Tuesday February 24, 2015 2:00PM

PURPOSE: This addendum is issued to address questions raised in the pre bid meeting of Friday February 6, 2015.

ITEMS:

Item No. 1: General – Pre-Bid. The sign in sheet and meeting agenda for the pre-bid meeting is attached for reference.

Item No. 2: General. Contract Time. The Contract Time stated in the Agreement Section 00500 Item 3.1 will be extended by the amount of 365 calendar days to bring the total Contract Time to **740** calendar days. Substantial completion shall be reached within **710** calendar days. The Contractor must complete, at a minimum, the Rapid Mix #1 improvements and all valve and slide gate replacements between November 1, 2015 and April 15, 2016. All other work can be staged and completed at the contractors discretion within the Contract Time provided, but must comply with the staging and work period requirements as previously set forth in the Contract Documents.

Item No. 3: General. Construction Staging. The Contractor shall complete all work related to the Rapid Mix #1 improvements within 60 calendar days. The Rapid Mix #1 shall not be out of service for more than 60 days unless otherwise approved in writing by the Owner.

Item No. 4: General. Work Hours. The Owner is willing to work with the Contractor regarding working five (5), 10 hour days per week if needed to complete the work.

Item No. 5: General. Work Hours. The Owner will not allow working outside of standard daylight hours due to nearby residential neighborhoods and past issues with complaints. No night time work will be permitted.

Item No. 6: General. Basins. The basins were not able to be drained for the pre-bid meeting due to the presence of ice. The Owner will still attempt to drop a basin prior to the bid opening if weather permits to allow perspective bidders to inspect the basin prior to bid. Bidders will be notified via addendum or telephone in advance.

Item No. 7: General. Basin Dimensions Verification. The Owner has planned maintenance and cleaning scheduled for March/April for Basin #2 and #3. The low bidder will be able to perform any verification of dimensions and basin inspections needed at that time.

- Item No. 8: General. Basin Cleaning/Construction Start.** Basins #2 and #3 and Rapid Mix #1 will be cleaned and drained by the Owner and ready for the Contractor to begin work on November 1, 2015.
- Item No. 9: General. Basins in Service.** The Contractor will be permitted to put completed basins back into full service following the successful completion of the startup and testing requirements for each piece of new equipment on the basin. In the event a problem arises following the restoration of service, the Contractor will be responsible for working with the Owner to quickly fix any issues that arise with the basins and new equipment once put back into service.
- Item No. 10: General. Contractor Questions Cut-off Date.** The cutoff for Contractor questions regarding the project will be Friday February 20th, 2015 at 4:00 PM. Direct questions to Brett Fisher, PE at HDR Engineering at 859-629-4841 (desk) or brett.fisher@hdrinc.com.
- Item No. 11: General. Site Visits Coordination.** Contractors shall coordinate site visits during bidding with Kevin Owen, the plant maintenance supervisor, by calling 859-991-1641 or emailing at owen@nkywater.org.
- Item No. 12: General. Supplemental Information.** Select sheets from the 1935 record drawings for Basins #2 and #3 are provided as an attachment to this addendum for the Contractor's general reference in determining quantities for demolition, etc. These are not construction drawings and all dimensions should be verified by the Contractor for accuracy.
- Item No. 13: General. Tube Settlers Temporary Support.** The following pictures show the typical clarifier sludge collection system drive platform and beam structures for the Contractor's general information for developing a temporary support system for the existing tube settlers in the clarifiers of Basin #2 and #3 during construction.





Item No. 14: Specifications. Tube Settlers – Contact Information Update. As of February 5, 2015, Pelton Environmental became the manufacturer’s representative for Brentwood/Polychem products. Replace the contact information in Section 11227 Item 1.4B in its entirety with the following:

*Jim Pelton
Pelton Environmental
Office: 440-838-1221
www.PeltonEnv.com*

Item No. 15: Specifications. Lead Paint. The following shall be added to Section 09906 Item 1.9B as sub item ‘3’:

3. The Contractor is put on notice that previous testing for lead in the filter bays showed low levels of lead are present in some of the existing paint coatings in the filter bays’ ceilings. Due to the presence of any lead, Contractor must adhere to the applicable OSHA standards for lead paint precautions on this project.

Item No. 16: Specifications. Floor Hatches. Section 05500 Item 2.13B shall be replaced in its entirety with the following:

B. The floor hatches, frames, and all hardware shall be constructed of 316 stainless steel for the hatch to be located above the influent flume inside the filter building. The stainless steel covers shall be reinforced to be capable of withstanding a uniform live load of 300 psf. All other hatches on the project shall be aluminum covers with 316 stainless steel hardware as specified in item 2.13A above and shall be reinforced to be capable of withstanding a uniform live load of 300 psf.

Item No. 17: Specifications. Slide Gates. Section 02640 Item 2.6B shall be replaced in its entirety with the following:

B. The slide gates shall be Series 20 316L stainless steel flow control slide gates as manufactured by Fontaine/Rodney-Hunt Machine Co., Orange, MA; Golden Harvest, Inc., Burlington, WA, or approved equal product.

Item No. 18: Specifications. DWSRF Forms. Section 00810 bears reference to SRF Forms 6100-2, 6100-3, and 6100-4. These forms have been attached to this Addendum for Contractor use.

Item No. 19: Plans. Electrical. Light Poles Clarification. LF-1 pole light fixtures shown on sheets 0E104 and 0E105 are to be LED fixtures by "CREE" catalog number ARE-EDG-4M-AA-06-E-UL-BZ-700-P. Fixtures are mounted on a 25' tall break away pole with hinge at approximately 12'.

Item No. 20: Plans. Electrical. Voltages Clarification. Sheet 01E107 references 480 volt power in multiple locations throughout the schematics. All references to 480 volt power throughout sheet 01E107 shall be changed to 208 volt.

Item No. 21: Plans. Electrical. Enclosure Types. Section 16010 Electrical Basic Requirements 1.7 Classification of areas does not agree with the Enclosure type in section 16265 Variable Frequency drives 2.7.A.4b. All interior mounted controls and VFD enclosures shall have NEMA 12 enclosures.

Item No. 22: Plans. Process. Slide Gates. Sheet 01D107, "Rapid Mix #1 Lower Floor Plan" shall be changed to denote the proposed 36" Slide Gates as "Rising Stem", not "Non-Rising Stem".

THE END

Bidders **must** acknowledge receipt of this addendum by attaching this addendum to their completed bid.

Pre-Bid Conference
Fort Thomas Treatment Plant Basin Improvements
Northern Kentucky Water District

Friday February 6, 2015 9:30 AM

Attendance Register

Name	Company	Phone	Email
JERRY BRUNO	DANIS	937-228-1225	Jerry.bruno@danis.com
Amy Kramer	NKWD	859-426-2734	akramer@nkywater.org
Tim Mason	Suburban Maint.	216 990 6397	rwilliams@smciconstruction.com
XUYEN HINH	Dugan & Meyers	513-891-4300	xhinh@dugan-meyers.com
Dennis Nutley	SSRG	572-222-4129	dnutley@ssrg.com
JASON FISHER	D+M	513-891-4300	fisher@dugan-meyers.com
Austin Schultz	D+M	513-891-4300	austinschultz@dugan-meyers.com
JEFF BEITING	L&E	937 743 1220	jbeiting@americalelectric.com
DOUG KROFT	CONCRETE CUTTING & BREAKING	216-618-0945	DKROFTCCB@gmail.com
STEVE JUDY	JUDY CONSTRUCTION CO.	859 221 5198	sjudy@judyconstructionco.com
GARY LUBIN	HENRY P. THOMPSON CO	513-702-7774	glubin@hpthompson.com
Brad Miller	Building Crafts, Inc.	859.781.9500	bmiller@buildingcrafts.com
Greg Johnson	Building Crafts, Inc.	859-781-9500	gjohnson@buildingcrafts.com
LUKA OLIPHANT	CLEARY CONSTRUCTION	270-303-8198	lukaoliphant@clearyconst.com

Pre-Bid Conference
Fort Thomas Treatment Plant Basin Improvements
Northern Kentucky Water District

Friday February 6, 2015

Agenda

Opening Remarks/Sign-In

General Information

- Bid Documents from:
 - ARC Central - 1108 New Circle NE Suite 102 – Lexington
 - Phone (859) 699-5105 www.e-arc.com
 - \$170 set – Plans & Specs
- Viewing Only at: Dodge/ACI Planroom/iSqFt Plan Room/Builders Exchange

Major Work Items – Water Plant Basins #2 and #3 and Rapid Mix #1

- Demolition of existing horizontal flocculators, clarifier sludge collection systems, wooden baffle walls, rapid mix equipment, miscellaneous concrete, and miscellaneous electrical.
- Convert Basin #2 and #3 to three stage flocculation with concrete wall baffles
- Convert Basin #2 and #3 to vertical impeller flocculators and controls and provide access walkways.
- Repair concrete around the top portion of exterior walls of Basin #2 and #3.
- Replace sludge collection systems and controls in Basin #2 and #3.
- Construct concrete baffle walls in rapid mix and install new rapid mixer and controls
- Install temporary bulkhead in Basin #2 and #3 effluent flume and replace existing access hatch in filter building
- Replace influent and effluent slide gates to Basin #2 and #3 and provide electric actuators
- Replace 30" butterfly valves and electric actuators
- Replace 6" plug valves and electric actuators
- Complete miscellaneous concrete repairs and electrical work associated with new equipment (NO SCADA)
- Complete structural concrete repair work in filter building basement
- Complete filter bays paint restoration (if Additive Alternate No. 1 is awarded)

Bid Opening Details

- Submission of Bids to Northern Kentucky Water District's Office, 2835 Crescent Springs Road, Erlanger, KY 41018
- Bid Receipt until 2:00 PM local time (ET), February 24, 2015.
- Opening thereafter, Northern Kentucky Water District's Office, First Floor Meeting Room, 2835 Crescent Springs Road, Erlanger, KY 41018

Bid Format/Requirements

- Base Bid – Sheet 00300

- Contract – Lump Sum with Unit Price Concrete Repair Work Items (Section 01025)
- Required Attachments – Bidder Must Provide
 - Bid Bond – 10% (Section 00430)
 - Other Attachments - Section 00440
 - Non-Collusion Affidavit – Section 00460
 - Affidavit for Claiming Resident Bidder Status - 00470
 - SRF Forms and Certifications (Section 00810)
 - EEO Goal Requirements (attachment 4-7)
 - EEO Documentation Checklist (attachment 7-9)
 - Debarment, Suspension, Other Matters (attachment 10)
 - Anti-Lobbying (attachment 11)
 - Disadvantaged Business Enterprise Program Forms and Attachments (attachment 12-13). Specific items to be submitted within 7 days of the Bid opening include:
 - EPA Form 6100-2, DBE Subcontractor Participation
 - EPA Form 6100-3, DBE Subcontractor Performance
 - EPA Form 6100-4, DBE Subcontractor Utilization
 - Disadvantaged Enterprise Participation Policy
 - List of DBE Bidders of Subcontractors
 - Consequences of Not Providing Required Items
 - Project Funded through KIA Drinking Water SRF

Bid Evaluation

- Award made based on the provisions set forth in Section 00100, Item 17

Labor Requirements – State and Federal Required

- Wage Rates – Included in Bid Documents/Updated by Addendum

Performance Requirements

- Construction Period – 375 days from Notice to Proceed
- Liquidated Damages - \$750 per day (Article 3 – Section 00500)

Sequence of Construction

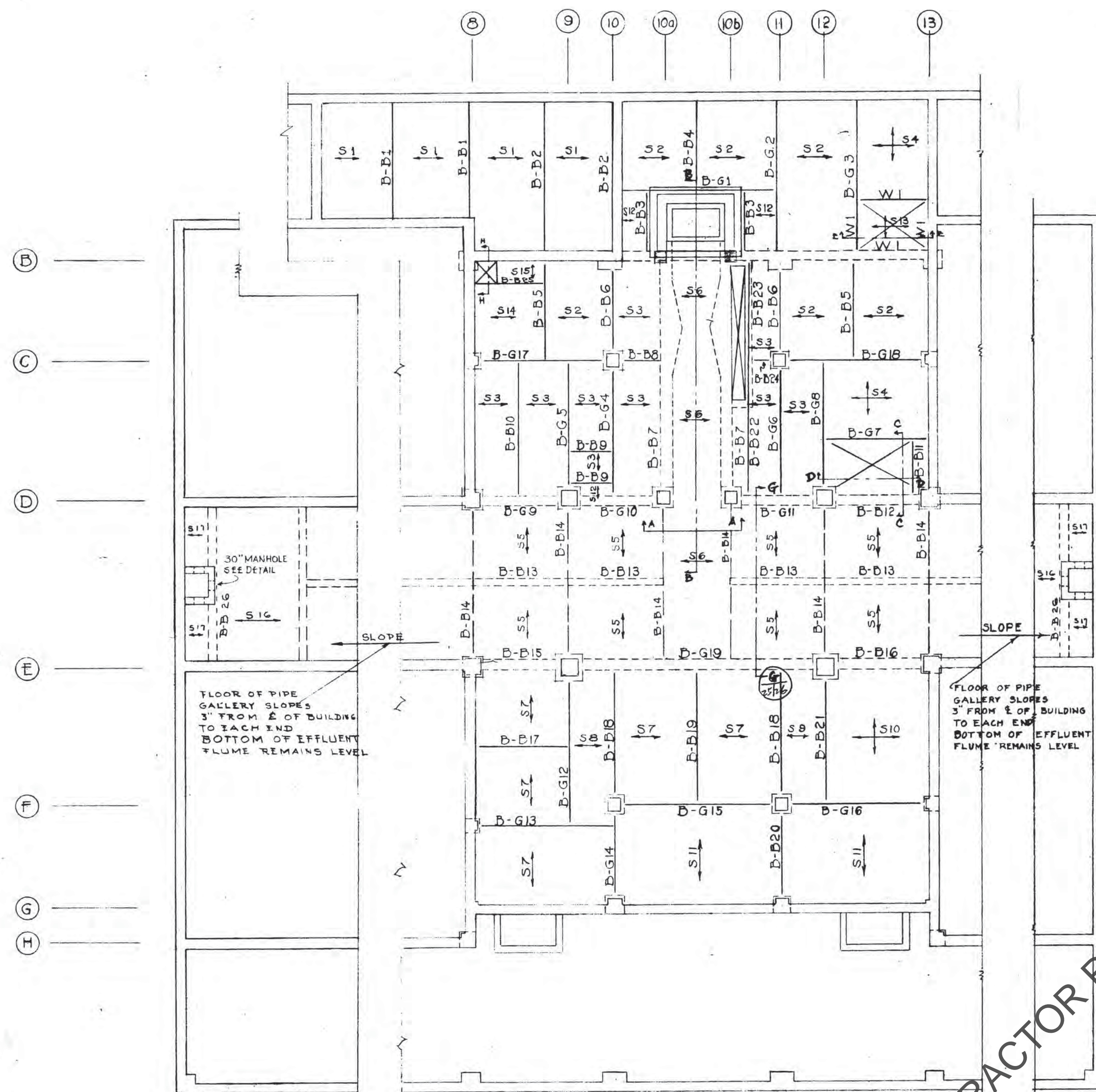
- Detailed Requirements (Sheet 00G003 and Sections 00820 and 01015)
- Contractor to Develop Critical Path Schedule that considers multiple items needed for operations
- Facility Shutdowns and Operation (Sections 00820 and 01015)
 - In Basin Construction Period - No work can begin that requires taking a plant basin out of service until November 1, 2015 and must be completed by April 15, 2016 (166 Calendar Days), unless approved by Owner and Engineer in advance.

- The Fort Thomas plant consists of four (4) treatment basins capable of treating 11 MGD each. **The Fort Thomas Treatment Plant shall be capable of FULL production (44 MGD) between April 15 and November 1 each year. The Contractor shall not anticipate any shutdowns or reduced plant capacity during this period unless approved in writing by Owner.** At no time during the November 1 to April 15 “in basin” construction period can the plant capacity be reduced below 33 MGD unless otherwise stated in the Specifications, Contract Drawings, or approved in advance by the Owner. The only exceptions are the following:
 - The plant capacity may be reduced to 22 MGD during the time period in which the work in the rapid mix basin #1 is being performed. The Contractor must minimize to the highest degree possible the length of time in which the Rapid Mix #1 is out of service.
 - The plant may be temporarily taken out of service completely (4 Hours Max.) as set forth in the Contract Drawings Sheet 00G003, Item 6, for installation and/or removal of the temporary bulkhead in the Basin #2 and #3 effluent flume.
- See Specification 01015 and Plan Sheet 00G003 for more construction schedule sequencing requirements.
- The project intent is to complete the work in Basin #2 while leaving Basin #3 in service and vice versa when completing work in Basin #3.

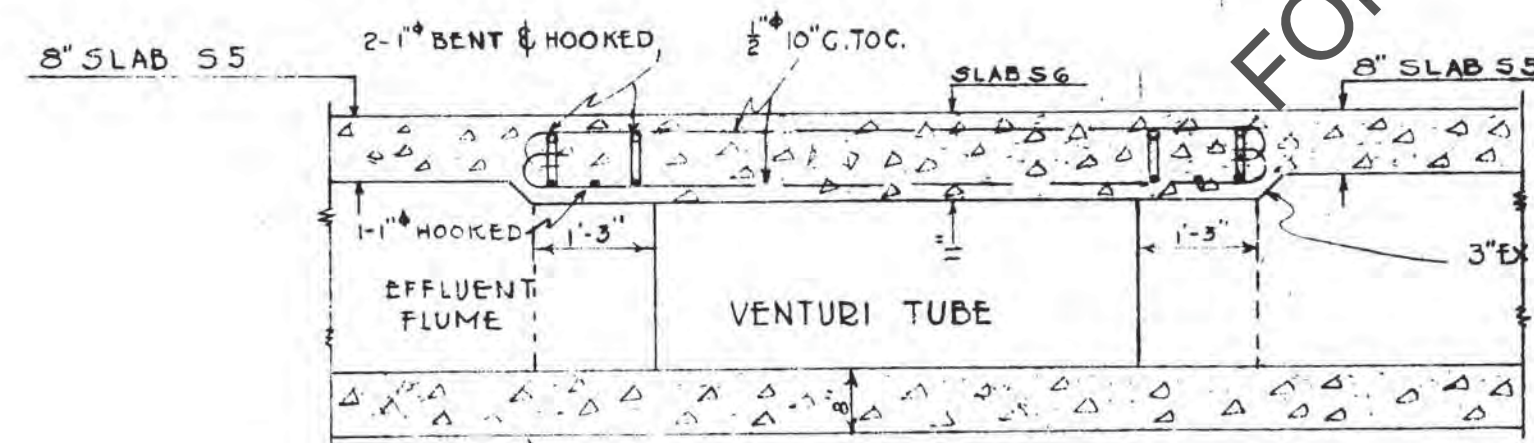
Other Relevant Conditions

Questions/ Closing Remarks

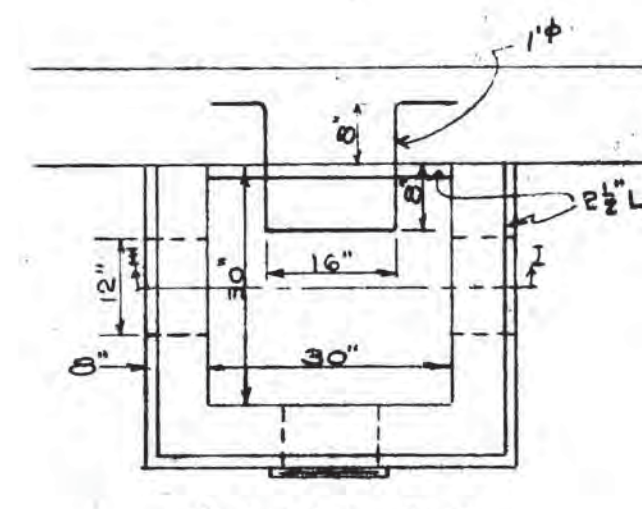
Adjourn to Site



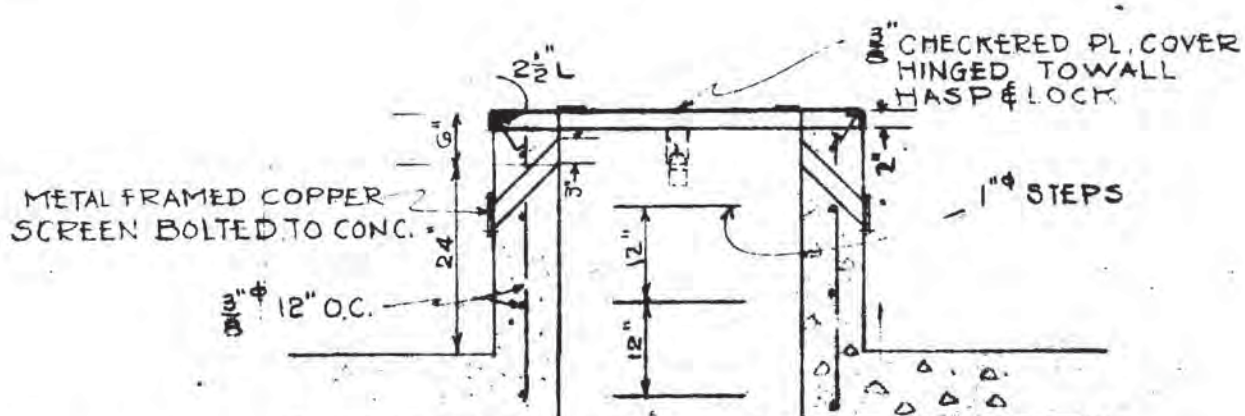
BASEMENT FLOOR FRAMING PLAN SCALE 1/8"=1'-0"



SECTION AA SHOWING EXT THICKNESS S5 AND REINFORCING IN S6 SCALE 1/2"=1'-0"



MANHOLE PLAN SCALE 1/2"=1'-0"



SECTION II

SLAB SCHEDULE

MARK	DEPTH	SIZE	SPACING	REMARKS
S16	8"	3/8"	5 1/2" O.C.	ALT. RODS BENT
S17	8"	3/8"	11" O.C.	ALT. RODS BENT

SLAB SCHEDULE

MARK	DEPTH	SIZE	SPACING	REMARKS
S14	8"	3/8"	12" C.T.O.C. SHORT DIR.	ALT. BARS HOOKED
S15	8"	3/8"	10" C.T.O.C.	do do do

BEAM SCHEDULE

MARK	SIZE	DETAIL	STEEL REINFORCEMENT			
			SIZE	ST. BENT	DETAIL	REMARKS
B-D1	15" x 21"		18"	2		14 3/8" U 1/1, 3/16, 4/12, 3/4 1/4 1/8 EA. END
B-D2	16" x 25"		18"	3		21 3/8" U 1/1, 3/16, 7/12, 3/4 2/5, 1/7 EA. END
B-D3	8" x 12"		1"	1		
B-D4	8" x 12"		1"	1		15 3/8" U 1/2, 5/16, 4/12, 3/8 2/5 EA. END
B-D5	8" x 12"		1"	1		7 3/8" U 1/1, 3/16, 2/5 1/7 EA. END
B-D6	8" x 12"		7/8"	2		8 3/8" U 1/1, 2/12, 3/13 1/5, 1/7 EA. END
B-D7	15" x 32"		1 1/8"	2		BOT. OF U EXTEND UNDER LATERAL ST- EEL IN BOTTOM OF SLAB
B-D8	9" x 36"		1"	2		USE 3/8" U @ 12" O.C.
B-D9	9" x 14"		1"	1		NEG. STEEL FROM B-G17
B-D10	8" x 14"		1"	1		2 1/2 1/4" U EACH END
B-D11	8" x 14"		1"	1		4 3/8" U 1/2, 1/4, 2/8 EACH END
B-D12	4" x 8"	SEE DETAIL	3/4"	2		1 1/2" x 12" C.T.O.C. THROUGHOUT BEAM
B-D13	8" x 2'-0"	SEE DETAIL	3/4"	2		10 1/2" U 1/6 EA. END 4/12
B-D14	12" x 2'-0"	SEE DETAIL	1 1/8"	1		3/8" x 1/8" U, 2/7 1/8, 13" O.C. THRO- MID SECTION OF WALL
B-D15	12" x 2'-0"	SEE DETAIL	1 1/8"	3		10 3/8" U 1/8, 3/16, 6/12 EA. END
B-D16	12" x 2'-0"	SEE DETAIL	1"	3		8" @ 12" O.C. 3/8" U 1/6 EA. END 4/12
B-D17	12" x 2'-0"	SEE DETAIL	7/8"	2		BOT. FACE 3/8" @ 12" O.C. TO TOP
B-D18	12" x 16"		1"	1		10 1/4" U 1/1, 3/16, 4/12, 1/2 1/6 EACH END
B-D19	10" x 16"		7/8"	2		3/8" x 1/8" U 1/3, 1/10 EACH END

GIRDER SCHEDULE

B-G1	10" x 20 1/2"		1"	4		2 1/4 1/2" U 1/6 EACH END
B-G2	12" x 18"		1 1/8"	2		10 3/8" U 1/16, 3/16, 3/8 2/7, 1/10 EA. END
B-G3	12" x 25"		1 1/8"	2		2 3/8" U 1/5, 1/10 EA. END AT JUNCTION W. 3/8" U @ 3" O.C.

SLAB SCHEDULE

MARK	DEPTH	SIZE	SPACING	REMARKS
S1	8"	1/2"	6" C.T.O.C.	ALT. RODS BENT UP
S2	8"	1/2"	10" C.T.O.C.	DO. DO. DO. DO.
S3	8"	1/2"	12" C.T.O.C.	DO. DO. DO. DO.
S4	8"	1/2"	12" C.T.O.C. SHORT DIR.	DO. DO. DO. DO.
S5	8"	1/2"	12" C.T.O.C. LONG DIR.	DO. DO. DO. DO.
S6	11"	1/2"	10" C.T.O.C. TOP & BOT.	ALL HOOKED
S7	10"	1/2"	12" C.T.O.C.	ALT. RODS BENT
S8	10"	1/2"	12" C.T.O.C. TOP & BOT.	ALL STRAIGHT
S9	10"	1/2"	12" C.T.O.C. TOP & BOT.	DO. DO.
S10	10"	1/2"	10" C.T.O.C.	ALT. RODS BENT ALL HOOKED
S11	10"	1/2"	8" C.T.O.C.	ALT. RODS BENT & PT. ALL RODS HOOKED
S12	8"	3/8"	12" C.T.O.C. TOP & BOT.	
S13	8"		SEE DETAIL	

BEAM SCHEDULE

MARK	SIZE	DETAIL	STEEL REINFORCEMENT			
			SIZE	ST. BENT	DETAIL	REMARKS
B-B18	12" x 16"		1"	1		2 1/2 1/4" U 1/3, 1/8 EA. END
B-B19	12" x 16"		1"	2		10 3/8" U 1/1, 3/16, 1/8 1/2, 1/8 EA. END
B-B20	12" x 16"		3/4"	2		2 1/4 1/4" U 1/4, 1/4 EA. END
B-B21	12" x 16"		1"	2		8 1/2 1/4" U 1/2, 3/4, 1/5, 1/7
B-B22	9" x 32"		5/8"	1		
B-B23	9" x 32"		1/2"	1		
B-B24	8" x 36"		3/4"	2		NEGATIVE STEEL FROM B-G18
B-B25	8" x 12"	SEE DETAIL	3/8"	1		

GIRDER SCHEDULE

B-G4	12" x 16"		1"	2		6 3/8" U 2/8, 2/6, 1/8 COL. LINE C-10 - 7/8 2/8, 2/6, 2/8, 2/8
B-G5	10" x 16"		7/8"	2		1/4, 1/4, 5/8, 1/8 C.C. LINE C-10 3/8, 2/8, 1/8, 1/8 COL. LINE C-9
B-G6	10" x 14"		1"	1		5 1/2 1/4" U 1/2, 2/8, 1/2, 1/8 EACH END
B-G7	8" x 4'-8"	SEE DETAIL	3/4"	2		2 3/8" U EACH END, 3/8" U 12" O.C. THROUGH- OUT BEAM
B-G8	12" x 22"		1"	2		DEPTH AT ATE ENDS
B-G9	12" x 2'-8"		3/4"	1		10 3/8" U 1/6, 1/8 EA. END
B-G10	12" x 2'-8"	SAME AS B-G-9	3/4"	2		3 3/8" U EA. END
B-G11	12" x 2'-8"	SEE DETAIL	1"	1		3 3/8" U 1/6, EA. END 3/12
B-G12	12" x 18"		1 1/8"	2		10 1/4" U 1/1, 5/16, 4/4 1/5, 1/7 EA. END
B-G13	12" x 19"		1 1/8"	2		15 1/4" U 1/1, 2/8, 5/8 4/8, 2/8, 1/7 EA. END
B-G14	12" x 18"		3/4"	2		17 1/4" U 1/1, 1/4, 1/4 4/2, 1/8, 1/8 EA. END
B-G15	12" x 18"		1 1/8"	2		EXTRA 1/4" U, 7" O.C. REMAINDER OF BEAM
B-G16	12" x 17"		1 1/8"	2		17 1/4" U 1/1, 1/4, 1/4 5/8, 1/4, 1/4 EA. END
B-G17	12" x 16"		1"	2		10 3/8" U 1/2, 2/8, 2/8 EA. END
B-G18	12" x 22"		1"	2		6 3/8" U 1/2, 2/8, 2/8 EA. END
B-G19	20" x 32"	SEE DETAIL	1 1/8"	6		BOT. FACE TOP FACE BOTTOM

FOR GENERAL NOTES SEE SH. NO. 49

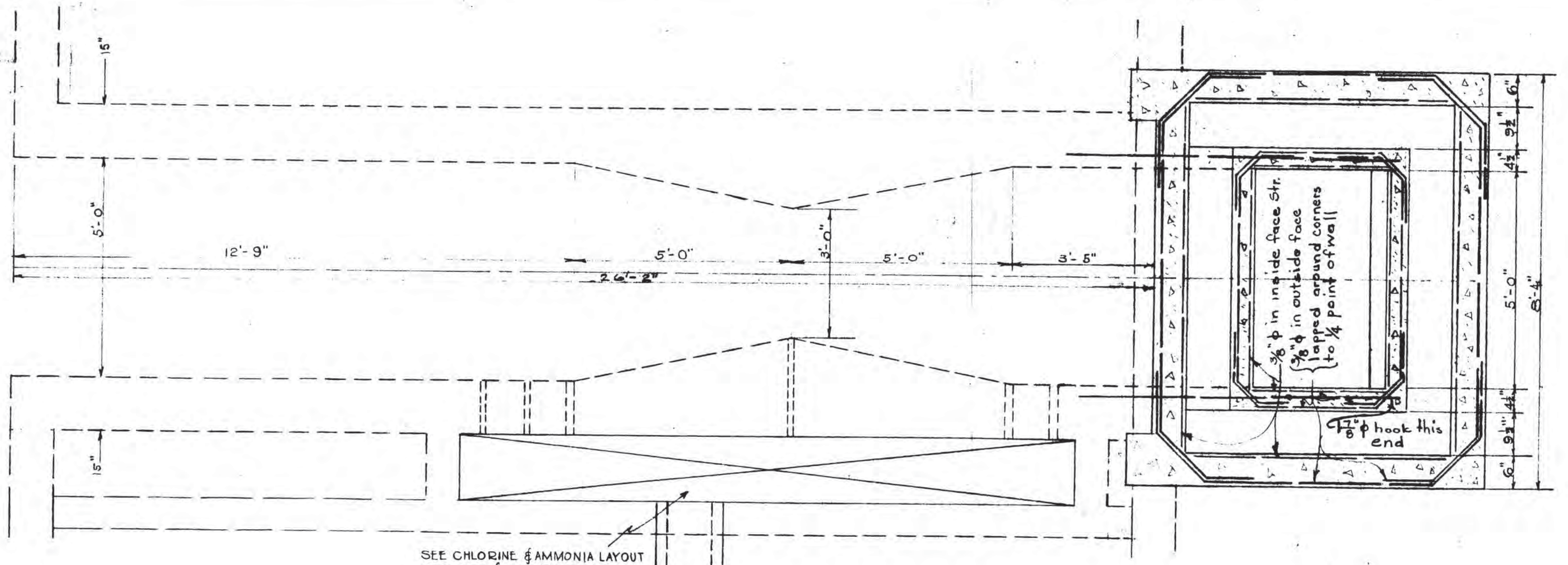
WATER PURIFICATION
COVINGTON
FILTER PLANT
BASEMENT FLOOR

SCALE: AS SHOWN

DATE: 1955

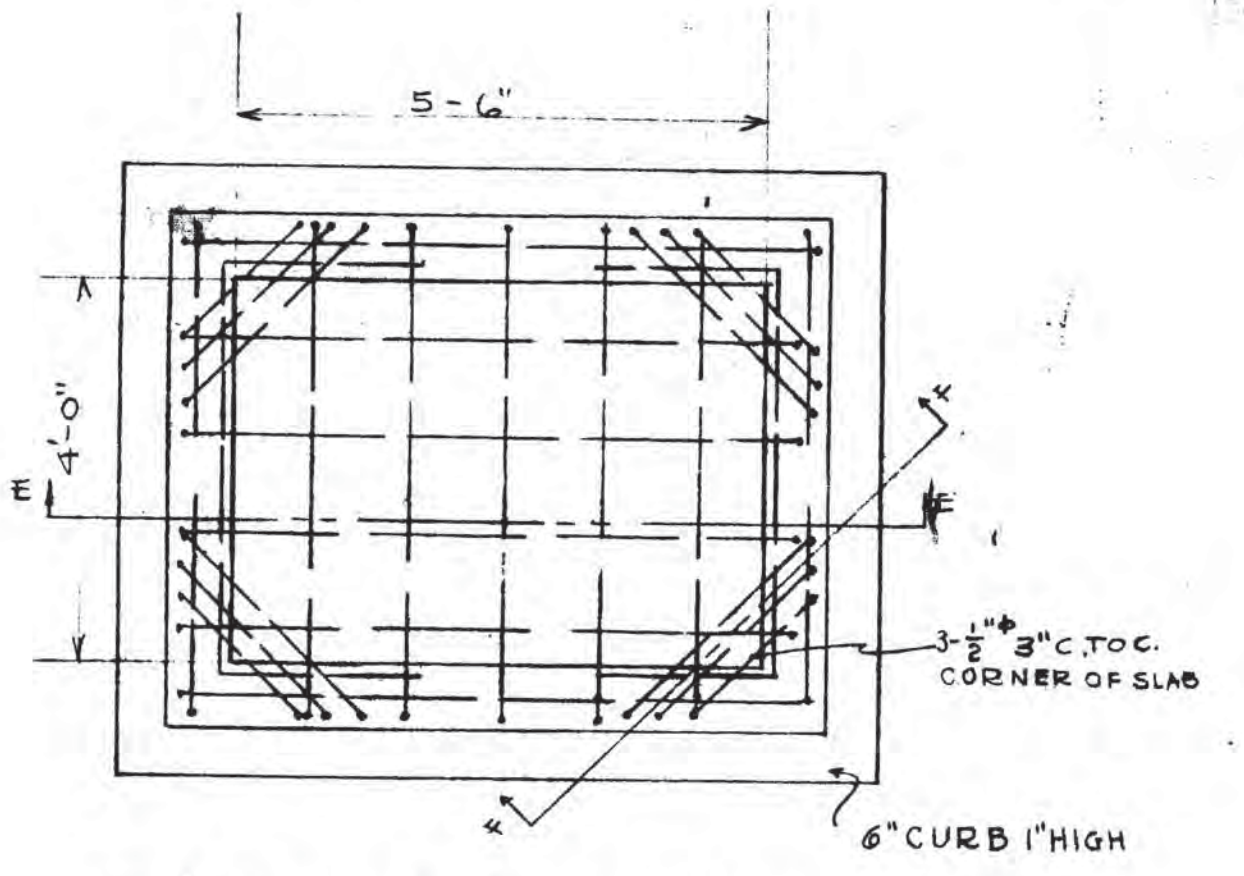
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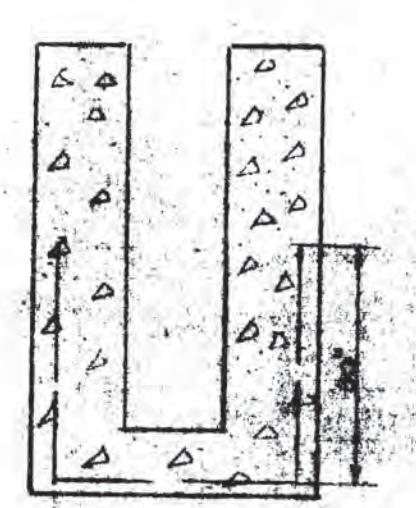


SEE CHLORINE & AMMONIA LAYOUT FOR PIPE & PIT DETAILS

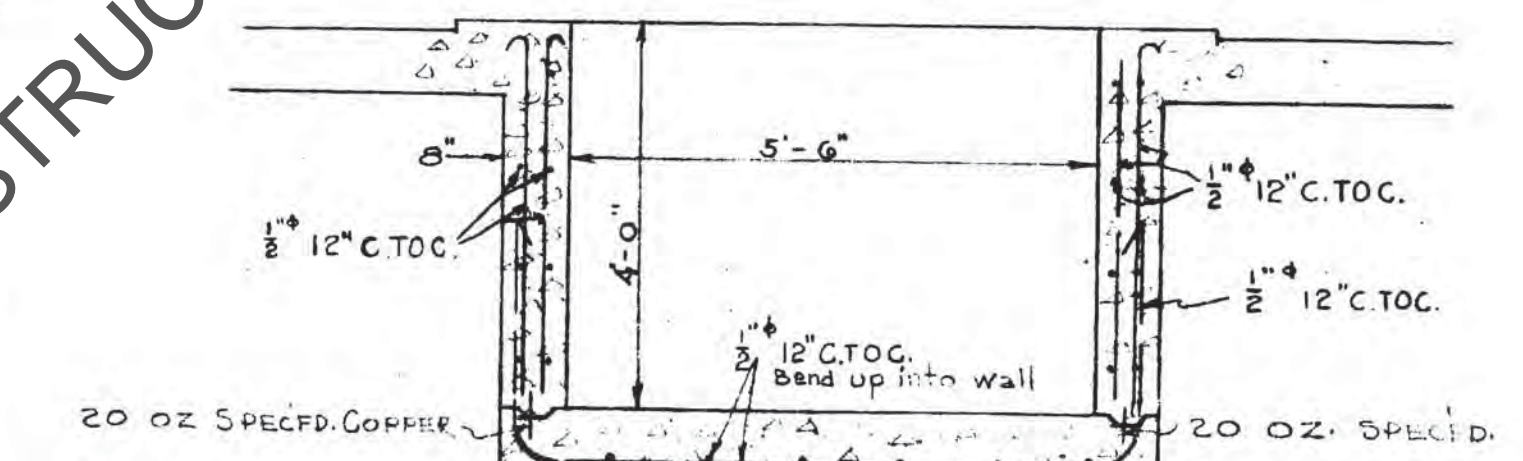
PLAN OF EFFLUENT VENTURI



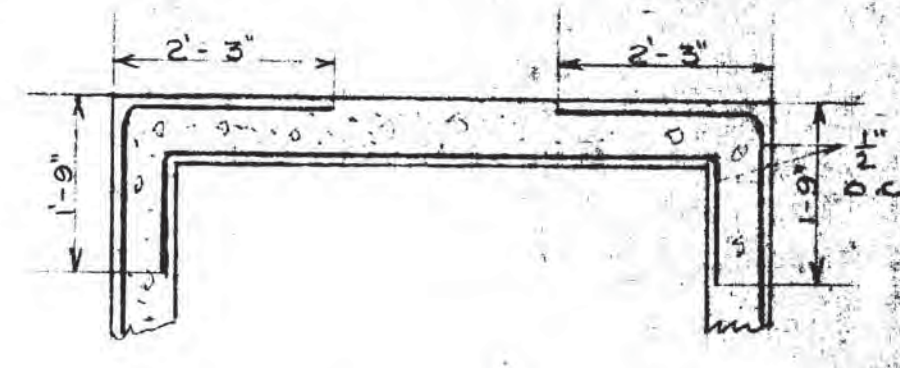
PLAN OF SIDEWALK LIFT PIT SHOWING STEEL IN BOTTOM SLAB



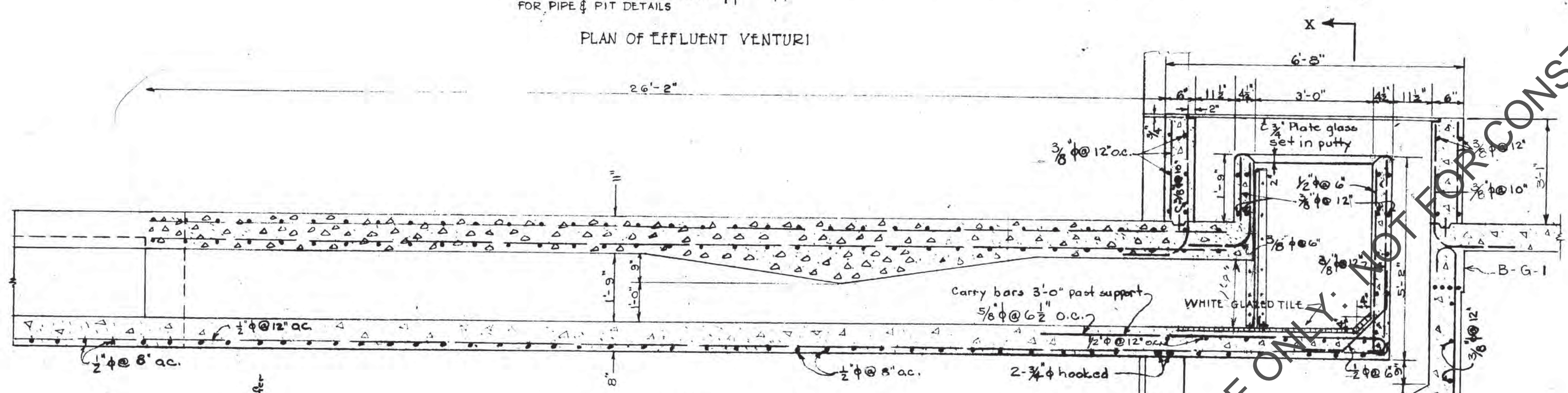
SECTION FF CORNER STEEL ONLY



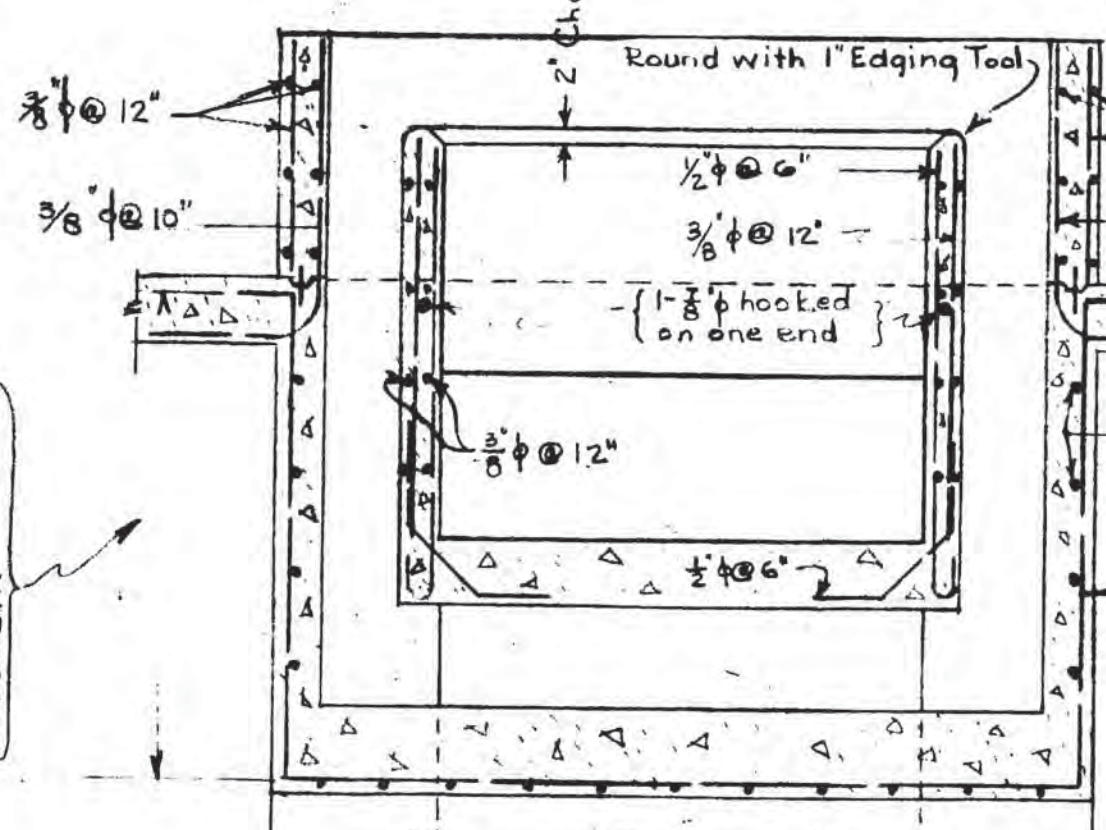
SECTION EE SIDE W. LIFT PIT SCALE 1/2" = 1'-0"



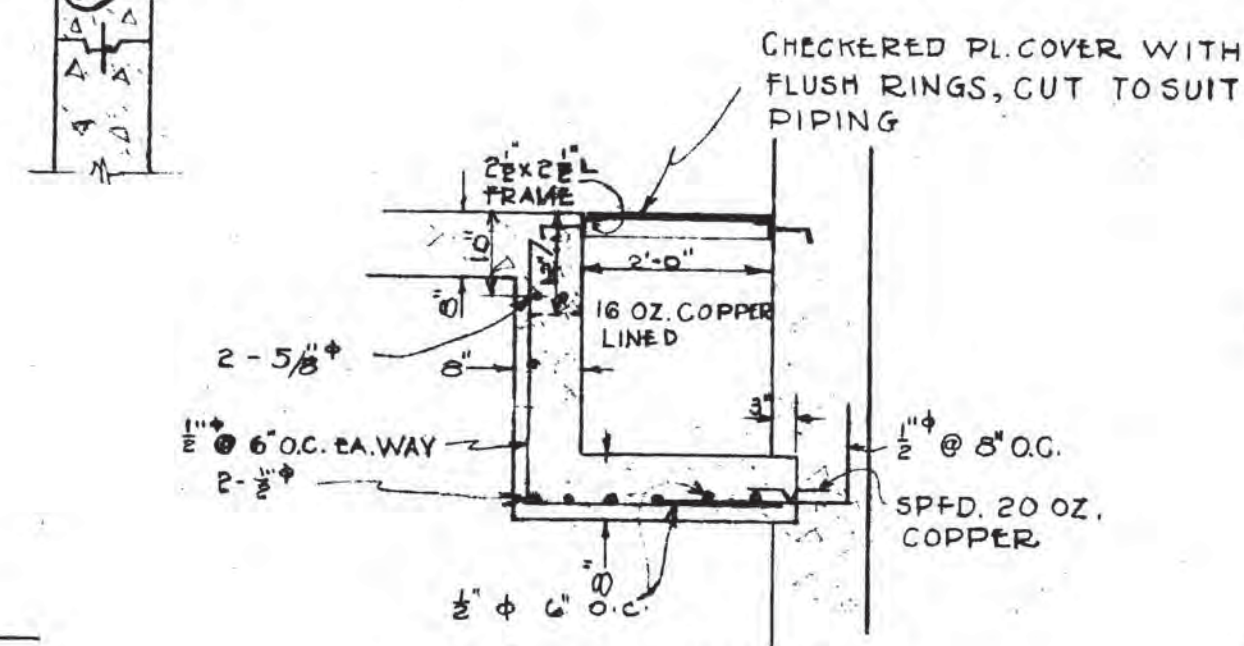
PLAN OF WALL REINFORCEMENT



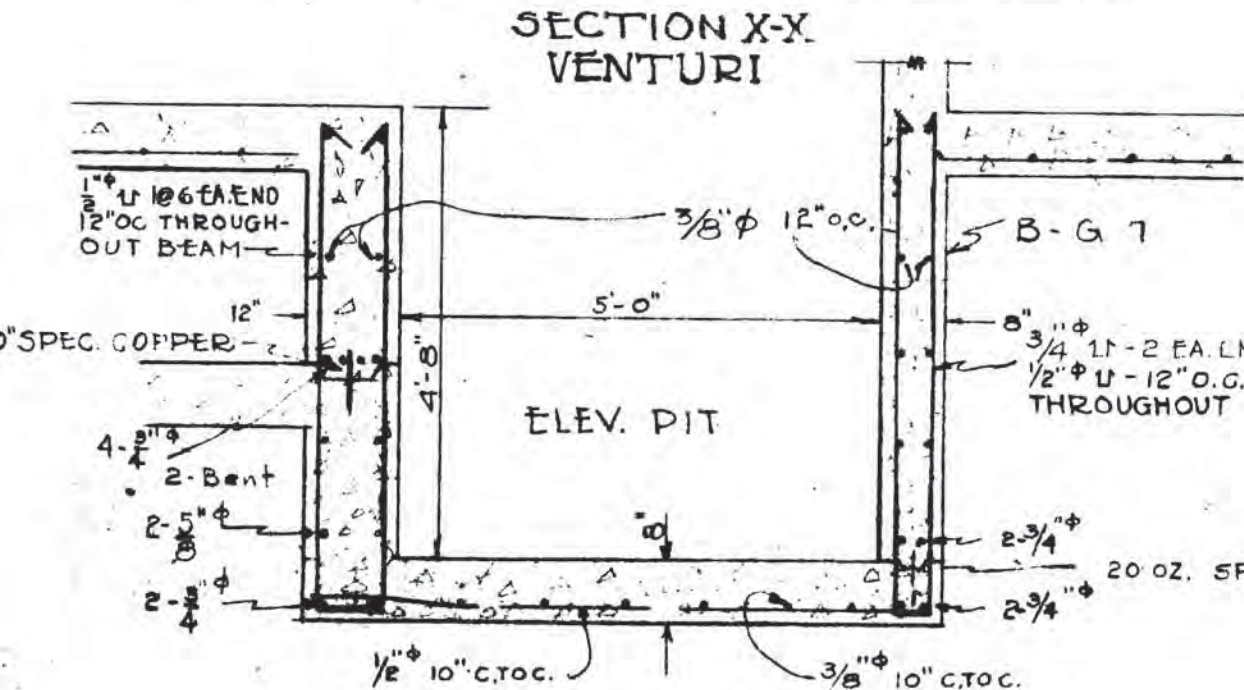
SECTION THROUGH EFFLUENT VENTURI



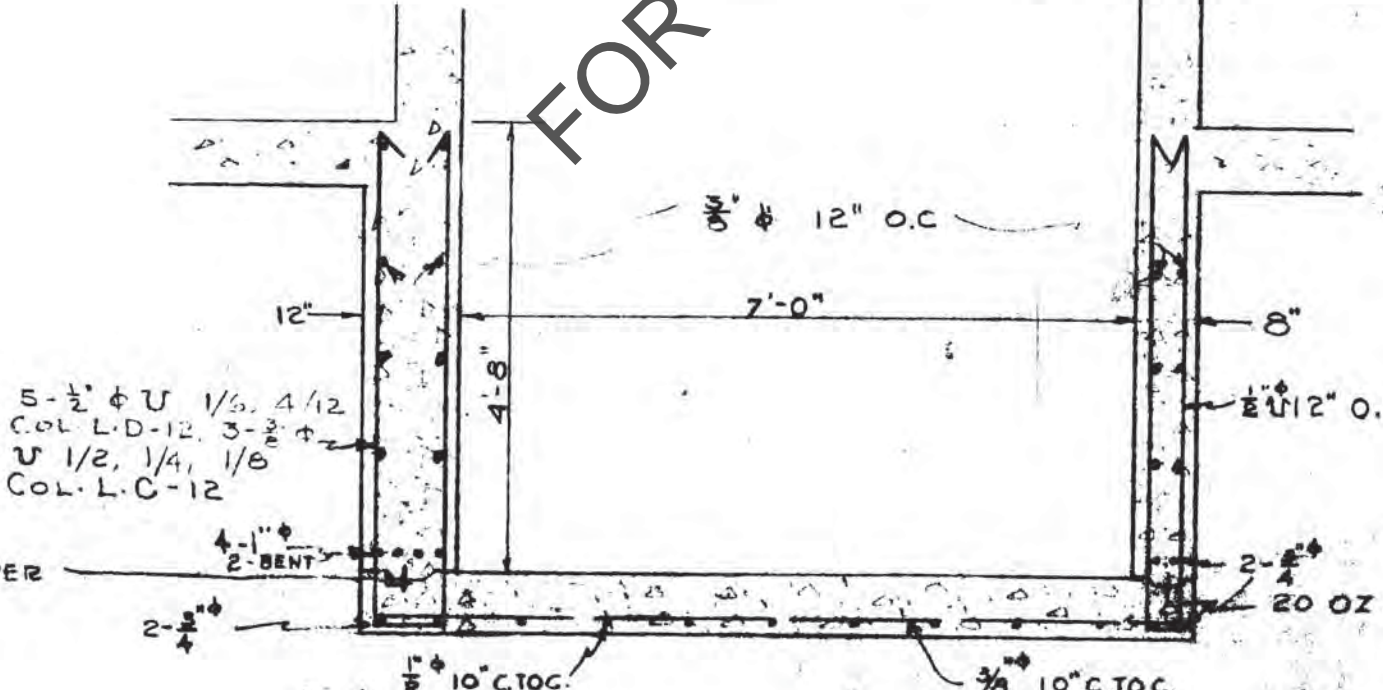
SECTION X-X VENTURI



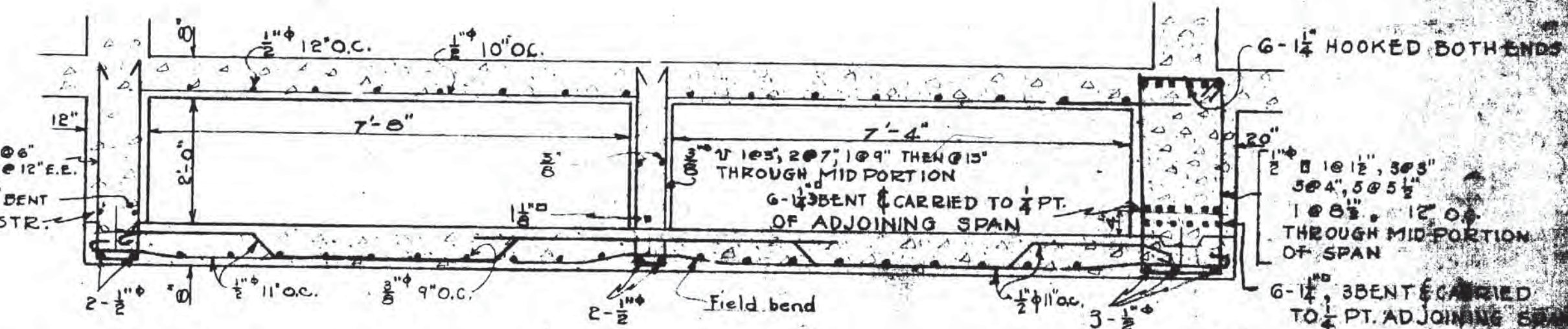
SECTION HH 2'-0" x 2'-0" x 2'-6" DEEP SUMP SCALE 1/2" = 1'-0"



SECTION CC ELEVATOR PIT SCALE 1/2" = 1'-0"

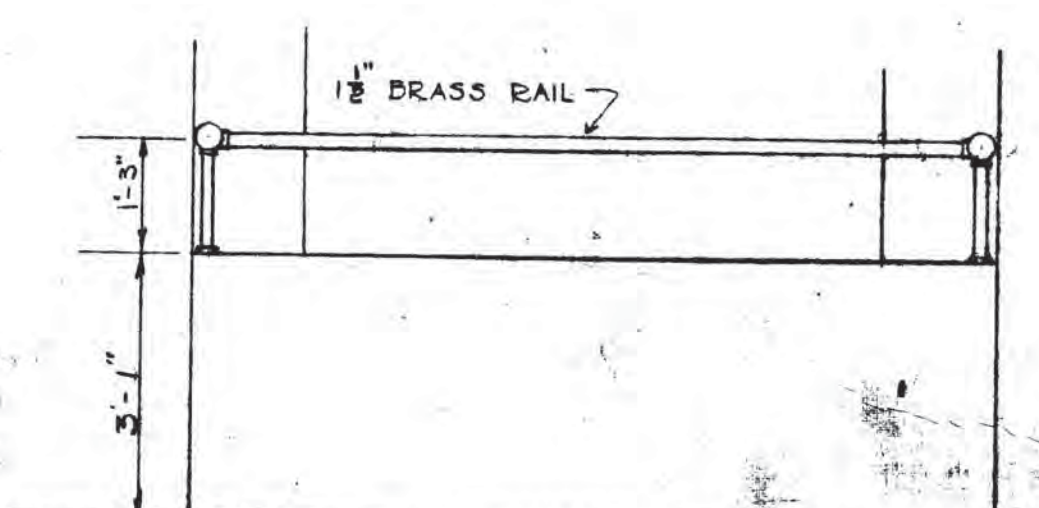


SECTION DD ELEVATOR PIT SCALE 1/2" = 1'-0"

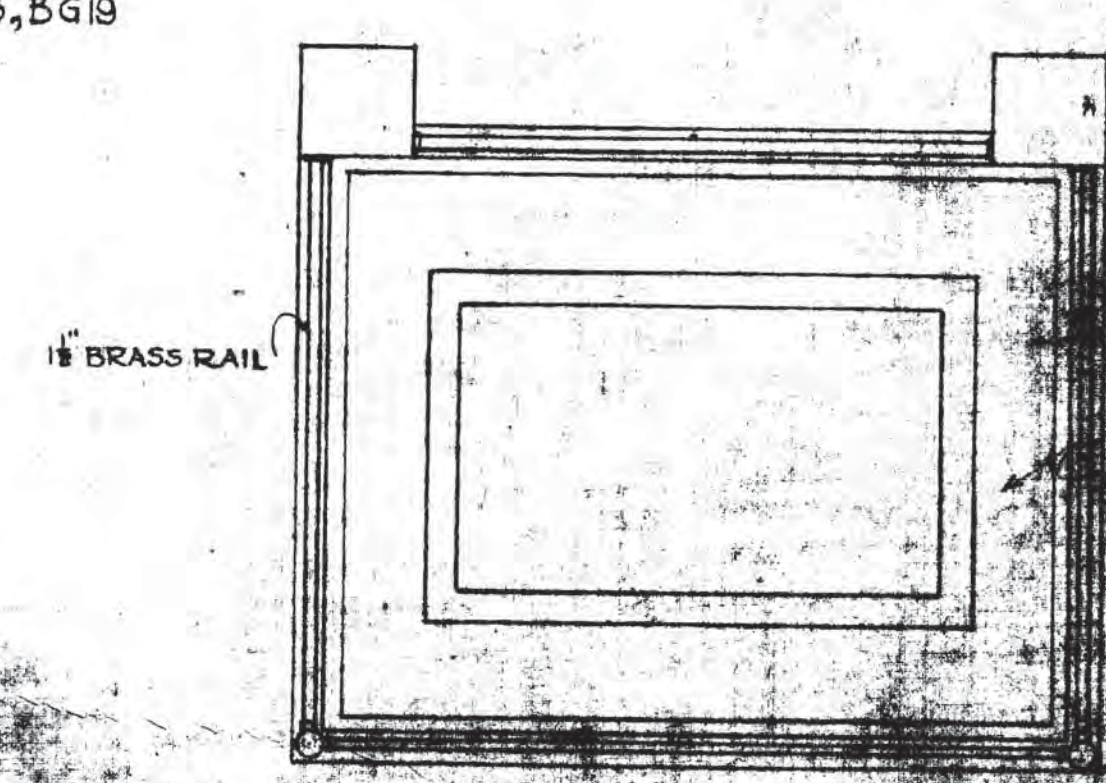


SECTION GG EFFLUENT FLUME BEAMS B.G.11, D.B.3, B.G.9

NOTE 20 OZ. SPECIFIED COPPER IN ALL CONST. JOINTS



ELEVATION OUTLET RAILING SCALE 1/2" = 1'-0"

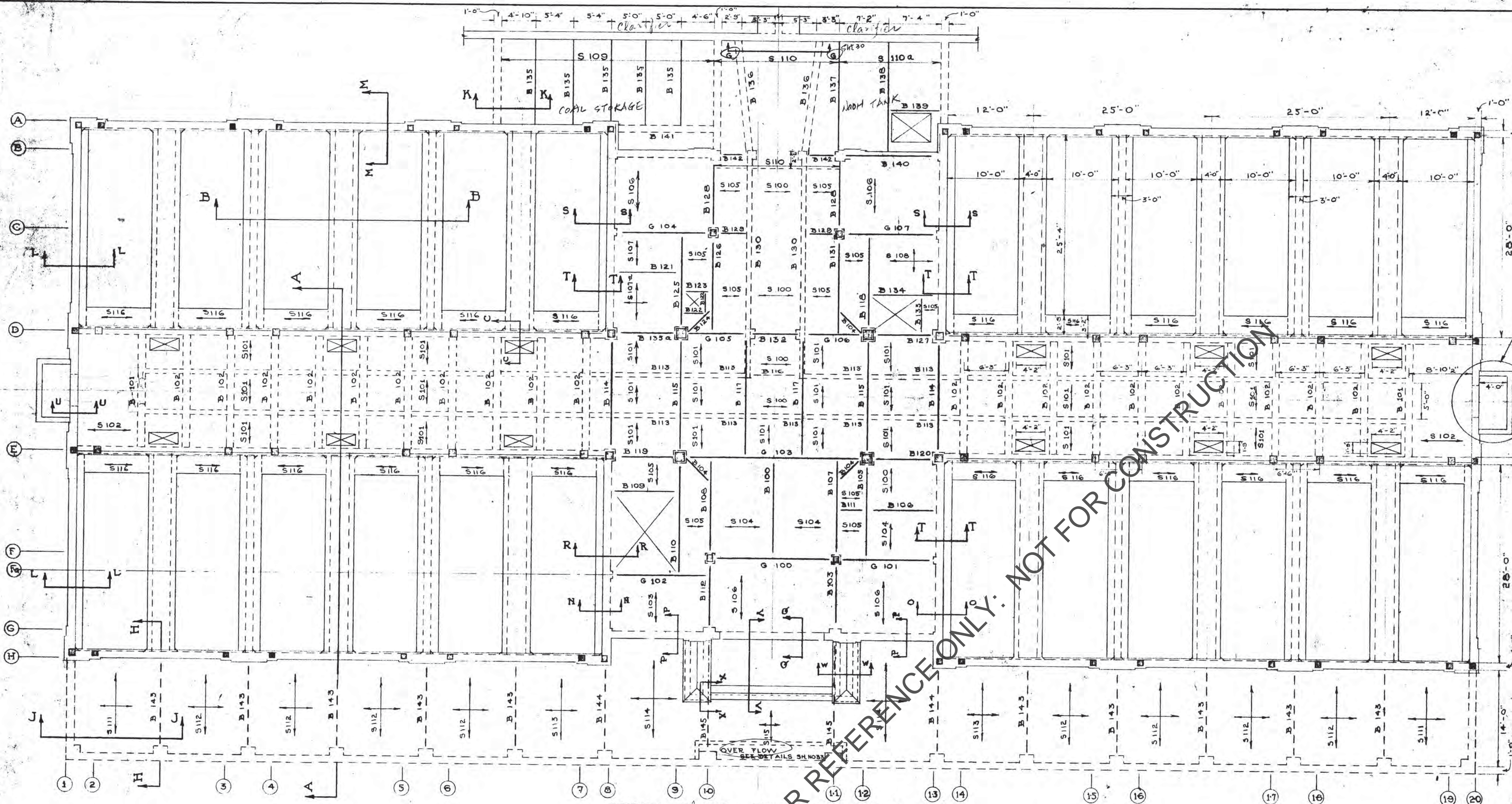


PLAN OUTLET RAILING SCALE 1/2" = 1'-0"

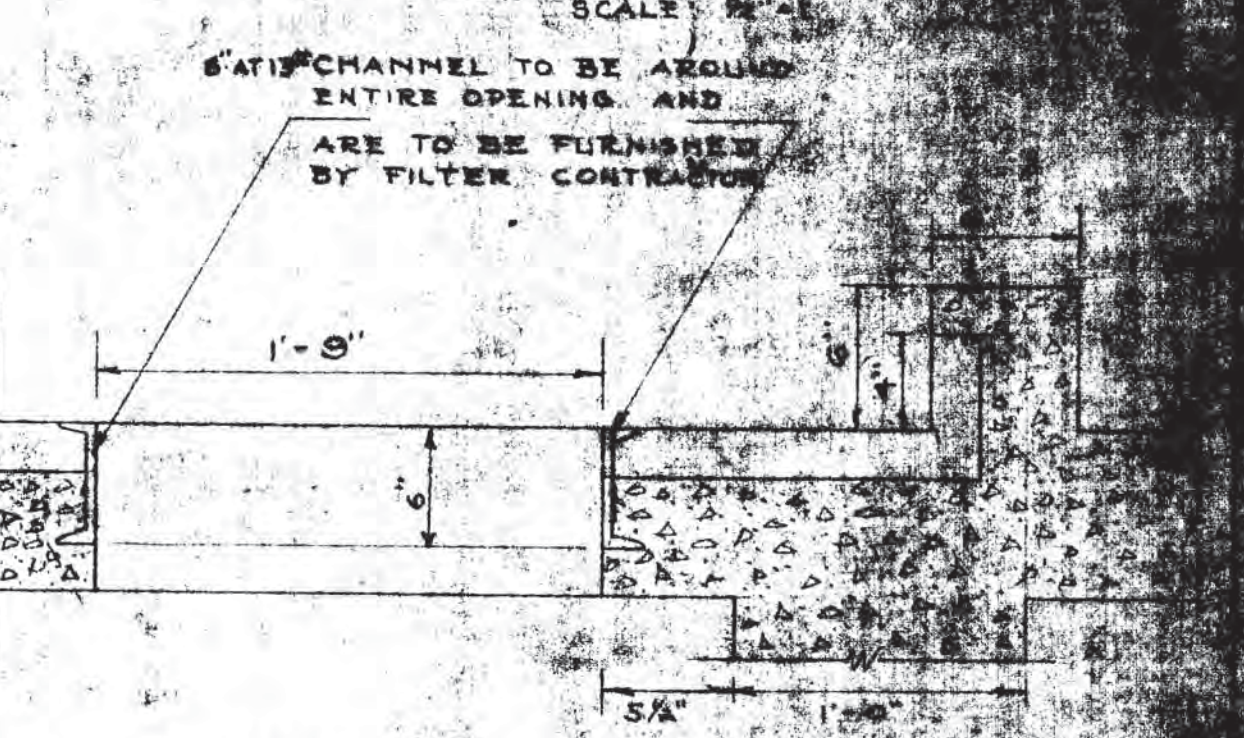
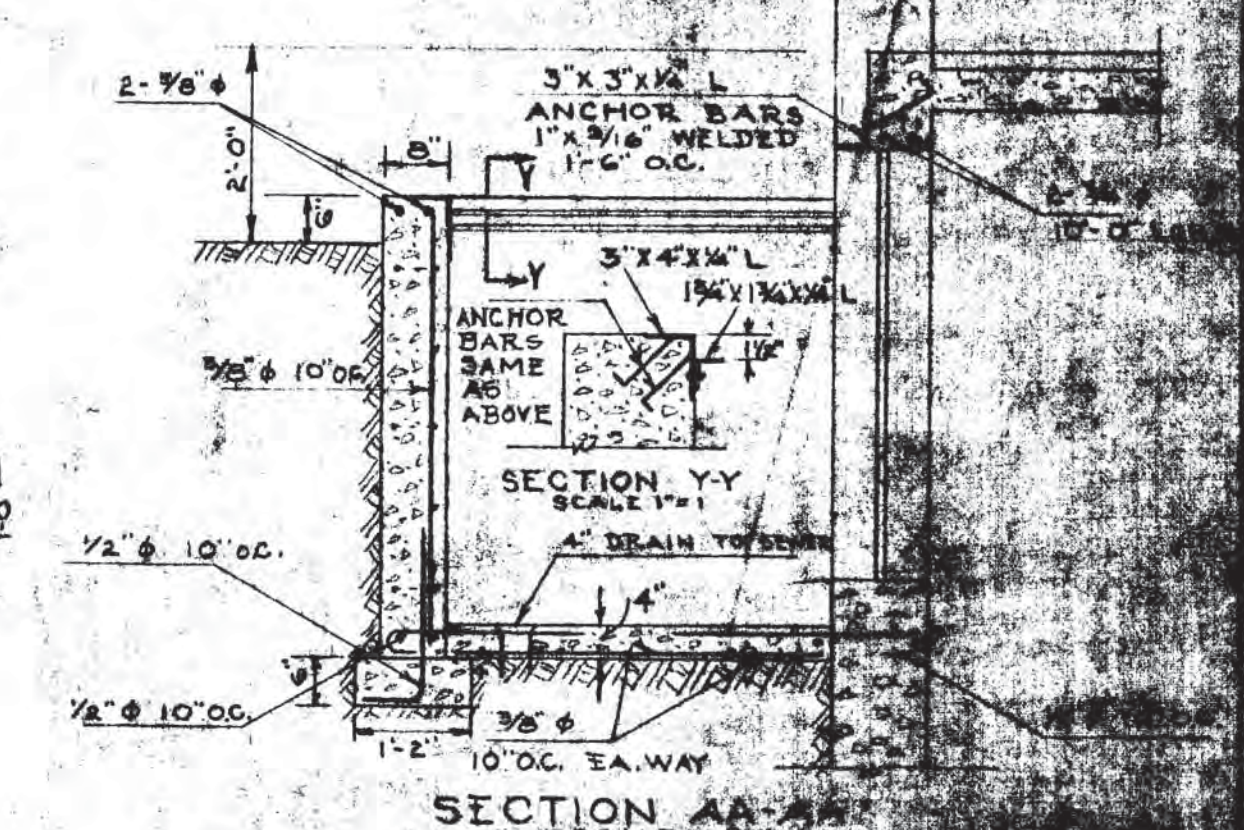
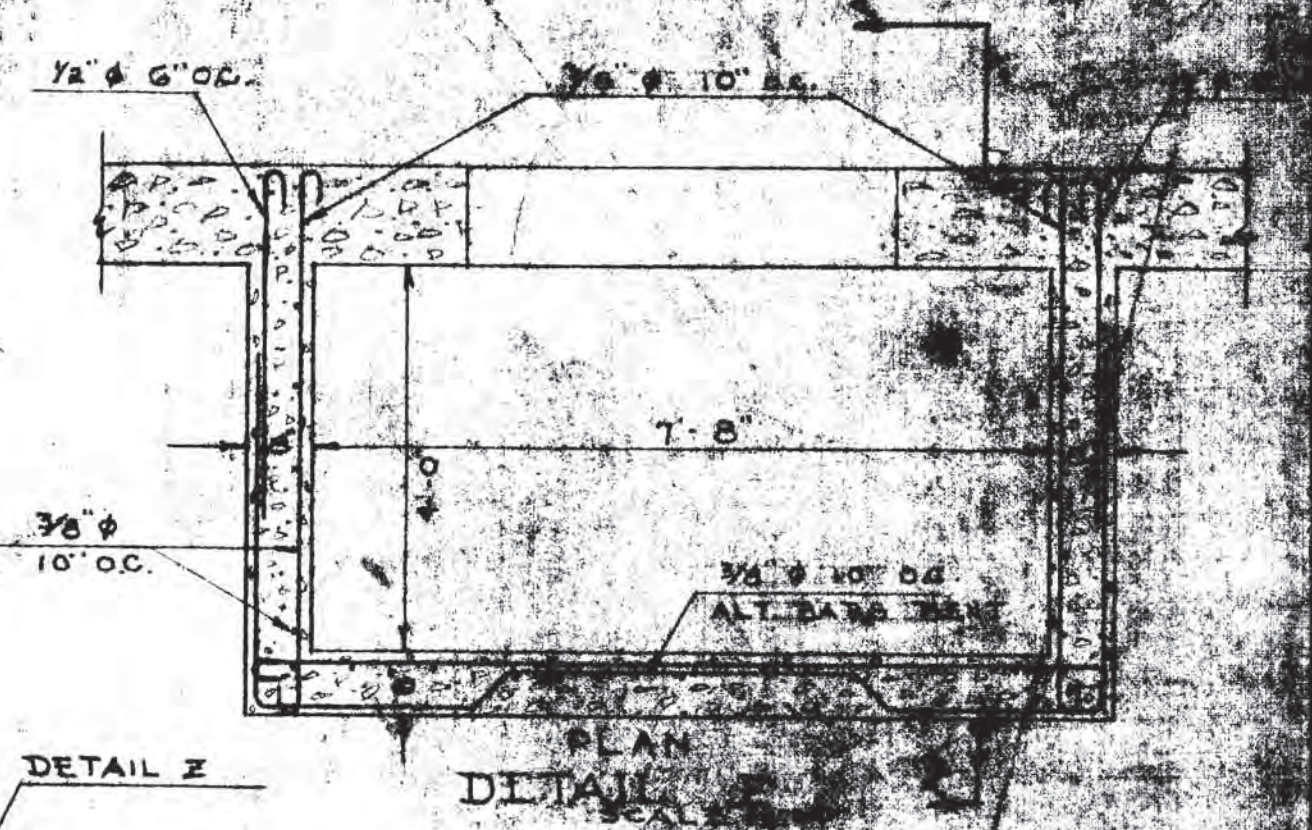
WATER PURIFICATION PLANT
GOVERNMENT DISTRICT
FILTATION PLANT

DESIGNED BY
SUPERVISOR OF WATER SUPPLY
APPROVED BY

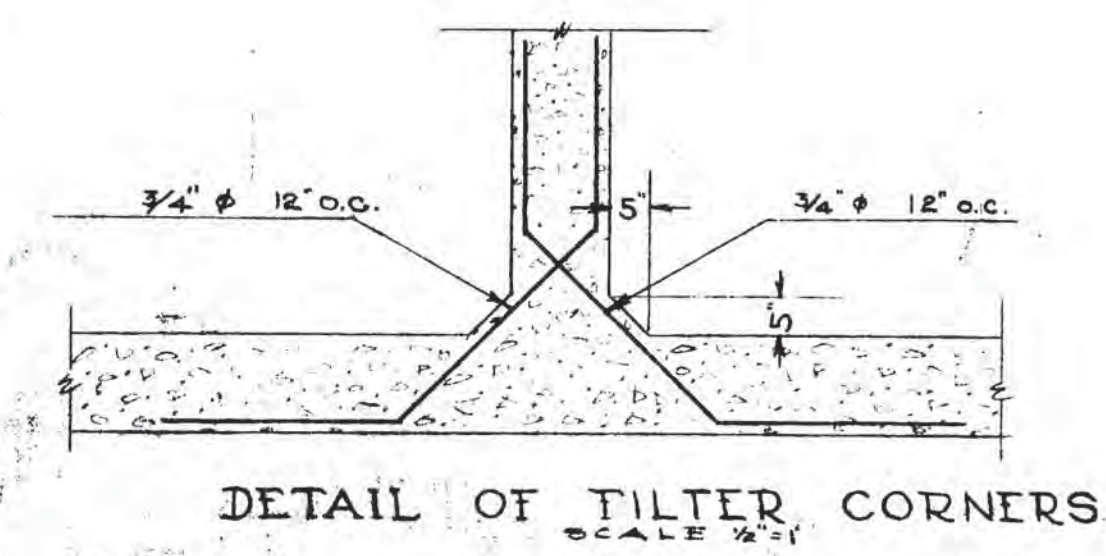
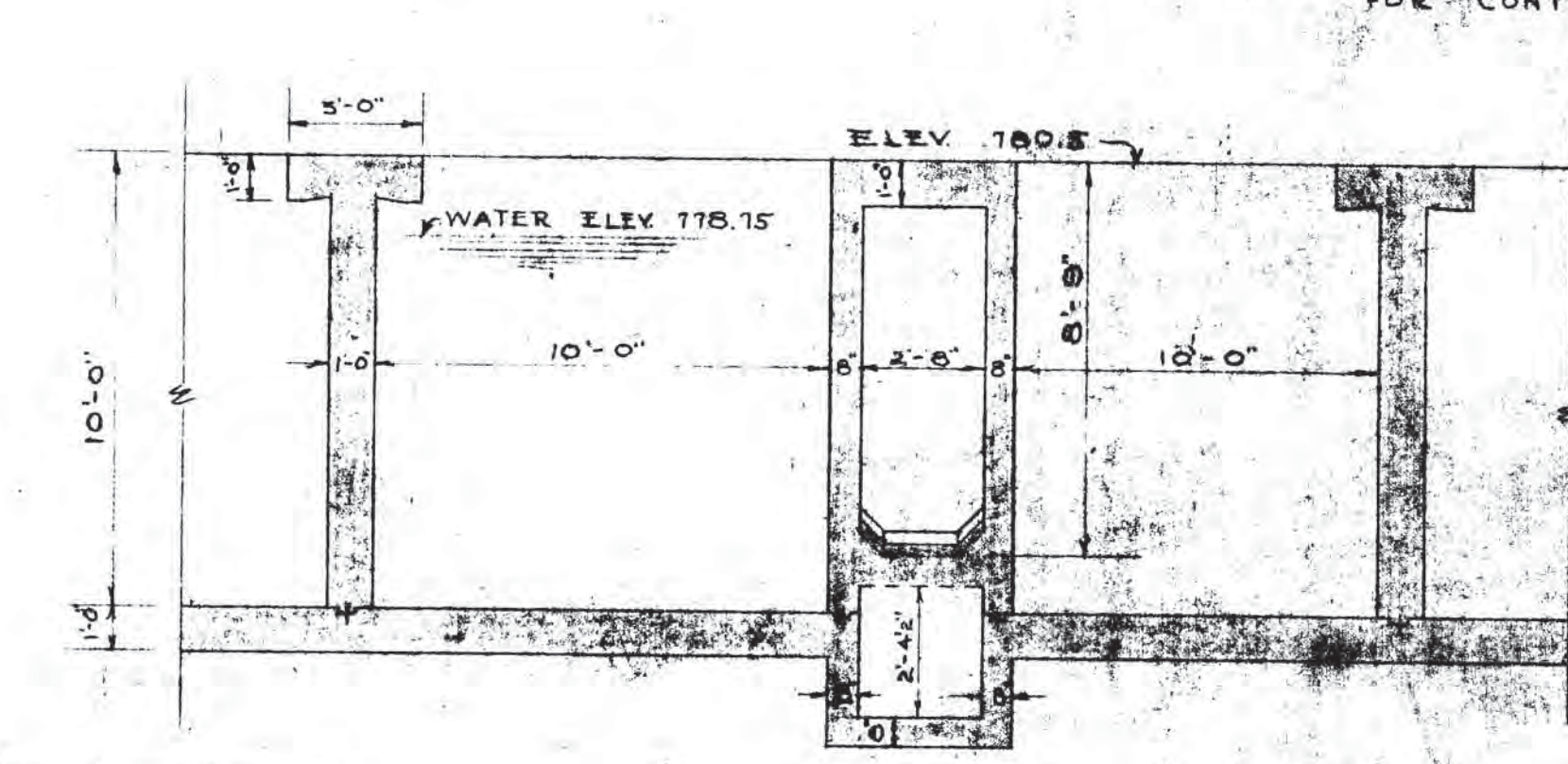
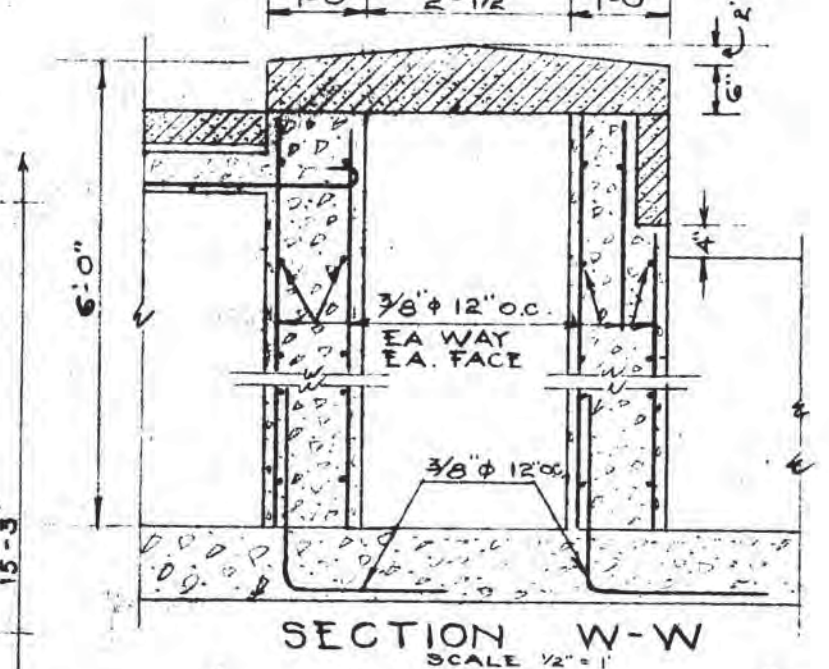
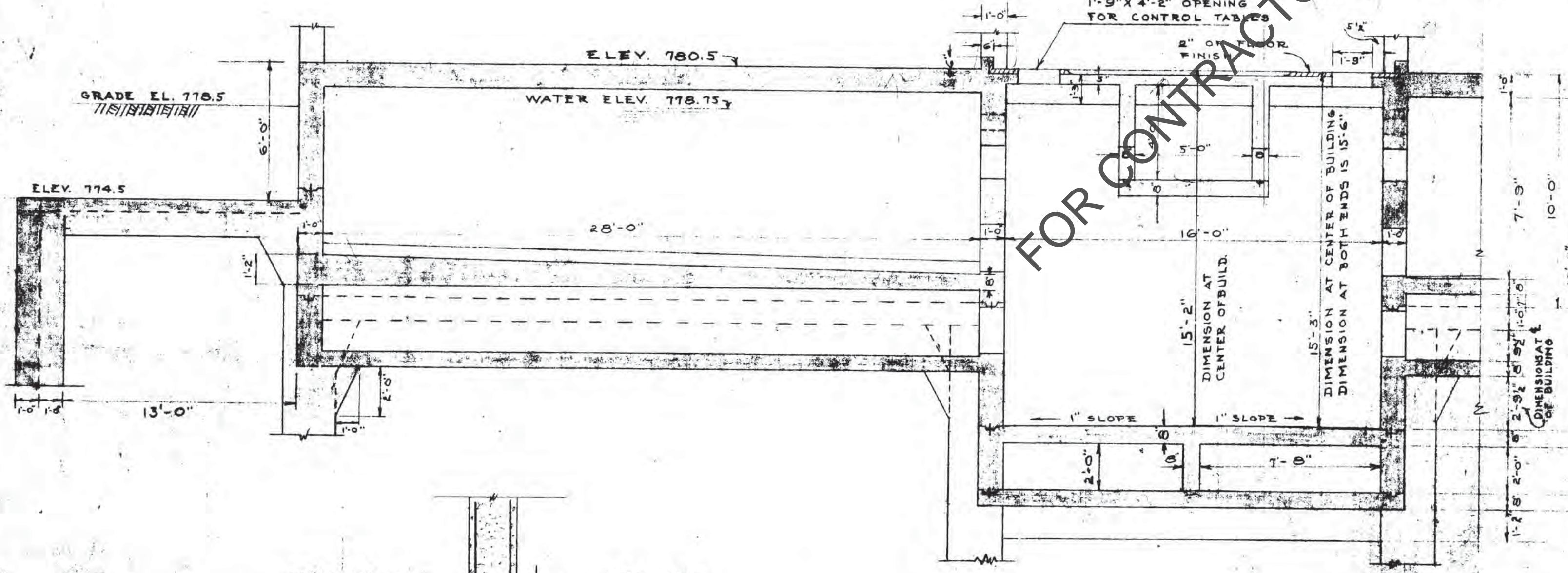
20



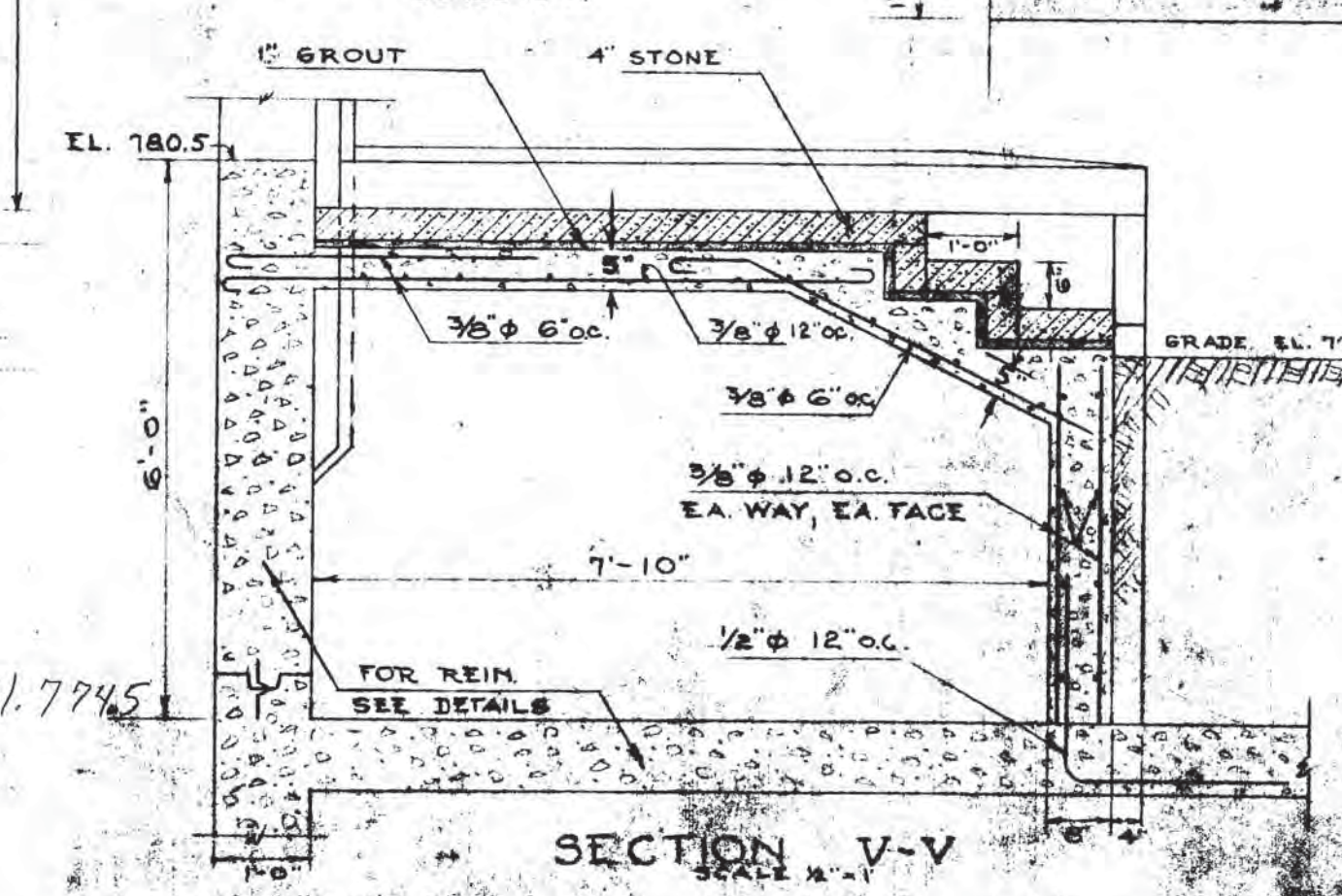
FOR CONTRACTOR REFERENCE ONLY. NOT FOR CONSTRUCTION



FIRST FLOOR FRAMING PLAN

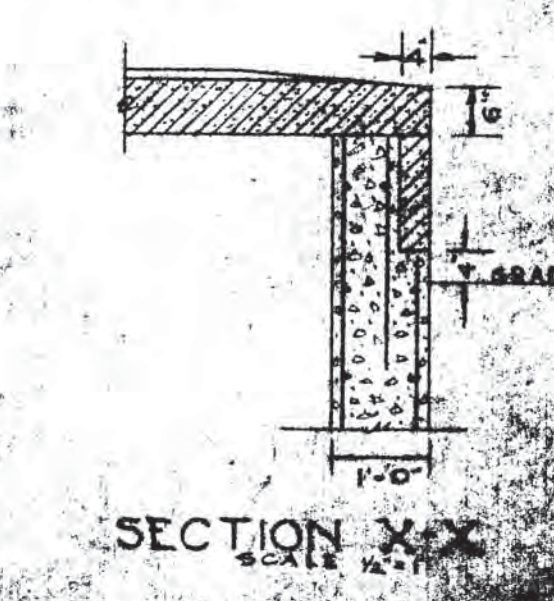


SECTION A-A SCALE 1/2" = 1'



SECTION V-V SCALE 1/2" = 1'

SECTION B-B SCALE 1/2" = 1'



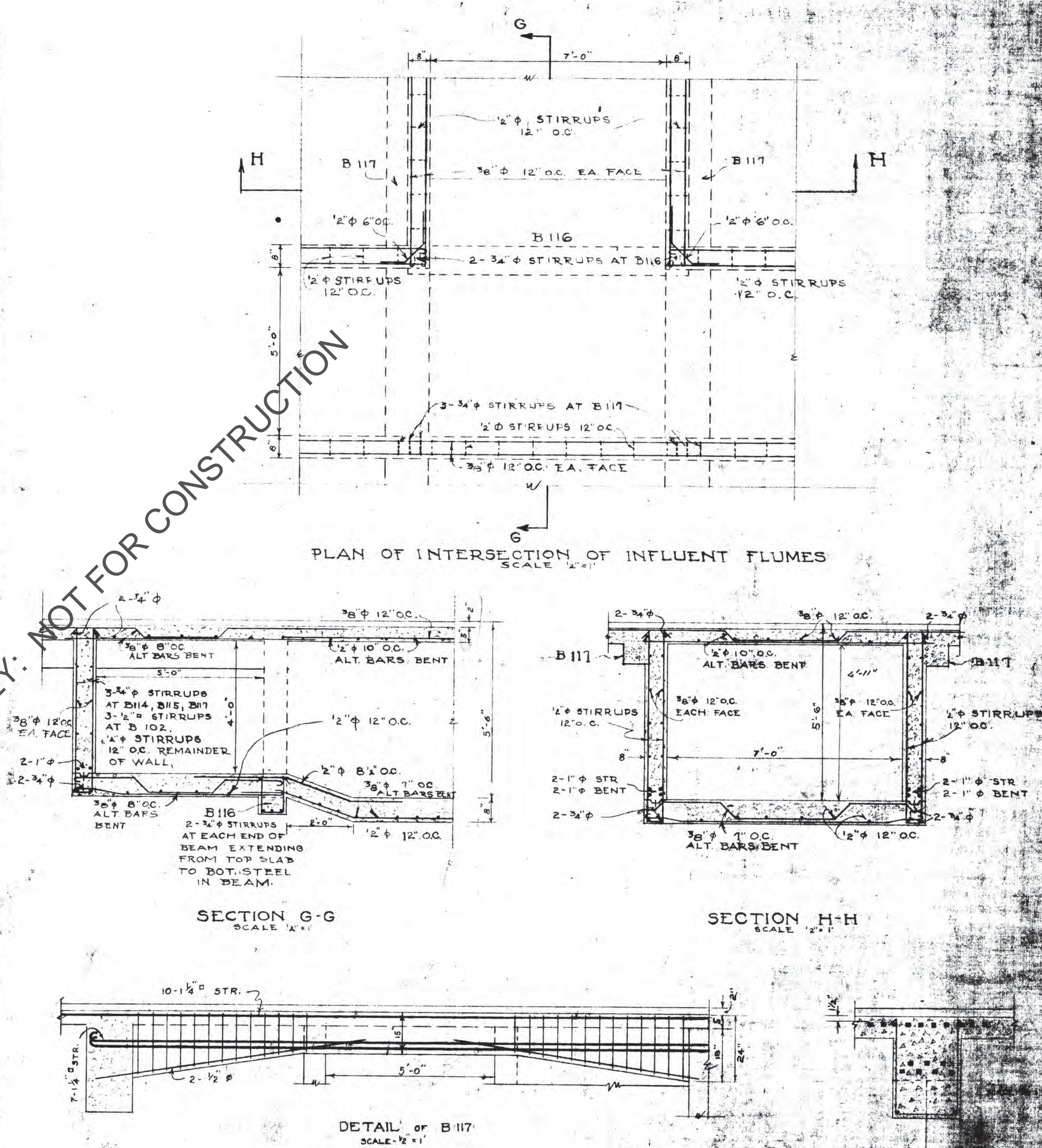
SECTION X-X SCALE 1/2" = 1'

FOR GENERAL NOTES SEE SHEET NO. 10

FIRST FLOOR BEAM AND GIRDER SCHEDULES

MARK	SIZE		DETAIL	STEEL REINFORCEMENT			REMARKS	STIRRUPS
	WIDTH	DEPTH		SIZE	STR.	BENT		
B100	12"	14"		2	2		5-1/2" φ U, 1/3 2/6, 2/8 EACH END	10-3/8" φ U
B101	12"	15"		2	2		1/2, 3/4, 3/8, 1/8 EACH END	20 PRS 3/8" φ U
B102	12"	15"		2	2		20 PRS 3/8" φ U 1/2, 1/3 EACH END	4-1/4" φ U
B103	12"	12"		1	1		3/4, 3/8 EACH END	1/2, 3/8
B104	12"	10"		1	1		3/8 φ	
B105	12"	16"		2	2		4-1/4" φ U 1/2, 1/4, 3/8 EACH END	3-1/4" φ U
B106	10"	12"		1	1		3-1/4" φ U 1/2, 1/6, 1/8 EACH END	
B107	12"	18"		2	2		11-3/8" φ U, 1/2, 3/8 3/4, 1/2, 1/3, COL. LINE F 14-3/8" φ U, 1/2, 3/8 3/4, 1/2, 1/3, COL. LINE G COL. LINE E	3-1/4" φ U
B108	12"	18"		2	2		3-1/4" φ U 1/2, 1/6, 1/8 EACH END	5-1/4" φ U
B109	8"	12"		1	1		1/2, 3/4, 1/6, 1/8 EACH END	
B110	12"	22"		2	2		8-3/8" φ U, 1/2, 3/8, 3/4 2/5, 3/7, 1/2, COL. LINE F 8-3/8" φ U, 1/2, 3/4, 3/8 2/6, 1/8, COL. LINE F	
B111	10"	8"		1	1			
B112	12"	26"		2	2		4-3/8" φ U 1/2, 3/3, COL. LINE F 5-3/8" φ U, 1/3 1/6, 1/8, COL. LINE G	
B113	8"	5'-1"		2	2	BOTTOM	3-3/4" φ U AT B 114-115-117 2-1/2" φ U LONG TOP @ SUPPORTS	2-1/2" φ U, 12" O.C. THRU-OUT ENTIRE WALLS
B114	16"	15"		2	2		16-3/8" φ U 1/2, 15/4 EACH END	
B115	16"	15"		2	2		13 PRS. 3/8" φ U 1/2, 12/6 EACH END 2 1/2" φ EACH SPACE	
B116	10"	14"		2	2		5-3/8" φ U 1/2, 2/4, 1/6, 1/8 EACH END	
B117	16"	15"		10	7	TOP BOTTOM	13 PRS. 3/8" φ U 1/2, 12/3 EACH END 2 1/2" φ EACH SPACE	
B118	10"	16"		1	1		3-1/4" φ U 1/2, 1/4, 1/10 EACH END	
B119	12"	18"		1	1		3-3/8" φ U 1/2, 1/4, 1/6 EACH END	
B120	8"	14"		1	1		6-3/8" φ U 1/2, 3/2, 3/8 EACH END	
B121	10"	14"		1	1		3-1/4" φ U 1/2, 1/4, 1/6 EACH END	
B122	8"	8"		1	1		3-1/4" φ U 1/2, 2/4 EACH END	
B123	8"	12"		1	1		5-1/2" φ U 1/2, 3/4, 2/6 EACH END	
B124	12"	14"		1	1		3-1/4" φ U 1/2, 1/4, 1/6 EACH END	
B125	12"	18"		1	1		9-3/8" φ U, 1/2, 3/4, 3/8 2/8, COL. LINE D 7-3/8" φ U, 1/2, 3/4, 3/8 3/8, COL. LINE C	
B126	12"	18"		2	2		10-3/8" φ U, 1/2, 3/4, 3/8 1/2, 1/6, COL. LINE C 13-3/8" φ U, 1/2, 3/4, 3/8 3/8, COL. LINE D	
B127	10"	16"		1	1		6-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D 3-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D	

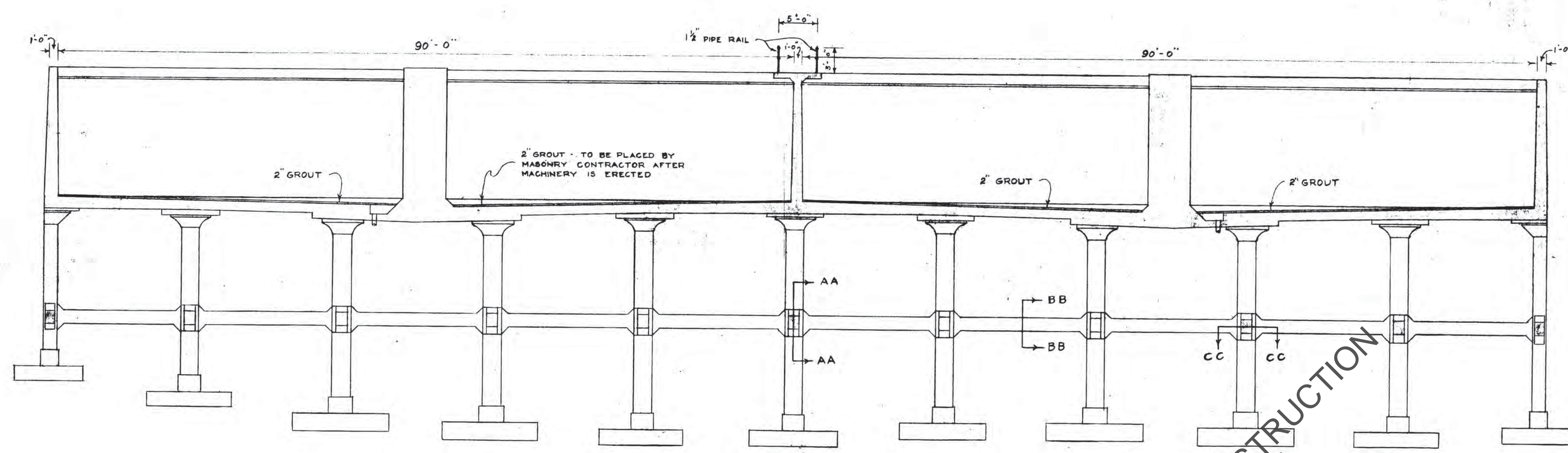
MARK	SIZE		DETAIL	STEEL REINFORCEMENT			REMARKS	STIRRUPS
	WIDTH	DEPTH		SIZE	STR.	BENT		
B128	10"	14"		1	1		3-3/8" φ U 1/3, 1/6, 1/8 EACH END	
B129	12"	14"		2	2			TOP BOTTOM
B130	8"	5'-6"		2	2			
B131	12"	18"		2	2		8-3/8" φ U, 1/2, 3/8, 3/4 1/8, 1/8, COL. LINE C 8-3/8" φ U, 1/2, 3/4, 3/8 3/8, COL. LINE D	
B132	12"	12"		1	1			TOP BOTTOM
B133	8"	10"		1	1			
B134	8"	14"		1	1		4-1/4" φ U, 1/2, 2/4, 1/8 1/8, COL. LINE D 3-1/4" φ U, 1/2, 3/4, 1/8 1/6, COL. LINE D	
B135	16"	18"		2	2		8-1/2" φ U 1/2, 3/8, 3/12 EACH END	
B135a	12"	12"		1	1		5-3/8" φ U 1/2, 3/4, 1/8 EACH END	
G100	12"	18"		2	2		7-1/2" φ U 1/2, 2/6, 4/8 EACH END	
G101	10"	16"		2	2		8-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D 8-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D	
G102	12"	26"		2	2		12-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D 6-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D	
G103	16"	36"		4	4		15-1/2" φ U 1/2, 3/5, 5/8 EACH END	
G104	12"	18"		2	2		9-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D 4-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D	
G105	12"	18"		1	1		4-3/4" φ U 1/2, 2/4, 1/8 EACH END	
G106	12"	18"		1	1		4-3/4" φ U 1/2, 2/4, 1/8 EACH END	
G107	12"	16"		2	2		8-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D 8-3/8" φ U, 1/2, 3/4, 3/8 1/8, COL. LINE D	
B135b	18"	24"		3	3		18-3/8" φ U 1/2, 17/32 EACH END	
B136	12"	54"	SEE DETAIL	2	2			SEE DETAIL
B137	12"	24"		2	2		10-3/8" φ U 1/2, 3/8, 3/8, 3/8 EACH END	
B138	12"	24"		2	2		16-3/8" φ U 1/2, 3/8, 3/8, 3/8, 3/8 EACH END	
B139	8"	12"		1	1		5-1/2" φ U 1/2, 1/4, 1/6 EACH END	
B140	12"	26"		2	2		6-3/8" φ U 1/2, 3/8, 3/8, 3/8, 1/4 EACH END	
B141	10"	93"		3	3		SEE ARCHS. DWS. FOR CORRECT DIMS	7-1/2" φ U 18" O.C.
B142	8"	5'		2	2			
B143	12"	20"		2	2		9-3/8" φ U 1/2, 3/8, 3/8, 3/8, 1/8 EACH END	
B144	16"	20"		2	2		10-3/8" φ U 1/2, 3/8, 3/8, 3/8, 1/8 EACH END	
B145	16"	30"		2	2		7-1/2" φ U 1/2, 3/4, 3/8, 1/2 EACH END	



FIRST FLOOR SLAB SCHEDULE

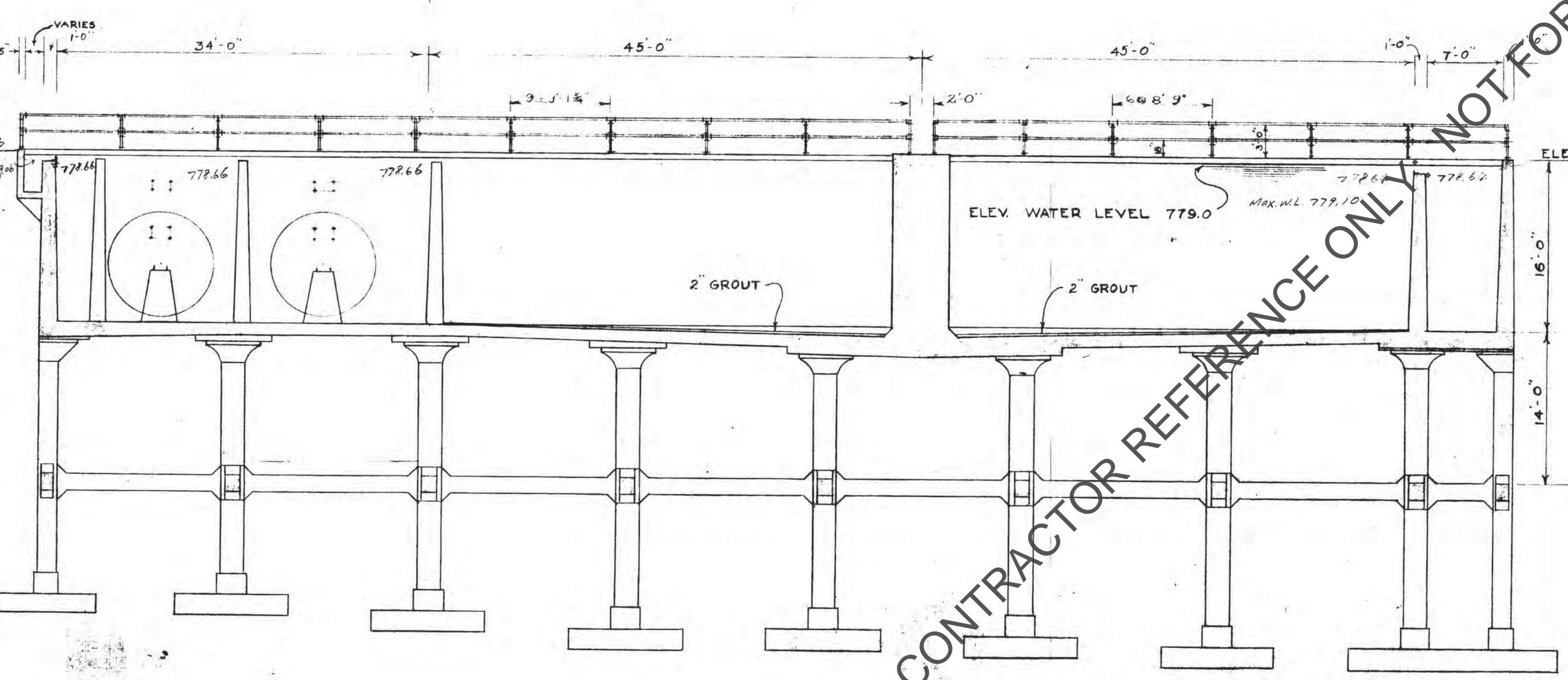
MARK	DEPTH	SIZE	SPACING	REMARKS
S100	5"	1/2" φ	10" o.c.	ALT. RODS BENT
S101	5"	3/8" φ	8" o.c.	do do do
S102	5"	1/2" φ	7 1/2" o.c.	do do do
S103	5"	1/2" φ	9" o.c.	do do do
S104	5"	3/8" φ	6" o.c.	do do do
S105	5"	3/8" φ	10" o.c.	do do do
S106	5"	1/2" φ	7 1/2" o.c.	do do do
S107	5"	3/8" φ	10" o.c.	do do do
S107a	5"	3/8" φ	9" o.c. SHORT WAY 10" o.c. LONG WAY	do do do
S108	5"	3/8" φ	8" o.c. SHORT WAY 10" o.c. LONG WAY	ALT. BARS BENT do do do
S109	7"	1/2" φ	6" o.c.	do do do
S110	9"	1/2" φ	5" o.c.	do do do
S110a	7"	1/2" φ	7" o.c. SHORT WAY 12" o.c. LONG WAY	do do do
S111	8"	1/2" φ	5" o.c. SHORT WAY 6" o.c. LONG WAY	do do do
S112	7"	1/2" φ	7" o.c. EACH WAY	do do do
S113	7"	1/2" φ	7" o.c. SHORT WAY 8" o.c. LONG WAY	do do do
S114	9"	1/2" φ	5" o.c. SHORT WAY 7" o.c. LONG WAY	do do do
S115	9"	1/2" φ	5" o.c. EACH WAY	do do do
S116	5"	1/2" φ	8" o.c.	do do do

FOR GENERAL NOTES SEE SHEET
WATER PURIFICATION
FOUNDATION PLAN
BENTON
J. S. WILSON



SECTION - A-A
SCALE - 1/4" = 1'

chem. bldg 1st Fl. E.L. 780.47'



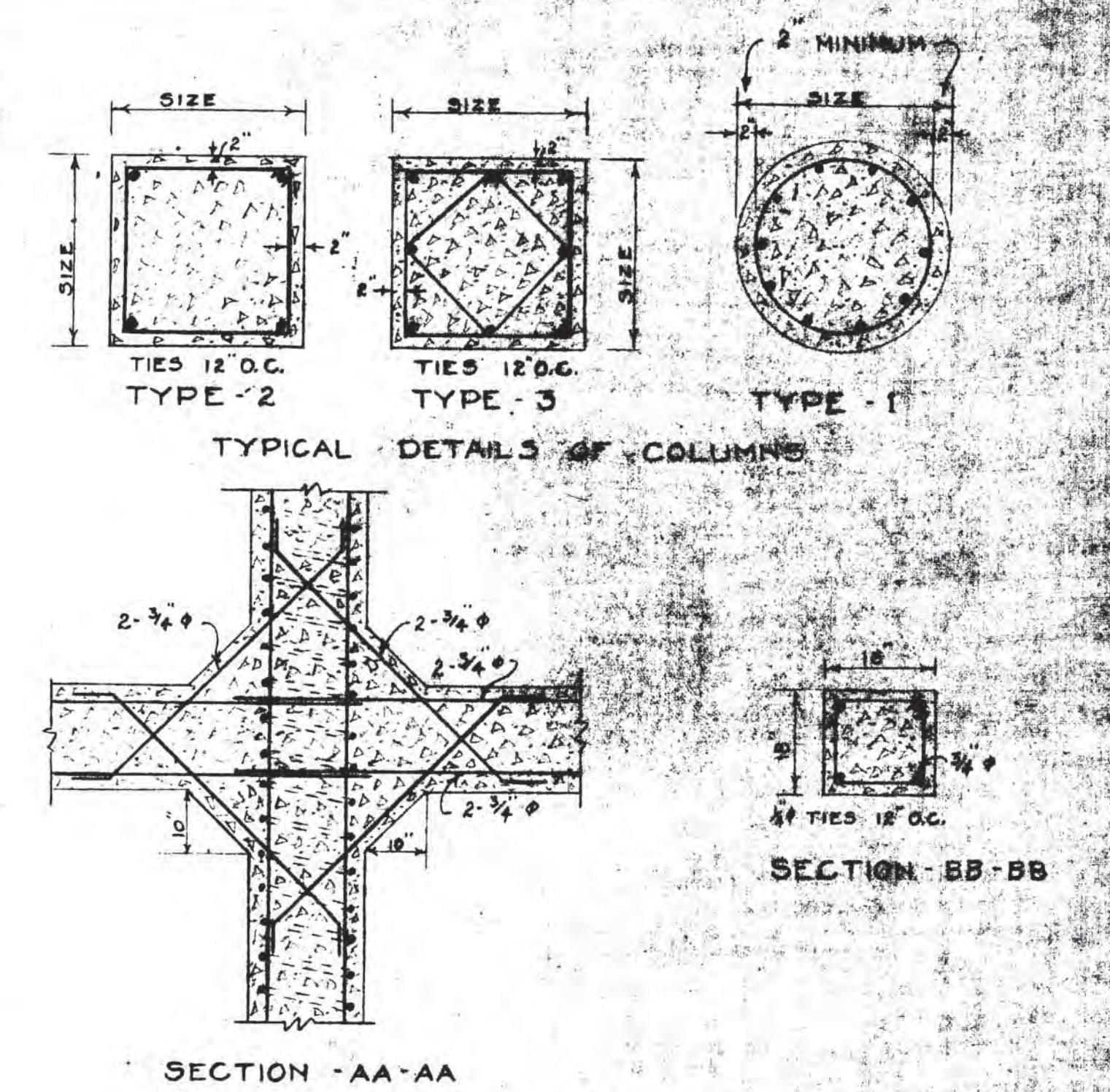
SECTION - B-B
SCALE - 1/4" = 1'

COLUMN SCHEDULE

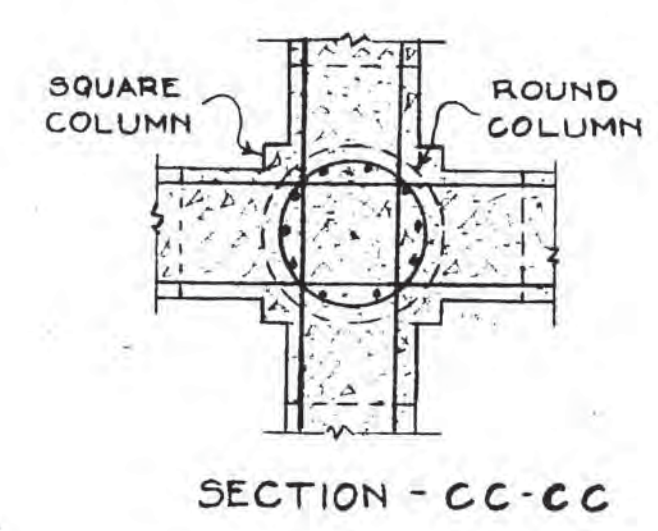
LOADS ARE GIVEN IN THOUSANDS OF POUNDS

NOTE - ALL COLUMN NUMBERS ARE INCLUSIVE

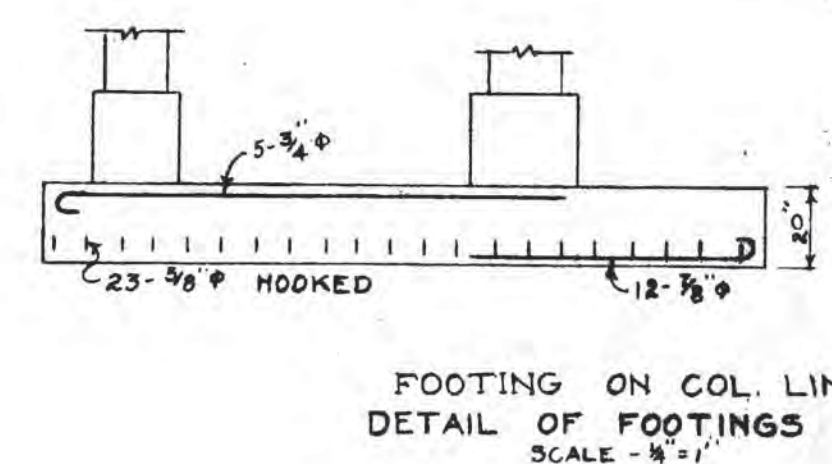
DESCRIPTION	1-6	1-1,11	C6 to H6	A,2,3 A,8,9,10	A1 and A11	B,6	B1 and B11	A,4	A,5	A,6	A,7	B,2 to B,5 B,7 to B,10	D-3,4,8,9 E-3,4,8,9			
LOAD	382.0	270.0	286.5	316.4	174.9	336.0	172.4	105.0	410.0	230.7	271.8	353.2	328.5	254.9	359.6	489.0
SIZE	26" φ	20" x 20"	20" x 20"	22" x 20"	16" x 16"	26" φ	16" x 16"	16" x 16"	26" φ	18" x 18"	18" x 20"	22" x 22"	20" x 22"	18" x 20"	26" φ	26" φ
VERT. REINF.	9-1" φ	4-7/8" φ	4-1" φ	8-7/8" φ	4-3/8" φ	9-1" φ	4-3/8" φ	4-3/8" φ	9-1" φ	4-1" φ	8-3/4" φ	8-3/4" φ	8-3/4" φ	10-1" φ	10-1" φ	10-1" φ
TIES OR SPIRALS	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ	1/2" φ
CLASS OF CONC.	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
TYPE	1	2	2	3	2	1	2	2	1	2	3	3	3	3	1	B



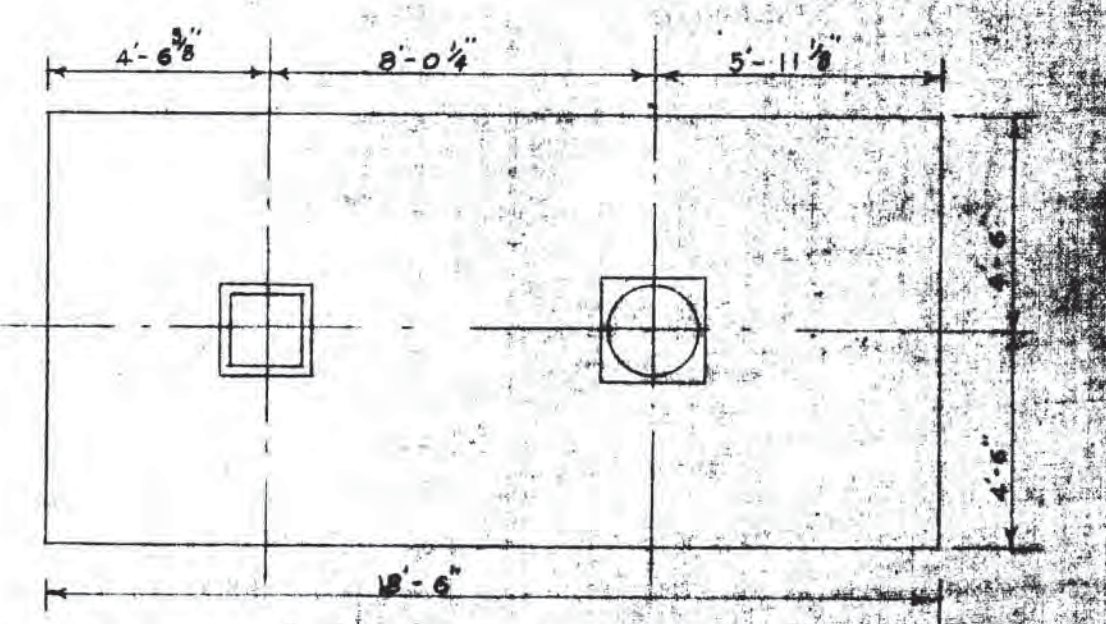
SECTION - AA-AA



SECTION - CC-CC



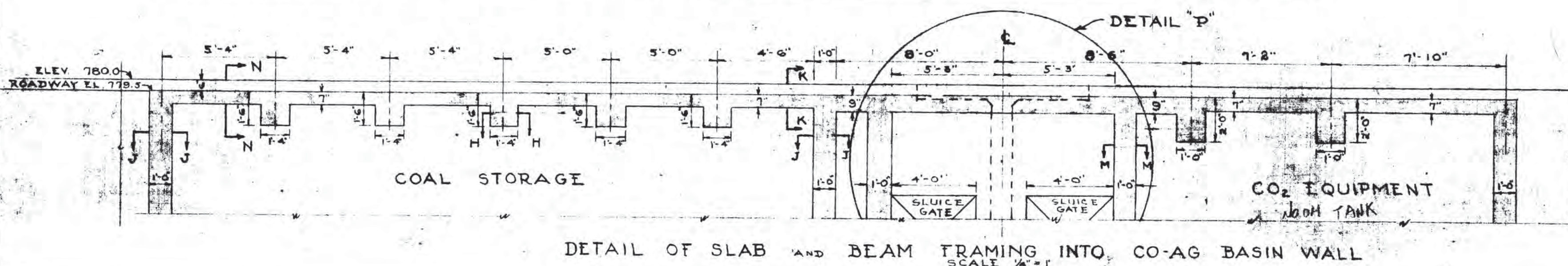
DETAIL OF FOOTINGS - G



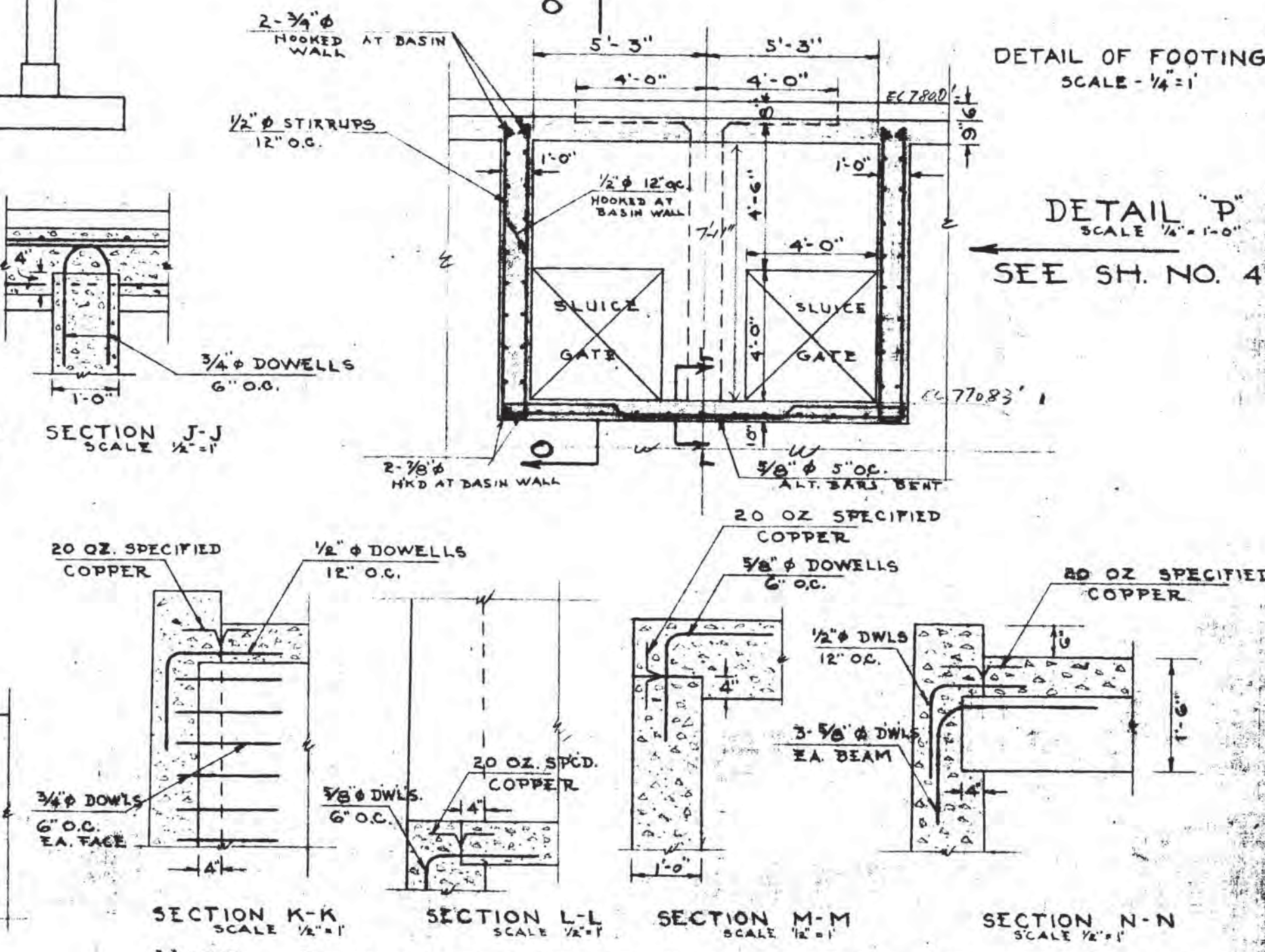
DETAIL OF FOOTING - L

DETAIL 'D' CLARIFIER EFFLUENT FRUME
SCALE 1/4" = 1'

NOTE - CONTRACTOR MAY USE SQUARE OR OCTAGONAL COLUMNS PROVIDED THE LEAST DIAMETER IS NOT LESS THAN THAT CALLED FOR IN THE COLUMN SCHEDULE AND DETAILS.



DETAIL OF SLAB AND BEAM FRAMING INTO CO-AG BASIN WALL
SCALE 1/4" = 1'



SECTION K-K, L-L, M-M, N-N
NOTE - BASIN CONTRACTOR TO PROVIDE HOLES AND NOTCHES WITH DOWELS AND COPPER STRIPS AS SHOWN IN ABOVE SECTIONS.

FOR GENERAL NOTES SEE SH. NO. 48

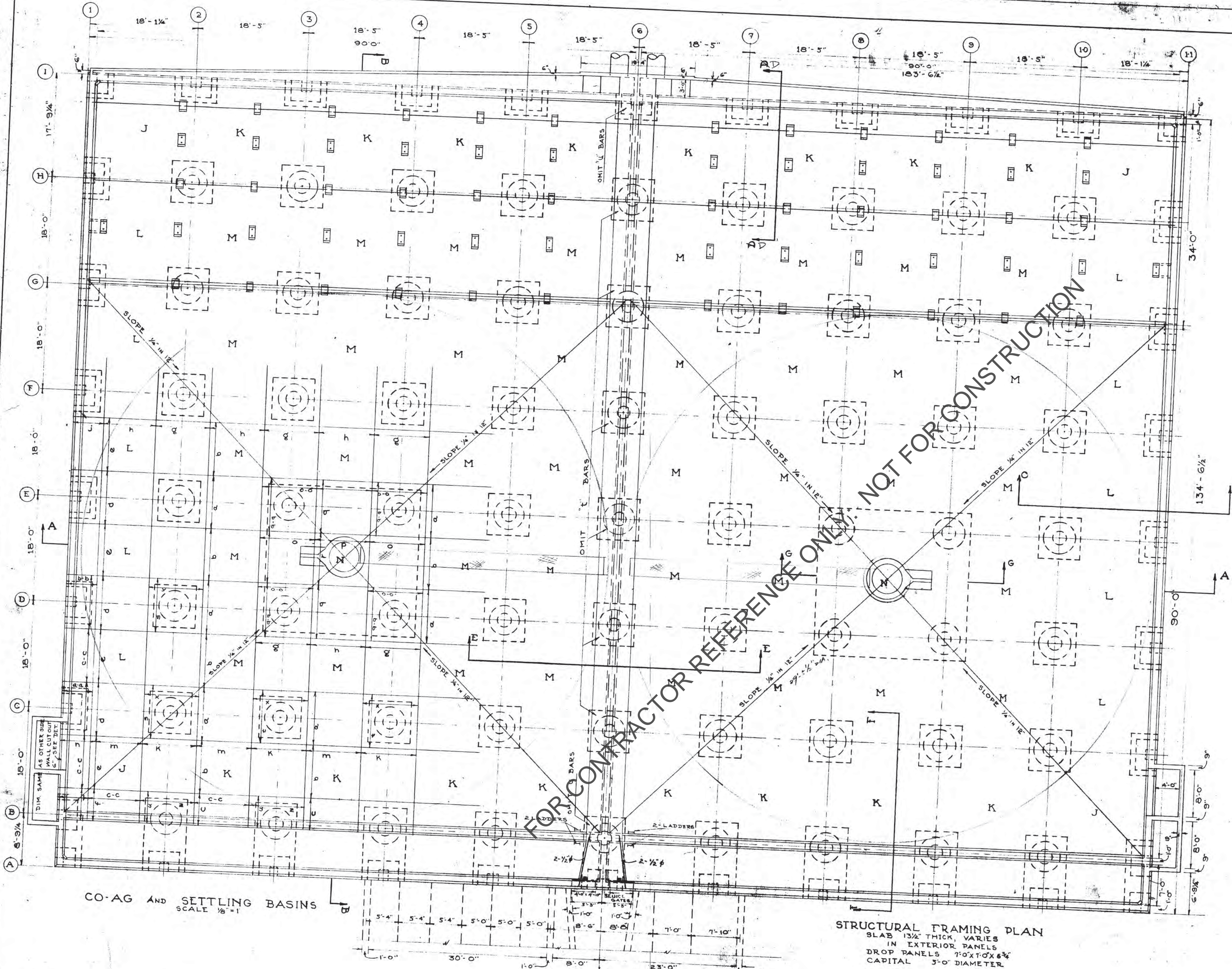
WATER PURIFICATION PLANT

COAGULATION BASIN

SECTION - A-A

DATE - DEC. 14, 1955
DRAWN - N.W.S.
APPROVED - J.S. [Signature]

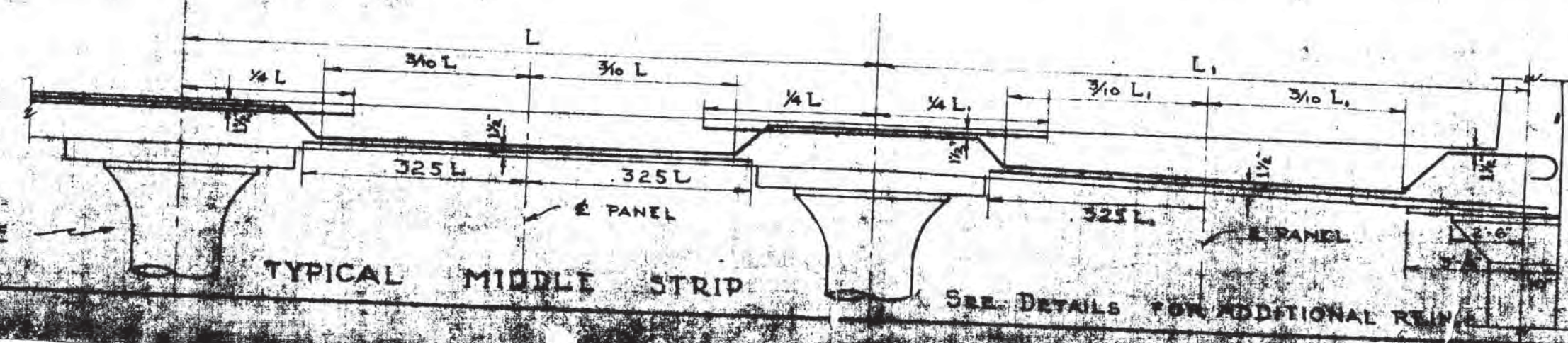
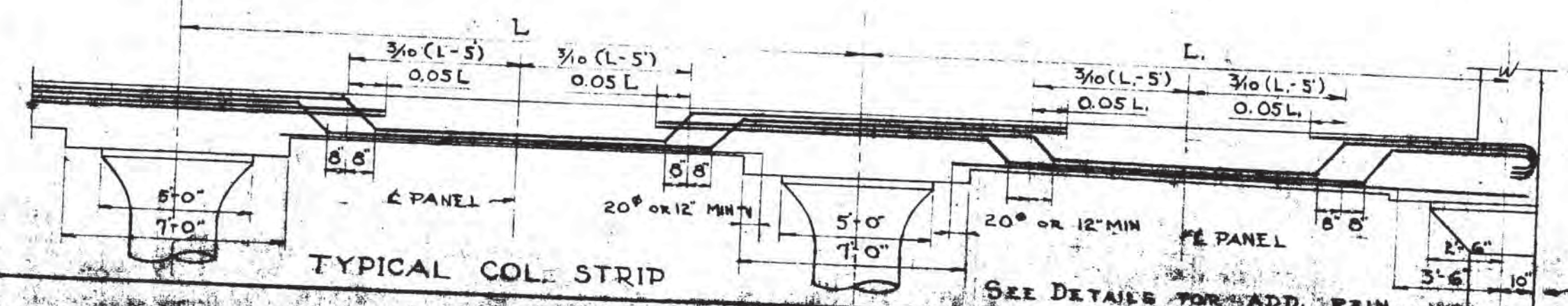
45-50



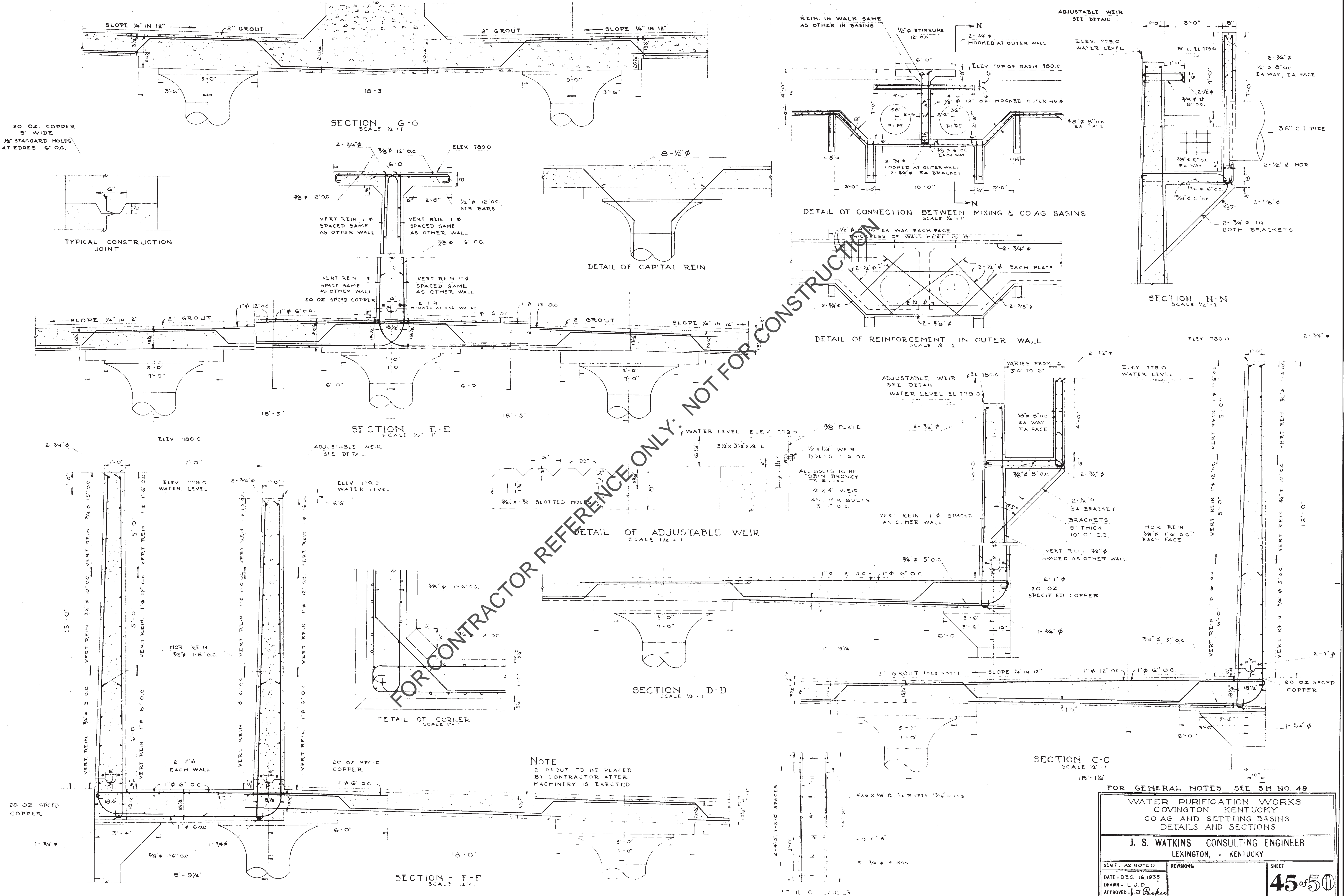
BAND SCHEDULE					
MARK	SIZE	STR	BENT	DETAIL	REMARKS
a	3/4" φ	6	5		
b	5/8" φ	6	6		
c	3/4" φ	3	3		
d	3/4" φ	7	6		
e	5/8" φ	6	8		
f	3/4" φ	4	3		
u	3/4" φ	3			
s	3/4" φ	6			
t	3/4" φ	7			
c-c	5/8" φ	7			
q	3/4" φ	6	5		
r	5/8" φ	6	6		
q-q	3/4" φ	11			
g	3/4" φ	6	4		
h	5/8" φ	5	5		
j	3/4" φ	3	2		
k	3/4" φ	7	6		
m	5/8" φ	6	7		
n	3/4" φ	4	3		
a-a	3/4" φ	3			
b-b	3/4" φ	4			
z	3/4" φ	8			
x	3/4" φ	6			
y	3/4" φ	8			
o	3/4" φ	6	4		
p	5/8" φ	6	6		
o-o	3/4" φ	13			

CO-AG AND SETTLING BASINS
SCALE 1/8"=1'

STRUCTURAL FRAMING PLAN
SLAB 13/4" THICK, VARIES
IN EXTERIOR PANELS
DROP PANELS 7'-0" X 1'-0" X 6 1/2"
CAPITAL 5'-0" DIAMETER



FOR GENERAL NOTES SEE SH...
...
CO-AG AND SETTLING
PLAN



FOR CONTRACTOR REFERENCE ONLY: NOT FOR CONSTRUCTION

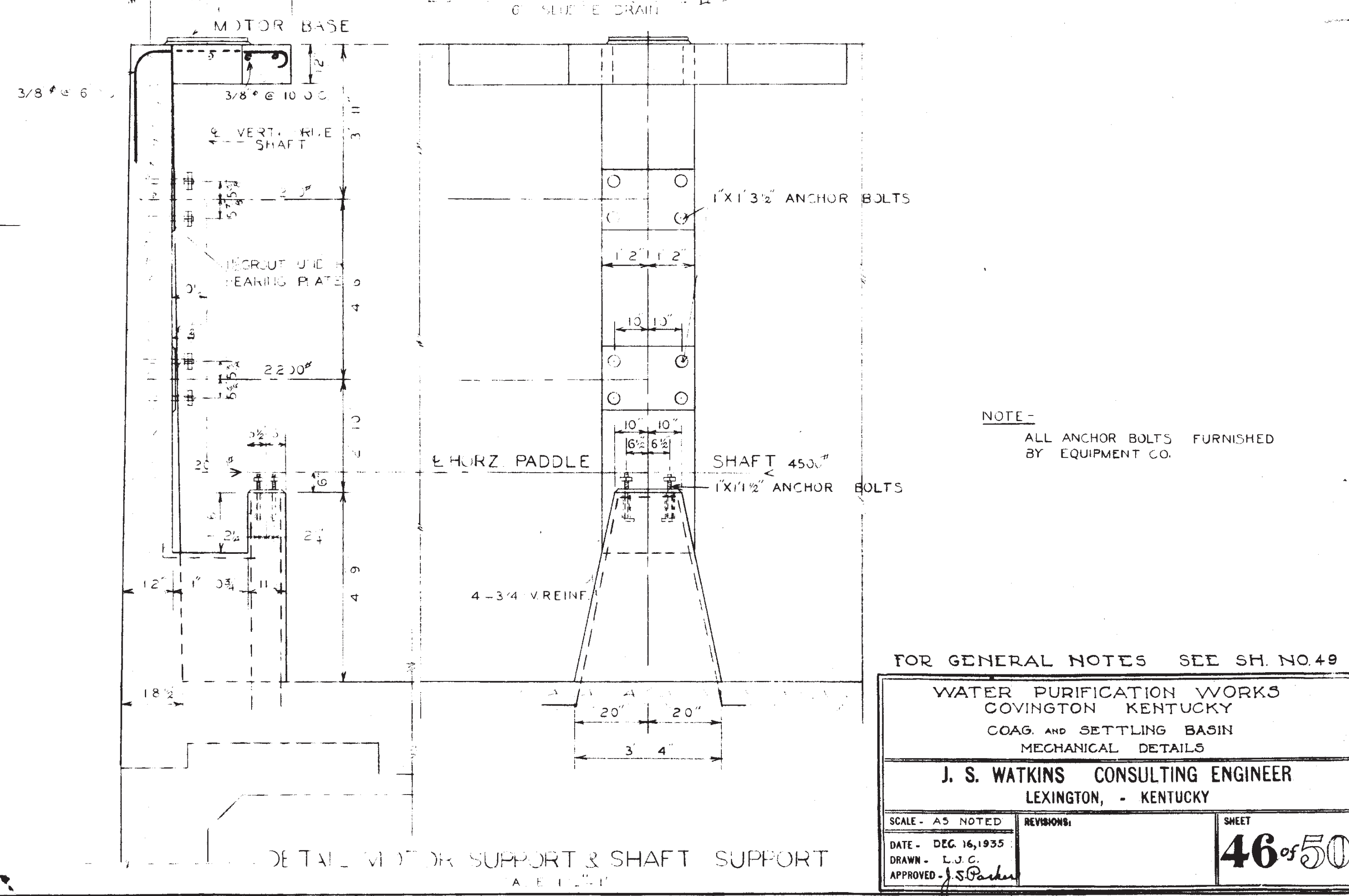
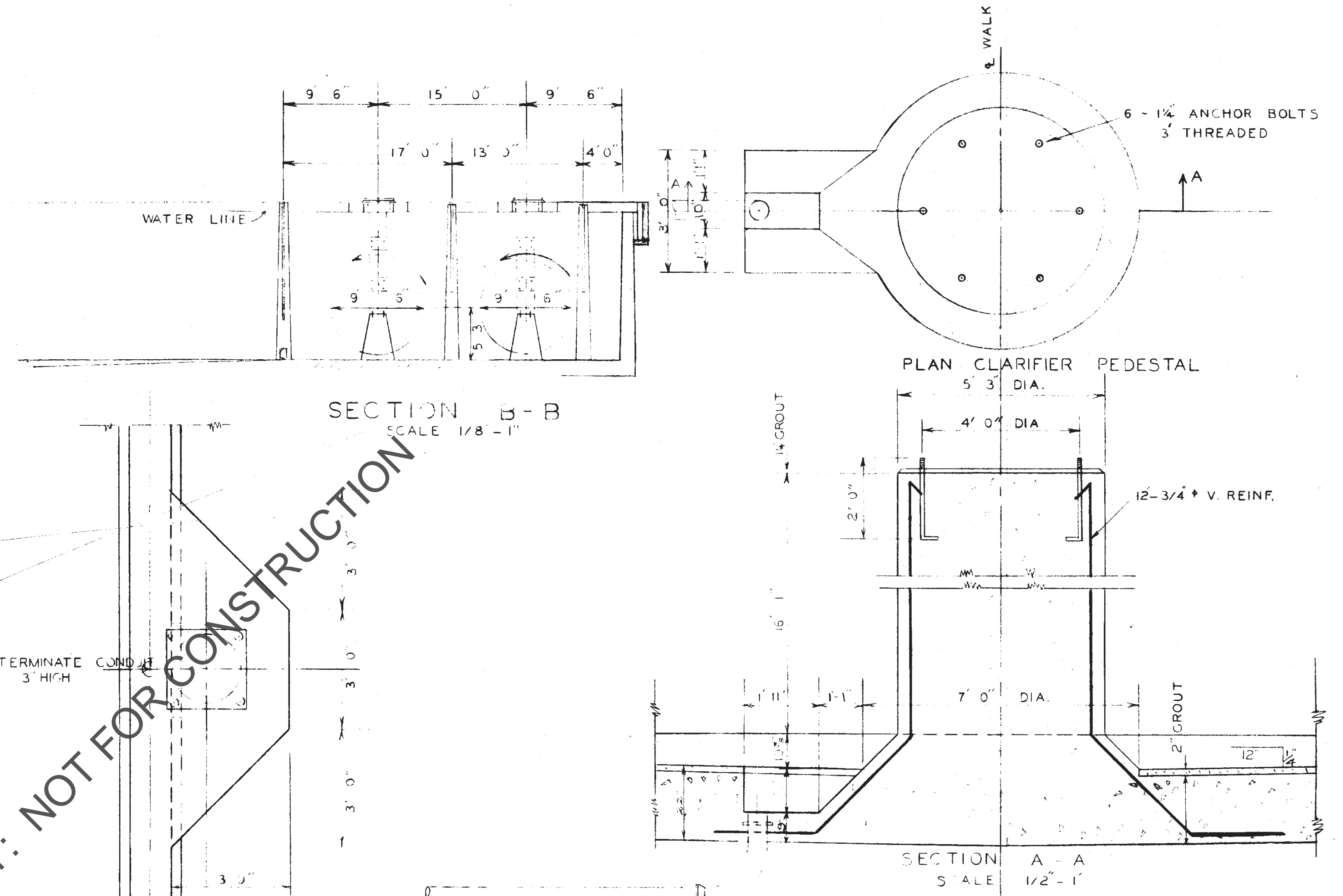
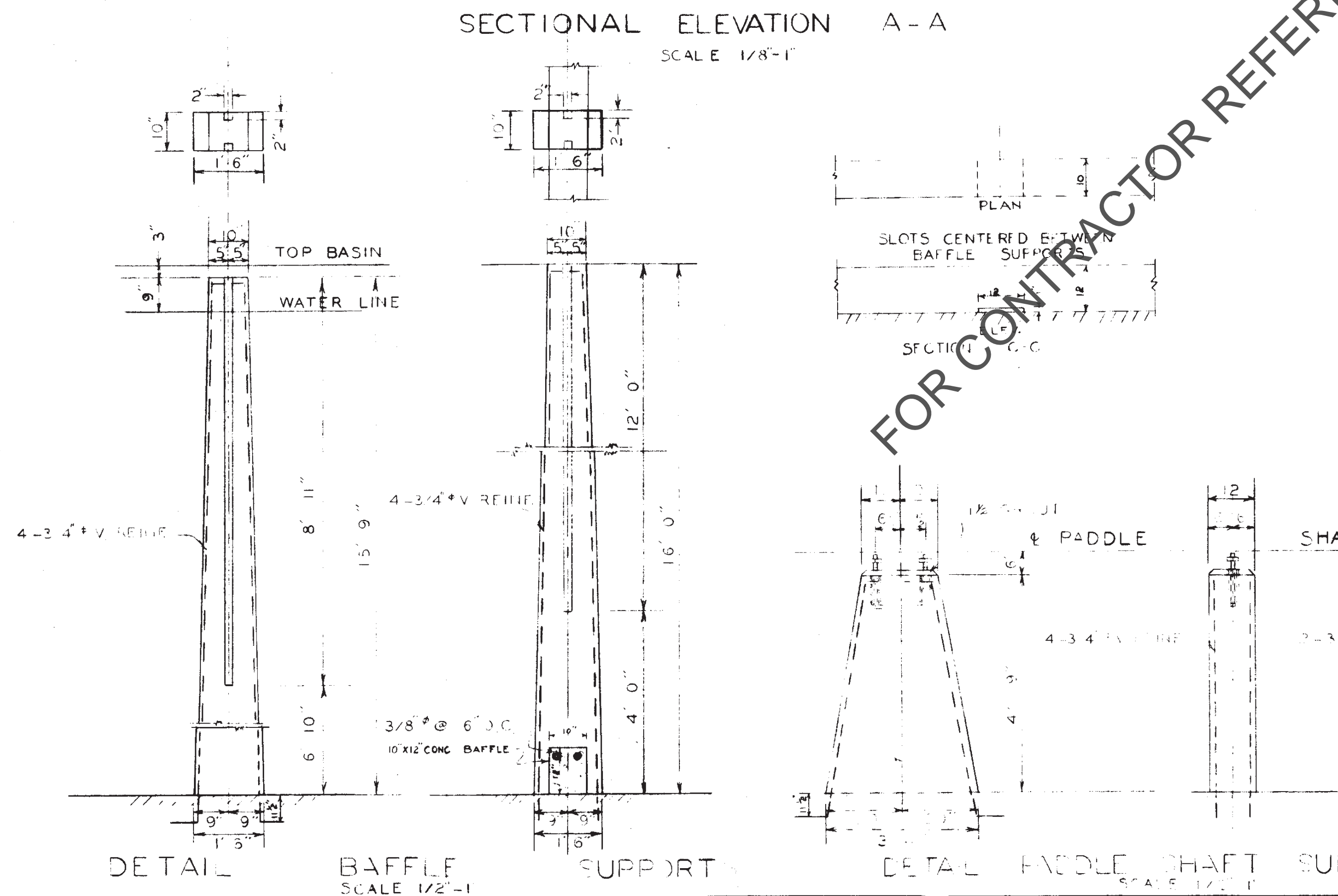
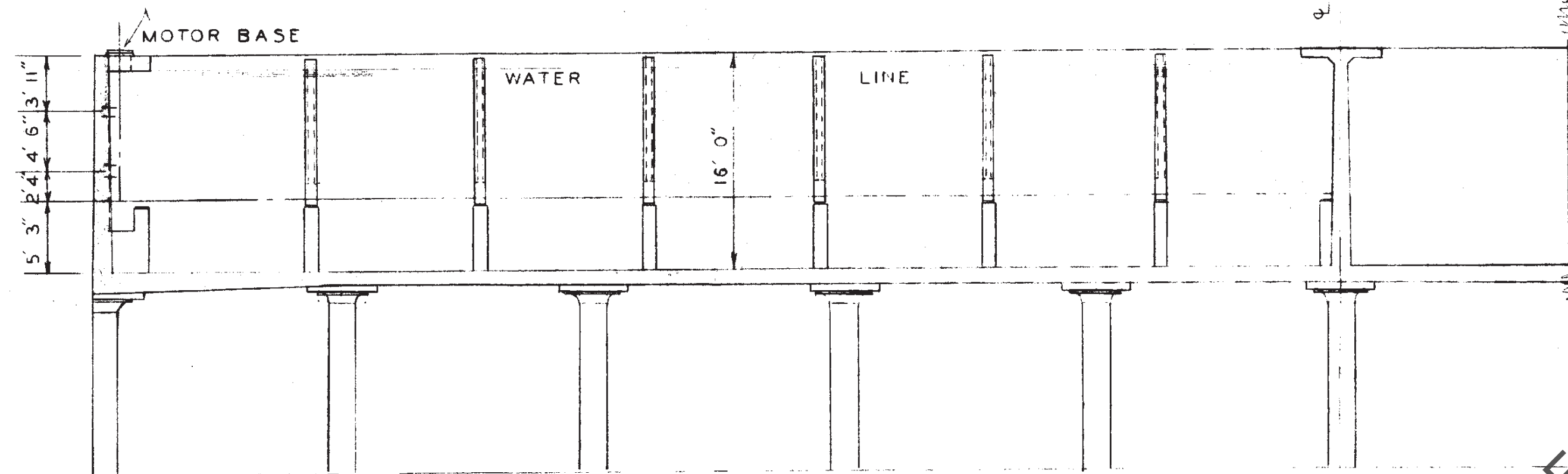
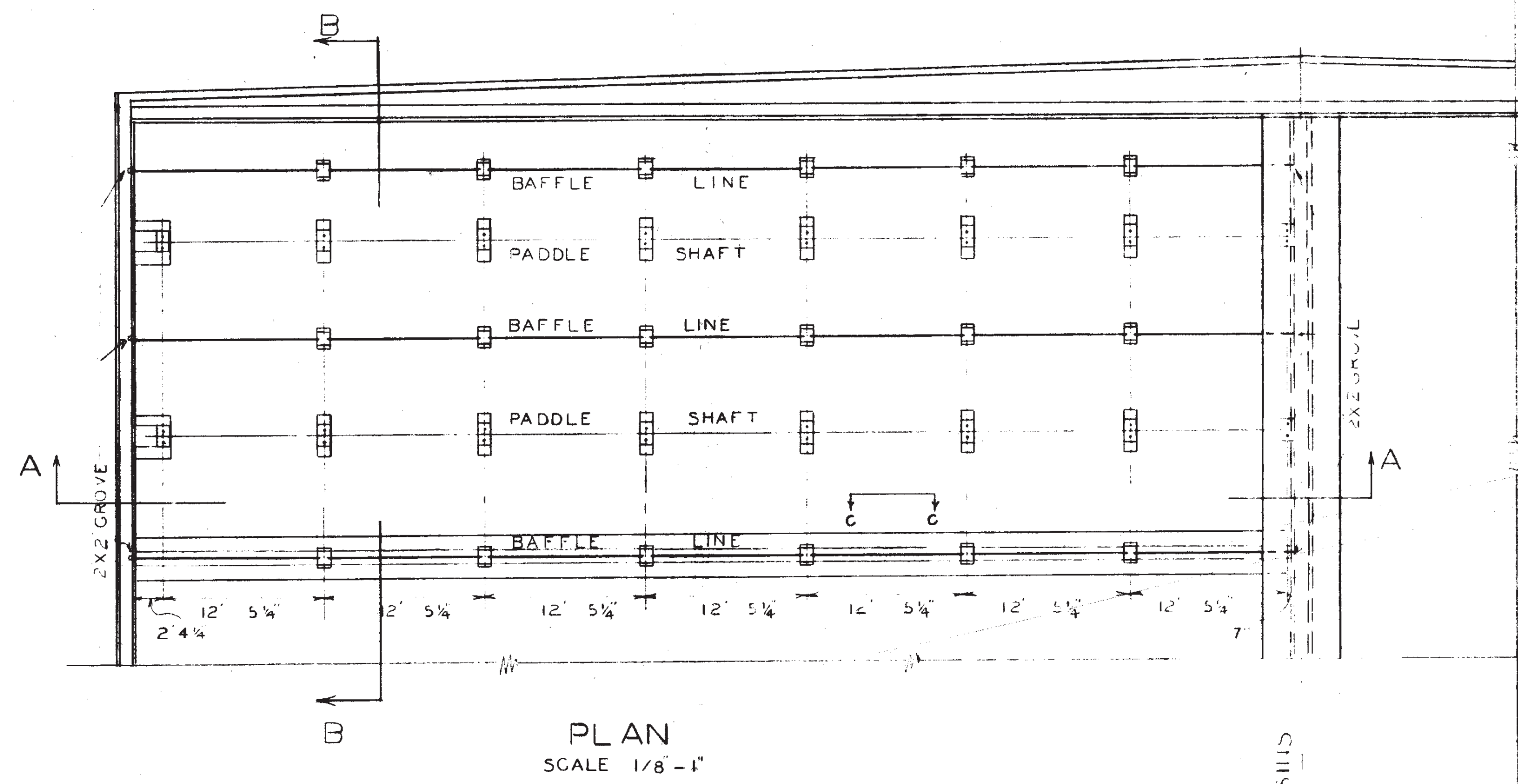
NOTE
2 GROUT TO BE PLACED
BY CONTRACTOR AFTER
MACHINERY IS ERECTED

FOR GENERAL NOTES SEE 5H NO. 49

WATER PURIFICATION WORKS
COVINGTON KENTUCKY
CO AG AND SETTLING BASINS
DETAILS AND SECTIONS

J. S. WATKINS CONSULTING ENGINEER
LEXINGTON, - KENTUCKY

SCALE - AS NOTED	REVISIONS	SHEET
DATE - DEC. 16, 1935		45 of 50
DRAWN - L.J.D.		
APPROVED - J.S. Watkins		



NOTE -
ALL ANCHOR BOLTS FURNISHED
BY EQUIPMENT CO.

FOR GENERAL NOTES SEE SH. NO. 49

<p>WATER PURIFICATION WORKS COVINGTON KENTUCKY COAG. AND SETTLING BASIN MECHANICAL DETAILS</p>		
<p>J. S. WATKINS CONSULTING ENGINEER LEXINGTON, - KENTUCKY</p>		
SCALE - AS NOTED	REVISIONS:	SHEET
DATE - DEC. 16, 1935		46 of 50
DRAWN - L.J.C.		
APPROVED - J.S. Watkins		

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Participation Form

An EPA Financial Assistance Agreement Recipient must require its prime contractors to provide this form to its DBE subcontractors. This form gives a DBE¹ subcontractor² the opportunity to describe work received and/or report any concerns regarding the EPA-funded project (e.g., in areas such as termination by prime contractor, late payments, etc.). The DBE subcontractor can, as an option, complete and submit this form to the EPA DBE Coordinator at any time during the project period of performance.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment or Supplies	Amount Received by Prime Contractor

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.



OMB Control No: 2090-0030
Approved: 8/13/2013
Approval Expires: 8/31/2015

Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Participation Form

Please use the space below to report any concerns regarding the above EPA-funded project:

Lined area for reporting concerns regarding the project.

Table with 2 columns: Subcontractor Signature, Print Name, Title, Date.

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Performance Form

This form is intended to capture the DBE¹ subcontractor's² description of work to be performed and the price of the work submitted to the prime contractor. An EPA Financial Assistance Agreement Recipient must require its prime contractor to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package.

Subcontractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Prime Contractor Name		Issuing/Funding Entity:	

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving Construction, Services , Equipment or Supplies	Price of Work Submitted to the Prime Contractor
DBE Certified By: <input type="radio"/> DOT <input type="radio"/> SBA <input type="radio"/> Other: _____		Meets/ exceeds EPA certification standards? <input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Unknown

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Performance Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

Subcontractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Disadvantaged Business Enterprise (DBE) Program DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract. An EPA Financial Assistance Agreement Recipient must require its prime contractors to complete this form and include it in the bid or proposal package. Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name		Project Name	
Bid/ Proposal No.	Assistance Agreement ID No. (if known)	Point of Contact	
Address			
Telephone No.		Email Address	
Issuing/Funding Entity:			

I have identified potential DBE certified subcontractors	<input type="radio"/> YES	<input checked="" type="radio"/> NO	
If yes, please complete the table below. If no, please explain:			
Subcontractor Name/ Company Name	Company Address/ Phone/ Email	Est. Dollar Amt	Currently DBE Certified?

Continue on back if needed

¹ A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

² Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

**Disadvantaged Business Enterprise (DBE) Program
DBE Subcontractor Utilization Form**

I certify under penalty of perjury that the forgoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.302 (c).

Prime Contractor Signature	Print Name
Title	Date

The public reporting and recordkeeping burden for this collection of information is estimated to average three (3) hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.