

CONFIDENTIALITY STATEMENT

By receiving the requested information, you agree that you, and any of your representatives authorized by the District to possess the information, will use the information only for the authorized purpose for which you requested it. If you obtained the information to prepare construction documents, you may make the information publicly available only to the extent necessary for safe construction. In all other circumstances, you may not provide any of the information, or any copy of it, to any other person or entity without the District's prior written approval. When you no longer require the information for your use, you must return or destroy all copies of the information. If you do not accept these terms, you must refrain from using the information and immediately return it

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High Purity Oxygen Activated Sludge (HPOAS) Reactors

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NOTES

Existing HPOAS reactor structural and mechanical drawings are provided for potential Proposers for the Nutrients Master Plan Update to reference.

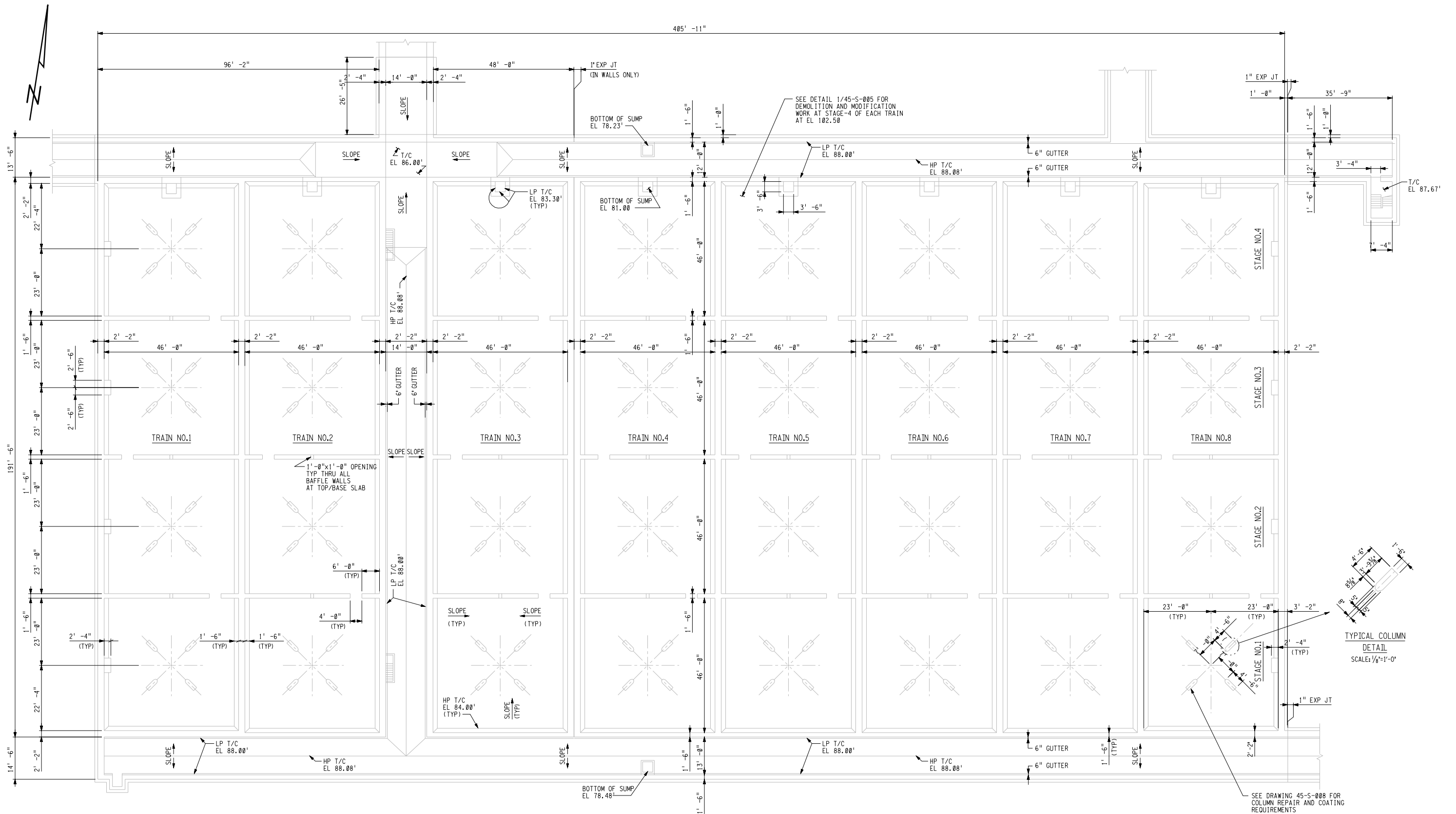
These drawings are provided to demonstrate reactor and major process mechanical equipment dimensions. There are eight (8) HPOAS reactors with four (4) stages. Each stage has approximately equal volume.

The HPOAS reactors were modified in the late 1990's to include the capability to step-feed secondary influent to Stage 2 and to replace existing high-purity oxygen sparger and sub-surface impellers with surface aerators. Subsequent modifications in the early 2000's modified the first stage to an anaerobic selector (sub-surface mixing used in lieu of a surface aerator). Although not shown, a tilting weir was installed to allow for the District to vary the side water depth. This allows for control of submergence of surface aerators in Stage 2, Stage 3, and Stage 4.

Each reactor has a flow meter and adjustable flow control valve for secondary influent and return activated sludge.

Two (2) of the eight (8) existing reactors have been improved in recent years from multi-phase rehabilitation/repair projects. A design to rehabilitate two (2) more reactors started this year.

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29-JUL-2009 13:59
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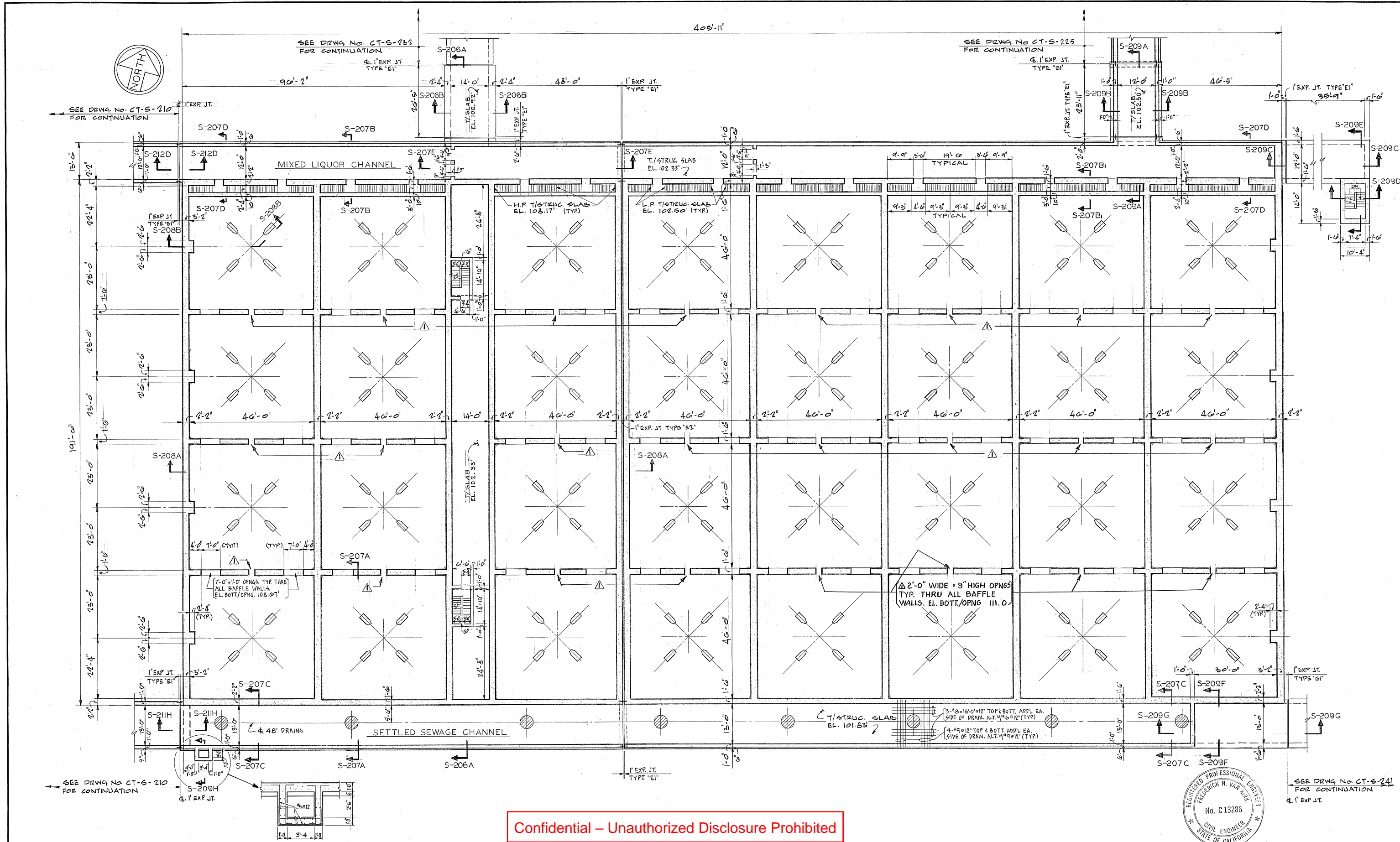


DESIGNED BY	RWT
DESIGN CHECKED BY	RTZ
DRAWN BY	MDR
SR. PROJ. ENGR.	JJG
APPROVED	
PRINCIPAL-IN-CHARGE, R.P.E. NO.C	C31200

NO.	7JUN99	IN SERVICE 3AUG98	AS BUILT	INSP. P.L.	REV:	RME	BY	REC.	APP.
REVISION									

PROJECT MGR. R.P.E. No.C30218
PROJECT SUPERVISOR R.P.E. No.C50749

EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA	
PROJECT SD221 SURFACE AERATION PROJECT STRUCTURAL OXYGENATION REACTORS BASE SLAB PLAN	
FACILITY MWWTP - AREA 45 SCALE 1/16"=1'-0" DATE DECEMBER, 1996	DRAWING No. 45-S-006 SHEET 12 OF 67

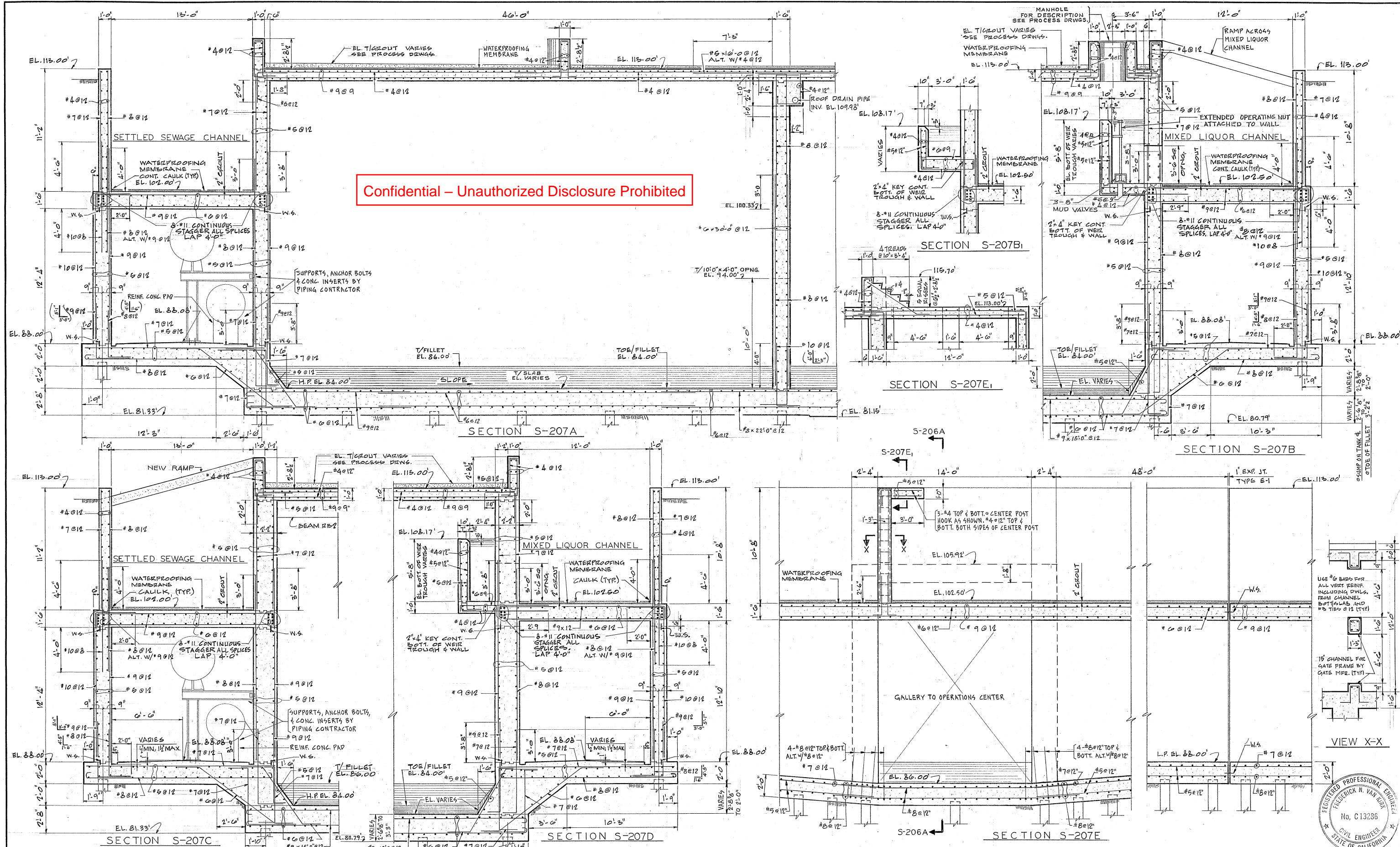


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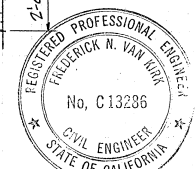


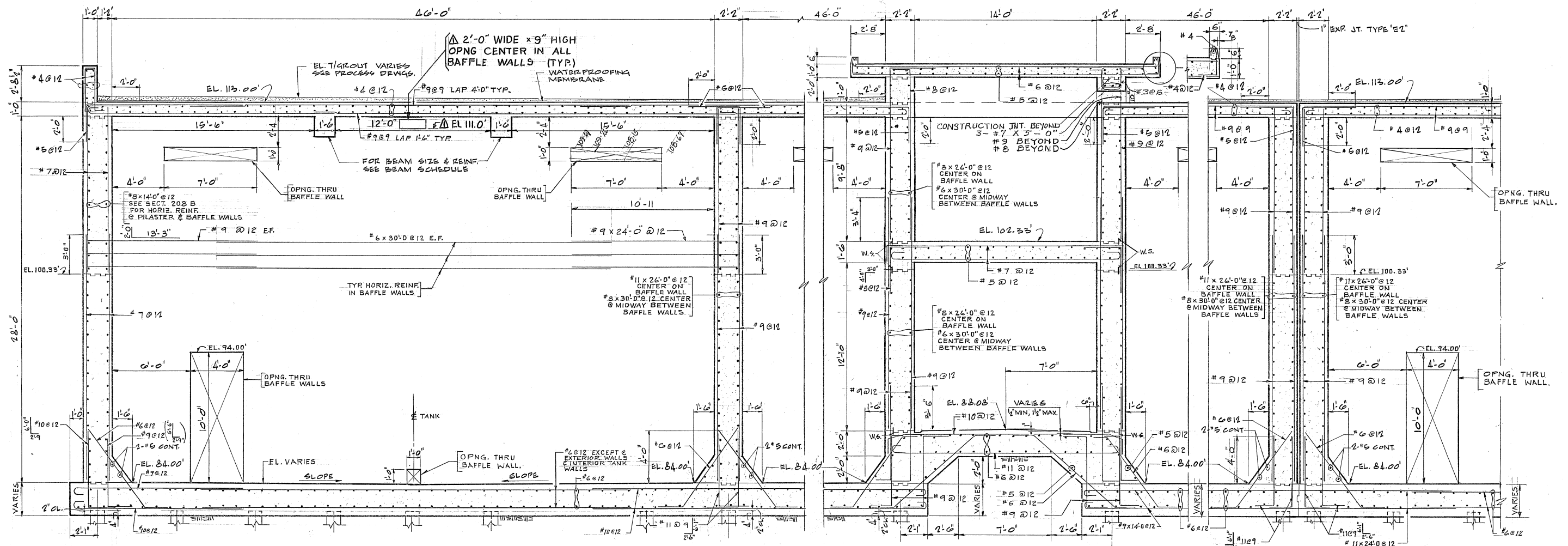
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					CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA		EBMUD <i>EBMUD</i> MGR. WPCD		DRAWN <u>G.O.R.</u>		OAKLAND, CALIFORNIA		ADDITIONS AND IMPROVEMENTS		OXYGENATION TANKS		DRWG. NO.			
A 11-74 ADD 2'-0" x 9" OPNGS JB															CHANNEL PLAN		CT-S-204			
NO. DATE DESCRIPTION BY APPR'D									CHECKED <u>TM R.</u>											
REVISIONS																				

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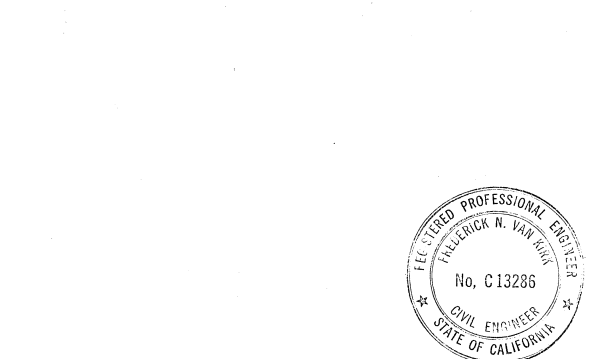
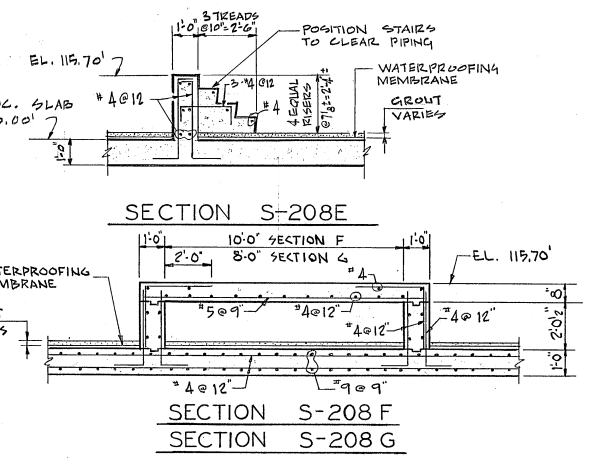
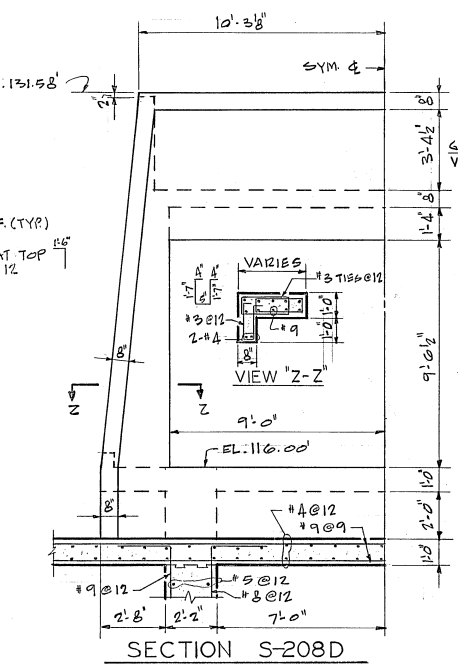
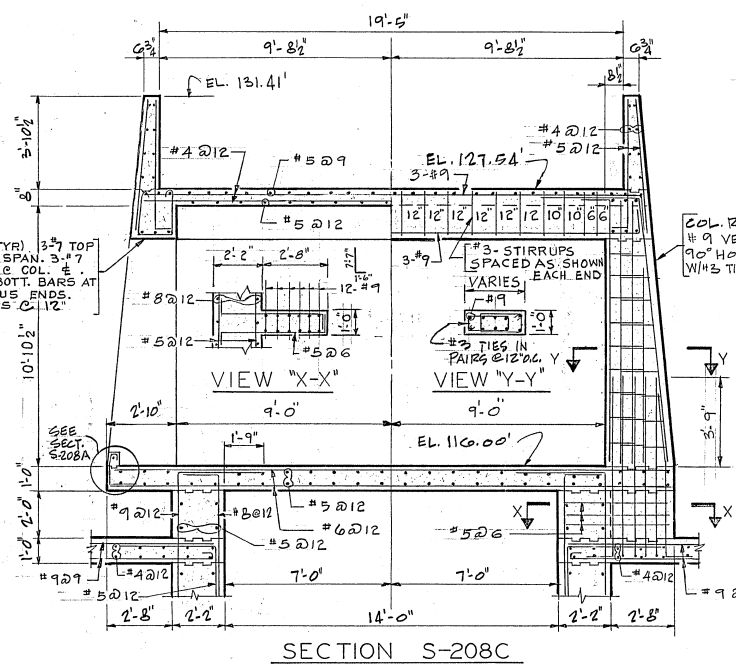
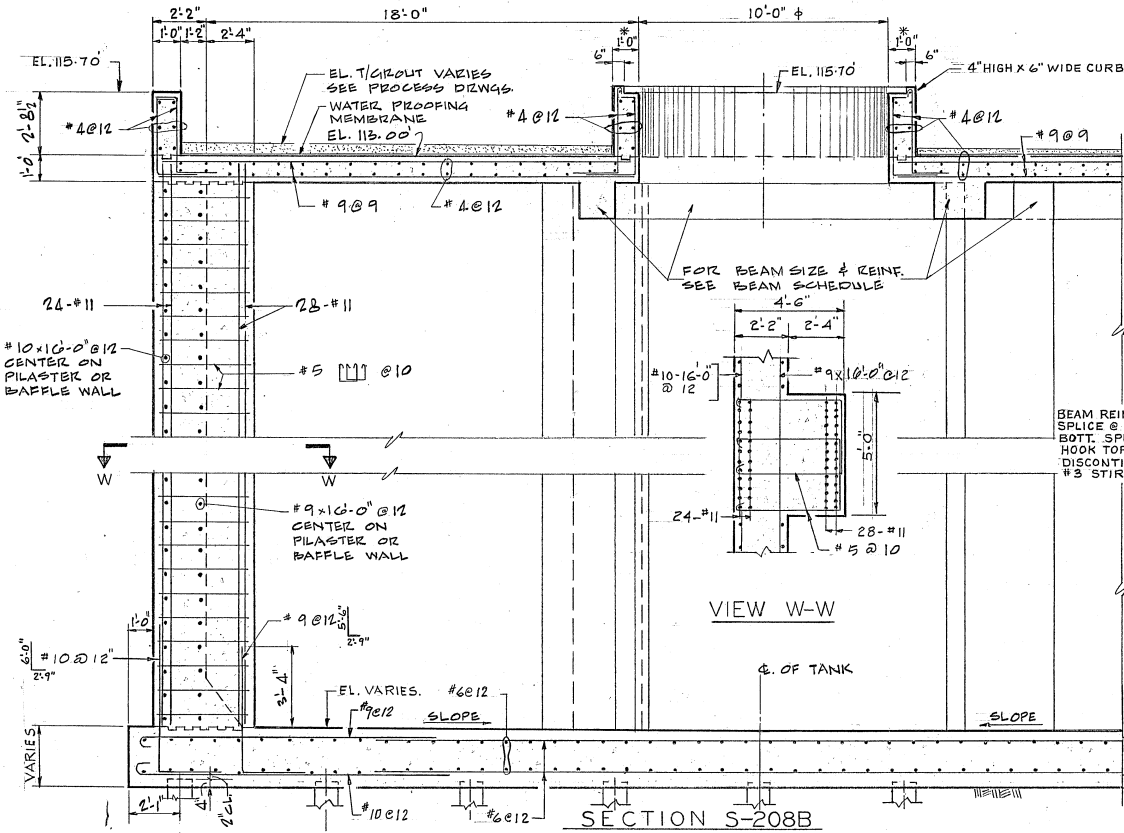


CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS		APPROVED CT & A <i>Frederick N. Van Vorst</i> PARTNER		DESIGNED W.S.P.		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1		WATER POLLUTION CONTROL PLANT ADDITIONS AND IMPROVEMENTS		SPECIFICATION NO. SD 120		DATE JAN. '73 SCALE 1" = 1'-0"	
CHICAGO, ILLINOIS		SAN JOSE, CALIFORNIA		DRAWN G.O.P.		OAKLAND, CALIFORNIA		CHECKED J.W.		OXYGENATION TANKS SECTIONS		DRWG. NO.	
NO. 9-79		AS BUILT		E.E.		EBMUD		MGR. WPCD		CT-S-207		EXCEPT AS NOTED	
REVISIONS													





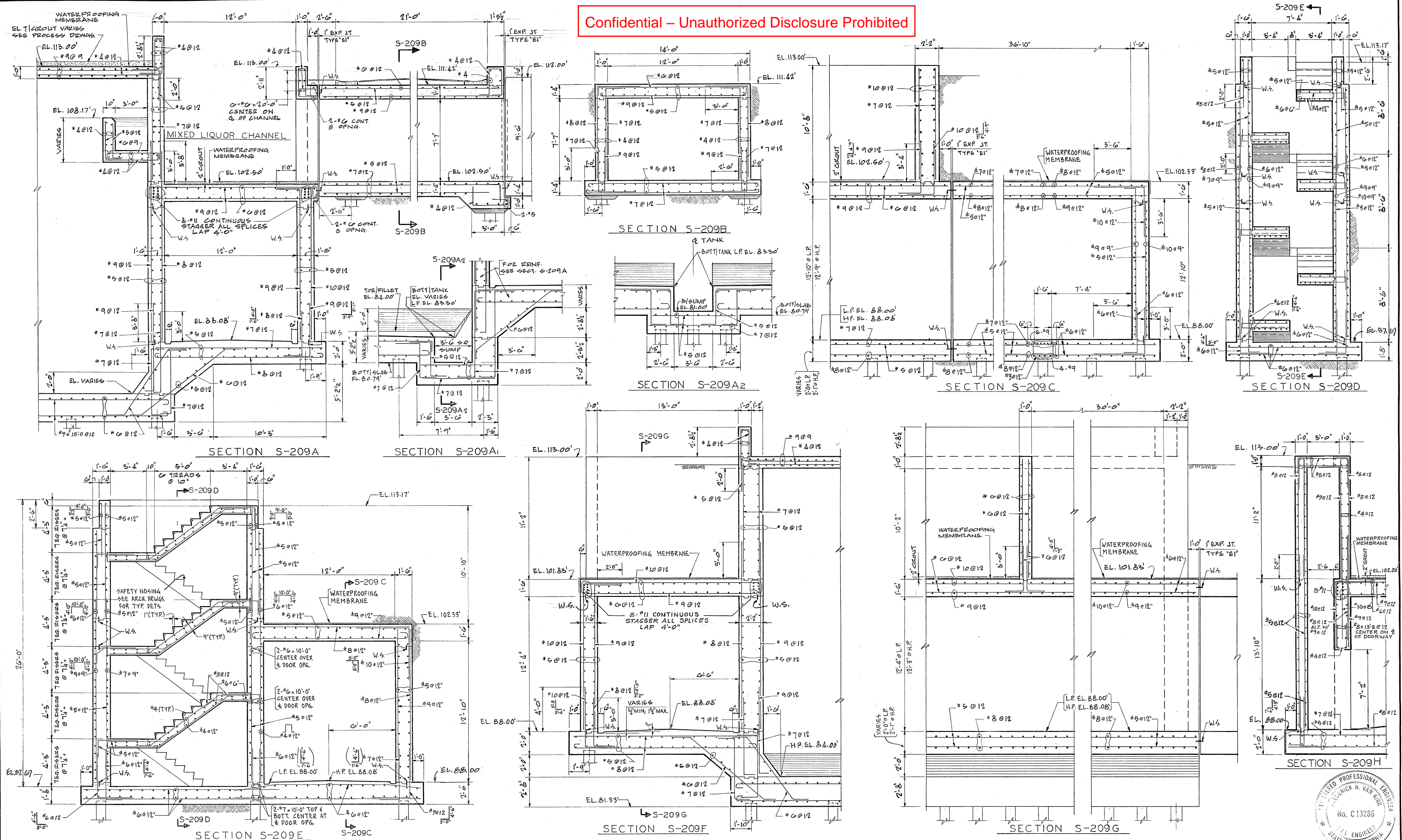
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					CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS		APPROVED CT & A <i>Frederick N. Van Hook</i> PARTNER		DESIGNED <u>W.S.R.</u>		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1		WATER POLLUTION CONTROL PLANT ADDITIONS AND IMPROVEMENTS		SPECIFICATION NO. SD120 OXYGENATION TANKS. SECTIONS.		DATE JAN. '73 SCALE $\frac{1}{4}" = 1'-0"$	
2 9-79 AS BUILT E.F.									DRAWN <u>G.O.R., R.B.</u>								DRWG. NO.	
A 11-74 ADD 2'-0" x 9" OPNGS J.B.					CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA		EBMUD <i>EEOR</i> MGR. WPCD		CHECKED <u>J.W.</u>		OAKLAND, CALIFORNIA						CT-S-208	
NO. DATE DESCRIPTION BY APPR'D REVISIONS																		



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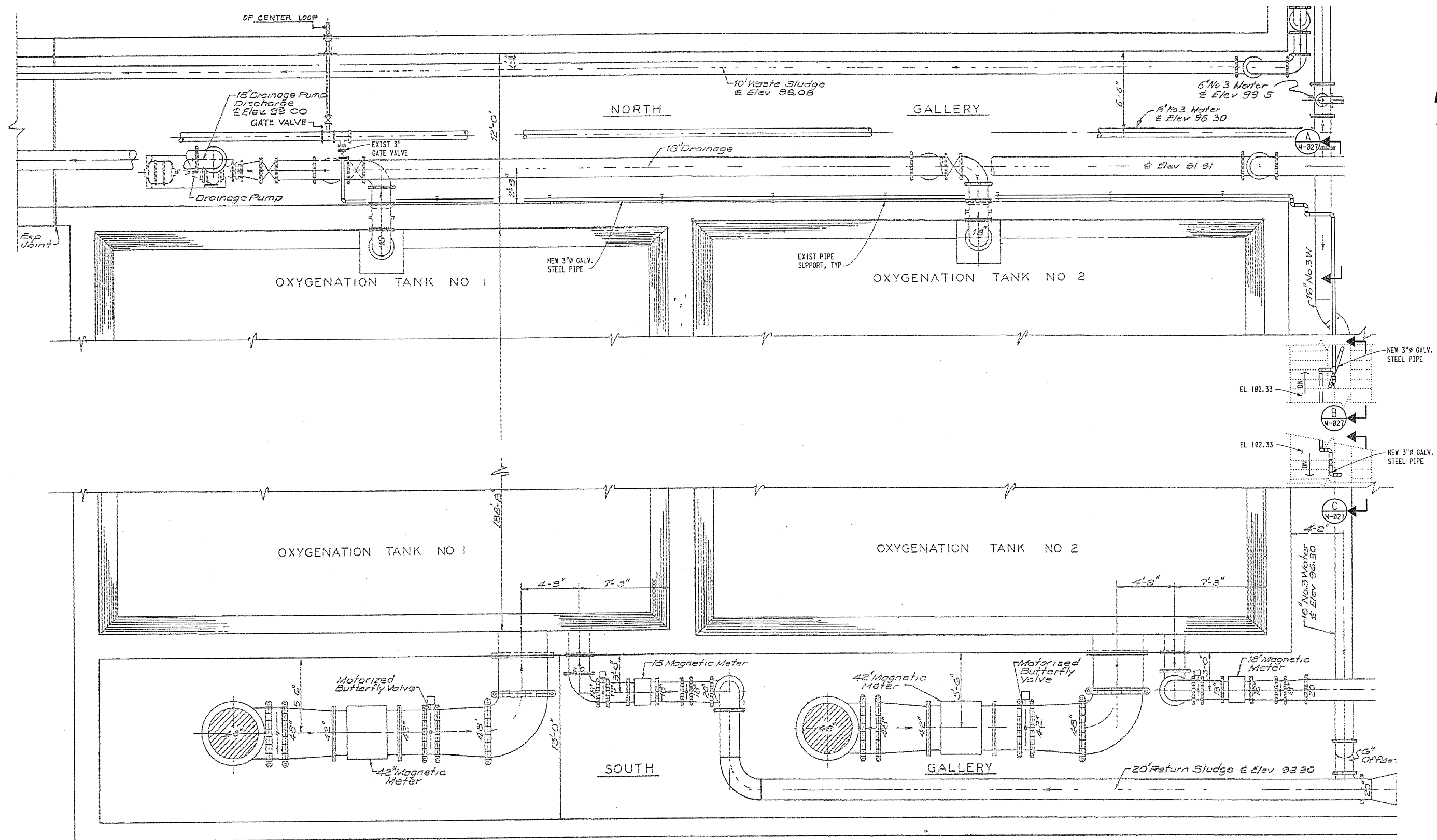


CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA				APPROVED CT & A <i>Frederick N. Van Nieuwen</i> PARTNER EBMUD <i>EE O'Brien</i> MGR. WPCD		DESIGNED <i>W.S.P.</i> DRAWN <i>G.O.D.</i> CHECKED <i>J.W.</i>		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA		WATER POLLUTION CONTROL PLANT ADDITIONS AND IMPROVEMENTS		SPECIFICATION NO. SD 120 OXYGENATION TANKS SECTIONS		DATE JAN. 73 SCALE 1/4" = 1'-0" DRWG. NO. CT-S-209	
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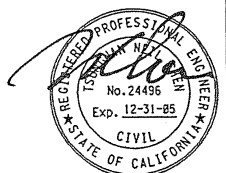


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TE: 31-JUL-2003 12:07
LE: \\MTP-01\DATA\DATA\DRAWERS\CADD\W\NSD249\249m026.r0a

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DESIGN	DESIGN BY: A. SIDHU	EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA
REVIEW	DRAWN BY: O. DRIS	
REVIEW	DESIGN CHECKED BY: T.N. CHEN R.P.E. No. C 24496	
REVIEW	CONSTRUCTABILITY CHECKED BY: D. SPOTTS	
RECOMMENDED	PROJECT ENGINEER R.P.E. No. A. SIDHU	MECHANICAL NEW 3W PIPE GALLERY PLAN
RECOMMENDED	PROJECT MANAGER R.P.E. No. C 24496 T.N. CHEN	
RECOMMENDED		
FACILITY: HWTP		DRAWING No. SD249-M-026
SCALE: 1/4"=1'-0"		SHEET 20 OF 28
DATE: FEBRUARY 2003		



BY CONSULTANT
29-JUL-2009 13:58
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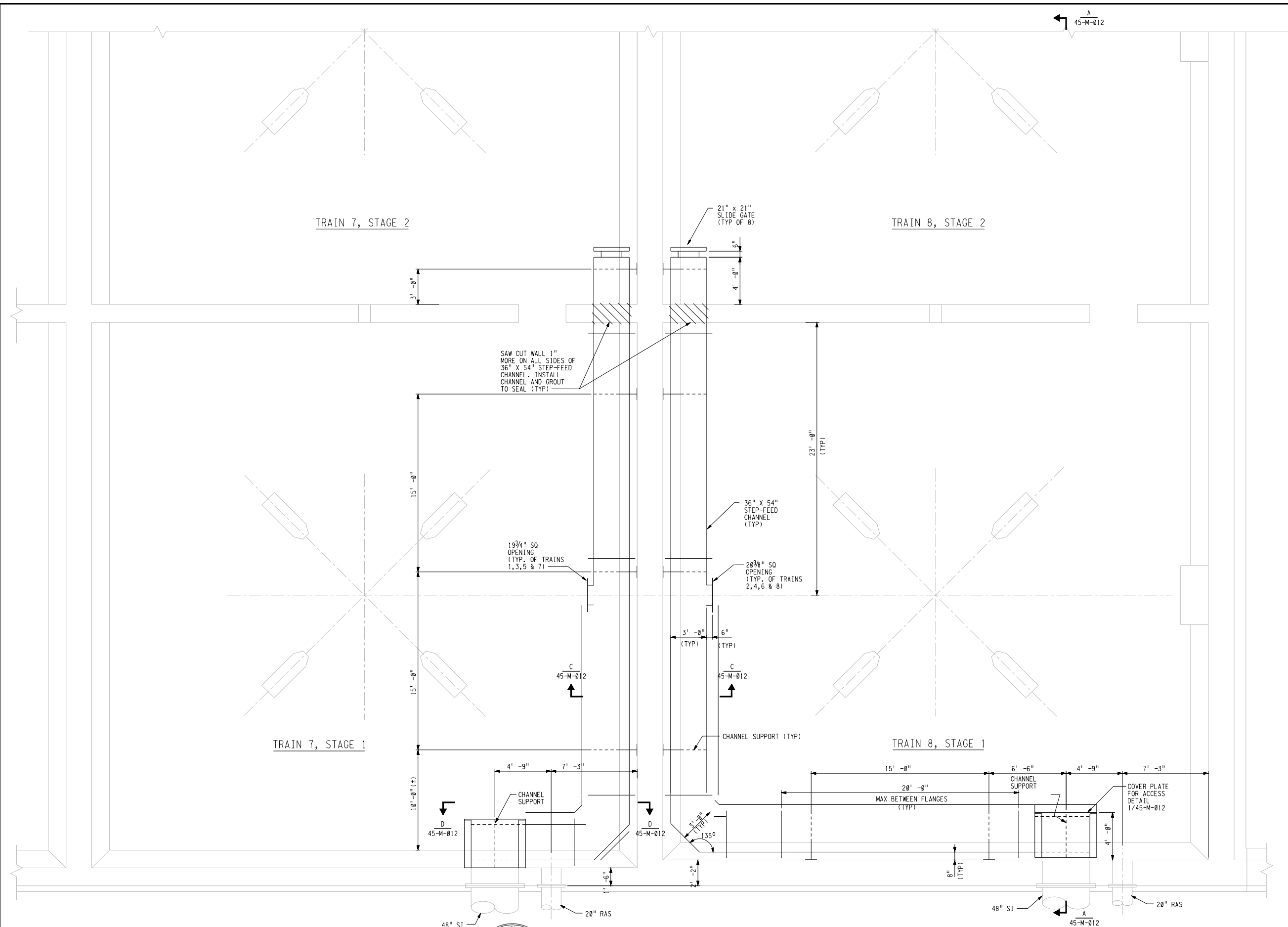
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							DESIGNED BY	AYC
							DESIGN CHECKED BY	RHS
							DRAWN BY	MDR
							SR. PROJ. ENGR.	JJG
							APPROVED	
							PRINCIPAL-IN-CHARGE, R.P.E. NO. C	C31200

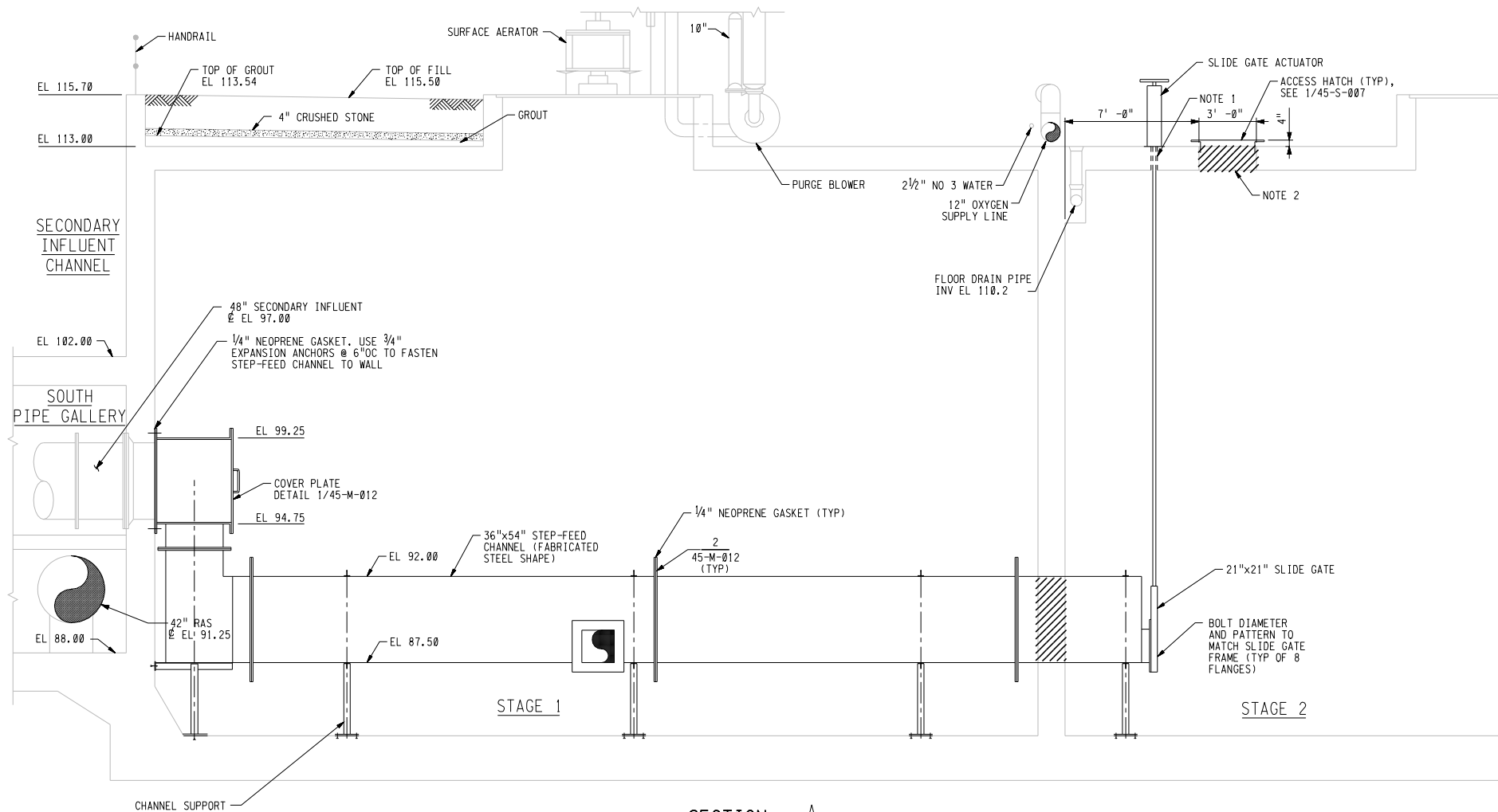
PROJECT MGR. R.P.E. No. C30218
PROJECT SUPERVISOR R.P.E. No. C50749

EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA	
PROJECT SD221 SURFACE AERATION PROJECT MECHANICAL STAGES 1 & 2 FEED CHANNEL PLAN	
FACILITY MWWTP - AREA 45 SCALE 1/4"=1'-0" DATE DECEMBER, 1996	DRAWING No. 45-M-011 SHEET 25 OF 67



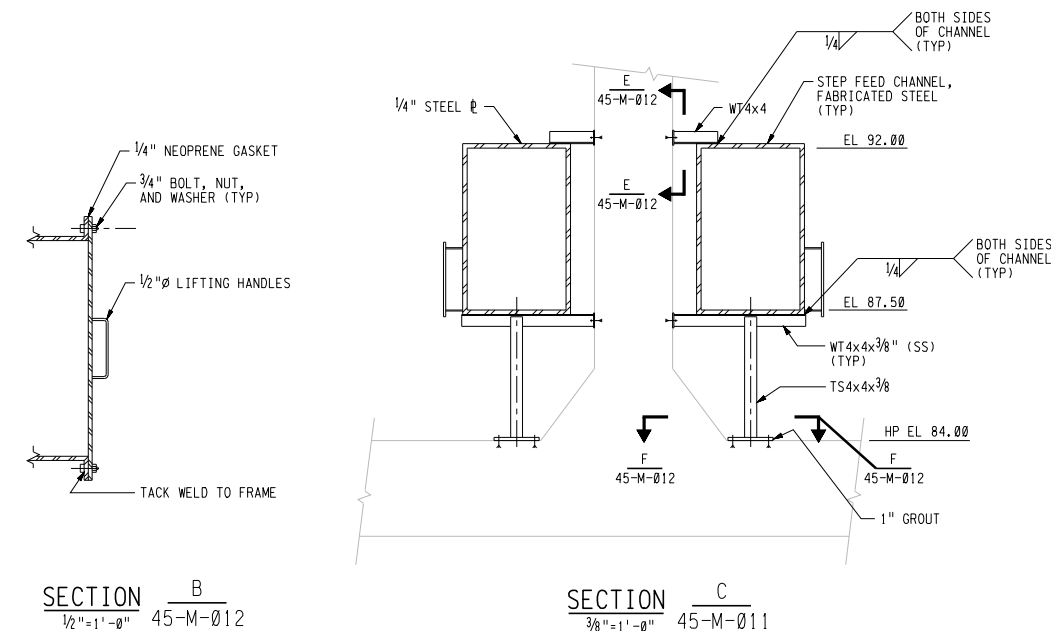
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1. FEED CHANNEL LAYOUT TYPICAL FOR ALL 8 TRAINS.
 2. TRAINS 1 AND 8 HAVE 2'-2" ENDWALLS. TRAINS 2 THRU 7 HAVE 1'-6" ENDWALLS. ADJUST CHANNEL DIMENSIONS ACCORDINGLY.



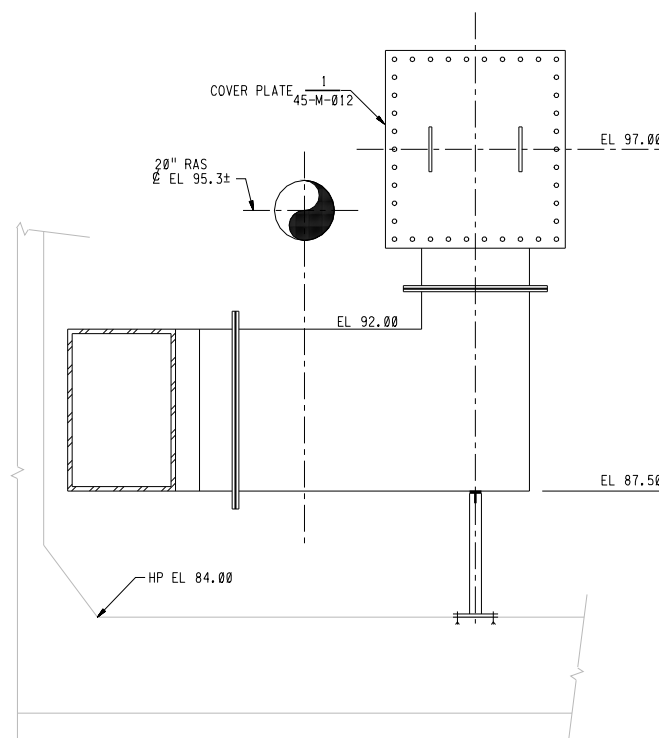


NOTES

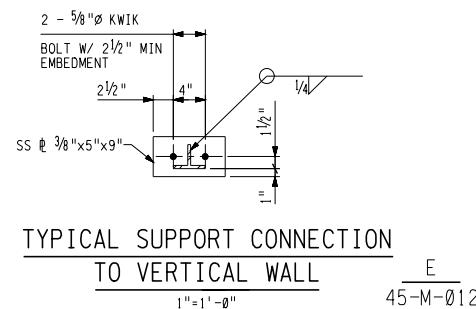
1. CORE DRILL HOLE FOR GATE ACTUATOR (TYP OF 8). PROVIDE GAS SEAL PER DETAIL 2/45-S-005. COORDINATE CORE DIMENSIONS AND LOCATIONS WITH EQUIPMENT FURNISHED.
2. SAW CUT 3'-0"x3'-0" OPENING ON DECK SLAB FOR NEW ACCESS HATCH. SEE DRAWING 45-S-007 FOR DETAILS
3. SS DENOTES STAINLESS STEEL (ASTM A320, TYPE 304, Fy = 35 ksi).
4. COLUMNS, DRAFT TUBE, AND AERATOR ROTOR NOT SHOWN FOR CLARITY.



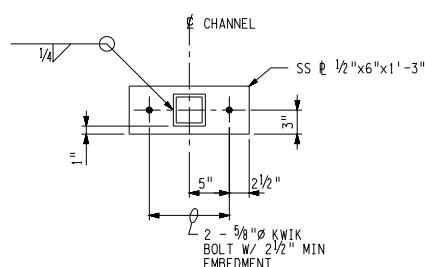
SECTION A
1/4"=1'-0" 45-M-011



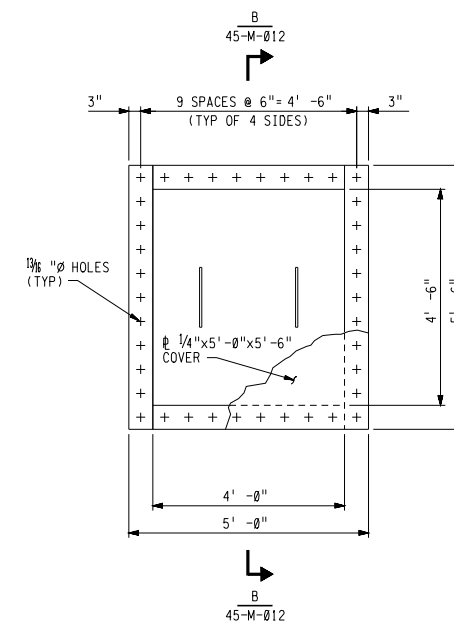
SECTION D
3/8"=1'-0" 45-M-011



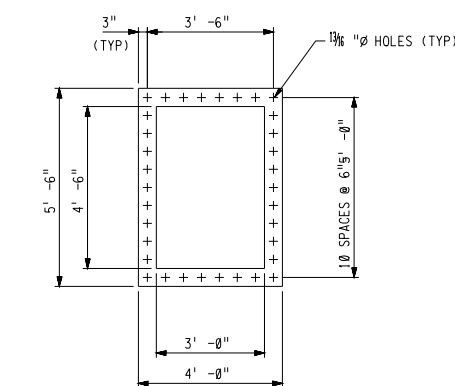
TYPICAL SUPPORT CONNECTION TO VERTICAL WALL
1"=1'-0" 45-M-012



TYPICAL POST BASE PLATE
1"=1'-0" 45-M-012



COVER PLATE DETAIL 1
1/2"=1'-0" 45-M-012



TYPICAL FLANGE DETAIL 2
3/8"=1'-0" 45-M-012

3" ON ORIGINAL DOCUMENT
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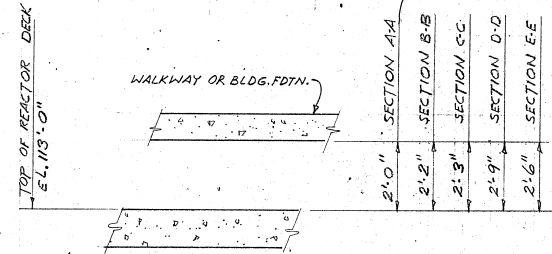
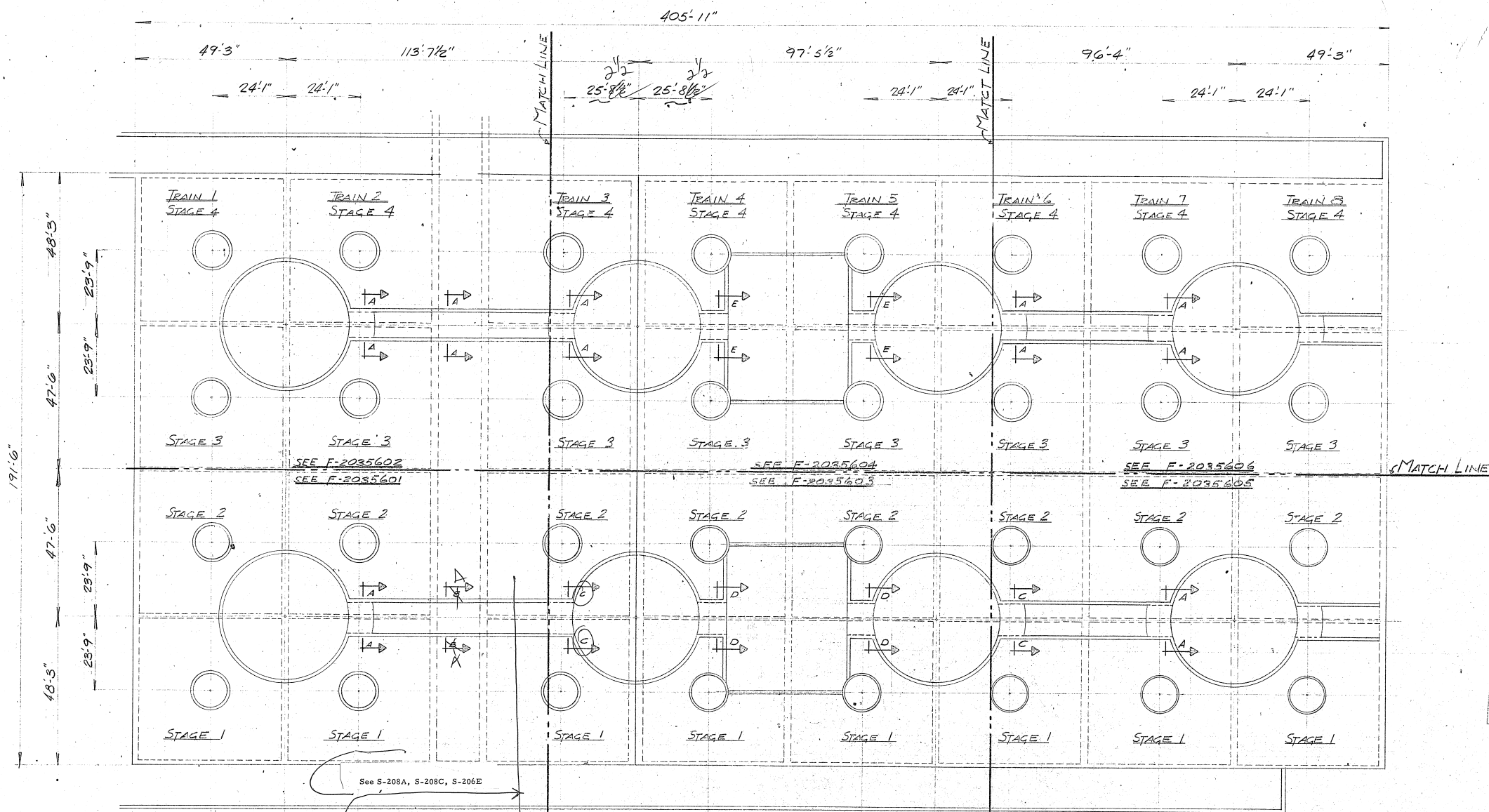
NO.	DATE	REVISION	BY	REC.	APP.

DESIGNED BY	AYC
DESIGN CHECKED BY	RHS
DRAWN BY	MDR
SR. PROJ. ENGR.	JJG
APPROVED	
PRINCIPAL-IN-CHARGE, R.P.E. NO. C31200	

PROJECT MGR.	R.P.E. No. C30218
PROJECT SUPERVISOR	R.P.E. No. C50749

EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA	
PROJECT SD221 SURFACE AERATION PROJECT MECHANICAL SECTIONS AND DETAILS	
FACILITY MWWTP - AREA 45 SCALE AS NOTED DATE DECEMBER, 1996	DRAWING No. 45-M-012 SHEET 26 OF 67

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MINIMUM CLEARANCE REQUIREMENTS FOR PIPING
N.T.S.

PLAN
SCALE 1/16"=1'-0"

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APPROVED
APPROVED AS NOTED
DISAPPROVED
REVIEW OF THIS DOCUMENT HAS BEEN MADE ONLY FOR CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND APPROVAL OR DISAPPROVAL AS NOTED SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ANY ERRORS, OMISSIONS, OR FOR FULFILLING THE OBLIGATIONS AND EQUIPMENT OF PROPER DESIGN, SEE QUALITY, QUALITY AND ALL PERFORMANCE CHARACTERISTICS TO MEET THE REQUIREMENTS AND INTENT OF THE CONTRACT DOCUMENTS.
CONSEDER, TOWNSEND AND ASSOCIATES
CONSULTING ENGINEERS
DATE 8/1/87 BY J. J. J. J.

ISSUED FOR
CONSTRUCTION

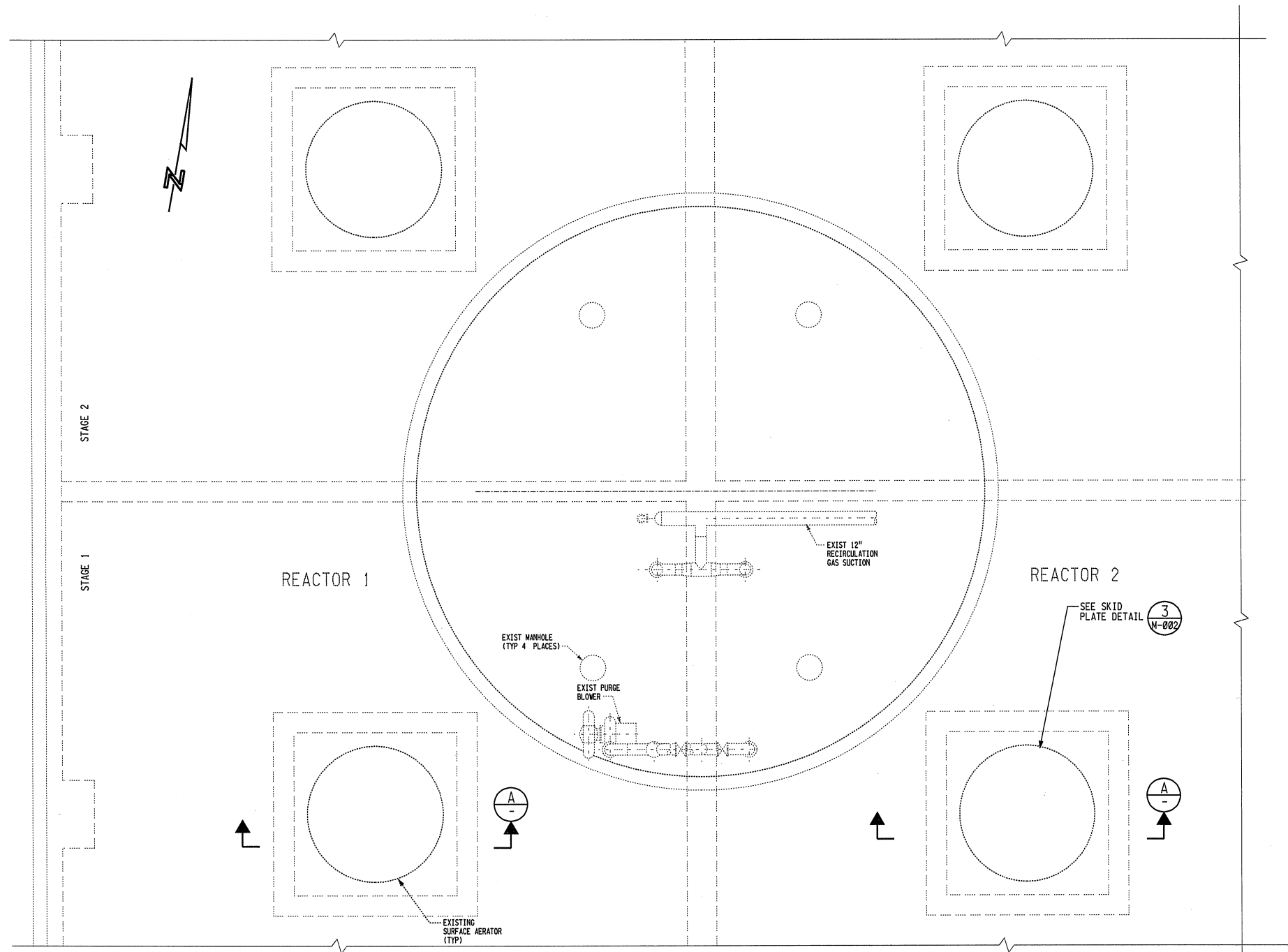
SECONDARY TREATMENT FACILITIES
Date 7-8-74
Project No. 7101-5010
CT&A Meeting/Case ITEM 2
CT&A Drawing No. CT&A-211 THRU 215
CT&A Specification 7-C-2
This document has been checked for accuracy of content and for compliance with the Contract Documents. This information contained herein has been fully coordinated with all applicable Sub-contractors.
Signed M. J. J. J.

FOR COVER SHEET & LIST OF DRAWINGS
SEE DWG. F-2033300

UNION CARBIDE CORPORATION ENGINEERING DEPARTMENT • TONAWANDA, NEW YORK	PROJ. 7101-5010 SHEET 1700 OF 1700 DATE 7-8-74 BY J. J. J. J.	SCALE 1/16"=1'-0"
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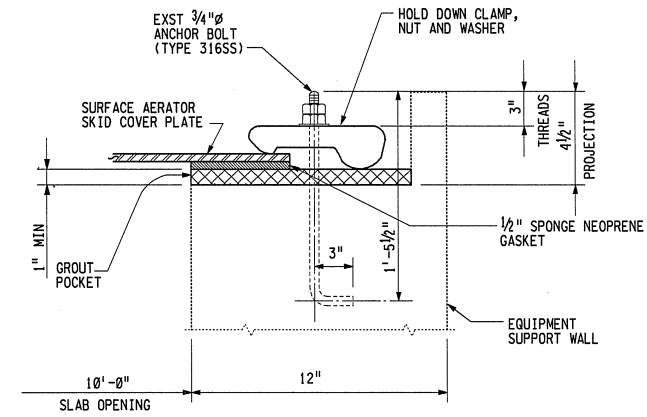
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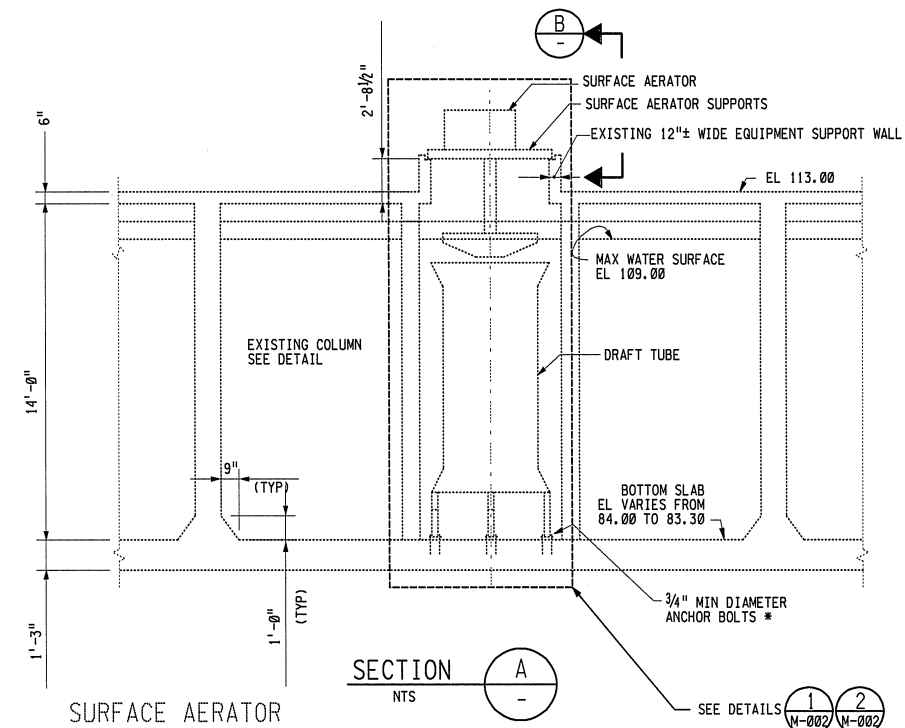


PLAN REACTOR 1 & 2
NTS

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SECTION B
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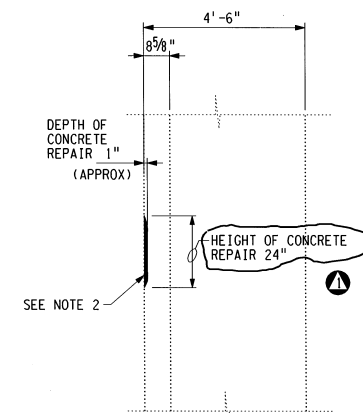
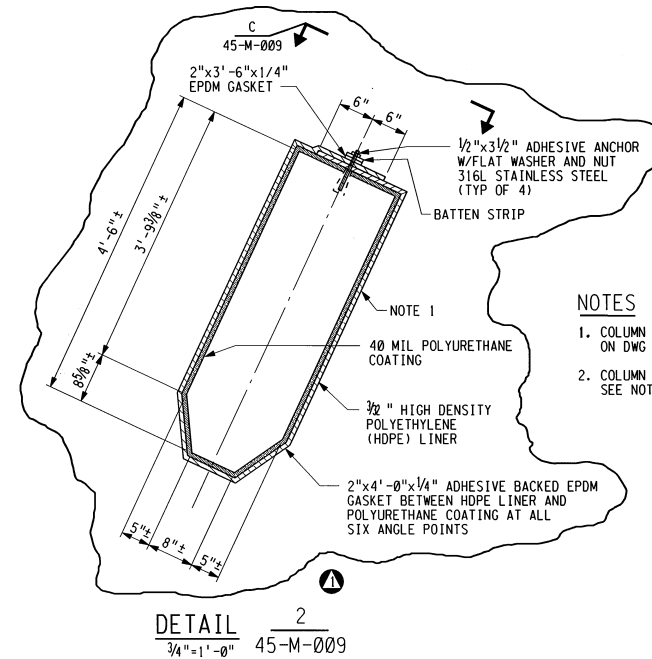
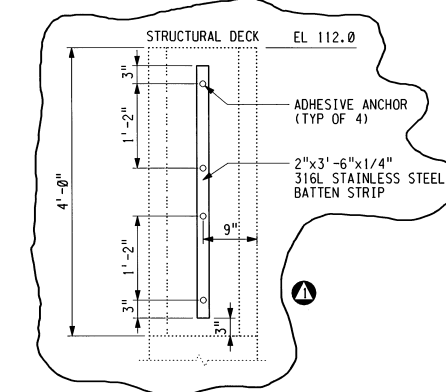
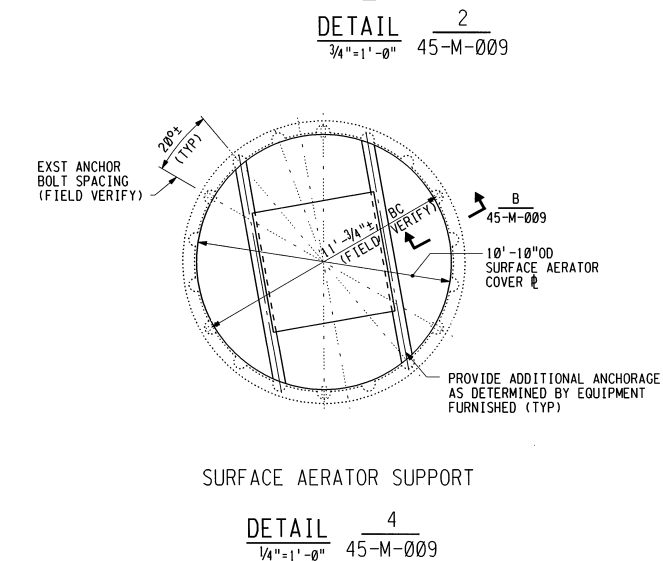
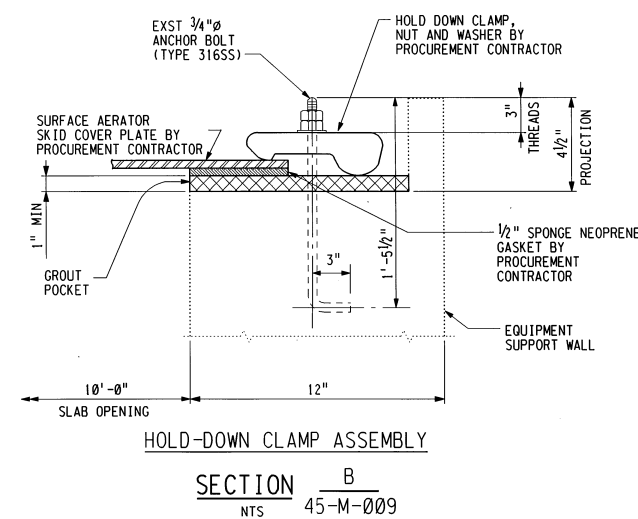
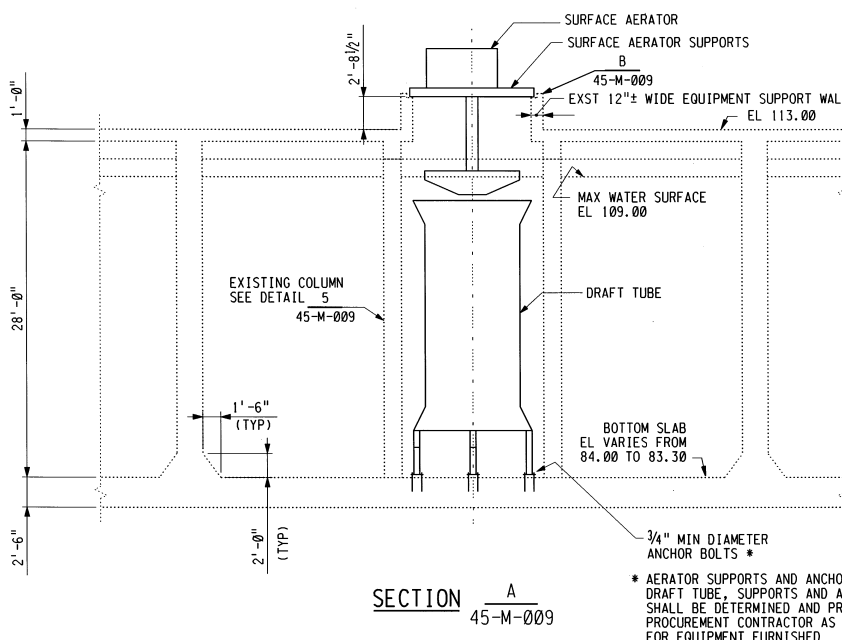
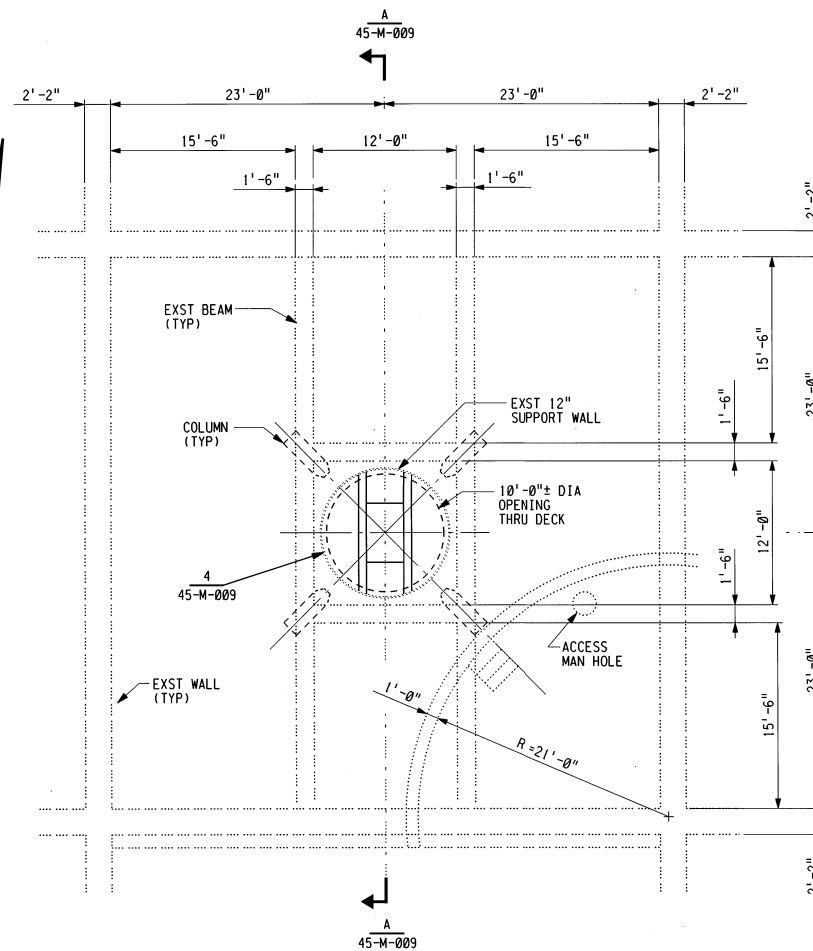
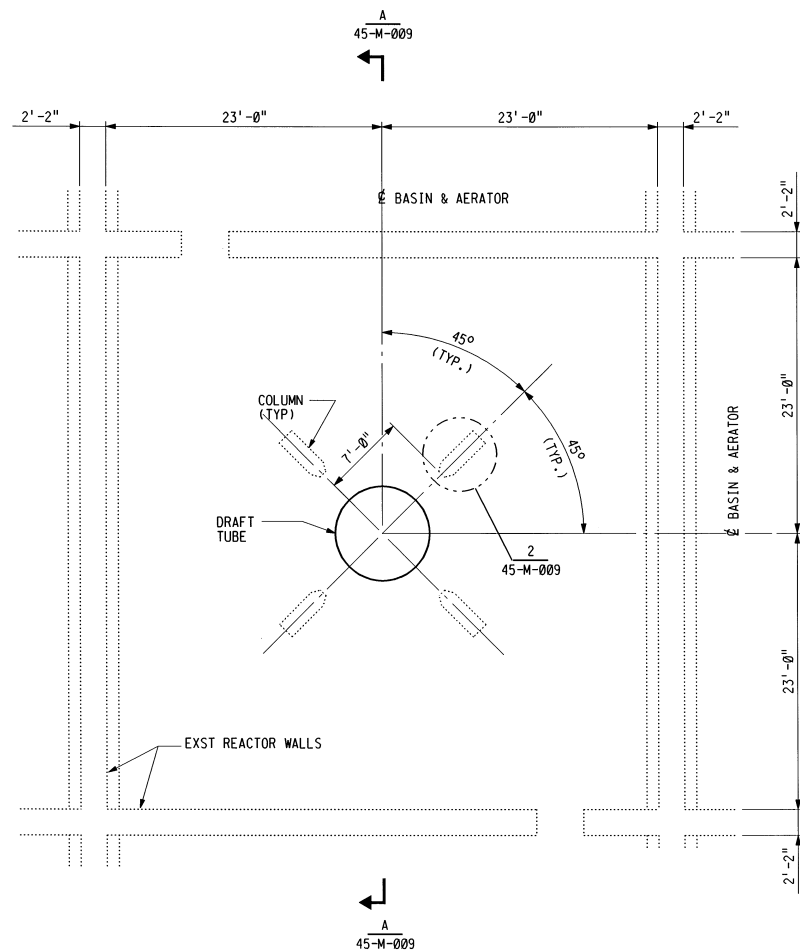
SECTION A
NTS

NOTES

1. ALL ITEMS SHOWN ON THIS DRAWING ARE EXISTING



DESIGN	DESIGN BY: A. SIDHU		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT No. 1 OAKLAND, CALIFORNIA
	DRAWN BY: D. STOKES		
REVIEW	DESIGN CHECKED BY: T.N. CHEN 		FULL SCALE SELECTOR PILOT
	R.P.E. No. C 24496		
	CONSTRUCTABILITY CHECKED BY: D. SPOTTS		
RECOMMENDED	PROJECT ENGINEER A. SIDHU		MECHANICAL EXISTING SURFACE AERATOR PLAN, SECTIONS AND DETAILS
	R.P.E. No.		
PP.	PROJECT MANAGER S. SWANBACK		FACILITY: MWTP DRAWING No. SD259-M-00
	R.P.E. No. C 37271		
			SCALE: NOT TO SCALE
			DATE: OCTOBER 2001
			SHEET 3 OF 7



NOTES

1. COLUMN REPAIR REQUIRED FOR THE COLUMNS INDICATED ON DWG 45-S-008.
2. COLUMN REPAIR AREAS ARE 8-10 FEET ABOVE REACTOR BASE SLAB. SEE NOTE 7 ON DWG 45-S-008.

3/21/05

REGISTERED PROFESSIONAL ENGINEER
TRANSMAN NETA CHIN
No. 24436
Exp. 12/31/05
CIVIL
STATE OF CALIFORNIA

CONFIDENTIALITY STATEMENT

By receiving the requested information, you agree that you, and any of your representatives authorized by the District to possess the information, will use the information only for the authorized purpose for which you requested it. If you obtained the information to prepare construction documents, you may make the information publicly available only to the extent necessary for safe construction. In all other circumstances, you may not provide any of the information, or any copy of it, to any other person or entity without the District's prior written approval. When you no longer require the information for your use, you must return or destroy all copies of the information. If you do not accept these terms, you must refrain from using the information and immediately return it

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Secondary Clarifiers

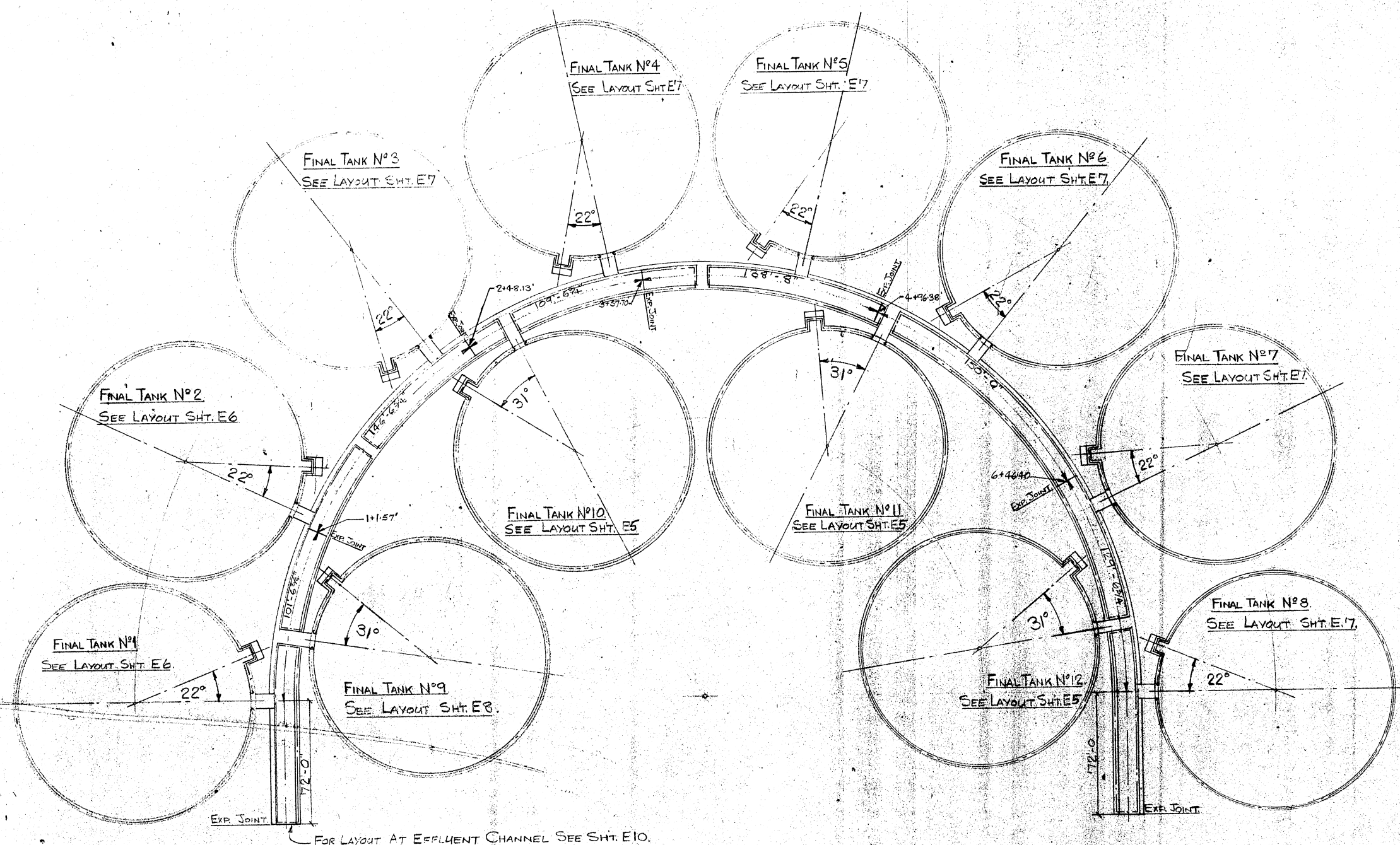
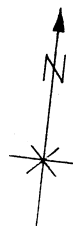
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NOTES

Existing secondary clarifier plan and profile drawings are provided for potential Proposers for the Nutrients Master Plan Update to reference.

There are 12 secondary clarifiers. Each clarifier has an adjustable gate for feed from the mixed liquor channel. Each clarifier has a flow meter to measure secondary effluent flow and underflow (return activated sludge) is measured before returning to the return activated sludge wet well.

Six (6) of the 12 secondary clarifiers have been improved in recent years from multi-phase rehabilitation/repair projects. Two more secondary clarifiers are being rehabilitated this year.



ARRANGEMENT OF FINAL TANKS & EFFLUENT CHANNEL.

<input checked="" type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	DISAPPROVED
<small>REVIEW OF THIS DOCUMENT HAS BEEN MADE BY THE ENGINEER AND THE DESIGNER OF THE PROJECT AND APPROVAL OF THE DESIGNER IS HEREBY CERTIFIED. THE ENGINEER'S REVIEW IS LIMITED TO THE DESIGN AND DOES NOT INCLUDE THE CONSTRUCTION OF THE PROJECT. THE ENGINEER'S REVIEW IS LIMITED TO THE DESIGN AND DOES NOT INCLUDE THE CONSTRUCTION OF THE PROJECT. THE ENGINEER'S REVIEW IS LIMITED TO THE DESIGN AND DOES NOT INCLUDE THE CONSTRUCTION OF THE PROJECT.</small>	
CONSULTING ENGINEERS	
DATE 7/18/74 BY <i>clg</i>	

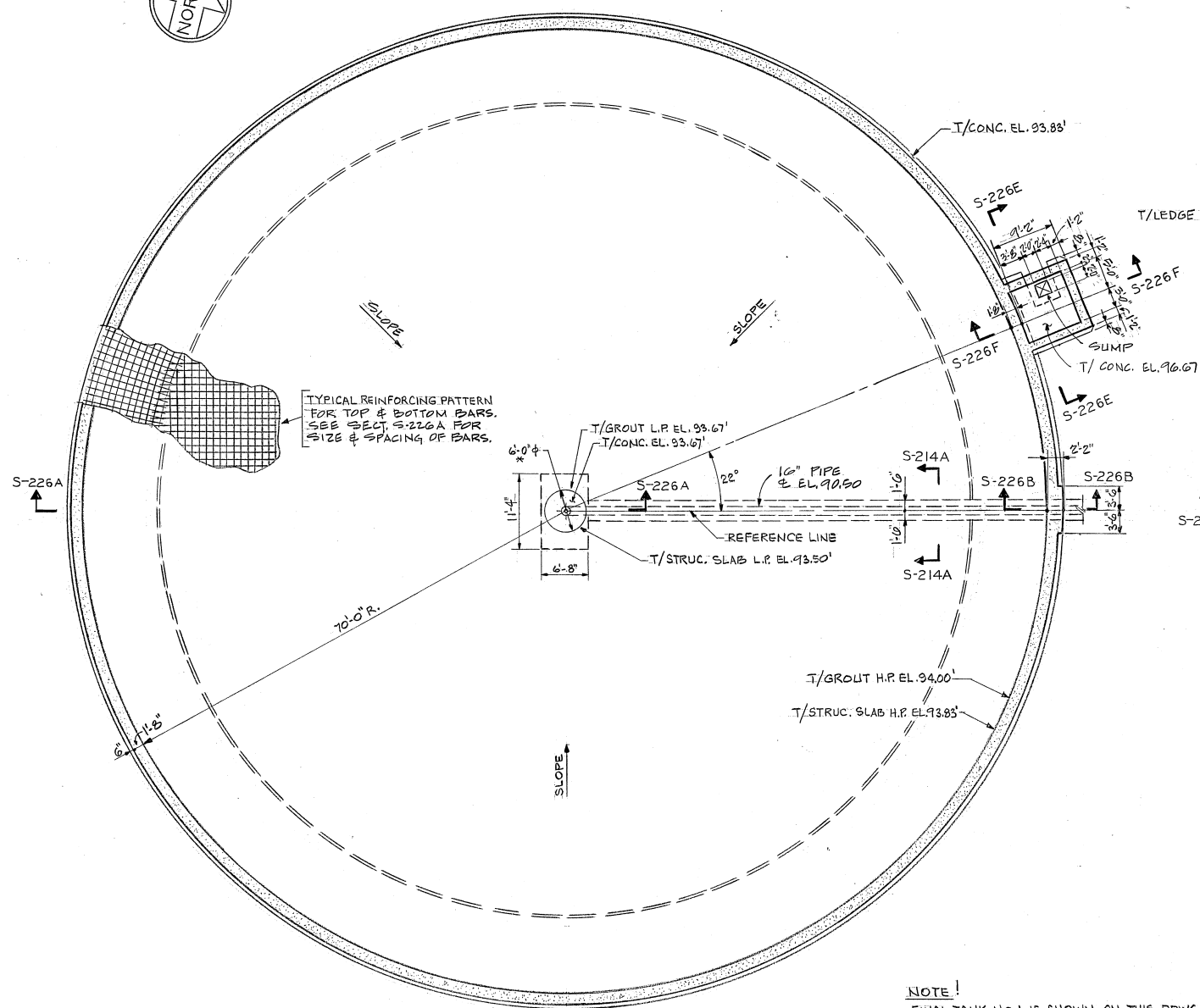
GENERAL NOTES:	
ALL FLANGE & WEB SPLICES TO BE 100% PENETRATION BUTT WELDS PER LOS ANGELES CITY APPROVAL R-2308.	
DUE TO SHOP PROCESS, SPLICES MAY OCCUR OTHER THAN AS SHOWN	
HOLD:	
PAINT:	
INSPECTION:	
REV. DESCRIPTION BY DATE	
RIVERTON INDUSTRIAL STEEL CONSTRUCTION	
FABRICATORS • INSTALLERS •	
10130 ADELLA AVE. SOUTH GATE CALIFORNIA	
JOB NAME: OAKLAND TREATMENT PLANT	
LOCATION: MARITIME ST. & WAKE AVE. OAKLAND	
CONTRACTOR: TUTOR-SALIBA ENGINEERS	
DESCRIPTION: ARRANGEMENT OF FINAL TANKS & EFFLUENT CHANNEL	

ISSUED FOR APPROVAL
MAY 20, 1974
RISCO

SPEC. REF. ADDENDA #2
DESIGN. REF. C.T.S 213
C.T.G. 223 - 224 - 225 - 226 -
C.T.A. 229

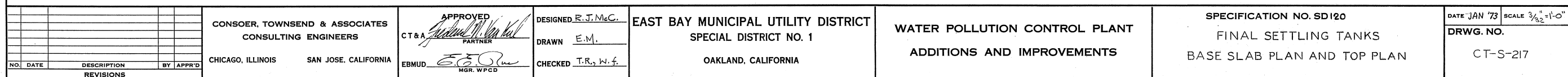
DATE	APRIL 74
JOB NO.	SHEET
250	E4

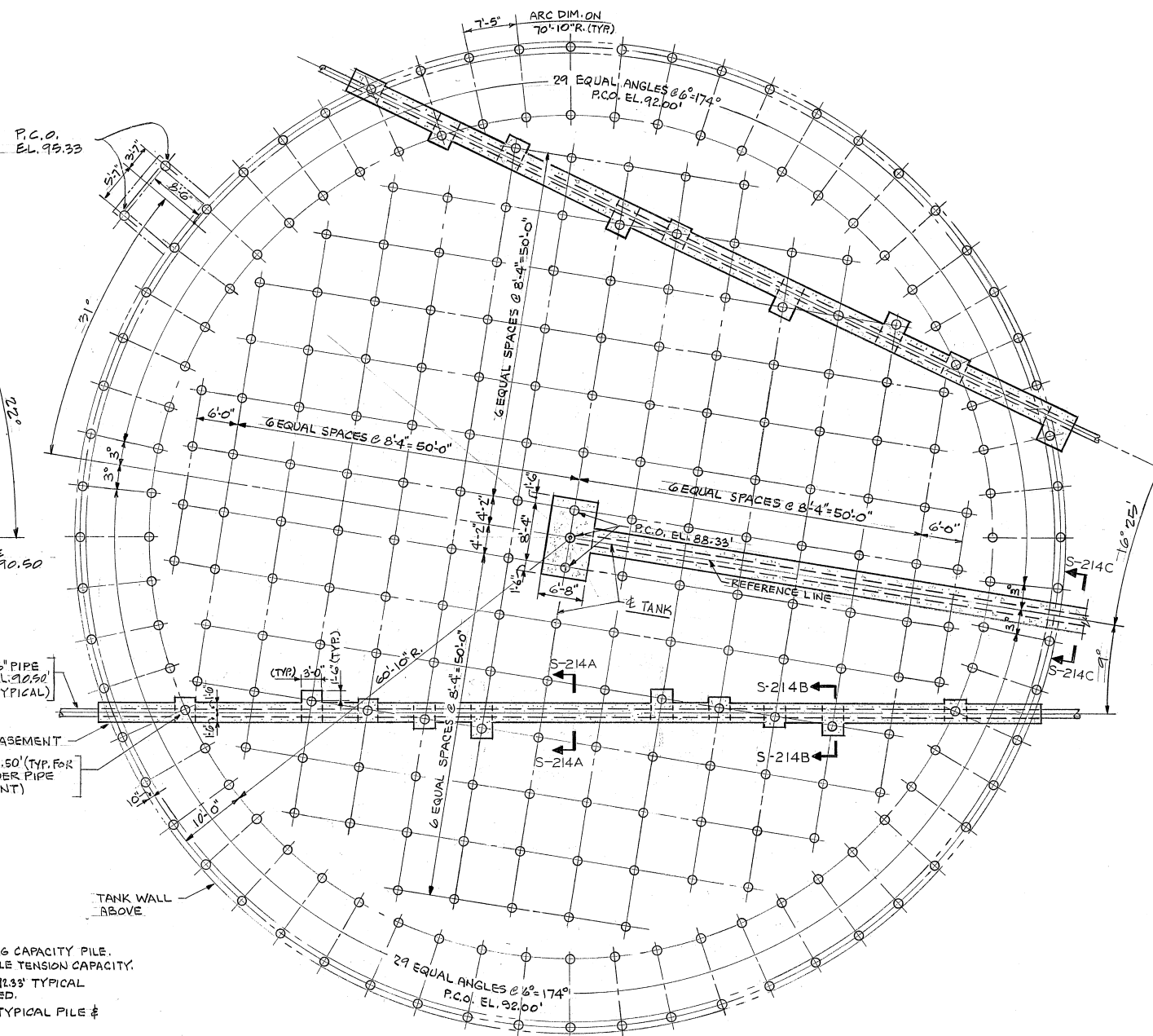
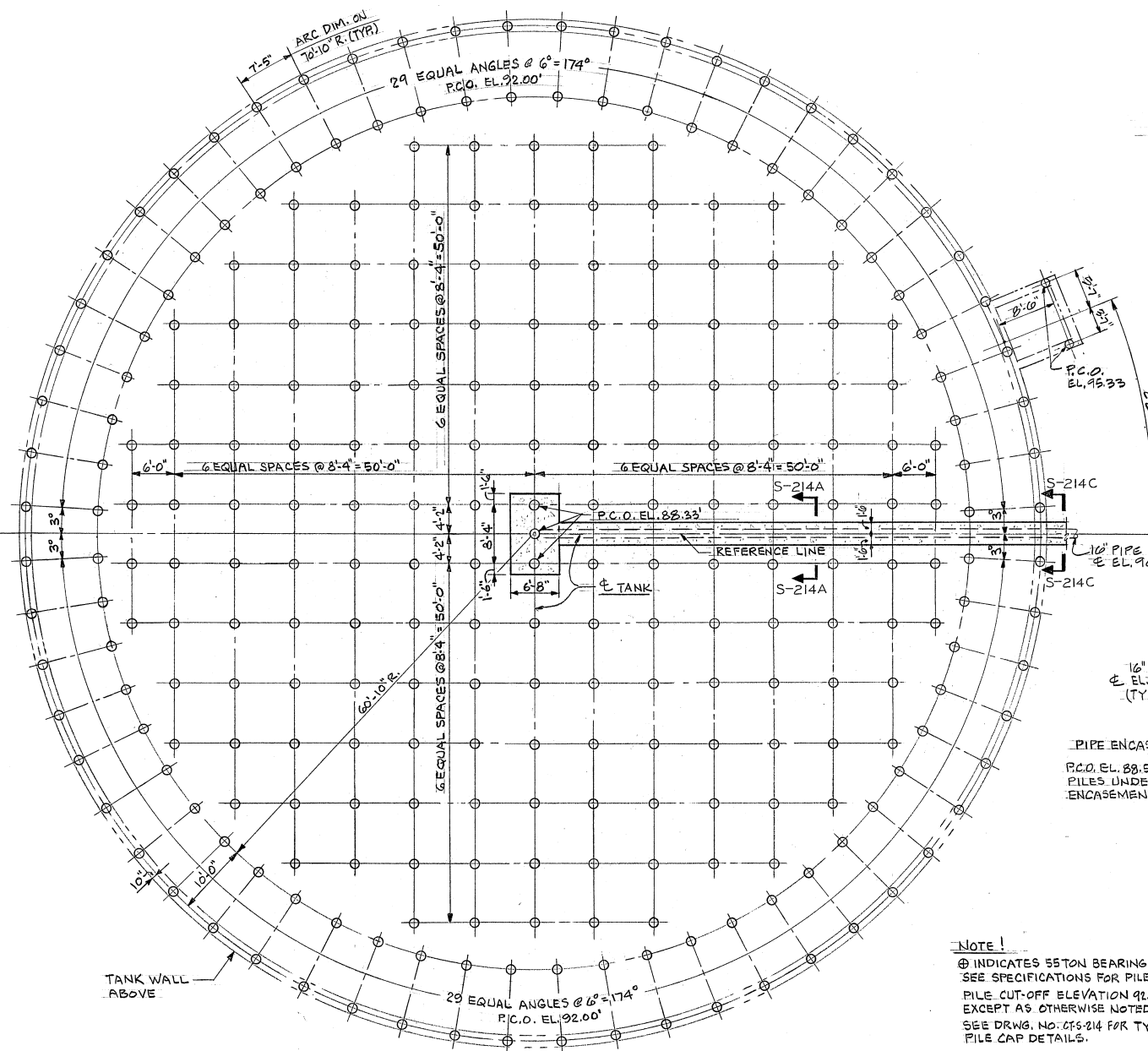
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NOTE!
FINAL TANK NO. 1 IS SHOWN ON THIS DRWG.
REMAINING FINAL TANKS ARE SIMILAR.
SEE GENERAL PLAN - NORTH AREA, DRWG.
NO. CT-S-213, FOR ORIENTATION.

ORIFICE (TYP.)
DETAILS BY
EQUIP. MFR.





NOTE:
⊙ INDICATES SETON BEARING CAPACITY PILE.
SEE SPECIFICATIONS FOR PILE TENSION CAPACITY.
PILE CUT-OFF ELEVATION 92.33' TYPICAL
EXCEPT AS OTHERWISE NOTED.
SEE DRWG. NO. CT-S-214 FOR TYPICAL PILE &
PILE CAP DETAILS.

PILE PLAN-FINAL TANKS NO'S. 1,2,4,5,6,7 & 8

FINAL TANK NO. 1 SHOWN, FOR ORIENTATION OF FINAL TANKS NO'S. 2,4,5,6,7 & 8.
SEE GENERAL PLAN-NORTH AREA DRWG. NO. CT-S-213

PILE PLAN-FINAL TANKS NO'S. 9 & 12

FINAL TANK NO. 9 SHOWN. FINAL TANK NO. 12 OPP. HAND

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NO.	DATE	DESCRIPTION	BY	APPR'D

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS

CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA

APPROVED
CT & A *[Signature]*
PARTNER
EBMUD *[Signature]*
MGR. WPCD

DESIGNED R.J. McC.

DRAWN E.M.

CHECKED T.R. W.F.

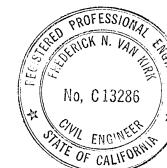
EAST BAY MUNICIPAL UTILITY DISTRICT
SPECIAL DISTRICT NO. 1

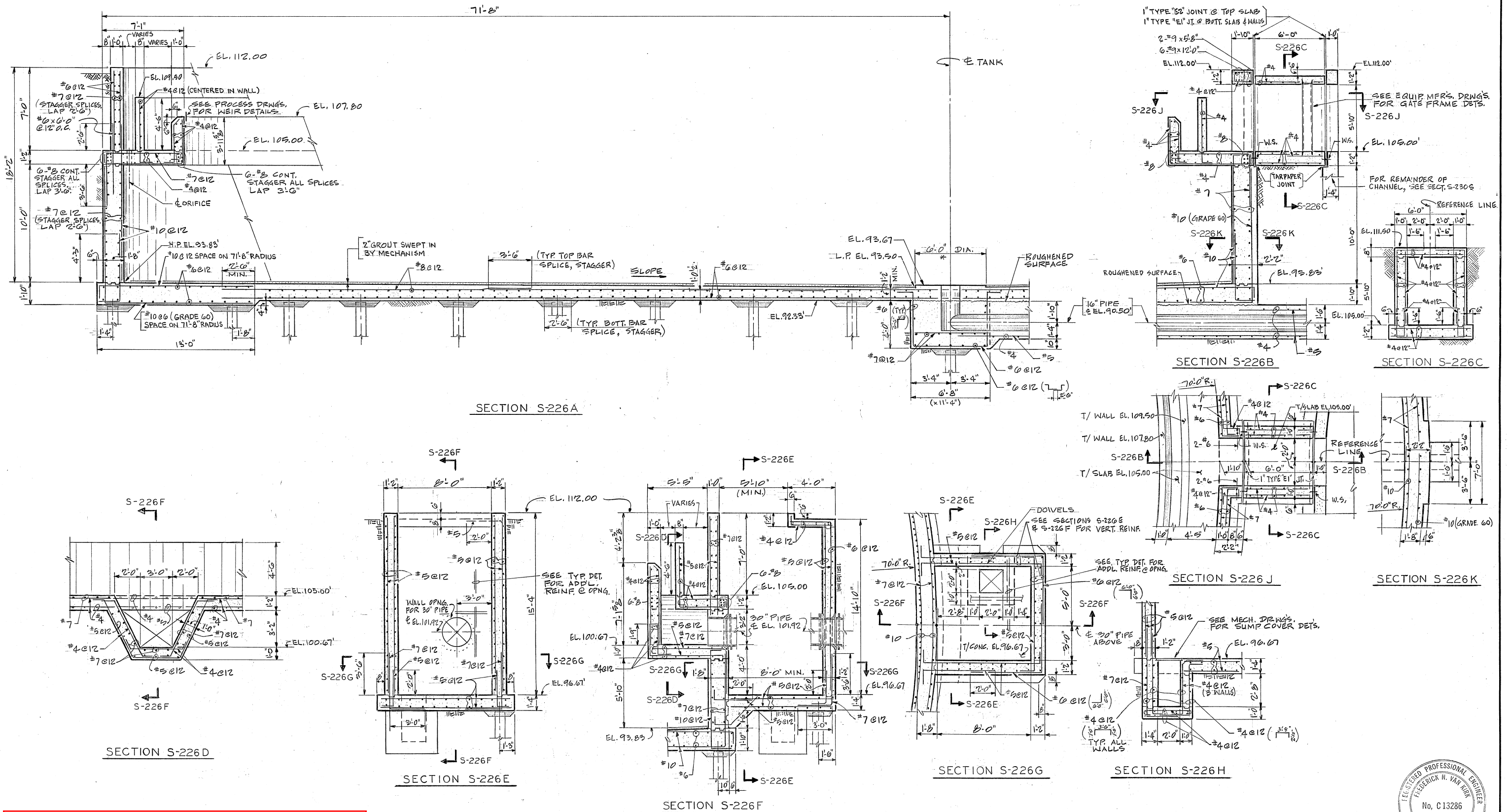
OAKLAND, CALIFORNIA

WATER POLLUTION CONTROL PLANT
ADDITIONS AND IMPROVEMENTS

SPECIFICATION NO. SD120
FINAL SETTLING TANKS
PILE PLAN

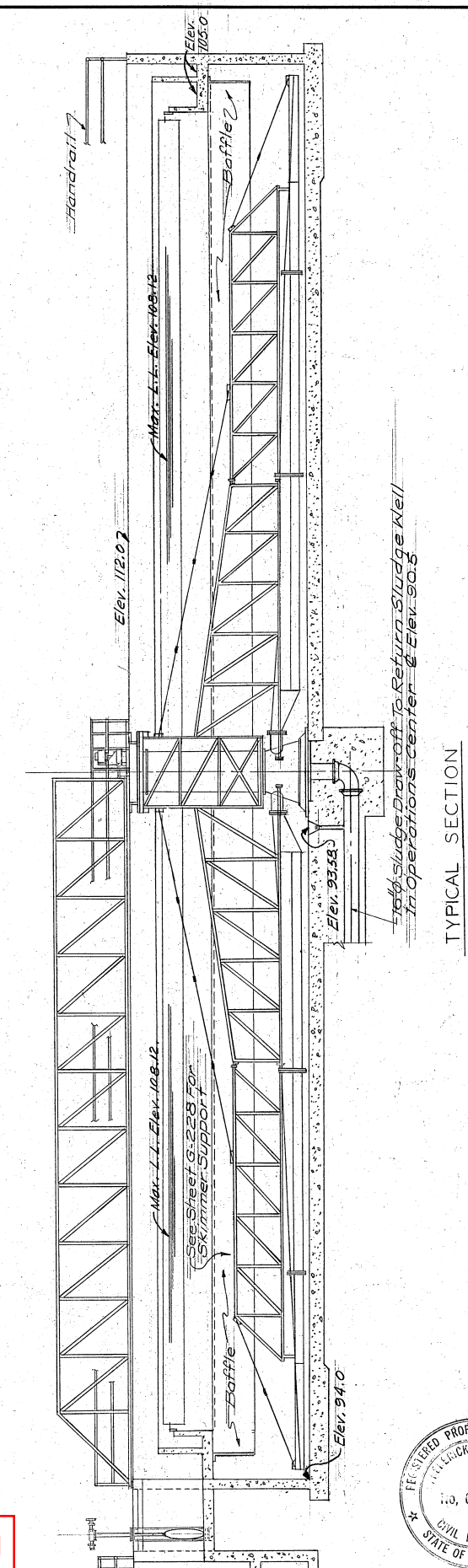
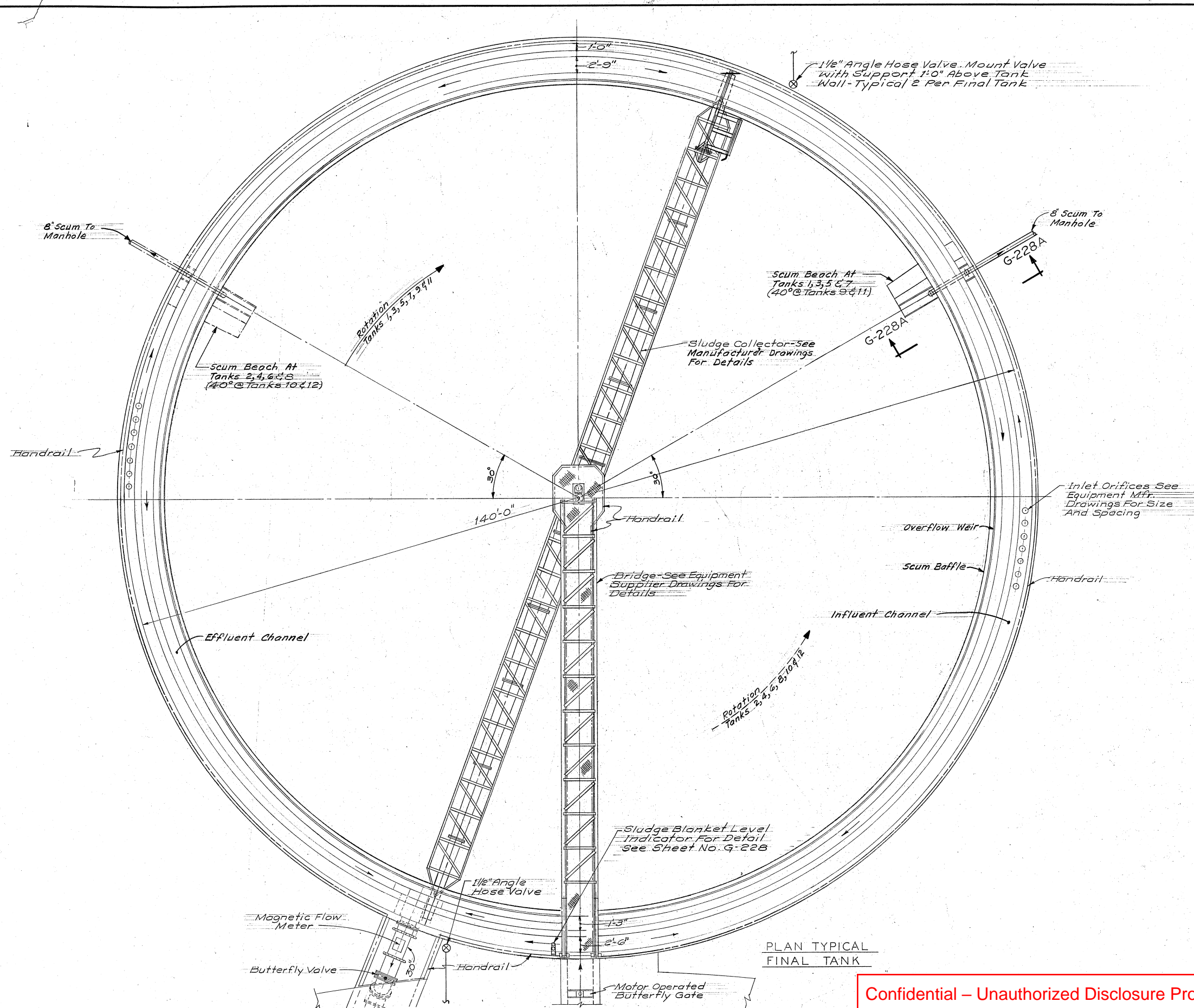
DATE JAN. '73 SCALE 3/32" = 1'-0"
DRWG. NO.
CT-S-215





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				CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS		APPROVED CT & A <i>[Signature]</i> PARTNER		DESIGNED <i>R. J. McC.</i>		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1		WATER POLLUTION CONTROL PLANT ADDITIONS AND IMPROVEMENTS		SPECIFICATION NO. SD 120 FINAL SETTLING TANKS SECTIONS		DATE JAN '73 SCALE 1/4" = 1'-0"	
				CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA		EBMUD <i>[Signature]</i> MGR. WPCD		DRAWN <i>E.M.</i>		OAKLAND, CALIFORNIA						DRWG. NO. CT-S-226	
9-79				AS BUILT		BY <i>E.E.</i> APPR'D											
NO. DATE				DESCRIPTION													
				REVISIONS													

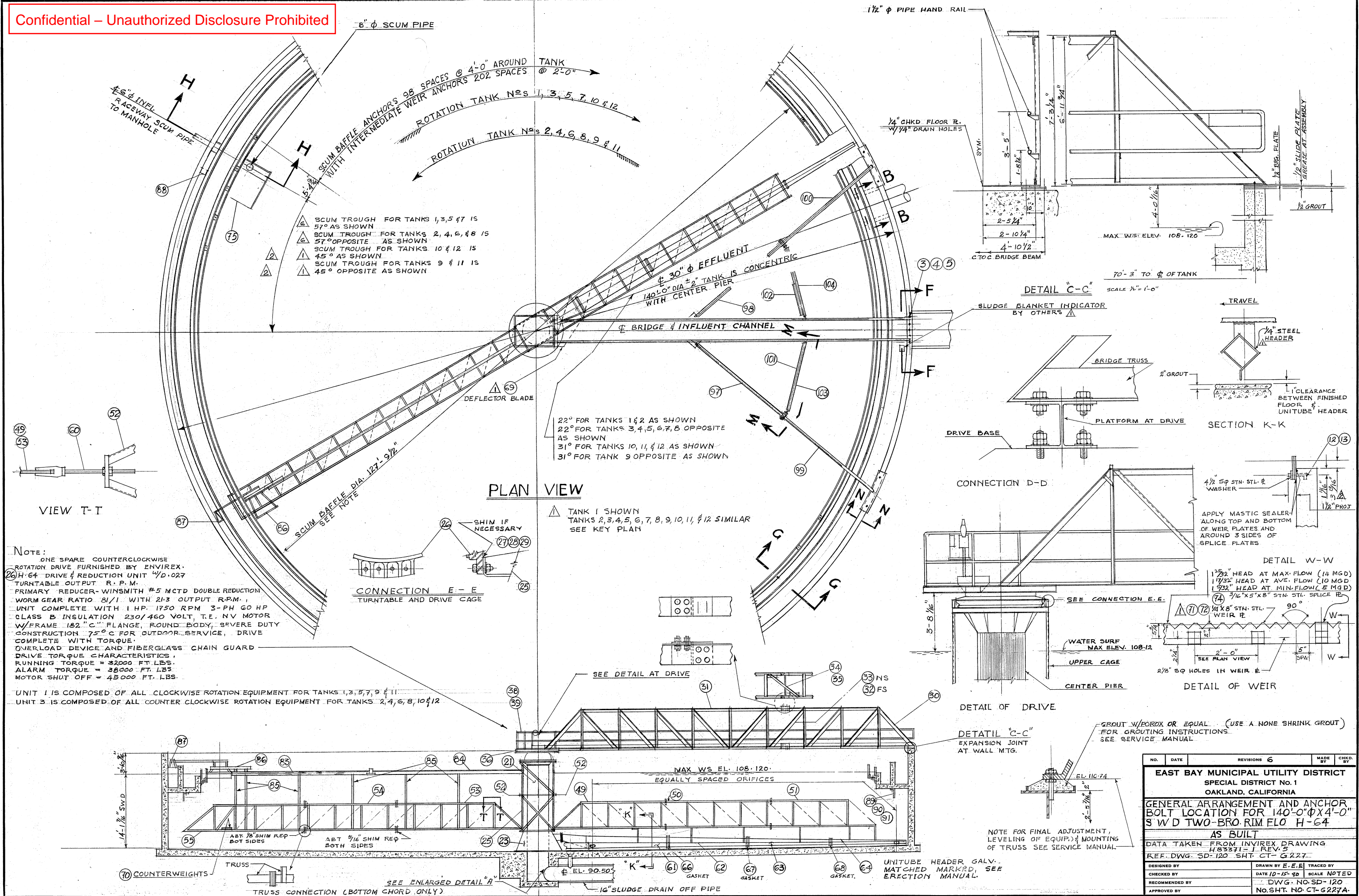


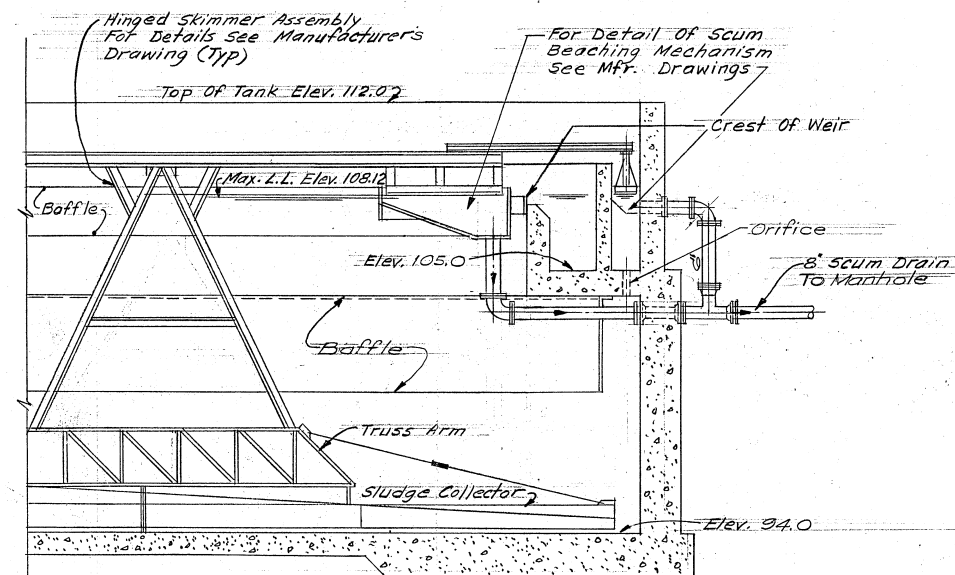
PLAN TYPICAL
FINAL TANK

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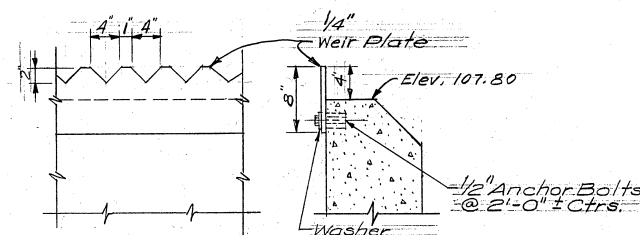
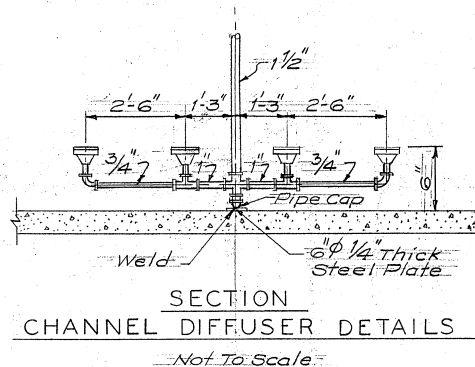
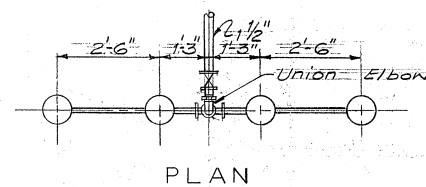
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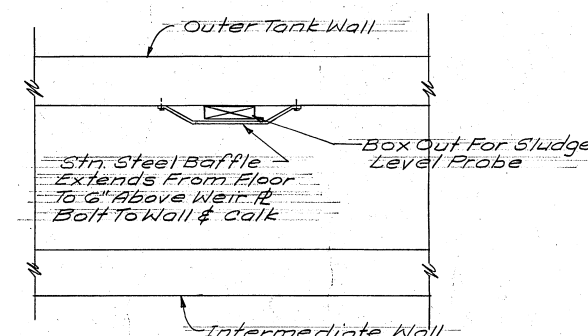




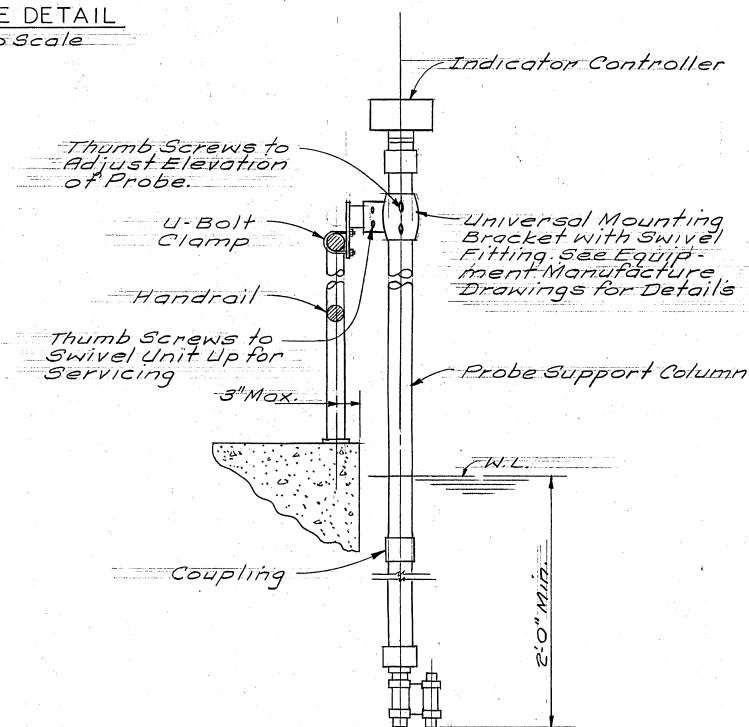
SECTION G-228.A
Scale: 1/4" = 1'-0"



DETAIL OF OVERFLOW WEIR
Scale: 1/2" = 1'-0"



INLET CHANNEL SLUDGE LEVEL PROBE DETAIL
Not to Scale

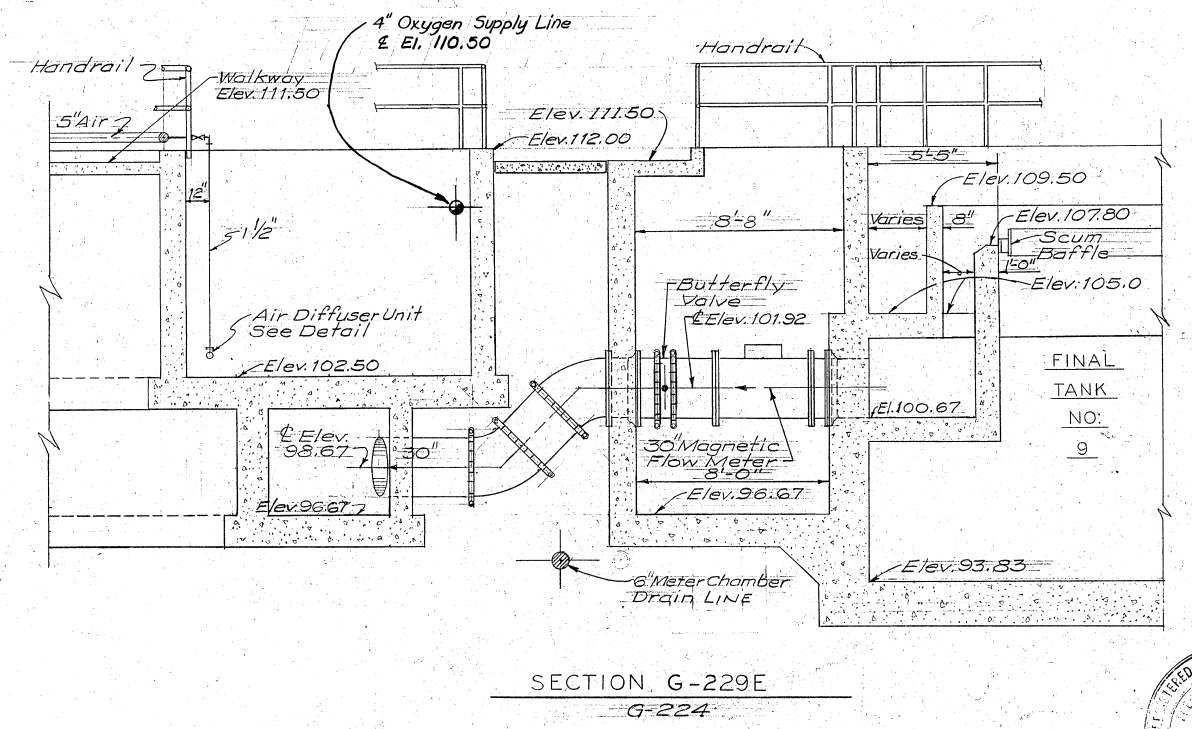
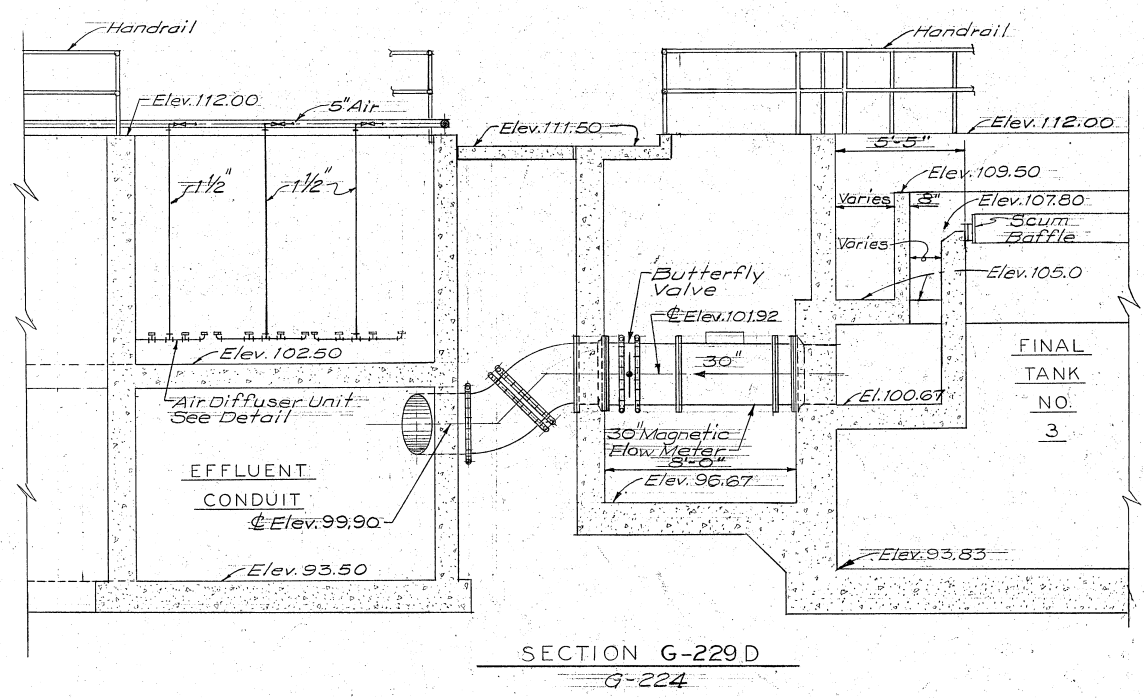
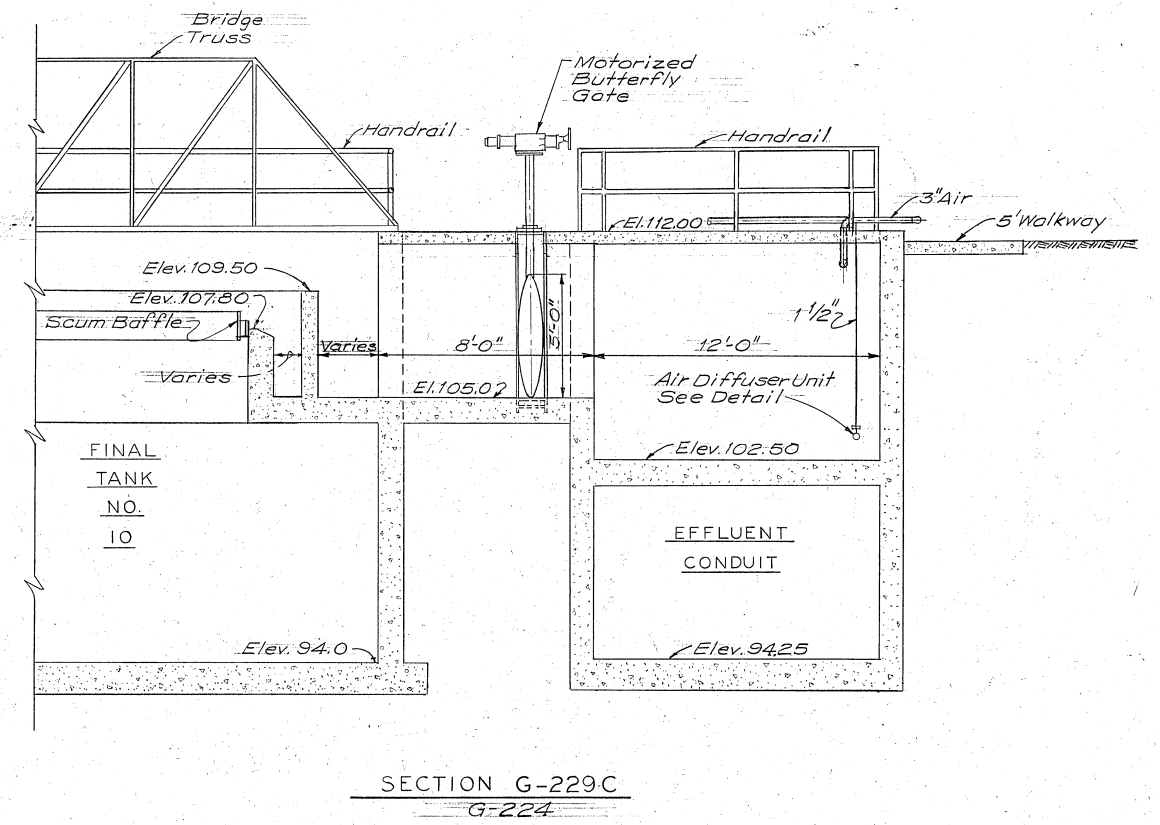
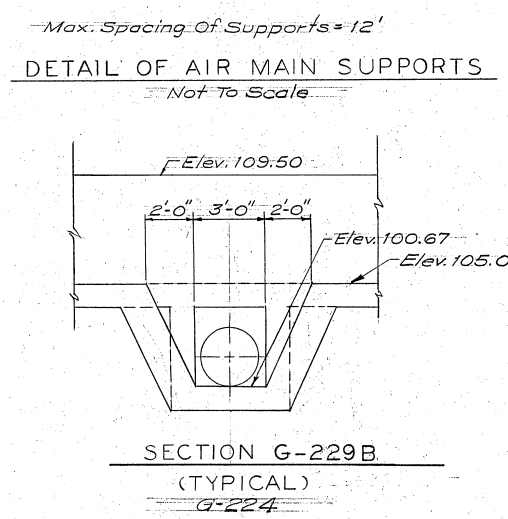
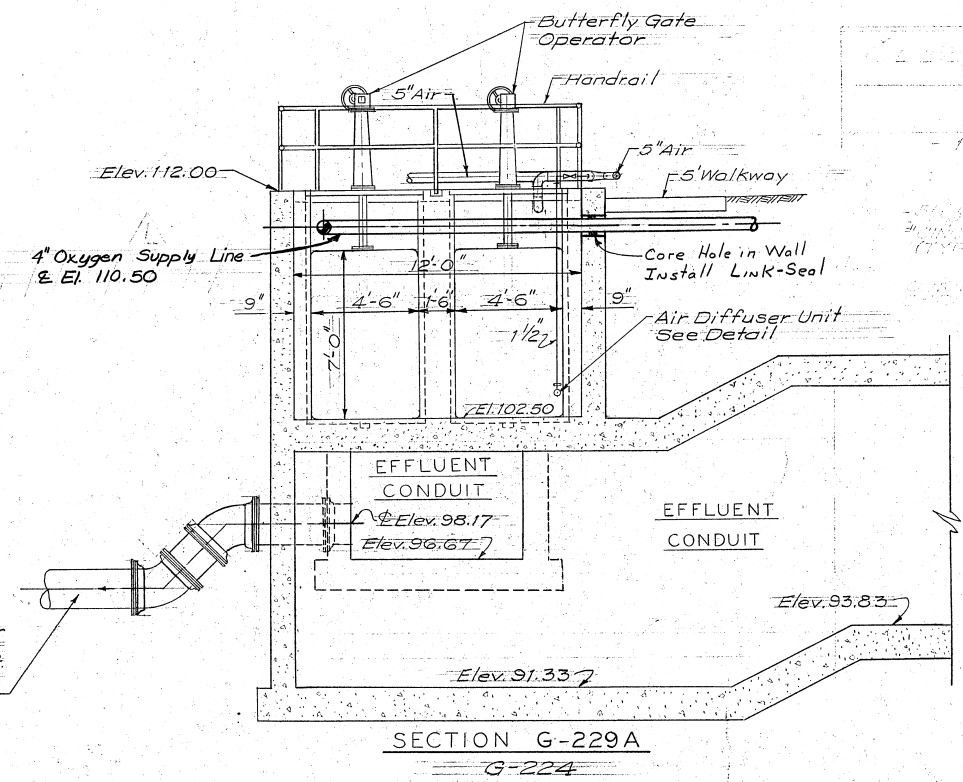


Typical Handrail Mounting
SLUDGE LEVEL PROBE DETAIL
Not to Scale

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					CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS		APPROVED CT & A <i>Sheldon M. Van Ness</i> PARTNER		DESIGNED <i>E.T.D./R.P.B.</i>		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1		WATER POLLUTION CONTROL PLANT		SPECIFICATION NO. SD 120		DATE <i>Jan. 1973</i> SCALE <i>As Noted</i>	
					CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA		EBMUD <i>E.E. O'Neil</i> MGR. WPCD		DRAWN <i>H.F.K.</i>		OAKLAND, CALIFORNIA		ADDITIONS AND IMPROVEMENTS		FINAL TANK SECTION AND MISCELLANEOUS DETAILS		DRWG. NO.	
NO. DATE DESCRIPTION BY APPR'D									CHECKED <i>E.T.D.</i>								CT-G-228	
REVISIONS																		



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					CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS		APPROVED CT & A <i>Frederick N. Vink</i> PARTNER		DESIGNED <i>E.T.D.</i>		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1		WATER POLLUTION CONTROL PLANT ADDITIONS AND IMPROVEMENTS		SPECIFICATION NO. SD 120		DATE Jan. 1979 SCALE 1/4" = 1'-0"	
9-79 AS BUILT E.E.									DRAWN <i>H.E.K.</i>		OAKLAND, CALIFORNIA				FINAL TANKS AND CHANNELS SECTIONS		DRWG. NO.	
7/76 Add 4" Oxygen Supply Line JB					CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA		EBMUD <i>E.T.D.</i> MGR. WPCD		CHECKED <i>E.T.D.</i>								CT-G-229	
NO. DATE DESCRIPTION BY APPR'D																		
REVISIONS																		



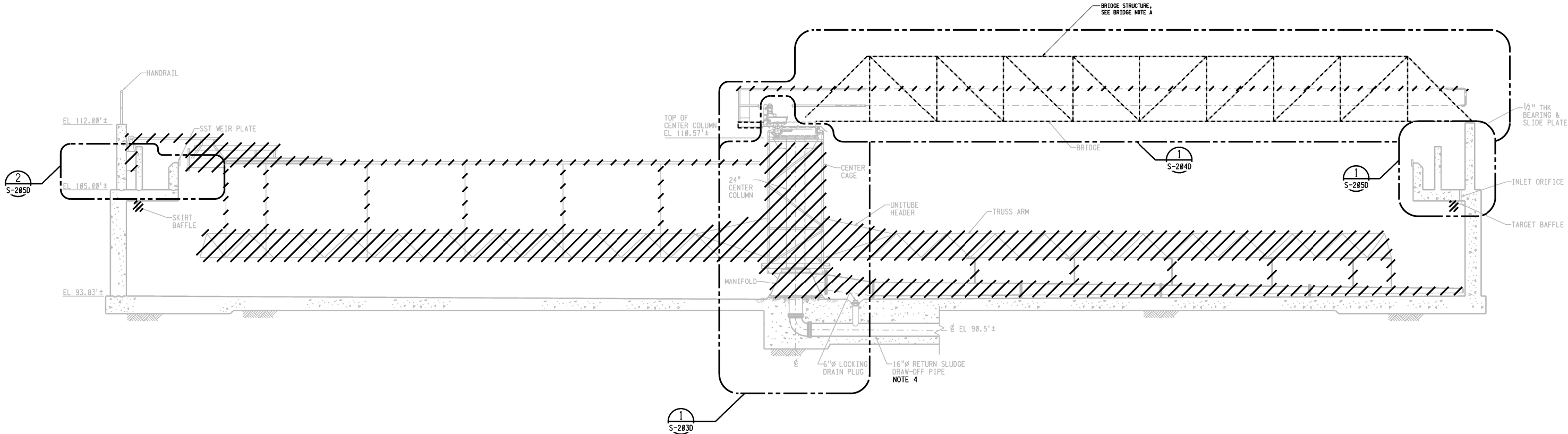
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REF 4:
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REF 6:

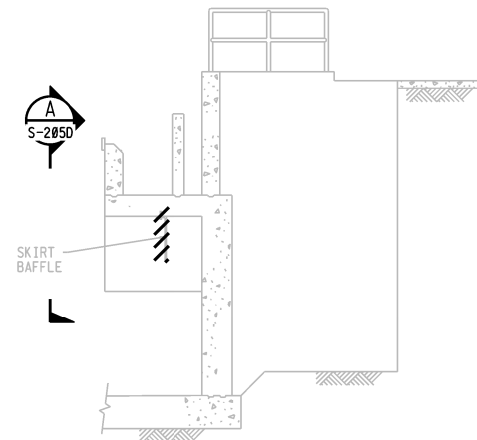
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REF 3: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\border\border.mst

PLOT SCALE: 10.666667:1

USER: sdahleh
DATE: 15-JAN-2021 09:33
FILE: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\border\border.mst



SECTION A
S-102D



SECTION B
S-102D

GENERAL NOTES






- DEMOLISH CENTER COLUMN, CENTER CAGE, MANIFOLD, UNITUBE HEADER, TRUSS ARMS, SKIMMER ARM, SCUM BEACH, SCUM TROUGH, SKIRT BAFFLES, TARGET BAFFLES, FRP DOWNCOMERS, AND BRIDGE WALKWAY CHECKER PLATES.
- EXISTING SUBMERGED STEEL STRUCTURE IS COATED WITH COAL TAR EPOXY. DISPOSE MATERIALS PER REQUIREMENTS OF SECTION 01 35 44.
- REMOVE BRIDGE AND DRIVE TO ACCESS CENTER COLUMN.
- PERFORM INSPECTION OF 16" RETURN SLUDGE PIPE AFTER CENTER COLUMN HAS BEEN REMOVED.

BRIDGE NOTES

- A. BRIDGE STRUCTURE SHALL BE DISASSEMBLED AND REMOVED FOR CLARIFIER WORK AND OFF-SITE REHABILITATION. SEE S-2040 FOR ADDITIONAL BRIDGE DEMO INFORMATION.

3" ON ORIGINAL DOCUMENT
0 1 2 3

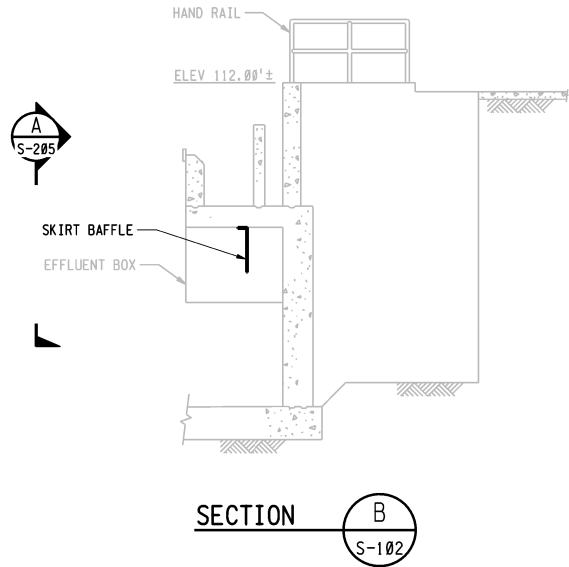
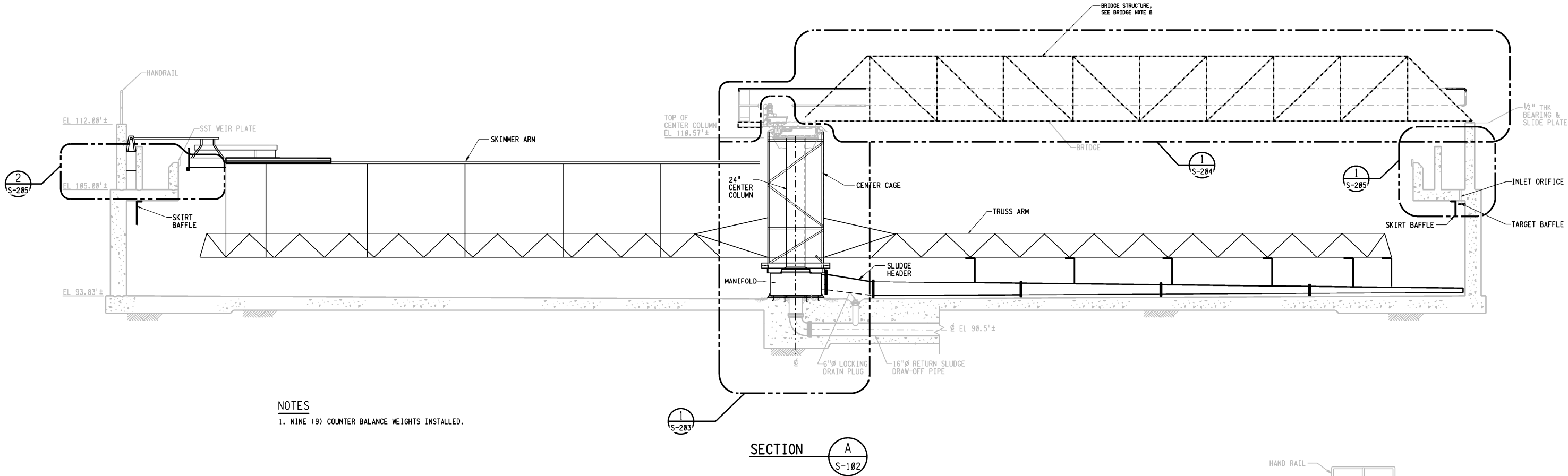
NO.	DATE	REVISION	BY	REC.	APP.

SD430 - SECONDARY CLARIFIER MECHANICAL REPAIRS - PHASE 2						
DESIGN	DESIGN BY:	J.Y. WONG	EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA			
	DRAWN BY:	S. DAHLEH				
REVIEW	DESIGN CHECKED BY:		MAIN WASTEWATER TREATMENT PLANT SECONDARY CLARIFIERS STRUCTURAL DEMOLITION - SECTION - CLARIFIER NO. 8 STEEL STRUCTURE			
	R.P.E. No.	C59914				JAMES K. WANG
	CONSTRUCTABILITY CHECKED BY:					WILLIAM E. CHAFFER
	ELECTRICAL CHECKED BY:	----				
	R.P.E. No.					
	PROJECT ENGINEER					JOSEPH Y. WONG
	R.P.E. No.	S4747				
	PROJECT MANAGER		JENNY H. TRAN			
	R.P.E. No.	C83148				
RECOMMENDED:				SHEET NO. 07		
	SR. ENGINEER		GARIN D. WARREN	SCALE $\frac{3}{8}" = 1' - 0"$	W55.08-S-202D DRAWING NUMBER	
P.	R.P.E. No.	C65259	DATE 11JAN2021	0.		
					REV.	

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USER: sdbt\h User: sdbt\h
DATE: 11-JAN-2021 09:34
FILE: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\W5500sect.mst
PLOT SCALE: 10.666667:1
REF 1: REF 2: REF 3: REF 4: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\W5500sect.mst
REF 5: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\W5500sect.mst
REF 6: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\W5500sect.mst
REF 7: REF 8: J:\SD\SD430\Secondary Clarifier Mechanical Repairs Phase 2\W5500sect.mst



BRIDGE NOTES

B. BRIDGE STRUCTURE SHALL BE REHABILITATED (MODIFIED AND RECOATED) PER DRAWINGS AND SPECIFICATIONS. FOLLOWING REHABILITATION, BRIDGE STRUCTURE SHALL BE REASSEMBLED AND REINSTALLED.

3" ON ORIGINAL DOCUMENT

NO.	DATE	REVISION	BY	REC.	APP.

SD430 - SECONDARY CLARIFIER MECHANICAL REPAIRS - PHASE 2				EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1 OAKLAND, CALIFORNIA	
DESIGN BY:	J.Y. WONG	DESIGN CHECKED BY:	S. DAHLEH	MAIN WASTEWATER TREATMENT PLANT SECONDARY CLARIFIERS SECTION - CLARIFIER NO. 8 STEEL STRUCTURE	
DRAWN BY:	S. DAHLEH	R.P.E. No. C59914	JAMES K. WANG		
CONSTRUCTABILITY CHECKED BY:	WILLIAM E. CHAFFER	R.P.E. No. C83148	JENNIFER H. TRAN		
PROJECT ENGINEER	JOSEPH Y. WONG	PROJECT MANAGER	GARIN D. WARREN		
RECOMMENDED:	SR. ENGINEER	R.P.E. No. C65259	DATE	11JAN2021	SCALE 3/16" = 1'-0"
W55.08-S-202				DRAWING NUMBER	SHEET NO. 08
REV.				0	0

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CONFIDENTIALITY STATEMENT

By receiving the requested information, you agree that you, and any of your representatives authorized by the District to possess the information, will use the information only for the authorized purpose for which you requested it. If you obtained the information to prepare construction documents, you may make the information publicly available only to the extent necessary for safe construction. In all other circumstances, you may not provide any of the information, or any copy of it, to any other person or entity without the District's prior written approval. When you no longer require the information for your use, you must return or destroy all copies of the information. If you do not accept these terms, you must refrain from using the information and immediately return it

o

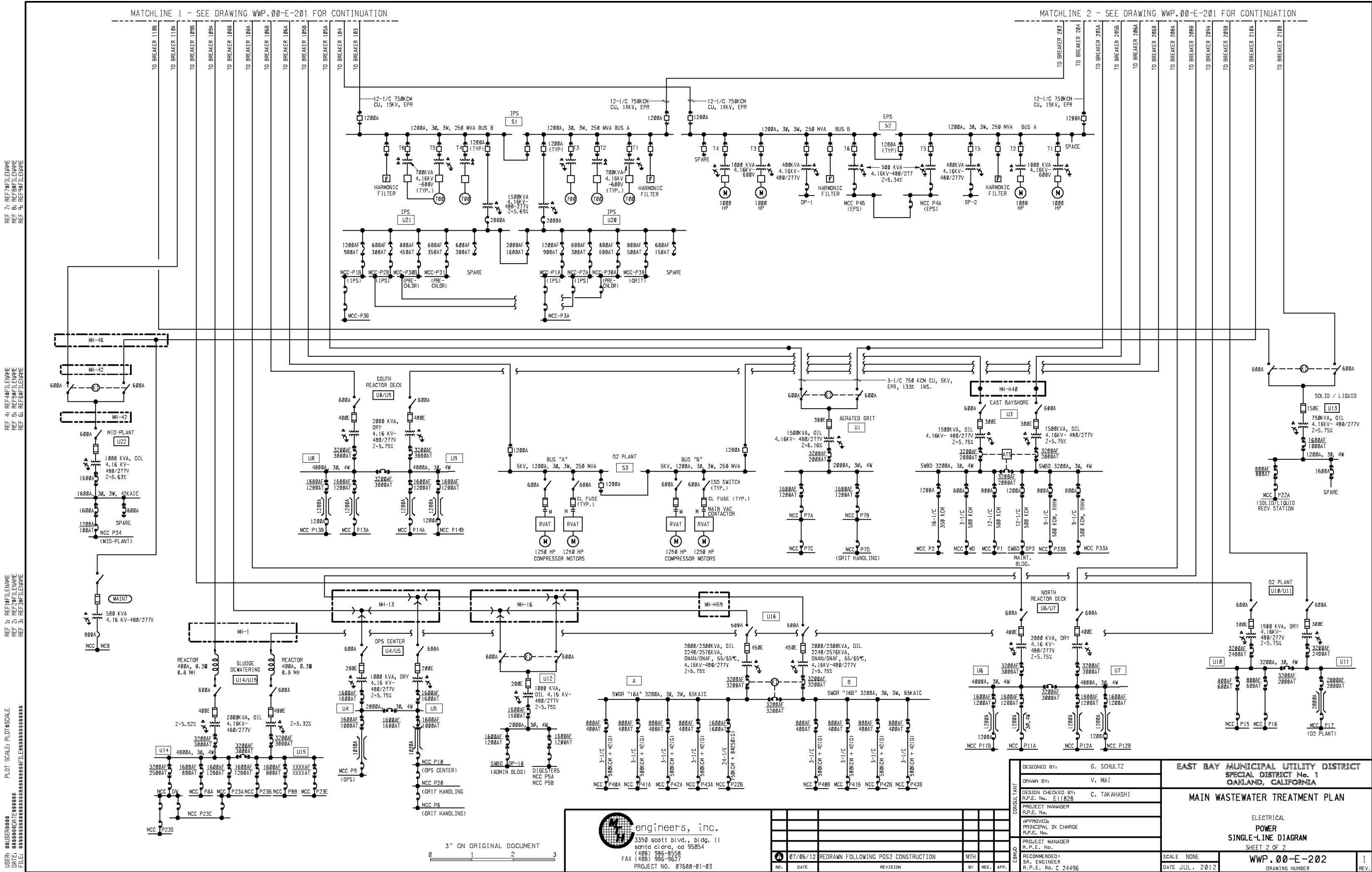
Electrical Single Line Diagram

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NOTES

The MWWTP power single-line diagram for nutrient removal experts to reference in case limitations or opportunities with the District's electrical system suggest modifications are needed for the alternatives analysis approach.





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CONFIDENTIALITY STATEMENT

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HPOAS Reactor and Secondary Clarifier Configurations

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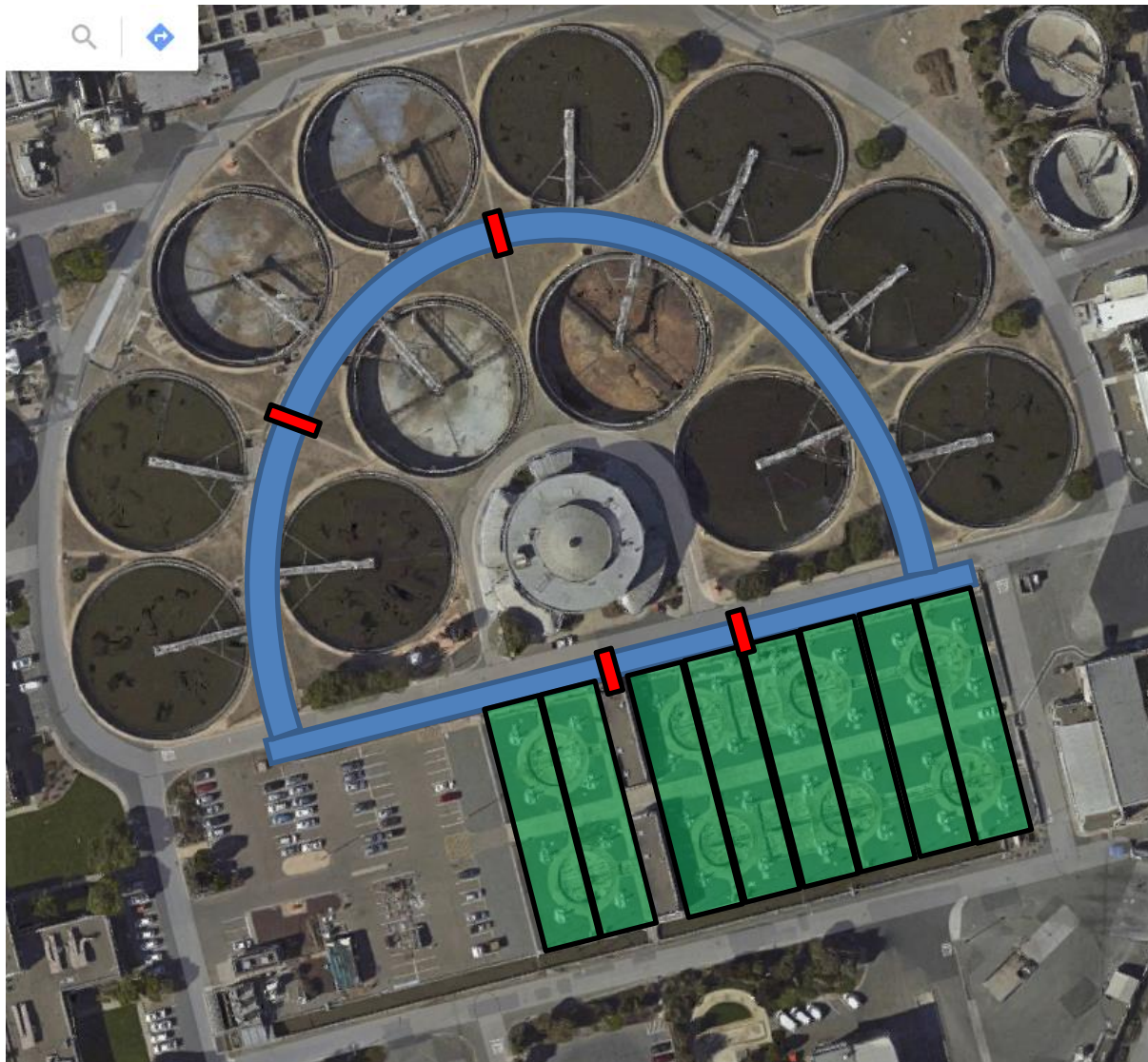
NOTES

The following pages communicate the District's ability to operate HPOAS reactors and secondary clarifiers in a split-plant mode. Gates and valves can be adjusted to maintain two separate activated sludge systems (i.e., two separate sludge inventories with different sludge retention time is feasible).

As demonstrated in the following pages, the District can separate reactors and clarifiers either 25:75 or 50:50.

Two flow diagrams are also provided to demonstrate 1) flow from the influent pump station through the effluent pump station and 2) return activated sludge and waste activated sludge flow.

Reactors & Clarifiers



Mixed Liquor Channel



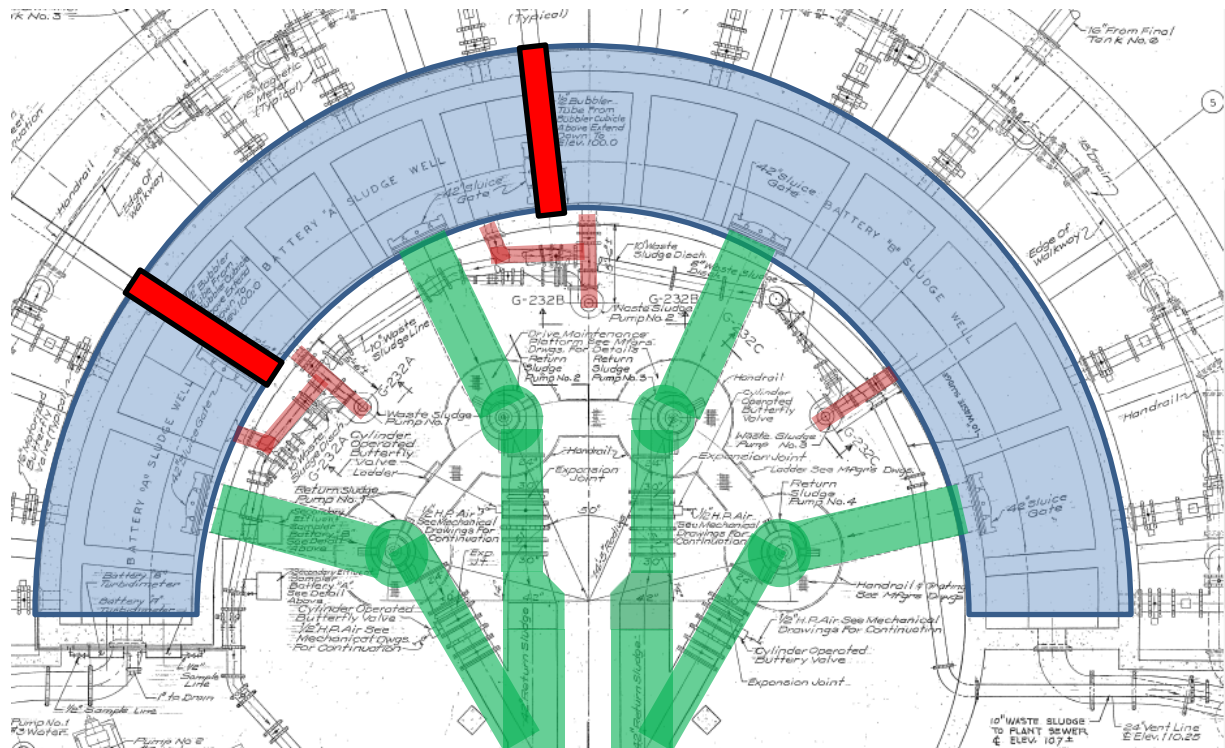
Reactors



Mixed Liquor Channel Gates



RAS & WAS Pumping



WAS pump suction piping



Activated sludge well



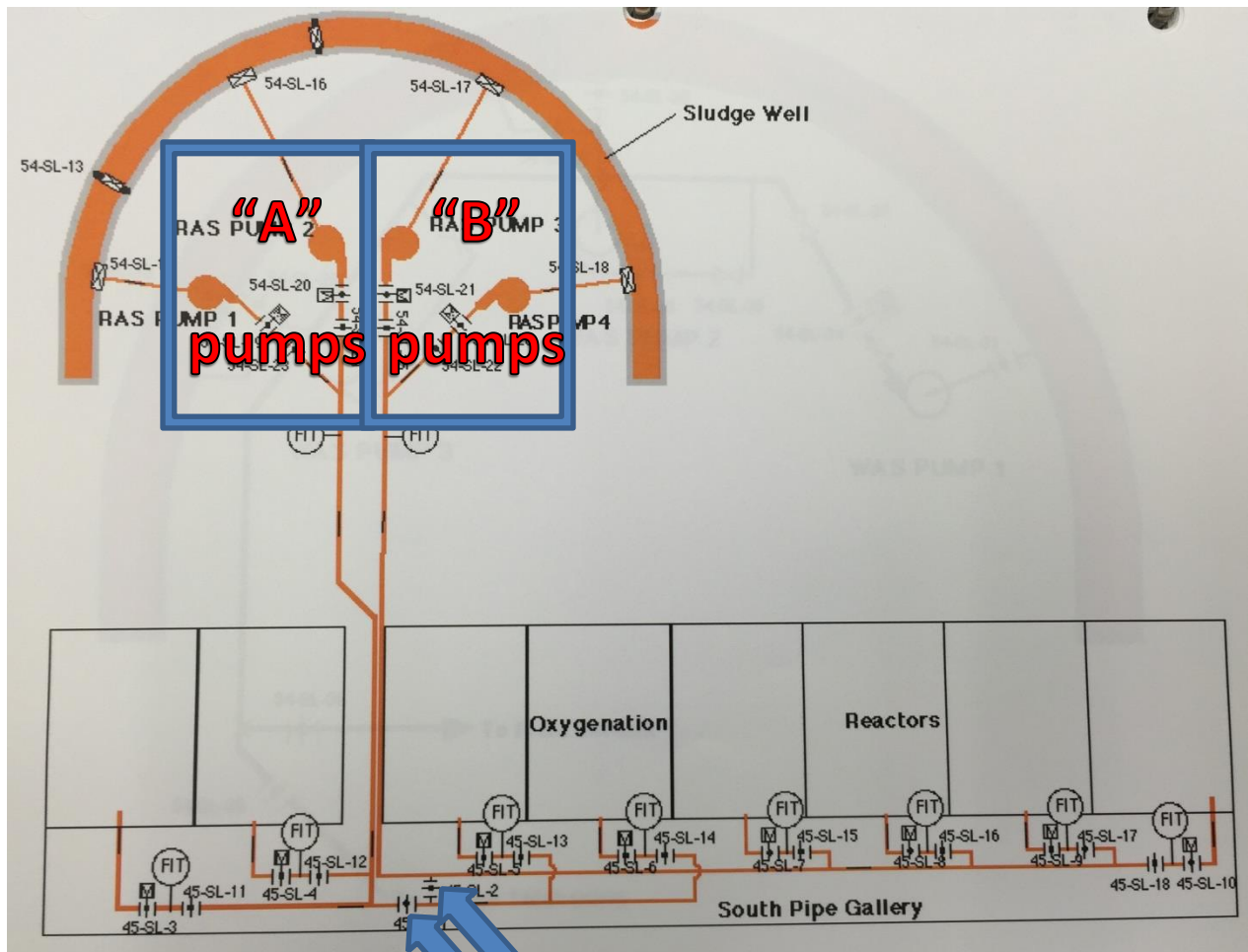
RAS pump piping



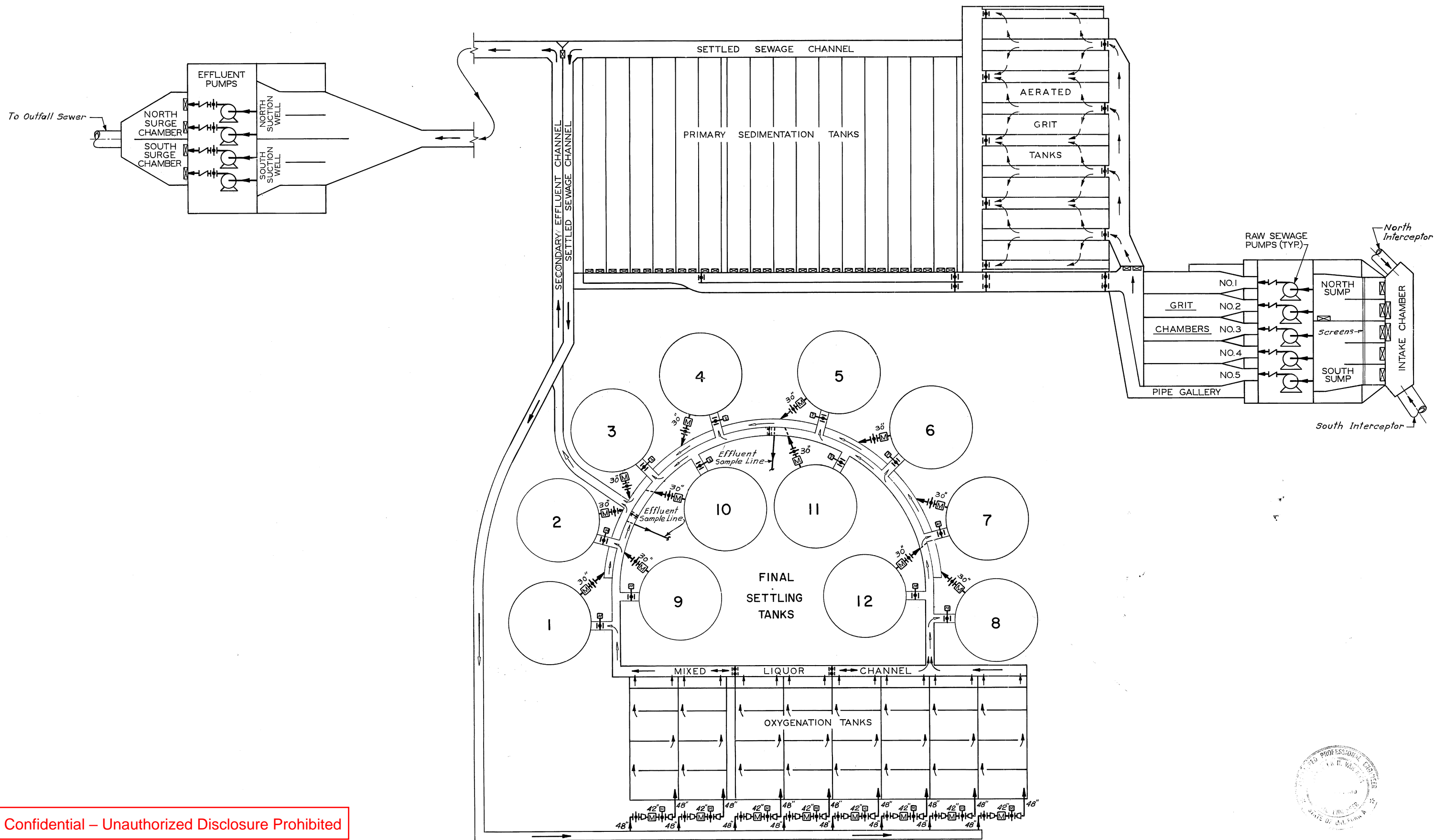
Activated sludge well gates



Reactor RAS Piping



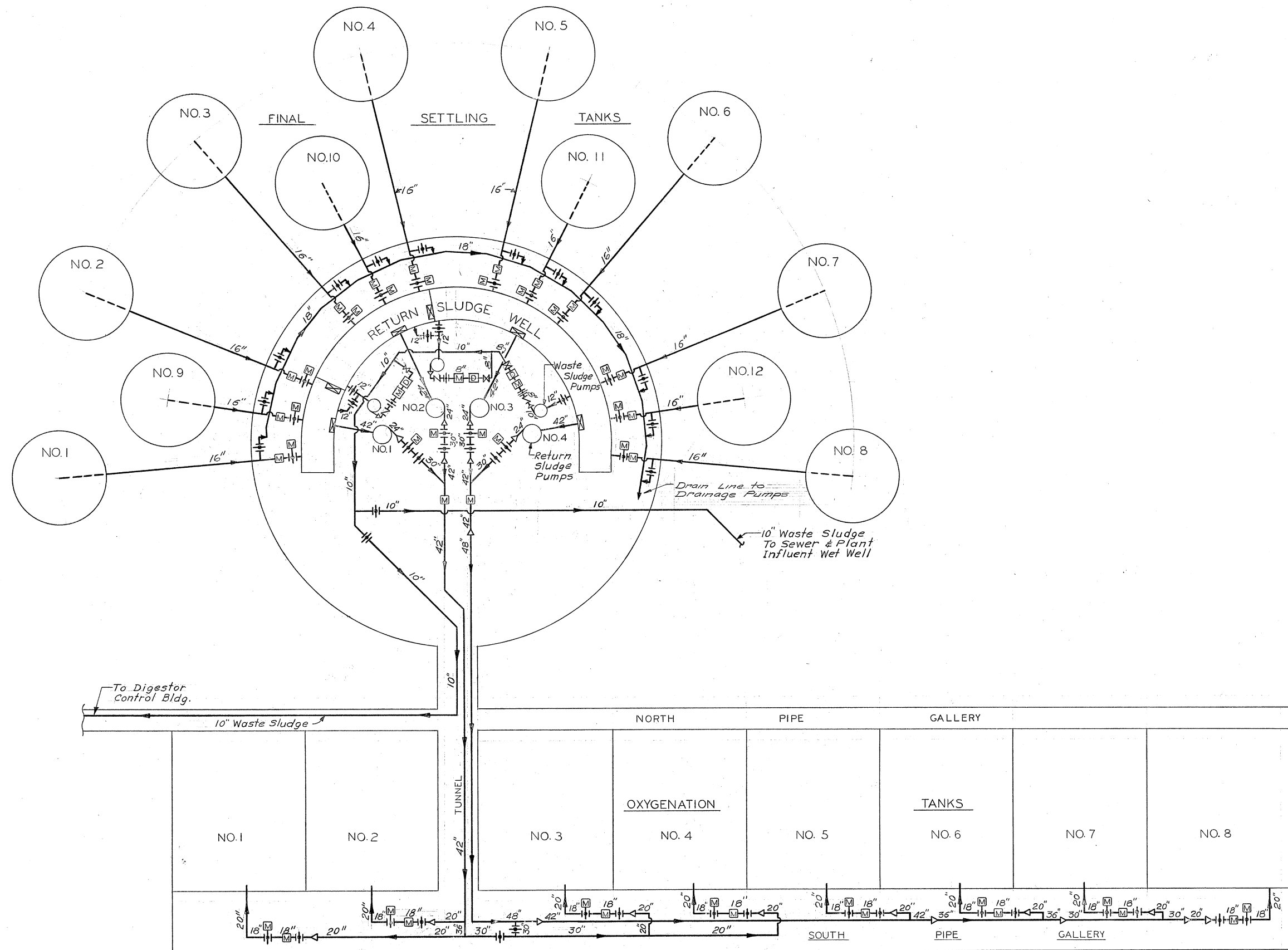
**"A" / "B"
Crossover
Valves**



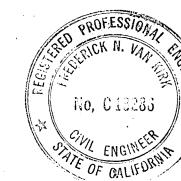
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					CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS		APPROVED CT & A <i>[Signature]</i> PARTNER		DESIGNED <i>E.T.D. & R.P.B.</i>		EAST BAY MUNICIPAL UTILITY DISTRICT SPECIAL DISTRICT NO. 1		WATER POLLUTION CONTROL PLANT ADDITIONS AND IMPROVEMENTS		SPECIFICATION NO. SD 120 FLOW DIAGRAM - WASTEWATER		DATE <i>JAN. 1973</i> SCALE <i>None</i>	
					CHICAGO, ILLINOIS SAN JOSE, CALIFORNIA		EBMUD <i>[Signature]</i> MGR. WPCD		DRAWN <i>J.H.</i>		OAKLAND, CALIFORNIA						DRWG. NO. CT - G - 253	
NO.	DATE	DESCRIPTION			BY	APPR'D												
					REVISIONS													



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