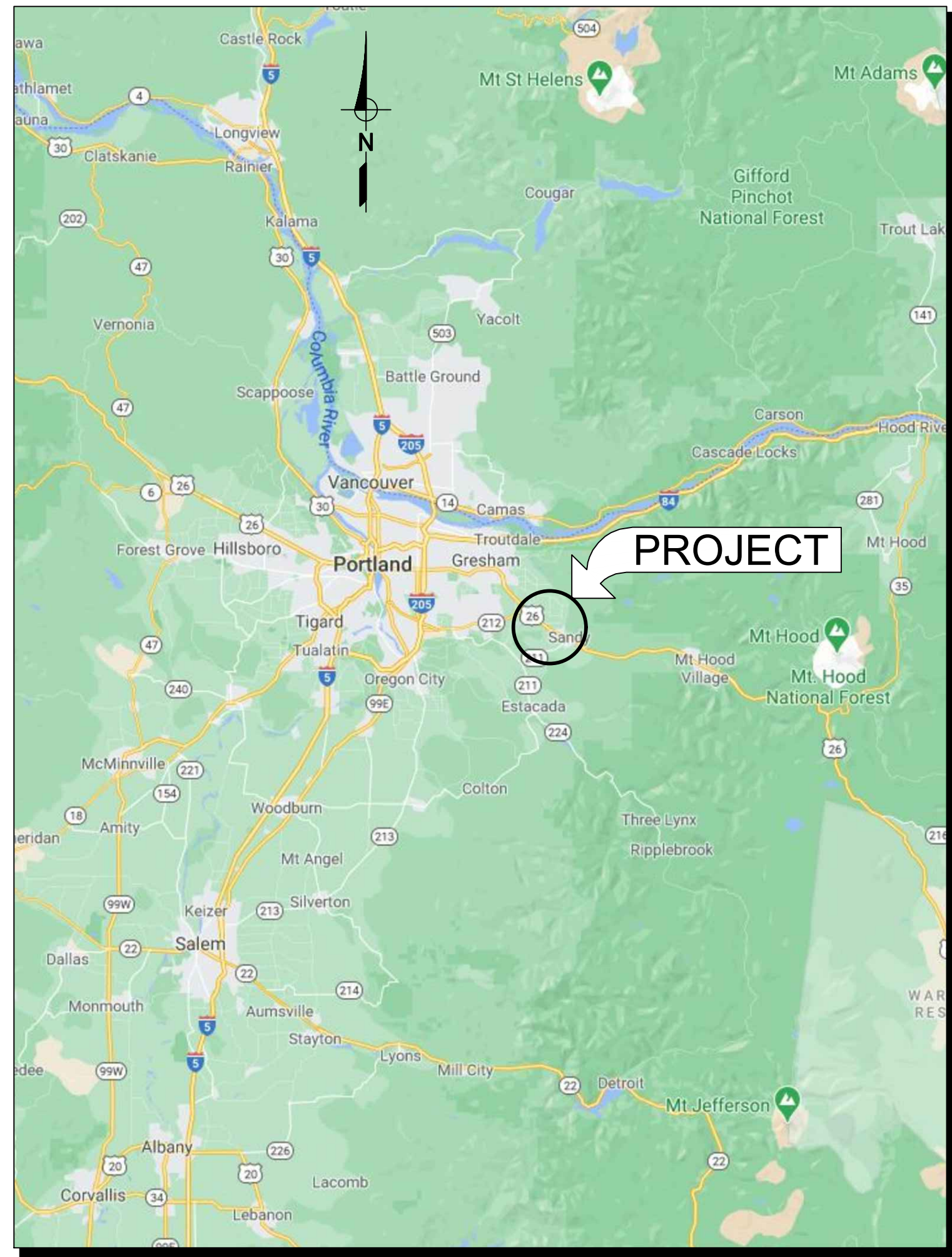
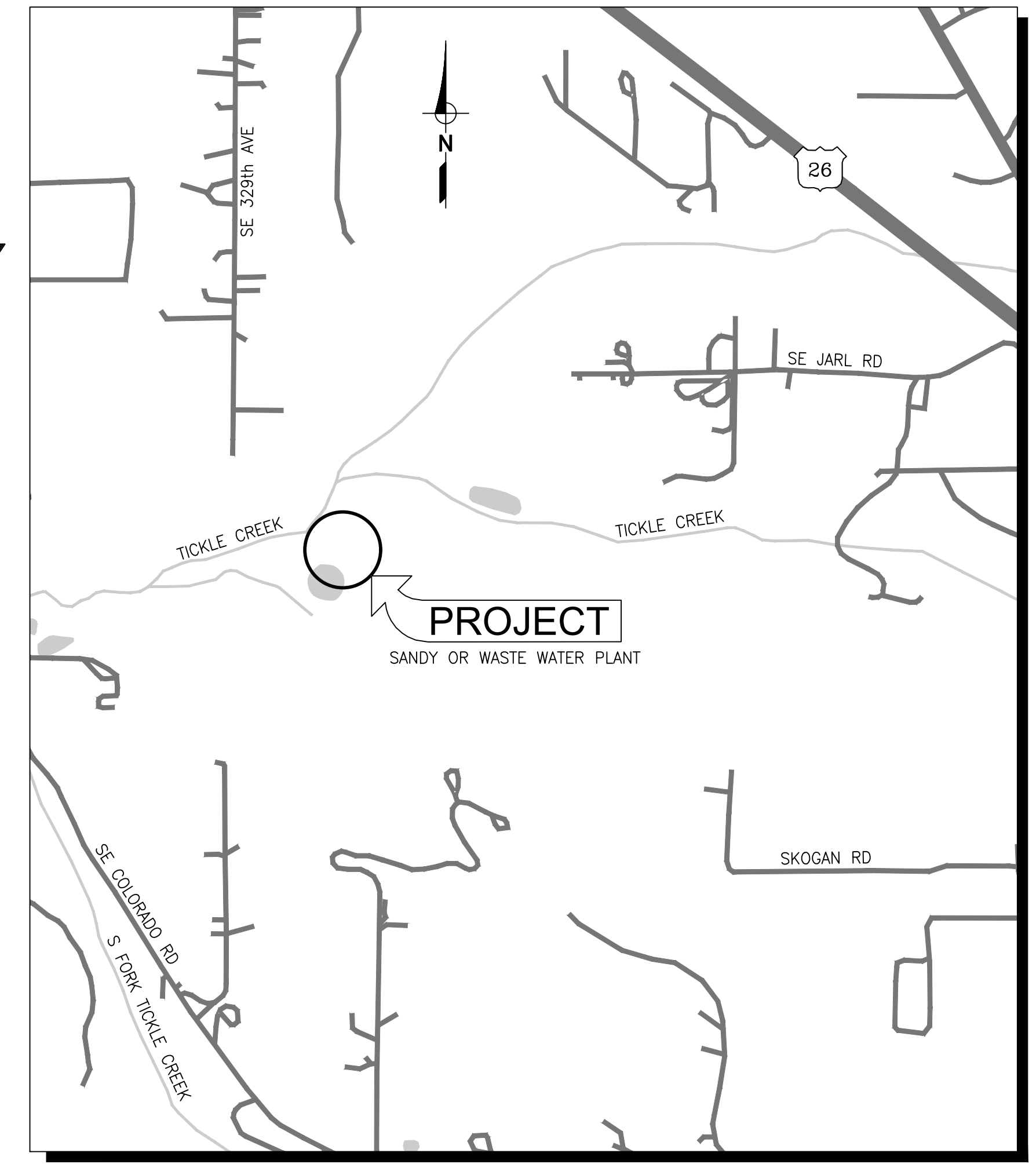




DRAWINGS FOR THE CONSTRUCTION OF  
CITY OF SANDY  
WASTE WATER TREATMENT FACILITY  
IMPROVEMENTS  
FEBRUARY 2021



VICINITY MAP



LOCATION MAP

NOT FOR  
CONSTRUCTION

THIS LINE IS 1 INCH  
AT FULL SCALE  
IF NOT SCALE ACCORDINGLY  
SCALE : NONE  
DRAWN BY : SMB  
DESIGNED BY : WJS  
PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE



**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**  
TITLE SHEET, LOCATION MAP  
AND VICINITY MAP

JOB NUMBER  
964-50-20-01  
DRAWING NUMBER  
**G001**  
SHEET NUMBER  
1 OF XX  
REVISION



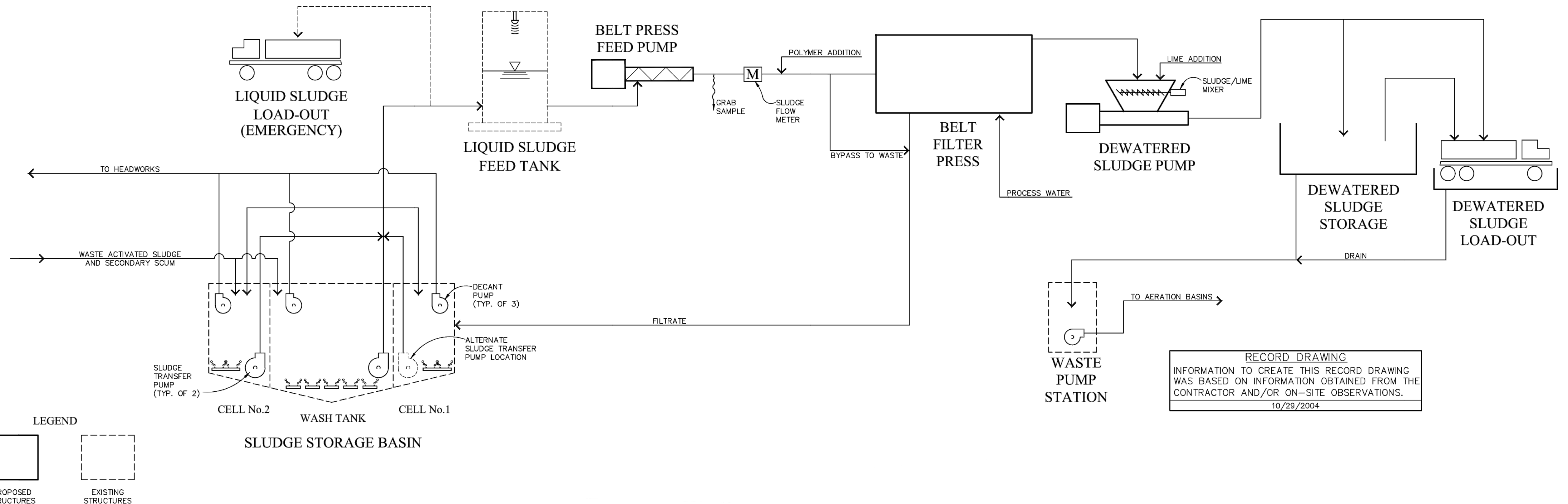




## SOLIDS TREATMENT PROCESS DESIGN CRITERIA

<b>SLUDGE STORAGE BASIN</b> W.A.S. HOLDING (WASH) TANK VOLUME 90,000 GALLONS DIAMETER 32'-0" SIDE WATER DEPTH 15'-0" AERATION SYSTEM DIFFUSED AIR AERATION CAPACITY 800 CFM DIFFUSER TYPE FINE - BUBBLE MEMBRANE DISK  CELL No.1 VOLUME 90,000 GALLONS USE - NORMAL OPERATIONS FILTRATE STORAGE EMERGENCY W.A.S. STORAGE AERATION SYSTEM DIFFUSED AIR DIFFUSER TYPE COARSE BUBBLE  CELL No.2 VOLUME 180,000 GALLONS USE STANDBY W.A.S. STORAGE AERATION SYSTEM DIFFUSED AIR DIFFUSER TYPE COARSE BUBBLE  SLUDGE TRANSFER PUMPS TYPE SCREW CENTRIFUGAL NUMBER OF PUMPS 2 (INTERCHANGEABLE BETWEEN CELLS) DESIGN CAPACITY 400 GPM PUMP HP 12.2 HP  DECANT PUMPS TYPE SUBMERSIBLE NUMBER OF PUMPS 3 (ONE IN EACH CELL) DESIGN CAPACITY 50 GPM PUMP HP 0.6 HP	<b>LIQUID SLUDGE FEED TANK</b> VOLUME 9,000 GALLONS DIAMETER 10'-0" HEIGHT 15'-6"  <b>WASTE PUMP STATION</b> PUMP TYPE (TOTAL OF 2) SUBMERSIBLE CAPACITY 250 GPM MOTOR 3 HP  <b>SLUDGE DEWATERING (NEW)</b> TYPE BELT FILTER PRESS SIZE 1.5 METER DESIGN LOADING 600-750 LBS/HR CAPTURE MINIMUM 95% SLUDGE FEED PUMP TYPE PC POSITIVE DISPLACEMENT PUMP CAPACITY 240 GPM PUMP HP 15 DRIVE VARIABLE FREQUENCY POLYMER FEED SYSTEM TYPE ACTIVE LIQUID @ 50% POLYMER DOSAGE 18 LBS/TON  <b>SLUDGE FLOW METER (NEW)</b> TYPE ULTRASONIC SIZE 6" DIAMETER CAPACITY 80-300 GPM  <b>DEWATERED SLUDGE PUMP (NEW)</b> TYPE PC POSITIVE DISPLACEMENT CAPACITY 20 GPM MOTOR 15 HP DRIVE VARIABLE FREQUENCY	<b>LIME STABILIZATION (NEW)</b> TYPE DRY, HYDRATED LIME STORAGE VOLUME 2,500 CF SILO CONVEYING SYSTEM SHAFTLESS SCREW CONVEYOR FEED SYSTEM VOLUMETRIC FEED APPLICATION METHOD DUAL PADDLE MIXER MIXER HP 5 HP LIME DOSAGE 0.3 LBS/LB DRY SOLIDS LIME STORAGE @ 6.7 Cu Ft/HR 150 DAYS (LIME STORAGE @ 600 LBS/HR FOR 17 HRS/ WEEK)  <b>DEWATERED SLUDGE STORAGE (NEW)</b> TYPE COVERED VOLUME 520 CU. YDS. STORAGE CAPACITY @ 16% SOLIDS 100 DAYS  <b>BELT FILTER PRESS MASS BALANCE</b> SLUDGE PROCESSED @ 0.8% SOLIDS 150 GPM SLUDGE PROCESSED WEEKLY @ 0.8% SOLIDS 156,000 GAL SLUDGE PRESS LOADING 600 LB/HR POLYMER SOLUTION FEED 20 GPM POLYMER SOLUTION FEED WEEKLY 20,760 GAL PROCESS WATER 60 GPM PROCESS WATER WEEKLY 62,300 GAL DEWATERED SLUDGE PRODUCTION @ 16% SOLIDS 5.50 CU YD/DAY 38.5 CU YD/WEEK  <b>PRESSATE STORAGE OPTIONS</b> SLUDGE STORAGE BASIN No.1 90,000 GALLONS SLUDGE STORAGE BASIN No.2 180,000 GALLONS
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## SOLIDS TREATMENT PROCESS SCHEMATIC



**RECORD DRAWING**  
 INFORMATION TO CREATE THIS RECORD DRAWING  
 WAS BASED ON INFORMATION OBTAINED FROM THE  
 CONTRACTOR AND/OR ON-SITE OBSERVATIONS.  
 10/29/2004

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH  
 AT FULL SCALE  
 IF NOT SCALE ACCORDINGLY  
  
 SCALE : NONE  
 DRAWN BY : SMB  
 DESIGNED BY : WJS  
 PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE



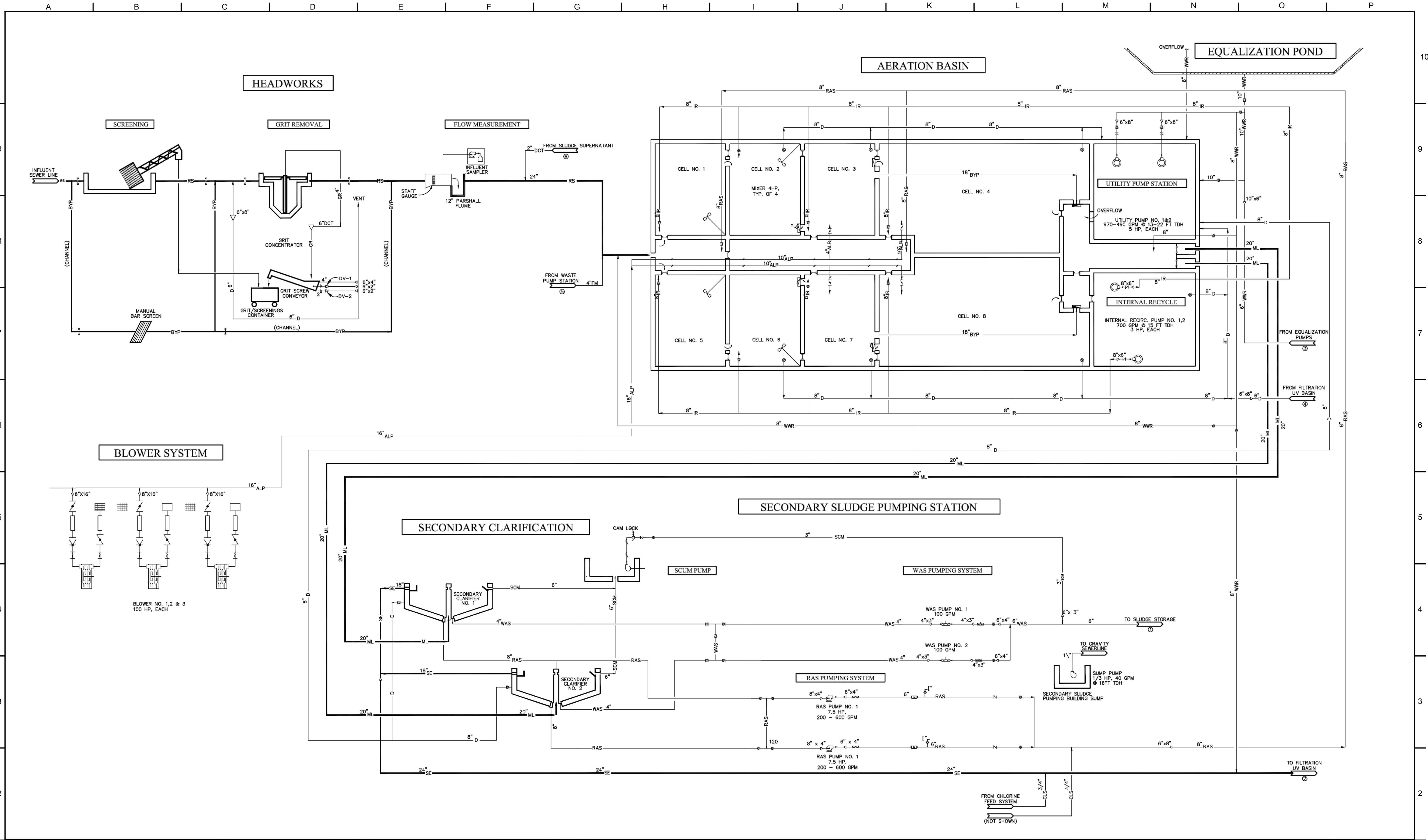
**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**  
**SOLIDS PROCESS DESIGN TREATMENT**  
**FACILITY IMPROVEMENTS**

JOB NUMBER  
 964-50-20-01  
 DRAWING NUMBER  
**G004**  
 SHEET NUMBER  
 X OF XX  
 REVISION

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THIS LINE IS 1 INCH  
AT FULL SCALE  
IF NOT SCALE ACCORDINGLY

SCALE : NONE  
DRAWN BY : SMB  
DESIGNED BY : WJS  
PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE



**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**

PROCESS FLOW SCHEMATIC

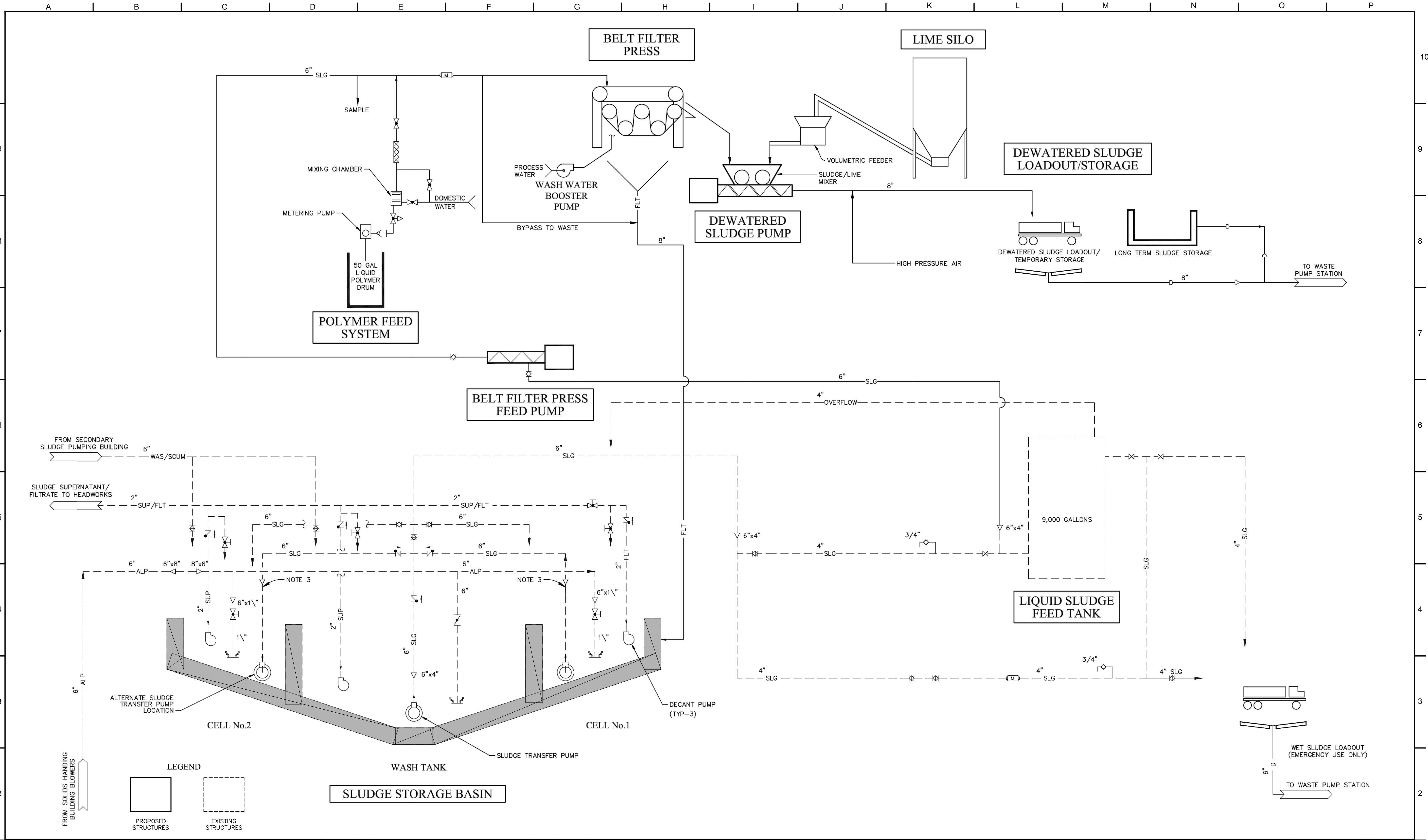
JOB NUMBER 964-50-20-01
DRAWING NUMBER G005
SHEET NUMBER X OF XX
REVISION







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THIS LINE IS 1 INCH  
AT FULL SCALE  
IF NOT SCALE ACCORDINGLY

SCALE : NONE  
DRAWN BY : SMB  
DESIGNED BY : WJS  
PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE



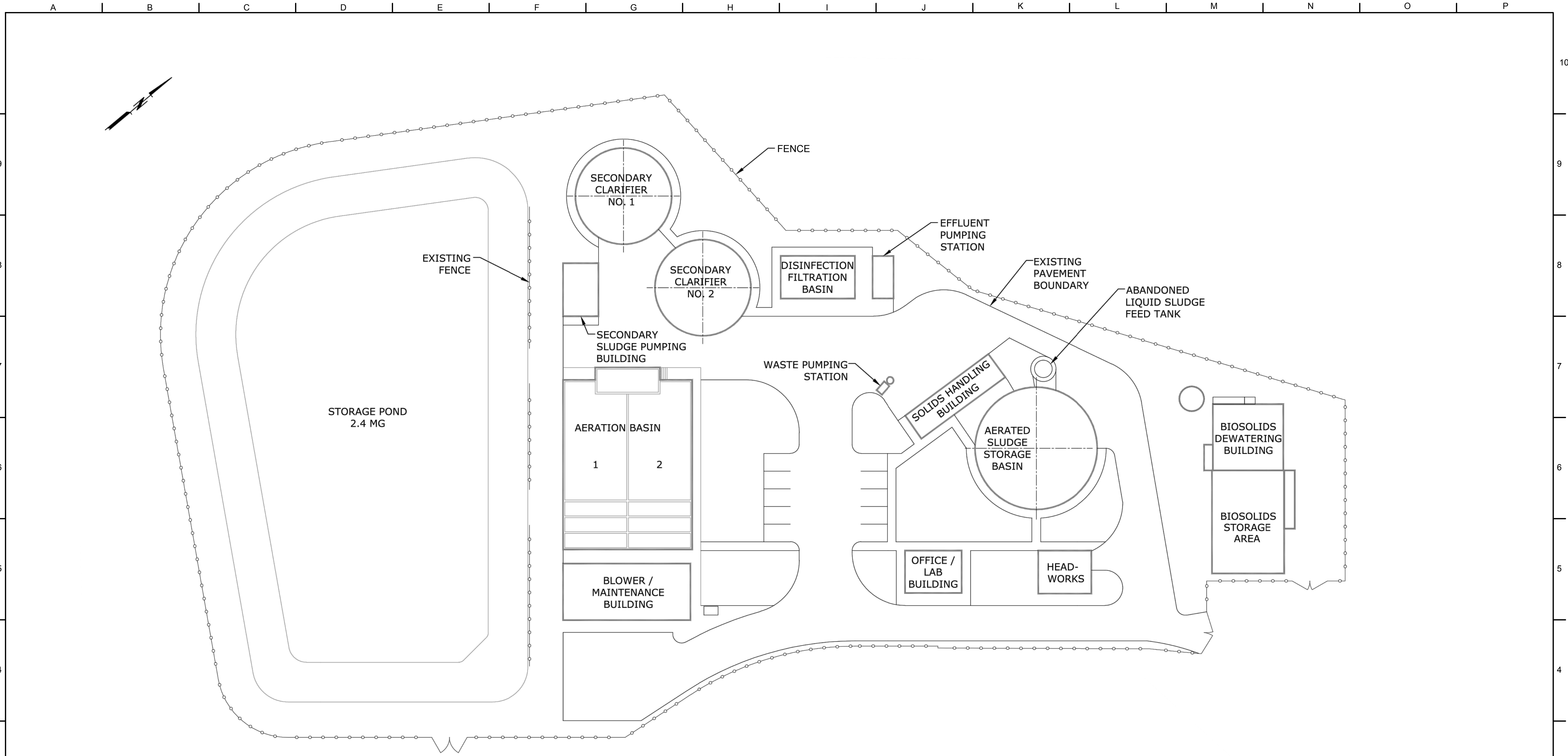
**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**

SOLIDS PROCESS FLOW SCHEMATIC

JOB NUMBER 964-50-20-01
DRAWING NUMBER <b>G007</b>
SHEET NUMBER X OF XX
REVISION



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**SITE PLAN**

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH  
AT FULL SCALE  
IF NOT SCALE ACCORDINGLY

SCALE : NONE  
DRAWN BY : SMB  
DESIGNED BY : WJS  
PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE

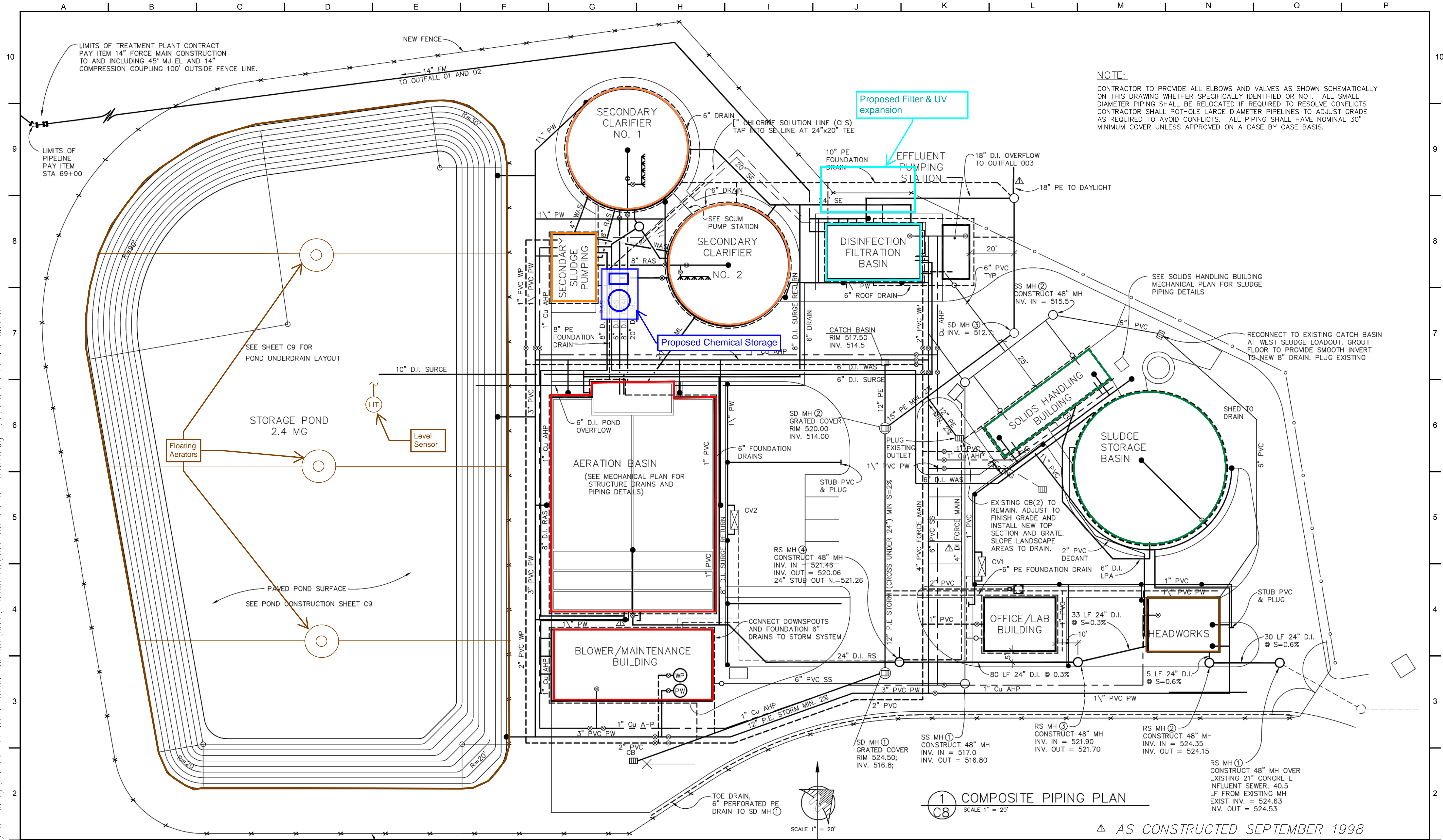


**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**  
**EXISTING SITE PLAN**

JOB NUMBER 964-50-20-01
DRAWING NUMBER <b>G008</b>
SHEET NUMBER X OF XX
REVISION



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**NOTE:**  
 CONTRACTOR TO PROVIDE ALL ELBOWS AND VALVES AS SHOWN SCHEMATICALLY ON THIS DRAWING WHETHER SPECIFICALLY IDENTIFIED OR NOT. ALL SMALL DIAMETER PIPING SHALL BE RELOCATED IF REQUIRED TO RESOLVE CONFLICTS. CONTRACTOR SHALL PATCH/REPAIR LARGE DIAMETER PIPELINES TO ADJUST GRADE AS REQUIRED TO AVOID CONFLICTS. ALL PIPING SHALL HAVE NOMINAL 30" MINIMUM COVER UNLESS APPROVED ON A CASE BY CASE BASIS.

**1** COMPOSITE PIPING PLAN  
 C8 SCALE 1" = 20'

AS CONSTRUCTED SEPTEMBER 1998

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH  
 AT FULL SCALE  
 IF NOT SCALE ACCORDINGLY

SCALE : AS SHOWN  
 DRAWN BY : SMB  
 DESIGNED BY : WJS  
 PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE

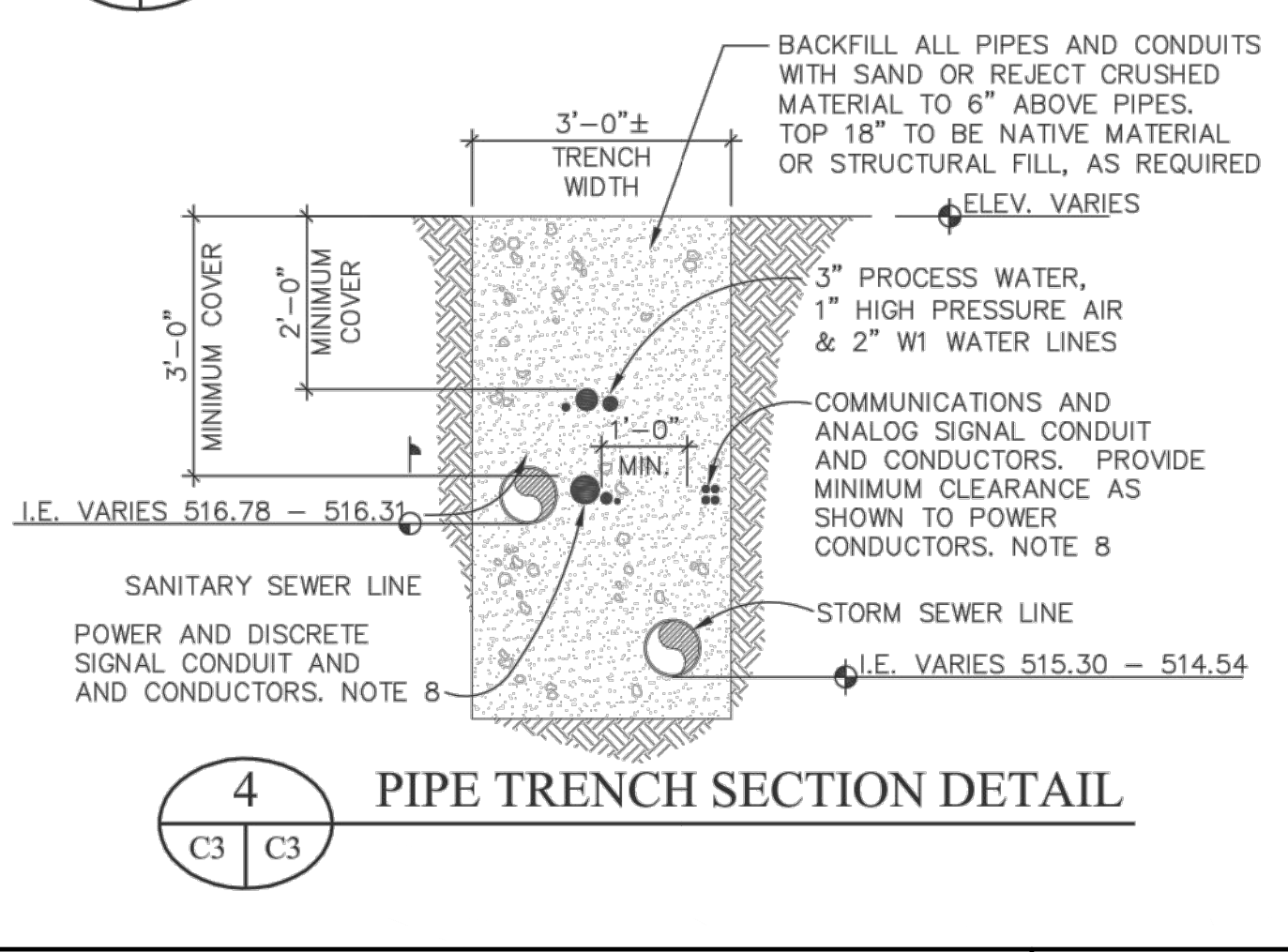
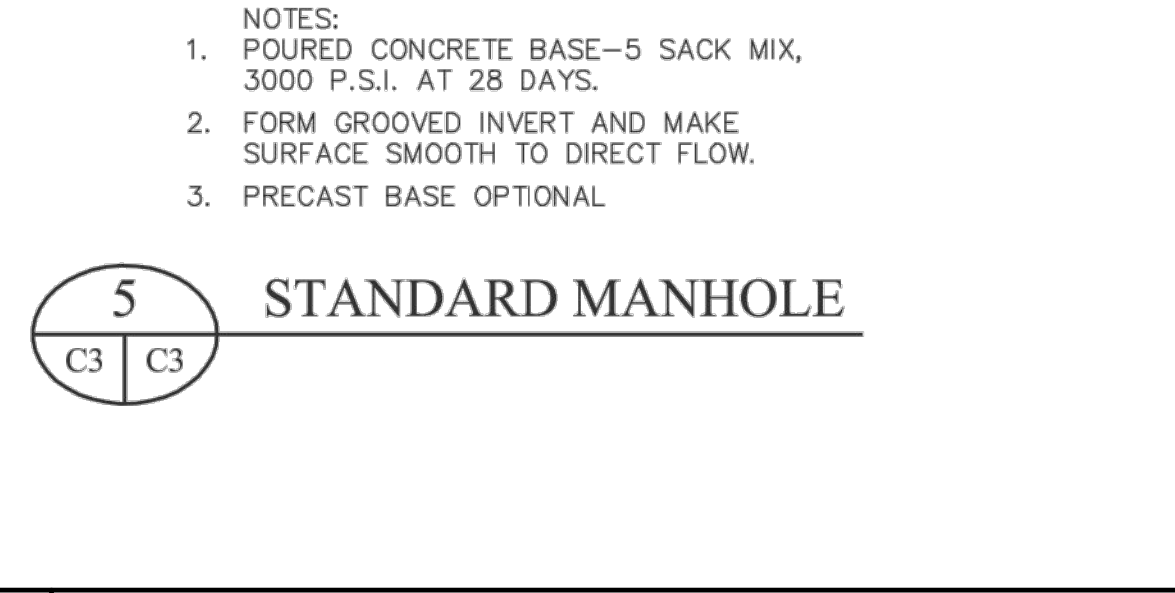
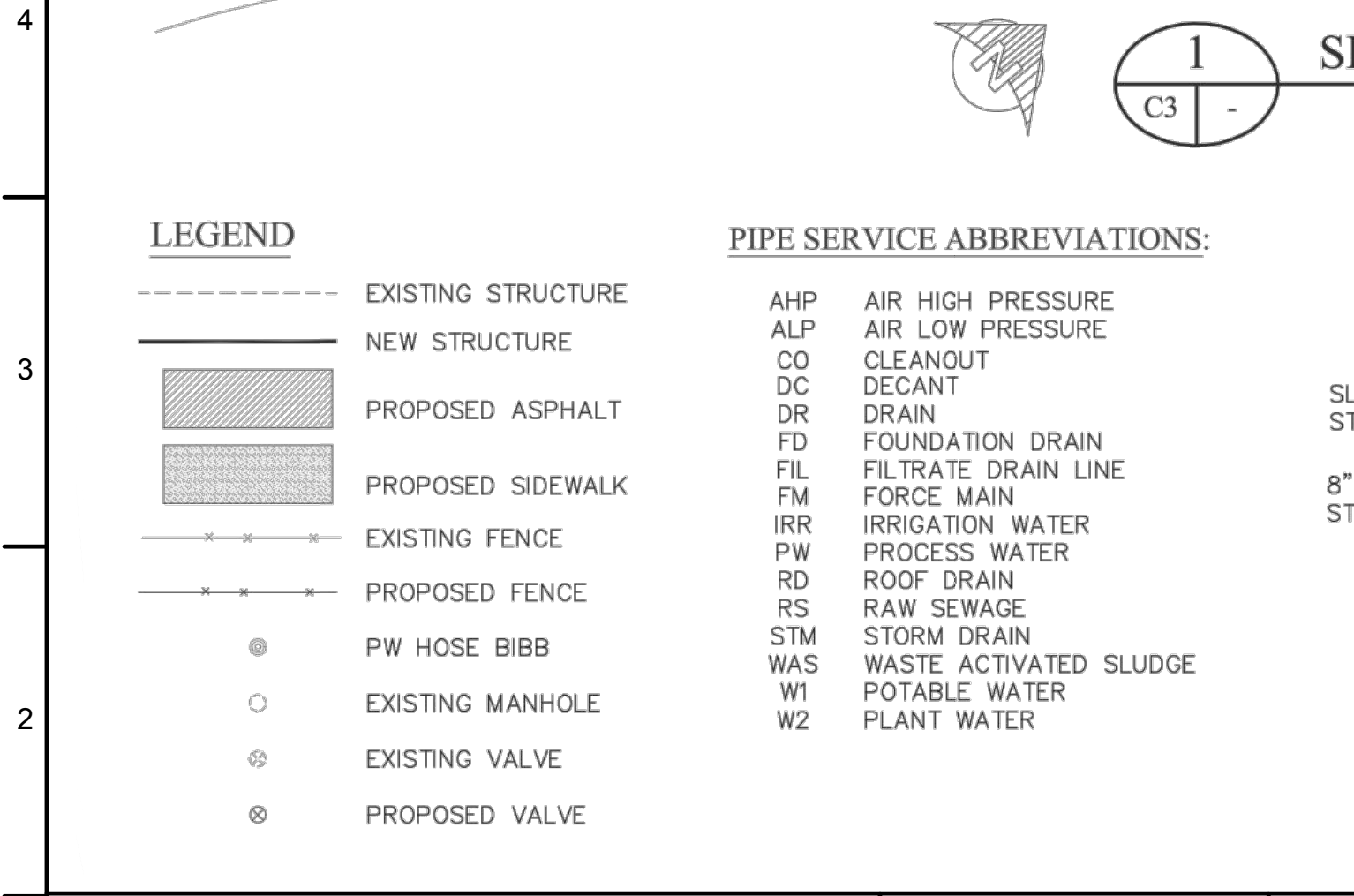
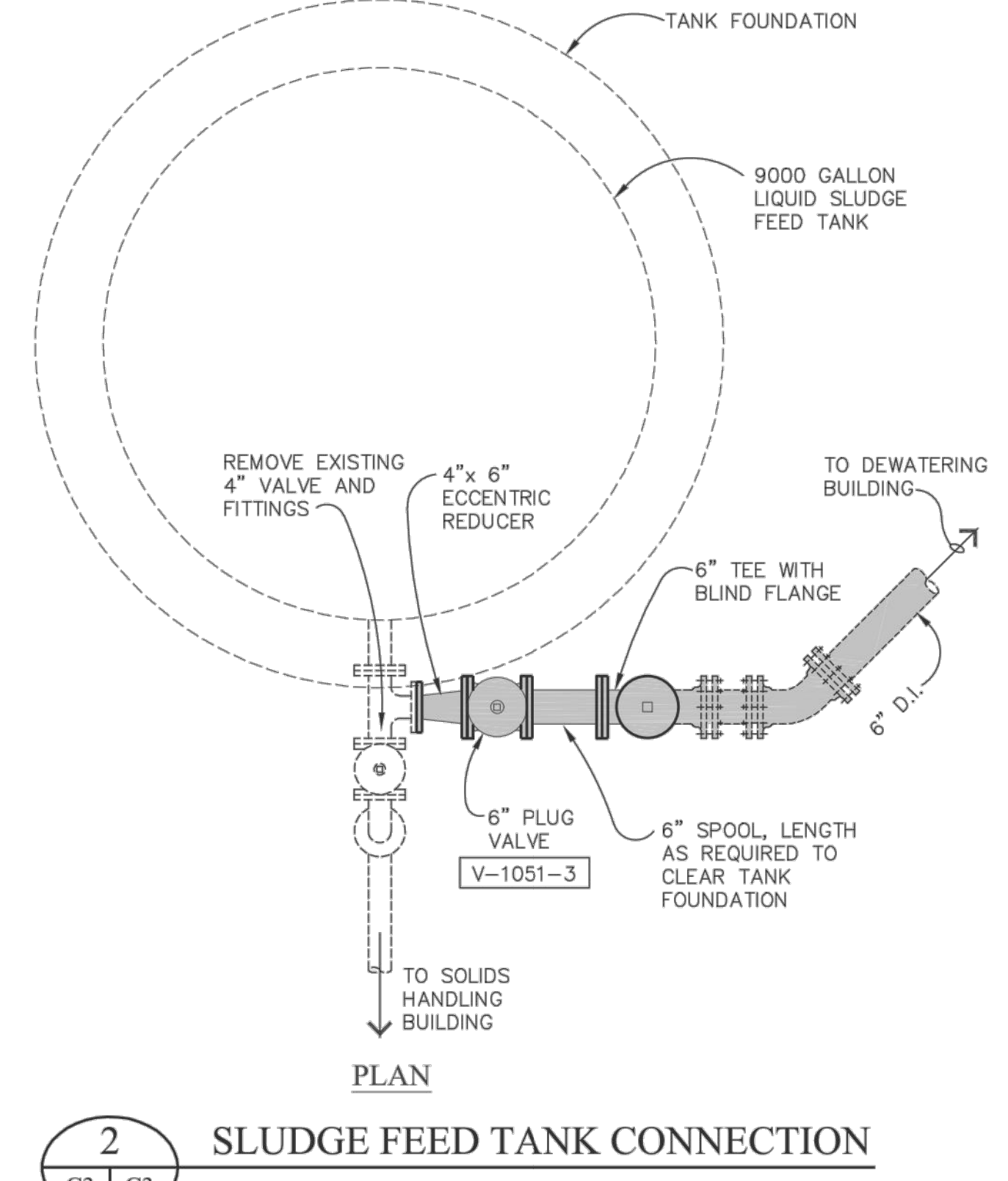
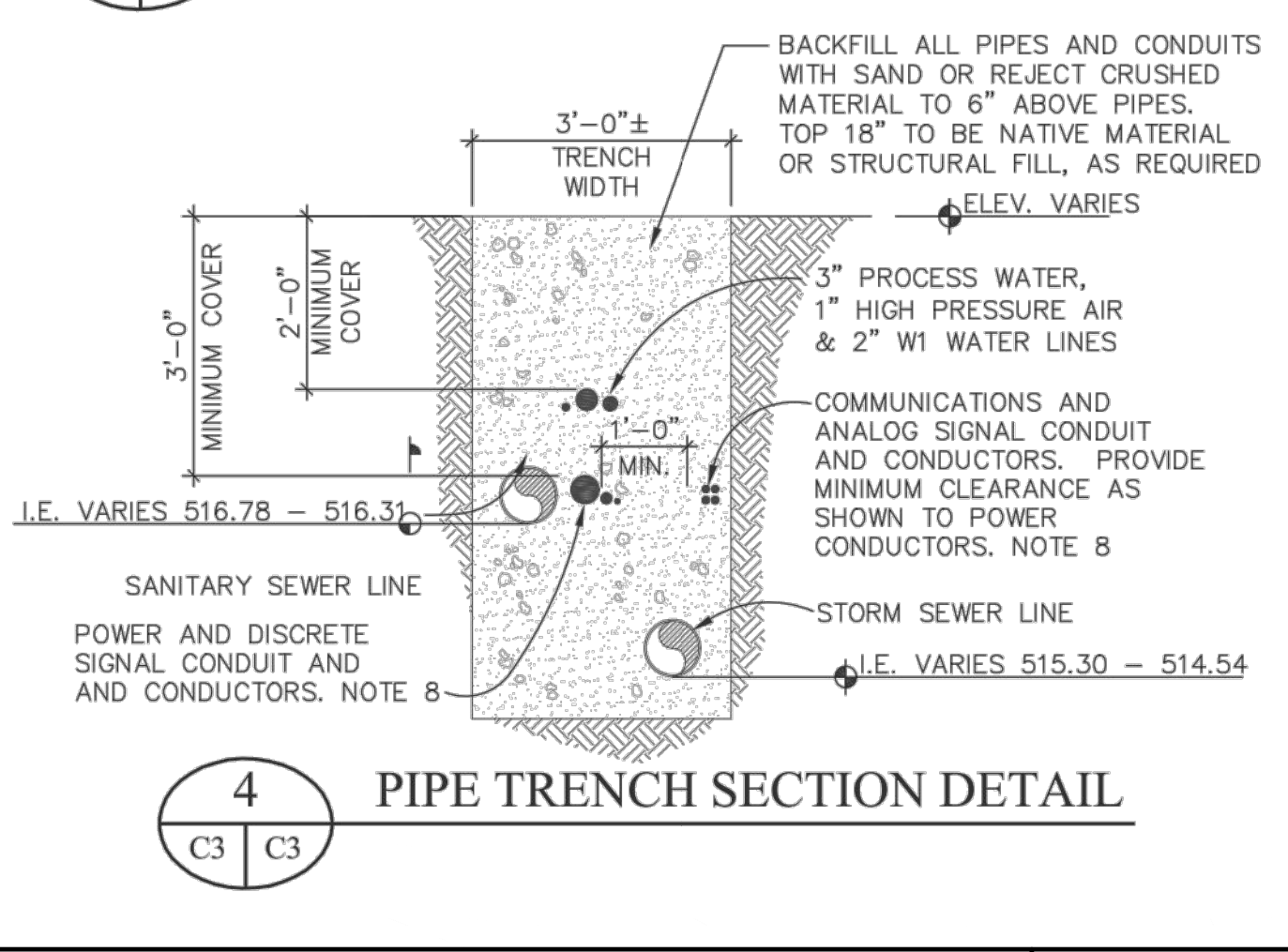
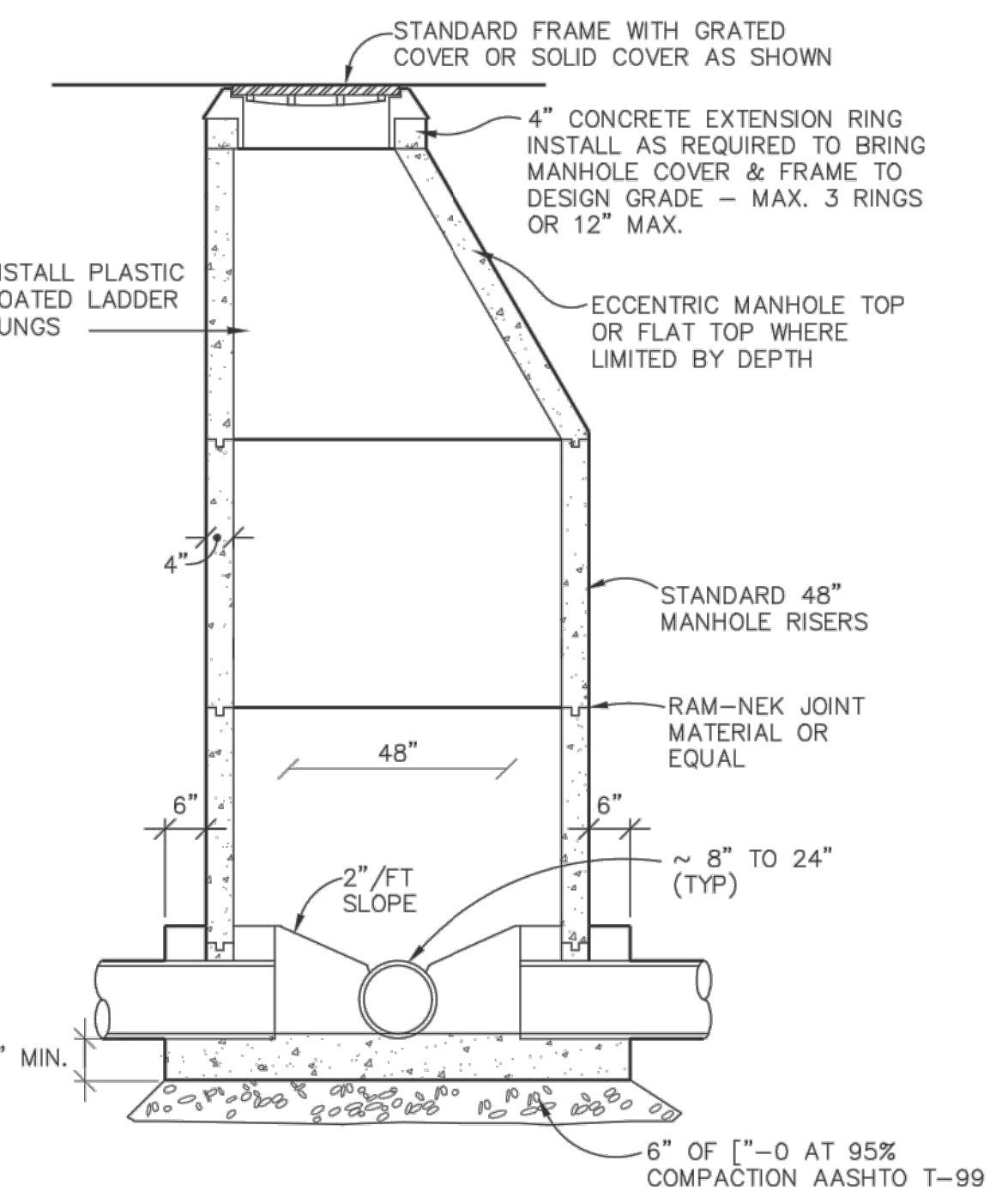
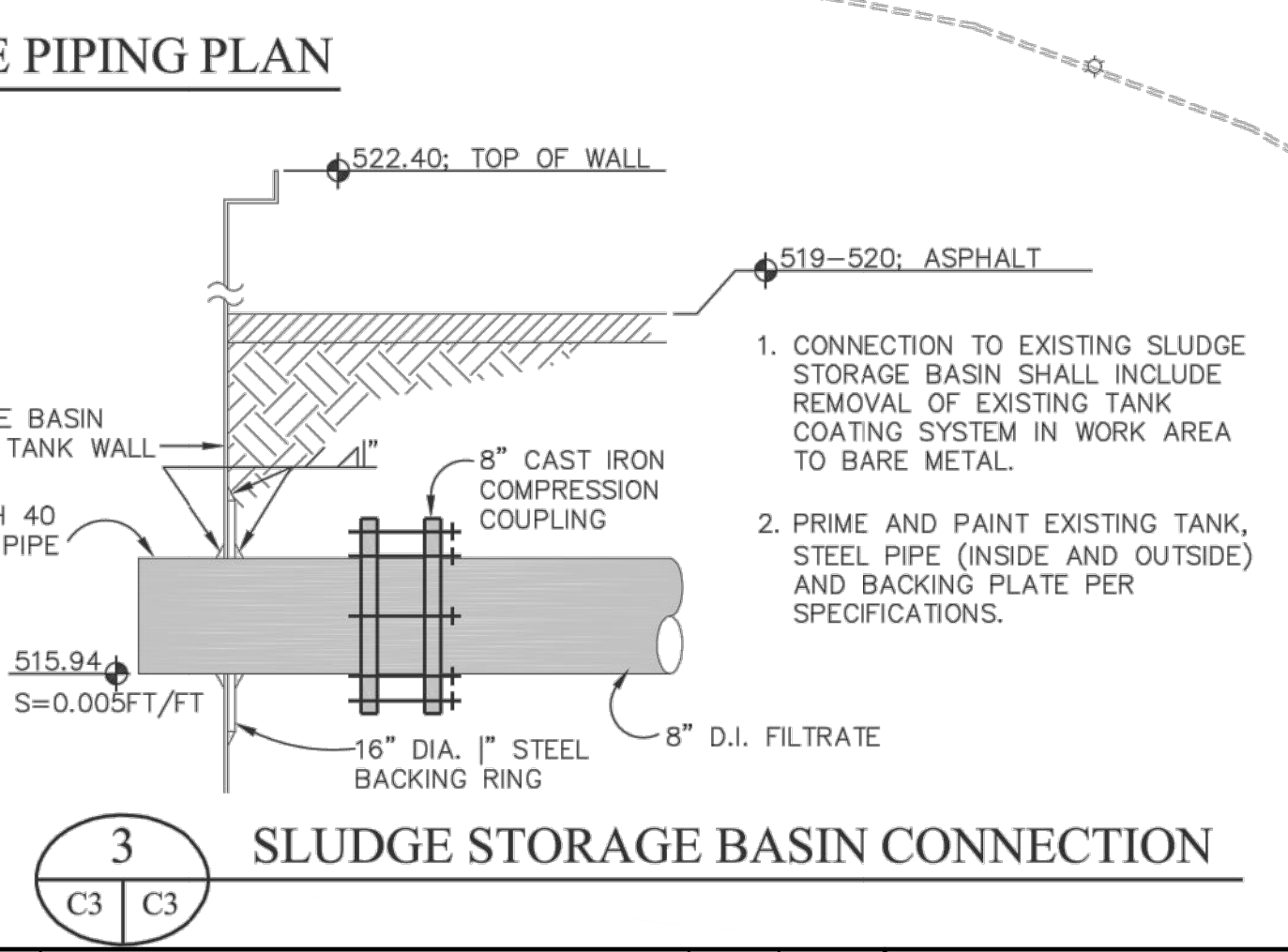
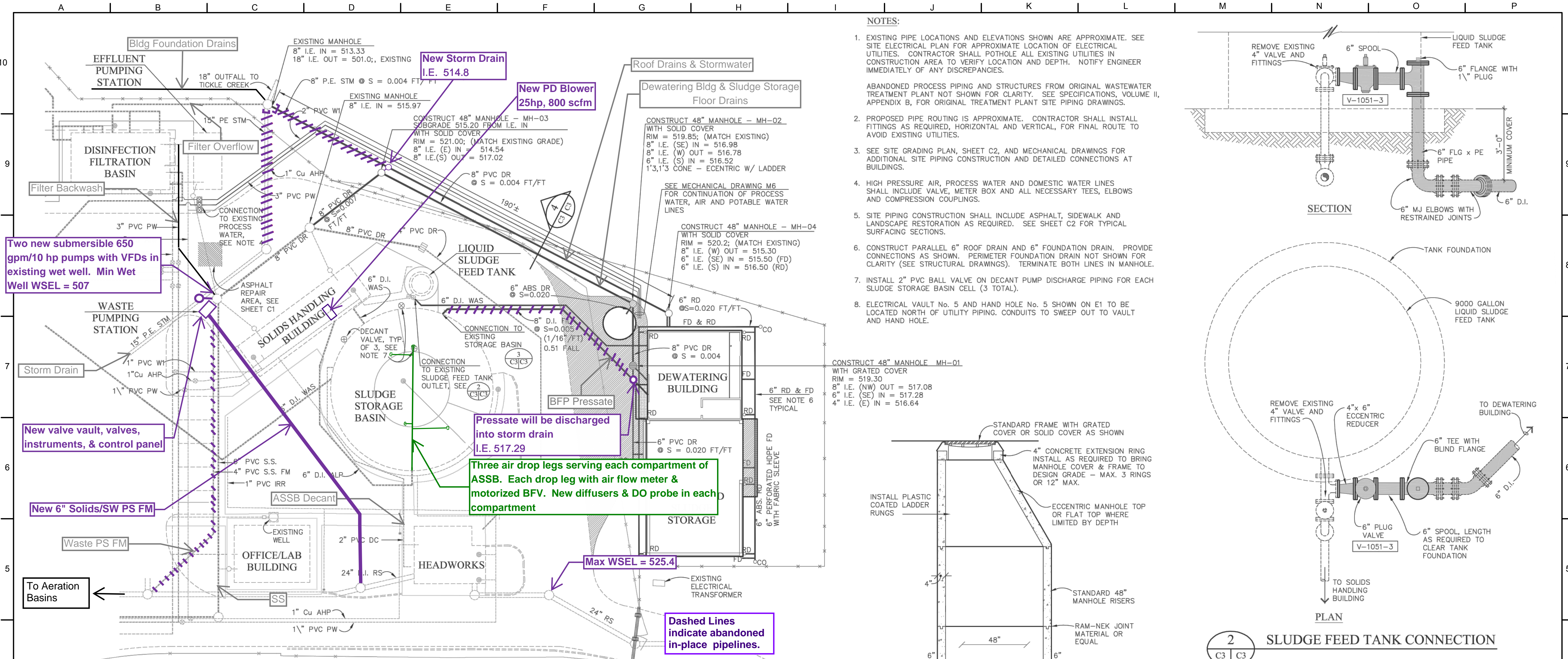


**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**  
 COMPOSITE PIPING PLAN

JOB NUMBER 964-50-20-01
DRAWING NUMBER C001
SHEET NUMBER X OF XX
REVISION



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SCALE: NONE

DRAWN BY: SMB

DESIGNED BY: WJS

PROJ. MGR.: PVM

No.	ZONE	REVISIONS	BY	DATE

No.	ZONE	REVISIONS	BY	DATE

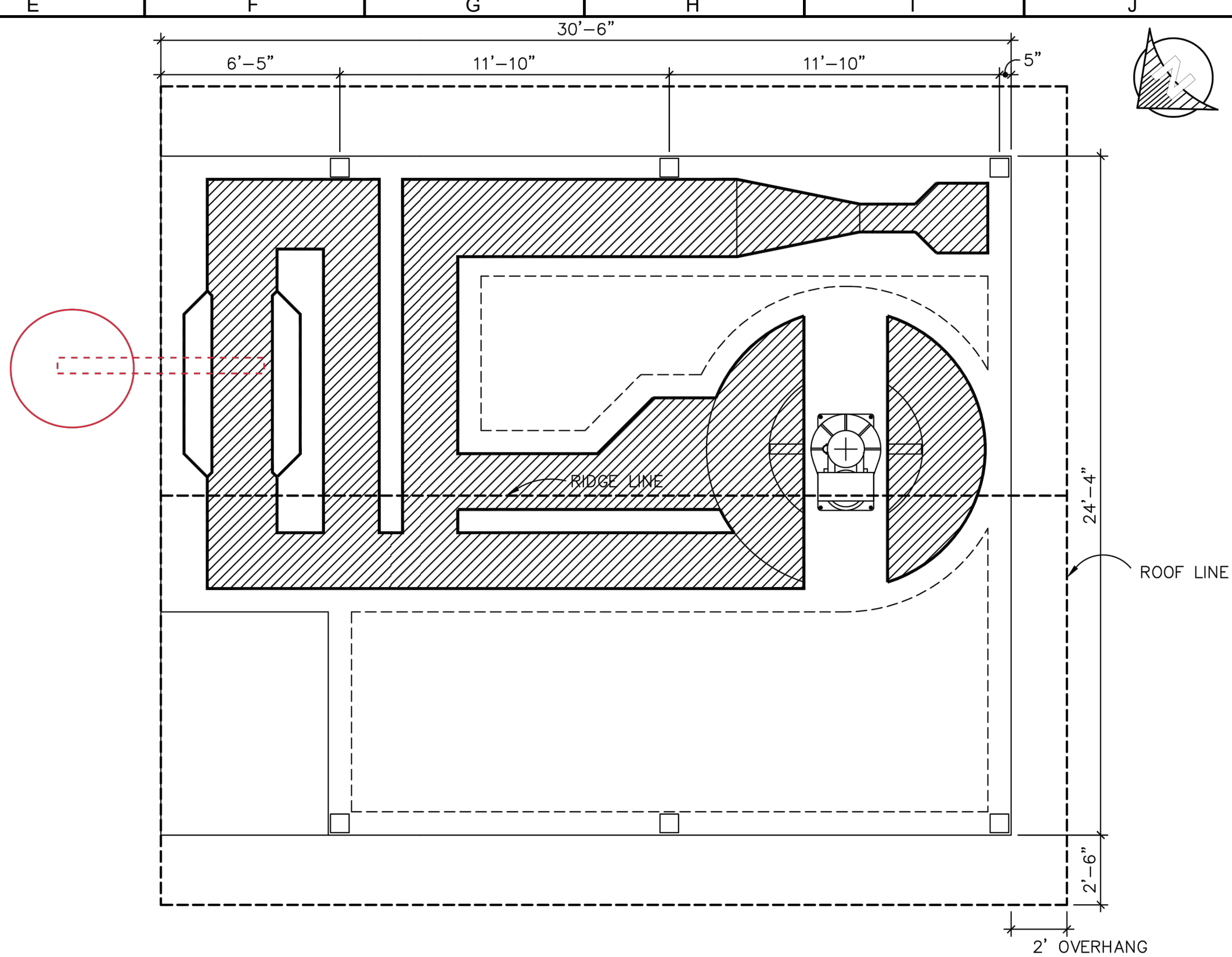


**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**  
**SITE PIPING PLAN**

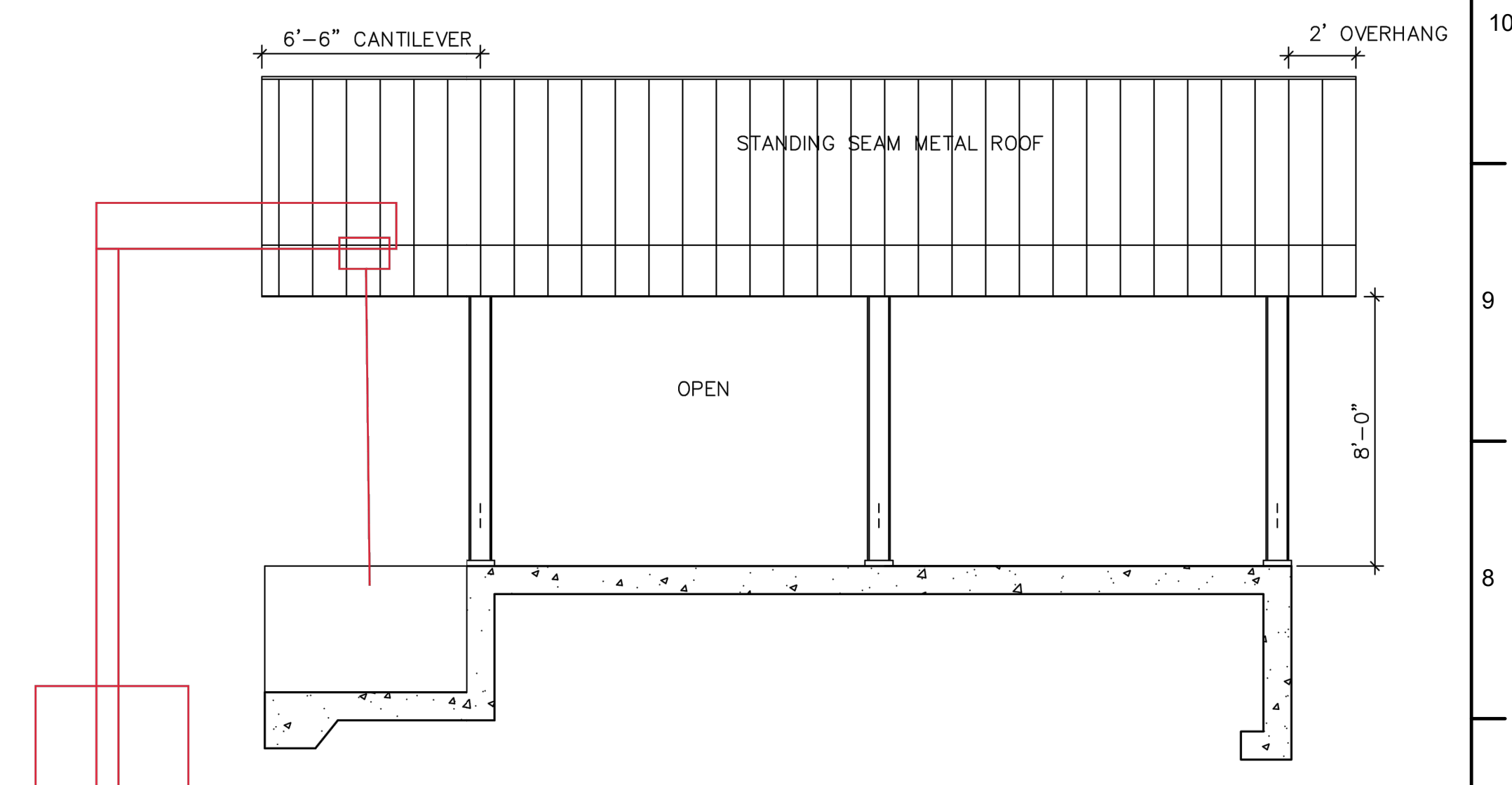
JOB NUMBER 964-50-20-01
DRAWING NUMBER C002
SHEET NUMBER X OF XX
REVISION



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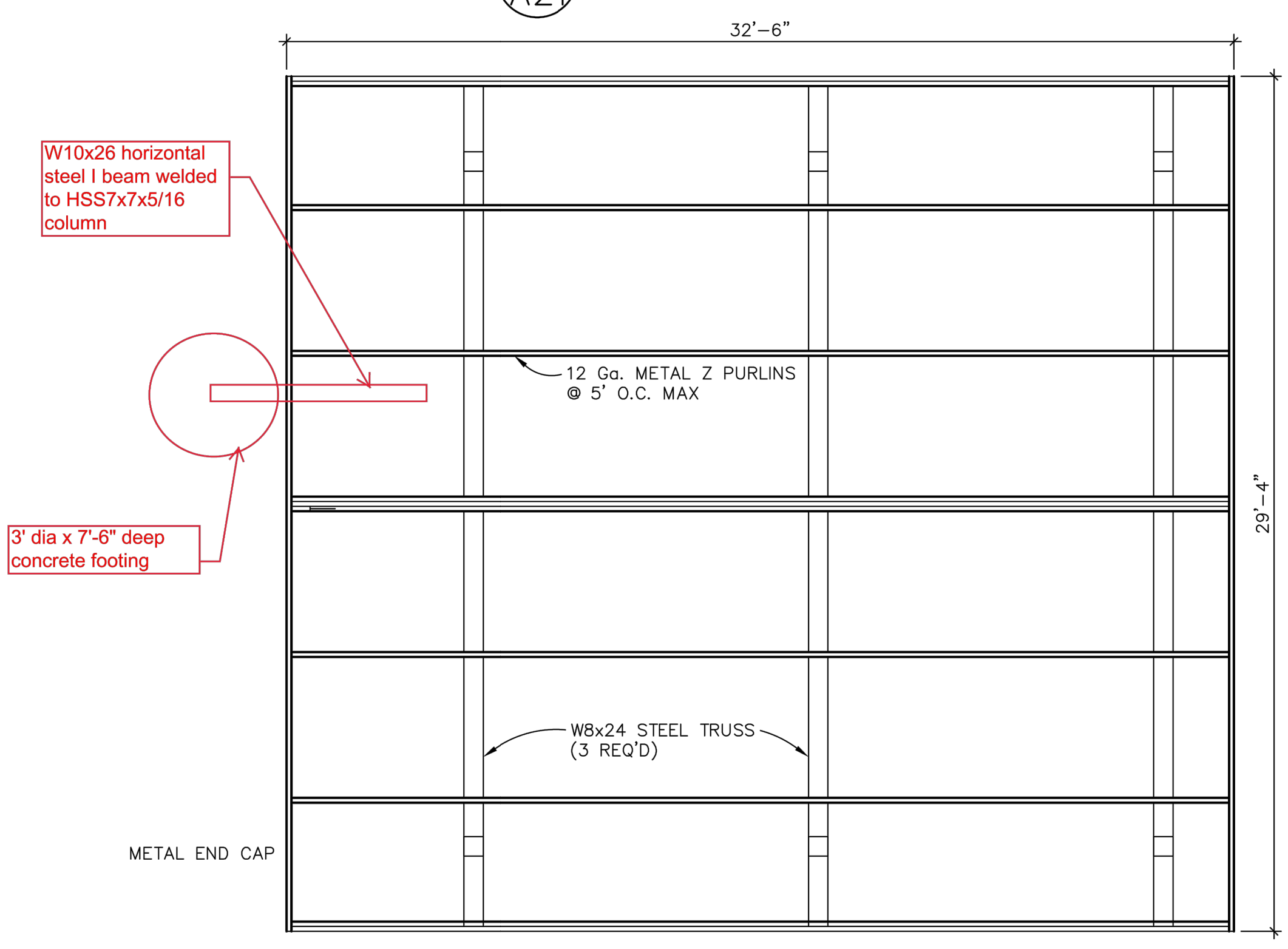


1 HEADWORKS COVER PLAN  
A21 SCALE: 1" = 1'-0"

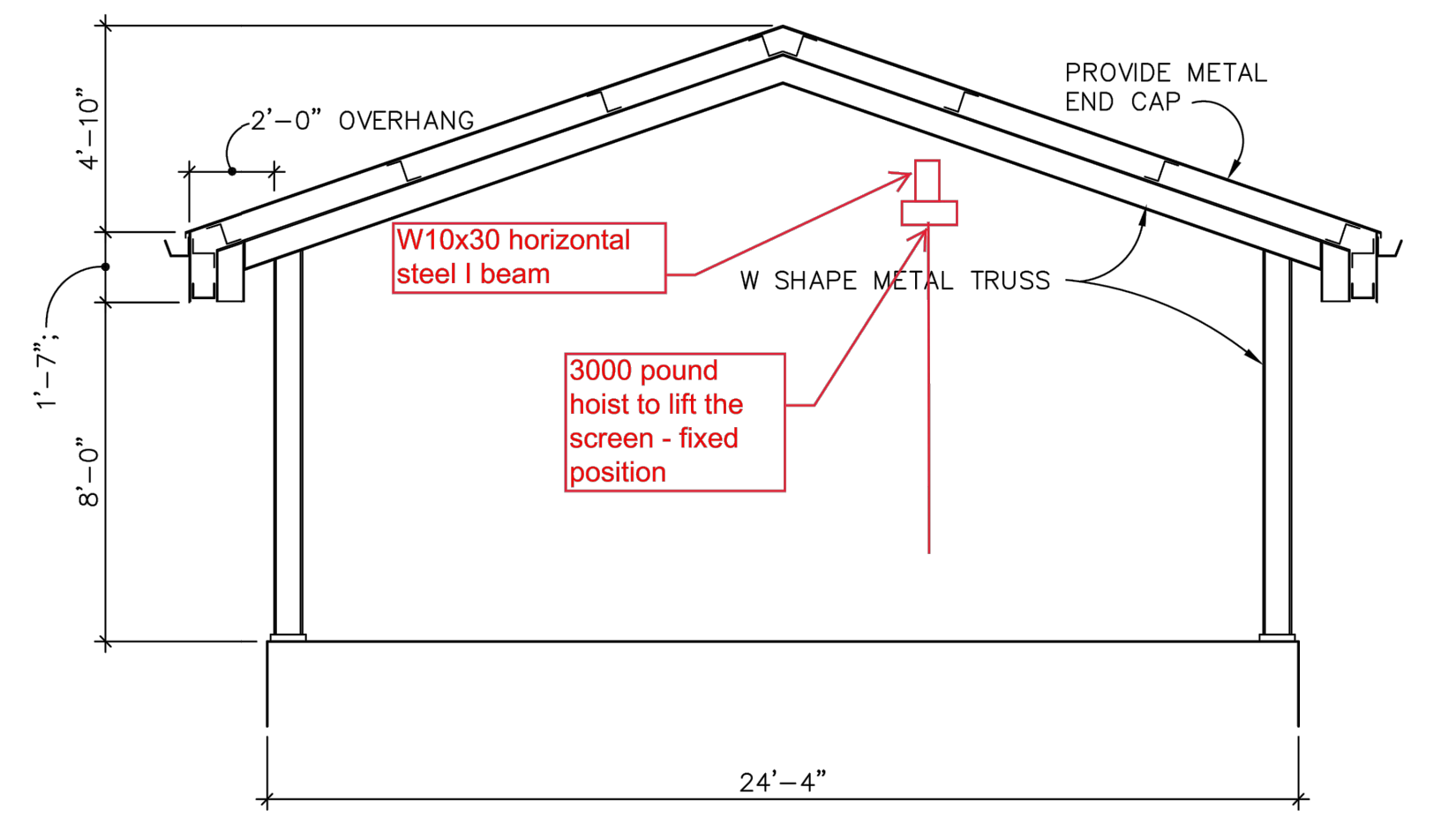


2 HEADWORKS COVER NORTH ELEVATION  
A21 (SOUTH SIMILAR BUT REVERSED) SCALE: 1" = 1'-0"

Bridge crane and Support structure,



3 HEADWORKS ROOF FRAMING PLAN  
A21 SCALE: 1" = 1'-0"



4 HEADWORKS COVER EAST ELEVATION  
A21 (WEST SIMILAR) SCALE: 1" = 1'-0"

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH  
AT FULL SCALE  
IF NOT SCALE ACCORDINGLY

SCALE : NO SCALE  
DRAWN BY : SMB  
DESIGNED BY : WJS  
PROJ. MGR. : PVM

No.	ZONE	REVISIONS	BY	DATE

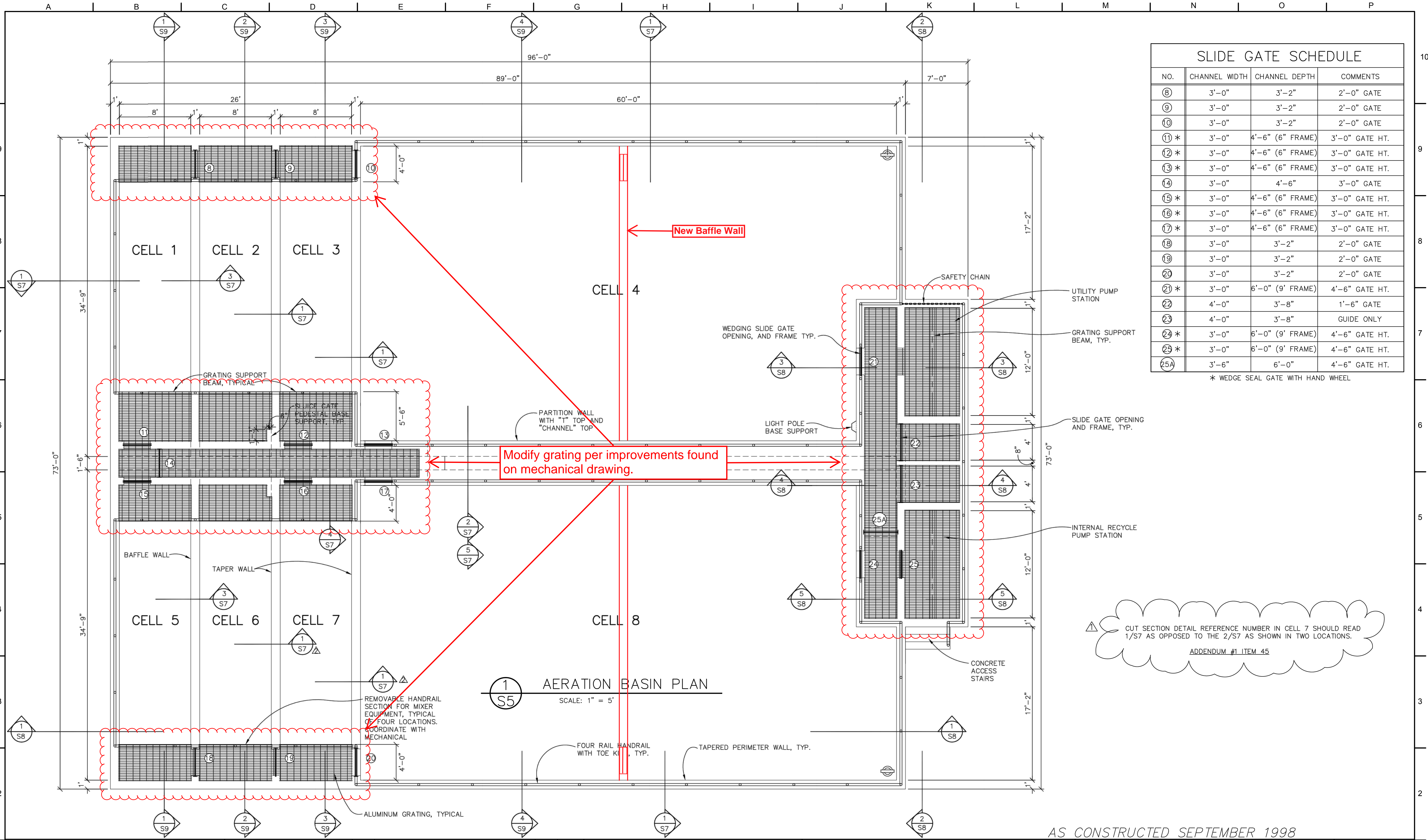


CITY OF SANDY  
WASTE WATER TREATMENT FACILITY  
IMPROVEMENTS  
HEADWORKS  
STRUCTURAL PLAN

JOB NUMBER 964-50-20-01
DRAWING NUMBER S000
SHEET NUMBER X OF XX
REVISION



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SLIDE GATE SCHEDULE			
NO.	CHANNEL WIDTH	CHANNEL DEPTH	COMMENTS
8	3'-0"	3'-2"	2'-0" GATE
9	3'-0"	3'-2"	2'-0" GATE
10	3'-0"	3'-2"	2'-0" GATE
11 *	3'-0"	4'-6" (6" FRAME)	3'-0" GATE HT.
12 *	3'-0"	4'-6" (6" FRAME)	3'-0" GATE HT.
13 *	3'-0"	4'-6" (6" FRAME)	3'-0" GATE HT.
14	3'-0"	4'-6"	3'-0" GATE
15 *	3'-0"	4'-6" (6" FRAME)	3'-0" GATE HT.
16 *	3'-0"	4'-6" (6" FRAME)	3'-0" GATE HT.
17 *	3'-0"	4'-6" (6" FRAME)	3'-0" GATE HT.
18	3'-0"	3'-2"	2'-0" GATE
19	3'-0"	3'-2"	2'-0" GATE
20	3'-0"	3'-2"	2'-0" GATE
21 *	3'-0"	6'-0" (9" FRAME)	4'-6" GATE HT.
22	4'-0"	3'-8"	1'-6" GATE
23	4'-0"	3'-8"	GUIDE ONLY
24 *	3'-0"	6'-0" (9" FRAME)	4'-6" GATE HT.
25 *	3'-0"	6'-0" (9" FRAME)	4'-6" GATE HT.
25A	3'-6"	6'-0"	4'-6" GATE HT.

\* WEDGE SEAL GATE WITH HAND WHEEL

CUT SECTION DETAIL REFERENCE NUMBER IN CELL 7 SHOULD READ 1/S7 AS OPPOSED TO THE 2/S7 AS SHOWN IN TWO LOCATIONS.  
ADDENDUM #1 ITEM 45

1 AERATION BASIN PLAN  
SCALE: 1" = 5'

AS CONSTRUCTED SEPTEMBER 1998

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY				
SCALE :	NO SCALE			
DRAWN BY :	SMB			
DESIGNED BY :	WJS			
PROJ. MGR. :	PVM			
No.	ZONE	REVISIONS	BY	DATE

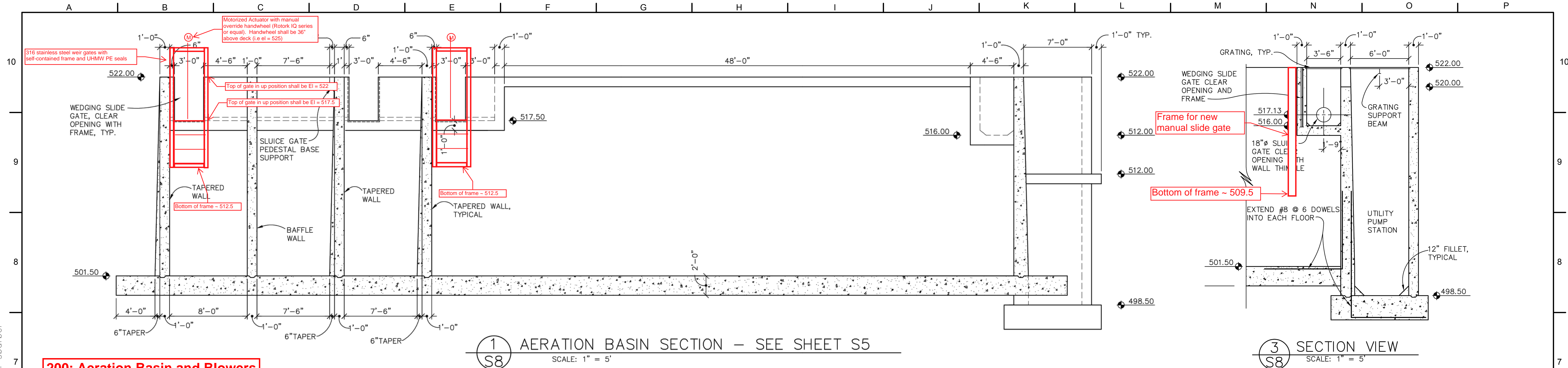


CITY OF SANDY  
WASTE WATER TREATMENT FACILITY  
IMPROVEMENTS  
AERATION BASIN  
STRUCTURAL PLAN

JOB NUMBER	964-50-20-01
DRAWING NUMBER	S001
SHEET NUMBER	X OF XX
REVISION	



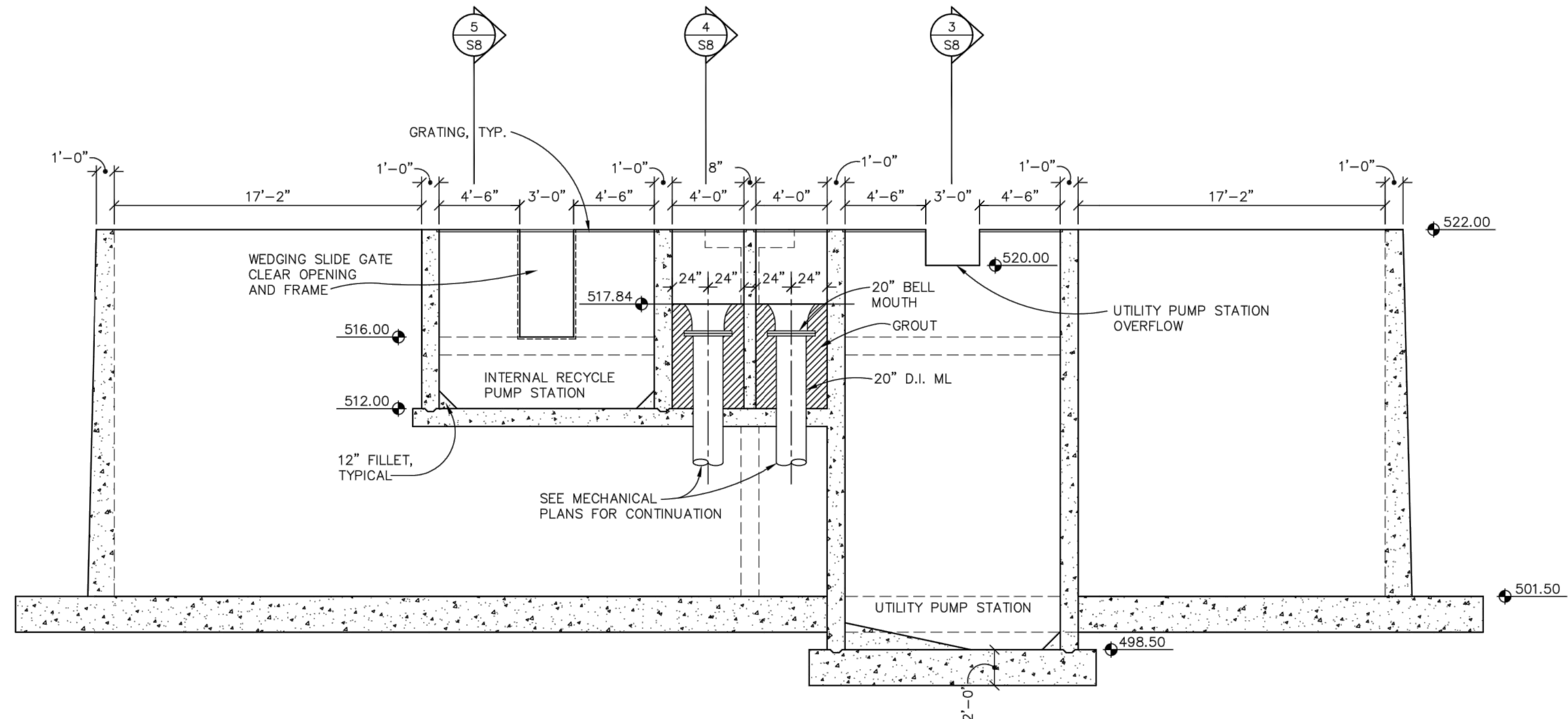
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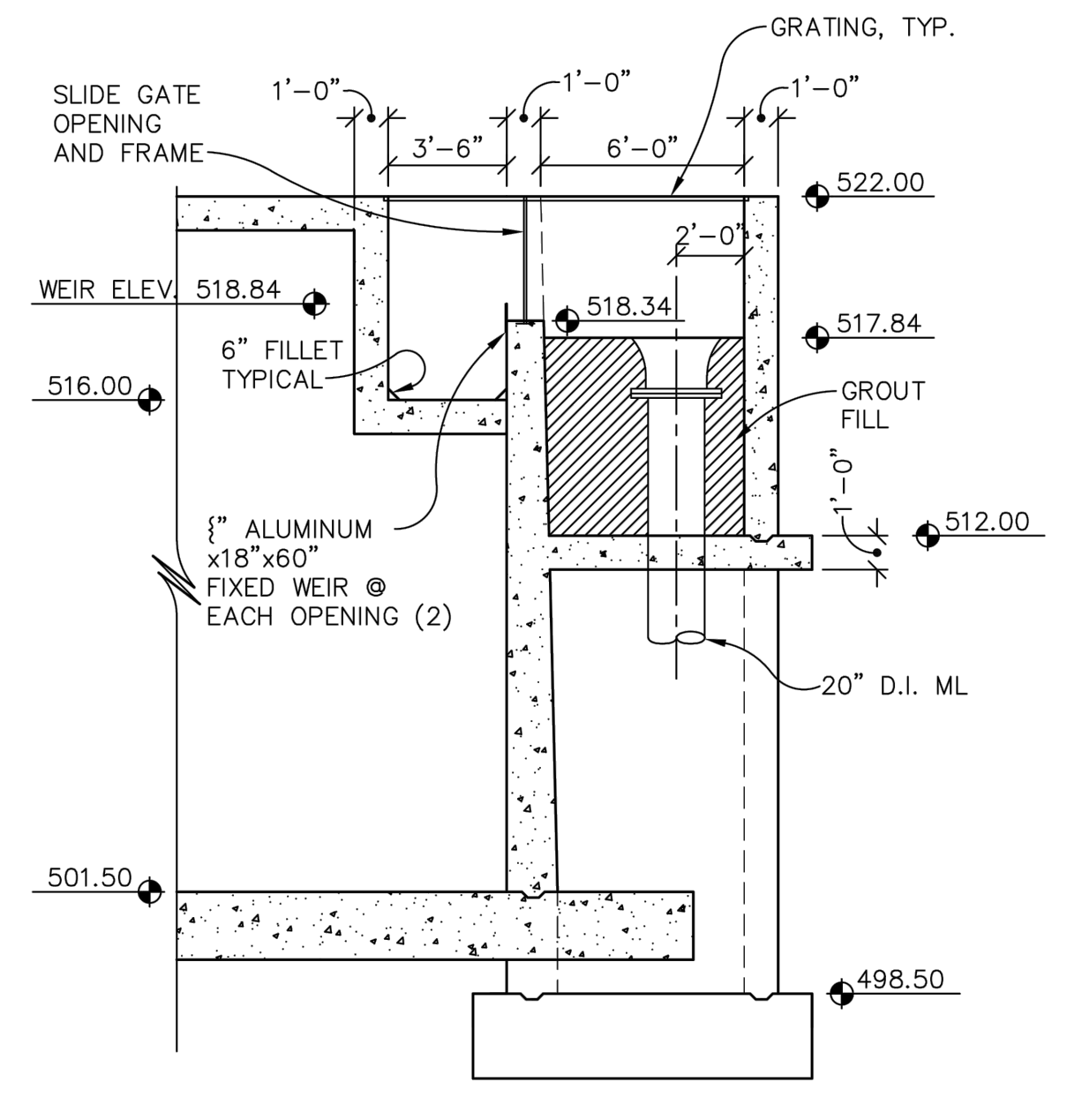
1 AERATION BASIN SECTION - SEE SHEET S5  
S8 SCALE: 1" = 5'

3 SECTION VIEW  
S8 SCALE: 1" = 5'

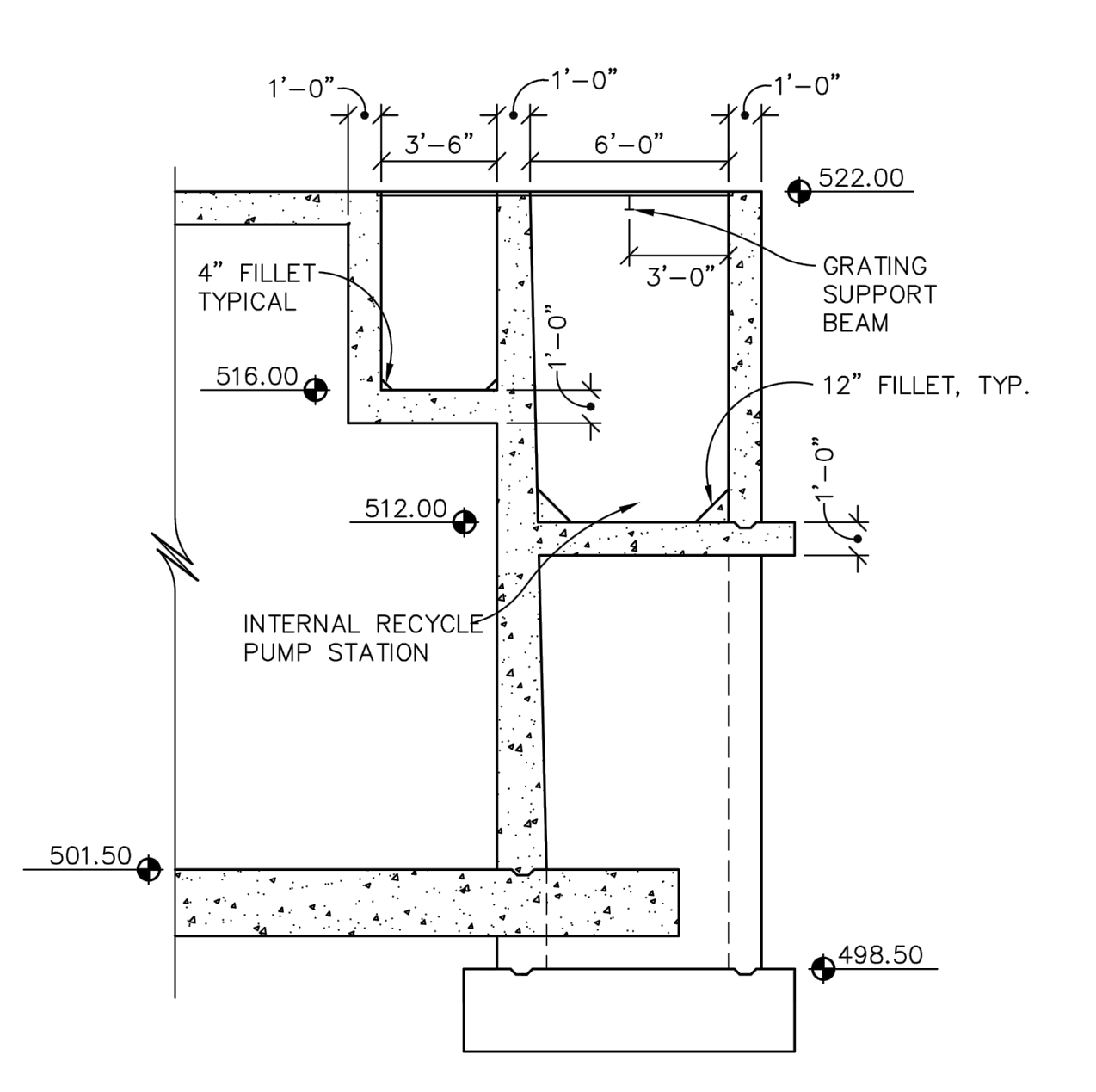
200: Aeration Basin and Blowers



2 END SECTION VIEW  
S8 SCALE: 1" = 5'



4 SECTION VIEW  
S8 SCALE: 1" = 5'



5 SECTION VIEW  
S8 SCALE: 1" = 5'

AS CONSTRUCTED SEPTEMBER 1998

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY  
SCALE: NO SCALE  
DRAWN BY: SMB  
DESIGNED BY: WJS  
PROJ. MGR.: PVM

No.	ZONE	REVISIONS	BY	DATE



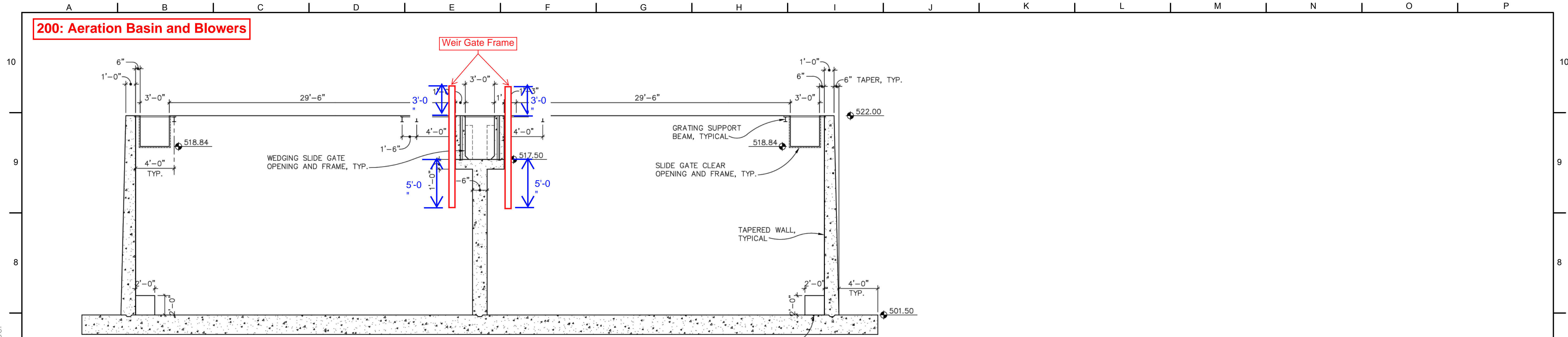
CITY OF SANDY  
WASTE WATER TREATMENT FACILITY IMPROVEMENTS  
AERATION BASIN SECTIONS

JOB NUMBER 964-50-20-01
DRAWING NUMBER S002
SHEET NUMBER X OF XX
REVISION

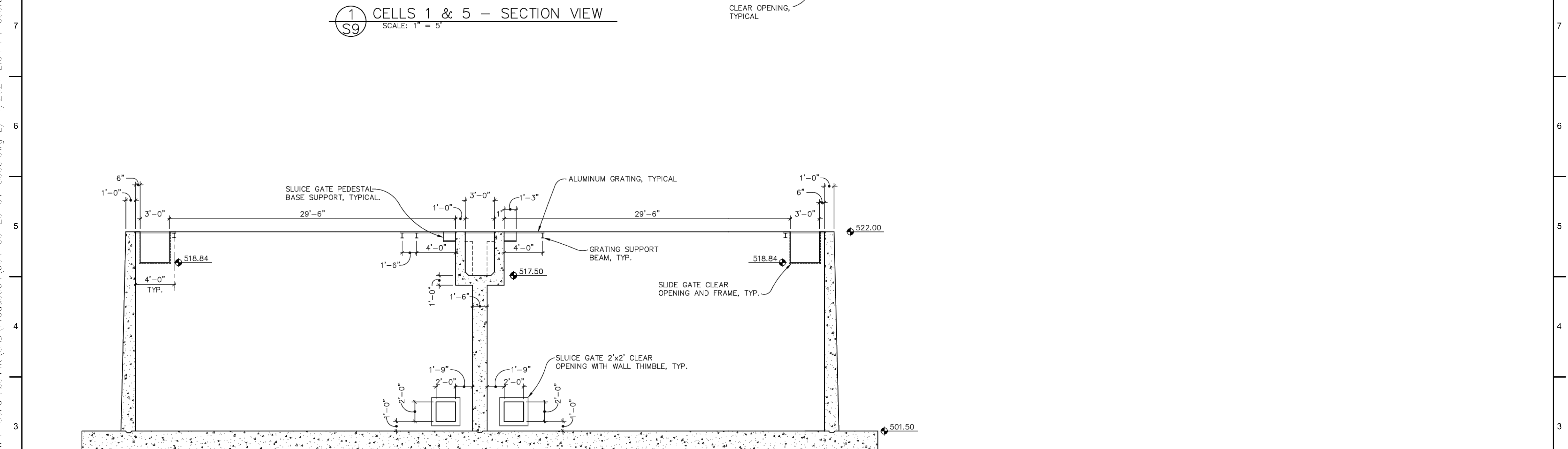


**200: Aeration Basin and Blowers**

Weir Gate Frame



① CELLS 1 & 5 - SECTION VIEW  
SCALE: 1" = 5'



② CELLS 2 & 6 - SECTION VIEW  
SCALE: 1" = 5'

AS CONSTRUCTED SEPTEMBER 1998

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY				
SCALE :	NO SCALE			
DRAWN BY :	SMB			
DESIGNED BY :	WJS			
PROJ. MGR. :	PVM			
No.	ZONE	REVISIONS	BY	DATE



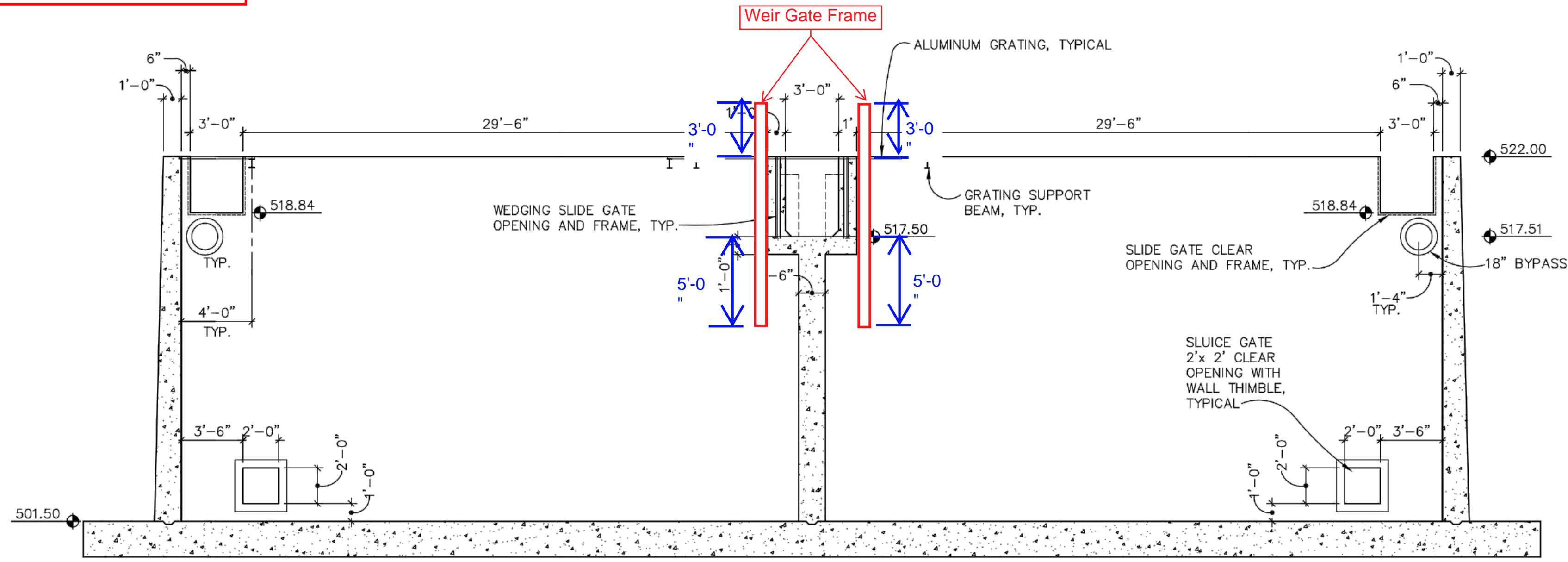
**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY IMPROVEMENTS**  
**AERATION BASIN SECTIONS**

JOB NUMBER	964-50-20-01
DRAWING NUMBER	S003
SHEET NUMBER	X OF XX
REVISION	

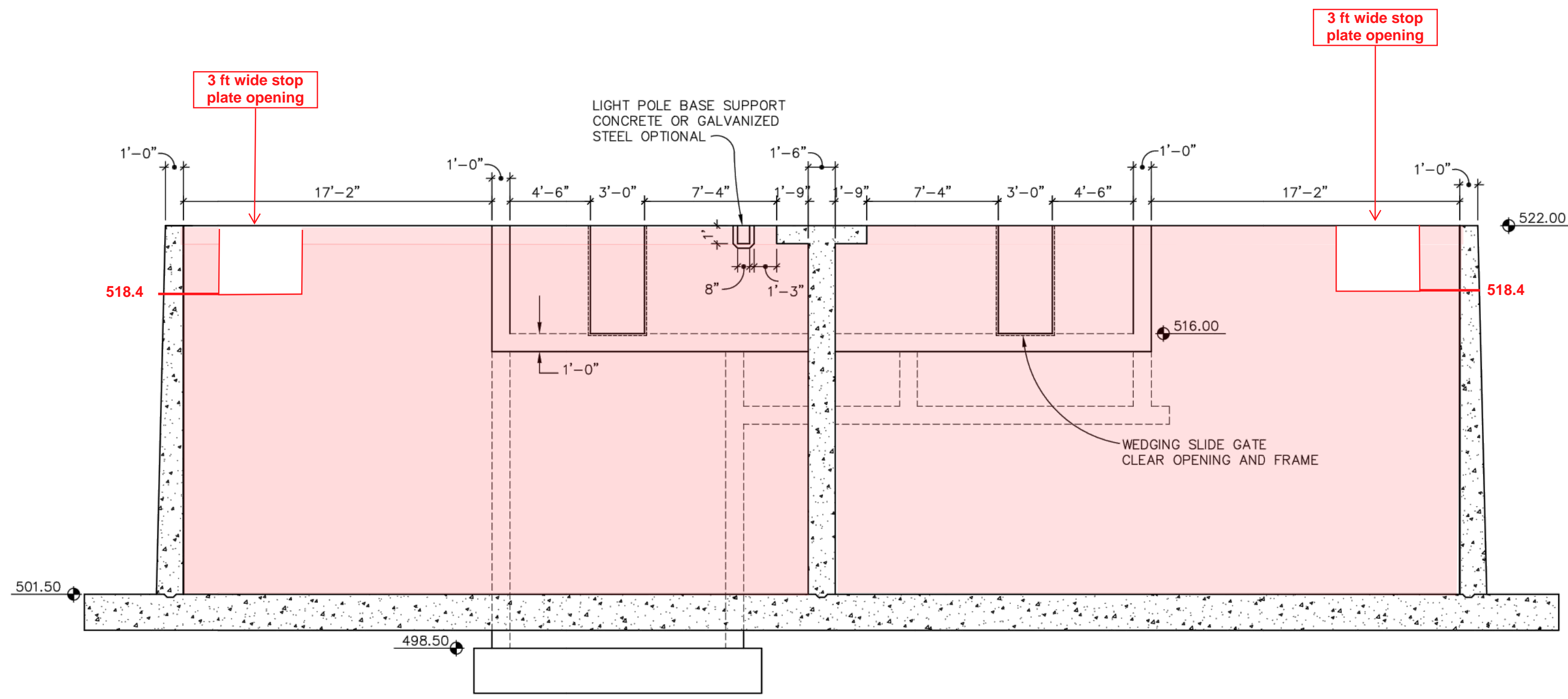
P:\Clients\964 City of Sandy\50-20-01 WWTP Cond Assmnt\CAD\Production\964-50-20-01-S003.dwg 2/11/2021 2:04 PM sbarber



**200: Aeration Basin and Blowers**



**3** CELLS 3 & 7 - SECTION VIEW  
 SCALE: 1" = 5'



**4** CELLS 4 & 8 - SECTION VIEW  
 SCALE: 1" = 5'

AS CONSTRUCTED SEPTEMBER 1998

NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY				
SCALE :	NO SCALE			
DRAWN BY :	SMB			
DESIGNED BY :	WJS			
PROJ. MGR. :	PVM			
No.	ZONE	REVISIONS	BY	DATE



**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY IMPROVEMENTS**  
**AERATION BASIN SECTIONS**

JOB NUMBER	964-50-20-01
DRAWING NUMBER	S004
SHEET NUMBER	X OF XX
REVISION	

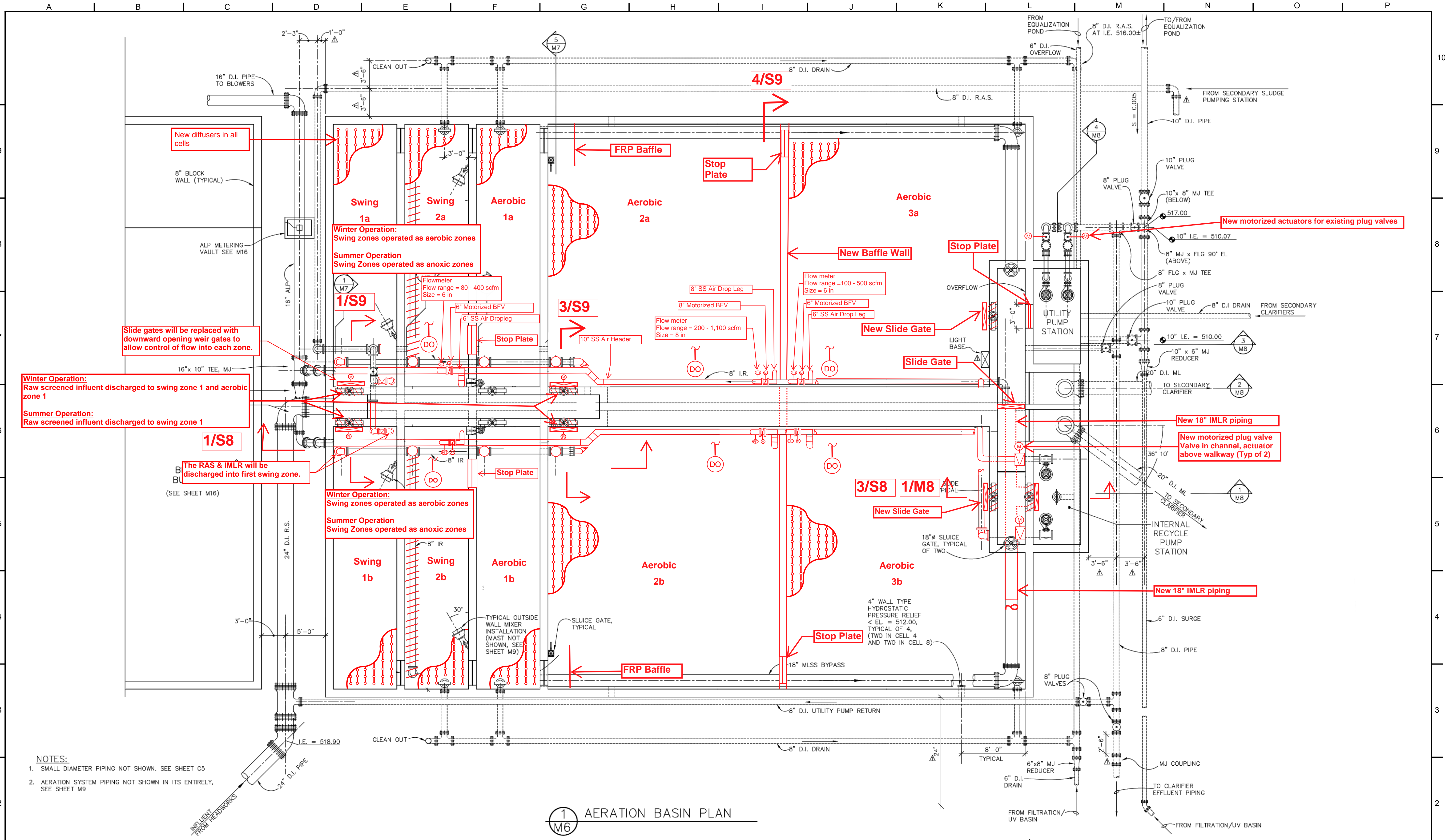
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- NOTES:**
- SMALL DIAMETER PIPING NOT SHOWN. SEE SHEET C5
  - AERATION SYSTEM PIPING NOT SHOWN IN ITS ENTIRETY, SEE SHEET M9

1 AERATION BASIN PLAN  
M6

AS CONSTRUCTED SEPTEMBER 1998

NOT FOR CONSTRUCTION

THIS LINE IS 1/8" AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE: NONE  
 DRAWN BY: SMB  
 DESIGNED BY: WJS  
 PROJ. MGR.: PVM

No.	ZONE	REVISIONS	BY	DATE

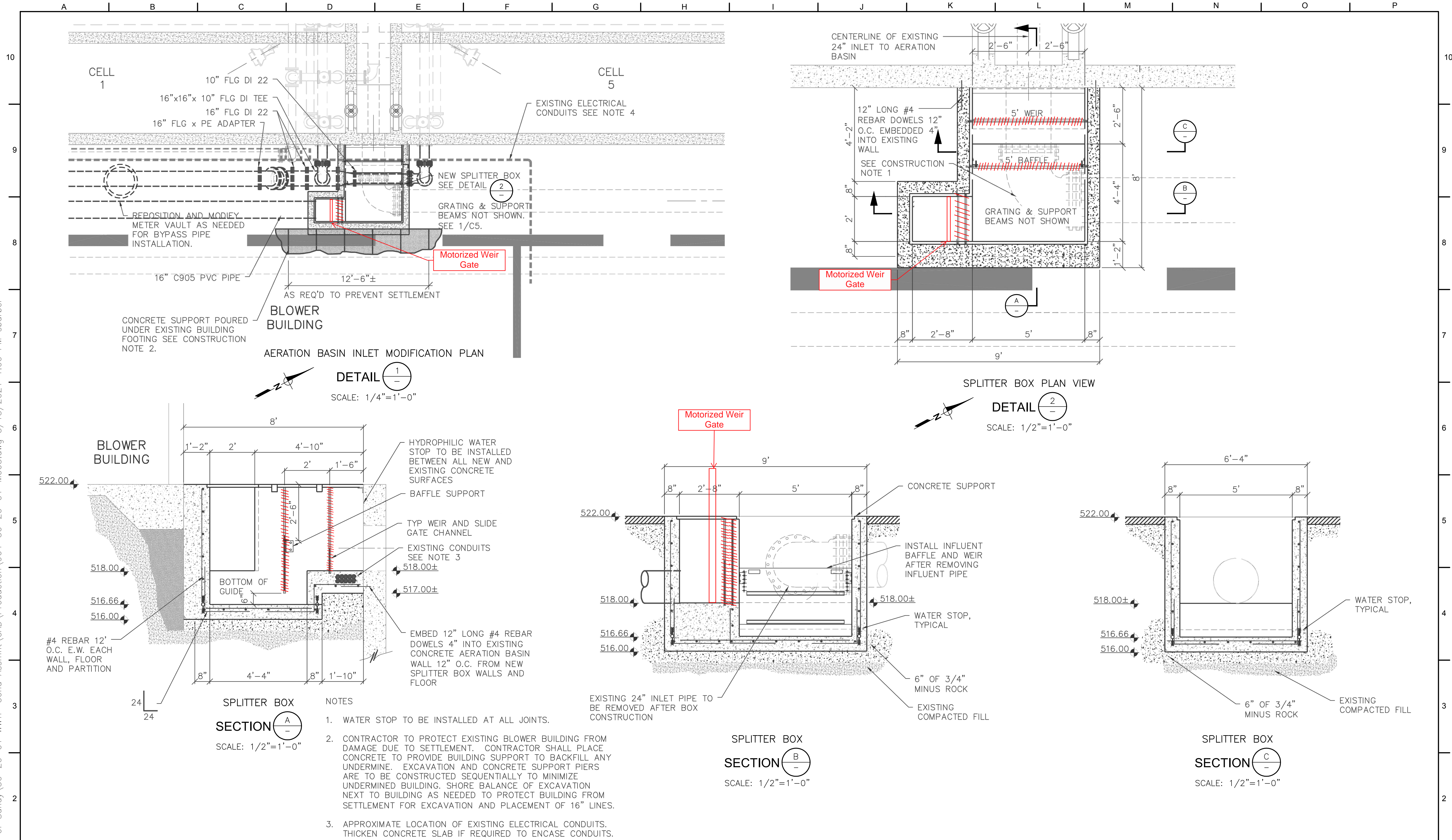


**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY**  
**IMPROVEMENTS**  
**AERATION BASIN**  
**MECHANICAL PIPING PLAN**

JOB NUMBER 964-50-20-01
DRAWING NUMBER M002
SHEET NUMBER X OF XX
REVISION



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NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE: AS SHOWN

DRAWN BY: SMB  
 DESIGNED BY: WJS  
 PROJ. MGR.: PVM

No.	ZONE	REVISIONS	BY	DATE



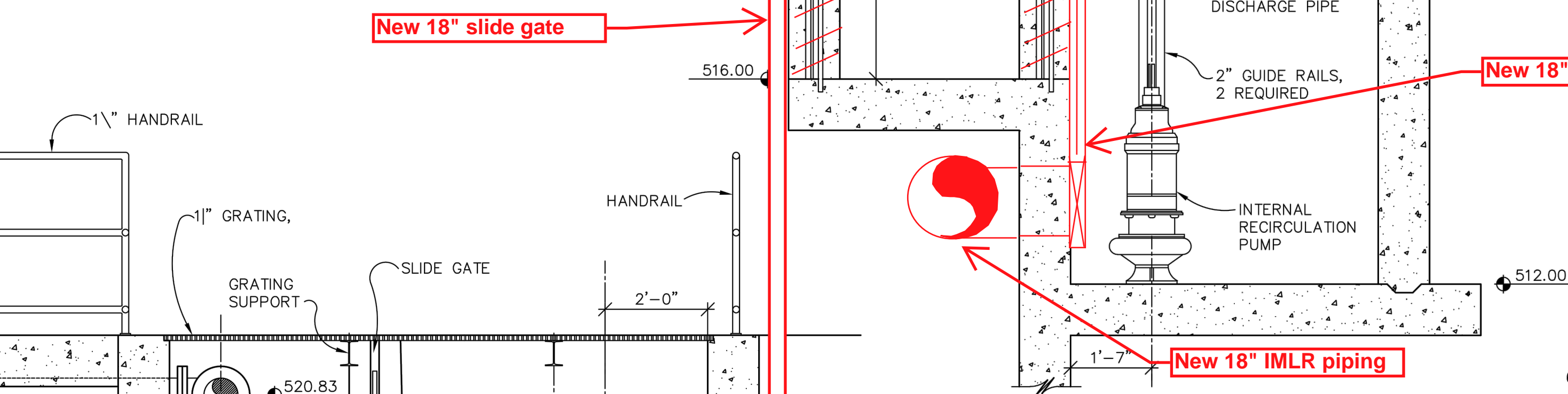
**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY IMPROVEMENTS**  
**SPLITTER BOX PLAN VIEWS AND SECTIONS**

JOB NUMBER 964-50-20-01
DRAWING NUMBER M003
SHEET NUMBER X OF XX
REVISION



P:\Clients\964 City of Sandy\50-20-01 WWTP Cond Assmnt\CAD\Production\964-50-20-01-M004.dwg 2/10/2021 8:27 AM sbarber

**1 AERATION BASIN SECTION**  
 M8 SCALE: 1/4" = 1'-0"



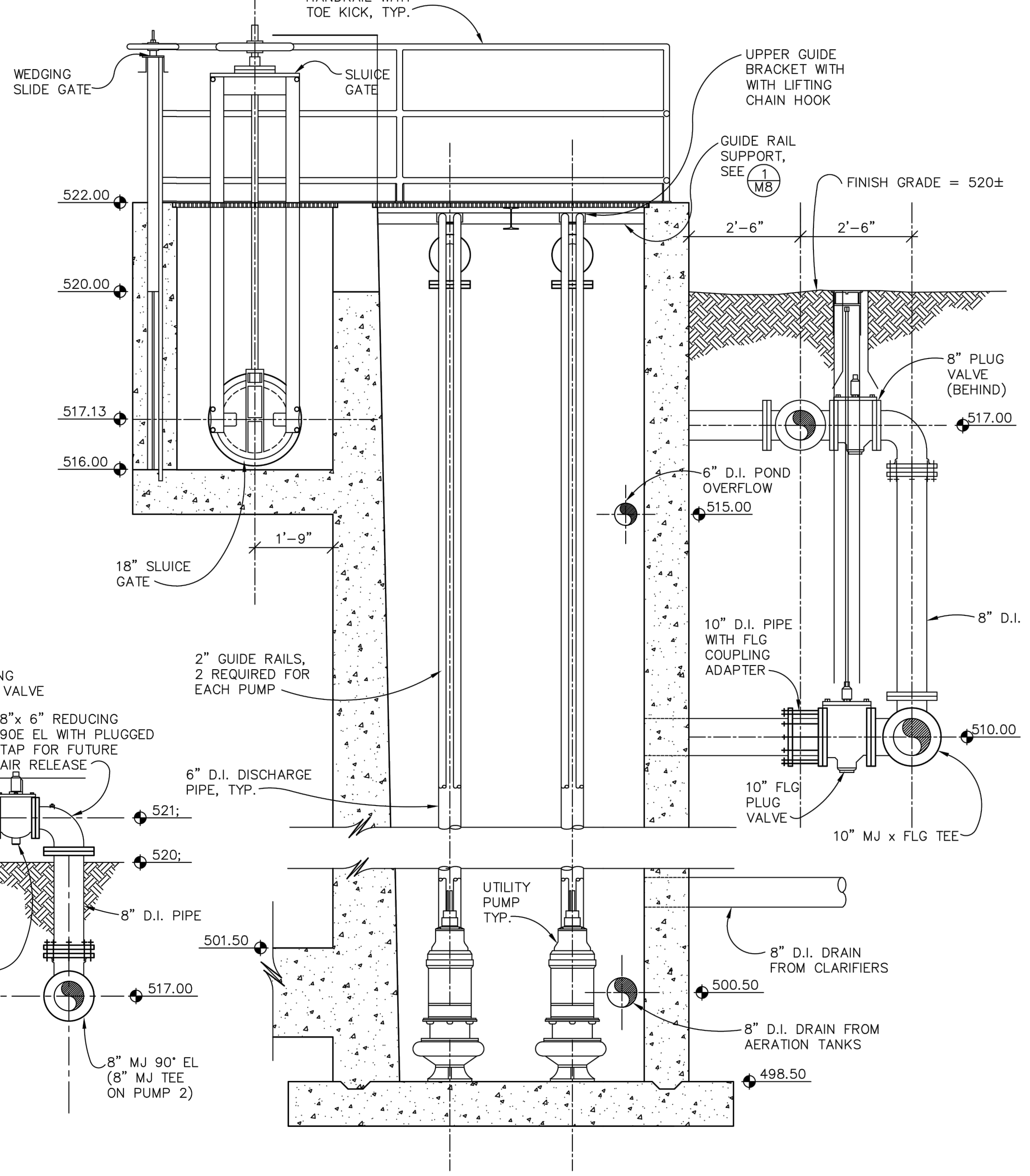
New 18" slide gate

New 18" slide gate

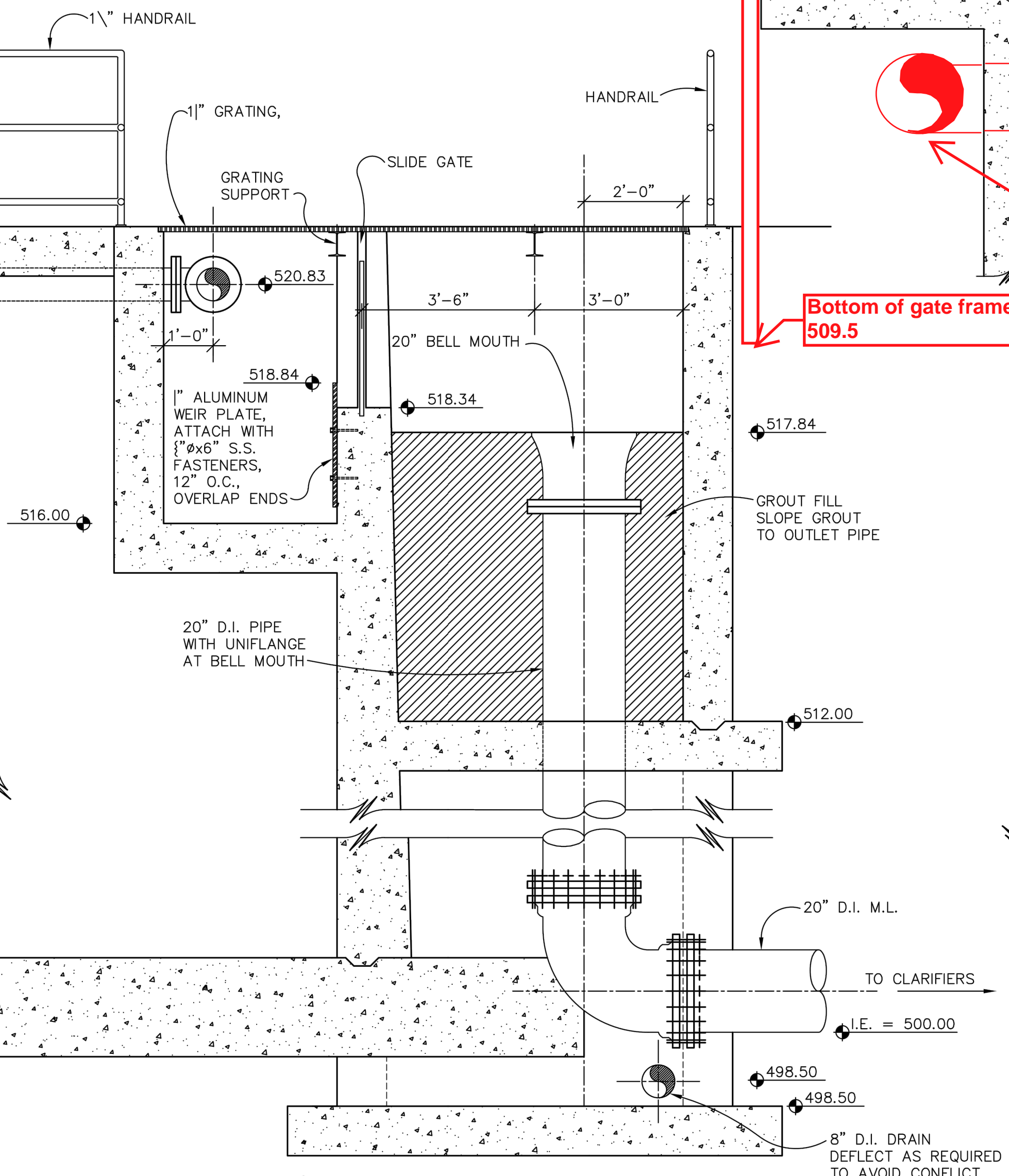
New 18" IMLR piping

Bottom of gate frame ~ 509.5

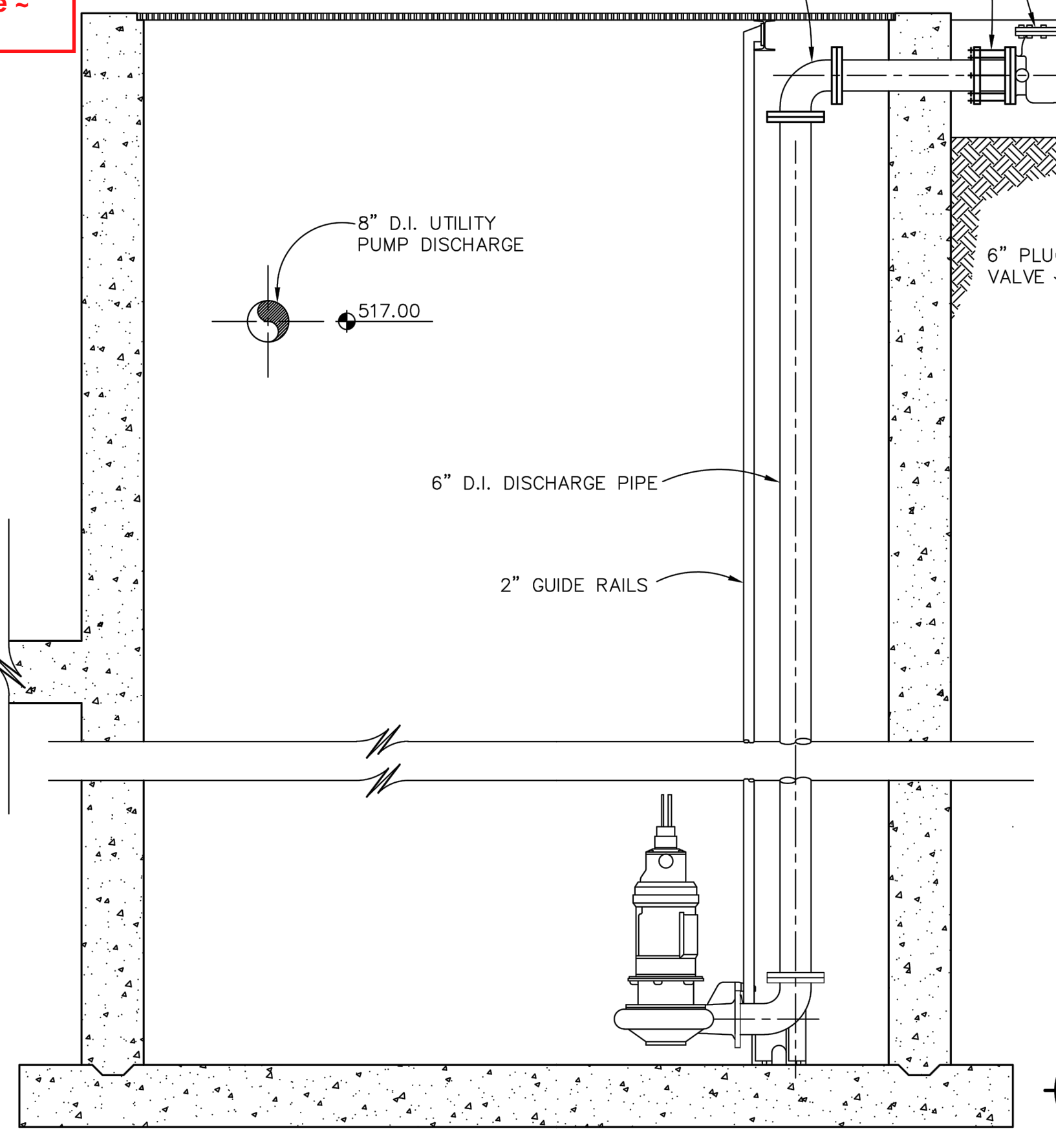
**3 AERATION BASIN SECTION**  
 M8 SCALE: 1/4" = 1'-0"



**2 AERATION BASIN SECTION**  
 M8 SCALE: 1/4" = 1'-0"



**4 UTILITY PUMP PIPING DETAIL**  
 M8 SCALE: 1/4" = 1'-0"



NOT FOR CONSTRUCTION

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY  
 SCALE: AS SHOWN  
 DRAWN BY: SMB  
 DESIGNED BY: WJS  
 PROJ. MGR.: PVM

No.	ZONE	REVISIONS	BY	DATE



**CITY OF SANDY**  
**WASTE WATER TREATMENT FACILITY IMPROVEMENTS**  
**AERATION BASIN MECHANICAL PIPING SECTIONS**

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