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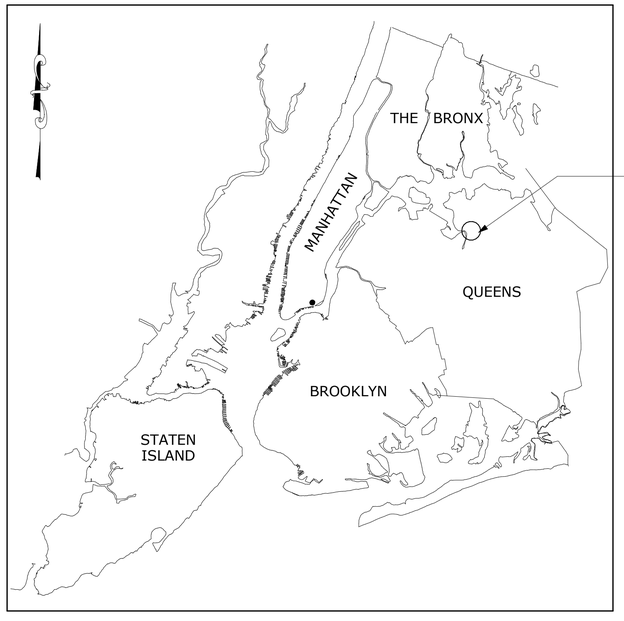
NEW YORK CITY
ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION

CAPITAL CONTRACT WP-169 CSO-FC-DF

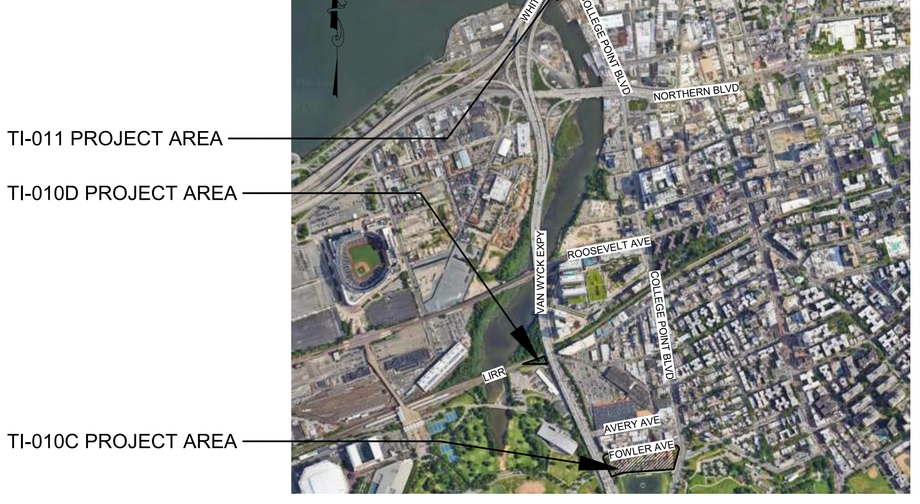
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

BOROUGH OF QUEENS
NOVEMBER 2026

BID SET



KEY PLAN



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LOCATION PLAN

Kenneth Moriarty
Digitally signed by Kenneth Moriarty
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KENNETH MORIARTY, PE
ASSISTANT COMMISSIONER
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION

Ana Barrio
Digitally signed by Ana Barrio
Date: 2026.11.04 12:57:29 -05'00'

ANA BARRIO
DEPUTY COMMISSIONER
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION

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SHEET TYPE DESIGNATOR:

SERIES 000 - GENERAL PROJECT INFO
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SERIES 200 - TI-010 CHLORINATION FACILITY - DIVERSION CHAMBER NO. 5
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SERIES 900 - TYPICAL DETAILS

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SECTION MANAGER:

ARCADIS

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

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SHEET NO:
DRAWING NO. G-002.00

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234	M-902.00	STANDARD DETAILS II
235	M-903.00	STANDARD DETAILS III
236	M-904.00	STANDARD DETAILS IV
HVAC		
237	H-001.00	ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES
238	H-301.00	TI-010 DECHLORINATION FACILITY - BASEMENT FLOOR PLAN
239	H-302.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN
240	H-303.00	TI-010 DECHLORINATION FACILITY - ROOF PLAN
241	H-304.00	TI-010 DECHLORINATION FACILITY - BUILDING SECTIONS
242	H-401.00	TI-011 DISINFECTION FACILITY - BASEMENT FLOOR PLAN
243	H-402.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN
244	H-403.00	TI-011 DISINFECTION FACILITY - ROOF PLAN
245	H-404.00	TI-011 DISINFECTION FACILITY - BUILDING SECTIONS
246	H-901.00	EQUIPMENT SCHEDULES 1
247	H-902.00	EQUIPMENT SCHEDULES 2
248	H-903.00	DETAILS 1
249	H-904.00	DETAILS 2
250	H-905.00	AIRFLOW AND CONTROL SCHEMATICS
PLUMBING		
251	P-001.00	NOTES, LEGEND, SYMBOLS AND ABBREVIATIONS
252	P-101.00	TI-010 CHLORINATION FACILITY - CHEM. STORAGE AREA - ENLARGED PARTIAL PLAN
253	P-102.00	TI-010 CHLORINATION FACILITY - CHEM. FILL STATION - PARTIAL PLANS
254	P-301.00	TI-010 DECHLORINATION FACILITY - BASEMENT PLAN
255	P-302.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN
256	P-303.00	TI-010 DECHLORINATION FACILITY - ROOF PLAN
257	P-304.00	TI-010 DECHLORINATION FACILITY - DOMESTIC WATER RISER DIAGRAM
258	P-305.00	TI-010 DECHLORINATION FACILITY - SANITARY AND VENT RISER DIAGRAM
259	P-401.00	TI-011 DISINFECTION FACILITY - BASEMENT PLAN
260	P-402.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN
261	P-403.00	TI-011 DISINFECTION FACILITY - ROOF PLAN
262	P-404.00	TI-011 DISINFECTION FACILITY - DOMESTIC WATER RISER DIAGRAM
263	P-405.00	TI-011 DISINFECTION FACILITY - SANITARY AND VENT RISER DIAGRAM
264	P-901.00	DETAILS I
265	P-902.00	DETAILS II & SCHEDULES
FIRE PROTECTION		
266	FP-001.00	NOTES, LEGEND, SYMBOLS AND ABBREVIATIONS
267	FP-301.00	TI-010 DECHLORINATION FACILITY - BASEMENT FLOOR PLAN
268	FP-302.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN
269	FP-303.00	TI-010 DECHLORINATION FACILITY - RISER DIAGRAM
270	FP-401.00	TI-011 DISINFECTION FACILITY - BASEMENT PLAN
271	FP-402.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN
272	FP-403.00	TI-011 DISINFECTION FACILITY - ROOF PLAN
273	FP-404.00	TI-011 DISINFECTION FACILITY - RISER DIAGRAM
274	FP-901.00	DETAILS I
275	FP-902.00	DETAILS II
ELECTRICAL		
276	E-001.00	SYMBOLS AND LEGENDS
277	E-101.00	TI-010 CHLORINATION FACILITY - ONE LINE DIAGARM
278	E-102.00	TI-010 CHLORINATION FACILITY - SITE PLAN
279	E-103.00	TI-010 CHLORINATON FACILITY - BASEMENT LEVEL - PLAN
280	E-104.00	TI-010 CHLORINATION FACILITY - ELECTRIC ROOM POWER PLAN
281	E-105.00	TI-010 CHLORINATION FACILITY - LOWER ENLARGED PARTIAL POWER PLAN
282	E-106.00	TI-010 CHLORINATION FACILITY - ENLARGED PARTIAL PLAN
283	E-107.00	TI-010 CHLORINATION FACILITY - DC-5 OPERATING FLOOR - PLAN
284	E-108.00	TI-010 LAWRENCE AND PECK PS - ENTRY LEVEL - PLAN
285	E-109.00	TI-010 CHLORINATION FACILITY - BLOCK DIAGRAM
286	E-301.00	TI-010 DECHLORINATION FACILITY - ONE LINE DIAGARM SHEET
287	E-302.00	TI-010 DECHLORINATION FACILITY - BASEMENT POWER PLAN
288	E-303.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR POWER PLAN
289	E-304.00	TI-010 DECHLORINATION FACILITY - BASEMENT LIGHTING PLAN
290	E-305.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR LIGHTING PLAN
291	E-306.00	TI-010 DECHLORINATION FACILITY - ROOF POWER PLAN
292	E-307.00	TI-010 DECHLORINATION FACILITY - PROPOSED SITE PLAN
293	E-308.00	TI-010 DECHLORINATION FACILITY - BLOCK DIAGRAM
294	E-401.00	TI-011 DISINFECTION FACILITY - ONE LINE DIAGARM SHEET I
295	E-402.00	TI-011 DISINFECTION FACILITY - ONE LINE DIAGARM SHEET II
296	E-403.00	TI-011 DISINFECTION FACILITY - BASEMENT POWER PLAN
297	E-404.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR POWER PLAN
298	E-405.00	TI-011 DISINFECTION FACILITY - BASEMENT LIGHTING PLAN
299	E-406.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR LIGHTING PLAN
300	E-407.00	TI-011 DISINFECTION FACILITY - ROOF POWER PLAN
301	E-408.00	TI-011 DISINFECTION FACILITY - BLOCK DIAGRAM SHEET 1
302	E-409.00	TI-011 DISINFECTION FACILITY - BLOCK DIAGRAM SHEET 2
303	E-410.00	TI-011 DISINFECTION FACILITY - PROPOSED SITE PLAN
304	E-901.00	MISCELANEOUS DETAILS 1
305	E-902.00	MISCELANEOUS DETAILS 2
306	E-903.00	CONTROL SCHEMATICS
307	E-904.00	PANEL SCHEDULES
308	E-905.00	LIGHTING FIXTURE SCHEDULE
309	E-906.00	CONDUIT AND CABLE SCHEDULE I
310	E-907.00	CONDUIT AND CABLE SCHEDULE II
311	E-908.00	CONDUIT AND CABLE SCHEDULE III
312	E-909.00	CONDUIT AND CABLE SCHEDULE IV
313	E-910.00	CONDUIT AND CABLE SCHEDULE V
314	E-911.00	CONDUIT AND CABLE SCHEDULE VI
315	E-912.00	CONDUIT AND CABLE SCHEDULE VII
316	E-913.00	CONDUIT AND CABLE SCHEDULE VIII
317	E-914.00	CONDUIT AND CABLE SCHEDULE IX
INSTRUMENTATION		
318	I-001.00	SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES (SHEET I OF II)
319	I-002.00	SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES (SHEET II OF II)
320	I-003.00	TI-010 CHLORINATION AND DECHLORINATION - SYSTEM ARCHITECTURE
321	I-004.00	TI-011 DISINFECTION FACILITY - SYSTEM ARCHITECTURE
322	I-101.00	TI-010 CHLORINATION FACILITY - FBCSO DISINFECTION P&ID
323	I-102.00	TI-010 CHLORINATION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET I OF III)
324	I-103.00	TI-010 CHLORINATION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET II OF III)
325	I-104.00	TI-010 CHLORINATION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET III OF III)
326	I-201.00	TI-010 CHLORINATION FACILITY - DC5 DISINFECTION P&ID
327	I-301.00	TI-010 - DECHLORINATION FACILITY P&ID
328	I-302.00	TI-010 DECHLORINATION FACILITY - SODIUM BILSULFITE SYSTEM P&ID (SHEET I OF II)
329	I-303.00	TI-010 DECHLORINATION FACILITY - SODIUM BILSULFITE SYSTEM P&ID (SHEET II OF II)
330	I-304.00	TI-010 - AUXILIARY SYSTEMS P&ID
331	I-401.00	TI-011 DISINFECTION FACILITY - CHLORINATION & DECHLORINATION P&ID
332	I-402.00	TI-011 DISINFECTION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET I OF II)
333	I-403.00	TI-011 DISINFECTION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET II OF II)
334	I-404.00	TI-011 DISINFECTION FACILITY - SODIUM BISULFITE SYSTEM P&ID (SHEET I OF II)
335	I-405.00	TI-011 DISINFECTION FACILITY - SODIUM BISULFITE SYSTEM P&ID (SHEET II OF II)
336	I-406.00	TI-011 - AUXILIARY SYSTEMS P&ID
337	I-901.00	ANALYZER PANEL LAYOUT - (SHEET I OF III)
338	I-902.00	ANALYZER PANEL LAYOUT - (SHEET II OF III)
339	I-903.00	ANALYZER PANEL LAYOUT - (SHEET III OF III)
340	I-904.00	MCP-10 LAYOUT
341	I-905.00	DC5-CP-10 LAYOUT
342	I-906.00	SBS-CP-10 LAYOUT
343	I-907.00	MCP-11 LAYOUT
344	I-908.00	FILL STATION PANEL (TI-10C) LAYOUT
345	I-909.00	FILL STATION PANEL (TI-10D / TI-11C / TI-11D) LAYOUT
346	I-910.00	INSTALLATION DETAILS (SHEET I OF II)
347	I-911.00	INSTALLATION DETAILS (SHEET II OF II)
FIRE ALARM		
348	FA-001.00	SYMBOLS, LEGENDS AND NOTES
349	FA-301.00	TI-010 DECHLORINATION FACILITY - RISER DIAGRAM
350	FA-302.00	TI-010 DECHLORINATION FACILITY - BASEMENT PLAN
351	FA-303.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN
352	FA-401.00	TI-011 DISINFECTION FACILITY - RISER DIAGRAM
353	FA-402.00	TI-011 DISINFECTION FACILITY - BASEMENT PLAN
354	FA-403.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN

SHEET TYPE DESIGNATOR:

SERIES 000 - GENERAL PROJECT INFO
SERIES 100 - TI-010 CHLORINATION FACILITY - FLUSHING BAY CSO FACILITY
SERIES 200 - TI-010 CHLORINATION FACILITY - DIVERSION CHAMBER NO. 5
SERIES 300 - TI-010 DECHLORINATION FACILITY
SERIES 400 - TI-011 FACILITY
SERIES 900 - TYPICAL DETAILS

NYC Environmental Protection

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DRAWN BY: DM
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 093924 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
INDEX OF DRAWINGS
SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. G-003.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
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ABBREVIATIONS:

'	FOOT
"	INCH
%	PERCENT
&	AND
/	DIVIDED
?	UNKNOWN
=	EQUALS
3D	THREE DIMENSIONAL
APPROX.	APPROXIMATE
AVE.	AVENUE
BC	BOTTOM OF CURB
BLK.	BLOCK
BOT.	BOTTOM
C.C.	CONCRETE CURB
CONC	CONCRETE
CSO	COMBINED SEWER OVERFLOW
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIA.	DIAMETER
DN	DOWN
DWGS	DRAWINGS
E.G.	FOR EXAMPLE
EGL	ENERGY GRADE LINE
EL.	ELEVATION
ELEC	ELECTRICAL
ETC.	ET CETERA
EX.	EXISTING
EXIST	EXISTING
F.F.	FINISHED FLOOR
FL.	FLOOR
FLG	FLANGED
FLGD	FLANGED
FM	FORCE MAIN
FND.	FOUNDATION
FT	FOOT
GR.	GRATE
HDPE	HIGH DENSITY POLYETHYLENE
HGL	HYDRAULIC GRADE LINE
HI	HIGH
HWL	HIGH WATER LINE
ID	IDENTIFICATION
IN	INCH
INV.	INVERT
L	LENGTH
L.I.R.R.	LONG ISLAND RAIL ROAD
LF	LINEAR FEET
LG.	LONG
LIT	LEVEL INDICATING TRANSMITTER
LO	LOW
LWL	LOW WATER LINE
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
N.T.S.	NOT TO SCALE
N.Y.F.D.	NEW YORK FIRE DEPARTMENT
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NO	NUMBER
NYC	NEW YORK CITY
O.C.	ON CENTER
PAV.	PAVEMENT
PE	PROFESSIONAL ENGINEER
PED.	PEDESTRIAN
PRESS.	PRESSURE
PS	PUMP STATION
R.O.W.	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
REQ'D	REQUIRED
RET.	RETIRED
SAN.	SANITARY
SEC	SECOND
SF	SQUARE FEET
SFC	STEEL FACED CURB
SQ.	SQUARE
SS	STAINLESS STEEL
ST.	STREET
STRM	STORM
STY	STORY
TC	TOP OF CURB
TOC	TOP OF CONCRETE
TOH	TOP OF HOOD
TRAF.	TRAFFIC
TV	TELEVISION
TYP.	TYPICAL
U	UTILITY
U.S.	UNITED STATES
V.I.F.	VERIFY IN FIELD
VD	VOLUME DAMPER
W	WIDTH
W/	WITH
W/O	WITHOUT
WRRF	WASTEWATER RESOURCE RECOVERY FACILITY
WWM	WELDED WIRE MESH
X	BY

DEMOLITION NOTES:

1. CONTRACTOR IS ADVISED OF EXISTING HAZARDOUS MATERIALS. REFER TO THE SPECIFICATIONS FOR INVENTORY, FURTHER TESTING REQUIREMENTS PRIOR TO DEMOLITION, AND REMOVAL REQUIREMENTS.
2. ITEMS NOT SHOWN FOR DEMOLITION SHALL BE PROTECTED OR RELOCATED PRIOR TO THE START OF DEMOLITION WORK.

SITE NOTES:

1. ALL ELEVATIONS SHOWN ON THIS SURVEY REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). TO CONVERT THIS DATUM TO QUEENS SEWER DATUM, SUBRACT 1.625 FEET FROM EACH ELEVATION.
2. ALL DIMENSIONS SHOWN ARE IN THE U.S. STANDARD OF MEASUREMENT.
3. ALL OFFSETS/TIES SHOWN TO POLES OR TREES REFER TO THE CENTER OF SAME.
4. "ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S EMBOSSED SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION".
5. "UNAUTHORIZED ALTERATIONS OR ADDITION TO A LAND SURVEYING DRAWING BEARING A LICENSED PROFESSIONAL LAND SURVEYOR'S SEAL IS A VIOLATION OF ARTICLE 145, SECTION 7209 PARAGRAPH 2 OF THE NEW YORK STATE EDUCATION LAW".
6. NO GUARANTEES ARE MADE ABOUT THE LOCATION OF UNDERGROUND UTILITIES. UNDERGROUND UTILITIES INDICATED WITHIN THIS DOCUMENT ARE APPROXIMATE AND ALL UTILITY LOCATIONS MUST BE VERIFIED WITH THE PROPER UTILITY COMPANIES PRIOR TO START OF WORK.

GENERAL NOTES:

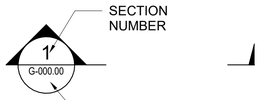
1. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED ON INFORMATION OBTAINED FROM:
   A. FIELD SURVEY PERFORMED BY MATRIX NEW WORLD WITH LASER SCANNING (LiDAR) ON OCTOBER 28, 2020. CONVENTIONAL SURVEY PERFORMED BY MATRIX NEW WORLD IN NOVEMBER 2020.
   B. CSO-FC-FB FLUSHING CREEK FLOATABLES CONTROL SYSTEM.
2. PRIOR TO CONSTRUCTION, CONRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES TO ENGINEER.
3. ALL DIMENSIONS, AND ELEVATIONS INDICATED ARE TO BE FIELD VERIFIED EITHER BY FIELD MEASUREMENTS FOR EXISTING STRUCTURES AND UTILITIES OR BY SHOP DRAWINGS FOR EQUIPMENT FURNISHED.
4. IF (IN THE OPINION OF THE ENGINEER) CONFLICTS OR DISCREPANCIES OCCUR BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT ITSELF DESCRIBING THE WORK; THE BETTER QUALITY, GREATER QUANTITY, OR MORE COSTLY OPTION FOR WORK WILL BE INCLUDED IN THE CONTRACTOR'S (ORIGINAL) CONTRACT PRICE. THIS WORK SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR CLARIFYING ANY CONFLICTS OR DISCREPANCIES IN THE WORK PRIOR TO SUBMITTING THE CONTRACT PRICE. THE CONTRACTOR SHALL NOT PROCEED WITH SUCH WORK UNTIL THE ENGINEER HAS BEEN CONTACTED FOR CLARIFICATION AND PROPER DIRECTION.
5. IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, CONTINUED CONSTRUCTION OF THE AERAS IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED BY THE OWNER.
6. WHERE CONNECTIONS TO OR MODIFICATIONS OF EXISTING PIPING ARE SHOWN, EXISTING PIPING IS ASSUMED TO BE IN GOOD CONDITION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONNECTIONS AND REPORT UNSOUND CONDITIONS TO THE ENGINEER.
7. PIPE SUPPORTS NOT SHOWN FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL PIPE SUPPORTS AS REQUIRED TO ADEQUATELY SUPPORTS PIPES PER SPECIFICATIONS AND STANDARDS.
8. SYMBOLS ARE SHOWN FOR GENERAL REFERENCE ONLY, THE PRESENCE OF A SYMBOL ON THE LEGEND DOES NOT IMPLY ITS USE ON THIS PROJECT. REFER TO DRAWINGS FOR SPECIFIC SYMBOLS USED.
9. ABBREVIATIONS ARE LISTED FOR GENERAL REFERENCE ONLY, THE PRESENCE OF AN ABBREVIATION ON THE LIST DOES NOT IMPLY ITS USE ON THIS PROJECT. REFER TO DRAWINGS FOR SPECIFIC ABBREVIATIONS USED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS WHICH ARE REQUIRED PRIOR TO CONSTRUCTION, EXCEPT AS DEFINED BY THE SPECIFICATIONS.
11. UNLESS DETAILED, SPECIFIED OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS OR IN SPECIFIC DRAWINGS.
12. EXISTING TOPOGRAPHY, STRUCTURES, EQUIPMENT, UTILITIES AND SITE FEATURES ARE SHOWN SCREENED AND/OR LIGHT-LINED. NEW FINISH GRADE, STRUCTURES, AND SITE FEATURES ARE SHOWN HEAVY-LINED.

GENERAL LEGEND:

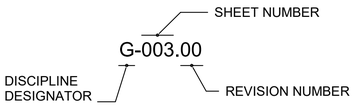
EXISTING / PROPOSED

- ABOVE GRADE STRUCTURE, EQUIPMENT, UTILITY
- BELOW GRADE STRUCTURE, EQUIPMENT, UTILITY
- EXISTING EQUIPMENT/STRUCTURE TO BE DEMOLISHED
- PAVEMENT TO BE DISTURBED

SECTION MARKERS



DRAWING NUMBER CONVENTION



DISCIPLINE DESIGNATORS

G	GENERAL
D	DEMOLITION
C	CIVIL
A	ARCHITECTURAL
L	LANDSCAPING
S	STRUCTURAL
M	MECHANICAL
H	HVAC
P	PLUMBING
F	FIRE PROTECTION
E	ELECTRICAL
I	INSTRUMENTATION
FA	FIRE ALARMING
EN	ENERGY CODE
MPT	MAINT. & PROT. OF TRAFFIC

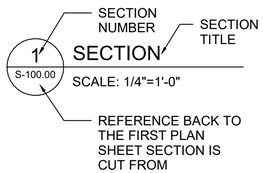
SITE LINETYPE LEGEND:

EXISTING / PROPOSED

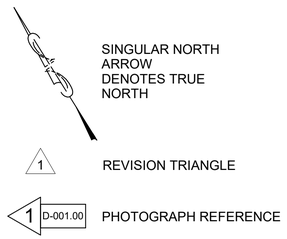
- FENCE
- STORM DRAINAGE
- SEWER
- ELECTRIC
- GAS
- TAX LOT LINE
- BLOCK LINE
- PAINTED LINE

TITLE MARKERS

PLAN
SCALE: 1/4"=1'-0"



SYMBOLS



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DRAWN BY: DM
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
GENERAL NOTES, LEGENDS, SYMBOLS, AND ABBREVIATIONS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. G-004.00

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GENERAL CODE CRITERIA CHART						
CODES	BUILDING CODE	2022 NYC CONSTRUCTION CODES - GENERAL ADMINSTRATIVE PROVISION AND BUIDING CODE				
	FIRE CODE	2022 NYC FIRE CODE				
	PLUMBING CODE	2022 NYC CONSTRUCTION CODES - NYC PLUMBING CODE				
	MECHANICAL CODE	2022 NYC CONSTRUCTION CODES - NYC MECHANICAL CODE				
	ENERGY CODE	2025 NYC ENERGY CONSERVATION CODES				
	ELECTRICAL CODE	2025 NYC ELECTRICAL CODE (2020 NEC)				
	OTHER REFERENCE STANDARDS	NFPA 101 LIFE SAFETY CODE				
		NFPA 110 STANDARDS FOR EMERGENCY AND STANDBY POWER SYSTEMS				
		NFPA 704 STANDARD SYSTEM FOR THE IDENTIFICATION OF THE HAZARDS OF MATERIALS FOR EMERGENCY				
SITE CRITERIA	SOIL CLASSIFICATION (SITE CLASS)	D				
	WIND SPEED	127 MPH				
	WIND EXPOSURE	B				
	SPECTRAL RESPONSE COEFFICIENT, SDS	0.301				
	CLIMATE ZONE	4A				
	NON STRUCTURAL COMPONENT SEISMIC DESIGN REQUIRED	NO				
	OCCUPANCY OF BUILDING	U				
	CONSTRUCTION TYPE	II-B				
	NUMBER OF STORIES	2				
	BUILDING HEIGHT	TI-10D - 23'-4" / TI-011 - 23'-4" & 34'-6" AT STAIR BULKHEAD				
	FLOOR AREA	TI-10D - 1,730 SF / TI-011 - 3,157 SF				
	WIND PRESSURE (COMPONENTS AND CLADDING)	NOTED ON STRUCTURAL SHEETS				
	RISK CATEGORY	III				
	SEISMIC DESIGN CATEGORY	B				
ROOM CRITERIA	ROOM NAME/AREA	ROOM OCCUPANCY - IBC CHAPTER 3	NFPA 820 VENTILATION RATE (AIR CHANGES PER HR)	ELECTRICAL CLASSIFICATION	NEC HAZARDOUS CLASSIFICATION	AUTOMATIC SPRINKLER: STAND PIPE: FIRE ALARM: GAS DETECTION
	TI-010 DECHLORINATION BUILDING					
	B01 - CHEMICAL ROOOM	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	101B - STAIR B	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	101A - STAIR B	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	101 - ENTRY HALL	H-4	N/A	DUSTY	UNCLASSIFIED	Y : N : Y : N
	102 - ELECTRICAL ROOM	H-4	N/A	DUSTY	UNCLASSIFIED	Y : N : Y : N
	103 - UPPER CHEMICAL ROOM	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	103A - EQUIPMENT PLATFORM	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	TI-011 DISINFECTION BUILDING					
	B01 - STAIR B	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	B02 - HALL	H-4	N/A	DUSTY	UNCLASSIFIED	Y : N : Y : N
	B03 - DECHLORINATION CHEMICAL ROOM	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	B04 - CHLORINATION CHEMICAL ROOM	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	101 - ENTRY HALL	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	101A - STAIR B-R	H-4	N/A	DUSTY	UNCLASSIFIED	Y : N : Y : N
	102 - ELECTRICAL ROOM	H-4	N/A	DUSTY	UNCLASSIFIED	Y : N : Y : N
	104 - LAYDOWN	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N
	105 - LAYDOWN	H-4	N/A	CORROSIVE	UNCLASSIFIED	Y : N : Y : N

BID SET
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DRAWN BY: DM
CHECKED BY: TM
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — STEWART M. MCCOLLUM — 083924 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
GENERAL CODE CRITERIA CHART

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. G-005.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

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10/30/2026 10:01:19 AM

REQUIRED VERIFICATION AND INSPECTIONS				
SPECIAL INSPECTIONS (TI-010C - FB CSO RETENTION FACILITY)				
ITEM DESCRIPTION	**2022 NYC BLDG. CODE REFERENCE**	**APPLICABILITY**	**INDEPENDENT INSPECTOR**	**INSPECTOR QUALIFICATIONS**
STRUCTURAL STEEL - WELDING	BC 1705.2	NOT REQUIRED	NO	
STRUCTURAL STEEL - DETAILS	BC 1705.2	NOT REQUIRED	NO	
STRUCTURAL STEEL - HIGH STRENGTH BOLTING	BC 1705.2.1; BC 1705.2.3	NOT REQUIRED	NO	
STRUCTURAL STEEL - SEISMIC RESISTANCE	BC 1705.12	NOT REQUIRED	NO	
STRUCTURAL STEEL - SEISMIC RESISTANCE TESTING	BC 1705.2.5	NOT REQUIRED	NO	
STRUCTURAL COLD-FORMED STEEL	BC 1705.2.2	NOT REQUIRED	NO	
STRUCTURAL OPEN-WEB STEEL JOIST AND JOIST GIRDERS	BC 1705.2.7	NOT REQUIRED	NO	
CONCRETE - CAST-IN-PLACE	BC 1705.3	NOT REQUIRED	NO	
CONCRETE - PRECAST	BC 1705.3	NOT REQUIRED	NO	
CONCRETE - PRESTRESSED	BC 1705.3	NOT REQUIRED	NO	
MASONRY	BC 1705.4	NOT REQUIRED	NO	
WOOD - OFF-SITE FABRICATION OF STRUCTURAL ELEMENTS	BC 1705.1.1	NOT REQUIRED	NO	
WOOD - INSTALLATION OF HIGH LOAD DIAPHRAGMS	BC 1705.5.1	NOT REQUIRED	NO	
WOOD - INSTALLATION OF METAL-PLATE-CONNECTED TRUSSES	BC 1705.5.2	NOT REQUIRED	NO	
WOOD - INSTALLATION OF PREFABRICATED I-JOISTS	BC 1705.5.3	NOT REQUIRED	NO	
SUBGRADE INSPECTION	BC 1705.6	NOT REQUIRED	NO	
SUBSURFACE CONDITIONS - SITE FILL PLACEMENT & IN-PLACE DENSITY	BC 1705.6	NOT REQUIRED	NO	
SUBSURFACE INVESTIGATION (BORINGS/TEST PITS) (SUBMIT TR-4)	BC 1705.6	NOT REQUIRED	NO	
PILE FOUNDATIONS AND DRILLED PIER INSTALLATION (SUBMIT TR-5 OR TR-5H)	BC 1705.7	NOT REQUIRED	NO	
PRESTRESSED ROCK AND SOIL ANCHORS	BC 1705.8	NOT REQUIRED	NO	
SIESMIC RESISTANCE	BC 1705.8	NOT REQUIRED	NO	
HELICAL PILE FOUNDATIONS	BC 1705.9	NOT REQUIRED	NO	
SPRAYED FIRE-RESISTANT MATERIALS	BC 1705.14	NOT REQUIRED	NO	
MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS	BC 1705.14	NOT REQUIRED	NO	
COMBUSTIBLE EXTERIOR WALL COVERINGS	BC 1705.16	NOT REQUIRED	NO	
FIRE-RESISTANT PENETRATIONS AND JOINTS	BC 1705.17	REQUIRED	YES	
SMOKE CONTROL SYSTEMS	BC 1705.18	NOT REQUIRED	NO	
VERTICAL MASONRY FOUNDATION ELEMENTS	BC 1705.19	NOT REQUIRED	NO	
WALL PANEL, CURTAIN WALLS AND VENEER	BC 1705.20	NOT REQUIRED	NO	
MECHANICAL SYSTEMS	BC 1705.16	NOT REQUIRED	NO	
ALTERNATIVE MATERIALS - OTCR BUILDING BULLETIN #	BC 1705.1.1	NOT REQUIRED	NO	
FUEL STORAGE AND FUEL PIPING SYSTEMS	BC 1705.22	NOT REQUIRED	NO	
HIGH-PRESSURE STEAM PIPING AND HIGH TEMPERATURE HOT WATER PIPING (WELDING)	BC 1705.23.1	NOT REQUIRED	NO	
FUEL-GAS PIPING (WELDING)	BC 1705.24.1	NOT REQUIRED	NO	
STRUCTURAL STABILITY	BC 1705.25	NOT REQUIRED	NO	
EXCAVATION - SHEETING, SHORING, AND BRACING	BC 1705.19; BC 3304.4.1	REQUIRED	YES	
UNDERPINNING	BC 1705.25.4	NOT REQUIRED	NO	
MECHANICAL DEMOLITION	BC 1705.24	REQUIRED	YES	
RAISING AND MOVING OF A BUILDING	BC 1705.25.6	NOT REQUIRED	NO	
TENANT PROTECTION PLAN COMPLIANCE (SUBMIT TPP1)	BC 1705.26	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM - SOIL BORINGS AND TESTPITS	BC 1705.27.1.1	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM - SOIL PERCOLATION TESTS	BC 1705.27.1.2	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM	BC 1705.27	NOT REQUIRED	NO	
INDIVIDUAL ON-SITE PRIVATE SEWAGE DISPOSAL SYSTEMS	BC 1705.28	NOT REQUIRED	NO	
SPRINKLER SYSTEMS	BC 1705.29	NOT REQUIRED	NO	
STANDPIPE SYSTEMS	BC 1705.30	NOT REQUIRED	NO	
HEATING SYSTEMS	BC 1705.31	NOT REQUIRED	NO	
CHIMNEYS	BC 1705.32	NOT REQUIRED	NO	
FLOOD ZONE COMPLIANCE	BC 1705.28; BC G107	REQUIRED	YES	
ALUMINUM WELDING	BC 1705.33.1	NOT REQUIRED	NO	
SIESMIC ISOLATION SYSTEMS	BC 1705.13.3			
PHOTOLUMINESCENT EXIT PATH MARKINGS (SUBMIT TR-7)	BC 1705.35	NOT REQUIRED	NO	
EMERGENCY AND STANDBY POWER SYSTEMS (GENERATORS)	BC 1705.36; BC 2702	REQUIRED	YES	
POST-INSTALLED ANCHORS	BC 1705.1.1	REQUIRED	YES	
NON-POTABLE WATER SYSTEMS	BC 1705.38	REQUIRED	YES	
EXHAUST AND VENT SYSTEMS IN PLENUMS AND DUCTS	BC 1705.39	NOT REQUIRED	NO	
CONCRETE DESIGN MIX (SUBMIT TR-3 PRIOR TO PERMITTING)	BC 1905.3	NOT REQUIRED	NO	
CONCRETE TEST CYLINDERS (SUBMIT TR-2)	BC 1905.1.2	NOT REQUIRED	NO	
FIRE ALARM AND DETECTION SYSTEM	FDNY	NOT REQUIRED	NO	
OTHER:				

PROGRESS INSPECTIONS				
ITEM DESCRIPTION	**NYC CODE REQUIREMENT**	**CONSTR. DOCUMENTS**	**INDEPENDENT INSPECTOR**	**COMMENTS**
PRELIMINARY	AC 28-116.2.1; BC 109.2	REQUIRED	YES	
FOOTING AND FOUNDATION	BC 109.3.1	NOT REQUIRED	NO	
LOWEST FLOOR ELEVATION (ATTACH FEMA FORM - ELEVATION CERTIFICATE)	BC 109.3.2	REQUIRED	YES	
STRUCTURAL WOOD FRAME INSPECTION	BC 109.3.3	NOT REQUIRED	NO	
FIRE-RESISTANCE RATED CONSTRUCTION	BC 109.3.5	NOT REQUIRED	NO	
ENERGY CODE COMPLIANCE INSPECTION (SUBMIT TR-8)	BC 109.3.4	NOT REQUIRED	NO	
PUBLIC ASSEMBLY EMERGENCY LIGHTING	28-116.2.2	NOT REQUIRED	NO	
FINAL	28-116.2.4.2, BC 109.5; DIRECTIVE 14 OF 1975, AND 1 RCNY 101-10	REQUIRED	YES	
OTHER:				

NOTES

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DRAWN BY: DM
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — EDWARD M. MCDONALD — 093927 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
SPECIAL INSPECTIONS IDENTIFICATION CHARTS
TI-010C

DATE: NOVEMBER 2026
SHEET NO:
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REQUIRED VERIFICATION AND INSPECTIONS				
SPECIAL INSPECTIONS (TI-010D)				
ITEM DESCRIPTION	**2022 NYC BC REFERENCE**	**APPLICABILITY**	**INDEPENDENT INSPECTOR**	**COMMENTS**
STRUCTURAL STEEL - WELDING	BC 1705.2.1	REQUIRED	YES	
STRUCTURAL STEEL - DETAILS	BC 1705.2.2	REQUIRED	YES	
STRUCTURAL STEEL - HIGH STRENGTH BOLTING	BC 1705.2.3	REQUIRED	YES	
STRUCTURAL STEEL - SEISMIC RESISTANCE	BC 1705.2.4	REQUIRED	YES	
STRUCTURAL STEEL - SEISMIC RESISTANCE TESTING	BC 1705.2.5	REQUIRED	YES	
STRUCTURAL COLD-FORMED STEEL	BC 1705.2.6	REQUIRED	YES	
STRUCTURAL OPEN-WEB STEEL JOIST AND JOIST GIRDERS	BC 1705.2.7	REQUIRED	YES	
CONCRETE - CAST-IN-PLACE	BC 1705.3	REQUIRED	YES	
CONCRETE - PRECAST	BC 1705.3	REQUIRED	YES	
CONCRETE - PRESTRESSED	BC 1705.3	NOT REQUIRED	NO	
MASONRY	BC 1705.4	REQUIRED	YES	
WOOD - INSTALLATION OF HIGH LOAD DIAPHRAGMS	BC 1705.5.1	NOT REQUIRED	NO	
WOOD - INSTALLATION OF METAL-PLATE-CONNECTED TRUSSES	BC 1705.5.2	NOT REQUIRED	NO	
WOOD - INSTALLATION OF PREFABRICATED I-JOISTS	BC 1705.5.3	NOT REQUIRED	NO	
SUBGRADE INSPECTION	BC 1705.6.1	REQUIRED	YES	
SUBSURFACE CONDITIONS - SITE FILL PLACEMENT & IN-PLACE DENSITY	BC 1705.6.2 & BC 1705.6.3	REQUIRED	YES	
SUBSURFACE INVESTIGATION (BORINGS/TEST PITS) (SUBMIT TR-4)	BC 1705.6.4	NOT REQUIRED	NO	
PILE FOUNDATIONS AND DRILLED PIER INSTALLATION (SUBMIT TR-5 OR TR-5H)	BC 1705.7	REQUIRED	YES	
PRESTRESSED ROCK AND SOIL ANCHORS	BC 1705.8	NOT REQUIRED	NO	
HELICAL PILE FOUNDATIONS	BC 1705.9	NOT REQUIRED	NO	
SPRAYED FIRE-RESISTANT MATERIALS	BC 1705.14	NOT REQUIRED	NO	
MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS	BC 1705.15	NOT REQUIRED	NO	
COMBUSTIBLE EXTERIOR WALL COVERINGS	BC 1705.16	NOT REQUIRED	NO	
FIRE-RESISTANT PENETRATIONS AND JOINTS	BC 1705.17	REQUIRED	YES	
SMOKE CONTROL SYSTEMS	BC 1705.18	NOT REQUIRED	NO	
VERTICAL MASONRY FOUNDATION ELEMENTS	BC 1705.19	NOT REQUIRED	NO	
WALL PANEL, CURTAIN WALLS AND VENEER	BC 1705.20	REQUIRED	YES	
MECHANICAL SYSTEMS	BC 1705.21	REQUIRED	YES	
FUEL STORAGE AND FUEL PIPING SYSTEMS	BC 1705.22	NOT REQUIRED	NO	
HIGH-PRESSURE STEAM PIPING AND HIGH TEMPERATURE HOT WATER PIPING (WELDING)	BC 1705.23	NOT REQUIRED	NO	
FUEL-GAS PIPING (WELDING)	BC 1705.24	NOT REQUIRED	NO	
STRUCTURAL STABILITY	BC 1705.25	REQUIRED	YES	
EXCAVATION - SHEETING, SHORING, AND BRACING	BC 1705.25.3; BC 3304.4.1	NOT REQUIRED	NO	
UNDERPINNING	BC 1705.25.4	NOT REQUIRED	NO	
MECHANICAL DEMOLITION	BC 1705.25.5; BC 3306.6	NOT REQUIRED	NO	
RAISING AND MOVING OF A BUILDING	BC 1705.25.6	NOT REQUIRED	NO	
TENANT PROTECTION PLAN COMPLIANCE (SUBMIT TPP1)	BC 1705.26	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM - SOIL BORINGS AND TESTPITS	BC 1705.27.1.1	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM - SOIL PERCOLATION TESTS	BC 1705.27.1.2	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM	BC 1705.27.2	NOT REQUIRED	NO	
INDIVIDUAL ON-SITE PRIVATE SEWAGE DISPOSAL SYSTEMS	BC 1705.28	NOT REQUIRED	NO	
SPRINKLER SYSTEMS	BC 1705.29	REQUIRED	YES	
STANDPIPE SYSTEMS	BC 1705.30	NOT REQUIRED	NO	
HEATING SYSTEMS	BC 1705.31	REQUIRED	YES	
CHIMNEYS	BC 1705.32	NOT REQUIRED	NO	
FLOOD ZONE COMPLIANCE	BC 1705.34; BC G105	REQUIRED	YES	
ALUMINUM WELDING	BC 1705.33	NOT REQUIRED	NO	
PHOTOLUMINESCENT EXIT PATH MARKINGS (SUBMIT TR-7)	BC 1705.35	NOT REQUIRED	NO	
EMERGENCY AND STANDBY POWER SYSTEMS (GENERATORS)	BC 1705.36	NOT REQUIRED	NO	
POST-INSTALLED ANCHORS	BC 1705.37	REQUIRED	YES	
NON-POTABLE WATER SYSTEMS	BC 1705.38	REQUIRED	YES	
EXHAUST AND VENT SYSTEMS IN PLENUMS AND DUCTS	BC 1705.39	REQUIRED	YES	
CONCRETE DESIGN MIX (SUBMIT TR-3 PRIOR TO PERMITTING)	BC 1905.3	REQUIRED	YES	
CONCRETE TEST CYLINDERS (SUBMIT TR-2)	BC 1905.6	REQUIRED	YES	
FIRE ALARM AND DETECTION SYSTEM	FDNY	REQUIRED	YES	
OTHER:				

PROGRESS INSPECTIONS				
ITEM DESCRIPTION	**NYC CODE REFERENCE**	**APPLICABILITY**	**INDEPENDENT INSPECTOR**	**COMMENTS**
PRELIMINARY	AC28-116.2.1; BC 110.2	REQUIRED	YES	
FOOTING AND FOUNDATION	BC 110.3.1	REQUIRED	YES	
LOWEST FLOOR ELEVATION (ATTACH FEMA FORM - ELEVATION CERTIFICATE)	BC 110.3.2	REQUIRED	YES	
STRUCTURAL FRAME INSPECTION	BC 110.3.3	NOT REQUIRED	YES	
FIRE-RESISTANCE RATED CONSTRUCTION	BC 110.3.4	REQUIRED	YES	
ENERGY CODE COMPLIANCE INSPECTION (SUBMIT TR-8)	BC 110.3.5	REQUIRED	YES	
PUBLIC ASSEMBLY EMERGENCY LIGHTING	28-116.2.2	NOT REQUIRED	NO	
FINAL	AC 28-116.2.4.2, BC 110.5; DIRECTIVE 14 OF 1975, AND 1 RCNY 101-10	REQUIRED	YES	
OTHER:				

NOTES

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
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TI-010D

DATE: NOVEMBER 2026
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REQUIRED VERIFICATION AND INSPECTIONS SPECIAL INSPECTIONS (TI-011)				
ITEM DESCRIPTION	**2022 NYC BC REFERENCE**	**APPLICABILITY**	**INDEPENDENT INSPECTOR**	**COMMENTS**
STRUCTURAL STEEL - WELDING	BC 1705.2.1	REQUIRED	YES	
STRUCTURAL STEEL - DETAILS	BC 1705.2.2	REQUIRED	YES	
STRUCTURAL STEEL - HIGH STRENGTH BOLTING	BC 1705.2.3	REQUIRED	YES	
STRUCTURAL STEEL - SEISMIC RESISTANCE	BC 1705.2.4	REQUIRED	YES	
STRUCTURAL STEEL - SEISMIC RESISTANCE TESTING	BC 1705.2.5	REQUIRED	YES	
STRUCTURAL COLD-FORMED STEEL	BC 1705.2.6	REQUIRED	YES	
STRUCTURAL OPEN-WEB STEEL JOIST AND JOIST GIRDERS	BC 1705.2.7	REQUIRED	YES	
CONCRETE - CAST-IN-PLACE	BC 1705.3	REQUIRED	YES	
CONCRETE - PRECAST	BC 1705.3	REQUIRED	YES	
CONCRETE - PRESTRESSED	BC 1705.3	NOT REQUIRED	NO	
MASONRY	BC 1705.4	REQUIRED	YES	
WOOD - INSTALLATION OF HIGH LOAD DIAPHRAGMS	BC 1705.5.1	NOT REQUIRED	NO	
WOOD - INSTALLATION OF METAL-PLATE-CONNECTED TRUSSES	BC 1705.5.2	NOT REQUIRED	NO	
WOOD - INSTALLATION OF PREFABRICATED I-JOISTS	BC 1705.5.3	NOT REQUIRED	NO	
SUBGRADE INSPECTION	BC 1705.6.1	REQUIRED	YES	
SUBSURFACE CONDITIONS - SITE FILL PLACEMENT & IN-PLACE DENSITY	BC 1705.6.2 & BC 1705.6.3	REQUIRED	YES	
SUBSURFACE INVESTIGATION (BORINGS/TEST PITS) (SUBMIT TR-4)	BC 1705.6.4	NOT REQUIRED	NO	
PILE FOUNDATIONS AND DRILLED PIER INSTALLATION (SUBMIT TR-5 OR TR-5H)	BC 1705.7	REQUIRED	YES	
PRESTRESSED ROCK AND SOIL ANCHORS	BC 1705.8	NOT REQUIRED	NO	
HELICAL PILE FOUNDATIONS	BC 1705.9	NOT REQUIRED	NO	
SPRAYED FIRE-RESISTANT MATERIALS	BC 1705.14	NOT REQUIRED	NO	
MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS	BC 1705.15	NOT REQUIRED	NO	
COMBUSTIBLE EXTERIOR WALL COVERINGS	BC 1705.16	NOT REQUIRED	NO	
FIRE-RESISTANT PENETRATIONS AND JOINTS	BC 1705.17	REQUIRED	YES	
SMOKE CONTROL SYSTEMS	BC 1705.18	NOT REQUIRED	NO	
VERTICAL MASONRY FOUNDATION ELEMENTS	BC 1705.19	NOT REQUIRED	NO	
WALL PANEL, CURTAIN WALLS AND VENEER	BC 1705.20	REQUIRED	YES	
MECHANICAL SYSTEMS	BC 1705.21	REQUIRED	YES	
FUEL STORAGE AND FUEL PIPING SYSTEMS	BC 1705.22	NOT REQUIRED	NO	
HIGH-PRESSURE STEAM PIPING AND HIGH TEMPERATURE HOT WATER PIPING (WELDING)	BC 1705.23	NOT REQUIRED	NO	
FUEL-GAS PIPING (WELDING)	BC 1705.24	NOT REQUIRED	NO	
STRUCTURAL STABILITY	BC 1705.25	REQUIRED	YES	
EXCAVATION - SHEETING, SHORING, AND BRACING	BC 1705.25.3; BC 3304.4.1	NOT REQUIRED	NO	
UNDERPINNING	BC 1705.25.4	NOT REQUIRED	NO	
MECHANICAL DEMOLITION	BC 1705.25.5; BC 3306.6	REQUIRED	YES	
RAISING AND MOVING OF A BUILDING	BC 1705.25.6	NOT REQUIRED	NO	
TENANT PROTECTION PLAN COMPLIANCE (SUBMIT TPP1)	BC 1705.26	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM - SOIL BORINGS AND TESTPITS	BC 1705.27.1.1	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM - SOIL PERCOLATION TESTS	BC 1705.27.1.2	NOT REQUIRED	NO	
PRIVATE ON-SITE STORMWATER DISPOSAL AND DETENTION SYSTEM	BC 1705.27.2	NOT REQUIRED	NO	
INDIVIDUAL ON-SITE PRIVATE SEWAGE DISPOSAL SYSTEMS	BC 1705.28	NOT REQUIRED	NO	
SPRINKLER SYSTEMS	BC 1705.29	REQUIRED	YES	
STANDPIPE SYSTEMS	BC 1705.30	NOT REQUIRED	NO	
HEATING SYSTEMS	BC 1705.31	REQUIRED	YES	
CHIMNEYS	BC 1705.32	NOT REQUIRED	NO	
FLOOD ZONE COMPLIANCE	BC 1705.34; BC G105	REQUIRED	YES	
ALUMINUM WELDING	BC 1705.33	NOT REQUIRED	NO	
PHOTOLUMINESCENT EXIT PATH MARKINGS (SUBMIT TR-7)	BC 1705.35	NOT REQUIRED	NO	
EMERGENCY AND STANDBY POWER SYSTEMS (GENERATORS)	BC 1705.36	REQUIRED	YES	
POST-INSTALLED ANCHORS	BC 1705.37	REQUIRED	YES	
NON-POTABLE WATER SYSTEMS	BC 1705.38	REQUIRED	YES	
EXHAUST AND VENT SYSTEMS IN PLENUMS AND DUCTS	BC 1705.39	REQUIRED	YES	
CONCRETE DESIGN MIX (SUBMIT TR-3 PRIOR TO PERMITTING)	BC 1905.3	REQUIRED	YES	
CONCRETE TEST CYLINDERS (SUBMIT TR-2)	BC 1905.6	REQUIRED	YES	
FIRE ALARM AND DETECTION SYSTEM	FDNY	REQUIRED	YES	
OTHER:				

PROGRESS INSPECTIONS				
ITEM DESCRIPTION	**NYC CODE REFERENCE**	**APPLICABILITY**	**INDEPENDENT INSPECTOR**	**COMMENTS**
PRELIMINARY	AC 28-116.2.1; BC 110.2	REQUIRED	YES	
FOOTING AND FOUNDATION	BC 110.3.1	REQUIRED	YES	
LOWEST FLOOR ELEVATION (ATTACH FEMA FORM - ELEVATION CERTIFICATE)	BC 110.3.2	REQUIRED	YES	
STRUCTURAL FRAME INSPECTION	BC 110.3.3	NOT REQUIRED	NO	
FIRE-RESISTANCE RATED CONSTRUCTION	BC 110.3.4	REQUIRED	YES	
ENERGY CODE COMPLIANCE INSPECTION (SUBMIT TR -8)	BC 110.3.5	REQUIRED	YES	
PUBLIC ASSEMBLY EMERGENCY LIGHTING	AC 28-116.2.2	NOT REQUIRED	NO	
FINAL	AC 28-116.2.4.2, BC 110.5; DIRECTIVE 14 OF 1975, AND 1 RCNY 101-10	REQUIRED	YES	
OTHER:				

NOTES

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DATE ISSUED: NOVEMBER 2026

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DESIGNED BY: ED
DRAWN BY: DM
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · STEWART M. MCDONALD · 083921 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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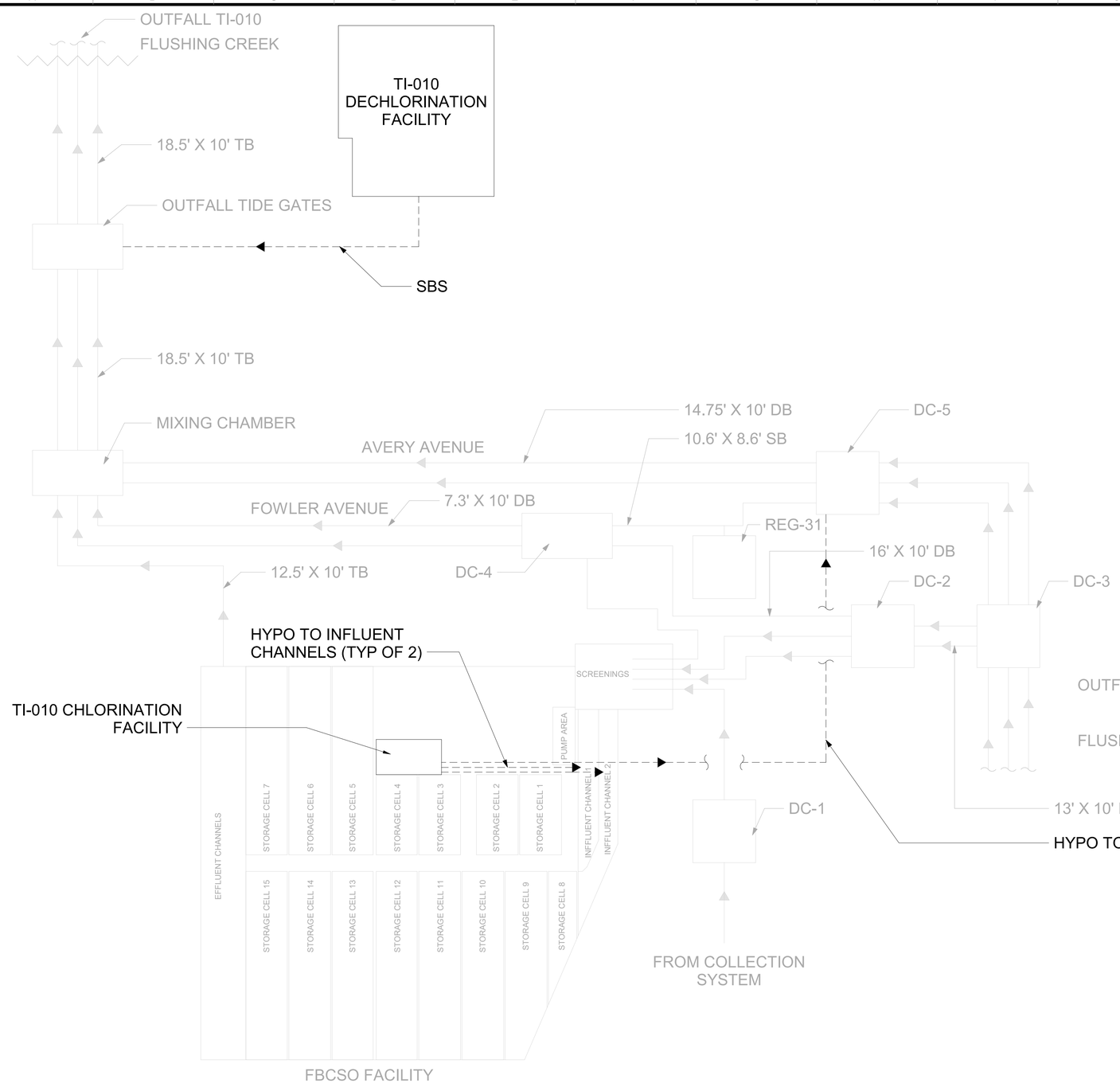
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96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
GENERAL
SPECIAL INSPECTIONS IDENTIFICATION CHARTS
TI-011

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. G-008.00

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Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
10/30/2026 10:01:29 AM



1 TI-010 PROCESS FLOW SCHEMATIC

SCALE: N.T.S.

GENERAL SHEET NOTE:

1. PROVIDED FOR INFORMATION PURPOSES ONLY.

LEGEND:

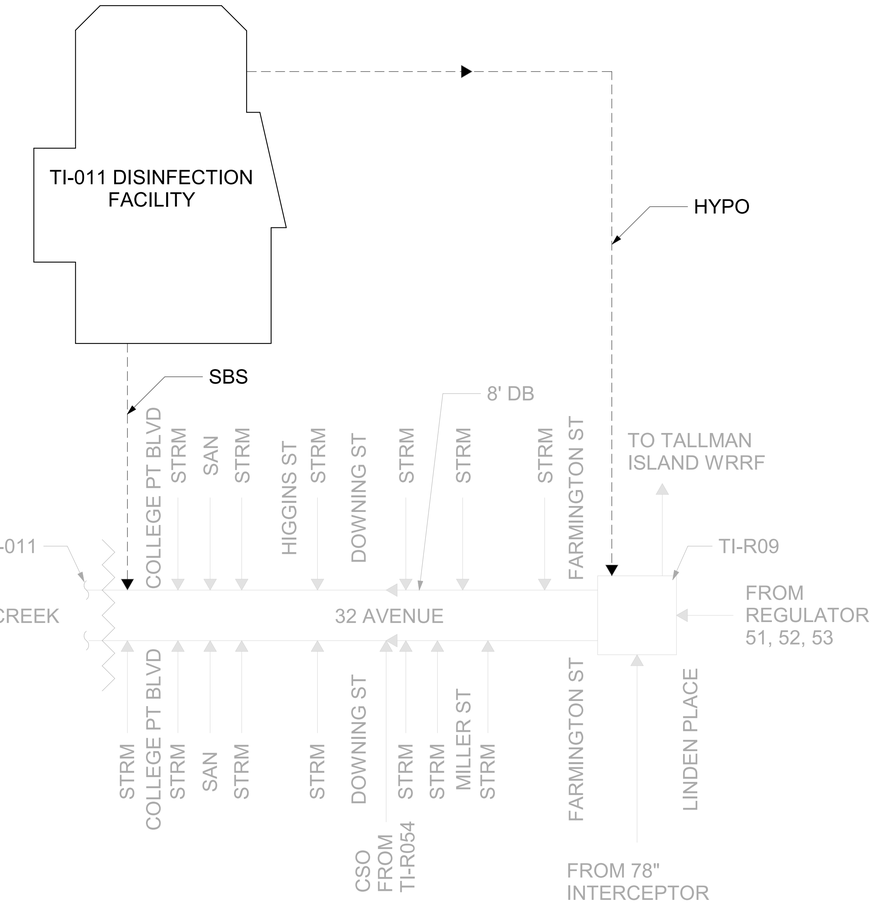
- CHEMICAL LINE
- COMBINED SEWER/ COMBINED SEWER OVERFLOW

ABBREVIATIONS:

DB - DOUBLE BARREL SEWER
SB - SINGLE BARREL SEWER
TB - TRIPLE BARREL SEWER

HYPO - SODIUM HYPOCHLORITE
SBS - SODIUM BISULFITE

CSO - COMBINED SEWER OVERFLOW
STRM - STORM SEWER
SAN - SANITARY SEWER



2 TI-011 PROCESS FLOW SCHEMATIC

SCALE: N.T.S.

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: CC
DRAWN BY: AD
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

OVERALL PROCESS FLOW DIAGRAMS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. G-009.00

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CIVIL NOTES

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES APPLICABLE TO ALL STAGES

1. THE CONTRACTOR SHALL NOTIFY THE NYC DEPARTMENT OF TRANSPORTATION'S OFFICE OF CONSTRUCTION MITIGATION AND CONTROL (OCMC) (TELEPHONE NO 1-212-839-9621) AND THE DIVISION OF TRAFFIC OPERATIONS (TELEPHONE NO 1-718-433-3370) AT LEAST FORTY (40) DAYS BEFORE THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.

2. PRIOR TO ANY WORK PERMITS BEING ISSUED, A PRE-CONSTRUCTION MEETING WILL BE HELD TWENTY (20) DAYS IN ADVANCE BY THE CONSTRUCTION DIVISION. AT THAT TIME, THE CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE TO THE ENGINEER. ARRANGEMENTS FOR THE MEETING WILL BE COORDINATED BY OCMC-STREETS.

3. CONSTRUCTION SEQUENCE: UNLESS OTHERWISE DIRECTED OR APPROVED BY THE ENGINEER, THE CONSTRUCTION SHALL BE COMPLETED IN THE FOLLOWING SEQUENCE:

   INSTALLATION OF TRAFFIC AND PEDESTRIAN CONTROL DEVICES

   GATEHOUSE IMPROVEMENTS

   CLEARING/REMOVAL OF VEGETATION

   REPAIR AND CLOSURE/BULKHEADING OF PIPES

   RESTORATION OF ANY CURB, SIDEWALK OR STREETS

   RESTORATION OF VEGETATED AREAS

   REMOVAL OF TRAFFIC AND PEDESTRIAN CONTROL DEVICES

   THE CONTRACTOR WILL BE PERMITTED TO MODIFY, ADJUST AND/OR COMBINE STAGES SUBJECT TO THE APPROVAL OF THE ENGINEER.

4. FOR ANY WORK PROCEEDING THROUGH AN INTERSECTION, THE CONTRACTOR MAY CLOSE ONE (1) CROSSWALK AT A TIME WHILE DIVERTING PEDESTRIANS TO OTHER AVAILABLE CROSSWALKS. PEDESTRIANS SHALL BE PROTECTED FROM ALL EXCAVATION AREAS THROUGH THE USE OF AN APPROVED BARRIER, FENCING OR OTHER TEMPORARY DEVICE IN A MANNER APPROVED BY THE ENGINEER. STEEL PLATES IN PEDESTRIAN WALKWAYS SHALL BE EPOXY COATED WITH FINISH THAT ADHERES TO METAL PRIOR TO PLACEMENT. STEEL PLATES SHALL BE PINNED IN PLACE WITH EDGES RAMPED WITH TEMPORARY ASPHALT. THIS NON-SLIP COATING SHALL HAVE RESISTANCE TO FIRE, GASOLINE, OIL, ACIDS, ALKALIS, AND ASPHALTIC SOLVENTS. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL SUBMIT THE TYPE OF EPOXY COATING ON STEEL PLATE TO THE ENGINEER FOR APPROVAL.

5. PEDESTRIAN CROSSINGS OVER EXCAVATIONS, SHALL BE CONSTRUCTED WITH STEEL PLATES LINED WITH TEMPORARY FENCE ATTACHED ON BOTH SIDES.

6. TO PERMIT ADEQUATE VISIBILITY AT INTERSECTION AREAS ALL BARRICADES SHALL BE PLACED SO AS NOT TO HINDER PEDESTRIAN OR VEHICULAR SIGHT LINES. SIMILARLY, NO SHEETING SHALL EXTEND HIGHER THAN TWENTY FOUR (24) INCHES ABOVE PAVEMENT LEVEL WITHIN FIFTY (50) FEET OF AN INTERSECTION.

7. EXCAVATIONS SHALL BE COMPLETELY ENCLOSED WITH LIGHTED BARRICADES AND TEMPORARY FENCE UNLESS OTHERWISE SHOWN HEREIN OR DIRECTED BY THE ENGINEER. ALL BOUNDARIES BETWEEN CONSTRUCTION WORK AREAS AND PEDESTRIAN ROUTES ALONG SIDEWALKS SHALL BE CLEARLY AND CONTINUOUSLY DELINEATED WITH PEDESTRIAN STEEL BARRICADES AS SHOWN ON THE MAINTENANCE AND PROTECTION PLANS AND AS APPROVED OR DIRECTED BY THE ENGINEER.

8. THE CONTRACTOR SHALL WORK IN ONE-HALF THE WIDTH OF INTERSECTING STREETS AT A TIME AND MAINTAIN THE OTHER HALF OPEN FOR VEHICULAR TRAFFIC UNLESS OTHERWISE INDICATED HEREIN, OR DIRECTED OR APPROVED BY THE ENGINEER.

9. CONTRACTOR SHALL PROVIDE, PLACE, AND REMOVE STEEL PLATES TO MAINTAIN TRAFFIC OVER EXCAVATIONS AS REQUIRED. THERE WILL BE NO SEPARATE PAYMENT FOR PROVIDING, PLACING AND REMOVING STEEL PLATES OVER EXCAVATIONS TO MAINTAIN VEHICULAR AND PEDESTRIAN TRAFFIC. COST SHALL BE DEEMED INCLUDED IN THE BID PRICES FOR ALL SCHEDULED ITEMS.

10. MAINTENANCE OF PEDESTRIAN ACCESS TO ALL ABUTTING PROPERTIES ENTRANCES, EXITS FROM DWELLINGS, EMERGENCY EXITS AND PEDESTRIAN USAGE OF CROSSWALK AND SIDEWALK AREAS BOTH NEW AND EXISTING SHALL BE CONTINUOUS AT ALL TIMES.

11. CONTRACTOR SHALL PROVIDE ACCESS FOR EMERGENCY TRAFFIC AT ALL TIMES UPON DEMAND. THE CONTRACTOR SHALL BE REQUIRED TO MOVE AND RESTORE BARRICADES AS ORDERED BY THE ENGINEER FOR EMERGENCY ACCESS AT NO DIRECT PAYMENT.

12. THE CONTRACTOR SHALL SUPPLY, INSTALL, RELOCATE AND MAINTAIN SIGNS AND OTHER APPROVED DEVICES FOR WARNING, CONTROLLING, ROUTING, DIRECTING AND DETOURING TRAFFIC IN ACCORDANCE WITH THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". THE EXACT LOCATION, SIZE, WORDING AND DETAILS OF THE SIGN, MOUNTINGS, AND OTHER DEVICES SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.

13. ALL SIGNS AND BARRICADES SHALL CONFORM TO STANDARDS SPECIFIED IN THE NEW YORK STATE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (EXCEPT WHERE OTHERWISE REQUIRED HEREIN) WHERE APPLICABLE AND APPROVED BY THE ENGINEER.

14. ALL ADVANCE WARNING SIGNS SHALL BE INSTALLED BETWEEN ONE HUNDRED FIFTY (150) FEET AND FOUR HUNDRED AND FIFTY (450) FEET BEFORE THE CONSTRUCTION. ALL "END ROAD WORK" SIGNS SHALL BE INSTALLED TWO HUNDRED (200) FEET AFTER THE CONSTRUCTION. TWO (2) 24"x24" ORANGE FLEXIBLE PLASTIC FLAGS SHALL BE ATTACHED TO THE TWO SIDE CORNERS OF EACH DIAMOND SHAPED ADVANCE WARNING SIGN.

15. ALL IDENTIFICATION MARKINGS ON BARRELS MUST NOT FACE TRAFFIC AND MUST BE BELOW THE BOTTOM REFLECTORIZED BAND.

16. THE CONTRACTOR IS REQUIRED TO INSTALL TEMPORARY PAVEMENT MARKINGS AFTER THE EXISTING MARKINGS ARE REMOVED. THIS OPERATION SHALL BE DONE ON THE SAME DAY. WHEN THE TEMPORARY MARKINGS ARE NO LONGER NECESSARY, THEY SHALL BE OBLITERATED BY SCARIFICATION, UNTIL THEY ARE NO LONGER VISIBLE. CONTRACTOR SHALL INSTALL PERMANENT PAVEMENT MARKINGS TO MATCH PRE-CONSTRUCTION CONDITIONS UNLESS OTHERWISE SHOWN/INDICATED HEREIN.

17. THE CONTRACTOR SHALL EMPLOY AND ASSIGN FLAGMEN TO ASSIST IN CONTROLLING THE FLOW OF TRAFFIC.

18. ALL CONTRACTOR'S VEHICLES, EQUIPMENT AND PERSONNEL MUST BE KEPT WITHIN THE DESIGNATED WORK AND STAGING AREAS.

19. NOT WITHSTANDING THE PROVISIONS HEREIN, IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT MINOR ADDITIONAL MEASURES THAT ARE NECESSARY TO PROVIDE FOR AND MAINTAIN THE SAFETY OF VEHICULAR TRAFFIC AND PEDESTRIANS DURING CONSTRUCTION. THE PROVISION AND USE OF SUPPLIES SUCH AS TRAFFIC DRUMS, CONES, HIGH VISIBILITY RIBBONS, AND FLAGS WHERE NECESSARY OR DIRECTED BY THE ENGINEER, SHALL BE CONSIDERED AS MINOR AND INCIDENTAL ITEMS. PAYMENT TO BE INCLUDED IN THE PRICE BID FOR ALL SCHEDULED ITEMS.

20. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COOPERATE WITH OTHER CONTRACTORS WHO HAVE AN ON-GOING STREET IMPROVEMENT CONSTRUCTION IN THE AREA AND/OR WITHIN THE PROJECT LIMITS AND SHALL SO ACCORDINGLY ARRANGE THEIR OWN SCHEDULE OF CONSTRUCTION IN SUCH A TIME FRAME AS NOT TO DISRUPT OR INTERFERE WITH THE WORKABILITY OF EITHER MAINTENANCE OF TRAFFIC PLAN.

21. NO DEVIATION OR DEPARTURE FROM THESE STIPULATIONS WILL BE PERMITTED WITHOUT THE PRIOR WRITTEN APPROVAL FROM OCMC-STREETS. REQUEST FOR SUCH MODIFICATIONS SHALL BE SUBMITTED TO THE OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION-STREETS NYCDOT A MINIMUM OF TWENTY (20) DAYS IN ADVANCE OF CONSTRUCTION.

22. FOR ADDITIONAL INFORMATION SEE PROJECT SPECIFICATIONS FOR MAINTENANCE AND PROTECTION OF TRAFFIC.

TEMPORARY TRAFFIC SIGNS - TABLE 1

NAME	SIGN	MUTCD CODE	COLOR CODE	SIZE	DESCRIPTION
(A)	ROAD WORK AHEAD	W20-1	A	36"X36"	ROAD WORK AHEAD
(B)	ONE LANE ROAD AHEAD	W20-4	A	36"X36"	ONE LANE ROAD AHEAD
(DR) (DL)		W1-4	A	36"X36"	LARGE ARROW KEEP RIGHT (LEFT)
(E)	ROAD CLOSED	R11-2	B	48"X30"	ROAD CLOSED
(E1)	PATH CLOSED	R11-2	B	48"X30"	PATH CLOSED
(O)	END ROAD WORK	G20-2	A	36"X18"	END ROAD WORK
(PR) (PL)		R3-1 R3-2	B	36"X36"	NO RIGHT TURN (LEFT)
(YL) (YR)	LEFT LANE CLOSED AHEAD / RIGHT LANE CLOSED AHEAD	W20-5	A	36"X36"	LANE CLOSED AHEAD
(Z)		W20-7	A	36"X36"	FLAGGER

TEMPORARY TRAFFIC SIGNS - TABLE 2

NAME	SIGN	DOT SMO #	COLOR CODE	SIZE	DESCRIPTION
(CCR)	USE TEMPORARY WALKWAY →	SC-153	A	12"X36"	USE TEMPORARY WALKWAY (RIGHT)
(CCL)	USE TEMPORARY WALKWAY ←	SC-154	A	12"X36"	USE TEMPORARY WALKWAY (LEFT)

COLOR CODE LEGEND

CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND

LEGEND

- WORK AREA
- FLAGGER
- TRAFFIC DIRECTION DURING CONSTRUCTION
- PEDESTRIAN STEEL BARRICADE
- ⌀ PLASTIC BARRELS
- (A) TEMPORARY SIGN WITH TEXT
- TEMPORARY CONCRETE BARRIER
- PEDESTRIAN CHANNELIZER

NOTES:

1. ALL SIGNS AS PER LATEST EDITION OF NEW YORK SUPPLEMENT TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
2. DIMENSIONS ARE SHOWN IN INCHES AND ARE SHOWN AS WIDTH x HEIGHT.
3. THESE TABLES ARE FOR REFERENCE PURPOSES ONLY. FOR ADDITIONAL SIGNAGE NOT SHOWN ON THESE TABLES, REFER TO THE MUTCD.
4. ALL SIGNS TO BE REFLECTORIZED.
5. LETTERS ON WARNING SIGNS TO BE FIVE (5) INCHES HIGH.
6. SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
7. MOUNTING OF SIGNS TO BE AS DIRECTED AND APPROVED BY THE ENGINEER.

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DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MATTHEW GORSKI
DRAWN BY: MATTHEW GORSKI
CHECKED BY: SARWAT IZHAR, PE
DESIGN LEAD: MATTHEW GORSKI
SECTION MANAGER:

SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK SARWAT IZHAR 081239 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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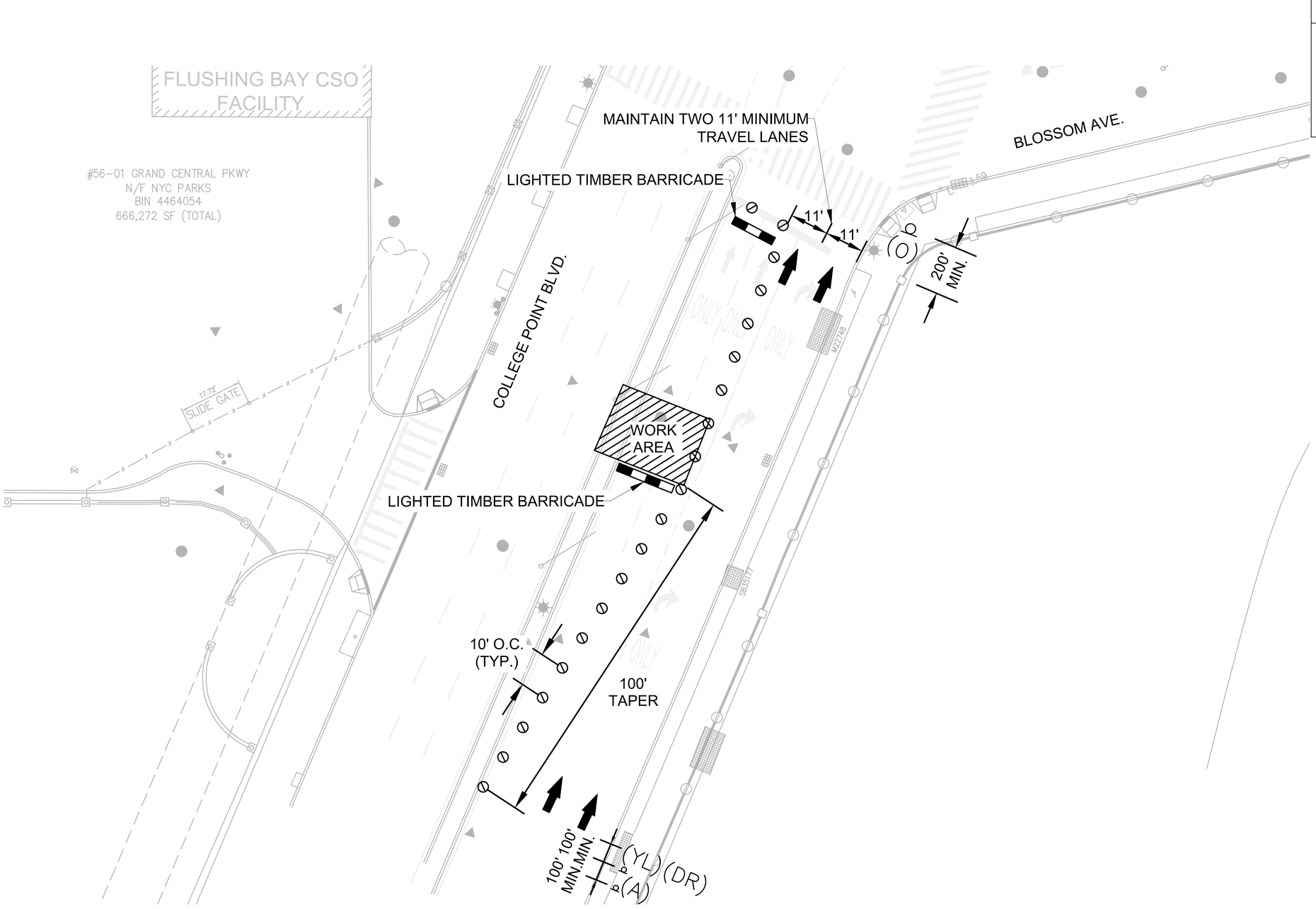
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CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MAINTENTANCE AND PROTECTION OF TRAFFIC PLAN NOTES AND ABBREVIATIONS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-001.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SIGN DATA

(A) b	W20-1 (ROAD WORK AHEAD)
(DR) b	W1-4R (LARGE ARROW KEEP RIGHT)
(YL) b	W20-5L (LEFT LANE CLOSED AHEAD)
(O) b	G20-2 (END ROAD WORK)

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
NORTHBOUND - PHASE 1

SCALE: 1" = 15'-0"

1"=25' 0 25 50 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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DESIGN LEAD: MATTHEW GORSKI
SECTION MANAGER:

SI Engineering, P.C. Engineers, Planners & Construction Managers

STATE OF NEW YORK SARWAT IZHAR 9/3/26 081324 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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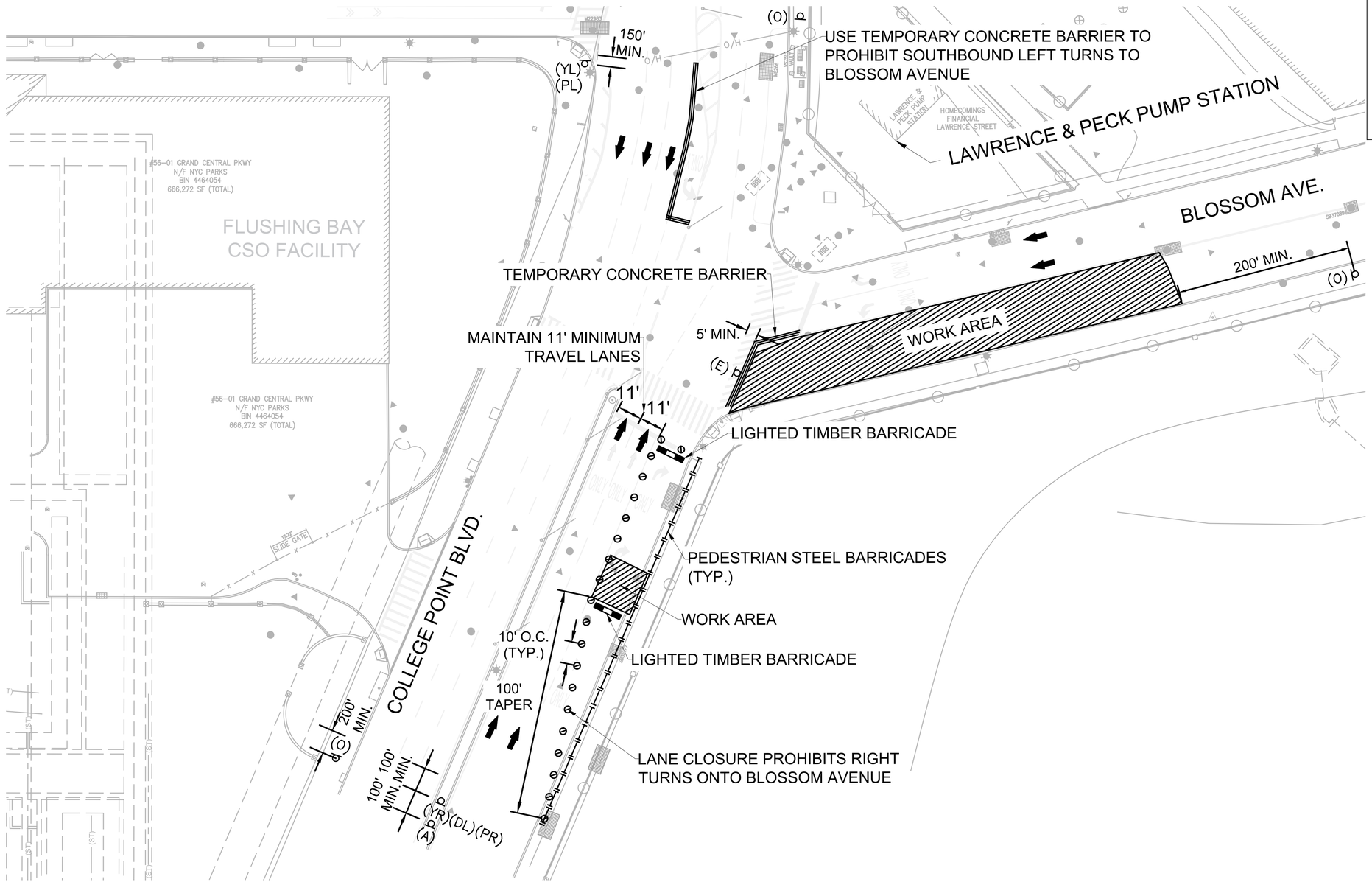
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CORONA, NEW YORK 11368
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
MPT (BLOSSOM AVE. NORTHBOUND PHASE 1)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-101.00

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SIGN DATA

(A)	W20-1 (ROAD WORK AHEAD)
(DL)	W1-4L (LARGE ARROW KEEP LEFT)
(E)	R11-2 (ROAD CLOSED)
(YL)	W20-5L (LEFT LANE CLOSED AHEAD)
(YR)	W20-5R (RIGHT LANE CLOSED AHEAD)
(O)	G20-2 (END ROAD WORK)

1"=25' 0 25 50 FT.

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
NORTHBOUND AND SOUTHBOUND - PHASE 1

SCALE: 1" = 25'-0"

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK SARWAT I. IZHAR 081238 LICENSED PROFESSIONAL ENGINEER 9/5/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

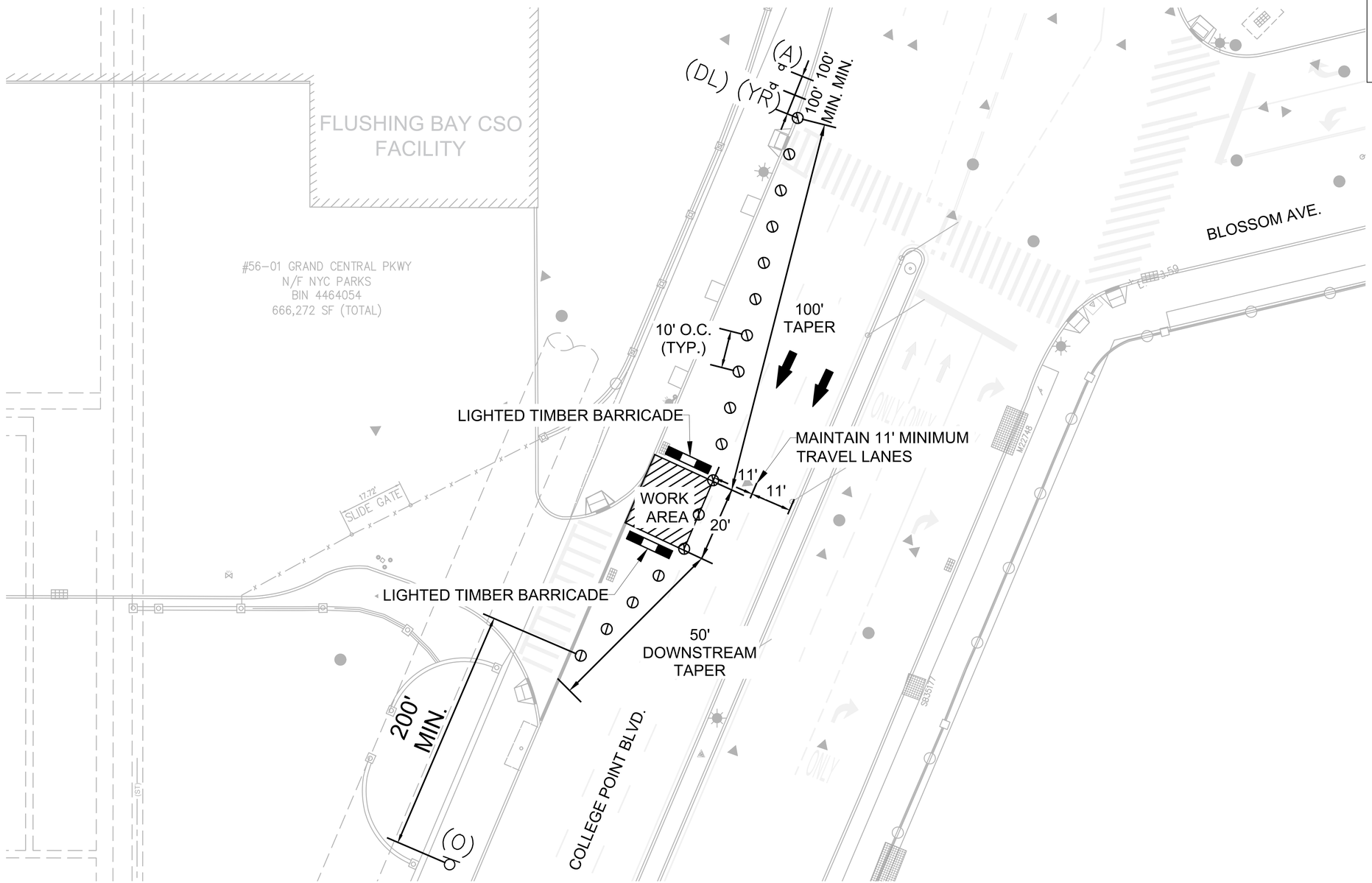
TI-010 DECHLORINATION FACILITY
MPT (BLOSSOM AVE. NB & SB PHASE 2)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-102.00

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SIGN DATA

(A) ▷	W20-1 (ROAD WORK AHEAD)
(DL) ▷	W1-4L (LARGE ARROW KEEP LEFT)
(YR) ▷	W20-5R (RIGHT LANE CLOSED AHEAD)
(O) ▷	G20-2 (END ROAD WORK)



0 25 50 FT.
1"=25'

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
SOUTHBOUND - PHASE 1

SCALE: 1" = 15'-0"

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STATE OF NEW YORK SARWAT IZHAR 081239 LICENSED PROFESSIONAL ENGINEER 5/3/26

Environmental Protection

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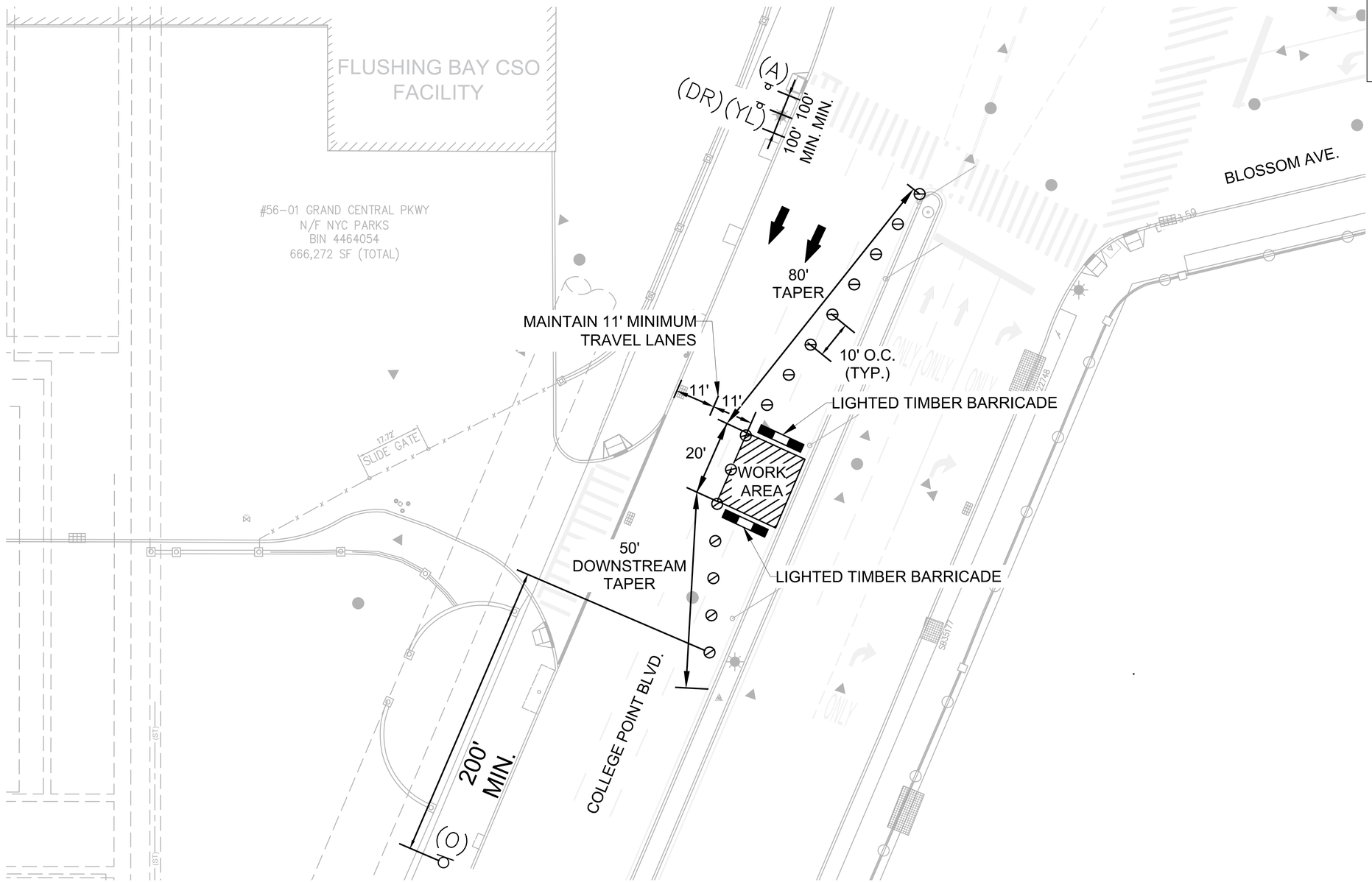
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
MPT (BLOSSOM AVE. SOUTHBOUND PHASE 1)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-103.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SIGN DATA

(A) b	W20-1 (ROAD WORK AHEAD)
(DR) b	W1-4R (LARGE ARROW KEEP RIGHT)
(YL) b	W20-5L (LEFT LANE CLOSED AHEAD)
(O) b	G20-2 (END ROAD WORK)

1"=25' 0 25 50 FT.

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
SOUTHBOUND - PHASE 2

SCALE: 1" = 15'-0"

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

IF SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MATTHEW GORSKI
DRAWN BY: MATTHEW GORSKI
CHECKED BY: SARWAT IZHAR, PE
DESIGN LEAD: MATTHEW GORSKI
SECTION MANAGER:

SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK SARWAT IZHAR 081238 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

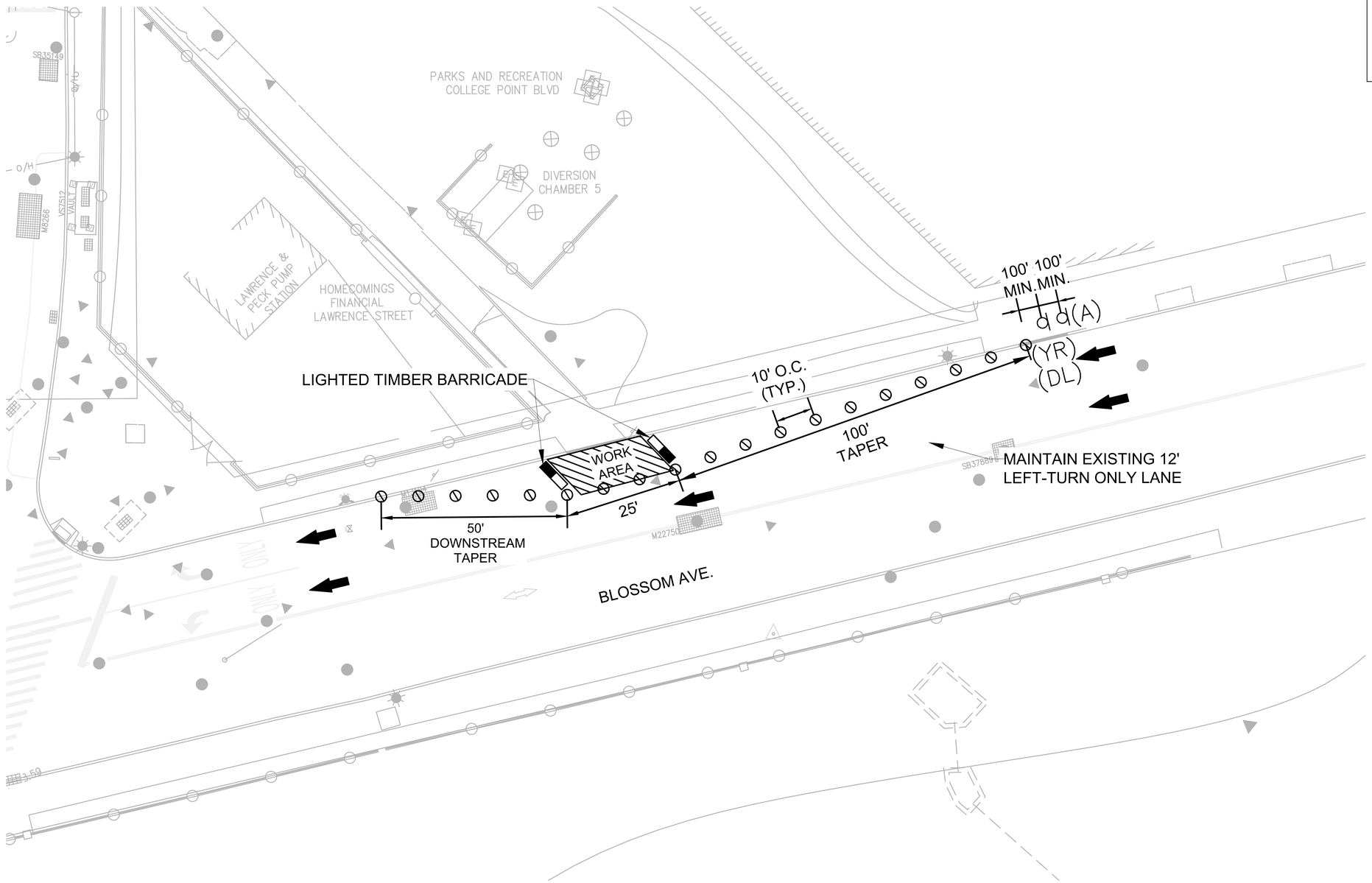
TI-010 DECHLORINATION FACILITY
MPT (BLOSSOM AVE. SOUTHBOUND PHASE 2)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-104.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

SIGN DATA

(A) ⊳	W20-1 (ROAD WORK AHEAD)
(DL) ⊳	W1-4L (LARGE ARROW KEEP LEFT)
(YR) ⊳	W20-5R (RIGHT LANE CLOSED AHEAD)
(O) ⊳	G20-2 (END ROAD WORK)



MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
WESTBOUND - PHASE 1

SCALE: 1" = 15'-0"

1"=25' 0 25 50 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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STATE OF NEW YORK SARWAT IZHAR 081238 LICENSED PROFESSIONAL ENGINEER 9/3/25

Environmental Protection

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

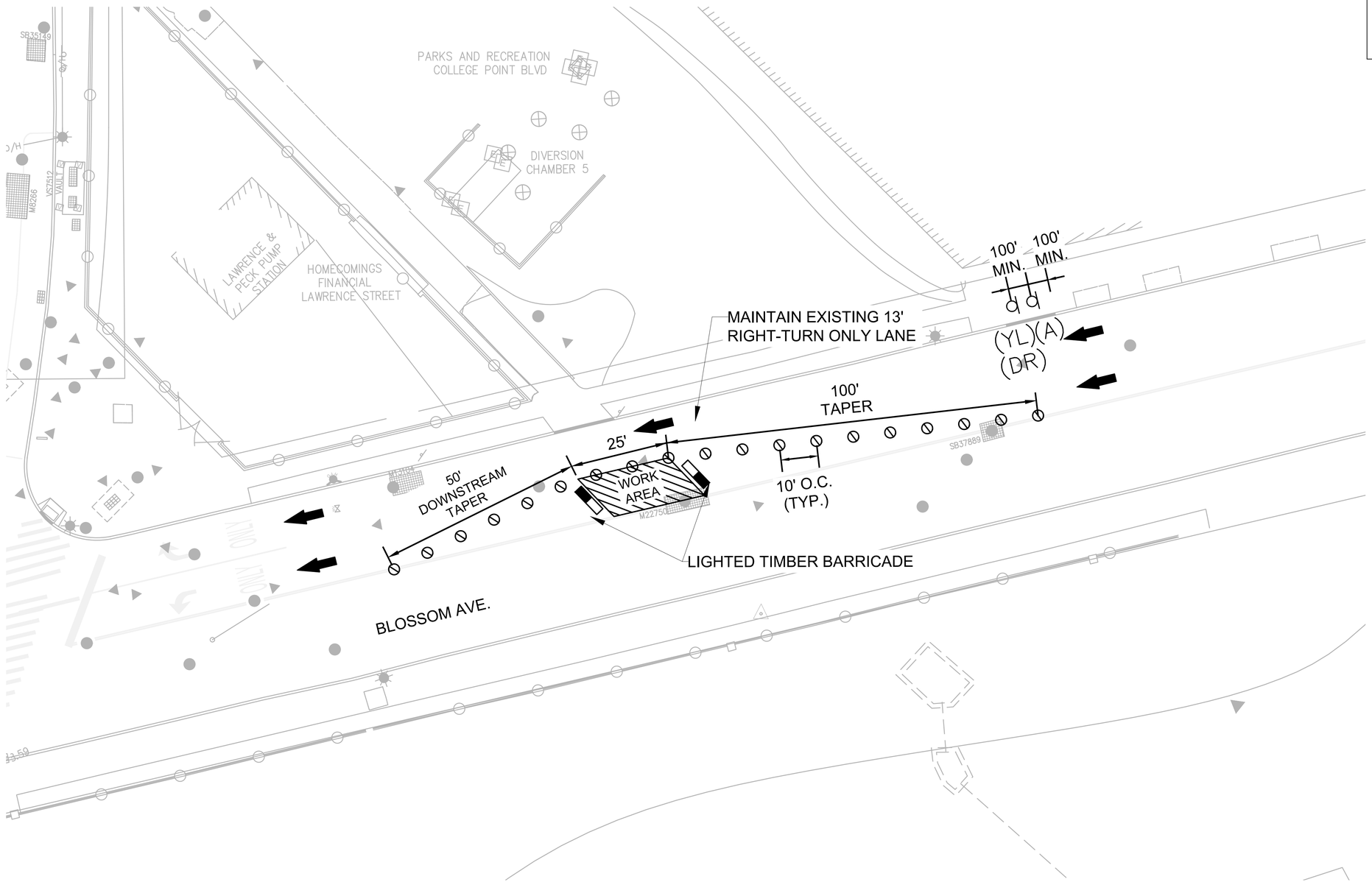
TI-010 DECHLORINATION FACILITY
MPT (BLOSSOM AVE. WESTBOUND PHASE 1)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-105.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

SIGN DATA

(A)⊳	W20-1 (ROAD WORK AHEAD)
(DR)⊳	W1-4R (LARGE ARROW KEEP RIGHT)
(YL) ⊳	W20-5L (LEFT LANE CLOSED AHEAD)



0 25 50 FT.
1"=25'

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
WESTBOUND - PHASE 2

SCALE: 1" = 15'-0"

BID SET
DATE ISSUED: NOVEMBER 2026

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Engineers, Planners & Construction Managers

STATE OF NEW YORK · SARWAT IZHAR · 9/3/26 · 081228 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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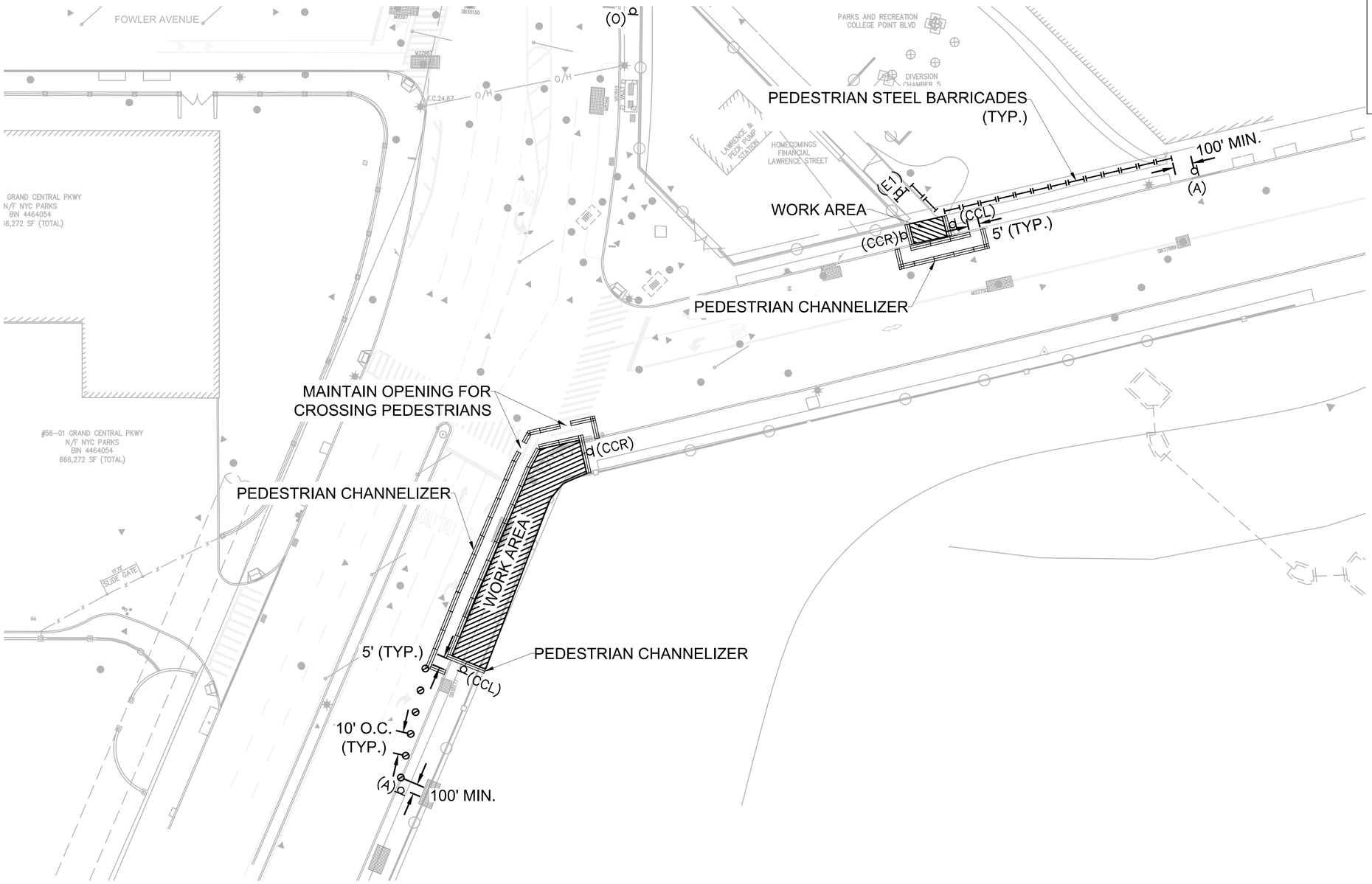
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
MPT (BLOSSOM AVE. WESTBOUND PHASE 2)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-106.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SIGN DATA

(A)b	W20-1 (ROAD WORK AHEAD)
(CCR)b	SC-153 (USE TEMPORARY WALKWAY (RIGHT))
(CCL)b	SC-153 (USE TEMPORARY WALKWAY (LEFT))
(E1)b	R11-2 (PATH CLOSED)
(0)b	G20-2 (END ROAD WORK)

1"=25' 0 25 50 FT.

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
COLLEGE POINT BOULEVARD AT BLOSSOM AVENUE
SIDEWALK CLOSURES

SCALE: 1" = 25'-0"

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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SECTION MANAGER:

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Engineers, Planners & Construction Managers

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Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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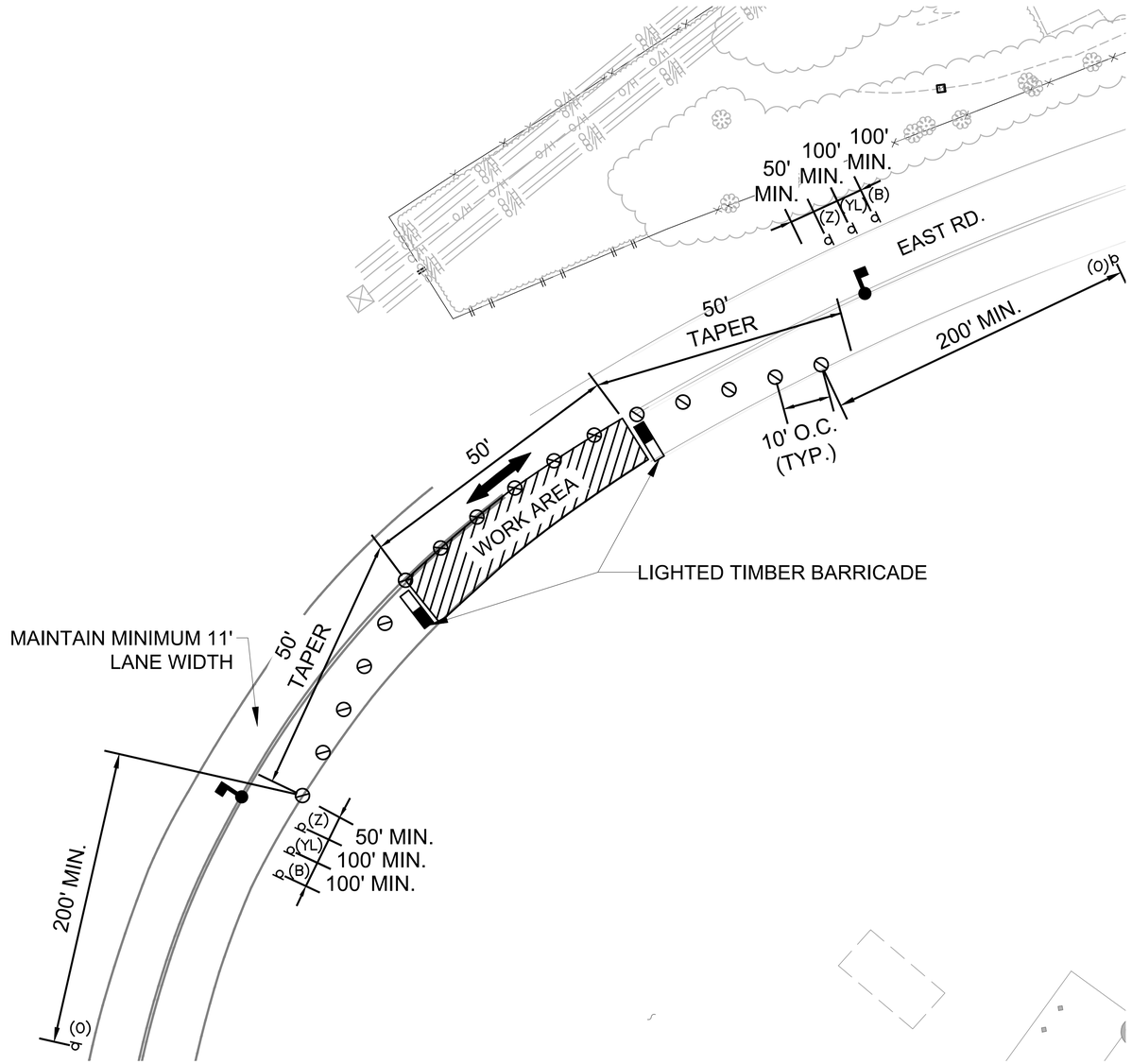
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
MPT (SIDEWALK CLOSURES)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-107.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SIGN DATA

(B)b	W20-4 (ONE LANE ROAD AHEAD)
(YL)b	W20-5 (LANE CLOSED AHEAD)
(Z)b	W20-7 (FLAGGER)
(O)b	G20-2 (END ROAD WORK)
b	G20-2 (END ROAD WORK)

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
EAST ROAD
PHASE 1
SCALE: 1" = 15'-0"

1"=15' 0 15 30 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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STATE OF NEW YORK SARWAT IZHAR 9/3/26 LICENSED PROFESSIONAL ENGINEER

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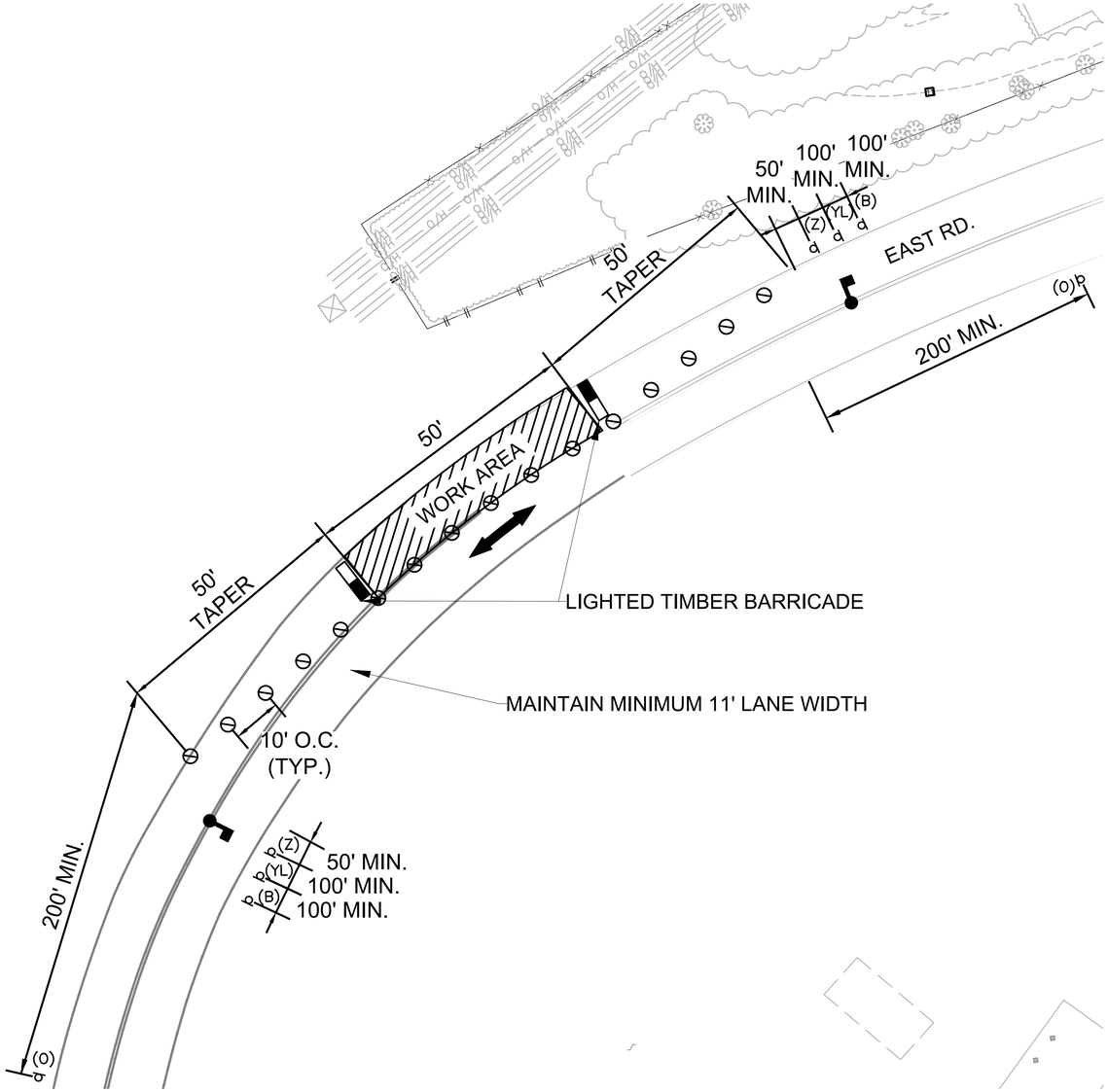
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
MPT (EAST ROAD PHASE 1)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-301.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SIGN DATA

(B)b	W20-4 (ONE LANE ROAD AHEAD)
(YL)b	W20-5 (LANE CLOSED AHEAD)
(Z)b	W20-7 (FLAGGER)
(O)b	G20-2 (END ROAD WORK)

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
EAST ROAD
PHASE 2

SCALE: 1" = 15'-0"

1"=15' 0 15 30 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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Environmental Protection

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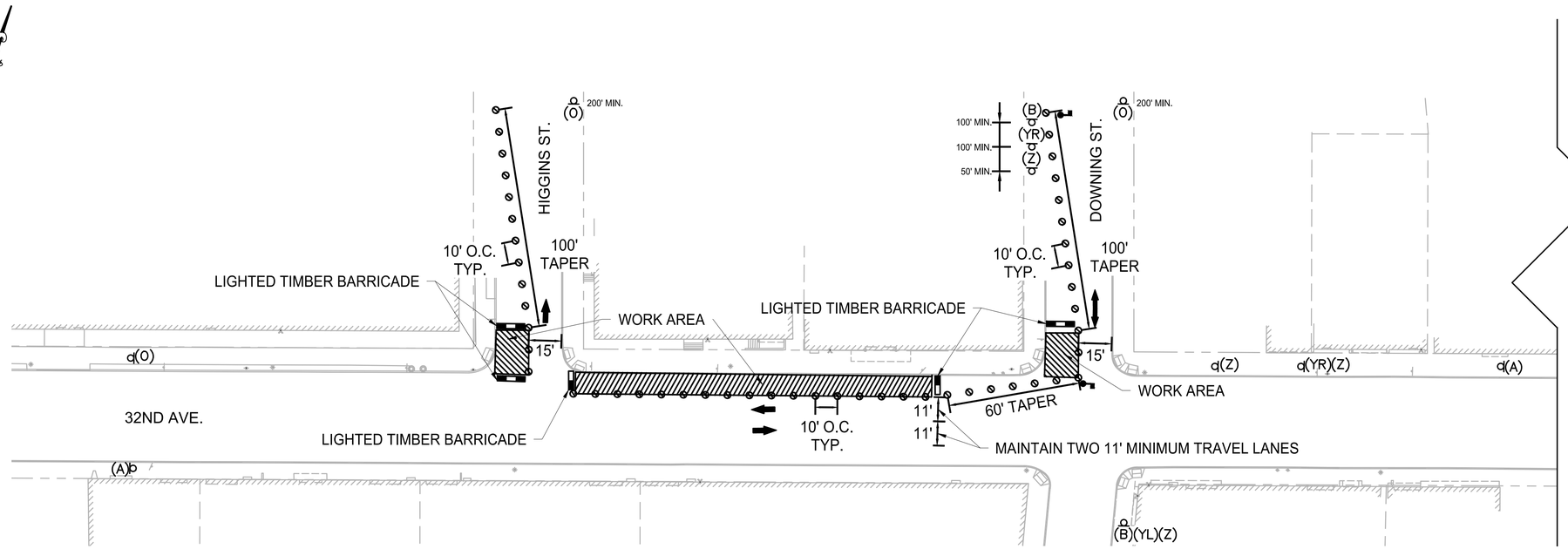
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
MPT (EAST ROAD PHASE 2)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-302.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

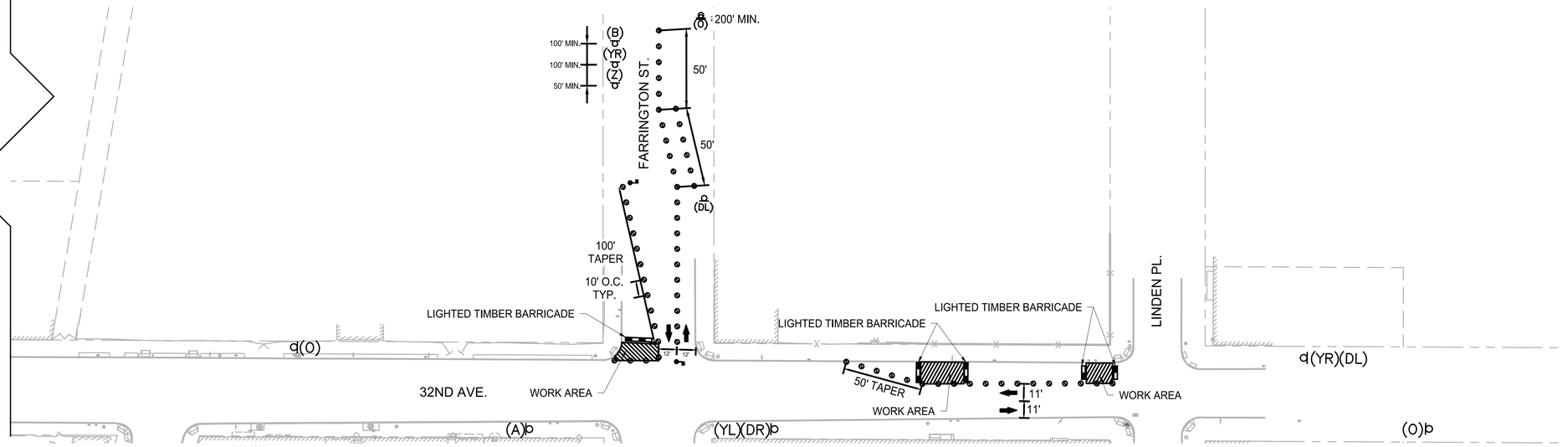


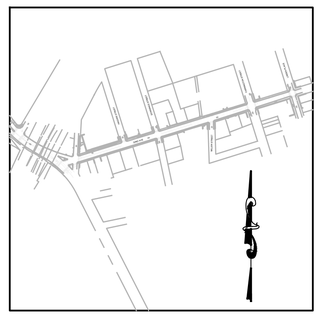
SIGN DATA

(A)Þ	W20-1 (ROAD WORK AHEAD)
(B)Þ	W20-4 (ONE LANE ROAD AHEAD)
(Z)Þ	W20-7 (FLAGGER)
(DL)Þ	W1-4L (LARGE ARROW KEEP LEFT)
(DR)Þ	W1-4R (LARGE ARROW KEEP RIGHT)
(YL)Þ	W20-5L (LEFT LANE CLOSED AHEAD)
(YR)Þ	W20-5L (RIGHT LANE CLOSED AHEAD)
(O)Þ	G20-2 (END ROAD WORK)

0 30 60 FT.
1"=30'

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - WEST VIEW 1
LANE CLOSURES
SCALE: 1" = 30'-0"





SITE MAP
SCALE: N.T.S

0 40 80 FT.
1"=40'

(B)(YL)(Z)

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - EAST VIEW 1
LANE CLOSURES
SCALE: 1" = 40'-0"

BID SET
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SECTION MANAGER:

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Engineers, Planners & Construction Managers

STATE OF NEW YORK SARWAT IZHAR 081238 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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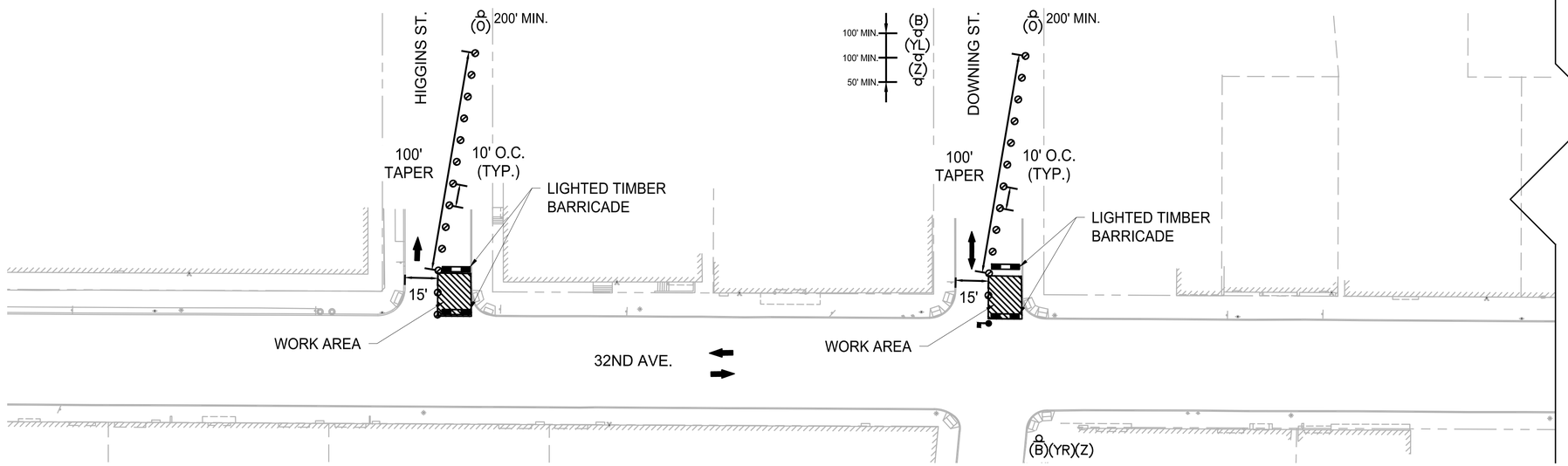
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
TI-011 DISINFECTION FACILITY
MPT (32ND AVENUE - LANE CLOSURES - WEST AND EAST VIEWS 1)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-401.00

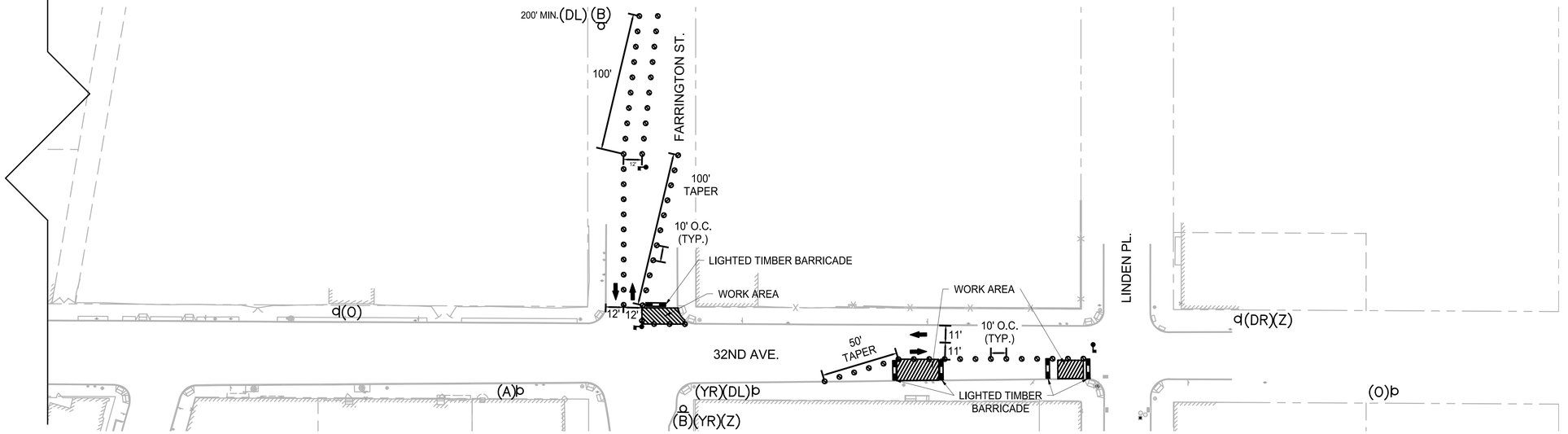
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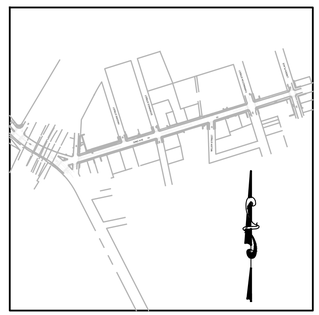
(A)Þ	W20-1 (ROAD WORK AHEAD)
(B)Þ	W20-4 (ONE LANE ROAD AHEAD)
(Z)Þ	W20-7 (FLAGGER)
(DL)Þ	W1-4L (LARGE ARROW KEEP LEFT)
(DR)Þ	W1-4R (LARGE ARROW KEEP RIGHT)
(YL)Þ	W20-5L (LEFT LANE CLOSED AHEAD)
(YR)Þ	W20-5L (RIGHT LANE CLOSED AHEAD)
(O)Þ	G20-2 (END ROAD WORK)



0 30 60 FT.
1"=30'

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - WEST VIEW 2
LANE CLOSURES
SCALE: 1" = 30'-0"





SITE MAP
SCALE: N.T.S

0 40 80 FT.
1"=40'

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - EAST VIEW 2
LANE CLOSURES
SCALE: 1" = 40'-0"

BID SET
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SECTION MANAGER:
DRAWN BY: MATTHEW GORSKI

SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK · SARWAT IZHAR · 1/31/26 · 081239 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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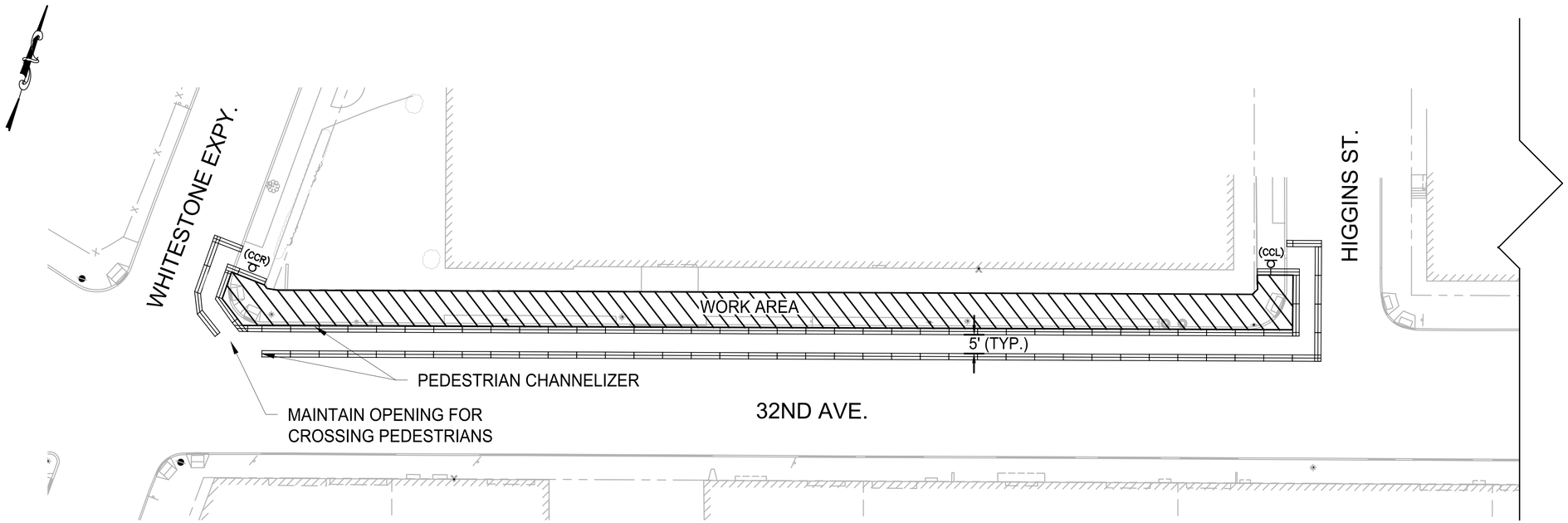
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
TI-011 DISINFECTION FACILITY
MPT (32ND AVENUE - LANE CLOSURES - WEST AND EAST VIEWS 2)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-402.00

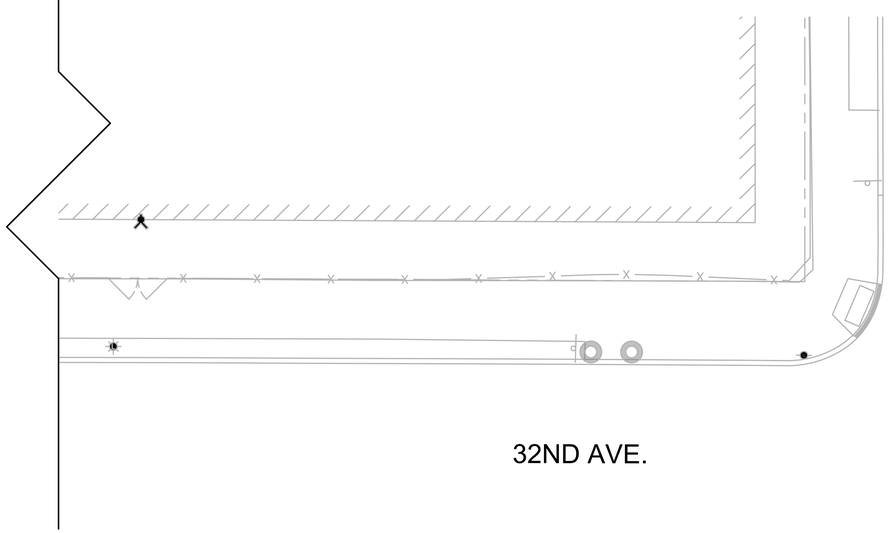
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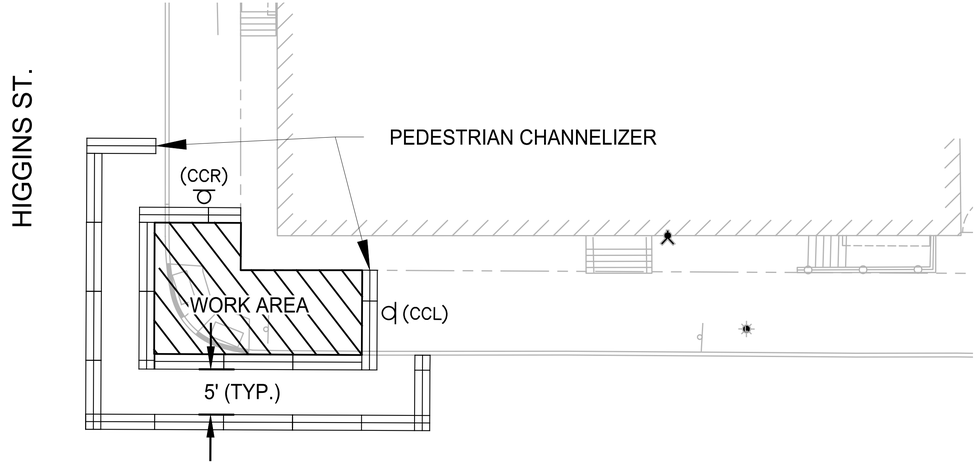
(CCR)ᵬ	SC-153 (USE TEMPORARY WALKWAY (RIGHT))
(CCL)ᵬ	SC-153 (USE TEMPORARY WALKWAY (LEFT))

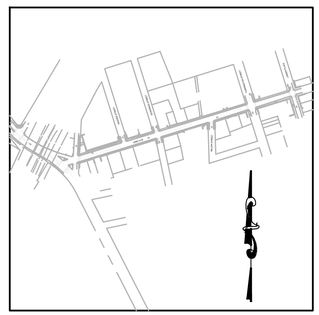


0 20 40 FT.
1"=20'

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - HIGGINS STREET PHASE 1
SIDEWALK CLOSURES
SCALE: 1" = 20'-0"







SITE MAP
SCALE: N.T.S

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - HIGGINS STREET PHASE 2
SIDEWALK CLOSURES
SCALE:1" = 10'-0"

0 10 20 FT.
1"=10'

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MATTHEW GORSKI
DRAWN BY: MATTHEW GORSKI
CHECKED BY: SARWAT IZHAR, PE
DESIGN LEAD: MATTHEW GORSKI
SECTION MANAGER:

SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK SARWAT IZHAR 081238 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

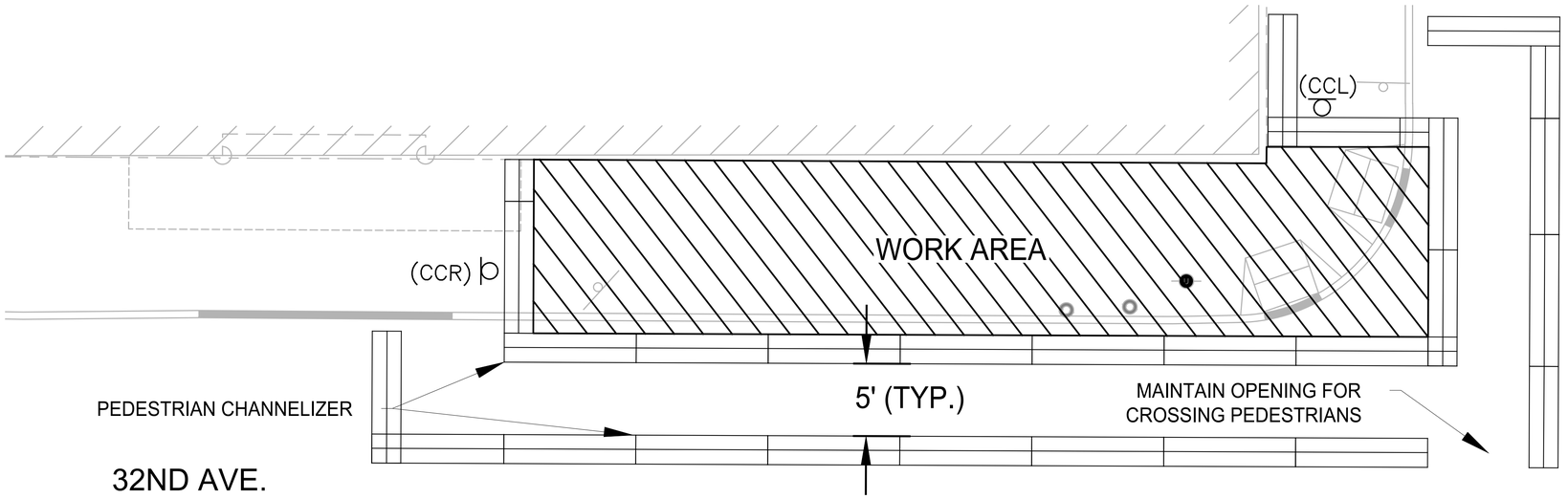
ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
TI-011 DISINFECTION FACILITY
MPT (32ND AVENUE - LANE CLOSURES - HIGGINS STREET)

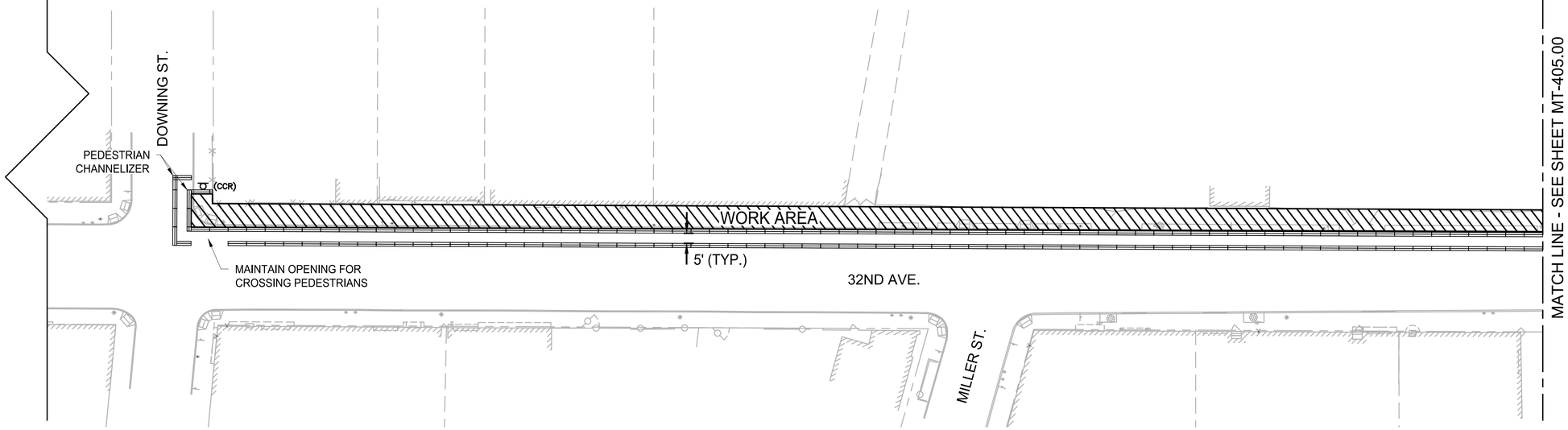
DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-403.00

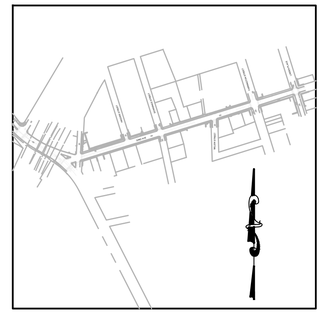


MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - DOWNING STREET
SIDEWALK CLOSURES
SCALE: 1" = 5'-0"

SIGN DATA	
(CCR)Þ	SC-153 (USE TEMPORARY WALKWAY (RIGHT))
(CCL)Þ	SC-153 (USE TEMPORARY WALKWAY (LEFT))

1"=5' 0 5 10 FT.





SITE MAP
SCALE: N.T.S

MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - DOWNING STREET TO FARRINGTON STREET
SIDEWALK CLOSURES
SCALE:1" = 30'-0"

1"=30' 0 30 60 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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Environmental Protection

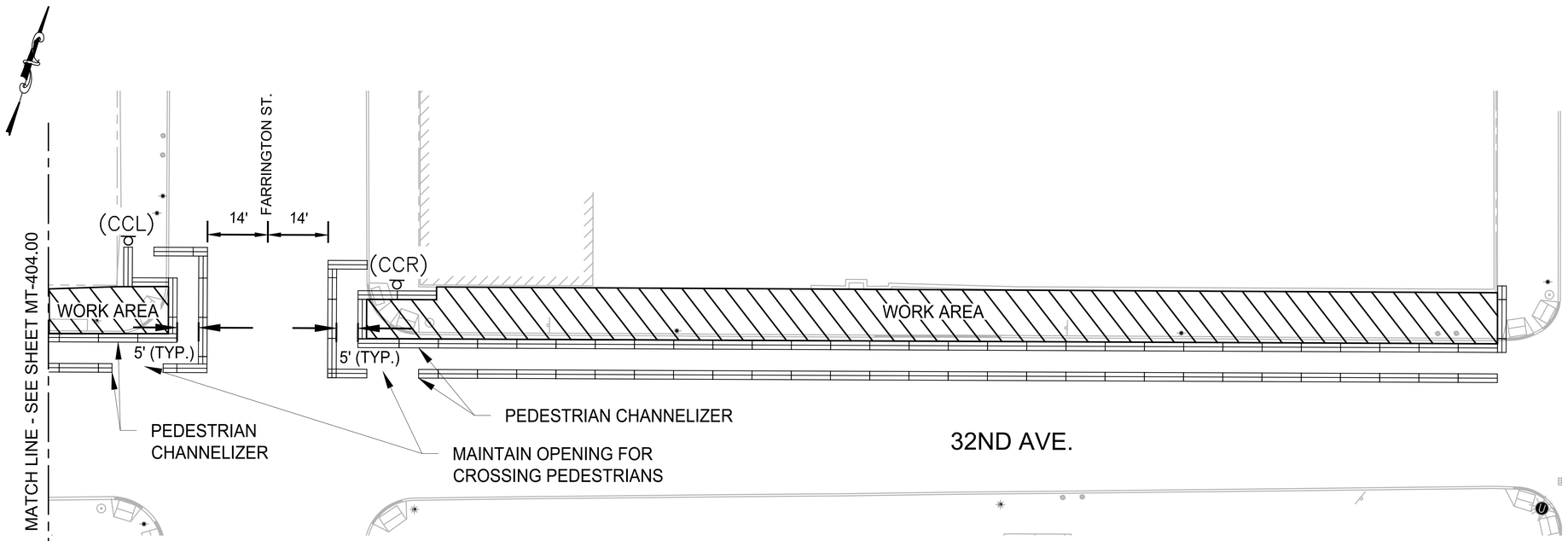
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
TI-011 DISINFECTION FACILITY
MPT (32ND AVENUE - SIDEWALK CLOSURES DOWNING STREET AND FARRINGTON STREET)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-404.00

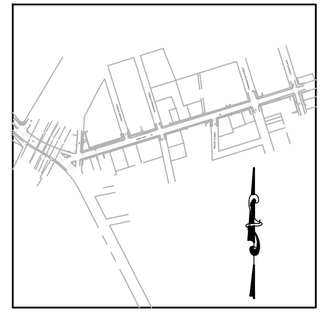


MAINTENANCE AND PROTECTION OF TRAFFIC PLAN
32ND AVENUE - FARRINGTON STREET
SIDEWALK CLOSURES
SCALE: 1" = 15'-0"

SIGN DATA

(CCR)Þ	SC-153 (USE TEMPORARY WALKWAY (RIGHT))
(CCL)Þ	SC-153 (USE TEMPORARY WALKWAY (LEFT))

1"=15' 0 15 30 FT.



SITE MAP
SCALE: N.T.S

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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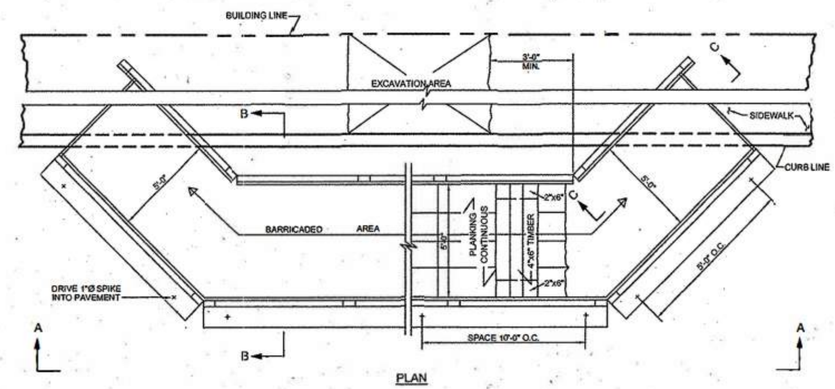
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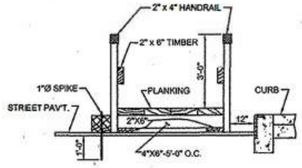
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION FACILITY
MPT (32ND AVENUE - SIDEWALK CLOSURES FARRINGTON STREET)

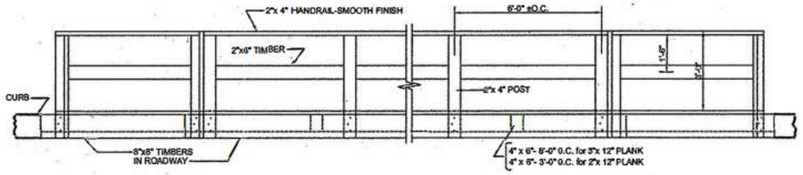
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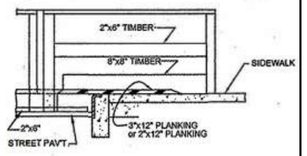
PLAN



SECTION B-B



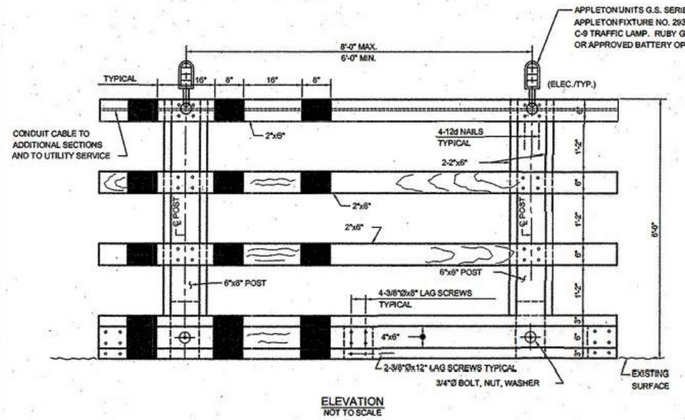
ELEVATION A-A



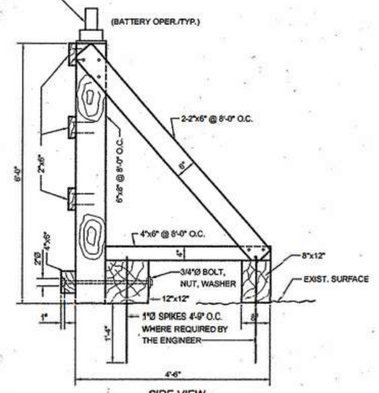
SECTION C-C

NOTES

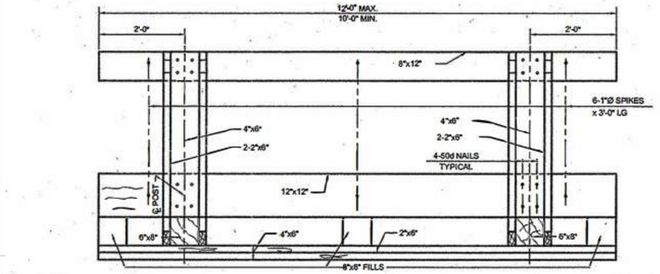
1. ALL TIMBER SHALL BE DOUGLAS FIR GRADE NO 1.
2. ALL WORK SHALL CONFORM WITH NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS.
3. LIGHTING FIXTURES CAN BE BATTERY TYPE FLASHER WARNING LIGHT OR AS DIRECTED BY THE ENGINEER.
4. RAILS & POSTS ARE TO RECEIVE TWO (2) COATS OIL PAINT, ORANGE & WHITE COLORS, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5. CONTRACTOR TO PROVIDE SHOP DRAWING CERTIFIED BY LICENSED PROFESSIONAL ENGINEER, CURRENTLY REGISTERED IN THE STATE OF NEW YORK, FOR APPROVAL.



ELEVATION
NOT TO SCALE



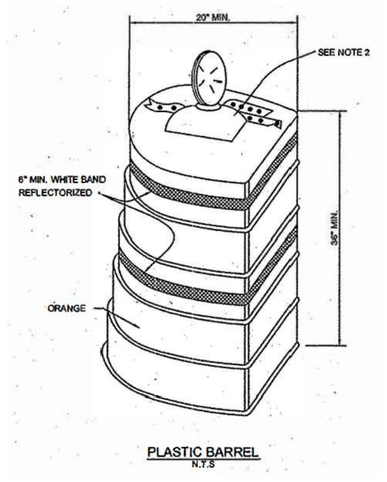
SIDE VIEW
NOT TO SCALE



PLAN
NOT TO SCALE

NOTES:

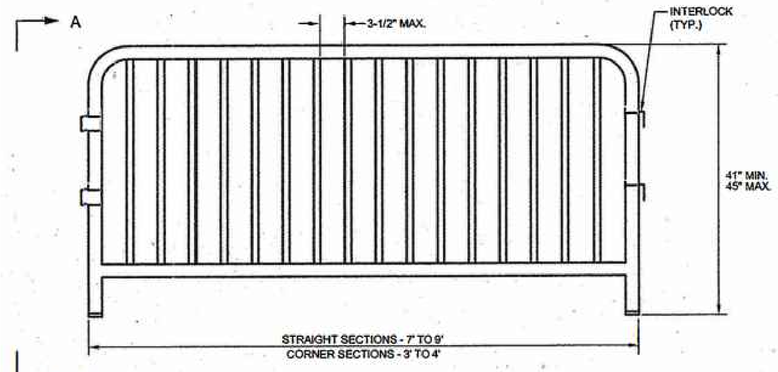
1. ALL TIMBER SHALL BE DOUGLAS FIR GRADE NO. 1 OR EQUAL.
2. ALL WORK SHALL CONFORM WITH NATIONAL DESIGN SPECIFICATIONS FOR STRESS GRADE LUMBER AND IT'S FASTENINGS.
3. ALL PAINTING SHALL BE ON TRAFFIC FACE, 2-COATS APPROVED ORANGE AND STAIN RESISTANT REFLECTORIZED WHITE.
4. ALL ELECTRICAL WORK FOR BARRICADE LIGHTING SHALL CONFORM TO THE DETAILS SHOWN IN D.W.S.G. & E. STANDARD DRAWING NO. H-3009 AND IN D.W.S.G. & E. "GENERAL SPECIFICATION FOR THE INSTALLATION OF LIGHTING SYSTEMS".
5. THIS STANDARD APPLIES FOR BOTH BATTERY OPERATED FLASHING UNITS OR ELECTRICAL UNITS AS SHOWN. PROJECT SPECIFICATIONS WILL DICTATE THE TYPE OF POWER SUPPLY.



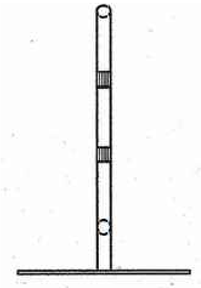
PLASTIC BARREL
N.T.S

NOTES:

1. BARREL MUST BE PLASTIC AND SPECIFICALLY DESIGNED AS A TRAFFIC CONTROL DEVICE. THE BARREL MUST BE FLATTENED ON AT LEAST ONE SIDE OR OTHERWISE DESIGNED SO THAT IT WILL NOT ROLL IF OVERTURNED.
2. THE BATTERY POWERED LIGHT IS FOR NIGHT USE ONLY. USE TYPE A LOW INTENSITY FLASHING LIGHT FOR POINT HAZARDS. USE TYPE C LOW INTENSITY STEADY BURN LIGHTS FOR CHANNELIZATION. THE LIGHT SHALL BE PHOTO CELL CONTROLLED FOR NIGHT USE.
3. ALL MATERIALS & METHODS USED ARE TO CONFORM TO SECTION #6.87 OF THE STANDARD SPECIFICATIONS, LATEST EDITION, AS AMENDED.



ELEVATION
N.T.S.



SECTION A-A
N.T.S.

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Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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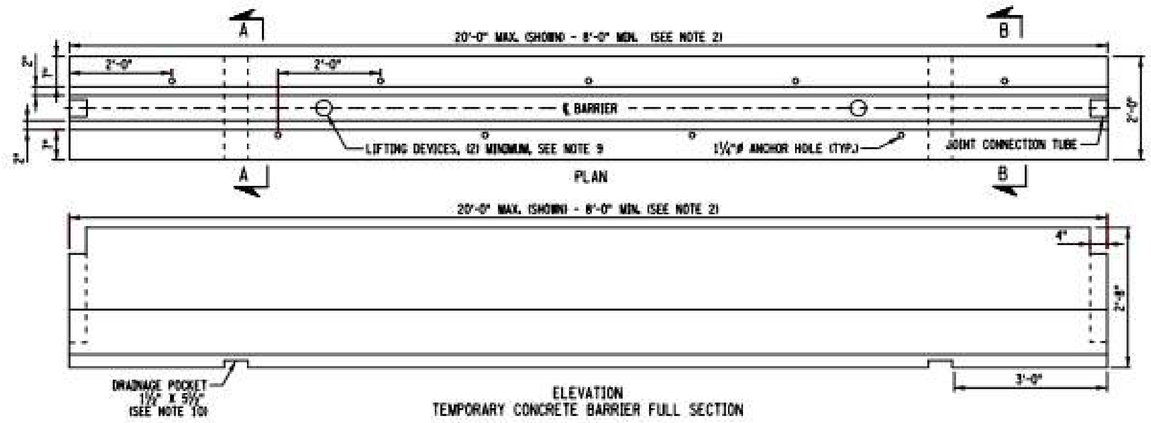
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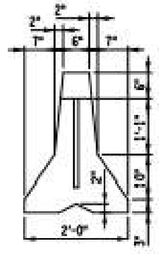
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

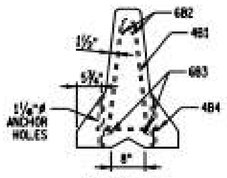
MPT DETAILS 1

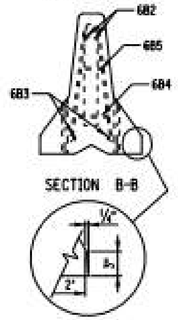
DATE: NOVEMBER 2026
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DRAWING NO. MT-901.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.





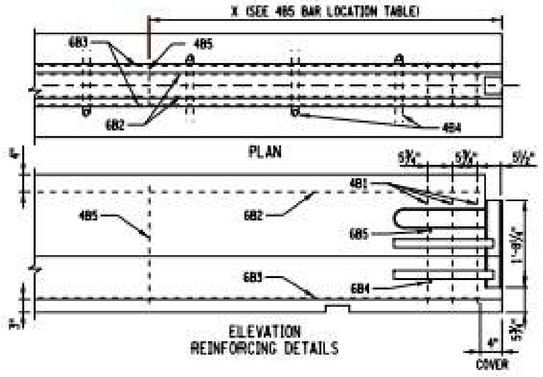




OPTIONAL BATTERED BOTTOM CORNER DETAIL

NOTES:

1. TEMPORARY CONCRETE BARRIER SHALL BE PRECAST IN ACCORDANCE WITH THE REQUIREMENTS OF §704-05 PRECAST CONCRETE BARRIER.
2. TEMPORARY CONCRETE BARRIER SHALL BE PRECAST UNITS OF ONE OF THE FOLLOWING NOMINAL LENGTHS 8', 10', 12', 14', 16', 18', 20'.
3. STEEL PLATE REINFORCEMENT SHALL BE ASTM A36M, A572M, GRADE 345 STEEL. TUBE REINFORCEMENT SHALL BE ASTM A500, GRADE B OR C, AND REINFORCING BARS SHALL BE A615, GRADE 420. EPOXY BARS ARE NOT REQUIRED.
4. ALL WELDING SHALL BE PERFORMED BY A WELDER QUALIFIED IN ACCORDANCE WITH SECTION 8 OF THE NYS STEEL CONSTRUCTION MANUAL.
5. SURFACES TO BE WELDED SHALL BE FREE OF SLAG, RUST, MOISTURE, GREASE OR ANY OTHER MATERIAL THAT WILL PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES.
6. WELDING SHALL BE SHIELDED METAL ARC WELDING USING PROPERLY DRIED 5/32" E7018 ELECTRODES CONFORMING TO THE REQUIREMENTS OF SECTION 7 OF THE NYS STEEL CONSTRUCTION MANUAL.
7. THE LENGTH OF THE 682 AND 683 BARS WILL VARY WITH THE LENGTH OF THE BARRIER SEGMENT.
8. CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1½" (MIN.) UNLESS OTHERWISE SPECIFIED.
9. A MINIMUM OF (2) TWO RECESSED LIFTING DEVICES, EACH WITH THE CAPACITY TO LIFT A MASS OF 6 TONS (MINIMUM), SHALL BE INSTALLED ON EACH SEGMENT. SEGMENT MASS IS APPROXIMATELY 400 LBS/FT.
10. ONE DRAINAGE POCKET SHALL BE INCLUDED IN THE CENTER OF 8'-0" AND 10'-0" SEGMENTS. TWO DRAINAGE POCKETS IN ALL OTHER SEGMENTS.
11. CONNECTION KEY COVER PLATE SHALL BE INSTALLED FLUSH WITH THE BARRIER TOP.
12. 1"ø ASTM A36M ANCHOR PINS SHALL BE PLACED IN FOUR ANCHOR HOLES OF EACH SEGMENT TO BE PINNED. PINS SHALL BE PLACED ON THE WORKZONE SIDE OF THE BARRIER.
13. BASED ON SEGMENT LENGTH AND MAXIMUM JOINT ROTATION, TEMPORARY CONCRETE BARRIER CANNOT BE INSTALLED ON RADII TIGHTER THAN THE FOLLOWING MINIMUMS: 8' - 92', 10' - 115', 12' - 138', 14' - 161', 16' - 184', 18' - 207', 20' - 230'.



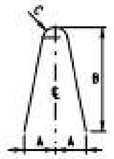
FULL SECTION BAR LIST

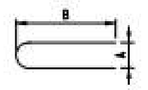
MARK	SIZE	NUMBER PER SECTION	LENGTH	TYPE	A	B	C	LOCATION
481	4	6	4'-11"	1	5"	28"	1"	STIRRUPS
484	4	1 PER RECESS	3'-1"	II	4"	15½"		ANCHOR RECESS HOOPS
485	4	SEE TABLE	4'-11"	1	5"	28"	1"	STIRRUPS
682	6	2	SEE NOTE 7	STR.				LONGITUDINAL (TOP)
683	6	2	SEE NOTE 7	STR.				LONGITUDINAL (BOTTOM)
684	6	2	1'-2"	STR.				TRANSVERSE (BOTTOM)
685	6	2	6"	STR.				TRANSVERSE (TOP)

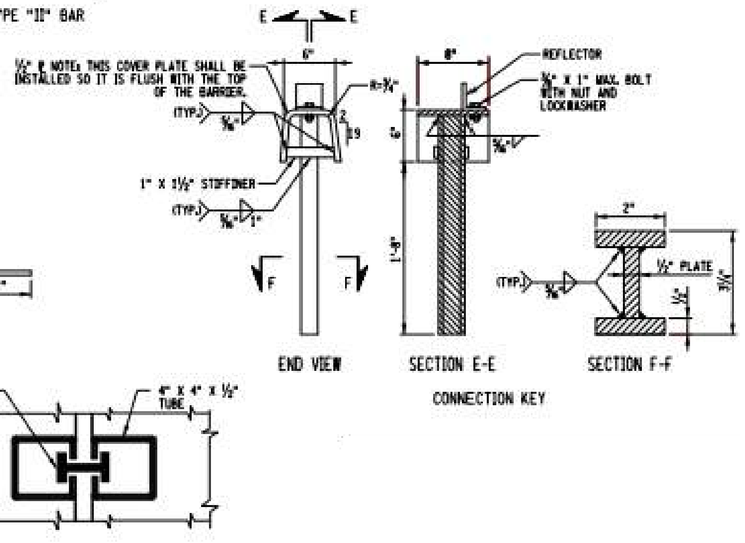
485 BAR LOCATION TABLE

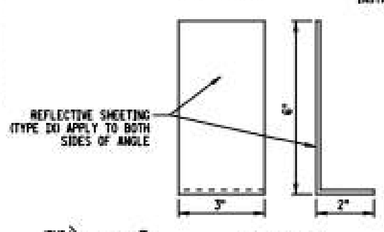
NOMINAL LENGTH OF BARRIER UNIT	X	NO. EACH SECTION
20'	6'-11"	2
18'	6'-5"	2
16'	5'-11"	2
14'	7'	1
12'	6'	1
10'	5'	1
8'	N/A	0

"X" DISTANCE FROM END OF BARRIER TO 485 BAR

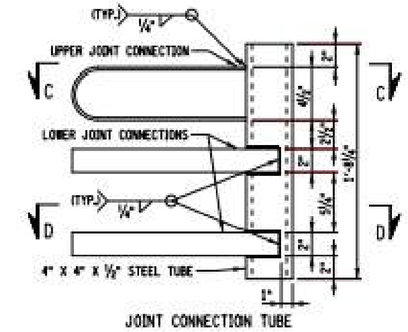


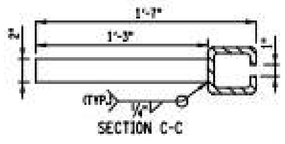


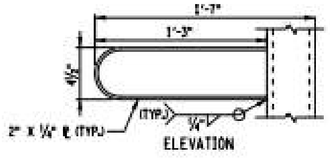


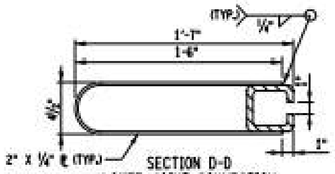


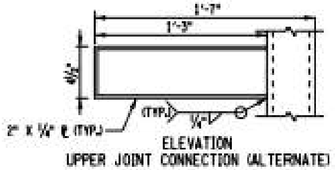
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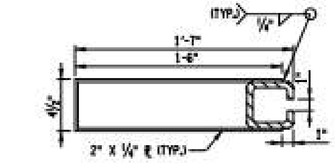












NYC Environmental Protection BEDCHD

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MATTHEW GORSKI
DRAWN BY: MATTHEW GORSKI
CHECKED BY: SARWAT IZHAR, PE
DESIGN LEAD: MATTHEW GORSKI
SECTION MANAGER:

SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK · SARWAT IZHAR · 9/3/26 · 081324 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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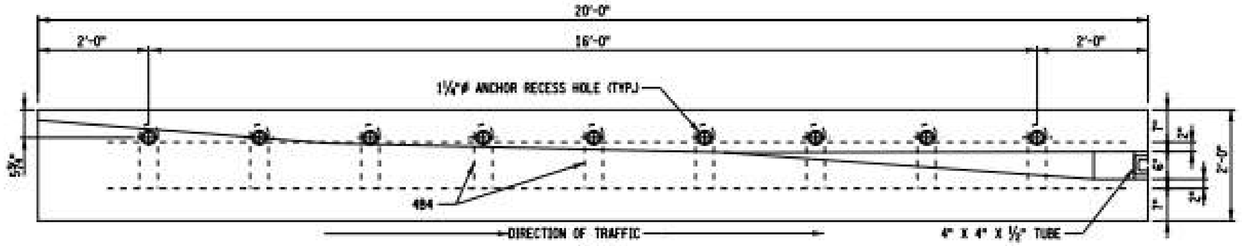
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MPT DETAILS 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-902.00

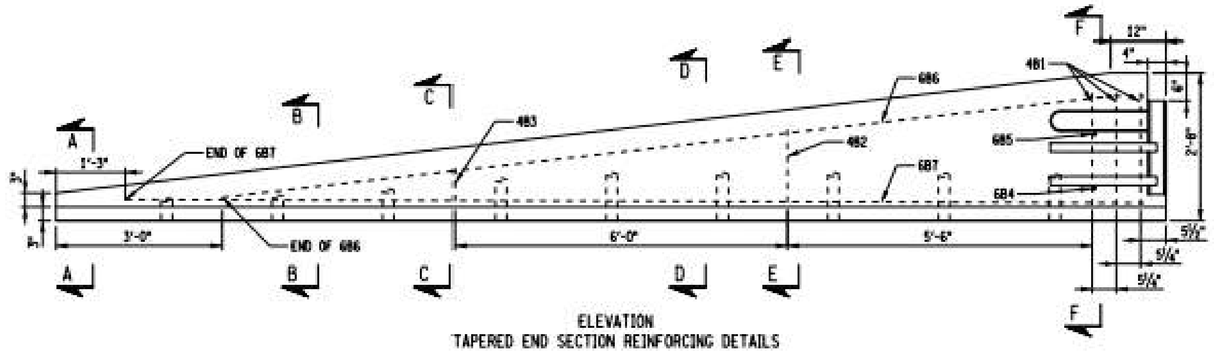
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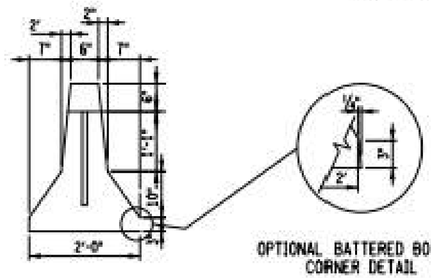
PLAN

NOTES:

1. STEEL PLATE SHALL BE ASTM A36M, A572M, GRADE 345, TUBE STEEL SHALL BE ASTM A500 GRADE B OR C, AND REINFORCING BARS SHALL BE A615 GRADE 420.
3. ALL CORNERS ON THE TOP OF THE SEGMENT SHALL BE ROUNDED TO A 1" RADIUS. THE SEGMENT SHALL HAVE A SMOOTH TRANSITION TO A 6" END-OF-SECTION HEIGHT. ALL END SECTIONS SHALL BE PINNED UNLESS OTHERWISE NOTED.
5. THE DETAILS SHOWN FOR THE END SECTIONS ON THIS SHEET ARE FOR APPROACH ENDS WHICH ARE TO BE LOCATED TO THE LEFT OF THE TRAFFIC FLOW ON ONE-WAY OPERATIONS OR BETWEEN OPPOSING FLOWS OF TRAFFIC ON TWO-WAY OPERATIONS. WHEN AN APPROACH END IS TO BE LOCATED TO THE RIGHT OF THE TRAFFIC FLOW, THE END SEGMENT SHALL BE CONSTRUCTED SO THAT IT IS OPPOSITE-HAND (REVERSED IN ALL CONFIGURATIONS, ANCHOR HOLE LOCATIONS AND REINFORCEMENT).

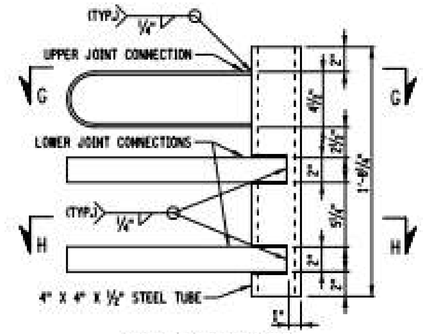


ELEVATION
TAPERED END SECTION REINFORCING DETAILS

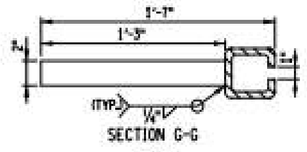


END VIEW

OPTIONAL BATTERED BOTTOM
CORNER DETAIL



JOINT CONNECTION TUBE

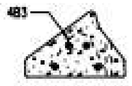


SECTION G-G

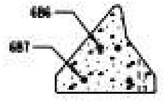


SECTION A-A

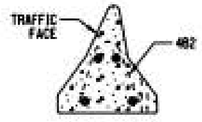
SECTION B-B



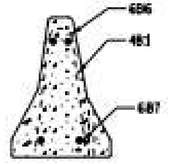
SECTION C-C



SECTION D-D

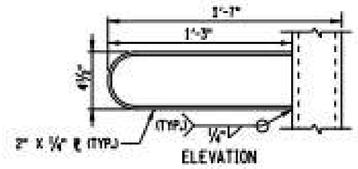


SECTION E-E

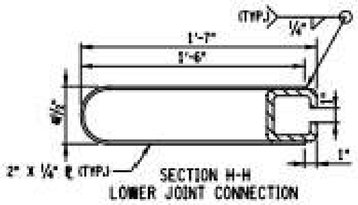


SECTION F-F

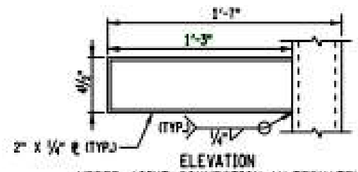
TRANSITION SECTIONS



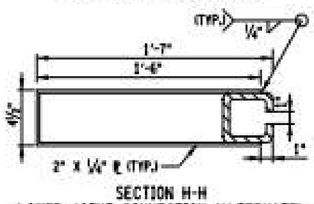
ELEVATION



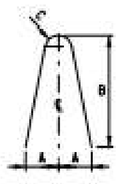
SECTION H-H
LOWER JOINT CONNECTION



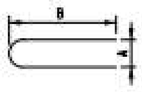
ELEVATION
UPPER JOINT CONNECTION (ALTERNATE)



SECTION H-H
LOWER JOINT CONNECTION (ALTERNATE)



TYPE "I" BAR



TYPE "II" BAR

TAPERED END SECTION BAR LIST

MARK	SIZE	NUMBER PER SECTION	LENGTH	TYPE	A	B	C	LOCATION
481	13	3	4'-11"	I	5"	28"	1"	STIRRUPS
482	13	1	3'-3"	I	5"	18"	1"	STIRRUPS
483	13	1	1'-8"	I	5"	8"	1"	STIRRUPS
484	13	9	3'-1"	II	4"	15½"		HOOPS
684	19	1	1'-2"	STR.				
685	19	1	6"	STR.				TRANSVERSE (TOP)
686	19	2	16'-7"	STR.				TRANSVERSE (BOTTOM)
687	19	2	18'-2"	STR.				

NYC Environmental Protection BEDCHD

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CHECKED BY: SARWAT IZHAR, PE
DESIGN LEAD: MATTHEW GORSKI
SECTION MANAGER:

SI Engineering, P.C.
Engineers, Planners & Construction Managers

STATE OF NEW YORK · SARWAT IZHAR · 1/3/26 · 081238 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MPT DETAILS 3

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. MT-903.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

2020 NYCECC Tabular Analysis
Commercial Building in compliance with ECC

Energy Code Scope of Work

For all ALTERATION job applications where the proposed scope of alteration work is limited to partial areas of the existing buildings and/or conditions, please provide a detailed description of the proposed scope of work here, and itemize the altered elements in the tabular format below.

Note for ALTERATION job application:
For each altered element where ALTERATION-specific exception/allowance is applied, create a row in the table to cite the applicable code section and to report the Supporting Documentation location. For examples of ALTERATION-specific exceptions/allowances, refer to 101.2.5, C503.1, C503.6, and C504.2.

NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C404.2 Table C404.2	**Service water-heating Equipment Performance Efficiency**	Domestic Water Heater, 10CEWH-1	*Meets efficiency requirements of table C404.2.*	93.7% Efficiency Electric Water Heater.	See Plumbing Drawing P-902 and specification 22 33 00
C404.3	**Heat traps for hot water storage tanks**	*N/A*	*N/A*	*N/A*	*N/A*
C404.4	**Insulation of piping**	*Domestic Hot Water insulation*	*DHW piping insulation: 105-140F, 1-1.5" diameter = 1.0 inches 1.5"-4" diameter = 1.5 inches*	*DHW insulation = 1.0 inches & 1.5 inches*	*See plumbing specification section 22 07 19.*
C404.5	**Efficient heated water supply piping**	*N/A*	*N/A*	*N/A*	N/A
C404.5.1 Table C404.5.1	**Maximum allowable pipe length method**	*N/A*	*N/A*	*N/A*	N/A
C404.5.2 Table C404.5.1	**Maximum allowable pipe volume method**	*N/A*	*N/A*	*N/A*	N/A
C404.6	**Heated-water circulating and temperature maintenance systems**	*Hot water heat trace*	*Heat trace shall be arranged to be turned off automatically when there is no hot water demand.*	*Heat Trace controls shall automtically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping when heated water is used. Heat trace shall be arranged to turn off automatically when there is no demand for hot water.*	See plumbing specificationd section 22 05 33
C404.7	**Demand recirculation controls**	*N/A*	*N/A*	*N/A*	*N/A*
C404.8	**Drain water heat recovery units**	*N/A*	*N/A*	*N/A*	*N/A*
C404.9	**Energy consumption of pools and permanent spas (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C404.9.3	**Covers**	*N/A*	*N/A*	*N/A*	*N/A*
C404.10	**Energy consumption of portable spas (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C408.2	**Mechanical, renewable energy, and service water heating systems commissioning and completion requirements**	*N/A*	*N/A*	*N/A*	*N/A*

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DRAWN BY: ED
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 093921 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-010 CHLORINATION FACILITY
PLUMBING ENERGY CODE

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. EN-101.00

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
10/30/2026 10:08:14 AM
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TABLE II - PROGRESS INSPECTIONS FOR ENERGY CODE COMPLIANCE - COMMERCIAL BUILDINGS

	Inspection/Test	Periodic (minimum)	Reference Standard (See ECC Chapter C6) or Other Criteria	ECC or Other Citation	YES or NO
IIA	**Envelope Inspections**				
IIA1	Protection of exposed foundation insulation: Insulation must be visually inspected to verify proper protection where applied to the exterior of basement or cellar walls, crawl-space walls and/or the perimeter of slab-on-grade floors	As required During Foundation work and prior to backfill	Approved construction documents, ASTM C272	C303.2.1; ASHRAE 90.1 - 5.8.1, 5.9	
IIA2	Insulation placement and R-values: Installed insulation for each component of the conditioned space envelope and at junctures between components, including thermal bridges and heated slab insulation, must be visually inspected to ensure that the R-values are marked, that such R-values conform to the R-values identified in the construction documents and that the insulation is properly installed. Certifications for unmarked insulation also be visually inspected.	As required to verify continuous enclosure while walls, ceilings and floors are open	Approved construction documents	C303.1, C303.2, C402.1, C402.2, C402.6, C406; ASHRAE 90.1 - 5.5, 5.6, 5.8, 5.9, 11 or Appendix G, Appendix I	
IIA3	Fenestration and door U-factor and product ratings: U-factors, SHGC and VT values of installed fenestration must be visually inspected for conformance with the U-factors, SHGC and VT values identified in the construction drawings by verifying the manufacturer's NFRC labels or, where not labeled, using the ratings in ECC Tables C303.1.3(1), (2) and (3).	As required during installation	Approved construction documents; NFRC 100, NFRC 200, NFRC 300, ANSI/DASMA 105, ASTM E972	C303.1, C303.1.3, C402.1.4, C402.4, C406; ASHRAE 90.1 - 5.4.2, 5.5, 5.6, 5.8.2, 5.9, 11 or Appendix G, Appendix I	
IIA4	Fenestration air leakage: Windows and door assemblies, except site-built windows and/or doors, must be visually inspected to verify that installed assemblies are listed and labeled by the manufacturer to the referenced standard. For curtain wall, storefront glazing, commercial entrance doors and revolving doors, the testing reports must be reviewed to verify that the installed assembly complies with the standard cited in the approved plans. Weatherseals at loading docks must be visually verified.	As required during installation; prior to final construction inspection	NFRC 400, AAMA/WDMA/CSA 101/I.S.2/A440; ASTM E283; ANSI/DASMA 105	C402.5.2, C402.5.6; ASHRAE 90.1 - 5.4.3.2, 5.4.3.3, 5.8.2, 5.9	
IIA5	Fenestration areas: Dimensions of windows, doors and skylights must be verified by visual inspection.	Prior to final construction inspection	Approved construction documents	C402.4; ASHRAE 90.1 - 5.4, 5.5.4, 5.6, 5.9, 11 or Appendix G	
IIA6	Air barrier visual inspection: Openings and penetrations in the building envelope, including site-built fenestration and doors, must be visually inspected to verify that a continuous air barrier around the envelope forms an air-tight enclosure. The progress inspector must visually inspect to verify that materials and/or assemblies have been tested and meet the requirements of the respective standards, or must observe the testing of the building and/or assemblies and verify that the building and/or assemblies meet the requirements of the standard, in accordance with the standard(s) cited in the approved plans	As required during construction	Approved construction documents; ASTM E2178, ASTM E2357, ASTM E1677, ASTM E779, ASTM E283.	C402.5; ASHRAE 90.1 - 5.4.3.1, 5.4.3.5, 5.9	
IIA7	Air barrier testing: Testing must be performed in accordance with section ECC C402.5.1.3.1 or ASHRAE 90.1 section 5.4.3.1.3, and shall be accepted if the building meets the requirements detailed in such section. Test results must be retained in accordance with the provisions of Title 28 of the Administrative Code. Testing must be performed by a third- party independent of the contractor and acceptable to the department.	As required during construction, or prior to final construction inspection	Approved construction documents; ASTM E 779, ANSI/BOMA Z65.1, ASTM E3158, RESNET/ICC 380	C402.5, C402.5.1.3, C406; ASHRAE 90.1 - 5.4.3.1.3, 5.9, Appendix I	
IIA8	Air barrier continuity plan testing: Each unique air barrier joint or seam must be tested or inspected for compliance. Documentation includes the method of test performed on each unique air barrier joint or seam and the results of the test. If an air barrier joint or seam has a deficiency, the deficiency must be noted, and retested until it complies with the testing requirements. Test results shall be retained in accordance with the provisions of Title 28 of the Administrative Code. Testing must be performed by a third-party independent of the contractor and acceptable to the department.	As required during construction	Approved construction documents; ASTM E779, ASTM E1186, ASTM E2813, ASTM E3158	C402.5.1.3; ASHRAE 90.1 - 5.4.3.1.3, 5.9	
IIA9	Vestibules: Required entrance vestibules must be visually inspected for proper operation.	Prior to final construction inspection	Approved construction documents;	C402.5.7; ASHRAE 90.1 - 5.4.3.4	
IIB	**Mechanical and Service Water Heating Inspections**				
IIB1	Fireplaces: Provision of combustion air and tight-fitting fireplace doors must be verified by visual inspection.	Prior to final construction inspection	Approved construction documents; UL 127	C402.2.8; BC 2111; MC Chapters 7, 8, 9; FGC Chapter 6	
IIB2	Shutoff dampers: Dampers for stair and elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope must be visually inspected to verify that such dampers, except where permitted to be gravity dampers, comply with approved construction drawings. Manufacturer's literature must be reviewed to verify that the product has been tested and found to meet the standard.	As required during installation	Approved construction documents; AMCA 500D	C402.5.5, C403.7.7; ASHRAE 90.1 - 6.4.3.5	
IIB3	HVAC-R, commercial kitchen equipment, and service water heating equipment: Equipment sizing, efficiencies, pipe sizing and other performance factors of all major equipment units, as determined by the applicant of record, and no less than 15% of minor equipment units, must be verified by visual inspection and, where necessary, review of manufacturer's data. Pool heaters and covers must be verified by visual inspection.	Prior to final plumbing and construction inspection	Approved construction documents, ASHRAE 183, ASHRAE HVAC Systems and Equipment Handbook	C403.1, C403.2, C403.3, C403.7.5, C404.2, C404.5, C404.9, C405.10, C406; ASHRAE 90.1 - 6.3, 6.4, 6.5, 6.7, 7.4, 7.5, 7.8, 10.4.6, Appendix I	
IIB4	HVAC-R and service water heating system controls: No less than 20% of each type of required controls must by verified by visual inspection and tested for functionality and proper operation. Such controls must include, but are not limited to: •Thermostatic •Off-hour •Zones •Freeze protection/Snow- and ice-melt system •Ventilation System and Fan Controls •Energy recovery systems •Kitchen/lab exhaust systems •Fan systems serving single and multiple zones •Outdoor heating systems •HVAC control in hotel/motel guest rooms •Air/Water Economizers & controls •Hydronic systems •Heat rejection systems •Hot gas bypass limitation •Refrigeration systems •Door switches •Computer room systems •Service water heating systems •Pool heater and time switches	After installation and prior to final electrical and construction inspection, except that for controls with seasonally dependent functionality, such testing must be performed before sign- off for issuance of a Final Certificate of Occupancy	Approved construction documents, including control system narratives; ASHRAE Guideline 1: The HVAC Commissioning Process where applicable	C403, C404, C406; ASHRAE 90.1 - 6.3, 6.4, 6.5, 6.6, 7.4, 7.5, Appendix I	
IIB4 cont.	Controls with seasonally dependent functionality: Controls whose complete operation cannot be demonstrated due to prevailing weather conditions typical of the season during which progress inspections will be performed shall be permitted to be signed off for the purpose of a Temporary Certificate of Occupancy with only a visual inspection, provided, however, that the progress inspector must perform a supplemental inspection where the controls are visually inspected and tested for functionality and proper operation during the next immediate season thereafter. The owner must provide full access to the progress inspector within two weeks of the progress inspector's request for such access to perform the progress inspection. For such supplemental inspections, the Department must be notified by the approved progress inspection agency of any unresolved deficiencies in the installed work within 180 days of such supplemental inspection				
IIB5	HVAC-R and service water piping design and insulation: Installed piping insulation must be visually inspected to verify proper insulation placement and values. Service hot water distribution systems must be inspected to verify the supply of heated water.	After installation and prior to closing shafts, ceilings and walls	Approved construction documents;	C403.11, C404.4, C404.5; MC 603.9; ASHRAE 90.1 - 6.3, 6.4.4, 6.8.2, 6.8.3; 7.4.3	
IIB6	Duct leakage testing, insulation and design: For duct systems designed to operate at static pressures in excess of 3 inches w.g. (747 Pa), representative sections, as determined by the progress inspector, totaling at least 25% of the duct area, must be tested to verify that actual air leakage is below allowable amounts. Installed duct insulation must be visually inspected to verify proper insulation placement and values. Joints, longitudinal and transverse seams and connections in ductwork must be visually inspected for proper sealing.	After installation and sealing and prior to closing shafts, ceilings and walls	Approved construction documents; SMACNA HVAC Air Duct Leakage Test Manual; SMACNA Duct Construction Standards, Metal and Flexible	C403.11; ASHRAE 90.1 - 6.4.4.2.2	
IIC	**Electrical Power and Lighting Systems**				
IIC1	Metering: The presence and operation of all required meters for monitoring total electrical energy usage and/or total fuel use, system energy usage, tenant energy usage, or electrical energy usage in the building, in individual dwelling units, or in tenant spaces must be verified by visual inspection.	Prior to final electrical and construction inspection	Approved construction documents	C405.5, C405.11, C405.12; ASHRAE 90.1 - 8.4.3, 8.4.5, 8.4.6, 10.4.5	
IIC2	Lighting in dwelling units: Lamps in permanently installed lighting fixtures must be visually inspected to verify compliance with high-efficacy requirements.	Prior to final electrical and construction inspection	Approved construction documents	C405.1; ASHRAE 90.1 - 9.1.1	
IIC3	Interior lighting power: Installed lighting must be verified for compliance with the lighting power allowance by visual inspection of fixtures, lamps, ballasts and transformers.	Prior to final electrical and construction inspection	Approved construction documents	C405.3, C406; ASHRAE 90.1 -9.1, 9.2, 9.5, 9.6, 9.7; 1RCNY §101-07(c)(3)(v)(C)4, Appendix I	
IIC4	Exterior lighting power: Installed lighting must be verified for compliance with source efficacy and/or the lighting power allowance by visual inspection of fixtures, lamps, ballasts and relevant transformers.	Prior to final electrical and construction inspection	Approved construction documents	C405.4; ASHRAE 90.1 -9.4.2; 1RCNY §101-07(c)(3)(v)(C)4	
IIC5	Lighting controls: Each type of required lighting controls, including: - occupant sensors - manual interior lighting controls - light-reduction controls - automatic lighting shut- off - daylight zone controls - sleeping unit controls - exterior lighting controls - egress illumination controls must be verified by visual inspection and tested for functionality and proper operation.	Prior to final electrical and construction inspection	Approved construction documents, including control system narratives	C405.2, C406; ASHRAE 90.1 -9.4.1, 9.4.3, 9.7, Appendix I	
IIC6	Electric motors and elevators: Where required by the construction documents for energy code compliance, motor listing or labels must be visually inspected to verify that they comply with the respective energy requirements in the construction documents. Elevators and escalators must be inspected for compliance with regenerative drive requirements.	Prior to final electrical and construction inspection	Approved construction documents	C403.8, C405.6, C405.7, C405.8, C405.9; ASHRAE 90.1 -8.4.4, 10.4, 10.8	
IID	**Other**				
IID1	Maintenance information: Maintenance manuals for mechanical, service hot water and electrical equipment and systems requiring preventive maintenance must be reviewed for applicability to installed equipment and systems before such manuals are provided to the owner. Labels required for such equipment or systems must be inspected for accuracy and completeness.	Prior to sign-off or issuance of Final Certificate of Occupancy	Approved construction documents, including electrical drawings where applicable; ASHRAE Guideline 4: Preparation of Operating and Maintenance Documentation for Building Systems	C408.1.1, C408.2.5.2, C408.3.2; ASHRAE 90.1 - 4.2.2.3, 6.7.2.2, 6.7.2.3.5.2, 8.7.2, 9.7.2.2, 9.4.3.2.2	

ENERGY CODE NOTES - TI-010D

1. THE PROJECT IS SUBJECT TO AND SHALL COMPLY WITH THE 2020 NYC ENERGY CONSERVATION CODE.
2. THE PROJECT SHALL COMPLY WITH ENERGY CONSERVATION CODE COMPLAINCE PATH - PRESCRIPTIVE TABULAR ANALYSIS (1 RCNY 5000-01(f)).
3. THE FOLLOWING MANDATORY ADDITIONAL EFFICIENCY PACKAGE IS INCLUDED IN THE PROJECT.
   A. OPTION # 6 ENHANCED ENVELOPE PERFORMANCE.
   B. REFERENCE SHEET EN-306 FOR COMCHECK PERFORMANCE RESULTS.
4. A PERMANENT ENERGY EFFICIENCY CERTIFICATE IS NOT REQUIRED FOR NON-RESIDENTIAL AND OCCUPANCY IS NOT AN R-3 OCCUPANCY.

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CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK ANTHONY M. MCCOY 083924 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-010 DECHLORINATION FACILITY
ENERGY CODE DATA

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. EN-301.00

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2020 NYCECC Tabular Analysis
Commercial Building in compliance with ECC

Energy Code Scope of Work

NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C401.2.1	**APPLICATION TO GROUP R-3 BUILDINGS, PERMANENT CERTIFICATE**	*NA*	*NA*	*NA*	*NA*
C401.2.1	**APPLICATION TO GROUP R-3 BUILDINGS, AIR LEAKAGE TESTING**	*NA*	*NA*	*NA*	*NA*
C401.2.1	**APPLICATION TO GROUP R-3 BUILDINGS, HRV/ERV OR BALANCED VENTILATION**	*NA*	*NA*	*NA*	*NA*
C402.1.3, C402.2, TABLES C402.1.3, C402.1.4	**ROOF ASSEMBLY - INSULATION ENTIRELY ABOVE ROOF**	*INSULATION ON TOP OF METAL DECK.*	*MINIMUM R-33ci*	*ROOF ASSEMBLY INSULATION: 6" XPS (R -34) CONTINUOUS INSULATION ABOVE DECK*	*A-303 (ROOF PLAN), A-309, A-310 (WALL SECTIONS), A-906 (ROOF DETAILS)*
TABLES C402.1.3, TABLE C402.1.4, SECTION C402.2	**ROOF ASSEMBLY - METAL BUILDINGS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**ROOF ASSEMBLY - ATTIC AND OTHER**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**WALLS, ABOVE - GRADE: MASS**	*12" CMU OR 12" CIP CONCRETE WALLS WITH CONTINUOUS RIGID INSULATION OR METALPANEL VENEER*	*MINIMUM R-13.25ci*	*3" EXRUDED POLYSTYRENE (XPS) = R-15 ci*	*A-309, A-310 (WALL SECTIONS)*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**WALLS, ABOVE - GRADE: METAL FRAMED**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**WALLS, ABOVE - GRADE: WOOD FRAMED AND OTHER**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**BELOW - GRADE WALLS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**FLOORS: MASS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**FLOORS: JOIST/FRAMING**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**SLAB - ON GRADE FLOORS: HEATED SLABS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**OPAQUE DOORS, NONSWINGING**	*NA*	*NA*	*NA*	*NA*
C402.1.1	**LOW- ENERGY BUILDINGS**	*NA*	*NA*	*NA*	*NA*
C402.1.4 TABLES C402.1.3, C402.1.4	**ASSEMBLY U-FACTOR, C-FACTOR, OR F-FACTOR - BASED METHOD**	*OPAQUE SWINGING DOOR*	*SWINGING DOOR: U-0.50*	*U-FACTOR CALCULATED IS : U-0.40.*	*A-312 (SCHEDULES - DOOR NOTES #8)*
C402.2.1	**MULTIPLE LAYERS OF CONTINUOUS INSULATION**	*NA*	*NA*	*NA*	*NA*
C402.2.8	**FIREPLACES**	*NA*	*NA*	*NA*	*NA*
C402.2.9	**CONTINUOUS INSULATION**	*PARAPET DESIGN*	*PARAPET SHALL INCORPORATE A MINIMUM R-3 THERMAL BREAK WHERE THE STRUCTURAL ELEMENT PENENTRATES THE BUILDING THERMAL ENVELOPE*	*PARAPET THERMAL BREAK MINIMUM R-11.2 ci OR U-FACTOR U-0.099*	*A-309, A-310 (WALL SECTIONS), A-906 (ROOF DETAILS)*
C402.4, TABLE C402.4	**FENESTRATION (PERSPECTIVE)**	*FENESTRATION REQUIREMENTS ELEVATION SHOWING 95' DEMARCATION*	*WINDOW U-FACTOR BASED BELOW 95' IS UMAX-0.30 (FIXED) SHGCMAX-0.36 (PF<0.2)*	*W-1 (FIXED) - INSTALLED BELOW 95 FEET U-0.30, SHGC - 0.36*	*A-304 - A-307 (BUILDING ELEVATIONS), A-312 (SCHEDULE - WINDOWS)*
C402.4.1	**MAXIMUM AREA**	*WINDOW TO WALL RATIO*	*30% MAXIMUM*	*TOTAL BUILDING FACADE AREA =4107 / TOTAL WINDOW AREA=120, TOTAL=2.9%*	*A-304 (BUILDING ELEVATION NOTES #2)*
C402.4.1.1	**INCREASED VERTICAL FENESTRATION AREA WITH DAYLIGHT RESPONSIVE CONTROLS**	*NA*	*NA*	*NA*	*NA*
C402.4.1.2	**INCREASED SKYLIGHT AREA WITH DAYLIGHT RESPONSIVE CONTROLS**	*NA*	*NA*	*NA*	*NA*
C402.4.2	**MINIMUM SKYLIGHT FENESTRATION AREA**	*NA*	*NA*	*NA*	*NA*

C402.5	**AIR LEAKAGE-THERMAL ENVELOPE (MANDATORY)**	*AIR LEAKAGE THERMAL ENVELOPE*	*THE THERMAL ENVELOPE OF THE BUILDING MUST COMPLY WITH SECTIONS C402.5.1 THROUGH C402.5.8. PRESSURE DIFFRENTIAL OF 0.3 INCH WATER GAUGE..AIR LEAKAGE RATE 0.40 cfm/ft2MAXIMUM. MUST COMPLY WITH SECTIONS C402.5.5, C402.5.6, AND C402.5.7.*	*BUILDING THERMAL ENVELOPE TO BE TESTED TO NO MORE THAN 0.4 cfm/ft2 OF ENVELOPE AREA @ 75 PA AND WITNESSED BY THE PROGRESS INSPECTOR AS INDICATED ON TR-8 INSPECTION IIA7.*	*NOTES A-304 - A-307 (BUILDING ELEVATIONS) SPEC SECTION 07 90 00 (JOINT PROTECTION)*
C402.5.1	**AIR BARRIERS**	*AIR BARRIER MATERIALS*	*A CONTINUOUS AIR BARRIER FOR THE OPAQUE BUILDINGS ENVELOPE SHALL COMPLY WITH SECTION C402.5.1.2.1 OR C402.5.1.= 2.2.*	*CONTINUOUS AIR BARRIER - 1/2 INCH XPS WITH ALL JOINTS SEALED ACCORDING TO MFG.'S INSTRUCTIONS.*	*SHEET A-309, A-310 (WALL SECTIONS), A-904 (T-11B METAL WALL PANEL DETAILS)*
C402.5.1.2.1	**MATERIALS**	*MATERIALS*	*ITEMS 1 THROUGH 15 LISTED IN THIS SECTION MUST COMPLY WITH THE REQUIREMENTS OF THIS SECTION.*	*PLYWOOD WITH A THICKNESS OF NOT LESS THAN 3/8 INCH (10MM).EXTRUDED POLYSTRENE INSULATION BOARD HAVING A THICKNESS OF NOT LESS THAN 1/2 INCH (12.7MM). CAST-IN-PLACE OR PRECAST CONCRETE MEET THE REQUIREMENTS OF SECTION C402.5.1.2.1.*	*A-304 (BUILDING ELEVATION NOTES #5 AND #6),A-906 (ROOF DETAILS), A-309, A-310 (WALL SECTIONS) SPEC SECTION 03 30 00 (CAST-IN-PLACE), 07 21 00 (THERMAL INSULATION), 04 22 00 (CONCRETE UNIT MASONRY)*
C402.5.1.2.2	**ASSEMBLIES**	*ASSEMBLIES*	*ITEMS 1 THROUGH 3 LISTED IN THIS SECTION MUST COMPLY WITH THE REQUIREMENTS OF THIS SECTION.*	*CONCRETE MASONRY WALLS COATED WITH EITHER ONE APPLICATION OF BLOCK FILLER OR TWO APPLICATIONS OF A SEALER COATING MEET THE REQUIREMENTS OF C402.5.1.2.2, PROVIDED JOINTS ARE SEALED AND THE REQUIREMENTS OF THE SECTION C402.5.1.1 ARE MET.*	*SHEET A-901, A-902 (T-11B BUILDING DETAILS)*
C402.5.1.3	**AIR BARRIER TESTING**	*NA*	*NA*	*NA*	*NA*
C402.5.2, TABLES C402.5.2	**AIR LEAKAGE OF FENESTRATION**	*REPLACE CURTAIN WALL AND GLAZED ENTRANCE DOORS, FLOOR1.*	*MAX AIR LEAKAGE RATES: CURTAIN WALLS AND STOREFRONT GLAZING = 0.06 cfm/sf*	*CURTAIN WALLS AND STOREFRONT GLAZING = 0.06 cfm/sf*	*VERTICAL FENESTRATION: A-304 - A-307 (BUILDING ELEVATIONS), A-312 (SCHEDULES) A-309, A-310 (WALL SECTION DETAILS)*
C402.5.3, TABLES C402.1.3, C402.1.4	**FUEL-BURNING APPLIANCES**	*NA*	*NA*	*NA*	*NA*
C402.5.4	**DOOR AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS, AND ELEVATOR LOBBIES**	*NA*	*NA*	*NA*	*NA*
C402.5.5	**AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS**	*AIR INTAKES, EXHAUST, OPENINGS, STAIRWAYS AND SHAFTS REQUIREMENTS FOR DAMPERS*	*DAMPERS MUST BE PROVIDED IN ACCORDANCE WITH SECTION C403.2.4.3.*	*STAIRWAY ENCLOSURE DAMPERS ARE IN ACCORDANCE WITH C403.2.4.3.*	*A-311 (STAIR DETAILS), H-302, H-304 (HVAC DRAWINGS)*
C402.5.6	**LOADING DOCK WEATHERSEALS**	*NA*	*NA*	*NA*	*NA*
C402.5.7	**VESTIBULES**	*NA*	*NA*	*NA*	*NA*
C402.5.8	**RECESSED LIGHTING**	*NA*	*NA*	*NA*	*NA*
C402.6	**THERMAL BRIDGES (MANDATORY)**	*THERMAL BRIDGES*	*CLEAR-FIELD THERMAL BRIDGES ARE IDENTIFIED ON DRAWINGS AND PRE - CALCULATED ASSEMBLY VALUES ARE FROM ASHRAE 90.1 APPENDIX A. POINT THERMAL BRIDGES GREATER THAN 8IN2 ARE IDENTIFIED. LINEAR THERMAL BRIDGES ARE OUTLINED IN TABULAR FORMAT INCLUDING EACH LINEAR THERMAL BRIDGE TYPE, THE AGGREGATE LENGTH OF EACH, THE RELEVANT DETAIL AND CROSS - SECTION THROUGH EACH THERMAL BRIDGE, AND THE PSI - VALUE FOR EACH THERMAL BRIDGE*	*CLEAR-FIELD THERMAL BRIDGES: ALL WALL, ROOF AND FLOOR ASSEMBLIES ARE DERIVED FROM APPENDIX A OF ASHRAE 90.1 POINT THERMAL BRIDGES: NO POINT THERMAL BRIDGES ARE IN THIS DESIGN LINEAR THERMAL BRIDGES: SEE TABLE 1 ON SHEET EN-3*	*EN-302 (TABULAR FORMAT OF LINEAR THERMAL BRIDGES)*

CLEAR FIELD THERMAL BRIDGING

CFTB NO	ASSEMBLY/THERMAL BRIDGE DESCRIPTION	ASSEMBLY ID IN ENERGY ANALYSIS	SECTION/ DETAIL LOCATION
CFTB.1	METAL WALL PANEL ON CMU/CONCRETE WALL WITH R-15 CONTINUOUS INSULATION		A-904 DETAIL 2

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-010 DECHLORINATION FACILITY
BUILDING ENVELOPE ENERGY CODE

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2020 NYCECC Tabular Analysis
Commercial Building in compliance with ECC

Energy Code Scope of Work

For all ALTERATION job applications where the proposed scope of alteration work is limited to partial areas of the existing buildings and/or conditions, please provide a detailed description of the proposed scope of work here, and itemize the altered elements in the tabular format below.

Note for ALTERATION job application:
For each altered element where ALTERATION-specific exception/allowance is applied, create a row in the table to cite the applicable code section and to report the Supporting Documentation location. For examples of ALTERATION-specific exceptions/allowances, refer to 101.2.5, C503.1, C503.6, and C504.2.

NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C403.1.1	**Calculation of heating and cooling loads (Mandatory)**	Load calculations for HVAC systems	Determined in accordance with ANSI/ASHRAE/ACCA Standard 183 HVAC Systems and Equipment Handbook	Design loads are determined in accordance with the procedures described in the ANSI/ASHRAE/ACCA Standard183.	Signed and sealed statment from Engineer certifying compliance with Energy Code.
C403.2.1	**Zone isolation required (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.2.2	**Ventilation (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.1	**Equipment sizing (Mandatory)**	HVAC systems sizing based on load calculations	Heating and cooling equipment shall not exceed calculated loads	Specified equipment sized within load calculation limits	Signed and sealed statment from Engineer certifying compliance with Energy Code.
Table C403.3.2(1)	**Minimum efficiency requirements: electrically operated unitary air conditioners and condensing units**	*N/A*	*N/A*	*N/A*	N/A
TABLE C403.3.2(2)	**Minimum efficiency requirements: electrically operated unitary and applied heat pumps**	Ductless Split System Heat Pumps	Minimum SEER: 14.0 Minimum COP: 3.3 @ 47°F	SEER: 25.0 COP: 4.28	Refer to drawing H-902.00 for SEER and COP values.
TABLE C403.3.2(3)	**Minimum efficiency requirements: electrically operated PTACs, PTHPs, Single-package vertical AC, Single-package vertical HP, Room AC, and Room AC-HPs**	Ductless Split System Heat Pumps	Minimum SEER: 14.0 Minimum COP: 3.3 @ 47°F	SEER: 25.0 COP: 4.28	Refer to drawing H-902.00 for SEER and COP values.
TABLE C403.3.2(4)	**Warm-air furnaces and combination warm-air furnaces/air-conditioning units, warm-air duct furnaces and unit heaters, minimum efficiency requirements**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(5)	**Minimum efficiency requirements: gas- and oil-fired boilers**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(6)	**Water chilling packages - efficiency requirements**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(7)	**Minimum efficiency requirements: heat rejection equipment**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(9)	**Heat Transfer Equipment**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(10)	**Minimum efficiency requirements: electrically operated variable-refrigerant-flow air conditioners**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(11)	**Minimum efficiency requirements: electrically operated variable-refrigerant-flow air-to-air and applied heat pumps**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.3	**Hot Gas Bypass Limitation**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.4, TABLE C403.3.4	**Boiler turndown**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.5	**Buildings with high efficiency space heating gas boiler systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1	**Thermostatic controls (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.1	**Heat pump supplementary heat (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.3	**Set point overlap restriction (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.4	**Heated or cooled vestibules (mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.5	**Hot water boiler outdoor temperature setback control (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2	**Off-hour controls (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2.1	**Thermostatic setback (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2.2	**Automatic setback and shutdown (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2.2	**Automatic start (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3	**Hydronic Systems Controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.1	**Three-pipe System**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.2	**Two-pipe Changeover System**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3	**Hydronic (Water Loop) Heat Pump Systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3.1	**Temperature dead band**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3.2	**Heat Rejection**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3.3	**Two-position valve**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.4	**Part-load controls: temperature reset controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.4	**Part-load controls: Pumps**	*N/A*	*N/A*	*N/A*	*N/A*

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
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MECHANICAL ENERGY CODE - SHEET 1

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NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C403.4.5	**Pump isolation**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5	**Economizers (Prescriptive)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.1	**Integrated economizer control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.2	**Economizer heating system impact**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.3	**Air economizers**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.4	**Water-side economizers**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.5	**Economizer fault detection and diagnostics (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.1	**Variable air volume and multiple-zone systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.2	**Single-duct VAV system, terminal devices**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.3	**Dual-duct and mixing VAV systems, terminal devices**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.4	**Single-fan dual-duct and mixing VAV systems, economizers**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.5	**Supply-air temperature reset controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.6	**Multiple zone VAV system ventilation optimization control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.7	**Parallel-flow fan-powered VAV air terminal control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.8	**Setpoints for direct digital control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.9	**Static pressure sensor location**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.1	**Demand control ventilation (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.2	**Enclosed parking garage ventilation controls (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.3	**Ventilation air heating control (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.4, TABLES C403.7.4(1) & C403.7.4 (2)	**Energy recovery ventilation systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.5	**Kitchen exhaust systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.6	**Automatic control of HVAC systems serving guestrooms (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.7	**Shutoff dampers (Mandatory)**	Outdoor air intake, exhaust openings.	Each outdoor supply air and exhaust air ducts shall be provided with motorized dampers to shut off or open as required by this section. Class I motorized damper with a maximum air leakage rate of 4cfm/ft^2 of damper surface area at 1.0 inch water gauge	Class I motorized damper with a maximum air leakage rate of 4cfm/ft^2 of damper surface area at 1.0 inch water gauge	Refer to drawings H-905.00 and control sequences in specifications 23 09 00.
C403.8.1, TABLES C403.8.1(1) & C403.8.1 (2)	**Allowable Fan Horsepower (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.8.2	**Motor nameplate horsepower (Mandatory)**	Exhaust and supply fans in facilities TI-10D and TI-11.	1.5 * bhp for fans less than 6bhp is not larger than first available motor size.	Fan bhp < 6 bhp hp = 1.5 * bhp is not larger than first available motor size.	Refer to drawing H-901.00
C403.8.3	**Fan Efficiency (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.8.4	**Fractional hp fan motors (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.8.5.1	**Fan Airflow control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.9	**Heat rejection equipment**	*N/A*	*N/A*	*N/A*	*N/A*
C403.9.5	**Heat Recovery for Service Water Heating**	*N/A*	*N/A*	*N/A*	*N/A*
C403.10	**Refrigeration equipment performance**	*N/A*	*N/A*	*N/A*	*N/A*
C403.10.4	**Refrigeration systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.11.1	**Duct and plenum insulation and sealing (Mandatory)**	Ductwork	Supply and return ducts and plenums in shall have a minimum of R-6 where located in unconditioned spaces and R-8 minimum where located outside the building. Where located within a building envelope assembly the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by a minimum of R-8.	Unconditioned spaces: R-6 Conditioned spaces: None, exterior wall insulated >R-8	Refer to specication 23 07 13.
C403.11.2	**Duct Construction (Mandatory)**	Ductwork	Shall be constructed and erected in accordance with the NYCMC	Ductwork must be constructed and erected in accordance with the NYCMC	Refer to specication 23 31 14.
C403.11.2.1	**Low-Pressure Duct Systems (Mandatory)**	Low Pressure Ductwork	All low pressure ducts, operating at 2" of W.G. or less shall be properly sealed with approved methods	All low pressure ducts properly sealed as per requirements	Refer to specication 23 31 14.
C403.11.2.2	**Medium-Pressure Duct Systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.11.2.3	**High Pressure Duct Systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.11.3	**Minimum Piping Insulation Thickness**	Split system refrigerant line insulation	Refrigerant insulation: <40F, < 1" diameter = 0.5 inches	Refrigerant insulation shall be a minimum 1-1/2"	Refer to specification 23 81 26.2.02.F.2.
C403.11.3.1	**Protection of piping insulation (Mandatory)**	Piping located outdoors	All piping insulation is protected from damage, including that due to sunlight, moisture, equipment maintenance and wind. Adhesive tape is not permitted.	All outdoor piping insulation is protected from damage by using aluminum jacketing.	Refer to specification 23 81 26.2.02.F.3.
C403.12.1	**Heating Outside a Building**	*N/A*	*N/A*	*N/A*	*N/A*
C403.12.2	**Snow- and ice-melt system controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.12.2	**Freeze protection system controls**	*N/A*	*N/A*	*N/A*	*N/A*
C408.2	**Mechanical, renewable energy, and service water heating systems commissioning and completion requirements**	*N/A*	*N/A*	*N/A*	*N/A*

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DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
GENERAL
TI-010 DECHLORINATION FACILITY
MECHANICAL ENERGY CODE - SHEET 2

DATE: NOVEMBER 2026
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C404.2 Table C404.2	**Service water-heating Equipment Performance Efficiency**	*Domestic Water Heater, 10D EWH-1*	*Meets efficiency requirements of table C404.2.*	93.7% Efficiency Electric Water Heater	See Plumbing Drawing P-902 and specification 22 33 00
C404.3	**Heat traps for hot water storage tanks**	*N/A*	*Water-heating equipment shall be provided with heat traps on the supply and discharge piping if not integrated with the equipment.*	N/A	N/A
C404.4	**Insulation of piping**	*Domestic Hot Water insulation*	*DHW piping insulation: 105-140F, 1-1.5" diameter = 1.0 inches 1.5"-4" diameter = 1.5 inches*	*DHW insulation = 1.0 inches & 1.5 inches*	*See plumbing specification section 22 07 19.*
C404.5	**Efficient heated water supply piping**	*N/A*	*N/A*	*N/A*	N/A
C404.5.1 Table C404.5.1	**Maximum allowable pipe length method**	*N/A*	*N/A*	*N/A*	N/A
C404.5.2 Table C404.5.1	**Maximum allowable pipe volume method**	*N/A*	*N/A*	*N/A*	N/A
C404.6	**Heated-water circulating and temperature maintenance systems**	*Hot water circulation pumps and heat trace*	*Heat trace shall be arranged to be turned off automatically when there is no hot water demand.*	*Heat Trace controls shall automtically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping when heated water is used. Heat trace shall be arranged to turn off automatically when there is no demand for hot water.*	See plumbing specificationd section 22 05 33
C404.7	**Demand recirculation controls**	*N/A*	*N/A*	*N/A*	N/A
C404.8	**Drain water heat recovery units**	*N/A*	*N/A*	*N/A*	N/A
C404.9	**Energy consumption of pools and permanent spas (Mandatory)**	*N/A*	*N/A*	*N/A*	N/A
C404.9.3	**Covers**	*N/A*	*N/A*	*N/A*	N/A
C404.10	**Energy consumption of portable spas (Mandatory)**	*N/A*	*N/A*	*N/A*	N/A
C408.2	**Mechanical, renewable energy, and service water heating systems commissioning and completion requirements**	*N/A*	*N/A*	*N/A*	N/A

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C405.1	**Dwelling Unit Lighting**	*Sample text: Dwelling unit lighting fixtures*	*Not less than 90% of the lamps in permanently installed lighting fixtures shall use lamps with an efficacy of at least 65 lumens per watt, or have a total luminaire efficacy of at least 45 lumens per watt.*	*Sample text:* *All lamps in fixtures are 68 lumens per watt.*	*Sample text: see drawing E-XXX (Lighting fixture schedules)*
C405.2	**Lighting controls (Mandatory)**	*Sample text: interior lighting controls include occupancy sensors, daylight responsive controls, bi-level controls, and automatic shut-off*	*Lighting systems shall be provided with controls as specified in Sections C405.2.1 through C405.2.6.*	*Sample text: Occupancy sensors in restrooms, conference rooms, open offices; daylight responsive controls in all offices; bi-level controls in stairwells; automatic shut-off via BMS for all lighting*	*Sample text: see drawing EN-XXX (Lighting fixture schedule & narratives)*
C405.2.1, C405.2.1.1, C405.2.1.2	**Occupant sensor controls**	*Sample text: Occupant sensor controls are provided in each conference room, restroom, storage area, corridor, stairwell and open plan office*	*Sample Text: Occupant sensors required in each restroom, storage area, corridor, stairwell and open plan office. Vacancy sensors (manual-on, auto-off) required in each conference room.*	*Sample text: Occupancy & vacancy sensors provided with 15 minute shut off limit. Manual-off vacancy sensors required in conference rooms.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.1.3	**Occupant sensor control function in open plan office areas, cafeteria dining areas, and fast food dining areas**	*Sample text: Occupant sensor control function in open plan offices*	*Sample text: Open plan office occupancy controls shall comply with all of the following:* *1. general lighting controlled by control zones < 600 sq ft* *2. lighting automatically turns off in all control zones within 15 min after all occupants left the open plan office* *3. General lighting power in each control zone is reduced by not less than 80% of full zone lighting power in a uniform illumination pattern within 15 min of all occupants leaving the control zone.* *4. Daylight responsive control will activate open plan offices lighting only when occupancy is detected.*	*Sample text: Open plan office occupancy controls are configured as per code requirements*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.1.4	**Occupant sensor control function for egress illumination**	*Sample text: Occupant sensor controls for egress illumination*	*Sample text: All luminaires serving the exit access, corridors, stairwells shall contain occupancy sensors that reduce the lighting power by 50 percent when unoccupied for a period longer than 15 minutes.*	*Sample text: Exception 1 applies to all corridors and stairwells. The total lighting is less than 0.02 watts /sq ft.*	*Sample text: see drawing EN-XXX (Lighting fixture schedules)*
C405.2.2,	**Time-switch controls**	*Sample text: Time-switch controls at room XX-X*	*Each area of the building that is not provided with occupant sensor controls complying with Section C405.2.1.1 shall be provided with time switch controls complying with Section C405.2.2.1. Exceptions:* *Where a manual control provides light reduction in accordance with Section C405.2.2.2, automatic controls shall not be required for the following: 1. Sleeping units. 2. Spaces where patient care is directly provided. 3. Spaces where an automatic shutoff would endanger occupant safety or security. 4. Lighting intended for continuous operation. 5. Shop and laboratory classrooms.*	*Sample text: All areas of the building are provided with occupancy sensors - time-switch controls not required.*	*Sample text: see drawing E-XXX (Lighting fixture schedules & narratives)*
C405.2.2.1	**Time-switch control function**	*Sample text: Time-switch controls*	*Each space provided with time-switch controls shall also be provided with a manual control for light reduction in accordance with section C405.2.2.2. Time-switch controls shall include an override switching device that complies with the following: 1. Have a minimum 7-day clock. 2. Be capable of being set for seven different day types per week. 3. Incorporate an automatic holiday "shutoff" feature, which turns off all controlled lighting loads for at least 24 hours and then resumes normally scheduled operations. 4. Have program backup capabilities, which prevent the loss of program and time settings for at least 10 hours, if power is interrupted. 5. Include an override switch that complies with the following: 5.1. The override switch shall be a manual control. 5.2. The override switch, when initiated, shall permit the controlled lighting to remain on for not more than 2 hours. 5.3. Any individual override switch shall control the lighting for an area not larger than 5,000 square feet (465m²). Exceptions as per this code section.*	*Sample text: Time-switch controls provided as required.*	*Sample text: see drawing E-XXX (Lighting fixture schedules & narratives)*
C405.2.2.2	**Light-reduction controls**	*Sample text: Light-reduction controls*	*Spaces required to have light-reduction controls shall have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern by at least 50 percent.*	*Sample text: Light-reduction controls provided in open space on 5th floor.*	*Sample text: see drawing E-XXX (Lighting fixture schedules & narratives)*
C405.2.3	**Daylight-responsive controls**	*Sample text: Daylight-responsive controls.*	*Daylight responsive controls complying with Section C405.2.3.1 shall be provided to control the electric lights within daylight zones in the following spaces:* *1. Spaces with a total of more than 100 watts of general lighting within sidelight daylight zones complying with Section C405.2.3.2. General lighting does not include lighting that is required to have specific application control in accordance with Section C405.2.4.* *2. Spaces with a total of more than 100 watts of general lighting within toplight daylight zones complying with Section C405.2.3.3.*	*Sample text: N/A Daylight responsive controls are not required for the following:* *Dwelling units and sleeping units. (Exception #2)*	*See drawing EN-XXX*
C405.2.3.1	**Daylight-responsive control function**	*Sample text: Daylight-responsive controls*	*Where required, daylight-responsive controls shall be provided within each space for control of lights in that space and shall comply with requirements of C405.2.3.1.*	*Sample text: Daylight-responsive controls shall be provided as per C405.2.3.1.*	*See drawing EN-XXX*

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C405.2.3.2	**Sidelight daylight zone**	*Sample text: Sidelight daylight zones, Floors 2-10*	*The sidelight daylight zone is the floor area adjacent to vertical fenestration which complies with C405.2.3.2*	*Sample text: Sidelight daylight zones provided as per C405.2.3.2.Sidelit zone area provided on drawings.*	*See drawing EN-XXX*
C405.2.3.3	**Toplight daylight zone**	*Sample text: Toplight daylight zone, Floor 10*	*The toplight daylight zone is the floor area underneath a roof fenestration assembly which complies withC405.2.3.3.*	*Sample text: Toplight daylight zone on 5th floor complies with C405.2.3.3.Toplit zone area provided on drawings.*	*See drawing EN-XXX*
C405.2.4	**Specific application controls**	*Sample text: Retail display case lighting*	*Specific application controls shall be provided for the following:* *1. Display and accent light shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.* *2. Sleeping units have controls to automatically switch off all luminaires and switched receptacles within 20 minutes* *3. Permanently installed luminaires within dwelling units have time-switch or light reduction controls* *4. Nonvisual applications shall be controlled by a time-switch that is independently controlled from the general lighting in the room or space*	*Sample text: Display and accent light D4 to D9 shall be controlled by a dedicated control that is independent of the controls fo other lighting within the room or space.*	*Sample text: see drawing EN-XXX*
C405.2.5	**Manual controls**	*Sample text: Manual controls*	*Sample text: Manual controls shall be in a location with ready access to occupants and located where the controlled lights or visible or shall identify the area served by the lights and indicate their status*	*Sample text: Manual controls are per code.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.6, C405.2.6.1, C405.2.6.2, C405.2.6.3, C405.2.6.4	**Exterior lighting controls**	*Sample text: Exterior lighting controls*	*Exterior lighting system shall be provided with controls that comply with the following:* *1. Lights shall be automatically turned off when daylight is present and satisfies the lighting needs* *2. Building façade lighting and landscape lighting shall shut off not later than 1 hour after business closing to not earlier than 1 hour before business opening OR shall be controlled so the total wattage is reduced by not less than 50% by shutting off the lighting or dimming luminaires* *3. Time switch controls shall have a clock capable of programming for >7 days, and being set for 7 different day types per week, have an automatic holiday setback feature, and have backup capabilities*	*Sample text: Lighting on the north building facade equipped with photosensors. See lighting Plan.*	*See drawing EN-XXX*
C405.2.6.1, C405.2.6.2, C405.2.6.4	**Exterior decorative lighting controls**	*Sample text: Exterior decorative lighting controls*	*Building façade lighting and landscape lighting shall shut off not later than 1 hour after business closing to not earlier than 1 hour before business opening OR shall be controlled so the total wattage reduced by not less than 50% by shutting off the lighting or dimming luminaires*	*Sample text: Lighting on the south building facade equipped with dimmable controls set to 50% power. See lighting Plan.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.6.5	**Outdoor parking area lighting controls**	*Sample text: Outdoor parking lighting controls*	*Luminaires having rated input wattage > 78 W and a mounting height < 24 feet shall be controlled to automatically reduce the power by a minimum of 50% when no activity is detected for 15 min or less. No more than 1500 W of lighting power shall be controlled together.*	*Sample text: Outdoor parking area lighting poles are equipped with occupancy sensors, per requirements.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.3	**Interior lighting power requirements**	*Sample text: Interior lighting power requirements*	*Sample text:* *Open Office: 0.78 W/SF* *Conf Rm: 0.93 W/SF* *Stairwell: 0.50 W/SF* *Restroom: 0.75 W/SF* *The total connected interior lighting power shall be determined in accordance with Equation 4-10.*	*Sample text:* *Open Office: 0.68 W/SF* *Conf Rm: 0.92 W/SF* *Stairwell: 0.43 W/SF* *Restroom: 0.60 W/SF* *LPD value for building is less than the interior lighting power calculated under Section C405.3.2. See drawing EN-XXX.*	*Sample text: see drawing EN-XXX (Lighting fixture schedules)*
C405.4	**Exterior lighting power requirements (Mandatory)**	*Sample text: Total connected load of proposed exterior lighting for lighting zone 3*	*Sample text: 10.21 kW* *The exterior lighting power allowance shall be determined in accordance with Section C405.5.1.*	*Sample text: 7.66 kW* *The total exterior lighting power is less than the exterior lighting power calculated under Section C405.4. See drawing EN-XXX*	*Sample text: A-XXX drawings (Reflected Ceiling Plans for all floors) E-XXX drawings (Reflected Ceiling Plans for all floors) E-XXX - XXX (Fixture schedule, control narrative, and details)*
C405.5	**Electrical meter (Mandatory)**	*Sample text: Separate electrical meters have been provided for each dwelling unit.*	*Each dwelling unit located in a Group R-2 building shall have a separate electrical meter.*	*Sample text: meter at unit XXX through XXX*	*Sample text: See note in general notes (EN-XXX).*
C405.6	**Electrical transformers (Mandatory)**	*Sample text: Electrical transformers*	*Electric transformers shall meet the minimum efficiency requirements of Table C405.6*	*Sample text: Impedance transformers are exempted as per Exception # 8.*	*Sample text: See drawing EN-XXX for notes.*
C405.7	**Electrical motors (Mandatory)**	*Sample text: Electrical motors*	*Electric motors shall meet the minimum efficiency requirements of Tables C405.7(l) through C405.7(4) when tested and rated in accordance with the DOE 10 CFR 431. The efficiency shall be verified through certification under an approved certification program or, where a certification program does not exist, the equipment efficiency ratings shall be supported by data furnished by the motor manufacturer.*	*Sample text: Electric motors are in compliance as per C405.7. See motor manufacturer data on drawing E-XXX.*	*Sample text: See drawing EN-XXX.*
C405.8	**Vertical and horizontal transportation systems and equipment**	*Sample text: Elevators*	*New traction elevators with a rise of 75 feet or more shall have a power conversion system that complies with C405.8.1.1.1 through C405.8.1.1.3*	*Sample text: Regenerative drives and occupancy sensors provided for elevators*	*Sample text: See drawing EN-XXX.*
C405.10	**Commercial kitchen equipment**	*Sample text: Kitchen equipment in cafeteria*	*Sample text:* *Standard Open Deep-Fat gas Fryer: >50% heavy load cooking energy efficiency, <9,000 Btu/h Idle energy rate*	*Sample text:* *Standard Open Deep-Fat gas Fryer: >50% heavy load cooking energy efficiency, <9,000 Btu/h Idle energy rate*	*Sample text: See drawing EN-XXX.*
C405.11	**Whole building energy monitoring**	*Whole building fuel metering*	*Sample text:* *Measurement devices shall be installed to individually monitor the energy use in each of the following types of energy supplied by a utility, energy provider, or plant that is not with the building:* *1. natural gas* *2. fuel oil* *3. propane* *4. steam* *5. chilled water* *6. hot water*	*Sample text:* *Whole building meters provided for Natural gas. See mechanical plans/electrical plans.*	*Sample text: See drawing EN-XXX.*
C405.12	**Whole building electrical monitoring**	*Whole building electrical metering*	*Sample text:* *Measurement devices shall be installed to record electrical energy us every 60 minutes.*	*Sample text:* *Whole building meter provided for electricity. See mechanical plans/electrical plans.*	*Sample text: See drawing EN-XXX.*

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — ANTHONY M. MCCOY — 093924 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-010 DECHLORINATION FACILITY
ELECTRICAL ENERGY CODE - SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. EN-307.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
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2020 NYCECC Tabular Analysis
Commercial Building in compliance with ECC

Energy Code Scope of Work

NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C406.1	**Requirements** (for ADDITIONAL EFFICIENCY PACKAGE OPTIONS)	*NA*	*NA*	*NA*	*NA*
C406.2	**More efficient HVAC equipment performance**	*NA*	*NA*	*NA*	*NA*
C406.3	**Reduced lighting power density**	*NA*	*NA*	*NA*	*NA*
C406.4	**Enhanced digital lighting controls**	*NA*	*NA*	*NA*	*NA*
C406.5	**Dedicated outdoor air system**	*NA*	*NA*	*NA*	*NA*
C406.6	**Reduced energy use in service water heating**	*NA*	*NA*	*NA*	*NA*
C406.7	**Enhanced envelope performance**	*Enhanced envelope performance*	*The thermal performance of the envelope shall demonatrate a minimum 15 % improvement compared to the requirements of Section C402.1.5.*	*ComCheck displays 18% improvement beyond code minimum*	*This sheet*
C406.8	**Reduced air infiltration**	*NA*	*NA*	*NA*	*NA*
C408.2	**Mechanical renewable energy, and service water heating systems commissioning and completion requirements**	*NA*	*NA*	*NA*	*NA*

COM*check* Software Version COMcheckWeb

Envelope Compliance Certificate

Project Information

Energy Code:	2020 New York City Energy Conservation Code
Project Title:	Flushing Creek CSO TI-010D
Location:	New York, New York
Climate Zone:	4a
Project Type:	New Construction
Vertical Glazing / Wall Area:	2%

Construction Site:
East Road
Queens, New York 11354

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)
Credits: 1.0 Required 1.0 Proposed
Enhanced Envelope Performance, 1.0 credit

Building Area	Floor Area
1-Warehouse : Nonresidential	1730

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof: Insulation Entirely Above Deck, [Bldg. Use 1 - Warehouse]	1432	---	35.0	0.028	0.030
Roof: Attic Roof, Steel Joists, [Bldg. Use 1 - Warehouse]	288	13.0	5.0	0.057	0.020
Roof: Other, [Bldg. Use 1 - Warehouse] (b)	10	---	---	0.050	0.020
Floor: Unheated Slab-On-Grade, Vertical 2 ft., [Bldg. Use 1 - Warehouse] (d)	170	---	15.0	0.520	0.520
NORTH					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	503	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Ins., Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	503	---	15.0	0.054	0.099
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typ Window, SHGC 0.34, VT 0.62, < 95' above-grade, [Bldg. Use 1 - Warehouse] (c)	24	---	---	0.300	0.300
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Ins., Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	5	---	10.0	0.075	0.099
EAST					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	456	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Ins., Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	459	---	15.0	0.054	0.099
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typ Window, SHGC 0.34, VT 0.62, < 95' above-grade, [Bldg. Use 1 - Warehouse] (c)	24	---	---	0.300	0.300
SOUTH					
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Ins., Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	499	---	15.0	0.054	0.099
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typ	12	---	---	0.300	0.300

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Window, SHGC 0.34, VT 0.62, < 95' above-grade, [Bldg. Use 1 - Warehouse] (c)					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	503	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Ins., Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	21	---	10.0	0.075	0.099
WEST					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	456	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Ins., Normal Density, Furring: Wood, [Bldg. Use 1 - Warehouse]	483	0.0	15.0	0.051	0.099
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	50	---	---	0.360	0.500

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) 'Other' components require supporting documentation for proposed U-factors.
(c) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
(d) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 16% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2020 New York City Energy Conservation Code requirements in *COMcheck* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

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ARCADIS

STATE OF NEW YORK ROBERT M. McDONALD 093921 LICENSED PROFESSIONAL ENGINEER

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
GENERAL
TI-010 DECHLORINATION FACILITY - OPTION 6
ENHANCED ENVELOPE PERFORMANCE DATA

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. EN-308.00

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
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TABLE II - PROGRESS INSPECTIONS FOR ENERGY CODE COMPLIANCE - COMMERCIAL BUILDINGS

	Inspection/Test	Periodic (minimum)	Reference Standard (See ECC Chapter C6) or Other Criteria	ECC or Other Citation	YES or NO
IIA	**Envelope Inspections**				
IIA1	Protectionofexposed foundation insulation: Insulation must be visually inspected to verify proper protection where applied to the exterior of basement or cellar walls, crawl-space walls and/or the perimeter of slab-on-grade floors	As required During Foundation work and prior to backfill	Approved construction documents, ASTM C272	C303.2.1; ASHRAE 90.1 - 5.8.1, 5.9	
IIA2	Insulation placement and R-values: Installed insulation for eachcomponentofthe conditioned space envelope andatjunctionsbetween components, including thermal bridgesandheatedslab insulation, must be visually inspected to ensure that the R-values are marked, that such R-values conform to the R-values identified in the construction documentsandthatthe insulation is properly installed. Certifications for unmarked insulation also be visually inspected.	As required to verify continuous enclosure while walls, ceilings and floors are open	Approved construction documents	C303.1, C303.2, C402.1, C402.2, C402.6, C406; ASHRAE 90.1 -5.5, 5.6, 5.8, 5.9, 11 or Appendix G, Appendix I	
IIA3	Fenestration and door U-factor and product ratings: U-factors, SHGCandVT values of installed fenestration must be visually inspected for conformance with the U-factors, SHGC and VT values identified in the construction drawings by verifying the manufacturer's NFRC labels or, where not labeled, using the ratingsinECCTables C303.1.3(1), (2) and (3).	As required during installation	Approved construction documents; NFRC 100, NFRC 200, NFRC 300, ANSI/DASMA 105, ASTM E972	C303.1, C303.1.3, C402.1.4, C402.4, C406; ASHRAE 90.1 - 5.4.2, 5.5, 5.6, 5.8.2, 5.9, 11 or Appendix G, Appendix I	
IIA4	Fenestration air leakage: Windows and door assemblies, except site-built windows and/or doors, must be visually inspected to verify that installed assemblies are listed and labeled by the manufacturer to the referenced standard. For curtain wall, storefront glazing, commercial entrance doors and revolving doors, the testing reports must be reviewed to verify that the installed assembly complies with the standard cited in the approved plans. Weatherseals at loading docks must be visually verified.	As required during installation; prior to final construction inspection	NFRC 400, AAMA/WDMA/CSA 101/I.S.2/A440; ASTM E283; ANSI/DASMA 105	C402.5.2, C402.5.6; ASHRAE 90.1 - 5.4.3.2; 5.4.3.3, 5.8.2, 5.9	
IIA5	Fenestrationareas: Dimensions of windows, doors and skylights must be verified by visual inspection.	Prior to final construction inspection	Approved construction documents	C402.4; ASHRAE 90.1 - 5.4, 5.5.4, 5.6, 5.9, 11 or Appendix G	
IIA6	Air barrier visual inspection: Openings and penetrations in the building envelope, including site-built fenestration and doors, must be visually inspected to verify that a continuous air barrier around the envelope forms an air-tight enclosure. The progress inspector must visually inspect to verify that materials and/or assemblies have been tested and meet the requirements of the respective standards, or must observe the testing of the building and/or assemblies and verify that the building and/or assemblies meet the requirements of the standard, in accordance with the standard(s) cited in the approved plans	As required during construction	Approved construction documents; ASTM E2178, ASTM E2357, ASTM E1677, ASTM E779, ASTM E283.	C402.5; ASHRAE 90.1 - 5.4.3.1, 5.4.3.5, 5.9	
IIA7	Air barrier testing: Testing must be performed in accordance with section ECC C402.5.1.3.1 or ASHRAE 90.1 section 5.4.3.1.3, and shall be accepted if the building meets the requirements detailed in such section. Test results must be retained in accordance with the provisions of Title 28 of the Administrative Code. Testing must be performed by a third- party independent of the contractor and acceptable to the department.	As required during construction, or prior to final construction inspection	Approved construction documents; ASTM E 779, ANSI/BOMA Z65.1, ASTM E3158, RESNET/ICC 380	C402.5, C402.5.1.3, C406; ASHRAE 90.1 - 5.4.3.1.3, 5.9, Appendix I	
IIA8	Air barrier continuity plan testing: Each unique air barrier joint or seam must be tested or inspected for compliance. Documentation includes the method of test performed on each unique air barrier joint or seam and the results of the test. If an air barrier joint or seam has a deficiency, the deficiency must be noted, and retested until it complies with the testing requirements. Test results shall be retained in accordance with the provisions of Title 28 of the Administrative Code. Testing must be performed by a third-party independent of the contractor and acceptable to the department.	As required during construction	Approved construction documents; ASTM E779, ASTM E1186, ASTM E2813, ASTM E3158	C402.5.1.3; ASHRAE 90.1 - 5.4.3.1.3, 5.9	
IIA9	Vestibules: Required entrance vestibules must be visually inspected for proper operation.	Prior to final construction inspection	Approved construction documents;	C402.5.7; ASHRAE 90.1 - 5.4.3.4	
IIB	**Mechanical and Service Water Heating Inspections**				
IIB1	Fireplaces: Provision of combustion air and tight-fitting fireplace doors must be verified by visual inspection.	Prior to final construction inspection	Approved construction documents; UL 127	C402.2.8; BC 2111; MC Chapters 7, 8, 9; FGC Chapter 6	
IIB2	Shutoff dampers: Dampers for stair and elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope must be visually inspected to verify that such dampers, except where permitted to be gravity dampers, comply with approved construction drawings. Manufacturer's literature must be reviewed to verify that the product has been tested and found to meet the standard.	As required during installation	Approved construction documents; AMCA 500D	C402.5.5, C403.7.7; ASHRAE 90.1 - 6.4.3.5	
IIB3	HVAC-R,commercial kitchen equipment, and service water heating equipment: Equipment sizing, efficiencies, pipe sizing and other performance factors of all major equipment units, as determined by the applicant of record, and no less than 15% of minor equipment units, must be verified by visual inspection and, where necessary, review of manufacturer's data. Pool heaters and covers must be verifiedby visual inspection.	Prior to final plumbing and construction inspection	Approved construction documents, ASHRAE 183, ASHRAE HVAC Systems and Equipment Handbook	C403.1, C403.2, C403.3, C403.7.5, C404.2, C404.5, C404.9, C405.10, C406; ASHRAE 90.1 - 6.3, 6.4, 6.5, 6.7, 7.4, 7.5, 7.8, 10.4.6, Appendix I	
IIB4	HVAC-R and service water heating system controls: No less than 20% of each type of required controls must by verified by visual inspection and tested for functionality and properoperation. Such controls must include, but are not limited to: •Thermostatic •Off-hour •Zones •Freeze protection/Snow- and ice-melt system •Ventilation System and Fan Controls •Energy recovery systems •Kitchen/lab exhaust systems •Fan systems serving single and multiple zones •Outdoor heating systems •HVAC control in hotel/motel guest rooms •Air/Water Economizers & controls •Hydronic systems •Heat rejection systems •Hot gas bypass limitation •Refrigeration systems •Door switches •Computer room systems •Service water heating systems •Pool heater and time switches	After installation and prior to final electrical and construction inspection, except that for controls with seasonally dependent functionality, such testing must be performed before sign- off for issuance of a Final Certificate of Occupancy	Approved construction documents, including control system narratives; ASHRAE Guideline 1: The HVAC Commissioning Process where applicable	C403, C404, C406; ASHRAE 90.1 - 6.3, 6.4, 6.5, 6.6, 7.4, 7.5, Appendix I	
IIB4 cont.	Controls with seasonally dependent functionality: Controls whose complete operation cannot be demonstrated due to prevailing weather conditions typical of the season during which progress inspections will be performed shall be permitted to be signed off for the purpose of a Temporary Certificate of Occupancy with only a visual inspection, provided, however, that the progress inspector must perform a supplemental inspection where the controls are visually inspected and tested for functionality and proper operation during the next immediate season thereafter. The owner must provide full access to the progress inspector within two weeks of the progress inspector's request for such access to perform the progress inspection. For such supplemental inspections, the Department must be notified by the approved progress inspection agency of any unresolved deficiencies in the installed work within 180 days of such supplemental inspection				
IIB5	HVAC-R and service water piping design and insulation: Installed piping insulation must be visually inspected to verify proper insulation placement and values. Service hot water distribution systems must be inspected to verify the supply of heated water.	After installation and prior to closing shafts, ceilings and walls	Approved construction documents;	C403.11, C404.4, C404.5; MC 603.9; ASHRAE 90.1 - 6.3, 6.4.4, 6.8.2, 6.8.3; 7.4.3	
IIB6	Duct leakage testing, insulation and design: For duct systems designed to operate at static pressures in excess of 3 inches w.g. (747 Pa), representative sections, as determined by the progress inspector, totaling at least 25% of the duct area, must be tested to verify that actual air leakage is below allowable amounts. Installed duct insulation must be visually inspected to verify proper insulation placement and values. Joints, longitudinal and transverse seams and connections in ductwork must be visually inspected for proper sealing.	After installation and sealing and prior to closing shafts, ceilings and walls	Approved construction documents; SMACNA HVAC Air Duct Leakage Test Manual; SMACNA Duct Construction Standards, Metal and Flexible	C403.11; ASHRAE 90.1 - 6.4.4.2.2	
IIC	**Electrical Power and Lighting Systems**				
IIC1	Metering: The presence and operation of all required meters for monitoring total electrical energy usage and/or total fuel use, system energy usage, tenant energy usage, or electrical energy usage in the building, in individual dwelling units, or in tenant spaces must be verified by visual inspection.	Prior to final electrical and construction inspection	Approved construction documents	C405.5, C405.11, C405.12; ASHRAE 90.1 - 8.4.3, 8.4.5, 8.4.6, 10.4.5	
IIC2	Lighting in dwelling units: Lamps in permanently installed lighting fixtures must be visually inspected to verify compliance with high-efficacy requirements.	Prior to final electrical and construction inspection	Approved construction documents	C405.1; ASHRAE 90.1 - 9.1.1	
IIC3	Interior lighting power: Installed lightingmustbe verified for compliance with the lighting power allowance by visual inspection of fixtures, lamps, ballastsand transformers.	Prior to final electrical and construction inspection	Approved construction documents	C405.3, C406; ASHRAE 90.1 -9.1, 9.2, 9.5, 9.6, 9.7; 1RCNY §101-07(c)(3)(v)(C)4, Appendix I	
IIC4	Exterior lighting power: Installed lightingmustbe verified for compliance with source efficacy and/or the lighting power allowance by visual inspection of fixtures, lamps, ballasts and relevant transformers.	Prior to final electrical and construction inspection	Approved construction documents	C405.4; ASHRAE 90.1 -9.4.2; 1RCNY §101-07(c)(3)(v)(C)4	
IIC5	Lighting controls: Each type of required lighting controls, including: - occupant sensors - manual interior lighting controls - light-reduction controls - automatic lighting shut- off - daylight zone controls - sleeping unit controls - exterior lighting controls - egress illumination controls must be verified by visual inspection and tested for functionality and proper operation.	Prior to final electrical and construction inspection	Approved construction documents, including control system narratives	C405.2, C406; ASHRAE 90.1 -9.4.1, 9.4.3, 9.7, Appendix I	
IIC6	Electricmotorsand elevators: Where required by the construction documents for energy code compliance, motor listing or labels must be visually inspected to verify that they comply with the respective energy requirements in the construction documents. Elevators and escalators must be inspected for compliance withregenerative drive requirements.	Prior to final electrical and construction inspection	Approved construction documents	C403.8, C405.6, C405.7, C405.8, C405.9; ASHRAE 90.1 - 8.4.4, 10.4, 10.8	
IID	**Other**				
IID1	Maintenance information: Maintenance manuals for mechanical, service hot water and electrical equipment and systems requiring preventive maintenance must be reviewed for applicability to installed equipment and systems before such manuals are provided to the owner. Labels required for such equipment or systems must be inspected for accuracy and completeness.	Prior to sign-off or issuance of Final Certificate of Occupancy	Approved construction documents, including electrical drawings where applicable; ASHRAE Guideline 4: Preparation of Operating and Maintenance Documentation for Building Systems	C408.1.1, C408.2.5.2, C408.3.2; ASHRAE 90.1 - 4.2.2.3, 6.7.2.2, 6.7.2.3.5.2, 8.7.2, 9.7.2.2, 9.4.3.2.2	

ENERGY CODE NOTES - TI-011

1. THE PROJECT IS SUBJECT TO AND SHALL COMLPLY WITH THE 2020 NYC ENERGY CONSERVATION CODE.
2. THE PROJECT SHALL COMPLY WITH ENERGY CONSERVATION CODE COMPLAINCE PATH - PRESCRIPTIVE TABULAR ANALYSIS (1 RCNY 5000-01(f)).
3. THE FOLLOWING MANDATORY ADDITIONAL EFFICIENCY PACKAGE IS INCLUDED IN THE PROJECT.
   A. OPTION # 6 ENHANCED ENVELOPE PERFORMANCE.
   B. REFERENCE SHEET EN-406 FOR COMCHECK PERFORMANCE RESULTS.
4. A PERMANENT ENERGY EFFICIENCY CERTIFICATE IS NOT REQUIRED FOR NON-RESIDENTIAL AND OCCUPANCY IS NOT AN R-3 OCCUPANCY.

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DIRECTOR, IN HOUSE DESIGN

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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
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www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-011 DISINFECTION FACILITY
ENERGY CODE DATA

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. EN-401.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
10/30/2026 10:08:19 AM

2020 NYCECC Tabular Analysis Commercial Building in compliance with ECC					
Energy Code Scope of Work					
NYCECC Citation	**Provision**	**Item Description**	**Code Prescriptive Value (ECC)**	**Proposed Design Value**	**Supporting Documentation**
C401.2.1	**APPLICATION TO GROUP R-3 BUILDINGS, PERMANENT CERTIFICATE**	*NA*	*NA*	*NA*	*NA*
C401.2.1	**APPLICATION TO GROUP R-3 BUILDINGS, AIR LEAKAGE TESTING**	*NA*	*NA*	*NA*	*NA*
C401.2.1	**APPLICATION TO GROUP R-3 BUILDINGS, HRV/ERV OR BALANCED VENTILATION**	*NA*	*NA*	*NA*	*NA*
C402.1.3, C402.2, TABLES C402.1.3, C402.1.4	**ROOF ASSEMBLY - INSULATION ENTIRELY ABOVE ROOF**	*INSULATION ON TOP OF METAL DECK.*	*MINIMUM R-33ci*	*ROOF ASSEMBLY INSULATION: 6" XPS (R -34) CONTINUOUS INSULATION ABOVE DECK*	*A-403 (ROOF PLAN), A-414, A-415 (WALL SECTIONS), A-906 (ROOF DETAILS)*
TABLES C402.1.3, TABLE C402.1.4, SECTION C402.2	**ROOF ASSEMBLY - METAL BUILDINGS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**ROOF ASSEMBLY - ATTIC AND OTHER**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**WALLS, ABOVE - GRADE: MASS**	*12" CMU OR 12" CIP CONCRETE WALLS WITH CONTINUOUS RIGID INSULATION OR METALPANEL VENEER*	*MINIMUM R-13.25ci*	*3" EXRUDED POLYSTYRENE (XPS) = R-15 ci*	*A-414, A-415 (WALL SECTIONS)*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**WALLS, ABOVE - GRADE: METAL FRAMED**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**WALLS, ABOVE - GRADE: WOOD FRAMED AND OTHER**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**BELOW - GRADE WALLS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**FLOORS: MASS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**FLOORS: JOIST/FRAMING**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**SLAB - ON GRADE FLOORS: HEATED SLABS**	*NA*	*NA*	*NA*	*NA*
TABLES C402.1.3, C402.1.4 OR SECTION C402.2	**OPAQUE DOORS, NONSWINGING**	*NA*	*NA*	*NA*	*NA*
C402.1.1	**LOW- ENERGY BUILDINGS**	*NA*	*NA*	*NA*	*NA*
C402.1.4 TABLES C402.1.3, C402.1.4	**ASSEMBLY U-FACTOR, C-FACTOR, OR F-FACTOR - BASED METHOD**	*OPAQUE SWINGING DOOR*	*SWINGING DOOR: U-0.50*	*U-FACTOR CALCULATED IS : U-0.40.*	*A-418 (SCHEDULES - DOOR NOTES #8)*
C402.2.1	**MULTIPLE LAYERS OF CONTINUOUS INSULATION**	*NA*	*NA*	*NA*	*NA*
C402.2.8	**FIREPLACES**	*NA*	*NA*	*NA*	*NA*
C402.2.9	**CONTINUOUS INSULATION**	*PARAPET DESIGN*	*PARAPET SHALL INCORPORATE A MINIMUM R-3 THERMAL BREAK WHERE THE STRUCTURAL ELEMENT PENENTRATES THE BUILDING THERMAL ENVELOPE*	*PARAPET THERMAL BREAK MINIMUM R-11.2 ci OR U-FACTOR U-0.099*	*A-414, A-415 (WALL SECTIONS), A-906 (ROOF DETAILS)*
C402.4, TABLE C402.4	**FENESTRATION (PERSPECTIVE)**	*FENESTRATION REQUIREMENTS ELEVATION SHOWING 95' DEMARCATION*	*WINDOW U-FACTOR BASED BELOW 95' IS UMAX-0.30 (FIXED) SHGCMAX-0.36 (PF<0.2)*	*W-1 (FIXED) - INSTALLED BELOW 95 FEET U-0.30, SHGC - 0.36*	*A-405 - A-407 (BUILDING ELEVATIONS), A-418(SCHEDULE, WINDOW NOTES #5 ,#6)*
C402.4.1	**MAXIMUM AREA**	*WINDOW TO WALL RATIO*	*30% MAXIMUM*	*TOTAL BUILDING FACADE AREA =4107 / TOTAL WINDOW AREA=120, TOTAL= 3.2.%*	*A-404 (BUILDING ELEVATION NOTES #2)*
C402.4.1.1	**INCREASED VERTICAL FENESTRATION AREA WITH DAYLIGHT RESPONSIVE CONTROLS**	*NA*	*NA*	*NA*	*NA*
C402.4.1.2	**INCREASED SKYLIGHT AREA WITH DAYLIGHT RESPONSIVE CONTROLS**	*NA*	*NA*	*NA*	*NA*
C402.4.2	**MINIMUM SKYLIGHT FENESTRATION AREA**	*NA*	*NA*	*NA*	*NA*

CLEAR FIELD THERMAL BRIDGING		
CFTB NO	**ASSEMBLY/THERMAL BRIDGE DESCRIPTION**	**ASSEMBLY ID IN ENERGY ANALYSIS**
CFTB.1	METAL WALL PANEL ON CMU/CONCRETE WALL WITH R-15 CONTINUOUS INSULATION	

ENERGY CODE NOTES - TI-011

1. THE PROJECT IS SUBJECT TO AND SHALL COMLPLY WITH THE 2020 NYC ENERGY CONSERVATION CODE.
2. THE PROJECT SHALL COMPLY WITH ENERGY CONSERVATION CODE COMPLAINCE PATH - PRESCRIPTIVE TABULAR ANALYSIS (1 RCNY 5000-01(f)).
3. THE FOLLOWING MANDATORY ADDITIONAL EFFICIENCY PACKAGE IS INCLUDED IN THE PROJECT.
   A. OPTION # 6 ENHANCED ENVELOPE PERFORMANCE.
   B. REFERENCE SHEET EN-406 FOR COMCHECK PERFORMANCE RESULTS.
4. A PERMANENT ENERGY EFFICIENCY CERTIFICATE IS NOT REQUIRED FOR NON-RESIDENTIAL AND OCCUPANCY IS NOT AN R-3 OCCUPANCY.

C402.5	**AIR LEAKAGE-THERMAL ENVELOPE (MANDATORY)**	*AIR LEAKAGE THERMAL ENVELOPE*	*THE THERMAL ENVELOPE OF*	*BUILDING THERMAL ENVELOPE TO BE TESTED TO NO MORE THAN 0.4cfm/ft2 OF ENVELOPE AREA @ 75 PA AND WITNESSED BY THE PROGRESS INSPECTOR AS INDICATED ON TR-8 INSPECTION IIA7.*	*NOTES A-404 (BUILDING ELEVATIONS) SPEC SECTION 07 90 00 (JOINT PROTECTION)*
C402.5.1	**AIR BARRIERS**	*AIR BARRIER MATERIALS*	*A CONTINUOUS AIR BARRIER FOR THE OPAQUE BUILDINGS ENVELOPE SHALL COMPLY WITH SECTION C402.5.1.2.1 OR C402.5.1.= 2.2.*	*CONTINUOUS AIR BARRIER - 1/2 INCH XPS WITH ALL JOINTS SEALED ACCORDING TO MFG.'S INSTRUCTIONS.*	*SHEET A-414, A-415.(WALL SECTIONS), A-904 (T-11B METAL WALL PANEL DETAILS)*
C402.5.1.2.1	**MATERIALS**	*MATERIALS*	*ITEMS 1 THROUGH 15 LISTED IN THIS SECTION MUST COMPLY WITH THE REQUIREMENTS OF THIS SECTION.*	*PLYWOOD WITH A THICKNESS OF NOT LESS THAN 3/8 INCH (10MM) EXTRUDED POLYSTRENE INSULATION BOARD HAVING A THICKNESS OF NOT LESS THAN 1/2 INCH (12.7MM). CAST-IN-PLACE OR PRECAST CONCRETE MEET THE REQUIREMENTS OF SECTION C402.5.1.2.1.*	*A-404 (BUILDING ELEVATION NOTES #5 AND #6),A-906 (ROOF DETAILS), A-414, A-415 (WALL SECTIONS) SPEC SECTION 03 30 00 (CAST-IN-PLACE), 07 21 00 (THERMAL INSULATION), 04 22 00 (CONCRETE UNIT MASONRY)*
C402.5.1.2.2	**ASSEMBLIES**	*ASSEMBLIES*	*ITEMS 1 THROUGH 3 LISTED IN THIS SECTION MUST COMPLY WITH THE REQUIREMENTS OF THIS SECTION.*	*CONCRETE MASONRY WALLS COATED WITH EITHER ONE APPLICATION OF BLOCK FILLER OR TWO APPLICATIONS OF A SEALER COATING MEET THE REQUIREMENTS OF C402.5.1.2.2, PROVIDED JOINTS ARE SEALED AND THE REQUIREMENTS OF THE SECTION C402.5.1.1 ARE MET.*	*SHEET A-901, A-902 (T-11B BUILDING DETAILS)*
C402.5.1.3	**AIR BARRIER TESTING**	*NA*	*NA*	*NA*	*NA*
C402.5.2, TABLE C402.5.2	**AIR LEAKAGE OF FENESTRATION**	*REPLACE CURTAIN WALL AND GLAZED ENTRANCE DOORS, FLOOR1.*	*MAX AIR LEAKAGE RATES: CURTAIN WALLS AND STOREFRONT GLAZING = 0.06 cfm/sf*	*CURTAIN WALLS AND STOREFRONT GLAZING = 0.06 cfm/sf*	*VERTICAL FENESTRATION: A-404 - A-407 (BUILDING ELEVATIONS), A-418 (SCHEDULES) A-414, A-415 (WALL SECTION DETAILS)*
C402.5.3, TABLES C402.1.3, C402.1.4	**ROOMS CONTAINING FUEL-BURNING APPLIANCES**	*NA*	*NA*	*NA*	*NA*
C402.5.4	**DOOR AND ACCESS OPENINGS TO SHAFTS, CHUTES, STAIRWAYS, AND ELEVATOR LOBBIES**	*NA*	*NA*	*NA*	*NA*
C402.5.5	**AIR INTAKES, EXHAUST OPENINGS, STAIRWAYS AND SHAFTS**	*AIR INTAKES, EXHAUST, OPENINGS, STAIRWAYS AND SHAFTS REQUIREMENTS FOR DAMPERS*	*DAMPERS MUST BE PROVIDED IN ACCORDANCE WITH SECTION C403.2.4.3.*	*STAIRWAY ENCLOSURE DAMPERS ARE IN ACCORDANCE WITH C403.2.4.3.*	*A-417 (STAIR DETAILS), H-402, H-404 (HVAC DRAWINGS)*
C402.5.6	**LOADING DOCK WEATHERSEALS**	*NA*	*NA*	*NA*	*NA*
C402.5.7	**VESTIBULES**	*NA*	*NA*	*NA*	*NA*
C402.5.8	**RECESSED LIGHTING**	*NA*	*NA*	*NA*	*NA*
C402.6	**THERMAL BRIDGES (MANDATORY)**	*THERMAL BRIDGES*	*CLEAR-FIELD THERMAL*	*CLEAR-FIELD THERMAL BRIDGES: ALL WALL, ROOF AND FLOOR ASSEMBLIES ARE DERIVED FROM APPENDIX A OF ASHRAE 90.1 POINT THERMAL BRIDGES: NO POINT THERMAL BRIDGES ARE IN THIS DESIGN LINEAR THERMAL BRIDGES: SEE TABLE 1 ON SHEET EN-3*	*EN-402 (TABULAR FORMAT OF LINEAR THERMAL BRIDGES)*

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SECTION MANAGER:

ARCADIS

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-011 DISINFECTION FACILITY
BUILDING ENVELOPE ENERGY CODE

DATE: NOVEMBER 2026
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DRAWING NO. EN-402.00

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2020 NYCECC Tabular Analysis
Commercial Building in compliance with ECC

Energy Code Scope of Work

For all ALTERATION job applications where the proposed scope of alteration work is limited to partial areas of the existing buildings and/or conditions, please provide a detailed description of the proposed scope of work here, and itemize the altered elements in the tabular format below.

Note for ALTERATION job application:
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NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C403.1.1	**Calculation of heating and cooling loads (Mandatory)**	Load calculations for HVAC systems	Determined in accordance with ANSI/ASHRAE/ACCA Standard 183 HVAC Systems and Equipment Handbook	Design loads are determined in accordance with the procedures described in the ANSI/ASHRAE/ACCA Standard183.	Signed and sealed statement from Engineer certifying compliance with Energy Code.
C403.2.1	**Zone isolation required (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.2.2	**Ventilation (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.1	**Equipment sizing (Mandatory)**	HVAC systems sizing based on load calculations	Heating and cooling equipment shall not exceed calculated loads	Specified equipment sized within load calculation limits	Signed and sealed statement from Engineer certifying compliance with Energy Code.
Table C403.3.2(1)	**Minimum efficiency requirements: electrically operated unitary air conditioners and condensing units**	*N/A*	*N/A*	*N/A*	N/A
TABLE C403.3.2(2)	**Minimum efficiency requirements: electrically operated unitary and applied heat pumps**	Ductless Split System Heat Pumps	Minimum SEER: 14.0 Minimum COP: 3.3 @ 47°F	SEER: 25.0 COP: 4.28	Refer to drawing H-902.00 for SEER and COP values.
TABLE C403.3.2(3)	**Minimum efficiency requirements: electrically operated PTACs, PTHPs, Single-package vertical AC, Single-package vertical HP, Room AC, and Room AC-HPs**	Ductless Split System Heat Pumps	Minimum SEER: 14.0 Minimum COP: 3.3 @ 47°F	SEER: 25.0 COP: 4.28	Refer to drawing H-902.00 for SEER and COP values.
TABLE C403.3.2(4)	**Warm-air furnaces and combination warm-air furnaces/air-conditioning units, warm-air duct furnaces and unit heaters, minimum efficiency requirements**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(5)	**Minimum efficiency requirements: gas- and oil-fired boilers**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(6)	**Water chilling packages - efficiency requirements**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(7)	**Minimum efficiency requirements: heat rejection equipment**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2(9)	**Heat Transfer Equipment**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2 (10)	**Minimum efficiency requirements: electrically operated variable-refrigerant-flow air conditioners**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.3.2 (11)	**Minimum efficiency requirements: electrically operated variable-refrigerant-flow air-to-air and applied heat pumps**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.3	**Hot Gas Bypass Limitation**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.4, TABLE C403.3.4	**Boiler turndown**	*N/A*	*N/A*	*N/A*	*N/A*
C403.3.5	**Buildings with high efficiency space heating gas boiler systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1	**Thermostatic controls (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.1	**Heat pump supplementary heat (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.3	**Set point overlap restriction (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.4	**Heated or cooled vestibules (mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.1.5	**Hot water boiler outdoor temperature setback control (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2	**Off-hour controls (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2.1	**Thermostatic setback (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2.2	**Automatic setback and shutdown (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.2.2	**Automatic start (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3	**Hydronic Systems Controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.1	**Three-pipe System**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.2	**Two-pipe Changeover System**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3	**Hydronic (Water Loop) Heat Pump Systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3.1	**Temperature dead band**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3.2	**Heat Rejection**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.3.3.3	**Two-position valve**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.4	**Part-load controls: temperature reset controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.4	**Part-load controls: Pumps**	*N/A*	*N/A*	*N/A*	*N/A*
C403.4.5	**Pump isolation**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5	**Economizers (Prescriptive)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.1	**Integrated economizer control**	*N/A*	*N/A*	*N/A*	*N/A*

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SECTION MANAGER:

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STATE OF NEW YORK — ELIZABETH M. MCCRAY — 083921 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
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MECHANICAL ENERGY CODE - SHEET 1

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C403.5.2	**Economizer heating system impact**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.3	**Air economizers**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.4	**Water-side economizers**	*N/A*	*N/A*	*N/A*	*N/A*
C403.5.5	**Economizer fault detection and diagnostics (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.1	**Variable air volume and multiple-zone systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.2	**Single-duct VAV system, terminal devices**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.3	**Dual-duct and mixing VAV systems, terminal devices**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.4	**Single-fan dual-duct and mixing VAV systems, economizers**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.5	**Supply-air temperature reset controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.6	**Multiple zone VAV system ventilation optimization control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.7	**Parallel-flow fan-powered VAV air terminal control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.8	**Setpoints for direct digital control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.6.9	**Static pressure sensor location**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.1	**Demand control ventilation (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.2	**Enclosed parking garage ventilation controls (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.3	**Ventilation air heating control (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.4, TABLES C403.7.4 (1) & C403.7.4(2)	**Energy recovery ventilation systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.5	**Kitchen exhaust systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.6	**Automatic control of HVAC systems serving guestrooms (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.7.7	**Shutoff dampers (Mandatory)**	Outdoor air intake, exhaust openings.	Each outdoor supply air and exhaust air ducts shall be provided with motorized dampers to shut off or open as required by this section. Class I motorized damper with a maximum air leakage rate of 4cfm/ft^2 of damper surface area at 1.0 inch water gauge.	Class I motorized damper with a maximum air leakage rate of 4cfm/ft^2 of damper surface area at 1.0 inch water gauge	Refer to drawings H-905.00 and control sequences in specifications 23 09 00.
C403.8.1, TABLES C403.8.1 (1) & C403.8.1(2)	**Allowable Fan Horsepower (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.8.2	**Motor nameplate horsepower (Mandatory)**	Exhaust and supply fans in facilities TI -10D and TI-11.	1.5 * bhp for fans less than 6bhp is not larger than first available motor size.	Fan bhp < 6 bhp hp = 1.5 * bhp is not larger than first available motor size.	Refer to drawing H-901.00
C403.8.3	**Fan Efficiency (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.8.4	**Fractional hp fan motors (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.8.5.1	**Fan Airflow control**	*N/A*	*N/A*	*N/A*	*N/A*
C403.9	**Heat rejection equipment**	*N/A*	*N/A*	*N/A*	*N/A*
C403.9.5	**Heat Recovery for Service Water Heating**	*N/A*	*N/A*	*N/A*	*N/A*
C403.10	**Refrigeration equipment performance**	*N/A*	*N/A*	*N/A*	*N/A*
C403.10.4	**Refrigeration systems**	*N/A*	*N/A*	*N/A*	*N/A*
C403.11.1	**Duct and plenum insulation and sealing (Mandatory)**	Ductwork	Supply and return ducts and plenums in shall have a minimum of R-6 where located in unconditioned spaces and R-8 minimum where located outside the building. Where located within a building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by a minimum of R-8.	Unconditioned spaces: R-6 Conditioned spaces: None, exterior wall insulated >R-8	Refer to specication 23 07 13.
C403.11.2	**Duct Construction (Mandatory)**	Ductwork	Shall be constructed and erected in accordance with the NYCMC	Ductwork must be constructed and erected in accordance with the NYCMC	Refer to specication 23 31 14.
C403.11.2.1	**Low-Pressure Duct Systems (Mandatory)**	Low Pressure Ductwork	All low pressure ducts, operating at 2" of W.G. or less shall be properly sealed with approved methods	All low pressure ducts properly sealed as per requirements	Refer to specication 23 31 14.
C403.11.2.2	**Medium-Pressure Duct Systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C403.11.2.3	**High Pressure Duct Systems (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
TABLE C403.11.3	**Minimum Piping Insulation Thickness**	Split system refrigerant line insulation	Refrigerant insulation: <40F, < 1" diameter = 0.5 inches	Refrigerant insulation shall be a minimum 1-1/2"	Refer to specification 23 81 26.2.02.F.2.
C403.11.3.1	**Protection of piping insulation (Mandatory)**	Piping located outdoors	All piping insulation is protected from damage, including that due to sunlight, moisture, equipment maintenance and wind. Adhesive tape is not permitted.	All outdoor piping insulation is protected from damage by using aluminum jacketing.	Refer to specification 23 81 26.2.02.F.3.
C403.12.1	**Heating Outside a Building**	*N/A*	*N/A*	*N/A*	*N/A*
C403.12.2	**Snow- and ice-melt system controls**	*N/A*	*N/A*	*N/A*	*N/A*
C403.12.2	**Freeze protection system controls**	*N/A*	*N/A*	*N/A*	*N/A*
C408.2	**Mechanical, renewable energy, and service water heating systems commissioning and completion requirements**	*N/A*	*N/A*	*N/A*	*N/A*

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-011 DISINFECTION FACILITY
MECHANICAL ENERGY CODE - SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
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C404.2 Table C404.2	**Service water-heating Equipment Performance Efficiency**	Domestic Water Heater, 11D EWH-1	*Meets efficiency requirements of table C404.2.*	93.7% Efficiency Electric Water Heater.	See Plumbing Drawing P-902 and specification 22 33 00
C404.3	**Heat traps for hot water storage tanks**	*N/A*	*N/A*	*N/A*	*N/A*
C404.4	**Insulation of piping**	*Domestic Hot Water insulation*	*DHW piping insulation: 105-140F, 1-1.5" diameter = 1.0 inches 1.5"-4" diameter = 1.5 inches*	*DHW insulation = 1.0 inches & 1.5 inches*	*See plumbing specification section 22 07 19.*
C404.5	**Efficient heated water supply piping**	*N/A*	*N/A*	*N/A*	N/A
C404.5.1 Table C404.5.1	**Maximum allowable pipe length method**	*N/A*	*N/A*	*N/A*	N/A
C404.5.2 Table C404.5.1	**Maximum allowable pipe volume method**	*N/A*	*N/A*	*N/A*	N/A
C404.6	**Heated-water circulating and temperature maintenance systems**	*Hot water circulation pumps and heat trace*	*Heat trace shall be arranged to be turned off automatically when there is no hot water demand.*	*Heat Trace controls shall automtically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping when heated water is used. Heat trace shall be arranged to turn off automatically when there is no demand for hot water.*	See plumbing specificationd section 22 05 33
C404.7	**Demand recirculation controls**	*N/A*	*N/A*	*N/A*	*N/A*
C404.8	**Drain water heat recovery units**	*N/A*	*N/A*	*N/A*	*N/A*
C404.9	**Energy consumption of pools and permanent spas (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C404.9.3	**Covers**	*N/A*	*N/A*	*N/A*	*N/A*
C404.10	**Energy consumption of portable spas (Mandatory)**	*N/A*	*N/A*	*N/A*	*N/A*
C408.2	**Mechanical, renewable energy, and service water heating systems commissioning and completion requirements**	*N/A*	*N/A*	*N/A*	*N/A*

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C405.1	**Dwelling Unit Lighting**	*Sample text: Dwelling unit lighting fixtures*	*Not less than 90% of the lamps in permanently installed lighting fixtures shall use lamps with an efficacy of at least 65 lumens per watt, or have a total luminaire efficacy of at least 45 lumens per watt.*	*Sample text:* *All lamps in fixtures are 68 lumens per watt.*	*Sample text: see drawing E-XXX (Lighting fixture schedules)*
C405.2	**Lighting controls (Mandatory)**	*Sample text: interior lighting controls include occupancy sensors, daylight responsive controls, bi-level controls, and automatic shut-off*	*Lighting systems shall be provided with controls as specified in Sections C405.2.1 through C405.2.6.*	*Sample text: Occupancy sensors in restrooms, conference rooms, open offices; daylight responsive controls in all offices; bi-level controls in stairwells; automatic shut-off via BMS for all lighting*	*Sample text: see drawing EN-XXX (Lighting fixture schedule & narratives)*
C405.2.1, C405.2.1.1, C405.2.1.2	**Occupant sensor controls**	*Sample text: Occupant sensor controls are provided in each conference room, restroom, storage area, corridor, stairwell and open plan office*	*Sample Text: Occupant sensors required in each restroom, storage area, corridor, stairwell and open plan office. Vacancy sensors (manual-on, auto-off) required in each conference room.*	*Sample text: Occupancy & vacancy sensors provided with 15 minute shut off limit. Manual-off vacancy sensors required in conference rooms.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.1.3	**Occupant sensor control function in open plan office areas, cafeteria dining areas, and fast food dining areas**	*Sample text: Occupant sensor control function in open plan offices*	*Sample text: Open plan office occupancy controls shall comply with all of the following:* *1. general lighting controlled by control zones < 600 sq ft* *2. lighting automatically turns off in all control zones within 15 min after all occupants left the open plan office* *3. General lighting power in each control zone is reduced by not less than 80% of full zone lighting power in a uniform illumination pattern within 15 min of all occupants leaving the control zone.* *4. Daylight responsive control will activate open plan offices lighting only when occupancy is detected.*	*Sample text: Open plan office occupancy controls are configured as per code requirements*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.1.4	**Occupant sensor control function for egress illumination**	*Sample text: Occupant sensor controls for egress illumination*	*Sample text: All luminaires serving the exit access, corridors, stairwells shall contain occupancy sensors that reduce the lighting power by 50 percent when unoccupied for a period longer than 15 minutes.*	*Sample text: Exception 1 applies to all corridors and stairwells. The total lighting is less than 0.02 watts /sq ft.*	*Sample text: see drawing EN-XXX (Lighting fixture schedules)*
C405.2.2,	**Time-switch controls**	*Sample text: Time-switch controls at room XX-X*	*Each area of the building that is not provided with occupant sensor controls complying with Section C405.2.1.1 shall be provided with time switch controls complying with Section C405.2.2.1. Exception: Where a manual control provides light reduction in accordance with Section C405.2.2.2, automatic controls shall not be required for the following: 1. Sleeping units. 2. Spaces where patient care is directly provided. 3. Spaces where an automatic shutoff would endanger occupant safety or security. 4. Lighting intended for continuous operation. 5. Shop and laboratory classrooms.*	*Sample text: All areas of the building are provided with occupancy sensors - time-switch controls not required.*	*Sample text: see drawing E-XXX (Lighting fixture schedules & narratives)*
C405.2.2.1	**Time-switch control function**	*Sample text: Time-switch controls*	*Each space provided with time-switch controls shall also be provided with a manual control for light reduction in accordance with section C405.2.2.2. Time-switch controls shall include an override switching device that complies with the following: 1. Have a minimum 7-day clock. 2. Be capable of being set for seven different day types per week. 3. Incorporate an automatic holiday "shutoff" feature, which turns off all controlled lighting loads for at least 24 hours and then resumes normally scheduled operations. 4. Have program backup capabilities, which prevent the loss of program and time settings for at least 10 hours, if power is interrupted. 5. Include an override switch that complies with the following: 5.1. The override switch shall be a manual control. 5.2. The override switch, when initiated, shall permit the controlled lighting to remain on for not more than 2 hours. 5.3. Any individual override switch shall control the lighting for an area not larger than 5,000 square feet (465m²). Exceptions as per this code section.*	*Sample text: Time-switch controls provided as required.*	*Sample text: see drawing E-XXX (Lighting fixture schedules & narratives)*
C405.2.2.2	**Light-reduction controls**	*Sample text: Light-reduction controls*	*Spaces required to have light-reduction controls shall have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern by at least 50 percent.*	*Sample text: Light-reduction controls provided in open space on 5th floor.*	*Sample text: see drawing E-XXX (Lighting fixture schedules & narratives)*
C405.2.3	**Daylight-responsive controls**	*Sample text: Daylight-responsive controls.*	*Daylight responsive controls complying with Section C405.2.3.1 shall be provided to control the electric lights within daylight zones in the following spaces:* *1. Spaces with a total of more than 100 watts of general lighting within sidelight daylight zones complying with Section C405.2.3.2. General lighting does not include lighting that is required to have specific application control in accordance with Section C405.2.4.* *2. Spaces with a total of more than 100 watts of general lighting within toplight daylight zones complying with Section C405.2.3.3.*	*Sample text: N/A Daylight responsive controls are not required for the following: Dwelling units and sleeping units. (Exception #2)*	*See drawing EN-XXX*
C405.2.3.1	**Daylight-responsive control function**	*Sample text: Daylight-responsive controls*	*Where required, daylight-responsive controls shall be provided within each space for control of lights in that space and shall comply with requirements of C405.2.3.1.*	*Sample text: Daylight-responsive controls shall be provided as per C405.2.3.1.*	*See drawing EN-XXX*

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ELECTRICAL ENERGY CODE - SHEET 1

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C405.2.3.2	**Sidelight daylight zone**	*Sample text: Sidelight daylight zones, Floors 2-10*	*The sidelight daylight zone is the floor area adjacent to vertical fenestration which complies with C405.2.3.2*	*Sample text: Sidelight daylight zones provided as per C405.2.3.2.Sidelit zone area provided on drawings.*	*See drawing EN-XXX*
C405.2.3.3	**Toplight daylight zone**	*Sample text: Toplight daylight zone, Floor 10*	*The toplight daylight zone is the floor area underneath a roof fenestration assembly which complies withC405.2.3.3.*	*Sample text: Toplight daylight zone on 5th floor complies with C405.2.3.3.Toplit zone area provided on drawings.*	*See drawing EN-XXX*
C405.2.4	**Specific application controls**	*Sample text: Retail display case lighting*	*Specific application controls shall be provided for the following: 1. Display and accent light shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space. 2. Sleeping units have controls to automatically switch off all luminaires and switched receptacles within 20 minutes 3. Permanently installed luminaires within dwelling units have time-switch or light reduction controls 4. Nonvisual applications shall be controlled by a time-switch that is independently controlled from the general lighting in the room or space*	*Sample text: Display and accent light D4 to D9 shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space.*	*Sample text: see drawing EN-XXX*
C405.2.5	**Manual controls**	*Sample text: Manual controls*	*Sample text: Manual controls shall be in a location with ready access to occupants and located where the controlled lights or visible or shall identify the area served by the lights and indicate their status*	*Sample text: Manual controls are per code.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.6, C405.2.6.1, C405.2.6.2, C405.2.6.3, C405.2.6.4	**Exterior lighting controls**	*Sample text: Exterior lighting controls*	*Exterior lighting system shall be provided with controls that comply with the following: 1. Lights shall be automatically turned off when daylight is present and satisfies the lighting needs 2. Building façade lighting and landscape lighting shall shut off not later than 1 hour after business closing to not earlier than 1 hour before business opening OR shall be controlled so the total wattage is reduced by not less than 50% by shutting off the lighting or dimming luminaires 3. Time switch controls shall have a clock capable of programming for >7 days, and being set for 7 different day types per week, have an automatic holiday setback feature, and have backup capabilities*	*Sample text: Lighting on the north building facade equipped with photosensors. See lighting Plan.*	*See drawing EN-XXX*
C405.2.6.1, C405.2.6.2, C405.2.6.4	**Exterior decorative lighting controls**	*Sample text: Exterior decorative lighting controls*	*Building façade lighting and landscape lighting shall shut off not later than 1 hour after business closing to not earlier than 1 hour before business opening OR shall be controlled so the total wattage is reduced by not less than 50% by shutting off the lighting or dimming luminaires*	*Sample text: Lighting on the south building facade equipped with dimmable controls set to 50% power. See lighting Plan.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.2.6.5	**Outdoor parking area lighting controls**	*Sample text: Outdoor parking lighting controls*	*Luminaires having rated input wattage > 78 W and a mounting height < 24 feet shall be controlled to automatically reduce the power by a minimum of 50% when no activity is detected for 15 min or less. No more than 1500 W of lighting power shall be controlled together.*	*Sample text: Outdoor parking area lighting poles are equipped with occupancy sensors, per requirements.*	*Sample text: see drawing E-XXX (lighting fixture schedule & narratives)*
C405.3	**Interior lighting power requirements**	*Sample text: Interior lighting power requirements*	*Sample text: Open Office: 0.78 W/SF Conf Rm: 0.93 W/SF Stairwell: 0.50 W/SF Restroom: 0.75 W/SF The total connected interior lighting power shall be determined in accordance with Equation 4-10.*	*Sample text: Open Office: 0.68 W/SF Conf Rm: 0.92 W/SF Stairwell: 0.43 W/SF Restroom: 0.60 W/SF LPD value for building is less than the interior lighting power calculated under Section C405.3.2. See drawing EN-XXX.*	*Sample text: see drawing EN-XXX (Lighting fixture schedules)*
C405.4	**Exterior lighting power requirements (Mandatory)**	*Sample text: Total connected load of proposed exterior lighting for lighting zone 3*	*Sample text: 10.21 kW The exterior lighting power allowance shall be determined in accordance with Section C405.5.1.*	*Sample text: 7.66 kW The total exterior lighting power is less than the exterior lighting power calculated under Section C405.4. See drawing EN-XXX.*	*Sample text: A-XXX drawings (Reflected Ceiling Plans for all floors) E-XXX drawings (Reflected Ceiling Plans for all floors) E-XXX - XXX (Fixture schedule, control narrative, and details)*
C405.5	**Electrical meter (Mandatory)**	*Sample text: Separate electrical meters have been provided for each dwelling unit.*	*Each dwelling unit located in a Group R-2 building shall have a separate electrical meter.*	*Sample text: meter at unit XXX through XXX*	*Sample text: See note in general notes (EN-XXX).*
C405.6	**Electrical transformers (Mandatory)**	*Sample text: Electrical transformers*	*Electric transformers shall meet the minimum efficiency requirements of Table C405.6*	*Sample text: Impedance transformers are exempted as per Exception # 8.*	*Sample text: See drawing EN-XXX for notes.*
C405.7	**Electrical motors (Mandatory)**	*Sample text: Electrical motors*	*Electric motors shall meet the minimum efficiency requirements of Tables C405.7(I) through C405.7(4) when tested and rated in accordance with the DOE 10 CFR 431. The efficiency shall be verified through certification under an approved certification program or, where a certification program does not exist, the equipment efficiency ratings shall be supported by data furnished by the motor manufacturer.*	*Sample text: Electric motors are in compliance as per C405.7. See motor manufacturer data on drawing E-XXX.*	*Sample text: See drawing EN-XXX.*
C405.8	**Vertical and horizontal transportation systems and equipment**	*Sample text: Elevators*	*New traction elevators with a rise of 75 feet or more shall have a power conversion system that complies with C405.8.1.1.1 through C405.8.1.1.3*	*Sample text: Regenerative drives and occupancy sensors provided for elevators*	*Sample text: See drawing EN-XXX.*
C405.10	**Commercial kitchen equipment**	*Sample text: Kitchen equipment in cafeteria*	*Sample text: Standard Open Deep-Fat gas Fryer: >50% heavy load cooking energy efficiency, <9,000 Btu/h Idle energy rate*	*Sample text: Standard Open Deep-Fat gas Fryer: >50% heavy load cooking energy efficiency, <9,000 Btu/h Idle energy rate*	*Sample text: See drawing EN-XXX.*
C405.11	**Whole building energy monitoring**	*Whole building fuel metering*	*Sample text: Measurement devices shall be installed to individually monitor the energy use in each of the following types of energy supplied by a utility, energy provider, or plant that is not with the building: 1. natural gas 2. fuel oil 3. propane 4. steam 5. chilled water 6. hot water*	*Sample text: Whole building meters provided for Natural gas. See mechanical plans/electrical plans.*	*Sample text: See drawing EN-XXX.*
C405.12	**Whole building electrical monitoring**	*Whole building electrical metering*	*Sample text: Measurement devices shall be installed to record electrical energy us every 60 minutes.*	*Sample text: W hole building meter provided for electricity. See mechanical plans/electrical plans.*	*Sample text: See drawing EN-XXX.*

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96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
GENERAL
TI-011 DISINFECTION FACILITY
ELECTRICAL ENERGY CODE - SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. EN-407.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-G-R21_ARCA.rvt
10/30/2026 10:08:23 AM

NYCECC Citation	Provision	Item Description	Code Prescriptive Value (ECC)	Proposed Design Value	Supporting Documentation
C406.1	**Requirements** (for ADDITIONAL EFFICIENCY PACKAGE OPTIONS)	*NA*	*NA*	*NA*	*NA*
C406.2	**More efficient HVAC equipment performance**	*NA*	*NA*	*NA*	*NA*
C406.3	**Reduced lighting power density**	*NA*	*NA*	*NA*	*NA*
C406.4	**Enhanced digital lighting controls**	*NA*	*NA*	*NA*	*NA*
C406.5	**Dedicated outdoor air system**	*NA*	*NA*	*NA*	*NA*
C406.6	**Reduced energy use in service water heating**	*NA*	*NA*	*NA*	*NA*
C406.7	**Enhanced envelope performance**	*Enhanced envelope performance*	*The thermal performance of the envelope shall demonatrate a minimum 15 % improvement compared to the requirements of Section C402.1.5.*	*ComCheck displays 6% improvement beyond the enhanced envelope performance code minimum*	*This sheet*
C406.8	**Reduced air infiltration**	*NA*	*NA*	*NA*	*NA*
C408.2	**Mechanical renewable energy, and service water heating systems commissioning and completion requirements**	*NA*	*NA*	*NA*	*NA*

COM*check* Software Version COMcheckWeb

Envelope Compliance Certificate

Project Information

Energy Code: 2020 New York City Energy Conservation Code
Project Title: Flushing Creek CSO TI-011-60
Location: New York, New York
Climate Zone: 4a
Project Type: New Construction
Vertical Glazing / Wall Area: 2%

Construction Site:
College Point Blvd
Queens, New York 11354

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Enhanced Envelope Performance, 1.0 credit

Building Area	Floor Area
1-Warehouse : Nonresidential	3164

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Roof: Insulation Entirely Above Deck, [Bldg. Use 1 - Warehouse]	2435	---	33.0	0.030	0.030
Roof: Other Insulation Above Deck Roof, [Bldg. Use 1 - Warehouse] (b)	665	---	---	0.100	0.030
Roof: Other, [Bldg. Use 1 - Warehouse] (b)	64	---	---	0.500	0.020
Floor: Unheated Slab-On-Grade, Vertical 2 ft., [Bldg. Use 1 - Warehouse] (d)	250	---	10.0	0.540	0.520
NORTH					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	533	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Empty, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	835	---	15.0	0.057	0.099
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typical Window, SHGC 0.34, VT 0.62, < 95° above-grade, [Bldg. Use 1 - Warehouse] (c)	24	---	---	0.300	0.300
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	84	---	10.0	0.083	0.099
EAST					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	729	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Empty, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	1125	---	15.0	0.057	0.099
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typical Window, SHGC 0.34, VT 0.62, < 95° above-grade, [Bldg. Use 1 - Warehouse] (c)	35	---	---	0.300	0.300
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	24	---	---	0.360	0.500
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	98	---	10.0	0.083	0.099

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
SOUTH					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	533	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Empty, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	786	---	15.0	0.057	0.099
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Warehouse]	50	---	---	0.360	0.500
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typical Window, SHGC 0.34, VT 0.62, < 95° above-grade, [Bldg. Use 1 - Warehouse] (c)	24	---	---	0.300	0.300
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	84	---	10.0	0.083	0.099
WEST					
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	729	---	15.0	0.059	0.099
Ext. Wall: Concrete Block, 12in., Partially Grouted, Cells Empty, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	1140	---	15.0	0.057	0.099
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Typical Window, SHGC 0.34, VT 0.62, < 95° above-grade, [Bldg. Use 1 - Warehouse] (c)	44	---	---	0.300	0.300
Ext. Wall: Solid Concrete, 12in. Thickness, Normal Density, Furring: None, [Bldg. Use 1 - Warehouse]	98	---	10.0	0.083	0.099

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) 'Other' components require supporting documentation for proposed U-factors.
(c) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
(d) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 6% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2020 New York City Energy Conservation Code requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: ED
DRAWN BY: ED
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ACCOUNTABLE MANAGER
MONICA HARVEY, PE
PORTFOLIO MANAGER
ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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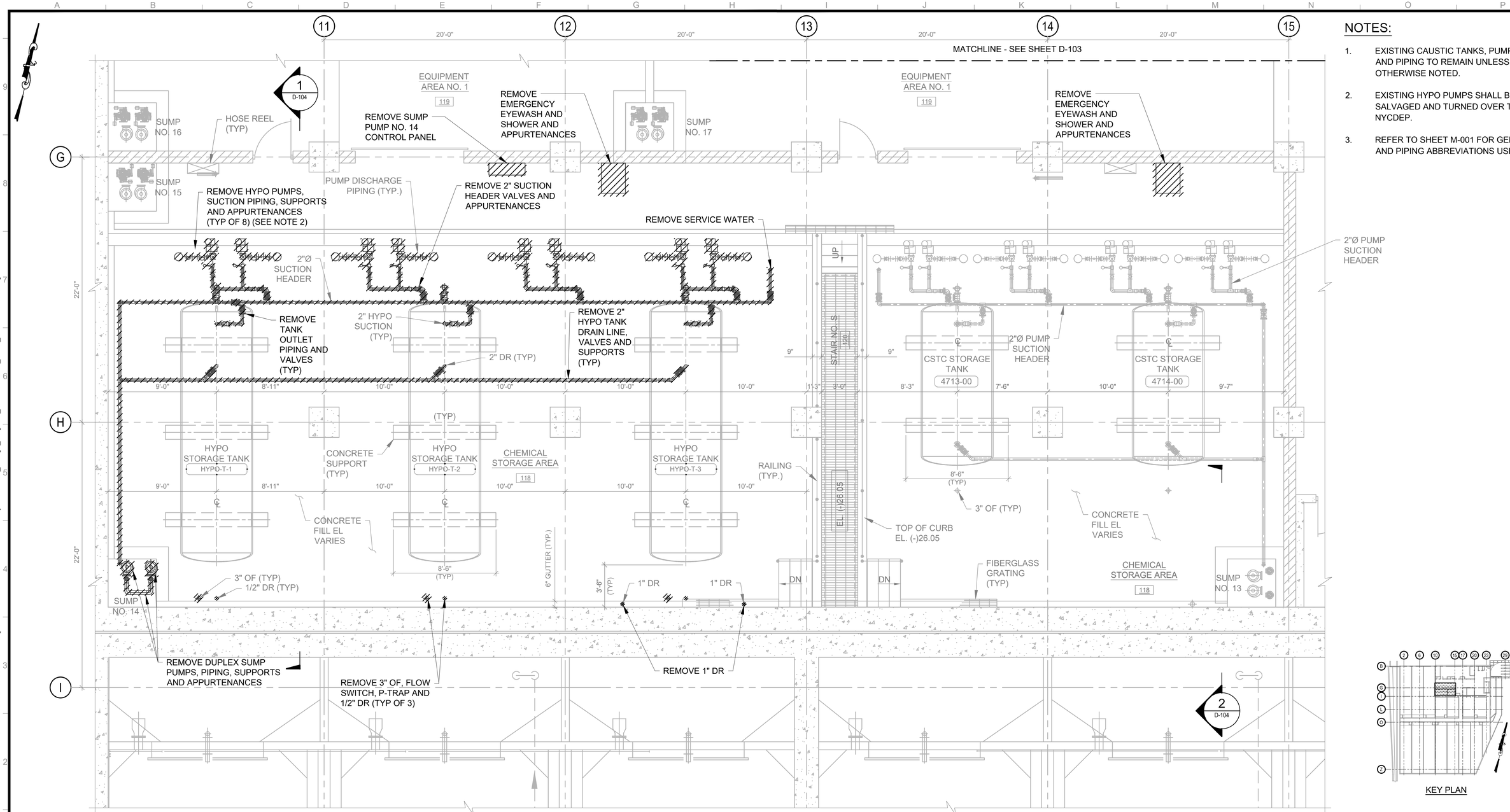
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GENERAL
TI-011 DISINFECTION FACILITY - OPTION 6
ENHANCED ENVELOPE PERFORMANCE DATA

DATE: NOVEMBER 2026
SHEET NO:
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NOTES:

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2. EXISTING HYPO PUMPS SHALL BE SALVAGED AND TURNED OVER TO NYCDEP.
3. REFER TO SHEET M-001 FOR GENERAL AND PIPING ABBREVIATIONS USED.

KEY PLAN

CHEMICAL STORAGE - LOWER ENLARGED PARTIAL PLAN

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

1/4"=1'-0" 0 4 8 FT.

BID SET
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DRAWN BY: AC
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 093924 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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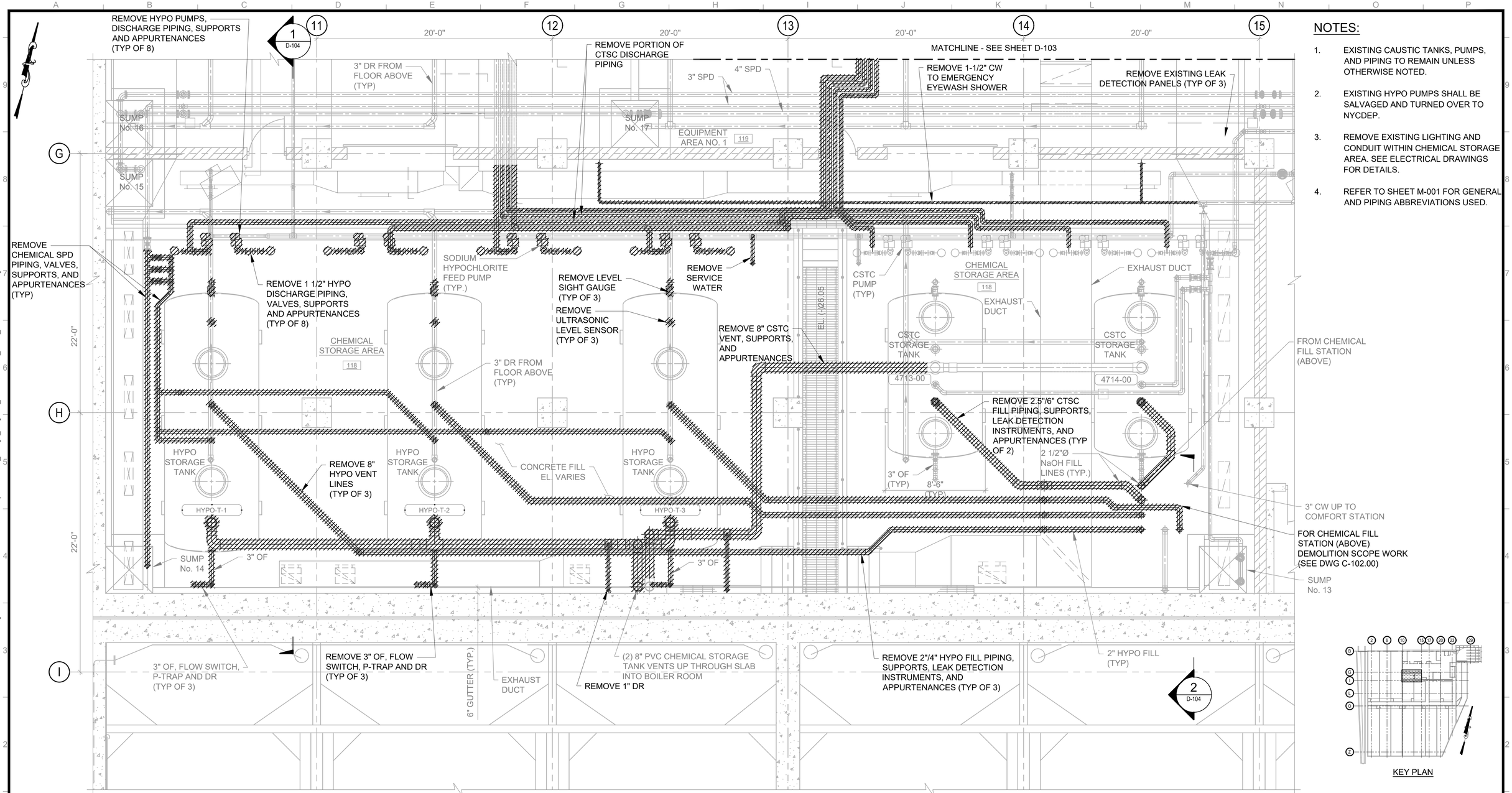
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - LOWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
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Date & Time Plotted: 11/2/2026 10:27 AM
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Plot Scale: 1:1



NOTES:

1. EXISTING CAUSTIC TANKS, PUMPS, AND PIPING TO REMAIN UNLESS OTHERWISE NOTED.
2. EXISTING HYPO PUMPS SHALL BE SALVAGED AND TURNED OVER TO NYCDEP.
3. REMOVE EXISTING LIGHTING AND CONDUIT WITHIN CHEMICAL STORAGE AREA. SEE ELECTRICAL DRAWINGS FOR DETAILS.
4. REFER TO SHEET M-001 FOR GENERAL AND PIPING ABBREVIATIONS USED.

KEY PLAN

CHEMICAL STORAGE - UPPER ENLARGED PARTIAL PLAN

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

0 4 8 FT.
1/4"=1'-0"

BID SET
DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

ARCADIS

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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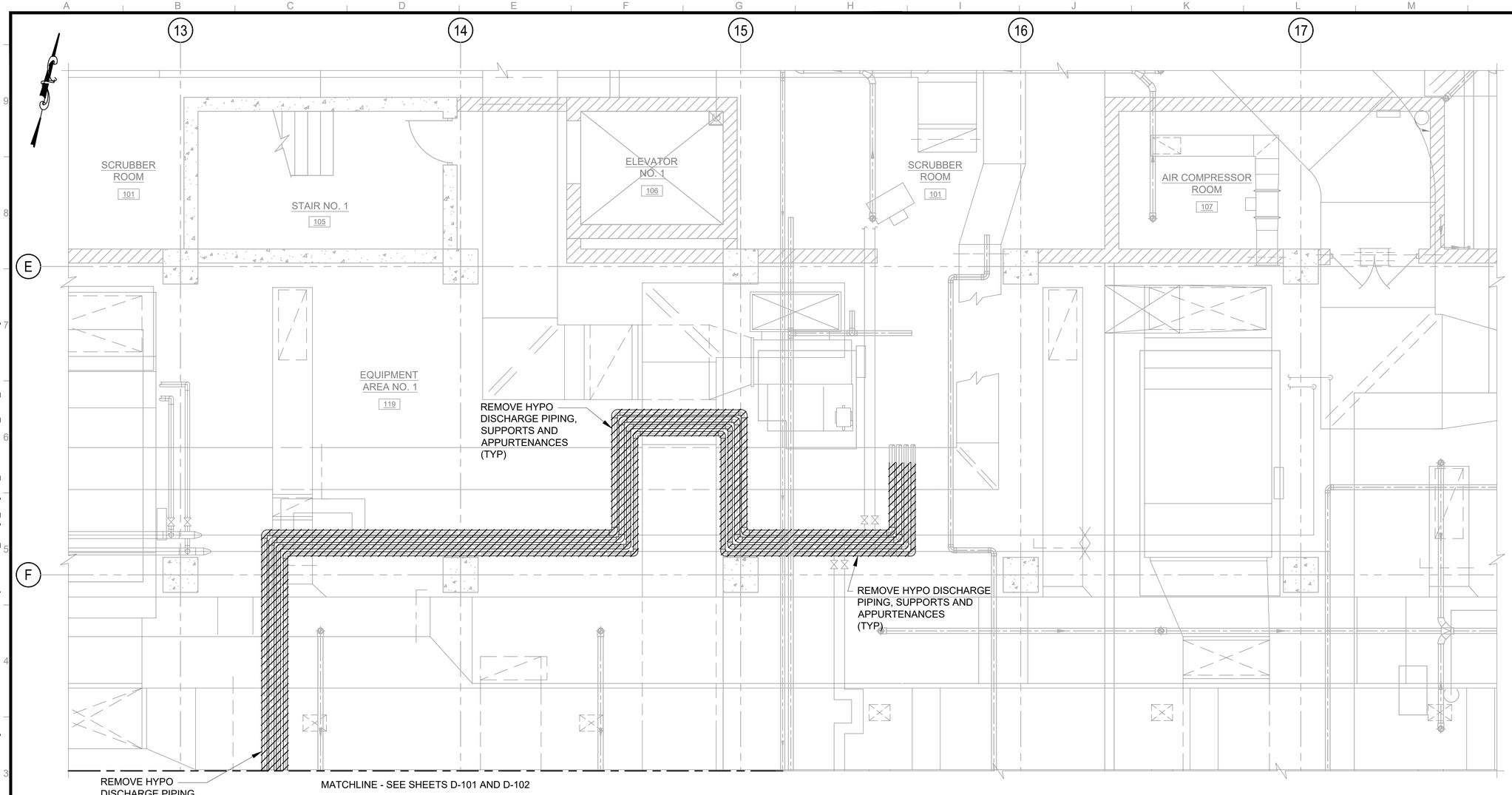
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
DEMOLITION
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - UPPER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. D-102.00

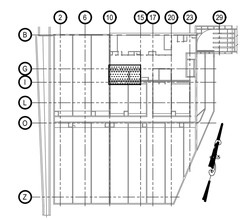
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Plot Style Table: BEDC_Acad_2021.ctb
Date & Time Plotted: 11/2/2026 10:27 AM



BASEMENT - ENLARGED PARTIAL PLAN

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



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK TIMOTHY M. MCDONALD 083924 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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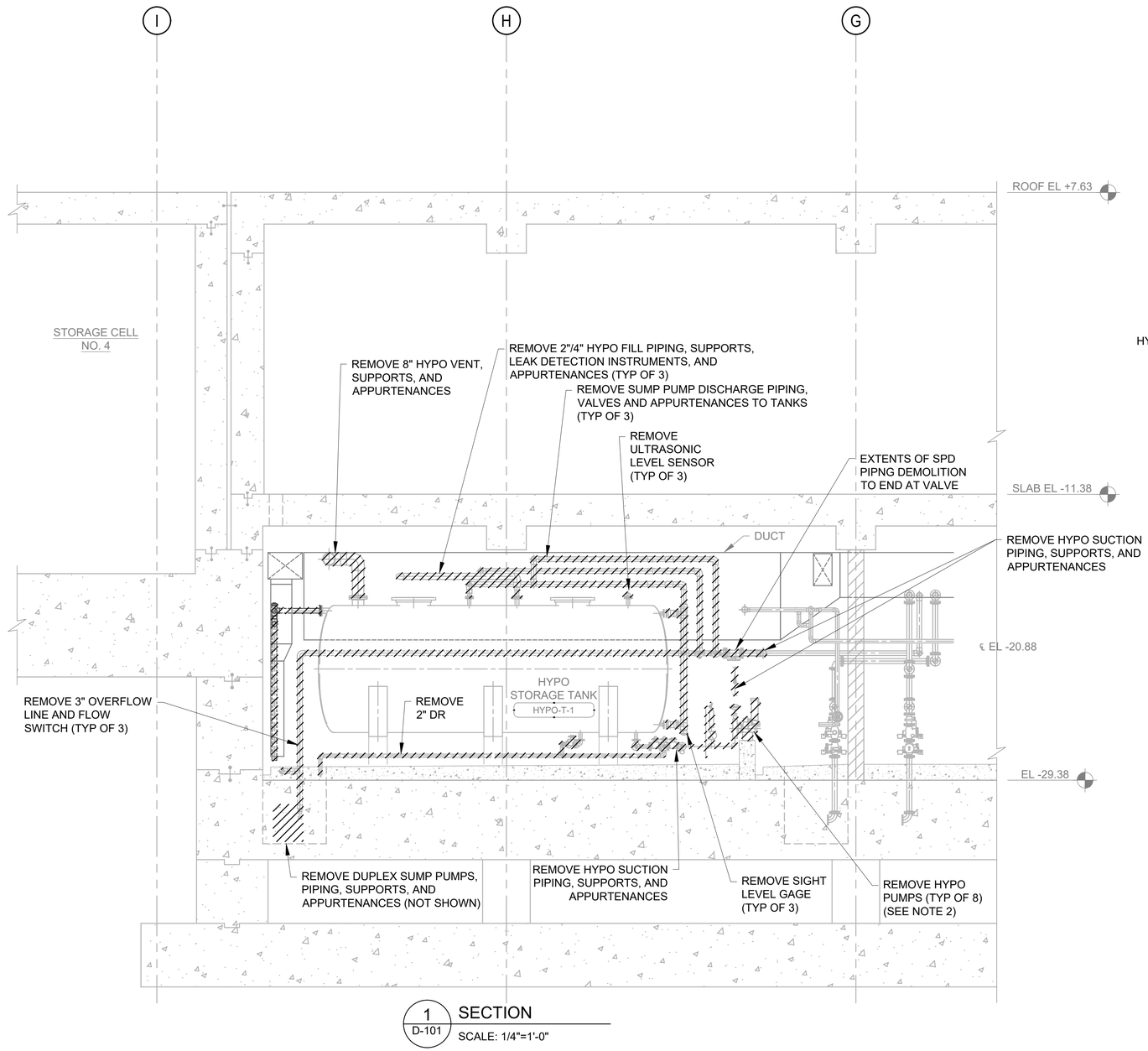
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
BASEMENT - ENLARGED PARTIAL PLAN

DATE: NOVEMBER 2026
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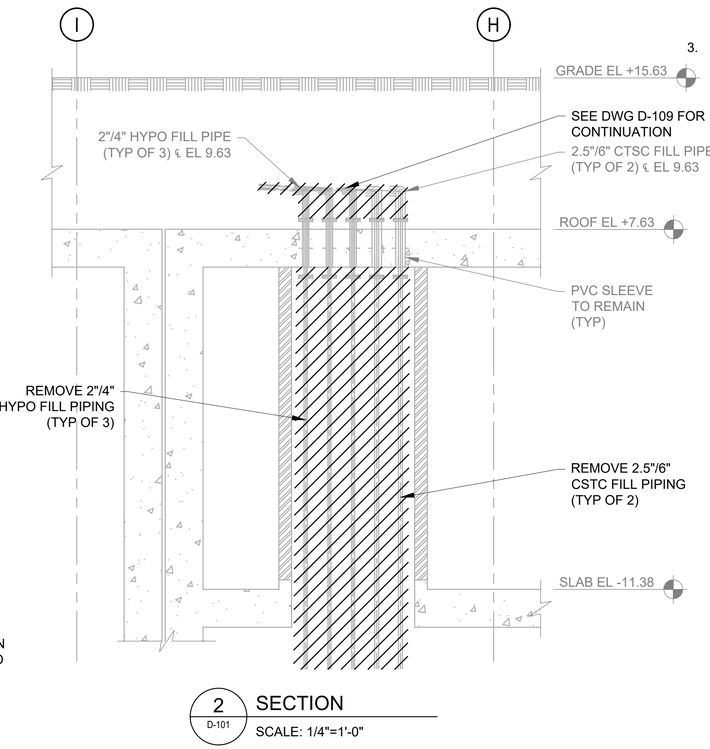
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1 D-101 SECTION

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



2 D-101 SECTION

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

NOTES:

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3. REFER TO SHEET M-001 FOR GENERAL AND PIPING ABBREVIATIONS USED.

1/4"=1'-0" 0 4 8 FT.

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DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

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STATE OF NEW YORK TIMOTHY M. MCDONALD 103924 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
DEMOLITION
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - SECTIONS

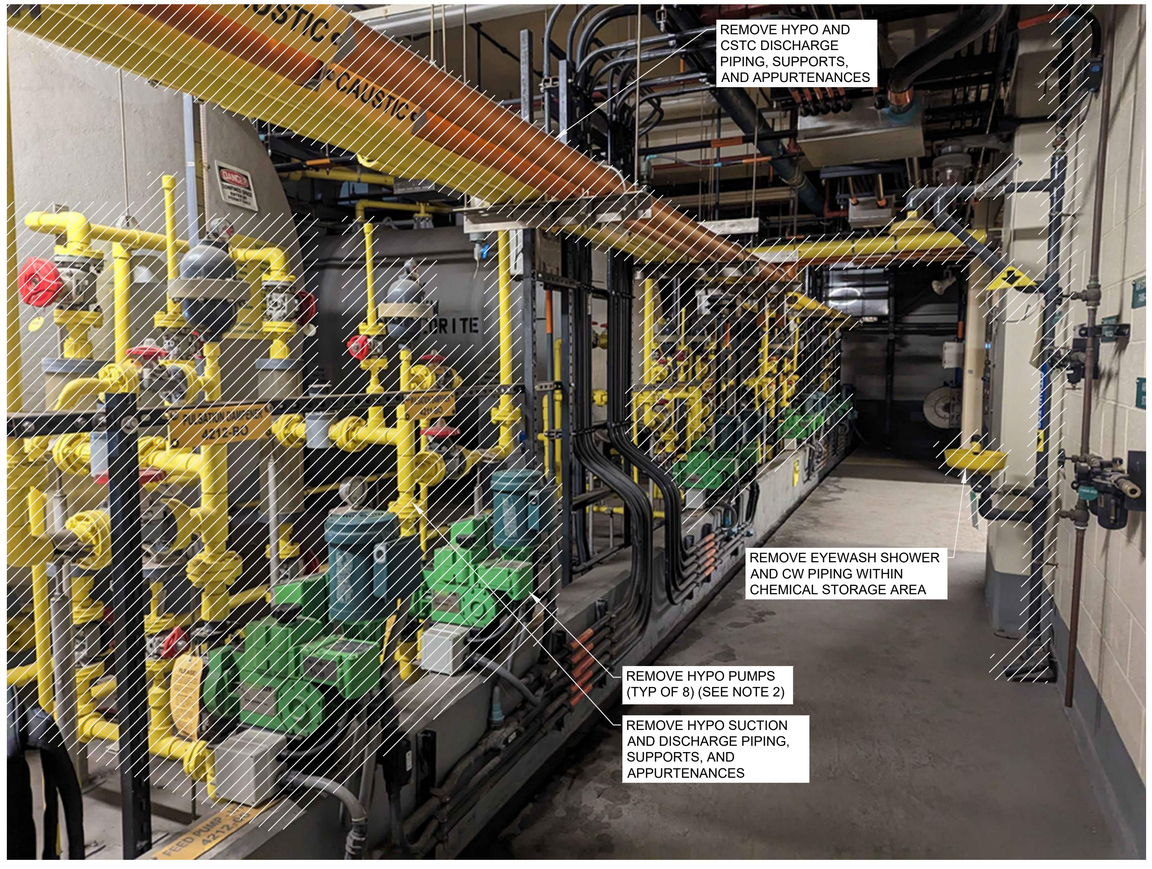
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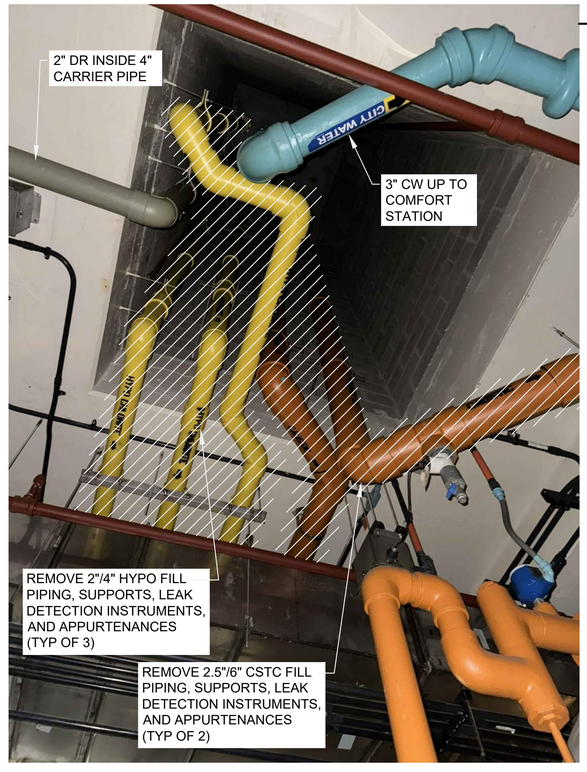
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3. REFER TO SHEET M-001 FOR GENERAL AND PIPING ABBREVIATIONS.



CHEMICAL STORAGE AREA (HYPO AREA)
SCALE: NOT TO SCALE



CHEMICAL FILL PIPING CHASE
SCALE: NOT TO SCALE



DUPLEX SUMP PUMPS
SCALE: NOT TO SCALE

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: AC
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 083924 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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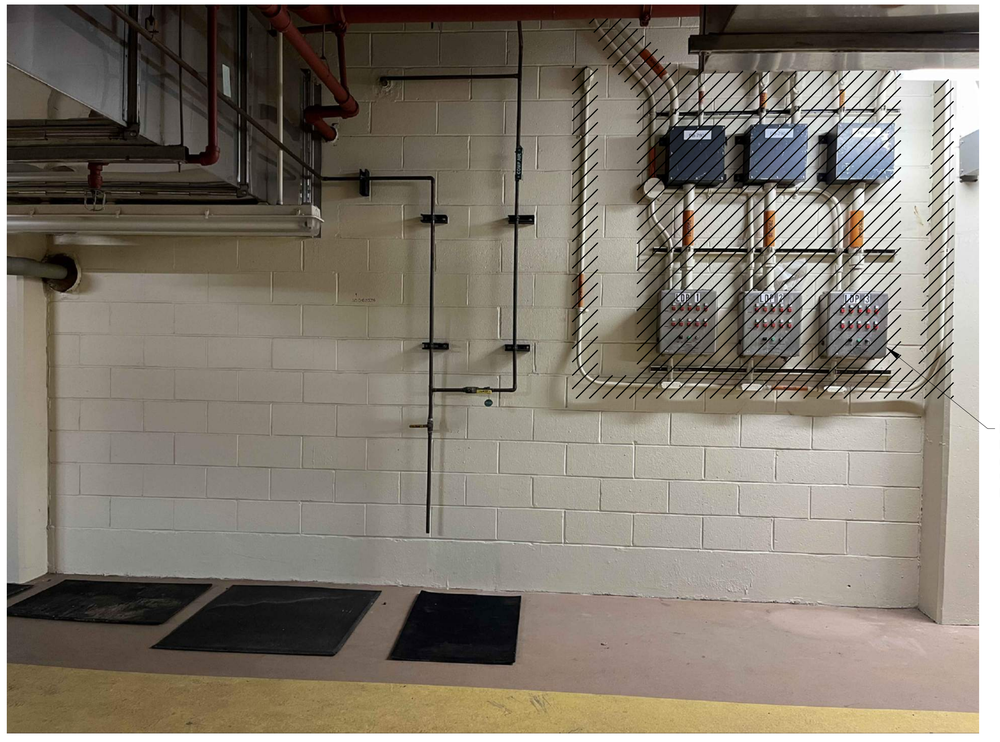
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
DEMOLITION
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - PHOTOS SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. D-105.00

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REMOVE LEAK DETECTION PANEL (TYP OF 3) AND CONDUIT AND WIRE BACK TO SOURCE

LEAK DETECTION PANELS

SCALE: NOT TO SCALE

BID SET

DATE ISSUED: NOVEMBER 2026

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DRAWN BY: EB
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · TIMOTHY M. MCDONALD · 093924 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
DEMOLITION
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - PHOTOS SHEET 2

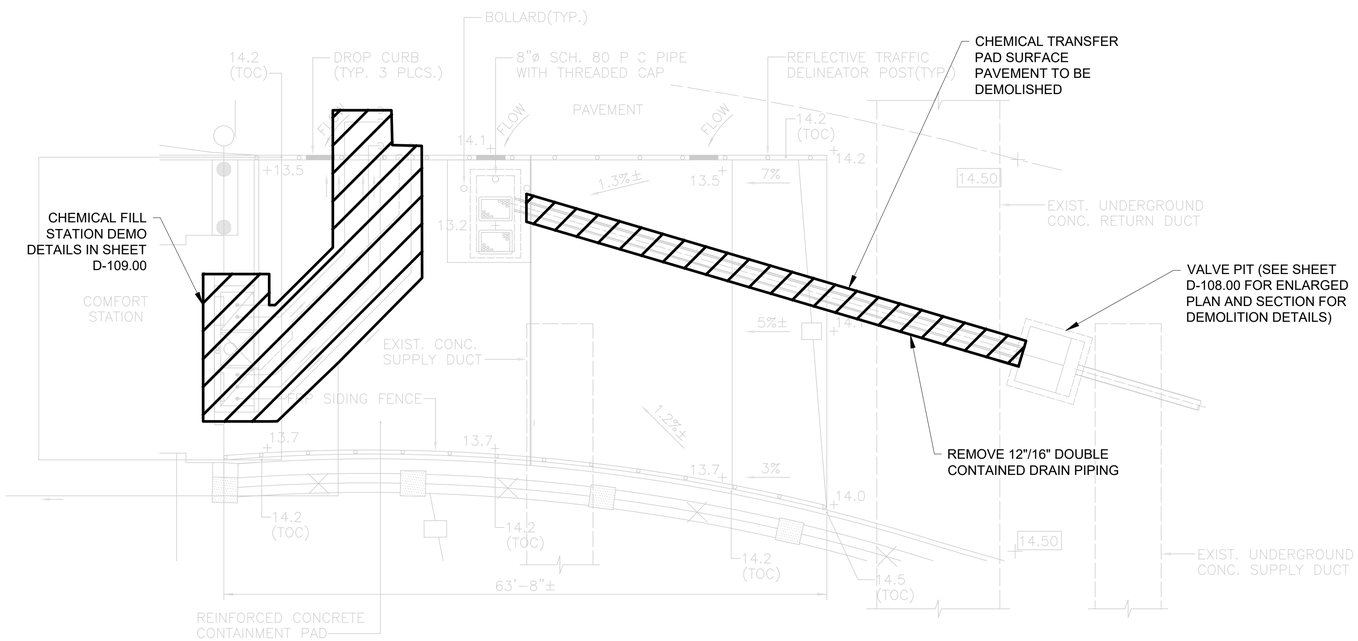
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Date & Time Plotted: 11/2/2026 10:28 AM Plot Style Table: BEDC_Acad_2021.ctb

NOTE:

1. CHEMICAL FILL STATION IS LOCATED WITHIN THE AL OERTER RECREATION CENTER/NYCDPR MAINTENANCE YARD. COORDINATE WITH NYCDPR FOR ACCESS.



CHEMICAL FILL STATION - PLAN

SCALE: 1/8" = 1'-0"

1/8"=1'-0" 0 5 10 15 FT.

BID SET
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DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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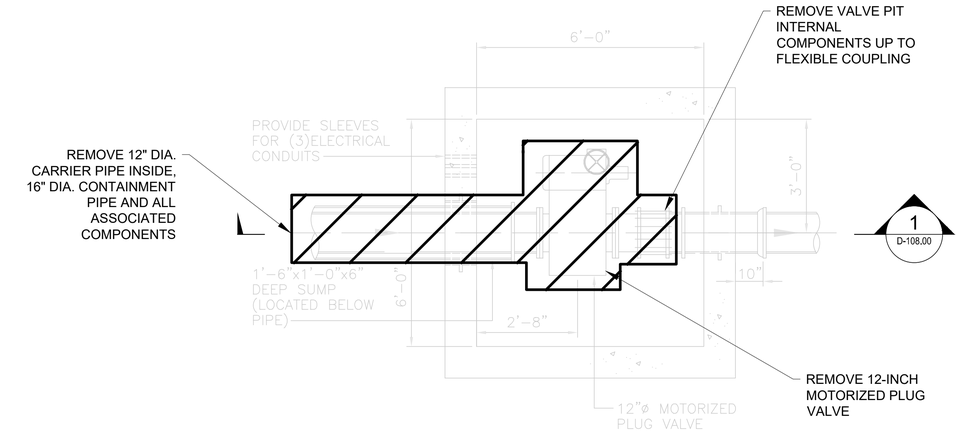
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
CHEMICAL FILL STATION OVERALL PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. D-107.00

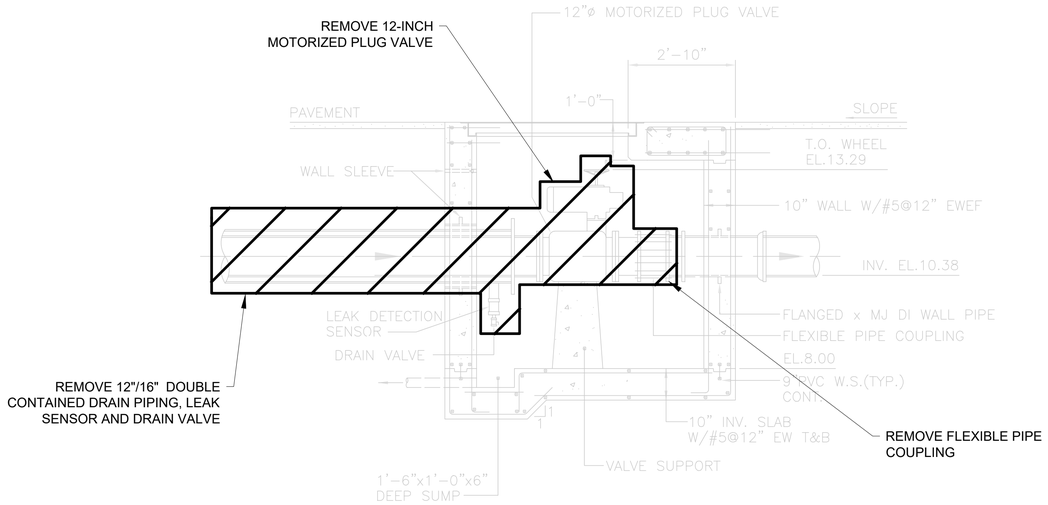
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Plot Scale: 1:1
Plot Style Table: Acad_BEDC_IHD.ctb



VALVE PIT PLAN

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



1 D-108.00 VALVE PIT SECTION

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

NOTE:

1. REMOVE BURIED CONDUIT AND WIRE FOR MOTORIZED VALVE AND LEAK DETECTION PROBE BACK TO VALVE CONTROL STATION AND HYPO FILL PANEL.
2. CHEMICAL FILL STATION IS LOCATED WITHIN THE AL OERTER RECREATION CENTER/NYCDPR MAINTENANCE YARD. COORDINATE WITH NYCDPR FOR ACCESS.
3. CONTRACTOR SHALL RESTORE CONCRETE AROUND THE PIPE OPENING AFTER INSTALLATION OF NEW WALL SLEEVE.

1/2"=1'-0" 0 1 2 3 4 FT.

NYC Environmental Protection BEDC&HD

BID SET

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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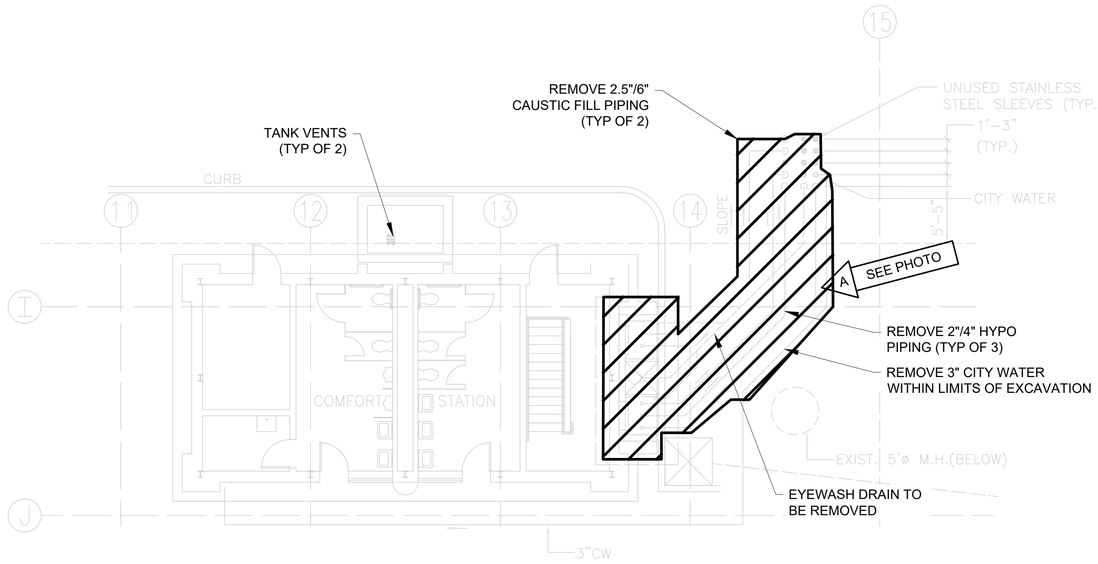
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
VALVE PIT PLAN AND SECTION

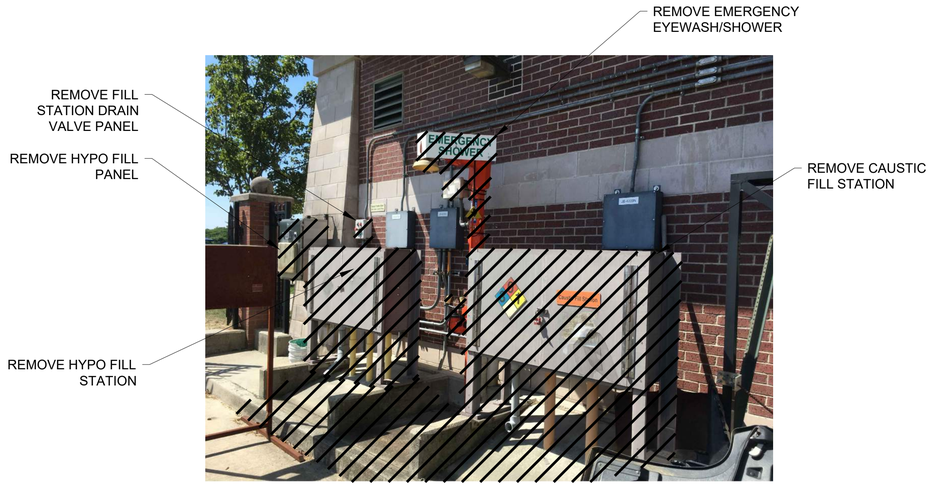
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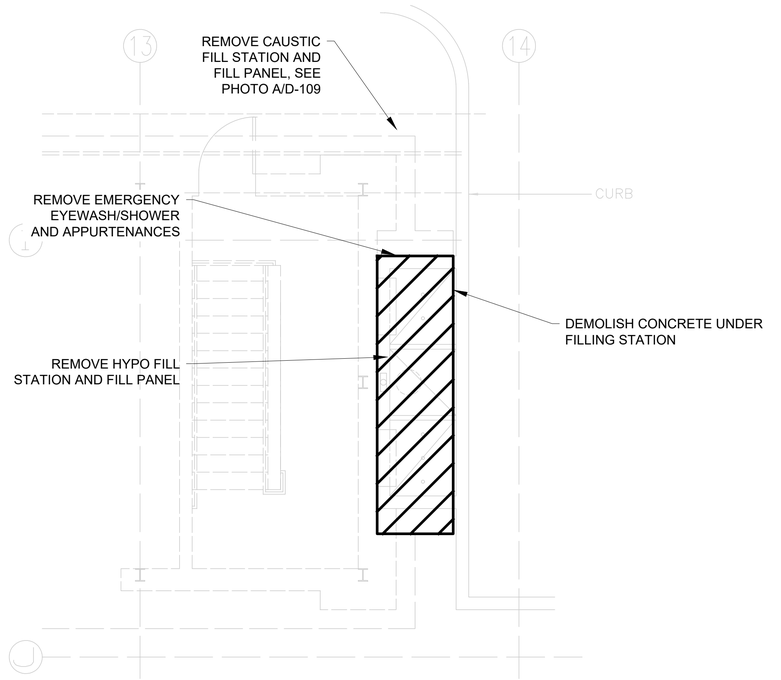
CHEMICAL FILL STATION BURIED PIPING PLAN

SCALE: 1/8"=1'-0"



A D-109.00 PHOTO

SCALE: NO SCALE



CHEMICAL FILL STATION ENLARGED PLAN

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

NOTE:

1. CHEMICAL FILL STATION IS LOCATED WITHIN THE AL OERTER RECREATION CENTER/NYCDPR MAINTENANCE YARD. COORDINATE WITH NYCDPR FOR ACCESS.

1/8"=1'-0" 0 5 10 15 FT.

1/4"=1'-0" 0 4 8 FT.

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WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
CHEMICAL FILL STATION ENLARGED PLANS

DATE: NOVEMBER 2026
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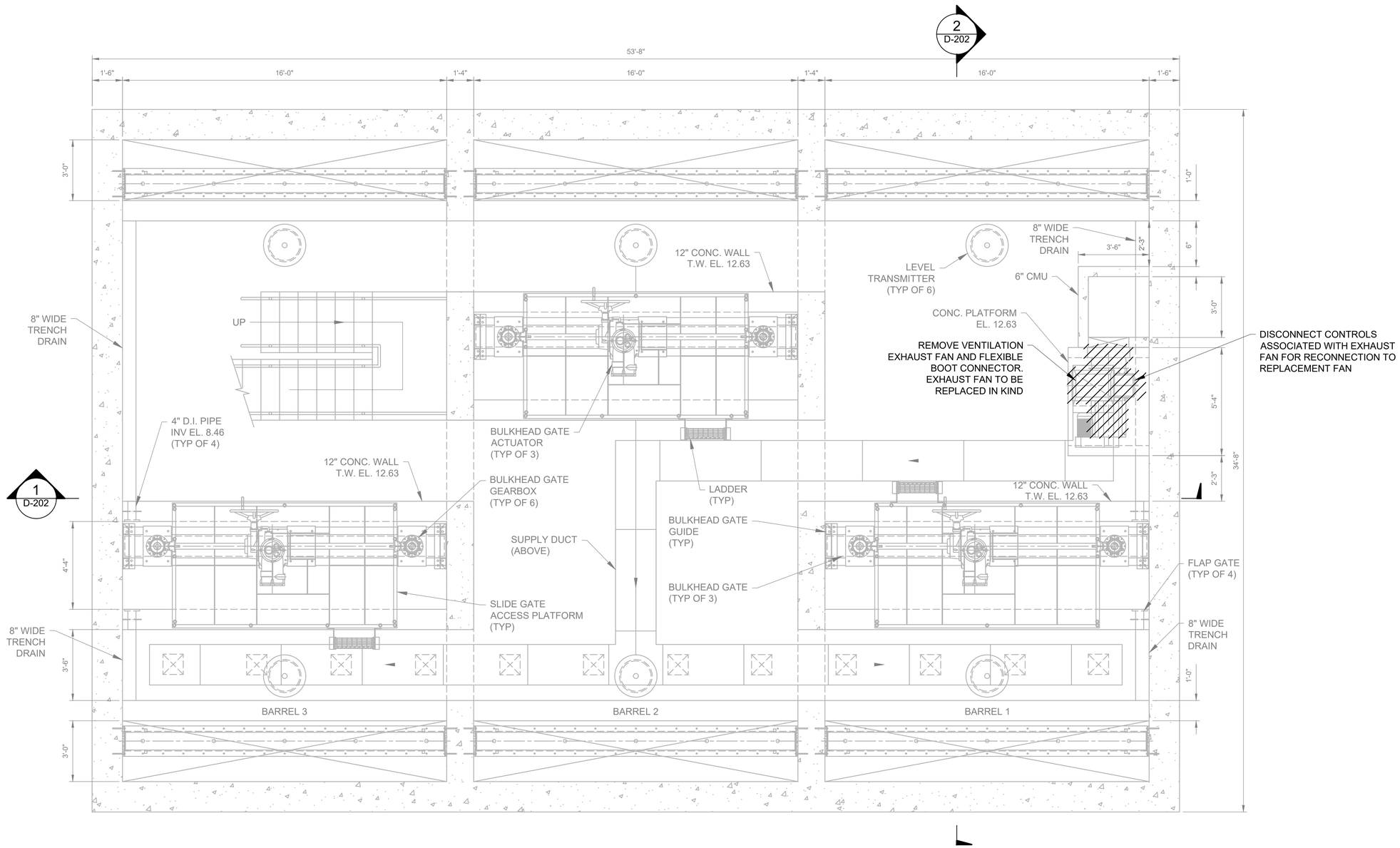
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Plot Scale: 1:1
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NOTE:

1. CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES (NOT SHOWN)



DIVERSION CHAMBER NO. 5 - OPERATING FLOOR - PLAN

SCALE: 3/8"=1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

BID SET
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DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 083924 — LICENSED PROFESSIONAL ENGINEER — 10/31/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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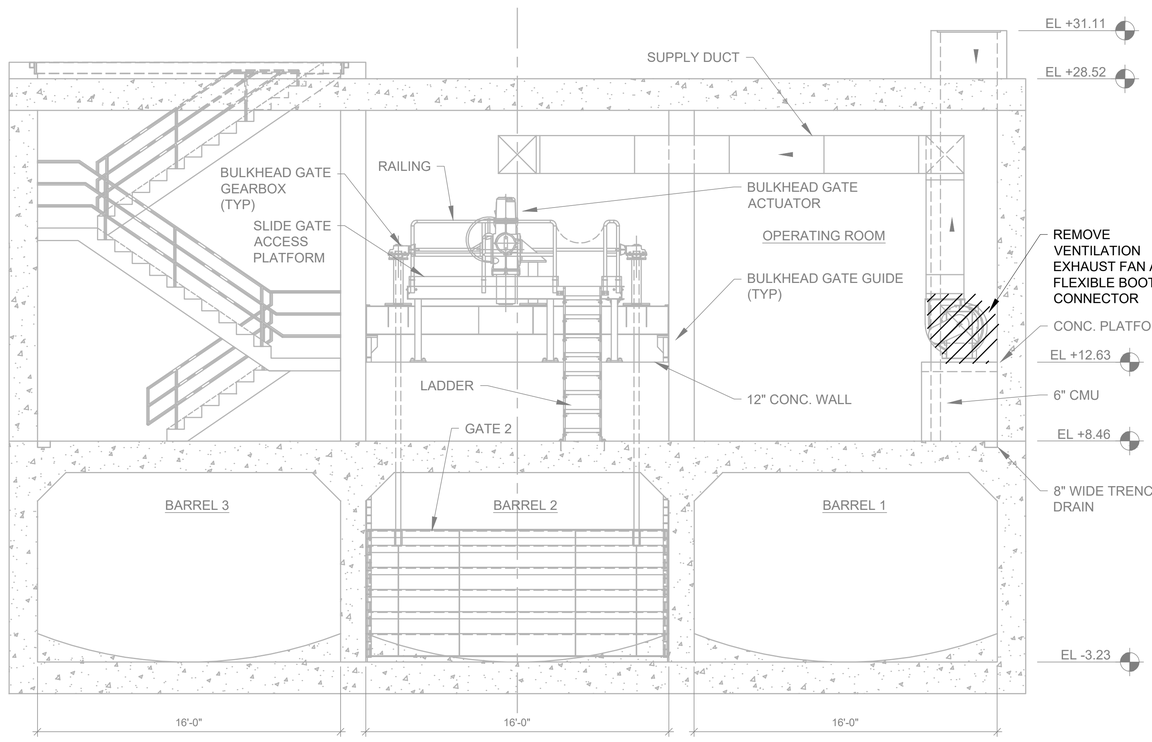
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
DEMOLITION
TI-010 CHLORINATION FACILITY - DC-5
OPERATING FLOOR - PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. D-201.00

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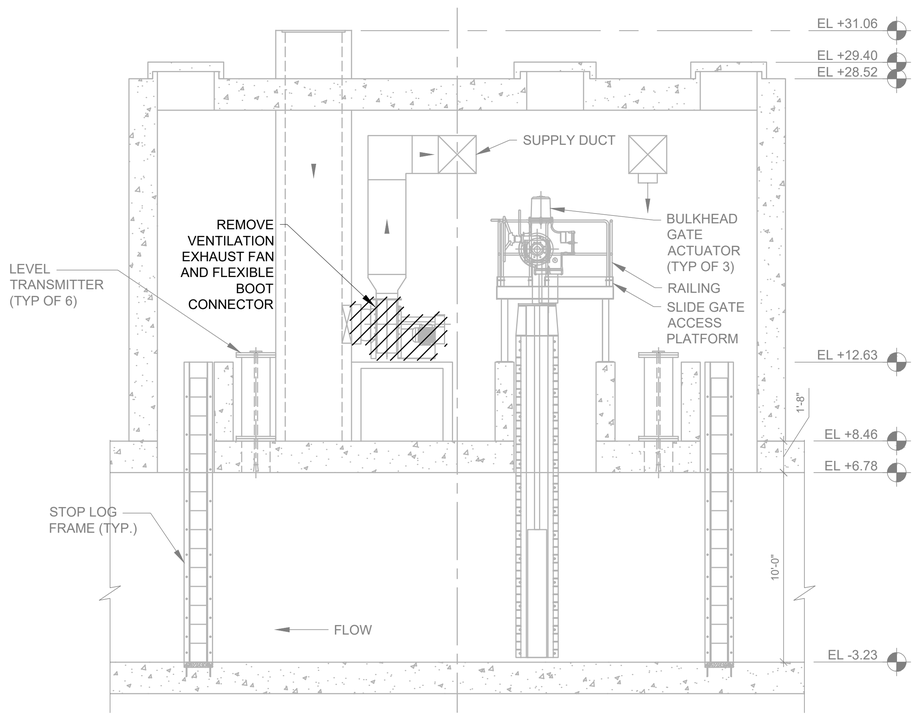
NOTE:

1. CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES (NOT SHOWN)



1 M-201 DIVISION CHAMBER NO. 5 - SECTION

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



2 M-201 DIVISION CHAMBER NO. 5 - SECTION

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

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - DC-5
SECTIONS

DATE: NOVEMBER 2026
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ABBREVIATIONS

@	AT	GRAN C	GRANITE CURB
ABAN	ABANDONED	H	HEIGHT
ACI	AMERICAN CONCRETE INSTITUTE	HC	HOUSE CONNECTION
ADA	AMERICANS WITH DISABILITIES ACT	HDPE	HIGH DENSITY POLYETHYLENE
AOBE	AS ORDERED BY THE ENGINEER	HMA	HOT MIX ASPHALT
ASPH	ASPHALT	HYPO	SODIUM HYPOCHLORITE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	IF	IRON FENCE
		INACC	INACCESSIBLE
AVE	AVENUE	INT	INTERCEPTOR
BC	BOTTOM OF CURB	INV	INVERT
BIT	BITUMINOUS	IRREG	IRREGULAR
BLDG	BUILDING	L	LENGTH
BLK	BLOCK	LT	LEFT TURN
BLSTN	BLUESTONE	MAX	MAXIMUM
BLT	BUILT	MH	MANHOLE
BOL	BOLLARD	MIN	MINIMUM
BRK	BRICK	MPT	MAINTENANCE AND PROTECTION OF TRAFFIC
BSMT	BASEMENT		
BW	BOTTOM OF WALL	NOM	NOMINAL
BWSO	BUREAU OF WATER AND SEWER OPERATIONS	NTS	NOT TO SCALE
		OC	ON CENTER
CATV	COMMUNITY ACCESS TELEVISION	OCMC	OFFICE OF CONSTRUCTION MITIGATION AND COORDINATION
CC	CONCRETE CURB		
CH	CHAMBER	PAVT	PAVEMENT
CI	CAST IRON	PC	POINT OF CURVATURE
CISP	CAST IRON SOIL PIPE	PE	POLYETHYLENE
CL	CENTERLINE	PED	PEDESTRIAN
CLF	CHAIN LINK FENCE	PI	POINT OF INTERSECTION
COMB	COMBINED	PRC	PRECAST REINFORCED CONCRETE
CONC	CONCRETE	PSI	POUND PER SQUARE INCH
COND	CONDUIT	PT	POINT OF TANGENCY
CONT	CONTINUED	PVC	POLYVINYL CHLORIDE PIPE
CORR	CORRUGATED	R	RADIUS
COV	COVER	RCP	REINFORCED CONCRETE PIPE
CS	COMBINED SEWER	RD	ROAD
CW	CONCRETE WALK	RDWY	ROADWAY
DC	DROP CURB	RET	RETIRED
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION	ROW	RIGHT OF WAY
		RT	RIGHT TURN
DIA	DIAMETER	SAN	SANITARY
DIP	DUCTILE IRON PIPE	SBS	SODIUM BISULFITE
DB	DOUBLE BARREL	SDWK	SIDEWALK
DN	DOWN	SFC	STEEL FACED CONCRETE CURB
DR	DRIVE	SS	STAINLESS STEEL
DWG	DRAWING	ST	STREET
EF	EACH FACE	STA	STATION
EL/ELEV	ELEVATION	STD	STANDARD
ELEC	ELECTRIC	STF	STEEL FACED
ENC	ENCASED	STL	STEEL
EOP	EDGE OF PAVEMENT	STRM	STORM
ES	EACH SIDE	STN	STONE
ESVP	EXTRA-STRENGTH VITRIFIED PIPE	STY	STORY
EW	EACH WAY	SWR	SEWER
EXIST	EXISTING	TC	TOP OF CURB
FA	FIRE ALARM	TERR	TERRACE
FB	FLAT BAR	THK	THICK
FBCSO	FLUSHING BAY COMBINED SEWER OVERFLOW	TW	TOP OF WALL
		TYP	TYPICAL
FD	FIRE DEPARTMENT	UTIL	UTILITY
FF	FIRST FLOOR	UNO	UNLESS NOTED OTHERWISE
FR	FRAME	ULT	ULTRASONIC LEVEL TRANSMITTER
FTRC	FLAT TOP REINFORCED CONCRETE	W	WIDTH
GALV	GALVANIZED	W/	WITH
GCB	CABLE GLAND CONNECTOR	WM	WATER MAIN
GAR	GARAGE	WP	WORKING POINT
GRAN	GRANITE		

LEGEND

EXISTING	PROPOSED	
		MANHOLES
E	E	ELECTRIC
C		CABLE TV
T		TELEPHONE
Tf		TRAFFIC
NYC		NYC MH
G		GAS
W	W	WATER
F		FIRE DEPT
S	ST	STORM SEWER MANHOLE
S	S	SANITARY SEWER MANHOLE
S (R)		RECORD SEWER MANHOLE
	Q	DEP STANDARD WATERTIGHT MANHOLE FRAME & COVER
	A	DEP STANDARD MANHOLE FRAME AND COVER
	I&C	INSTRUMENTATION MANHOLE
	RIM61.23 / A INV47.89	HARDWARE RIM EL & INV EL (SEWER, ETC)
		BASINS
	CB	CATCH BASIN
	1	CATCH BASIN WITH CURB PIECE - TYPE 1
		CATCH BASIN TO BE REMOVED
		INLET
SB		SEEPAGE BASIN
		STREET LIGHTING AND TRAFFIC SIGNALS
		WOOD UTILITY POLE
		WOOD UTILITY POLE WITH STREET LIGHT
		STREET LIGHT (METAL POLE)
		SIGN
		VALVE BOXES
G		GAS
W	W	WATER
ST		STEAM
		HYDRANTS
		LOW PRESSURE HYDRANT
		HIGH PRESSURE HYDRANT
		SIAMESE CONNECTION
		BUILDINGS
		HOUSE INFORMATION: HOUSE NUMBER, BLDG TYPE, FIRST FLOOR ELEVATION, (CE) CELLAR ENTRANCE, (GE) GARAGE ENTRANCE
		STAIRS OR STOOPS
		LEGAL DATA
		LOT & BLOCK NUMBER
		ESTABLISHED LEGAL GRADE
		ANGLE
		BLOCK LENGTH
		INTERPOLATED/CALCULATED ANGLE OR LENGTH
		PROPERTY POSSESSION LINE
		MAPPED PROPERTY LINE (ROW LINE)
		LOT LINE
		SURVEY MONUMENT (CITY) - IDENTIFY BY TOPO NUMBER

EXISTING	PROPOSED	
		SURVEY CONTROLS
	10+00 11+00	CONTROL SURVEY TRAVERSE
		CENTER LINE BASE LINE
TR / TRP		SURVEY CONTROL POINT
		MISCELLANEOUS
V		VAULT (SIDEWALK)
E		ELECTRIC VAULT
FF25.15		FINISHED FLOOR ELEVATION
		TRAFFIC DIRECTION
		SIGN
F		FIRE ALARM BOX
P		POLICE CALL BOX
TEL		PUBLIC PHONE
MB		MAIL BOX
MW		MONITORING WELL
		PEDESTRIAN RAMP
		CURB (CONCRETE UNLESS OTHERWISE INDICATED)
DC		CURB WITH DROP CURB (DRIVEWAY)
		EDGE OF PAVEMENT WITHOUT CURB
		ASPHALT SPEED BUMP
		REGRADING SLOPE
		BOLLARD
		CONDUITS
15" STM. SEWER		STORM SEWER (WITH SIZE - LESS THAN 24")
24" STM. SEWER		STORM SEWER (WITH SIZE - 24" AND GREATER)*
15" SAN. SEWER		SANITARY SEWER (WITH SIZE - LESS THAN 24")
24" SAN. SEWER		SANITARY SEWER (WITH SIZE - 24" AND GREATER)*
15" COMB. SEWER		COMBINED SEWER (WITH SIZE - LESS THAN 24")
24" COMB. SEWER		COMBINED (WITH SIZE - 24" AND GREATER)*
15" INTERCEPTOR SEWER		INTERCEPTOR SEWER (WITH SIZE - LESS THAN 24")
24" INTERCEPTOR SEWER		INTERCEPTOR SEWER (WITH SIZE - 24" AND GREATER)*
		CATCH BASIN CONNECTION
4" GAS		GAS LINE (WITH SIZE)
16" STEAM		STEAM (WITH SIZE)
ELECTRIC	UE	ELECTRIC
WATER	W	WATER
TELEPHONE		TELEPHONE
CABLE		CABLE
FIRE ALARM		FIRE ALARM
A/E,T,F		OVERHEAD (AERIAL) UTILITY LINE
Su Su		TA SUBWAY CONDUIT
O/H		OVERHEAD WIRE
		TREES
12" 12"		EXISTING TREES (SIZE AS LABELED)
		EXISTING TREE TO BE REMOVED

EXISTING	PROPOSED	
		FENCE
6'CLF		CHAIN LINK FENCE
		TEMPORARY CONSTRUCTION FENCE
GP		GUARD POST
		GUIDE RAIL
		SITE RESTORATION
		DENOTES ASPHALT RESTORATION
		DENOTES GRASS RESTORATION
		DENOTES SIDEWALK RESTORATION
		PROPOSED SOLAR PANEL AND SCADA ENCLOSURE LOCATION
		PROPOSED DUMPSTER LOCATION
		SOIL EROSION AND SEDIMENT CONTROL
		STRAW BALE DIKE OR SILT FENCE
		SITE RESTORATION LIMITS
		CATCH BASIN WITH SILT SACK
TP		TREE PROTECTION
SCE		STABILIZED CONSTRUCTION ENTRANCE
		STABILIZED OUTLET FOR SILT FENCE WITH WASH RACK (SEE DETAIL 5)
		DRAWING SYMBOLS
10.81		SPOT ELEVATION
0.2%		SLOPE
WP		WORKING POINT
STA 6+31± OFFSET 77'± RT		STATION POINT
1 / C-002		DETAIL CALLOUT — DETAIL NUMBER / DRAWING NUMBER
A / C-002		SECTION CALLOUT — SECTION LETTER / DRAWING NUMBER
		NORTH ARROW
TI1X-##		SOIL BORING LOCATION

95-02
2-STY FR
▼ 25.3
GE 17.5

3 BLOCK 3190

0.00
86°-30'-48"
167.01'
[86°-30'-48"]
[167.01']

1

G

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK · IVANA NITZOVA · LICENSED PROFESSIONAL ENGINEER · 095133

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

CIVIL SYMBOLS AND ABBREVIATIONS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-001.00

CIVIL NOTES

GENERAL NOTES

1. ELEVATIONS SHOWN ARE IN THE NORTH AMERICAN VERTICAL DATUM OF 1988.

2. EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN HERE HAVE BEEN DETERMINED BY THE STANDARD SURVEYING METHODS AND AVAILABLE RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION OF THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING HORIZONTAL AND VERTICAL UTILITY LOCATIONS.

3. ALL COMMUNICATIONS AND COORDINATION MEETINGS RELATIVE TO THIS PROJECT BETWEEN THE CONTRACTOR AND ANY AGENCY, UTILITY COMPANY OR ORGANIZATION WILL BE CONDUCTED AND/OR APPROVED BY THE ENGINEER.

4. ALL HYDRANTS, LIGHT POLES, TREES OR OTHER FIXED OBJECTS THAT ARE TO BE CONSTRUCTED, PLANTED, RESET, OR RELOCATED AS A RESULT OF THE PROJECT SHALL BE CONSTRUCTED OR PLANTED SO AS TO PROVIDE AT LEAST ONE AND ONE HALF (1 1/2) FOOT CLEAR DISTANCE FROM THE FACE OF THE CURB TO THE FACE OF THE OBJECT.

5. AS A RESULT OF DISTURBANCE WITHIN THE CONTRACT LIMITS, EXISTING APPURTENANCES PROJECTING ABOVE PAVED SURFACES, SUCH AS LAMP POSTS AND BOLLARDS, WILL HAVE TO BE RELOCATED. NOT WITHSTANDING ANY CONSTRUCTION SEQUENCE AS DEFINED BY THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PLAN HIS CONSTRUCTION OPERATIONS TO ENSURE THAT THESE APPURTENANCES ARE CONSTRUCTED OR RELOCATED IN CONJUNCTION WITH THE INSTALLATION OF THE NEW FACILITIES. SERVICES, INCLUDING BUT NOT LIMITED TO UTILITIES AND MUNICIPAL WASTE PICKUP SERVICE, MUST BE MAINTAINED BY INSTALLING AND ENERGIZING NEW APPURTENANCES OR BY USING TEMPORARY APPURTENANCES, AS DIRECTED BY THE ENGINEER. UNLESS OTHERWISE PROVIDED FOR, ALL TEMPORARY APPURTENANCES SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE CITY.

6. COPIES OF THE SURVEY SHALL ONLY BE MADE FROM THE ORIGINAL MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED OR EMBOSSED SEAL. OTHER COPIES SHALL NOT BE CONSIDERED TO BE TRUE VALID COPIES

7. UNAUTHORIZED ALTERATIONS OR ADDITION TO LAND SURVEYING DRAWING BEARING A LICENSED PROFESSIONAL LAND SURVEYOR'S SEAL IS A VIOLATION OF ARTICLE 145, SECTION 7209 PARAGRAPH 2 OF THE NEW YORK STATE EDUCATION LAW.

8. BASE FLOOD ELEVATIONS FOR THE FLUSHING CREEK PROJECT ARE AS FOLLOWS (ALL ELEVATIONS ARE IN NAVD88): TI-010 DECHLORINATION BUILDING +17.0; TI-011 DECHLORINATION BUILDING +18.0. ELEVATIONS ARE BASED ON SEA LEVEL ADJUSTED 100-YEAR DESIGN FLOOD ELEVATIONS FROM 2015 PRELIMINARY FIRMs.

9. LIGHT AND NOISE DISTURBANCES TO NEIGHBORING STRUCTURES SHALL BE MINIMIZED, SEE SPECIFICATIONS.

10. A PRE-CONSTRUCTION AND POST-CONSTRUCTION SURVEY WILL BE CONDUCTED TO DOCUMENT SEWER CONDITIONS AND THE CONDITION OF ADJACENT BUILDINGS.

GRADING NOTES

1. REMOVAL OF ALL SHRUBBERY, DEBRIS, FENCES, AND OTHER ENCROACHMENTS FOUND ON AND WITHIN THE CITY'S RIGHT OF WAY WHICH INTERFERE WITH THE NEW WORK ARE DEEMED INCLUDED IN THE BID PRICES FOR ALL SCHEDULED ITEMS, UNLESS OTHERWISE NOTED ON THE PLANS.

CURB WORK NOTES

1. CURBS AND DEPRESSED CURBS IN DRIVEWAYS ARE TO BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

2. ALL NEW CORNERS ARE TO BE STEEL FACED CONCRETE CURB AND TURNED TO A TWELVE (12) FT. RADIUS, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. ALL CORNER STEEL FACING IS TO BE SHOP FABRICATED.

3. WHERE NEW CURBING IS REQUIRED ADJACENT TO EXISTING CONCRETE SIDEWALK, WHICH IS NOT TO BE REPLACED, A CONCRETE SAW-CUT SHALL BE MADE ALONG A LINE PARALLEL TO AND TWO (2) FEET BACK FROM THE NEW CURB.

4. TOP OF CURB ELEVATIONS AT CORNER PEDESTRIAN RAMPS SHALL BE ESTABLISHED IN CONJUNCTION WITH ROADWAY PAVEMENT CONSTRUCTION SO AS TO PROVIDE POSITIVE SURFACE DRAINAGE FROM THE APEX TOWARDS THE CATCH BASINS, WHERE APPLICABLE.

SIDEWALK WORK NOTES

1. THE LOCATION AND THE EXTENT OF NEW SIDEWALK TO BE CONSTRUCTED IS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

2. PRIOR TO ANY SIDEWALK EXCAVATION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXISTENCE OF UNDER-SIDEWALK VAULTS.

3. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO THE UNDER-SIDEWALK BUILDING VAULTS AND/OR ITS CONTENTS AND/OR OCCUPANTS DUE TO HIS FAILURE TO VERIFY THE PRE-EXISTING VAULT CONDITION.

4. THE CONTRACTOR SHALL RESET/ADJUST ANCHORAGE FOR SECURITY GATES WITHIN SIDEWALK AREAS, AS NECESSARY OR AS DIRECTED BY THE ENGINEER. COST OF THIS WORK SHALL BE DEEMED INCLUDED IN SIDEWALK WORK.

5. ALL PEDESTRIAN ACCESS RELOCATED AND/OR EXISTING SIDEWALKS SHALL BE ADA ACCESSIBLE WITH APPROPRIATE RAMP, ETC.

DRAINAGE WORK NOTES

1. ALL PROPOSED DRAINAGE WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST STANDARDS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (NYCDEP).

2. ALL EXISTING SEWER MANHOLES TO BE RETAINED WITHIN THE CONTRACT LIMITS SHALL BE ADJUSTED AS NECESSARY, SO THAT THEY WILL BE FLUSH WITH THE FINISHED GRADES AFTER COMPLETION OF THE WORK. ANY OF THESE MANHOLES WHICH HAVE DAMAGED, WORN OR NON-STANDARD FRAMES AND COVERS SHALL BE PROVIDED WITH NEW TWENTY SEVEN (27) INCH CASTINGS IN ACCORDANCE WITH THE LATEST STANDARDS OF NYCDEP. ANY DAMAGE TO THE MANHOLES CAUSED BY THIS WORK SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR, AS DIRECTED BY THE ENGINEER, AND AT NO EXTRA COST TO THE CITY.

3. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING SEWERS DURING CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER, AT NO EXTRA COST TO THE CITY.

4. CATCH BASINS IN THE PROJECT AREA SHALL BE MAINTAINED OPERABLE AT ALL TIMES. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO AVOID FILLING THE CATCH BASINS WITH DEBRIS WITHIN THE CONTRACT LIMITS DURING THE CONTRACT OPERATIONS. IF, AS A RESULT OF CONSTRUCTION, A FLOODING CONDITION OCCURS OR IN THE EVENT THE CONTRACTOR'S OPERATIONS DAMAGE OR BLOCK THE DRAINAGE SYSTEM, THE CONTRACTOR SHALL AT THEIR OWN EXPENSE IMMEDIATELY REPAIR OR RESTORE THE DRAINAGE SYSTEM AS DIRECTED BY THE ENGINEER AT NO EXTRA COST TO THE CITY.

5. ALL CASTING AND HARDWARE REMOVED FROM THE EXISTING MANHOLES AND BASINS AS PART OF THE NECESSARY WORK WHENEVER FOUND TO BE IN GOOD CONDITION, UPON EXAMINATION BY THE ENGINEER, SHALL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED BY THE CONTRACTOR TO A DESIGNATED CITY-OWNED YARD.

6. CONTRACTOR SHALL PROVIDE TEMPORARY MEANS (PIPES, PUMPS, ETC.) TO DRAIN ANY STORM WATER WHICH MAY DEVELOP WITHIN THE PROJECT LIMITS FOR THE DURATION OF CONSTRUCTION. CONTRACTOR SHALL SUBMIT A DRAINAGE SCHEME
WHICH MUST BE APPROVED BY THE ENGINEER, PRIOR TO THE START OF EACH CONSTRUCTION STAGE. COST OF THIS WORK WILL BE DEEMED TO HAVE BEEN INCLUDED IN THE LUMP SUM BID ITEM.

HOUSE CONNECTION AND SEWER NOTES

1. ALL EXISTING SEWERS AND SEWER HOUSE CONNECTIONS SHOULD BE CONTINUOUSLY MAINTAINED DURING CONSTRUCTION. IF ANY SEWER OR SEWER HOUSE CONNECTION IS TO BE DISCONNECTED FOR CONSTRUCTION PURPOSES, FLOW SHALL BE MAINTAINED IN SUCH A MANNER THAT NO BACK-UPS OCCUR. EXISTING SEWERS, HOUSE CONNECTIONS OR OTHER SEWER APPURTENANCES WHICH MIGHT BE DISTURBED FOR CONSTRUCTION PURPOSES, SHALL BE RESTORED TO THEIR PRESENT CONDITION AFTER COMPLETION OF THE WORK, AND DAMAGE DONE AS A RESULT OF THE WORK SHALL BE REPAIRED AT NO EXTRA COST TO THE CITY. ALL SEWER AND SEWER HOUSE CONNECTION WORK MUST BE COORDINATED AND APPROVED BY THE BUREAU OF WATER AND SEWER OPERATIONS (BWSO).

2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL DETERMINE BY TEST PITS, TELEVISION INSPECTION, OR ANY OTHER MEANS NECESSARY, FOR EACH AND EVERY BUILDING IN THE VICINITY OF THE PROPOSED CONSTRUCTION, THE LOCATION, CONDITION, AND ELEVATION OF THE HOUSE TRAPS, HOUSE CONNECTION, ETC, AND THE LOCATION OF THE EXISTING SEWER TO WHICH THEY ARE CONNECTED. BASED ON THE FINDING, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING PRIOR TO THE START OF CONSTRUCTION, OF ANY ANTICIPATED DIFFICULTIES THEY MIGHT ENCOUNTER IN RECONNECTING THESE EXISTING CONNECTIONS TO THE PROPOSED AND EXISTING SEWERS.

WATER MAIN NOTES

1. ALL WATER MAIN WORK AND MATERIALS SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT PLANS AND IN CONFORMANCE WITH THE NYCDEP STANDARD WATER MAIN SPECIFICATIONS, APPLICABLE STANDARD DRAWINGS, AND SPECIFIC CONTRACT REQUIREMENTS. BWSO MUST APPROVE ALL WATER MAIN WORK AND MATERIAL.

2. CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT AND NYCDEP CONSTRUCTION AT LEAST SEVENTY TWO (72) WORKING HOURS IN ADVANCE PRIOR TO SHUTTING OFF VALVES, ONLY DEP PERSONNEL SHALL CLOSE/OPEN ANY WATER MAIN VALVES. NO REMOVAL SHALL TAKE PLACE BEFORE SHUT-OFF VALVES HAVE BEEN CLOSED.

3. THE ALIGNMENT OF THE WATER MAINS AND THE LOCATION OF THE VALVES AND HYDRANTS ARE SHOWN IN THE PLANS SCHEMATICALLY. THE EXACT ALIGNMENTS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR, AS THE WORK PROGRESSES.

4. PRIOR TO BEGINNING ANY EXCAVATION WORK, THE CONTRACTOR MUST IDENTIFY THE LOCATION, SIZE, AND TYPE OF ALL EXISTING UTILITIES, INCLUDING ALL SEWER AND WATER HOUSE/SERVICE CONNECTIONS.

5. ALL WATER AND SEWER HOUSE SERVICES SHALL BE MAINTAINED AND PROTECTED AGAINST FREEZING DURING CONSTRUCTION.

6. ALL HYDRANTS SHALL BE MAINTAINED IN SERVICE AS PER NEW YORK CITY FIRE DEPARTMENT REQUIREMENTS. HYDRANTS SHALL BE "BREAKAWAY" TYPE, AND SHALL HAVE HYDRANT FENDERS AS PER NYCDEP STANDARDS.

7. EXCAVATION SHALL BE DONE BY HAND WITHIN ONE (1) FOOT OF EXISTING WATER MAINS, SEWERS, HOUSE CONNECTIONS, DRAINS AND OTHER UTILITIES.

8. CLEARANCE REQUIREMENTS BETWEEN WATER MAINS AND SEWERS:

   WHEREVER THE CLEARANCE BETWEEN THE TOP OF AN EXISTING SEWER AND THE BOTTOM OF THE PROPOSED WATER MAIN, AT THEIR CROSSING, IS LESS THAN ONE (1) FOOT, THE WATER MAIN IS TO BE SUPPORTED BY A TRUSS ARRANGEMENT AND THE CLEARANCE SPACE IS TO BE FILLED WITH LAYERS OF COMPRESSIBLE MATERIAL TO AVOID EXCESSIVE BEARING PRESSURE ON THE SEWER PIPE. IN NO CASE, HOWEVER, SHOULD THIS CLEARANCE BE LESS THAN SIX (6) INCHES.

9. CONTRACTOR SHALL MAINTAIN FOUR (4) FEET OF COVER OVER ALL WATER MAINS. DUE TO FIELD CONDITIONS, IF WATER MAINS HAVE LESS THAN THREE (3) FEET OF COVER, BUT MORE THAN OR EQUAL TO TWO (2) FEET OF COVER, PIER AND PLATE THE WATER MAIN IN ACCORDANCE WITH NYCDEP STANDARD DRAWING NUMBERS:46464-Z, 42063-Y, AND 22785. IF ADJACENT UTILITY INTERFERENCES RESTRICT THE CONSTRUCTION OF PIER AND PLATE AS PER NYCDEP STANDARD DRAWINGS, THE CONTRACTOR SHALL SUBMIT CUSTOMIZED SHOP DRAWINGS FOR PIER AND PLATE DETAILS FOR THE WATER MAIN CONSTRUCTION FOR NYCDEP APPROVAL.

10. ALL WATER MAINS WITH A COVER OF LESS THAN TWO (2) FEET AND SIX (6) INCHES SHALL BE PROTECTED BY SHALLOW COVER PROTECTION. IN NO CASE SHALL COVER BE LESS THAN TWO (2) FEET.

NYC Environmental Protection BEDC/HD

BID SET

DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

CIVIL NOTES I

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-002.00

CIVIL NOTES

OTHER UTILITIES WORK NOTES

1. THE CONTRACTOR IS ALERTED TO THE RULES AND REGULATIONS OF INDUSTRIAL CODE RULE 53 AND IS DIRECTED TO COMPLY. THE CITY SHALL NOT BE LIABLE FOR ANY COSTS INCURRED BY THE CONTRACTOR AS A RESULT OF THE COMPLIANCE, NON-COMPLIANCE, OR IMPROPER COMPLIANCE BY THE FRANCHISED OPERATORS OF UNDERGROUND FACILITIES, WITH SUB- PART 53-3 OF RULE 53 OF THE INDUSTRIAL CODE.

2. ALL UTILITY POLES WILL BE REMOVED AND/OR RELOCATED BY OTHERS EXCEPT AS NOTED ON THE DRAWINGS.

3. THE ENGINEER WILL CONTACT THE SPECIAL PROJECT UNIT COMMUNICATIONS DIVISION OF THE POLICE DEPARTMENT (212) 374-5900 IF ANY RELOCATION OR DISCONNECTION OF POLICE DEPARTMENT FACILITIES IS REQUIRED.

PAVEMENT WORK NOTES

1. ASPHALTIC CONCRETE MIXTURE IS TO BE USED IN THE AREAS OF ADJUSTMENT, AND AS DIRECTED BY THE ENGINEER.

2. FINISHED ROADWAY PAVEMENT AT THE APEX OF ALL CORNERS SHALL BE CONSTRUCTED TO ELEVATIONS SO AS TO PROVIDE POSITIVE SURFACE DRAINAGE FROM THE APEX TOWARDS THE CATCH BASINS, WHERE APPLICABLE.

LANDSCAPING WORK NOTES

1. NO TREE SHALL BE REMOVED BY THE CONTRACTOR UNTIL THEY ARE SPECIFICALLY ORDERED IN WRITING TO DO SO BY THE ENGINEER. EVERY CONSCIONABLE EFFORT IS TO BE MADE TO SAVE TREES BY THE USE OF: THE CURB DETAIL AT EXISTING TREES, BY SLIGHT MODIFICATION IN CURB ALIGNMENT, OR BY OTHER METHODS SO ORDERED BY THE ENGINEER, IN ACCORDANCE WITH ACCEPTABLE ENGINEERING PRACTICES.

2. TREE PITS SHALL BE PROVIDED FOR ALL NEW TREES AND FOR EXISTING TREES IN AREAS OF FULL WIDTH SIDEWALK. PITS SHALL BE FIVE (5) FEET BY FOUR (4) FEET AND SHALL BE CONSTRUCTED WITH NEW GRANITE BLOCK WITH GROUTED JOINTS, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.

3. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE AUXILIARY EQUIPMENT WHICH GENERATES EXHAUST OR OTHER HEAT UPWARD (E.G. GENERATORS AND COMPRESSORS), UNDER THE BRANCHES OF TREES WHERE THE BRANCHES ARE LESS THAN TWENTY FIVE (25) FEET ABOVE THE GROUND, UNLESS APPROVED BY THE ENGINEER.

4. THE CONTRACTOR SHALL NOT BE PERMITTED TO STORE, STOCKPILE, OR LAY DOWN, ANY CONSTRUCTION MATERIAL INCLUDING, BUT NOT LIMITED TO, LUMBER, FUEL, AND OIL CONTAINERS, PIPES, AND/OR PIPE FITTINGS, BARRICADES, HAND TOOLS, HOSES, RECEPTACLES, AND ASPHALT WITHIN ANY EXISTING TREE PIT.

STREET LIGHTING WORK NOTES

1. THE CONTRACTOR SHALL FURNISH, INSTALL, AND REMOVE ALL NECESSARY STREET LIGHTING EQUIPMENT PRIOR TO NEW PAVING.

2. NEW INSTALLATION SHALL BE ENERGIZED BEFORE THE REMOVAL OF EXISTING POLES.

3. THE CONTRACTOR SHALL NOTIFY NYC DEPARTMENT OF TRANSPORTATION (BUREAU OF TRAFFIC OPERATIONS), AT LEAST SEVENTY TWO (72) HOURS PRIOR TO THE START OF WORK AT (718) 786-5822.

4. ANY DAMAGE TO THE EXISTING STREET LIGHTING EQUIPMENT, AS A RESULT OF THE CONTRACTOR'S WORK AND/OR WORK FORCE, SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT NO EXTRA COST TO THE CITY.

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SECTION MANAGER:

WADE TRIM

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NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

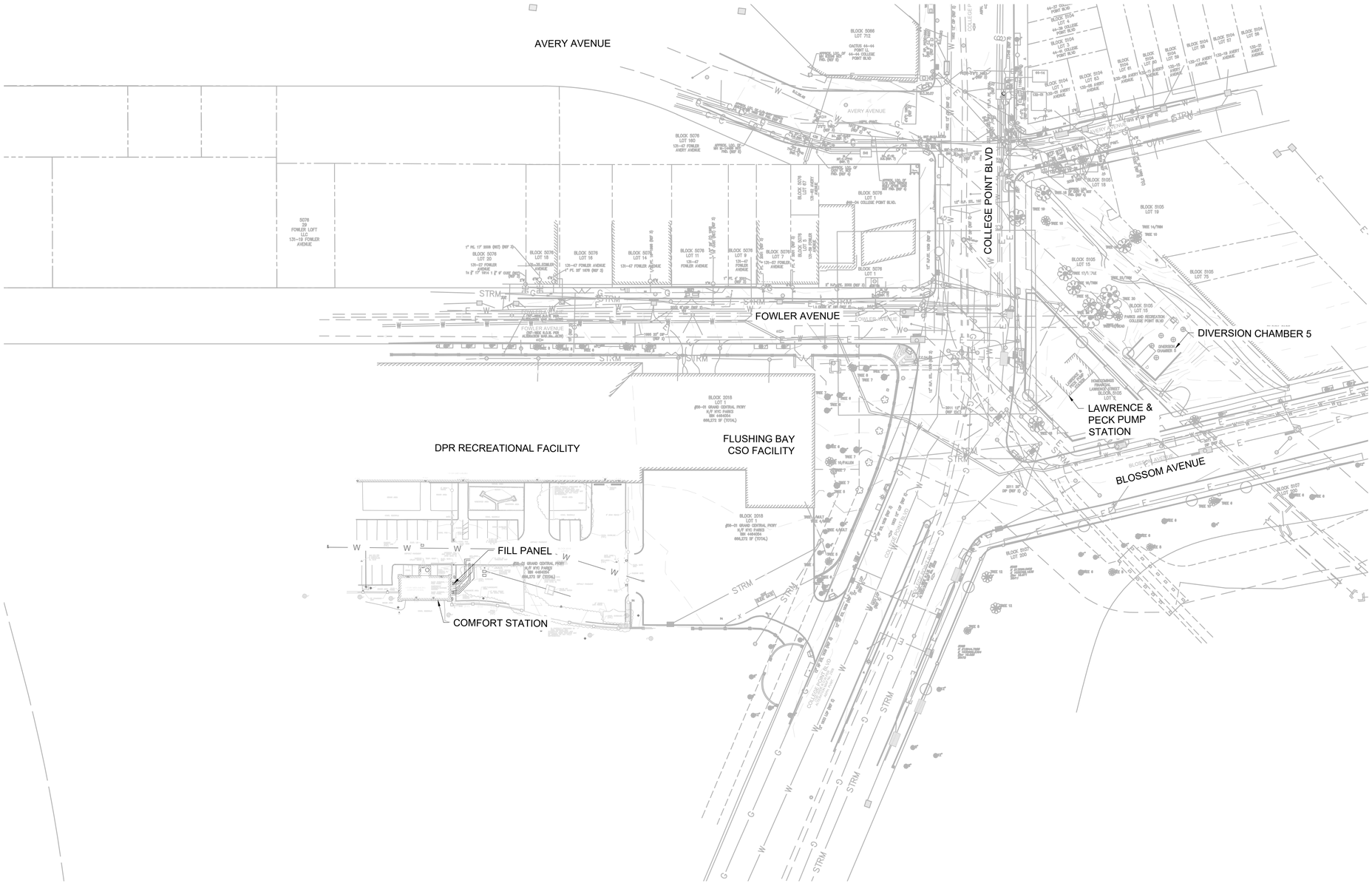
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

CIVIL NOTES II

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-003.00



NOTE:

1. CHEMICAL FILL STATION IS LOCATED WITHIN THE AL OERTER RECREATION CENTER / NYCDPR MAINTENANCE YARD. COORDINATE WITH NYCDPR FOR ACCESS.

EXISTING SITE PLAN

SCALE: 1" = 50'-0"

1"=50' 0 50 100 FT.

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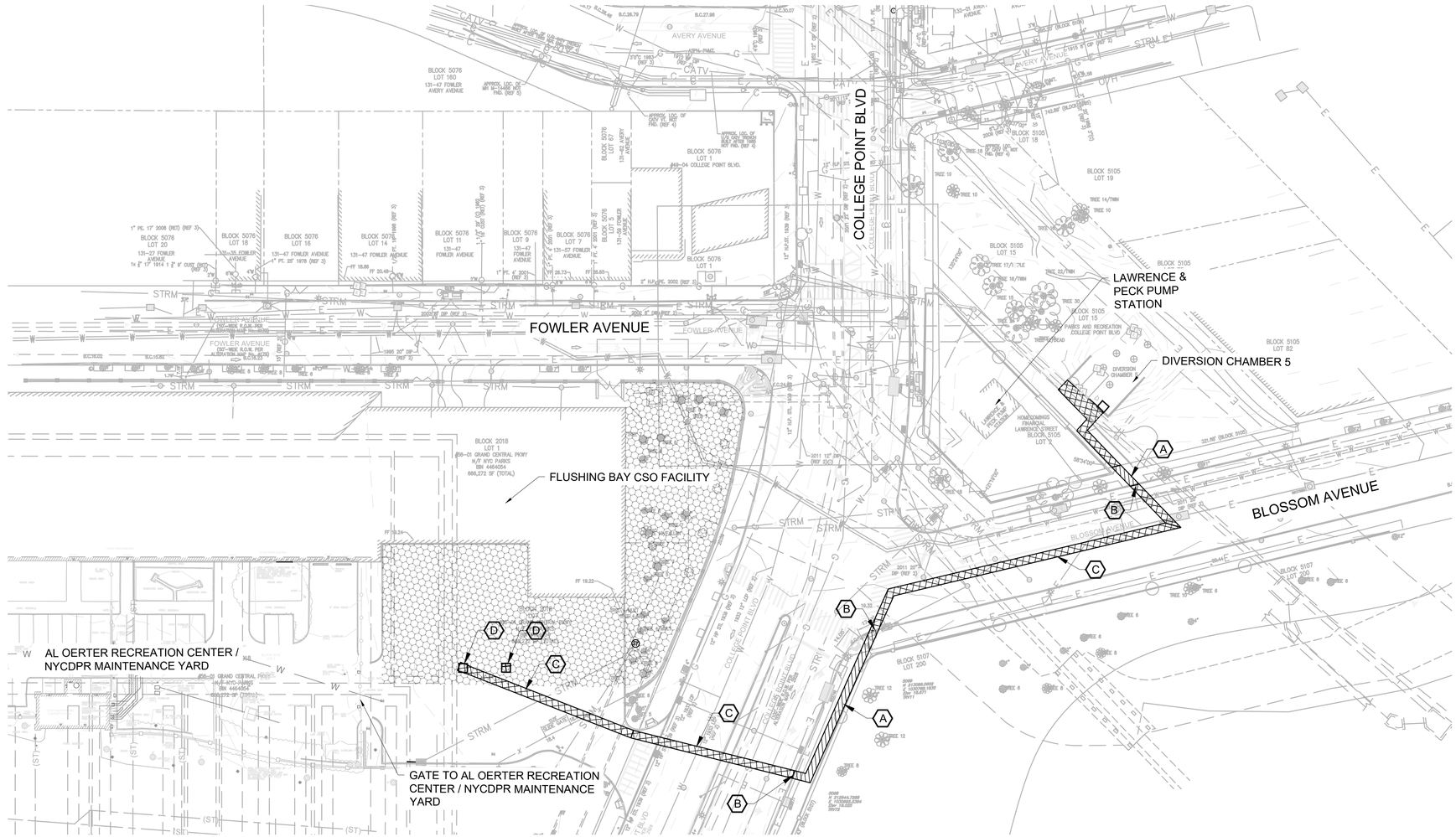
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
EXISTING SITE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-101.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SITE DEMO AND UTILITY RELOCATION PLAN

SCALE: 1" = 40'-0"

KEY NOTES:

A. DEMOLISH SIDEWALK.

B. DEMOLISH CURB.

C. DEMOLISH PAVEMENT.

D. DEMOLISH MANHOLE.

LEGEND:

DENOTES PAVEMENT TO BE DEMOLISHED

DENOTES SIDEWALK AND CONCRETE CURB TO BE DEMOLISHED

DENOTES VEGETATION TO BE DEMOLISHED

1"=40' 0 40 80 FT.

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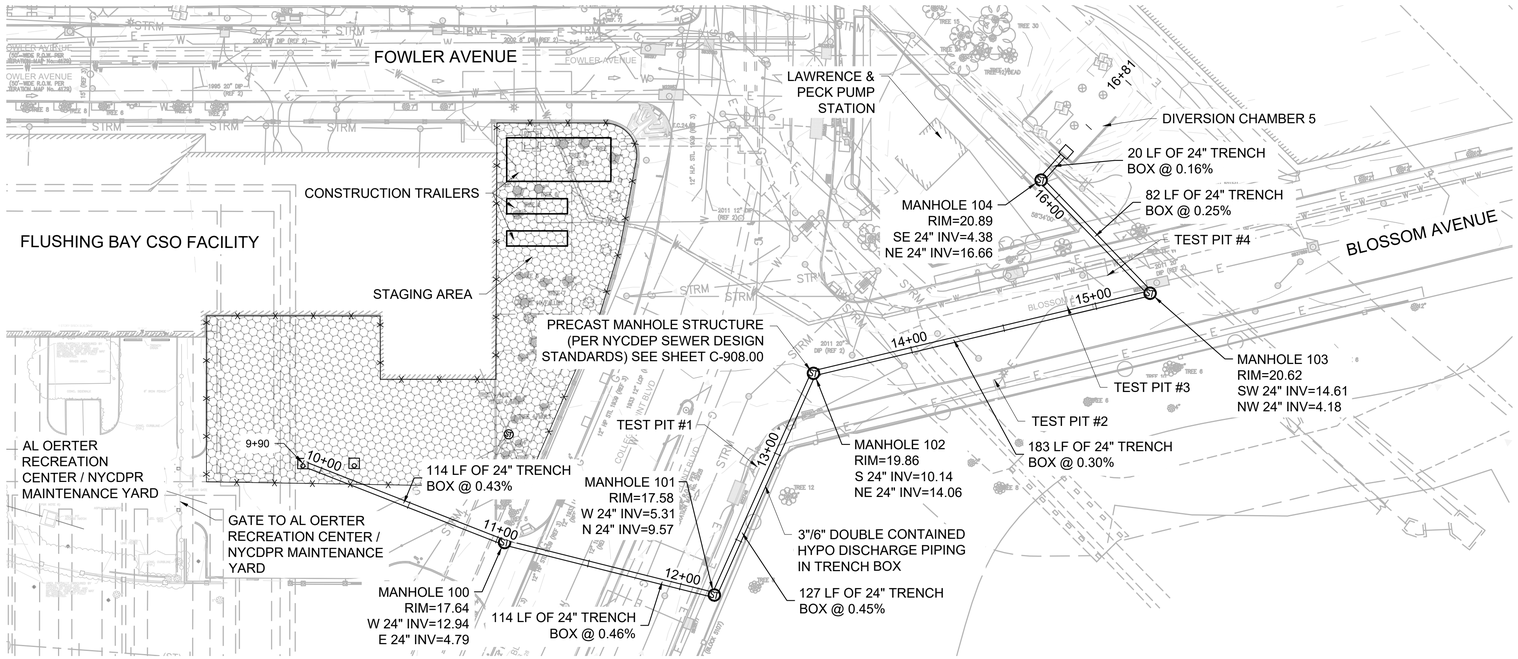
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
SITE DEMO AND UTILITY RELOCATION PLAN

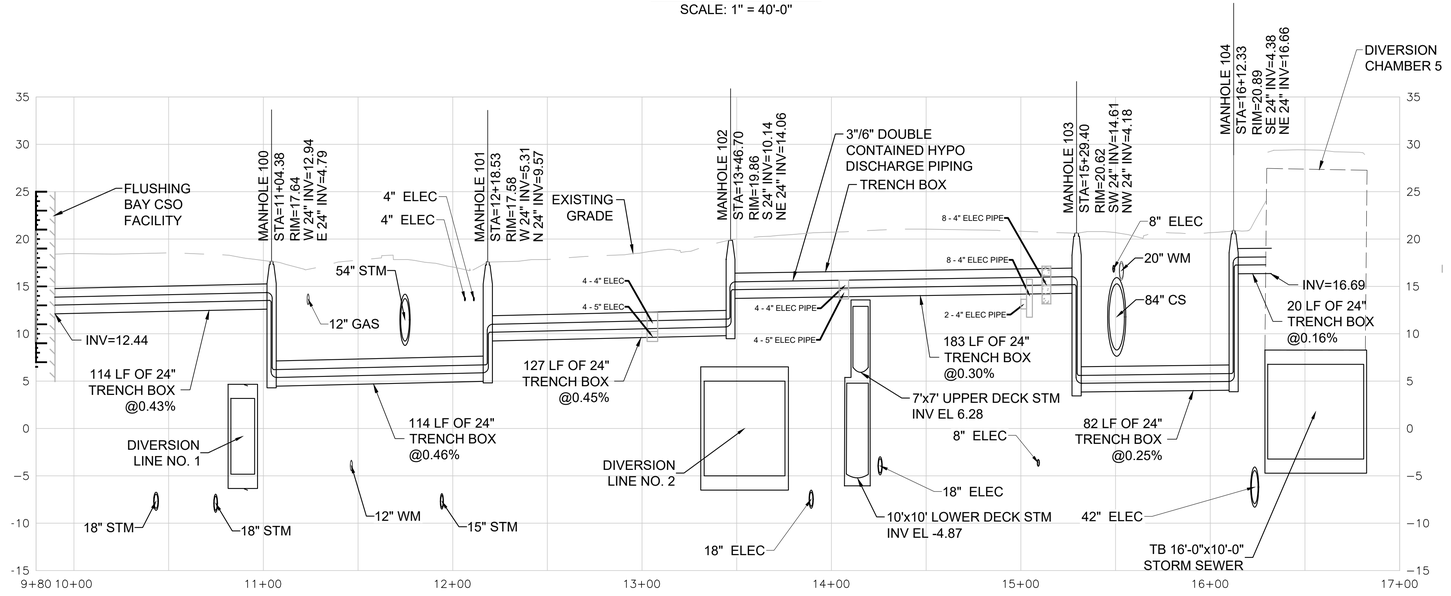
DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-102.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



PROPOSED PLAN

SCALE: 1" = 40'-0"



PROPOSED HYPO DISCHARGE PIPE PROFILE

SCALE:HORIZONTAL 1" = 40'-0"
SCALE:VERTICAL 1" = 4'-0"

NOTES:

1. CONTRACTOR TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION.
2. DOUBLE CONTAINMENT PIPING SHOULD BE INSTALLED SUCH THAT ANY JOINTS ARE LOCATED TOWARD THE MIDDLE OF EACH TRENCH BOX, KEEPING AT LEAST 12" AWAY FROM THE EDGE OF THE TRENCH BOX.
3. SUGGESTED SEQUENCE OF CONSTRUCTION AT DC-5: BREAK THROUGH CULVERT ABOVE CHEMICAL EQUIPMENT LOCATION. ISOLATE CULVERT VIA EXISTING SLIDE GATES AND STOP LOGS UPSTREAM AND DOWNSTREAM. DEWATER WORK AREA. INSTALL CHEMICAL EQUIPMENT AND PIPING. REMOVE TEMPORARY ISOLATION MEASURES. REPEAT SEQUENCE FOR SUBSEQUENT CULVERTS.
4. SUGGESTED SEQUENCE OF CONSTRUCTION AT FBCSO: BREAK THROUGH CULVERT ABOVE CHEMICAL EQUIPMENT LOCATION. INSTALL TEMPORARY BULKHEADS UPSTREAM AND DOWNSTREAM. INSTALL CHEMICAL EQUIPMENT, PIPING, AND MANHOLES. REMOVE BULKHEADS. REPEAT SEQUENCE FOR SUBSEQUENT CULVERT.
5. AT THE CROSSINGS ABOVE AND BENEATH, AND FOR ALL WORK ADJACENT TO, THE EXISTING COMBINED SEWERS, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS STRUCTURAL SUPPORT OF THE EXISTING SEWERS THROUGHOUT EXCAVATION, INSTALLATION, BACKFILL, AND RESTORATION ACTIVITIES. SUPPORT MAY INCLUDE, BUT IS NOT LIMITED TO, ENGINEERED SHEETING AND BRACING, SPANNING BEAMS, UNDERPINNING, SUSPENSION SYSTEMS, FLOWABLE FILL, OR OTHER APPROVED METHODS. THE EXISTING SEWERS SHALL NOT BE ALLOWED TO SETTLE, DEFLECT, OR BECOME UNSUPPORTED AT ANY TIME. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED EXCAVATION SUPPORT, UNDERPINNING, AND UTILITY SUPPORT PLANS, CALCULATIONS, AND CONSTRUCTION SEQUENCING FOR REVIEW AND APPROVAL PRIOR TO COMMENCING WORK AT EXISTING COMBINED SEWER CROSSINGS AND WORK ADJACENT TO EXISTING COMBINED SEWERS.
6. SUGGESTED SEQUENCE OF CONSTRUCTION AT EXISTING SEWER CROSSINGS: FIELD VERIFY THE LOCATION, ELEVATION, DIMENSIONS, AND CONDITION OF THE EXISTING SEWER. INSTALL EXCAVATION SUPPORT SYSTEM AND ANY TEMPORARY SUPPORT MEASURES REQUIRED TO MAINTAIN THE EXISTING SEWER IN SERVICE. EXCAVATE TO EXPOSE THE UNDERSIDE AND SIDES OF THE SEWER ONLY TO THE EXTENT NECESSARY TO INSTALL THE PROPOSED PIPE. INSTALL TEMPORARY STRUCTURAL SUPPORT OF THE EXISTING SEWER PRIOR TO REMOVING ANY SUPPORTING SOIL ADJACENT TO OR BENEATH THE SEWER. INSTALL PROPOSED PIPING AND BEDDING BELOW THE SEWER CROSSING. BACKFILL AND RESTORE PERMANENT SUPPORT BENEATH THE SEWER AS WORK PROGRESSES. REMOVE TEMPORARY SUPPORT MEASURES ONLY AFTER PERMANENT SUPPORT AND BACKFILL HAVE ACHIEVED THE REQUIRED STRENGTH AND STABILITY.
7. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.
8. ELECTRICAL UTILITIES SHOWN IN CONFLICT WITH THE PROPOSED TRENCH BOX ARE ANTICIPATED TO BE RELOCATED BY CONSOLIDATED EDISON PRIOR TO PIPELINE CONSTRUCTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH CONSOLIDATE EDISON.

TI-010 HYPO DISCHARGE STRUCTURE TABLE

STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
FLUSHING BAY CSO FACILITY	N/A	N/A	E 24" 12.44	213012.16	1030527.34
MANHOLE 100	48"	17.64	W 24" 12.94 E 24" 4.79	212995.17	1030640.45
MANHOLE 101	48"	17.58	W 24" 5.31 N 24" 9.57	212992.79	1030754.58
MANHOLE 102	48"	19.86	NE 24" 14.06 S 24" 10.14	213118.51	1030779.55
MANHOLE 103	48"	20.62	NW 24" 4.18 SW 24" 14.61	213199.26	1030943.44
MANHOLE 104	48"	20.89	SE 24" 4.38 NE 24" 16.66	213244.70	1030874.06
DIVERSION CHAMBER 5	N/A	N/A	SW 24" 16.69	213262.09	1030883.61

1"=40' 0 40 80 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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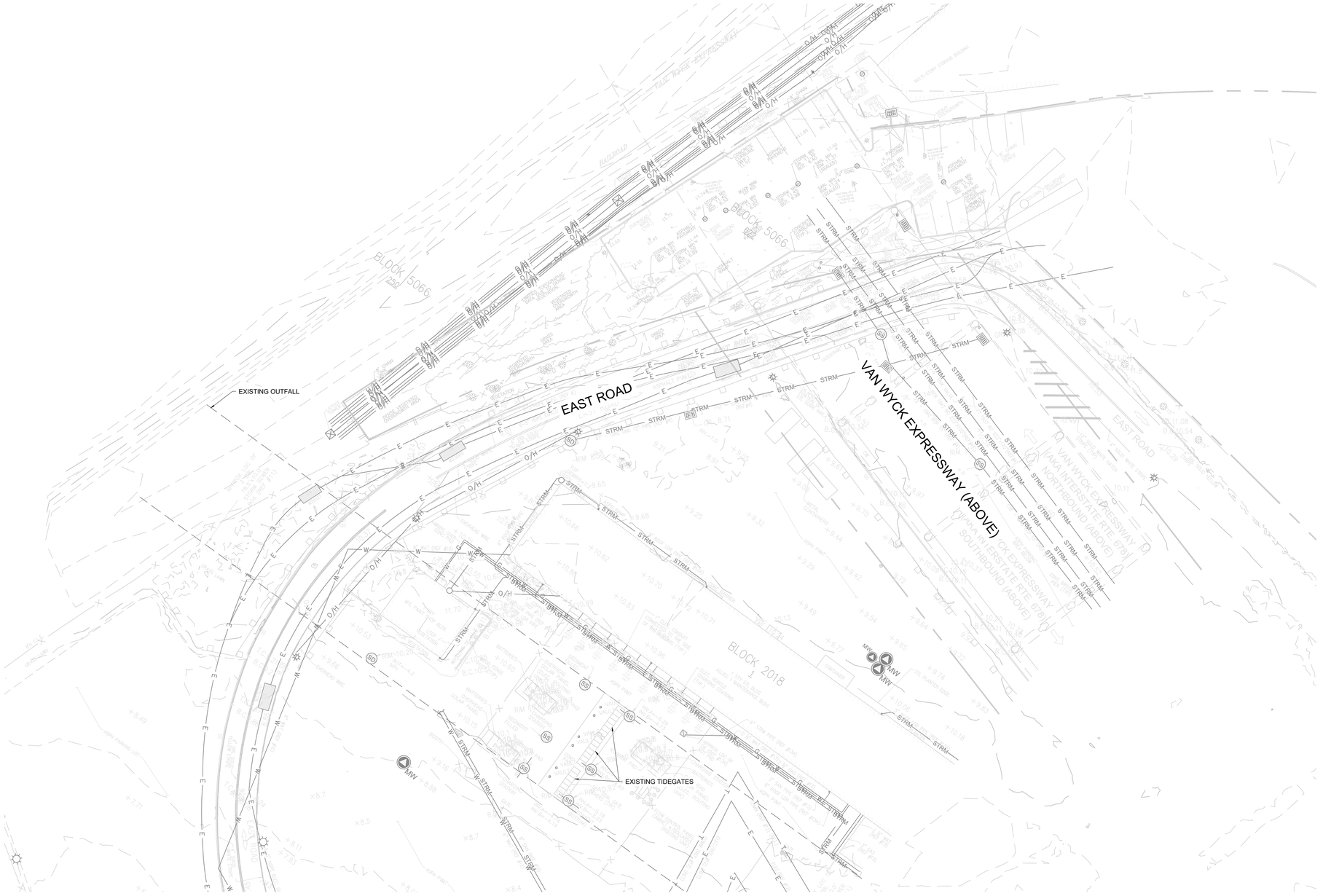
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
PROPOSED SITE PLAN AND PROFILE

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-103.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



EXISTING SITE PLAN

SCALE: 1" = 30'-0"

0 30 60 FT.
1"=30'

NYC Environmental Protection BEDC/BHD

BID SET

DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK · IVANA NITZOVA · 095133 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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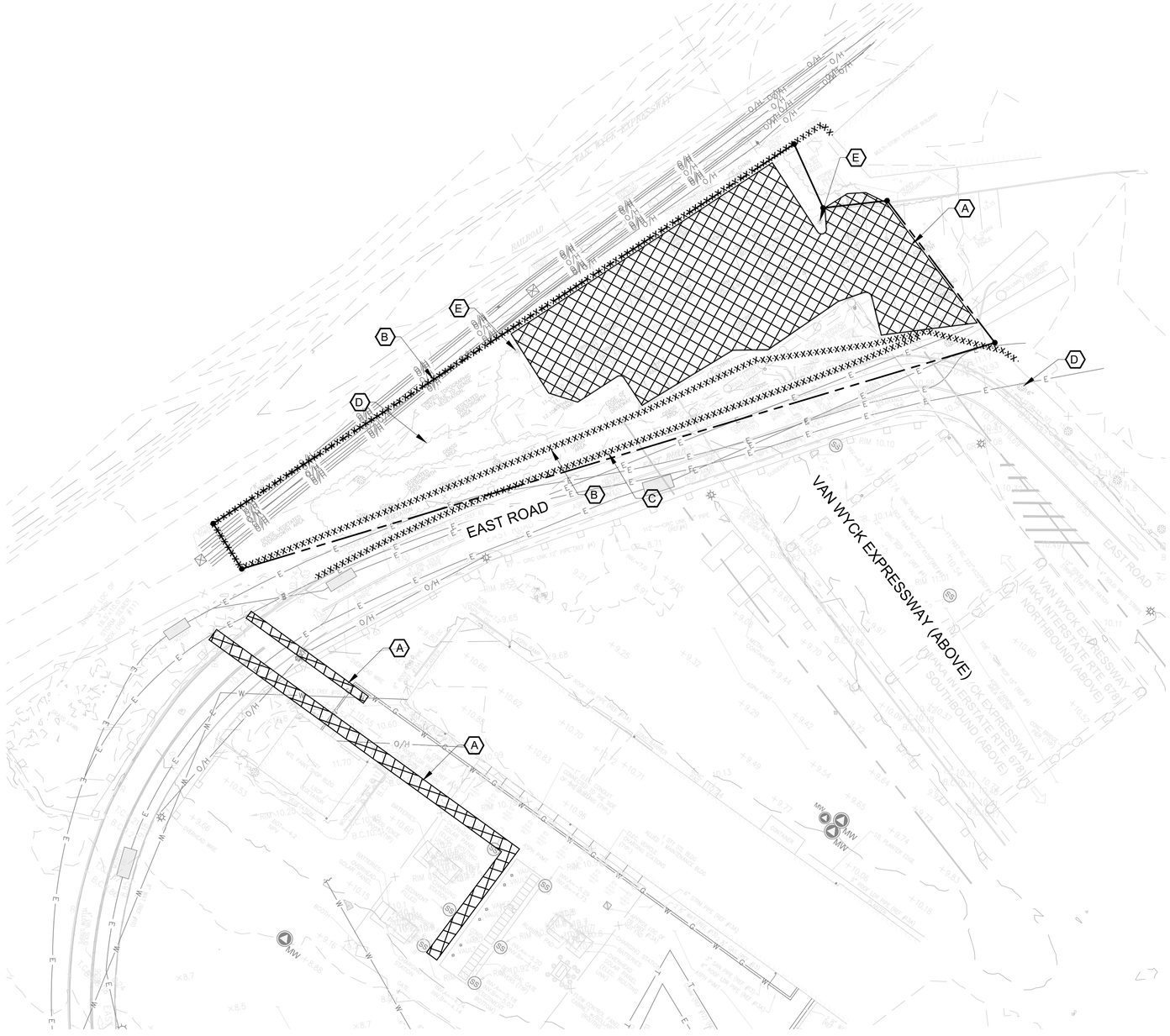
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
EXISTING SITE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-301.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



KEY NOTES:

A. DEMOLISH PAVEMENT

B. DEMOLISH FENCE

C. DEMOLISH GUARDRAIL

D. DEMOLISH VEGETATION (COORDINATE WITH NYCDPR)

E. DEMOLISH LIGHT POLE

LEGEND:

DENOTES PAVEMENT TO BE DEMOLISHED

FENCE OR GUIDE RAIL TO BE DEMOLISHED

SITE DEMOLITION PLAN

SCALE: 1" = 30'-0"

1"=30' 0 30 60 FT.

BID SET

DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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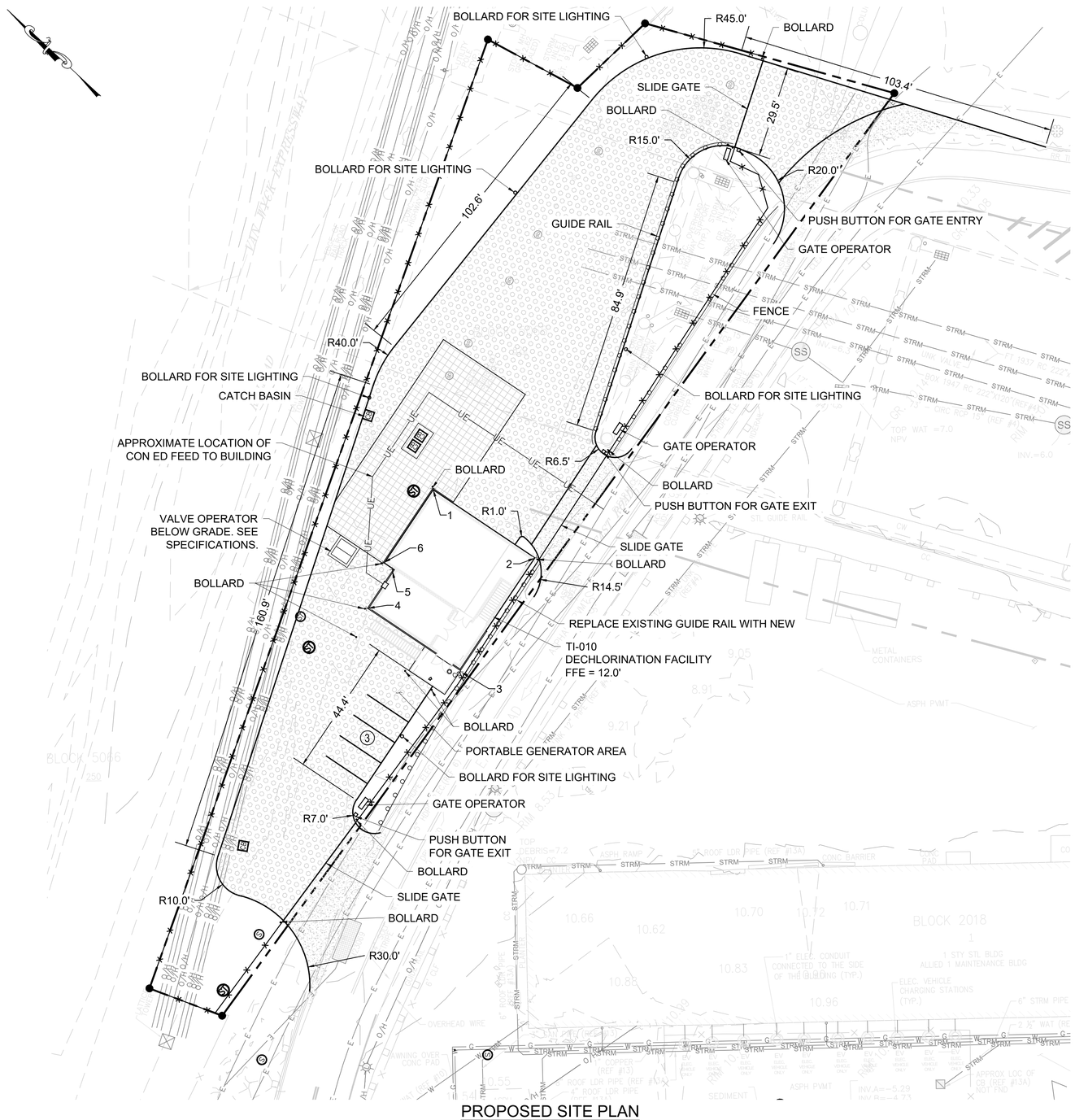
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
SITE DEMOLITION PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-302.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



PROPOSED SITE PLAN

SCALE: 1" = 20'-0"

LEGEND:

- POROUS PAVER PANEL
- TRUCK CONTAINMENT
- CONCRETE

NOTE:

1. CONTRACTOR TO MAINTAIN 15-FT CLEARANCE BETWEEN EQUIPMENT AND OVERHEAD LINES DURING CONSTRUCTION. COORDINATE WITH LIRR.

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	214112.8207	1029092.7402	12.00	BUILDING CORNER
2	214072.9007	1029099.0629	12.00	BUILDING CORNER
3	214065.7386	1029055.1745	12.00	BUILDING CORNER
4	214102.2007	1029049.3994	12.00	BUILDING CORNER
5	214104.5749	1029064.3896	12.00	BUILDING CORNER
6	214108.2385	1029063.8094	12.00	BUILDING CORNER

0 20 40 FT.
1"=20'

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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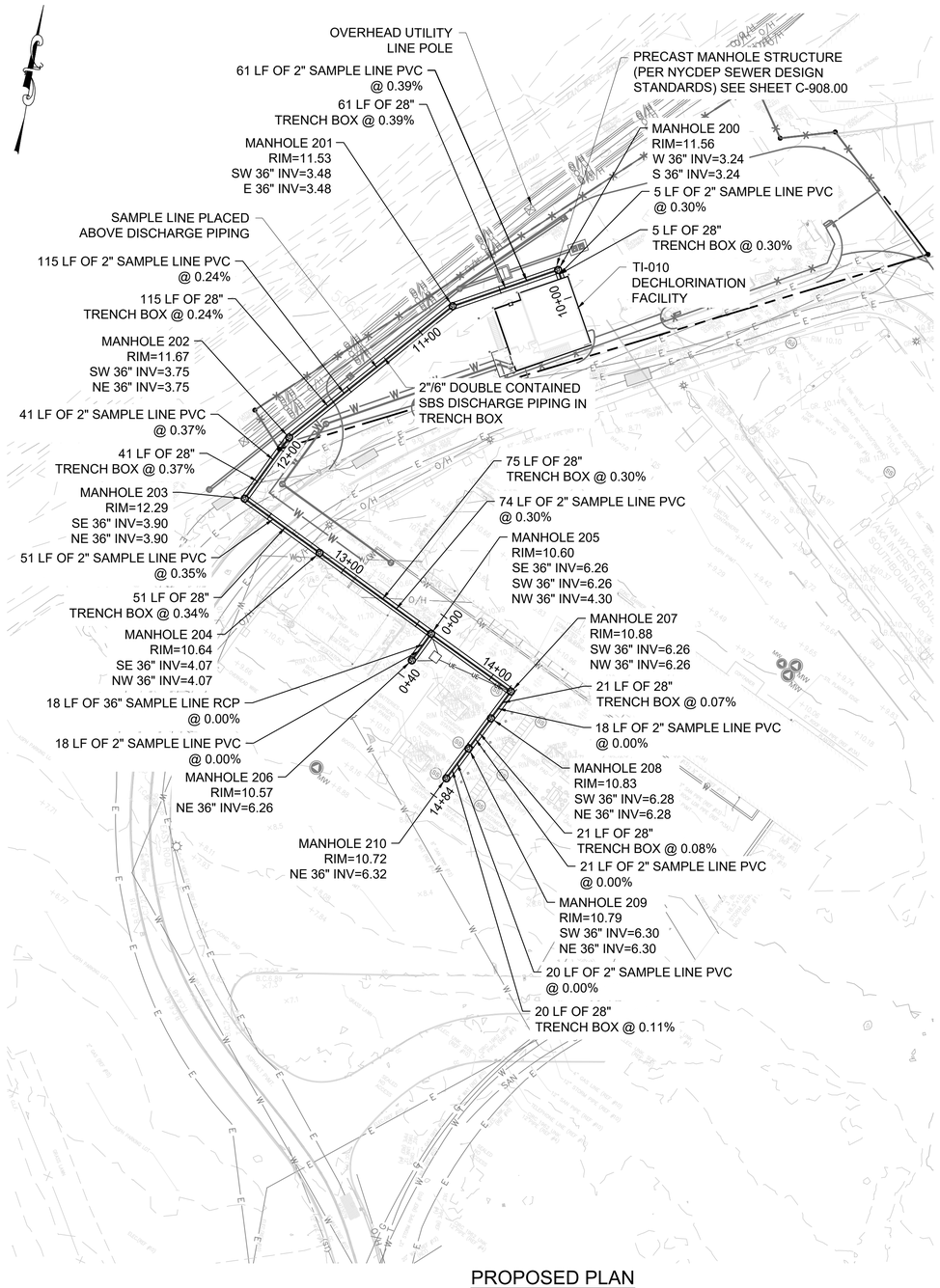
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
PROPOSED SITE PLAN

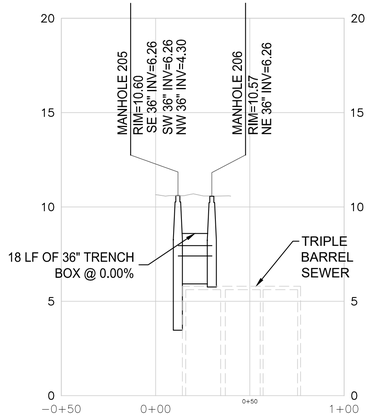
DATE: NOVEMBER 2026
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PROPOSED PLAN
SCALE: 1" = 40'-0"

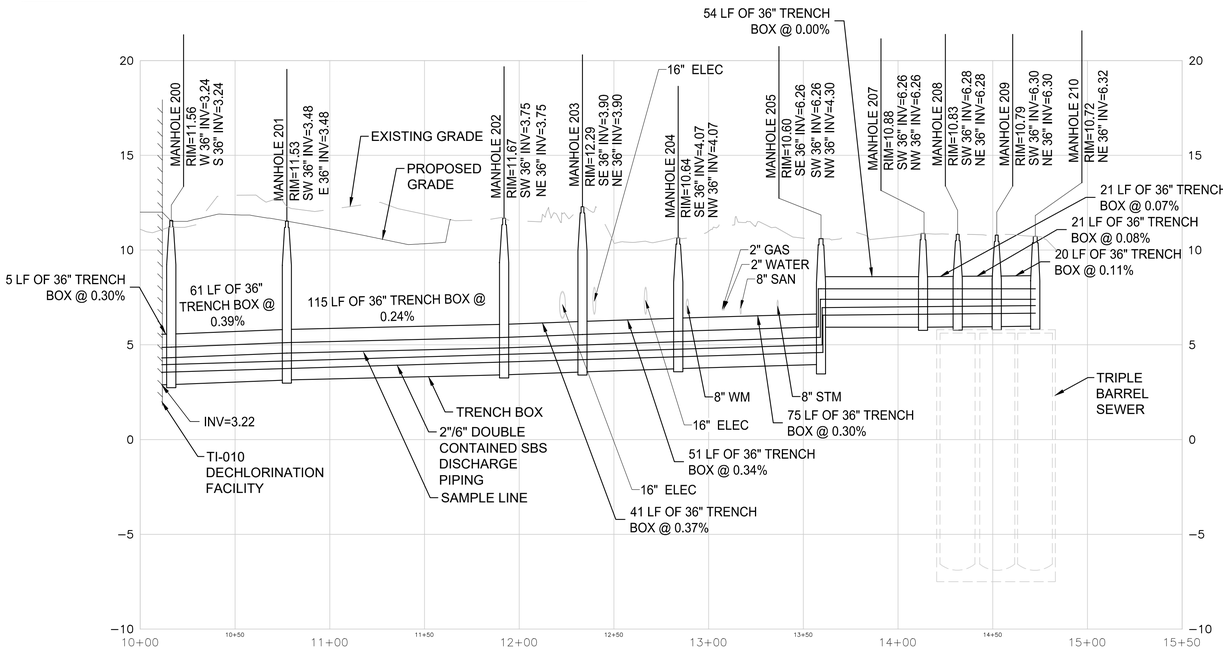
TI-010 SBS STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
TI-010 DECHLORINATION FACILITY	N/A	N/A	S 36" 3.22	214112.47	1029092.49
MANHOLE 200	48"	11.56	S 36" 3.24 W 36" 3.24	214116.79	1029087.82
MANHOLE 201	48"	11.53	SW 36" 3.48 E 36" 3.48	214107.25	1029027.56
MANHOLE 202	48"	11.67	SW 36" 3.75 NE 36" 3.75	214052.06	1028927.02
MANHOLE 203	48"	12.29	SE 36" 3.90 NE 36" 3.90	214023.30	1028897.30
MANHOLE 204	48"	10.64	NW 36" 4.07 SE 36" 4.07	213986.98	1028932.46
MANHOLE 205	48"	10.60	SE 36" 6.26 SW 36" 6.26 NW 36" 4.30	213932.82	1028984.87
MANHOLE 206	48"	10.57	NE 36" 6.26	213920.30	1028971.94
MANHOLE 207	48"	10.88	SW 36" 6.26 NW 36" 6.26	213894.11	1029022.36
MANHOLE 208	48"	10.83	SW 36" 6.28 NE 36" 6.28	213881.55	1029009.06
MANHOLE 209	48"	10.79	SW 36" 6.30 NE 36" 6.30	213867.42	1028994.09
MANHOLE 210	48"	10.72	NE 36" 6.32	213853.45	1028979.30



PROPOSED SODIUM BISULFITE CARRIER PIPE PROFILE
SCALE: HORIZONTAL 1" = 40'-0"
SCALE:VERTICAL 1" = 4'-0"

NOTES:

1. CONTRACTOR TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION.
2. DOUBLE CONTAINMENT PIPING SHOULD BE INSTALLED SUCH THAT ANY JOINTS ARE LOCATED TOWARD THE MIDDLE OF EACH TRENCH BOX, KEEPING AT LEAST 12" AWAY FROM THE EDGE OF THE TRENCH BOX.
3. MAINTAIN DEP ACCESS TO EXISTING SEWER INFRASTRUCTURE DURING EQUIPMENT INSTALLATION.
4. SUGGESTED SEQUENCE OF CONSTRICTION AT EXISTING CULVERTS: BREAK INTO CULVERT AT MANHOLE LOCATION. ISOLATE CULVERT VIA TEMPORARY BULKHEADS UPSTREAM AND DOWNSTREAM. PUMP AROUND BULKHEADED AREA AND DEWATER. INSTALL CHEMICAL EQUIPMENT. INSTALL MANHOLES AND PIPING. REMOVE BULKHEADS. REPEAT SEQUENCE FOR SUBSEQUENT CULVERTS.
5. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.



PROPOSED SODIUM BISULFITE CARRIER PIPE PROFILE
SCALE: HORIZONTAL 1" = 40'-0"
SCALE:VERTICAL 1" = 4'-0"

1"=40' 0 40 80 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

WADE TRIM

Environmental Protection

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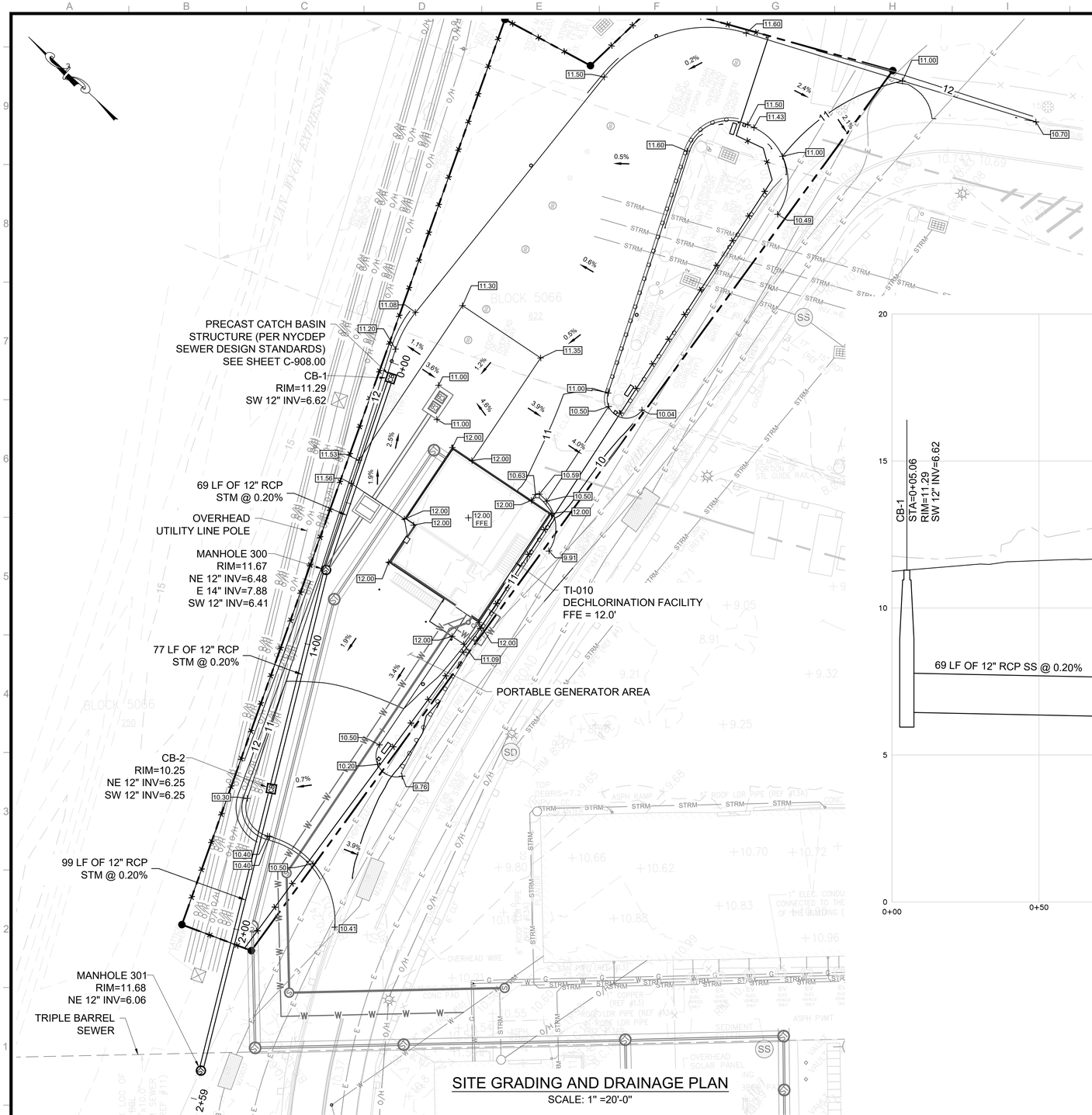
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
PROPOSED CHEMICAL PIPING PLAN AND PROFILE

DATE: NOVEMBER 2026
SHEET NO: ##
DRAWING NO. C-304.00

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SITE GRADING AND DRAINAGE PLAN

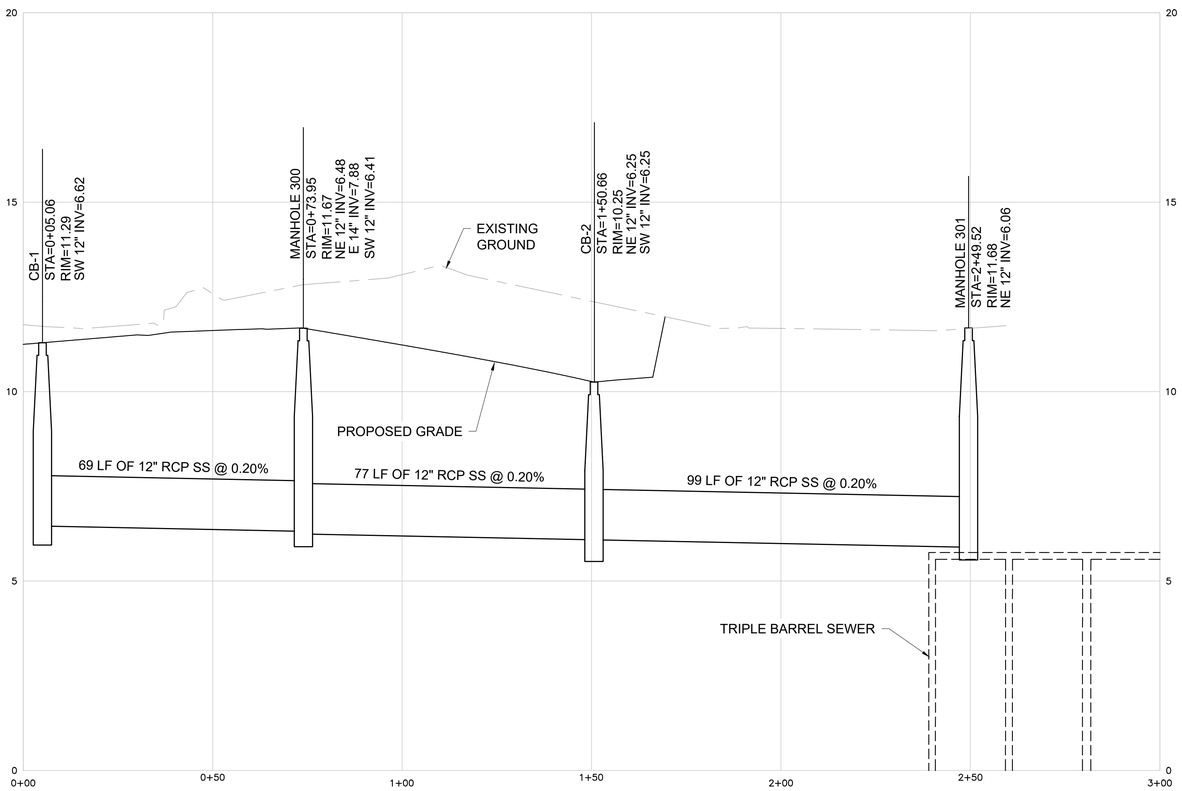
SCALE: 1" =20'-0"

NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.

TI-010 STORM SEWER STRUCTURE TABLE

STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
CB-1	48"	11.29	SW 12" 6.62	214144.21	1029095.86
MANHOLE 300	48"	11.67	NE 12" 6.48 E 14" 7.88 SW 12" 6.41	214116.05	1029032.99
CB-2	48"	10.25	NE 12" 6.25 SW 12" 6.25	214079.14	1028965.75
MANHOLE 301	48"	11.68	NE 12" 6.06	214031.57	1028879.09



STORM SEWER PROFILE

SCALE:HORIZONTAL 1" = 20'-0"
SCALE:VERTICAL 1" = 2'-0"

1"=20' 0 20 40 FT.

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DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

WADE TRIM

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

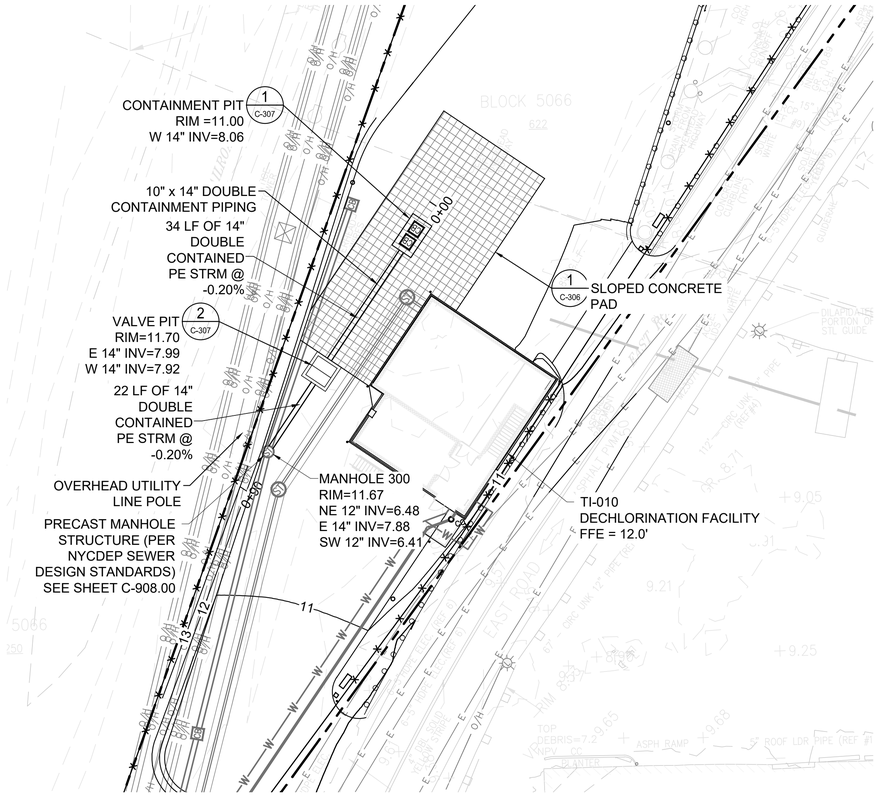
TI-010 DECHLORINATION FACILITY
SITE GRADING AND DRAINAGE PLAN

DATE: NOVEMBER 2026
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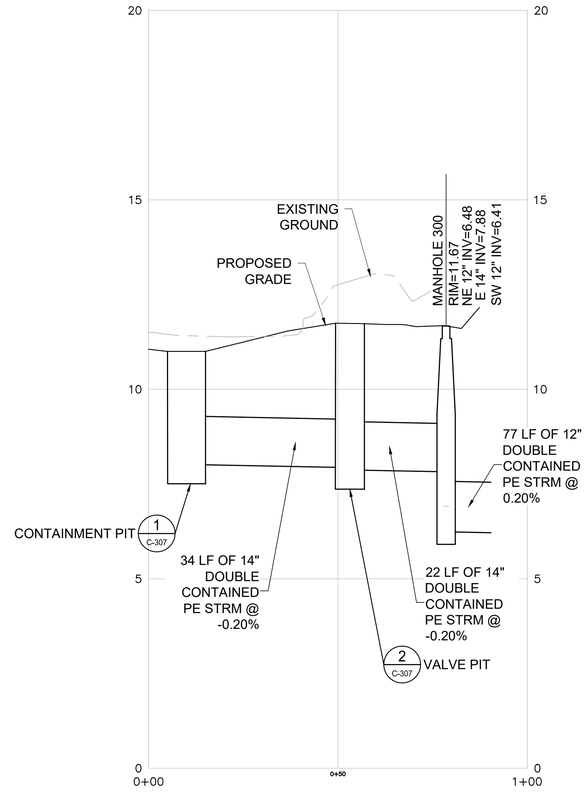
NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.



SITE CONTAINMENT STORM SEWER PLAN

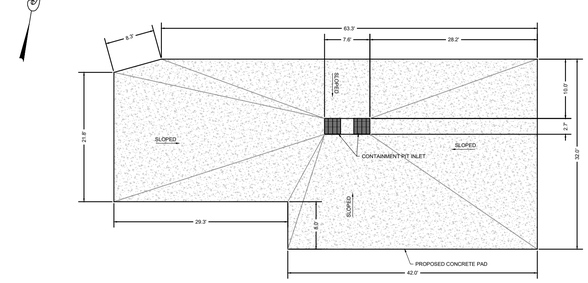
SCALE: 1" =20'-0"



SITE CONTAINMENT STORM SEWER PROFILE

SCALE:HORIZONTAL 1" = 20'-0"
SCALE:VERTICAL 1" = 2'-0"

TI-010 CONTAINMENT STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
CONTAINMENT PIT	6'x10'	11.00	W 14" 8.06	214126.97	1029100.64
VALVE PIT	7.6'x7.6'	11.70	E 14" 7.99 W 14" 7.92	214120.09	1029058.08
MANHOLE 300	48"	13.56	NE 12" 6.48 E 14" 7.88 SW 12" 6.41	214116.05	1029032.99



1 C-306.00 SLOPED CONCRETE PAD

SCALE: 1" = 5'

0 20 40 FT.
1"=20'

BID SET
DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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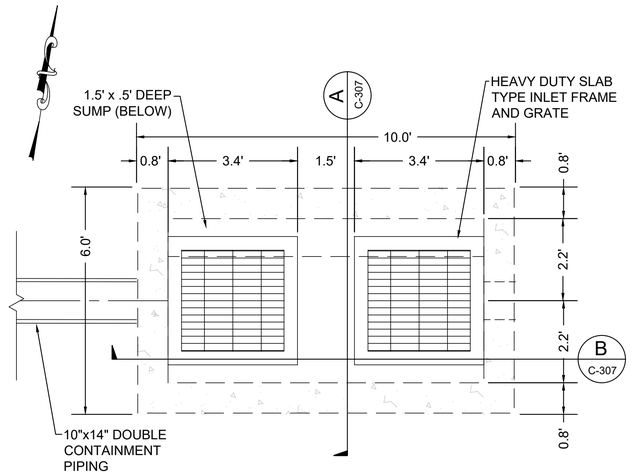
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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

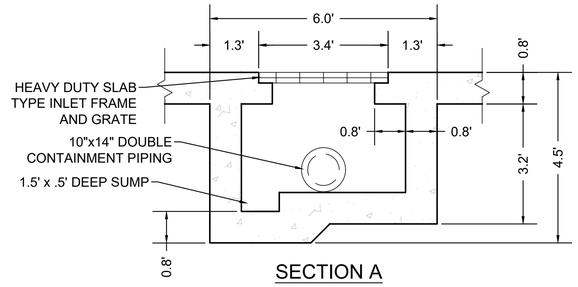
TI-010 DECHLORINATION FACILITY
SITE CONTAINMENT STORM SEWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-306.00

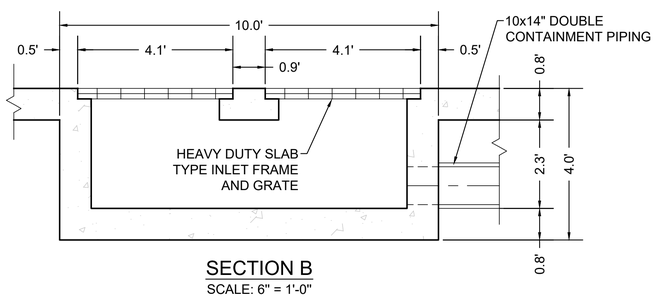
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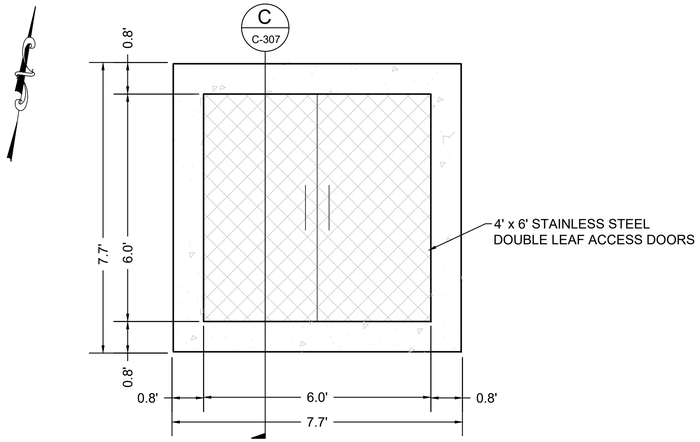
PLAN
SCALE: 6" = 1'-0"



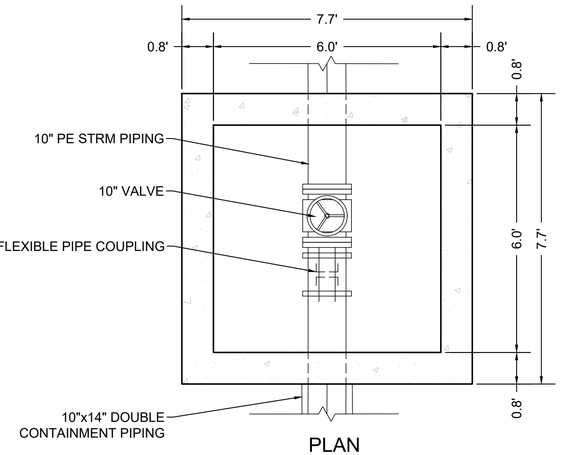
SECTION A
SCALE: 6" = 1'-0"



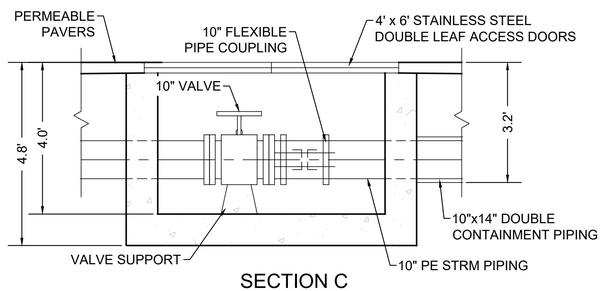
SECTION B
SCALE: 6" = 1'-0"



ROOF PLAN
SCALE: 6" = 1'-0"



PLAN
SCALE: 6" = 1'-0"



SECTION C
SCALE: 6" = 1'-0"

1 C-307.00 TI-010 CONTAINMENT PIT 1 DETAIL
SCALE: 6" = 1'-0"

2 C-307.00 TI-010 VALVE PIT DETAIL
SCALE: 6" = 1'-0"

1"=20' 0 20 40 FT.

GRAPHIC SCALES CHECK BEFORE USE

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BID SET
DATE ISSUED: NOVEMBER 2026

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: IN
DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

STATE OF NEW YORK · IVANA NITZOVA · 095133 · LICENSED PROFESSIONAL ENGINEER

WADE TRIM

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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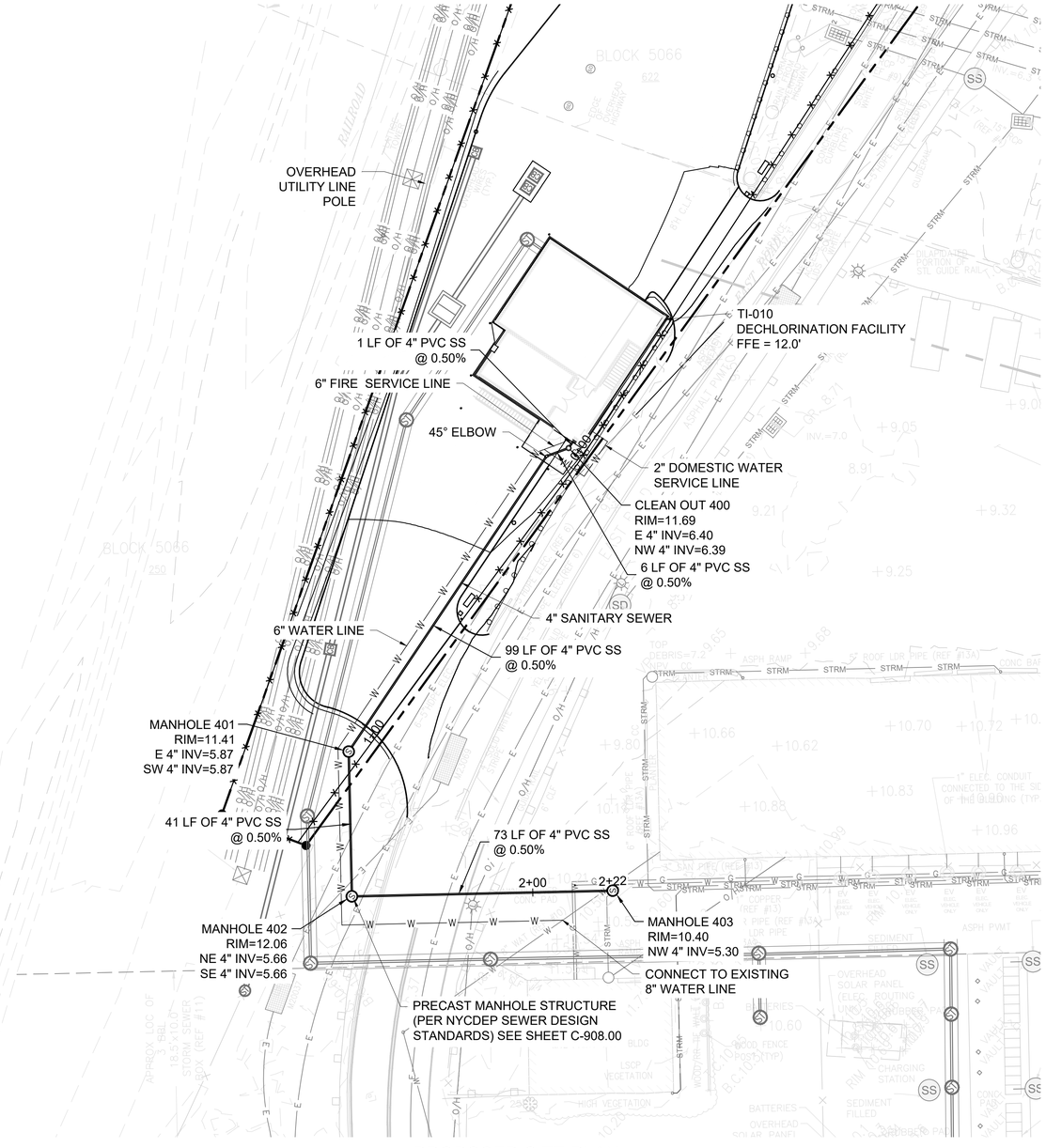
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
SITE CONTAINMENT STORM SEWER DETAILS

DATE: NOVEMBER 2026
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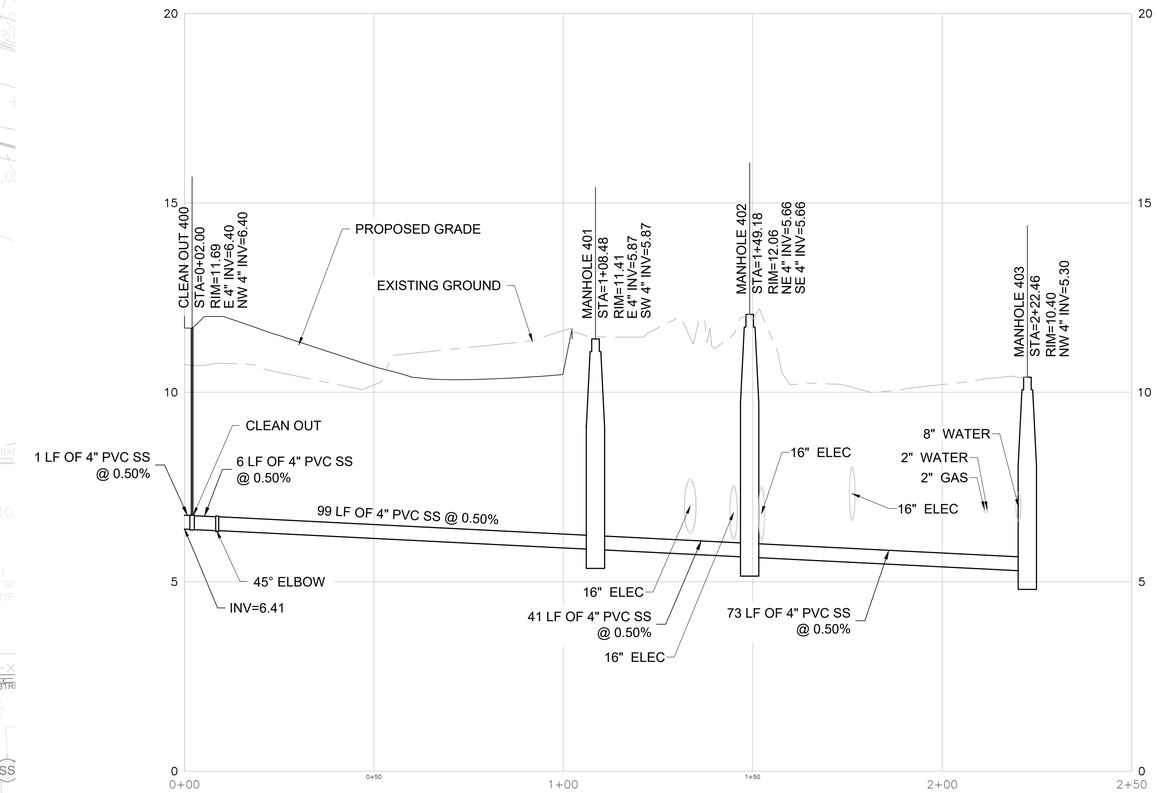
PROPOSED SITE PLAN

SCALE: 1" = 20'-0"

TI-010 SANITARY SEWER STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
TI-010 DECHLORINATION FACILITY	N/A	N/A	S 4" 6.39	214068.77	1029054.69
CLEAN OUT 400	4"	11.69	E 4" 6.40 SW 4" 6.40	214068.46	1029052.72
MANHOLE 401	48"	11.41	E 4" 5.87 SW 4" 5.87	214055.84	1028948.19
MANHOLE 402	48"	12.06	SE 4" 5.66 NE 4" 5.66	214027.54	1028918.94
MANHOLE 403	48"	10.40	NW 4" 5.30	213974.88	1028969.91

NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.



SANITARY SEWER PROFILE

SCALE:HORIZONTAL 1" = 20'-0"
SCALE:VERTICAL 1" = 2'-0"

1"=20' 0 20 40 FT.

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WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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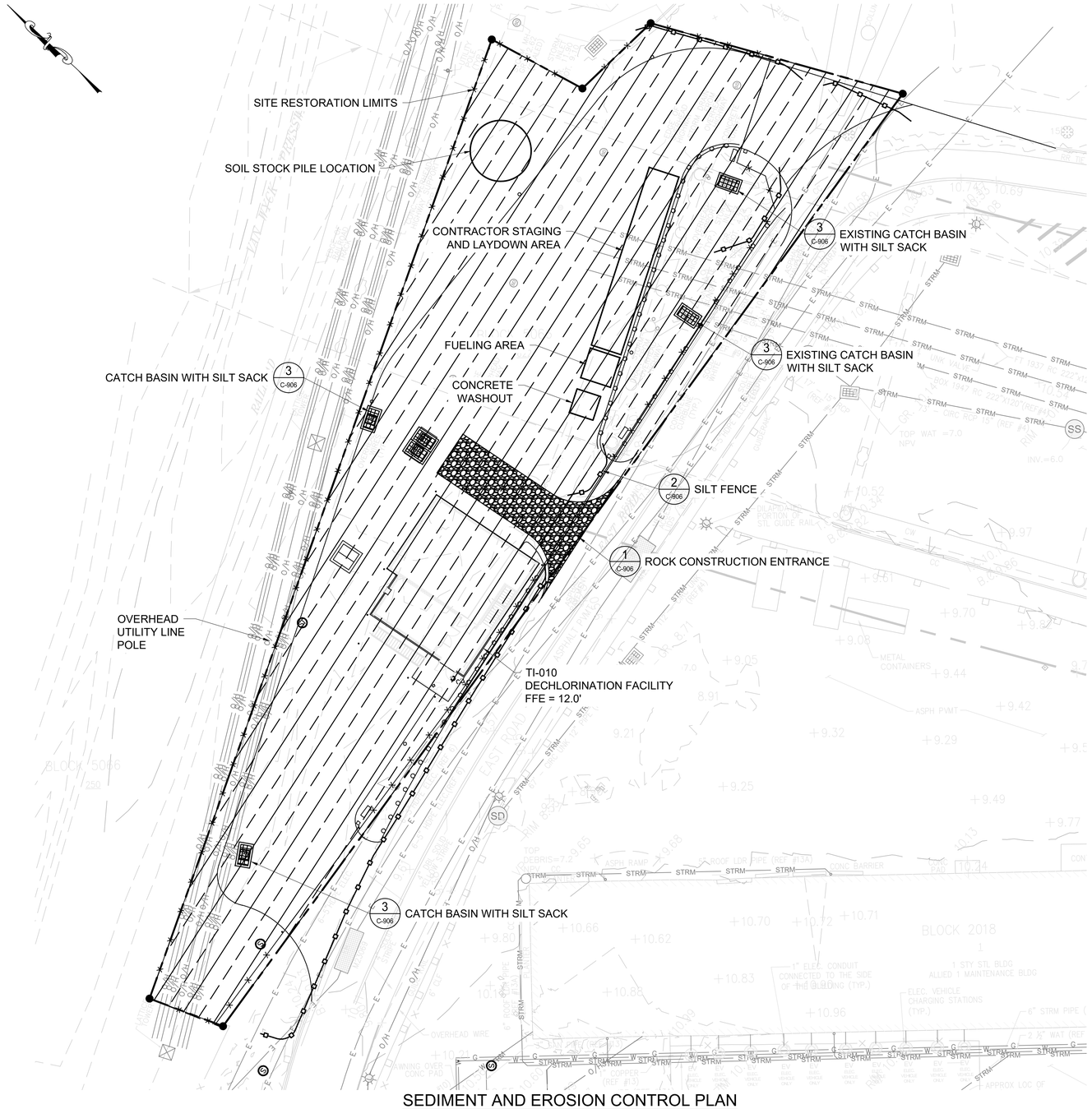
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
PROPOSED SANITARY SEWER PLAN AND PROFILE

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-308.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



SEDIMENT AND EROSION CONTROL PLAN

SCALE: 1" = 20'-0"

NOTES:

1. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES/PRACTICES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF WORK, MAINTAINED DURING THE COURSE OF CONSTRUCTION AND REMOVED RIGHT AFTER CONSTRUCTION IS COMPLETED AS APPROVED BY THE ENGINEER.
2. ADDITIONAL MEASURES INCLUDING, BUT NOT LIMITED TO TIRE WASHES, STREET SWEEPING, AND VACUUMING MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND DUST CONTROL FOR THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM THE CONSTRUCTION OPERATIONS. ALL AREAS AFFECTED BY CONSTRUCTION OPERATIONS SHALL BE STABILIZED AS APPROVED BY THE ENGINEER.
4. SILT FENCE AND SILT SACKS WILL BE USED FOR EROSION PROTECTION.
5. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED FOLLOWING EVERY RAINFALL AND NOT LESS THAN ONCE EVERY WEEK.
6. ANY DAMAGED SOIL EROSION AND SEDIMENT CONTROL MEASURE SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR.
7. FOR ALL EXISTING FEATURES INCLUDING EXISTING UNDERGROUND FACILITIES, SUBSURFACE STRUCTURES, AND UTILITIES SEE C-301.00.
8. FOR EXISTING/PROPOSED LEGEND AND ABBREVIATIONS SEE C-001.00.

LEGEND:

SITE RESTORATION LIMITS

ROCK CONSTRUCTION ENTRANCE

0 20 40 FT.
1"=20'

BID SET
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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095135 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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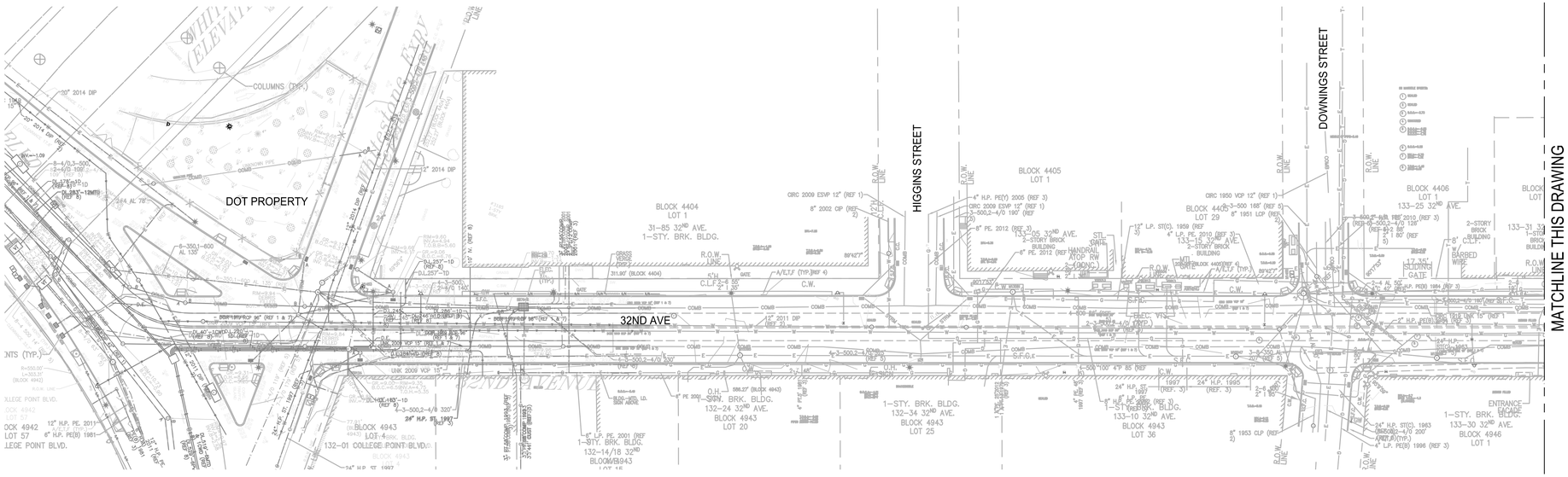
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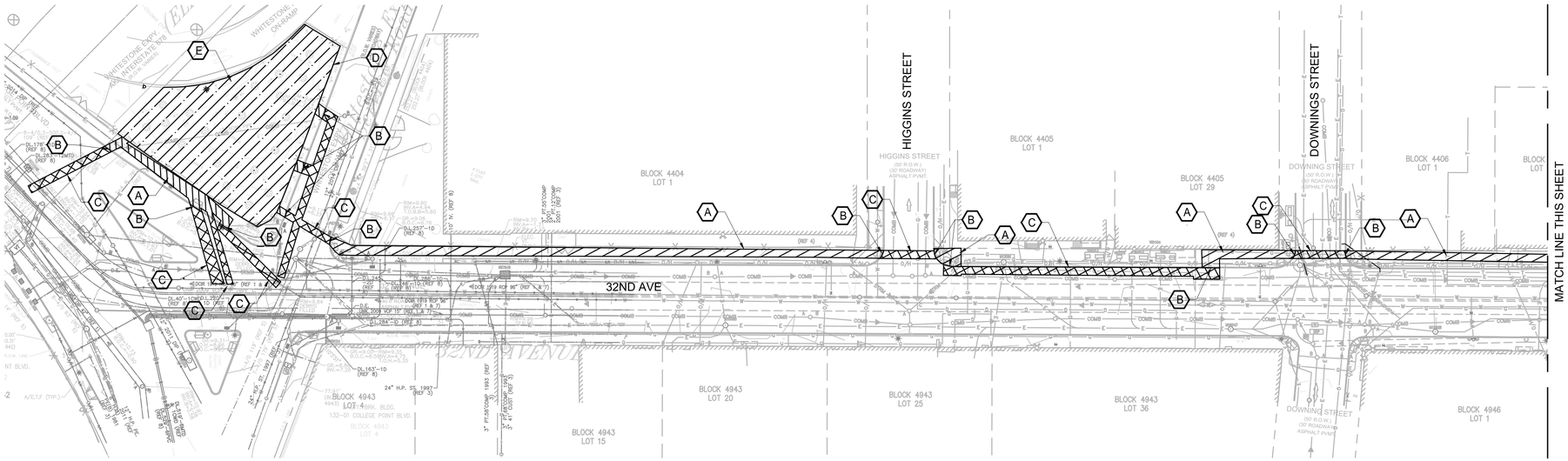
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
EROSION AND SEDIMENT CONTROL PLAN

DATE: NOVEMBER 2026
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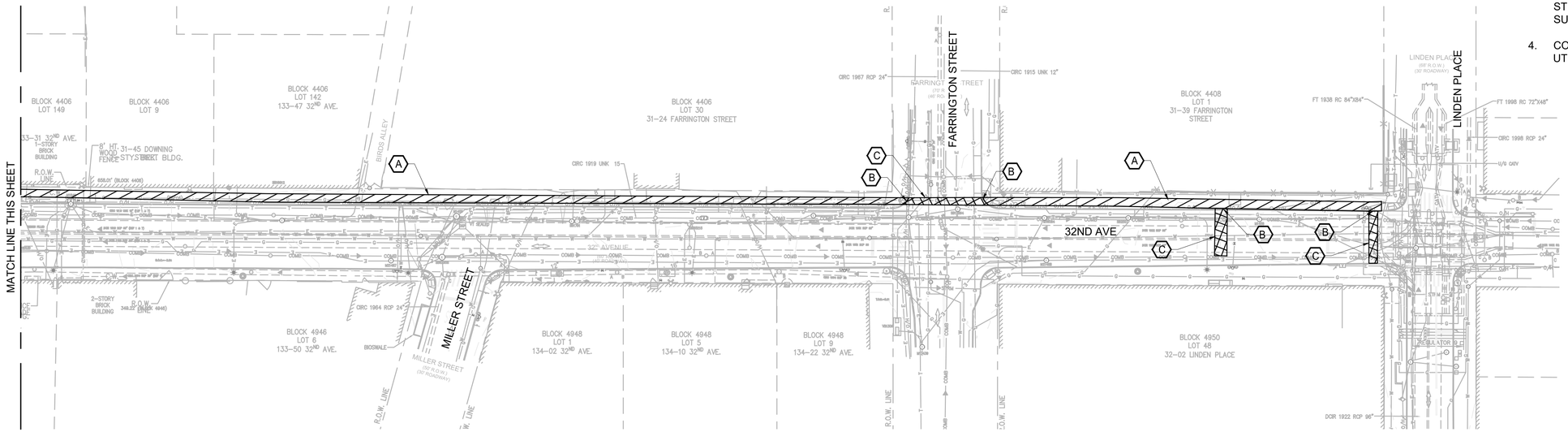
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DOT PROPERTY
32ND AVE
HIGGINS STREET
DOWNINGS STREET
MATCHLINE THIS DRAWING
BLOCK 4404 LOT 1 31–85 32ND AVE. 1–STY. BRK. BLDG.
BLOCK 4405 LOT 1
BLOCK 4406 LOT 1 133–25 32ND AVE.
BLOCK 4943 LOT 4 132–01 COLLEGE POINT BLVD.
BLOCK 4943 LOT 20 132–24 32ND AVE.
BLOCK 4943 LOT 25 1–STY. BRK. BLDG. 132–34 32ND AVE.
BLOCK 4943 LOT 36 1–STY. BRK. BLDG. 133–10 32ND AVE.
BLOCK 4946 LOT 1 1–STY. BRK. BLDG. 133–30 32ND AVE.
ENTRANCE FACADE BLDG.
BLOCK 4943 LOT 15 1–STY. BRK. BLDG. 132–14/18 32ND AVE.
BLOCK 4404 LOT 29
BLOCK 4406 LOT 149
BLOCK 4406 LOT 9
BLOCK 4406 LOT 142 133–47 32ND AVE.
BLOCK 4406 LOT 30 31–24 FARRINGTON STREET
BLOCK 4408 LOT 1 31–39 FARRINGTON STREET
BLOCK 4946 LOT 6 133–50 32ND AVE.
BLOCK 4948 LOT 1 134–02 32ND AVE.
BLOCK 4948 LOT 5 134–10 32ND AVE.
BLOCK 4948 LOT 9 134–22 32ND AVE.
BLOCK 4950 LOT 48 32–02 LINDEN PLACE
FARRINGTON STREET
LINDEN PLACE
MILLER STREET
REGULATOR TI-R09
17.35' SLIDING GATE
8' BARBED WIRE
2–STORY BRICK BUILDING C.L.F.
2–STORY BRICK BUILDING
2–STORY BRICK BUILDING
2–STORY BRICK BUILDING
ENTRANCE FACADE BLDG.
1–STY. BRK. BLDG.
1–STY. BRK. BLDG.
1–STY. BRK.



DEMOLITION SITE PLAN I

SCALE: 1" = 40'-0"



DEMOLITION SITE PLAN II

SCALE: 1" = 40'-0"

KEY NOTES:

A. DEMOLISH SIDEWALK.

B. DEMOLISH CURB.

C. DEMOLISH PAVEMENT.

D. DEMOLISH FENCE.

E. DEMOLISH VEGETATION.

LEGEND:

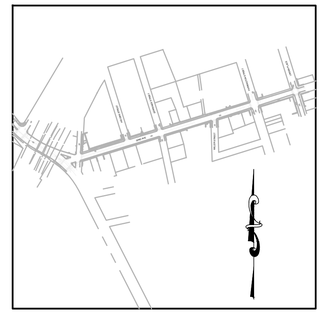
DENOTES PAVEMENT TO BE DEMOLISHED

DENOTES SIDEWALK AND CONCRETE CURB TO BE DEMOLISHED

DENOTES VEGETATION (INCLUDING TREES) TO BE DEMOLISHED

NOTES:

1. INFORMATION SHOWN IS BASED ON FIELD SURVEY PROVIDED BY MATRIX NEW WORLD ENGINEERING, LAND SURVEYING AND LANDSCAPE ARCHITECTURE, PC, PERFORMED 2020-2021, AND BY MUNOZ, PERFORMED 2024.
2. THE UNDERGROUND UTILITY LOCATIONS ARE NOT GUARANTEED NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES, EITHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT AREAS ARE IDENTIFIED ON THIS MAP. EXACT LOCATIONS MUST BE FIELD MARKED BY THE RESPECTIVE UTILITY OWNERS PRIOR TO WORK.
3. THE LOCATION OF UNDERGROUND UTILITIES ARE BASED ON ABOVE GROUND FEATURES AND AVAILABLE DATA PROVIDED BY THE RESPECTIVE UTILITY OWNERS. LOCATIONS OF UNDERGROUND UTILITY AND STRUCTURES MAY VARY FROM LOCATIONS SHOWN. ADDITIONAL BURIED UTILITIES AND STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATION OR SUBSURFACE INVESTIGATIONS WERE PERFORMED.
4. CONTRACTOR SHALL FIELD VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.



SITE MAP

SCALE: N.T.S

1"=40' 0 40 80 FT.

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

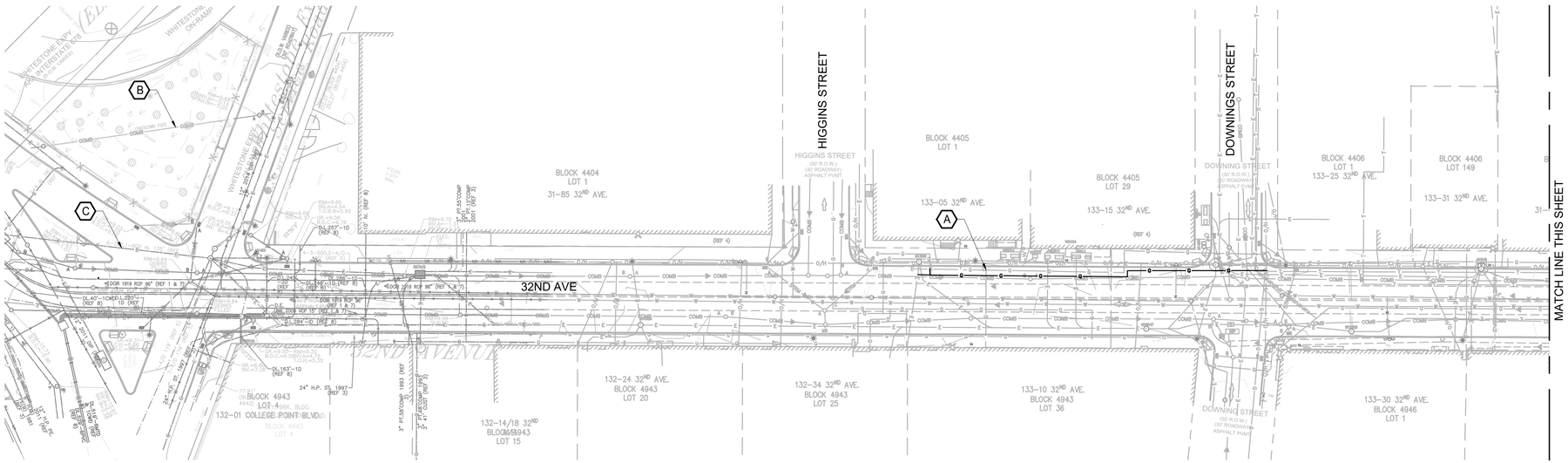
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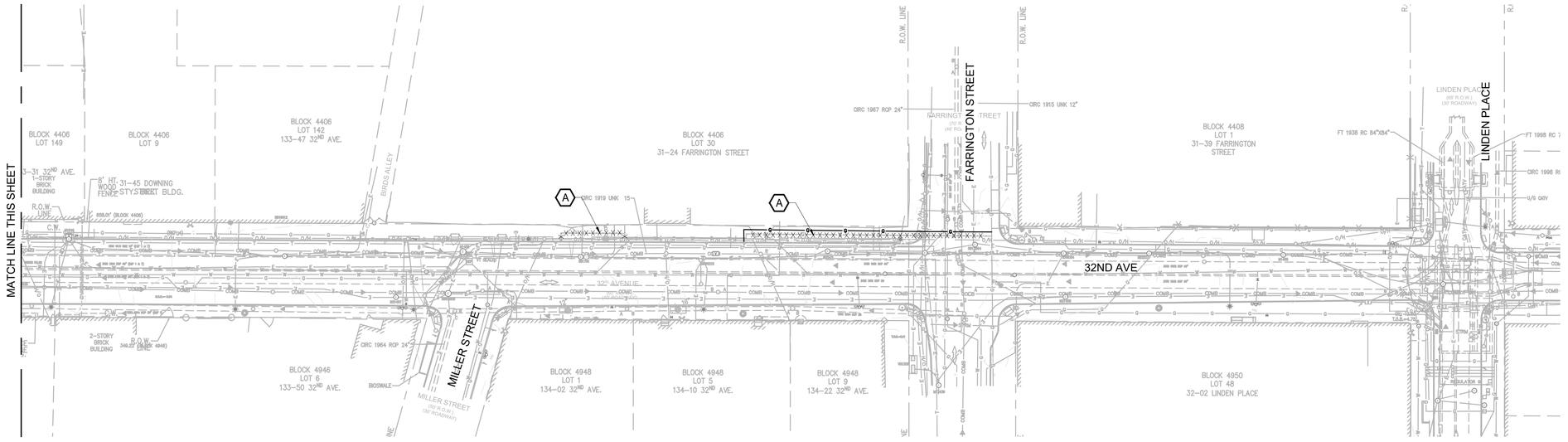
TI-011 DISINFECTION FACILITY
SITE DEMO PLAN

DATE: NOVEMBER 2026
SHEET NO: ##
DRAWING NO. C-402.00



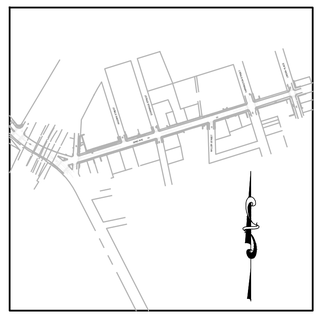
UTILITY DEMO AND RELOCATION PLAN I

SCALE: 1" = 40'-0"



UTILITY DEMO AND RELOCATION PLAN II

SCALE: 1" = 40'-0"



SITE MAP

SCALE: N.T.S

1"=40' 0 40 80 FT.

KEY NOTES:

A. NATURAL GAS MAIN TO BE RELOCATED OR SUPPORTED DURING CONSTRUCTION, CONTRACTOR TO COORDINATE WITH NATIONAL GRID PRIOR TO CONSTRUCTION ACTIVITIES.

B. COMBINED SEWER TO BE RELOCATED DURING CONSTRUCTION ACTIVITIES. CONTRACTOR TO COORDINATE WITH BWSO PRIOR TO DEMOLITION ACTIVITIES AS TO NOT ELIMINATE ACTIVE SERVICES.

C. FIELD VERIFY DEPTH OF EXISTING ELECTRICAL LINE AND RELOCATE IF NECESSARY FOR PLACEMENT OF SODIUM BISULFITE CHEMICAL PIPING.

NOTES:

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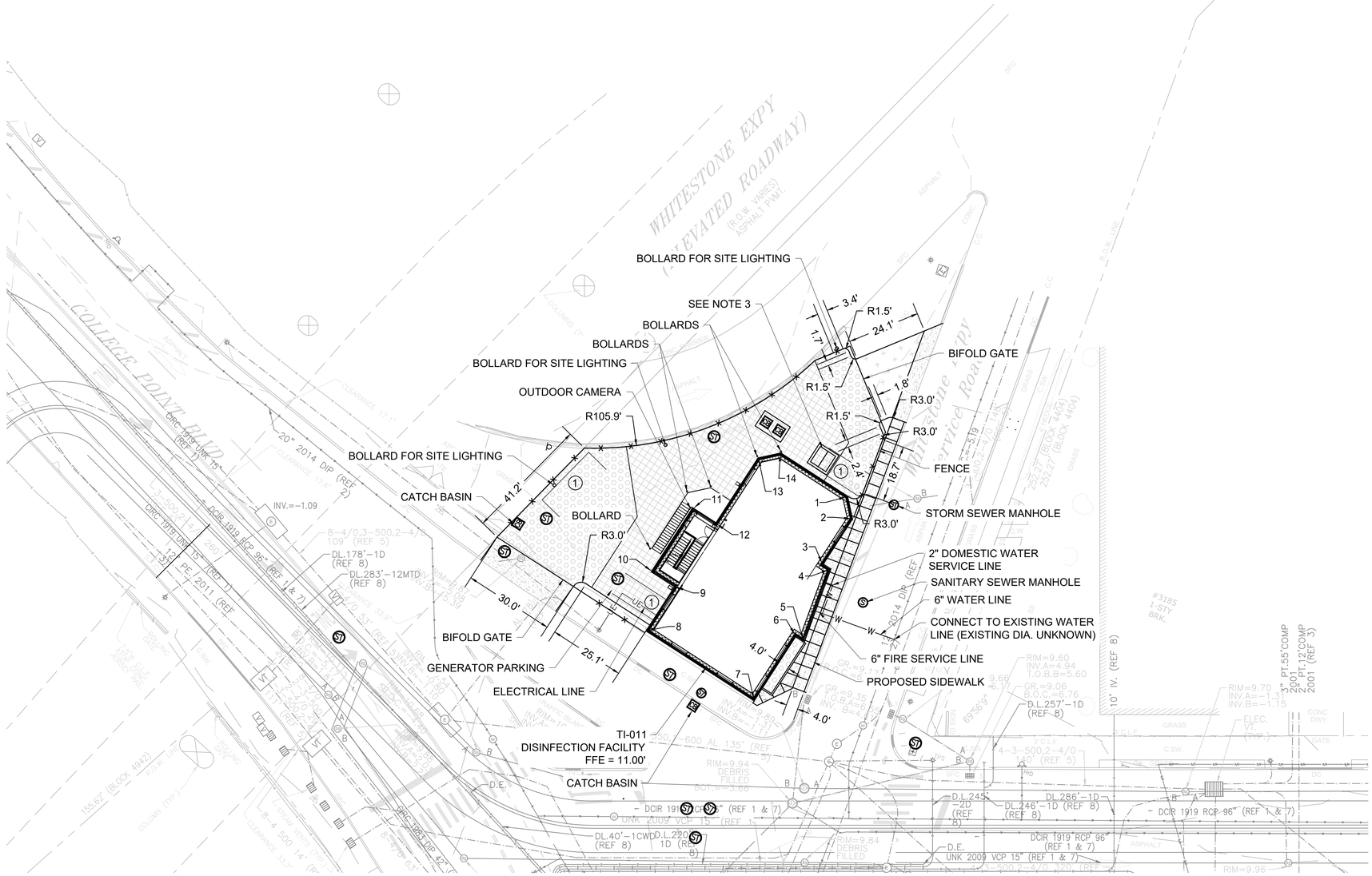
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION FACILITY
UTILITY DEMO AND RELOCATION PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-403.00



PROPOSED SITE PLAN

SCALE: 1" = 20'-0"

LEGEND:

- PROPOSED POROUS PAVER PANEL
- PROPOSED TRUCK CONTAINMENT
- PROPOSED CONCRETE
- PROPOSED ASPHALT

NOTES:

1. VERTICAL DATUM - NAVD88 AND HORIZONTAL DATUM - NY EAST NAD83 STATE PLANE COORDINATE SYSTEM.
2. THESE CONTROL POINTS MAY BE DESTROYED ONCE CONSTRUCTION BEGINS AND ARE PROVIDED FOR CONTRACTOR PLANNING AND REFERENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING SURVEY CONTROL POINTS PRIOR TO CONSTRUCTION.
3. PROPOSED VALVE OPERATOR BELOW GRADE. SEE SPECIFICATIONS.

POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	218655.4725	1029198.5436	BUILDING CORNER
2	218648.9857	1029202.1548	BUILDING CORNER
3	218631.6737	1029197.2248	BUILDING CORNER
4	218630.8688	1029200.0513	BUILDING CORNER
5	218605.6652	1029198.7214	BUILDING CORNER
6	218606.5497	1029195.6155	BUILDING CORNER
7	218582.2651	1029188.6999	BUILDING CORNER
8	218593.7968	1029148.2057	BUILDING CORNER
9	218610.4938	1029152.9606	BUILDING CORNER
10	218612.9958	1029144.1745	BUILDING CORNER
11	218636.8181	1029150.9584	BUILDING CORNER
12	218634.3161	1029159.7445	BUILDING CORNER
13	218659.0567	1029166.7900	BUILDING CORNER
14	218662.6679	1029173.2768	BUILDING CORNER

1"=20' 0 20 40 FT.

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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

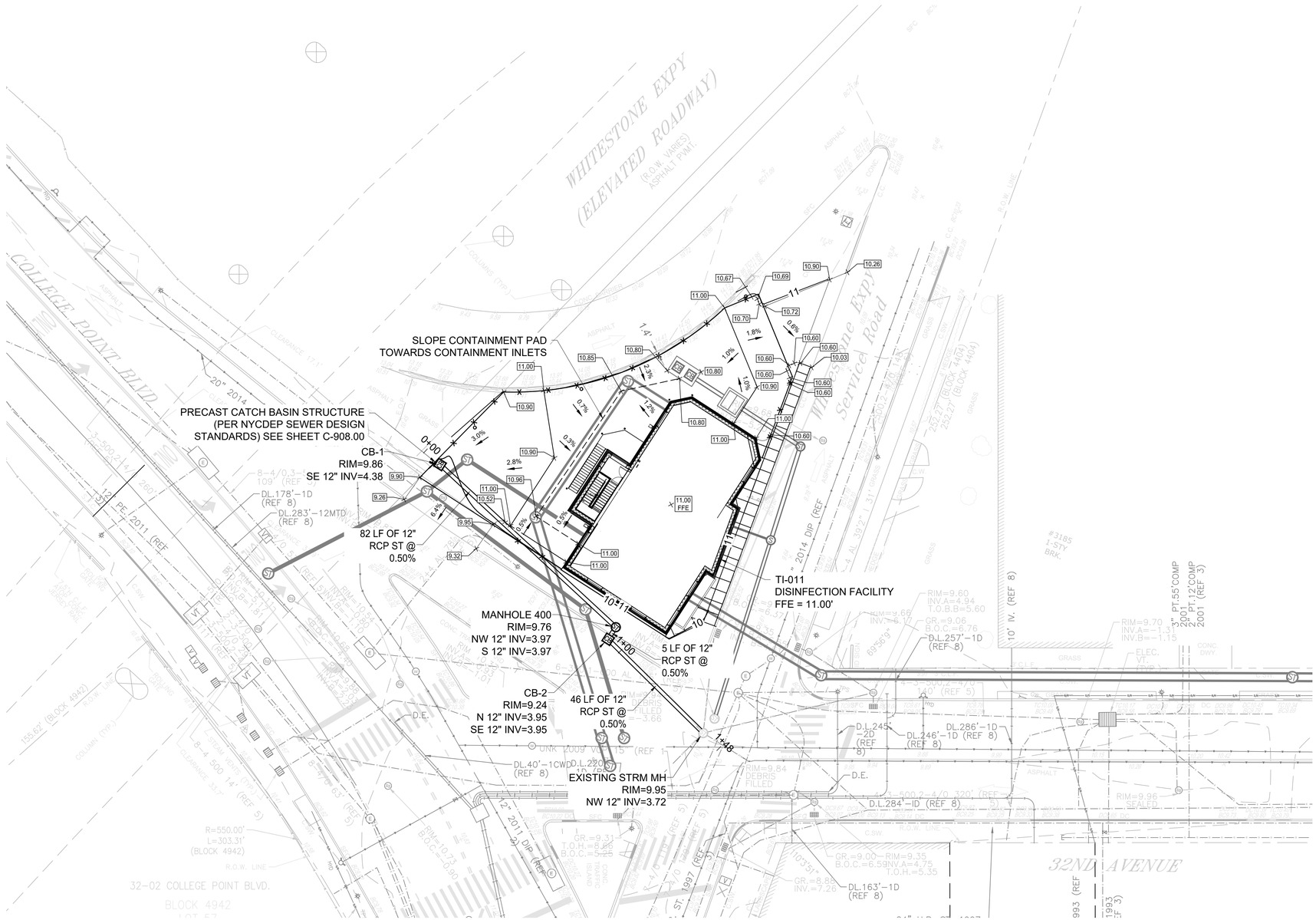
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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION FACILITY
PROPOSED SITE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-404.00



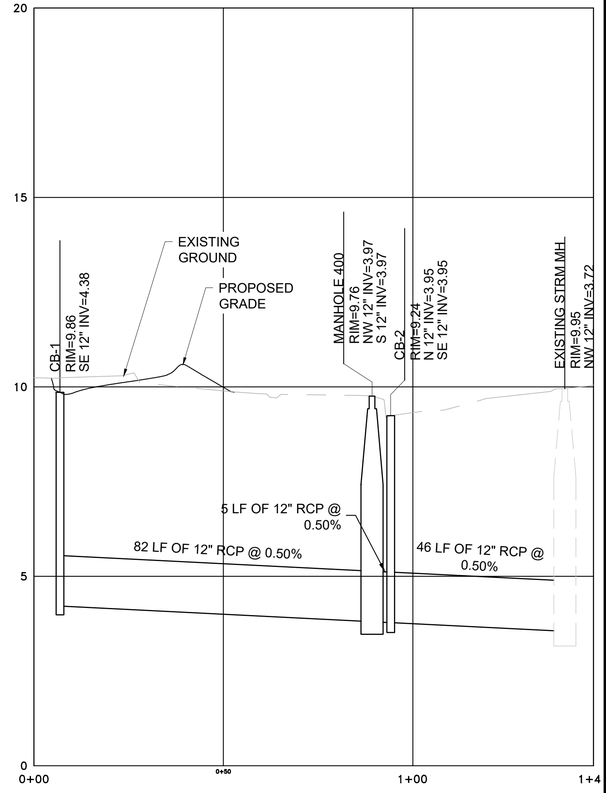
SITE GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'-0"

NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.

TI-011 STORM SEWER STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
CB-1	24"	9.86	SE 12" 4.38	218615.19	1029097.25
MANHOLE 400	60"	9.76	NW 12" 3.97 S 12" 3.97	218579.37	1029171.42
CB-2	24"	9.24	N 12" 3.95 SE 12" 3.95	218574.64	1029170.12
EXISTING STRM MH	60"	9.95	NW 12" 3.72	218553.35	1029210.84



STORM SEWER PROFILE

SCALE: HORIZONTAL 1" = 20'-0"
SCALE: VERTICAL 1" = 2'-0"

1"=20' 0 20 40 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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WADE TRIM

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NYC Environmental Protection

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DIRECTOR, IN HOUSE DESIGN

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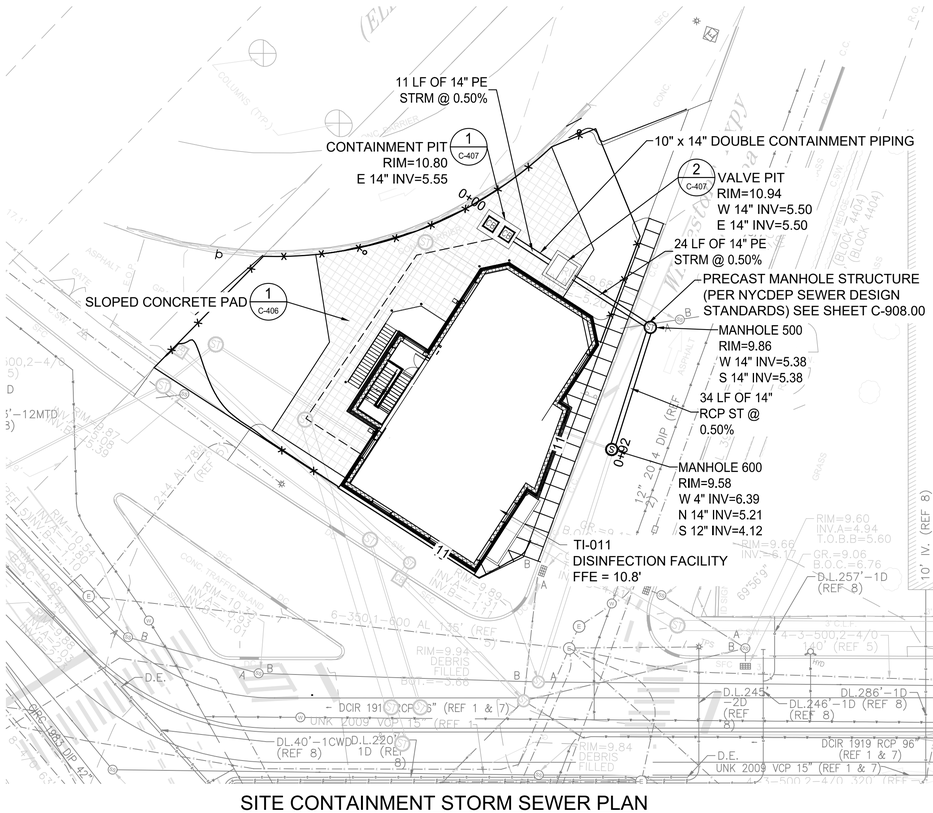
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION FACILITY
SITE GRADING AND DRAINAGE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-405.00

TI-011 CONTAINMENT STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
CONTAINMENT PIT	6'x10'	10.80	E 14" 5.55	218670.46	1029168.26
VALVE PIT	7.7'x7.7'	10.94	W 14" 5.50 E 14" 5.50	218665.00	1029187.31
MANHOLE 500	48"	9.86	W 14" 5.38 S 14" 5.38	218657.40	1029214.02
MANHOLE 600	48"	9.58	W 4" 6.39 N 14" 5.21 W 12" 4.12	218623.58	1029213.71

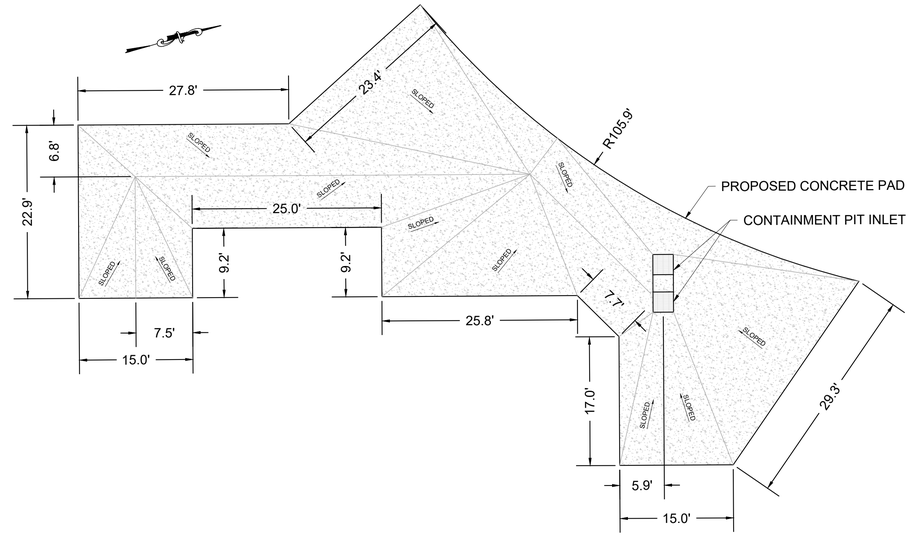


SITE CONTAINMENT STORM SEWER PLAN

SCALE: 1" = 20'-0"

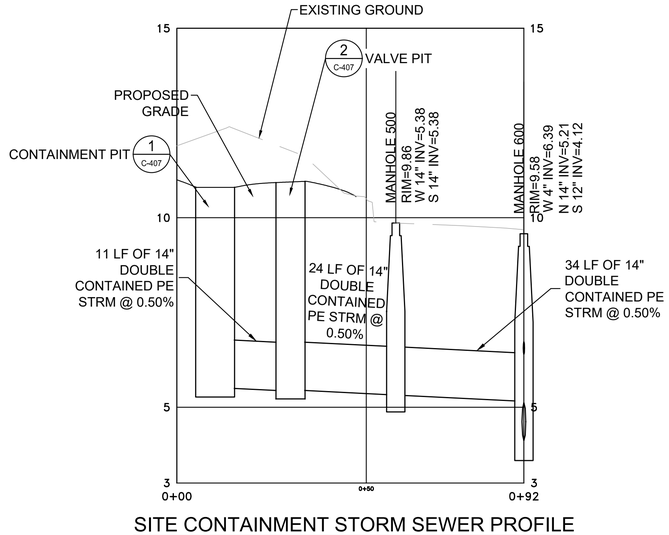
NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.



1 C-306.00 SLOPED CONCRETE PAD

SCALE: 1" = 10'



SITE CONTAINMENT STORM SEWER PROFILE

SCALE: HORIZONTAL 1" = 20'-0"
VERTICAL 1" = 2'-0"

1"=20' 0 20 40 FT.

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STATE OF NEW YORK · IVANA NITZOVA · 095133 · LICENSED PROFESSIONAL ENGINEER

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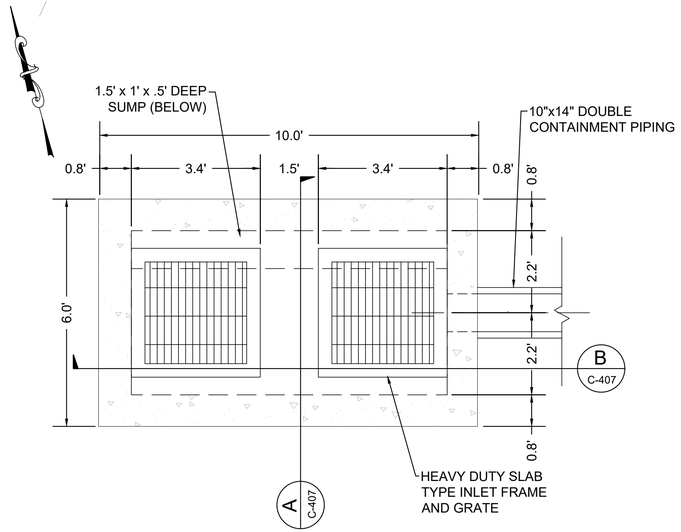
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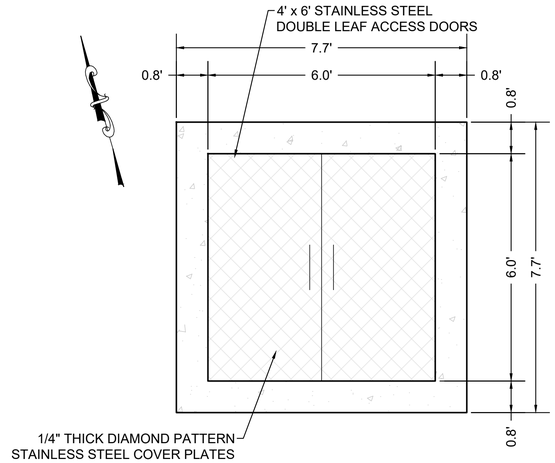
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

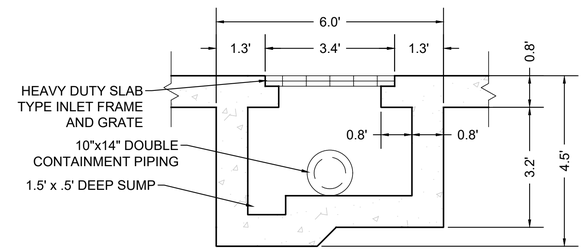
TI-011 DISINFECTION FACILITY
SITE CONTAINMENT STORM SEWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-406.00

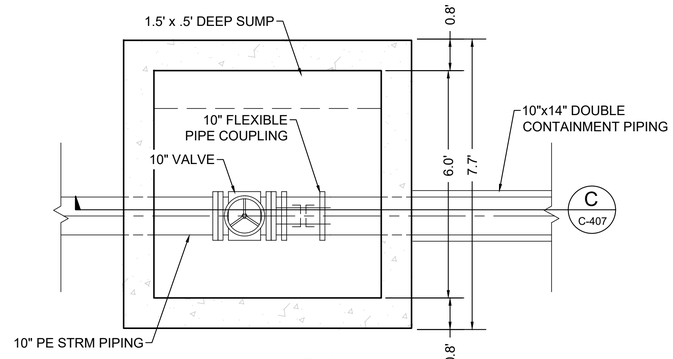




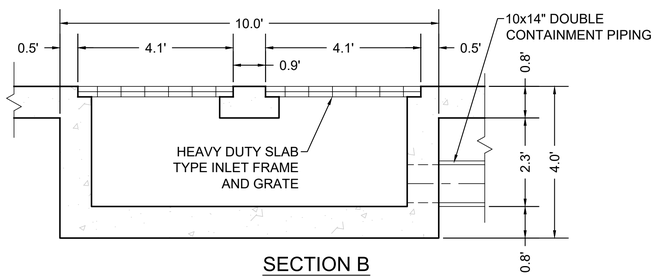
ROOF PLAN
SCALE: 6" = 1'-0"



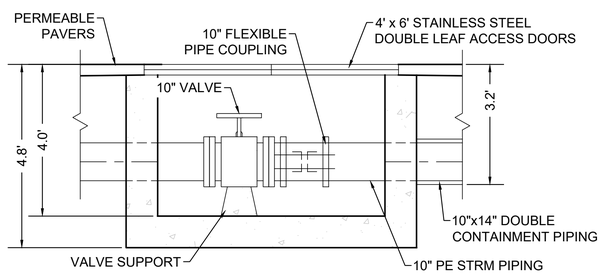
SECTION A
SCALE: 6" = 1'-0"



PLAN
SCALE: 6" = 1'-0"



SECTION B
SCALE: 1" = 2'-0"



SECTION C
SCALE: 1" = 2'-0"

1 C-407.00 TI-011 CONTAINMENT PIT 1 DETAIL
SCALE: 6" = 1'-0"

2 C-407.00 TI-011 VALVE PIT DETAIL
SCALE: 6" = 1'-0"

0 20 40 FT.
1"=20'

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WADE TRIM

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Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

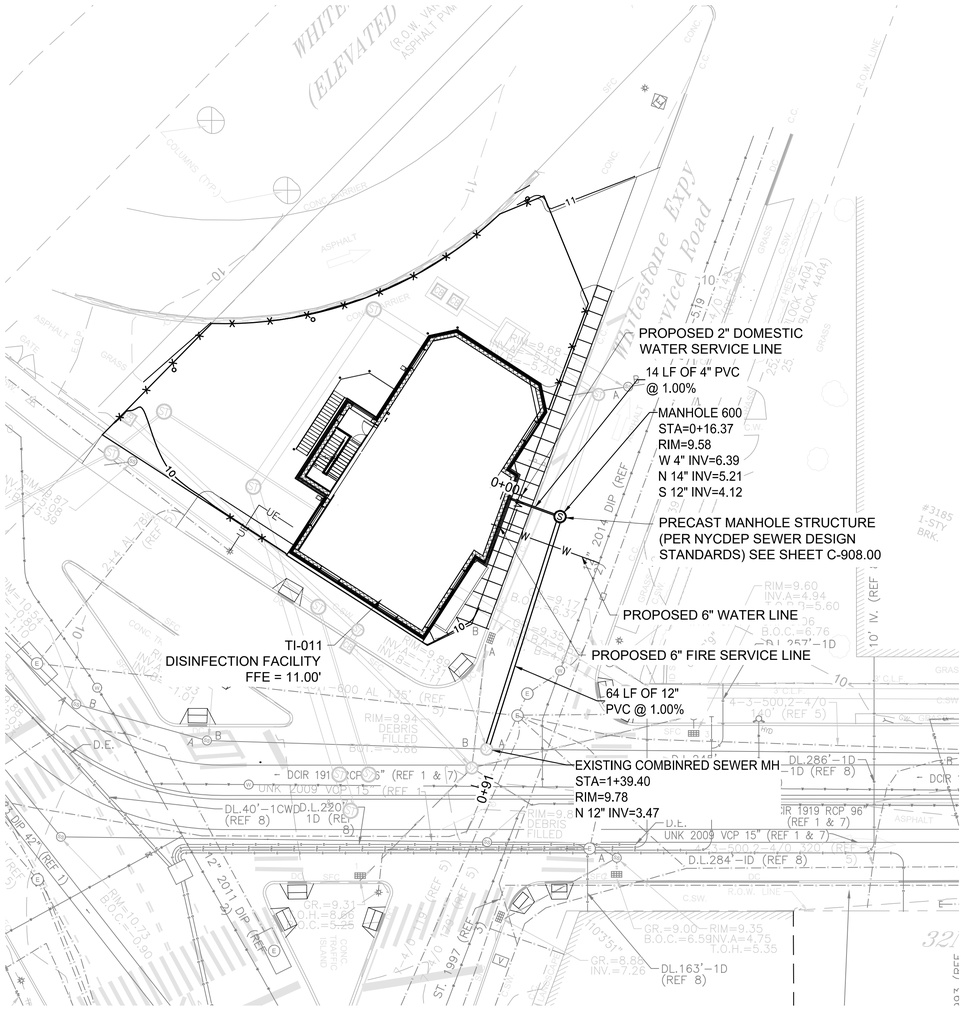
TI-011 DISINFECTION FACILITY
SITE CONTAINMENT STORM SEWER DETAILS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-407.00

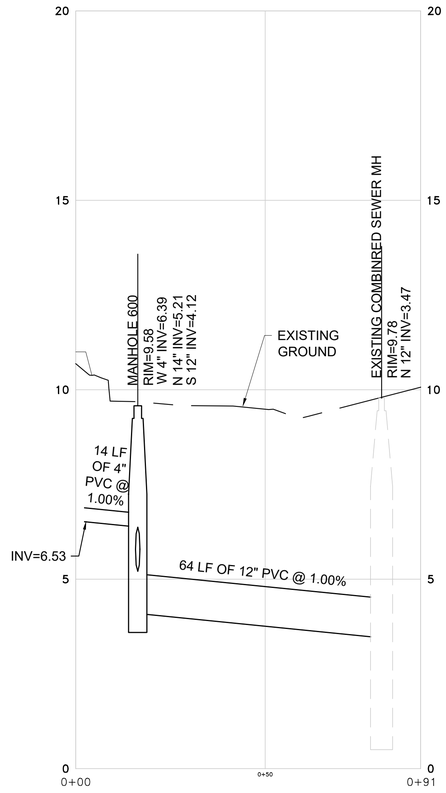
NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.

TI-011 SANITARY SEWER STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
TI-011 DISINFECTION FACILITY	N/A	N/A	E 4" 6.53	218624.41	1029197.36
MANHOLE 600	48"	9.58	S 4" 6.39 W 14" 5.21 N 12" 4.12	218623.58	1029213.71
EXISTING STRM MH	60"	9.78	N 12" 3.47	218559.23	1029213.12



PROPOSED SITE PLAN
SCALE: 1" = 20'-0"



PROPOSED SANITARY SEWER PROFILE
SCALE: HORIZONTAL 1" = 20'-0"
VERTICAL 1" = 2'-0""

1"=20' 0 20 40 FT.

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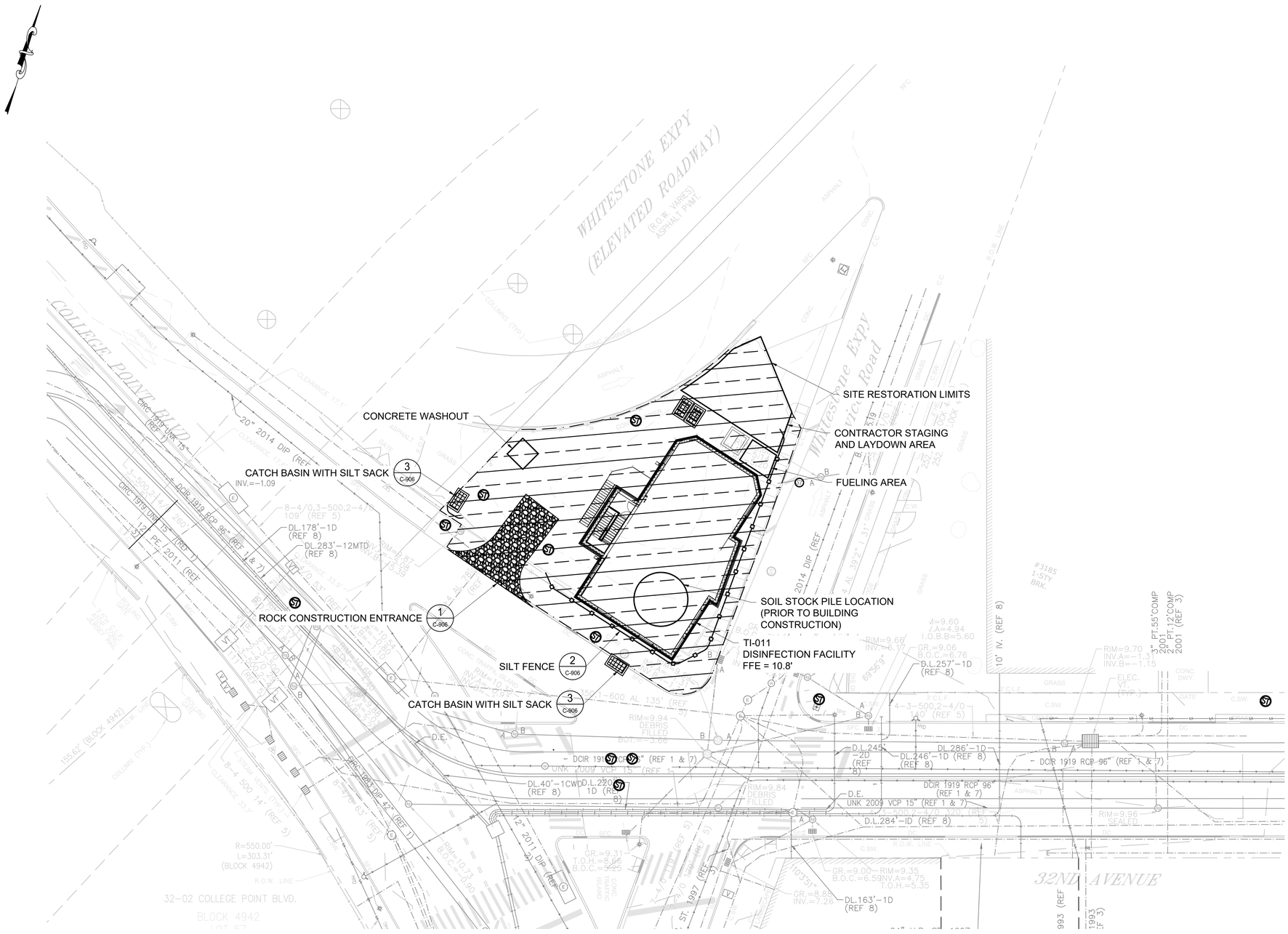
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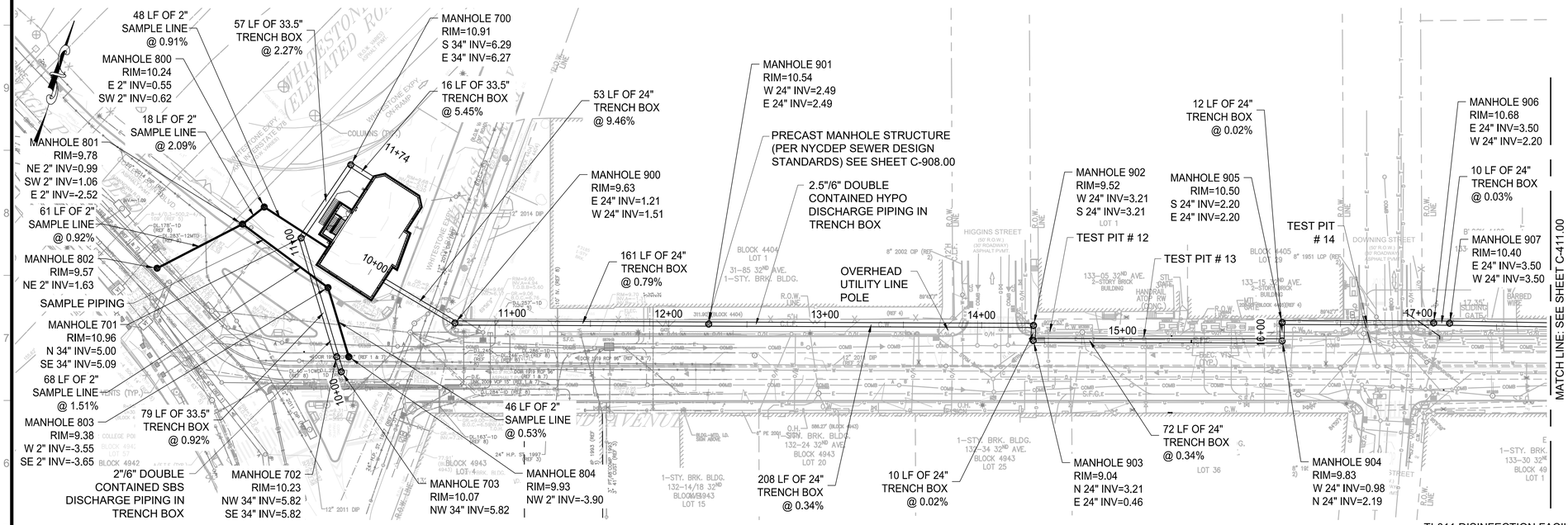
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION FACILITY
PROPOSED SANITARY SEWER PLAN AND PROFILE

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-408.00


WHITESTONE EXPY
(ELEVATED ROADWAY)
(R.O.W. VARIES)
ASPHALT PVMT.
COLLEGE POINT BLVD
Whitestone Expy
Service Road
32ND AVENUE
SITE RESTORATION LIMITS
CONCRETE WASHOUT
CONTRACTOR STAGING AND LAYDOWN AREA
CATCH BASIN WITH SILT SACK
INV.=−1.09
3
C-906
FUELING AREA
SOIL STOCK PILE LOCATION (PRIOR TO BUILDING CONSTRUCTION)
ROCK CONSTRUCTION ENTRANCE
1
C-906
TI-011
DISINFECTION FACILITY
FFE = 10.8'
SILT FENCE
2
C-906
CATCH BASIN WITH SILT SACK
3
C-906
20" 2014 DIP (REF
CIRC. RCP, UNK 15"
(REF 1)
DCIR 1919 RCP 96" (REF 1 & 7)
DL.178'−1D
(REF 8)
DL.283'−12MTD
(REF 8)
12" PE, 2011 (REF
DCIR 1919 RCP 96"
(REF 1 & 7)
UNK 2009 VCP 15"
(REF 1 & 7)
DL.40'−1CWD
(REF 8)
DL.220'−1D
(REF 8)
DL.245'−2D
(REF 8)
DL.246'−1D (REF 8)
DL.286'−1D
(REF 8)
DL.257'−1D
(REF 8)
DL.284'−1D (REF 8)
DL.163'−1D
(REF 8)
10" IV. (REF 8)
3" PT.55 COMP
2" PT.12'COMP
2001 (REF 3)
#3185
1-5TV
BRK.
RIM=9.66
INV.=6.17
RIM=9.70
INV.A=−1.35
INV.B=−1.15
RIM=9.94
DEBRIS
FILLED
BOT.=3.68
RIM=9.84
DEBRIS
FILLED
RIM=9.96
SEALED
GR.=9.06
B.O.C.=5.76
GR.=9.00
RIM=9.35
B.O.C.=6.59
INV.A=4.79
T.O.H.=5.35
GR.=9.31
T.O.H.=8.66
B.O.C.=5.25
GR.=8.85
INV.=7.26
R=550.00'
L=303.31'
(BLOCK 4942)
155.62' (BLOCK 4942)
32−02 COLLEGE POINT BLVD.
BLOCK 4942
LOT 57
R.O.W. LINE
PROP. LINE
CONC.
ASPHALT
GRASS
C.S.W.
D.E.
SEC
DC
CLEARANCE 17.1'
CLEARANCE 33.9'
CLEARANCE 33.3'
CLEARANCE 33.2'
CLEARANCE 33.7'
CLEARANCE 33.8'
CLEARANCE 33.9'
CLEARANCE 33.6

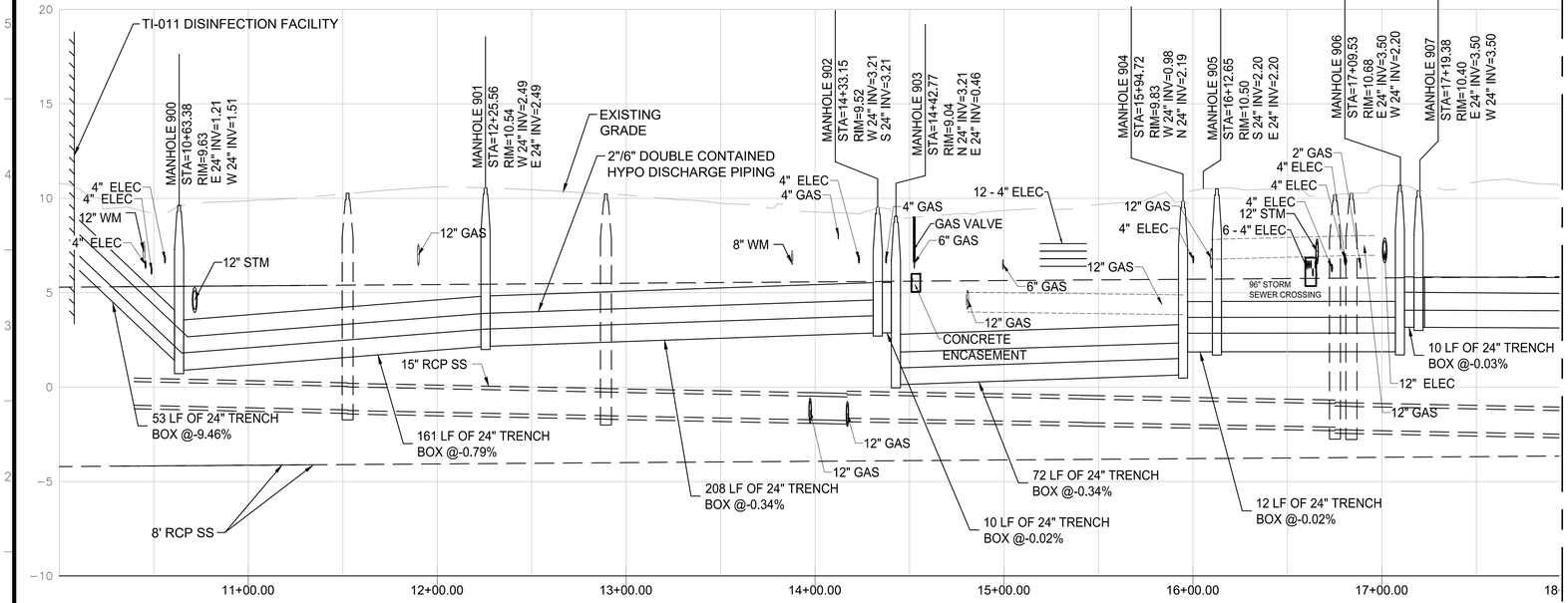


PROPOSED SITE PLAN

SCALE: 1" = 40'-0"

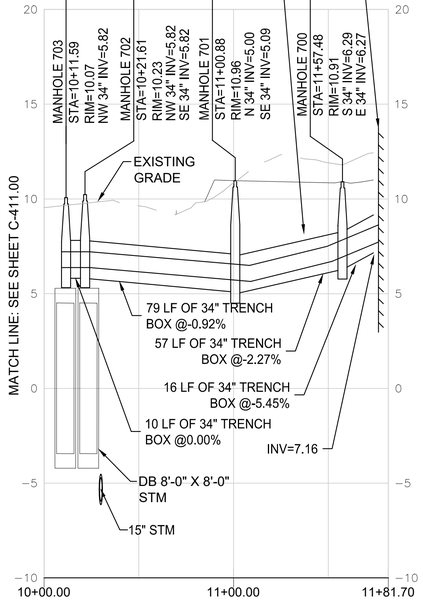
NOTES:

1. CONTRACTOR TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION.
2. DOUBLE CONTAINMENT PIPING SHOULD BE INSTALLED SUCH THAT ANY JOINTS ARE LOCATED TOWARD THE MIDDLE OF EACH TRENCH BOX, KEEPING AT LEAST 12" AWAY FROM THE END OF THE TRENCH BOX.
3. CONTRACTOR TO COORDINATE WITH FLOATABLES CONTRACT FOR AS-BUILT LOCATIONS OF RELOCATED GAS LINES SOUTH OF REGULATOR TI-R09.
4. SUGGESTED SEQUENCE OF CONSTRUCTION AT EXISTING CULVERTS: BREAK INTO CULVERT AT MANHOLE LOCATION. ISOLATE CULVERT VIA TEMPORARY BULKHEADS UPSTREAM AND DOWNSTREAM. PUMP AROUND BULKHEAD AREA AND DEWATER. INSTALL CHEMICAL EQUIPMENT. INSTALL MANHOLES AND PIPING. REMOVE BULKHEADS. REPEAT SEQUENCE FOR SUBSEQUENT CULVERTS.
5. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.
6. ELECTRICAL AND GAS UTILITIES SHOWN IN CONFLICT WITH THE PROPOSED TRENCH BOX ARE ANTICIPATED TO BE RELOCATED BY CONSOLIDATED EDISON PRIOR TO PIPELINE CONSTRUCTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH CONSOLIDATED EDISON.



PROPOSED HYPO DISCHARGE PROFILE

SCALE: HORIZONTAL 1" = 40'-0"
VERTICAL 1" = 4'-0"



PROPOSED SBS PROFILE

SCALE: HORIZONTAL 1" = 40'-0"
VERTICAL 1" = 4'-0"

1"=40' 0 40 80 FT.

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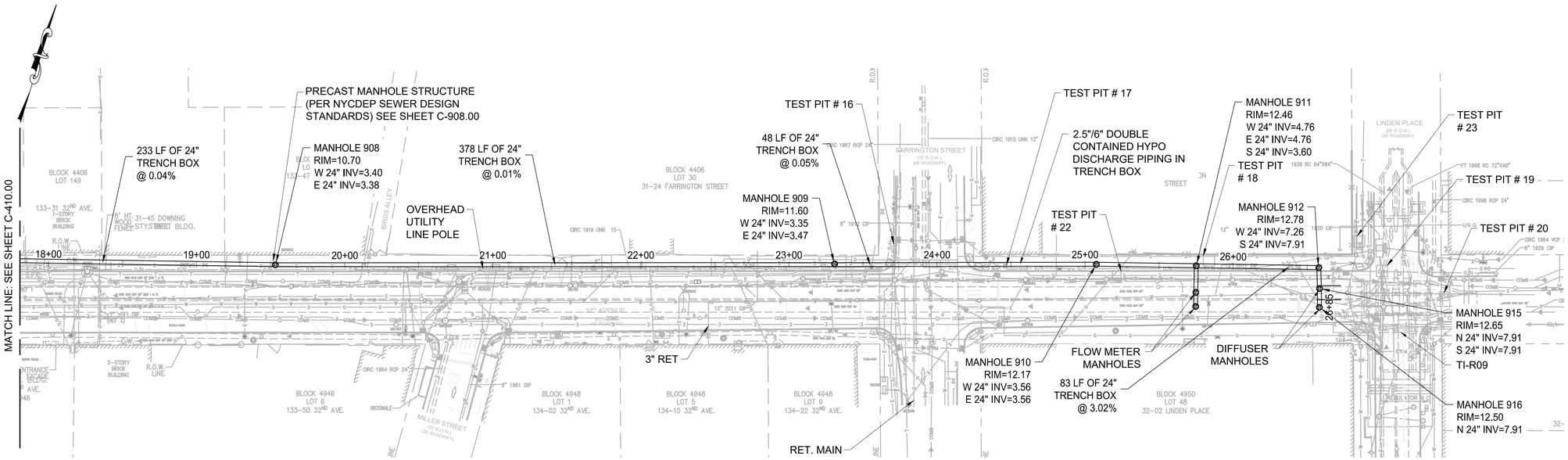
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

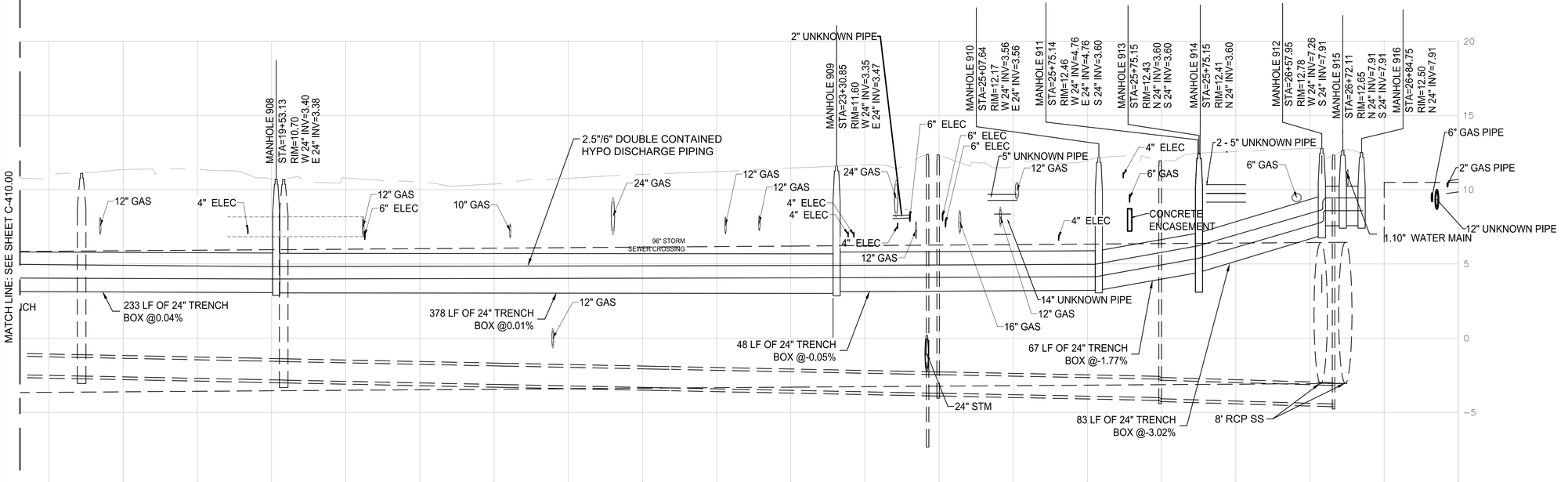
TI-011 DISINFECTION
PROPOSED PLAN AND PROFILE I

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-410.00



PROPOSED SITE PLAN II

SCALE: 1" = 40'-0"



PROPOSED HYPO DISCHARGE PROFILE II

SCALE: HORIZONTAL 1" = 40'-0"
VERTICAL 1" = 4'-0"

NOTES:

1. CONTRACTOR TO FIELD VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION.
2. DOUBLE CONTAINMENT PIPING SHOULD BE INSTALLED SUCH THAT ANY JOINTS ARE LOCATED TOWARD THE MIDDLE OF EACH TRENCH BOX, KEEPING AT LEAST 12" AWAY FROM THE EDGE OF THE TRENCH BOX.
4. SUGGESTED SEQUENCE OF CONSTRUCTION AT EXISTING CULVERTS: BREAK INTO CULVERT AT MANHOLE LOCATION. ISOLATE CULVERT VIA TEMPORARY BULKHEADS UPSTREAM AND DOWNSTREAM. PUMP AROUND BULKHEAD AREA AND DEWATER. INSTALL CHEMICAL EQUIPMENT. INSTALL MANHOLES AND PIPING. REMOVE BULKHEADS. REPEAT SEQUENCE FOR SUBSEQUENT CULVERTS.
5. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.

0 40 80 FT.
1"=40'

BID SET
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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION
PROPOSED PLAN AND PROFILE II

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. C-411.00

TI-011 HYPO DISCHARGE STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
TI-011 DISINFECTION FACILITY	N/A	N/A	E 24" 6.76	218597.65	1029190.01
MANHOLE 900	48"	9.63	E 24" 1.21 W 24" 1.51	218584.23	1029243.87
MANHOLE 901	48"	10.54	W 24" 2.49 E 24" 2.49	218631.00	1029399.16
MANHOLE 902	48"	9.52	W 24" 3.21 S 24" 3.21	218690.87	1029597.93
MANHOLE 903	48"	9.04	N 24" 3.21 E 24" 0.46	218681.61	1029600.52
MANHOLE 904	48"	9.83	W 24" 0.98 N 24" 2.19	218725.72	1029745.92
MANHOLE 905	48"	10.50	S 24" 2.20 E 24" 2.20	218739.08	1029749.31
MANHOLE 906	48"	10.68	W 24" 2.20 E 24" 3.50	218767.15	1029842.04
MANHOLE 907	48"	10.40	E 24" 3.50 W 24" 3.50	218767.55	1029852.66
MANHOLE 908	48"	10.70	W 24" 3.40 E 24" 3.38	218834.61	1030075.79
MANHOLE 909	48"	11.60	W 24" 3.35 E 24" 3.47	218988.48	1030849.97
MANHOLE 910	48"	12.17	W 24" 3.56 E 24" 3.56	218997.04	1030605.97
MANHOLE 911	48"	12.46	W 24" 4.76 E 24" 4.76 S 24" 3.60	219015.84	1030670.80
MANHOLE 912	48"	12.78	W 24" 7.26 S 24" 7.91	219038.83	1030750.36
MANHOLE 913	48"	12.43	N 24" 3.60 S 24" 3.60	218998.56	1030675.81
MANHOLE 914	48"	12.41	N 24" 3.60	218989.44	1030678.46
MANHOLE 915	48"	12.65	N 24" 7.91 S 24" 7.91	219025.42	1030754.91
MANHOLE 916	48"	12.50	N 24" 7.91	219013.31	1030758.55

TI-011 SBS STRUCTURE TABLE					
STRUCTURE	SIZE	RIM	INVERTS	NORTHING	EASTING
MANHOLE 700	48"	10.53	S 24" 6.29 E 24" 6.27	218661.53	1029150.69
MANHOLE 701	48"	10.98	SE 24" 5.09	218607.45	1029133.98
MANHOLE 702	48"	10.23	NW 24" 5.82 SE 24" 5.82	218541.47	1029177.93
MANHOLE 703	48"	10.07	NW 24" 5.82	218533.17	1029183.53
TI-011 DISINFECTION FACILITY	N/A	N/A	W 24" 6.99	218658.00	1029163.44

0 40 80 FT.
1"=40'

BID SET
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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK · IVANA NITZOVA · 095133 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

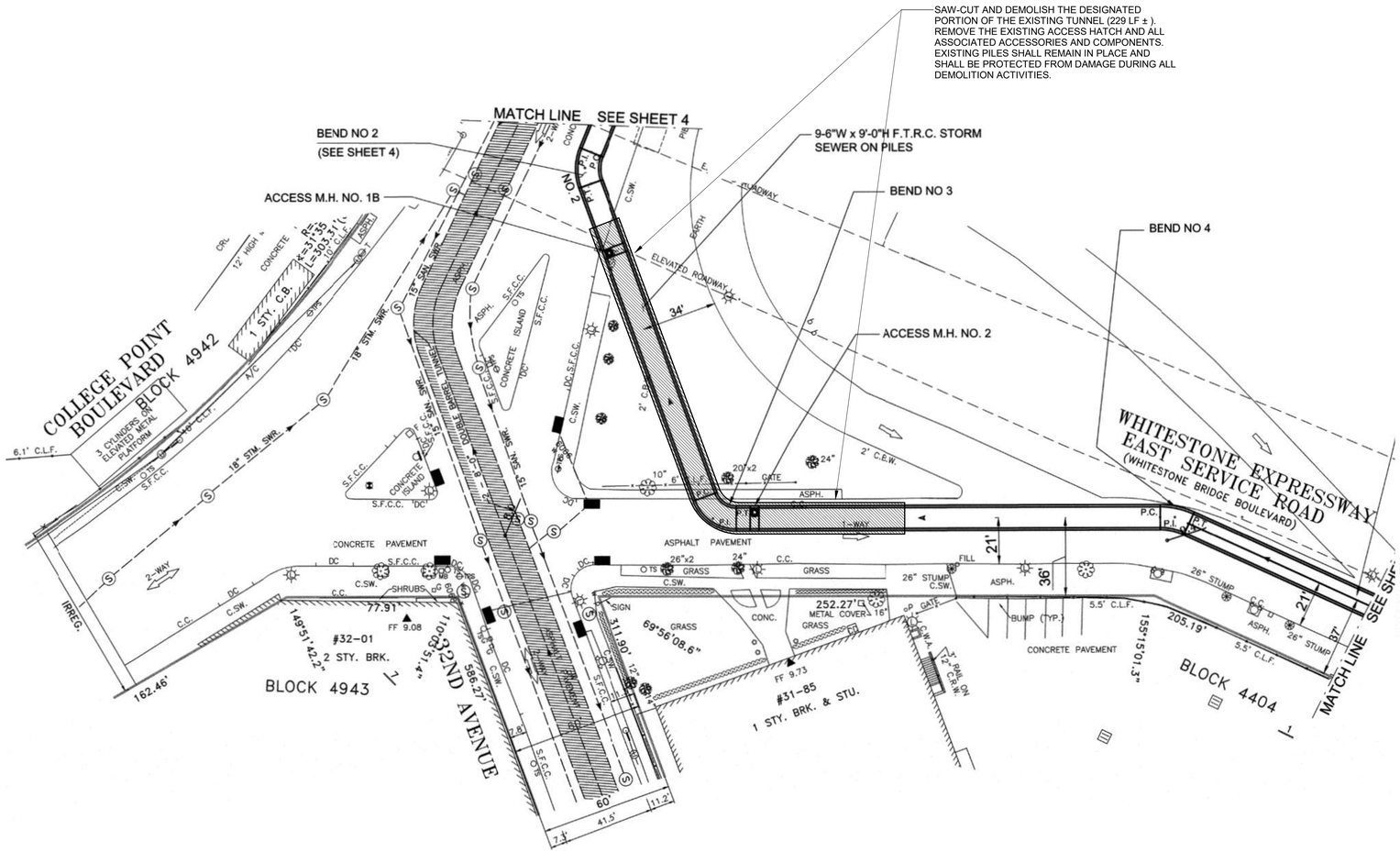
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-011 DISINFECTION STRUCTURE TABLES

DATE: NOVEMBER 2026
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STORM SEWER DEMOLITION PLAN

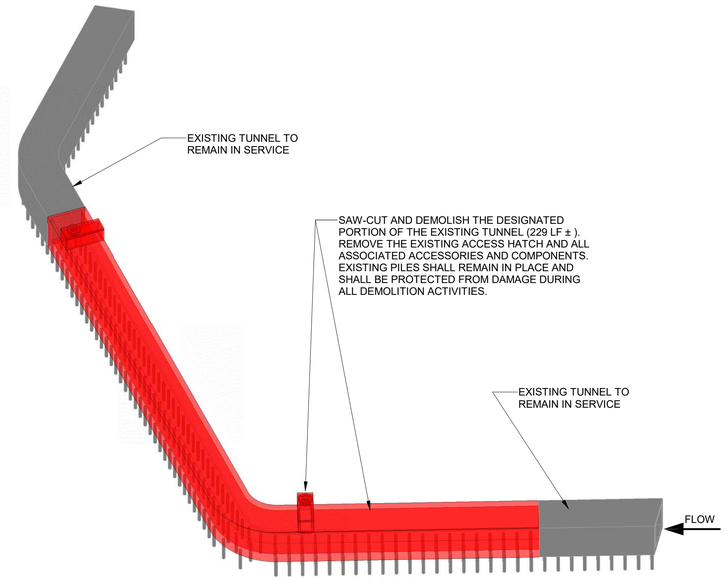
SCALE: N.T.S.

NOTES:

1. CONTRACTOR SHALL MAINTAIN CONTINUOUS STORM SEWER SERVICE THROUGHOUT ALL DEMOLITION AND CONSTRUCTION ACTIVITIES. NO INTERRUPTION OF FLOW SHALL BE PERMITTED.
2. CONTRACTOR SHALL SUBMIT A MAINTENANCE OF FLOW OPERATIONS (MOFO) PLAN FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF WORK. THE MOFO PLAN SHALL DESCRIBE THE PROPOSED SEQUENCING, TEMPORARY FLOW CONVEYANCE MEASURES, BYPASS PUMPING (IF REQUIRED), AND PROTECTION OF EXISTING FACILITIES NECESSARY TO MAINTAIN CONTINUOUS OPERATION OF THE STORM SEWER SYSTEM.
3. EXISTING TUNNEL SEGMENTS SHOWN FOR DEMOLITION SHALL NOT BE REMOVED UNTIL TEMPORARY OR PERMANENT MEASURES HAVE BEEN IMPLEMENTED TO MAINTAIN CONTINUOUS CONVEYANCE OF STORM FLOW TO THE SATISFACTION OF NYCDEP.
4. CONTRACTOR SHALL PREVENT FLOODING, SURCHARGING, OR BACKUP OF THE EXISTING STORM SEWER SYSTEM DURING ALL PHASES OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY WORK REQUIRED TO MAINTAIN SYSTEM OPERATION.

DEMO LEGEND

- EXISTING SEWER TO REMAIN IN SERVICE (3D VIEW)
- EXISTING SEWER TO BE REMOVED (3D VIEW)
- EXISTING SEWER TO BE REMOVED (2D PLAN VIEW)



EXISTING STORM SEWER PARTIAL DEMOLITION - 3D VIEW

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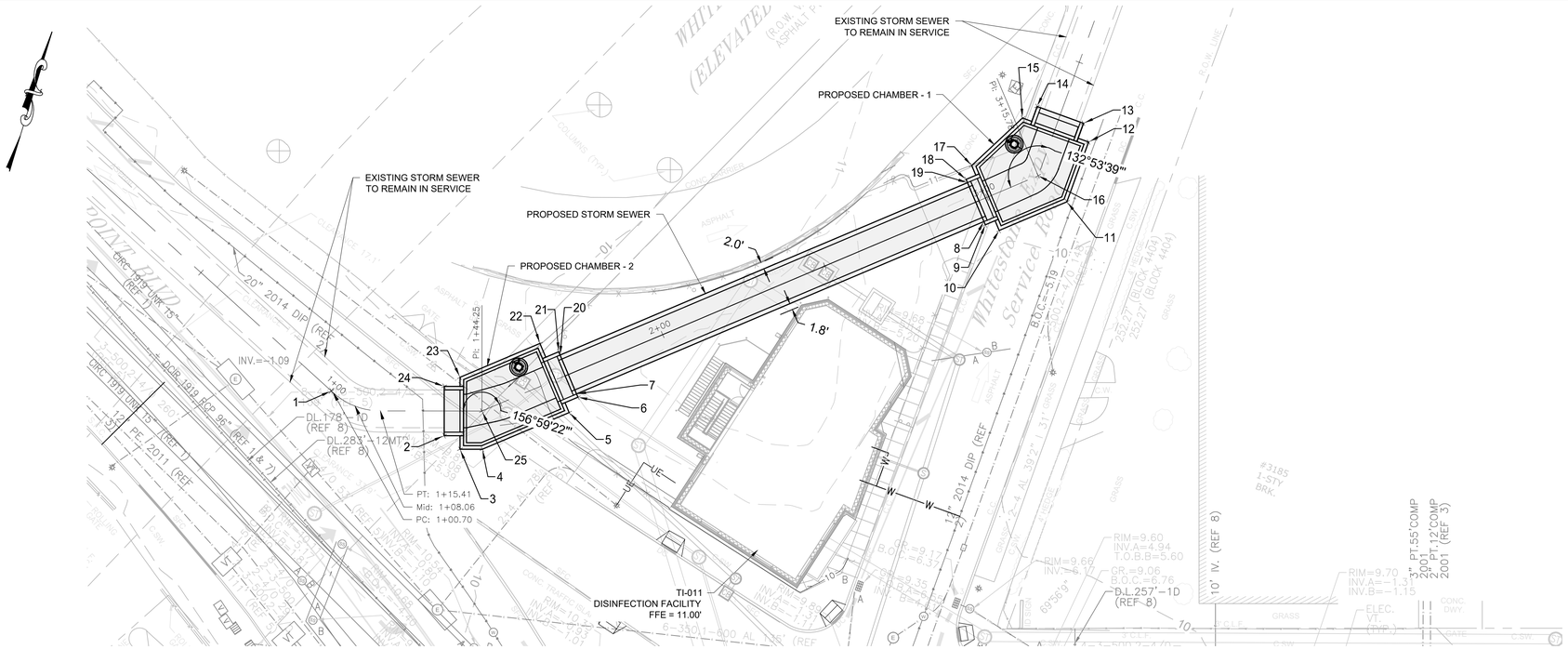
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STRUCTURAL
STORM SEWER DEMOLITION PLAN AND 3D VIEW

DATE: NOVEMBER 2026
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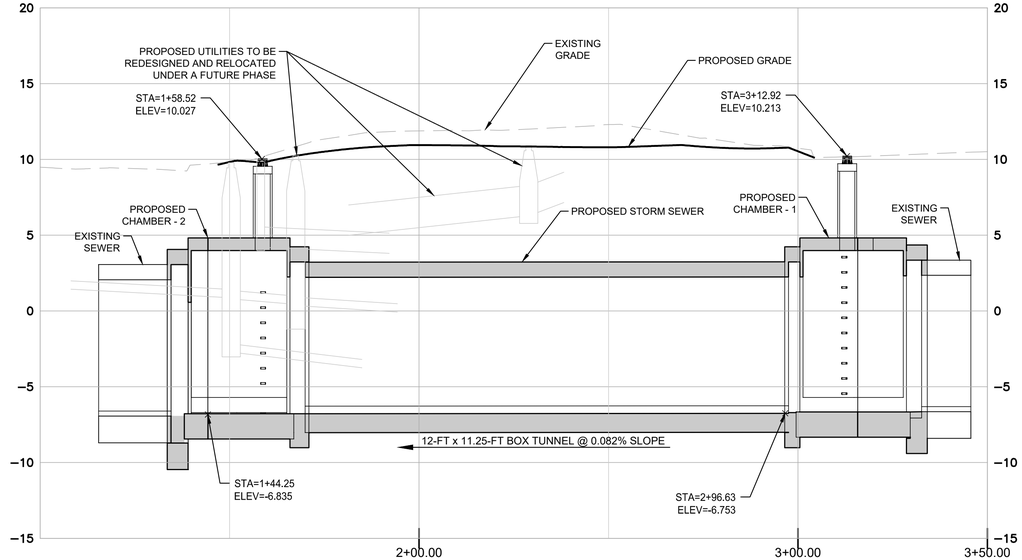
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PROPOSED STORM SEWER PLAN VIEW

SCALE: 1" = 20'-0"



PROPOSED STORM SEWER PROFILE

SCALE: HORIZONTAL 1" = 20'-0"
VERTICAL 1" = 5'-0"

NOTES:

1. MAINTAIN 12-IN MINIMUM CLEARANCE TO EXISTING UTILITIES.

POINT TABLE			
POINT #	NORTHING	EASTING	RAW DESC
1	218596.7360	1029046.0258	CENTER ALI. STA. 1+00
2	218593.9698	1029080.3745	CONC. COLLAR
3	218591.6110	1029085.7948	CHAMBER – 2
4	218593.4663	1029091.8981	CHAMBER – 2
5	218610.6349	1029112.4114	CHAMBER – 2
6	218615.5326	1029113.5284	CONC. COLLAR
7	218616.2962	1029112.8893	STORM SEWER
8	218696.9109	1029209.2092	STORM SEWER
9	218696.1441	1029209.8510	CONC. COLLAR
10	218695.7683	1029214.0763	CHAMBER – 1
11	218709.1721	1029230.0913	CHAMBER – 1
12	218727.1928	1029231.0252	CHAMBER – 1
13	218731.8519	1029228.0707	CONC. COLLAR
14	218732.5764	1029214.0895	CONC. COLLAR
15	218728.2257	1029211.0916	CHAMBER – 1
16	218713.8717	1029220.1296	CENTER ALI. PI
17	218711.1054	1029201.2399	CHAMBER – 1
18	218706.8801	1029200.8656	CONC. COLLAR
19	218706.1132	1029201.5074	STORM SEWER
20	218625.4985	1029105.1875	STORM SEWER
21	218626.2686	1029104.5429	CONC. COLLAR
22	218626.9590	1029098.7491	CHAMBER – 2
23	218611.1467	1029079.8563	CHAMBER – 2
24	218607.3646	1029076.3026	CONC. COLLAR
25	218603.7856	1029088.5968	CENTER ALI. PI

1"=20' 0 20 40 FT.

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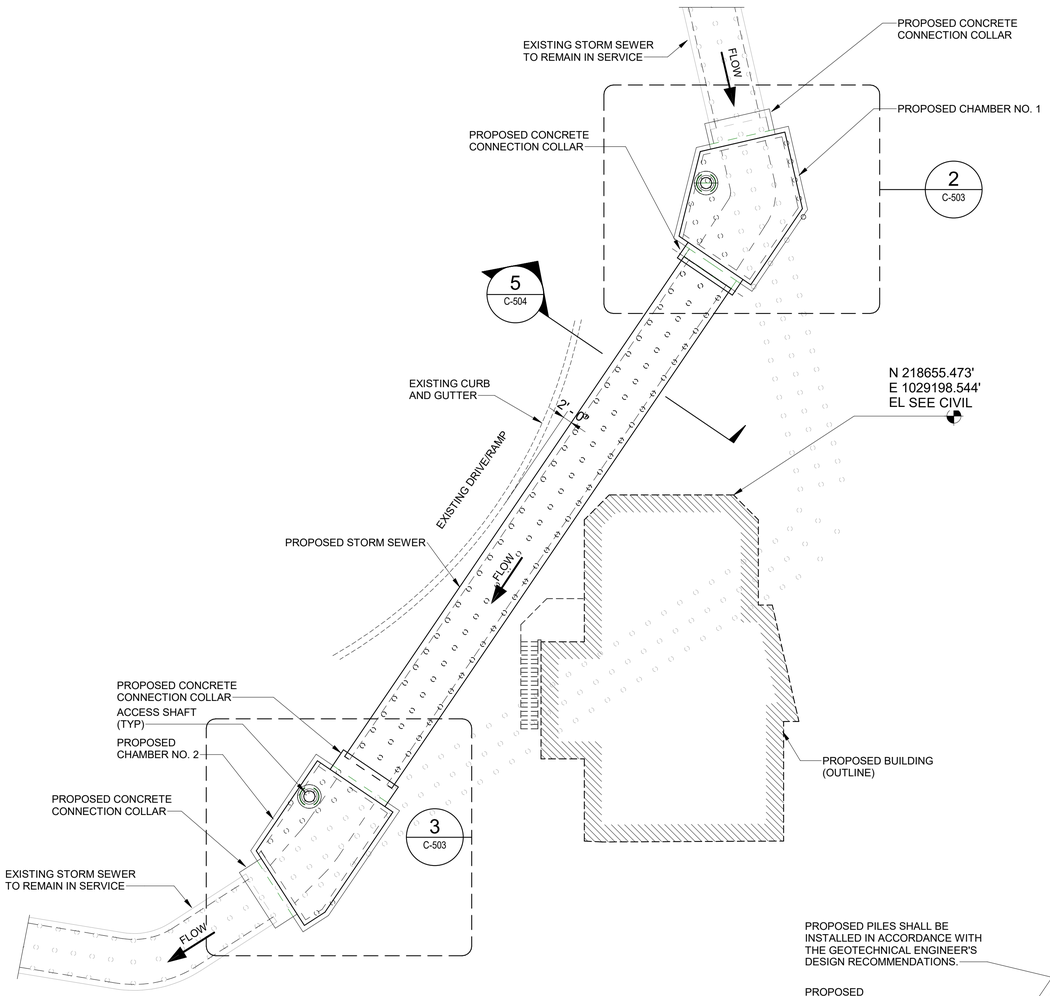
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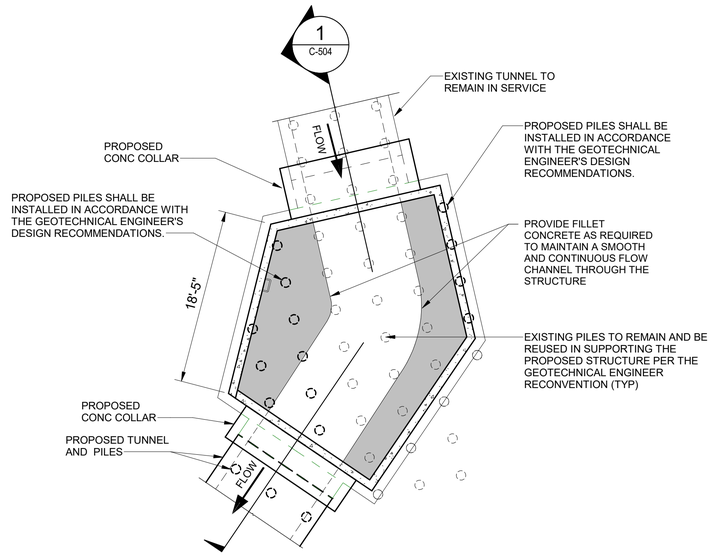
TI-011 DISINFECTION FACILITY
PROPOSED STORM SEWER PLAN AND PROFILE

DATE: NOVEMBER 2026
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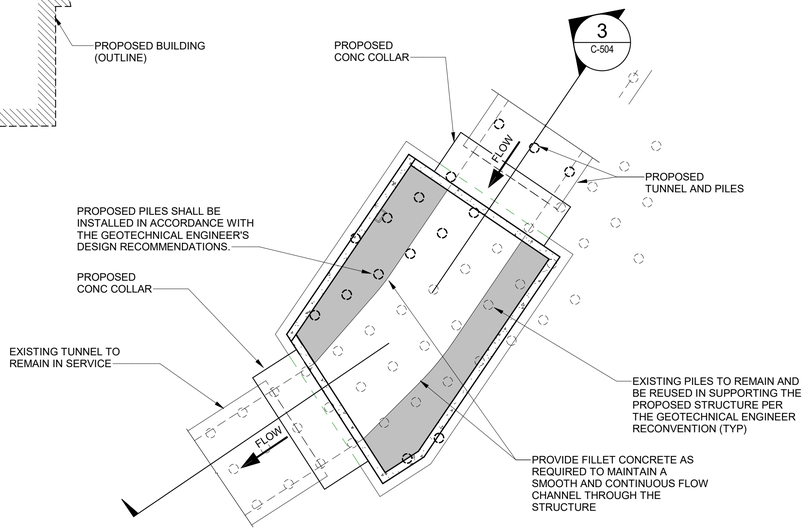
PROPOSED TUNNEL STRUCTURAL SITE PLAN

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



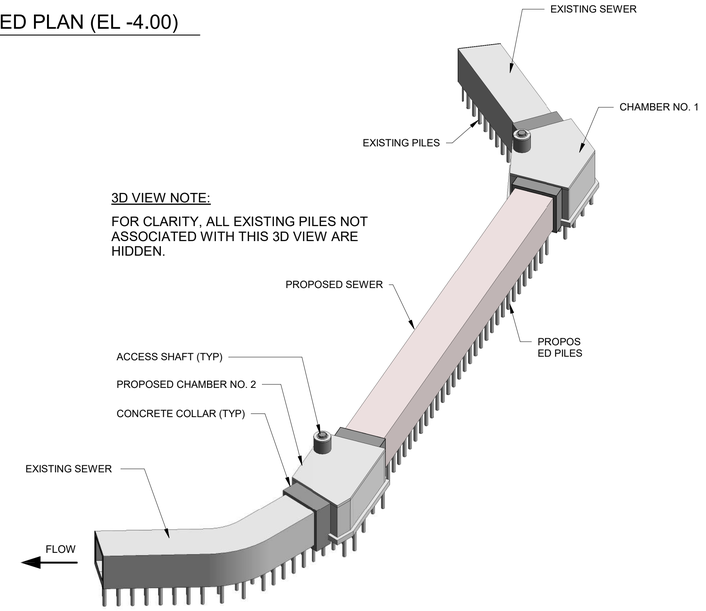
2 C-503 CHAMBER NO. 1 - ENLARGED PLAN (EL -4.00)

SCALE: 1/8" = 1'-0"



3 C-503 CHAMBER NO. 2 - ENLARGED PLAN (EL -4.00)

SCALE: 1/8" = 1'-0"



PROPOSED TUNNEL - 3D VIEW

SCALE: N.T.S.

NOTES:

1. CONSTRAINED STORM SEWER CORRIDOR. PROPOSED ALIGNMENT MAINTAINS APPROXIMATELY 2 FT MINIMUM CLEARANCE TO WHITESTONE EXPRESSWAY BARRIER. CONTRACTOR SHALL ACCOUNT FOR LIMITED CLEARANCES TO ROADWAY AND BUILDING DURING CONSTRUCTION.

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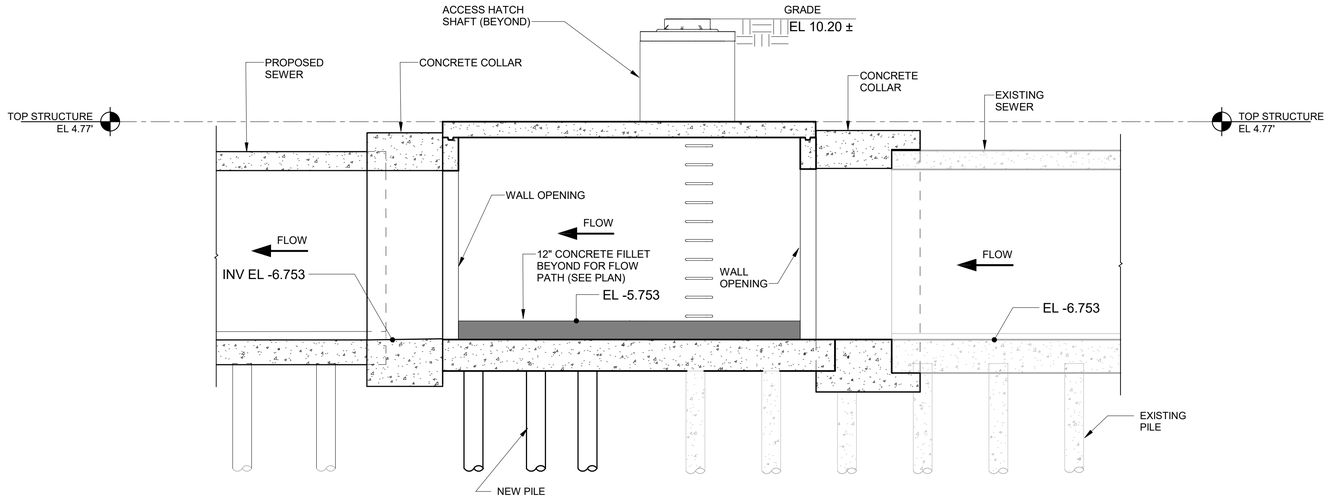
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STRUCTURAL
PROPOSED TUNNEL STRUCTURAL PLANS

DATE: NOVEMBER 2026
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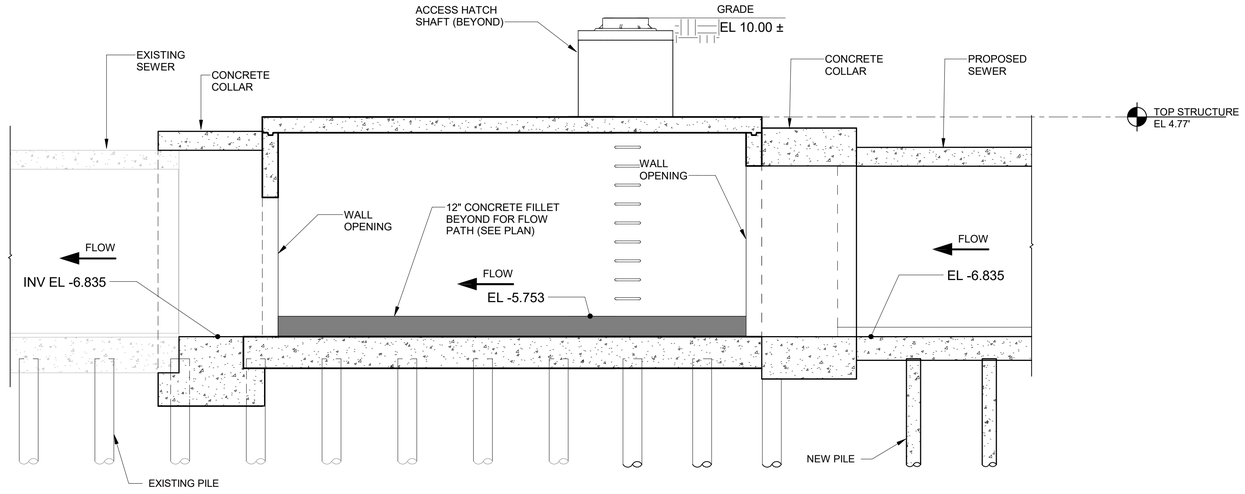


NOTE:

FOR ALL SECTIONS ON THIS SHEET, EXISTING AND PROPOSED PILES BEYOND THE SECTION VIEW ARE NOT SHOWN FOR CLARITY.

2 / C-503 CHAMBER NO. 1 (SECTION)

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



3 / C-503 CHAMBER NO. 2 (SECTION)

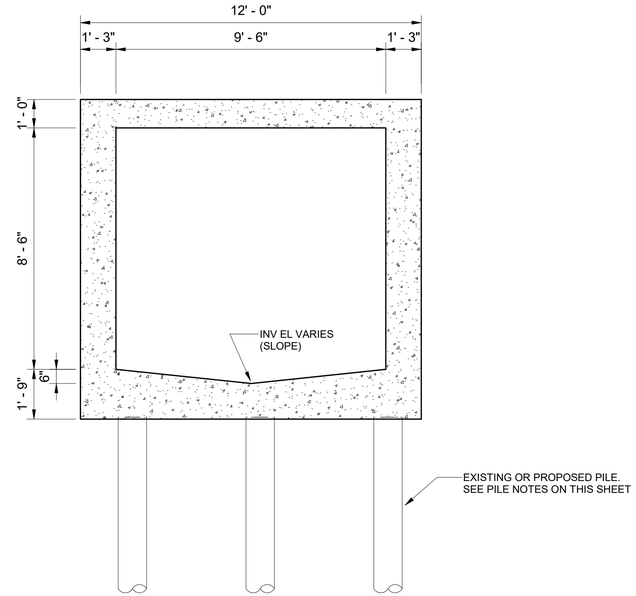
SCALE: 1/4" = 1'-0"

PILES NOTES:

1. EXISTING PILES TO REMAIN AND BE REUSED IN SUPPORTING THE PROPOSED STRUCTURE PER THE GEOTECHNICAL ENGINEER RECONVENTION (TYP).
2. PROPOSED PILES SHALL BE INSTALLED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S DESIGN RECOMMENDATIONS.

PRECAST STORM SEWER NOTES:

1. PRECAST REINFORCING NOT SHOWN. CONTRACTOR TO SUBMIT DESIGN FOR APPROVAL.



5 / C-503 PROPOSED PRECAST STORM SEWER SECTION

SCALE: 3/8" = 1'-0"

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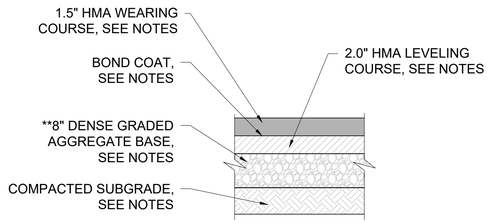
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STRUCTURAL
SECTIONS AND DETAILS

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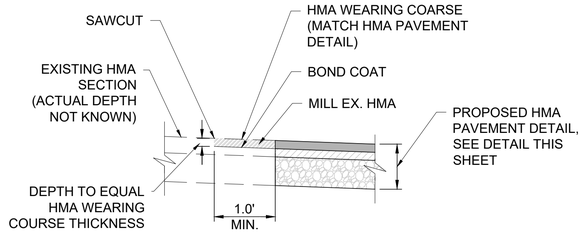
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NOTE:
**1. CONTRACTOR CAN USE EXISTING CRUSHED SITE CONCRETE/ASPHALT AS AGGREGATE BASE MATERIAL (CONTRACTOR SHALL INCREASE BASE THICKNESS BY 25%)

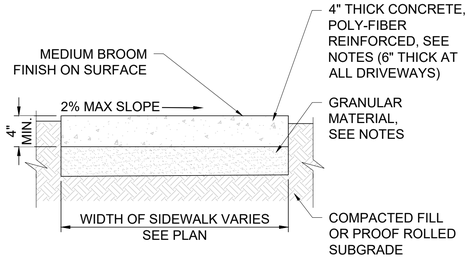
1 C-901.00 STANDARD PAVEMENT DETAIL

SCALE: NTS



2 C-901.00 BUTT JOINT DETAIL

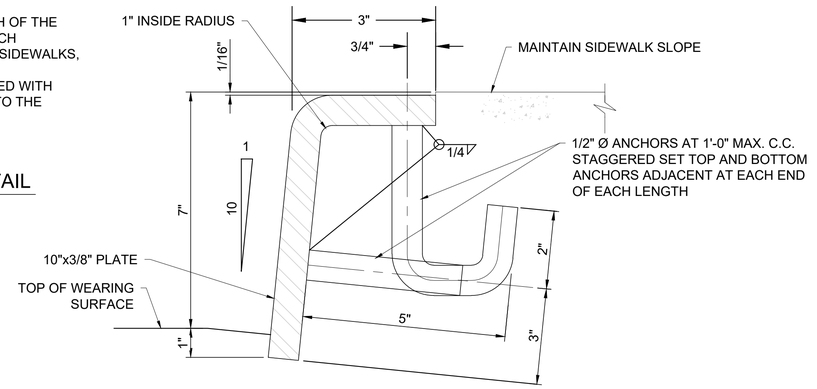
SCALE: NTS



NOTES:
1. PROVIDE 1/4 INCH CONTROL JOINTS ALONG THE WIDTH OF THE WALK, NOT TO EXCEED 8 FEET APART. PROVIDE 1/2 INCH EXPANSION JOINTS AT 40 FEET 0.C. FOR 4 FOOT WIDE SIDEWALKS, 50 FEET 0.C. FOR 5 FOOT WIDE OR GREATER.
2. WHEN SIDEWALK IS TO BE REMOVED AND/OR REPLACED WITH NEW SIDEWALK, IT IS TO BE SAW CUT AND REMOVED TO THE NEAREST CONTROL JOINT.

3 C-901.00 4" CONCRETE SIDEWALK DETAIL

SCALE: NTS

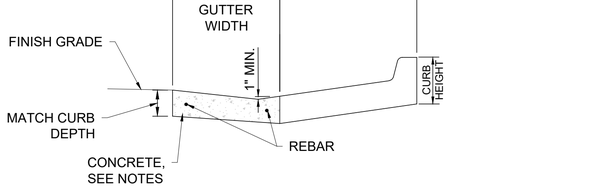


ELEVATION - STEEL FACING

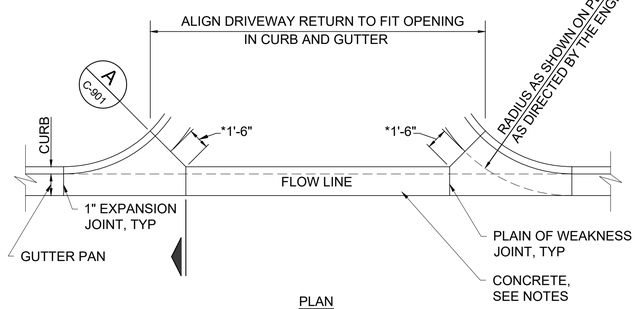
NOTES:
1. EXPANSION JOINTS IN THE STEEL CURB FACING AND CONCRETE BACKING SHALL BE AT A MAXIMUM SPACING OF 24 FEET.
2. THE EXPANSION JOINTS OF THE CURB AND STEEL CURB FACING SHALL LINE UP WITH THE EXPANSION JOINTS OF THE CONCRETE SIDEWALKS.
3. NO PIECE OF STEEL CURB FACING HAVING LESS THAT TWO (2) WELDED DOWELS MAY BE INSTALLED UNLESS IT IS WELDED TO THE ADJACENT STEEL CURB FACING.
4. 1/2" Ø x 5" HEADED ANCHOR STUDS (GRANULAR OR SOLID FLUX FILLED) MAY BE SUBSTITUTED.
5. STRUCTURAL STEEL AS PER BOARD OF STD. SPECS. 20-S-35 TYPE A-1 (A.S.T.M. DESIGNATION A36).
6. SURFACE TO BE PAINTED SHALL BE THOROUGHLY CLEANED AND THEN PAINTED AS PER REQUIRMENTS OF SECTION 2.13 IN THE NYC DOT STANDARD HIGHWAY SPECIFICATIONS. THE COLOR OF TOP COAT SHALL BE GRAY AS APPROVED BY THE ENGINEER.
7. WHERE TWO (2) PIECES OF STEEL CURB FACING ARE JOINED BUT NOT WELDED, TWO (2) ONE-HALF (1/2) INCH RODS, TWENTY FOUR (24) INCHES LONG SHALL BE INSERTED INTO THE CONCRETE BACKING, ONE-HALF (1/2) THE LENGTH AT EACH SIDE OF THE JOINT.
8. CORNER CURB: VERTICAL FACE WILL BE ACCEPTABLE FOR CORNER CURBS PROVIDING THE ENDS ARE WARPED TO FORM A TRANSITION WITH ADJACENT BATTERED FACE CURBS.

6 C-901.00 STEEL FACED CURB DETAIL

SCALE: NTS



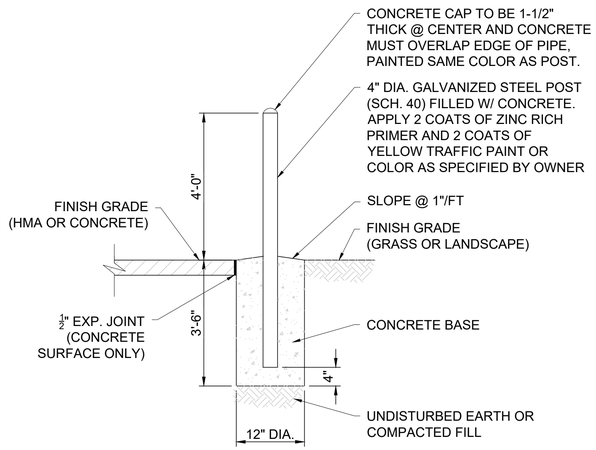
SECTION A *TO EDGE OF GUTTER OR FACE OF INTEGRAL CURB



PLAN

4 C-901.00 DRIVEWAY OPENING DETAIL

SCALE: NTS



5 C-901.00 4" PIPE BOLLARD DETAIL

SCALE: NTS

BID SET

DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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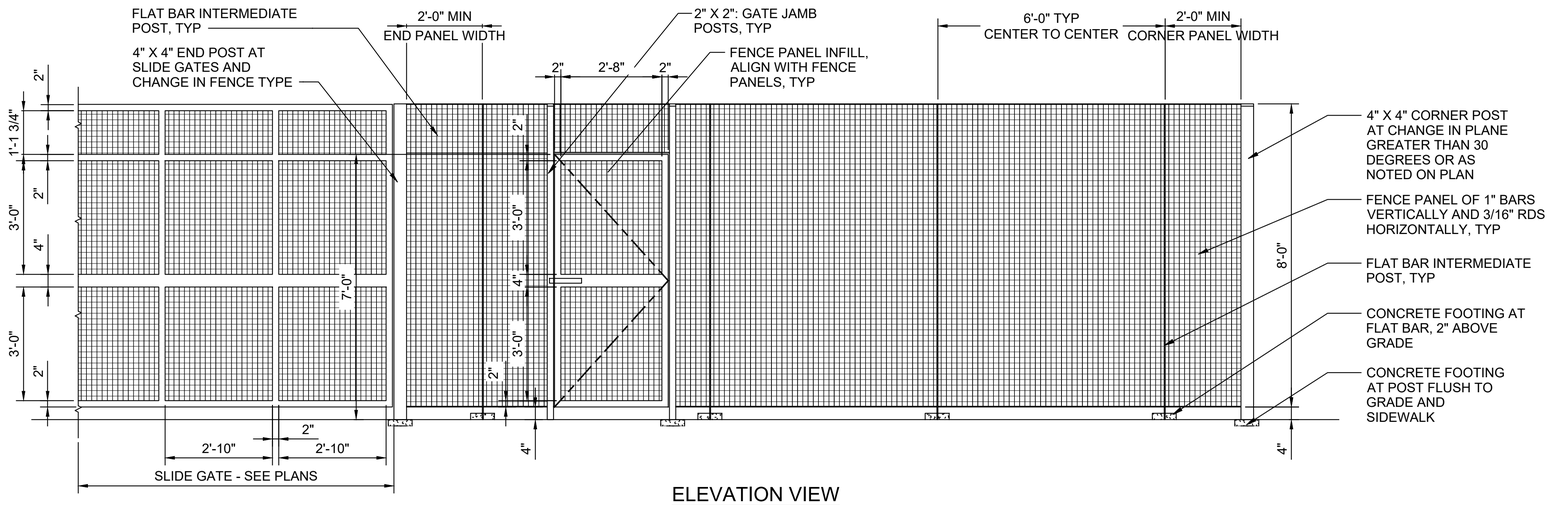
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PAVEMENT DETAILS

DATE: NOVEMBER 2026
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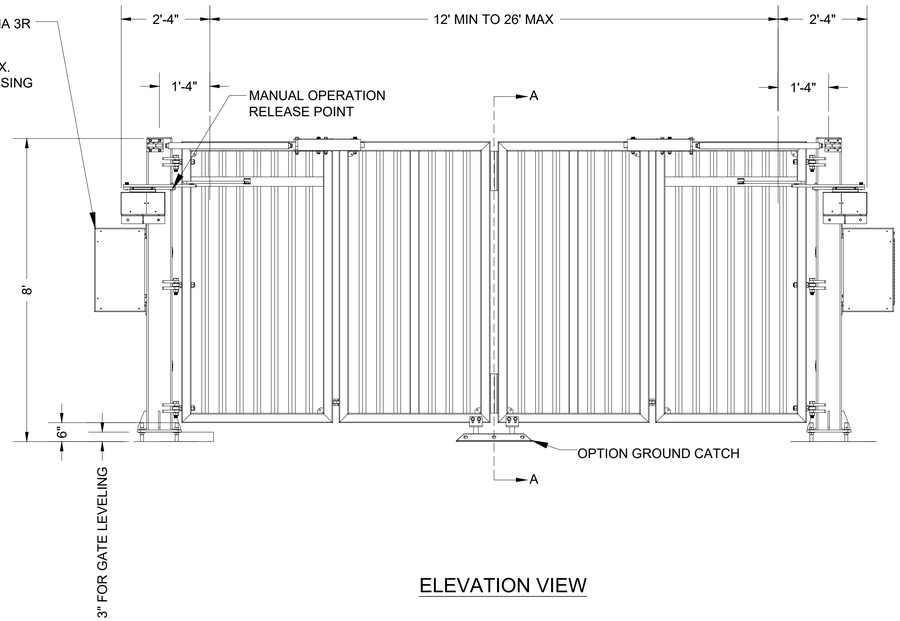


ELEVATION VIEW

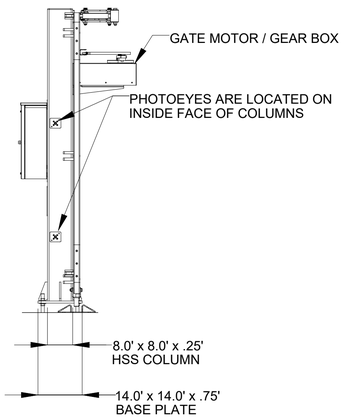
1 C-902.00 MOTOR OPERATED SLIDING GATE DETAIL

SCALE: NTS

ELECTRICAL CONTROLLERS ARE MOUNTED IN A 24" [610] x 20" [508] x 8 [203] NEMA 3R ENCLOSURE. (1 PER GATE OPERATOR)
POWER REQUIREMENTS: 115VAC / 230 VAC, SINGLE PHASE, 20A
ENCLOSURES MUST BE MOUNTED WITHIN 10' [3048] OF GATE MOTOR / GEAR BOX.
ENCLOSURES ARE SHOWN IN RECOMMENDED COLUMN MOUNITNG LOCATION USING SUPPLIED MOUNTING BRACKETS.



ELEVATION VIEW



SECTION A-A

2 C-902.00 MOTOR OPERATED BI-FOLDING GATE DETAIL

SCALE: NTS

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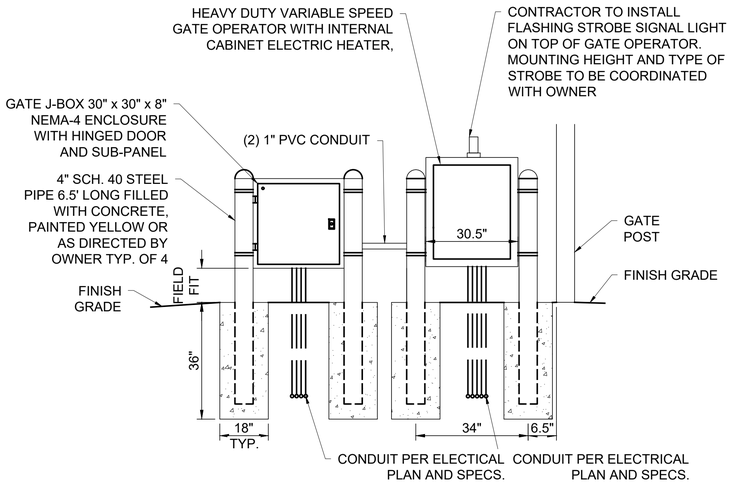
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GATE DETAILS I

DATE: NOVEMBER 2026
SHEET NO: ##
DRAWING NO. C-902.00

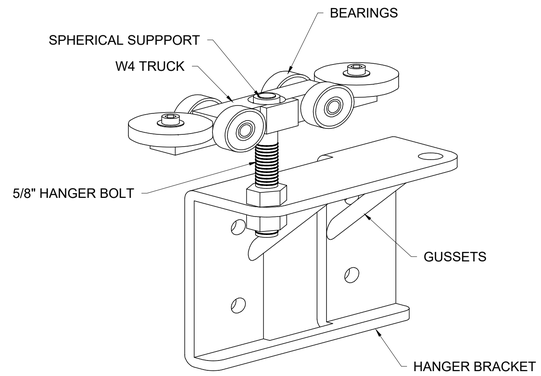
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NOTES:
1. EXTEND CONDUITS 2.0' BEYOND CONCRETE PAD AND PLACE CAP.
2. SEE CIVIL SHEETS FOR PLAN VIEW AND BOLLARD LOCATIONS

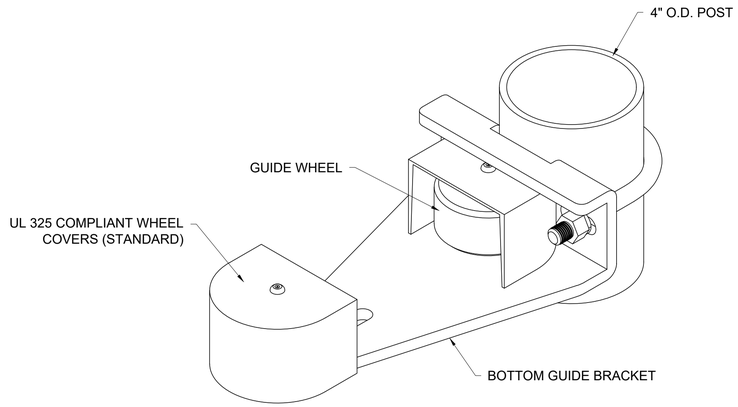
1 / C-903.00 — SLIDE GATE OPERATOR DETAIL

SCALE: NTS



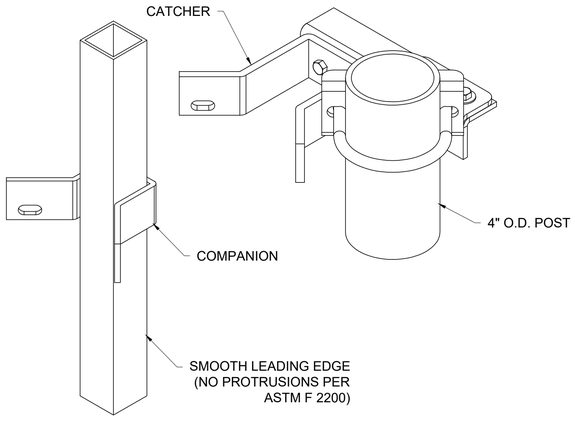
2 / C-903.00 — GATE HANGER ASSEMBLY

SCALE: NTS



3 / C-903.00 — BOTTOM GUIDE

SCALE: NTS



4 / C-903.00 — CATCH ASSEMBLY

SCALE: NTS

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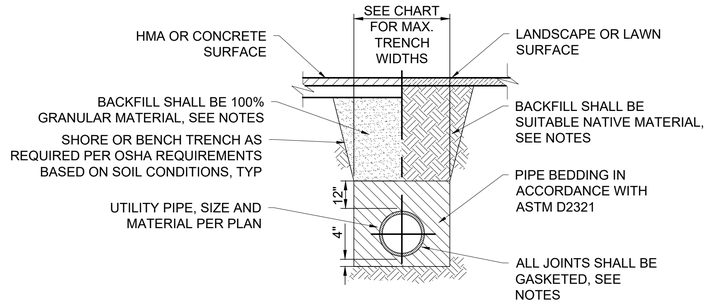
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

GATE DETAILS II

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DRAWING NO. C-903.00

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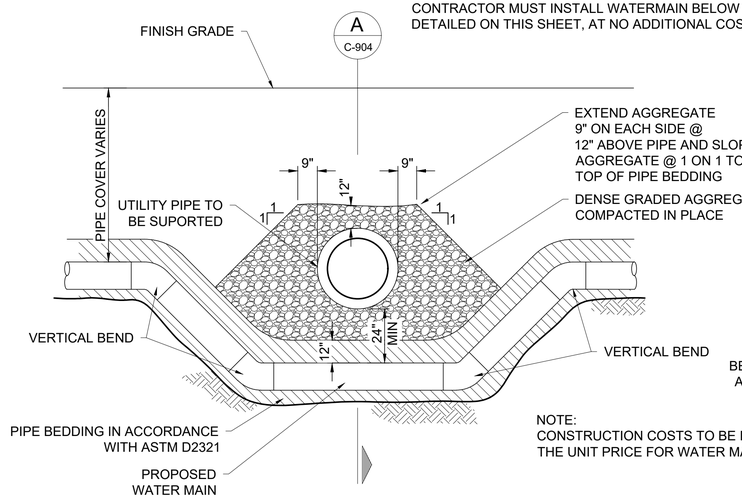
TRENCH WIDTHS
MAX WIDTH OF TRENCH 12" ABOVE TOP OF PIPE
6" THRU 12" PIPE - 30" WIDE
15" THRU 36" PIPE - O.D. + 16"
42" THRU 60" PIPE - O.D. + 20"
OVER 60" PIPE - O.D. + 24"



1 C-904.00 TYPICAL TRENCH DETAILS

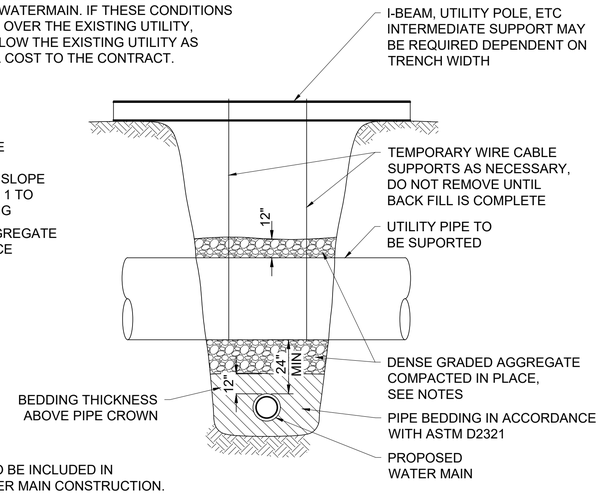
SCALE: NTS

NOTE:
WHEN CROSSING AN EXISTING UTILITY, CONTRACTOR MUST MAINTAIN REQUIRED MIN. COVER OVER PROPOSED WATER MAIN, AND 18" MIN. VERTICAL CLEARANCE BETWEEN EXISTING UTILITY AND PROPOSED WATERMAIN. IF THESE CONDITIONS CANNOT BE MET BY INSTALLING WATER MAIN OVER THE EXISTING UTILITY, CONTRACTOR MUST INSTALL WATERMAIN BELOW THE EXISTING UTILITY AS DETAILED ON THIS SHEET, AT NO ADDITIONAL COST TO THE CONTRACT.



PROFILE VIEW

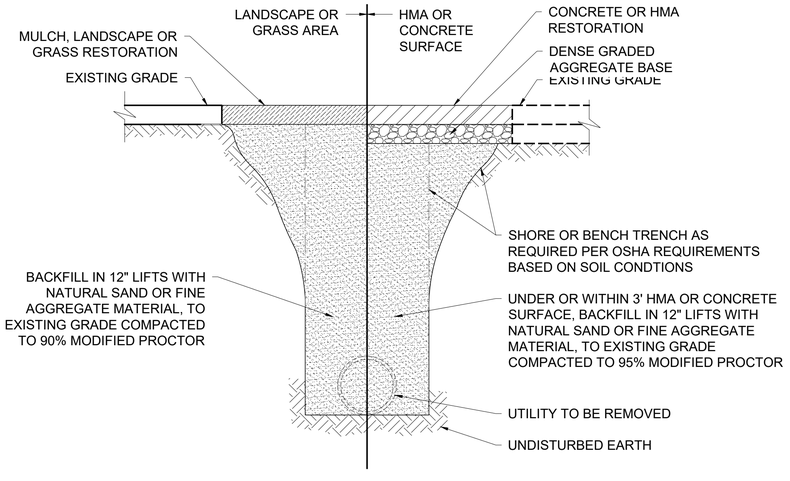
NOTE:
CONSTRUCTION COSTS TO BE INCLUDED IN THE UNIT PRICE FOR WATER MAIN CONSTRUCTION.



SECTION A

2 C-904.00 UTILITY CROSSING AND PIPE SUPPORT DETAIL

SCALE: NTS



3 C-904.00 UTILITY REMOVAL TRENCH BACKFILL DETAIL

SCALE: NTS

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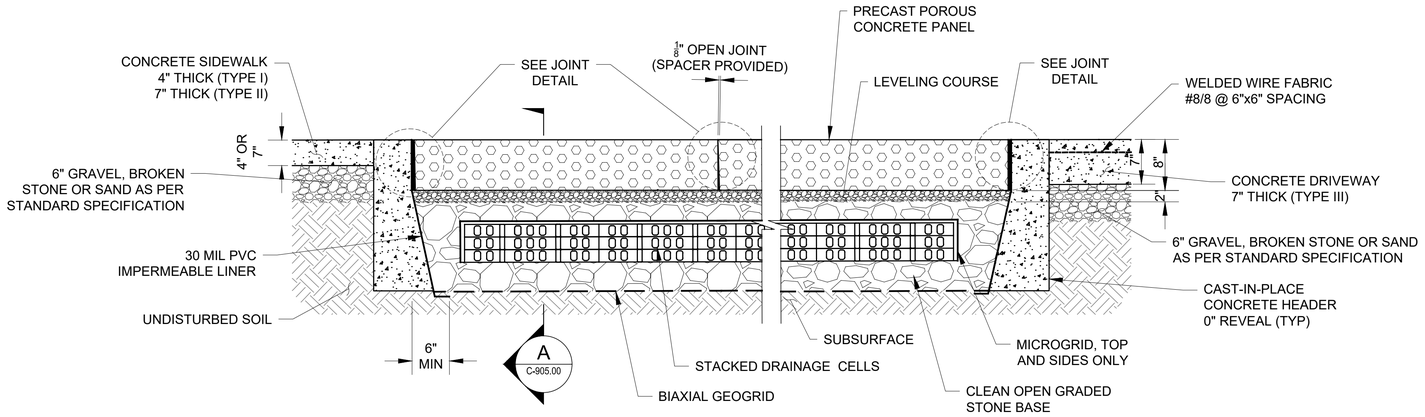
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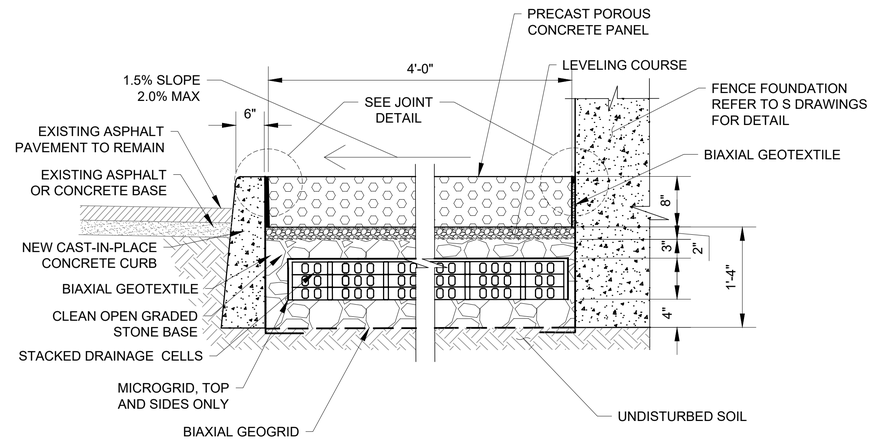
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TRENCHING DETAILS

DATE: NOVEMBER 2026
SHEET NO: ##
DRAWING NO. C-904.00

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A C-905.00 SECTION

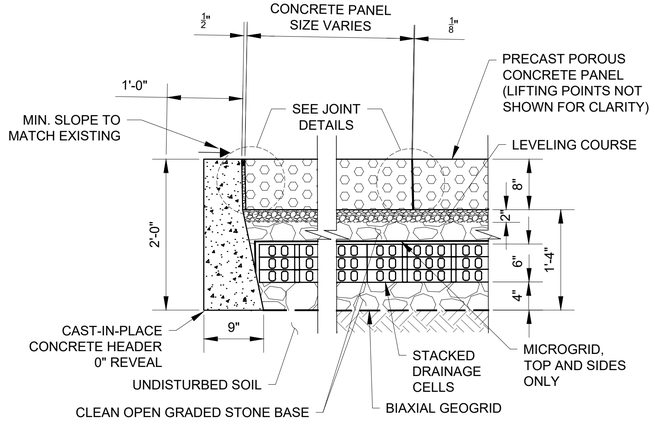
SCALE: NTS

NOTES:

1. SIDEWALK WITH PRECAST POROUS CONCRETE SHALL CONFORM TO THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION (NYCDOT) STANDARD DETAILS AND SPECIFICATIONS, LATEST EDITION.
2. FOR GENERAL NOTES SEE DWG. H-1045 IN THE LATEST NYCDOT STANDARD DETAILS OF CONSTRUCTION.

1 C-905.00 TYPICAL SIDEWALK WITH PRECAST POROUS CONCRETE DETAIL

SCALE: NTS

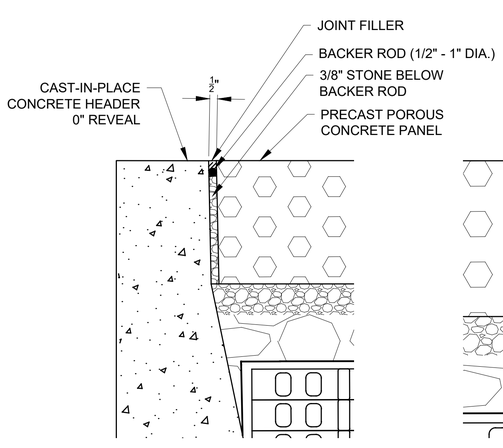


NOTE:

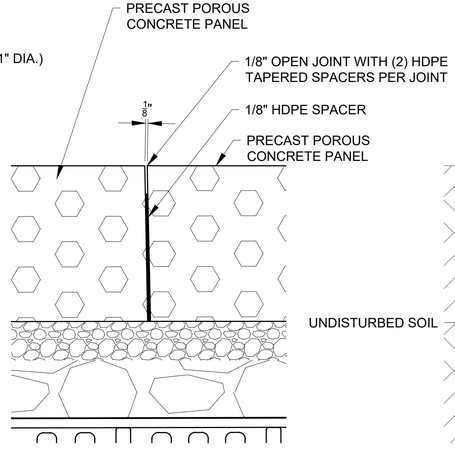
1. SEE SPECIFICATION SECTION 32 14 13 FOR DETAILS.

2 C-905.00 PRECAST POROUS CONCRETE DRIVEWAY DETAIL

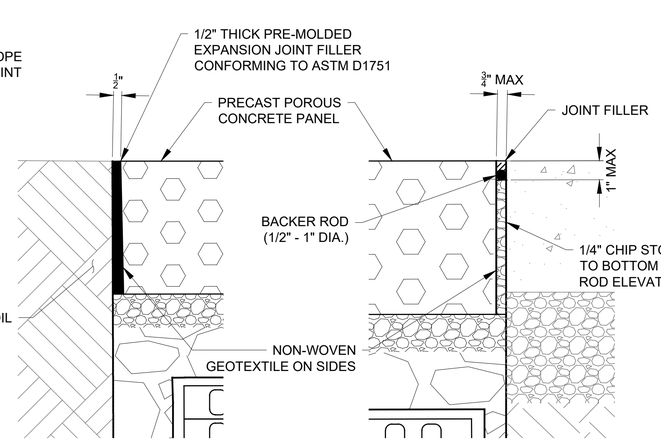
SCALE: NTS



JOINT AT CONCRETE HEADER AND FENCE FOUNDATION



JOINT BETWEEN PANELS



JOINT AT GRASS STRIP

JOINT AT CONCRETE SIDEWALK AND DRIVEWAY

3 C-905.00 PRECAST POROUS CONCRETE JOINT DETAILS

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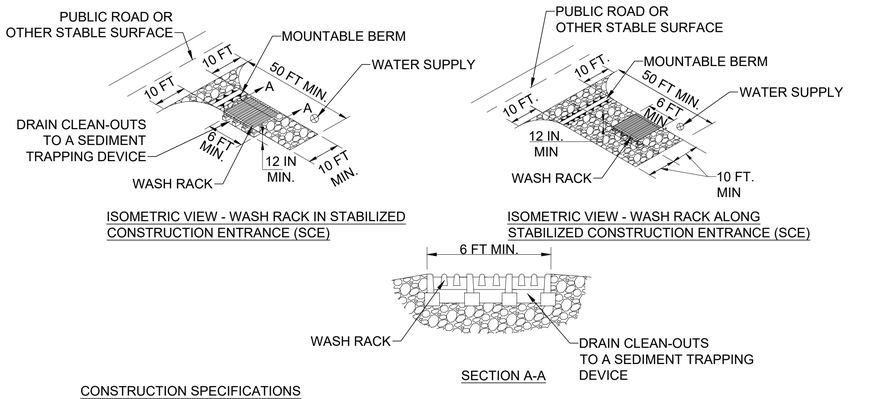
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PRECAST PAVER DETAILS

DATE: NOVEMBER 2026
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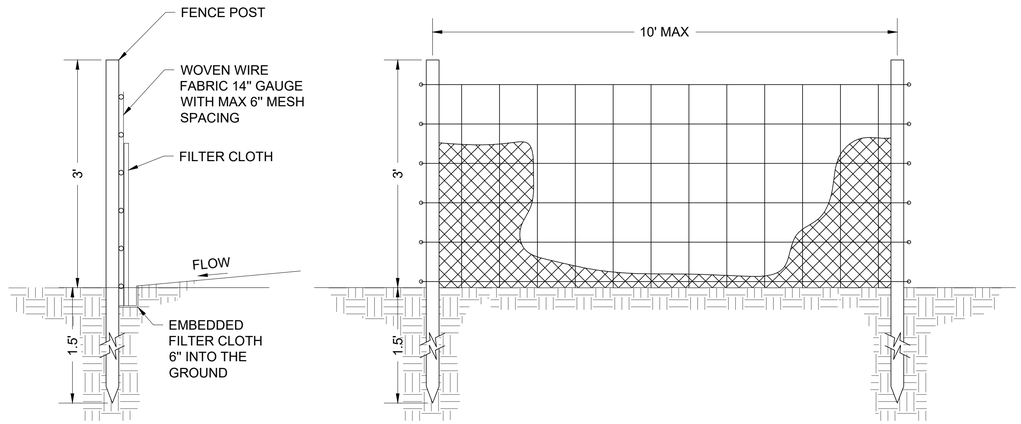
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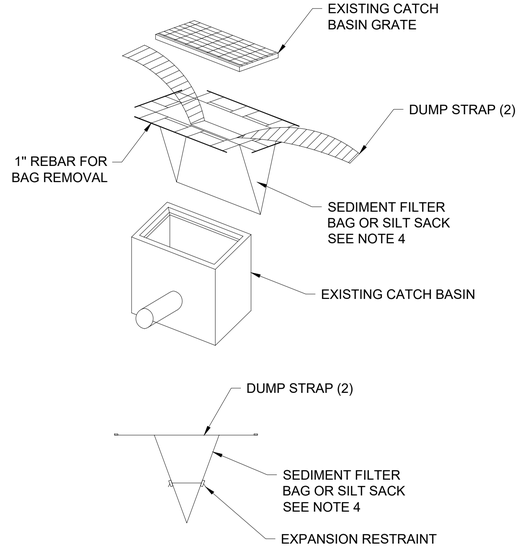
CONSTRUCTION SPECIFICATIONS

1. USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE-FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF SIX (6) FEET x TEN (10) FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL. APPROACHES TO THE WASH RACK SHOULD BE A MINIMUM OF TWENTY (25) FEET ON BOTH SIDES.
2. INSTALL PRIOR TO, ALONG SIDE OF, OR AS PART OF THE STABILIZED CONSTRUCTION ENTRANCE.
3. DIRECT WASH WATER TO AN APPROVED SEDIMENT TRAPPING DEVICE.
4. KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

1 / C-906.00 — ROCK CONSTRUCTION ENTRANCE DETAIL
SCALE: NTS



2 / C-906.00 — SILT FENCE DETAIL
SCALE: NTS



3 / C-906.00 — CATCH BASIN SILT SACK DETAIL
SCALE: NTS

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STATE OF NEW YORK — IVANA NITZOVA — 095133 — LICENSED PROFESSIONAL ENGINEER

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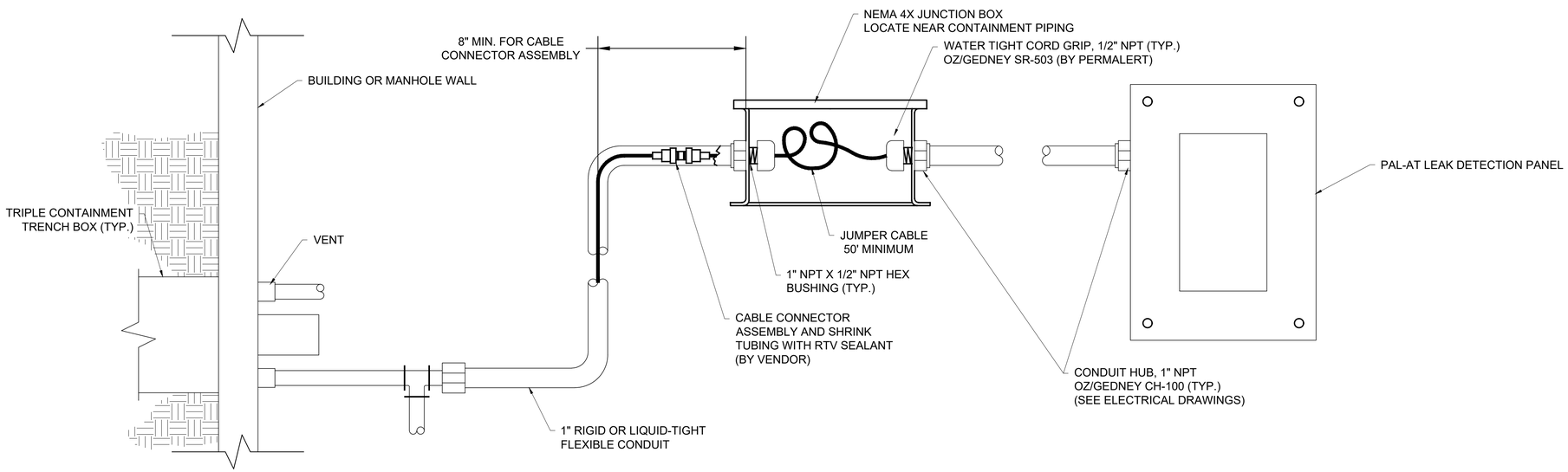
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EROSION AND SEDIMENT CONTROL DETAILS

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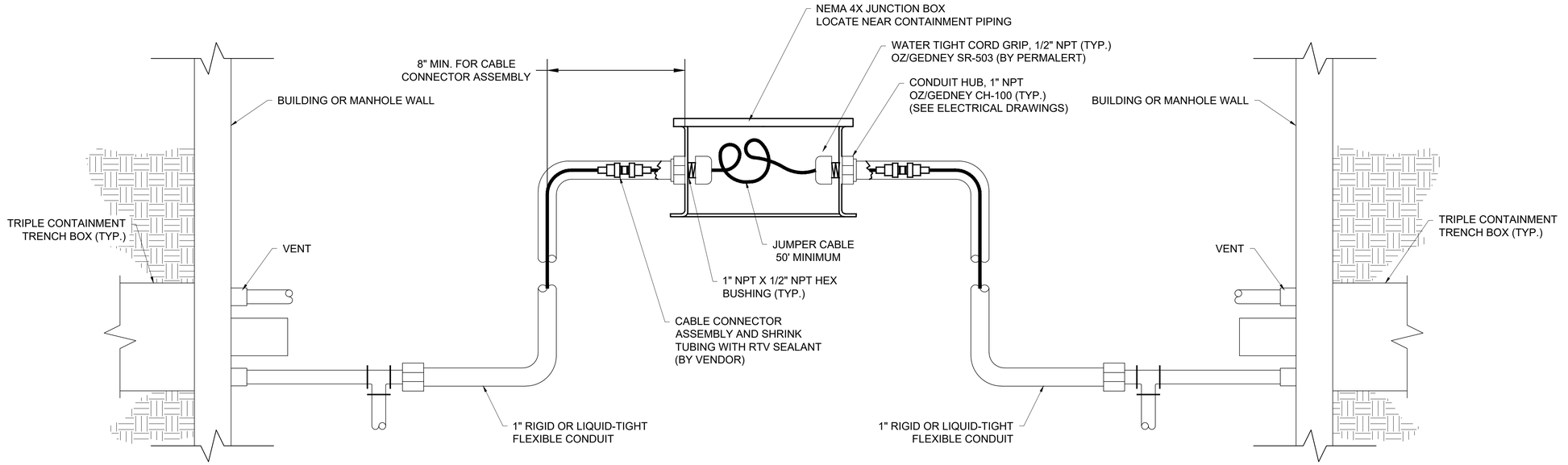
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1
C-907.00

CONTINUOUS CABLE LEAK DETECTION PIPING DETAIL
PANEL TO MANHOLE CONNECTION

SCALE: NTS



2
C-907.00

CONTINUOUS CABLE LEAK DETECTION PIPING DETAIL
MANHOLE TO MANHOLE CONNECTION

SCALE: NTS

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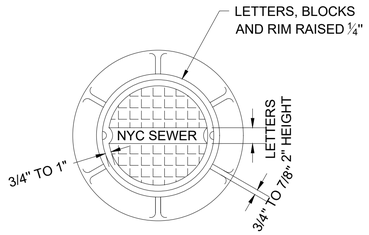
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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
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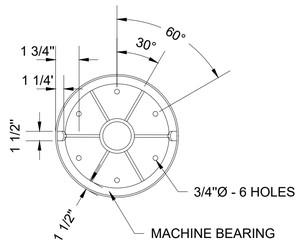
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

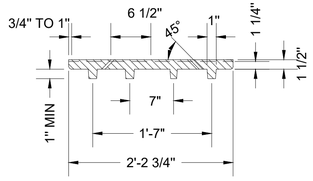
LEAK DETECTION DETAILS

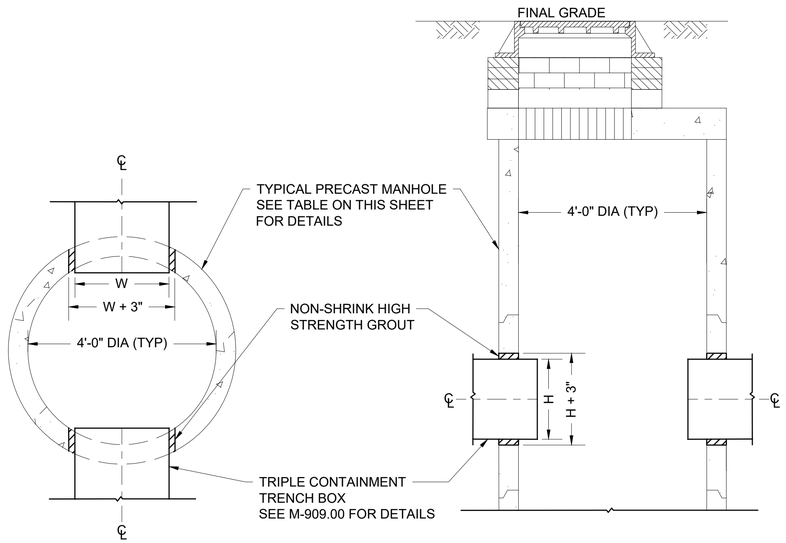
DATE: NOVEMBER 2026
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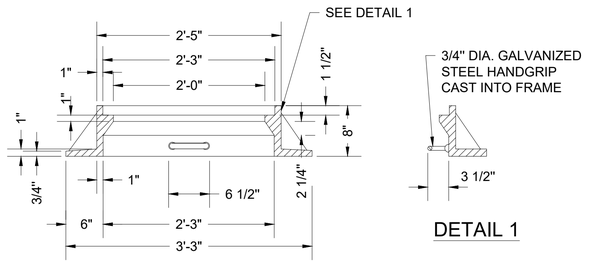




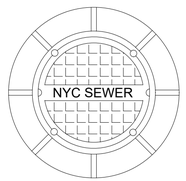
3 C-908.00 TRIPLE CONTAINMENT TRENCH BOX TO MANHOLE CONNECTION DETAIL

SCALE: NTS

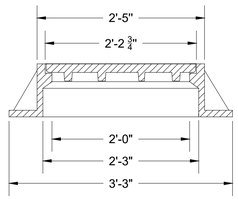
NOTE:
1. H = TRENCH BOX HEIGHT
2. W = TRENCH BOX WIDTH
3. ALL TRENCH BOX CONNECTIONS SHALL BE COORDINATED WITH TRENCH BOX MANUFACTURER AND THE PRECAST MANHOLE MANUFACTURER.



DETAIL 1



PLAN VIEW FRAME AND COVER



SECTION VIEW FRAME

1 C-908.00 STANDARD 27" DIAMETER CAST IRON MANHOLE FRAME AND COVER DETAIL

SCALE: NTS

2 C-908.00 HEAVY DUTY WATERTIGHT MANHOLE FRAME AND COVER

SCALE: NTS

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION BUREAU OF WATER AND SEWER OPERATIONS SEWER DESIGN STANDARDS

DRAWING NO	DRAWING TITLE
SE1	STANDARD FOR VITRIFIED CLAY PIPE ON CONCRETE CRADLE ON EARTH OR ON ROCK
SE6	24" DIA. TO 60" DIA. CIRCULAR REINFORCED CONCRETE PIPE ON CONCRETE CRADLE ON PILES - 2 PILE BENTS
SE11	MANHOLE ON 8" DIA. TO 30" DIA. PIPE SEWERS IN DRY LOCATION
SE16	STANDARD FOR MANHOLE ON 36" DIA TO 60" DIA R.C.P. SEWER
SE28A, SE28B, SE28C & SE28D	4'-0" DIAMETER PRECAST MANHOLE (4 DWG.)
SE31A, SE31B & SE31C	PRECAST MANHOLE DETAILS (3 DWG.)
SE32	ALTERNATE MONOLITHIC BASE SECTION FOR PRECAST MANHOLES (POURED IN PLACE)
SE35	REMOVABLE PRECAST REINFORCED CONCRETE SLAB
SE39	27" DIAMETER CAST IRON MANHOLE FRAME AND COVER (FOR ACCESS OR CLEANOUT)
SE43	CAST IRON MANHOLE STEP
SE44	CAST IRON MANHOLE STEP (BOLT-ON TYPE)
SE45	CIRCULAR CAST IRON MANHOLE STEP (BOLT-ON TYPE)
SE46	PLASTIC MANHOLE STEP
SE47	TYPE 1 CATCH BASIN (WITH CURB PIECE)
SE61	STANDARD FOR DUCTILE IRON PIPE ALTERNATE
SE68	RECONSTRUCTION OF EXISTING MANHOLE AND REPLACEMENT OF EXISTING MH. FRAME AND COVER
SE69	STANDARD FOR ROADWAY RESURFACING

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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DRAWN BY: JW
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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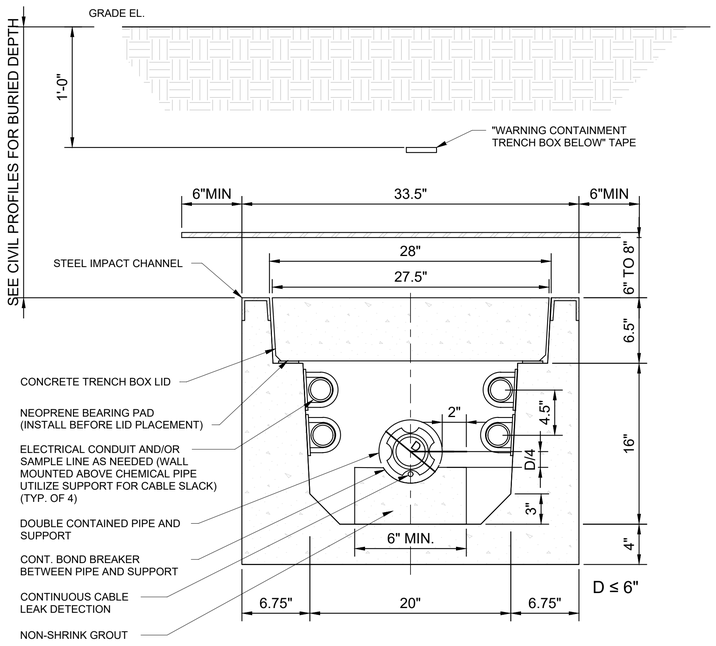
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MANHOLE DETAILS

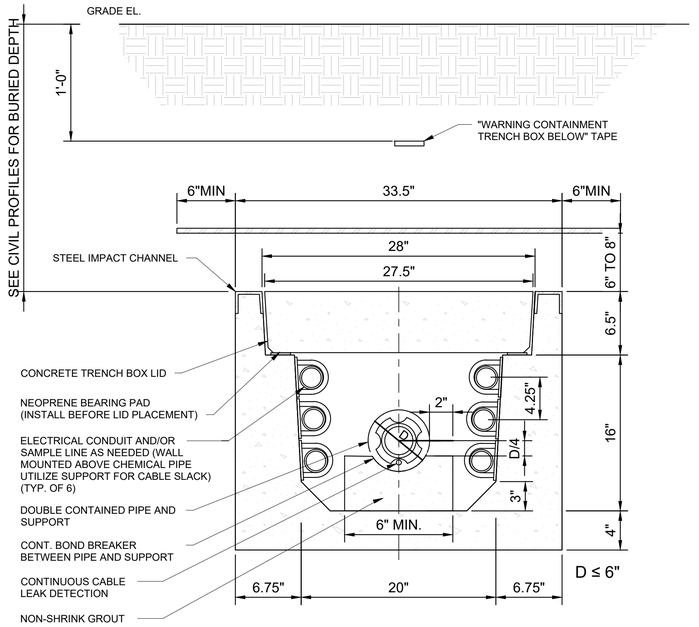
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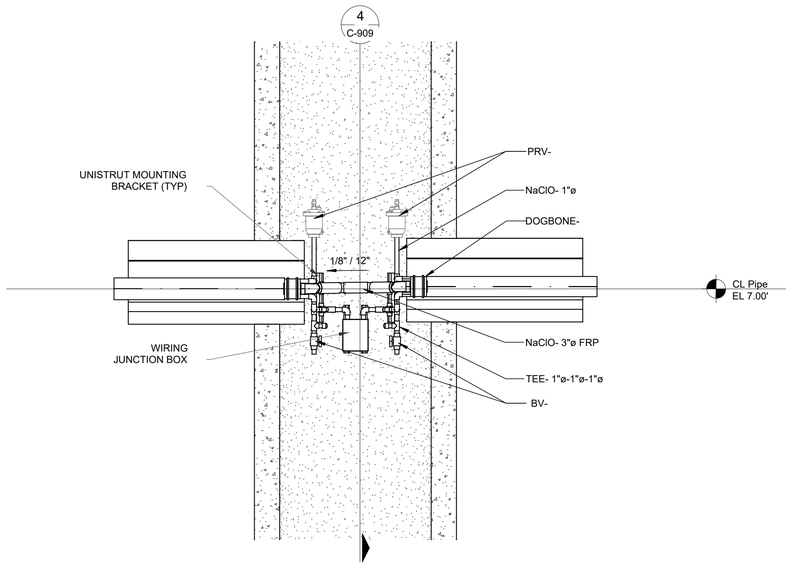
1 C-909.00 DOUBLE CONTAINMENT TRENCH BOX 4 CONDUIT SPACES DETAIL

SCALE: NTS



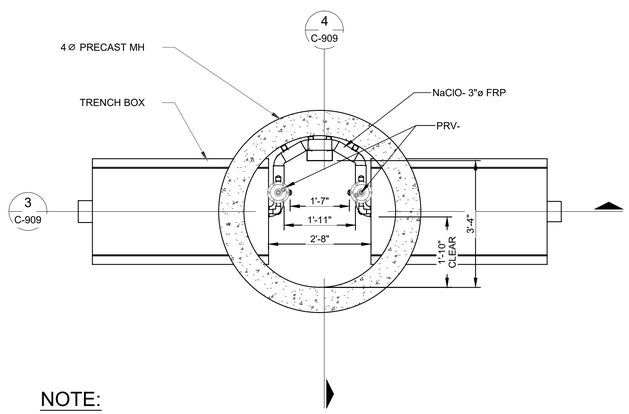
2 C-909.00 DOUBLE CONTAINMENT TRENCH BOX 6 CONDUIT SPACES DETAIL

SCALE: NTS



3 C-909.00 TRENCH BOX ACCESS MANHOLE SECTION

SCALE: NTS

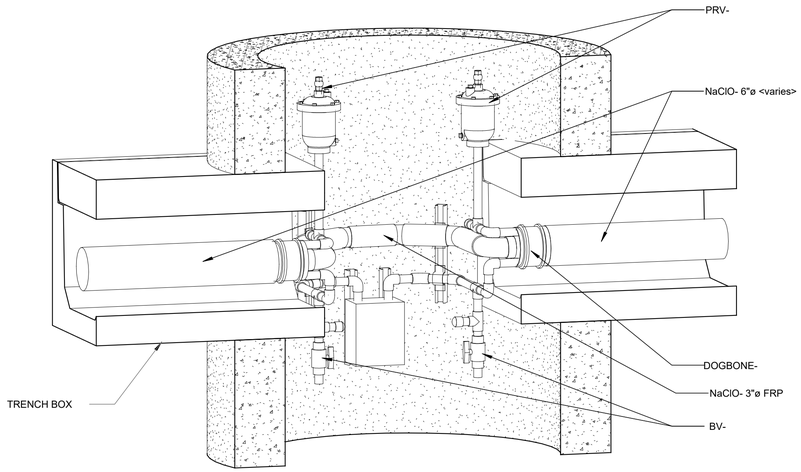


NOTE:

1. MAINTAIN MINIMUM OF 2'8"x1'10" CLEARANCE FOR MAINTENANCE ACCESS.

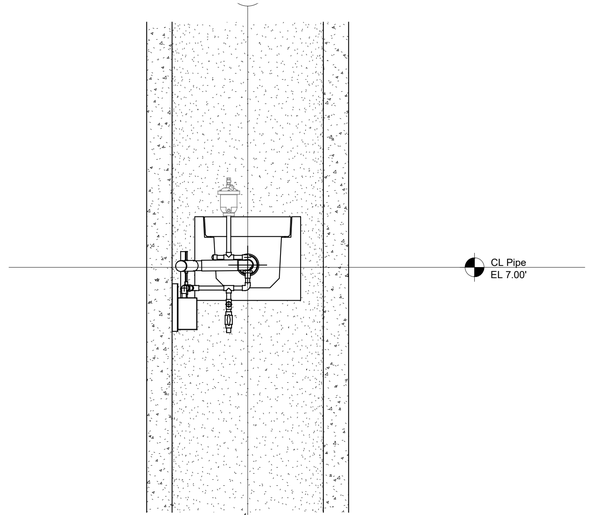
N TRENCH BOX ACCESS MANHOLE PLAN

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



5 C-909.00 TRENCH BOX ACCESS MANHOLE ISO

SCALE: NTS



4 C-909.00 TRENCH BOX ACCESS MANHOLE SECTION

SCALE: NTS

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CHECKED BY: VR
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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK · IVANA NITZOVA · 095133 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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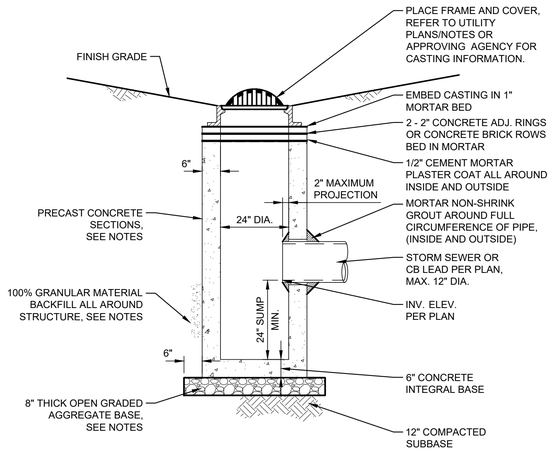
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TRENCH BOX DETAILS

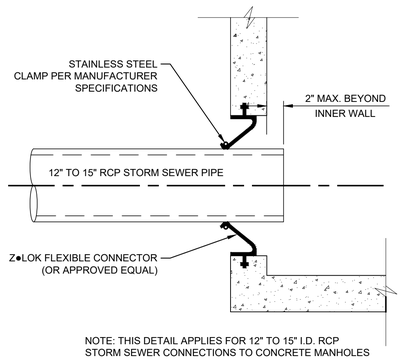
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1 C-910.00 24" DIA. CATCH BASIN DETAIL

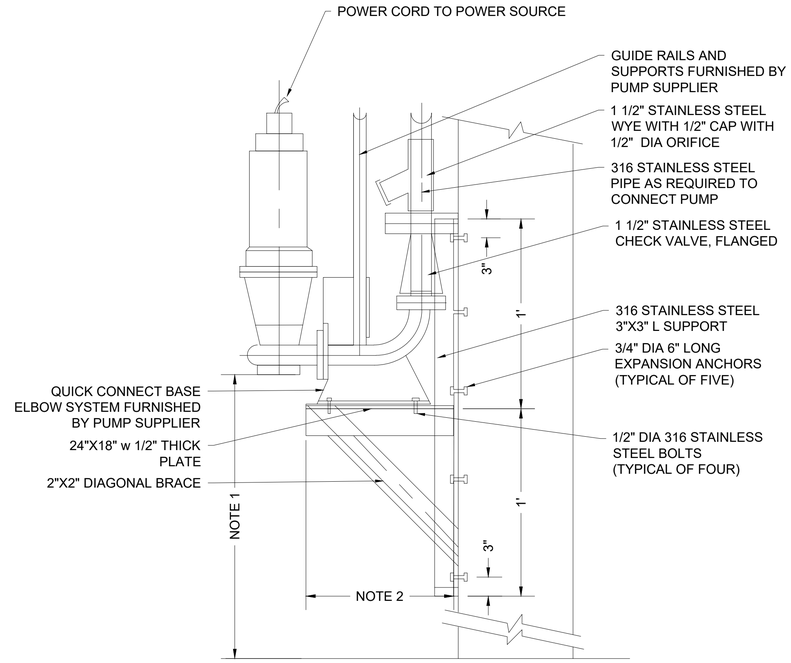
SCALE: NTS



2 C-910.00 REINFORCED CONCRETE PIPE TO MANHOLE CONNECTOR DETAIL

SCALE: NTS

BASE PUMP ELEVATIONS			
LOCATION	MANHOLE	APPROXIMATE DEBRIS LEVEL WITHIN EXISTING SEWER	PUMP BASE ELEVATION
T-10D	207		
T-10D	208		
T-11D	802	2"	-0.63
T-11C	804	2"	-2.9



NOTE:
1. LENGTH FROM INVERT TO IMPELLER IS THE APPROXIMATE DEBRIS LEVEL WITHIN EXISTING SEWER + 12 " (SHOWN IN THE BASE PUMP ELEVATION TABLE)
2. LENGTH AS REQUIRED TO ALIGN GUIDE RAIL WITH HATCH ABOVE. TWO (2) SUPPORT BRACES REQUIRED WHEN LENGTH EXCEEDS 1'-6".

3 C-910.00 SAMPLE PUMP INSTALLATION DETAIL

SCALE: NTS

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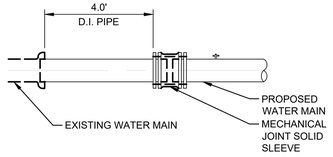
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STORM WATER DETAILS

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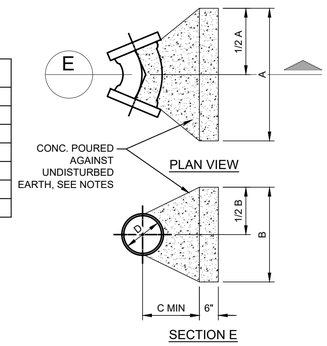
1 C-911.00

CONNECTION TO EXISTING WATER MAIN DETAIL

SCALE: NTS

DIA OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	2'-0"	1'-6"	1'-0"
8"	2'-0"	2'-0"	1'-3"
10" & 12"	3'-6"	2'-6"	1'-6"
14" & 16"	5'-6"	3'-0"	1'-9"
18" & 20"	6'-6"	3'-0"	1'-9"
24"	7'-0"	5'-0"	2'-0"

NOTE:
WHEN "A" DIMENSION IS 6'-6" OR GREATER, USE #4 BARS AT 12" CENTERS EACH WAY.



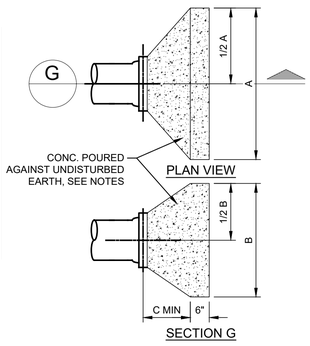
SECTION E

THRUST BLOCK AT 30° & 45° BEND DETAIL

NOT TO SCALE

DIA OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	2'-0"	1'-6"	9"
8"	2'-6"	2'-0"	1'-0"
10" & 12"	4'-0"	3'-0"	1'-3"
14" & 16"	5'-0"	4'-0"	1'-6"
18" & 20"	8'-0"	4'-0"	1'-9"
24"	9'-0"	5'-0"	2'-0"

NOTE:
WHEN "A" DIMENSION IS 8'-0" OR GREATER, USE #4 BARS AT 12" CENTERS EACH WAY.

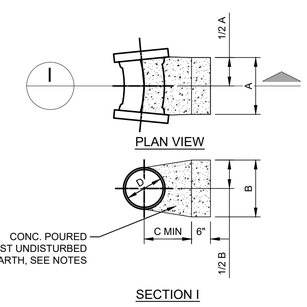


SECTION G

THRUST BLOCK AT PLUG DETAIL

NOT TO SCALE

DIA OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	1'-0"	1'-0"	1'-0"
8"	1'-3"	1'-3"	1'-0"
10" & 12"	1'-6"	1'-6"	1'-3"
14" & 16"	2'-0"	2'-0"	1'-6"
18" & 20"	3'-1"	2'-0"	1'-9"
24"	3'-0"	3'-0"	2'-0"

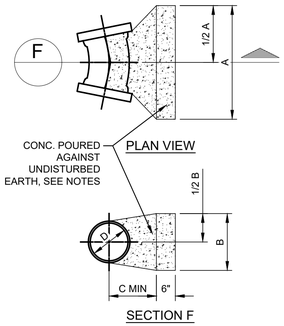


SECTION I

THRUST BLOCK AT 11 1/4° BEND DETAIL

NOT TO SCALE

DIA OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	1'-6"	1'-6"	1'-0"
8"	2'-0"	2'-0"	1'-0"
10" & 12"	2'-6"	2'-0"	1'-3"
14" & 16"	3'-0"	3'-0"	1'-6"
18" & 20"	4'-0"	3'-0"	1'-9"
24"	4'-0"	4'-6"	2'-0"



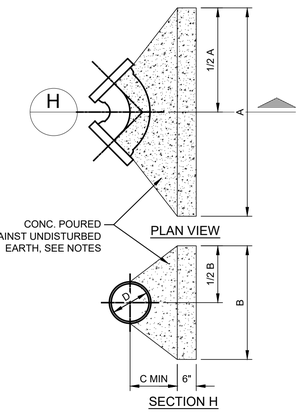
SECTION F

THRUST BLOCK AT 22 1/2° BEND DETAIL

NOT TO SCALE

DIA OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	2'-9"	1'-6"	9"
8"	3'-0"	2'-6"	1'-0"
10" & 12"	5'-6"	3'-0"	1'-3"
14" & 16"	6'-0"	5'-0"	1'-6"
18" & 20"	9'-0"	5'-0"	1'-9"
24"	11'-0"	6'-0"	2'-0"

NOTE:
WHEN "A" DIMENSION IS 6'-0" OR GREATER, USE#4 BARS AT 12" CENTERS EACH WAY.



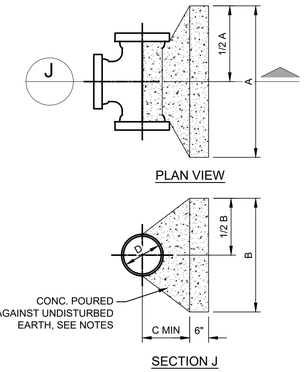
SECTION H

THRUST BLOCK AT 60° & 90° BEND DETAIL

NOT TO SCALE

DIA OF WATER MAIN	THRUST BLOCK		
D	A	B	C
6"	2'-0"	1'-6"	9"
8"	2'-6"	2'-0"	1'-0"
10" & 12"	4'-0"	3'-0"	1'-3"
14" & 16"	5'-0"	4'-0"	1'-6"
18" & 20"	8'-0"	4'-0"	1'-9"
24"	9'-0"	5'-0"	2'-0"

NOTE:
WHEN "A" DIMENSION IS 8'-0" OR GREATER, USE #4 BARS AT 12" CENTERS EACH WAY.



SECTION J

THRUST BLOCK AT TEE DETAIL

NOT TO SCALE

2 C-911.00

THRUST BLOCK DETAILS

SCALE: NTS

BID SET
DATE ISSUED: NOVEMBER 2026

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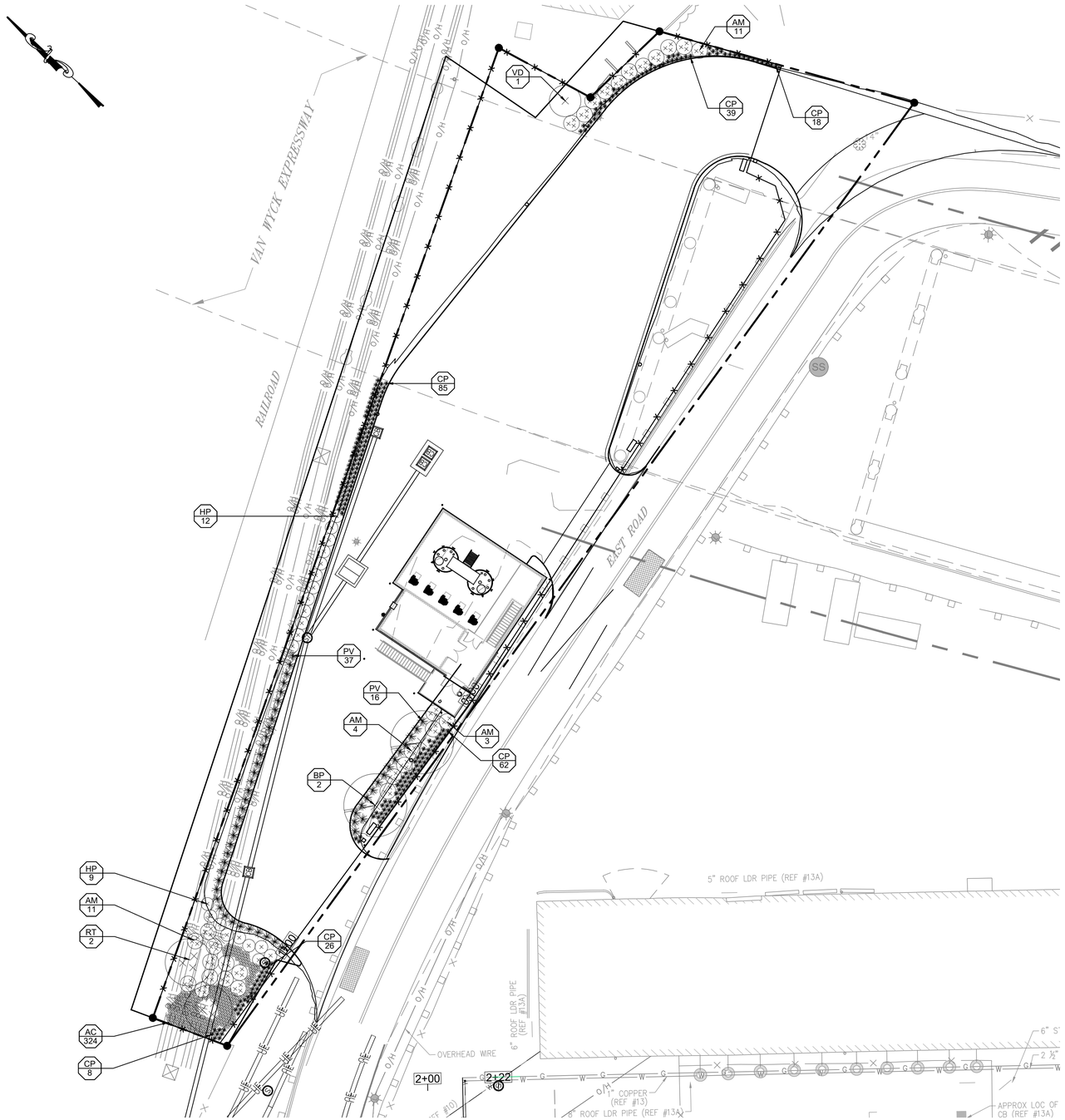
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

WATER LINE DETAILS

DATE: NOVEMBER 2026
SHEET NO: ##
DRAWING NO. C-911.00

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PROPOSED LANDSCAPE PLAN

SCALE: 1" = 20'-0"

PLANT LIST - TREES

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	COMMENTS
BP	BETULA POPULIFOLIA	GRAY BIRCH	4" CAL.	BALL & BURLAP		TOLERATES: STORM, SALT, DROUGHT
RT	RHUS TYPHINA	STAGHORN SUMAC	10'-12' HT.	BALL & BURLAP	15' O.C.	TOLERATES: SALT, DROUGHT

PLANT LIST - SHRUBS

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	COMMENTS
AM	ARONIA MELANOCARPA	BLACK CHOKEBERRY	5 GAL.	CONTAINER	5' O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT
HP	HYPERICUM PROLIFIUM	ST. JOHN'S WORT	5 GAL.	CONTAINER	4' O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT
VD	VIBURNUM DENTATUM	ARROW-WOOD VIBURNUM	5' HT.	BALL & BURLAP	10' O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT

PLANT LIST - PERENNIALS AND GRASSES

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	COMMENTS
AC	ASARUM CANADENSE	WILD GINGER	1 GAL.	CONTAINER	2' O.C.	
CP	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	2 GAL.	CONTAINER	18" O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT
PV	PANICUM VIRGATUM	SWITCHGRASS	5 GAL.	CONTAINER	3' O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT

1"=20' 0 20 40 FT.

NYC Environmental Protection BEDC/IHD

BID SET

SUBMITTAL DATE: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

IF SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: JF
DRAWN BY: SB
CHECKED BY: SB
DESIGN LEAD: JO ANNE C. FALCO, RLA
SECTION MANAGER:

EDR a better environment

REGISTERED LANDSCAPE ARCHITECT JO ANNE CHIARENZA FALCO 001474 STATE OF NEW YORK

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

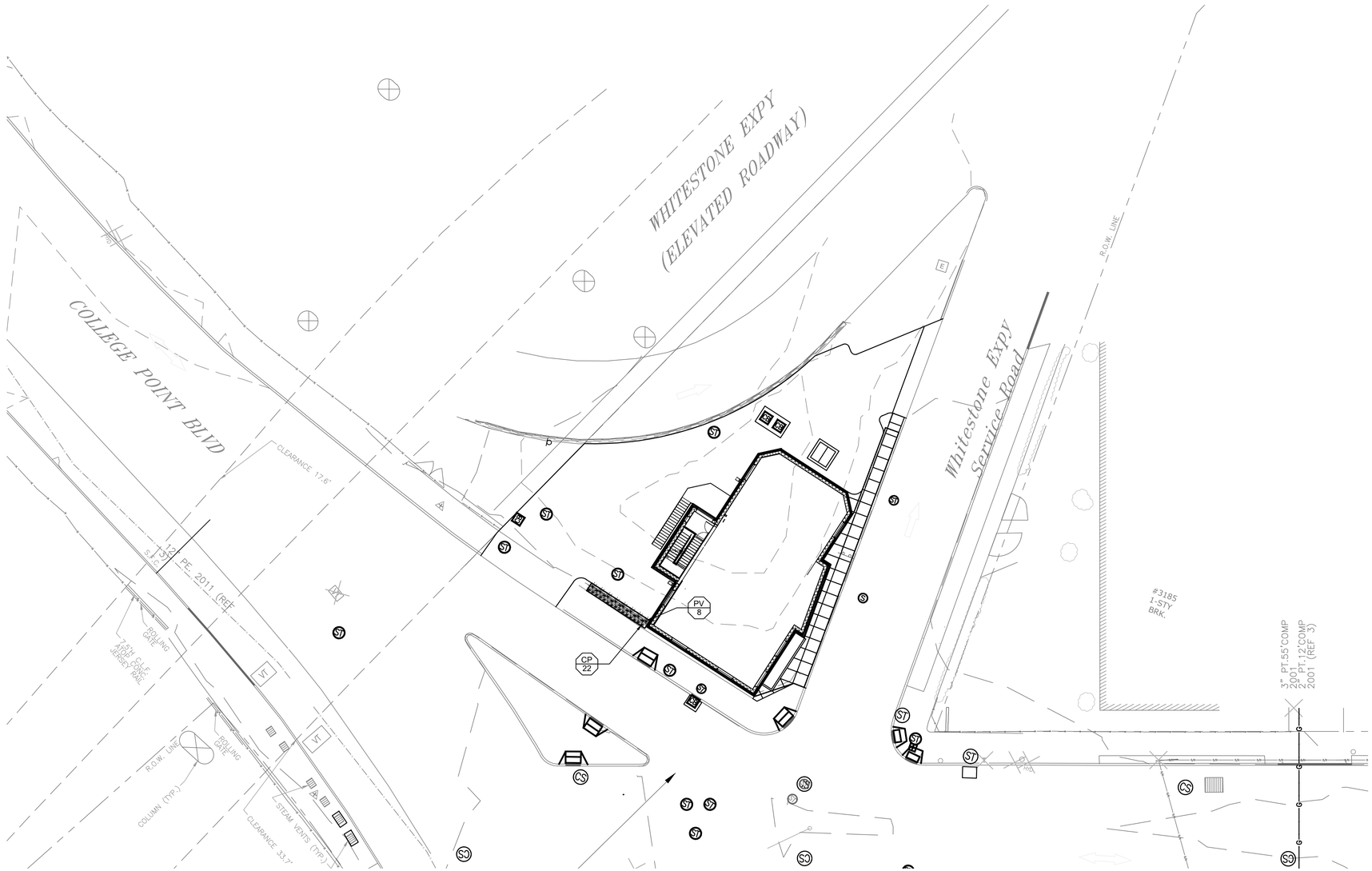
LANDSCAPE
TI-010 DECHLORINATION FACILITY
SITE LANDSCAPE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. L-301.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

PLANT LIST - PERENNIALS AND GRASSES

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	COMMENTS
CP	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	2 GAL.	CONTAINER	18" O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT
PV	PANICUM VIRGATUM	SWITCHGRASS	5 GAL.	CONTANER	3' O.C.	TOLERATES: STORM, SALT, FLOODING, DROUGHT



PROPOSED LANDSCAPE PLAN
SCALE: 1" = 20'-0"

BID SET
SUBMITTAL DATE: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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CHECKED BY: SB
DESIGN LEAD: JO ANNE C. FALCO, RLA
SECTION MANAGER:

REGISTERED LANDSCAPE ARCHITECT JO ANNE CHIARENZA FALCO 001474 STATE OF NEW YORK

EDR a better environment

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

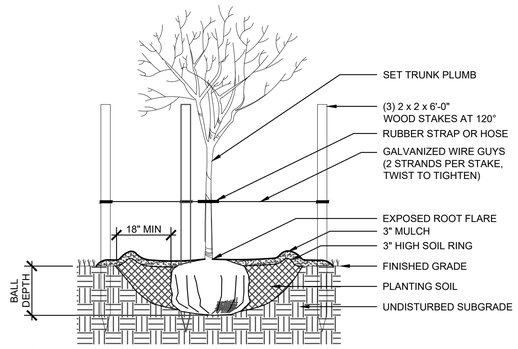
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

LANDSCAPE
TI-011 DISINFECTION FACILITY
SITE LANDSCAPE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. L-401.00

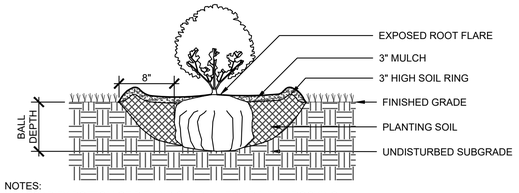


NOTES:

1. SCARIFY BOTTOM OF PIT AND SET BALL TO PREVENT ROCKING.
2. REMOVE BURLAP, ROPE, OR WIRE BASKET FROM TOP 1/3 OF BALL MINIMUM, CUT REMAINING PORTIONS OF ROPE OR WIRE BASKET ONCE PLANT IS IN THE FINAL POSITION IN PIT.

1 DECIDUOUS TREE

Scale: NTS WITH UPRIGHT STAKES

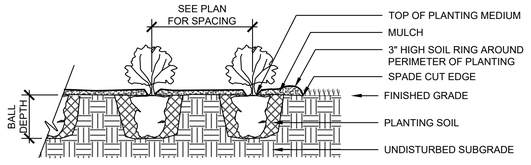


NOTES:

1. SCARIFY BOTTOM OF PIT AND SET BALL TO PREVENT ROCKING
2. TOP OF ROOT BALL SHALL BE SET FLUSH WITH, OR UP TO 1" ABOVE, SURROUNDING FINISHED GRADE.
3. SET PLANTS PLUMB

2 SHRUB

Scale: NTS

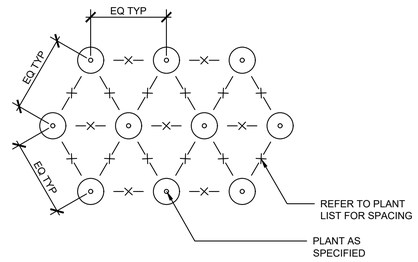


NOTES:

1. REMOVE GROWING CONTAINER
2. LOOSEN POT BOUND ROOTS
3. TOP OF PLANTING MEDIUM SHALL BE SET FLUSH WITH SURROUNDING FINISHED GRADE.
4. SET PLANTS PLUMB

3 PERENNIAL & GROUND COVER

Scale: NTS



4 PLANT LAYOUT

Scale: NTS WITH UPRIGHT STAKES

BID SET

SUBMITTAL DATE: NOVEMBER 2026

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DESIGN LEAD: JO ANNE C. FALCO, RLA
SECTION MANAGER:

REGISTERED LANDSCAPE ARCHITECT JO ANNE CHIARENZA FALCO 001474 STATE OF NEW YORK

EDR a better environment

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

LANDSCAPE
TI-010 DECHLORINATION FACILITY
SITE LANDSCAPE DETAILS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. L-901.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

ABBREVIATIONS

ACOUS	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ADMIN	ADMINISTRATION
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
BM	BEAM
BTWN	BETWEEN
BLK	BLOCK
BD	BOARD
BOT	BOTTOM
BO	BOTTOM OF
BRK	BRICK
BC	BRICK COURSES
BLDG	BUILDING
CAB	CABINET
CIP	CAST IN PLACE
CLG	CEILING
CT	CERAMIC TILE
CLO	CLOSET
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CJ	CONTROL JOINT
CORR	CORRIDOR
CU	CUBIC
CLR	CLEAR
DEMO	DEMOLITION
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
DF	DRINKING FOUNTAIN
EA	EACH
E	EAST
EWC	ELECTRIC WATER COOLER
ELEC	ELECTRICAL
EL	ELEVATION
EMBED	EMBEDMENT
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EX	EXISTING
EXP	EXPANSION
EJ	EXPANSION JOINT
EXT	EXTERIOR
FT	FEET
FRP	FIBER REINFORCED PLASTIC
FIN FLR	FINISH FLOOR
FE	FIRE EXTINGUISHER
FIXT	FIXTURE
FLR	FLOOR
FD	FLOOR DRAIN
FDTN	FOUNDATION
GA	GAUGE
GALV	GALVANIZED
GEN	GENERAL
GR	GRADE
GYP	GYPSUM
HDW	HARDWARE
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HT	HEIGHT
HPT	HIGH POINT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
INFO	INFORMATION
IN	INCH
ID	INSIDE DIMENSION
INSUL	INSULATION
INT	INTERIOR
JC	JANITOR'S CLOSET
JT	JOINT
LAB	LABORATORY
LAV	LAVATORY
LPT	LOW POINT
MFR	MANUFACTURER
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MTL	METAL
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
N	NORTH
NTS	NOT TO SCALE
NO	NUMBER
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
OD	OUTSIDE DIAMETER
OHCD	OVERHEAD COILING DOOR
PNT	PAINT(ED)
PL	PLATE
PLBG	PLUMBING
PVC	POLYVINYL CHLORIDE
PVF	POLYVINYL FLUORIDE
PCP	PORTLAND CEMENT PLASTER
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
QUAN	QUANTITY
RAD	RADIUS
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
R	RISER
RM	ROOM
RO	ROUGH OPENING
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
S	SOUTH
SPECS	SPECIFICATIONS
SQ	SQUARE
SST	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SYS	SYSTEM
TEMP	TEMPORARY
THK	THICK(NESS)
TOS	TOP OF SLAB/STEEL
T	TREAD
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORIES
UON	UNLESS OTHERWISE NOTED
VAR	VARIES
VERT	VERTICAL
VT	VINYL TILE
VP	VISION PANEL
WC	WATER CLOSET
WT	WEIGHT
W	WEST
W/	WITH
W/OUT	WITHOUT
WD	WOOD

LEGEND

- A — STRUCTURAL COLUMN CENTERLINE / WALL CENTERLINE IF NOT COLUMN
- # — NUMBER
- # — ACCESSORY, LAB FURNITURE & EQUIPMENT KEY
- A-### / # — BUILDING ELEVATION
- 1 / A-### — BUILDING SECTION
- 1 / A-### — WALL SECTION
- ℄ — CENTERLINE
- ∅ — DIAMETER
- ### — ROOM NUMBER
- ## — LOUVER NUMBER SYMBOL
- ## — DOOR NUMBER SYMBOL
- A — WALL PARTITION TYPE
- ELEVATION INDICATION
- # / TYPE — SIGNAGE TYPE (SIGNAGE SHEETS ONLY)

SYMBOLS

- GENERAL FILL
- GRATING
- STEEL
- BRICK
- CMU
- CONCRETE
- GROUT
- TRENCH COVER
- RIGID INSULATION
- WOOD
- WOOD FINISHED

GENERAL NOTES

1. LEGEND AND ABBREVIATIONS ON THIS SHEET IS INTENDED FOR GENERAL USE ON SHEETS. THEREFORE NOT ALL SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS SHEET ARE NECESSARILY USED AND SHOULD BE USED FOR CLARIFICATION ONLY.
2. ITEMS NOT NOTED ON SHEETS SHALL BE CONSIDERED THE SAME AS ITEMS WHICH ARE GRAPHICALLY REPRESENTED IN THE SAME MANNER.
3. * (ASTERISK) MEANS VERIFY DIMENSION WITH MANUFACTURER OF EQUIPMENT SUPPLIED OR IN FIELD. FIELD VERIFY ALL EXISITNG DIMENSIONS AND CONDITIONS.
4. CONSTRUCTION WORK SHALL COMPLY WITH OSHA 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION AND LOCAL RULES AND REGULATIONS.
5. CONSTRUCTION WORK SHALL COMPLY WITH NYC DEPARTMENT OF BUILDING RULES AND REGULATIONS. SEE BUILDING CHART AND SHEET FOR BUILDING CODE COMPLIANCE DATA.
6. CONSTRUCTION SHALL COMPLY WITH NYC FIRE DEPARTMENT RULES AND REGULATIONS.
7. ARCHITECTURAL COORDINATION:
   - A. SEE 'S' SHEETS FOR STRUCTURAL STEEL WORK, STEEL SIZES AND CONCETE WORK.
   - B. SEE 'H' SHEETS FOR HEATING VENTILATION AND AIR CONDITIONING COMPONENTS. SEE 'S' SHEETS FOR CONCRETE PADS AT EQUIPMENT. SEE ARCHITECTURAL 'A' SHEETS FOR LOCATION OF LOUVERS ON EXTERIOR OF BUILDING. COORDINATE WITH "H" DUCTWORK AND DAMPERS.
   - C. SEE 'P' SHEETS FOR PLUMBING WORK INCLUDING WATER, SANITARY AND INTERNAL STORM LINES.
   - D. SEE 'E' SHEETS FOR ELECTRICAL WORK INCLUDING ELECTRICAL COMPONENTS, WIRING AND CONDUITS, LIGHTING FIXTURES, GENERATOR SYSTEM AND FIRE DETECTION AND ALARM SYSTEMS.
8. ALL SELECTIVE DEMOLITON SHALL BE BY SAW CUTTING OR CORING. PROVIDE WATER AND WETTING OF AREAS OF DEMOLITION WHERE POSSIBLE. DO NOT USE WETTING AND WATER AROUND ELECTRICAL EQUIPMENT OR ELECTRONIC EQUIPMENT.
9. ALL DUST AND DEBRIS SHALL BE KEPT TO A MINIMUM BY PROVIDING DUST PARTITIONS.
   - A. AIR COMPRESSION DUSTING, VACCUMING AND SWEEPING OF WORK AREA SHALL BE PERFORMED PRIOR TO INSTALLATION OF ELECTRICAL PANELS AND DURING CONSTRUCTION ONCE A WEEK THEREAFTER UNTIL COMPLETION.
10. CONTRACTOR SHALL PROVIDE SEQUENCE OF CONSTRUCTION THAT DOES NOT INSTALL FINISH PRODUCTS SUCH AS DOORS AND DOOR HARDWARE UNTIL ALL CONSTRUCTION WORK IN AREA IS COMPLETE.
    - A. DOOR FRAMES INSTALLED DURING CONSTRUCTION SHALL BE PROTECTED. BOX OUT FRAME JAMBS AND HEADS WITH WOOD BLOCKING AND PLYWOOD TO PREVENT DAMAGE. DAMAGED FRAMES SHALL BE REPLACED (REPAIR IS NOT ACCEPTABLE) AT NOT COST TO OWNER. WHERE ROOMS REQUIRE LOCKING DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE TEMPORARY PLYWOOD DOORS AND LOCKS ATTACHED TO WOOD BLOCKING AT JAMBS.
    - B. WALL AND SURFACES TO BE PAINTED SHALL BE PAINTED PRIOR TO WALL MOUNTING OF EQUIPMENT OR PLACEMENT OF EQUIPMENT AGAINST WALL. TOUCH UP ALL PAINTED SURFACES AT END OF PROJECT CONSTRUCTION. ONE COAT OF FINISH PAINT ON ALL SURFACES.
11. NEW AND EXISTING BELOW GRADE WALLS AND FOUNDATION EXPOSED DURING CONSTRUCTION SHALL BE INSPECTED, CLEANED AND DAMPPROOFED. PROVIDE 2" RIGID FOUNDATION INSULATION AS PROTECTION BOARD TO WITHIN 6" OF FINISH GRADE.

BID SET
DATE ISSUED: NOVEMBER 2026

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DESIGNED BY: GB
DRAWN BY: SM, PK
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DAWKINS 11/3/26 023935 STATE OF NEW YORK

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ARCHITECTURAL
ABBREVIATIONS, LEGEND & NOTES

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-001.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T11B-A-R21_ARCA.rvt
10/30/2026 12:07:05 PM

BUILDING CODE CHART: 2022 CONSTRUCTION CODES OF THE CITY OF NEW YORK			
	TI-011		NOTES
NFPA 820 CLASSIFICATION	UNCLASSIFIED		
BUILDING (MAIN) OCCUPANCY (CHAPTER 3)	H-4		
MIXED USE FACILITY	NO		
ROOM SEPARATION RATING			
CONSTRUCTION CLASSIFICATION (CHAPTER 6)	II-B		
NUMBER OF STORIES	ALLOWABLE	ACTUAL	
	4	2	
BUILDING HEIGHT	ALLOWABLE	ACTUAL	
	75'-0"	34'-6"	
ALLOWABLE AREA FACTOR (SM=35,000 SF)	ALLOWABLE	ACTUAL	
	70,000 SF	3,157 SF	
FIRE SEPARATION DISTANCE RATINGS (TABLE 705.5):			
	REQUIRED	PROVIDED	
DISTANCE LESS THAN 5'	3	3	
DISTANCE BETWEEN 5' & 10'	2	2	
DISTANCE BETWEEN 10' & 30'	1	1	
DISTANCE MORE THAN 30'	0	0	
FIRE RESISTANCE RATING REQ'TS FOR BLDG ELEMENTS (TABLE 601):			
	REQUIRED	PROVIDED	
PRIMARY STRUCTURAL FRAMING	0	0	
BEARING WALLS - EXTERIOR	0	0	
BEARING WALLS - INTERIOR	0	0	
NON BEARING WALLS - EXTERIOR	SEE FIRE SEPARATION DISTANCE RATINGS		
NON BEARING WALLS - INTERIOR	0	0	
FLOOR CONSTRUCTION	0	0	
ROOF CONSTRUCTION	0	0	
INTERIOR FINISHES (TABLE 803.5) :			
VERTICAL EXITS AND EXIT PASSAGEWAYS	B	A	
EXIT ACCESS CORRIDORS & OTHER EXITWAYS	B	A	
ROOMS AND ENCLOSED SPACES	C	A	
FIRE PROTECTION SYSTEMS (CHAPTER 9):			
	REQUIRED	PROVIDED	
AUTOMATIC SPRINKLER SYSTEMS (SECTION 903)	YES	YES	
ALT. AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (SECTION 904)	NO	NO	
STANDPIPE SYSTEMS (SECTION 905)	NO	NO	
PORTABLE FIRE EXTINGUISHERS (SECTION 906)	YES	YES	
FIRE ALARM AND DETECTION SYSTEMS(SECTION 907)	YES	YES	
EMERGENCY ALARM SYSTEMS (SECTION 908)	YES	YES	
EMERGENCY RESPONDER SAFETY FEATURES (SECTION 914)	NO	NO	
MEANS OF EGRESS (CHAPTER 10):			
	REQUIRED/...	PROVIDED	
OCCUPANT LOAD CHART (TABLE 1004.1.2)	MECHANICAL / ELECTRICAL 300SF / PERSON		
EGRESS WIDTH PER OCCUPANT LOAD - STAIRWAYS (SECTION 1005.3)	MIN 36"	40"	
EGRESS WIDTH PER OCCUPANT LOAD - OTHER COMPONENTS (SECTION 1005.3)	MIN 36"	36"	
STORIES WITH ONE MEANS OF EGRESS (TABLE 1021.2)	YES	LESS THAN 10 PEOPLE LESS THAN 75'	
SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1)	YES	LESS THAN 10 PEOPLE LESS THAN 75'	
EXIT ACCESS TRAVEL DISTANCE	MAX 75'-0"	SEE PLAN	
CORRIDOR FIRE-RESISTANCE RATING	0	0	
ACCESSIBILITY (ANSI/ ADAAG):			
	REQUIRED	PROVIDED	
CONSTRUCTION SITES	NO	NO	
ACCESSIBLE ROUTE	NO	NO	
ACCESSIBLE ENTRANCE	NO	NO	
EQUIPMENT SPACES	NO	NO	
PARKING	NO	NO	
SIGNAGE	YES	YES	

BUILDING CODE CHART: 2022 CONSTRUCTION CODES OF THE CITY OF NEW YORK			
	TI-010D		NOTES
NFPA 820 CLASSIFICATION	UNCLASSIFIED		
BUILDING (MAIN) OCCUPANCY (CHAPTER 3)	H-4		
MIXED USE FACILITY	NO		
ROOM SEPARATION RATING			
CONSTRUCTION CLASSIFICATION (CHAPTER 6)	II-B		
NUMBER OF STORIES	ALLOWABLE	ACTUAL	
	4	2	
BUILDING HEIGHT	ALLOWABLE	ACTUAL	
	75'-0"	23'-4"	
ALLOWABLE AREA FACTOR (SM=35,000 SF)	ALLOWABLE	ACTUAL	
	70,000 SF	1,730 SF	
FIRE SEPARATION DISTANCE RATINGS (TABLE 705.5):			
	REQUIRED	PROVIDED	
DISTANCE LESS THAN 5'	3	3	
DISTANCE BETWEEN 5' & 10'	2	2	
DISTANCE BETWEEN 10' & 30'	1	1	
DISTANCE MORE THAN 30'	0	0	
FIRE RESISTANCE RATING REQ'TS FOR BLDG ELEMENTS (TABLE 601):			
	REQUIRED	PROVIDED	
PRIMARY STRUCTURAL FRAMING	0	0	
BEARING WALLS - EXTERIOR	0	0	
BEARING WALLS - INTERIOR	0	0	
NON BEARING WALLS - EXTERIOR	SEE FIRE SEPARATION DISTANCE...		
NON BEARING WALLS - INTERIOR	0	0	
FLOOR CONSTRUCTION	0	0	
ROOF CONSTRUCTION	0	0	
INTERIOR FINISHES (TABLE 803.5) :			
VERTICAL EXITS AND EXIT PASSAGEWAYS	B	A	
EXIT ACCESS CORRIDORS & OTHER EXITWAYS	B	A	
ROOMS AND ENCLOSED SPACES	C	A	
FIRE PROTECTION SYSTEMS (CHAPTER 9):			
	REQUIRED	PROVIDED	
AUTOMATIC SPRINKLER SYSTEMS (SECTION...	YES	YES	
ALT. AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (SECTION 904)	NO	NO	
STANDPIPE SYSTEMS (SECTION 905)	NO	NO	
PORTABLE FIRE EXTINGUISHERS (SECTION...	YES	YES	
FIRE ALARM AND DETECTION SYSTEMS(SECTION 907)	YES	YES	
EMERGENCY ALARM SYSTEMS (SECTION 908)	YES	YES	
EMERGENCY RESPONDER SAFETY FEATURES (SECTION 914)	NO	NO	
MEANS OF EGRESS (CHAPTER 10):			
	REQUIRED/...	PROVIDED	
OCCUPANT LOAD CHART (TABLE 1004.1.2)	MECHANICAL / ELECTRICAL 300SF / PERSON		
EGRESS WIDTH PER OCCUPANT LOAD - STAIRWAYS (SECTION 1005.3)	MIN 36"	40"	
EGRESS WIDTH PER OCCUPANT LOAD - OTHER COMPONENTS (SECTION 1005.3)	MIN 36"	36"	
STORIES WITH ONE MEANS OF EGRESS (TABLE 1021.2)	YES	LESS THAN 10 PEOPLE LESS THAN 75'	
SPACES WITH ONE MEANS OF EGRESS (TABLE 1015.1)	YES	LESS THAN 10 PEOPLE LESS THAN 75'	
EXIT ACCESS TRAVEL DISTANCE	MAX. 75'-0"	SEE PLAN	
CORRIDOR FIRE-RESISTANCE RATING	0	0	
ACCESSIBILITY (ANSI/ ADAAG):			
	REQUIRED	PROVIDED	
CONSTRUCTION SITES	NO	NO	
ACCESSIBLE ROUTE	NO	NO	
ACCESSIBLE ENTRANCE	NO	NO	
EQUIPMENT SPACES	NO	NO	
PARKING	NO	NO	
SIGNAGE	YES	YES	

BUILDING CODE CHART: 2022 CONSTRUCTION CODES OF THE CITY OF NEW YORK			
	EXISTING TI-010C		NOTES
NFPA 820 CLASSIFICATION	UNCLASSIFIED		
BUILDING (MAIN) OCCUPANCY (CHAPTER 3)			
MIXED USE FACILITY			
ROOM SEPARATION RATING			
CONSTRUCTION CLASSIFICATION (CHAPTER 6)			
NUMBER OF STORIES	ALLOWABLE	ACTUAL	
	NA	ETR	1
BUILDING HEIGHT	ALLOWABLE	ACTUAL	
	NA	ETR	1
ALLOWABLE AREA FACTOR (SM=35,000 SF)	ALLOWABLE	ACTUAL	
	NA	ETR	1
FIRE SEPARATION DISTANCE RATINGS (TABLE 705.5):			
	REQUIRED	PROVIDED	
DISTANCE LESS THAN 5'	0	0	1
DISTANCE BETWEEN 5' & 10'	0	0	1
DISTANCE BETWEEN 10' & 30'	0	0	1
DISTANCE MORE THAN 30'	0	0	1
FIRE RESISTANCE RATING REQ'TS FOR BLDG ELEMENTS (TABLE 601):			
	REQUIRED	PROVIDED	
PRIMARY STRUCTURAL FRAMING	0	0	1
BEARING WALLS - EXTERIOR	0	0	1
BEARING WALLS - INTERIOR	0	0	1
NON BEARING WALLS - EXTERIOR			1
NON BEARING WALLS - INTERIOR	0	0	1
FLOOR CONSTRUCTION	0	0	1
ROOF CONSTRUCTION	0	0	1
INTERIOR FINISHES (TABLE 803.5) :			
VERTICAL EXITS AND EXIT PASSAGEWAYS	A	A	1
EXIT ACCESS CORRIDORS & OTHER EXITWAYS	A	A	1
ROOMS AND ENCLOSED SPACES	A	A	1
FIRE PROTECTION SYSTEMS (CHAPTER 9):			
	REQUIRED	PROVIDED	
AUTOMATIC SPRINKLER SYSTEMS (SECTION 903)	ETR	ETR	1
ALT. AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (SECTION 904)	ETR	ETR	1
STANDPIPE SYSTEMS (SECTION 905)	ETR	ETR	1
PORTABLE FIRE EXTINGUISHERS (SECTION 906)	ETR	ETR	1
FIRE ALARM AND DETECTION SYSTEMS(SECTION 907)	ETR	ETR	1
EMERGENCY ALARM SYSTEMS (SECTION 908)	ETR	ETR	1
EMERGENCY RESPONDER SAFETY FEATURES (SECTION 914)	ETR	ETR	1
MEANS OF EGRESS (CHAPTER 10):			
	REQUIRED/...	PROVIDED	1
OCCUPANT LOAD CHART (TABLE 1004.1.2)	MECHANICAL / ELECTRICAL 300SF / PERSON		1
EGRESS WIDTH PER OCCUPANT LOAD - STAIRWAYS (SECTION 1005.3)	MIN 36"	NO CHANGE	1
EGRESS WIDTH PER OCCUPANT LOAD - OTHER COMPONENTS (SECTION 1005.3)	MIN 36"	NO CHANGE	1
STORIES WITH ONE MEANS OF EGRESS (TABLE...	NONE	NO CHANGE	1
SPACES WITH ONE MEANS OF EGRESS (TABLE...	NONE	NO CHANGE	1
EXIT ACCESS TRAVEL DISTANCE	NO CHANGE TO EGRESS		1
CORRIDOR FIRE-RESISTANCE RATING	0		1
ACCESSIBILITY (ANSI/ ADAAG):			
	REQUIRED	PROVIDED	
CONSTRUCTION SITES	NO	NO	
ACCESSIBLE ROUTE	NO	NO	
ACCESSIBLE ENTRANCE	NO	NO	
EQUIPMENT SPACES	NO	NO	
PARKING	NO	NO	
SIGNAGE	YES	YES	

TI-010C CODE NOTES:

1. ALL WORK SHALL COMPLY WITH CITY OF NEW YORK 2022 CONSTRUCTION CODES AND ASSOCIATED OR REFERENCED REGULATIONS AND STANDARDS.
2. TI-010C STRUCTURE IS AN EXISTING FACILITY WITH LIMITED WORK SCOPE. SCOPE INCLUDES:
   - 2.1 MODIFICATIONS TO RAILINGS.
   - 2.2 EXTENDING OF EQUIPMENT ACCESS PLATFORMS
   - 2.3 MODIFICATION TO EXISTING PROCESS EQUIPMENT.
3. CONSTRUCTION TYPE AND OCCUPANCY: NO CHANGE IN CONSTRUCTION TYPE OR OCCUPANCY
4. FIRE PROTECTION: NO CHANGE IN FIRE PROTECTION OF BUILDING.
5. MEANS OF EGRESS: NO CHANGE IN MEANS OF EGRESS.
6. ENERGY CODE COMPLIANCE SHALL CONFORM TO CHAPTER C5 EXISTING BUILDINGS AND C4 COMMERCIAL ENERGY EFFICIENCY.
   - 6.1 BUILDING ENVELOPE IS TO REMAIN WITH EXISTING PENETRATION BEING REUSED.

TI-010D CODE NOTES:

1. ALL WORK SHALL COMPLY WITH CITY OF NEW YORK 2022 CONSTRUCTION CODES AND ASSOCIATED OR REFERENCED REGULATIONS AND STANDARDS.
2. TI-010D STRUCTURES ARE UNMANNED AND OPERATE FOR PART OF THE YEAR.
3. BUILDING CONTAINS ONE FIRE AREA.
4. FIRE PROTECTION:
   - 4.1 BUILDING IS PROVIDED WITH AUTOMATIC SPRINKLER SYSTEM. ELECTRICAL ROOM SHALL BE PROTECTED BY ALTERNATE FIRE DETECTION SYSTEM PER BC 907.2. PER BC 907.2 ELECTRICAL ROOM SHALL BE COVERED BY SMOKE DETECTORS.
   - 4.2 SPRINKLER PIPING SHALL BE PAINTED IN ACCORDANCE WITH BC 903.6.
5. BUILDING IS EXEMPT FROM ACCESSIBILITY REQUIREMENT OF BC CHAPTER 11.
   - 5.1 BASED ON BC 1101.2 ACCESSIBILITY SHALL BE IN ACCORDANCE WITH ICC A117.1.
   - 5.2 BC1103.2 EXEMPT THE FOLLOWING FUNCTIONS AND AREAS:
     - BC1103.2.5 CONSTRUCTION SITES - DURING CONSTRUCTION.
     - BC1103.2.9 EQUIPMENT SPACES - ENTIRE BUILDING IS AN EQUIPMENT SPACE.
6. ENERGY CODE COMPLIANCE - REFER TO EN SHEETS AND COMCHECK DATA.

TI-11 - CODE NOTES:

1. ALL WORK SHALL COMPLY WITH CITY OF NEW YORK 2022 CONSTRUCTION CODES AND ASSOCIATED OR REFERENCED REGULATIONS AND STANDARDS.
2. TI-011 STRUCTURES ARE UNMANNED AND OPERATE FOR PART OF THE YEAR.
3. BUILDING CONTAINS ONE FIRE AREA.
4. FIRE PROTECTION:
   - 4.1 BUILDING IS PROVIDED WITH AUTOMATIC SPRINKLER SYSTEM. ELECTRICAL ROOM SHALL BE PROTECTED BY ALTERNATE FIRE DETECTION SYSTEM PER BC 907.2. PER BC 907.2 ELECTRICAL ROOM SHALL BE COVERED BY SMOKE DETECTORS.
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     - BC1103.2.9 EQUIPMENT SPACES - ENTIRE BUILDING IS AN EQUIPMENT SPACE.
6. ENERGY CODE COMPLIANCE - REFER TO EN SHEETS AND COMCHECK DATA.

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REGISTERED ARCHITECT ANTONIO DAWKINS STATE OF NEW YORK 11/3/26

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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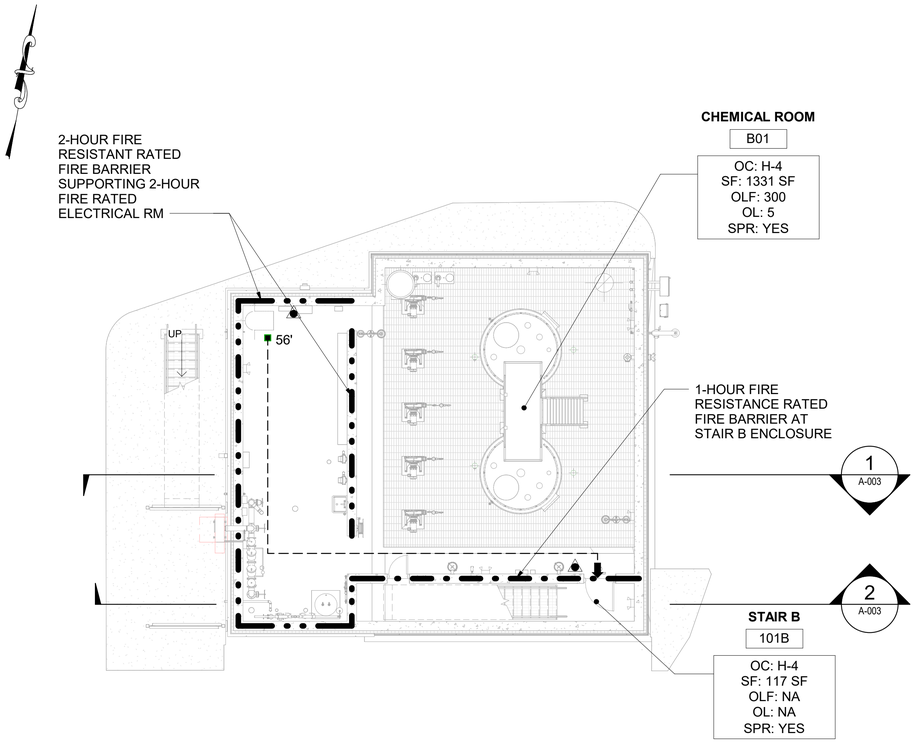
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ARCHITECTURAL
CODE CHARTS AND NOTES

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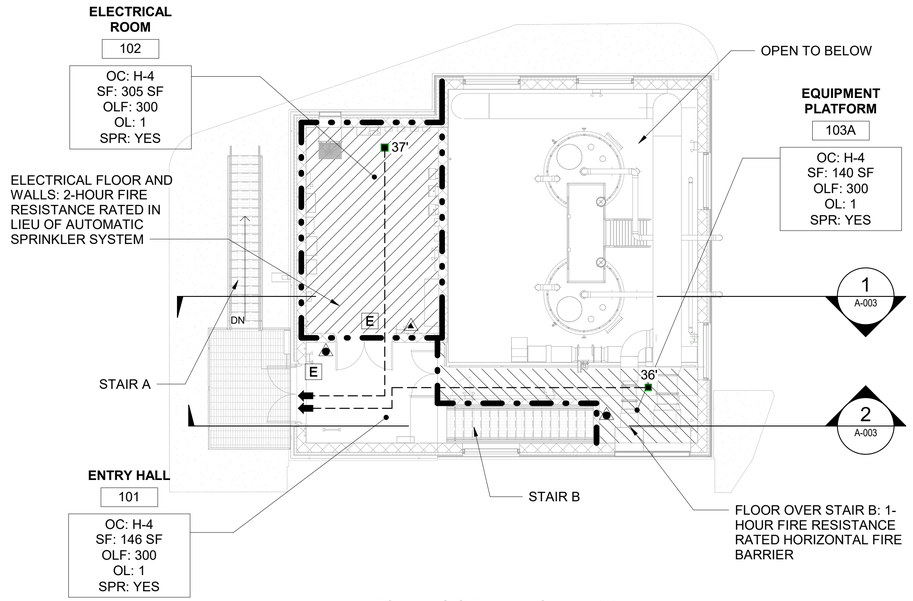
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BASEMENT LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"



FIRST FLOOR LIFE SAFETY PLAN

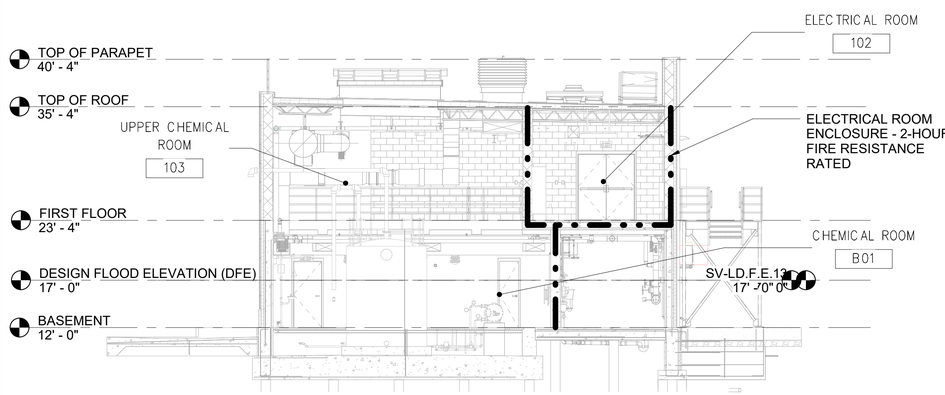
SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. ELECTRICAL ROOM IS 2-HOUR FIRE RESISTANCE RATED IN LIEU OF AUTOMATIC SPRINKLER SYSTEM.
2. ELECTRICAL ROOM PENETRATIONS TO OTHER SPACES SHALL BE 2- HOUR FIRE RESISTANCE RATED
3. CHEMICAL STORAGE ROOMS SHALL BE 1-HOUR FIRE RESISTANCE RATED.
4. CHEMICAL STORAGE ROOM PENETRATIONS TO OTHER ROOMS SHALL BE MIN 1-HOUR FIRE RESISTANCE RATED.

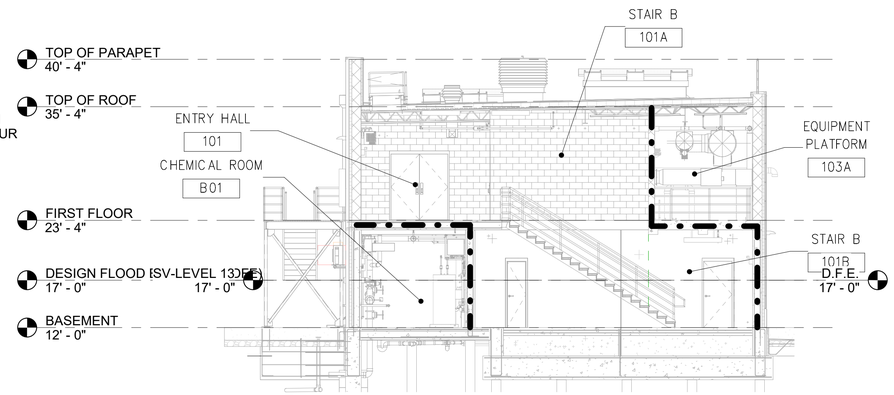
LIFE SAFETY SYMBOLS LEGEND:

	FIRE EXTINGUISHER, CO2
	FIRE EXTINGUISHER, MULTI-PURPOSE DRY CHEMICAL
	FIRE EXTINGUISHER, CO2 (IN CABINET)
	FIRE EXTINGUISHER, MULTI-PURPOSE DRY CHEMICAL (IN CABINET)
E	EXIT SIGN LOCATION
	DIRECTION OF EGRESS PATH # IS DISTANCE IN FEET TO EXIT FROM SQUARE DOT TO ARROW
	I HR FIRE BARRIER RATING
	2 HR FIRE BARRIER RATING
	3 HR FIRE BARRIER RATING
	4 HR FIRE BARRIER RATING
OC	OCCUPANT CLASSIFICATION
SF	SQUARE FEET
OLF	OCCUPANT LOAD FACTOR
OL	OCCUPANT LOAD
SPR	SPRINKLER
NA	NOT APPLICABLE
	FLOOR PLAN: 1-HOUR FIRE RATING
	FLOOR PLAN: 2-HOUR FIRE RATING



1 A-003 LIFE SAFETY SECTION

SCALE: 1/8" = 1'-0"



2 A-003 LIFE SAFETY SECTION

SCALE: 1/8" = 1'-0"

1/8"=1'-0" 0 5 10 15 FT.

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LIFE SAFETY PLANS

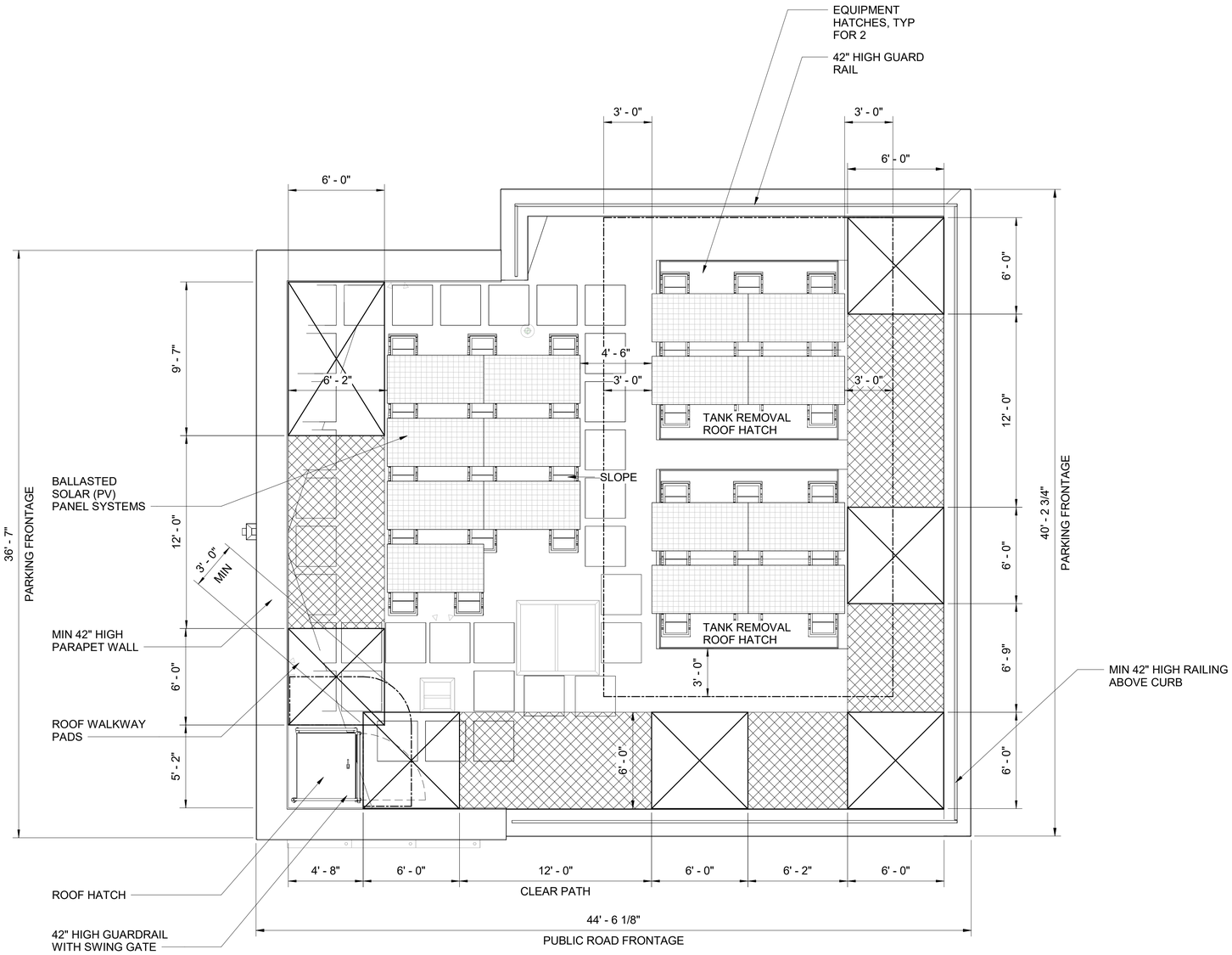
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FIRE DEPARTMENT ROOFTOP LEGENDS:

- FIRE DEPARTMENT FRONTAGE ACCESS LANDING - 6' X 6' MIN
- FIRE DEPARTMENT ACCESS CLEAR PATH UNOBSTRUCTED
- LINE TYPE DELINEATES: 3' MIN CLEARANCE AT LADDERS, SCUTELES AND ROOF OPENINGS 6' MIN CLEARANCE AT ROOF DOOR



ROOF FIRE ACCESS PLAN

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

1/8"=1'-0" 0 5 10 15 FT.

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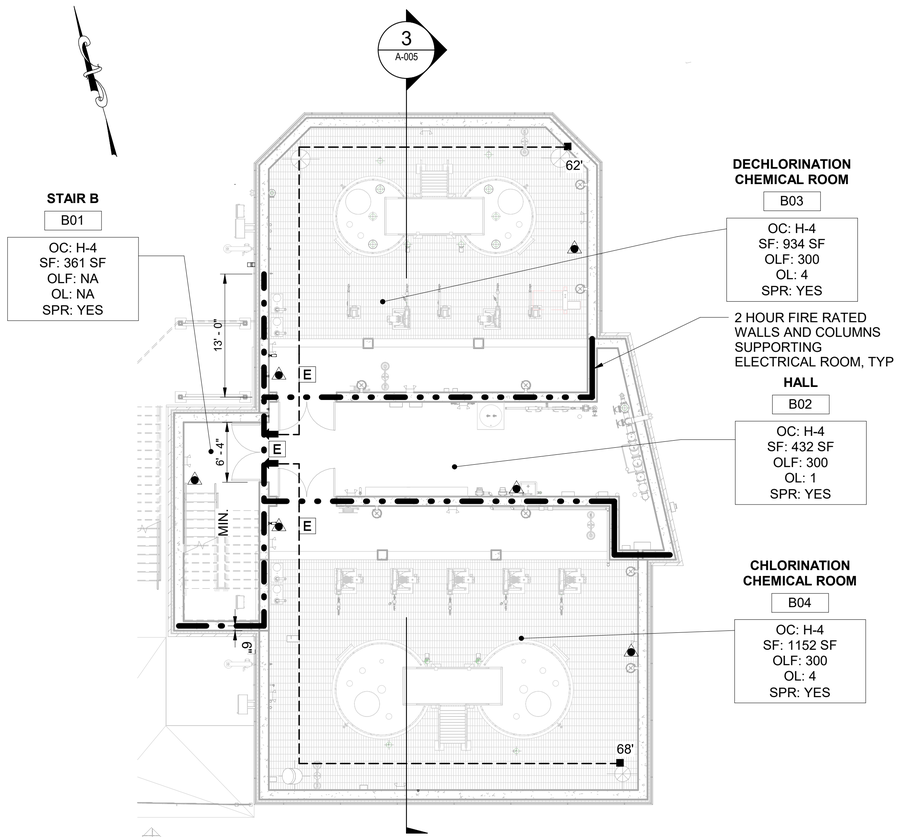
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TI-010 DECHLORINATION FACILITY
FIRE ACCESS PLAN

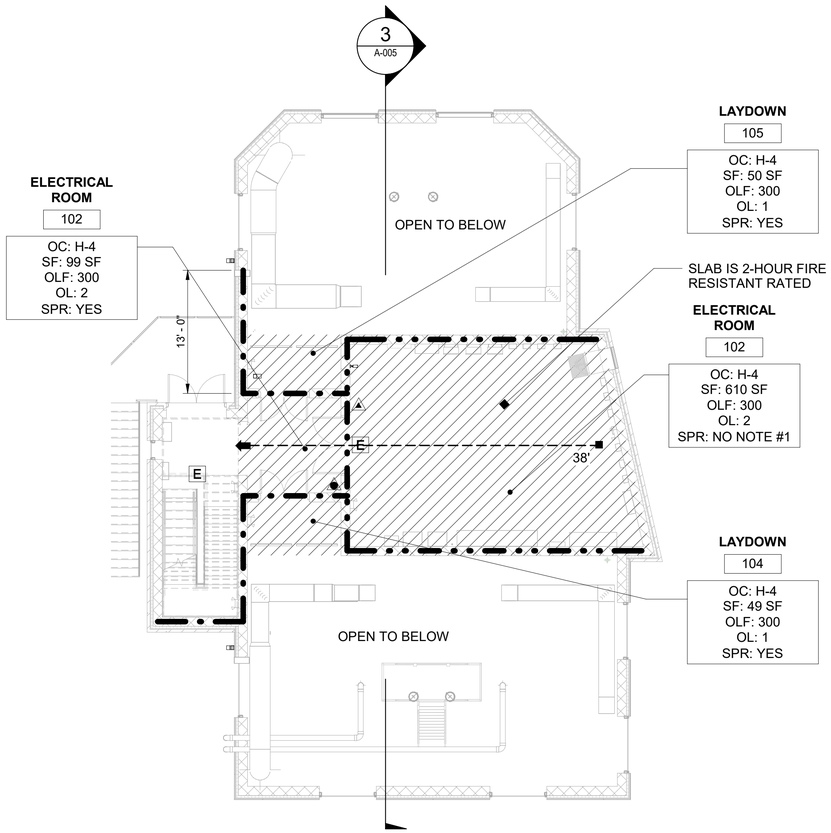
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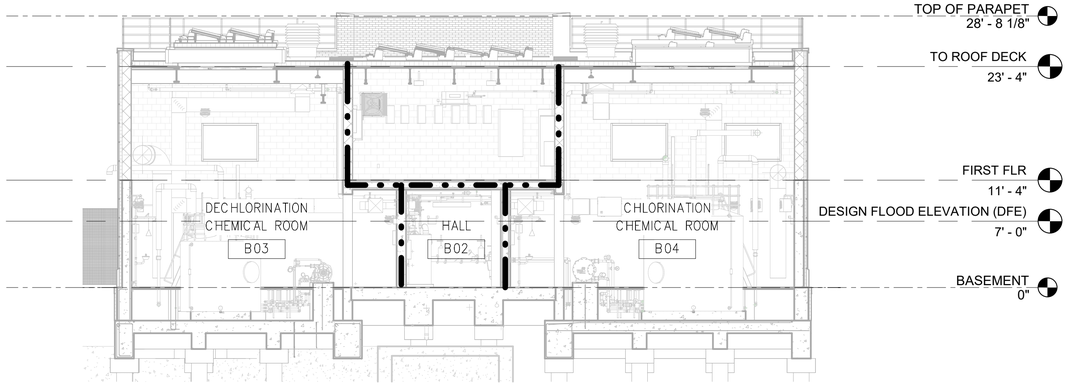
1 A-005 BASEMENT LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"



2 A-005 FIRST FLOOR LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"



3 A-005 LIFE SAFETY SECTION

SCALE: 1/8" = 1'-0"

SHEET NOTES:

1. ELECTRICAL ROOM IS 2-HOUR FIRE RESISTANCE RATED IN LIEU OF AUTOMATIC SPRINKLER SYSTEM.
2. ELECTRICAL ROOM PENETRATIONS OF OTHER SPACES SHALL BE 2- HOUR FIRE RESISTANCE RATED
3. CHEMICAL STORAGE ROOMS SHALL BE 1-HOUR FIRE RESISTANCE RATED.
4. CHEMICAL STORAGE ROOM PENETRATIONS TO OTHER ROOMS SHALL BE MIN 1-HOUR FIRE RESISTANCE RATED.

LIFE SAFETY SYMBOLS LEGENDS:

	FIRE EXTINGUISHER, CO2
	FIRE EXTINGUISHER, MULTI-PURPOSE DRY CHEMICAL
	FIRE EXTINGUISHER, CO2 (IN CABINET)
	FIRE EXTINGUISHER, MULTI-PURPOSE DRY CHEMICAL (IN CABINET)
E	EXIT SIGN LOCATION
	DIRECTION OF EGRESS PATH # IS DISTANCE IN FEET TO EXIT FROM SQUARE DOT TO ARROW
	I HR FIRE BARRIER RATING
	2 HR FIRE BARRIER RATING
	3 HR FIRE BARRIER RATING
	4 HR FIRE BARRIER RATING
OC	OCCUPANT CLASSIFICATION
OLF	SQUARE FEET
OL	OCCUPANT LOAD FACTOR
SPR	OCCUPANT LOAD
SF	SPRINKLER
NA	NOT APPLICABLE
	FLOOR PLAN: 1-HOUR FIRE RATING
	FLOOR PLAN: 2-HOUR FIRE RATING

1/8"=1'-0" 0 5 10 15 FT.

NYC Environmental Protection

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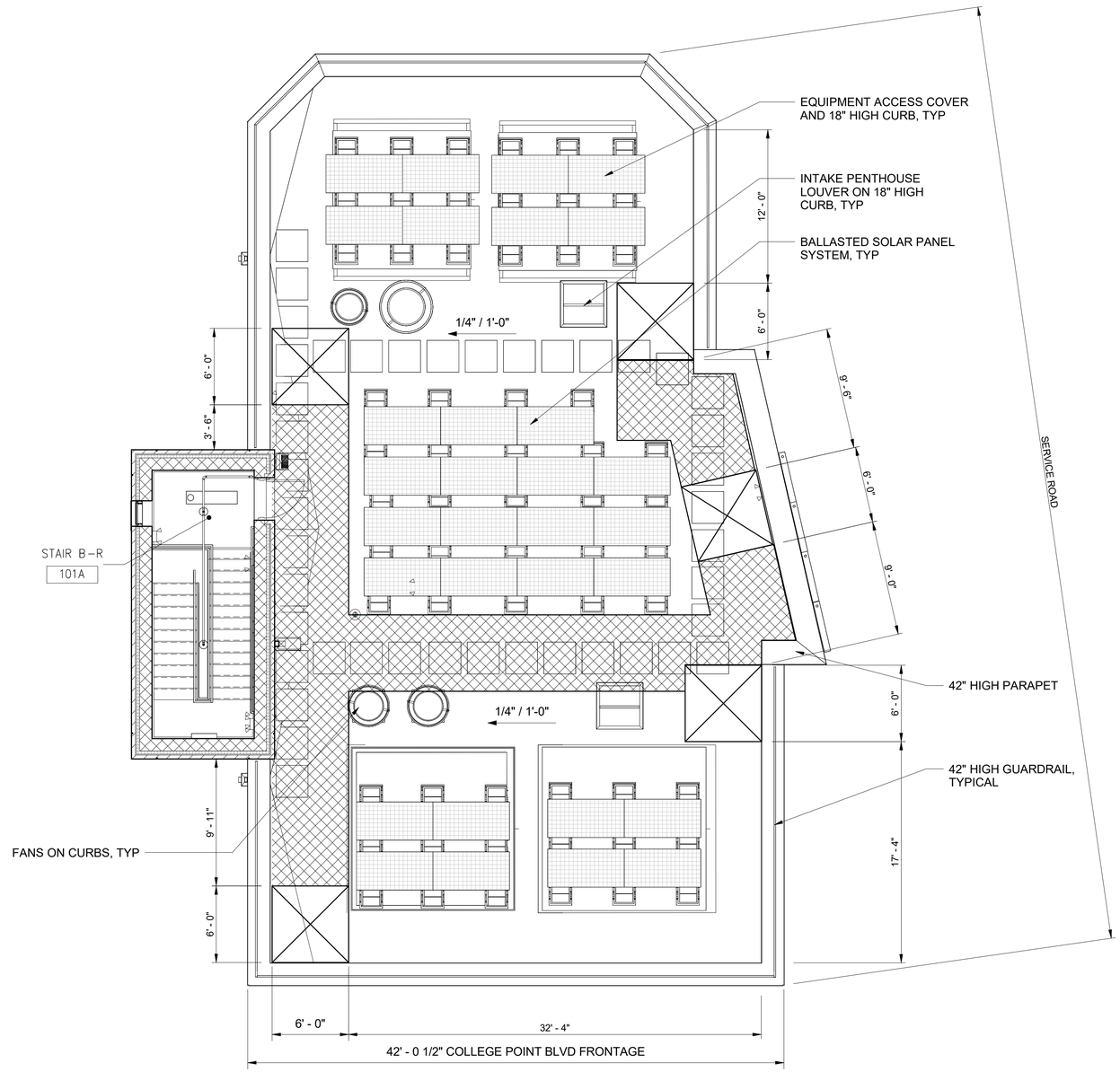
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LIFE SAFETY PLANS

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FIRE DEPARTMENT ROOFTOP LEGENDS:

- FIRE DEPARTMENT FRONTAGE ACCESS LANDING - 6' X 6' MIN
- FIRE DEPARTMENT ACCESS CLEAR PATH UNOBSTRUCTED
- LINE TYPE DELINEATES:
  3' MIN CLEARANCE AT LADDERS, SCUTTLES AND ROOF OPENINGS
  6' MIN CLEARNACE AT ROOF DOOR

ROOF FIRE ACCESS PLAN

SCALE: 3/16" = 1'-0"

3/16"=1'-0" 0 5 10 FT.

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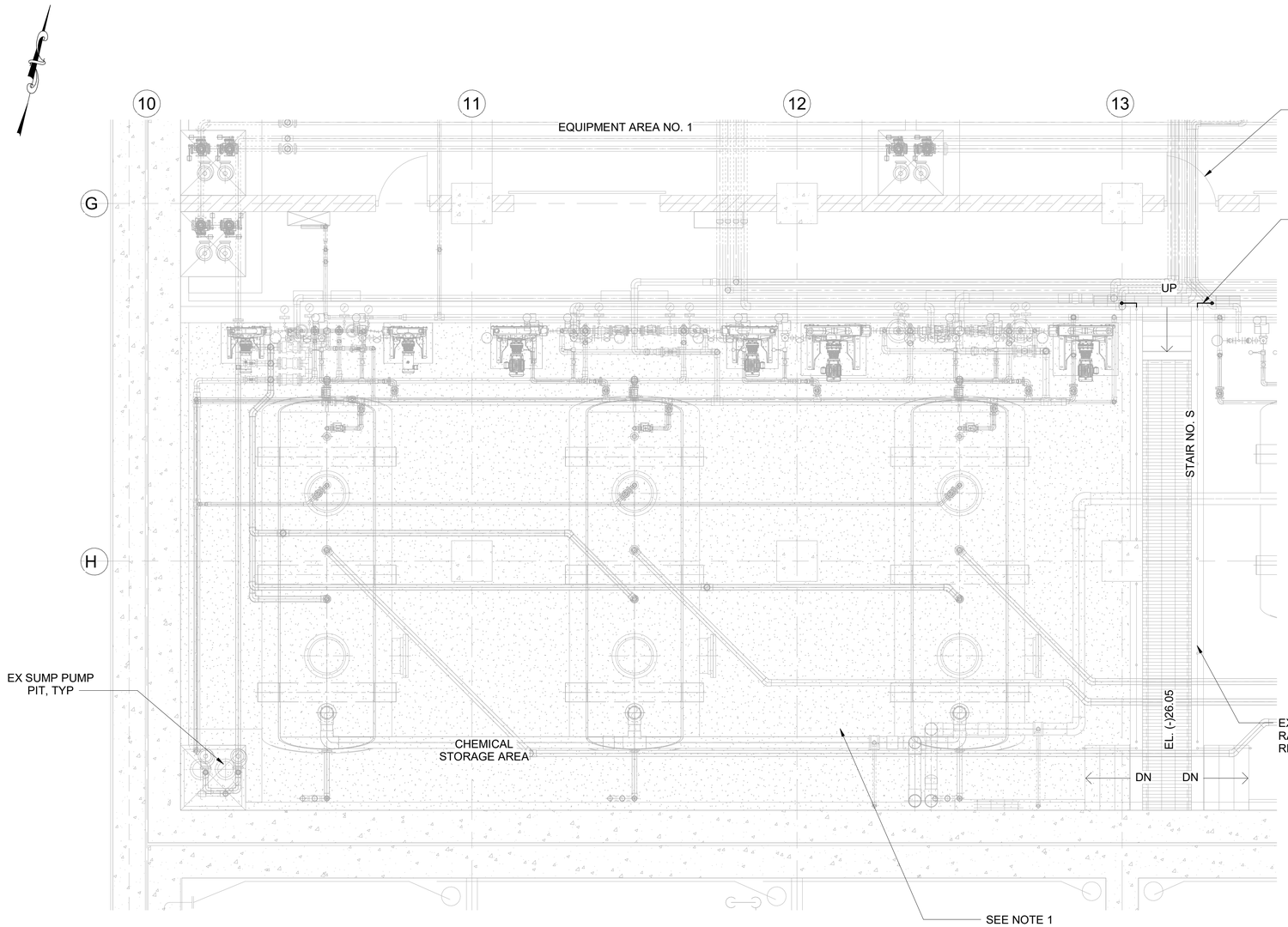
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
FIRE ACCESS PLAN

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CHEMICAL STORAGE - LOWER ENLARGED PARTIAL PLAN

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

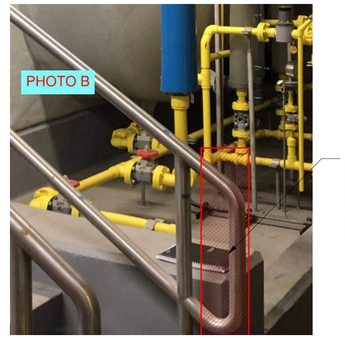
SHEET NOTES:

1. PROVIDE CHEMICAL RESISTANT COATING SYSTEM IN CONTAINMENT AREA AND SUMP PUMP PIT. REFERENCE SHEET A-907 FOR TYPICAL EXTENT OF CHEMICAL RESISTANT COATING SYSTEM WITHIN CONTAINMENT AREA.
2. SEE MECHANICAL AND STRUCTURAL SHEETS FOR EXTENT OF WORK IN AREA.

RAILING NOTES:

1. PROVIDE EXISTING CONDITION DRAWING WITH MEASUREMENT OF RAILING AREA INCLUDING CONCRETE KNEE WALL, HANDRAIL AND STAIR DIMENSIONS IN TWO ELEVATIONS AND PLAN.
2. SAW CUT AREAS TO BE REMOVED.
3. BURNISH RAILING SECTION AT CUT EDGE IN PREPARATION FOR SPLICE AND WELDING.

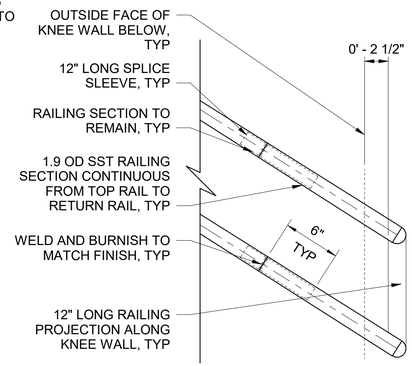




SAW CUT AND REMOVE "P" LOOP RETURN IN MIDDLE OF STRAIGHT SECTION, TYP

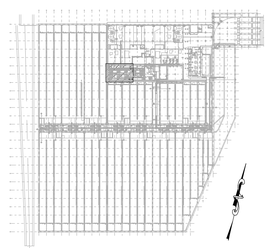
RAILING DEMOLITION PHOTOGRAPHS

SCALE: N.T.S.



MODIFIED RAILING DETAIL

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



KEY PLAN

1 1/2"=1'-0" 0 1 1-1/2 FT.

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT GIORGIO ANTONIO DAMIANI 11/3/26 023935 STATE OF NEW YORK

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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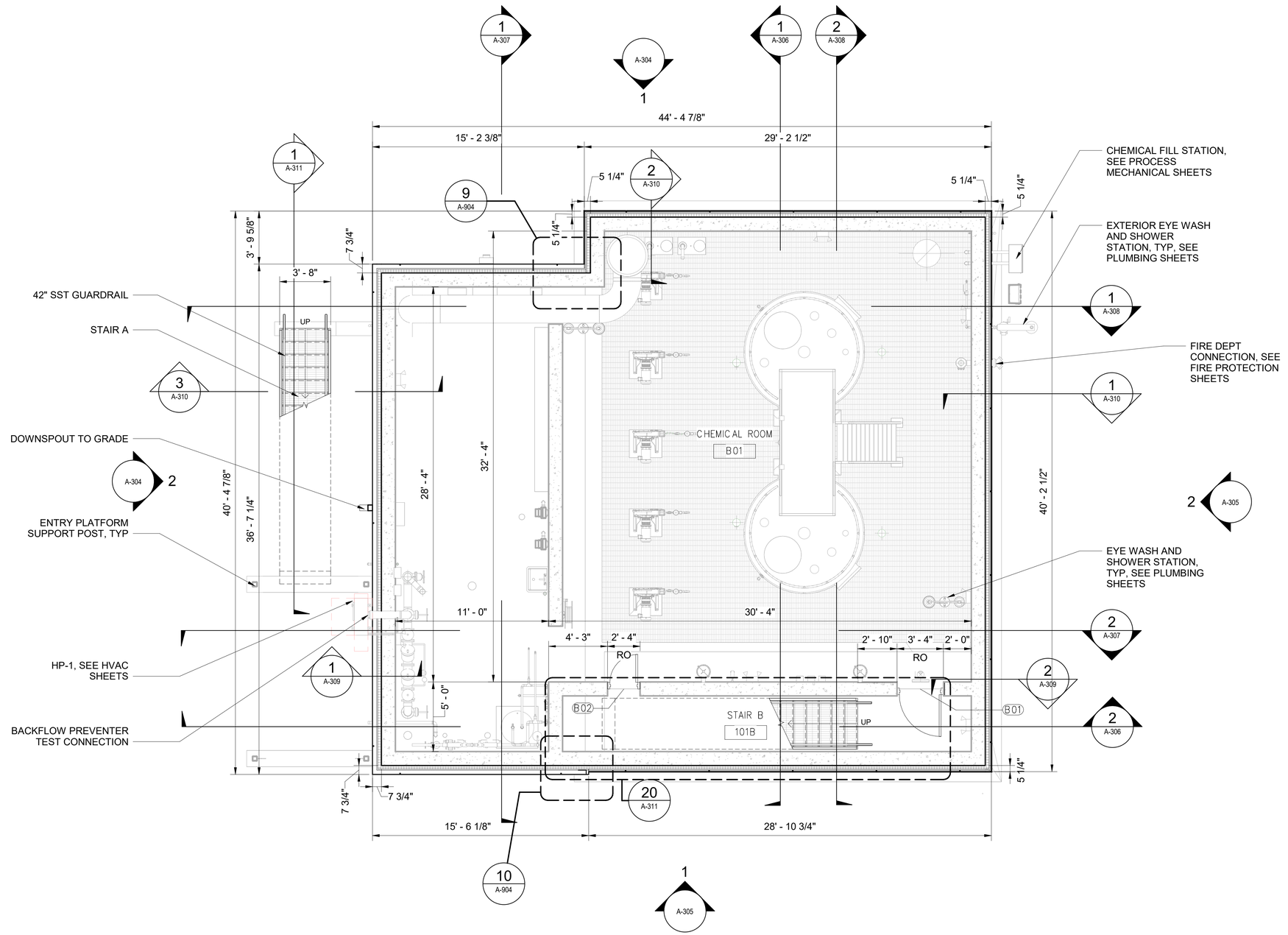
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ARCHITECTURAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - LOWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-101.00

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BASEMENT PLAN

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

SHEET NOTES:

1. SEE CIVIL SHEETS FOR GRADING AND SITE MATERIALS.
2. ALL PENETRATION BELOW DESIGN FLOOD ELEVATION (DFE) SHALL BE WATERTIGHT.
3. PROVIDE PERIMETER INSULATION AND FLASHING AROUND ENTIRE BUILDING, SEE SECTIONS.
4. REFER TO SHEET A-907 FOR EXTENT OF CHEMICAL RESISTANT COATING WITHIN CONTAINMENT AREA.
5. TANK SHIP LADDER, PLATFORM AND RAILING SHALL BE PROVIDED BY TANK MANUFACTURER.
6. FRP GRATING AND FRP SUPPORTS, SEE STRUCTURAL SHEETS.

1/4"=1'-0" 0 4 8 FT.

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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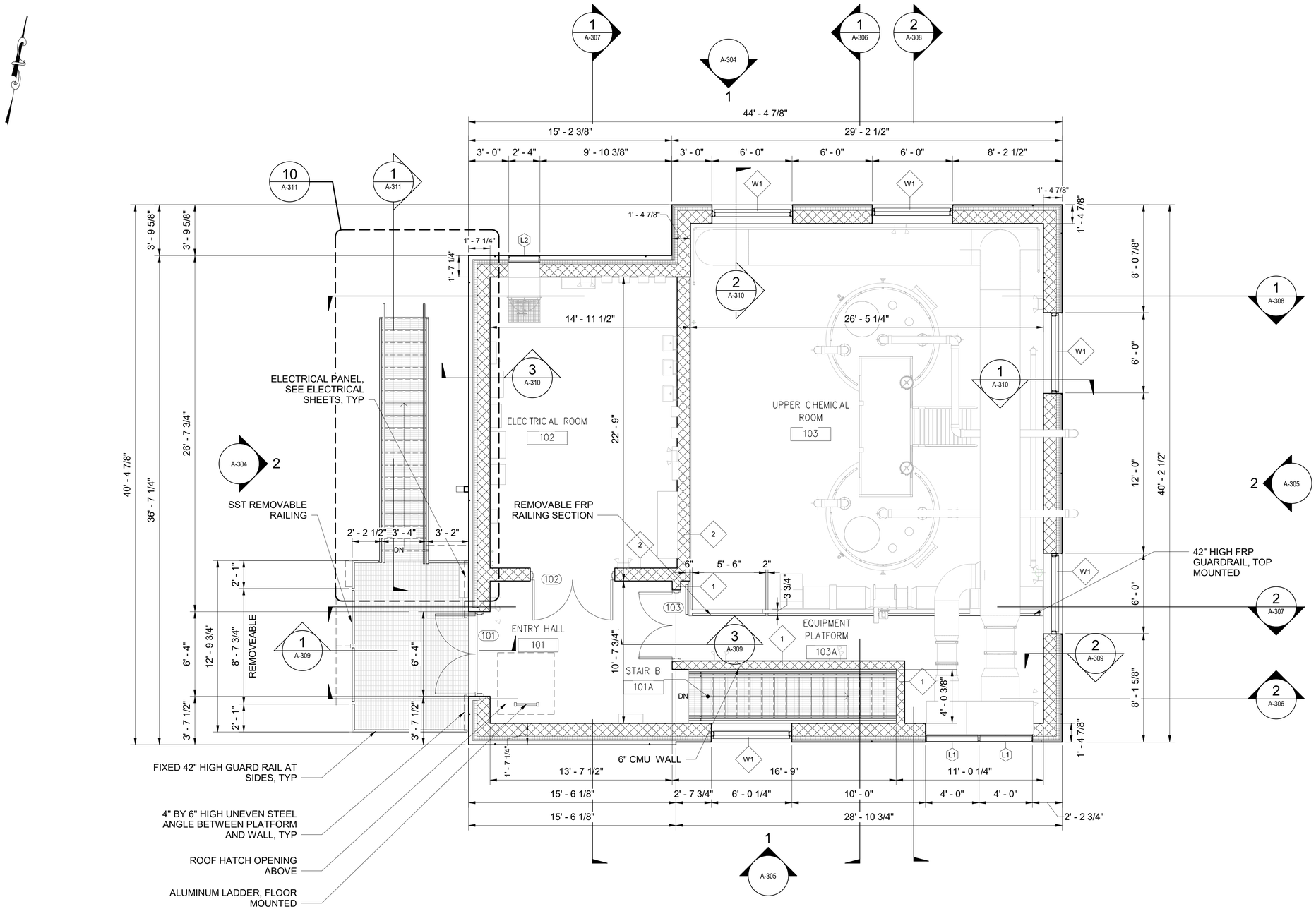
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
BASEMENT PLAN

DATE: NOVEMBER 2026
SHEET NO:
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1/4"=1'-0" 0 4 8 FT.

FIRST FLOOR PLAN

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

NYC Environmental Protection

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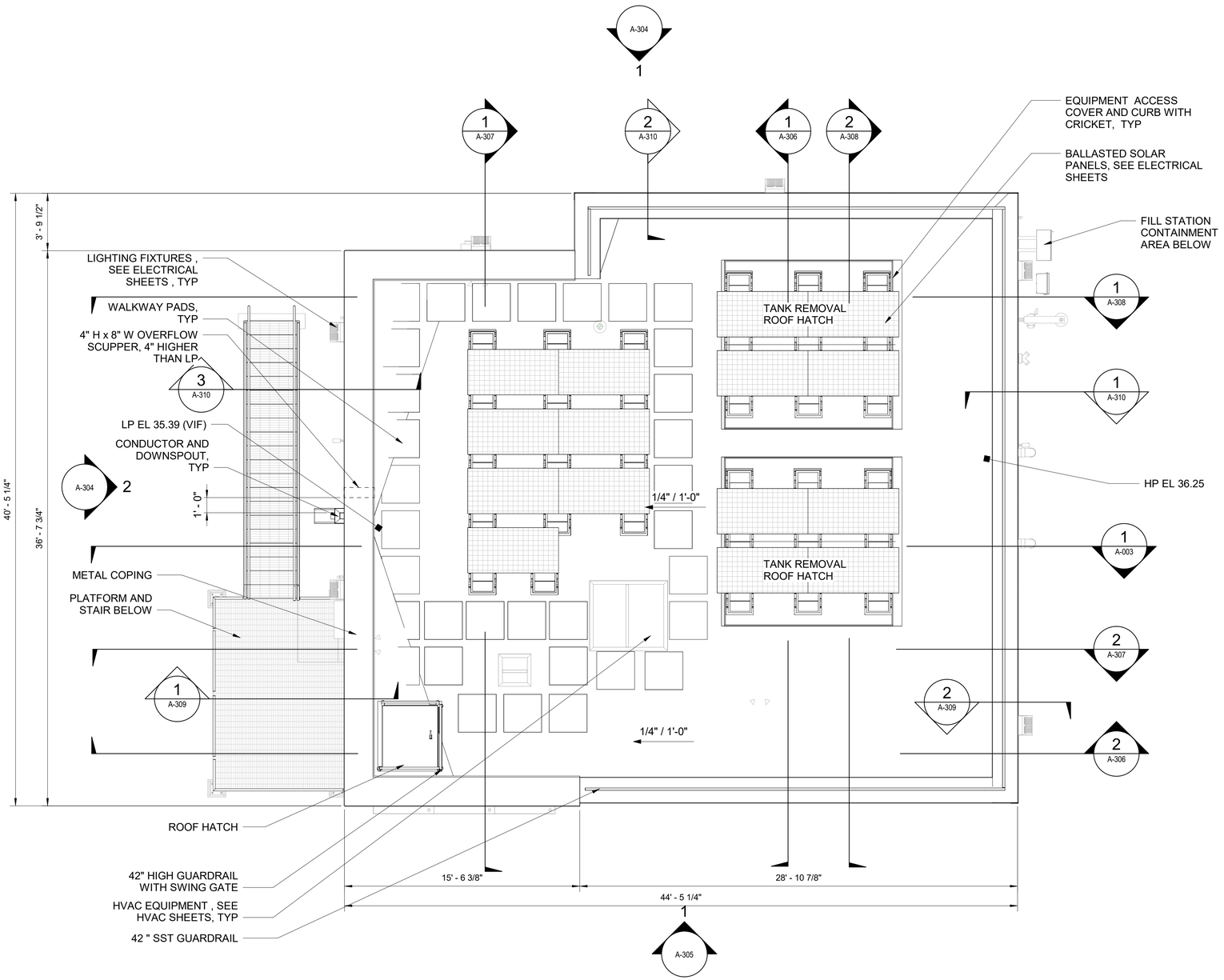
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ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
FIRST FLOOR PLAN

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ROOF PLAN

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

SHEET NOTES:

1. SEE EXTERIOR ELEVATION FOR ROOF RAILING POST ALIGNMENT.

ROOF LEGEND

- ROOF SLOPE 1/4" PER FOOT
- CRICKET SLOPE 1/2" PER FOOT
- WALKWAY PAD
- SOLAR PANEL
- LP EL## — ROOF LOW POINT ELEVATION, VIF
- HP EL## — ROOF HIGH POINT ELEVATION, VIF

1/4"=1'-0" 0 4 8 FT.

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ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
ROOF PLAN

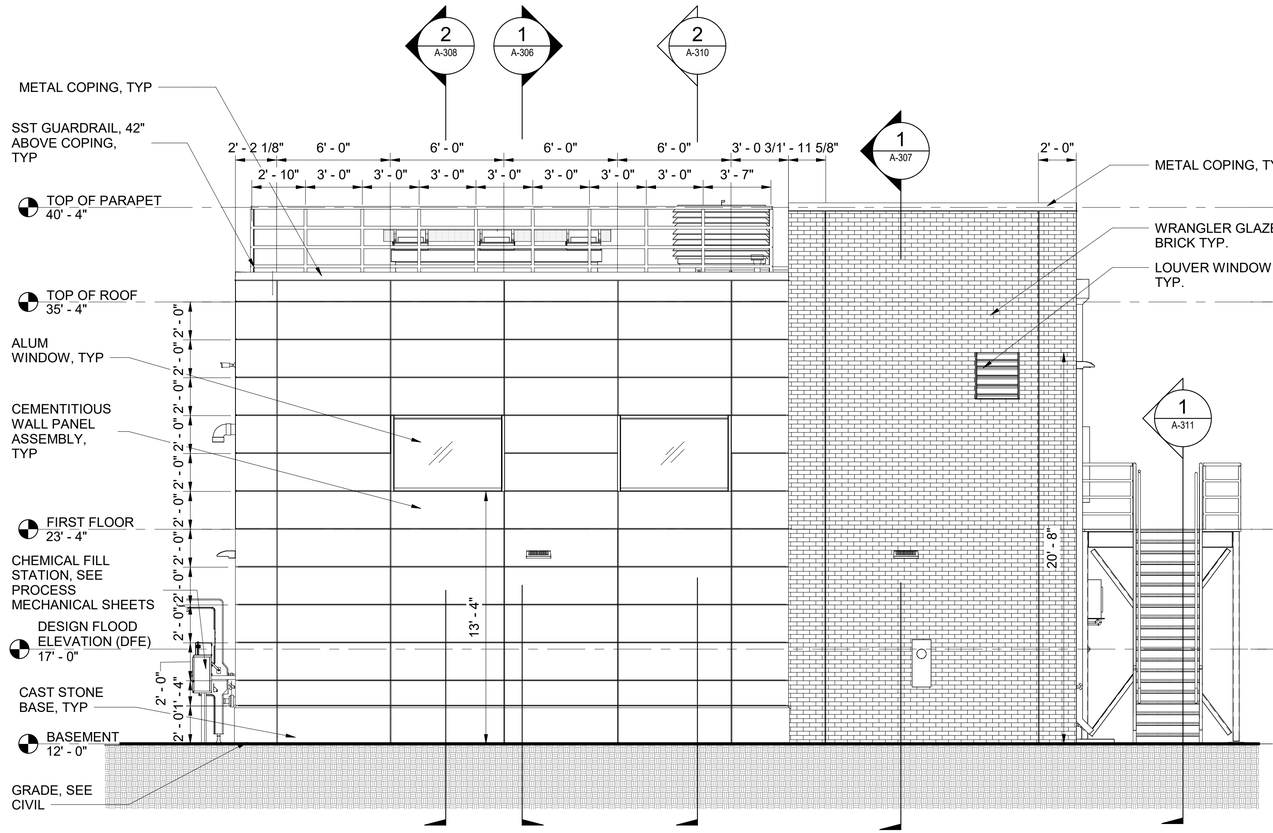
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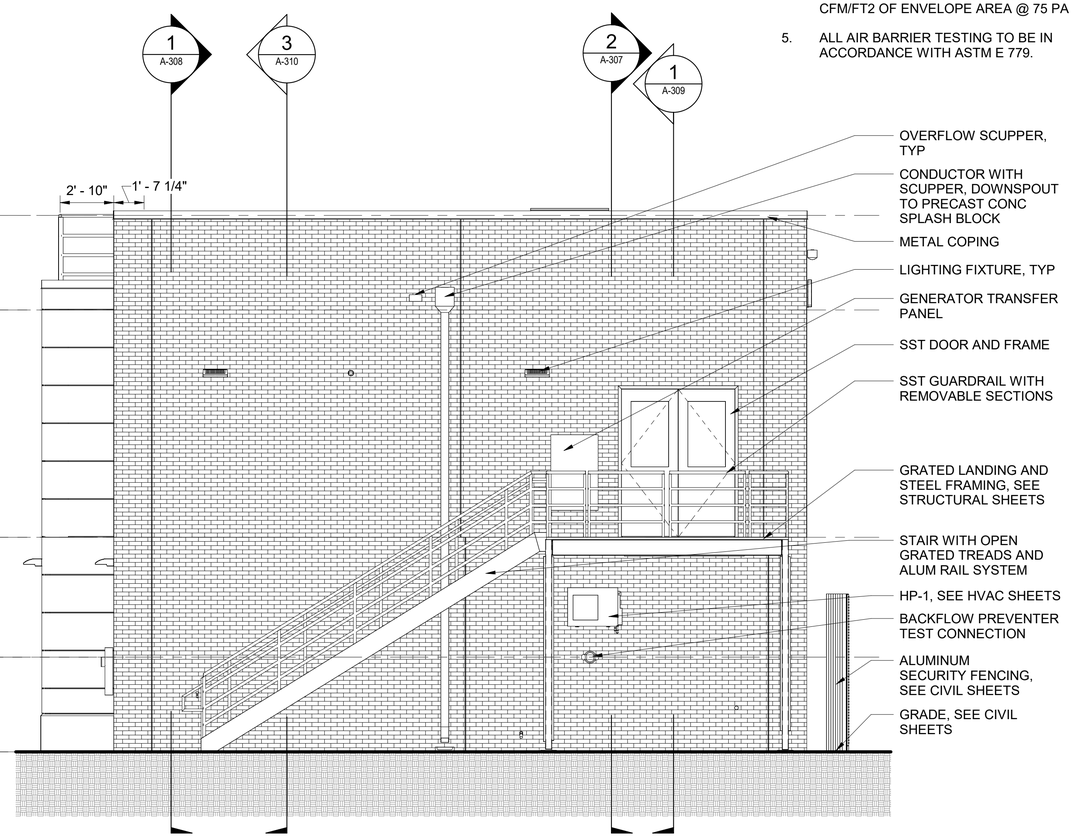
SHEET NOTES:

1. PERIMETER FENCING NOT SHOWN FOR CLARITY.
2. BUILDING WINDOW TO WALL RATIO IS 2.9%.
3. BUILDING SHALL MEET THE MAXIMUM AIR LEAKAGE VALUES SET IN THE NYC ENERGY CONSERVATION CODE.
4. BUILDING THERMAL ENVELOPE TO BE TESTED TO NO MORE THAN 0.4 CFM/FT2 OF ENVELOPE AREA @ 75 PA
5. ALL AIR BARRIER TESTING TO BE IN ACCORDANCE WITH ASTM E 779.



1 A-301 NORTH ELEVATION

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



2 A-301 WEST ELEVATION

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

EXTERIOR FINISH SCHEDULE		
COMPONENT	**MATERIAL / FINISH**	**SPEC#**
BRICK	GLAZED BLUE BRICK	04 22 00
BRICK WALL COPING	TYPE 316 SST	07 71 00
CEMENTITIOUS WALL PANELS	TAKL - PLATIINUM 75 - MEDIABLAST	07 42 46
METAL COPING	BRICK: MATCH BRICK CEMENTITIOUS WALL PANEL: MATCH...	07 71 00
CAST STONE	LIMESTONE ETCH	03 45 00
EXTERIOR DOOR	TYPE 316 SST - NO 4	08 11 19
WINDOW - FRAME	ALUM - SILVERSMITH	08 51 13
LOUVERS	ALUM - SILVERSMITH	08 91 20
EXTERIOR STAIR - TREAD	ALUM OPEN GRATE	05 51 00
EXTERIOR STAIR - STRINGER	ALUM C CHANNEL	05 51 00
EXTERIOR STAIR - RAILING	TYP 316 SST - NO 4	05 52 13.05
ROOF RAILING	TYP 316 SST - NO 4	05 52 13.05
LIGHTING FIXTURE	SILVERSMITH OR EQUAL	26 51 11

1/4"=1'-0" 0 4 8 FT.

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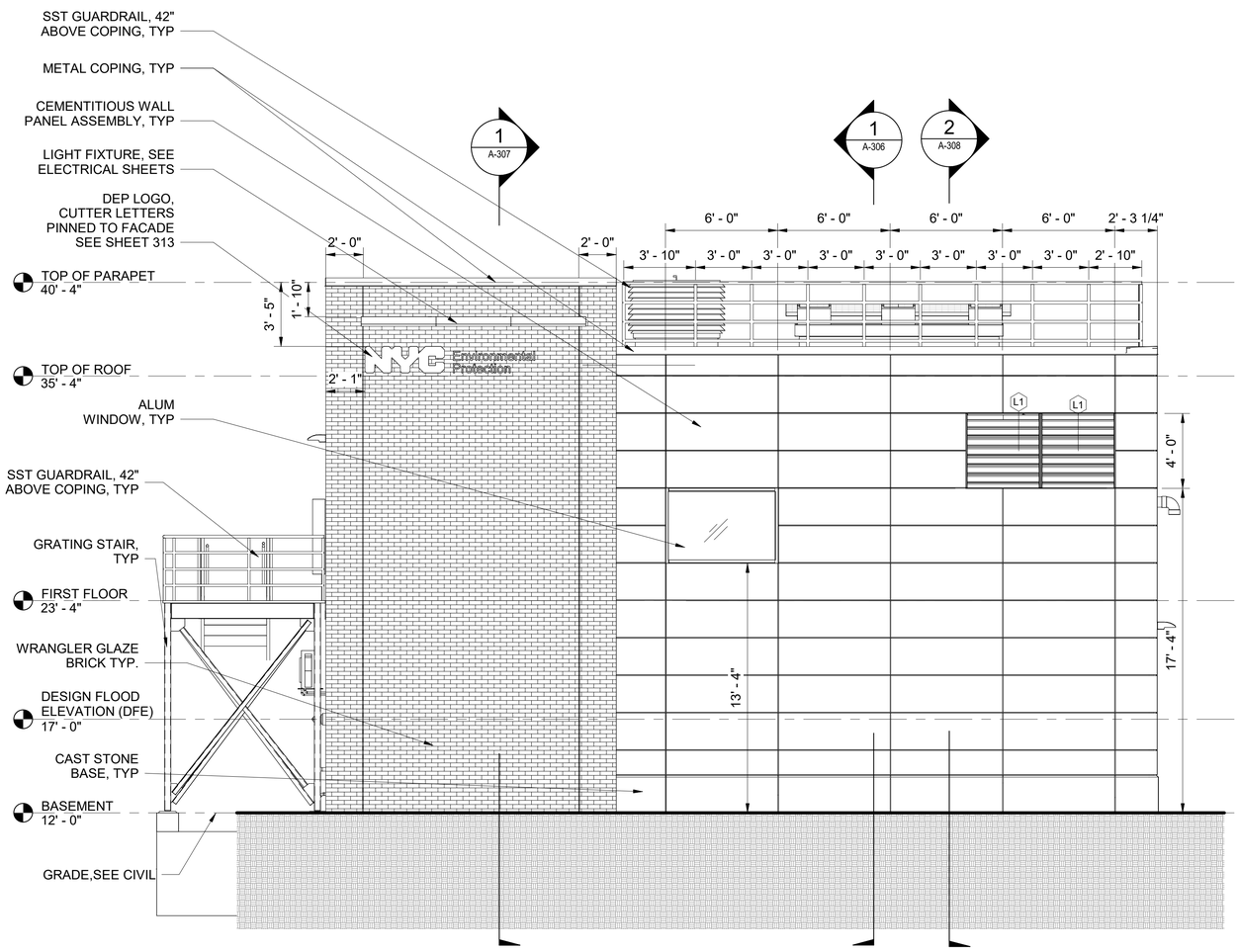
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ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
EXTERIOR ELEVATIONS SHEET 1

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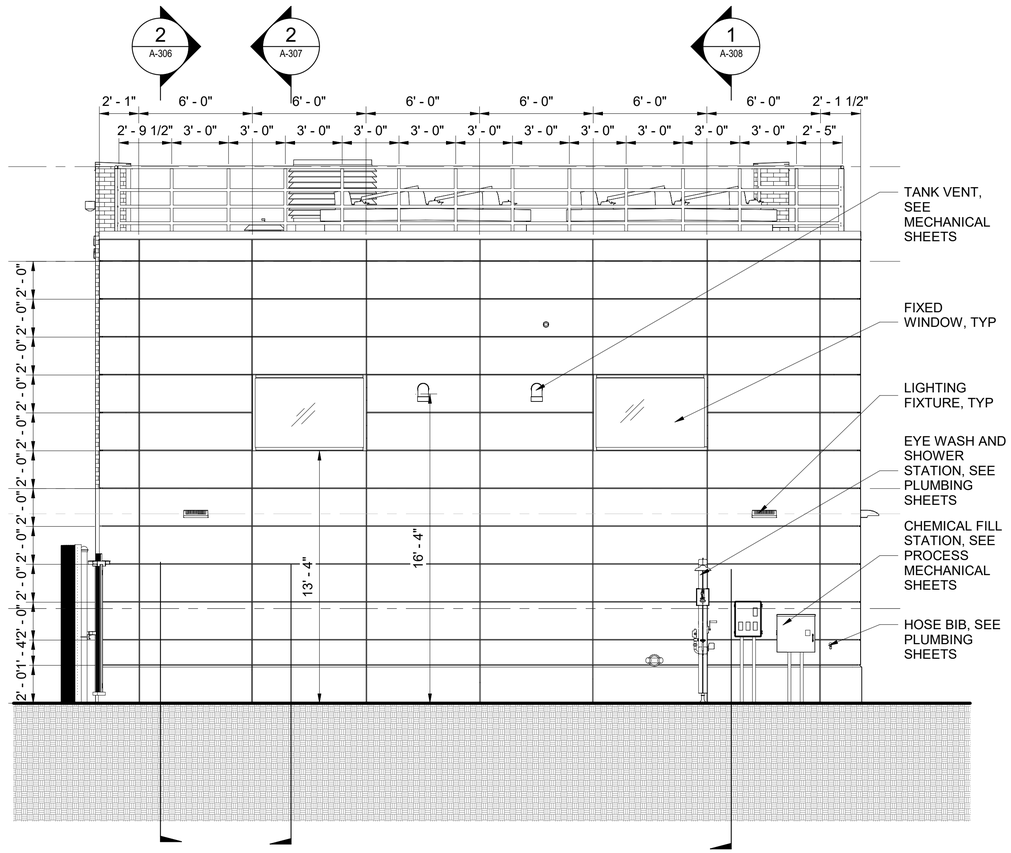
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1 A-301 SOUTH ELEVATION

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



2 Elevation 1 - a

SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

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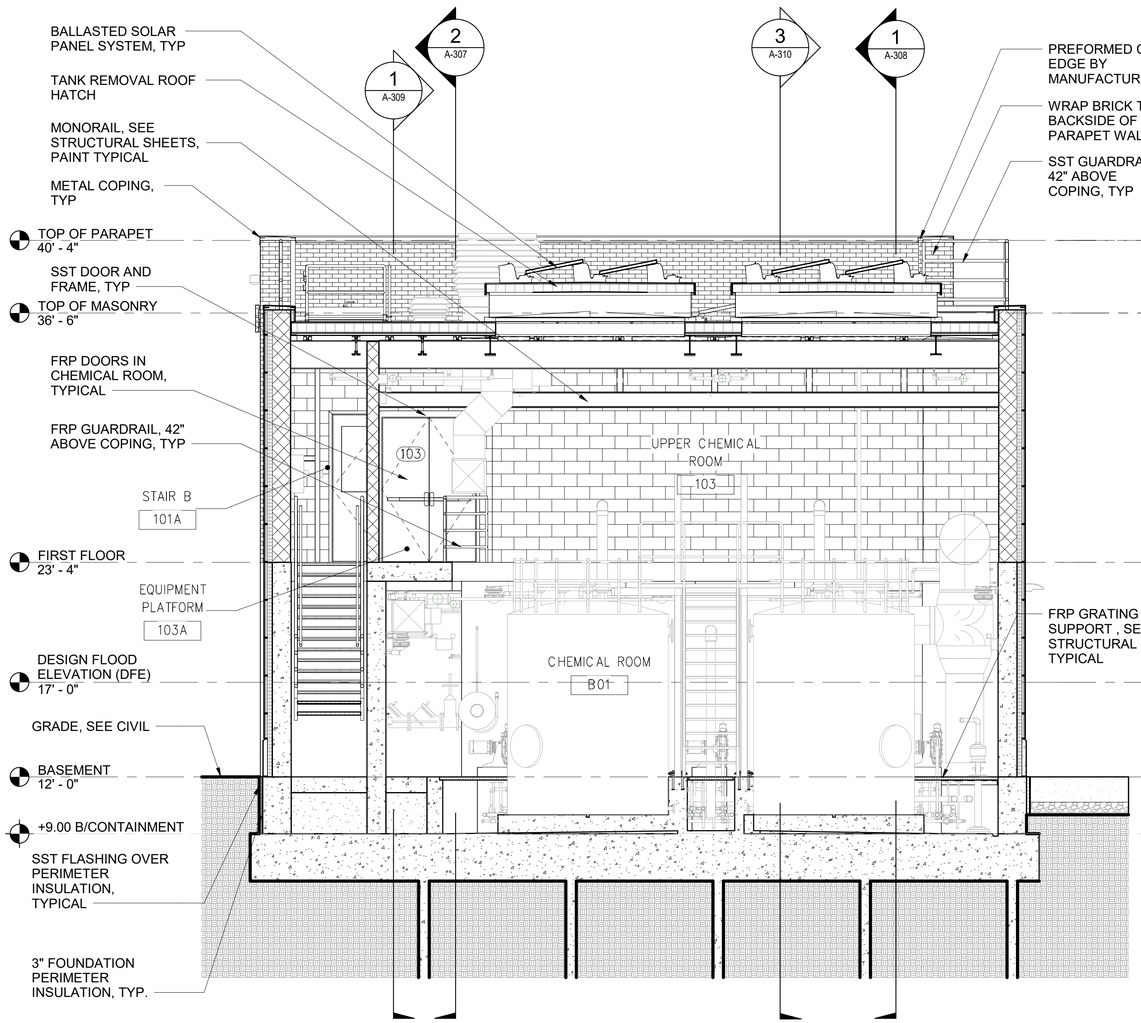
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EXTERIOR ELEVATIONS SHEET 2

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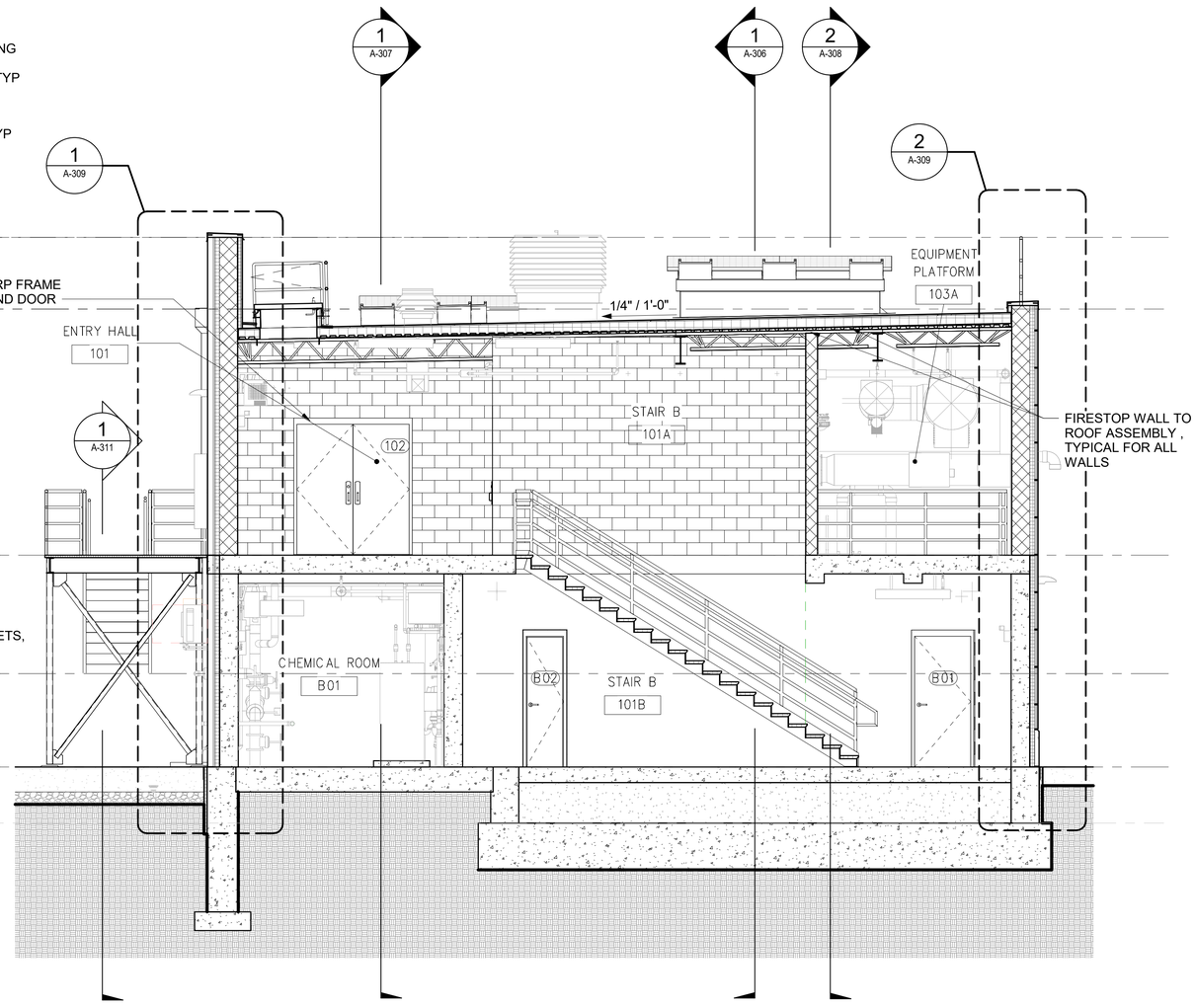
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1 A-301 BUILDING SECTION 1

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



2 A-301 BUILDING SECTION 2

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

1/4"=1'-0" 0 4 8 FT.

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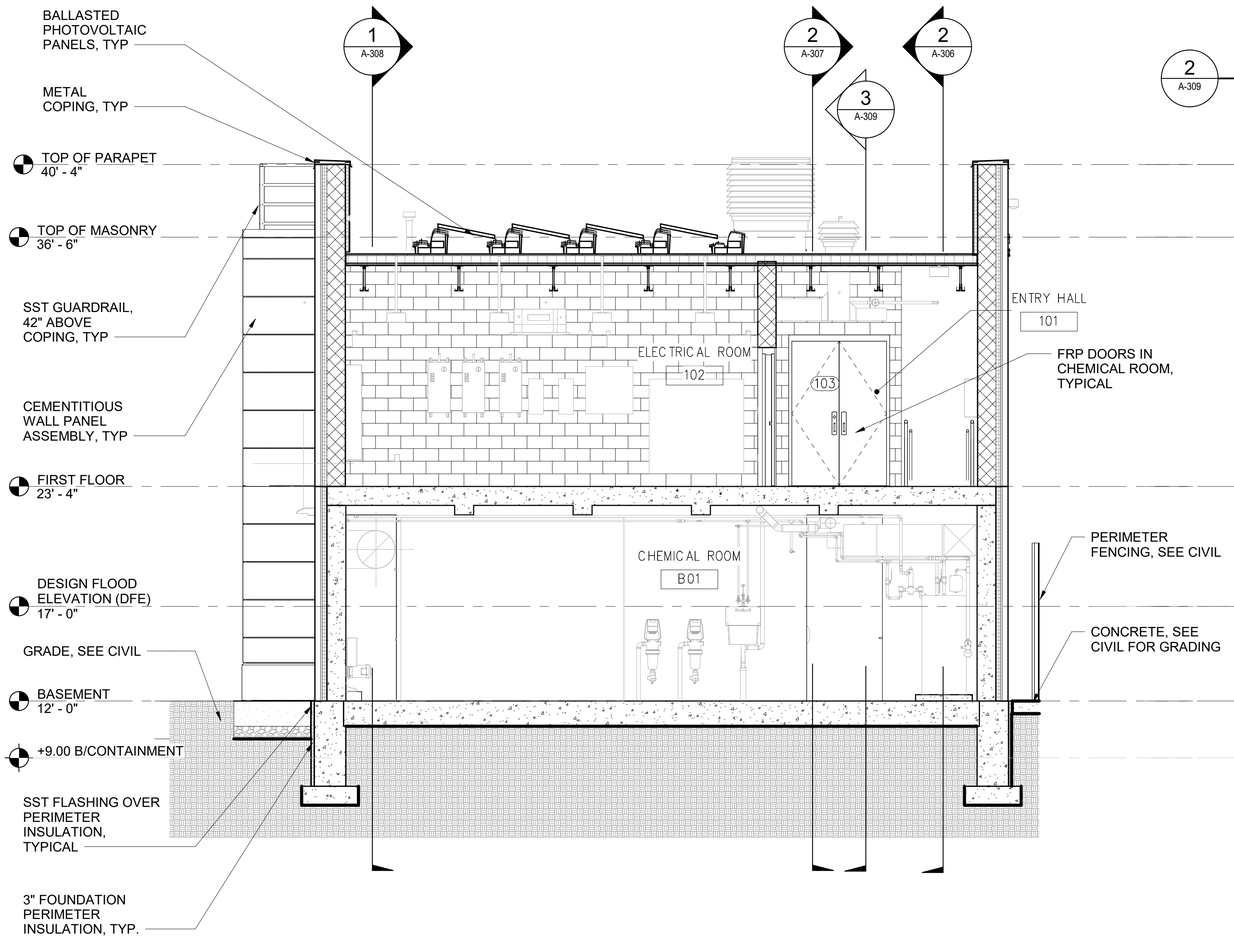
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ARCHITECTURAL
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BUILDING SECTIONS SHEET 1

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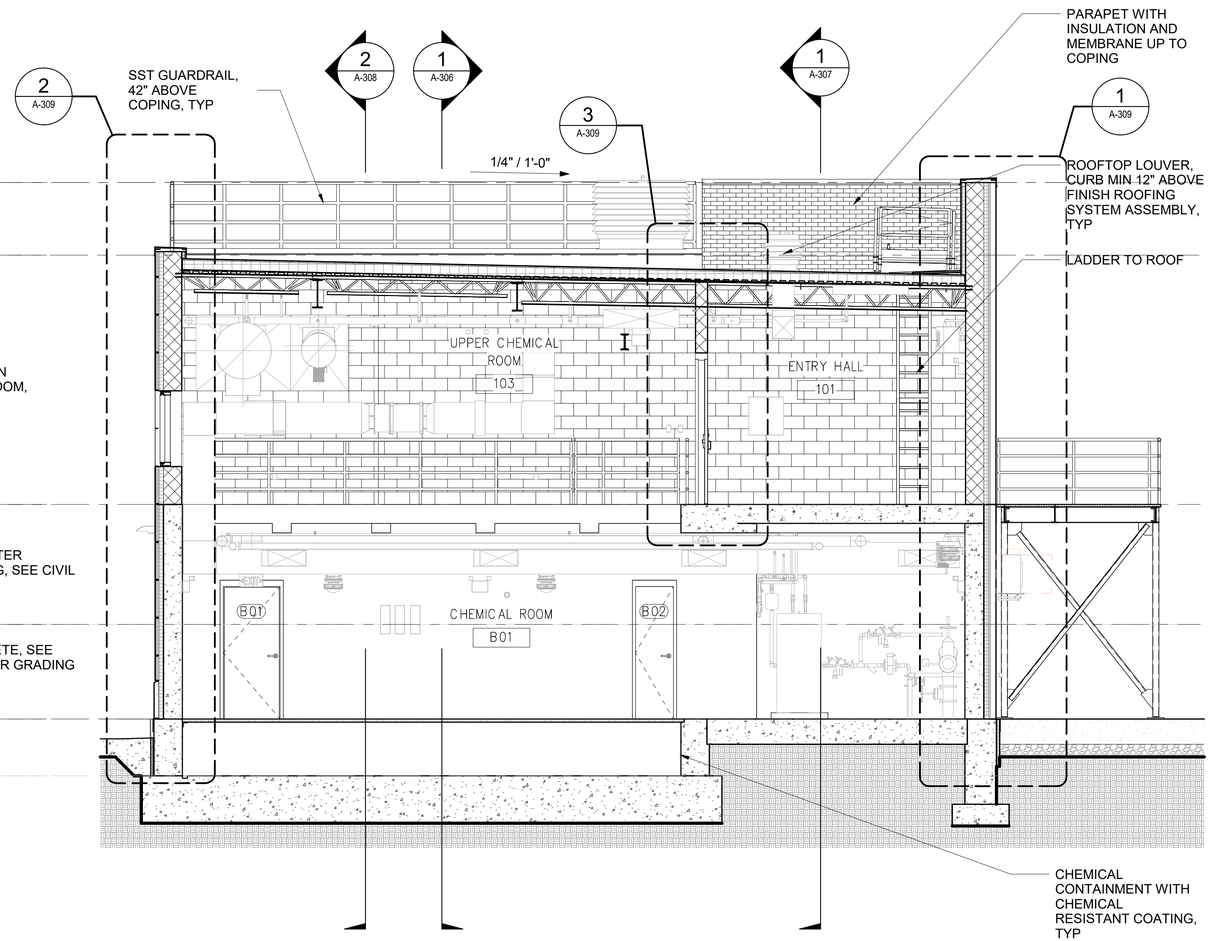
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1 A-301 BUILDING SECTION 3

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



2 A-301 BUILDING SECTION 4

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

1/4"=1'-0" 0 4 8 FT.

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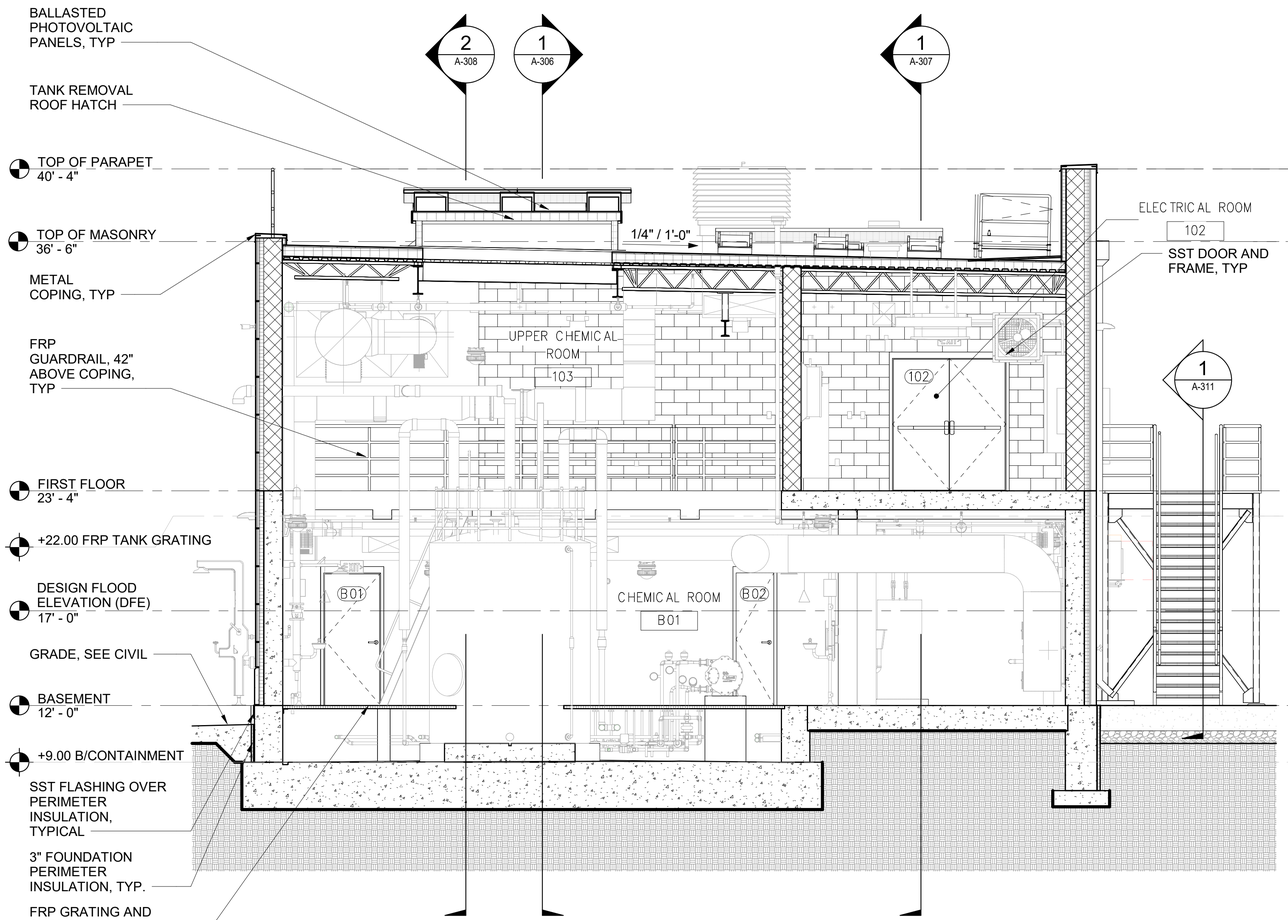
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BUILDING SECTIONS SHEET 2

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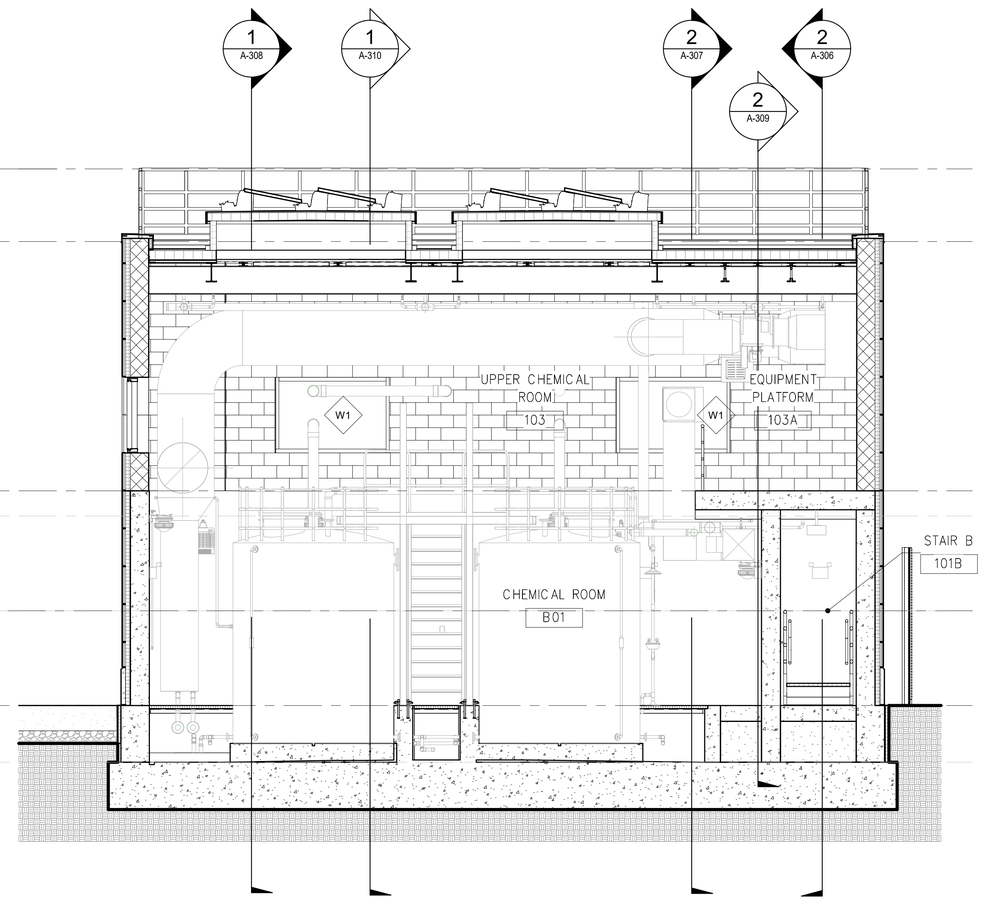
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1 A-301 BUILDING SECTION 5

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



2 A-301 BUILDING SECTION 6

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

1/4"=1'-0" 0 4 8 FT.

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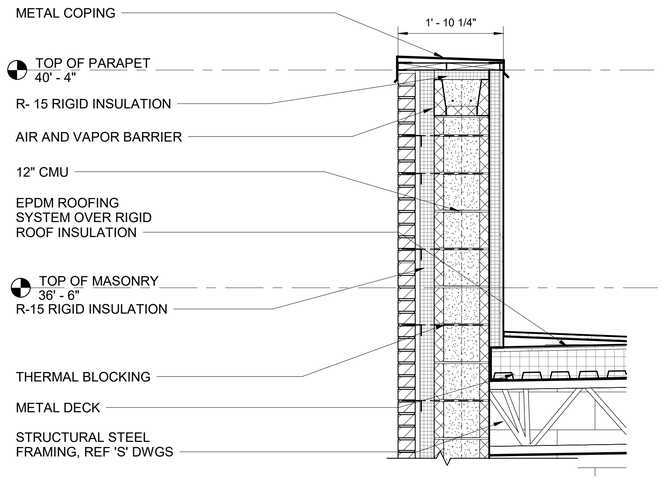
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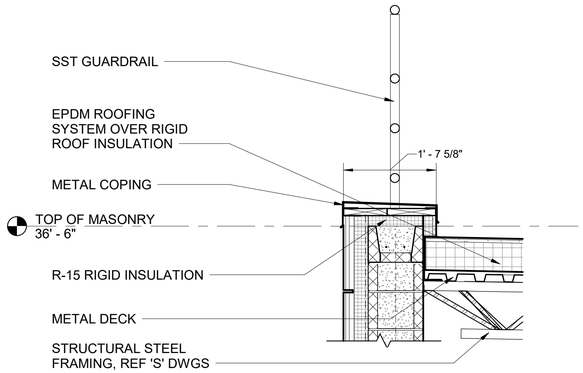
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TI-010 DECHLORINATION FACILITY
BUILDING SECTIONS SHEET 3

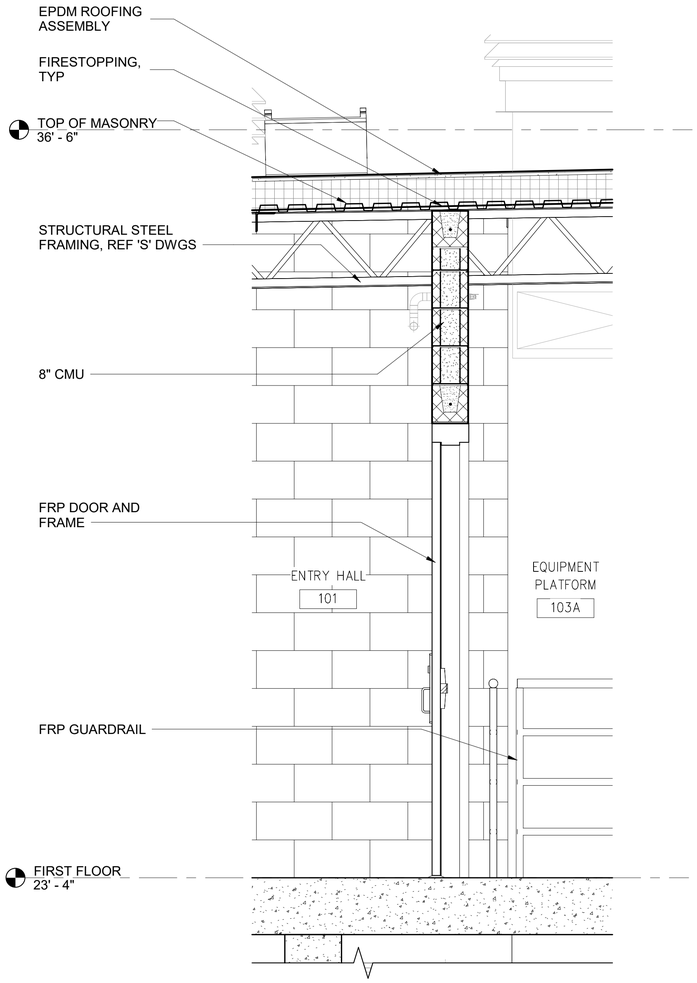
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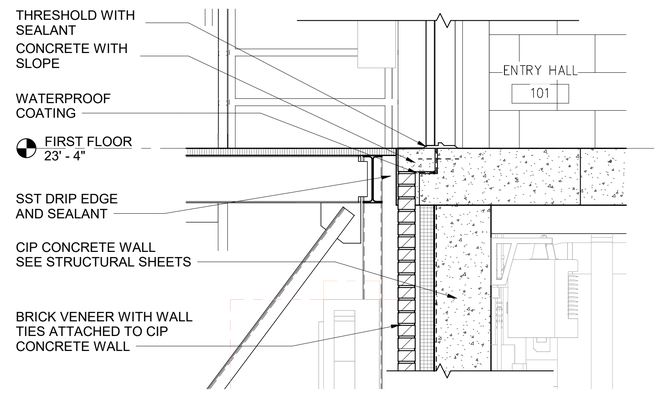
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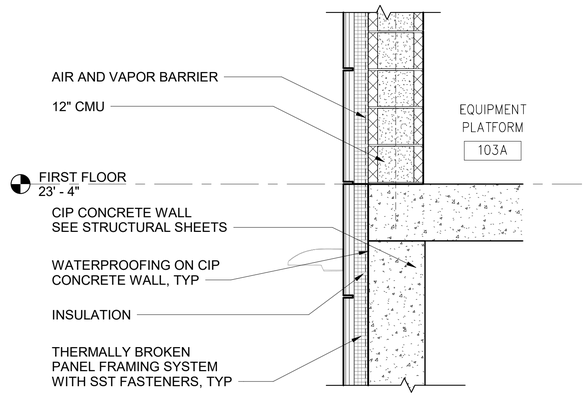
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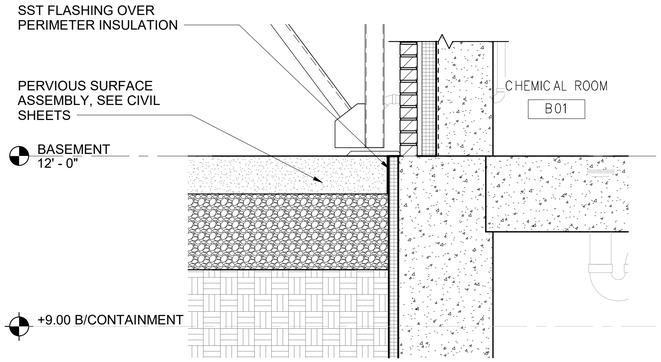


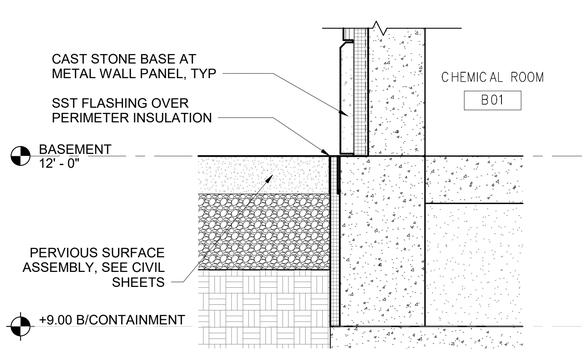












1 / A-301 WALL SECTION
SCALE: 3/4" = 1'-0"

2 / A-301 WALL SECTION
SCALE: 3/4" = 1'-0"

3 / A-302 WALL SECTION
SCALE: 3/4" = 1'-0"

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SECTION MANAGER:

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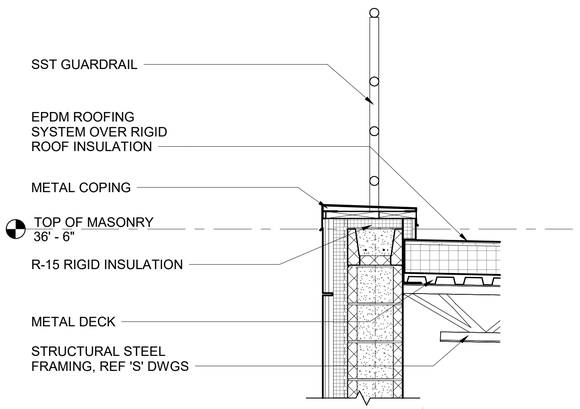
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

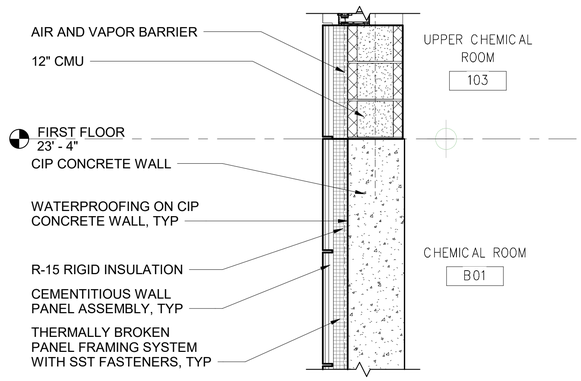
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WALL SECTIONS SHEET 1

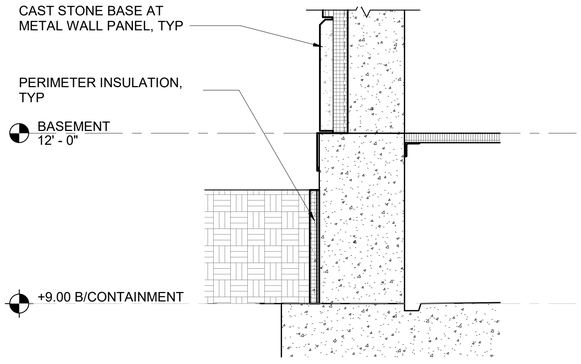
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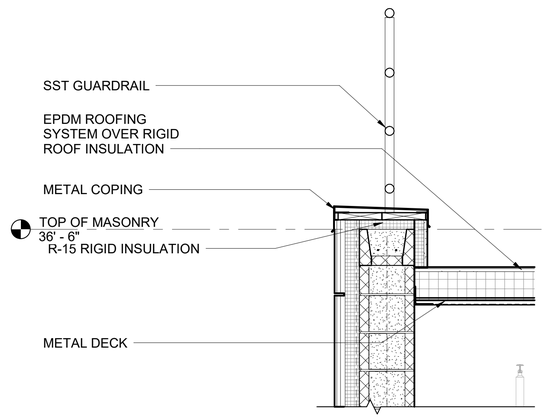
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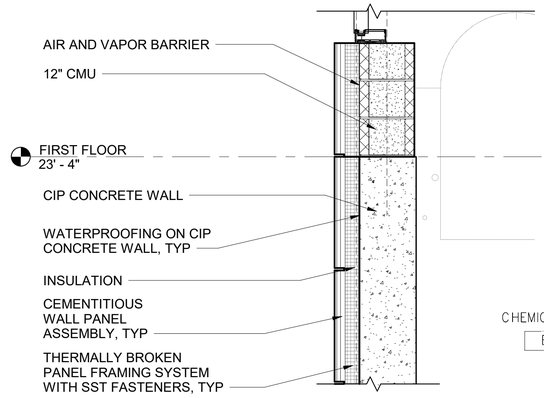


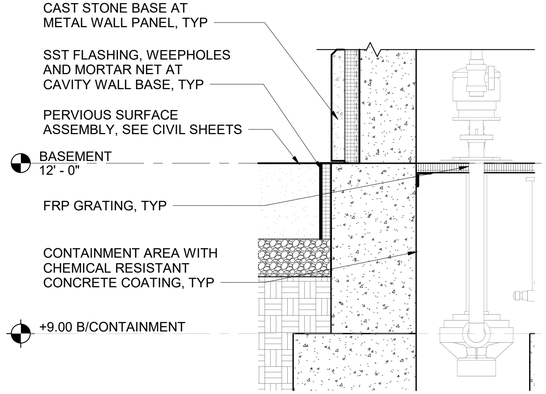




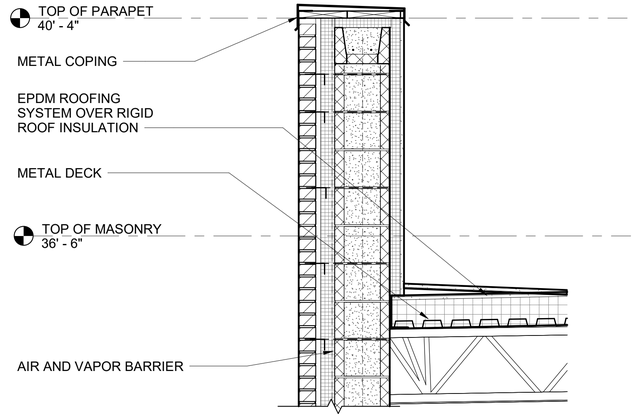
1 A-301 WALL SECTION
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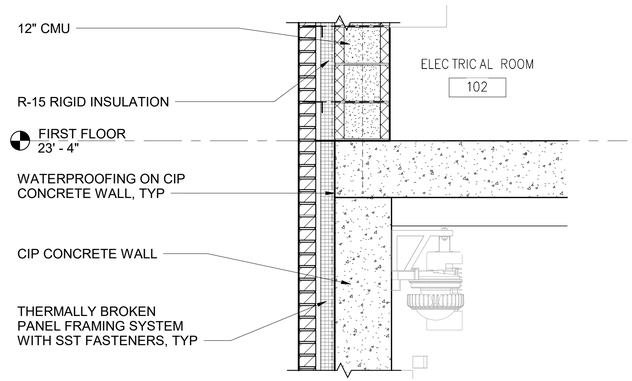


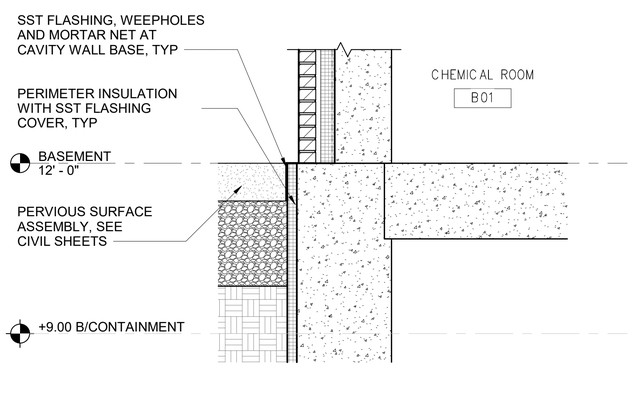




2 A-301 WALL SECTION
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3 A-301 WALL SECTION
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SECTION MANAGER:

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REGISTERED ARCHITECT CAROL ANTONIO DARRAS 023935 STATE OF NEW YORK 11/3/26

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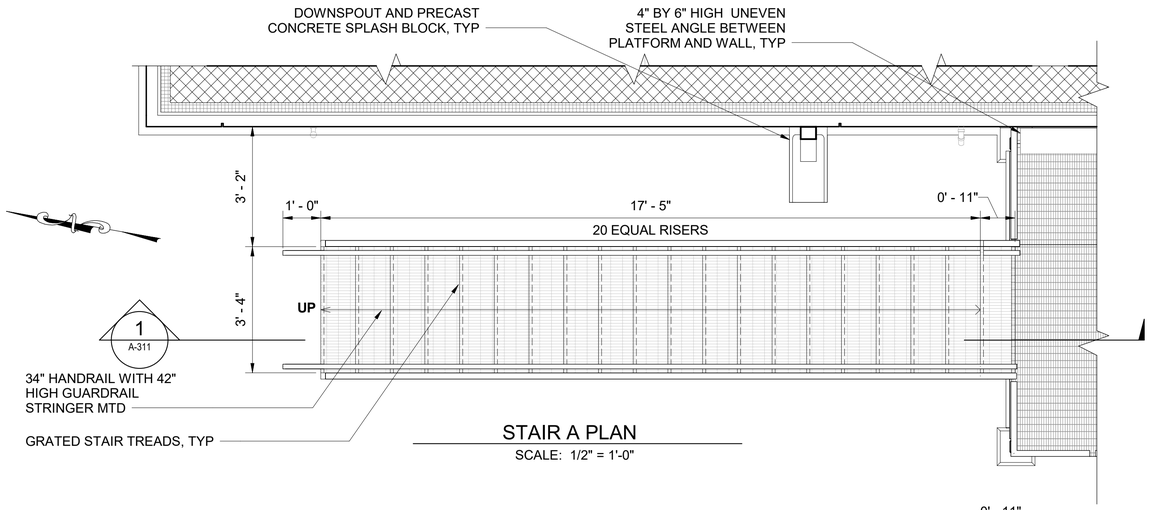
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

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WALL SECTIONS SHEET 2

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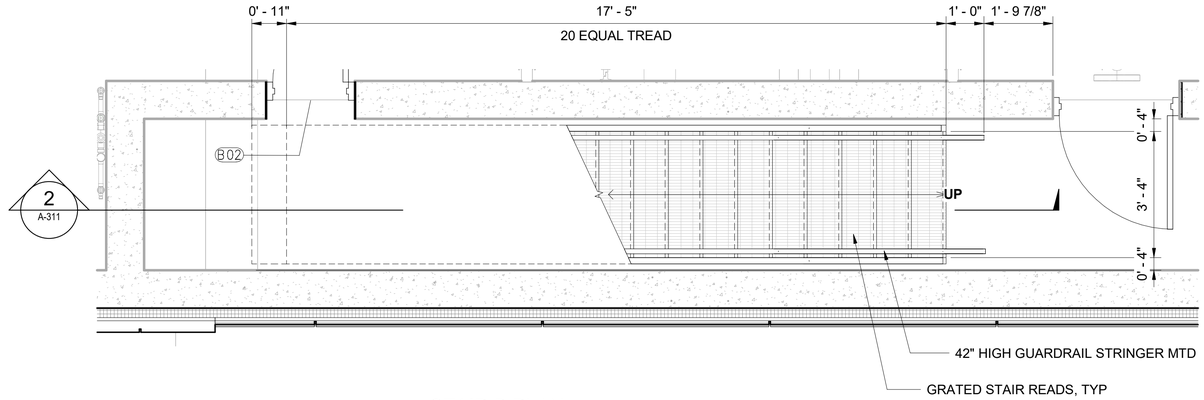
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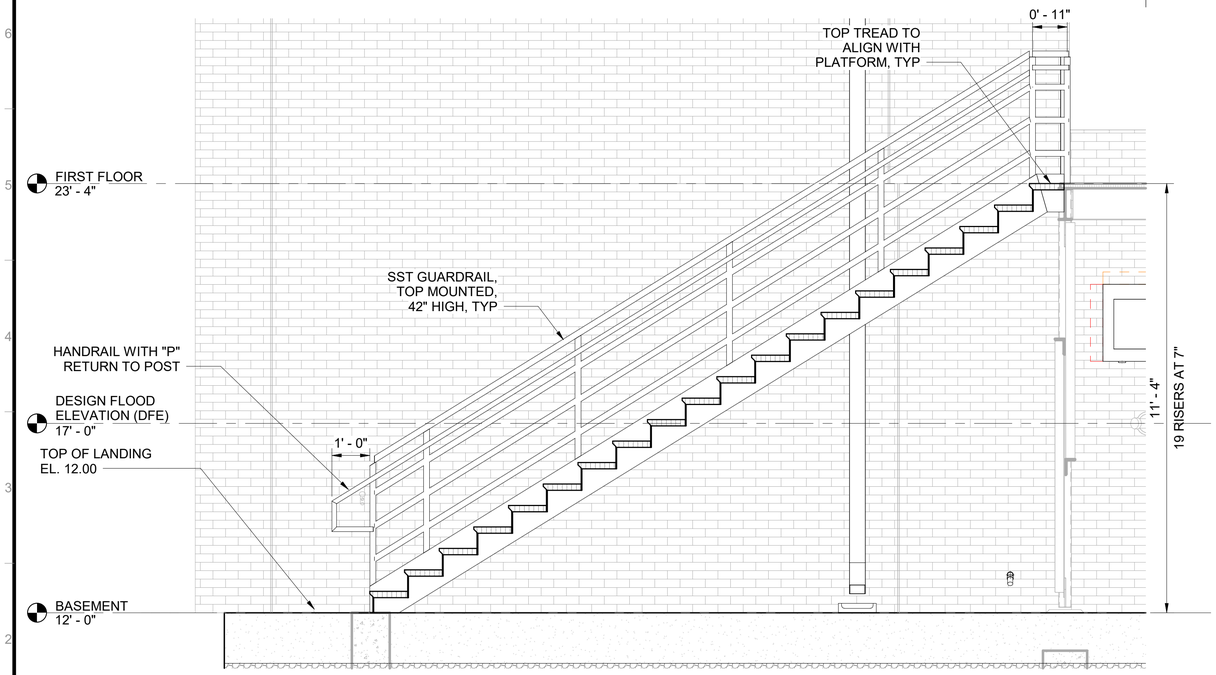
STAIR A PLAN

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



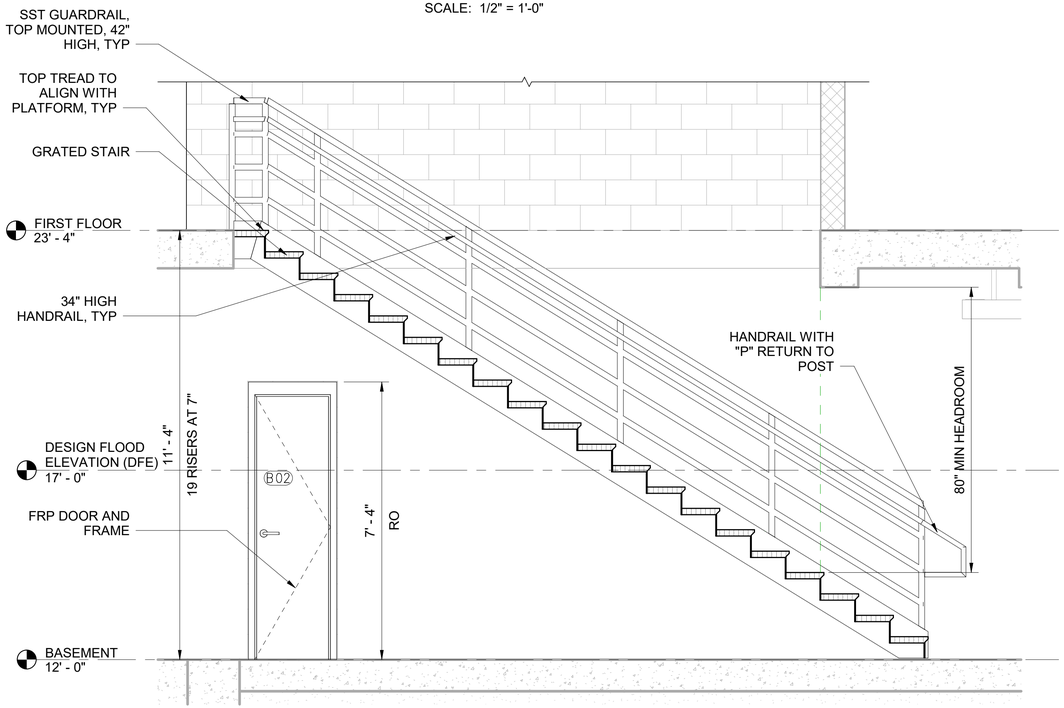
STAIR B PLAN

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



1 A-301 STAIR A SECTION

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



2 A-311 STAIR B SECTION

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

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
STAIR A AND B PLANS AND SECTIONS

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ROOM FINISH SCHEDULE

BUILDING NAME	ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS												CEILING			NOTES
					NORTH			SOUTH			EAST			WEST						
					MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	
TI-010D	101	ENTRY HALL	CONC-F1	CMU-P1	CMU	P1	C2	CMU	P1	C2	CMU	P1	C2	CMU	P1	C2	MD	P1	C3	SEE NOTE 5
TI-010D	101A	STAIR B	NA	CMU-P1	CMU	P1	C2	CMU	P1	C2	CMU	P1	C2	NA	-	C2	MD	P1	C3	SEE NOTE 5
TI-010D	101B	STAIR B	CONC-F1	CONC	CONC	CF6	-	CONC	CF6	-	CONC	CF6	-	CONC	CF6	-	CONC	P0	-	
TI-010D	102	ELECTRICAL ROOM	CONC-F1	CMU-P1	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	MD	P1	C3	SEE NOTE 5
TI-010D	103	UPPER CHEMICAL ROOM	NA	NA	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	MD	P1	C3	SEE NOTE 5
TI-010D	103A	EQUIPMENT PLATFORM	CONC-F1	CMU-P1	-	-	-	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	MD	P1	C3	SEE NOTE 5
TI-010D	B01	CHEMICAL ROOM	CONC-F3	CONC-P3	CONC	CF6-P3	-	CONC	CF6-P3	-	CONC	CF6-P3	-	CONC	CF6-P3	-	CONC/MD	P0/P1	-	SEE NOTE 1

DOOR SCHEDULE

BUILDING NAME	ROOM NAME	DOOR						FRAME						FIRE RATING	DOOR HARDWARE	REMARKS
		DOOR NO.	WIDTH	HEIGHT	TYPE	MATL	GLAZING	WIDTH	HEIGHT	MATL	HEAD	JAMB	THLD			
TI-010D	ENTRY HALL	101	6' - 0"	7' - 10"	A	SST	ILS	6' - 4"	8' - 0"	SST	H1	J1	S1	0	1	
TI-010D	ELECTRICAL ROOM	102	6' - 0"	7' - 0"	B	SST	-	6' - 4"	7' - 4"	SST	H2	J2	S2	90	3	
TI-010D	EQUIPMENT PLATFORM	103	5' - 0"	7' - 8"	B	FRP	-	5' - 4"	8' - 0"	FRP	H2 SIM	J2 SIM	S2 SIM	60	3	SEE NOTE 4
TI-010D	CHEMICAL ROOM	B01	3' - 0"	7' - 0"	B	FRP	-	3' - 4"	7' - 4"	FRP	H2 SIM	J2 SIM	S2 SIM	60	5	SEE NOTE 3
TI-010D	STAIR B	B02	2' - 0"	7' - 0"	B	FRP	-	2' - 4"	7' - 4"	FRP	H2 SIM	J2 SIM	S2 SIM	60	5	SEE NOTE 3

WINDOW SCHEDULE

BUILDING NAME	DESCRIPTION	OPERATION	LOCATION	MATERIAL	TYPE	MARK	OPENING		GLAZING	PANEL	STC	DETAILS (SEE A-903)					NOTES
							WIDTH	HEIGHT				HEAD	JAMB	SILL	MULLION V	MULLION H	
TI-010D	STOREFRONT WINDOW	FIXED	EXTERIOR	ALUM	W1	W1-1	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-010D	STOREFRONT WINDOW	FIXED	EXTERIOR	ALUM	W1	W1-2	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-010D	STOREFRONT WINDOW	FIXED	EXTERIOR	ALUM	W1	W1-3	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-010D	STOREFRONT WINDOW	FIXED	EXTERIOR	ALUM	W1	W1-4	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-010D	STOREFRONT WINDOW	FIXED	EXTERIOR	ALUM	W1	W1-5	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	

LOUVER SCHEDULE

BUILDING NAME	TYPE	MARK	SIZE		MATL	DETAILS (SEE A-907)			NOTES
			WIDTH	HEIGHT		HEAD	JAMB	SILL	
TI-010D	L1	L1-1	4' - 0"	4' - 0"	ALUM	H4	H4 SIM	S4	
TI-010D	L1	L1-2	4' - 0"	4' - 0"	ALUM	H4	H4 SIM	S4	
TI-010D	L2	L2-1	2' - 4"	2' - 5"	ALUM	H4 SIM	H4 SIM	S4 SIM	

DOOR AND HARDWARE NOTES:

1. SEE SHEET A-907 FOR DOOR AND FRAME TYPES.
2. SEE THIS SET FOR DOOR HARDWARE SETS AND SPECIFICATION #08 71 00 FOR HARDWARE
3. FRP DOORS AND FRAMES SHALL MATCH COLOR C4.
4. PROVIDE TWO 30" LEAFS.
5. EXTERIOR DOOR FRAMES SHALL HAVE THERMALLY BROKEN FRAMES AND THRESHOLDS. EXTERIOR DOOR ASSEMBLY SHALL BE A MAXIMUM U-FACTOR OF U-0.40.

ROOM FINISH NOTES:

1. CHEMICAL RESISTANT COATING SHALL BE APPLIED FROM THE CONTAINMENT AREA UP WALLS FOR 3 FEET.
2. PROVIDE P1 COATING ON STEEL OPEN JOIST MEMBERS.
3. FRP RAILINGS SHALL BE SAFETY YELLOW.
4. PROVIDE ALL CONCRETE PADS AND RAISED CONCRETE EDGES, OUTSIDE OF CONTAINMENT AREA, WITH 4" TALL AND 4" WIDE COATED EDGES, COLOR C5.
5. METAL DECK, JOIST AND STRUCTURAL STEEL SHALL BE PAINTED TO MATCH COLOR C3
6. SPRINKLER PIPING SHALL BE PAINTED PER FDNY RULES AND REGULATIONS INCLUDING SMALL DIAMETER PIPING (C6).
7. MONORAIL SHALL BE PAINTED C5.

WINDOW NOTES:

1. SEE SHEET A-907 FOR WINDOW TYPES.
2. PROVIDE EXTRUDED SILL AT ALL WINDOWS.
3. PROVIDE INTERIOR SNAP TRIM AT ALL WINDOWS.
4. ALL GLAZING SHALL BE BIRD FRIENDLY COMPLIANT. PROVIDE DOT PATTERN.

DOOR HARDWARE SETS:

1. EXTERIOR DOUBLE LEAF - EXIT DOOR - NON-FR
   A. PIVOT HINGES - 3PER LEAF (> 7' HIGH LEAF PROVIDE LEAF 4 PER LEAF)
   B. SURFACE MTD CLOSER
   C. SURFACE EXIT DEVICES - 1 PER LEAF
   D. WEATHER SEALS - JAMB, HEAD, AND SILL
   E. DOOR DRIP AT SILL OF EACH LEAF
   F. THERMAL BROKEN THRESHOLD

2. INTERIOR DOUBLE LEAF - EXIT DOOR - NON-FR
   A. PIVOT HINGES - 3PER LEAF (> 7' HIGH LEAF PROVIDE LEAF 4 PER LEAF)
   B. SURFACE MTD CLOSER
   C. SURFACE EXIT DEVICES - 1 PER LEAF
   D. WEATHER SEALS - JAMB, HEAD, AND SILL
   E. SMOKE SEALS - JAMB, HEAD, SILL
   F. THRESHOLD

3. INTERIOR DOUBLE LEAF - EXIT DOOR - FR
   A. PIVOT HINGES - 3 PER LEAF (> 7' HIGH LEAF PROVIDE LEAF 4 PER LEAF)
   B. SURFACE MTD CLOSER
   C. SURFACE EXIT DEVICES - 1 PER LEAF
   D. WEATHER SEALS - JAMB, HEAD, AND SILL
   E. FIRE AND SMOKE SEALS - JAMB, HEAD, SILL
   F. THRESHOLD

4. SINGLE LEAF - EXIT DOOR - NON-FR
   A. PIVOT HINGES - 3 PER LEAF (> 7' HIGH LEAF PROVIDE LEAF 4 PER LEAF)
   B. SURFACE MTD CLOSER
   C. SURFACE EXIT DEVICES
   D. SMOKE SEALS - JAMB, HEAD, SILL
   E. THRESHOLD

5. SINGLE LEAF - EXIT DOOR - FR
   A. PIVOT HINGES - 3 PER LEAF (> 7' HIGH LEAF PROVIDE LEAF 4 PER LEAF)
   B. SURFACE MTD CLOSER
   C. SURFACE EXIT DEVICES
   D. WEATHER SEALS - JAMB, HEAD, AND SILL
   E. FIRE AND SMOKE SEALS - JAMB, HEAD, SILL
   F. THRESHOLD

SCHEDULE LEGENDS:

MATERIALS:

ALUM	ALUMINUM
CONC	CONCRETE
CMU	CONCRETE MASONRY UNITS
CMU/SF	SPLIT-FACE CMU
CMU/GF	GROUND FACE CMU
CMU/SM	SMOOTH FACE CMU
CMU/GL	GLAZED FACE CMU
CT	CERAMIC TILE (WALL)
CTB	CERAMIC TILE BASE
FRP	FIBERGLASS REINFORCED PLASTIC
HM	HOLLOW METAL
MD	METAL DECK
MF	METAL FRAMING
MWP	METAL WALL PANEL
RB	RUBBER BASE
SST	STAINLESS STEEL
ST	STONE VENEER
TCWP	TERRA COTTA WALL PANEL
WW	WINDOW WALL (STOREFRONT OR CURTAIN WALL)

FLOOR AND BASE FINISH SUFFIX:

F0	NO FINISH (SEE SPECIFICATION FOR MATERIAL FINISH)
F1	CONCRETE HARDENER (CLEAR)
F2	CONCRETE HARDENER WITH COLOR
F3	CHEMICAL RESISTANT COATING (CONTAINMENT)
F4	COATING WITH NON-SKID
F5	COATING WITHOUT NON-SKID
B0	COVE
B1	STRAIGHT

PAINTS AND COATINGS (SPEC SPECIFICATION FOR SPECIFIC SYSTEMS):

P0	NO FINISH
P1	SEMI-GLOSS COATING
P2	SATIN COATING
P3	CHEMICAL RESISTANT COATING
P4	GALVANIZED
P5	AAMA2605 COMPLAINT COATING
P10	MANUFACTURER'S FINISH

CONCRETE FINISH:

CF0	NO FINISH (SEE CONCRETE SPECIFICATION)
CF1	ACID ETCHED
CF2	ABRASIVE BLASTED
CF3	EXPOSED AGGREGATED
CF4	POLISHED
CF5	STUCCO FINISH
CF6	RUBBED FINISH
CF7	SAND-FLOAT FINISH

COLOR:

C1	# SW COLOR #4028 GYPSUM
C2	# SW COLOR #4005 CINDER CREAM
C3	# SW COLOR #4026 SLATE GRAY
C4	# CHEMPRUF - CAMEL TAN STD 5
C5	# SW COLOR #4084 SAFETY YELLOW
C6	# SW COLOR #4081 SAFETY RED

GLAZING TYPES:

ILS	IMPACT RESISTANT LAMINATED SAFETY GLASS
LS	LAMINATED SAFETY GLASS (TEMPERED)
T	TEMPERED GLASS
IN-ILS	INSULATED IMPACT RESISTANT GLAZING UNIT

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SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DAWKINS 11/3/26 023935 STATE OF NEW YORK

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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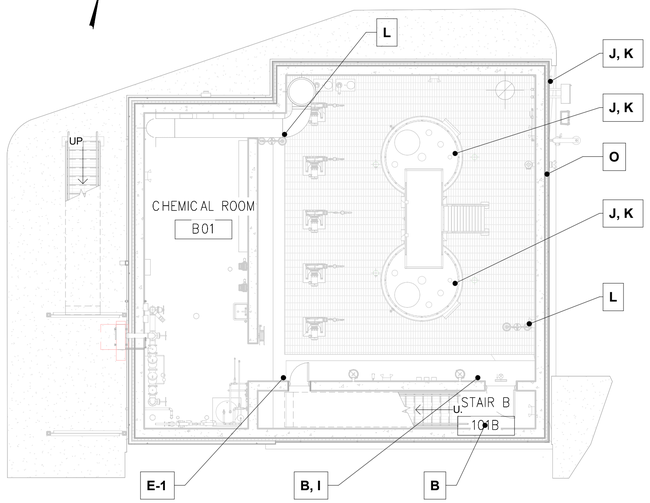
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
SCHEDULES

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-312.00

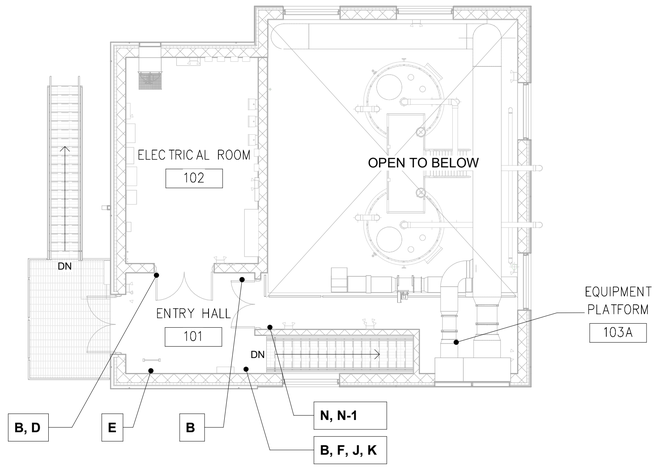
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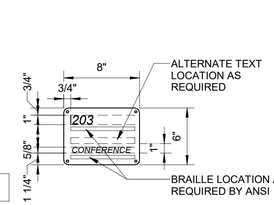
BASEMENT SIGNAGE PLAN

SCALE: 1/8" = 1'-0"



FIRST FLOOR SIGNAGE PLAN

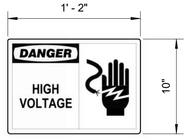
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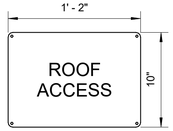
TYPE B:
ROOM NAME & NUMBER SIGNAGE



TYPE C:
NO SMOKING SIGNAGE

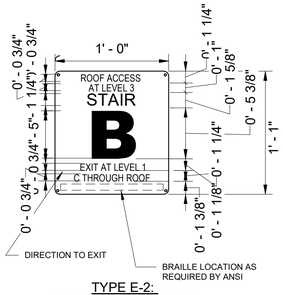


TYPE D:
DANGER - HIGH VOLTAGE SIGNAGE

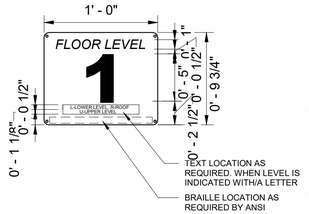


TYPE E:
ROOF ACCESS

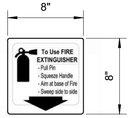
TYPE E-1:
STORAGE UNDER STAIR PROHIBITED



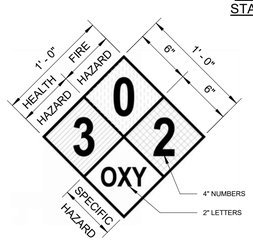
TYPE E-2:
STAIR IDENTIFICATION



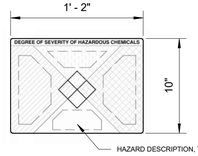
TYPE E-1:
FLOOR NUMBERING SIGN



TYPE I:
FIRE EXTINGUISHER SIGNAGE



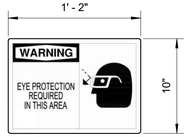
TYPE J:
HAZARD RATING SIGNAGE



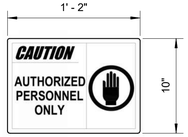
TYPE K:
HAZARD RATING SIGNAGE WITH EMERGENCY GUIDE



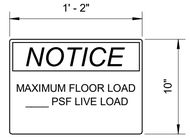
TYPE L:
EMERGENCY SAFETY SHOWER



TYPE F:
WARNING - EYE PROTECTION SIGNAGE

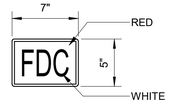


TYPE G:
CAUTION - AUTHORIZED PERSONNEL ONLY SIGNAGE

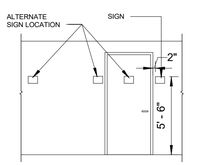


TYPE N:
NOTICE

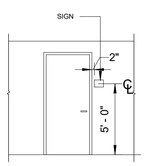
TYPE N-1:
NOTICE TEXT - LOW HEADROOM



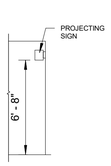
TYPE O:
FDC - FIRE DEPARTMENT CONNECTION



NON-ANSI



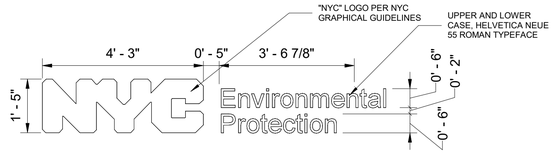
ANSI STANDARD (ON LATCH SIDE)



PROJECTED SIGN

SIGNAGE ELEVATION

SCALE: 3/16" = 1'-0"



BUILDING CUT LETTER SIGNAGE AND LOGO

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

SIGNAGE NOTES:

1. FINAL SIGNAGE WORDING OF ALL SIGNS TO BE DETERMINED AFTER AWARD OF CONTRACT.
2. FOR SIGNAGE LOCATIONS REFERENCE THIS SHEET FOR SIGNAGE PLAN.
3. PROVIDE ALL PERMANENT DIRECTIONAL/INFORMATIONAL, ROOM NAME, BUILDING NAME, AREA NAME, ACCESSIBLE AREA, FLOOR NUMBERING, STAIR IDENTIFICATION, FIRE PREVENTION AND RESTRICTION SIGNS WITH BOTH RAISED TEXT AND BRAILLE TO COMPLY WITH ANSI A117.1, THE AMERICANS WITH DISABILITIES ACT OF 1990, OSHA REGULATIONS, NFPA GUIDELINES, AND THE NEW YORK STATE BUILDING CODE. FIELD VERIFY EXACT LOCATION OF SIGNS WITH OWNER AND ENGINEER.
4. PROVIDE HAZARD RATING SIGNS / RIGHT-TO-KNOW SIGNS, LABELS AND TAGS TO COMPLY WITH NFPA 704, OSHA 1910.1200, AND OSHA SUBPART Z, FOR PROPER IDENTIFICATION OF ALL THE CHEMICALS AND MATERIALS PRESENT, THE HAZARDS ASSOCIATED WITH THESE CHEMICALS AND MATERIALS, AND WHERE THEY ARE LOCATED. VERIFY EXACT INFORMATION FOR SIGNS AND LOCATION OF SIGNS IN THE FIELD WITH ENGINEER.
5. PROVIDE ALL ACCIDENT PREVENTION, HEALTH, SAFETY AND WARNING SIGNS IN COMPLIANCE WITH ANSI Z535.1, ANSI Z535.2, ANSI Z535.3 AND OSHA 1910.44 AND 1910.145. FIELD VERIFY EXACT LOCATION OF SIGNS WITH OWNER AND ENGINEER. FLOOR DIAGRAM EXIT SIGN SHALL MEET ALL THE REQUIREMENTS OF THE CITY FIRE MARSHALL.
6. FIELD VERIFY WHICH SIGNS REQUIRE BEING SUSPENDED, AND WHAT THEY WILL BE SUSPENDED FROM.
7. PROVIDE ENGINEER APPROVED MATERIALS AND FASTENERS TO SECURELY ATTACH AND SUSPEND THESE SIGNS. SUSP. DOUBLE SIDED SIGN - INDICATES SIGNS THAT WILL IN SOME CASES NEED TO BE SUSPENDED.
8. VERIFY EXACT LOCATION OF SIGNS WITH OWNER AND ENGINEER. ALL SIGNS SHALL BE PLACED SO THAT THEY ARE READILY VISIBLE AND READABLE.
9. DOORS SHALL NOT BLOCK SIGNS WHEN IN OPEN POSITION. VERIFY EXACT ARRANGEMENT AND PLACEMENT OF SIGNS WITH OWNER AND ENGINEER.
10. FOR LOCATION OF EYE WASH AND SHOWER STAIONS, SEE 'P' DRAWINGS.
11. PROVIDE ONE TYPE J AND ONE TYPE K AT EVERY CHEMICAL STORAGE TANK.

1/8"=1'-0" 0 5 10 15 FT.

3/16"=1'-0" 0 5 10 FT.

NYC Environmental Protection

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: SM, PK
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DARWISH STATE OF NEW YORK 023935 11/3/26

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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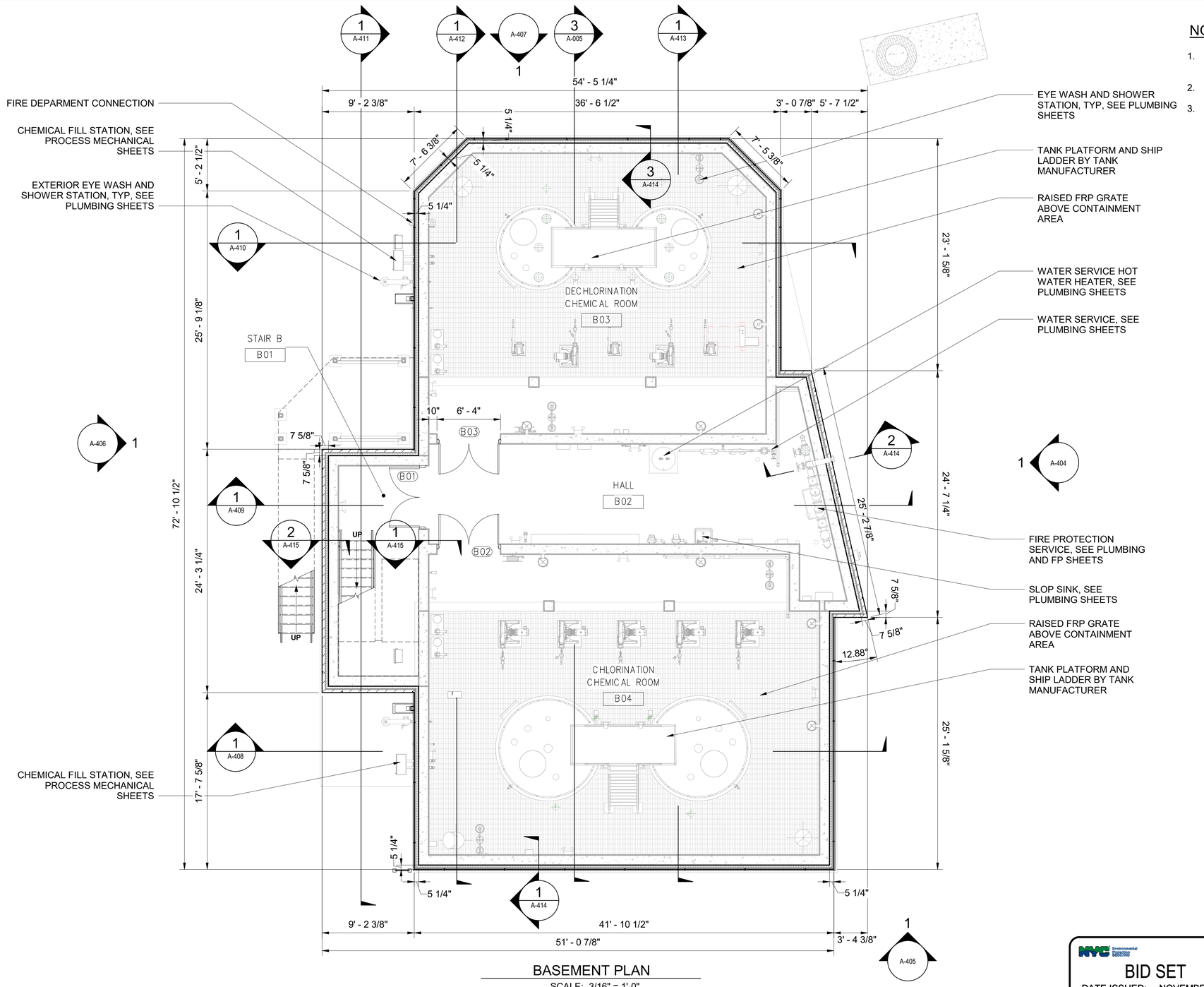
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-010 DECHLORINATION FACILITY
SIGNAGE PLANS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-313.00

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NOTES:

1. EXTERIOR FACE OF CIP CONCRETE WALL TO ALIGN WITH CMU WALL ABOVE.
2. SEE CIVIL SHEETS FOR SITE FEATURES.
3. PROVIDE PAINTED CONCRETE EDGE AT TRANITION FROM CONCRETE FLOOR TO FRP GRATING IN CHEMICAL ROOMS.

BASEMENT PLAN

SCALE: 3/16" = 1'-0"

3/16"=1'-0" 0 5 10 FT.

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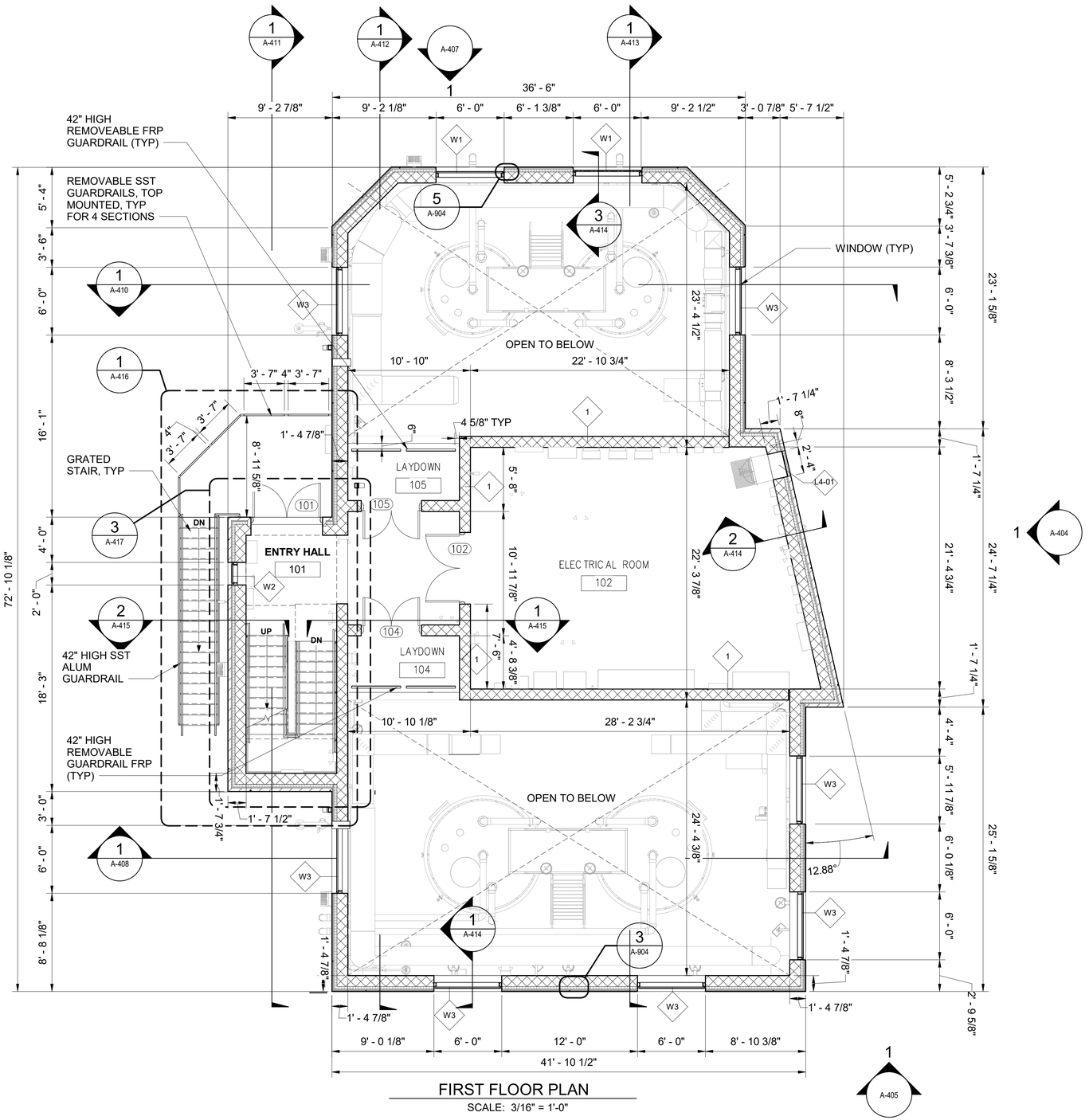
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
BASEMENT PLAN

DATE: NOVEMBER 2026
SHEET NO:
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FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

SHEET NOTES:

1. EXTERIOR PLATFORM RAILING SHALL BE STRINGER OR FRAMING TOP MOUNTED.
2. CHEMICAL ROOM FRP RAILING SHALL BE TOP SURFACE MOUNTED.

3/16"=1'-0" 0 5 10 FT.

BID SET

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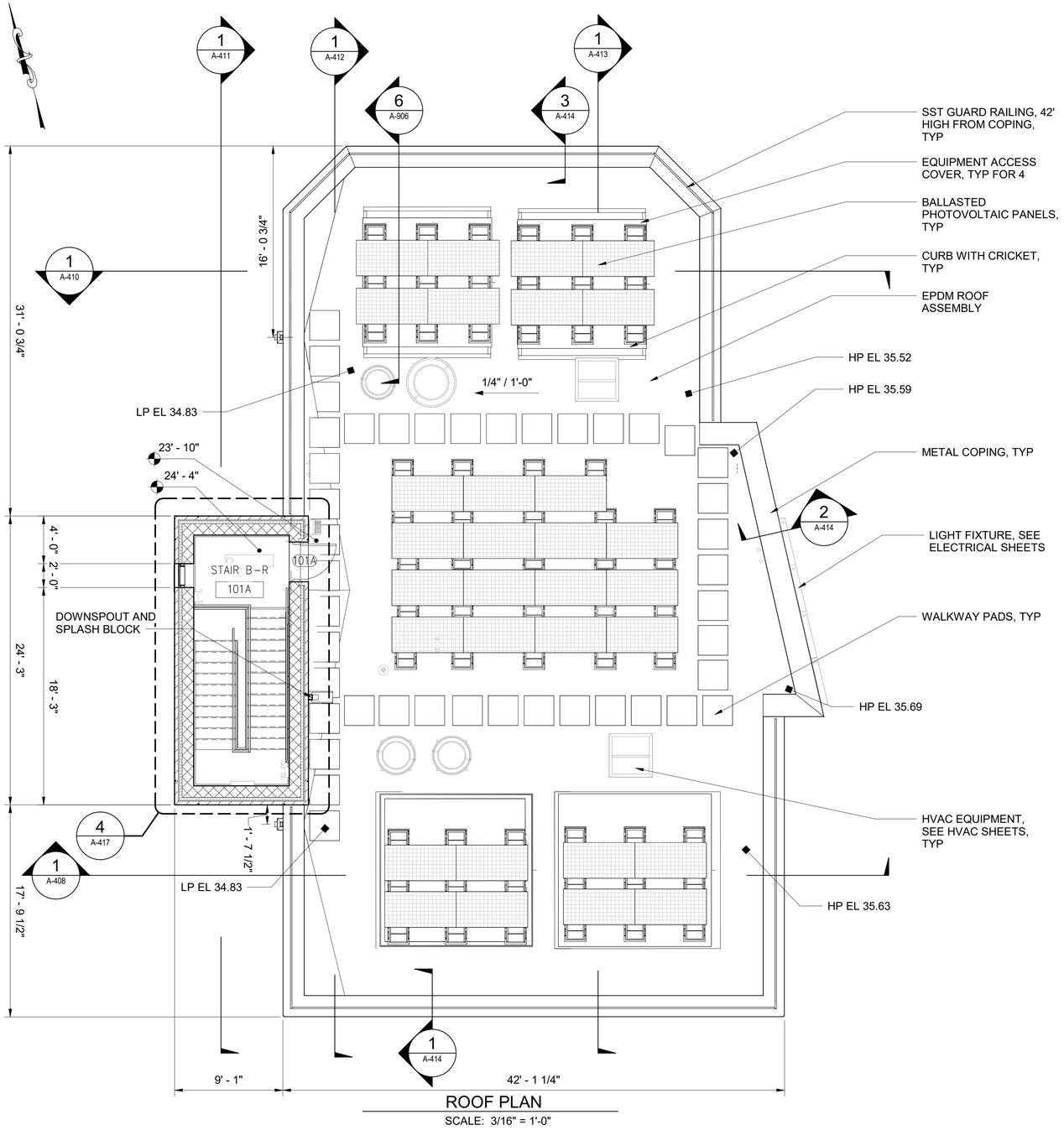
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CAPITAL CONTRACT WP -169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
FIRST FLOOR PLAN

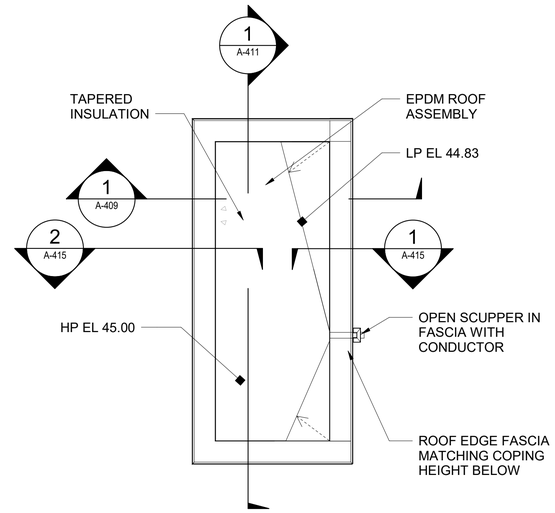
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DRAWING NO. A-402.00

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ROOF PLAN

SCALE: 3/16" = 1'-0"



STAIR TOWER ROOF PLAN

SCALE: 3/16" = 1'-0"

SHEET NOTES:

1. SEE EXTERIOR ELEVATION FOR ROOF RAILING POST ALIGNMENT.

ROOF LEGEND:

- ROOF SLOPE 1/4" PER FOOT
- CRICKET SLOPE 1/2" PER FOOT
- WALKWAY PAD
- SOLAR PANEL
- LP EL## — ROOF LOW POINT ELEVATION, VIF
- HP EL## — ROOF HIGH POINT ELEVATION, VIF

3/16"=1'-0" 0 5 10 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DARIENZO STATE OF NEW YORK 11/3/26 023835

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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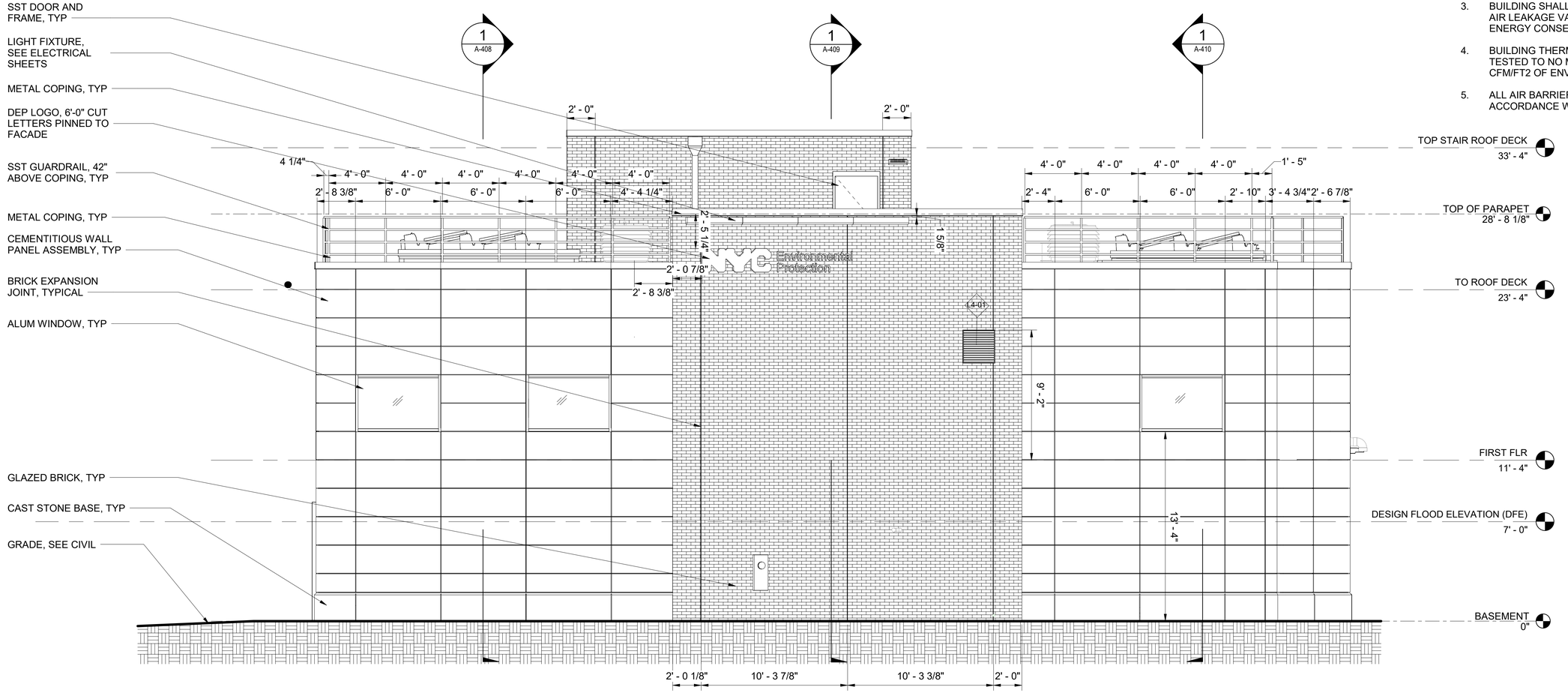
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CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ARCHITECTURAL
TI-011 DISINFECTION FACILITY
ROOF PLAN

DATE: NOVEMBER 2026
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SHEET NOTES:

1. PERIMETER FENCING NOT SHOWN FOR CLARITY.
2. BUILDING WINDOW TO WALL RATIO IS 3.2%.
3. BUILDING SHALL MEET THE MAXIMUM AIR LEAKAGE VALUES SET IN THE NYC ENERGY CONSERVATION CODE.
4. BUILDING THERMAL ENVELOPE TO BE TESTED TO NO MORE THAN 0.4 CFM/FT2 OF ENVELOPE AREA @ 75 PA
5. ALL AIR BARRIER TESTING TO BE IN ACCORDANCE WITH ASTM E 779.

1 / A-401 EAST EXTERIOR ELEVATION

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

1/4"=1'-0" 0 4 8 FT.

EXTERIOR FINISH SCHEDULE

COMPONENT	MATERIAL / FINISH	SPEC#
BRICK	GLAZED BLUE BRICK	04 22 00
BRICK WALL COPING	TYPE 316 SST	07 71 00
CEMENTITIOUS WALL PANEL	TAKL - PLATINUM 75 - MEDIABLAST	07 42 46
METAL COPING	BRICK MATCH BRICK CEMENTITIOUS WALL PANEL: MATCH...	07 71 00
CAST STONE	LIMESTONE ETCH	03 45 00
EXTERIOR DOOR	TYPE 316 SST - NO 4	08 11 19
WINDOW - FRAME	ALUM - SILVERSMITH	08 51 13
LOUVERS	ALUM - SILVERSMITH	08 91 20
EXTERIOR STAIR - TREAD	ALUM OPEN GRATE	05 51 00
EXTERIOR STAIR - STRINGER	ALUM C CHANNEL	05 51 00
EXTERIOR STAIR - RAILING	TYPE 316 SST - NO 4	05 52 13.05
ROOF RAILING	TYPE 316 SST - NO 4	05 52 13.05
LIGHTING FIXTURE	SILVERSMITH OR EQUAL	26 51 11

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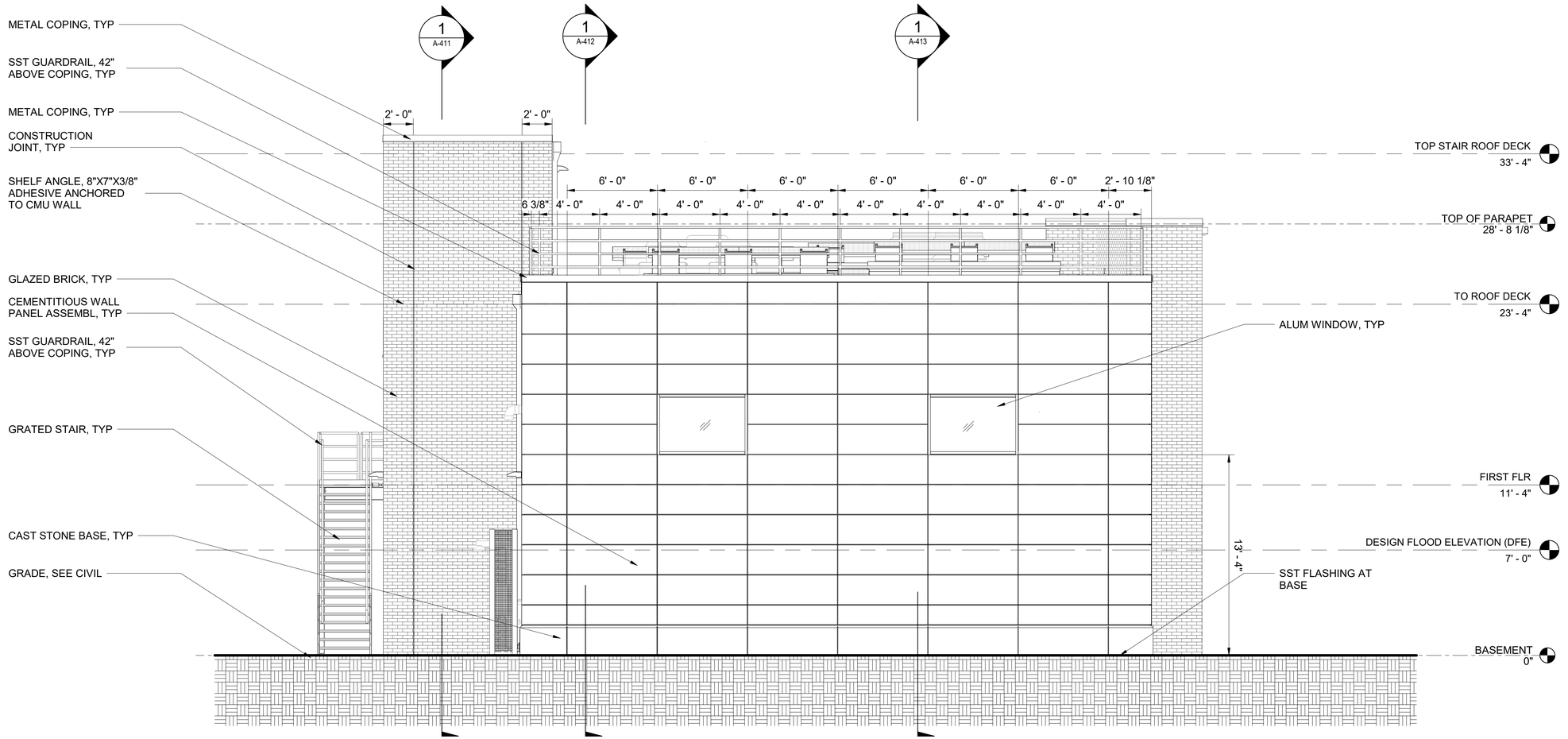
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CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
EXTERIOR ELEVATION SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-404.00

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1 A-401 SOUTH EXTERIOR ELEVATION

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

1/4"=1'-0" 0 4 8 FT.

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CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DARKINS 11/3/26 023835 STATE OF NEW YORK

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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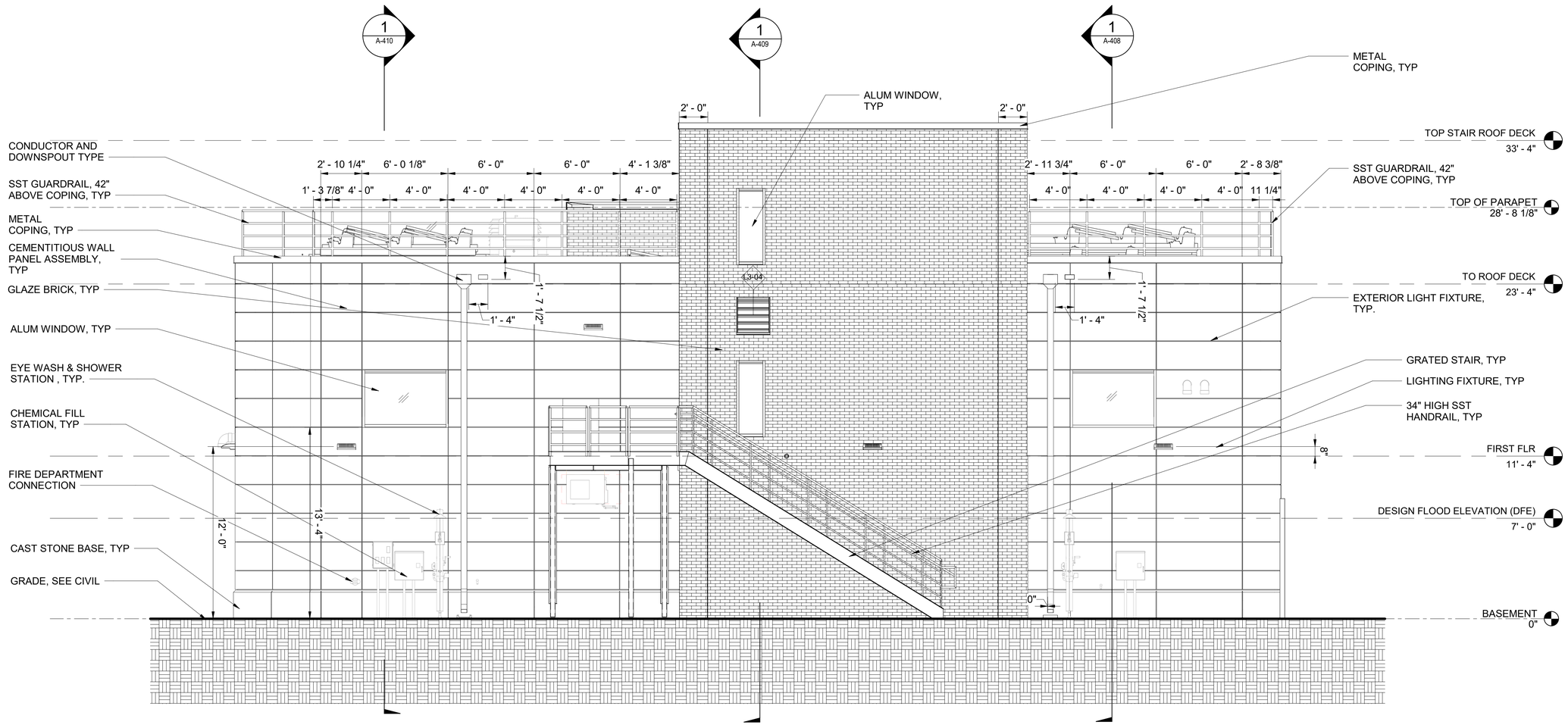
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
EXTERIOR ELEVATION SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-405.00

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1 A-401 WEST EXTERIOR ELEVATION

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

1/4"=1'-0" 0 4 8 FT.

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Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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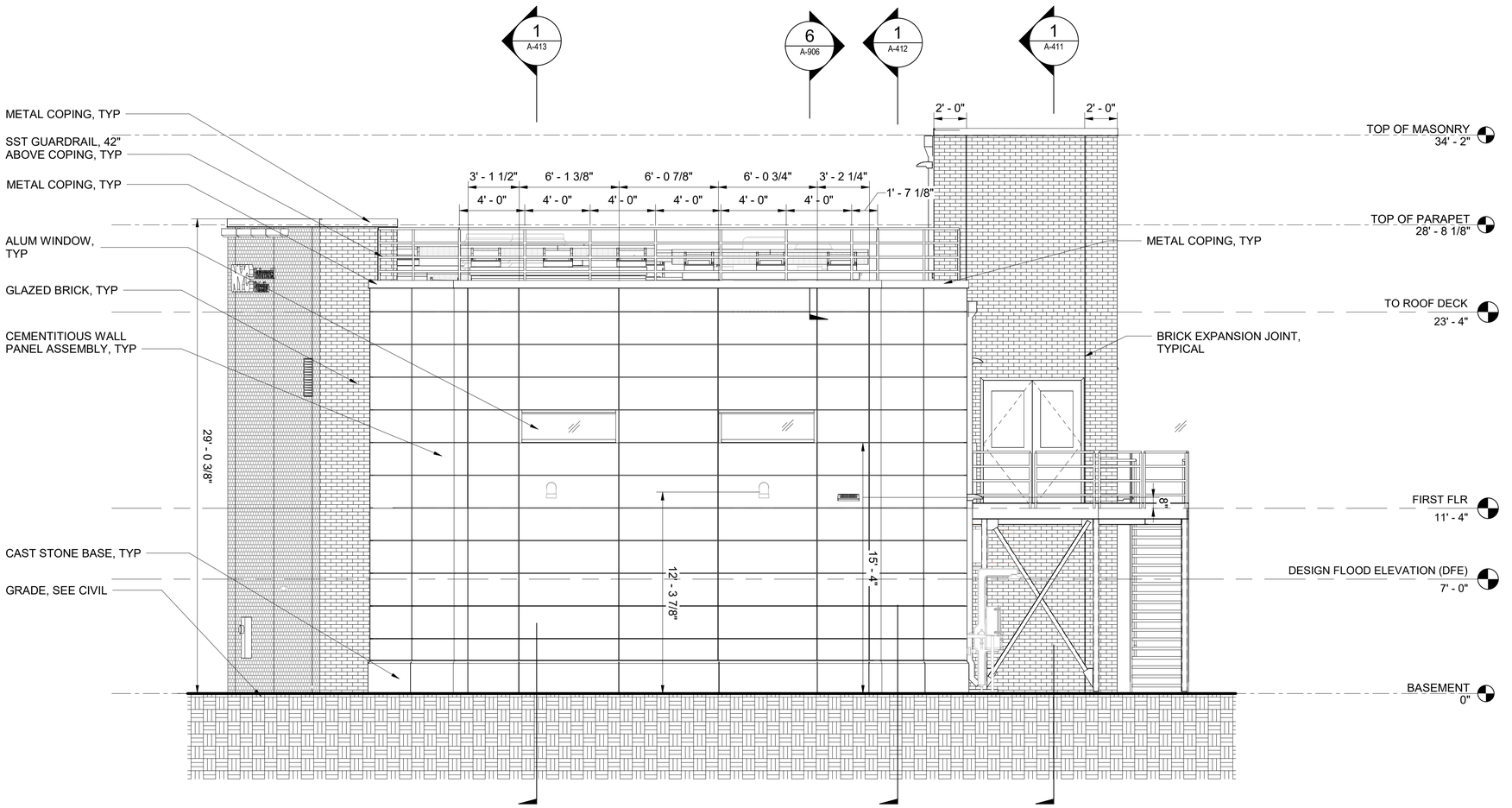
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
EXTERIOR ELEVATION SHEET 3

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1 A-401 NORTH EXTERIOR ELEVATION

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

1/4"=1'-0" 0 4 8 FT.

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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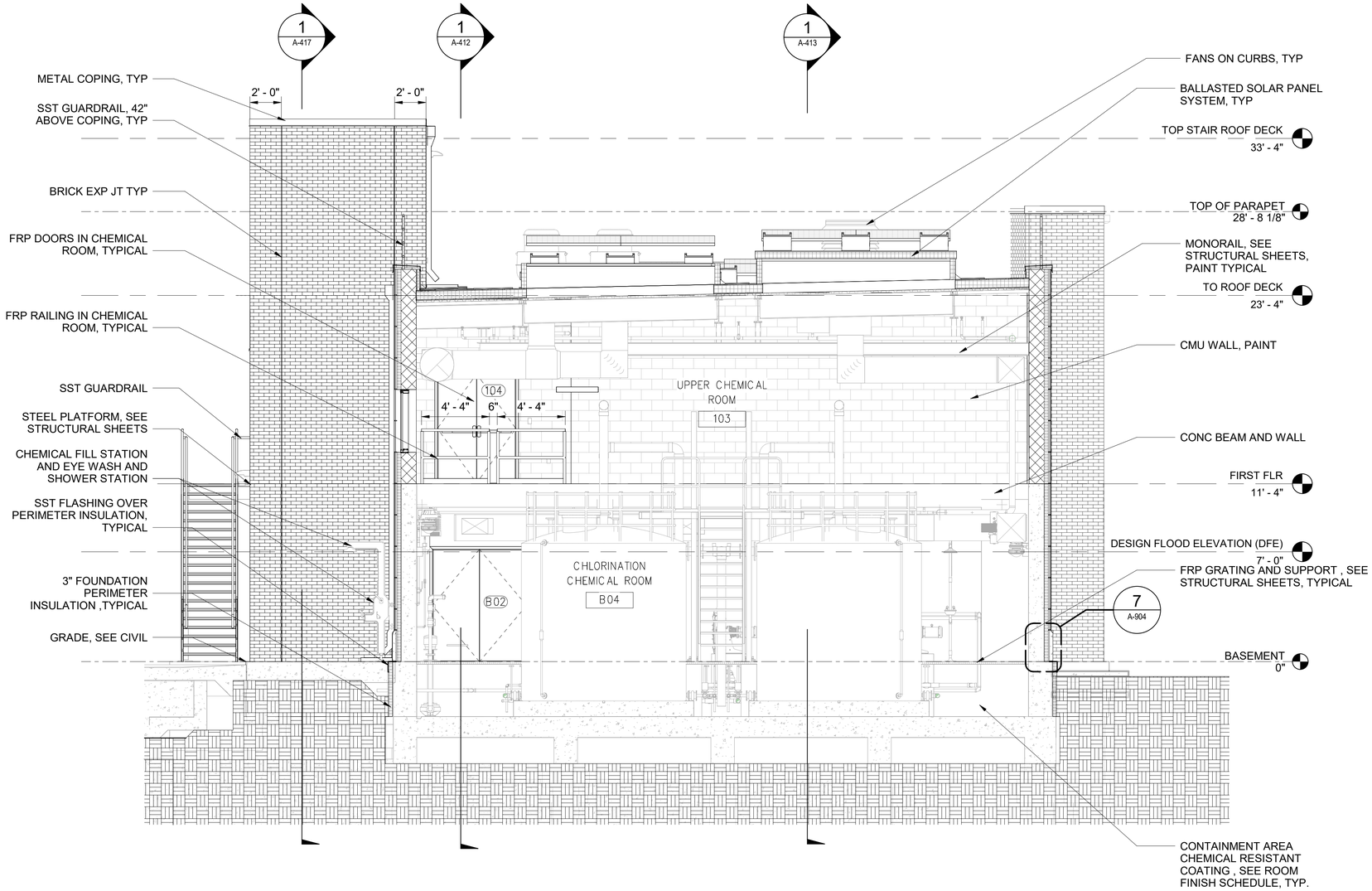
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

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TI-011 DISINFECTION FACILITY
EXTERIOR ELEVATION SHEET 4

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1 / A-401 BUILDING SECTION 1

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

1/4"=1'-0" 0 4 8 FT.

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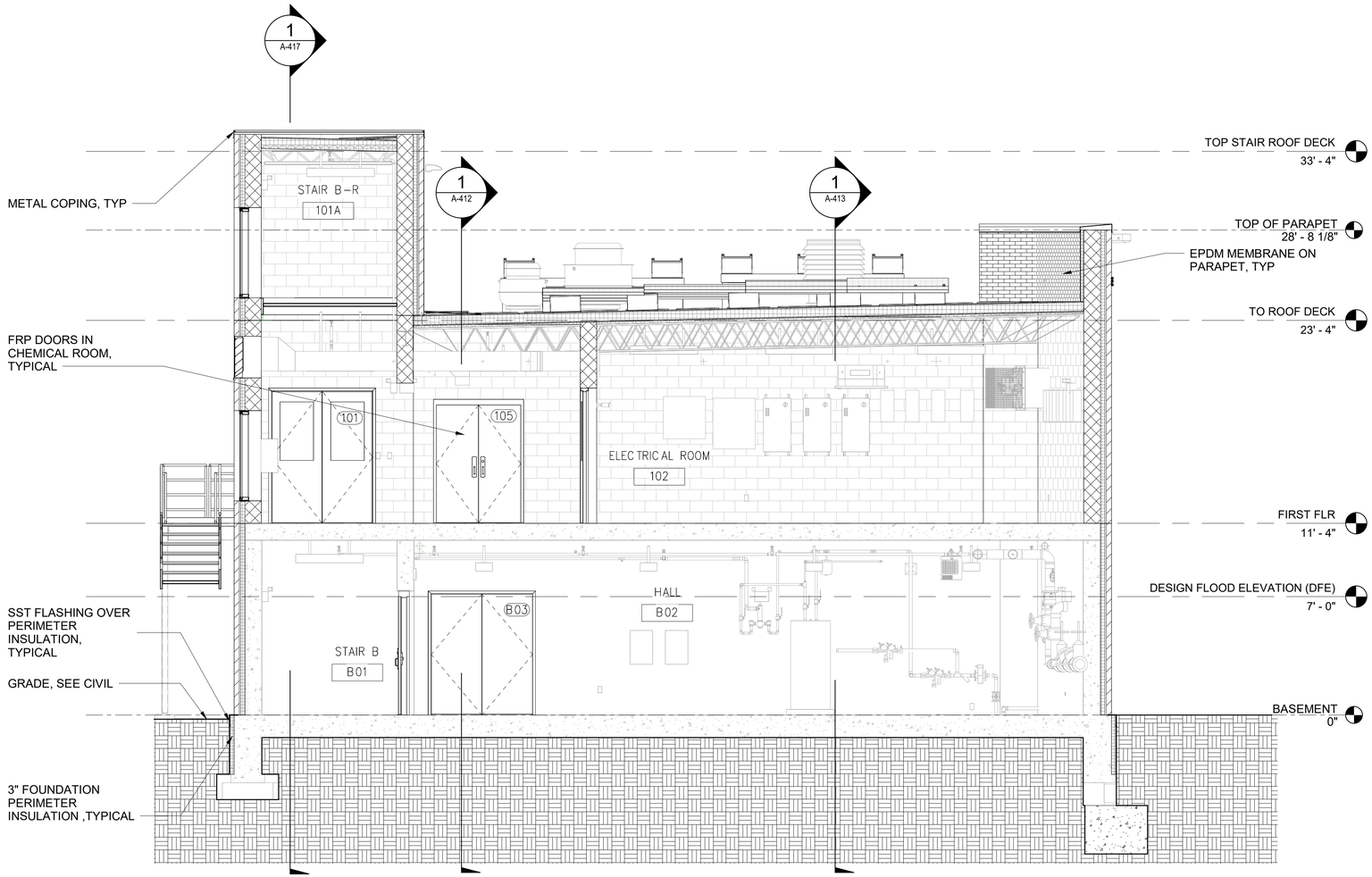
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ARCHITECTURAL
TI-011 DISINFECTION FACILITY
BUILDING SECTION SHEET 1

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1 A-401 BUILDING SECTION 2

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

1/4"=1'-0" 0 4 8 FT.

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Environmental Protection

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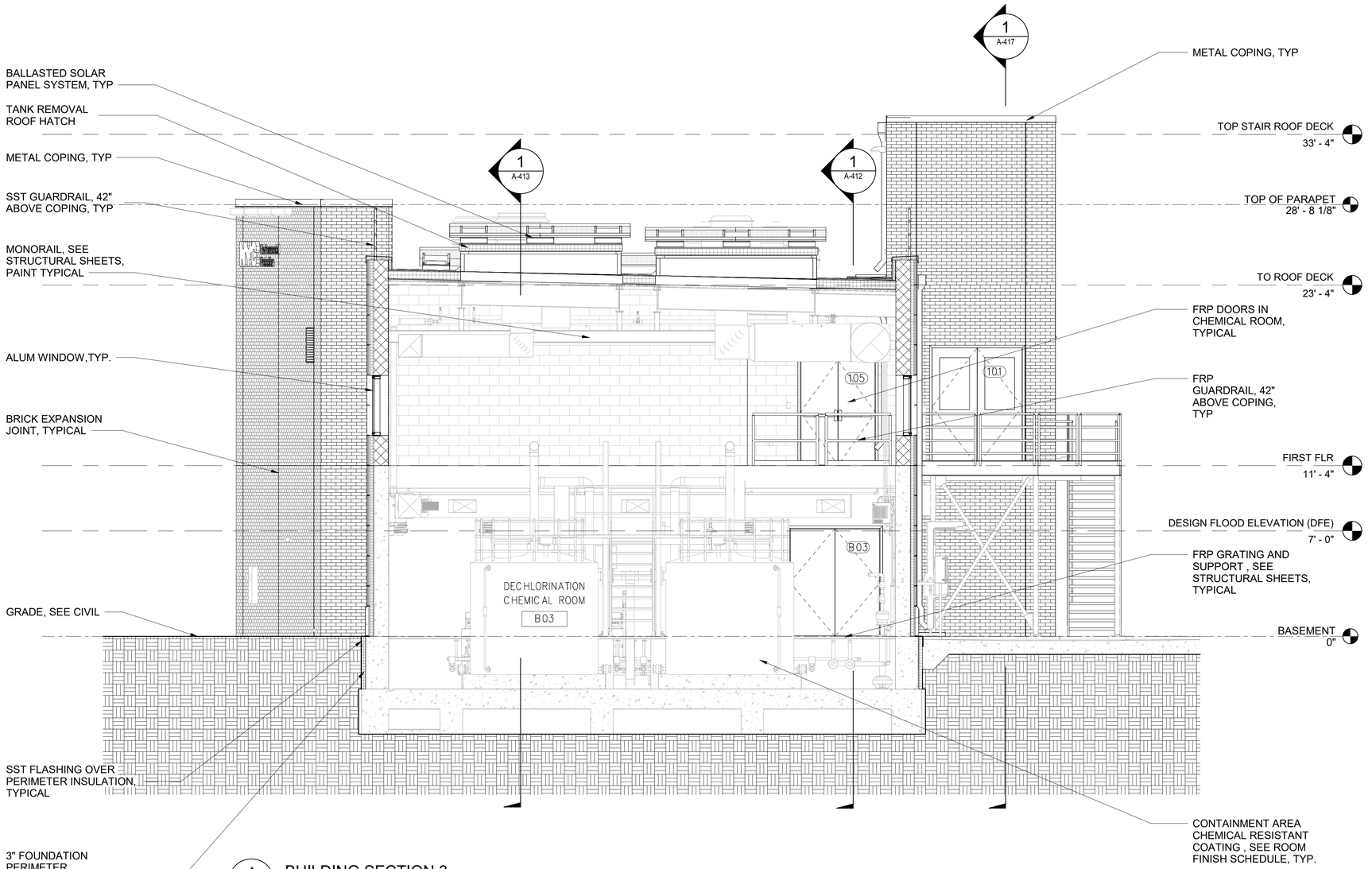
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ARCHITECTURAL
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BUILDING SECTION SHEET 2

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1 A-401 BUILDING SECTION 3

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

1/4"=1'-0" 0 4 8 FT.

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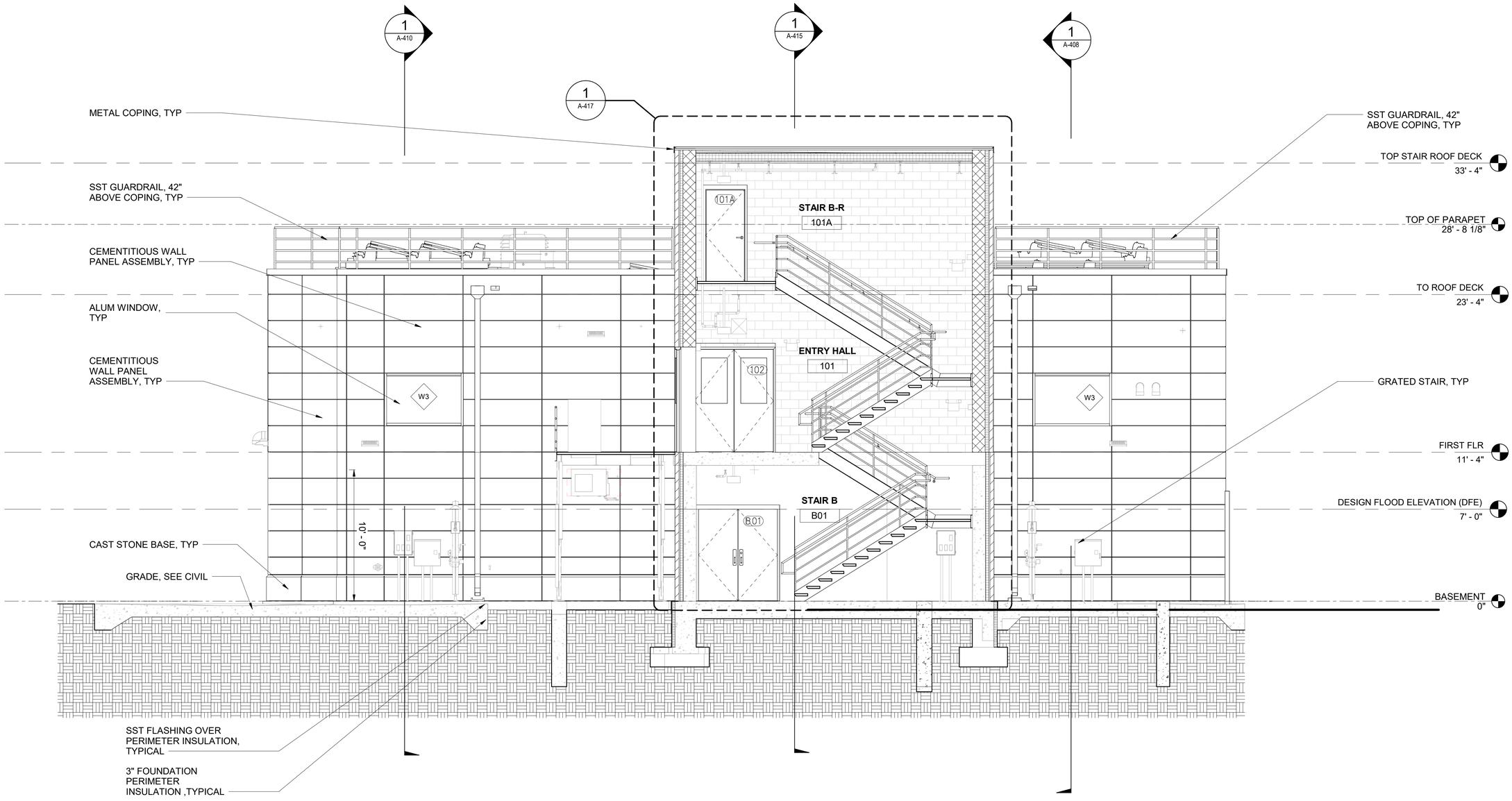
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BUILDING SECTION SHEET 3

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1 A-401 BUILDING SECTION 4

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

1/4"=1'-0" 0 4 8 FT.

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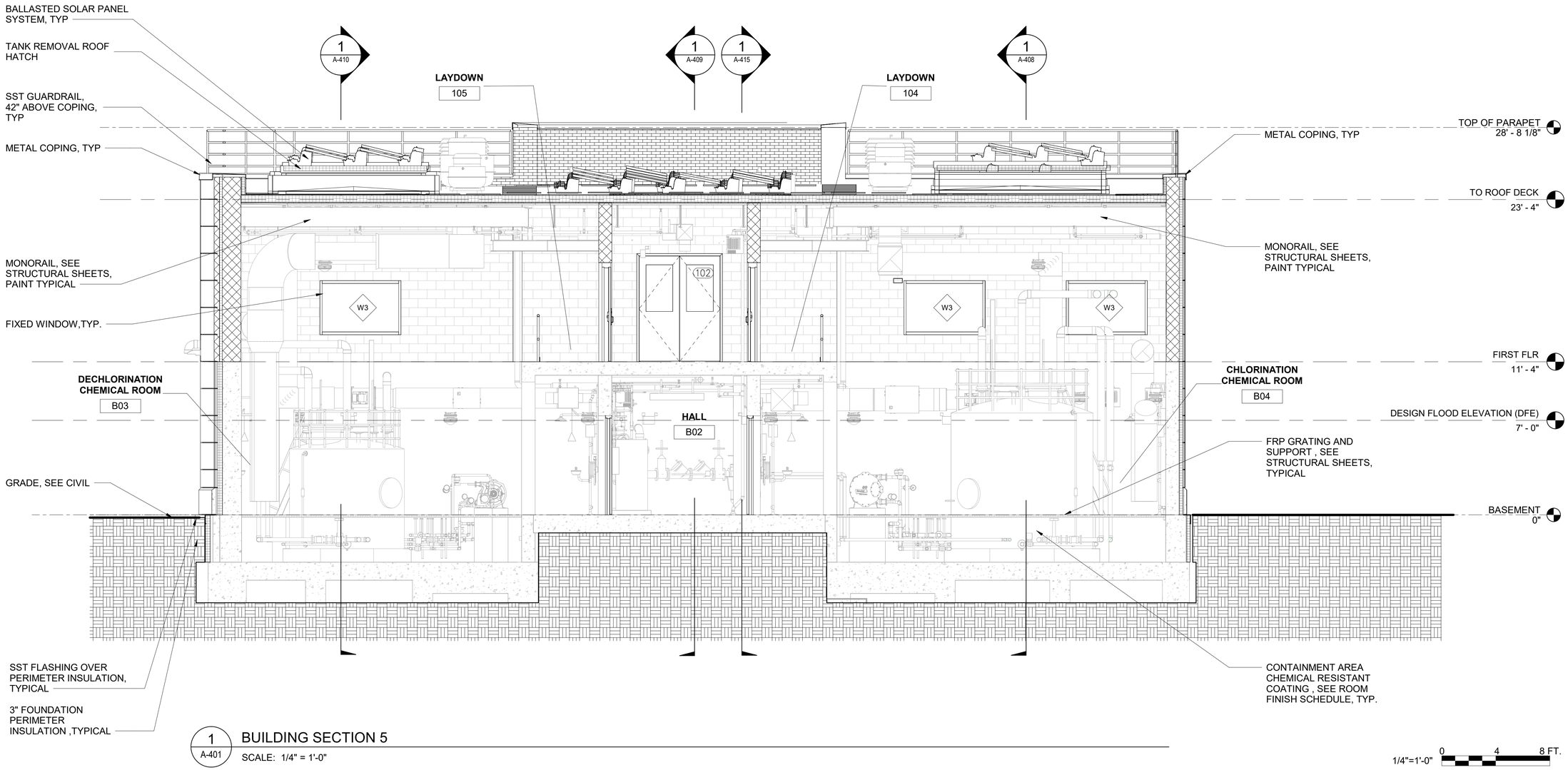
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
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BUILDING SECTION SHEET 4

DATE: NOVEMBER 2026
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1 A-401 BUILDING SECTION 5

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

1/4"=1'-0" 0 4 8 FT.

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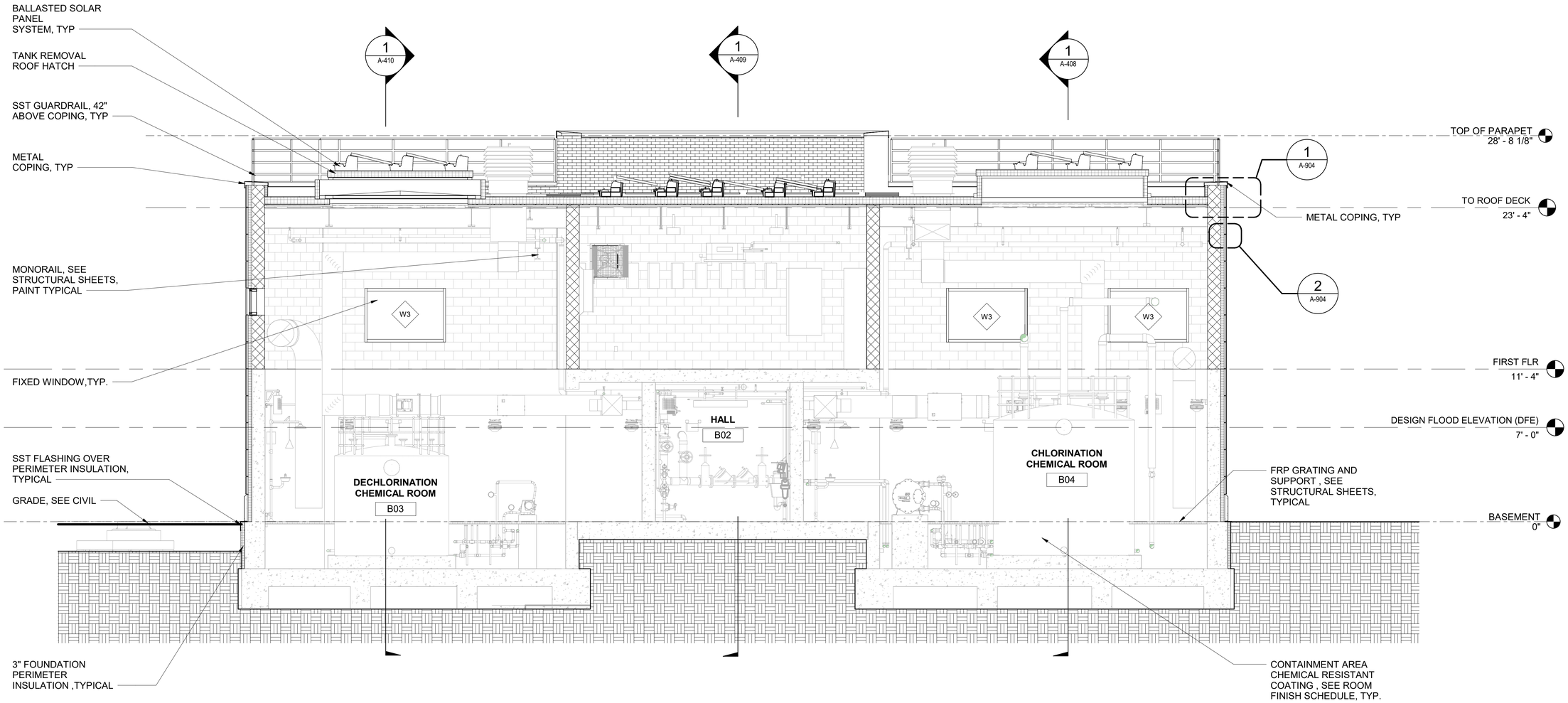
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BUILDING SECTION SHEET 5

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1 A-401 BUILDING SECTION 6

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

1/4"=1'-0" 0 4 8 FT.

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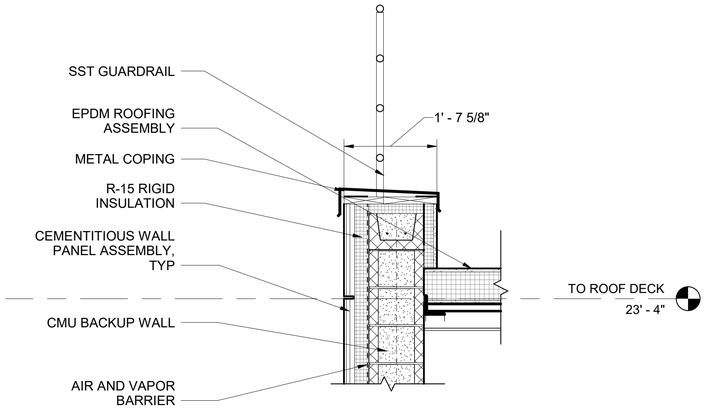
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

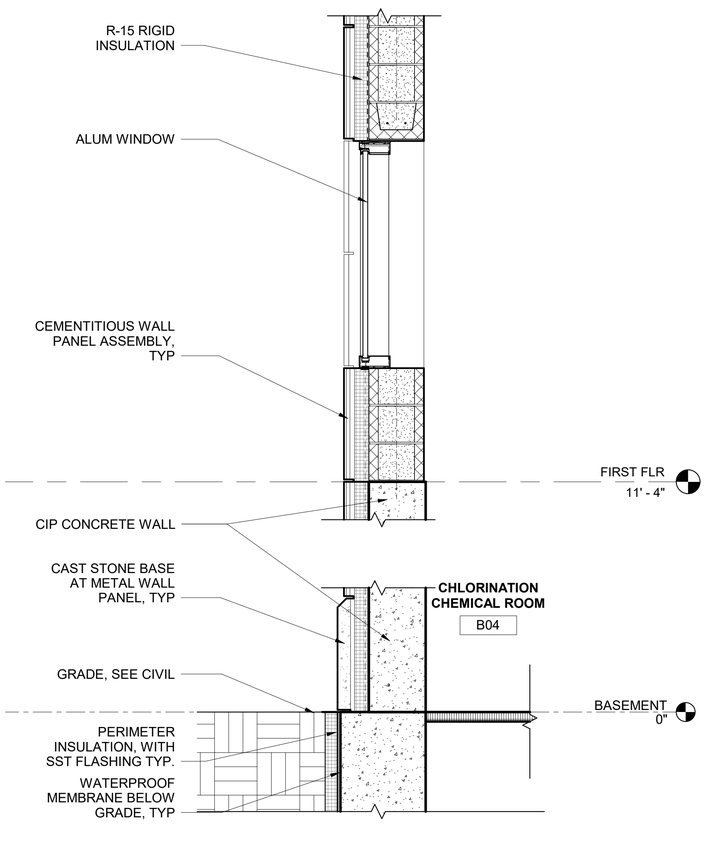
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BUILDING SECTION SHEET 6

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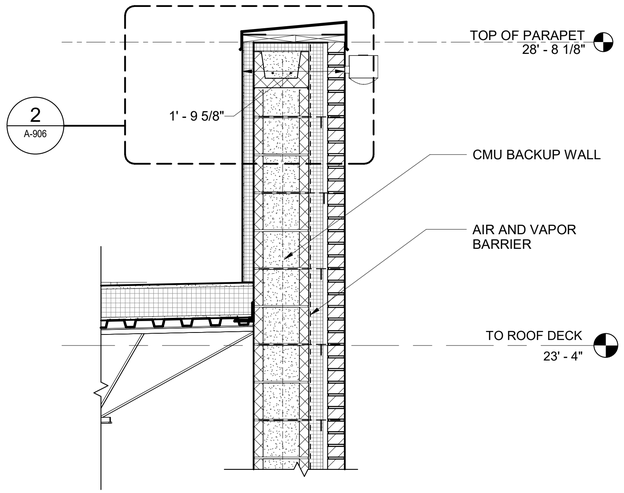
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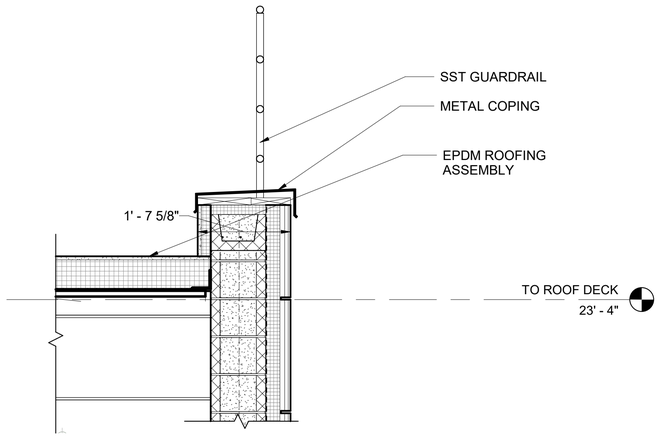
1 A-401 WALL SECTION 1

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



2 A-401 WALL SECTION 2

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



3 A-401 WALL SECTION 3

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

3/4"=1'-0" 0 1 2 3 FT.

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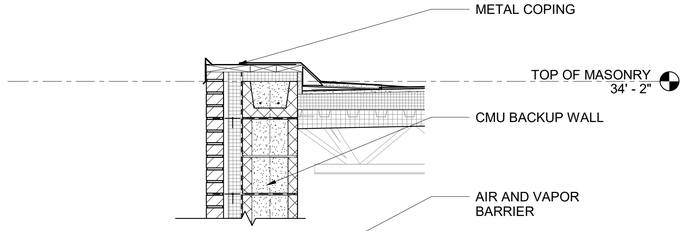
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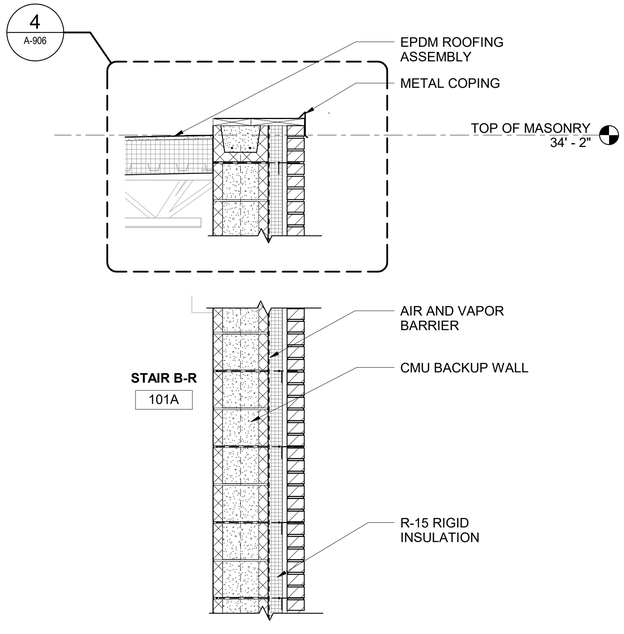
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WALL SECTIONS SHEET 1

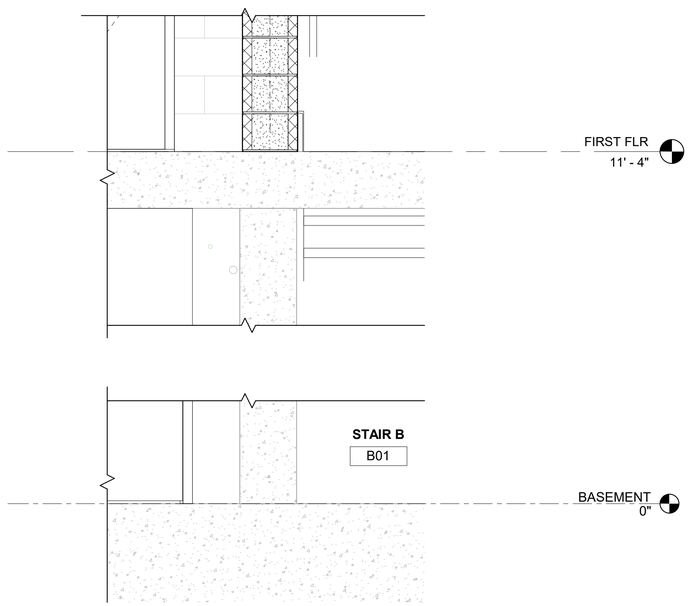
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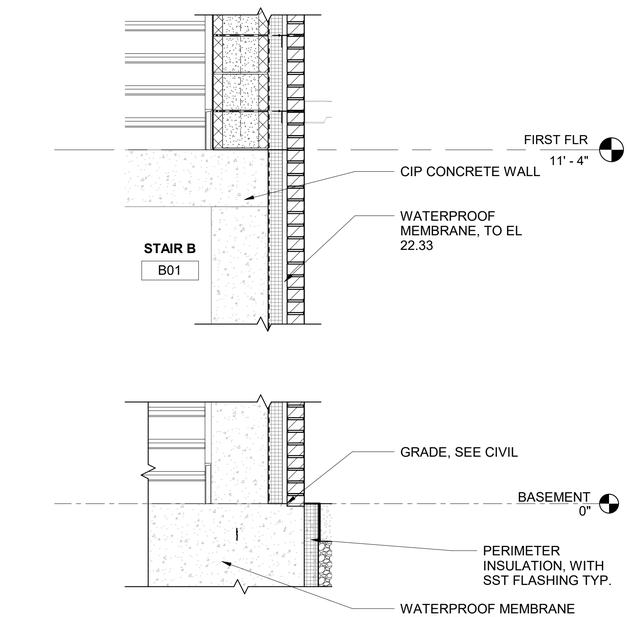
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1 A-401 WALL SECTION 4
SCALE: 3/4" = 1'-0"



2 A-401 WALL SECTION 5
SCALE: 3/4" = 1'-0"

3/4"=1'-0" 0 1 2 3 FT.

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SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DAWKINS 11/3/26 STATE OF NEW YORK

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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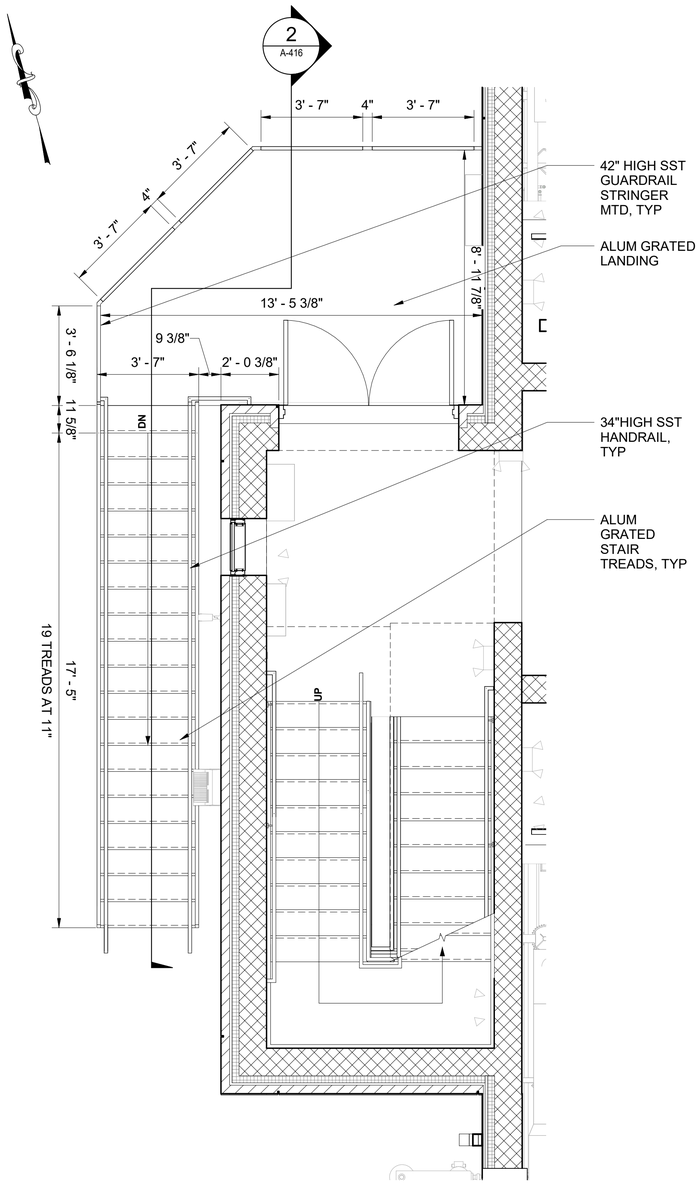
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
WALL SECTIONS SHEET 2

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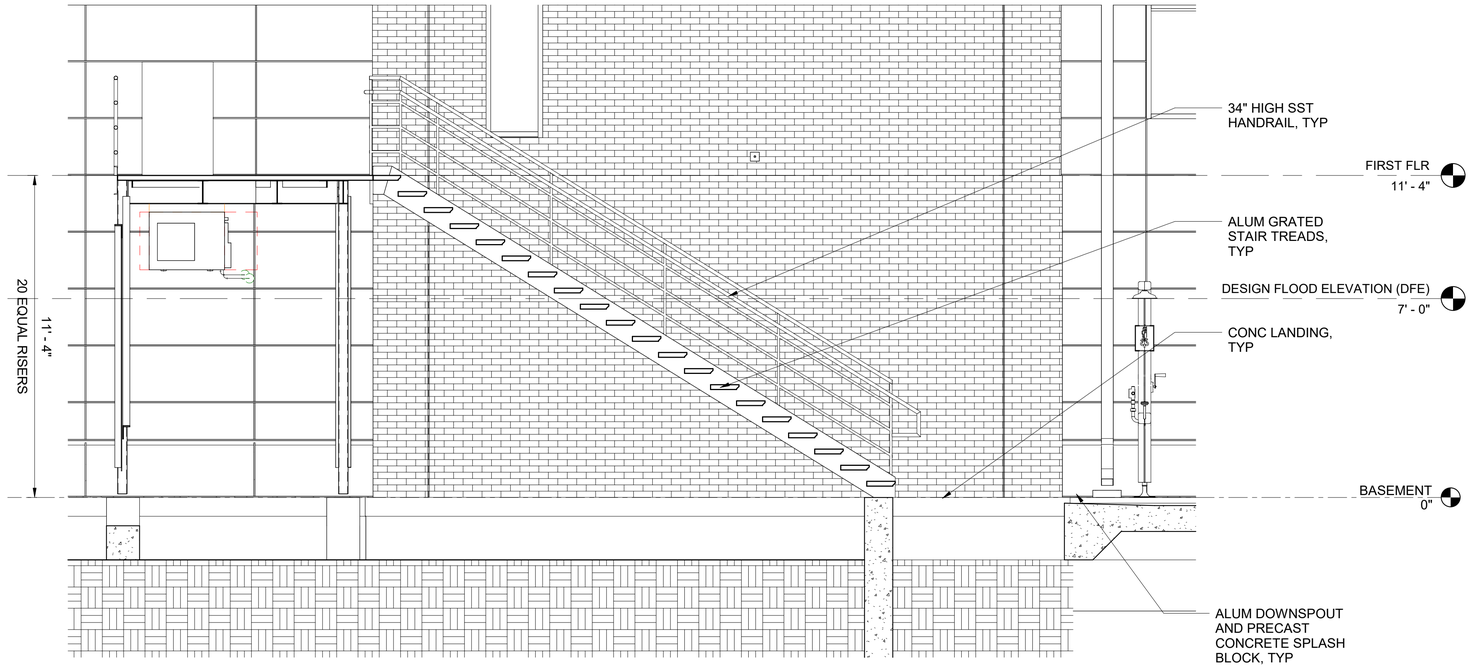
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1 A-402 FIRST FLOOR - STAIR A PLAN

SCALE: 3/8" = 1'-0"



2 A-416 SECTION - STAIR A

SCALE: 3/8" = 1'-0"

1/4"=1'-0" 0 4 8 FT.

3/8"=1'-0" 0 1 2 3 5 FT.

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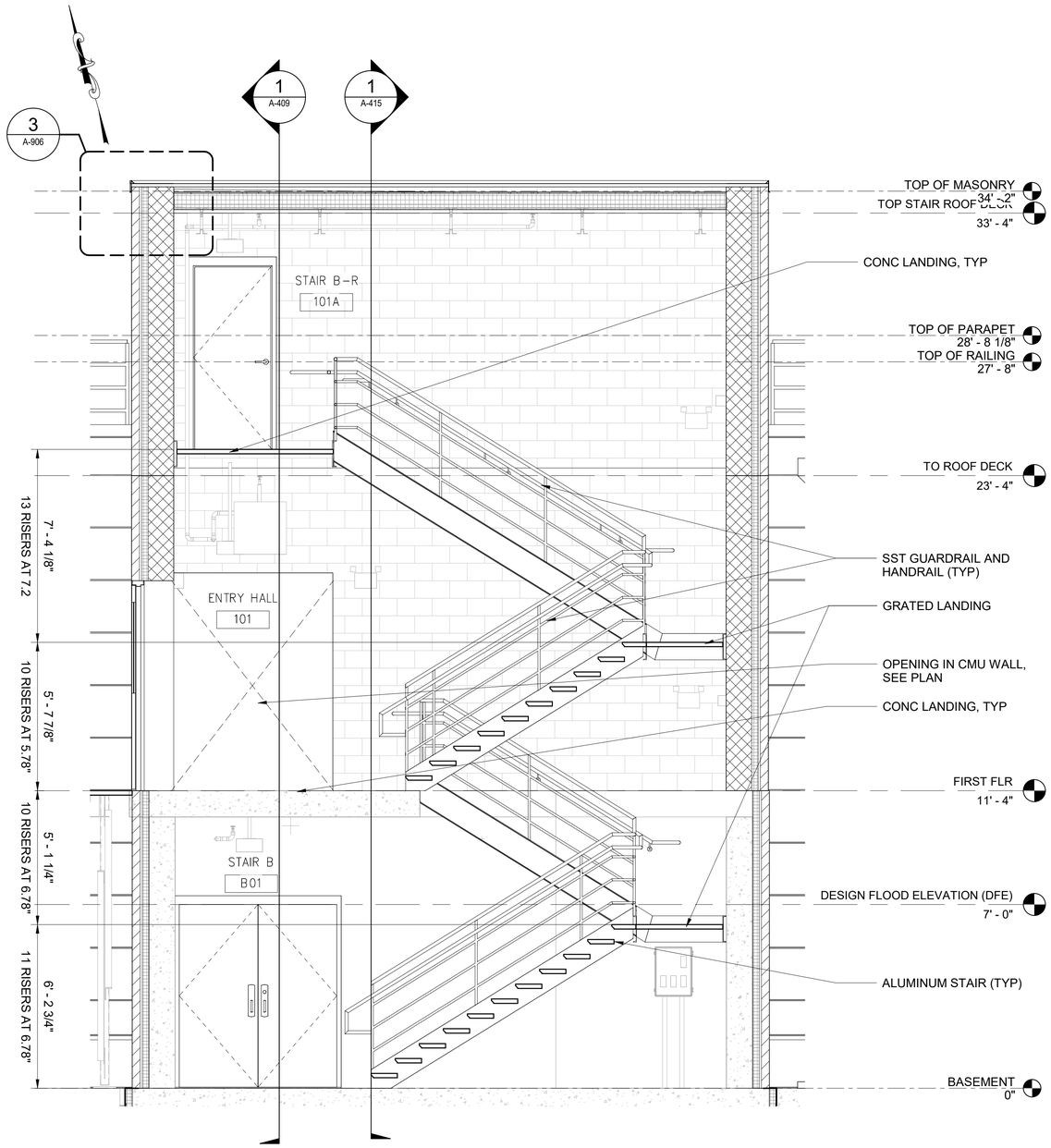
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STAIR A PLANS AND SECTION

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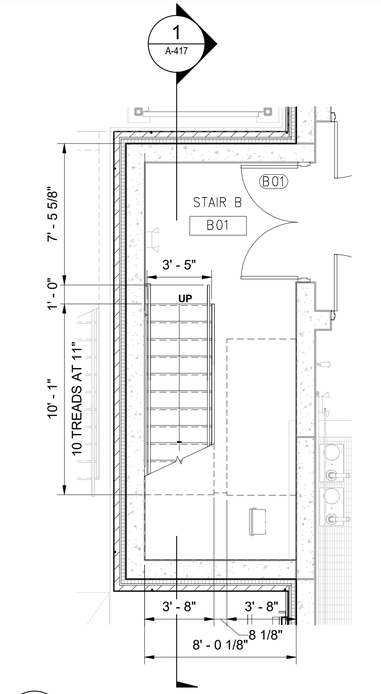
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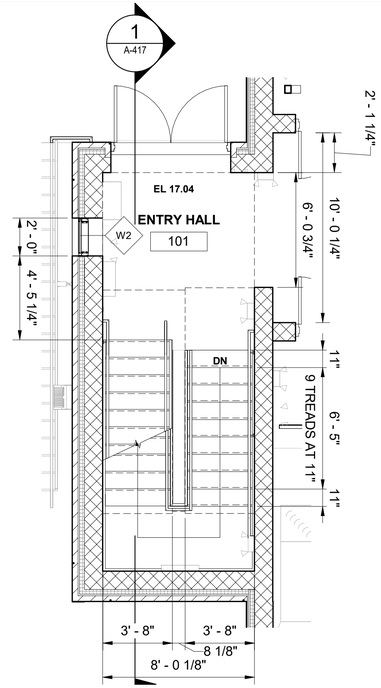
1 A-408 STAIR B SECTION

SCALE: 3/8" = 1'-0"



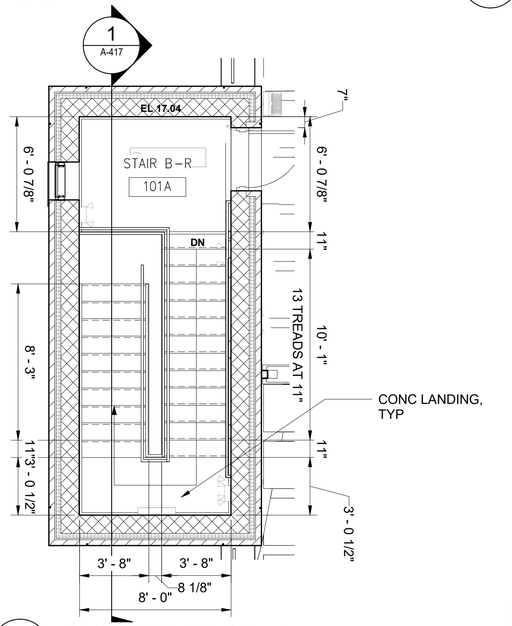
2 BASEMENT - STAIR B PLAN

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



3 A-402 FIRST FLR - STAIR B PLAN

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



4 A-403 ROOF - STAIR B-R PLAN

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

1/4"=1'-0" 0 4 8 FT.

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ROOM FINISH SCHEDULE

BUILDING NAME	ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS												CEILING			NOTES
					NORTH			SOUTH			EAST			WEST						
					MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	
TI-011	101	ENTRY HALL	CONC-F1	CMU-P1	CMU	P1	C2	CMU	P1	C2	CMU	P1	C2	CMU	P1	C2	MD	P1	C2	
TI-011	101A	STAIR B-R	CONC-F1	CONC/CMU-P1	CONC	CF6	-	CONC	CF6	-	CMU	P1	-	CMU	P1	-	MD	P1	-	
TI-011	102	ELECTRICAL ROOM	CONC-F1	CMU-P1	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	CMU	P1	C1	MD	P1	C1	
TI-011	104	LAYDOWN	CONC-F1	CMU-P1	NA	-	-	CMU	P1	-	CMU	P1	-	CMU	-	-	MD	P1	-	
TI-011	105	LAYDOWN	CONC-F1	CMU-P1	CMU	P1	-	NA	P1	-	CMU	P1	-	CMU	P1	-	MD	P1	-	
TI-011	B01	STAIR B	CONC-F1	CONC/CMU-P1	CONC	CF6	C1	CONC	CF6	C1	CMU	P1	C1	CONC	CF6	C1	MD	P1	C1	
TI-011	B02	HALL	CONC-F1	CONC/CMU-P1	CMU	P1	C2	CMU	P1	C2	CONC	CF6	C2	CMU	P1	C2	MD	P1	C2	
TI-011	B03	DECHLORINATION CHEMICAL ROOM	CONC-F3	CONC/CMU-F3	CONC	CF6 - P3	-	CMU	P3	-	CONC	CF6 - P3	-	CONC	CF6 - P3	-	CONC/MD	P0/P1	-	
TI-011	B04	CHLORINATION CHEMICAL ROOM	CONC-F3	CONC/CMU-F3	CONC	CF6 - P3	-	CONC	CF6 - P3	-	CONC	CF6 - P3	-	CONC	CF6 - P3	-	CONC/MD	P0/P1	-	

DOOR SCHEDULE

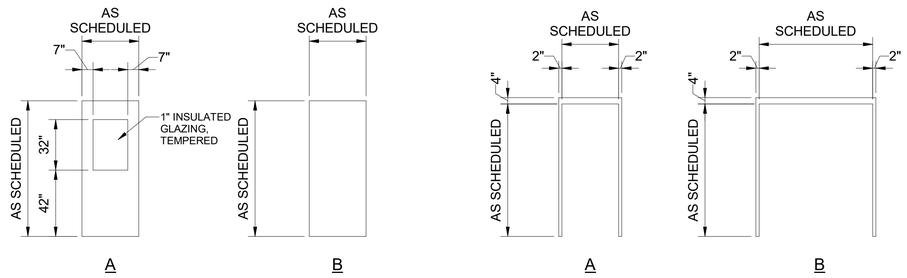
BUILDING NAME	ROOM NAME	DOOR						FRAME				DETAILS			FIRE RATING	HARDWARE SET	REMARKS
		DOOR NO.	WIDTH	HEIGHT	TYPE	MATL	GLAZING	WIDTH	HEIGHT	TYPE	MATL	HEAD	JAMB	THLD			
T1-011	ENTRY HALL	101	6' - 0"	7' - 10"	A	SST	NONE	6' - 4"	8' - 0"		SST	H1	J1	S2	0	1	
T1-011	STAIR B-R	101A	3' - 0"	7' - 0"	1	SST	NONE	3' - 4"	7' - 4"	A	SST	H2	J2	S2	NA	4	
T1-011	ELECTRICAL ROOM	102	6' - 0"	7' - 10"	2	SST	NONE	6' - 4"	8' - 0"	B	SST	H2	J2	S2	90	3	
T1-011	LAYDOWN	104	5' - 0"	7' - 0"	2	FRP	NONE	5' - 4"	7' - 4"	B	FRP	H2	J2	S2	60	2	SEE NOTES 3 & 4
T1-011	LAYDOWN	105	5' - 0"	7' - 0"	2	FRP	NONE	5' - 4"	7' - 4"	B	FRP	H2	J2	S2	60	2	SEE NOTES 3 & 4
T1-011	STAIR B	B01	6' - 0"	7' - 0"	1	SST	NONE	6' - 4"	7' - 4"	A	SST	H2 SIM	J2 SIM	S2 SIM	60	3	
T1-011	CHLORINATION CHEMICAL ROOM	B02	6' - 0"	7' - 2"	2	FRP	NONE	6' - 4"	7' - 4"	B	FRP	H2 SIM	J2 SIM	S2 SIM	NA	2	SEE NOTE 3
T1-011	DECHLORINATION CHEMICAL ROOM	B03	6' - 0"	7' - 2"	2	FRP	NONE	6' - 4"	7' - 4"	B	FRP	H2 SIM	J2 SIM	S2 SIM	NA	2	SEE NOTE 3

WINDOW SCHEDULE

BUILDING NAME	DESCRIPTION	OPERATION	LOCATION	MATERIAL	TYPE	MARK	OPENING		GLAZING	PANEL	STC	DETAILS					NOTES
							WIDTH	HEIGHT				HEAD	JAMB	SILL	MULLION V	MULLION H	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W1	W1-1	6' - 0"	2' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W1	W1-2	6' - 0"	2' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W2	W2-1	2' - 0"	5' - 4"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W2	W2-2	2' - 0"	5' - 4"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-1	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-2	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-3	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-4	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-5	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-6	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	
TI-011	STOREFRONT WNDOW	FIXED	EXTERIOR	ALUM	W3	W3-7	6' - 0"	4' - 0"	IN-ILS	NO	35	H3	J3	S3	NA	NA	

LOUVER SCHEDULE

BUILDING NAME	TYPE	MARK	SIZE		MATERIAL	DETAILS			NOTES
			WIDTH	HEIGHT		HEAD	JAMB	SILL	
TI-011	L3	L3-04	2' - 5 1/2"	2' - 4"	ALUM	H4	H4 SIM	S4	
TI-011	L4	L4-01	2' - 4"	2' - 4"	ALUM	H4	H4 SIM	S4	



A B A B

1 DOOR TYPES
SCALE: N.T.S.

2 FRAME TYPES
SCALE: N.T.S.

HARDWARE SETS:

1. EXTERIOR DOUBLE LEAF - EXIT DOOR - NON-FR
   - A. MORTISE HINGES - 2 PAIR
   - B. SURFACE MTD CLOSER
   - C. URFACE EXIT DEVICES - 1 PER LEAF
   - D. WEATHER SEALS - JAMB, HEAD, AND SILL
   - E. DOOR DRIP AT SILL OF EACH LEAF
   - F. THERMAL BROKEN THRESHOLD
2. INTERIOR DOUBLE LEAF - EXIT DOOR - NON-FR
   - A. MORTISE HINGES - 2 PAIR
   - B. SURFACE MTD CLOSER
   - C. SURFACE EXIT DEVICES - 1 PER LEAF
   - D. WEATHER SEALS - JAMB, HEAD, AND SILL
   - E. SMOKE SEALS - JAMB, HEAD, SILL
   - F. THRESHOLD
3. INTERIOR DOUBLE LEAF - EXIT DOOR - FR
   - A. MORTISE HINGES - 2 PAIR
   - B. SURFACE MTD CLOSER
   - C. SURFACE EXIT DEVICES - 1 PER LEAF
   - D. WEATHER SEALS - JAMB, HEAD, AND SILL
   - E. FIRE AND SMOKE SEALS - JAMB, HEAD, SILL
   - F. THRESHOLD
4. SINGLE LEAF - EXIT DOOR - NON-FR
   - A. MORTISE HINGES - 2 PAIR
   - B. SURFACE MTD CLOSER
   - C. SURFACE EXIT DEVICES
   - D. SMOKE SEALS - JAMB, HEAD, SILL
   - E. THRESHOLD
5. SINGLE LEAF - EXIT DOOR - FR
   - A. MORTISE HINGES - 2 PAIR
   - B. SURFACE MTD CLOSER
   - C. SURFACE EXIT DEVICES
   - D. WEATHER SEALS - JAMB, HEAD, AND SILL
   - E. FIRE AND SMOKE SEALS - JAMB, HEAD, SILL
   - F. THRESHOLD

SCHEDULE LEGEND:

MATERIALS:

ALUM	ALUMINUM
CST	CAST STONE
CONC	CONCRETE
CMU	CONCRETE MASONRY UNITS
FRP	FIBERGLASS REINFORCED PLASTIC
HM	HOLLOW METAL
MD	METAL DECK
MF	METAL FRAMING
MWP	METAL WALL PANEL
RB	RUBBER BASE
SST	STAINLESS STEEL

FLOOR AND BASE FINISH SUFFIX:

F0	NO FINISH
F1	CONCRETE HARDENER (CLEAR)
F2	CONCRETE HARDENER WITH COLOR
F3	CHEMICAL RESISTANT COATING (CONTAINMENT)
F4	COATING WITH NON-SKID
F5	COATING WITHOUT NON-SKID
B0	COVE
B1	STRAIGHT

PAINTS AND COATINGS (SPEC SPECIFICATION FOR SPECIFIC SYSTEM):

P0	NO FINISH
P1	SEMI-GLOSS COATING
P2	SATIN COATING
P3	CHEMICAL RESISTANT COATING
P4	GALVANIZED
P5	AAMA2605 COMPLAINT COATING
P10	MANUFACTURER'S FINISH

CONCRETE FINISH:

CF0	NO FINISH (SEE CONCRETE SPECIFICATION)
CF1	ACID ETCHED
CF2	ABRASIVE BLASTED
CF3	EXPOSED AGGREGATED
CF4	POLISHED
CF5	STUCCO FINISH
CF6	RUBBED FINISH
CF7	SAND-FLOAT FINISH

COLOR:

C1	# SW COLOR #4028 GYPSUM
C2	# SW COLOR #4005 CINDER CREAM
C3	# SW COLOR #4026 SLATE GRAY
C4	# CHEMPRUF - CAMEL TAN STD 5
C5	# SW COLOR #4084 SAFETY YELLOW
C6	# SW COLOR #4081 SAFETY RED

GLAZING TYPES:

ILS	IMPACT RESISTANT LAMINATED SAFETY GLASS
LS	LAMINATED SAFETY GLASS (TEMPERED)
T	TEMPERED GLASS
IN-ILS	INSULATED IMPACT RESISTANT GLAZING UNIT

ROOM FINISH NOTES:

1. CHEMICAL RESISTANT COATING SHALL BE APPLIED FROM THE CONTAINMENT AREA UP WALLS FOR 3 FEET.
2. PROVIDE P1 COATING ON STEEL OPEN JOIST MEMBERS.
3. FRP RAILINGS SHALL BE SAFETY YELLOW.
4. PROVIDE ALL CONCRETE PADS AND RAISED CONCRETE EDGES, OUTSIDE OF CONTAINMENT AREA, WITH 4" TALL AND 4" WIDE COATED EDGES, COLOR C5.
5. METAL DECK, JOIST AND STRUCTURAL STEEL SHALL BE PAINTED TO MATCH COLOR C3
6. SPRINKLER PIPING SHALL BE PAINTED PER FDNY RULES AND REGULATIONS INCLUDING SMALL DIAMETER PIPING (C6).
7. MONORAIL SHALL BE PAINTED C5.

WINDOW NOTES:

1. SEE SHEET A-907 FOR WINDOW TYPES.
2. PROVIDE EXTRUDED SILL AT ALL WINDOWS.
3. PROVIDE INTERIOR SNAP TRIM AT ALL WINDOWS.
4. ALL GLAZING SHALL BE BIRD FRIENDLY COMPLIANT.PROVIDE DOT PATTERN.
5. WINDOWS SHALL HAVE A MAXIMUM U-FACTOR OF U-0.30, SEE SPECIFICATIONS.
6. WINDOWS SHALL HAVE A MAXIMUM SHGC OF 0.36, SEE SPECIFICATIONS.
7. CURTAIN WALLS AND STOREFRONT GLAZING = 0.06 CFM/SF

DOOR NOTES:

1. SEE SHEET A-907 FOR DOOR AND FRAME TYPES.
2. SEE THIS SET FOR DOOR HARDWARE SETS AND SPECIFICATION #08 71 00 FOR HARDWARE
3. FRP DOORS AND FRAMES SHALL MATCH COLOR C4.
4. PROVIDE TWO 30" LEAFS.
5. EXTERIOR DOOR FRAMES SHALL HAVE THERMALLY BROKEN FRAMES AND THRESHOLDS. EXTERIOR DOOR ASSEMBLY SHALL BE A MAXIMUM U-FACTOR OF U-0.40.

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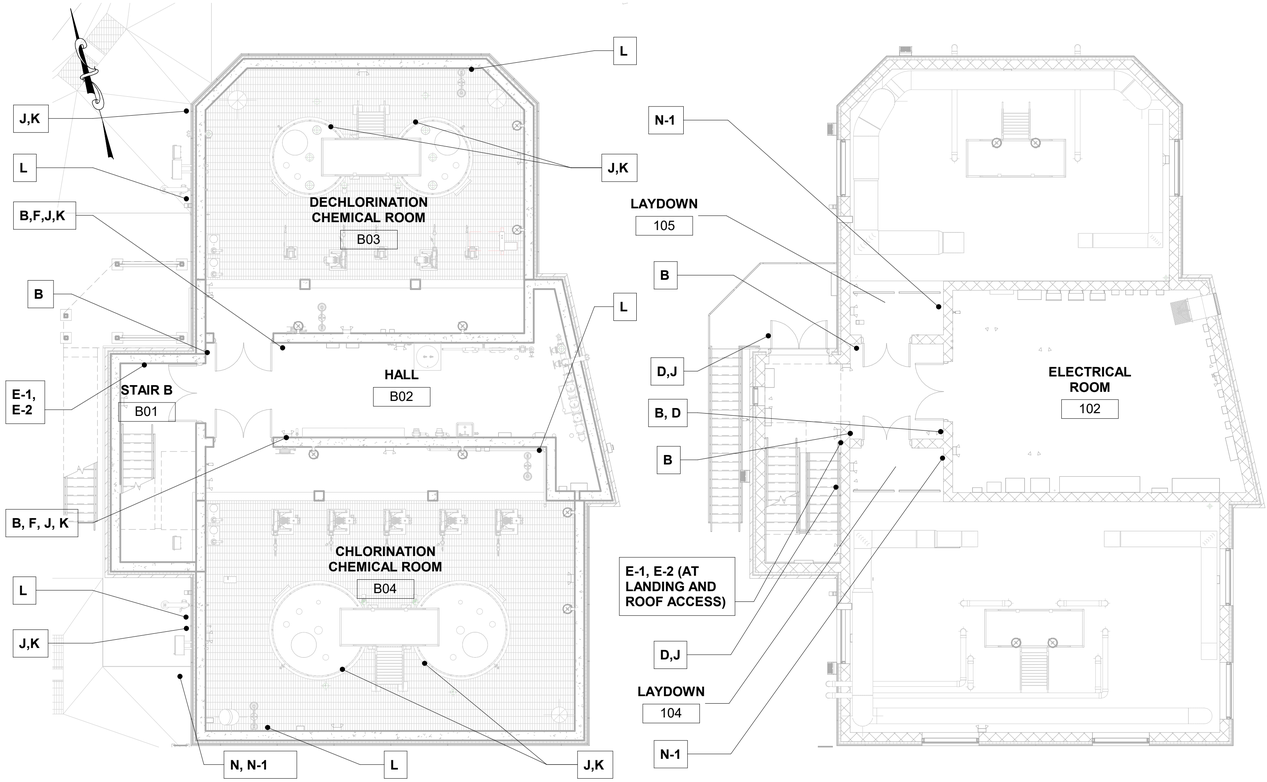
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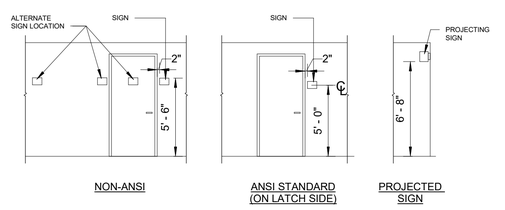
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BASEMENT SIGNAGE PLAN

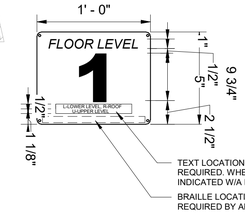
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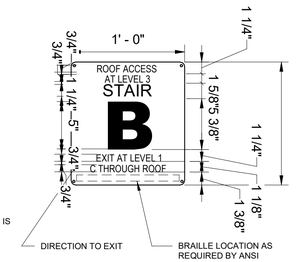
NON-ANSI | ANSI STANDARD (ON LATCH SIDE) | PROJECTED SIGN

SIGNAGE ELEVATION

SCALE: N.T.S.



TYPE E:
E-1: FLOOR NUMBERING SIGN



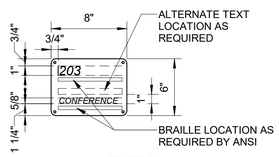
TYPE E:
E-2: STAIR IDENTIFICATION

SIGNAGE NOTES:

1. FINAL SIGNAGE WORDING OF ALL SIGNS TO BE DETERMINED AFTER AWARD OF CONTRACT.
2. FOR SIGNAGE LOCATIONS REFERENCE THIS SHEET FOR SIGNAGE PLAN.
3. PROVIDE ALL PERMANENT DIRECTIONAL/INFORMATIONAL, ROOM NAME, BUILDING NAME, AREA NAME, ACCESSIBLE AREA, FLOOR NUMBERING, STAIR IDENTIFICATION, FIRE PREVENTION AND RESTRICTION SIGNS WITH BOTH RAISED TEXT AND BRAILLE TO COMPLY WITH ANSI A117.1, THE AMERICANS WITH DISABILITIES ACT 0F 1990, OSHA REGULATIONS, NFPA GUIDELINES, AND THE NEW YORK STATE BUILDING CODE. FIELD VERIFY EXACT LOCATION OF SIGNS WITH OWNER AND ENGINEER.
4. PROVIDE HAZARD RATING SIGNS / RIGHT-TO-KNOW SIGNS, LABELS AND TAGS TO COMPLY WITH NFPA 704, OSHA 1910.1200, AND OSHA SUBPART Z, FOR PROPER IDENTIFICATION OF ALL THE CHEMICALS AND MATERIALS PRESENT, THE HAZARDS ASSOCIATED WITH THESE CHEMICALS AND MATERIALS, AND WHERE THEY ARE LOCATED. VERIFY EXACT INFORMATION FOR SIGNS AND LOCATION OF SIGNS IN THE FIELD WITH ENGINEER.
5. PROVIDE ALL ACCIDENT PREVENTION, HEALTH, SAFETY AND WARNING SIGNS IN COMPLIANCE WITH ANSI Z535.1, ANSI Z535.2, ANSI Z535.3 AND OSHA 1910.44 AND 1910.145. FIELD VERIFY EXACT LOCATION OF SIGNS WITH OWNER AND ENGINEER. FLOOR DIAGRAM EXIT SIGN SHALL MEET ALL THE REQUIREMENTS OF THE CITY FIRE MARSHALL.
6. FIELD VERIFY WHICH SIGNS REQUIRE BEING SUSPENDED, AND WHAT THEY WILL BE SUSPENDED FROM.
7. PROVIDE ENGINEER APPROVED MATERIALS AND FASTENERS TO SECURELY ATTACH AND SUSPEND THESE SIGNS. SUSP. DOUBLE SIDED SIGN - INDICATES SIGNS THAT WILL IN SOME CASES NEED TO BE SUSPENDED.
8. VERIFY EXACT LOCATION OF SIGNS WITH OWNER AND ENGINEER. ALL SIGNS SHALL BE PLACED SO THAT THEY ARE READILY VISIBLE AND READABLE.
9. DOORS SHALL NOT BLOCK SIGNS WHEN IN OPEN POSITION. VERIFY EXACT ARRANGEMENT AND PLACEMENT OF SIGNS WITH OWNER AND ENGINEER.
10. FOR LOCATION OF EYE WASHES SEE 'P' DRAWINGS.
11. PROVIDE ONE TYPE J AND ONE TYPE K AT EVERY CHEMICAL STORAGE TANK.

FIRST FLOOR SIGNAGE PLAN

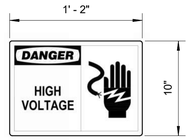
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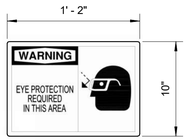
TYPE B:
ROOM NAME & NUMBER SIGNAGE



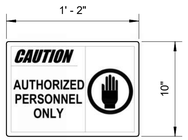
TYPE C:
NO SMOKING SIGNAGE



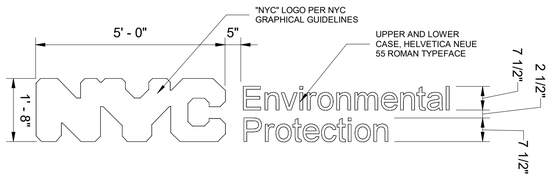
TYPE D:
DANGER - HIGH
VOLTAGE SIGNAGE



TYPE F:
WARNING - EYE
PROTECTION SIGNAGE

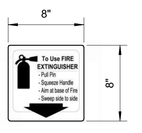


TYPE G:
CAUTION - AUTHORIZED
PERSONNEL ONLY SIGNAGE

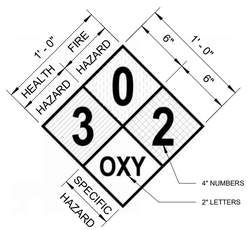


LETTER SIGNANGE

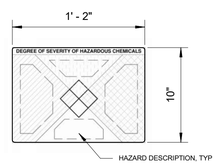
SCALE: 1/2" = 1'-0"



TYPE I:
FIRE EXTINGUISHER SIGNAGE



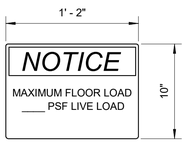
TYPE J:
HAZARD RATING SIGNAGE



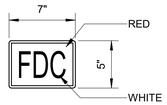
TYPE K:
HAZARD RATING SIGNAGE
WITH EMERGENCY GUIDE



TYPE L:
EMERGENCY SAFETY SHOWER



TYPE N:
NOTICE
N-1: ## LBS MAX HOIST LOAD



TYPE O:
FDC - FIRE DEPARTMENT
CONNECTION

1/8"=1'-0" 0 5 10 15 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: GB
DRAWN BY: SM, PK
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT ANTONIO DAMORE 023935 STATE OF NEW YORK 11/3/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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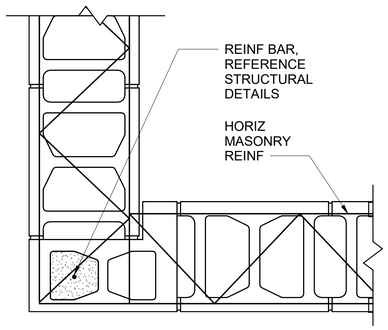
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO
DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
SIGNAGE PLANS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-419.00

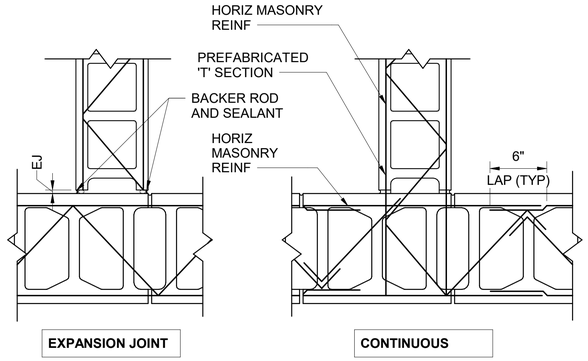
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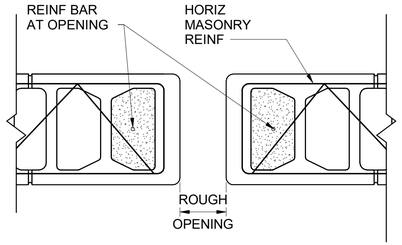
1 TYPICAL CMU CORNER DETAIL

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



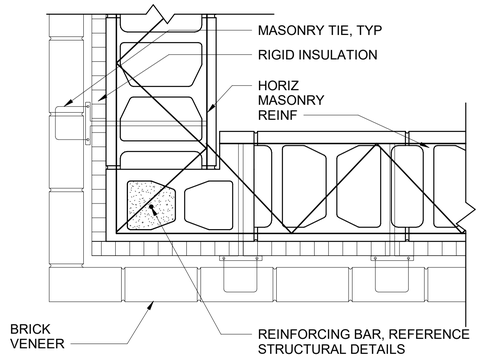
2 TYPICAL CMU INTERSECTION DETAILS

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



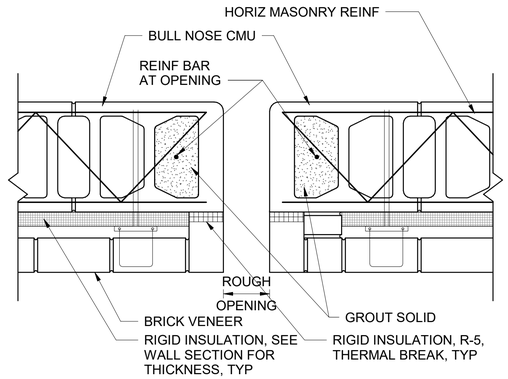
3 TYPICAL CMU OPENING DETAIL

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



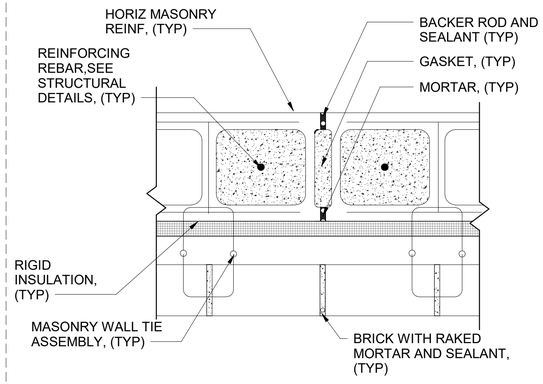
4 TYPICAL 12" CMU WITH BRICK DETAIL

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



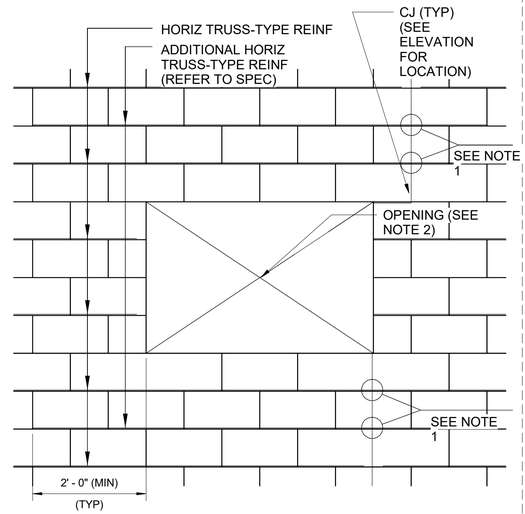
5 TYPICAL BRICK AND CMU OPENING DETAIL

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



6 TYPICAL CONTROL JOINT AT EXTERIOR WALL DETAIL

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



NOTES:

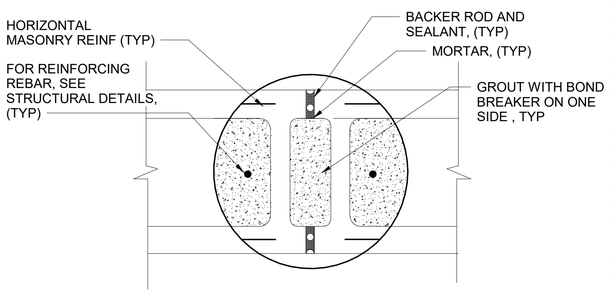
1. FIRST LAYER AND ADDITIONAL LAYER OF HORIZONTAL TRUSS-TYPE REINFORCEMENT ABOVE AND BELOW ALL OPENINGS SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. ALL OTHER LAYERS OF HORIZONTAL TRUSS-TYPE REINFORCEMENT SHALL NOT BE CONTINUOUS AT THE CONTROL JOINTS.
2. DETAIL SHALL APPLY TO ALL OPENINGS GREATER THAN 12" AND ALL DOOR OPENINGS.
3. SEE STRUCTURAL DRAWINGS FOR REINFORCING BAR SIZES AND SPACING.

7 TYPICAL CMU WALL ELEVATION

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

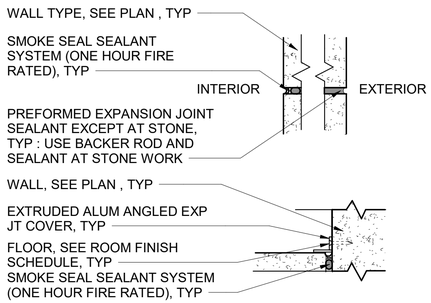
SHEET NOTES:

1. SEE STRUCTURAL SHEETS FOR MASONRY REINFORCEMENT NOTES AND REBAR CONFIGURATION, (TYP)
2. REFER TO MASONRY SPECIFICATION FOR BRICK WALL TIE SPACING
3. PROVIDE AIR AND VAPOR BARRIER ON EXTERIOR FACE OF CMU CAVITY WALL CONSTRUCTION (NOT SHOWN ON DETAIL).
4. SEE PLANS AND WALL SECTIONS FOR WALL THICKNESS AND INSULATION THICKNESS.



8 TYPICAL CONTROL JOINT AT INTERIOR WALL DETAIL

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



9 TYPICAL EXPANSION JOINT

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

1 1/2"=1'-0" 0 1 1-1/2 FT.

3/4"=1'-0" 0 1 2 3 FT.

GRAPHIC SCALES CHECK BEFORE USE

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NYC Environmental Protection

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DRAWN BY: SM, PK
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DAMORE 11/3/26 023935 STATE OF NEW YORK

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
BUILDING DETAILS
SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-901.00

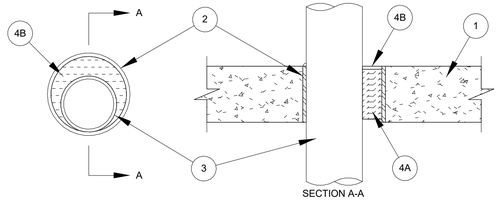
Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T11B-A-R21_ARCA.rvt

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SYSTEM NO. C-AJ-1421

ANSI/UL 1479 (ASTM E814)	CAN/ULC S115
F RATINGS - 2 OR 3 HR	F RATINGS - 2 OR 3 HR
T RATING - 0 HR	FT RATING - 0 HR
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT	FH RATINGS - 2 OR 3 HR
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT	FTH RATING - 0HR
	L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT
	L RATING AT 400 F - LESS THAN 1 CFM/ SQ FT



SECTION A-A

1. FLOOR OR WALL ASSEMBLY — MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAMETER OF OPENING IS 6 IN. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
2. METALLIC SLEEVE — (OPTIONAL) NOM 6 IN. DIAMETER (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY, FLUSH WITH FLOOR OR WALL SURFACES.
3. THROUGH-PENETRANT — ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, TUBE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 5-3/8 IN. (137 MM). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
   A. STEEL PIPE — NOM 4 IN. DIAMETER (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
   B. IRON PIPE — NOM 4 IN. DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE
   C. COPPER PIPE — NOM 4 IN. DIAMETER (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
   D. COPPER TUBING — NOM 4 IN. DIAMETER (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
   E. CONDUIT — NOM 4 IN. DIAMETER (OR SMALLER) STEEL CONDUIT.
   F. CONDUIT — NOM 4 IN. DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT).
4. FIRESTOP SYSTEM — THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
   A. PACKING MATERIAL — MIN 4 IN. THICKNESS OF MIN 4 PCF (64 KG/M³) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.
   B. FILL, VOID OR CAVITY MATERIAL* - SEALANT — MIN 1/4 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. FOR 3 HR RATED ASSEMBLIES, A MIN 1/4 IN. DIAMETER BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE AT THE POINT CONTACT LOCATION ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-S SIL GG, CFS-S SIL SL, FS-ONE SEALANT, FS-ONE MAX INTUMESCENT SEALANT OR CP604 SELF-LEVELING FIRESTOP SEALANT. CP604 AND CFS-S SIL SL SHALL BE USED IN FLOOR APPLICATIONS ONLY. WHEN CP604, CFS-S SIL GG OR CFS-S SIL SL (FLOORS ONLY) IS USED, F RATING IS 2 HR.

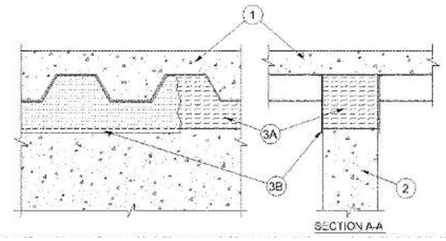
* INDICATES SUCH PRODUCTS SHALL BEAR THE UL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL RESPECTIVELY.

1A WALL/FLOOR FIRESTOPPING PIPE PENETRATION

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

SYSTEM NO. HW-D-1037

ASSEMBLY RATING - 2 HR
NOMINAL JOINT WIDTH - 3-1/2"
CLASS II MOVEMENT CAPABILITIES - 14% COMPRESSION AND EXTENSION

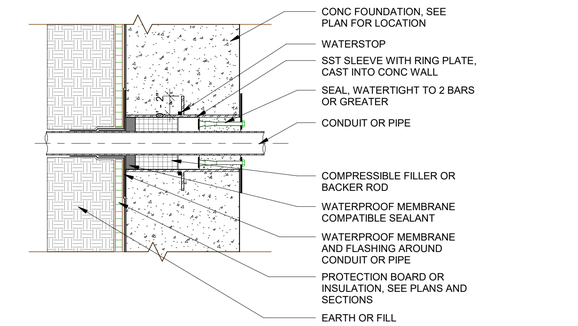


SECTION A-A

1. FLOOR ASSEMBLY — THE FIRE-RATED FLUTED STEEL FLOOR UNIT/CONCRETE FLOOR ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL FLOOR-CEILING DESIGN IN THE FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
   A. A. STEEL FLOOR AND FORM UNITS* — MAX 3 IN. (76 MM) DEEP GALV STEEL FLUTED FLOOR UNITS.
   B. B. CONCRETE — MIN 2-1/2 IN. (64 MM) THICK REINFORCED CONCRETE, AS MEASURED FROM THE TOP PLANE OF THE FLOOR UNITS.
   C. C. SPRAY-APPLIED FIRE RESISTIVE MATERIALS* — (OPTIONAL)—(NOT SHOWN)—PRIOR TO THE INSTALLATION OF THE FORMING MATERIAL AND FILL, VOID OR CAVITY MATERIAL (ITEMS 3A, 3B) THE STEEL FLOOR UNITS MAY BE SPRAYED WITH A MIN 5/16 IN. (8 MM) TO MAX 1-3/4 IN. (44 MM) THICKNESS OF FIRE RESISTIVE MATERIAL. GCP APPLIED TECHNOLOGIES INC — TYPE MK-6-HY
   D. 1A. ROOF ASSEMBLY (NOT SHOWN) — AS AN ALTERNATE TO THE FLOOR ASSEMBLY, A FIRE RATED FLUTED STEEL DECK ROOF ASSEMBLY MAY BE USED. THE ROOF ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL P900 SERIES ROOF-CEILING DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. THE HOURLY RATING OF THE ROOF ASSEMBLY SHALL BE EQUAL TO OR GREATER THAN THE HOURLY RATING OF THE WALL ASSEMBLY. THE ROOF ASSEMBLY SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
      a. STEEL ROOF DECK — MAX 3 IN. (76 MM) DEEP GALV STEEL FLUTED ROOF DECK.
      b. ROOF INSULATION — MIN 2-1/4 IN. (57 MM) THICK POURED INSULATING CONCRETE, AS MEASURED FROM THE TOP PLANE OF THE FLOOR UNITS.
   E. 1B. ROOF ASSEMBLY — AS AN ALTERNATE TO ITEMS 1 AND 1A, A FIRE RATED PROTECTED FLUTED STEEL DECK ROOF ASSEMBLY MAY BE USED. THE ROOF ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL P700 SERIES ROOF-CEILING DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. THE HOURLY RATING OF THE ROOF ASSEMBLY SHALL BE EQUAL TO OR GREATER THAN THE HOURLY RATING OF THE WALL ASSEMBLY. THE ROOF ASSEMBLY SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
      a. STEEL ROOF DECK — MAX 3 IN. (76 MM) DEEP GALV STEEL FLUTED ROOF DECK.
      b. SPRAY-APPLIED FIRE RESISTIVE MATERIALS* — (NOT SHOWN) - PRIOR TO THE INSTALLATION OF THE STEEL CEILING RUNNERS, FORMING MATERIAL AND FILL, VOID OR CAVITY MATERIAL (ITEMS 2A, 3A, 3B), THE ROOF ASSEMBLY SHALL BE SPRAYED WITH THE TYPE AND THICKNESS OF FIRE RESISTIVE MATERIAL INDICATED IN THE INDIVIDUAL P700 SERIES DESIGN.
2. WALL ASSEMBLY — MIN 8 IN. (203 MM) THICK STEEL REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) (1600 -2400 KG/M3) STRUCTURAL CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
3. JOINT SYSTEM — MAX SEPARATION BETWEEN BOTTOM OF FLOOR UNITS AND TOP OF CONCRETE WALL AT TIME OF INSTALLATION IS 3-1/2 IN. (89 MM). THE JOINT SYSTEM IS DESIGNED TO ACCOMMODATE A MAX 14 PERCENT COMPRESSION OR EXTENSION FROM ITS INSTALLED WIDTH. THE JOINT SYSTEM SHALL CONSISTS OF THE FOLLOWING:
   A. FORMING MATERIAL* — NOM 4 IN. (102 MM) THICK PIECES OF NOM 4 PCF (64 KG/M3) FORMING MATERIAL SIZED TO ATTAIN A MIN COMPRESSION RATE OF 50 PERCENT IN THE THICKNESS DIRECTION FIRMLY PACKED TO COMPLETELY FILL THE FLUTES. ADDITIONAL PIECES OF BATT INSULATION, MIN 8 IN. (203 MM) WIDE, SHALL BE COMPRESSED 50 PERCENT IN THICKNESS AND INSTALLED EDGE FIRST INTO JOINT OPENING BETWEEN BOTTOM OF FLUTED FLOOR OR ROOF UNITS AND TOP OF CONCRETE WALL. THERMAFIBER/OWENS CORNING — TYPE SAF
      a. A1. FORMING MATERIAL*—PLUGS — OPTIONAL-NOT SHOWN) PERFORMED MINERAL WOOL PLUGS, FORMED TO THE SHAPE OF THE FLUTED FLOOR UNITS, FRICTION FIT TO COMPLETELY FILL THE FLUTES ABOVE THE CEILING RUNNER. THE PLUGS SHALL BE FLUSH WITH BOTH WALL SURFACES. ADDITIONAL FORMING MATERIAL, DESCRIBED IN ITEM 3A, TO BE USED IN CONJUNCTION WITH THE PLUGS TO FILL THE GAP BETWEEN THE TOP OF THE WALL AND THE BOTTOM OF THE STEEL FLOOR UNITS. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP777 SPEED PLUGS
      b. A2. FORMING MATERIAL — AS AN ALTERNATE TO ITEM 3A, MIN 6 PCF (96 KG/M3) CERAMIC BLANKET INSULATION INSTALLED IN JOINT AS A PERMANENT FORM. NOMINAL 4 IN (102 MM) THICK PIECES OF NOMINAL 6 PCF (96 KG/M3) FORMING MATERIAL SIZED TO ATTAIN A MIN COMPRESSION RATE OF 50 PERCENT IN THE THICKNESS DIRECTION FIRMLY PACKED TO COMPLETELY FILL THE FLUTES. ADDITIONAL PIECES OF BATT INSULATION, MIN 8 IN. (203 MM) WIDE, SHALL BE COMPRESSED 50 PERCENT IN THICKNESS AND INSTALLED EDGE FIRST INTO JOINT OPENING BETWEEN BOTTOM OF FLUTED FLOOR OR ROOF UNITS AND TOP OF CONCRETE WALL.
   B. FILL, VOID OR CAVITY MATERIAL* - SEALANT — A 1/8 IN. (3.2 MM) WET THICKNESS OF FILL MATERIAL SPRAYED OF TROWLED ON EACH SIDE OF WALL TO COMPLETELY COVER MINERAL WOOL FORMING MATERIAL AND TO OVERLAP A MIN 1/2 IN. (13 MM) ONTO STEEL FLOOR UNITS AND CONCRETE WALL. WHEN SPRAY-APPLIED FIRE RESISTIVE MATERIAL* IS APPLIED TO THE STEEL DECK, THE FILL MATERIAL IS TO OVERLAP THE WALL A MIN 1/2 IN. AND THE SPRAY-APPLIED FIRE RESISTIVE MATERIAL A MIN OF 2 IN. (51 MM) ON BOTH SIDES OF THE WALL. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 FIRESTOP SPRAY OR CFS-SP WB FIRESTOP JOINT SPRAY.

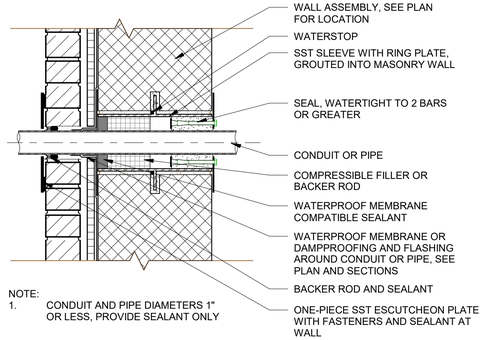
1B WALL HEAD FIRESTOPPING JOINT

SCALE: N.T.S.



2 FOUNDATION SLEEVE PENETRATION TYPE A

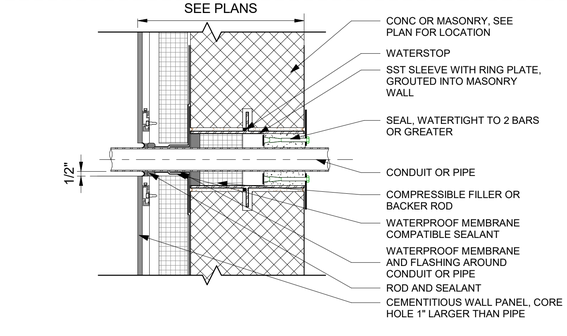
SCALE: 1 1/2" = 1'-0"



NOTE:
1. CONDUIT AND PIPE DIAMETERS 1" OR LESS, PROVIDE SEALANT ONLY

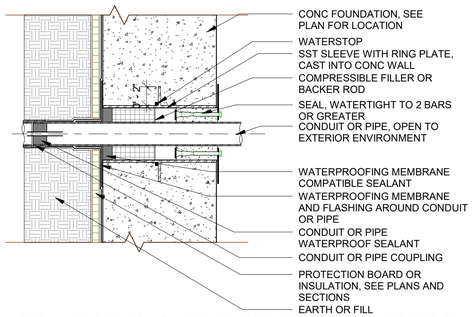
4 BRICK CAVITY WALL PENETRATION TYPE A

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



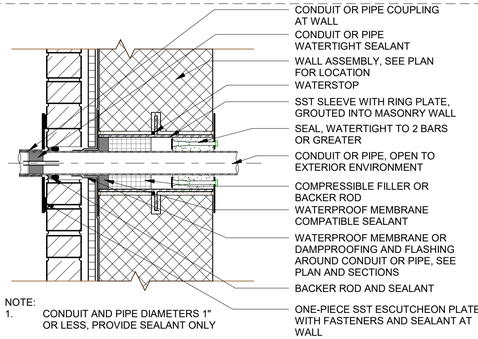
6 WALL PANEL PENETRATION TYPE A

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



3 FOUNDATION SLEEVE PENETRATION TYPE B

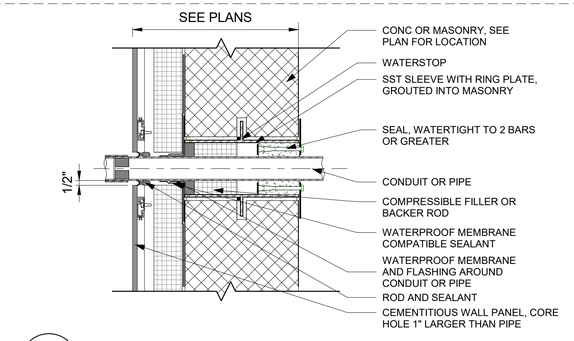
SCALE: 1 1/2" = 1'-0"



NOTE:
1. CONDUIT AND PIPE DIAMETERS 1" OR LESS, PROVIDE SEALANT ONLY

5 BRICK CAVITY WALL PENETRATION TYPE B

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



7 WALL PANEL PENETRATION TYPE B

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

1"=1'-0" 0 1 2 3 FT.
1 1/2"=1'-0" 0 1 1-1/2 FT.

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CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DAWKINS 023835 STATE OF NEW YORK 11/3/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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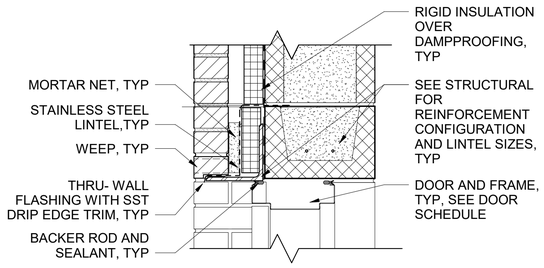
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
BUILDING DETAILS
SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-902.00

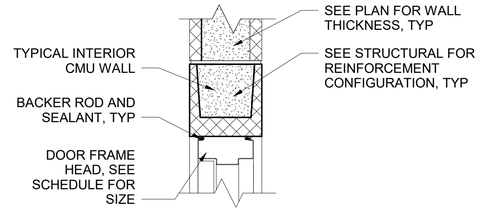
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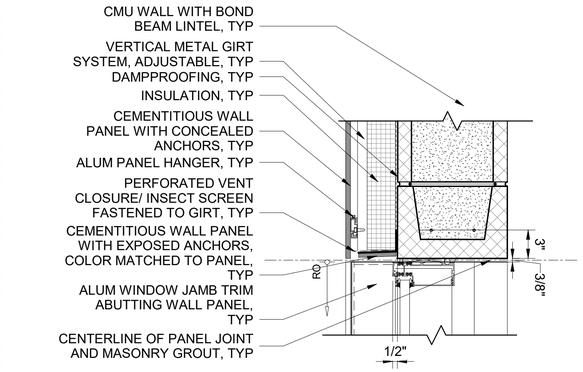
1 BRICK VENEER DOOR HEAD - H1

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



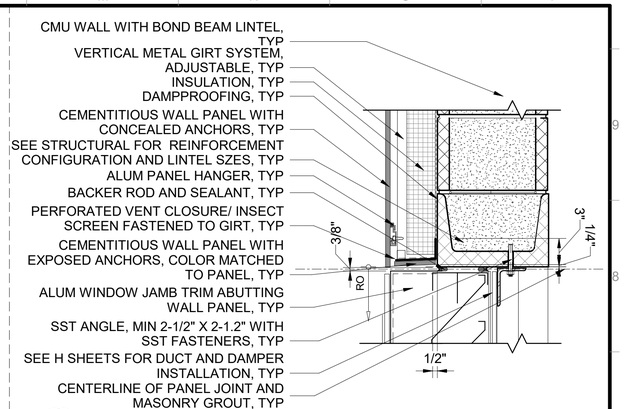
2 CMU DOOR HEAD - H2

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



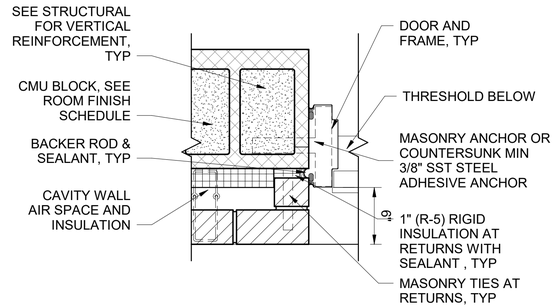
3 WALL PANEL WINDOW HEAD - H3

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



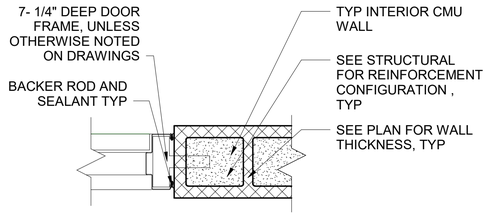
4 LOUVER HEAD/JAMB DETAIL - H4

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



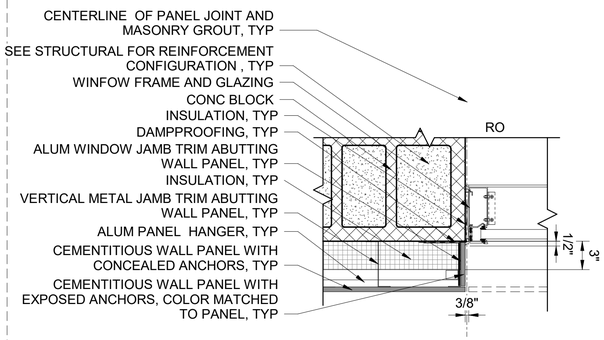
5 BRICK VENEER DOOR JAMB - J1

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



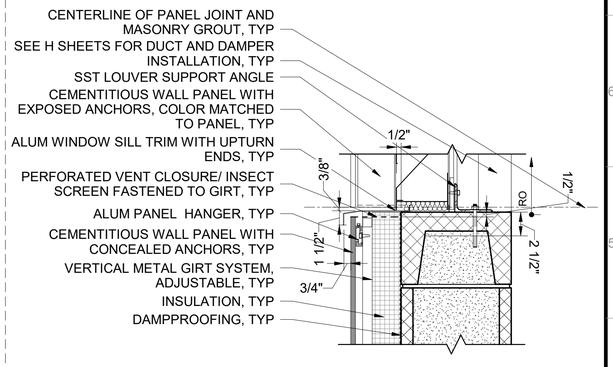
6 CMU HM JAMB DETAIL - J2

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



7 WALL PANEL WINDOW JAMB - J3

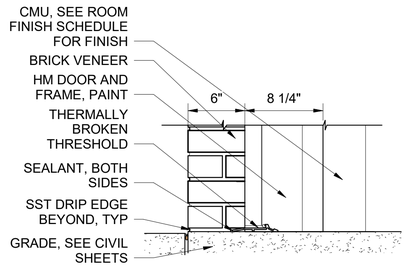
SCALE: 1 1/2" = 1'-0"



8 LOUVER SILL DETAIL - S4

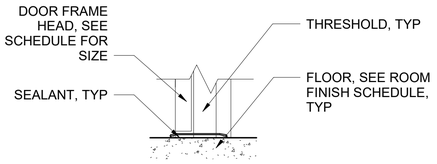
SCALE: 1 1/2" = 1'-0"

NOTE: AT BRICK OPENINGS, PROVIDE EXTRUDED SILL AND SETBACK LOUVER 4" FROM FACE OF BRICK VENEER.



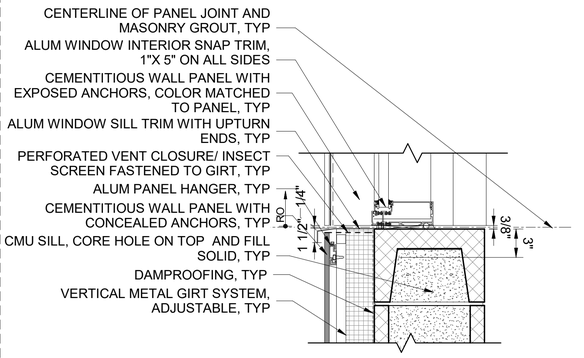
9 BRICK VENEER DOOR SILL - S1

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



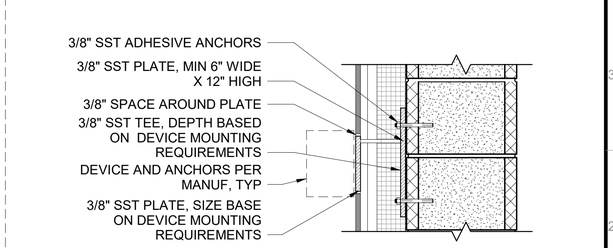
10 CMU HM THRESHOLD - S2

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



11 WALL PANEL WONDOW SILL - S3

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



12 LOUVER HEAD/JAMB DETAIL - H4

SCALE: N.T.S.

1 1/2"=1'-0" 0 1 1-1/2 FT.

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

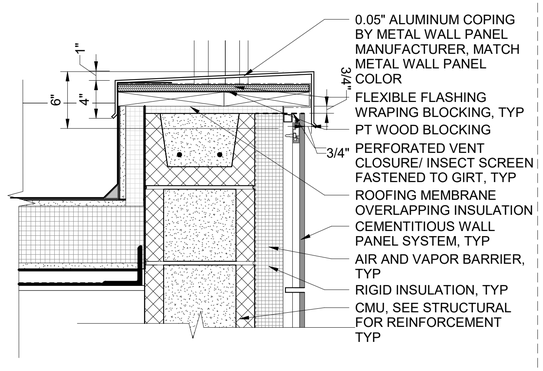
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OPENING DETAILS

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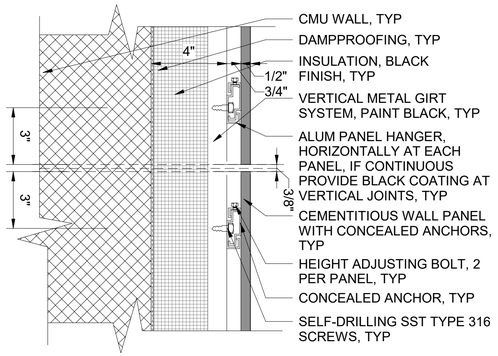
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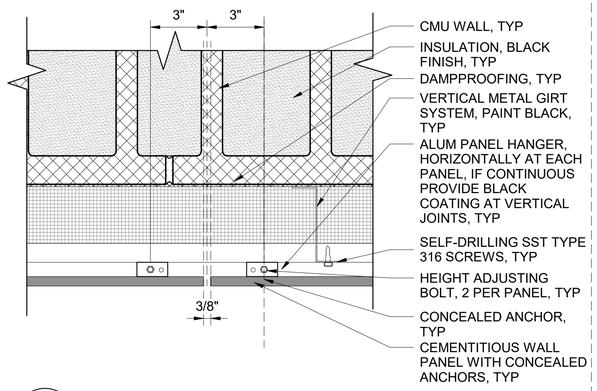
1 METAL WALL PANEL COPING DETAIL

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



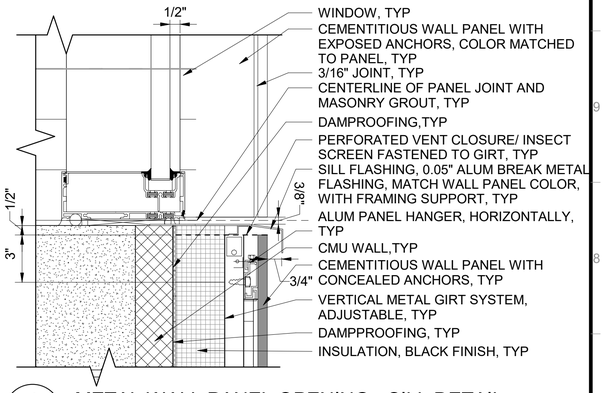
2 METAL WALL PANEL HORIZONTAL JOINT DETAIL

SCALE: 3" = 1'-0"



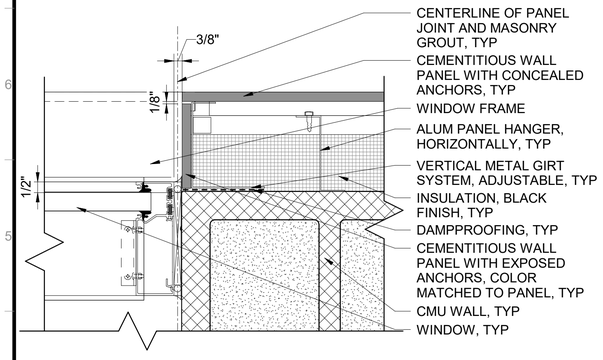
3 METAL WALL PANEL VERTICAL JOINT DETAIL

SCALE: 3" = 1'-0"



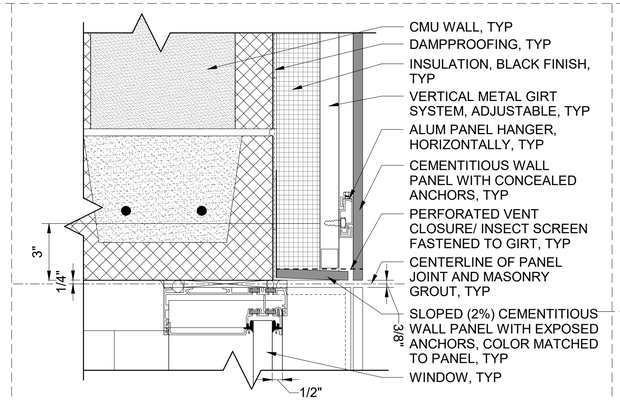
4 METAL WALL PANEL OPENING - SILL DETAIL

SCALE: 3" = 1'-0"



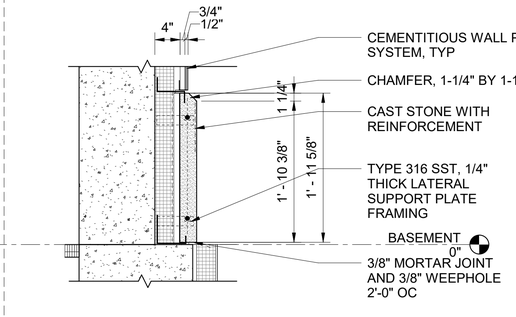
5 METAL WALL PANEL OPENING - JAMB DETAIL

SCALE: 3" = 1'-0"



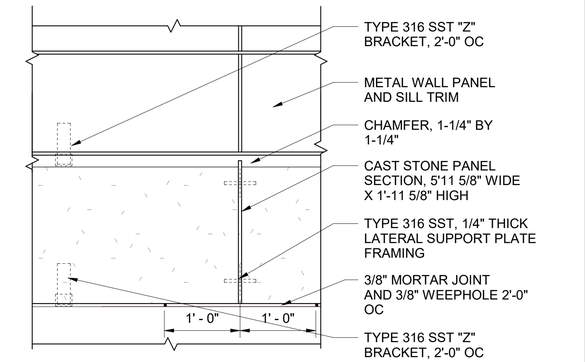
6 METAL WALL PANEL OPENING - HEAD DETAIL

SCALE: 3" = 1'-0"



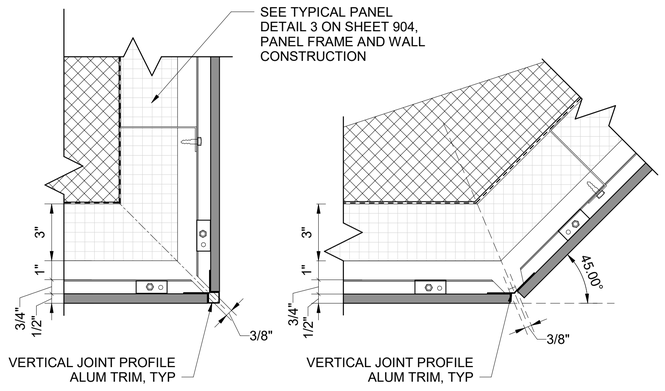
7 CAST STONE DETAIL

SCALE: 1" = 1'-0"



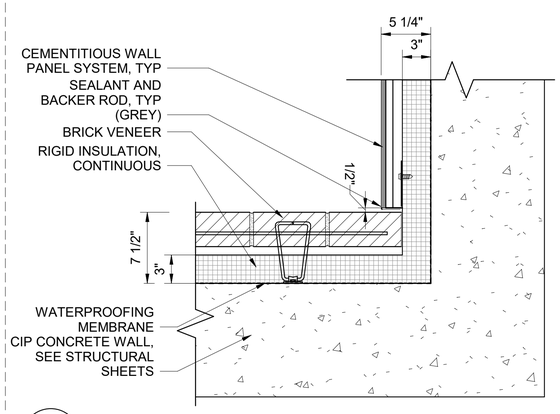
12 CAST STONE ELEVATION DETAIL

SCALE: 1" = 1'-0"



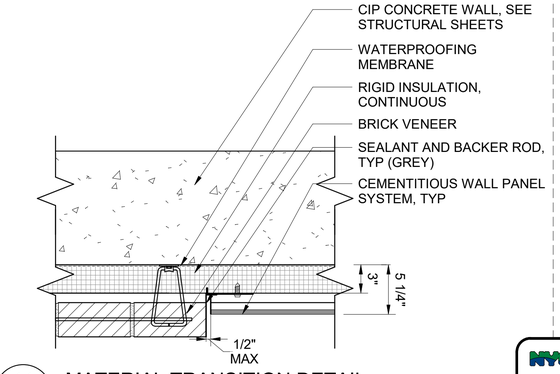
9 CEMENTITIOUS WALL PANEL CORNER DETAIL

SCALE: N.T.S.



10 INSIDE CORNER DETAILS

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



11 MATERIAL TRANSITION DETAIL

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

1"=1'-0" 0 1 2 3 FT.

1 1/2"=1'-0" 0 1 1-1/2 FT.

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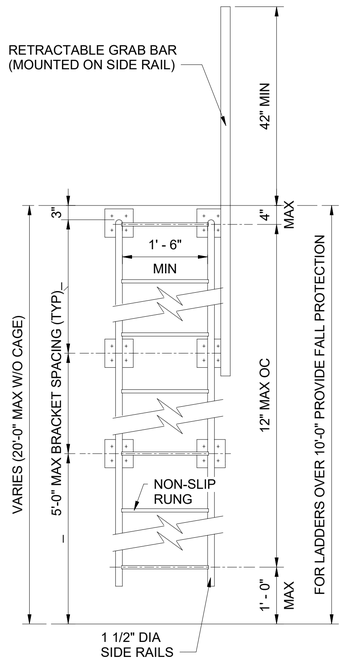
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
METAL WALL PANEL DETAILS

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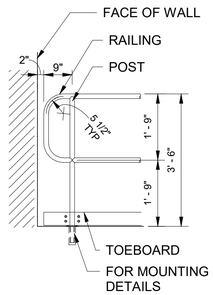
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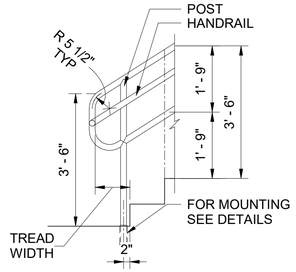
1 LADDER ELEVATION_WITH POST EXTENSION

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



2 RAILING END ELEVATION

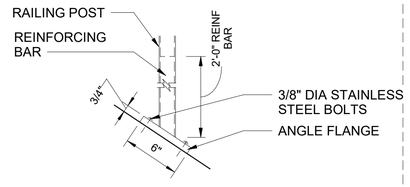
SCALE: 1/2" = 1'-0"



(USE ONLY IN LOCATIONS WHERE THE DESIGN FOR THE DISABLED IS NOT REQUIRED. LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.)

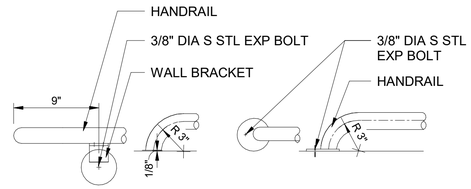
3 RAILING STAIR END DETAIL

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



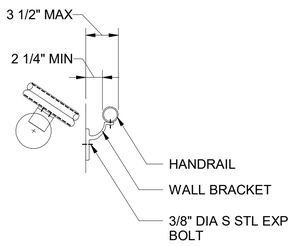
4 RAILING - STRINGER MOUNTED

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



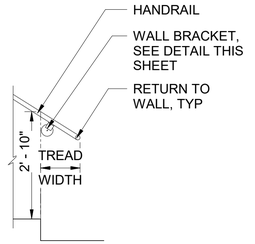
5 HANDRAIL WALL RETURN

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



6 HANDRAIL WALL BRACKET DETAIL

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

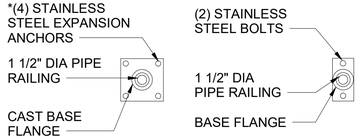


(USE ONLY IN LOCATIONS WHERE THE DESIGN FOR THE DISABLED IS NOT REQUIRED. LOCATIONS ARE TO BE APPROVED BY THE ENGINEER.)

7 HANDRAIL END DETAIL

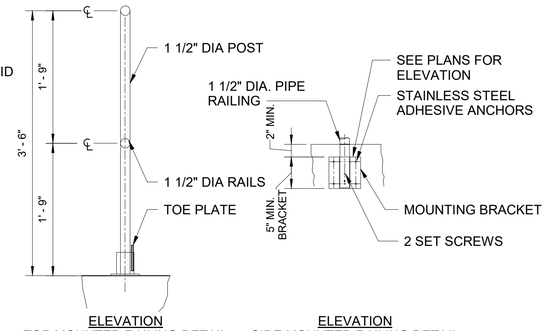
SCALE: 1/2" = 1'-0"

* WHEN MOUNTING TO CONCRETE CURBS, USE STAINLESS STEEL ADHESIVE ANCHORS EMBEDDED 4" MINIMUM INTO CONCRETE BELOW BOTTOM OF CURB. WHEN MOUNTING TO PRECAST DECK, USE STAINLESS STEEL ADHESIVE ANCHORS EMBEDDED 4" MINIMUM INTO DECK. GROUT CORES SOLID MINIMUM 8" ALL AROUND ANCHORS.



TOP MOUNT PLAN (FOR ANCHORAGE TO CONCRETE)

TOP MOUNT PLAN (FOR ANCHORAGE TO METALLIC SURFACES)

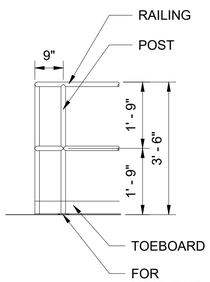


ELEVATION
TOP MOUNTED RAILING DETAIL

ELEVATION
SIDE MOUNTED RAILING DETAIL

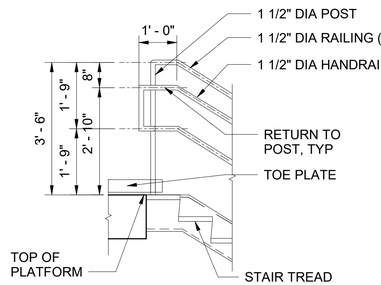
8 RAILING DETAILS

SCALE: 1" = 1'-0"

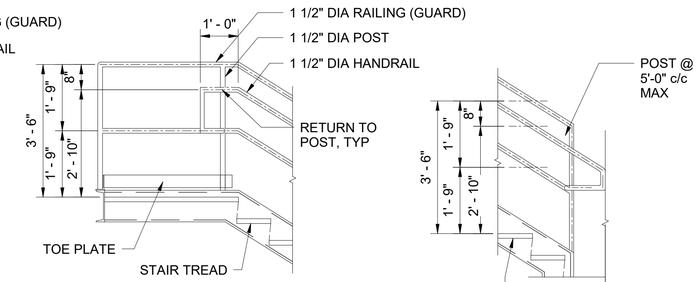


9 RAILING CORNER ELEVATION

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



ELEVATION
TERMINATION AT PLATFORM



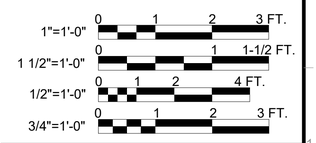
ELEVATION
GUARDRAIL/HANDRAIL AT STAIR

10 HANDRAIL AND RAILING DETAILS FOR STAIRS

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

SHEET NOTES:

1. STAIR RISERS SHALL NOT EXCEED 7" MAXIMUM HEIGHT UNLESS SPECIFICALLY NOTED.
2. STAIR TREADS SHALL NOT BE LESS THAN 11" FROM FACE OF NOSING TO FACE OF NOSING, UNLESS SPECIALLY NOTED.
3. SHIP LADDER CONFIGURATION OF TREAD TO RISER SHALL COMPLY WITH OHSA 1910 STANDARDS. ANGLE OF LADDER SHALL BE BETWEEN 65 DEGREES AND 75 DEGREES. MAINTAIN 3' WIDE BY 3' DEPTH LEVEL LANDING AREA AT BOTTOM OF LADDER.
4. PROVIDE MINIMUM HANDRAIL CLEARANCE BETWEEN EDGE OF HANDRAIL AND FACE OF WALL OR GUARDRAIL OF 2-1/4".
5. ALL HANDRAILS SHALL RETURN TO WALL OR GUARDRAIL POST (NOT SHOWN ON PLANS).
6. AT LANDINGS STAIR SHALL END WITH TREAD LEVEL WITH LANDING.



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DRAWN BY: SM, PK
CHECKED BY: ED
DESIGN LEAD: GUY BIONDI, RA
SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT ANTONIO DAMORE 11/3/26 023935 STATE OF NEW YORK

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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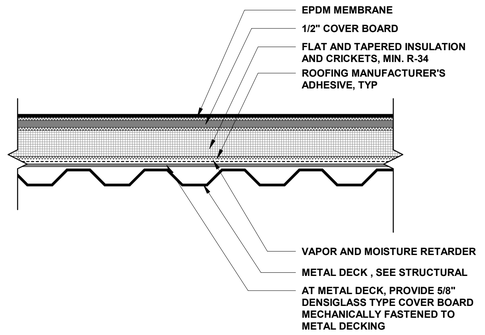
CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
RAILING, STAIR AND LADDER DETAILS
SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-905.00

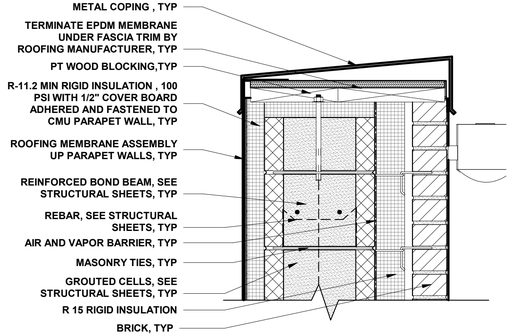
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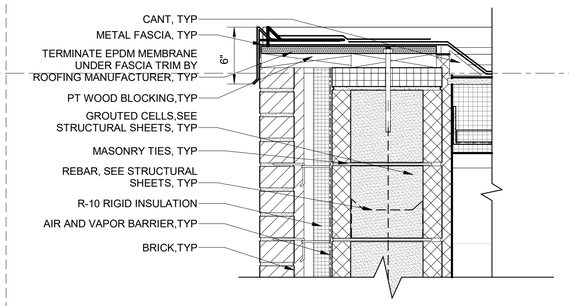
1 TYPICAL ROOF ASSEMBLY

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



2 BRICK PARAPET WALL DETAIL

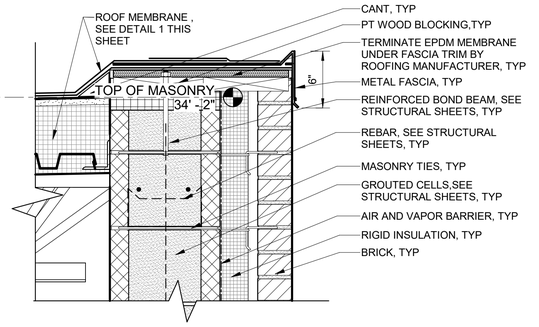
SCALE: 1 1/2" = 1'-0"



3 SV-Section STAIR B - Callout 1

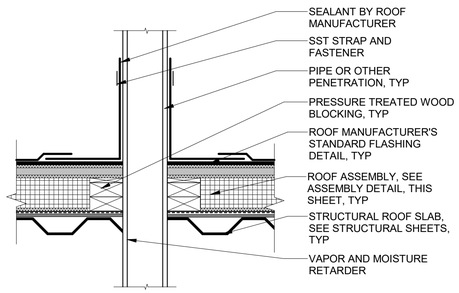
A-417

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



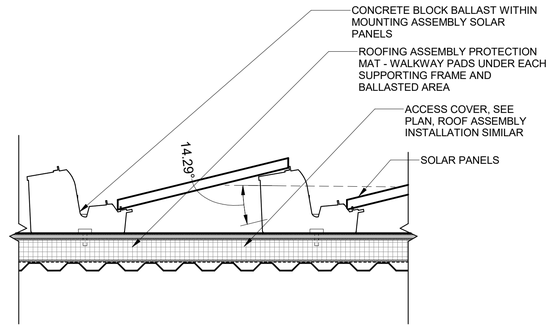
4 LOW PARAPET AT METAL WALL PANEL DETAIL

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



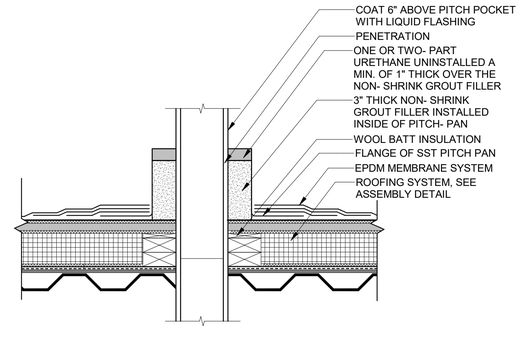
5 TYPICAL ROOF PENETRATION DETAIL

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



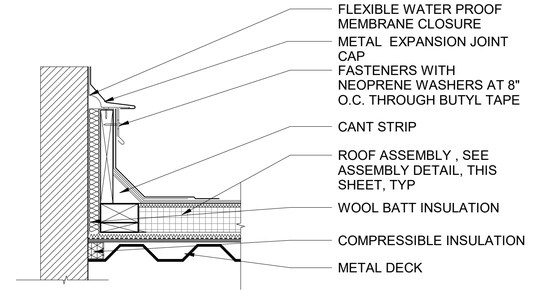
6 SOLAR PANEL MOUNTING DETAIL

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



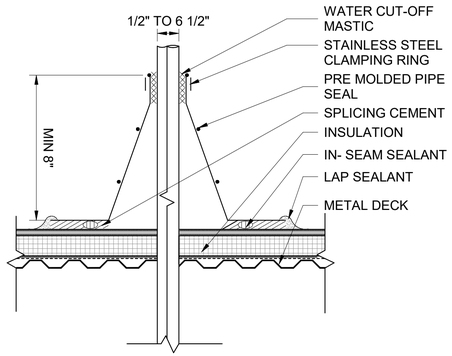
7 TYPICAL ROOF PITCHPOCKET DETAIL

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



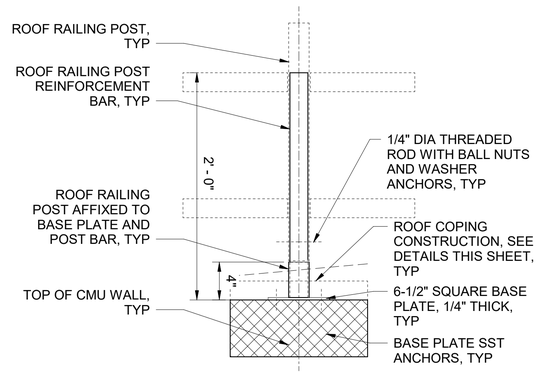
8 TYPICAL ROOF FLASHING DETAIL

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



9 CONDUIT ROOF PENETRATION FLASHING

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



10 ROOF RAILING DETAIL

SCALE: N.T.S.

1 1/2"=1'-0" 0 1 1-1/2 FT.

3/4"=1'-0" 0 1 2 3 FT.

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CHECKED BY: ED
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SECTION MANAGER:

ARCADIS

REGISTERED ARCHITECT CAROL ANTONIO DARKEN 023895 STATE OF NEW YORK 11/3/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP -169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

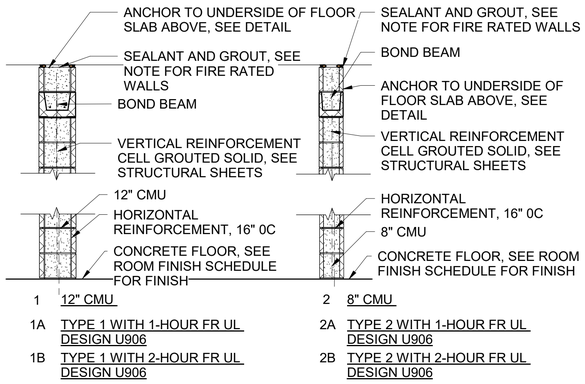
ARCHITECTURAL
ROOF DETAILS

DATE: NOVEMBER 2026
SHEET NO:
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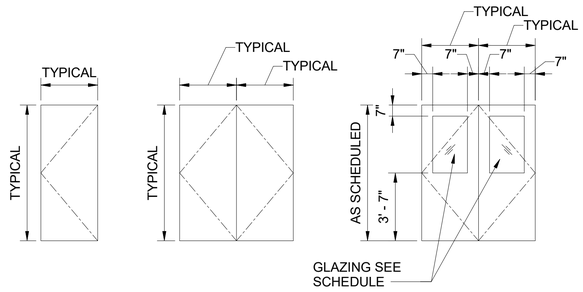
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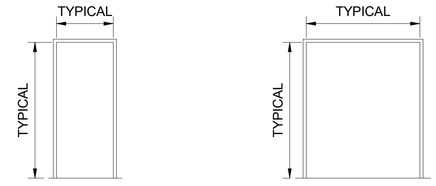
PARTITION SCHEDULE

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



DOOR TYPES

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

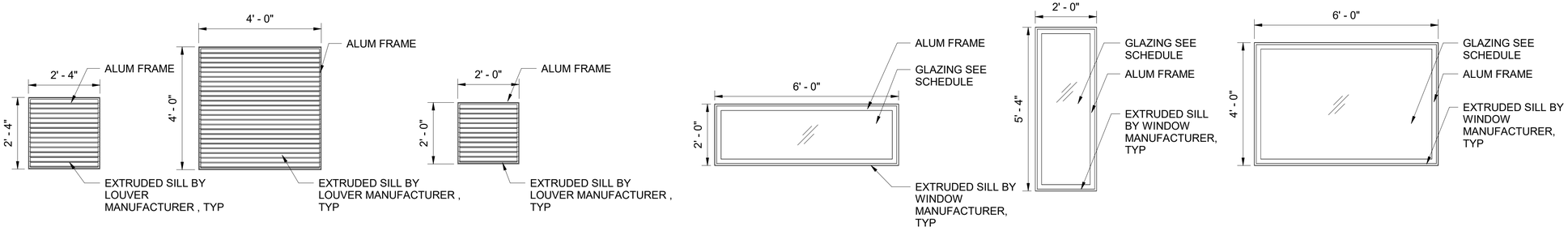


FRAME ELEVATIONS

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

SHEET NOTES:

1. WALL JOINT SEALANT ASSEMBLY SHALL MATCH DESIGN FIRE RATING OF WALL.



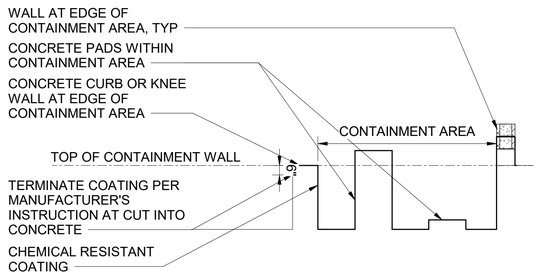
TYPE L1 TYPE L2 TYPE L3 TYPE W1 TYPE W2 TYPE W3

LOUVER TYPES

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

WINDOW TYPES

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



EXTENT OF CHEMICAL RESISTANT COATING

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

1/2"=1'-0" 0 1 2 4 FT.

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

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REGISTERED ARCHITECT BIONDI, ANTONIO DAMIAN 11/3/26 023935 STATE OF NEW YORK

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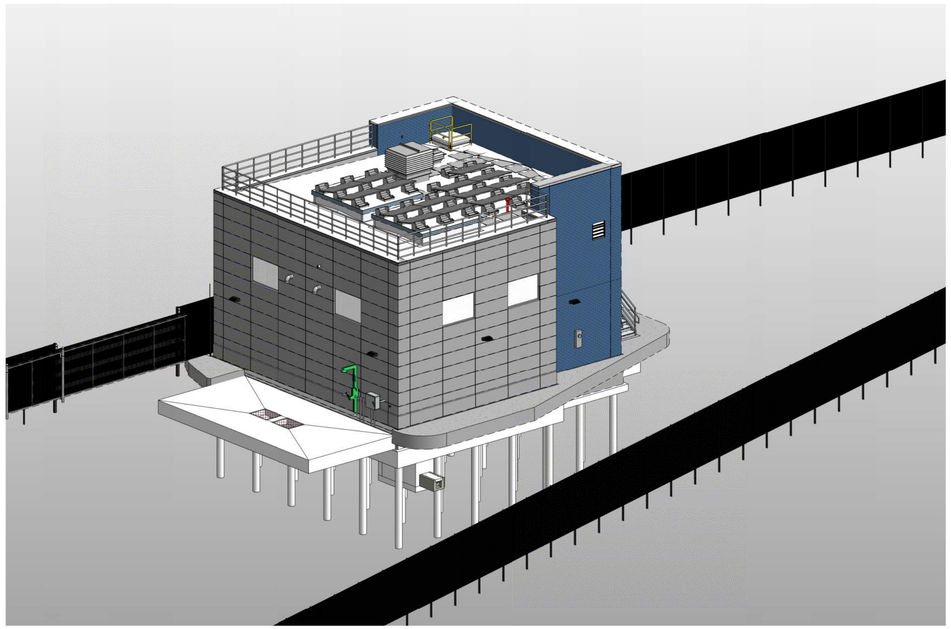
ARCHITECTURAL
WALL PARTITIONS, DOOR AND WINDOW ELEVATIONS

DATE: NOVEMBER 2026
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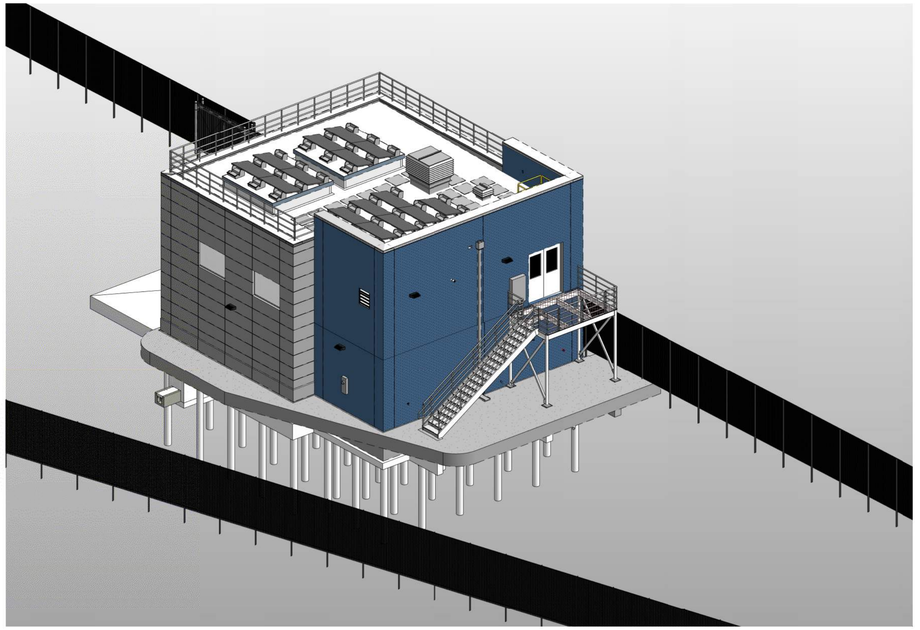
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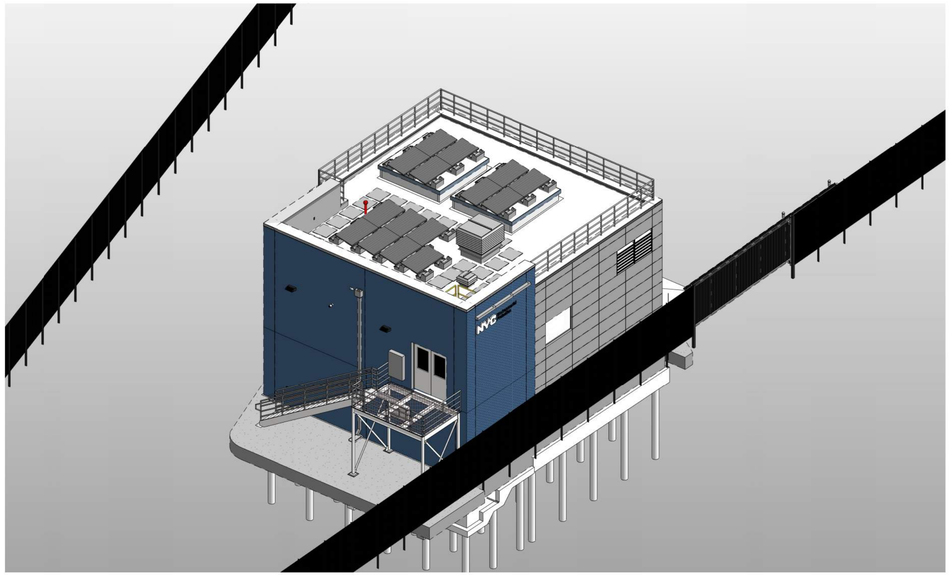
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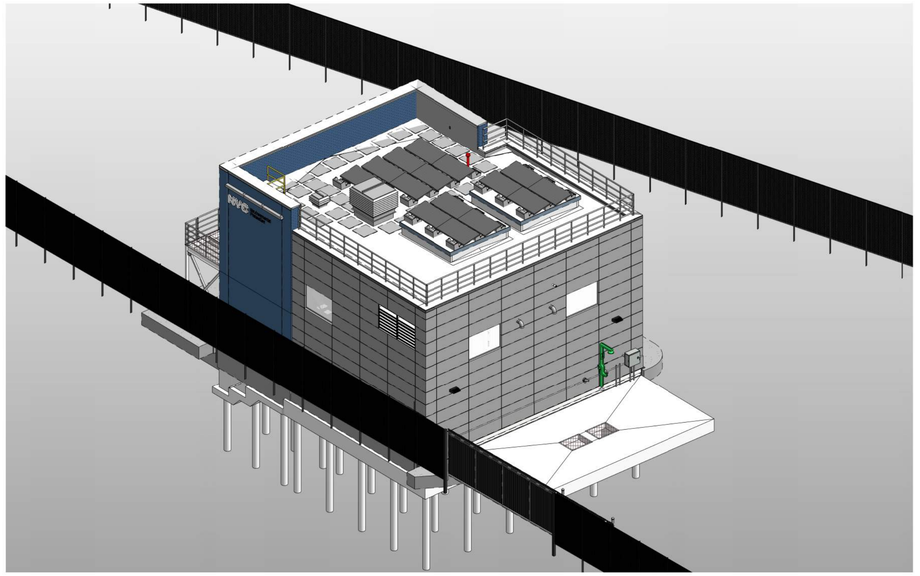
NORTEAST BIRD'S EYE VIEW
SCALE: N.T.S.



NORTHWEST BIRD'S EYE VIEW
SCALE: N.T.S.



SOUTHWEST BIRD'S EYE VIEW
SCALE: N.T.S.



SOUTHEAST BIRD'S EYE VIEW
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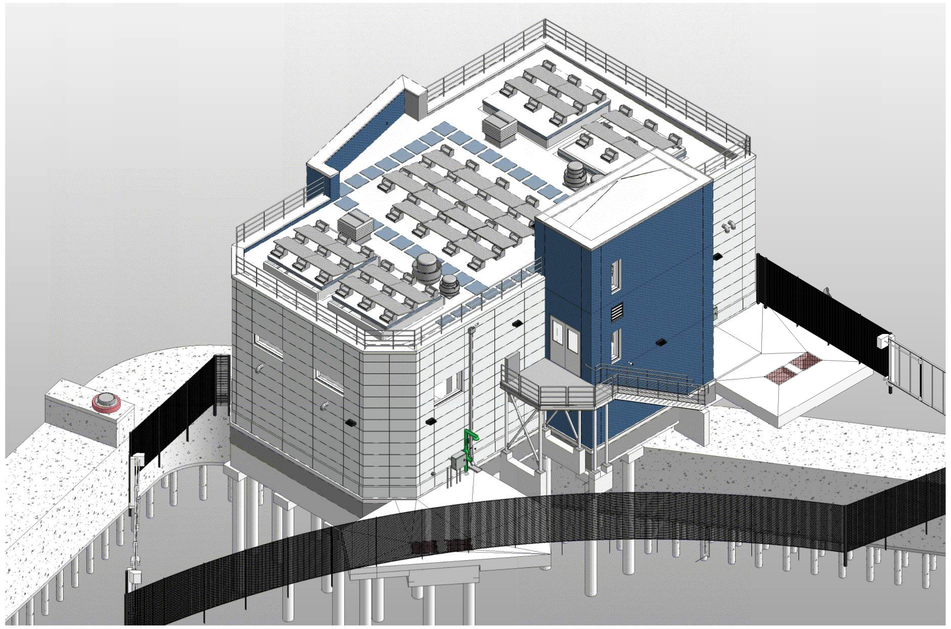
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 DECHLORINATION FACILITY
BIRD'S EYE VIEWS

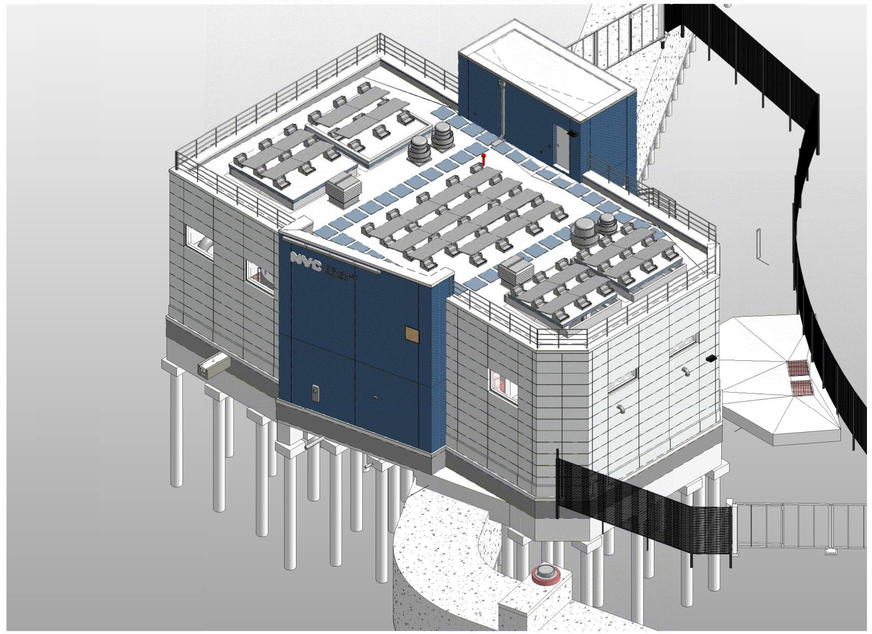
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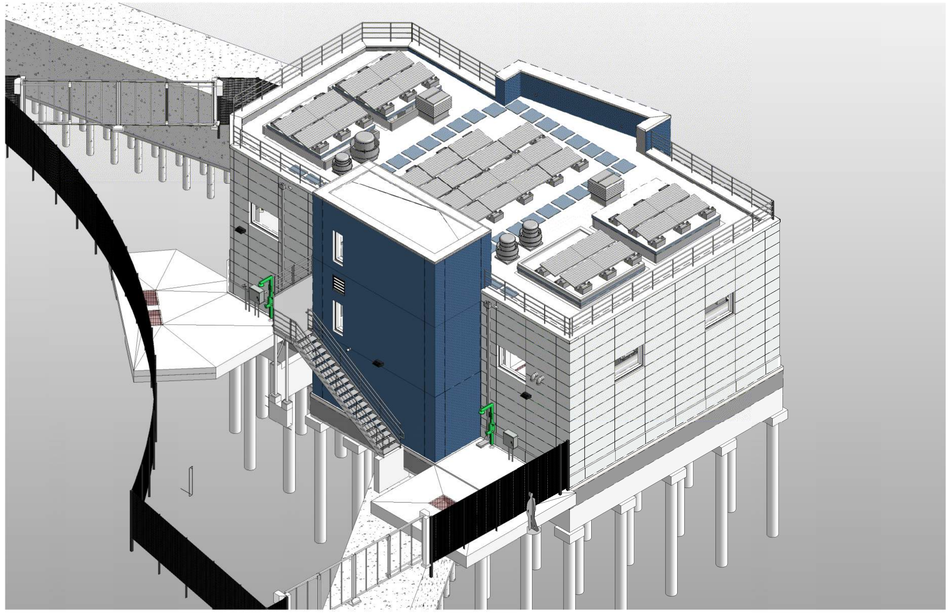
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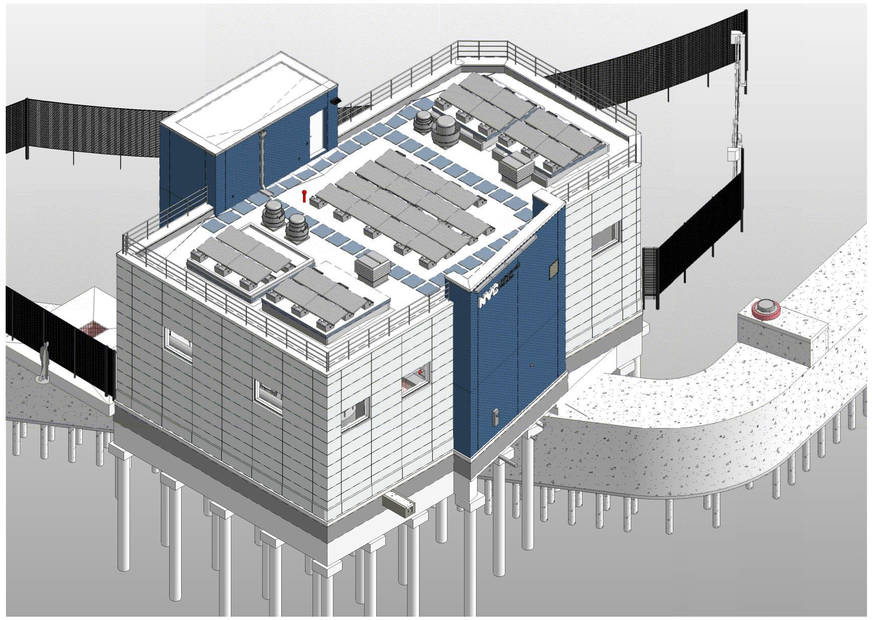
NORTHWEST BIRD'S EYE VIEW
SCALE: N.T.S.



NORTHEAST BIRD'S EYE VIEW
SCALE: N.T.S.



SOUTHWEST BIRD'S EYE VIEW
SCALE: N.T.S.



SOUTHEAST BIRD'S EYE VIEW
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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

"WARNING-IT IS A VIOLATION, OF THE NEW YORK STATE EDUCATION LAW, SECTION, 7209.2, FOR ANY PERSON, UNLESS (S)HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TOALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATION, LAW, SECTION, 7209.2."

NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP -169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ARCHITECTURAL
TI-011 DISINFECTION FACILITY
BIRD'S EYE VIEWS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. A-909.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T11B-A-R21_ARCA.rvt
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GENERAL NOTES:

1. THESE NOTES ARE GENERAL AND SUPPLEMENTAL TO THE SPECIFICATIONS AND APPLY TO THE ENTIRE PROJECT UNLESS MODIFIED OR NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
2. SECTIONS/DETAILS APPLY TO SIMILAR LOCATIONS AND CONDITIONS UNLESS OTHERWISE INDICATED.
3. TYPICAL SECTIONS/DETAILS AS SHOWN ON STRUCTURAL TYPICAL DRAWINGS SHALL BE USED WHEN REFERRED TO, OR WHEN OTHER SECTIONS/DETAILS ARE NOT SHOWN ON THE DRAWINGS OR WHEN OTHER SECTIONS/DETAILS ARE NOT AVAILABLE.
4. DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE 2022 NEW YORK CITY BUILDING CODE.
5. EQUIPMENT ANCHOR BOLT SIZES, TYPES, AND PATTERNS SHALL BE AS REQUIRED BY THE APPROVED EQUIPMENT MANUFACTURER. ALL BOLT PATTERNS SHALL BE TEMPLATED TO ENSURE ACCURACY OF PLACEMENT.
6. STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.
7. IF A CONFLICT IS FOUND BETWEEN DIFFERENT PORTIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY. CONTINUED CONSTRUCTION OF THE AREA IN CONFLICT SHALL BE AT THE CONTRACTOR'S OWN RISK UNTIL THE CONFLICT IS RESOLVED BY THE OWNER.
8. STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.
9. WHERE SPACE PERMITS, CONTRACTOR SHALL PROVIDE 1.5:1 LAYBACK DISTANCE FOR EXCAVATION AT STRUCTURES. IN OTHER CASES, EXCAVATION PROTECTION SHALL BE PROVIDED AS SPECIFIED.
10. BACKFILL SHALL NOT BE PLACED AGAINST ANY WALL UNLESS ALL SUPPORTING ELEMENTS OF THE STRUCTURE HAVE BEEN CONSTRUCTED AND HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH.
11. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.
12. FOR SIZES AND LOCATIONS OF EQUIPMENT SUPPORTS AND PIPE OPENINGS, SEE OTHER DISCIPLINE DRAWINGS. OPENINGS SIZES LESS THAN 12" ARE NOT SHOWN ON STRUCTURAL DRAWINGS, REFERENCE OTHER DISCIPLINE DRAWINGS FOR LOCATIONS.
13. OPENINGS AND PENETRATIONS:
    THE CONTRACTOR SHALL SUBMIT COMPOSITE DRAWINGS INDICATING ALL FLOOR OPENINGS AND PENETRATIONS THROUGH STRUCTURAL MEMBERS REQUIRED TO ACCOMMODATE THE HVAC, PLUMBING AND ELECTRICAL WORK. THE CONTRACTOR SHALL FOLLOW THE TYPICAL FRAMING DETAILS AT OPENINGS AND REINFORCEMENT DETAILS AT PENETRATIONS THROUGH STRUCTURAL MEMBERS. ACCORDINGLY, THE CONTRACTOR SHALL SUBMIT SHOP DETAILS TO THE ENGINEER FOR REVIEW.

FOUNDATION NOTES:

1. DESIGN ASSUMPTIONS:
   NORMAL GROUNDWATER ELEVATION = AT GRADE
2. CONCRETE GENERAL NOTES APPLY TO FOUNDATIONS.
3. MINIMUM REQUIRED DEPTH FROM ADJACENT FINISHED GRADE TO BOTTOM OF FOUNDATION IS 3'-6" (UON).
4. FOR FOUNDATION DESIGN CRITERIA REFER TO GEOTECHNICAL REPORT PROVIDED BY YU ASSOCIATES DATED 2025 AND 2026 AMENDMENT.

CONCRETE NOTES:

1. CONCRETE 28-DAY COMPRESSIVE STRENGTH:

CLASS A:	5000 PSI – ALL CONCRETE UON
CLASS B:	3000 PSI – CONCRETE FILL WITHIN STRUCTURES, DUCTBANKS, UNREINFORCED ENCASEMENTS AND THRUST BLOCKS.
CLASS D:	2000 PSI - LEAN: UNREINFORCED THRUST BLOCKS, UNREINFORCED ENCASEMENT, FOOTWAYS, CURBS, AND MISCELLANEOUS NON-STRUCTURAL.
LIGHTWEIGHT:	4000 PSI - CONCRETE FILL

2. REINFORCEMENT: ASTM A615, GRADE 60.
3. CONCRETE COVER FOR REINFORCING:

A. SURFACES CAST AGAINST SUBGRADE:	3"
B. TOP SURFACES OF SLABS WHERE PVC WATERSTOP IS REQUIRED IN WALLS	2"
C. FORMED SURFACES IN CONTACT WITH WEATHER, SOIL, OR LIQUID	2"
D. BOTTOM SURFACES OF SLABS OVER LIQUID	2"
E. SURFACES NOT IN CONTACT WITH WEATHER, SOIL, OR LIQUID	1.5"

4. CONSTRUCTION JOINTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS. WHERE NOT SHOWN, CONSTRUCTION JOINTS SHALL BE LOCATED AS REQUIRED BY THE SPECIFICATIONS. CONSTRUCTION JOINT TYPES AND LOCATIONS SHALL BE AS APPROVED BY THE ENGINEER.
5. UON, PROVIDE WATERSTOPS IN ALL FOUNDATION, TANKS AND OTHER SUBSTRUCTURES.
6. EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUIRED BY OTHER CONTRACT DOCUMENTS, SHALL BE PROVIDED FOR PRIOR TO PLACING CONCRETE.
7. WHERE DRILLED EPOXY DOWELS ARE PLACED INTO HARDENED CONCRETE, ADJUST THE DOWEL LOCATIONS AS NEEDED TO AVOID DRILLING THROUGH ANY REINFORCING BARS. IF THE DOWEL LOCATION NEEDS TO BE MODIFIED, CONTACT THE ENGINEER BEFORE PROCEEDING.
8. DOWELS, ANCHOR BOLTS, PIPES, AND OTHER EMBEDDED ITEMS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.
9. CONDUITS AND PIPES EMBEDDED IN OR PENETRATING THROUGH CONCRETE:
   A. SHALL BE SPACED ON CENTER NOT LESS THAN 3 TIMES THEIR OUTSIDE DIMENSION, BUT NOT LESS THAN 2 1/2 INCHES CLEAR. OUTSIDE DIMENSION OF EMBEDDED ITEMS SHALL NOT EXCEED 1/3 OF THE CONCRETE MEMBER THICKNESS. CLEAR SPACING REQUIREMENTS SHALL APPLY FOR EMBEDDED CONDUITS OR PIPES CROSSING AT AN ANGLE LESS THAN 60 DEGREES.
   * OUTSIDE DIMENSION OF EMBEDDED ITEMS IS DEFINED AS THE SUM OF THE OUTER DIMENSIONS OF CROSSING ELEMENTS.
   B. EMBEDDED CONDUITS AND PIPES SHALL BE LOCATED BETWEEN THE LAYERS OF REINFORCEMENT AND A MINIMUM OF 2 1/2 INCHES CLEAR FROM APPROXIMATELY PARALLEL REINFORCING BARS. REQUIREMENTS FOR EMBEDDED ELEMENTS CROSSING REINFORCING BARS SHALL BE AS REQUIRED FOR CROSSING EMBEDDED ELEMENTS.
   C. CONDUITS AND PIPES SHALL NOT BE EMBEDDED IN OR PASS THROUGH COLUMNS AND BEAMS UNLESS INDICATED OTHERWISE OR AUTHORIZED BY OWNER.
10. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY METAL PIPE, PIPE FLANGE, METAL CONDUIT OR OTHER METAL PARTS EMBEDDED IN CONCRETE. A MINIMUM CLEARANCE OF 2 1/2 INCHES SHALL BE PROVIDED.
11. CONTRACTOR SHALL PROVIDE 3/4 INCH CHAMFER USING WOOD CHAMFER STRIPS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, EQUIPMENT PADS AND WALLS OR AS REQUIRED TO MATCH EXISTING.
12. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE TABLE SHOWN IN THE STRUCTURAL TYPICAL DETAILS.
13. PROVIDE ADDITIONAL REINFORCEMENT AT OPENINGS AND WALL INTERSECTIONS AS SHOWN ON TYPICAL DETAILS (UON).

METALS NOTES:

1. DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, 2022 EDITION.
2. STEEL MATERIAL:
   A. STRUCTURAL TUBING, ASTM A 500, GRADE B
   B. W SHAPES, ASTM A992.
   C. STRUCTURAL CHANNELS, ASTM A 572.
   D. ALL OTHER SHAPES AND PLATES, ASTM A 36 (UON)
   E. PROVIDE MIN. 3/4" DIAMETER ASTM F3125 GRADE A325 TYPE X HIGH STRENGTH BOLTS, SNUG TIGHT CONNECTIONS.
3. STAINLESS STEEL:
   A. BOLTED CONNECTIONS (1/4-IN. to 5/8-IN.): ASTM F593/F594, CONDITION CW, MATCH TYPE OF STAINLESS STEEL CONNECTED (Fu = 100 KSI, Fy = 65 KSI).
   B. BOLTED CONNECTIONS (3/4-IN. to 1 ½-IN.) ASTM F593/F594, CONDITION CW, MATCH TYPE OF STAINLESS STEEL CONNECTED (Fu = 85 KSI, Fy = 45 KSI).
4. ALUMINUM: ALL ALUMINUM SECTIONS SHALL BE ALLOY 6061 T6.
5. DO NOT PAINT STEEL SURFACES WHICH ARE TO BE WELDED OR ENCASED IN CONCRETE.
6. ALL GROOVE AND BUTT WELDS SHALL BE FULL PENETRATION UON.
7. FILLET WELD SIZES SHALL BE THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED BUT NOT LESS THAN 3/16 INCH AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH UON.
8. ALL BOLTS, ANCHOR BOLTS, AND CONCRETE ANCHORS CONNECTING STAINLESS STEEL SHALL BE TYPE 316 STAINLESS STEEL.
9. WHENEVER ONE MEMBER IS FASTENED TO ANOTHER WITH FASTENINGS (BOLTS, WELDS, ETC.) SET AT A UNIFORM SPACING, THERE SHALL BE A MINIMUM OF TWO FASTENINGS PER PIECE CONNECTED AND THE FIRST AND LAST FASTENINGS SHALL BE LOCATED NOT TO EXCEED 1/4 SPACE FROM EACH END.

CONCRETE MASONRY UNITS (CMU) NOTES:

1. DESIGN AND CONSTRUCTION OF ALL MASONRY WORK SHALL CONFORM TO TMS 402/602.1 STANDARDS, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" AND "SPECIFICATIONS FOR MASONRY STRUCTURES".
2. CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT HOLLOW LOAD BEARING UNITS CONFORMING TO ASTM C90 "HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS", LATEST EDITION. COMPRESSIVE STRENGTH OF MASONRY SHALL NOT BE LESS THAN 2000 PSI. COLOR AND FINISH AS INDICATED, SUBJECT TO APPROVAL BY OWNER.
3. MORTAR SHALL CONFORM TO ACTM C270 "MORTAR FOR UNIT MASONRY" TYPES.
4. GROUT SHALL CONFORM TO ASTM C476 "GROUT FOR REINFORCED AND NON-REINFORCED MASONRY", WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS. ALL REINFORCED CELLS SHALL BE FILLED SOLID WITH GROUT.
5. ALL MASONRY SHALL BE CONSTRUCTED IN RUNNING BOND.
6. HORIZONTAL JOINT REINFORCING SHALL BE STANDARD WEIGHT LADDER TYPE (2-NO. 9 GAGE SIDE RODS) SPACED 16" OC VERTICALLY AS INDICATED.
7. DO NOT USE CALCIUM CHLORIDE OR ANY ADDITIVE THAT CONTAINS CALCIUM CHLORIDE IN THE MORTAR OR GROUT.
8. CONTRACTOR IS RESPONSIBLE TO REPAIR ANY BRICK FRACTURE OR MORTAR CRACKS THAT MAY DEVELOP DURING CONSTRUCTION.
9. TEMPORARILY BRACE ALL MASONRY WALLS TO PROVIDE STABILITY DURING CONSTRUCTION UNTIL THE DESIGNED STRUCTURE IS COMPLETE AND CAN STABILIZE THE WALL.
10. NO PREMIXED MASONRY CEMENT MORTARS SHALL BE PERMITTED.
11. MAXIMUM HEIGHT OF GROUT POUR SHALL BE 4'-0" UNLESS CLEANOUT OPENINGS ARE PROVIDED AT THE BOTTOM OF ALL CELLS TO BE FILLED.
12. ALL LINTEL BEAMS SHALL HAVE A MINIMUM END BEARING OF 8" OR 1" PER FOOT OF CLEAR SPAN, WHICHEVER IS LARGER CELLS OR CAVITIES UNDER BEARING AREA SHALL BE FULLY GROUTED WITH 2000 PSI MINIMUM GROUT FILL.
13. ALL ALUMINUM MEMBERS AND SUPPORTS IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE BACKPAINTED WITH BITUMINOUS PAINT.

METAL DECK NOTES:

1. THE ROOF DECK SHALL BE 20 GAUGE, TYPE 1.5 B BY VULCRAFT OR EQUAL. THE DECK SHALL BE GALVANIZED. DECK SHALL BE ATTACHED TO SUPPORTS AT A 36/4 PATTERN AT ALL SUPPORTS (INTERMEDIATE AND ENDS) WITH HILTI X-HSN 24 FASTENERS OR APPROVED EQUAL AT 12" O.C. MAX AT INTERIOR AND END SUPPORTS AND 6" O.C. MAX AT EDGE SUPPORTS, PER DETAIL 1/S-905. DECK SHALL BE ATTACHED AT SIDE LAPS WITH HILTI S-SLC 02 M HWH SCREWS OR APPROVED EQUAL AT 12" O.C. MAX BETWEEN ALL SUPPORTS. ALL FASTENERS IN EXTERIOR WALLS SHALL BE ZINC PLATED WITH A TYPE II ASTM B 633 COATING. DECK LAYOUT SHALL BE MODIFIED AT EDGE SUPPORTS PARALLEL TO RIBS SO THAT THE DECK CAN BE FASTENED TO THE SUPPORT. DECK ATTACHMENT AT CMU WALLS SHALL BE PER DETAIL 6/S-905. .
2. PROVIDE L3X3X1/4 AROUND ALL ROOF PENETRATIONS NOT SHOWN, 8 INCHES OR GREATER, FOR METAL DECK SUPPORT.
3. VERIFY SIZE, LOCATION, AND NUMBER OF ROOF OPENINGS WITH OTHER DISCIPLINES PLANS, SECTIONS, AND CONTRACTORS.

NYC Environmental Protection

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

IF SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MV
DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · PAUL ANTHONY DUNN · 085180 · 11/37/2026 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL GENERAL NOTES

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-001.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-S-R21_ARCA.rvt
11/5/2026 11:00:24 AM

ALUMINUM STAIR AND HANDRAIL NOTES.

1. CONSTRUCT STAIRS, HANDRAILS, AND GUARDRAILS TO CONFORM TO SIZES AND ARRANGEMENTS INDICATED ON THE ARCHITECTURAL DRAWINGS. CONNECTION DETAILS ARE REPRESENTATIVE OF THE REQUIREMENTS ONLY AND SHALL BE DESIGNED AND DETAILED BY THE ALUMINUM FABRICATOR.

2. PROVIDE COMPLETE STAIR ASSEMBLIES, INCLUDING METAL FRAMING, HANGERS, COLUMNS, RAILINGS, NEWELS, BALUSTERS, STRUTS, CLIPS, BRACKETS, BEARING PLATES, AND OTHER COMPONENTS NECESSARY FOR THE SUPPORT OF STAIRS AND PLATFORMS, AND AS REQUIRED TO ANCHOR AND CONTAIN THE STAIRS ON THE SUPPORTING STRUCTURE. JOIN PIECES TOGETHER BY WELDING, UNLESS OTHERWISE INDICATED.

3. NAAMM STAIR STANDARD: COMPLY WITH "RECOMMENDED VOLUNTARY MINIMUM STANDARDS FOR FIXED METAL STAIRS" IN NAAMM "METAL STAIR MANUAL" FOR CLASS OF STAIR DESIGNATED, EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE INDICATED:
   A. COMMERCIAL CLASS, UNLESS OTHERWISE INDICATED.
   B. ARCHITECTURAL CLASS WHERE INDICATED.

4. FABRICATE TREADS AND PLATFORMS OF EXTERIOR STAIRS TO ACCOMMODATE SLOPES TO DRAIN IN FINISHED TRAFFIC SURFACES.

5. FABRICATE STRINGERS OF STRUCTURAL ALUMINUM CHANNELS, PLATES, OR A COMBINATION THEREOF, AS INDICATED. PROVIDE CLOSURES FOR EXPOSED ENDS OF STRINGERS. CONSTRUCT PLATFORMS OF STRUCTURAL ALUMINUM CHANNEL HEADERS AND MISCELLANEOUS FRAMING MEMBERS AS INDICATED. BOLT OR WELD HEADERS TO STRINGS, NEWELS, AND FRAMING MEMBERS TO STRINGS AND HEADERS; FABRICATE AND JOIN SO THAT BOLTS, IF USED, DO NOT APPEAR ON FINISH SURFACES.

6. DIRECTLY WELD RISERS AND SUBTREADS TO STRINGERS.

7. ATTACH RISERS AND SUBTREADS TO STRINGERS BY MEANS OF BRACKETS MADE OF STEEL ANGLES OR BARS. WELD BRACKETS TO STRINGERS.

8. PROVIDE SUBPLATFORMS OF CONFIGURATION AND CONSTRUCTION INDICATED; IF NOT INDICATED, OF SAME METAL AS RISERS AND SUBTREADS, IN THICKNESSES REQUIRED TO SUPPORT DESIGN LOADING. ATTACH SUBPLATFORMS TO PLATFORM FRAMING MEMBERS WITH WELDS.

9. STAIR RAILINGS AND HANDRAILS MUST COMPLY WITH APPLICABLE REQUIREMENTS FOR ALUMINUM PIPE RAILINGS AND HANDRAILS, AND AS FOLLOWS:
   A. FABRICATE NEWELS OF ALUMINUM TUBING AND PROVIDE NEWEL CAPS OF GRAY-IRON CASTINGS, AS SHOWN.
   B. RAILINGS MAY BE BENT AT CORNERS, RAIL RETURNS, AND WALL RETURNS, INSTEAD OF USING PREFABRICATED FITTINGS.
   C. CONNECT RAILING POSTS TO STAIR FRAMING BY DIRECT WELDING, UNLESS OTHERWISE INDICATED.
   D. ALL WELDING SHALL BE GROUND SMOOTH AND FREE FROM BURRS PRIOR TO FINISHING.

10. DELEGATED DESIGN: DESIGN METAL STAIRS, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, CONFORMING TO SIZES AND ARRANGEMENTS INDICATED ON THE DRAWINGS AND USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.

11. STRUCTURAL PERFORMANCE OF STAIRS: METAL STAIRS SHALL WITHSTAND THE EFFECTS OF GRAVITY LOADS AND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED.
   A. UNIFORM LOAD: 100 LBF/SQ. FT.
   B. CONCENTRATED LOAD: 300 LB APPLIED ON AN AREA OF 4 SQ. IN.
   C. UNIFORM AND CONCENTRATED LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
   D. STAIR FRAMING: CAPABLE OF WITHSTANDING STRESSES RESULTING FROM RAILING LOADS IN ADDITION TO LOADS SPECIFIED ABOVE.
   E. LIMIT DEFLECTION OF TREADS, PLATFORMS, AND FRAMING MEMBERS TO L/240 OR 1/4 INCH, WHICHEVER IS LESS.

12. STRUCTURAL PERFORMANCE OF RAILINGS: RAILINGS SHALL WITHSTAND THE EFFECTS OF GRAVITY LOADS AND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED.
   A. HANDRAILS AND TOP RAILS OF GUARDS:
      1. UNIFORM LOAD OF 50 LBF/FT. APPLIED IN ANY DIRECTION.
      2. CONCENTRATED LOAD OF 200 LBF APPLIED IN ANY DIRECTION.
      3. UNIFORM AND CONCENTRATED LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
   B. INFILL OF GUARDS:
      1. CONCENTRATED LOAD OF 50 LBF APPLIED HORIZONTALLY ON AN AREA OF 1 SQ. FT.
   C. INFILL LOAD AND OTHER LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

DESIGN LOADS:

THE FOLLOWING DESIGN LOADS WERE USED FOR STRUCTURES TI-10 DECHLORINATION AND TI-11 DISINFECTION:

BUILDING OCCUPANCY CATEGORY:	III
FLOOR DEAD LOADS:	
12" CAST IN PLACE SLAB	150 PSF
MECH/ELEC/PLUMB:	10 PSF
FLOOR LIVE LOADS:	
ELECTRICAL ROOM:	250 PSF
FIRST FLOOR:	100 PSF
ROOF DEAD LOADS:	
FORM DECK:	2 PSF
MECH/ELEC/PLUMB:	10 PSF
ROOF LIVE LOAD:	40 PSF
ROOF SNOW LOAD:	
GROUND SNOW LOAD:	P_g = 25 PSF
FLAT-ROOF SNOW LOAD:	P_f = 22 PSF
SNOW EXPOSURE FACTOR:	C_e = 0.90
SNOW LOAD IMPORTANCE FACTOR:	I_s = 1.1
THERMAL FACTOR:	C_t = 1.2
SLOPE FACTOR:	C_s = 1.0
DRIFT SURCHARGE LOAD(S):	P_d = 30 PSF
WIDTH OF SNOW DRIFT(S)	7 FEET
WIND DESIGN DATA:	
BASIC DESIGN WIND SPEED:	V = 127 MPH
ALLOWABLE STRESS DESIGN WIND SPEED:	V_{asd} = 99 MPH
RISK CATEGORY:	III
INTERNAL PRESSURE COEFFICIENTS:	+/- 0.18

ALL COMPONENTS AND CLADDING SHALL BE DESIGNED TO RESIST THE LOADS PROVIDED IN THE DIAGRAMS AND TABLES ON SHEET S-003, UNLESS OTHERWISE NOTED. AT LOCATIONS WHERE TABULATED VALUES ARE LESS THAN 25 PSF, A MINIMUM DESIGN VALUE OF 25 PSF SHALL BE USED.

BUILDING DESIGNED AS AN "ENCLOSED STRUCTURE" IN ACCORDANCE WITH ASCE 7-16

EARTHQUAKE DESIGN DATA:	
RISK CATEGORY:	III
SEISMIC IMPORTANCE FACTOR:	I_e = 1.25
MAPPED SPECTRAL RESPONSE ACCELERATIONS:	S_s = 0.288
	S_1 = 0.059
SITE CLASS:	D
DESIGN SPECTRAL RESPONSE ACCELERATIONS:	S_{ds} = 0.301
	S_{d1} = 0.096
SEISMIC DESIGN CATEGORY:	B
BASIC SEISMIC-FORCE-RESISTING SYSTEM(S):	ORDINARY REINFORCED CONCRETE SHEAR WALLS
DESIGN BASE SHEAR(S):	
T10 DECHLORINATION FACILITY:	21 KIPS
T11 DISINFECTION FACILITY:	47 KIPS
SEISMIC RESPONSE COEFFICIENT(S):	C_s = 0.014
RESPONSE MODIFICATION FACTOR:	R = 4.0
ANALYSIS PROCEDURE USED:	EQUIVALENT LATERAL FORCE METHOD
FLOOD HAZARD INFORMATION:	
FLOOD DESIGN CLASS:	3
BASEMENT (LOWEST FLOOR) ELEVATION	+9.00 FT
DRY FLOOD PROOFED ELEVATION :	
T10 DECHLORINATION FACILITY:	17 FT
T11 DISENFECTION FACILITY:	18 FT
1% ANNUAL CHANCE FLOOD ELEVATION:	12 FT
SPECIAL LOAD(S):	
BASEMENT:	
CHEMICAL TANKS	45 KIPS
FIRST FLOOR:	
GENERATOR	192 PSF
SWITCHGEAR	67 PSF
ROOF:	
PHOTOVOLTAIC PANEL	10 PSF
ROOF RAIN LOAD DATA:	
RAIN INTENSITY:	NA

ABBREVIATIONS

@	AT
AB	ANCHOR BOLT
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINSIHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ANCH	ANCHOR
APPROX	APPROXIMATE
ARCH	ARCHITECT
B/B	BACK TO BACK
BEV	BEVEL
BLDG	BUILDING
BLKG	BLOCKING
BO	BOTTOM OF
BOS	BOTTOM OF STEEL
BOT	BOTTOM
BP	BASE PLATE
BRDG	BRIDGING
BRG	BEARING
BSMT	BASEMENT
CANTL	CANTILEVER
CFMF	COLD-FORMED METAL FRAMING
CHFR	CHAMFER
CJ	CONTROL JOINT
CL	CENTER LINE
CLKJ	CAULKED JOINT
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONC BM	CONCRETE BEAM
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
COORD	COORDINATE
CSK	COUNTER SUNK
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DBL	DOUBLE
DEMO	DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
DWG	DRAWING
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXP	EXPANSION
EXST	EXISTING
EXT	EXTERIOR

ABBREVIATIONS

FAB	FABRICATE
FBO	FURNISHED BY OTHERS
FD	FLOOR DRAIN
FDTN	FOUNDATION
FLG	FLANGE
FLR	FLOOR
FOM	FACE OF MASONRY
FRMG	FRAMING
FS	FAR SIDE
FT	FOOT
FTG	FOOTING
FW	FIRE WALL
GA	GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GDR	GUARD RAIL
GR BM	GRADE BEAM
H	HEIGHT
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HP	HIGH POINT
HRC	HIGH RATE CLARIFIER
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCHES
INFO	INFORMATION
INSUL	INSULATION
INV	INVERT
ISO JT	ISOLATION JOINT
JBE	JOIST BEARING ELEVATION
K	KIPS
KB	KNEE BRACE
KO	KNOCKOUT
KPL	KICK PLATE
KSF	KIPS PER SQUARE FOOT
KWY	KEY WAY
LD BRG	LOAD BEARING
LG	LONG
LL	LIVE LOAD
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LNTL	LINTEL
LONG	LONGITUDINAL
LP	LOW POINT
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECHANICAL - ELECRICAL - PLUMBING
MFR	MANUFACTURER
MIN	MINIMUM

ABBREVIATIONS

MLS	MAIN LIFT STATION
MO	MASONRY OPENING
MTL	METAL
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PAF	POWDER ACTUATED FASTENER
PCC	PRECAST CONCRETE
PEMB	PRE ENGINEERED METAL BUILDING
PL	PLATE
PLAT	PLATFORM
PLF	POUNDS PER LINEAR FOOT
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
PUR	PURLINS
PVMT	PAVEMENT
QC	QUALITY CONTROL
R	RADIUS
RD	ROOF DRAIN
RDG INS	RIGID INSULATION
REF	REFERENCE
REINF	REINFORCING
REQD	REQUIRED
RET	RETAINING
RH	ROOF HATCH
RO	ROUGH OPENING
SCHED	SCHEDULE
SF	SQUARE FEET
SIM	SIMILAR
SOG	SLAB ON GROUND
SPA	SPACE(S)
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
T&B	TOP AND BOTTOM
T/	TOP OF
TD	TRENCH DRAIN
TEMP	TEMPORARY
THK	THICKNESS
THRU	THROUGH
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNEX	UNEXCAVATED
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VIF	VERIFY IN FIELD
VR	VAPOR RETARDER
W	WIDE
W/	WITH
W/O	WITHOUT
WBL	WOOD BLOCKING
WF	WALL FOOTING
WP	WORKING POINT
WS	WALL STEP
WWF	WELDED WIRE FABRIC
X BRACE	CROSS BRACE
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — MAE ANTHONY DUNN — 080180 — 11/3/2026 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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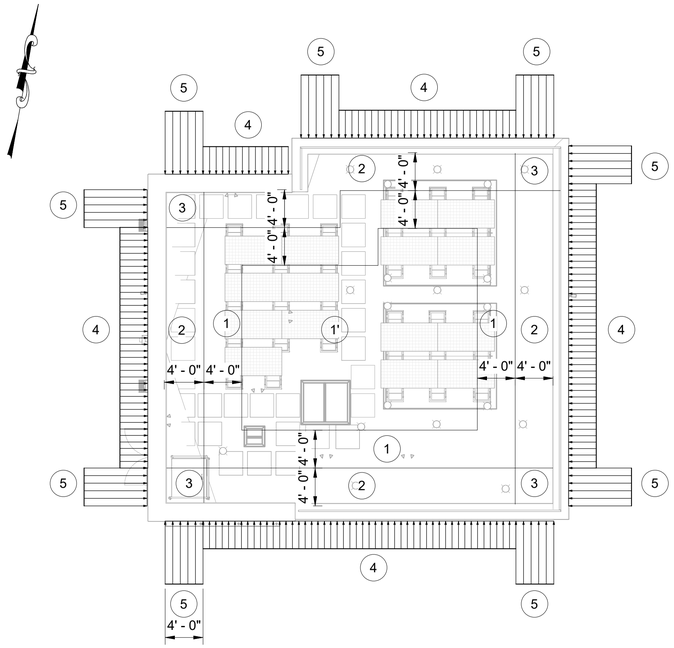
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
GENERAL NOTES AND ABBREVIATIONS

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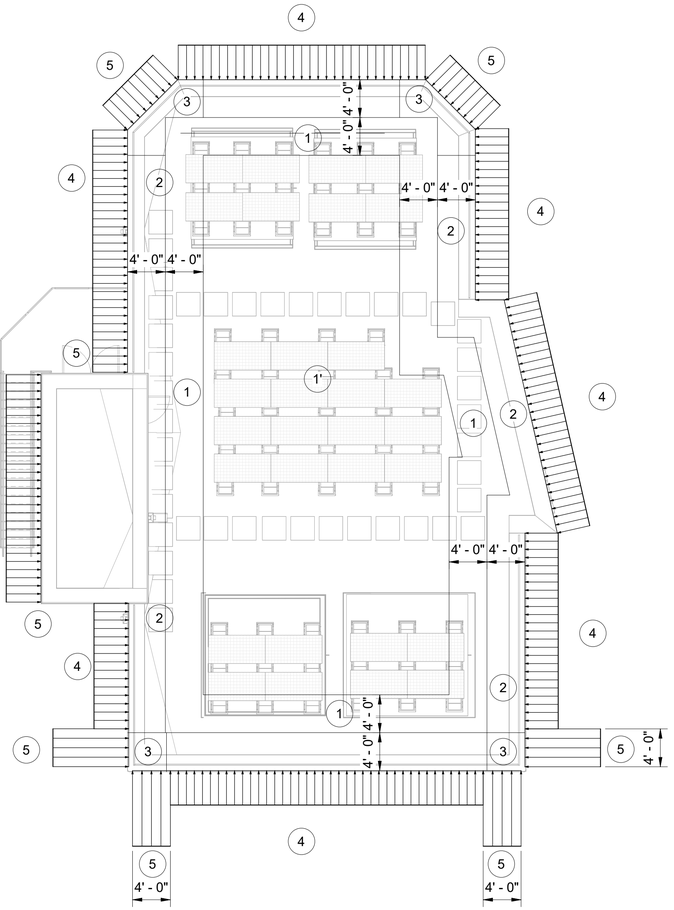
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ROOF		
ZONE	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)
1	16	43
1'	16	26
2	16	57
3	16	76
WALL		
ZONE	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)
4	29	31
5	29	38

TI-010 DECHLORINATION FACILITY WIND LOAD DIAGRAM

SCALE: N.T.S.



ROOF		
ZONE	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)
1	16	45
1'	16	27
2	16	60
3	16	80
WALL		
ZONE	POSITIVE PRESSURE (PSF)	NEGATIVE PRESSURE (PSF)
4	29	31
5	29	38

TI11 DISINFECTION FACILITY WIND LOAD DIAGRAM

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ARCADIS

STATE OF NEW YORK · PAUL ANTHONY DUNN · 11/3/2026 · 085190 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
DESIGN WIND PRESSURES FOR COMPONENT AND CLADDING

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STRUCTURAL QUALITY ASSURANCE PLAN GENERAL:

THIS STRUCTURAL QUALITY PLAN IDENTIFIES THE RESPONSIBILITIES OF THE CONTRACTOR AND THE SPECIAL INSPECTOR IN PERFORMING THE TESTING AND INSPECTION OF THE WORK REQUIRED BY CHAPTER 17 OF THE BUILDING CODE THAT IS WITHIN THE SCOPE OF THE STRUCTURAL ENGINEERING SERVICES FOR THIS PROJECT. REFER TO OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS FOR TESTING AND INSPECTIONS REQUIRED OF MECHANICAL, ELECTRICAL, CIVIL, OR OTHER BUILDING COMPONENTS.

CONTRACTOR'S RESPONSIBILITIES:

CONTRACTOR SHALL NOTIFY SPECIAL INSPECTION AND AGENCY/LABORATORY AT LEAST 48 HOURS PRIOR TO START OF WORK AND COOPERATE WITH THE INDIVIDUAL SPECIAL INSPECTORS AND TESTING AGENCIES EMPLOYED BY THE OWNER TO FACILITATE CODE-REQUIRED SPECIAL INSPECTIONS.

CONTRACTORS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" SHALL SUBMIT A WRIITEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON SUCH SYSTEM OR COMPONENT PER SECTION 1704.4.

SPECIAL INSPECTOR'S RESPONSIBILITIES:

THE SPECIAL INSPECTION SHALL BE A LICENSED ENGINEER IN THE STATE OF NEW YORK OR PERFORMING APPROPRIATE DUTIES DIRECTLY UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK AND HAVE A THOROUGH UNDERSTANDING OF THE SPECIAL INSPECTION REQUIREMENTS OF THE 2018 IBC. THE SPECIAL INSPECTOR SHALL BE AN INDIVIDUAL OR INDIVIDUALS CERTIFIED OR EXPERIENCED TO PERFORM SUCH INSPECTIONS IN A PARTICULAR FIELD.

THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND FURNISH REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. PERIODIC REPORT SHALL BE PROVIDED AND SHALL INDICATE THAT THE WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED TO THE SATISFACTION OF THE SPECIAL INSPECTOR, THE DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE WORK.

A WEEKLY REPORT OF INSPECTIONS DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED. AT THE COMPLETION OF THE SPECIAL INSPECTIONS, THE LICENSED PROFESSIONAL ENGINEER IN CHARGE OF PERFORMING THE SPECIAL INSPECTION SHALL CERTIFY THE FINAL SPECIAL INSPECTION REPORT AND AFFIX HIS/HER SEAL TO THE SPECIAL INSPECTOR'S FINAL REPORT. PROVIDE THREE (3) COPIES OF THIS REPORT TO THE PROJECT ENGINEER.

SOILS:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT TEST REPORTS FOR ENGINEERED FILL. CONTRACTOR TO COORDINATE BUILDING DEPARTMENT INSPECTIONS AND SPECIAL INSPECTIONS.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

TABLE 1705.6
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOIL

TYPE	C	P
1. VERIFY MATERIALS BELOW FOOTINGS AND SLAB-ON-GRADE ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.		X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.		X
3. PERFORM CLASSIFICATION AND TESTING OF C COMPACTED FILL MATERIALS. AS A MINIMUM, PERFORM ONE TEST PER LIFT FOR EVERY 2,500 SQUARE FEET OF FILL PLACED.		X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.		X

C = CONTINUOUS P = PERIODIC

CAST-IN-PLACE CONCRETE:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. ESTABLISH CONCRETE MIX DESIGN PROPORTIONS PER ACI 318 AND THE SPECIFICATIONS. SUBMIT THREE COPIES OF THE CONCRETE MIX DESIGNS. INCLUDE THE FOLLOWING:
   - A. TYPE AND QUANTITIES OF MATERIALS
   - B. SLUMP
   - C. AIR CONTENT
   - D. FRESH UNIT WEIGHT
   - E. AGGREGATES SIEVE ANALYSIS
   - F. DESIGN COMPRESSIVE STRENGTH
   - G. LOCATION OF PLACEMENT IN STRUCTURE
   - I. METHOD OF CURING
   - J. SEVEN-DAY AND 28-DAY COMPRESSIVE STRENGTHS
   - K. ADMIXTURE PRODUCT DATA
   - L. SHRINKAGE TEST RESULTS PER SPECIFICATIONS
2. SUBMIT A CERTIFICATION FROM EACH MANUFACTURER OR SUPPLIER STATING THAT MATERIALS MEET THE REQUIREMENTS OF THE SPECIFIED ASTM AND ACI STANDARDS.
3. SUBMIT CERTIFICATION THAT THE READY-MIXED CONCRETE PLANT COMPLIES WITH THE REQUIREMENTS OF THE NATIONAL READY MIX CONCRETE ASSOCIATION.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	C	P	REFERENCED STANDARD	IBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	–	X	ACI 318 Ch: 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706; b. INSPECT SINGLE PASS FILET WELDS, MAXIMUM 5/16"; AND c. INSPECT ALL OTHER WELDS.	– –	X X –	ACI 318 Ch: 20, 25.2, 25.3, 26.6.1-26.6.3	–
3. INSPECT ANCHORS CAST IN CONCRETE.	–	X	ACI 318: 17.8.2	–
4. INSPECT ANCHORS POST -INSTALLED IN HARDENED CONCRETE MEMBERS. a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS. NOT DEFINED IN 4.a.	X 	 X	ACI 318: 17.8.2.4 ACI 318: 17.8.2	–
5. VERIFY USE OF REQUIRED DESIGN MIX.	–	X	ACI 318 Ch: 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	–	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10
7. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	–	X	ACI 318: 26.5.3- 26.5.5	1908.9
8. INSPECT PRESTRESSED CONCRETE FOR: a. APPLICATION OF PRESTRESSING FORCES; AND b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	–	ACI 318: 26.10 ACI 318: 26.10	–
9. INSPECT ERECTION OF CONCRETE MEMBERS.	–	X	ACI 318: 26.9	–
10. VERIFY IN -SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	–	X	ACI 318: 26.11.2	–
11. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	–	X	ACI 318: 26.11.1.2(b)	–

C = CONTINUOUS P = PERIODIC

STRUCTURAL STEEL:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. SUBMIT CERTIFICATION THAT THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM REQUIRED WORK WITHOUT SPECIAL INSPECTIONS PER IBC 1704.2.5.1.
2. IF FABRICATOR IS NOT APPROVED, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED. SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
3. CONTRACTOR TO COORDINATE BUILDING DEPARTMENT INSPECTIONS AND SPECIAL INSPECTIONS.
4. SUBMIT CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL.
5. SUBMIT MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR HIGH-STRENGTH BOLTING AND WELD FILLER MATERIALS.

SPECIAL INSPECTOR SHALL PERFORM THE FOLLOWING:

1. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360-10.
2. SUBMIT CERTIFICATION THAT THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM REQUIRED WORK WITHOUT SPECIAL INSPECTIONS.
3. IF FABRICATOR IS NOT APPROVED, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED. SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.
4. SPECIAL INSPECTION FOR SEISMIC RESISTANCE FOR STRUCTURAL STEEL SHALL BE PERFORMED AS SPECIFIED IN IBC SECTION 1705.12.1.

VERIFICATION AND INSPECTION	C	P	REFERENCED STANDARD
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:			
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X	ASTM MATERIAL SPECS; AISC 360 SECTION A3.3
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X	
2. INSPECTIONS OF HIGH-STRENGTH BOLTING:			
A. SNUG TIGHT JOINTS		X	AISC 360 SECTION M2.5
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD FORMED STEEL DECK:			
A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.		X	AISC 360 SECTION A3.1
B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.		X	APPLICABLE ASTM STANDARDS
C. MANUFACTURER'S CERTIFIED TEST REPORT.		X	
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:			
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.		X	AISC 360, SECTION A3.5, AND APPLICABLE AWS A5 DOCUMENT
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X	
5. INSPECTION OF WELDING:			
A. STRUCTURAL STEEL & COLD-FORMED STEEL DECK:			
1) COMPLETE AND PARTIAL PENETRATION AND GROOVE WELDS	X		AWS D1.1
2) MULTIPLE FILLET WELDS	X		
3) SINGLE PASS FILLET WELDS > 5/16"	X		
4) PLUG AND SLOT WELDS	X		
5) SINGLE PASS FILLET WELDS <= 5/16"		X	
6) FLOOR AND DECK ROOF WELDS		X	AWS D1.3
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:			
A. DETAILS SUCH AS BRACING AND STIFFENING	X		
B. MEMBER LOCATIONS	X		
C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION	X		
7. VERIFY EACH FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES.	X		

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SECTION MANAGER:

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NYC Environmental Protection

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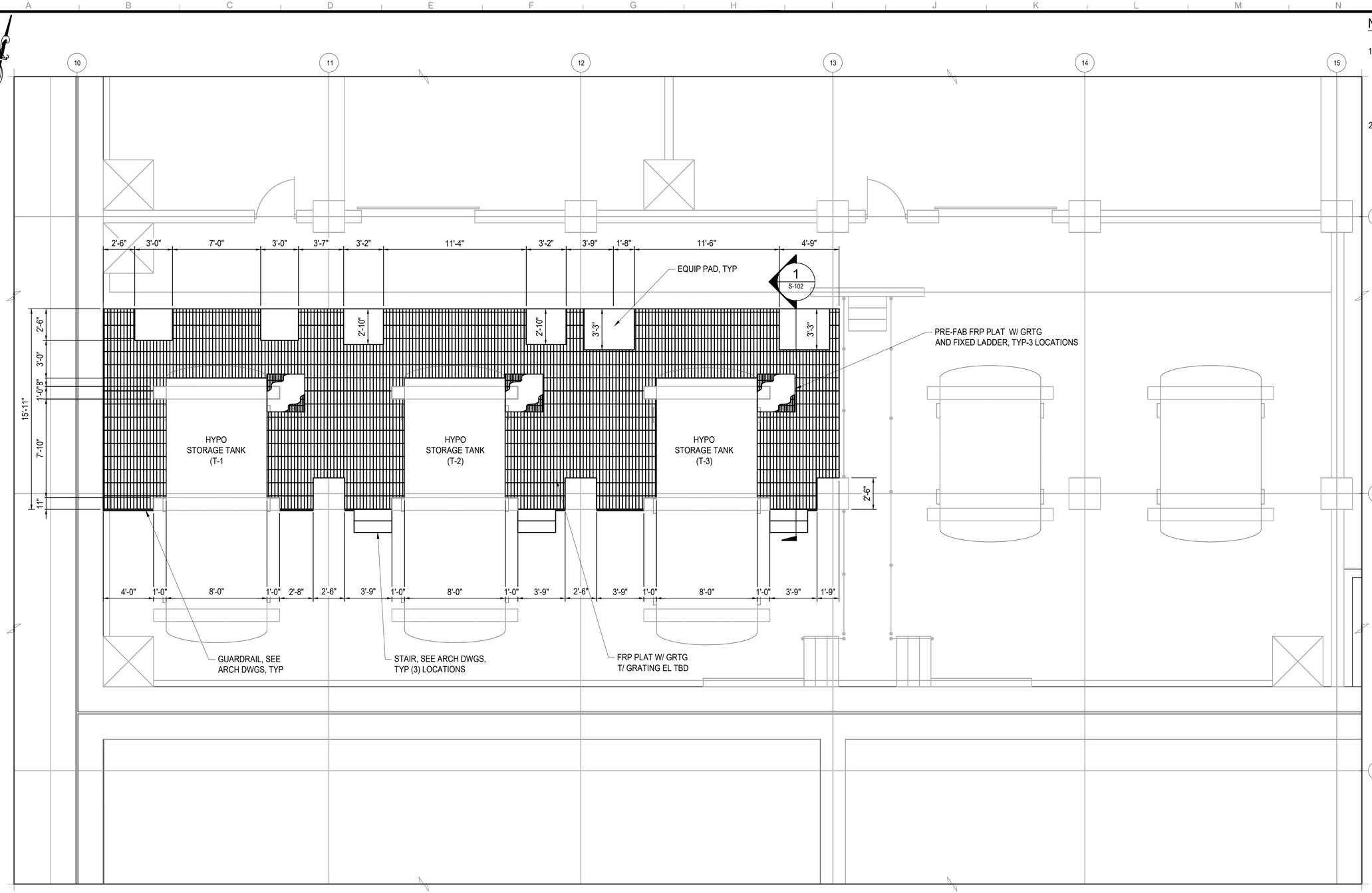
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
SPECIAL INSPECTIONS

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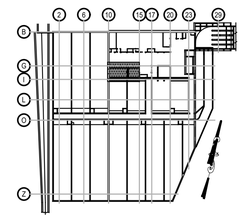
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NOTE:

1. GRATING SHALL BE DESIGNED BY CONTRACTOR HIRED P.E. REGISTERED IN NEW YORK. GRATING SHALL BE FIBERGLASS REINFORCED PANELS (FRP) TYPE WITH CONTINUOUS SUPPORTS SPANNING BETWEEN PEDESTALS. THE ADJUSTABLE PEDESTAL SYSTEM AND SUPPORTS SHALL BE PROVIDED BY GRATING MANUFACTURER.
2. COORDINATE ALL OPENINGS IN GRATING WITH OTHER DISCIPLINE'S DRAWINGS.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

CHEMICAL STORAGE PARTIAL PLAN

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

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · MAJ. ANTHONY DUNN · 080180 · 11/3/2026 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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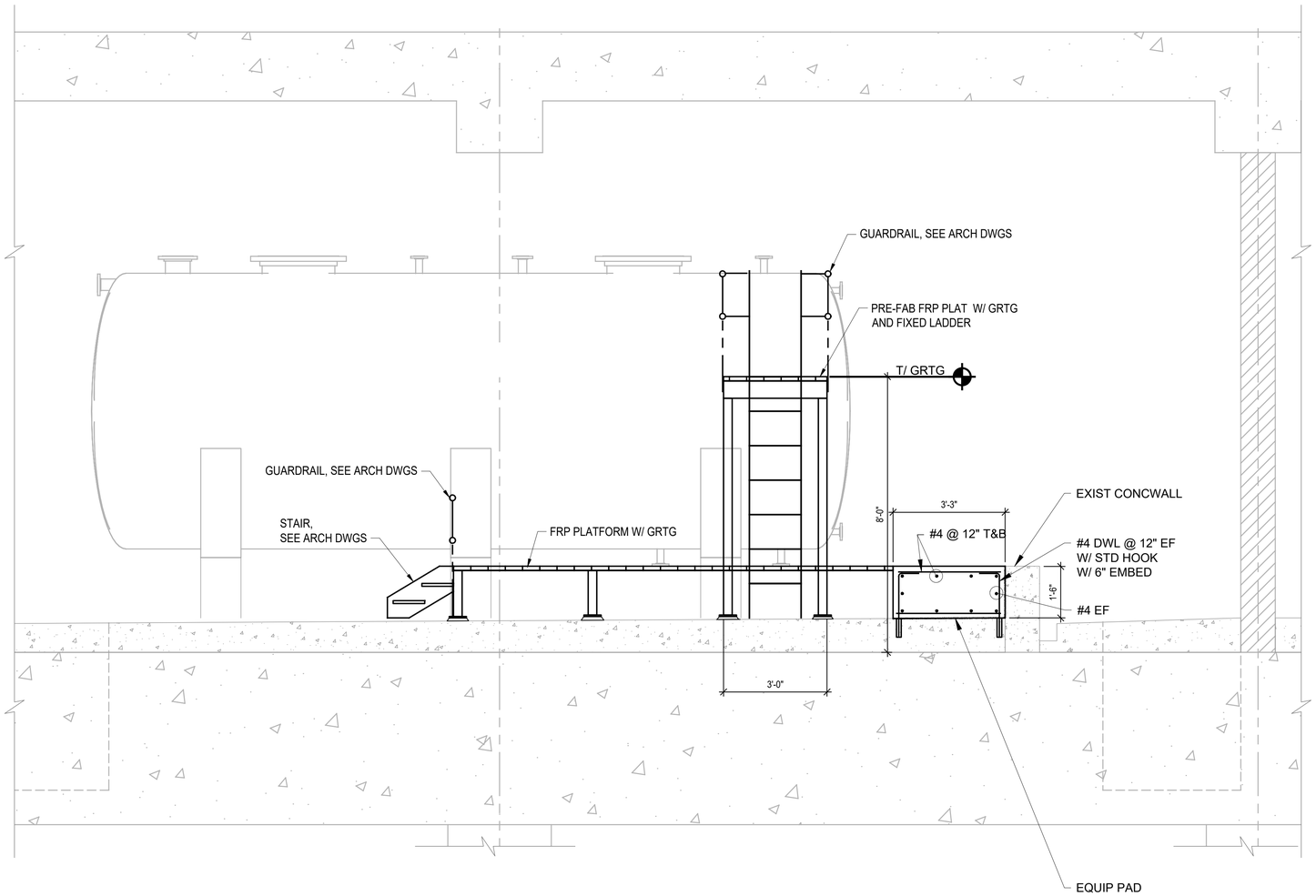
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
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TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA PLAN

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1 S-101 CHEMICAL STORAGE AREA - SECTION

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

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2. COORDINATE ALL OPENINGS IN GRATING WITH OTHER DISCIPLINE'S DRAWINGS.

1/2"=1'-0" 0 1 2 3 4 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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DESIGNED BY: MV
DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · PAUL ANTHONY DUNN · 080186 · 11/3/2026 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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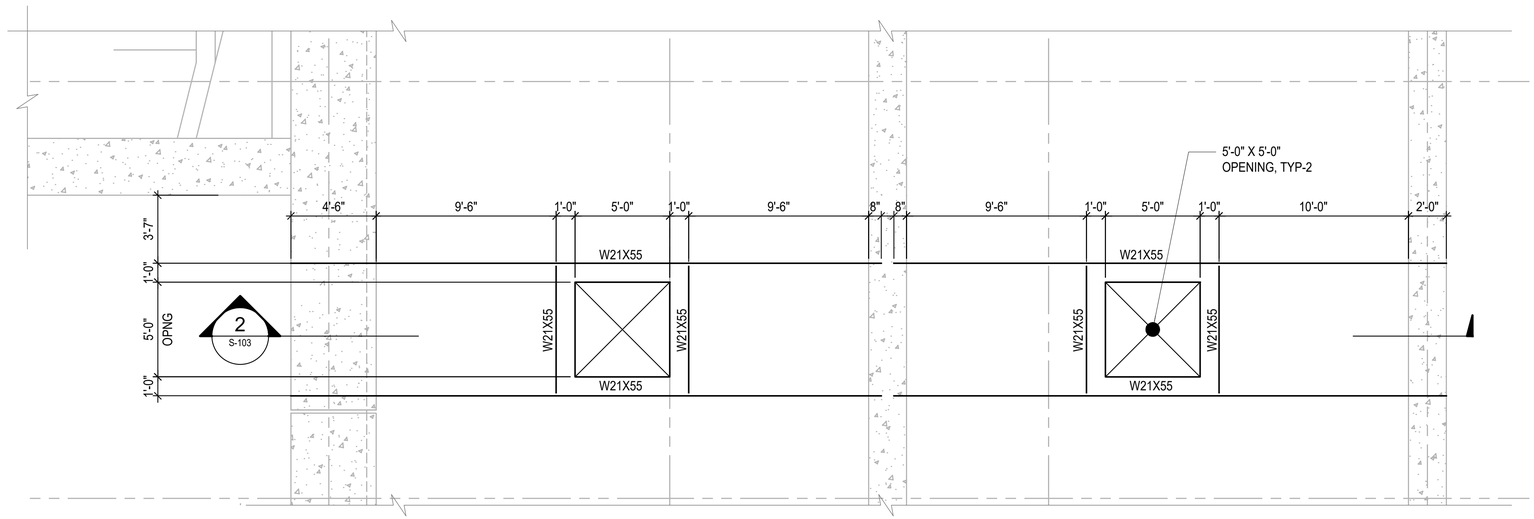
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
STRUCTURAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - SECTION

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-102.00

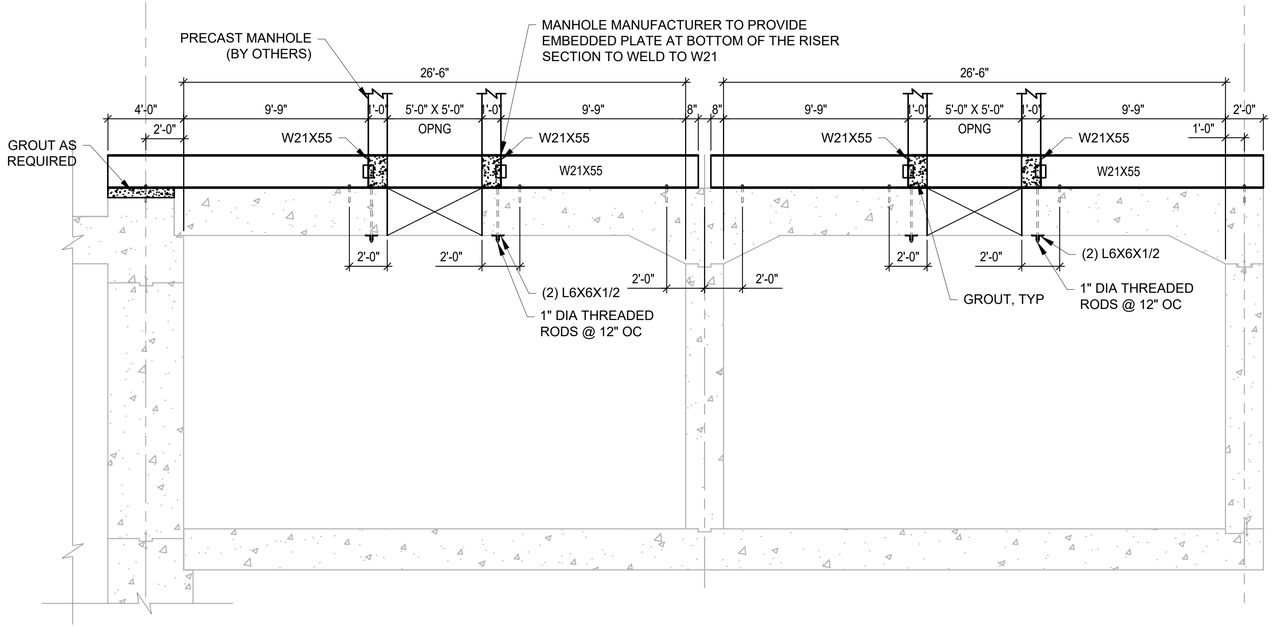
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Plot Scale: 1:1



INFLUENT CHANNEL PARTIAL PLAN

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

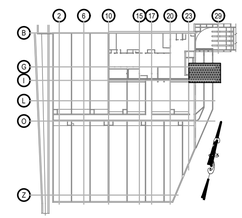


1 S-103 SECTION

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

NOTES:

1. CONTRACTOR SHALL EXCAVATE TO TOP OF INFLUENT CHANNEL SLAB AND PROVIDE SUPPORT OF EXCAVATION AS NEEDED.
2. INSTALL W21 BEAMS ANCHOR TO EXIST TOP SLAB USING GALVANIZED (2) 3/4" DIA ADHESIVE ANCHORS @ 12" OC.
3. W21 ENDS SHOULD BE ANCHORED ON TOP OF INFLUENT CHANNEL WALLS.
4. SAW CUT OPENING AFTER BEAMS ARE IN PLACE. ENSURE THE SAW CUT PORTION DOES NOT FALL INTO THE CHANNEL BELOW.
5. INSTALL GALVANIZED L6 UNDER THE SLAB AND AROUND THE OPENING WITH 3/4" DIA. THROUGH BOLTS.
6. FILL GROUT TO TOP OF BEAMS AS REQUIRED TO CREATE SOLID BEARING FOR PRECAST MANHOLE.
7. PROVIDE PRECAST MANHOLE WITH EMBEDDED WELD PLATES AT BOTTOM TO WELD TO TOP FLANGE OF W21.



KEY PLAN

0 4 8 FT.
1/4"=1'-0"

GRAPHIC SCALES CHECK BEFORE USE

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DATE ISSUED: NOVEMBER 2026

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DRAWN BY: CEC
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DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · ANIL ANTHONY QUINN · 11/3/2026 · 080180 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
STRUCTURAL
TI-010 CHLORINATION FACILITY
INFLUENT CHANNEL - PLAN AND SECTIONS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-103.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: Sangalang
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Plot Scale: 1:1

NOTES:

1. THE INTENT OF THIS VIEW IS FOR ILLUSTRATION AND CLARIFICATION VIEWING PURPOSES ONLY.
2. THE 3D MODEL MAY CONTAIN INACCURACIES, OMISSIONS, AND CONTRADICTIONS FROM THE CONTRACT DRAWINGS AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.
3. THE 3D MODEL SHALL NOT BE USED TO RETRIEVE OR VERIFY DIMENSIONS FOR CONSTRUCTION PURPOSES.

ADOBE ACROBAT INSTRUCTIONS FOR USE:

1. IF OPENED WITH ADOBE ACROBAT THE 3D MODEL MAY NOT BE VISIBLE. IF THIS IS THE CASE, THE MULTIMEDIA AND 3D CONTENT MAY HAVE BEEN DISABLED.
2. TO ENABLE THE FEATURE, THE USER WILL NEED TO TRUST THE DOCUMENT. A SECURITY WARNING BANNER SHOULD POP UP INDICATING THAT THERE IS 3D CONTENT WITH AN OPTIONS DROPDOWN MENU.
3. THE USER SHOULD HAVE THE OPTION TO TRUST THE DOCUMENT ONE TIME OR ALWAYS. EITHER OPTION SHOULD ALLOW THE PROGRAM TO LOAD THE MODEL.
4. PLEASE BE AWARE THAT IT MAY TAKE SOME TIME TO LOAD THE MODEL FOR VIEWING.

TI-010 DECHLORINATION FACILITY - 3D ILLUSTRATION VIEW

SCALE: N.T.S.

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DATE ISSUED: NOVEMBER 2026

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DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — PAUL ANTHONY DUNN — 080180 — 11/3/2026 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-010 DECHLORINATION FACILITY
STRUCTURAL 3D ILLUSTRATION

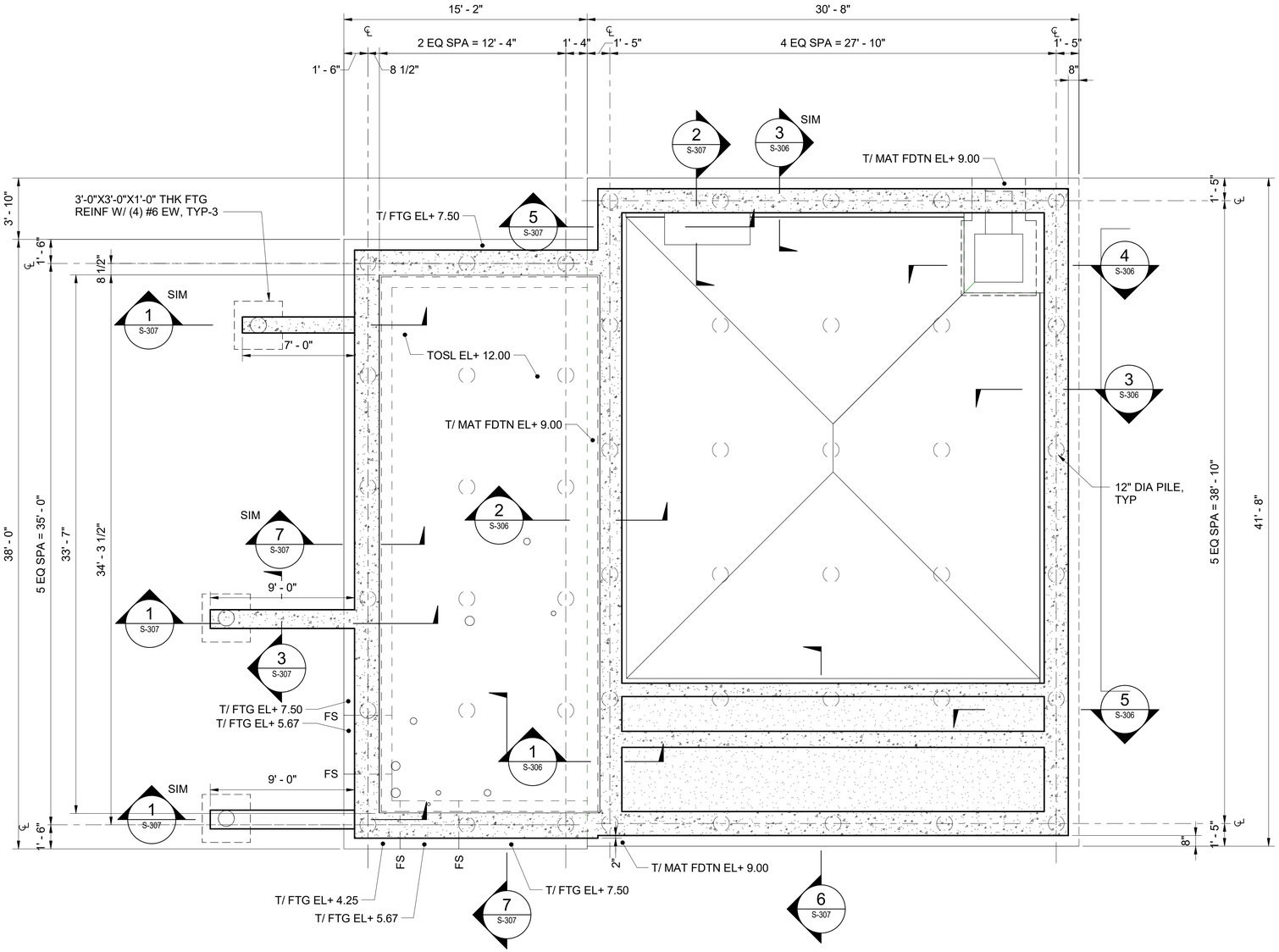
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DRAWING NO. S-300.00

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NOTES:

1. COORDINATE ALL OPNG SIZES AND LOCATIONS IN SLABS AND WALLS WITH OTHER DISCIPLINE DRAWINGS AND REQUIREMENTS.
2. SEE SHEETS FCDF-S-901 THRU FCDF-S-907 FOR TYPICAL DETAILS.



PILE PLAN

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

1/4"=1'-0" 0 4 8 FT.

NYC Environmental Protection

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DATE ISSUED: NOVEMBER 2026

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NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

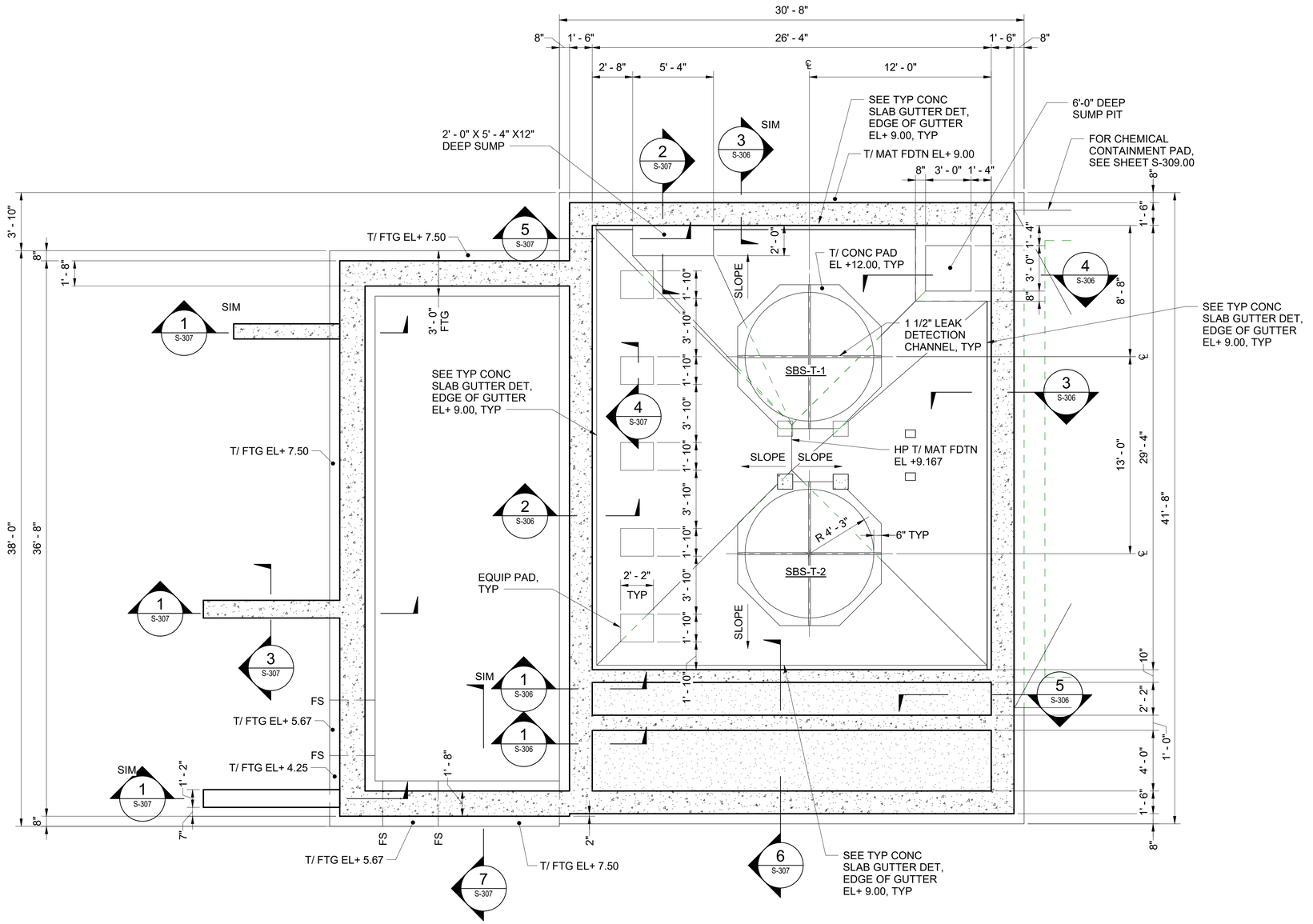
STRUCTURAL
TI-010 DECHLORINATION FACILITY
PILE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-301.00

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FOUNDATION PLAN

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

1/4"=1'-0" 0 4 8 FT.

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

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NYC Environmental Protection

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-010 DECHORINATION FACILITY
FOUNDATION PLAN

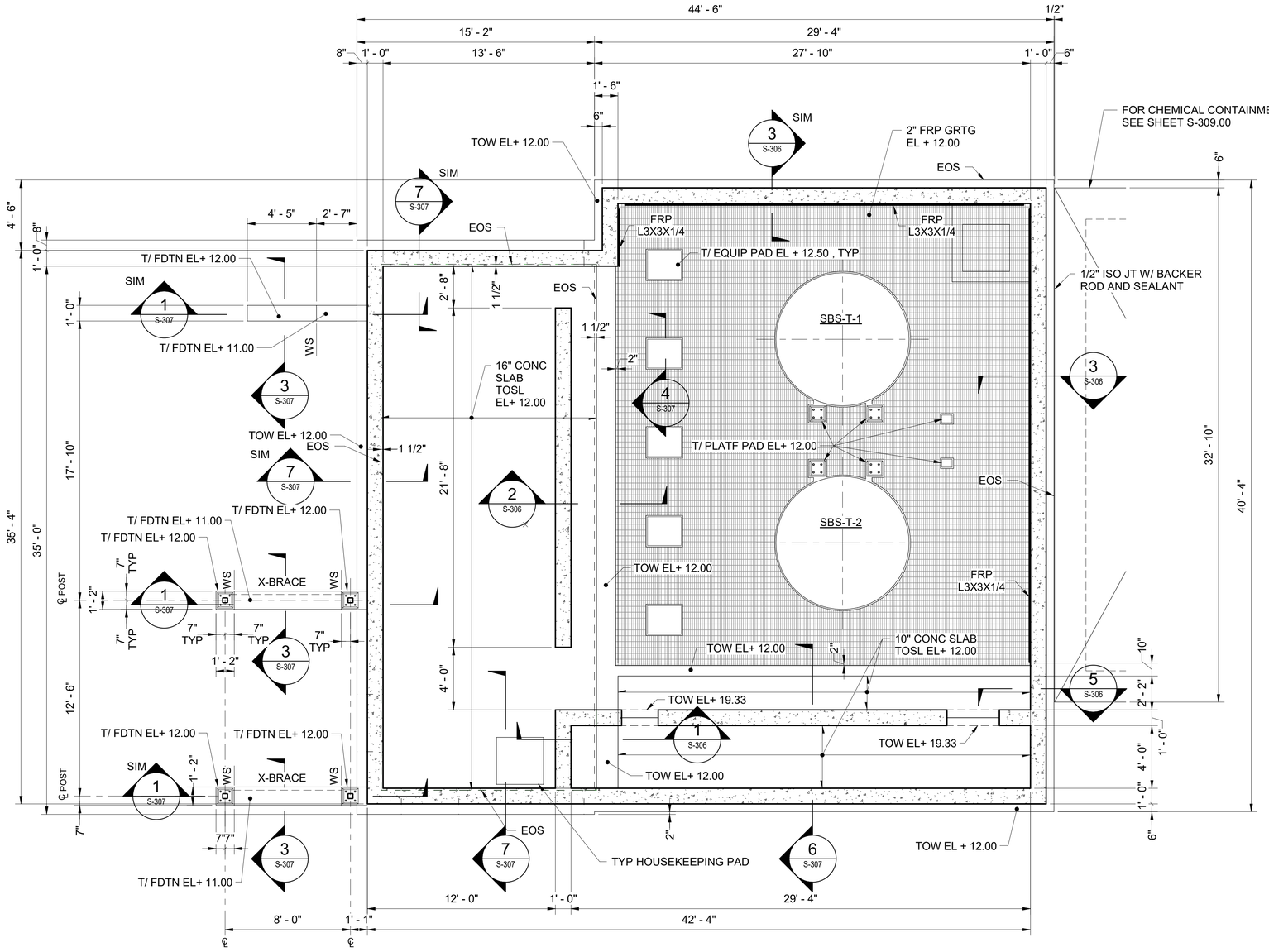
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NOTES:

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2. SEE SHEETS FCDF-S-901 THRU FCDF-S-907 FOR TYPICAL DETAILS.
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4. SEE TYPICAL DETAILS FOR TYPICAL HOUSEKEEPING PADS. FOR SIZE AND LOCATIONS SEE OTHER DISCIPLINES DWGS.



BASEMENT PLAN

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

1/4"=1'-0" 0 4 8 FT.

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CHECKED BY:	PAD
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SECTION MANAGER:	

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Environmental Protection

ACCOUNTABLE MANAGER	MONICA HARVEY, PE
PORTFOLIO MANAGER	ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN	

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-010 DECHLORINATION FACILITY
BASEMENT FLOOR PLAN

DATE: NOVEMBER 2026

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DRAWING NO. S-303.00

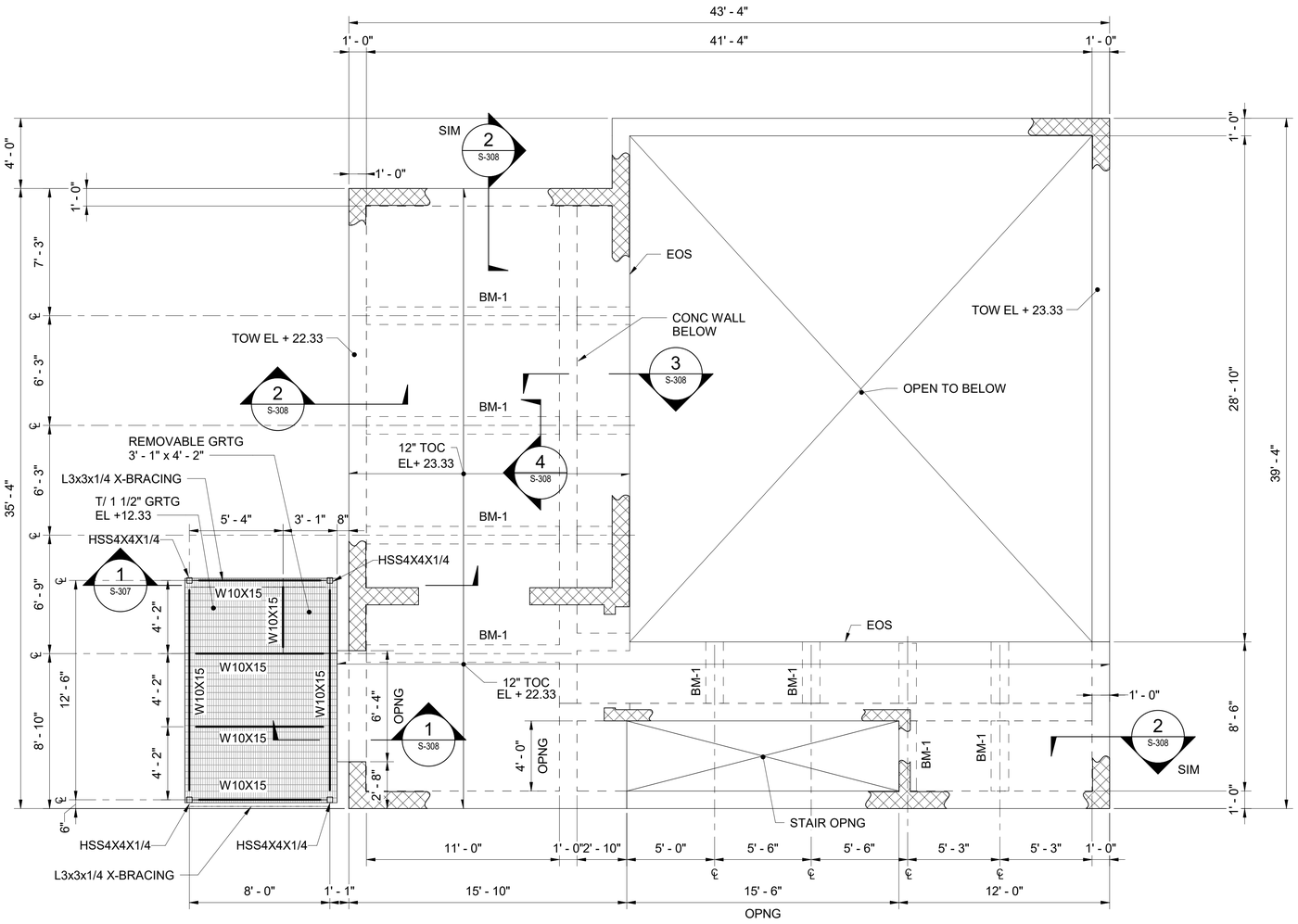
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3. GRATING SHALL BE DESIGNED BY CONTRACTOR HIRED P.E. REGISTERED IN NEW YORK. GRATING SHALL BE GALV STL GRATING PANELS.
4. SEE TYPICAL DETAILS FOR TYPICAL HOUSEKEEPING PADS. FOR SIZE AND LOCATIONS SEE OTHER DISCIPLINES DWGS.



FIRST FLOOR PLAN

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

1/4"=1'-0" 0 4 8 FT.

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DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

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STRUCTURAL
TI-010 DECHLORINATION FACILITY
FIRST FLOOR PLAN

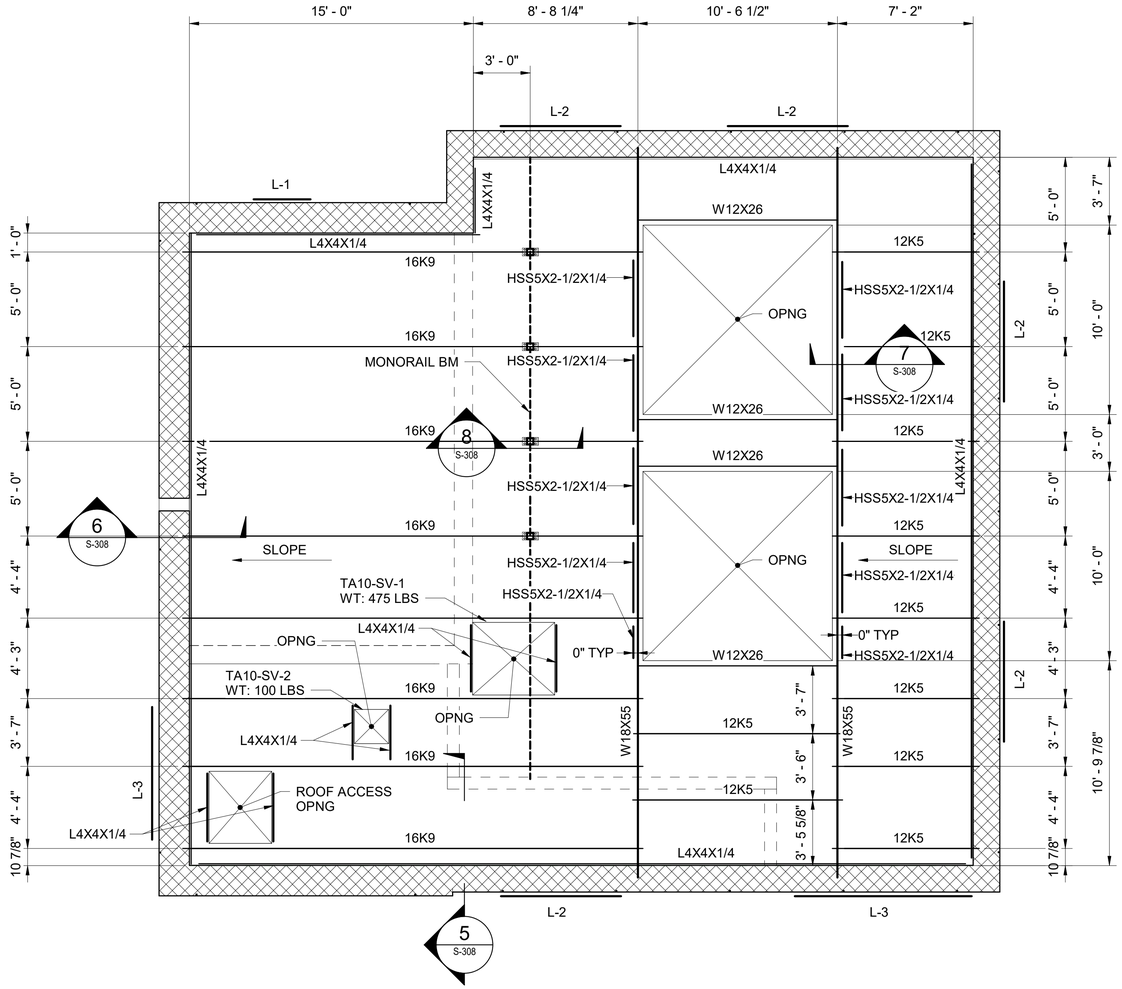
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11/3/2026 2:43:16 PM

NOTES:

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2. SEE SHEETS FCDF-S-901 THRU FCDF-S-907 FOR TYPICAL DETAILS.



ROOF FRAMING PLAN

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

1/4"=1'-0" 0 4 8 FT.

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DATE ISSUED: NOVEMBER 2026

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MV
DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — ANIL ANTHONY DUNN — 080180 — 11/3/2026 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-010 DECHLORINATION FACILITY
ROOF FRAMING PLAN

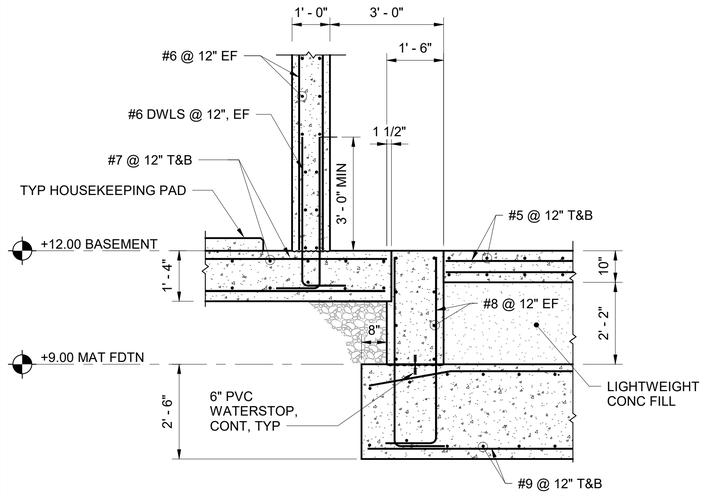
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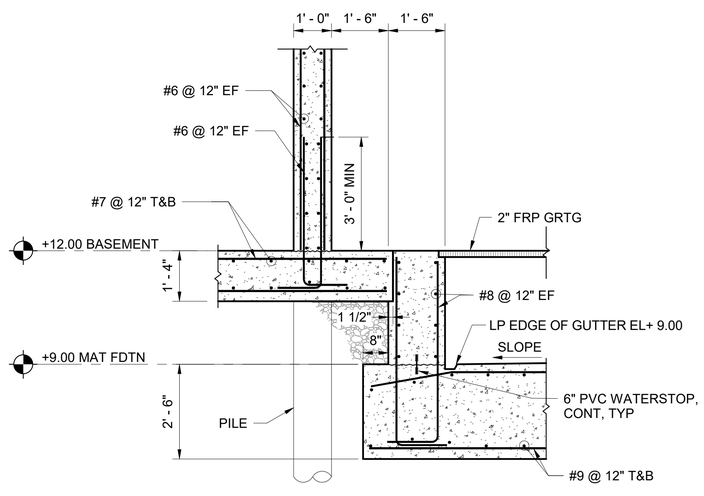
GENERAL NOTES:

1. SEE CIVIL DRAWINGS FOR PRECAST POROUS CONCRETE PANEL, ITS BASE AND SUB-BASE DETAILS.



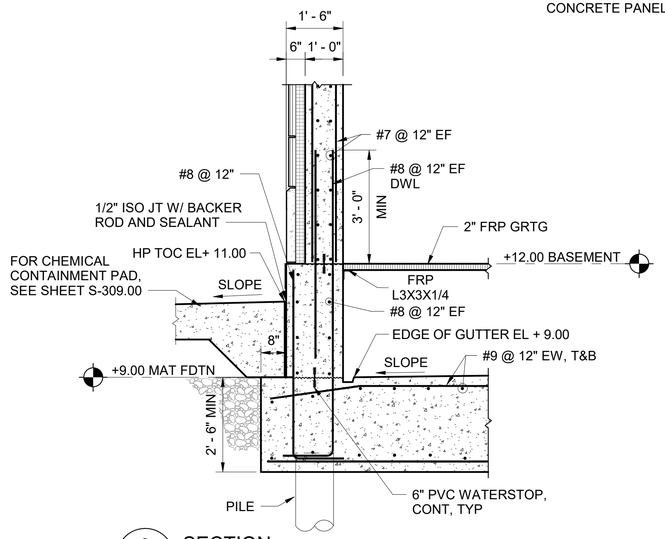
1 S-301 SECTION

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



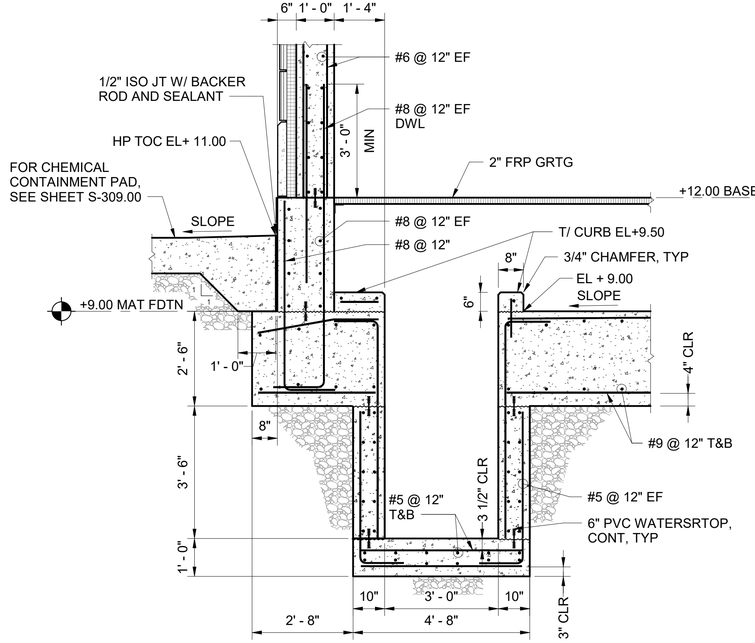
2 S-301 SECTION

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



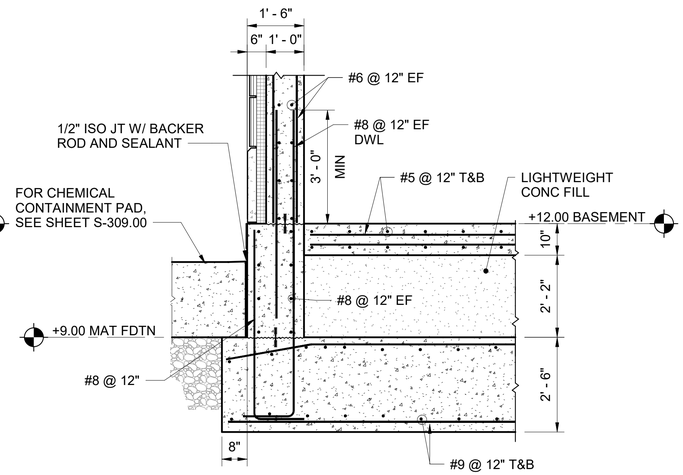
3 S-301 SECTION

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



4 S-301 SECTION

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



5 S-301 SECTION

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

1/2"=1'-0" 0 1 2 4 FT.

NYC Environmental Protection

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SECTION MANAGER:

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

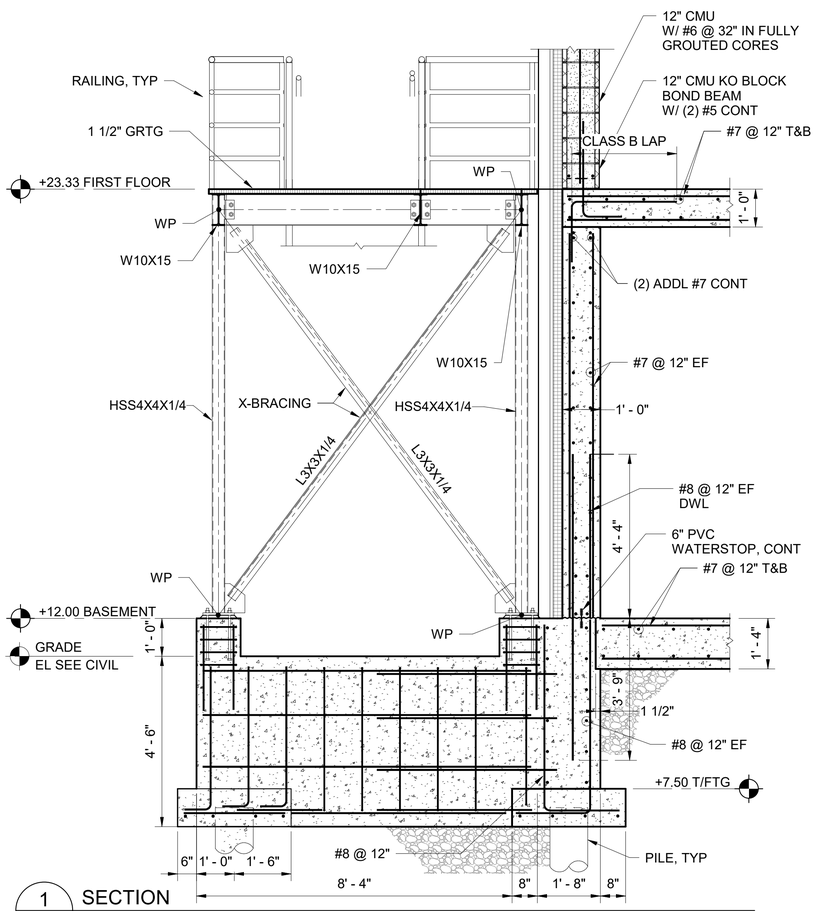
STRUCTURAL
TI-010 DECHLORINATION FACILITY
SECTIONS AND DETAILS - SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-306.00

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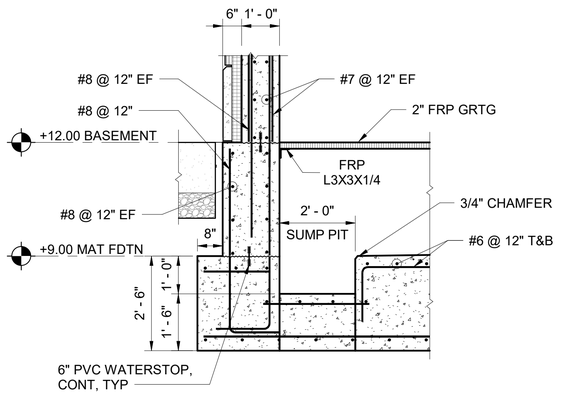
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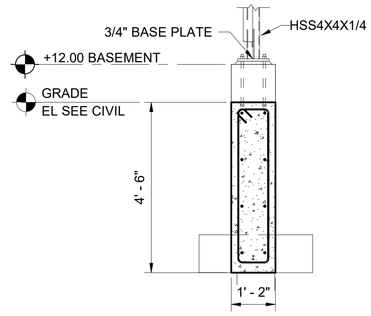
1 S-301 SECTION

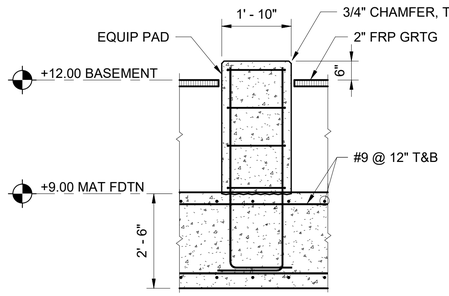
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2 S-301 SECTION

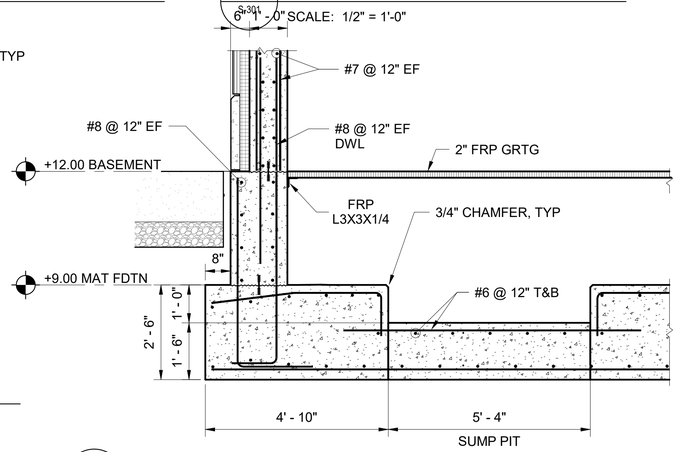
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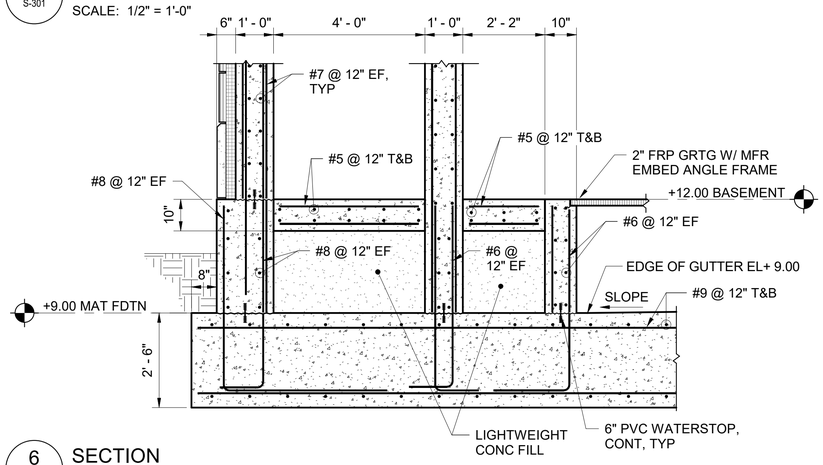
4 S-302 SECTION

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



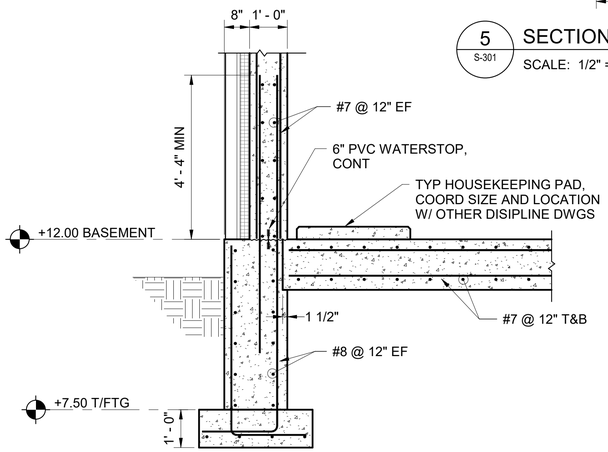
3 S-301 SECTION

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



6 S-301 SECTION

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



7 S-301 SECTION

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

GENERAL NOTES:

1. SEE CIVIL DRAWINGS FOR PRECAST POROUS CONCRETE PANEL, ITS BASE AND SUB-BASE DETAILS.

1/2"=1'-0" 0 1 2 4 FT.

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SECTION MANAGER:

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DIRECTOR, IN HOUSE DESIGN

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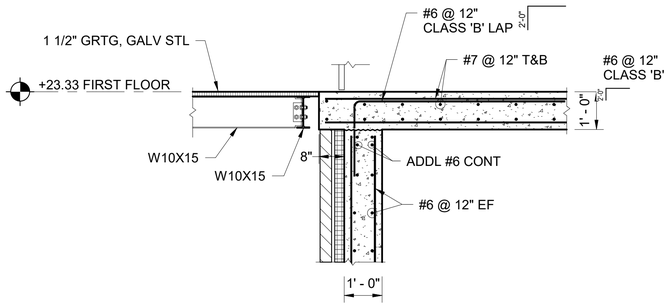
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STRUCTURAL
TI-010 DECHLORINATION FACILITY
SECTIONS AND DETAILS - SHEET 2

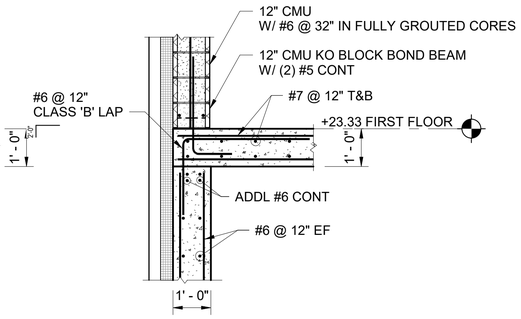
DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-307.00

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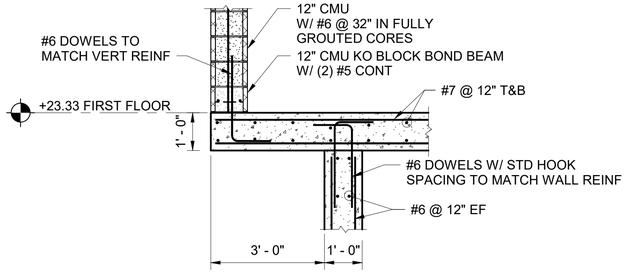
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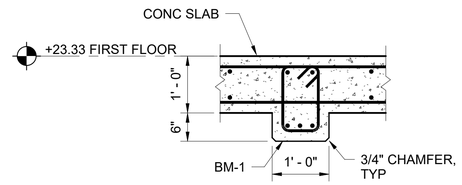
1 SECTION
S-304
SCALE: 1/2" = 1'-0"



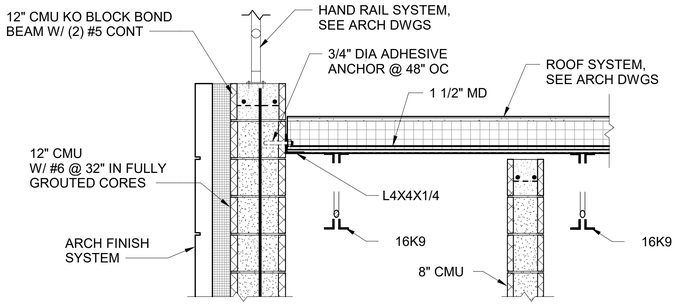
2 SECTION
S-304
SCALE: 1/2" = 1'-0"



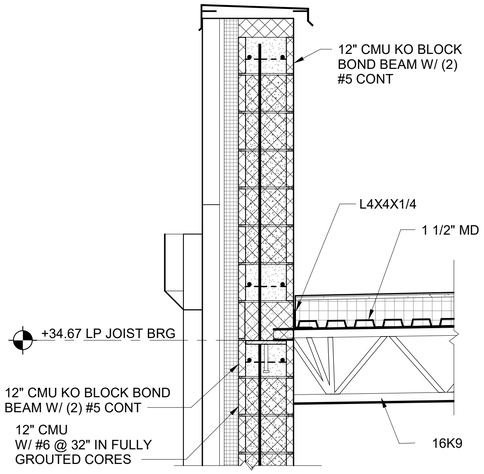
3 SECTION
S-304
SCALE: 1/2" = 1'-0"



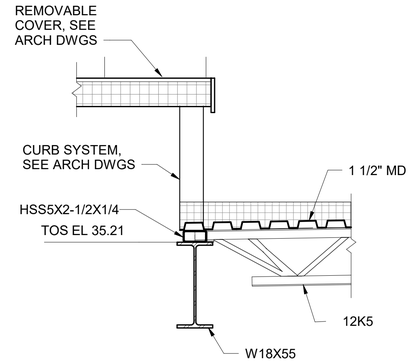
4 SECTION
S-304
SCALE: 3/4" = 1'-0"



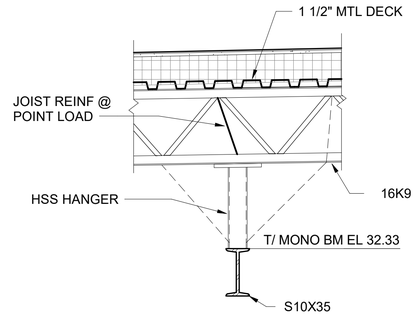
5 SECTION
S-305
SCALE: 3/4" = 1'-0"



6 SECTION
S-305
SCALE: 3/4" = 1'-0"



7 SECTION
S-305
SCALE: 3/4" = 1'-0"



8 SECTION
S-305
SCALE: 3/4" = 1'-0"

1/2"=1'-0" 0 1 2 4 FT.

3/4"=1'-0" 0 1 2 3 FT.

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SECTION MANAGER:

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STATE OF NEW YORK · JAMES ANTHONY DUNN · 111871626 · 2601190 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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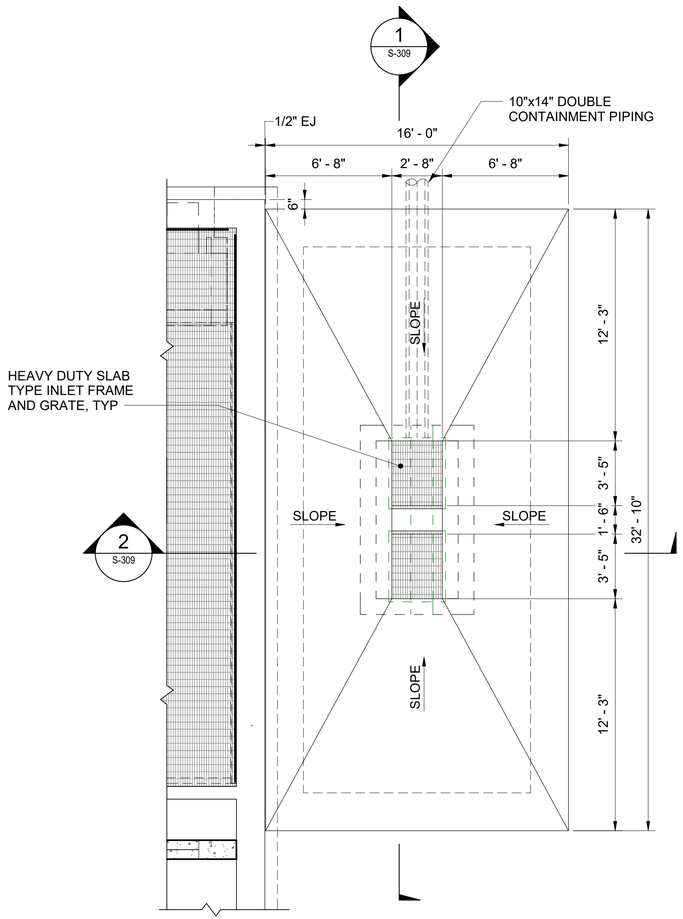
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-010 DECHLORINATION FACILITY
SECTIONS AND DETAILS - SHEET 3

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-308.00

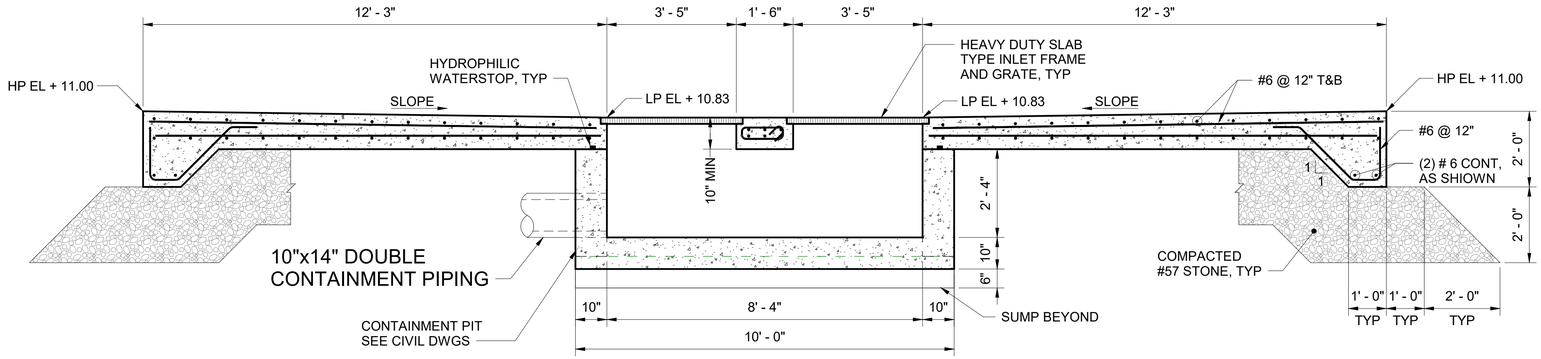
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CHEMICAL CONTAINMENT PAD PLAN

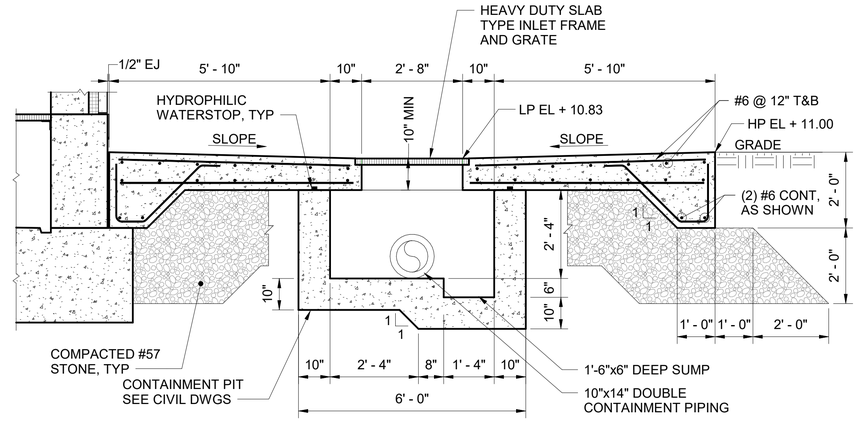
SCALE: 1/4" = 1'-0"



1 SECTION

S-309

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



2 SECTION

S-309

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

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SECTIONS AND DETAILS - SHEET 4

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NOTES:

1. THE INTENT OF THIS VIEW IS FOR ILLUSTRATION AND CLARIFICATION VIEWING PURPOSES ONLY.
2. THE 3D MODEL MAY CONTAIN INACCURACIES, OMISSIONS, AND CONTRADICTIONS FROM THE CONTRACT DRAWINGS AND SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.
3. THE 3D MODEL SHALL NOT BE USED TO RETRIEVE OR VERIFY DIMENSIONS FOR CONSTRUCTION PURPOSES.

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1. IF OPENED WITH ADOBE ACROBAT THE 3D MODEL MAY NOT BE VISIBLE. IF THIS IS THE CASE, THE MULTIMEDIA AND 3D CONTENT MAY HAVE BEEN DISABLED.
2. TO ENABLE THE FEATURE, THE USER WILL NEED TO TRUST THE DOCUMENT. A SECURITY WARNING BANNER SHOULD POP UP INDICATING THAT THERE IS 3D CONTENT WITH AN OPTIONS DROPDOWN MENU.
3. THE USER SHOULD HAVE THE OPTION TO TRUST THE DOCUMENT ONE TIME OR ALWAYS. EITHER OPTION SHOULD ALLOW THE PROGRAM TO LOAD THE MODEL.
4. PLEASE BE AWARE THAT IT MAY TAKE SOME TIME TO LOAD THE MODEL FOR VIEWING.

TI-011 DISINFECTION FACILITY - 3D ILLUSTRATION VIEW

SCALE: N.T.S.

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SECTION MANAGER:

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Environmental Protection

ACCOUNTABLE MANAGER
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PORTFOLIO MANAGER
ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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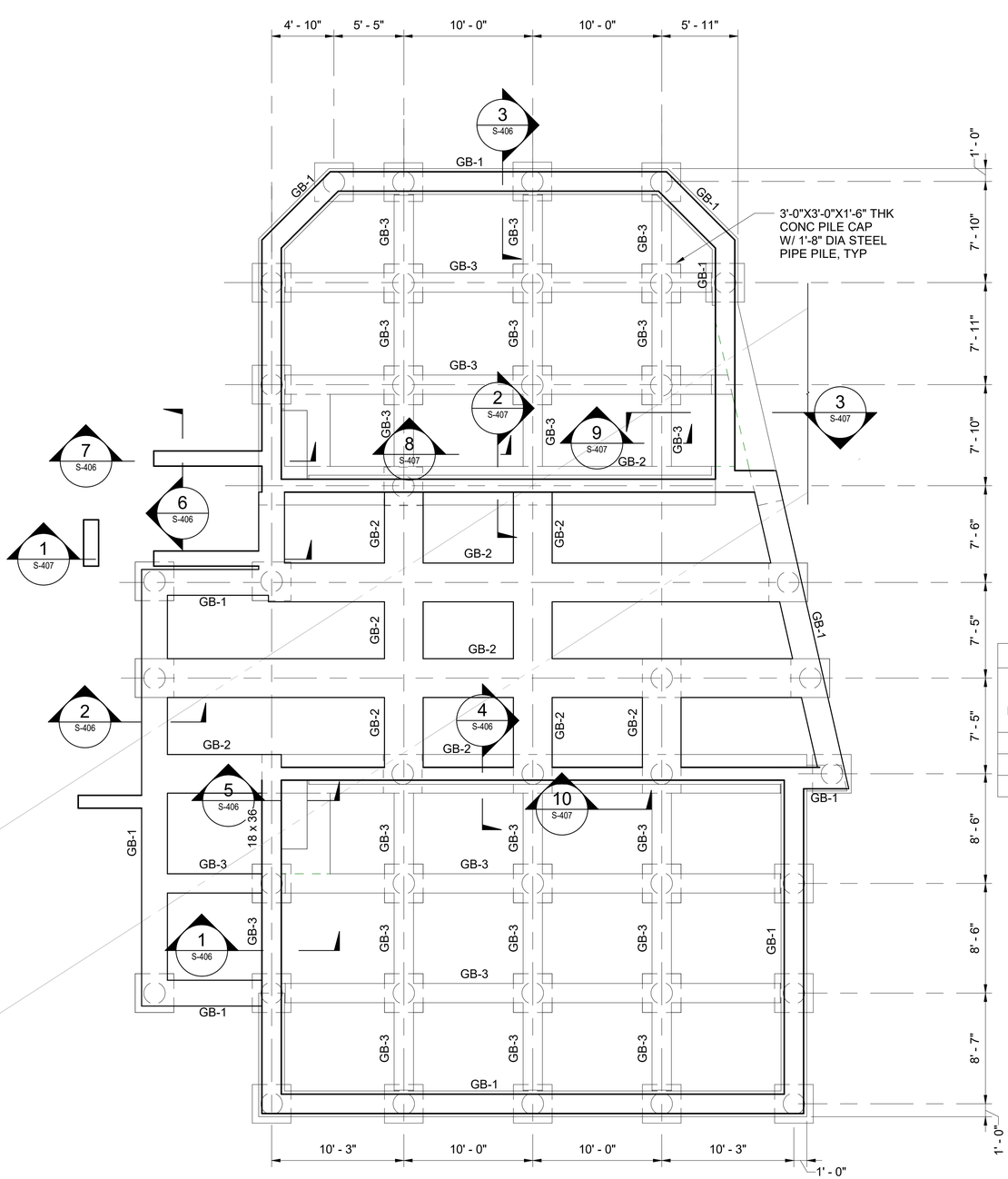
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
STRUCTURAL 3D ILLUSTRATION

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11/2/2026 4:07:34 PM



PILE PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. COORDINATE ALL OPNG SIZES AND LOCATIONS IN SLABS AND WALLS WITH OTHER DISCIPLINE DRAWINGS AND REQUIREMENTS.
2. SEE SHEETS S-901 THRU S-907 FOR TYPICAL DETAILS.
3. CONCRETE SLAB NOT SHOWN FOR CLARITY.
4. PORTION OF EXISTING STORM SEWER IN CONFLICT WITH THE BUILDING FOOTPRINT WILL BE DEMOLISHED PER DRAWING C-501. SEE CIVIL DRAWINGS FOR DETAILS OF DEMOLITION AND RELOCATION OF THE STORM SEWER.

CONCRETE GRADE BEAM SCHEDULE

MARK	SIZE W x H	MAIN HORIZONTAL REINFORCEMENT								TIES				REMARKS
		TOP					BOTTOM		SIDE BARS D	TR	TYPE	REST	TYPE	
		A	L4	B	C	L5	E	F						
GB-1	24 X 48	(2) #9		(4) #9	(2) #9		(4) #9	(2) #9	(3) #6 EF			#4 @ 12"	H1	
GB-2	36 X 48	(2) #9		(4) #9	(2) #9		(4) #9	(2) #9	(3) #6 EF			#4 @ 12"	H1	
GB-3	18 X 36			(3) #8			(3) #8		(2) #6 EF			#4 @ 12"	H1	

NOTES:

1. SEE BEAM BAR PLACING DIAGRAM ON S-903.00.
2. INCREASE COVER OF BOTTOM BARS TO 6" IN ONE BEAM WHERE TWO SIMILAR BEAMS CROSS EACH OTHER TO AVOID REBAR CONFLICT.

1/2"=1'-0" 0 1 2 4 FT.

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · JOHN ANTHONY DUNN · 111873026 · 080180 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
PILE PLAN

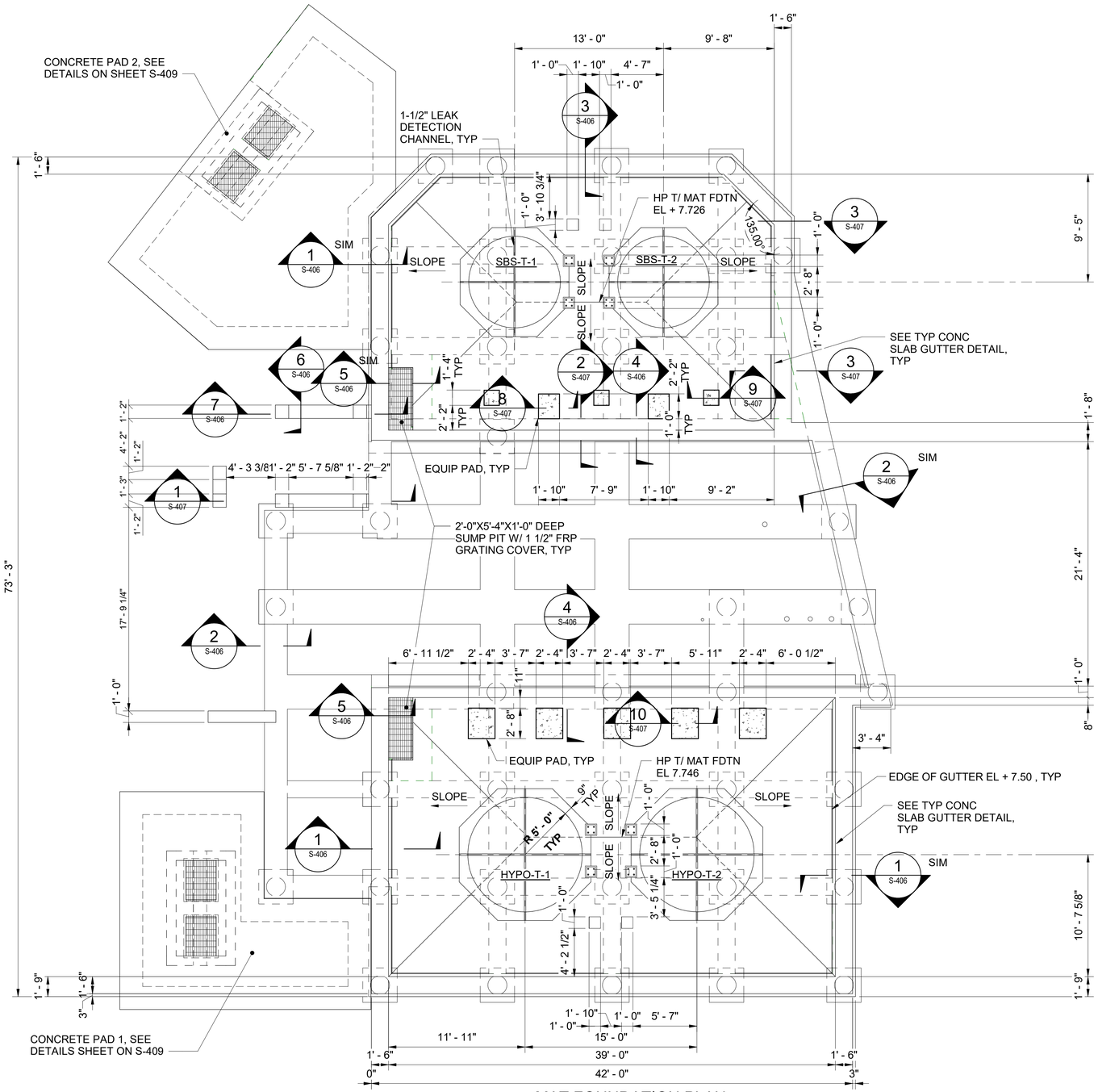
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NOTES:

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2. SEE SHEETS FCDF-S-901 THRU FCDF-S-907 FOR TYPICAL DETAILS.



MAT FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

1/2"=1'-0" 0 1 2 4 FT.

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DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — PAUL ANTHONY DUNN — 102305 — 11/37/2026 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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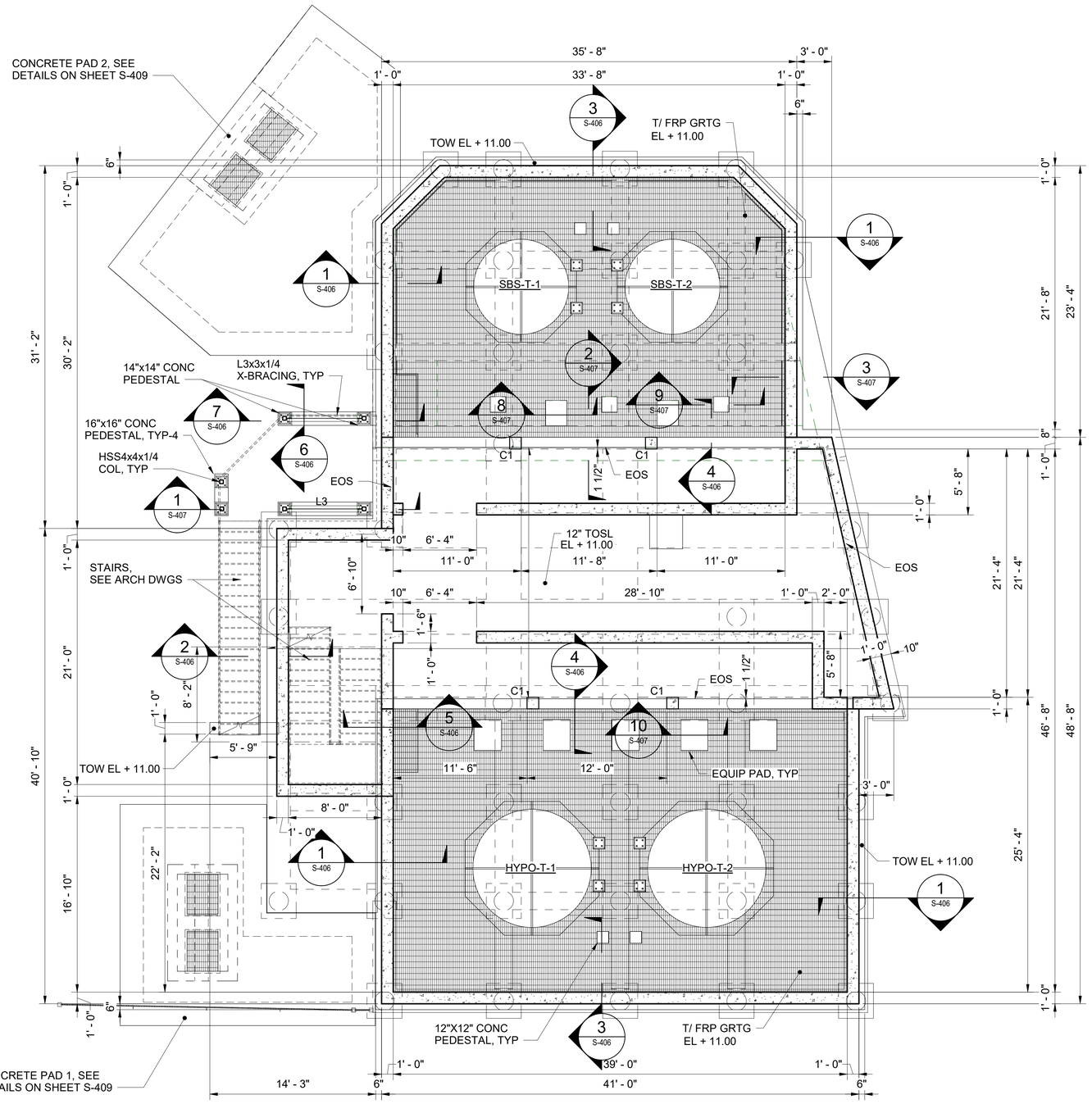
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
FOUNDATION PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-402.00

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11/5/2026 2:55:15 PM



BASEMENT PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. COORDINATE ALL OPNG SIZES AND LOCATIONS IN SLABS AND WALLS WITH OTHER DISCIPLINE DRAWINGS AND REQUIREMENTS.
2. SEE SHEETS FCDF-S-901 THRU FCDF-S-907 FOR TYPICAL DETAILS.
3. GRATING SHALL BE DESIGNED BY CONTRACTOR HIRED P.E. REGISTERED IN NEW YORK. GRATING SHALL BE FIBER GLASS REINFORCED PANELS (FRP) TYPE WITH CONTINUOUS SUPPORTS SPANNING BETWEEN PEDESTALS. THE ADJUSTABLE PEDESTAL SYSTEM AND SUPPORTS SHALL BE PROVIDED BY GRATING MANUFACTURER.
4. SEE TYPICAL DETAILS FOR TYPICAL HOUSEKEEPING PADS. FOR SIZE AND LOCATIONS SEE OTHER DISCIPLINE DRAWINGS.

1/2"=1'-0" 0 1 2 4 FT.

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DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · JOHN ANTHONY DUNN · 111373026 · 080180 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
BASEMENT FLOOR PLAN

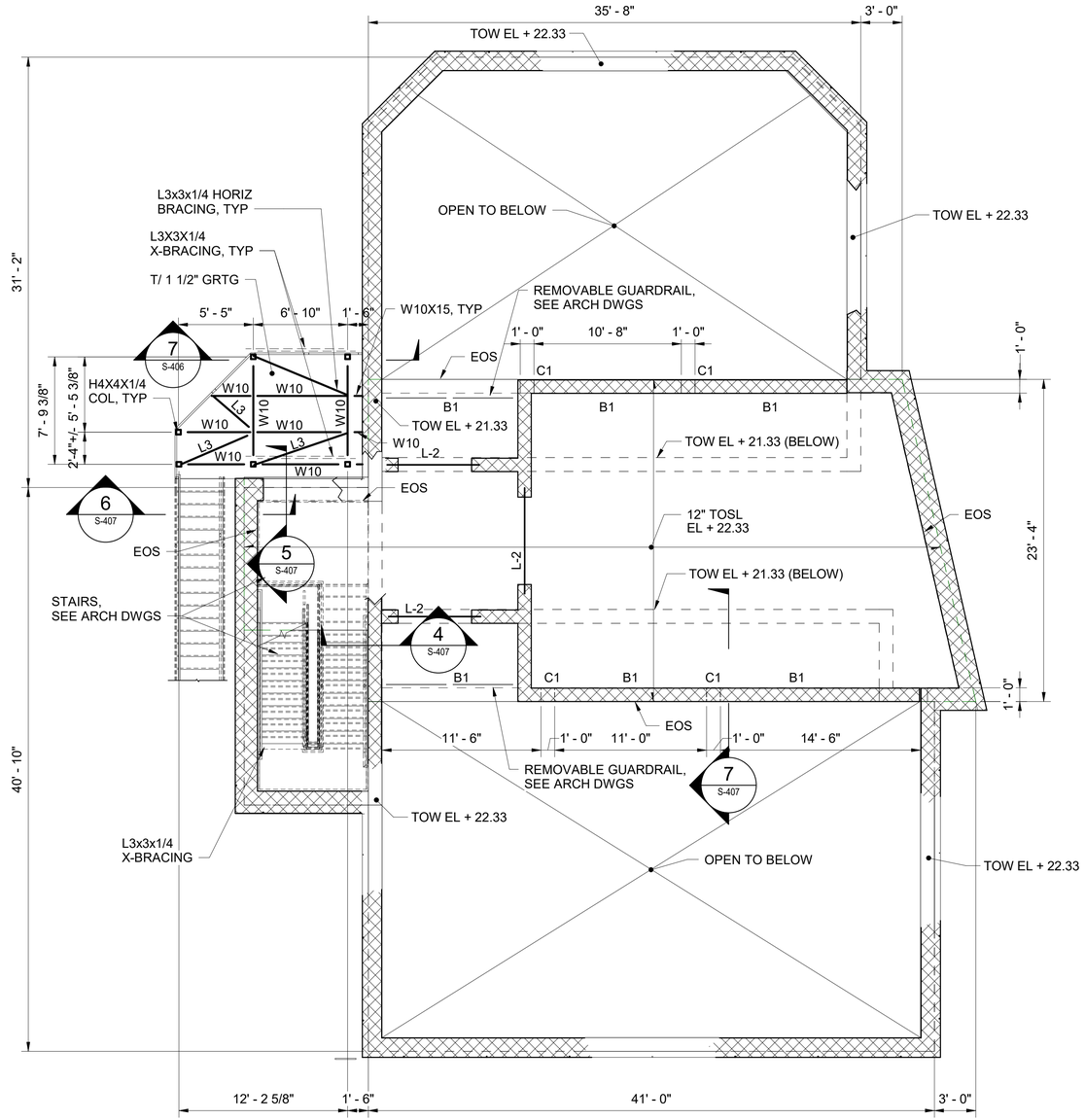
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FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

1/2"=1'-0" 0 1 2 4 FT.

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STRUCTURAL
TI-011 DISINFECTION FACILITY
FIRST FLOOR PLAN

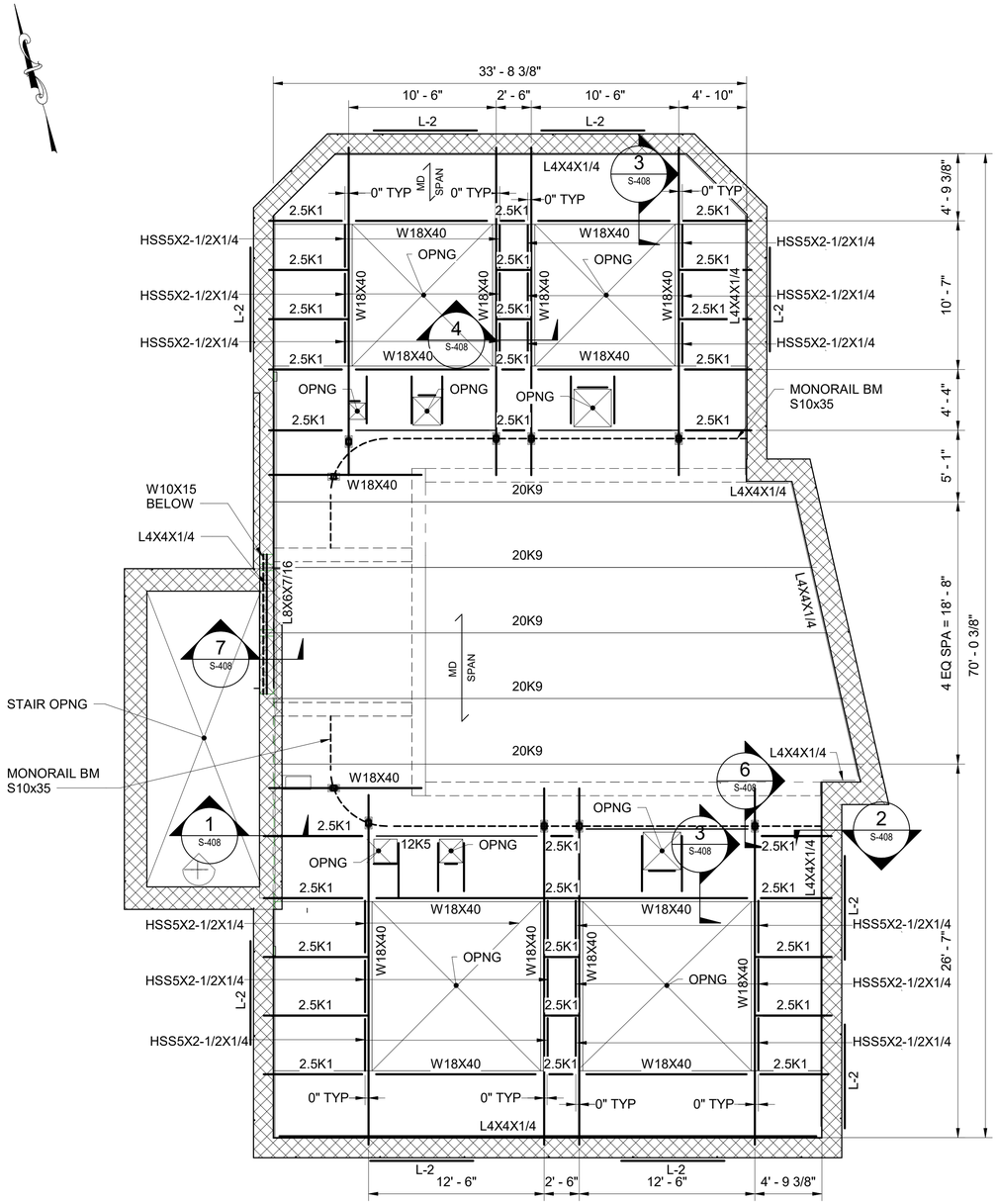
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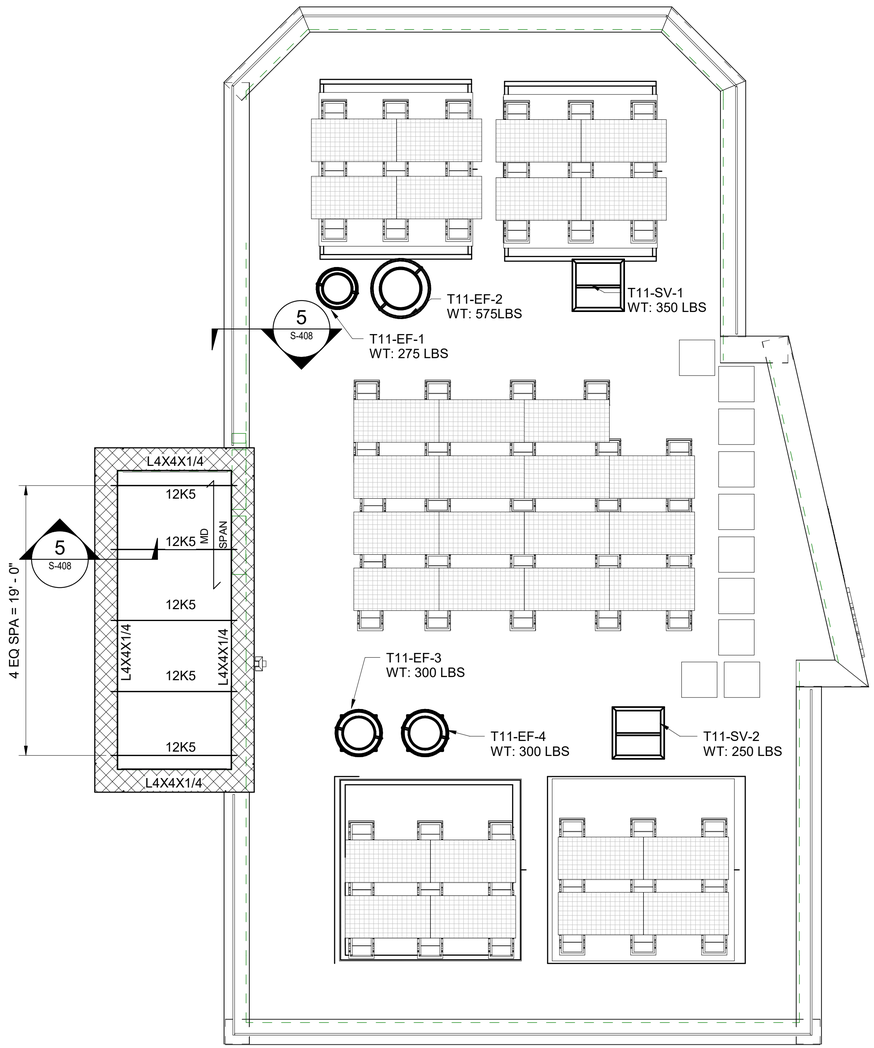
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ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"



STAIR ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"

1/2"=1'-0" 0 1 2 4 FT.

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ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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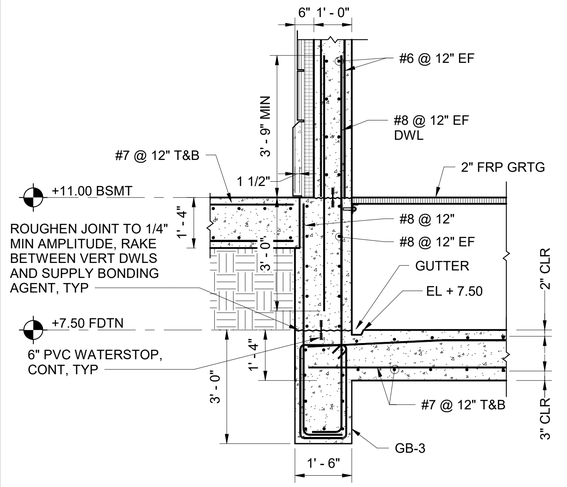
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STRUCTURAL
TI-011 DISINFECTION FACILITY
ROOF FRAMING PLAN

DATE: NOVEMBER 2026
SHEET NO:
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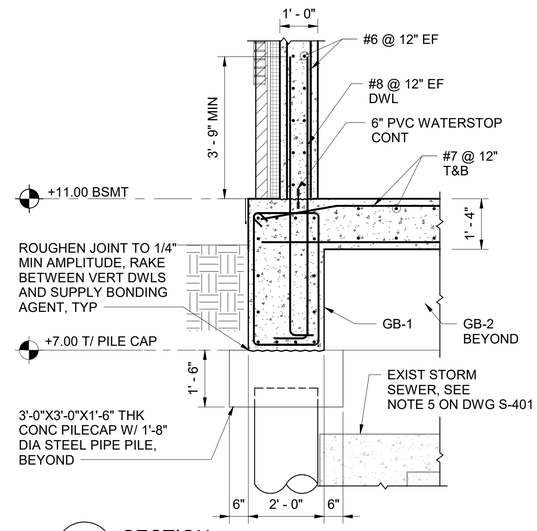
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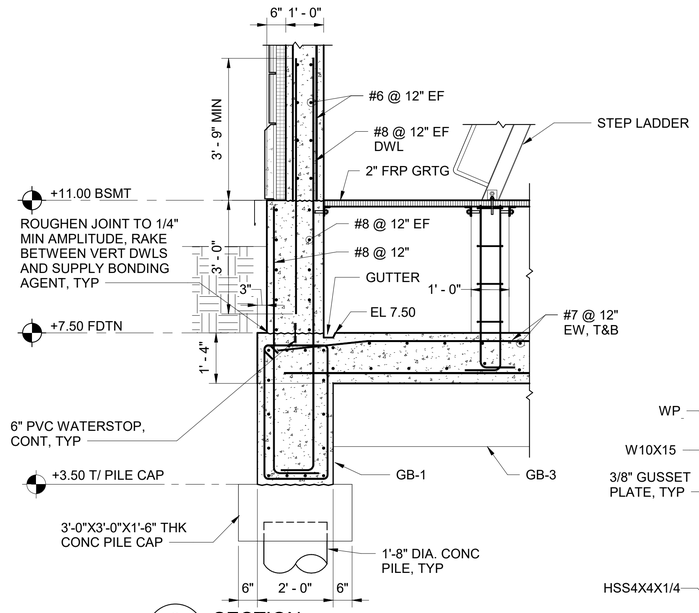
1 S-401 SECTION

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



2 S-401 SECTION

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

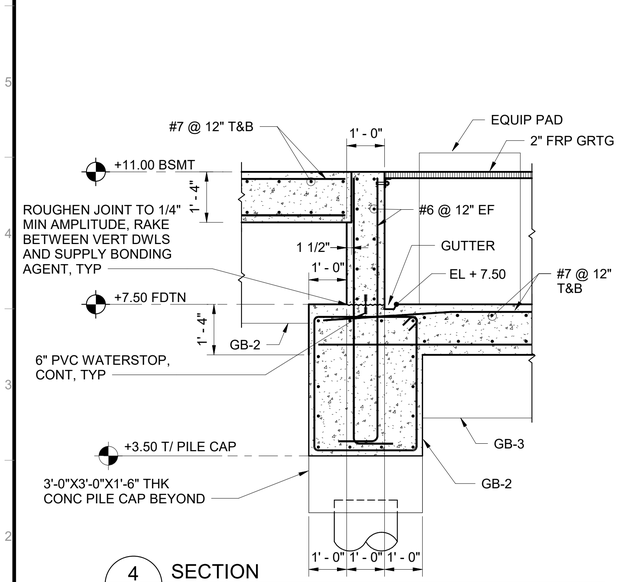


3 S-401 SECTION

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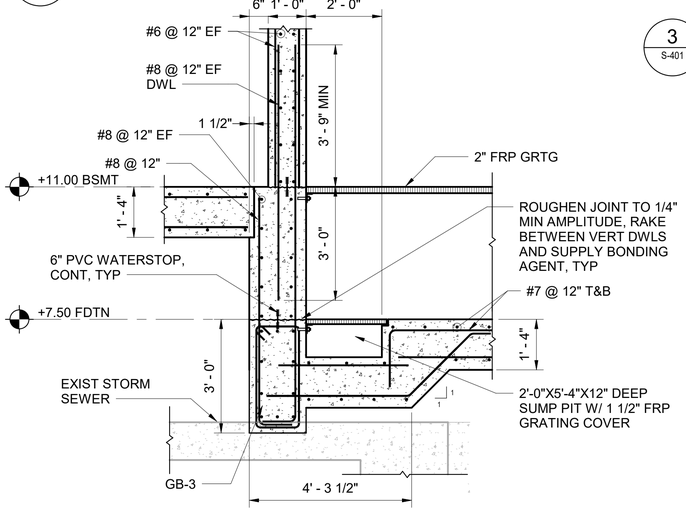
GENERAL NOTES:

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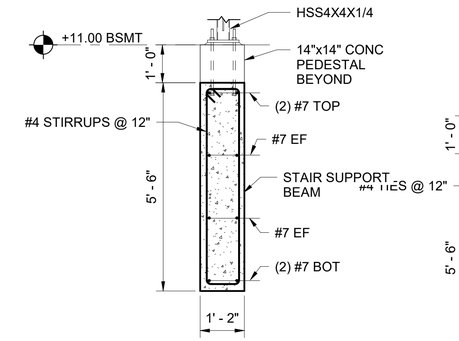
4 S-401 SECTION

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



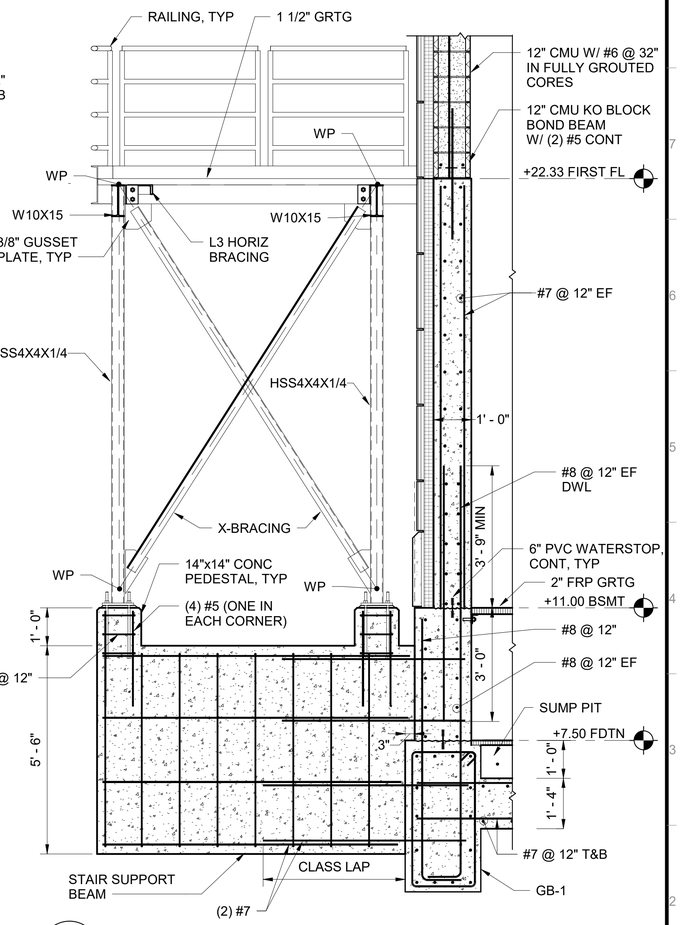
5 S-401 SECTION

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



6 S-401 SECTION

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



7 S-401 SECTION

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

1/2"=1'-0" 0 1 2 4 FT.

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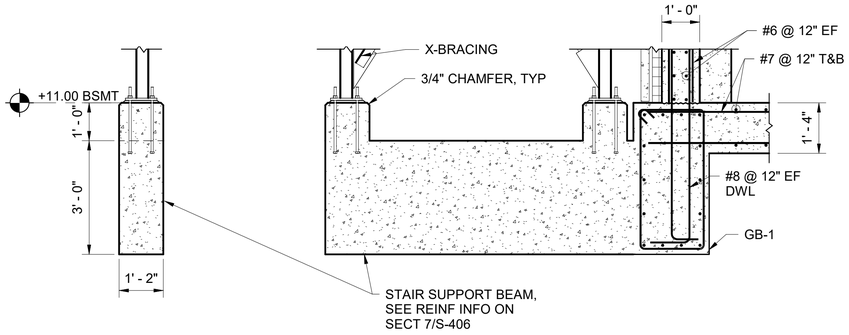
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
SECTIONS AND DETAILS - SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-406.00

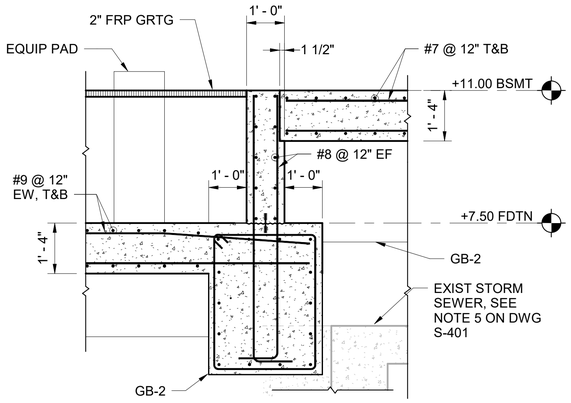
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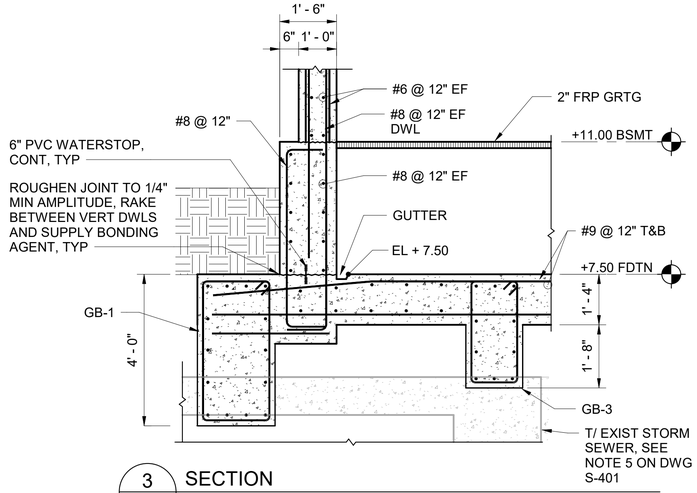
1 S-401 **SECTION**

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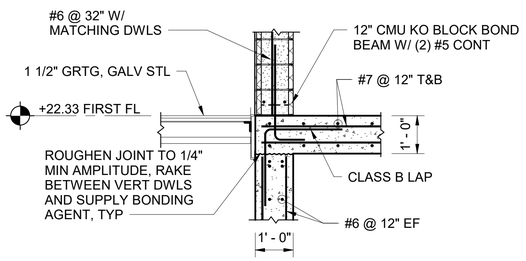
2 S-401 **SECTION**

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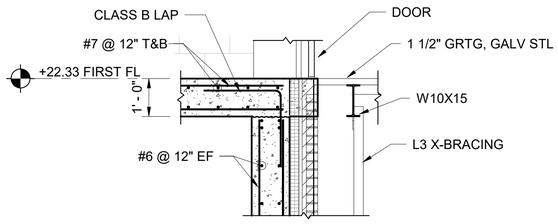
3 S-401 **SECTION**

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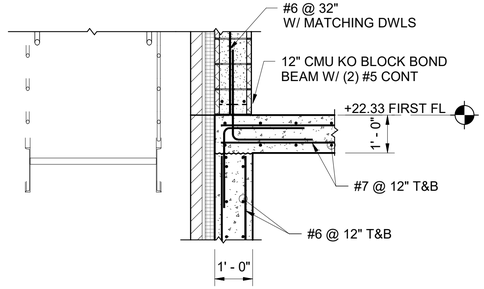
4 S-404 **SECTION**

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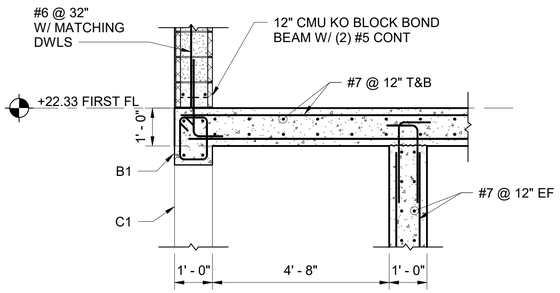
5 S-404 **SECTION**

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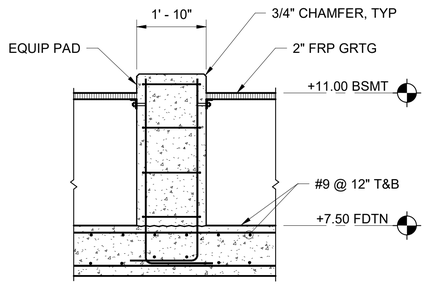
6 S-404 **SECTION**

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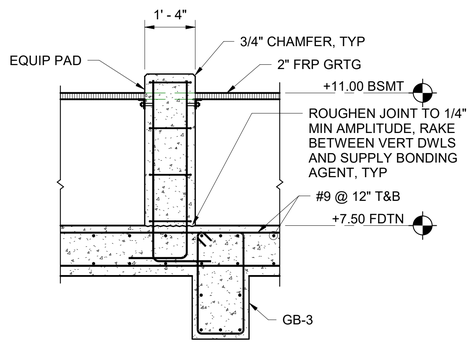
7 S-404 **SECTION**

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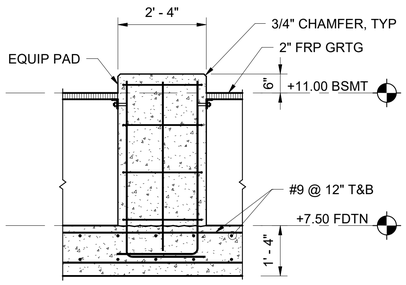
8 S-401 **SECTION**

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



9 S-401 **SECTION**

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



10 S-401 **SECTION**

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

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NYC Environmental Protection

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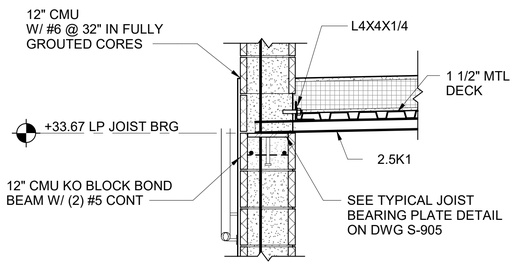
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SECTIONS AND DETAILS - SHEET 2

DATE: NOVEMBER 2026
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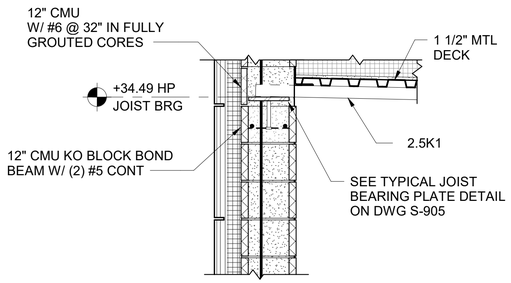
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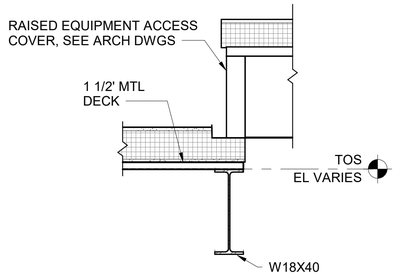
1 S-405 SECTION

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



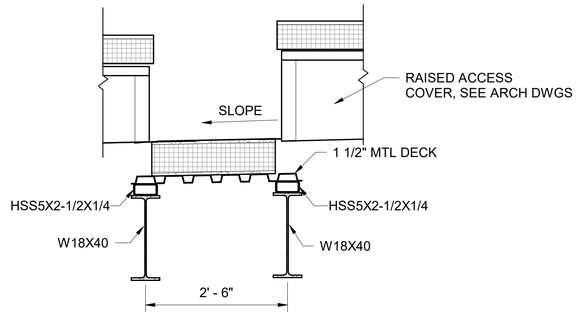
2 S-405 SECTION

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



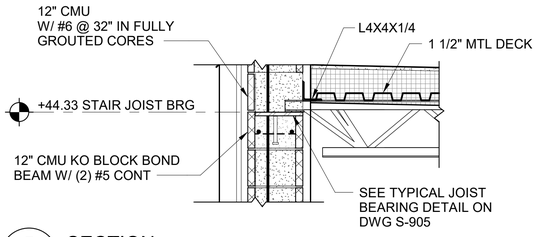
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SCALE: 3/4" = 1'-0"



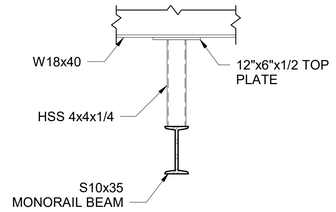
4 S-405 SECTION

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



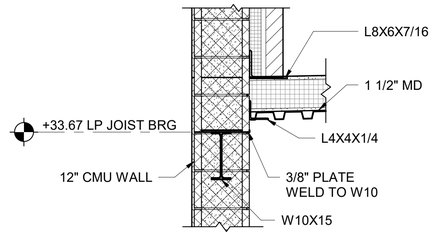
5 S-405 SECTION

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



6 S-405 SECTION

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



7 S-405 SECTION

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

3/4"=1'-0" 0 1 2 3 FT.

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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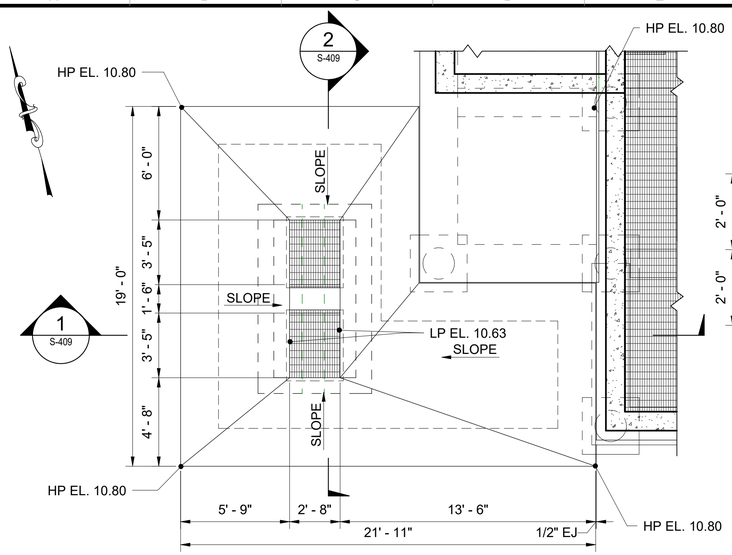
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
SECTIONS AND DETAILS - SHEET 3

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. S-408.00

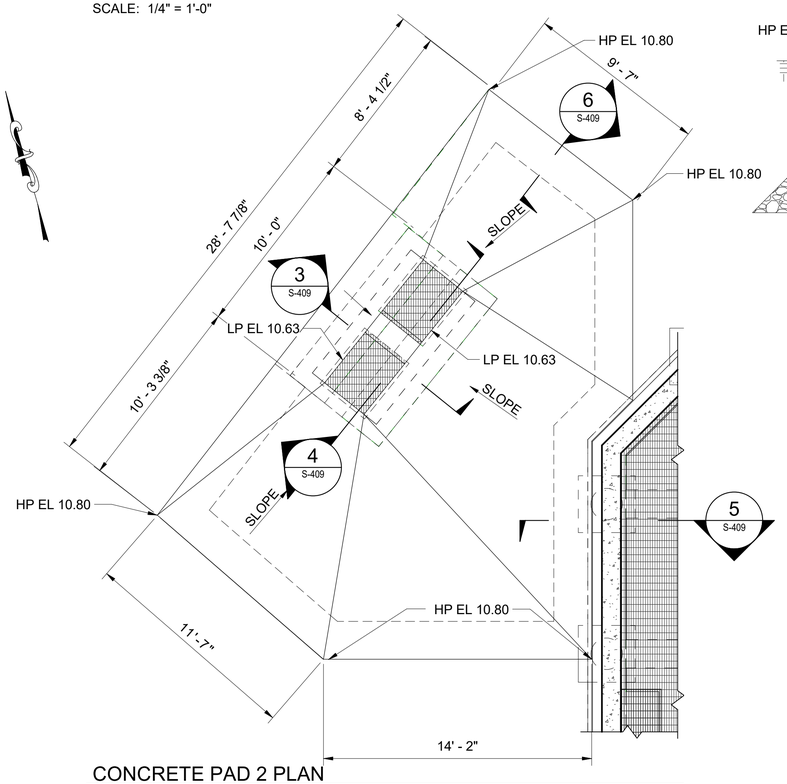
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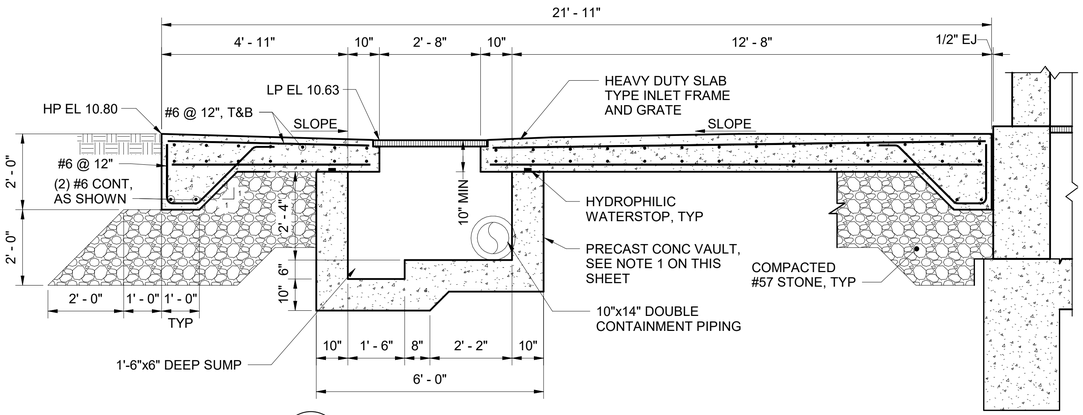
CONCRETE PAD 1 PLAN

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



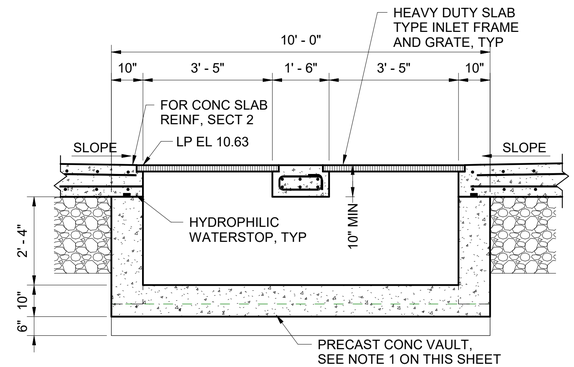
CONCRETE PAD 2 PLAN

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



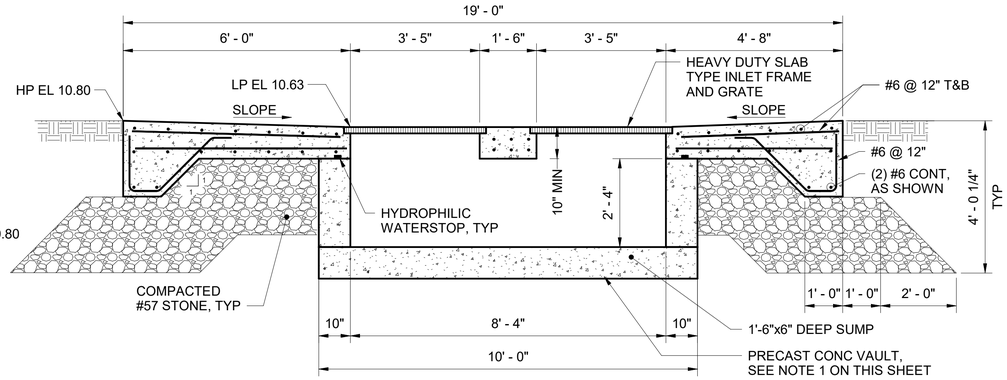
1 S-409 SECTION

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



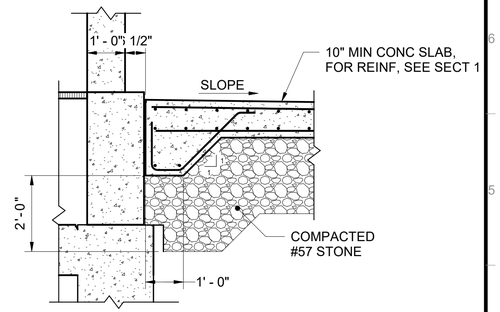
4 S-409 SECTION

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



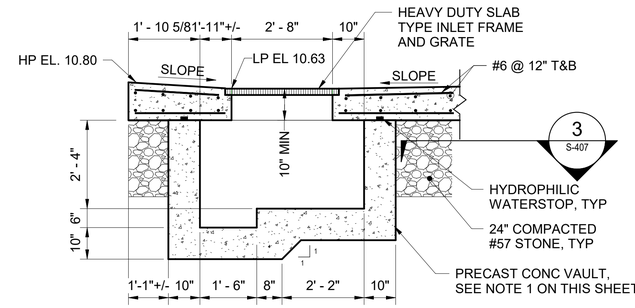
2 S-409 SECTION

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



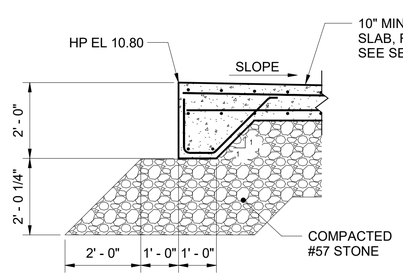
5 S-409 SECTION

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



3 S-409 SECTION

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



6 S-409 SECTION

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

NOTE:

1. PRECAST CONCRETE VAULTS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE ON NEW YORK. DESIGN SHALL COMPLY WITH THE CONTRACT DOCUMENTS, APPLICABLE BUILDING CODES, ACI 318, AND ACI 350, AND SHALL ACCOUNT FOR ALL APPLICABLE EARTH, HYDROSTATIC, LIVE, SURCHARGE, TRAFFIC, EQUIPMENT, UPLIFT, AND CONSTRUCTIONS AND SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. THE PRECAST MANUFACTURER SHALL BE RESPONSIBLE FOR FINAL MEMBER THICKNESSES, REINFORCEMENT, CONNECTIONS, JOINTS, AND OPENING REINFORCEMENT.

1/2"=1'-0" 0 1 2 4 FT.

1/4"=1'-0" 0 4 8 FT.

GRAPHIC SCALES CHECK BEFORE USE

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NYC Environmental Protection BEDC/BID

BID SET

DATE ISSUED: NOVEMBER 2026

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: MV
DRAWN BY: ZS
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · JAMES ANTHONY DUNN · 11/7/2026 · 080180 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TI-011 DISINFECTION FACILITY
CONCRETE PAD PLANS AND SECTIONS

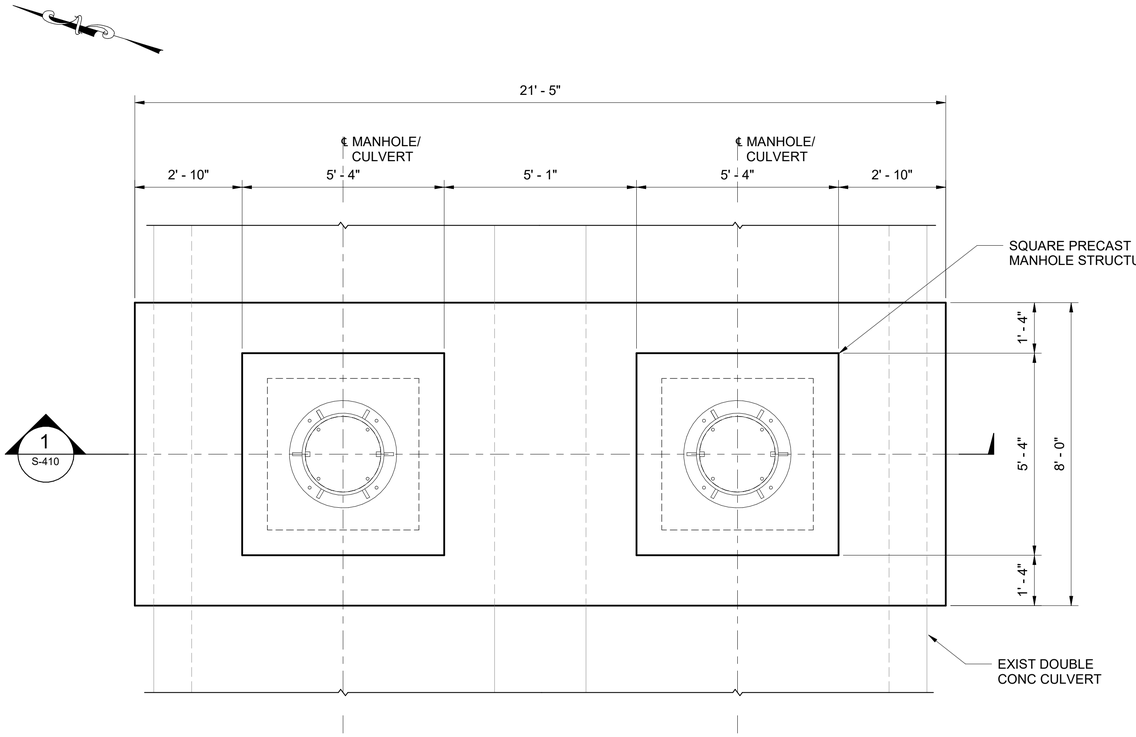
DATE: NOVEMBER 2026
SHEET NO:
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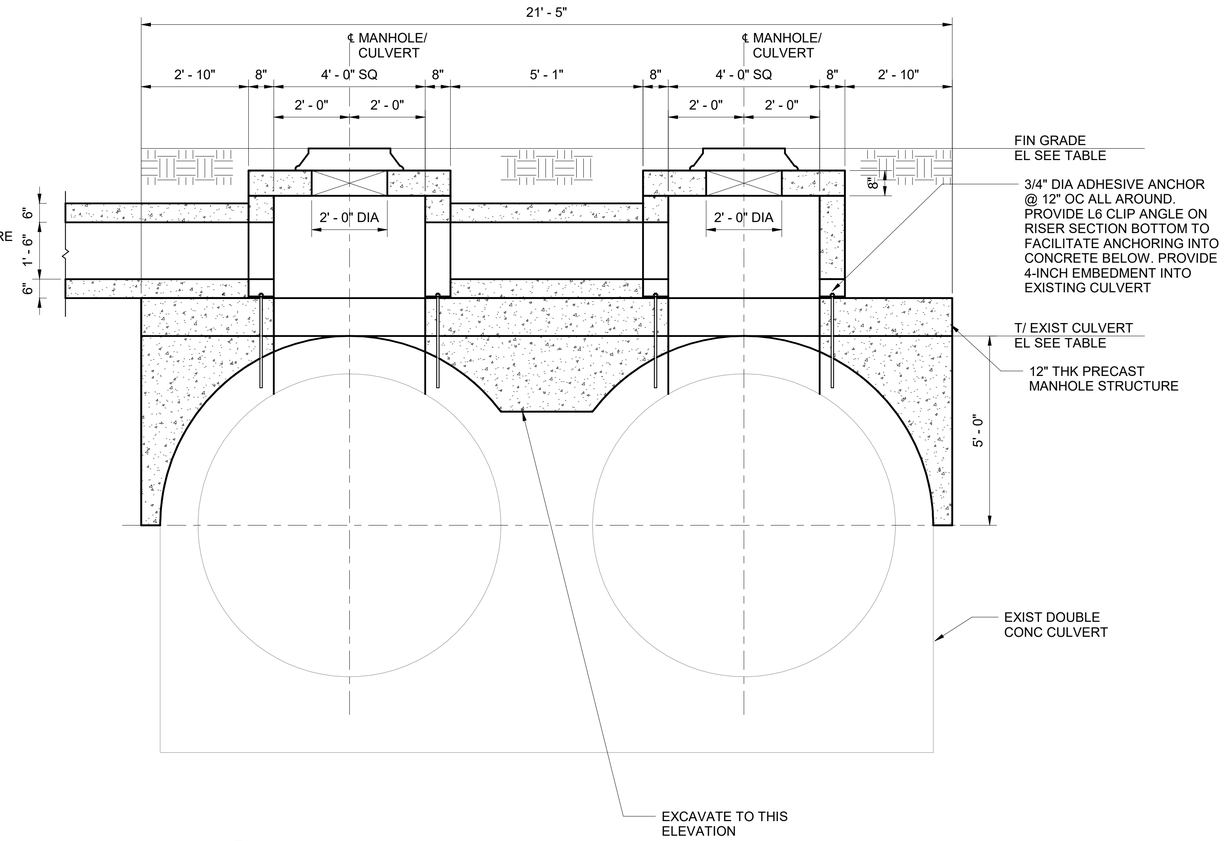
NOTES:

1. CONTRACTOR SHALL EXCAVATE TO THE LIMIT SHOWN AND PROVIDE ALL REQUIRED SUPPORT OF EXCAVATION.
2. PROVIDE FLOWABLE FILL ON EITHER SIDE AND IN BETWEEN THE TWO BARRELS UPTO THE TOP OF CULVERT TO PROVIDE A FLAT BEARING SURFACE FOR THE PRECAST BASE SLAB FOR MANHOLES.
3. THE PRECAST BASE SLAB FOR MANHOLES SHALL BE DESIGNED FOR H-20 LOADING AND OVERBURDEN PRESSURE FROM SOIL ABOVE IT. PRECAST SLAB SHALL BE DESIGNED BY A REGISTERED P.E. IN STATE OF NY.
4. SAW CUT SQUARE OPENINGS IN TOP OF CULVERT AND ENSURE THE CUT PORTION DOES NOT FALL INTO THE CULVERT.
5. ONCE FLOWABLE FILL HAS HARDENED SUFFICIENTLY, INSTALL THE PRECAST SLAB WITH PRE-FORMED OPENINGS, OVER THE CULVERT.
6. PROVIDE PRECAST RISER SECTIONS WITH EMBEDDED AND GALVANIZED L6 AT BOTTOM TO FACILITATE ANCHORING THROUGH THE PRECAST SLAB AND INTO THE CULVERT BELOW.



DOUBLE BARREL CULVERT - PLAN

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



1 S-410 DOUBLE BARREL CULVERT - SECTION

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

1/2"=1'-0" 0 1 2 4 FT.

NYC Environmental Protection

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DRAWN BY: Z. SANGALANG
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · ANIL ANTHONY DUNN · 080180 · 11/3/2026 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

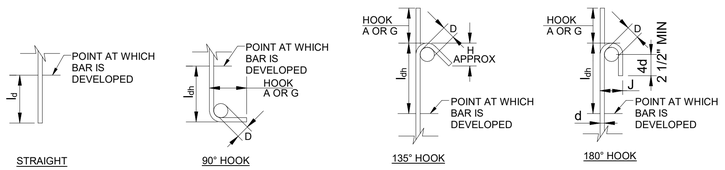
STRUCTURAL
TI-011 - DISINFECTION FACILITY
DOUBLE BARREL OUTFALL

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REINFORCEMENT LAP SPLICE, DEVELOPMENT LENGTH AND STANDARD HOOKS											
BAR SIZE	MIN LAP LENGTHS FOR CLASS B		MIN DEVELOPMENT LENGTHS (STRAIGHT BAR) l_d		STD HOOKS l_{dh}	MIN STD. HOOKS FOR PRIMARY REINFORCEMENT 90°		135°		180°		INSIDE BEND DIA, D
	TOP*	OTHERS	TOP*	OTHERS		A OR G	A OR G	H	A OR G	J	
#3	24	19	18	14	7	6	4	2 1/2	5	3	2 1/4
#4	32	24	24	18	9	8	4 1/2	3	6	4	3
#5	39	30	30	23	12	10	5 1/2	3 3/4	7	5	3 3/4
#6	46	36	35	27	14	12	8	4 1/2	8	6	4 1/2
#7	67	52	51	40	16	14	9	5 1/2	10	7	5 1/4
#8	77	59	59	45	18	16	10 1/2	6	11	8	6
#9	86	67	66	51	21	19	-	-	15	11 3/4	9 1/2
#10	97	75	74	57	23	22	-	-	17	13 1/4	10 3/4
#11	107	84	82	64	26	24	-	-	19	14 3/4	12

1. REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOK TABLE IS BASED ON A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4500 PSI AND 60000 PSI REINFORCEMENT (WITH NO EPOXY COATING).
2. ALL LAPS SPLICES SHALL BE CLASS B SPLICES.
3. * TOP BARS ARE DEFINED AS ALL HORIZONTAL BARS WITH 12 INCHES OR MORE FRESH CONCRETE BENEATH.
4. WHERE SPLICES ARE REQUIRED BETWEEN BARS OF DIFFERENT SIZES, THE LAP LENGTH SHALL BE NO LESS THAN THE EMBEDMENT LENGTH OF THE LARGER BAR OR THE LAP LENGTH OF THE SMALLER BAR, WHICHEVER IS GREATER.

1 TYPICAL CONCRETE REINFORCING SPLICE AND EMBEDMENT LENGTH TABLE (4500 PSI)

SCALE: N.T.S.

5 TYPICAL CONC SLAB GUTTER DETAIL

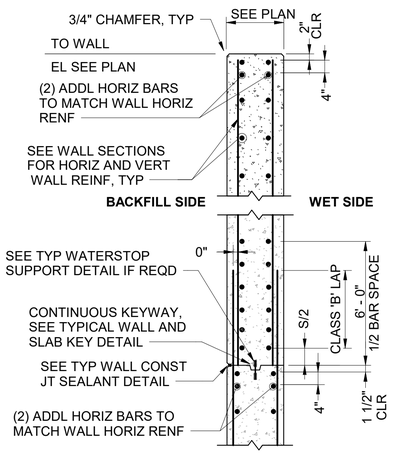
SCALE: N.T.S.

REINFORCEMENT LAP SPLICE AND EMBEDMENT LENGTHS IN MASONRY	
BAR SIZE	MIN LAP AND EMBEDMENT LENGTH
#3	12
#4	13
#5	20
#6	38

LAP SPLICE AND EMBEDMENT LENGTHS ARE BASED ON A MINIMUM MASONRY COMPRESSIVE STRENGTH OF 2000 PSI AND 60000 PSI FOR REINFORCEMENT (WITH NO EPOXY COATING)

2 TYPICAL MASONRY REINFORCING

SCALE: N.T.S.

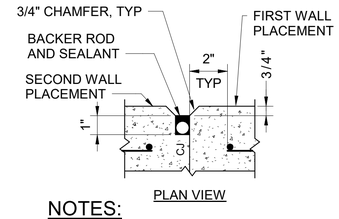


NOTES:

1. REINF STEEL SHALL BE LAPPED PER REINF LAP LENGTH SCHEDULE.
2. SEE SECTIONS FOR WALL AND BASE SLAB THICKNESS AND REINF REQUIREMENTS.

6 TYPICAL WALL HORIZ CONST JOINT REINFORCING

SCALE: N.T.S.



8 TYPICAL WALL AND SLAB KEY DETAIL

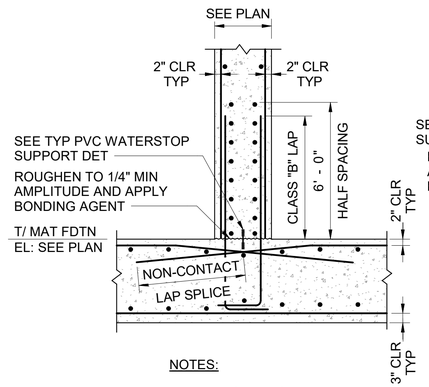
SCALE: N.T.S.

NOTES:

1. PROVIDE AT ALL INTERIOR AND EXTERIOR EXPOSED WALL CONSTRUCTION JOINTS

9 TYPICAL WALL CONSTRUCTION JOINT SEALANT DETAIL

SCALE: N.T.S.

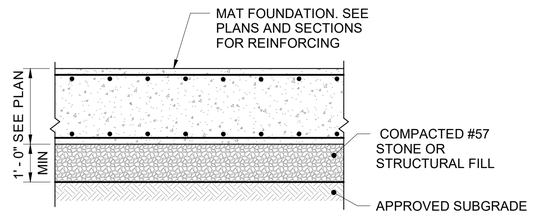


NOTES:

1. REINF STEEL SHALL BE LAPPED PER REINF LAP LENGTH SCHED.
2. SEE SECTIONS FOR WALL AND BASE SLAB THICKNESS AND REINF REQUIREMENTS.

10 TYPICAL FDTN WALL REINF @ MAT SLAB FDTN

SCALE: N.T.S.

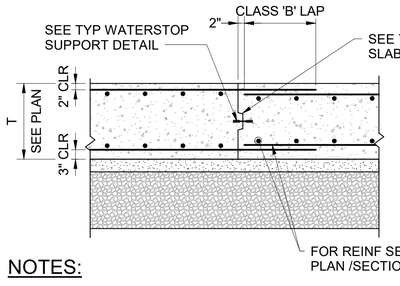


NOTES:

1. SEE PLAN AND RELATED DETAILS FOR REINFORCING.
2. SEE GENERAL NOTES AND SPECIFICATIONS FOR UNDER MAT FOUNDATION MATERIAL REQUIREMENTS.
3. REINFORCING STEEL SHALL BE LAPPED PER SCHEDULE.

3 TYPICAL MAT FOUNDATION DETAIL

SCALE: N.T.S.

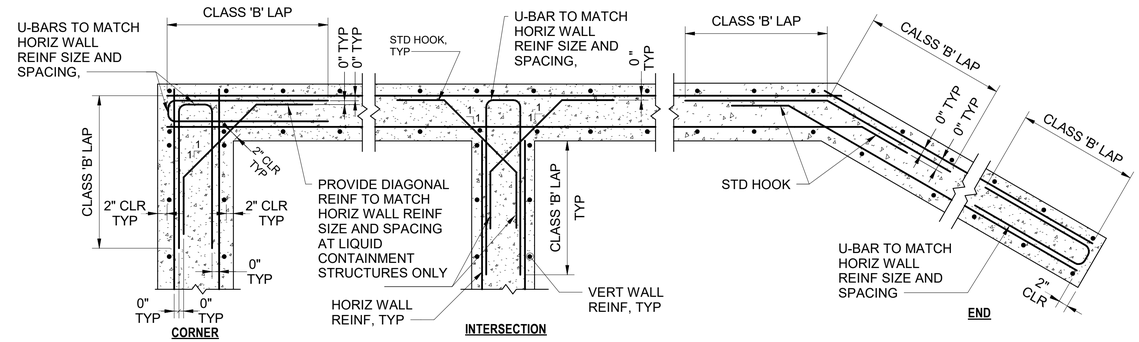


NOTES:

1. SUBMIT PROPOSED JOINT LAYOUT PLANS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBMITTING REINFORCING SHOP DRAWINGS.
2. SEE PLAN FOR PROPOSED CONSTRUCTION/ CONTRACTION JOINT LOCATIONS.
3. REINFORCING STEEL SHALL BE LAPPED PER SCHEDULE.
4. PROVIDE 48 HOURS BETWEEN ADJACENT POURS AT CONSTRUCTION JOINTS.

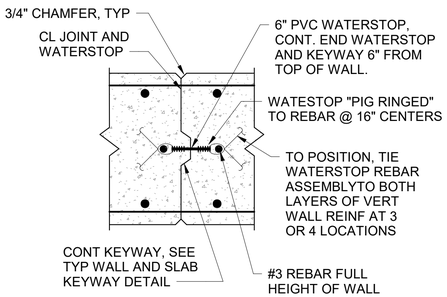
4 TYPICAL MAT FOUNDATION CONSTRUCTION JOINT DETAIL

SCALE: N.T.S.



7 TYPICAL WALL REINFORCING DETAIL

SCALE: N.T.S.



11 TYPICAL WATERSTOP SUPPORT DETAIL

SCALE: N.T.S.

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DATE ISSUED: NOVEMBER 2026

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DRAWN BY: CEC
CHECKED BY: PAD
DESIGN LEAD: MRINAL VERMA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — PAUL ANTHONY DUNN — 098180 — LICENSED PROFESSIONAL ENGINEER — 11/3/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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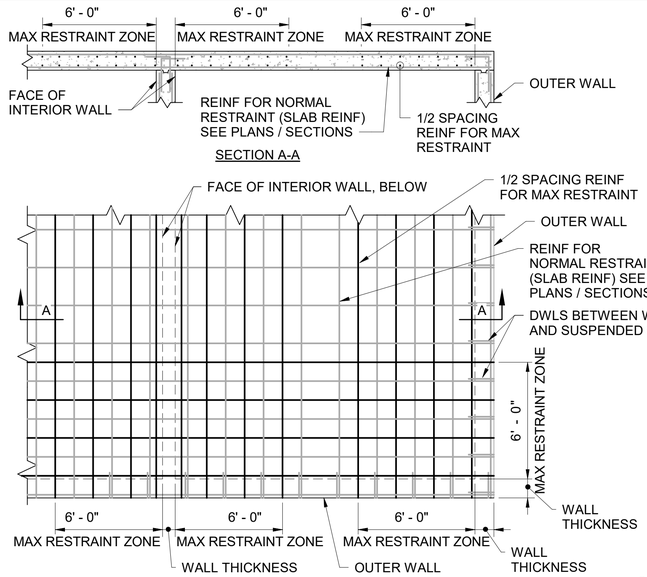
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TYPICAL DETAILS I

DATE: NOVEMBER 2026
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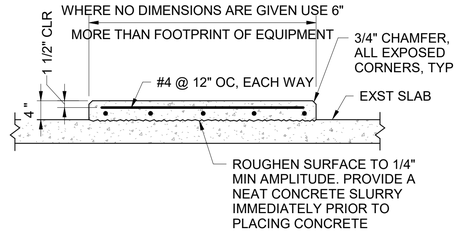
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1 REINF FOR MAX RESTRAINT AT SUSPENDED SLABS

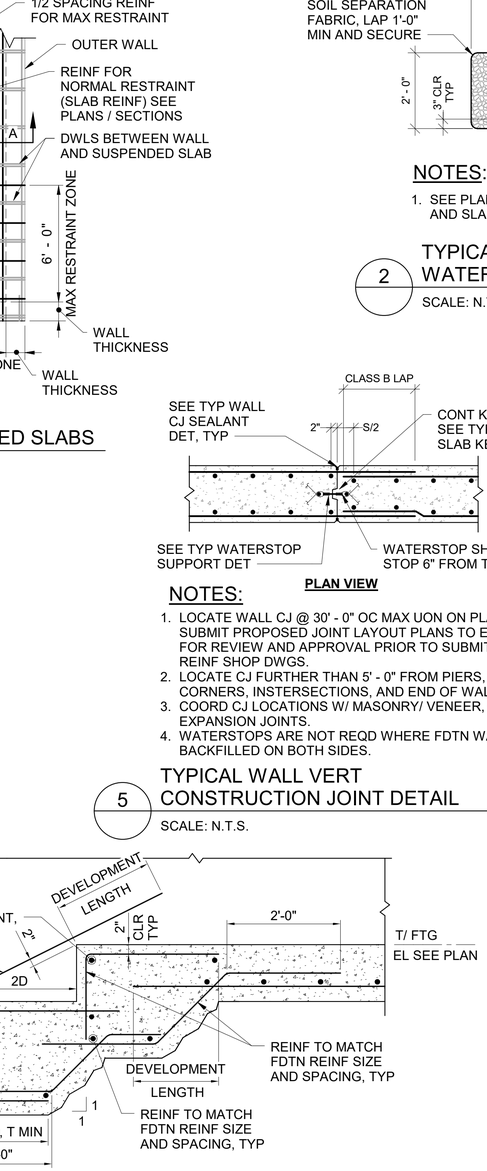
SCALE: N.T.S.



NOTES:
1. SEE OTHER DISCIPLINES DRAWINGS FOR SIZE AND LOCATION.

4 TYPICAL HOUSEKEEPING PAD DETAIL

SCALE: N.T.S.



NOTES:
1. SEE PLAN AND RELATED DETAILS FOR FOUNDATION AND SLAB REINFORCING REQUIREMENTS

2 TYPICAL FOUNDATION WATERPROOFING/ DRAIN DETAIL

SCALE: N.T.S.

PLAN VIEW

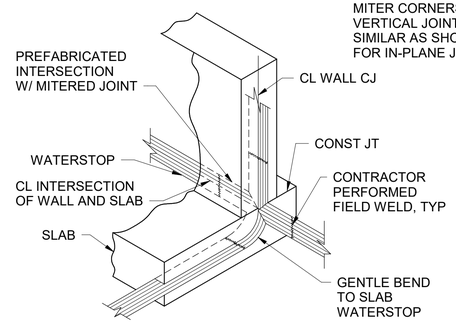
NOTES:
1. LOCATE WALL CJ @ 30' - 0" OC MAX UON ON PLANS. SUBMIT PROPOSED JOINT LAYOUT PLANS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO SUBMITTING REINF SHOP DWGS.
2. LOCATE CJ FURTHER THAN 5' - 0" FROM PIERS, CORNERS, INSTERSECTIONS, AND END OF WALL.
3. COORD CJ LOCATIONS W/ MASONRY/ VENEER, CONTROL/ EXPANSION JOINTS.
4. WATERSTOPS ARE NOT REQD WHERE FDTN WALLS ARE BACKFILLED ON BOTH SIDES.

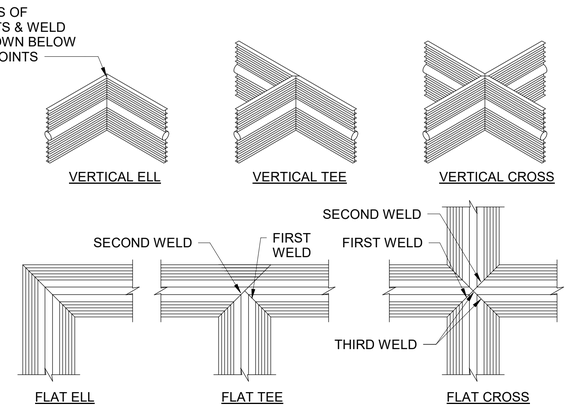
5 TYPICAL WALL VERT CONSTRUCTION JOINT DETAIL

SCALE: N.T.S.

6 CONCRETE STEP FOOTING DETAIL

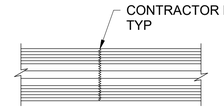
SCALE: N.T.S.





NOTES:
1. SEE DRAWINGS FOR THE LOCATIONS WHERE WATERSTOPS ARE REQUIRED.
2. ANGLE CAN VARY FROM 90 DEGREES, SEE DRAWINGS.
3. WATERSTOP JOINTS INCLUDED IN THIS DETAIL ARE ILLUSTRATIVE ONLY AND NOT AN EXHAUSTIVE LIST OF WATERSTOP JOINT DETAILS.

MANUFACTURER PREFABRICATED INTERSECTIONS

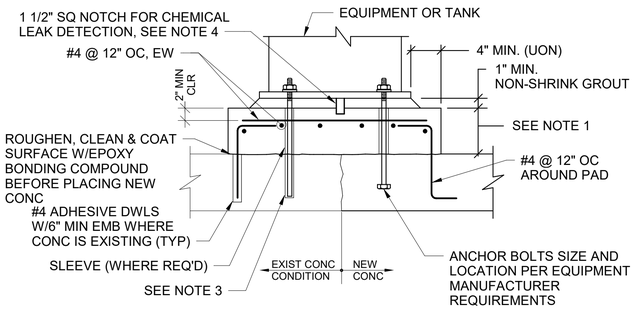


NOTES:
1. SEE DRAWINGS FOR THE LOCATIONS WHERE WATERSTOPS ARE REQUIRED.
2. WATERSTOP JOINTS INCLUDED IN THIS DETAIL ARE ILLUSTRATIVE ONLY AND NOT AN EXHAUSTIVE LIST OF WATERSTOP JOINT DETAILS.

CONTRACTOR PERFORMED FIELD WELD INTERSECTIONS

3 TYPICAL WATERSTOP AT SLAB AND WALLS

SCALE: N.T.S.



NOTES:
1. PROVIDE 6" MINIMUM CONCRETE SUPPORT PAD FOR ALL EQUIPMENT UNLESS OTHERWISE NOTED.
2. COORDINATE LOCATION AND SIZE OF PADS WITH OTHER DISCIPLINE'S DRAWINGS AND MANUFACTURER'S APPROVED SHOP DRAWINGS.
3. FOR EXISTING SLABS, DRILL HOLE DIAMETER AND DEPTH IN EXISTING SLAB PER EQUIPMENT MANUFACTURER'S REQUIREMENTS FOR ADHESIVE ANCHORAGE SYSTEM USED.
4. NOTCH SHOWN APPLIES ONLY TO BULK CHEMICAL STORAGE TANKS.

7 TYPICAL EQUIPMENT SUPPORT PAD DETAIL

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SECTION MANAGER:

ARCADIS

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NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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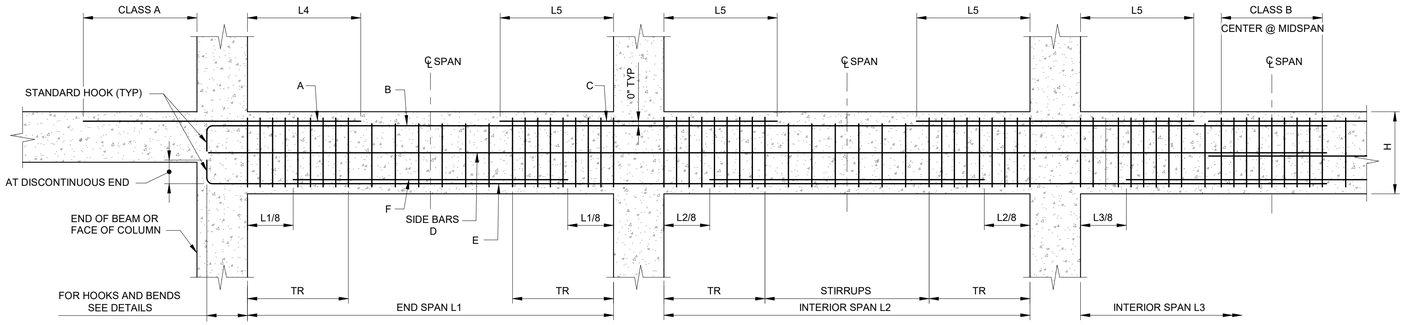
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

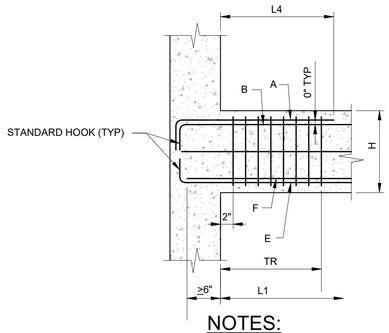
STRUCTURAL
TYPICAL DETAILS II

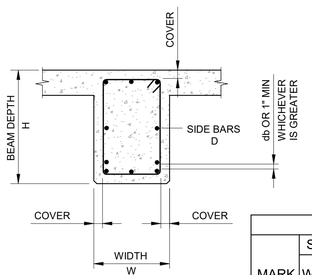
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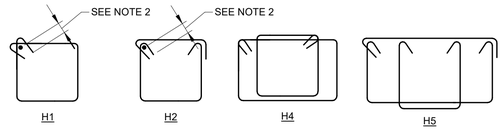
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TYPICAL BEAM SECTION



TIE TYPE

NOTES:

1. SEE REINFORCEMENT CONCRETE BEAM SCHEDULE FOR REINFORCEMENT SIZE AND QUANTITY.
2. SEE REINFORCING SPLICE AND DEVELOPMENT LENGTH TABLE (4500 PSI) ON DWG S-004 FOR 135° MIN STD HOOKS FOR PRIMARY REINFORCEMENT.
3. SEE DWG S-001 FOR COVER REQUIREMENTS.

REINFORCEMENT CONCRETE BEAM SCHEDULE

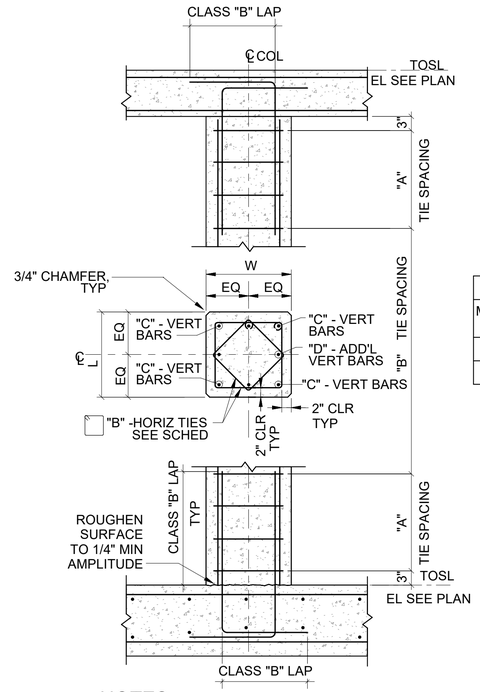
MARK	SIZE W x H	MAIN HORIZONTAL REINFORCEMENT								TIES				REMARKS
		TOP					BOTTOM		SIDE BARS D	TR	TYPE	REST	TYPE	
		A	L4	B	C	L5	E	F						
BM-1	12x18			(2) #8			(3) #8		(1) #8 EF			#3 @ 8"	H1	

NOTES:

1. SEE TYPICAL CONCRETE BEAM BARS PLACING DIAGRAM
2. FOR BEAMS NOTED WITH AN ASTERISK (*), MAIN HORIZONTAL REINFORCING SHALL HAVE FULL CONTACT LAP SPLICE WITH WALL EXTENSION REINFORCING ON BOTH SIDES OF BEAM

1 TYPICAL CONCRETE BEAM BARS PLACING DIAGRAM

SCALE: N.T.S.



CONCRETE COLUMN SCHEDULE							
MARK	DIA	DEPTH "L"	WIDTH "W"	"A" TIES	"B" TIES	"C" VERT	"D" VERT
C1	-	18"	18"	#4 @ 12"	#4 @ 12"	(8) #6	-

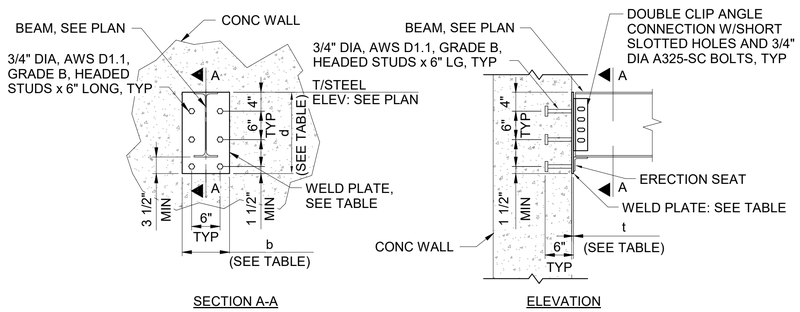
NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR REINF SIZE AND QUANTITY.
2. REINF TYP UON ON PLAN

2 TYPICAL CONCRETE SQUARE COLUMN DETAIL

SCALE: N.T.S.

WELD PLATES				
BEAM SIZE	t	b	d	BOLT ROWS
W10	3/8"	10"	12 1/2"	2

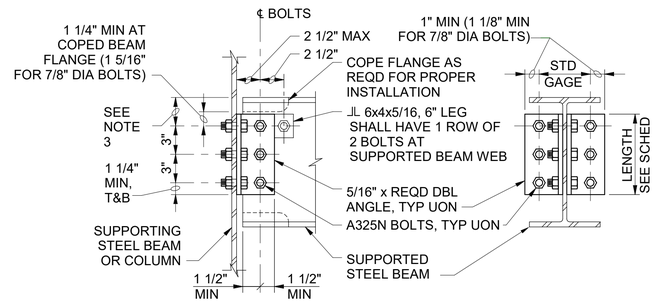


NOTES:

1. ERECTION SEAT AND DBL CLIP ANGLE CONNCETION NOT SHOWN IN SECTION FOR CLARITY

3 TYPICAL WELD PLATE DETAIL

SCALE: N.T.S.



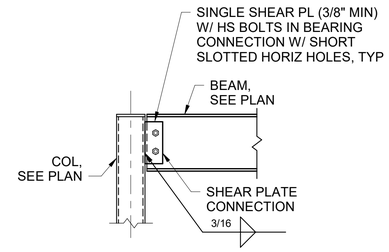
NOMINAL BEAM DEPTH, INCHES	ROWS OF BOLTS	BOLT DIA, INCHES	DOUBLE ANGLE, LENGTH, INCHES	COMMENTS
8-10	2	3/4"	0'-5 1/2"	ANGLE THK = 3/8"

NOTES:

1. ALL BEAM FRAMING CONNECTIONS SHALL CONFORM TO THIS DETAIL UNLESS SPECIFICALLY NOTED OTHERWISE OR APPROVED IN WRITING BY THE ENGINEER.
2. PROVIDE ADDITIONAL 1 1/2" LENGTH TO DOUBLE ANGLE FOR STAGGERED BOLT CONNECTIONS WHEN REQUIRED OR USED.
3. DIMENSION SHALL BE 3" UNLESS OTHERWISE REQUIRED FOR PROPER FABRICATION.

4 TYPICAL BEAM CONNECTION DETAIL

SCALE: N.T.S.



5 TYPICAL SHEAR PLATE CONNECTION

SCALE: N.T.S.

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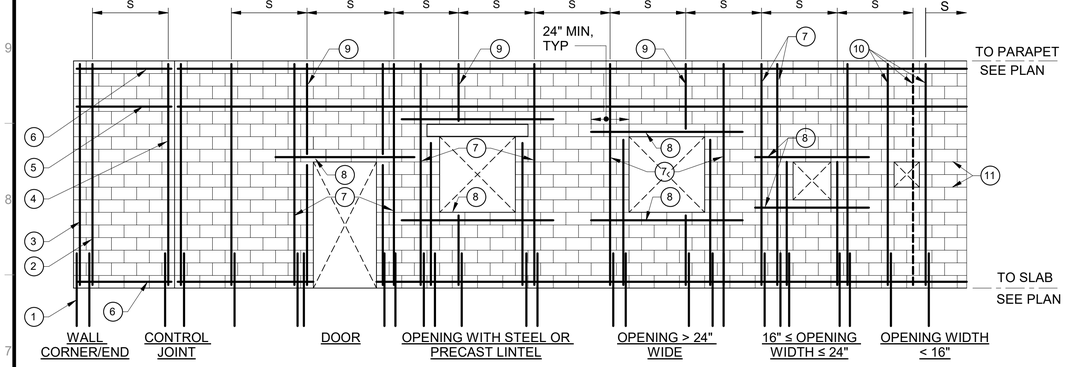
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STRUCTURAL
TYPICAL DETAILS III

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NOTES

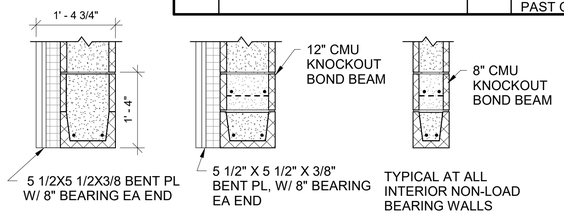
MARK	DESCRIPTION
1	DOWELS TO MATCH SIZE AND SPACING OF WALL REINFORCEMENT.
2	TYPICAL REINFORCEMENT, SEE SECTIONS FOR SIZE AND SPACING, S.
3	PROVIDE REINFORCEMENT AT WALL CORNER AND WITHIN 8" OF END OF WALL.
4	PROVIDE REINFORCEMENT WITHIN 8" OF EACH SIDE OF CONTROL/MOVEMENT JOINT.
5	PROVIDE KNOCKOUT BLOCK BOND BEAM AT STRUCTURALLY CONNECTED ROOF AND FLOOR LEVELS, DISCONTINUE REINFORCING AT CONTROL/MOVEMENT JOINT. SEE PROJECT SECTIONS.
6	PROVIDE KNOCKOUT BLOCK BOND BEAM AT TOP AND BOTTOM OF WALL, DISCONTINUE REINFORCING AT CONTROL / MOVEMENT JOINT.
7	PROVIDE REINFORCEMENT WITHIN 16 INCHES OF EACH SIDE OF OPENING.
8	PROVIDE REINFORCEMENT AT TOP AND BOTTOM OF OPENINGS. USE U-BLOCKS AT TOP OF OPENINGS AND KNOCK-OUT BLOCKS AT BOTTOM OF OPENINGS.
9	TYPICAL REINFORCEMENT INTERRUPTED BY OPENING.
10	PROVIDE REINFORCEMENT WITHIN 4 INCHES OF EACH SIDE OF OPENING IF TYPICAL REINFORCEMENT IS INTERRUPTED BY OPENING. OTHERWISE REINFORCEMENT IS NOT REQUIRED.
11	PROVIDE W1.7 (9 GAGE) JOINT REINFORCEMENT (LADDER TYPE) AT 16 INCHES ON CENTER.

1 TYPICAL MASONRY SHEAR WALL OPENING REINFORCEMENT LAYOUT

SCALE: N.T.S.

LINTEL SCHEDULE

MARK	SIZE	TYPE	REINFORCING
L - 1	12" U-BLOCK BOND BEAM X 16" DEEP W/ 5 1/2X5 1/2X3/8 BENT PL	A	EXTEND #5 BARS 2' - 0" PAST OPENING.
L - 2	12" U-BLOCK BOND BEAM X 8" DEEP W/ 5 1/2X5 1/2X3/8 BENT PL	B	EXTEND #5 BARS 2' - 0" PAST OPENING.
L - 3	8" U-BLOCK BOND BEAM X 8" DEEP	C	EXTEND #5 BARS 2' - 0" PAST OPENING.

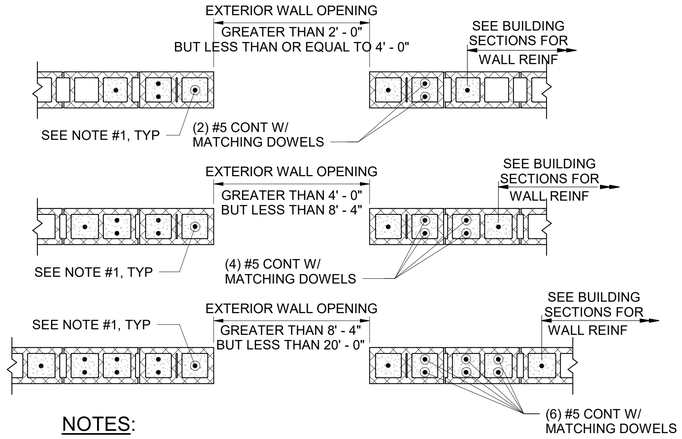


NOTES:

1. PROVIDE LINTELS OVER ALL OPENINGS IN MASONRY WALLS.
2. PROVIDE 8" BEARING EACH END.
3. PRIOR TO FABRICATING LINTELS, VERIFY ALL MASONRY OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
4. ALL HORIZONTAL LINTEL ELEMENTS SUPPORTING EXTERIOR WYTHES OF MASONRY SHALL BE HOT DIPPED GALVANIZED.
5. FOR MASONRY OPENINGS NOT SHOWN ON STRUCTURAL PLAN, CONSULT STRUCTURAL ENGINEER.
6. CONCRETE FOR PRECAST LINTELS SHALL HAVE 28-DAY COMPRESSIVE STRENGTH (F'M) OF 5,000 PSI, MINIMUM.

6 MASONRY LINTEL SCHEDULE

SCALE: N.T.S.

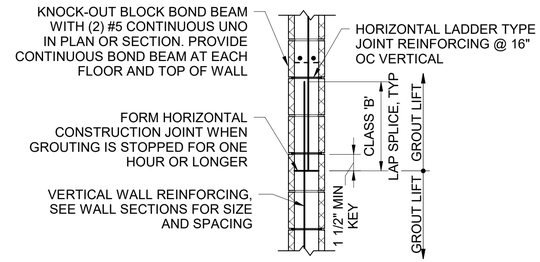


NOTES:

1. BARS IN CORE ADJACENT TO OPENING ON EACH SIDE SHALL EXTEND TO UNDERSIDE OF LINTEL BEARING. ALL OTHER BARS SHOWN SHALL EXTEND FULL HEIGHT OF WALL AND TERMINATE IN BOND BEAM UNLESS SHOWN OTHERWISE IN SECTION.

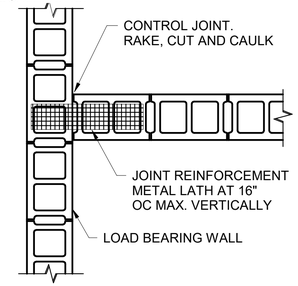
2 TYPICAL ADDITIONAL REINFORCING AT CMU OPENINGS

SCALE: N.T.S.



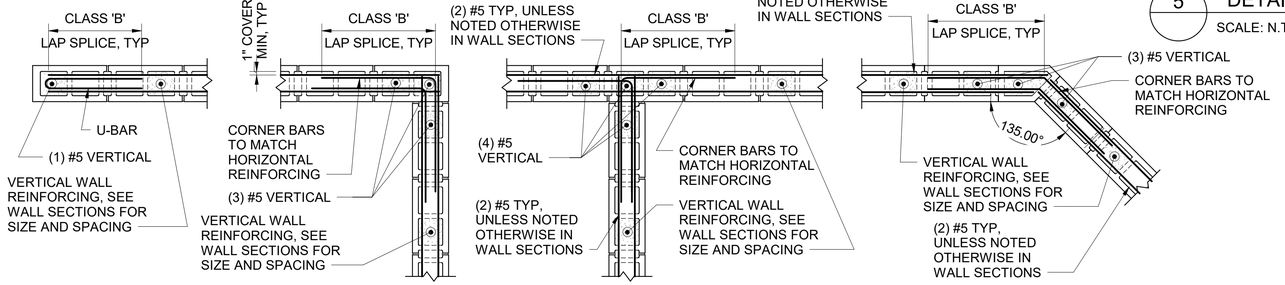
3 TYPICAL MASONRY WALL VERTICAL DETAIL

SCALE: N.T.S.



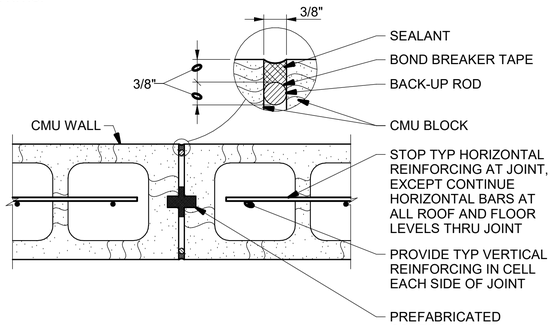
5 TYPICAL MASONRY INTERSECTION DETAIL - PLAN VIEW

SCALE: N.T.S.



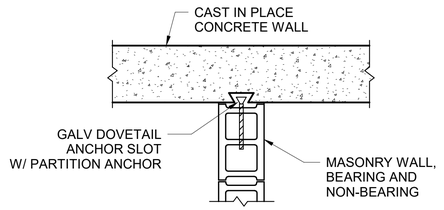
4 TYPICAL BOND BEAM DETAILS

SCALE: N.T.S.



7 TYPICAL MASONRY CONTROL JOINT

SCALE: N.T.S.



8 MASONRY TO CONCRETE INTERSECTION DETAIL PLAN VIEW

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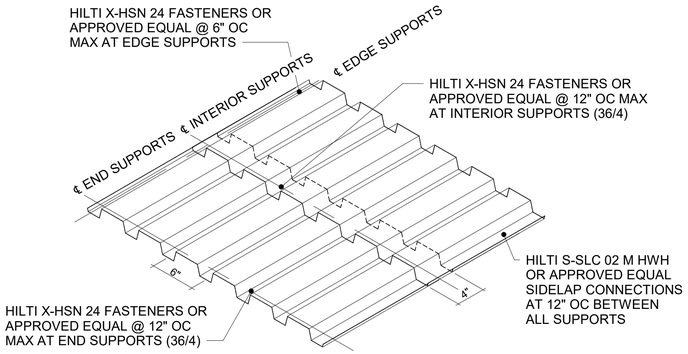
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

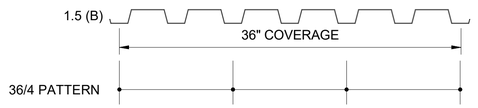
STRUCTURAL
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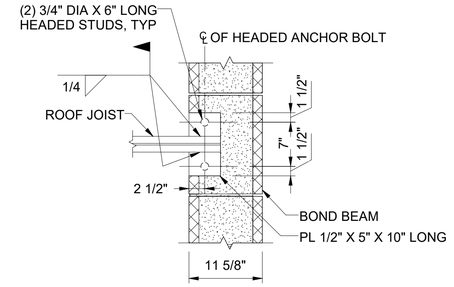
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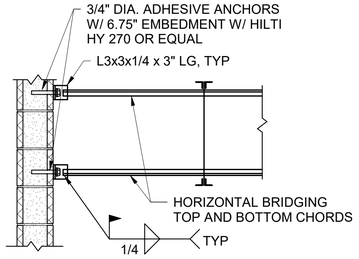
1 METAL DECK ATTACHMENT PATTERN

SCALE: N.T.S.



2 TYPICAL JOIST BEARING PLATE DETAIL

SCALE: N.T.S.

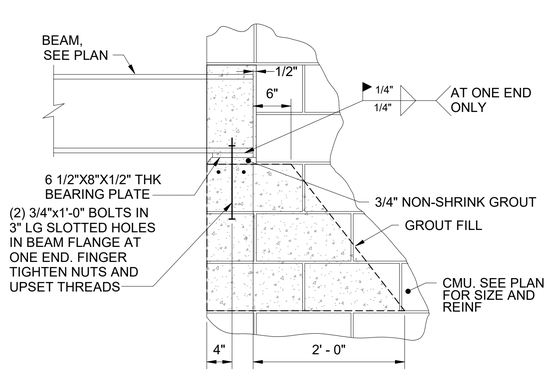


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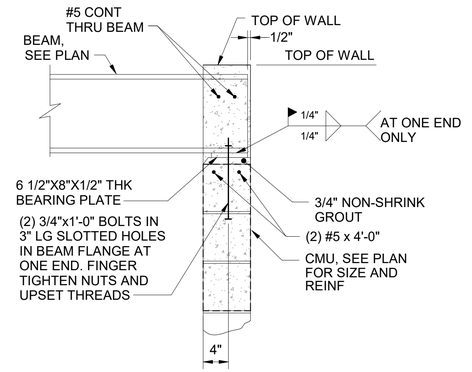
1. METAL DECK NOT SHOWN FOR CLARITY.

3 JOIST HORIZONTAL BRIDGING AT CMU WALL

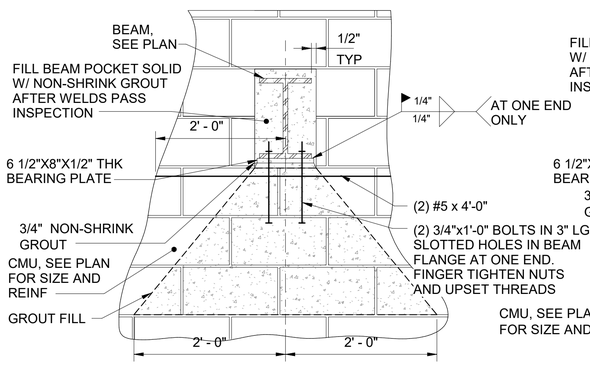
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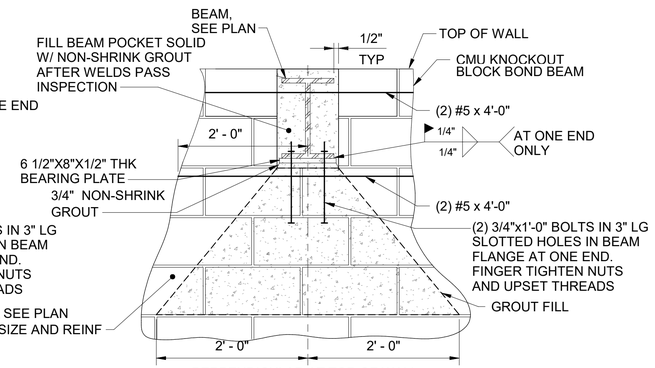
PARALLEL TO WALL



PERPENDICULAR AT TOP OF WALL



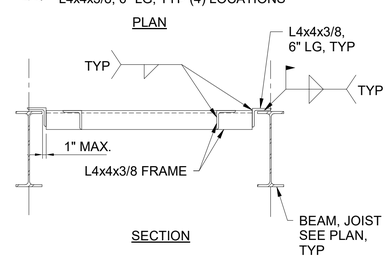
PERPENDICULAR TO WALL



PERPENDICULAR AT TOP OF WALL

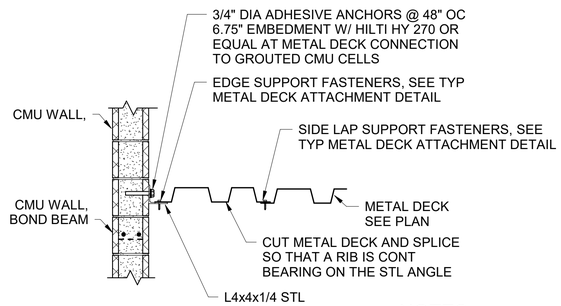
4 STEEL BEAM CONNECTION TO CMU DETAIL

SCALE: N.T.S.



5 TYPICAL METAL DECK OPENING AT ROOF DETAIL

SCALE: N.T.S.

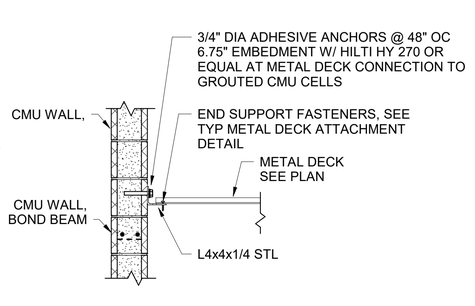


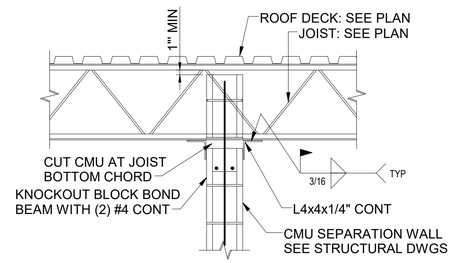
NOTES:

1. ROOF JOISTS NOT SHOWN FOR CLARITY

6 TYPICAL METAL DECK SIDE SUPPORT DETAIL

SCALE: N.T.S.





NOTES:

1. PROVIDE 1" MINIMUM GAP BETWEEN BEAM/JOIST AND MASONRY ALL AROUND. FILL GAP WITH FIRE-SAFING AS SPECIFIED. SPACE ANGLES AT 15'-0" OC MAX. FOR 6" WALLS OR 20'-0" OC MAX FOR 8" WALLS.
2. ANGLES NOT REQUIRED WHERE CROSSWALLS PROVIDE LATERAL SUPPORT AT ABOVE MAXIMUM SPACING.

7 TYPICAL NON-LOADING BEARING CMU JOIST SUPPORT

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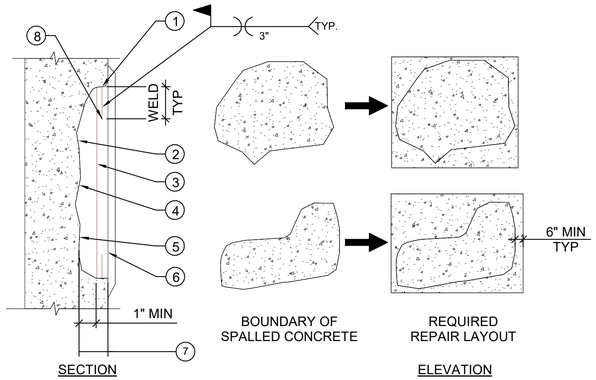
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TYPICAL DETAILS V

DATE: NOVEMBER 2026
SHEET NO:
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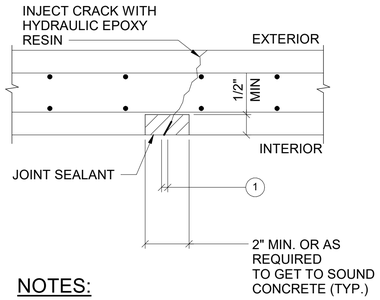


NOTES:

1. DO NOT CUT REINFORCING UNLESS NECESSARY TO REMOVE ALL DETERIORATED CONCRETE.
2. REMOVE ALL DETERIORATED CONCRETE TO SOUND CONCRETE. CHIP CONCRETE SUBSTRATE TO OBTAIN A SURFACE PROFILE OF 1/8-INCH IN DEPTH WITH A NEW FRACTURED AGGREGATE SURFACE.
3. WHERE REINFORCING STEEL WITH ACTIVE CORROSION IS ENCOUNTERED, ENGINEER TO REVIEW CONDITION OF CORRODED REBAR PRIOR TO REPAIR. REPLACEMENT IS REQUIRED WHERE LOSS ON REBAR CROSS SECTION IS OVER 25%. AFTER REPAIR WHERE REINFORCING REMAINS, CLEAN REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST. REMOVE CONCRETE TO A DEPTH OF 1-INCH MINIMUM BEHIND REINFORCING BAR AS SHOWN.
4. SURFACE SHALL BE DAMP BUT FREE OF STANDING WATER.
5. INSTALL CONCRETE REPAIR MATERIALS PER THE MANUFACTURER'S REQUIREMENTS.
6. REPAIR MORTAR SHALL BE ADDED SO THAT THE MINIMUM COVER OVER EXISTING REINFORCING STEEL IS 1 1/2".
7. THE CONTRACTOR SHALL BE PERMITTED TO PLACE REPAIR MORTAR RESULTING IN LOCALLY RAISED AREAS, WHERE NEEDED TO PROVIDE COVER. TRANSITION TO EXISTING SURFACE WITH 4:1 OR FLATTER SLOPE.
8. REFER TO THE GENERAL NOTES FOR ADDITIONAL EXISTING CONCRETE NOTES, SPECIFIED PRODUCTS AND REQUIREMENTS FOR COORDINATION OF WORK.
9. FOR BID PURPOSES, ASSUME TOTAL DEPTH OF REPAIR IS 4-INCHES.
10. CUT EXISTING CORRODED REINFORCING BAR AS REQUIRED AND WELD NEW REBAR SAME SIZE.

TYPICAL SPALL REPAIR

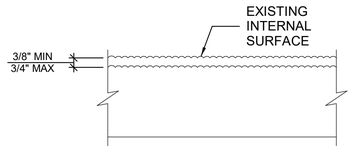
(WITH OR WITHOUT REBAR REPAIR)



NOTES:

1. FOR CRACKS WIDER THAN 1/8" CUT CONCRETE AS SHOWN AND PATCH.
2. IF EXISTING REINFORCING BARS ARE EXPOSED, REPAIR AS PER REPAIR TYPE 1.

TYPICAL EPOXY REPAIR



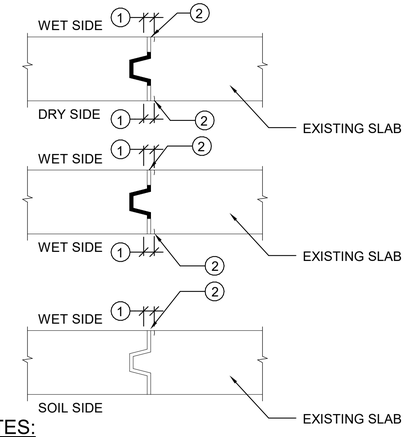
NOTES:

1. REMOVE DETERIORATED CONCRETE. REMOVE 3/4" MAX OF SURFACE CONCRETE BY HYDROBLASTING.
2. DAMAGED CONCRETE SHALL BE REMOVED TO A DEPTH UNTIL SOUND CONCRETE IS ENCOUNTERED AND REPAIRED PER SPECIFICATION SECTION 03930.
3. REPAIR CRACKS PER DETAIL 1 AND 2 AS DIRECTED BY ENGINEER.
4. APPLY REPAIR MORTAR ON SURFACE TO RESTORE SURFACE TO ORIGINAL CONDITION.
5. COATING SHALL BE APPLIED AFTER ALL REPAIR TYPES ARE COMPLETED AND ON AREA IN ACCORDANCE WITH SPECIFICATION SECTION 09900.

TYPICAL EXPOSED AGGREGATE REPAIR

1 TYPICAL CONCRETE REPAIR

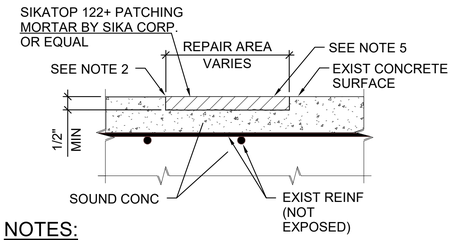
SCALE: N.T.S.



NOTES:

1. RECONSTRUCT JOINT SPACE TO ACHIEVE STRAIGHT EDGES WHERE REQUIRED.
2. JOINT FILLER AND SEALANT TO BE REPAIRED AS DIRECTED.
3. UNIT PRICE TO INCLUDE ANY NECESSARY CHIPPING, FORMWORK, REBAR REPAIR, EPOXY BONDING APPLICATION, CONCRETE REPAIR AND CURING ALL AS REQUIRED TO REPAIR JOINT EDGES.

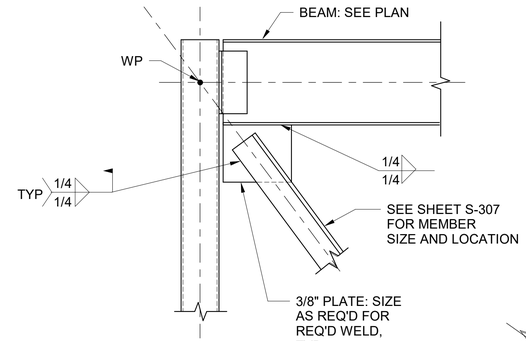
TYPICAL EXPANSION JOINT REPAIR

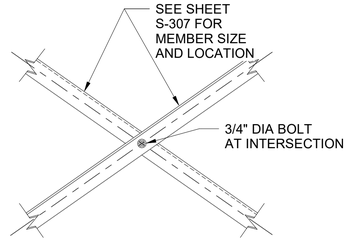


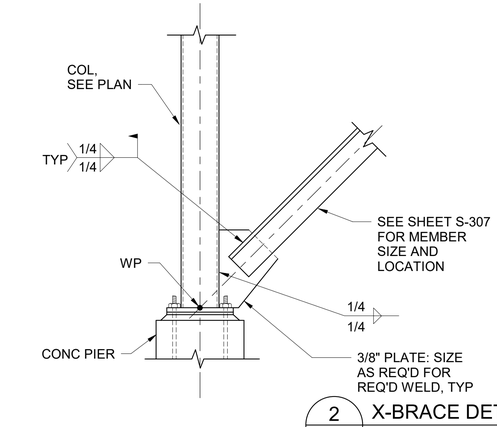
NOTES:

1. THIS DETAIL IS USED IN AREAS OF EXISTING CONCRETE PADS DETERMINED TO BE UNSOUND AS INDICATED BY HAMMER SOUNDING AND TO REPAIR CONCRETE SLAB WHERE EQUIPMENT PADS ARE REMOVED.
2. SAWCUT 1/2" DEEP AROUND PERIMETER OF REPAIR AREA. SAWCUT SHALL BE PERPENDICULAR TO SURFACE AND MADE TO FORM A SQUARE OR RECTANGULAR PATTERN (i.e., CORNERS SHALL BE 90°). DO NOT CUT REINFORCING STEEL.
3. CHIP CONCRETE TO SOUND CONCRETE (1/2" MINIMUM).
4. COAT ALL CONC SURFACES IN REPAIR AREA WITH A BONDING AGENT.
5. FILL VOID WITH PATCHING MORTAR. FINISH PATCHES TO MATCH PLANE AND TEXTURE OF ADJACENT CONCRETE. CURE PATCHES IN ACCORDANCE WITH THE PATCHING MORTAR MANUFACTURER'S RECOMMENDATIONS.
6. PAINT OR COAT SURFACE TO MATCH EXISTING.

TYPICAL CONCRETE PAD REPAIR

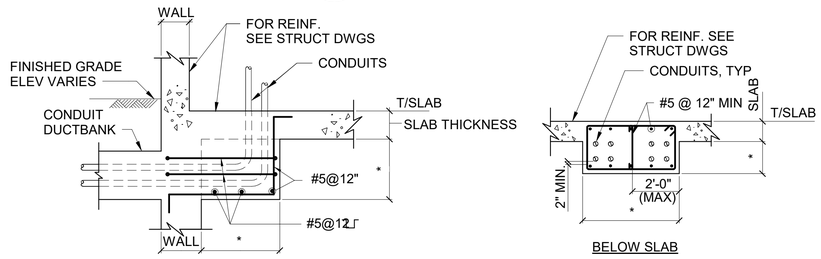






2 X-BRACE DETAIL

SCALE: N.T.S.



NOTES:

1. * INDICATES DIMENSION AS REQUIRED FOR APPROVED EQUIPMENT.
2. D = PIPE OR CONDUIT OUTSIDE DIAMETER.
3. OUTSIDE DIMENSION (D) OF ANY EMBEDDED ITEM SHOULD NOT EXCEED 1/3 THE CONCRETE MEMBER THICKNESS.
4. AT POINTS OF CROSSING CONDUITS/PIPES, OUTSIDE DIMENSION (D) SHALL BE THE SUM OF THE TOTAL INDIVIDUAL CROSSING ITEMS.
5. SPACING REQUIREMENTS BETWEEN CONDUITS/PIPE CROSSING AT 60° OR LESS, CONDUITS/PIPES CROSSING EACH OTHER GREATER THAN 60° CAN BE IN CONTACT WITH EACH OHTER (CODE PERMITTING).

3 TYPICAL CONDUIT ENCASEMENT DETAILS

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NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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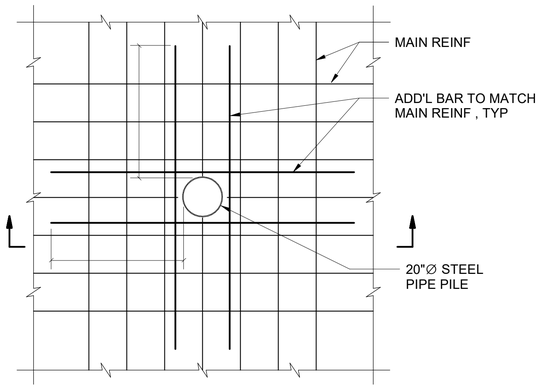
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

STRUCTURAL
TYPICAL DETAILS VI

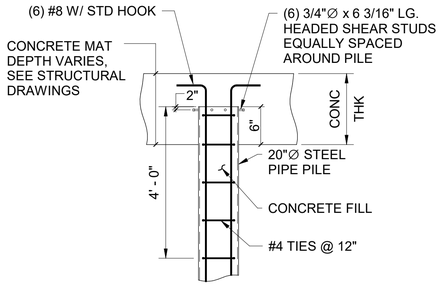
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PLAN



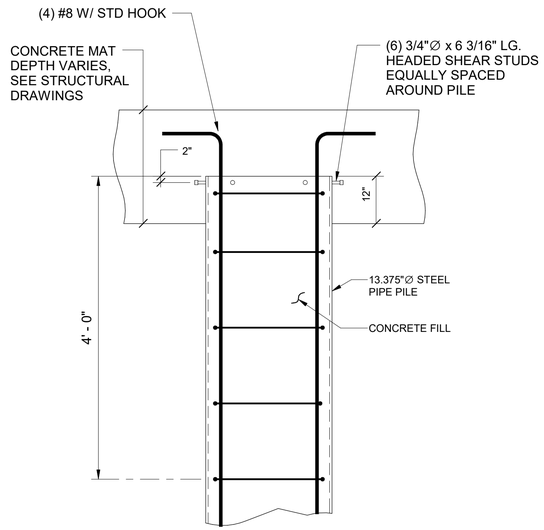
SECTION

NOTES:

1. FOR PILE LOCATION, SEE STRUCTURAL DRAWINGS.
2. ALL MAIN REINF INTERRUPTED BY PILES MUST BE SPLICED TOGETHER WITH AN ADDITIONAL BAR AS SHOWN ABOVE.

1 TYPICAL REINFORCING AT PILE DETAIL (FOR TI-011B)

SCALE: N.T.S.



2 TYPICAL REINFORCING AT PILE DETAIL (FOR TI-010D)

SCALE: N.T.S.

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STRUCTURAL
TYPICAL DETAILS VII

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ABBREVIATIONS:

SERVICE CODES:

CSTC	CAUSTIC
CW	CITY WATER
DR	DRAIN
HYPO	SODIUM HYPOCHLORITE
HYPO-F	SODIUM HYPOCHLORITE FILL
HYPO-OF	SODIUM HYPOCHLORITE OVERFLOW
HYPA-TF	SODIUM HYPOCHLORITE TRANSFER
SAN	SANITARY
SBS	SODIUM BISULFITE
SBS-F	SODIUM BISULFITE FILL
SBS-OF	SODIUM BISULFITE OVERFLOW
SBS-TF	SODIUM BISULFITE TRANSFER
SMP	SAMPLE
SPD	SUMP PUMP DISCHARGE
SW	SERVICE WATER
VT	VENT

EQUIPMENT:

CSP	CHEMICAL SUMP PUMP
LDP	LOW LEVEL LEAK DETECTION PROBE
MP	METERING PUMP
SMP	SAMPLE PUMP
SP	SUMP PUMP
STR	STRAINER
T	CHEMICAL STORAGE TANK
TP	TRANSFER PUMP

VALVES:

BV	BALL VALVE (METALLIC)
BVP	THERMOPLASTIC BALL VALVE
CVP	THERMOPLASTIC CHECK VALVE
PV	PLUG VALVE

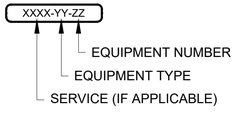
INSTRUMENTATION:

LI	LEVEL INDICATOR
LIT	LEVEL INDICATOR TRANSMITTER
PI	PRESSURE INDICATOR
PSH	PRESSURE SWITCH HIGH

GENERAL:

CL	CENTERLINE
CSO	COMBINED SEWER OVERFLOW
EL	ELEVATION
FBCSO	FLUSHING BAY CSO FACILITY
INV	INVERT
PVC	POLYVINYL CHLORIDE
TRC	TOTAL RESIDUAL CHLORINE
TYP	TYPICAL
T/S	TOP OF SLAB
WRRF	WASTEWATER RESOURCE RECOVERY FACILITY

EQUIPMENT IDENTIFICATION:



SYMBOLS:


BALL CHECK VALVE


BALL VALVE (NORMALLY OPEN)


BALL VALVE (NORMALLY CLOSED)

CALIBRATION COLUMN


PERISTALTIC PUMP


DIAPHRAGM VALVE


DRAIN



ELECTRIC MOTOR ACTUATOR

FLEXIBLE HOSE


PRESSURE GAUGE

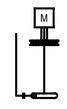

PRESSURE RELIEF RUPTURE DISK


PULSATION DAMPENER


QUICK DISCONNECT

REDUCER


RELIEF VALVE



SUMP PUMP


VENT


WYE


EXPANSION JOINT


DIAPHRAGM

SIGHT LEVEL GAGE


BACK PRESSURE VALVE

NOTES:

1. SEE STRUCTURAL DRAWINGS FOR EQUIPMENT PAD AND OPENING DETAILS.
2. SEE INSTRUMENTATION DRAWINGS FOR INSTRUMENTATION DETAILS.
3. SEE PLUMBING DRAWINGS FOR EMERGENCY EYEWASH SHOWER DETAILS.

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SECTION MANAGER:

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL

NOTES, SYMBOLS AND ABBREVIATIONS

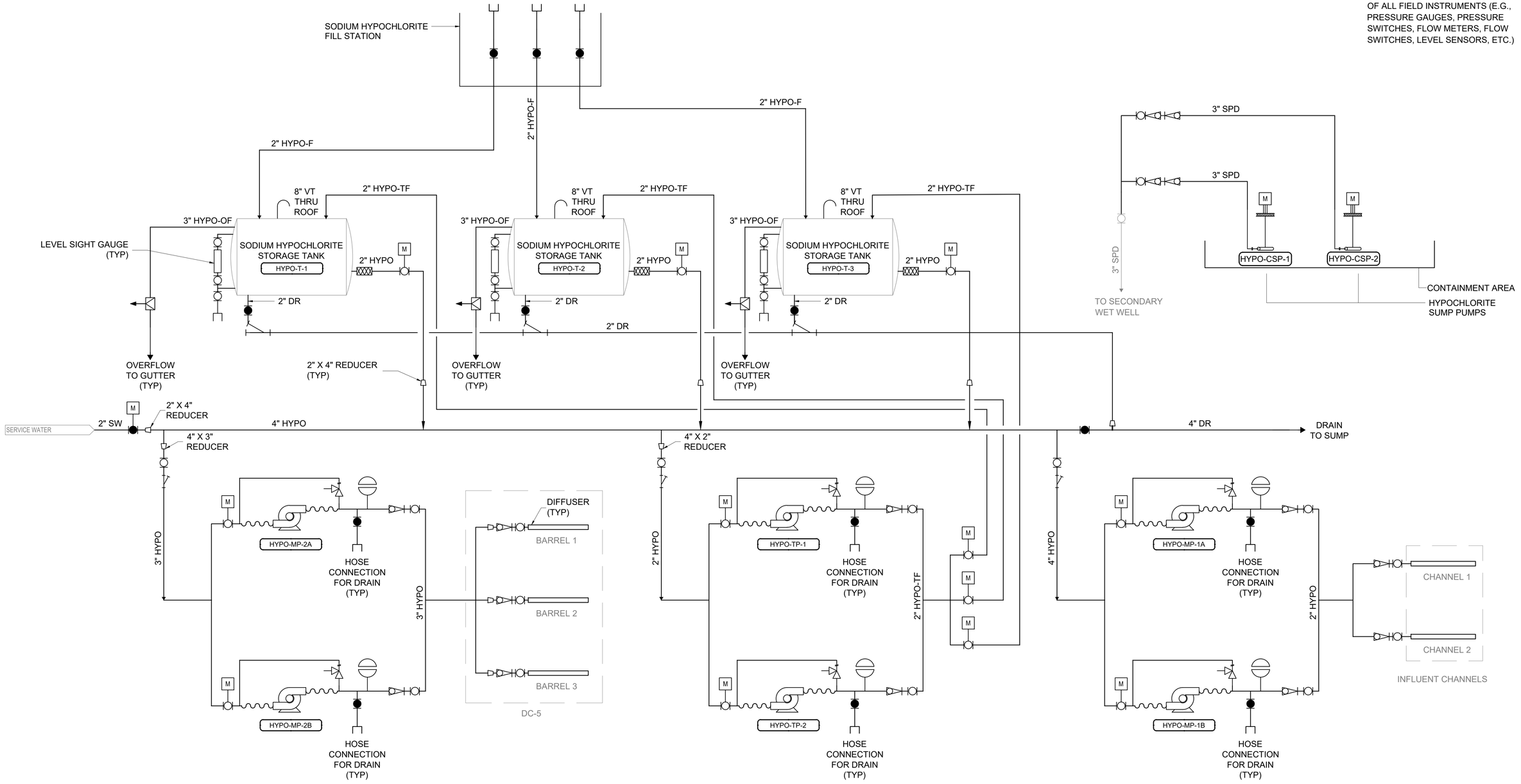
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NOTE:

1. SEE I- DRAWINGS FOR LOCATIONS OF ALL FIELD INSTRUMENTS (E.G., PRESSURE GAUGES, PRESSURE SWITCHES, FLOW METERS, FLOW SWITCHES, LEVEL SENSORS, ETC.)



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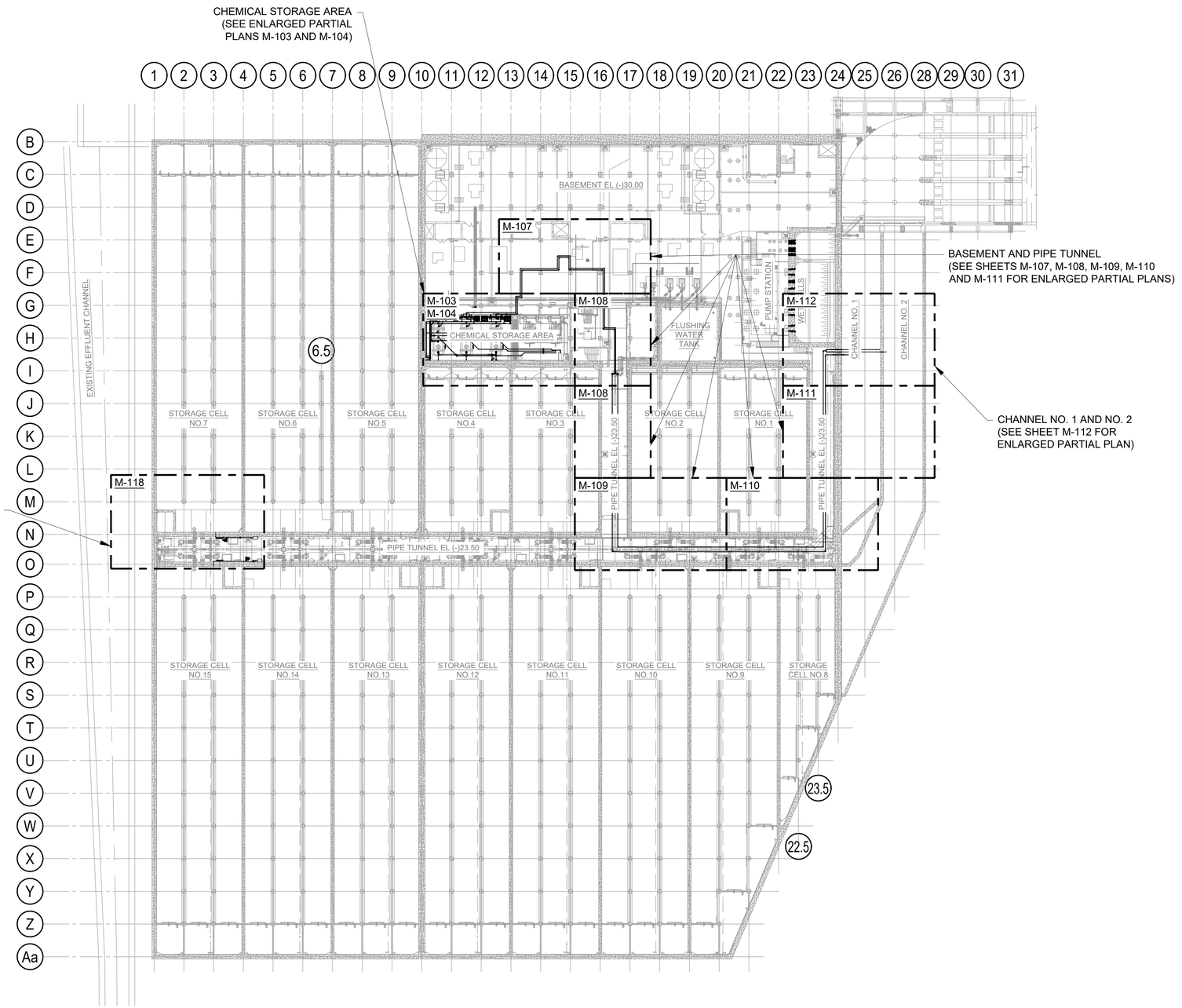
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY SODIUM HYPOCHLORITE PROCESS FLOW DIAGRAM

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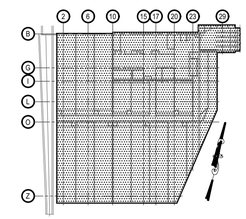
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STORAGE FACILITY - BASEMENT - OVERALL PLAN

SCALE: 1"=40'-0"



KEY PLAN

0 40 80 FT.
1"=40'

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SECTION MANAGER:

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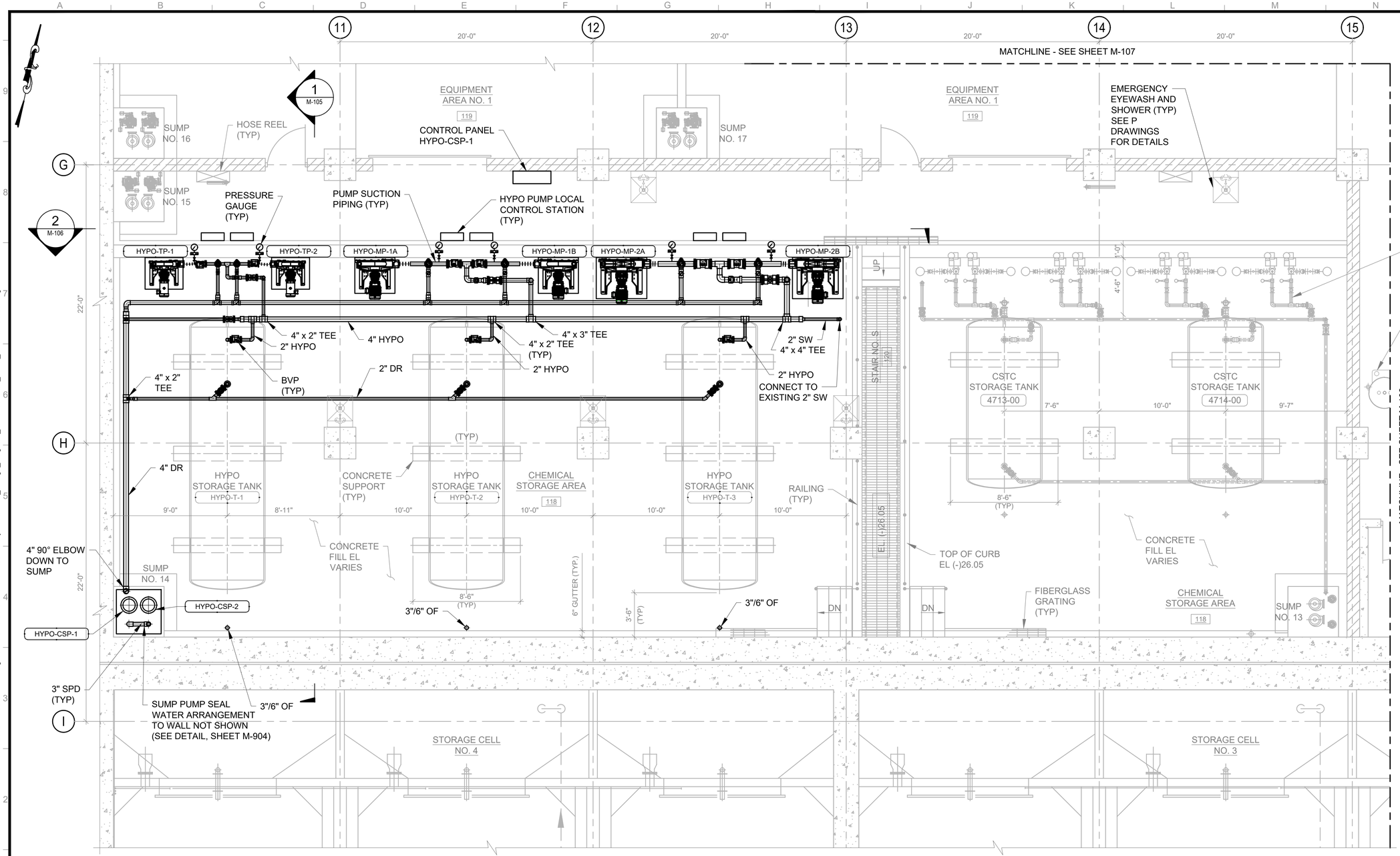
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MECHANICAL
TI-010 CHLORINATION FACILITY
BASEMENT LEVEL - PLAN

DATE: NOVEMBER 2026
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DRAWING NO. M-102.00

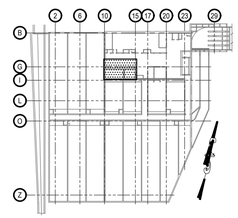
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NOTES:

1. EXISTING CAUSTIC TANKS, PUMPS, AND PIPING TO REMAIN UNLESS OTHERWISE NOTED.
2. NOT ALL SODIUM HYPOCHLORITE PIPING, VALVES, AND APPURTENANCES ARE SHOWN FOR CLARITY. REFER TO SHEET M-101 FOR FULL DETAILS OF PIPING, VALVES, AND APPURTENANCES TO BE PROVIDED.



KEY PLAN

CHEMICAL STORAGE - LOWER ENLARGED PARTIAL PLAN

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

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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DESIGNED BY: CC
DRAWN BY: AC
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

TIMOTHY M. MCDONALD LICENSED PROFESSIONAL ENGINEER 083924 STATE OF NEW YORK

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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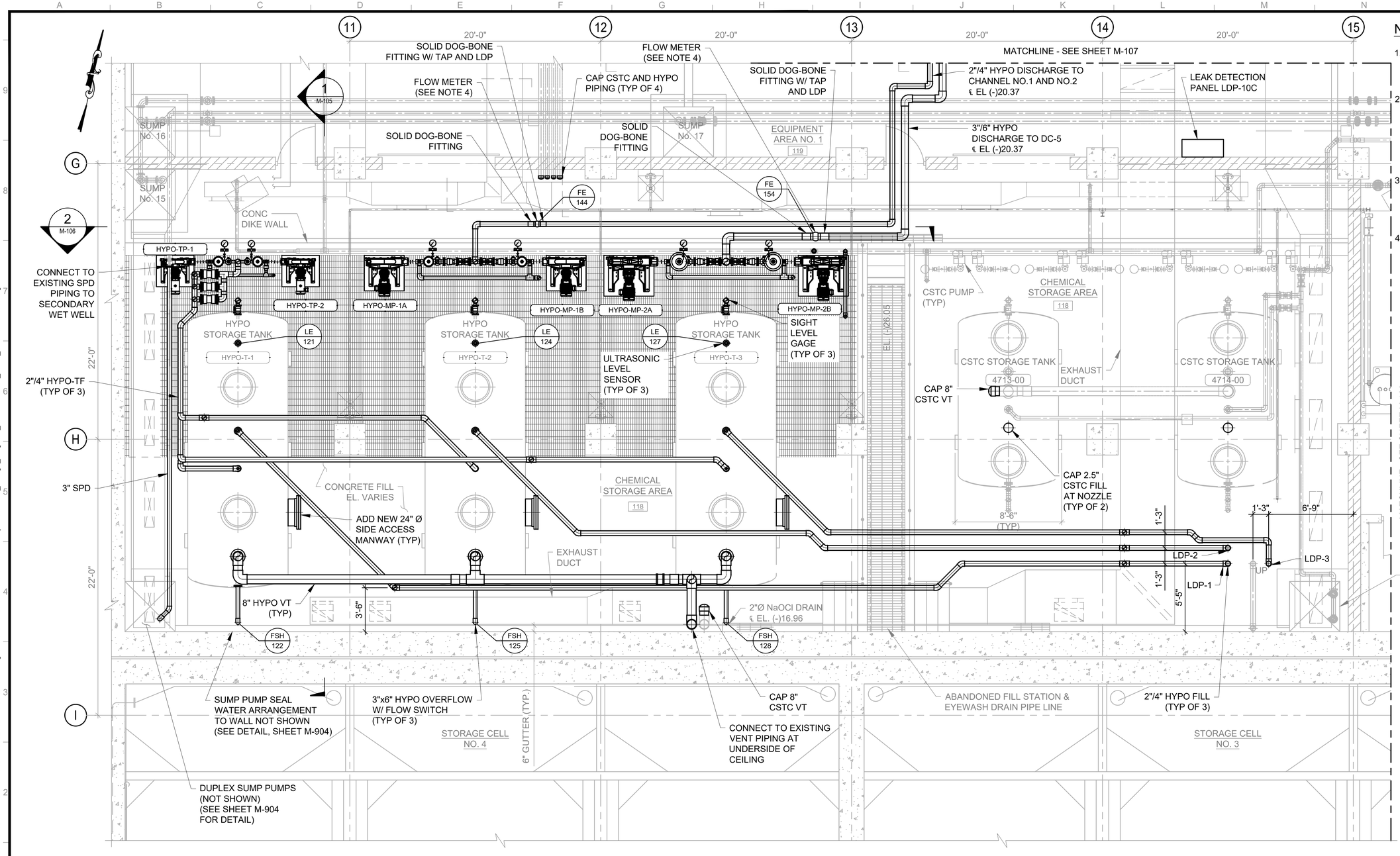
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - LOWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-103.00

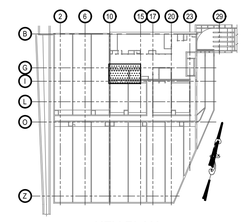
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Plot Scale: 1:1

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NOTES:

1. EXISTING CAUSTIC TANKS, PUMPS, AND PIPING TO REMAIN UNLESS OTHERWISE NOTED.
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3. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.
4. TERMINATE DOUBLE CONTAINMENT WITH SOLID DOG-BONE FITTING ON BOTH ENDS OF FLOW METER. PROVIDE LOW LEVEL LEAK DETECTION WHERE INDICATED.



KEY PLAN

CHEMICAL STORAGE - UPPER ENLARGED PARTIAL PLAN

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

1/4"=1'-0" 0 4 8 FT.

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DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 093924 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - UPPER PLAN

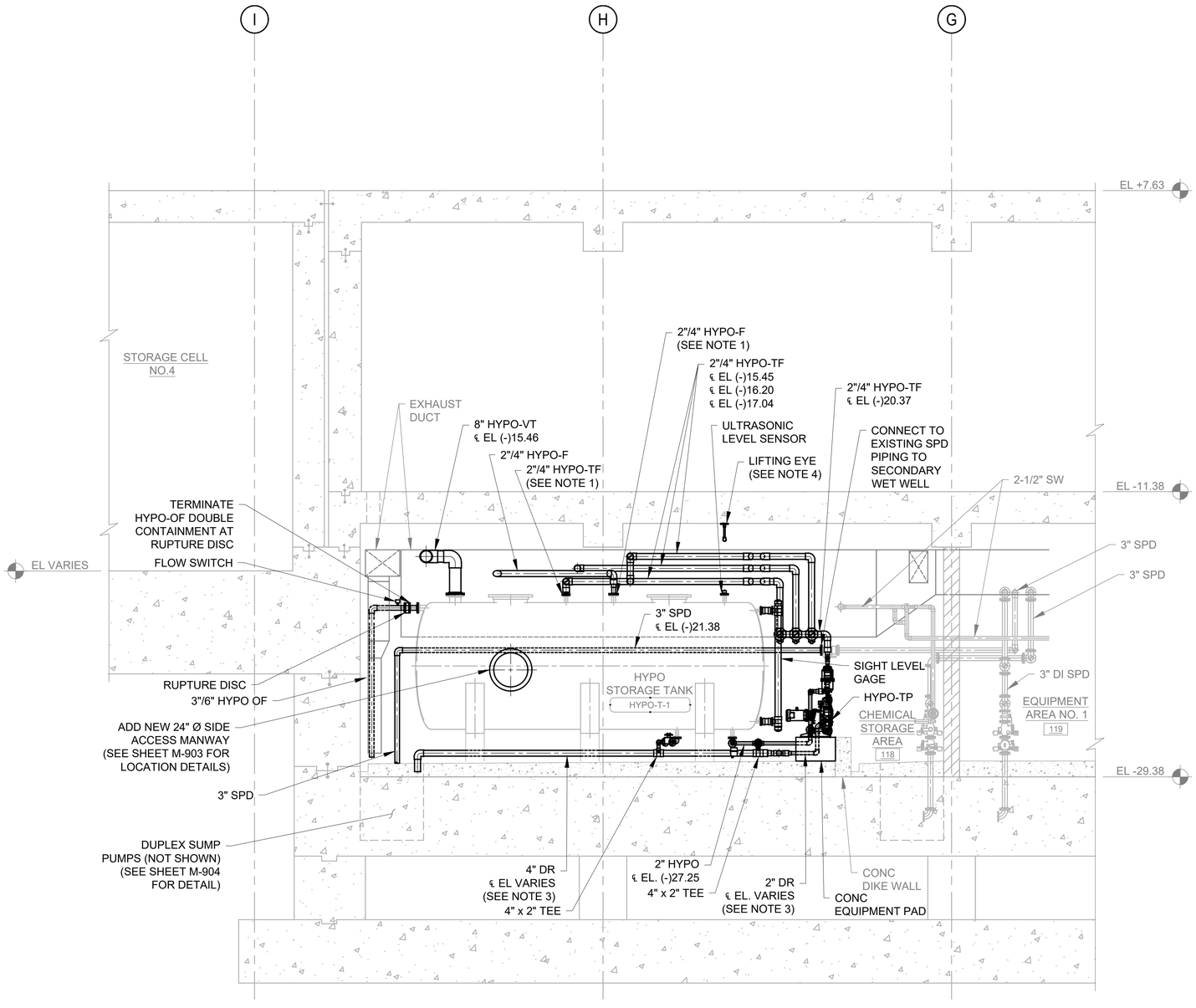
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Plot Scale: 1:1
Date & Time Plotted: 11/2/2026 10:30 AM

NOTES:

1. TERMINATE DOUBLE CONTAINMENT AT TANK NOZZLE.
2. NOT ALL SODIUM HYPOCHLORITE PIPING, VALVES, AND APPURTENANCES ARE SHOWN FOR CLARITY. REFER TO SHEET M-101 FOR FULL DETAILS OF PIPING, VALVES, AND APPURTENANCES TO BE PROVIDED.
3. SLOPE DRAIN PIPING A MINIMUM OF 1/4" PER FOOT TO SUMP.
4. PROVIDE A LIFTING EYE ABOVE EACH ULTRASONIC LEVEL SENSOR.



1 (M-103) CHEMICAL STORAGE AREA - SECTION

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

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · TIMOTHY M. MCDONALD · 083924 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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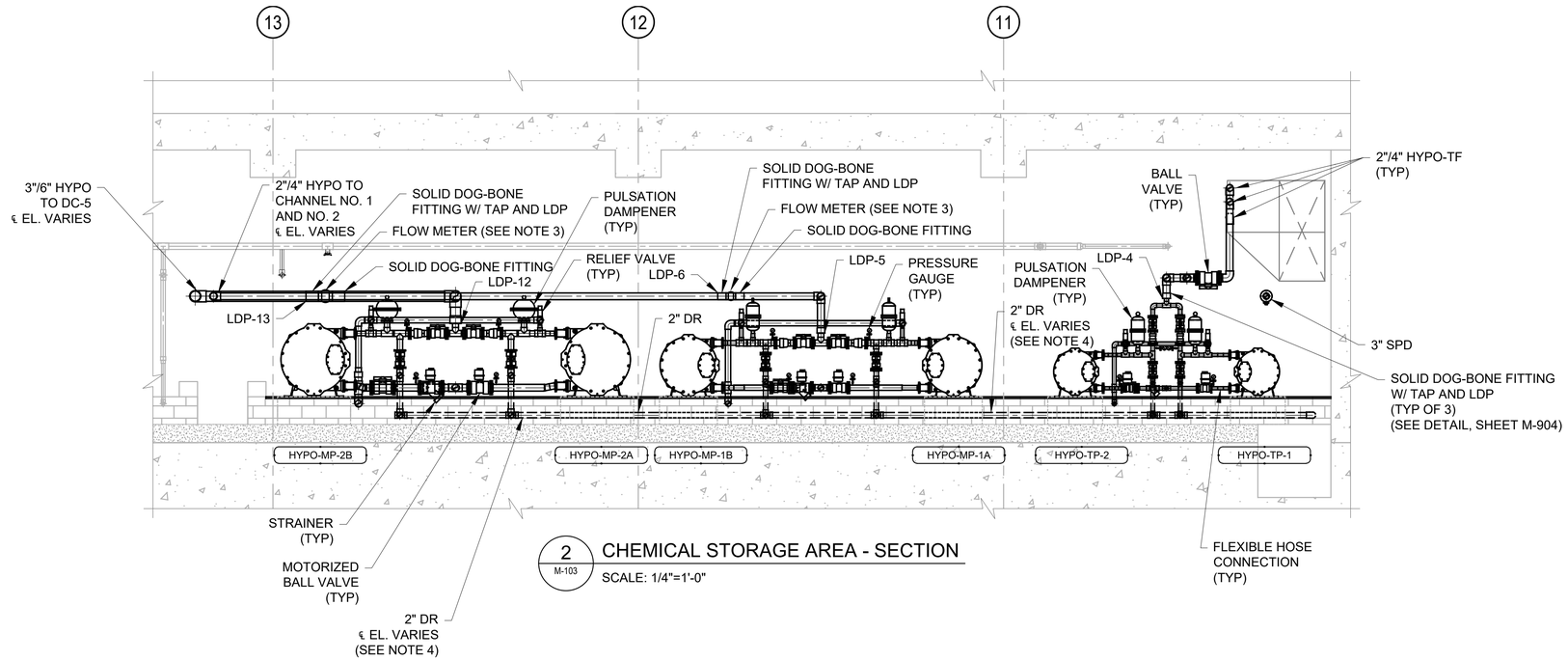
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - SECTION - SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-105.00

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Last Date Saved: 2/25/2026 7:05 PM
Date & Time Plotted: 11/2/2026 10:30 AM
Plot Style Table: BEDC_Acad_2021.ctb
Plot Scale: 1:1



2 M-103 CHEMICAL STORAGE AREA - SECTION

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

NOTES:

1. NOT ALL SODIUM HYPOCHLORITE PIPING, VALVES, AND APPURTENANCES ARE SHOWN FOR CLARITY. REFER TO SHEET M-101 FOR FULL DETAILS OF PIPING, VALVES, AND APPURTENANCES TO BE PROVIDED.
2. TANKS AND OTHER ITEMS NOT SHOWN IN THIS SECTION FOR CLARITY.
3. TERMINATE DOUBLE CONTAINMENT WITH SOLID DOG-BONE FITTING ON BOTH ENDS OF FLOW METER. PROVIDE ELECTRONIC LOW LEVEL LEAK DETECTION WHERE INDICATED.
4. SLOPE DRAIN PIPING A MINIMUM OF 1/4" PER FOOT TO SUMP.

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK TIMOTHY M. MCDONALD LICENSED PROFESSIONAL ENGINEER 10/3/25 083924

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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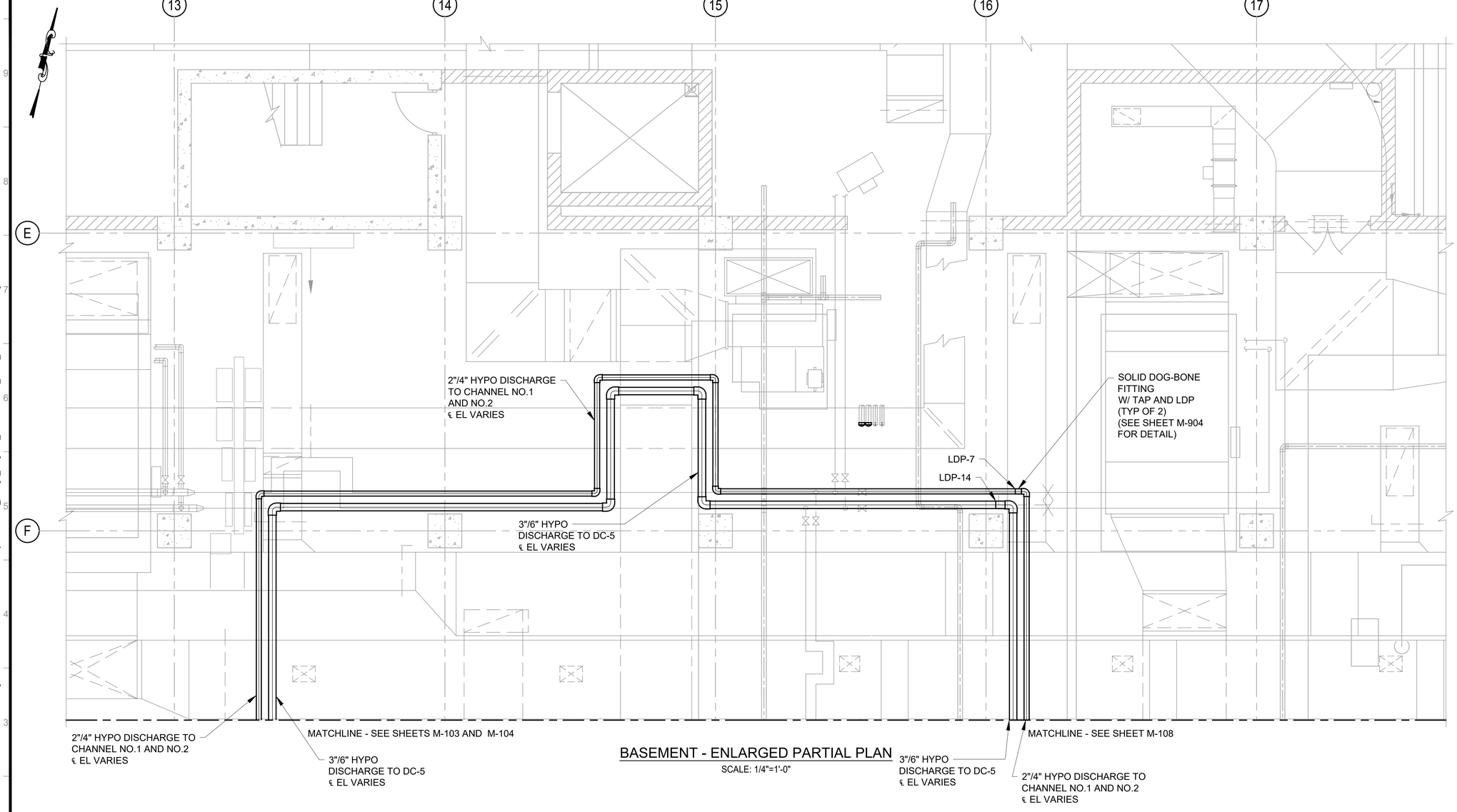
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
CHEMICAL STORAGE AREA - SECTION - SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-106.00

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Plot Scale: 1:1
Date & Time Plotted: 11/2/2026 10:31 AM
Plot Style Table: BEDC_Acad_2021.ctb



BASEMENT - ENLARGED PARTIAL PLAN

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

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · TIMOTHY M. MCDONALD · 083921 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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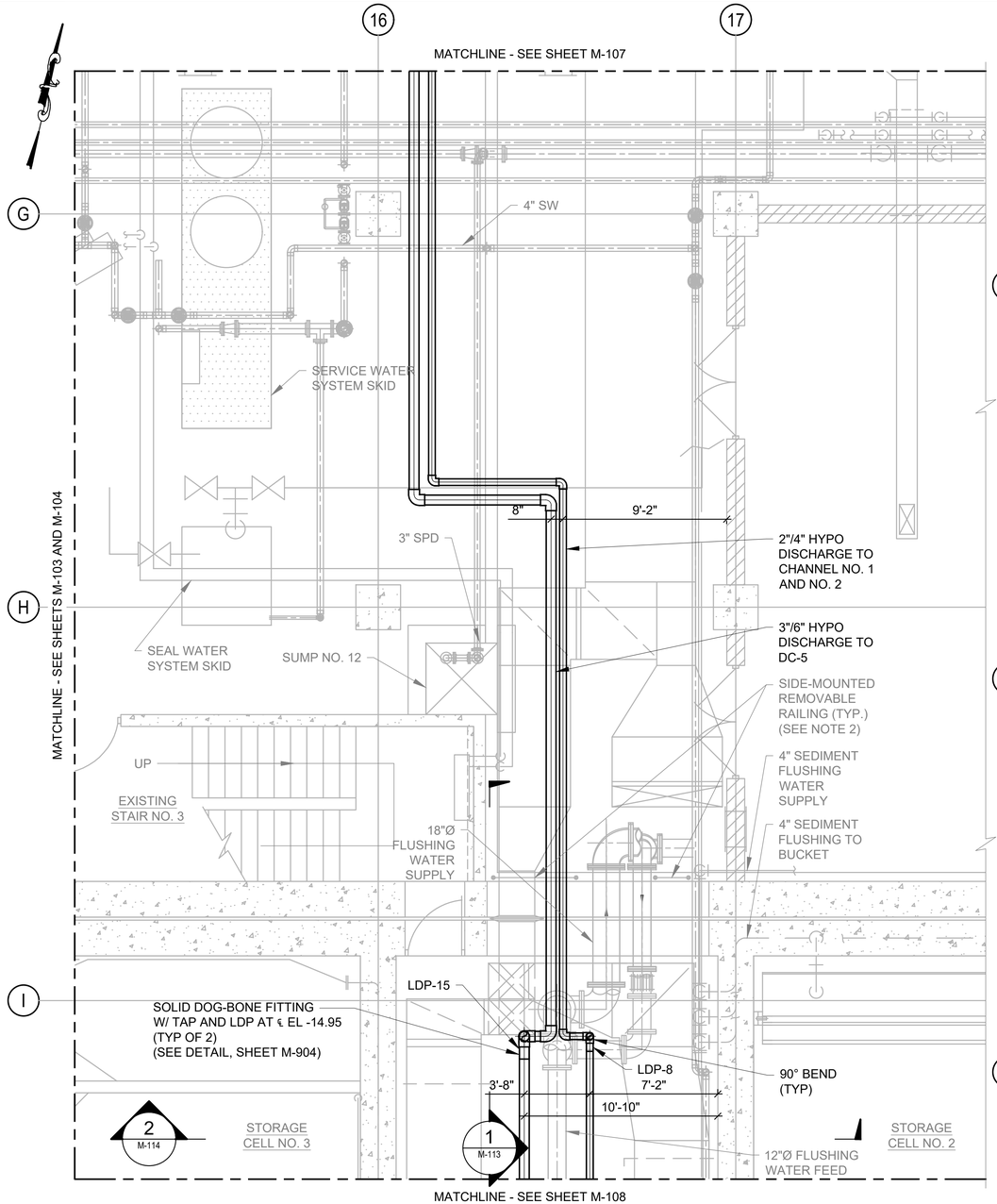
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
BASEMENT - ENLARGED PARTIAL PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-107.00

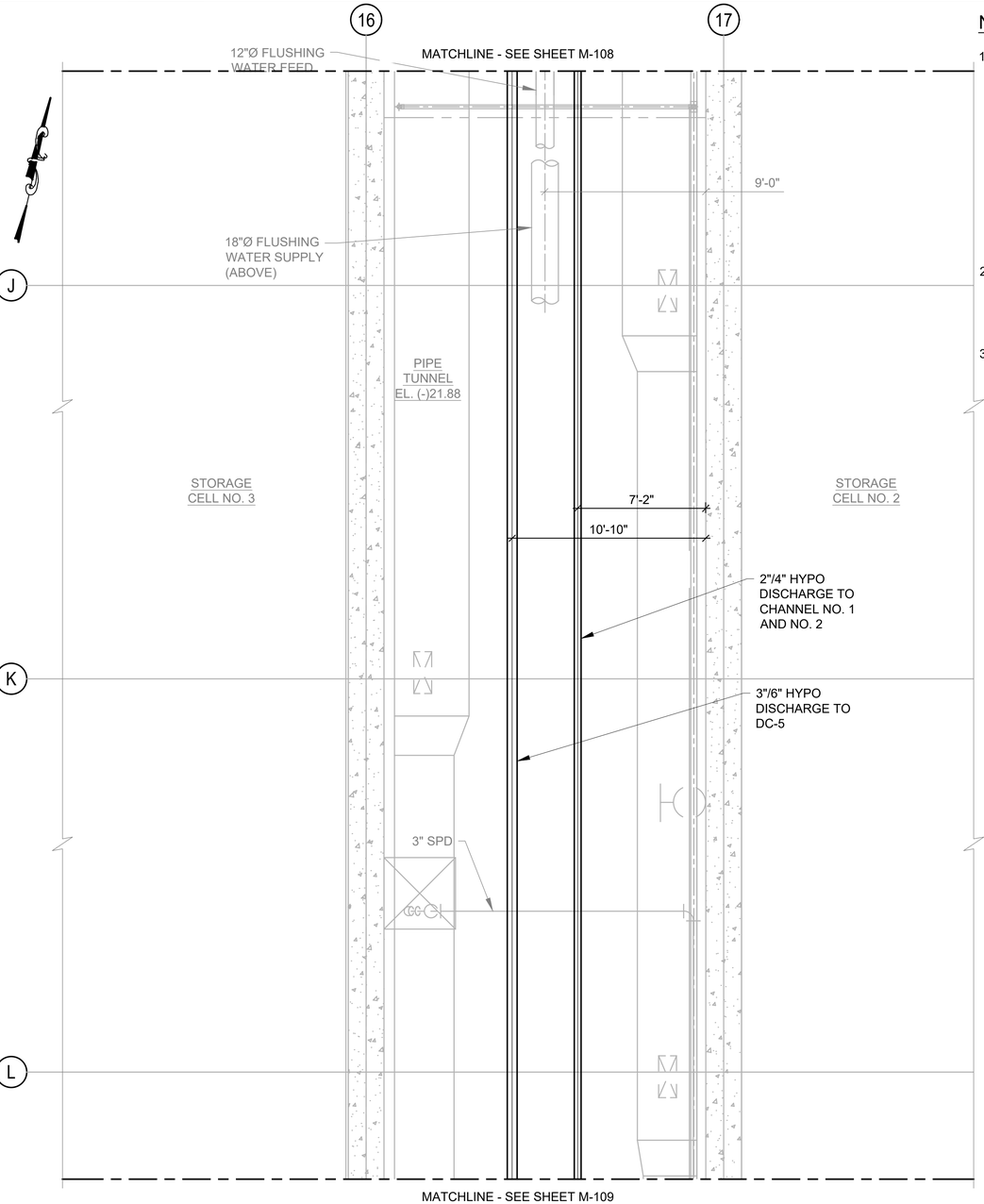
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Drawing File Name & Drive Location: C:\Users\gavinm0105\DC\ACCDocs\Arcadis\US-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities\Project Files\01_Design_Dwgs\04_Mechanical\04_Mech_CAD\M-107.00.dwg
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Plot Style Table: BEDC_Acad_2021.ctb
Plot Scale: 1:1

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PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

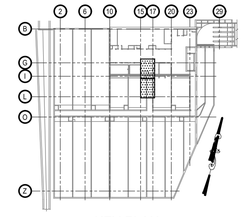


PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.
3. TEMPORARILY REMOVE, STORE, AND PROTECT RAILING TO FACILITATE CHEMICAL PIPING INSTALLATION. RE-INSTALL RAILING FOLLOWING CHEMICAL PIPING INSTALLATION.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

BID SET

DATE ISSUED: NOVEMBER 2026

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DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 083921 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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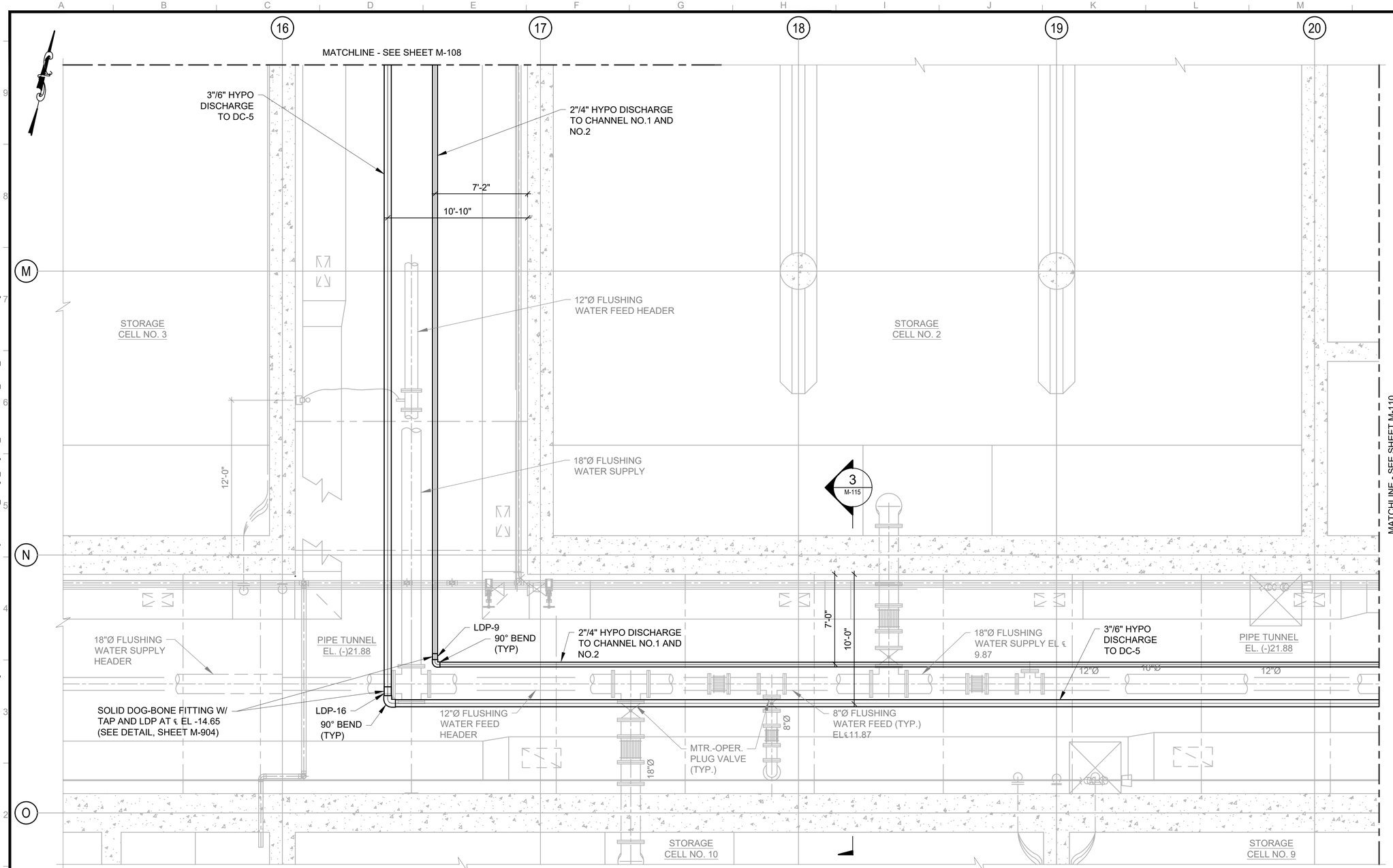
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL
ENLARGED PARTIAL PLANS - SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-108.00

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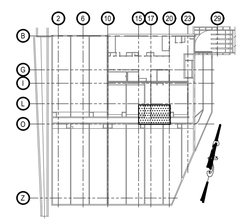


PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK TIMOTHY M. MCDONALD 103722 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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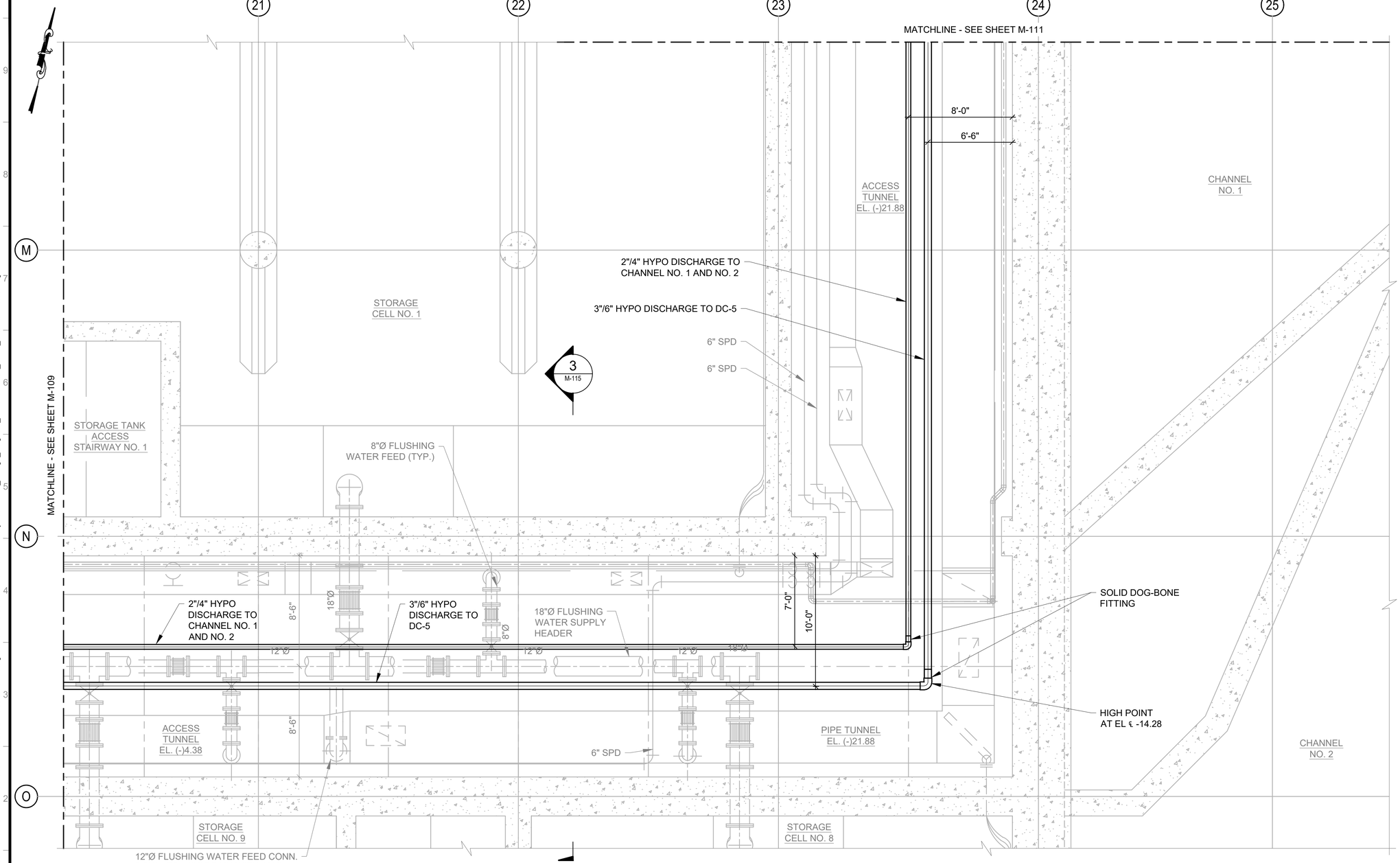
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL ENLARGED PARTIAL PLAN - SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-109.00

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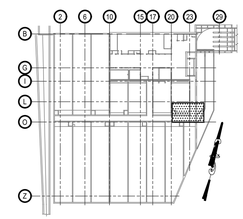


PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: AC
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 103524 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL ENLARGED PARTIAL PLAN - SHEET 3

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-110.00

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Plot Style Table: BEDC_Acad_2021.ctb
Plot Scale: 1:1
Date & Time Plotted: 11/2/2026 10:32 AM

MATCHLINE - SEE SHEET M-112

CHANNEL NO. 1

CHANNEL NO. 2

2"/4" HYPO DISCHARGE TO CHANNEL NO. 1 AND NO. 2

3"/6" HYPO DISCHARGE TO DC-5

6'-6"

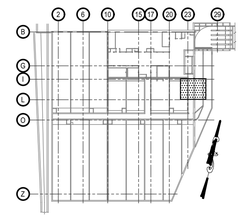
8'-0"

4
M-116

MATCHLINE - SEE SHEET M-110

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · TIMOTHY M. MCDONALD · 093924 · LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

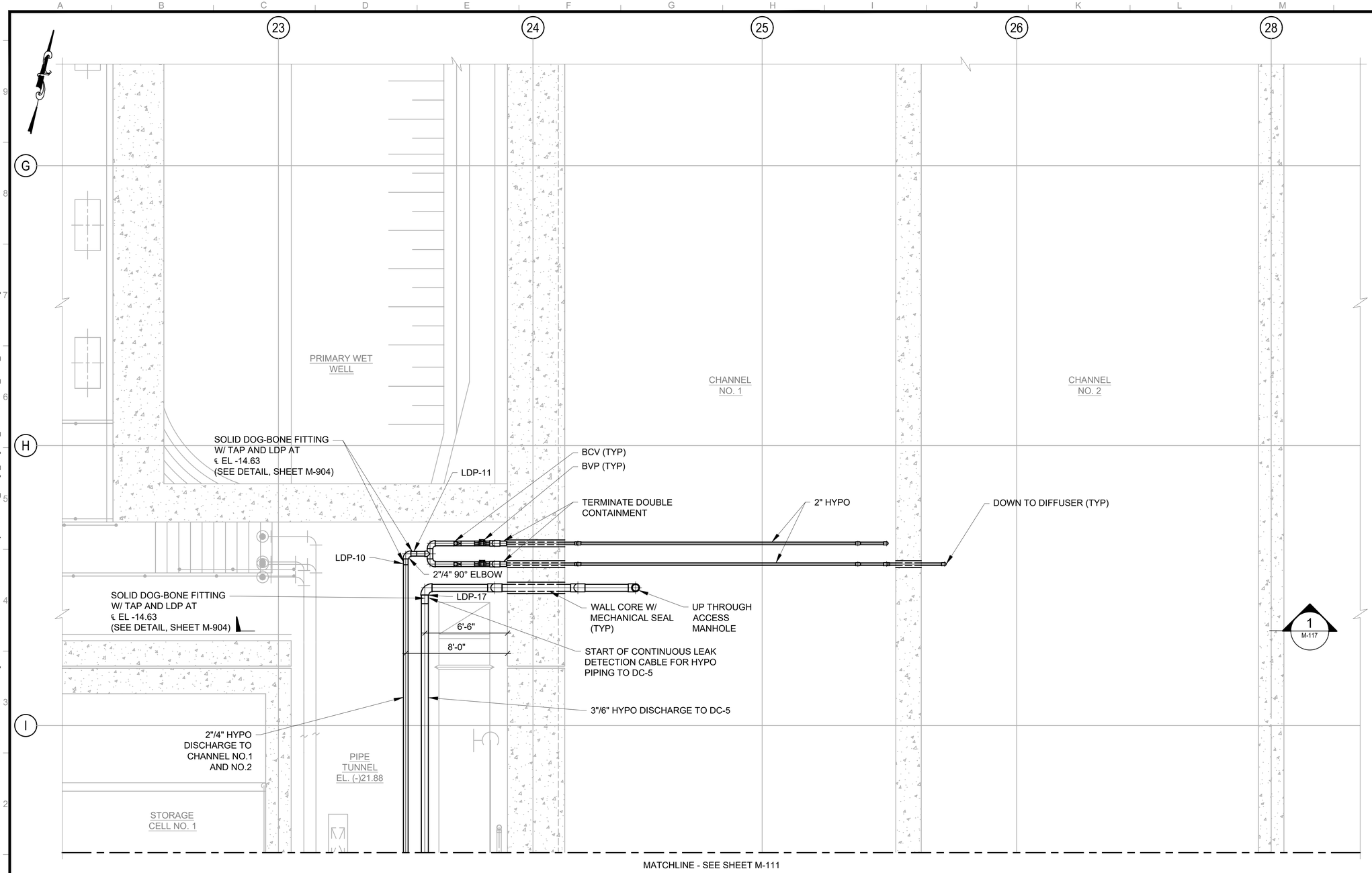
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL ENLARGED PARTIAL PLAN - SHEET 4

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-111.00

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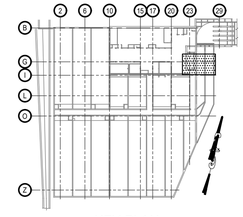
MATCHLINE - SEE SHEET M-111

PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

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STATE OF NEW YORK TIMOTHY M. MCDONALD 083921 LICENSED PROFESSIONAL ENGINEER

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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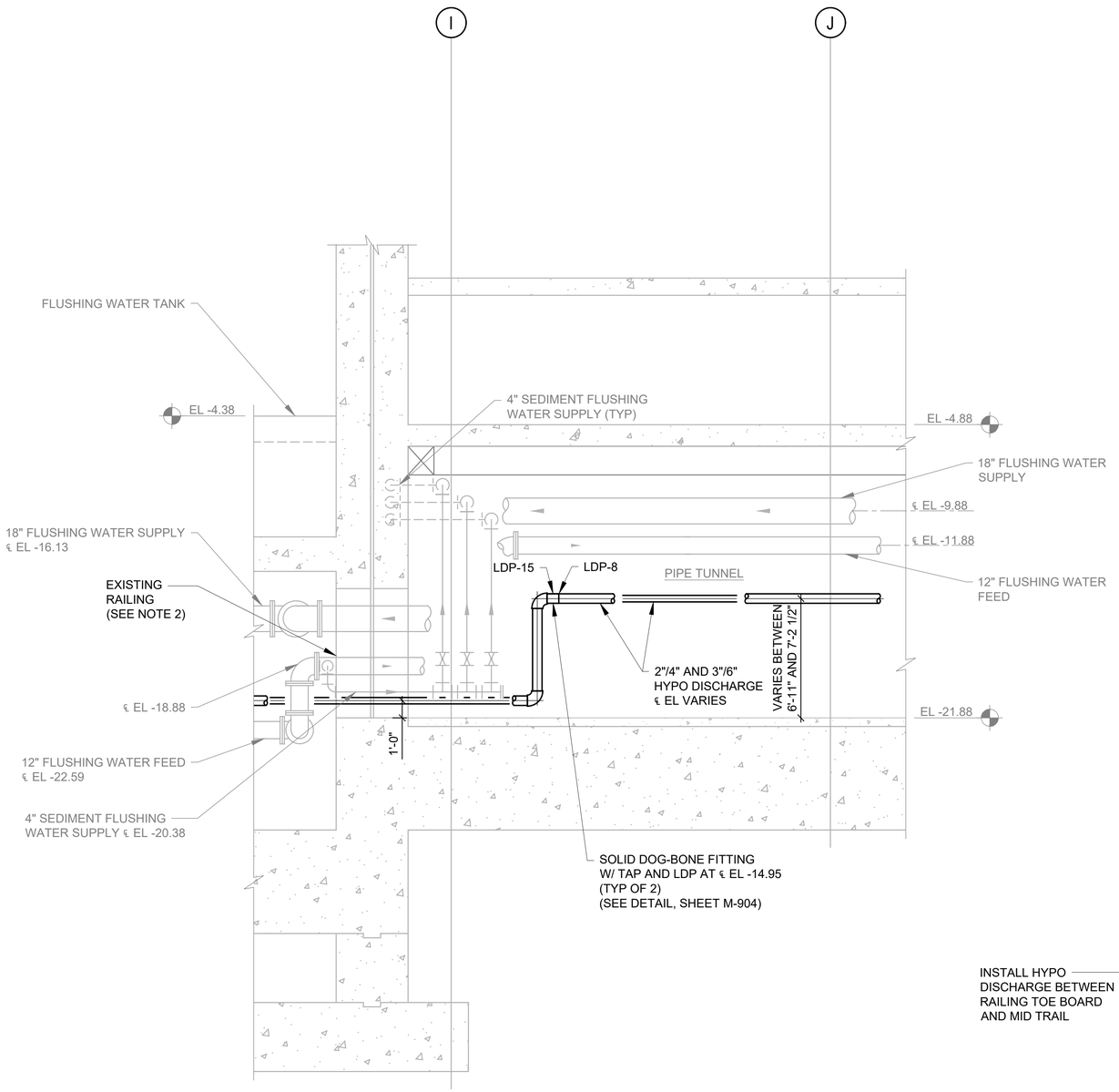
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL ENLARGED PARTIAL PLAN - SHEET 5

DATE: NOVEMBER 2026
SHEET NO:
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Date & Time Plotted: 11/2/2026 10:32 AM
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1 M-108 PIPE TUNNEL - SECTION

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

NOTES:

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2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.
3. TEMPORARILY REMOVE, STORE, AND PROTECT RAILING TO FACILITATE CHEMICAL PIPING INSTALLATION. RE-INSTALL RAILING FOLLOWING CHEMICAL PIPING INSTALLATION.



PIPE TUNNEL PHOTO

SCALE: NOT TO SCALE

1/4"=1'-0" 0 4 8 FT.

BID SET
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DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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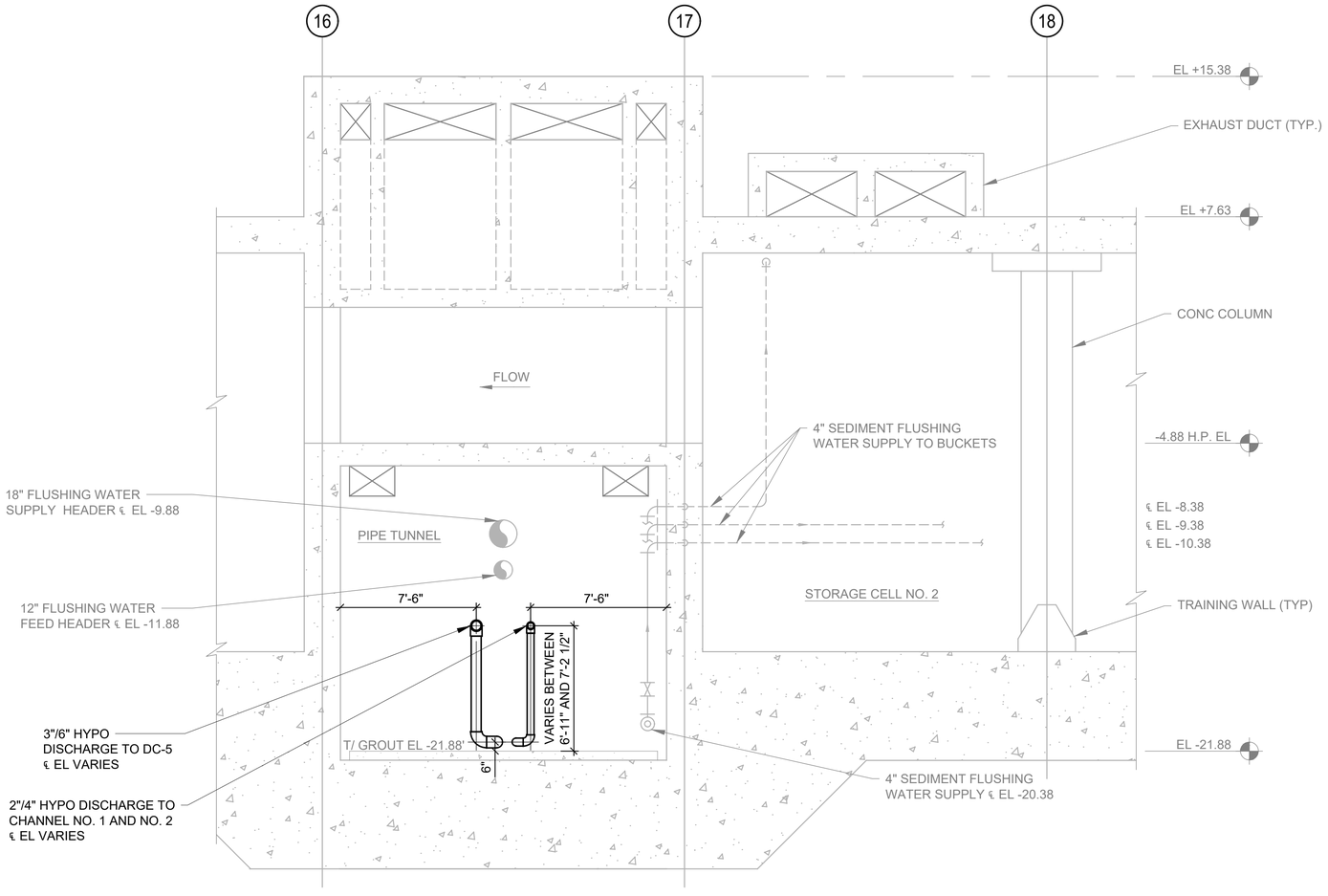
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PIPE TUNNEL - SECTION - SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
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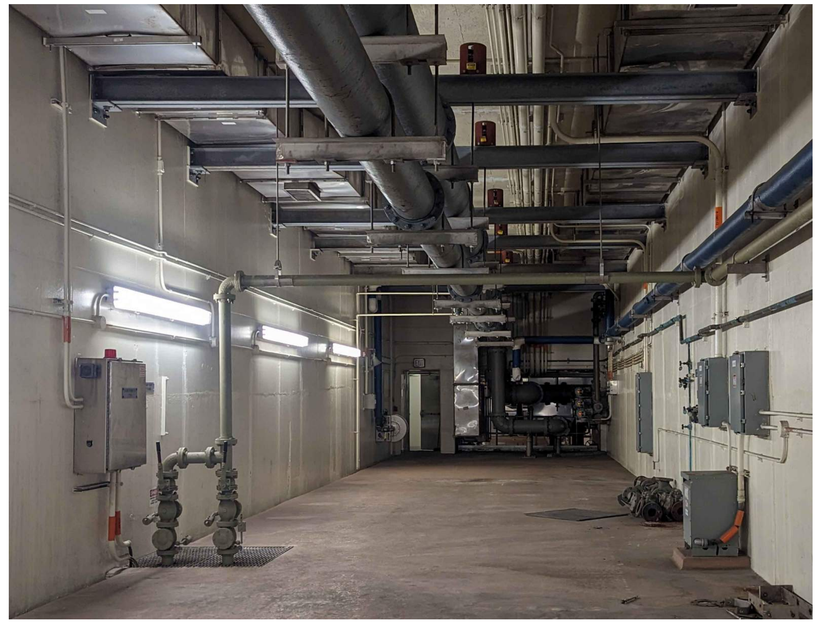


2 / M-108 PIPE TUNNEL - SECTION

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

NOTES:

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2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.



PIPE TUNNEL PHOTO

SCALE: NOT TO SCALE

1/4"=1'-0" 0 4 8 FT.

BID SET

DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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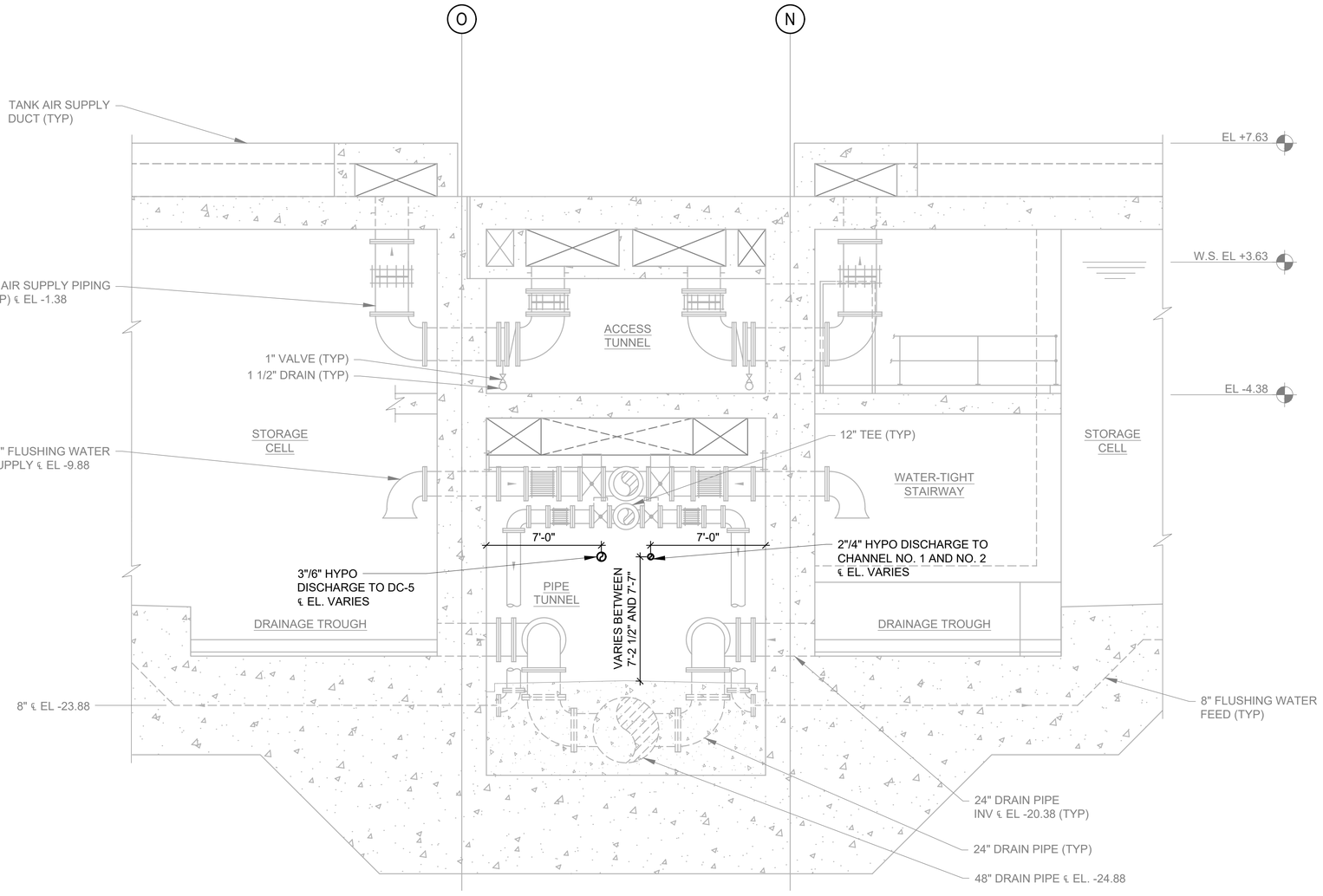
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PIPE TUNNEL - SECTION - SHEET 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-114.00

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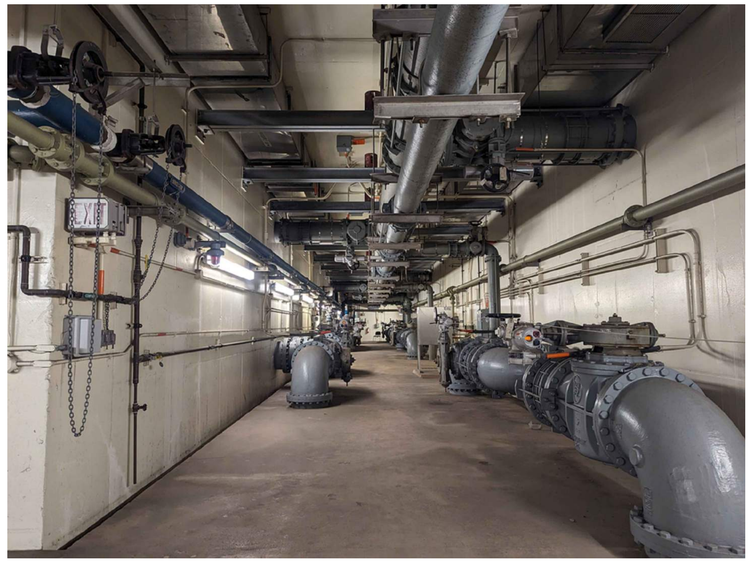


3 M-109 PIPE TUNNEL - SECTION

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

NOTES:

1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.



PIPE TUNNEL PHOTO

SCALE: NOT TO SCALE

1/4"=1'-0" 0 4 8 FT.

BID SET

DATE ISSUED: NOVEMBER 2026

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STATE OF NEW YORK TIMOTHY M. MCDONALD 093925 LICENSED PROFESSIONAL ENGINEER

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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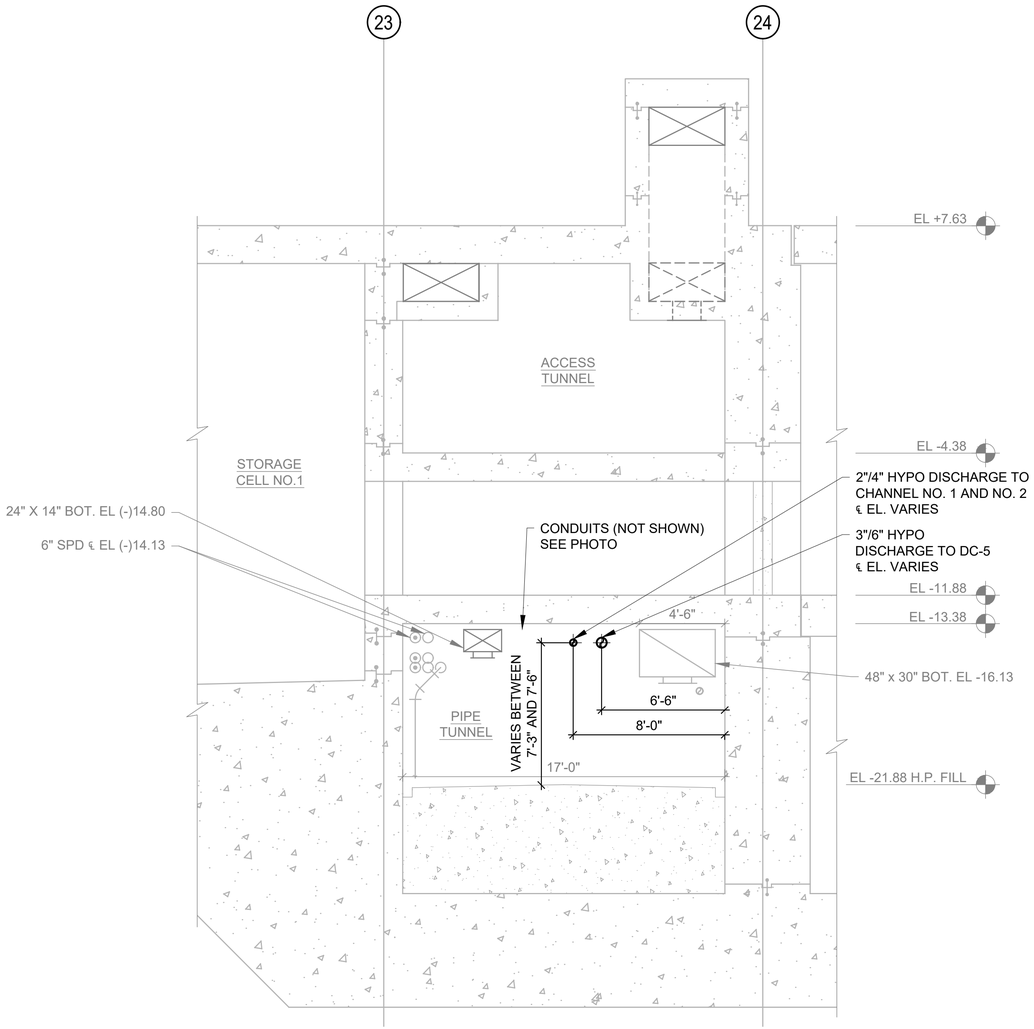
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
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PIPE TUNNEL - SECTION - SHEET 3

DATE: NOVEMBER 2026
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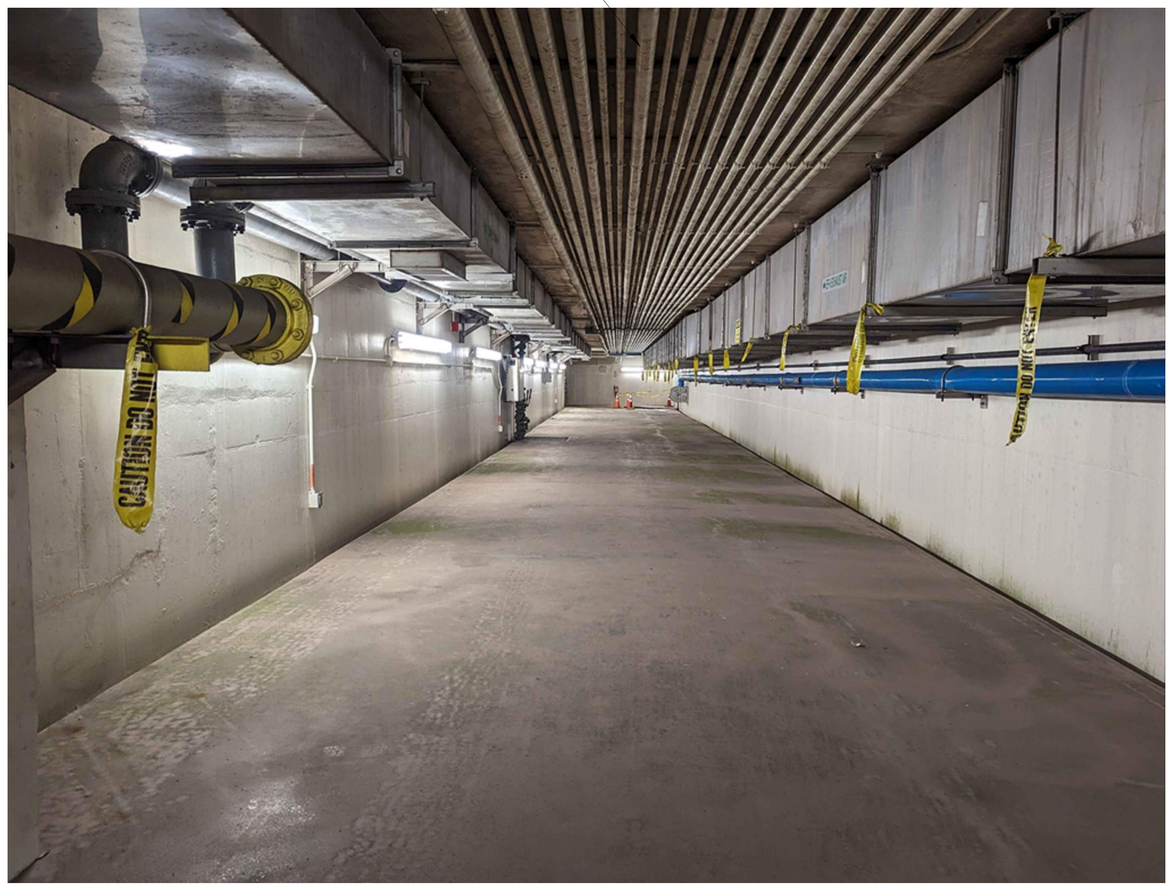


4 / M-111 PIPE TUNNEL - SECTION

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

NOTES:

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PIPE TUNNEL PHOTO

SCALE: NOT TO SCALE

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK TIMOTHY M. MCDONALD 103924 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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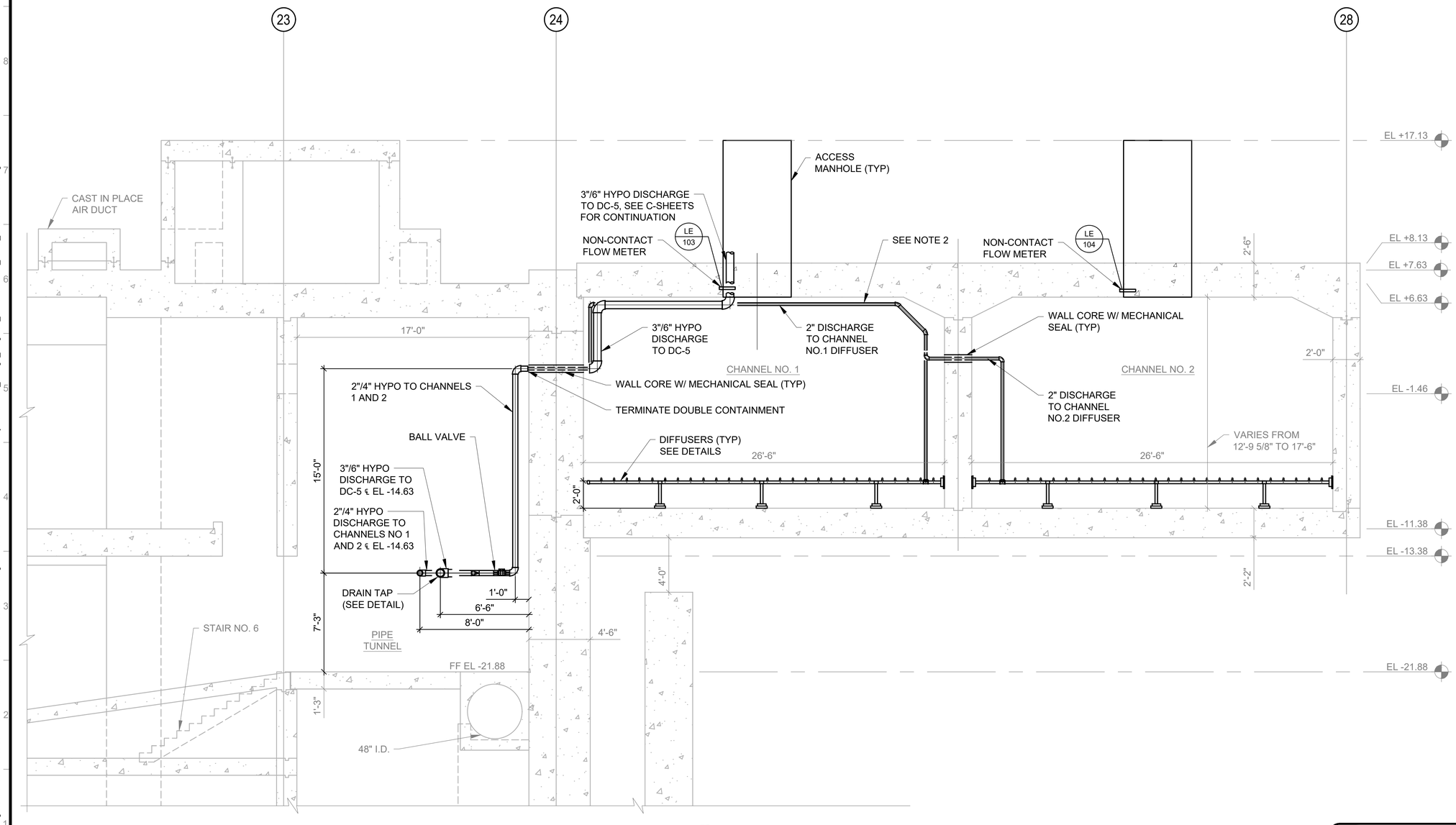
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CAPITAL CONTRACT WP-169 CSO-FC-DF
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PIPE TUNNEL - SECTION - SHEET 4

DATE: NOVEMBER 2026
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1. COORDINATE CHEMICAL PIPING LAYOUT AND ELEVATIONS WITH EXISTING HVAC DUCTWORK, PLUMBING AND PROCESS PIPING, AND ELECTRICAL COMPONENTS IN THE FIELD. PROVIDE SLOPE OF AT LEAST 1/32" AND MAINTAIN 6'-8" CLEARANCE BETWEEN FLOOR AND BOTTOM OF PIPE AT ALL TIMES. MAINTAIN A MINIMUM OF 2" BETWEEN OUTER DIAMETER OF PIPES.
2. SUPPORT CHEMICAL PIPING FROM UNDERSIDE OF SLAB.
3. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS SHOWN AND AT LOW POINTS.

1/4"=1'-0" 0 4 8 FT.

1 / M-112 INFLUENT CHANNELS - SECTION

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

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: AC
CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK TIMOTHY M. MCDONALD 083924 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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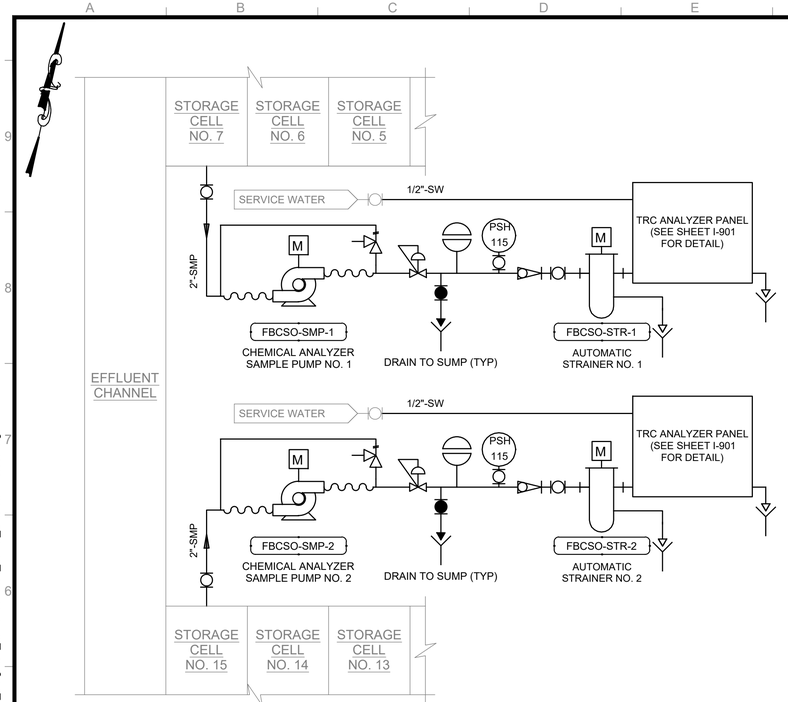
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILTY
INFLUENT CHANNELS - SECTION

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-117.00

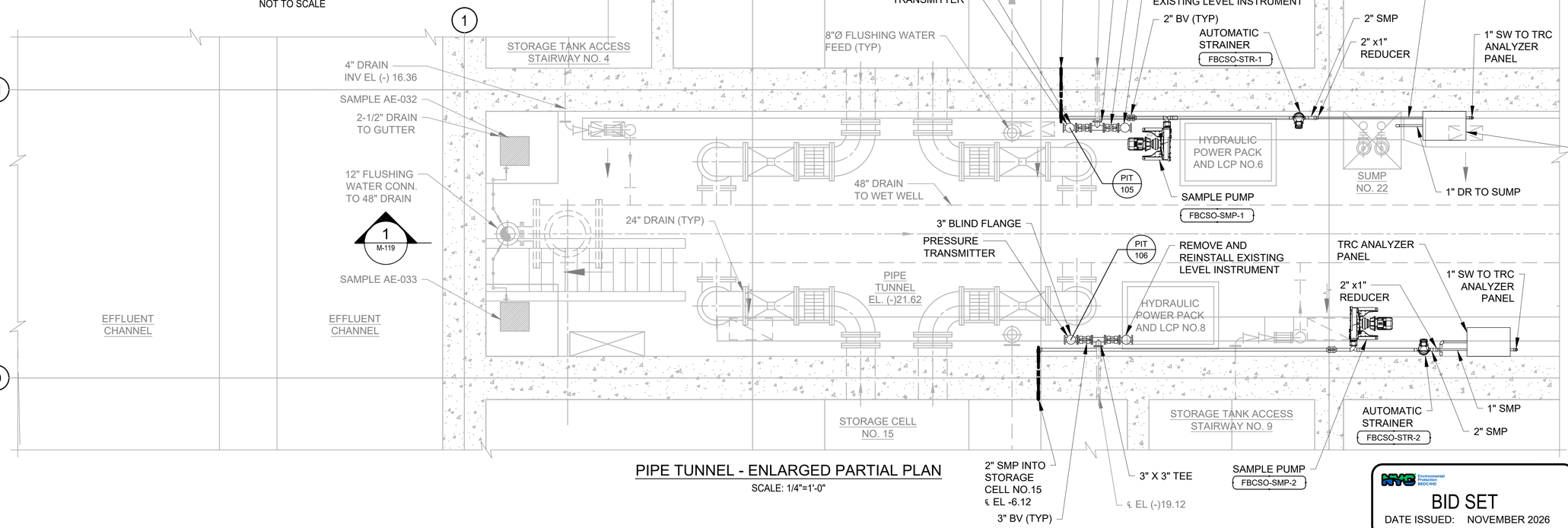
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SAMPLE PUMP PIPING SCHEMATICS

NOT TO SCALE

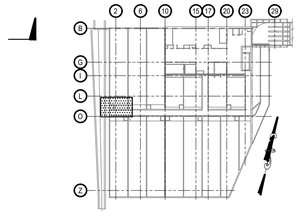


PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

NOTE:

1. NOT ALL SAMPLE PIPING, VALVES, AND APPURTENANCES ARE SHOWN FOR CLARITY. REFER TO SCHEMATIC ON THIS SHEET FOR FULL DETAILS OF PIPING, VALVES, AND APPURTENANCES TO BE PROVIDED.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 083924 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL AT STORAGE CELLS 7 & 15 ENLARGED PARTIAL PLAN

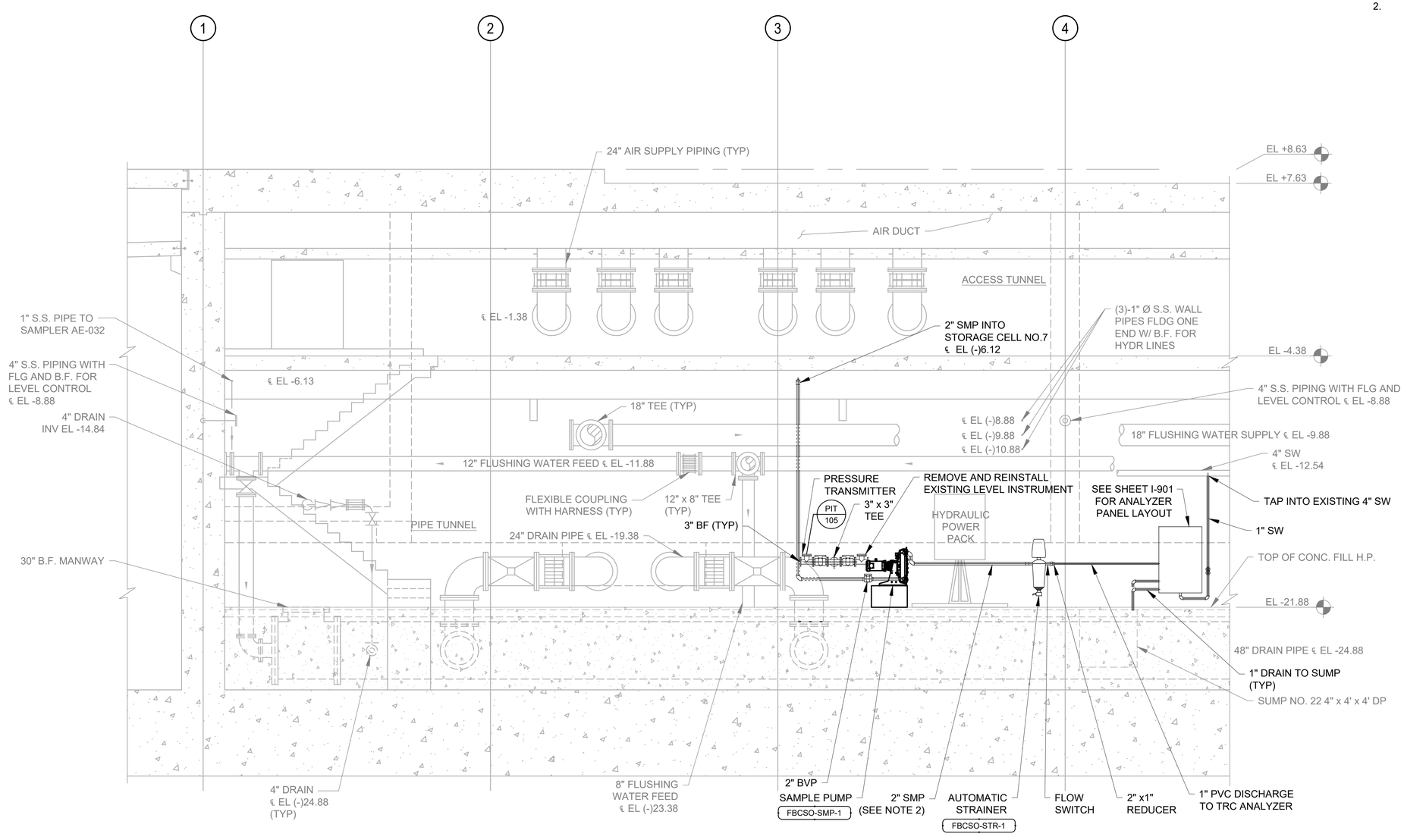
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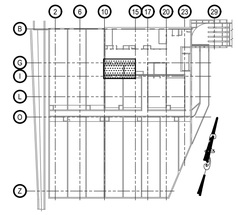
NOTE:

1. WORK IS SIMILAR FOR SAMPLE PUMPS AND TRC ANALYZERS FOR STORAGE CELL NO. 15.
2. NOT ALL SAMPLE PIPING VALVES AND APPURTENANCES ARE SHOWN FOR CLARITY. REFER TO SCHEMATIC ON SHEET M-118 FOR FULL DETAILS OF PIPING, VALVES, AND APPURTENANCES TO BE PROVIDED.



1 M-118 PIPE TUNNEL - SECTION

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



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

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NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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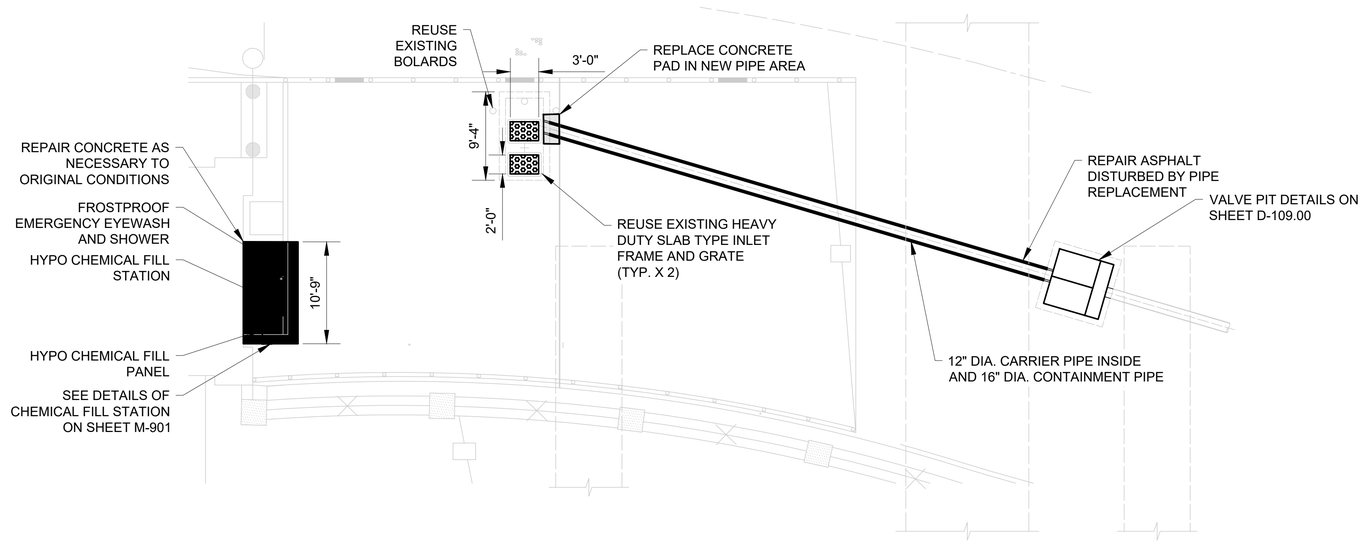
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - PIPE TUNNEL AT STORAGE CELLS 7 & 15 - SECTION

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-119.00

Last Saved By: Achambers
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Plot Scale: 1:1
Plot Style Table: BEDC_Acad_2021.ctb

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CHEMICAL FILL STATION PLAN

SCALE: 1/8" = 1'-0"

1/8"=1'-0" 0 5 10 15 FT.

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CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, P.E.
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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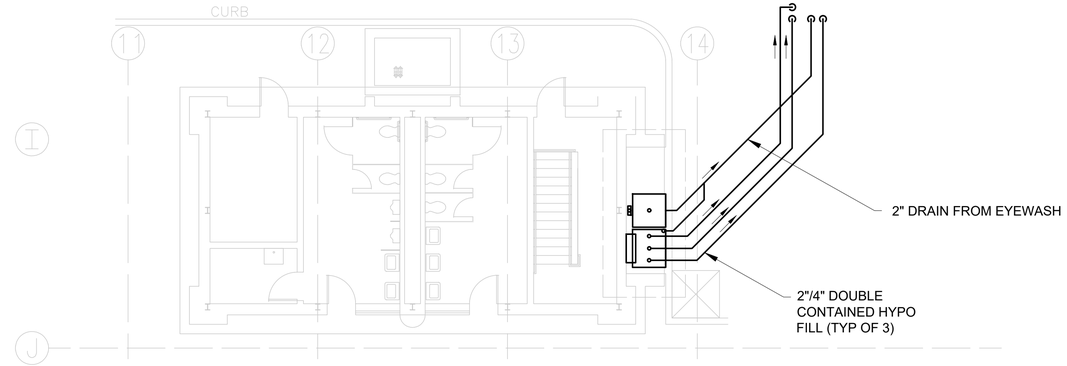
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
CHEMICAL FILL STATION - OVERALL PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-120.00

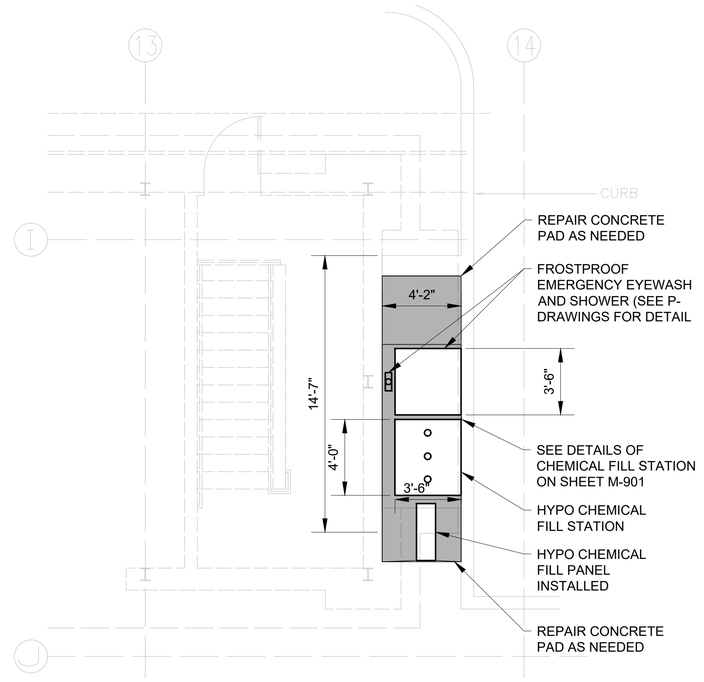
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BURIED PIPING PLAN

SCALE: 1/8" = 1'-0"



CHEMICAL FILL STATION ENLARGED PLAN

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

1/8"=1'-0" 0 5 10 15 FT.

1/4"=1'-0" 0 4 8 FT.

BID SET

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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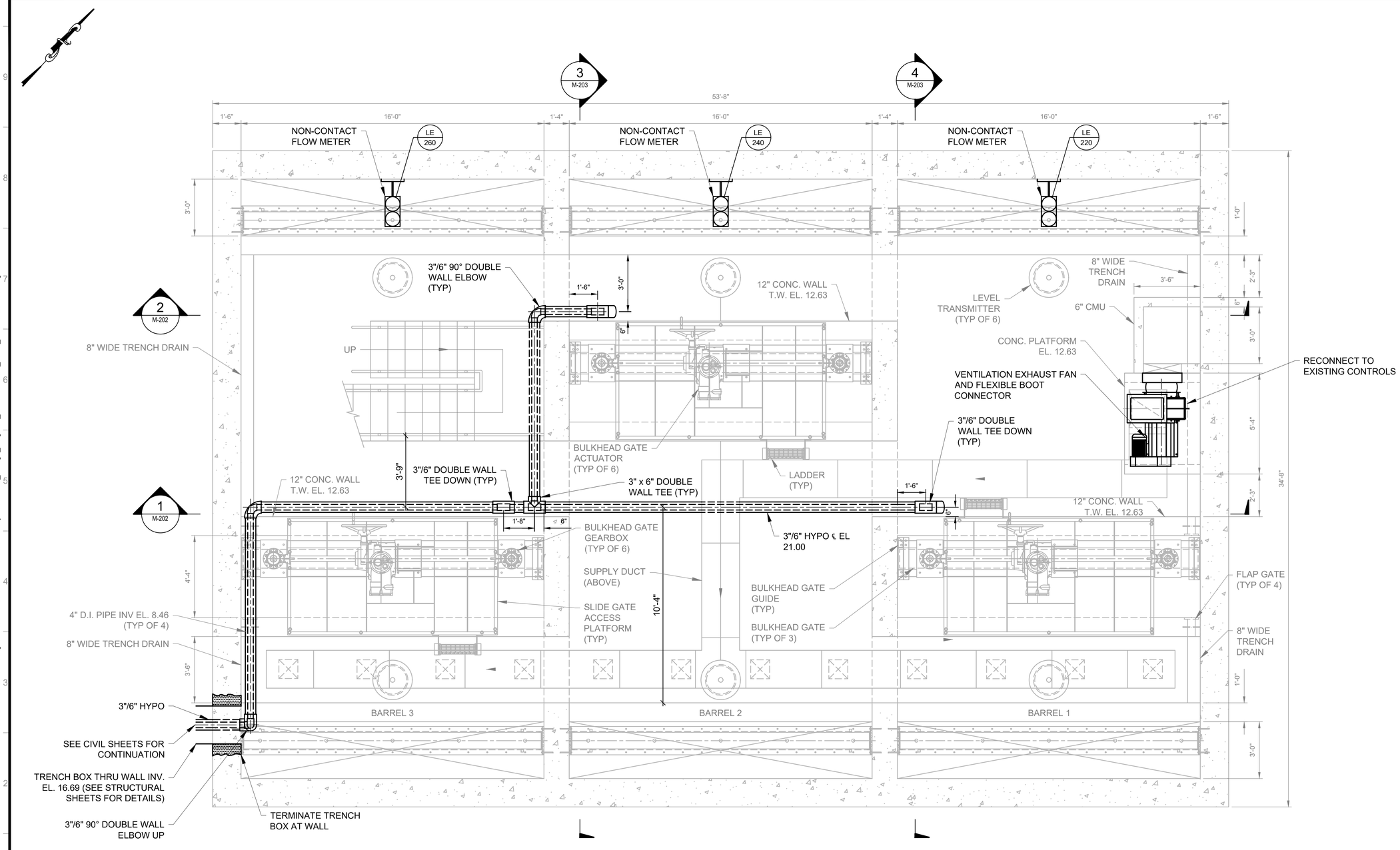
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

TI-010 CHLORINATION FACILITY
CHEMICAL FILL STATION - ENLARGED PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-121.00

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Date & Time Plotted: 8/31/2026 4:45 PM Plot Scale: 1:1



DIVERSION CHAMBER NO. 5 - OPERATING FLOOR - PLAN

SCALE: 3/8"=1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

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DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

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STATE OF NEW YORK TIMOTHY M. MCDONALD 078324 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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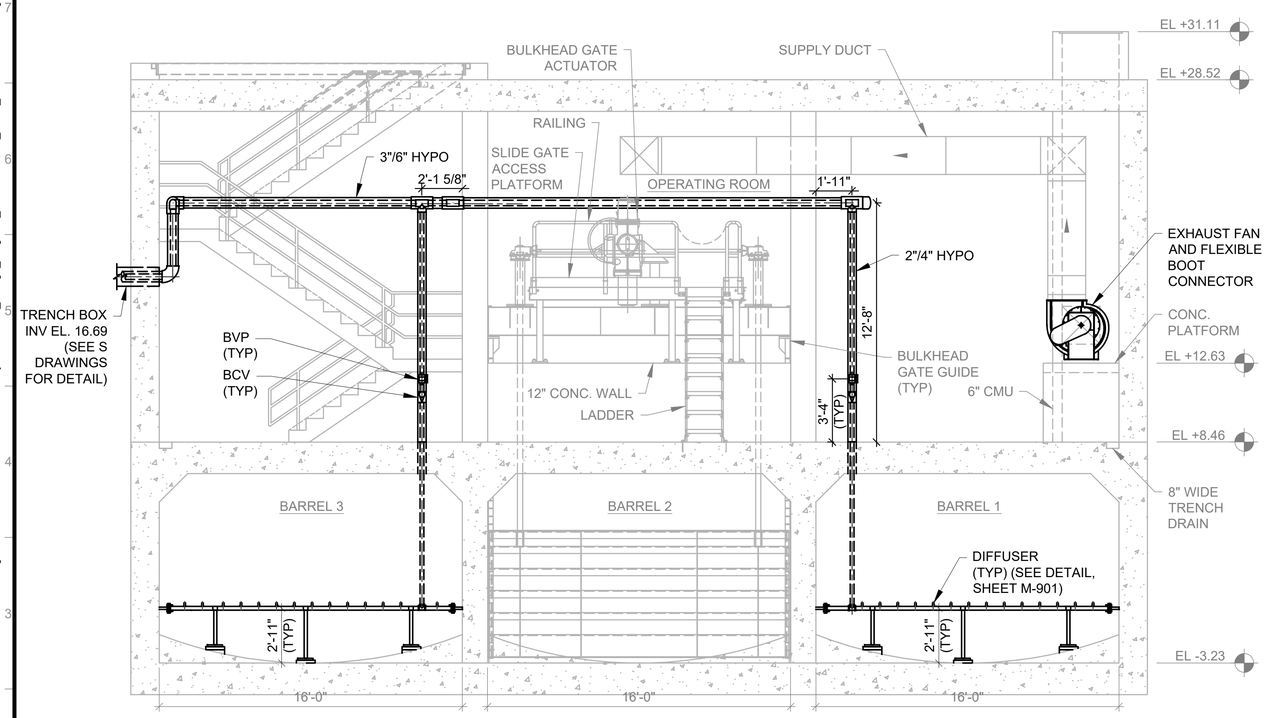
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - DC-5
OPERATING FLOOR - PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-201.00

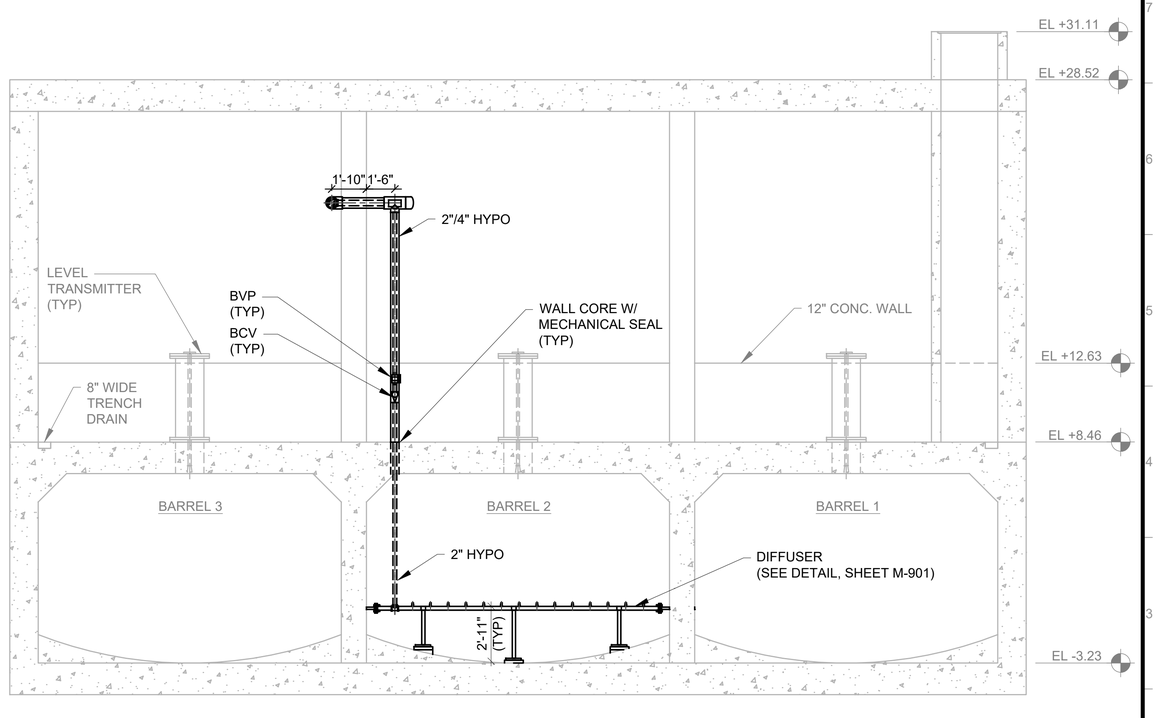
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Plot Scale: 1:1
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1 M-201 DIVERSION CHAMBER NO. 5 - SECTION

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



2 M-201 DIVERSION CHAMBER NO. 5 - SECTION

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

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 083924 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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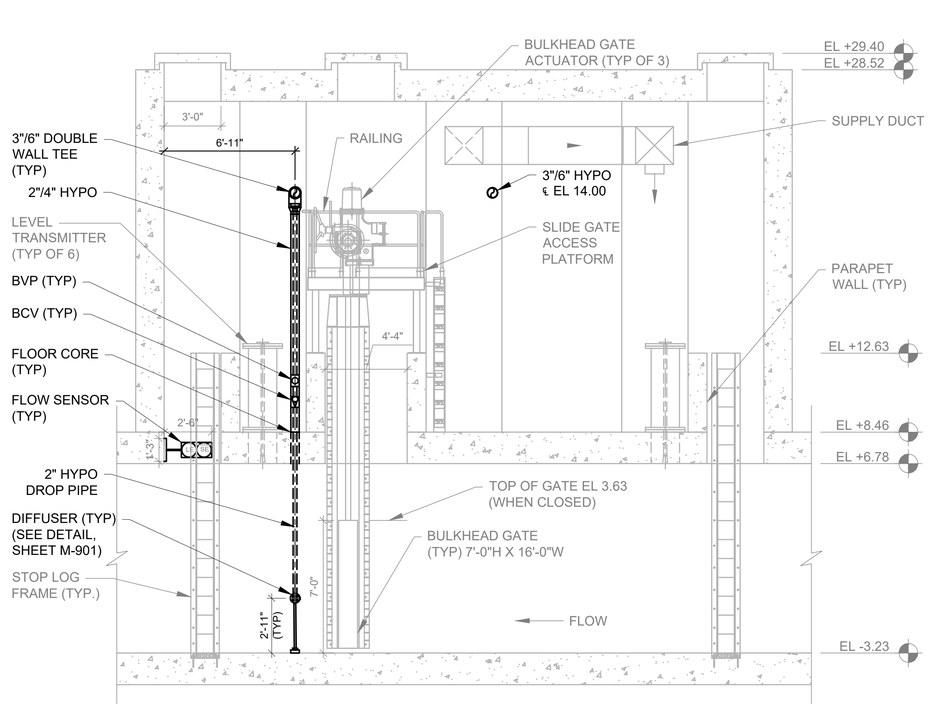
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - DC-5
SECTIONS - SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
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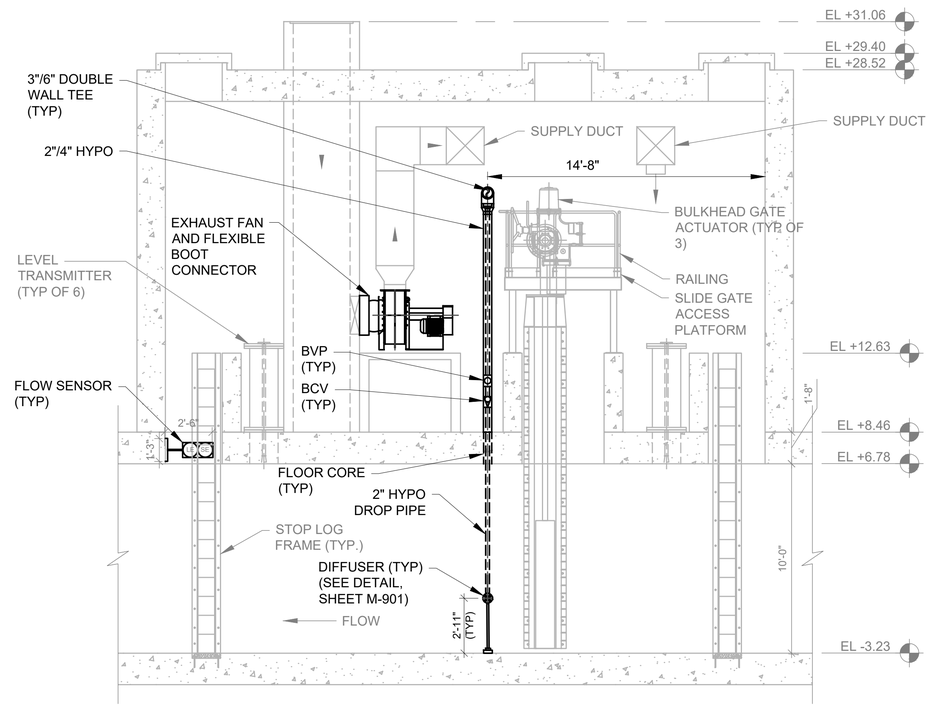
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Plot Scale: 1:1



3 M-201 DIVERSION CHAMBER NO. 5 - SECTION

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



4 M-201 DIVERSION CHAMBER NO. 5 - SECTION

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

1/4"=1'-0" 0 4 8 FT.

NYC Environmental Protection BEDC/HD

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DATE ISSUED: NOVEMBER 2026

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NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE

PORTFOLIO MANAGER: ROY TYSVAER, PE

DIRECTOR, IN HOUSE DESIGN

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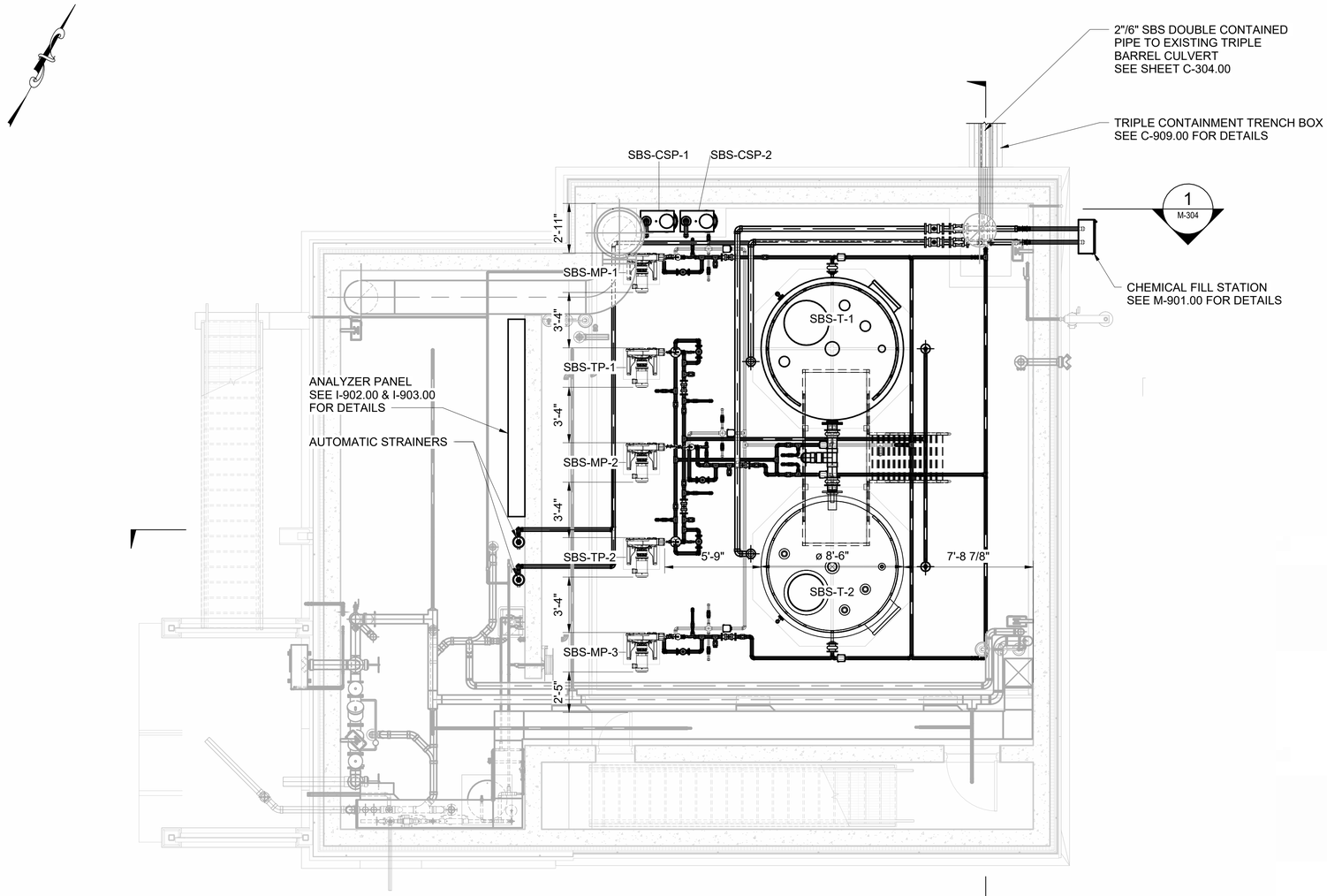
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY - DC-5
SECTIONS - SHEET 2

DATE: NOVEMBER 2026
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Date & Time Plotted: 11/2/2026 10:34 AM

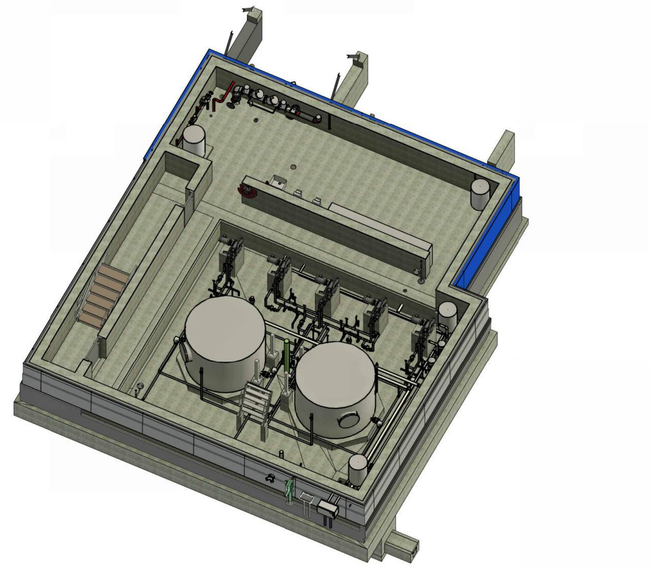


TI-010 DECHLORINATION FACILITY BASEMENT PLAN

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

2 M-305

DECHLORINATION FACILITY MECHANICAL EQUIPMENT SCHEDULE		
EQUIPMENT NAME	DESCRIPTION	COMMENTS
SBS-CSP-1	CHEMICAL SUMP PUMP 1	2" CONNECTION
SBS-CSP-2	CHEMICAL SUMP PUMP 2	2" CONNECTION
SBS-MP-1	SODIUM BISULFITE METERING PUMP 1	ANSI 150# 1.5" FLANGED CONNECTION
SBS-MP-2	SODIUM BISULFITE METERING PUMP 2	ANSI 150# 1.5" FLANGED CONNECTION
SBS-MP-3	SODIUM BISULFITE METERING PUMP 3	ANSI 150# 1.5" FLANGED CONNECTION
SBS-T-1	SODIUM BISULFITE CHEMICAL STORAGE TANK 1	3,760 GALLON
SBS-T-2	SODIUM BISULFITE CHEMICAL STORAGE TANK 2	3,760 GALLON
SBS-TP-1	SODIUM BISULFITE TRANSFER PUMP 1	ANSI 150# 1.5" FLANGED CONNECTION
SBS-TP-2	SODIUM BISULFITE TRANSFER PUMP 2	ANSI 150# 1.5" FLANGED CONNECTION



TI-010 DECHLORINATION FACILITY ISOMETRIC VIEW

SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

NYC Environmental Protection BEDC/IHD

BID SET

SUBMITTAL DATE: NOVEMBER 2026

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DRAWN BY: MB
CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, PE
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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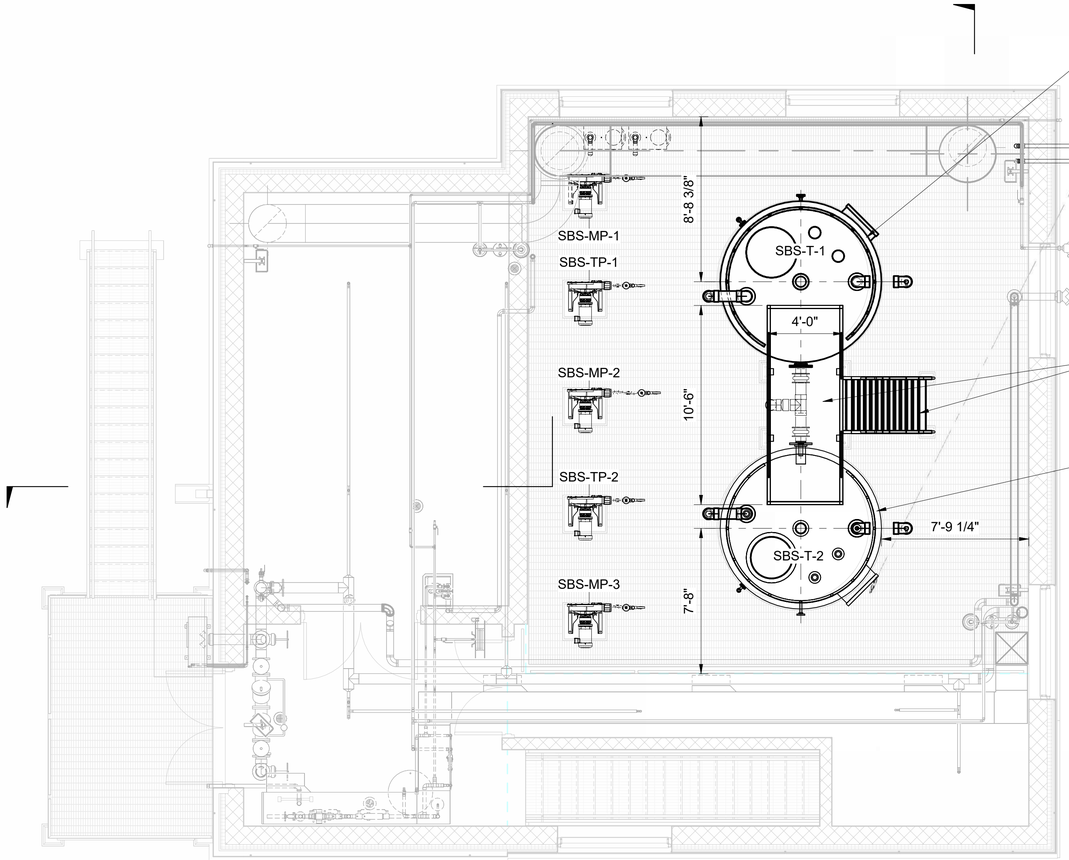
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-010 DECHLORINATION FACILITY BASEMENT PLAN

DATE: NOVEMBER 2026
SHEET NO:
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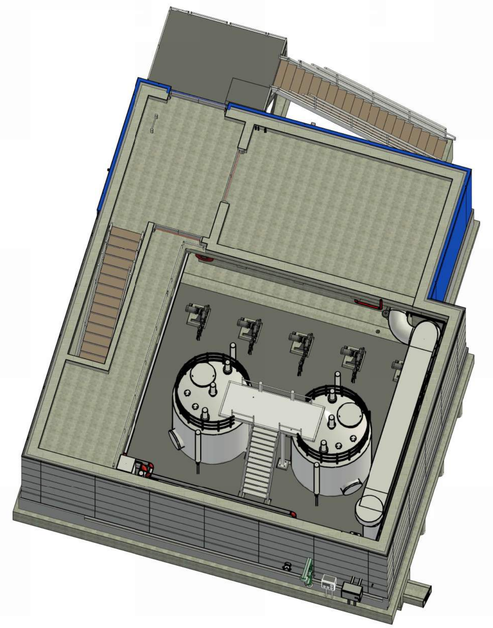
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TI-010 DECHLORINATION FACILITY FIRST FLOOR PLAN

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

2
M-305



TI-010 DECHLORINATION FACILITY ISOMETRIC VIEW

SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

NYC Environmental Protection BEDC/IHD

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SUBMITTAL DATE. NOVEMBER 2026

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

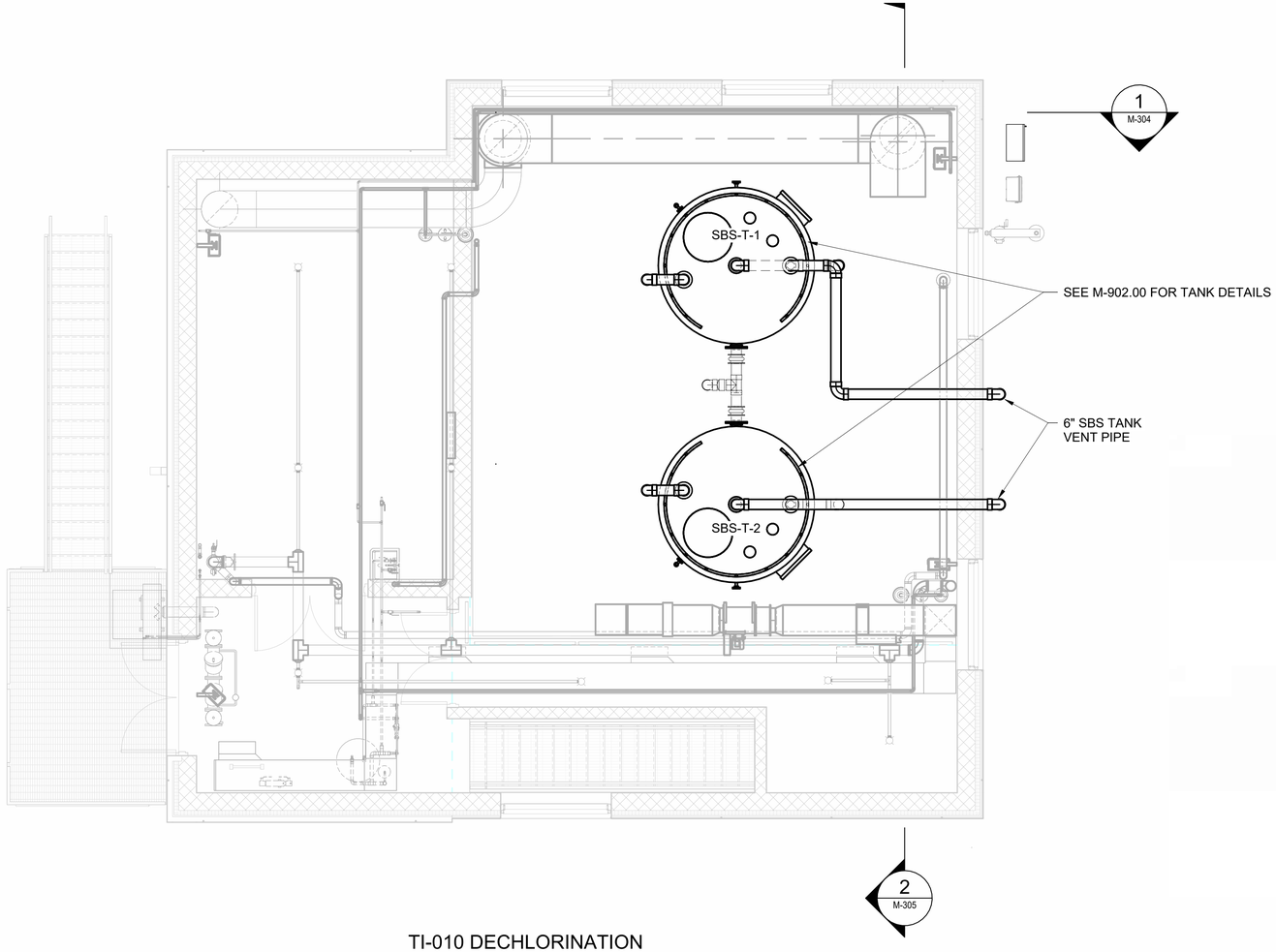
MECHANICAL
TI-010 DECHLORINATION FACILITY
FIRST FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-302.00

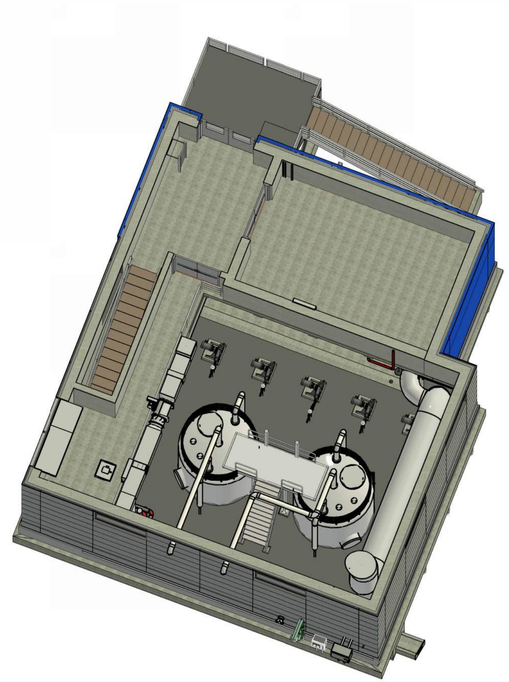
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TI-010 DECHLORINATION
FACILITY UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"



TI-010 DECHLORINATION
FACILITY ISOMETRIC VIEW
SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

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BID SET

SUBMITTAL DATE. NOVEMBER 2026

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

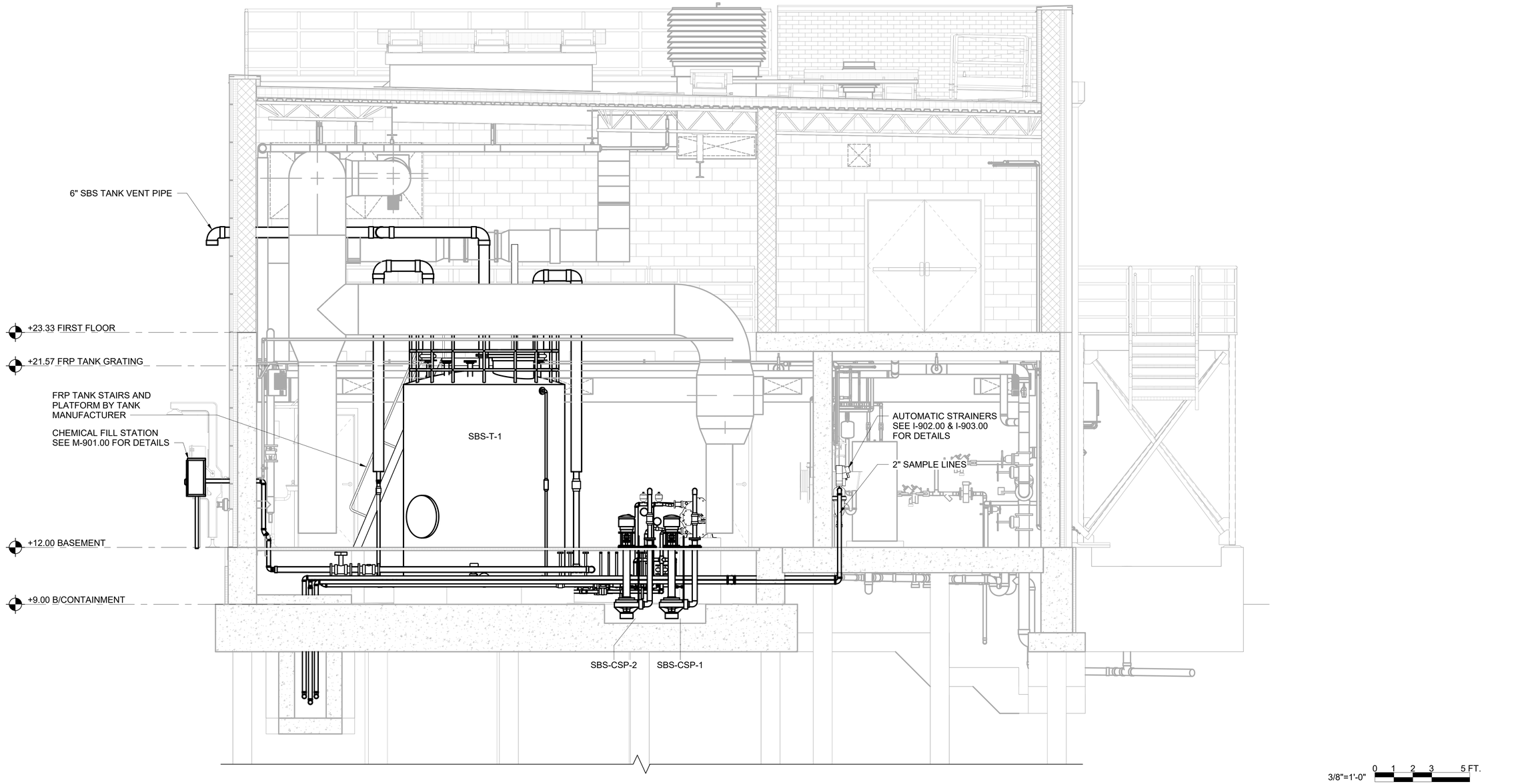
MECHANICAL
TI-010 DECHLORINATION FACILITY
UPPER LEVEL PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-303.00

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NOTES:

1. SEE SHEETS M-306.00 AND M-307.00 FOR SBS CHEMICAL LINE DETAILS.



3/8"=1'-0" 0 1 2 3 5 FT.

1 / M-301 TI-010 DECHLORINATION FACILITY SECTION 1

SCALE: 3/8" = 1'-0"

NYC Environmental Protection BEDC/HID

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SUBMITTAL DATE: NOVEMBER 2026

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-010 DECHLORINATION FACILITY
SECTION 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-304.00

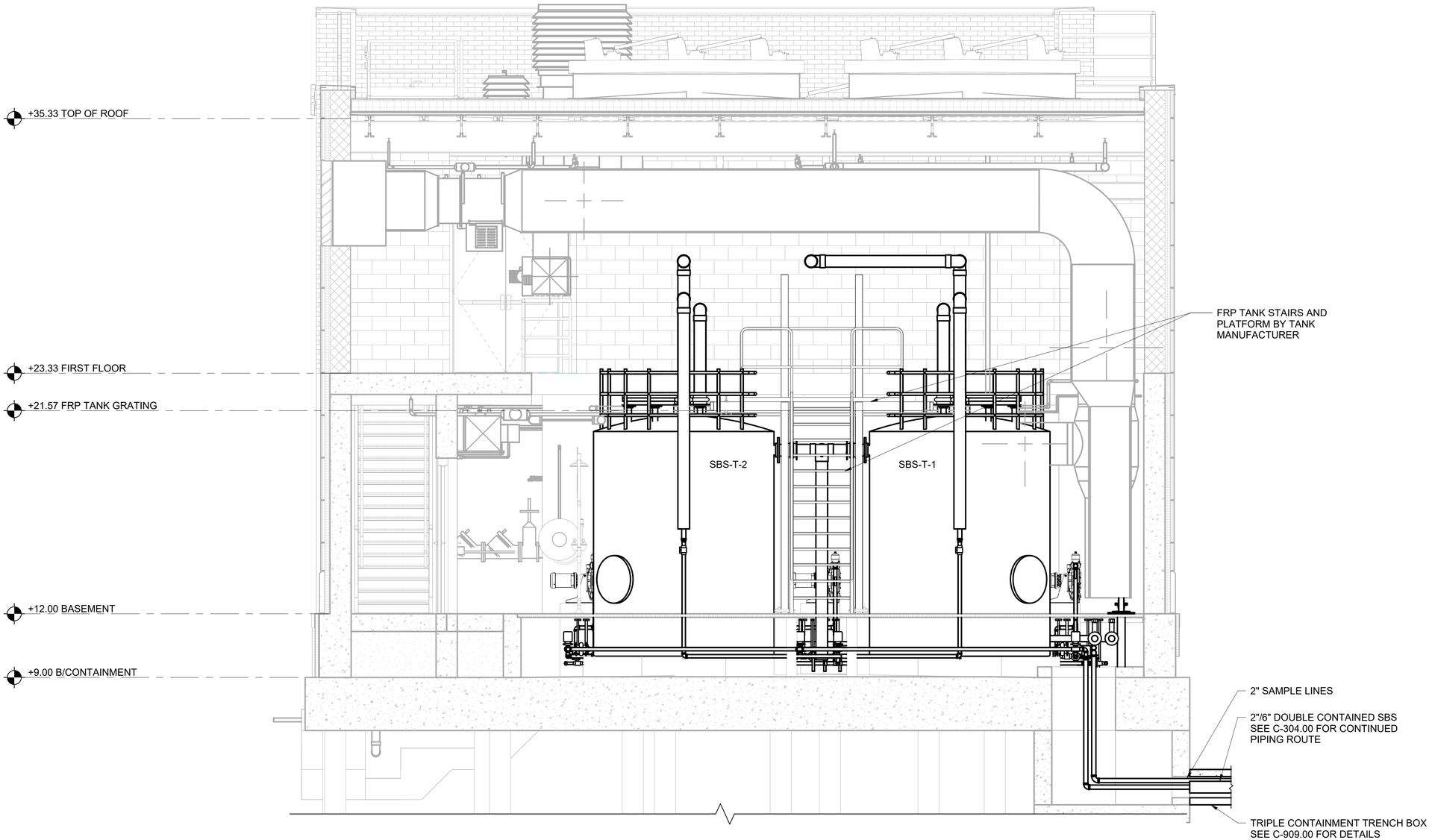
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NOTES:

1. SEE SHEETS M-306.00 AND M-307.00 FOR SBS CHEMICAL LINE DETAILS.



2 / M-301 TI-010 DECHLORINATION FACILITY SECTION 2

SCALE: 3/8" = 1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

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SECTION 2

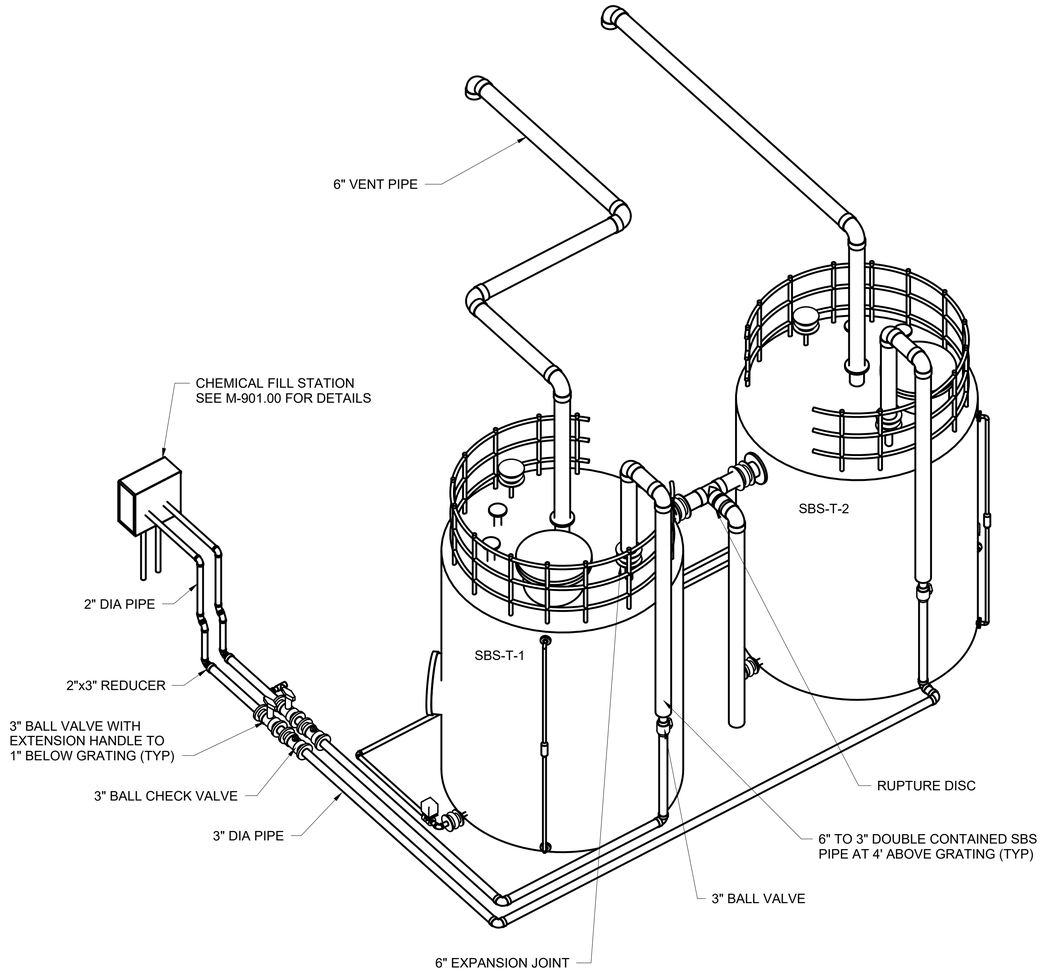
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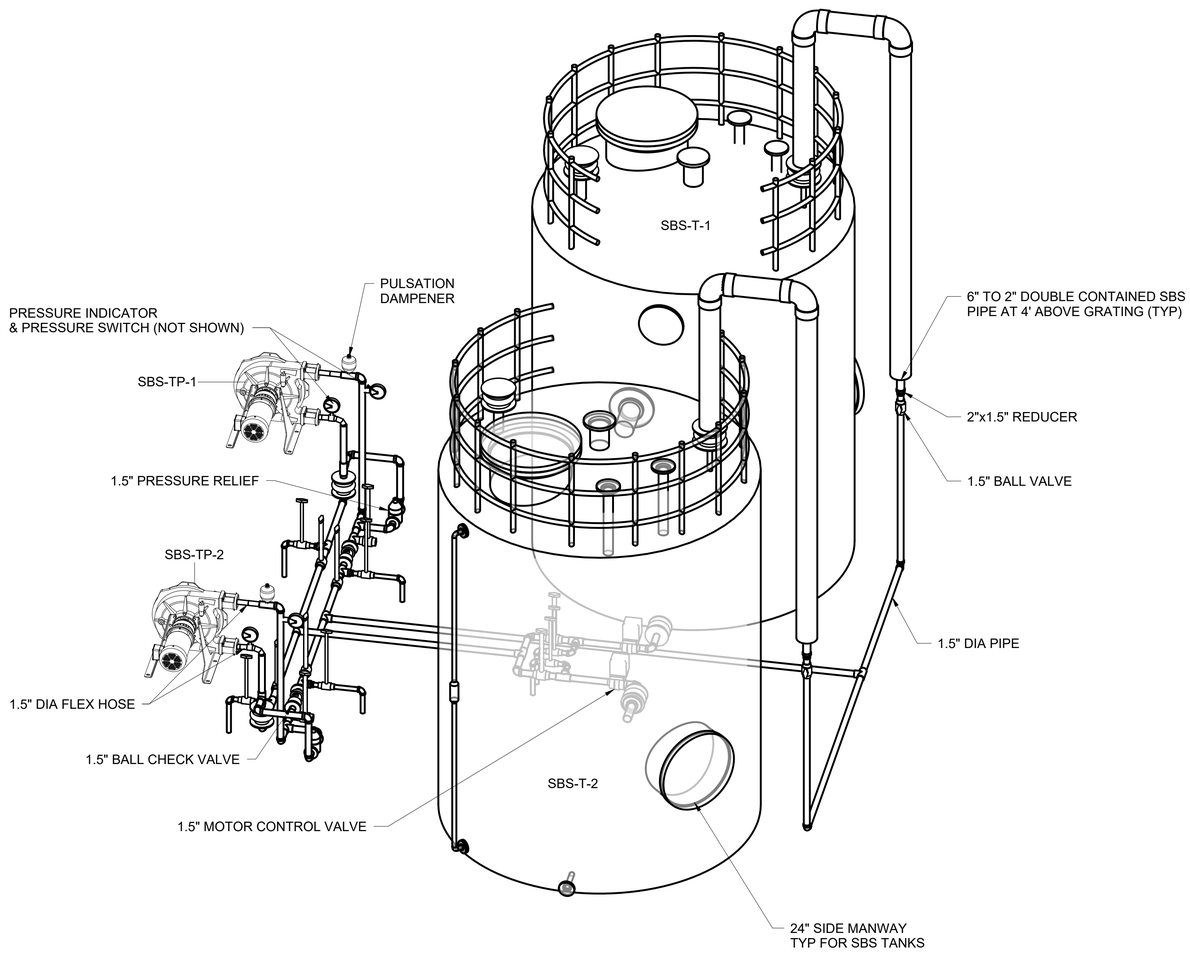
NOTES:

1. COMPONENTS TO AND FROM TANKS AND PUMPS ARE TYPICAL.



SBS CHEMICAL FILL STATION
TO SBS TANKS

SCALE: N.T.S.



SBS TANKS TO SBS TRANSFER
PUMPS

SCALE: N.T.S.

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MECHANICAL
TI-010 DECHLORINATION FACILITY
SBS CHEMICAL LINE DIAGRAM 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-306.00

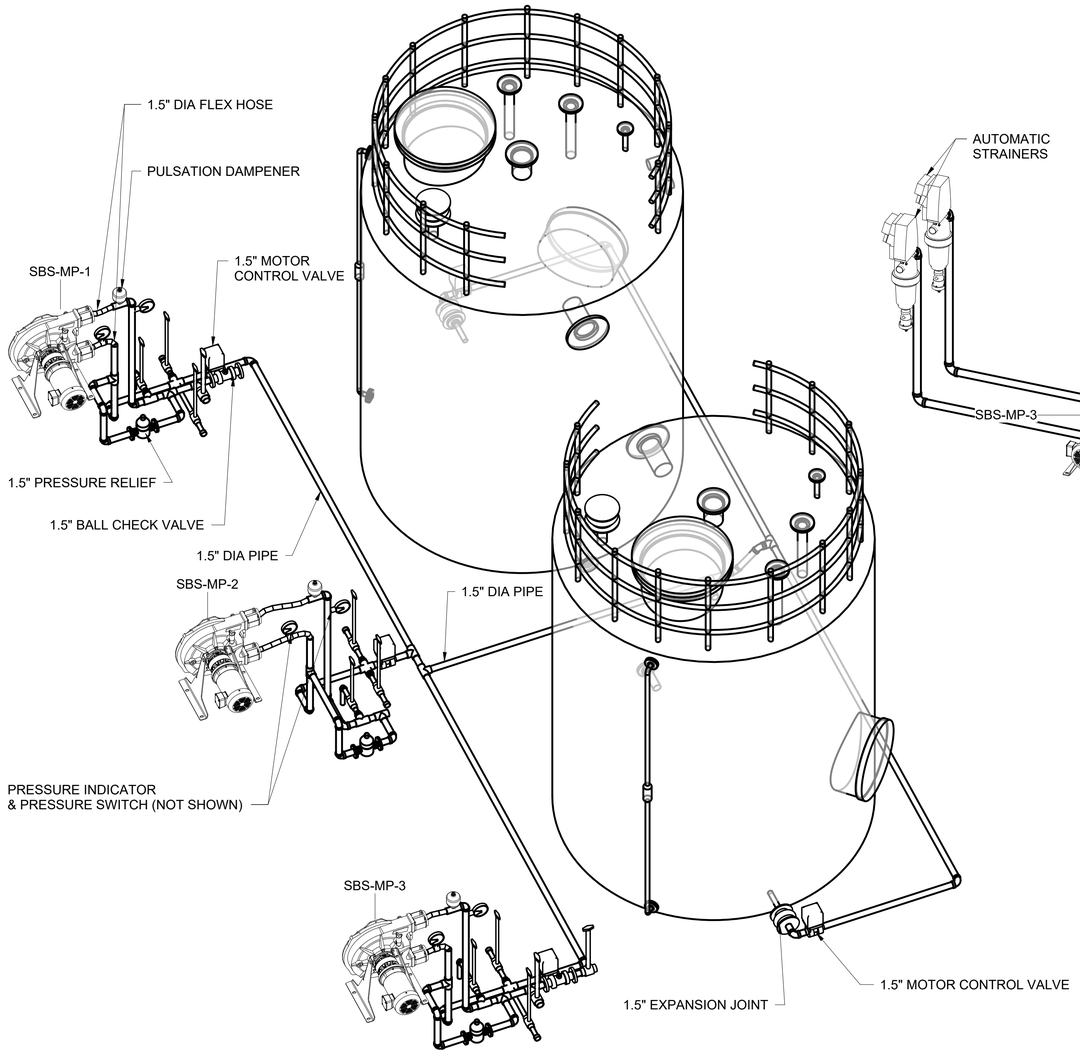
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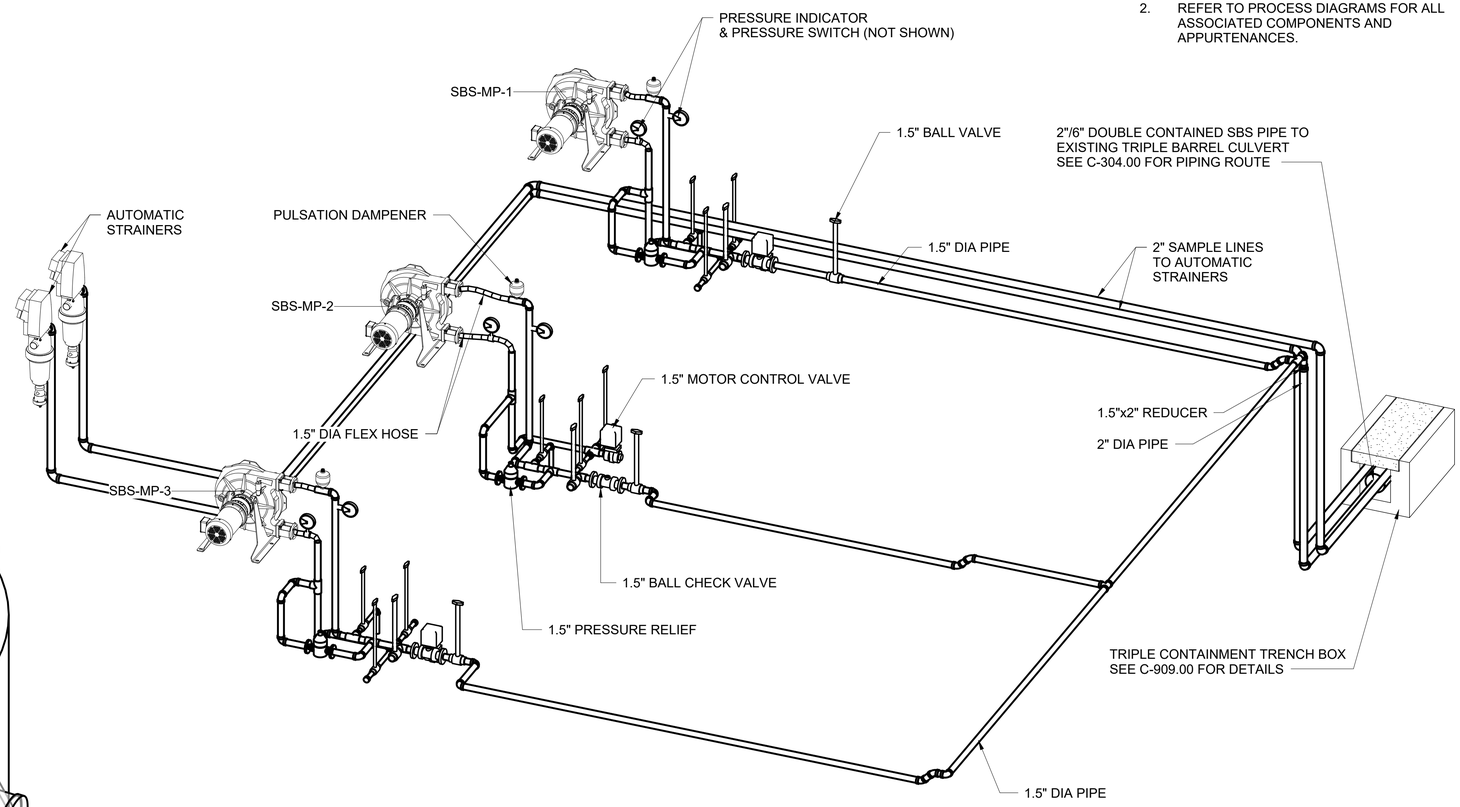
NOTES:

1. COMPONENTS TO AND FROM TANKS AND PUMPS ARE TYPICAL.
2. REFER TO PROCESS DIAGRAMS FOR ALL ASSOCIATED COMPONENTS AND APPURTENANCES.



SBS TANKS TO SBS METERING PUMPS

SCALE: N.T.S.



SBS METERING PUMPS TO OUTFALL TI-010

SCALE: N.T.S.

NYC Environmental Protection BEDC&HD

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SUBMITTAL DATE: NOVEMBER 2026

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SECTION MANAGER:

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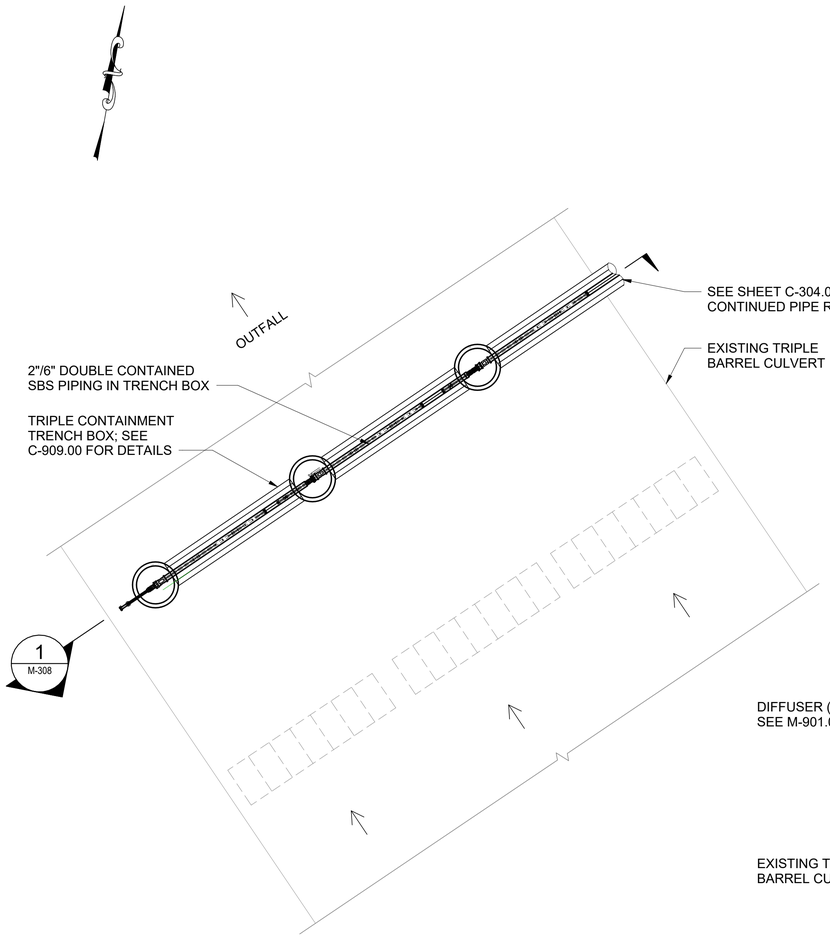
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-010 DECHLORINATION FACILITY
SBS CHEMICAL LINE DIAGRAM 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-307.00

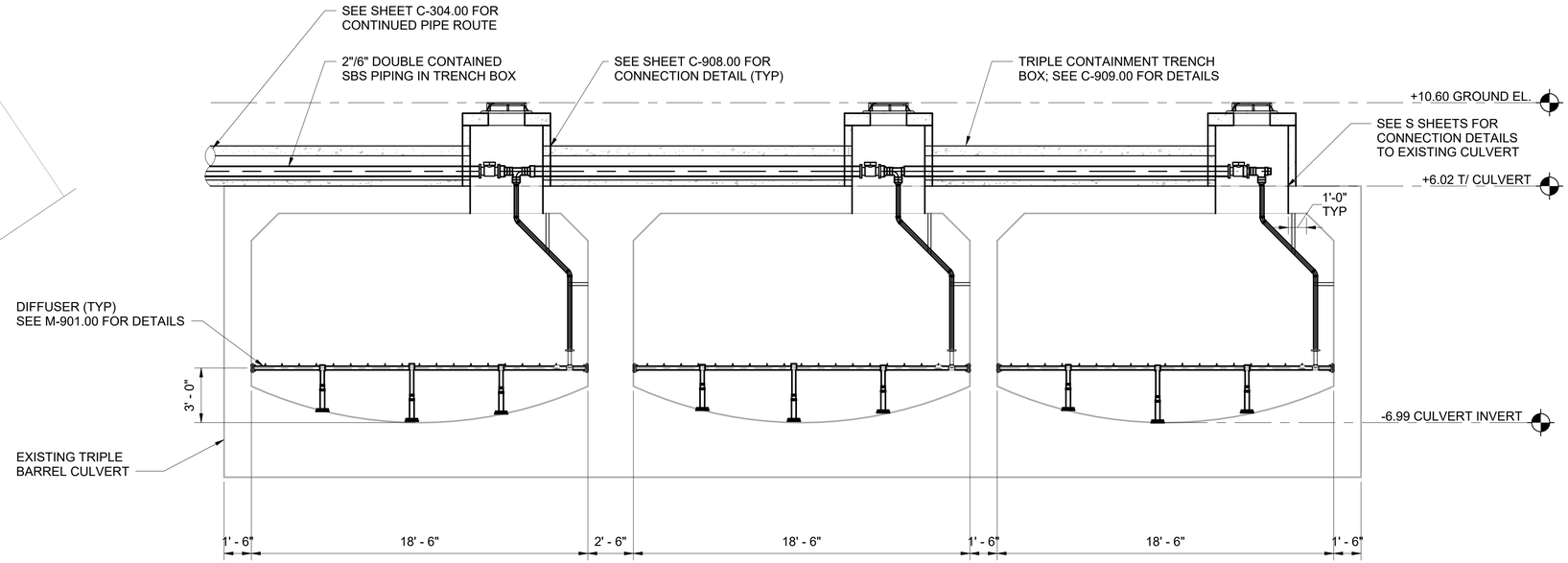
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TI-010 DECHLORINATION FACILITY - DIFFUSER PLAN

SCALE: 1/8" = 1'-0"



NOTES:

1. REFER TO PROCESS DIAGRAMS FOR ALL ASSOCIATED COMPONENTS AND APPURTENANCES.

NOTE:

1. LOCATION, TYPE, AND EMBEDMENT OF ANCHORS AND SUPPORT BRACKETS FOR DIFFUSER MANIFOLD INSTALLATION SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH THE DIFFUSER MANUFACTURER. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED DESIGN DOCUMENTS DEMONSTRATING ADEQUACY OF THE PROPOSED ATTACHMENT SYSTEM FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

1 M-308 TI-010 DECHLORINATION FACILITY - DIFFUSER SECTION

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

1/8"=1'-0" 0 5 10 15 FT.

1/4"=1'-0" 0 4 8 FT.

BID SET

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

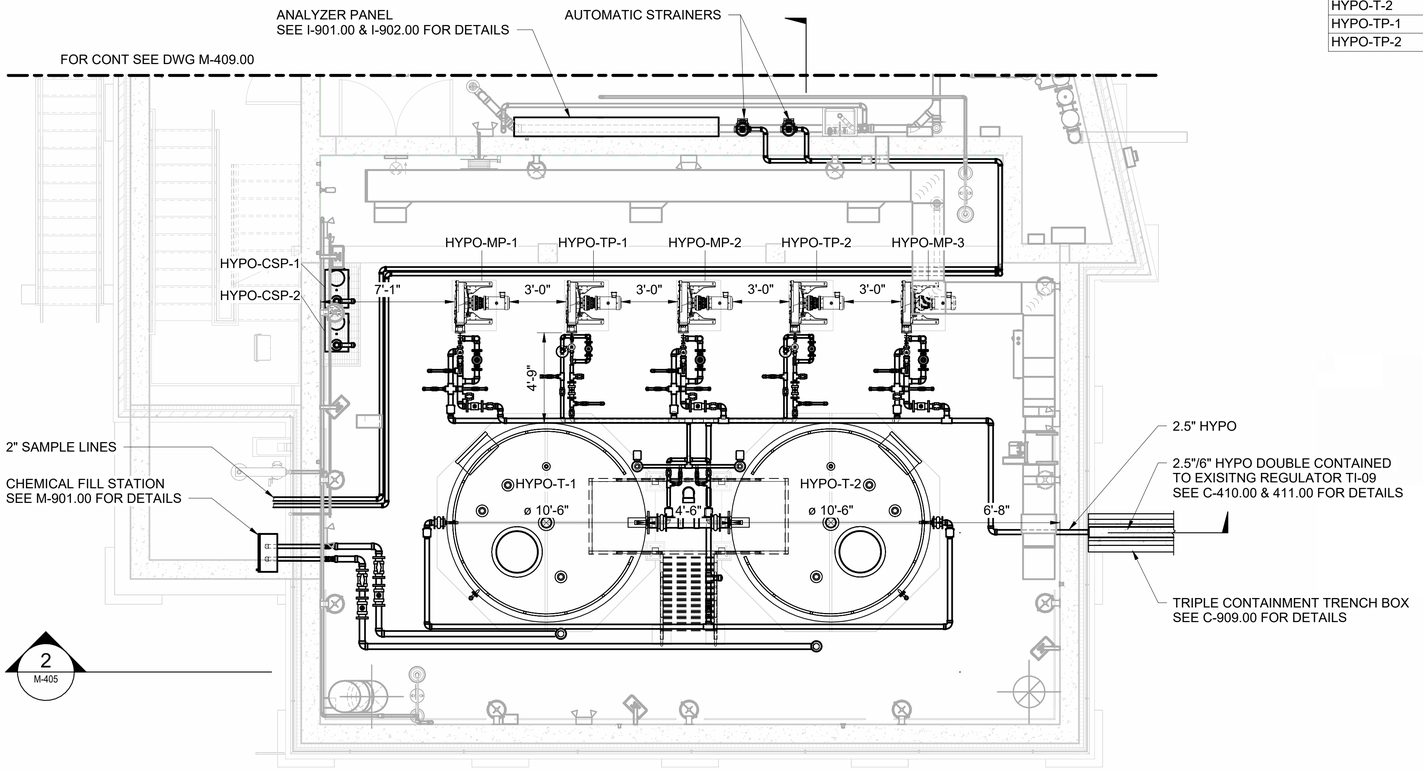
MECHANICAL
TI-010 DECHLORINATION FACILITY
TI-010 TRIPLE BARREL OUTFALL

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-308.00

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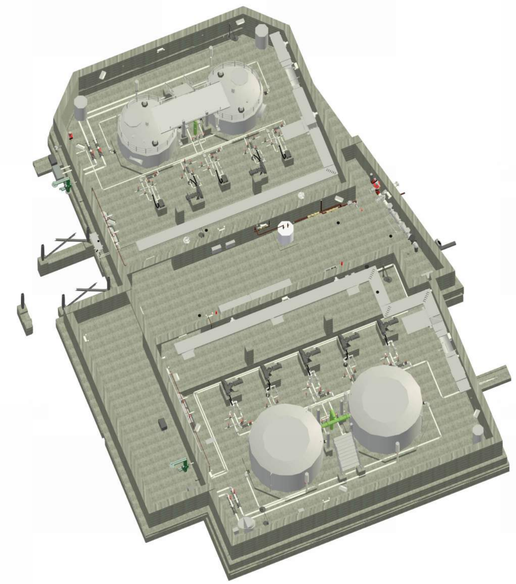
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CHLORINATION MECHANICAL EQUIPMENT SCHEDULE		
EQUIPMENT NAME	DESCRIPTION	COMMENTS
HYPO-CSP-1	CHEMICAL SUMP PUMP 1	2" CONNECTION
HYPO-CSP-2	CHEMICAL SUMP PUMP 2	2" CONNECTION
HYPO-MP-1	HYPOCHLORITE METERING PUMP 1	ANSI #150 2" FLANGED CONNECTION
HYPO-MP-2	HYPOCHLORITE METERING PUMP 2	ANSI #150 2" FLANGED CONNECTION
HYPO-MP-3	HYPOCHLORITE METERING PUMP 3	ANSI #150 2" FLANGED CONNECTION
HYPO-T-1	HYPOCHLORITE CHEMICAL STORAGE TANK 1	6,000 GALLON
HYPO-T-2	HYPOCHLORITE CHEMICAL STORAGE TANK 2	6,000 GALLON
HYPO-TP-1	HYPOCHLORITE TRANSFER PUMP 1	ANSI #150 2" FLANGED CONNECTION
HYPO-TP-2	HYPOCHLORITE TRANSFER PUMP 2	ANSI #150 2" FLANGED CONNECTION



TI-011 CHLORINATION ROOM
BASEMENT PLAN
SCALE: 1/4" = 1'-0"

1
M-404



TI-011 CHLORINATION
ISOMETRIC VIEW
SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

BID SET
SUBMITTAL DATE. NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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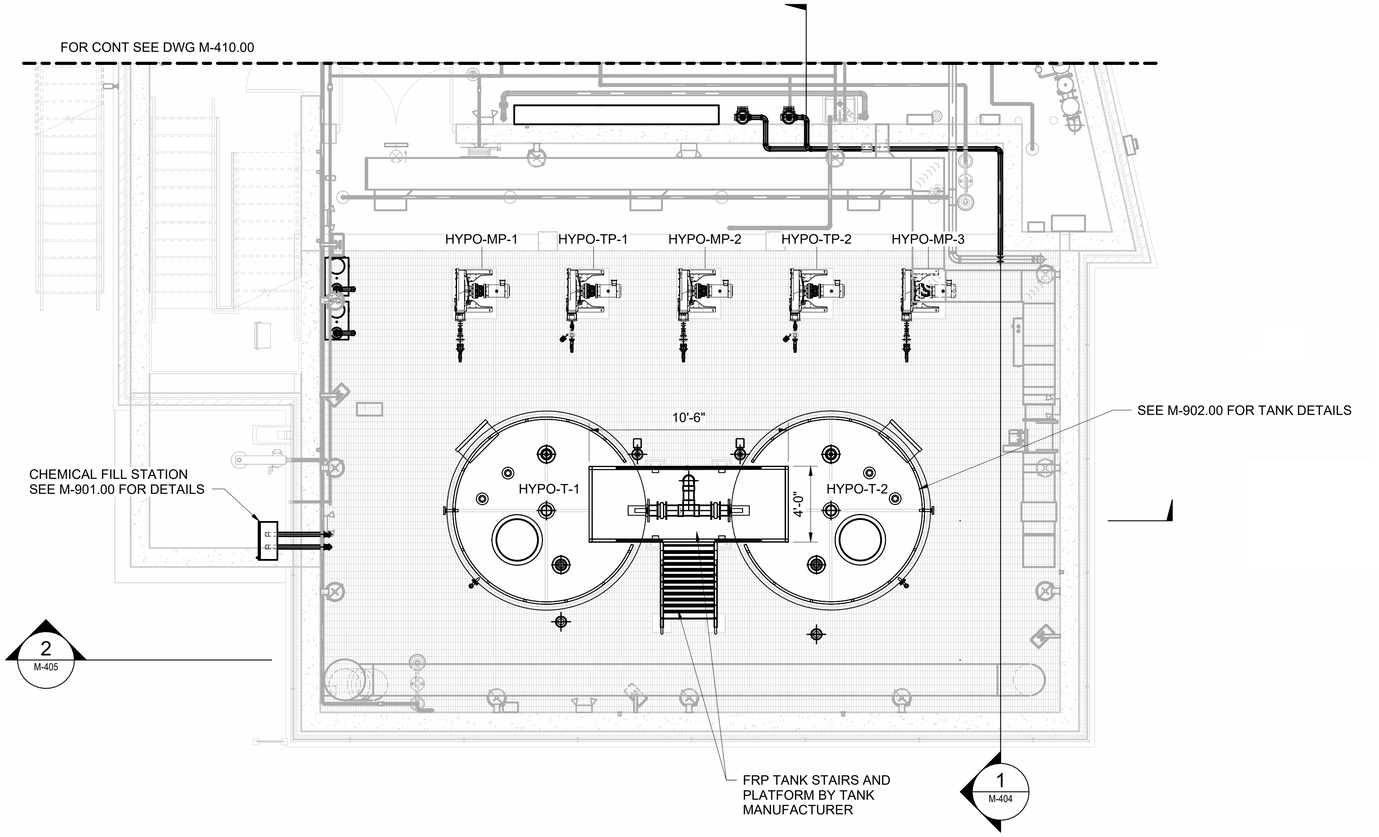
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
CHLORINATION ROOM BASEMENT PLAN

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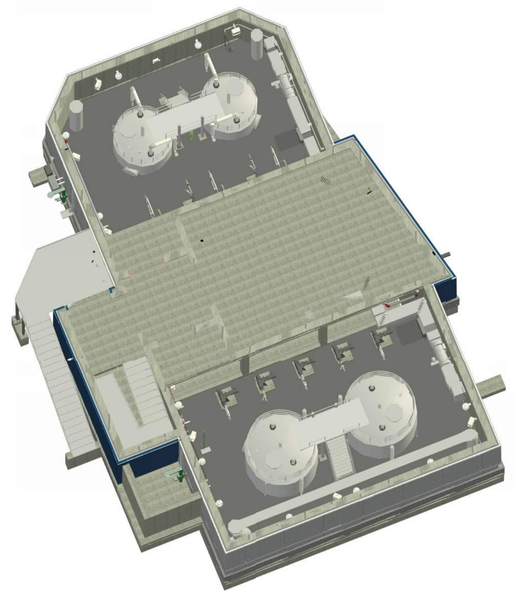
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TI-011 CHLORINATION ROOM
FIRST FLOOR PLAN

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



TI-011 CHLORINATION
ISOMETRIC VIEW

SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

BID SET

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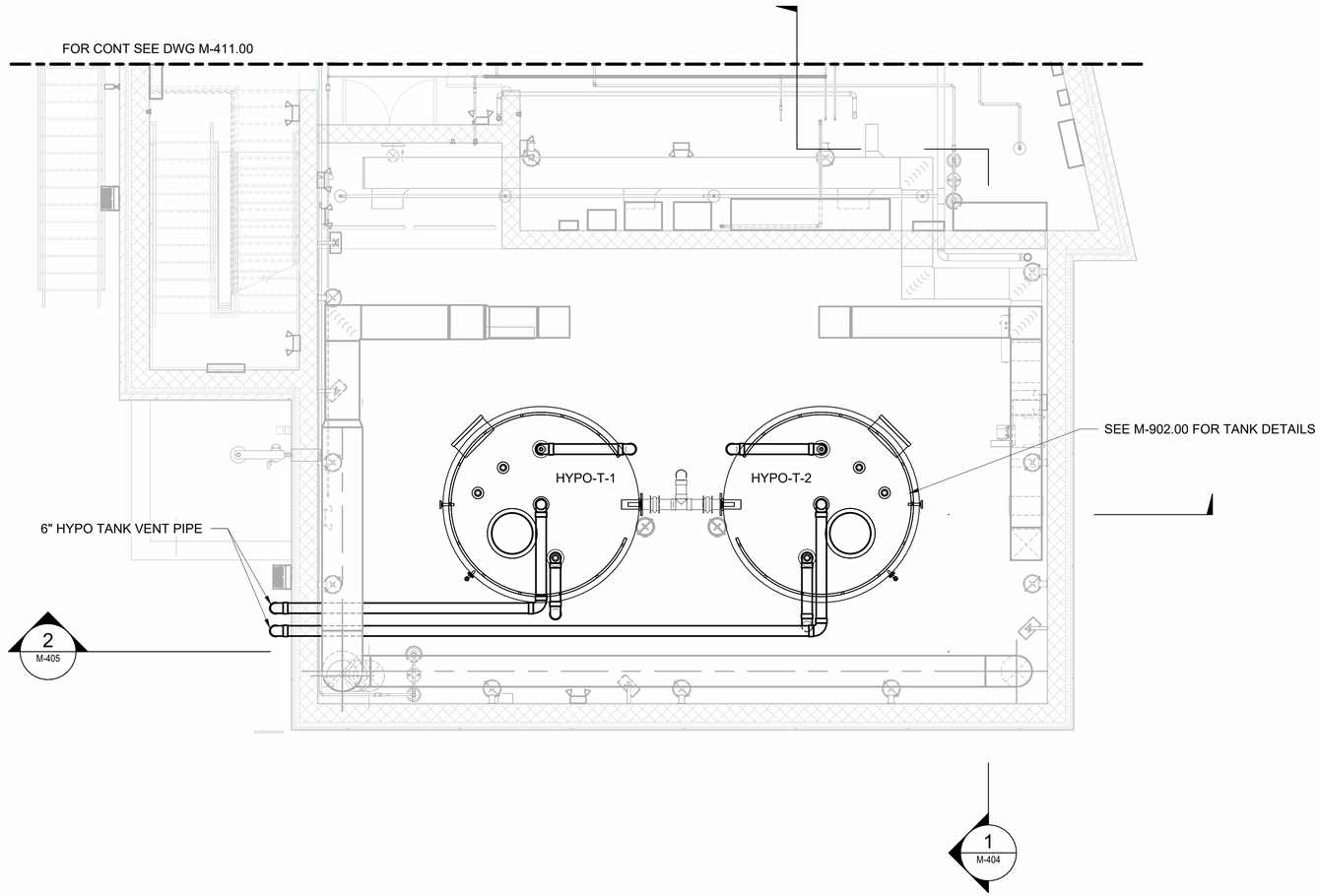
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MECHANICAL
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CHLORINATION ROOM FIRST FLOOR PLAN

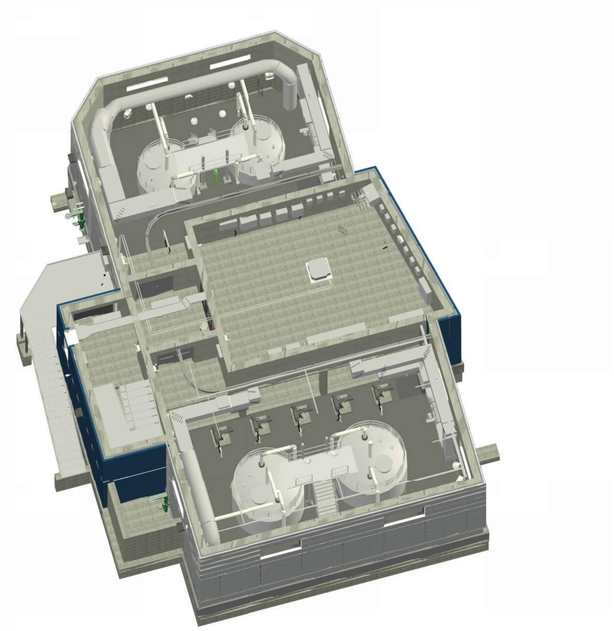
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TI-011 CHLORINATION ROOM
UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"



TI-011 CHLORINATION
ISOMETRIC VIEW
SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

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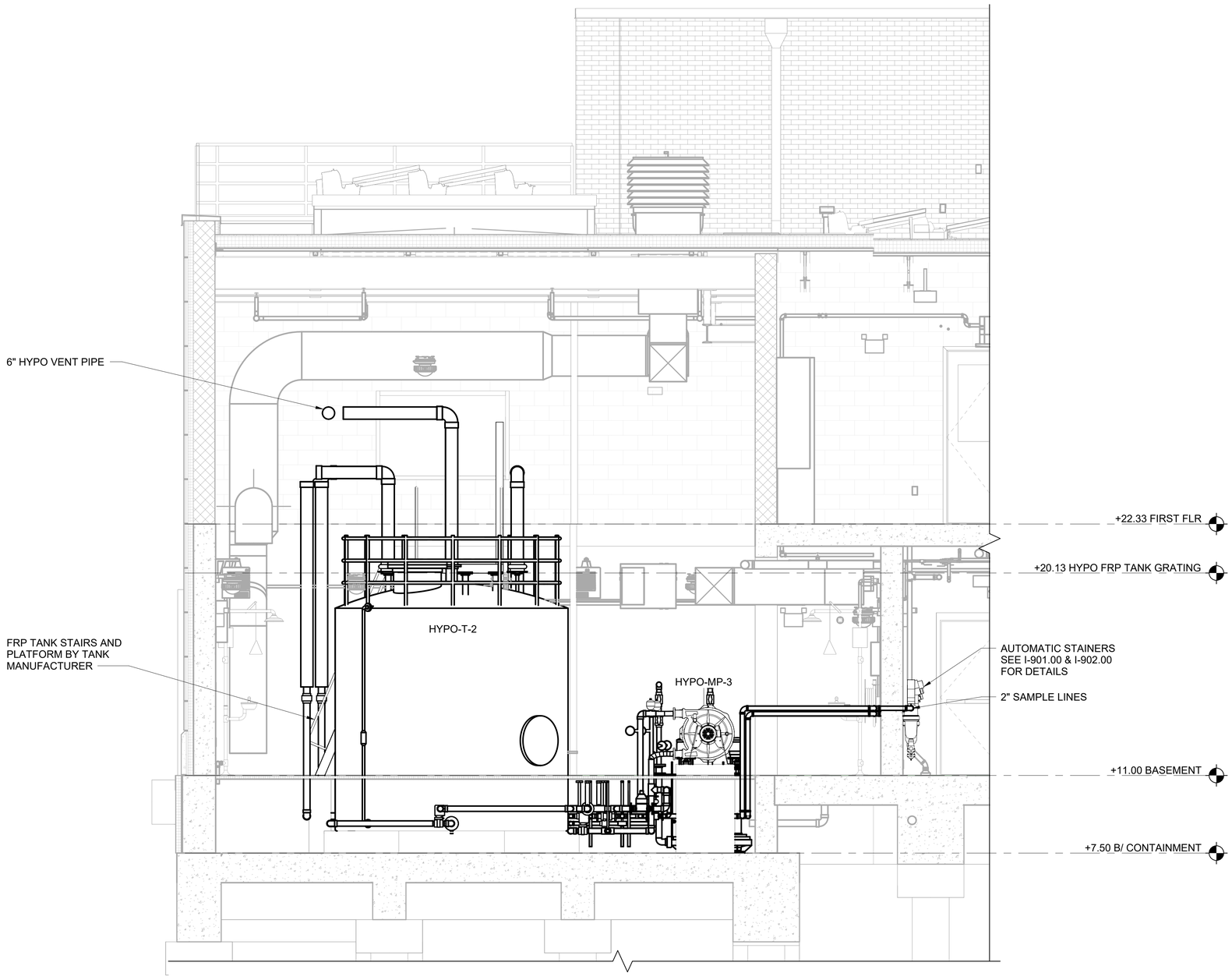
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MECHANICAL
TI-011 DISINFECTION FACILITY
CHLORINATION ROOM UPPER LEVEL PLAN

DATE: NOVEMBER 2026
SHEET NO:
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NOTES:

1. SEE SHEETS M-406.00 AND M-407.00 FOR HYPO CHEMICAL LINE DETAILS.



1 / M-401 TI-011 CHLORINATION ROOM SECTION 1

SCALE: 3/8" = 1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

BID SET

SUBMITTAL DATE: NOVEMBER 2026

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
CHLORINATION ROOM SECTION 1

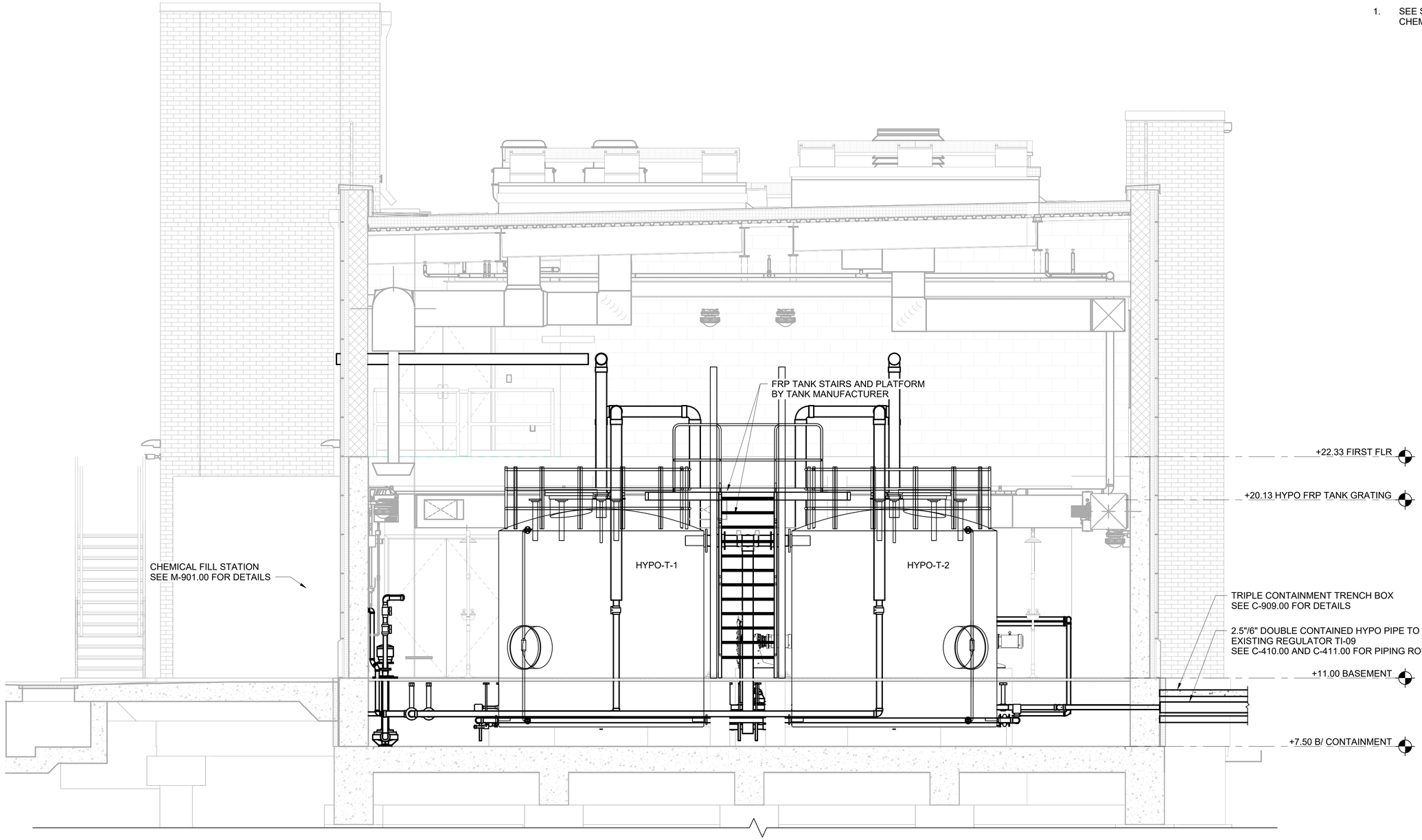
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NOTES:

1. SEE SHEETS M-406.00 AND M-407.00 FOR HYPO CHEMICAL LINE DETAILS.



2 / M-401 TI-011 CHLORINATION ROOM SECTION 2

SCALE: 3/8" = 1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
CHLORINATION ROOM SECTION 2

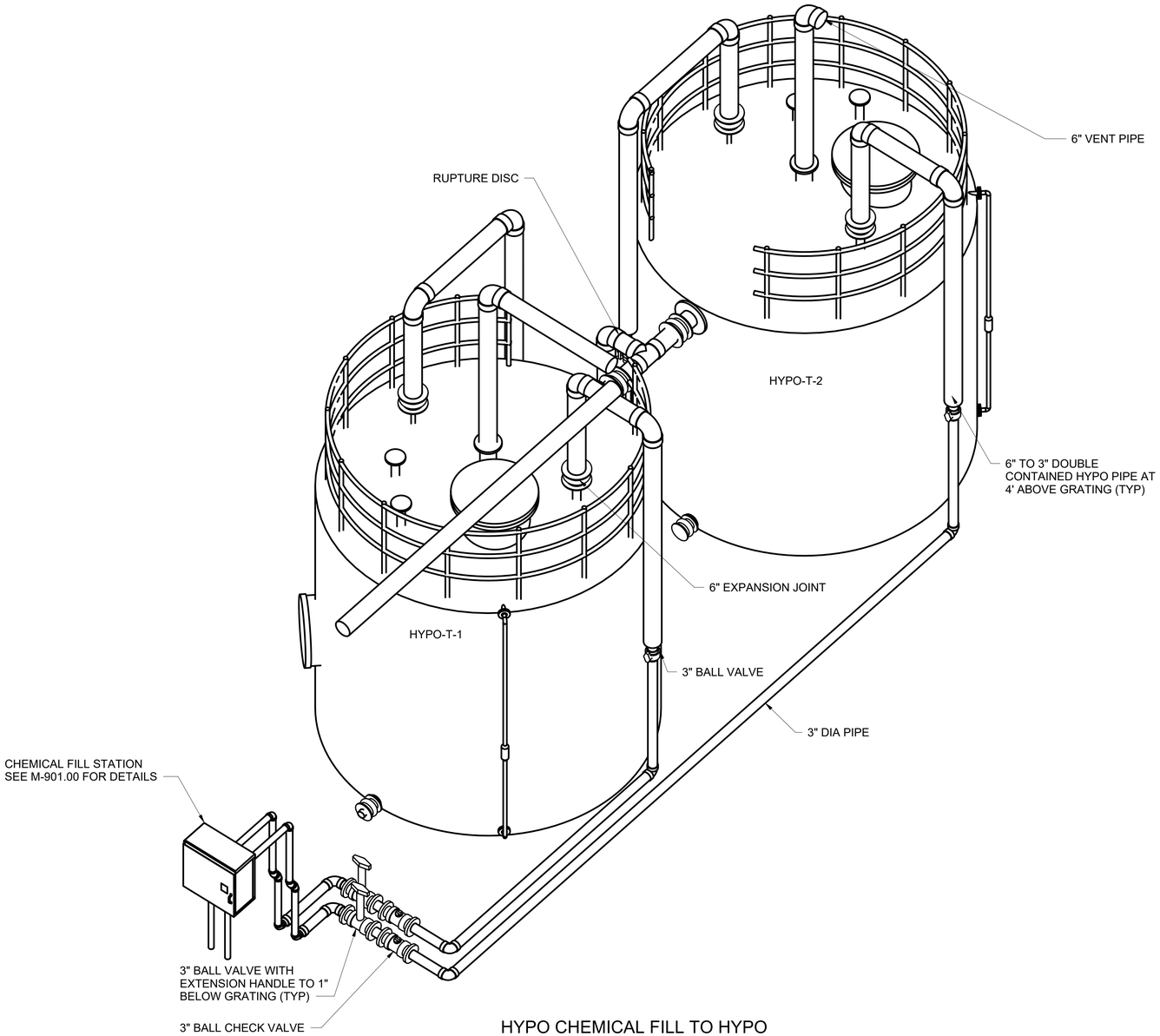
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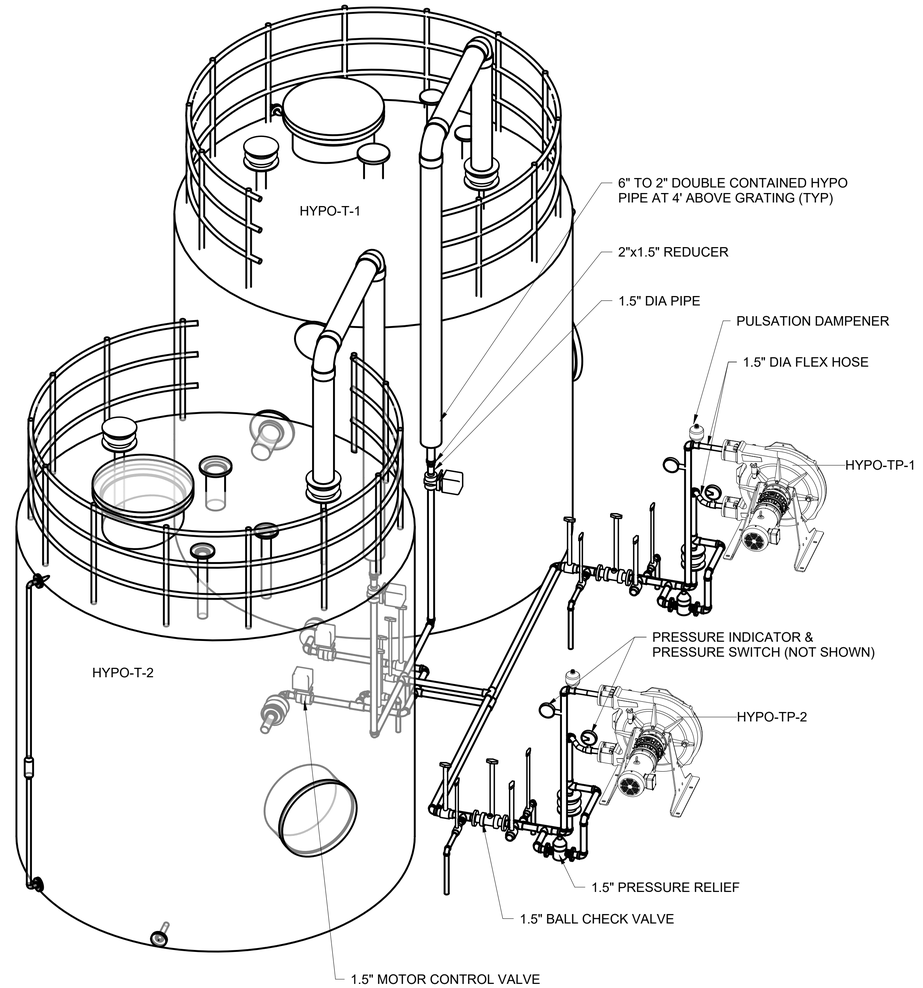
NOTES:

1. COMPONENTS TO AND FROM TANKS AND PUMPS ARE TYPICAL.



HYPO CHEMICAL FILL TO HYPO TANKS

SCALE: N.T.S.



HYPO TANKS TO HYPO TRANSFER PUMPS

SCALE: N.T.S.

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MECHANICAL
TI-011 DISINFECTION FACILITY
HYPO CHEMICAL LINE DIAGRAMS 1

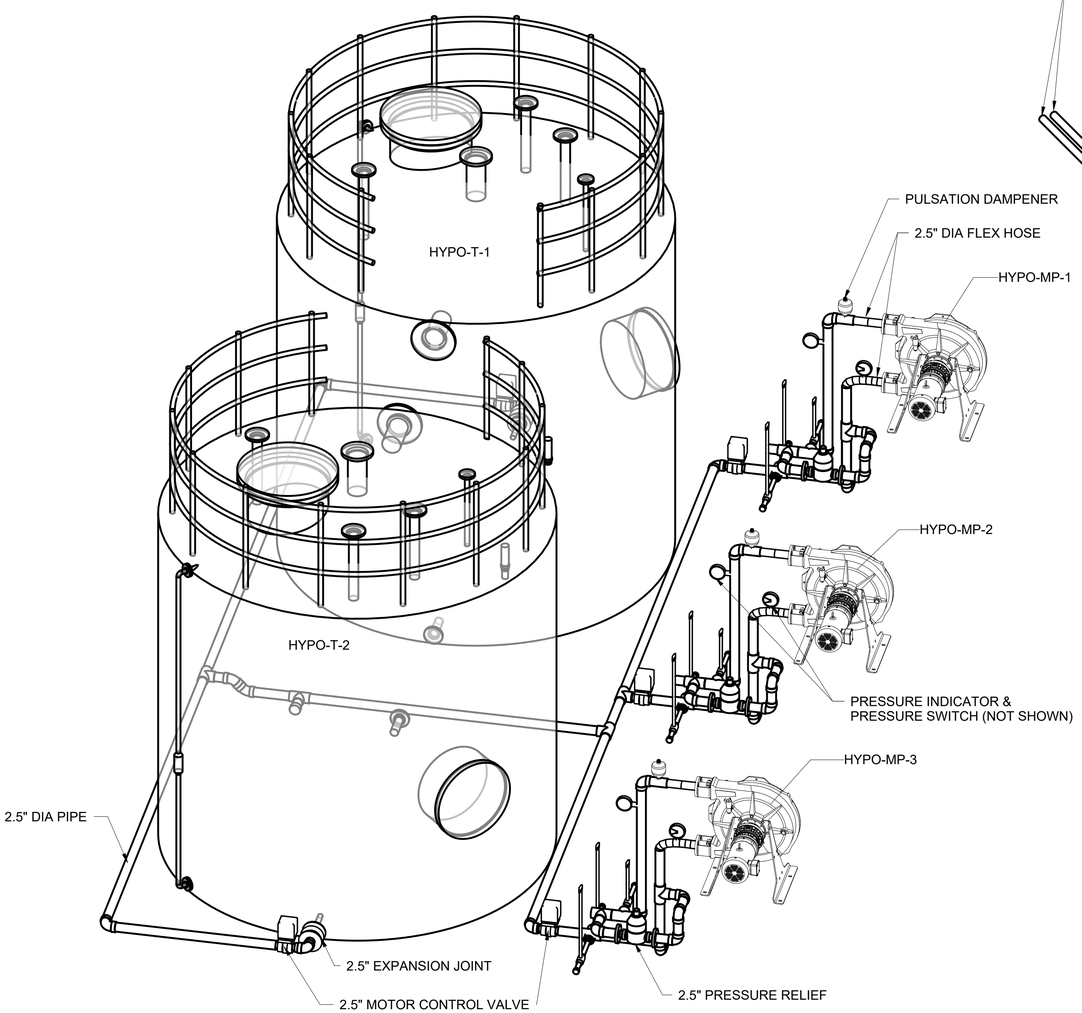
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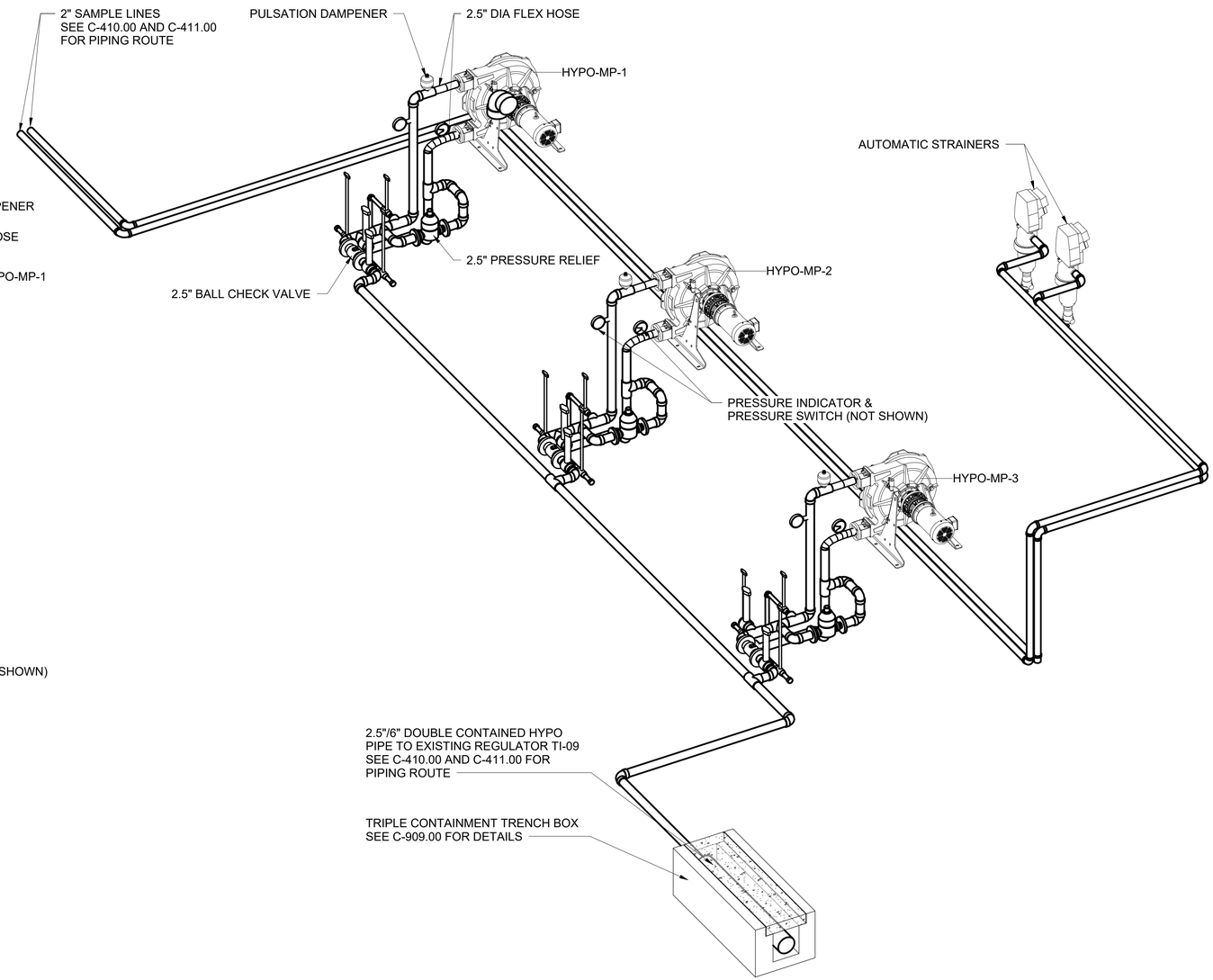
NOTES:

1. COMPONENTS TO AND FROM TANKS AND PUMPS ARE TYPICAL.



HYPO TANKS TO HYPO METERING PUMPS

SCALE: N.T.S.



HYPO METERING PUMPS TO OUTFALL TI-011

SCALE: N.T.S.

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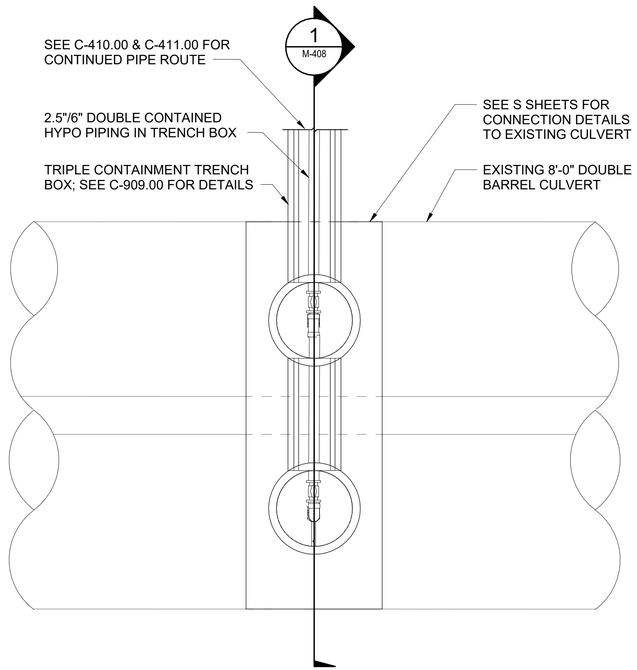
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
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HYPO CHEMICAL LINE DIAGRAMS 2

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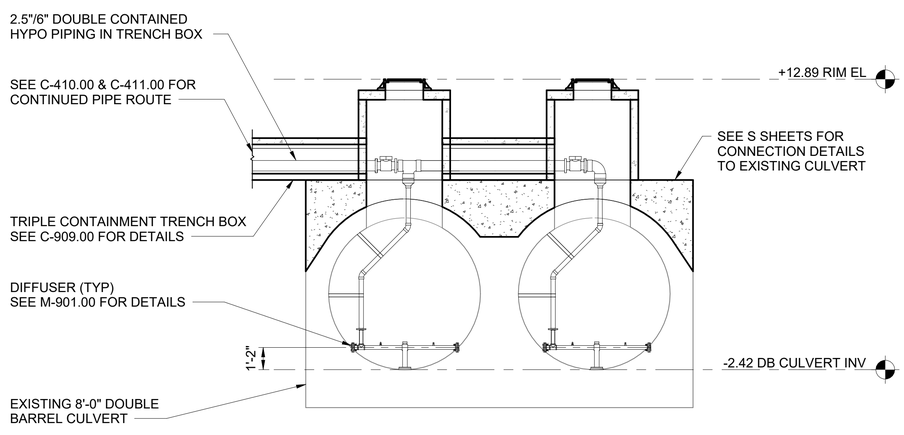
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TI-011 DISINFECTION DIFFUSER PLAN

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



1 M-408 TI-011 DISINFECTION DIFFUSER SECTION

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

NOTES:

1. LOCATION, TYPE, AND EMBEDMENT OF ANCHORS AND SUPPORT BRACKETS FOR DIFFUSER MANIFOLD INSTALLATION SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH THE DIFFUSER MANUFACTURER. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED DESIGN DOCUMENTS DEMONSTRATING ADEQUACY OF THE PROPOSED ATTACHMENT SYSTEM FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

1/4"=1'-0" 0 4 8 FT.

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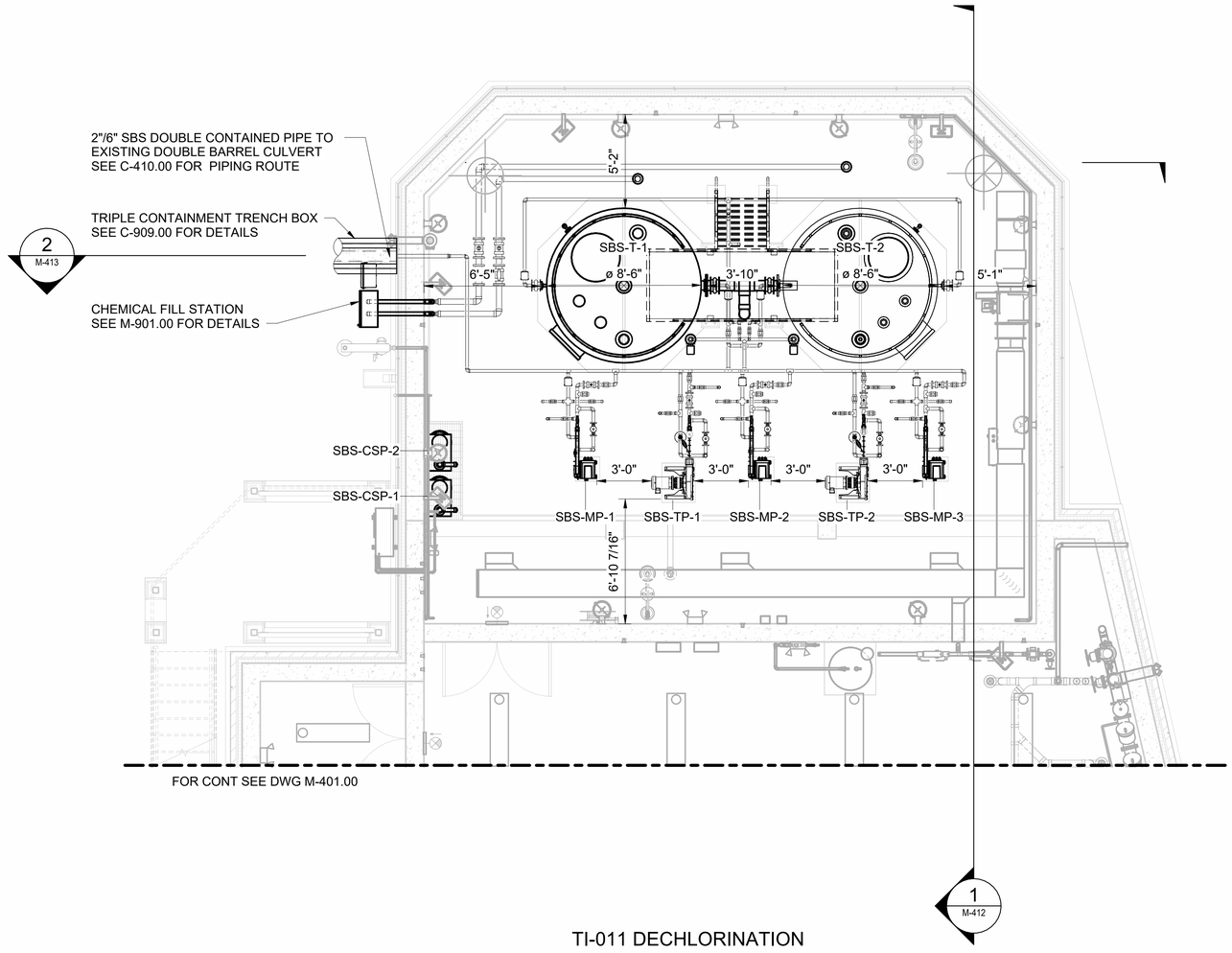
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
DIFFUSER PLAN AND SECTION

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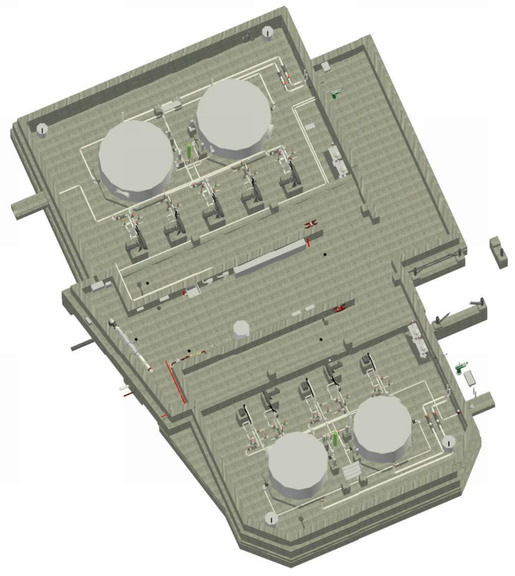
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TI-011 DECHLORINATION
ROOM BASEMENT PLAN

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

DECHLORINATION MECHANICAL EQUIPMENT SCHEDULE		
EQUIPMENT NAME	DESCRIPTION	COMMENTS
SBS-CSP-1	CHEMICAL SUMP PUMP 1	2" CONNECTION
SBS-CSP-2	CHEMICAL SUMP PUMP 2	2" CONNECTION
SBS-MP-1	SODIUM BISULFITE METERING PUMP 1	1.5" CONNECTION
SBS-MP-2	SODIUM BISULFITE METERING PUMP 2	1.5" CONNECTION
SBS-MP-3	SODIUM BISULFITE METERING PUMP 3	1.5" CONNECTION
SBS-T-1	SODIUM BISULFITE CHEMICAL STORAGE TANK 1	2,500 GALLON
SBS-T-2	SODIUM BISULFITE CHEMICAL STORAGE TANK 2	2,500 GALLON
SBS-TP-1	SODIUM BISULFITE TRANSFER PUMP 1	ANSI 150# 1.5" FLANGED CONNECTION
SBS-TP-2	SODIUM BISULFITE TRANSFER PUMP 2	ANSI 150# 1.5" FLANGED CONNECTION



TI-011 DECHLORINATION
ISOMETRIC VIEW

SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

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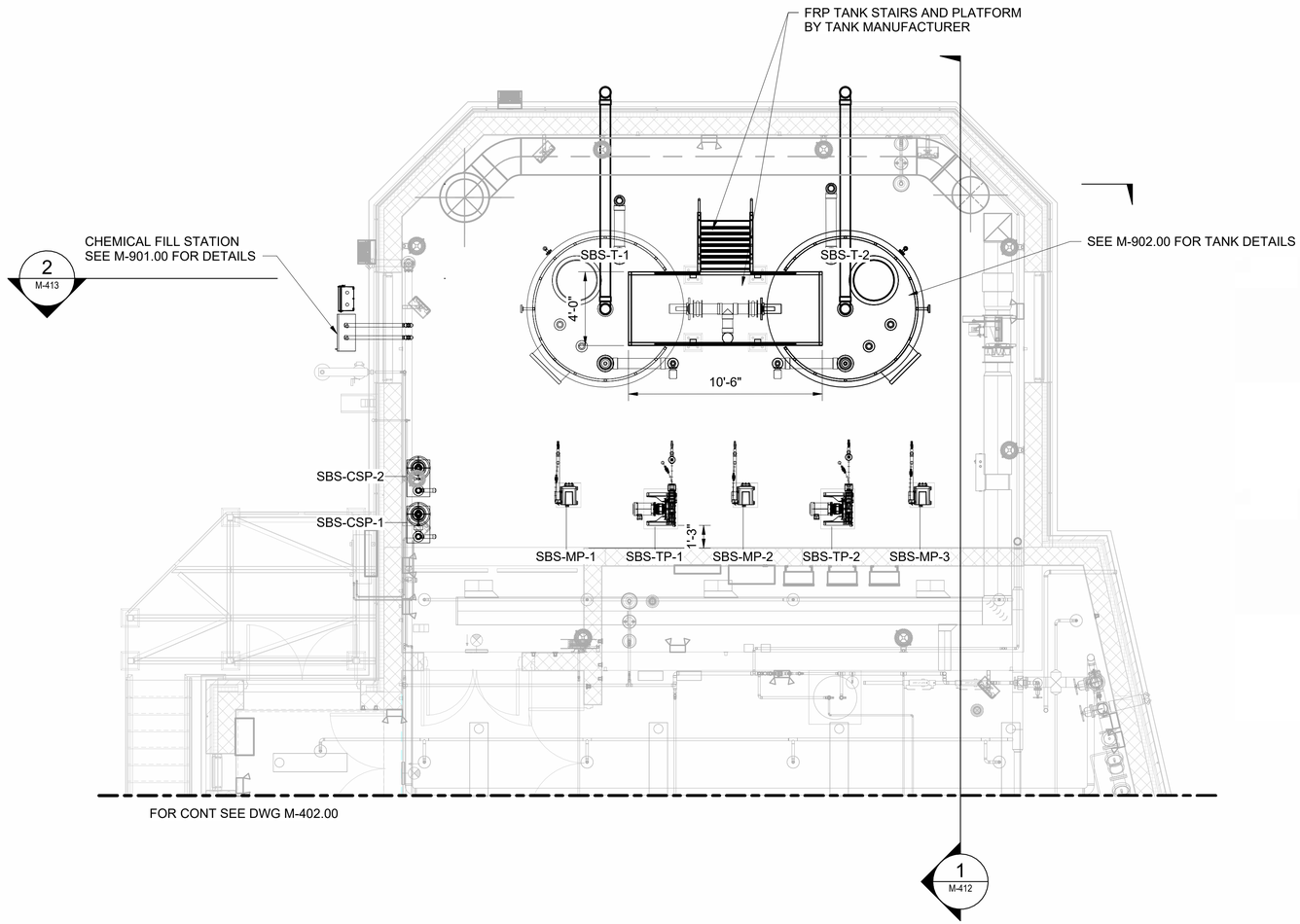
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DECHLORINATION ROOM BASEMENT PLAN

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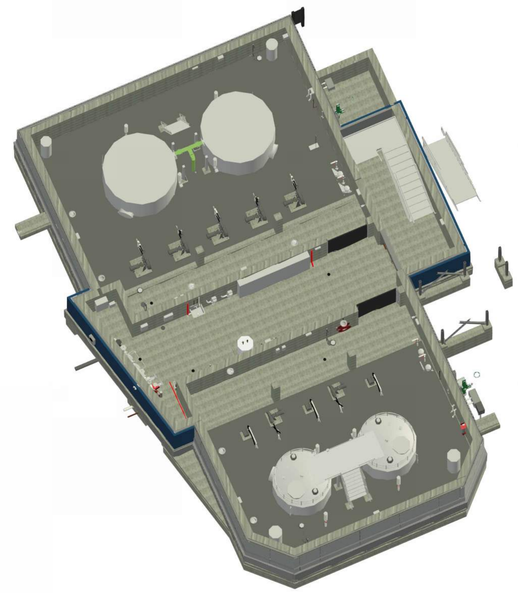
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TI-011 DECHLORINATION
ROOM FIRST FLOOR PLAN

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



TI-011 DECHLORINATION
ISOMETRIC VIEW

SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

NYC Environmental Protection BEDC/IHD

BID SET

SUBMITTAL DATE. NOVEMBER 2026

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SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK IVANA NITZOVA 095133 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

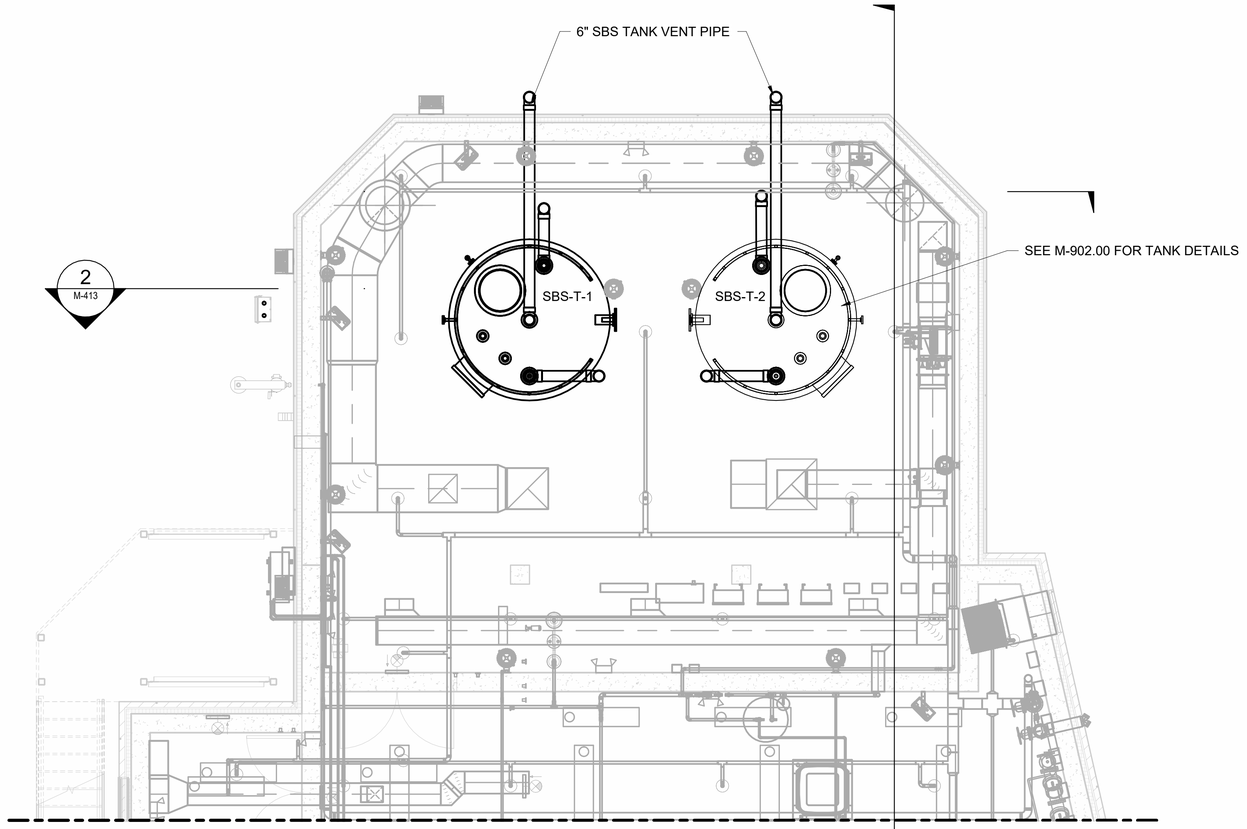
MECHANICAL
TI-011 DISINFECTION FACILITY
DECHLORINATION ROOM FIRST FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-410.00

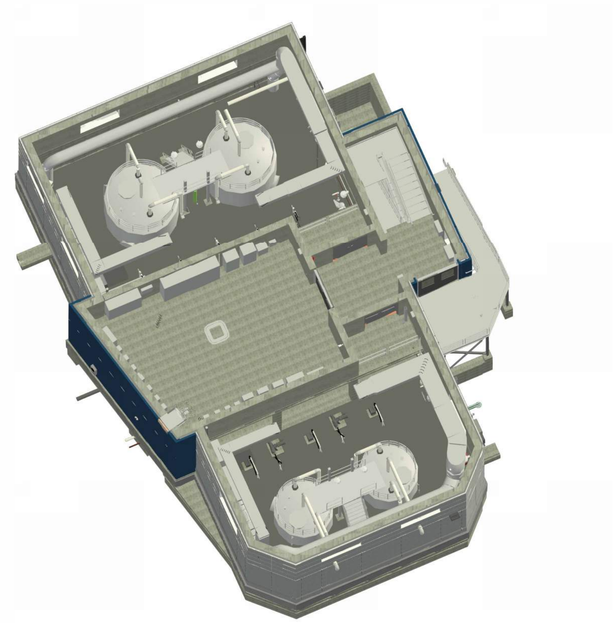
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TI-011 DECHLORINATION
ROOM UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"



TI-011 DECHLORINATION
ISOMETRIC VIEW
SCALE: N.T.S.

1/4"=1'-0" 0 4 8 FT.

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO
DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
DECHLORINATION ROOM UPPER LEVEL PLAN

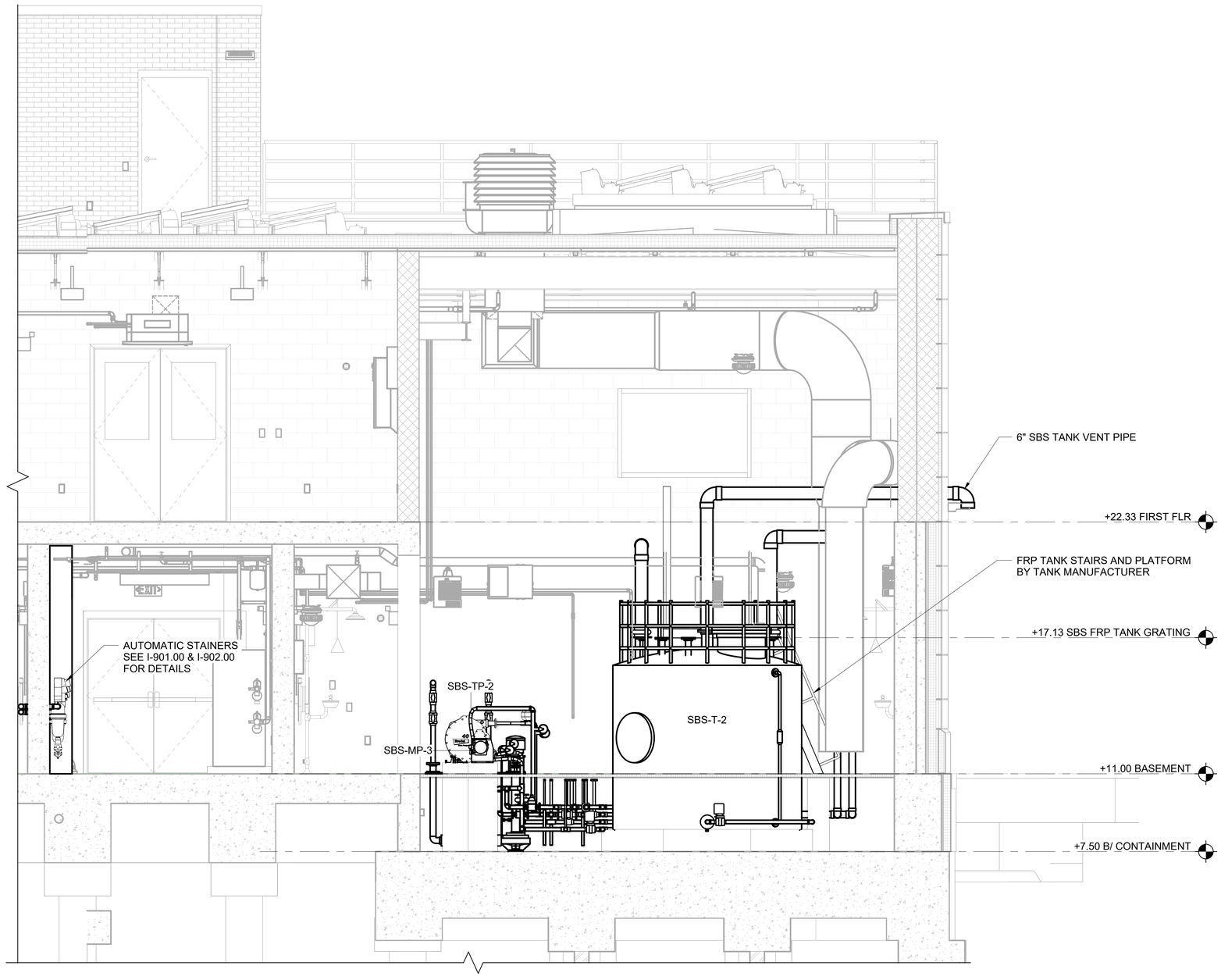
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NOTES:

1. SEE SHEETS M-414.00 AND M-415.00 FOR SBS CHEMICAL LINE DETAILS.



1 / M-409 TI-011 DECHLORINATION ROOM SECTION 1

SCALE: 3/8" = 1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

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MECHANICAL
TI-011 DISINFECTION FACILITY
DECHLORINATION ROOM SECTION 1

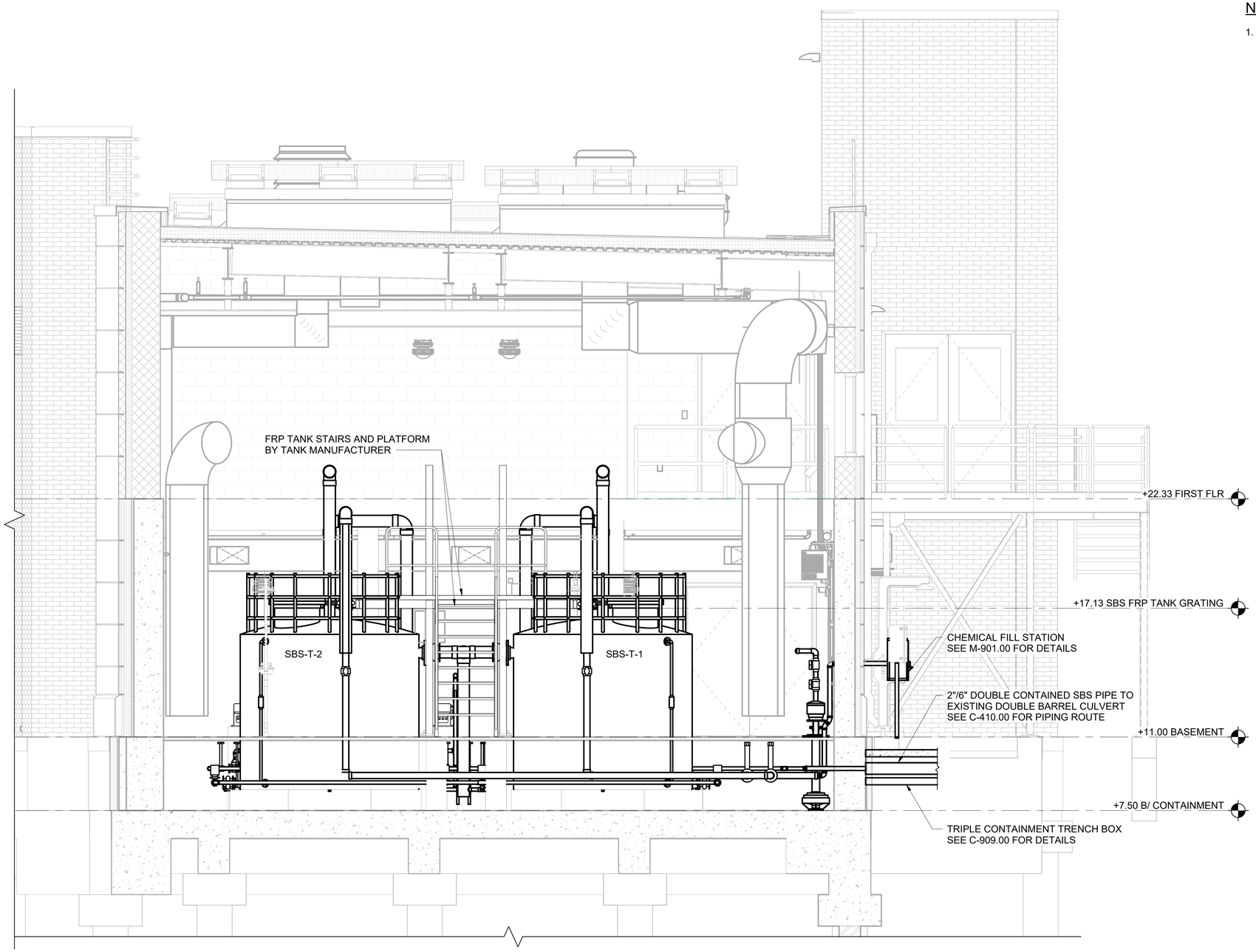
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SHEET NO:
DRAWING NO. M-412.00

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NOTES:

1. SEE SHEETS M-414.00 AND M-415.00 FOR SBS CHEMICAL LINE DETAILS.



2 / M-409 TI-011 DECHLORINATION ROOM SECTION 2

SCALE: 3/8" = 1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

NYC Environmental Protection BEDC/HID

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MECHANICAL
TI-011 DISINFECTION FACILITY
DECHLORINATION ROOM SECTION 2

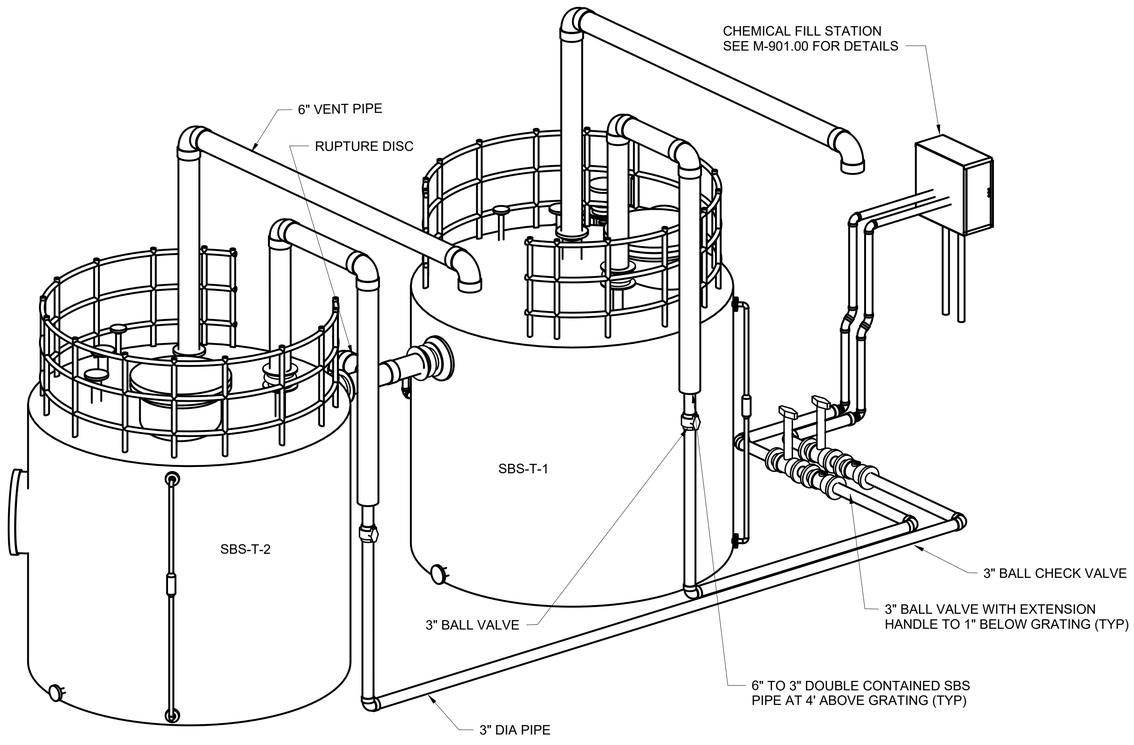
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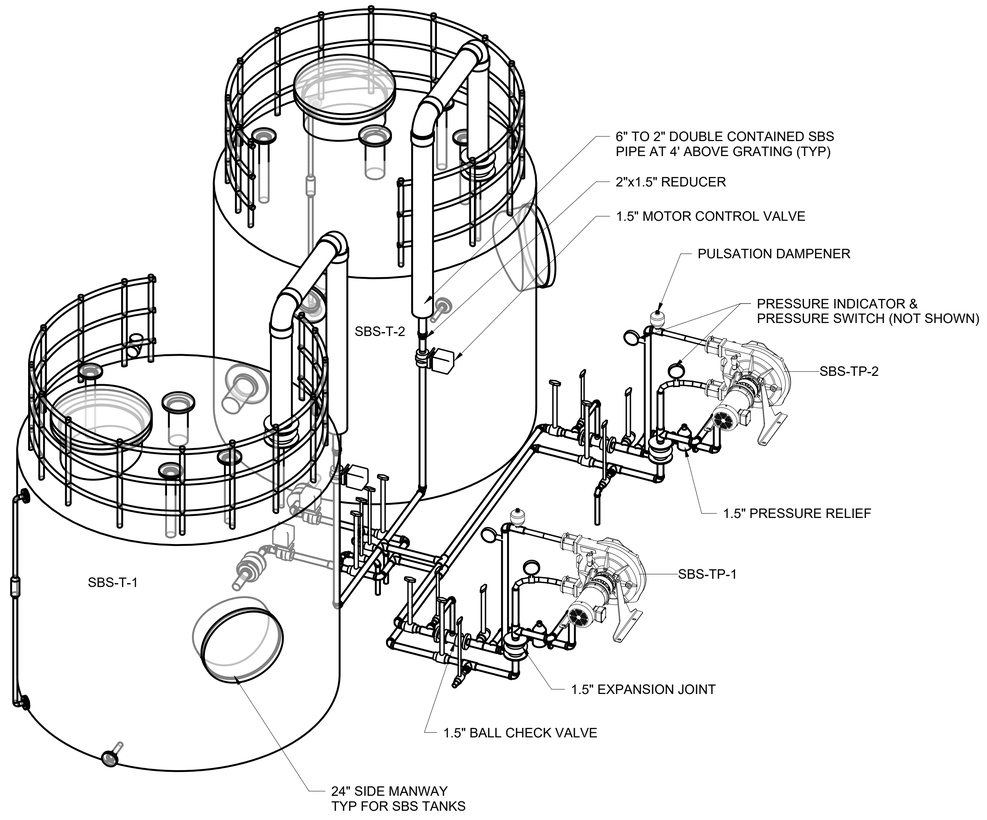
NOTES:

1. COMPONENTS TO AND FROM TANKS AND PUMPS ARE TYPICAL.
2. REFER TO PROCESS DIAGRAMS FOR ALL ASSOCIATED COMPONENETS AND APPURTENANCES.



SBS CHEMICAL FILL TO SBS TANKS

SCALE: N.T.S.



SBS TANKS TO SBS TRANSFER PUMPS

SCALE: N.T.S.

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
SBS CHEMICAL LINE DIAGRAMS 1

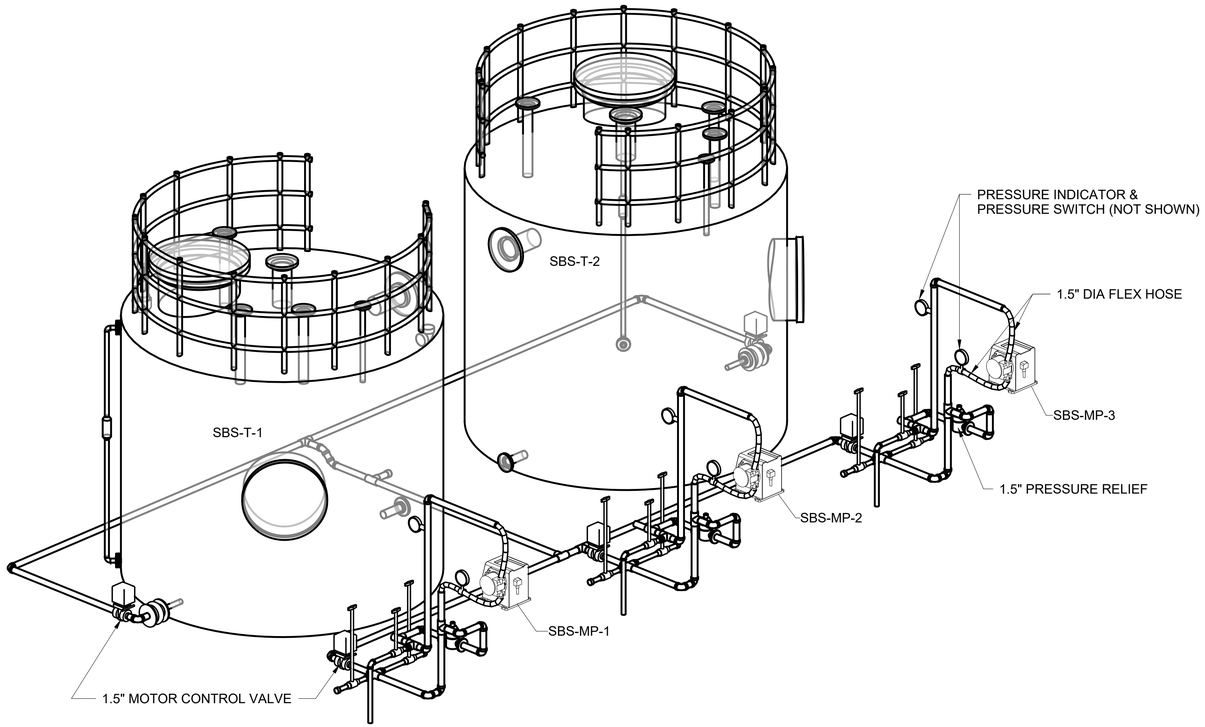
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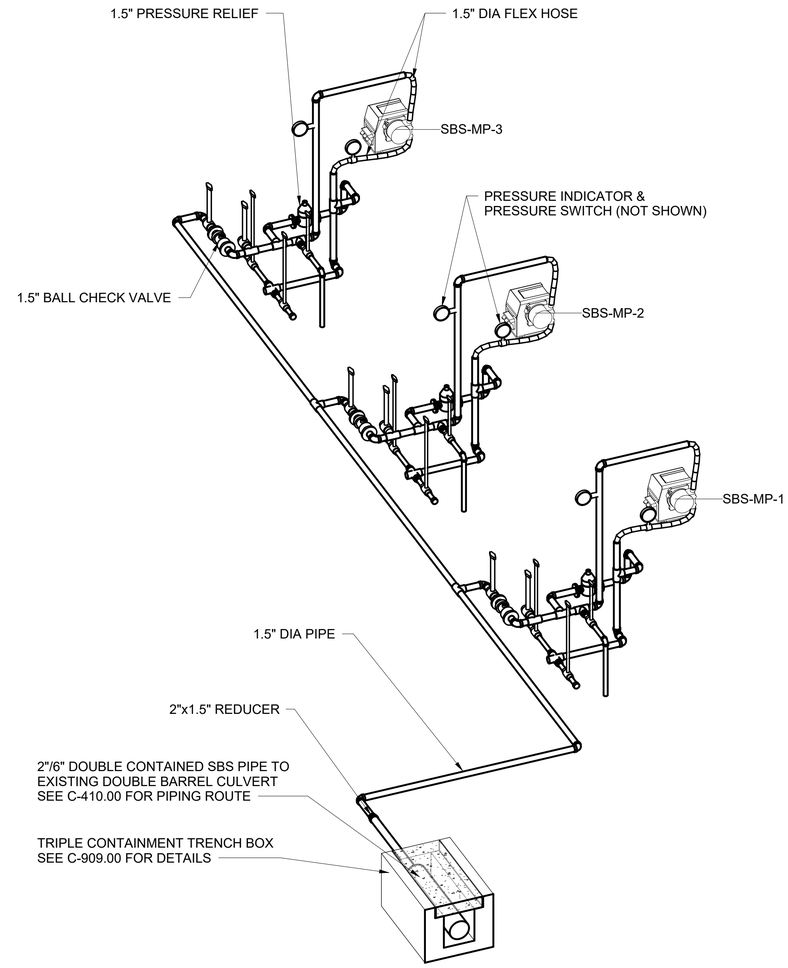
NOTES:

1. COMPONENTS TO AND FROM TANKS AND PUMPS ARE TYPICAL.
2. REFER TO PROCESS DIAGRAMS FOR ALL ASSOCIATED COMPONENTS AND APPURTENANCES.



SBS TANKS TO SBS METERING PUMPS

SCALE: N.T.S.



SBS METERING PUMPS TO OUTFALL TI-011

SCALE: N.T.S.

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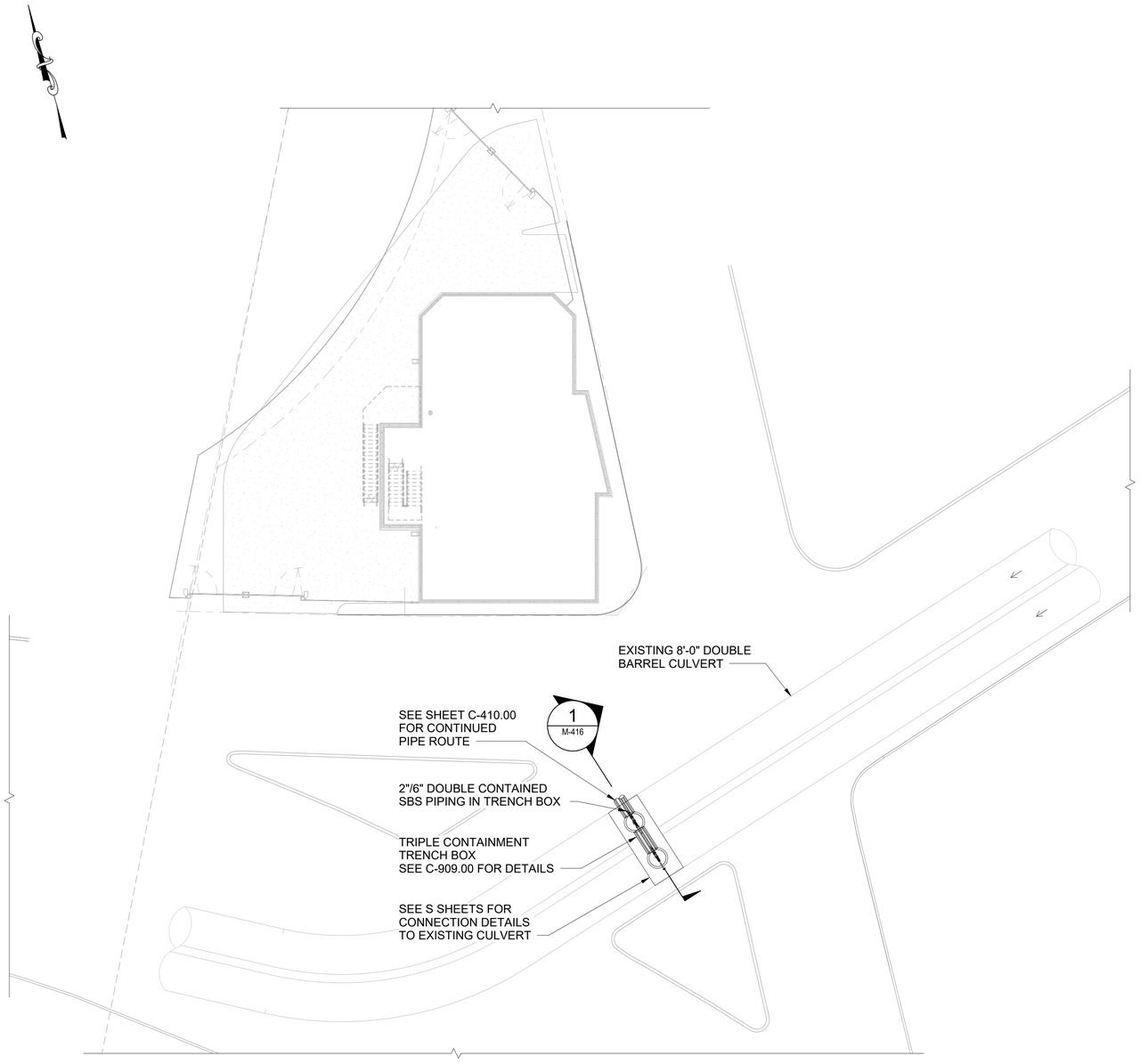
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
SBS CHEMICAL LINE DIAGRAMS 2

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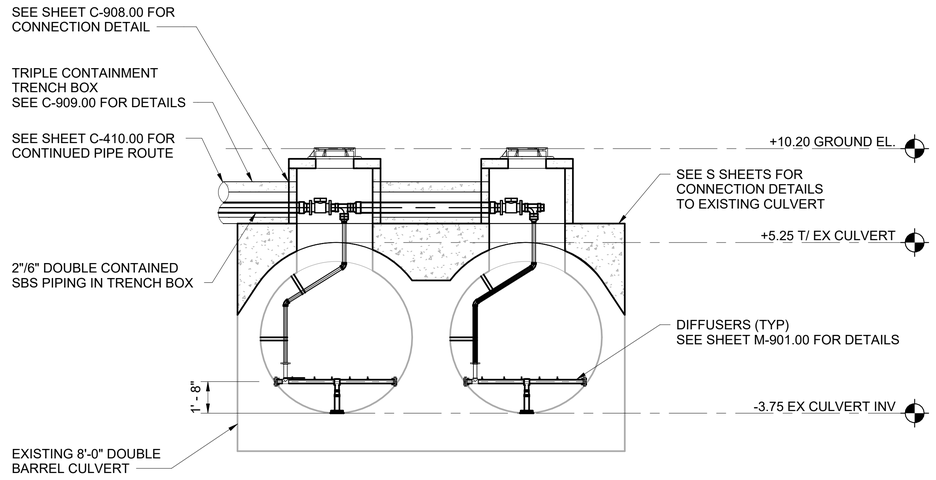
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TI-011 DECHLORINATION DIFFUSER PLAN

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



1 M-416 TI-011 DECHLORINATION DIFFUSER SECTION

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

NOTES:

1. LOCATION, TYPE, AND EMBEDMENT OF ANCHORS AND SUPPORT BRACKETS FOR DIFFUSER MANIFOLD INSTALLATION SHALL BE DETERMINED BY THE CONTRACTOR IN COORDINATION WITH THE DIFFUSER MANUFACTURER. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED DESIGN DOCUMENTS DEMONSTRATING ADEQUACY OF THE PROPOSED ATTACHMENT SYSTEM FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

1/16"=1'-0" 0 10 20 30 FT.

1/4"=1'-0" 0 4 8 FT.

BID SET

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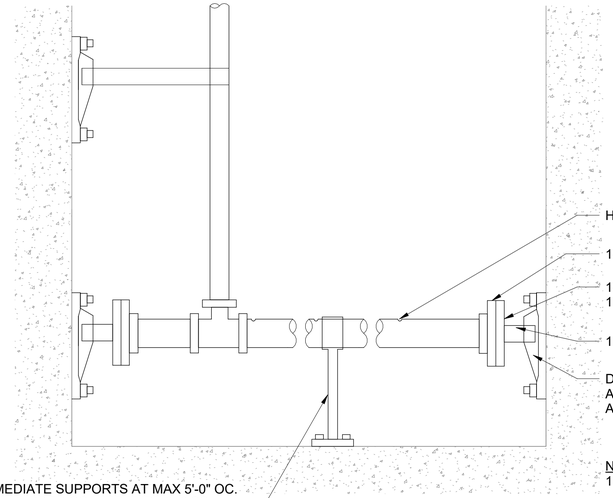
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
TI-011 DISINFECTION FACILITY
TI-011 DOUBLE BARREL OUTFALL

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-416.00

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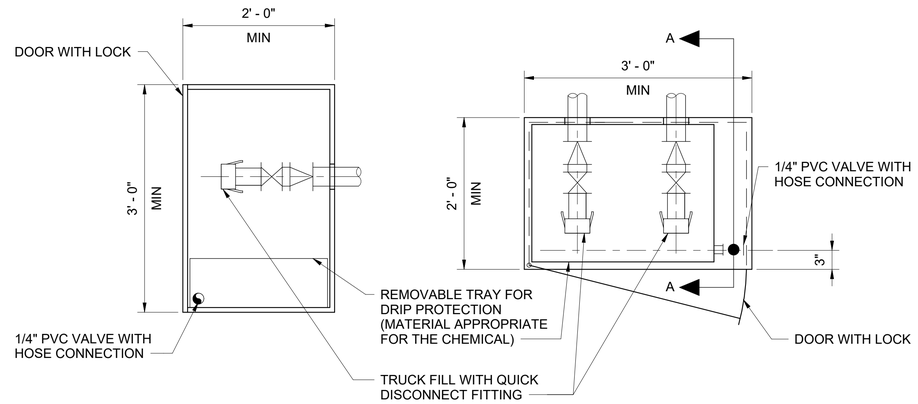
NOTE:
1. CONTRACTOR TO COORDINATE FABRICATION OF DIFFUSER SUPPORT BRACKET TO MATCH WHAT IS SHOWN IN DETAIL. SUPPORT BRACKET SHALL ALLOW THE DIFFUSER TO SLIDE INTO PLACE.

DIFFUSER REQUIREMENTS			
OUTFALL	DIFFUSER LOCATION	CHEMICAL TYPE	TIP QUANTITY
TI-010	DC-5 (EACH BARREL)	HYPO	20
TI-010	TI-010 INFLUENT CHANNELS 1 AND 2	HYPO	16
TI-010	TRIPLE BARREL CULVERT	SBS	16
TI-011	REGULATOR TI-09	HYPO	24
TI-011	DOUBLE BARREL CULVERT	SBS	6

DIFFUSER INSTALLATION SEQUENCE OF CONSTRUCTION:

1. COORDINATE INSTALLATION WITH DIFFUSER MANUFACTURER. DIFFUSERS SHALL BE PROVIDED IN UNIFORM LENGTH SEGMENTS FOR EASE OF INSTALLATION AND FUTURE USE OF SPARE DIFFUSER SEGMENTS.
2. ENSURE INSTALLATION OCCURS DURING DRY WEATHER.
3. IF REQUIRED, PROVIDE FLOW CONTROL TO BRING WATER ELEVATION IN EXISTING CHANNELS TO LEVEL ALLOWING SUPPORT BRACKET INSTALLATIONS. SUBMIT FLOW CONTROL PLAN FOR APPROVAL PRIOR TO DIFFUSER INSTALLATION.
4. FOLLOW ALL COMBINED SPACE ENTRY AND OTHER SAFETY PRECAUTIONS AS REQUIRED BY NYCDEP.
5. INSTALL DIFFUSER SUPPORT BRACKETS AT SIDES OF CHANNELS AND INTERMEDIATE SUPPORTS AT BOTTOM OF CHANNELS.
6. INSTALL DIFFUSER SEGMENTS AND CONNECT TO SUPPORT BRACKETS AND INTERMEDIATE SUPPORTS.

TYPICAL DIFFUSER DETAIL
SCALE: N.T.S.



SECTION A-A PLAN

NOTES:
1. SEE DRAWINGS FOR SPECIFIC CHEMICAL AND PIPE DIAMETER INFORMATION.
2. DETAIL TYPICAL FOR NEW FACILITIES. AT TI-010C, PROVIDE THREE FILL PORTS AND ORIENT THE PIPING TO COME OUT FROM THE BOTTOM.
3. PROVIDE 2-INCH QUICK DISCONNECT FOR SODIUM HYPOCHLORITE AND 3.5-INCH QUICK DISCONNECT FOR SODIUM BISULFITE.

CHEMICAL FILL STATION DETAIL
SCALE: N.T.S.

0 1 2 FT.
1"=1'-0"
0 1 1-1/2 FT.
1 1/2"=1'-0"

NYC Environmental Protection BEDCHD

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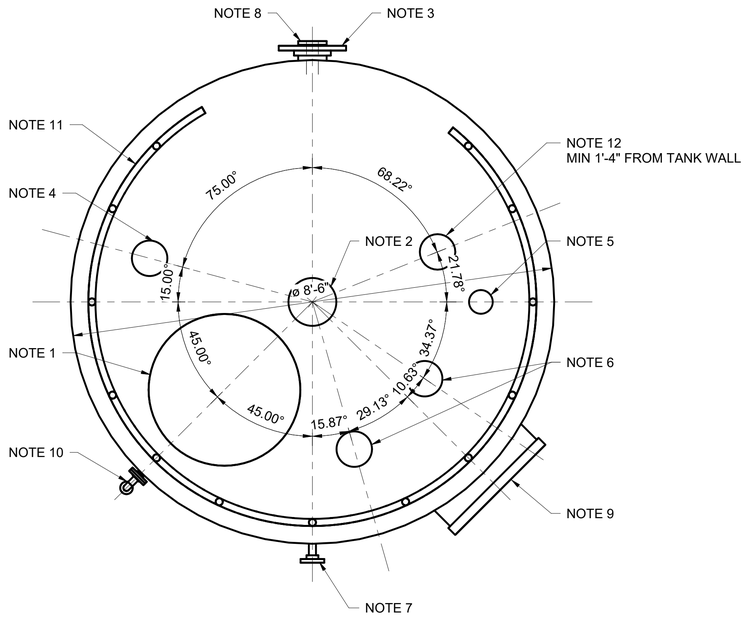
MECHANICAL
STANDARD DETAILS I

DATE: NOVEMBER 2026
SHEET NO:
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TI-010 SBS

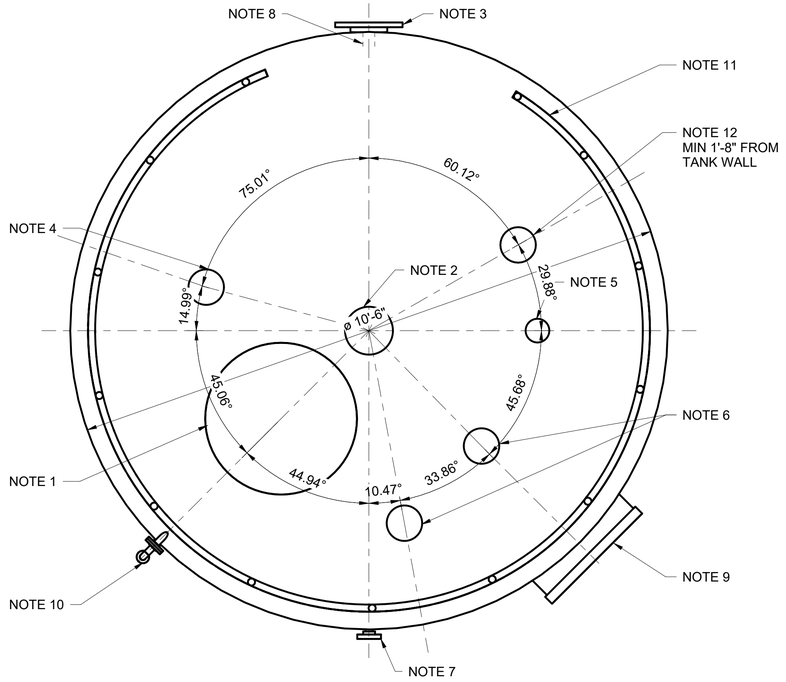


TI-010 SODIUM BISULFITE TANKS - 3,760 GALLON (SBS-T-1, SBS-T-2)

NOTES	DESCRIPTION	VERTICAL DISTANCE FROM BASE OF TANK TO CL EL OF ITEM
1	24" TOP ACCESS MANWAY	NA
2	6" DIA VENT	NA
3	6" OVERFLOW	9' - 8 1/2"
4	3" DIA FILL	NA
5	1.5" DIA TRANSFER PUMP DISCHARGE	NA
6	2" DIA SPARE FLANGE	NA
7	1.5" METER PUMP SUCTION	4"
8	1.5" TRANSFER PUMP SUCTION	4"
9	24" SIDE ACCESS MANWAY	3'-7"
10	SIGHT GAUGE	NA
11	HANDRAIL	NA
12	4" FLANGE FOR ULT	NA
ACTIVE LIQUID DIAMETER: 96"		ACTIVE LIQUID MAX HEIGHT: 120"

NOTE: PROVIDE BLIND FLANGE ON ALL SPARE NOZZLES. PROVIDE BLIND FLANGE ADAPTED FOR INSTRUMENT MOUNTING FOR LEVEL TRANSMITTER.

TI-011 HYPO

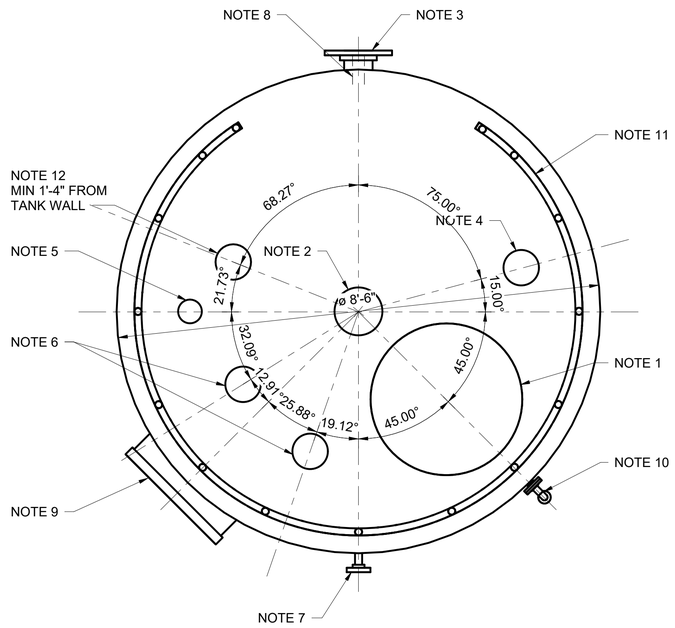


TI-011 SODIUM HYPOCHLORITE TANKS - 6,000 GALLON (HYPO-T-1, HYPO-T-2)

NOTES	DESCRIPTION	VERTICAL DISTANCE FROM BASE OF TANK TO CL EL OF ITEM
1	24" TOP ACCESS MANWAY	NA
2	6" DIA VENT	NA
3	6" OVERFLOW	9' - 6 1/2"
4	3" DIA FILL	NA
5	1.5" DIA TRANSFER PUMP DISCHARGE	NA
6	2" DIA SPARE FLANGE	NA
7	2.5" METER PUMP SUCTION	4'-6"
8	2.5" TRANSFER PUMP SUCTION	4'-6"
9	24" SIDE ACCESS MANWAY	3'-0"
10	SIGHT GAUGE	NA
11	HANDRAIL	NA
12	4" FLANGE FOR ULT	NA
ACTIVE LIQUID DIAMETER: 120"		ACTIVE LIQUID MAX HEIGHT: 122"

NOTE: PROVIDE BLIND FLANGE ON ALL SPARE NOZZLES. PROVIDE BLIND FLANGE ADAPTED FOR INSTRUMENT MOUNTING FOR LEVEL TRANSMITTER.

TI-011 SBS



TI-011 SODIUM BISULFITE TANKS - 2,500 GALLON (SBS-T-1, SBS-T-2)

NOTES	DESCRIPTION	VERTICAL DISTANCE FROM BASE OF TANK TO CL EL OF ITEM
1	24" TOP ACCESS MANWAY	NA
2	6" DIA VENT	NA
3	6" OVERFLOW	6' - 6 1/2"
4	3" DIA FILL	NA
5	1.5" DIA TRANSFER PUMP DISCHARGE	NA
6	2" DIA SPARE FLANGE	NA
7	1.5" METER PUMP SUCTION	4'-6"
8	1.5" TRANSFER PUMP SUCTION	4'-6"
9	24" SIDE ACCESS MANWAY	4'-2"
10	SIGHT GAUGE	NA
11	HANDRAIL	NA
12	4" FLANGE FOR ULT	NA
ACTIVE LIQUID DIAMETER: 96"		ACTIVE LIQUID MAX HEIGHT: 80"

NOTE: PROVIDE BLIND FLANGE ON ALL SPARE NOZZLES. PROVIDE BLIND FLANGE ADAPTED FOR INSTRUMENT MOUNTING FOR LEVEL TRANSMITTER.

CHEMICAL STORAGE TANKS PLAN VIEWS AND DETAILS

SCALE: N.T.S.

BID SET

SUBMITTAL DATE: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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CHECKED BY: VR
DESIGN LEAD: IVANA NITZOVA, PE
SECTION MANAGER:

WADE TRIM

STATE OF NEW YORK · IVANA NITZOVA · 095133 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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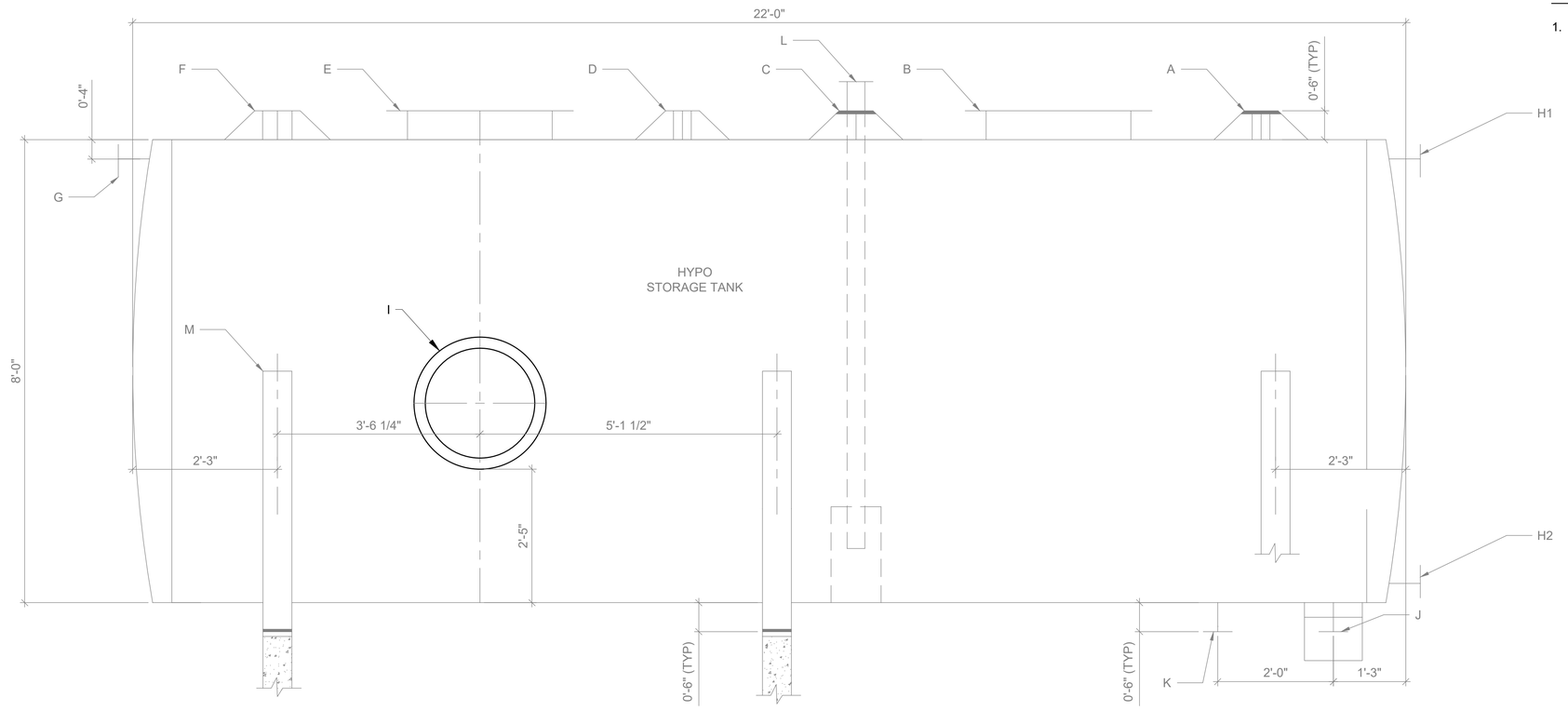
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
STANDARD DETAILS II

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-902.00

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Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T11B-M-R21_DIFFUSER.rvt
8/31/2026 2:51:16 PM



NOTE:

1. REPLACE ALL GASKETS ON EXISTING NOZZLES. REUSE EXISTING HARDWARE.

REFERENCE LETTER	DESCRIPTION
A	4" FLANGED NOZZLE FOR LEVEL INDICATOR
B	24" TOP MANWAY
C	4" FLANGED NOZZLE FOR FILL LINE
D	3" FLANGED NOZZLE FOR SPARE
E	24" TOP MANWAY
F	8" FLANGED NOZZLE FOR TANK VENT
G	3" FLANGED NOZZLE FOR OVERFLOW LINE
H1	2" FLANGED NOZZLE FOR SIGHT GAUGE
H2	2" FLANGED NOZZLE FOR SIGHT GAUGE
I	24" SIDE MANWAY (NEW)
J	2" FLANGED NOZZLE FOR PUMP SUCTION HEADER
K	2" FLANGED NOZZLE FOR TANK DRAIN
L	SCH 80 PVC REMOVABLE DIP PIPE
M	FRP TANK SUPPORT SADDLES

TI-010 HYPO STORAGE TANK NOZZLE LOCATIONS

SCALE: NOT TO SCALE

BID SET
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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. McDONALD — 083924 — LICENSED PROFESSIONAL ENGINEER — 10/3/25

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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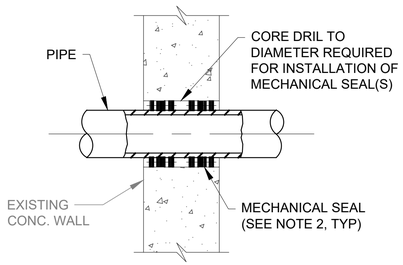
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
STANDARD DETAILS III

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-903.00

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Drawing File Name & Drive Location: C:\Users\gavinm0105\DC\ACCDocs\Arcadis\AUS-300002892-NYCDEP Flushing Creek CSO Disinfection Facilities\Project Files\01_Design_Dwgs\04_Mechanical\04_Mech_CAD\M-903.00.dwg
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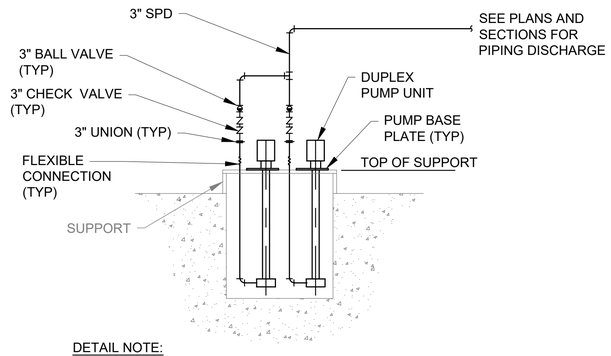


DETAIL NOTES:

1. TYPE 1 - MECHANICAL SEAL REQUIRED BOTH FACES
   TYPE 2 - MECHANICAL SEAL NOT REQUIRED
2. PROVIDE FIRE RATED MECHANICAL SEALS AS REQUIRED.

1 TYPICAL WALL CORE DETAIL

NOT TO SCALE

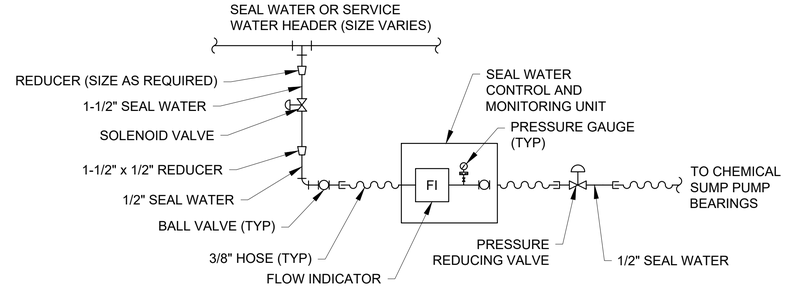


DETAIL NOTE:

1. SEE PLANS AND SECTIONS FOR EACH SUMP CONFIGURATION

2 TYPICAL CHEMICAL SUMP PUMP DETAIL

NOT TO SCALE

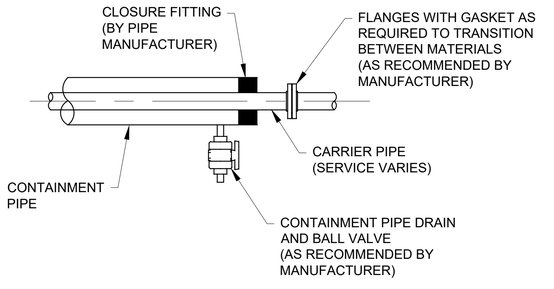


DETAIL NOTE:

1. MOUNT PRESSURE GAGES AT THE SAME ELEVATION FOR PUMPS OF THE SAME SERVICE.

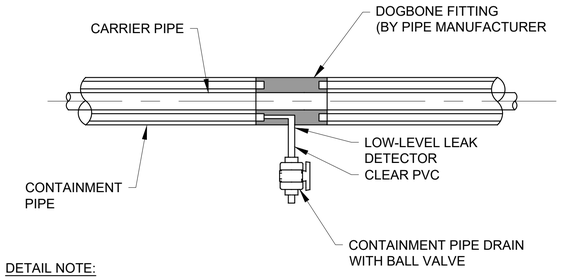
3 SEAL WATER PUMP CONNECTION FOR MECHANICAL SEAL DETAIL

NOT TO SCALE



4 CONTAINMENT PIPE TERMINATION DETAIL

NOT TO SCALE

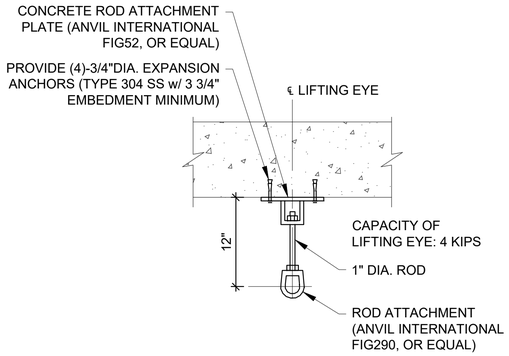


DETAIL NOTE:

1. PROVIDE LOW-LEVEL LEAK DETECTION PROBES AT DOUBLE CONTAINED CHEMICAL PIPING AS INDICATED ON THE PLANS AND AT LOW POINTS.

5 LOW LEVEL ELECTRONIC LEAK DETECTION DETAIL

NOT TO SCALE



6 LIFTING EYE DETAIL

NOT TO SCALE

BID SET
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DRAWN BY: AC
CHECKED BY: TM
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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — TIMOTHY M. MCDONALD — 103524 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

MECHANICAL
STANDARD DETAILS IV

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. M-904.00

Last Saved By: Gavinm0105
Paper Size Printed/Plotted: 34.00 x 22.00
Drawing File Name & Drive Location: C:\Users\gavinm0105\DC\ACCDocs\Arcadis\AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities\Project Files\01_Design_Dwgs\04_Mechanical\04_Mech_CAD\M-904.00.dwg
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ABBREVIATIONS

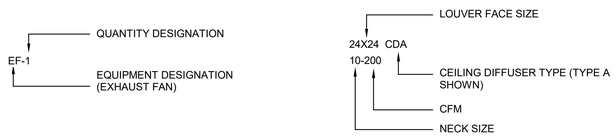
HVAC

ACH	AIR CHANGES PER HOUR
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFR	ABOVE FINISHED ROOF
AL ACL	ALUMINUM ACOUSTICAL LINING
AMB	AMBIENT
APPROX	APPROXIMATE
ATC	AUTOMATIC TEMPERATURE CONTROL
AUTO	AUTOMATIC
BBO	BATTERY BACK UP OPEN
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOT EL	BOTTOM ELEVATION
BOU	BOTTOM OF UNIT
BTU/HR	BRITISH THERMAL UNITS PER HOUR
BTUH	BRITISH THERMAL UNITS PER HOUR
CL CD	CENTER LINE CEILING DIFFUSER
CFM	CUBIC FEET OF AIR PER MINUTE
CGD	COMBUSTION GAS DETECTOR
CHKP	CONCRETE HOUSE KEEPING PAD
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUATION
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
DX	DIRECT EXPANSION
EA	EACH
EAT	ENTERING AIR TEMPERATURE
ECAV	EXHAUST CONSTANT AIR VOLUME
EG	EXHAUST GRILLE
EL	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
EQUIP	EQUIPMENT
EWT	ENTERING WATER TEMPERATURE
EVAV	EXHAUST VARIABLE AIR VOLUME
EXH	EXHAUST
EXIST	EXISTING
F&B	FACE & BYPASS
FD	FIRE DAMPER
FLR	FLOOR
FO	FUEL OIL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FPM	FEET PER MINUTE
FT	FEET
GAL	GALVANIZED
GPM	GALLONS PER MINUTE
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
HP	HORSEPOWER
HVAC	HEATING, VENTILATION & AIR CONDITIONING
KW	KILOWATT
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LBG	LINEAR BAR GRILLE
LCD	LIQUID CRYSTAL DISPLAY
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MD	MOTORIZED DAMPER
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MECH	MECHANICAL
MIN	MINIMUM
MFR	MANUFACTURER
MOP	MAX OVERCURRENT PROTECTION
MTD	MOUNTED
NA	NOT APPLICABLE
NK	NECK
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NFA	NET FREE AREA
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OPNG	OPENING
PD	PRESSURE DROP
PF	PROPELLER FAN
PVC	POLYVINYL CHLORIDE
RG	RETURN GRILLE
RL	REFRIGERANT LIQUID
RM	ROOM
RR	RETURN REGISTER
RO	ROOF OPENING
RS	REFRIGERANT SUCTION
RV	RELIEF VENT
SC	SPRING CLOSE
SCAV	SUPPLY CONSTANT AIR VOLUME
SCH	SCHEDULE
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SG	SUPPLY GRILLE
SMD	SMOKE DAMPER
SO	SPRING OPEN
SP	STATIC PRESSURE
SRV	SAFETY RELIEF VALVE
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
SVAV	SUPPLY VARIABLE AIR VOLUME
TOD	TOP OF DUCT
TS	TOTAL STATIC
TSP	TOTAL STATIC PRESSURE
TVS	TEMPORARY VENTILATION STATION
TYP	TYPICAL
VAS	VENTILATION ALARM STATION
VD	MANUAL VOLUME DAMPER
VH	VALVE HEATING
VMS	VENTILATION MONITORING STATION
WB	WET BULB
WG	WATER GAUGE
WPD	WATER PRESSURE DROP
W/	WITH

EQUIPMENT

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
ACCU	AIR COOLED CONDENSING UNIT
AHU	AIR HANDLING UNIT
CH	CHILLER
CRAC	COMPUTER ROOM AIR CONDITIONER
CWH	CABINET WALL HEATER
DDC	DIRECT DIGITAL CONTROL
DH	DEHUMIDIFICATION UNIT
EBH	ELECTRIC BASEBOARD HEATER
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EUH	ELECTRIC UNIT HEATER
FACP	FIRE ALARM CONTROL PANEL
FBP	FIBER BRANCH PANEL
FPP	FIBER PATCH PANEL
GM	GAS METER
HP	HEAT PUMP
HUH	HOT WATER UNIT HEATER
HV	HEATING AND VENTILATING UNIT
HVAC	HEATING, VENTILATING, AIR CONDITIONING UNIT
HWB	HOT WATER BOILER
HWP	HOT WATER PUMP
HWPP	HOT WATER PRIMARY PUMP
HWSP	HOT WATER SECONDARY PUMP
MAU	MAKE-UP AIR UNIT
PSP	PURGE STATION PANEL
PTAC	PACKAGED TERMINAL AC UNIT
RHP	RADIANT HEATING PANEL
SF	SUPPLY FAN
SPP	SMOKE PURGE PANEL
SV	SUPPLY VENT

ABBREVIATIONS

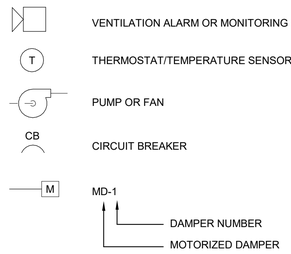


PIPING SYMBOLS

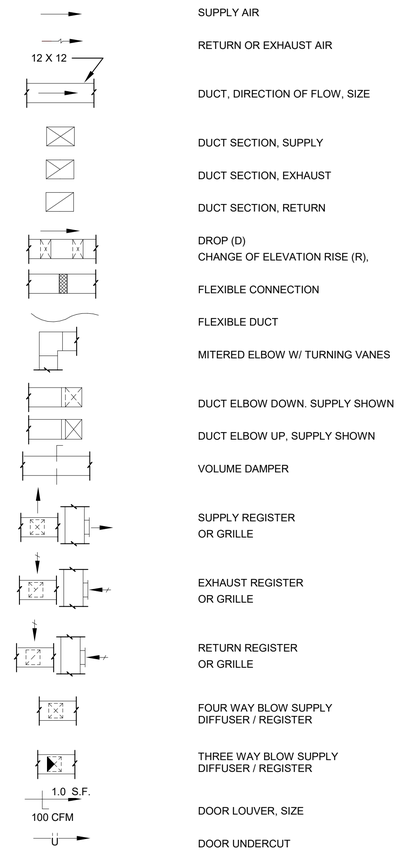
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CA	COMPRESSED AIR
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
DG	DIGESTER GAS
EFWS	EFFLUENT WATER SUPPLY
EFWR	EFFLUENT WATER RETURN
D	DRAIN
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
V	VENT
FOV	FUEL OIL VENT
FOG	FUEL OIL GAUGE
NG	NATURAL GAS
CW	COLD WATER
MU	MAKE-UP WATER
	EXPANSION JOINT
	DIRECTION OF PITCH
	ELBOW UP
	ELBOW DOWN
	TEE DOWN
	TEE UP
	PIPE CAP
	CONNECTION UP
	CONNECTION DOWN
	ALIGNMENT GUIDE
X	ANCHOR
M	CONTROL VALVE, (2-WAY) ELECTRIC MOTOR OPERATED
M	CONTROL VALVE, (3-WAY) ELECTRIC MOTOR OPERATED

V	ISOLATION VALVE TYPE DESIGNATED IN SPECIFICATION
	BUTTERFLY VALVE
	CHECK VALVE
	GATE VALVE
	GLOBE VALVE
	TRIPLE DUTY VALVE (STRAIGHT, ANGLE PATTERN)
	BALANCING VALVE
	BALL VALVE
S	SOLENOID VALVE
	CONTROL VALVE
	THREE WAY VALVE
	Y STRAINER
FS	FLOW SWITCH
	REDUCER (CONCENTRIC)
	REDUCER (ECCENTRIC)
	UNION
	THERMOMETER
	PRESSURE GAUGE
	PRESSURE RELIEF VALVE
	FLEXIBLE CONNECTION
RL	REFRIGERANT LIQUID LINE
HG	HOT GAS LINE
RS	REFRIGERANT SUCTION LINE
S	CONTROL SWITCH
PS	PRESSURE SWITCH
	PRESSURE RELIEF VALVE (PRV)
	EXISTING PIPING/EQUIPMENT
	NEW PIPING/EQUIPMENT
	HIDDEN PIPING/EQUIPMENT

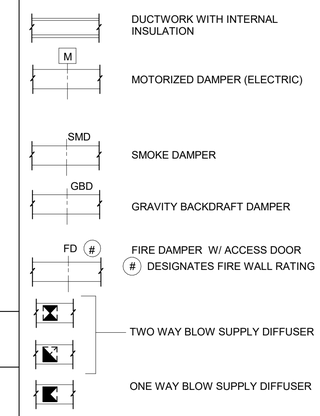
MISCELLANEOUS SYMBOLS

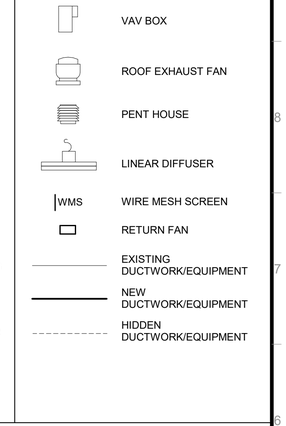


DUCTWORK SYMBOLS



DUCTWORK SYMBOLS





GENERAL NOTES

1. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED ARE NECESSARILY USED.
2. CONTRACTOR TO VERIFY FIELD CONDITIONS PRIOR TO BEGINNING WORK SHOWN.
3. LOCATION, ELEVATION AND DIMENSIONS OF EXISTING PIPING, DUCTWORK, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING PIPING, DUCTWORK, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER (IN WRITING) IF ANY LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING PIPING, DUCTWORK, STRUCTURES AND OTHER FEATURES SIGNIFICANTLY DIFFER FROM THOSE SHOWN. THE ENGINEER WILL ISSUE WRITTEN INSTRUCTIONS IF WARRANTED. IT IS THE INTENT OF THIS CONTRACT THAT THE CONTRACTOR BE RESPONSIBLE TO MAKE ANY AND ALL ADJUSTMENTS IN CONSTRUCTION NECESSARY TO SUIT EXISTING DIMENSIONS OR ELEVATIONS, AT NO CHANGE IN CONTRACT PRICE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. ALL DUCT DIMENSIONS ARE CLEAR DIMENSIONS TO INSIDE OF DUCT. DIMENSIONS TO DUCTS FROM FLOOR OR WALL SHALL BE TO THE OUTSIDE OF DUCT. WHERE INTERNAL INSULATION IS REQUIRED, THE DUCT SIZE SHALL BE INCREASED TO GIVE CLEAR INSIDE DIMENSIONS.
5. EQUIPMENT SIZES AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHED.
6. CONCRETE PAD SIZES AND LOCATIONS SHALL BE COORDINATED DURING CONSTRUCTION WITH APPROVED EQUIPMENT.
7. FINAL SIZES OF FLOOR OPENINGS, WALL OPENINGS, ROOF OPENINGS, DUCT PLENUMS, DUCT TRANSITIONS AND PIPING CONNECTIONS TO EQUIPMENT SHALL BE DETERMINED BY EQUIPMENT FURNISHED.
8. FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
9. FIELD COORDINATE FOR EXISTING FLOOR DRAIN LOCATIONS.
10. WHERE PIPING OR DUCTWORK CONNECTS TO EXISTING PIPING OR DUCTWORK, MODIFY EXISTING PIPING OR DUCTWORK AS REQUIRED TO MAKE CONNECTION.
11. WHERE PIPES OR DUCTS PENETRATE THROUGH EXISTING FLOORS, WALLS, OR SLABS, CORE DRILL OR SAW CUT PENETRATION.
12. PATCH EXISTING PENETRATIONS THROUGH WALLS AND FLOORS THAT RESULTED FROM DEMOLITION OF EXISTING DUCTWORK, PIPING AND EQUIPMENT.
13. VOLUME DAMPERS SHOWN OR DESCRIBED ON THE DRAWINGS ARE IN ADDITION TO OPPOSED BLADE DAMPERS PROVIDED WITH REGISTERS.
14. PROVIDE PIPE SLEEVES AND MECHANICAL SEALS FOR ALL PIPING AND CONTAINMENT CONDUIT PENETRATIONS THRU CONCRETE OR MASONARY CONSTRUCTION INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, ROOFS, PADS, UNDERGROUND STRUCTURES EXCEPT WHERE OTHERWISE NOTED.
15. REFER TO CODE COMPLIANCE DRAWINGS UNDER GENERAL DRAWING CATEGORY FOR ADDITION DESIGN INFORMATION REQUIRED UNDER THIS CONTRACT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

IF SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: SC
DRAWN BY: JB
CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — 088612 — LICENSED PROFESSIONAL ENGINEER — 11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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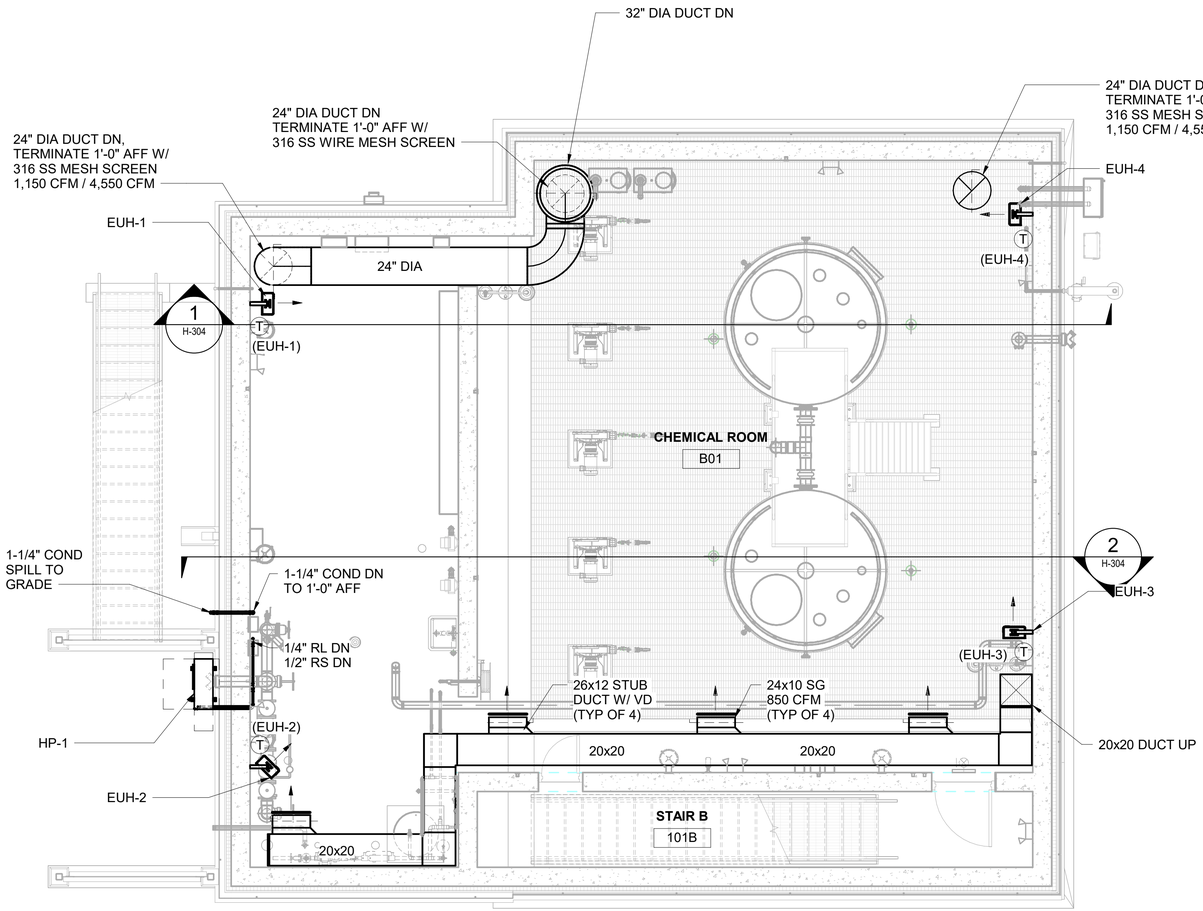
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96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
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CAPITAL CONTRACT WP-196 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
ABBREVIATIONS, SYMBOLS, AND GENERAL NOTES

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-001.00

Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T10D-H-R21_ARCA.rvt
10/29/2026 4:17:25 PM
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BASEMENT FLOOR PLAN

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

0' 2' 4' 8'

NYC Environmental Protection

BID SET

DATE ISSUED: NOVEMBER 2026

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CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK ANTHONY CERVINI 088612 LICENSED PROFESSIONAL ENGINEER
11/01/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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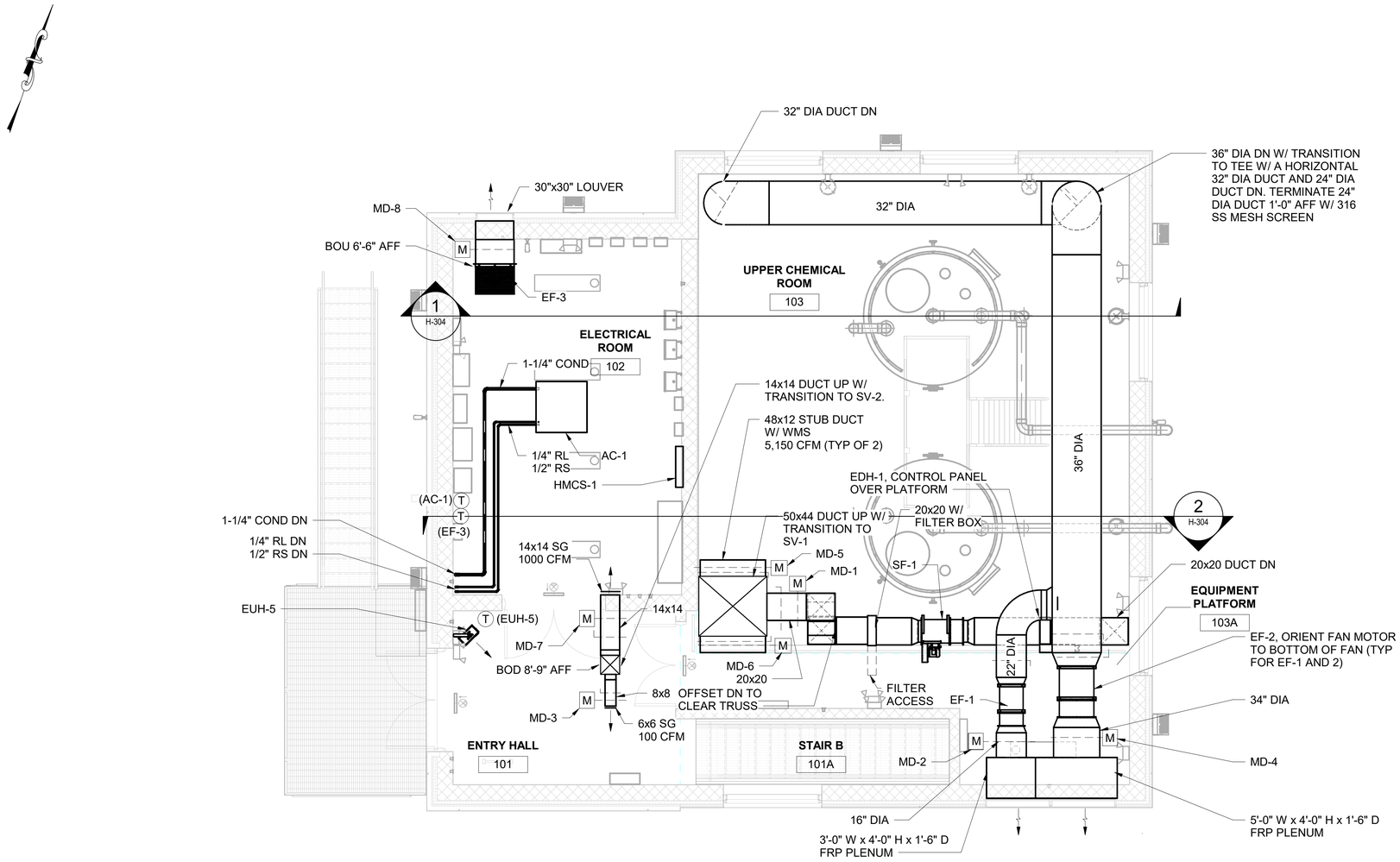
CAPITAL CONTRACT WP-196 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO
DISINFECTION FACILITIES

HVAC
TI-010 DECHLORINATION FACILITY - BASEMENT FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-301.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

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10/29/2026 4:17:52 PM



FIRST FLOOR PLAN

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

0' 2' 4' 8'

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · COUNTY OF QUEENS · LICENSED PROFESSIONAL ENGINEER · 088612
11/07/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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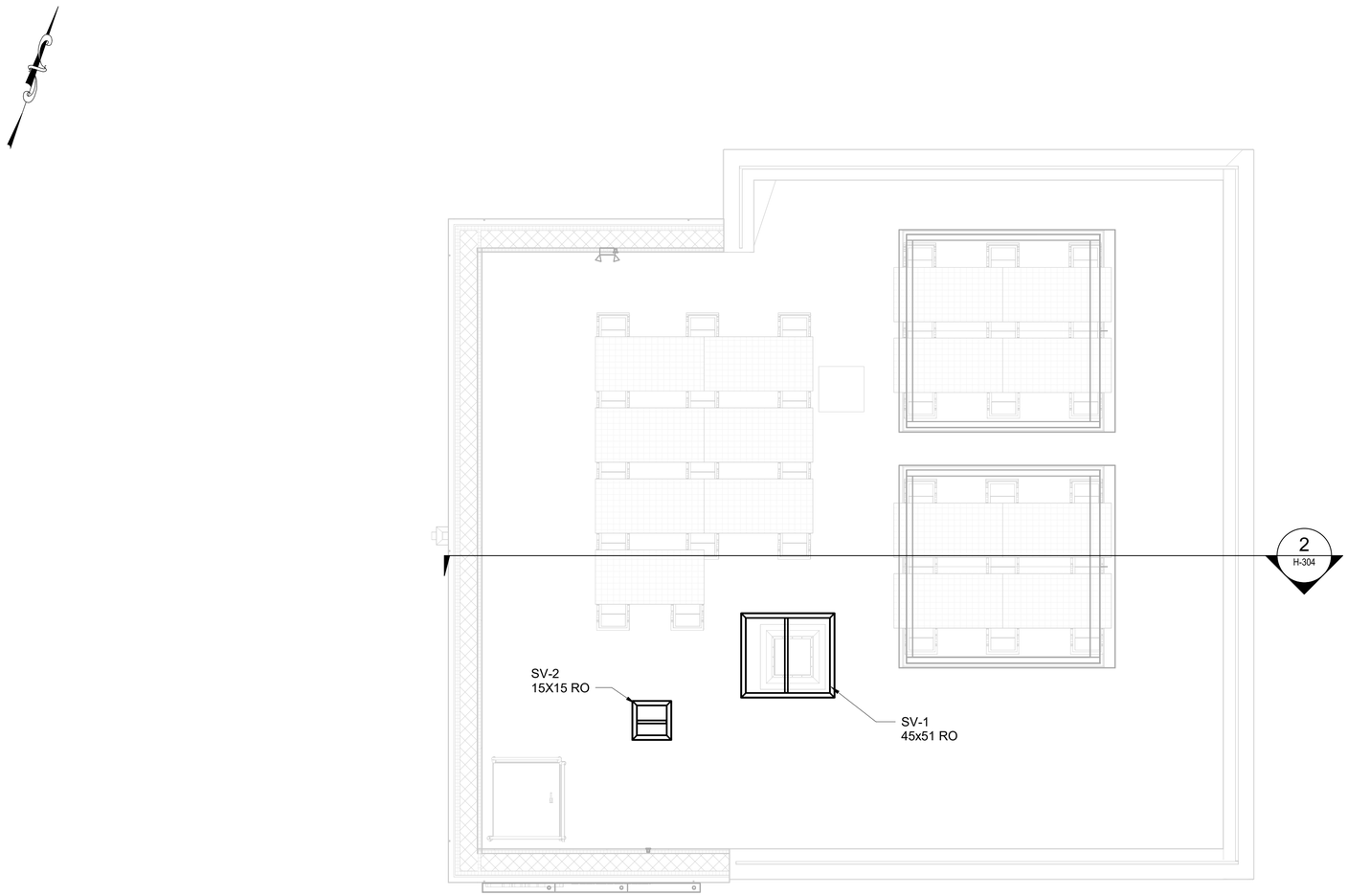
CAPITAL CONTRACT WP-196 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-302.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

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10/29/2026 4:18:03 PM



ROOF PLAN

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

0' 2' 4' 8'

BID SET

DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: SC
DRAWN BY: JB
CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK ANTHONY CORBISIERO 088612 LICENSED PROFESSIONAL ENGINEER 11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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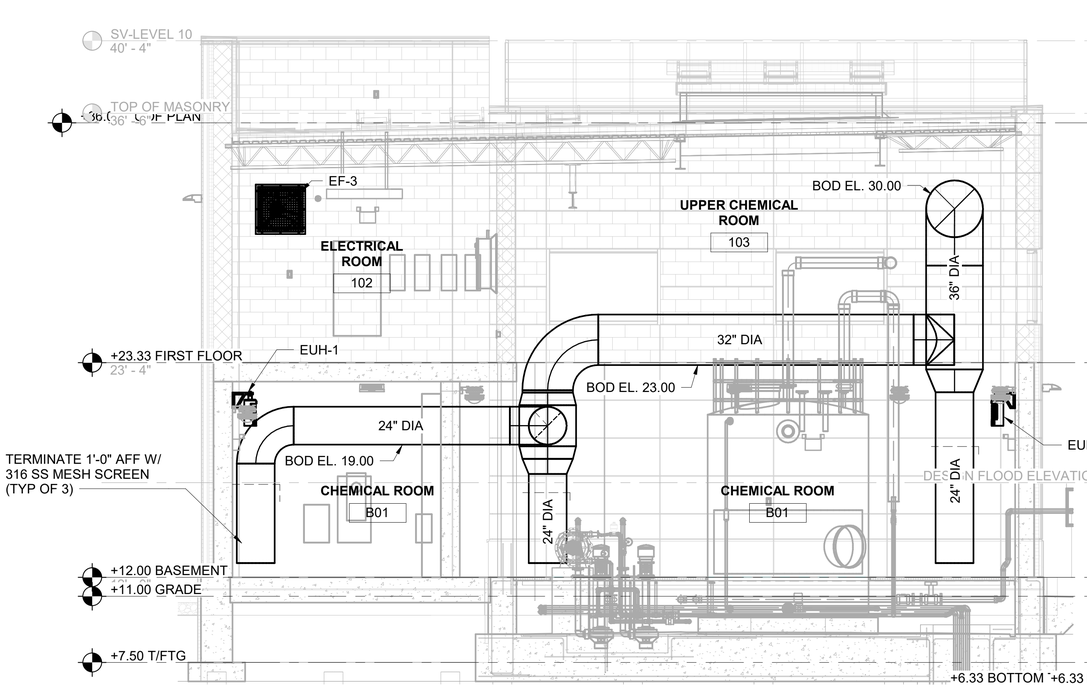
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CAPITAL CONTRACT WP-196 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
HVAC
TI-010 DECHLORINATION FACILITY - ROOF PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-303.00

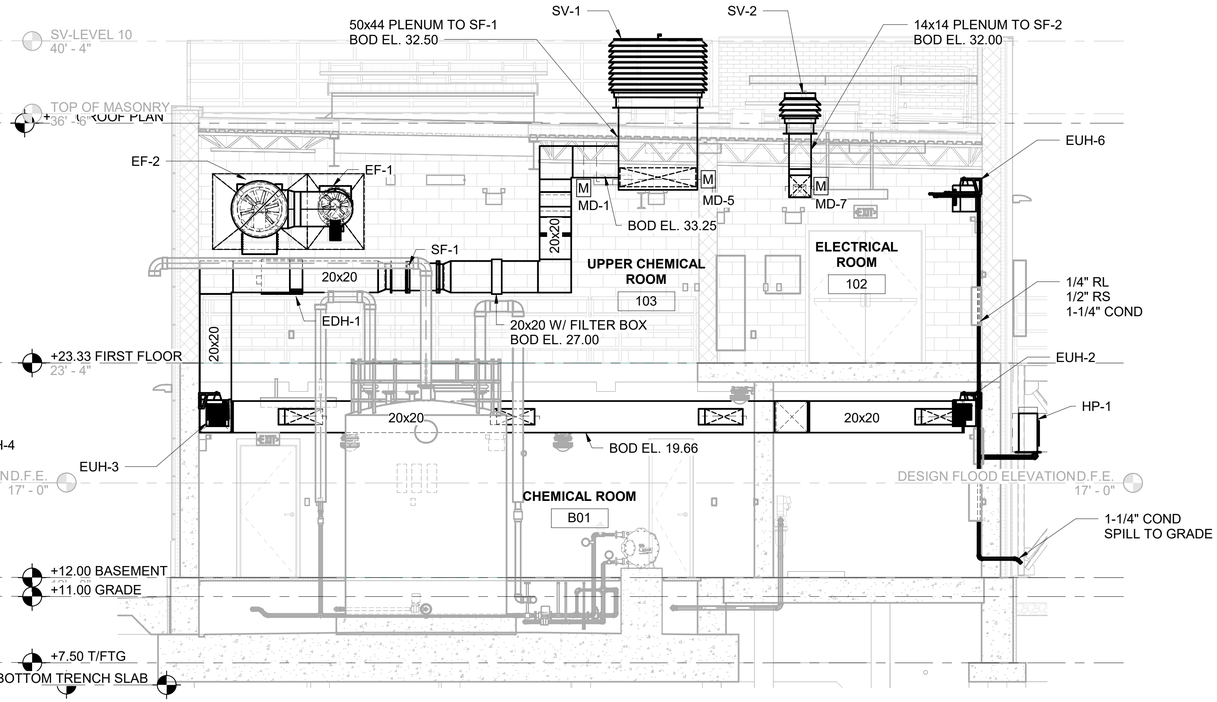
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10/29/2026 4:18:03 PM



1 H-301 NORTH SECTION

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



2 H-301 SOUTH SECTION

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

0' 2' 4' 8'

NYC Environmental Protection

BID SET

DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · ANTHONY CORSO · 088012 · LICENSED PROFESSIONAL ENGINEER
11/01/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER
MONICA HARVEY, PE
PORTFOLIO MANAGER
ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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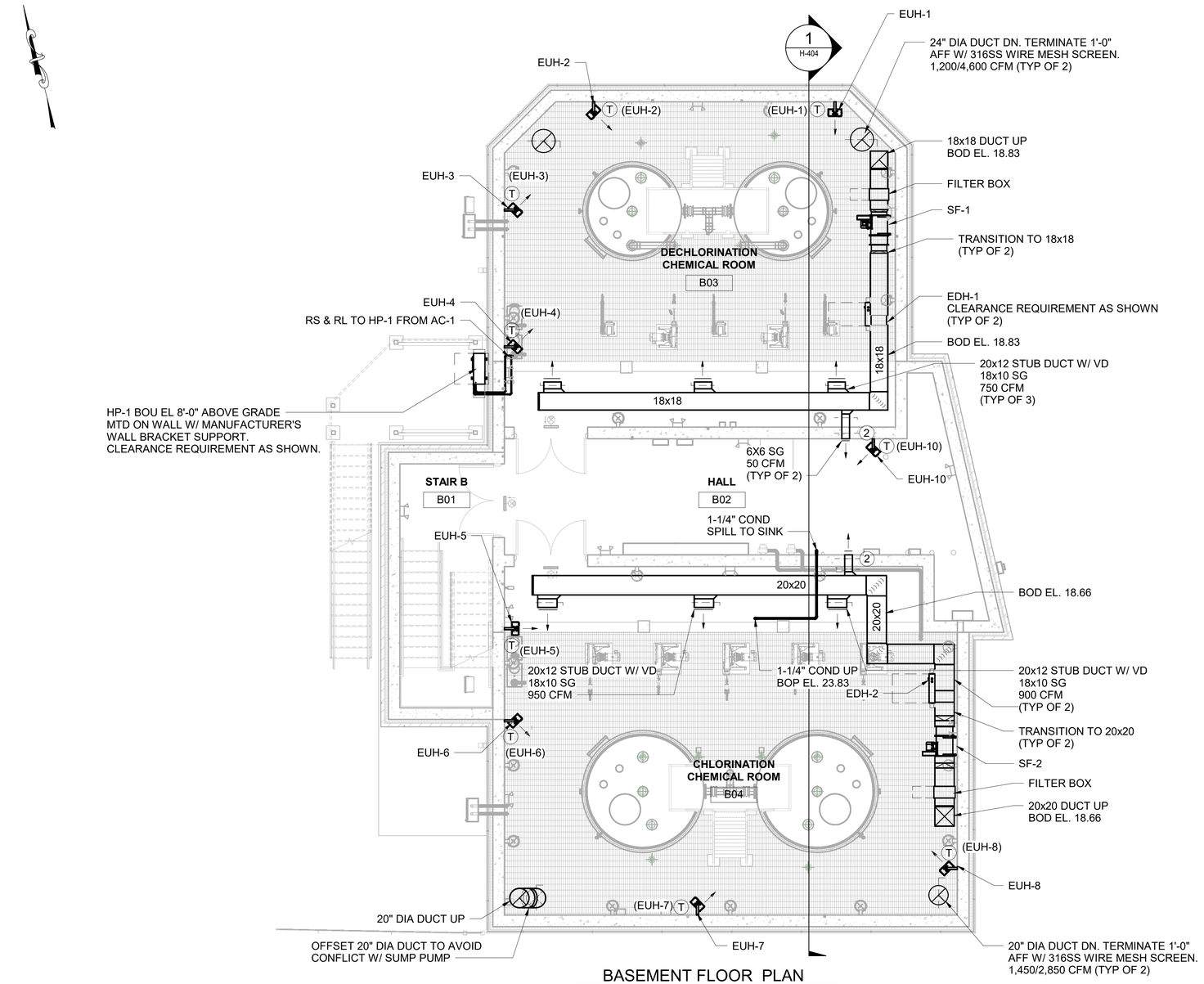
CAPITAL CONTRACT WP-196 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
TI-010 DECHLORINATION FACILITY - BUILDING SECTIONS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-304.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

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BASEMENT FLOOR PLAN

SCALE: 3/16" = 1'-0"

0' 4' 8' 12'

NYC Environmental Protection

BID SET

DATE ISSUED: NOVEMBER 2026

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CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — SARGENY CORBETT — 088612 — LICENSED PROFESSIONAL ENGINEER
11/07/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

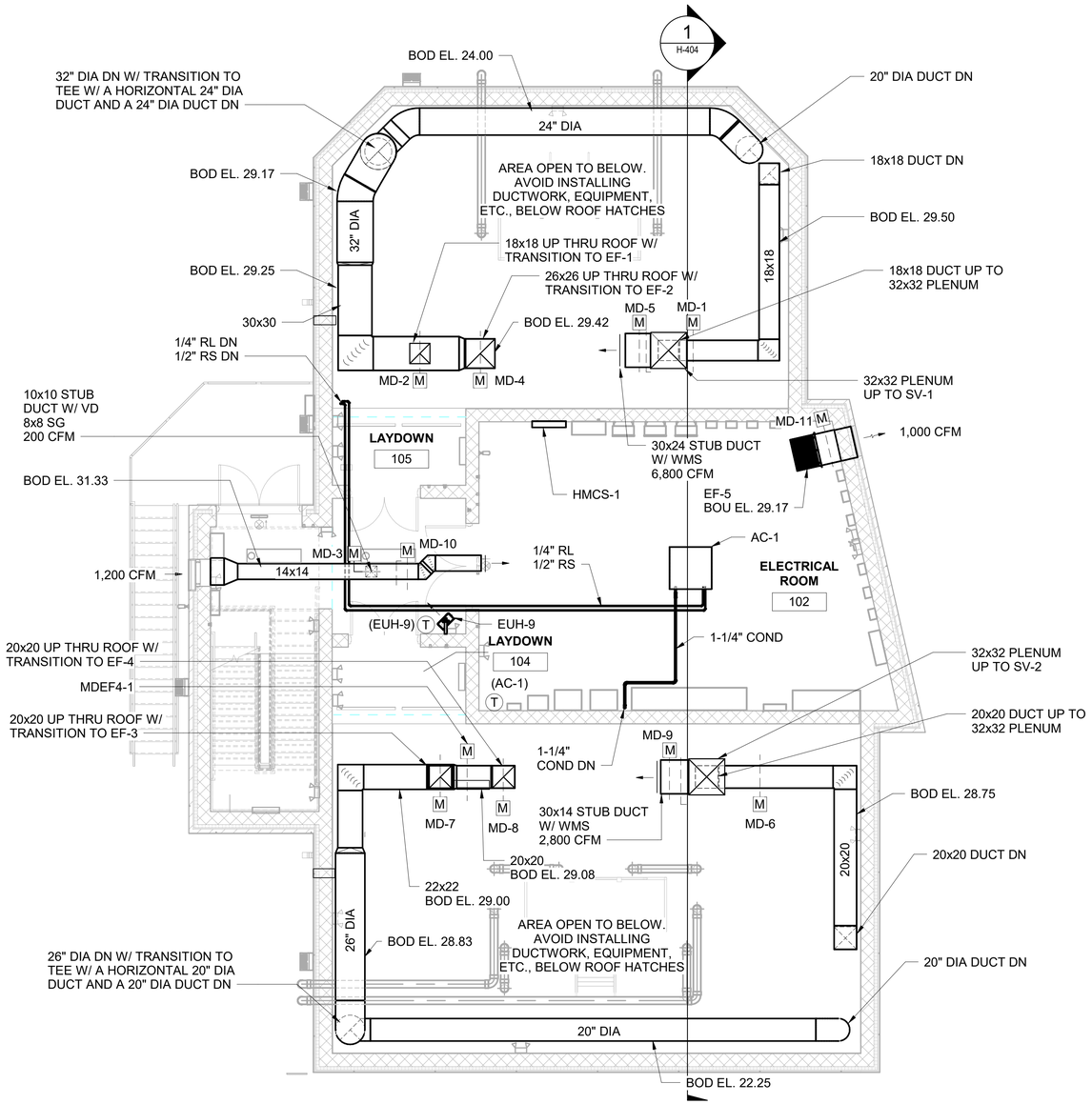
HVAC
TI-011 DISINFECTION FACILITY - BASEMENT FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-401.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

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10/29/2026 4:23:35 PM



FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

0' 4' 8' 12'

NYC Environmental Protection

BID SET

DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: SC
DRAWN BY: JB
CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — ANTHONY CORDISI — 088612 — LICENSED PROFESSIONAL ENGINEER
11/01/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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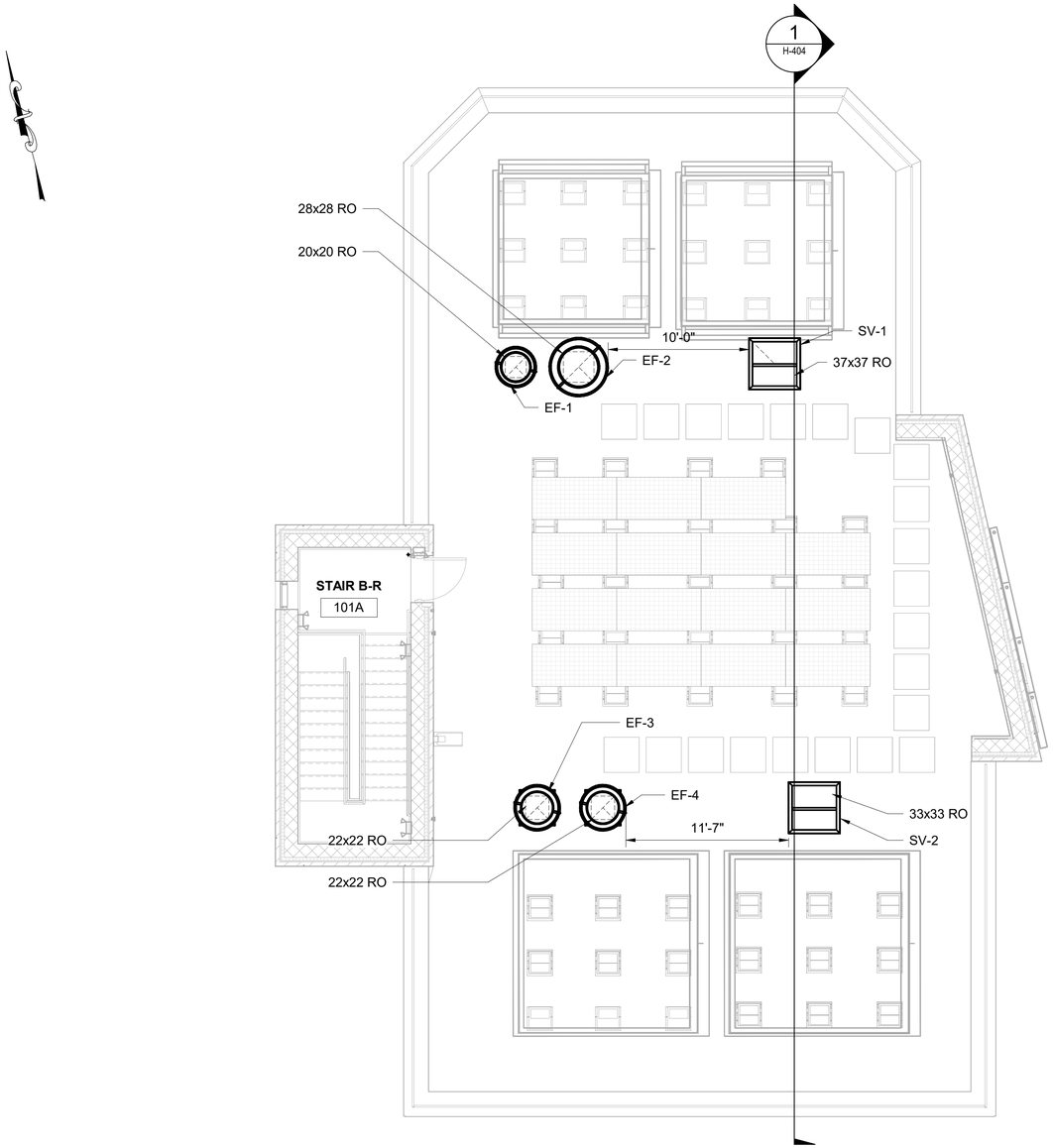
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
HVAC
TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-402.00

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10/29/2026 4:23:39 PM



ROOF PLAN

SCALE: 3/16" = 1'-0"

0' 4' 8' 12'

BID SET

DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · ARIGNY KEWLEY · 088612 · LICENSED PROFESSIONAL ENGINEER
11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

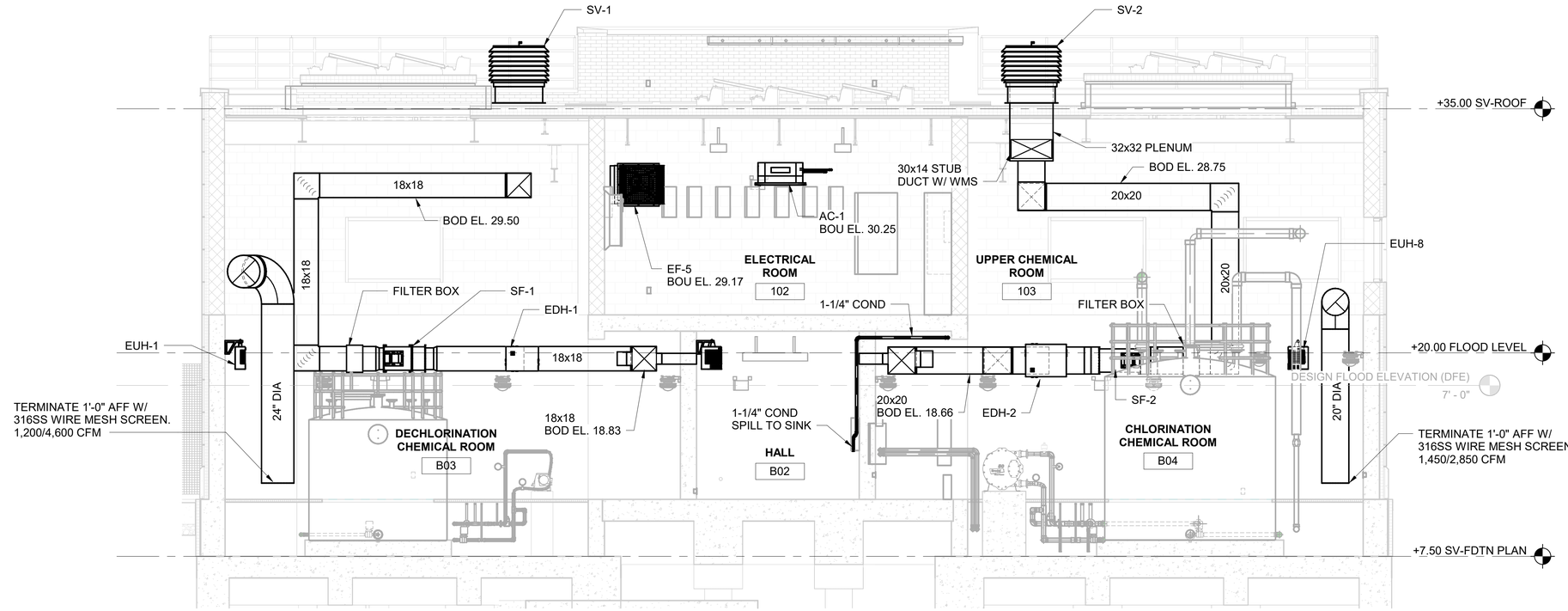
HVAC

TI-011 DISINFECTION FACILITY - ROOF PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-403.00

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1 / H-401 EAST SECTION

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

0' 2' 4' 8'

NYC Environmental Protection

BID SET

DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK ANTHONY CORTESE 088612 LICENSED PROFESSIONAL ENGINEER 11/01/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
TI-011 DISINFECTION FACILITY - BUILDING SECTIONS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. H-404.00

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FAN SCHEDULE

MARK NO.	BUILDING	LOCATION	SERVICE	TYPE	DRIVE TYPE	AIRFLOW (CFM)	ESP (IN WG)	FAN SPEED (RPM)	MOTOR DATA				WEIGHT (LB)	MFR	MODEL	NOTES
									HP	BHP	RPM	V/PH/HZ				
SF-1	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	CHEMICAL ROOM - B01	INLINE VANE AXIAL	BELT	3400	1.00	2081	2	1.21	1750	208/3/60	250	HARTZELL	35V	1, 2
EF-1	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	CHEMICAL ROOM - B01	INLINE VANE AXIAL	BELT	3500	1.00	2117	1.5	1.26	1750	208/3/60	250	HARTZELL	35V	1, 2
EF-2	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	CHEMICAL ROOM - B01	INLINE VANE AXIAL	BELT	10300	1.00	892	5	2.58	1750	208/3/60	450	HARTZELL	35V	1, 2
EF-3	TI-010 DECHLORINATION FACILITY	ELECTRICAL ROOM - 102	ELECTRICAL ROOM - 102	WALL PROPELLER	BELT	1000	0.50	1083	3/4	0.40	1750	208/3/60	150	HARTZELL	09S	1
SF-1	TI-011 DISINFECTION FACILITY	CHEMICAL ROOM B03	CHEMICAL ROOM B03	INLINE VANE AXIAL	BELT	2300	1.00	2005	1.5	0.78	1750	208/3/60	200	HARTZELL	35V	1, 2
SF-2	TI-011 DISINFECTION FACILITY	CHEMICAL ROOM - B04	ROOM - B04	INLINE VANE AXIAL	BELT	2800	1.00	2226	1.5	1.03	1750	208/3/60	150	HARTZELL	35V	1, 2
EF-1	TI-011 DISINFECTION FACILITY	ROOF	CHEMICAL ROOM B03	UPBLAST	BELT	2400	1.00	1111	1	0.66	1750	208/3/60	275	HARTZELL	A88	1, 2, 3
EF-2	TI-011 DISINFECTION FACILITY	ROOF	CHEMICAL ROOM B03	UPBLAST	BELT	6800	1.00	702	3	1.93	1750	208/3/60	575	HARTZELL	A88	1, 2, 3
EF-3	TI-011 DISINFECTION FACILITY	ROOF	ROOM - B04	UPBLAST	BELT	2900	1.00	1227	1.5	0.86	1750	208/3/60	300	HARTZELL	A88	1, 2, 3
EF-4	TI-011 DISINFECTION FACILITY	ROOF	ROOM - B04	UPBLAST	BELT	2800	1.00	1203	1.5	0.82	1750	208/3/60	300	HARTZELL	A88	1, 2, 3
EF-5	TI-011 DISINFECTION FACILITY	ELECTRICAL ROOM - 102	ELECTRICAL ROOM - 102	WALL PROPELLER	BELT	1000	0.50	1083	3/4	0.40	1750	208/3/60	150	HARTZELL	09S	1

NOTES:

1. DISCONNECT BY ELECTRICAL.
2. FRP CONSTRUCTION.
3. 18-INCH HIGH MANUFACTURER'S ROOF CURB.

ELECTRIC DUCT HEATER SCHEDULE

MARK NO.	BUILDING	LOCATION	SERVICE	CAPACITY (KW)	AIRFLOW (CFM)	AIRFLOW DIRECTION	DUCT DIMENSIONS (INSIDE)		ENTERING TEMPERATURE (DEG F)	LEAVING TEMPERATURE (DEG F)	VELOCITY (FPM)	ELECTRICAL DATA			HEATING STAGES	MFR	MODEL	NOTES
							WIDTH (IN)	HEIGHT (IN)				VOLTS	PHASE	AMPS				
EDH-1	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	CHEMICAL ROOM - 103	27	3400	HORIZONTAL	20	20	30	55	1224	208	3	75	SCR	INDEECO	TFZU	1
EDH-1	TI-011 DISINFECTION FACILITY	CHEMICAL ROOM - B03	CHEMICAL ROOM - B03	19	2300	HORIZONTAL	18	18	30	56	1022	208	3	53	SCR	INDEECO	TFZU	1
EDH-2	TI-011 DISINFECTION FACILITY	CHEMICAL ROOM - B04	CHEMICAL ROOM - B04	23	2800	HORIZONTAL	20	20	30	55	1008	208	3	64	SCR	INDEECO	TFZU	1

NOTES:

1. DESIGNED FOR PERIOD OF OPERATION FROM OCTOBER THRU MAY.

ELECTRIC UNIT HEATER SCHEDULE

MARK NO.	BUILDING	LOCATION	SERVICE	COIL DATA			MOTOR DATA			TOTAL AMPS	FAN CFM	TEMP RISE (DEG F)	THROW (FT)	DISCHARGE ORIENTATION	MOUNTING HEIGHT (AFF)	WEIGHT (LB)	MFR	MODEL	NOTES
				MBH	KW	V/PH/HZ	RPM	HP	V/PH/HZ										
EUH-1 THRU 4	TI-010 DECHLORINATION FACILITY	CHEMICAL ROOM - B01	CHEMICAL ROOM - B01	17.1	5	208/3/60	1050	1/15	208/1/60	13.9	405	40	12	HORIZONTAL	7	50	CHROMALOX	HD3D	1
EUH-5	TI-010 DECHLORINATION FACILITY	ENTRY HALL - 101	ENTRY HALL - 101	17.1	5	208/3/60	1650	1/40	208/1/60	13.8	410	39	12	HORIZONTAL	8	35	CHROMALOX	LUH	1
EUH-1 THRU 4	TI-011 DISINFECTION FACILITY	CHEMICAL ROOM - B03	CHEMICAL ROOM - B03	17.1	5	208/3/60	1050	1/15	208/1/60	13.9	405	40	12	HORIZONTAL	7	50	CHROMALOX	HD3D	1
EUH-5 THRU 8	TI-011 DISINFECTION FACILITY	CHEMICAL ROOM - B04	CHEMICAL ROOM - B04	17.1	5	208/3/60	1050	1/15	208/1/60	13.9	405	40	12	HORIZONTAL	7	50	CHROMALOX	HD3D	1
EUH-9	TI-011 DISINFECTION FACILITY	ENTRY HALL - 101	ENTRY HALL - 101	17.1	5	208/3/60	1650	1/40	208/1/60	13.8	410	39	12	HORIZONTAL	8	35	CHROMALOX	LUH	1
EUH-10	TI-011 DISINFECTION FACILITY	HALL - B02	HALL - B02	17.1	5	208/3/60	1650	1/40	208/1/60	13.8	410	39	12	HORIZONTAL	8	35	CHROMALOX	LUH	1

NOTES:

1. DISCONNECT BY ELECTRICAL.

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CHECKED BY: AC
DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK ASSISTANT CORONER LICENSED PROFESSIONAL ENGINEER 088612 11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-196 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
EQUIPMENT SCHEDULES 1

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GRAVITY VENTILATOR SCHEDULE

MARK NO.	BUILDING	LOCATION	SERVICE	TYPE	FUNCTION	AIRFLOW (CFM)	THROAT OPENING (IN)	THROAT AREA (SF)	TIERS (NUMBER)	SP (IN W.C.)	DAMPER (Y/N)	BIRDSCREEN (Y/N)	CURB (Y/N)	WEIGHT (LB)	MFR	MODEL	NOTES
SV-1	TI-010 DECHLORINATION FACILITY	ROOF	SF-1, EF-2	RECTANGULAR	INTAKE	13,700	44x50	30.8	10	0.194	N	Y	Y	500	LOREN COOK	TRE	1
SV-2	TI-010 DECHLORINATION FACILITY	ROOF	EF-1 & EF-3	RECTANGULAR	INTAKE	1,100	14x14	5.03	4	0.100	N	Y	Y	105	LOREN COOK	TRE	1
SV-1	TI-011 DISINFECTION FACILITY	ROOF	SF-1, EF-2	RECTANGULAR	INTAKE	9,100	36x36	24.76	10	0.176	N	Y	Y	350	LOREN COOK	TRE	1
SV-2	TI-011 DISINFECTION FACILITY	ROOF	SF-2, EF-4	RECTANGULAR	INTAKE	5,600	32x32	18.03	8	0.111	N	Y	Y	250	LOREN COOK	TRE	1

NOTES:

1. MANUFACTURER'S 18-INCH HIGH PREFABRICATED CURB.

MOTORIZED CONTROL DAMPER SCHEDULE

MARK NO.	BUILDING	LOCATION	SERVICE	CONTROL DAMPER			ACTUATOR					NOTES
				SIZE (IN) (WXH)	DAMPER MFR	MODEL	TYPE	ENCLOSURE	V/PH/HZ	MFR	MODEL	
MD-1	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	SF-1	20x20	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-2	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	EF-1	16	RUSKIN	912	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-3	TI-010 DECHLORINATION FACILITY	ENTRY HALL - 101	EF-1	8x8	RUSKIN	CD50	2-POS, SR, NC	NEMA 2	120/1/60	BELIMO	AFXUP-S	2
MD-4	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	EF-2	34	RUSKIN	912	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-5	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	EF-2	48x12	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-6	TI-010 DECHLORINATION FACILITY	UPPER CHEMICAL ROOM - 103	EF-2	48x12	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-7	TI-010 DECHLORINATION FACILITY	ENTRY HALL - 101	EF-3	14x14	RUSKIN	CD50	2-POS, SR, NC	NEMA 2	120/1/60	BELIMO	AFXUP-S	2
MD-8	TI-010 DECHLORINATION FACILITY	ELECTRICAL ROOM - 102	EF-3	W/ UNIT	W/ UNIT	W/ UNIT	2-POS, SR, NC	NEMA 2	120/1/60	BELIMO	AFXUP-S	2
MD-1	TI-011 DISINFECTION FACILITY	DECHLORINAITON CHEMICAL ROOM - B03	SF-1	18x18	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-2	TI-011 DISINFECTION FACILITY	DECHLORINAITON CHEMICAL ROOM - B03	EF-1	18x18	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-3	TI-011 DISINFECTION FACILITY	ENTRY HALL - 101	EF-1, EF-3	10x10	RUSKIN	CD50	2-POS, SR, NC	NEMA 2	120/1/60	BELIMO	AFXUP-S	2
MD-4	TI-011 DISINFECTION FACILITY	DECHLORINAITON CHEMICAL ROOM - B03	EF-2	26x26	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-5	TI-011 DISINFECTION FACILITY	DECHLORINAITON CHEMICAL ROOM - B03	EF-2	30x24	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-6	TI-011 DISINFECTION FACILITY	CHLORINATION ROOM - B04	SF-2	20x20	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-7	TI-011 DISINFECTION FACILITY	CHLORINATION ROOM - B04	EF-3	20x20	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-8	TI-011 DISINFECTION FACILITY	CHLORINATION ROOM - B04	EF-4	20x20	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-9	TI-011 DISINFECTION FACILITY	CHLORINATION ROOM - B04	EF-4	30x14	RUSKIN	1108AF	2-POS, SR, NC	NEMA 4X	120/1/60	BELIMO	AFXUP-S	1
MD-10	TI-011 DISINFECTION FACILITY	ENTRY HALL - 101	EF-5	14x14	RUSKIN	CD50	2-POS, SR, NC	NEMA 2	120/1/60	BELIMO	AFXUP-S	1
MD-11	TI-011 DISINFECTION FACILITY	ELECTRICAL ROOM - 102	EF-5	W/ UNIT	W/ UNIT	W/ UNIT	2-POS, SR, NC	NEMA 2	120/1/60	BELIMO	AFXUP-S	1

NOTES:

1. DAMPER FRP CONSTRUCTION.

2. DAMPER ALUMINUM CONSTRUCTION.

DUCTLESS SPLIT HEAT PUMP SYSTEM SCHEDULE

INDOOR UNIT	OUTDOOR UNIT	BUILDING	INDOOR UNIT LOCATION	OUTDOOR UNIT LOCATION	REFRIGERANT	COOLING PERFORMANCE					HEATING PERFORMANCE		INDOOR SECTION								OUTDOOR SECTION							NOTES
						NOMINAL COOLING CAPACITY (MBH)	TOTAL COOLING CAPACITY (MBH)	SENSIBLE COOLING CAPACITY (MBH)	COOLING EAT DB/WB (DEG F)	COOLING EEF SEER	HEATING CAPACITY (MBH)	HEATING COP @ 47 DEG F (HSPF)	PEAK AIR FLOW (CFM)	V/PH	TYPE	ELECTRICAL DATA MCA	ELECTRICAL DATA MOP	WEIGHT	MFR	MODEL	ELECTRICAL DATA V/PH	ELECTRICAL DATA MCA	ELECTRICAL DATA MOP	WEIGHT	MFR	MODEL	
AC-1	HP-1	TI-010 DECHLORINATION FACILITY	ELECTRICAL ROOM - 102	OUTDOORS	R-410A	18.0	18.0	15.3	80.0/67.0	25.0	23.0	4.28	600	208/1	CASSETTE	1	NA	50	MITSUBISHI	PLA-18	208/1	11	28	100	MITSUBISHI	PUZ-18	1,2,3
AC-1	HP-1	TI-011 DISINFECTION FACILITY	ELECTRICAL ROOM - 102	OUTDOORS	R-410A	18.0	18.0	15.3	80.0/67.0	25.0	23.0	4.28	600	208/1	CASSETTE	1	NA	50	MITSUBISHI	PLA-18	208/1	11	28	100	MITSUBISHI	PUZ-18	1,2,3

NOTES:

1. DISCONNECT BY ELECTRICAL.

2. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.

3. MANUFACTURER'S SEA COAST PROTECTION PACKAGE

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ARCADIS

STATE OF NEW YORK — SAYANT GHOSH — 088612 — LICENSED PROFESSIONAL ENGINEER
11/01/2026

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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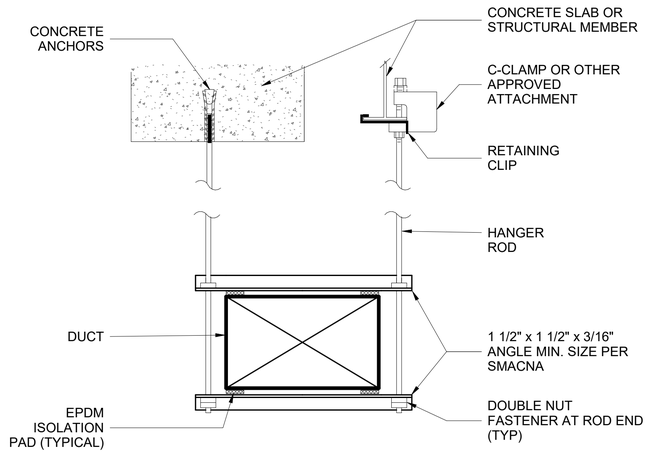
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
EQUIPMENT SCHEDULES 2

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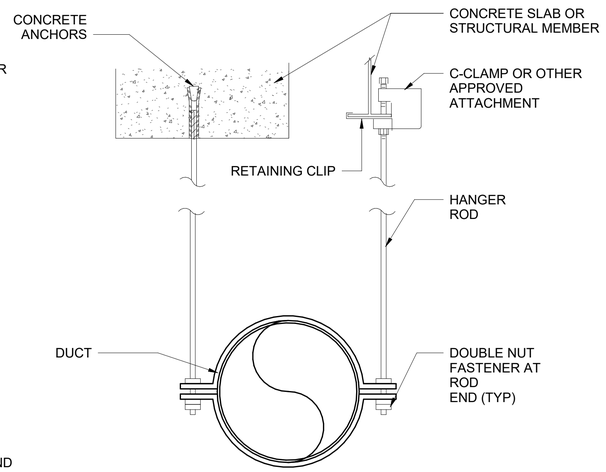
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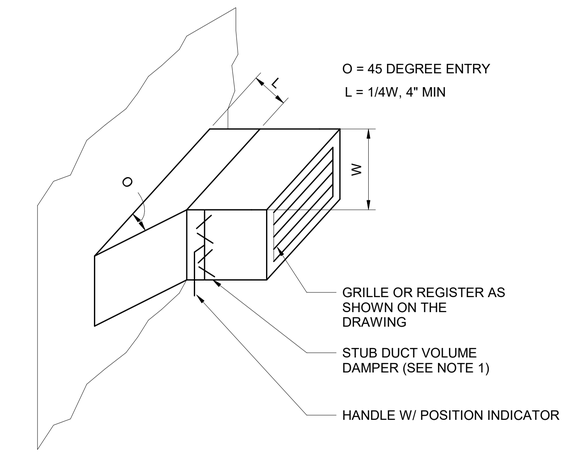
1 TYPICAL RECTANGULAR DUCT HANGING DETAIL

SCALE: N.T.S.



2 TYPICAL ROUND DUCT HANGING DETAIL

SCALE: N.T.S.

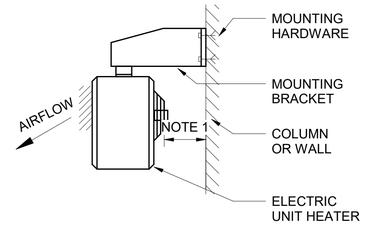


3 GRILL STUB DUCT DETAIL

SCALE: N.T.S.

NOTES:

1. VOLUME DAMPERS SHOWN OR SPECIFIED ON THE DRAWINGS ARE IN ADDITION TO DAMPERS SPECIFIED WITH REGISTERS. REGISTER DAMPERS ARE NOT SHOWN ON THE DWGS.

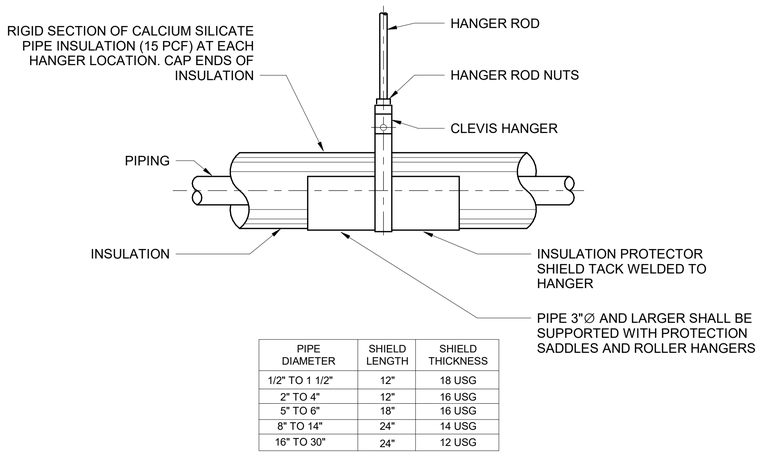


4 ELECTRIC UNIT HEATER MOUNTING DETAIL

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NOTES:

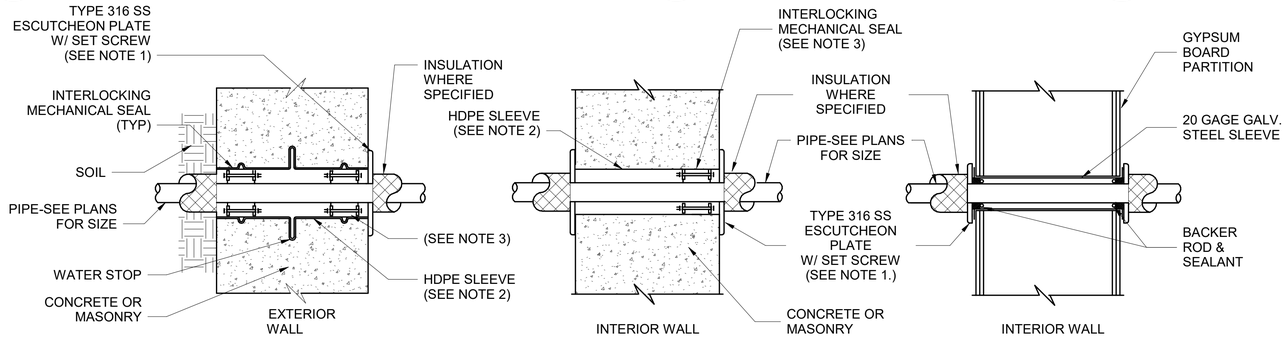
1. MAINTAIN MANUFACTURER'S MINIMUM CLEARANCE REQUIREMENTS.



PIPE DIAMETER	SHIELD LENGTH	SHIELD THICKNESS
1/2" TO 1 1/2"	12"	18 USG
2" TO 4"	12"	16 USG
5" TO 6"	18"	16 USG
8" TO 14"	24"	14 USG
16" TO 30"	24"	12 USG

5 HANGER ARRANGEMENT OF INSULATED PIPING DETAIL

SCALE: N.T.S.



PIPE SLEEVES THRU WALL

NOTES

1. WHERE PIPE IS IN CONTACT WITH SOIL, ELIMINATE ESCUTCHEON PLATE.
2. FOR FIRE RATED WALL PENETRATION SUBSITUTE STEEL SLEEVE FOR HDPE.
3. FOR ONE HOUR FIRE RATED PENETRATION PROVIDE ONE FIRE RATED MECHANICAL SEAL. FOR TWO HOUR FIRE RATED PENETRATION PROVIDE TWO FIRE RATED MECHANICAL SEALS.
4. WHERE PIPES PASS THRU EXISTING CONSTRUCTION, CORE DRILL OPENING AND INSTALL MECHANICAL SEALS WITHOUT THE USE OF SLEEVES.

6 PIPE SLEEVE THRU WALL DETAIL

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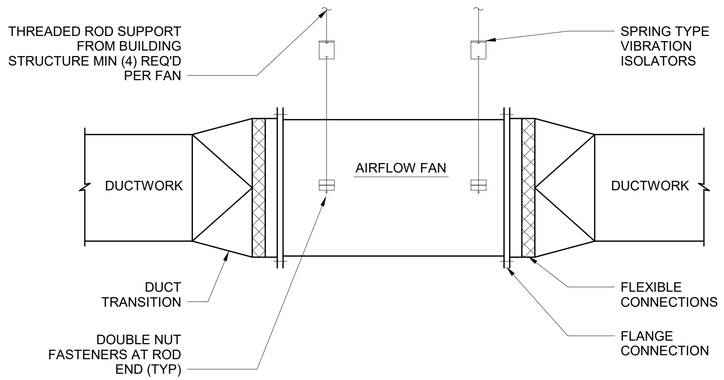
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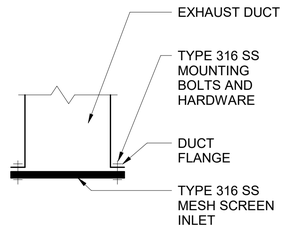
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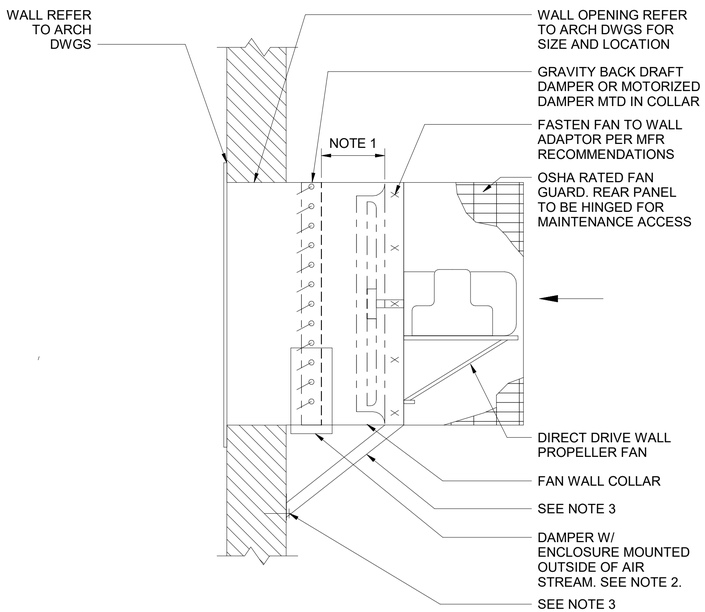
7 INLINE FAN DETAIL

SCALE: N.T.S.



8 MESH SCREEN DETAIL

SCALE: N.T.S.

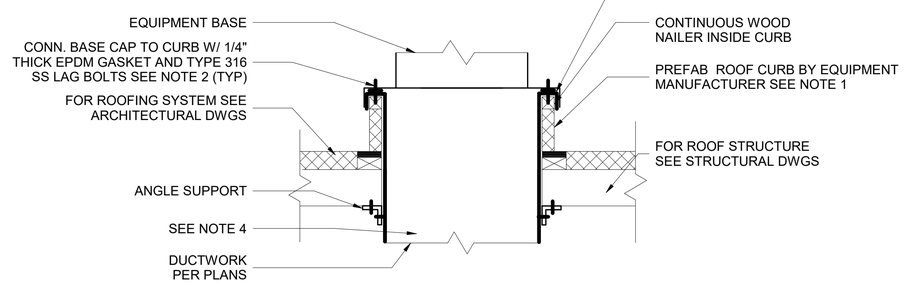


NOTES:

1. DISTANCE BETWEEN FAN BLADE AND DAMPER SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
2. MINIMUM LENGTH FROM CENTERLINE OF ACTUATOR TO INSIDE FACE OF WALL SYSTEM SHALL BE 6INCHES.
3. PROVIDE FAN ADDITIONAL SUPPORTS UNDERNEATH FAN IN ACCORDANCE WITH THE FAN MANUFACTURER'S REQUIREMENTS. SECURE FAN TO WALL IN ACCORDANCE WITH THE BUILDING AND FAN MANUFACTURER'S REQUIREMENTS.

9 WALL MOUNTED PROPELLER FAN DETAIL

SCALE: N.T.S.



NOTES:

1. REFER TO THE ARCHITECTURAL DRAWINGS FOR ROOF CURB INSTALLATION AND FLASHING DETAILS.
2. EQUIPMENT SHALL BE ANCHORED TO THE CURB AND THE CURB ANCHORED TO THE ROOF STRUCTURE TO TRANSFER LOADS TO THE BUILDING STRUCTURE.
3. ELECTRICAL WIRING SHALL NOT BE ROUTED THROUGH DUCTWORK.
4. WHERE CURB MOUNTED DAMPERS ARE SPECIFIED, EXTEND DUCTWORK OVER DAMPER TRAY IN LIEU OF CURB TOP.

10 ROOF MOUNTED PREFABRICATED EQUIPMENT CURB DETAIL

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ARCADIS

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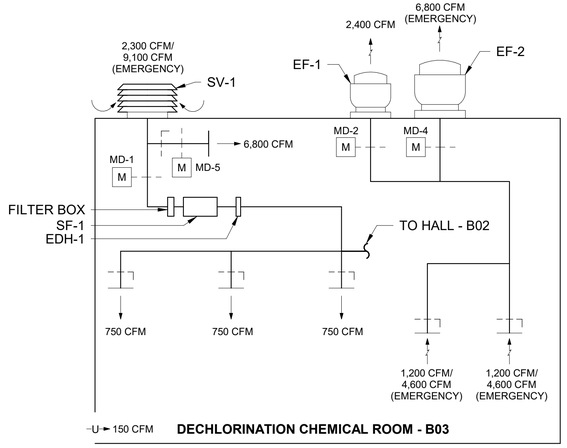
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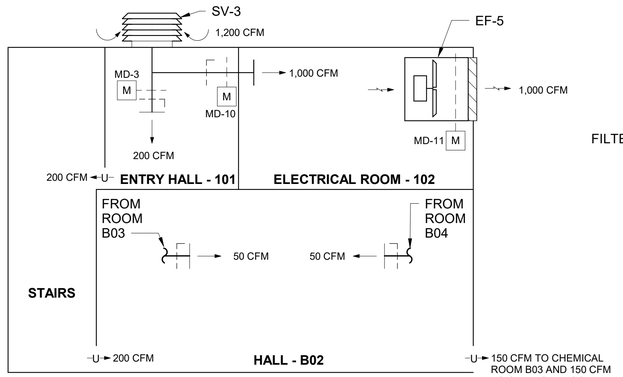
HVAC
DETAILS 2

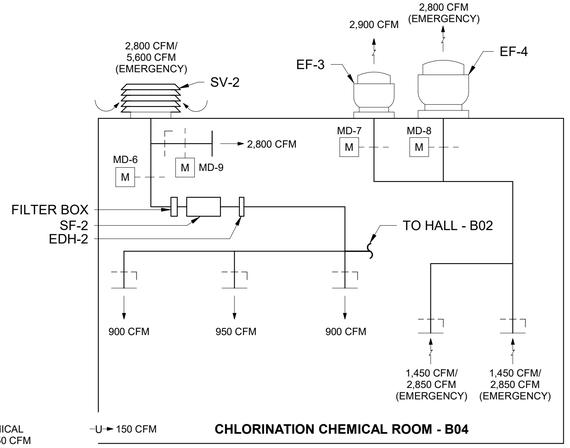
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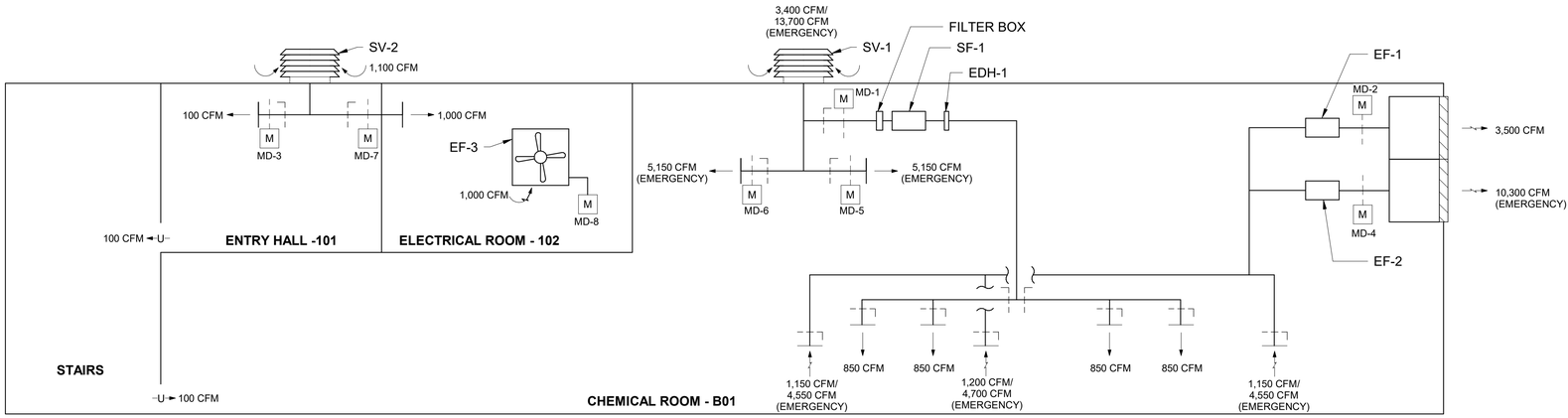
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TI-11 DISINFECTION FACILITY



TI-10D FACILITY

NYC Environmental Protection

BID SET

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DESIGN LEAD: SOPEARK CHHEA, PE
SECTION MANAGER:

ARCADIS

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11/01/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-196 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

HVAC
AIRFLOW AND CONTROL SCHEMATICS

DATE: NOVEMBER 2026
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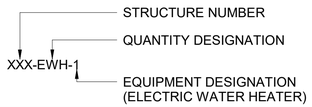
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SYMBOLS

SYMBOL	DESCRIPTION
	MAIN PIPING (TYPE OF SERVICE AS SPECIFIED OR NOTED)
	BELOW SLAB MAIN PIPING (TYPE OF SERVICE AS SPECIFIED OR NOTED)
	EXISTING PIPING TO BE REMOVED
	BRANCH PIPING (TYPE OF SERVICE AS SPECIFIED OR NOTED)
	PIPE RISE, UNLESS OTHERWISE NOTED
	PIPE DROP, UNLESS OTHERWISE NOTED
	BRANCH - TOP OR BOTTOM CONNECTION
	RISE OR DROP IN RUN OF PIPE
	BRANCH CONNECTION - SIDE
	CAP ON END OF PIPE
	VALVE IN VERTICAL
	CLEANOUT PLUG
	CONCENTRIC REDUCER
	GATE VALVE (OS&Y)
	CHECK VALVE
	BALL VALVE
	WATER METER - 2" & SMALLER
	REDUCED PRESSURE DETECTOR BACKFLOW PREVENTER
	FLOOR DRAIN
	FLOOR CLEANOUT
	EMERGENCY EYEWASH & SHOWER
	HOSE BIBB (HB)
	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
	HOSE REEL (HR)
	GAS PLUG VALVE
	THERMOSTATIC MIXING VALVE (TMV)

ABBREVIATIONS



ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECTURAL
AVB	AUTOMATIC VACUUM BREAKER
BFP-DCDA	BACKFLOW PREVENTER - DOUBLE CHECK DETECTOR ASSEMBLY
BFP-RPZ	BACKFLOW PREVENTER - REDUCED PRESSURE ZONE ASSEMBLY
BFP-RPDA	BACKFLOW PREVENTER - REDUCED PRESSURE DETECTOR ASSEMBLY
BOP	BOTTOM OF PIPE
CL	CENTERLINE
CLG	CEILING
CO	CLEANOUT
CONN	CONNECT/CONNECTION
CONT	CONTINUATION
CW	COLD WATER
DIA	DIAMETER
DN	DOWN (PENETRATES FLOOR SLAB)
DR	DRAIN
EL	ELEVATION
EES	EMERGENCY EYEWASH AND SHOWER
EWH	ELECTRIC WATER HEATER
EXIST	EXISTING
FAI	FRESH AIR INLET
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FIN FL	FINISHED FLOOR
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HW	HOT WATER
IE	INVERT ELEVATION
LAV	LAVATORY
MAX	MAXIMUM
NFWH	NON-FREEZE WALL HYDRANT
NTS	NOT TO SCALE
SPD	SUMP PUMP DISCHARGE
PRV	PRESSURE REGULATING VALVE
PW	POTABLE WATER
S	SOIL
SAN	SANITARY
SD	STORM DRAIN
SH	SHOWER
SHT	SHEET
SPD	SUMP PUMP DISCHARGE
TMV	THERMOSTATIC MIXING VALVE
TW	TEPID WATER
TWMV	TEPID WATER MIXING VALVE
TYP	TYPICAL
UG	UNDERGROUND
UP	UP (PENETRATES FLOOR SLAB)
V	VENT
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
WCO	WALL CLEAN OUT
WHA	WATER HAMMER ARRESTER
W/	WITH

GENERAL NOTES

1. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
2. ALL FLOOR DRAINS ARE AT LOW P0INTS OF FLOORS AND SHALL BE INSTALLED FLUSH WITH THE FINISHED FLOOR. LOCATIONS ARE SHOWN ON THE STRUCTURAL DRAWINGS.
3. ALL FLOOR DRAINS FOR EQUIPMENT SHALL BE FIELD C00RDINATED AND LOCATED ADJACENT TO THE EQUIPMENT PADS IN THE APPROXIMATE LOCATIONS SHOWN ON THE DRAWINGS.
4. ALL BRANCH PIPING T0 EQUIPMENT OR FIXTURES SHALL BE PR0VIDED WITH SHUT-OFF VALVES, WHETHER SH0WN, OR NOT SHOWN ON DRAWINGS.
5. ALL PIPING SHALL BE CONCEALED WITHIN WALLS, PIPE SPACES AND HUNG CEILINGS EXCEPT IN MECHANICAL SPACES 0R WHERE NOTED.
6. CHANGES IN DIRECTION IN DRAINAGE PIPING SHALL BE MADE BY THE USE OF 45 DEGREE ELLS, LONG SWEEPS, 90 DEGREE WYES W/CO'S OR BY A COMBINATION OF EQUIVALENT FITTINGS. THERE SHALL BE NO DOUBLE WYES IN THE HORIZONTAL PLANE.
7. SANITARY TEES AND QUARTER BENDS MAY BE USED IN DRAINAGE LINES ONLY WHERE DIRECTION OF FLOW IS FROM HORIZONTAL TO THE VERTICAL.
8. ALL VENT RISERS RUN STRAIGHT THROUGH ROOF SHALL HAVE AN APPROVED EXPANSION JOINT SYSTEM INSTALLED BELOW ROOF.
9. ALL CONTROL WIRING SHALL BE 120 VOLTS UNLESS OTHERWISE SPECIFIED. TRANSFORMERS SHALL BE PROVIDED WHERE REQUIRED.
10. ALL EQUIPMENT AND CONTROL MECHANISMS SHALL BE PIPED THROUGH UNION C0NNECTIONS.
11. ALL WYE TYPE STRAINERS SHALL HAVE A 3-INCH LONG THREADED NIPPLE, THREADED END BALL VALVE AND PLUG ON BLOWDOWN SIDE.
12. ALL DRAINAGE PIPING TO SLOPE AT A MIN. OF 1/8" PER FT UNLESS OTHERWISE NOTED
13. AN ACCESSIBLE CLEAN0UT SHALL BE PROVIDED AT TH BASE OF EACH SOIL STACK, WASTE STACK AND ROOF LEADER
14. ALL HOT, COLD AND TEPID WATER PIPING SHALL BE INSULATED.
15. TRAPS SHALL BE PROVIDED AT ALL FLOOR DRAINS EXCEPT WHERE NOTED.
16. VENT LINES SERVING FLOOR DRAIN HEADERS SHALL BE TAKEN OFF ABOVE THE CENTERLINE OF THE SOIL PIPE, AND THE VENT PIPE SHALL RISE AT AN ANGLE NOT M0RE THAN 45°
17. ALL EXPOSED PIPING, FITTINGS AND VALVES IN FINISHED WASHROOMS SHALL BE CHROME PLATED
18. STORAGE TEMPERATURE OF DOMESTIC HOT WATER SHALL BE 140°F
19. ALL FLOOR DRAIN P-TRAPS SHALL BE PROVIDED WITH 1/2" TRAP PRIMER CONN. RUN 1/2" COPPER TUBING FROM TRAP PRIMER VALVE TO ALL FLOOR DRAINS (EXCEPT WHERE NOTED). FIELD ROUTE PIPING IN & BELOW SLAB AS REQ'D. CONTRACTOR SHALL PROVIDE ALL PIPE, FITTING, SUPPORTS AND APPURTENANCES TO COMPLETE THE WORK
20. VENT LINES SERVING FLOOR DRAIN HEADERS SHALL BE TAKEN OFF ABOVE THE CENTERLINE OF THE SOIL PIPE AND THE VENT PIPE SHALL RISE AT AN ANGLE NOT MORE THAN 45°
21. TEPID WATER PIPING SHALL BE ELECTRICALLY HEAT TRACED TO MAINTAIN 85°F.
22. ALL VENT PIPES SHALL TRANSITION TO 4" PRIOR TO PENETRATING THE ROOF. TRANSITION COUPLINGS SHALL BE NO LESS THAN 12" FROM INSIDE THE BUILDING'S THERMAL ENVELOPE.
23. PROVIDE WALL SLEEVES W/ MECHANICAL LINK SEALS FOR ALL FLOOR AND WALL PENETRATIONS.

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — 088612 — 11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
PLUMBING
NOTES, LEGEND, SYMBOLS AND ABBREVIATIONS

DATE: NOVEMBER 2026
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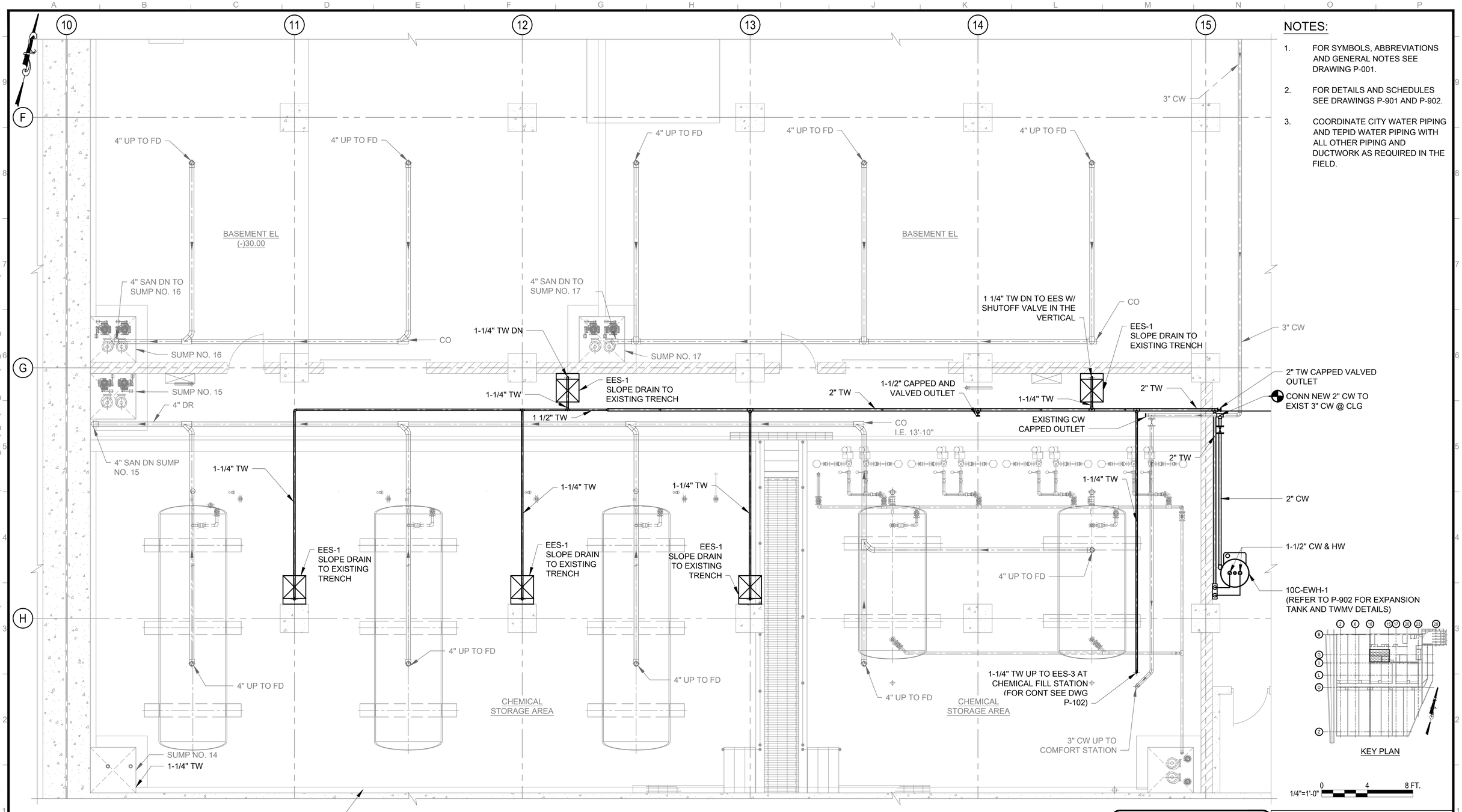
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NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES SEE DRAWING P-001.
2. FOR DETAILS AND SCHEDULES SEE DRAWINGS P-901 AND P-902.
3. COORDINATE CITY WATER PIPING AND TEPID WATER PIPING WITH ALL OTHER PIPING AND DUCTWORK AS REQUIRED IN THE FIELD.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

CHEMICAL STORAGE AREA - ENLARGED PARTIAL PLAN

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

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

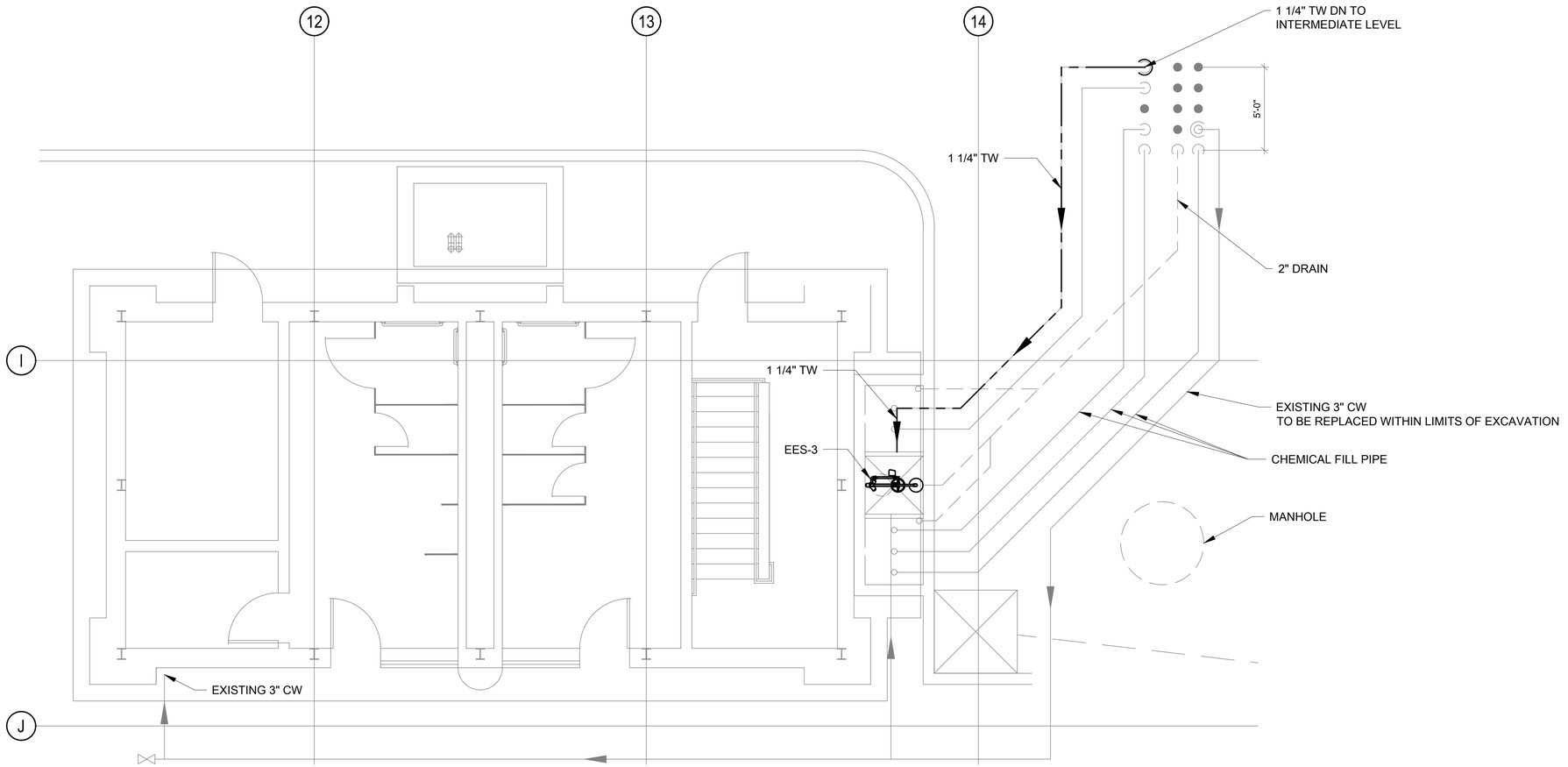
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
PLUMBING
TI-010 CHLORINATION FACILITY
CHEM. STORAGE AREA - ENLARGED PARTIAL PLAN

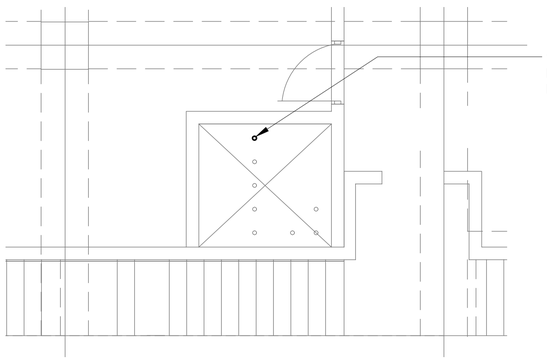
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CHEMICAL FILL STATION PLAN

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

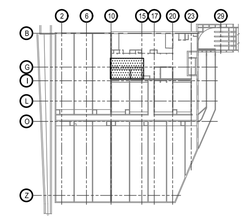


INTERMEDIATE PARTIAL PLAN

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

NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES SEE DRAWING P-001.
2. FOR DETAILS AND SCHEDULES SEE DRAWINGS P-901 AND P-902.
3. COORDINATE TEPID WATER PIPING WITH ALL OTHER PIPING AND DUCTWORK AS REQUIRED IN THE FIELD.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

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11/01/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
PLUMBING
TI-010 CHLORINATION FACILITY
CHEM. FILL STATION - PARTIAL PLANS

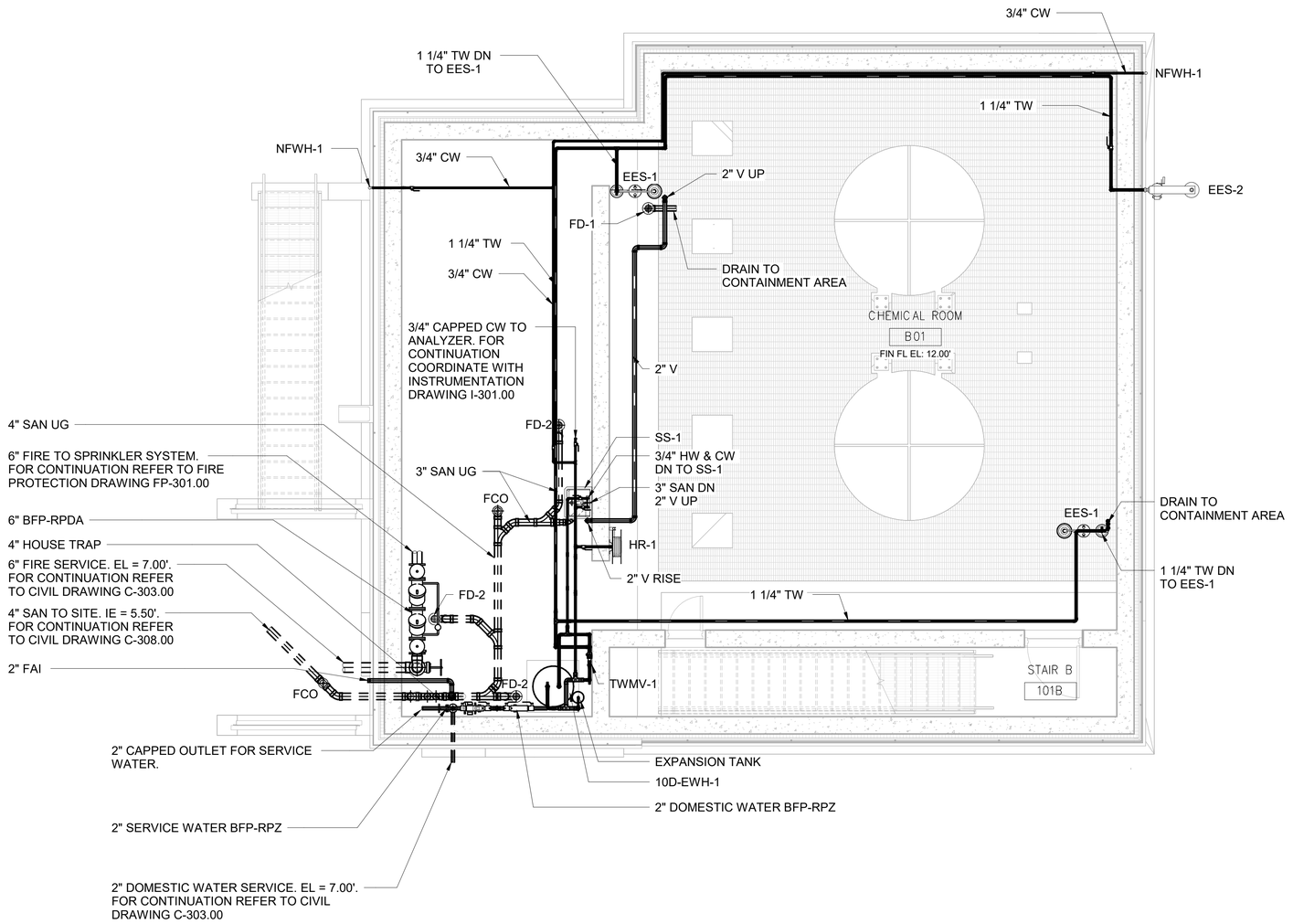
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2. FOR DETAILS AND SCHEDULES, SEE DWGS P-901.00 AND P-902.00
3. FOR RISER DIAGRAMS, SEE DWGS P-304.00 AND P-305.00



BASEMENT FLOOR PLAN

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

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

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STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — 088617 — 11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-010 DECHLORINATION FACILITY - BASEMENT PLAN

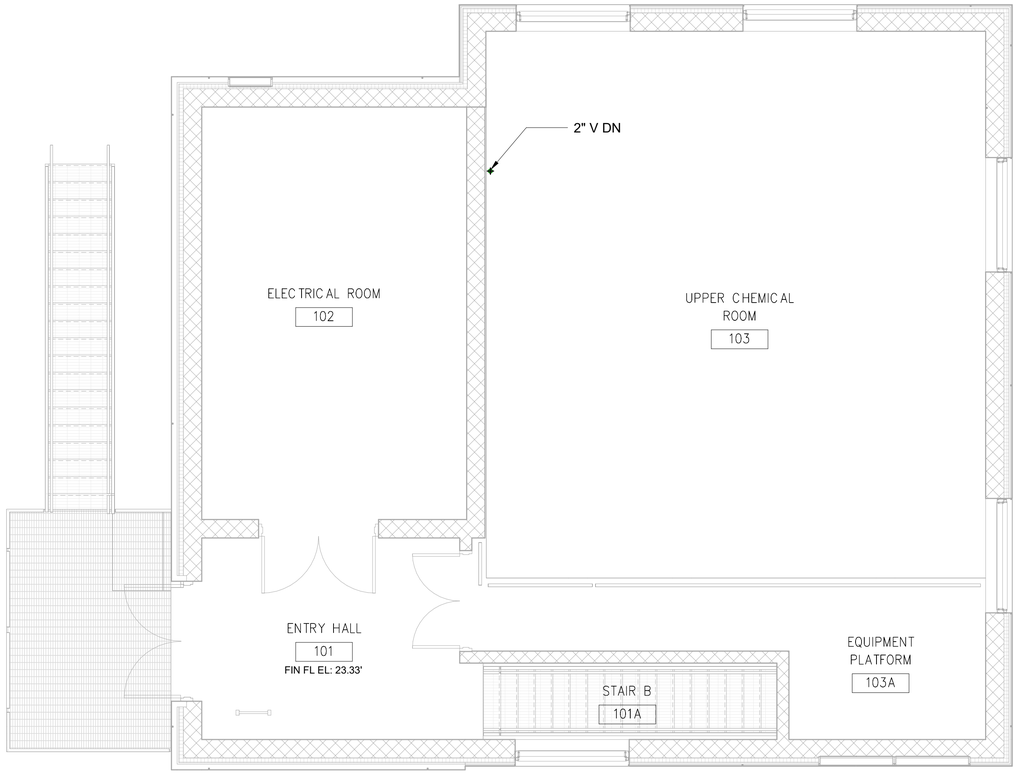
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3. FOR RISER DIAGRAMS, SEE DWGS P-304.00 AND P-305.00



FIRST FLOOR PLAN

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

1/4"=1'-0" 0 4 8 FT.

NYC Environmental Protection

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STATE OF NEW YORK ANTHONY CORBETT 088612 LICENSED PROFESSIONAL ENGINEER
11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

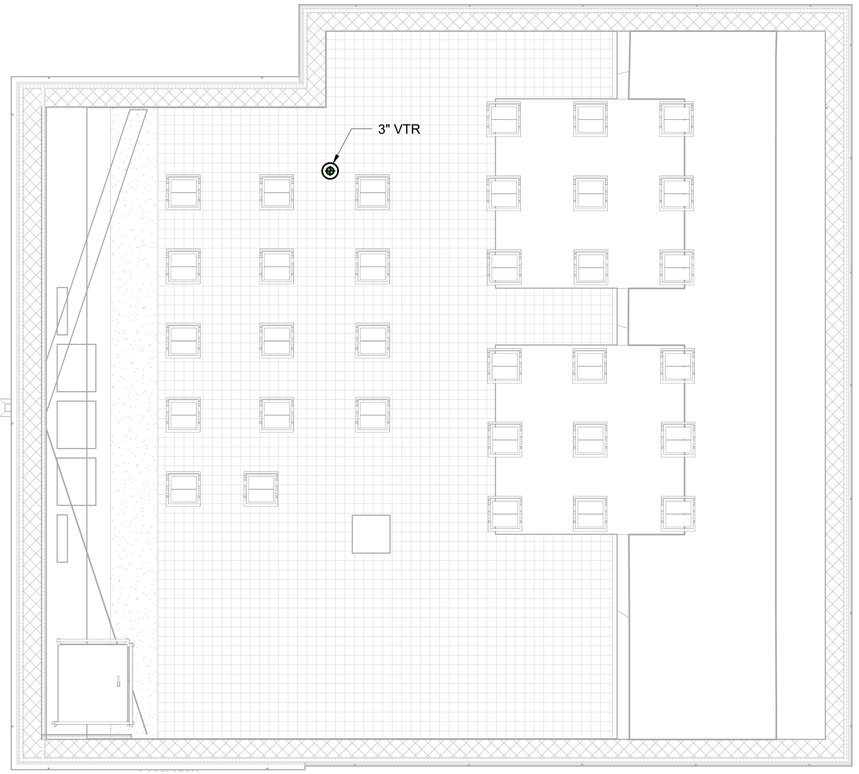
PLUMBING
TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. P-302.00

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3. FOR RISER DIAGRAMS, SEE DWGS P-304.00 AND P-305.00



ROOF PLAN
SCALE: 1/4" = 1'-0"

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

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11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CORONA, NEW YORK 11368
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-010 DECHLORINATION FACILITY - ROOF PLAN

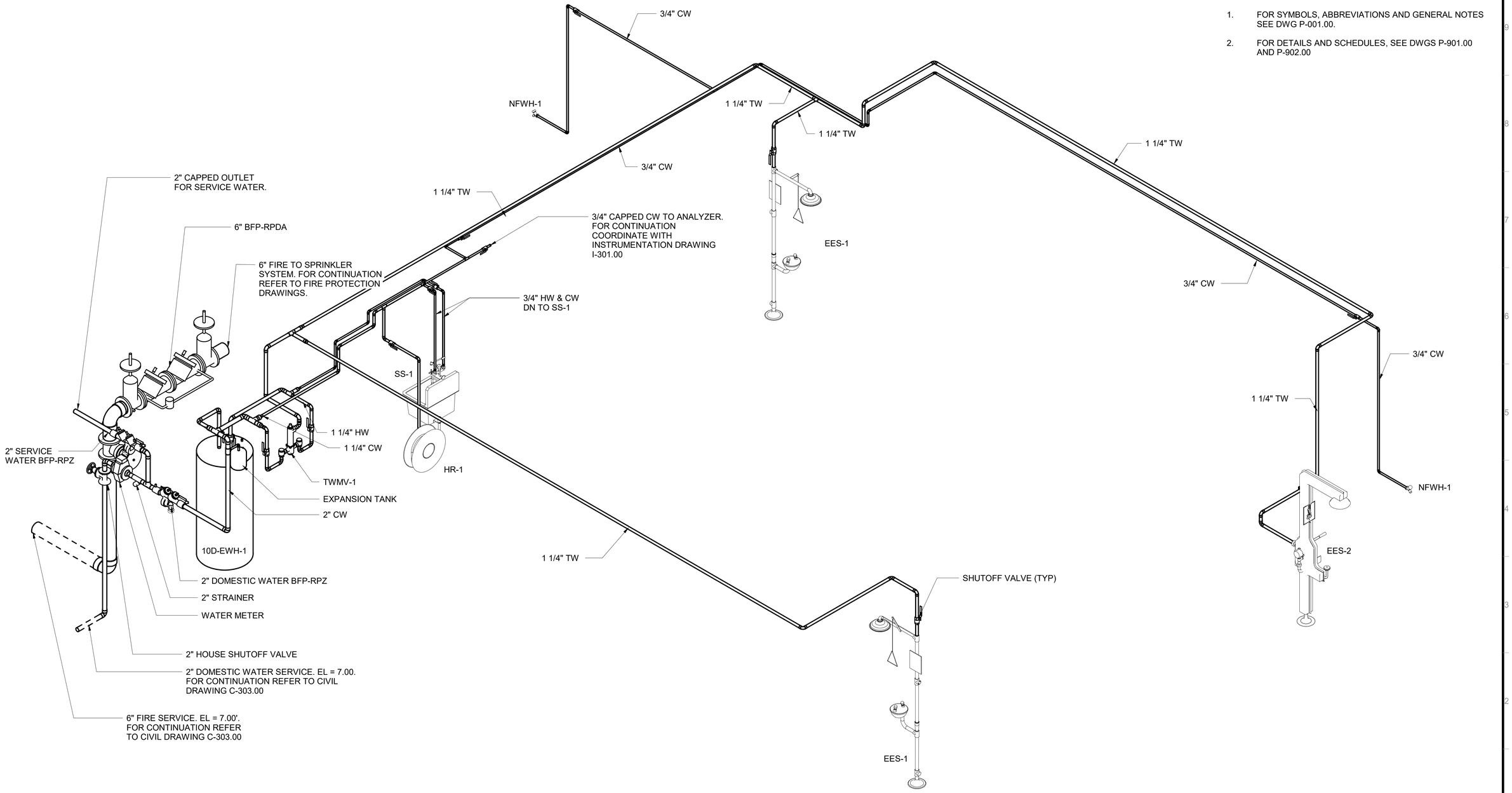
DATE: NOVEMBER 2026
SHEET NO:
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GENERAL SHEET NOTES:

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2. FOR DETAILS AND SCHEDULES, SEE DWGS P-901.00 AND P-902.00



DOMESTIC WATER RISER DIAGRAM

SCALE: N.T.S.

BID SET
DATE ISSUED: NOVEMBER 2026

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CHECKED BY: AC
DESIGN LEAD: SUHA SLIM
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — ANTHONY CORBISIERO — 088612 — LICENSED PROFESSIONAL ENGINEER
11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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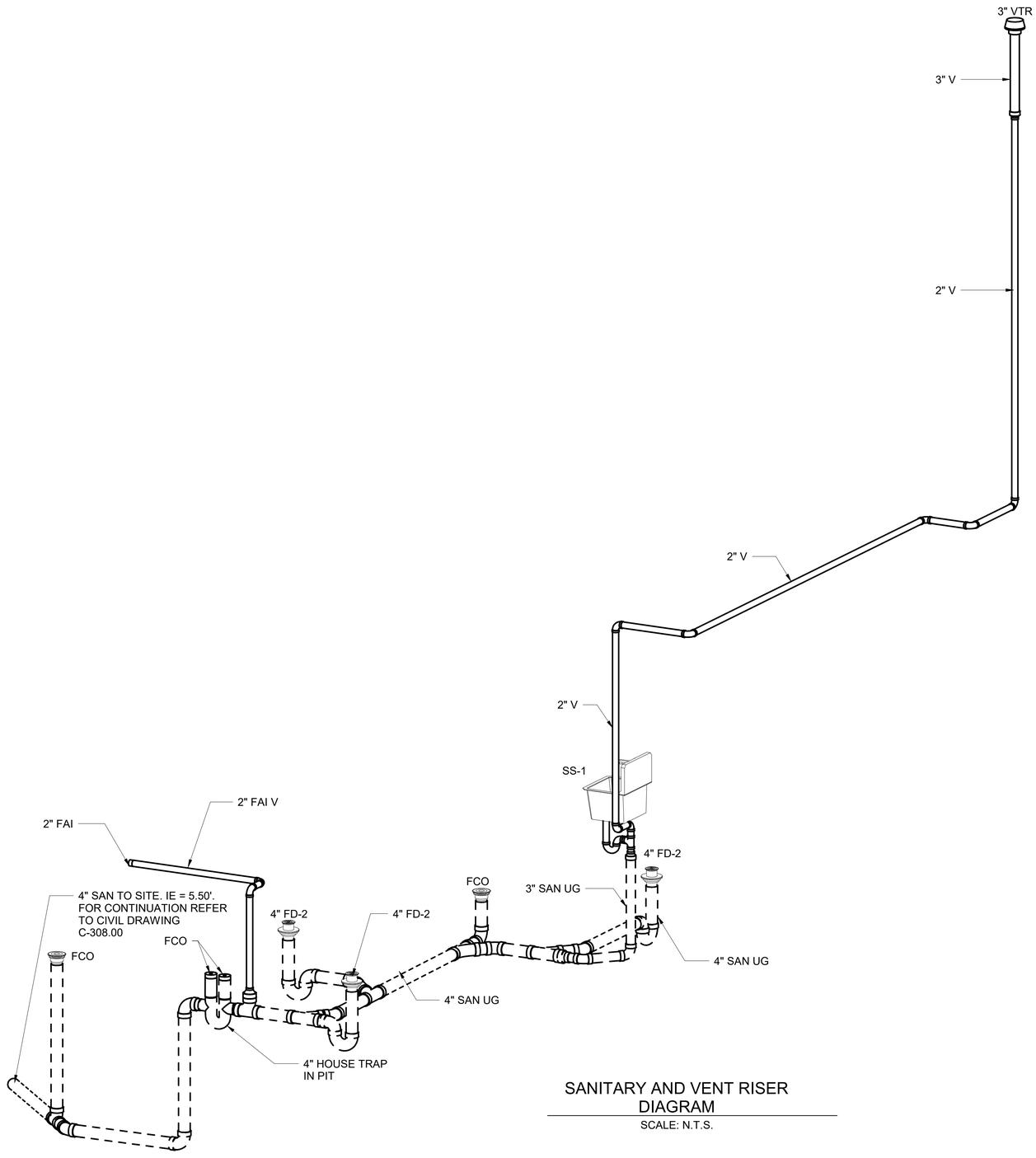
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
PLUMBING
TI-010 DECHLORINATION FACILITY- DOMESTIC WATER RISER DIAGRAM

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SANITARY AND VENT RISER DIAGRAM

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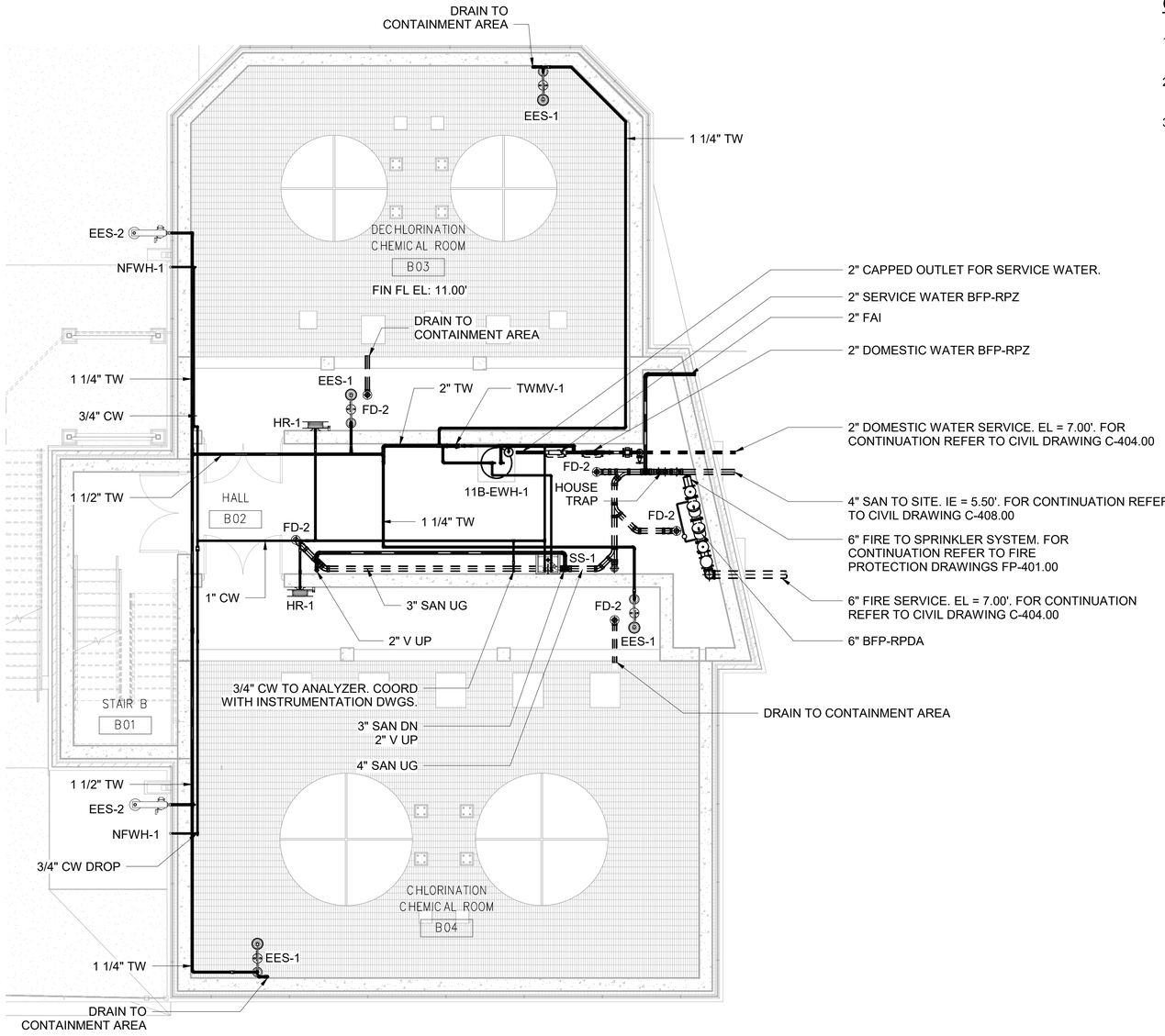
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-010 DECHLORINATION FACILITY - SANITARY AND VENT RISER DIAGRAM

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BASEMENT PLAN

SCALE: 3/16" = 1'-0"

GENERAL SHEET NOTES:

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2. FOR DETAILS AND SCHEDULES, SEE DWGS P-901.00 AND P-902.00
3. FOR RISER DIAGRAMS, SEE DWGS P-404.00 AND P-405.00

3/16"=1'-0" 0 5 10 FT.

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PLUMBING
TI-011 DISINFECTION FACILITY - BASEMENT PLAN

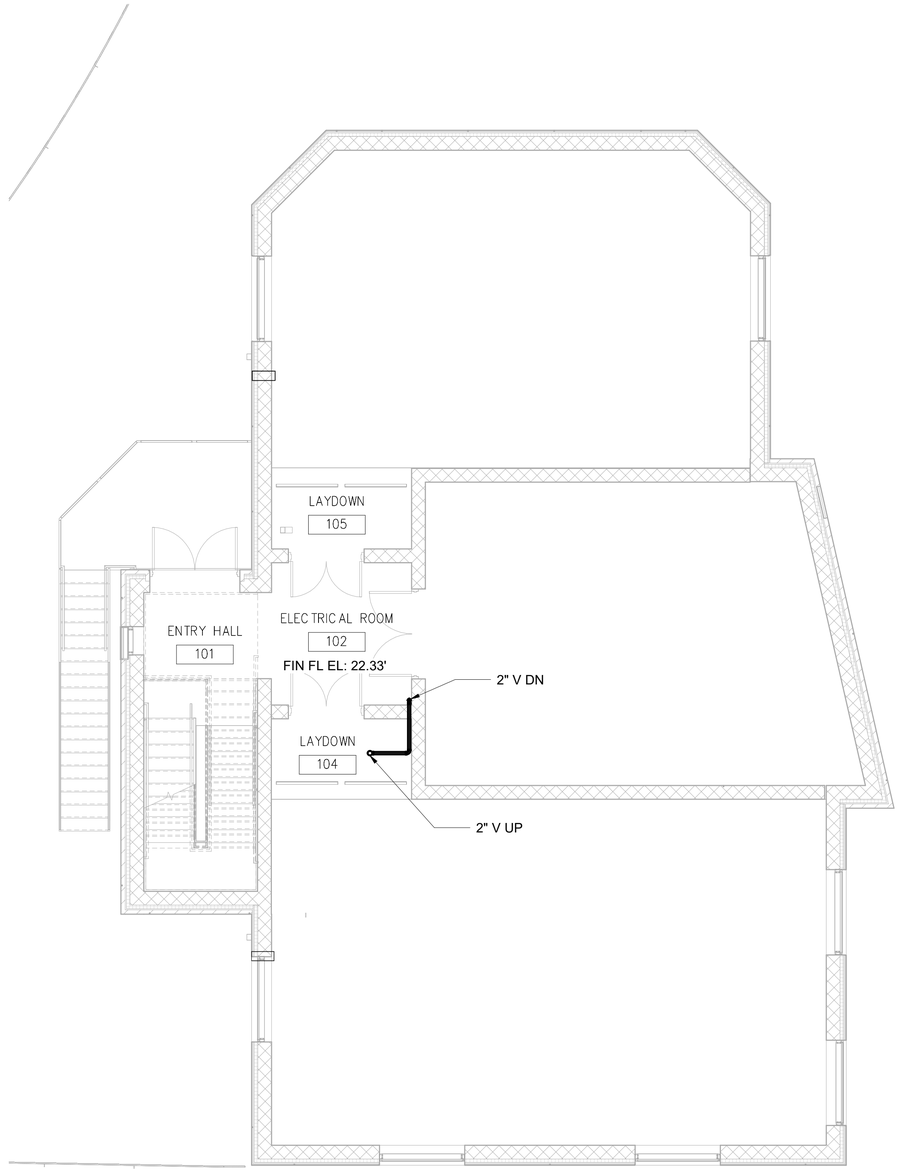
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FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"

3/16"=1'-0" 0 5 10 FT.

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN

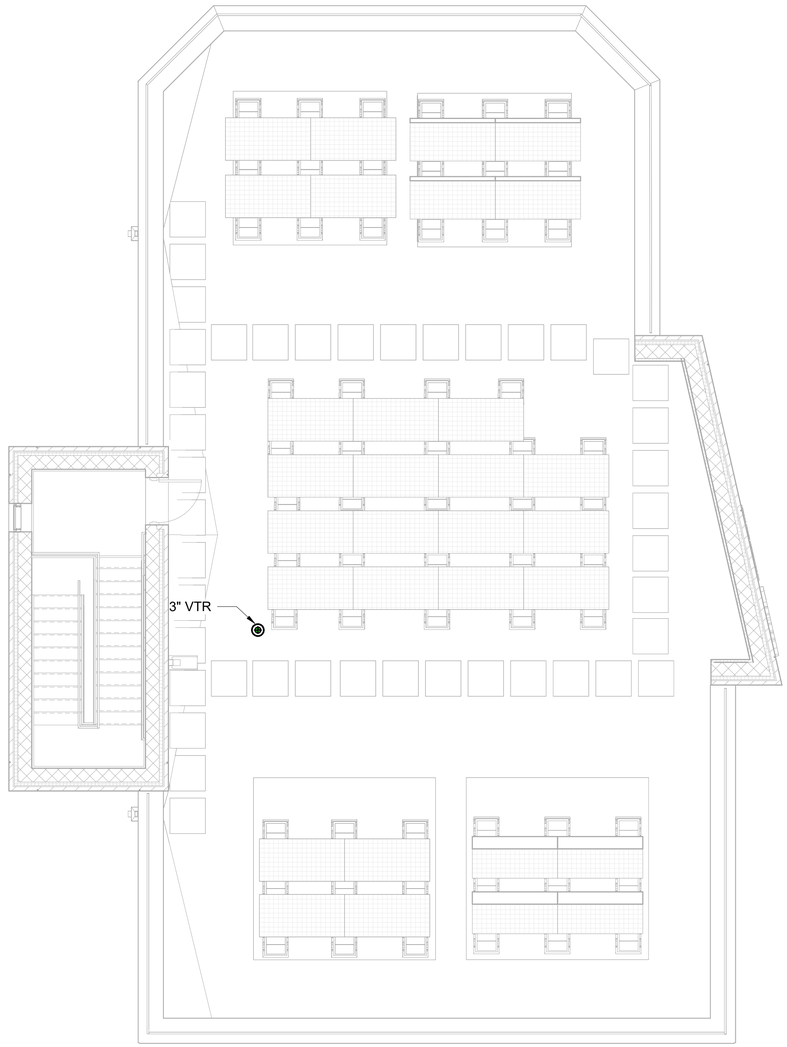
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3. FOR RISER DIAGRAMS, SEE DWGS P-404.00 AND P-405.00



ROOF PLAN
SCALE: 3/16" = 1'-0"

3/16"=1'-0" 0 5 10 FT.

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-011 DISINFECTION FACILITY - ROOF PLAN

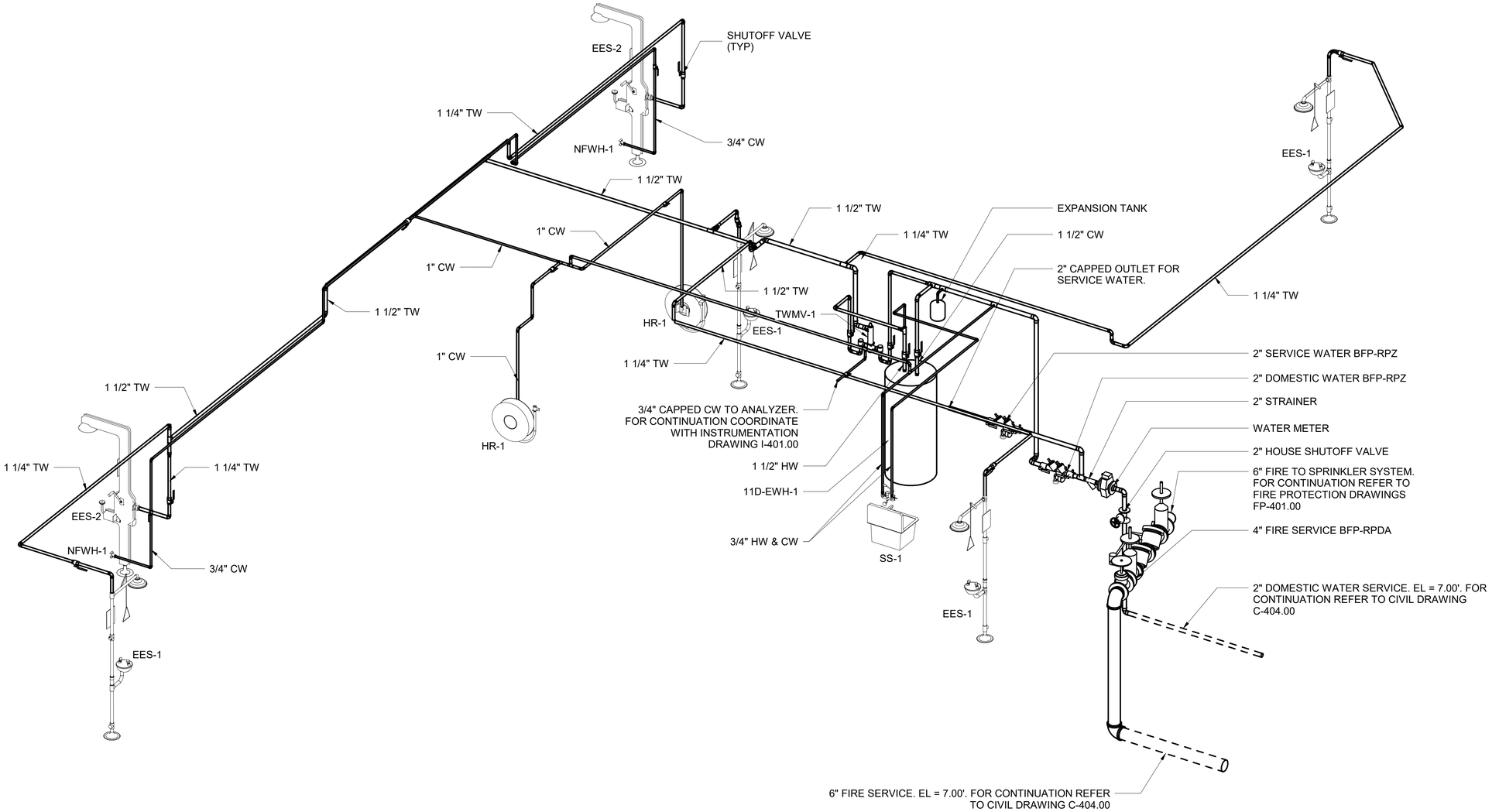
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DOMESTIC WATER RISER

SCALE: N.T.S.

BID SET
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-011 DISINFECTION FACILITY - DOMESTIC WATER RISER DIAGRAM

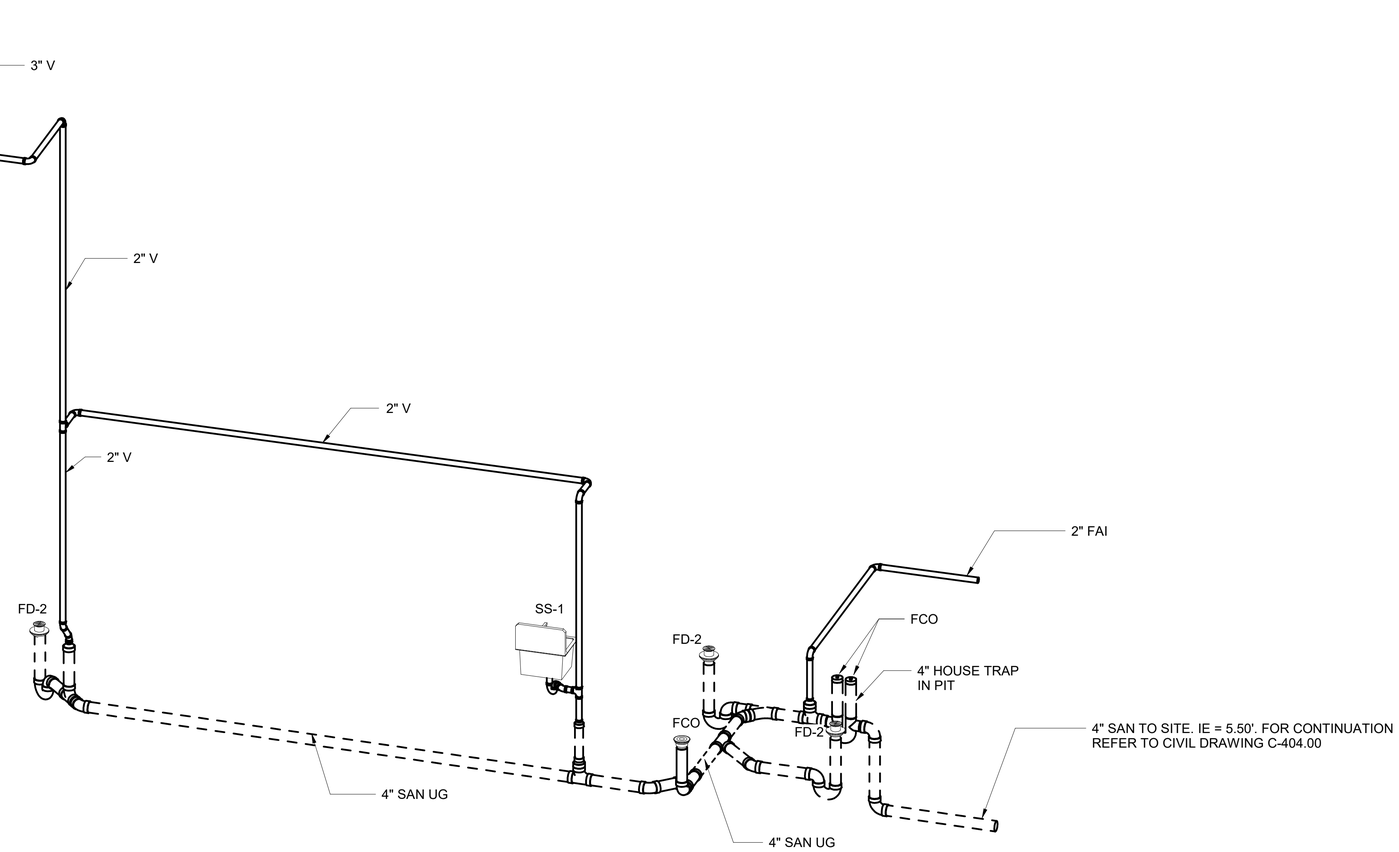
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SANITARY AND VENT RISER

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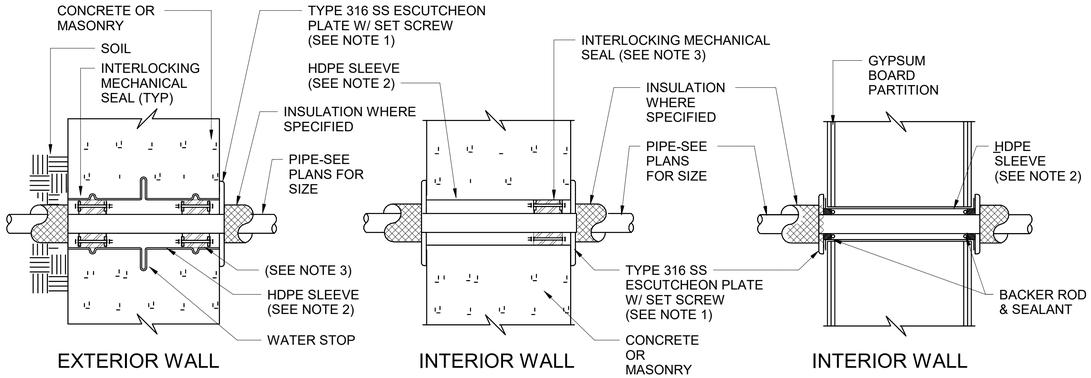
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
TI-011 DISINFECTION FACILITY - SANITARY AND VENT RISER DIAGRAM

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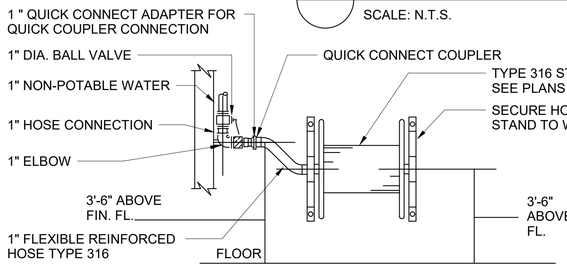


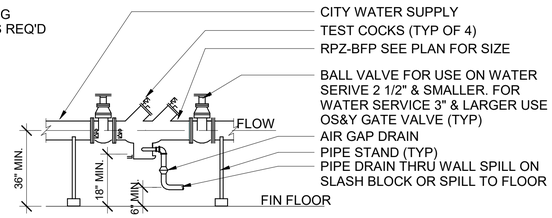
NOTES:

1. WHERE PIPE IS IN CONTACT WITH SOIL, ELIMINATE ESCUTCHEON PLATE.
2. FOR FIRE RATED WALL PENETRATION SUBSITUTE STEEL SLEEVE FOR HDPE.
3. FOR ONE HOUR FIRE RATED PENETRATION PROVIDE ONE FIRE RATED MECHANICAL SEAL. FOR TWO HOUR FIRE RATED PENETRATION PROVIDE TWO FIRE RATED MECHANICAL SEALS.
4. WHERE PIPES PASS THRU EXISTING CONSTRUCTION, CORE DRILL OPENING AND INSTALL MECHANICAL SEALS WITHOUT THE USE OF SLEEVES.

1 PIPE SLEEVES THRU WALL

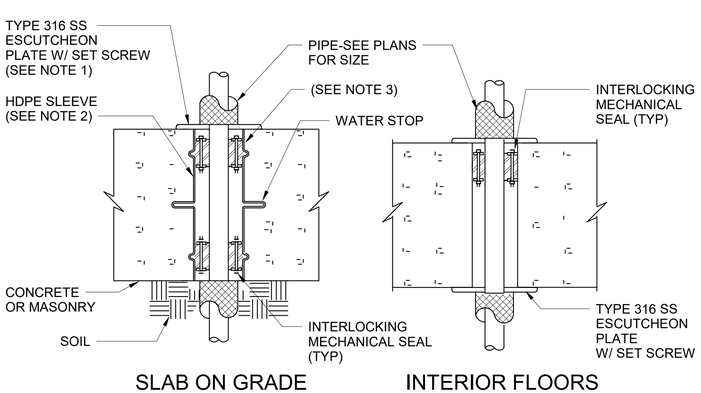
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2 PIPE SLEEVES THRU FLOOR

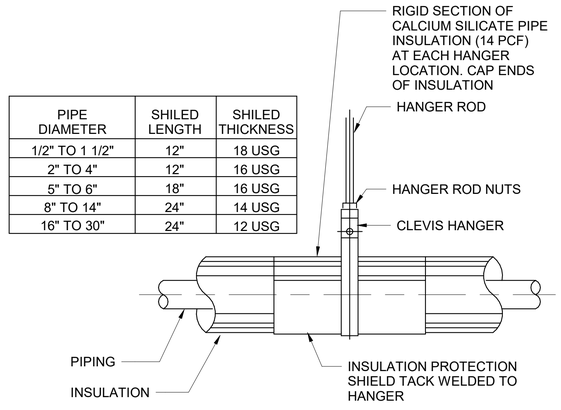
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NOTES:

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2. FOR FIRE RATED FLOOR PENETRATION SUBSITUTE STEEL SLEEVE FOR HDPE.
3. FOR ONE HOUR FIRE RATED PENETRATION PROVIDE ONE FIRE RATED MECHANICAL SEAL. FOR TWO HOUR FIRE RATED PENETRATION PROVIDE TWO FIRE RATED MECHANICAL SEALS.
4. WHERE PIPES PASS THRU EXISTING CONSTRUCTION, CORE DRILL OPENING AND INSTALL MECHANICAL SEALS WITHOUT THE USE OF SLEEVES.

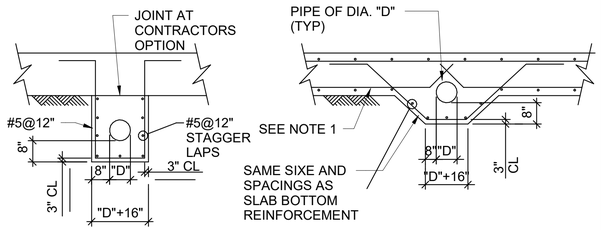
PIPE DIAMETER	SHILED LENGTH	SHILED THICKNESS
1/2" TO 1 1/2"	12"	18 USG
2" TO 4"	12"	16 USG
5" TO 6"	18"	16 USG
8" TO 14"	24"	14 USG
16" TO 30"	24"	12 USG



TYPICAL DETAIL HANGER ARRANGEMENT OF INSULATED PIPING

3 PIPE HANGER DETAIL

SCALE: N.T.S.

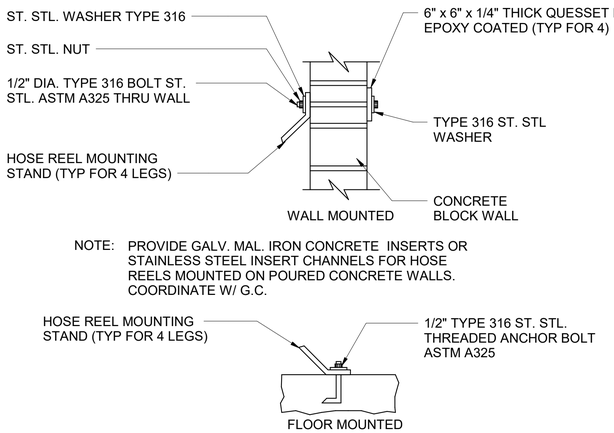


NOTES:

1. BOTTOM REINFORCEMENT TO BE CONTINUOUS WHERE POSSIBLE.
2. FOR PIPE SIZE "D" AND ELEVATION, SEE PLUMBING DRAWINGS.
3. ALL PIPES LOCATED BENEATH BASE SLABS SHALL BE ENCASED IN CONCRETE UNLESS OTHERWISE NOTED.

4 HOSE REEL DETAILS

SCALE: N.T.S.



NOTE: PROVIDE GALV. MAL. IRON CONCRETE INSERTS OR STAINLESS STEEL INSERT CHANNELS FOR HOSE REELS MOUNTED ON POURED CONCRETE WALLS. COORDINATE W/ G.C.

5 REDUCED PRESSURE ZONE BACKFLOW PREVENTER (BFP-RPZ) DETAIL

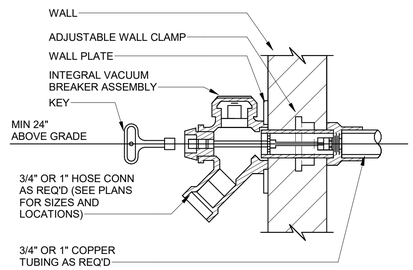
SCALE: N.T.S.

6 REDUCED PRESSURE DETECTOR ASSEMBLY BACKFLOW PREVENTER (BFP-RPDA) DETAIL

SCALE: N.T.S.

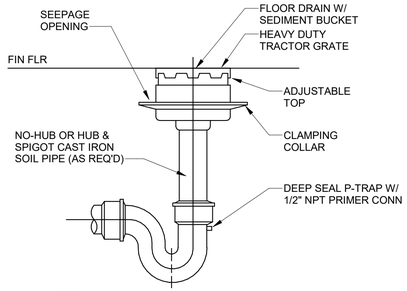
7 PIPE ENCASEMENT DETAIL

SCALE: N.T.S.



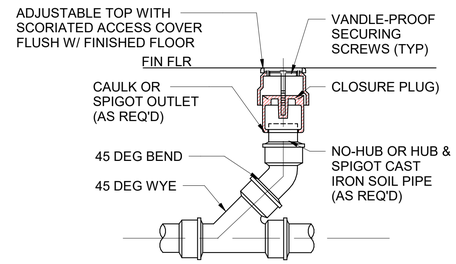
8 EXPOSED-TYPE WALL HYDRANT DETAIL

SCALE: N.T.S.



9 FLOOR DRAIN (FD-2)

SCALE: N.T.S.



10 FLOOR CLEANOUT DETAIL (FCO)

SCALE: N.T.S.

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
DETAILS I

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. P-901.00

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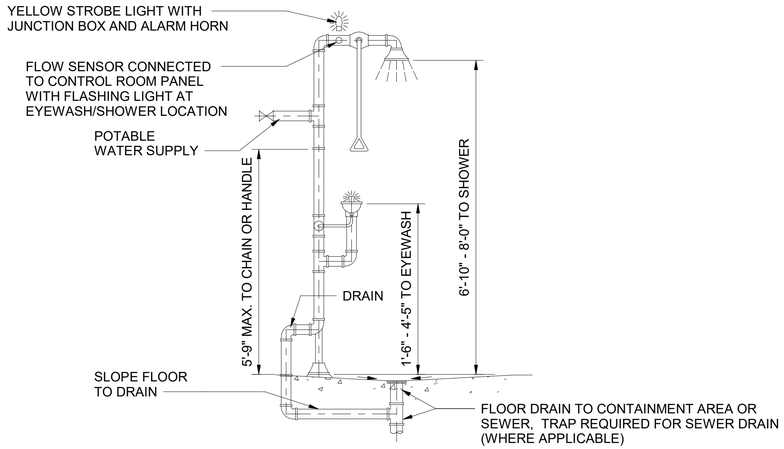
WATER HEATER SCHEDULE

TYPE	LOCATION	SERVICE	STYLE	NOMINAL STORAGE CAPACITY (GAL)	HEATING ELEMENT INPUT (KW)	PERFORMANCE		ELECTRICAL		WATER CONN NPT		REMARKS
						RECOVERY RATE @ 100 °F RISE (GPH)	OUTLET TEMPERATURE (°F)	VOLTAGE	PHASE	CW	HW	
10C-EWH-1	BASEMENT - CHLORINATION FACILITY	DOMESTIC HOT WATER	ELECTRIC TANK	119	24	98	140	480	3	1 1/2"	1 1/2"	1, 2, 3
10D-EWH-1	BASEMENT - DECHLORINATION FACILITY	DOMESTIC HOT WATER	ELECTRIC TANK	119	12.3	50	140	208	3	1 1/2"	1 1/2"	1, 2, 3
11D-EWH-1	BASEMENT - DISINFECTION FACILITY	DOMESTIC HOT WATER	ELECTRIC TANK	119	24	98	140	208	3	1 1/2"	1 1/2"	1, 2, 3

NOTES:
1. PROVIDE 100 MICRON Y-STRAINER ON COLD WATER INLET.
2. PROVIDE THERMOSTATIC MIXING VALVE AT HOT WATER OUTLET AND SET TO 120 °F.
3. PROVIDE EXPANSION TANK ON COLD WATER INLET TO WATER HEATER.

PLUMBING FIXTURE SCHEDULE

FIXTURE NO.	DESCRIPTION	TRAP	S/W	VENT	CW	HW	TW	REMARKS
EES-1	INTERIOR EMERGENCY EYE WASH AND SHOWER	-	-	-	-	-	1-1/4"	FLOOR MOUNTED
EES-2	FREEZE PROOF EMERGENCY EYE WASH AND SHOWER	-	-	-	-	-	1-1/4"	FLOOR MOUNTED
EES-3	FREEZE PROOF EMERGENCY EYE WASH AND SHOWER	-	-	-	-	-	1-1/4"	FREE STANDING
HR-1	HOSE REEL	-	-	-	1"	-	-	
NFWH-1	NON-FREEZE WALL HYDRANT	-	-	-	3/4"	-	-	
SS-1	SERVICE SINK	2"	2"	2"	3/4"	3/4"	-	

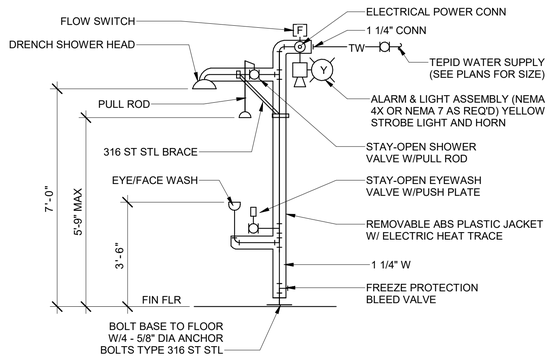


1 INTERIOR EMERGENCY EYEWASH AND SHOWER DETAIL (EES-1)

SCALE: N.T.S.

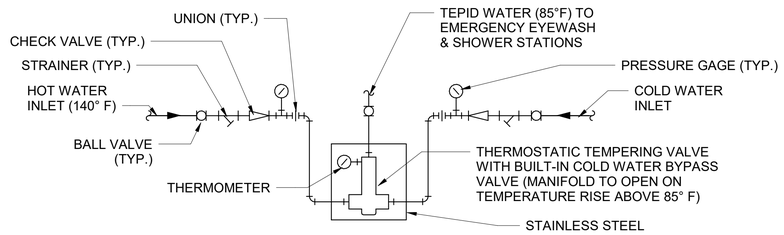
NOTES:

1. HIGH VISIBILITY SIGNS REQUIRED TO IDENTIFY EACH EMERGENCY EYEWASH/SHOWER LOCATION.
2. PROVIDE LOCKING (OPEN) SUPPLY VALVE.



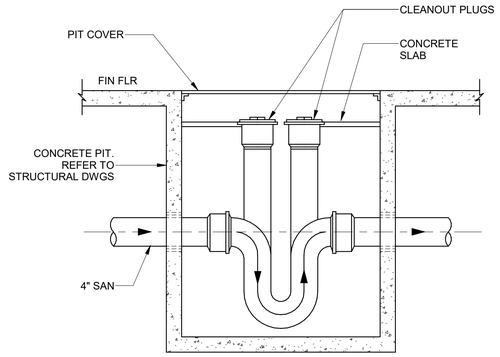
2 FREE STANDING ELECTRIC HEAT TRACED FREEZE-PROOF EMERGENCY EYEWASH AND SHOWER DETAIL (EES-2)

SCALE: N.T.S.



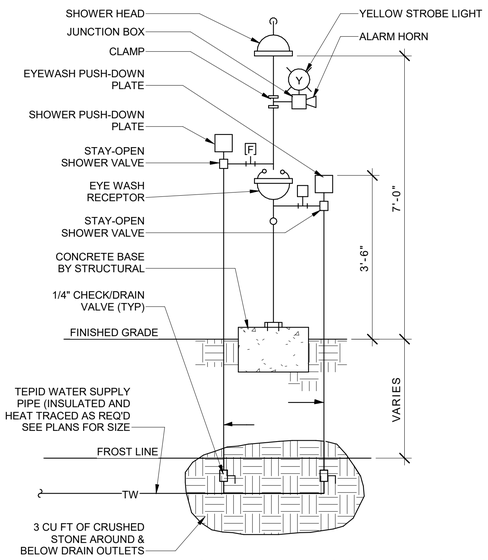
3 TEPID WATER MIXING VALVE (TWMV-1)

SCALE: N.T.S.



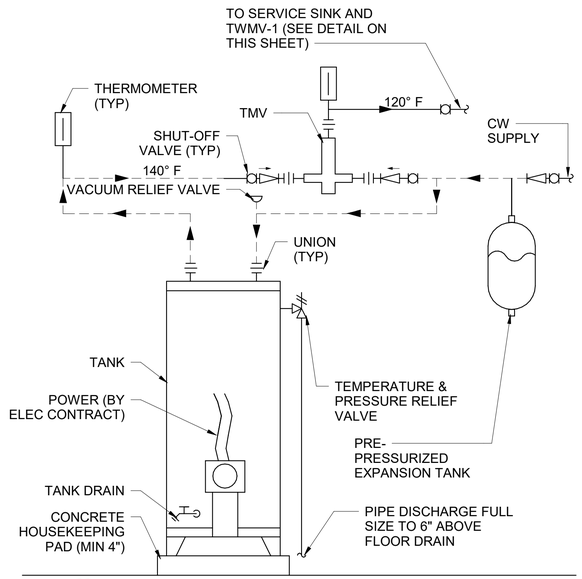
4 HOUSE TRAP

SCALE: N.T.S.



5 FREE STANDING FREEZE PROOF EMERGENCY EYEWASH AND SHOWER DETAIL (EES-3)

SCALE: N.T.S.



6 ELECTRIC WATER HEATER DETAIL (EWH-1)

SCALE: N.T.S.

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CHECKED BY: AC
DESIGN LEAD: SUHA SLIM
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · COUNTY OF CORTLAND · LICENSED PROFESSIONAL ENGINEER · 088612 · 11/01/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

PLUMBING
DETAILS II & SCHEDULES

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SYMBOLS

SYMBOL	DESCRIPTION
	SPRINKLER MAIN PIPING
	SPRINKLER BRANCH PIPING
	PIPE UP OR RISE, UNLESS OTHERWISE NOTED
	PIPE DOWN OR DROP, UNLESS OTHERWISE NOTED
	RISE OR DROP IN RUN OF PIPE
	PLUGGED TEE
	CAP ON END OF PIPE
	VALVE IN VERTICAL (TYPE AS SPECIFIED OR NOTED)
	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
	GATE VALVE (OS&Y)
	CHECK VALVE
	SIAMESE CONNECTION (FIRE DEPARTMENT INLET)
	WATER FLOW SWITCH
	UPRIGHT SPRINKLER HEAD
	SIDEWALL SPRINKLER HEAD

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ABD	AUTOMATIC BALL DRIP VALVE
BFP	BACKFLOW PREVENTER
BFP-RPDA	BACKFLOW PREVENTER - REDUCED PRESSURE DETECTOR ASSEMBLY
CV	CHECK VALVE
CW	COLD WATER
CLG	CEILING
CONN	CONNECT
CONT	CONTINUATION
D	DRY
DN	DOWN (PENETRATES FLOOR SLAB)
DR	DRAIN
EXIST	EXISTING
F	FIRE
FCVA	FLOOR CONTROL VALVE ASSEMBLY
FDC	FIRE DEPARTMENT CONNECTION
FSP	FIRE STANDPIPE
FL	FLOOR
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
GAL	GALLONS
IN.	INCH
MAX	MAXIMUM
MIN	MINIMUM
NC	NORMALLY CLOSED
N.I.C	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH (GAUGE)
SPK	SPRINKLER
TS	TAMPER SWITCH
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UP	UP (PENETRATES FLOOR SLAB)
VIV	VALVE IN VERTICAL
WFS	WATERFLOW SWITCH

GENERAL NOTES

1. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
2. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND APPURTENANCES TO COMPLETE THE INSTALLATION ACCORDING TO CODE REQUIREMENT, WHETHER INDICATED ON DRAWING OR NOT.
3. CONTRACTOR SHALL SUBMIT HYDRAULIC CALCULATIONS.
4. SPK. BRANCH PIPING SHALL BE A MINIMUM OF 1 INCH UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL INCLUDE IN THE LUMP SUM PRICE ANY AND ALL SPK. HEADS TO BE LOCATED BENEATH DUCTWORK, CABLE TRAYS, PIPING AND OBSTRUCTIONS AS REQUIRED BY CODE OR AS DIRECTED BY THE ENGINEER.
6. CONTRACTOR SHALL ADJUST SPK. HEAD LOCATIONS TO COORDINATE WITH DUCTS, LIGHTING FIXTURES, ETC. TO AVOID IMPAIRING THE SPK. DISCHARGE.
7. PROVIDE SEISMIC RESTRAINTS FOR SPRINKLER PIPING IN ACCORDANCE WITH NEW YORK CITY BUILDING CODE AND NFPA 13 REQUIREMENTS.
8. DESIGN AND INSTALLATION OF SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 13 STANDARD.
9. CONTRACTOR TO CONFIRM AVAILABLE WATER PRESSURE AT SPRINKLER SYSTEM DESIGN FLOW RATE ON SITE.

NEW YORK CITY SPRINKLER NOTES

1. THE INSTALLATION, COMPONENTS, SIZING, SPACING, LOCATION, CLEARANCES, POSITION AND TYPE OF SYSTEMS SHALL CONFORM TO 2014 APPENDIX Q, SECTION BC Q102 AND SECTION BC903.
2. ONLY APPROVED MATERIALS SHALL BE USED AS PER CHAPTER 6 OF APPENDIX Q, SECTION BCQ102.
3. DIRECT CONNECTION OF SPRINKLERS TO THE PUBLIC WATER SYSTEM SHALL CONFORM TO SECTION BCQ102, SECTION 8.16, CHAPTER 23 AND BC903.3.5.
4. SPRINKLERS WILL BE PROTECTED AGAINST FREEZING AND INJURY AS PER APPENDIX Q, BCQ102, SECTION 8.16.4.
5. INSPECTION AND TESTS OF SPRINKLER SYSTEM SHALL BE CONDUCTED AS PER SECTION 901.5.
6. THE OCCUPANCY OF THE AREAS TO BE SPRINKLE RED IN ACCORDANCE WITH CHAPTER 5 OF APPENDIX Q, SECTION BCQ102.
7. WATER SUPPLY TEST PIPES AND GAUGES SHALL BE PROVIDED AS PER SECTION 8.16.1 OF APPENDIX Q, SECTION BCQ102.
8. PIPING SPECIFICATIONS, SYSTEM TEST CONNECTIONS, PROTECTION AGAINST CORROSION, DAMAGE, FITTINGS, VALVES, HANGERS, SPRINKLERS, GUARDS AND SHIELDS SHALL BE AS APPENDIX Q, SECTION BCQ102, CHAPTERS 6 AND 8.
9. PIPE SCHEDULE SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION 22.5 OF APPENDIX Q, SECTION BCQ102.
10. STOCK OF EXTRA SPRINKLERS WILL BE FURNISHED AS PER SECTION 6.2.9 APPENDIX Q, SECTION BCQ102 (REQUIRED FOR EACH TEMPERATURE RATING).
11. SPRINKLER ALARM WILL BE IN ACCORDANCE WITH SECTION 8.17.1 OF APPENDIX Q, SECTION BCQ102.
12. SPACING, LOCATION AND POSITION OF SPRINKLERS WILL BE IN AS PER SECTION 8 OF APPENDIX Q, SECTION BCQ102.
13. ALL CONCEALED SPACES EXCEEDING 6 IN. IN WIDTH OR DEPTH WHICH CONTAIN COMBUSTIBLE MATERIAL WILL BE SPRINKLERED.
14. ALL PIPE PASSING THROUGH WALLS WILL COMPLY WITH SECTION BC713.
15. THERE IS NO HIGH PILED STORAGE AS DEFINED IN SECTION 3.9.1.13 OF APPENDIX Q, SECTION BCQ102.
16. DISTANCE OF SPRINKLERS FROM HEAT SOURCES SHALL BE IN ACCORDANCE WITH TABLES 8.3.2.5(a), 8.3.2.5(b) AND 8.3.2.5(c).
17. AUTOMATIC INTERLOCK CUTOFF SWITCH FOR VENTILATION WILL CONFORM TO CHAPTER 6 OF THE MECHANICAL CODE (APPLICABLE ONLY IF THERE IS AN AIR SYSTEM UTILIZING RECIRCULATED AIR AND REQUIRING A THERMOSTATIC DEVICE).
18. AS PER SECTION BC903.1.2, PROVIDE DEPT. OF WATER SUPPLY LETTER WITH FLOW TEST DATA IF THERE IS A DIRECT CONNECTION TO THE STREET WATER SUPPLY.
19. ALL PIPES PASSING THROUGH FOUNDATION WALLS TO BE PROTECTED AS PROVIDED BY SECTION 305.5 OF THE PLUMBING CODE.
20. THIS APPLICATION IS NOT FILED AS A RESULT OF ACTIONS BY THE FIRE COMMISSIONER AS AUTHORIZED BY THE BS & A TO MODIFY THE CERTIFICATE OF OCCUPANCY NOR IS SUCH ACTION PENDING.
21. ALL VALVES SHALL BE IDENTIFIED AS REQUIRED SECTION 6-7.4 OF APPENDIX Q, SECTION BCQ102.
22. DRAINAGE TO CONFORM TO SECTION 8.16.2 OF APPENDIX Q, SECTION BCQ102.
23. HYDRAULICALLY DESIGNED SPRINKLER SYSTEMS SHALL BE IN ACCORDANCE WITH CHAPTER 22 OF APPENDIX Q, SECTION BCQ102.
24. A ONE PIECE REDUCING FITTING SHALL BE USED WHENEVER A CHANGE IS MADE IN THE SIZE OF THE PIPE AS PER SECTION 6.4.6. OF APPENDIX Q, SECTION BCQ102.
25. ALL VALVES ON CONNECTIONS TO WATER SUPPLIES AND IN SUPPLY TO SPRINKLERS SHALL BE APPROVED O.S. & Y. OR APPROVED INDICATOR TYPE.
26. WHEN SPRINKLER SYSTEMS ARE CONNECTED TO STANDPIPE SYSTEMS, VALVES SHALL COMPLY WITH APPENDIX Q, SECTION BC Q102 AND SECTION BC903.
27. DRAIN VALVES AND TEST VALVES SHALL BE APPROVED TYPE AS PER SECTION 6.7.3 OF APPENDIX Q, SECTION BCQ102.
28. HANGERS SHALL BE OF A TYPE APPROVED FOR USE WITH THE PIPE OR TUBE INVOLVED, SPRINKLER PIPING SHOULD BE SUPPORTED BY APPROVED ADJUSTABLE HANGERS, AS PER CHAPTER 9 OF APPENDIX Q, SECTION BCQ102.
29. PROVISIONS SHOULD BE MADE TO FACILITATE FLUSHING OF THE SYSTEM PIPING BY PROVIDING FLUSHING CONNECTIONS CONSISTING OF A CAPPED 4" LONG NIPPLE ON THE END OF THE CROSS MAIN AS PER SECTION 8.16.3 OF APPENDIX Q, SECTION BCQ102.
30. SPRINKLER HEADS SHALL BE AN APPROVED TYPE AS PER SECTION 8.3 OF APPENDIX Q, SECTION BCQ102.
31. TEMPERATURE RATING SHALL COMPLY WITH SECTION 8.3 OF APPENDIX Q, SECTION BCQ102.
32. 18" MINIMUM CLEARANCE TO BELOW SPRINKLER DEFLECTOR AS PER SECTION 8.5.5.3 OF APPENDIX Q, SECTION BCQ102.
33. 1" TO 12" MINIMUM CLEARANCE OF SPRINKLER DEFLECTOR TO CEILING FOR STANDARD UPRIGHT AND PENDENT SPRINKLERS UNDER UNOBSTRUCTED CONSTRUCTIONS AS PER SECTION 8.6.4 OF APPENDIX Q, SECTION BCQ102.
34. SPRINKLER SYSTEM COMPLIES WITH NSPA 13 2007 AS MODIFIED BY APPENDIX Q, SECTION BCQ102.
35. DRY SYSTEMS SHALL IN ACCORDANCE WITH SECTION 7.2 OF APPENDIX Q, SECTION BCQ102.
36. THIS PLAN IS APPROVED ONLY OR WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
37. ALL NEW PIPES TO BE MINIMUM OF ONE INCH IN ACCORDANCE WITH BC Q102, CHAPTER 8.

SPRINKLER DESIGN CRITERIA

LOCATION	OCCUPANCY CLASSIFICATION	TYPE OF SPRINKLER SYSTEM	GPM DENSITY/AREA OF SPRINKLER OPERATION IN SF	SPRINKLER HEAD		
				TYPE	TEMPERATURE RATING °F	MAX SPRINKLER COVERAGE SQ. FT.
BASEMENT	ORDINARY HAZARD GROUP II	WET PIPE	0.17/3000	UPRIGHT	225	130
UPPER LEVEL	ORDINARY HAZARD GROUP II	WET PIPE	0.17/3000	UPRIGHT	225	130

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CHECKED BY: AC
DESIGN LEAD: SUHA SLIM
SECTION MANAGER:

ARCADIS

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11/07/2026

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
NOTES, LEGEND, SYMBOLS AND ABBREVIATIONS

DATE: NOVEMBER 2026
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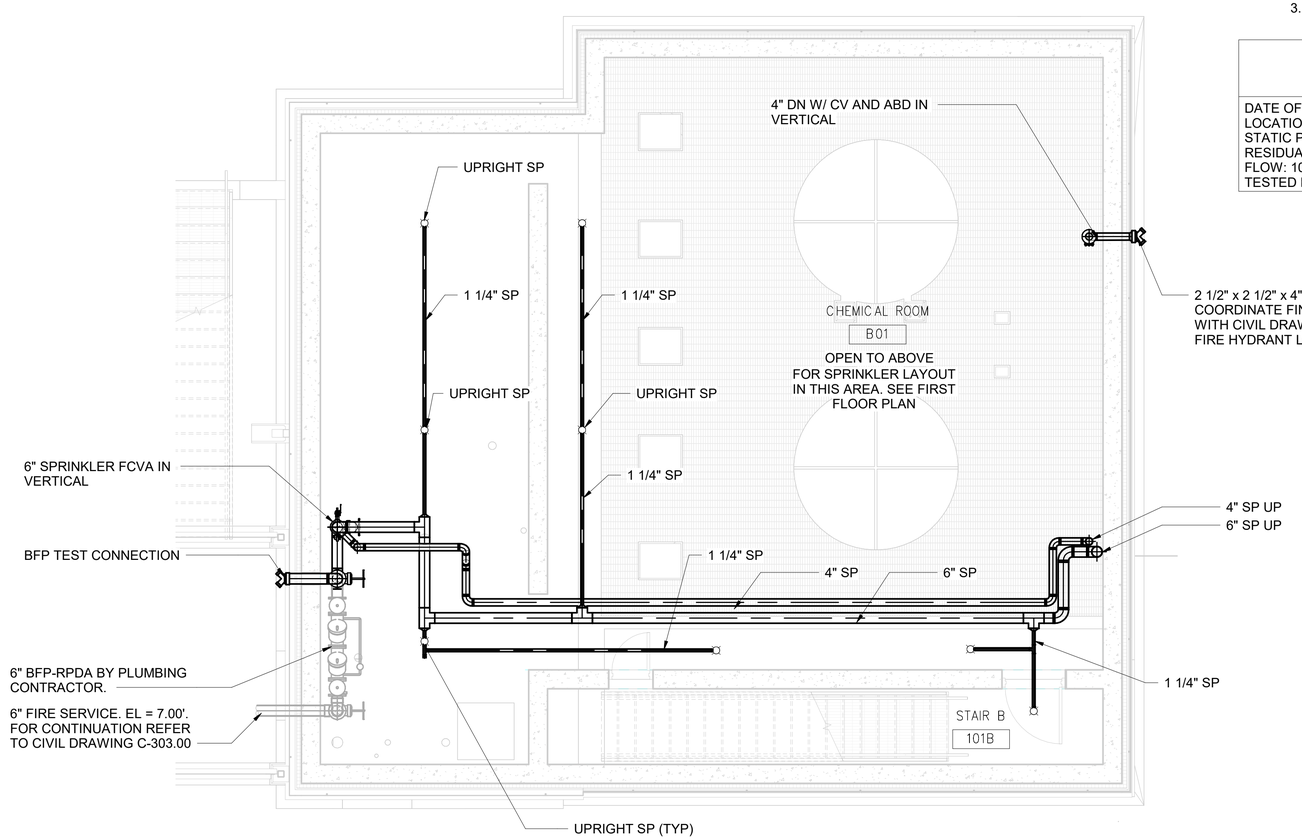
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2. FOR DETAILS, SEE DWGS FP-901.00 AND FP-902.00.
3. FOR RISER DIAGRAMS, SEE DWGS FP-303.00

HYDRANT FLOW TEST
DATE OF TEST: 07/23/2024 LOCATION: AVERY AVENUE AND COLLEGE POINT BOULEVARD STATIC PRESSURE: 69 PSI RESIDUAL PRESSURE: 68 PSI FLOW: 1000 GPM TESTED BY: CITY WIDE HYDRAULIC TESTING UNIT



BASEMENT FLOOR PLAN

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

1/4"=1'-0" 0 4 8 FT.

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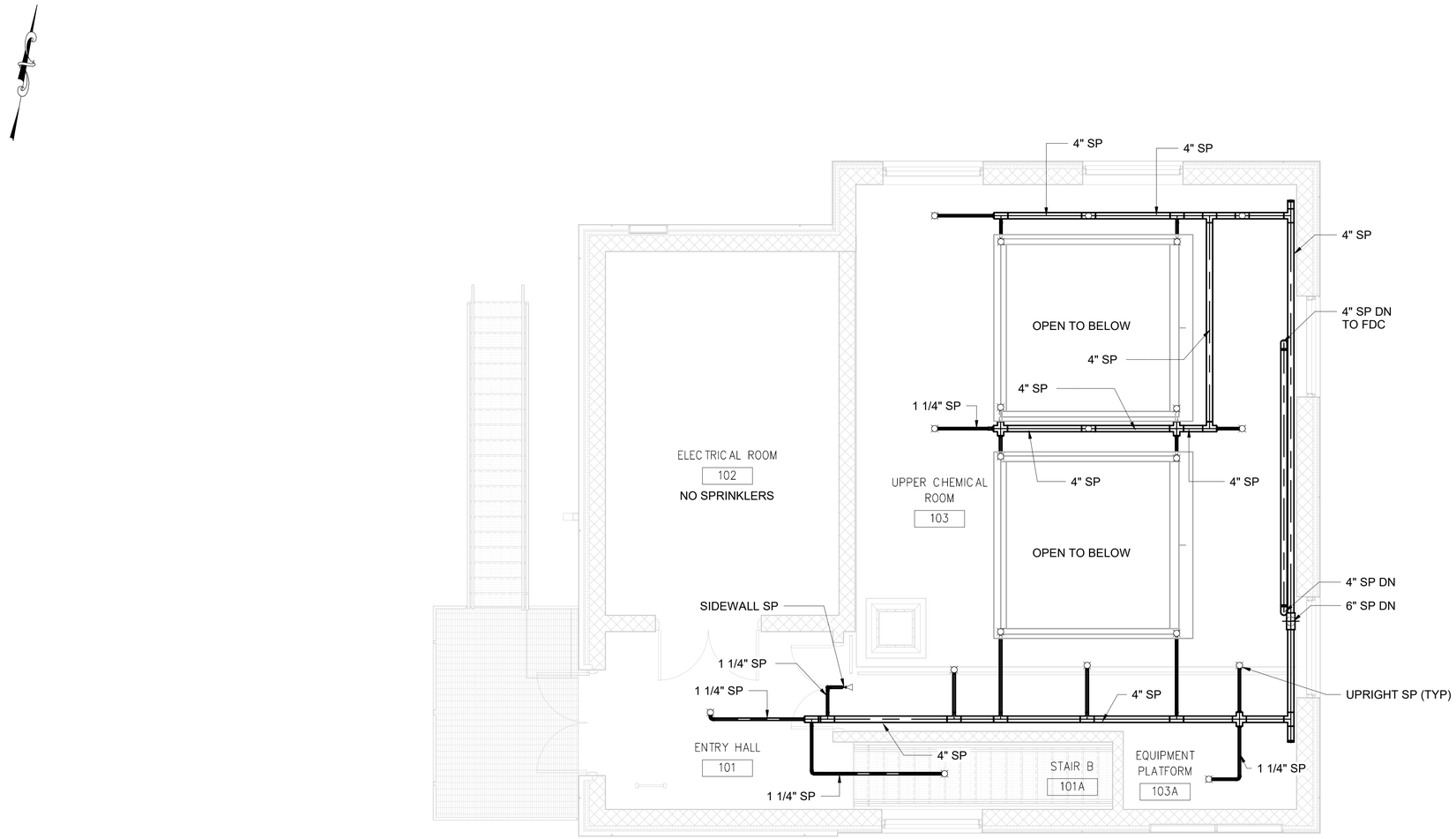
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
TI-010 DECHLORINATION FACILITY - BASEMENT FLOOR PLAN

DATE: NOVEMBER 2026
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FIRST FLOOR PLAN

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

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1/4"=1'-0" 0 4 8 FT.

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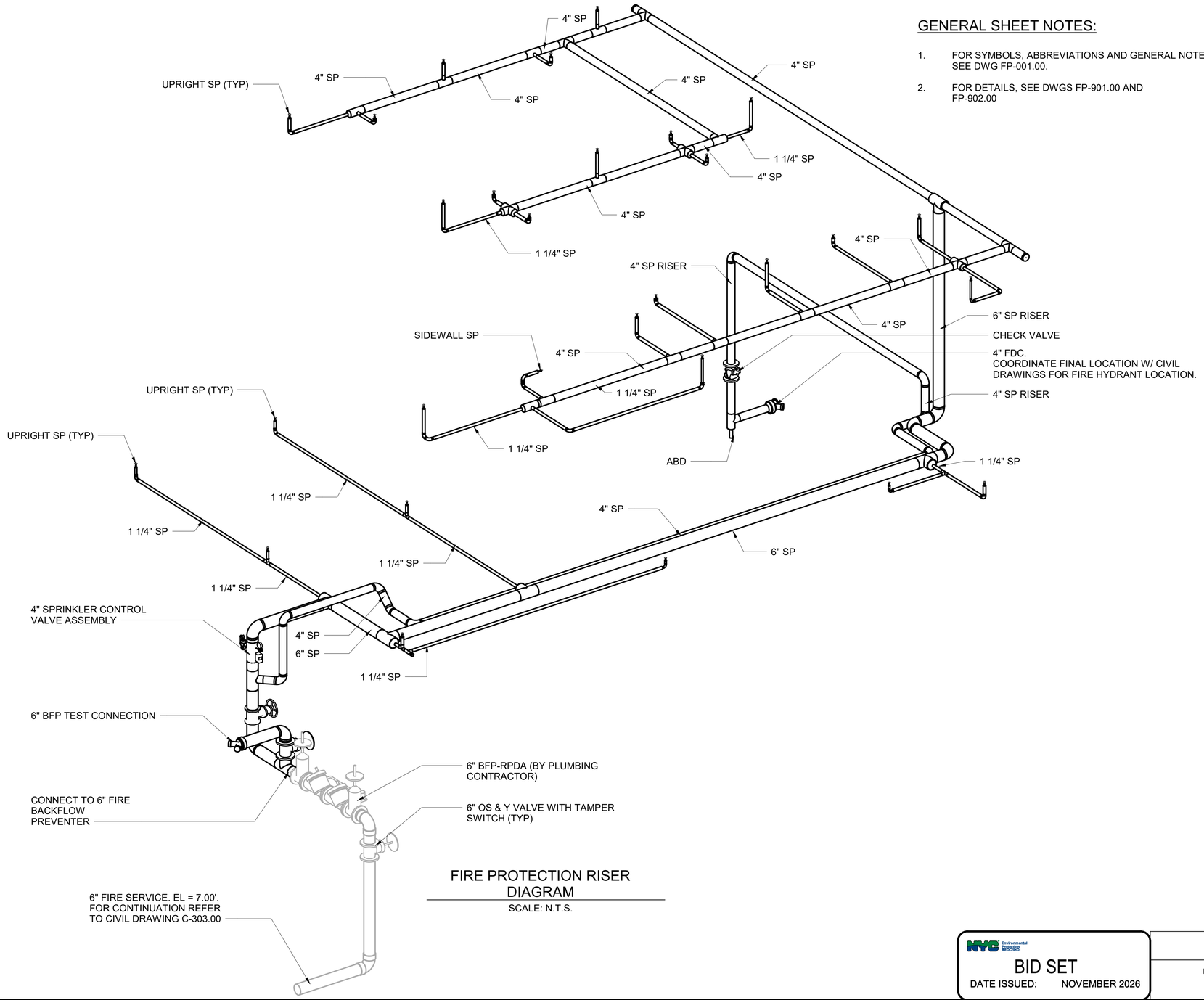
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
TI-010 DECHLORINATION FACILITY- FIRST FLOOR PLAN

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FIRE PROTECTION RISER DIAGRAM

SCALE: N.T.S.

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · ANTHONY CORTESE · 088612 · LICENSED PROFESSIONAL ENGINEER
11/07/2026

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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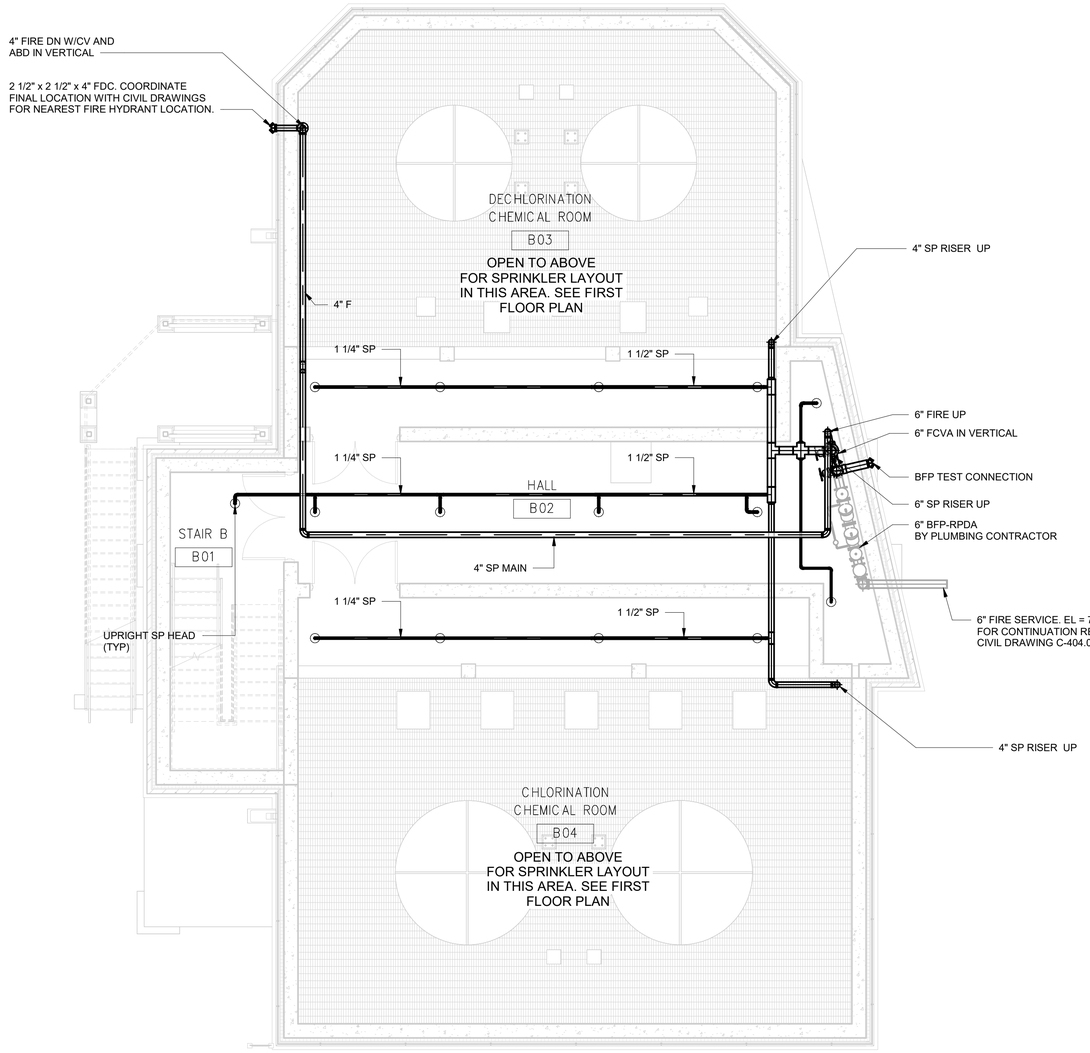
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
TI-010 DECHLORINATION FACILITY - RISER DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. FP-303.00

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BASEMENT PLAN

SCALE: 3/16" = 1'-0"

GENERAL SHEET NOTES:

1. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES SEE DWG FP-001.00.
2. FOR DETAILS, SEE DWGS FP-901.00 AND FP-902.00.
3. FOR RISER DIAGRAMS, SEE DWGS FP-403.00

HYDRANT FLOW TEST
DATE OF TEST: 01/28/2025 LOCATION: 32ND AVENUE AND HIGGINS STREET STATIC PRESSURE: 68 PSI RESIDUAL PRESSURE: 66 PSI FLOW: 1000 GPM TESTED BY: CITY WIDE HYDRAULIC TESTING UNIT

3/16"=1'-0" 0 5 10 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

IF SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

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SECTION MANAGER:

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STATE OF NEW YORK ANTHONY CORDO 088612 LICENSED PROFESSIONAL ENGINEER
11/01/2026

NYC Environmental Protection

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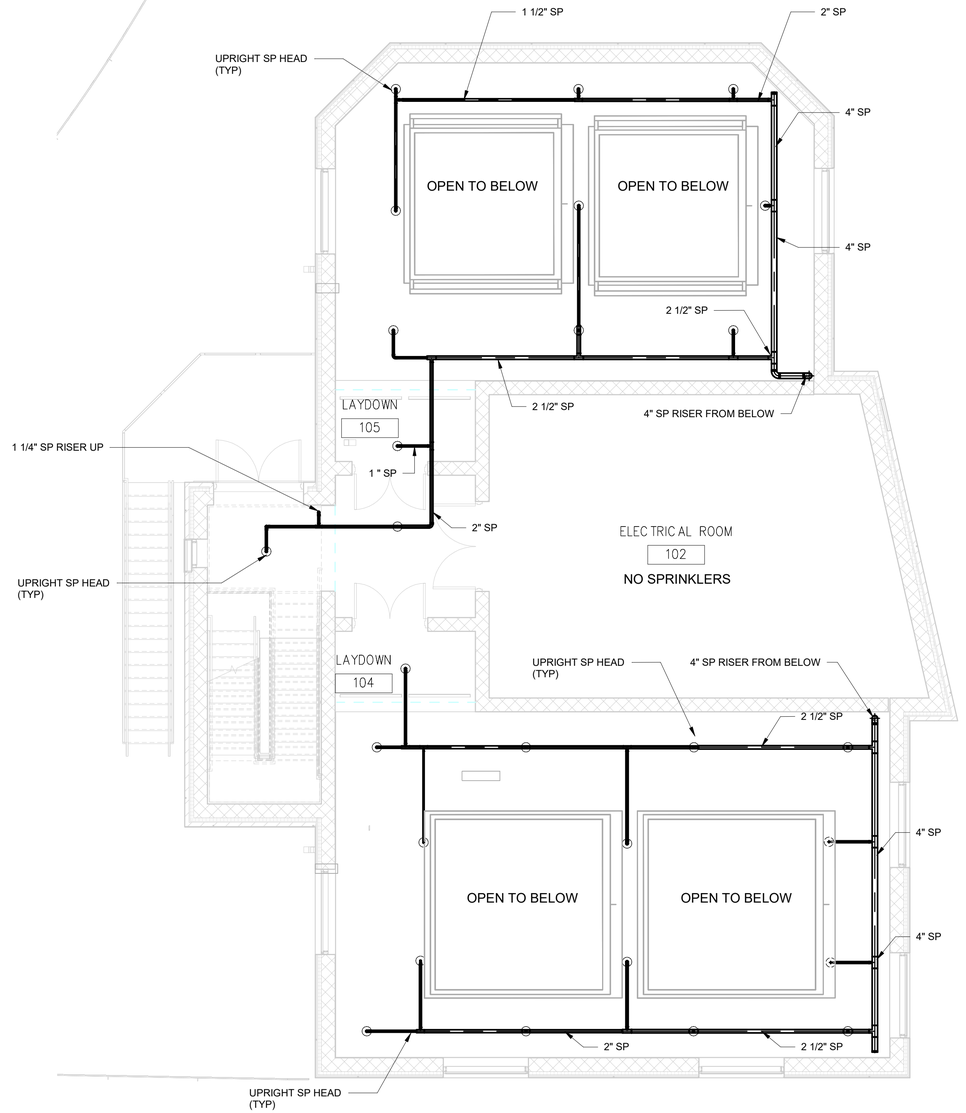
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
FIRE PROTECTION
TI-011 DISINFECTION FACILITY - BASEMENT PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. FP-401.00

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FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

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3/16"=1'-0" 0 5 10 FT.

BID SET
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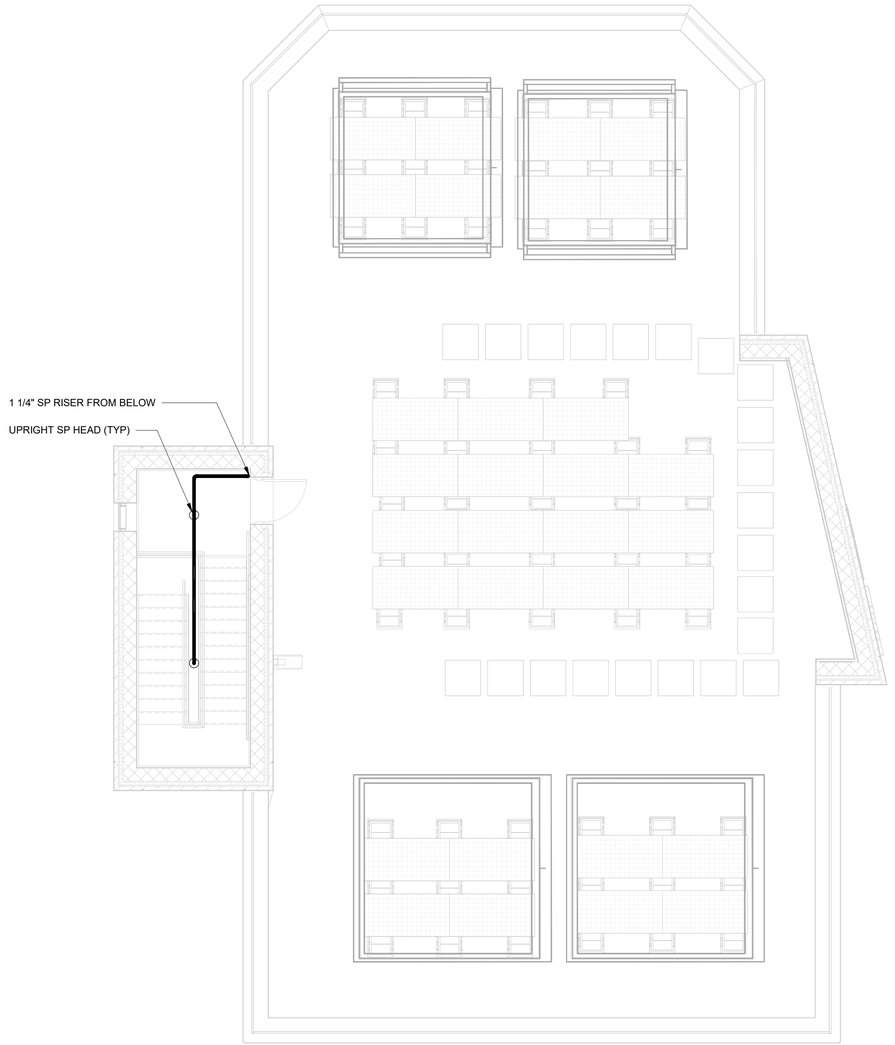
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN

DATE: NOVEMBER 2026
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ROOF PLAN
SCALE: 3/16" = 1'-0"

GENERAL SHEET NOTES:

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2. FOR DETAILS, SEE DWGS FP-901.00 AND FP-902.00.
3. FOR RISER DIAGRAMS, SEE DWGS FP-403.00

3/16"=1'-0" 0 5 10 FT.

BID SET
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
TI-011 DISINFECTION FACILITY - ROOF PLAN

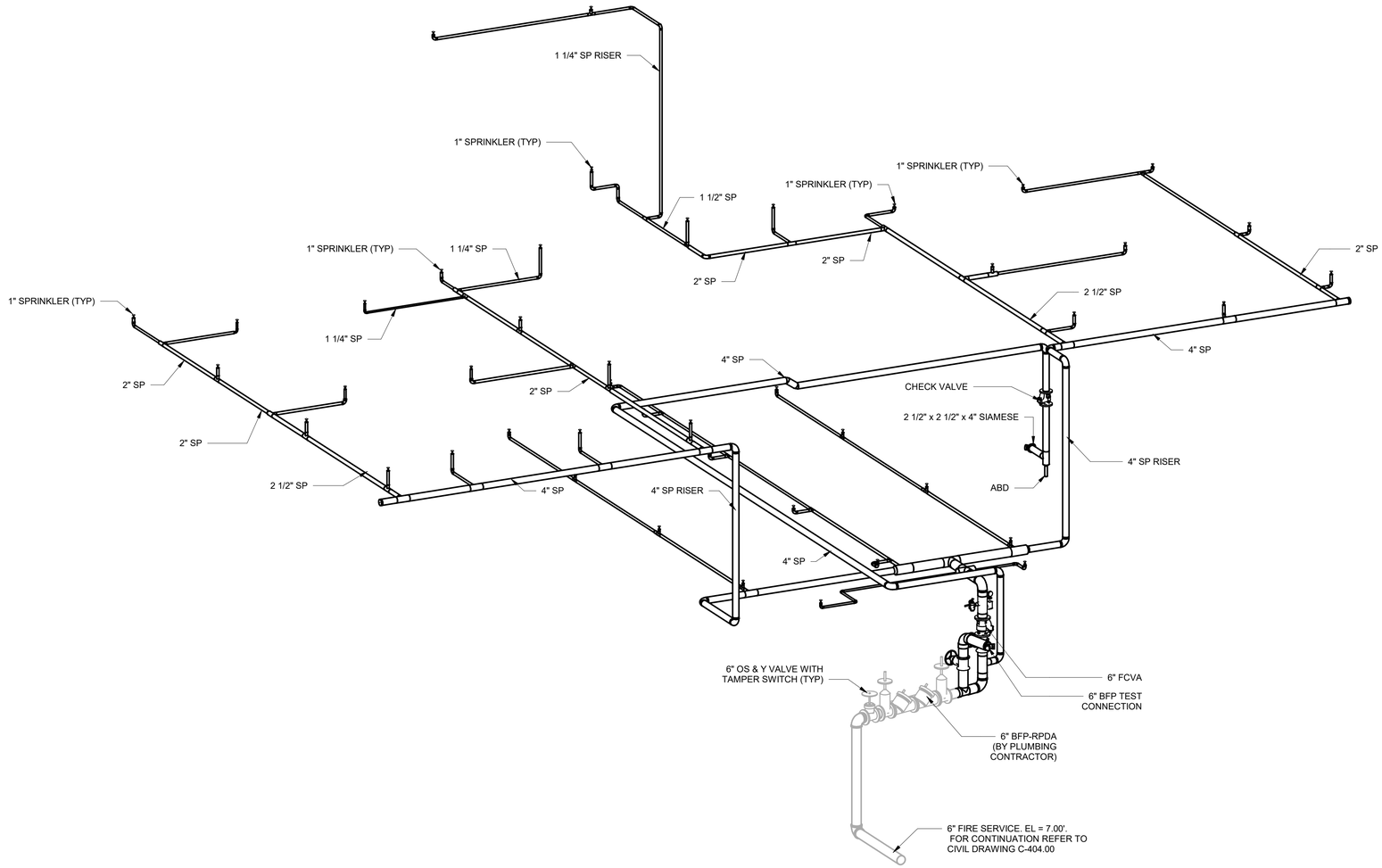
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FIRE RISER DIAGRAM

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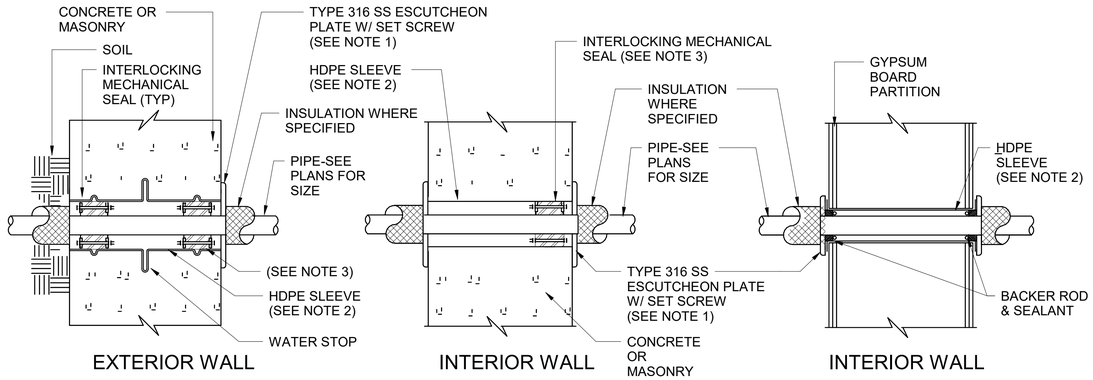
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION
TI-011 DISINFECTION FACILITY - RISER DIAGRAM

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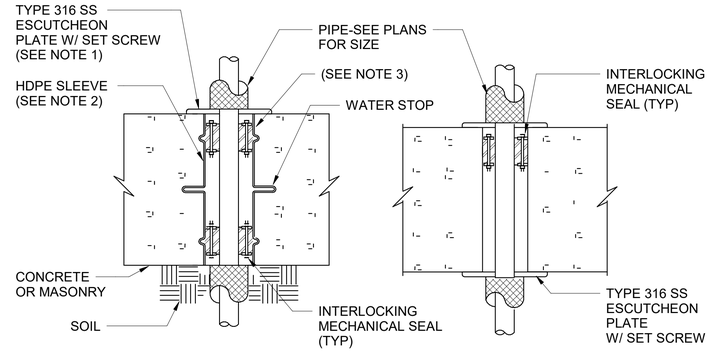


NOTES:

1. WHERE PIPE IS IN CONTACT WITH SOIL, ELIMINATE ESCUTCHEON PLATE.
2. FOR FIRE RATED WALL PENETRATION SUBSITUTE STEEL SLEEVE FOR HDPE.
3. FOR ONE HOUR FIRE RATED PENETRATION PROVIDE ONE FIRE RATED MECHANICAL SEAL. FOR TWO HOUR FIRE RATED PENETRATION PROVIDE TWO FIRE RATED MECHANICAL SEALS.
4. WHERE PIPES PASS THRU EXISTING CONSTRUCTION, CORE DRILL OPENING AND INSTALL MECHANICAL SEALS WITHOUT THE USE OF SLEEVES.

1 PIPE SLEEVES THRU WALL

SCALE: N.T.S.



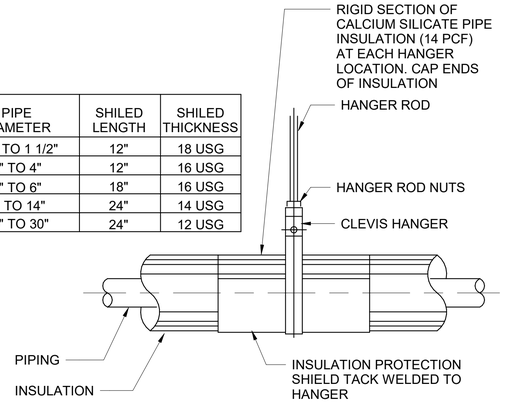
NOTES:

1. WHERE PIPE IS IN CONTACT WITH SOIL, ELIMINATE ESCUTCHEON PLATE.
2. FOR FIRE RATED FLOOR PENETRATION SUBSITUTE STEEL SLEEVE FOR HDPE.
3. FOR ONE HOUR FIRE RATED PENETRATION PROVIDE ONE FIRE RATED MECHANICAL SEAL. FOR TWO HOUR FIRE RATED PENETRATION PROVIDE TWO FIRE RATED MECHANICAL SEALS.
4. WHERE PIPES PASS THRU EXISTING CONSTRUCTION, CORE DRILL OPENING AND INSTALL MECHANICAL SEALS WITHOUT THE USE OF SLEEVES.

2 PIPE SLEEVES THRU FLOOR

SCALE: N.T.S.

PIPE DIAMETER	SHILED LENGTH	SHILED THICKNESS
1/2" TO 1 1/2"	12"	18 USG
2" TO 4"	12"	16 USG
5" TO 6"	18"	16 USG
8" TO 14"	24"	14 USG
16" TO 30"	24"	12 USG



TYPICAL DETAIL HANGER ARRANGEMENT OF INSULATED PIPING

3 PIPE HANGER DETAIL

SCALE: N.T.S.

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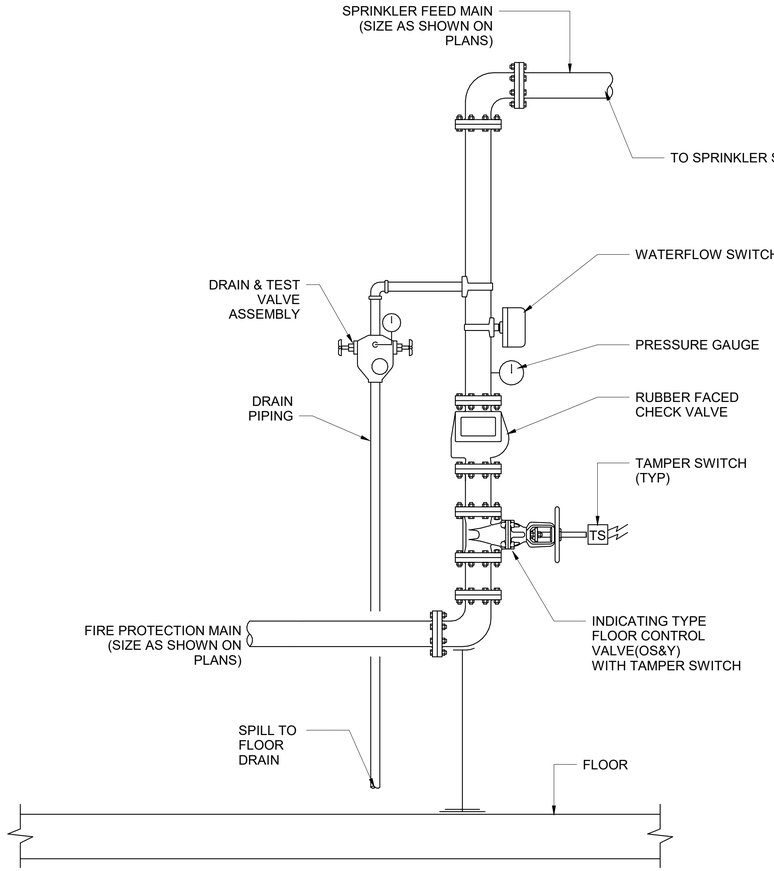
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION DETAILS I

DATE: NOVEMBER 2026
SHEET NO:
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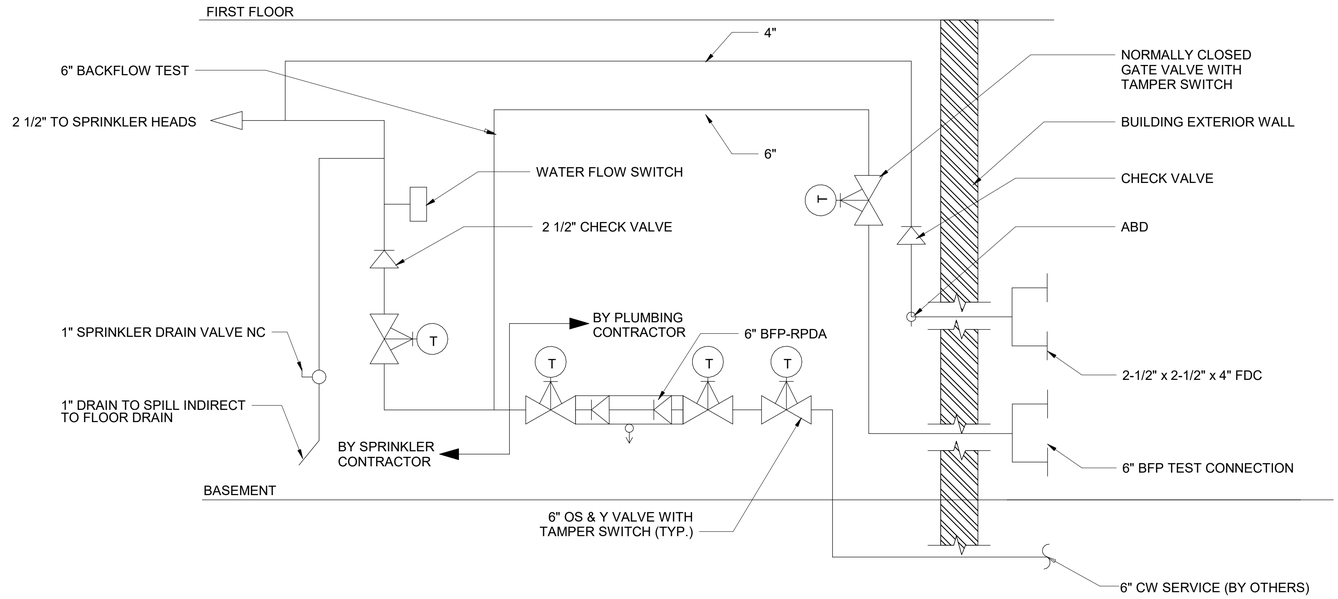
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1 SPRINKLER FLOOR CONTROL VALVE ASSEMBLY (VERTICAL)

SCALE: N.T.S.



2 SPRINKLER RISER DIAGRAM

SCALE: N.T.S.

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE PROTECTION DETAILS II

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ELECTRICAL SYMBOLS

- M / RV — MOTOR STARTER/CONTROLLER (NON-COMBINATION - COMBINATION - MANUAL) RV DENOTES REDUCED VOLTAGE
- LOCAL CONTROL PANEL WITH CONTROLLERS FURNISHED BY EQUIPMENT VENDOR.
- I-2 / GF/WP — DUPLEX CONVENIENCE RECEPTACLE, 2 POLE, 3 WIRE, 120 VOLTS A.C. 20 AMP RECEPTACLE DESIGNATIONS, FIRST NUMBER DENOTES PANEL, SECOND NUMBER DENOTES CIRCUIT NUMBER. GF-DENOTES GROUND FAULT TYPE. WP-DENOTES WEATHERPROOF TYPE
- SINGLE CONVENIENCE RECEPTACLE, 2 POLE, 3 WIRE. REFER TO DRAWINGS FOR AMPERE AND VOLTAGE RATING.
- POWER RECEPTACLE, 3 PHASE, 4 WIRE, 480V A.C. WITH DISCONNECT SWITCH. REFER TO DRAWINGS FOR AMPERE RATING.
- POWER RECEPTACLE, 2 POLE, 3 WIRE 250 VOLTS A.C. REFER TO DRAWINGS FOR AMPERE RATINGS
- COMBINED INTERNET AND PHONE PORT
- S / S / S — POWER ON-OFF SNAP SWITCH, 1PH, 120V AC, 20A
- S a — SINGLE POLE SWITCH - LOWER CASE LETTER DENOTES SWITCHING.
- S 2 — TWO POLE SWITCH
- S 3 — THREE-WAY SWITCH
- S 4 — FOUR-WAY SWITCH
- S M — SINGLE PHASE HORSEPOWER RATED SWITCH
- MS — TWO OR THREE POLE MANUAL STARTER, 20A
- LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER (LP1-2). CROSS LINES INDICATE NUMBER OF CONDUCTORS. HALF HASH MARKS INDICATES NEUTRAL. NUMBER DENOTES WIRE SIZE WHEN NOT #12 AWG. CONTINUE CONDUIT AND WIRE RUN FROM BOX TO DEVICE IN ROOM OR AREA AS NOTED BY BRANCH CIRCUIT NUMBER #10 AWG WIRING SHALL BE USED FOR RUNS BETWEEN PANEL AND FIRST LIGHTING FIXTURE OR RECEPTACLE EXCEEDING 50 FT, UNLESS OTHERWISE NOTED ON DRAWING.
- J / LP1-2 / 10
- INDICATES GROUND CONDUCTOR
- C30-1 — INDICATES HOMERUN AND CONDUIT TAG; REFER TO ONE LINE AND BLOCK DIAGRAMS
- XX-PANEL 20LP1-15 — PANEL, DEVICE OR EQUIPMENT DESIGNATION, PANEL SHOWN WITH ASSOCIATED SUPPLY PANEL AND CIRCUIT NUMBER, UNLESS NOTED OTHERWISE, PROVIDE A 3/4"C-3#12 FOR EACH SUPPLY PANEL TO PANEL, DEVICE OR EQUIPMENT AS REQUIRED.
- PUSHBUTTON STATION
- PUSHBUTTON STATION WITH LOCK-OUT FEATURE
- CS — CONTROL STATION
- H O A — HAND-OFF-AUTO SELECTOR SWITCH CONTROL STATION
- L O R — LOCAL-OFF-REMOTE SELECTOR SWITCH CONTROL STATION
- DEVICE LOCATED IN FIELD AT OR NEAR MOTOR
- DEVICE LOCATED IN CONTROL PANEL
- VCS — CONTROL STATION FURNISHED BY EQUIPMENT VENDOR
- A / AS — AMMETER - AMMETER SWITCH
- V / VS — VOLTMETER - VOLTMETER SWITCH
- F / 60/40 — LINE SWITCH DISCONNECT - UNFUSED OR FUSED F DENOTES FUSING, ONLY WHERE INDICATED. FIRST NUMBER DENOTES SWITCH AMP RATING. SECOND NUMBER DENOTES FUSE SIZE WHEN PROVIDED.
- VFD — VARIABLE FREQUENCY DRIVE
- J OR JB — JUNCTION BOX; SIZE AS REQUIRED BY N.E.C.
- SPD — SURGE PROTECTIVE DEVICE

- FS 123 — EMERGENCY EYE WASH/SHOWER STATION
- T OR TB — TERMINAL BOX; SIZE AS REQUIRED BY N.E.C. AND TO ACCOMMODATE ALL TERMINATIONS ON TERMINAL BLOCKS. TERMINATIONS TO INCLUDE SPARE WIRING.
- MMD — MULTI FUNCTIONAL METERING DEVICE
- LA / G — LIGHTNING ARRESTOR
- PULL BOX; SIZE AS REQUIRED BY N.E.C.
- K1 — LOCK FOR RESPECTIVE KEY INTERLOCK WITH KEY CAPTIVE IN LOCK
- OT — OVERTEMPERATURE DEVICE
- M / 5 — ELECTRIC MOTOR (NUMBER INDICATES HORSEPOWER).
- MV — MOTORIZED VALVE WITH CONTROLLER
- MD — MOTORIZED DAMPER WITH CONTROLLER
- GROUND TEST POINT
- GROUND ROD
- GROUND GRID CABLE CONNECTION
- G — GROUND
- #4/0 GROUND CABLE BURIED 2'-6" BELOW GRADE
- PFD — FUSE-PFD DENOTES PULL FUSE DISCONNECT TYPE
- PC — PHOTOCELL
- CT — CURRENT TRANSFORMER
- a — LED LIGHTING FIXTURE - SURFACE OR PENDANT MOUNTED SEE LIGHTING FIXTURE SCHEDULE FOR TYPE LOWER CASE LETTER DENOTES SWITCHED CIRCUIT.
- c — CEILING OR PENDANT MOUNTED LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE FOR
- WALL MOUNTED LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE FOR TYPE.
- TYPE LOWER CASE LETTER DENOTES SWITCHED CIRCUIT POLE OR STANCHION MOUNTED LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE FOR TYPE.
- EM — 2 LAMP SELF CONTAINED DC EMERGENCY LIGHTING UNIT. SEE LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION. LETTER DENOTES FIXTURE TYPE. CONNECT TO ROOM LIGHTING CIRCUIT AHEAD OF SWITCH.
- EMERGENCY LIGHT FIXTURE REMOTE HEAD
- EXIT SIGN, BATTERY BACKUP TYPE. CONNECT TO ROOM LIGHTING CIRCUIT AHEAD OF SWITCH
- POTENTIAL TRANSFORMER
- 30/100 — (TRIP SIZE) / (FRAME SIZE); 2P — 3 POLE THERMAL-MAGNETIC BREAKER; 2P DENOTES 2 POLE; 1P DENOTES 1 POLE
- SST — RMS TYPE SOLID STATE TRIP FOR BREAKERS WHERE SHOWN ON THE DRAWINGS

- E — LOW VOLTAGE DRAW-OUT POWER CIRCUIT BREAKER ELECTRICALLY OPERATED.
- SST 800/800 (600P) — (FRAME SIZE) / (SENSOR RATING); DENOTE PLUG RATING; DRAWOUT POWER CIRCUIT BREAKER WITH RMS TYPE SOLID STATE TRIP
- 7 MCP — (CONTINUOUS RATING) / (MOTOR CIRCUIT PROTECTOR); AC COMBINATION FULL VOLTAGE NON-REVERSING STARTER WITH MAGNETIC BREAKER
- 1-24 — UNIT HEATER-NUMERAL DENOTES LIGHTING PANEL AND BRANCH CIRCUIT NUMBER
- T — THERMOSTAT
- AIR INTERRUPTER SWITCH WITH FUSING WHERE NOTED
- TRANSFORMER- TYPE AND SIZE AS NOTED ON THE THE DRAWINGS AND IN SPECIFICATIONS
- SUBMERSIBLE CABLES BY VENDOR
- INDICATES NEW EQUIPMENT/CONDUIT
- INDICATES EXISTING EQUIPMENT/CONDUIT
- INDICATES CONCEALED OR UNDERGROUND EQUIPMENT/CONDUIT
- SSC — INDICATES AUTOMATIC TRANSFER SWITCH WITH SOLID STATE CONTROLS AND ACCESSORIES
- A / 30 / 10'-0 AFF — FIXTURE DESIGNATION SYMBOL. SEE LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION AND TYPE. ALL FIXTURES SHOWN IN A ROOM WITH THIS SYMBOL SHALL BE OF TYPE INDICATED BY LETTER; NUMBER IN SYMBOL INDICATES LAMP WATTAGE AND NUMBER OF LAMPS WHERE MORE THAN ONE (UNLESS OTHERWISE NOTED). NUMBER BELOW SYMBOL INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR OR AS NOTED.

INSTRUMENTS

- PS 123 — INSTRUMENT DEVICE: LETTERS IDENTIFY DEVICE FUNCTION, NUMBERS WHERE INDICATED DENOTE LOOP NUMBER
- PC — PRESSURE CONTROLLER
- PS — PRESSURE SWITCH (PSH DENOTES PRESSURE SWITCH HIGH AND PSL DENOTES PRESSURE LOW)
- dPSH — DIFFERENTIAL PRESSURE SWITCH (dPSH DENOTES PRESSURE SWITCH HIGH AND dPSL DENOTES PRESSURE SWITCH LOW)
- CSH — DIAPHRAGM LEAK DETECTOR
- FSH — FLOW SWITCH (FSH DENOTES FLOW SWITCH HIGH AND FSL DENOTES FLOW SWITCH LOW)
- PIT — PRESSURE TRANSMITTER (I DENOTES INDICATING TYPE)
- VIT — VIBRATION TRANSMITTER (I DENOTES INDICATING TYPE)
- A / PTT — INDICATING LIGHT LETTER "A" DENOTES AMBER COLOR LETTER "R" DENOTES RED COLOR. "PTT" DENOTES PUSH TO TEST TYPE LIGHT
- SL — STROBE LIGHT
- HS — HIGH SPEED SWITCH
- ZS — LIMIT SWITCH
- AIT — ANALYSIS INDICATING TRANSMITTER (AE DENOTES ANALYSIS ELEMENT)
- TIT — TEMPERATURE TRANSMITTER (TE DENOTES TEMPERATURE ELEMENT)
- TSH — TEMPERATURE SWITCH (TSH DENOTES TEMPERATURE SWITCH HIGH AND TSL DENOTES TEMPERATURE SWITCH LOW)
- LS — LEVEL SWITCH (LSH DENOTES LEVEL SWITCH HIGH AND LSL DENOTES LEVEL SWITCH LOW)
- MV — MOTORIZED VALVE
- SV — SOLENOID VALVE
- ZC — STROKE POSITIONER
- LIT — LEVEL INDICATING TRANSMITTER (LE DENOTES LEVEL ELEMENT)
- FIT — FLOW INDICATING TRANSMITTER (FE DENOTES FLOW ELEMENT)

MISCELLANEOUS SPECIAL SYSTEMS

- X / XX — COMMUNICATION/TELEPHONE
  - D = DESK HANDSET AND SYSTEM OUTLET JACK
  - W = WALL HANDSET AND SYSTEM OUTLET JACK
  - EX = EXPLOSION PROOF
  - WP = WEATHERPROOF
  - (K) = KEYSET
  - (I) = INTERCOM
- XX — SPEAKER HORN
  - H = HORN
  - PS = PAGING SPEAKER
  - C = CEILING MOUNTED SPEAKER
- R — ALARM BEACON
- EPC — EMERGENCY PULL CORD
- END OF LINE RESISTOR
- CCTV — CLOSED CIRCUIT TV (CCTV)

GENERAL NOTES

1. THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
2. PROVIDE JUNCTION BOX FOR ANY DEVICE WITH PIG TAIL SUCH AS SOLENOID VALVES, LIMIT SWITCHES, SMOKE DETECTORS AND ETC. FOR PROPER ELECTRICAL CONNECTION. PROVIDE ALL HARDWARE FOR MOUNTING OF JUNCTION BOX.
3. PROVIDE INDEPENDENT SUPPORT FOR DISCONNECT SWITCHES, CONTROL STATIONS, BOXES, PANELS, ETC. WHERE NO WALLS OR OTHER STRUCTURAL SURFACE EXISTS.
4. EQUIPMENT SIZES AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHED.

ABBREVIATIONS

AC	ALTERNATING CURRENT
AFF AFG	ABOVE FINISH FLOOR ABOVE FINISHED GRADE
ARS	ARC REDUCTION SWITCH
ATC	AUTOMATIC TEMPERATURE CONTROL PANEL
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CBV	CABLE BY VENDOR, INSTALLED BY CONTRACTOR
CKT	CIRCUIT
CNT	CONTROL
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
DN	DOWN
DP	DISTRIBUTION PANEL
EC	EMPTY CONDUIT
EF	EXHAUST FAN
EL	ELEVATION
EW	EACH WAY
EXP	EXPLOSION PROOF
EXIST	EXISTING
FDR	FEEDER
FIXT	FIXTURE
FVNR	FULL VOLTAGE NON-REVERSING
GI	GALVANIZED IRON
G OR GND	GROUND
GF	GROUND FAULT
HOA	HAND-OFF-AUTOMATIC
I&C	INSTRUMENTATION & CONTROL
IMLR	INTERNAL MIXED LIQUOR RETURN
JB	JUNCTION BOX
K	KCMIL (ONE THOUSAND CIRCULAR MILLS)
LCP	LOCAL CONTROL PANEL
L.O.	LOCKOUT
LP	LIGHTING PANELBOARD
LTG	LIGHTING
M	MOTOR
MCC	MOTOR CONTROL CENTER
MCM	ONE THOUSAND CIRCULAR MILS
MMD	MICROPROCESSOR-BASED METERING DEVICE
MTS	MANUAL TRANSFER SWITCH
NA	NON-AUTOMATIC
NCTC	NORMALLY CLOSED, TIMED TO CLOSE
NCTO	NORMALLY CLOSED, TIMED TO OPEN
NOTC	NORMALLY OPEN, TIMED TO CLOSED
NOTO	NORMALLY OPEN, TIMED TO OPEN
NTS	NOT TO SCALE
OL'S	MOTOR OVERLOAD HEATERS
OT	OVER TEMPERATURE
PB	PULL BOX
PFD	PULL FUSE DISCONNECT
PNL	PANEL
PP	POWER PANEL
PT	POTENTIAL TRANSFORMER
PWR	POWER
R1	RELAY #1
RECEP	RECEPTACLE
RVNR	REDUCED VOLTAGE NON-REVERSING
(S) (SH)	SHIELDED CABLE
SP	SPARE
SS	SELECTOR SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEMP	TEMPERATURE
TEW	THERMOCOUPLE EXTENSION WIRE
TR1	TIME DELAY RELAY #1
TW	TWISTED PAIR
UON	UNLESS OTHERWISE NOTED
USE	UNDERGROUND SERVICE ENTRANCE CABLE
V	VOLT
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
WT	WINDING TEMPERATURE RELAY
XFMR	TRANSFORMER
NEC	NATIONAL ELECTRICAL CODE
(TYP)	TYPICAL
Ø	PHASE
#	NUMBER

BID SET
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DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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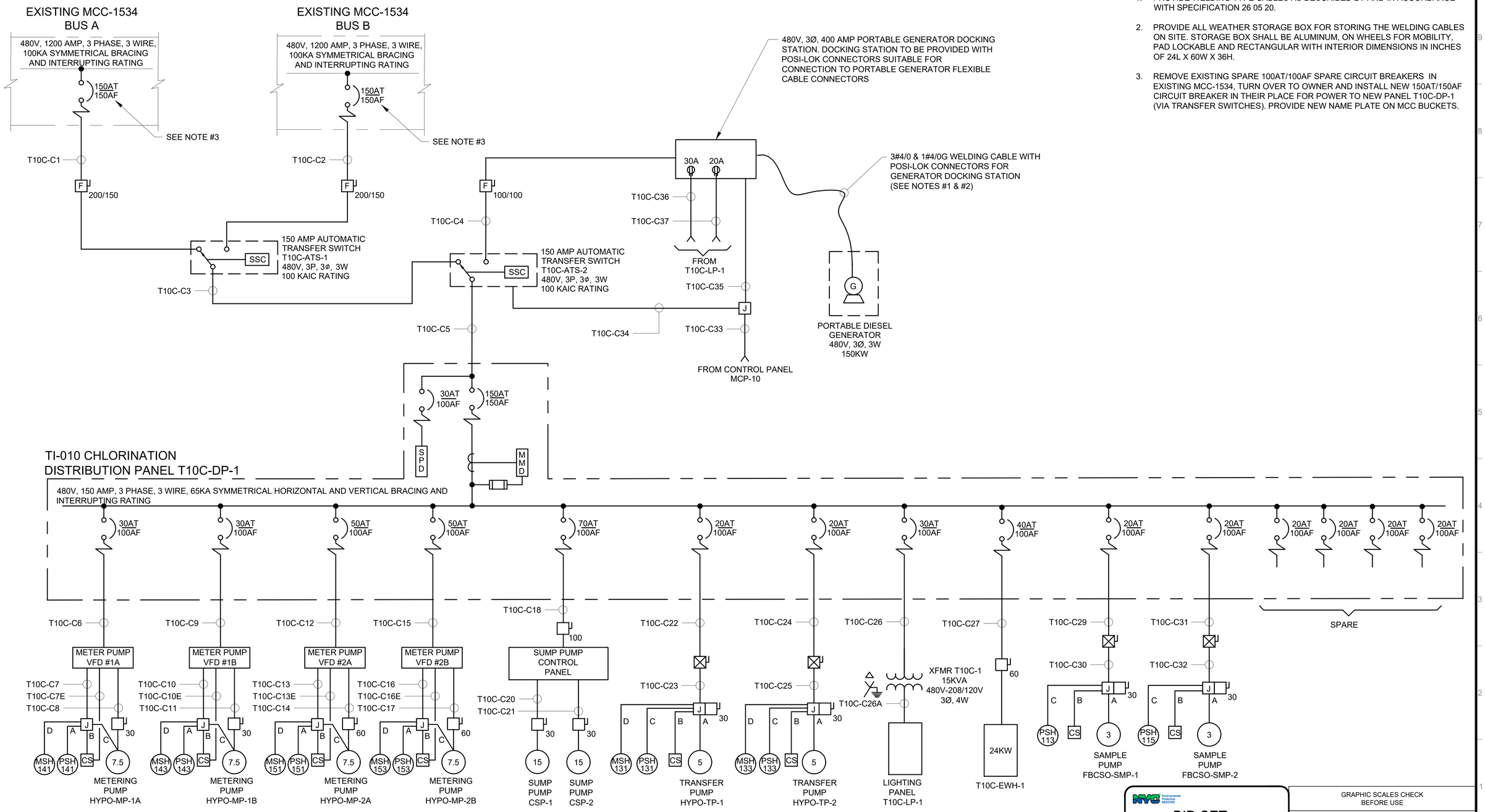
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
SYMBOLS AND LEGEND

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-001.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



NOTES:

1. PROVIDE WELDING TYPE CABLES AS DESCRIBED BY AND IN ACCORDANCE WITH SPECIFICATION 26 05 20.
2. PROVIDE ALL WEATHER STORAGE BOX FOR STORING THE WELDING CABLES ON SITE. STORAGE BOX SHALL BE ALUMINUM, ON WHEELS FOR MOBILITY, PAD LOCKABLE AND RECTANGULAR WITH INTERIOR DIMENSIONS IN INCHES OF 24L X 60W X 36H.
3. REMOVE EXISTING SPARE 100AT/100AF SPARE CIRCUIT BREAKERS IN EXISTING MCC-1534, TURN OVER TO OWNER AND INSTALL NEW 150AT/150AF CIRCUIT BREAKER IN THEIR PLACE FOR POWER TO NEW PANEL T10C-DP-1 (VIA TRANSFER SWITCHES). PROVIDE NEW NAME PLATE ON MCC BUCKETS.

BID SET
DATE ISSUED: NOVEMBER 2026

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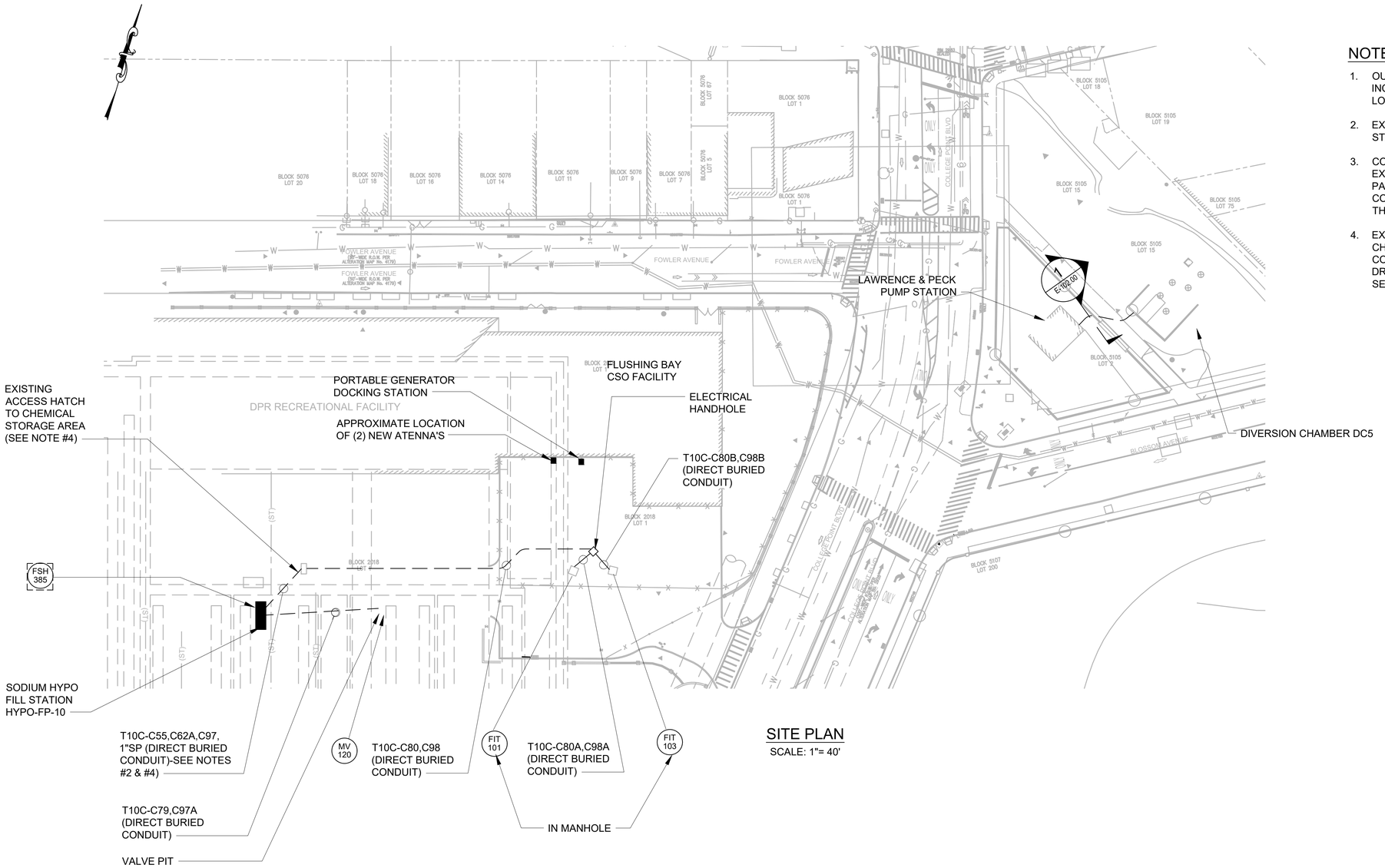
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-010 CHLORINATION FACILITY
ONE LINE DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
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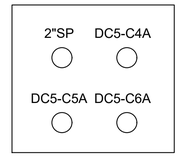
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SITE PLAN
SCALE: 1"= 40'

NOTES:

1. OUTDOOR AREAS ARE A CORROSIVE LOCATION. ALL EQUIPMENT, MATERIALS, INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS CLASSIFICATION.
2. EXTEND SPARE CONDUITS FROM CHEMICAL STORAGE AREA SHAFT TO FILL STATION AREA. PROVIDE PULL STRING AND CAP AT BOTH ENDS.
3. CONDUIT INDICATED TO BE DIRECT BURIED, CONTRACT SHALL SAWCUT EXISTING PAVEMENT IN PARKING LOT INSTALL CONDUIT AN RESTORE PAVEMENT TO EXISTING CONDITION. COORDINATE INSTALLATION OF BURIED CONDUITS WITH OWNER TO ENSURE NO DISRUPTION TO VEHICLE TRAFFIC IN THE PARKING LOT.
4. EXISTING HATCH COVERS A PIPE CHASE WHICH EXTENDS DOWN TO THE CHEMICAL STORAGE AREA. CONTRACTOR SHALL UTILIZE CHASE TO INSTALL CONDUIT FROM STORAGE UP TO EQUIPMENT SHOWN AT GRADE LEVEL ON THIS DRAWING. FOR APPROXIMATE LOCATION OF PIPE CHASE IN STORAGE AREA SEE DRAWINGS E-105.



1 / E-102.00 SECTION
SCALE: NONE

BID SET
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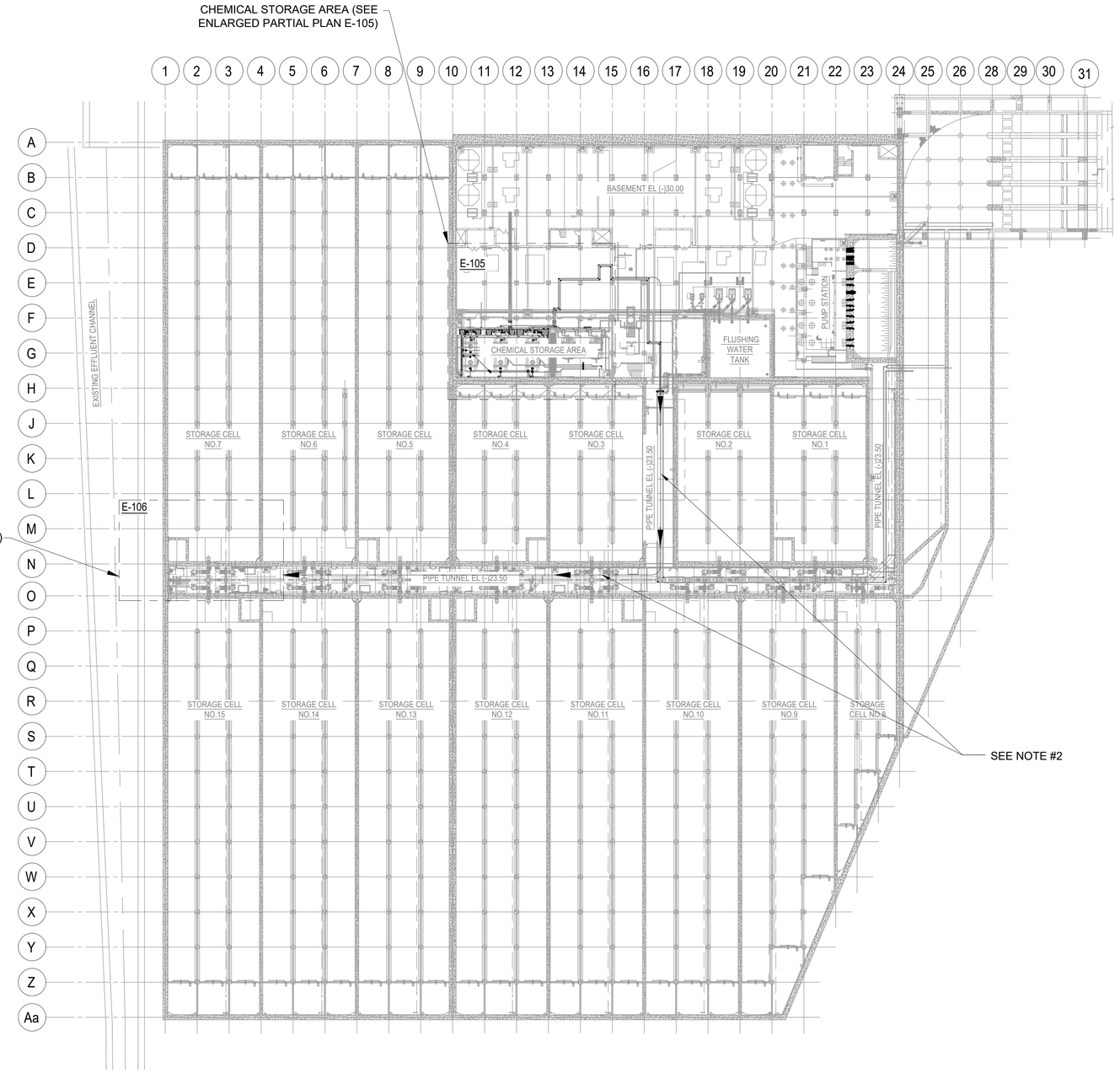
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-010 CHLORINATION FACILITY
SITE PLAN

DATE: NOVEMBER 2026
SHEET NO:
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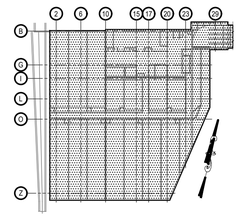


STORAGE FACILITY - BASEMENT - OVERALL PLAN

SCALE: 1"=40'-0"

NOTES:

1. THE PIPE TUNNELS ARE A DUSTY LOCATION. ALL EQUIPMENT, MATERIALS, INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS CLASSIFICATION.
2. UTILIZE PIPE TUNNELS TO ROUTE CONDUITS BETWEEN CHEMICAL STORAGE AREA TO REMOTE END OF TUNNEL SHOWN ON E-106.



KEY PLAN

1"=40' 0 40 80 FT.

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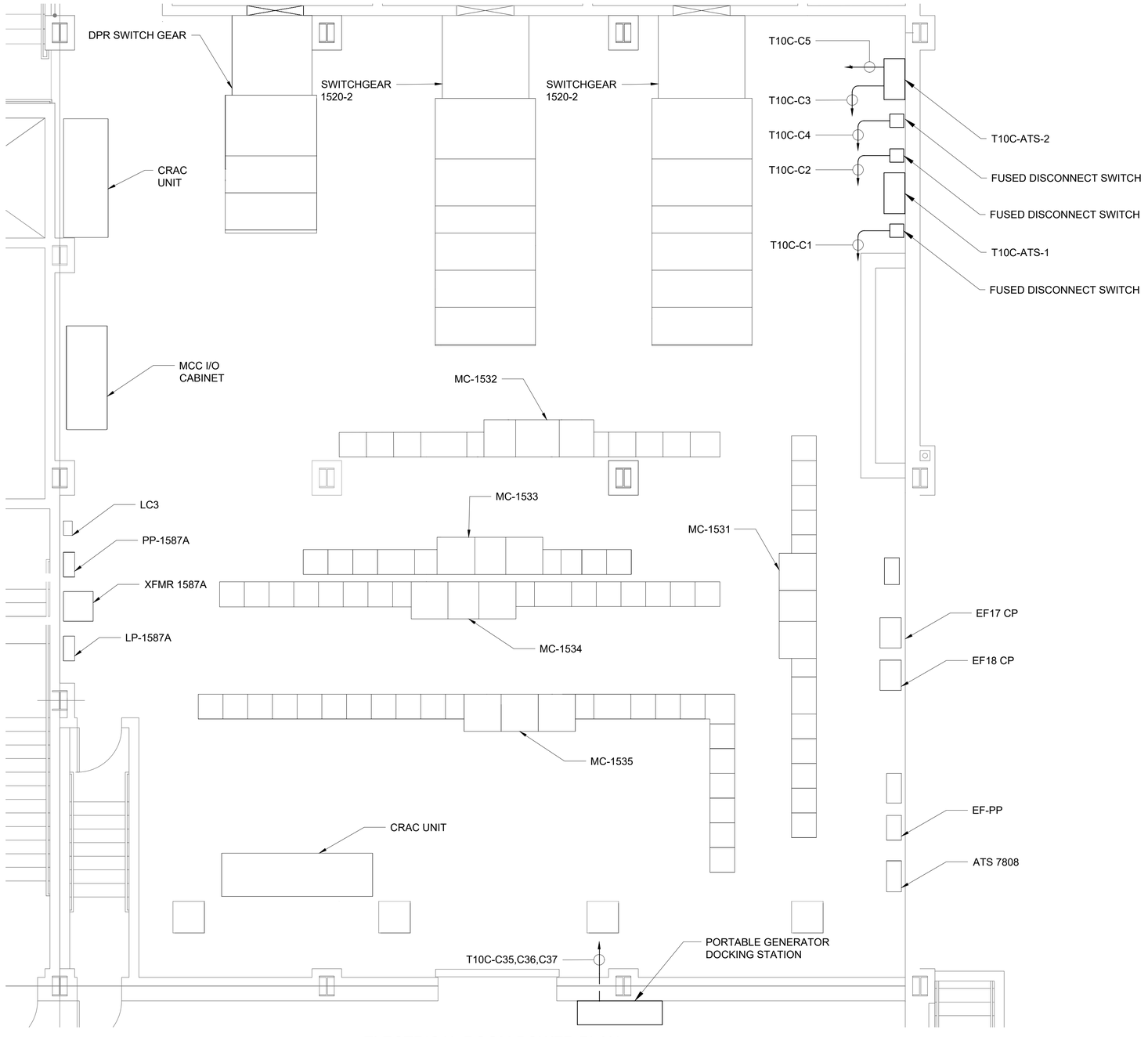
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
BASEMENT LEVEL - PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-103.00

Last Saved By: Alyer
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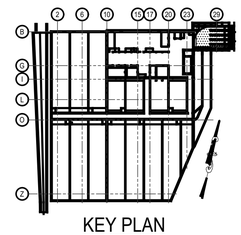


ELECTRICAL ROOM POWER PLAN

SCALE: 3/16"=1'-0"

NOTES:

1. THE ELECTRICAL ROOM IS A DUSTY LOCATION. ALL EQUIPMENT, MATERIALS, INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS CLASSIFICATION.



KEY PLAN

BID SET

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SECTION MANAGER:

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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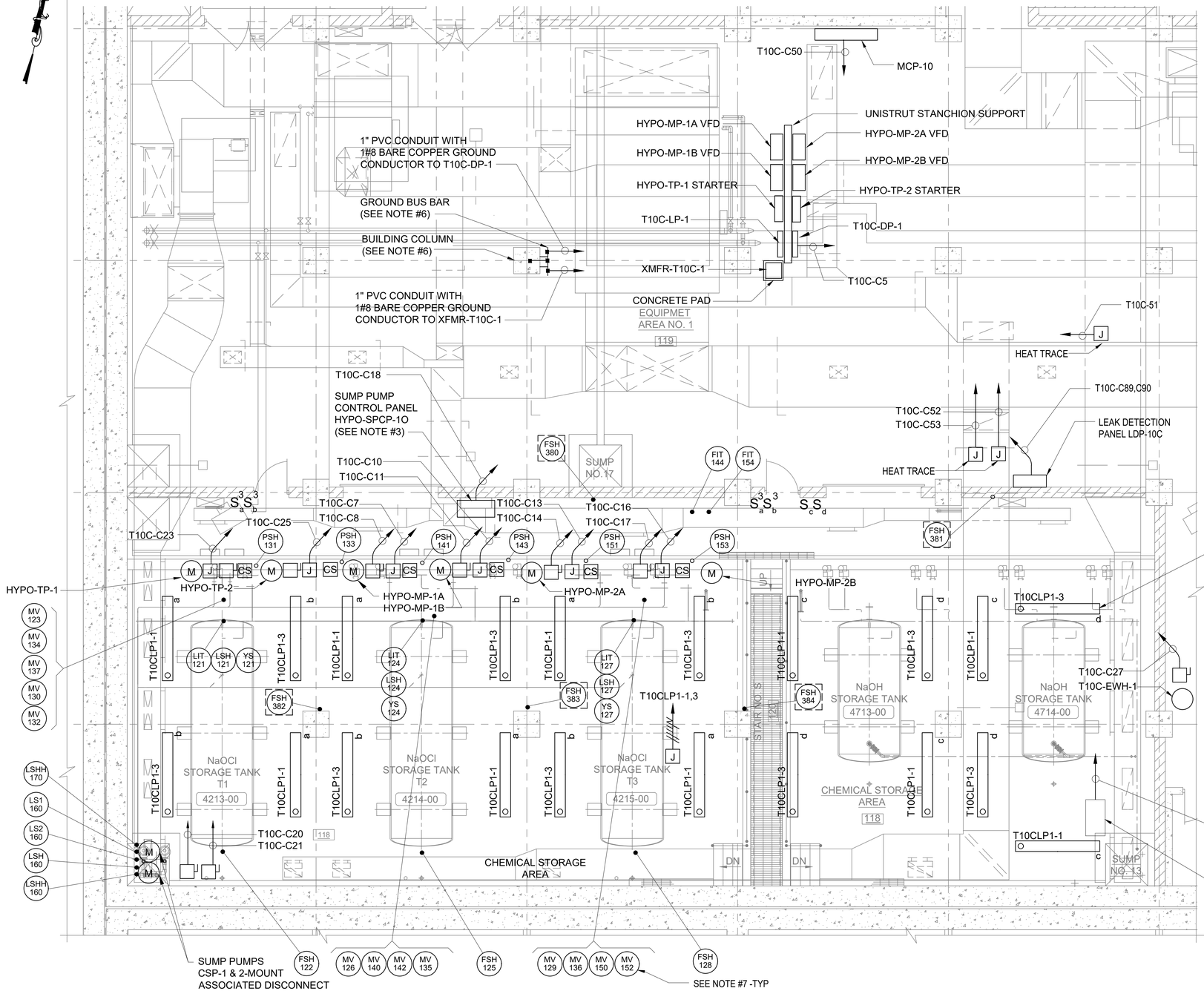
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-010 CHLORINATION FACILITY
ELECTRICAL ROOM POWER PLAN

DATE: NOVEMBER 2026
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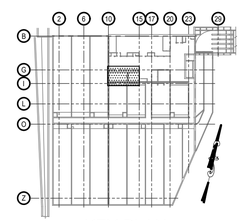


CHEMICAL STORAGE AREA - LOWER ENLARGED PARTIAL PLAN

SCALE: 3/16"=1'-0"

NOTES:

1. THE EQUIPMENT AREA NO.1 IS A DUSTY LOCATION.THE CHEMICAL STORAGE ROOM IS A CORROSIVE LOCATION ALL EQUIPMENT, MATERIALS, INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS CLASSIFICATION.
2. DISCONNECT AND REMOVE EXISTING 1' X 8' FLUORESCENT FIXTURE AND REPLACE WITH NEW FIXTURES ITS PLACE. DEMOLISH EXISTING CONDUIT AND WIRE REPLACE WITH NEW CONDUIT AND WIRING. DEMOLISH EXISTING ASSOCIATED LIGHT SWITCHES AND REPLACE WITH NEW IN LOCATIONS SHOWN. POWER FIXTURES FROM NEW PANEL T0C-LP-1.
3. DEMOLISH EXISTING SUMP PUMP CONTROL PANEL, SUMP PUMPS AND ASSOCIATED CONDUIT AND WIRING AND REPLACE WITH NEW SUMP CONTROL PANEL AND SUMP PUMP MOTORS.
4. FOR CLARITY CONDUIT ROUTING IS NOT SHOWN. ONLY THE MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE DIAGRAM, BLOCK DIAGRAM AND CONDUIT AND CABLE SCHEDULE FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED BY ELECTRICAL CODE. CONTRACTOR SHALL COORDINATE IN THE FIELD CONDUIT INSTALLATION.
5. UTILIZE EXISTING PIPE CHASE TO ROUTE CONDUITS FROM CHEMICAL STORAGE AREA UP TO GRADE. SEE SITE PLAN ON DRAWING FOR E-102 FOR CONTINUATION AND ROUTING OF CONDUITS.
6. CORE DRILL COLUMN TO EXPOSE REBAR INSTALL GROUND BUS BAR ON COLUMN AND CONNECT TO REBAR WITH #4/0 BARE COPPER GROUND CONDUCTOR.
7. INSTRUMENT LOCATION ARE APPROXIMATE AND INTENDED TO SHOW THE GENERAL AREA IN WHICH THEY ARE LOCATED. ACTUAL LOCATED TO BE DETERMINED BASED ON INSTALLATION OF THE PIPE ROUTING ETC.



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

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SECTION MANAGER:

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ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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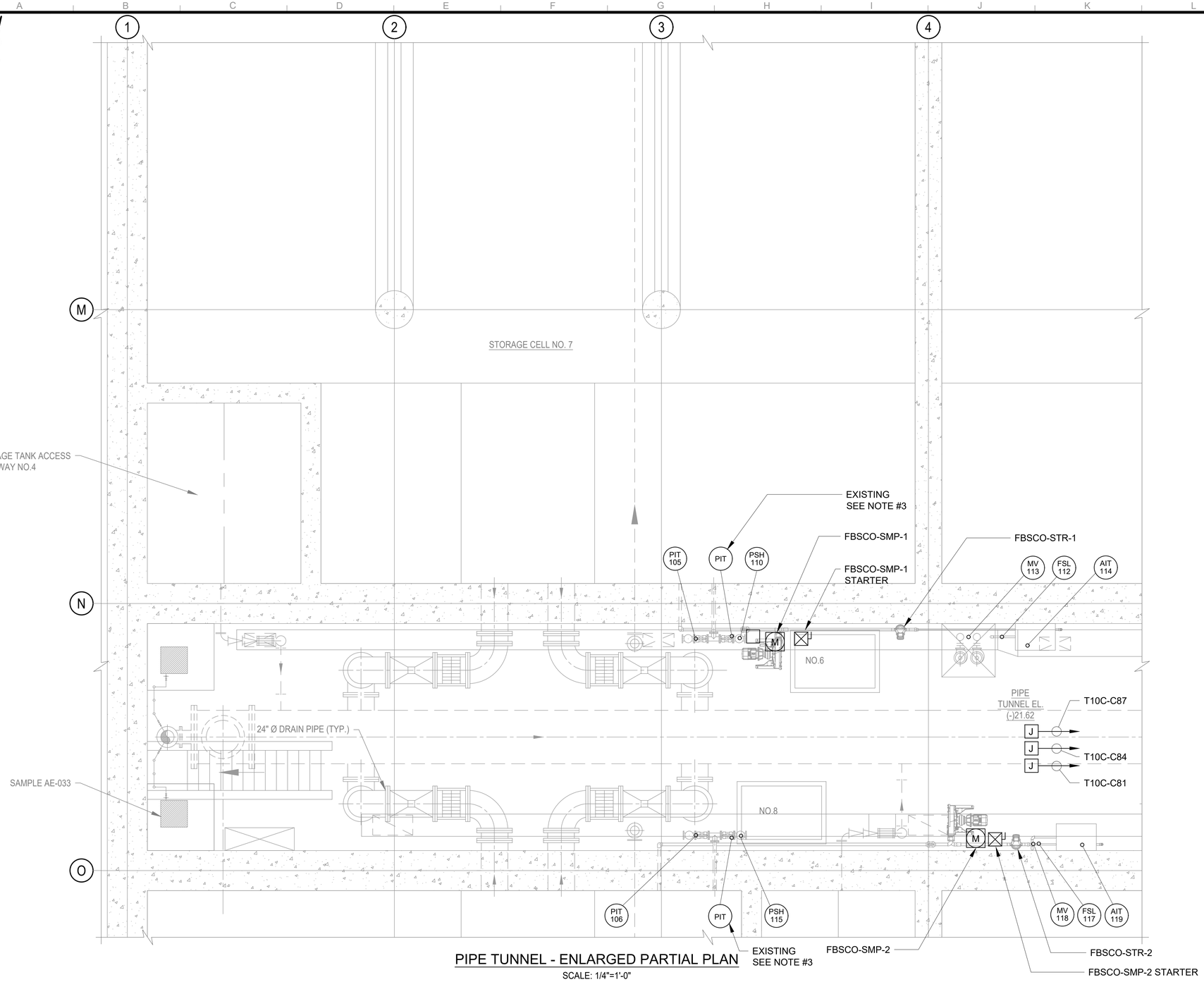
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-010 CHLORINATION FACILITY
LOWER ENLARGED PARTIAL POWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-105.00

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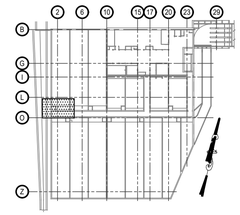


PIPE TUNNEL - ENLARGED PARTIAL PLAN

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

NOTES:

1. THE PIPE TUNNEL IS A DUSTY LOCATION. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS.
2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE AND BLOCK DIAGRAM FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.
3. DISCONNECT AND RECONNECT EXISTING PIT AFTER PIPING HAS BEEN MODIFIED



KEY PLAN

1/4"=1'-0" 0 4 8 FT.

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CHECKED BY: TM
DESIGN LEAD: TIMOTHY MCDONALD, PE
SECTION MANAGER:

ARCADIS

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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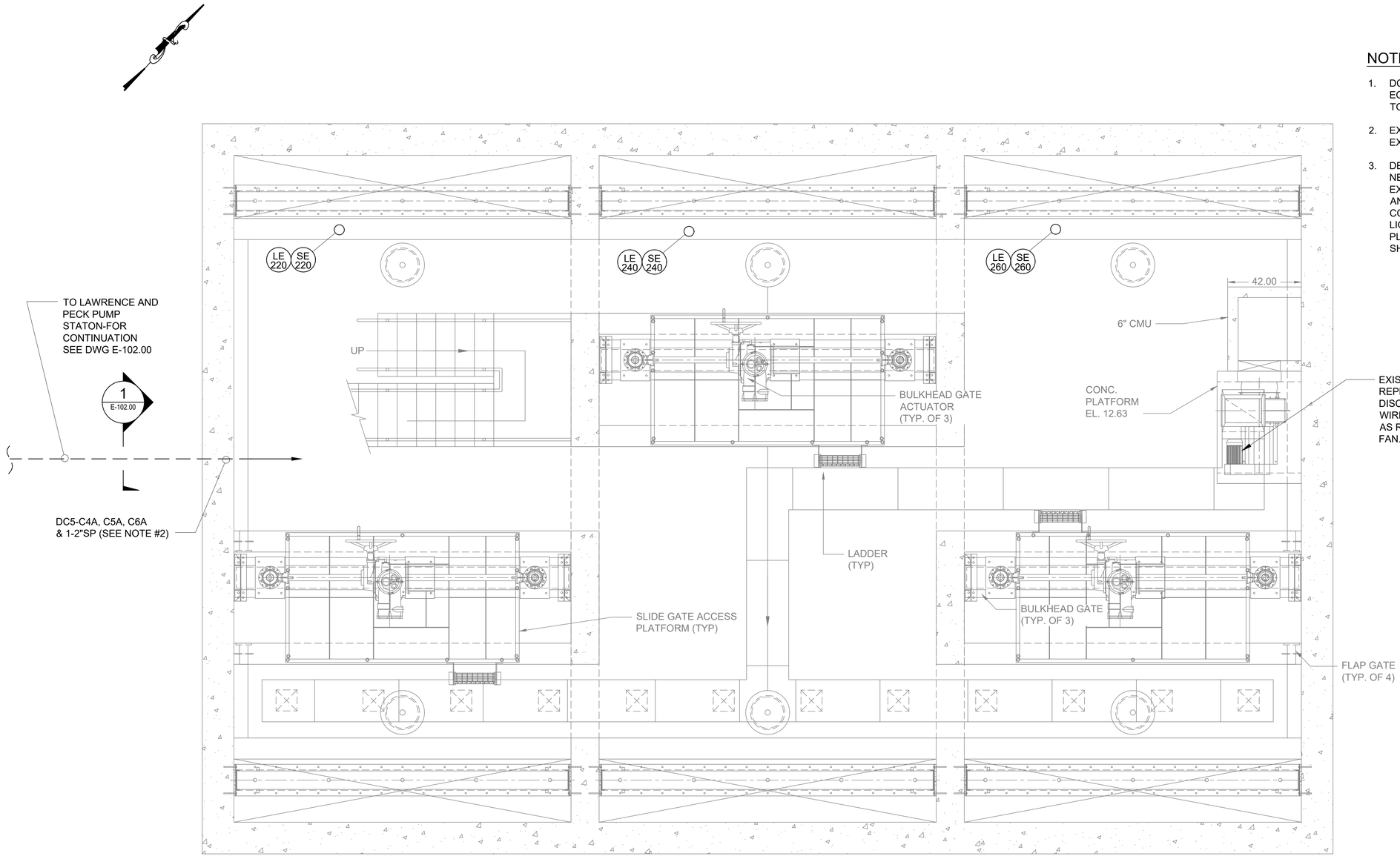
NEW YORK CITY ENVIRONMENTAL PROTECTION
BUREAU OF ENGINEERING DESIGN & CONSTRUCTION
96-05 HORACE HARDING EXPRESSWAY 5th FLOOR
CORONA, NEW YORK 11368
www.nyc.gov/dep

CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
MECHANICAL
TI-010 CHLORINATION FACILITY
ENLARGED PARTIAL PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-106.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

Last Saved By: Alyer
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Drawing File Name & Drive Location: C:\Users\Alyer\DC\ACCDocs\Arcadis\AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities\Project Files\01_Design_Dwgs\08_ElectricalIE-106.00.dwg
Last Date Saved: 11/2/2026 8:43 AM
Date & Time Plotted: 11/2/2026 8:53 AM
Plot Style Table: BEDC_Acad_2021.ctb
Plot Scale: 1:1



NOTES:

1. DC5 IS A CLASS I, DIV 2 AND CORROSIVE LOCATION. ALL EQUIPMENT, MATERIALS, INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS CLASSIFICATION.
2. EXTEND 2" SPARE CONDUIT 4 INCHES INTO DC5, PROVIDE EXPLOSION-PROOF SEALING FITTING, PULL STRING AND CAP.
3. DEMOLISH TEN EXISTING LIGHT FIXTURES AND REPLACE WITH NEW TYPE "L" FIXTURES. DEMOLISH FIXTURES ASSCOCIATED EXISTING CONDUIT AND WIRING AND PROVIDE NEW CONDUIT AND WIRING (FIELD DETERMINE 120 VOLT POWER SOURCE) AND CONNECT TO NEW FIXTURES. DEMOLISH EXISTING ASSOCIATED LIGHT SWITCHES AND REPLACE WITH NEW SWITCHES IN THEIR PLACE. CONDUITS SHALL BE 3/4" MINIMUM AND CONDUCTORS SHALL BE #12 AWG QUANTITY AS REQUIRED.

DIVERSION CHAMBER NO. 5 - OPERATING FLOOR - POWER PLAN

SCALE: 3/8"=1'-0"

3/8"=1'-0" 0 1 2 3 5 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

IF SHEET IS LESS THAN 22" X 34" IT IS A REDUCED PRINT. SCALE ACCORDINGLY

NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

DESIGNED BY: GM
DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

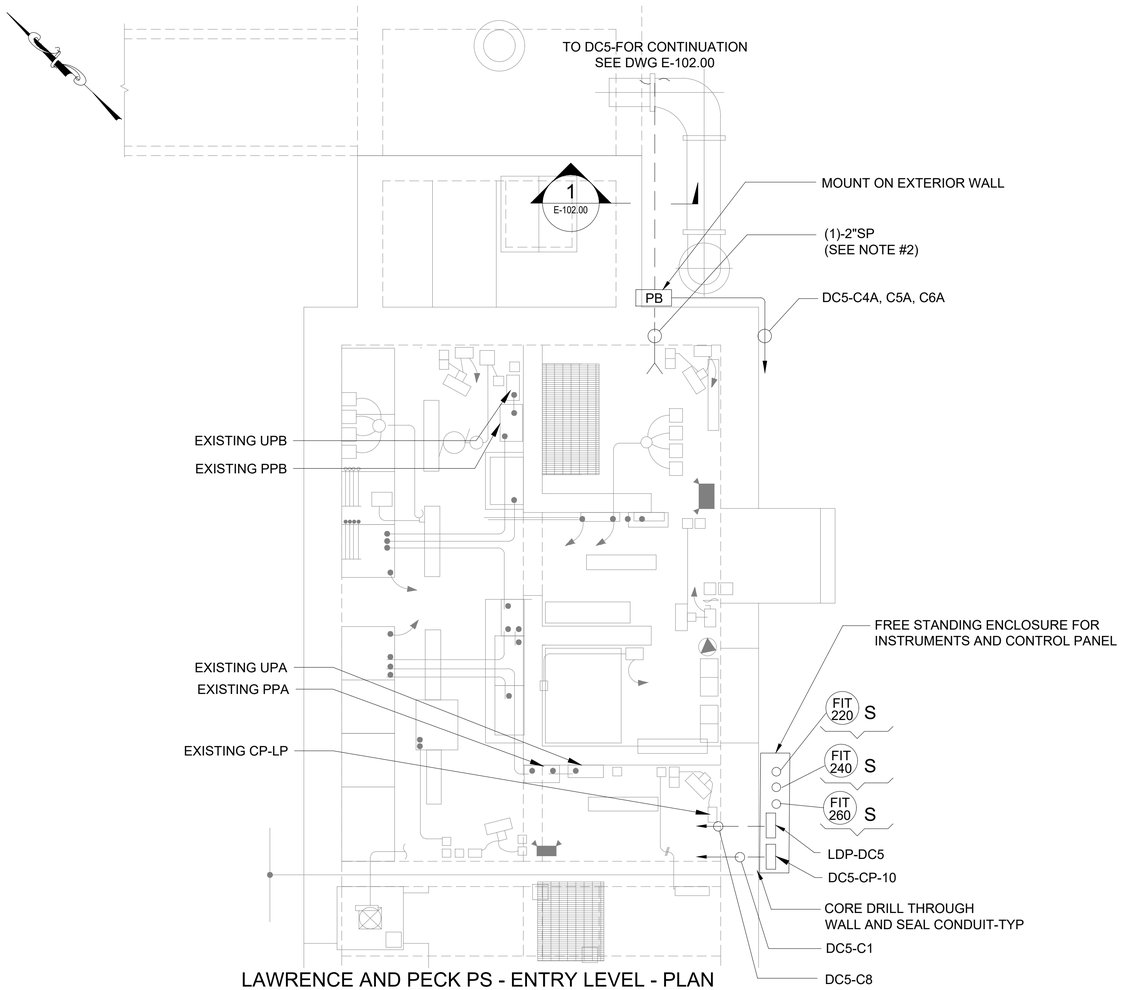
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CORONA, NEW YORK 11368
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-010 CHLORINATION FACILITY - DC-5
OPERATING FLOOR - PLAN

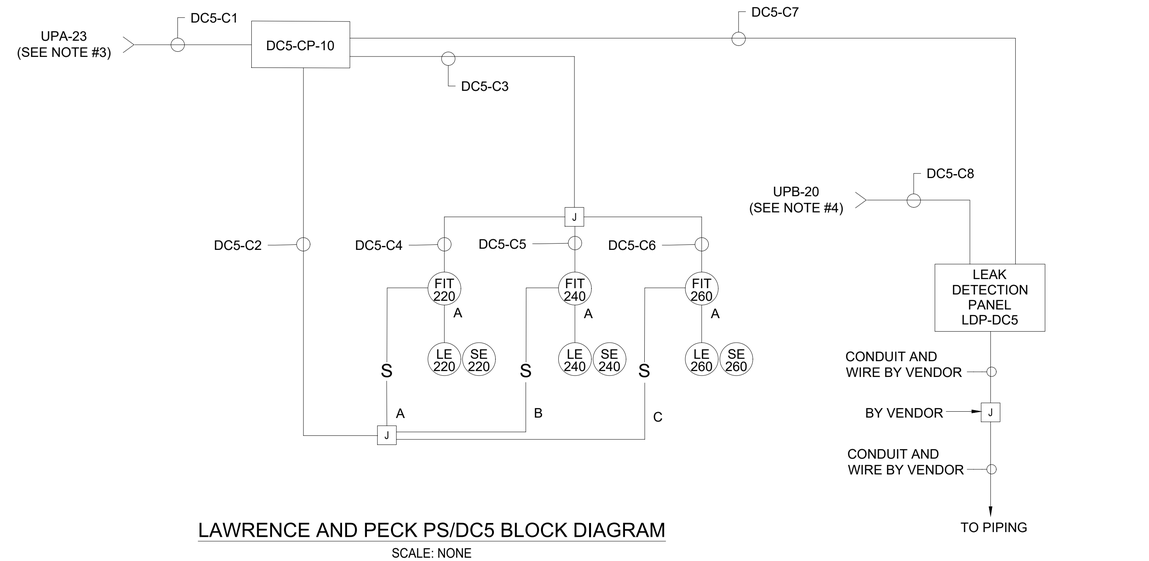
DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-107.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



LAWRENCE AND PECK PS - ENTRY LEVEL - PLAN

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



LAWRENCE AND PECK PS/DC5 BLOCK DIAGRAM

SCALE: NONE

NOTES:

1. THE LAWRENCE AND PECKS PUMPS STATION IS A DUSTY LOCATION, OUTDOOR AREAS ARE A CORROSIVE LOCATION. ALL EQUIPMENT, MATERIALS, INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS CLASSIFICATION.
2. EXTEND (1) 2" SPARE CONDUITS 4 INCHES INTO PUMP STATION, PROVIDE PULL STRING AND CAP.
3. INSTALL (1) 20 AMP SINGLE POLE BREAKERS IN EXISTING PANEL UPA BLANK SLOT, CKT #23. CIRCUIT #23 SHALL BE USED TO POWER PANEL DC5-CP-10.
4. INSTALL (1) 20 AMP SINGLE POLE BREAKERS IN EXISTING PANEL UPB BLANK SLOT, CKT #20. CIRCUIT #20 SHALL BE USED TO POWER PANEL LDP-DC5.

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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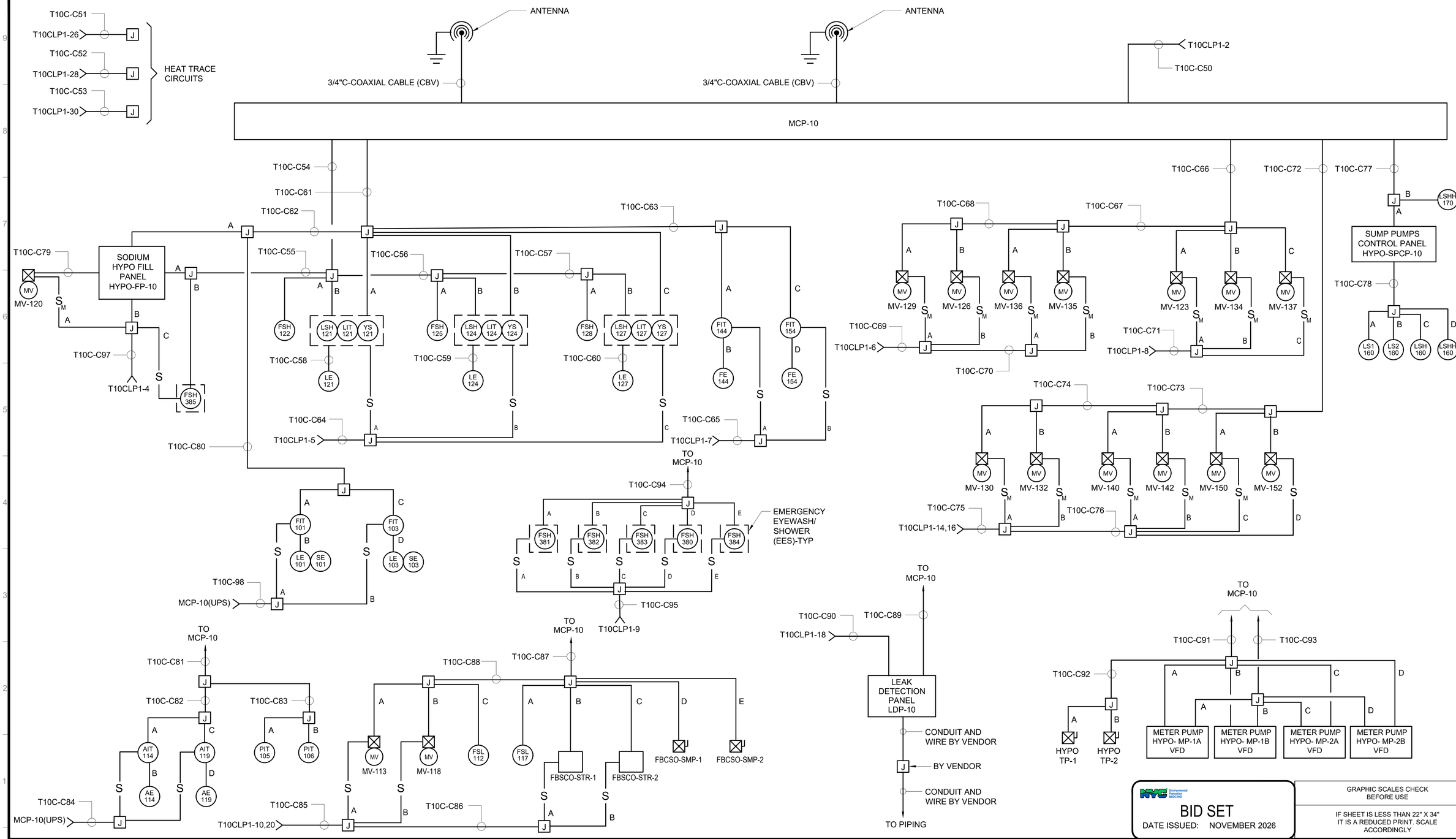
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-010 LAWRENCE AND PECK PS
ENTRY LEVEL - PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-108.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

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Last Date Saved: 12/15/2025 9:47 AM
Date & Time Plotted: 11/2/2026 8:55 AM
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DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

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NYC Environmental Protection

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

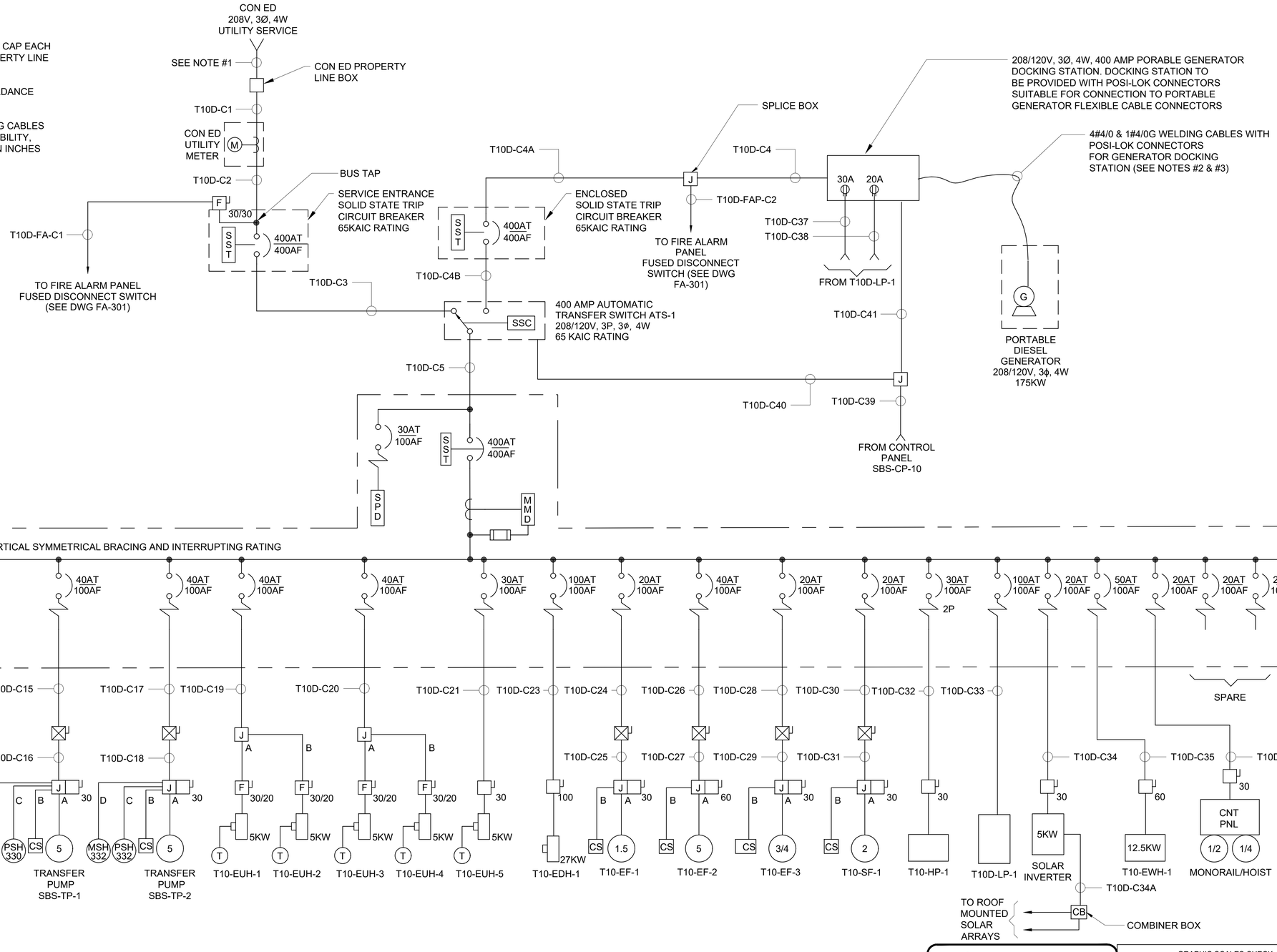
ELECTRICAL
TI-010 CHLORINATION FACILITY
BLOCK DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-109.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

NOTES:

1. PROVIDE (2)-4" EMPTY CONDUITS FOR CON ED USE. STUB OUT AND CAP EACH CONDUIT FROM PROPERTY BOX. COORDINATE LOCATION OF PROPERTY LINE BOX WITH CON ED.
2. PROVIDE WELDING TYPE CABLES AS DESCRIBED BY AND IN ACCORDANCE WITH SPECIFICATION 26 05 20.
3. PROVIDE ALL WEATHER STORAGE BOX FOR STORING THE WELDING CABLES ON SITE. STORAGE BOX SHALL BE ALUMINUM, ON WHEELS FOR MOBILITY, PAD LOCKABLE AND RECTANGULAR WITH INTERIOR DIMENSIONS IN INCHES OF 24L X 60W X 36H.



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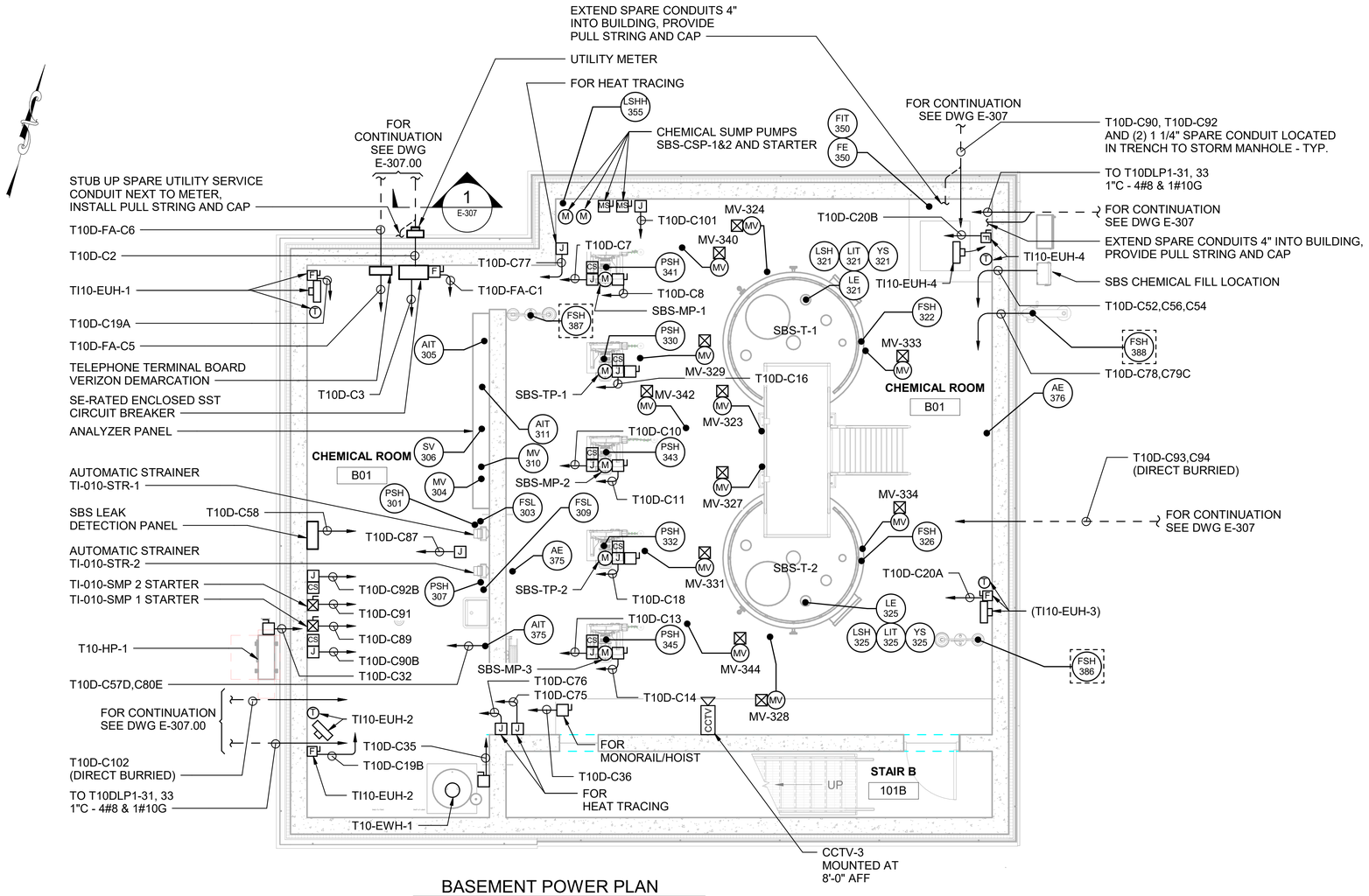
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-010 DECHLORINATION FACILITY
ONE LINE DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-301.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



BASEMENT POWER PLAN

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

NOTES:

1. THE CHEMICAL ROOM IS A CORROSIVE LOCATION. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE, BLOCK DIAGRAM AND CONDUIT AND CABLE DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.

1/4"=1'-0" 0 4 8 FT.

BID SET
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CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

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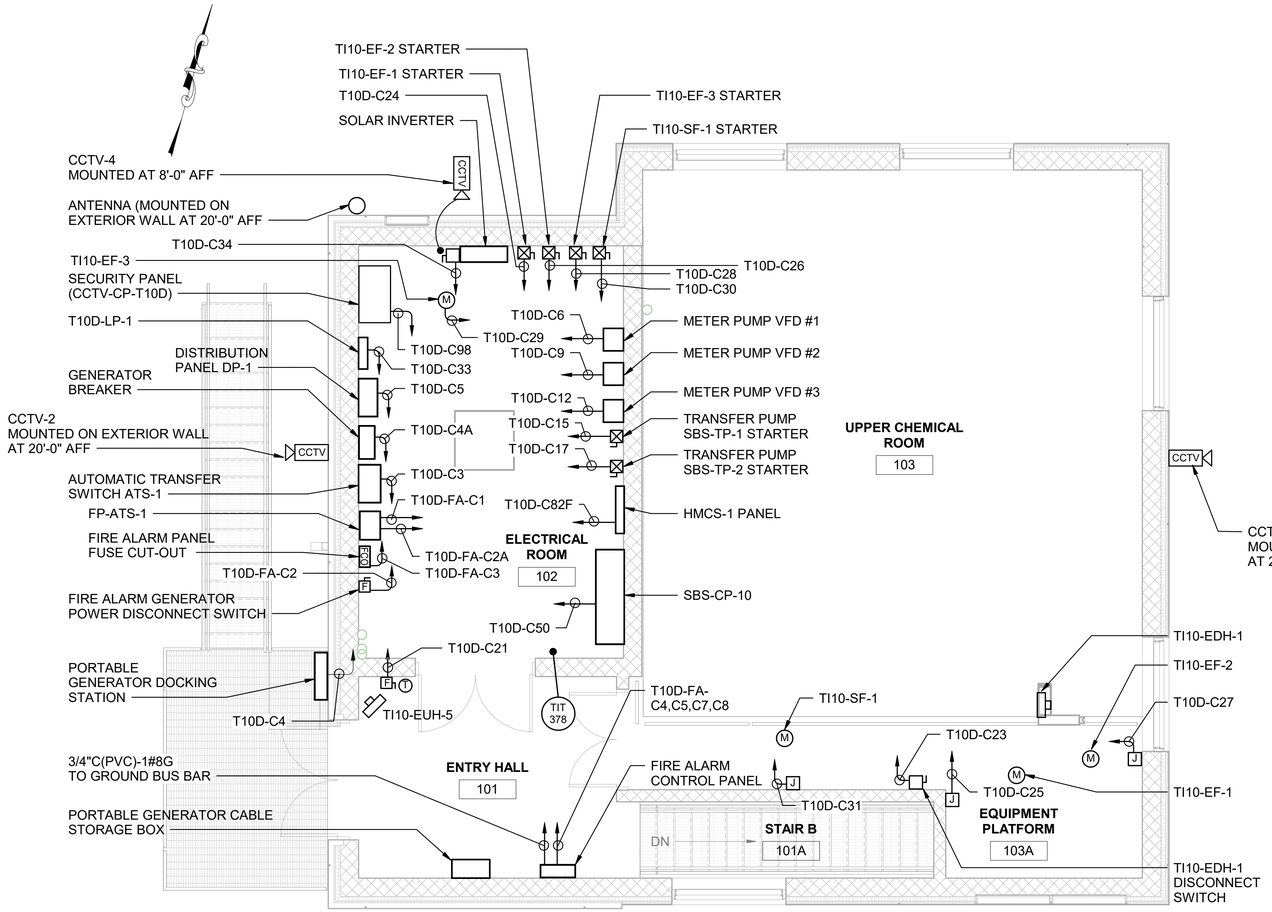
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-010 DECHLORINATION FACILITY
BASEMENT POWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-302.00

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11/2/2026 9:41:14 AM



FIRST FLOOR POWER PLAN

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

NOTES:

1. THE EQUIPMENT PLATFORM 103A IS A CORROSIVE LOCATION. THE ELECTRICAL ROOM 102, ENTRY HALL 101 & STAIRS 101A ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS

2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE, BLOCK DIAGRAM AND CONDUIT AND CABLE DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.

1/4"=1'-0" 0 4 8 FT.

BID SET
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DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · GREGORY JAMES MOORE · 094341 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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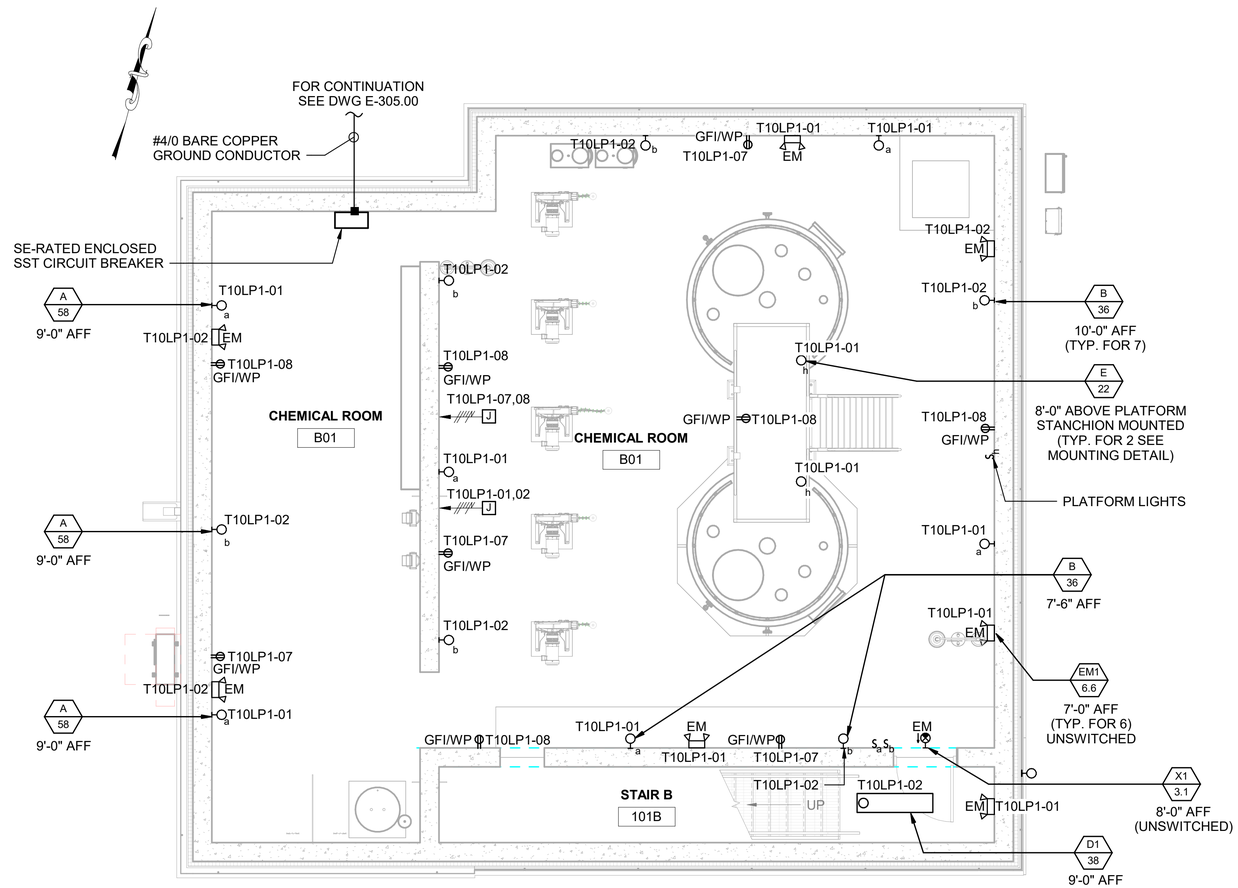
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO
DISINFECTION FACILITIES

ELECTRICAL
TI-010 DECHLORINATION FACILITY
FIRST FLOOR POWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-303.00

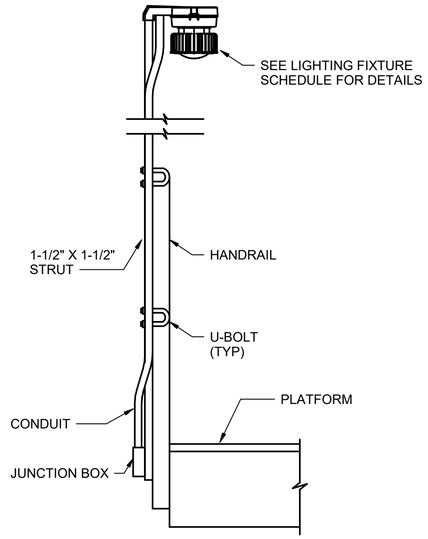
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11/2/2026 9:42:43 AM



BASEMENT LIGHTING PLAN

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



PLATFORM LIGHTING FIXTURE
MOUNTING DETAIL

SCALE: N.T.S.

NOTES:

1. THE CHEMICAL ROOM IS A CORROSIVE LOCATION. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE, BLOCK DIAGRAM AND CONDUIT AND CABLE DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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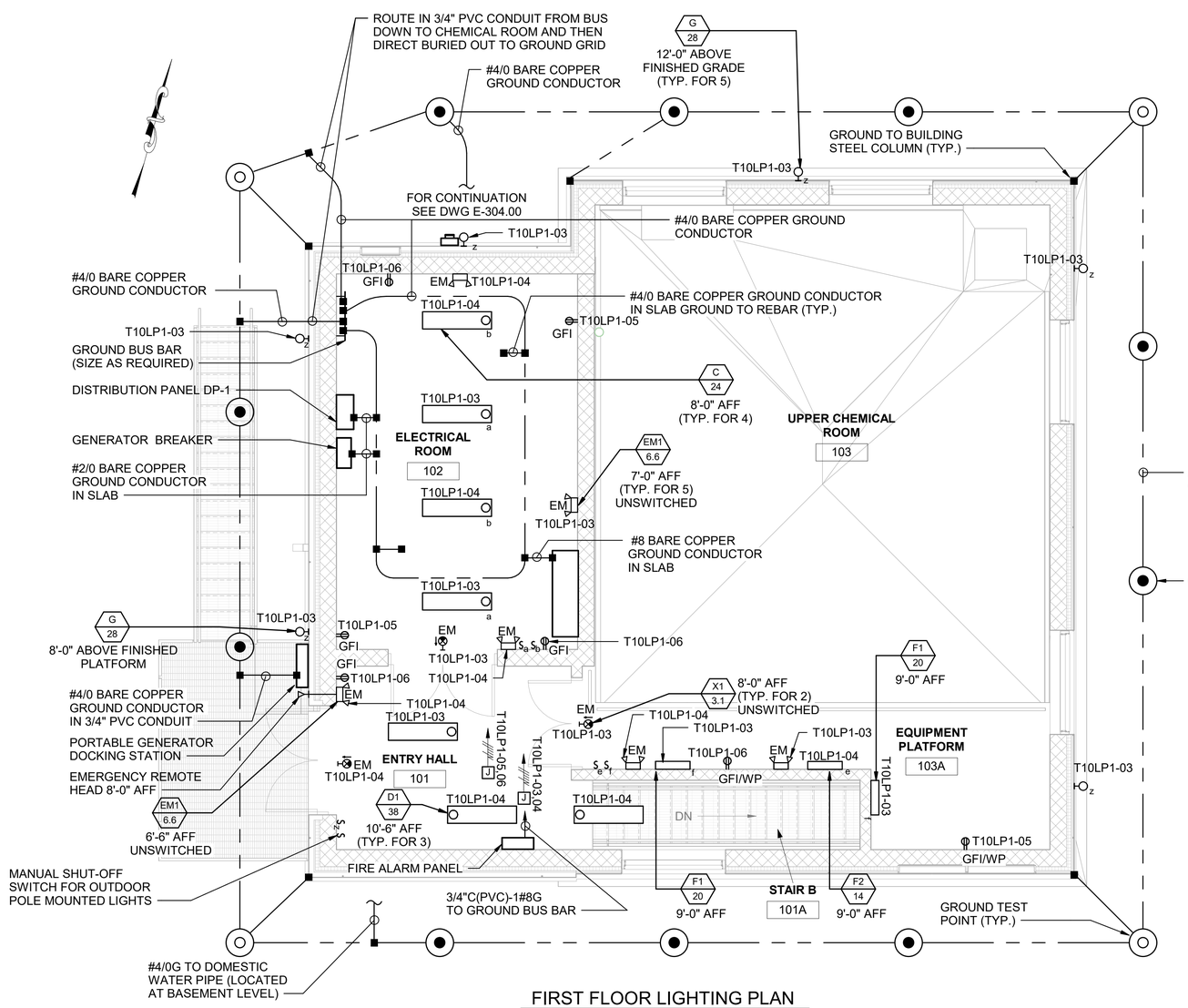
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO
DISINFECTION FACILITIES

ELECTRICAL
TI-010 DECHLORINATION FACILITY
BASEMENT LIGHTING PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-304.00

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FIRST FLOOR LIGHTING PLAN

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

NOTES:

1. THE EQUIPMENT PLATFORM 103A IS A CORROSIVE LOCATION. THE ELECTRICAL ROOM 102, ENTRY HALL 101 & STAIRS 101A ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS

2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE, BLOCK DIAGRAM AND CONDUIT AND CABLE DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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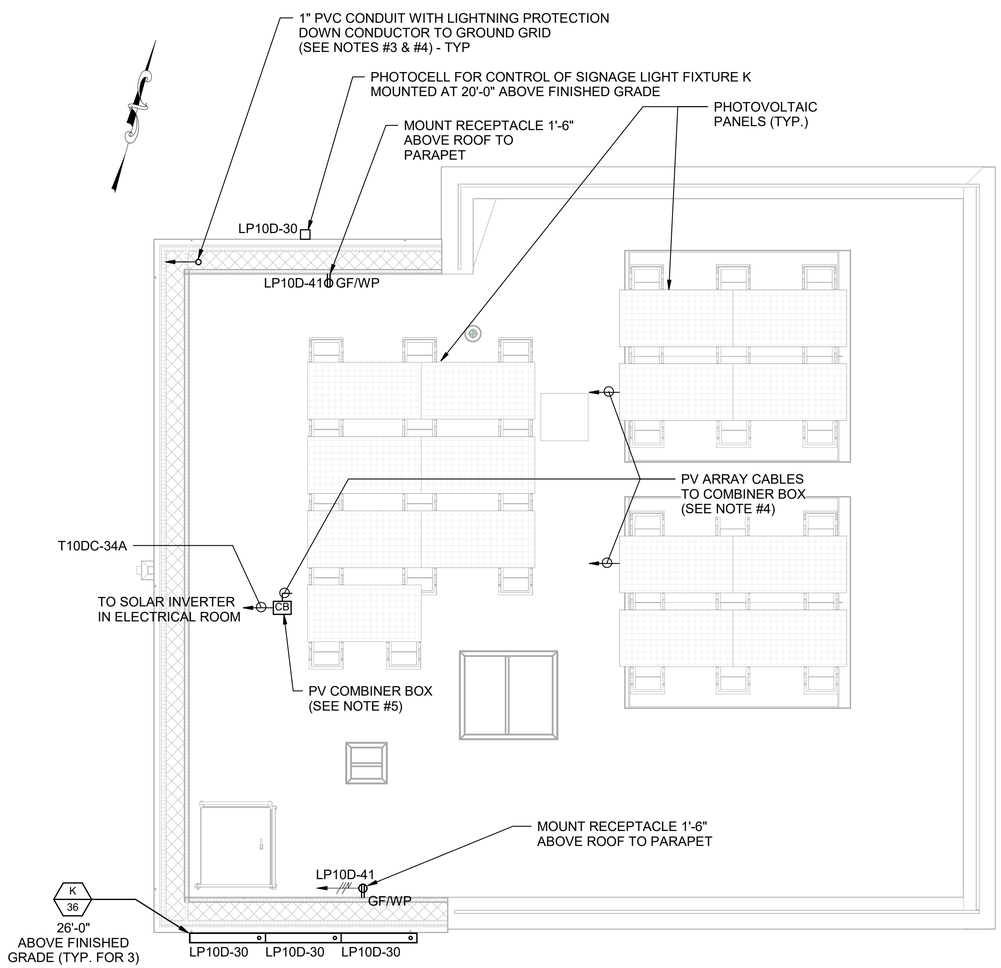
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-010 DECHLORINATION FACILITY
FIRST FLOOR LIGHTING PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-305.00

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11/2/2026 9:44:16 AM



ROOF POWER PLAN

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

NOTES:

1. THE ROOF AREA IS A WET LOCATION. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE, BLOCK DIAGRAM AND CONDUIT AND CABLE DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.
3. PROVIDE LIGHTNING A PROTECTION, NOT SHOW BUT REQUIRED IN ACCORDANCE WITH THE REQUIREMENTS IN SPECIFICATION 26 41 13.
4. CONNECT DOWN CONDUCTORS AT ROOF TO ROOF MOUNTED PROTECTION SYSTEM. EXTEND DOWN CONDUCTOR IN 1" PVC CONDUIT CONCEALED IN EXTERIOR WALL TO GROUND GRID AND CONNECT TO TEST WELLS IN GROUND RING. TEST WELLS SHALL BE PROVIDED CONNECTED TO GROUND GRID BUT HAVE NO OTHER EQUIPMENT/SYSTEM GROUNDS CONNECT TO IT. ONE DOWN CONDUCTOR IS SHOWN. ADDITIONAL DOWN CONDUCTORS SHALL BE PROVIDED AS REQUIRED IN ACCORDANCE WITH NOTE #3 ON THIS DRAWING.
5. INVERTER COMBINER BOX LOCATION SHOWED FOR REFERENCE ONLY, ACTUAL LOCATION OF BOX AND ROUTING AND CONNECTION OF PV ARRAY CABLES SHALL BE COORDINATED IN ADVANCE WITH SOLAR SYSTEM PROVIDER.
6. CONDUIT ROOF PENETRATIONS SHALL BE MADE WATERTIGHT WITH CONDUIT SEALING BUSHING.

1/4"=1'-0" 0 4 8 FT.

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: Author
CHECKED BY: Checker
DESIGN LEAD:
SECTION MANAGER:

ARCADIS

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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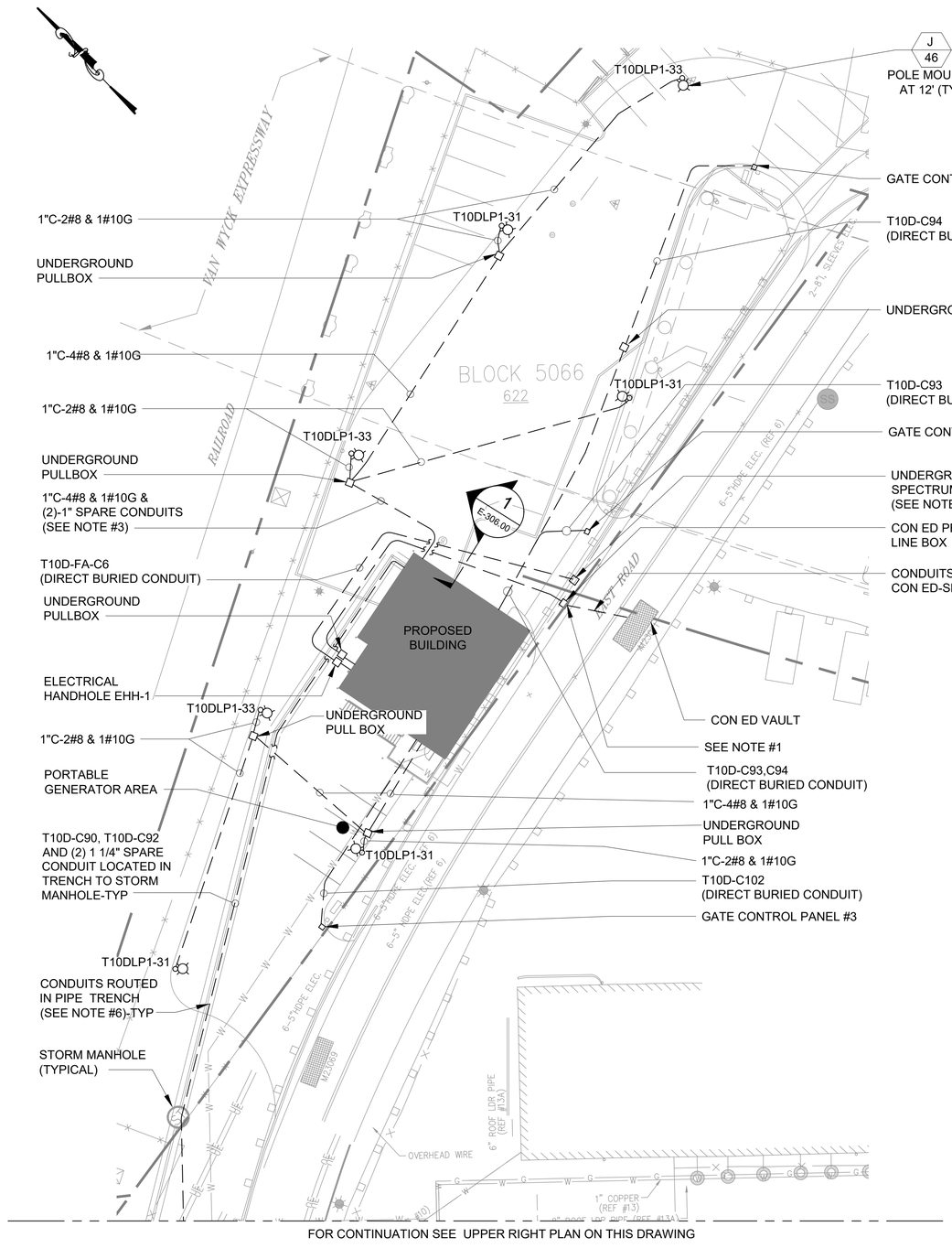
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

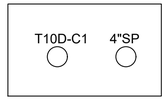
ELECTRICAL
TI-010 DECHLORINATION FACILITY
ROOF POWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-306.00

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11/2/2026 9:45:08 AM

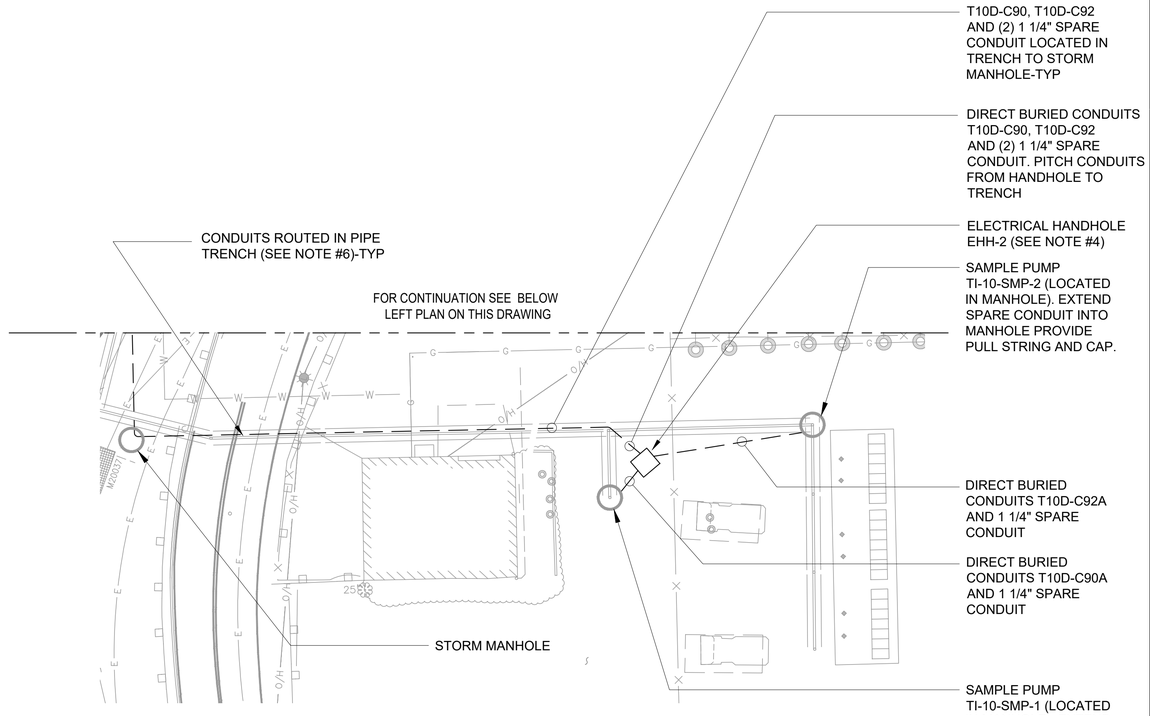




1
E-306.00
SECTION
SCALE: NONE

NOTES:

1. EXTEND TWO 4" CONDUITS 1'-0" FROM CON ED PROPERTY LINE BOX STREET SIDE TO ALLOW FOR CONNECTION TO CON ED SUPPLIED UTILITY FEEDERS. CON ED TO PROVIDE THE CONNECTION AND IT'S UTILITY MANHOLE. CON ED TO EXTEND UTILITY FEEDER CONDUCTOR TO PROPERTY LINE BOX. CONTRACTOR SHALL SPLICE UTILITY CONDUCTOR TO SERVICE CONDUCTORS IN PROPERTY LINE BOX AND EXTEND DUCT BANK WITH CONDUIT AND WIRE INTO THE FACILITY. COORDINATE INTERFACE WITH UTILITY WITH CON ED.
2. CONTRACTOR SHALL INSTALL DUCT BANK IN TRENCH WITH SAMPLE LINES. PROVIDE A MINIMUM OF 6 INCH SEPERATION BETWEEN DUCT BANK AND SAMPLE LINES. DUCT BANK AND SAMPLE LINES SHALL BE INSTALLED PARALLEL TO EACH OTHER IN TRENCH.
3. OUTDOOR LIGHTING CONDUITS TO BE DIRECT BURIED PVC COATED RGS.
4. MOUNT TERMINAL BOXES FOR SAMPLE PUMPS T1-10-SMP-1 & 2 IN HANDHOLE. TERMINAL BOXES SHALL BE NEMA TYPE 7 SUITABLE FOR WET AND OUTDOOR LOCATIONS. PROVIDE EXPLOSION PROOF SEALS ON LINE SIDE OF TERMINAL BOX
5. COORDINATE THE LOCATION OF THE UNDERGROUND PULLBOX WITH SPECTRUM.
6. REFER TO CIVIL DRAWINGS FOR EXACT ROUTING OF PIPE TRENCH.



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DESIGN LEAD: G. MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK · GREGORY JAMES MOORE · 094341 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

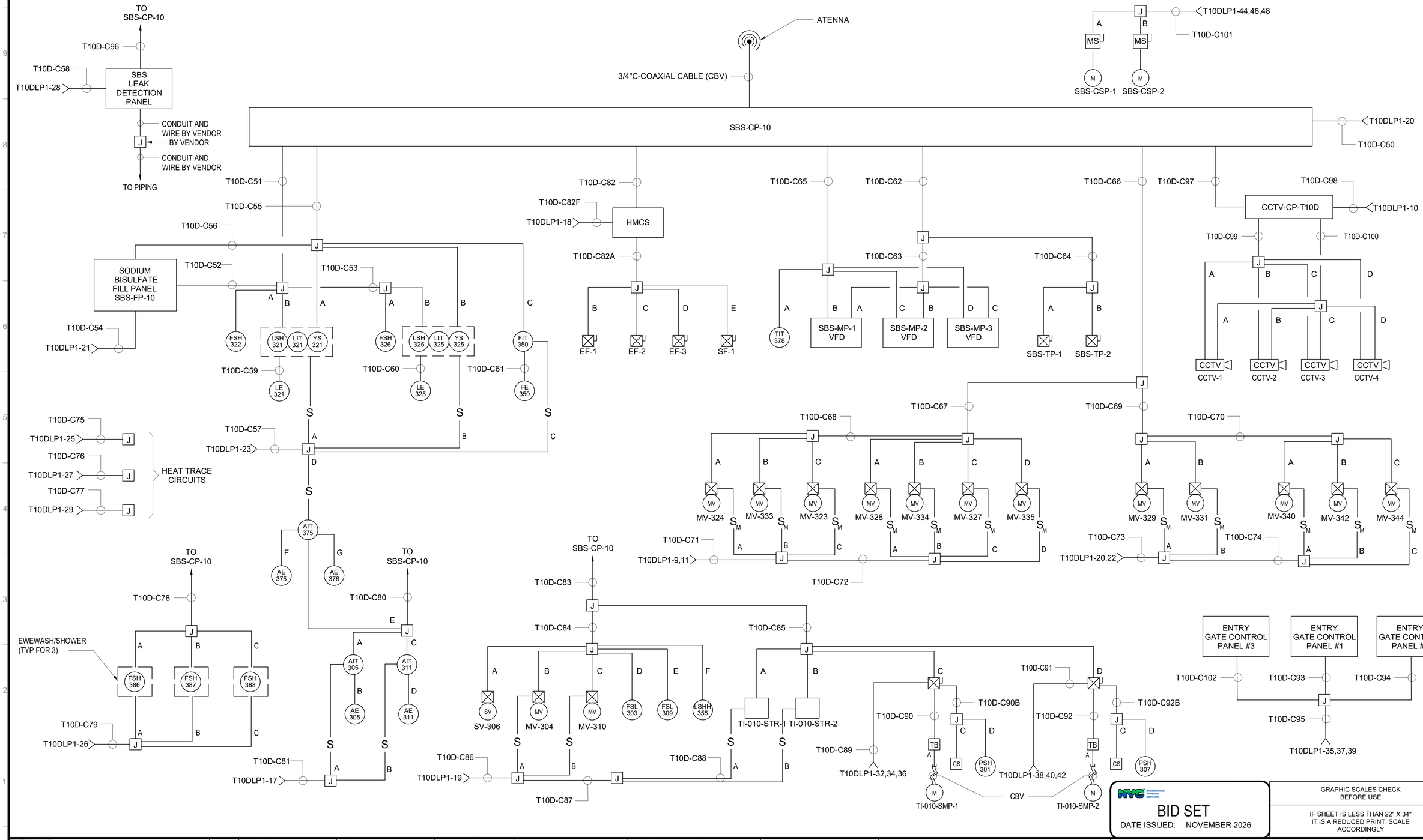
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-010 DECHLORINATION FACILITY
PROPOSED SITE PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-307.00

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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DIRECTOR, IN HOUSE DESIGN

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

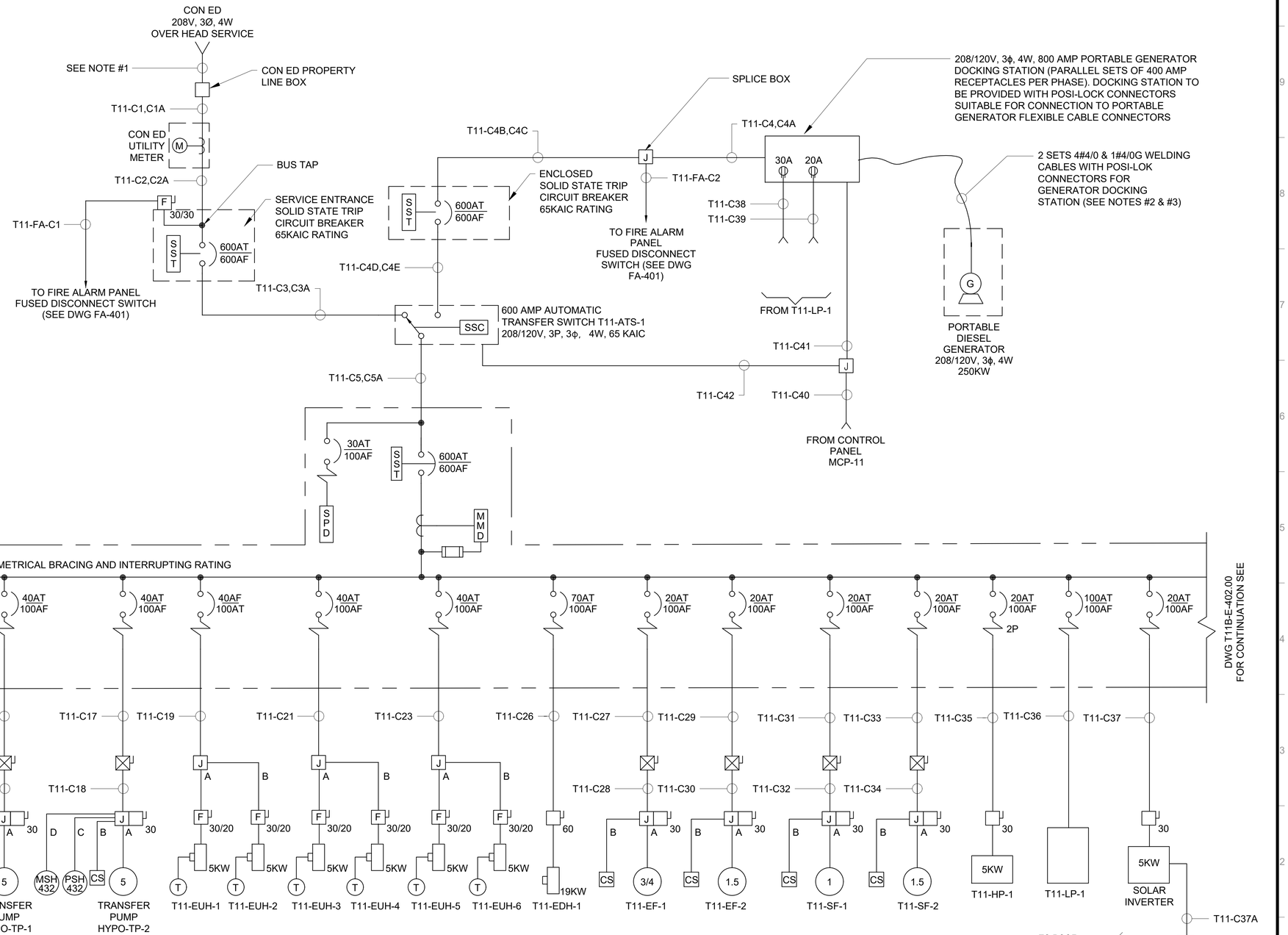
ELECTRICAL
TI-010 DECHLORINATION FACILITY
BLOCK DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-308.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

NOTES:

1. PROVIDE (2)-4" EMPTY CONDUITS FOR CON ED USE. STUB OUT AND CAP EACH CONDUIT FROM PROPERTY BOX. COORDINATE LOCATION OF PROPERTY LINE BOX WITH CON ED.
2. PROVIDE WELDING TYPE CABLES AS DESCRIBED BY AND IN ACCORDANCE WITH SPECIFICATION 26 05 20.
3. PROVIDE ALL WEATHER STORAGE BOX FOR STORING THE WELDING CABLES ON SITE. STORAGE BOX SHALL BE ALUMINUM, ON WHEELS FOR MOBILITY, PAD LOCKABLE AND RECTANGULAR WITH INTERIOR DIMENSIONS IN INCHES OF 24L X 60W X 36H.



TI-011
SWITCHBOARD T11-SWBD-1

208/120V, 800 AMP, 3 PHASE, 4 WIRE, 65 KA HORIZONTAL AND VERTICAL SYMMETRICAL BRACING AND INTERRUPTING RATING

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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-011 DISINFECTION FACILITY
ONE LINE DIAGRAM SHEET I

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-401.00

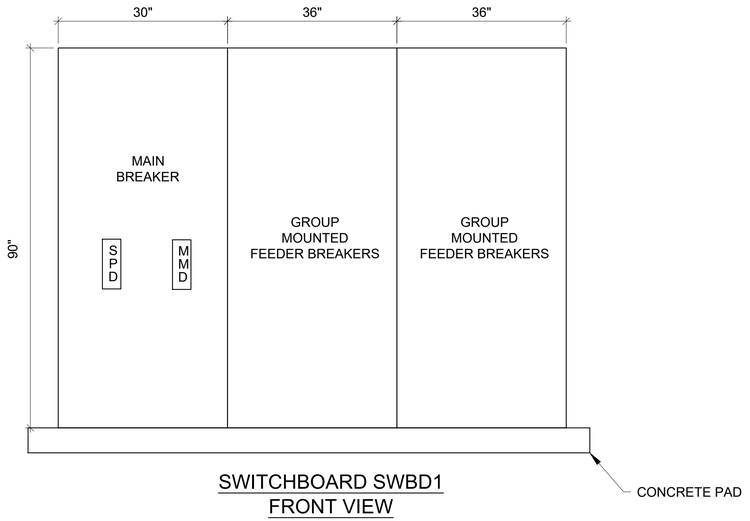
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TI-011
SWITCHBOARD SWBD-1

208/120V, 800 AMP, 3 PHASE, 4 WIRE, 65 KA HORIZONTAL AND VERTICLE SYMMETRICAL BRACING AND INTERRUPTING RATING

FOR CONTINUATION SEE DWG T11B-E-401.00

20AT 100AF	20AT 100AF	20AT 100AF	40AT 100AF	40AT 100AF	40AT 100AF	20AT 100AF	90AT 100AF	20AT 100AF	20AT 100AF	20AT 100AF	90AT 100AF	20AT 100AF	20AT 100AF	20AT 100AF	20AT 100AF	20AT 100AF	30AT 100AF	SPARE	SPARE	SPARE	SPARE
T11-C45	T11-C47	T11-C49	T11-C54	T11-C56	T11-C58	T11-C60	T11-C64	T11-C65	T11-C67	T11-C69	T11-C72	T11-C73									
T11-C46	T11-C48	T11-C50	T11-C55	T11-C57	J A B	J A B		T11-C66	T11-C68	T11-C70		J A B									
J 30	J 30	J 30	J D C B A 30	J D C B A 30	F 30/20	F 30/20	100	J B A 30	J B A 30	J B A 30	100	30	30								
PSH 471	PSH 473	PSH 475	MSH 460	MSH 462	5KW	5KW	23KW	CS	CS	CS	24KW	CONTROL PANEL	CONTROL PANEL								
INTEGRAL MOTOR/ CONTROLLER	INTEGRAL MOTOR/ CONTROLLER	INTEGRAL MOTOR/ CONTROLLER	PSH 460	PSH 462	T	T	T	1.5	1.5	1.5		1/2	1/4	1/2	1/4						
			CS	CS	T	T	T															
			5	5	T11-EUH-7	T11-EUH-8	T11-EUH-9	T11-EUH-10	T11-EDH-2	T11-EF-3	T11-EF-4	T11-EF-5	T11-EHW-1	MONORAIL/HOIST (DECHLOR. RM)	MONORAIL/HOIST (CHLOR. RM)							
METERING PUMP SBS-MP-1	METERING PUMP SBS-MP-2	METERING PUMP SBS-MP-3	TRANSFER PUMP SBS-TP-1	TRANSFER PUMP SBS-TP-2																	



SWITCHBOARD SWBD1
FRONT VIEW

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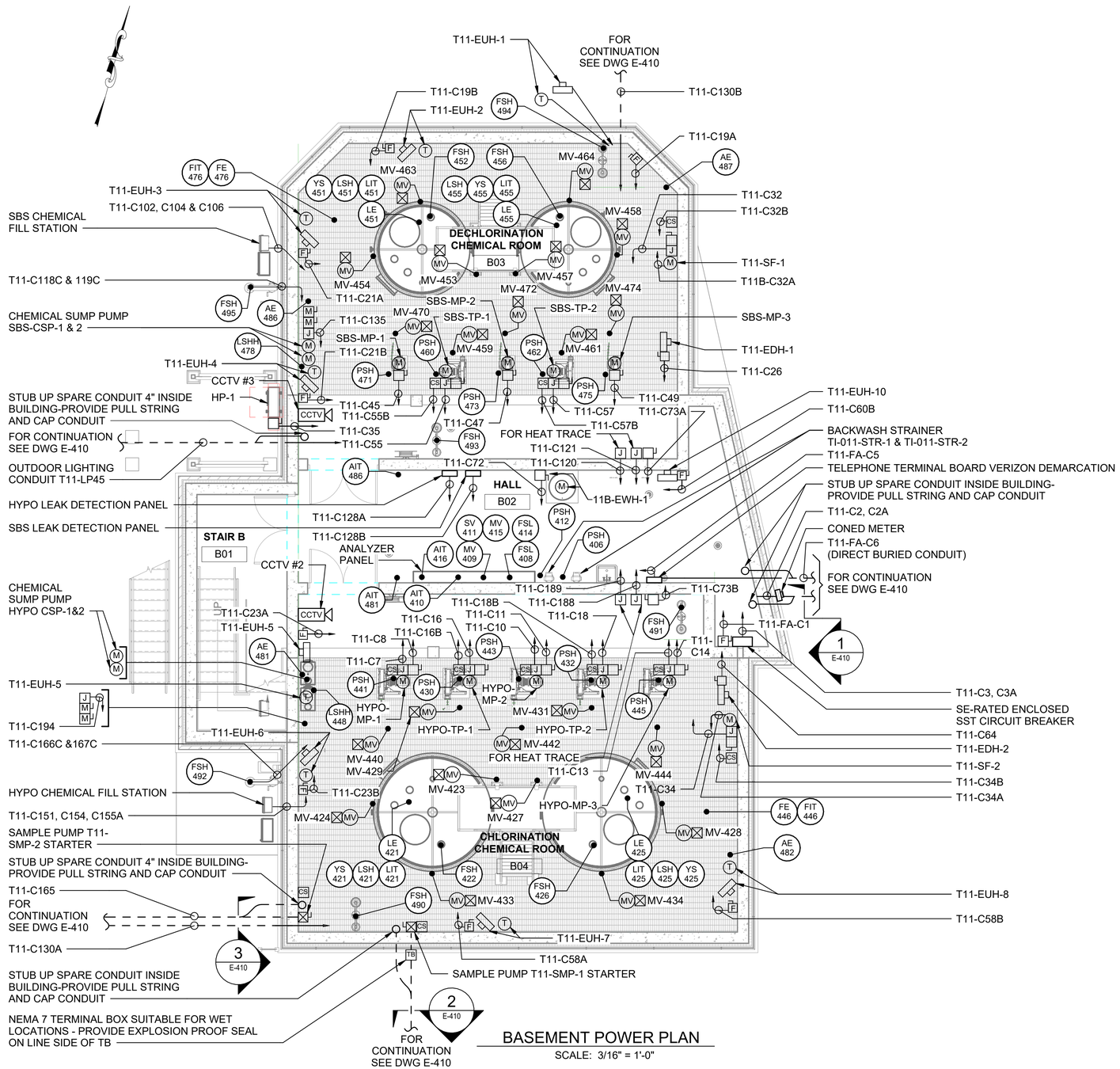
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-011 DISINFECTION FACILITY
ONE LINE DIAGRAM SHEET II

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-402.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.



BASEMENT POWER PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. THE CHEMICAL ROOM B03 & B04 ARE CORROSIVE LOCATIONS. THE HALL B02 AND STAIRS B01 ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS

2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE AND BLOCK DIAGRAM FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.

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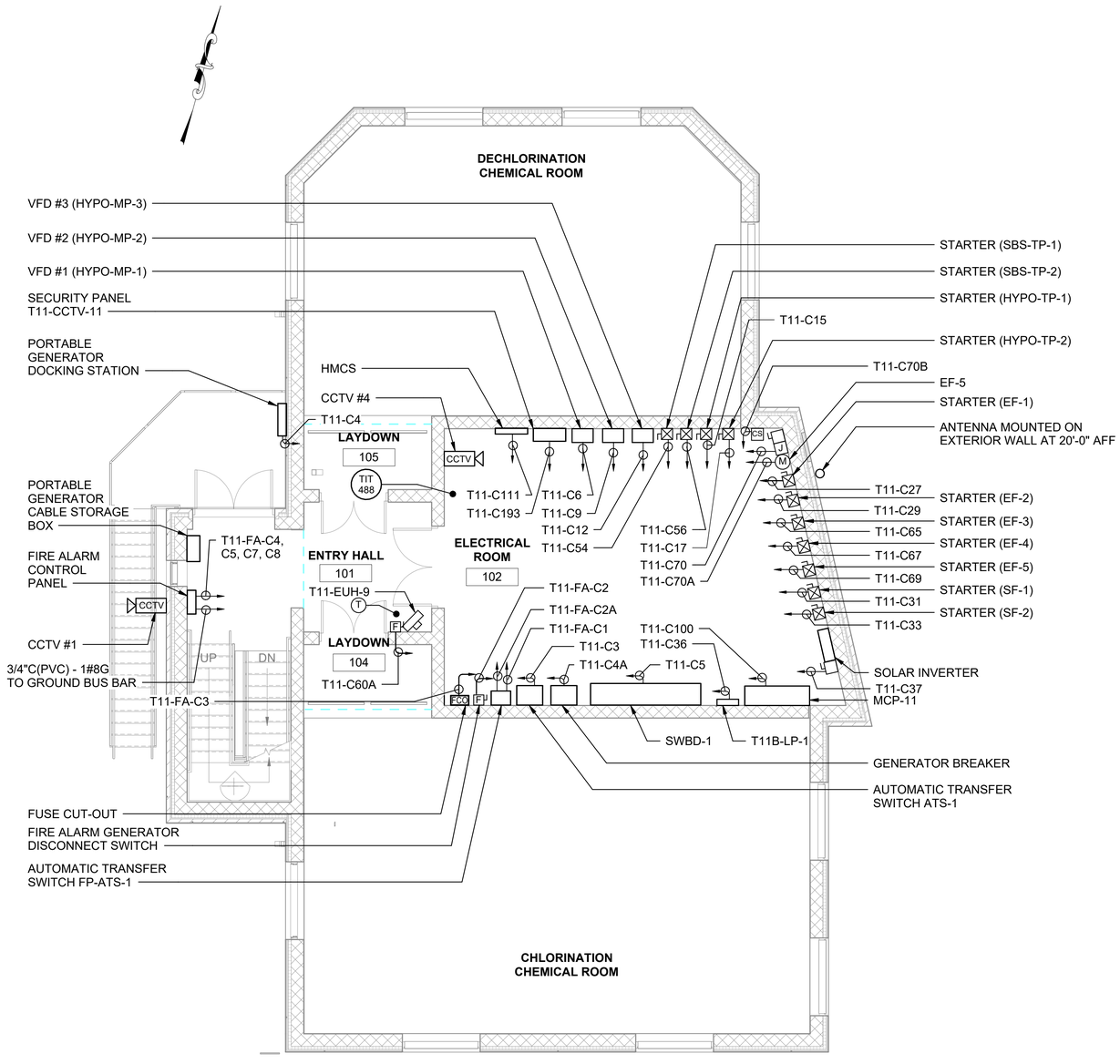
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-011 DISINFECTION FACILITY
BASEMENT POWER PLAN

DATE: NOVEMBER 2026
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FIRST FLOOR POWER PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. THE LAYDOWN 104 & 105 ARE CORROSIVE LOCATIONS. THE ELECTRICAL ROOM 102 AND ENTRY HALL 101 ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS

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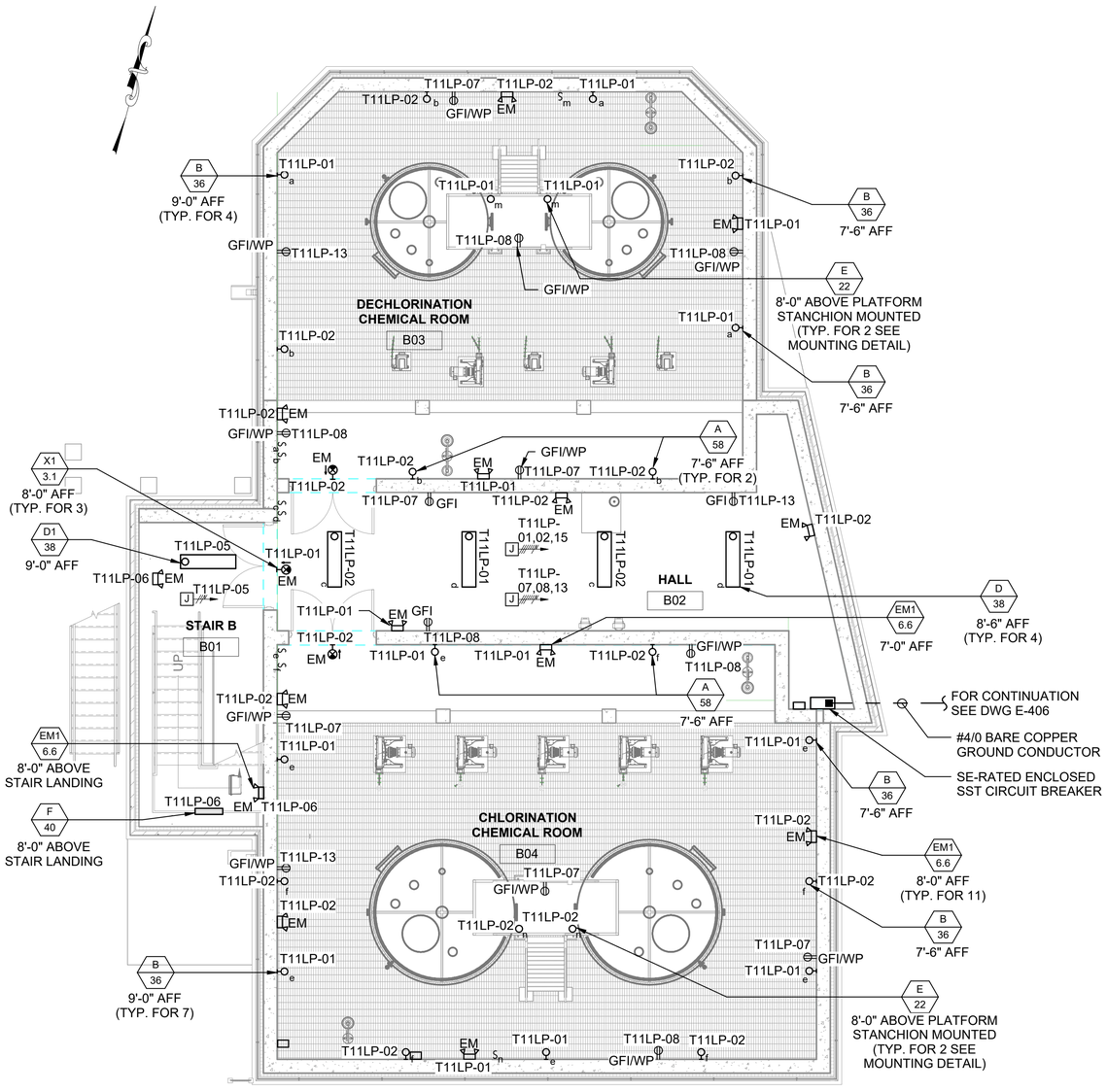
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-011 DISINFECTION FACILITY
FIRST FLOOR POWER PLAN

DATE: NOVEMBER 2026
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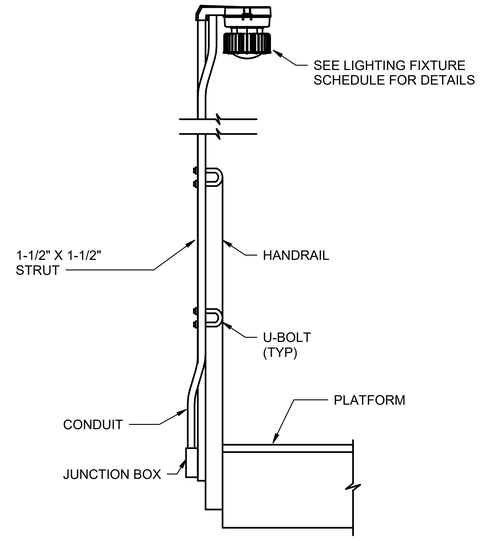
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BASEMENT LIGHTING PLAN

SCALE: 3/16" = 1'-0"



PLATFOR LIGHTING FIXTURE
MOUNTING DETAIL

SCALE: N.T.S.

NOTES:

1. THE CHEMICAL ROOM B03 & B04 ARE CORROSIVE LOCATIONS. THE HALL B02 AND STAIRS B01 ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
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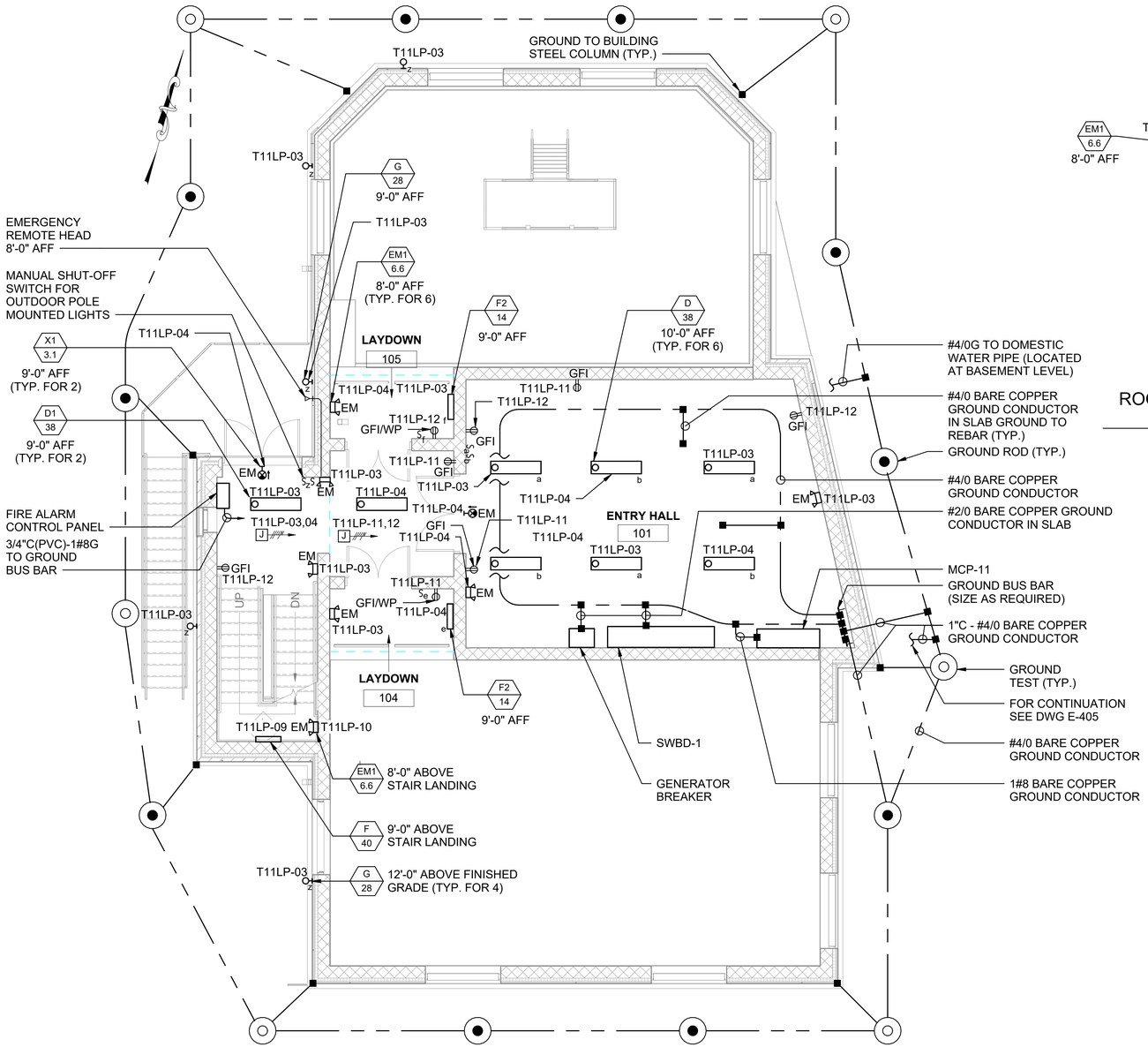
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-011 DISINFECTION FACILITY
BASEMENT LIGHTING PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-405.00

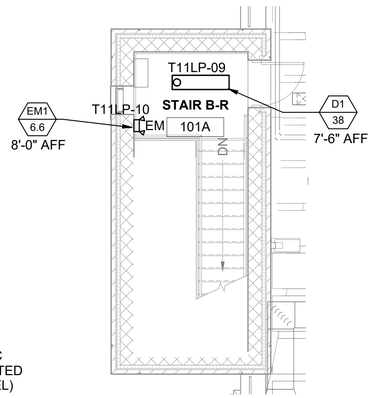
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FIRST FLOOR LIGHTING PLAN

SCALE: 3/16" = 1'-0"



ROOF STAIRWELL LIGHTING PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. THE LAYDOWN 104 & 105 ARE CORROSIVE LOCATIONS. THE ELECTRICAL ROOM 102 AND ENTRY HALL 101 ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE AND BLOCK DIAGRAM FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.

BID SET
DATE ISSUED: NOVEMBER 2026

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DESIGNED BY: GM
DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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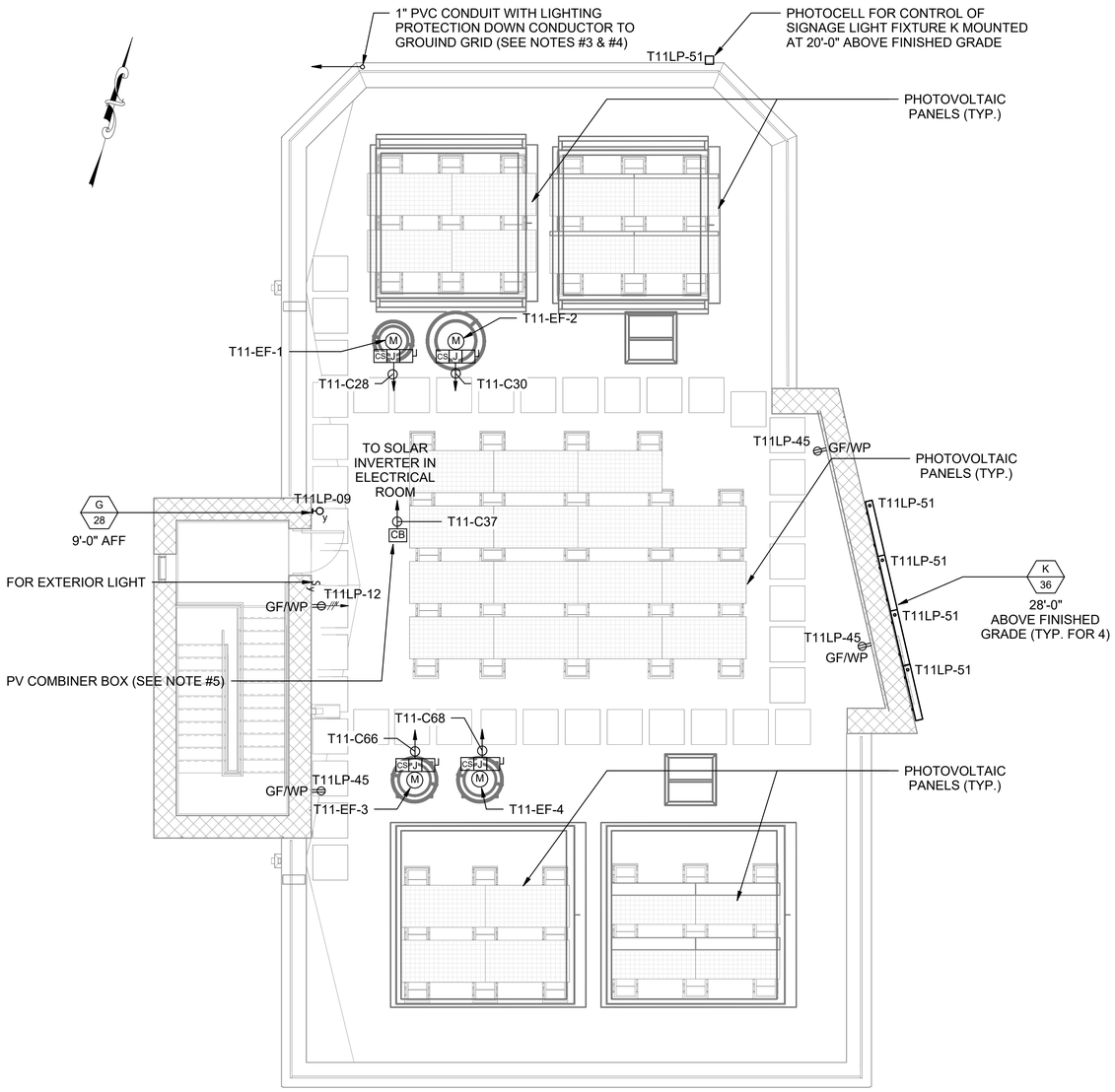
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
TI-011 DISINFECTION FACILITY
FIRST FLOOR LIGHTING PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-406.00

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Autodesk Docs://AUS-30002892-NYCDEP Flushing Creek CSO Disinfection Facilities/T11B-E-R21_ARCA.rvt
11/2/2026 10:08:41 AM



ROOF POWER PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. THE ROOF AREA IS A WET LOCATION. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. FOR CLARITY, CONDUIT ROUTING IS NOT SHOWN. ONLY MAIN HOMERUNS ARE SHOWN. REFER TO ONE LINE, BLOCK DIAGRAM AND CONDUIT AND CABLE DRAWINGS FOR CONDUIT AND WIRE REQUIREMENTS. PROVIDE PULL BOXES AS REQUIRED PER NEC. CONTRACTOR SHALL FIELD COORDINATE CONDUIT INSTALLATION.
3. PROVIDE LIGHTNING A PROTECTION, NOT SHOW BUT REQUIRED IN ACCORDANCE WITH THE REQUIREMENTS IN SPECIFICATION 26 41 13.
4. CONNECT DOWN CONDUCTORS AT ROOF TO ROOF MOUNTED PROTECTION SYSTEM. EXTEND DOWN CONDUCTOR IN 1" PVC CONDUIT CONCEALED IN EXTERIOR WALL TO GROUND GRID AND CONNECT TO TEST WELLS IN GROUND RING. TEST WELLS SHALL BE PROVIDED CONNECTED TO GROUND GRID BUT HAVE NO OTHER EQUIPMENT/SYSTEM GROUNDS CONNECT TO IT. ONE DOWN CONDUCTOR IS SHOWN. ADDITIONAL DOWN CONDUCTORS SHALL BE PROVIDED AS REQUIRED IN ACCORDANCE WITH NOTE #3 ON THIS DRAWING.
5. INVERTER COMBINER BOX LOCATION SHOWED FOR REFERENCE ONLY, ACTUAL LOCATION OF BOX AND ROUTING AND CONNECTION OF PV ARRAY CABLES SHALL BE COORDINATED IN ADVANCE WITH SOLAR SYSTEM PROVIDER.
6. CONDUIT ROOF PENETRATIONS SHALL BE MADE WATERTIGHT WITH CONDUIT SEALING BUSHING.

BID SET
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CHECKED BY: Checker
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SECTION MANAGER:

ARCADIS

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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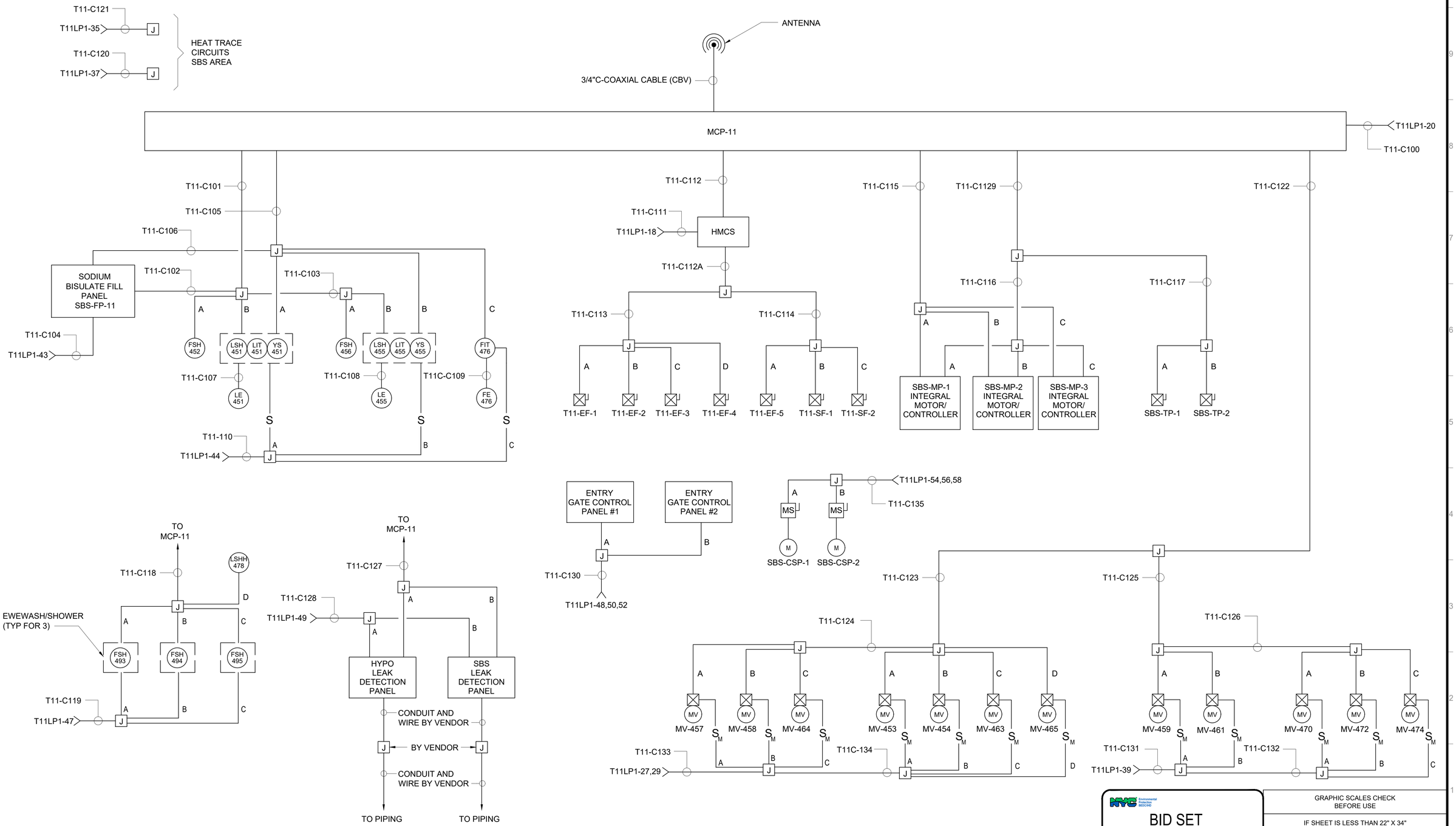
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-011 DISINFECTION FACILITY
ROOF POWER PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-407.00

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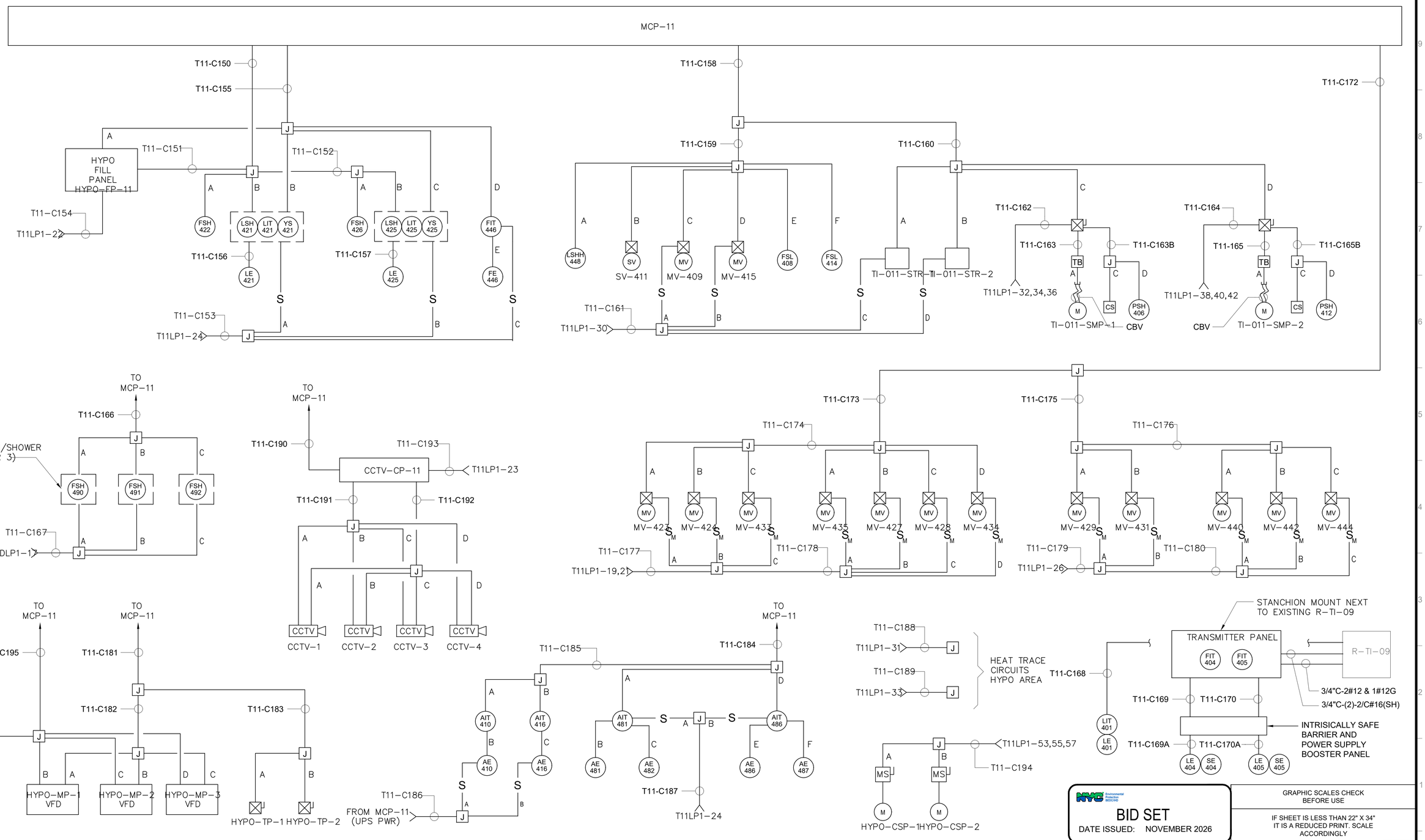
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
TI-011 DISINFECTION FACILITY
BLOCK DIAGRAM SHEET 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-408.00

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SECTION MANAGER:

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

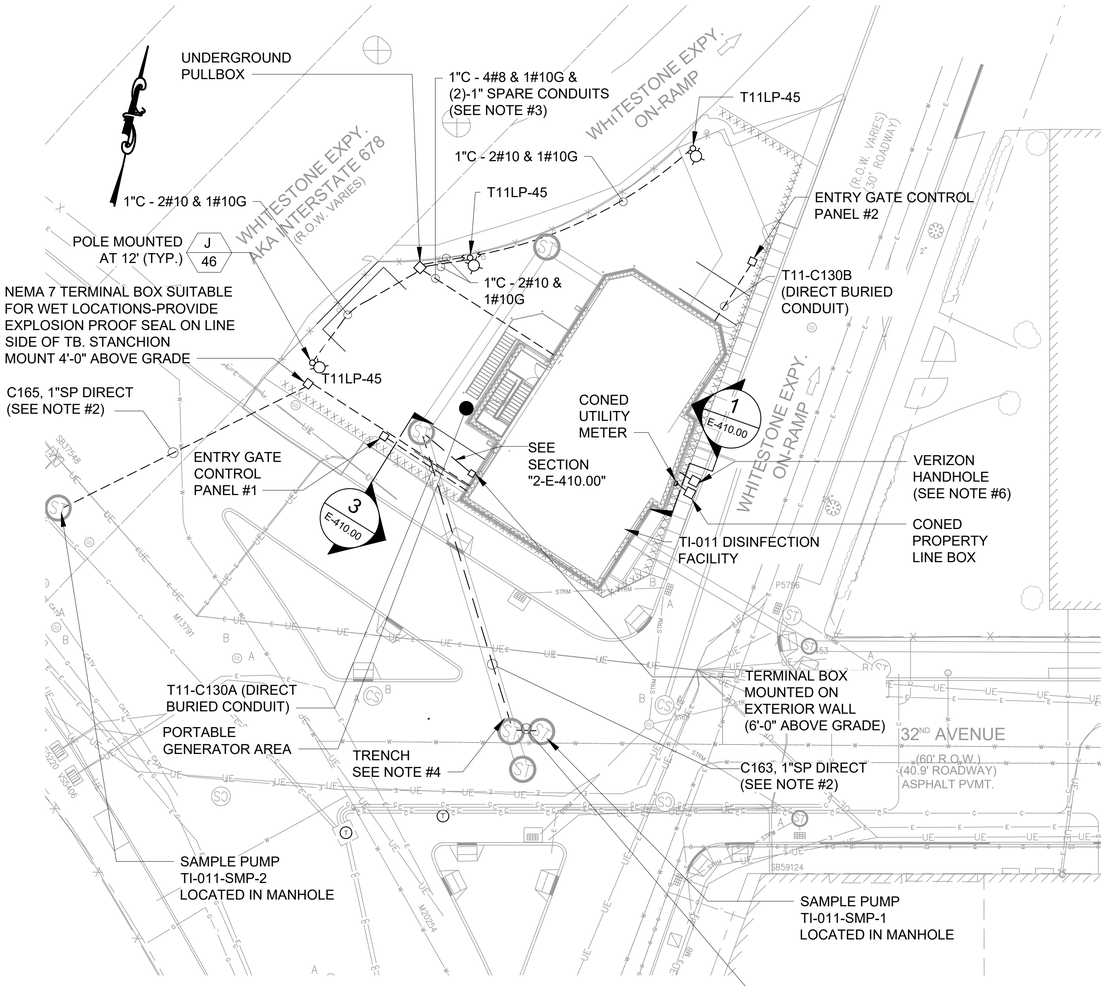
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CAPITAL CONTRACT WP-169 CSO-FC-DF
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ELECTRICAL
TI-011 DISINFECTION FACILITY
BLOCK DIAGRAM SHEET 2

DATE: NOVEMBER 2026
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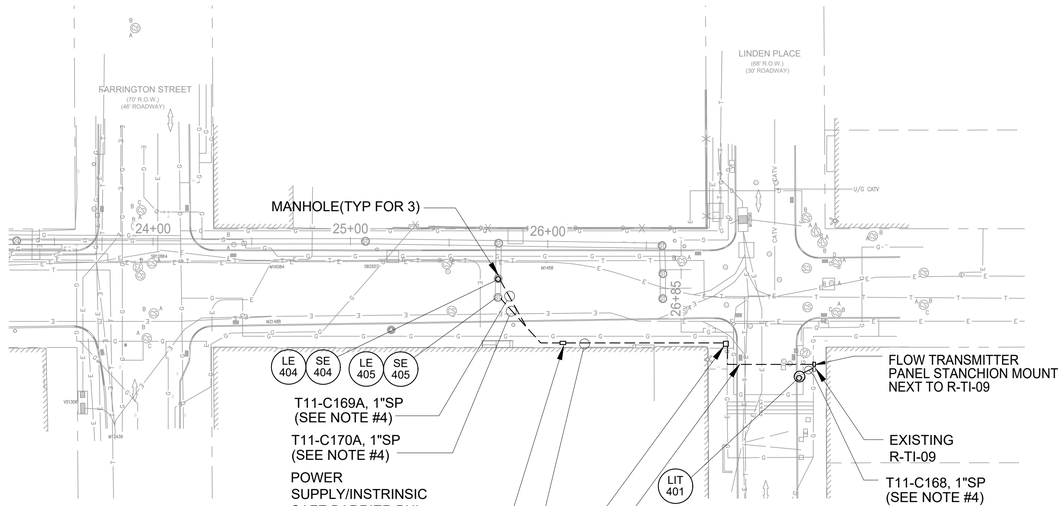


ELECTRICAL SITE PLAN

SCALE: 1"=20'

NOTES:

1. EXTEND TWO 4" CONDUITS 1'-0" FROM CON ED PROPERTY LINE BOX STREET SIDE TO ALLOW FOR CONNECTION TO CON ED SUPPLIED UTILITY FEEDERS. CON ED TO PROVIDE THE CONNECTION AND IT'S UTILITY MANHOLE. CON ED TO EXTEND UTILITY FEEDER CONDUCTOR TO PROPERTY LINE BOX. CONTRACTOR SHALL SPLICE UTILITY CONDUCTOR TO SERVICE CONDUCTORS IN PROPERTY LINE BOX AND EXTEND DUCT BANK WITH CONDUIT AND WIRE INTO THE FACILITY. COORDINATE INTERFACE WITH UTILITY WITH CON ED.
2. INSTALL CONDUITS IN PIPE TRENCH. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF PIPE TRENCHES.
3. OUTDOOR LIGHTING CONDUITS TO BE DIRECT BURIED PVC COATED RGS.
4. CONDUITS ARE DIRECT BURIED PVC COATED RGS. ROUTE SPARE CONDUIT INTO MANHOLE, PROVIDE PULL STRING AND CAP.
5. COORDINATE LOCATION OF VERIZON HANDHOLE WITH VERIZON.



PARTIAL PLAN

SCALE: 1"=40'

T11-C1 T11-C1A 4"SP

1 E-410.00 SECTION
SCALE: NONE

T11-C163A 3"SP

2 E-410.00 SECTION
SCALE: NONE

T11-C165 1"SP

3 E-410.00 SECTION
SCALE: NONE

0 20 40 FT.
1"=20'

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DESIGN LEAD: G. MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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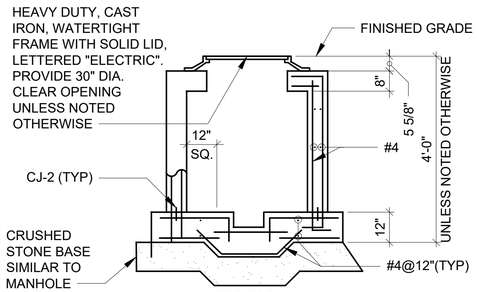
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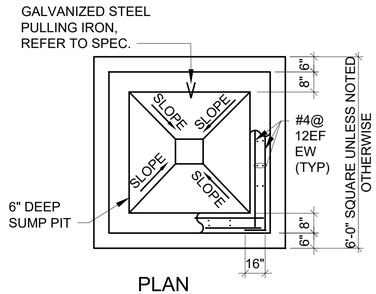
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
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PROPOSED SITE PLAN

DATE: NOVEMBER 2026
SHEET NO:
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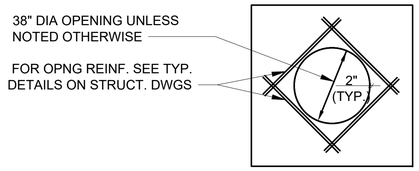
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SECTION



PLAN



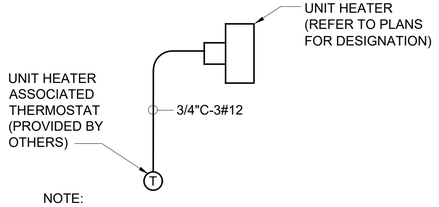
ROOF PLAN

TYPICAL HANDHOLE DETAIL

N.T.S

NOTES:

1. COORDINATE ALL HANDHOLE OPENINGS WITH THE DUCT BANK ACTUAL CONFIGURATION AND ELEVATION.

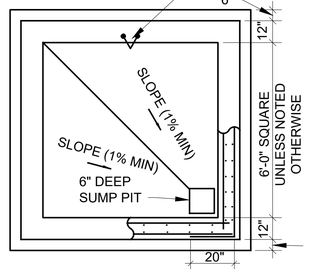


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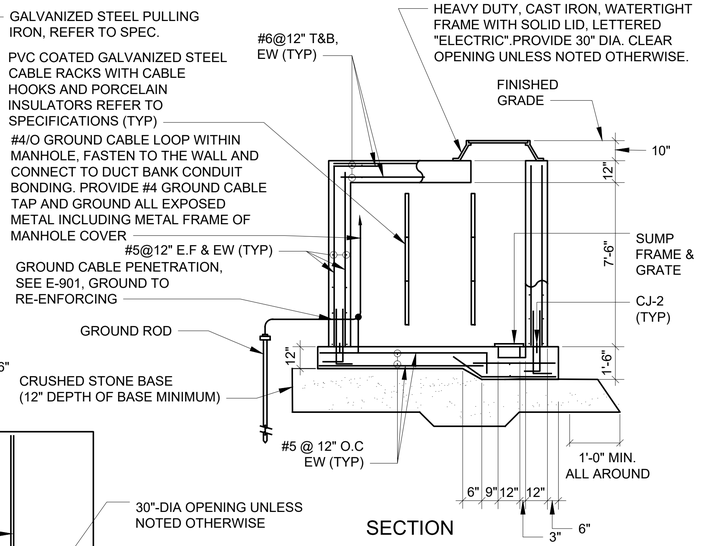
1. UNIT HEATER AND ASSOCIATED THERMOSTAT IS PROVIDED BY OTHERS CONDUIT AND WIRE IS PROVIDED BY ELECTRICAL CONTRACTOR

TYPICAL UNIT HEATER T'STAT CONNECTION

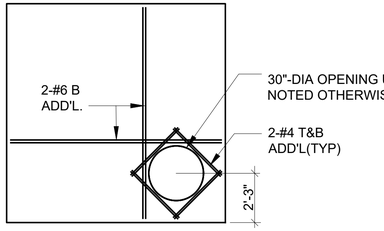
N.T.S



PLAN



SECTION



ROOF PLAN

NOTES:

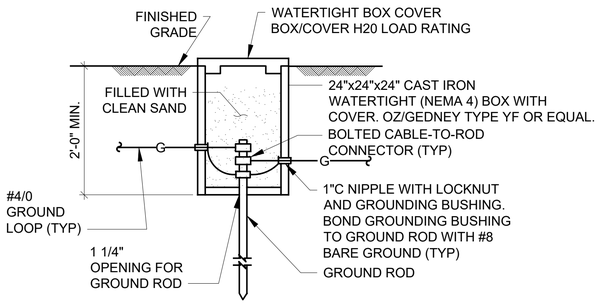
1. COORDINATE ALL MANHOLE OPENINGS WITH THE DUCT BANKS ACTUAL CONFIGURATION AND ELEVATION.
2. SLOPE DUCT BANK 3" PER 100' TOWARDS MANHOLE.

TYPICAL MANHOLE DETAIL

N.T.S

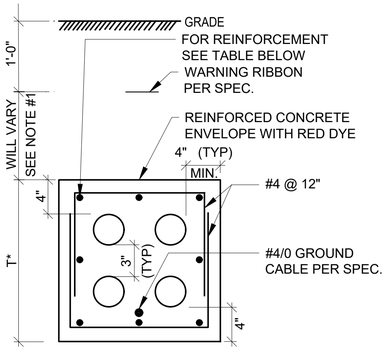
TYPE OF CONNECTION	BOLTED OR COMPRESSION		WELDED
	BURNDY CAT#	T&B CAT#	CADWELL CAT#
CABLE TO LUG — LUG, CABLE	YA	54000 SERIES	LA
CABLE TO ROD — ROD, CABLE	-	53000 SERIES	GT
ROD	GAR	-	GR
CABLE TO CABLE — CABLE	GX	53000 SERIES	TV OR TA
CABLE TO PIPE — PIPE OR CONDUIT, CABLE	-	-	HA OR VS
	GAR OR GD	3900 SERIES	-
CABLE TO FLAT SURFACE — CABLE	GB	-	HA OR HS
BRAID TO PIPE	GG	-	-

GROUNDING CONNECTIONS



EXTERIOR GROUND CONNECTION POINT

N.T.S



REINFORCEMENT TABLE		
DUCT BANK THICKNESS SEE NOTE #2	UNDER ROADWAY*	AT NON-TRAFFIC AREA
T < 18"	#8 @ 12" (MIN) ALL AROUND	#6 @12" ALL AROUND
T ≥ 18"	#7 @ 12" (MIN) ALL AROUND	#5 @12" ALL AROUND

NOTES:

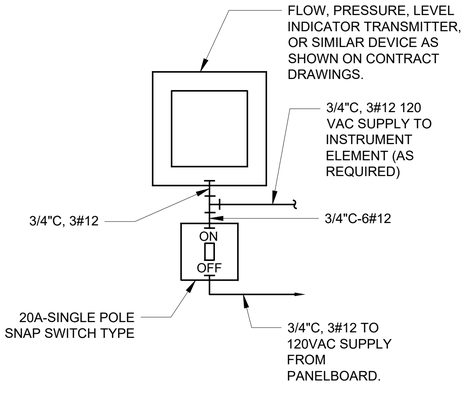
1. DUCT BANK DIMENSION (1'-0" MINIMUM) VARIES TO CLEAR OTHER UNDERGROUND SYSTEMS AND TO MAINTAIN SLOPE AS REQUIRED.
2. DUCT BANK DEPTH AND WIDTH VARIES, BASED ON THE QUANTITY OF CONDUITS IN EACH DUCT BANK

DUCT BANK SECTION DETAIL

N.T.S

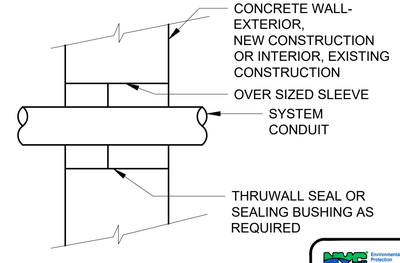
THRU FLOOR CONDUIT DETAIL

N.T.S



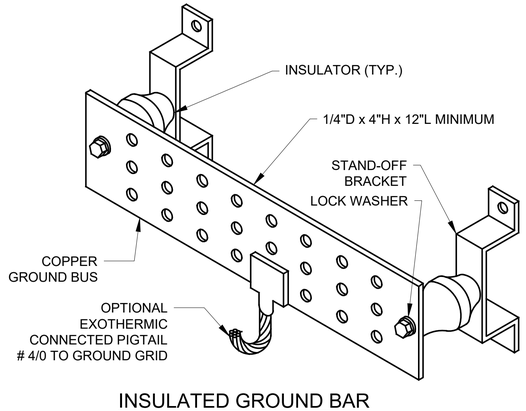
TYPICAL FIELD INSTRUMENTATION WITH 120 VAC "ON-OFF" SWITCH

N.T.S



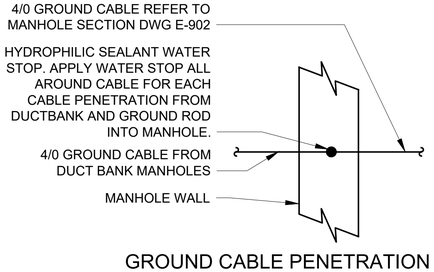
WALL CORING DETAIL

N.T.S



INSULATED GROUND BAR

N.T.S



GROUND CABLE PENETRATION DETAIL

N.T.S

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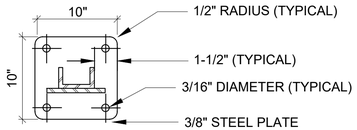
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

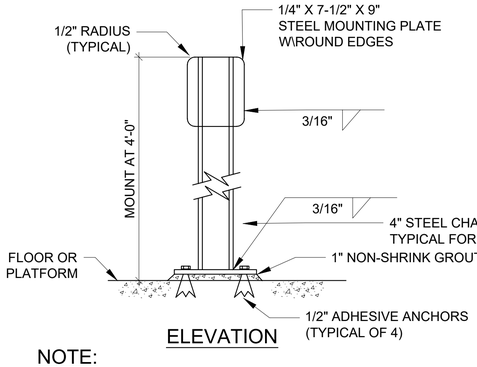
ELECTRICAL
MISCELLANEOUS DETAILS 1

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-901.00

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PLAN



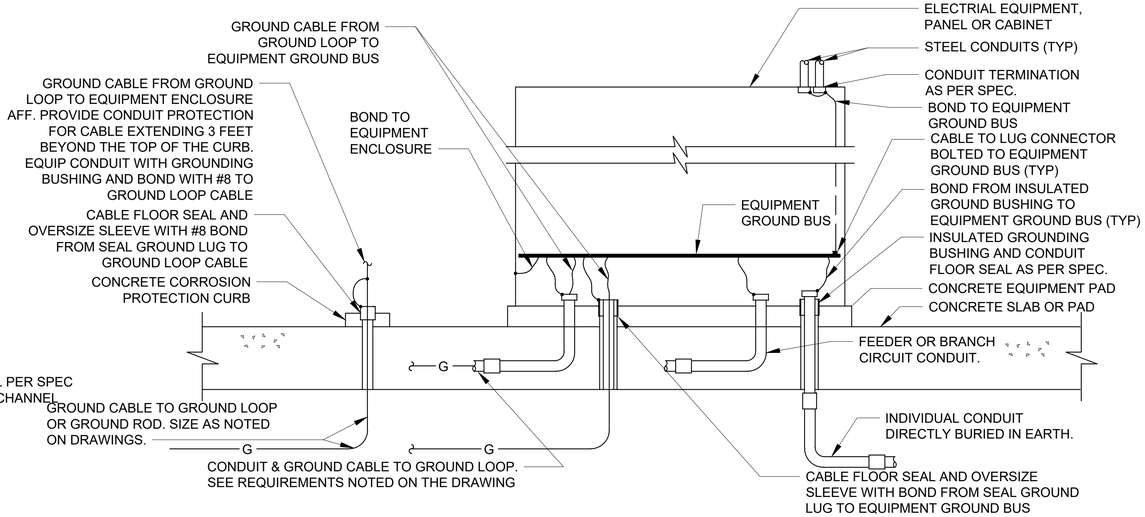
ELEVATION

NOTE:

1. USE WASHERS AND SPLIT LOCK-WASHERS UNDER ALL NUTS.

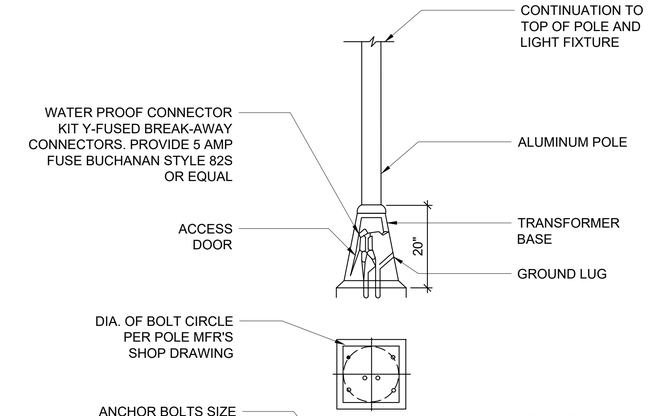
EQUIPMENT MOUNTING PEDESTAL DETAIL

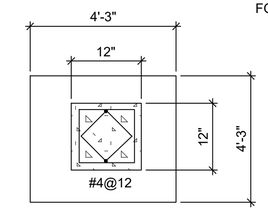
N.T.S



EQUIPMENT GROUND DETAIL

N.T.S





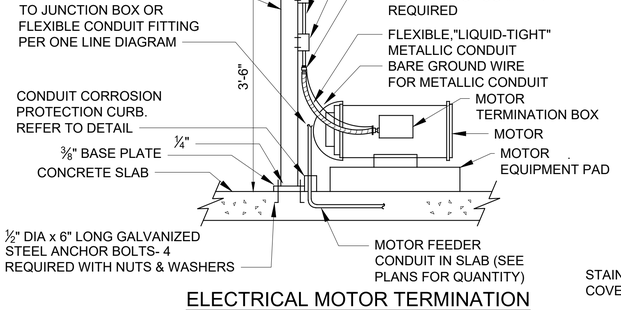
SECTION (1)

LIGHTING POLE ASSEMBLY DETAILS

N.T.S

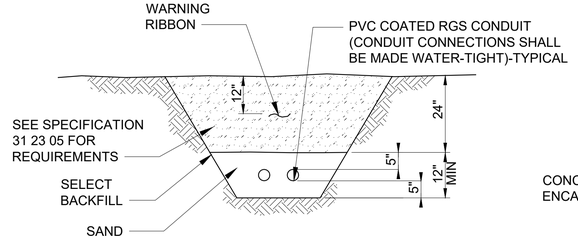
NOTE:

1. 25 FT. ALUMINUM POLE WITH TRANSFORMER BASE. POLE SHALL HAVE NECESSARY HARDWARE FOR POLE INSTALLATION



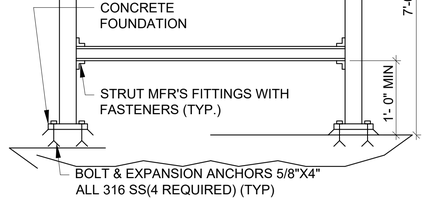
ELECTRICAL MOTOR TERMINATION AND DEVICE MOUNTING DETAIL

N.T.S



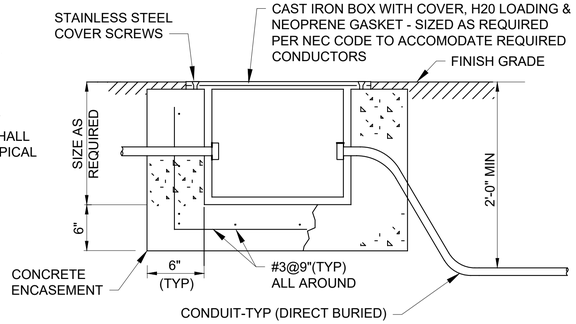
DIRECT BURRIED CONDUIT DETAIL

N.T.S



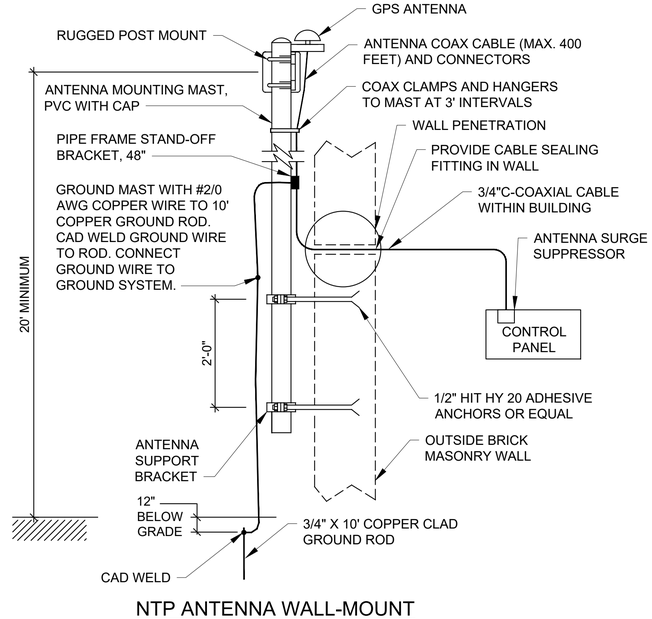
EQUIPMENT SUPPORT RACK DETAIL

N.T.S



UNDERGROUND PULLBOX DETAIL

N.T.S



NTP ANTENNA WALL-MOUNT MOUNT INSTALLATION DETAIL

N.T.S

BID SET

DATE ISSUED: NOVEMBER 2026

GRAPHIC SCALES CHECK BEFORE USE

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NO.	DATE	REVISIONS/DESCRIPTION	APPR'D.

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DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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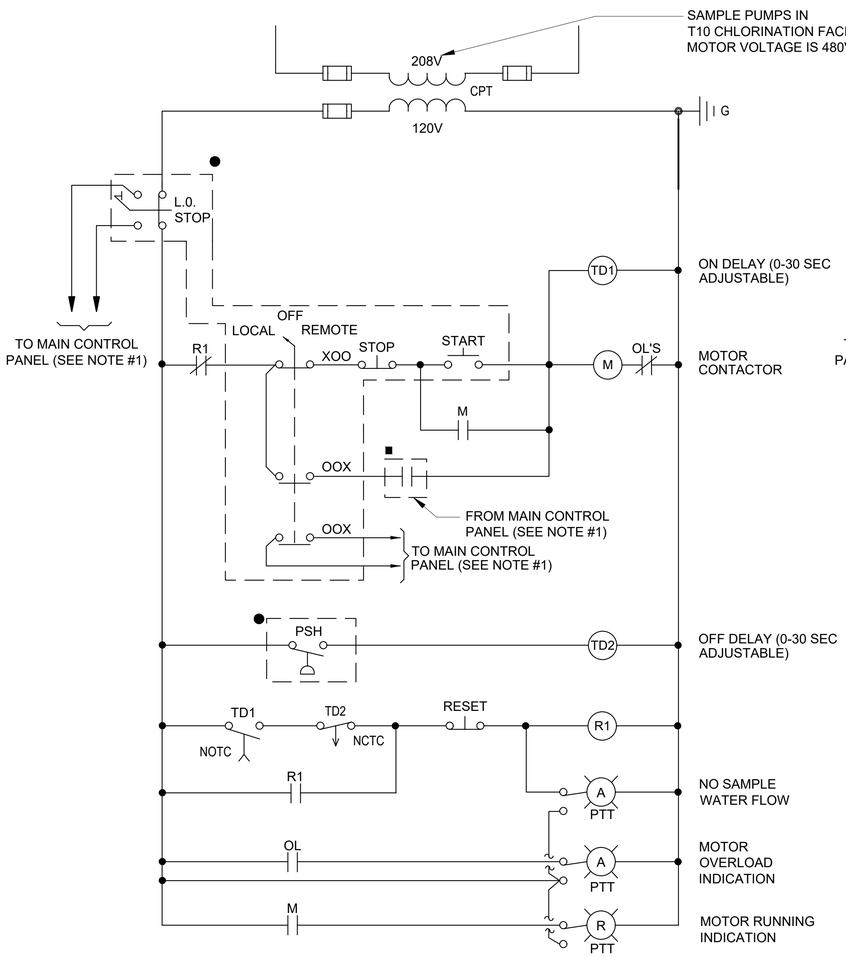
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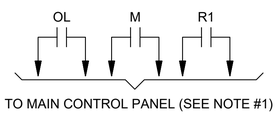
CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
MISCELLANEOUS DETAILS 2

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-902.00

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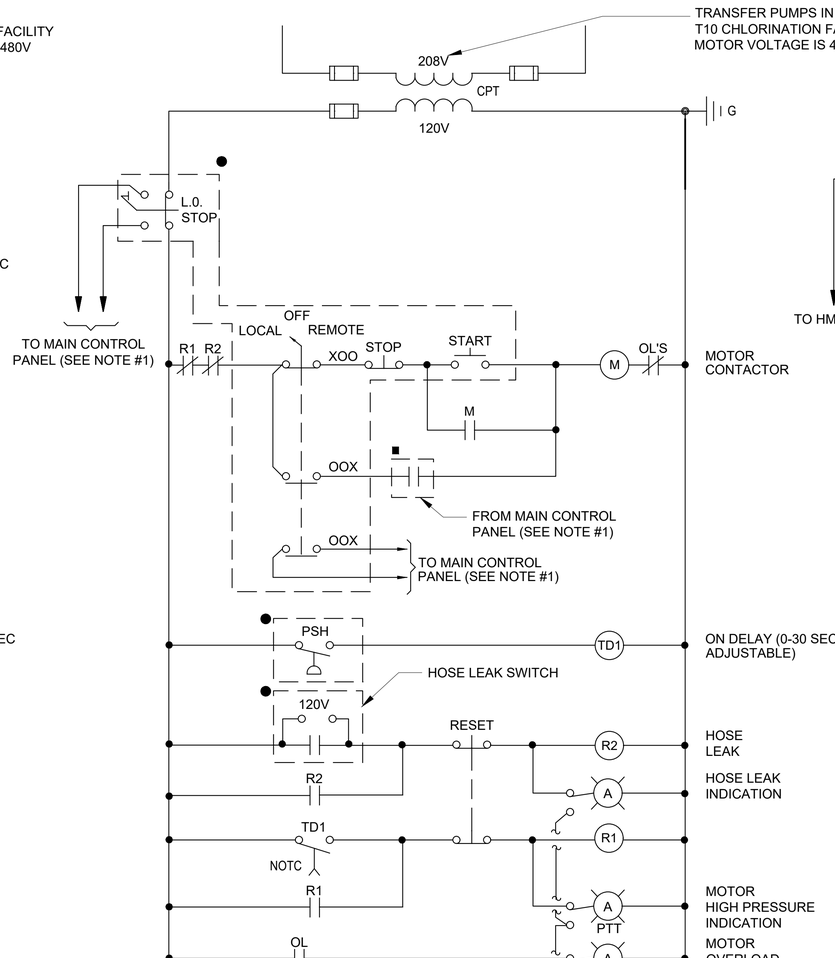


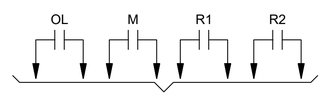
TYPICAL SAMPLE PUMP CONTROL SCHEMATIC

(TYPICAL FOR 6
TRANSFER PUMPS)

NOTES:

1. SAMPLE PUMPS FOR T10 DECHLORINATION FACILITY ARE CONTROLLED FROM CONTROL PANEL SBS-CP-10. SAMPLE PUMPS FOR T10 CHLORINATION FACILITY ARE CONTROLLED FROM PANEL MCP-10. SAMPLE FOR PUMPS FOR T11 DISINFECTION FACILITY ARE CONTROLLED FROM PANEL MCP-11.



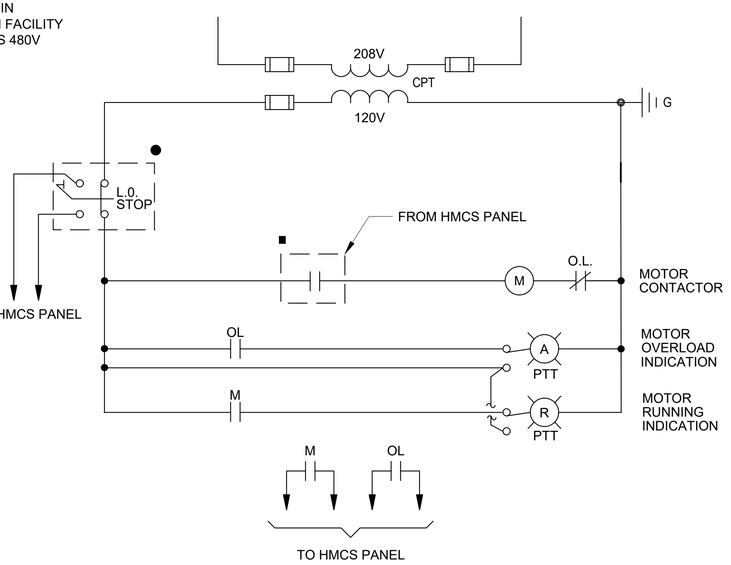


TYPICAL CHEMICAL TRANSFER PUMP CONTROL SCHEMATIC

(TYPICAL FOR 8
TRANSFER PUMPS)

NOTES:

1. TRANSFER PUMPS FOR T10 DECHLORINATION FACILITY ARE CONTROLLED FROM CONTROL PANEL SBS-CP-10. TRANSFER PUMPS FOR T10 CHLORINATION FACILITY ARE CONTROLLED FROM PANEL MCP-10. TRANSFER FOR PUMPS FOR T11 DISINFECTION FACILITY ARE CONTROLLED FROM PANEL MCP-11.



TYPICAL HVAC CONTROL SCHEMATIC

BID SET
DATE ISSUED: NOVEMBER 2026

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
CONTROL SCHEMATICS

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-903.00

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CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	CHEMICAL ROOM B01 AND STAIR 101B - LIGHTING	0.70	1.4			0.70	CHEMICAL ROOM B01 AND STAIR 101B - LIGHTING	20	2
3	20	ELECTRICAL ROOM, ENTRY HALL AND EQUIPMENT PLATFORM - LIGHTING	0.40		0.8		0.40	ELECTRICAL ROOM, ENTRY HALL AND EQUIPMENT PLATFORM - LIGHTING	20	4
5	20	ELECTRICAL ROOM, ENTRY HALL AND EQUIPMENT PLATFORM - RECEPTACLE	0.54			1.3	0.72	ELECTRICAL ROOM, ENTRY HALL AND EQUIPMENT PLATFORM - RECEPTACLE	20	6
7	20	CHEMICAL ROOM BO1 - RECEPTACLE	0.90	1.8			0.90	CHEMICAL ROOM BO1 - RECEPTACLE	20	8
9	20	MV-323, MV-324, MV-333	0.00		0.3		0.30	CCTV-CP-T10D	20	10
11	20	MV-327, MV-328, MV-334, MV-335	0.00			0.0	0.00	SPARE	20	12
13	20	SPARE	0.00	0.2			0.20	GENERATOR SHORE POWER RECEPTACLE	20	14
15	20	SPARE	0.00		0.2		0.20	GENERATOR SHORE POWER RECEPTACLE	30	16
17	20	AIT-305, AIT-311	0.10			0.6	0.50	HMCS-1	20	18
19	20	STRAINERS #1 & #2, MV-304, MV-310	0.00	0.8			0.75	CONTROL PANEL SBS-CP-10	20	20
21	20	FILL STATION PANEL SBS-PF-10	0.30		0.3		0.00	MV-329, MV-331	20	22
23	20	LIT-321, LIT-325, FIT-350, AIT-375	0.20			0.2	0.00	MV-340, MV-342, MV-344	20	24
* 25	20	HEAT TRACE	0.75	0.9			0.15	EMERGENCY EYEWASH/SHOWERS	20	26
* 27	20	HEAT TRACE	0.75		1.0		0.25	SBS LEAK DETECTION PANEL	20	28
* 29	20	HEAT TRACE	0.75			0.8	0.00	BUILDING FACADE SIGN LIGHTING	20	30
31	20	SITE LIGHTING	0.00	0.7			0.70	SAMPLE PUMP TI-010-SMP-1 CONTROL PANEL	3P 20	32
33	20	SITE LIGHTING	0.00		0.7		0.70			34
35	3P 30	ENTRY GATE CONTROL PANELS #1, #2 & #3	1.00			1.7	0.70			36
37			1.00	1.7			0.70	SAMPLE PUMP T1-010-SMP-2 CONTROL PANEL	3P 20	38
39			1.00		1.7		0.70			40
41	20	ROOF - RECEPTACLE	0.00			0.7	0.70			42
43	20	SPARE	0.00	0.5			0.50	SBS-CSP-1 & 2	3P 20	44
45	20	SPARE	0.00		0.5		0.50			46
47	20	SPARE	0.00			0.5	0.50			48
49	20	SPARE	0.00	0.0			0.00	SPARE	20	50
51	20	SPARE	0.00		0.0		0.00	SPARE	20	52
53	20	SPARE	0.00			0.0	0.00	SPARE	20	54
55	20	SPARE	0.00	0.0			0.00	SPARE	20	56
57	20	SPARE	0.00		0.0		0.00	SPARE	20	58
59	20	SPARE	0.00			0.0	0.00	SPARE	20	60
LIGHTING PANEL: T10D-LP-1 LOCATION: ELECTRICAL ROOM		TOTAL KVA		8.0	5.5	5.7	SERVICE CHARACTERISTICS: 208/120 VOLT - 3 PHASE - 4 WIRE - 60 HZ PROVIDE 100AF/100AT MAIN BREAKER & SOLID NEUTRAL 65KA SC RATING & GROUND BUS			
		GRAND CONNECTED TOTAL KVA			19.2					

* PROVIDE GFCI EQUIPMENT RATED CIRCUIT BREAKER

T10D-LP-1 PANELBOARD SCHEDULE

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	CHEMICAL STORAGE AREA LIGHTING	0.50	1.3			0.80	CONTROL PANEL MCP-10	20	2
3	20	CHEMICAL STORAGE AREA LIGHTING	0.50		1.0		0.50	SODIUM HYPO FILL STATION PANEL, MV-120	20	4
5	20	LIT-121, LIT-124, LIT-127	0.15			0.6	0.40	MV-126, MV-129, MV-135, MV-136	20	6
7	20	FIT-144, FIT-154	0.10	0.5			0.40	MV-123, MV-134, MV-137	20	8
9	20	EMERGENCY EYEWASH/SHOWERS	0.25		0.5		0.25	MV-113, FBCSO-STR-1	20	10
11	20	SPARE	0.00			0.4	0.40	MV-102, MV-104	20	12
13	20	SPARE	0.00	0.4			0.40	MV-130, MV-132, MV-140	20	14
15	20	SPARE	0.00		0.4		0.40	MV-140, MV-150, MV-152	30	16
17	20	SPARE	0.00			0.3	0.25	LDP-10C	20	18
19	20	SPARE	0.00	0.3			0.25	MV-116, FBCSO-STR-2	20	20
21	20	SPARE	0.00		0.0		0.00	SPARE	20	22
23	20	SPARE	0.00			0.0	0.00	SPARE	20	24
25	20	SPARE	0.00	1.0			1.00	SHOWER/EYE WASH HEAT TRACE	20	26 *
27	20	SPARE	0.00		1.0		1.00	SHOWER/EYE WASH HEAT TRACE	20	28 *
29	20	SPARE	0.00			1.0	1.00	SHOWER/EYE WASH HEAT TRACE	20	30 *
LIGHTING PANEL: TC10D-LP-1 LOCATION: ELECTRICAL ROOM		TOTAL KVA		3.5	2.9	2.2	SERVICE CHARACTERISTICS: 208/120 VOLT - 3 PHASE - 4 WIRE - 60 HZ PROVIDE 100AF/60AT MAIN BREAKER & SOLID NEUTRAL 22KA SC RATING & GROUND BUS			
		GRAND CONNECTED TOTAL KVA			8.6					

* PROVIDE GFCI EQUIPMENT RATED CIRCUIT BREAKER

T10C-LP-1 PANELBOARD SCHEDULE

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	CHEMICAL ROOM B03 & B04 AND HALL B02 - LIGHTING	0.80	1.6			0.80	CHEMICAL ROOM B03 & B04 AND HALL B02 - LIGHTING	20	2
3	20	ELECTRICAL ROOM 102, ENTRY HALL 101 AND LAYDOWN 104 & 105 - LIGHTING	0.40		0.8		0.40	ELECTRICAL ROOM 102, 101 AND LAYDOWN 104 & 105 - LIGHTING	20	4
5	20	STAIRS B01 - LIGHTING	0.20			0.4	0.20	STAIRS B01 - LIGHTING	20	6
7	20	CHEMICAL ROOM B03 & B04 AND HALL B02 - RECEPTACLE	1.08	2.2			1.08	CHEMICAL ROOM B03 & B04 AND HALL B02 - RECEPTACLE	20	8
9	20	STAIR B-R 101A - LIGHTING	0.20		0.4		0.20	STAIR B-R 101A - LIGHTING	20	10
11	20	ELECTRICAL ROOM 102, ENTRY HALL 101 AND LAYDOWN 104 - RECEPTACLE	0.72			1.6	0.9	ELECTRICAL ROOM 102, ENTRY ROOM 101, LAYDOWN 105 AND ROOF - RECEPTACLE	20	12
13	20	CHEMICAL ROOM B03 & B04, STAIRS B01 AND HALL B02 - RECEPTACLE	0.90	1.1			0.20	GENERATOR SHORE POWER RECEPTACLE	20	14
15	20	CHEMICAL ROOM B03 & B04 AND HALL B02 - LIGHTING	0.72		0.9		0.20	GENERATOR SHORE POWER RECEPTACLE	30	16
17	20	HYPO EMERGENCY EYEWASH/SHOWERS	0.15			0.7	0.50	HMCS-1	20	18
19	20	MV-423, MV-424, MV-433	0.00	1.0			1.00	MAIN CONTROL PANEL MCP-11	20	20
21	20	MV-427, MV-428, MV-434, MV-435	0.00		0.0		0.00	HYPO FILL PANEL SBS-FP-11	20	22
23	20	CCTV-CP-T11	0.00			0.0	0.00	LIT-421, LIT-425, FIT-446, AIT-481, AIT-486	20	24
25	20	SPARE	0.00	0.0			0.00	MV-429, MV-431, MV-440, MV-442, MV-444	20	26
27	20	MV-457, MV-458, MV-464	0.00		0.0		0.00	SPARE	20	28
29	20	MV-453, MV-454, MV-463, MV-465	0.00			0.0	0.00	MV-409, MV-415, STRAINER #1, STRAINER #2	20	30
* 31	20	HEAT TRACE HYPO AREA	0.00	0.7			0.70	SAMPLE PUMP T11-SMP-1	3P 20	32
* 33	20	HEAT TRACE HYPO AREA	0.00		0.7		0.70			34
* 35	20	HEAT TRACE SBS AREA	0.00			0.7	0.70			36
* 37	20	HEAT TRACE SBS AREA	0.00	0.7			0.70	SAMPLE PUMP T11-SMP-2	3P 20	38
39	20	MV-459, MV-461, MV-470, MV-472, MV-475	0.00		0.7		0.70			40
41	20	SPARE	0.00			0.7	0.70			42
43	20	SBS FILL STATION PANEL SBS-FP-11	0.00	0.2			0.15	LIT-451, LIT-455, FIT 476	20	44
45	20	SITE LIGHTING	0.20		0.3		0.10	SPARE	20	46
47	20	SBS EMERGENCY EYEWASH/SHOWERS	0.15			1.2	1.00	ENTRY GATE CONTROL PANELS #1 & #2	3P 30	48
49	20	HYPO AND SBS LEAK DETECTION PANELS	0.00	1.0			1.00			50
51	20	BUILDING FACADE SIGN LIGHTING	0.00		1.0		1.00			52
53	3P 20	HYPO-CSP-1 & 2	0.50			1.0	0.50	SBS-CSP-1 & 2	3P 20	54
55			0.50	1.0			0.50			56
57			0.50		1.0		0.50			58
59	20	SPARE	0.00			0.0	0.00	SPARE	20	60
LIGHTING PANEL: T11-LP-1 LOCATION: ELECTRICAL ROOM		TOTAL KVA		9.4	5.8	6.2	SERVICE CHARACTERISTICS: 208/120 VOLT - 3 PHASE - 4 WIRE - 60 HZ PROVIDE 100AF/60AT MAIN BREAKER & SOLID NEUTRAL 65KA SC RATING & GROUND BUS			
		GRAND CONNECTED TOTAL KVA			21.5					

* PROVIDE GFCI EQUIPMENT RATED CIRCUIT BREAKER

T11-LP-1 PANELBOARD SCHEDULE

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
PANEL SCHEDULES

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-904.00

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TAG	NOMINAL WATTS	NOMINAL LUMEN	COLOR TEMP.	DISTRIBUTION	VOLTAGE	DESCRIPTION	MANUFACTURER
A	58	8000	4000K	TYPE 4 SHORT	120-277	LED LIGHT FIXTURE WALL MOUNTED, UL 1598 LISTED, ROBUST CAST ALUMINUM HOUSING WITH LOW COPPER CONTENT TO WITHSTAND CORROSIVE ENVIRONMENT.	HOLOPHANE PXLW, EATON PVML OR APPROVED EQUAL
B	36	5000	4000K	TYPE 4 SHORT	120-277	LED LIGHT FIXTURE WALL MOUNTED, UL 1598 LISTED, ROBUST CAST ALUMINUM HOUSING WITH LOW COPPER CONTENT TO WITHSTAND CORROSIVE ENVIRONMENT.	HOLOPHANE PXLW, EATON PVML OR APPROVED EQUAL
C	24	4000	4000K	N/A	120-277	LED 4-FOOT LINEAR LIGHT FIXTURE, SUITABLE FOR DUSTY LOCATION, NEMA 4X, IP66 RATED, FIBERGLASS HOUSING WITH FROSTED ACRYLIC LENS.	HOLOPHANE EMS L48, LITHONIA FEM L48 OR APPROVED EQUAL
D	38	6000	4000K	WIDE	120-277	LED 4-FOOT LINEAR LIGHT FIXTURE, SUITABLE FOR DUSTY LOCATION, NEMA 4X, IP66 RATED, FIBERGLASS HOUSING WITH FROSTED ACRYLIC LENS.	HOLOPHANE EMS L48, LITHONIA FEM L48 OR APPROVED EQUAL
D1	38	6000	4000K	WIDE	120-277	SAME AS TYPE D EXCEPT WITH INTEGRAL OCCUPANCY SENSOR	HOLOPHANE EMS L48, LITHONIA FEM L48 OR APPROVED EQUAL
E	22	3250	5000K	TYPE 4 SHORT	120-277	LED LIGHT FIXTURE STANCHION MOUNTED, SUITABLE FOR CORROSIVE LOCATIONS, UL 1598 & UL844 LISTED, DIE CAST ALUMINUM LED HOUSING WITH IMPACT RESISTANT LENS TO WITHSTAND HARSH ENVIRONMENT.	HOLOPHANE PXLW, EATON PVML OR APPROVED EQUAL
F	40	6000	4000K	DIRECT	120-277	LED 2-FOOT LINEAR LIGHT FIXTURE, WALL MOUNTED, NEMA 4X, IP-66 RATED, CAST ALUMINUM HOUSING WITH FROSTED POLYCARBONATE LENS. PROVIDE 45 DEG WALL MOUNTING BRACKET. PROVIDE INTEGRAL OCCUPANCY SENSOR.	HOLOPHANE PETROLUX EMX SERIES, LITHONIA FEX SERIES OR APPROVED EQUAL
F1	20	3000	4000K	DIRECT	120-277	LED 2-FOOT LINEAR LIGHT FIXTURE, WALL MOUNTED, NEMA 4X, IP-66 RATED, CAST ALUMINUM HOUSING WITH FROSTED POLYCARBONATE LENS. PROVIDE 45 DEG WALL MOUNTING BRACKET.	HOLOPHANE PETROLUX EMX SERIES, LITHONIA FEX SERIES OR APPROVED EQUAL
F2	14	2000	4000K	DIRECT	120-277	LED 2-FOOT LINEAR LIGHT FIXTURE, WALL MOUNTED, NEMA 4X, IP-66 RATED, CAST ALUMINUM HOUSING WITH FROSTED POLYCARBONATE LENS. PROVIDE 45 DEG WALL MOUNTING BRACKET.	HOLOPHANE PETROLUX EMX SERIES, LITHONIA FEX SERIES OR APPROVED EQUAL
G	28	3200	4000K	TYPE 3 MEDIUM	120-277	LED WALL PACK OR SCONCE LIGHTING FIXTURE WITH FULL CUTOFF LENS, DIE-CAST ALUMINUM HOUSING WITH IMPACT-RESISTANT GLASS LENS, SUITABLE FOR WET LOCATIONS, PROVIDE INTEGRAL EMERGENCY BATTERY, OCCUPANCY SENSOR AND PHOTOCELL AND INTEGRAL SURGE PROTECTION. PROVIDE A GRAY OR GRAPHITE FINISH LIGHTING FIXTURE.	BEACON GEOPAK SERIES 2 TRP2, PHILIPS GARDCO OR APPROVED EQUAL
H	49	6400	4000K	N/A	120-277	LED 8-FOOT LINEAR LIGHT FIXTURE, SUITABLE FOR CORROSIVE LOCATION, NEMA 4X, IP66 RATED, FIBERGLASS HOUSING WITH FROSTED ACRYLIC LENS.	COLOMBIA LXEM SERIES, LITHONIA FEM SERIES OR APPROVED EQUAL
J	46	7000	3000K	TYPE 3 MEDIUM	120-277	LED POLE MOUNTED LIGHT FIXTURE WITH FULL CUTOFF LENS SUITABLE FOR WET AND CORROSIVE LOCATION, IP 66 RATED DIE-CAST ALUMINUM HOUSING WITH CORROSION RESISTANT PAINTED FINISH PROVIDE INTEGRAL PHOTOCELL AND SURGE PROTECTION PROVIDE MOTION/AMBIENT SENSOR.	AMERICAL ELECTRIC LIGHTING ACM, LITHONIA D-SERIES DSX0 OR APPROVED EQUAL
						PROVIDE 4-INCH WIDTH SQUARE ALUMINUM POLE FOR THE OUTDOOR AREA LIGHTING FIXTURE THE POLE SHALL BE PAINTED AND COATED FOR CORROSIVE LOCATION. POLE SHALL HAVE TOP CAP AND HANDHOLE OPENING ANCHOR BASE, COVER AND BOLT SHALL BE ALUMINUM. POLE COLOR SHALL MATCH LIGHTING FIXTURE. PROVIDE POLE LENGTH PER FIXTURE MOUNTING HEIGHT PER PLAN DRAWING.	LITHONIA SSA, HOLOPHANE SSA OR APPROVED EQUAL
K	36	2200	3000K	LINEAR	120-277	LED 4-FOOT LINEAR WALL MOUNTED LIGHT FIXTURE, SUITABLE FOR OUTDOOR LOCATIONS, UL1598A LISTED, CORROSION RESISTANT DIE CAST ALUMINUM HOUSING AND HIGH CLARITY ACRYLIC LENS. PROVIDE PHOTOCELL CONTROL OPERATION AT 120V	HYDREL 4750L, ALCON LIGHTING 11704 OR APPROVED EQUAL
							INTERMATIC PHOTO CONTROLS CAT #K4121C, TORK PHOTO CONTROLS CAT#2115 OR APPROVED EQUAL
L	60	8000	3000K	LINEAR	120-277	LED 4-FOOT PENDANT MOUNTED LINEAR LIGHT FIXTURE, SUITABLE FOR CLASS I DIVISION 2 LOCATION, UL 844 AND 1598 LISTED, NEMA 4X, IP66 RATED, ALUMINUM HOUSING WITH GLASS OR POLYCARBONATE LENS.	EATON CHAMP MLLA DIALIGHT SAFESITE LED LINEAR OR APPROVED EQUAL
X1	3.1	N/A	N/A	N/A	120-277	INDUSTRIAL LED EXIT SIGN, SINGLE OR DOUBLE FACE WITH RED LETTER AND WHITE FINISH, SUITABLE FOR WET AND CORROSIVE LOCATION, NEMA 4X RATED, DIE-CAST ALUMINUM HOUSING WITH NICKEL-CADMIUM BATTERY.	HUBBELL DUAL LITE SEWL SERIES, HOLOPHANE DELEON DLTLX OR APPROVED EQUAL
EM1	6.6	640	N/A	SPOT	120-277	EMERGENCY LIGHT FIXTURE WITH DUAL LED LAMPS, SUITABLE FOR WET LOCATION, IMPACT-RESISTANT, SCRATCH-RESISTANT, CORROSION PROOF AND UNIVERSAL MOUNTING, PROVIDE LITHIUM IRON PHOSPHATE BATTERY OR CADMIUM BATTERY BACKUP FOR 90 MIN. OPERATION AND SELF DIAGNOSTIC TESTING. PROVIDE REMOTE HEAD LIGHT FIXTURE AS INDICATED ON DRAWINGS	LITHONIA INDL SERIES, HUBBEL DYNAMO DYN SERIES, SURE-LITE SELIN SERIES OR APPROVED EQUAL

LIGHTING FIXTURE SCHEDULE

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: AI
CHECKED BY: FS
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SECTION MANAGER:

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STATE OF NEW YORK · GREGORY JAMES MOORE · 094341 · LICENSED PROFESSIONAL ENGINEER

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ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
LIGHTING FIXTURE SCHEDULE

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-905.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10D-C1	4"	4#500MCM & 1#4/0G	CON ED PROPERTY BOX	CON ED METER	POWER
T10D-C2	4"	4#500MCM & 1#4/0G	CON ED METER	SERVICE ENTRANCE CIRCUIT BREAKER	POWER
T10D-C3	4"	4#500MCM & 1#4/0G	SERVICE ENTRANCE CIRCUIT BREAKER	ATS-1	POWER
T10D-C4	4"	4#500MCM & 1#4/0G	DOCKING STATION	SPLICE BOX	POWER
T10D-C4A	4"	4#500MCM & 1#4/0G	SPLICE BOX	GENERATOR SERVICE BREAKER	POWER
T10D-C4B	4"	4#500MCM & 1#4/0G	GENERATOR SERVICE BREAKER	ATS-1	POWER
T10D-C5	4"	4#500MCM & 1#4/0G	ATS-1	T10D-DP-1	POWER
T10D-C6	3/4"	3#8 & 1#10G	T10D-DP-1	SBS-MP-1 VFD	POWER
T10D-C7	1 1/4"	22#12	SBS-MP-1 VFD	JBOX	CONTROL
T10D-C7A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10D-C7B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10D-C7C	3/4"	2#12	JBOX	SBS -MP-1	CONTROL
T10D-C7D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10D-C7E	3/4"	(2)-2/C#16(SH)	SBS-MP-1 VFD	CONTROL STATION	CONTROL
T10D-C8	1"	3#10 & 1#10G (VFD CABLE)	SBS-MP-1 VFD	SBS-MP-1 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C9	3/4"	3#8 & 1#10G	T10D-DP-1	SBS-MP-2 VFD	POWER
T10D-C10	1 1/4"	22#12	SBS-MP-2 VFD	JBOX	CONTROL
T10D-C10A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10D-C10B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10D-C10C	3/4"	2#12	JBOX	SBS-MP-2	CONTROL
T10D-C10D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10D-C10E	3/4"	(2)-2/C#16(SH)	SBS-MP-2 VFD	CONTROL STATION	SIGNAL
T10D-C11	1"	3#10 & 1#10G (VFD CABLE)	SBS-MP-2 VFD	SBS-MP-2 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C12	3/4"	3#8 & 1#10G	T10D-DP-1	SBS-MP-3 VFD	POWER
T10D-C13	1 1/4"	22#12	SBS-MP-3 VFD	JBOX	CONTROL
T10D-C13A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10D-C13B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10D-C13C	3/4"	2#12	JBOX	SBS-MP-3	CONTROL
T10D-C13D	3/4"	4#12	JBOX	LEAK SWITCH	CONTTROL
T10D-C13E	3/4"	(2)-2/C#16(SH)	SBS-MP-3 VFD	CONTROL STATION	CONTROL
T10D-C14	1"	3#10 & 1#10G (VFD CABLE)	SBS-MP-3 VFD	SBS-MP-3 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C15	3/4"	3#10 & 1#10G	T10D-DP-1	SBS-TP-1 STARTER	POWER
T10D-C16	1 1/4	3#10, 1#10G & 22#12	SBS-TP-1 STARTER	JBOX	POWER & CONTROL
T10D-C16A	3/4"	3#10 & 1#10G	JBOX	SBS-TP-1 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C16B	3/4"	16#12	JBOX	LCS	CONTROL
T10D-C16C	3/4"	2#12	JBOX	PSH	CONTROL
T10D-C16D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10D-C17	3/4"	3#10 & 1#10G	T10D-DP-1	SBS-TP21 STARTER	POWER
T10D-C18	1 1/4"	3#10, 1#10G & 22#12	SBS-TP-2 STARTER	JBOX	POWER & CONTROL
T10D-C18A	3/4"	3#10 & 1#10G	JBOX	SBS-TP-2 MOTOR (VIA DISCONNECT SWITCH)	POWER

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10D-C18B	3/4"	16#12	JBOX	LCS	CONTROL
T10D-C18C	3/4"	2#12	JBOX	PSH	CONTTROL
T10D-C18D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10D-C19	3/4"	3#8 & 1#10G	T10D-DP-1	JBOX	POWER
T10D-C19A	3/4"	3#8 & 1#10G	JBOX	T10-EUH-1 (VIA DISCONNECT SWITCH)	POWER
T10D-C19B	3/4"	3#8 & 1#10G	JBOX	T10-EUH-2 (VIA DISCONNECT SWITCH)	POWER
T10D-C20	3/4"	3#8 & 1#10G	T10D-DP-1	JBOX	POWER
T10D-C20A	3/4"	3#8 & 1#10G	JBOX	T10-EUH-3 (VIA DISCONNECT SWITCH)	POWER
T10D-C20B	3/4"	3#8 & 1#10G	JBOX	T10-EUH-4 (VIA DISCONNECT SWITCH)	POWER
T10D-C21	3/4"	3#12 & 1#12G	T10D-DP-1	T10-EUH-4 (VIA DISCONNECT SWITCH)	POWER
T10D-C22	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED
T10D-C23	1 1/2"	3#1 & 1#6G	T10D-DP-1	T10-EDH-1 (VIA DISCONNECT SWITCH)	POWER
T10D-C24	3/4"	3#12 & 1#12G	T10D-DP-1	T10-EF-1 STARTER	POWER
T10D-C25	3/4"	3#12, 1#12G & 4#12	T10-EF-1 STARTER	JBOX	POWER & CONTROL
T10D-C25A	3/4"	3#12 & 1#12G	JBOX	T10-EF-1 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C25B	3/4"	4#12	JBOX	LCS	CONTROL
T10D-C26	3/4"	3#10 & 1#10G	T10D-DP-1	T10-EF-2 STARTER	POWER
T10D-C27	1"	3#10, 1#10G & 4#12	T10-EF-2 STARTER	JBOX	POWER & CONTROL
T10D-C27A	3/4"	3#12 & 1#12G	JBOX	T10-EF-2 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C27B	3/4"	4#12	JBOX	LCS	CONTROL
T10D-C28	3/4"	3#12 & 1#12G	T10D-DP-1	T10-EF-3 STARTER	POWER
T10D-C29	3/4"	3#12, 1#12G & 4#12	T10-EF-3 STARTER	JBOX	POWER & CONTROL
T10D-C29A	3/4"	3#12 & 1#12G	JBOX	T10-EF-3 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C29B	3/4"	4#12	JBOX	LCS	CONTROL
T10D-C30	3/4"	3#12 & 1#12G	T10D-DP-1	T10-SF-1 STARTER	POWER
T10D-C31	3/4"	3#12, 1#12G & 4#12	T10-SF-1 STARTER	JBOX	POWER & CONTROL
T10D-C31A	3/4"	3#12 & 1#12G	JBOX	T10-SF-1 MOTOR (VIA DISCONNECT SWITCH)	POWER
T10D-C31B	3/4"	4#12	JBOX	LCS	CONTROL
T10D-C32	3/4"	3#10 & 1#10G	T10D-DP-1	T10-HP-1 (VIA DISCONNECT SWITCH)	POWER
T10D-C33	2"	4#1/0 & 1#6G	T10D-DP-1	T10-LP-1	POWER
T10D-C34	3/4"	3#12 & 1#12G	T10D-DP-1	SOLAR INVERTER	POWER
T10D-34A	3/4"	3#12 & 1#12G	SOLAR INVERTER	COMBINER BOX	POWER
T10D-C35	1"	3#6 & 1#10G	T10D-DP-1	TO-EWH-1 (VIA DISCONNECT SWITCH)	POWER
T10D-C36	3/4"	3#12 & 1#12G	T10D-DP-1	MONORAIL/HOIST (VIA DISCONNECT SWITCH)	POWER
T10D-C37	3/4"	3#10 & 1#10G	T10-LP-1	GENERATOR DOCKING STATION	POWER

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SECTION MANAGER:

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
CONDUIT AND CABLE SCHEDULE-I

DATE: NOVEMBER 2026
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CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10D-C38	3/4"	3#12 & 1#12G	T10-LP-1	GENERATOR DOCKING STATION	POWER
T10D-C39	1"	14#12	MCP-10	JBOX	CONTTROL
T10D-C40	1"	14#12	JBOX	T10C-ATS-1	CONTTROL
T10D-C41	1"	6#12	JBOX	GENERATOR DOCKING STATION	CONTTROL
T10D-C42-C49	NOT USED	NOT USED	NOT USED	NOT USED	
T10D-C50	3/4"	3#12 & 1#12G	T10D-LP-1	SBS-CP-10	POWER
T10D-C51	1 1/4"	20#12	SBS-CP-10	JBOX	CONTROL
T10D-C51A	3/4"	2#12	JBOX	FSH-322	CONTROL
T10D-C51B	3/4"	4#12	JBOX	LIT/LSH/YS-321	CONTROL
T10D-C52	3/4"	8#12	JBOX	SBS-FP-10	CONTROL
T10D-C53	3/4"	6#12	JBOX	JBOX	CONTROL
T10D-C53A	3/4"	2#12	JBOX	FSH-326	CONTROL
T10D-C53B	3/4"	4#12	JBOX	LIT/LSH/YS-325	CONTROL
T10D-C54	3/4"	2#12 & 1#12G	T10D-LP-1	SBS-FP-10	POWER
T10D-C55	1"	(3)-2/C#16(SH)	SBS-CP-10	JBOX	SIGNAL
T10D-C55A	3/4"	(2)-2/C#16(SH)	JBOX	LIT/LSH/YS-321	SIGNAL
T10D-C55B	3/4"	(2)-2/C#16(SH)	JBOX	LIT/LSH/YS-325	SIGNAL
T10D-C55C	3/4"	(1)-2/C#16(SH)	JBOX	FIT-350	SIGNAL
T10D-C56	3/4"	(2)-2/C#16(SH)	JBOX	SBS-FF-10	SIGNAL
T10D-C57	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C57A	3/4"	2#12 & 1#12G	JBOX	LIT/LSH/YS-321	POWER
T10D-C57B	3/4"	2#12 & 1#12G	JBOX	LIT/LSH/YS-325	POWER
T10D-C57C	3/4"	2#12 & 1#12G	JBOX	FIT-350	POWER
T10D-C57D	3/4"	2#12 & 1#12G	JBOX	AIT-375	POWER
T10D-C58	3/4"	2#12 & 1#12G	T10D-LP-1	SBS LEAK DETECTION PANEL	POWER
T10D-C59	3/4"	CBV	LIT/LSH/YS-321	LE-321	SIGNAL
T10D-C60	3/4"	CBV	LIT/LSH/YS-325	LE-325	SIGNAL
T10D-C61	3/4"	CBV	FIT-350	FE-350	SIGNAL
T10D-C62	2"	60#12	SBS-CP-10	JBOX	CONTROL
T10D-C63	1 1/2"	36#12	JBOX	JBOX	CONTROL
T10D-C63A	3/4"	12#12	JBOX	SBS-MP-1 VFD	CONTROL
T10D-C63B	3/4"	12#12	JBOX	SBS-MP-2 VFD	CONTROL
T10D-C63C	3/4"	12#12	JBOX	SBS-MP-3 VFD	CONTROL
T10D-C64	1 1/4"	24#12	JBOX	JBOX	CONTROL
T10D-C64A	3/4"	12#12	JBOX	SBS-TP-1 STARTER	CONTROL
T10D-C64B	3/4"	12#12	JBOX	SBS-TP-2 STARTER	CONTROL
T10D-C65	1 1/2"	(7)-2/C#16(SH)	SBS-CP-10	JBOX	SIGNAL
T10D-C65A	3/4"	(1)-2/C#16(SH)	JBOX	TIT-378	SIGNAL
T10D-C65B	3/4"	(2)-2/C#16(SH)	JBOX	SBS-MP-1 VFD	SIGNAL
T10D-C65C	3/4"	(2)-2/C#16(SH)	JBOX	SBS-MP-2 VFD	SIGNAL
T10D-C65D	3/4"	(2)-2/C#16(SH)	JBOX	SBS-MP-3 VFD	SIGNAL
T10D-C66	2 1/2"	96#12	SBS-CP-10	JBOX	CONTROL
T10D-C67	2"	56#12	JBOX	JBOX	CONTROL
T10D-C67A	3/4"	8#12	JBOX	MV-328	CONTROL
T10D-C67B	3/4"	8#12	JBOX	MV-334	CONTROL
T10D-C67C	3/4"	8#12	JBOX	MV-327	CONTROL
T10D-C67D	3/4"	8#12	JBOX	MV-335	CONTROL
T10D-C68	1 1/4"	24#12	JBOX	JBOX	CONTROL
T10D-C68A	3/4"	8#12	JBOX	MV-324	CONTROL
T10D-C68B	3/4"	8#12	JBOX	MV-333	CONTROL

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10D-C68C	3/4"	8#12	JBOX	MV-323	CONTROL
T10D-C69	1 1/2"	40#14	JBOX	JBOX	CONTROL
T10D-C69A	3/4"	8#12	JBOX	MV-329	CONTROL
T10D-C69B	3/4"	8#12	JBOX	MV-331	CONTROL
T10D-C70	1 1/4"	24#12	JBOX	JBOX	CONTROL
T10D-C70A	3/4"	8#12	JBOX	MV-340	CONTROL
T10D-C70B	3/4"	8#12	JBOX	MV-342	CONTROL
T10D-C70C	3/4"	8#12	JBOX	MV-344	CONTROL
T10D-C71	3/4"	4#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C71A	3/4"	2#12 & 1#12G	JBOX	MV-324	POWER
T10D-C71B	3/4"	2#12 & 1#12G	JBOX	MV-333	POWER
T10D-C71C	3/4"	2#12 & 1#12G	JBOX	MV-323	POWER
T10D-C72	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T10D-C72A	3/4"	2#12 & 1#12G	JBOX	MV-328	POWER
T10D-C72B	3/4"	2#12 & 1#12G	JBOX	MV-334	POWER
T10D-C72C	3/4"	2#12 & 1#12G	JBOX	MV-327	POWER
T10D-C72D	3/4"	2#12 & 1#12G	JBOX	MV-335	POWER
T10D-C73	3/4"	4#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C73A	3/4"	2#12 & 1#12G	JBOX	MV-329	POWER
T10D-C73B	3/4"	2#12 & 1#12G	JBOX	MV-331	POWER
T10D-C74	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T10D-C74A	3/4"	2#12 & 1#12G	JBOX	MV-340	POWER
T10D-C74B	3/4"	2#12 & 1#12G	JBOX	MV-342	POWER
T10D-C74C	3/4"	2#12 & 1#12G	JBOX	MV-344	POWER
T10D-C75	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	HEAT TRACE POWER
T10D-C76	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	HEAT TRACE POWER
T10D-C77	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	HEAT TRACE POWER
T10D-C78	3/4"	6#12	SBS-CP-10	JBOX	CONTROL
T10D-C78A	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-386	CONTROL
T10D-C78B	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-387	CONTROL
T10D-C78C	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-388	CONTROL
T10D-C79	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C79A	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-386	POWER
T10D-C79B	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-387	POWER
T10D-C79C	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-388	POWER
T10D-C80	1"	(3)-2/C#16(SH)	SBS-CP-10	JBOX	SIGNAL
T10D-C80A	3/4"	(1)-2/C#16(SH)	JBOX	AIT-305	SIGNAL
T10D-C80B	3/4"	CBV	AIT-305	AE-305	SIGNAL
T10D-C80C	3/4"	(1)-2/C#16(SH)	JBOX	AIT-311	SIGNAL
T10D-C80D	3/4"	CBV	AIT-311	AE-311	SIGNAL
T10D-C80E	3/4"	(1)-2/C#16(SH)	JBOX	AIT-375	SIGNAL
T10D-C80F	3/4"	CBV	AIT-375	AE-375	SIGNAL
T10D-C80G	3/4"	CBV	AIT-375	AE-376	SIGNAL
T10D-C81	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C81A	3/4"	2#12 & 1#12G	JBOX	AIT-305	POWER
T10D-C81B	3/4"	2#12 & 1#12G	JBOX	AIT-311	POWER
T10D-C82	3/4"	6#12	SBS-CP-10	HMCS PANEL	CONTROL
T10D-C82A	1 1/4"	24#12	HMCS PANEL	JBOX	CONTROL
T10D-C82B	3/4"	8#12	JBOX	EF-1	CONTROL
T10D-C82C	3/4"	8#12	JBOX	EF-2	CONTROL
T10D-C82D	3/4"	8#12	JBOX	EF-3	CONTROL

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DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
CONDUIT AND CABLE SCHEDULE-II

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-907.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10D-C82E	3/4"	8#12	JBOX	SF-1	CONTROL
T10D-C82F	3/4"	2#12 & 1#12G	T10D-LP-1	HMCS PANEL	POWER
T10D-C83	1 1/2"	36#12	SBS-CP-10	JBOX	CONTROL
T10D-C84	1"	16#12	JBOX	JBOX	CONTROL
T10D-C84A	3/4"	2#12	JBOX	SV-306	CONTROL
T10D-C84B	3/4"	4#12	JBOX	MV-304	CONTROL
T10D-C84C	3/4"	4#12	JBOX	MV-310	CONTROL
T10D-C84D	3/4"	2#12	JBOX	FSL-303	CONTROL
T10D-C84E	3/4"	2#12	JBOX	FSL-309	CONTROL
T10D-C84F	3/4"	2#12	JBOX	LSHH-355	CONTROL
T10D-C85	1 1/4"	20#12	JBOX	JBOX	CONTROL
T10D-C85A	3/4"	4#12	JBOX	T1-010-STR-1	CONTROL
T10D-C85B	3/4"	4#12	JBOX	T1-010-STR-2	CONTROL
T10D-C85C	3/4"	6#12	JBOX	TI-010-SMP-1 STARTER	CONTROL
T10D-C85D	3/4"	6#12	JBOX	TI-010-SMP-2 STARTER	CONRTOL
T10D-C86	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C86A	3/4"	2#12 & 1#12G	JBOX	MV-304	POWER
T10D-C86B	3/4"	2#12 & 1#12G	JBOX	MV-310	POWER
T10D-C87	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T10D-C88	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T10D-C88A	3/4"	2#12 & 1#12G	JBOX	T1-010-STR-1	POWER
T10D-C88B	3/4"	2#12 & 1#12G	JBOX	T1-010-STR-2	POWER
T10D-C89	3/4"	2#12 & 1#12G	T10D-LP-1	TI-010-SMP-1 STARTER	POWER
T10D-C90	1"	3#8, 1#10G & 5#12	TI-010-SMP-1 STARTER	TERMIINAL BOX	POWER AND CONTROL
T10D-C90A	3/4"	CBV	TERMINAL BOX	TI-010-SMP-1	POWER
T10D-C90B	1"	18#12	TI-010-SMP-1 STARTER	JBOX	CONTROL
T10D-C90C	1"	16#12	JBOX	CONTROL STATION	CONTROL
T10D-C90D	3/4"	2#12	JBOX	PSH	CONTROL
T10D-C91	3/4"	2#12 & 1#12G	T10D-LP-1	TI-010-SMP-2 STARTER	CONTROL
T10D-C92	1"	3#8, 1#10G & 5#12	TI-010-SMP-2 STARTER	TERMIINAL BOX	POWER AND CONTROL
T10D-C92A	3/4"	CBV	TERMINAL BOX	TI-010-SMP-2 STARTER	POWER
T10D-C92B	1"	18#12	TI-010-SMP-2 STARTER	JBOX	CONTROL
T10D-C92C	1"	16#12	JBOX	CONTROL STATION	CONTROL
T10D-C92D	3/4"	2#12	JBOX	PSH	CONTROL
T10D-C93	3/4"	3#8 & 1#10G	T10D-LP-1	JBOX	POWER
T10D-C94	3/4"	3#8 & 1#10G	JBOX	ENTRY GATE CONTROL PANEL #1	POWER
T10D-C95	3/4"	3#8 & 1#10G	JBOX	ENTRY GATE CONTROL PANEL #2	POWER
T10D-C96	3/4"	2#12	SBS-CP-10	SBS LEAK DETECTION PANEL	CONTROL
T10D-C97	3/4"	(1)-CAT6	SBS-CP-10	CCTV-CP-T10D	SIGNAL
T10D-C98	3/4"	3#8 & 1#10G	T10D-LP-1	CCTV-CP-T10D	POWER
T10D-C99	1"	(4)-CAT 6	CCTV-CP-T10D	JBOX	SIGNAL
T10D-C99A	3/4"	(1)-CAT6	JBOX	CCTV-1	SIGNAL
T10D-C99B	3/4"	(1)-CAT6	JBOX	CCTV-1	SIGNAL
T10D-C99C	3/4"	(1)-CAT6	JBOX	CCTV-1	SIGNAL
T10D-C99D	3/4"	(1)-CAT6	JBOX	CCTV-1	SIGNAL
T10D-C100	3/4"	2#12 & 1#12G	CCTV-CP-T10D	JBOX	POWER
T10D-C100A	3/4"	2#12 & 1#12G	JBOX	CCTV-1	POWER
T10D-C100B	3/4"	2#12 & 1#12G	JBOX	CCTV-1	POWER
T10D-C100C	3/4"	2#12 & 1#12G	JBOX	CCTV-1	POWER

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10D-C100D	3/4"	2#12 & 1#12G	JBOX	CCTV-1	POWER
T10D-C101	3/4"	2#12 & 1#12G	T10D-LP-1	JBOX	POWER
T10D-C101A	3/4"	2#12 & 1#12G	JBOX	SBS-CSP-1	POWER
T10D-C101B	3/4"	2#12 & 1#12G	JBOX	SBS-CSP-2	POWER
T10C-C1	2"	3#4/0 & 1#4G	EXISTING MCC-1524 BUS A	T10C-ATS-1 (VIA FUSED DISCONNECT SWITCH)	POWER
T10C-C2	2"	3#4/0 & 1#4G	EXISTING MCC-1524 BUS B	T10C-ATS-1 (VIA FUSED DISCONNECT SWITCH)	POWER
T10C-C3	2"	3#4/0 & 1#4G	T0C-ATS-1 (VIA FUSED DISCONNECT SWITCH)	T10C-ATS-2	POWER
T10C-C4	2"	3#4/0 & 1#4G	GENERATOR DOCKING STATION	T10C-ATS-2	POWER
T10C-C5	2"	3#4/0 & 1#4G	T10C-ATS-2	T10C-DP-1	POWER
T10C-C6	3/4"	3#10 & 1#10G	T10C-DP-1	HPY0 METER PUMP 1A VFD	POWER
T10C-C7	1 1/4"	22#12	HPY0 METER PUMP 1A VFD	JBOX	CONTROL
T10C-C7A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10C-C7B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10C-C7C	3/4"	2#12	JBOX	HYPO METER PUMP 1A	CONTROL
T10C-C7D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10C-C7E	3/4"	(2)-2/C#16(SH)	HPY0 METER PUMP 1A VFD	CONTROL STATION	SIGNAL
T10C-C8	3/4"	3#10 & 1#10G (VFD CABLE)	HPY0 METER PUMP 1A VFD	HYPO METER PUMP 1A (VIA DISCONNECT SWITCH)	POWER
T10C-C9	3/4"	3#10 & 1#10G	T10C-DP-1	HPY0 METER PUMP 1B VFD	POWER
T10C-C10	1 1/4"	22#12	HPY0 METER PUMP 1B VFD	JBOX	CONTROL
T10C-C10A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10C-C10B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10C-C10C	3/4"	2#12	JBOX	HPY0 METER PUMP 1B	CONTROL
T10C-C10D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10C-C10E	3/4"	(2)-2/C#16(SH)	HPY0 METER PUMP 1B VFD	CONTROL STATION	SIGNAL
T10C-C11	3/4"	3#10 & 1#10G (VFD CABLE)	HPY0 METER PUMP 1B VFD	HYPO METER PUMP 1B (VIA DISCONNECT SWITCH)	POWER
T10C-C12	1"	3#6 & 1#10G	T10C-DP-1	HPY0 METER PUMP 2A VFD	POWER
T10C-C13	1 1/4"	22#12	HPY0 METER PUMP 2A VFD	JBOX	CONTROL
T10C-13A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10C-C13B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10C-C13C	3/4"	2#12	JBOX	HPY0 METER PUMP 2A	CONTROL
T10C-C13D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10C-C13E	3/4"	(2)-2/C#16(SH)	HPY0 METER PUMP 2A VFD	CONTROL STATION	SIGNAL
T10C-C14	1"	3#6 & 1#8G (VFD CABLE)	HPY0 METER PUMP 2A VFD	HYPO METER PUMP 2A (VIA DISCONNECT SWITCH)	POWER
T10C-C15	1"	3#6 & 1#8G	T10C-DP-1	HPY0 METER PUMP 2B VFD	POWER
T10C-C16	1 1/4"	22#12	HPY0 METER PUMP 2B VFD	JBOX	CONTROL
T10C-16A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10C-C16B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T10C-16C	3/4"	2#12	JBOX	HPY0 METER PUMP 2B VFD	CONTROL
T10C-16D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL

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SECTION MANAGER:

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
CONDUIT AND CABLE SCHEDULE-III

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-908.00

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CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10C-16E	3/4"	(2)-2/C#16(SH)	HPY0 METER PUMP 2B VFD	CONTROL STATION	SIGNAL
T10C-C17	1"	3#6 & 1#8G (VFD CABLE)	HPY0 METER PUMP 2B VFD	HYPO METER PUMP 2B (VIA DISCONNECT SWITCH)	POWER
T10C-C18	1"	3#4 & 1#8G	T10C-DP-1	SUMP PUMP CONTROL PANEL	POWER
T10C-C19	NOT USED	NOT USED	NOT USED	NOT USED	
T10C-C20	3/4"	3#10 & 1#10G	SUMP PUMP CONTROL PANEL	SUMP PUMP CSP-1 (VIA DISCONNECT SWITCH)	POWER
T10C-C21	3/4"	3#10 & 1#10G	SUMP PUMP CONTROL PANEL	SUMP PUMP CSP-2 (VIA DISCONNECT SWITCH)	POWER
T10C-C22	3/4"	3#12 & 1#12G	T10C-DP-1	HYPO TRANSFER PUMP TP-1 STARTER	POWER
T10C-C23	1 1/4"	3#12,1#12G & 22#12	HYPO TRANSFER PUMP TP-1 STARTER	JBOX	POWER/CONTROL
T10C-C23A	3/4"	3#12 & 1#12G	JBOX	HYPO TRANSFER PUMP TP-1	POWER
T10C-C23B	1"	16#12	JBOX	CONTROL STATION	CONTROL
T10C-C23C	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10C-C23D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10C-C24	3/4"	3#12 & 1#12G	T10C-DP-1	HYPO TRANSFER PUMP TP-2 STARTER	POWER
T10C-C25	1 1/4"	3#12,1#12G & 22#12	HYPO TRANSFER PUMP TP-2 STARTER	JBOX	POWER/CONTROL
T10C-C25A	3/4"	3#12 & 1#12G	JBOX	HYPO TRANSFER PUMP TP-2	POWER
T10C-C25B	1"	16#12	JBOX	CONTROL STATION	CONTROL
T10C-C25C	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T10C-C25D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T10C-C26	3/4"	3#10 & 1#10G	T10C-DP-1	XFMR T10C-1	POWER
T10C-C26A	1 1/2"	4#4 & 1#8G	XFMR T10C-1	T10C-LP-1	POWER
T10C-C27	3/4"	3#8 & 1#10G	T10C-DP-1	T10C-EWH-1 (VIA DISCONNECT SWITCH)	POWER
T10C-C28	NOT USED	NOT USED	NOT USED	NOT USED	
T10C-C29	3/4"	3#12 & 1#12G	T10C-DP-1	FBCSO-SMP-1 STARTER	POWER
T10C-C30	1 1/4"	3#12,1#12G & 18#12	FBCSO-SMP-1 STARTER	JBOX	POWER/CONTROL
T10C-C30A	3/4"	3#12 & 1#12G	JBOX	FBCSO-SMP-1	POWER
T10C-C30B	3/4"	16#12	JBOX	CONTROL STATION	CONTROL
T10C-C30C	3/4"	2#12	JBOX	PSH	CONTROL
T10C-C31	3/4"	3#12 & 1#12G	T10C-DP-1	FBCSO-SMP-2 STARTER	CONTROL
T10C-C32	1 1/4"	3#12,1#12G & 18#12	FBCSO-SMP-2 STARTER	JBOX	POWER/CONTROL
T10C-C32A	3/4"	3#12 & 1#12G	JBOX	FBCSO-SMP-2	POWER
T10C-C32B	3/4"	16#12	JBOX	CONTROL STATION	CONTROL
T10C-C32C	3/4"	2#12	JBOX	PSH	CONTROL
T10C-C33	1"	14#12	MCP-10	JBOX	CONTROL
T10C-C34	1"	14#12	JBOX	T10C-ATS-2	CONTROL
T10C-C35	1"	6#12	JBOX	GENERATOR DOCKING STATION	SPARE
T10C-C36	3/4"	2#10 & 1#10G	T10C-LP-1	GENERATOR DOCKING STATION	POWER
T10C-C37	3/4"	2#12 & 1#12G	T10C-LP-1	GENERATOR DOCKING STATION	POWER
T10C-C38 - C49	NOT USED	NOT USED	NOT USED	NOT USED	
T10C-C50	3/4"	2#12 & 1#12G	T10C-LP-1	MCP-10	POWER
T10C-C51	3/4"	2#12 & 1#12G	T10C-LP-1	JBOX	HEAT TRACE POWER
T10C-C52	3/4"	2#12 & 1#12G	T10C-LP-1	JBOX	HEAT TRACE POWER
T10C-C53	3/4"	2#12 & 1#12G	T10C-LP-1	JBOX	HEAT TRACE POWER
T10C-C54	2"'	44#12	MCP-10	JBOX	CONTROL
T10C-C54A	3/4"	2#12	JBOX	FSH-122	CONTROL
T10C-C54B	3/4"	4#12	JBOX	LIT/LSH/YS-121	CONTROL
T10C-C55	1 1/4"	26#12	JBOX	JBOX	CONTROL
T10C-C55A	1 1/4"	24#12	JBOX	HYPO-FP-10	CONTROL
T10C-C55B	3/4"	2#12	JBOX	ETEWASH/SHOWER FSH-385	CONTROL

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10C-C56	1"	12#12	JBOX	JBOX	CONTROL
T10C-C56A	3/4"	2#12	JBOX	FSH-125	CONTROL
T10C-C56B	3/4"	4#12	JBOX	LIT/LSH/YS-124	CONTROL
T10C-C57	3/4"	6#12	JBOX	JBOX	CONTROL
T10C-C57A	3/4"	2#12	JBOX	FSH-128	CONTROL
T10C-C57B	3/4"	4#12	JBOX	LIT/LSH/YS-127	CONTROL
T10C-C58	3/4"	CBV	LIT/LSH/YS-121	LE-121	SIGNAL
T10C-C59	3/4"	CBV	LIT/LSH/YS-124	LE-124	SIGNAL
T10C-C60	3/4"	CBV	LIT/LSH/YS-127	LE-127	SIGNAL
T10C-C61	1 1/4"	(5)-2/C#16(SH)	MCP-10	JBOX	SIGNAL
T10C-C61A	3/4"	(2)-2/C#16(SH)	JBOX	LIT/LSH/YS-121	SIGNAL
T10C-C61B	3/4"	(2)-2/C#16(SH)	JBOX	LIT/LSH/YS-124	SIGNAL
T10C-C61C	3/4"	(2)-2/C#16(SH)	JBOX	LIT/LSH/YS-127	SIGNAL
T10C-C62	1 1/4"	(5)-2/C#16(SH)	JBOX	JBOX	SIGNAL
T10C-C62A	1"	(3)-2/C#16(SH)	JBOX	HYPO-FP-10	SIGNAL
T10C-C63	3/4"	(2)-2/C#16(SH)	JBOX	JBOX	SIGNAL
T10C-C63A	3/4"	(1)-2/C#16(SH)	JBOX	FIT-144	SIGNAL
T10C-C63B	3/4"	CBV	FIT-144	FE-144	SIGNAL
T10C-C63C	3/4"	(1)-2/C#16(SH)	JBOX	FIT-154	SIGNAL
T10C-C63D	3/4"	CBV	FIT-154	FE-154	SIGNAL
T10C-C64	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C64A	3/4"	2#12 & 1#12G	JBOX	LIT/LSH/YS-121	POWER
T10C-C64B	3/4"	2#12 & 1#12G	JBOX	LIT/LSH/YS-124	POWER
T10C-C64C	3/4"	2#12 & 1#12G	JBOX	LIT/LSH/YS-127	POWER
T10C-C65	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C65A	3/4"	2#12 & 1#12G	JBOX	FIT-144	POWER
T10C-C65B	3/4"	2#12 & 1#12G	JBOX	FIT-154	POWER
T10C-C66	2"	56#12	MCP-10	JBOX	CONTROL
T10C-C66A	3/4"	8#12	JBOX	MV-123	CONTROL
T10C-C66B	3/4"	8#12	JBOX	MV-134	CONTROL
T10C-C66C	3/4"	8#12	JBOX	MV-137	CONTROL
T10C-C67	1 1/2"	32#14	JBOX	JBOX	CONTROL
T10C-C67A	3/4"	8#12	JBOX	MV-136	CONTROL
T10C-C67B	3/4"	8#12	JBOX	MV-135	CONTROL
T10C-C68	1"	16#12	JBOX	JBOX	CONTROL
T10C-C68A	3/4"	8#12	JBOX	MV-129	CONTROL
T10C-C68B	3/4"	8#12	JBOX	MV-126	CONTROL
T10C-C69	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C69A	3/4"	2#12 & 1#12G	JBOX	MV-129	POWER
T10C-C69B	3/4"	2#12 & 1#12G	JBOX	MV-126	POWER
T10C-C70	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C70A	3/4"	2#12 & 1#12G	JBOX	MV-136	POWER
T10C-C70B	3/4"	2#12 & 1#12G	JBOX	MV-135	POWER
T10C-C71	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C71A	3/4"	2#12 & 1#12G	JBOX	MV-123	POWER
T10C-C71B	3/4"	2#12 & 1#12G	JBOX	MV-134	POWER
T10C-C71C	3/4"	2#12 & 1#12G	JBOX	MV-137	POWER
T10C-C72	2"	48#12	MCP-10	JBOX	CONTROL
T10C-C72A	3/4"	8#12	JBOX	MV-150	CONTROL
T10C-C72B	3/4"	8#12	JBOX	MV-152	CONTROL
T10C-C73	1 1/2"	32#14	JBOX	JBOX	CONTROL

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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
CONDUIT AND CABLE SCHEDULE-IV

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-909.00

All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10C-C73A	3/4"	8#12	JBOX	MV-140	CONTROL
T10C-C73B	3/4"	8#12	JBOX	MV-142	CONTROL
T10C-C74	1"	16#12	JBOX	JBOX	CONTROL
T10C-C74A	3/4"	8#12	JBOX	MV-130	CONTROL
T10C-C74B	3/4"	8#12	JBOX	MV-132	CONTROL
T10C-C75	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C75A	3/4"	2#12 & 1#12G	JBOX	MV-130	POWER
T10C-C75B	3/4"	2#12 & 1#12G	JBOX	MV-132	POWER
T10C-C76	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T10C-C76A	3/4"	2#12 & 1#12G	JBOX	MV-140	POWER
T10C-C76B	3/4"	2#12 & 1#12G	JBOX	MV-142	POWER
T10C-C76C	3/4"	2#12 & 1#12G	JBOX	MV-150	POWER
T10C-C76D	3/4"	2#12 & 1#12G	JBOX	MV-152	POWER
T10C-C77	3/4"	8#12	MCP-10	JBOX	CONTROL
T10C-C77A	3/4"	6#12	JBOX	HYPO-SPCP-10	CONTROL
T10C-C77B	3/4"	2#12	JBOX	LSHH-170	CONTROL
T10C-C78	3/4"	8#12	HYPO-SPCP-10	JBOX	CONTROL
T10C-C78A	3/4"	2#12	JBOX	LS1-160	CONTROL
T10C-C78B	3/4"	2#12	JBOX	LS2-160	CONTROL
T10C-C78C	3/4"	2#12	JBOX	LSH-160	CONTROL
T10C-C78D	3/4"	2#12	JBOX	LSHH-160	CONTROL
T10C-C79	3/4"	8#12	MV-120	HYPO-FP-10	CONTROL
T10C-C80	3/4"	(2)-2/C#16(SH)	JBOX	JBOX	SIGNAL
T10C-C80A	3/4"	(1)-2/C#16(SH)	JBOX	FIT-101	SIGNAL
T10C-C80B	3/4"	CBV	FIT-101	FE-101	SIGNAL
T10C-C80C	3/4"	(1)-2/C#16(SH)	JBOX	FIT-103	SIGNAL
T10C-C80D	3/4"	CBV	FIT-103	FE-103	SIGNAL
T10C-C81	1"	(4)-2/C#16(SH)	MCP-10	JBOX	SIGNAL
T10C-C82	3/4"	(2)-2/C#16(SH)	JBOX	JBOX	SIGNAL
T10C-C82A	3/4"	(1)-2/C#16(SH)	JBOX	AIT-114	SIGNAL
T10C-C82B	3/4"	CBV	AIT-114	AE-114	SIGNAL
T10C-C82C	3/4"	(1)-2/C#16(SH)	JBOX	AIT-119	SIGNAL
T10C-C82D	3/4"	CBV	AIT-119	AE-119	SIGNAL
T10C-C83	3/4"	(2)-2/C#16(SH)	JBOX	JBOX	SIGNAL
T10C-C83A	3/4"	(1)-2/C#16(SH)	JBOX	PIT-105	SIGNAL
T10C-C83B	3/4"	(1)-2/C#16(SH)	JBOX	PIT-106	SIGNAL
T10C-C84	3/4"	2#12 & 1#12G	MCP-10	JBOX	SIGNAL
T10C-C84A	3/4"	2#12 & 1#12G	JBOX	AIT-114	POWER
T10C-C84B	3/4"	2#12 & 1#12G	JBOX	AIT-119	POWER
T10C-C85	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C85A	3/4"	2#12 & 1#12G	JBOX	MV-113	POWER
T10C-C85B	3/4"	2#12 & 1#12G	JBOX	MV-118	POWER
T10C-C86	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T10C-C86A	3/4"	2#12 & 1#12G	JBOX	FBSCO-STR-1	POWER
T10C-C86B	3/4"	2#12 & 1#12G	JBOX	FBSCO-STR-2	POWER
T10C-C87	2"	44#12	MCP-10	JBOX	CONTROL
T10C-C87A	3/4"	2#12	JBOX	FSL-117	CONTROL
T10C-C87B	3/4"	4#12	JBOX	FBSCO-STR-1	CONTROL
T10C-C87C	3/4"	4#12	JBOX	FBSCO-STR-2	CONTROL
T10C-C87D	1"	12#12	JBOX	FBSCO-SMP-1	CONTROL
T10C-C87E	1"	12#12	JBOX	FBSCO-SMP-2	CONTROL

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T10C-C88	3/4"	10#12	JBOX	JBOX	CONTROL
T10C-C88A	3/4"	4#12	JBOX	MV-113	CONTROL
T10C-C88B	3/4"	4#12	JBOX	MV-118	CONTROL
T10C-C88C	3/4"	2#12	JBOX	FSL-112	CONTROL
T10C-C89	3/4"	2#12	MCP-10	LEAK DETECTION PANEL LDP-10	CONTROL
T10C-C90	3/4"	2#12 & 1#12G	T10C-LP1	LEAK DETECTION PANEL LDP-10	POWER
T10C-C91	2 1/2"	72#12	MCP-10	JBOX	CONTROL
T10C-C91A	1"	12#12	JBOX	METER PUMP HYPO-MP-1A VFD	CONTROL
T10C-C91B	1"	12#12	JBOX	METER PUMP HYPO-MP-2A VFD	CONTROL
T10C-C91C	1"	12#12	JBOX	METER PUMP HYPO-MP-1B VFD	CONTROL
T10C-C91D	1"	12#12	JBOX	METER PUMP HYPO-MP-2B VFD	CONTROL
T10C-C92	1 1/4"	24#12	JBOX	JBOX	CONTROL
T10C-C92A	1"	12#12	JBOX	HYPO TRANSFER PUMP #1 STARTER	CONTROL
T10C-C92B	1"	12#12	JBOX	HYPO TRANSFER PUMP #2 STARTER	CONTROL
T10C-C93	1 1/2"	(10)-2/C#16(SH)	MCP-10	JBOX	SIGNAL
T10C-C93A	3/4"	(2)-2/C#16(SH)	JBOX	METER PUMP HYPO-MP-1A VFD	SIGNAL
T10C-C93B	3/4"	(2)-2/C#16(SH)	JBOX	METER PUMP HYPO-MP-2A VFD	SIGNAL
T10C-C93C	3/4"	(2)-2/C#16(SH)	JBOX	METER PUMP HYPO-MP-1B VFD	SIGNAL
T10C-C93D	3/4"	(2)-2/C#16(SH)	JBOX	METER PUMP HYPO-MP-2B VFD	SIGNAL
T10C-C94	3/4"	10#12	MCP-10	JBOX	CONTROL
T10C-C94A	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-381	CONTROL
T10C-C94B	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-382	CONTROL
T10C-C94C	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-383	CONTROL
T10C-C94D	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-384	CONTROL
T10C-C94E	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-385	CONTROL
T10C-C95	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C95A	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-381	POWER
T10C-C95B	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-382	POWER
T10C-C95C	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-383	POWER
T10C-C95D	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-384	POWER
T10C-C95E	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-385	POWER
T10C-C96	NOT USED	NOT USED	NOT USED	NOT USED	POWER
T10C-C97	3/4"	2#12 & 1#12G	T10C-LP1	JBOX	POWER
T10C-C97A	3/4"	2#12 & 1#12G	JBOX	MV-120	POWER
T10C-C97B	3/4"	2#12 & 1#12G	JBOX	HYP-FP-10	POWER
T10C-C97C	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-386	POWER
T10C-C98	3/4"	2#12 & 1#12G	MCP-10	JBOX	POWER
T10C-C98A	3/4"	2#12 & 1#12G	JBOX	FIT-101	POWER
T10C-C98B	3/4"	2#12 & 1#12G	JBOX	FIT-103	POWER
T11-C1	4"	3#500MCM & 1#4/0G	CONED PROPERTY BOX	CONED METER	POWER
T11-C1A	4"	3#500MCM & 1#4/0G	CONED PROPERTY BOX	CONED METER	POWER
T11-C2	4"	3#500MCM & 1#4/0G	CONED METER	SERVICE ENTRANCE DISCONNECT SWITCH	POWER
T11-C2A	4"	3#500MCM & 1#4/0G	CONED METER	SERVICE ENTRANCE DISCONNECT SWITCH	POWER
T11-C3	4"	3#500MCM & 1#4/0G	SERVICE ENTRANCE DISCONNECT SWITCH	T11-ATS-1	POWER
T11-C3A	4"	3#500MCM & 1#4/0G	SERVICE ENTRANCE DISCONNECT SWITCH	T11-ATS-1	POWER
T11-C4	4"	3#500MCM & 1#4/0G	GENERATOR DOCKING STATION	SPLICE BOX	POWER
T11-C4A	4"	3#500MCM & 1#4/0G	GENERATOR DOCKING STATION	SPLICE B0X	POWER

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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DIRECTOR, IN HOUSE DESIGN

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CONDUIT AND CABLE SCHEDULE-V

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CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C4B	4"	3#500MCM & 1#4/0G	SPLICE B0X	CIRCUIT BREAKER-DISCONNECT	POWER
T11-C4C	4"	3#500MCM & 1#4/0G	SPLICE B0X	CIRCUIT BREAKER-DISCONNECT	POWER
T11-C4C	4"	3#500MCM & 1#4/0G	CIRCUIT BREAKER-DISCONNECT	T11-ATS-1	POWER
T11-C4C	4"	3#500MCM & 1#4/0G	CIRCUIT BREAKER-DISCONNET	T11-ATS-1	POWER
T11-C5	4"	3#500MCM & 1#4/0G	T11-ATS-1	T11-SWBD-1	POWER
T11-C5A	4"	3#500MCM & 1#4/0G	T11-ATS-1	T11-SWBD-1	POWER
T11-C6	1"	3#6 & 1#8G	T11-SWBD-1	HYPO-MP-1 VFD	POWER
T11-C7	1 1/4"	22#12	HYPO-MP-1 VFD	JBOX	CONTROL
T11-C7A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C7B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T11-C7C	3/4"	2#12	JBOX	HYPO-MP-1	CONTROL
T11-C7D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C7E	3/4"	(2)-2/C#16(SH)	HYPO-MP-1 VFD	CONTROL STATION	SIGNAL
T11-C8	3/4"	3#8 & 1#10G (VFD CABLE)	HYPO-MP-1 VFD	HYPO-MP-1 (VIA DISCONNECT SWITCH)	POWER
T11-C9	1"	3#6 & 1#8G	T11-SWBD-1	HYPO-MP-2 VFD	POWER
T11-C10	1 1/4"	22#12	HYPO-MP-2 VFD	JBOX	CONTROL
T11-C10A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C10B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T11-C10C	3/4"	2#12	JBOX	HYPO-MP-2	CONTROL
T11-C10D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C10E	3/4"	(2)-2/C#16(SH)	HYPO-MP-2 VFD	CONTROL STATION	SIGNAL
T11-C11	3/4"	3#8 & 1#8G (VFD CABLE)	HYPO-MP-1 VFD	HYPO-MP-2 (VIA DISCONECT SWITCH)	POWER
T11-C12	1"	3#6 & 1#8G	T11-SWBD-1	HYPO-MP-3 VFD	POWER
T11-C13	1 1/4"	22#12	HYPO-MP-3 VFD	JBOX	CONTROL
T11-C13A	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C13B	1"	14#12	JBOX	CONTROL STATION	CONTROL
T11-C13C	3/4"	2#12	JBOX	HYPO-MP-3	CONTROL
T11-C13D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C13E	3/4"	(2)-2/C#16(SH)	HYPO-MP-3 VFD	CONTROL STATION	CONTROL
T11-C14	3/4"	3#8 & 1#10G (VFD CABLE)	HYPO-MP-3 VFD	HYPO-MP-3 (VIA DISCONECT SWITCH)	POWER
T11-C15	3/4"	3#10 & 1#10G	T11-SWBD-1	HYPO-TP-1 STARTER	POWER
T11-C16	1 1/4"	3#10, 1#10G & 22#12	HYPO-TP-1 STARTER	JBOX	POWER AND CONTRLOL
T11-C16A	3/4"	3#10 & 1#10G	JBOX	HYP0-TP-1 (VIA DISCONNECT SWITCH)	CONTROL
T11-C16B	1"	16#12	JBOX	CONTROL STATION	CONTROL
T11-C16C	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C16D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C17	3/4"	3#10 & 1#10G	T11-SWBD-1	HYPO-TP-2 STARTER	POWER
T11-C18	1 1/4"	3#10, 1#10G & 22#12	HYPO-TP-2 STARTER	JBOX	POWER AND CONTRLOL
T11-C18A	3/4"	3#10 & 1#10G	JBOX	HYP0-TP-2 (VIA DISCONNECT SWITCH)	CONTROL
T11-C18B	1"	16#12	JBOX	CONTROL STATION	CONTROL
T11-C18C	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C18D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C19	3/4"	3#8 & 1#10G	T11-SWBD-1	JBOX	POWER
T11-C19A	3/4"	3#8 & 1#10G	JBOX	T11-EUH-1 (VIA DISCONNECT SWITCH)	POWER
T11-C19B	3/4"	3#8 & 1#10G	JBOX	T11-EUH-2 (VIA DISCONNECT SWITCH)	POWER
T11-C20	NOT USED	NOT USED	NOT USED	NOT USED	

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C21	3/4"	3#8 & 1#10G	T11-SWBD-1	JBOX	POWER
T11-C21A	3/4"	3#8 & 1#10G	JBOX	T11-EUH-3 (VIA DISCONNECT SWITCH)	POWER
T11-C21B	3/4"	3#8 & 1#10G	JBOX	T11-EUH-4 (VIA DISCONNECT SWITCH)	POWER
T11-C22	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C23	3/4"	3#8 & 1#10G	T11-SWBD-1	JBOX	POWER
T11-C23A	3/4"	3#8 & 1#10G	JBOX	T11-EUH-5 (VIA DISCONNECT SWITCH)	POWER
T11-C23B	3/4"	3#8 & 1#10G	JBOX	T11-EUH-6 (VIA DISCONNECT SWITCH)	POWER
T11-C24	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C25	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C26	1"	3#4 & 1#8G	T11-SWBD-1	T11-EDH-1 (VIA DISCONNECT SWITCH)	POWER
T11-C27	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-EF-1 STARTER	POWER
T11-C28	3/4"	3#12 , 1#12G & 4#12	T11-EF-1 STARTER	JBOX	POWER AND CONTRLOL
T11-C28A	3/4"	3#12 & 1#12G	JBOX	T1-EF-1 (VIA DISCONNECT SWITCH)	POWER
T11-C28B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C29	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-EF-2 STARTER	POWER
T11-C30	3/4"	3#12 , 1#12G & 4#12	T11-EF-2 STARTER	JBOX	POWER AND CONTRLOL
T11-C30A	3/4"	3#12 & 1#12G	JBOX	T1-EF-2 (VIA DISCONNECT SWITCH)	POWER
T11-C30B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C31	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-SF-1 STARTER	POIWER
T11-C32	3/4"	3#12 , 1#12G & 4#12	T11-SF-1 STARTER	JBOX	POWER AND CONTRLOL
T11-C32A	3/4"	3#12 & 1#12G	JBOX	T1-SF-1 (VIA DISCONNECT SWITCH)	POWER
T11-C32B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C33	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-SF-2 STARTER	POWER
T11-C34	3/4"	3#12 , 1#12G & 4#12	T11-SF-2 STARTER	JBOX	POWER AND CONTRLOL
T11-C34A	3/4"	3#12 & 1#12G	JBOX	T1-SF-2 (VIA DISCONNECT SWITCH)	POWER
T11-C34B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C35	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-HP-1 (VIA DISCONNECT SWITCH)	POWER
T11-C36	2"	4#1 & 1#6G	T11-SWBD-1	T11-LP-1	POWER
T11-C37	3/4"	3#12 & 1#12G	T11-SWBD-1	SOLAR INVERTER	POIWER
T11-C37A	3/4"	3#12 & 1#12G	SOLAR INVERTER	COMBINER BOX	POWER
T11-C38	3/4"	2#10 & 1#10G	T11-LP-1	GENERATOR DOCKING STATION	POWER
T11-C39	3/4"	2#12 & 1#12G	T11-LP-1	GENERATOR DOCKING STATION	POWER
T11-C40	1"	14#12	MCP-11	JBOX	CONTROL
T11-C41	1"	6#12	JBOX	GENERATOR DOCKING STATION	CONTROL
T11-C42	1"	14#12	JBOX	T11-ATS-1	CONTROL
T11-C43, C44	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C45	3/4"	3#12 & 1#12G	T11-SWBD-1	SBS-MP-1 SKID	POWER
T11-C46	3/4"	2#12	SBS-MP-1 SKID	PRESSURE SWITCH	CONTROL
T11-C47	3/4"	3#12 & 1#12G	T11-SWBD-1	SBS-MP-2 SKID	POWER
T11-C48	3/4"	2#12	SBS-MP-2 SKID	PRESSURE SWITCH	CONTROL
T11-C50	3/4"	3#12 & 1#12G	T11-SWBD-1	SBS-MP-3 SKID	POWER
T11-C51	3/4"	2#12	SBS-MP-3 SKID	PRESSURE SWITCH	CONTROL

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CHECKED BY: FS
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SECTION MANAGER:

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CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C52, C53	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C54	3/4"	3#10 & 1#10G	T11-SWBD-1	SBS-TP-1 STARTER	POWER
T11-C55	1 1/4"	3#10, 1#10G & 22#12	SBS-TP-1 STARTER	JBOX	POWER AND CONTRLOL
T11-C55A	3/4"	3#10 & 1#10G	JBOX	SBS-TP-1	POWER
T11-C55B	3/4"	16#12	JBOX	CONTROL STATION	CONTROL
T11-C55C	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C55D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C56	3/4"	3#10 & 1#10G	T11-SWBD-1	SBS-TP-2 STARTER	POWER
T11-C57	1 1/4"	3#10, 1#10G & 12#12	SBS-TP-1 STARTER	JBOX	POWER AND CONTRLOL
T11-C57A	3/4"	3#10 & 1#10G	JBOX	SBS-TP-2	POWER
T11-C57B	3/4"	10#12	JBOX	CONTROL STATION	CONTROL
T11-C57C	3/4"	2#12	JBOX	PRESSURE SWITCH	CONTROL
T11-C57D	3/4"	4#12	JBOX	LEAK SWITCH	CONTROL
T11-C58	3/4"	3#8 & 1#10G	T11-SWBD-1	JBOX	POWER
T11-C58A	3/4"	3#8 & 1#10G	JBOX	T11-EUH-7 (VIA DISCONNECT SWITCH)	POWER
T11-C58B	3/4"	3#8 & 1#10G	JBOX	T11-EUH-8 (VIA DISCONNECT SWITCH)	POWER
T11-C59	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C60	3/4"	3#8 & 1#10G	T11-SWBD-1	JBOX	POWER
T11-C60A	3/4"	3#8 & 1#10G	JBOX	T11-EUH-9 (VIA DISCONNECT SWITCH)	POWER
T11-60B	3/4"	3#8 & 1#10G	JBOX	T11-EUH-10 (VIA DISCONNECT SWITCH)	POWER
T11-C61 TO C63	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C64	1 1/2"	3#2 & 1#6G	T11-SWBD-1	T11-EDH-2 (VIA DISCONNECT SWITCH)	POWER
T11-C65	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-EF-2 STARTER	POWER
T11-C66	3/4"	3#12 , 1#12G & 4#12	T11-EF-3 STARTER	JBOX	POWER AND CONTRLOL
T11-C66A	3/4"	3#12 & 1#12G	JBOX	T11-EF-3 (VIA DISCONNECT SWITCH)	POWER
T11-C66B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C67	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-EF-4 STARTER	POWER
T11-C68	3/4"	3#12 , 1#12G & 4#12	T11-EF-4 STARTER	JBOX	POWER AND CONTRLOL
T11-C68A	3/4"	3#12 & 1#12G	JBOX	T11-EF-4 (VIA DISCONNECT SWITCH)	POWER
T11-C68B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C69	3/4"	3#12 & 1#12G	T11-SWBD-1	T11-EF-5 STARTER	POWER
T11-C70	3/4"	3#12 , 1#12G & 4#12	T11-EF-5 STARTER	JBOX	POWER AND CONTRLOL
T11-C70A	3/4"	3#12 & 1#12G	JBOX	T11-EF-5 (VIA DISCONNECT SWITCH)	POWER
T11-C70B	3/4"	4#12	JBOX	CONTROL STATION	CONTROL
T11-C71	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C72	1 1/2"	3#2 & 1#6G	T11-SWBD-1	T11-EHW-1 (VIA DISCONNECT SWITCH)	POWER
T11-C73	3/4"	3#12 & 1#12G	T11-SWBD-1	JBOX	POWER
T11-C73A	3/4"	3#12 & 1#12G	JBOX	MONORAIL HOIST (VIA DISCONNECT SWITCH)-DECHLOR ROOM	POWER
T11-C73B	3/4"	3#12 & 1#12G	JBOX	MONORAIL HOIST (VIA DISCONNECT SWITCH)-CHLOR ROOM	POWER
T11-C74-C99	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C100	3/4"	3#12 & 1#12G	T11-LP-1	MCP-11	POWER
T11-C101	1 1/4"	20#12	MCP-11	JBOX	CONTROL
T11-C101A	3/4"	2#12	JBOX	FSH-452	CONTROL

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C101B	3/4"	4#12	JBOX	LSH/LIT/YS-451	CONTROL
T11-C102	3/4"	8#12	JBOX	SBS-FP-11	CONTROL
T11-C103	3/4"	6#12	JBOX	JBOX	CONTROL
T11-C103A	3/4"	2#12	JBOX	FSH-456	CONTROL
T11-C103B	3/4"	4#12	JBOX	LSH/LIT/YS-455	CONTROL
T11-C104	3/4"	3#12 & 1#12G	T11-LP-1	SBS-FP-11	POWER
T11-C105	1"	(3)-2/C#16(SH)	MCP-11	JBOX	SIGNAL
T11-C105A	3/4"	(2)-2/C#16(SH)	JBOX	LSH/LIT/YS-451	SIGNAL
T11-C105B	3/4"	(2)-2/C#16(SH)	JBOX	LSH/LIT/YS-455	SIGNAL
T11-C105C	3/4"	(1)-2/C#16(SH)	JBOX	FIT-476	SIGNAL
T11-C106	3/4"	(2)-2/C#16(SH)	JBOX	SBS-FP-11	SIGNAL
T11-C107	3/4"	CBV	LSH/LIT/YS-451	FE-451	SIGNAL
T11-C108	3/4"	CBV	LSH/LIT/YS-455	FE-455	SIGNAL
T11-C109	3/4"	CBV	FIT-476	FE-476	SIGNAL
T11-C110	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C110A	3/4"	2#12 & 1#12G	JBOX	LSH/LIT/YS-451	POWER
T11-C110B	3/4"	2#12 & 1#12G	JBOX	LSH/LIT/YS-455	POWER
T11-C110C	3/4"	2#12 & 1#12G	JBOX	FIT-476	POWER
T11-C111	3/4"	2#12 & 1#12G	T11-LP-1	HMCS	POWER
T11-C112	3/4"	6#12	HMCS	MCP-11	CONTROL
T11-C112A	2"	56#12	HMCS	JBOX	CONTROL
T11-C113	1 1/2"	32#12	JBOX	JBOX	CONTROL
T11-C113A	3/4"	8#12	JBOX	EF-1 STARTER	CONTROL
T11-C113B	3/4"	8#12	JBOX	EF-2 STARTER	CONTROL
T11-C113C	3/4"	8#12	JBOX	EF-3 STARTER	CONTROL
T11-C113D	3/4"	8#12	JBOX	EF-4 STARTER	CONTROL
T11-C114	1 1/4"	24#12	JBOX	JBOX	CONTROL
T11-C114A	3/4"	8#12	JBOX	EF-5 STARTER	CONTROL
T11-C114B	3/4"	8#12	JBOX	SF-1 STARTER	CONTROL
T11-C114C	3/4"	8#12	JBOX	SF-2 STARTER	CONTROL
T11-C115	1 1/4"	(6)-2/C#16(SH)	MCP-11	JBOX	SIGNAL
T11-C115A	3/4"	(2)-2/C#16(SH)	JBOX	SBS-MP-1 VFD	SIGNAL
T11-C115B	3/4"	(2)-2/C#16(SH)	JBOX	SBS-MP-2 VFD	SIGNAL
T11-C115C	3/4"	(2)-2/C#16(SH)	JBOX	SBS-MP-3 VFD	SIGNAL
T11-C116	1 1/2"	30#12	JBOX	JBOX	CONTROL
T11-C116A	3/4"	10#12	JBOX	SBS-MP-1 VFD	CONTROL
T11-C116B	3/4"	10#12	JBOX	SBS-MP-2 VFD	CONTROL
T11-C116C	3/4"	10#12	JBOX	SBS-MP-3 VFD	CONTROL
T11-C117	1 1/4"	20#12	JBOX	JBOX	CONTROL
T11-C117A	3/4"	10#12	JBOX	SBS-TP-1 STARTER	CONTROL
T11-C117B	3/4"	10#12	JBOX	SBS-TP-2 STARTER	CONTROL
T11-C118	3/4"	8#12	MCP-11	JBOX	CONTROL
T11-C118A	3/4"	2#12	JBOX	EYEWWASH/SHOWER FSH-493	CONTROL
T11-C118B	3/4"	2#12	JBOX	EYEWWASH/SHOWER FSH-494	CONTROL
T11-C118C	3/4"	2#12	JBOX	EYEWWASH/SHOWER FSH-495	CONTROL
T11-C118D	3/4"	2#12	JBOX	LSHH-478	CONTROL
T11-C119	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C119A	3/4"	2#12 & 1#12G	JBOX	EYEWWASH/SHOWER FSH-493	POWER
T11-C119B	3/4"	2#12 & 1#12G	JBOX	EYEWWASH/SHOWER FSH-494	POWER
T11-C119C	3/4"	2#12 & 1#12G	JBOX	EYEWWASH/SHOWER FSH-495	POWER
T11-C120	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	HEAT TRACE POWER

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STATE OF NEW YORK · GREGORY JAMES MOORE · 094341 · LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
ELECTRICAL
CONDUIT AND CABLE SCHEDULE-VII

DATE: NOVEMBER 2026
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All inquiries regarding this drawing(s) or project should be made to NYC Environmental Protection, Bureau of Engineering Design and Construction.

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C121	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	HEAT TRACE POWER
T11-C122	2 1/2"	96#12	MCP-11	JBOX	CONTROL
T11-C123	2"	56#12	JBOX	JBOX	CONTROL
T11-C123A	3/4"	8#12	JBOX	MV-453	CONTROL
T11-C123B	3/4"	8#12	JBOX	MV-454	CONTROL
T11-C123C	3/4"	8#12	JBOX	MV-463	CONTROL
T11-C123D	3/4"	8#12	JBOX	MV-465	CONTROL
T11-C124	1 1/4"	24#12	JBOX	JBOX	CONTROL
T11-C124A	3/4"	8#12	JBOX	MV-457	CONTROL
T11-C124B	3/4"	8#12	JBOX	MV-458	CONTROL
T11-C124C	3/4"	8#12	JBOX	MV-464	CONTROL
T11-C125	1 1/2"	40#12	JBOX	JBOX	CONTROL
T11-C125A	3/4"	8#12	JBOX	MV-459	CONTROL
T11-C125B	3/4"	8#12	JBOX	MV-461	CONTROL
T11-C126	1 1/4"	24#12	JBOX	JBOX	CONTROL
T11-C126A	3/4"	8#12	JBOX	MV-470	CONTROL
T11-C126B	3/4"	8#12	JBOX	MV-472	CONTROL
T11-C126C	3/4"	8#12	JBOX	MV-475	CONTROL
T11-C127	3/4"	4#12	MCP-11	JBOX	CONTROL
T11-C127A	3/4"	2#12	JBOX	HYPO LEAK DETECTION PANEL	CONTROL
T11-C127B	3/4"	2#12	JBOX	SBS LEAK DETECTION PANEL	CONTROL
T11-C128	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C128A	3/4"	2#12 & 1#12G	JBOX	HYPO LEAK DETECTION PANEL	POWER
T11-C128B	3/4"	2#12 & 1#12G	JBOX	SBS LEAK DETECTION PANEL	POWER
T11-C129	2"	50#12	MCP-11	JBOX	CONTROL
T11-C130	3/4"	3#8 & 1#10G	T11-LP-1	JBOX	POWER
T11-C130A	3/4"	3#8 & 1#10G	JBOX	ENTTRY GATE CONTROL PANEL #1	POWER
T11-C130B	3/4"	3#8 & 1#10G	JBOX	ENTTRY GATE CONTROL PANEL #2	POWER
T11-C131	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C131A	3/4"	2#12 & 1#12G	JBOX	MV-459	POWER
T11-C131B	3/4"	2#12 & 1#12G	JBOX	MV-461	POWER
T11-C132	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T11-C132A	3/4"	2#12 & 1#12G	JBOX	MV-470	POWER
T11-C132B	3/4"	2#12 & 1#12G	JBOX	MV-472	POWER
T11-C132C	3/4"	2#12 & 1#12G	JBOX	MV-475	POWER
T11-C133	3/4"	4#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C133A	3/4"	2#12 & 1#12G	JBOX	MV-457	POWER
T11-C133B	3/4"	2#12 & 1#12G	JBOX	MV-458	POWER
T11-C133C	3/4"	2#12 & 1#12G	JBOX	MV-464	POWER
T11-C134	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T11-C134A	3/4"	2#12 & 1#12G	JBOX	MV-453	POWER
T11-C134B	3/4"	2#12 & 1#12G	JBOX	MV-454	POWER
T11-C134C	3/4"	2#12 & 1#12G	JBOX	MV-463	POWER
T11-C134D	3/4"	2#12 & 1#12G	JBOX	MV-465	POWER
T11-C135	3/4"	3#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C135A	3/4"	3#12 & 1#12G	JBOX	SBS-CSP-1	POWER
T11-C135B	3/4"	3#12 & 1#12G	JBOX	SBS-CSP-2	POWER
T11-C136-C149	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C150	1 1/4"	20#12	MCP-11	JBOX	CONTROL
T11-C150A	3/4"	2#12	JBOX	FSH-422	CONTROL
T11-C150B	3/4"	4#12	JBOX	LSH/LIT/YS-421	CONTROL

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C151	3/4"	8#12	JBOX	HYPO-FP-11	CONTROL
T11-C152	3/4"	6#12	JBOX	JBOX	CONTROL
T11-C152A	3/4"	2#12	JBOX	FSH-426	CONTROL
T11-C152B	3/4"	4#12	JBOX	LSH/LIT/YS-425	CONTROL
T11-C153	3/4"	3#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C153A	3/4"	3#12 & 1#12G	JBOX	LSH/LIT/YS-421	POWER
T11-C153B	3/4"	3#12 & 1#12G	JBOX	LSH/LIT/YS-425	POWER
T11-C153C	3/4"	3#12 & 1#12G	JBOX	FIT-446	POWER
T11-C154	3/4"	3#12 & 1#12G	T11-LP-1	HYPO-FP-11	POWER
T11-C155	3/4"	(3)-2/C#16(SH)	MCP-11	JBOX	SIGNAL
T11-C155A	3/4"	(2)-2/C#16(SH)	JBOX	HYPO-FP-11	SIGNAL
T11-C155B	3/4"	(2)-2/C#16(SH)	JBOX	LSH/LIT/YS-421	SIGNAL
T11-C155C	3/4"	(2)-2/C#16(SH)	JBOX	LSH/LIT/YS-425	SIGNAL
T11-C155D	3/4"	(1)-2/C#16(SH)	JBOX	FIT-446	SIGNAL
T11-C155E	3/4"	CBV	FIT-446	FE-446	SIGNAL
T11-C156	3/4"	CBV	LSH/LIT/YS-421	LE-421	SIGNAL
T11-C157	3/4"	CBV	LSH/LIT/YS-425	LE-425	SIGNAL
T11-C158	2"	56#12	MCP-11	JBOX	CONTROL
T11-C159	1"	16#12	JBOX	JBOX	CONTROL
T11-C159A	3/4"	2#12	JBOX	LSHH-448	CONTROL
T11-C159B	3/4"	2#12	JBOX	SV-411	CONTROL
T11-C159C	3/4"	4#12	JBOX	MV-409	CONTROL
T11-C159D	3/4"	4#12	JBOX	MV-415	CONTROL
T11-C159E	3/4"	2#12	JBOX	FSL-408	CONTROL
T11-C159F	3/4"	2#12	JBOX	FSL-414	CONTROL
T11-C60	1 1/2"	40#12	JBOX	JBOX	CONTROL
T11-C160A	3/4"	10#12	JBOX	TI-011-STR-1	CONTROL
T11-C160B	3/4"	10#12	JBOX	TI-011-STR-2	CONTROL
T11-C160C	3/4"	10#12	JBOX	TI-011-SMP-1 STARTER	CONTROL
T11-C160D	3/4"	10#12	JBOX	TI-011-SMP-2 STARTER	CONTROL
T11-C161	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C161A	3/4"	2#12 & 1#12G	JBOX	MV-409	POWER
T11-C161B	3/4"	2#12 & 1#12G	JBOX	MV-415	POWER
T11-C161C	3/4"	2#12 & 1#12G	JBOX	TI-011-STR-1	POWER
T11-C161D	3/4"	2#12 & 1#12G	JBOX	TI-011-STR-2	POWER
T11-C162	3/4"	3#10 & 1#10G	T11-LP-1	TI-011-SMP-1 STARTER	POWER
T11-C163	1"	3#8 ,1#10G & 5#12	TI-011-SMP-1 STARTER	TERMINAL BOX	POWER AND CONTRLOL
T11-C163A	3/4"	CBV	TERMINAL BOX	TI-011-SMP-1	POWER
T11-C163B	1"	18#12	TI-011-SMP-1 STARTER	JBOX	CONTROL
T11-C163C	1"	16#12	JBOX	CONTROL STATION	CONTROL
T11-C163D	3/4"	2#12	JBOX	PSH-406	CONTROL
T11-C164	3/4"	3#10 & 1#10G	T11-LP-1	TI-011-SMP-2 STARTER	POWER
T11-C165	1"	3#8 ,1#10G & 5#12	TI-011-SMP-2 STARTER	TERMINAL BOX	POWER/CONTROL
T11-C165A	3/4"	CBV	TERMINAL BOX	TI-011-SMP-2	POWER
T11-C165B	1"	18#12	TI-011-SMP-2 STARTER	JBOX	CONTROL
T11-C165C	1"	16#12	JBOX	CONTROL STATION	CONTROL
T11-C165D	3/4"	2#12	JBOX	PSH-412	CONTROL
T11-C166	3/4"	6#12	MCP-11	JBOX	CONTROL
T11-C166A	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-490	CONTROL
T11-C166C	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-491	CONTROL

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
CONDUIT AND CABLE SCHEDULE-VIII

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CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C166C	3/4"	2#12	JBOX	EYEWASH/SHOWER FSH-492	CONTROL
T11-C167	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C167A	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-490	POWER
T11-C167B	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-491	POWER
T11-C167C	3/4"	2#12 & 1#12G	JBOX	EYEWASH/SHOWER FSH-492	POWER
T11-C168	3/4"	(1)-2/C#16(SH)	R-TI-09	LIT-401	SIGNAL
T11-C169	3/4"	CBV & 2#12	FLOW TRANSMITTER PANEL	POWER/ INTRISICALLY SAFE BARE BARRIER PANEL	SIGNAL
T11-C169A	3/4"	CBV	POWER/ INTRISICALLY SAFE BARE BARRIER PANEL	LE/SE-404	SIGNAL
T11-C170	3/4"	CBV & 2#12	FLOW TRANSMITTER PANEL	POWER/ INTRISICALLY SAFE BARE BARRIER PANEL	SIGNAL
T11-170A	3/4"	CBV	POWER/ INTRISICALLY SAFE BARE BARRIER PANEL	LE/SE-405	SIGNAL
T11-C171	NOT USED	NOT USED	NOT USED	NOT USED	
T11-C172	2 1/2"	96#12	MCP-11	JBOX	CONTROL
T11-C173	2"	56#12	JBOX	JBOX	CONTROL
T11-C173A	3/4"	8#12	JBOX	MV-435	CONTROL
T11-C173B	3/4"	8#12	JBOX	MV-427	CONTROL
T11-C173C	3/4"	8#12	JBOX	MV-428	CONTROL
T11-C173D	3/4"	8#12	JBOX	MV-434	CONTROL
T11-C174	1 1/4"	24#12	JBOX	JBOX	CONTROL
T11-C174A	3/4"	8#12	JBOX	MV-423	CONTROL
T11-C174B	3/4"	8#12	JBOX	MV-424	CONTROL
T11-C174C	3/4"	8#12	JBOX	MV-433	CONTROL
T11-C175	1 1/2"	40#12	JBOX	JBOX	CONTROL
T11-C175A	3/4"	8#12	JBOX	MV-429	CONTROL
T11-C175B	3/4"	8#12	JBOX	MV-431	CONTROL
T11-C176	1 1/4"	24#12	JBOX	JBOX	CONTROL
T11-C176A	3/4"	8#12	JBOX	MV-440	CONTROL
T11-C176B	3/4"	8#12	JBOX	MV-442	CONTROL
T11-C176C	3/4"	8#12	JBOX	MV-444	CONTROL
T11-C177	3/4"	4#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C177A	3/4"	2#12 & 1#12G	JBOX	MV-423	POWER
T11-C177B	3/4"	2#12 & 1#12G	JBOX	MV-424	POWER
T11-C177C	3/4"	2#12 & 1#12G	JBOX	MV-433	POWER
T11-C178	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T11-C178A	3/4"	2#12 & 1#12G	JBOX	MV-435	POWER
T11-C178B	3/4"	2#12 & 1#12G	JBOX	MV-427	POWER
T11-C178C	3/4"	2#12 & 1#12G	JBOX	MV-428	POWER
T11-C178D	3/4"	2#12 & 1#12G	JBOX	MV-434	POWER
T11-C179	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C179A	3/4"	2#12 & 1#12G	JBOX	MV-429	POWER
T11-C179B	3/4"	2#12 & 1#12G	JBOX	MV-431	POWER
T11-C180	3/4"	2#12 & 1#12G	JBOX	JBOX	POWER
T11-C180A	3/4"	2#12 & 1#12G	JBOX	MV-440	POWER
T11-C180B	3/4"	2#12 & 1#12G	JBOX	MV-442	POWER
T11-C180C	3/4"	2#12 & 1#12G	JBOX	MV-444	POWER
T11-C181	2"	60#12	MCP-11	JBOX	CONTROL
T11-C182	1 1/2"	36#12	JBOX	JBOX	CONTROL
T11-C182A	1"	12#12	JBOX	HYPO-MP-1 VFD	CONTROL
T11-C182B	1"	12#12	JBOX	HYPO-MP-2 VFD	CONTROL
T11-C182C	1"	12#12	JBOX	HYPO-MP-3 VFD	CONTROL

CONDUIT AND CABLE SCHEDULE

CONDUIT	CONDUIT SIZE	CABLE	FROM	TO	REMARK
T11-C183	1 1/4"	24#12	JBOX	JBOX	CONTROL
T11-C183A	1"	12#12	JBOX	HYPO-TP-1 STARTER	CONTROL
T11-C183B	1"	12#12	JBOX	HYPO-TP-2 STARTER	CONTROL
T11-C184	1 1/4"	(6)-2/C#16(SH)	MCP-11	JBOX	SIGNAL
T11-C184A	3/4"	(2)-2/C#16(SH)	JBOX	AIT-481	SIGNAL
T11-C184B	3/4"	CBV	AIT-481	AE-481	SIGNAL
T11-C184C	3/4"	CBV	AIT-481	AE-482	SIGNAL
T11-C184D	3/4"	(2)-2/C#16(SH)	JBOX	AIT-486	SIGNAL
T11-C184E	3/4"	CBV	AIT-486	AE-486	SIGNAL
T11-C184F	3/4"	CBV	AIT-486	AE-487	SIGNAL
T11-C185	3/4"	(2)-2/C#16(SH)	JBOX	JBOX	SIGNAL
T11-C185A	3/4"	(1)-2/C#16(SH)	JBOX	AIT-410	SIGNAL
T11-C185B	3/4"	CBV	AIT-410	AE-410	SIGNAL
T11-C185C	3/4"	(1)-2/C#16(SH)	JBOX	AIT-416	SIGNAL
T11-C185D	3/4"	CBV	AIT-416	AE-416	SIGNAL
T11-C186	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C186A	3/4"	2#12 & 1#12G	JBOX	AIT-410	POWER
T11-C186B	3/4"	2#12 & 1#12G	JBOX	AIT-416	POWER
T11-C187	3/4"	2#12 & 1#12G	T11-LP-1	JBOX	POWER
T11-C187A	3/4"	2#12 & 1#12G	JBOX	AIT-481	POWER
T11-C187B	3/4"	2#12 & 1#12G	JBOX	AIT-486	POWER

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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

ELECTRICAL
CONDUIT AND CABLE SCHEDULE-IX

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. E-914.00

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INSTRUMENTATION IDENTIFICATION LEGEND

	FIRST LETTER		SECOND LETTER		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		NOT USED	NOT USED	NOT USED
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	CLOSED
D	DENSITY (MASS)OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			OFF
G	INTRUSION		GLASS GAGE (UNCALIBRATED)		
H	HAND (MANUALLY INDICATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE, HUMIDITY OR MOTOR				MIDDLE OR INTERMEDIATE
N	SEQUENCE STRATEGY		NOT USED	NOT USED	NOT USED
O	NOT USED		ORIFACE (RESTRICTION)	ANALYSIS	OPEN OR ON
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)	PULSE	
Q	QUANTITY	INTERGRATE OR TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT	REMOTE	
S	SPEED, FREQUENCY	SAFETY		SWITCH, START OR STOP	
T	TEMPERATURE			TRANSIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION			VALVE, DAMPER OR LOUVER	
W	WEIGHT OR FORCE		WELL		
X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT STATUS	Y AXIS		RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE, OR UNCLASSIFIED FINAL CONTROL ELEMENT	

BASE INSTRUMENTATION SYMBOLS

XXXXX / XX / ### / XX ##### — CONTROL PANEL NAME (SEE NEXT SHEET FOR CONTROL PANEL ABBREVIATIONS)
FUNCTIONS PROGRAMMED IN SOFTWARE FROM HARD I/O POINT WITH DISPLAY
XXX = FUNCTION IDENTIFIER
= LOOP NUMBER
FIRST TWO LETTERS IDENTIFY SIGNAL TYPE (AI= ANALOG INPUT, AO = ANALOG OUTPUT, DI= DIGITAL INPUT, DO = DIGITAL OUTPUT) FOLLOWED BY RACK NO./ SLOT NO. /CHANNEL NO.

XXXXX / XX / ### / MOD — FUNCTIONS PROGRAMMED IN SOFTWARE FROM SOFT I/O POINT (VIA COMMUNICATION) WITH DISPLAY

XXXXX / IN / ### — IN - ### = INTERLOCK NUMBER ON THE DRAWING

XXXXX / CS / ### — CS - ### = CONTROL STRATEGY NUMBER IN SPECIFICATION

XXXXX / XX / CIO — FUNCTIONS PROGRAMMED IN SOFTWARE FROM SOFT I/O POINT (VIA CONFIGURED I/O) WITH DISPLAY

AIT ### — FIELD INSTRUMENT, POWER SUPPLY REQUIRED LOCALLY WHERE SHOWN.

AIT ### — INSTRUMENT ON PANEL

AIT ### (>) — INSTRUMENT ON REAR OF PANEL (BROKEN LINE). ACTIVATES AND DEACTIVATES CONTROL AND/OR ALARM SWITCHES AT PRESET SIGNALVALUES.

Δ	DIFFERENCE
>	HIGH SELECTOR
<	LOW SELECTOR
P/I	PNUEMATIC/CURRENT CONVERTER
I/I	CURRENT/CURRENT CONVERTER (REPEATER)
∑	SUMMATION
AV	AVERAGE
%	RATIO

AIT ### (X) — SUPERSCRIPT (X) FOR ANALYTIC DEVICES:

CH4	METHANE
CI2	CHLORINE
COMB	COMBUSTIBLES
DO	DISSOLVED OXYGEN
FeCl3	FERRIC CHLORIDE
H2S	HYRDOGEN SULFIDE
H3PO4	PHOSPHORIC ACID
H2SO4	SULFURIC ACID
Na2S2O5	SODIUM BISULFITE
NH3	AMMONIA
NOX	NIRATE/NITRITE
O2	OXYGEN
ORP	OXIDATION REDICTION POTENTIAL
pH	HYROGEN ION CONCENTRATION (-LOG)
PO4	PHOSPHATE

HSS ### — SAFETY PULL CORD
ZS ### — BELT ALIGNMENT SWITCH

INTERCONNECTING LINES WITH DOT INDICATE ROUTING OF THE SAME SIGNAL

INTERCONNECTING LINES WITHOUT DOT INDICATE ROUTING OF THE MULTIPLE SIGNAL

FE ### — ANNUBAR FLOW ELEMENT
FE XXX — MAGNETIC FLOW ELEMENT
FE ### — THERMAL MASS METER
FE ### — ORIFICE FLOW ELEMENT
FE ### — ROTAMETER
FE ### — VENTURI FLOW ELEMENT
LE ### — ULTRASONIC OR RADAR LEVEL ELEMENT
LT ### — SUBMERSIBLE PRESSURE TYPE LEVEL ELEMENT

PANEL DEVICE SYMBOLS

XXX / F/O/JR — HAND SWITCH (MANUAL SELECTOR)
FUNCTION SUBSCRIPT

FUNCTION SUBSCRIPT FOR HAND SWITCH:

F/O/JR	FORWAR-OFF-JOG REVERSE
F/O/R	FORWARD-OFF-REVERSE
H/O/A	HAND-OFF-AUTO
H/O/R	HAND-OFF-REMOTE
H/O/SBY	HAND-OFF-STANDBY
J/O/R	JOG-OFF-REMOTE
L/O/R	LOCAL-OFF-REMOTE
M/A	MANUAL-AUTO
M/O/A	MANUAL-OFF-AUTO
O/C	OPEN-CLOSE
O/O	ON-OFF
O/S/C	OPEN-STOP-CLOSE
R/L	REMOTE-LOCAL
R/O	RUN-OFF
SC	SPEED CONTROL POTENTIOMETER
SCR	SILICON CRYSTAL RECTIFIER
S/S	START-STOP
S/SLO	START-STOP WITH LOCKOUT

XXX / ESTOP — PUSH BUTTON
FUNCTION SUBSCRIPT

FUNCTION SUBSCRIPT FOR PUSH BUTTON:

CLOSE	CLOSE
ESTOP	E-STOP
OFF	OFF
ON	ON
OPEN	OPEN
RESET	RESET
START	START
SCR	SILICON CRYSTAL RECTIFIER
STOP	STOP

XXX / IL / G — INDICATING LIGHT UNIT:

G	GREEN
R	RED
W	WHITE
A	AMBER
F	FLASHES ON ELECTRIC OR MECHANICAL MALFUNCTION

R## — RELAY LOGIC
= FUNCTION IDENTIFICATION NUMBER

ELECTRONIC HORN

XXX / G — STROBE LIGHT:

R	RED
W	WHITE
A	AMBER
B	BLUE

X — MOTOR
X = M ELECTRICLLY DRIVEN MOTOR
H HYDRAULICLLY DRIVEN MOTOR
A AIR DRIVEN MOTOR

VFD (#) — VARIABLE FEQUENCY DRIVE
= IDENTIFICATION NUMBER SHOWING LOCAL CONTROL AT VFD

LOCAL CONTROL AT VFD (KEYPAD SHALL BE PROVIDED, ADDITIONALLY PROVIDE THE FOLLOWING CONTROL):
1. S/S, RUN INDICATION, MALFUNCTION.
2. S/S, RUN INDICATION, MALFUNCTION, H/O/R.
3. S/S, RUN INDICATION, MALFUNCTION, H/O/R, E-STOP.
4. S/S, RUN INDICATION, MALFUNCTION, H/O/A, E-STOP, RESET.
5. S/S, RUN INDICATION, MALFUNCTION, H/O/R, SPEED INDICATION RESET.
6. S/S, RUN INDICATION, MALFUNCTION, SPEED CONTROL, SPEED INDICATION, RESET.
7. S/S, RUN INDICATION, MALFUNCTION, SPEED CONTROL, SPEED INDICATION, L/O/R, VFD FAULT, RESET.
8. S/S, RUN INDICATION, MALFUNCTION, SPEED CONTROL, SPEED INDICATION, VFD FAULT, RESET.

MCC (#) — MOTOR CONTROL CENTER
= IDENTIFICATION NUMBER SHOWING LOCAL CONTROL AT MCC

LOCAL CONTROL AT MCC:
1. S/S, RUN INDICATION, MALFUNCTION.
2. L/O/R, S/S, RUN INDICATION, MALFUNCTION.
3. L/O/R, S/S, E-STOP, RUN INDICATION, MALFUNCTION.
4. L/O/R, S/S, E-STOP, RESET, RUN INDICATION, MALFUNCTION.
5. L/O/R, S/S, RUN INDICATION, RESET, MALFUNCTION.

LCS (#) — LOCAL CONTROL STATION
= IDENTIFICATION NUMBER SHOWING LOCAL CONTROL AT LCS

LOCAL CONTROL AT LCS:
1. S/S, RUN INDICATION, MALFUNCTION.
2. L/O/R, S/S, RUN INDICATION, MALFUNCTION.
3. A/M, S/S,RUN INDICATION, MALFUNCTION.
4. L/O/R, S/S, E-STOP, RUN INDICATION, MALFUNCTION, SPEED CONTROL, HIGH DISCHARGE PRESSURE, HOSE LEAK.
5. L/O/R, S/S, E-STOP, ACKNOWLEDGE, RUN INDICATION, MALFUNCTION.
6. L/O/R, O/C, OPEN INDICATION, CLOSE INDICATION, MALFUNCTION.
7. L/O/R, E-STOP, RUN INDICATION, S/S, MALFUNCTION, HIGH DISCHARGE PRESSURE.
8. L/O/R, E-STOP, RUN INDICATION, S/S, MALFUNCTION, HIGH DISCHARGE PRESSURE, HOSE LEAK.

EQUIPMENT SYMBOLS

AXIAL / MIXED FLOW PUMP
CENTRIFUGAL PUMP
DIAPHRAGM PUMP
METERING PUMP
PERISTALTIC PUMP
POSITIVE DISPLACEMENT GEAR PUMP
POSITIVE DISPLACEMENT PUMP
PROGRESSIVE CAVITY PUMP
ROTARY LOBE PUMP
ROTARY VANE PUMP
VERTICAL TURBINE PUMP
VENTURI PUMP
SUMP PUMP
CENTRIFUGAL BLOWER
ROTARY LOBE BLOWER

BELT CONVEYOR
BELT CONVEYOR, INCLINED
SCREW CONVEYOR
GRIT SCREEN
MANUAL BAR SCREEN
MECHANICAL BAR SCREEN
MECHANICAL FINE SCREEN
CHILLER
COMPRESSOR, PISTON TYPE
FLUME
GRINDER
WEIR
LI 310 — TANK LEVEL SIGHT GLASS

IAS — INSTRUMENT AIR SUPPLY
120V — 120V AC POWER SUPPLY
480V — 480V AC POWER SUPPLY
24V — 24V DC POWER SUPPLY
120V UPS — UPS POWERED 120V AC POWER SUPPLY

PIPING SYMBOLS

CONCENTRIC REDUCER
ECCENTRIC REDUCER (FLAT ON BOTTOM)
ECCENTRIC REDUCER (FLAT ON TOP)
CAP (WELDED)
CAP (w/ END FLANGE)
QUICK CONNECT
BACKFLOW PREVENTER
BASKET STRAINER (SINGLE)
DOUBLE CHECK VALVE
EXPANSION JOINT (METALLIC)
FLEXIBLE HOSE
FLEXIBLE JOINT
HOSE BIB
NOZZLE
UNION
CALIBRATION COLUMN
DIAPHRAGM SEAL, WITH ISOLATION VALVE
DRAIN

EXPANSION TANK
EXPANSION TANK (WITH RUPTURE DISC)
RUPTURE DISC
INLINE DIAPHRAGM SEAL
PULSATION DAMPENER
VENT
Y STRAINER
EDUCTOR
EYEWASH/EMERGENCY SHOWER
ISOLATOR RING
STATIC MIXER
VACUUM BREAKER
DT — DRIP TRAP
SW — SEAL WATER
H — HEATING ELEMENT

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STATE OF NEW YORK — Guillermo Arango — 11/3/26 — LICENSED PROFESSIONAL ENGINEER

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES
(SHEET I OF II)

DATE: NOVEMBER 2026
SHEET NO:
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LINE TYPES

- SOFTWARE LINK SYSTEM FUNCTION CONNECTION OR COMMUNICATION LINK
- FIBER OPTIC CONNECTION
- MAIN PROCESS LINE
- AUXILIARY LINE
- EXISTING MAIN PROCESS LINE
- EXISTING AUXILIARY LINE
- ELECTRIC (ELECTRONIC) SIGNAL ARROW INDICATES SIGNAL DIRECTION
- SERIAL COMMUNICATION
- HDMI CABLE
- COAX CABLE
- ETHERNET SIGNAL
- PNUEMATIC SIGNAL
- CAPILLARY LINE
- HYDRAULIC SIGNAL
- HEAT TRACED AND INSULATED
- PACKAGED SYSTEM BOUNDARY
- FUTURE
- PANEL LIMITS
- BUILDING BOUNDARY LINE
- ROOM BOUNDARY LINE

DRAWING CONTINUATION ARROWS

PROCESS LINES (ON / OFF PAGE)

PROCESS-MED
CONN | AREA/EQ
DWG ---

UTILITY LINES (ON / OFF PAGE)

REMARKS 1
CONN | UTILITY
DWG ---
REMARKS 2

INSTRUMENT SIGNAL LINES (ON / OFF PAGE)

SIGNAL NAME
CONN | DWG ---

PROCESS LINES
NOT WITHIN THE BOUNDARY OF THIS SET OF DRAWINGS

PROCESS-MED
AREA/EQ

UTILITY LINES
NOT WITHIN THE BOUNDARY OF THIS SET OF DRAWINGS

REMARKS 1
UTILITY

INSTRUMENT SIGNAL LINES
NOT WITHIN THE BOUNDARY OF THIS SET OF DRAWINGS

SIGNAL NAME

CONN = CONNECTION NUMBER

VALVE & GATE SYMBOLS

- AIR RELEASE VALVE
- AIR/VACUUM VALVE / COMBINATION AIR VALVE
- BALL VALVE
- BALL CHECK VALVE
- BUTTERFLY VALVE
  BUTTERFLY VALVE (DIGESTER GAS SERVICE) OPEN/CLOSE APPLICATIONS
  BUTTERFLY VALVE (AIR SERVICE) OPEN/CLOSE APPLICATIONS
  HIGH PERFORMANCE BUTTERFLY VALVE - (DIGESTER GAS SERVICE) - MODULATING APPLICATIONS
  HIGH PERFORMANCE BUTTERFLY VALVE - (AIR SERVICE) - MODULATING APPLICATIONS
- CHECK VALVE/SWING CHECK VALVE
  CHECK VALVE (DIGESTER GAS SERVICE)
  CHECK VALVE (AIR SERVICE)
  AUTOMATIC ELECTRIC CHECK VALVE
  SWING FLAP VALVE
  RUBBER CHECK VALVE
- TELESCOPING VALVE
- DIAPHRAGM VALVE
- SUCTION FOOT VALVE
- THREE WAY VALVE
- FOUR WAY VALVE
- GLOBE VALVE
- GATE VALVE
  METAL SEATED GATE VALVE - SOLID WEDGE AND DOUBLE DISC TYPE
  RESILIENT SEATED GATE VALVE
  KNIFE GATE VALVE
- MUD VALVE
- NEEDLE VALVE
- PINCH VALVE
- AUTOMATIC PRESSURE REDUCING VALVE
- AUTOMATIC PRESSURE SUSTAINING VALVE
- 3-WAY VALVE WITH DIAPHRAGM (S; XX / ###)
- PLUG VALVE
- RELIEF VALVE
- SOLENOID VALVE (FO)
- SLUICE GATE
- SLIDE GATE / SLIDE PLATE

INPUT/OUTPUT SIGNALS

- DISCRETE INPUT/OUTPUT (# #)
- ANALOG INPUT/OUTPUT (# #)
- DIGITAL COMMUNICATION INPUT/OUTPUT- ETHERNET (E), MODBUS (M), HART (H) OR DEVICENET (D) (#, E)

ACTUATOR SYMBOLS

- ELECTRIC MOTOR ACTUATOR (M)
- PNEUMATIC ACTUATOR
- HYDRAULIC ACTUATOR

ACTUATOR IDENTIFICATION

MD-FLB-220-001
- EQUIPMENT CODE
- SEQUENCE NUMBER
- *P&ID NUMBER
- *LOOP NUMBER

(*) USE THESE NUMBERS ONLY IF REQUIRED FOR THE PROJECT, REMOVE OTHERWISE

INSTRUMENT NUMBERING SYSTEM

HDW-FIT-220-001
- STRUCTURE CODE
- INSTRUMENT IDENTIFICATION
- *P&ID NUMBER
- LOOP NUMBER

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GENERAL NOTES

1. COORDINATE WORK WITH OTHER DRAWINGS AND DISCIPLINES.
2. THE SYMBOLS SHOWN ON THIS SHEET ARE STANDARD DESIGNATIONS. NOT ALL SYMBOLS ARE APPLICABLE TO THE INCLUDED DIAGRAMS AND INSTRUMENTATION TAGGING.
3. NOT ALL PIPING, FITTINGS, AND TANK DETAILS ARE SHOWN. REFER TO PROCESS DRAWINGS FOR ACTUAL DETAILS

CONTROL PANEL ABBREVIATIONS

SBS-CP-10	TI-010 DECHLORINATION CONTROL PANEL
DC5-CP-10	DIVERSION CHAMBER NO. 5 CONTROL PANEL
MCP-10	TI-010 MAIN CONTROL PANEL
MCP-11	TI-011 MAIN CONTROL PANEL
R-TI-09-11	TI-R09 CONTROL PANEL

SIGNAL TYPE ABBREVIATIONS

%	PERCENTAGE
ABBR	ABBREVIATION
AMB	AMBIENT
ATM	ATMOSPHERE
B/O	BY OWNER
BEAR	BEARING
CHR	CHARGER
CONT'D	CONTINUED
DIFF	DIFFERENTIAL
DWG	DRAWING
EES	EMERGENCY EYEWASH STATION
EESS	EMERGENCY EYEWASH AND SHOWER STATION
ESS	EMERGENCY SHOWER STATION
FLR	FLOOR
FREQ	FREQUENCY
GND	GROUND
HARM	HARMONICS
KW	KILOWATTS
LCP	LOCAL CONTROL PANEL
LCS	LOCAL CONTROL STATION
LEL	LOWER EXPLOSIVE LIMIT
MALF	MALFUNCTION
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MIN	MINIMUM
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
O/C	OPEN/CLOSE
OL	OVERLOAD
POS	POSITION
PRESS	PRESSURE
PRI	PRIMARY
SEC	SECONDARY
TBD	TO BE DETERMINED
TEMP	TEMPERATURE
TYP	TYPICAL
VFD	VARIABLE FREQUENCY DRIVE
VA	VOLTAMPS
WC	WATER COLUMN

OPERATION TYPE ABBREVIATIONS

MD	MODULATING
OC	OPEN/CLOSE

NETWORK DIAGRAM LEGEND

- PROGRAMMABLE LOGIC CONTROLLER
- OIT — OPERATOR INTERFACE TERMINAL
- UPS — UNINTERRUPTIBLE POWER SUPPLY
- ANTENNA
- ES-* — ETHERNET SWITCH WHERE ASTERISK REPRESENTS U = UNMANAGED, M = MANAGED
- NVR — NETWORK VIDEO RECORDER
- KVM — KEYBOARD VIDEO AND MOUSE
- CCTV CAMERA - PAN TILT ZOOM (PTZ)

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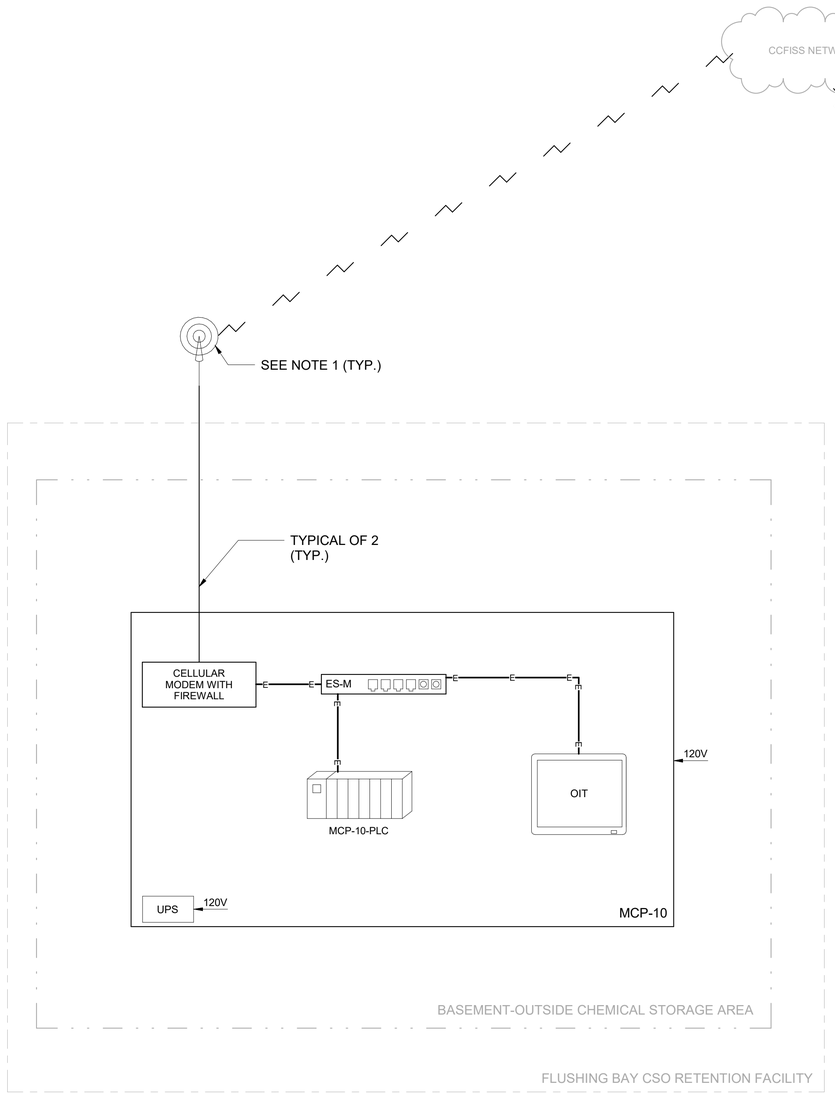
CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

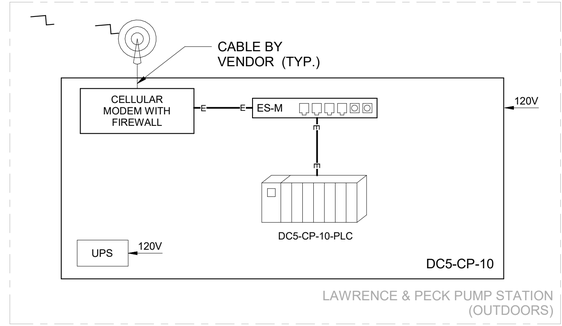
INSTRUMENTATION
SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES
(SHEET II OF II)

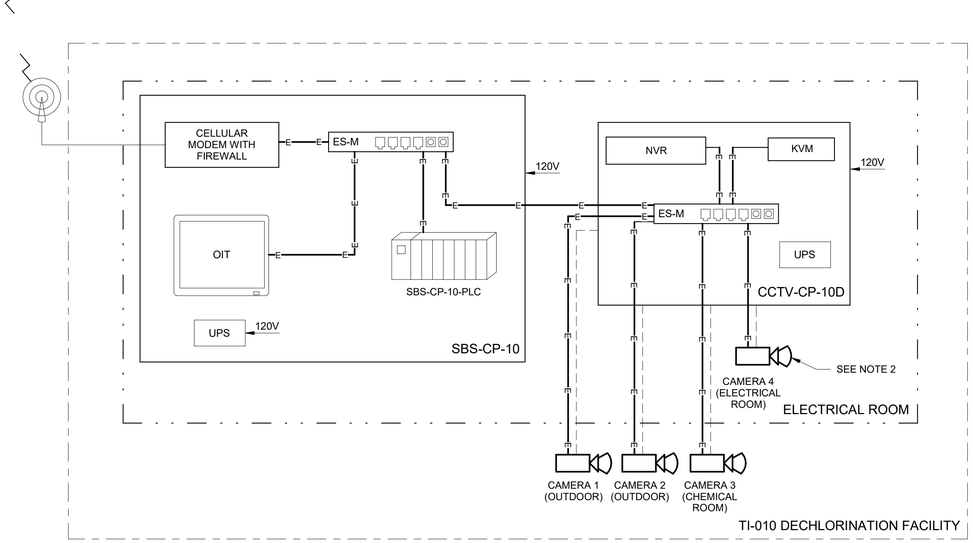
DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-002.00

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NOTES:

1. ANTENNA FOR THE CELLULAR MODEM SHALL BE MOUNTED ON THE EXTERIOR OF THE BUILDING. ANTENNA MUST BE PROVIDED WITH LIGHTNING PROTECTION AND REQUIRED GROUNDING THAT MEETS ALL ELECTRICAL CODES. PROVIDE ALL NECESSARY MOUNTING BRACKETS AND ACCESSORIES. PROVIDE ADEQUATE LENGTH OF ANTENNA CABLE TO CONNECT ANTENNA TO PANEL LOCATED INSIDE THE BUILDING.
2. CAMERAS AND APPURTENANCES ARE PROVIDED UNDER SECTION 28 00 00 BY PROCESS CAMERA SYSTEM SUPPLIER. REFER TO ELECTRICAL DRAWINGS FOR CAMERA LOCATIONS.

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DRAWN BY: GP
CHECKED BY: FA
DESIGN LEAD: FEDERICO ARANGO, PE
SECTION MANAGER:

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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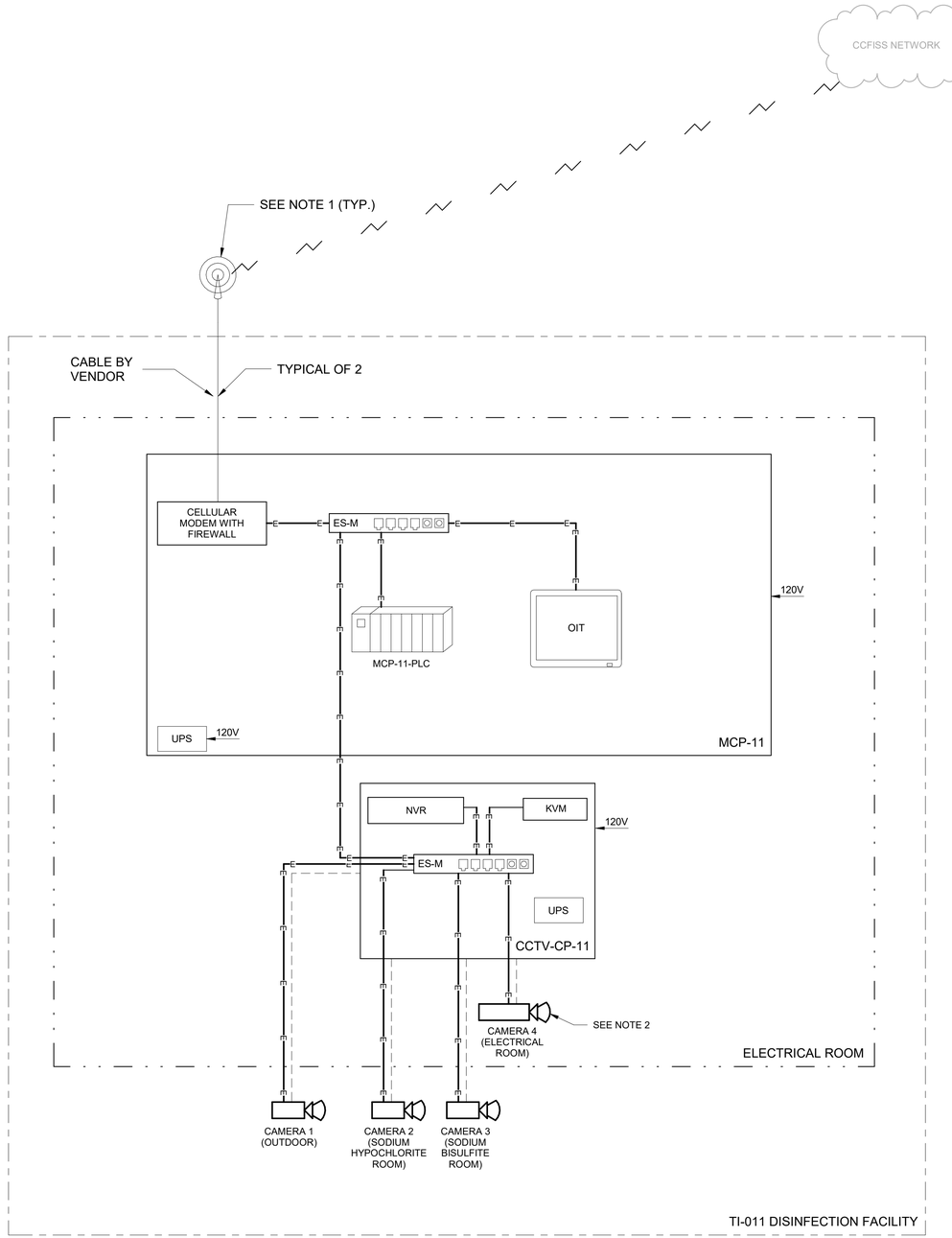
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

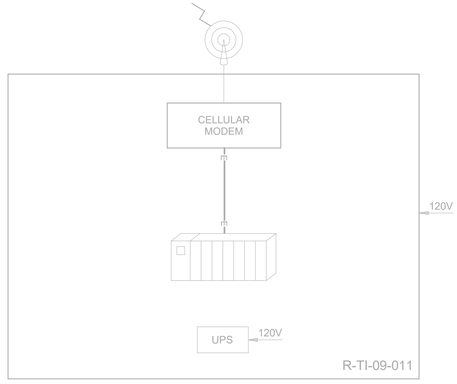
INSTRUMENTATION
TI-010 CHLORINATION AND DECHLORINATION - SYSTEM ARCHITECTURE

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-003.00

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DESIGN LEAD: FEDERICO ARANGO, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — Federico Guillermo Arango — 095112 — LICENSED PROFESSIONAL ENGINEER — 1/13/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-011 DISINFECTION FACILITY - SYSTEM ARCHITECTURE

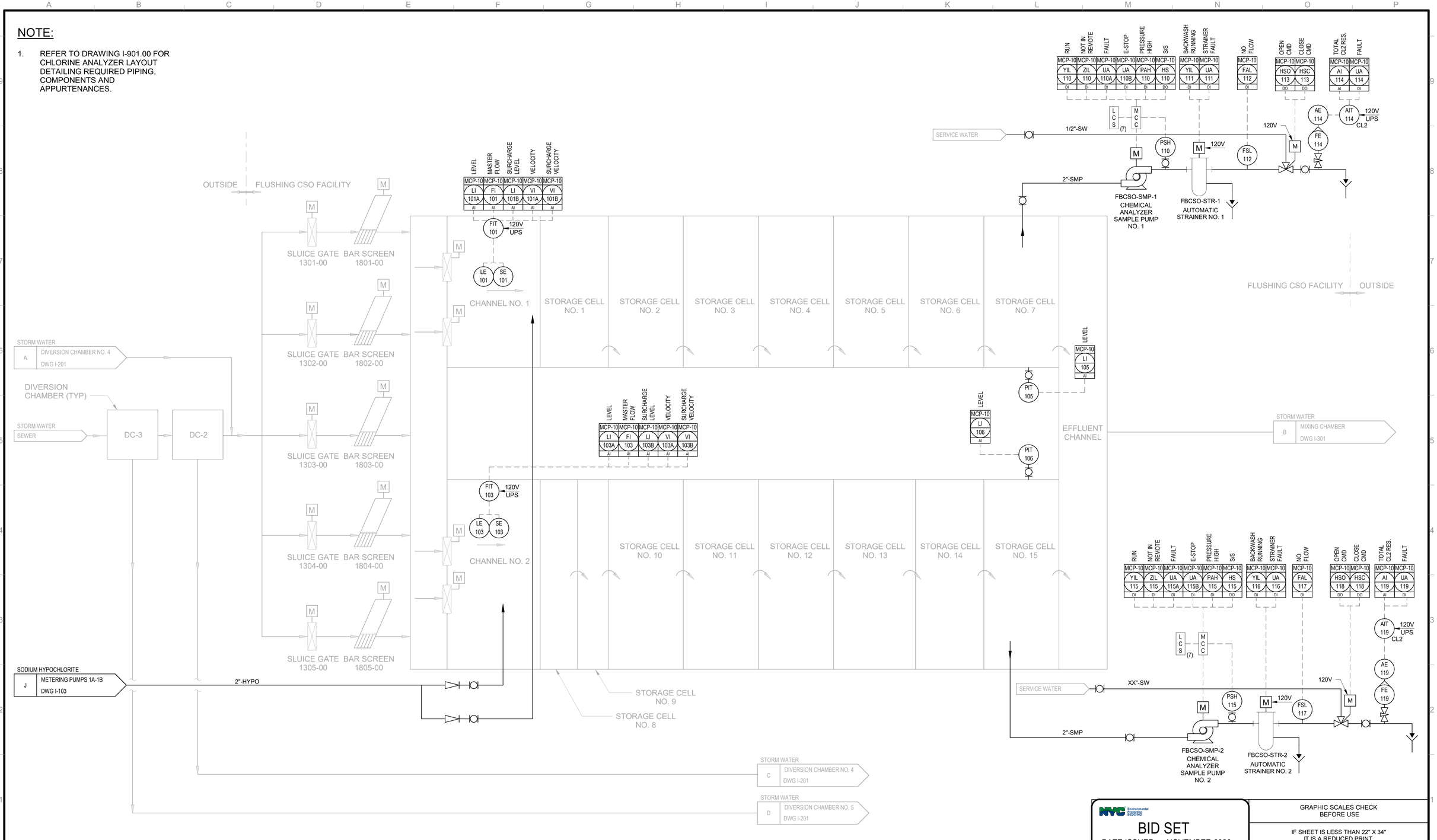
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NOTE:

1. REFER TO DRAWING I-901.00 FOR CHLORINE ANALYZER LAYOUT DETAILING REQUIRED PIPING, COMPONENTS AND APPURTENANCES.



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SECTION MANAGER:

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STATE OF NEW YORK Federico Guillermo Arango Villamizar No. 93192 LICENSED PROFESSIONAL ENGINEER 1/13/26

NYC Environmental Protection

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 CHLORINATION FACILITY - FBCSO DISINFECTION P&ID

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-101.00

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STROBE

FP/SCADA | OPEN | CLOSED | OPEN CMD | CLOSE CMD
TANK NO. 1 HIGH LEVEL | TANK NO. 1 AVAILABLE | TANK NO. 2 HIGH LEVEL | TANK NO. 2 AVAILABLE | TANK NO. 3 HIGH LEVEL | TANK NO. 3 AVAILABLE

PB SILENCE
PB HORN ENABLE

CHEMICAL TRANSFER DRAIN VALVE
HS FP/SCADA
PB OPEN
PB CLOSE
OPENED IL R
CLOSED IL G

SODIUM HYPO TANKS
TANK 1 AVAILABLE IL R
TANK 2 AVAILABLE IL R
TANK 3 AVAILABLE IL R
HIGH LEVEL IL A
HIGH LEVEL IL A
HIGH LEVEL IL A
LI 121 STORAGE TANK NO. 1
LI 124 STORAGE TANK NO. 2
LI 127 STORAGE TANK NO. 3

HYPO-FP-10

SERVICE WATER
FLOW DETECTED MCP-10 FAH 122 DI
FSH 122
3"-HYPO-OF

HYPO-T-1
LEVEL | HIGH LEVEL | LOSS OF ECHO
MCP-10 LI 121 AI | MCP-10 LAH 121A DI | MCP-10 UA 121 DI
LSH 121 | LIT 121 | YS 121 — 120V
LE 121
LI 121
OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 123 DI | MCP-10 ZIC 123 DI | MCP-10 HSO 123 DO | MCP-10 HSC 123 DO
M 120V

2"-SW
2"-HYPO
2" DR

OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 134 DI | MCP-10 ZIC 134 DI | MCP-10 HSO 134 DO | MCP-10 HSC 134 DO
M 120V

OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 137 DI | MCP-10 ZIC 137 DI | MCP-10 HSO 137 DO | MCP-10 HSC 137 DO
M 120V

3"-HYPO
SODIUM HYPOCHLORITE
H | METERING PUMPS 1A-1B | DWG I-103

4"-HYPO

OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 130 DI | MCP-10 ZIC 130 DI | MCP-10 HSO 130 DO | MCP-10 HSC 130 DO

NOT IN REMOTE | RUN | FAULT | PRESSURE HIGH | S/S | HOSE LEAK
MCP-10 ZIL 131 DI | MCP-10 YIL 131 DI | MCP-10 UA 131 DI | MCP-10 PAH 131 DI | MCP-10 HS 131 DO | MCP-10 MAH 131 DI

LCS (8)
MCC
M MSH 131
PI 130
PI 131
PSH 131
M 120V
3"-HYPO
2"-HYPO
HYPO-TP-1 SODIUM HYPOCHLORITE TRANSFER PUMP NO. 1
DRAIN TO SUMP

OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 132 DI | MCP-10 ZIC 132 DI | MCP-10 HSO 132 DO | MCP-10 HSC 132 DO

NOT IN REMOTE | RUN | FAULT | PRESSURE HIGH | S/S | HOSE LEAK
MCP-10 ZIL 133 DI | MCP-10 YIL 133 DI | MCP-10 UA 133 DI | MCP-10 PAH 133 DI | MCP-10 HS 133 DO | MCP-10 MAH 133 DI

LCS (8)
MCC
M MSH 133
PI 132
PI 133
PSH 133
M 120V
3"-HYPO
2"-HYPO
HYPO-TP-2 SODIUM HYPOCHLORITE TRANSFER PUMP NO. 2
DRAIN TO SUMP

TRUCK LOADOUT CONNECTION (TYP OF 3)
2"-HYPO-FILL
2"-HYPO-FILL
2"-HYPO-FILL
SODIUM HYPOCHLORITE CHEMICAL FILL STATION

VENT TO OUTSIDE (TYP.)

HYPO-T-2
LEVEL | HIGH LEVEL | LOSS OF ECHO
MCP-10 LI 124 AI | MCP-10 LAH 124A DI | MCP-10 UA 124 DI
LSH 124 | LIT 124 | YS 124 — 120V
LE 124
LI 124
FLOW DETECTED MCP-10 FAH 125 DI
FSH 125
3"-HYPO-OF
OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 135 DI | MCP-10 ZIC 135 DI | MCP-10 HSO 135 DO | MCP-10 HSC 135 DO
M 120V
OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 126 DI | MCP-10 ZIC 126 DI | MCP-10 HSO 126 DO | MCP-10 HSC 126 DO
M 120V
2"-HYPO
2"-DR

HYPO-T-3
LEVEL | HIGH LEVEL | LOSS OF ECHO
MCP-10 LI 127 AI | MCP-10 LAH 127A DI | MCP-10 UA 127 DI
LSH 127 | LIT 127 | YS 127 — 120V
LE 127
LI 127
FLOW DETECTED MCP-10 FAH 128 DI
FSH 128
3"-HYPO-OF
OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 136 DI | MCP-10 ZIC 136 DI | MCP-10 HSO 136 DO | MCP-10 HSC 136 DO
M 120V
OPEN | CLOSED | OPEN CMD | CLOSE CMD
MCP-10 ZIO 129 DI | MCP-10 ZIC 129 DI | MCP-10 HSO 129 DO | MCP-10 HSC 129 DO
M 120V
2"-HYPO
2"-DR

4"-HYPO
SODIUM HYPOCHLORITE
I | METERING PUMPS 2A-2B | DWG I-104

A B C D
INLET BASIN
12"
M 120V
VALVE PIT
STORM DRAIN

OUTSIDE FLUSHING CSO FACILITY
CHEMICAL CONTAINMENT SUMP

CONTINUED ON I-103.00

BID SET
DATE ISSUED: NOVEMBER 2026

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SECTION MANAGER:

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STATE OF NEW YORK — Guillermo Arango — 113926 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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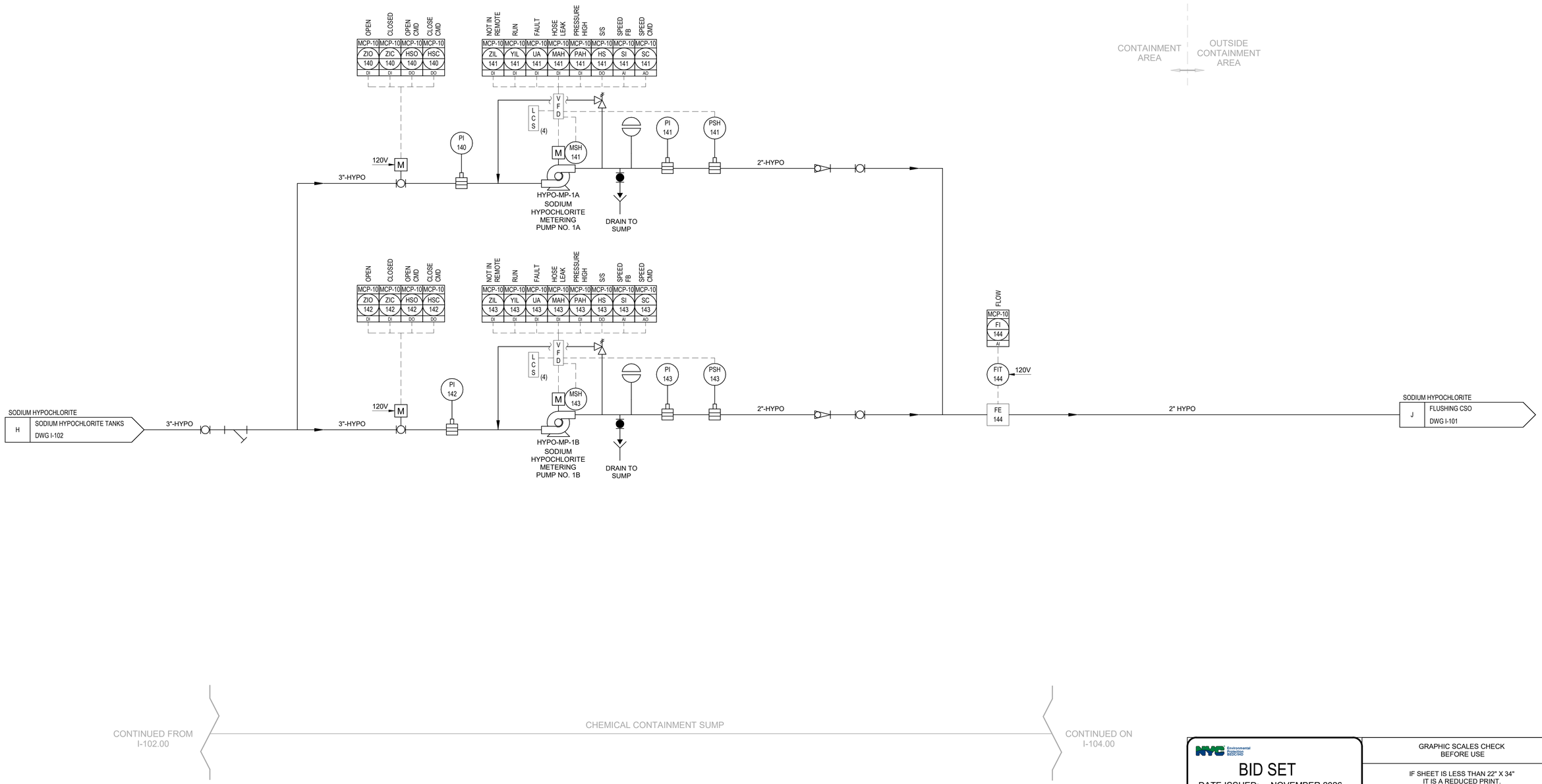
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 CHLORINATION FACILITY -SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET I OF III)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-102.00

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Environmental Protection

ACCOUNTABLE MANAGER
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PORTFOLIO MANAGER
ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 CHLORINATION FACILITY -SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET II OF III)

DATE: NOVEMBER 2026
SHEET NO:
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NYC Environmental Protection Bureau of Engineering Design and Construction

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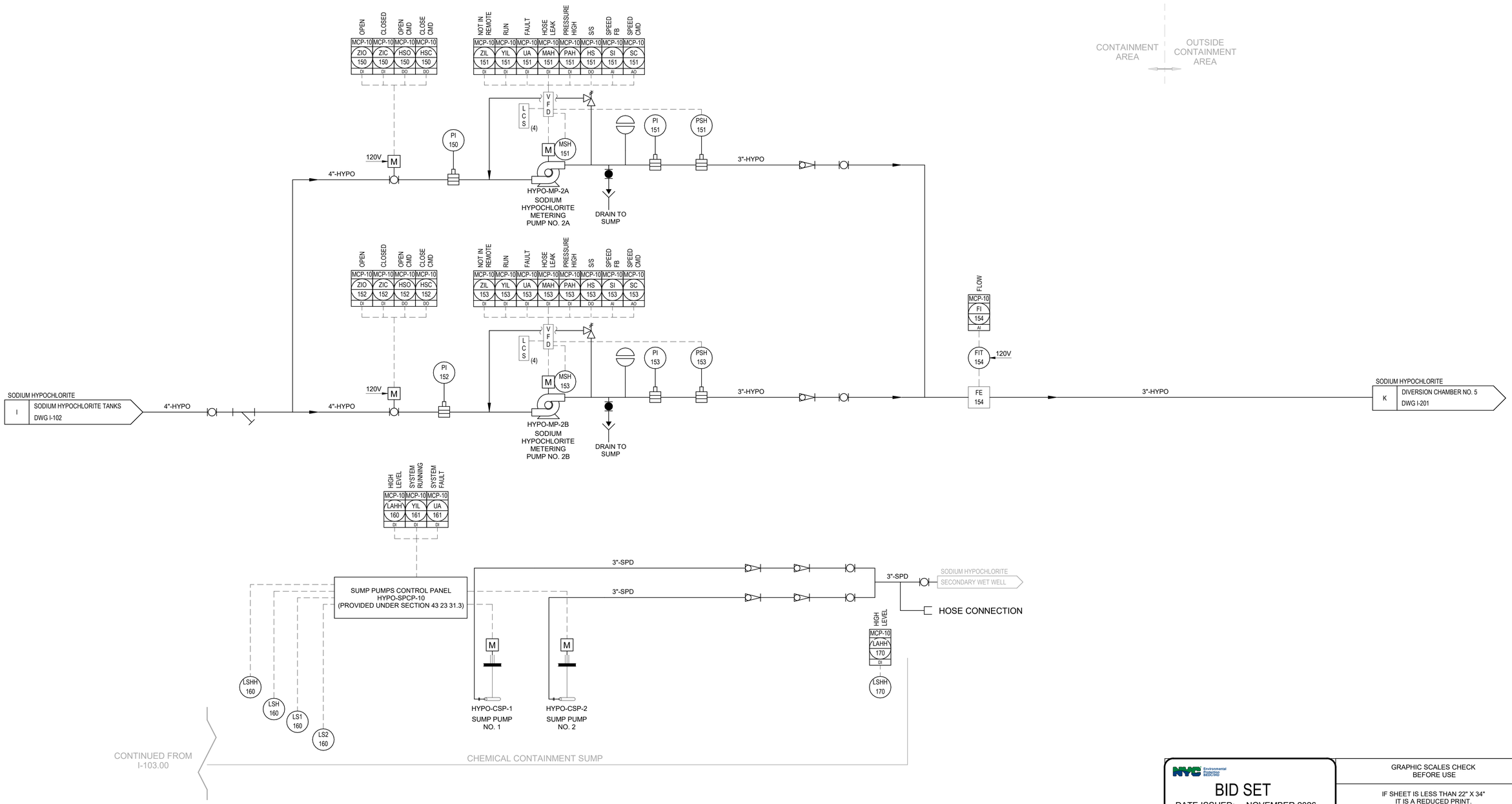
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NOTE:

1. LEVEL FLOAT SWITCHES LSHH-160, LSH-160, LS1-160, LS2-160 PROVIDED WITH SUMP PUMPS CONTROL PANEL (HYPO-SPCP-10) UNDER SECTION 43 23 31.3.



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STATE OF NEW YORK — Guillermo Arango Arrubla — 11/3/2026 — No. 93182 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
INSTRUMENTATION
TI-010 CHLORINATION FACILITY -SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET III OF III)

DATE: NOVEMBER 2026
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STORM WATER
C DIVERSION CHAMBER NO. 2
DWG I-101

STORM WATER
D DIVERSION CHAMBER NO. 3
DWG I-101

SODIUM HYPOCHLORITE
K METERING PUMPS 2A-2B
DWG I-104

OUTSIDE DC-5

DC-5 OUTSIDE

STOP LOGS (TYP)

16' X 10'

16' X 10'

16' X 10'

BULKHEAD GATES (TYP)

M

CABLE BY VENDOR (TYP.)

LEVEL	MASTER FLOW	SURCHARGE LEVEL	VELOCITY	SURCHARGE VELOCITY
DC5-CP	DC5-CP	DC5-CP	DC5-CP	DC5-CP
LI	FI	LI	VI	VI
260A	260	260B	260A	260B
AI	AI	AI	AI	AI

FIT 260 — 120V UPS

LE 260 — SE 260

LEVEL	MASTER FLOW	SURCHARGE LEVEL	VELOCITY	SURCHARGE VELOCITY
DC5-CP	DC5-CP	DC5-CP	DC5-CP	DC5-CP
LI	FI	LI	VI	VI
240A	240	240B	240A	240B
AI	AI	AI	AI	AI

FIT 240 — 120V UPS

LE 240 — SE 240

LEVEL	MASTER FLOW	SURCHARGE LEVEL	VELOCITY	SURCHARGE VELOCITY
DC5-CP	DC5-CP	DC5-CP	DC5-CP	DC5-CP
LI	FI	LI	VI	VI
220A	220	220B	220A	220B
AI	AI	AI	AI	AI

FIT 220 — 120V UPS

LE 220 — SE 220

10.6' X 8.6'

14.9' X 10'

14.9' X 10'

DC-4

STORM WATER
A FLUSHING CSO
DWG I-101

STORM WATER
E MIXING CHAMBER
DWG I-301

STORM WATER
F MIXING CHAMBER
DWG I-301

STORM WATER
G MIXING CHAMBER
DWG I-301

3"-HYPO

3"-HYPO

2"-HYPO

3"-HYPO

2"-HYPO

3"-HYPO

2"-HYPO

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STATE OF NEW YORK — Guillermo Arango Perez — 11/3/26 — 93182 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 CHLORINATION FACILITY - DC5
DISINFECTION P&ID

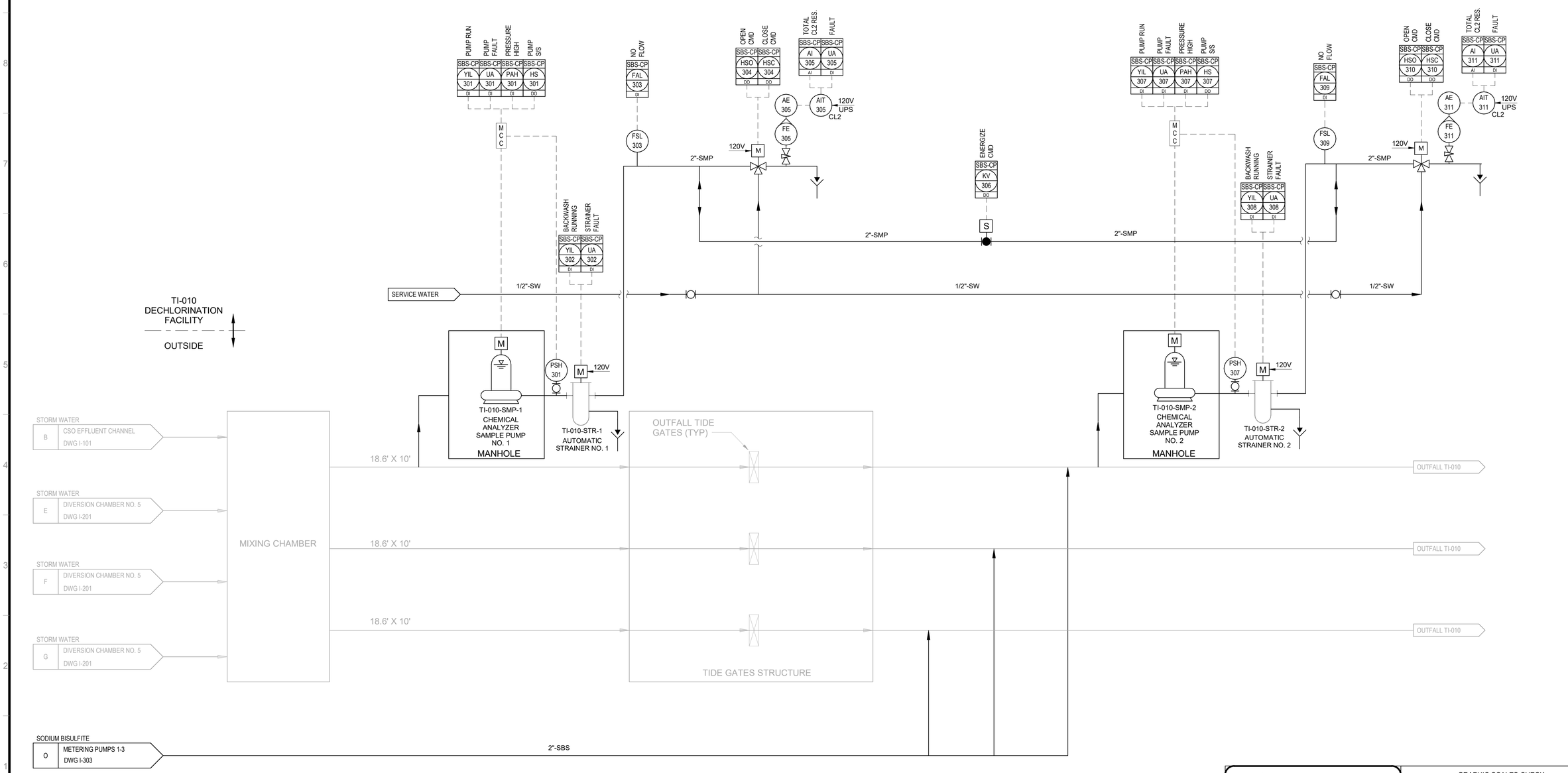
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NOTE:

1. REFER TO DRAWING I-902.00 FOR CHLORINE ANALYZER LAYOUT DETAILING REQUIRED PIPING, COMPONENTS AND APPURTENANCES.



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ARCADIS

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 - DECHLORINATION FACILITY P&ID

DATE: NOVEMBER 2026
SHEET NO:
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STROBE

TANK NO. 1 HIGH LEVEL | TANK NO. 1 AVAILABLE | TANK NO. 2 HIGH LEVEL | TANK NO. 2 AVAILABLE

SBS-CP | LAH 321B | YIL 321 | LAH 325B | YIL 325 | DO

PB SILENCE
PB HORN ENABLE
TANK NO. 1 AVAILABLE — IL R
TANK NO. 2 AVAILABLE — IL R
HIGH LEVEL — IL A
HIGH LEVEL — IL A
LI 321 STORAGE TANK NO. 1
LI 325 STORAGE TANK NO. 2

SBS-FP-10

VENT TO OUTSIDE (TYP.)

SERVICE WATER — 2 1/2"-SW

3" SBS-FILL

LEVEL | HIGH LEVEL | LOSS OF ECHO

SBS-CP | LI 321 | LAH 321A | UA 321 | AI | DI | DI

LSH 321 | LIT 321 | YS 321 — 120V

OPEN | CLOSED | OPEN CMD | CLOSE CMD

SBS-CP | ZIO 333 | ZIC 333 | HSO 333 | HSC 333 | DI | DI | DO | DO

SBS-CP | ZIO 335 | ZIC 335 | HSO 335 | HSC 335 | DI | DI | DO | DO

M 120V

1 1/2"-SBS

LE 321

OVERFLOW

FLOW DETECTED

SBS-CP | FAH 322 | DI

FSH 322

SBS-T-1

LI 321

SBS-CP | ZIO 323 | ZIC 323 | HSO 323 | HSC 323 | DI | DI | DO | DO

SBS-CP | ZIO 324 | ZIC 324 | HSO 324 | HSC 324 | DI | DI | DO | DO

1" DR

SODIUM BISULFITE CHEMICAL FILL STATION

TRUNK LOADOUT CONNECTION (TYP OF 2)

NOT IN REMOTE | RUN | FAULT | PRESSURE HIGH | S/S | HOSE LEAK

SBS-CP | ZIL 330 | YIL 330 | UA 330 | PAH 330 | HS 330 | MAH 330 | DI | DI | DI | DI | DO | DI

SBS-CP | ZIO 329 | ZIC 329 | HSO 329 | HSC 329 | DI | DI | DO | DO

LCS (8) — MCC

M MSH 330

PI 329

PI 330

PSH 330

SBS-TP-1 SODIUM BISULFITE TRANSFER PUMP NO. 1

DRAIN TO SUMP

SBS-CP | ZIL 332 | YIL 332 | UA 332 | PAH 332 | HS 332 | MAH 332 | DI | DI | DI | DI | DO | DI

SBS-CP | ZIO 331 | ZIC 331 | HSO 331 | HSC 331 | DI | DI | DO | DO

PI 331

PI 332

PSH 332

SBS-TP-2 SODIUM BISULFITE TRANSFER PUMP NO. 2

DRAIN TO SUMP

LEVEL | HIGH LEVEL | LOSS OF ECHO

SBS-CP | LI 325 | LAH 325A | UA 325 | AI | DI | DI

LSH 325 | LIT 325 | YS 325 — 120V

SBS-CP | ZIO 334 | ZIC 334 | HSO 334 | HSC 334 | DI | DI | DO | DO

3"-SBS FILL

FLOW DETECTED

SBS-CP | FAH 326 | DI

FSH 326

SBS-T-2

LI 325

SBS-CP | ZIO 327 | ZIC 327 | HSO 327 | HSC 327 | DI | DI | DO | DO

SBS-CP | ZIO 328 | ZIC 328 | HSO 328 | HSC 328 | DI | DI | DO | DO

SODIUM BISULFITE
M METERING PUMPS
DWG I-303

OUTSIDE
TI-010 DECHLORINATION FACILITY

CHEMICAL CONTAINMENT SUMP

CONTINUED ON I-303.00

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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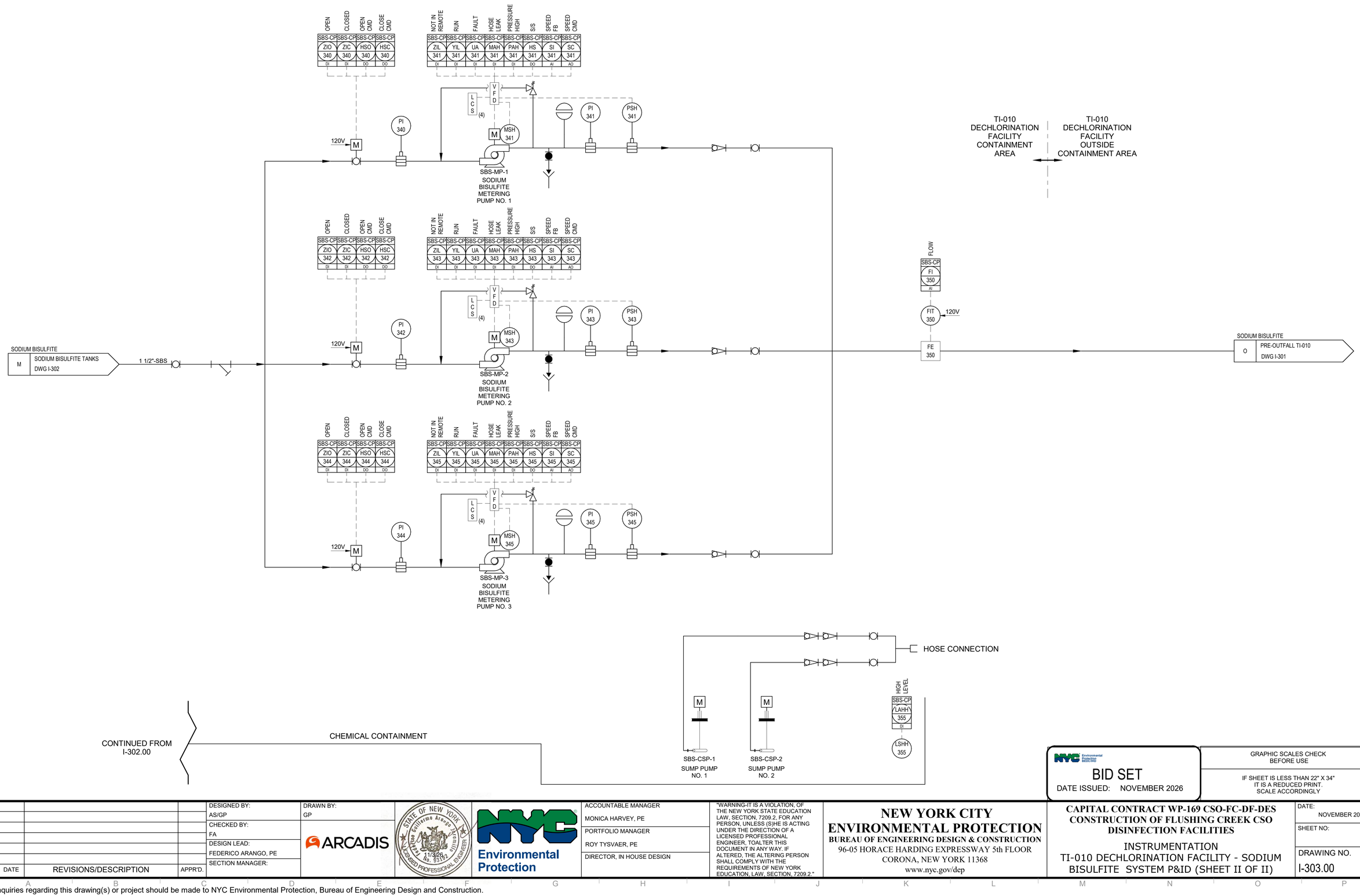
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 DECHLORINATION FACILITY - SODIUM BISULFITE SYSTEM P&ID (SHEET I OF II)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-302.00

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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 DECHLORINATION FACILITY - SODIUM BISULFITE SYSTEM P&ID (SHEET II OF II)

DATE: NOVEMBER 2026
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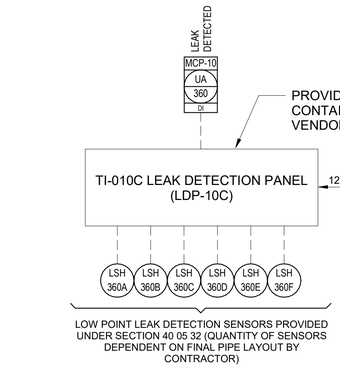
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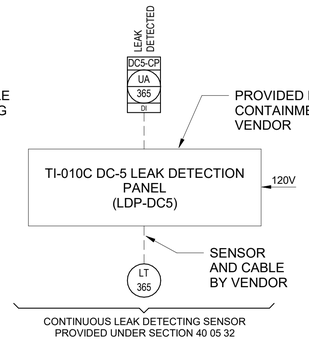
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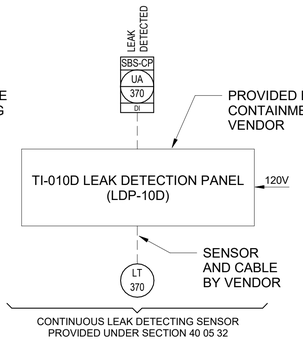
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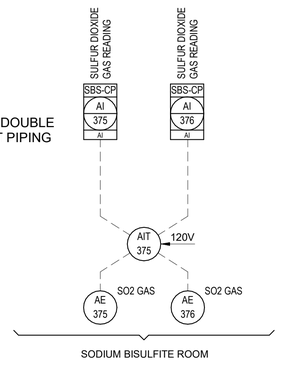
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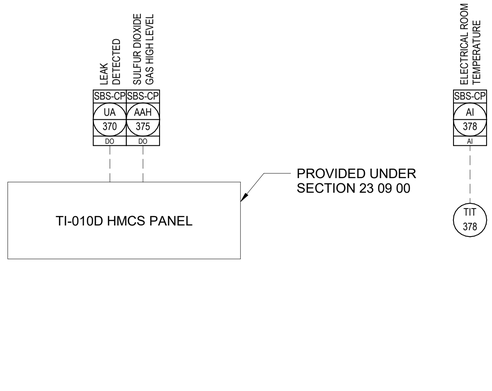
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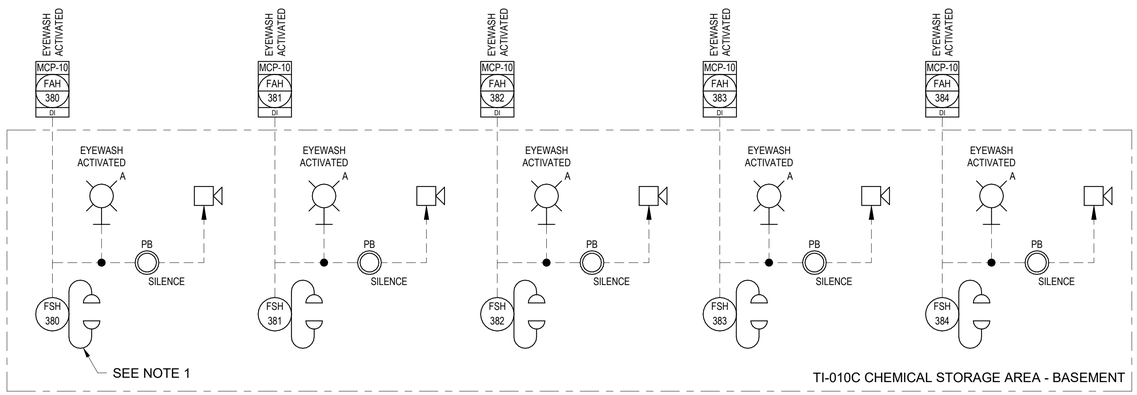


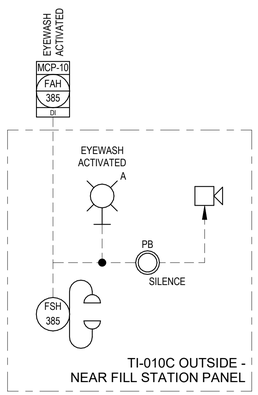


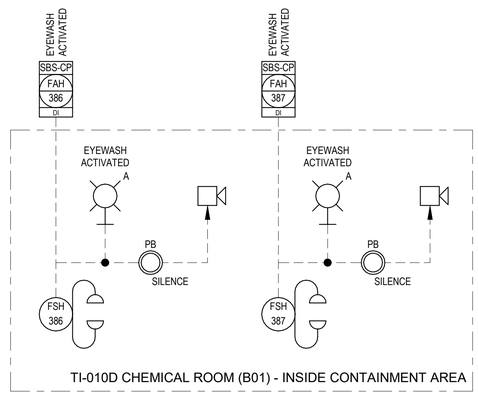


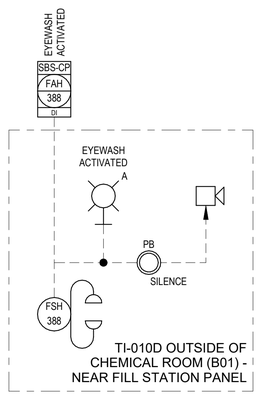
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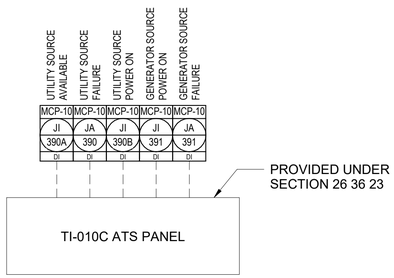
1. EACH EYEWASH/SHOWER STATION SHALL BE PACKAGED WITH LOCAL HORN/STROBE AND ALARM OUTPUT PROVIDED UNDER 22 11 16, DOMESTIC WATER PIPING.

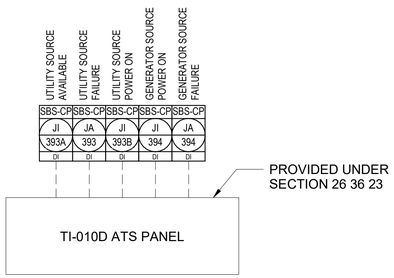












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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-010 - AUXILIARY SYSTEMS P&ID

DATE: NOVEMBER 2026
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NOTE:

1. REFER TO DRAWING I-902.00 FOR CHLORINE ANALYZER LAYOUT DETAILING REQUIRED PIPING, COMPONENTS AND APPURTENANCES.

REGULATOR TI R09 OUTSIDE

OUTSIDE REGULATOR TI R09

TALLMAN ISLAND WRRF

TI-011 DISINFECTION FACILITY

OUTSIDE

SERVICE WATER

1/2"-SW

2"-SMP

2"-SMP

2"-SMP

1/2"-SW

1/2"-SW

1/2"-SW

PUMP RUN | PUMP NOT IN REMOTE | PUMP FAULT | PUMP E-STOP | PRESSURE HIGH | PUMP S/S
MCP-11 | MCP-11 | MCP-11 | MCP-11 | MCP-11 | MCP-11
YIL 406 | ZIL 406 | UA 406A | UA 406B | PAH 406 | HS 406
DI | DI | DI | DI | DI | DO

LCS (7) MCC

NO FLOW
MCP-11 FAL 408 DI
FSL 408

BACKWASH RUNNING | STRAINER FAULT
MCP-11 | MCP-11
YIL 407 | UA 407
DI | DI

OPEN CMD | CLOSE CMD
MCP-11 | MCP-11
HSO 409 | HSC 409
DO | DO
AE 410 FE 410

TOTAL CL2 RES. FAULT
MCP-11 | MCP-11
AI 410 | UA 410
AI | DI
AIT 410 120V UPS CL2

120V M

ENERGIZE CMD
MCP-11 KV 411 DO
S

PUMP RUN | PUMP NOT IN REMOTE | PUMP FAULT | PUMP E-STOP | PRESSURE HIGH | PUMP S/S
MCP-11 | MCP-11 | MCP-11 | MCP-11 | MCP-11 | MCP-11
YIL 412 | ZIL 412 | UA 412A | UA 412B | PAH 412 | HS 412
DI | DI | DI | DI | DI | DO

LCS (7) MCC

BACKWASH RUNNING | STRAINER FAULT
MCP-11 | MCP-11
YIL 413 | UA 413
DI | DI

NO FLOW
MCP-11 FAL 414 DI
FSL 414

OPEN CMD | CLOSE CMD
MCP-11 | MCP-11
HSO 415 | HSC 415
DO | DO
AE 416 FE 416

TOTAL CL2 RES. FAULT
MCP-11 | MCP-11
AI 416 | UA 416
AI | DI
AIT 416 120V UPS CL2

120V M

LEVEL | MASTER FLOW | SURCHARGE LEVEL | VELOCITY | SURCHARGE VELOCITY
R-TI-09 | R-TI-09 | R-TI-09 | R-TI-09 | R-TI-09
LI 404A | FI 404 | LI 404B | VI 404A | VI 404B
AI | AI | AI | AI | AI

FIT 404 120V UPS

LE 404 SE 404
MANHOLE

PSH 406 M 120V

TI-011-SMP-1
CHEMICAL ANALYZER SAMPLE PUMP NO. 1
MANHOLE

TI-011-STR-1
AUTOMATIC STRAINER NO. 1

PSH 412 M 120V

TI-011-SMP-2
CHEMICAL ANALYZER SAMPLE PUMP NO. 2
MANHOLE

TI-011-STR-2
AUTOMATIC STRAINER NO. 2

8' 8' 8' 8'

OUTFALL TI-011

OUTFALL TI-011

LEVEL
R-TI-09 LI 400 AI
LIT 400
LE 400
DIVERSION CHAMBER

LEVEL
R-TI-09 LI 401 AI
LIT 401
LE 401
OVERFLOW CHAMBER

LEVEL | MASTER FLOW | SURCHARGE LEVEL | VELOCITY | SURCHARGE VELOCITY
R-TI-09 | R-TI-09 | R-TI-09 | R-TI-09 | R-TI-09
LI 405A | FI 405 | LI 405B | VI 405A | VI 405B
AI | AI | AI | AI | AI

FIT 405 120V UPS

LE 405 SE 405
MANHOLE

SEWER

SEWER

SEWER

SODIUM HYPOCHLORITE
P METERING PUMPS 1-3 DWG I-403
2"-HYPO

SODIUM BISULFITE
Q METERING PUMPS 1-3 DWG I-405
2"-SBS

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STATE OF NEW YORK Federico Guillermo Arango 11/3/26 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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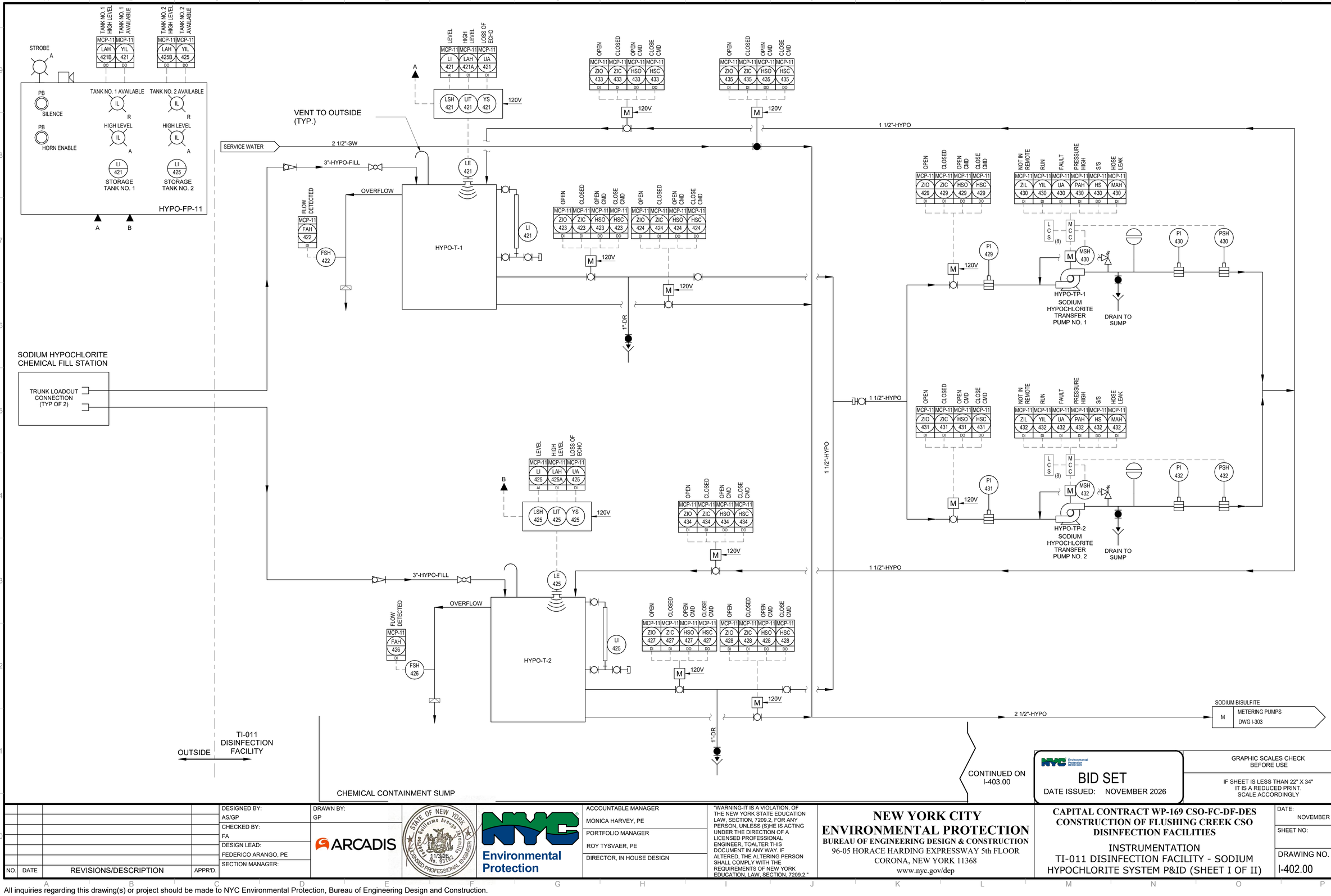
CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-011 DISINFECTION FACILITY - CHLORINATION & DECHLORINATION P&ID

DATE: NOVEMBER 2026
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-011 DISINFECTION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET I OF II)

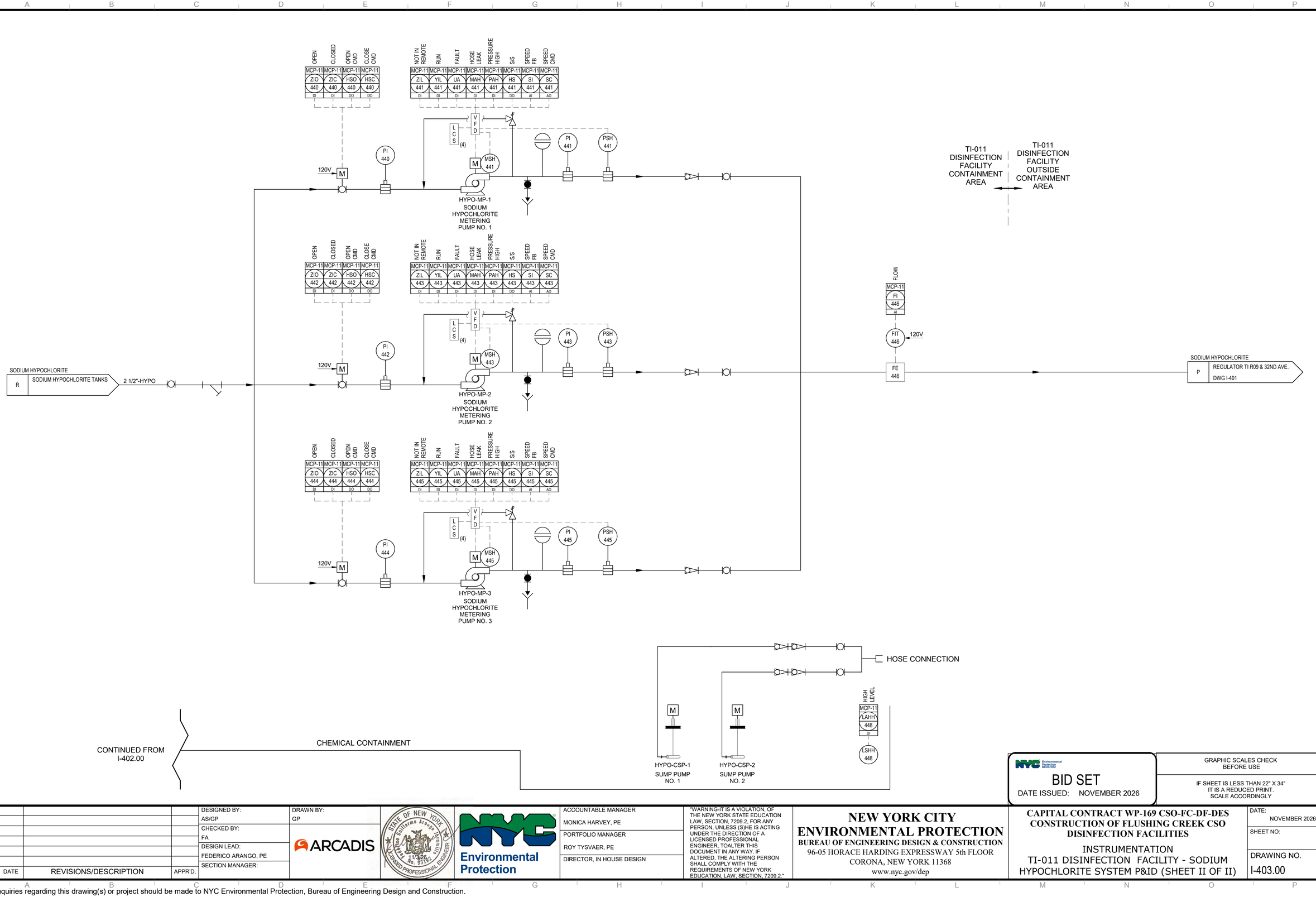
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TI-011 DISINFECTION FACILITY - SODIUM HYPOCHLORITE SYSTEM P&ID (SHEET II OF II)

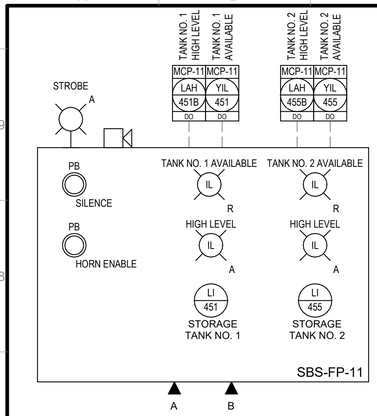
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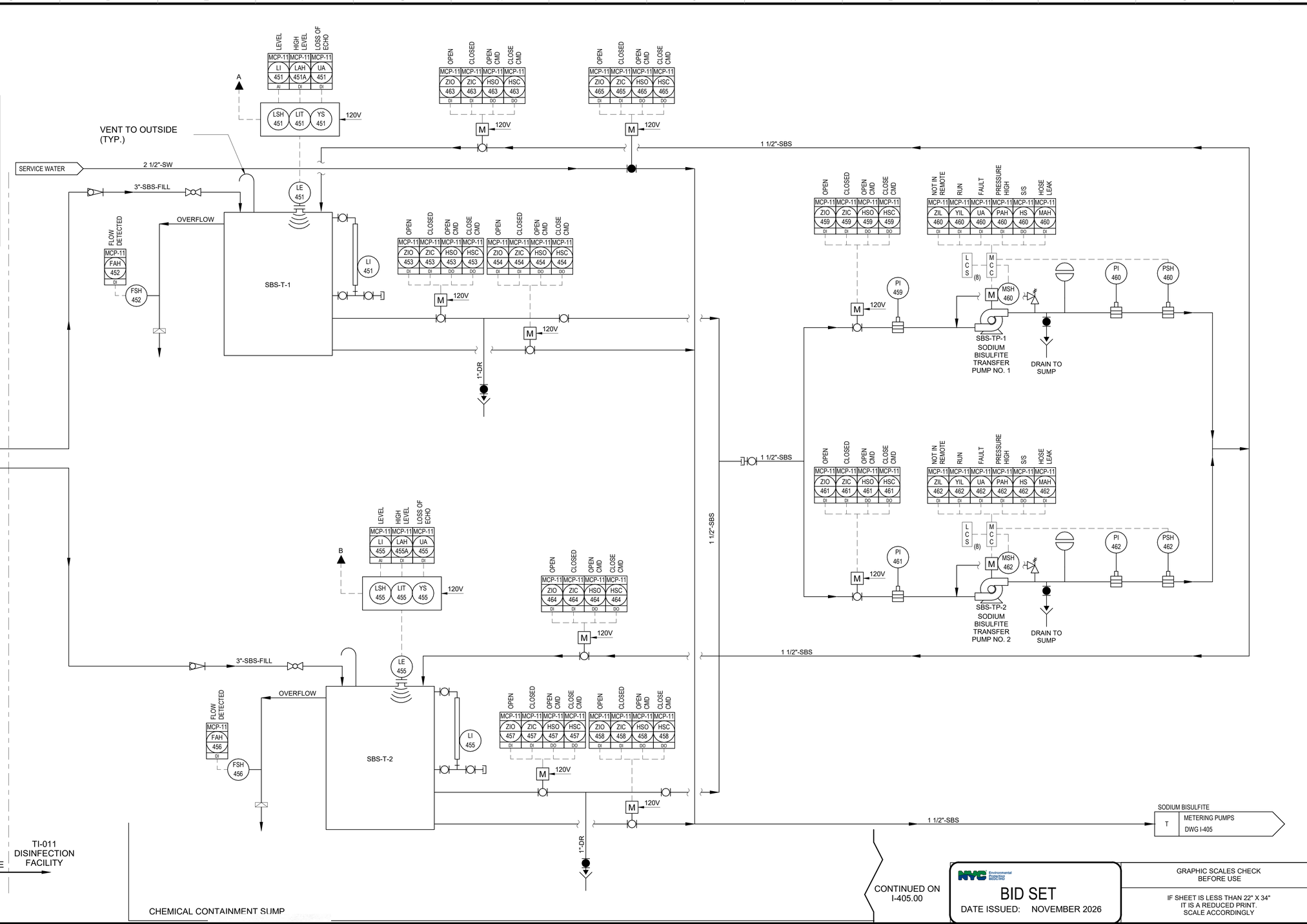
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DESIGN LEAD: FEDERICO ARANGO, PE
SECTION MANAGER:

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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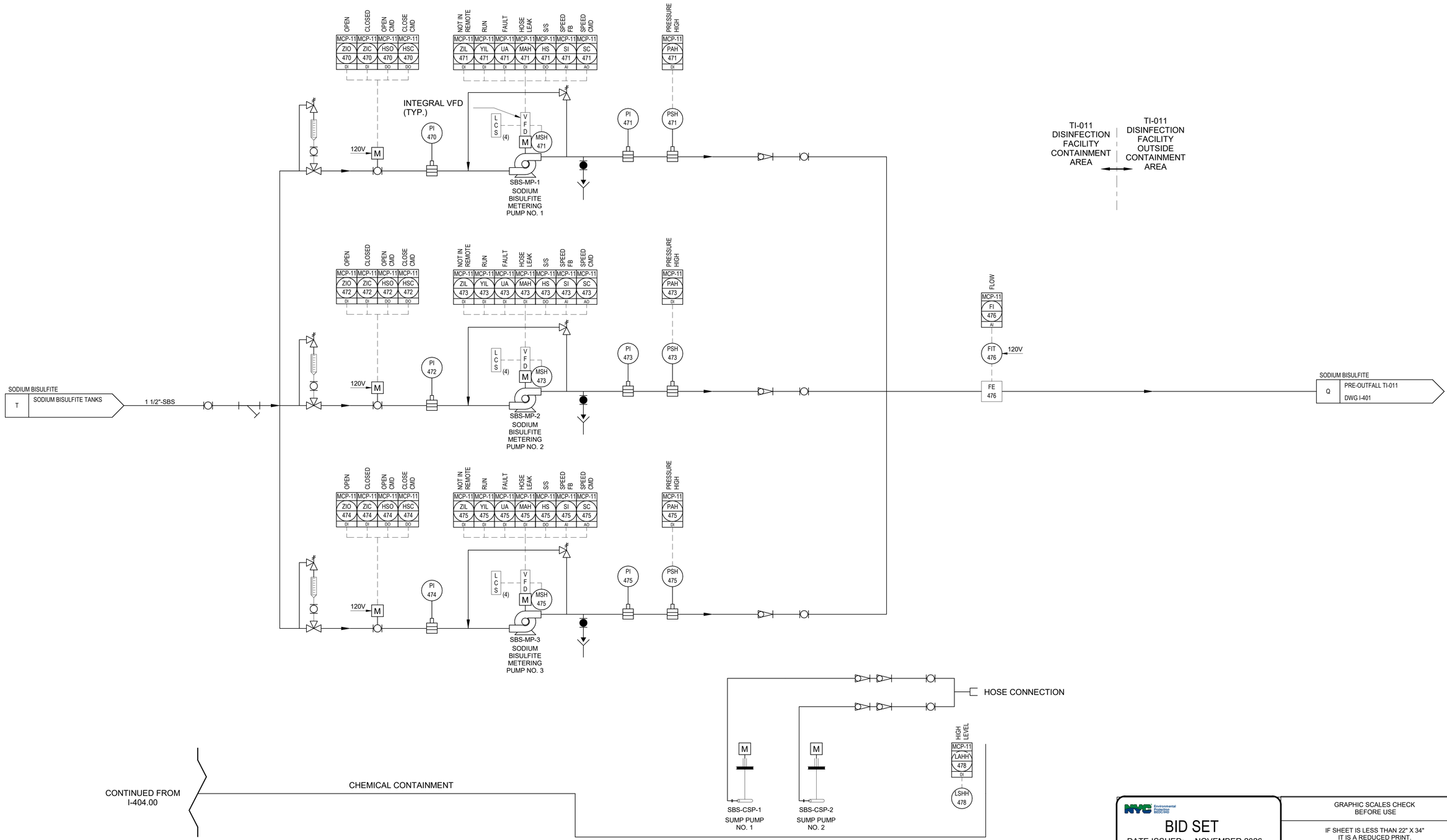
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-011 DISINFECTION FACILITY - SODIUM BISULFITE SYSTEM P&ID (SHEET I OF II)

DATE: NOVEMBER 2026
SHEET NO:
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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — Federico Guillermo Arango Hoyos — 11/3/26 — No. 93182 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER	MONICA HARVEY, PE
PORTFOLIO MANAGER	ROY TYSVAER, PE
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
TI-011 DISINFECTION FACILITY - SODIUM BISULFITE SYSTEM P&ID (SHEET II OF II)

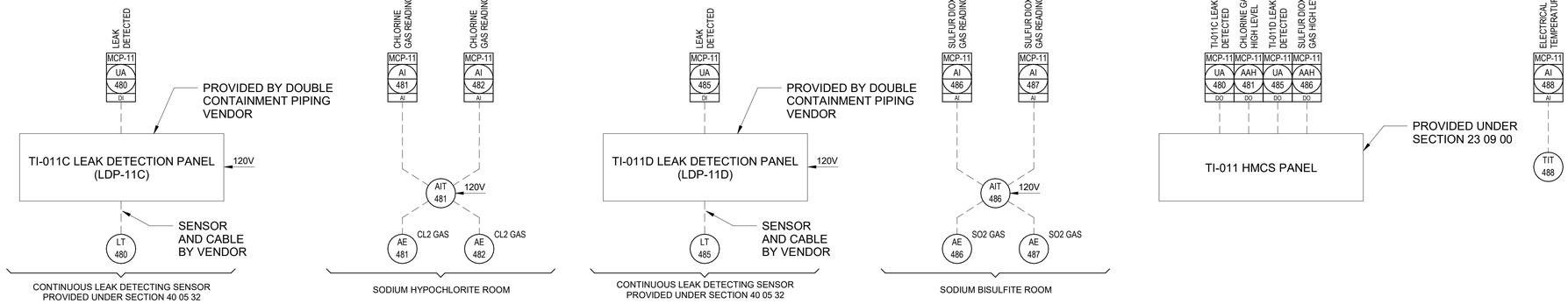
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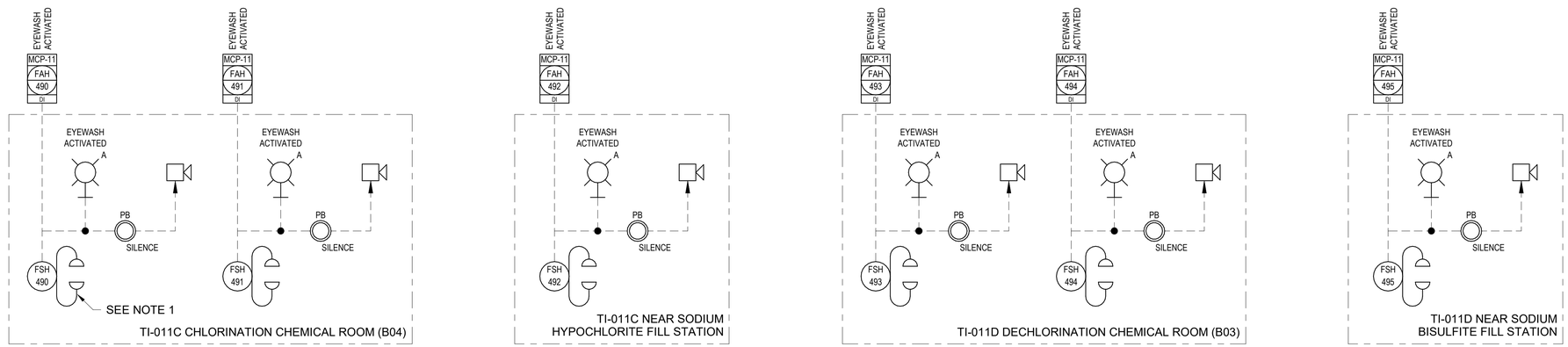
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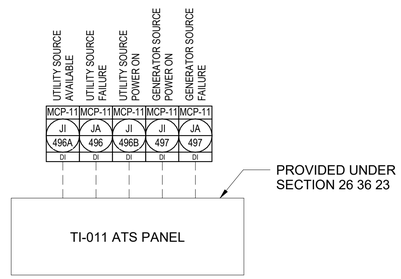
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NOTE:

1. EACH EYEWASH/SHOWER STATION SHALL BE PACKAGED WITH LOCAL HORN/STRONG AND ALARM OUTPUT PROVIDED UNDER 22 11 16, DOMESTIC WATER PIPING.

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK Guillermo Arango 11/3/26 No. 93102 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

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PORTFOLIO MANAGER: ROY TYSVAER, PE
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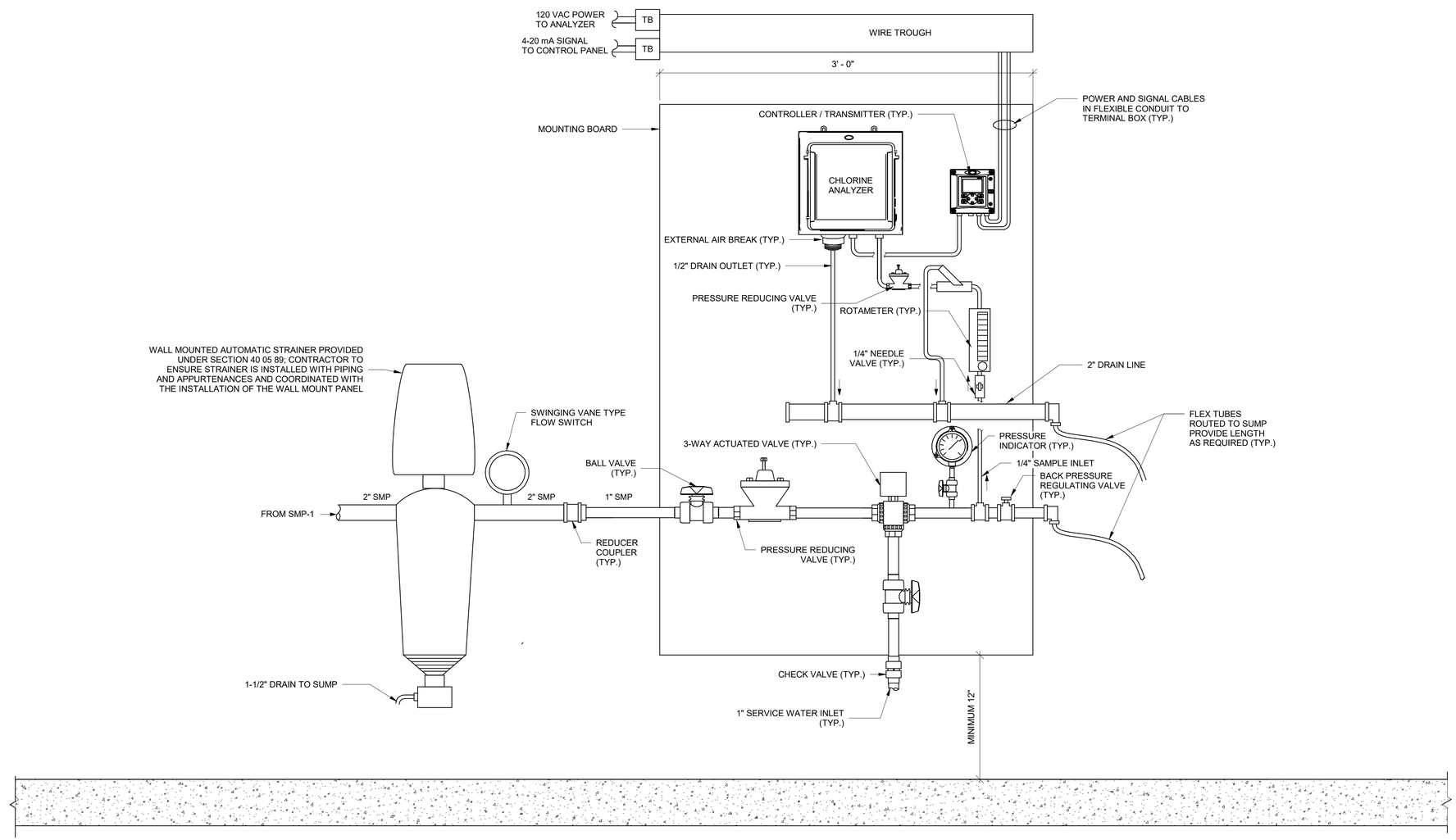
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INSTRUMENTATION
TI-011 - AUXILIARY SYSTEMS P&ID

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1 TI-10C ANALYZER PANEL FRONT VIEW

SCALE: N.T.S.

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STATE OF NEW YORK — Guillermo Arango — LICENSED PROFESSIONAL ENGINEER — 11/3/26 — No. 93103

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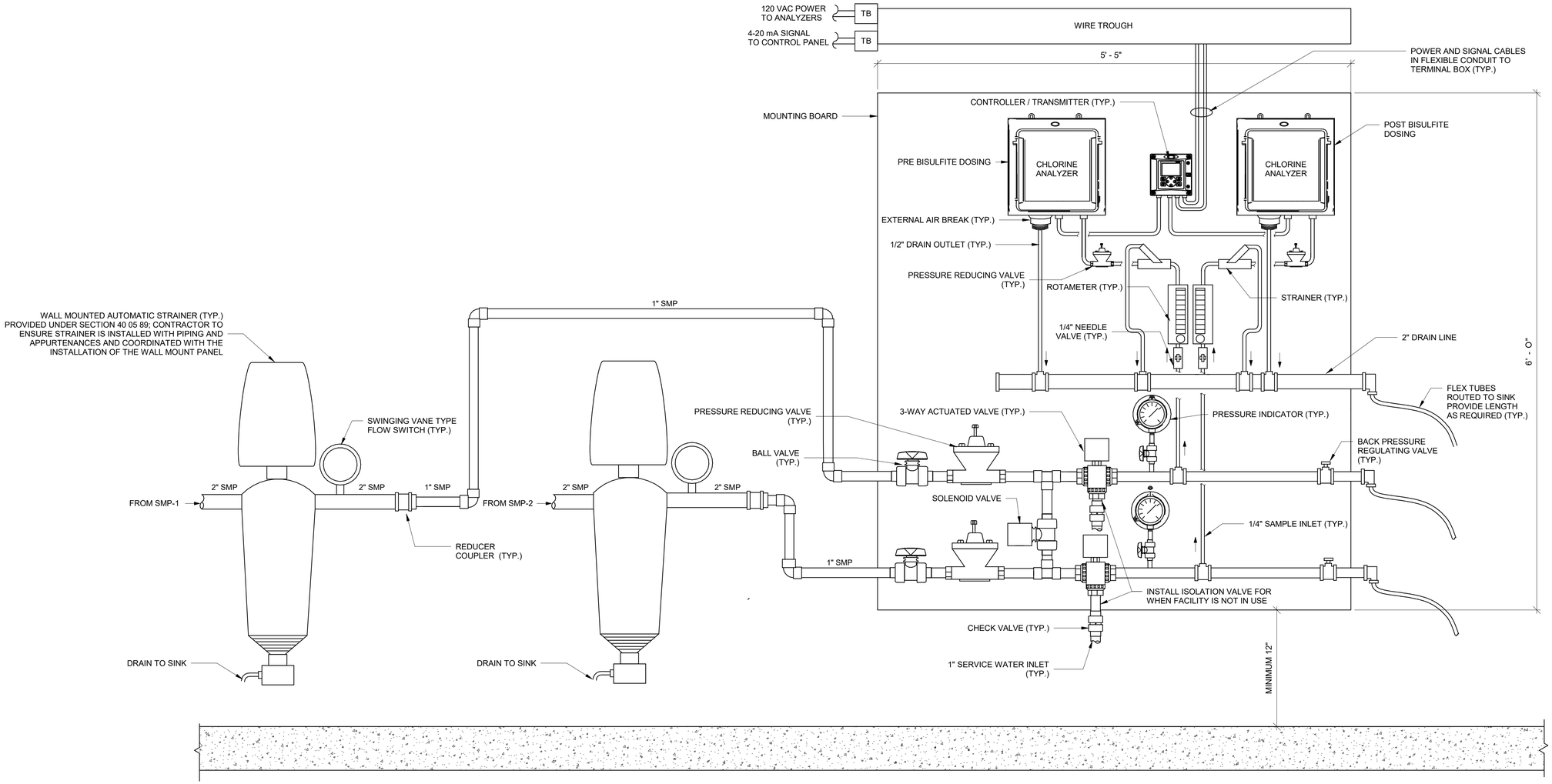
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
ANALYZER PANEL LAYOUT - (SHEET I OF III)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-901.00

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2 TI-10D, TI-11C AND TI-11D ANALYZER PANEL FRONT VIEW

SCALE: N.T.S.

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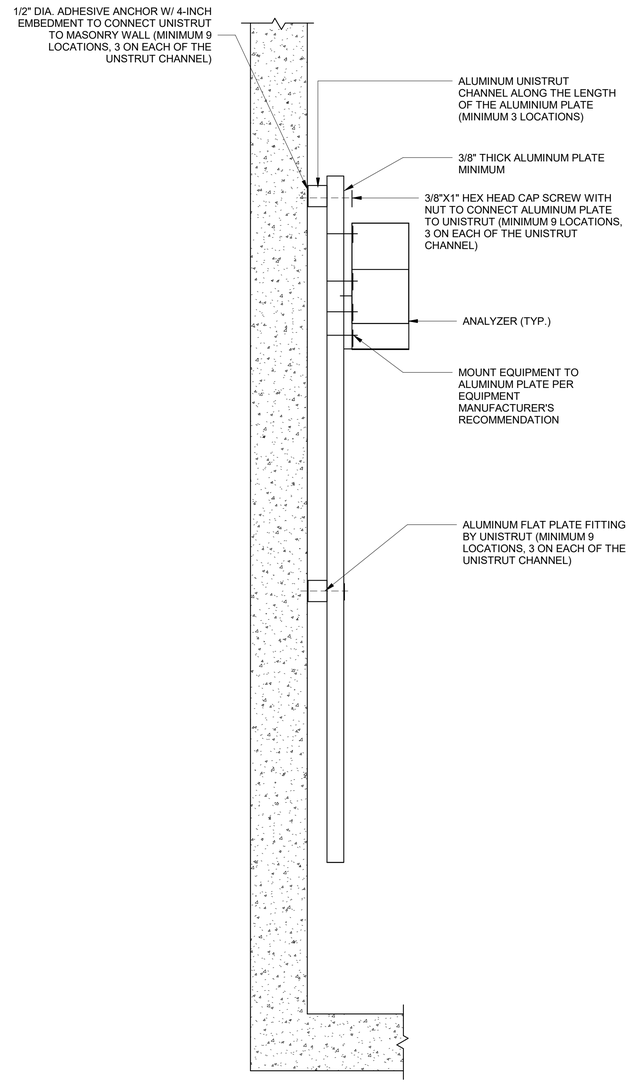
CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
ANALYZER PANEL LAYOUT - (SHEET II OF III)

DATE: NOVEMBER 2026
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1 CHLORINE ANALYZER PANEL SIDE VIEW

SCALE: N.T.S.

NOTES:

1. PIPING, INSTRUMENTATION, ELECTRICAL CONDUIT AND WIRING ARRANGEMENT SHOWN IS REPRESENTATIONAL. COORDINATE PIPE SIZES AND LAYOUT WITH ACTUAL INSTRUMENTS TO BE PROVIDED. PROVIDE ADEQUATE CLEARANCE AROUND ANALYZERS FOR MAINTENANCE AND TO PERMIT DOOR SWING WITHOUT INTERFERENCE OF SURROUNDING EQUIPMENT. CLEARANCE OF 3 FT SHALL BE PROVIDED IN FRONT OF SAMPLE STATION FOR OPERATOR ACCESS AND EASE OF USE. FINAL ARRANGEMENT SHALL PROVIDE A NEAT APPEARANCE AND LAID OUT SUCH THAT ALL INSTRUMENTS ARE EASY TO ACCESS BY THE OPERATORS.
2. PROVIDE ALL MOUNTING BRACKETS AND HARDWARE TO SECURE PIPING AND INSTRUMENTATION TO MOUNTING BOARD. MOUNTING HARDWARE NOT SHOWN FOR CLARITY. ALL TUBING SHALL BE NEATLY ARRANGED, AND STRAPPED TO THE MOUNTING BOARD.
3. PROVDE LABELS AND NAMEPLATES. IDENTIFY EACH ANALYZER, AND ITS ASSOCIATED SAMPLE AND DRAIN LINE CONNECTIONS. IDENTIFY EACH SAMPLE LINE'S INLET AND DRAIN CONNECTIONS (FOR EXAMPLE "PRE-BISULFITE DOSING SAMPLE LINE INLET" AND "PRE-BISULFITE DOSING SAMPLE LINE DRAIN") AND INDICATE DIRECTION OF FLOW FOR EACH. IDENTIFY EACH SAMPLE TAP (FOR EXAMPLE "PRE-BISULFITE TAP"). INCLUDE RANGE INFORMATION ON NAMEPLATES FOR EACH ANALYZER AND ROTAMETER IN ADDITION TO INSTRUMENT TAG AND ASSOCIATED INFORMATION REQUIRED IN SPECIFICATIONS.
4. NO EXPOSED WIRING SHALL BE ALLOWED. CONDUITS AND WIREWAYS SHALL BE PROVIDED FROM THE TERMINAL BOXES TO THE ANALYZERS, TO ROUTE POWER AND SIGNAL WIRES TO AND FROM THE ANALYZERS. INSTALLED CONDUIT AND WIREWAYS SHALL NOT INTERFERE WITH ANALYZER CLEARANCE REQUIREMENTS. CONTRACTOR SHALL TERMINATE INCOMING POWER AND SIGNAL WIRES AT THE TERMINAL BOXES. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WIRING AND TERMINATIONS BETWEEN TERMINAL BOXES AND INSTRUMENTS ON THE SAMPLE STATION.
5. INSTRUMENTS AND ACCESSORIES SHALL BE MOUNTED ON A MOUNTING PANEL AS PER MANUFACTURER RECOMMENDATIONS. UNISTRUT CHANNELS SHALL BE PROVIDED ALONG THE LENGTH OF THE PLATE, TO CONNECT THE MOUNTING PLATE TO THE MASONRY WALL.
6. DRAIN LINES FROM EACH SAMPLE LINE SHALL BE SLOPED TOWARDS THE SINK TO ALLOW COMPLETE FLUSHING OF THE DRAIN WATER. ALL DRAIN TUBING SHALL BE TERMINATED 4" ABOVE SINK RIM.

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SECTION MANAGER:

ARCADIS

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ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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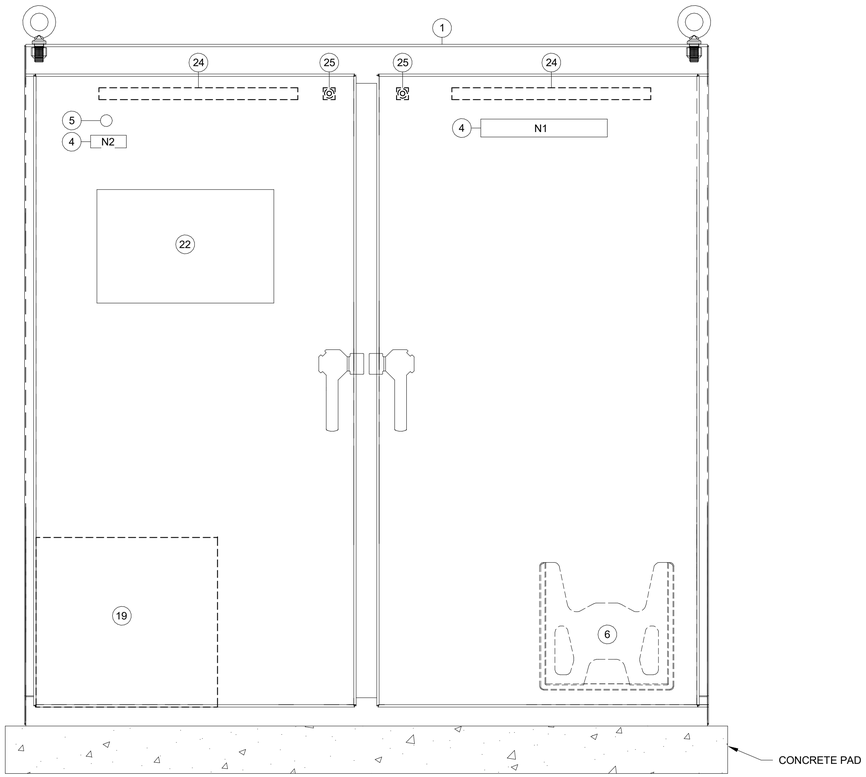
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
ANALYZER PANEL LAYOUT - (SHEET III OF III)

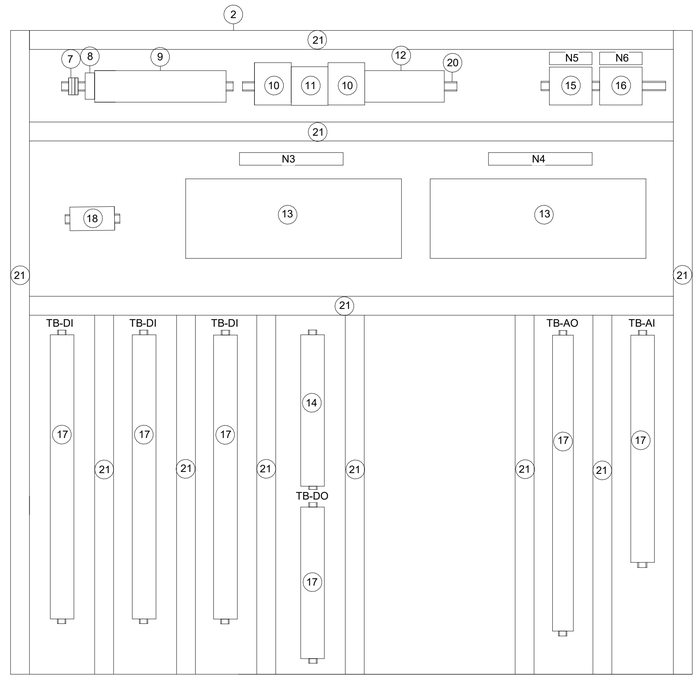
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EXTERIOR FRONT PANEL VIEW



INTERIOR BACKPANEL VIEW

NOTES:

1. PROVIDE MINIMUM OF 2" BETWEEN TERMINAL BLOCKS AND WIRE TRAYS.
2. PROVIDE MINIMUM OF 4" BETWEEN PLC CHASSIS AND WIRE TRAYS, OR AS RECOMMENDED BY THE PLC MANUFACTURER.
3. SEE SECTION 40 67 16 FOR ADDITIONAL REQUIREMENTS.
4. PANEL DIMENSIONS AND LAYOUT ARE REPRESENTATIVE ONLY. CONTRACTOR IS RESPONSBILE TO ADEQUATELY SIZE PANEL TO ACCOMODATE ALL NECESSARY COMPONENTS. WITH ADEQUATE SPARE CAPACITY PER UL508A AND SECTION 40 67 16.
5. ALL TRAY WIRING SHALL ADHERE TO ELECTRICAL CODE.
6. ONLY MAIN COMPONENTS ARE SHOWN.
7. PROVIDE ADEQUATE NUMBER OF AC AND DC TERMINAL BLOCKS REQUIRED WITH ADDITIONAL 20% SPARE CAPACITY.
8. PROVIDE INDIVIDUAL CIRCUIT BREAKERS TO FEED UPS POWER TO THE FOLLOWING INSTRUMENTS: FIT-101, FIT-103, AIT-114, AIT-119.

NAMEPLATE SCHEDULE

N#	LINE	DESCRIPTION
N1	LINE 1	TI-010 MAIN CONTROL PANEL
	LINE 2	(MCP-10)
N2		POWER ON
N3		PLC RACK 1
N4		PLC RACK 2
N5		CELLULAR MODEM (CCFSS NETWORK)
N6		MANAGED ETHERNET SWITCH

BILL OF MATERIALS

ITEM	DESCRIPTION
1	NEMA 12 ENCLOSURE (72"x72"x20")
2	BACKPANEL
3	SIDE PANEL
4	NAMEPLATE (SIZE VARIES)
5	INDICATING LIGHT (WHITE)
6	DOOR POCKET
7	120 VAC INCOMING POWER TERMINALS
8	TRANSIENT VOLTAGE SURGE SUPPRESSOR
9	120 VAC CIRCUIT BREAKERS AND POWER DISTRIBUTION
10	24 VDC POWER SUPPLY
11	24 VDC REDUNDANCY MODULE
12	24VDC CIRCUIT BREAKERS AND POWER DISTRIBUTION
13	PROGRAMMABLE LOGIC CONTROLLER (PLC)
14	CONTROL RELAYS
15	CELLULAR MODEM WITH FIREWALL
16	ETHERNET SWITCH
17	TERMINAL BLOCKS
18	GFCI DUPLEX RECEPTACLE (DIN RAIL MOUNTED)
19	UNINTERRUPTIBLE POWER SUPPLY (UPS)
20	DIN RAIL
21	WIRE TRAY
22	PANEL MOUNTED MONITOR
23	OPERATOR INTERFACE TERMINAL (OIT)
24	PANEL LED LIGHT
25	DOOR SWITCH / INTRUSION SWITCH

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — Federico Guillermo Arango Gonzalez — 1/13/26 — No. 93132 — LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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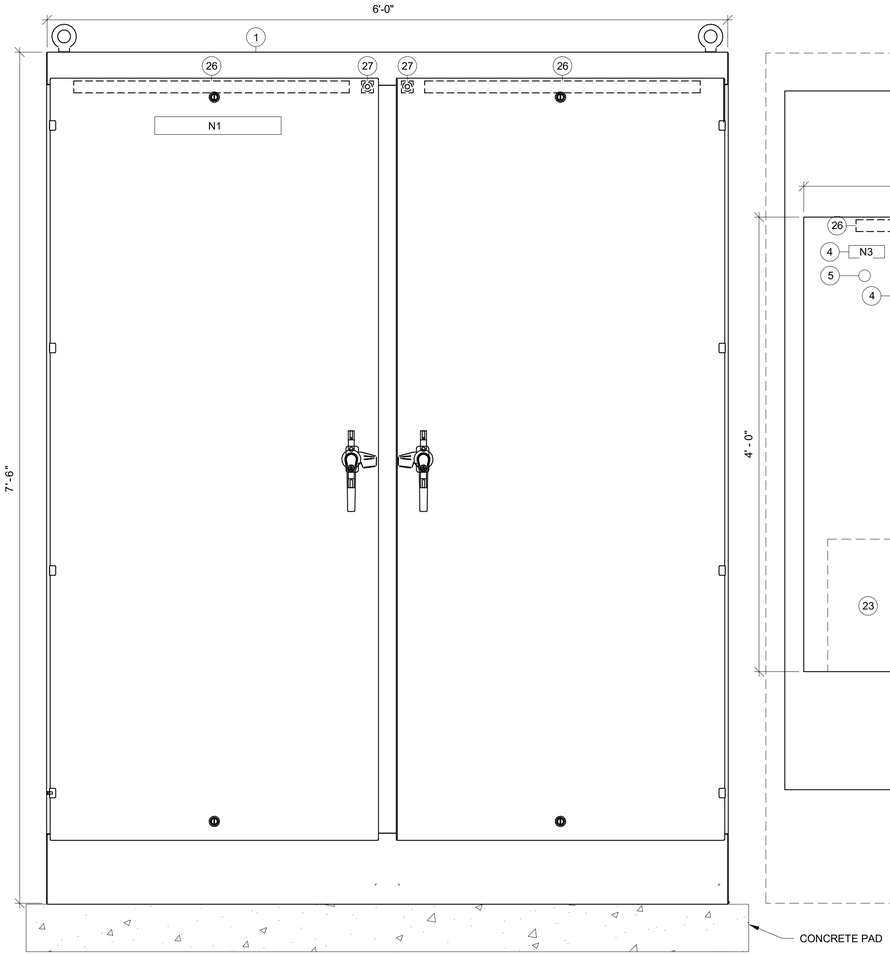
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CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
MCP-10 LAYOUT

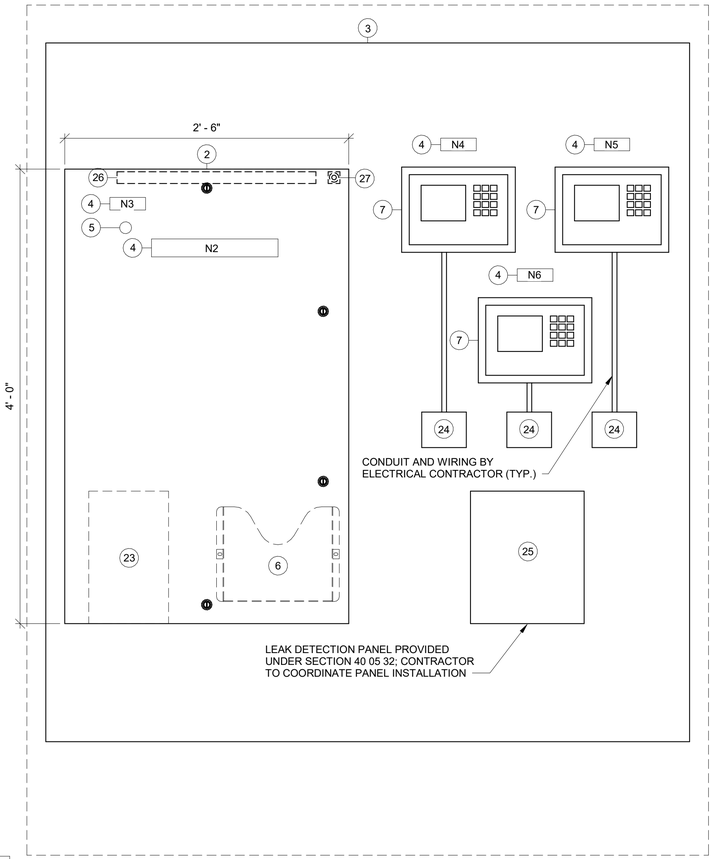
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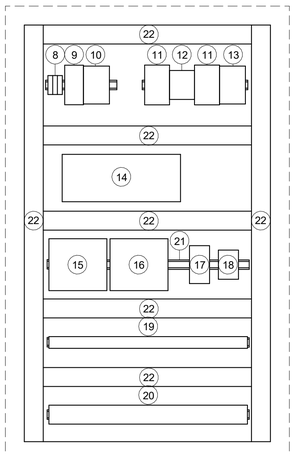
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EXTERIOR FRONT PANEL VIEW



INTERIOR FRONT PANEL VIEW



DC-5 INTERIOR
BACKPANEL VIEW

NOTES:

1. PROVIDE MINIMUM OF 2" BETWEEN TERMINAL BLOCKS AND WIRE TRAYS.
2. PROVIDE MINIMUM OF 4" BETWEEN PLC CHASSIS AND WIRE TRAYS, OR AS RECOMMENDED BY THE PLC MANUFACTURER.
3. SEE SECTION 40 67 16 FOR ADDITIONAL REQUIREMENTS.
4. PANEL DIMENSIONS AND LAYOUT ARE REPRESENTATIVE ONLY. CONTRACTOR IS RESPONSBILE TO ADEQUATELY SIZE PANEL TO ACCOMODATE ALL NECESSARY COMPONENTS. WITH ADEQUATE SPARE CAPACITY PER UL508A AND SECTION 40 67 16.
5. ALL TRAY WIRING SHALL ADHERE TO ELECTRICAL CODE.
6. ONLY MAIN COMPONENTS ARE SHOWN.
7. PROVIDE ADEQUATE NUMBER OF AC AND DC TERMINAL BLOCKS REQUIRED WITH ADDITIONAL 20% SPARE CAPACITY.
8. PANEL UPS SHALL PROVIDE 120 VAC POWER TO EACH OF THE FLOW TRANSMITTERS. PROVIDE A SINGLE 120 VAC, 1 AMP CIRCUIT BREAKER FOR EACH TRANSMITTER FROM THE PANEL.

NAMEPLATE SCHEDULE		
N#	LINE	DESCRIPTION
N1		INSTRUMENTATION PANEL
N2	LINE 1	DIVERSION CHAMBER NO. 5 CONTROL PANEL
	LINE 2	(DC5-CP-10)
N3		POWER ON
N4	LINE 1	DC-5 CHANNEL NO. 1 FLOW
	LINE 2	(FE/FIT-211)
N5	LINE 1	DC-5 CHANNEL NO. 2 FLOW
	LINE 2	(FE/FIT-212)
N6	LINE 1	DC-5 CHANNEL NO. 3 FLOW
	LINE 2	(FE/FIT-213)

BILL OF MATERIALS	
ITEM	DESCRIPTION
1	NEMA 3R FREE STANDING ENCLOSURE (90"x72"x24")
2	NEMA 4X WALL MOUNT PANEL (48"x30"x18")
3	BACKPANEL (SIZE VARIES)
4	NAMEPLATE (SIZE VARIES)
5	INDICATING LIGHT (WHITE)
6	DOOR POCKET
7	FLOW TRANSMITTERS
8	120 VAC INCOMING POWER TERMINALS
9	TRANSIENT VOLTAGE SURGE SUPPRESSOR
10	120 VAC CIRCUIT BREAKERS AND POWER DISTRIBUTION
11	24 VDC POWER SUPPLY
12	24 VDC REDUNDANCY MODULE
13	24VDC CIRCUIT BREAKERS AND POWER DISTRIBUTION
14	PROGRAMMABLE LOGIC CONTROLLER (PLC)
15	MANAGED ETHERNET SWITCH
16	CELLULAR MODEM WITH FIREWALL
17	GFCI DUPLEX RECEPTACLE (DIN RAIL MOUNTED)
18	UPS DEDICATED RECEPTACLE (DIN RAIL MOUNTED)
19	TERMINAL BLOCKS
20	CONTROL RELAYS
21	DIN RAIL
22	WIRE TRAY
23	UNINTERRUPTIBLE POWER SUPPLY (UPS)
24	INTRINSIC SAFETY BARRIER (ISB)
25	TI-010C DC-5 LEAK DETECTION PANEL (LDP-DC5)
26	PANEL LED LIGHT
27	DOOR SWITCH / INTRUSION SWITCH

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: GP
CHECKED BY: EK
DESIGN LEAD: FEDERICO ARANGO, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — Federico Guillermo Arango Villamil — 1/13/26 — No. 93112 — LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER
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PORTFOLIO MANAGER
ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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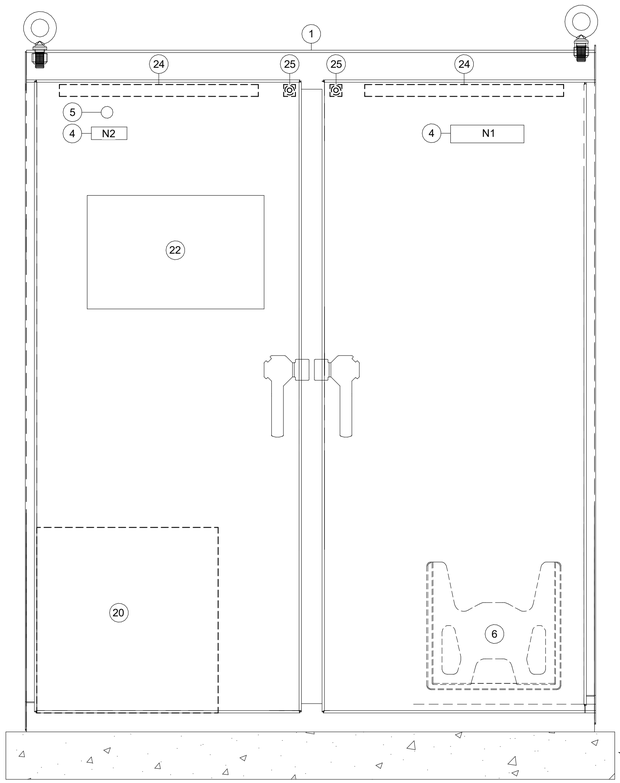
CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
DC5-CP-10 LAYOUT

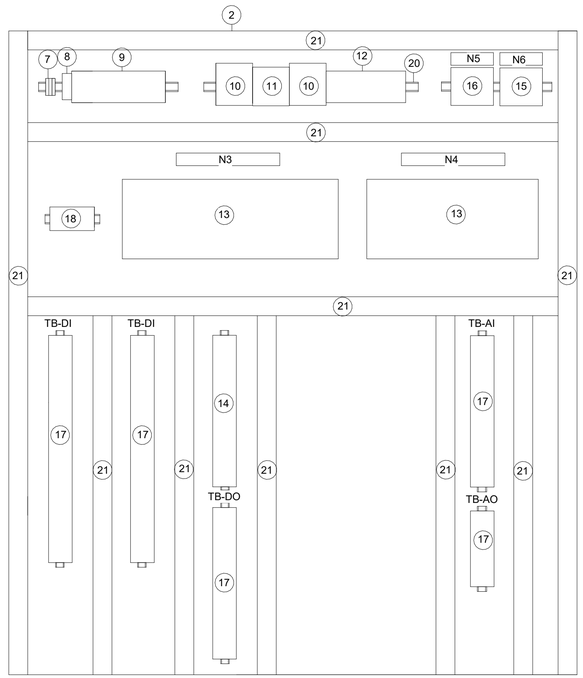
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EXTERIOR FRONT PANEL VIEW



INTERIOR BACKPANEL VIEW

NOTES:

1. PROVIDE MINIMUM OF 2" BETWEEN TERMINAL BLOCKS AND WIRE TRAYS.
2. PROVIDE MINIMUM OF 4" BETWEEN PLC CHASSIS AND WIRE TRAYS, OR AS RECOMMENDED BY THE PLC MANUFACTURER.
3. SEE SECTION 40 67 16 FOR ADDITIONAL REQUIREMENTS.
4. PANEL DIMENSIONS AND LAYOUT ARE REPRESENTATIVE ONLY. CONTRACTOR IS RESPONSBILE TO ADEQUATELY SIZE PANEL TO ACCOMODATE ALL NECESSARY COMPONENTS. WITH ADEQUATE SPARE CAPACITY PER UL508A AND SECTION 40 67 16.
5. ALL TRAY WIRING SHALL ADHERE TO ELECTRICAL CODE.
6. ONLY MAIN COMPONENTS ARE SHOWN.
7. PROVIDE ADEQUATE NUMBER OF AC AND DC TERMINAL BLOCKS REQUIRED WITH ADDITIONAL 30% SPARE CAPACITY.
8. PROVIDE INDIVIDUAL CIRCUIT BREAKERS TO FEED UPS POWER TO THE FOLLOWING INSTRUMENTS: AIT-305 AND AIT-311.

NAMEPLATE SCHEDULE		
N#	LINE	DESCRIPTION
N1	LINE 1	TI-010 DECHLORINATION CONTROL PANEL
	LINE 2	(SBS-CP-10)
N2		POWER ON
N3		PLC RACK 1 (12 SLOT)
N4		PLC RACK 2 (8 SLOT)
N5		PLC NETWORK MANAGED ETHERNET SWITCH
N6		CELLULAR MODEM (PRIVATE NETWORK)

BILL OF MATERIALS	
ITEM	DESCRIPTION
1	NEMA 12 ENCLOSURE (72"x60"x20")
2	BACKPANEL
3	SIDE PANEL
4	NAMEPLATE (SIZE VARIES)
5	INDICATING LIGHT (WHITE)
6	DOOR POCKET
7	120 VAC INCOMING POWER TERMINALS
8	TRANSIENT VOLTAGE SURGE SUPPRESSOR
9	120 VAC CIRCUIT BREAKERS AND POWER DISTRIBUTION
10	24 VDC POWER SUPPLY
11	24 VDC REDUNDANCY MODULE
12	24VDC CIRCUIT BREAKERS AND POWER DISTRIBUTION
13	PROGRAMMABLE LOGIC CONTROLLER (PLC)
14	CONTROL RELAYS
15	CELLULAR MODEM WITH FIREWALL
16	ETHERNET SWITCH
17	TERMINAL BLOCKS
18	GFCI DUPLEX RECEPTACLE (DIN RAIL MOUNTED)
19	UNINTERRUPTIBLE POWER SUPPLY (UPS)
20	DIN RAIL
21	WIRE TRAY
22	PANEL MOUNTED MONITOR
23	OPERATOR INTERFACE TERMINAL (OIT)
24	PANEL LED LIGHT
25	DOOR SWITCH / INTRUSION SWITCH

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ARCADIS

STATE OF NEW YORK Federico Guillermo Arango 1/3/26 No. 93112 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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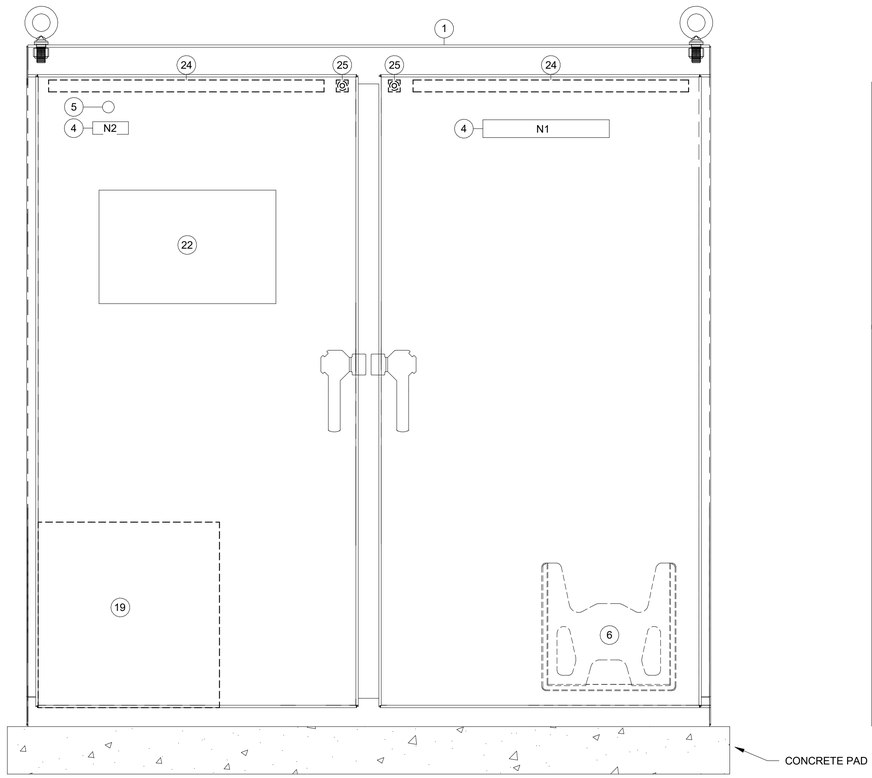
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
INSTRUMENTATION
SBS-CP-10 LAYOUT

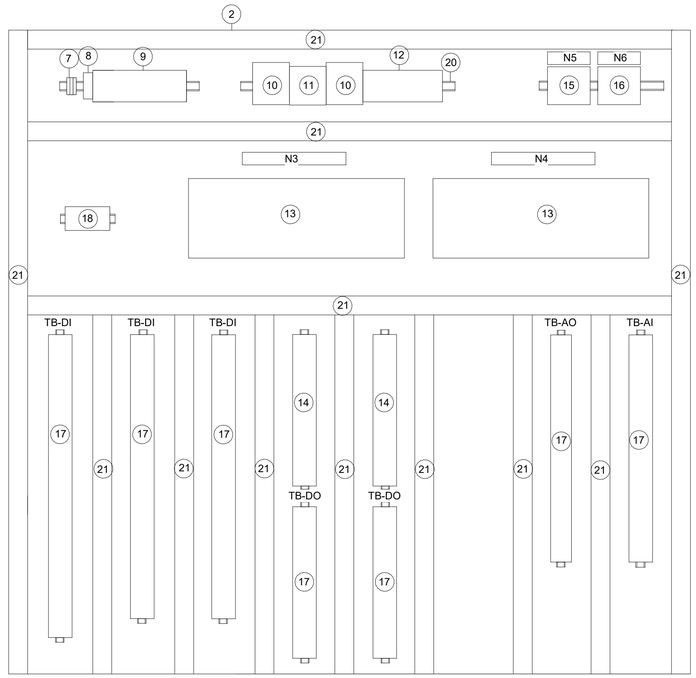
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EXTERIOR FRONT PANEL VIEW



INTERIOR BACKPANEL VIEW

NOTES:

1. PROVIDE MINIMUM OF 2" BETWEEN TERMINAL BLOCKS AND WIRE TRAYS.
2. PROVIDE MINIMUM OF 4" BETWEEN PLC CHASSIS AND WIRE TRAYS, OR AS RECOMMENDED BY THE PLC MANUFACTURER.
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5. ALL TRAY WIRING SHALL ADHERE TO ELECTRICAL CODE.
6. ONLY MAIN COMPONENTS ARE SHOWN.
7. PROVIDE ADEQUATE NUMBER OF AC AND DC TERMINAL BLOCKS REQUIRED WITH ADDITIONAL 30% SPARE CAPACITY.
8. PROVIDE INDIVIDUAL CIRCUIT BREAKERS TO FEED UPS POWER TO THE FOLLOWING INSTRUMENTS: AIT-410 AND AIT-416.

NAMEPLATE SCHEDULE		
N#	LINE	DESCRIPTION
N1	LINE 1	TI-011 MAIN CONTROL PANEL
	LINE 2	(MCP-11)
N2		POWER ON
N3		PLC RACK 1
N4		PLC RACK 2
N5		CELLULAR MODEM (CCFSS NETWORK)
N6		MANAGED ETHERNET SWITCH

BILL OF MATERIALS	
ITEM	DESCRIPTION
1	NEMA 12 ENCLOSURE (72"x72"x20")
2	BACKPANEL
3	SIDE PANEL
4	NAMEPLATE (SIZE VARIES)
5	INDICATING LIGHT (WHITE)
6	DOOR POCKET
7	120 VAC INCOMING POWER TERMINALS
8	TRANSIENT VOLTAGE SURGE SUPPRESSOR
9	120 VAC CIRCUIT BREAKERS AND POWER DISTRIBUTION
10	24 VDC REDUNDANCY MODULE
11	24 VDC POWER SUPPLY
12	24VDC CIRCUIT BREAKERS AND POWER DISTRIBUTION
13	PROGRAMMABLE LOGIC CONTROLLER (PLC)
14	CONTROL RELAYS
15	CELLULAR MODEM WITH FIREWALL
16	ETHERNET SWITCH
17	TERMINAL BLOCKS
18	GFCI DUPLEX RECEPTACLE (DIN RAIL MOUNTED)
19	UNINTERRUPTIBLE POWER SUPPLY (UPS)
20	DIN RAIL
21	WIRE TRAY
22	PANEL MOUNTED MONITOR
23	OPERATOR INTERFACE TERMINAL (OIT)
24	PANEL LED LIGHT
25	DOOR SWITCH / INTRUSION SWITCH

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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — Guillermo Arango — LICENSED PROFESSIONAL ENGINEER — No. 93192 — 11/3/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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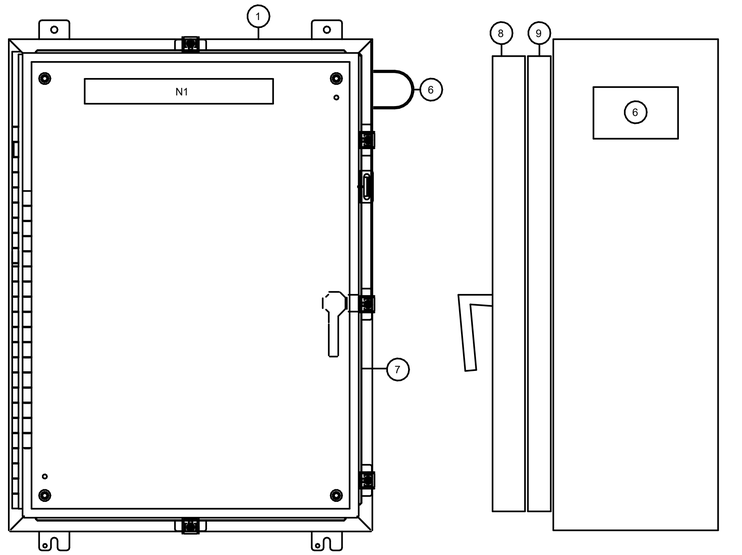
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CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
MCP-11 LAYOUT

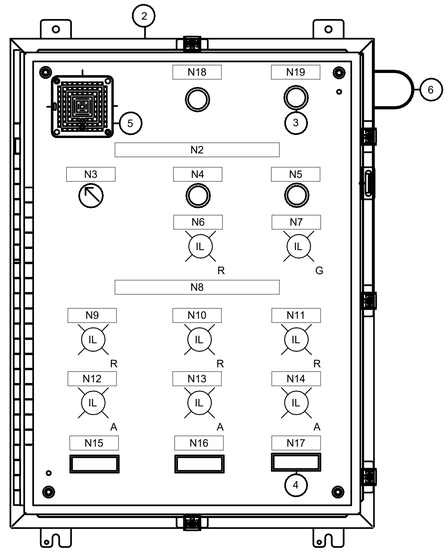
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EXTERIOR DOOR FRONT PANEL VIEW

SIDE PANEL VIEW



INTERIOR DOOR FRONT PANEL VIEW

NOTES:

1. ALL PENETRATIONS SHALL BE MADE FROM THE BOTTOM OF THE ENCLOSURE.
2. RELAY LOGIC DESCRIPTION: BOTH HORN AND STROBE SHALL ENERGIZE ON NEW ALARM SILENCE PUSHBUTTON SHALL SILENCE THE HORN BUT STROBE SHALL STAY ENERGIZED UNTIL THE ALARM CONDITION CLEARS. THE HORN SHALL BE ENERGIZED AGAIN IF A NEW ALARM COMES IN WHILE AN EXISTING ALARM WAS STILL ACTIVE WITH THE STROBE ENERGIZED.
3. DRAIN VALVE RELAY LOGIC CIRCUITRY SHALL BE PROVIDED IN THE FILL STATION PANEL, AND SHALL BE AS FOLLOWS: WHEN THE FP/SCADA SELECTOR SWITCH IS IN FP MODE, OPEN/CLOSE CONTROL OF THE VALVE SHALL BE FROM THE FILL STATION PANEL. WHEN THE SELECTOR SWITCH IS IN SCADA MODE, OPEN/CLOSE CONTROL OF THE VALVE SHALL BE FROM MCP-10.
4. PROVIDE SUNSHIELD FOR PROTECTION AGAINST UV RADIATION.
5. THE INTERIOR FRONT DOOR SHALL MAINTAIN THE NEMA RATING OF THE PANEL INTERIOR SWING DOORS ARE NOT ACCEPTABLE.
6. LAMP TEST PUSHBUTTON SHALL ENERGIZE ALL THE PILOT LIGHTS IN THE PANEL.
7. ALL FIELD TERMINAL BLOCKS SHALL BE LOCATED ON THE BOTTOM PART OF THE FILL STATION.
8. CONTRACTOR TO COORDINATE WITH OWNER AND ENGINEER CHEMICAL TANK CAPACITIES ON NAMEPLATES DURING CONSTRUCTION.

NAMEPLATE SCHEDULE		
N#	LINE	DESCRIPTION
N1	LINE 1	SODIUM HYPOCHLORITE FILL PANEL
	LINE 2	(HYPO-FP-10)
N2		CHEMICAL TRANSFER DRAIN VALVE
N3		FILL PANEL/SCADA
N4		OPEN
N5		CLOSE
N6		OPENED
N7		CLOSED
N8		SODIUM HYPOCHLORITE TANKS
N9		SODIUM HYPOCHLORITE TANK NO. 1 AVAILABLE
N10		SODIUM HYPOCHLORITE TANK NO. 2 AVAILABLE
N11		SODIUM HYPOCHLORITE TANK NO. 3 AVAILABLE
N12	LINE 1	SODIUM HYPOCHLORITE TANK NO. 1
	LINE 2	HIGH LEVEL
N13	LINE 1	SODIUM HYPOCHLORITE TANK NO. 2
	LINE 2	HIGH LEVEL
N14	LINE 1	SODIUM HYPOCHLORITE TANK NO. 3
	LINE 2	HIGH LEVEL
N15	LINE 1	STORAGE TANK NO. 1
	LINE 2	CAPACITY 8136 GAL
N16	LINE 1	STORAGE TANK NO. 2
	LINE 2	CAPACITY 8136 GAL
N17	LINE 1	STORAGE TANK NO. 3
	LINE 2	CAPACITY 8136 GAL
N18		SILENCE
N19		HORN ENABLE

BILL OF MATERIALS	
ITEM	DESCRIPTION
1	NEMA 4X ENCLOSURE (48"X36"X16")
2	BACKPANEL
3	PUSHBUTTON
4	DIGITAL LEVEL INDICATOR
5	HORN
6	STROBE LIGHT
7	LOCKED DOUBLE FRONT DOORS
8	EXTERIOR DOOR
9	INTERIOR DOOR

BID SET
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SECTION MANAGER:

ARCADIS

STATE OF NEW YORK — Guillermo Aranguiz — LICENSED PROFESSIONAL ENGINEER — No. 93192 — 11/3/26

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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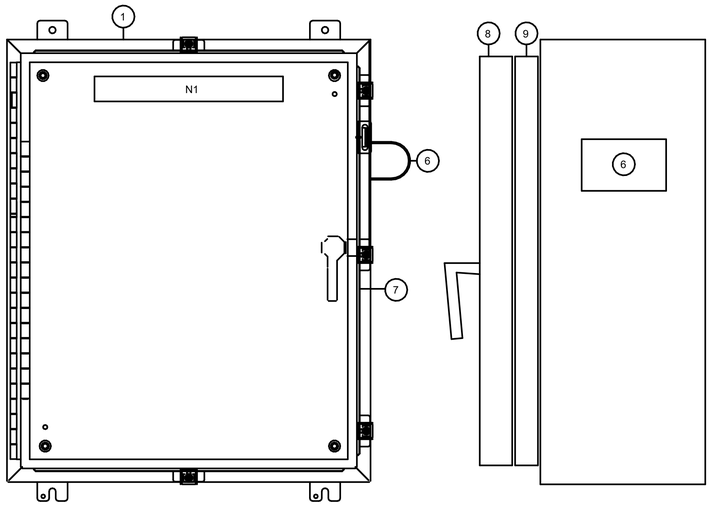
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INSTRUMENTATION
FILL STATION PANEL (TI-10C) LAYOUT

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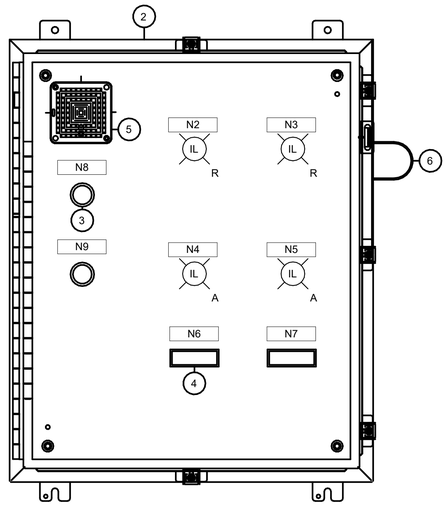
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EXTERIOR DOOR FRONT PANEL VIEW

SIDE PANEL VIEW



INTERIOR DOOR FRONT PANEL VIEW

NOTES:

1. ALL PENETRATIONS SHALL BE MADE FROM THE BOTTOM OF THE ENCLOSURE.
2. RELAY LOGIC DESCRIPTION: BOTH HORN AND STROBE SHALL ENERGIZE ON NEW ALARM SILENCE PUSHBUTTON SHALL SILENCE THE HORN BUT STROBE SHALL STAY ENERGIZED UNTIL THE ALARM CONDITION CLEARS. THE HORN SHALL BE ENERGIZED AGAIN IF A NEW ALARM COMES IN WHILE AN EXISTING ALARM WAS STILL ACTIVE WITH THE STROBE ENERGIZED.
3. PROVIDE SUNSHIELD FOR PROTECTION AGAINST UV RADIATION.
4. THE INTERIOR FRONT DOOR SHALL MAINTAIN THE NEMA RATING OF THE PANEL INTERIOR SWING DOORS ARE NOT ACCEPTABLE.
5. LAMP TEST PUSHBUTTON SHALL ENERGIZE ALL THE PILOT LIGHTS IN THE PANEL.
6. ALL FIELD TERMINAL BLOCKS SHALL BE LOCATED ON THE BOTTOM PART OF THE FILL STATION.
7. CONTRACTOR TO COORDINATE WITH OWNER AND ENGINEER CHEMICAL TANK CAPACITIES ON NAMEPLATES DURING CONSTRUCTION.
8. THE FILL STATION PANEL LAYOUT SHOWN IS TYPICAL FOR TI-010D, TI-011C, AND TI-011D (FOR A TOTAL OF THREE PANELS). THE "XXX" INDICATED IN THE NAMEPLATE SCHEDULE SHALL BE REPLACED AS FOLLOWS FOR THE RELEVANT SITES:
   A. TI-010D: BISULFITE
   B. TI-011C: HYPOCHLORITE
   C. TI-011D: BISULFITE
9. THE CAPACITY OF EACH TANK INDICATED AS "###" SHALL BE REPLACED AS FOLLOWS:
   A. TI-010D: 3760 GAL
   B. TI-011C: 6000 GAL
   C. TI-011D: 2500 GAL

NAMEPLATE SCHEDULE		
N#	LINE	DESCRIPTION
N1		SODIUM "XXX" FILL PANEL
N2		SODIUM "XXX" TANK NO. 1 AVAILABLE
N3		SODIUM BISULFITE TANK NO. 2 AVAILABLE
N4	LINE 1	SODIUM BISULFITE TANK NO. 1
	LINE 2	HIGH LEVEL
N5	LINE 1	SODIUM BISULFITE TANK NO. 2
	LINE 2	HIGH LEVEL
N6	LINE 1	STORAGE TANK NO. 1
	LINE 2	CAPACITY "###" GAL
N7	LINE 1	STORAGE TANK NO. 2
	LINE 2	CAPACITY "###" GAL
N8		SILENCE
N9		HORN ENABLE

BILL OF MATERIALS	
ITEM	DESCRIPTION
1	NEMA 4X ENCLOSURE (36"X24"X16")
2	BACKPANEL
3	PUSHBUTTON
4	DIGITAL LEVEL INDICATOR
5	HORN
6	STROBE LIGHT
7	LOCKED DOUBLE FRONT DOORS
8	EXTERIOR DOOR
9	INTERIOR DOOR

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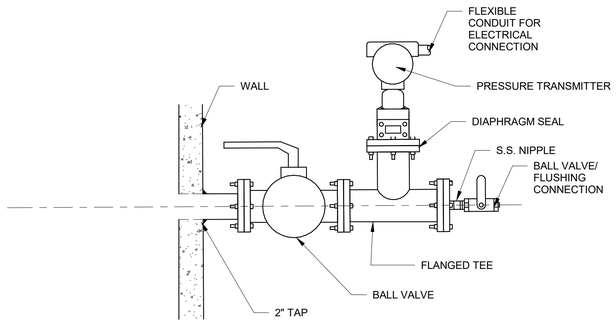
CAPITAL CONTRACT WP-169 CSO-FC-DF-DES CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
FILL STATION PANEL (TI-10D / TI-11C / TI-11D) LAYOUT

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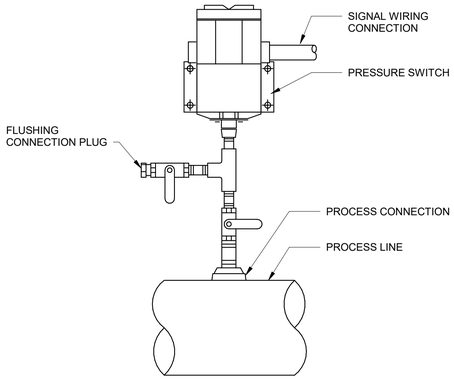
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NOTES:
1. CONTRACTOR SHALL PROVIDE AND INSTALL NEW NEOPRENE GASKETS, NUTS AND BOLTS AND WASHER.
2. MATERIAL FOR ALL NUTS, BOLTS AND WASHERS SHALL BE ASTM A307, GRADE "A" WITH TRIPAC 2000 BLUE COATING SYSTEM.
3. BOLT QUANTITY AND SIZES SHALL BE VERIFIED AND COORDINATED WITH CONTRACTOR

1 I-910 PRESSURE TRANSMITTER

SCALE: N.T.S.

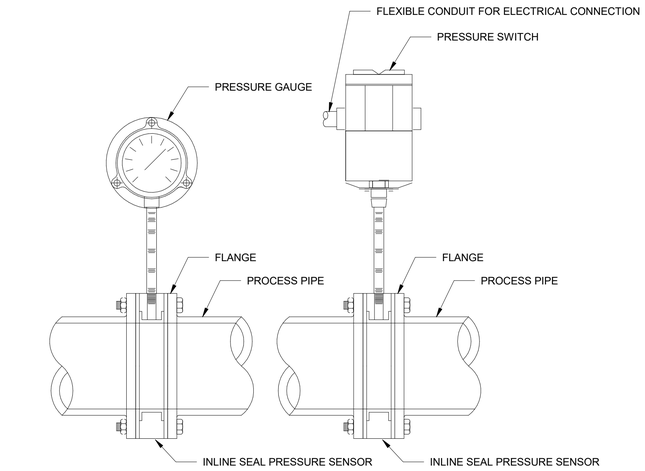


NOTES:

1. PROVIDE KINDORF/UNINSTRUT HARDWARE AND APPURTENANCESTO FULLY SECURE AND SUPPORT DEVICES. IN CORROSIVE ENVIRONMENT USE FRP MATERIAL IN LIEU OF S.S

2 I-910 PRESSURE SWITCH FOR SAMPLE PUMP DISCHARGE

SCALE: N.T.S.

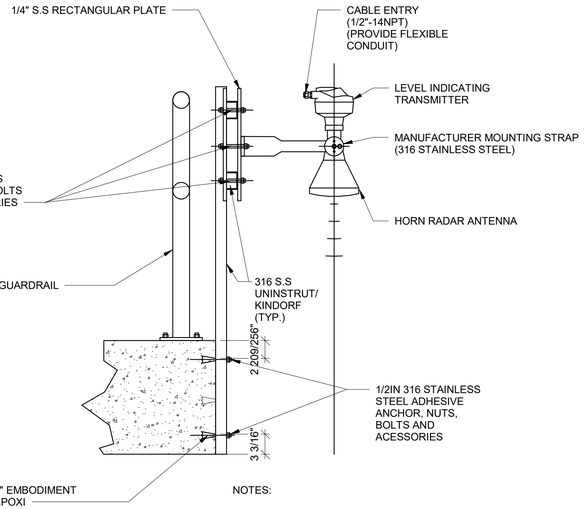


NOTE:

1. SEE SPECIFCATIONS FOR SIZE OF INSTRUMENT PROCESS CONNECTION.

3 I-910 PRESSURE GAUGE AND PRESSURE SWITCH WITH INLINE SEAL FOR CHEMICAL SYSTEMS

SCALE: N.T.S.



NOTES:

1. 12IN RECOMMENDED. ENSURE RADAR BEAM IS NOT OBSTRUCTED BY CONCRETE SLAB OR ANY OTHER OBJECT IN IT'S PATH

4 I-910 RADAR LEVEL INDICATING TRANSMITTER

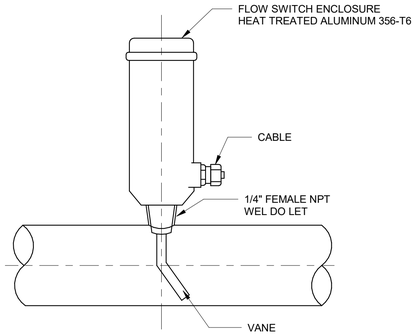
SCALE: N.T.S.

NOTES:

1. FLOW METER DETAIL SHOWN SHALL BE USED FOR BOTH ELECTRICALLY NON-CONDUCTIVE AND CONDUCTIVE TYPE PIPELINES.
2. GROUND WIRE SHALL BE NO. 12AWG INSULATED. IF LENGTH OF GROUND WIRE IS MORE THAN 6 FEET, INSTALL CONDUCTOR IN 3/4" CONDUIT.
3. BOND MAGNETIC NFLOW METER TO ONE OF THE FOLLOWING ACCEPTABLE GROUNDS:
   A) METALLIC WATER PIPE IF BURIED PORTION IS MORE THAN 10 FEET.
   B) STRUCTURAL STEEL.
4. REMOTE TRANSMITTER SHALL BE LOCATED IN A SUITABLE LOCATION.

5 I-910 MAGNETIC FLOW METER

SCALE: N.T.S.



6 I-910 SWINGING VANE TYPE FLOW SWITCH

SCALE: N.T.S.

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DATE ISSUED: NOVEMBER 2026

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CHECKED BY: EK
DESIGN LEAD: FEDERICO ARANGO, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK Guillermo Arango Cadena 11/3/26 No. 93112 LICENSED PROFESSIONAL ENGINEER

Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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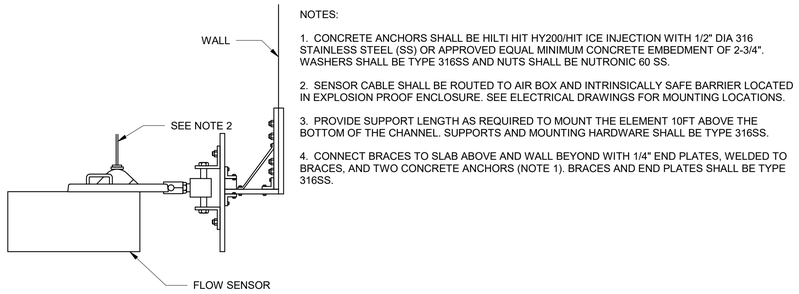
CAPITAL CONTRACT WP-169 CSO-FC-DF-DES
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

INSTRUMENTATION
INSTALLATION DETAILS (SHEET I OF II)

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. I-910.00

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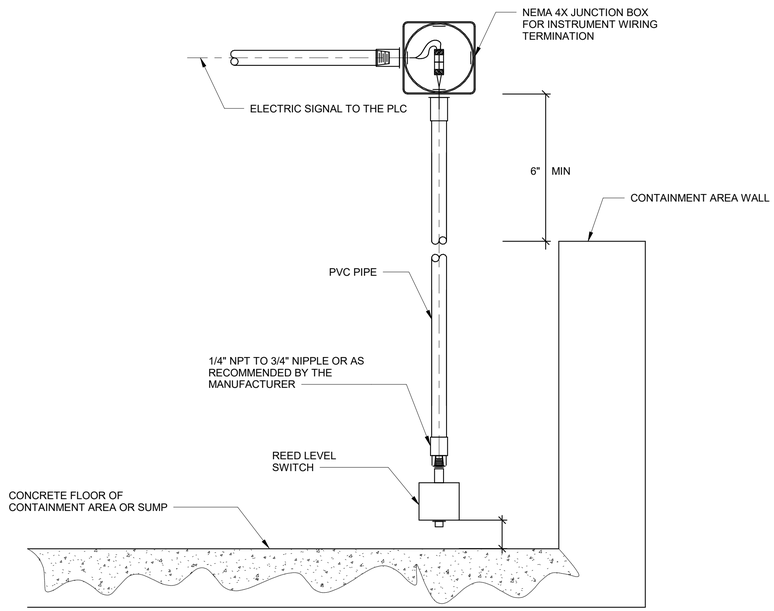


NOTES:

1. CONCRETE ANCHORS SHALL BE HILTI HIT HY200/HIT ICE INJECTION WITH 1/2" DIA 316 STAINLESS STEEL (SS) OR APPROVED EQUAL MINIMUM CONCRETE EMBEDMENT OF 2-3/4". WASHERS SHALL BE TYPE 316SS AND NUTS SHALL BE NUTRONIC 60 SS.
2. SENSOR CABLE SHALL BE ROUTED TO AIR BOX AND INTRINSICALLY SAFE BARRIER LOCATED IN EXPLOSION PROOF ENCLOSURE. SEE ELECTRICAL DRAWINGS FOR MOUNTING LOCATIONS.
3. PROVIDE SUPPORT LENGTH AS REQUIRED TO MOUNT THE ELEMENT 10FT ABOVE THE BOTTOM OF THE CHANNEL. SUPPORTS AND MOUNTING HARDWARE SHALL BE TYPE 316SS.
4. CONNECT BRACES TO SLAB ABOVE AND WALL BEYOND WITH 1/4" END PLATES, WELDED TO BRACES, AND TWO CONCRETE ANCHORS (NOTE 1). BRACES AND END PLATES SHALL BE TYPE 316SS.

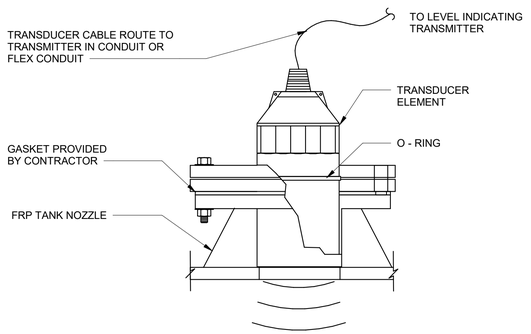
1 I-911 NON CONTACT FLOW METER

SCALE: N.T.S.



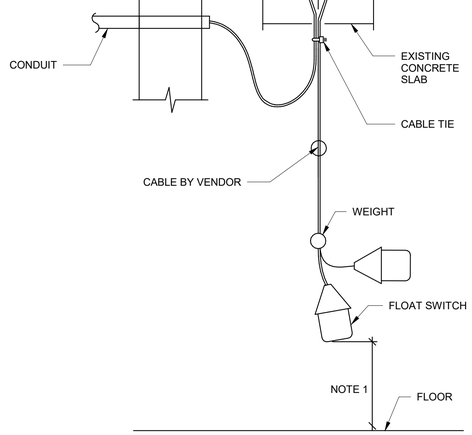
2 I-911 FLOOD SENSOR

SCALE: N.T.S.



3 I-911 ULTRASONIC LEVEL SENSOR AND REMOTE SENSOR TANK TOP

SCALE: N.T.S.



NOTES:

1. SEE SECTION 40 70 05 FOR FLOAT SETPOINT REQUIREMENT AND COORDINATE FOR INSTALLATION ELEVATION.
2. LENGTH OF INSTRUMENT AND SUPPORTING STEEL CABLES SHALL BE IDENTIFIED BY THE DESIGN AND FIELD VERIFIED.
3. ALL BRACKETS, NUTS, BOLTS, ANCHOR RODS AND POLES SHALL BE 316 S.S.

4 I-911 FLOAT TYPE LEVEL SWITCH

SCALE: N.T.S.

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DATE ISSUED: NOVEMBER 2026

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STATE OF NEW YORK — Guillermo Aranguren — 11/3/26 — LICENSED PROFESSIONAL ENGINEER

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INSTALLATION DETAILS (SHEET II OF II)

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FIRE ALARM SYMBOLS

- A/V 110 — AUDIO/VISUAL ALARM INDICATOR (HORN/STROBE) WITH ADJUSTABLE STROBE CANDELA RATING 15-110.
- H EX — HORN SUITABLE FOR HAZARDOUS AND/OR CORROSIVE AREAS
- F — MANUAL PULL STATION
- F EX — EXPLOSION PROOF MANUAL PULL STATION SUITABLE FOR HARARDOUS AND/OR CORROSIVE AREAS
- FACP — FIRE ALARM CONTROL PANEL
- B — BELL
- END OF LINE RESISTOR
- SD — ADDRESSABLE SMOKE DETECTOR - PHOTOELECTRIC TYPE
- SD EX — EXPLOSIONPROOF SMOKE DETECTOR SUITABLE FOR HAZARDOUS AND/OR CORROSIVE AREAS
- SD D — ADDRESSABLE DUCT MOUNTED SMOKE DETECTOR
- REMOTE TEST STATION WITH LED & KEYSWITCH
- HD H — ADDRESSABLE HEAT DETECTOR (FIXED AND RATE OF RISE) H-HIGH TEMPERATURE
- RM — ADDRESSABLE RELAY MODULE
- MM — ADDRESSABLE MONITOR MODULE
- EOL — END OF LINE
- HMCS — HVAC MONITORING & CONTROL SYSTEM PANEL
- FA COMM — FIRE ALARM COMMUNICATOR
- F 30/15 — FUSED DISCONNECT SWITCH - FIRST NUMBER DENOTES SWITCH AMP RATING. SECOND NUMBER DENOTES FUSE AMP RATING.
- SYSTEM GROUND VIA CONNECTION TO GROUND BAR WITH CONNECTION TO COLD WATER PIPE AND EXTERIOR RODS.
- TS — TAMPER SWITCH
- FS — FLOW SWITCH

GENERAL NOTES

1. PROVIDE FIRE DETECTION AND ALARM SYSTEM IN ACCORDANCE WITH SPECIFICATION 26 46 20 AND NYC ELECTRICAL CODE 760.41
2. ALL WIRING ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE RUN IN RIGID METAL CONDUIT IN ACCORDANCE WITH SPECIFICATION 26 05 33. ALL CONDUIT AND WIRES FOR THE FIRE ALARM SYSTEM SHALL BE PROVIDED UNDER THIS CONTRACT. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS THAT SHALL INCLUDE THE FOLLOWING (THIS INFORMATION IS NOT SHOWN ON THE DRAWINGS): CONDUIT AND WIRE SCHEDULE BETWEEN THE DIFFERENT COMPONENTS OF THE FIRE ALARM SYSTEM AND THE PHYSICAL ROUTING OF ALL CONDUITS. CONDUIT AND WIRE SCHEDULE SHALL INCLUDE THE FOLLOWING INFORMATION; CONDUIT TAG NUMBERS, CONDUIT SIZE, CABLE SIZE, FROMT, TO, AND REMARKS.
3. CONTRACTOR SHALL PROVIDE CLASS X LOOPED SLC CIRCUITS AND CLASS A NAC CIRCUITS.
4. ALL CONDUITS SUPPLYING 120-VOLT POWER TO THE FIRE ALARM CONTROL PANEL AND/OR TO OUTLYING NODE CABINETS, SHALL CONTAIN A GREEN INSULATED GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH THE NEW YORK CITY ELECTRICAL CODE (#10 AWG MINIMUM). THE GROUNDING CONDUCTOR SHALL BE CONNECTED TO THE GROUND BUS OR OTHER SUITABLE GROUNDING TERMINAL IN EACH BOX AND CABINET IN WHICH IT ENTERS. AT THE FUSE CUTOUT SUPPLYING POWER TO EACH FACP PROVIDE A G ROUNDING ELECTRODE CONDUCTOR SIZED AND INSTALLED IN ACCORDANCE WITH THE NEW YORK CITY ELECTRICAL CODE (#10 AWG MINIMUM).
5. RISER DIAGRAMS DEPICT THE MINIMUM NUMBER OF UNITS. CONTRACTOR SHALL PROVIDE ADEQUATE TYPE AND QUANTITY OF FIRE ALARM UNITS IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 72, NATIONAL FIRE ALARM CODE, AND THE BUILDING CODE OF THE CITY OF NEW YORK. THIS RISER DIAGRAM DEPICTS SLC, NAC, AND DATA CIRCUITS ONLY. ALL OTHER DEVICES SUCH AS BATTERY CABINETS, RELAY CABINETS, BELLS AND ANY OTHER DEVICE OR APPURTENANCE REQUIRED FOR SYSTEM OPERATION SHALL BE PROVIDED AS SHOWN ON THE PLAN DRAWINGS, AS NEEDED FOR SYSTEM OPERATION AND AS PER SPECIFICATION 28 31 00.
6. ALL DEVICES SHALL BE LOCATED WITH CLEAR ACCESS FOR MAINTENANCE AND INSPECTION AS PER NFPA 72.
7. ALL SPOT TYPE SMOKE DETECTORS SHALL BE LOCATED A MINIMUM OF 3 FEET FROM AIR REGISTERS, GRILLES, OR OTHER SOURCES OF AIRFLOW.
8. ALL DUCT SMOKE DETECTORS SHALL BE PROVIDED WITH A REMOTE TEST/ALARM INDICATION STATION MOUNTED AT AN ACCESSIBLE LOCATION NEAR THE DUCT DETECTOR.
9. PROVIDE BOOSTER POWER SUPPLIES FOR NAC CIRCUITS AS DETERMINED BY THE FIRE ALARM SYSTEM VENDOR BASED ON CIRCUIT LOAD AND VOLTAGE DROP. BOOSTER POWER SUPPLIES SHALL BE PROVIDED 120V POWER FROM THE SAME FUSED CUTOUT PROVIDING POWER FOR THE FIRE ALARM FACPS.

SYSTEM OUTPUTS (INDICATING, NOTIFICATION AND CONTROLLED DEVICES) / SYSTEM INPUTS (INITIATING DEVICES STATUS INDICATIONS)		CONTROL UNIT ANNUNCIATION						NOTIFICATION						REQUIRED FIRE SAFETY CONTROL							
		ACTUATE COMMON ALARM SIGNAL	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE COMMON TROUBLE SIGNAL	ACTUATE VISUAL/AUDIO DEVICES	DISPLAY/PRINT CHANGE OF STATUS	TRANSMIT AUTOMATIC ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT MANUAL ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	CLOSE SMOKE/FIRE DAMPERS IN RATED WALLS	SHUT DOWN ASSOCIATED FAN	CLOSE ASSOCIATED SMOKE DAMPER				
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	1
1	MANUAL PULL STATIONS	●	●					●	●		●									1
2	AREA SMOKE DETECTORS	●	●					●	●	●				N/A	●	N/A				2
3	IN-DUCT SMOKE DETECTORS	●	●					●	●	●				N/A	●	N/A				3
4	HEAT DETECTORS	●	●					●	●	●				N/A	●	N/A				4
5	FIRE ALARM AC FAILURE					●	●		●				●							5
6	FIRE ALARM SYSTEM LOW BATTERY					●	●		●				●							6
7	OPEN CIRCUIT					●	●		●				●							7
8	GROUND FAULT					●	●		●				●							8
9	NOTIFICATION APPLIANCE SHORT CIRCUIT					●	●		●				●							9
10	GENERATOR							●												10
11	FUEL OIL TRANSFER							●												11

ABBREVIATIONS

#	NUMBER
&	AND
1ST	FIRST
2ND	SECOND
A	AMPERES
ADMIN	ADMINISTRATION
ASS'T	ASSISTANT
ATS	AUTO TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C	CONDUIT
CAT	CATEGORY
CLF	CURRENT-LIMITING FUSE
CNTRL	CONTROL
CONT	CONTINUATION
CPT	CONTROL POWER TRANSFORMER
DD	DUCT DETECTOR
DN	DOWN
DWG	DRAWING
E	EAST
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
EOL	END OF LINE
EXIST	EXISTING
FACP	FIRE ALARM CONTROL PANEL
FCO	FUSE CUT OUT
FL, FLR	FLOOR
FPLP	POWER LIMITED PLENUM CABLE
GEN	GENERATOR
H&V, HV	HEATING AND VENTILATING
HMI	HUMAN MACHINE INTERFACE
HVAC	HEATING, VENTILATION & AIR CONDITIONING
T/F	TRANSFORMER
TB	TERMINAL BOX
TRANSF	TRANSFER
TYP	TYPICAL
UL	UNDERWRITER LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
VAC	VOLTAGE ALTERNATING CURRENT
VDC	VOLTAGE DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
Y	WYE
INSTR	INSTRUMENTATION
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
LCP	LOCAL CONTROL PANEL
LP	LIGHTING PANEL
MACH	MACHINE
MECH	MECHANICAL
MULTI	MULTIPLE
N	NORTH
N.O.	NORMALLY OPEN
NAC	NOTIFICATION APPLIANCE CIRCUIT
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NO	NUMBER
NTS	NOT TO SCALE
NYC	NEW YORK CITY
P	POLE
PH	PHASE
PNL	PANEL
PRESS	PRESSURE
PROC	PROCESS
RM	ROOM
SLC	SIGNALING LINE CIRCUIT

FIRE ALARM DRAWING LIST

FA-001.00	SYMBOLS, LEGENDS AND NOTES
FA-301.00	TI-010 DECHLORINATION FACILITY - RISER DIAGRAM
FA-302.00	TI-010 DECHLORINATION FACILITY - BASEMENT PLAN
FA-303.00	TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN
FA-401.00	TI-011 DISINFECTION FACILITY - RISER DIAGRAMS
FA-402.00	TI-011 DISINFECTION FACILITY - BASEMENT PLAN
FA-403.00	TI-011 DISINFECTION FACILITY - FIRST FLOOR PLAN

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SECTION MANAGER:

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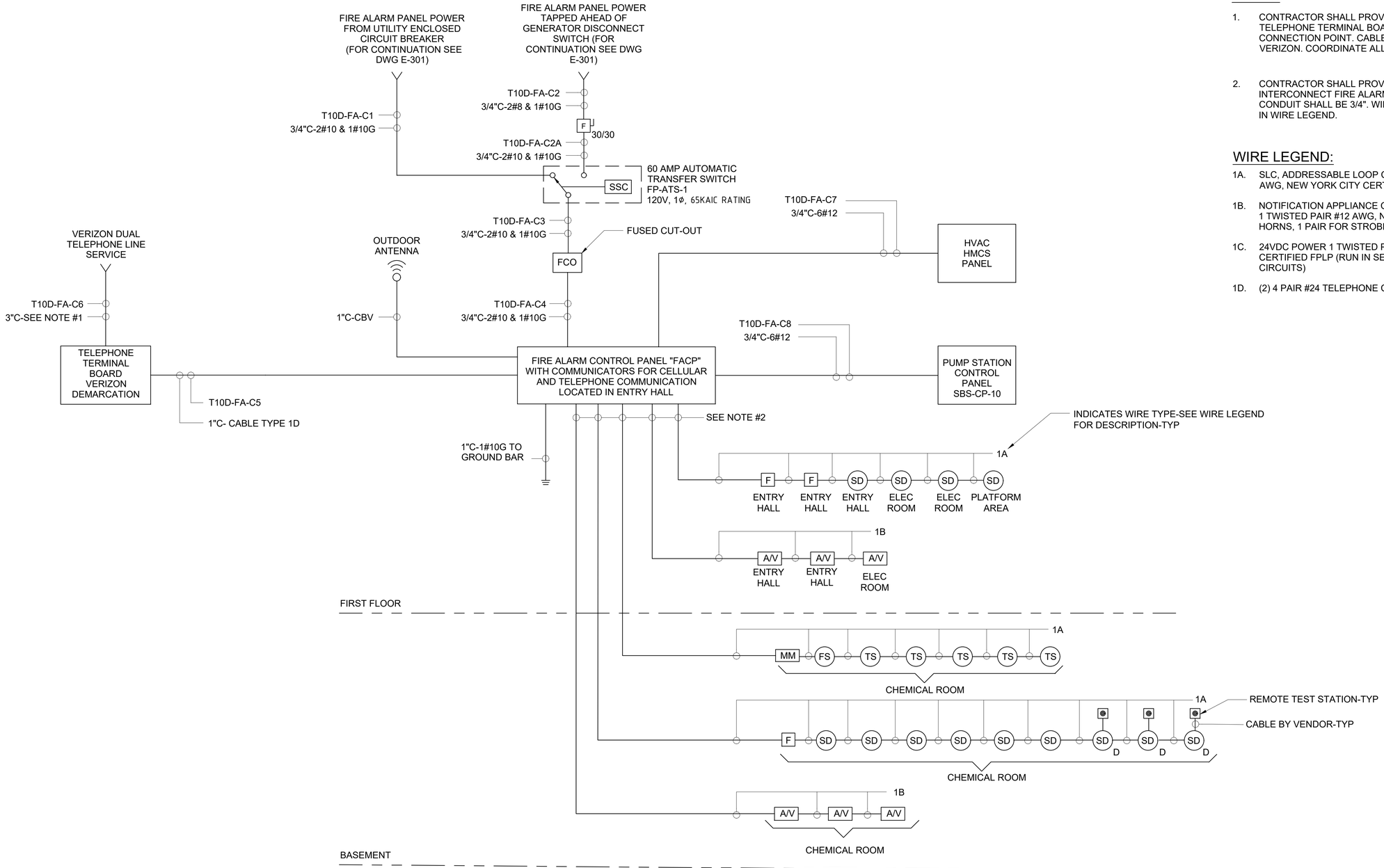
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE ALARM
SYMBOLS, LEGEND AND NOTES

DATE: NOVEMBER 2026
SHEET NO:
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NOTES:

1. CONTRACTOR SHALL PROVIDE A 3" EMPTY CONDUIT FROM TELEPHONE TERMINAL BOARD TO OUTSIDE VERIZON CONNECTION POINT. CABLE TO PROVIDED AND INSTALLED BY VERIZON. COORDINATE ALL REQUIREMENTS WITH SPECTRUM.

2. CONTRACTOR SHALL PROVIDE A CONDUIT SYSTEM TO INTERCONNECT FIRE ALARM DEVICES SHOWN. MINIMUM SIZE CONDUIT SHALL BE 3/4". WIRE TYPE SHALL BE AS IDENTIFIED BELOW IN WIRE LEGEND.

WIRE LEGEND:

1A. SLC, ADDRESSABLE LOOP CLASS X 1 SHIELDED TWISTED PAIR #14 AWG, NEW YORK CITY CERTIFIED FPLP

1B. NOTIFICATION APPLIANCE CIRCUIT (NAC) (HORNS & STROBES) CLASS A 1 TWISTED PAIR #12 AWG, NEW YORK CITY CERTIFIED FPLP (1 PAIR FOR HORNS, 1 PAIR FOR STROBES)

1C. 24VDC POWER 1 TWISTED PAIR #12 AWG NEW YORK CITY CERTIFIED FPLP (RUN IN SEPARATE CONDUITS FROM SLC AND NAC CIRCUITS)

1D. (2) 4 PAIR #24 TELEPHONE CABLE.

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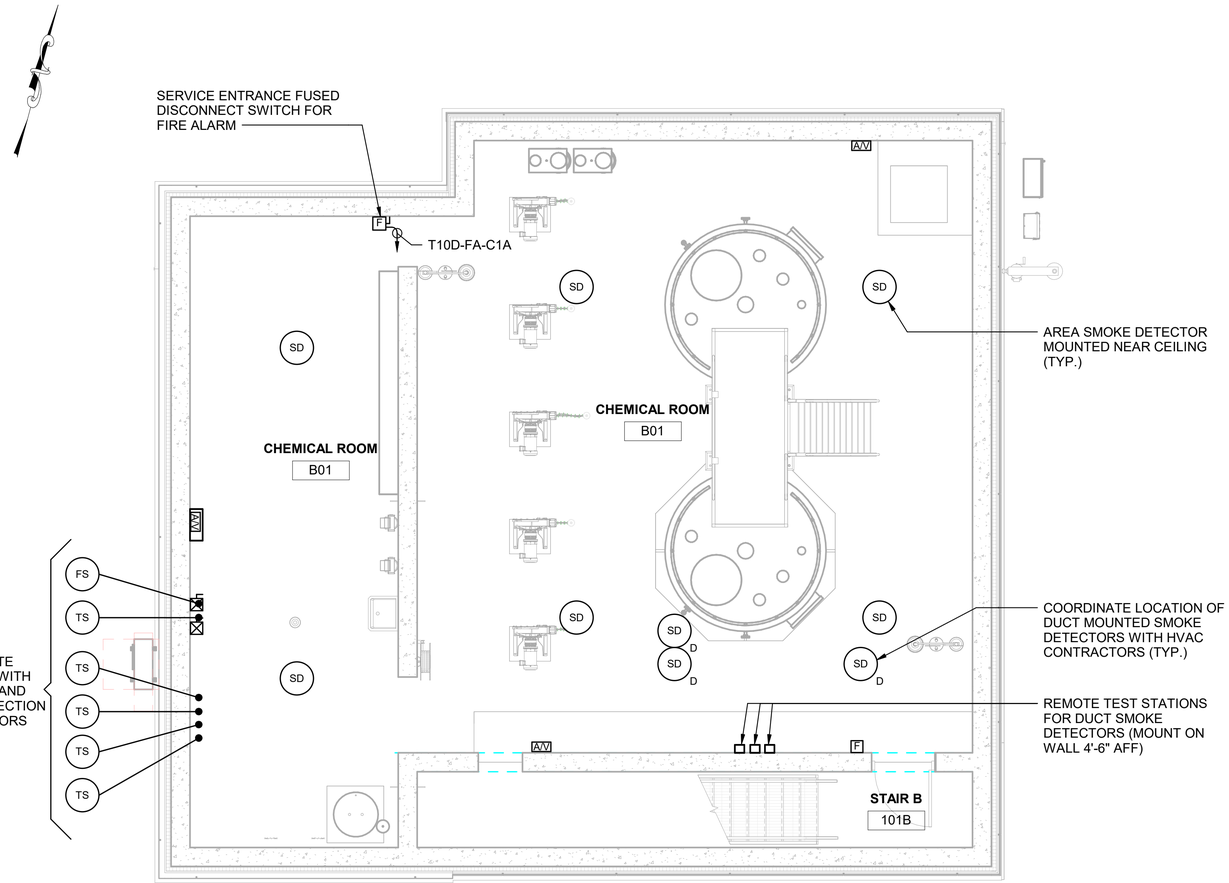
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CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE ALARM
TI-010 DECHLORINATION FACILITY - RISER DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. FA-301.00

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BASEMENT FIRE ALARM PLAN

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

NOTES:

1. THE CHEMICAL ROOM IS A CORROSIVE LOCATION. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. CONTRACTOR SHALL PROVIDE A CONDUIT SYSTEM FOR THE FIRE ALARM DEVICES BASED ON THE REQUIREMTENTS SHOWN ON THE RISER DIAGRAM ASSOCIATED WITH THIS FACILITY. REFER TO SHEET FA-301 FOR REQUIREMENTS.

1/4"=1'-0" 0 4 8 FT.

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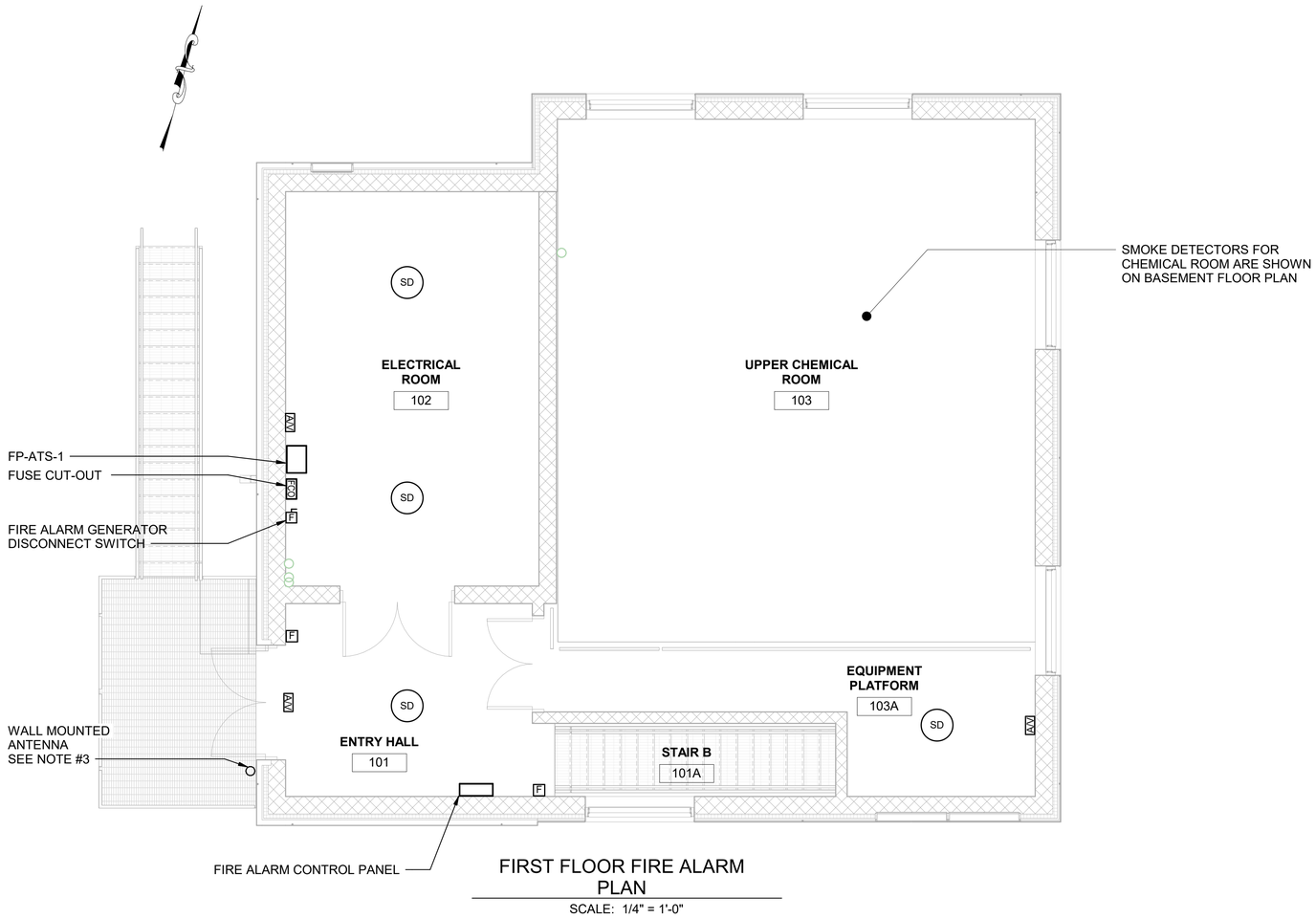
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FIRE ALARM
TI-010 DECHLORINATION FACILITY - BASEMENT PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. FA-302.00

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FIRST FLOOR FIRE ALARM PLAN

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

NOTES:

1. THE EQUIPMENT PLATFORM 103A IS A CORROSIVE LOCATION. THE ELECTRICAL ROOM 102, ENTRY HALL 101 & STAIRS 101A ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. CONTRACTOR SHALL PROVIDE A CONDUIT SYSTEM FOR THE FIRE ALARM DEVICES BASED ON THE REQUIREMTENTS SHOWN ON THE RISER DIAGRAM ASSOCIATED WITH THIS FACILITY. REFER TO SHEET FA-301 FOR REQUIREMENTS.
3. WALL MOUNT THE CELLULAR ANTENNA AT A HEIGHT RECOMMENDED BY THE MANUFACTURER.

1/4"=1'-0" 0 4 8 FT.

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PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

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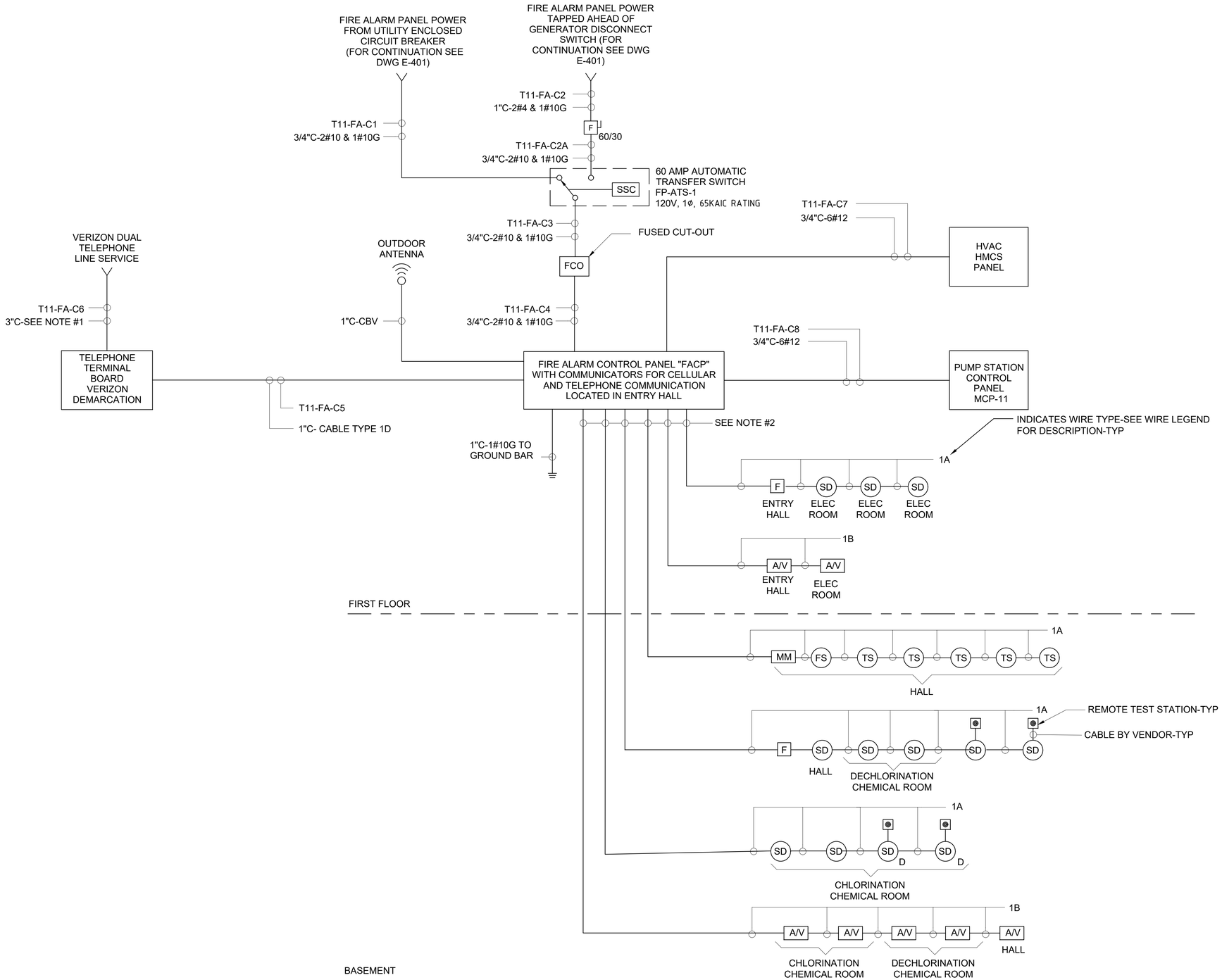
CAPITAL CONTRACT WP-169 CSO-FC-DF CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE ALARM
TI-010 DECHLORINATION FACILITY - FIRST FLOOR PLAN

DATE: NOVEMBER 2026
SHEET NO:
DRAWING NO. FA-303.00

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NOTES:

1. CONTRACTOR SHALL PROVIDE A 3" EMPTY CONDUIT FROM TELEPHONE TERMINAL BOARD TO OUTSIDE VERIZON CONNECTION POINT. CABLE TO PROVIDED AND INSTALLED BY VERIZON. COORDINATE ALL REQUIREMENTS WITH SPECTRUM.

2. CONTRACTOR SHALL PROVIDE A CONDUIT SYSTEM TO INTERCONNECT FIRE ALARM DEVICES SHOWN. MINIMUM SIZE CONDUIT SHALL BE 3/4". WIRE TYPE SHALL BE AS IDENTIFIED BELOW IN WIRE LEGEND.

WIRE LEGEND:

1A. SLC, ADDRESSABLE LOOP CLASS X 1 SHIELDED TWISTED PAIR #14 AWG, NEW YORK CITY CERTIFIED FPLP

1B. NOTIFICATION APPLIANCE CIRCUIT (NAC) (HORNS & STROBES) CLASS A 1 TWISTED PAIR #12 AWG, NEW YORK CITY CERTIFIED FPLP (1 PAIR FOR HORNS, 1 PAIR FOR STROBES)

1C. 24VDC POWER 1 TWISTED PAIR #12 AWG NEW YORK CITY CERTIFIED FPLP (RUN IN SEPARATE CONDUITS FROM SLC AND NAC CIRCUITS)

1D. (2) 4 PAIR #24 TELEPHONE CABLE.

BID SET
DATE ISSUED: NOVEMBER 2026

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DRAWN BY: AI
CHECKED BY: FS
DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

ARCADIS

STATE OF NEW YORK GREGORY JAMES MOORE 094341 LICENSED PROFESSIONAL ENGINEER

NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
PORTFOLIO MANAGER: ROY TYSVAER, PE
DIRECTOR, IN HOUSE DESIGN

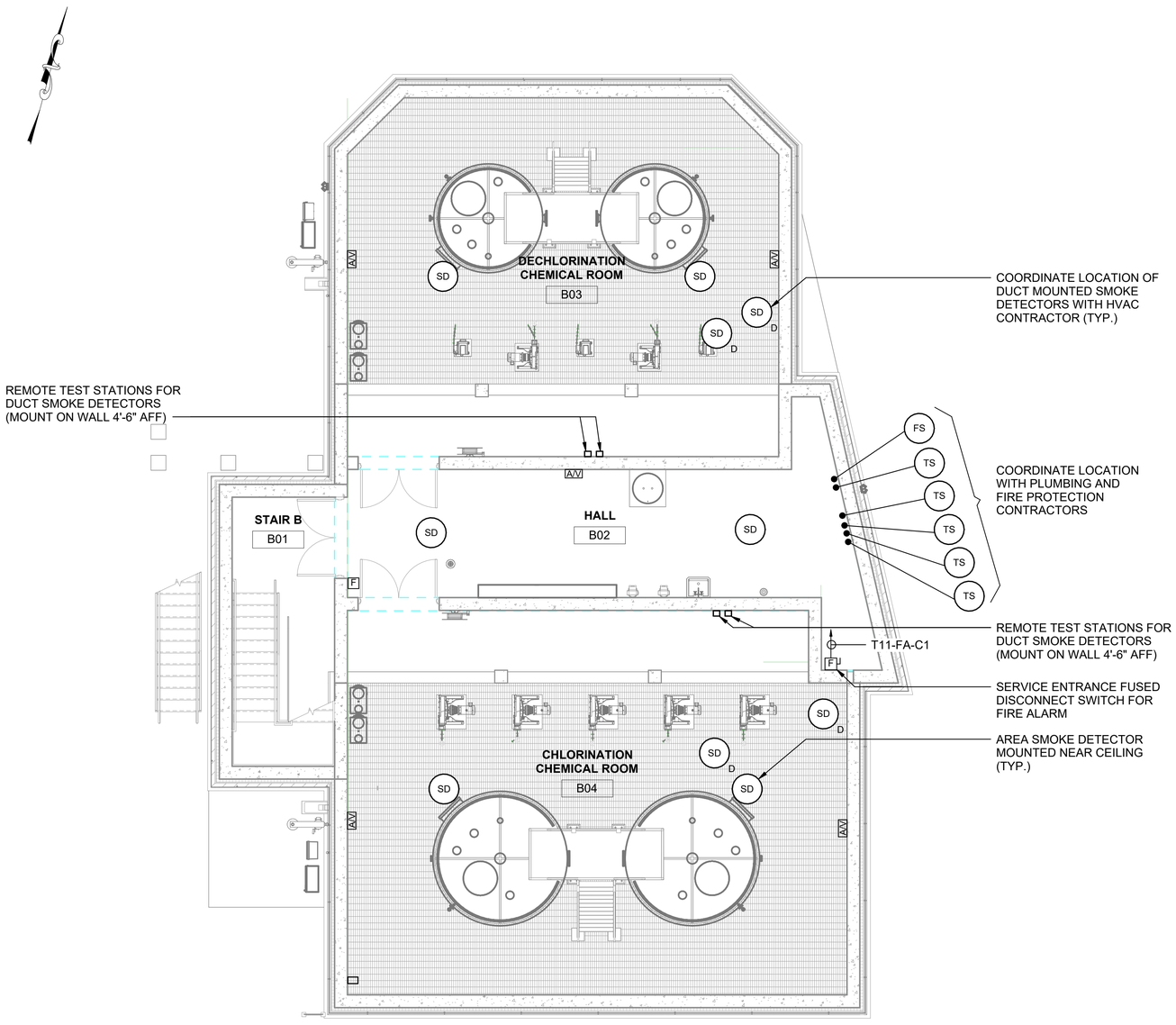
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES
FIRE ALARM
TI-011 DISINFECTION FACILITY - RISER DIAGRAM

DATE: NOVEMBER 2026
SHEET NO:
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BASEMENT FIRE ALARM PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. THE CHEMICAL ROOM B03 & B04 ARE CORROSIVE LOCATIONS. THE HALL B02 AND STAIRS B01 ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS

2. CONTRACTOR SHALL PROVIDE A CONDUIT SYSTEM FOR THE FIRE ALARM DEVICES BASED ON THE REQUIREMTENTS SHOWN ON THE RISER DIAGRAM ASSOCIATED WITH THIS FACILITY. REFER TO SHEET FA-401 FOR REQUIREMENTS.

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Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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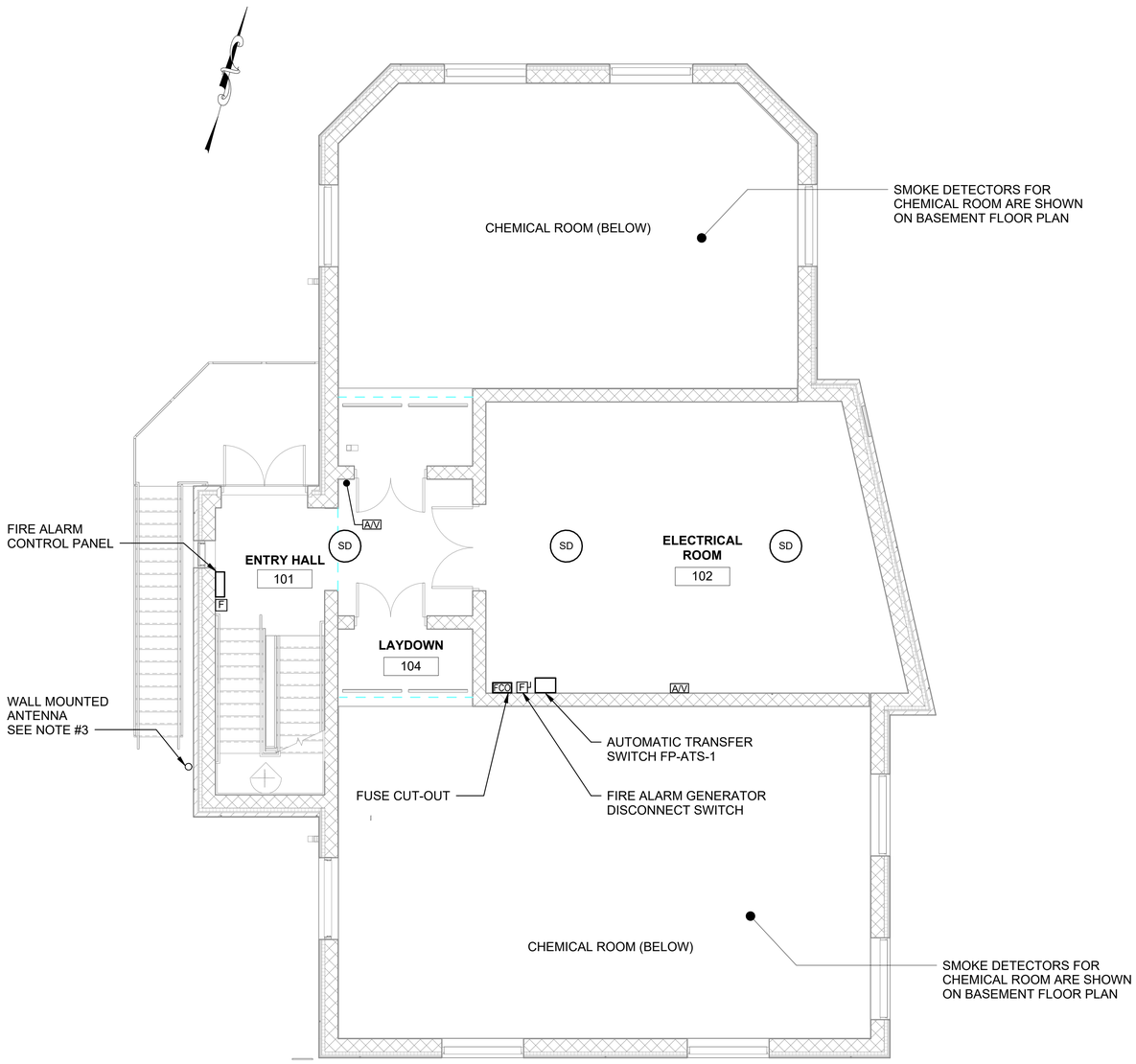
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CAPITAL CONTRACT WP-169 CSO-FC-DF
CONSTRUCTION OF FLUSHING CREEK CSO DISINFECTION FACILITIES

FIRE ALARM
TI-011 DISINFECTION FACILITY - BASEMENT PLAN

DATE: NOVEMBER 2026
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FIRST FLOOR FIRE ALARM PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. THE LAYDOWN 104 & 105 ARE CORROSIVE LOCATIONS. THE ELECTRICAL ROOM 102 AND ENTRY HALL 101 ARE DUSTY LOCATIONS. ALL EQUIPMENT, MATERIAL INCIDENTALS ETC SHALL CONFORM TO THE REQUIREMENTS OF THE LOCATIONS DESIGNATIONS
2. CONTRACTOR SHALL PROVIDE A CONDUIT SYSTEM FOR THE FIRE ALARM DEVICES BASED ON THE REQUIREMTENTS SHOWN ON THE RISER DIAGRAM ASSOCIATED WITH THIS FACILITY. REFER TO SHEET FA-401 FOR REQUIREMENTS.
3. WALL MOUNT THE CELLULAR ANTENNA AT A HEIGHT RECOMMENDED BY THE MANUFACTURER.

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DESIGN LEAD: GREG MOORE, PE
SECTION MANAGER:

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NYC Environmental Protection

ACCOUNTABLE MANAGER: MONICA HARVEY, PE
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FIRE ALARM
TI-011 DISINFECTION FACILITY -
FIRST FLOOR PLAN

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