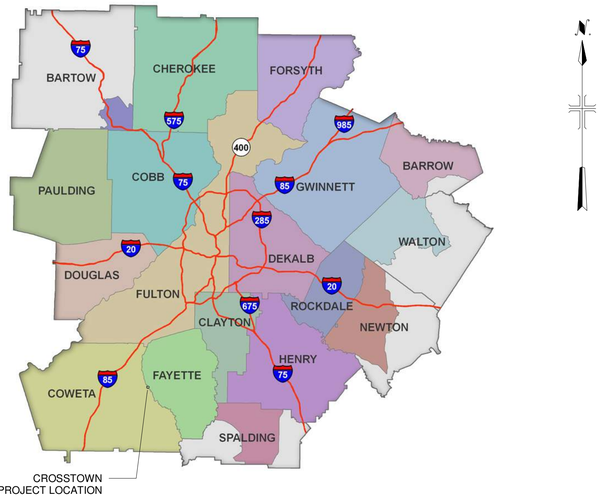
FAYETTE COUNTY WATER SYSTEM
CROSSTOWN WTP CHEMICAL UPGRADES



VICINITY MAP

NOT TO SCALE



ADDRESS 3500 TDK BLVD PEACHTREE CITY, GA 30269

LOCATION MAP

NOT TO SCALE

FOR BID
JULY 2026

OWNER:

FAYETTE County Water

ENGINEER OF RECORD:

LEGAL ENTITY: ARCADIS-U.S., INC.

ARCADIS Design & Consultancy for natural and built assets

2839 PACES FERRY ROAD, SUITE 1000, ATLANTA, GA 30339-3769
TEL: 770.431.8666 FAX: 770.435.2666
www.ARCADIS.com

GEORGIA811 Utilities Protection Center, Inc.
Know what's **below.** **Call** before you dig.

ARCADIS ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL AND VERTICAL). THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

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ARCADIS U.S., INC.
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ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS

GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS
6/19/2026

FAYETTE COUNTY,GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	E. VAN DEVENTER
DRAWN BY:	M. BHANUMATHI
CHECKED BY:	T. THOMAS

SHEET TITLE

GENERAL
CROSSTOWN

COVER SHEET AND SITE LOCATION (S)

SCALE: 0 1 BAR IS ONE INCH ON UNREDUCED DRAWING.

DRAWING NO.: G-01

SHEET NO.: 1 OF 83

DRAWING INDEX

SHEET NUMBER	DRAWING NUMBER	DRAWING NAME
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		CIVIL
03	C-01	CIVIL LEGEND, SYMBOLS, AND ABBREVIATIONS
04	C-02	EXISTING CONDITIONS AND DEMOLITION PLAN
05	C-03	OVERALL SITE LAYOUT AND YARD PIPING PLAN
06	C-04	GRADING AND STAKING PLAN
07	C-05	ES&C PLAN
08	C-06	EROSION AND SEDIMENT CONTROL NOTES & DETAILS
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FAYETTE COUNTY,GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: E. VAN DEVENTER
DRAWN BY: M. BHANUMATHI
CHECKED BY: T. THOMAS

SHEET TITLE

GENERAL
CROSSTOWN

SHEET INDEX

SCALE: 0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: G-02
SHEET NO.: 2 OF 83

811 Know what's **below.** **Call** before you dig.

GENERAL SITE AND YARD PIPING NOTES

1. EXISTING BASE MAPPING SHOWN CONSISTS OF COMPILATION OF THE FOLLOWING:
   -TOPOGRAPHY AND SITE SURVEY RECEIVED FROM GPI, DATED APRIL 3, 2025.
   COORDINATE SYSTEM: NSRS 2011 GEORGIA STATE PLANES, WEST ZONE, US FOOT.
   COORDINATE SYSTEM CODE: NSRS11.GA-WF
   HORIZONTAL DATUM: NSRS11
   DIMENSIONS SHOWN ARE IN U.S. SURVEY FEET.
   -PLANT RECORD DRAWINGS.
   *EXISTING CONDITIONS MAY VARY TO THOSE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND ADJUST WORK PLAN ACCORDINGLY PRIOR TO BEGINNING OF CONSTRUCTION.
2. THE CONTRACTOR SHALL FURNISH ALL MATERIALS FOR, AND PROPERLY RESTORE ALL PAVEMENT, DRIVES, SIDEWALK, AND CURBS, WHICH MAY HAVE BEEN DAMAGED, REMOVED OR DISTURBED AS A RESULT OF ACCOMPLISHING THE WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING GRADES AND DIMENSIONS AND NOTIFYING THE ENGINEER IN ADVANCE AND IN WRITING OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK.
4. EXISTING UTILITY LOCATIONS SHOWN ARE BASED ON RECORD DRAWINGS AND SURVEY DRAWING OBTAINED FROM GPI, AND DATED APRIL 3, 2025. NOT ALL EXISTING UTILITIES ARE SHOWN ON THE DRAWING. CONTRACTOR IS RESPONSIBLE FOR DETERMINING BOTH THE EXACT LOCATION AND INSTALLED ELEVATION OF ALL EXISTING UTILITIES AND FOR DETERMINING THEIR PROTECTION DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL OPERATIONS WITH ALL UTILITIES WHICH MAY BE IN CONFLICT WITH HIS WORK. NOTIFY THE ENGINEER IN ADVANCE AND IN WRITING OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK.
5. UNLESS OTHERWISE SHOWN, ALL PIPING SHALL HAVE A MINIMUM OF 3 FEET COVER.
6. ALL PIPES SHALL HAVE A CONSTANT SLOPE BETWEEN INVERT ELEVATIONS UNLESS A FITTING SHOWN.
7. ALL NEW WATER PIPES MUST BE PROPERLY FLUSHED, PRESSURE TESTED, CHLORINATED AND BACTERIOLOGICALLY TESTED, AS SPECIFIED.
8. A COPY OF THE APPROVED SET OF CONSTRUCTION PLANS MUST BE ON THE JOBSITE AT ALL TIMES DURING CONSTRUCTION.
9. ALL EROSION AND SEDIMENTATION CONTROLS AND TREE PROTECTION SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBANCE ACTIVITY.
10. UNLESS NOTED OTHERWISE ALL CONSTRUCTION SHALL CONFORM TO THE FAYETTE COUNTY AND STATE OF GEORGIA STANDARDS AND SPECIFICATIONS.
11. WHERE SHOWN ON DRAWINGS ALL SUBSURFACE TOPOGRAPHICAL FEATURES SHOWN ARE APPROXIMATE. THE CONTRACTOR AT HIS EXPENSE SHALL CONDUCT ADDITIONAL SUBSURFACE SOIL EXPLORATION IF DEEMED NECESSARY.
12. THE CONTRACTOR SHALL COORDINATE, OBTAIN APPROVAL AND PROVIDE TEMPORARY TRAFFIC ROUTING PLANS PRIOR TO ANY LANE CLOSURES WITH THE FAYETTE COUNTY.
13. CONTRACTOR SHALL PROVIDE AND MAINTAIN PLANT ROADS ACCESSIBLE AT ALL TIMES. TEMPORARY CLOSURE OF PLANT ROAD SHALL BE COORDINATED WITH PLANT OPERATOR.
14. ALL WORK AROUND THE EXISTING UTILITIES AND UTILITY STRUCTURES WHETHER ABOVE OR BELOW GROUND SHALL BE PERFORMED IN A MANNER THAT WILL AVOID DAMAGE TO THE UTILITIES AND STRUCTURES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL ACCURATELY LOCATE ABOVE AND BELOW GROUND UTILITIES WHICH MAY BE AFFECTED BY THE WORK AND PROTECT ALL UTILITIES NOT DESIGNATED FOR REMOVAL, RESTORATION, OR REPLACEMENT IN THE COURSE OF CONSTRUCTION. PROVIDE 72 HOURS OF ADVANCE NOTICE TO THE UTILITY OWNER AND FAYETTE COUNTY PRIOR TO BEGINNING CONSTRUCTION IN THE VICINITY OF THE EXISTING UTILITIES. FOR EXISTING UTILITY LOCATION ASSISTANCE CALL THE UNDERGROUND UTILITIES PROTECTION CENTER (GA 811).
15. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY THE CONTRACTOR, CONTRACTOR'S CREW AND/OR EQUIPMENT SHALL BE THE CONTRACTOR'S COST AND RESPONSIBILITY TO REPLACE PER OWNER'S STANDARDS AND SPECIFICATIONS.
16. THE REFUSE RESULTING FROM THE CLEARING AND GRUBBING OPERATION SHALL BE HAULED TO A DISPOSAL SITE SECURED BY THE CONTRACTOR AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, COUNTY AND MUNICIPAL REGULATIONS. NO DEBRIS OF ANY KIND SHALL BE DEPOSITED IN ANY STREAM OR BODY OF WATER, OR IN ANY STREET OR ALLEY. NO DEBRIS SHALL BE DEPOSITED UPON ANY PRIVATE PROPERTY EXCEPT BY WRITTEN CONSENT OF THE PROPERTY OWNER. IN NO CASE SHALL ANY MATERIAL BE LEFT ON THE PROJECT, SHOVED ONTO ABUTTING PRIVATE PROPERTIES, OR BE BURIED IN THE EMBANKMENTS OR TRENCHES ON THE PROJECT.
17. FINISHED GRADING OF THE DISTURBED AREA SHALL BE ACCORDING TO CIVIL DRAWINGS. NO STANDING WATER OR PONDING OF ANY KIND IS ALLOWED. ALL DISTURBED AREA SHALL BE IMMEDIATELY GRASSED.
18. THE CONTRACTOR SHALL COMPLY WITH THE STATE OF GEORGIA MANUAL FOR EROSION AND SEDIMENT CONTROL STANDARDS, LATEST EDITION.
19. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, AND CONCURRENT WITH ANY LAND-DISTURBING ACTIVITIES. SEE EROSION CONTROL DRAWINGS FOR FURTHER NOTES AND DETAILS.
20. ALL DISTURBED AREAS NOT RECEIVING A HARD SURFACE SHALL BE COVERED WITH COMMON BERMUDA GRASS UNLESS OTHERWISE SHOWN IN THE PLANS.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION CONTROL DEVICES DURING CONSTRUCTION.
22. CONTRACTOR SHALL TAKE ALL OTHER MEASURES TO POSITIVELY PRECLUDE EROSION MATERIALS FROM LEAVING THE SITE.
23. IN THE EVENT ACTIVE UTILITY SERVICES REQUIRE INTERRUPTION, THE CONTRACTORS SHALL COORDINATE AND CONSULT WITH THE OWNER OR/OWNERS AND OBTAIN APPROVAL FROM THEM PRIOR TO SERVICES BEING DISRUPTED.
24. THE CONTRACTOR SHALL AT ALL TIMES CONTROL DUST AND DEBRIS FROM THE OPERATIONS TO A LEVEL ACCEPTABLE TO FAYETTE COUNTY AND LOCAL BUSINESSES AT ALL TIMES.
25. TEMPORARY DISCONNECTION, REMOVAL AND/OR REPLACEMENT OF THE FOLLOWING ITEMS BUT NOT LIMITED TO, FIRE HYDRANTS, WATER METERS, BACK FLOW PREVENTION DEVICES, VAULTS, MANHOLE AND OTHER POTABLE WATER SYSTEM APPURTENANCES. ASSOCIATED APPURTENANCES SHALL BE IN STRICT ACCORDANCE WITH THE LATEST FAYETTE COUNTY STANDARDS AND SPECIFICATIONS. BEFORE CONNECTION, REMOVAL AND/OR REPLACEMENT OF ANY UTILITIES, THE CONTRACTOR SHALL CONTACT AND OBTAIN APPROVAL FROM FAYETTE COUNTY PUBLIC WORKS REPRESENTATIVES PRIOR TO CONSTRUCTION.
26. ALL EXCAVATION SHALL BE ADEQUATELY SHORED TO ENSURE WORKER SAFETY. ALL PIPE LAYING OPERATIONS SHALL COMPLY WITH OSHA REQUIREMENTS FOR TRENCH SAFETY.
27. MAINTENANCE AND TRAFFIC: THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ROAD PERMITS FROM FAYETTE COUNTY INCLUDING PROVIDING ANY RESTORATION BONDS. THE CONTRACTOR SHALL PROVIDE A DETAILED PHASED TRAFFIC CONTROL PLAN BASED ON THE PROPOSED WORK PHASING AS DETERMINED BY THE CONTRACTOR.
28. 72 HOURS NOTICE IS REQUIRED TO GEORGIA 811 UTILITY PROTECTION CENTER BEFORE ANY PLANNED DIGGING. HTTP://WWW.GEORGIA811.COM

PROJECT COMPLETION

1. PRIOR TO ACCEPTANCE AND FINAL PAYMENT, CONTRACTOR IS TO PROVIDE AN AS-BUILT SURVEY, WHICH IS A DRAWING PREPARED AND SIGNED BY A REGISTERED LAND SURVEYOR REGISTERED IN THE STATE OF GEORGIA ILLUSTRATING THE LOCATIONS, DIMENSIONS AND ELEVATIONS OF A DEVELOPMENT AS IT HAS BEEN CONSTRUCTED FOLLOWING COMPLETION OF CONSTRUCTION ON DIRECT FIELD MEASUREMENTS AND SHOWN TO SCALE.

LEGEND & SYMBOLS

- 510 — EXISTING MAJOR CONTOUR
- 511 — EXISTING MINOR CONTOUR
- W — EXISTING WATER LINE
- 6" DIP PLANT UTILITY LINE
- SD — 8" SLUDGE DRAIN
- 20" DIP FW
- 24" DIP
- 30" DIP SETTLED WATER
- PROPOSED WATER PIPE
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE
- PROPOSED GRAVEL
- X — PROPOSED SILT FENCE
- EXISTING BUILDING
- EXISTING CONCRETE
- EXISTING GRAVEL DRIVE
- EXISTING ASPHALT DRIVE
- LP — EXISTING LIGHT POLE
- EXISTING ELECTRICAL MANHOLE
- WM — EXISTING WATER METER
- WV — EXISTING WATER VALVE
- FH — EXISTING FIRE HYDRANT
- EXISTING FLAG POLE
- EXISTING MANHOLE

CIVIL ABBREVIATIONS

APPROX.	APPROXIMATE	GRAT.	GRATING
ASPH	ASPHALT	GV	GATE VALVE
BLDG.	BUILDING	HORIZ.	HORIZONTAL
BOC	BOTTOM OF CURB	ID	INSIDE DIAMETER
℄	CENTERLINE	IN., "	INCHES
CB	CATCH BASIN	INF.	INFLUENT
CO	CLEANOUT	INV.	INVERT
CONC.	CONCRETE	JT.	JOINT
CONT.	CONTINUED	LF	LINEAR FOOT/FEET
CPLG.	COUPLING	MAS	MASONRY
CY	CUBIC YARD(S)	MAX.	MAXIMUM
DE	DIATOMACEOUS EARTH	MFR.	MANUFACTURER
DET.	DETAIL	MGD	MILLION GALLONS PER DAY
DI	DROP INLET	MH	MANHOLE
DIP	DUCTILE IRON PIPE	MIN.	MINIMUM
DIA.	DIAMETER	NC	NORMALLY CLOSED
DISCH.	DISCHARGE	NO	NORMALLY OPEN
DWG	DRAWING	NO.	NUMBER
EA.	EACH	OD	OUTSIDE DIAMETER
EFF.	EFFLUENT	PDW	PROCESS DRAIN TO WASTE
EJ	EXPANSION JOINT	PE	POLYETHYLENE
ELEV.	ELEVATION	PG.	PROPOSED GROUND
ELEC.	ELECTRIC	PROP.	PROPOSED
EQ.	EQUAL	PSI	POUNDS PER SQUARE INCH
EXIST.	EXISTING	R	REDUCER
FCV	FLOW CONTROL VALVE	REINF.	REINFORCEMENT OR REINFORCE
FD	FLOOR DRAIN	REQ'D.	REQUIRED
FDN	FOUNDATION	ROW	RIGHT OF WAY
FIN.	FINISHED	SHT.	SHEET
FLEX.	FLEXIBLE	SS	STAINLESS STEEL
FLG	FLANGE	STD.	STANDARD
FLR.	FLOOR	STRUC.	STRUCTURAL
FTG.	FOOTING	TOC	TOP OF CURB
FT.	FEET	THK.	THICK
GRD.	GROUND	TYP.	TYPICAL
		VERT.	VERTICAL
		W/	WITH

DRAWING NUMBER EXPLANATION

COMPONENT DESIGNATOR — DRAWING NUMBER

C-01

SECTION MARKERS

SECTION NUMBER

SHEET SECTION IS SHOWN ON

TITLE MARKERS

PLAN

0 10' 20' 40'

SECTION

1 / G00-01 SECTION

0 10' 20' 40'

REFERENCE BACK TO THE PLAN SHEET SECTION IS CUT FROM

DETAIL MARKERS

DETAIL LETTER

A / G00-01

SHEET DETAIL IS SHOWN ON

DETAIL LETTER

A / G00-01 DETAIL

0 2' 4' 8'

REFERENCE BACK TO THE DETAIL MARKER

TYPICAL DETAILS

Know what's below. Call before you dig.

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ARCADIS U.S., INC.
2839 PACES FERRY RD. SE# 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS

GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS
6/19/2026

Owner

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC. 2025

PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: N. NIA
DRAWN BY: N. NIA
CHECKED BY: J. SWAIM

SHEET TITLE

CIVIL
CROSSTOWN

CIVIL LEGEND, SYMBOLS, AND ABBREVIATIONS

SCALE: NTS
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

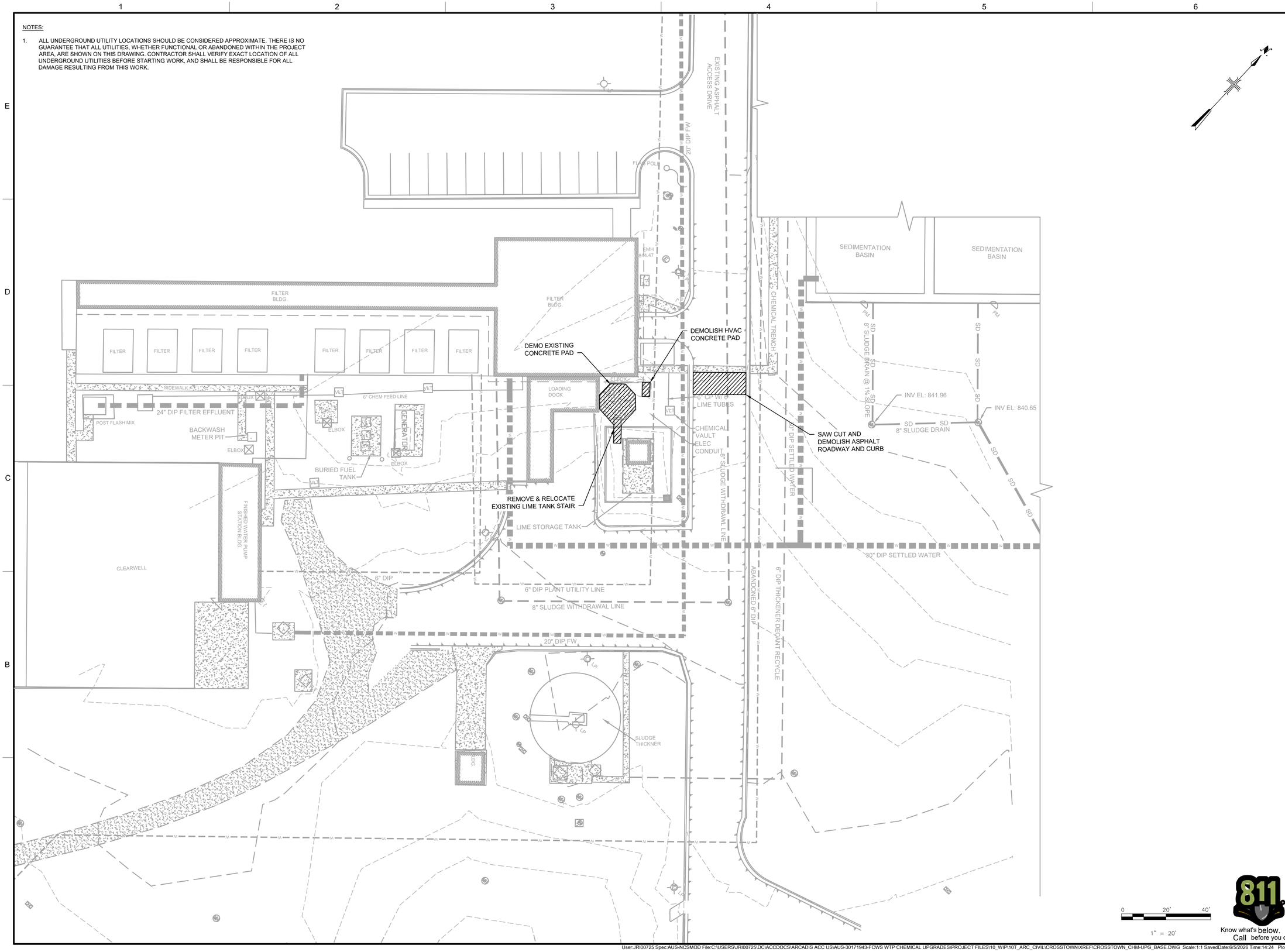
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SHEET NO.: 03 OF 83

User:JRI00725 Spec:AUS-NCSMOD File:C:\USERS\JRI00725\DC\ACCDOCS\ARCADIS ACC US\AUS-30171943-FCWS WTP CHEMICAL UPGRADES\PROJECT FILES\10_WIP\10T_ARC_CIVIL\CROSSTOWN\XREF\C-01_CT.DWG Scale:1:1 SavedDate:6/5/2026 Time:14:24 Plot Date: Raj, Joel; 6/5/2026; 20:11 ; Layout:C-01 CT

NOTES:

1. ALL UNDERGROUND UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE. THERE IS NO GUARANTEE THAT ALL UTILITIES, WHETHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT AREA, ARE SHOWN ON THIS DRAWING. CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK, AND SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM THIS WORK.



0 20' 40'

1" = 20'

Know what's below. Call before you dig.

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2839 PACES FERRY RD. SE# 1000
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TEL: 770-431-8666
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GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS

6/19/2026

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WTP CHEMICAL UPGRADES

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PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. NIA
DRAWN BY:	N. NIA
CHECKED BY:	J. SWAIM

SHEET TITLE

CIVIL
CROSSTOWN

EXISTING CONDITIONS AND DEMOLITION PLAN

SCALE: 1" = 20'

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

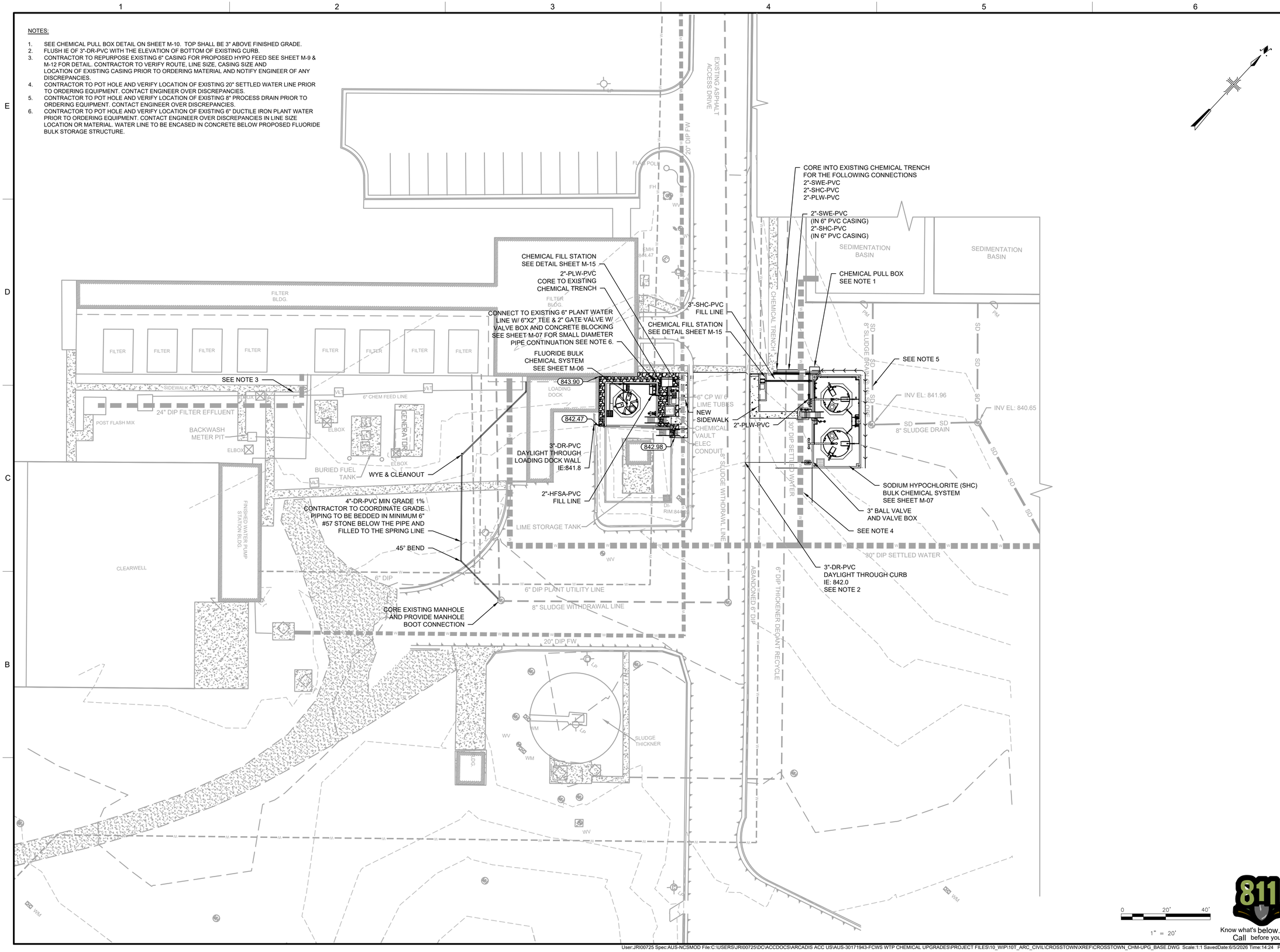
DRAWING NO.: C-02

SHEET NO.: 04 OF 83

User:JRI00725 Spec:AUS-NCSMOD File:C:\USERS\JRI00725\DCACCDOCS\ARCADIS ACC US\AUS-30171943-FCWS WTP CHEMICAL UPGRADES\PROJECT FILES\10_WIP\10T_ARC_CIVIL\CROSSTOWN\XREF\CROSSTOWN_CHM-UPG_BASE.DWG Scale:1:1 SavedDate:6/5/2026 Time:14:24 Plot Date: Raj, Joel: 6/5/2026; 20:12 ; Layout:C-02 CT

NOTES:

1. SEE CHEMICAL PULL BOX DETAIL ON SHEET M-10. TOP SHALL BE 3" ABOVE FINISHED GRADE.
2. FLUSH IE OF 3"-DR-PVC WITH THE ELEVATION OF BOTTOM OF EXISTING CURB.
3. CONTRACTOR TO REPURPOSE EXISTING 6" CASING FOR PROPOSED HYPO FEED SEE SHEET M-9 & M-12 FOR DETAIL. CONTRACTOR TO VERIFY ROUTE, LINE SIZE, CASING SIZE AND LOCATION OF EXISTING CASING PRIOR TO ORDERING MATERIAL AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
4. CONTRACTOR TO POT HOLE AND VERIFY LOCATION OF EXISTING 20" SETTLED WATER LINE PRIOR TO ORDERING EQUIPMENT. CONTACT ENGINEER OVER DISCREPANCIES.
5. CONTRACTOR TO POT HOLE AND VERIFY LOCATION OF EXISTING 8" PROCESS DRAIN PRIOR TO ORDERING EQUIPMENT. CONTACT ENGINEER OVER DISCREPANCIES.
6. CONTRACTOR TO POT HOLE AND VERIFY LOCATION OF EXISTING 6" DUCTILE IRON PLANT WATER PRIOR TO ORDERING EQUIPMENT. CONTACT ENGINEER OVER DISCREPANCIES IN LINE SIZE LOCATION OR MATERIAL. WATER LINE TO BE ENCASED IN CONCRETE BELOW PROPOSED FLUORIDE BULK STORAGE STRUCTURE.



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WWW.ARCADIS.COM

CONSULTANTS

SEALS

GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS
6/19/2026

Owner

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: N. NIA
DRAWN BY: N. NIA
CHECKED BY: J. SWAIM

SHEET TITLE

CIVIL
CROSSTOWN

OVERALL SITE LAYOUT AND YARD PIPING PLAN

SCALE: 1" = 20'
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

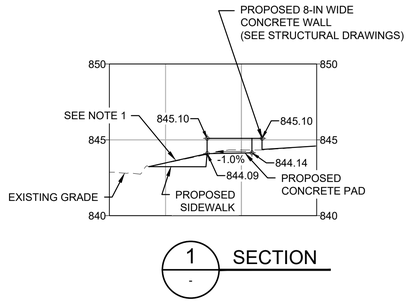
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SHEET NO.: 05 OF 83

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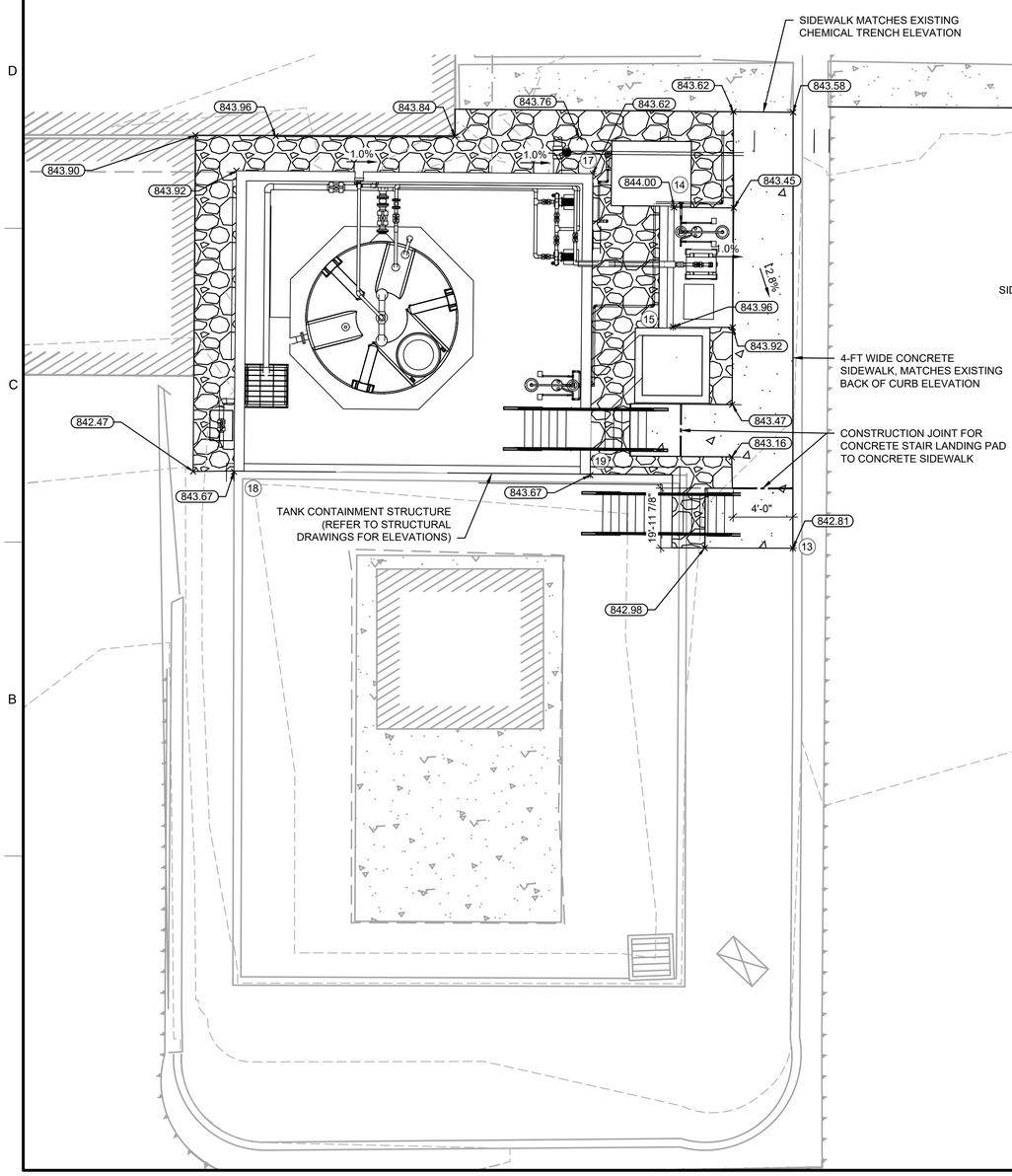
STAKING POINTS			
POINT #	DESCRIPTION	NORTHING	EASTING
1	WALL NW CORNER	1224473.67	2171895.08
2	WALL NE CORNER	1224488.66	2171911.18
3	WALL SW CORNER	1224442.93	2171923.69
4	WALL SE CORNER	1224457.92	2171939.80
5	SIDEWALK NW CORNER	1224454.04	2171875.02
6	SIDEWALK SW CORNER	1224439.77	2171888.20
7	CURB NW CORNER	1224454.97	2171874.16
8	WALL NE CORNER	1224460.08	2171879.65
9	WALL SW CORNER	1224448.72	2171885.44
10	WALL SE CORNER	1224451.10	2171888.01
11	LANDING NE CORNER	1224459.75	2171904.39
12	LANDING SE CORNER	1224457.55	2171906.44

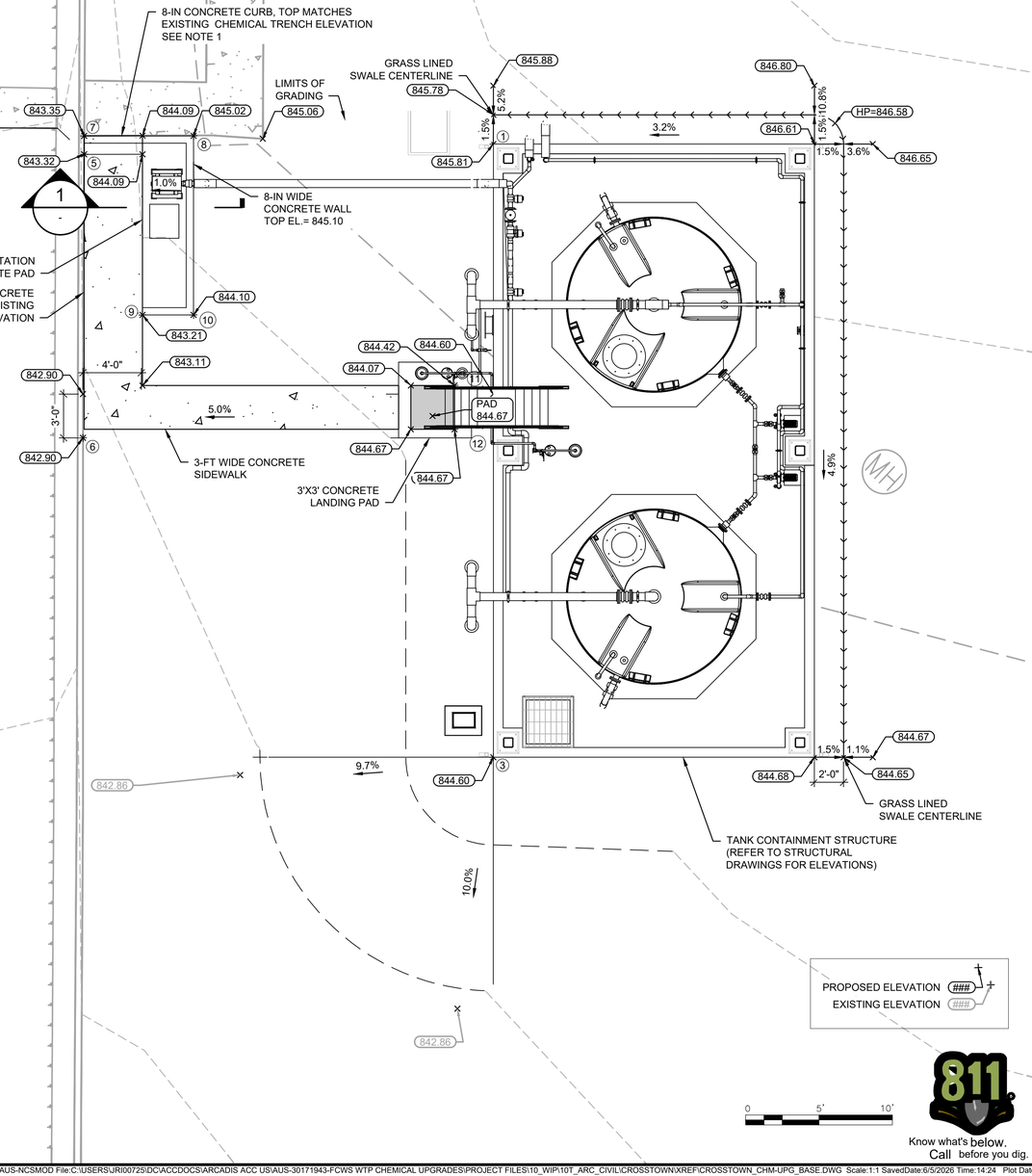
STAKING POINTS			
POINT #	DESCRIPTION	NORTHING	EASTING
13	SIDEWALK SE CORNER	1224414.70	2171873.28
14	PAD NW CORNER	1224425.96	2171851.93
15	PAD SW CORNER	1224420.07	2171857.32
16	PAD W CORNER	1224407.40	2171829.24
17	PAD N CORNER	1224423.91	2171846.42
18	PAD S CORNER	1224393.00	2171842.39
19	PAD E CORNER	1224409.08	2171859.99



1 SECTION

NOTES:
1. PROVIDE 8-IN WIDE CONCRETE CURB TRANSITION AT END OF SIDEWALK. TOP ELEVATION TO MATCH EXISTING CHEMICAL TRENCH ELEVATION.





PROPOSED ELEVATION ###
EXISTING ELEVATION ###

0 5' 10'

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CONSULTANTS

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Owner

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

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DATE:	JULY 2026
DESIGNED BY:	N. NIA
DRAWN BY:	N. NIA
CHECKED BY:	J. SWAIM

SHEET TITLE

CIVIL
CROSSTOWN

GRADING AND STAKING PLAN

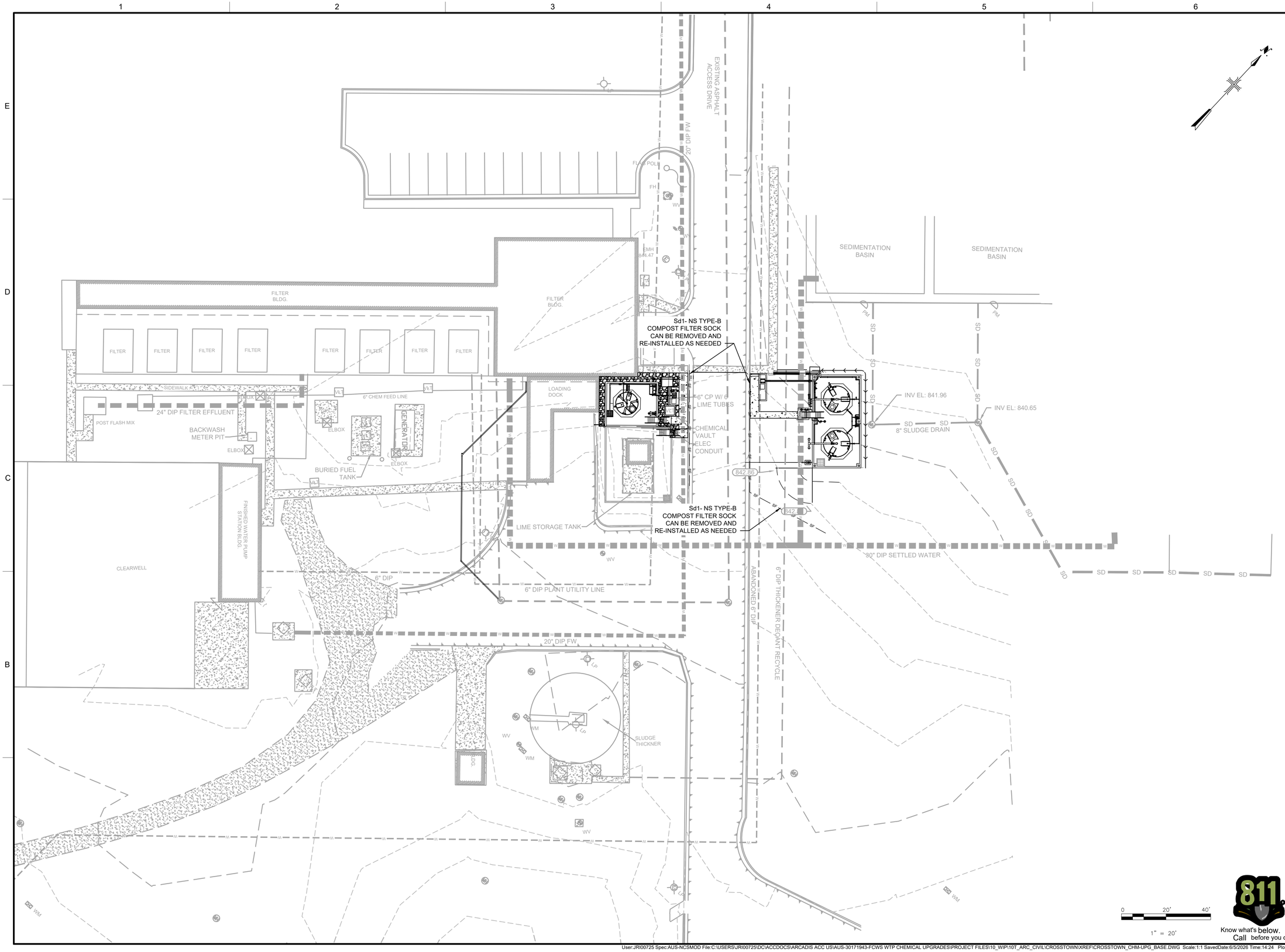
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SHEET NO.: 06 OF 83

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FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

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DRAWN BY:	N. NIA
CHECKED BY:	J. SWAIM

SHEET TITLE

CIVIL
CROSSTOWN

ES&C PLAN

SCALE: 1" = 20'

0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: C-05

SHEET NO.: 07 OF 83

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FERTILIZER REQUIREMENTS PERMANENT COVER

TYPE OF SPECIES	YEAR	ANALYSIS OR EQUIVALENT N–P–K	RATE	N TOP DRESSING RATE
1. COOL SEASON GRASSES	FIRST	6–12–12	1500 lbs./AC.	50–100 lbs./AC. 1/2/
	SECOND	6–12–12	1000 lbs./AC.	——
	MAINTENANCE	10–10–10	400 lbs./AC.	30 lbs./AC.
2. COOL SEASON GRASSES & LEGUMES	FIRST	6–12–12	1500 lbs./AC.	0–50 lbs./AC. 1/
	SECOND	10–10–10	1000 lbs./AC.	——
	MAINTENANCE	10–10–10	400 lbs./AC.	——
3. GROUND COVERS	FIRST	10–10–10	1300 lbs./AC. 3/	——
	SECOND	10–10–10	1300 lbs./AC. 3/	——
	MAINTENANCE	10–10–10	1100 lbs./AC.	——
4. PINE SEEDLINGS	FIRST	20–10–5	ONE 21–GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	——
5. SHRU LESPEDEZA	FIRST	0–10–10	700 lbs./AC.	——
	MAINTENANCE	0–10–10	700 lbs./AC. 4/	——
6. TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10–10–10	500 lbs./AC.	30 lbs./AC. 5/
7. WARM SEASON GRASSES	FIRST	6–12–12	1500 lbs./AC.	50–100 lbs./AC. 2/6/
	SECOND	6–12–12	800 lbs./AC.	50–100 lbs./AC. 2/
	MAINTENANCE	10–10–10	400 lbs./AC.	30 lbs./AC.
8. WARM SEASON GRASSES & LEGUMES	FIRST	6–12–12	1500 lbs./AC.	50 lbs./AC. 6/
	SECOND	0–10–10	1000 lbs./AC.	——
	MAINTENANCE	0–10–10	400 lbs./AC.	——

LIME: APPLY AT A RATE OF ONE TON PER ACRE

1/ APPLY IN SPRING FOLLOWING SEEDING.
2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3/ APPLY IN 3 SPLIT APPLICATIONS.
4/ APPLY WHEN PLANTS ARE PRUNED.
5/ APPLY TO GRASS SPECIES ONLY.
6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

SEEDING SCHEDULE PERMANENT COVER

SPECIES	BROADCAST RATES – PLS PER ACRE	BROADCAST RATES – PLS PER 1000 SQ. FT.	PLANTING DATES (SOLID LINES INDICATE OPTIMUM DATES; DOTTED LINES INDICATED PERMISSIBLE BUT MARGINAL DATES.) J F M A M J J A S O N D
BERMUDA, SPRIGS (CYNODON DACTYLON)			
COASTAL COMMON OR TIFT 44	40 CU. FT. OR SOD PLUGS 3"X3'	0.9 CU. FT.	
BERMUDA, COMMON (CYNODON DACTYLON)			
ALONE	10 LBS.	0.2 LB.	HULLED SEED
W/ OTHER PERENNIALS	6 LBS.	0.1 LB.	UNHULLED SEED
FESCUE, TALL (FESTUCA ARUNDINACEA)			
ALONE	50 LBS.	1.1 LB.	
W/OTHER PERENNIALS	30 LBS.	0.7 LB.	
CROWNVETCH (CORONILLA VARIA) W/WINTER ANNUALS OR COOL SEASON GRASSES	15 LBS.	0.3 LB.	
REED CANARY GRASS (PHALARIS ARUNDINACEA)			
ALONE	50 LBS.	1.1 LB.	
W/OTHER PERENNIALS	30 LBS.	0.7 LB.	
CENTIPEDE (EREMOCHLOA OPHIUROIDES)	BLACK SOD ONLY		
LOVEGRASS, WEEPING (ERAGROSTIS CURVULA)			
ALONE	4 LBS.	0.1 LB.	
W/OTHER PERENNIALS	2 LBS.	0.05 LB.	
LESPEDEZA, SERICEA (LESPEDEZA CUNEATA)			
SCARIFIED	60 LBS.	1.4 LB.	
UNSCARIFIED	75 LBS.	1.7 LB.	
SEED–BEARING HAY	3 TONS	138 LB.	

NOTE:
1. YOU MAY USE ANY OTHER SPECIES IF APPROVED BY MANUAL OF EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.
2. ALL FERTILIZER RATE AND APPLICATION, SEED QUALITY, SEEDBED PREPARATION, INNOCULANTS, PLANTING, AND MULCHING SHALL COMPLY WITH MANUAL OF EROSION AND SEDIMENT CONTROL IN GEORGIA, LATEST EDITION.

Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

DEFINITION

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE USED TO ACHIEVE FINAL STABILIZATION.

CONDITIONS

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

SPECIFICATIONS

GRADING AND SHAPING

GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.

WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION.

CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE STANDARDS AND SPECIFICATIONS.

SEEDBED PREPARATION

SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS TO BE USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS FOLLOWS:

BROADCAST PLANTINGS

1. TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES; ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF STRAW OR HAY MULCH IF A DISK IS TO BE USED.
2. TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.
3. TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.
4. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY ALSO BE USED.

INDIVIDUAL PLANTS

1. WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES, OPENING FURROWS, OR DIBBLE PLANTING.
2. FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT CROWDING.
3. WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

PLANTING

HYDRAULIC SEEDING

MIX THE SEED (INNOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.

CONVENTIONAL SEEDING

SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE A CULTIPACKER SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER,
OR HAND SEEDING TO DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8 TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER OR OTHER SUITABLE EQUIPMENT.

NO-TILL SEEDING

NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEED MUST BE UNIFORMLY DISTRIBUTED AND PLANTED AT THE PROPER DEPTH.

INDIVIDUAL PLANTS

SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT WILL AVOID CROWDING THE ROOTS. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE, WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN THE HOLE.

MULCHING

MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED:

1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRYSTRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE
FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED.
7. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH

STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.

WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

ANCHORING MULCH

ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:
1. EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE BLOWER MACHINE OR (B) SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT.

THE COMBINATION OF ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF GRADE SS-1H OR CSS-1H EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH.
CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY, PAVEMENTS, CURBS, SIDEWALKS, AND ALL OTHER STRUCTURES FROM ASPHALT DISCOLORATION.
2. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD. A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE PLOWED INTO THE SOIL.
3. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. REFER TO TB - TACKIFIERS AND BINDERS.
4. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE HALF BUSHEL PER ACRE.
5. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

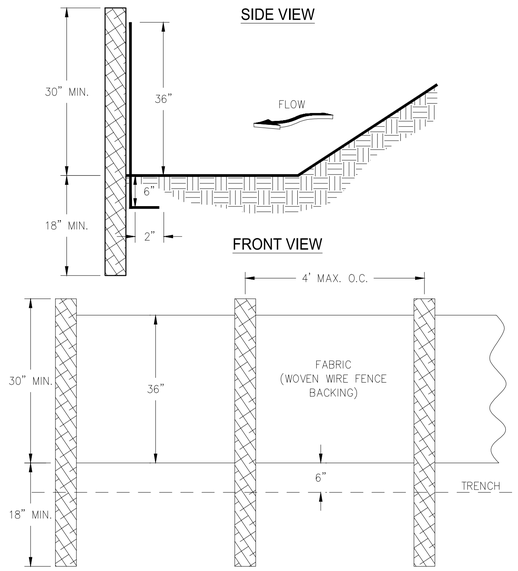
IRRIGATION

IRRIGATION SHALL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

SEEDING RATES FOR PERMANENT SEEDING

SPECIES	RATE Per 1,000 sq.ft.	RATE Per Acre *	PLANTING DATES **
BAHIA	1.4 POUNDS	60 LBS.	1/1-12/31
BERMUDA	0.2 POUND	10 LBS.	2/15-7/1
CENTIPEDE	BLOCK SOD ONLY	BLOCK SOD ONLY	4/1-7/1
LESPEDEZA	1.7 POUNDS	75 LBS.	1/1-12/31
WEEPING LOVE GRASS	0.1 POUND	4 LBS.	2/1-6/15
SWITCH GRASS	0.9 POUND	40 LBS.	3/15-6/1

* UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES
** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.



NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. SILT FENCE - TYPE SENSITIVE (Sd1-S) SHALL MEET THE SPECIFICATIONS OF SILT FENCE, TYPE C AS DESCRIBED IN SECTION 171 OF THE "GDOT STANDARD SPECIFICATIONS CONSTRUCTION OF TRANSPORTATION SYSTEMS", 2013 EDITION.
3. Sd1-S = TYPE C SILT FENCE.

Sd1–S SILT FENCE - TYPE SENSITIVE

N.T.S.

DEFINITION

CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

CONDITIONS

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

METHOD AND MATERIALS

A. TEMPORARY METHODS

MULCHES. SEE STANDARD DS1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB-TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

VEGETATIVE COVER. SEE STANDARD DS2 - DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).

SPRAY-ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB-TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT, SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.

BARRIERS. SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

B. PERMANENT METHODS

PERMANENT VEGETATION, SEE STANDARD DS3 -DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION), EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP - TOPSOILING.

STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR-CONSTRUCTION ROAD STABILIZATION.

Du DUST CONTROL ON DISTURBED AREAS

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SEALS

GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS 6/19/2026

Owner

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: N. NIA
DRAWN BY: N. NIA
CHECKED BY: J. SWAIM

SHEET TITLE

CIVIL CROSSTOWN

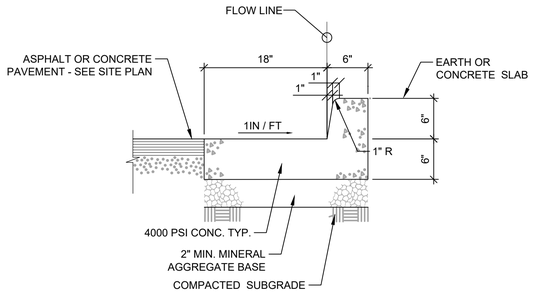
EROSION AND SEDIMENT CONTROL NOTES & DETAILS

SCALE: AS SHOWN
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: C-06

SHEET NO.: 08 OF 83

User:JRI00725 Spec:AUS-NCSMOD File:C:\USERS\JRI00725\DCACCDOCS\ARCADIS ACC US\AUS-30171943-FCWS WTP CHEMICAL UPGRADES\PROJECT FILES\10_WIP\10T_ARC_CIVIL\CROSSTOWN\XREF\DETAILS_CT.DWG Scale:1:1 SavedDate:6/5/2026 Time:14:24 Plot Date: Raj, Joel; 6/5/2026; 20:23 ; Layout:C-06 CT

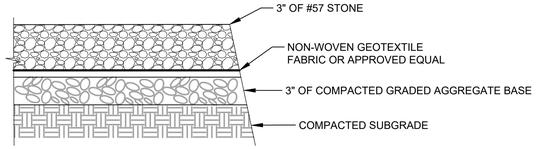


NOTE:

PROVIDE TOOLED JOINTS AT 10'-0" O.C. IN ALL CURBS & GUTTERS

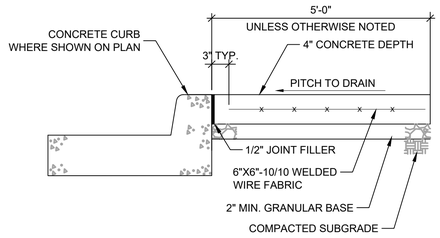
1 C-07 CONCRETE CURB AND GUTTER

NOT TO SCALE



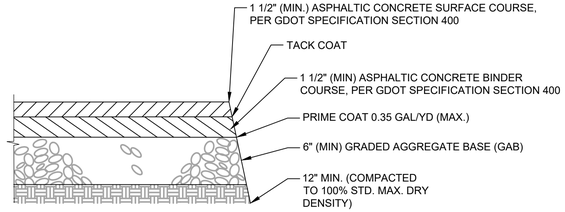
2 C-07 GRAVEL SURFACE DETAIL

NOT TO SCALE



3 C-07 CONCRETE SIDEWALK SECTION

NOT TO SCALE



NOTE:

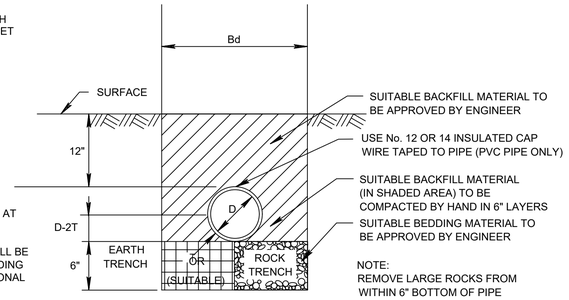
ASPHALTIC PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH GEORGIA DOT (GDOT) SPECIFICATIONS. ASPHALTIC TYPE AND MIXES SHALL BE GDOT APPROVED MIX TYPES.

4 C-07 STANDARD ASPHALT PAVEMENT

NOT TO SCALE

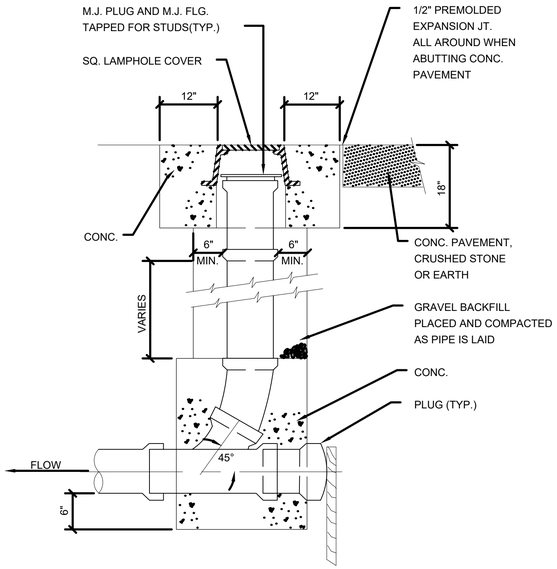
PIPE OR CASING DIA INCHES	Bd TRENCH WIDTH TOP OF PIPE FEET
2"	2.00
3"	2.00
4"	2.00
6"	2.00
8"	2.33
10"	2.50
12"	2.67
15"	3.00
18"	3.25
20"	3.54
24"	3.83

Bd - MAXIMUM TRENCH WIDTH AT 12" ABOVE TOP OF PIPE IF DITCH IS CUT WIDER THAN Bd SHOWN THE CONTRACTOR WILL BE REQUIRED TO INCREASE BEDDING TO COMPENSATE FOR ADDITIONAL LOAD ON PIPE AT HIS OWN EXPENSE.



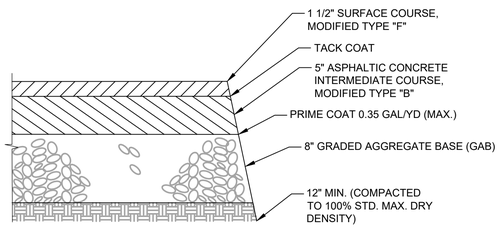
5 C-07 WATER LINE DETAILS FOR PVC & D.I. PIPE OPEN AREAS

NOT TO SCALE



6 C-07 TYPICAL DRAIN CLEANOUT DETAIL

NOT TO SCALE

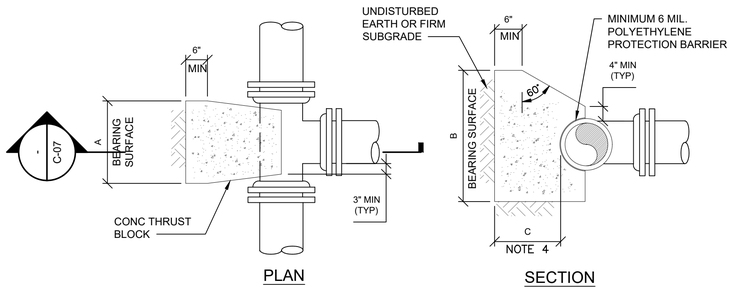


NOTE:

ASPHALTIC PAVEMENT SHALL BE INSTALLED IN ACCORDANCE WITH GEORGIA DOT (GDOT) SPECIFICATIONS. ASPHALTIC TYPE AND MIXES SHALL BE GDOT APPROVED MIX TYPES.

7 C-07 HEAVY DUTY ASPHALT PAVEMENT

NOT TO SCALE



8 C-07 CONCRETE BLOCKING DETAIL FOR TEES

NOT TO SCALE

NOMINAL PIPE SIZE (IN)	MAXIMUM PIPE OD (IN)	REQUIRED BEARING AREA (SQ FT)
4	4.80	2
6	6.90	4
8	9.05	7
10	11.10	11
12	13.20	15
14	15.30	21
16	17.40	27
18	19.50	34

NOTES:

1. MAXIMUM TEST PRESSURE = 1.50 x 150 PSI
2. MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
3. BEARING AREA = A x B
4. C SHALL BE GREATER THAN A/2 AND B/2.
5. WHEN POSSIBLE JOINTS TO BE TIED WITH THREE (3) - 3/4" RODS TO RESTRAINER ON STRAIGHT PIPE IN LIEU OF THRUST BLOCKING.

CONCRETE BLOCKS FOR TEES, CAPS AND PLUGS

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Owner

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

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PROJECT NO.: 30240979

DATE: JULY 2026

DESIGNED BY: N. NIA

DRAWN BY: N. NIA

CHECKED BY: J. SWAIM

SHEET TITLE

CIVIL CROSSTOWN

CIVIL DETAILS

SCALE: AS SHOWN

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: C-07

SHEET NO.: 09 OF 83

User:JRI00725 Spec:AUS-NCSMOD File:C:\USERS\JRI00725\DC\ACCDOCS\ARCADIS ACC US\AUS-30171943-FCWS WTP CHEMICAL UPGRADES\PROJECT FILES\10_WIP\10T_ARC_CIVIL\CROSSTOWN\XREF\DETAILS_CT.DWG Scale:1:1 SavedDate:6/5/2026 Time:14:24 Plot Date: Raj, Joel; 6/5/2026; 20:24 ; Layout:C-07 CT

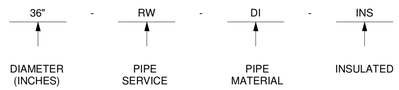
NOTES:

1. PIPELINES, VALVES AND EQUIPMENT SHALL BE FURNISHED, FABRICATED, ERECTED AND OTHERWISE INSTALLED TO LINES, ELEVATIONS, LOCATIONS, AND DIMENSIONS AS SHOWN, SPECIFIED OR REQUIRED FOR A COMPLETE INSTALLATION. THE CONTRACTOR SHALL MEASURE ALL DIMENSIONS SHOWN PROPERLY AND SHALL TAKE SUCH FIELD DIMENSIONS AS MAY BE NECESSARY TO PROPERLY INSTALL ALL PIPELINES, VALVES AND EQUIPMENT.
2. ALL PIPELINES, VALVES AND EQUIPMENT SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH CONTRACT DOCUMENTS AND MANUFACTURER'S SPECIFICATIONS, IN A NEAT WORKMANLIKE MANNER, AND IN ACCORDANCE WITH APPROVED SHOP AND WORKING DRAWINGS.
3. ALL CONSTRUCTION MATERIALS REQUIRING STORAGE SHALL BE STORED IN STRICT CONFORMANCE WITH CONTRACT DOCUMENTS, MANUFACTURER'S SPECIFICATIONS, RECOMMENDATIONS AND INSTRUCTIONS.
4. ALL PIPING 4" IN DIAMETER AND SMALLER IS SHOWN SCHEMATICALLY; CONTRACTOR SHALL PROVIDE ALL PIPE, FITTINGS AND ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION.
5. SEE INSTRUMENTATION DRAWINGS FOR ALL EQUIPMENT TAG NUMBERS.
6. NOT ALL EXISTING OBSTRUCTIONS/EQUIPMENT MAY BE SHOWN ON PLANS. FIELD VERIFICATION OF EXISTING CONDITIONS IS REQUIRED.
7. REFER TO SECTION 01 14 16 - COORDINATION WITH OWNER'S OPERATIONS FOR TIE IN SCHEDULE.

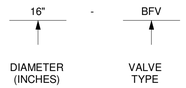
PIPING SYMBOLS

- EXISTING PIPING, EQUIPMENT & STRUCTURES
- NEW PIPING, EQUIPMENT & STRUCTURES
- FLEXIBLE CONNECTION
- REDUCER
- BLIND FLANGE
- CAP OR PLUG
- UNION
- FLANGE
- BELL & SPIGOT
- MECHANICAL JOINT

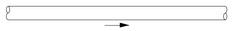
EXAMPLE: NEW PIPE LABEL



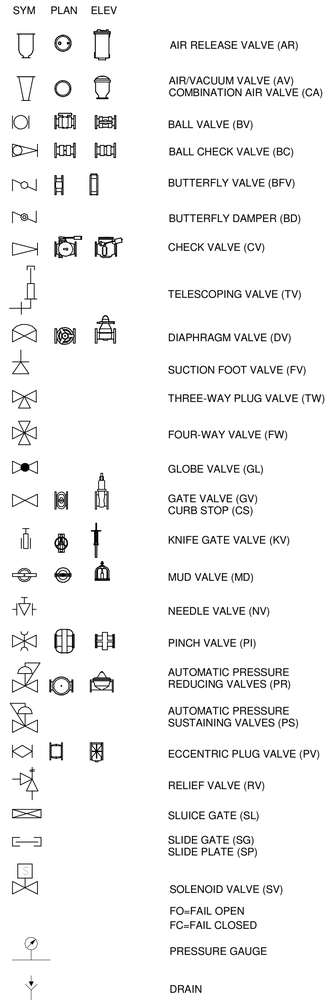
EXAMPLE: VALVE LABEL



EXAMPLE: FLOW DIRECTION IN PIPE



VALVE LEGEND



ABBREVIATIONS

PIPE SERVICE

CW	COLD WATER
DR	DRAIN
HFSA	HYDROFLUOROSILICIC ACID
HW	HOT WATER
LS	LEVEL SENSOR
OF	OVERFLOW
RW	RAW WATER
SAM	SAMPLE
SD	STORM DRAIN
SHC	SODIUM HYPOCHLORITE
SW	SOFTENED WATER
PER	PERMANGANATE (POTASSIUM OR SODIUM)
PHOS	PHOSPHATE
PLW	PLANT WATER
PW	POTABLE WATER
TW	TEPID WATER
VT	VENT

PIPE MATERIALS

CU	COPPER
CPVC	CHLORINATED POLYVINYL CHLORIDE
PVC	POLYVINYL CHLORIDE
RPVC	REINFORCED PVC FLEXIBLE HOSE
SS	STAINLESS STEEL
ST	STEEL

VALVE TYPES

AECV	AUTOMATIC ELECTRONIC CONTROL VALVES
ARV	AIR RELEASE VALVE
CV	CHECK VALVE
PRV	PRESSURE REDUCING VALVE
BV	BALL VALVE

DEMOLITION SYMBOLS

TO BE DEMOLISHED

PHOTO DETAIL SYMBOLS

4 M-04 — PHOTO DETAIL, SHEET NUMBER, AND PHOTO ORIENTATION

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6/19/2026

FAYETTE COUNTY,GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	E. VAN DEVENTER
DRAWN BY:	M. BHANUMATHI
CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

MECHANICAL LEGENDS, SYMBOLS, AND ABBREVIATIONS

SCALE: 12" = 1'-0"

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

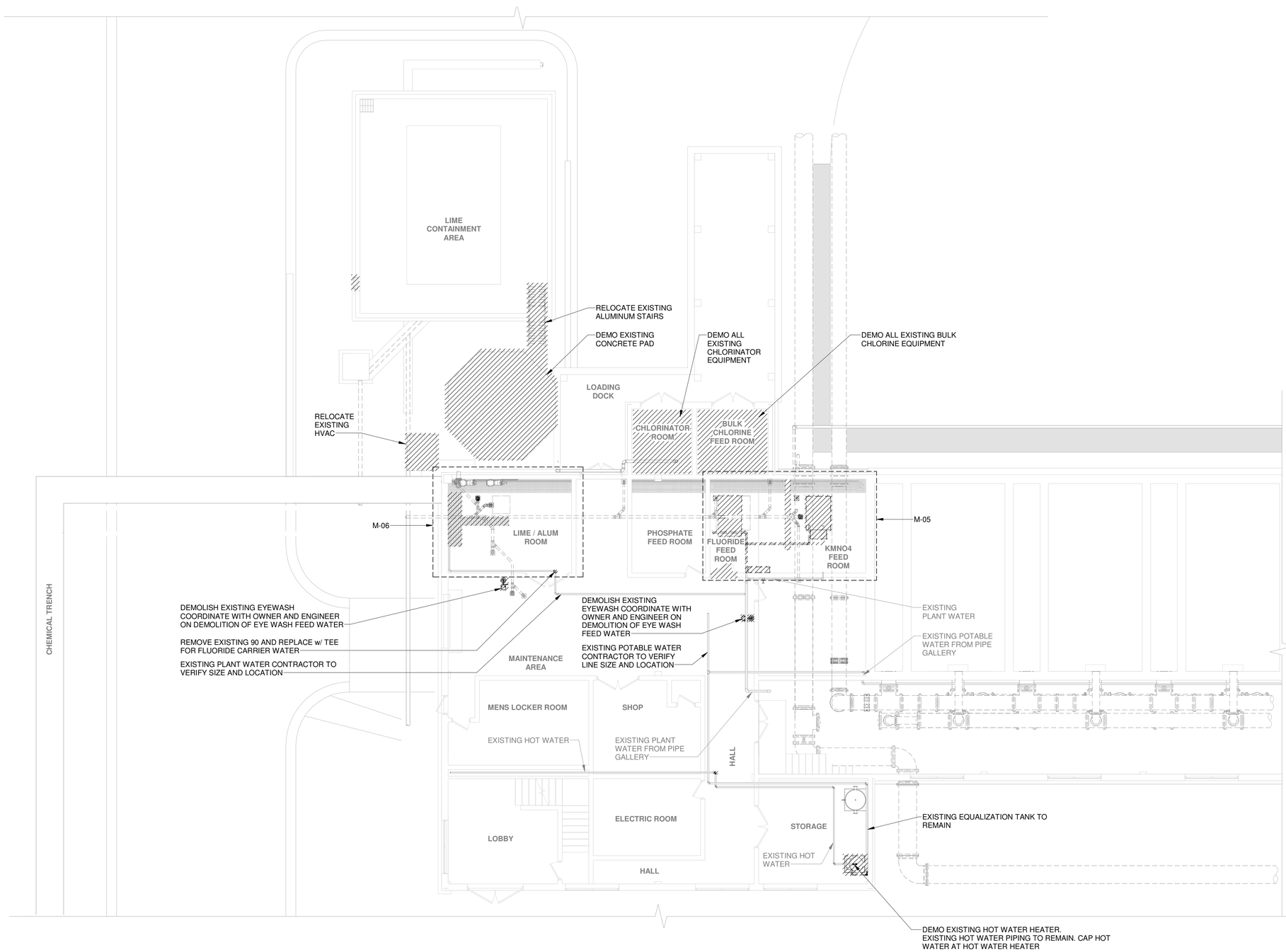
DRAWING NO.: M-01

SHEET NO.: 10 OF 83

811 Know what's **below.** **Call** before you dig.

NOTES:

1. REFER TO SPECIFICATION 01 11 13 SUMMARY OF WORK AND 01 14 16 COORDINATION WITH OWNER'S OPERATIONS FOR SYSTEM REPLACEMENT SEQUENCING AND TIE-IN SCHEDULES. COORDINATE WITH CONSTRUCTION SCHEDULE WITH ENGINEER AND OPERATIONS TO NOT DISRUPT EXISTING CHEMICAL FEED AND PLANT OPERATIONS



POST - TREATMENT CHEMICAL BUILDING OVERALL EXISTING/DEMOLITION PLAN

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

0' 4' 8' 16'

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MECHANICAL
CROSSTOWN

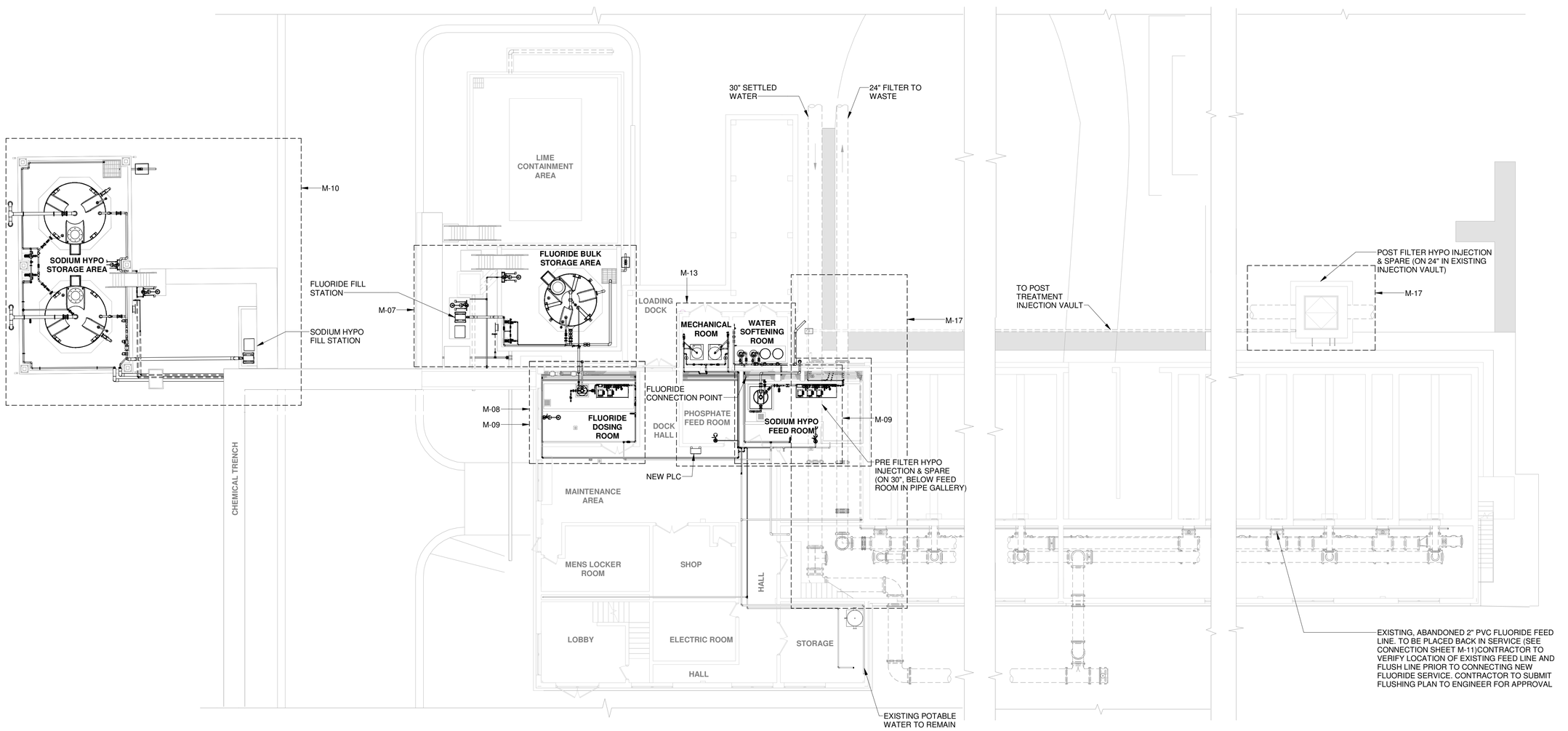
POST - TREATMENT CHEMICAL BUILDING OVERALL EXISTING/DEMOLITION PLAN

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-02

SHEET NO.: 11 OF 83



POST-TREATMENT CHEMICAL BUILDING OVERALL PLAN

SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

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SHEET TITLE

MECHANICAL
CROSSTOWN

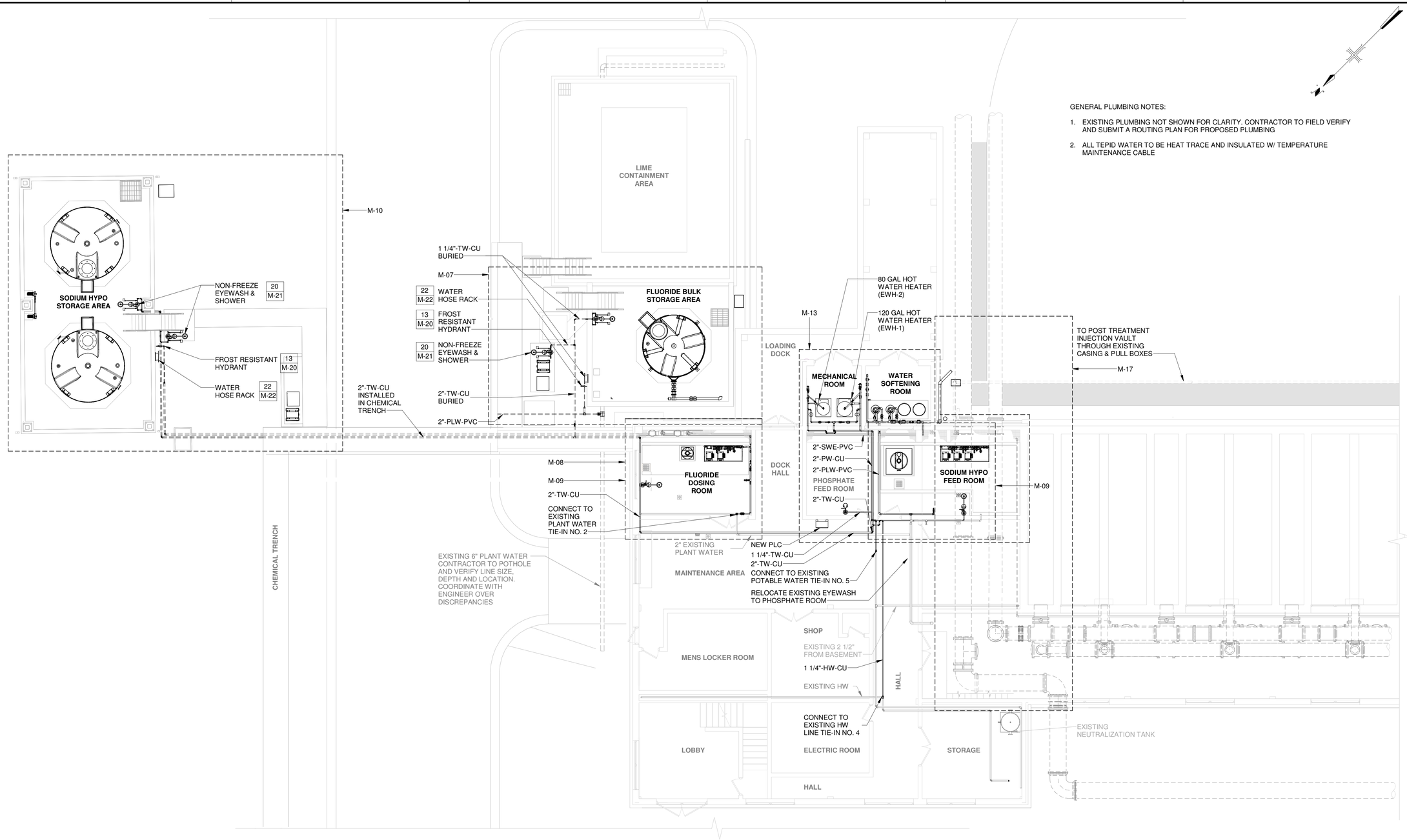
POST - TREATMENT CHEMICAL BUILDING OVERALL PLAN

SCALE: 3/32" = 1'-0"

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-03

SHEET NO.: 12 OF 83



GENERAL PLUMBING NOTES:

1. EXISTING PLUMBING NOT SHOWN FOR CLARITY. CONTRACTOR TO FIELD VERIFY AND SUBMIT A ROUTING PLAN FOR PROPOSED PLUMBING
2. ALL TEPID WATER TO BE HEAT TRACE AND INSULATED W/ TEMPERATURE MAINTENANCE CABLE

POST - TREATMENT CHEMICAL BUILDING OVERALL TEPID WATER SUPPLY PLAN

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

0' 4' 8' 16'

WATER HEATER SCHEDULE												
TYPE	LOCATION	SERVICE	STYLE	STORAGE CAPACITY	INPUT	PERFORMANCE			ELECTRICAL		WATER CONN NPT		REMARKS
					HEATING ELEMENT (KW)	RECOVER RATE @100 °F RISE (GPH)	TEMP RISE (°F)/FLOW (GPM)	OUTLET TEMPERATURE (°F)	VOLTAGE	PHASE	CW	HW	
EWH-1	MECHANICAL ROOM	TEPID WATER	ELECTRIC TANK	120 GAL	24	99	100	140	480	3	2"	2"	1
EWH-2	MECHANICAL ROOM	DOMESTIC HOT WATER	ELECTRIC TANK	80 GAL	18	75	100	140	480	3	1 1/4"	1 1/4"	1
NOTES: 1. PROVIDE 100 MICRON Y-STRAINER ON COLD WATER INLET AND EXPANSION TANK.													

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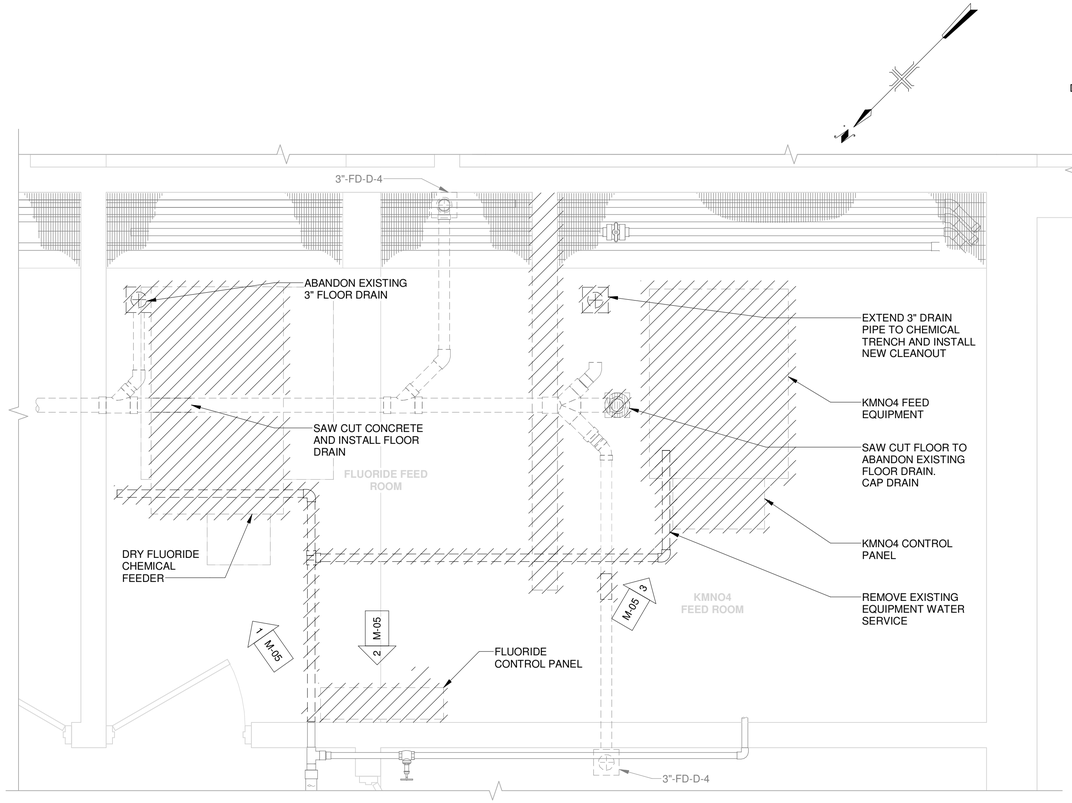
MECHANICAL
CROSSTOWN

POST - TREATMENT CHEMICAL BUILDING OVERALL TEPID WATER SUPPLY PLAN

SCALE: As indicated
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-04

SHEET NO.: 13 OF 83



SODIUM HYPOCHLORITE FEED ROOM DEMOLITION PLAN

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

0' 1' 2' 4'



1 DETAIL PHOTO
M-05 NOT TO SCALE



2 DETAIL PHOTO
M-05 NOT TO SCALE



3 DETAIL PHOTO
M-05 NOT TO SCALE

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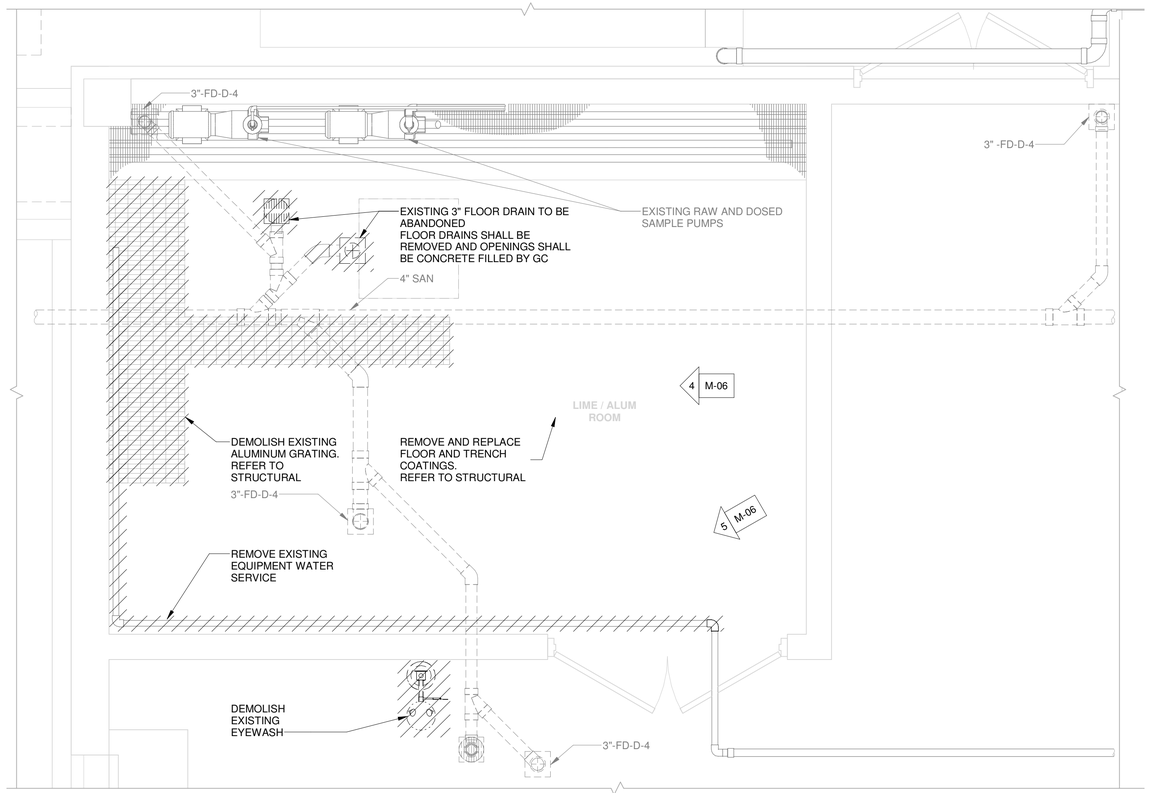
SHEET TITLE

MECHANICAL
CROSSTOWN

SODIUM HYPOCHLORITE FEED ROOM DEMOLITION PLAN

SCALE: As indicated
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

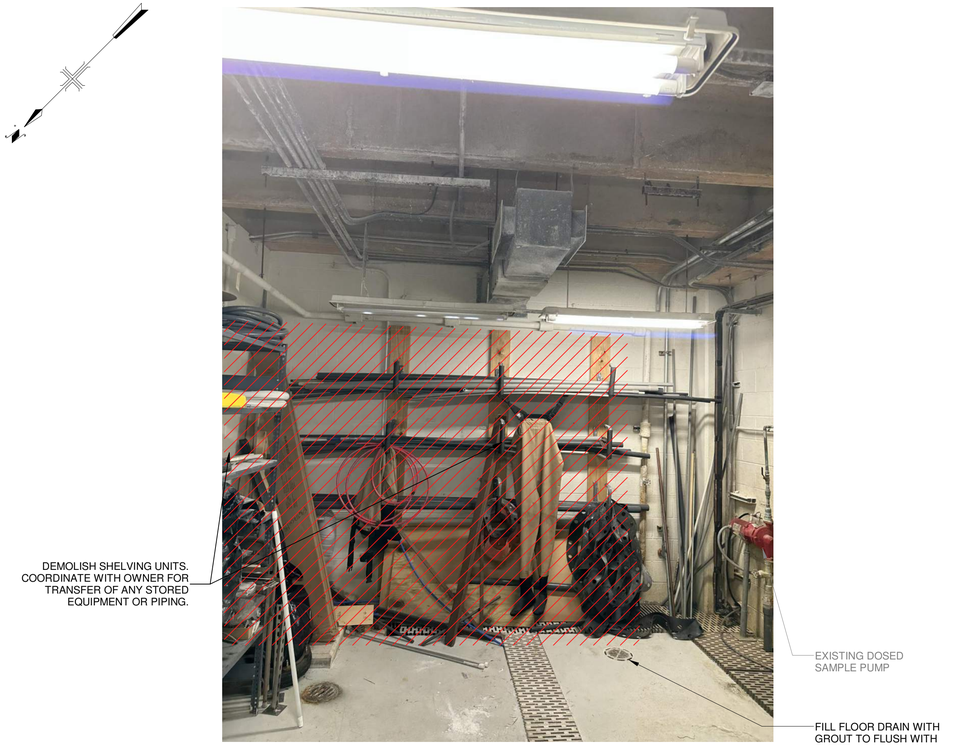
DRAWING NO.: M-05
SHEET NO.: 14 OF 83



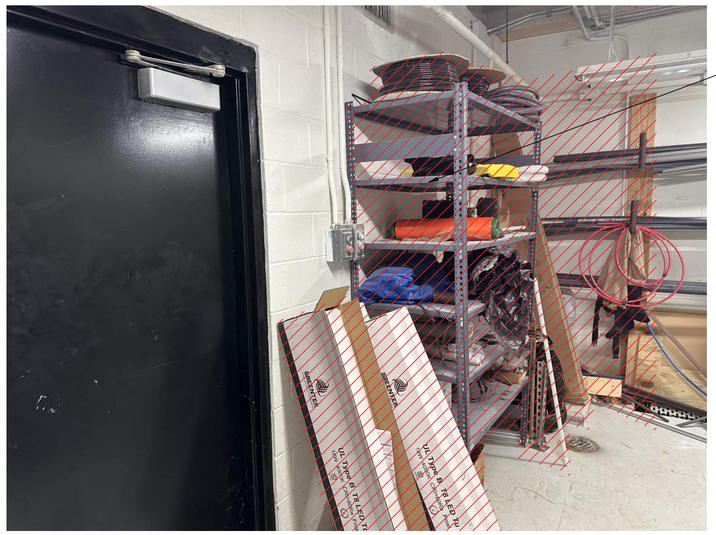
FLUORIDE DOSING ROOM DEMOLITION PLAN

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

0' 1' 2' 4'



4 DETAIL PHOTO
M-06 NOT TO SCALE



5 DETAIL PHOTO
M-06 NOT TO SCALE

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6/19/2026

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FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	E. VAN DEVENTER
DRAWN BY:	M. BHANUMATHI
CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

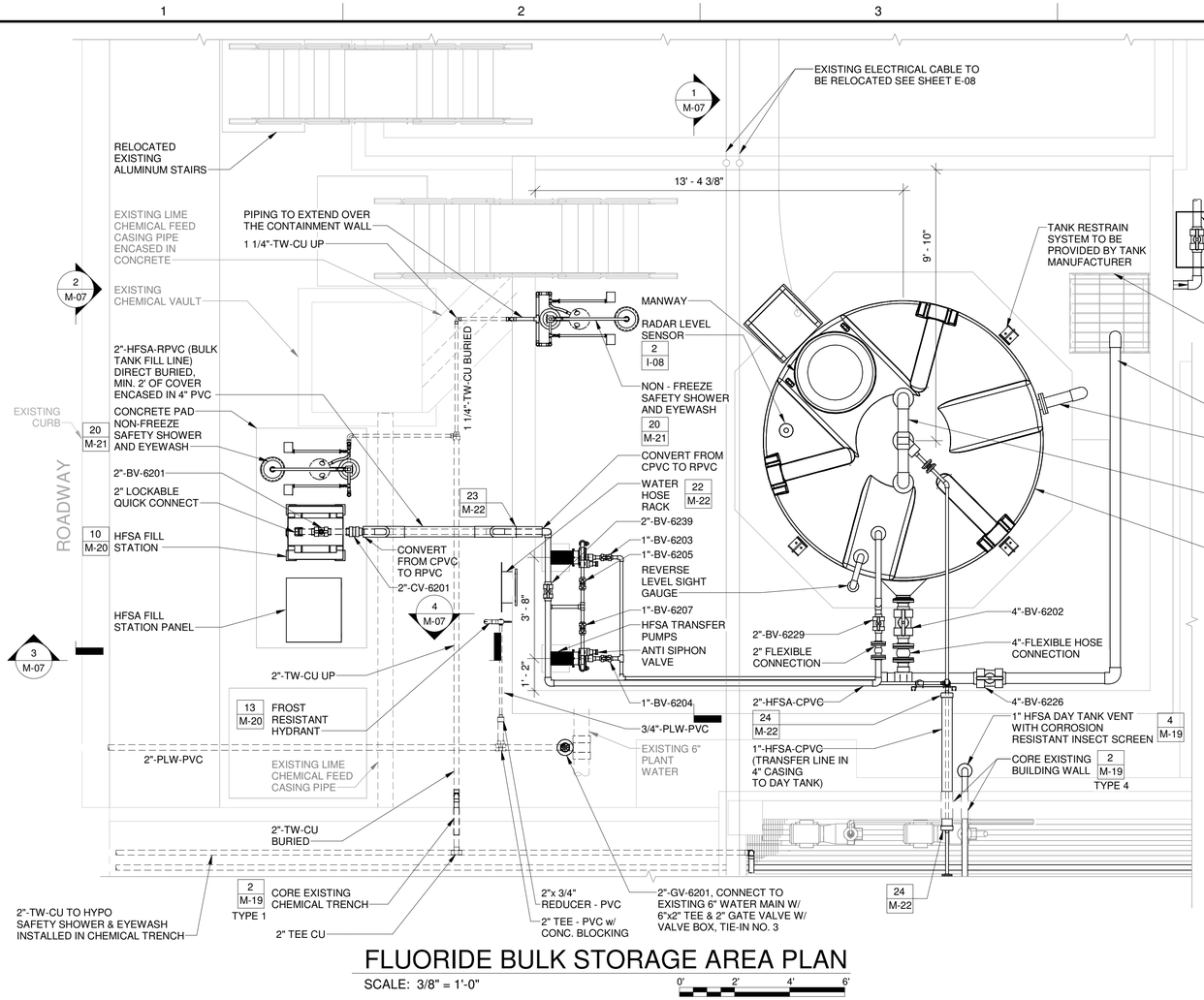
FLUORIDE FEED ROOM DEMOLITION PLAN

SCALE: AS SHOWN

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-06

SHEET NO.: 15 OF 83



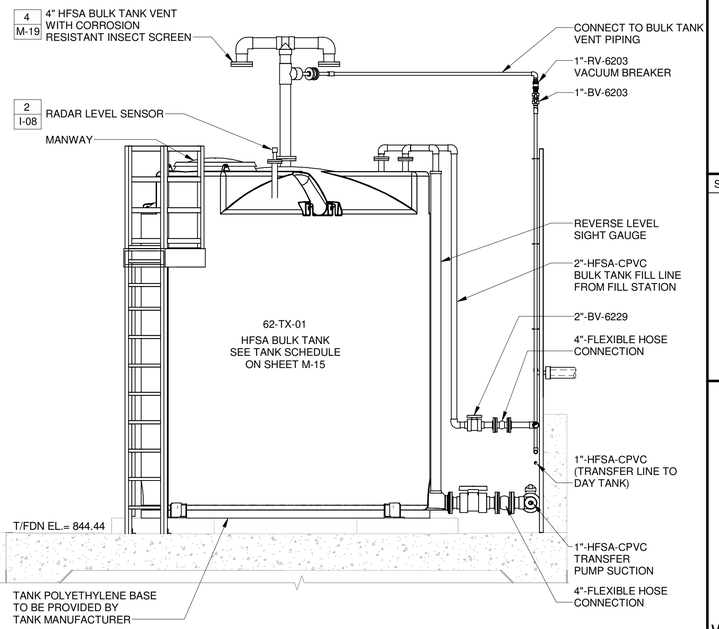
FLUORIDE BULK STORAGE AREA PLAN

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

0' 2' 4' 6'

NOTES:

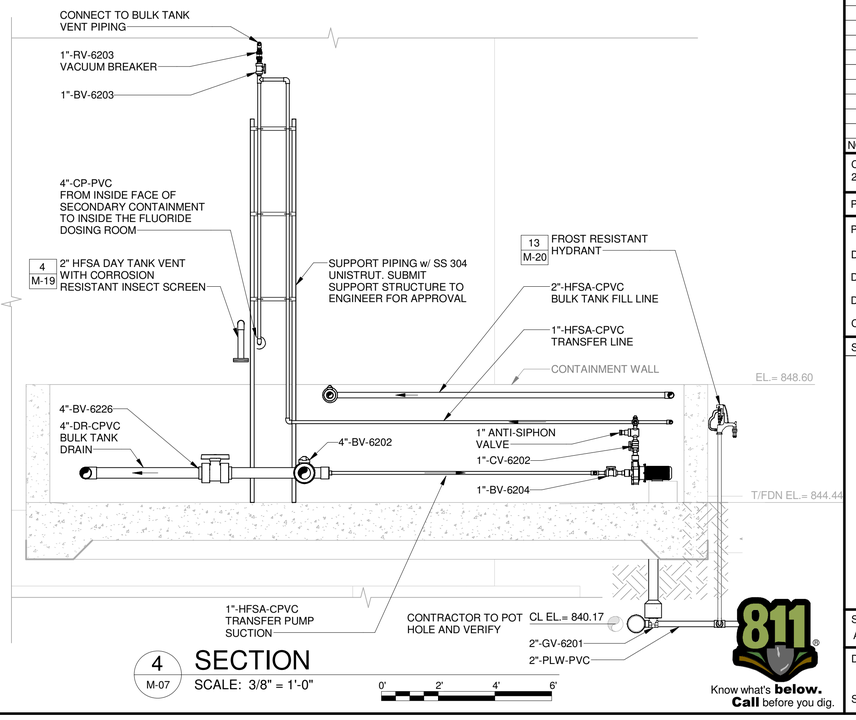
1. SITE WORK SHOWN FOR REFERENCE ONLY. REFER TO CIVIL SHEETS FOR LOCATIONS OF PROPOSED STRUCTURES PIPING AND EQUIPMENT RELEVANT TO EXISTING STRUCTURES, PIPING AND EQUIPMENT.
2. REFER TO STRUCTURAL SHEETS FOR CONCRETE FINISHING
3. PIPE SUPPORTS FOR PIPING CONNECTED TO THE BULK TANK SHALL BEGIN ON THE FURTHEST (UPSTREAM/ DOWNSTREAM) SIDE OF THE FLEXIBLE CONNECTION FROM THE BULK TANK.



1 HFSA BULK TANK SECTION

1 M-07 SCALE: 3/8" = 1'-0"

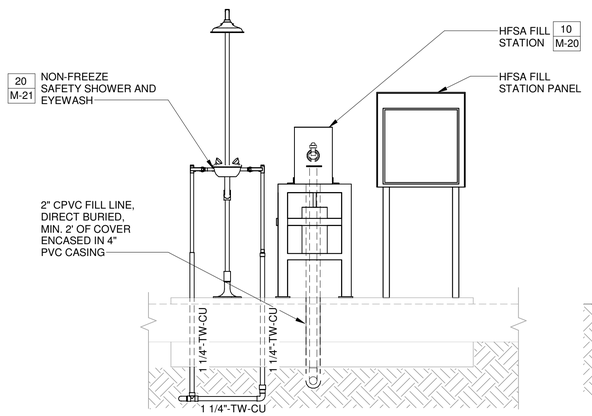
0' 2' 4' 6'



4 SECTION

4 M-07 SCALE: 3/8" = 1'-0"

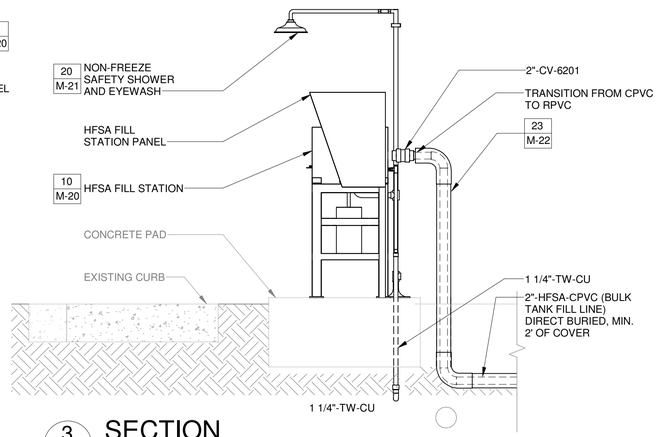
0' 2' 4' 6'



2 SECTION

2 M-07 SCALE: 1/2" = 1'-0"

0' 1' 2' 4'



3 SECTION

3 M-07 SCALE: 1/2" = 1'-0"

0' 1' 2' 4'

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DATE:	JULY 2026
DESIGNED BY:	E. VAN DEVENTER
DRAWN BY:	M. BHANUMATHI
CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

CFLUORIDE BULK STORAGE AREA PLAN AND SECTIONS

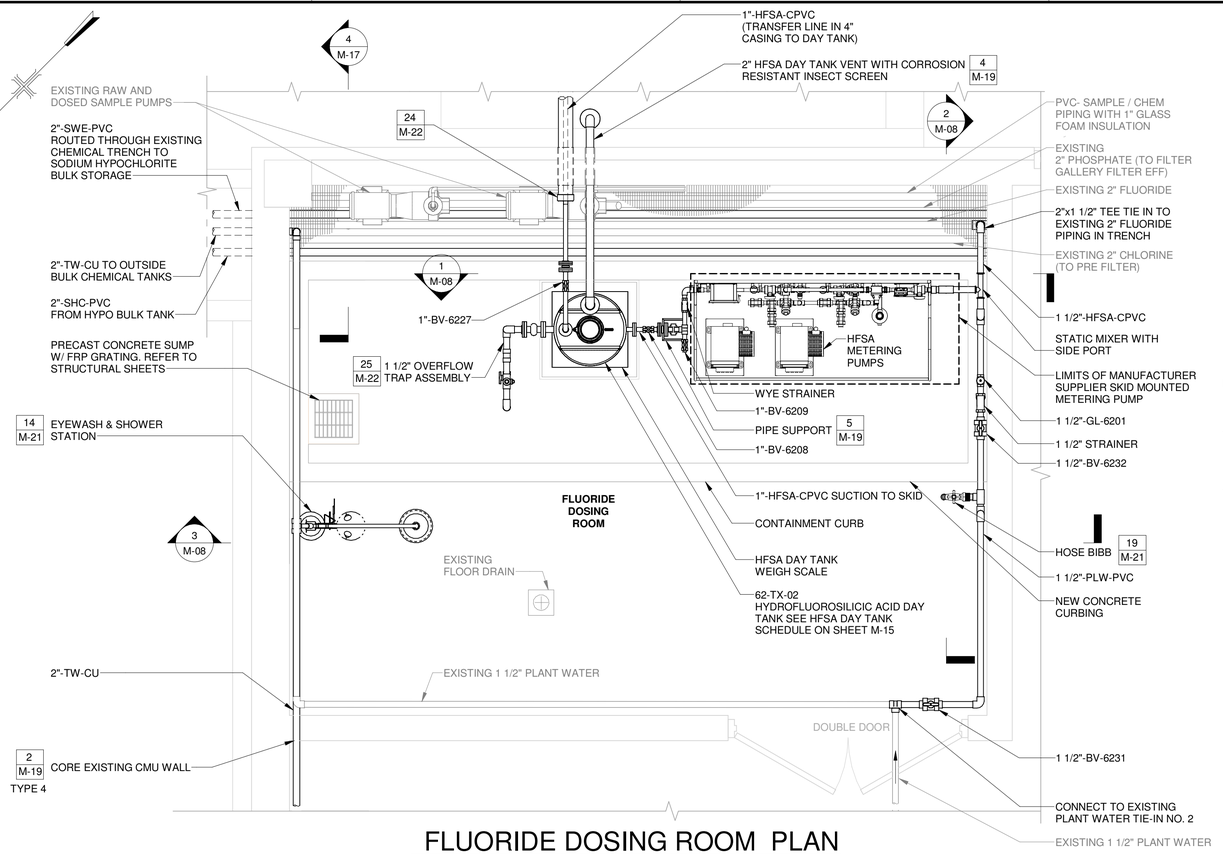
SCALE: As indicated

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-07

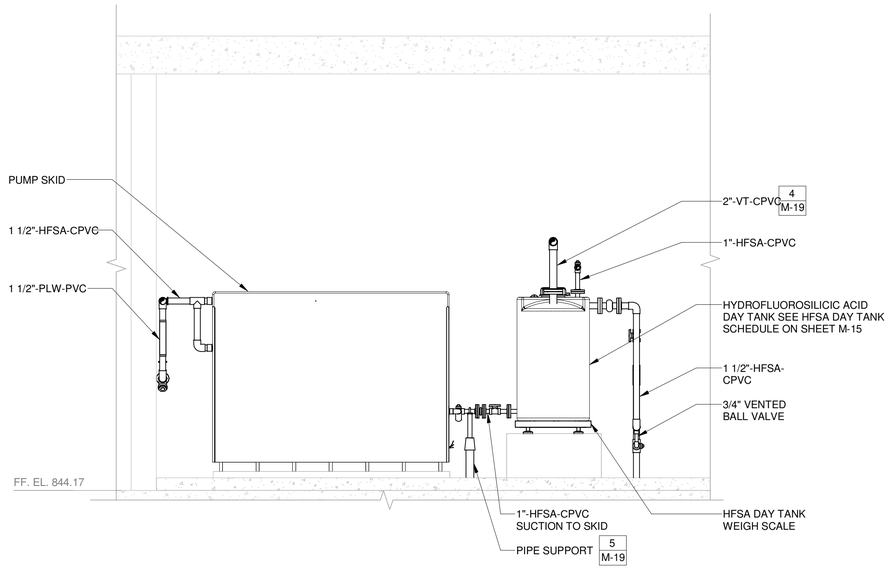
SHEET NO.: 16 OF 83

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FLUORIDE DOSING ROOM PLAN

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

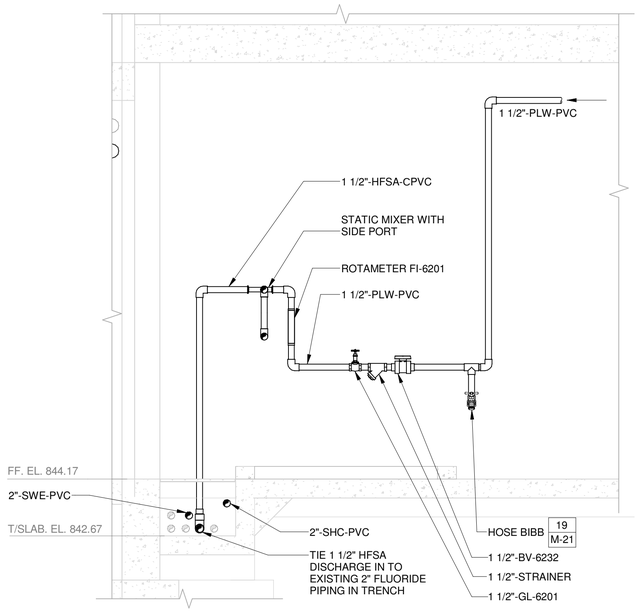


1 M-08 SECTION

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

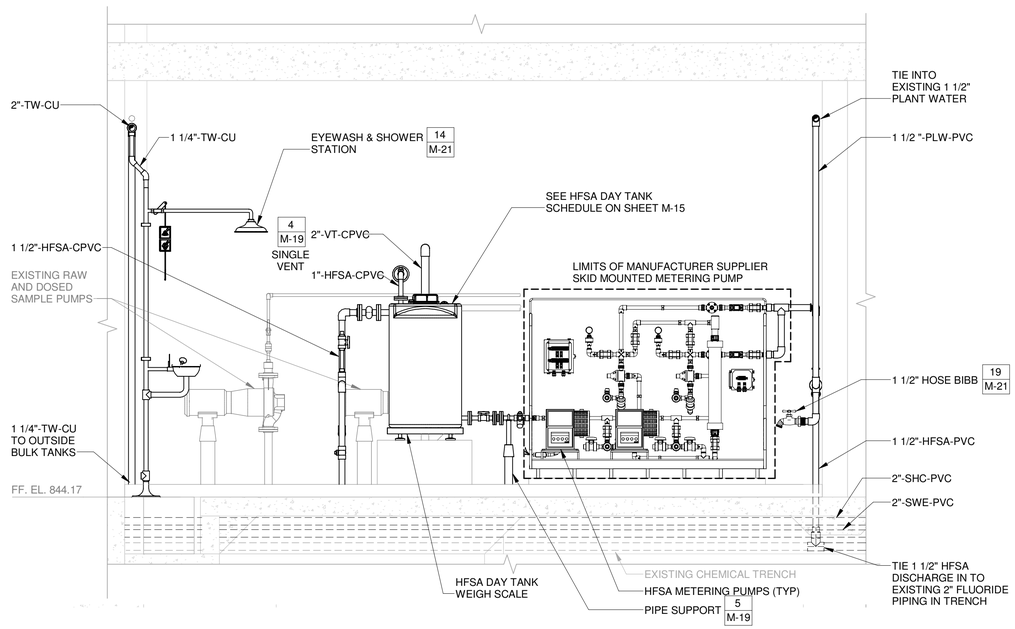
NOTES:

1. CENTER LINE OUT OF THE DAY TANK TO MATCH THE CENTERLINE IN OF THE PUMP SKID. CONTRACTOR VERIFY THESE ELEVATIONS WITH THE CHEMICAL SKID MANUFACTURER AND THE TANK MANUFACTURER BEFORE PLACING CONCRETE PADS OR ORDERING EQUIPMENT AND COORDINATE WITH ENGINEER.
2. REFER TO STRUCTURAL SHEETS FOR CONCRETE FINISHING
3. PIPE SUPPORTS FOR PIPING CONNECTED TO THE TANK SHALL BEGIN ON THE FURTHEST (UPSTREAM/ DOWNSTREAM) SIDE OF THE FLEXIBLE CONNECTION FROM THE TANK.
4. CONTRACTOR TO COORDINATE w/ PLANT STAFF ON PLACEMENT OF WEIGH SCALE VISUAL DISPLAY.



2 M-08 SECTION

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



3 M-08 FLUORIDE DOSING ROOM SECTION

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

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CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

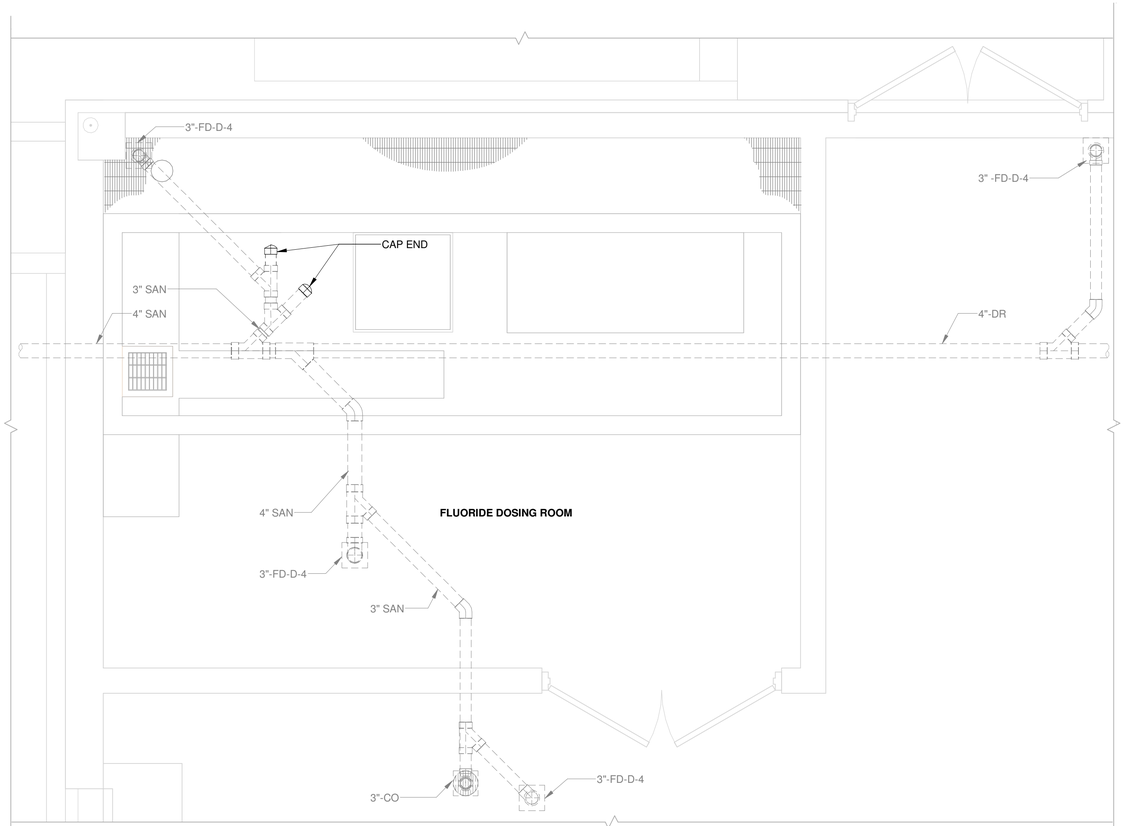
FLUORIDE DOSING ROOM PLAN AND SECTIONS

SCALE: AS SHOWN

BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-08

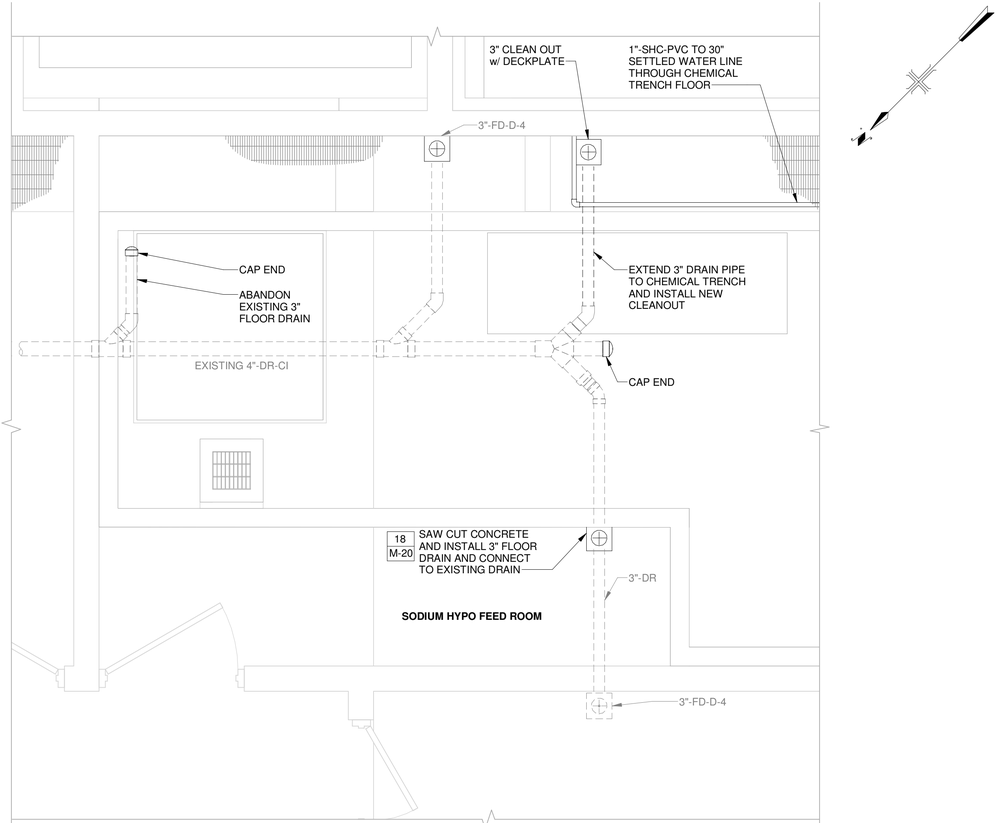
SHEET NO.: 17 OF 83



FLUORIDE DOSING ROOM FLOOR DRAIN PLAN

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

0' 1' 2' 4'



SODIUM HYPOCHLORITE FEED ROOM FLOOR DRAIN PLAN

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

0' 1' 2' 4'

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SHEET TITLE

MECHANICAL
CROSSTOWN

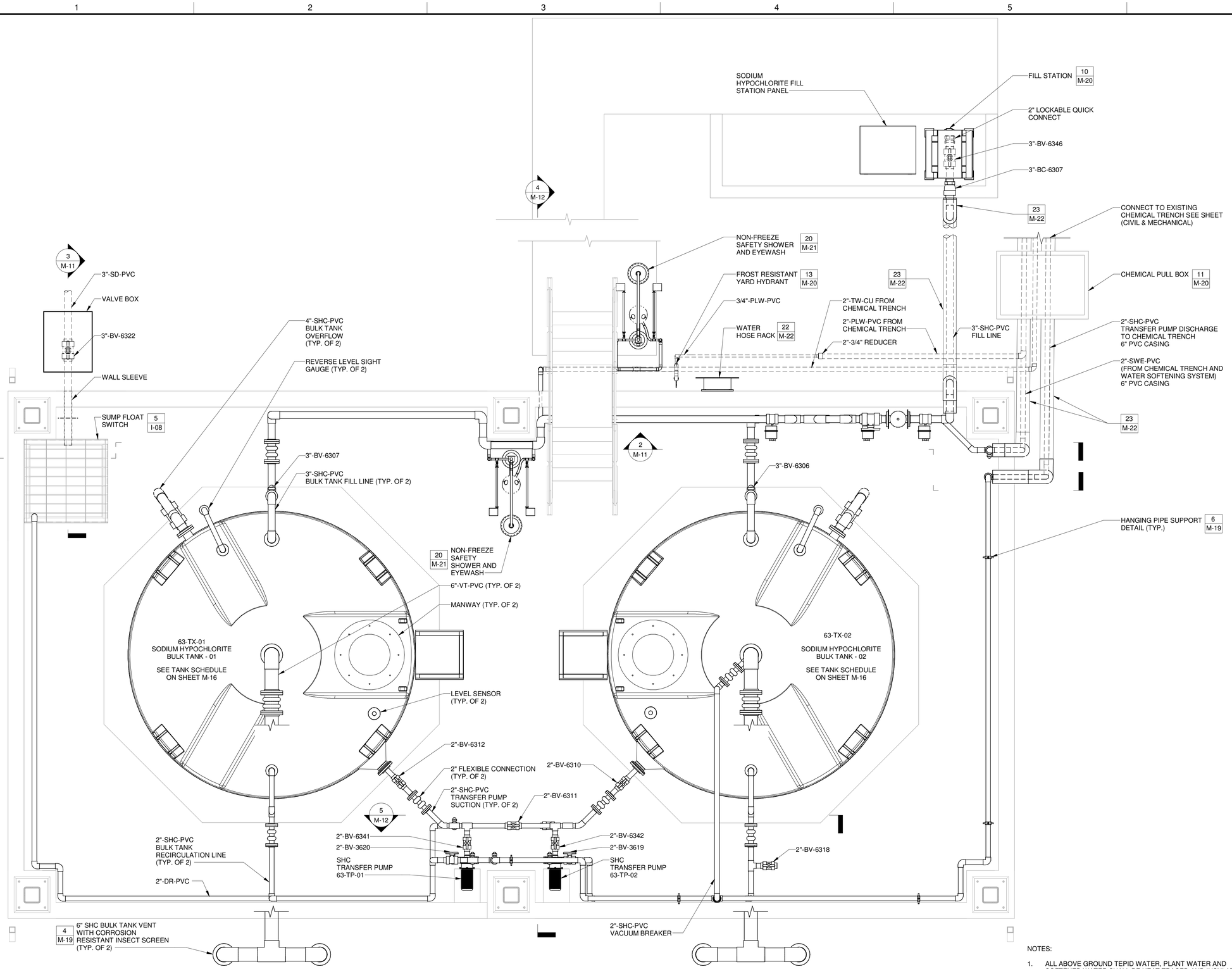
DRAINAGE AND ROOFING MODIFICATIONS PLAN & SECTIONS

SCALE: AS SHOWN

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-09

SHEET NO.: 18 OF 83



SODIUM HYPOCHLORITE STORAGE AREA PLAN

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

0' 1' 2' 4'

NOTES:

1. ALL ABOVE GROUND TEPID WATER, PLANT WATER AND SOFTENED WATER SHALL BE HEAT TRACED AND INSULATED.
2. PIPE SUPPORTS FOR PIPING CONNECTED TO THE BULK TANK SHALL BEGIN ON THE FURTHEST (UPSTREAM/ DOWNSTREAM) SIDE OF THE FLEXIBLE CONNECTION FROM THE BULK TANK.

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SHEET TITLE

MECHANICAL
CROSSTOWN

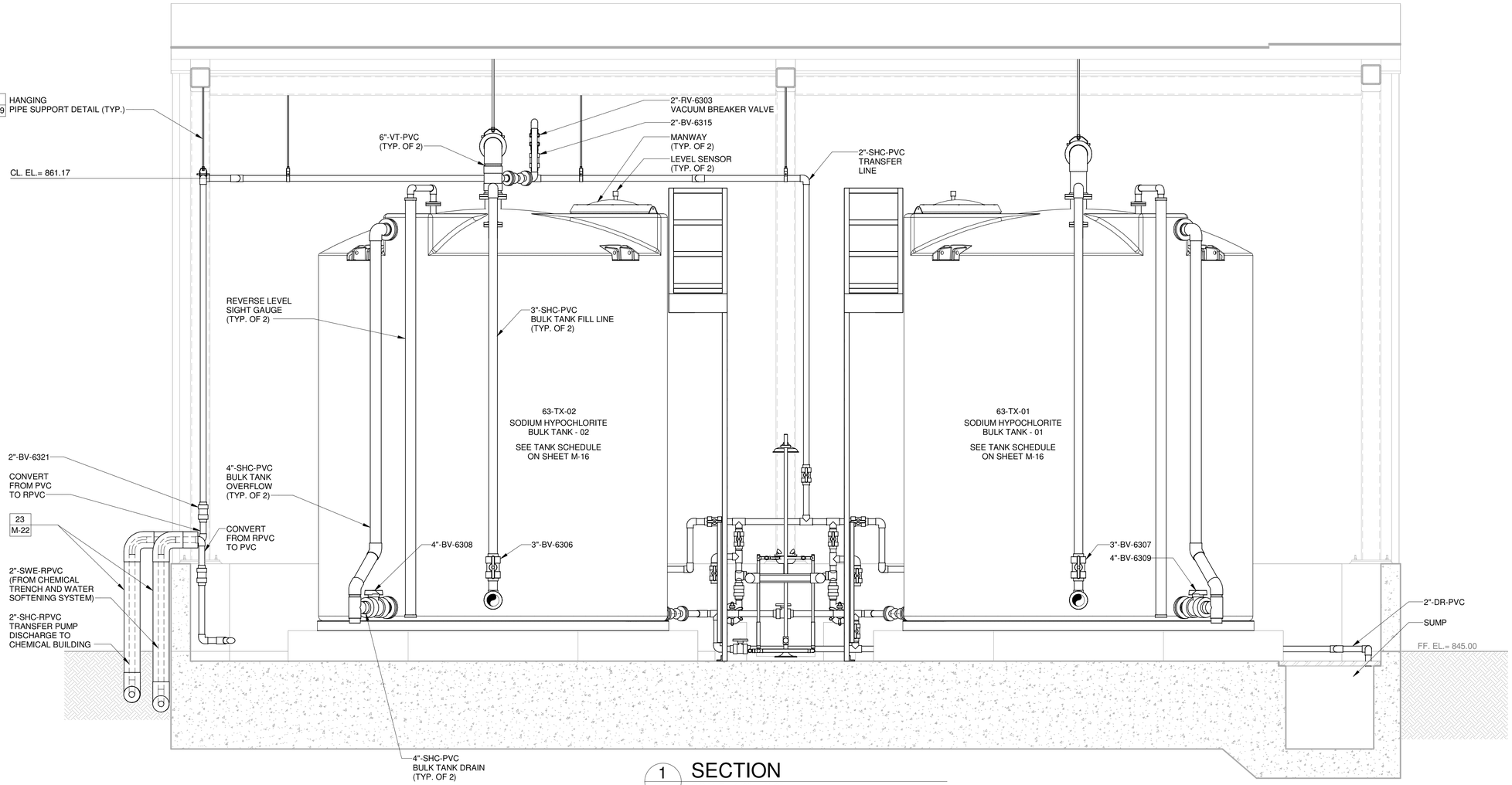
SODIUM HYPOCHLORITE STORAGE AREA PLAN

SCALE: As indicated

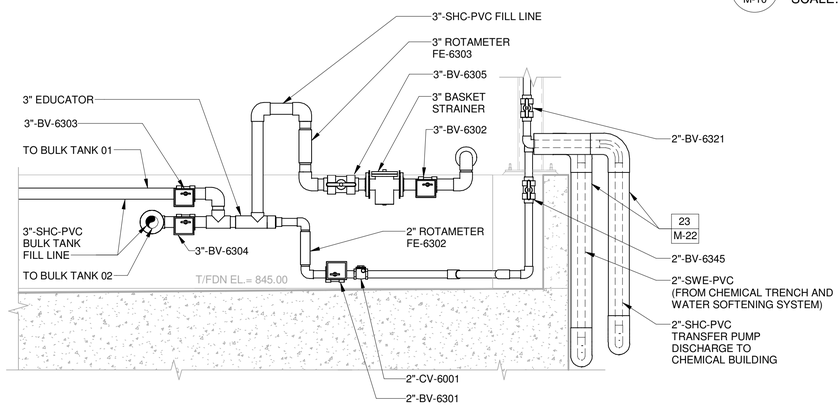
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-10

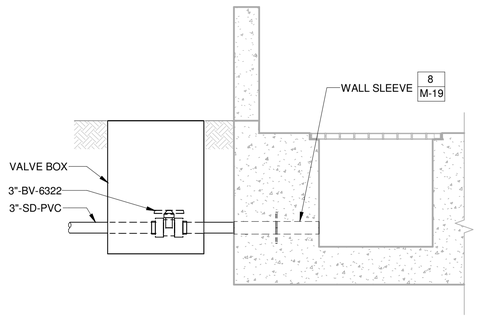
SHEET NO.: 19 OF 83



1 M-10 **SECTION**
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



2 M-10 **SECTION**
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



3 M-10 **SECTION**
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'

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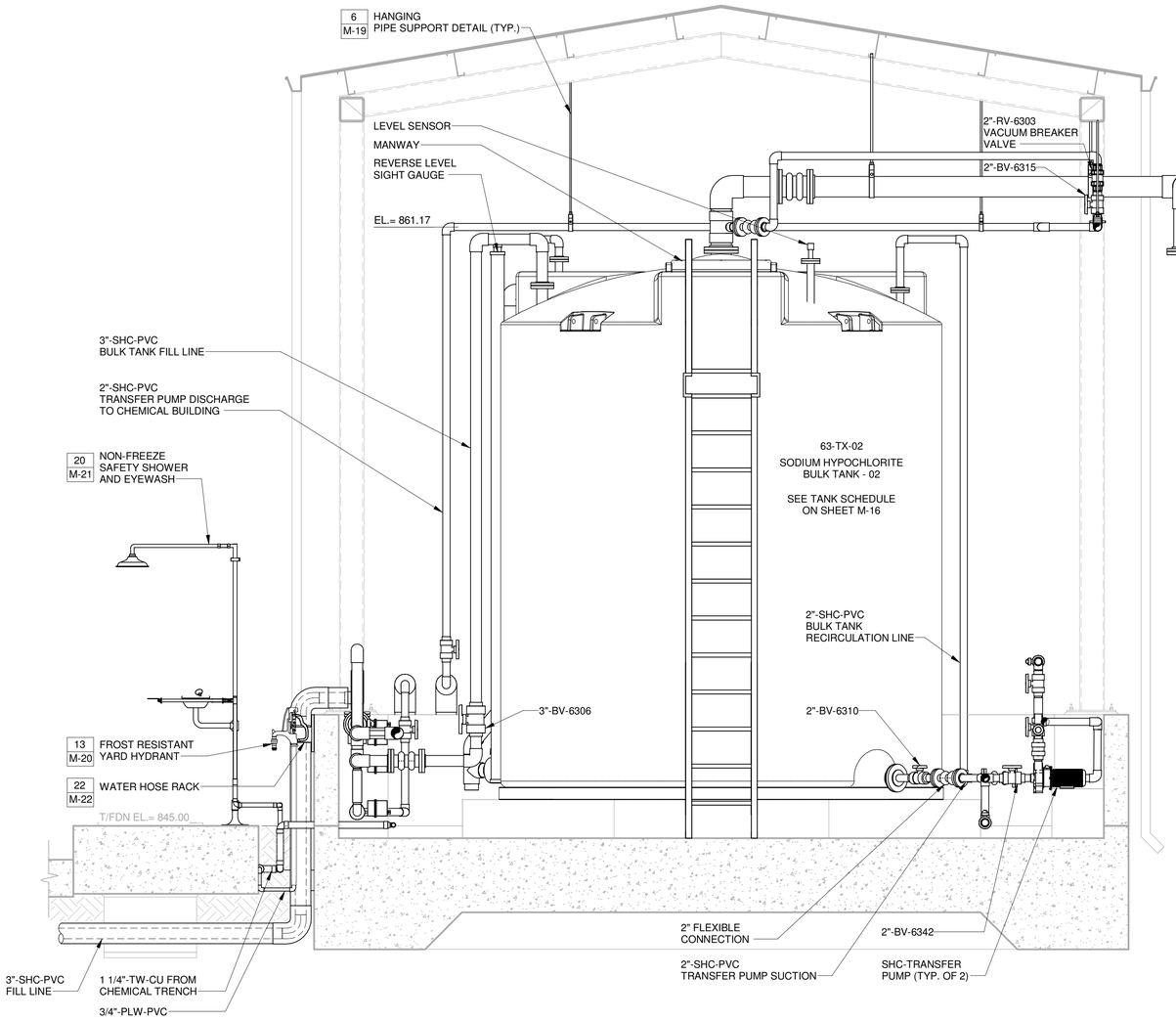
SHEET TITLE

MECHANICAL
CROSSTOWN

SODIUM HYPOCHLORITE
STORAGE AREA
SECTIONS (1 OF 2)

SCALE:
1/2" = 1'-0"
0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

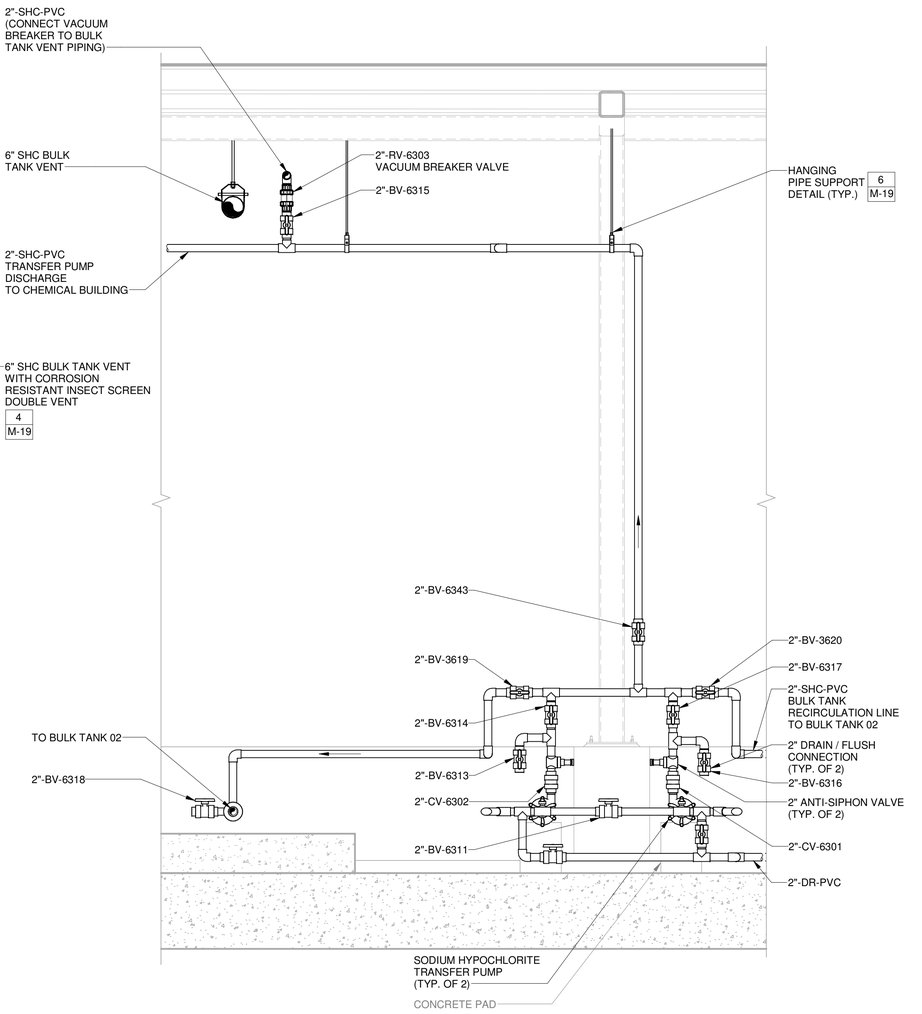
DRAWING NO.:
M-11
SHEET NO.: 20 OF 83



4 M-10 SECTION

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

0' 1' 2' 4'



5 M-10 SECTION

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

0' 1' 2' 4'

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MECHANICAL
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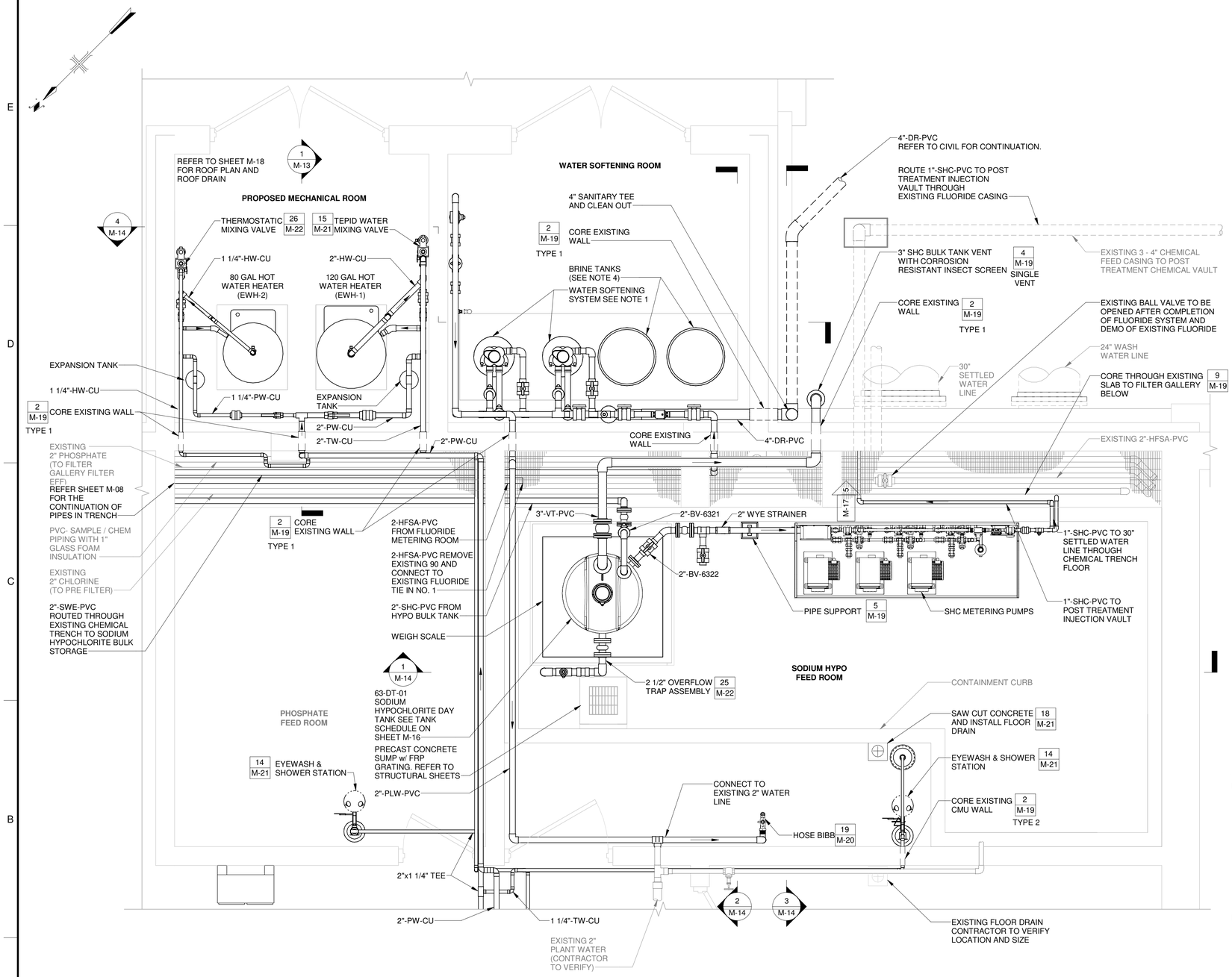
SODIUM HYPOCHLORITE STORAGE AREA SECTIONS (2 OF 2)

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-12

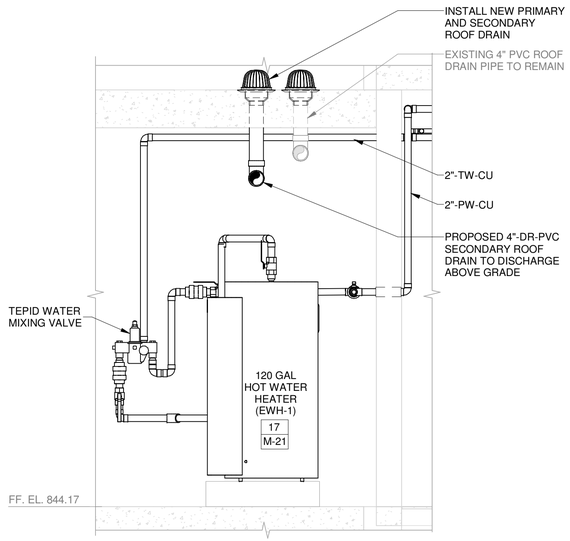
SHEET NO.: 21 OF 83



SODIUM HYPOCHLORITE FEED ROOM PLAN

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

0' 1' 2' 4'



1 SECTION

1 M-13 SCALE: 1/2" = 1'-0"

0' 1' 2' 4'

NOTES:

1. WATER SOFTENING SYSTEM - KINETICO, DUPLEX HYDRUS SERIES MODEL HS218s OR APPROVED EQUAL; INCLUDE MEDIA TANKS, MEDIA, REMOTE METER, SMART CONTROLLER, BRINE SYSTEM AND THE HYDRUS VALVES.
2. CENTER LINE OUT OF THE DAY TANK TO MATCH THE CENTERLINE IN OF THE PUMP SKID. CONTRACTOR VERIFY THESE ELEVATIONS WITH THE CHEMICAL SKID MANUFACTURE AND THE TANK MANUFACTURE BEFORE PLACING CONCRETE PADS OR ORDERING EQUIPMENT AND COORDINATE WITH ENGINEER.
3. PIPE SUPPORTS FOR PIPING CONNECTED TO THE TANK SHALL BEGIN ON THE FURTHEST (UPSTREAM/ DOWNSTREAM) SIDE OF THE FLEXIBLE CONNECTION FROM THE TANK.
4. CONTRACTOR TO COORDINATE w/ PLANT STAFF ON PLACEMENT OF WEIGH SCALE VISUAL DISPLAY.

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DRAWN BY:	M. BHANUMATHI
CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

SODIUM HYPOCHLORITE FEED ROOM PLAN

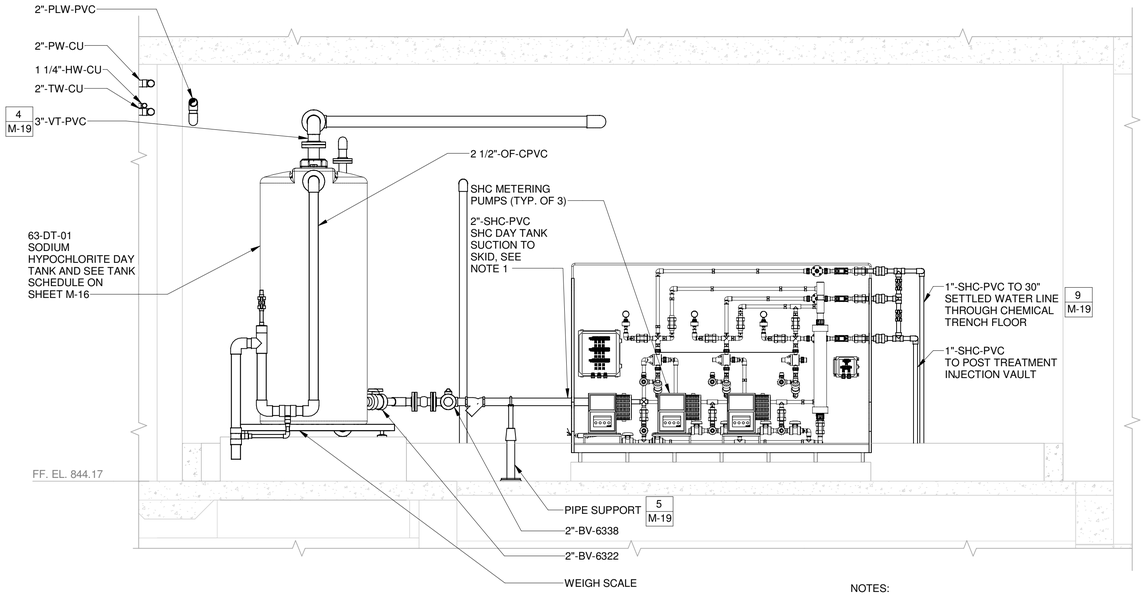
SCALE: AS SHOWN

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-13

SHEET NO.: 22 OF 83

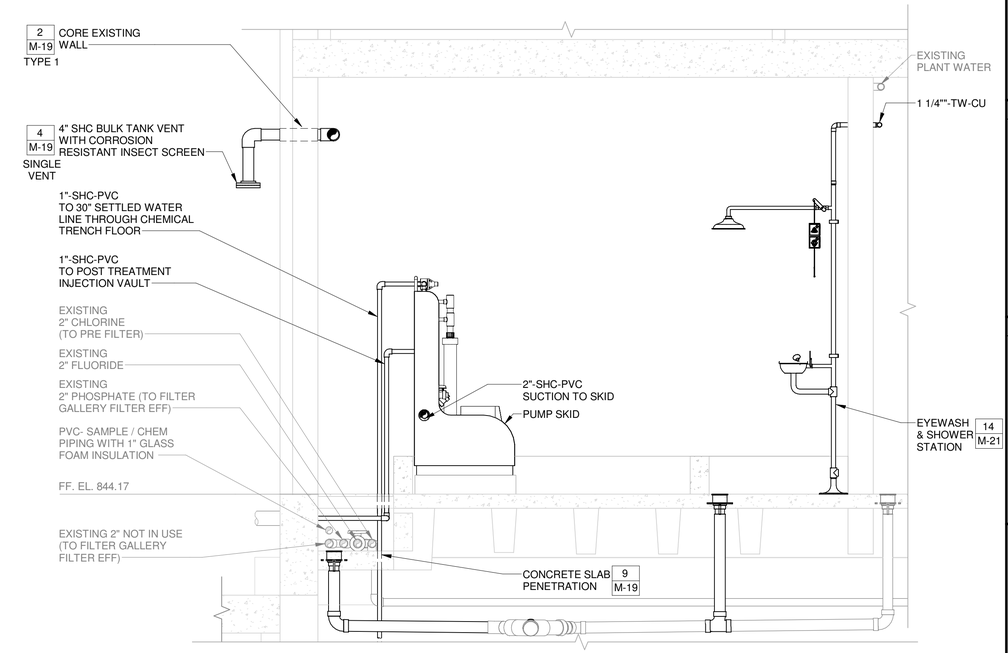
811 Know what's **below.** **Call** before you dig.



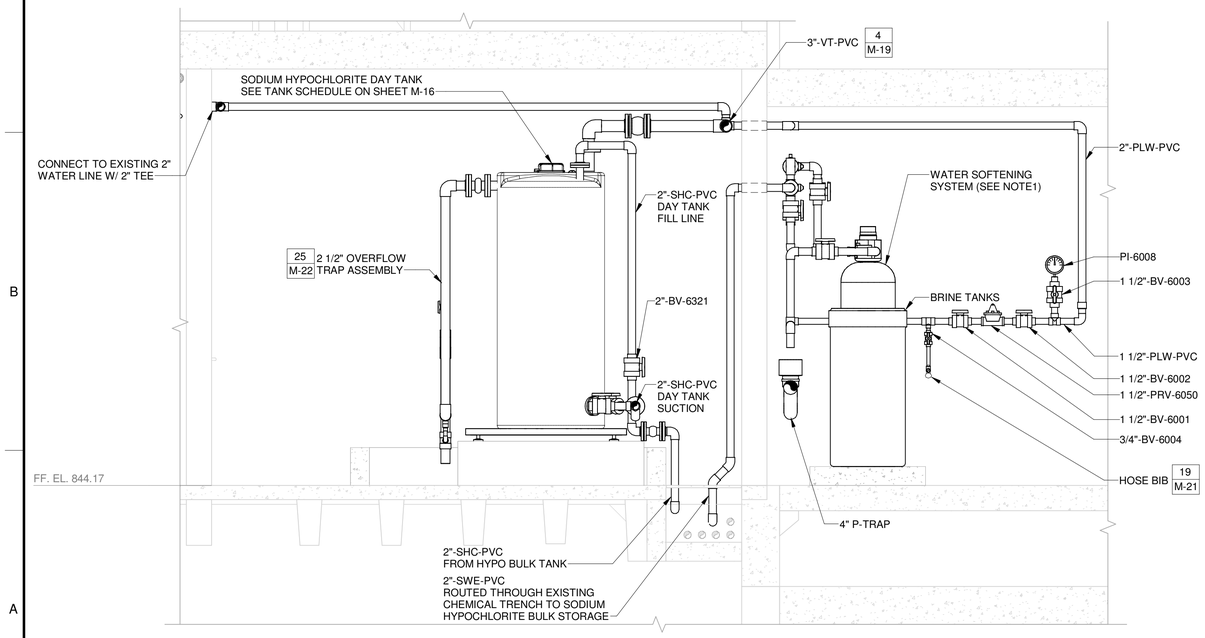
1 M-13 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'

NOTES:

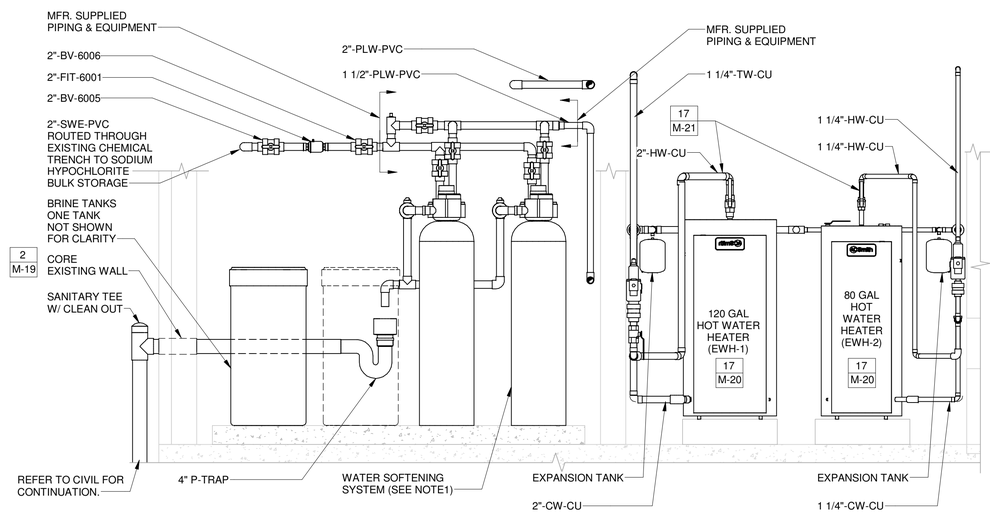
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3 M-13 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



2 M-13 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 3'



4 M-13 SECTION
SCALE: 1/2" = 1'-0"
0' 1' 2' 3'

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FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC. 2026

PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	E. VAN DEVENTER
DRAWN BY:	M. BHANUMATHI
CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

SODIUM HYPOCHLORITE FEED ROOM SECTIONS

SCALE: AS SHOWN
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-14

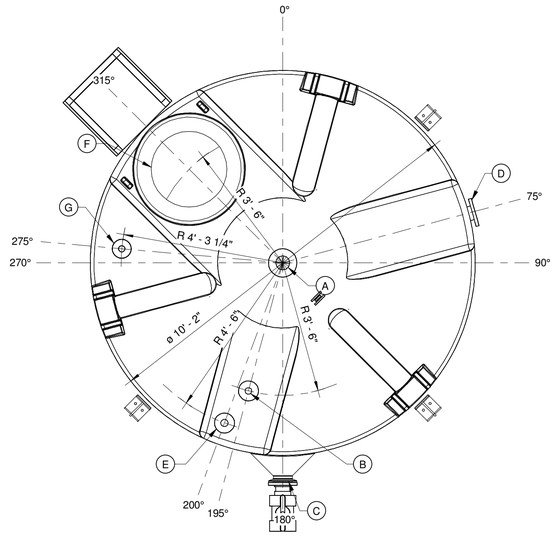
SHEET NO.: 23 OF 83

10-06-2026 15:00:24 Autodesk Docs://AUS-30171943-FCWS WTP Chemical Upgrades/M-3D-CT-HFSA_R22.rvt

FLUORIDE BULK STORAGE TANK SCHEDULE

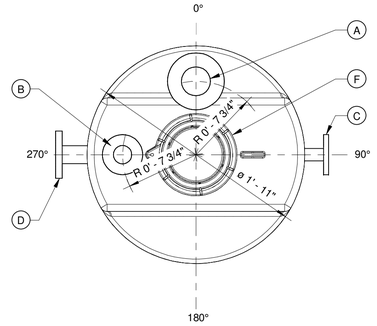
TANK DESCRIPTION	TOTAL CAPACITY	DIAMETER	OVERALL HEIGHT	INDOOR /OUTDOOR	TOP VENT (A)		TANK INLET (B)		TANK OUTLET (C)		OVERFLOW (D)		REVERSE LEVEL SIGHT GAUGE (E)		TOP MANWAY (F)		LEVEL SENSOR (G)		HIGH WATER LEVEL (H)	LOW WATER LEVEL (I)	ALARM LEVEL (J)
	GAL.	FT	FT		SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	ELEVATION	ELEVATION	ELEVATION
FLUORIDE BULK TANK	6150	10' 2"	12' 4 3/4"	OUTDOOR	4"	CENTER	2"	195°	4"	180°	4"	75°	2"	200°	24"	315°	2"	275°	855.38	846.71	855.63/846.21
FLUORIDE DAY TANK	60	1' 11"	3' 6 1/4"	INDOOR	2"	0°	1"	270°	1"	90°	1 1/2"	270°	-	-	7"	CENTER	-	-	848.17	846.75	848.42/846.50

NO.	DESCRIPTION
A	TOP VENT
B	TANK INLET
C	TANK OUTLET
D	OVERFLOW
E	REVERSE LEVEL SIGHT GAUGE
F	TOP MANWAY
G	LEVEL SENSOR
H	HIGH WATER LEVEL
I	LOW WATER LEVEL
J	ALARM LEVEL



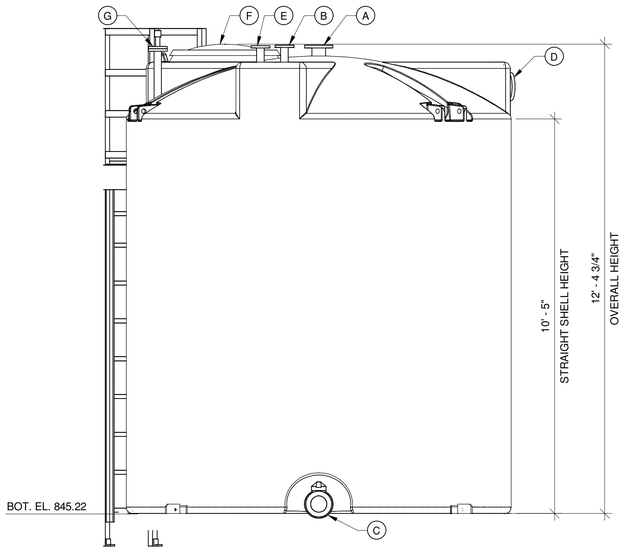
FLUORIDE BULK TANK PLAN

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



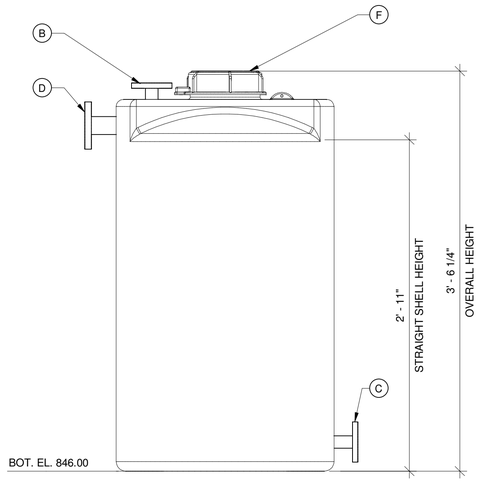
FLUORIDE DAY TANK PLAN

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



FLUORIDE BULK TANK SECTION DETAIL

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



FLUORIDE DAY TANK SECTION DETAIL

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

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2839 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS

GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS
6/19/2026

FAYETTE COUNTY,GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

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SHEET TITLE

MECHANICAL
CROSSTOWN

FLUORIDE TANK DETAILS

SCALE: AS SHOWN
BAR IS ONE INCH ON UNREDUCED DRAWING

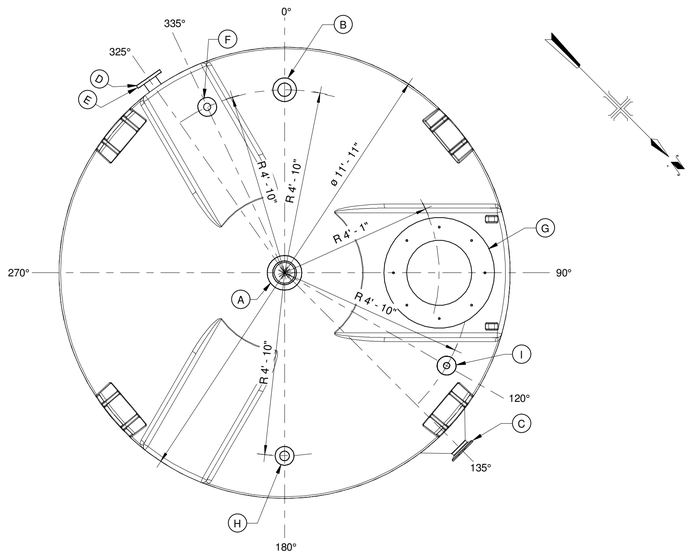
DRAWING NO.: M-15
SHEET NO.: 24 OF 83

Know what's **below.** **Call** before you dig.

SODIUM HYPOCHLORITE STORAGE TANK SCHEDULE

TANK DESCRIPTION	TOTAL CAPACITY	DIAMETER	OVERALL HEIGHT	INDOOR /OUTDOOR	TOP VENT (A)		TANK INLET (B)		TANK OUTLET (C)		OVERFLOW (D)		COMBINATION SIDE FULL SUCTION/DRAIN (E)		REVERSE LEVEL SIGHT GAUGE (F)		TOP MANWAY (G)		RECIRCULATION DISCHARGE (H)		LEVEL SENSOR (I)		HIGH WATER LEVEL (J)	LOW WATER LEVEL (K)	ALARM LEVEL (L)
	GAL.	FT	FT		SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	SIZE	POS	ELEVATION	ELEVATION	ELEVATION
SHC BULK TANK - 01	10150	11' 11"	14' 4 3/4"	OUTDOOR	6"	CENTER	3"	0°	4"	135°	4"	325°	4"	325°	2"	335°	24"	90°	2"	180°	2"	120°	858.25	847.50	858.50/847.00
SHC BULK TANK - 02	10150	11' 11"	14' 4 3/4"	OUTDOOR	6"	CENTER	3"	0°	4"	225°	4"	35°	4"	35°	2"	25°	24"	270°	2"	180°	2"	240°	858.25	847.50	858.50/847.00
SHC DAY TANK	285	2' 10"	7' 0"	INDOOR	3"	0°	2"	45°	2"	45°	2 1/2"	180°	-	-	-	-	17"	CENTER	-	-	-	-	851.09	846.42	851.34/846.17

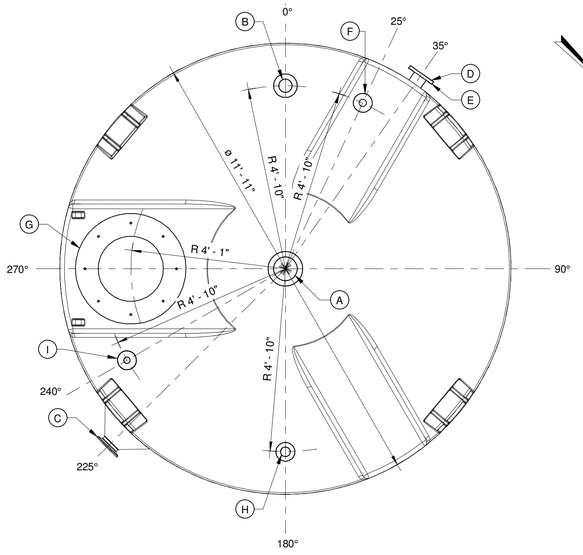
NO.	DESCRIPTION
A	TOP VENT
B	TANK INLET
C	TANK OUTLET
D	OVERFLOW
E	DRAIN
F	REVERSE LEVEL SIGHT GAUGE
G	TOP MANWAY
H	RECIRCULATION DISCHARGE
I	LEVEL SENSOR
J	HIGH WATER LEVEL
K	LOW WATER LEVEL
L	ALARM LEVEL



SODIUM HYPOCHLORITE BULK TANK - 01 PLAN

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

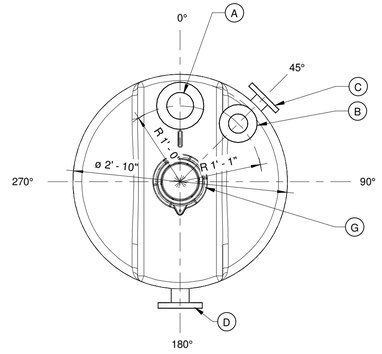
0' 1' 2' 4'



SODIUM HYPOCHLORITE BULK TANK - 02 PLAN

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

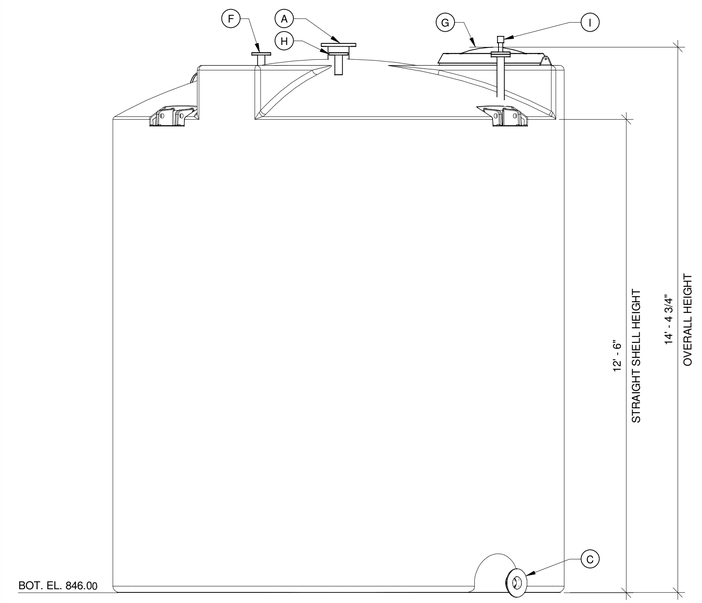
0' 1' 2' 4'



SODIUM HYPOCHLORITE DAY TANK PLAN

SCALE: 1" = 1'-0"

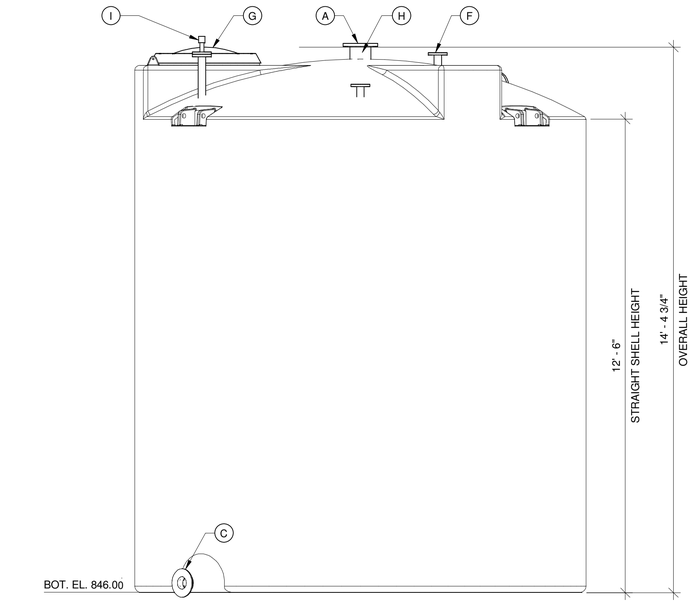
0' 1' 2'



SODIUM HYPOCHLORITE BULK - 01 SECTION DETAIL

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

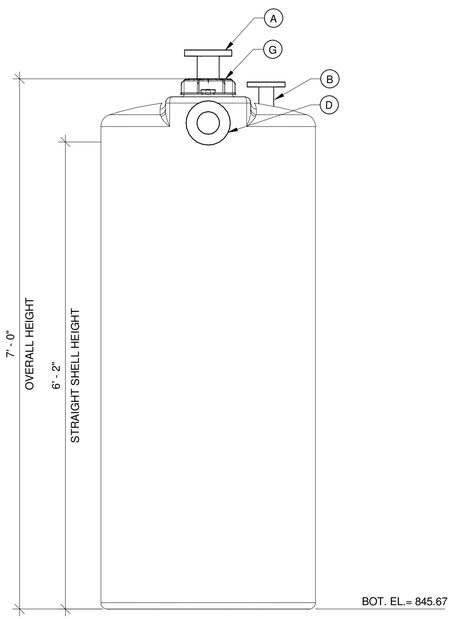
0' 2' 4' 6'



SODIUM HYPOCHLORITE BULK - 02 SECTION DETAIL

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

0' 2' 4' 6'



SODIUM HYPOCHLORITE DAY TANK SECTION DETAIL

SCALE: 1" = 1'-0"

0' 1' 2'

Know what's **below.** **Call** before you dig.

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ATLANTA, GA 30339
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WWW.ARCADIS.COM

CONSULTANTS

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FAYETTE County Water

WTP CHEMICAL UPGRADES

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CROSSTOWN

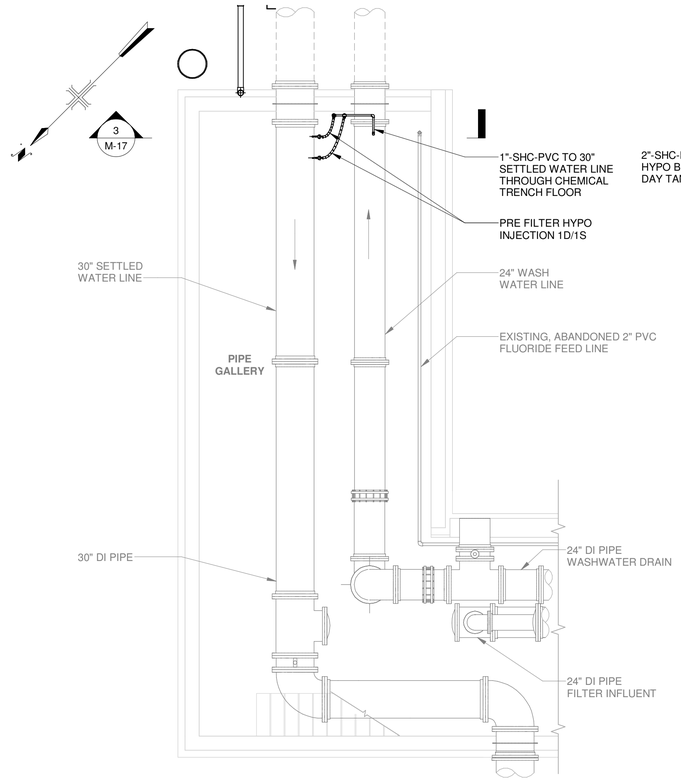
SODIUM HYPOCHLORITE TANK DETAILS

SCALE: AS SHOWN

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-16

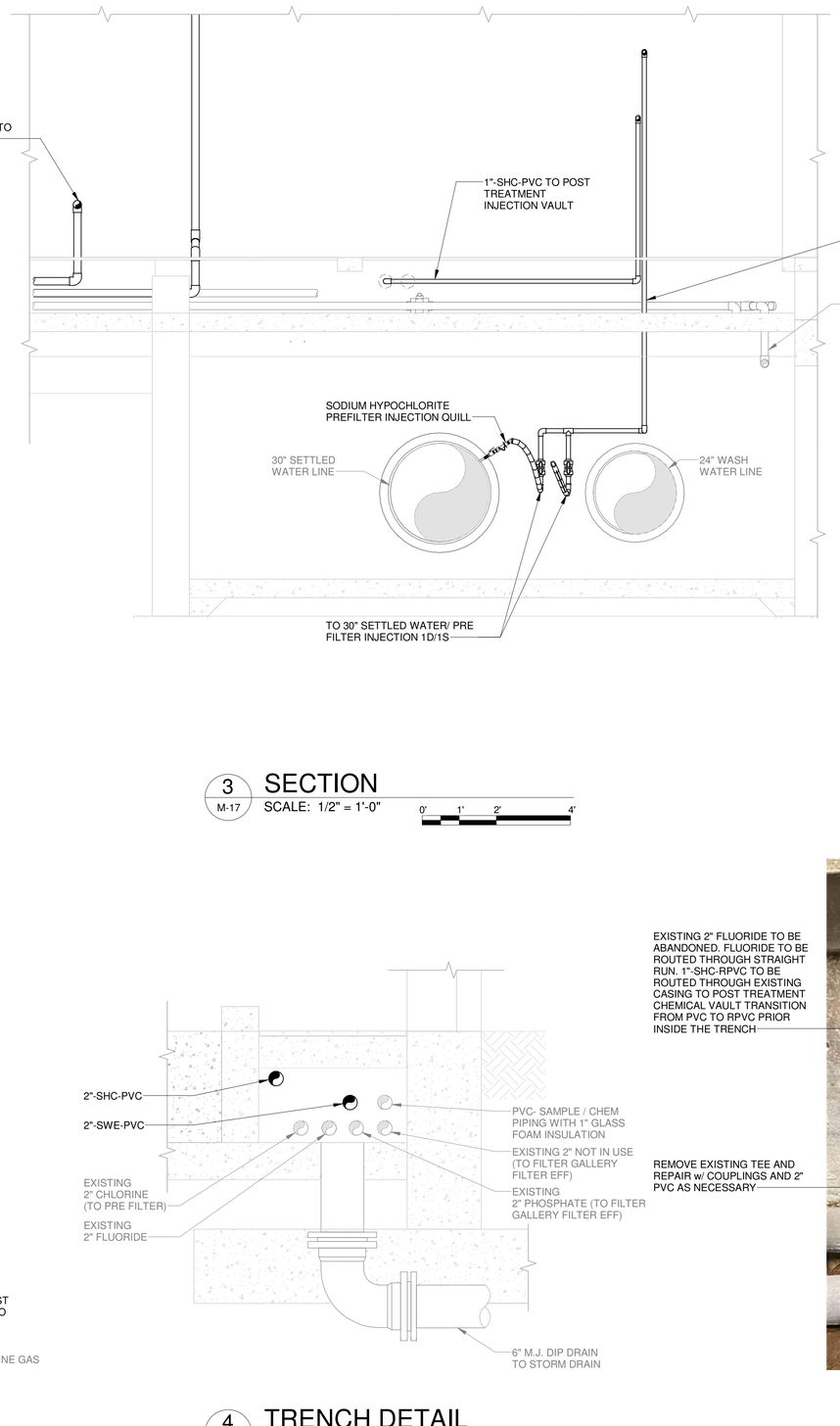
SHEET NO.: 25 OF 83



BASEMENT FILTER PIPE GALLERY PLAN

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

0' 4' 8' 12'



3 SECTION

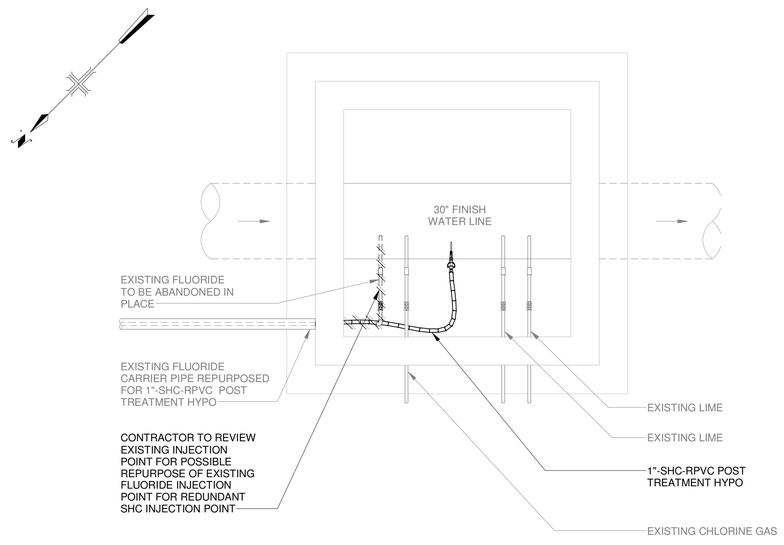
M-17

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

0' 1' 2' 4'

NOTE:

1. PREFILTER CHLORINE SYSTEM TO BE INSTALLED PRIOR TO ABANDONMENT OF EXISTING PREFILTER CHLORINE INJECTION.
2. FLUORIDE SYSTEM TO BE INSTALLED AND PLACED IN SERVICE PRIOR TO CONSTRUCTION OF HYPO SYSTEM TO PREVENT DISRUPTION IN CHEMICAL FEED OPERATIONS.
3. CONTRACTOR TO COORDINATE W/ PLANT STAFF ON FLUORIDE SHUT DOWN TO LIMIT DOWN TIME.
4. CONTRACTOR TO VERIFY EXISTING PIPING IN CHEMICAL TRENCH AND PROVIDE A DETAILED ROUTE OF ALL PROPOSED PIPING PRIOR TO CONSTRUCTION OR DEMOLITION AS STATED ON SHEET M-01 "NOTE 6".



POST-TREATMENT CHEMICAL VAULT DETAIL

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

0' 2' 4' 6'

4 TRENCH DETAIL

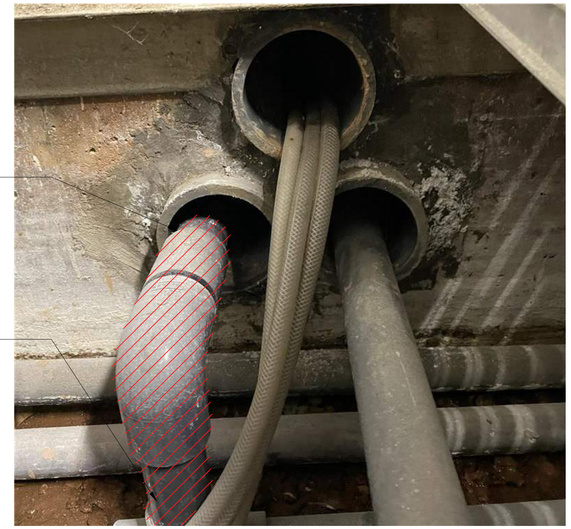
M-08

SCALE: 1" = 1'-0"

0' 1" 2"

EXISTING 2" FLUORIDE TO BE ABANDONED. FLUORIDE TO BE ROUTED THROUGH STRAIGHT RUN. 1"-SHC-RPVC TO BE ROUTED THROUGH EXISTING CASING TO POST TREATMENT CHEMICAL VAULT TRANSITION FROM PVC TO RPVC PRIOR INSIDE THE TRENCH

REMOVE EXISTING TEE AND REPAIR w/ COUPLINGS AND 2" PVC AS NECESSARY



5 DETAIL PHOTO

M-13

NOT TO SCALE

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CROSSTOWN

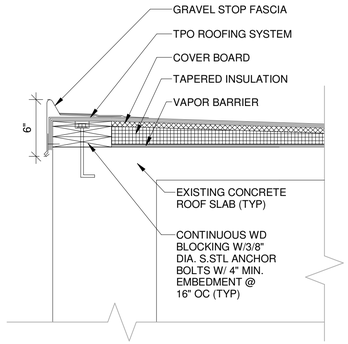
BASEMENT FILTER PIPE GALLERY PLAN AND SECTIONS

SCALE: AS SHOWN

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

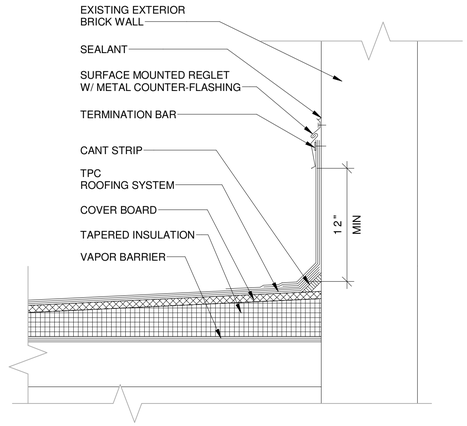
DRAWING NO.: M-17

SHEET NO.: 26 OF 83

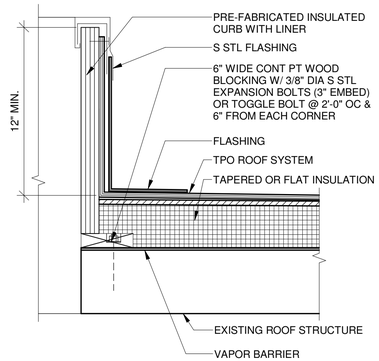


NOTE:
COORDINATE HEIGHT OF WOOD BLOCKING W/HEIGHT OF TAPERED ROOF INSULATION (TYP).

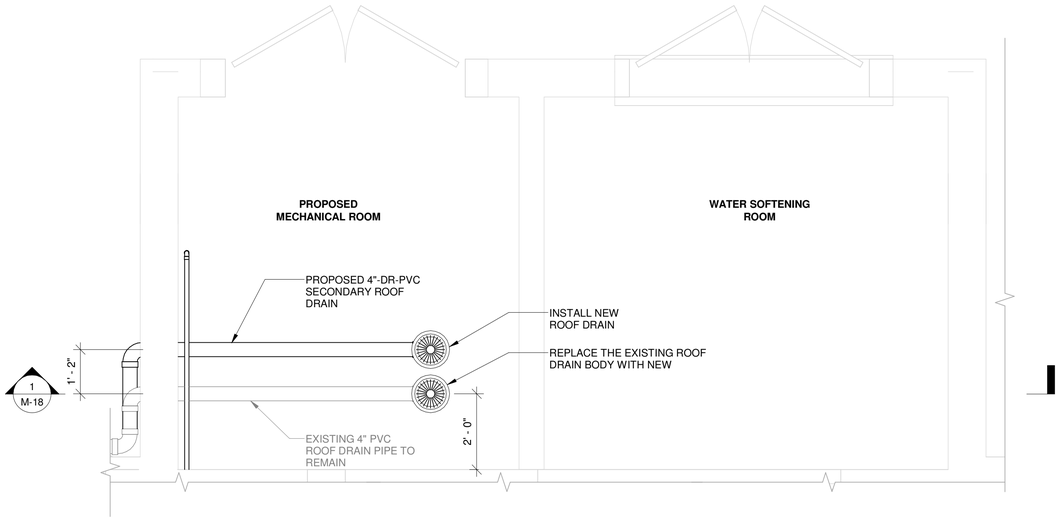
01 TYPICAL GRAVEL STOP FASCIA DETAIL
M-18 NOT TO SCALE



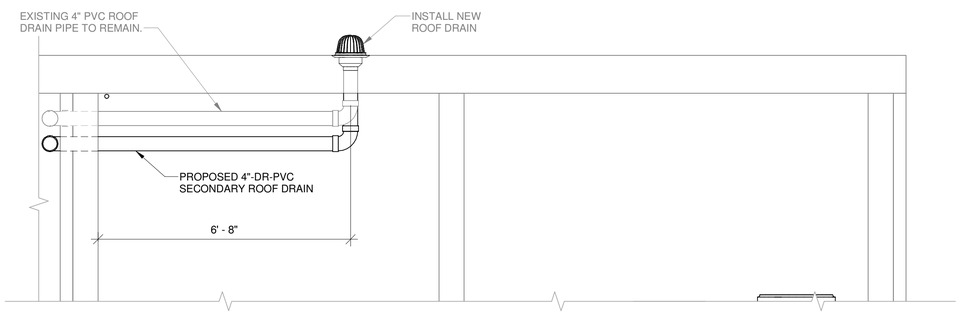
02 ROOF FLASHING DETAIL
M-18 NOT TO SCALE



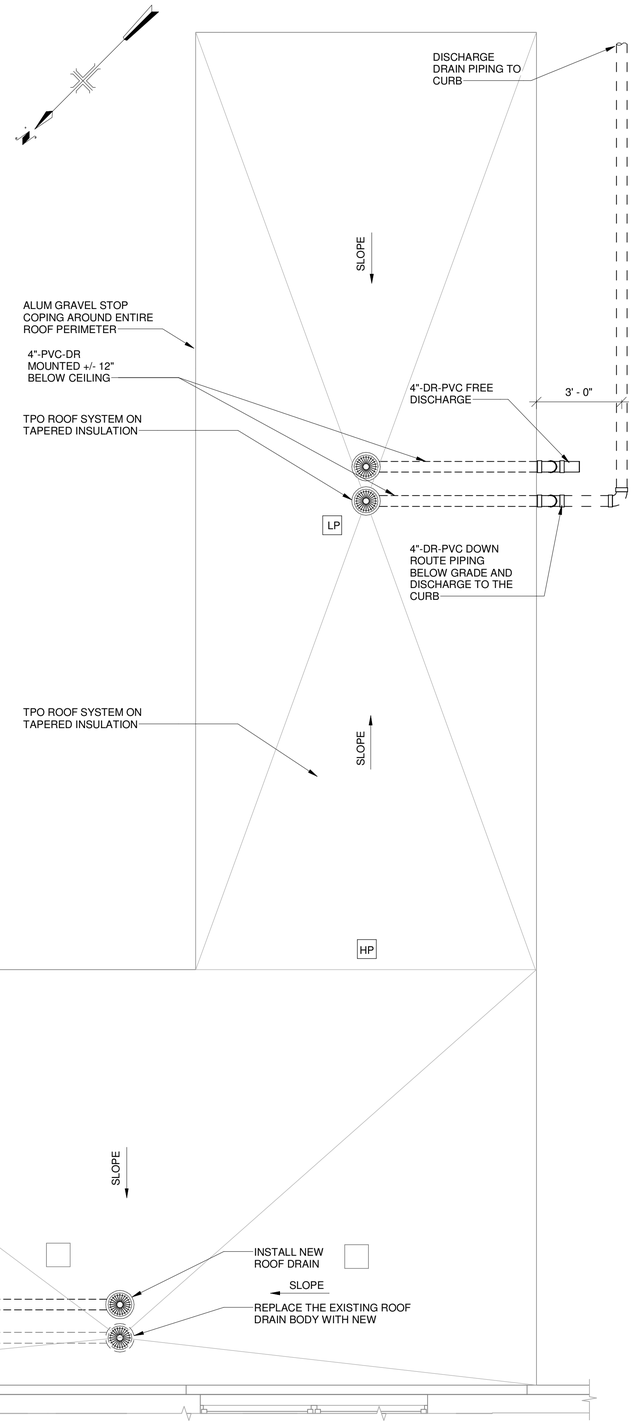
03 EQUIPMENT CURB DETAIL
M-18 NOT TO SCALE



MECHANICAL ROOM AND SOFTENING ROOM PLAN
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



1 M-18 **SECTION**
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



ROOF LEVEL PLAN
SCALE: 3/8" = 1'-0"
0' 2' 4' 6'

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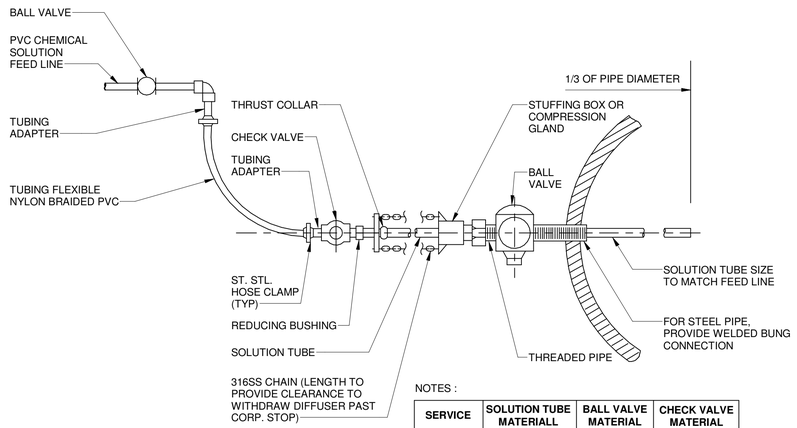
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ROOF PLAN & DETAILS

SCALE: AS SHOWN
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DRAWING NO.: M-18
SHEET NO.: 27 OF 83

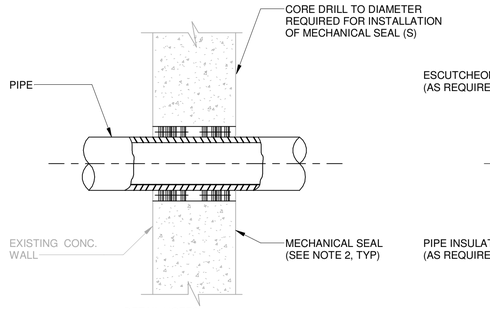


NOTES :

SERVICE	SOLUTION TUBE MATERIALL	BALL VALVE MATERIAL	CHECK VALVE MATERIAL
SAMPLE	316SS	316SS	NONE
HFSA	HASTELLOY C276	316SS	PVC, FKM
NACLO	ALLOY C276	316SS	PVC, FKM

1 CHEMICAL SOLUTION DIFFUSER DETAIL

M-19 NOT TO SCALE

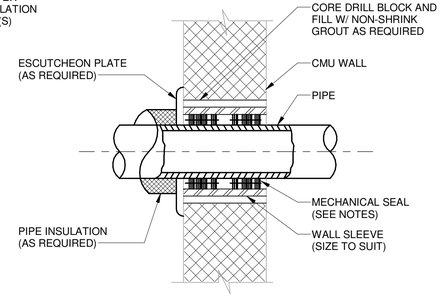


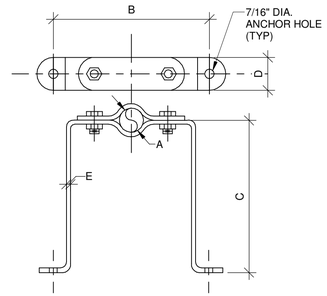
DETAIL NOTES:

1. TYPE 1 - MECHANICAL SEAL REQUIRED (BOTH FACES)
   TYPE 2 - MECHANICAL SEAL NOT REQUIRED.
   TYPE 3: CMU WALL - MECHANICAL SEAL REQUIRED ON ONE FACE.
   TYPE 4: CMU WALL - MECHANICAL SEAL REQUIRED ON BOTH FACES.
2. PROVIDE FIRE RATED MECHANICAL SEALS AS REQUIRED.

2 TYPICAL WALL CORE DETAIL

M-19 NOT TO SCALE

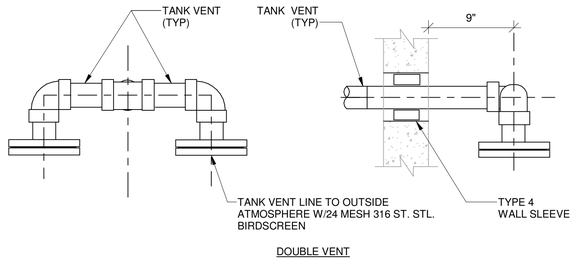




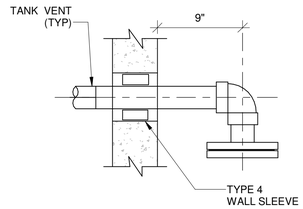
DIM.	PIPE SIZE		
A	1/2"-2"	2"-4"	4"-6"
B	6 1/4"	10"	14"
C	6"-10"	6"-12"	8"-16"
D	1 1/4"	2"	3"
E	3/16"	5/16"	3/8"
C/C SPACING	4'-0	6'-0"	8'-0"

3 OFFSET CLAMP PIPE SUPPORT DETAIL

M-19 NOT TO SCALE



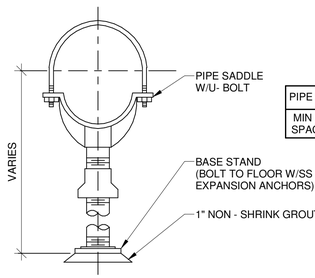
DOUBLE VENT



SINGLE VENT

4 VENT PIPE DETAIL

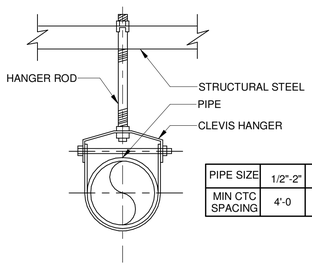
M-19 NOT TO SCALE



PIPE SIZE	1/2"-2"	2"-4"	4"-6"
MIN CTC SPACING	4'-0	6'-0"	8'-0"

5 STANCHION SADDLE PIPE SUPPORT DETAIL

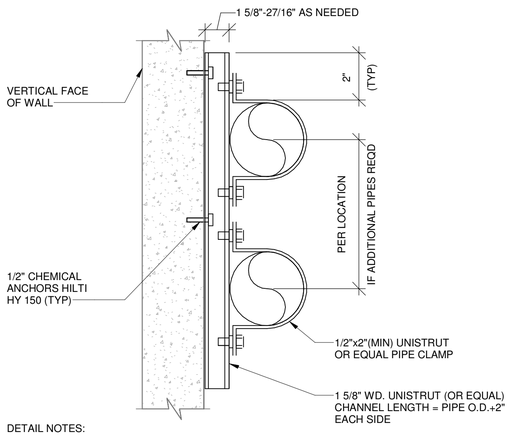
M-19 NOT TO SCALE



PIPE SIZE	1/2"-2"	2"-4"	4"-6"
MIN CTC SPACING	4'-0	6'-0"	8'-0"

6 STEEL-MOUNTED CLEVIS HANGER PIPE SUPPORT DETAIL

M-19 NOT TO SCALE

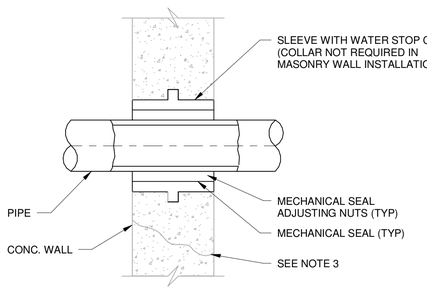


DETAIL NOTES:

1. SUPPORT CHANNEL AND PIPE CLAMP SHALL BE UNISTRUT. SECURE STRUT OR EQUAL.
2. WHEN USED WITH PVC OR FIBERGLASS PIPE. PROVIDE SHIELD AROUND PIPE AT CLAMP, WITH LOOSE FIT, COPPER TUBES TO HAVE 2" WIDE STRIP OF RUBBER FABRIC WHERE SUBMERGED OR LOCATED OVER WATER, STEEL SHIELDS, BRACKETS, "U" BOLTS, AND BOLTS ARE TO BE SS TYPE 316.

7 WALL MOUNTED PIPE DETAIL

M-19 NOT TO SCALE

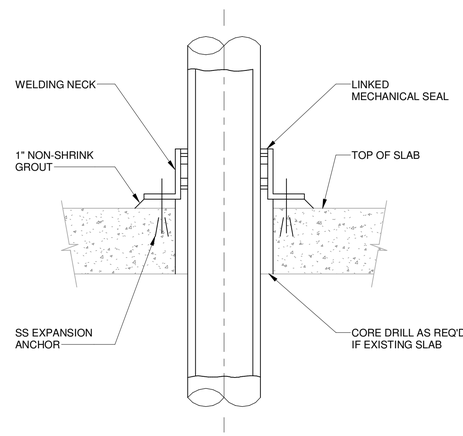


DETAIL NOTES:

1. DETAIL GENERALLY APPLIES TO CHEMICAL PIPES, AND TO PIPE GREATER THAN 4" DIAMETER.
2. BOTH SEALS SHALL BE INSTALLED TO ALLOW TIGHTENING FROM THE INTERIOR SIDE WHEN ONE SIDE IS BURIED OR SUBMERGED. SEAL EXTERIOR BURIED SIDE WITH FLEXIBLE CAULKING.
3. FOR INSTALLATION IN EXISTING WALLS, REMOVE CONCRETE BEYOND DIA. OF SLEEVE WITH ROUGH SURFACE. ADD HYDROPHILIC WATERSTOP CONTINUOUS. BEND EXIST REBAR AS REQUIRED (DO NOT CUT) AND FILL HOLE w/ CONCRETE.

8 TYP WALL SLEEVE DETAIL

M-19 NOT TO SCALE



9 CONCRETE SLAB PENETRATION DETAIL

M-19 NOT TO SCALE

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FAYETTE COUNTY,GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979

DATE: JULY 2026

DESIGNED BY: E. VAN DEVENTER

DRAWN BY: M. BHANUMATHI

CHECKED BY: T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

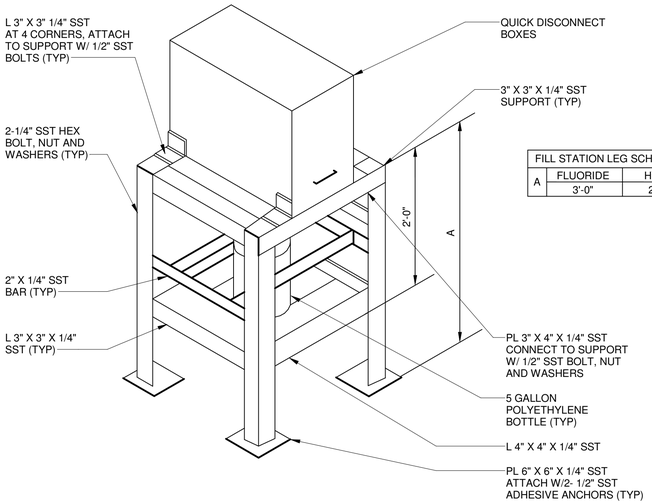
TYPICAL DETAILS
(1 OF 4)

SCALE: NOT TO SCALE

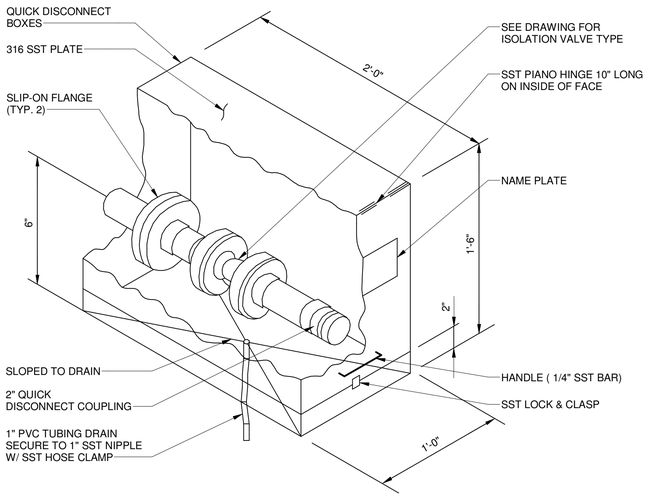
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-19

SHEET NO.: 28 OF 83



FILL STATION LEG SCHEDULE		
A	FLUORIDE	HYPO
	3'-0"	2'-3"

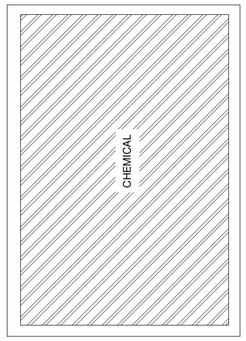


NOTES:

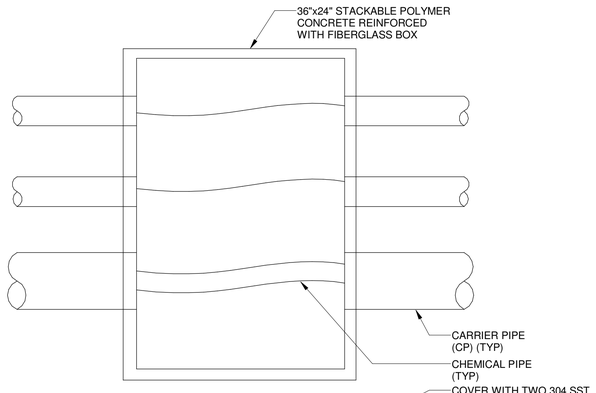
1. ALL 316 SST CONSTRUCTION,
2. WELDING AS PER SECTION 05 50 13

10 CHEMICAL FILL STATION

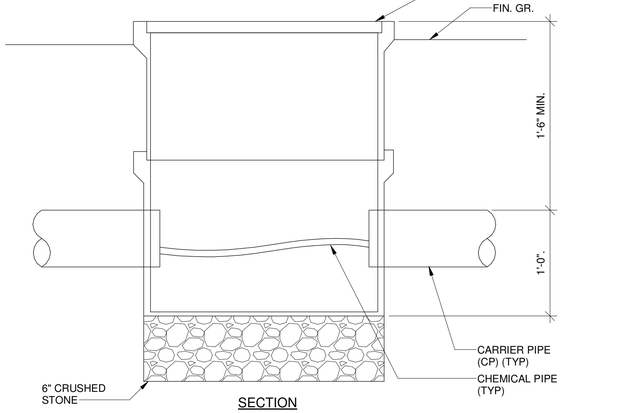
M-20 **NOT TO SCALE**



TOP PLAN



PLAN



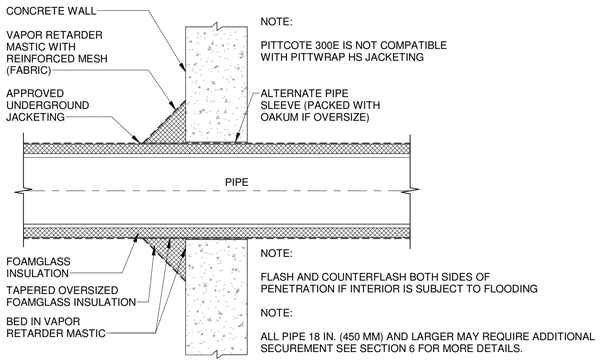
SECTION

NOTES:

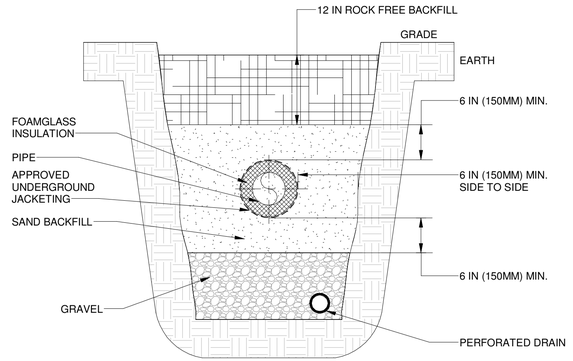
1. STACKABLE BOX SHALL BE OLD CASTLE ITEM # 2436 OR ENGINEER APPROVED EQUAL
2. LID MARKING TO READ "CHEMICAL"

11 CHEMICAL PULL BOX (CPB) DETAIL

M-20 **NOT TO SCALE**



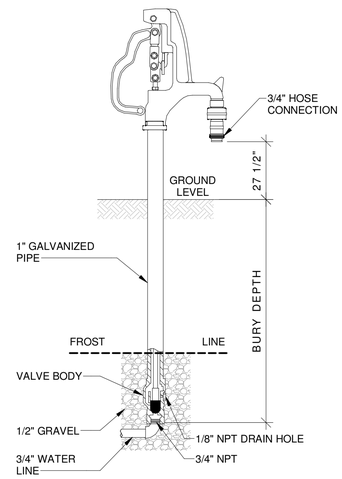
FOAMGLASS BURIED INSULATION WALL PENETRATION DETAIL



FOAMGLASS BURIED INSULATION BACKFILL DETAIL

12 FOAMGLASS BURIED INSULATION DETAIL

M-20 **NOT TO SCALE**



13 FROST RESISTANT YARD HYDRANT DETAIL

M-20 **NOT TO SCALE**

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CHECKED BY:	T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

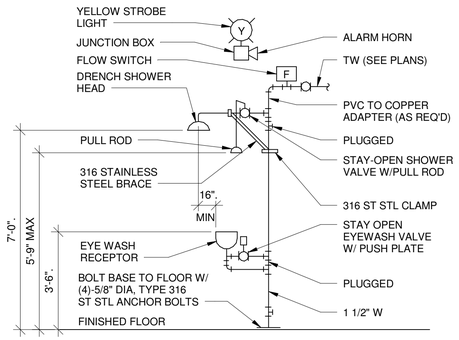
TYPICAL DETAILS
(2 OF 4)

SCALE: NOT TO SCALE

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

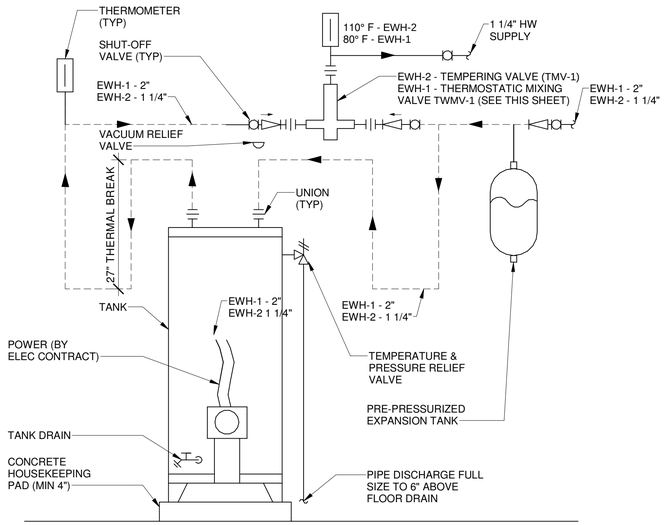
DRAWING NO.: M-20

SHEET NO.: 29 OF 83



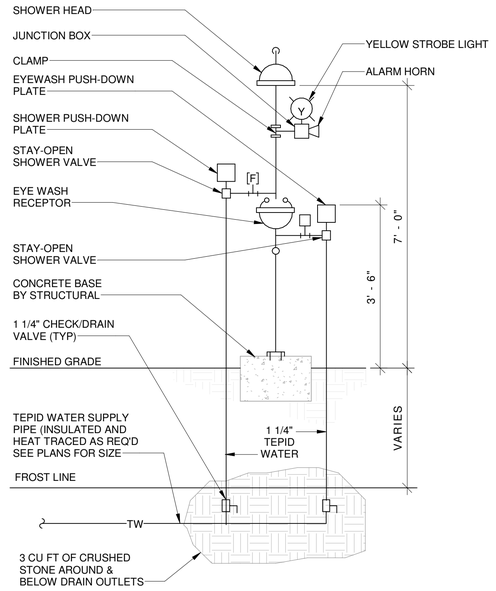
14 INTERIOR EMERGENCY EYEWASH AND SHOWER (EES-1) DETAIL

M-21 NOT TO SCALE



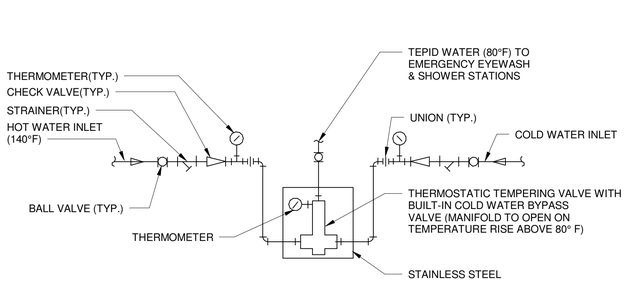
17 ELECTRIC WATER HEATER DETAIL

M-21 NOT TO SCALE



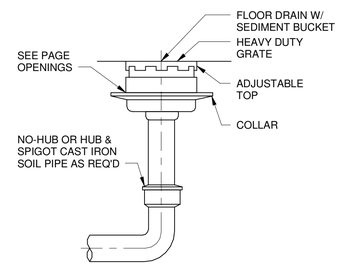
20 FREE STANDING FREEZE PROOF DETAIL

M-21 NOT TO SCALE



15 TEPID WATER MIXING VALVE (TWMV-1) DETAIL

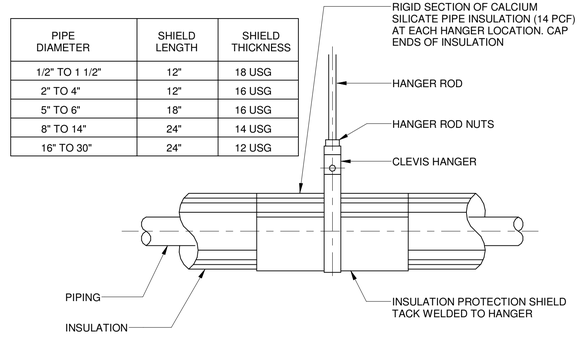
M-21 NOT TO SCALE



18 FLOOR DRAIN (FD-1) DETAIL

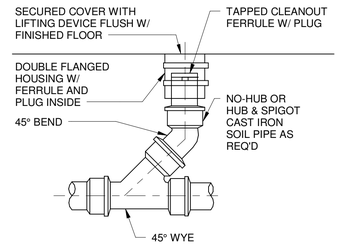
M-21 NOT TO SCALE

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



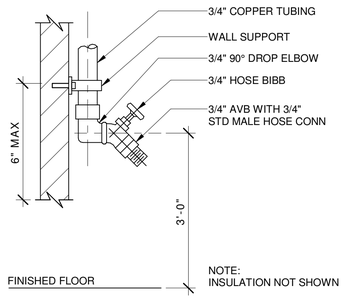
21 TYPICAL DETAIL HANGER ARRANGEMENT OF INSULATED PIPING

M-21 NOT TO SCALE



16 FLOOR CLEANOUT (FCO-1) DETAIL

M-21 NOT TO SCALE



19 HOSE BIBB(HB) DETAIL

M-21 NOT TO SCALE

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CHECKED BY: T. THOMAS

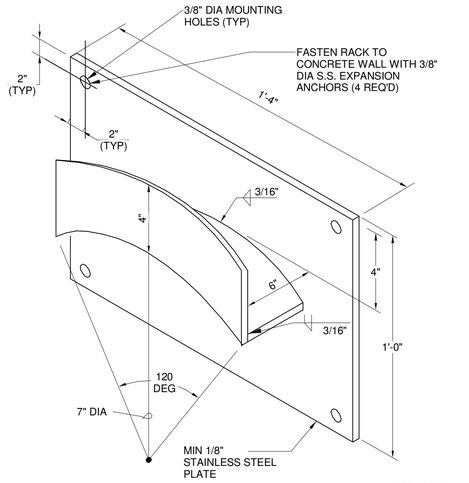
SHEET TITLE

MECHANICAL
CROSSTOWN

TYPICAL DETAILS (3 OF 4)

SCALE: NOT TO SCALE
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-21
SHEET NO.: 30 OF 83



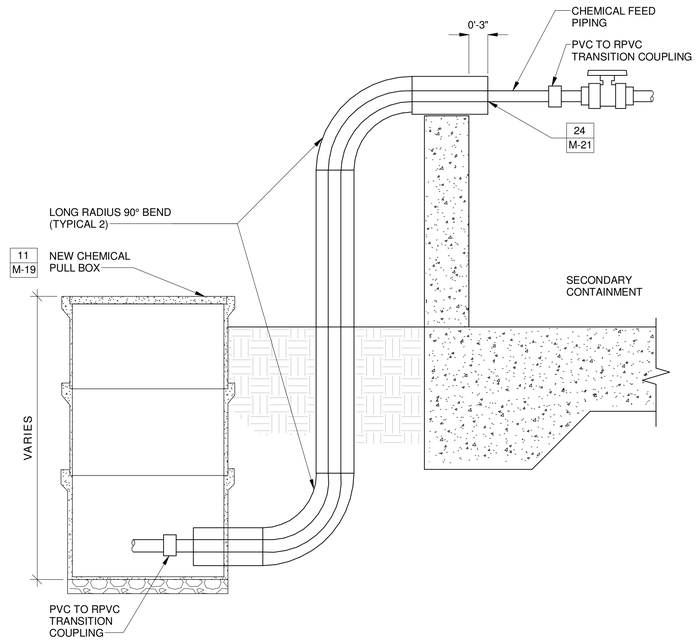
WALL MOUNTED

NOTES :

1. PROVIDE HIGH PRESSURE (100 PSI) WATER HOSE WITH APPROPRIATE END CONNECTIONS EACH STATION. LENGTH AS SHOWN.

22 WATER HOSE RACK DETAIL

M-22 **NOT TO SCALE**

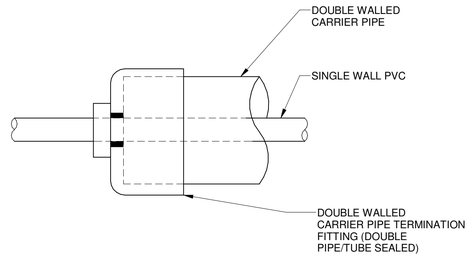


23 SECONDARY CONTAINMENT PIPING ELEVATION

M-22 **NOT TO SCALE**

NOTES:

1. DETAIL SHOWS CONNECTION TO CHEMICAL PULL BOX, REFER TO PLAN VIEW FOR CARRIER CONNECTION POINT.

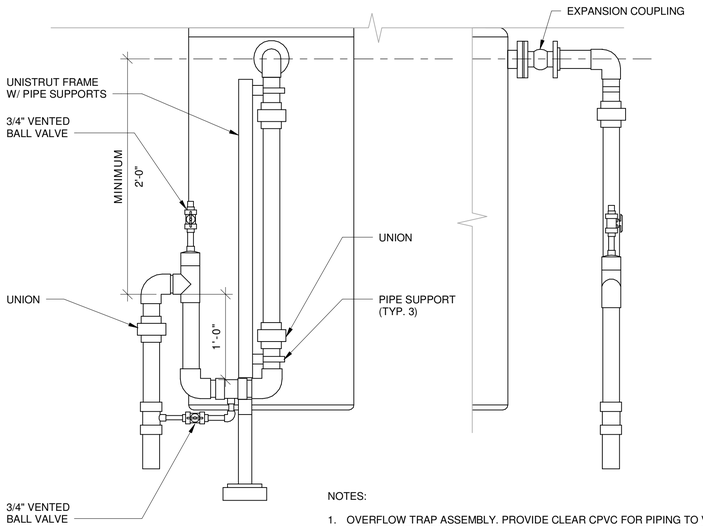


24 SEALED DOUBLE WALL TO SINGLE WALL PIPE TRANSITION DETAIL

M-22 **NOT TO SCALE**

NOTES:

1. REFER TO DRAWINGS FOR PIPE DIAMETERS.

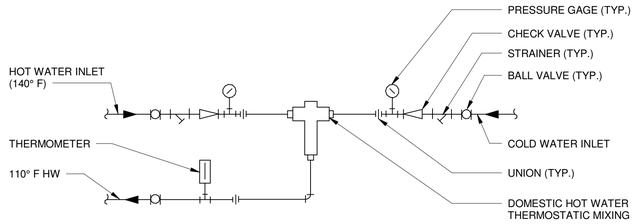


NOTES:

1. OVERFLOW TRAP ASSEMBLY. PROVIDE CLEAR CPVC FOR PIPING TO VIEW LIQUID LEVEL. UPPER VALVE NORMALLY CLOSED AND USED TO FILL TRAP WITH WATER PERIODICALLY TO MAINTAIN SEAL. LOWER VALVE NORMALLY CLOSED AND USED TO DRAIN TRAP WHEN NEEDED. COORDINATE ARRANGEMENT WITH PIPE SUPPORTS, DAY TANK SCALE, AND TANK PADS.
2. REFER TO PLAN VIEW FOR PIPE SIZES NOT CALLED OUT ON THE DETAIL.

25 OVERFLOW TRAP ASSEMBLY

M-22 **NOT TO SCALE**



26 THERMOSTATIC WATER MIXING VALVE (TMV-1) DETAIL

M-22 **NOT TO SCALE**

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SHEET TITLE

MECHANICAL
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TYPICAL DETAILS
(4 OF 4)

SCALE: NOT TO SCALE

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: M-22

SHEET NO.: 31 OF 83

Know what's **below.** **Call** before you dig.

SHEET	VALVE TAG NUMBER	PROCESS / SERVICE	VALVE SIZE	VALVE TYPE	SPECIFICATION / TYPE	VALVE ENDS	ACTUATOR TYPE	FUNCTION
I-05	BC-6202	HYDROFLUOROSILICIC ACID	1"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-2 DISCHARGE VALVE
I-05	RV-6203	HYDROFLUOROSILICIC ACID	1"	VACUUM BREAKER VALVE	40 23 26 2.01 A 6	THREADED	MANUAL	ON THE DISCHARGE LINE OF HFSA TRANSFER PUMP NO-1
I-05	BC-6201	HYDROFLUOROSILICIC ACID	1"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-1 DISCHARGE VALVE
I-05	BV-6201	HYDROFLUOROSILICIC ACID	2"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID BULK STORAGE TANK INLET LINE VALVE
I-05	BV-6202	HYDROFLUOROSILICIC ACID	4"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID BULK STORAGE TANK OUTLET LINE VALVE
I-05	BV-6203	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-2 SUCTION LINE VALVE
I-05	BV-6204	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-1 SUCTION LINE VALVE
I-05	BV-6205	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-1 DISCHARGE VALVE
I-05	BV-6206	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-1 DISCHARGE ISOLATION VALVE (TYPICALLY CLOSED)
I-05	BV-6207	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-2 DISCHARGE VALVE
I-05	BV-6208	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID DAY TANK OUTLET LINE VALVE
I-05	BV-6209	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID DAY TANK OUTLET LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-05	BV-6210	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-2 SUCTION LINE BALL VALVE
I-05	BV-6211	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE TO PI-6202
I-05	BV-6212	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE TO PULSATION DAMPENER OF DISCHARGE LINE OF HFSA METERING PUMP NO-2
I-05	BV-6213	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE BEFORE FE-6202
I-05	BV-6214	HYDROFLUOROSILICIC ACID	3/4"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID DAY TANK INLET SMALL BRANCH LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-05	BV-6215	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE AFTER FE-6202
I-05	BV-6216	HYDROFLUOROSILICIC ACID	3/4"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID DAY TANK INLET SMALL BRANCH LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-05	BV-6217	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-1 SUCTION LINE BALL VALVE
I-05	BV-6218	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE TO PI-6201
I-05	BV-6219	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE TO PULSATION DAMPENER OF DISCHARGE LINE OF HFSA METERING PUMP NO-1
I-05	PS-6201	HYDROFLUOROSILICIC ACID	1"	PRESSURE SUSTAINING VALVE	40 23 26 2.01 A 7	THREADED	MANUAL	PRESSURE SUSTAINING VALVE AFTER METERING PUMP NO-1 DISCHARGE LINE
I-05	PS-6203	HYDROFLOROSILICIC ACID	1"	ANTI-SIPHON VALVE	40 23 26 2.01 A 5	THREADED	MANUAL	ON THE HFSA TRANSFER PUMP NO.1 DISCHARGE
I-05	PS-6204	HYDROFLOROSILICIC ACID	1"	ANTI-SIPHON VALVE	40 23 26 2.01 A 5	THREADED	MANUAL	ON THE HFSA TRANSFER PUMP NO.2 DISCHARGE
I-05	BV-6220	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE BEFORE FE-6201
I-05	BV-6221	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-1 SUCTION LINE BALL VALVE
I-05	BV-6222	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ISOLATION VALVE AFTER FE-6201
I-05	BV-6223	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-1 DISCHARGE LINE BALL VALVE
I-05	BV-6224	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROOSILICIC ACID METERING PUMP NO-1 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-05	BV-6225	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-2 SUCTION LINE BALL VALVE
I-05	BV-6226	HFSA DRAIN	4"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID BULK STORAGE TANK DRAIN VALVE (TYPICALLY CLOSED)
I-05	BV-6227	HYDROFLUOROSILICIC ACID	2"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID DAY TANK INLET LINE VALVE
I-05	BV-6228	DRAIN	3"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	VALVE BOX LINE TO STORM DRAIN
I-05	BV-6229	HYDROFLUOROSILICIC ACID	2"	BALL VALVE	40 05 53 2.2/TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID BULK STORAGE TANK INLET LINE VALVE
I-05	PS-6202	HYDROFLUOROSILICIC ACID	1"	PRESSURE SUSTAINING VALVE	40 23 26 2.01 A 7	THREADED	MANUAL	PRESSURE SUSTAINING VALVE AFTER METERING PUMP NO-2 DISCHARGE LINE
I-05	BV-6230	HYDROFLUOROSILICIC ACID	2"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID TRANSFER PUMP NO-2 DISCHARGE ISOLATION VALVE (TYPICALLY CLOSED)
I-05	BV-6231	PLANT WATER	1.5"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ON PLANT WATER LINE TO FILTER EFFLUENT
I-05	BV-6232	PLANT WATER	1.5"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	ON PLANT WATER LINE TO FILTER EFFLUENT
I-05	BV-6233	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-1 ACROSS LINE DISCHARGE LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-05	BV-6234	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-2 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-05	BV-6235	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-2 DISCHARGE LINE BALL VALVE
I-05	BV-6236	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-2 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-05	CV-6201	HYDROFLUOROSILICIC ACID	2"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID BULK STORAGE TANK INLET LINE VALVE
I-05	BV-6237	HYDROFLUOROSILICIC ACID	1"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-2 ACROSS LINE DISCHARGE LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-05	BV-6238	HYDROFLUOROSILICIC ACID	1"	BALL VALVE/	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID METERING PUMP NO-1 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-05	GL-6201	PLANT WATER	1.5"	GLOBE VALVE	40 05 53 2.4	TRUE UNION	MANUAL	ON PLANT WATER LINE TO FILTER EFFLUENT
I-05	BV-6239	HYDROFLUOROSILICIC ACID	2"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	HYDROFLUOROSILICIC ACID BULK STORAGE TANK INLET LINE VALVE
I-05	GV-6201	PLANT WATER	2"	GATE VALVE	40 05 53 2.6 B	MECHANICAL JOINT	MANUAL	WATER TAP TO EXISTING PLANT WATER
I-06	BC-6301	SODIUM HYPOCHLORITE	3"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-1 DISCHARGE LINE VALVE
I-06	BC-6302	SODIUM HYPOCHLORITE	3"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-2 DISCHARGE LINE VALVE
I-06	BC-6307	SODIUM HYPOCHLORITE	3"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE LINE VALVE FROM FILL STATION
I-06	BV-6001	POTABLE WATER	2"	BALL VALVE	40 05 53 2.2 / TYPE 3	TRUE UNION	MANUAL	POTABLE WATER LINE VALVE
I-06	BV-6002	POTABLE WATER	2"	BALL VALVE	40 05 53 2.2 / TYPE 3	TRUE UNION	MANUAL	POTABLE WATER LINE VALVE
I-06	BV-6003	POTABLE WATER	2"	BALL VALVE	40 05 53 2.2 / TYPE 3	TRUE UNION	MANUAL	POTABLE WATER LINE PI-6001 ISOLATION VALVE
I-06	BV-6004	POTABLE WATER	2"	BALL VALVE	40 05 53 2.2 / TYPE 3	TRUE UNION	MANUAL	POTABLE WATER LINE BRANCH LINE VALVE
I-06	BV-6005	SWE	3"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	SWE LINE VALVE AFTER FIT-6001
I-06	BV-6006	SWE	3"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	SWE LINE VALVE BEFORE FIT-6001
I-06	BV-6301	SWE	3"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MOTORIZED	SWE LINE VALVE BEFORE FE-6302
I-06	BV-6302	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MOTORIZED	SODIUM HYPOCHLORITE LINE VALVE FROM FILL STATION
I-06	BV-6303	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MOTORIZED	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 INLET LINE VALVE
I-06	BV-6304	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MOTORIZED	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 INLLET LINE VALVE
I-06	BV-6305	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE LINE VALVE FROM FILL STATION BEFORE FE-6303
I-06	BV-6306	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 2 INLET LINE VALVE
I-06	BV-6307	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 INLET LINE VALVE
I-06	BV-6308	SODIUM HYPOCHLORITE	4"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 2 SIDE LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-06	BV-6309	SODIUM HYPOCHLORITE	4"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 SIDE LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-06	BV-6310	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 2 OUTLET LINE VALVE
I-06	BV-6311	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 OUTLET LINE VALVE
I-06	BV-6312	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 OUTLET LINE VALVE
I-06	BV-6313	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-2 DISCHARGE LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-06	BV-6314	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-2 DISCHARGE LINE VALVE
I-06	BV-6315	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 FROM VENT LINE VALVE
I-06	BV-6316	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-1 DISCHARGE LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-06	BV-6317	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-1 DISCHARGE LINE VALVE
I-06	BV-6318	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 INLET LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-06	BV-6319	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 2 INLET LINE VALVE

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CONSULTANTS

SEALS

GEORGIA REGISTERED No. PE045302 PROFESSIONAL ENGINEER TRAVIS THOMAS
6/19/2026

FAYETTE COUNTY,GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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2026

PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: E. VAN DEVENTER
DRAWN BY: M. BHANUMATHI
CHECKED BY: T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

VALVE SCHEDULE
(1 OF 2)

SCALE:
NOT TO SCALE
0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.:
M-23
SHEET NO.: 32 OF 83

811 Know what's **below.** **Call** before you dig.

SHEET	VALVE TAG NUMBER	PROCESS / SERVICE	VALVE SIZE	VALVE TYPE	SPECIFICATION / TYPE	VALVE ENDS	ACTUATOR TYPE	FUNCTION
I-06	BV-6320	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 INLET LINE VALVE
I-06	BV-6321	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SHC TRANSFER PUMP NO-1 DISCHARGE LINE VALVE TO SODIUM HYPOCHLORITE DAY TANK
I-06	BV-6322	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	VALVE BOX LINE TO STORM DRAIN
I-06	BV-6341	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-1 SUCTION LINE VALVE
I-06	BV-6342	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	HYPOCHLORITE TRANSFER PUMP NO-2 SUCTION LINE VALVE
I-06	BV-6343	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE BULK STORAGE TANK 1 FROM VENT LINE VALVE
I-06	BV-6345	SWE	3"	BALL VALVE	40 05 53 2.2 / TYPE 1	TRUE UNION	MANUAL	SWE LINE VALVE AFTER FIT-6001
I-06	BV-6346	SODIUM HYPOCHLORITE	3"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE LINE VALVE FROM FILL STATION
I-06	CV-6301	SWE	2"	CHECK VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SWE LINE VALVE BEFORE FE-6302
I-06	PRV-6001	POTABLE WATER	2"	PRESSURE REDUCING VALVE	22 11 16 2.3 L	TRUE UNION	MANUAL	POTABLE WATER LINE VALVE
I-06	RV-6303	SODIUM HYPOCHLORITE	2"	VACUUM BREAKER VALVE	40 23 26 2.01 A 6	THREADED	MANUAL	ON THE SHC COMBINED TRANSFER LINE TO THE BULK TANK VENT
I-06	PS-6304	SODIUM HYPOCHLORITE	2"	ANTI-SIPHON VALVE	40 23 26 2.01 A 5	THREADED	MANUAL	ON THE SHC TRANSFER PUMP NO.2 DISCHARGE
I-06	PS-6305	SODIUM HYPOCHLORITE	2"	ANTI-SIPHON VALVE	40 23 26 2.01 A 5	THREADED	MANUAL	ON THE SHC TRANSFER PUMP NO.2 DISCHARGE
I-07	BV-6323	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-3 SUCTION LINE BALL VALVE
I-07	BV-6324	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-3 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6325	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE TO PI-6303
I-07	BV-6326	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE TO PULSATION DAMPENER OF DISCHARGE LINE OF SHC METERING PUMP NO-3
I-07	BV-6327	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE AFTER FE-6303
I-07	BV-6328	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-2 SUCTION LINE BALL VALVE
I-07	BV-6329	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-2 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6330	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE TO PI-6302
I-07	PS-6301	SODIUM HYPOCHLORITE	1"	PRESSURE SUSTAINING VALVE	40 23 26 2.01 A 7	THREADED	MANUAL	PRESSURE SUSTAINING VALVE AFTER SHC METERING PUMP NO-1 DISCHARGE LINE
I-07	BV-6331	SODIUM HYPOCHLORITE	3/4"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE TO PULSATION DAMPENER OF DISCHARGE LINE OF SHC METERING PUMP NO-2
I-07	BV-6332	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE AFTER FE-6302
I-07	BC-6304	SODIUM HYPOCHLORITE	1"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	CHECK VALVE AFTER FE-6301
I-07	BV-6333	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-1 SUCTION LINE BALL VALVE
I-07	BV-6334	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-1 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6335	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE TO PI-6301
I-07	BV-6336	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE TO PULSATION DAMPENER OF DISCHARGE LINE OF SHC METERING PUMP NO-1
I-07	BV-6337	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE AFTER FE-6301
I-07	BV-6338	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE DAY STORAGE TANK OUTLET LINE BRANCH ISOLATION VALVE (TYPICALLY CLOSED)
I-07	BV-6339	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE DAY STORAGE TANK OUTLET LINE VALVE
I-07	BV-6340	SODIUM HYPOCHLORITE	2"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE DAY STORAGE TANK INLET LINE VALVE
I-07	BV-6332	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SHC LINE VALVE AFTER FE-6302
I-07	PS-6302	SODIUM HYPOCHLORITE	1"	PRESSURE SUSTAINING VALVE	40 23 26 2.01 A 7	THREADED	MANUAL	PRESSURE SUSTAINING VALVE AFTER SHC METERING PUMP NO-2 DISCHARGE LINE
I-07	BV-6347	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE BEFORE FE-6301
I-07	BV-6348	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE BEFORE FE-6302
I-07	BC-6305	SODIUM HYPOCHLORITE	1"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	CHECK VALVE AFTER FE-6302
I-07	BV-6349	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	ISOLATION VALVE BEFORE FE-6303
I-07	BV-6350	SODIUM HYPOCHLORITE	3/4"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SIDE BRANCH LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-07	BV-6351	SODIUM HYPOCHLORITE	3/4"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SIDE BRANCH LINE ISOLATION VALVE (TYPICALLY CLOSED)
I-07	BV-6352	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-1 SUCTION LINE BALL VALVE
I-07	BV-6353	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-1 DISCHARGE LINE BALL VALVE
I-07	BV-6354	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-1 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6355	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-1 ACROSS LINE DISCHARGE LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6356	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-2 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6357	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-2 DISCHARGE LINE BALL VALVE
I-07	PS-6303	SODIUM HYPOCHLORITE	1"	PRESSURE SUSTAINING VALVE	40 23 26 2.01 A 7	THREADED	MANUAL	PRESSURE SUSTAINING VALVE AFTER SHC METERING PUMP NO-3 DISCHARGE LINE
I-07	BV-6358	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-2 SUCTION LINE BALL VALVE
I-07	BV-6359	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-2 ACROSS LINE DISCHARGE LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BC-6306	SODIUM HYPOCHLORITE	1"	BALL CHECK VALVE	40 05 53 2.3 / TYPE 1	TRUE UNION	MANUAL	CHECK VALVE AFTER FE-6303
I-07	BV-6360	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-3 ACROSS LINE SUCTION LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6361	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-3 DISCHARGE LINE BALL VALVE
I-07	BV-6362	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-3 SUCTION LINE BALL VALVE
I-07	BV-6363	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SODIUM HYPOCHLORITE METERING PUMP NO-3 ACROSS LINE DISCHARGE LINE ISOLATION BALL VALVE (TYPICALLY CLOSED)
I-07	BV-6364	SODIUM HYPOCHLORITE	1"	BALL VALVE	40 05 53 2.2 / TYPE 2	TRUE UNION	MANUAL	SHC LINE VALVE AFTER FE-6301

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2026

PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: E. VAN DEVENTER
DRAWN BY: M. BHANUMATHI
CHECKED BY: T. THOMAS

SHEET TITLE

MECHANICAL
CROSSTOWN

VALVE SCHEDULE
(2 OF 2)

SCALE:
NOT TO SCALE
0 1
BAR IS ONE INCH ON UNREDUCED DRAWING.

DRAWING NO.:
M-24
SHEET NO.: 33 OF 83

811 Know what's **below.** **Call** before you dig.

GENERAL

G-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.

G-2 STANDARD DETAILS SHOWN ON STRUCTURAL, TYPICAL DRAWINGS SHALL BE USED WHEN REFERRED TO, UNLESS DIFFERENT DETAILS ARE SHOWN ON THE DRAWINGS.

G-3 DESIGN IS IN ACCORDANCE WITH AND CONSTRUCTION SHALL COMPLY WITH THE PROVISIONS OF THE 2024 INTERNATIONAL BUILDING CODE WITH GEORGIA STATE AMENDMENTS (2026), EXCEPT WHERE OTHER APPLICABLE CODES AND THE CONTRACT DOCUMENTS ARE MORE RESTRICTIVE.

DESIGN LOADS:

LIVE LOADS:

-FLOOR LIVE LOAD	AS SHOWN ON DRAWINGS

SNOW LOAD:

-GROUND SNOW LOAD, P_g	22 PSF
-SNOW IMPORTANCE FACTOR	1.1

WIND LOAD:

-ULTIMATE DESIGN WIND SPEED	115 MPH
-WIND EXPOSURE	C
-RISK CATEGORY	III

SEISMIC LOAD:

-RISK CATEGORY	III
-SITE CLASS	D
-SEISMIC DESIGN CATEGORY	B
-ANALYSIS PROCEDURE	ASCE 7-22, 12.8
-SEISMIC IMPORTANCE FACTOR, I_e	1.25

MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:

- S_s	0.22
- S_1	0.09

DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:

- S_{DS}	0.19
- S_{D1}	0.13

G-4 THE ASTERISK SYMBOL (*) SHOWN NEXT TO DIMENSIONS AND ELEVATIONS IN THE DRAWINGS ARE TO BE VERIFIED EITHER BY FIELD MEASUREMENTS FOR EXISTING STRUCTURES OR BY SHOP DRAWINGS FOR EQUIPMENT FURNISHED. STRUCTURAL DIMENSIONS NOT SHOWN BUT CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER PRIOR TO CONSTRUCTION.

G-5 EQUIPMENT ANCHOR BOLT SIZES, TYPES, LOCATIONS AND PATTERNS SHALL BE AS REQUIRED BY THE APPROVED EQUIPMENT MANUFACTURER. ALL BOLT PATTERNS SHALL BE TEMPLATED TO ENSURE ACCURACY OF PLACEMENT.

G-6 STRUCTURAL DRAWINGS SHALL BE USED IN COORDINATION WITH DRAWINGS OF ALL OTHER DISCIPLINES AND MANUFACTURER'S SHOP DRAWINGS.

G-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.

G-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.

G-9 NO BACKFILL SHALL BE PLACED AGAINST ANY WALL UNLESS THE WALL AND ALL SUPPORTING ELEMENTS OF THE STRUCTURE HAVE BEEN CONSTRUCTED AND HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH.

G-10 ALL THE DIMENSIONS AND LEVELS ARE IN FEET UON. DO NOT SCALE THESE DRAWINGS, USE DIMENSIONS.

G-11 CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

G-12 WHERE CONNECTIONS TO OR MODIFICATIONS OF EXISTING STRUCTURES ARE SHOWN, EXISTING FOUNDATIONS, WALLS, COLUMNS, SLABS, BEAMS, FLOORS, DECKS (CONCRETE, STEEL, TIMBER, ETC.) ARE ASSUMED TO BE IN GOOD CONDITION. THIS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. UNSOUND CONDITIONS SHALL BE REPORTED TO THE ENGINEER. ALL UNSOUND STRUCTURAL ELEMENTS SHALL BE REPAIRED TO SOUND CONDITION AS APPROVED BY THE ENGINEER. EXISTING CONSTRUCTION DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE WORK COMMENCES. VARIATIONS FROM DIMENSIONS SHOWN ON THESE DRAWINGS SHALL BE REPORTED TO THE ENGINEER.

G-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, HATCHES 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.

FOUNDATIONS

F-1 FOR FOUNDATION DESIGN CRITERIA REFER 'REPORT OF SUBSURFACE EXPLORATION AND GEOTECHNICAL ENGINEERING EVALUATION' PREPARED BY OASIS CONSULTING SERVICES, PROJECT NO P25044 DATED JUNE 20, 2025.

DEMOLITION NOTES

D-1 THE CONTRACTOR IS REQUIRED TO PROVIDE ALL TEMPORARY SCAFFOLDING, PLATFORMS, BARRICADES, RAILINGS, SCREENING, ETC. NECESSARY TO PROTECT EXISTING FACILITIES, STRUCTURES AND THE PUBLIC DURING DEMOLITION AND ERECTION OF THE NEW CONSTRUCTION, AS WELL AS FOR JOB SAFETY. CONSTRUCTION AND DEMOLITION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONS TO MINIMIZE VIBRATION, NOISE, DUST AND DEBRIS IN ALL AREAS ADJACENT TO AREAS OF DEMOLITION.

D-2 THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THE TEMPORARY SUSPENSION OF USE OF ANY FACILITY OR PORTION THEREOF, AND THE ASSOCIATED BARRICADING REQUIREMENTS WITHIN A MINIMUM OF 7 DAYS PRIOR TO COMMENCING WORK.

D-3 THE CONTRACTOR IS REQUIRED TO PERFORM WORK IN A MANNER, WHICH WILL NOT CONFLICT WITH ANY OPERATION, WHICH IS TO REMAIN FUNCTIONAL DURING THE COURSE OF THE PROJECT, UNTIL SUCH OPERATION IS SCHEDULED TO BE SHUT DOWN.

D-4 THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THE TEMPORARY SUSPENSION OF USE OF ANY UTILITY SYSTEM, A MINIMUM OF 3 DAYS PRIOR TO COMMENCING WORK.

D-5 AT ALL LOCATIONS WHERE NEW CONSTRUCTION WILL INTERFACE WITH EXISTING ELEMENTS, CUT THROUGH EXISTING STRUCTURE IN STRAIGHT AND TRUE LINES TO ENSURE A NEAT INTERFACE.

D-6 BEFORE DEMOLISHING ANY STRUCTURAL ELEMENT, INSTALL ALL REQUIRED TEMPORARY AND/OR PERMANENT BRACINGS AND SUPPORTS.

D-7 UPON COMPLETION OF NEW CONSTRUCTION UNDER EACH PHASE, ALL DEMOLISHED AREAS SHALL BE RESTORED TO ACCEPTABLE USAGE ACCORDING TO THE CONTRACT DOCUMENTS AS DETERMINED BY THE ENGINEER.

D-8 REMOVE COMPLETELY FROM THE SITE AND LEGALLY DISPOSE ALL DEBRIS GENERATED BY THE DEMOLITION WORK AS THE WORK PROGRESSES. STOCKPILING OF DEBRIS AND BURNING OF DEBRIS ON THE PREMISES ARE STRICTLY PROHIBITED.

D-9 CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, STORAGE AND REINSTALLATION OF ANY EXISTING EQUIPMENT AS NEEDED TO FACILITATE REPAIRS. EQUIPMENT SHALL OPERATE PROPERLY AFTER REINSTALLATION.

D-10 CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE DURING THE DEMOLITION AND PROPOSED CONSTRUCTION WORK.

CONCRETE

C-1 CONCRETE 28-DAY COMPRESSIVE STRENGTH:
CLASS A - 4500 PSI
CLASS B - 3000 PSI

C-2 REINFORCEMENT: ASTM A615, GRADE 60.

C-3 CONCRETE CLEAR COVER FOR REINFORCING:

A) SURFACES CAST AGAINST EARTH	3"
B) SURFACE WITH EMBEDDED PVC WATERSTOP	3"
C) ALL OTHER SURFACES	2"

C-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.

C-5 WHERE HORIZONTAL CONSTRUCTION JOINTS, LOCATED ABOVE THE FOUNDATION SLAB, EXTEND BEYOND WHERE NEEDED, TERMINATE AT A VERTICAL CONSTRUCTION JOINT AS APPROVED BY THE ENGINEER.

C-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.

C-7 AT ALL TYPICAL CURBS, EQUIPMENT PADS, AND PIPE SUPPORT PIERS, REINFORCING DOWELS SHOWN MAY BE REPLACED WITH MATCHING DOWELS SET IN EPOXY IN DRILLED HOLES AS SPECIFIED. DOWELS LOCATED CLOSER THAN 3 INCHES FROM ANY EDGE OF CONCRETE SHALL NOT BE REPLACED WITH DRILLED DOWELS.

C-8 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.

C-9 DOWELS, ANCHOR BOLTS, PIPES, AND OTHER EMBEDDED ITEMS SHALL BE HELD SECURELY IN POSITION WHILE CONCRETE IS BEING PLACED.

C-10 CONDUITS AND PIPES EMBEDDED IN OR PENETRATING THROUGH CONCRETE SHALL BE SPACED AS SHOWN ON, TYPICAL DETAILS.

C-11 CONDUITS AND PIPES SHALL NOT BE EMBEDDED IN OR PASS THROUGH COLUMNS OR BEAMS UNLESS INDICATED OTHERWISE OR AUTHORIZED BY ENGINEER.

C-12 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 INCHES SHALL BE PROVIDED.

C-13 CONTRACTOR SHALL PROVIDE 3/4" CHAMFER USING WOOD CHAMFER STRIPS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS OR AS REQUIRED TO MATCH EXISTING.

C-14 LAP SPLICES SHALL BE IN ACCORDANCE WITH THE TABLE SHOWN ON THIS SHEET.

LAP SPLICE AND EMBEDMENT LENGTH TABLE

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS (INCHES)

BAR SIZE	MIN LAP LENGTHS FOR BEAMS AND COLUMNS* CLASS B		MIN LAP LENGTHS FOR SLABS AND WALLS ** CLASS B		MIN EMBEDMENT LENGTHS FOR BEAMS AND COLUMNS *		MIN EMBEDMENT LENGTHS FOR SLABS AND WALLS **		MIN STD. HOOKS WITH STANDARD HOOK	MIN STD. HOOKS 90°		MIN STD. HOOKS 135°	
	TOP***	OTHERS	TOP***	OTHERS	TOP***	OTHERS	TOP***	OTHERS		A OR G		A OR G	H
#3	25	19	16	16	19	15	12	12	5	6		4	2.5
#4	33	25	20	16	25	19	15	12	7	8		4.5	3
#5	41	31	25	19	31	24	19	15	9	10		5.5	3.75
#6	49	37	29	23	37	29	23	18	10	12		8	4.5
#7	71	54	43	33	54	42	33	25	12	14		9	5.25
#8	81	62	49	37	62	48	37	29	14	16		10.5	6
#9	91	70	60	46	70	54	46	36	15	19		-	-
#10	102	79	74	57	79	61	57	44	17	22		-	-
#11	114	87	89	69	87	67	68	53	19	24		-	-

REINFORCEMENT LAP SPLICE, EMBEDMENT LENGTH AND STANDARD HOOKS TABLE IS BASED ON A MINIMUM CONCRETE COMPRESSIVE STRENGTH OF 4000 PSI AND 60000 PSI REINFORCEMENT (WITH NO EPOXY COATING). ALL LAP SPLICES SHALL BE CLASS B SPLICES.

* THE MINIMUM LAP LENGTHS FOR BEAMS, COLUMNS AND STRAIGHT EMBEDMENTS ARE BASED ON A 3 BAR DIAMETER MINIMUM CENTER TO CENTER BAR SPACING AND A 2" BAR COVER. IF THE SPLICE AND/OR EMBEDMENT DOES NOT CONFORM TO THESE REQUIREMENTS, THEN CONTRACTOR SHALL APPLY APPROPRIATE FACTORS IN COMPLIANCE WITH ACI 318 WITH APPROVAL BY ENGINEER.

** THE MINIMUM LAP LENGTHS FOR SLABS, WALLS AND STRAIGHT EMBEDMENTS ARE BASED ON A 6" BAR SPACING AND A 2" BAR COVER. IF THE LAP CONDITION DOES NOT CONFORM TO THESE REQUIREMENTS, THEN USE BEAM LAP LENGTHS OR COMPLY WITH LAP REQUIREMENTS OF ACI 318 WITH APPROVAL BY ENGINEER.

*** TOP BARS ARE DEFINED AS ALL HORIZONTAL BARS WITH 12" OR MORE FRESH CONCRETE BENEATH.

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.

STRUCTURAL METALS

S-1 DETAIL, FABRICATE, AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, LATEST EDITION.

S-2 STEEL MATERIAL:
A) STRUCTURAL TUBING: ASTM A500, GRADE C
B) STRUCTURAL PIPE: ASTM A53, GRADE B
C) W SHAPES: ASTM A992
D) ALL OTHER SHAPES: ASTM A572, GRADE 50
E) PLATES AND ANGLES: ASTM A36, UON

S-3 DO NOT PAINT STEEL SURFACES WHICH ARE TO BE WELDED OR ENCASED IN CONCRETE.

S-4 ALL GROOVE AND BUTT WELDS SHALL BE FULL PENETRATION.

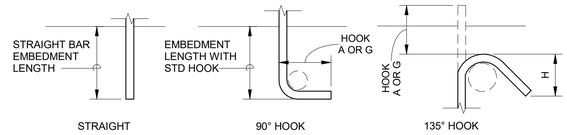
S-5 FILLET WELD SIZES SHALL BE THE MINIMUM SIZE REQUIRED BY AISC CODE FOR PLATE SIZES TO BE CONNECTED BUT NOT LESS THAN 3/16" AND SHALL BE APPLIED TO THE ENTIRE JOINT CONTACT LENGTH.

S-6 ALL BOLTS, ANCHOR BOLTS, AND CONCRETE ANCHORS CONNECTING GALVANIZED STEEL SHALL BE SS 316.

S-7 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.

S-8 A) ALUMINUM SHAPES
1. ASTM B308/B308M, ALLOY 6061-T6, ASTM B221, ALLOY 6061-T6
2. ALUMINUM TUBES AND PIPES: ASTM B429, ALLOY 6061-T6
3. ALUMINUM BARS AND RODS: ASTM B211, ALLOY 6061-T6
4. ALUMINUM PLATES: ASTM B209, ALLOY 6061-T6
B) ELECTRODES FOR WELDING: ER 5356 COMPLYING WITH AWS D1.2/D1.2M

S-9 STAINLESS STEEL:
1. ANSI, TYPE 316/316L
2. SECTION, SHAPES AND BARS ASTM A 276
3. BOLTED CONNECTIONS - BOLTS AND ANCHOR BOLTS:
A. MATCH ALLOY OF THE STRUCTURAL MEMBER CONNECTED
B. TYPE 316/316L : ASTM F 593, GRADE B8M, CLASS 1, HEAVY HEX
4. WELDED CONNECTIONS:, TYPE 316L : E316L- 15 ELECTRODE



ABBREVIATIONS

AB	ANCHOR BOLT	JT	JOINT
ADD'L	ADDITIONAL		
ALT	ALUMINUM	KO	KNOCK OUT
ANCH	ANCHOR		
APPROX	APPROXIMATE	L	ANGLE (STRUCTURAL SHAPE)
A	ARCHITECTURAL	LG	LONG
		LL	LIVE LOAD
BAL	BALANCE	LLH	LONG LEG HORIZ
BET	BETWEEN	LLV	LONG LEG VERT
BL	BUILDING LINE	LOC	LOCATION
BLDG	BUILDING	LP	LOW POINT
BLK	BLOCK	LW	LONG WAY
BM	BEAM		
BOT	BOTTOM	MTCH	MATCH/ MATCHING
BRG	BEARING	MAX	MAXIMUM
		MECH	MECHANICAL
C	CHANNEL	MEZZ	MEZZANINE
	(STRUCTURAL SHAPE)	MFR	MANUFACTURE, MANUFACTURER
CANT'L	CANTILEVER	MH	MANHOLE
CF	COMBINED FOOTING	MD	MIDDLE
CJ	CONSTRUCTION JOINT	MIN	MINIMUM
CL	CLEAR		
CMU	CONCRETE MASONARY UNIT	N	NORTH
COL	COLUMN	NF	NEAR FACE
COMP	COMPRESIBLE	#	NUMBER
CONC	CONCRETE	NTS	NOT TO SCALE
CONN	CONNECTION		
CONST	CONTRACTION	OC	ON CENTER
CONT	CONTINUOUS	OD	OUTSIDE DIAMETER
C/C	CENTER TO CENTER	OF	OUTSIDE FACE
CTR	CENTER	OH	OVERHEAD
		OPNG	OPENING
DET	DETAIL	OPP	OPPOSITE
DIA	DIAMETER		
DIAG	DIAGONAL	PB	PLINTH BEAM
DIM	DIMENSION	PC	PRECAST CONCRETE
DL	DEAD LOAD	PL	PLATE
DN	DOWN	PSF	POUNDS PER SQUARE FOOT
DO	DITTO	PVC	POLYVINYL CHLORIDE
DP	DEEP		
DWG	DRAWING	R	RISER
DWL	DOWEL	RAD	RADIOUS
		RD	ROOF DRAIN
E	EAST	REINF	REINFORCEMENT
EA	EACH	REQD	REQUIRED
EF	EACH FACE	RM	ROOM
EJ	EXPANSION JOINT	RO	ROUGH OPENING
EL	ELEVATION		
ELEC	ELECTRICAL	S	SOUTH
EMB	EMBEDMENT	SECT	SECTION
ENCL	ENCLOSURE	SHT	SHEET
EQ	EQUAL	SIM	SIMILAR
EQUIP	EQUIPMENT	SL	SLAB
ES	EACH SIDE	SPA	SPACING
EW	EACH WAY	SPEC	SPECIFICATION
EW T&B	EACH WAY TOP AND BOTTOM	SQ	SQUARE
EXIST	EXISTING	SST	STAINLESS STEEL
EXP	EXPANSION	STD	STANDARD
EXT	EXTERIOR	STIR	STIRRUP
		STL	STEEL
FB	FLOOR BEAM	STRUCT	STRUCTURAL
FD	FLOOR DRAIN	SW	SHORT WAY
FDN	FOUNDATION		
FF	FAR FACE	T	TREAD
FIN	FINISH	TBD	TO BE DECIDED
FL	FLOOR	T&B	TOP AND BOTTOM
FTG	FOOTING	TOC	TOP OF CONCRETE
FRP	FIBERGLASS REINFORCED	THK	THICK
	PLASTIC	T/	TOP OF
		TYP	TYPICAL
GA	GAUGE		
GALV	GALVANIZE	UON	UNLESS OTHERWISE NOTED
GB	GRADE BEAM		
GR	GRADE	VERT	VERTICAL
GRTG	GRATING		
		W	WIDTH, WEST
H	HIGH	WF	WIDE FLANGE STRUCTURAL SHAPE
HFSA	HYDROFLUOROSILICIC ACID	W/	WITH
HT	HEIGHT	WP	WORKING POINT
HORIZ	HORIZONTAL	WS	WATERSTOP
HP	HIGH POINT		
HVAC	HEATING, VENTILATING & AIR CONDITIONING		
ID	INSIDE DIAMETER		
IF	INSIDE FACE		
INV	INVERT		

Know what's **below.** **Call** before you dig.

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CONSULTANTS

SEALS

GEORGIA REGISTERED No. SE000840 STRUCTURAL ENGINEER DONNELL VIVIAN DUNCAN 06.22.26

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JUNE 2026
DESIGNED BY:	P. LUNKAD / C. GALLO
DRAWN BY:	A. RAJESH
CHECKED BY:	D. DUNCAN

SHEET TITLE

STRUCTURAL
CROSSTOWN

GENERAL NOTES

SCALE: NONE

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-01

SHEET NO.: 34 OF 83

STRUCTURAL QUALITY ASSURANCE PLAN

GENERAL:

THIS STRUCTURAL QUALITY ASSURANCE 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 IS RESPONSIBLE FOR THE CONSTRUCTION OF A WIND OR SEISMIC FORCE RESISTING SYSTEM/COMPONENT LISTED IN THE "STATEMENT OF SPECIAL INSPECTION" AND SHALL SUBMIT A WRITTEN 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 OF THE IBC 2024 EDITION. CONTRACTOR SHALL GIVE 48 HOURS ADVANCED NOTICE FOR ALL REQUIRED INSPECTIONS.

SPECIAL INSPECTOR'S RESPONSIBILITIES:

THE SPECIAL INSPECTOR SHALL BE A LICENSED ENGINEER IN THE STATE OF GEORGIA OR PERFORMING APPROPRIATE DUTIES DIRECTLY UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF GEORGIA AND HAVE A THOROUGH UNDERSTANDING OF THE SPECIAL INSPECTION REQUIREMENTS OF THE 2024 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 REPORTS SHALL BE PROVIDED AND SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE WITH 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:

REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS		
TYPE	C	P
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS 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 COMPACTED FILL MATERIALS.	-	X
4. DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY 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 SPECIAL INSPECTION

P = PERIODIC SPECIAL INSPECTION

CAST-IN-PLACE CONCRETE:

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. ESTABLISH CONCRETE MIX DESIGN PROPORTIONS PER ACI 318. 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
   - H. METHOD OF PLACEMENT
   - I. METHOD OF CURING
   - J. SEVEN-DAY AND 28-DAY COMPRESSIVE STRENGTHS
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.

INSPECTOR SHALL PERFORM THE FOLLOWING:

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION			
TYPE	C	P	REFERENCE STANDARD
1. INSPECT REINFORCEMENT, AND VERIFY PLACEMENT.	-	X	ACI 318 Ch: 20, 25.2, 25.3, 26.6.1-26.6.3
2. REINFORCING BAR WELDING: WELDING OF REBAR IS NOT PERMITTED	-	-	-
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 26.13.3.3
4. INSPECT ANCHORS POST - INSTALLED IN HARDENED CONCRETE MEMBERS. b,c 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	 X	ACI 318: 26.13.3.2 ACI 318: 26.13.3
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318 Ch: 19, 26.4.3, 26.4.4
6a. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, DENSITY AND DETERMINE THE TEMPERATURE OF THE CONCRETE WITH ALL RESULTS INCLUDED IN THE TEST REPORTS.	X	-	ASTM C31 ASTM C172 ACI 318: 26.5, 26.12
6b. VERIFY THAT CONCRETE SPECIMENS FOR STRENGTH TESTS ARE MAINTAINED IN THE REQUIRED INITIAL CURING AND LABORATORY CURING ENVIRONMENT AND THAT THE MAXIMUM AND MINIMUM TEMPERATURES DURING THE INITIAL CURING PERIOD ARE REPORTED.	X	-	ACI 318: 26.12 ASTM C31
7. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5
9. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2(b)

C = CONTINUOUS SPECIAL INSPECTION

P = PERIODIC SPECIAL INSPECTION

ADHESIVE ANCHORS FOR ANCHORAGE INTO CONCRETE:

MANUFACTURERS:

1. HILTI HIT-RE 500 V3 EPOXY ADHESIVE ANCHORS
2. OR AS APPROVED.
   - A. INJECTABLE TWO-COMPONENT ADHESIVE.
   - B. HILTI ANCHOR ROD HAS-R 316 STAINLESS STEEL THREADED ROD COMPLYING WITH ASTM F593 CONDITION CW.
   - C. ADHESIVE ANCHORAGE SYSTEM SHALL BE SEISMIC QUALIFIED WITH CURRENT ICC-ES ESR REPORT (ICC-ES-ESR 3814).
   - D. INSTALLERS TO BE TRAINED BY ANCHOR MANUFACTURER.
   - E. 10% OF ALL ADHESIVE ANCHORS TO BE LOAD TESTED, AS INSTALLED IN FIELD, TO ENSURE ALLOWABLE MANUFACTURER LOADS ARE ACHIEVED.

STRUCTURAL STEEL

CONTRACTOR SHALL PERFORM THE FOLLOWING:

1. FIELD WELDING TO BE DONE BY CERTIFIED WELDERS.
2. CONTRACTOR TO COORDINATE BUILDING DEPARTMENT INSPECTIONS AND SPECIAL INSPECTIONS.
3. SUBMIT CERTIFIED MILL TEST REPORTS FOR STRUCTURAL STEEL.
4. SUBMIT MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR HIGH-STRENGTH BOLTING AND WELD FILLER MATERIALS.
5. SUBMIT SHOP DRAWINGS FOR STRUCTURAL STEEL MEMBERS AND CAST-IN/ADHESIVE/UNDERCUT ANCHORS.

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.
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 STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360-22 CHAPTER N.

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	

C = CONTINUOUS SPECIAL INSPECTION

P = PERIODIC SPECIAL INSPECTION

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CONSULTANTS

SEALS

GEORGIA REGISTERED No. SE000840 STRUCTURAL ENGINEER DONNELL VIVIAN DUNCAN 05.22.26

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JUNE 2026
DESIGNED BY: P. LUNKAD / C. GALLO
DRAWN BY: A. RAJESH
CHECKED BY: D. DUNCAN

SHEET TITLE

STRUCTURAL
CROSSTOWN

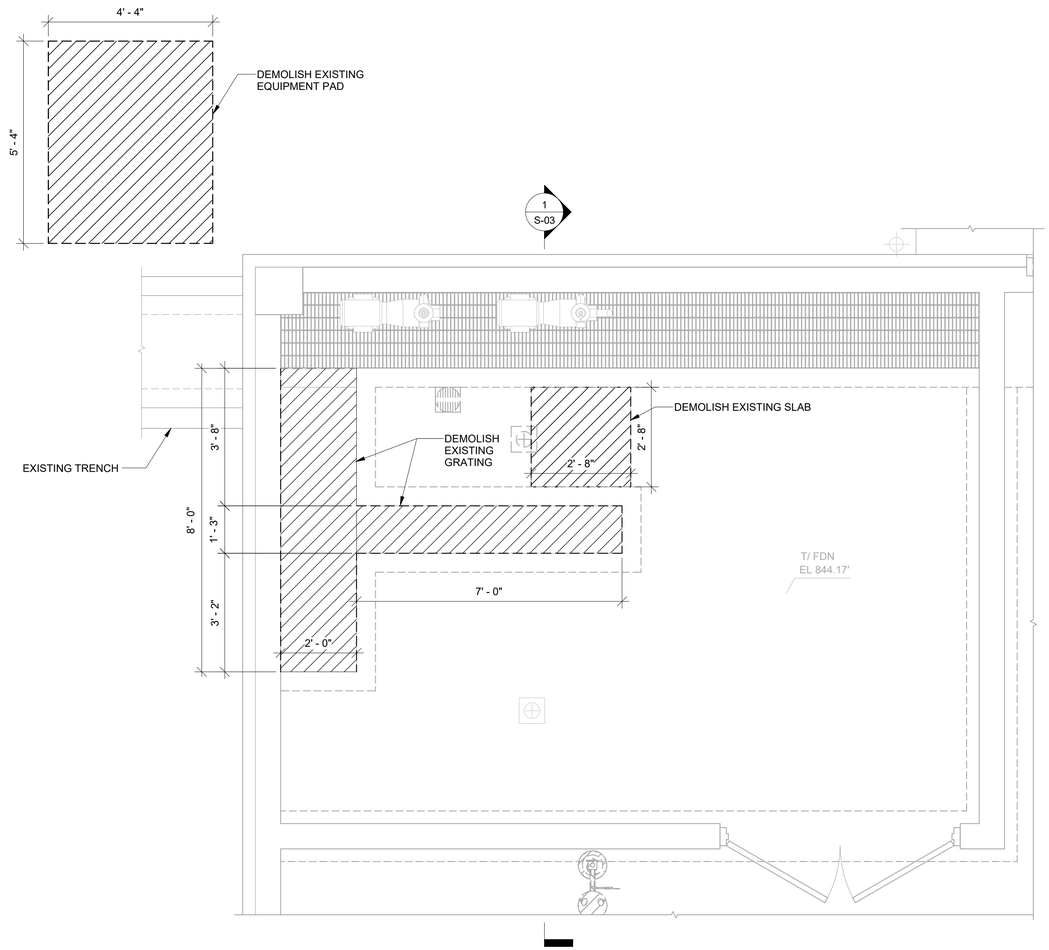
STRUCTURAL SPECIAL INSPECTIONS

SCALE: NONE

BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-02

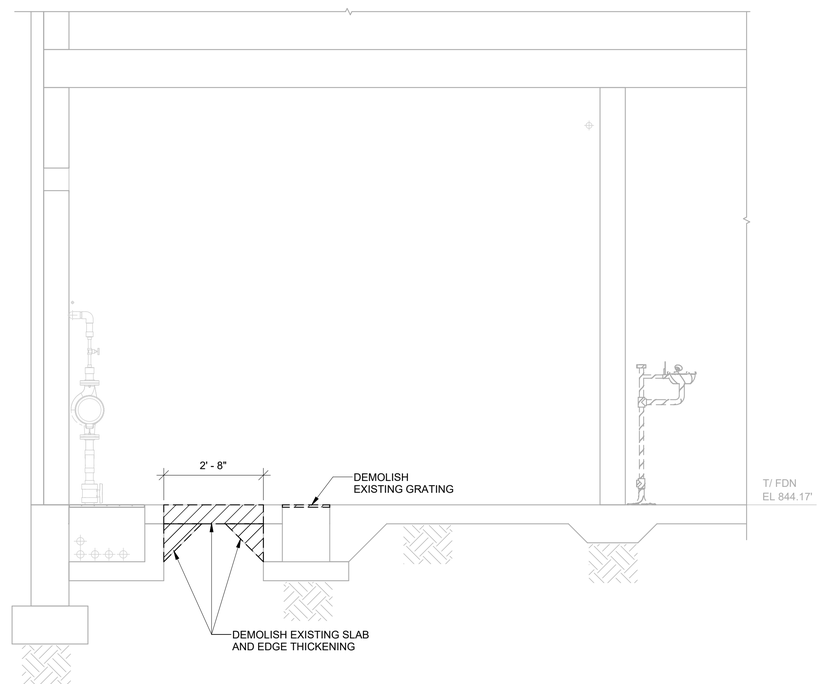
SHEET NO.: 35 OF 83



FLUORIDE DOSING ROOM DEMOLITION PLAN

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

0' 1' 2' 4'



1 S-03 SECTION

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

0' 1' 2' 4'

NOTES :

1. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHER INFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.

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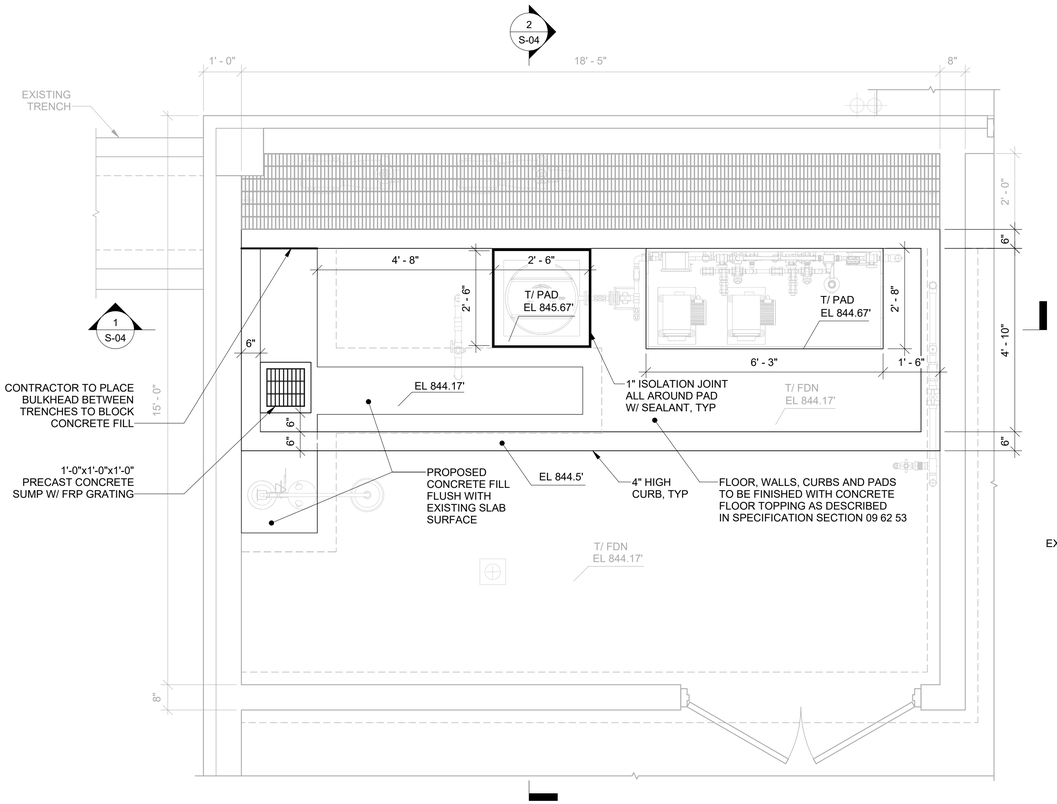
FLUORIDE DOSING ROOM DEMOLITION PLAN AND SECTION

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

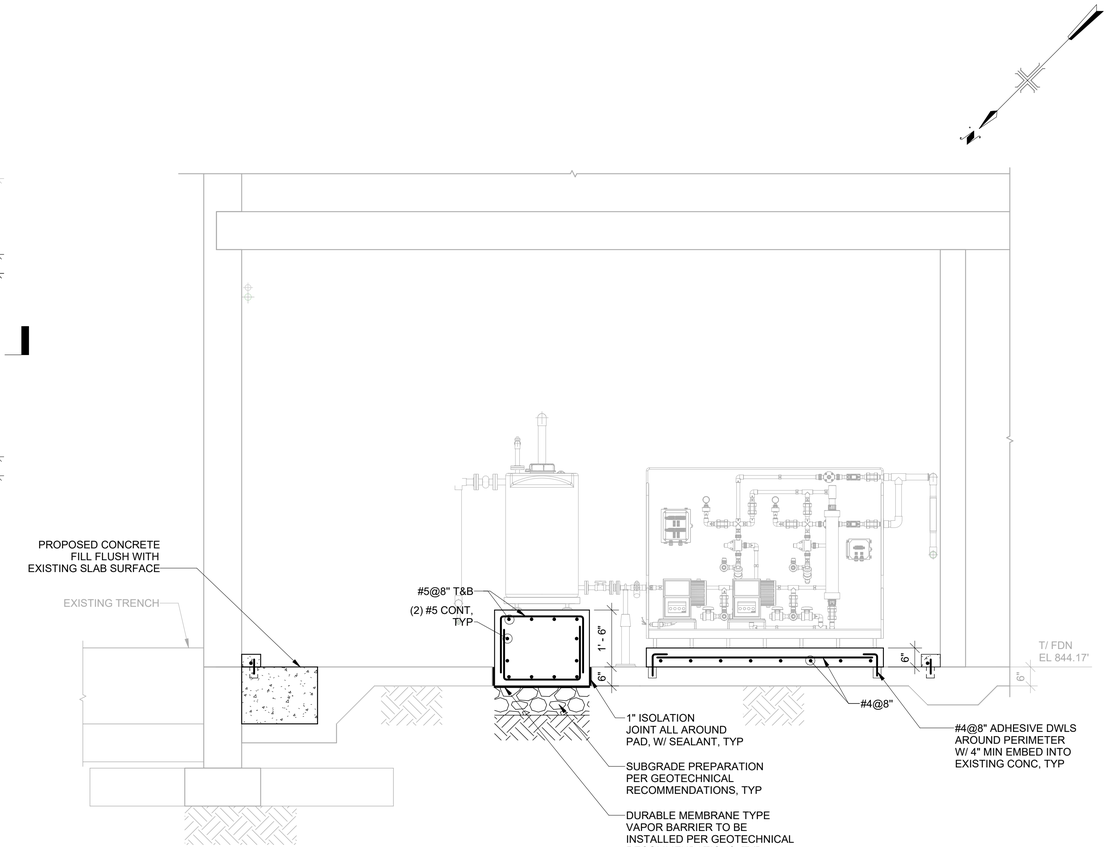
DRAWING NO.: S-03

SHEET NO.: 36 OF 83



FLUORIDE DOSING ROOM PLAN

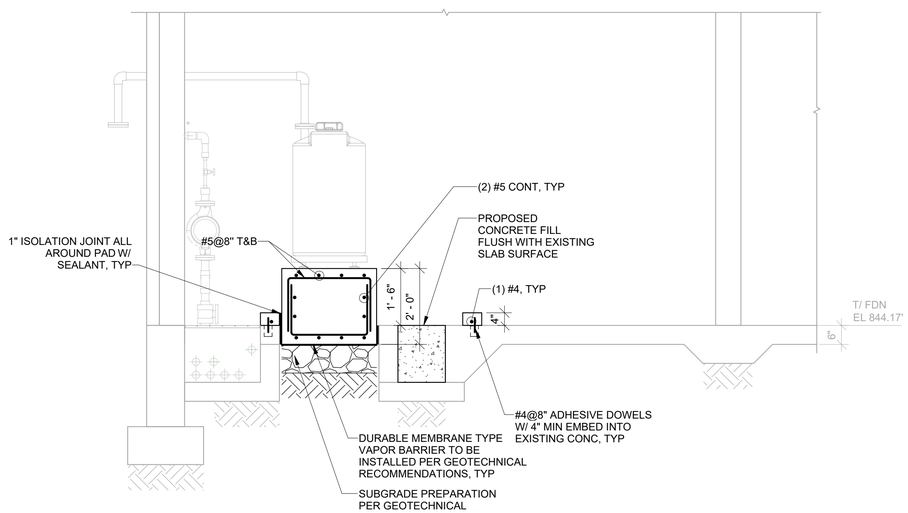
SCALE: 1/2" = 1'-0" 0' 1' 2' 4'



1 SECTION

1 / S-04

SCALE: 1/2" = 1'-0" 0' 1' 2' 4'



2 SECTION

2 / S-04

SCALE: 1/2" = 1'-0" 0' 1' 2' 4'

NOTES :

1. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. TANK AND EQUIPMENT ANCHORAGE DESIGNS ARE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE REQUIRED EDGE DISTANCES SUFFICIENT TO RESIST SHEAR AND UPLIFT ON ANCHOR BOLTS. CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER ACTIVELY REGISTERED IN THE STATE OF GEORGIA FOR ENGINEER'S APPROVAL.
4. TANK AND EQUIPMENT ANCHORS SHALL BE STAINLESS STEEL TYPE 316 ADHESIVE.
5. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHER INFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.

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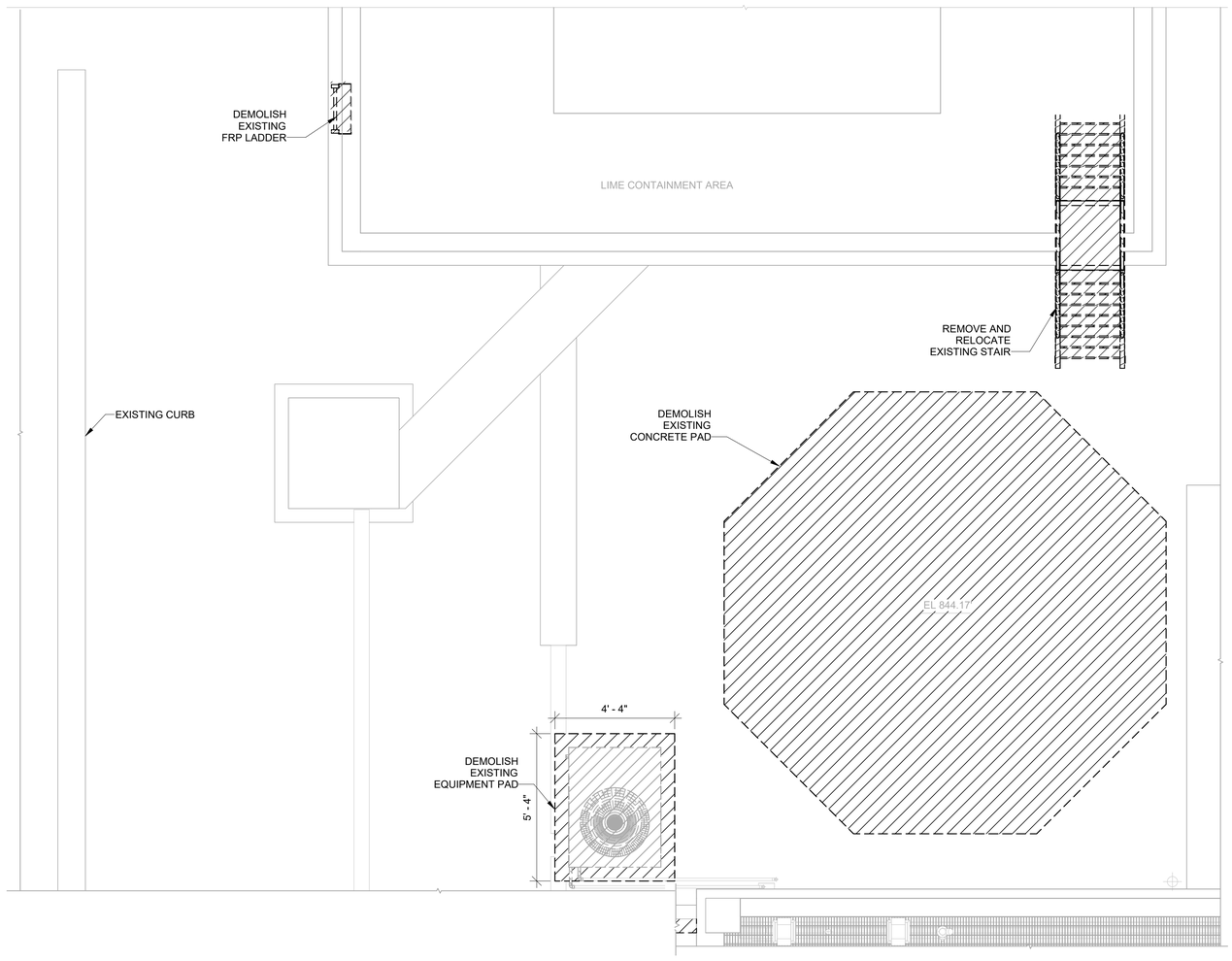
STRUCTURAL
CROSSTOWN

FLUORIDE DOSING ROOM PLAN AND SECTIONS

SCALE: 1/2" = 1'-0" 0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-04

SHEET NO.: 37 OF 83



HFSA BULK TANK PAD DEMOLITION PLAN

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

0' 2' 4' 6'

NOTES :

1. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHER INFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.

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FAYETTE County Water

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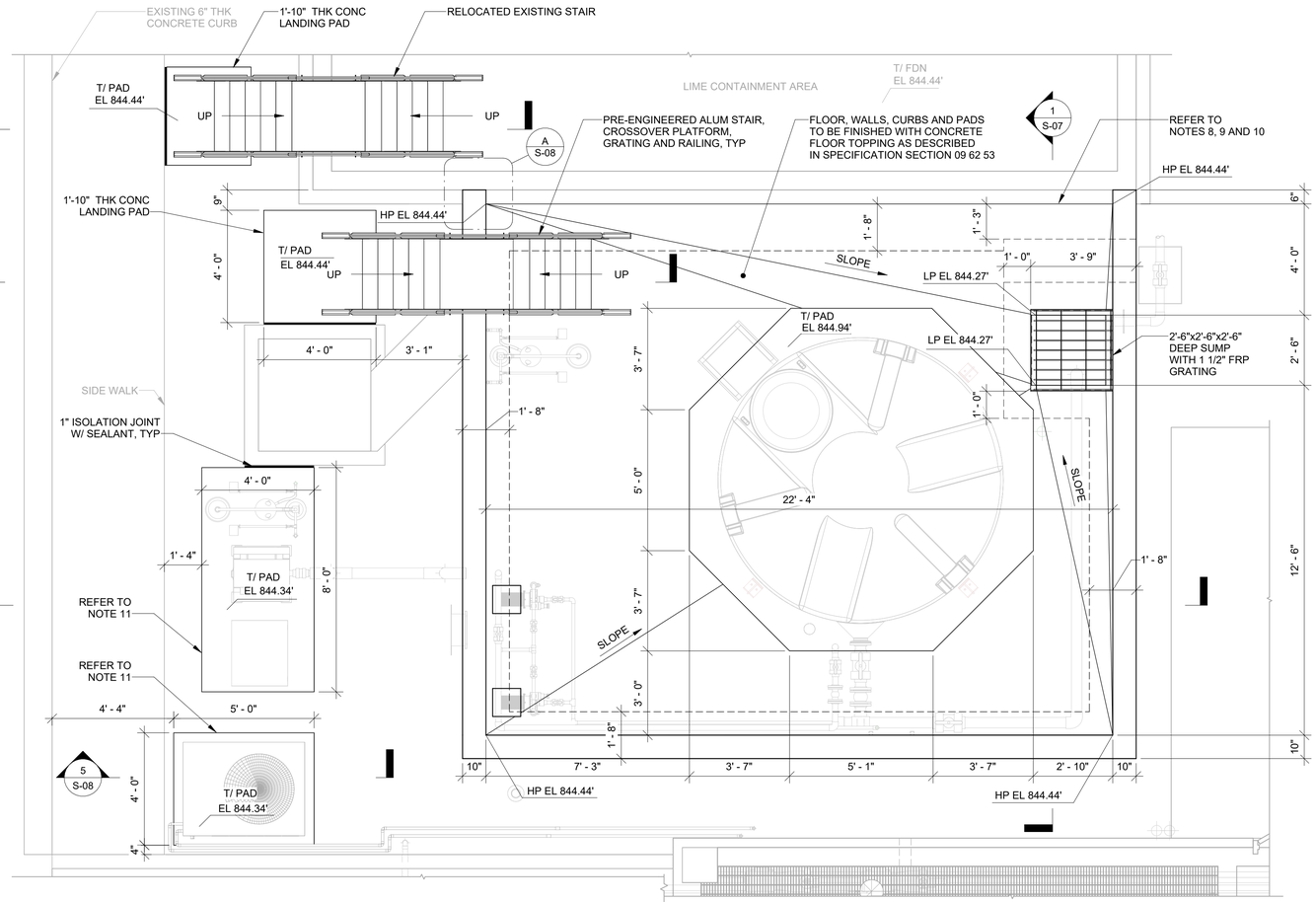
HFSA BULK TANK PAD DEMOLITION PLAN

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

0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-05

SHEET NO.: 38 OF 83



HFSA BULK TANK PAD PLAN

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

0' 2' 4' 6'

NOTES :

1. LIVE LOAD = 150 PSF.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
3. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
4. TANK AND EQUIPMENT ANCHORAGE DESIGNS ARE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE REQUIRED EDGE DISTANCES SUFFICIENT TO RESIST SHEAR AND UPLIFT ON ANCHOR BOLTS. CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER ACTIVELY REGISTERED IN THE STATE OF GEORGIA FOR ENGINEER'S APPROVAL.
5. TANK AND EQUIPMENT ANCHORS SHALL BE STAINLESS STEEL TYPE 316 ADHESIVE.
6. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED STAIRS, PLATFORMS, RAILING AND SUPPORTS SHOP DRAWINGS AND DESIGN CALCULATIONS FOR ENGINEER'S APPROVAL. ALL SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA.
7. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHER INFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR ENGINEERING, DESIGN AND INSTALLATION OF TEMPORARY SHORING TO PROTECT THE EXISTING STRUCTURE DURING EXCAVATION, AND PROPOSED CONSTRUCTION WORK. PROVIDE SHORING DESIGN DRAWINGS AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA FOR REVIEW AND APPROVAL BY ENGINEER. DESIGN PACKAGE SHALL INCLUDE TYPE OF TEMPORARY SHORING AND INSTALLATION PROCESS.
9. TEMPORARY SHORING SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF GEORGIA HIRED BY THE CONTRACTOR.
10. CONSTRACTOR SHALL MONITOR THE EXISTING STRUCTURE FOR ANY SIGNS OF MOVEMENT AND CRACKING DURING ALL PHASES OF PROPOSED CONSTRUCTION WORK.
11. CONCRETE PAD SHOWN IS PRELIMINARILY SIZED BASED ON AVAILABLE EQUIPMENT INFORMATION. ONCE EQUIPMENT MANUFACTURER IS SELECTED, CONTRACTOR SHALL SUBMIT FINAL EQUIPMENT SHOP DRAWING SHOWING DIMENSIONS TO DETERMINE FINAL CONCRETE PAD SIZE. CONCRETE PAD SHALL NOT BE INSTALLED WITHOUT APPROVED EQUIPMENT SHOP DRAWING.

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SHEET TITLE

STRUCTURAL
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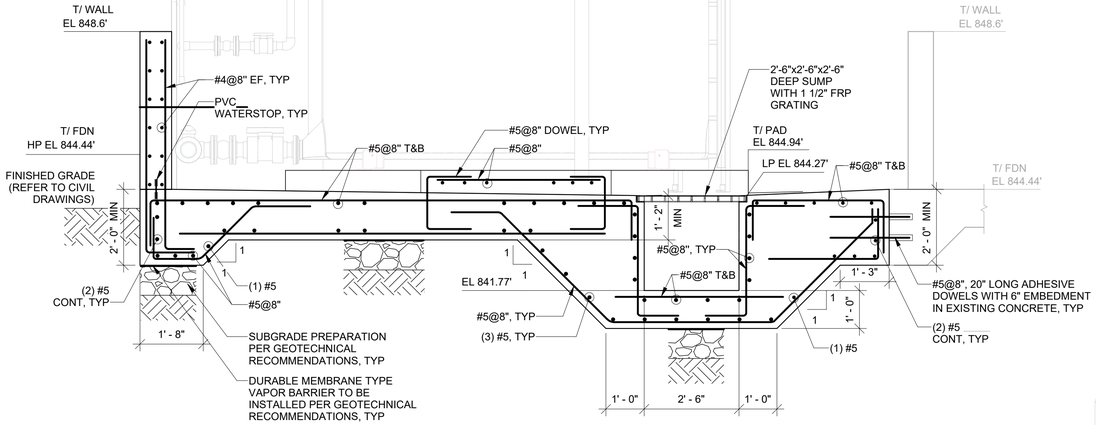
HFSA BULK TANK PAD PLAN

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-06

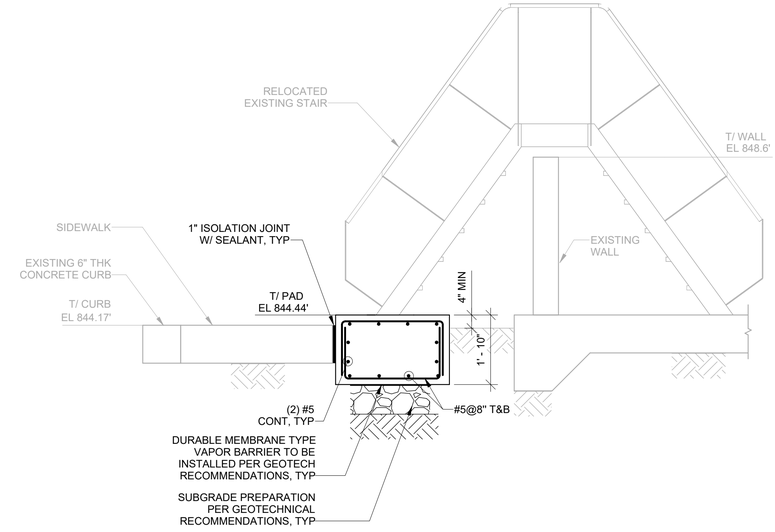
SHEET NO.: 39 OF 83



1 S-06 **SECTION**

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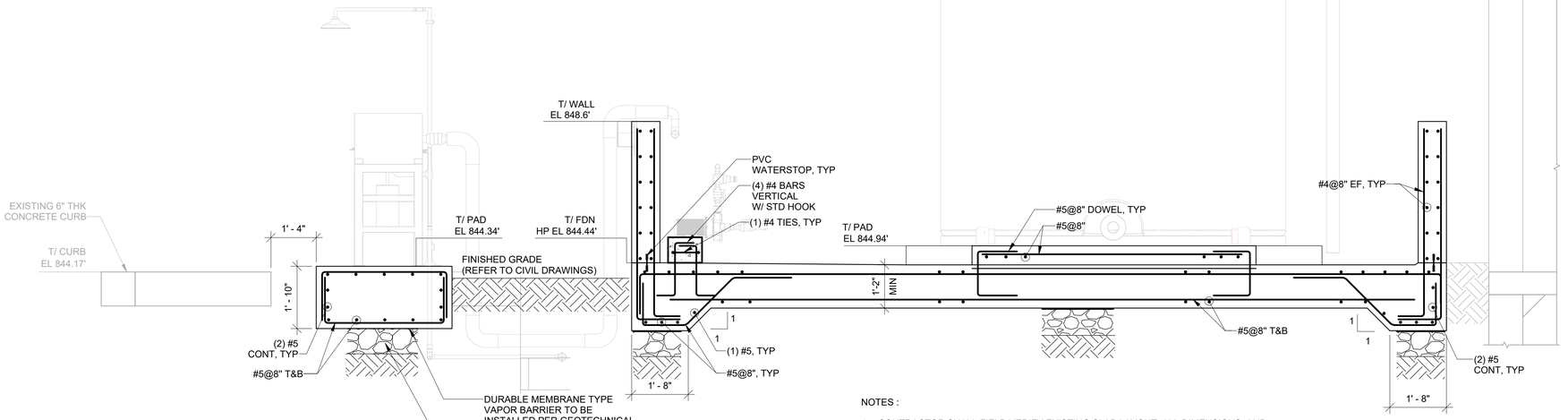
0' 1' 2' 4'



3 S-06 **SECTION**

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

0' 1' 2' 4'



2 S-06 **SECTION**

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

0' 1' 2' 4'

NOTES :

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2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHERINFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.
4. ALL WATERSTOPS SHALL BE CHEMICAL RESISTANT.
5. PROVIDE CORNER BARS AT ALL SLAB AND WALL INTERSECTIONS.

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SHEET TITLE

STRUCTURAL
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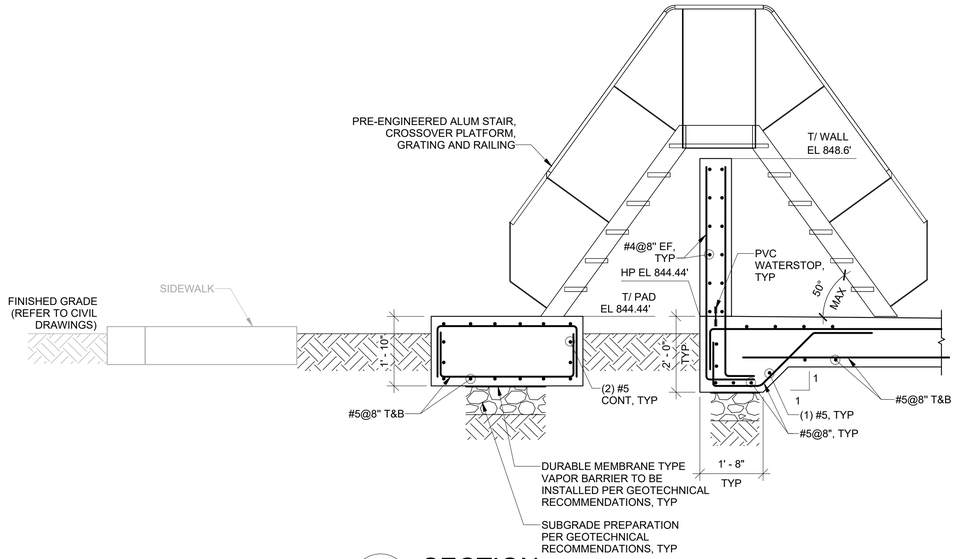
HFSA BULK TANK PAD
SECTIONS - 1

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

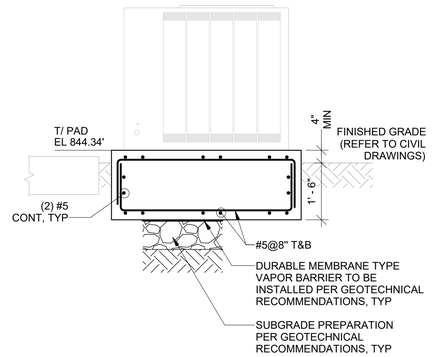
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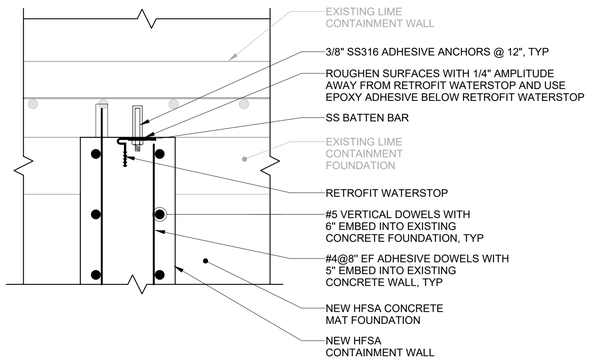
SHEET NO.: 40 OF 83



4 SECTION
S-06 SCALE: 1/2" = 1'-0"



5 SECTION
S-06 SCALE: 1/2" = 1'-0"



WATERSTOP BETWEEN NEW AND EXISTING CONCRETE

A DETAIL
S-06 SCALE: 1 1/2" = 1'-0"

NOTES :

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2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHERINFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.
4. ALL WATERSTOPS SHALL BE CHEMICAL RESISTANT.

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SEALS

GEORGIA REGISTERED No. SE000840 STRUCTURAL ENGINEER POWELL VIVIAN DUNCAN 06.22.26

FAYETTE COUNTY, GEORGIA

WTP CHEMICAL UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JUNE 2026
DESIGNED BY:	P. LUNKAD / C. GALLO
DRAWN BY:	A. RAJESH
CHECKED BY:	D. DUNCAN

SHEET TITLE

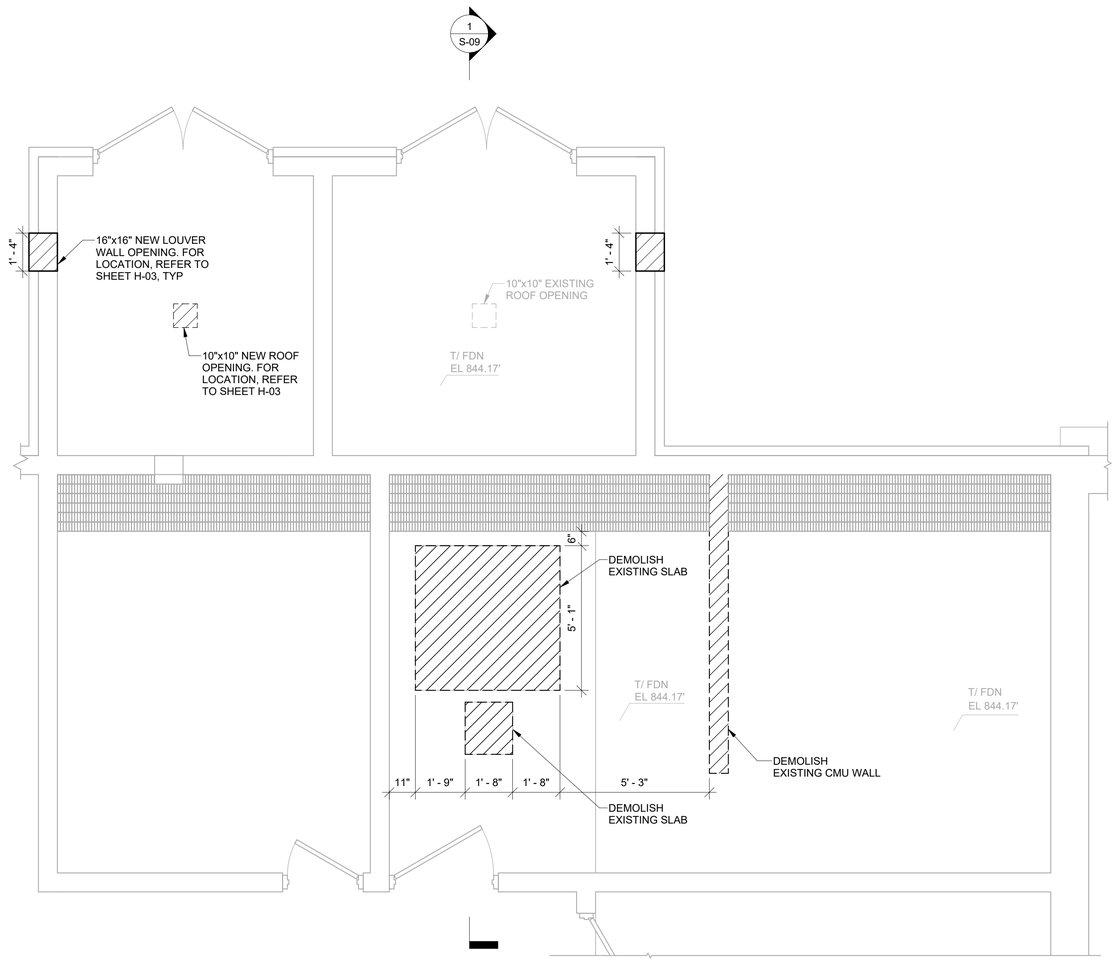
STRUCTURAL
CROSSTOWN

HFSA BULK TANK PAD SECTIONS - 2

SCALE: As indicated
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-08

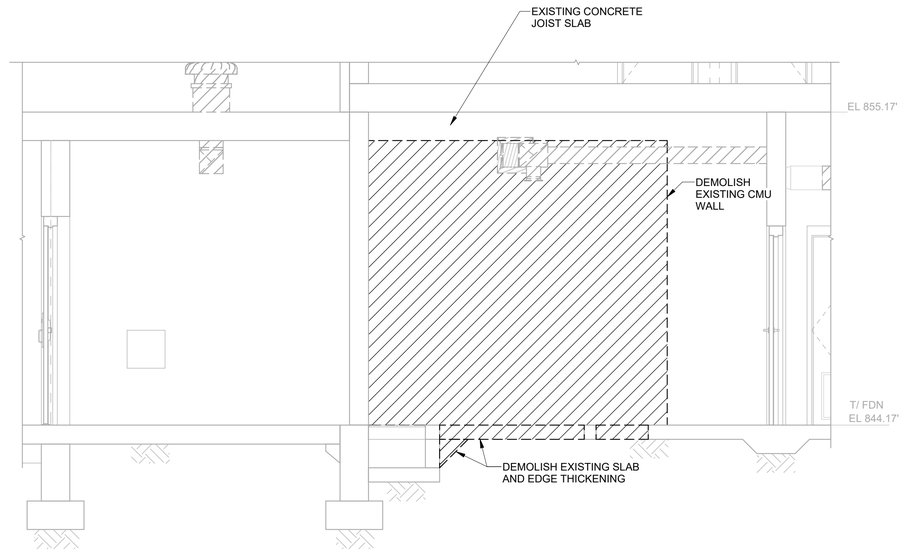
SHEET NO.: 41 OF 83



SODIUM HYPOCHLORITE FEED ROOM DEMOLITION PLAN

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

0' 2' 4' 6'



1 S-09 SECTION

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

0' 1' 2' 4'

NOTES :

1. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. CONTRACTOR SHALL LOCATE ROOF SLAB OPENINGS AWAY FROM EXISTING CONCRETE JOISTS. DO NOT CUT, DAMAGE, OR MODIFY JOISTS DURING INSTALLATION OF OPENINGS.
4. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHERINFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.

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CONSULTANTS

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GEORGIA REGISTERED No. SE000840 STRUCTURAL ENGINEER DONNELL VIVIAN DUNCAN 06.22.26

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

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SHEET TITLE

STRUCTURAL

CROSSTOWN

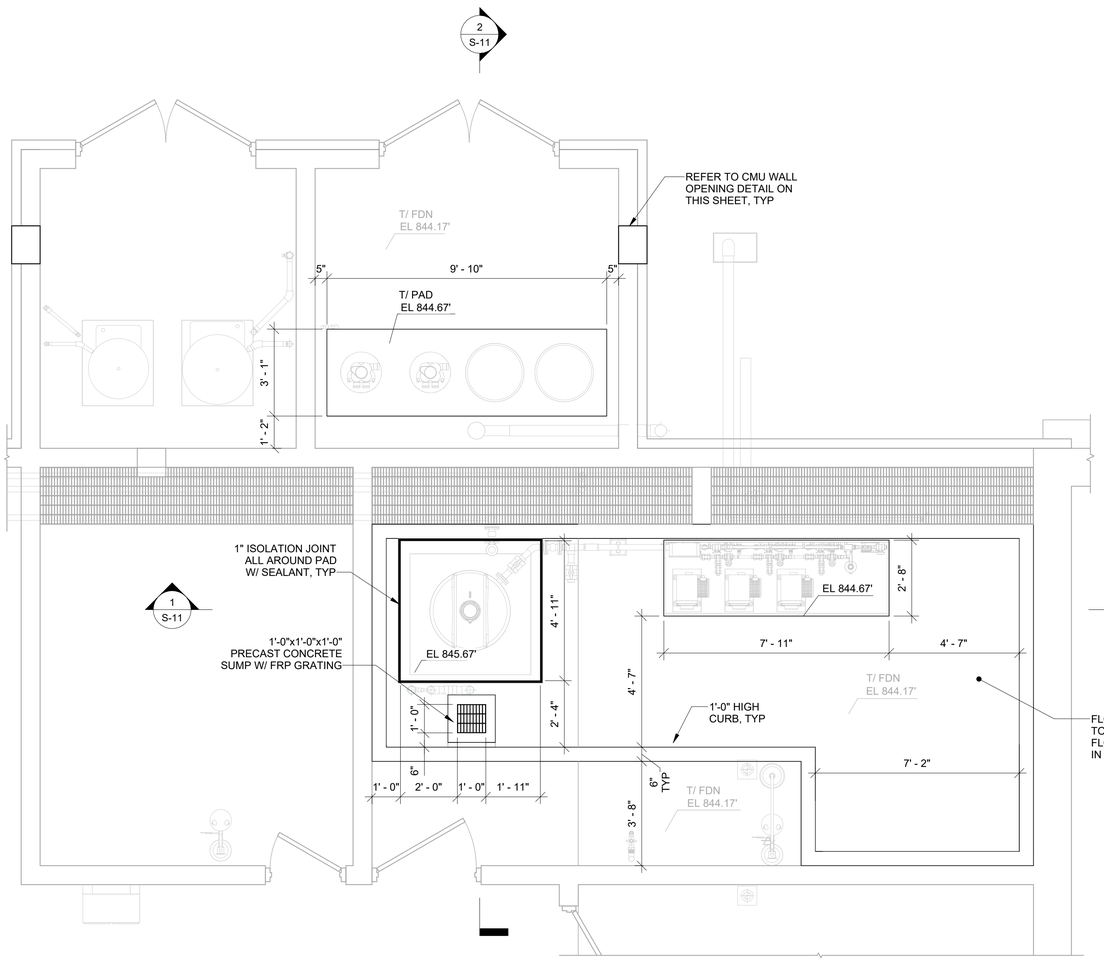
SODIUM HYPOCHLORITE FEED ROOM DEMOLITION PLAN AND SECTION

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

0 1" BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-09

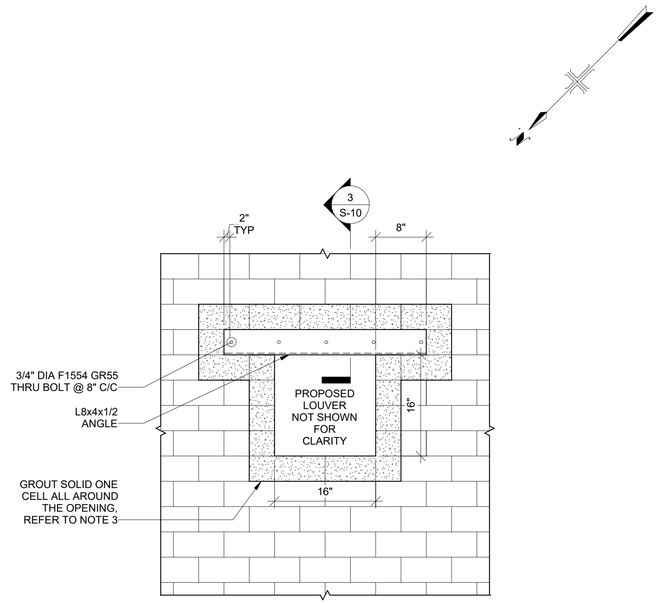
SHEET NO.: 42 OF 83



SODIUM HYPOCHLORITE FEED ROOM PLAN

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

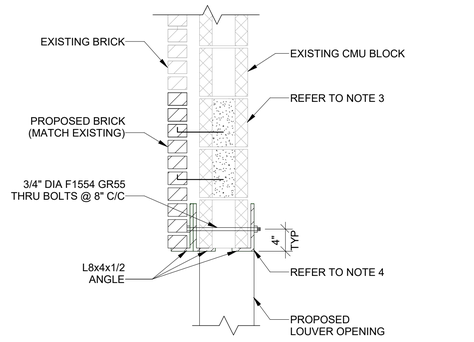
0' 2' 4' 6'



CMU WALL LOUVER OPENING DETAIL ELEVATION

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

0' 1' 2' 3'



3 SECTION

3 / S-10

SCALE = 1"=1'-0"

0' 1' 2'

NOTES :

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3. TANK AND EQUIPMENT ANCHORAGE DESIGNS ARE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE REQUIRED EDGE DISTANCES SUFFICIENT TO RESIST SHEAR AND UPLIFT ON ANCHOR BOLTS. CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER ACTIVELY REGISTERED IN THE STATE OF GEORGIA FOR ENGINEER'S APPROVAL.
4. TANK AND EQUIPMENT ANCHORS SHALL BE STAINLESS STEEL TYPE 316 ADHESIVE.
5. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHERINFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.

CMU WALL OPENING NOTES :

1. MARK THE LOCATION OF THE LOUVER OPENING ON THE CMU WALL INTERIOR AND MAKE SURE THE OPENING IS ALIGNED WITH THE CMU CELLS. REFER TO H DRAWINGS FOR LOUVER LOCATION AND SIZE.
2. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT TO THE BRICK ABOVE OPENING BEFORE DEMOLITION.
3. CHECK THE CMU CELLS ALL AROUND THE NEW OPENING, IF NOT GROUTED SOLID, SAW CUT THE INTERIOR SIDE OF HOLLOW CELLS AND FILL WITH GROUT.
4. SCORE THE CMU JOINT AT THE BOTTOM OF NEW HEADER AND INSTALL THE ANGLES PER THE DETAILS SHOWN.
5. SAW CUT THE CMU WALL TO FORM THE OPENING AND DEMOLISH ALL CMU INSIDE THE OPENING. CUT BACK ANY REINFORCING BARS ONE INCH AND FILL HOLE WITH NON-SHRINK GROUT.
6. ONCE ANGLES ARE INSTALLED AND OPENING IS CREATED, BUILD BACK NEW BRICK TO MATCH EXISTING.
7. ALL STRUCTURAL STEEL & THRU BOLTS SHALL BE HOT DIPPED GALVANIZED.
8. ALL EXISTING DIMENSIONS AND ELEVATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

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CONSULTANTS

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GEORGIA REGISTERED No. SE003840 STRUCTURAL ENGINEER DONNELL VIVIAN DUNCAN 05.22.26

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

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DRAWN BY:	A. RAJESH
CHECKED BY:	D. DUNCAN

SHEET TITLE

STRUCTURAL
CROSSTOWN

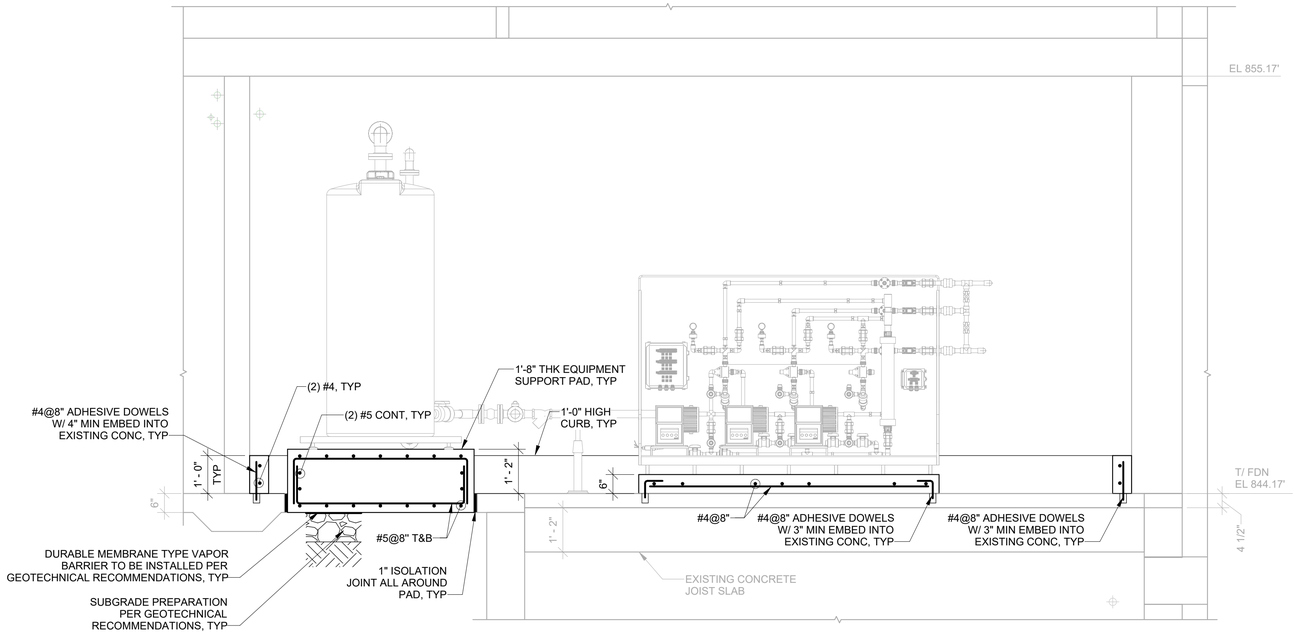
SODIUM HYPOCHLORITE FEED ROOM PLAN

SCALE: As indicated

BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-10

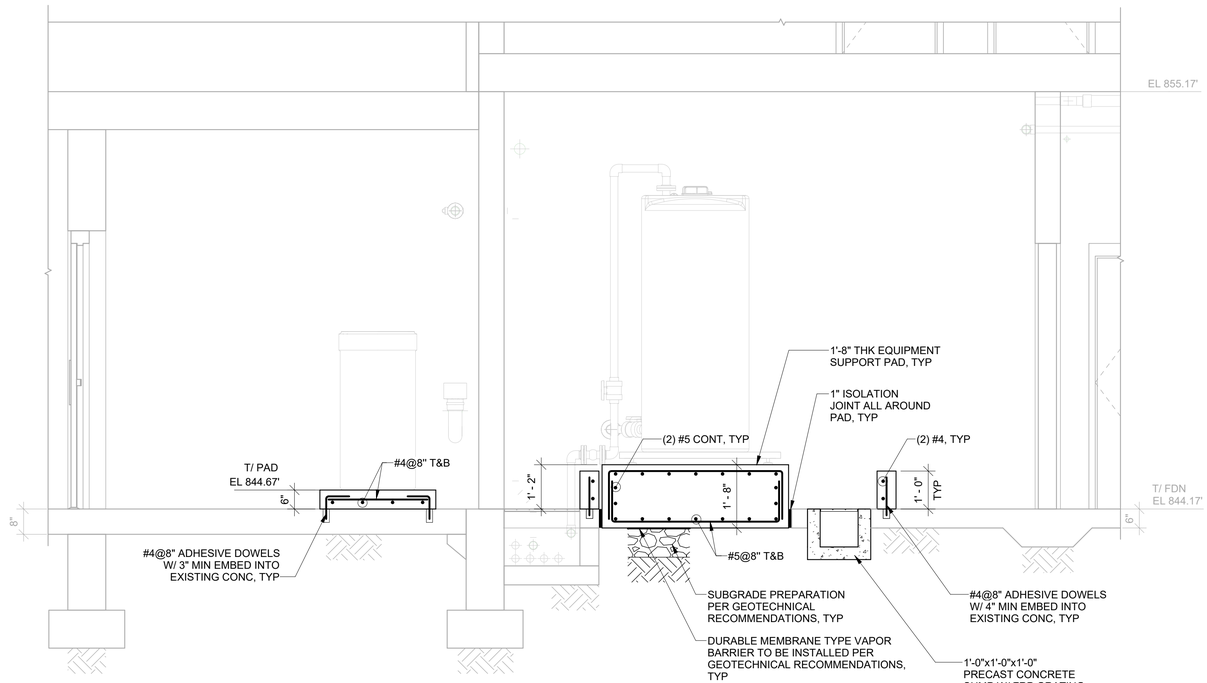
SHEET NO.: 43 OF 83



1 S-10 **SECTION**

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

0' 1' 2' 4'



2 S-10 **SECTION**

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

0' 1' 2' 4'

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STRUCTURAL
CROSSTOWN

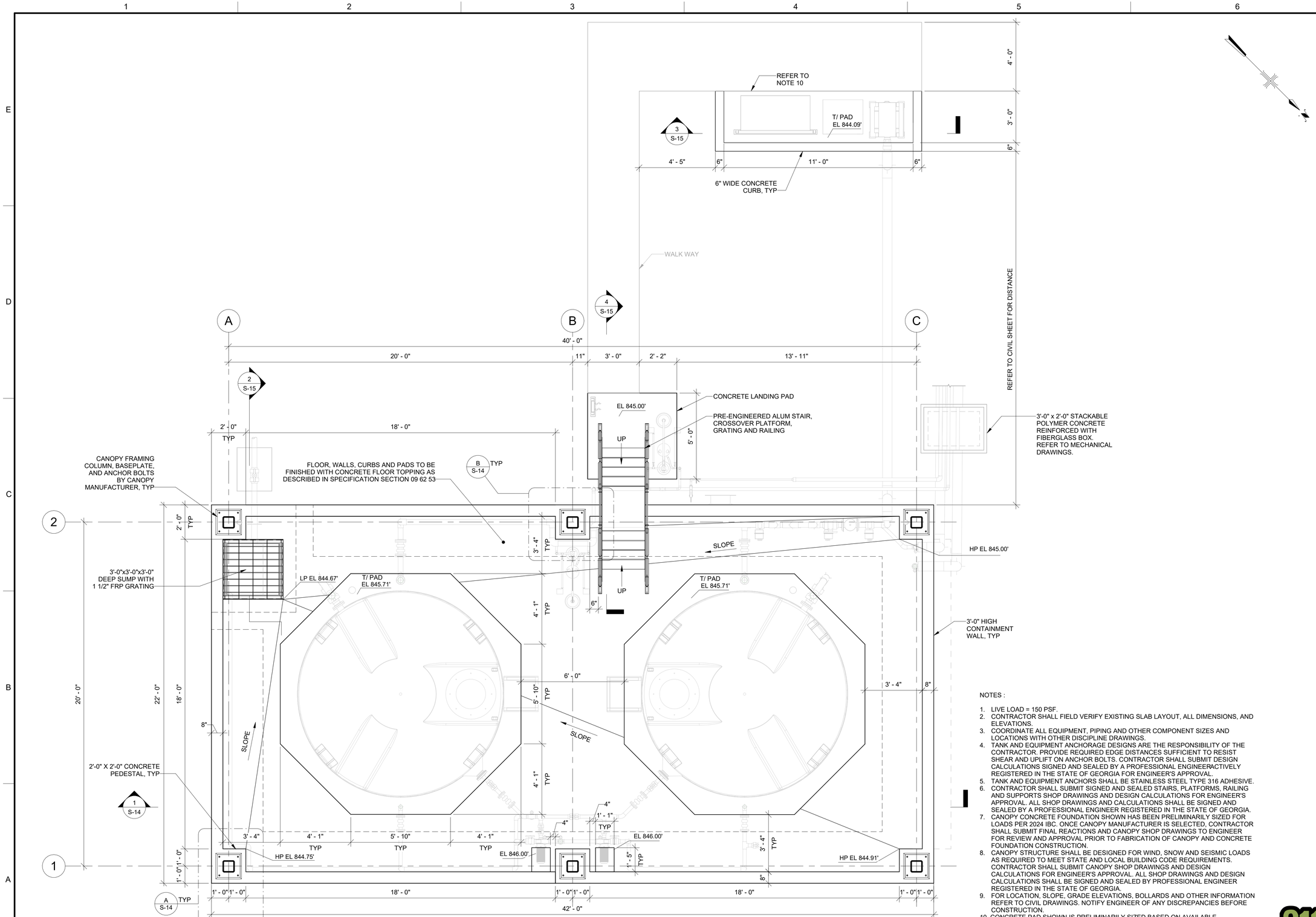
SODIUM HYPOCHLORITE FEED ROOM SECTIONS

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-11

SHEET NO.: 44 OF 83



SODIUM HYPOCHLORITE STORAGE AREA FOUNDATION PLAN

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

0' 2' 4' 6'

NOTES :

1. LIVE LOAD = 150 PSF.
2. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
3. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
4. TANK AND EQUIPMENT ANCHORAGE DESIGNS ARE THE RESPONSIBILITY OF THE CONTRACTOR. PROVIDE REQUIRED EDGE DISTANCES SUFFICIENT TO RESIST SHEAR AND UPLIFT ON ANCHOR BOLTS. CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEERACTIVELY REGISTERED IN THE STATE OF GEORGIA FOR ENGINEER'S APPROVAL.
5. TANK AND EQUIPMENT ANCHORS SHALL BE STAINLESS STEEL TYPE 316 ADHESIVE.
6. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED STAIRS, PLATFORMS, RAILING AND SUPPORTS SHOP DRAWINGS AND DESIGN CALCULATIONS FOR ENGINEER'S APPROVAL. ALL SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA.
7. CANOPY CONCRETE FOUNDATION SHOWN HAS BEEN PRELIMINARILY SIZED FOR LOADS PER 2024 IBC. ONCE CANOPY MANUFACTURER IS SELECTED, CONTRACTOR SHALL SUBMIT FINAL REACTIONS AND CANOPY SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF CANOPY AND CONCRETE FOUNDATION CONSTRUCTION.
8. CANOPY STRUCTURE SHALL BE DESIGNED FOR WIND, SNOW AND SEISMIC LOADS AS REQUIRED TO MEET STATE AND LOCAL BUILDING CODE REQUIREMENTS. CONTRACTOR SHALL SUBMIT CANOPY SHOP DRAWINGS AND DESIGN CALCULATIONS FOR ENGINEER'S APPROVAL. ALL SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SIGNED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF GEORGIA.
9. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHER INFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.
10. CONCRETE PAD SHOWN IS PRELIMINARILY SIZED BASED ON AVAILABLE EQUIPMENT INFORMATION. ONCE EQUIPMENT MANUFACTURER IS SELECTED, CONTRACTOR SHALL SUBMIT FINAL EQUIPMENT SHOP DRAWING SHOWING DIMENSIONS TO DETERMINE FINAL CONCRETE PAD SIZE. CONCRETE PAD SHALL NOT BE INSTALLED WITHOUT APPROVED EQUIPMENT SHOP DRAWING.

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CONSULTANTS

SEALS

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. SE000840 STRUCTURAL ENGINEER RONNELL VIVIAN DUNCAN 06.22.26

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

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DESIGNED BY:	P. LUNKAD / C. GALLO
DRAWN BY:	A. RAJESH
CHECKED BY:	D. DUNCAN

SHEET TITLE

STRUCTURAL
CROSSTOWN

SODIUM HYPOCHLORITE STORAGE AREA FOUNDATION PLAN

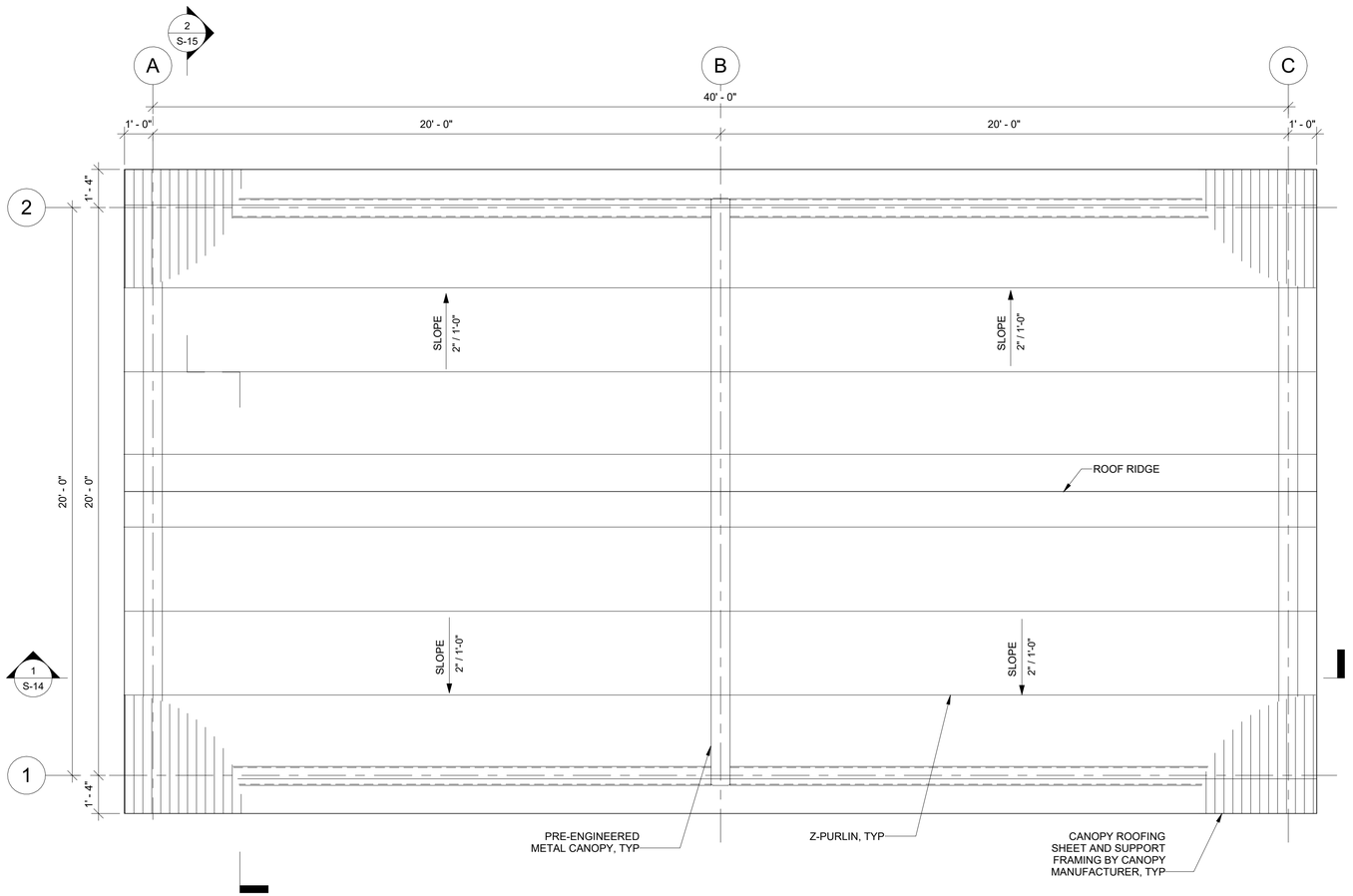
SCALE: 3/8" = 1'-0"

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.:

S-12

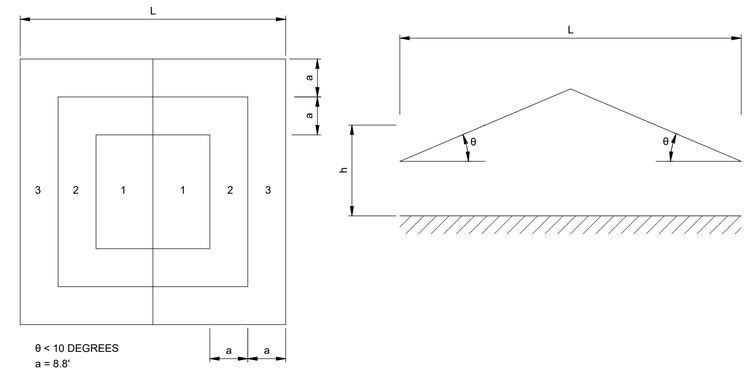
SHEET NO.: 45 OF 83



SODIUM HYPOCHLORITE STORAGE AREA ROOF PLAN

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

0' 2' 4' 6'



COMPONENT AND CLADDING PRESSURE ZONE

SCALE: 3/4" = 1'-0"

0' 1' 2' 3'

COMPONENTS AND CLADDING WIND PRESSURE												
	ULTIMATE DESIGN WIND PRESSURE (PSF)							NOMINAL DESIGN WIND PRESSURE (PSF)				
	TRIBUTARY AREA							TRIBUTARY AREA				
	≤a² ≤20.25 SF		>a², ≤ 4a² >20.25 SF, ≤81 SF		≥ 4a² ≥81 SF			≤a² ≤20.25 SF		>a², ≤ 4a² >20.25 SF, ≤81 SF		≥ 4a² ≥81 SF	
ROOF ZONE							ROOF ZONE						
1	24.8	-26.3	24.8	-26.3	24.8	-26.3	1	16.0	-16.0	16.0	-16.0	16.0	-16.0
2	38.3	-39.8	38.3	-39.8	24.8	-26.3	2	23.0	-23.9	23.0	-23.9	16.0	-16.0
3	49.5	-72.5	38.3	-39.8	24.8	-26.3	3	29.7	-43.5	23.0	-23.9	16.0	-16.0

STRUCTURAL DESIGN CRITERIA		
ITEM	VALUE	REMARKS
ULTIMATE DESIGN 3-SEC GUST WIND SPEED (V_{ult})	115 MPH	ASCE 7-22
RISK CATEGORY	III	
WIND EXPOSURE CATEGORY	C	
ROOF COLLATERAL LOAD	10 PSF	
ROOF LIVE LOAD	20 PSF	

WIND PRESSURE TABLE NOTES:

1. DESIGN WIND PRESSURES REPRESENT THE NET PRESSURE (SUM OF INTERNAL AND EXTERNAL PRESSURES) APPLIED NORMAL TO ALL SURFACES.
2. LINEAR INTERPOLATION BETWEEN VALUES OF TRIBUTARY AREA IS PERMISSIBLE.
3. (+) POSITIVE VALUES ARE WIND TOWARDS THE SURFACE; (-) NEGATIVE VALUES ARE WIND AWAY FROM SURFACE.
4. THE EXPOSURE CATEGORY AND HEIGHT ADJUSTMENT FACTORS HAVE BEEN APPLIED.
5. ROOF ZONES ARE 1 THROUGH 3.
6. ULTIMATE WIND PRESSURES ARE FOR WINDOWS, DOORS, VENEER, LIGHT GAGE METAL FRAMING, ROOFING AND ACCESSORIES, AND OTHER BUILDING COMPONENTS AND CLADDING.

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CONSULTANTS

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FAYETTE COUNTY, GEORGIA

FAYETTE County Water

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FAYETTE COUNTY, GEORGIA

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DRAWN BY: A. RAJESH

CHECKED BY: D. DUNCAN

SHEET TITLE

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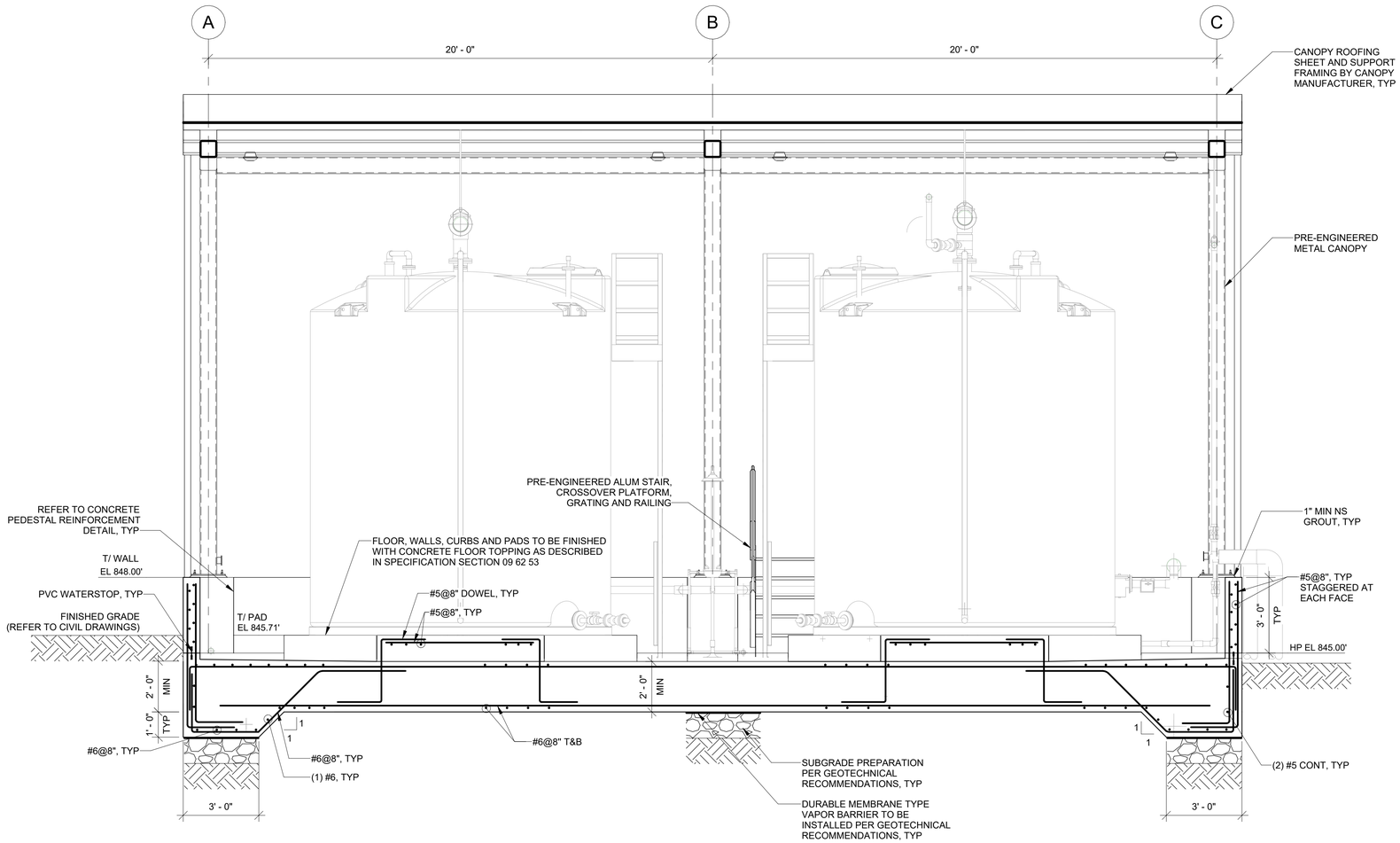
SODIUM HYPOCHLORITE STORAGE AREA ROOF PLAN

SCALE: As indicated

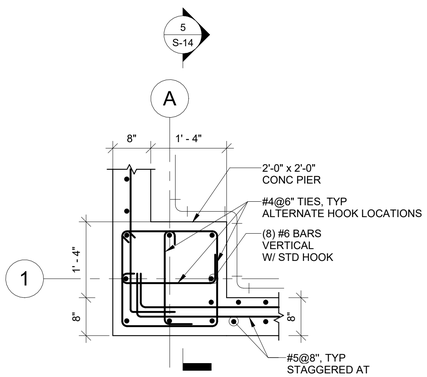
0 1" BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-13

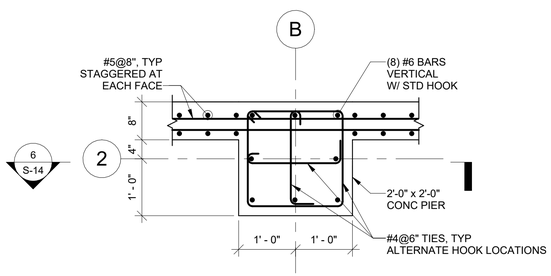
SHEET NO.: 46 OF 83



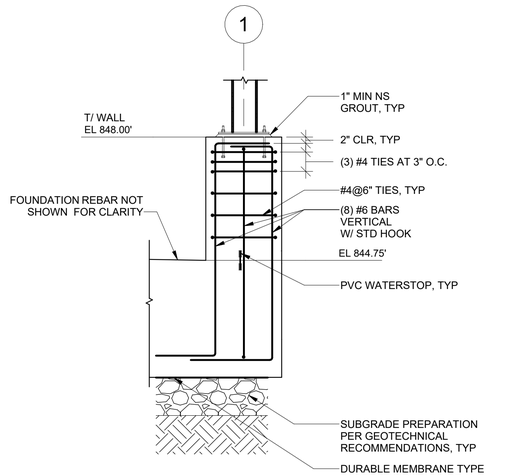
1 SECTION
S-12
SCALE: 3/8" = 1'-0"
0' 2' 4' 6'



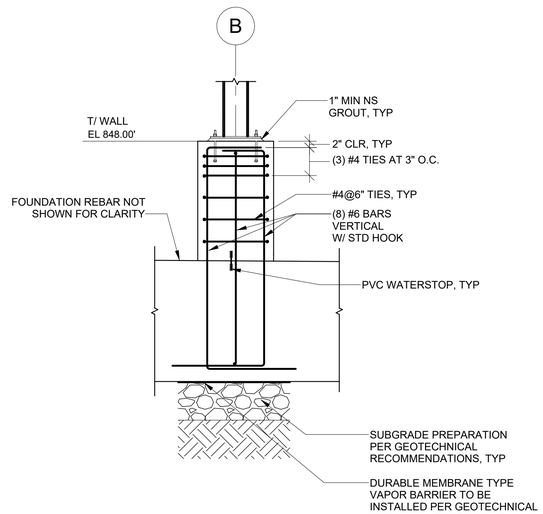
A PEDESTAL REINF DETAIL
S-12
SCALE: 3/4" = 1'-0"
0' 1' 2' 3'



B PEDESTAL REINF DETAIL
S-12
SCALE: 3/4" = 1'-0"
0' 1' 2' 3'



5 SECTION
S-14
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'



6 SECTION
S-14
SCALE: 1/2" = 1'-0"
0' 1' 2' 4'

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3. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHERINFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.
4. ALL WATERSTOPS SHALL BE CHEMICAL RESISTANT.
5. PROVIDE CORNER BARS AT ALL SLAB AND WALL INTERSECTIONS.

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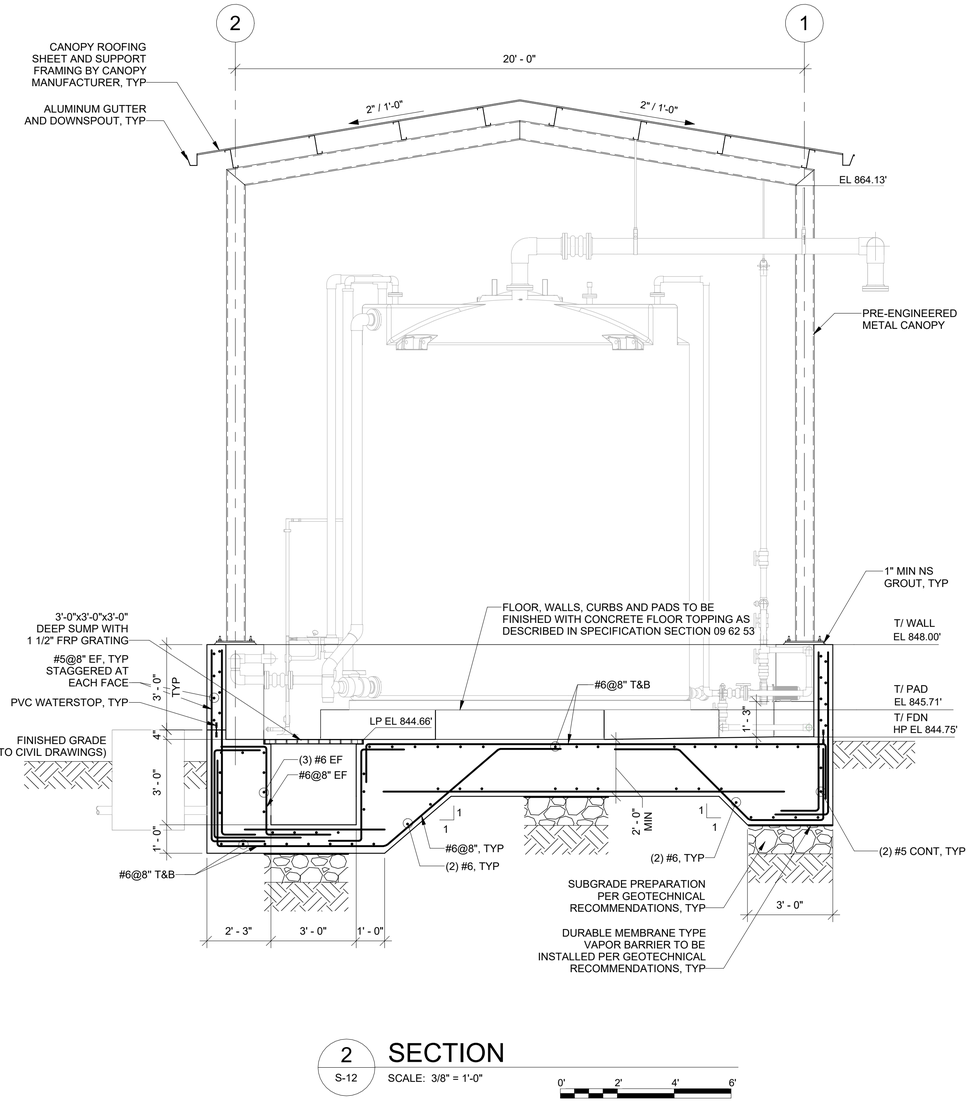
STRUCTURAL
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SODIUM HYPOCHLORITE STORAGE AREA SECTIONS AND DETAIL - 1

SCALE: As indicated
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

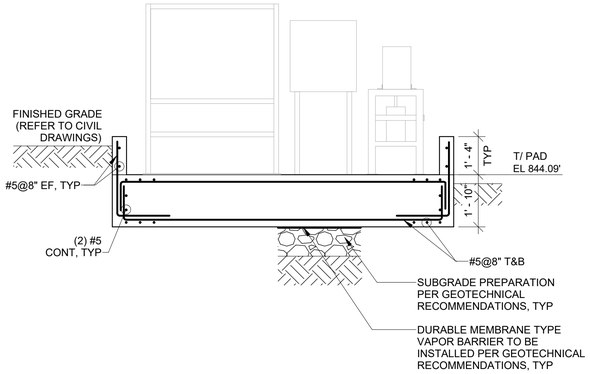
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SHEET NO.: 47 OF 83



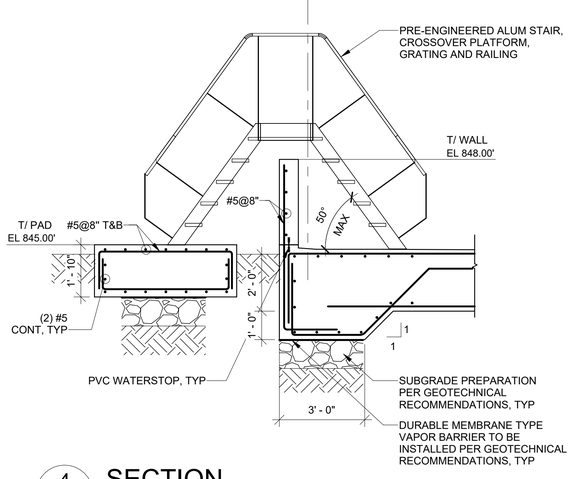
2 SECTION
S-12 SCALE: 3/8" = 1'-0"

0' 2' 4' 6'



3 SECTION
S-12 SCALE: 3/8" = 1'-0"

0' 2' 4' 6'



4 SECTION
S-12 SCALE: 3/8" = 1'-0"

0' 2' 4' 6'

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1. CONTRACTOR SHALL FIELD VERIFY EXISTING SLAB LAYOUT, ALL DIMENSIONS, AND ELEVATIONS.
2. COORDINATE ALL EQUIPMENT, PIPING AND OTHER COMPONENT SIZES AND LOCATIONS WITH OTHER DISCIPLINE DRAWINGS.
3. FOR LOCATION, SLOPE, GRADE ELEVATIONS, BOLLARDS AND OTHERINFORMATION REFER TO CIVIL DRAWINGS. NOTIFY ENGINEER OF ANY DISCREPANCIES BEFORE CONSTRUCTION.
4. ALL WATERSTOPS SHALL BE CHEMICAL RESISTANT.
5. PROVIDE CORNER BARS AT ALL SLAB AND WALL INTERSECTIONS

Know what's **below.** **Call** before you dig.

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ATLANTA, GA 30339
TEL: 770-431-8666
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CONSULTANTS

SEALS

GEORGIA REGISTERED No.SE000840 STRUCTURAL ENGINEER DONNELL VIVIAN DUNCAN 06.22.26

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JUNE 2026
DESIGNED BY:	P. LUNKAD / C. GALLO
DRAWN BY:	A. RAJESH
CHECKED BY:	D. DUNCAN

SHEET TITLE

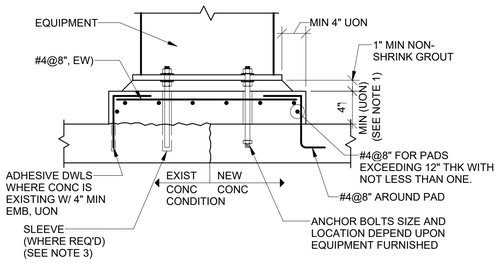
STRUCTURAL
CROSSTOWN

SODIUM HYPOCHLORITE STORAGE AREA SECTIONS AND DETAIL - 2

SCALE: 3/8" = 1'-0"
0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-15

SHEET NO.: 48 OF 83

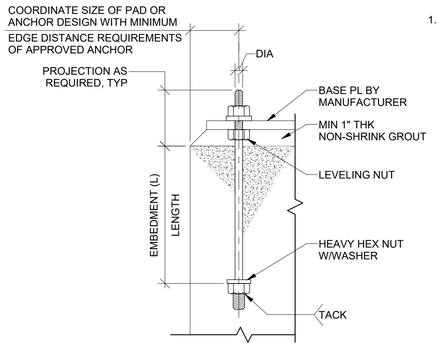


NOTES:

1. PROVIDE TYP 4" MINIMUM CONCRETE SUPPORT PAD FOR ALL EQUIPMENT UNLESS OTHERWISE NOTED.
2. COORDINATE LOCATION AND SIZE OF PADS WITH OTHER DRAWINGS AND MANUFACTURER'S CERTIFIED DRAWINGS.
3. FOR EXISTING SLABS, DRILL HOLE DIAMETER AND DEPTH IN EXISTING SLAB PER MANUFACTURER'S REQUIREMENTS FOR ADHESIVE ANCHORAGE SYSTEM USED.

TYPICAL EQUIPMENT SUPPORT PAD DETAIL

NOT TO SCALE



NOTE:

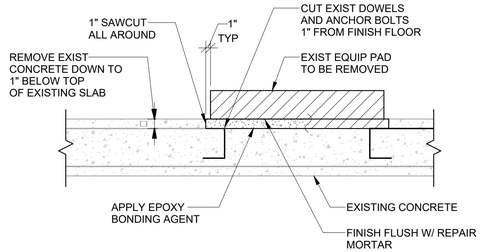
1. REFER TO SPECIFICATIONS AND CONTRACT DRAWING DETAILS FOR ANCHOR BOLT EMBEDMENT DEPTH REQUIREMENTS. FOR EQUIPMENT, ANCHOR BOLT DIAMETER AND EMBEDMENT SHALL BE AS SHOWN OR AS REQUIRED BY EQUIPMENT MANUFACTURER.

EMBEDMENT CHART

BOLT DIA (IN)	L (IN) UON TYPE 316 ASTM F593
1/2	6
5/8	7 1/2
3/4	9
7/8	10 1/2
1	12
1 1/8	13 1/2
1 1/4	15
1 3/8	16 1/2
1 1/2	18

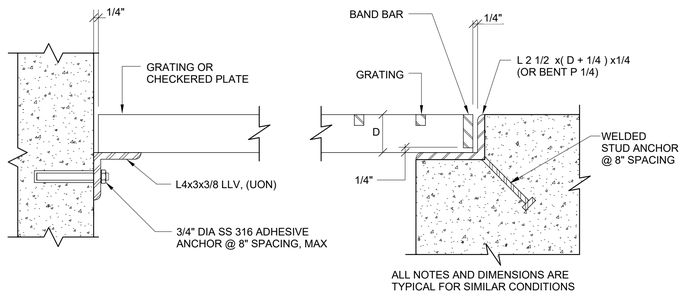
TYPICAL ANCHOR BOLT DETAIL

NOT TO SCALE



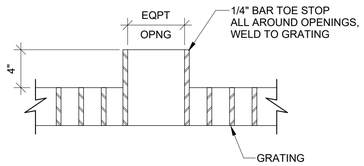
EXISTING EQUIPMENT PAD REMOVAL

NOT TO SCALE



NOTES:

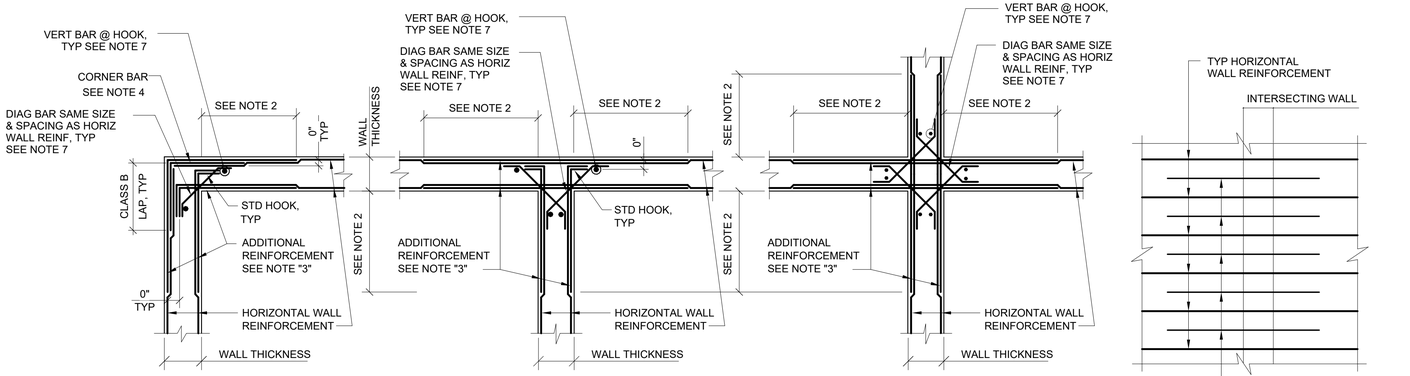
1. PROVIDE TYPICAL SUPPORT AS SHOWN FOR ALL GRATING AND PLATE SUPPORT.
2. SUPPORT ANGLE AND FASTENERS SHALL BE SS 316.



EQUIPMENT OPENINGS

TYPICAL GRATING SUPPORT DETAILS

NOT TO SCALE



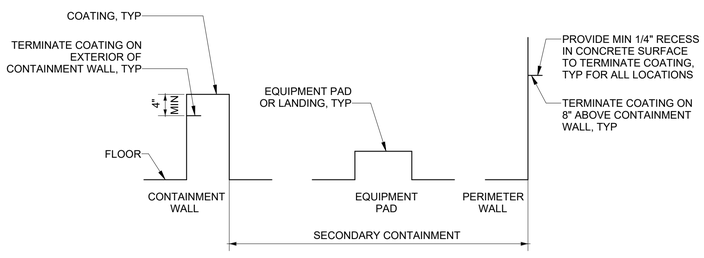
NOTES:

1. PROVIDE ADDITIONAL REINFORCING AT ALL WALL INTERSECTIONS AS SHOWN ABOVE UON ON DWGS.
2. DIMENSION TO BE 0.25 TIMES THE CLEAR SPAN DISTANCE BETWEEN WALL INTERSECTIONS MEASURED HORIZONTALLY, BUT NOT LESS THAN 4'-0", NOR GREATER THAN 8'-0".
3. ADDITIONAL REINFORCEMENT TO MATCH SIZE AND SPACING OF WALL HORIZONTAL REINFORCEMENT (UON). ALTERNATE ADDITIONAL REINFORCEMENT WITH HORIZONTAL WALL REINFORCEMENT.
4. PROVIDE CORNER BAR REINFORCING AT ALL WALL CORNERS AS SHOWN. CORNER BAR REINFORCEMENT TO MATCH SIZE AND SPACING OF WALL HORIZONTAL REINFORCEMENT.
5. WHERE LAPPING OF ADDITIONAL REINFORCEMENT FROM ADJACENT WALL INTERSECTION OCCURS, REINFORCEMENT SHALL BE COMBINED.
6. TYPICAL WALL INTERSECTION DETAILS ARE SHOWN AT 90 DEGREES, BUT ARE APPLICABLE FROM 60 TO 120 DEGREES.
7. DIAGONAL BAR IS ONLY REQUIRED FOR LIQUID CONTAINING STRUCTURES.

TYPICAL WALL ELEVATION AT WALL INTERSECTION

TYPICAL REINFORCEMENT DETAIL AT WALL INTERSECTIONS

NOT TO SCALE



PROTECTIVE COATING DETAIL-CONTAINMENT

NOT TO SCALE

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979

DATE: JUNE 2026

DESIGNED BY: P. LUNKAD / C. GALLO

DRAWN BY: A. RAJESH

CHECKED BY: D. DUNCAN

SHEET TITLE

STRUCTURAL

CROSSTOWN

TYPICAL DETAILS - 1

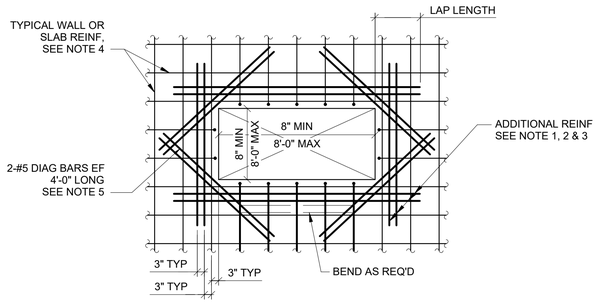
SCALE: NOT TO SCALE

0 BAR IS ONE INCH ON UNREDUCED DRAWING

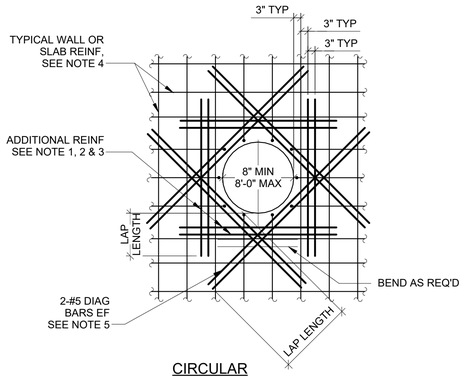
DRAWING NO.: S-16

SHEET NO.: 49 OF 83

811 Know what's **below.** **Call** before you dig.



RECTANGULAR



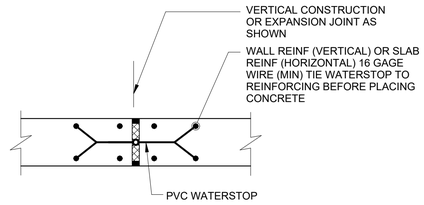
CIRCULAR

TYPICAL REINFORCING AROUND OPENING IN WALL AND SLAB

NOT TO SCALE

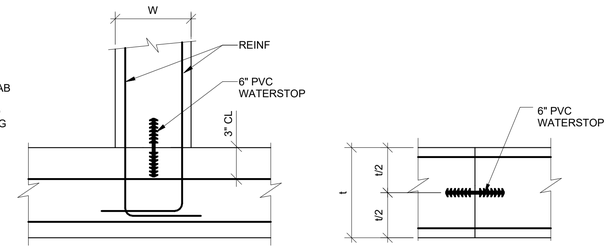
NOTES:

1. PROVIDE ADDITIONAL REINFORCEMENT AT EACH SIDE OF ALL OPENINGS, ACCESS HATCHES, PIPE PENETRATIONS, ETC. EQUAL IN AREA TO 1/2 OR MORE THE AREA OF REINFORCEMENT CUT BY OPENING IN EACH DIRECTION. ADDITIONAL REINFORCEMENT TO MATCH SIZE OF TYPICAL REINFORCEMENT (MIN 2 BARS ES AND EF) AND PLACED BETWEEN TYPICAL REINFORCEMENT @3" SPACING ON EACH SIDE OF OPENING. IF A WALL OR BEAM IS ADJACENT TO THE OPENING, THE ADDITIONAL REINFORCEMENT ON THAT SIDE OF THEOPENING CAN BE OMITTED.
2. ANY OPENING 12" OR LESS TO AN ADJACENT WALL DOES NOT REQUIRE ADDITIONAL REINFORCEMENT ATTHAT SIDE OF OPENING.
3. PROVIDE MATCHING DOWELS WHERE REQUIRED TO PROVIDE CLASS "B" LAP WITH ADDITIONAL REINFORCEMENT. (WHERE LAPPING OF ADDITIONAL REINFORCEMENT FROM ADJACENT OPENINGS OCCUR, ADDITIONAL REINFORCEMENT SHALL BE COMBINED).
4. PROVIDE STANDARD HOOK AT END OF ALL BARS TERMINATING AT OPENING.
5. DIAGONAL BARS TO BE PLACED AT THE INNERMOST LAYER FROM CONCRETE FACES.



PVC WATERSTOP INSTALLATION DETAIL

NOT TO SCALE

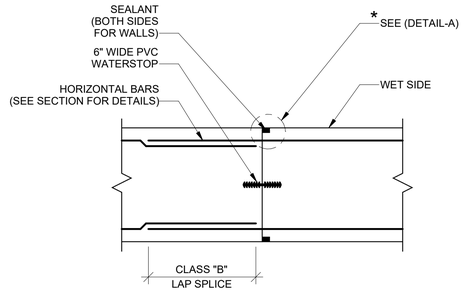


NOTE:

1. CONTINUE ALL REINFORCEMENT BARS THROUGH JOINTS.

TYPICAL WATERSTOP LOCATION DETAILS

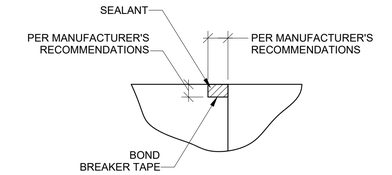
NOT TO SCALE



* TOP OF SLAB ONLY

WALL/SLAB CONSTRUCTION JOINT (CJ) DETAIL

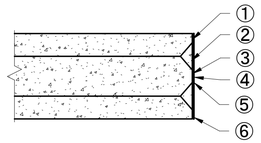
NOT TO SCALE



DETAIL - A

SEALANT DETAIL FOR CONSTRUCTION / CONTRACTION JOINT

NOT TO SCALE

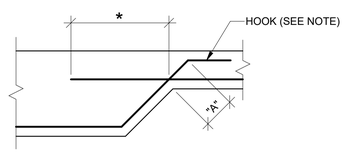


TYPICAL SAW CUT CONCRETE SURFACE REPAIR DETAIL

1. SAW CUT SURFACE OF EXISTING CONCRETE, WHERE NECESSARY, USE SPECIFIED REPAIR MORTAR TO PATCH DAMAGED OR OVER CUT AREAS PRIOR TO PROCEEDING WITH SPECIFIED COATING SYSTEM.
2. CHIP BACK AND REMOVE ALL EXPOSED REINFORCING TO A DEPTH OF 2" (MINIMUM). PATCH VOID WITH SPECIFIED REPAIR MORTAR. PROVIDE BONDING AGENT AS REQUIRED BY MANUFACTURER.
3. ROUGHEN EXISTING SURFACE AS REQUIRED.
4. LIBERALLY APPLY A MINIMUM OF TWO COATINGS OF THE CORROSION INHIBITOR TO ALL SURFACES.
5. AFTER ADEQUATE DRYING TIME, LOW-PRESSURE WASH ALL SURFACES TO REMOVE DEPOSITED FILM FROM CORROSION INHIBITOR.
6. APPLY 2 COATS OF PROTECTIVE SLURRY MORTAR.
7. APPLY ALL MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

TYPICAL SAW CUT CONCRETE SURFACE REPAIR DETAIL

NOT TO SCALE

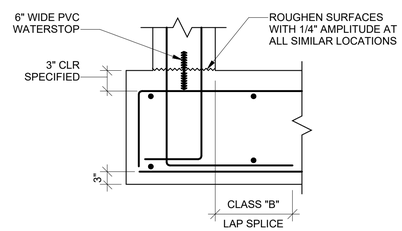


EMBEDMENT LENGTH OF REINFORCEMENT INTERSECTING DIAGONALLY

NOT TO SCALE

NOTES:

1. HOOK SHOWN IS REQUIRED WHEN DIAGONAL LENGTH "A" LESS THAN EMBEDMENT LENGTH SHOWN IN TABLE ON SHEET S00-01.
2. * INDICATES EMBEDMENT LENGTH, SEE TABLE ON SHEET S00-01.



HORIZONTAL JOINT DETAIL

NOT TO SCALE

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DESIGNED BY:	P. LUNKAD / C. GALLO
DRAWN BY:	A. RAJESH
CHECKED BY:	D. DUNCAN

SHEET TITLE

STRUCTURAL
CROSSTOWN

TYPICAL DETAILS - 2

SCALE: NOT TO SCALE

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: S-17

SHEET NO.: 50 OF 83

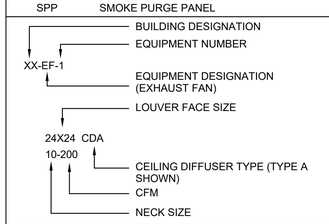
ABBREVIATIONS

HVAC

ACH	AIR CHANGES PER HOUR
ACU	AIR CONDITIONING UNIT
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFR	ABOVE FINISHED ROOF
AL	ALUMINUM
AMB	AMBIENT
APPROX	APPROXIMATE
ATC	AUTOMATIC TEMPERATURE CONTROL
AUTO	AUTOMATIC
AU	AIR HANDLING UNIT
BBO	BATTERY BACK UP OPEN
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOL	BOTTOM OF LOUVER
BOT EL	BOTTOM ELEVATION
BOU	BOTTOM OF UNIT
BTU/HR	BRITISH THERMAL UNITS PER HOUR
BTUH	BRITISH THERMAL UNITS PER HOUR
℄	CENTER LINE
C	CARBON DIOXIDE SENSOR
CD	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/ EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECAV	EXHAUST CONSTANT AIR VOLUME
EF	EXHAUST FAN
EG/EAG	EXHAUST GRILLE
EL	ELEVATION
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
EQUIP	EQUIPMENT
EUH	ELECTRIC UNIT HEATER
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
FRP	FIBERGLASS REINFORCED PLASATIC
FPM	FEET PER MINUTE
FT	FEET
FTR	FINNED TUBE RADIATION
GAL	GALVANIZED
GPM	GALLONS PER MINUTE
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
H	HUMIDITY SENSOR
HP	HORSEPOWER
HS	HUMIDITY SENSOR
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
MER	MECHANICAL EQUIPMENT ROOM
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
OAT	OUTSIDE AIR TEMPERATURE
OPNG	OPENING
PD	PRESSURE DROP
PF	PROPELLER FAN
PS-1	PRESSURE SENSOR
PVC	POLYVINYL CHLORIDE
RA	RETURN AIR
REACT	REACTIVATION
RG/RAG	RETURN GRILLE
RL	REFRIGERANT LIQUID
RM	ROOM
RR	RETURN REGISTER
RO	ROOF OPENING
RS	REFRIGERANT SUCTION
RV	RELIEF VENT
S	SUPPLY
SA	SUPPLY AIR
SC	SPRING CLOSE
SCAV	SUPPLY CONSTANT AIR VOLUME
SCH	SCHEDULE
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SFFA	SQUARE FOOT FREE AREA
SG/SAG	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
T	THERMOSTAT
TOD	TOP OF DUCT
TS	TOTAL STATIC
TS-1	TEMPERATURE SENSOR
TSP	TOTAL STATIC PRESSURE
TVS	TEMPORARY VENTILATION STATION
TYP	TYPICAL
VAS	VENTILATION ALARM STATION
VD	VOLUME DAMPER (MANUAL)
VH	VALVE HEATING
VMS	VENTILATION MONITORING STATION
WB	WET BULB
WG	WATER GAUGE
WMS	WIRE MESH SCREEN
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
DAHU	DEHUMIDIFICATION AIR HANDLING UNIT
EBH	ELECTRIC BASEBOARD HEATER
EF	EXHAUST FAN
EUH	ELECTRIC UNIT HEATER
FACP	FIRE ALARM CONTROL PANEL
FBP	FIBER BRANCH PANEL
FPP	FIBER PATCH PANEL
GDC	GLYCOL DRY COOLER
HUH	HOT WATER UNIT HEATER
HV	HEATING AND VENTILATING UNIT
HVAC	HEATING, VENTILATING, AIR CONDITIONING UNIT
HP	HEAT PUMP
HWB	HOT WATER BOILER
HWP	HOT WATER PUMP
HWPP	HOT WATER PRIMARY PUMP
HWSP	HOT WATER SECONDARY PUMP
MAU	MAKE-UP AIR UNIT
PAC	PACKAGED AIR CONDITIONING UNIT
PSP	PURGE STATION PANEL
PTAC	PACKAGED TERMINAL AC UNIT
RHP	RADIANT HEATING PANEL
SF	SUPPLY FAN
SPP	SMOKE PURGE PANEL



PIPING SYMBOLS

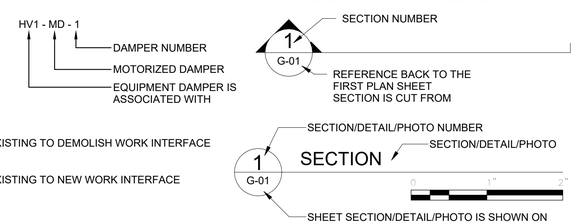
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CA	COMPRESSED AIR
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
DG	DIGESTER GAS
EFWS	EFFLUENT WATER SUPPLY
EFWR	EFFLUENT WATER RETURN
D	DRAIN
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
V	VENT
FOV	FUEL OIL VENT
FOG	FUEL OIL GAUGE
NG	NATURAL GAS
CW	COLD WATER
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
	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
	EXISTING PIPING/EQUIPMENT
	NEW PIPING/EQUIPMENT
	HIDDEN PIPING/EQUIPMENT

MISCELLANEOUS SYMBOLS

T	THERMOSTAT/TEMPERATURE SENSOR
	PUMP OR FAN
CB	CIRCUIT BREAKER
	VENTILATION ALARM OR MONITORING STATION
SD	SMOKE DETECTOR (DUCT MOUNTED)
M	
	EXISTING TO DEMOLISH WORK INTERFACE
	EXISTING TO NEW WORK INTERFACE
H	HUMIDITY SENSOR
C	CARBON DIOXIDE SENSOR
O	OUTSIDE AIR SENSOR
S HOA	HAND - OFF - AUTO SWITCH

SECTION MARKERS



DUCTWORK SYMBOLS

	SUPPLY AIR
	RETURN OR EXHAUST AIR
12" X 12"	DUCT, DIRECTION OF FLOW, SIZE
	DUCT SECTION, SUPPLY
	DUCT SECTION, EXHAUST
	DUCT SECTION, RETURN
	DROP (D) CHANGE OF ELEVATION RISE (R),
	FLEXIBLE CONNECTION
	FLEXIBLE DUCT
	MITERED ELBOW W/ TURNING VANES
	DUCT ELBOW DOWN. SUPPLY SHOWN
	DUCT ELBOW UP, SUPPLY SHOWN
	VOLUME DAMPER
	SUPPLY REGISTER OR GRILLE
	EXHAUST REGISTER OR GRILLE
	RETURN REGISTER OR GRILLE
	FOUR WAY BLOW SUPPLY DIFFUSER / REGISTER
	THREE WAY BLOW SUPPLY DIFFUSER / REGISTER
1.0 S.F. 100 CFM	DOOR LOUVER, SIZE
U	DOOR UNDERCUT
	DUCTWORK WITH INTERNAL INSULATION
M	MOTORIZED DAMPER (ELECTRIC)
SMD	SMOKE DAMPER
GBD	GRAVITY BACKDRAFT DAMPER
FD #	FIRE DAMPER W/ ACCESS DOOR
#	DESIGNATES FIRE WALL RATING
	TWO WAY BLOW SUPPLY DIFFUSER
	ONE WAY BLOW SUPPLY DIFFUSER
	VAV BOX
	LINEAR DIFFUSER
	EXISTING DUCTWORK/EQUIPMENT
	NEW DUCTWORK/EQUIPMENT
	HIDDEN DUCTWORK/EQUIPMENT

DUCTWORK SYMBOLS

	ROOF EXHAUST FAN
	ROOF SUPPLY FAN
	IN LINE FAN
	PENT HOUSE
WMS	WIRE MESH SCREEN
	RETURN FAN

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. 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.
4. EQUIPMENT SIZES AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHED.
5. CONCRETE PAD SIZES AND LOCATIONS SHALL BE COORDINATED DURING CONSTRUCTION WITH APPROVED EQUIPMENT.
6. FINAL SIZES OF FLOOR OPENINGS, WALL OPENINGS, ROOF OPENINGS, DUCT PLENUMS, DUCT TRANSITIONS AND PIPING CONNECTIONS TO EQUIPMENT SHALL BE DETERMINED BY EQUIPMENT FURNISHED.
7. FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
8. VOLUME DAMPERS SHOWN OR DESCRIBED ON THE DRAWINGS ARE IN ADDITION TO OPPOSED BLADE DAMPERS PROVIDED WITH REGISTERS.
9. PROVIDE PIPE SLEEVES AND MECHANICAL SEALS FOR ALL PIPING AND CONTAINMENT CONDUIT PENETRATIONS THRU CONCRETE OR MASONRY CONSTRUCTION INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, ROOFS, PADS, UNDERGROUND STRUCTURES EXCEPT WHERE OTHERWISE NOTED.
10. REFER TO CODE COMPLIANCE DRAWINGS UNDER GENERAL DRAWING CATEGORY FOR ADDITIONAL DESIGN INFORMATION REQUIRED UNDER THIS CONTRACT.

GENERAL DEMOLITION NOTES

1. THE DRAWINGS DEPICT ONLY THE GENERAL EXISTING CONDITIONS. ALL DEMOLITION WORK AND DIMENSIONS SHALL BE FIELD VERIFIED BEFORE THE START OF WORK.
2. COORDINATE THE EXTENT OF DEMOLITION WORK WITH CONTRACT DRAWINGS SHOWING THE DEMOLITION.
3. REPAIR ANY DAMAGES TO THE ADJACENT EXISTING CONSTRUCTION TO REMAIN AFTER THE DEMOLITION.
4. DRAWINGS DO NOT SHOW THE EXTENT OF ALL EXISTING EQUIPMENT MOUNTED ON EXISTING SUBSTRATE. CONTRACTOR SHALL VERIFY THE EXTENT AND LOCATIONS OF ALL SUCH ITEMS AND COORDINATE WITH OTHER DISCIPLINES.
5. COORDINATE DEMOLITION WITH ALL DRAWINGS AND WITH ANY PHASING DESCRIBED IN DRAWINGS AND SPECIFICATIONS.
6. PIPING, CONDUIT, WIRING, HANGERS, DUCTWORK, OR OTHER COMPONENTS RENDERED USELESS FROM DEMOLITION WORK SHALL BE REMOVED.
7. THE CONTRACTOR SHALL INFORM THE OWNER AND RECEIVE SCHEDULE APPROVAL FOR ANY REQUIRED UTILITY SHUTDOWN.

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CONSULTANTS

SEALS

GEORGIA REGISTERED No. PE-36455 PROFESSIONAL ENGINEER 06/25/26 SUNILSEN S. PERAMANU

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	S. PERAMANU
DRAWN BY:	L. BANGARU
CHECKED BY:	S. CHHEA

SHEET TITLE

HVAC
CROSSTOWN

ABBREVIATIONS,SYMBOLS AND NOTES

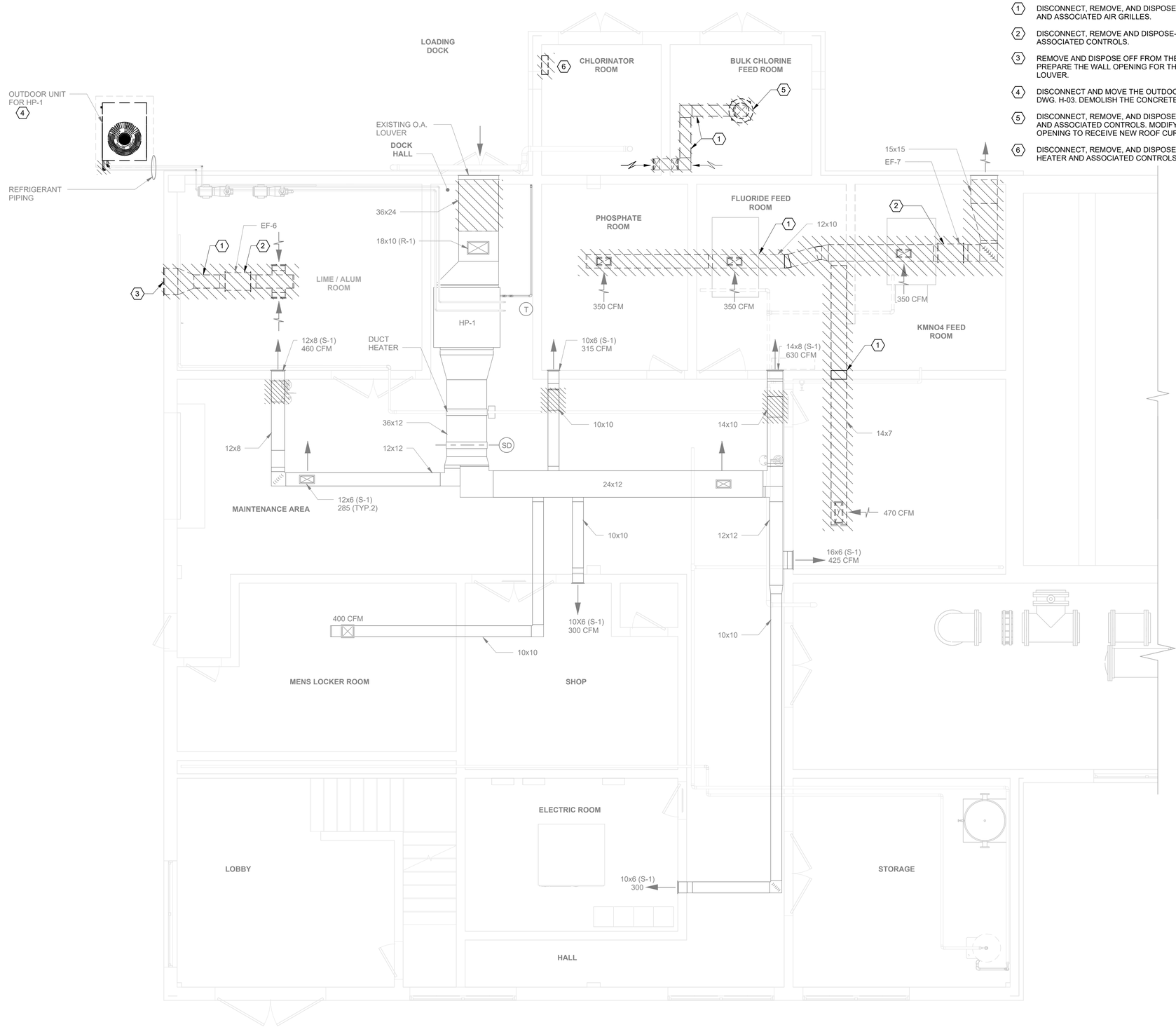
SCALE: NOT TO SCALE

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: H-01

SHEET NO.: 51 OF 83

811 Know what's **below.** **Call** before you dig.



KEY NOTES:

1. DISCONNECT, REMOVE, AND DISPOSE-OFF FROM THE SITE EXHAUST DUCTWORK AND ASSOCIATED AIR GRILLES.
2. DISCONNECT, REMOVE AND DISPOSE-OFF FROM THE SITE EXHAUST FAN AND ASSOCIATED CONTROLS.
3. REMOVE AND DISPOSE OFF FROM THE SITE THE MUSHROOM WALL CAP AND PREPARE THE WALL OPENING FOR THE INSTALLATION OF NEW EXHAUST AIR LOUVER.
4. DISCONNECT AND MOVE THE OUTDOOR UNIT TO NEW LOCATION AS SHOWN ON DWG. H-03. DEMOLISH THE CONCRETE PAD.
5. DISCONNECT, REMOVE, AND DISPOSE OFF FROM THE SITE ROOF EXHAUST FAN AND ASSOCIATED CONTROLS. MODIFY AS NEEDED AND PREPARE THE ROOF OPENING TO RECEIVE NEW ROOF CURB AND ROOF EXHAUST FAN.
6. DISCONNECT, REMOVE, AND DISPOSE OFF FROM THE SITE ELECTRIC UNIT HEATER AND ASSOCIATED CONTROLS.

POST-TREATMENT CHEMICAL BUILDING DEMOLITION PLAN

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

0' 2' 4' 8'

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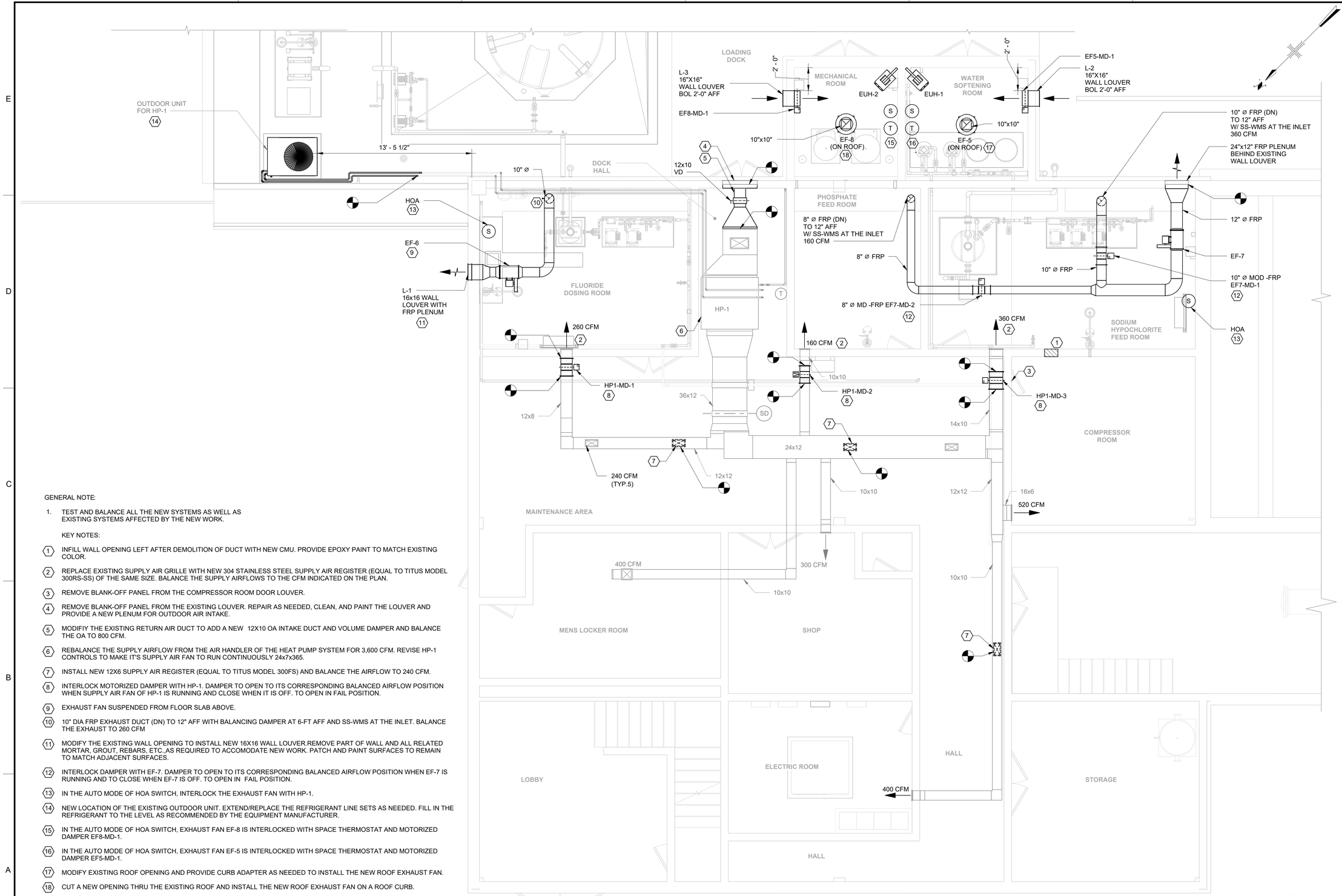
POST-TREATMENT CHEMICAL BUILDING DEMOLITION PLAN

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

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: H-02

SHEET NO.: 52 OF 83



GENERAL NOTE:

1. TEST AND BALANCE ALL THE NEW SYSTEMS AS WELL AS EXISTING SYSTEMS AFFECTED BY THE NEW WORK.

KEY NOTES:

(1) INFILL WALL OPENING LEFT AFTER DEMOLITION OF DUCT WITH NEW CMU. PROVIDE EPOXY PAINT TO MATCH EXISTING COLOR.

(2) REPLACE EXISTING SUPPLY AIR GRILLE WITH NEW 304 STAINLESS STEEL SUPPLY AIR REGISTER (EQUAL TO TITUS MODEL 300RS-SS) OF THE SAME SIZE. BALANCE THE SUPPLY AIRFLOWS TO THE CFM INDICATED ON THE PLAN.

(3) REMOVE BLANK-OFF PANEL FROM THE COMPRESSOR ROOM DOOR LOUVER.

(4) REMOVE BLANK-OFF PANEL FROM THE EXISTING LOUVER. REPAIR AS NEEDED, CLEAN, AND PAINT THE LOUVER AND PROVIDE A NEW PLENUM FOR OUTDOOR AIR INTAKE.

(5) MODIFIY THE EXISTING RETURN AIR DUCT TO ADD A NEW 12X10 OA INTAKE DUCT AND VOLUME DAMPER AND BALANCE THE OA TO 800 CFM.

(6) REBALANCE THE SUPPLY AIRFLOW FROM THE AIR HANDLER OF THE HEAT PUMP SYSTEM FOR 3,600 CFM. REVISE HP-1 CONTROLS TO MAKE IT'S SUPPLY AIR FAN TO RUN CONTINUOUSLY 24x7x365.

(7) INSTALL NEW 12X6 SUPPLY AIR REGISTER (EQUAL TO TITUS MODEL 300FS) AND BALANCE THE AIRFLOW TO 240 CFM.

(8) INTERLOCK MOTORIZED DAMPER WITH HP-1. DAMPER TO OPEN TO ITS CORRESPONDING BALANCED AIRFLOW POSITION WHEN SUPPLY AIR FAN OF HP-1 IS RUNNING AND CLOSE WHEN IT IS OFF. TO OPEN IN FAIL POSITION.

(9) EXHAUST FAN SUSPENDED FROM FLOOR SLAB ABOVE.

(10) 10" DIA FRP EXHAUST DUCT (DN) TO 12" AFF WITH BALANCING DAMPER AT 6-FT AFF AND SS-WMS AT THE INLET. BALANCE THE EXHAUST TO 260 CFM

(11) MODIFY THE EXISTING WALL OPENING TO INSTALL NEW 16X16 WALL LOUVER.REMOVE PART OF WALL AND ALL RELATED MORTAR, GROUT, REBARS, ETC.,AS REQUIRED TO ACCOMODATE NEW WORK. PATCH AND PAINT SURFACES TO REMAIN TO MATCH ADJACENT SURFACES.

(12) INTERLOCK DAMPER WITH EF-7. DAMPER TO OPEN TO ITS CORRESPONDING BALANCED AIRFLOW POSITION WHEN EF-7 IS RUNNING AND TO CLOSE WHEN EF-7 IS OFF. TO OPEN IN FAIL POSITION.

(13) IN THE AUTO MODE OF HOA SWITCH, INTERLOCK THE EXHAUST FAN WITH HP-1.

(14) NEW LOCATION OF THE EXISTING OUTDOOR UNIT. EXTEND/REPLACE THE REFRIGERANT LINE SETS AS NEEDED. FILL IN THE REFRIGERANT TO THE LEVEL AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

(15) IN THE AUTO MODE OF HOA SWITCH, EXHAUST FAN EF-8 IS INTERLOCKED WITH SPACE THERMOSTAT AND MOTORIZED DAMPER EF8-MD-1.

(16) IN THE AUTO MODE OF HOA SWITCH, EXHAUST FAN EF-5 IS INTERLOCKED WITH SPACE THERMOSTAT AND MOTORIZED DAMPER EF5-MD-1.

(17) MODIFY EXISTING ROOF OPENING AND PROVIDE CURB ADAPTER AS NEEDED TO INSTALL THE NEW ROOF EXHAUST FAN.

(18) CUT A NEW OPENING THRU THE EXISTING ROOF AND INSTALL THE NEW ROOF EXHAUST FAN ON A ROOF CURB.

POST-TREATMENT CHEMICAL BUILDING NEW WORK PLAN

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

0' 2' 4' 8'

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DRAWN BY:	L. BANGARU
CHECKED BY:	S. CHHEA

SHEET TITLE

HVAC
CROSSTOWN

POST-TREATMENT CHEMICAL BUILDING NEW WORK PLAN

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: H-03

SHEET NO.: 53 OF 83

MOTORIZED CONTROL DAMPER SCHEDULE

MARK NO.	AREA SERVED	INTERLOCK WITH	CONTROL DAMPER			ACTUATOR					NOTES
			SIZE (IN) (WXH)	MFR	MODEL	TYPE	ENCLOSURE	V/PH/HZ	MFR	MODEL	
EF7-MD-1	PHOSPHATE ROOM	EF-7	8 DIA	RUSKIN	SWARTWOUT FRP - 912	2-POS, SR, NO	NEMA 4X	24/1/60	BELIMO	NFXUP N4	1, 2, 3, 4, 5
EF7-MD-2	SODIUM HYPOCHLORITE ROOM	EF-7	10 DIA	RUSKIN	SWARTWOUT FRP - 912	2-POS, SR, NO	NEMA 4X	24/1/60	BELIMO	NFXUP N4	1, 2, 3, 4, 5
HP1-MD-1	FLUORIDE ROOM	HP-1	12 X 8	RUSKIN	CD60	2-POS, SR, NO	NEMA 2	24/1/60	BELIMO	TFB24-3	1, 2, 3, 4, 6, 8
HP1-MD-2	PHOSPHATE ROOM	HP-1	10 X 10	RUSKIN	CD60	2-POS, SR, NO	NEMA 2	24/1/60	BELIMO	TFB24-3	1, 2, 3, 4, 6, 8
HP1-MD-3	SODIUM HYPOCHLORITE ROOM	HP-1	14 X 10	RUSKIN	CD60	2-POS, SR, NO	NEMA 2	24/1/60	BELIMO	TFB24-3	1, 2, 3, 4, 6, 8
EF5-MD-1	WATER SOFTENING ROOM	EF-5	16 X 16	RUSKIN	CD50	2-POS, SR, NC	NEMA 4X	24/1/60	BELIMO	NFXUP N4	1, 2, 3, 7
EF8-MD-1	MECHANICAL ROOM	EF-8	16 X 16	RUSKIN	CD50	2-POS, SR, NC	NEMA 4X	24/1/60	BELIMO	NFXUP N4	1, 2, 3, 7

NOTES:
1. INSTALL PER MFR INSTRUCTIONS
2. CONTROL DAMPER PER SPECIFICATION SECTION 23 31 13
3. ACTUATOR PER SPECIFICATION SECTION 23 09 00
4. MECHANICAL STOP IN THE ACTUATOR FOR AIR BALANCING
5. DAMPER CONSTRUCTED OF FRP
6. DAMPER CONSTRUCTED OF GALVANIZED STEEL
7. DAMPER CONSTRUCTED OF ALUMINUM
8. FIELD VERIFY THE EXISTING DUCT SIZE BEFORE ORDERING THE DAMPER

FAN SCHEDULE

MARK NO.	LOCATION	SERVICE	TYPE	DRIVE TYPE	AIRFLOW (CFM)	ESP (IN WG)	FAN SPEED (RPM)	MOTOR DATA			WEIGHT (LB)	MFR	MODEL	NOTES
								HP	RPM	V/PH/HZ				
EF-5	WATER SOFTENING ROOM	ROOM EXHAUST	CENTRIFUGAL ROOF EXHAUST	DIRECT	260	0.25	1,410	1/10	1,750	115/1/60	50	GREENHECK	G-080-VG	1, 2, 8, 9, 10, 11
EF-6	FLUORIDE ROOM	ROOM EXHAUST	FRP DUCT AXIAL	BELT	260	0.3	1,330	1/3	1,750	115/1/60	250	HARTZELL	A35-126E	1 THRU 7, 11
EF-7	SODIUM HYPOCHLORITE ROOM	ROOM EXHAUST	FRP DUCT AXIAL	BELT	520	0.5	1,950	1/2	1,750	460/3/60	250	HARTZELL	A35-126E	1 THRU 7, 11
EF-8	MECHANICAL ROOM	ROOM EXHAUST	CENTRIFUGAL ROOF EXHAUST	DIRECT	220	0.25	1,305	1/10	1,750	115/1/60	50	GREENHECK	G-080-VG	1, 2, 8, 9, 10, 11

NOTES:
1. INSTALL PER MFR INSTRUCTIONS
2. SPECIFICATION SECTION 23 34 06
3. FRP CONSTRUCTION
4. 316SS SHAFT AND HARDWARE
5. MOTOR AND DRIVE COVER
6. COMPANION INLET AND OUTLET FLANGES
7. MILL AND CHEMICAL DUTY MOTOR
8. BACKDRAFT DAMPER
9. ALUMINUM WHEEL AND HOUSING
10. 12" TALL INSULATED ALUMINUM CURB
11. DISCONNECTING MEANS PROVIDED BY ELECTRICAL

ELECTRIC UNIT HEATER SCHEDULE

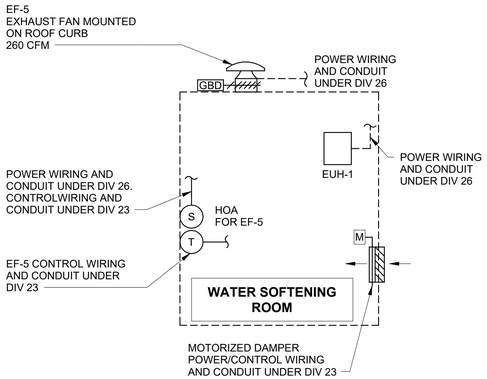
MARK NO.	LOCATION	SERVICE	COIL DATA			MOTOR DATA			TOTAL AMPS	FAN CFM	TEMP RISE (°F)	THROW (FT)	DISCHARGE ORIENTATION	MOUNTING HEIGHT (AFF)	WEIGHT (LB)	MFR	MODEL	NOTES
			MBH	KW	V/PH/HZ	RPM	HP	V/PH/HZ										
EUH-1	WATER SOFTENING ROOM	SPACE HEATING	10.2	3	208/1/60	1050	1/15	208/1/60	15	405	23.4	12	HORIZONTAL	8 FT	45	CHROMALOX	HD3D-300	1 THRU 5
EUH-2	MECHANICAL ROOM	SPACE HEATING	10.2	3	208/1/60	1050	1/15	208/1/60	15	405	23.4	12	HORIZONTAL	8 FT	45	CHROMALOX	HD3D-300	1 THRU 5

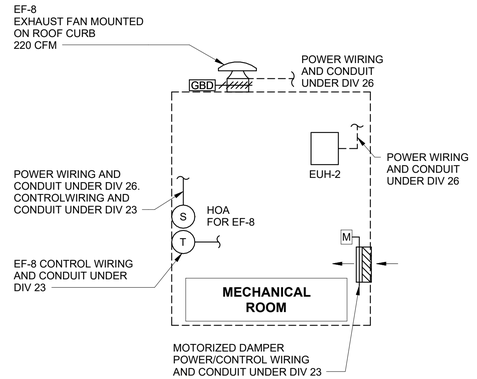
NOTES:
1. INSTALL PER MFR INSTRUCTIONS
2. SPECIFICATION SECTION 23 82 39.43
3. HOSE-DOWN CORROSION RESISTANT TYPE UNIT HEATER
4. INTEGRAL THERMOSTAT
5. DISCONNECTING MEANS PROVIDED BY ELECTRICAL

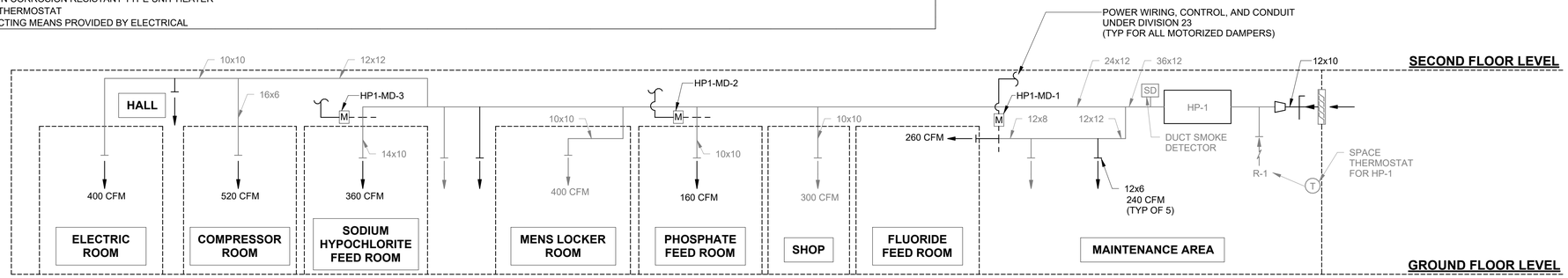
LOUVER SCHEDULE

MARK NO.	LOCATION	SERVICE	TYPE	SIZE (IN) (WXH)	AIR FLOW (CFM)	MIN FREE AREA (SF)	MFR	MODEL	NOTES
L-1	FLUORIDE ROOM	EXHAUST	FIXED	16 X 16	260	0.7	RUSKIN	ELF6375DX	1, 2, 3
L-2	WATER SOFTENING ROOM	EXHAUST	FIXED	16 X 16	260	0.7	RUSKIN	ELF6375DX	1, 2, 3
L-3	MECHANICAL ROOM	EXHAUST	FIXED	16 X 16	220	0.7	RUSKIN	ELF6375DX	1, 2, 3

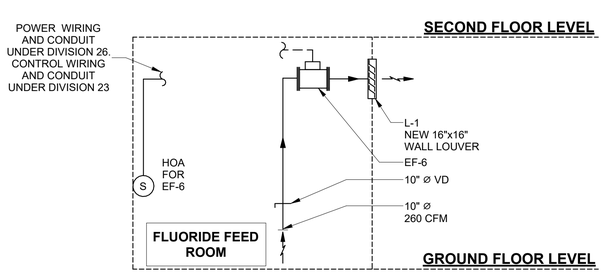
NOTES:
1. INSTALL PER MFR INSTRUCTIONS
2. EXTRUDED ALUMINUM CONSTRUCTION WITH 0.081" THK FRAME, 0.094" THK BLADES, AND 3/4" BIRD SCREEN
3. KYNAR FINISH, COLOR TO MATCH ADJACENT WALL SURFACE



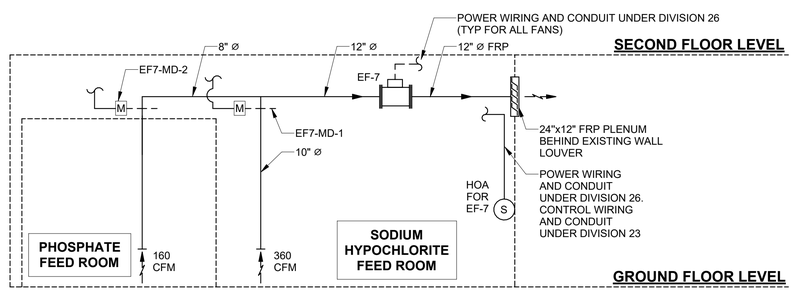




HP-1 UNIT - AIR FLOW/CONTROL SCHEMATIC



EF- 6 UNIT - AIR FLOW/CONTROL SCHEMATIC



EF- 7 UNIT - AIR FLOW/CONTROL SCHEMATIC

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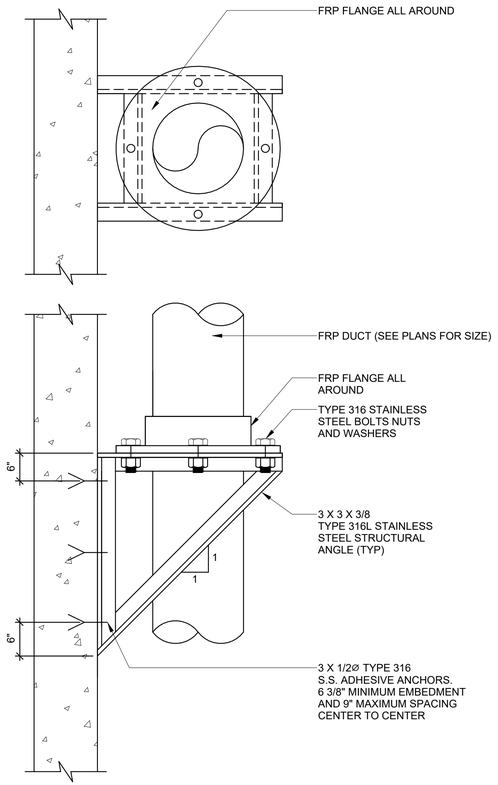
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SCHEDULES AND AIRFLOW/CONTROL SCHEMATICS

SCALE: NOT TO SCALE
BAR IS ONE INCH ON UNREDUCED DRAWING

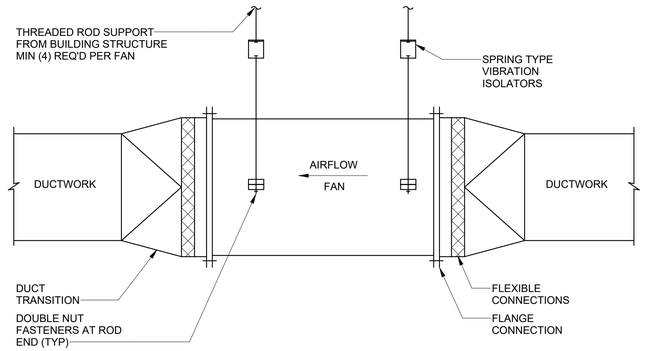
DRAWING NO.: H-04
SHEET NO.: 54 OF 83

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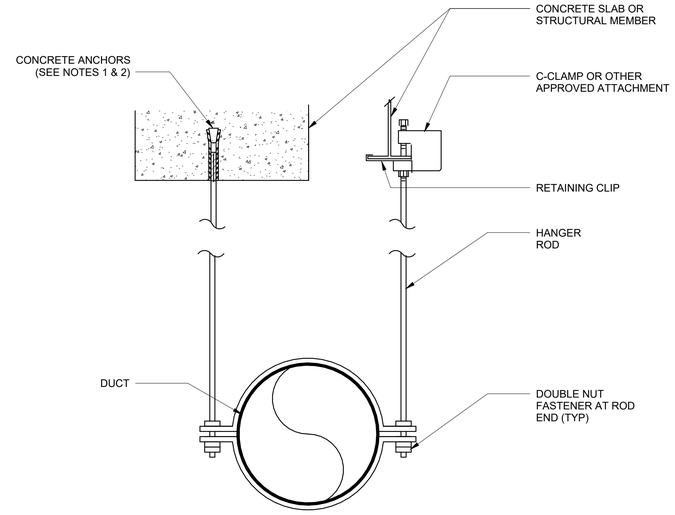
1 VERTICAL FRP DUCT SUPPORT

NTS



2 INLINE FAN DETAIL

NTS

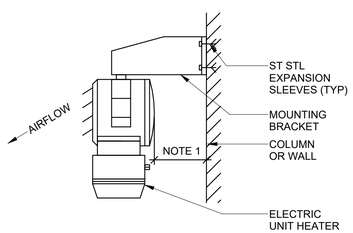


NOTES:

1. REFER TO SPECIFICATION SECTION 05051
2. FOR ACCEPTABLE ANCHOR TYPES FOR ANCHORAGE TO HOLLOW CORE SLABS, REFER TO THE STRUCTURAL DWGS FOR ATTACHMENT DETAILS, UNAPPROVED ATTACHMENT METHODS SHALL BE REJECTED.

3 TYPICAL ROUND DUCT HANGING DETAIL (FROM BUILDING STRUCTURE)

NTS

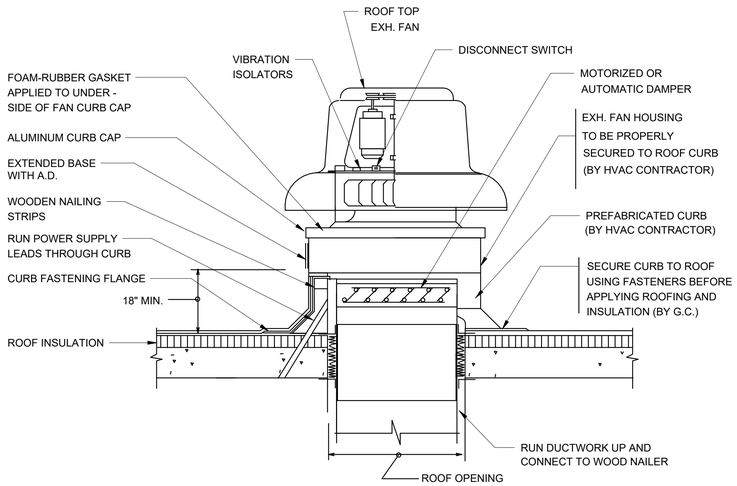


NOTES:

1. MAINTAIN MANUFACTURER'S MINIMUM CLEARANCE REQUIREMENTS.

4 CORROSION RESISTANT ELECTRIC UNIT HEATER DETAIL

NTS



5 ROOF EXHAUST FAN DETAIL

NTS

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PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	S. PERAMANU
DRAWN BY:	L. BANGARU
CHECKED BY:	S. CHHEA

SHEET TITLE

HVAC
CROSSTOWN

DETAILS

SCALE:
NOT TO SCALE

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.:
H-05

SHEET NO.: 55 OF 83

811 Know what's **below.** **Call** before you dig.

DIAGRAMS

52 / 1200 — MEDIUM VOLTAGE DRAWOUT POWER CIRCUIT BREAKER NUMBER INDICATES CURRENT RATING

DISCONNECT SWITCH. WITH FUSING WHERE NOTED

100 / 30 (FRAME SIZE) / (TRIP SIZE) — 3 POLE THERMAL-MAGNETIC MOLDED CASE CIRCUIT BREAKER

100 / 30 2P — 2 POLE THERMAL-MAGNETIC CIRCUIT BREAKER

AC COMBINATION
FULL VOLTAGE NON-REVERSING STARTER
7A / MCP (CONTINUOUS AMP RATING) / (MOTOR CIRCUIT PROTECTOR) MAGNETIC BREAKER
MAGNETIC MOTOR STARTER
OVERLOAD RELAY

AC COMBINATION
REDUCED VOLTAGE NON-REVERSING STARTER
7A / MCP
1S R
AUTO-TRANSFORMER TYPE STARTER
2S
RVSS-B — ELECTRONIC REDUCED VOLTAGE SOLID STATE STARTER -RVSS -B DENOTES WITH FULL SPEED BYPASS

600/5 / 3 — CURRENT TRANSFORMER, RATIO AND QUANTITY DENOTED

POTENTIAL TRANSFORMER

TRANSFORMER- SIZE AS NOTED ON THE DRAWINGS

SHIELDED ISOLATION TRANSFORMER

DELTA/WYE TRANSFORMER CONNECTION W/GROUND

LA — LIGHTNING ARRESTOR

CL / 2 — FUSE- VOLTAGE AS REQUIRED AND SIZE NOTED ON THE DRAWINGS. CL DENOTES CURRENT LIMITING TYPE. NUMBER INDICATES QUANTITY WHEN LESS THAN 3.

PFD — PFD DENOTES PULL FUSE DISCONNECT TYPE

MMD — MICROPROCESSOR BASED METERING DEVICE

A AS — AMMETER - AMMETER SWITCH

V VS — VOLTMETER - VOLTMETER SWITCH

VFD-B — VARIABLE FREQUENCY DRIVE - VFD -B WHEN INDICATED DENOTES WITH STARTING AND FULL SPEED BYPASS

SUBMERSIBLE CABLES BY VENDOR

PUSH-BUTTON STATION

PUSH-BUTTON STATION WITH LOCK-OUT FEATURE

SELECTOR SWITCH

INDICATING LIGHT

CS — CONTROL STATION

ATS-BI / SSC — AUTOMATIC TRANSFER SWITCH -ATS, WITH SOLID STATE CONTROLS AND ACCESSORIES. -BI WHEN INDICATED DENOTES WITH BYPASS-ISOLATION SWITCH

F 60/40 — DISCONNECT SWITCH - 480V 3POLE UNFUSED OR FUSED F DENOTES FUSING, ONLY WHERE INDICATED FIRST NUMBER DENOTES SWITCH AMP RATING SECOND NUMBER DENOTES FUSE SIZE WHEN PROVIDED.

JB OR JB — JUNCTION BOX; SIZE AS REQUIRED BY N.E.C.

TB OR TB — TERMINAL BOX; SIZE AS REQUIRED BY N.E.C. AND TO ACCOMMODATE ALL TERMINATIONS ON TERMINAL BLOCKS. TERMINATIONS TO INCLUDE SPARE WIRING.

PB OR PB — PULL BOX; SIZE AS REQUIRED BY N.E.C.

M 5 — ELECTRIC MOTOR (NUMBER INDICATES HORSEPOWER).

S S S — POWER ON-OFF SNAP SWITCH, 1PH, 120V AC, 20A S2-DENOTES, 2 POLE, 240 VOLTS, 20A

MS — 20A TWO OR THREE POLE MANUAL STARTER,

DISCONNECT SWITCH

MV — MOTORIZED VALVE WITH CONTROLLER BY VENDOR

MOV OR MV — MOTORIZED VALVE

SV OR SV — SOLENOID VALVE

GV OR GV — GLOBE VALVE

SPD — SURGE SUPPRESSION DEVICE

AUXILIARY SYSTEMS

DC — DOOR CONTACT

MS — MOTION SENSOR

CR — CARD READER

IACP — INTRUSION ALARM CONTROL PANEL

ACP — ALARM CONTROL PANEL

FOPP — FIBER OPTIC PATCH PANEL

OR CCTV — CAMERA

R — ALARM BEACON LETTER INDICATES COLOR

UPS — UNINTERRUPTIBLE POWER SUPPLY

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)

FS — FLOW SWITCH (FSH DENOTES FLOW SWITCH HIGH AND FSL DENOTES FLOW SWITCH LOW)

ZS — LIMIT SWITCH

ZSO — LIMIT SWITCH OPEN

ZSC — LIMIT SWITCH CLOSED

PIT — PRESSURE TRANSMITTER (I DENOTES INDICATING TYPE AND PE DENOTES PRESSURE ELEMENT)

LIT — LEVEL TRANSMITTER (LE DENOTES LEVEL ELEMENT)

FIT — FLOW TRANSMITTER (FE DENOTES FLOW ELEMENT)

AIT — ANALYSIS TRANSMITTER (AE DENOTES ANALYSIS ELEMENT)

TIT — TEMPERATURE TRANSMITTER (TE DENOTES TEMPERATURE ELEMENT)

TS — 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. LE DENOTES LEVEL ELEMENT)

VLV — MANUAL OPERATED VALVE WITH POSITION CONTROLS

ACV — AIR OPERATED CONTROL VALVE

MS — MOISTURE SENSOR

H — HORN

AV — STROBE/HORN COMBINATION

MB — MOTOR BEARING DETECTOR P= PUMP BEARING

MV — MOTOR VIBRATION DETECTOR P= PUMP VIBRATION

GENERAL NOTES

1. THE SYMBOLS AND ABBREVIATIONS LISTED REPRESENT A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE, NOT ALL OF THE SYMBOLS AND ABBREVIATIONS CONTAINED ON THESE SHEETS ARE NECESSARILY USED ON THIS PARTICULAR CONTRACT.
2. THE CONTRACTOR SHALL READ AND UNDERSTAND THE ENTIRE SET OF CONSTRUCTION DOCUMENTS. THIS INCLUDES BUT IS NOT LIMITED TO THE PLANS AND SPECIFICATIONS FOR ALL DISCIPLINES . THIS WILL ENSURE THAT HE UNDERSTANDS THE FULL SCOPE OF WORK AND IS ABLE TO CONVEY THE REQUIRED MATERIALS AND METHODS OF INSTALLATION TO THE ESTIMATORS, SUPPLIERS AND INSTALLERS.
3. CONTRACTOR SHALL VISIT PROJECT SITE AND MAKE HIMSELF/HERSELF AWARE OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID FOR THIS WORK.
4. COORDINATE ANY AND ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION IN ORDER TO AVOID CONFLICTS DURING CONSTRUCTION.
5. WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF THE WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ANY ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN CONSENT FROM THE ENGINEER AND OWNER.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENFORCED EDITION OF THE NATIONAL ELECTRIC CODE, NATIONAL ELECTRIC SAFETY CODE, UFE SAFETY CODE AND ALL OTHER LOCAL AND STATE CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
7. EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE. EXTEND CONDUIT & WIRE TO INSTALLED LOCATIONS AT NO ADDITIONAL COST TO THE OWNER.
8. ELECTRICAL SYSTEMS SHALL BE COMPLETE AND OPERABLE AT PROJECT COMPLETION.
9. A SEPARATE EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED FOR EACH CIRCUIT (SEPARATE CONDUCTOR IN THE CONDUIT). THE CONDUCTOR SHALL BE TERMINATED AT THE PROPER DEVICE. TERMINAL OR LUG AT THE POWER SOURCE (MCC GROUND BUS, PANELBOARD GROUND BUS, ETC.). GROUND CONDUCTOR SIZE SHALL BE PER THE LATEST EDITION OF THE NEC.
10. ALL CONDUITS AND EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE MOST CURRENT APPLICABLE EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES AND REGULATIONS.
11. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY AND SHALL BE INSTALLED TO AVOID CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. EXPOSED CONDUITS SHALL BE INSTALLED PARALLEL TO BEAMS AND WALLS. THE CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL CONDUIT RUNS PRIOR TO INSTALLATION OF ANY CONDUIT, DUCTBANK, OR WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS INCURRED DUE TO FAILURE TO FIELD VERIFY EXISTING CONDITIONS OR REQUIRED RELOCATION RESULTING FROM EXISTING CONDITIONS.
12. CONDUITS SHALL BE TERMINATED SO AS TO PERMIT NEAT CONNECTIONS TO MOTORS AND OTHER EQUIPMENT. FLEXIBLE CONNECTIONS SHALL NOT EXCEED 6' IN TOTAL LENGTH AND SHALL BE SECURELY FASTENED
13. NO CONDUIT SMALLER THAN 3/4 INCH AND NO WIRE SMALLER THAN NO. 12 AWG COPPER SHALL BE USED. THE SITE PLAN, WIRING DIAGRAMS, QUANTITIES AND SIZES OF WIRES AND CONDUITS, EQUIPMENT POWER AND LIGHTING PLANS, DETAILS, AND ELECTRICAL DRAWINGS TOGETHER REPRESENT A SUGGESTED ARRANGEMENT BASED ON SELECTED STANDARD COMPONENTS OF THE ELECTRICAL EQUIPMENT. ANY CHANGES OR DEVIATIONS FROM THE INFORMATION SHOWN ON THE DRAWINGS AND SPECIFICATIONS MUST BE SUBMITTED FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO MAKING ANY MODIFICATIONS ON SITE OR DURING CONSTRUCTION. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCE AND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ONTHE DRAWINGS AND/OR SPECIFICATIONS. OTHERWISE NOTED.
14. ALL SWITCHES SHALL BE MOUNTED 4'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. RECEPTACLES SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED, EXCEPT RECEPTACLES LOCATED IN OFFICES OR AREAS WITH SUSPENDED CEILINGS, WHICH SHALL BE MOUNTED 1'-6" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
15. ALL SURFACE-MOUNTED PANELS AND PANELBOARDS LOCATED ON THE INSIDE OF EXTERIOR WALLS, WHETHER ABOVE OR BELOW GRADE, OR IN OTHER LOCATIONS CONSIDERED AS DAMP, SHALL BE INSTALLED TO MAINTAIN A 1/4" AIR SPACE BETWEEN THE ENCLOSURE AND THE WALL.
16. ALL PANELBOARDS SHALL BE MOUNTED SO THAT THE DISTANCE FROM THE TOP CIRCUIT BREAKER OPERATING HANDLE TO THE FLOOR SHALL NOT EXCEED 6'-6".
17. IN GENERAL, NOT ALL PULL BOXES OR JUNCTION BOXES ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED BOXES IN ACCORDANCE WITH THE SPECIFICATIONS AND NATIONAL ELECTRIC CODE.
18. LIGHTING FIXTURES SHALL BE MOUNTED ACCORDING TO THE MOUNTING HEIGHT GIVEN ON THE DRAWINGS, WITH THE DISTANCE BEING MEASURED FROM THE BOTTOM OF THE LIGHTING FIXTURE TO THE FINISHED FLOOR.
19. CONDUIT AND WIRE (NOT SHOWN) FOR SWITCHES AND/OR RECEPTACLES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AND SHALL BE:
    A. MINIMUM 3/4" CONDUIT SHALL BE USED UNLESS OTHERWISE INDICATED. CONDUIT TYPE SHALL BE AS SPECIFIED.
    B. EXPOSED IN UNFINISHED AREAS.
    C. CONCEALED ABOVE HUNG CEILINGS AND IN WALLS IN FINISHED AREAS.
    D. MINIMUM NO. 12 AWG COPPER WIRE SHALL BE USED, UNLESS OTHERWISE SPECIFIED. WIRE TYPE SHALL BE AS SPECIFIED. PROVIDE THE REQUIRED QUANTITY OF WIRES AND A SEPARATE NEUTRAL FOR EACH CIRCUIT.
20. ABOVE GRADE, JUNCTION, PULL AND TERMINATION BOXES SHALL BE OF STAINLESS STEEL-316 CONSTRUCTION.
21. ALL CONDUIT RUNS CROSSING EXPANSION JOINTS SHALL HAVE EXPANSION OR EXPANSION AND DEFLECTION TYPE FITTINGS AS REQUIRED.
22. EXISTING CONDITIONS ARE REPRESENTED BY NOTES AND/OR GREY SCREENING. INFORMATION REGARDING EXISTING CONDITION WAS OBTAINED FROM RECORD DRAWINGS AND THE CLIENT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITION PRIOR TO INSTALLING ANY ABOVE GROUND OR UNDERGROUND CONDUIT AND WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS INCURRED DUE TO FAILURE TO FIELD VERIFY EXISTING CONDITIONS OR REQUIRED RELOCATION RESULTING FROM EXISTING CONDITIONS.
23. FACILITY LOADS AT DISTRIBUTION EQUIPMENT SHALL BE MAINTAINED IN AN ENERGIZED CONDITION DURING WORK PERFORMED UNDER THISCONTRACT, EXCEPT DURING PLANNED OUTAGES OF NO LONGER THAN FOUR HOURS AND WITH THE OWNER AND ENGINEER APPROVAL. IF OUTAGE DURATION ISEXPECTED TO EXCEED FOUR HOURS, THE CONTRACTOR SHALL PROVIDE TEMPORARY POWER TO MAINTAIN FACILITY LOADS.
24. REFER TO STRUCTURAL SHEETS FOR EQUIPMENT CONCRETE PAD DETAILS. THE CONTRACTOR SHALL COORDINATE EQUIPMENT CONCRETE PAD DIMENSIONS WITH THE RESPECTIVE EQUIPMENT DIMENSIONS FROM APPROVED SHOP DRAWINGS PRIOR TO POURING AND INSTALLING THE CONCRETE PAD.
25. NO CONDUIT SMALLER THAN 3/4 INCH AND NO WIRE SMALLER THAN NO. 12 AWG COPPER SHALL BE USED UNLESS OTHERIWSE NOTED.
26. NO CONDUIT SMALLER THAN 3/4 INCH AND NO WIRE SMALLER THAN NO. 12 AWG COPPER SHALL BE USED THE SITE PLAN, WIRING DIAGRAMS, QUANTITIES AND SIZES OF WIRES AND CONDUITS, EQUIPMENT POWER AND LIGHTING PLANS, DETAILS, AND ELECTRICAL DRAWINGS TOGETHER REPRESENT A SUGGESTED ARRANGEMENT BASED ON SELECTED STANDARD COMPONENTS OF THE ELECTRICAL EQUIPMENT. ANY CHANGES OR DEVIATIONS FROM THE INFORMATION SHOWN ON THE DRAWINGS AND SPECIFICATIONS MUST BE SUBMITTED FOR ENGINEER'S REVIEW AND APPROVAL PRIOR TO MAKING ANY MODIFICATIONS ON SITE OR DURING CONSTRUCTION. MODIFICATIONS ACCEPTABLE TO THE ENGINEER MAY BE MADE BY THE CONTRACTOR TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED. THE BASIC SEQUENCEAND METHOD OF CONTROL MUST BE MAINTAINED AS INDICATED ON THE DRAWINGS AND/OR SPECIFICATIONS. OTHERWISE NOTED.
27. DEMOLITION NOTE:
    CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING CONDUIT, WIRING, POWER, AND CONTROL DEVICES ASSOCIATED WITH EQUIPMENT TO BE DEMOLISHED, EXCEPT WHERE OTHERWISE INDICATED TO BE REUSED. REMOVE ALL WIRE AND EXPOSED CONDUIT. CUT CONDUIT FLUSH WITH FLOOR OR WALL SLAB AND SEAL OPENINGS WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH THE CLIENT, ENGINEER AND ALL RELEVANT PARTIES AND SUBMIT THE STEP-BY-STEP SEQUENCE FOR ANY DEMOLITION WORK, INCLUDING ASSOCIATED SHUTDOWN TIMES, FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY DEMOLITION.
28. RELOCATION NOTE:
    WHERE RELOCATION IS INDICATED, THE CONTRACTOR SHALL EXTEND AND RESTORE ALL POWER AND CONTROL CIRCUITS ASSOCIATED WITH EQUIPMENT TO BE RELOCATED, AND SHALL PROVIDE ALL NECESSARY CONDUIT, WIRING, AND AUXILIARY ACCESSORIES. THE CONTRACTOR SHALL COORDINATE WITH THE CLIENT, ENGINEER AND ALL RELEVANT PARTIES AND SUBMIT THE STEP-BY-STEP SEQUENCE FOR ANY RELOCATION WORK, INCLUDING ASSOCIATED SHUTDOWN TIMES, FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY RELOCATION.

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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	MS. RASHAD
CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

LEGEND, SYMBOLS, AND ABBREVIATIONS - SHEET 1 OF 2

SCALE: NOT TO SCALE

BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-01

SHEET NO.: 56 OF 83

PLANS

1-3 / a — FLUORESCENT LIGHTING FIXTURE - SURFACE OR PENDANT MOUNTED. FIRST NUMERAL DENOTES LIGHTING PANEL (LP1), SECOND NUMBER DENOTES BRANCH CIRCUIT NUMBER. LOWER CASE LETTER DENOTES SWITCHED CIRCUIT.

EM — FLUORESCENT LIGHTING FIXTURE WITH BATTERY PACK SURFACE OR PENDANT.

PENDANT OR CEILING MOUNTED LIGHTING FIXTURE.

WALL MOUNTED LIGHTING FIXTURE.

POLE OR STANCHION MOUNTED LIGHTING FIXTURE.

TWO (2) POLE OR STANCHION MOUNTED LIGHTING FIXTURES

GF — POLE MOUNTED FIXTURE WITH GF RECEPTACLE

3 — WALL MOUNTED EXIT LIGHT

A 3 a — LED WALL PACK LIGHT FIXTURE WITH FULL CUTOFF LENS, SUITABLE FOR WET AND CORROSIVE LOCATIONS

D / 150 / 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 NUMBER IN SYMBOL INDICATES LAMP WATTAGE AND NUMBER OF NUMBER BELOW SYMBOL INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR OR AS NOTED.

I-2 / GF/WIP — 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, WIP-WEATHER PROOF WHILE IN USE.

SINGLE CONVENIENCE RECEPTACLE, 2 POLE, 3 WIRE; 120 VOLTS AC. 20 AMP UNLESS NOTED OTHERWISE ON DRAWINGS.

POWER RECEPTACLE, 2 POLE, 3 WIRE 250 VOLTS A.C. 20 AMP UNLESS NOTED OTHERWISE ON DRAWINGS.

a — SINGLE POLE SWITCH - LOWER CASE LETTER DENOTES SWITCHING.

2 — TWO POLE SWITCH

LP1-2 — BRANCH CIRCUIT HOME RUN TO PANELBOARD LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER. AS A MINIMUM, ALL WIRING SHALL BE 3#12 AWG IN 3/4" CONDUIT. #10 AWG WIRE SHALL BE USED FOR RUNS BETWEEN PANEL AND FIRST LIGHTING FIXTURE OR RECEPTACLE EXCEEDING 50 FEET, UNLESS OTHERWISE NOTED ON DRAWING.

INDICATES GROUND CONDUCTOR

C12 — INDICATES HOMERUN AND CONDUIT TAG

LIGHTING, APPLIANCE OR INSTRUMENT PANELBOARD

POWER PANELBOARD

INDICATES NEW EQUIPMENT/EXPOSED CONDUIT

CONDUIT TURNING DOWN

CONDUIT TURNING UP

CONDUIT CAPPED

INDICATES EXISTING EQUIPMENT/CONDUIT

INDICATES CONDUIT UNDERGROUND OR CONCEALED IN CEILING, WALLS, BELOW OR IN FLOOR SLAB

M 1-24 / M 1-24 / UH 1-24 OR 1-24 — MOTOR, UNIT HEATER-NUMERAL DENOTES LIGHTING PANEL AND BRANCH CIRCUIT NUMBER. MOTOR SYMBOL SHOWN DASHED DENOTES EQUIPMENT LOCATED ON ROOF.

DEMOLITION

EMH — ELECTRICAL MANHOLE

EHH — ELECTRICAL HANDHOLE

IMH — INSTRUMENTATION MANHOLE

IHH — INSTRUMENTATION HANDHOLE

ATS — AUTOMATIC TRANSFER SWITCH

GROUND TEST POINT

GROUND ROD

EXOTHERMIC WELDED GROUND CONNECTION

BOLTED GROUND CONNECTION

GROUND

#4/0 GROUND CABLE BURIED 2'-6" BELOW GRADE UNLESS OTHERWISE NOTED

CLASS I COPPER LIGHTNING CONDUCTOR UNLESS OTHERWISE NOTED

PC — PHOTOCELL

IL — INDICATING LIGHT, PT-DENOTES PUSH TO TEST TYPE LETTER INDICATES LENS COLOR

PT — W-WHITE G-GREEN A-AMBER R-RED B-BLUE C-CLEAR

SWITCH - TOGGLE OPEN

MOMENTARY CONTACT PUSH BUTTON NORMALLY OPEN

MOMENTARY CONTACT PUSH BUTTON NORMALLY CLOSED

SWITCH - TEMPERATURE NORMALLY CLOSED. OPENS ON RISING TEMPERATURE

SWITCH - TEMPERATURE NORMALLY OPEN. CLOSES ON RISING TEMPERATURE

SWITCH - PRESSURE NORMALLY CLOSED. OPENS ON RISING PRESSURE

SWITCH - PRESSURE NORMALLY OPEN. CLOSES ON RISING PRESSURE

VALVE LIMIT SWITCH (OPEN)

VALVE LIMIT SWITCH (CLOSED)

SWITCH - LIMIT NORMALLY OPEN.

SWITCH - LIMIT NORMALLY CLOSED.

CRI — NORMALLY OPEN CONTACT, NUMBER INDICATES RELAY.

NORMALLY CLOSED CONTACT

OL — THERMALLY ACTUATED MOTOR OVERLOAD RELAY, LATCHES CLOSED ON OVERLOAD

OL — THERMALLY ACTUATED MOTOR OVERLOAD RELAY, LATCHES OPEN ON OVERLOAD

SOLENOID VALVE

M — MOTOR STARTER CONTACTOR COIL COIL DESIGNATION: M-COIL

RUN — MOTOR STARTER CONTACTOR COIL COIL DESIGNATION: R-RUN

CR — CONTROL RELAY COIL DESIGNATION: CR-CONTROL RELAY MX-AUXILIARY RELAY TR-TIMING RELAY AR-ALARM RELAY RR-READY RELAY

H A (X,O) (O,X) — SELECTOR SWITCH, 2 POSITION MAINTAINED CONTACT

(O,X) DENOTES CONTACT BLOCK CONFIGURATION X INDICATES CONTACT CLOSED, O DENOTES CONTACT OPEN.

O H A — SELECTOR SWITCH, 3 POSITION MAINTAINED CONTACT

ELECTRIC SPACE HEATER ELEMENT

ETM — ELAPSED TIME METER

ABBREVIATIONS

A	AMPERE
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AC	ALTERNATING CURRENT
AFC	ABOVE FINISHED CONCRETE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	ABOVE GRADE
AL	ALUMINUM
ATC	AUTOMATIC TEMPERATURE CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
BD	BOARD
BKR	BREAKER
BLDG	BUILDING
BV	BUTTERFLY VALVE
C	CONDUIT
CBV	CABLE BY VENDOR
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
CTRL	CONTROL
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
DI	DISCRETE INPUT
DO	DISCRETE OUTPUT
DB	DECIBELS
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DISC	DISCONNECT
DN	DOWN
DPDT	DOUBLE POLE DOUBLE THROW
DP	DISTRIBUTION PANEL
DS	DISCONNECT SWITCH
DWG	DRAWING
EC	EMPTY CONDUIT
EL	ELEVATION
EMH	ELECTRICAL MANHOLE
EMT	ELECTRICAL METALLIC TUBING
EO	ELECTRICALLY OPERATED
EX	EXISTING
FUT	FUTURE
FVNR	FULL VOLTAGE NON-REVERSING
GALV	GALVANIZED
GFI	GROUND FAULT INTERRUPTER
G, GND	GROUND
HOA	HAND-OFF-AUTO
HTR	HEATER
IMT	INTERMEDIATE METALLIC TUBING
ITB	INSTRUMENT TERMINAL BOX
JB, J	JUNCTION BOX
KAIC	THOUSAND AMPERE INTERRUPTING CURRENT
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERES
KW	KILOWATTS
KWH	KILOWATT-HOURS
LA	LIGHTNING ARRESTOR
LCP	LOCAL CONTROL PANEL
LTG	LIGHTING
LV	LOW VOLTAGE
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	MANHOLE
MOV	MOTOR OPERATED VALVE
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
N/A	NON-APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPENED
NTS	NOT TO SCALE
OL	OVERLOAD
OS	OCCUPANCY SENSOR
PB	PUSH BUTTON
PFC	POWER FACTOR CORRECTION
PNL	PANEL
PR	PAIR
PT	POTENTIAL TRANSFORMER
PTZ	PAN-TILT-ZOOM
REC	RECEPTACLE
REQ	REQUIRED
RGS	RIGID GALVANIZED STEEL
RVSS	REDUCED VOLTAGE SOFT START
SP	SPARE
SS	STAINLESS STEEL
SPD	SURGE PROTECTION DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SV	SOLENOID VALVE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TB	TERMINAL BOX
TDR	TIME DELAY RELAY
TEMP	TEMPERATURE
TEW	THERMOCOUPLE EXTENSION WIRE
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF
1PH	SINGLE PHASE
3PH	THREE PHASE
3W	THREE WIRE
4W	FOUR WIRE

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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	MS. RASHAD
CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

LEGEND, SYMBOLS, AND ABBREVIATIONS - SHEET 2 OF 2

SCALE: NOT TO SCALE

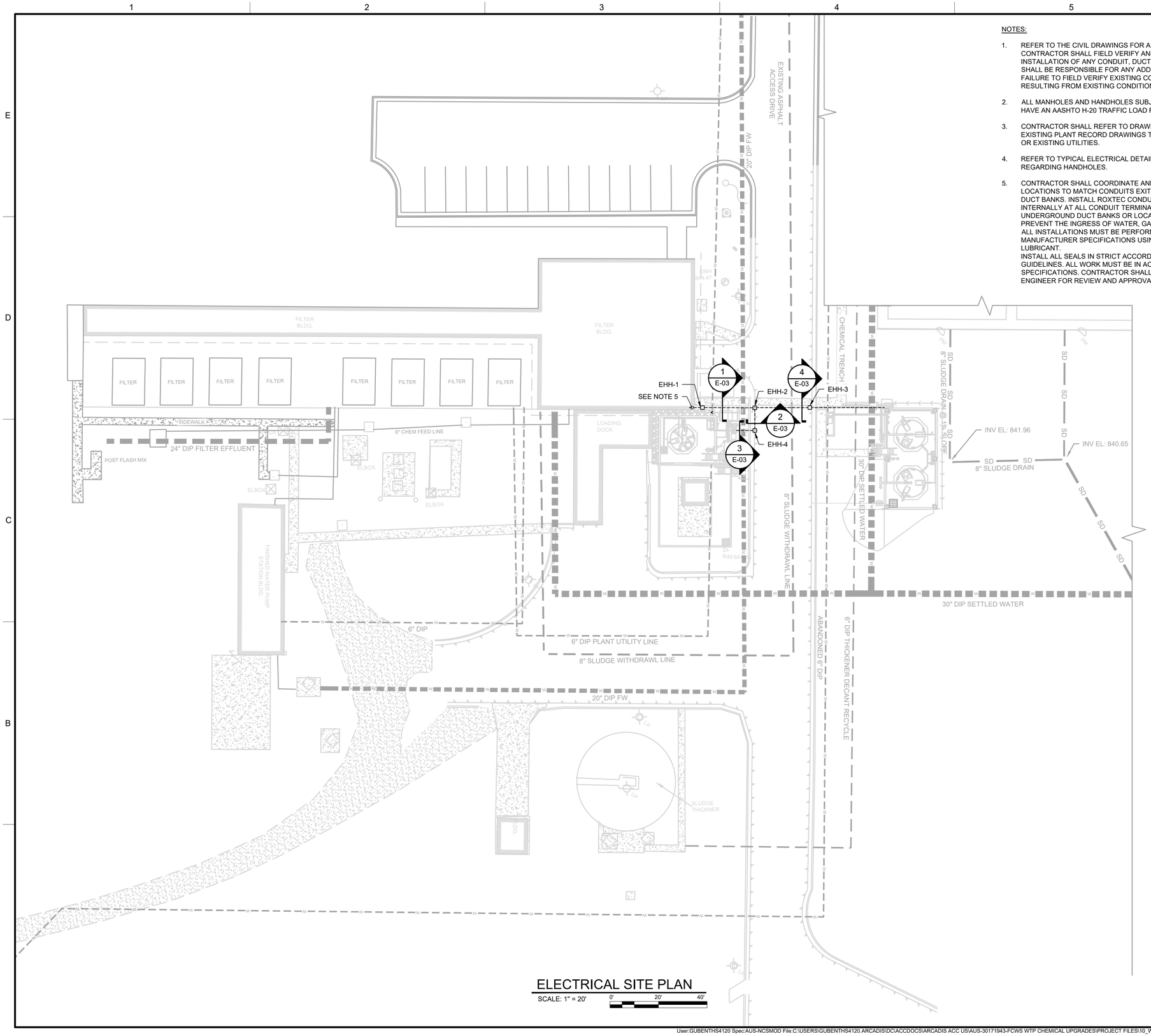
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-02

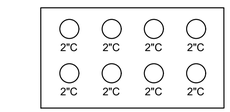
SHEET NO.: 57 OF 83

NOTES:

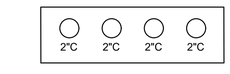
1. REFER TO THE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY AND CONFIRM ALL RUNS PRIOR TO INSTALLATION OF ANY CONDUIT, DUCTBANK, OR WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COSTS INCURRED DUE TO FAILURE TO FIELD VERIFY EXISTING CONDITIONS OR REQUIRED RELOCATION RESULTING FROM EXISTING CONDITIONS.
2. ALL MANHOLES AND HANDHOLES SUBJECT TO VEHICULAR TRAFFIC SHALL HAVE AN AASHTO H-20 TRAFFIC LOAD RATING.
3. CONTRACTOR SHALL REFER TO DRAWINGS OF OTHER DISCIPLINES AND EXISTING PLANT RECORD DRAWINGS TO AVOID CONFLICTS WITH PROPOSED OR EXISTING UTILITIES.
4. REFER TO TYPICAL ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION REGARDING HANDHOLES.
5. CONTRACTOR SHALL COORDINATE AND FIELD VERIFY ALL THE CONDUIT LOCATIONS TO MATCH CONDUITS EXITING THE BUILDING AND ENTERING DUCT BANKS. INSTALL ROXTEC CONDUIT SEALS EXTERNALLY AND INTERNALLY AT ALL CONDUIT TERMINATIONS TRANSITIONING TO UNDERGROUND DUCT BANKS OR LOCATED WITHIN THE FACILITY TO PREVENT THE INGRESS OF WATER, GAS, HUMIDITY, OR RODENTS. ALL INSTALLATIONS MUST BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER SPECIFICATIONS USING ONLY ROXTEC-APPROVED LUBRICANT. INSTALL ALL SEALS IN STRICT ACCORDANCE WITH ROXTEC INSTALLATION GUIDELINES. ALL WORK MUST BE IN ACCORDANCE WITH DIV 26 SPECIFICATIONS. CONTRACTOR SHALL SUBMIT PRODUCT DATA TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.



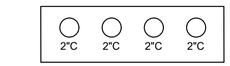
ELECTRICAL SITE PLAN
SCALE: 1" = 20'
0' 20' 40'



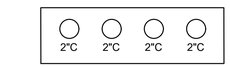
1 E-03 SECTION 1
SCALE: NOT TO SCALE



2 E-03 SECTION 2
SCALE: NOT TO SCALE



3 E-03 SECTION 3
SCALE: NOT TO SCALE



4 E-03 SECTION 4
SCALE: NOT TO SCALE

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TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	K. SATHISH
CHECKED BY:	T. POWELL

SHEET TITLE
ELECTRICAL
CROSSTOWN

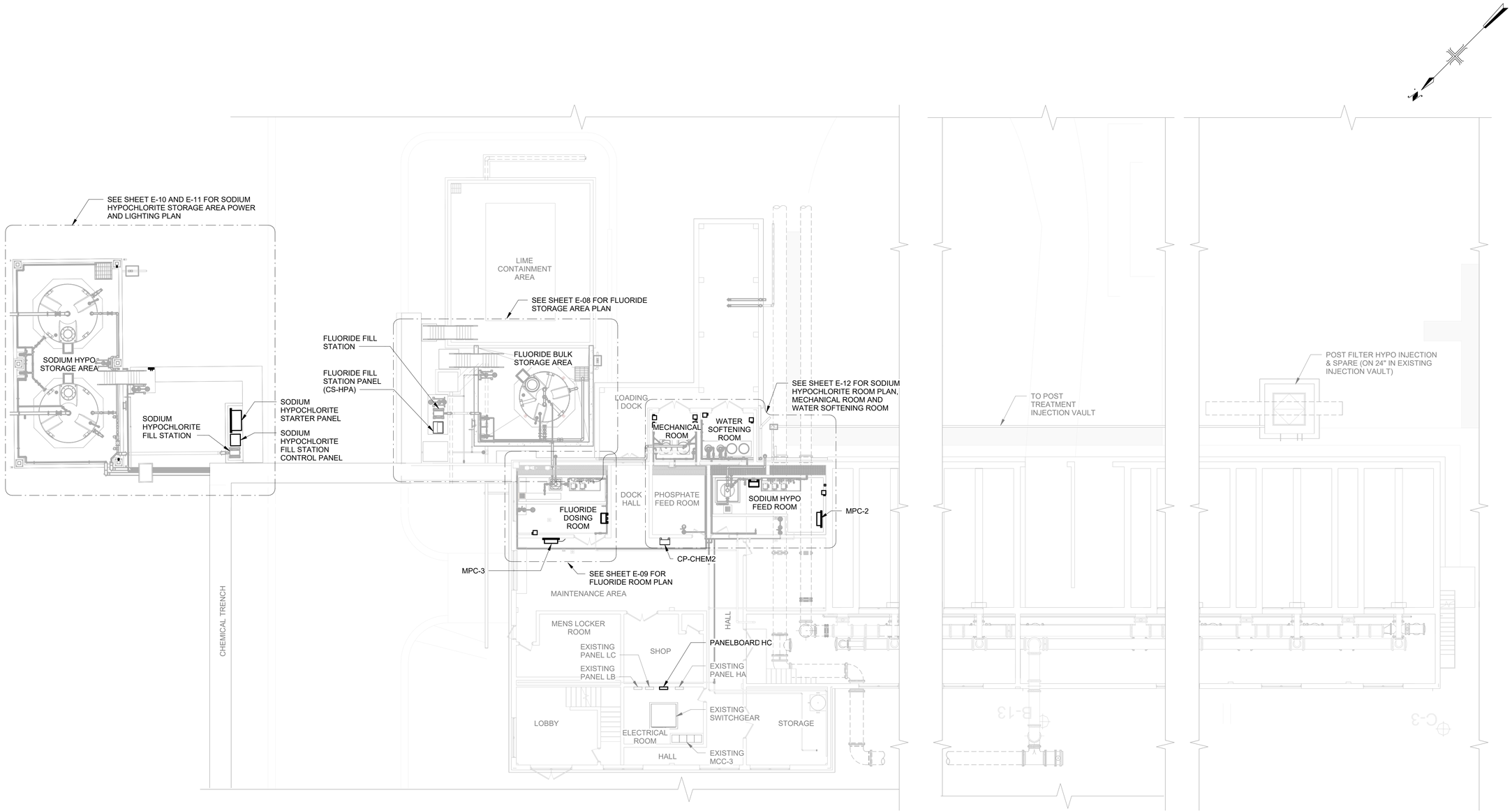
ELECTRICAL SITE PLAN

SCALE: 1" = 20'
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-03

SHEET NO.: 58 OF 83

User:GUBENTHS4120 Spec:AUS-NCSMOD File:C:\USERS\GUBENTHS4120.ARCADIS\DC\ACCDOCS\ARCADIS ACC US\AUS-30171943-FCWS WTP CHEMICAL UPGRADES\PROJECT FILES\10_WIP\10T_ARC_ELECTRICAL\CROSS TOWN\E-03.DWG Scale:1:1 SavedDate:6/9/2026 Time:19:44 Plot Date: Gubenthiran, Sathish; 6/9/2026; 19:44 ; Layout:C-03 CT



OVERALL KEY PLAN

SCALE: 3/32" = 1'-0"

0' 4' 8' 16'

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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	MS. RASHAD
CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

OVERALL KEY PLAN

SCALE: 3/32" = 1'-0"

BAR IS ONE INCH ON UNREDUCED DRAWING

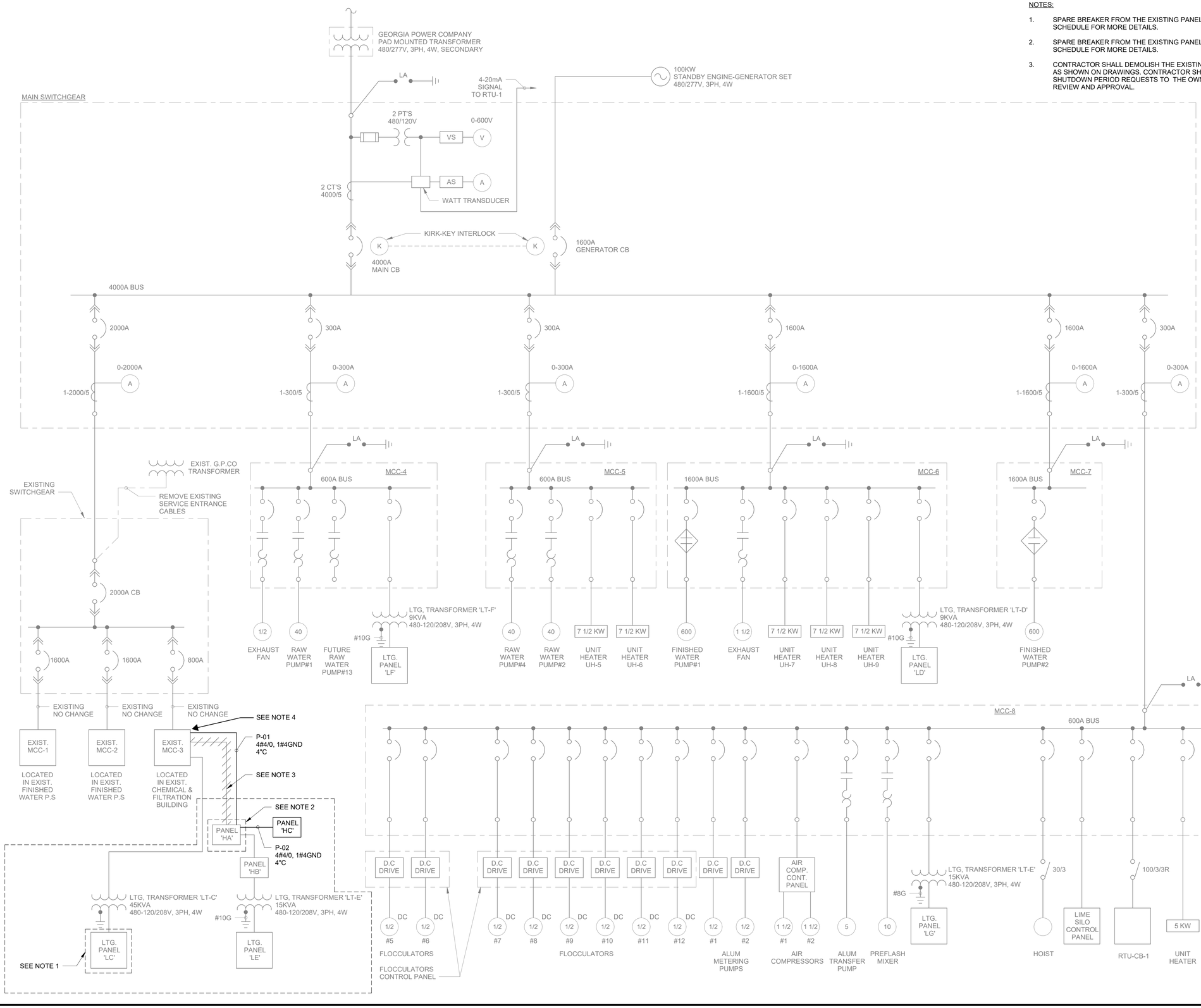
DRAWING NO.: E-04

SHEET NO.: 59 OF 83

811 Know what's **below.** **Call** before you dig.

NOTES:

1. SPARE BREAKER FROM THE EXISTING PANELBOARD LC SHALL BE USED. SEE PANELBOARD SCHEDULE FOR MORE DETAILS.
2. SPARE BREAKER FROM THE EXISTING PANELBOARD HA SHALL BE USED. SEE PANELBOARD SCHEDULE FOR MORE DETAILS.
3. CONTRACTOR SHALL DEMOLISH THE EXISTING CABLES AND CONDUIT AND PROVIDE NEW AS SHOWN ON DRAWINGS. CONTRACTOR SHALL COORDINATE AND SUBMIT ANY SHUTDOWN PERIOD REQUESTS TO THE OWNER AND ENGINEER IN ADVANCE FOR THEIR REVIEW AND APPROVAL.
4. CONTRACTOR SHALL VERIFY, CONFIRM, AND PROVIDE A NEW BREAKER INSIDE EXISTING MCC-3 FEEDING PANELBOARD HA.



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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	MS. RASHAD
CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

EXISTING ONE LINE DIAGRAM

SCALE: NOT TO SCALE

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-05

SHEET NO.: 60 OF 83

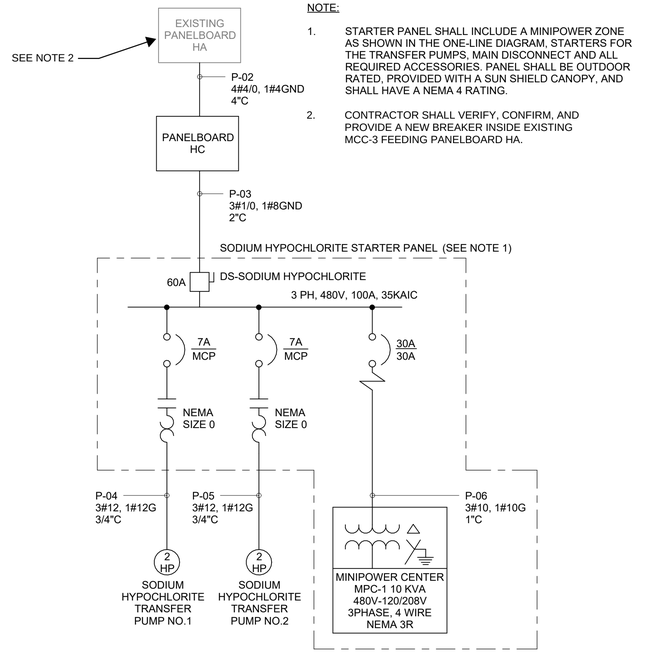
CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	LOBBY A/C UNIT AC-1	1.0	8.3	1	1.5			1	4.2	0.5	WALL HEATER	20	2
3	20	LOBBY A/C UNIT AC-2	1.0	8.3	1		1.5		1	4.2	0.5	WALL HEATER	20	4
5	20	LOCKER ROOM A/C UNIT AC-1	1.0	8.3	1			1.5	1	4.2	0.5	HVAC MAIN CONTROL PANEL	20	6
7	20	LOCKER ROOM A/C UNIT AC-2	1.0	8.3	1	1.5			1	4.2	0.5	POTASSIUM PERM FEEDER	20	8
9	20	EF-5	0.5	4.2	1		1.0		1	4.2	0.5	PLANT CONTROL PANEL	20	10
11	20	HYDRATED LIME FEEDER NO.2	0.5	4.2	1			1.0	1	4.2	0.5	ALUM METERING PUMP NO.1	20	12
13	20	HYDRATED LIME FEEDER NO.1	0.5	4.2	1	1.0			1	4.2	0.5	ALUM METERING PUMP NO.2	20	14
15	20	FLUORIDE FEEDER	0.5	4.2	1		1.0		1	4.2	0.5	CARBON FEEDER	20	16
17	20	PLANT CONTROL PANEL	0.5	4.2	1			1.0	1	4.2	0.5	CARBON FEEDER DUST COLLECTOR	20	18
19	20	LADIES ROOM RECEPTACLES	0.5	4.2	1	1.0			1	4.2	0.5	SODIUM CHLORITE FEEDER	20	20
21	20	CONFERENCE ROOM RECEPTACLES	0.5	4.2	1		1.0		1	4.2	0.5	CHLORINE DETECTOR	20	22
23	20	BREAK ROOM RECEPTACLES	0.5	4.2	1			1.0	1	4.2	0.5	MENS ROOM RECEPTACLES	20	24
25	20	CONTROL ROOM RECEPTACLES	0.5	4.2	1	1.0			1	4.2	0.5	CORRIDOR RECEPTACLES	20	26
27	20	SECOND FLOOR RECEPTACLES	0.5	4.2	1		1.0		1	4.2	0.5	RANGE KITCHEN	20	28
29	20	LOCKER ROOM AND LOBBY RECEPTACLES	0.5	4.2	1			1.0	1	4.2	0.5	RANGE KITCHEN	20	30
31	20	FIRST FLOOR RECEPTACLES	0.5	4.2	1	1.0			1	4.2	0.5	SHOP RECEPTACLES	20	32
33	20	CP-CHEM2	1	8.3	1		1.5		1	4.2	0.5	SHOP AND ELEC ROOM RECEPTACLES	20	34
35	20	SPARE			1			0.5	1	4.2	0.5	PIPE GALLERY RECEPTACLES	20	36
37	20	SPARE			1	0.5			1	4.2	0.5	EXIT SIGNS	20	38
39	20	SPARE			1		0.5		1	4.2	0.5	EMERGENCY LIGHTS	20	40
41	20	SPARE			1			0.5	1	4.2	0.5	LOADING DOCK LIGHTS	20	42
				TOTAL KVA		7.5	7.5	6.5						
				GRAND CONNECTED TOTAL KVA			21.5							

PANEL **LC**
LOCATION ELECTRICAL ROOM
BUILDING FILTER BUILDING
NOTES: EXISTING, WALL MOUNTED

SERVICE CHARACTERISTICS
VOLTS: 208Y/120
PHASE: 3
WIRE: 4
125 A MCB
A MLO
35k MIN AIC SYMM, FULLY RATED ASSEMBLY

PANELBOARD SCHEDULE LC

SCALE: NOT TO SCALE



NOTE:

1. STARTER PANEL SHALL INCLUDE A MINIPOWER ZONE AS SHOWN IN THE ONE-LINE DIAGRAM, STARTERS FOR THE TRANSFER PUMPS, MAIN DISCONNECT AND ALL REQUIRED ACCESSORIES. PANEL SHALL BE OUTDOOR RATED, PROVIDED WITH A SUN SHIELD CANOPY, AND SHALL HAVE A NEMA 4 RATING.
2. CONTRACTOR SHALL VERIFY, CONFIRM, AND PROVIDE A NEW BREAKER INSIDE EXISTING MCC-3 FEEDING PANELBOARD HA.

SODIUM HYPOCHLORITE BULK TANK AREA ONE LINE DIAGRAM

SCALE: NOT TO SCALE

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	40	RTU-1	10.0	12.0	3	3.7	3.7	3.7	3	1.1	0.95	HP-1	15	2
7	30	RTU-2	7.0	8.4	3	5.0	5.0	5.0	3	9.6	8.0	OUTDOOR UNIT FOR HP-1	40	8
13	20	UNIT WATER HEATER UH-3	2.5	3.0	3	0.8	0.8	0.8	3			SPARE	15	14
19	20	UNIT WATER HEATER	2.5	3.0	3	15.8	15.8	15.8	3	54.1	45.0	PANEL HB	70	20
25	225	PANELBOARD HC	96.6	116.2	3	32.2	32.2	32.2	3			SPARE	20	26
31	20	SPARE			3	0.0	0.0	0.0	3			SPACE		32
37		SPACE			3	0.0	0.0	0.0	3			SPACE		38
				TOTAL KVA		57.5	57.5	57.5						
				GRAND CONNECTED TOTAL KVA			172.6							

PANEL **HA**
LOCATION ELECTRICAL ROOM
BUILDING FILTER BUILDING
NOTES: EXISTING, WALL MOUNTED

SERVICE CHARACTERISTICS
VOLTS: 480
PHASE: 3
WIRE: 4
225 A MLO
A MCB
22k MIN AIC SYMM, FULLY RATED ASSEMBLY

PANELBOARD SCHEDULE HA

SCALE: NOT TO SCALE



EXISTING PANELBOARD HA



EXISTING PANELBOARD LC

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ATLANTA, GA 30339
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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: N. DESHPANDE
DRAWN BY: MS. RASHAD
CHECKED BY: T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN
ONE LINE DIAGRAM MODIFICATIONS AND PANELBOARD SCHEDULES

SCALE: NOT TO SCALE
0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-06
SHEET NO.: 61 OF 83

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	40	SODIUM HYPO STARTER CONTROL PANEL	15	18.0	3	10.6	10.6	10.6	3	20.2	16.8	MINI POWER CENTRE-2 (MCP-2)	15	2
7	30	MINI POWER CENTRE-3 (MCP-3)	11.4	13.7	3	13.8	13.8	13.8	3	36.1	30	EWH-1 DS	60	8
13	20	EF-7 DS	0.4	0.5	3	7.8	7.8	7.8	3	27.7	23	EWH-2 DS	40	14
19	20	SPARE				0.0	0.0	0.0				SPARE	20	20
25	20	SPARE				0.0	0.0	0.0				SPARE	20	26
31	20	SPARE				0.0	0.0	0.0				SPARE	20	32
						32.2	32.2	32.2						

PANEL **HC**
LOCATION ELECTRICAL ROOM
BUILDING FILTER BUILDING
NOTES: WALL MOUNTED, NEMA 12

TOTAL KVA: 32.2 | 32.2 | 32.2
GRAND CONNECTED TOTAL KVA: 96.6

VOLTS: 480
PHASE: 3
WIRE: 4

SERVICE CHARACTERISTICS
A MLO
225 A MCB
22k MIN AIC SYMM, FULLY RATED ASSEMBLY

PANELBOARD SCHEDULE HC

SCALE: NOT TO SCALE

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	SODIUM HYPO FILL STATION CONTROL PANEL	1.0	8.3	1	2.0			1	8.3	1.0	TANK NO.1 HEATER	20	2
3	20	TANK STORAGE AREA RECEPT-1	0.18	1.5	1		1.2		1	8.3	1.0	TANK NO.2 HEATER	20	4
5	20	TANK STORAGE AREA RECEPT-2	0.18	1.5	1			0.5	1	2.5	0.3	TANK STORAGE AREA LIGHTING	20	6
7	20	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO FILL STATION	1.0	8.3	1	2.0			1	8.3	1.0	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO BULK TANK	20	8
9	20	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO FILL STATION	1.0	8.3	1		2.0		1	8.3	1.0	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO BULK TANK	20	10
11	20	BV-6301	0.2	1.7	1			0.4	1	1.7	0.2	BV-6302	20	12
13	20	BV-6303	0.2	1.7	1	0.4			1	1.7	0.2	BV-6304	20	14
15	20	FSH-6301	0.1	0.8	1		0.2		1	0.8	0.1	FSH-6302	20	16
17	20	SPARE			1			0.0	1			SPARE	20	18
						4.4	3.4	0.9						

PANEL **MPC-1**
LOCATION FILL STATION
BUILDING SODIUM HYPO BULK TANK AREA
NOTES: ENCLOSED, INSIDE FILL STATION PANEL, NEMA 3R

TOTAL KVA: 4.4 | 3.4 | 0.9
GRAND CONNECTED TOTAL KVA: 8.7

SERVICE CHARACTERISTICS
VOLTS: 208Y/120
PHASE: 3
WIRE: 4
A MLO
60 A MCB
35k MIN AIC SYMM, FULLY RATED ASSEMBLY

PANELBOARD SCHEDULE MPC-1

SCALE: NOT TO SCALE

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	SODIUM HYPO MET. PUMP NO.1	0.5	4.2	1	0.6			1	0.8	0.1	EF7-MD-2	20	2
3	20	SODIUM HYPO MET. PUMP NO.2	0.5	4.2	1		0.6		1	0.8	0.1	HP-1-MD-3	20	4
5	20	SODIUM HYPO MET. PUMP NO.3	0.5	4.2	1			1.5	1	8.3	1.0	WATER SOFTENING SYSTEM	20	6
7	20	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO DAY TANK	1	8.3	1	2.0			1	8.3	1.0	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO FEED ROOM	20	8
9	20	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO DAY TANK	1	8.3	1		2.0		1	8.3	1.0	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR SODIUM HYPO BULK TANK	20	10
11	20	EUH-1 DS	3.19	15.3	2			3.2	2	15.3	3.19	EUH-2 DS	20	12
						3.2								
15	20	EF-8 DS	1	8.3	1		1.1		1	0.8	0.1	EF5-MD-1	20	16
17	20	EF-8-MD-1	0.1	0.8	1			1.1	1	8.3	1.0	EF-5 DS	20	18
19	20	FSH-6303	0.1	0.8	1	0.2			1	0.8	0.1	FIT-6301	20	20
21	20	FIT-6302	0.1	0.8	1		0.2		1	0.8	0.1	FIT-6303	20	22
23	20	WATER SOFTENING SYSTEM	1	8.3	1			1.1	1	0.8	0.1	FIT-6001	20	24
25	20	SPARE			1	0.0			1			SPARE	20	26
27	20	SPARE			1		0.0		1			SPARE	20	28
29	20	SPARE			1			0.0	1			SPARE	20	30
						6.0	3.9	6.9						

PANEL **MPC-2**
LOCATION SODIUM HYPO ROOM
BUILDING FILTER BUILDING
NOTES: ENCLOSED, WALL OR STANCHION MOUNTED, NEMA 12

TOTAL KVA: 6.0 | 3.9 | 6.9
GRAND CONNECTED TOTAL KVA: 16.8

SERVICE CHARACTERISTICS
VOLTS: 208Y/120
PHASE: 3
WIRE: 4
A MLO
60 A MCB
35k MIN AIC SYMM, FULLY RATED ASSEMBLY

PANELBOARD SCHEDULE MPC-2

SCALE: NOT TO SCALE

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD KVA	AMPS	POLES	KVA PER PHASE A	KVA PER PHASE B	KVA PER PHASE C	POLES	AMPS	LOAD KVA	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	HFSA TRANSFER PUMP NO.1	0.25	2.1	1	0.5			1	2.1	0.25	HFSA TRANSFER PUMP NO.2	20	2
3	20	FLUORIDE FILL STATION PANEL	1	8.3	1		2.0		1	8.3	1	EF-6 DS	20	4
5	20	HFSA METERING PUMP NO.1	1	8.3	1			1.1	1	0.8	0.1	HP-1-MD-1	20	6
7	20	HFSA METERING PUMP NO.2	1	8.3	1	1.1			1	0.8	0.1	HP-1-MD-2	20	8
9	20	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR FLUORIDE FILL STATION	1	8.3	1		2.0		1	8.3	1.0	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR FLUORIDE BULK TANK	20	10
11	20	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR FLUORIDE FILL STATION	1	8.3	1			2.0	1	8.3	1.0	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR FLUORIDE BULK TANK	20	12
13	20	HEAT TRACE FOR PACKAGED EYEWASH/SHOWER STATION NEAR FLUORIDE DAY TANK	1	8.3	1	1.1			1	0.8	0.1	EF7-MD-1	20	14
15	20	POWER FOR PACKAGED EYEWASH/SHOWER STATION NEAR FLUORIDE DAY TANK	1	8.3	1		1.1		1	0.8	0.1	FSH-6201	20	16
17	20	FSH-6202	0.1	0.8	1			0.2	1	0.8	0.1	FSH-6203	20	18
19	20	FSH-6204	0.1	0.8	1	0.2			1	0.8	0.1	FIT-6201	20	20
21	20	SPARE			1		0.1		1	0.8	0.1	FIT-6202	20	22
23	20	SPARE			1			0.0	1			SPARE	20	24
25	20	SPARE			1	0.0			1			SPARE	20	26
27	20	SPARE			1		0.0		1			SPARE	20	28
29	20	SPARE			1			0.0	1			SPARE	20	30
						2.9	5.2	3.3						

PANEL **MPC-3**
LOCATION FLUORIDE STORAGE AREA PLAN
BUILDING SODIUM HYPO BULK TANK AREA
NOTES: ENCLOSED, WALL OR STANCHION MOUNTED, NEMA 12

TOTAL KVA: 2.9 | 5.2 | 3.3
GRAND CONNECTED TOTAL KVA: 11.4

SERVICE CHARACTERISTICS
VOLTS: 208Y/120
PHASE: 3
WIRE: 4
A MLO
60 A MCB
35k MIN AIC SYMM, FULLY RATED ASSEMBLY

PANELBOARD SCHEDULE MPC-3

SCALE: NOT TO SCALE

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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H. POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

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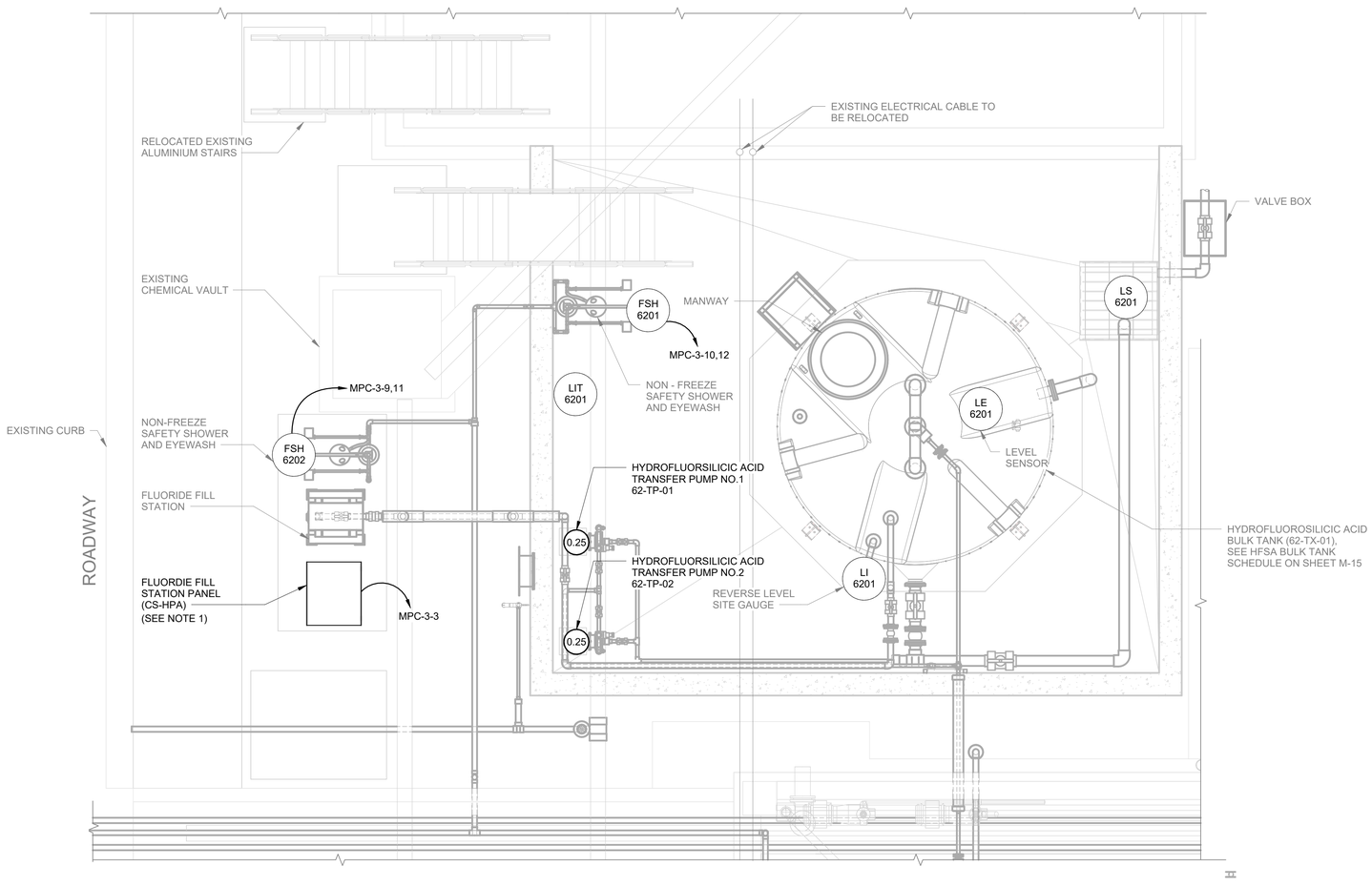
PROJECT NO.: 30240979
DATE: JULY 2026
DESIGNED BY: N. DESHPANDE
DRAWN BY: G. SATHISH
CHECKED BY: T. POWELL

SHEET TITLE

PANELBOARD SCHEDULES

SCALE: NOT TO SCALE
0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-07
SHEET NO.: 62 OF 83



FLUORIDE STORAGE AREA PLAN

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

0' 2' 4' 6'

NOTES:

1. REFER TO MECHANICAL AND INSTRUMENTATION SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE ALL THE REQUIRED WIRING, CONDUITS, PULLBOXES AND OTHER NECESSARY ACCESORIES FORTHE FLUORIDE STORAGE SYSTEM.

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CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

FLUORIDE STORAGE AREA PLAN

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

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

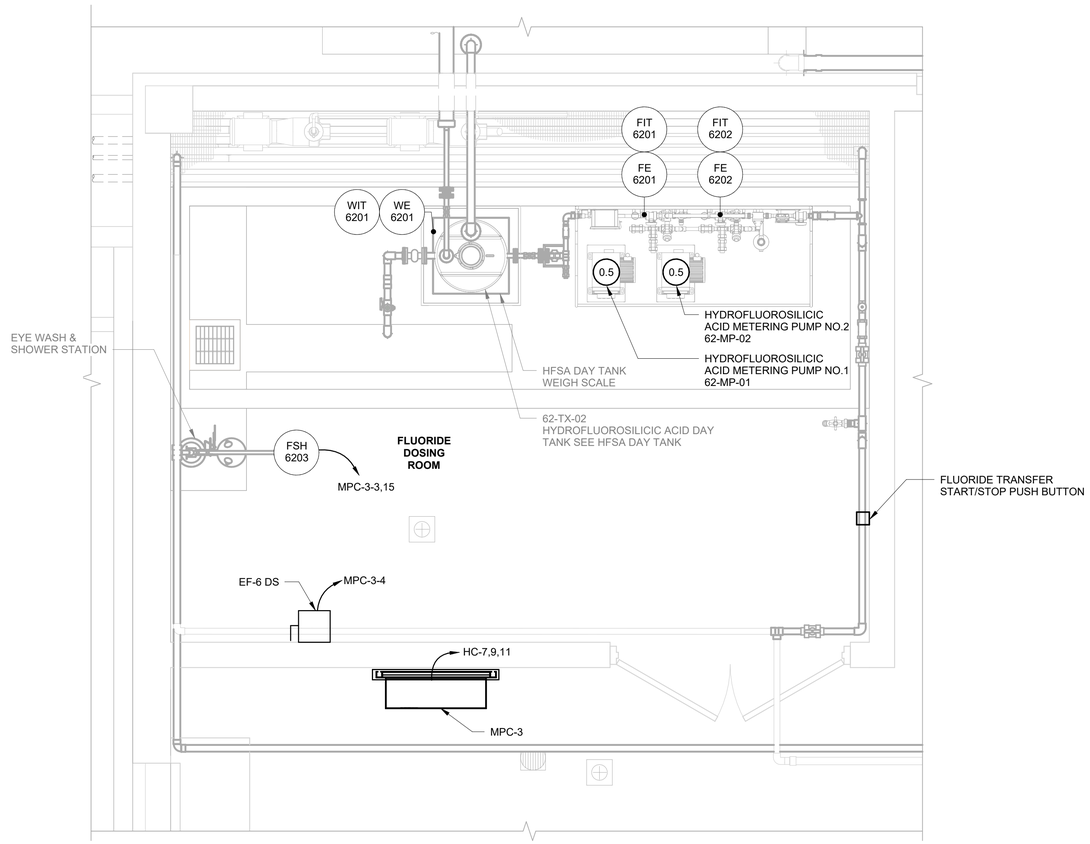
DRAWING NO.: E-08

SHEET NO.: 63 OF 83

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NOTES:

1. REFER TO MECHANICAL AND INSTRUMENTATION SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE ALL THE REQUIRED WIRING, CONDUITS, PULLBOXES AND OTHER NECESSARY ACCESORIES FOR THE FLUORIDE FEED SYSTEM.



FLUORIDE ROOM PLAN

SCALE: 1/2" = 1'-0" 0' 1' 2' 4'

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SHEET TITLE

ELECTRICAL
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FLUORIDE ROOM PLAN

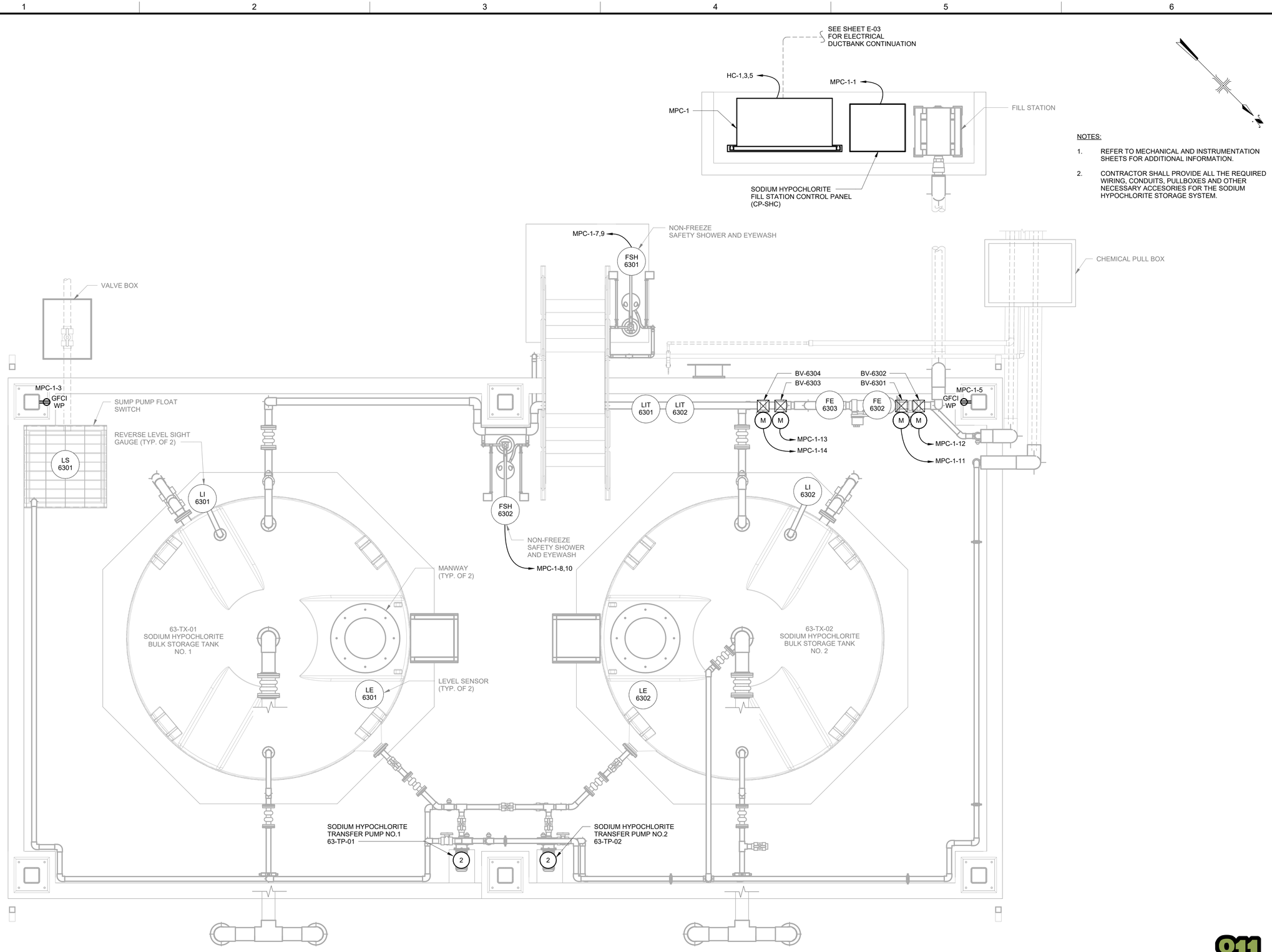
SCALE: 1/2" = 1'-0"

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-09

SHEET NO.: 64 OF 83

811 Know what's **below.** **Call** before you dig.



SODIUM HYPOCHLORITE STORAGE AREA POWER PLAN

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

0' 1' 2' 4'

NOTES:

1. REFER TO MECHANICAL AND INSTRUMENTATION SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE ALL THE REQUIRED WIRING, CONDUITS, PULLBOXES AND OTHER NECESSARY ACCESORIES FOR THE SODIUM HYPOCHLORITE STORAGE SYSTEM.

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CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL

CROSSTOWN

SODIUM HYPOCHLORITE STORAGE AREA POWER PLAN

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

0 BAR IS ONE INCH ON UNREDUCED DRAWING

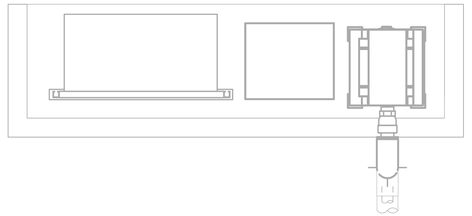
DRAWING NO.: E-10

SHEET NO.: 65 OF 83

811 Know what's **below.** **Call** before you dig.

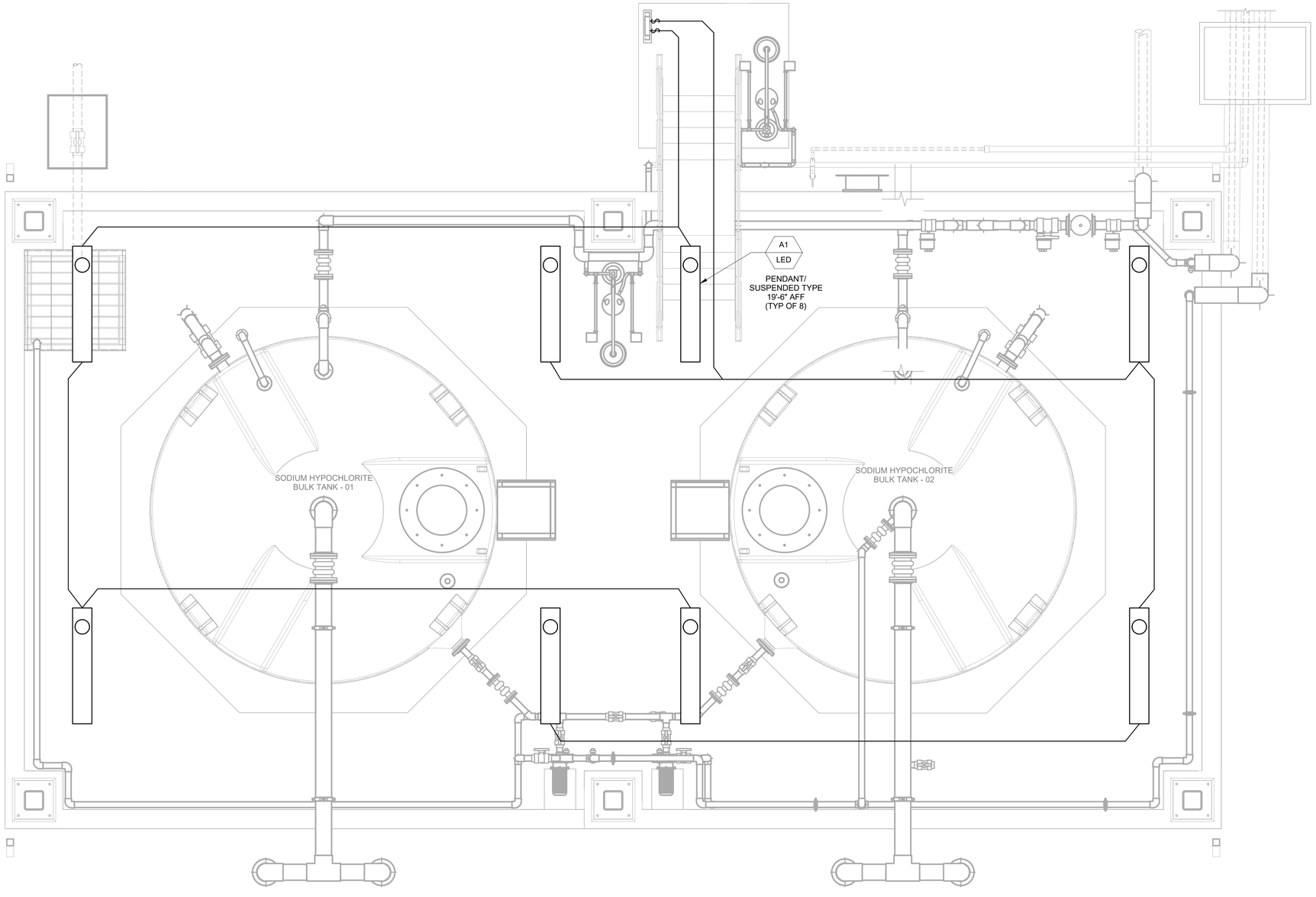
LUMINAIRE TAG	DESCRIPTION	MOUNTING	LUMINAIRE			VOLTAGE	DESIGN BASIS MANUFACTURE & MODEL NO.
			QUANTITY	WATTS	TYPE		
A1	4'-0" NOM. LENGTH LED LUMINAIRE, PENDANT/SUSPENDED TYPE. ENCLOSED AND GASKETED INDUSTRIAL TYPE FIXTURE, 4000 LUMENS	PENDANT/ SUSPENDED TYPE	8	36	LED 4000K	120-277	LITHONIA FEM L48 4000LM LPPFL MD MVOLT GZ10 40K 80CRI

LUMINAIRE SCHEDULE



NOTES:

1. REFER TO MECHANICAL AND INSTRUMENTATION SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE ALL THE REQUIREDWIRING, CONDUITS, PULLBOXES AND OTHERNECESSARY ACCESORIES FOR THE SODIUM HYPOCHLORITE STORAGE SYSTEM.



SODIUM HYPOCHLORITE STORAGE AREA LIGHTING PLAN

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

0' 1' 2' 4'

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CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

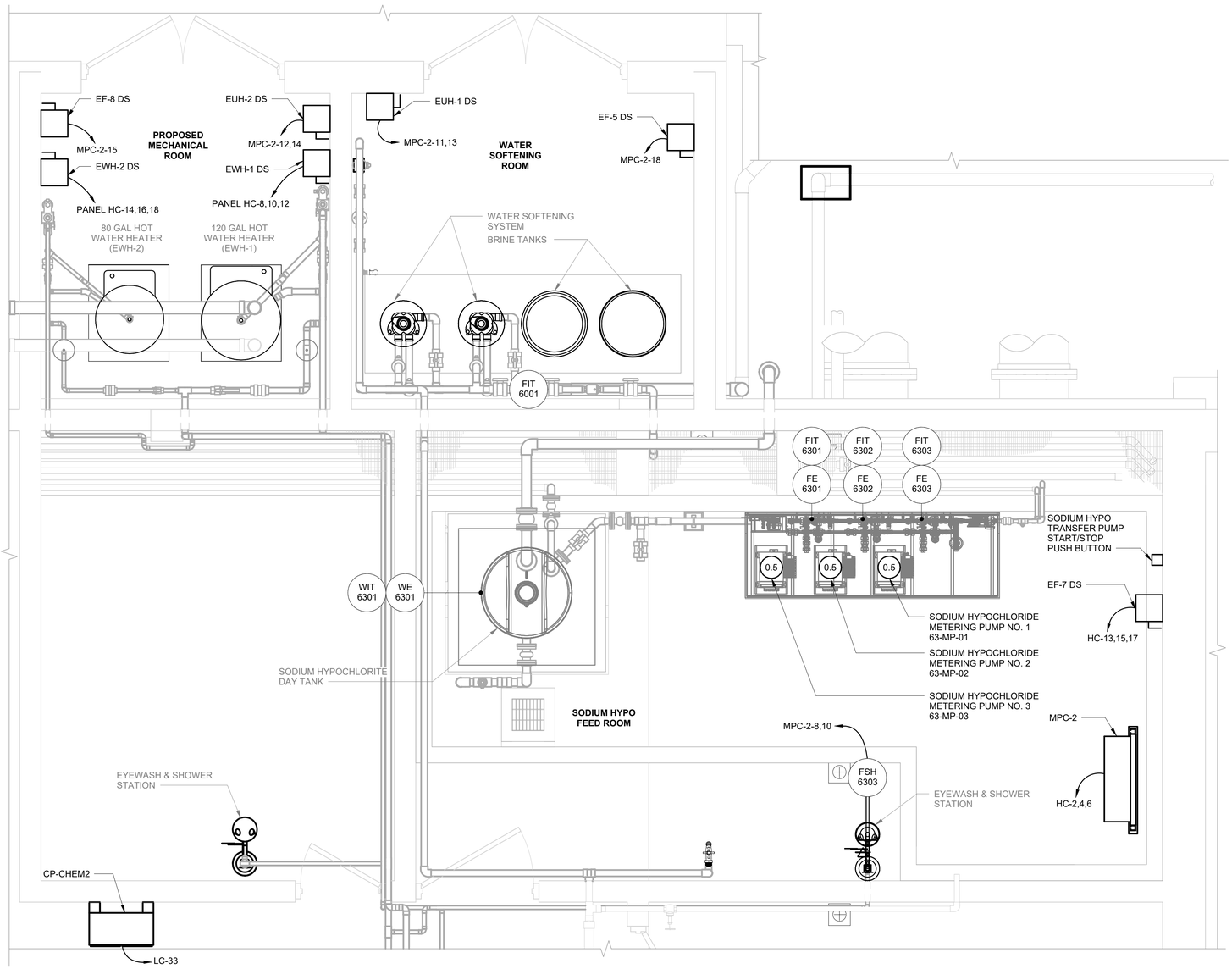
SODIUM HYPOCHLORITE STORAGE AREA LIGHTING PLAN

SCALE: As indicated

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-11

SHEET NO.: 66 OF 83



SODIUM HYPOCHLORITE ROOM PLAN

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

0' 1' 2' 4'

NOTES:

1. REFER TO MECHANICAL AND INSTRUMENTATION SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE ALL THE REQUIRED WIRING, CONDUITS, PULLBOXES AND OTHER NECESSARY ACCESORIES FOR THE SODIUM HYPOCHLORITE FEED SYSTEM, WATER SOFTENING SYSTEM AND WATER HEATERS.

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CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

SODIUM HYPOCHLORITE ROOM PLAN

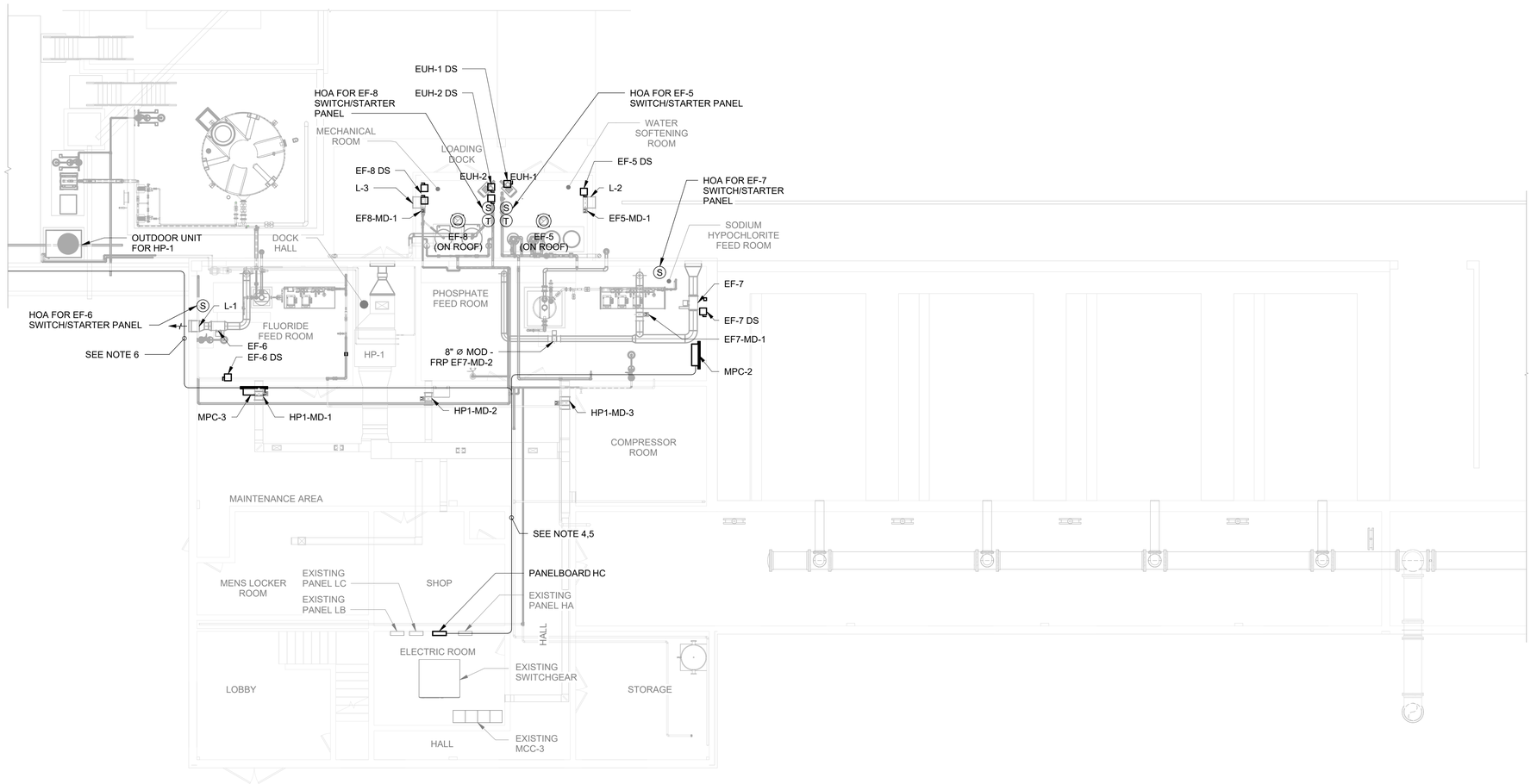
SCALE: 1/2" = 1'-0"

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-12

SHEET NO.: 67 OF 83

811 Know what's **below.** **Call** before you dig.



NOTES:

1. REFER TO HVAC, MECHANICAL AND INSTRUMENTATION SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL PROVIDE ALL THE REQUIRED WIRING, CONDUITS, PULLBOXES AND OTHER NECESSARY ACCESORIES FOR THE NEW HVAC SYSTEM AS WELL AS RELOCATION AND MODIFICATION OF THE EXISTING HVAC SYSTEM.
3. ALL REQUIRED HVAC STARTERS SHALL BE LOCATED IN THE H-O-A/STARTER PANEL. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED POWER AND CONTROL WIRING FOR EACH STARTER PANEL. REFER TO HVAC PLANS FOR MORE DETAILS
4. CONDUIT ROUTING SHOWN ON THIS SHEET IS DIAGRAMMATIC AND FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY ALL PROPOSED ROUTINGS AND SUBMIT A DETAILED LAYOUT TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. THE SUBMITTAL SHALL IDENTIFY ALL PENETRATION SEALING METHODS.
5. ALL ABOVE-GROUND CONDUIT PENETRATIONS THROUGH WALLS AND FLOORS MUST BE SEALED EXTERNALLY AND INTERNALLY USING ROXTEC SEALS, TO PREVENT THE INGRESS OF WATER AND/OR GAS.
   CONTRACTOR SHALL SUBMIT PRODUCT DATA TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
   INSTALL ALL SEALS IN STRICT ACCORDANCE WITH ROXTEC INSTALLATION GUIDELINES USING ONLY ROXTEC-APPROVED LUBRICANT. ALL WORK MUST BE IN ACCORDANCE WITH DIV 26 SPECIFICATIONS
6. CONTRACTOR SHALL COORDINATE AND FIELD VERIFY ALL THE CONDUIT LOCATIONS TO MATCH CONDUITS EXITING THE BUILDING AND ENTERING DUCT BANKS. INSTALL ROXTEC CONDUIT SEALS EXTERNALLY AND INTERNALLY AT ALL CONDUIT TERMINATIONS TRANSITIONING TO UNDERGROUND DUCT BANKS OR LOCATED WITHIN THE FACILITY TO PREVENT THE INGRESS OF WATER, GAS, HUMIDITY, OR RODENTS.
   ALL INSTALLATIONS MUST BE PERFORMED IN STRICT ACCORDANCE WITH MANUFACTURER SPECIFICATIONS USING ONLY ROXTEC-APPROVED LUBRICANT.
   INSTALL ALL SEALS IN STRICT ACCORDANCE WITH ROXTEC INSTALLATION GUIDELINES. ALL WORK MUST BE IN ACCORDANCE WITH DIV 26 SPECIFICATIONS.
   CONTRACTOR SHALL SUBMIT PRODUCT DATA TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

POST-TREATMENT CHEMICAL BUILDING POWER PLAN

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

0' 4' 8' 16'

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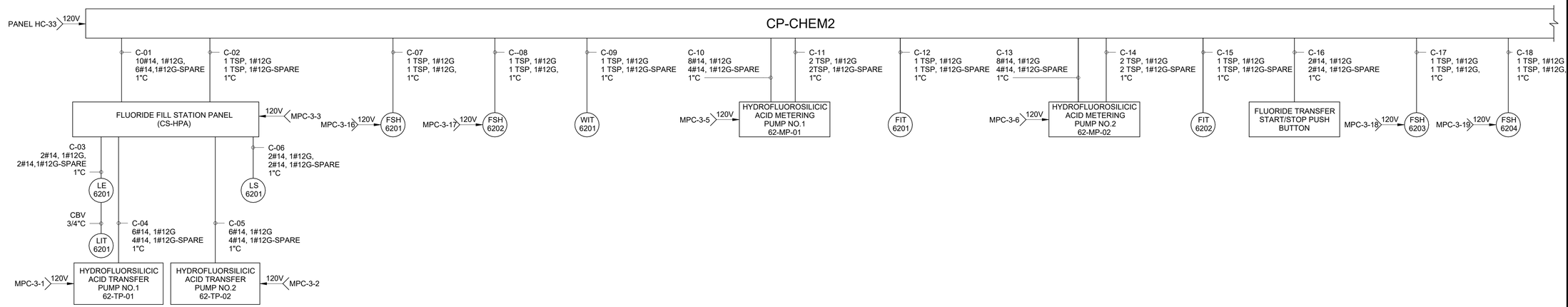
ELECTRICAL
CROSSTOWN
POST-TREATMENT CHEMICAL BUILDING POWER PLAN

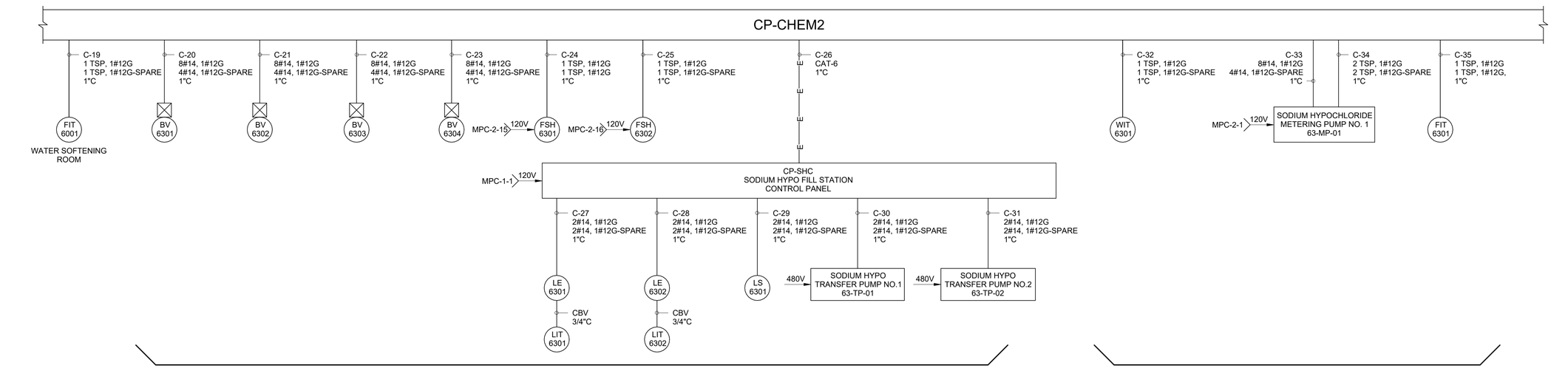
SCALE: 1/8" = 1'-0"

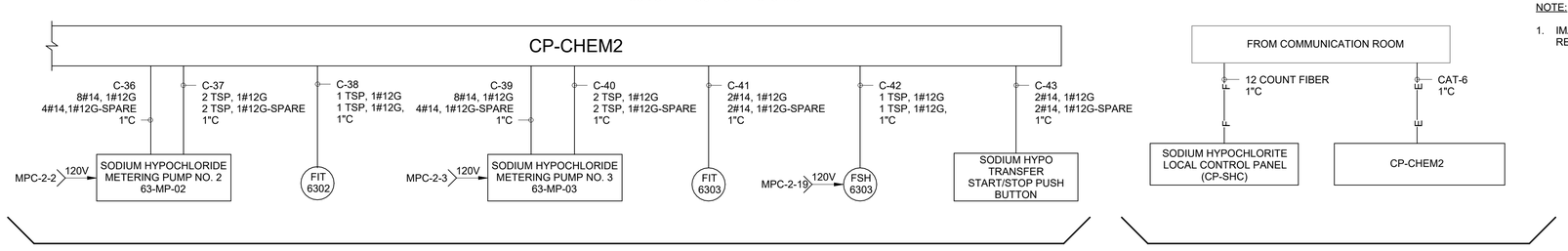
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-13

SHEET NO.: 68 OF 83

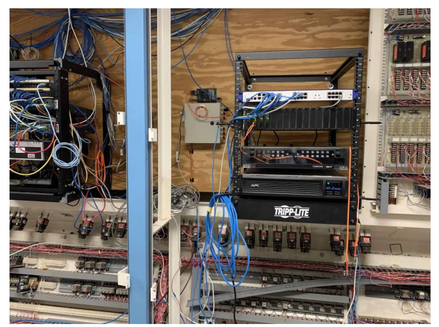






NOTE:

1. IMAGE SHOWING EXISTING PANELS FROM COMMUNICATION ROOM IN ADMINISTRATION BUILDING. REFER I-04 PARTIAL NETWORK DIAGRAM FOR MORE DETAILS.



INTERCONNECT WIRING DIAGRAM

SCALE: NOT TO SCALE

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CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

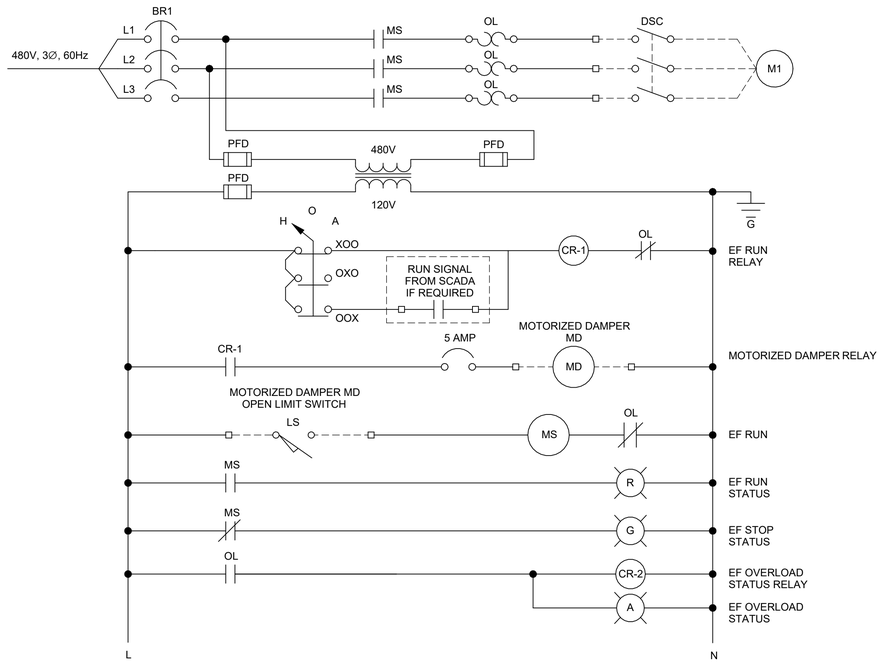
INTERCONNECT WIRING DIAGRAM

SCALE: NOT TO SCALE

BAR IS ONE INCH ON UNREDUCED DRAWING

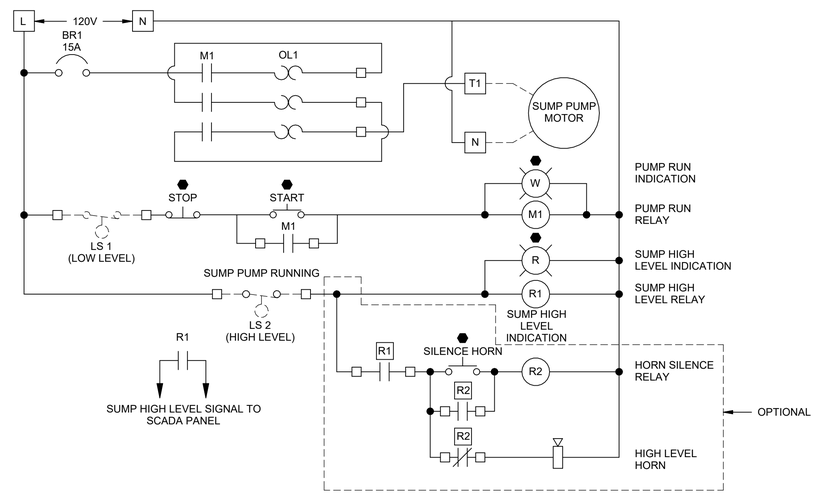
DRAWING NO.: E-14

SHEET NO.: 69 OF 83



TYPICAL EXHAUST FAN STARTER CONTROL WIRING SCHEMATIC

SCALE: NOT TO SCALE



TYPICAL SUMP PUMP CONTROL PANEL WIRING SCHEMATIC

SCALE: NOT TO SCALE

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SHEET TITLE

ELECTRICAL
CROSSTOWN

CONTROL SCHEMATICS

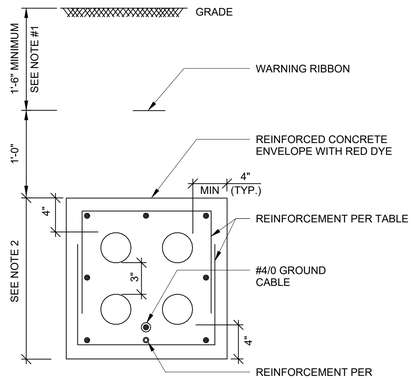
SCALE: NOT TO SCALE

BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-15

SHEET NO.: 70 OF 83

811 Know what's **below.** **Call** before you dig.



REINFORCEMENT TABLE	
DUCT BANKS CROSSING ANY AND ALL BACKFILL, ROADS, PARKING LOTS AND ANY AREA SUBJECT TO VEHICULAR TRAFFIC	ALL OTHER DUCT BANKS
#5 @ 12" LONGITUDINAL AND #4 @ 12" TIES	#4 @ 12" LONGITUDINAL AND #3 @ 12" TIES

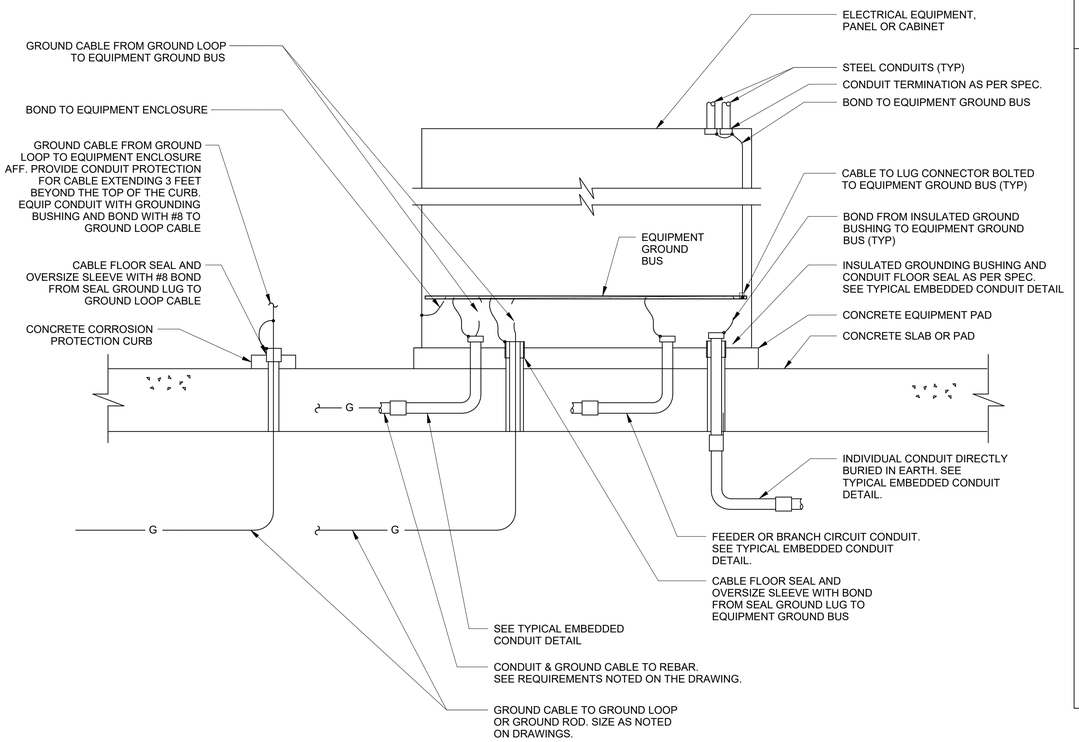
DUCT BANK NOTES:

1. DUCT BANK DEPTH MAY VARY TO CLEAR OTHER UNDERGROUND SYSTEMS AND TO MAINTAIN SLOPE AS REQUIRED.
2. DUCT BANK DEPTH AND WIDTH VARIES, REFER TO PLAN DRAWINGS FOR SIZES.
3. PROVIDE COMPACTED SELECT FILL TO UNDERSIDE OF STRUCTURES WHERE DUCTBANKS ARE FLUSHED WITH FOUNDATION SLAB.

1 TYPICAL DUCT BANK SECTION

E-16

SCALE: NOT TO SCALE



2 TYPICAL EQUIPMENT GROUNDING DETAIL

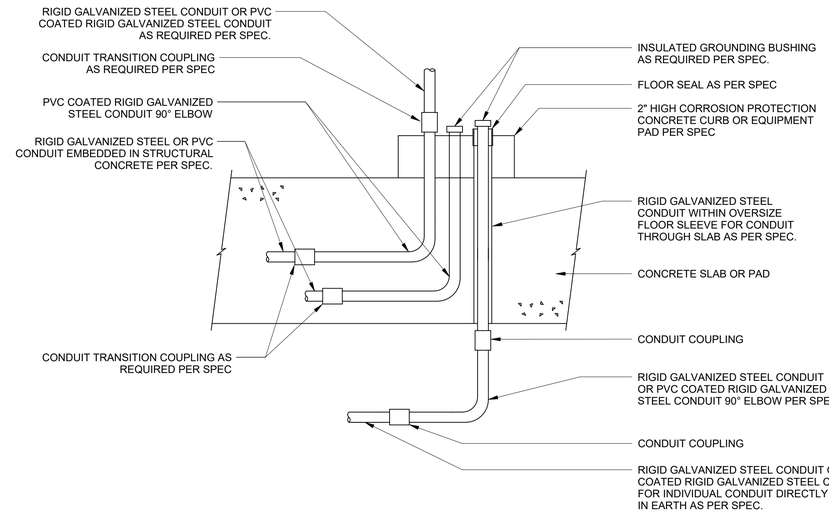
E-16

SCALE: NOT TO SCALE

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	GX	53000 SERIES	TV OR TA
CABLE TO PIPE (CABLE, PIPE OR CONDUIT)	-	-	HA OR VS
	GAR OR GD	3900 SERIES	-
CABLE TO FLAT SURFACE	GB	-	HA OR HS
BRAID TO PIPE	GG	-	-

GROUNDING CONNECTIONS

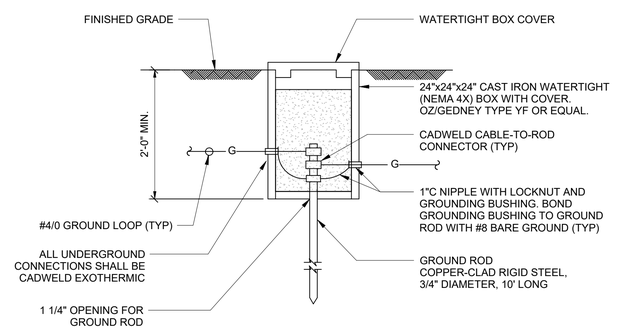
SCALE: NOT TO SCALE



3 EMBEDDED CONDUIT DETAIL AND CONDUIT CORROSION PROTECTION DETAIL

E-16

SCALE: NOT TO SCALE



4 EXTERIOR GROUND CONNECTION AND TEST WELL DETAILS

E-16

SCALE: NOT TO SCALE

Know what's **below.** **Call** before you dig.

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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS			
NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	MS. RASHAD
CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

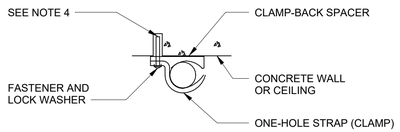
TYPICAL ELECTRICAL DETAILS - SHEET 1 OF 3

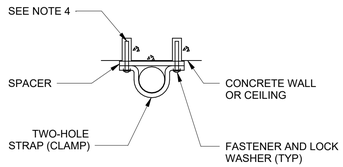
SCALE: As indicated

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-16

SHEET NO.: 71 OF 83





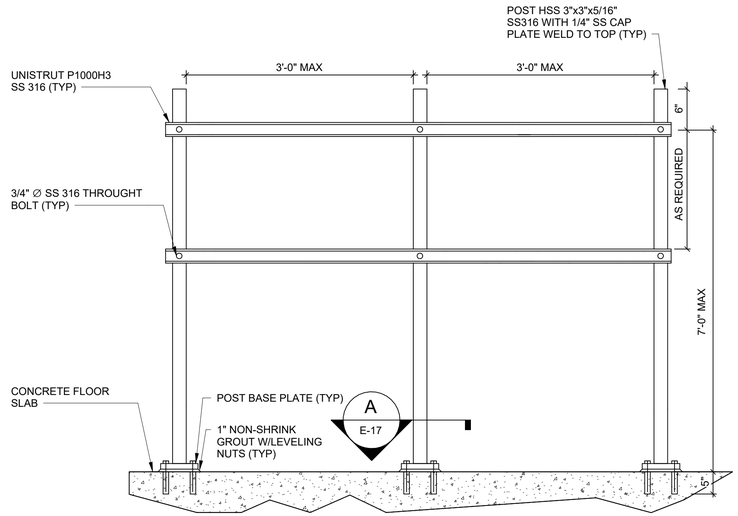
NOTES:

1. THESE DETAILS ARE TYPICAL FOR BOTH VERTICAL AND HORIZONTAL MOUNTING.
2. ALL THREADED FASTENERS TO BE PER SPECIFICATIONS.
3. STRAP TO BE SPACED PER SPECIFICATIONS.
4. EXPANSION ANCHOR, LENGTH AS REQUIRED FOR RIGID ASSEMBLAGE (TYP).

1 TYPICAL CONDUIT MOUNTING

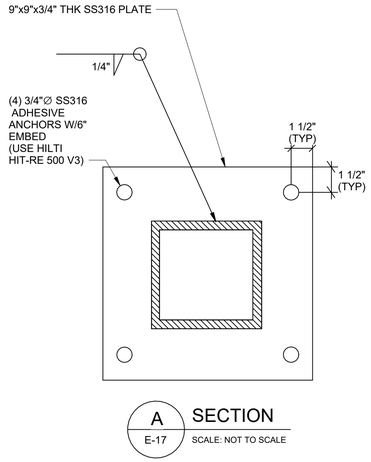
E-17

SCALE: NOT TO SCALE



NOTE:

1. ADDITIONAL POSTS CAN BE ADDED AS NEEDED TO INCREASE THE LENGTH OF THE EQUIPMENT RACK.



A SECTION

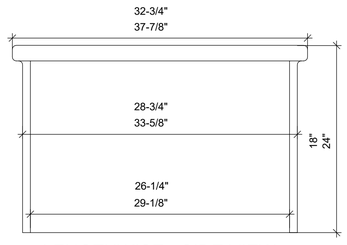
E-17

SCALE: NOT TO SCALE

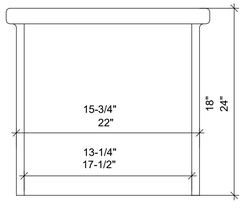
2 ELECTRICAL RACK SUPPORT DETAIL

E-17

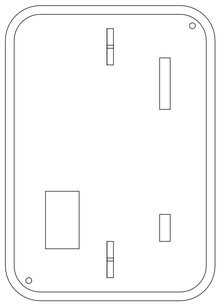
SCALE: NOT TO SCALE



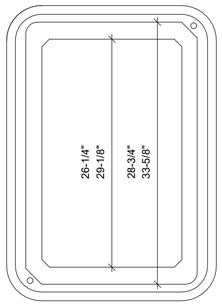
LENGTHWISE - SIDE VIEW



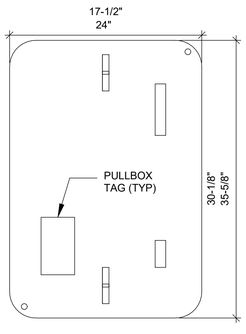
WIDTHWISE - SIDE VIEW



COVER - TOP VIEW



INSIDE - TOP VIEW



COVER - TOP VIEW

HANDHOLE/PULLBOX SIZE TABLE		
PULLBOX TAG	SIZE	TYPE
EHH-1	36"L x 36"W x 36"D	POLYCONCRETE - IN GROUND OPEN BOTTOM
EHH-2	36"L x 36"W x 36"D	POLYCONCRETE - IN GROUND OPEN BOTTOM
EHH-3	36"L x 36"W x 36"D	POLYCONCRETE - IN GROUND OPEN BOTTOM
EHH-4	36"L x 36"W x 36"D	POLYCONCRETE - IN GROUND OPEN BOTTOM

POLYCONCRETE HANDHOLE/PULLBOX TABLES

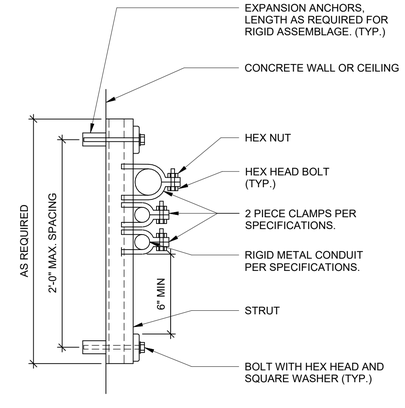
NOTES:

1. POLYCONCRETE PULLBOXES SHALL BE SYNERTECH OPEN BOTTOM TYPE WITH TIER 20K BOLT DOWN COVERS, OR EQUAL.
2. ALL MANHOLES AND HANDHOLES SUBJECT TO VEHICULAR TRAFFIC SHALL HAVE AN AASHTO H-20 TRAFFIC LOAD RATING.

3 POLYCONCRETE PULLBOX DETAIL

E-17

SCALE: NOT TO SCALE



NOTES:

1. THIS DETAIL IS TYPICAL FOR BOTH VERTICAL AND HORIZONTAL MOUNTING.
2. STRUT AND ALL HARDWARE PER SPECIFICATIONS.
3. STRUT TO BE SPACED AT SPECIFIED INTERVALS PER SPECIFICATIONS.

4 TYPICAL MULTIPLE CONDUIT MOUNTING USING STRUT

E-17

SCALE: NOT TO SCALE

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CONSULTANTS

SEALS

GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.: 30240979

DATE: JULY 2026

DESIGNED BY: N. DESHPANDE

DRAWN BY: MS. RASHAD

CHECKED BY: T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

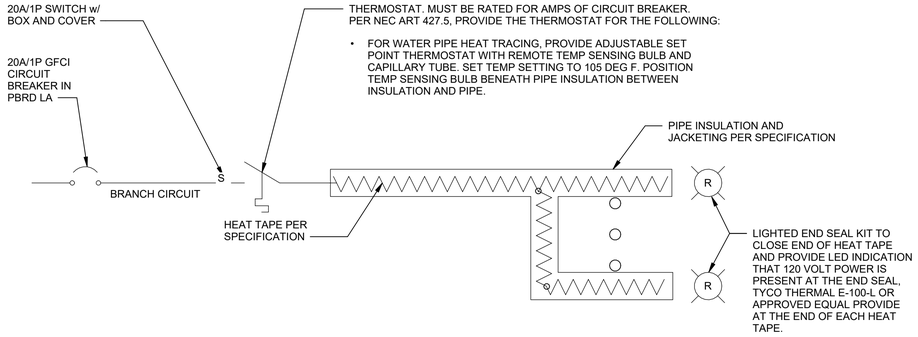
TYPICAL ELECTRICAL DETAILS - SHEET 2 OF 3

SCALE: NOT TO SCALE

BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-17

SHEET NO.: 72 OF 83



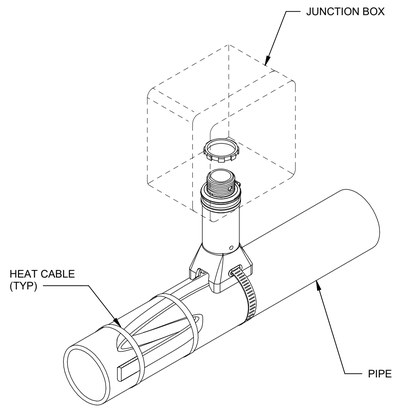
NOTE:

1. IN CASE MULTIPLE BRANCH CIRCUITS ARE REQUIRED FOR MULTIPLE HEAT TRACE SYSTEMS, PROVIDE A TIME DELAY RELAY IN EACH CIRCUIT AS REQUIRED TO REDUCE THE OVERALL CURRENT DRAW ON THE MAIN BUS.

1 ITEMS REQUIRED FOR HEAT TRACE INSTALLATION

E-18

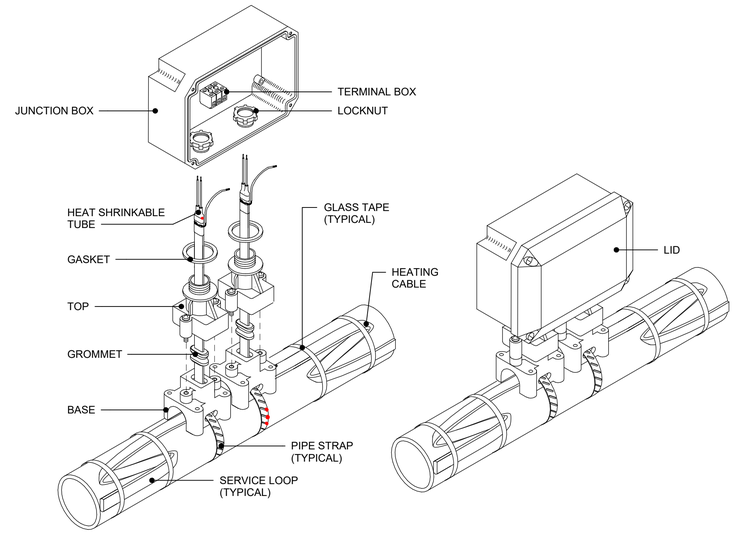
SCALE: NOT TO SCALE



2 TYPICAL HEAT TRACE POWER CONNECTION

E-18

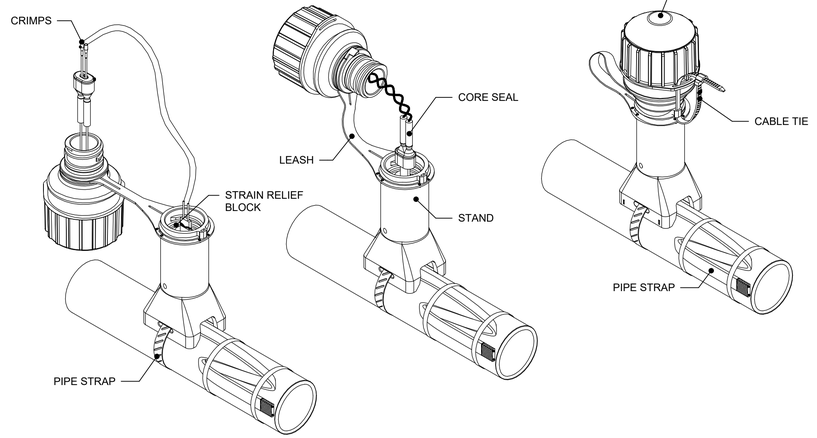
SCALE: NOT TO SCALE



3 TYPICAL HEAT TRACE POWER CONNECTION DETAIL (2 WAY)

E-18

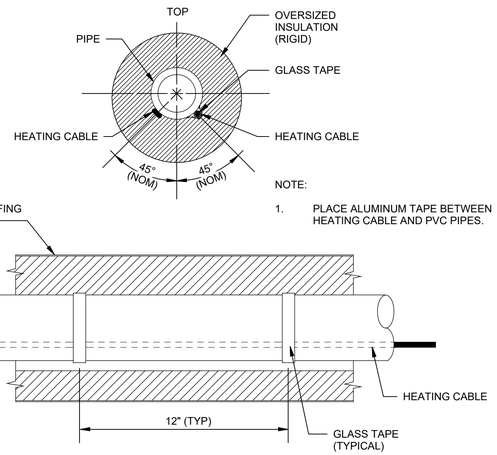
SCALE: NOT TO SCALE



4 TYPICAL LIGHTED END SEAL

E-18

SCALE: NOT TO SCALE



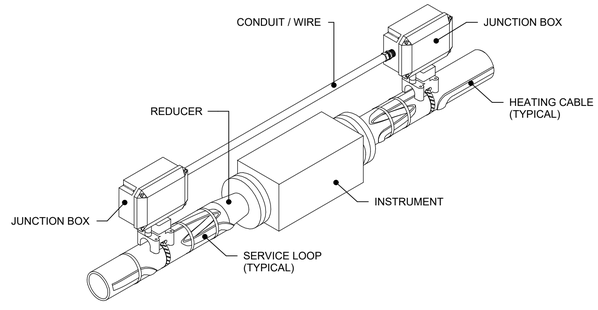
NOTE:

1. PLACE ALUMINUM TAPE BETWEEN HEATING CABLE AND PVC PIPES.

5 TYPICAL PLACEMENT OF HEATING CABLE WITH COMPRESSIBLE OR GROOVED RIGID INSULATION

E-18

SCALE: NOT TO SCALE



6 TYPICAL HEATER BY-PASS AROUND UN-HEATED IN-LINE INSTRUMENT

E-18

SCALE: NOT TO SCALE

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GEORGIA REGISTERED 06-25-2026 No. PE047048 PROFESSIONAL ENGINEER THOMAS H POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	N. DESHPANDE
DRAWN BY:	K. SATHISH
CHECKED BY:	T. POWELL

SHEET TITLE

ELECTRICAL
CROSSTOWN

TYPICAL ELECTRICAL DETAILS - SHEET 3 OF 3

SCALE: NOT TO SCALE

0 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: E-18

SHEET NO.: 73 OF 83

GENERAL NOTES

1. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THE INSTRUMENTATION SYMBOLS AND LEGEND SHEETS ARE STANDARD DESIGNATIONS. NOT ALL SYMBOLS AND ABBREVIATIONS ARE APPLICABLE TO THE INCLUDED DIAGRAMS AND INSTRUMENTATION TAGGING.
2. NOT ALL PIPING, FITTINGS, AND TANK DETAILS ARE SHOWN. REFER TO PROCESS DRAWINGS FOR ACTUAL DETAILS

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, 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	

CONTROL PANEL IDENTIFICATION

CP-CHEM1	CHEMICAL BUILDING CONTROL PANEL
CP-SHC	SODIUM HYPOCHLORITE CONTROL PANEL
CP-HFA	HYDROFLUOROSILIC ACID CONTROL PANEL

INSTRUMENT TAGGING SYSTEM



LOOP NUMBER IDENTIFICATION

02 SYSTEM OR AREA NUMBERING
34 SEQUENTIAL NUMBERING

AREA/SYSTEM NUMBER

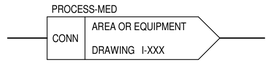
60 CHEMICAL SYSTEM
62 HYDROFLUORCILIC ACID
63 SODIUM HYPOCHLORITE

LINE TYPES

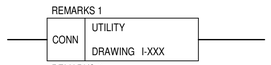
- MAIN PROCESS LINE
- AUXILIARY LINE
- EXISTING MAIN PROCESS LINE
- EXISTING AUXILIARY LINE
- ELECTRIC (ELECTRONIC) SIGNAL ARROW INDICATES SIGNAL DIRECTION
- SOFTWARE LINK SYSTEM FUNCTION CONNECTION OR COMMUNICATION LINK
- FIBER OPTIC CONNECTION
- (SERIAL) 2 OR 4 CONDUCTOR CABLE
- HDMI CABLE
- COAX CABLE
- (ETHERNET) CAT-6 CABLE
- PNUEMATIC SIGNAL
- CAPILLARY LINE
- HYDRAULIC SIGNAL
- HEAT TRACED AND INSULATED
- TELEPHONE WIRE
- FUTURE
- PANEL LIMITS
- PACKAGED SYSTEM BOUNDARY
- BUILDING BOUNDARY LINE
- ROOM BOUNDARY LINE

DRAWING CONTINUATION LEGEND

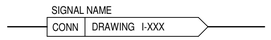
PROCESS LINES (ON / OFF PAGE)



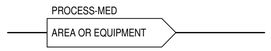
UTILITY LINES (ON / OFF PAGE)



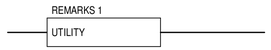
INSTRUMENT SIGNAL LINES (ON / OFF PAGE)



PROCESS LINES
NOT WITHIN THE BOUNDARY OF THIS DRAWING SET



UTILITY LINES
NOT WITHIN THE BOUNDARY OF THIS DRAWING SET



INSTRUMENT SIGNAL LINES
NOT WITHIN THE BOUNDARY OF THIS DRAWING SET



CONN = CONNECTION NUMBER (ALPHANUMERIC CHARACTER STRING)

BASE INSTRUMENTATION SYMBOLS



CONTROL PANEL NAME (SEE THIS 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.



FUNCTIONS PROGRAMMED IN SOFTWARE FROM SOFT I/O POINT VIA COMMUNICATION LINK WITH DISPLAY

YYYY = COMMUNICATION TYPE

ENT ETHERNET
CNT CONTROLNET
DNT DEVICENET
HART HART
MOD MODBUS



FUNCTIONS DERIVED FROM I/O POINTS WITHIN THE SOFTWARE WITH DISPLAY



CS - ### = CONTROL STRATEGY NUMBER IN SPECIFICATION



IN - ### = INTERLOCK NUMBER ON THE DRAWING



FIELD INSTRUMENT, POWER SUPPLY REQUIRED LOCALLY WHERE SHOWN.



INSTRUMENT ON PANEL



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

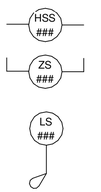
XXX INSTRUMENT IDENTIFICATION. (SEE THIS SHEET FOR INSTRUMENT IDENTIFICATION LEGEND AND NUMBERING SYSTEM.)

LOOP NUMBER

SAFETY PULL CORD

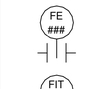


BELT ALIGNMENT SWITCH



FLOAT SWITCH

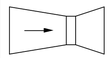
INSTRUMENTATION SYMBOLS (CONT.)



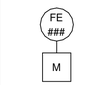
ORIFICE FLOW ELEMENT



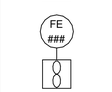
VENTURI FLOW ELEMENT



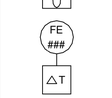
PARSHALL FLUME



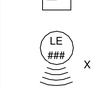
ELECTROMAGNETIC FLOWMETER



TURBINE FLOWMETER



THERMAL MASS FLOWMETER

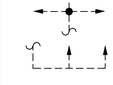


NON-CONTACT LEVEL OR FLOW ELEMENT

X = A AREA VELOCITY (FLOW)
R RADAR
U ULTRASONIC

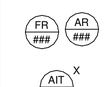


ROTAMETER



INTERCONNECTING LINES WITH DOT INDICATE ROUTING OF THE SAME SIGNAL

INTERCONNECTING LINES WITHOUT DOT INDICATE ROUTING OF MULTIPLE SIGNALS



FR & AR TWO FUNCTIONS AS PART OF ONE UNIT (CIRCLES TOUCH)



SUPERSCRIPT (X) FOR ANALYTIC DEVICES:

CH4	METHANE
Cl2	CHLORINE
COMB	COMBUSTIBLES
DO	DISSOLVED OXYGEN
FeCl3	FERRIC CHLORIDE
H2S	HYDROGEN SULFIDE
H3PO4	PHOSPHORIC ACID
H2SO4	SULFURIC ACID
Na2S2O5	SODIUM BISULFITE
NH3	AMMONIA
NOX	NIRATE/NITRITE
O2	OXYGEN
ORP	OXIDATION REDUCTION POTENTIAL
pH	HYDROGEN ION CONCENTRATION (-LOG)
PO4	PHOSPHATE
	HYDROFLUOROSILICIC ACID & SODIUM HYPOCHLORITE

PANEL DEVICE SYMBOLS



HAND SWITCH (MANUAL SELECTOR)

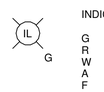


PUSH BUTTON

FUNCTION SUBSCRIPT FOR HAND SWITCH AND PUSH BUTTON

ESTOP	E-STOP
F/O/R	FORWARD-OFF-REVERSE
F/O/JR	FORWAR-OFF-JOG 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
RS	RESET
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

PANEL DEVICE SYMBOLS (CONT.)



INDICATING LIGHT UNIT

G GREEN
R RED
W WHITE
A AMBER
F FLASHES ON ELECTRIC OR MECHANICAL MALFUNCTION



RELAY LOGIC
= FUNCTION IDENTIFICATION NUMBER



INTRINSICALLY SAFE RELAY



ELECTRONIC HORN



STROBE LIGHT

A AMBER
B BLUE
G GREEN
R RED
W WHITE



MOTOR
X = M ELECTRICLLY DRIVEN MOTOR
H HYDRAULICALLY DRIVEN MOTOR
A AIR DRIVEN MOTOR



VARIABLE FEQUENCY DRIVE
= IDENTIFICATION NUMBER SHOWING LOCAL CONTROL AT VFD

LOCAL CONTROL AT VFD
(KEYPAD SHALL BE PROVIDED IN ADDITION TO THE CONTROLS INDENTIFIED)

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/R, E-STOP, RESET.
5. S/S, RUN INDICATION, MALFUNCTION, H/O/R, RESET, SPEED INDICATION.
6. S/S, RUN INDICATION, MALFUNCTION, RESET, SPEED INDICATION, SPEED CONTROL.
7. S/S, RUN INDICATION, MALFUNCTION, H/O/R, RESET SPEED INDICATION, SPEED CONTROL, VFD FAULT.
8. S/S, RUN INDICATION, MALFUNCTION, RESET, SPEED INDICATION, SPEED CONTROL, VFD FAULT.



MOTOR CONTROL CENTER OR REDUCED VOLTAGE STARTER SYSTEM
= IDENTIFICATION NUMBER SHOWING LOCAL CONTROL AT MCC OR RVSS

LOCAL CONTROL AT MCC OR RVSS

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/R, E-STOP, RESET.
5. S/S, RUN INDICATION, MALFUNCTION, H/O/R, RESET.



LOCAL CONTROL STATION
= IDENTIFICATION NUMBER SHOWING LOCAL CONTROL AT LCS

LOCAL CONTROL AT LCS

1. S/S, RUN INDICATION, MALFUNCTION.
2. S/S, RUN INDICATION, MALFUNCTION, H/O/R.
3. S/S, RUN INDICATION, MALFUNCTION, A/M.
4. S/S, RUN INDICATION, MALFUNCTION, H/O/R, E-STOP.
5. S/S, RUN INDICATION, MALFUNCTION, H/O/R, E-STOP, RESET.
6. O/C, OPEN INDICATION, CLOSE INDICATION, MALFUNCTION, L/O/R.
7. J/O/R, RUN INDICATION, E-STOP, FAIL INDICATION.
8. S/S, RUN INDICATION, MALFUNCTION, L/O/R, E-STOP.



INSTRUMENT AIR SUPPLY
120V AC POWER SUPPLY
480V AC POWER SUPPLY
24V DC POWER SUPPLY

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FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	S. AYOADE
DRAWN BY:	A. MANIKANTA
CHECKED BY:	T. POWELL

SHEET TITLE

INSTRUMENTATION
CROSSTOWN

INSTRUMENTATION SYMBOL AND LEGEND - SHEET 1 OF 3

SCALE: NOT TO SCALE

0 1
BAR IS ONE INCH ON UNREDUCED DRAWING.

DRAWING NO.:
I-01

SHEET NO.: 74 OF 83

EQUIPMENT SYMBOLS

CENTRIFUGAL PUMP

METERING PUMP

SUBMERSIBLE PUMP (DRY WELL)

SUBMERSIBLE PUMP (WET WELL)

VERTICAL TURBINE PUMP

PROGRESSIVE CAVITY PUMP

ROTARY LOBE PUMP

ROTARY VANE PUMP

DIAPHRAGM PUMP

POSITIVE DISPLACEMENT COMPRESSOR

COMPRESSOR, PISTON TYPE

BLOWER, CENTRIFUGAL

BLOWER, ROTARY LOBE

TURBO BLOWER

M — HORIZONTAL PUMP

M — VERTICAL PUMP

DUCKBELL VALVE (DV)

EQUIPMENT SYMBOLS (CONTINUED)

CENTRIFUGAL FAN

GRINDER

TURBO CHARGER

H — HEATING ELEMENT

AXIAL/MIXED FLOW PUMP

CHLORINE INJECTOR

WEIR

GRIT SCREW

MANUAL SCREEN

MECHANICAL SCREEN

FINE SCREEN

SCREW CONVEYOR

BELT CONVEYOR

BELT CONVEYOR, INCLINED

INLET STATIC MIXER

EQUIPMENT SYMBOLS (CONTINUED)

POSITIVE DISPLACEMENT GEAR PUMP

VENTURI PUMP

CHILLER

FILTER, CARTRIDGE

FILTER, COALESCING

HEAT EXCHANGER (SHELL AND TUBE)

HEAT EXCHANGER (PLATE AND FRAME)

FLAME ARESSTER

FLEXIBLE JOINT

AIR DRYER

PRESSURIZED TANK

EQUIPMENT IDENTIFICATION

05-MX-01

FACILITY CODE
EQUIPMENT CODE
EQUIPMENT SEQUENCE NUMBER

EQUIPMENT DESIGNATIONS

AS	AUTOMATIC STRAINER
BC	BELT CONVEYOR
BF	BIOFILTER
BFP	BELT FILTER PRESS
BL	BLENDER
BR	BRIDGE CRANE
BS	BAR SCREEN
BST	BULK STORAGE TANK
BW	BLOWER
CF	CENTRIFUGE
CL	CLARIFIER
CM	COMPACTOR
COMP	COMPRESSOR
CT	COLLECTOR
DAF	DISSOLVED AIR FLOATATION THICKENER
DIG	DIGESTER
DS	DRUM SCREEN
DT	DAY TANK
DTM	DRAFT TUBE MIXER
ENG	ENGINE
FA	FLAME ARRESTOR
FC	FLOCULATOR
FL	FILTER
FN	FAN
FS	FINE SCREEN
FT	FLAME TRAP
GBT	GRAVITY BELT THICKENER
GEN	GENERATOR
GD	GRINDER
GH	GAS HOLDER
GN	GENERATOR
GR	GRIT TANK
GS	GRIT SCREW
GT	GRIT SEPARATOR
H	HOIST
HDR	HEADER
HP	HOPPER
HX	HEAT EXCHANGER
IE	ION EXCHANGE VESSEL
IMLR	INTERNAL MIXED LIQUOR RETURN
LC	LOCKED CLOSE
LO	LIQUID OXYGEN EQUIPMENT
M	MOTOR
MO	MONORAIL
MX	MIXER
NM	NANOFILTRATION MEMBRANE EQUIPMENT
OZ	OZONE EQUIPMENT
P	PUMP
PE	PNEUMATIC EJECTOR
RBC	ROTATING BIOLOGICAL CONTACTOR
RLY	RELAY
RO	REVERSE OSMOSIS MEMBRANE EQUIPMENT
S	SILENCER
SA	SURFACE AERATORS
SAC	STARTING AIR COMPRESSOR
SB	SCRUBBER
SC	SCREW CONVEYOR
SCR	SELECTIVE CATALYTIC REDUCTION
SK	STORAGE TANK
ST	STRAINER
SU	SCUM CONCENTRATOR
T	TANK
TR	TROLLEY
UV	ULTRAVIOLET EQUIPMENT
VC	VACUUM COMPRESSOR
VESS	VESSAL
W	WASHER
WGB	WASTE GAS BURNER
XFRM	TRANSFORMER

LINE IDENTIFICATION

0.5"-SHC-PVC

PIPE SIZE
PROCESS MEDIUM
PIPE MATERIAL

PROCESS MEDIUM

AA	AQUA AMMONIA
ACW	AFTERCOOLER COOLING WATER
AG	AIR BLENDED NATURAL GAS
AHP	AIR, HIGH PRESSURE PROCESS
AIR	AIR, ATMOSPHERIC
AL	ALUM
ALP	AIR, LOW PRESSURE PROCESS
AS	ACTIVATED SLUDGE
ASH	ASH
ATE	AERATION TANK EFFLUENT
ATI	AERATION TANK INFLUENT
AWAS	AERATED WASTE ACTIVATED SLUDGE
BAS	BACKWASH AIR SCOUR
BD	BLOWNDOWN
BDR	BASIN DRAIN
BFE	BIO-FILTER EFFLUENT
BFR	BIO-FILTER RECYCLE
BFS	BELT FILTER PRESS FEED SLUDGE
BFFW	BOILER FEED WATER
BIO	BIOWASTE
BLS	BLENDED SLUDGE
BR	BRINE
BRP	BRINE SPENT
BRS	BRINE SLUDGE
BW	BACKWASH WATER
BWA	BACKWASH AIR
BWR	BACKWASH WASTE RECYCLE
BWW	BACKWASH WASTE
BYP	BYPASS
CBA	COMBUSTION AIR
CDR	CHEMICAL DRAIN
CDW	COLD WATER
CDN	CENTRATE
CLG	CHLORINE GAS
CLL	CHLORINE LIQUID
CLS	CHLORINE SOLUTION
CO2L	CARBON DIOXIDE LIQUID
COD	CONDENSATE
COL	CARBON DIOXIDE GAS
COR	CONDENSATE RETURN
COW	CONDENSED WATER
CPA	COMPRESSED AIR
CSL	CARBON SLURRY
CSO	COMBINED SEWER OVERFLOW
CW	CITY WATER
CWAS	CONCENTRATED WASTE ACTIVATED SLUDGE
CWR	CHILLED WATER RETURN
CWS	CHILLED WATER SUPPLY
DCT	DECANT
DF	DIGESTER FEED SLUDGE
DG	DIGESTER GAS
DO	DIGESTER OVERFLOW
DR	DRAIN
DS	DIGESTED SLUDGE
DW	DILUTION WATER
DWS	DEWATERED SLUDGE
EAS	EXCESS ACTIVATED SLUDGE
ECW	ENGINE COOLING WATER
EFF	EFFLUENT
EH	EXHAUST HEAT
ELU	ELUTRIATE
EWS	EFFLUENT WATER SUPPLY
EXH	EXHAUST (GAS)
FAR	FOUL AIR
FD	FLOOR DRAIN
FE	FILTER EFFLUENT
FEC	FERRIC CHLORIDE
FES	FERROUS SULFATE
FI	FILTER INFLUENT
FIL	FILTRATE
FLA	FLY ASH
FLW	FLUSHING WATER
FO	FUEL OIL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FW	FINSHED WATER
FWW	FILTER WASH WATER
GRT	GRIT
GFT	GRAVITY THICKENER FEED
GTO	GRAVITY THICKENER OVERFLOW
GTS	GRAVITY THICKENED SLUDGE
HF	HYDRAULIC FLUID
HFSA	HYDROFLUOROSILICIC ACID
HG	HYDRAULIC GAS
HL	LIQUID HYDROGEN
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPW	HIGH PRESSURE WATER
HRL	HEAT RECOVERY LOOP
HW	HOT WATER (POTABLE)
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY

PROCESS MEDIUM (CONTINUED)

IA	AIR, INSTRUMENT SUPPLY
INF	INFLUENT
JCW	JACKET COOLING WATER
LM	LIME, DRY
LMD	LIME, SLUDGE
LMS	LIME, SLURRY
LO	LUBRICATION OIL
LOX	LIQUID OXYGEN
LPC	LOW PRESSURE CONDENSATE
LPNG	LOW PRESSURE NATURAL GAS
LPS	LOW PRSSURE STEAM
MDR	MAIN DRAIN
METH	METHANOL
METS	METHANOL SOLUTION
MG	METHANE GAS
ML	MIXED LIQUOR (SUSPENDED)
MS	MIXED SLUDGE
NAC	SODIUM HYPOCHLORITE
NG	NATURAL GAS
NH3	AMMONIA GAS
NOH	SODIUM HYDROXIDE
NPW	NON-POTABLE WATER
O2	OXYGEN GAS
O3	OZONE
OC	ODOR CONTROL AIR
OF	OVERFLOW
OFG	OFF GAS
PA	AIR, PROCESS
PAI	AIR INTAKE, PROCESS
PCE	PRIMARY CLARIFIER EFFUENT
PCI	PRIMARY CLARIFIER INFLUENT
PG	PROPANE GAS
PIW	PLANT INFLUENT WATER
PKL	PICKLE LIQUOR
PS	PRIMARY SLUDGE
PSK	PRIMARY SKIMMINGS
PSW	PLANT SERVICE WATER
PTW	PORTABLE TOILET WASTE
PW	POTABLE WATER
PWC	POTABLE WATER, COLD
PWH	POTABLE WATER, HOT
PYD	POLYMER DRY
PYL	POLYMER LIQUID
PYS	POLYMER SOLUTION
RAS	RETURN ACTIVATED SLUDGE
REC	RECYCLE
RW	RAW WATER
RWW	RAW WASTE WATER
SAMP	SAMPLE
SAN	SANITARY SEWER
SAS	SODA ASH SOLUTION
SBF	SODIUM BISULFITE
SCE	SECONDARY CLARIFIER EFFLUENT
SCI	SECONDARY CLARIFIER INFLUENT
SCUM	SCUM
SDA	SODA ASH
SDG	SULFUR DIOXIDE GAS
SDS	SULFUR DIOXIDE SOLUTION
SEW	SEAL WATER
SFB	STORM FLOW BYPASS
SFM	SANITARY FORCE MAIN
SHC	SODIUM HYPOCHLORITE
SHP	STEAM, HIGH PRESSURE
SLG	SLUDGE
SLH	SLUDGE HEATING
SLP	STEAM, LOW PRESSURE
SLR	SLUDGE RECYCLE
SLT	SLUDGE TRANSFER
SLW	SLUDGE HEATING WATER
SPD	SUMP PUMP DISCHARGE
SPW	SPRAY WATER
SRN	SCREENINGS
SSK	SECONDARY SKIMMINGS
SSL	SECONDARY WATER
STA	STARTING AIR
STD	STORM WATER DRAINS
STW	STORM WATER
SUP	SUPERNATANT
SW	SERVICE WATER
TAS	THICKENED ACTIVATED SLUDGE
TDS	THICKENED DIGESTED SLUDGE
TOF	THICKENED OVERFLOW
TPS	THICKENED PRIMARY SLUDGE
TRC	THICKENED RECYCLE
TS	THICKENED SLUDGE
TWAS	THICKENED WASTE ACTIVATED SLUDGE
UD	UNDERDRAIN
URE	UREA SOLUTION
VAC	VACUUM
VT	VENT
VTC	VENT, CHEMICAL
VTI	VENT, INSTRUMENT
WAH	WET ASH
WAS	WASTE ACTIVATED SLUDGE
WAW	WASH WATER
WCL	WATER, CHLORINATED PLANT EFFLUENT
WD	WATER DISTILLED
WELW	WELL, WATER
WO	WATER, OZONE
WSE	WATER, SCREEN EFFLUENT
WTR	PLANT WATER
WW	WASTE WATER

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SEALS

GEORGIA REGISTERED 06-25-2024 No. PE047048 PROFESSIONAL ENGINEER THOMAS POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY

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PROJECT STATUS: FOR BID

PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	S. AYOADE
DRAWN BY:	A. MANIKANTA
CHECKED BY:	T. POWELL

SHEET TITLE

INSTRUMENTATION
CROSSTOWN

INSTRUMENTATION SYMBOL AND LEGEND - SHEET 2 OF 3

SCALE:
NOT TO SCALE

0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.:
I-02

SHEET NO.: 75 OF 83

VALVE & GATE IDENTIFICATION



VALVE & GATE SYMBOLS & ABBR.

FILLED IN VALVE SYMBOL (SOLID CIRCLE OR TRIANGLE) INDICATES NORMALLY CLOSED POSITION, OTHERWISE VALVE IS NORMALLY OPEN.

- AIR RELEASE VALVE (ARV)
- AIR/VACUUM VALVE (AV)
  COMBINATION AIR VALVE (CA)
- BALL VALVE (BV)
- BALL CHECK VALVE (BC)
- BUTTERFLY VALVE (BFV)
- BUTTERFLY VALVE (DIGESTER GAS SERVICE) OPEN/CLOSE APPLICATIONS (BD)
- BUTTERFLY VALVE (AIR SERVICE) OPEN/CLOSE APPLICATIONS (BR)
- HIGH PERFORMANCE BUTTERFLY VALVE - (DIGESTER GAS SERVICE) - MODULATING APPLICATIONS (HD)
- HIGH PERFORMANCE BUTTERFLY VALVE - (AIR SERVICE) - MODULATING APPLICATIONS (HR)
- CHECK VALVE/SWING CHECK VALVE (CV)
- CHECK VALVE (DIGESTER GAS SERVICE) (CD)
- CHECK VALVE (AIR SERVICE) (CR)
- AUTOMATIC ELECTRIC CHECK VALVE (CT)
- SWING FLAP VALVE (SF)
- RUBBER CHECK VALVE (RC)
- TELESCOPING VALVE (TV)
- DIAPHRAGM VALVE (DV)
- SUCTION FOOT VALVE (FV)
- THREE WAY VALVE (TW)
- FOUR WAY VALVE (FW)
- GLOBE VALVE (GL)
- GATE VALVE (GV)
- METAL SEATED GATE VALVE - SOLID WEDGE AND DOUBLE DISC TYPE (GM)
- RESILIENT SEATED GATE VALVE (GR)
- KNIFE GATE VALVE (KV)
- PLUG VALVE (PV)
- MUD VALVE (MD)
- NEEDLE VALVE (NV)
- PINCH VALVE (PI)
- AUTOMATIC PRESSURE REDUCING VALVE (PRV)
- AUTOMATIC PRESSURE SUSTAINING VALVE (PS)
- 3-WAY VALVE WITH DIAPHRAGM (S, XX, ###)
- RELIEF VALVE (RV)
- SOLENOID VALVE (SO) (FO)
  FO - FAIL OPEN
  FC - FAIL CLOSED
- SLUICE GATE (SL)
- SLIDE GATE (SG)
  SLIDE PLATE (SP)
- DAMPER (DM)
- PRESSURE-VACUUM RELIEF VALVE (VACUUM BREAKER) (PVRV)

ACTUATOR SYMBOLS & ABBR.

- ELECTRIC MOTOR ACTUATOR (E) (M)
- PNEUMATIC ACTUATOR (P)
- HYDRAULIC ACTUATOR (H)
- SPRING ACTUATOR (S)
- SOLENOID ACTUATOR
  FO- FAIL OPEN
  FC- FAIL CLOSED

OPERATION TYPE ABBREVIATIONS

OC	OPEN / CLOSE
MD	MODULATING

SIGNAL TYPE ABBREVIATIONS

ANG	ANALOG
CNT	CONTROLNET
DCT	DRY CONTACT
DNT	DEVICENET
ENT	ETHERNET
FLB	FOUNDATION FIELD BUS
MOD	MODBUS

PIPING SYMBOLS

- CONCENTRIC REDUCER
- ECCENTRIC REDUCER (FLAT ON BOTTOM)
- ECCENTRIC REDUCER (FLAT ON TOP)
- Y STRAINER
- SINGLE BASKET STRAINER
- VENT
- HOSE BIB
- VACUUM BREAKER
- STATIC MIXER

PIPING SYMBOLS (CONTINUED)

- NOZZLE
- DIAPHRAGM SEAL, WITH ISOLATION VALVE
- INLINE SEAL, WITH ISOLATION VALVE
- EXPANSION TANK
- EXPANSION TANK (WITH RUPTURE DISC)
- PULSATION DAMPENER
- FLEXIBLE HOSE
- EXPANSION JOINT, METALLIC
- CALIBRATION COLUMN
- SAFETY SHOWER AND EYEWASH
- UNION
- BACKFLOW PREVENTER
- DOUBLE CHECK VALVE
- SEAL WATER (SW)
- DRAIN
- DRIP TRAP (DT)
- FLANGES
- BLIND FLANGE
- SCREW CAP
- HOSE CONNECTION QUICK CONNECT

SCADA BLOCK DIAGRAM SYMBOLS AND ABBREVIATIONS

- COMPUTER WORKSTATION WITH SINGLE MONITOR, KEYBOARD, AND MOUSE
- COMPUTER WORKSTATION WITH DUAL MONITOR, KEYBOARD, AND MOUSE
- LAPTOP
- PRINTER
- WALL MOUNT MONITOR
- PANEL MOUNT INDUSTRIAL PC (HMI)
- OPERATOR INTERFACE TERMINAL (OIT)
- PROGRAMMABLE LOGIC CONTROLLER (PLC)
- REMOTE I/O (R I/O)
- ETHERNET SWITCH PANEL MOUNT (UNMANAGED TYPE) (ES)
- ETHERNET SWITCH PANEL MOUNT (MANAGED TYPE) (ES)
- RACK MOUNTED ETHERNET SWITCH. WHERE ASTERISK (*) INDICATES M: MANAGED OR U: UNMAMAGED (ES-*)
- BYPASS SWITCH

SCADA BLOCK DIAGRAM SYMBOLS AND ABBREVIATIONS (CONTINUED)

- PANEL MOUNT FIBER PATCH PANEL (FPP) (FPP-*)
- RACK MOUNTED FIBER PATCH PANEL (FPP). WHERE ASTERISK (*) INDICATES HARDWARE IDENTIFIER NUMBER (FPP-*)
- RACK MOUNTED SERVER (SVR). WHERE ASTERISK (*) INDICATES HARDWARE IDENTIFIER NUMBER (SVR-*)
- NETWORK VIDEO RECORDER (NVR)
- KEYBOARD, VIDEO MONITOR, AND MOUSE (KVM) SWITCH
- RACK MOUNTED UPS. WHERE ASTERISK (*) INDICATES HARDWARE IDENTIFIER NUMBER (UPS-*)
- UNINTERRUPTABLE POWER SUPPLY (UPS)
- FRONT PANEL MOUNT NETWORK PORT
- CONVERTER (X/X)

  X/X =

B/E	BACNET / ETHERNET
C/E	CONTROLNET / ETHERNET
D/E	DEVICENET / ETHERNET
D/M	DEVICENET / MODBUS
D/PN	DEVICENET / PROFINET
M/B	MODBUS / BACNET
M/E	MODBUS / ETHERNET
M/PB	MODBUS / PROFIBUS
M/PN	MODBUS / PROFINET
PB/E	PROFIBUS / ETHERNET
PN/E	PROFINET / ETHERNET
S/E	SERIAL / ETHERNET

- CONTROLNET CONNECTOR MODULE
- FIBER TO COPPER CONVERTER (F/C)
- CONTROL PANEL (ZZZZZ)
  ZZZZZ - CONTROL PANEL NAME, SEE SYMBOLS AND LEGEND SHEET 1 FOR CONTROL PANEL IDENTIFICATION
- CONTROL PANEL WITH MAJOR DEVICES IDENTIFIED INSIDE PANEL LIMITS (ZZZZZ)
- FACILITY/LOCATION LIMITS WHERE ASTERISK (*) INDICATES FACILITY OR LOCATION NAME (*)
- FIXED CAMERA
- ANTENNA
- NETWORK / TELEPHONE JACK (###)
  ### INDICATES DEVICE NUMBER
  "X" INDICATES (S) SINGLE FUNCTION OR (M) MULTIFUNCTION
- TELEPHONE

MISCELLANEOUS SYMBOLS

- WATER SURFACE ELEVATION

CONTROL SCHEMATIC SYMBOLS

- CONTROL RELAY, WHERE # INDICATES CONTROL RELAY NUMBER (CR#)
- CONTROL RELAY NORMALLY OPEN CONTACT (CR#)
- CONTROL RELAY NORMALLY CLOSED CONTACT (CR#)
- CIRCUIT BREAKER (CB)
- FLOAT SWITCH
- THERMISTOR
- SELECTOR SWITCH, WHERE X INDICATES SWITCH POSITION NAME. SEE SYMBOLS AND LEGEND SHEET 1 FOR SWITCH POSITION NAME IDENTIFIERS. (X, X, XO, OX)
- GROUND
- TERMINAL BLOCKS

MISCELLANEOUS ABBREVIATIONS

ABBR	ABBREVIATION
AMB	AMBIENT
ATM	ATMOSPHERE
BEAR	BEARING
B/O	BY OWNER
CHR	CHARGER
CONT'D	CONTINUED
DIFF	DIFFERENTIAL
DWG	DRAWING
EESS	EMERGENCY EYEWASH AND SHOWER STATION
EES	EMERGENCY EYEWASH STATION
ESS	EMEGENCY 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
NTS	NOT TO SCALE
O/C	OPEN/CLOSE
OL	OVERLOAD
%	PERCENTAGE
POSI	POSITION
PRI	PRIMARY
PRESS	PRESSURE
SEDC	SECONDARY
TBD	TO BE DETERMINED
TEMP	TEMPERATURE
THD	TOTSAL HARMONIC DISTORTION
TYP	TYPICAL
VA	VOLTAMPS
VFD	VARIABLE SPEED DRIVE
WC	WATER COLUMN

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GEORGIA REGISTERED 06-25-2024 No. PE047048 PROFESSIONAL ENGINEER THOMAS POWELL

FAYETTE COUNTY, GEORGIA

FAYETTE County Water

WTP CHEMICAL UPGRADES

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PROJECT NO.:	30240979
DATE:	JULY 2026
DESIGNED BY:	S. AYOADE
DRAWN BY:	A. MANIKANTA
CHECKED BY:	T. POWELL

SHEET TITLE

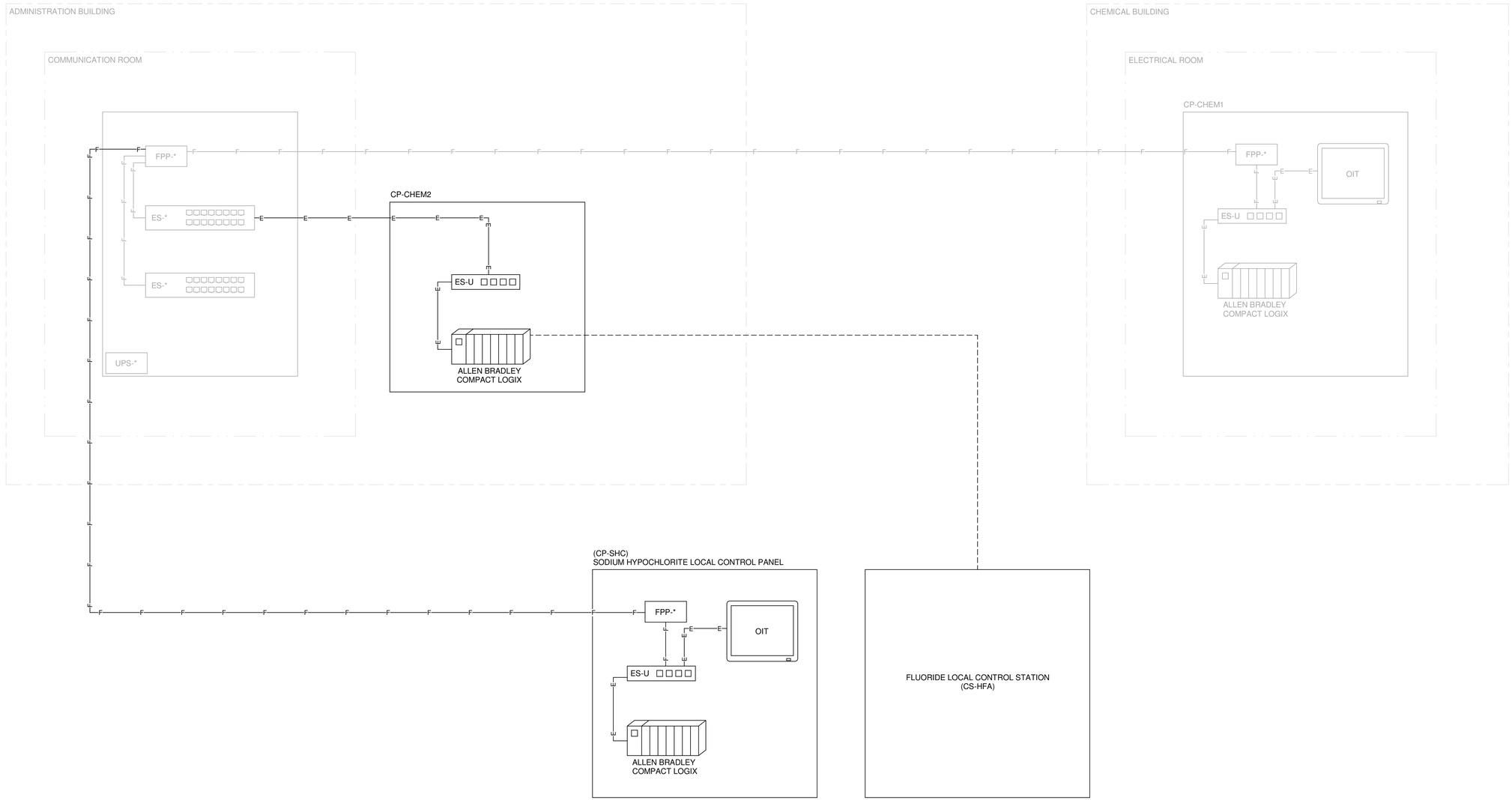
INSTRUMENTATION
CROSSTOWN

INSTRUMENTATION SYMBOL AND LEGEND - SHEET 3 OF 3

SCALE: NOT TO SCALE
0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

DRAWING NO.: I-03

SHEET NO.: 76 OF 83



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SHEET TITLE

INSTRUMENTATION
CROSSTOWN

PARTIAL NETWORK ARCHITECTURE

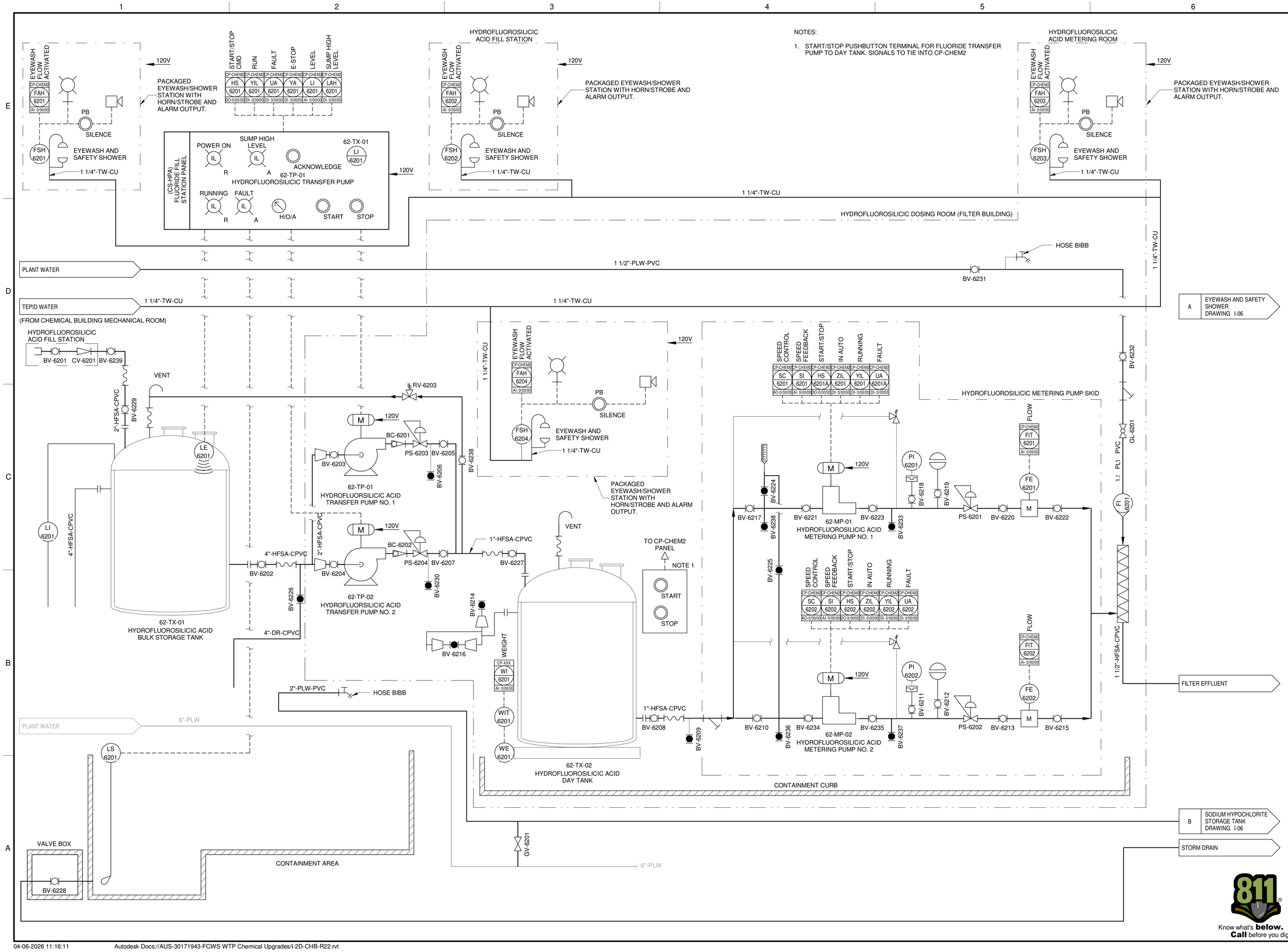
SCALE: NOT TO SCALE

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DRAWING NO.: I-04

SHEET NO.: 77 OF 83

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SHEET TITLE

INSTRUMENTATION
CROSSTOWN

HYDROFLUOROSILICIC ACID (FLUORIDE) SYSTEM P&ID

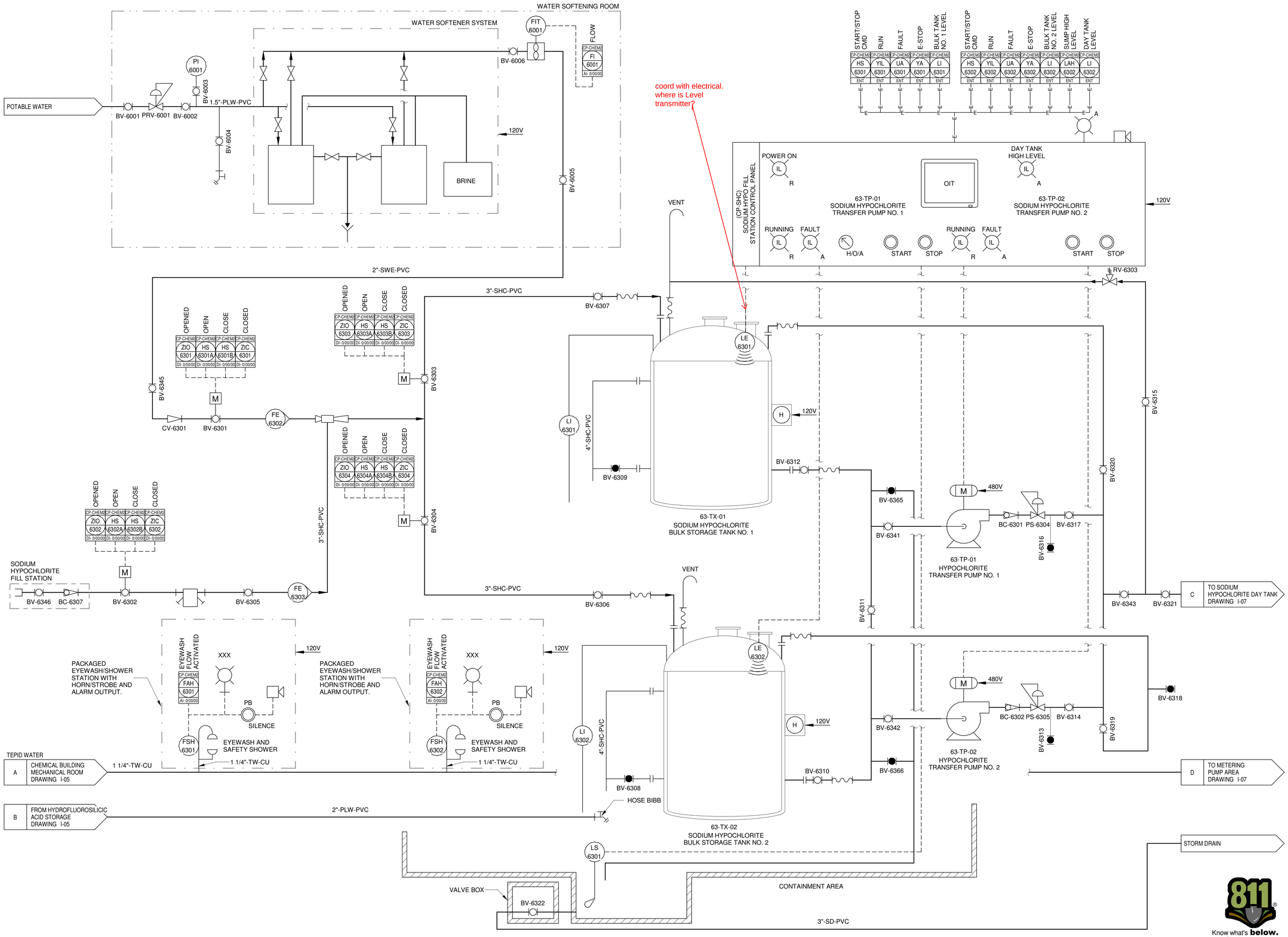
SCALE: NOT TO SCALE

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DRAWING NO.: I-05

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CHECKED BY:	T. POWELL

SHEET TITLE

INSTRUMENTATION
CROSSTOWN

SODIUM HYPOCHLORITE STORAGE P&ID

SCALE: NOT TO SCALE

0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

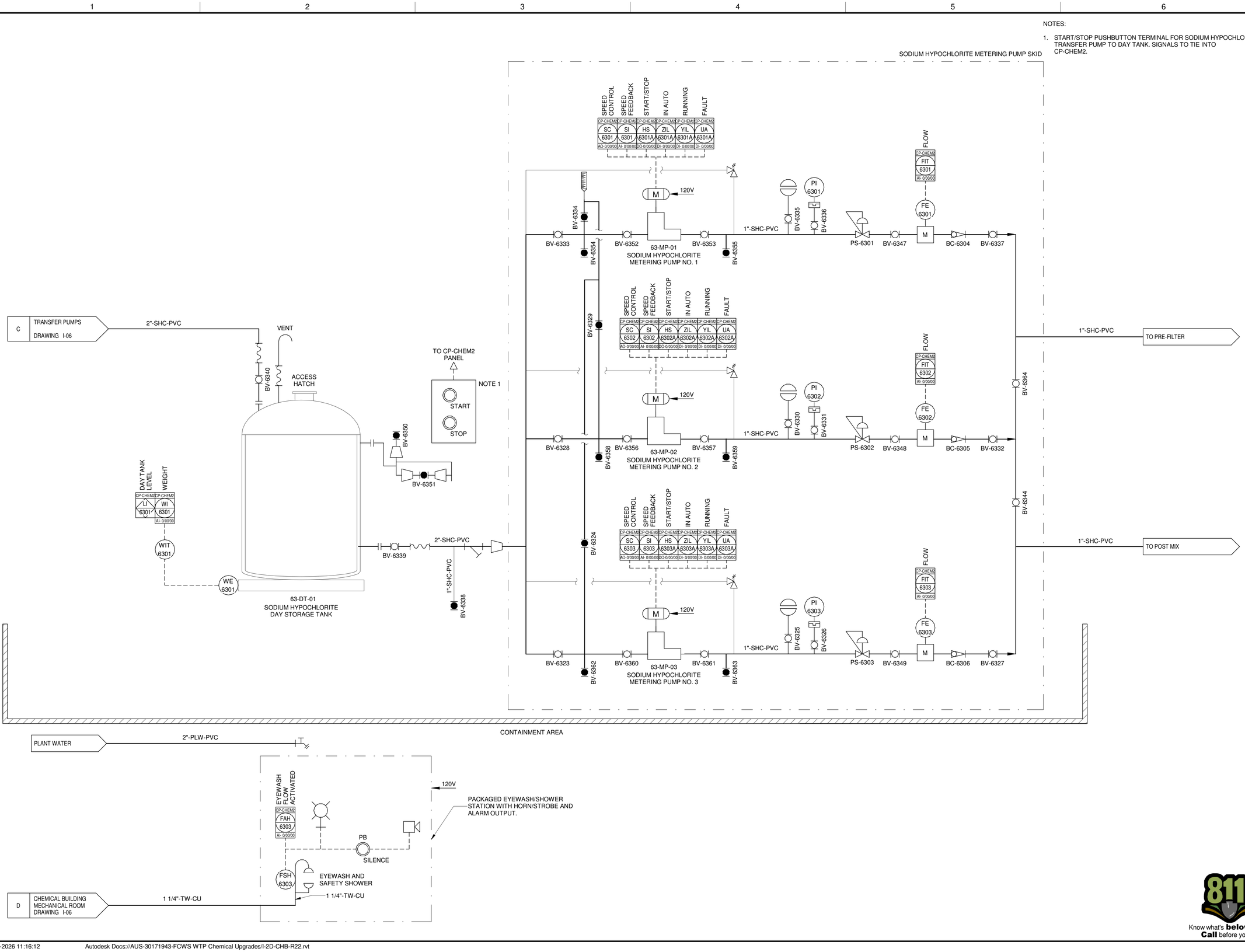
DRAWING NO.: I-06

SHEET NO.: 79 OF 83

811 Know what's **below.** **Call** before you dig.

NOTES:

1. START/STOP PUSHBUTTON TERMINAL FOR SODIUM HYPOCHLORITE TRANSFER PUMP TO DAY TANK. SIGNALS TO TIE INTO CP-CHEM2.



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CHECKED BY:	T. POWELL

SHEET TITLE

INSTRUMENTATION
CROSSTOWN

SODIUM HYPOCHLORITE FEED SYSTEM P&ID

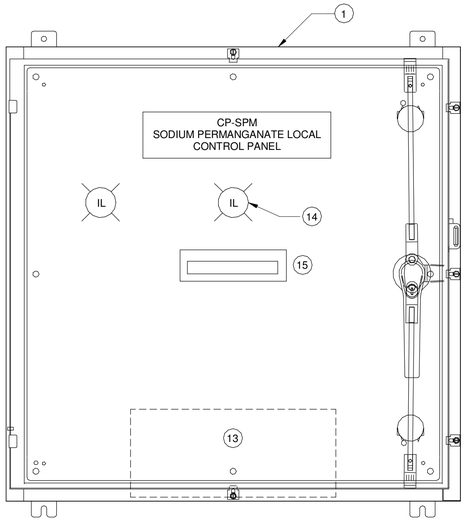
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0 1 BAR IS ONE INCH ON UNREDUCED DRAWING

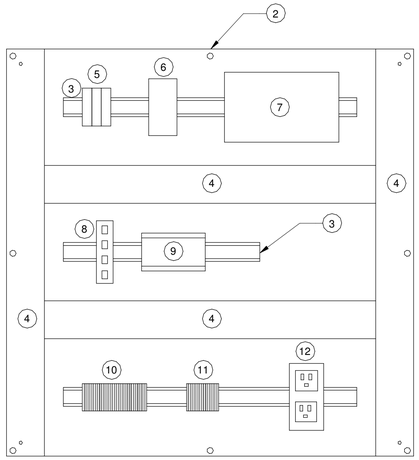
DRAWING NO.: I-07

SHEET NO.: 80 OF 83

Know what's **below.** **Call** before you dig.

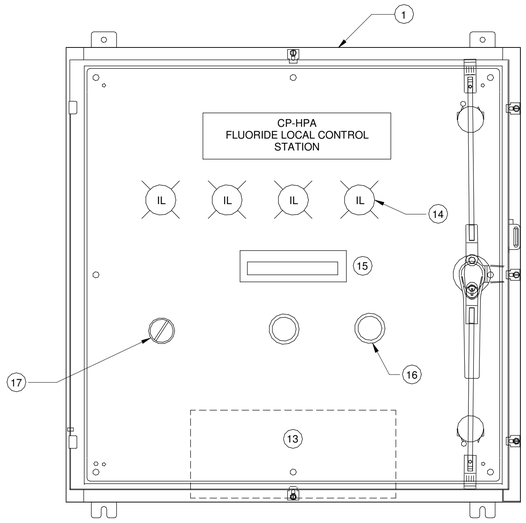


FRONT VIEW

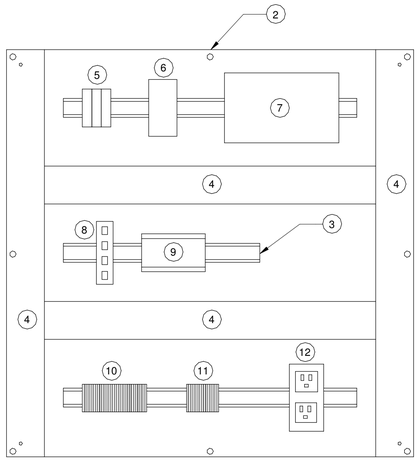


BACK PANEL VIEW

BILL OF MATERIAL	
NO	DESCRIPTION
1	NEMA 4X ENCLOSURE
2	PANEL BACKPLANE
3	DIN RAIL
4	WIRE TRAY
5	120V CIRCUIT BREAKER
6	24VDC POWER SUPPLY
7	PLC
8	NETWORK SWITCH
9	RELAYS
10	TERMINAL BLOCKS
11	GND TERMINAL BLOCKS
12	RECEPTACLE
13	UPS
14	PILOT LIGHT
15	DIGITAL DISPLAY



FRONT VIEW



BACK PANEL VIEW

BILL OF MATERIAL	
NO	DESCRIPTION
1	NEMA 4X ENCLOSURE
2	PANEL BACKPLANE
3	DIN RAIL
4	WIRE TRAY
5	120V CIRCUIT BREAKER
6	24VDC POWER SUPPLY
7	PLC
8	NETWORK SWITCH
9	RELAYS
10	TERMINAL BLOCKS
11	GND TERMINAL BLOCKS
12	RECEPTACLE
13	UPS
14	PILOT LIGHT
15	DIGITAL DISPLAY
16	PUSH BUTTON
17	TOGGLE SWITCH

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SHEET TITLE

INSTRUMENTATION
CROSSTOWN

FILL STATION PANEL
DETAILS - SHEET 1 OF 2

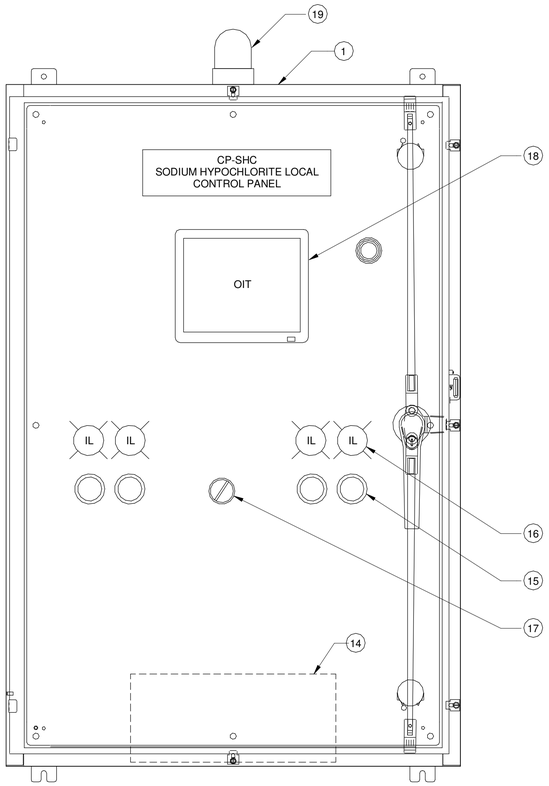
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0 1
BAR IS ONE INCH ON UNREDUCED DRAWING

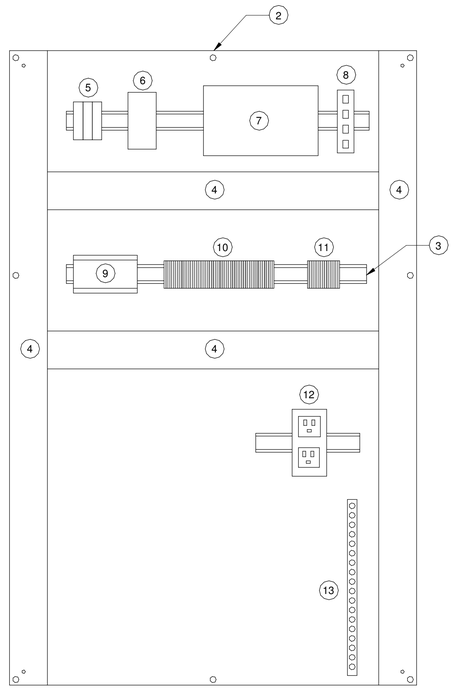
DRAWING NO.:
I-08

SHEET NO.: 81 OF 83

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FRONT VIEW



BACK PANEL VIEW

BILL OF MATERIAL	
NO	DESCRIPTION
1	NEMA 4X ENCLOSURE
2	PANEL BACKPLANE
3	DIN RAIL
4	WIRE TRAY
5	120V CIRCUIT BREAKER
6	24VDC POWER SUPPLY
7	PLC
8	NETWORK SWITCH
9	RELAYS
10	TERMINAL BLOCKS
11	GND TERMINAL BLOCKS
12	RECEPTACLE
13	GROUNDING BAR
14	UPS
15	PUSHBUTTON
16	PILOT LIGHT
17	TOGGLE SWITCH
18	OIT
19	STROBE LIGHT

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SHEET TITLE

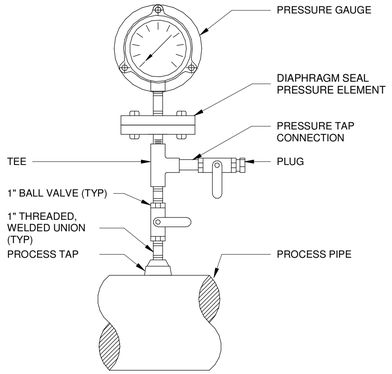
INSTRUMENTATION
CROSSTOWN

FILL STATION PANEL
DETAILS - SHEET 2 OF 2

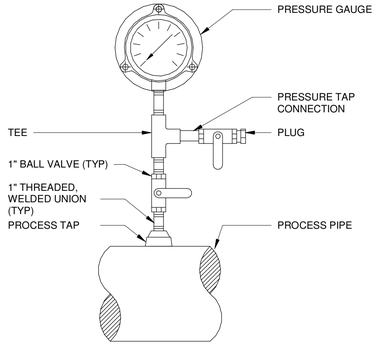
SCALE:
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DRAWING NO.:
I-09
SHEET NO.: 82 OF 83

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(A) PRESSURE GAUGE WITH DIAPHRAGM SEAL



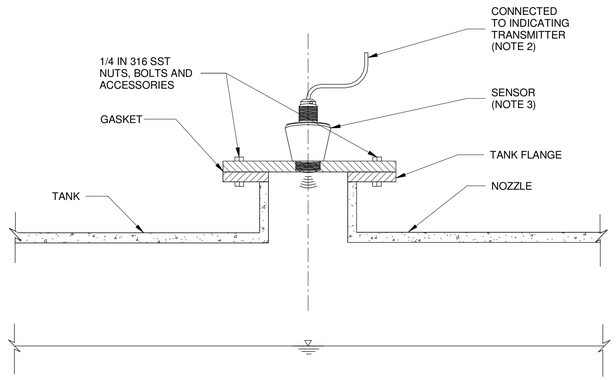
(B) PRESSURE GAUGE WITHOUT DIAPHRAGM SEAL

NOTES:

1. SEE SPECIFICATIONS FOR SIZE OF INSTRUMENT PROCESS CONNECTION AND FLUSHING CONNECTION.
2. INSTRUMENT VALVE AND PIPE ASSEMBLY SHOWN PROVIDED AND INSTALLED BY PCSS.
3 ALL VALVES AND FITTINGS SHALL BE 316 S.S.

1 PRESSURE GAUGE INSTALLATION DETAIL

I-10 SCALE: NOT TO SCALE

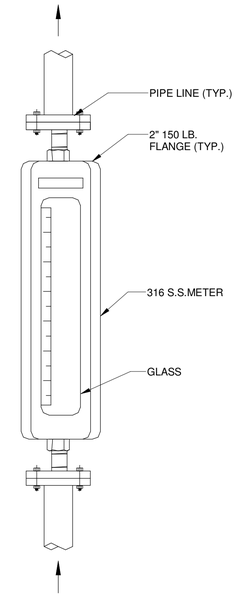


NOTES:

1. PROVIDE LIQUID TIGHT FLEXIBLE CONDUIT BETWEEN RADAR AND CONDUIT. PROVIDE SUFFICIENT LENGTH TO ALLOW EASY REMOVAL OF INSTRUMENT FLANGE DURING INSTRUMENT MAINTENANCE AND INSPECTION.
2. INSTALL SIGNAL WIRE IN LIQUID TIGHT FLEXIBLE CONDUIT.

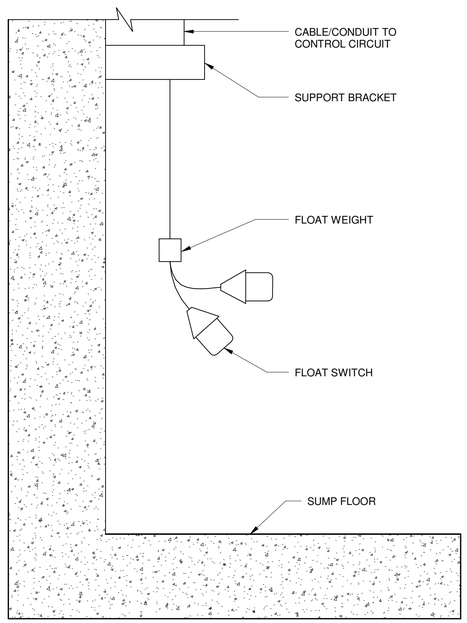
2 RADAR LEVEL TRANSMITTER TANK MOUNTED INSTALLATION DETAIL

I-10 SCALE: NOT TO SCALE



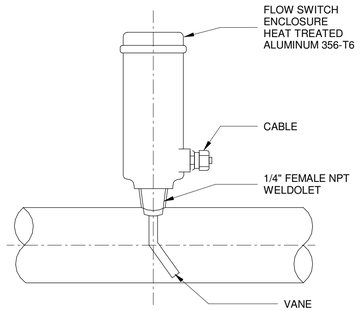
3 ROTAMETER

I-10 SCALE: NOT TO SCALE



4 SINGLE FLOAT SWITCH INSTALLATION DETAIL

I-10 SCALE: NOT TO SCALE



5 SWING FLOW SWITCH

I-10 SCALE: NOT TO SCALE

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SHEET TITLE

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INSTRUMENTATION INSTALLATION DETAILS

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DRAWING NO.: I-10

SHEET NO.: 83 OF 83