

User:SVI00709 Spec:AUS-NGS1000 File:c:\users\svi00709\Documents\ARCADIS AC USVAUS-30185066-FCWS SCADA PM AND ALUM UPGRADE\PROJECT FILES\10_WIP\10T_ELE_ELECTRICAL\G-01.DWG Scale:1:1 SavedDate:5/22/2025 Time:11:17 Plt Date: Venkatesh, Ganesan: 5/22/2025; 11:25 : Layout:1

FAYETTE COUNTY WATER SYSTEM

WTP ALUM UPGRADES

ITB #26029-B

ISSUED FOR BID
SEPTEMBER 2025

OWNER:



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



LOCATION MAP

NOT TO SCALE



VICINITY MAP

CROSSTOWN

NOT TO SCALE

3500 TDK Blvd,
Peachtree City,
GA 30269



VICINITY MAP

SOUTH FAYETTE

NOT TO SCALE

875 Antioch Rd,
Fayetteville,
GA 30261



SHEET INDEX

SHEET NO.	SHEET TITLE
GENERAL	
G-01	COVER SHEET AND SHEET INDEX
ELECTRICAL	
E-01	LEGEND, SYMBOLS, AND ABBREVIATIONS
E-02	CROSSTOWN PRETREATMENT CHEMICAL BUILDING ELECTRICAL SITE PLAN
E-03	SOUTH FAYETTE CHEMICAL BUILDING ELECTRICAL SITE PLAN
E-04	CROSSTOWN AND SOUTH FAYETTE INTERCONNECTION DIAGRAM
E-05	TYPICAL ELECTRICAL DETAILS- SHEET 1 OF 2
E-06	TYPICAL ELECTRICAL DETAILS- SHEET 2 OF 2
I&C	
I-01	INSTRUMENTATION SYMBOLS AND LEGEND
I-02	SOUTH FAYETTE ALUM P&ID
I-03	CROSSTOWN ALUM P&ID
I-04	ALUM FILL STATION CONTROL PANEL (TYPICAL)
I-05	ALUM CONTROL PANEL (TYPICAL)
I-06	NETWORK DIAGRAM
I-07	INSTRUMENTATION DETAILS



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.



Know what's below.
Call before you dig.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FCWS

WTP ALUM UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS: ISSUED FOR BID

PROJECT NO.:	30185066
DATE:	MAY 2025
DESIGNED BY:	S. AYOADE
DRAWN BY:	N. NIA
CHECKED BY:	T. POWELL

SHEET TITLE

GENERAL

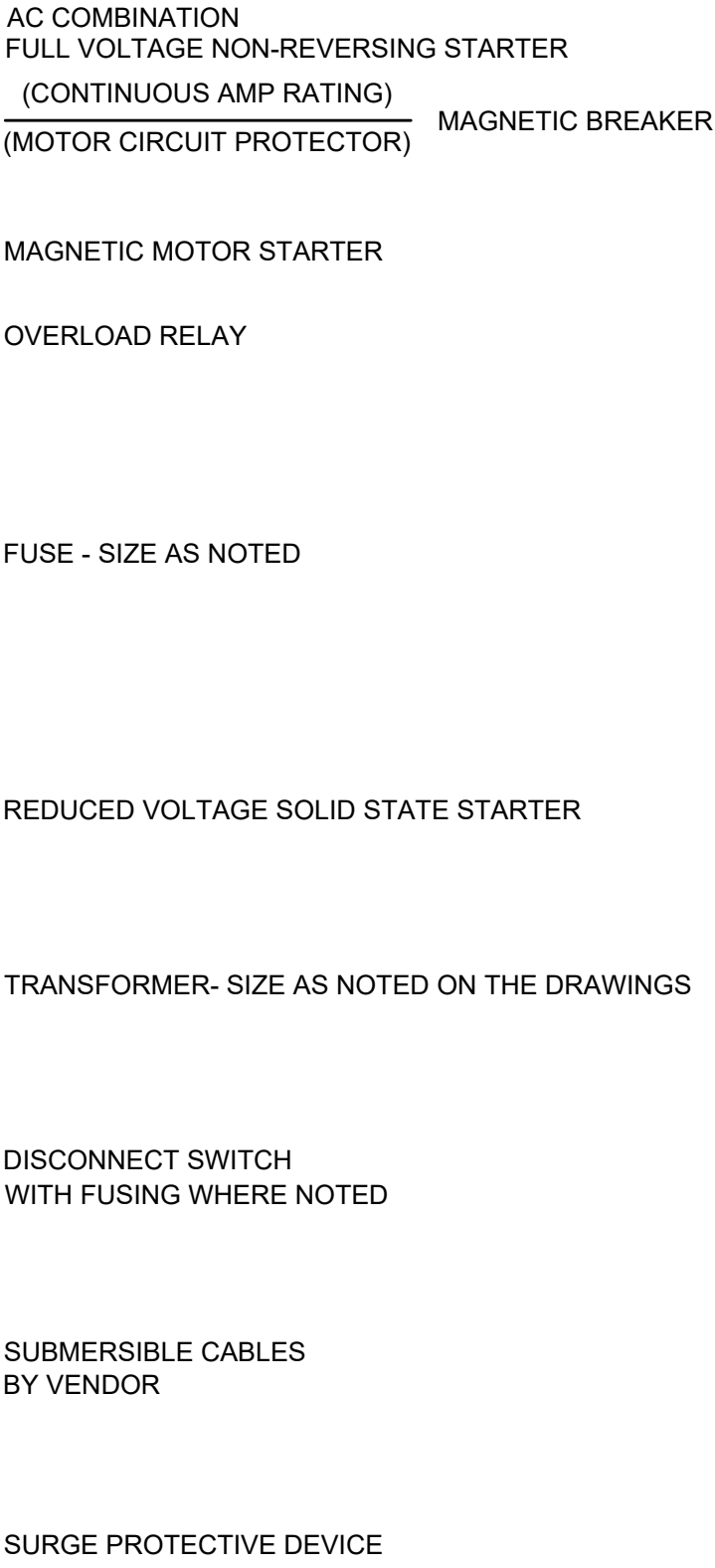
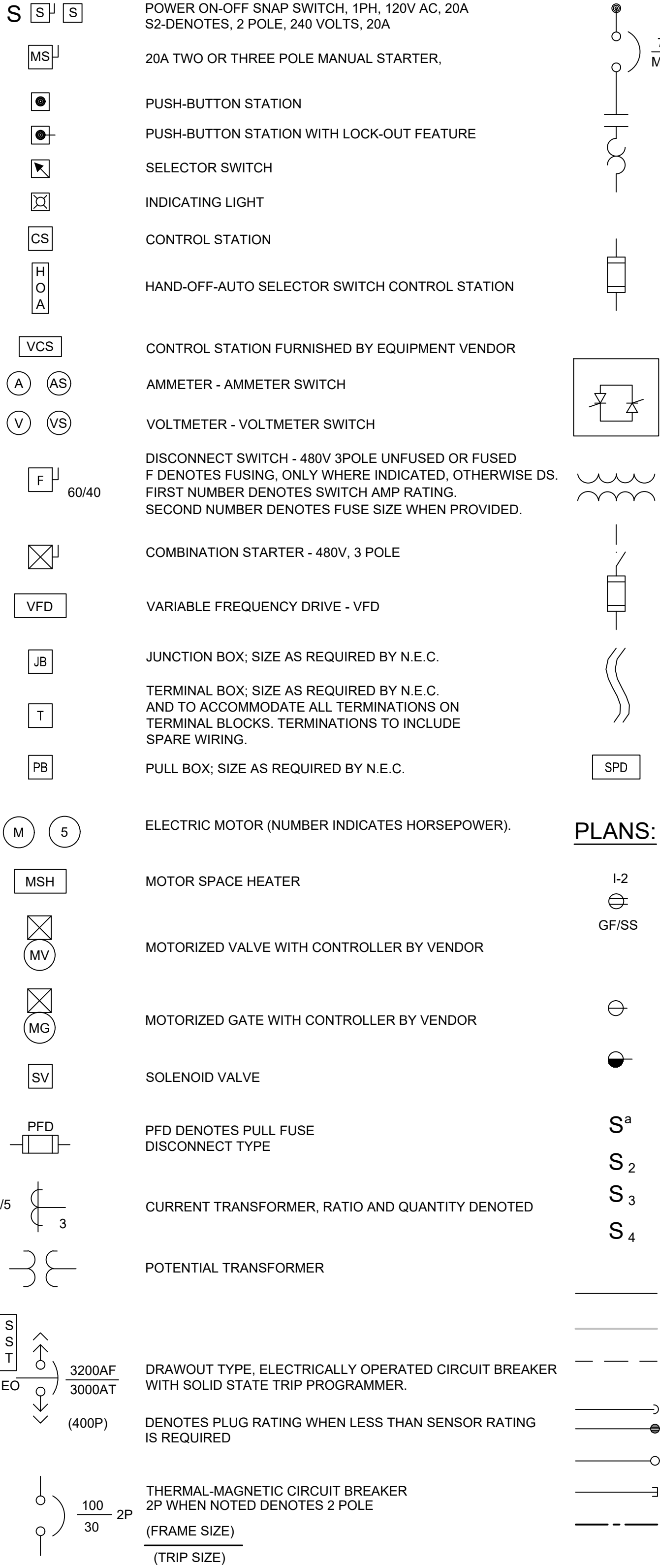
COVER SHEET AND
SHEET INDEX

SCALE: N.T.S.

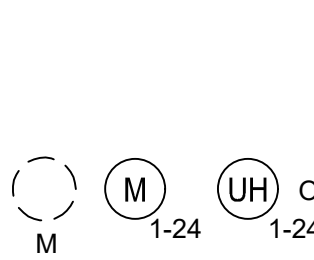
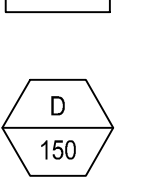
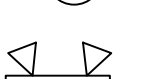
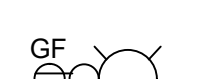
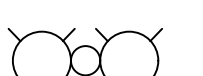
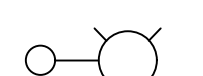
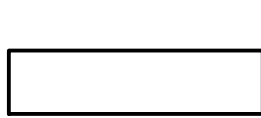
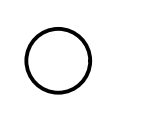
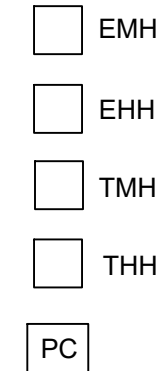
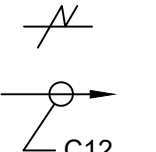
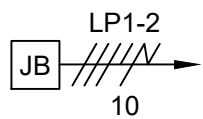
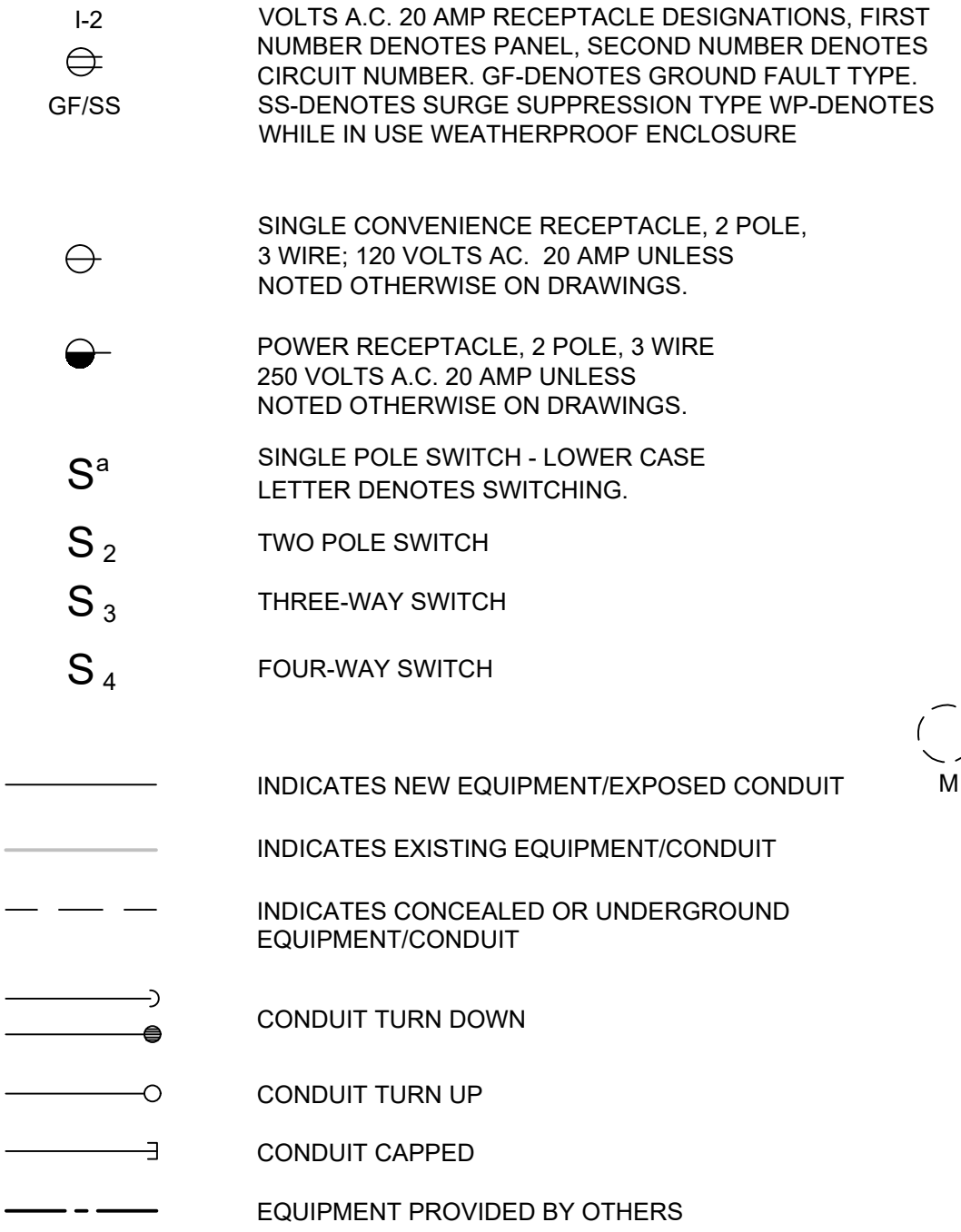
DRAWING NO.: G-01

SHEET NO.: 1 OF 14

DIAGRAMS:



PLANS:



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

INSTRUMENTS:



LETTERS AND NUMBERS INDICATE PANEL AND CIRCUIT NUMBER (LP1-2). CROSS LINES INDICATE NUMBER OF CONDUCTORS. HALF HASH MARKS INDICATES NEUTRAL. NUMBER (10) DENOTES WIRE SIZE WHEN NOT #12 AWG. CONTINUE CONDUIT AND WIRE RUN FROM BOX TO DEVICE IN ROOM OR AREA AS NOTED BY BRANCH CIRCUIT NUMBER. #10 AWG WIRING SHALL BE USED FOR RUNS BETWEEN PANEL AND FIRST LIGHTING FIXTURE OR RECEPTACLE EXCEEDING 50 FEET, UNLESS OTHERWISE NOTED ON DRAWING.

ABBREVIATIONS:

A	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
C, CND	CONDUIT
CB	CIRCUIT BREAKER
CBV	CABLE BY VENDOR, INSTALLED BY CONTRACTOR
CKT	CIRCUIT
CNTRL	CONTROL
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CS	CONTROL STATION
CT	CURRENT TRANSFORMER
DB	DECIBEL
DC	DIRECT CURRENT
DN	DOWN
DISC	DISCONNECT
DPDT	DOUBLE POLE DOUBLE THROW
DS	DISCONNECT SWITCH
EC	EMPTY CONDUIT
EHH	ELECTRICAL HANDHOLE
EL, ELEV	ELEVATION
EMH	ELECTRICAL MANHOLE
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
EXIST	EXISTING
FACP	FIRE ALARM CONTROL PANEL
FDR	FEEDER
FIXT	FIXTURE
FT	FEET OR FOOT
FVNR	FULL VOLTAGE NON-REVERSING
GALV	GALVANIZED
GEC	GROUNDING ELECTRODE CONDUCTOR
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
HH	HAND HOLE
HOA	HAND/OFF/AUTO
HZ	HERTZ
ISO	ISOLATION
JB	JUNCTION BOX, CONDUIT, FITTING AS REQUIRED BY NEC, UNLESS OTHERWISE NOTED
KAIC	THOUSAND AMPERES INTERRUPTING CURRENT
KCMIL	THOUSAND CIRCULAR MILS
KVA	THOUSAND VOLT AMPERES
KW	KILOWATTS
LA	LIGHTNING ARRESTOR
LCP	LOCAL CONTROL PANEL
LS	LEVEL SWITCH
LTG	LIGHTING
M	MOTOR
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MIN	MINIMUM
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
NA	NON-AUTOMATIC
N/A	NOT APPLICABLE
NCTC	NORMALLY CLOSED, TIME CLOSE
NCTO	NORMALLY OPEN, TIME OPEN
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OFCl	OWNER FURNISHED, CONTRACTOR INSTALLED
OL	OVERLOAD RELAY
PB	PULL BOX
PFC	POWER FACTOR CORRECTION CAPACITORS
PFD	PULL FUSE DISCONNECT
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RECEP	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
SL	SECTION LENGTH
SP	SPARE
SPD	SURGE PROTECTION DEVICE
SST	STAINLESS STEEL
SWB,SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TEW	THERMOCOUPLE EXTENSION WIRE
TPS	TWISTED PAIR, SHIELDED
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VAC	VOLTS ALTERNATING CURRENT
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
XFMR	TRANSFORMER

GENERAL NOTES:

- THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
- 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 HIS ESTIMATORS, SUPPLIERS AND INSTALLERS.
- THE CONTRACTOR SHALL REQUEST ACCESS AND VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS.
- PROVIDE MEANS TO FURNISH AND INSTALL.
- COORDINATE ANY AND ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION IN ORDER TO AVOID CONFLICTS DURING CONSTRUCTION.
- THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE. DO NOT SCALE FROM THESE DRAWINGS.
- 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.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ENFORCED EDITION OF THE NATIONAL ELECTRIC CODE, NATIONAL ELECTRIC SAFETY CODE, LIFE SAFETY CODE, GEORGIA BUILDING CODE AND ALL LOCAL AND STATE CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- MOUNTING HEIGHTS INDICATED ARE TO THE CENTER OF THE DEVICE U.O.N.
- CONTRACTOR SHALL DETERMINE THE BEST ROUTING IN THE FIELD FOR CONDUITS FROM TO JUNCTION BOXES, PULL BOXES, DISCONNECT SWITCH AND ELECTRICAL EQUIPMENT TO AVOID CONFLICTS BETWEEN PIPES AND BUILDING STRUCTURE, AND OBSTRUCTION.

DEMOLITION NOTES:

- BIDDING CONTRACTORS SHALL VISIT THE SITE TO ASSESS THE SCOPE OF DEMOLITION, REMOVAL AND MODIFICATION WORK.
- ELECTRICAL CONTRACTOR AND THE OWNER SHALL DE-ENERGIZE ALL WIRING PRIOR TO REMOVAL OF EQUIPMENT, DEVICES, MOTORS INSTRUMENTATION, CONTROL PANELS, ETC. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE OWNER.
- CONTRACTOR SHALL COORDINATE AND CROSS REFERENCE OF OTHER DISCIPLINE DRAWINGS TO INFER THE EXTENT OF DEMOLITION.
- CONTRACTOR SHALL PROTECT ALL EXISTING CONSTRUCTION THAT IS TO REMAIN.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CIRCUIT CONTINUITY TO ALL DEVICES AND EQUIPMENT THAT ARE TO REMAIN. THIS INCLUDES ANY EXTENSION OR RE-ROUTING OF EXISTING CIRCUITING AFFECTED BY DEMOLITION. NO EQUIPMENT MARKED FOR DEMOLITION SHALL BE DAMAGED OR DISCARDED WITHOUT PREVIOUS COORDINATION WITH AND APPROVAL BY THE OWNER.
- EXPOSED RACEWAYS: REMOVE CONDUIT, WIRES, AND BOXES. PATCH TO MATCH EXISTING. FINISH-ALL OPENINGS IN WALLS AND FLOORS.
- CONCEALED CONDUITS IN THE SLAB: REMOVE EXISTING WIRES TO THE EXTENT POSSIBLE AND ABANDON CONDUITS IN THE SLAB. CUT CONDUIT FLUSH AND PATCH THE FLOOR TO MATCH EXISTING.
- UNDERGROUND CONDUITS: REMOVE EXISTING WIRES TO EXTENT POSSIBLE AND ABANDON CONDUITS IN PLACE. CUT CONDUIT FLUSH AND GRADE SMOOTH THE GROUND.
- CONTROL PANEL: ELECTRICAL CONTRACTOR SHALL DE-ENERGIZE AND REMOVE ALL CONDUIT AND WIRE AS DESCRIBED IN NOTE 2. CONTRACTOR SHALL REMOVE PANELS AS NOTED ON THE CONTRACT DRAWINGS. REFER TO NOTE 4 ABOVE FOR DISPOSITION OF ENCASED CONDUITS.
- REFER TO SPECIFICATION 16050, GENERAL PROVISIONS FOR ELECTRICAL SYSTEMS FOR ADDITIONAL ELECTRICAL DEMOLITION AND REMOVAL REQUIREMENTS.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FCWS

WTP ALUM UPGRADES

FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS:ISSUED FOR BID

PROJECT NO.: 30185066

DATE: MAY 2025

DESIGNED BY: S. AYOADE

DRAWN BY: V. GANESH

CHECKED BY: T. POWELL

SHEET TITLE

ELECTRICAL

LEGEND,
SYMBOLS AND
ABBREVIATIONS

SCALE: N.T.S

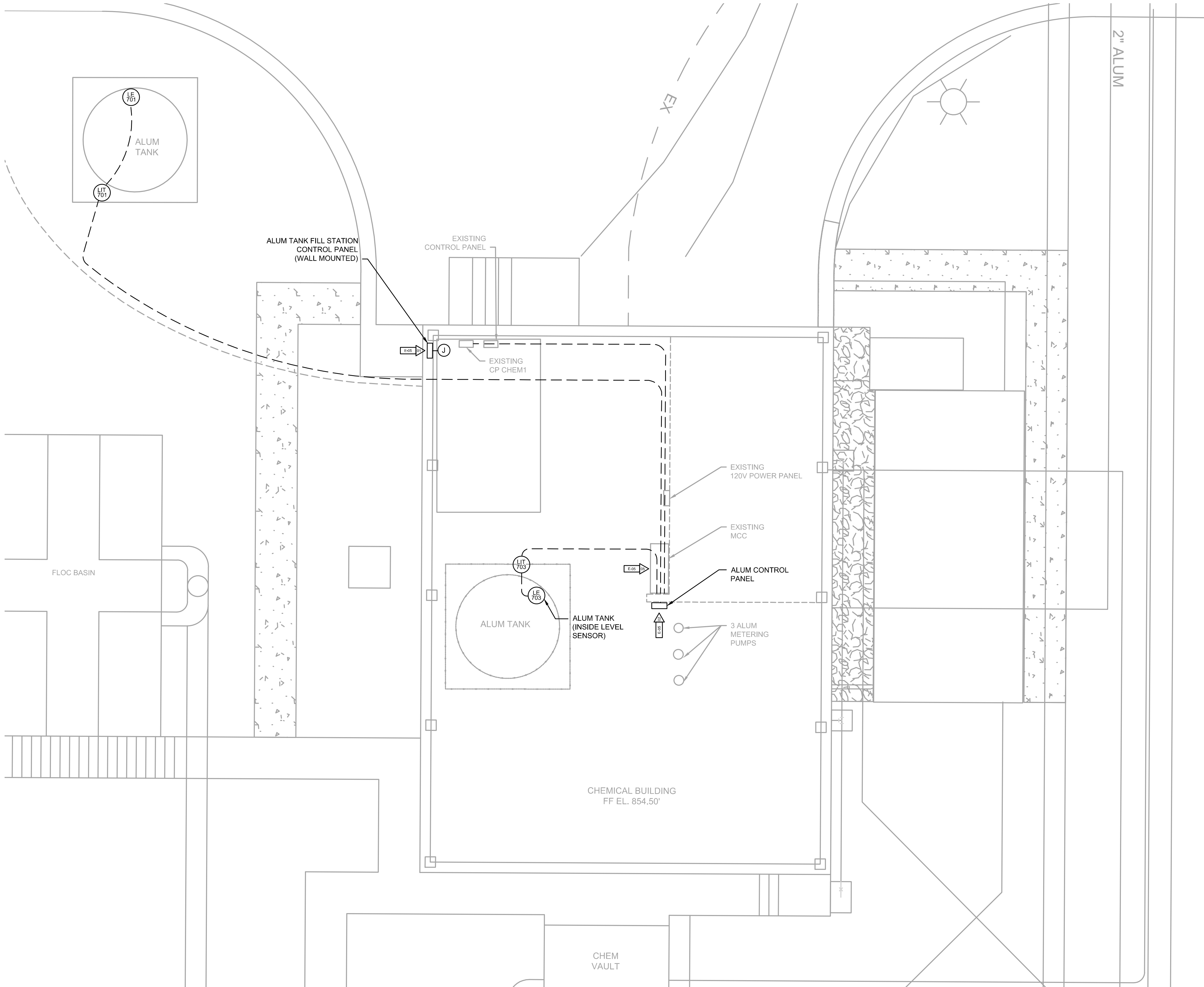
DRAWING NO.: E-01

SHEET NO.: 2 OF 14



Know what's below.
Call before you dig.

User:SVI00709 Spec:AUS-NGS000 File:c:\users\svi00709\dc\acddocs\arcadis acc us\aus-30185066-FCWS SCADA PM AND ALUM UPGRADE\PROJECT FILES\10_WIP\10T_ELE-ELECTRICAL\E-02.DWG Scale:1:1 SavedDate:5/21/2025 Time:17:34 Plot Date: Venkatesh, Ganesan; 5/22/2025; 11:16 ; Layout:3



NOTES:

- EXTERNAL ALUM TANK LEVEL TRANSMITTER SIGNAL CABLE TO BE INSTALLED IN EXISTING NEWLY INSTALLED CONDUIT IN DUCTBANK.
- CONTRACTOR TO EXTEND NEW CONDUIT FROM DUCTBANK AND TERMINATE INTO BUILDING.

LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS

OWNER

FAYETTE
County
Water

FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS:ISSUED FOR BID

PROJECT NO.: 30185066

DATE: MAY 2025

DESIGNED BY: S. AYOADE

DRAWN BY: N. NIA

CHECKED BY: T. POWELL

SHEET TITLE

ELECTRICAL

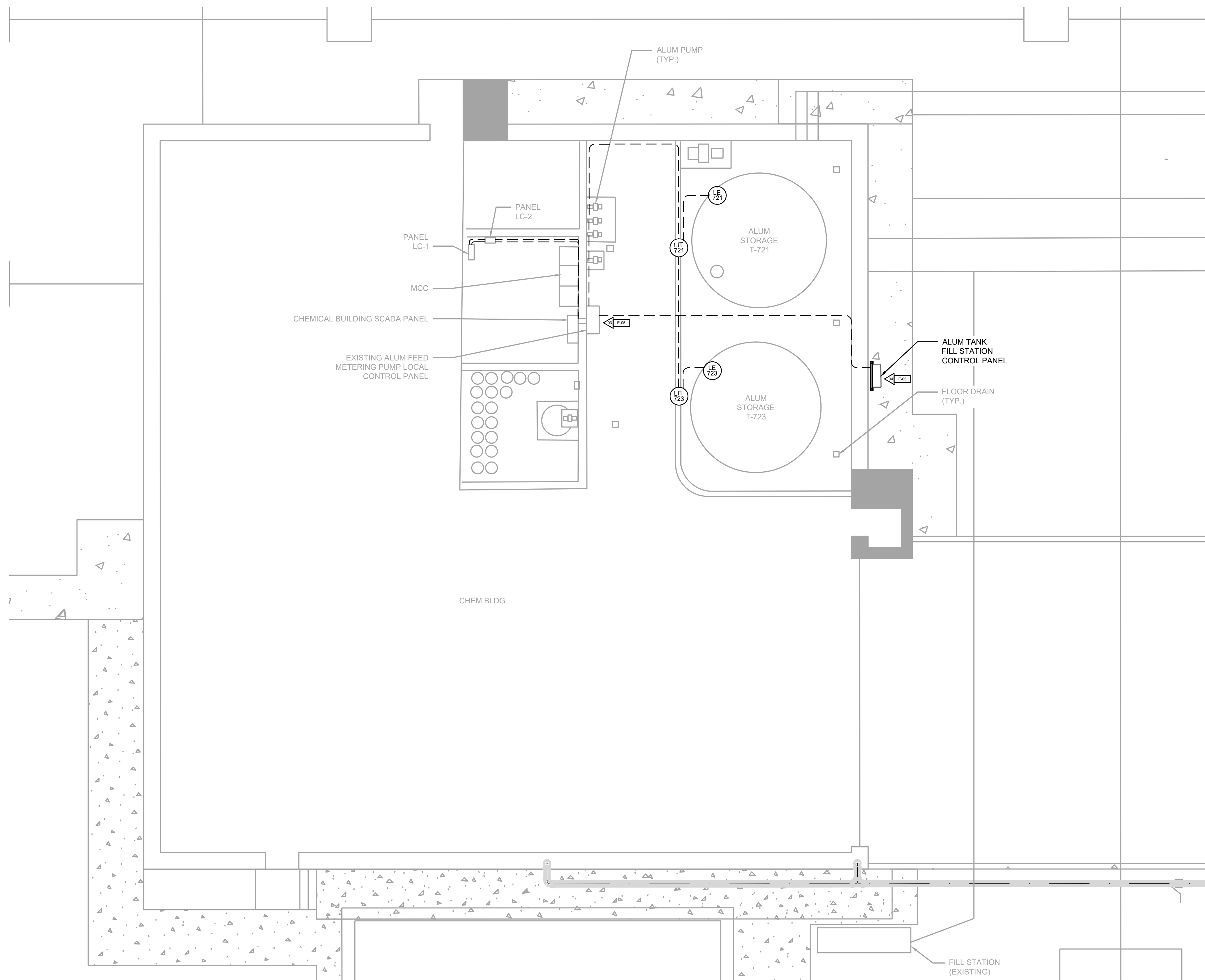
CROSSTOWN PRETREATMENT
CHEMICAL BUILDING
ELECTRICAL SITE PLAN

SCALE: 1"=5'

DRAWING NO.: E-02

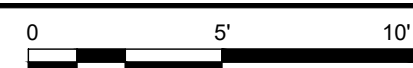
SHEET NO.: 3 OF 14

Know what's below.
Call before you dig.



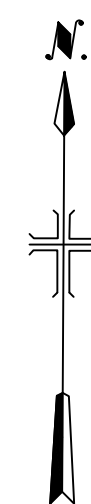
SOUTH FAYETTE CHEMICAL BUILDING ELECTRICAL SITE PLAN

SCALE: 1" = 5'



NOTES:

1. ALUM FEED METERING PUMP LOCAL CONTROL PANEL TO BE REPURPOSED WITH NEW BACKPLATE AND PANEL DOOR FOR NEW ALUM CONTROL PANEL.
2. CONTRACTOR TO DETERMINE INTEGRITY OF EXISTING ALUM FEED METERING PUMP LOCAL CONTROL PANEL.
3. FIELD LOCATE LEVEL TRANSMITTER ON CHANNEL STAND.
4. USE SPARE BREAKER IN PANEL LC-1 TO PROVIDE POWER TO ALUM FILL STATION CONTROL PANEL.
5. USE EXISTING BREAKER IN PANEL LC-1 FOR THE EXISTING ALUM FEED METERING PUMP LOCAL CONTROL PANEL TO FEED ALUM CONTROL PANEL.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER

The logo for Fayette County Water features the word "FAYETTE" in a bold, dark blue, sans-serif font. Below it, the word "County" is written in a light blue, cursive script font. At the bottom, the word "Water" is in a bold, dark blue, sans-serif font. A small, light blue water droplet is positioned at the bottom left of the word "Water".

FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	
NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS: ISSUED FOR BID

PROJECT NO.: 30185066

DATE: MAY 2025

DESIGNED BY: S. AYOADE

DRAWN BY: N. NIA

CHECKED BY: T. POWELL

SHEET TITLE

ELECTRICAL

SOUTH FAYETTE CHEMICAL BUILDING ELECTRICAL SITE PLAN

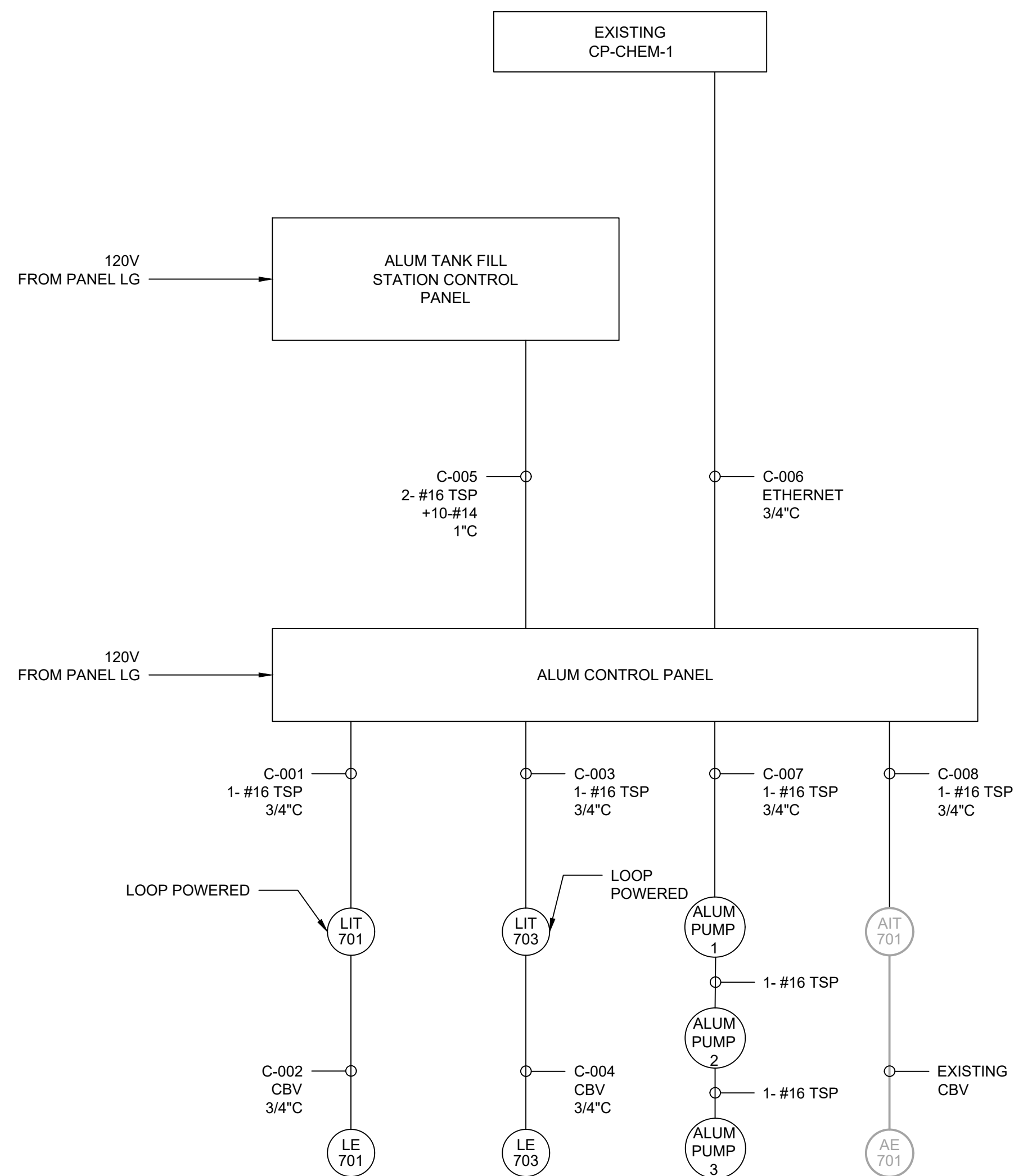
SCALE: 1"=5'

DRAWING NO.: E-03

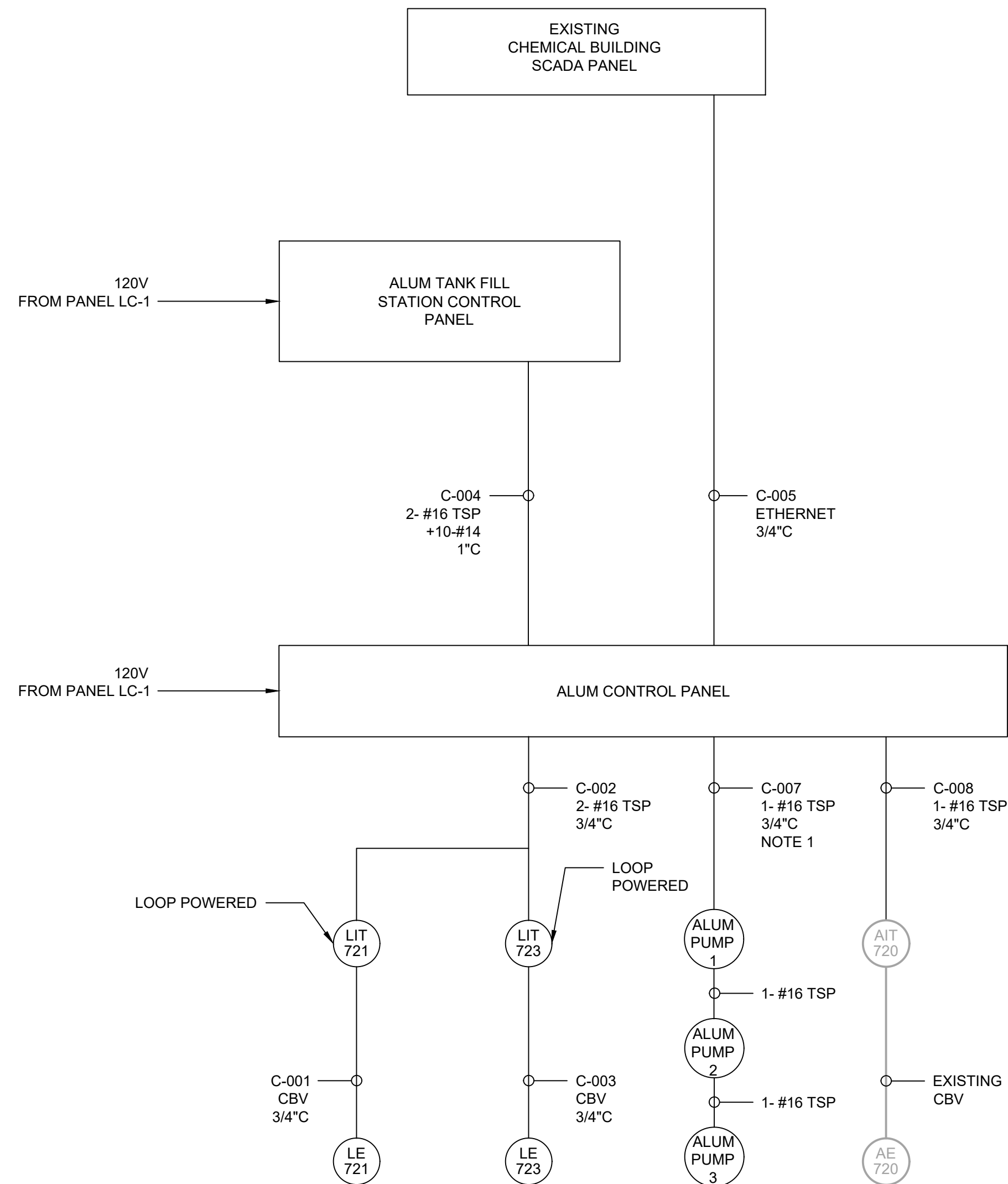
SHEET NO.: 4 OF 14



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



CROSSTOWN INTERCONNECTION DIAGRAM



SOUTH FAYETTE INTERCONNECTION DIAGRAM

NOTE:

1. EXISTING STREAMING CURRENT SIGNAL TO BE RELOCATED FROM CHEMICAL BUILDING SCADA PANEL TO NEW ALUM CONTROL PANEL.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	
NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS: ISSUED FOR BID

PROJECT NO.: 30185066

DATE: MAY 2025

DESIGNED BY: S. AYOADEDRAWN BY: V. GANESH

CHECKED BY: T. POWELL

SHEET TITLE

ELECTRICAL

CROSSTOWN & SOUTH FAYETTE INTERCONNECTION DIAGRAM

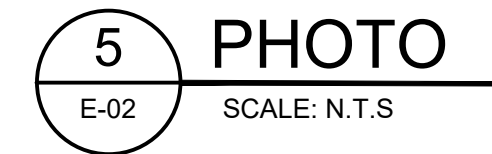
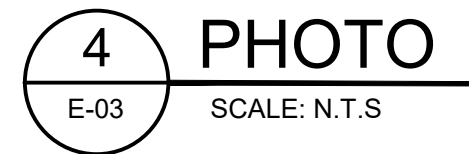
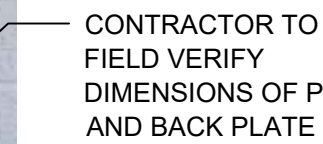
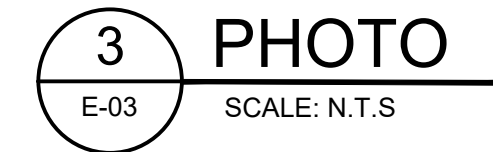
SCALE: N.T.S

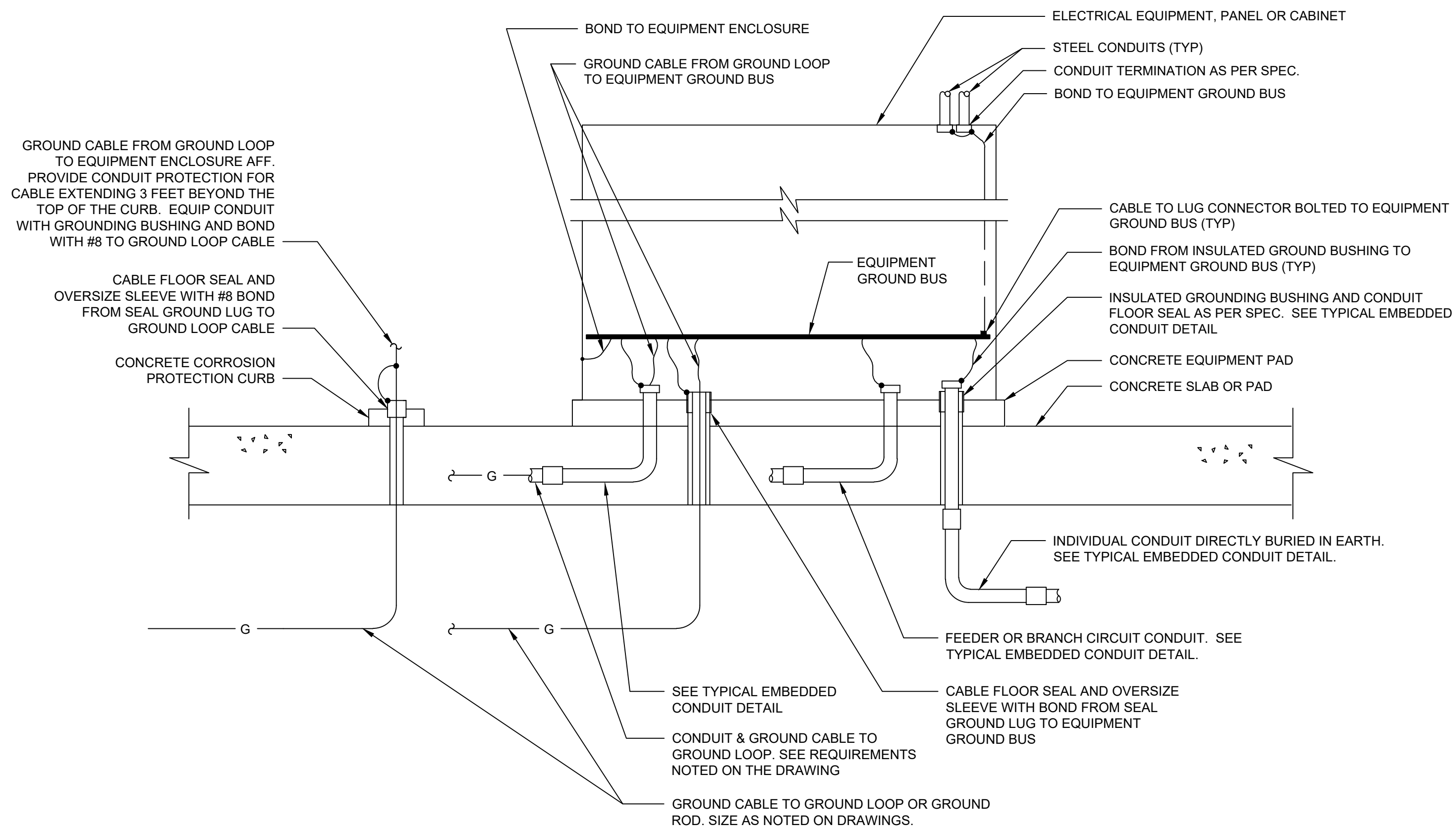
DRAWING NO.: E-04

SHEET NO.: 5 OF 14

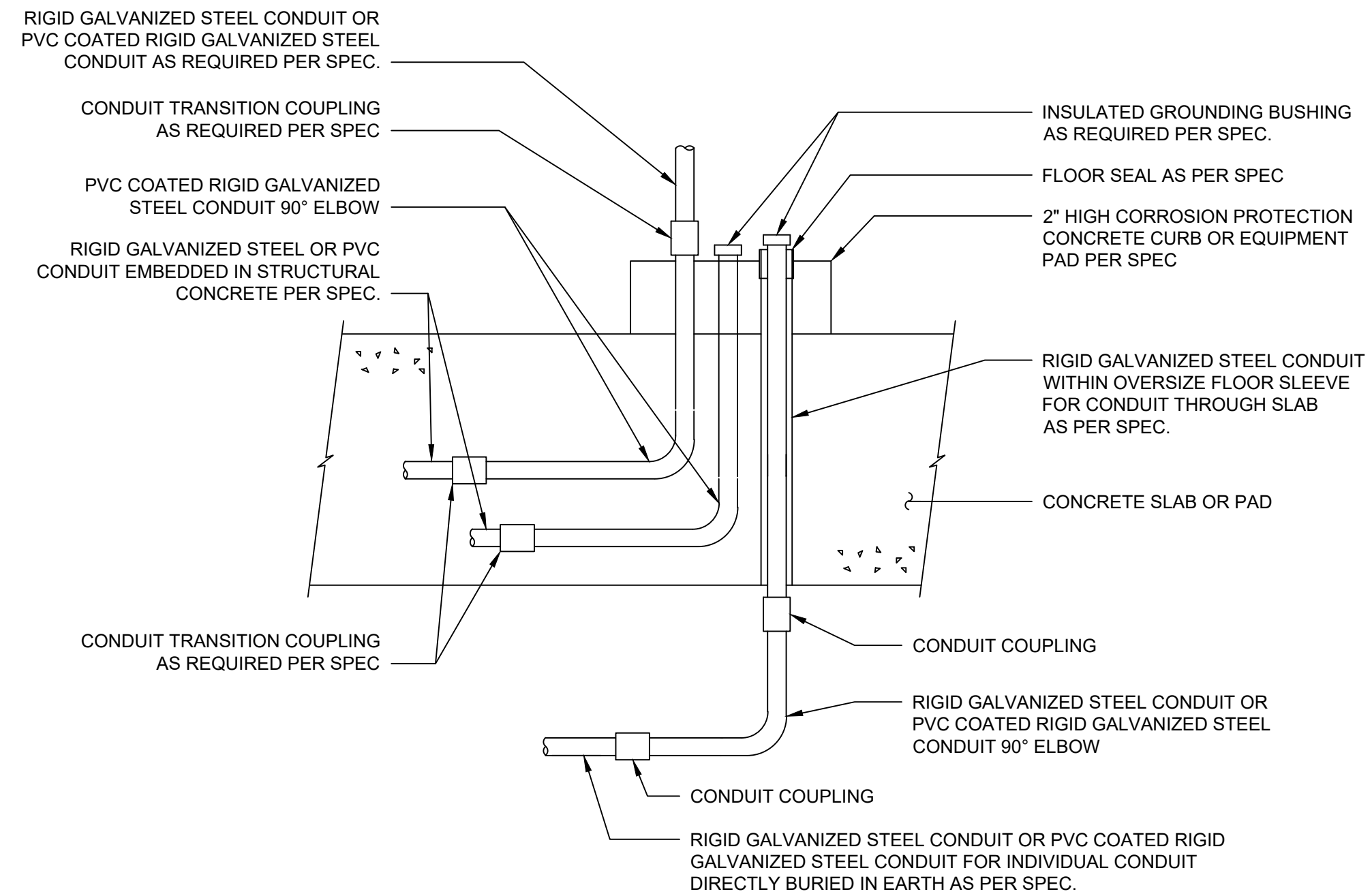


Know what's **below**.
Call before you dig.





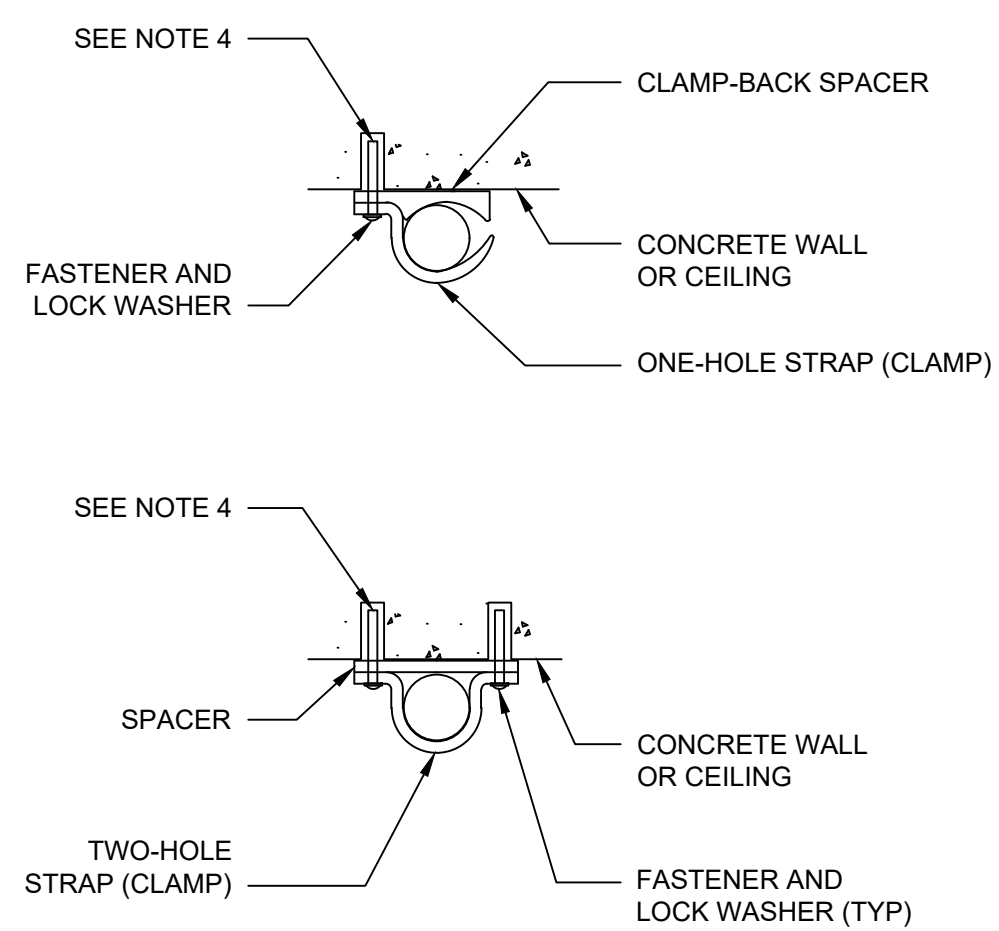
1 TYPICAL EQUIPMENT GROUNDING DETAIL



2
E-06

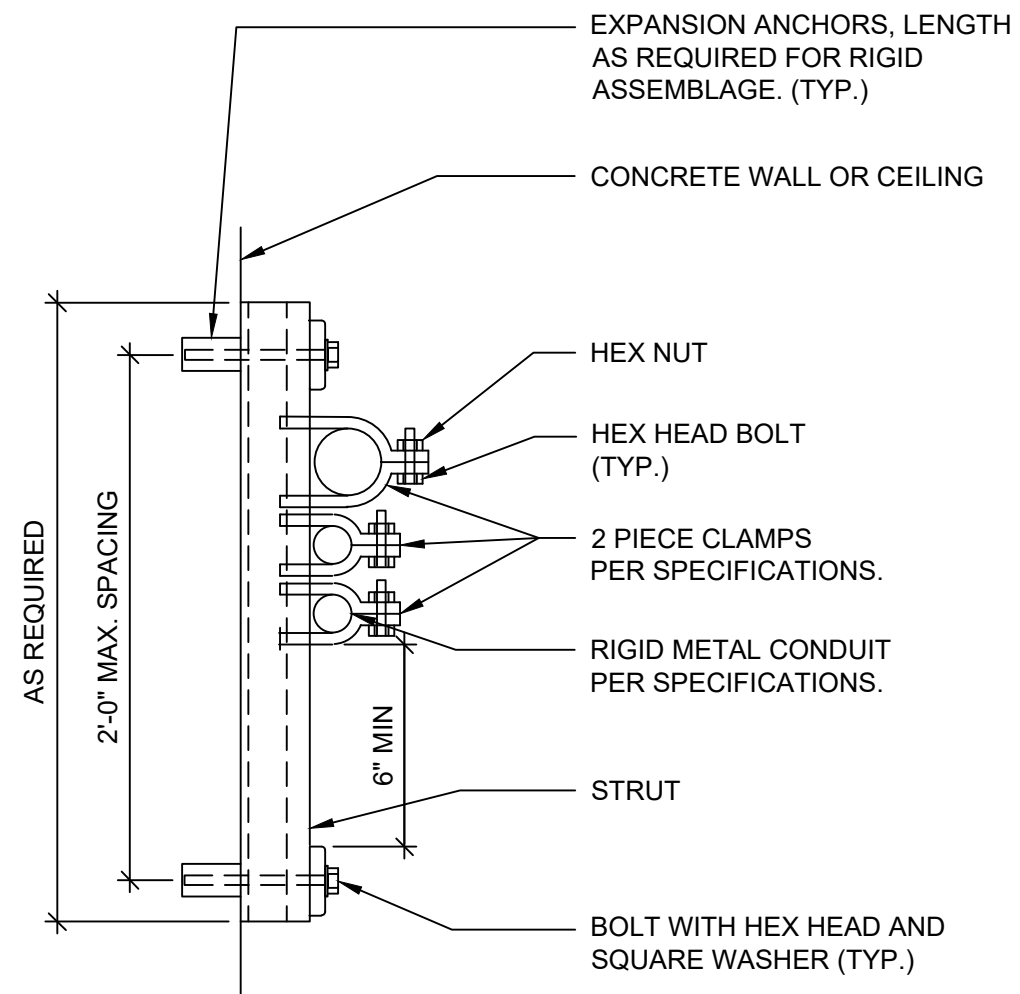
EMBEDDED CONDUIT DETAIL AND CONDUIT
CORROSION PROTECTION DETAIL

SCALE: N.T.S.

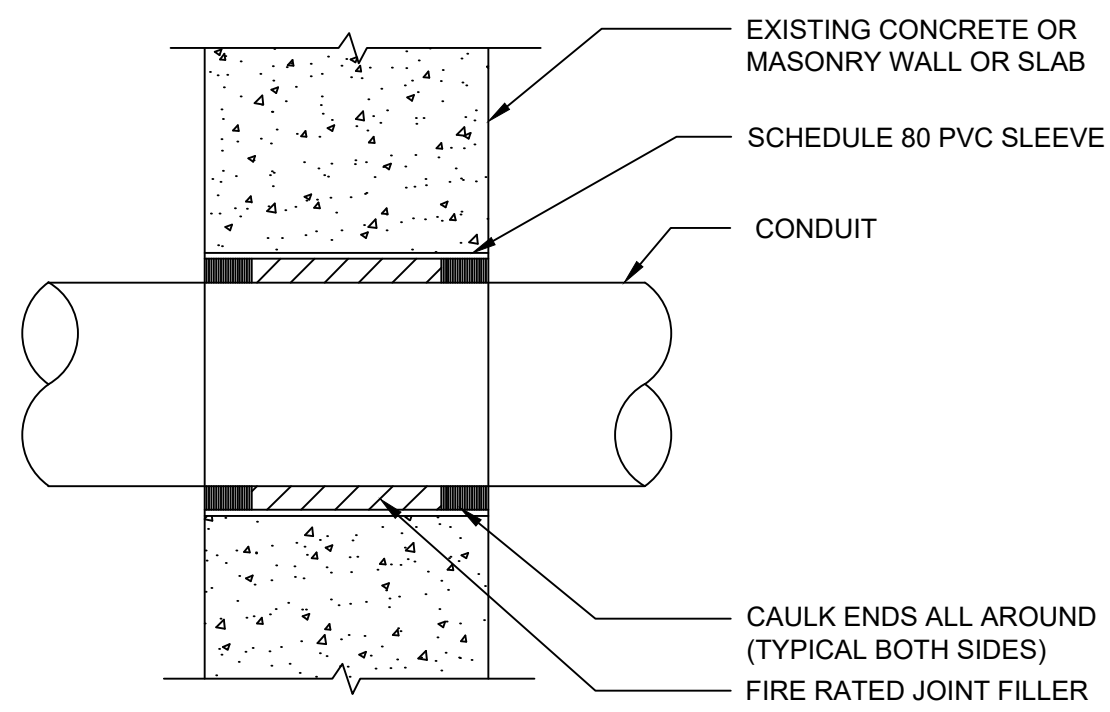


NOTES:

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).

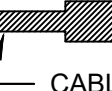
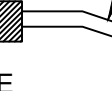
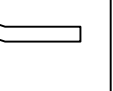
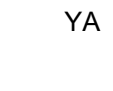
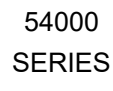
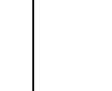
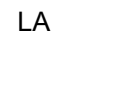


TYPICAL MULTIPLE CONDUIT MOUNTING USING STRUT



TYPICAL CONDUIT PENETRATION
THROUGH EXISTING WALL OR SLAB

5
E-06 SCALE: N.T.S

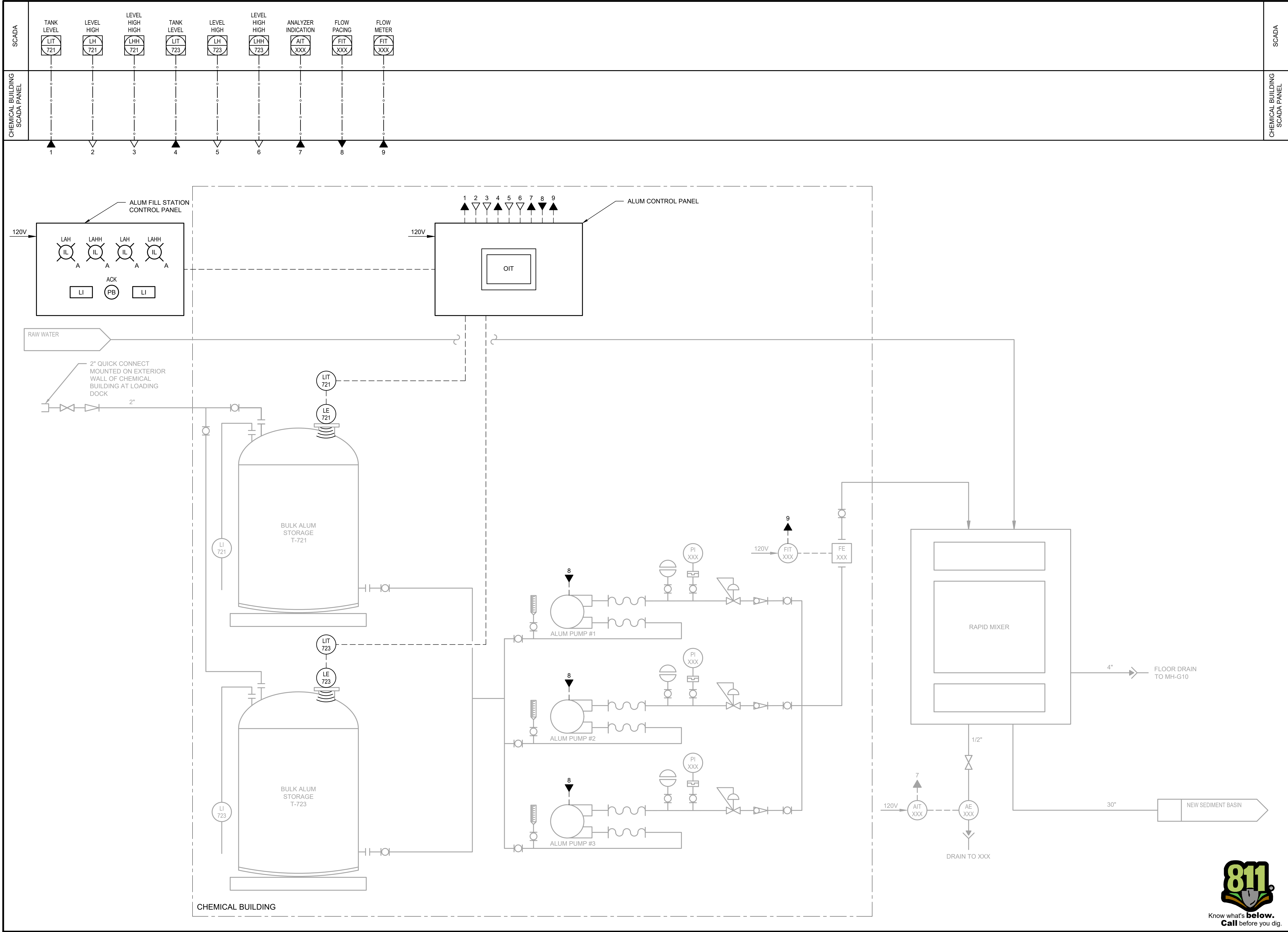
TYPE OF CONNECTION	BOLTED OR COMPRESSION		WELDED
	BURNDY CAT#	T&B CAT#	CADWELL CAT#
CABLE TO LUG 	YA	54000 SERIES	LA
CABLE TO ROD 	-	53000 SERIES	GT
ROD TO ROD 	GAR	-	GR
CABLE TO CABLE 	GX	53000 SERIES	TV OR TA
CABLE TO PIPE 	-	-	HA OR VS
CABLE TO PIPE 	GAR OR GD	3900 SERIES	-
CABLE TO FLAT SURFACE 	GB	-	HA OR HS
BRAID TO PIPE 	GG	-	-

GROUNDING CONNECTION

SCALE: N.T.S



User:KS8758 Spec:AUS-NCSMOD File:C:\USERS\KS8758\DC\ACDD005\ARCADIS ACC US\AUS-30 85066-FCWS SCADA PM AND ALUM UPGRADE\PROJECT FILES\10_WIP\107_INS_INSTRUMENTATION\I-02.DWG Scale:1:1 Saved Date:5/21/2025 Time:14:01 Plot Date: K. Santosh; 5/22/2025; 13:11 ; Layout:9



ARCADIS

LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS

REGISTERED
19-25-2025
No. PE047048
PROFESSIONAL
ENGINEER
THOMAS H POWELL
Thomas H Powell

OWNER

FAYETTE
County
Water

FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS: ISSUED FOR BID

PROJECT NO.: 30185066

DATE: MAY 2025

DESIGNED BY: S. AYOADE

DRAWN BY: K. SANTOSH

CHECKED BY: T. POWELL

SHEET TITLE

INSTRUMENTATION

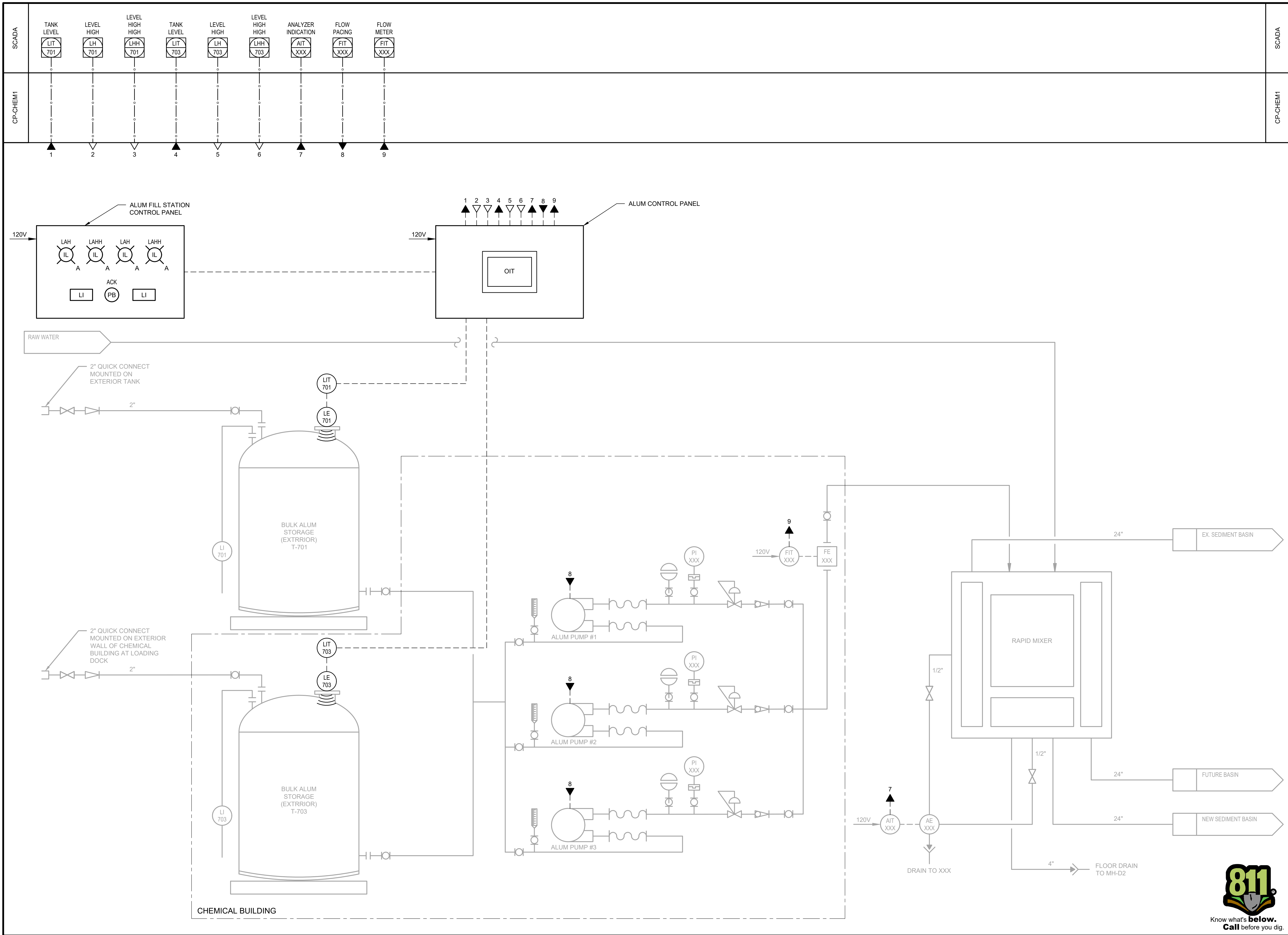
SOUTH FAYETTE
ALUM P&ID

SCALE: NOT TO SCALE

DRAWING NO.: I-02

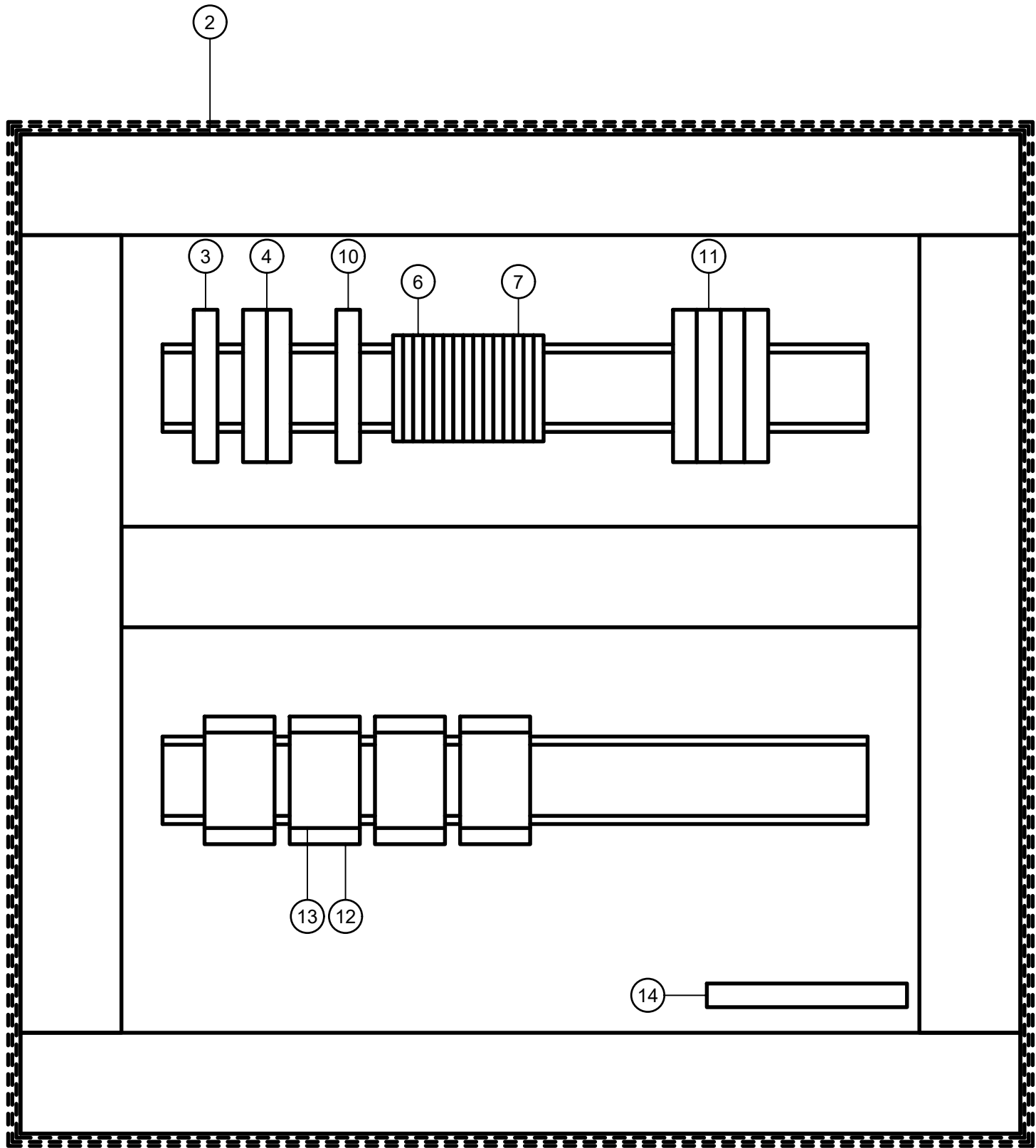
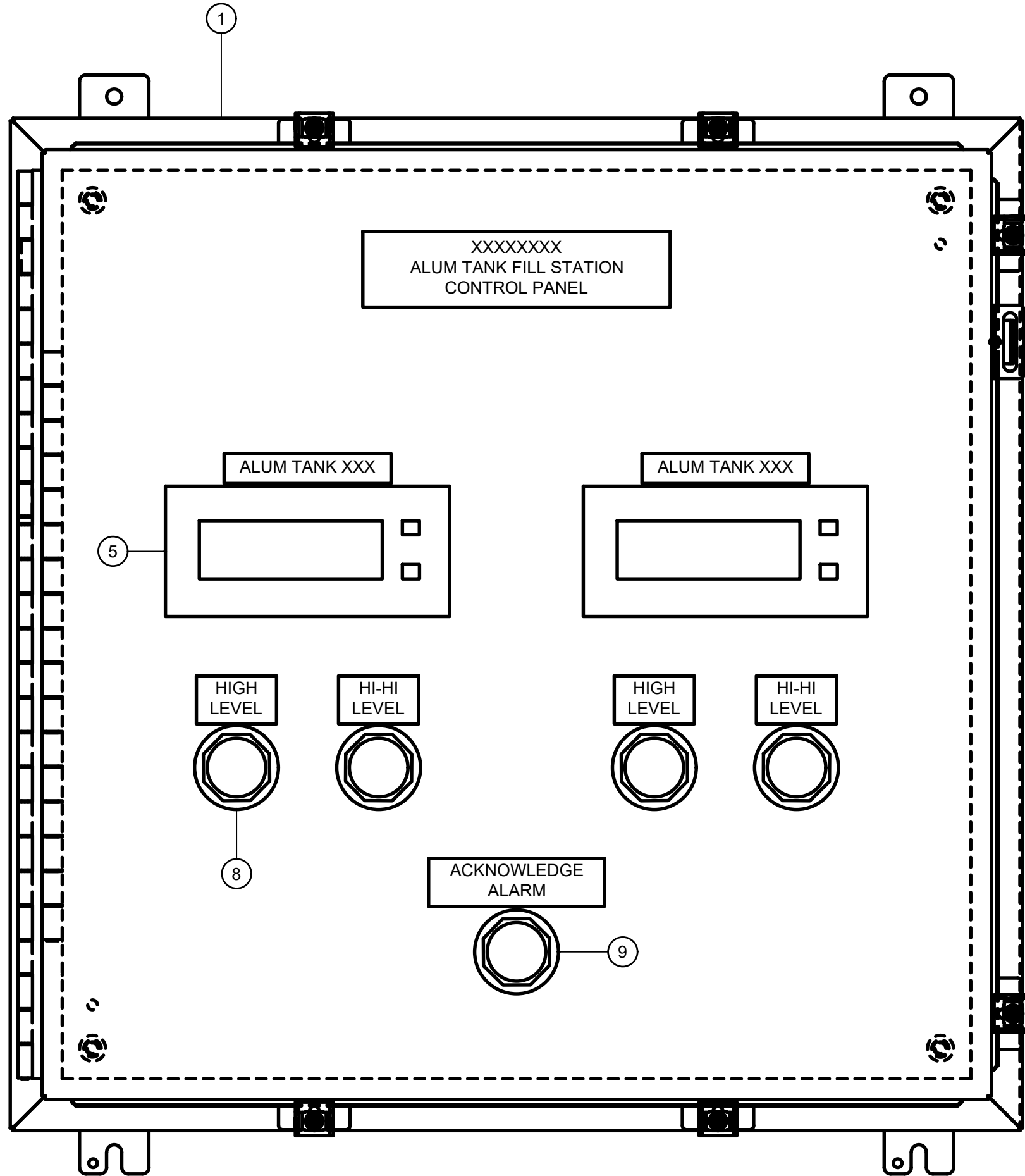
SHEET NO.: 9 OF 14





ARCADIS			
LEGAL ENTITY: ARCADIS U.S., INC. 2389 PACES FERRY RD SUITE 1000 ATLANTA, GA 30339 TEL: 770-431-8666 WWW.ARCADIS.COM			
CONSULTANTS			
SEALS			
Thomas H Powell			
OWNER			
FAYETTE County Water			
FCWS			
WTP ALUM UPGRADES			
FAYETTE COUNTY, GEORGIA			
REVISIONS			
05/23/25		ISSUED FOR BID	
12/08/23		90% SUBMITTAL	
09/26/23		30% SUBMITTAL	
NO.	DATE	ISSUED FOR	BY
COPYRIGHT: ARCADIS U.S., INC. 2023			
PROJECT STATUS: ISSUED FOR BID			
PROJECT NO.:		30185066	
DATE:		MAY 2025	
DESIGNED BY:		S. AYOADE	
DRAWN BY:		K. SANTOSH	
CHECKED BY:		T. POWELL	
SHEET TITLE			
INSTRUMENTATION			
CROSSTOWN ALUM P&ID			
SCALE:			
NOT TO SCALE			
DRAWING NO.:			
I-03			
SHEET NO.:			
10		OF 14	

User:KS8758 Spec:AUS-NCSMOD File:C:\USERS\KS8758\DC\ACDD00S\ARCADIS ACC US\AUS-30 85066-FCWS SCADA PM AND ALUM UPGRADE\PROJECT FILES\10_WIP\107_INS_INSTRUMENTATION\I-04.DWG Scale:1:1 Saved Date:5/21/2025 Time:13:57 Plot Date: K. Santosh; 5/22/2025; 13:11 ; Layout:1:1



ITEM	QTY	DESCRIPTION
1	1	NEMA 4X ENCLOSURE
2	1	BACKPLANE
3	1	10A CIRCUIT BREAKER
4	2	5A CIRCUIT BREAKER
5	2	DIGITAL DISPLAY
6	A/R	TERMINAL BLOCKS
7	A/R	GROUNDING TERMINAL BLOCKS
8	4	AMBER PILOT LIGHT
9	1	N.O. PUSH BUTTON
10	1	120V SURGE PROTECTION
11	2	ANALOG SURGE PROTECTION
12	4	RELAY BASES
13	4	RELAYS
14	1	GROUND BAR

NOTE:

1. ALUM CONTROL PANEL IS TYPICAL FOR CROSSTOWN AND SOUTH FAYETTE WATER TREATMENT PLANTS.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS:ISSUED FOR BID

PROJECT NO.:	30185066
DATE:	MAY 2025
DESIGNED BY:	S. AYOADE
DRAWN BY:	K. SANTOSH
CHECKED BY:	T. POWELL

SHEET TITLE

INSTRUMENTATION

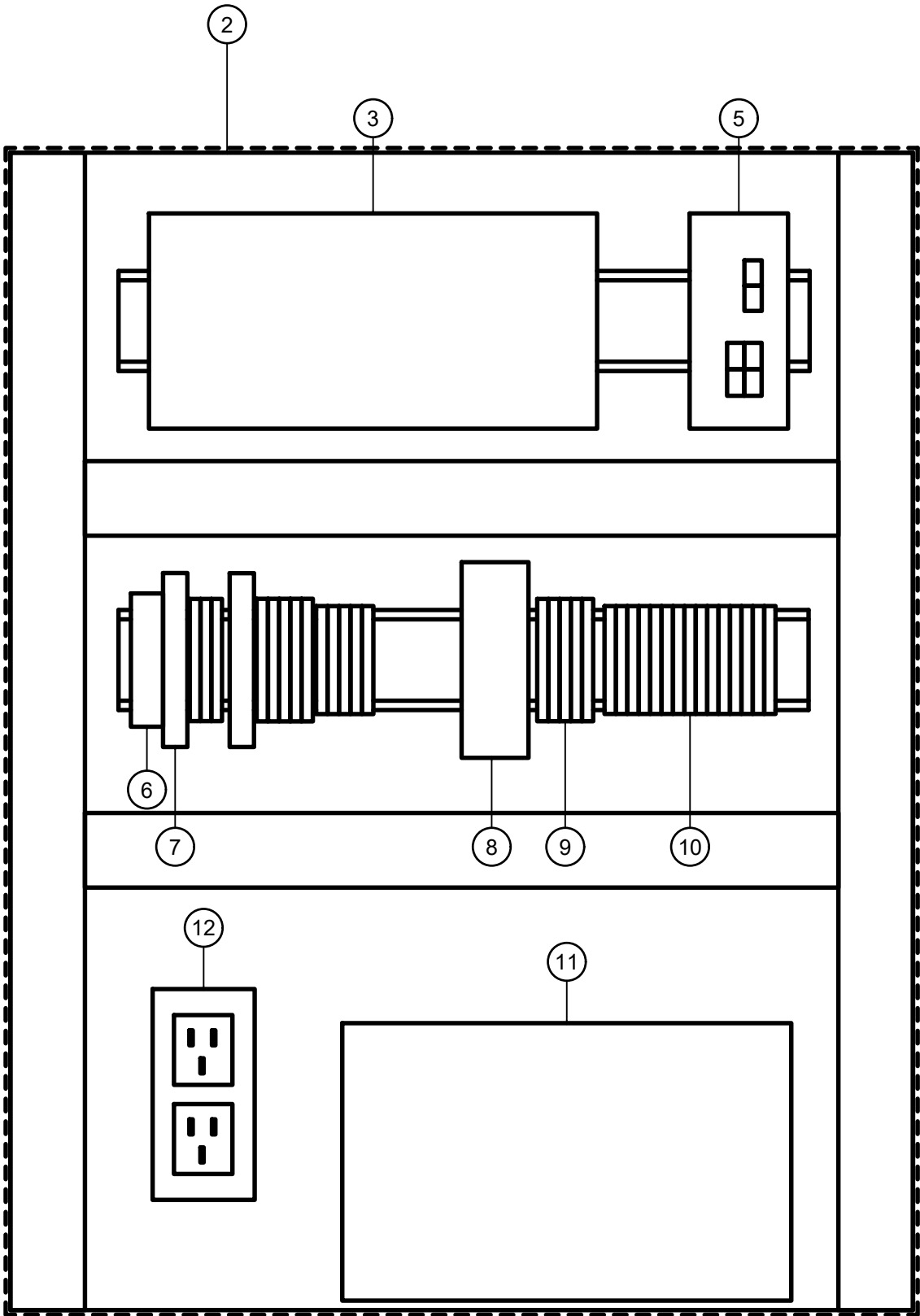
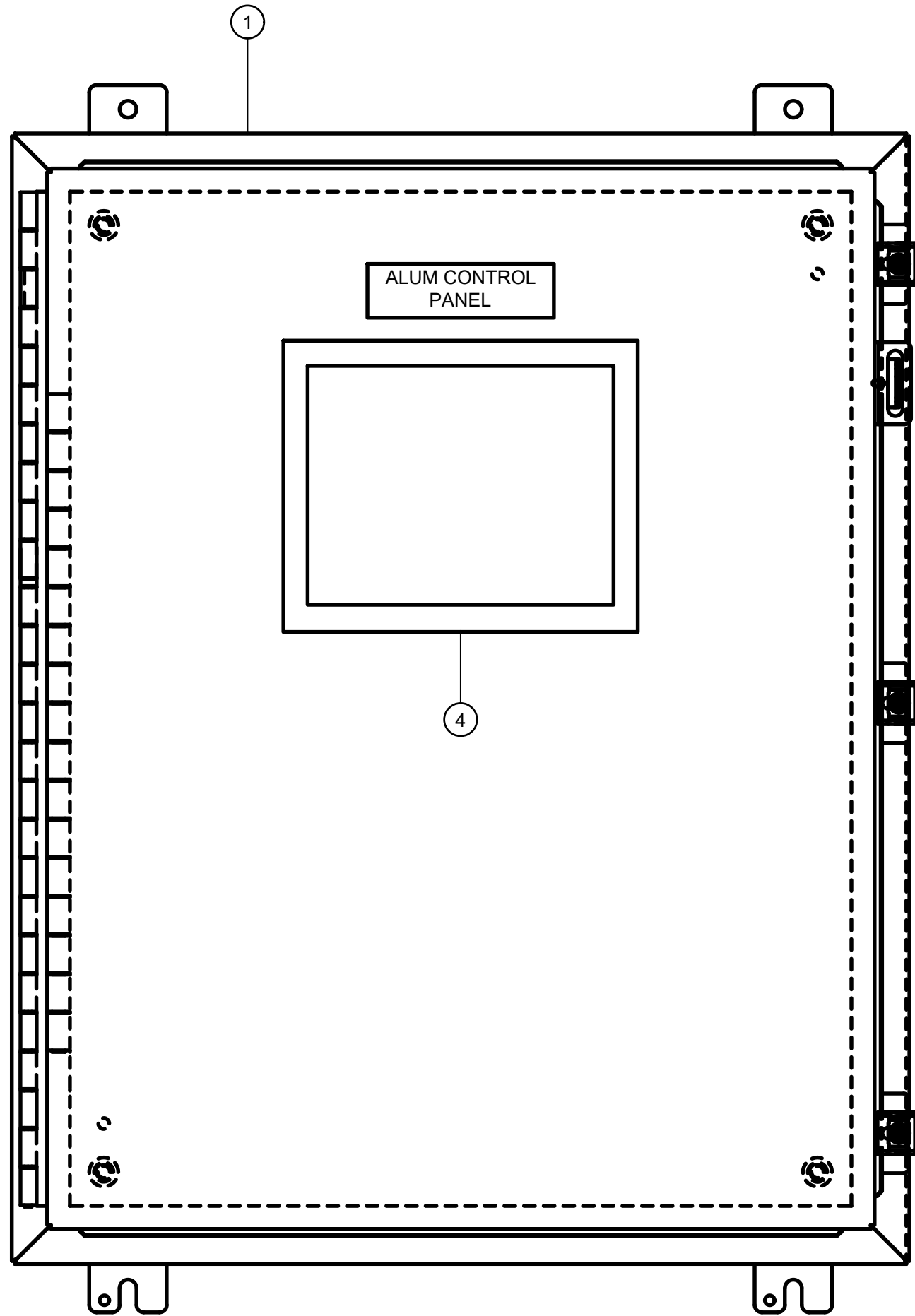
ALUM FILL STATION
CONTROL PANEL
(TYPICAL)

SCALE: NOT TO SCALE

DRAWING NO.: I-04

SHEET NO.: 11 OF 14

User:KS8758 Spec:AUS-NCSMOD File:C:\USERS\KS8758\DC\ACDD00S\ARCADIS ACC US\AUS-30 85066-FCWS SCADA PM AND ALUM UPGRADE\PROJECT FILES\10_WIP\107_INS_INSTRUMENTATION\I-05.DWG Scale:1:1 SavedDate:5/21/2025 Times:13:57 Plot Date: K. Santosh 5/22/2025; 13:11 ; Layout:12



ITEM	QTY	DESCRIPTION
1	1	NEMA 4X ENCLOSURE
2	1	BACKPLANE
3	1	ALLEN-BRADLEY PLC
4	1	7IN ALLEN-BRADLEY OIT
5	1	UNMANAGED NETWORK SWITCH
6	2	120V SURGE PROTECTION
7	2	15A CIRCUIT BREAKER
8	1	24VDC POWER SUPPLY
9	A/R	FUSE TERMINALS
10	A/R	TERMINAL BLOCKS
11	1	UNINTERRUPTIBLE POWER SUPPLY
12	1	DUPLEX RECEPTACLE

NOTE:

1. ALUM CONTROL PANEL IS TYPICAL FOR CROSSTOWN AND SOUTH FAYETTE WATER TREATMENT PLANTS.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS:ISSUED FOR BID

PROJECT NO.:	30185066
DATE:	MAY 2025
DESIGNED BY:	S. AYOADE
DRAWN BY:	K. SANTOSH
CHECKED BY:	T. POWELL

SHEET TITLE

INSTRUMENTATION

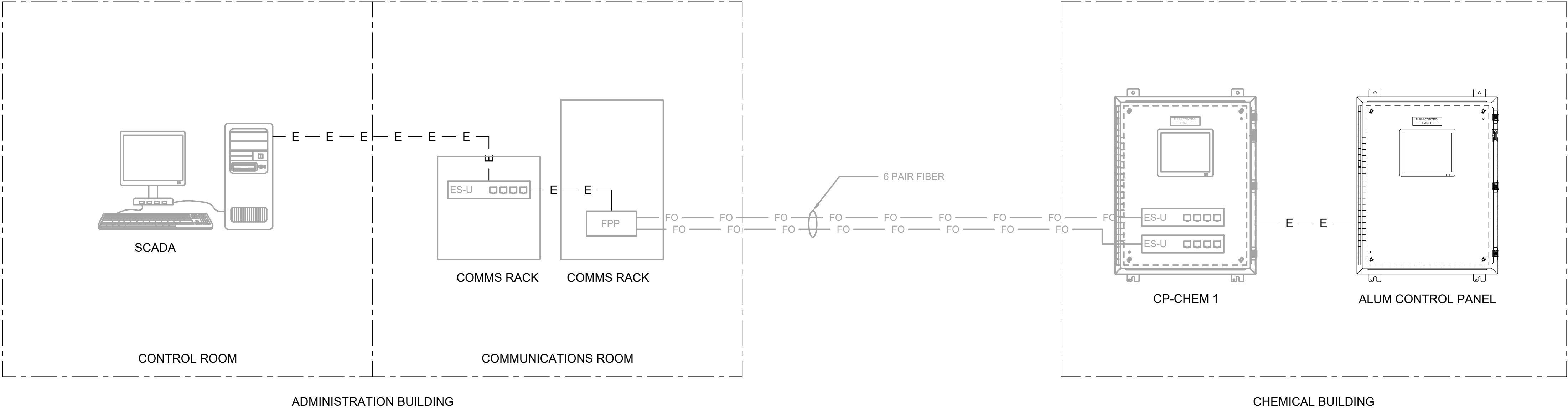
ALUM CONTROL PANEL
(TYPICAL)

SCALE: NOT TO SCALE

DRAWING NO.: I-05

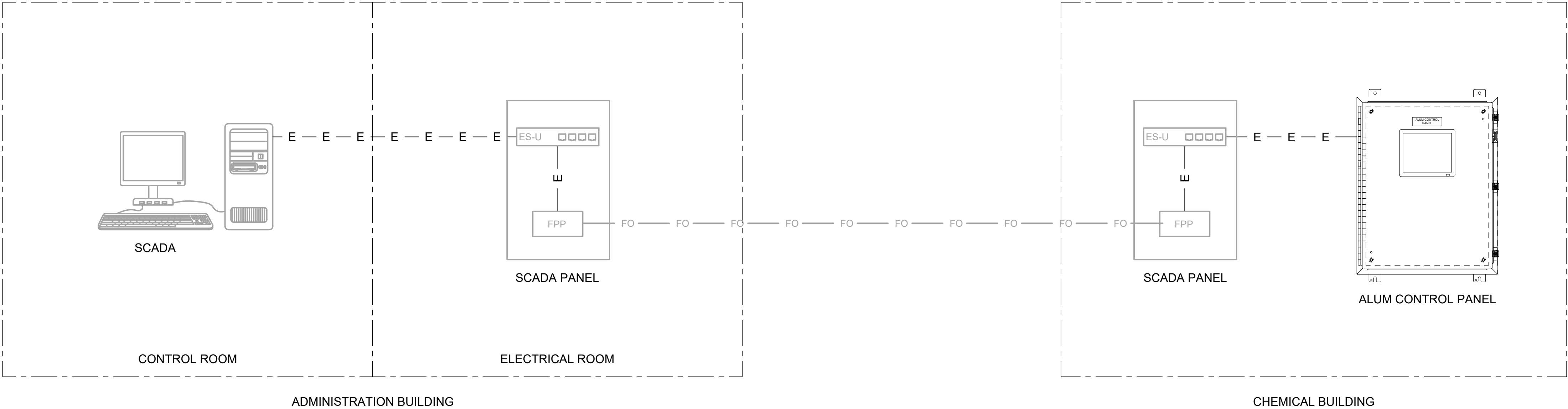
SHEET NO.: 12 OF 14

User:KS8758 Spec:AUS-NCSMOD File:C:\Users\KS8758\Documents\ARCADIS ACC US\AUS-30 85066-FCWS SCADA PM AND ALUM UPGRADE\PROJECT FILES\10_WIP\101_INS_INSTRUMENTATION\1-06.DWG Scale:1:1 SavedDate:5/22/2025 Time:13:10 Plot Date: K. Santosh; 5/22/2025; 13:11 ; Layout:13



CROSSTOWN NETWORK DIAGRAM

SCALE: N.T.S



SOUTH FAYETTE NETWORK DIAGRAM

SCALE: N.T.S



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FCWS

WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

NO.	DATE	ISSUED FOR	BY
	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS:ISSUED FOR BID

PROJECT NO.: 30185066
DATE: MAY 2025
DESIGNED BY: S. AYOADE
DRAWN BY: K. SANTOSH
CHECKED BY: T. POWELL

SHEET TITLE

INSTRUMENTATION

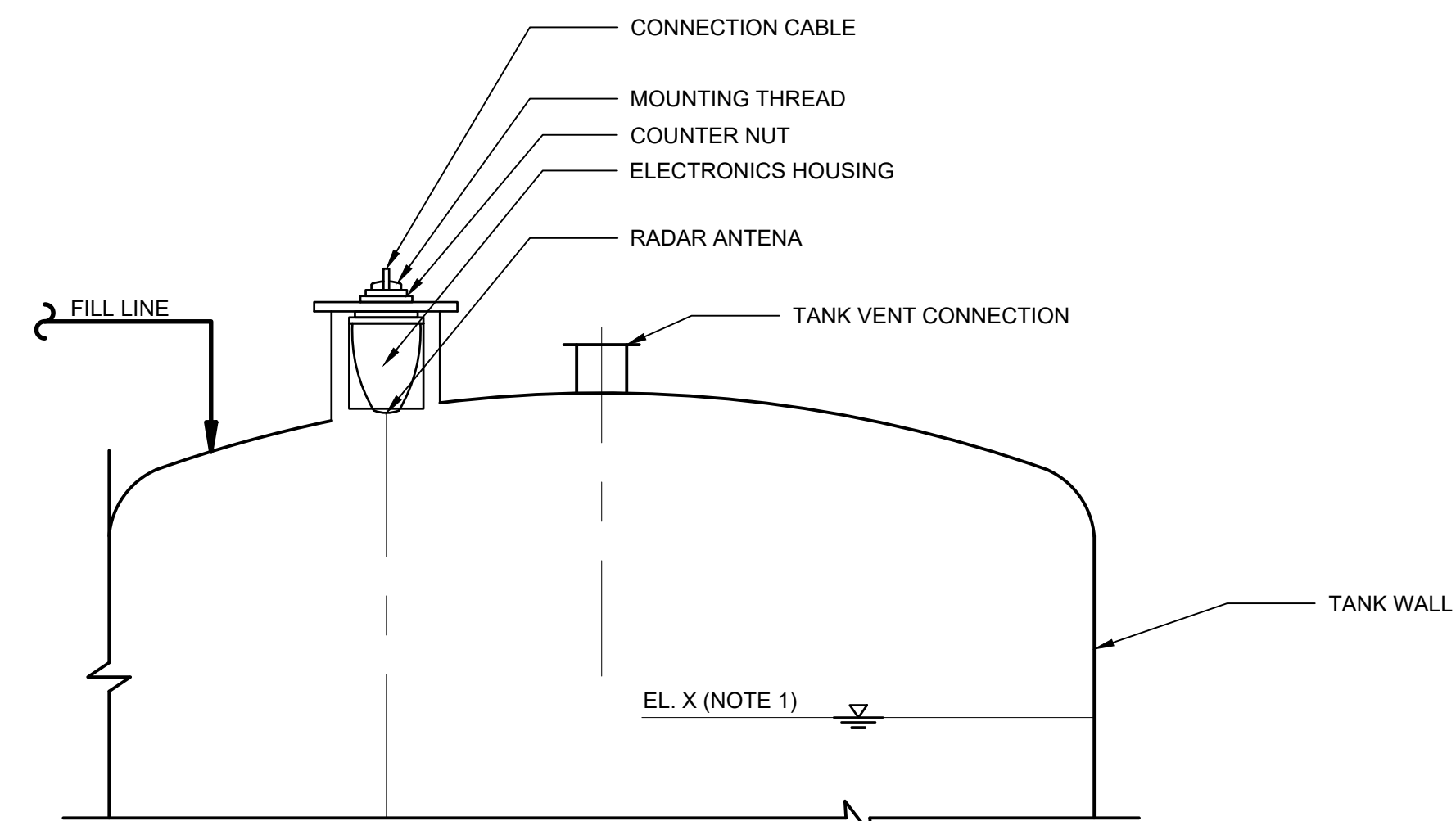
NETWORK
DIAGRAM

SCALE: NOT TO SCALE

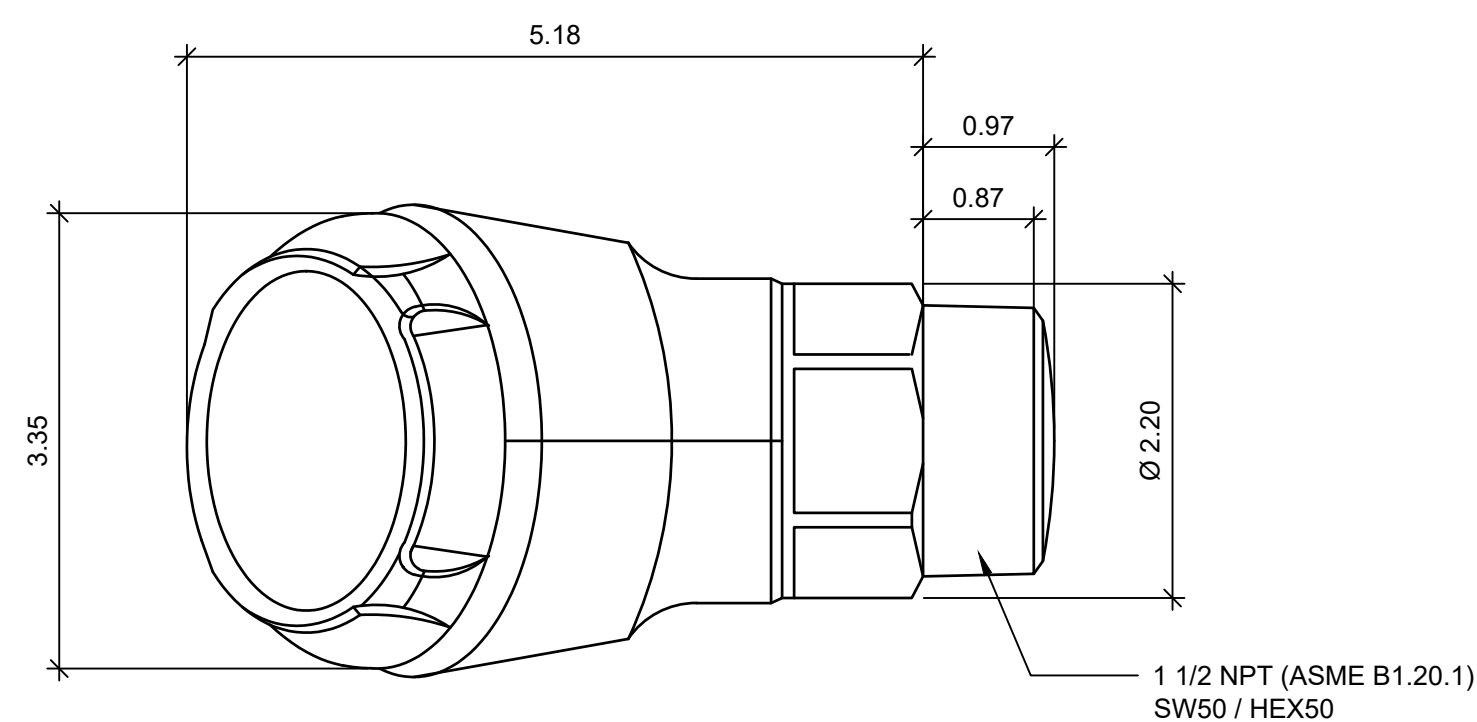
DRAWING NO.: I-06

SHEET NO.: 13 OF 14



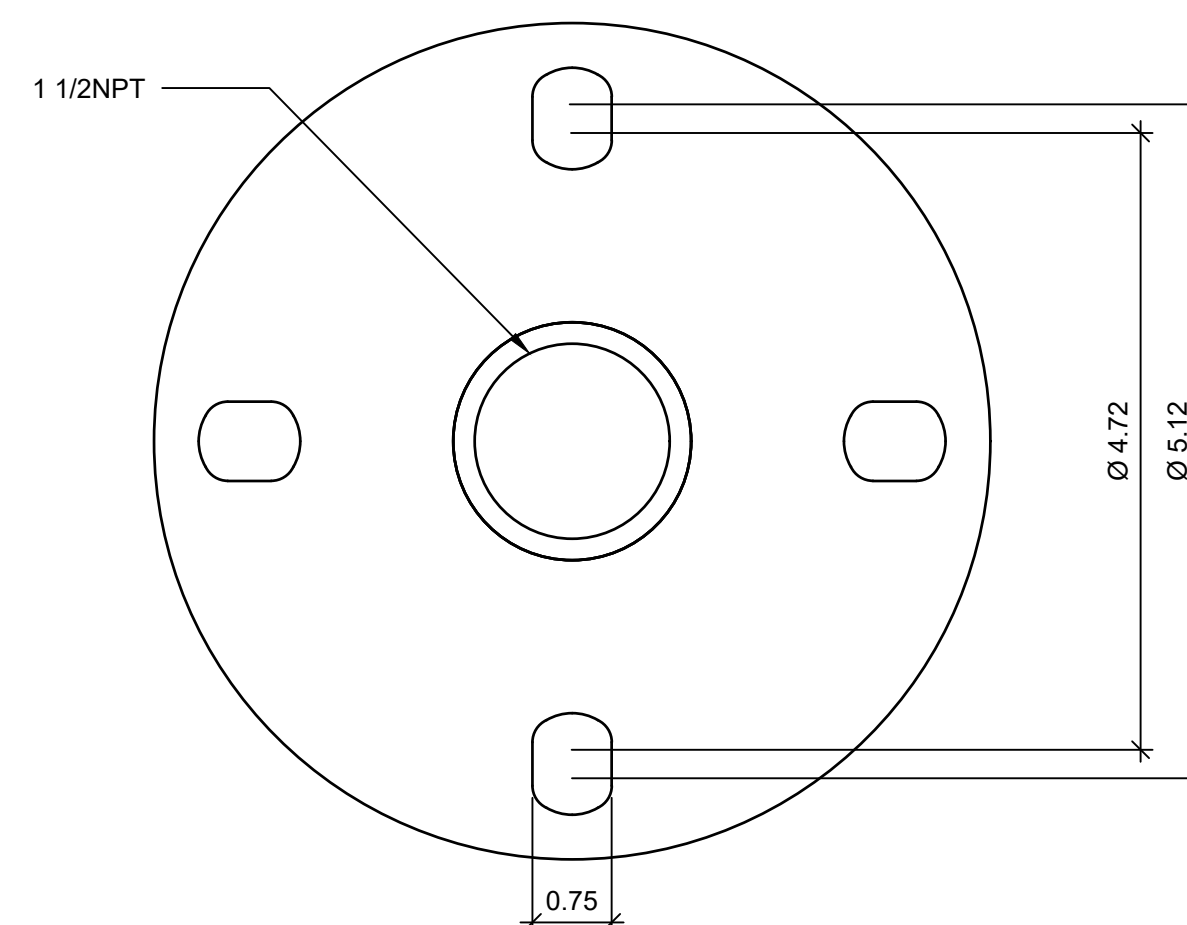


RADAR LEVEL SENSOR TANK MOUNTED INSTALLATION DETAIL



RADAR LEVEL SENSOR

SCALE: N.T.S



FLANGE
SCALE: N.T.S

NOTES:

1. ELEVATION X IS MAXIMUM LIQUID LEVEL.



LEGAL ENTITY:
ARCADIS U.S., INC.
2389 PACES FERRY RD SUITE 1000
ATLANTA, GA 30339
TEL: 770-431-8666
WWW.ARCADIS.COM

CONSULTANTS

SEALS



OWNER



FAYETTE
County
Water

FCWS
WTP ALUM UPGRADES
FAYETTE COUNTY, GEORGIA

REVISIONS

	05/23/25	ISSUED FOR BID	
	12/08/23	90% SUBMITTAL	
	09/26/23	30% SUBMITTAL	
NO.	DATE	ISSUED FOR	BY

COPYRIGHT: ARCADIS U.S., INC.
2023

PROJECT STATUS: ISSUED FOR BID

PROJECT NO.: 30185066

DATE: MAY 2025

DESIGNED BY: S. AYOADE

DRAWN BY: K. SANTOSH

CHECKED BY: T. POWELL

SHEET TITLE

INSTRUMENTATION

INSTRUMENTATION DETAILS

SCALE: NOT TO SCALE

DRAWING NO.: I-07

SHEET NO.: 14 OF 14



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