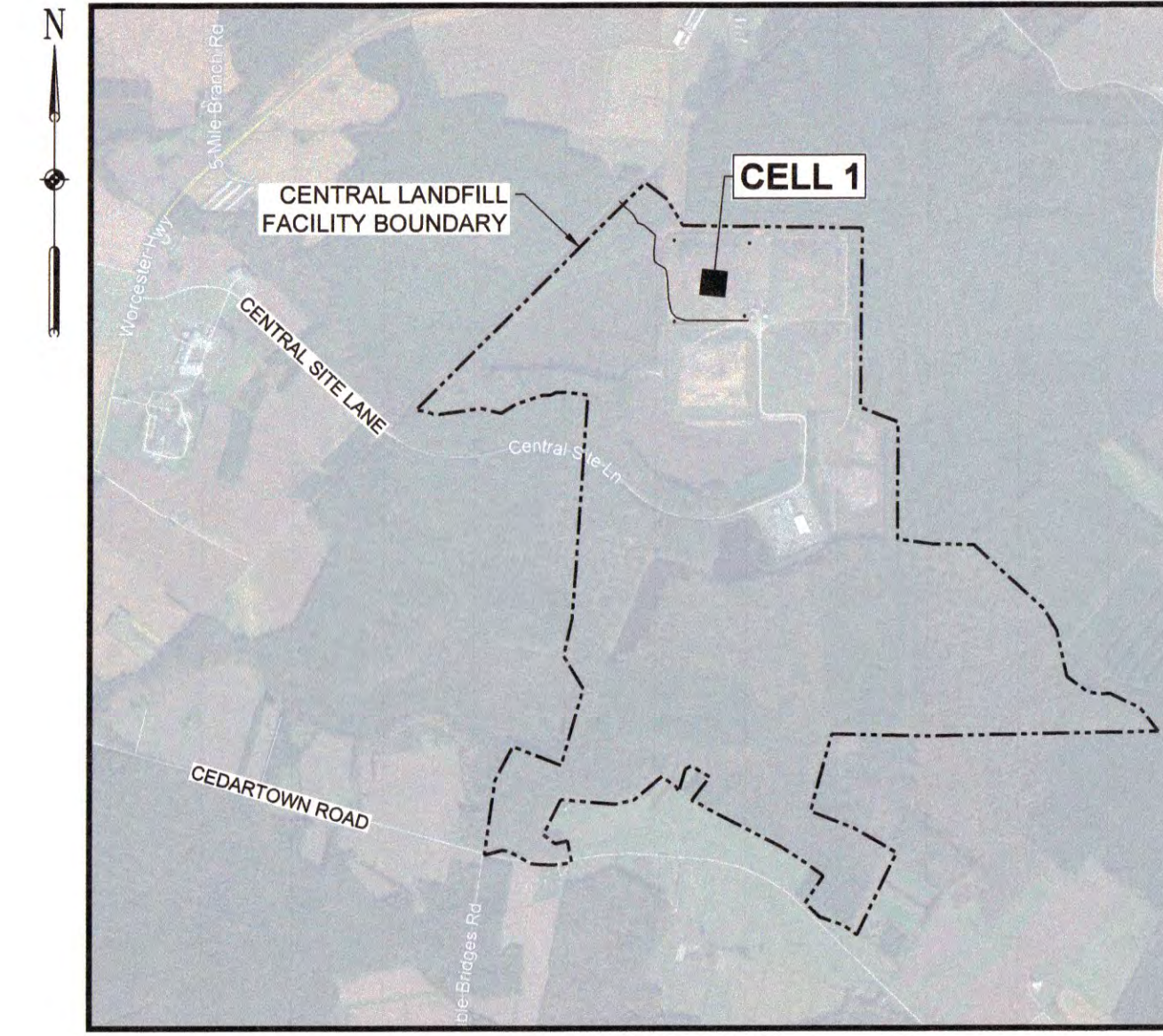
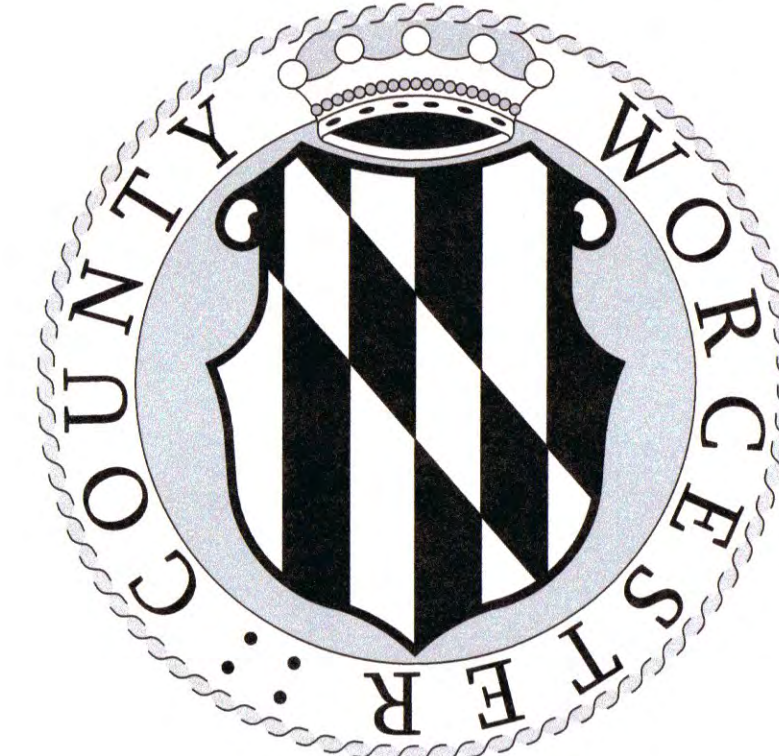


WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS CENTRAL LANDFILL CELL 1 PUMP STATIONS AND LEACHATE FORCEMAIN UPGRADES WORCESTER COUNTY, MARYLAND



LOCATION MAP
SCALE: 1" = 5 mi
0 2.5 mi 5 mi 10 mi
GRAPHIC SCALE IN FEET



VICINITY MAP
SCALE 1" = 2,000'
0 1,000' 2,000' 4,000'
GRAPHIC SCALE IN FEET

SHEET LIST		
DRAWING NO.	SHEET NO.	DRAWING TITLE
G-001	1	TITLE SHEET
C-101	2	CENTRAL LANDFILL FACILITY PROJECT LOCATION PLAN
C-102	3	EXISTING CONDITIONS PLAN
C-201	4	PROPOSED CELL 1 PUMP STATIONS SITE PLAN
C-202	5	PROPOSED LEACHATE FORCEMAIN SITE PLANS
C-203	6	PROPOSED LEACHATE FORCEMAIN PROFILES
C-204	7	PROPOSED LEACHATE PUMP BUILDING PLAN INSETS
C-301	8	TYPICAL PUMP STATION DEMOLITION SECTIONS AND DETAILS
C-302	9	TYPICAL PROPOSED PUMP STATION PLAN AND DETAILS
C-303	10	TYPICAL PROPOSED PUMP STATION SECTIONS AND DETAILS
C-501	11	DETAIL SHEET
C-502	12	DETAIL SHEET
C-701	13	SEDIMENT AND EROSION CONTROL NOTES AND DETAILS
E-1	14	NOTES, ABBREVIATIONS, AND LEGEND
E-2	15	SITE PLAN, SECTIONS, AND DETAILS
E-3	16	ELEVATIONS AND MODIFIED SCADA CONTROL PANEL
E-4	17	EXISTING SCADA CONTROL PANEL ELEMENTARY I
E-5	18	EXISTING SCADA CONTROL PANEL ELEMENTARY II
E-6	19	MODIFIED SCADA CONTROL PANEL ELEMENTARY I - LEACHATE PUMP INSET PLAN AND ELEMENTARY
E-7	20	MODIFIED SCADA CONTROL PANEL ELEMENTARY II
E-8	21	MODIFIED SCADA CONTROL PANEL ELEMENTARY III

S.W.M. Plan Approval
Worcester County Environmental Programs
Snow Hill MD 21863
Approved by: *[Signature]*
Date: 3/20/24
THIS APPROVAL EXPIRES IN TWO (2) YEARS.

**WAIVER
RECOMMENDED**

Sediment Control Plan Approval
Worcester Soil Conservation District
Snow Hill, MD 21863
Approved by: *[Signature]*
Date: 3/20/24

SITE DATA

- OWNER:** COUNTY COMMISSIONERS OF WORCESTER COUNTY, MARYLAND
1 WEST MARKET STREET
SNOW HILL, MARYLAND 21863
CONTACT: MR. DALLAS BAKER, P.E.
EMAIL: DBAKER@CO.WORCESTER.MD.US
PHONE: 410-641-5623
- SURVEYOR:** BENCHMARK LAND SURVEYING, INC.
24 BROAD STREET
BERLIN, MARYLAND 21811
CONTACT: CAL HALLOWAY, PLS
EMAIL: CAL@BENCHMARKMD.COM
PHONE: 410-641-3313
- ENGINEER:** EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. PBC
11200 RACETRACK ROAD, UNIT 101A
OCEAN PINES, MARYLAND 21811
CONTACT: DARL O. KOLAR, P.E.
EMAIL: DKOLAR@EAEST.COM
PHONE: 410-641-5341
- SITE ADDRESS:** 7091 CENTRAL SITE LANE
NEWARK, MARYLAND 21841
- PROPERTY:** TAX MAP 48, PARCEL 58
PROPERTY AREA = 719.58 ACRES
DEED REFERENCE: 1397 / 438
- ZONING:** A-1: AGRICULTURAL DISTRICT
- EXISTING USE:** WORCESTER COUNTY CENTRAL SOLID WASTE LANDFILL FACILITY
- FLOODPLAIN:** SITE: ZONE X UNSHADED-AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
FIVE MILE BRANCH: ZONE A - FLOODPLAIN AREAS WITH NO BASE FLOOD ELEVATIONS DETERMINED.
BASED ON FIRM MAP 24047C0255H LAST REVISED JULY 16, 2015.
- PRIMARY SOILS:** C6b CEDARTOWN-ROSEDALE COMPLEX
K6a KENTUCK SILT LOAM
M6a MATTAPEX FINE SANDY LOAM (0%-2%)
M6b MATTAPEX FINE SANDY LOAM (2%-5%)
M6d MATTAPEX SILT LOAM
O1a OHELLO SILT LOAM
U2b UDORTHENS LOAMY
Za ZEKIAH SANDY LOAM
- THIS PROPERTY IS NOT LOCATED IN THE ATLANTIC COASTAL BAYS CRITICAL AREA.

BENCHMARK DATA

BENCHMARK #	ELEVATION	NORTHING	EASTING	DESCRIPTION
BM1	34.86	18420.1686	9869.9174	CONCRETE MNT
BM2	33.83	18349.167	10007.823	600 GALV. NAIL
BM3	34.64	18133.0211	11020.8919	CONCRETE MNT.
BM4	39.99	17319.6318	9866.4779	1/2" REBAR

LEGEND

DESCRIPTION	EXISTING	PROPOSED
COMM CATV PEDESTAL	□ C	N/A
COMM TELEPHONE PEDESTAL	□ T	N/A
ELECTRIC OVHD LINE	— OHE — OHE —	N/A
PROPERTY MARKER	○	N/A
PROPERTY BOUNDARY	— — — — —	N/A
PROPERTY BOUNDARY ADJOINER	— · — · — · —	N/A
SANITARY SEWER CLEANOUT	○ SSO	N/A
SEWER LINE	— SS — SS —	N/A
FORCEMAIN	— FM — FM —	— FM — FM —
SITE SIGN	+	N/A
SITE BOLLARD	●	N/A
SITE SPOT ELEVATION	+ 7.6	N/A
SITE CONTOUR	— 6 —	N/A
SITE CONCRETE	□	N/A
SITE FENCE	— X — X — X —	N/A
STORM DRAIN CATCH BASIN	■	N/A
STORM DRAIN LINE	— W — W —	N/A
WATER LINE	— W — W —	N/A
WATER VALVE	□ W	□ W
FIRE HYDRANT	○	○
PLAN NORTH ARROW	↑	↑
PLAN KEYNOTE CALLOUT	①	①
ESC LIMIT OF DISTURBANCE	— LOD — LOD —	— LOD — LOD —
BUILDING HATCH AND OUTLINE	□	N/A
INLINE FLUSHING CONNECTION	N/A	○ FC
FORCEMAIN BRASS BALL VALVE	N/A	FM B
TERMINAL FLUSHING CONNECTION	N/A	TF C
PUMP STATION, VALVE VAULT, AND PANEL	N/A	□ ○ □

ABBREVIATIONS

AC	ACRES	GALV.	GALVANIZED
APPRX	APPROXIMATELY	INV	INVERT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MDOT	MEAN HIGH WATER
BLDG	BUILDING	MNT	MONUMENT
CMP	CORRUGATED METAL PIPE	NA	NOT APPLICABLE
CONC	CONCRETE	PR	PROPOSED
DA	DRAINAGE AREA	PSI	POUNDS PER SQUARE INCH
D.I.	DUCTILE IRON	RCP	REINFORCED CONCRETE PIPE
DIA	DIAMETER	SCH	SCHEDULE
EL/ELEV	ELEVATION	SD	STORM DRAIN
EX/EXIST	EXISTING	S.S.	STAINLESS STEEL
FM	FORCEMAIN	SWM	STORMWATER MANAGEMENT
FT	FEET	TYP	TYPICAL
		W	WITH

OWNER/DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. ADDITIONALLY, THE OWNER OR DEVELOPER SHALL CERTIFY RIGHT OF ENTRY TO PERIODIC ON-SITE EVALUATION BY THE APPROPRIATE ENFORCEMENT AUTHORITY AND/OR MDE.

SIGNATURE: *[Signature]* DATE: 3/19/24
PRINTED NAME: DALLAS BAKER, P.E. TITLE: DIRECTOR OF PUBLIC WORKS
PHONE: 410-641-5623
COMPLETE ADDRESS: 6113 TIMMONS ROAD, SNOW HILL MARYLAND 21863

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT AS A PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT, ARCHITECT, OR FORESTER (FOR FOREST HARVEST OPERATIONS ONLY) REGISTERED IN THE STATE THAT THE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS. THE ONLY EXCEPTION TO THIS REQUIREMENT MAY BE IF A STORMWATER WAIVER IS APPROVED, AND IT WILL BE AT THE DISCRETION OF THE APPROVAL AUTHORITY.

SIGNATURE: *[Signature]* DATE: 3/19/2024
PRINTED NAME: STEVEN LEMASTERS, P.E. TITLE: PROJECT ENGINEER

THIS FACILITY IS TO BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AS APPROVED BY WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS.
[Signature] 3/19/24
WORCESTER COUNTY, MARYLAND
DIRECTOR OF PUBLIC WORKS

GENERAL NOTES:

- EXISTING SURVEY DATA GATHERED IN THE LOCATION FOREBAY NO. 1 AND THE RAILROAD TRACKS WAS PROVIDED BY BENCHMARK LAND SURVEYING INC. IN APRIL 2021. THE REMAINDER OF THE EXISTING SITE SURVEY DATA WAS GATHERED FROM AERIAL SURVEY PROVIDED FROM AXIS GEOSPATIAL LLC. ON MARCH 21, 2021.
- THE CENTRAL LANDFILL FACILITY HAS AN ESTABLISHED LOCAL HORIZONTAL AND VERTICAL DATUM. BENCHMARKS FOUND ON THESE PLANS SHALL BE ADHERED TO.
- FOREST CONSERVATION WILL NOT BE REQUIRED FOR THIS PROJECT.
- UTILITY INFORMATION IS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR SHALL LOCATE AND TAKE THE NECESSARY PRECAUTIONS TO LOCATED AND PROTECT THE EXISTING UTILITIES. CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT LEAST THREE DAYS BEFORE INITIATING ANY SITE IMPROVEMENT WORK. (1-800-257-7777).
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, AND PROCEDURES, UTILIZED FOR THE CONSTRUCTION UNDER THE SCOPE OF WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFETY OF THE PUBLIC AND CONTRACTOR'S EMPLOYEES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND STANDARD CONSTRUCTION PRACTICES.
- FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THIS PROJECT SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH WORK.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY WORCESTER COUNTY STANDARDS.
- ALL DIMENSIONS, LOCATIONS, AND ELEVATIONS OF EXISTING STRUCTURES SHOWN ON THE CONTRACT DRAWINGS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH WORK.
- ALL ASPECTS OF CONSTRUCTION AND EQUIPMENT INSTALLATION SHALL BE PERFORMED / INSTALLED PLUM AND TRUE AND SHALL CONFORM TO THE PRACTICES OF GOOD WORKMANSHIP.
- THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS CONCERNING SAFETY AND PRESERVATION OF EXISTING UTILITIES ADJACENT TO ANY WORK AND IS RESPONSIBLE FOR THE PROTECTION OF EXISTING STRUCTURES (BELOW GRADE AND ABOVE GRADE) DURING THE COURSE OF DEMOLITION AND CONSTRUCTION. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AND THE COSTS OF SUCH REPAIR SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL TAKE EVERY MEASURE TO PREVENT ANY AND ALL DAMAGE TO NEIGHBORING PROPERTIES. CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL SUCH DAMAGE AND WILL REPAIR AND / OR REPLACE ANY OBJECT, PLANT OR PIECE OF PROPERTY TO ORIGINAL STATE ON ADJACENT PROPERTIES THAT IS DAMAGED IN ANY WAY DUE TO THIS CONSTRUCTION.
- ALL WORK SHALL BE COORDINATED WITH WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE CONSTRUCTION SITE SECURE AT ALL TIMES.
- JOB SITE SAFETY SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK IN ACCORDANCE WITH STATE AND FEDERAL CONFINED SPACE SAFETY REGULATIONS AS REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF SURFACES IN ALL DISTURBED AREAS.
- ANY AND ALL IMPROVEMENTS, SUCH AS ASPHALT OR CONCRETE PAVEMENT, SOD, ETC., IF DAMAGED, SHALL BE RESTORED TO ITS ORIGINAL CONDITION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.
- CONTRACTOR SHALL ESTABLISH PROJECT SURVEY CONTROL WITH THE EXISTING BENCHMARKS, PERFORM CONSTRUCTION STAKEOUT FOR ALL NECESSARY LINE, GRADES, AND ELEVATIONS OF THE PROPOSED FACILITIES.
- CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" DRAWING RECORD OF THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL RECORD ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS AS THEY OCCUR, TO CLEARLY DEPICT HOW WORK WAS ACTUALLY CONSTRUCTED. PARTICULAR ATTENTION SHALL BE GIVEN TO ACCURATE RECORDINGS OF CONCEALED WORK. THE "AS-BUILT" RECORD SHALL INCLUDE DESCRIPTIONS, DRAWINGS, SKETCHES, MARKED PRINTS, AND SIMILAR DATA SHALL BE MAINTAINED AT THE JOB SITE AND SHALL BE KEPT CURRENT ON A DAILY BASIS AS WORK PROGRESSES. ALL "AS-BUILT" DRAWINGS AND RELATED DATA SHALL BE SUBJECT TO REGULAR SURVEILLANCE BY THE OWNER'S ON-SITE REPRESENTATIVE.
- THE CONTRACTOR IS RESPONSIBLE FOR TEST PITTING FOR ALL UTILITIES WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH DEPARTMENT OF SOLID WASTE FOR MATERIAL STAGING AND STOCKPILING.

REVISIONS		DESCRIPTION
NO.	DATE	BY
1	3/29/24	SCL
ELECTRICAL DRAWINGS CONSOLIDATION		

DESIGN INFORMATION		DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MANAGER:
NWH	NWH	NWH	GAT	DOK	

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55422, EXPIRATION DATE: DECEMBER 16, 2025.

WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
 CENTRAL LANDFILL CELL 1 PUMP STATIONS
 AND LEACHATE FORCEMAIN UPGRADES
 WORCESTER COUNTY, MARYLAND
 TITLE SHEET

EA Engineering, Science, and Technology, Inc., PBC
 11200 Racetrack Road, Unit A101
 Ocean Pines, Maryland 21811
 (410) 641-5341
 www.eaest.com

SCALE AS SHOWN

FULL SIZE PLOT: 24" x 36"

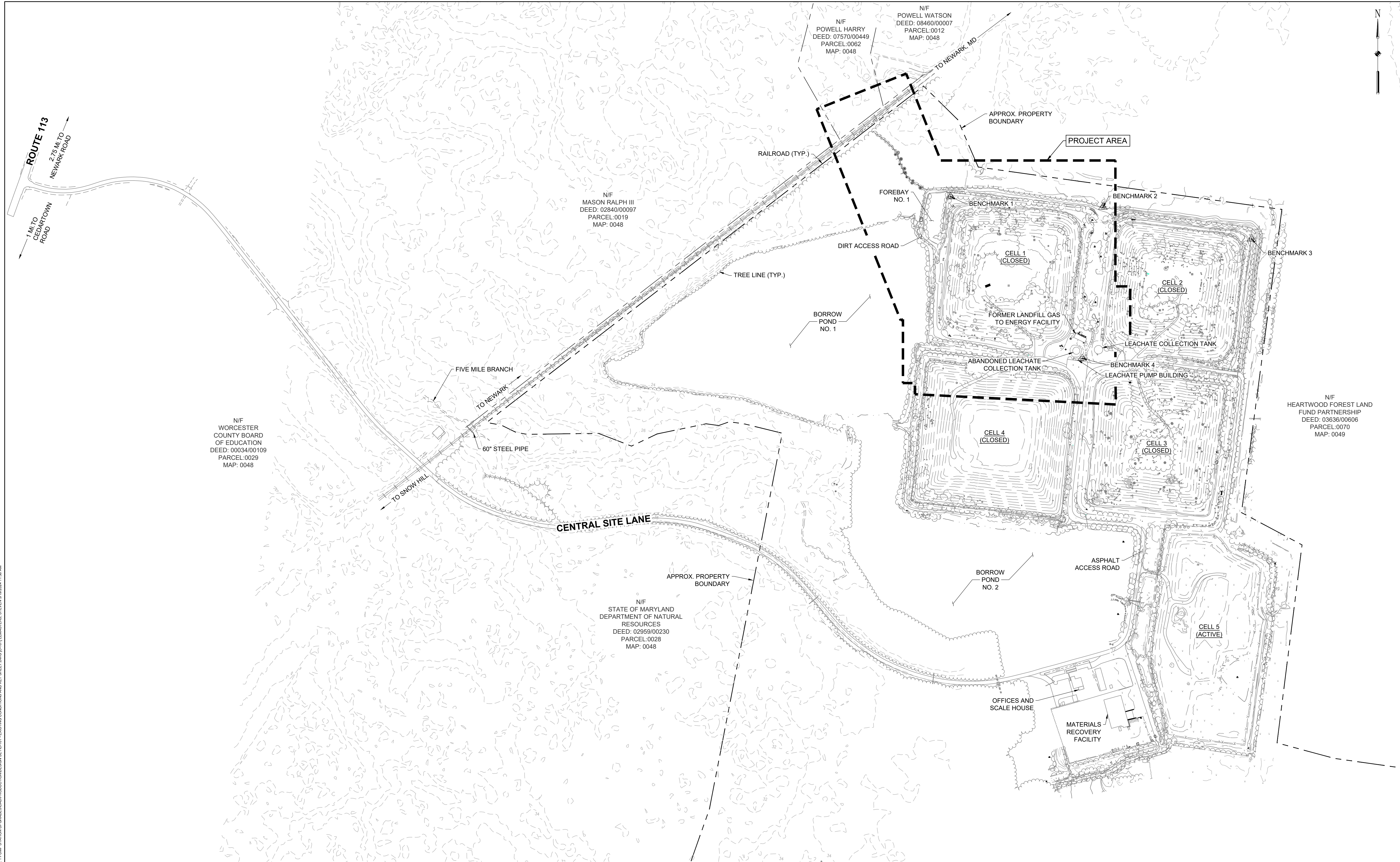
DATE: MARCH 2024

PROJECT NUMBER: 61060951

G-001
SHEET: 1 OF 24-19

100% PLANS - FOR CONSTRUCTION

FILE PATH: \\C:\Users\jg\OneDrive\Documents\Projects\Worcester County\100% - CELL 1 PUMP STATION UPGRADES\CONSTRUCTION\DESIGN SETS\01 - EXISTING CONDITIONS AND REF SHEET AND (S) DIMETERS: 03/19/24 11:32 AM

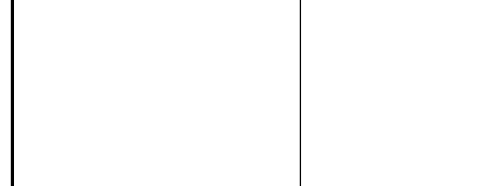


PROJECT LOCATION PLAN
SCALE: 1" = 300'

REVISIONS		DESCRIPTION
NO.	DATE	BY
1	3/29/24	SCL

DESIGN INFORMATION		DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MANAGER:	DOK
NFW	NFW	NFW	GAT			

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 55422. EXPIRATION DATE: DECEMBER 16, 2025.



WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATIONS
AND LEACHATE FORCEMAIN UPGRADES

WORCESTER COUNTY, MARYLAND

CENTRAL LANDFILL FACILITY PROJECT LOCATION PLAN

EA Engineering, Science, and Technology, Inc., PBC
 11200 Racetrack Road, Unit A101
 Ocean Pines, Maryland 21811
 (410) 641-5341
 www.eaest.com

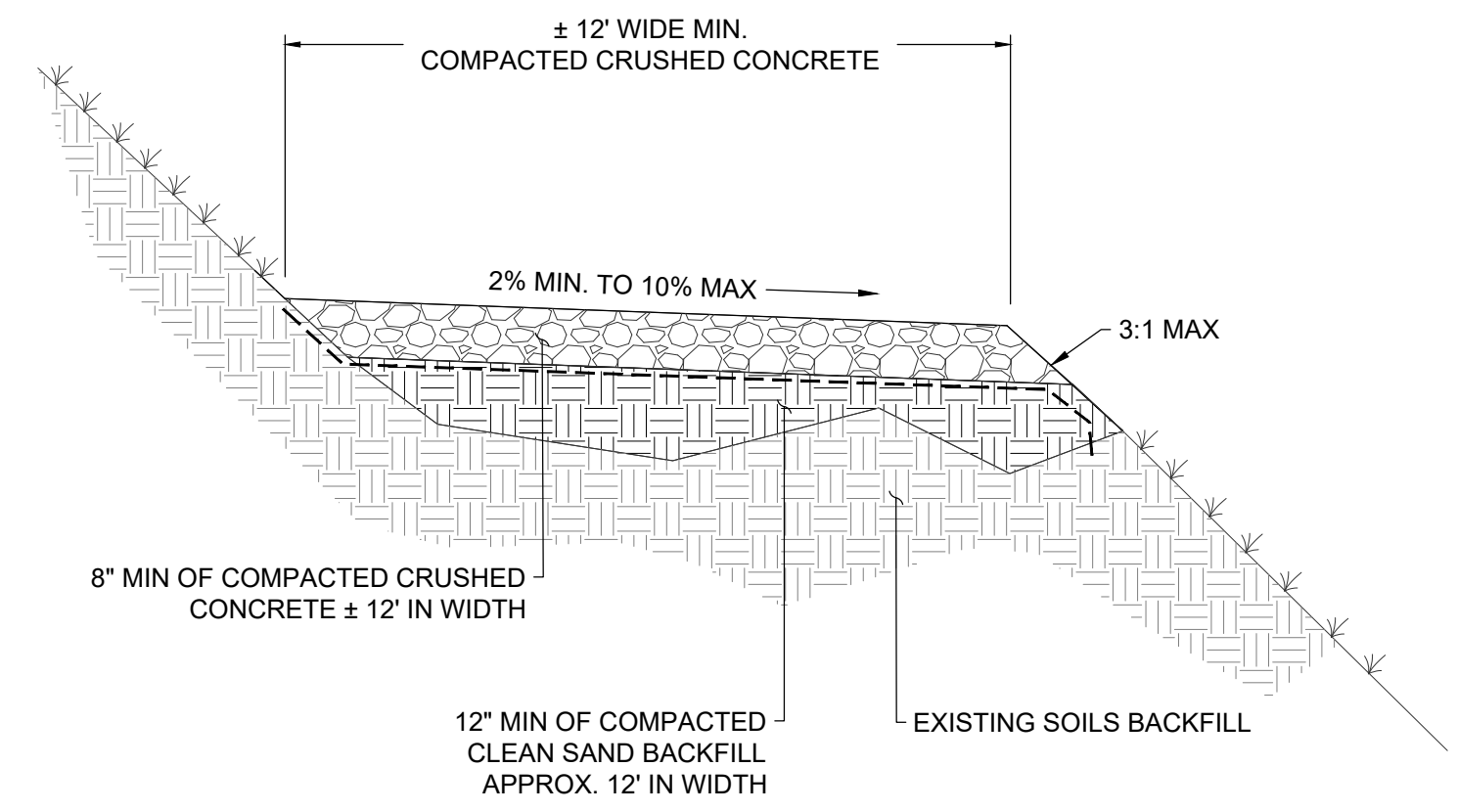
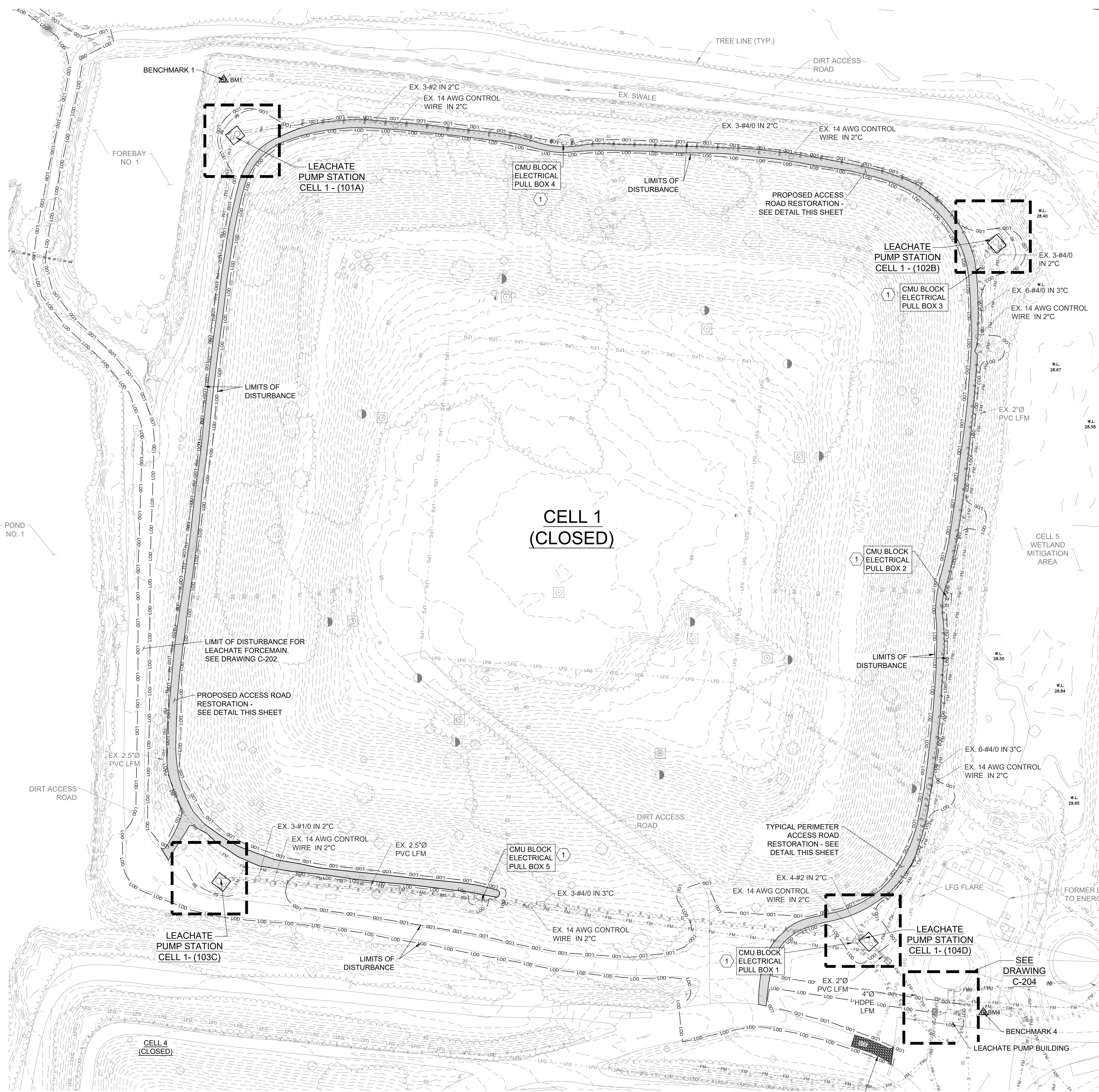
0 150' 300' 600'
 GRAPHIC SCALE IN FEET

FULL SIZE PLOT: 24" x 36"
 DATE: MARCH 2024
 PROJECT NUMBER: 61060951

C-101
 SHEET: 2 OF 24 19

100% PLANS - FOR CONSTRUCTION

FILE PATH: \\C:\ENGINEERING\PROJECTS\WORCESTER COUNTY\160894 - CELL 1 PUMP STATION UPGRADES\DRAWINGS\SET-C-201 - PROPOSED PLAN AND PROFILE.DWG (C-201) LEASTER.B. 3/19/2024 11:27 AM



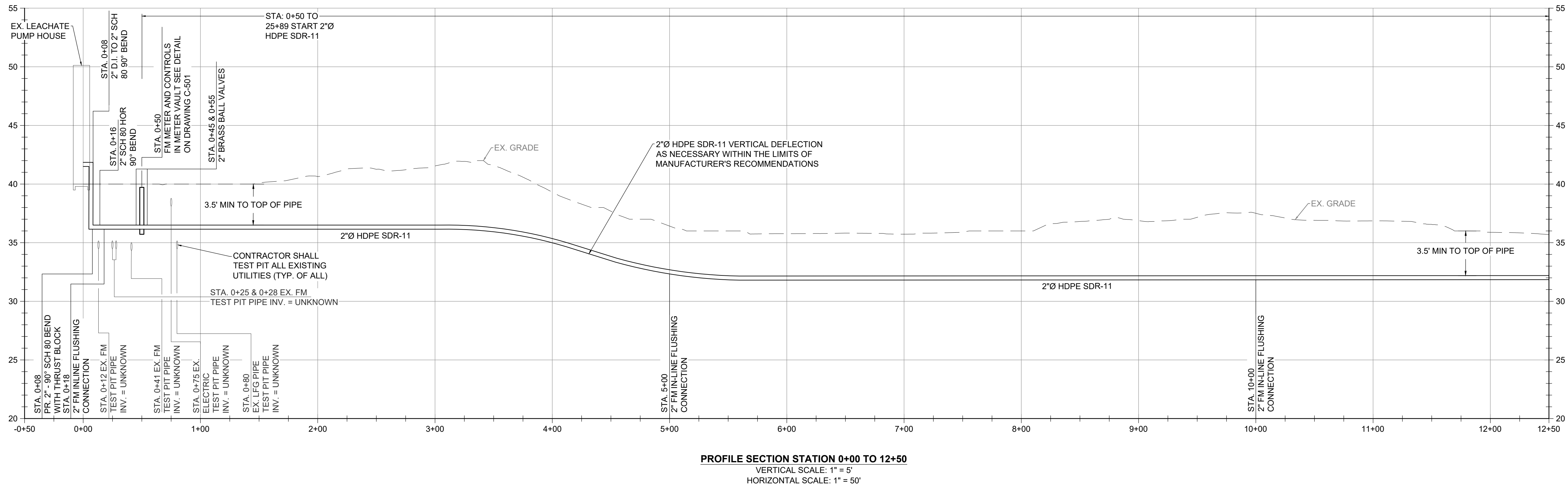
- TYPICAL PERIMETER ACCESS ROAD RESTORATION DETAIL**
SCALE: 1" = 60'
- NOTES:
- MIN. OF 12" COMPACTED SAND SHALL BE GRADED TO WIDTH OF 12' MIN ALONG THE EXISTING PERIMETER ACCESS ROAD. CONTRACTOR SHALL FILL VOIDS, LEVEL OUT, AND BUILD ROAD BASE SUITABLE FOR CRUSHED CONCRETE TO BE PLACED.
 - WOVEN GEOTEXTILE SHALL BE PLACED ATOP THE SAND LEVELING COURSE AND BELOW THE CRUSHED CONCRETE LAYER. GEOTEXTILE SHALL BE KEYPED IN ON BOTH ENDS.
 - CROSS SLOPE SHALL BE NO LESS THAN 2% AND NO MORE THAN 10%.
 - CRUSHED CONCRETE SHALL BE CLEAN AND FREE OF METAL DEBRIS.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE.
 - PERIMETER ACCESS ROAD SHALL BE BRUSH HOGGED AND / OR MOWED PRIOR TO ANY EARTH WORK.

1 THE CONTRACTOR SHALL PERFORM REPAIRS TO THE EXISTING CMU ELECTRICAL PULL BOXES, INCLUSIVE OF BLOCK REPAIRS, BLOCK REPLACEMENT, NEW JOINTS, POINTING, LEVELING AND INSTALLATION OF FABRICATED LID WITH HATCH. THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND ENGINEER FOR APPROVAL, A PROPOSED PLAN FOR REPAIR AT EACH LOCATION.

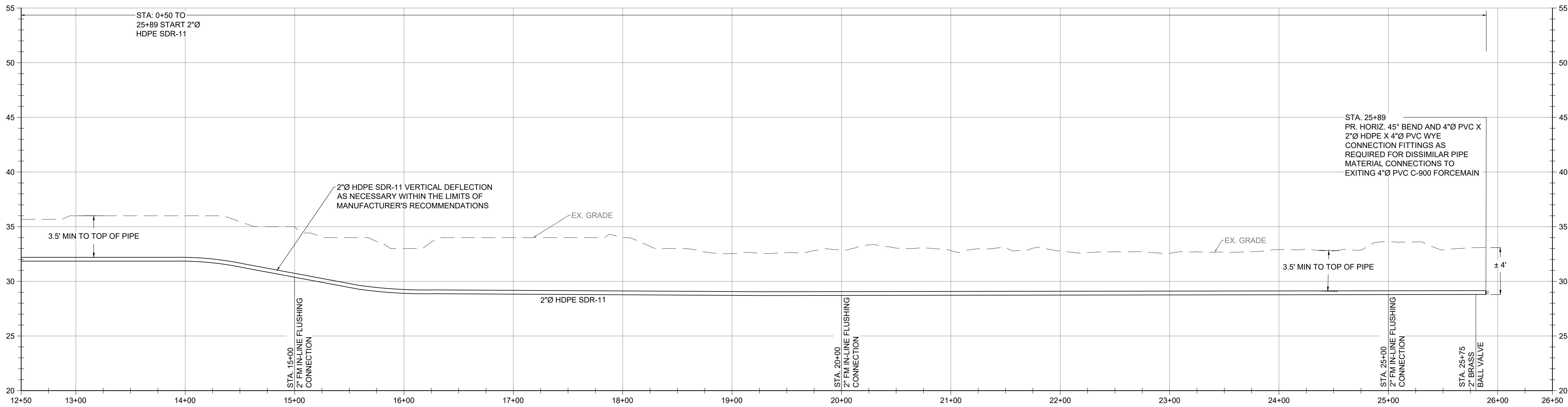
REVISIONS		DESCRIPTION
NO.	DATE	BY
1	3/29/24	SCL
ELECTRICAL DRAWINGS CONSOLIDATION		
DESIGN INFORMATION		
DESIGNED BY:	NWH	
DRAWN BY:	NWH	
CHECKED BY:	GAT	
PROJECT MANAGER:		DOK
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55422, EXPIRATION DATE: DECEMBER 16, 2025		
<p>WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS CENTRAL LANDFILL CELL 1 PUMP STATIONS AND LEACHATE FORCEMAIN UPGRADES</p> <p>PROPOSED CELL 1 PUMP STATIONS SITE PLAN</p> <p>WORCESTER COUNTY, MARYLAND</p>		
<p>EA Engineering, Science, and Technology, Inc., PBC 11200 Racetrack Road, Unit A101 Ocean Pines, Maryland 21811 (410) 641-5341 www.eaest.com</p>		
<p>0 30' 60' 120'</p> <p>GRAPHIC SCALE IN FEET</p>		
<p>FULL SIZE PLOT: 24" x 36"</p> <p>DATE: MARCH 2024</p> <p>PROJECT NUMBER: 61060951</p>		
<p>C-201</p> <p>SHEET: 4 OF 24 19</p>		

100% PLANS - FOR CONSTRUCTION

FILE PATH: \\CGA\IN\PROJECTS\WORCESTER COUNTY\160691 - CELL 1 PUMP STATION UPGRADE\CD\PRODUCTION\DESIGN\BET\CD - PROPOSED PLAN AND PROFILE LEACHATE BAYS (C-203) LAYOUT.dwg; DATE: 03/19/24; 11:39 AM



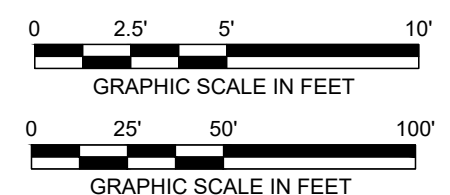
PROFILE SECTION STATION 0+00 TO 12+50
 VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 50'



PROFILE SECTION STATION 12+50 TO 25+89
 VERTICAL SCALE: 1" = 5'
 HORIZONTAL SCALE: 1" = 50'

GENERAL NOTES

1. INSTALL PIPE VIA OPEN CUT TRENCH. SEE DETAIL ON DRAWING C-501 FOR PIPE INSTALLATION, BEDDING, AND RESTORATION. 3.5' MINIMUM COVER TO TOP OF PIPE.
2. SHOULD IT BECOME NECESSARY TO DEWATER AN OPEN TRENCH OR OTHER EXCAVATED PIT, AN APPROVED SEDIMENT FILTERING BAG OR SUMP PIT SHALL BE UTILIZED PER DETAILS ON DRAWING C-701.
3. CONTRACTOR SHALL DEFLECT 2" HDPE PIPE ALONG FORCEMAIN ALIGNMENT PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL PROVIDE FITTINGS AS NECESSARY.

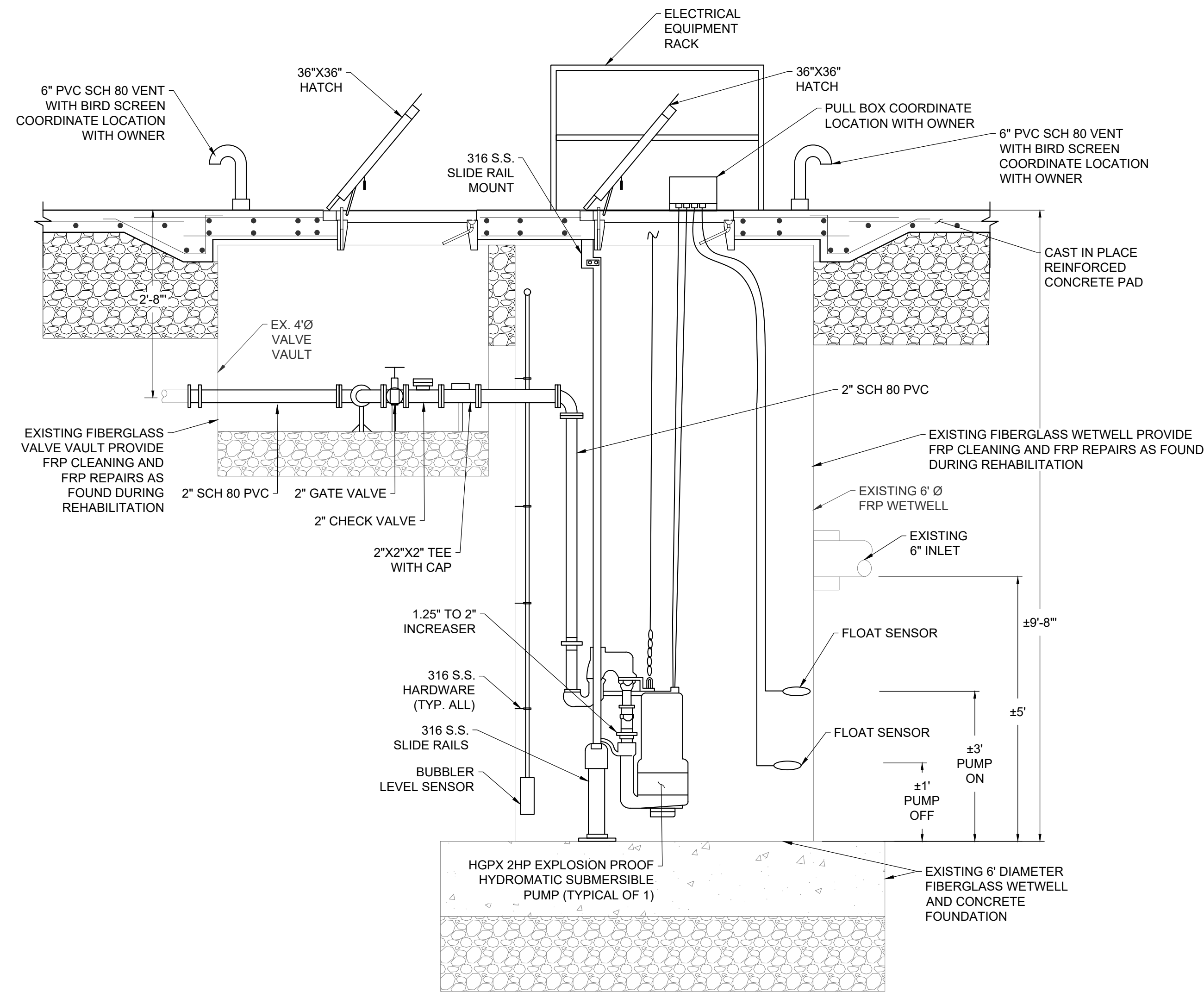


REVISIONS		DESCRIPTION
NO.	DATE	BY
1	3/29/24	SCL
ELECTRICAL DRAWINGS CONSOLIDATION		
DESIGN INFORMATION		PROJECT MANAGER:
DESIGNED BY:	NM/H	DOK
DRAWN BY:	NM/H	
CHECKED BY:	GAT	
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55422, EXPIRATION DATE: DECEMBER 16, 2025		

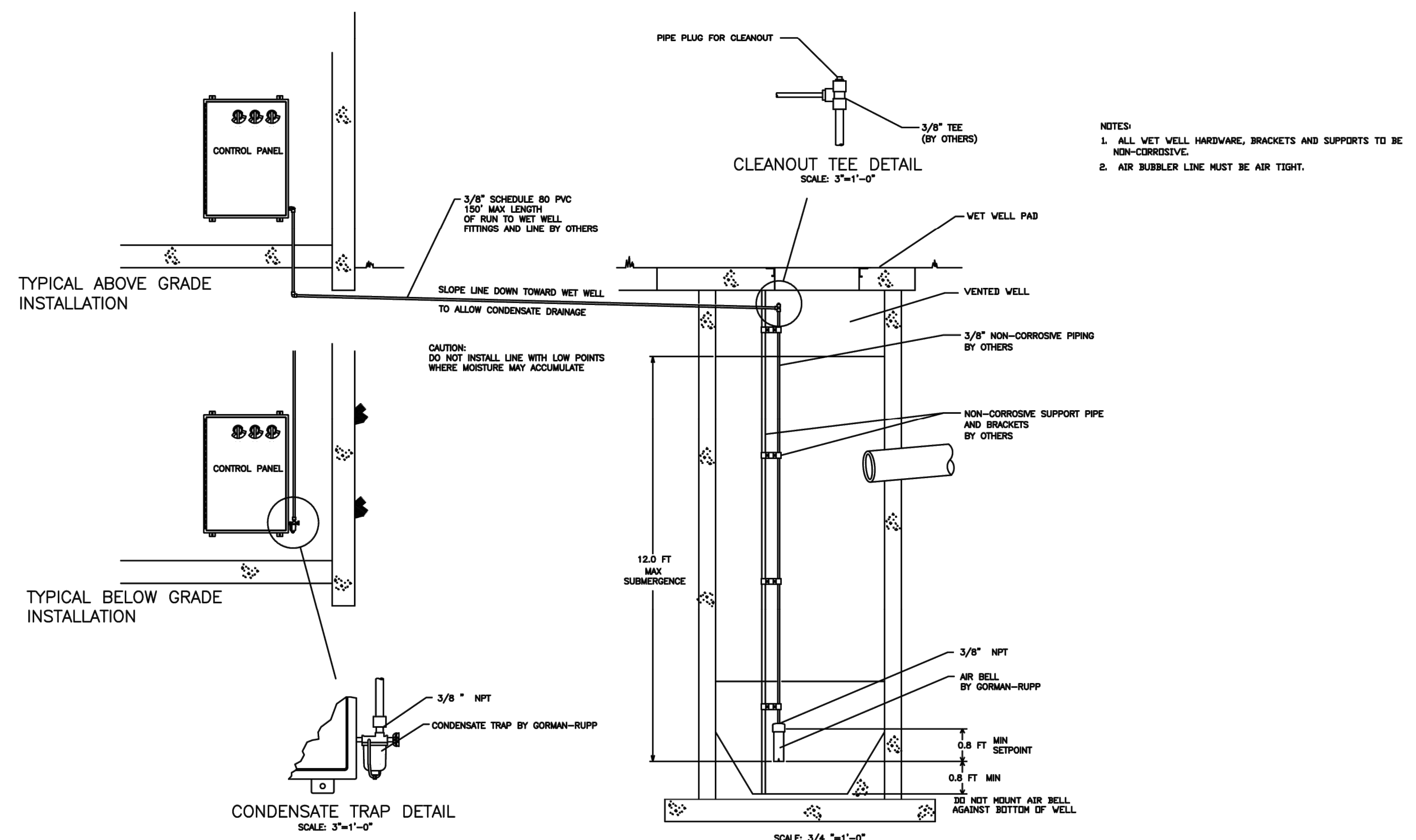
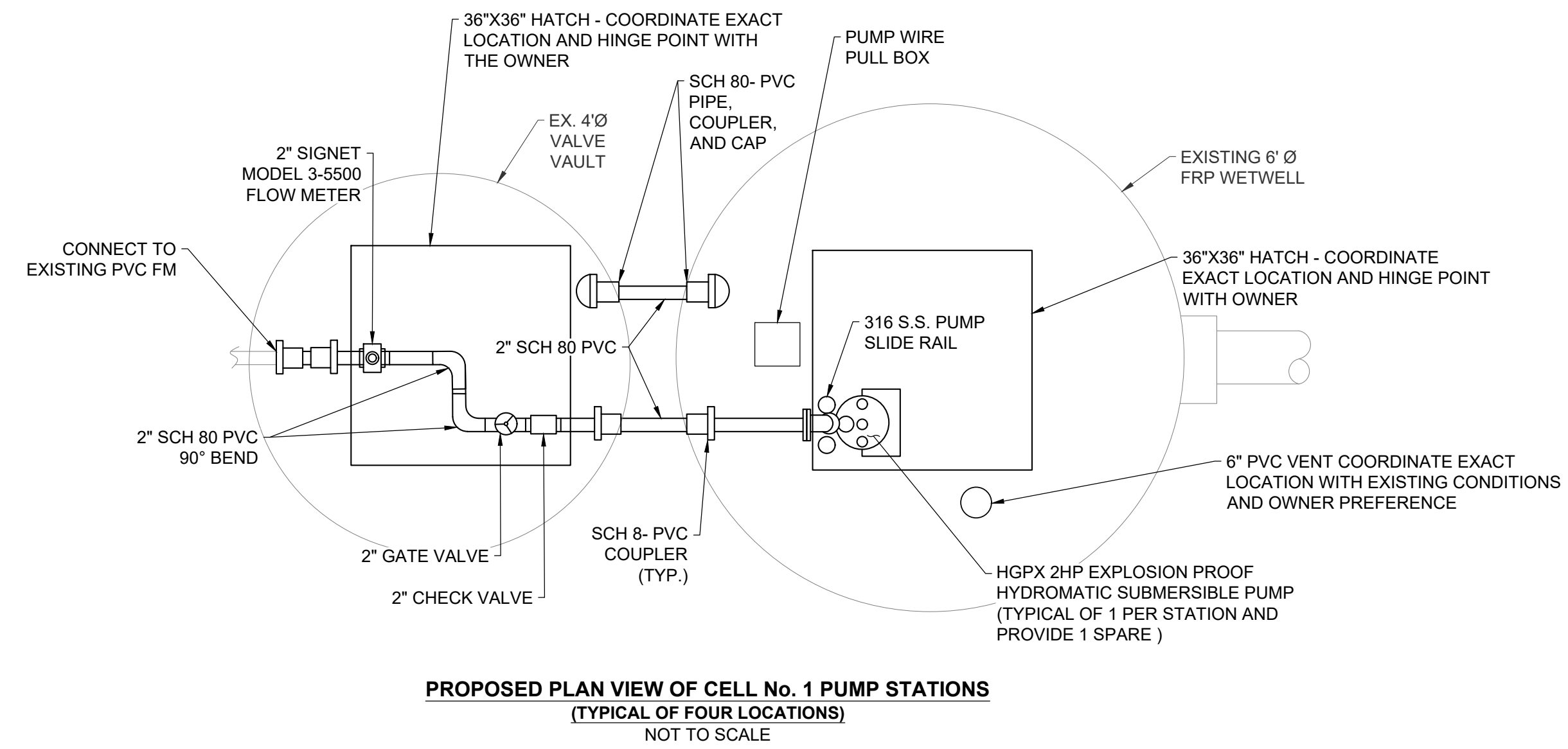
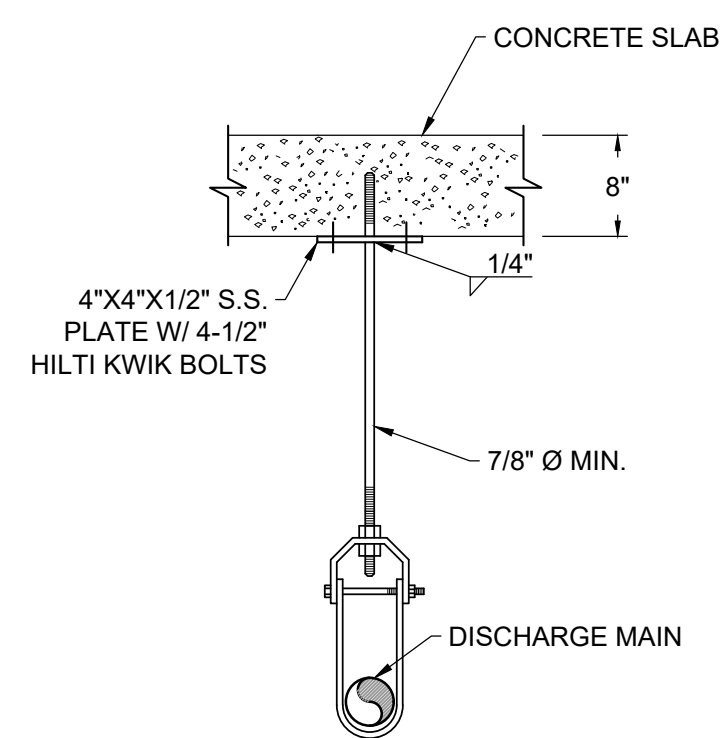
WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATIONS
AND LEACHATE FORCEMAIN UPGRADES
 WORCESTER COUNTY, MARYLAND
PROPOSED LEACHATE FORCEMAIN PROFILES

EA Engineering, Science, and Technology, Inc., PBC
 11200 Racetrack Road, Unit A101
 Ocean Pines, Maryland 21811
 (410) 641-5341
 www.eaest.com
 SCALE AS NOTED
 FULL SIZE PLOT: 24" x 36"
 DATE: MARCH 2024
 PROJECT NUMBER: 61060951
C-203
 SHEET: 6 OF 24 19

100% PLANS - FOR CONSTRUCTION



NOTE:
1. BASIS FOR PROPOSED SECTION WAS OBTAINED FROM PLANS ENTITLED "PERMIT APPLICATION, LANDFILL CELL NUMBER ONE & RUBBLE FILL CONSTRUCTION" PREPARED BY EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC. DATED 1988.



NOTE:
1. DETAIL WAS PROVIDED FROM ENVIREP FOR TYPICAL INSTALLATION AT EACH OF THE FOUR CELL 1 PUMP STATIONS REPRESENTING A BELOW GRADE OR ABOVE GRADE INSTALLATION.
2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION METHODS, OR ALTERNATIVE PROPOSED INSTALLATION WITH THE OWNER AND ENGINEER.

REVISIONS	DESCRIPTION
NO.	DATE
BY	3/29/24 SCL
NO.	1
DESIGNED BY:	NWH
DRAWN BY:	NWH
CHECKED BY:	GAT
PROJECT MANAGER:	DOK
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 55422, EXPIRATION DATE: DECEMBER 16, 2025.	

WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATIONS
AND LEACHATE FORCEMAIN UPGRADES

WORCESTER COUNTY, MARYLAND

TYPICAL PROPOSED PUMP STATION SECTIONS AND DETAILS

EA
EA Engineering, Science, and Technology, Inc., PBC
11200 Racetrack Road, Unit A101
Ocean Pines, Maryland 21811
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SCALE AS SHOWN

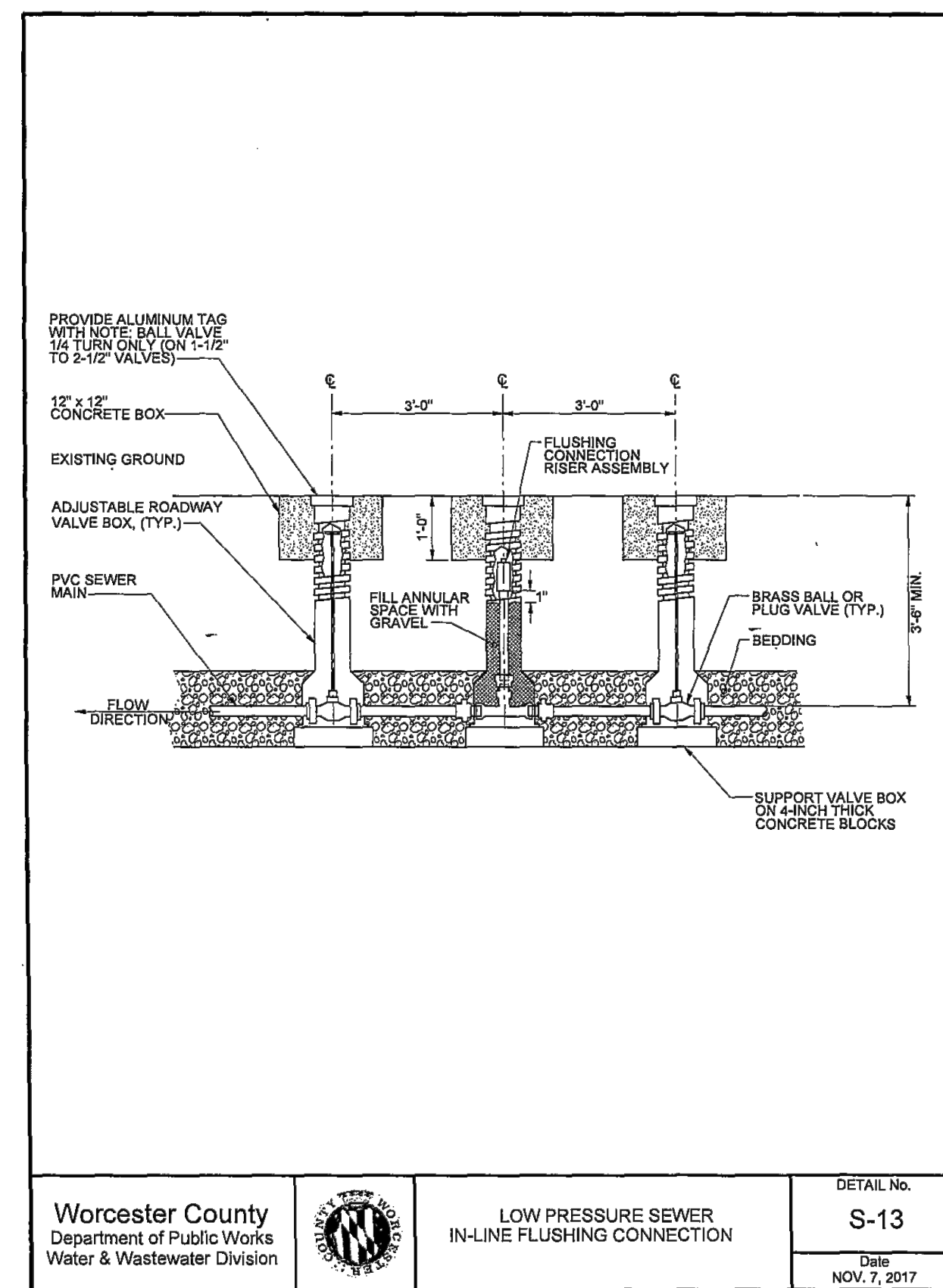
FULL SIZE PLOT: 24" x 36"
DATE: MARCH 2024
PROJECT NUMBER: 61060951

C-303
SHEET: 10 OF 24-19

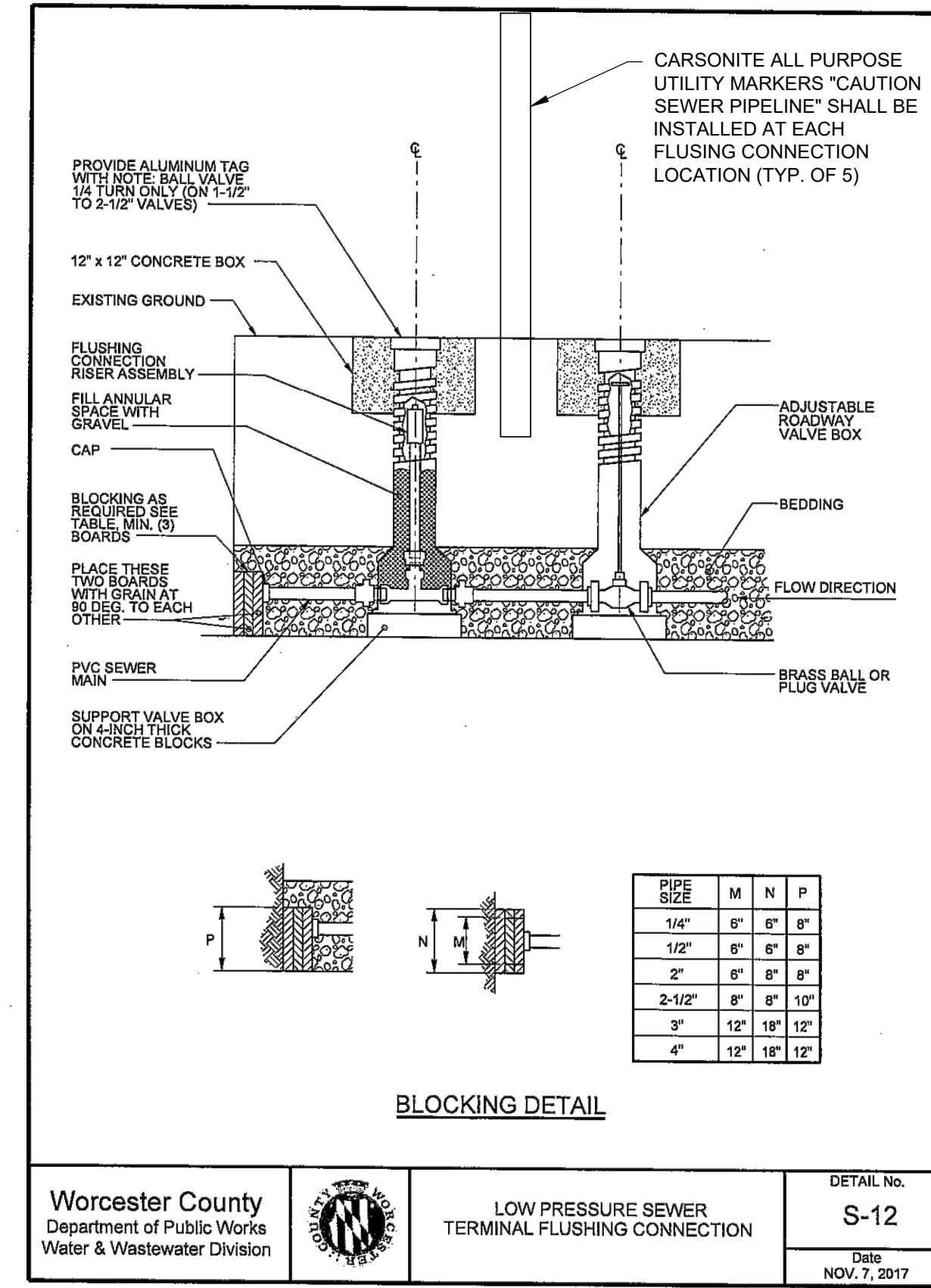
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100% PLANS - FOR CONSTRUCTION

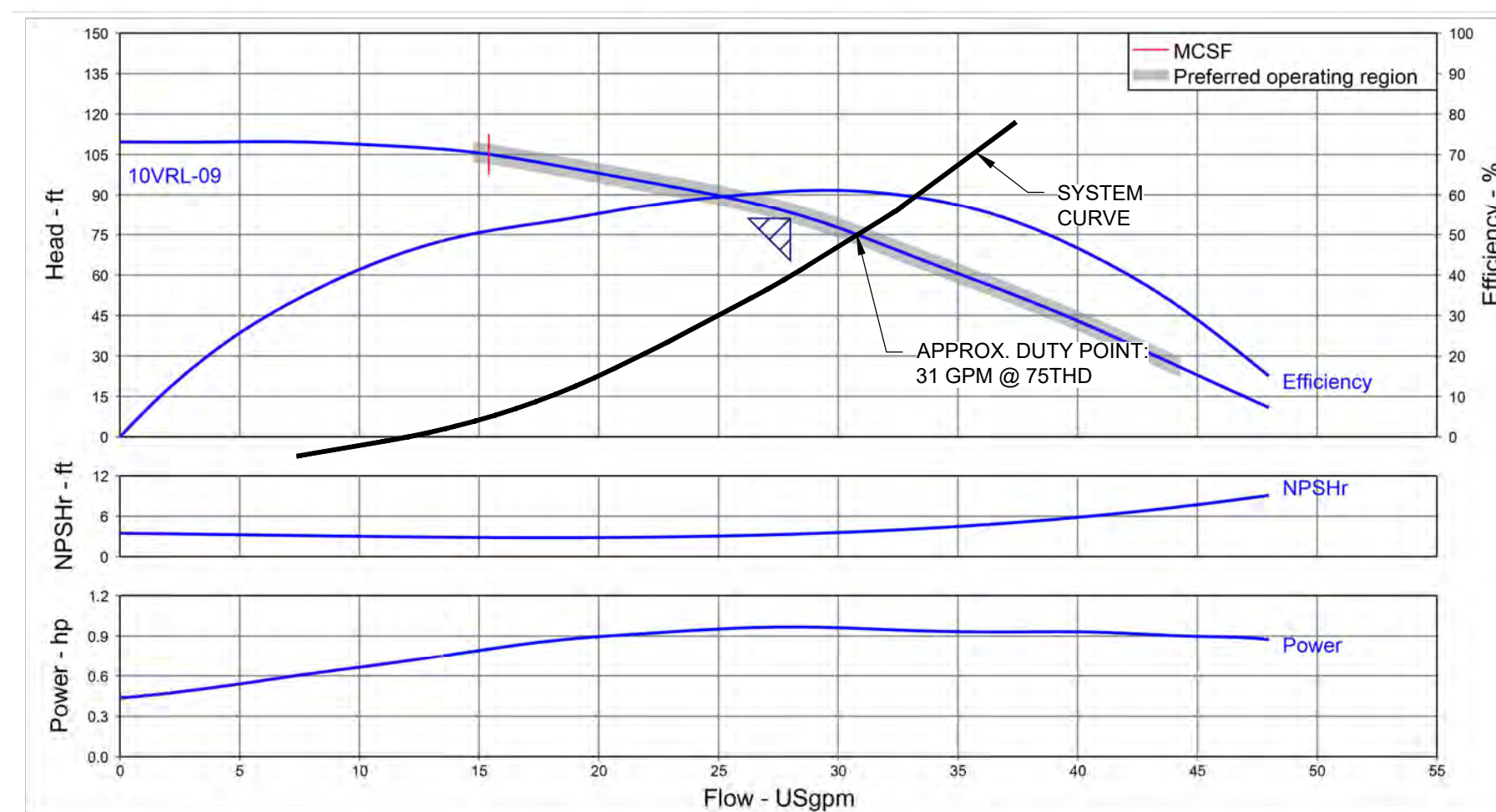
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LOW PRESSURE SEWER IN-LINE
FLUSHING CONNECTION DETAIL
NOT TO SCALE



LOW PRESSURE SEWER TERMINAL
FLUSHING CONNECTION DETAIL
NOT TO SCALE



LEACHATE FORCEMAIN PUMP PERFORMANCE CURVE -
FRANKLIN ELECTRIC 10VRL-09

NOTE: THE PUMP CURVE SHOWN IS FOR THE LEACHATE PUMP AND FORCEMAIN FROM THE PUMP BUILDING TO THE NEWARK WWTP. IT IS NOT ASSOCIATED WITH THE CELL 1 PUMP STATION MAINTENANCE.

REVISIONS		DESCRIPTION
NO.	DATE	BY
1	3/29/24	SCL
ELECTRICAL DRAWINGS CONSOLIDATION		
DESIGN INFORMATION		
DESIGNED BY:	NMWH	
DRAWN BY:	NMWH	
CHECKED BY:	GAT	
PROJECT MANAGER:	DOK	
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 55422. EXPIRATION DATE: DECEMBER 16, 2025.		

WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATIONS
AND LEACHATE FORCEMAIN UPGRADES

WORCESTER COUNTY, MARYLAND

DETAIL SHEET

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and Technology, Inc., PBC
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SCALE AS SHOWN

FULL SIZE PLOT: 24" x 36"

DATE: MARCH 2024

PROJECT NUMBER: 61060951

C-502

SHEET: 12 OF 24 19

100% PLANS - FOR CONSTRUCTION

GENERAL NOTES

- ALL UNDERGROUND CELL AREAS SHALL BE CONSIDERED A CLASS I, DIVISION 2, GROUP D CLASSIFIED AREA AS DEFINED BY ARTICLE 500 OF THE NEC. ALL WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF THE NEC (NFPA 70).
- ALL WORK IS NEW UNLESS OTHERWISE NOTED AS EXISTING. FOR THE CONVENIENCE OF THE CONTRACTOR, ON DRAWINGS WHICH CONTAIN NEW AND EXISTING FEATURES, A DISTINCTION BETWEEN NEW AND EXISTING MATERIALS, EQUIPMENT, AND STRUCTURES HAS BEEN MADE BY LINE WEIGHT. HEAVY LINE WEIGHT REPRESENTS NEW FEATURES (OR WORK TO BE DONE ON EXISTING FEATURES) AND LIGHT LINE WEIGHT REPRESENTS EXISTING FEATURES.
- INFORMATION FOR EXISTING UTILITIES IS FROM AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OR HER SATISFACTION PRIOR TO CONSTRUCTION ACTIVITIES.
- INFORMATION FOR EXISTING UTILITIES IS FROM AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO THEIR SATISFACTION PRIOR TO CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL TAKE PRECAUTIONS TO PROTECT EXISTING UTILITIES AND STRUCTURES AND ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY (WITHIN 24 HOURS) BY THE CONTRACTOR AT NO COST TO THE OWNER.
- CONDUITS ENTERING OR EXITING CLASSIFIED AREAS SHALL BE INSTALLED WITH CONDUIT SEAL-OFF FITTINGS IN ACCORDANCE WITH ARTICLE 500 OF THE NATIONAL ELECTRICAL CODE.
- ALL WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NFPA 70).
- MATERIALS, DEVICES, APPLIANCES, FITTINGS, AND EQUIPMENT INSTALLED SHALL BE LISTED AND LABELED BY UNDERWRITERS LABORATORIES, INC. (UL), FACTORY MUTUAL (FM), EDISON TESTING LABORATORIES (ETL), OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY ACCEPTABLE TO THE OWNER AND ENGINEER. ALL PRODUCTS SHALL BE USED ONLY IN THE MANNER IN WHICH THEY HAVE BEEN TESTED AND FOUND SUITABLE FOR THE INTENDED USE.
- NO MECHANICAL EQUIPMENT SHALL BE USED WITHIN 18" OF THE MARKS INDICATING UTILITY LOCATION. HAND EXCAVATE UNTIL THE UTILITY IS FULLY LOCATED.
- EQUIPMENT AND SYSTEMS SHALL BE BONDED AND GROUNDED IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, APPLICABLE LOCAL CODES, THE ELECTRICAL UTILITY PROVIDER, AND THE MANUFACTURER'S RECOMMENDATIONS.
- CONDUIT AND CONDUCTOR SIZES ARE BASED ON COPPER CONDUCTORS UNLESS SPECIFICALLY NOTED OTHERWISE.
- VOLTAGE DROP CALCULATIONS ARE BASED ON CIRCUIT LOADS AND DISTANCES FOR THE CIRCUIT ROUTING AS SHOWN. IF ALTERNATE CIRCUIT ROUTING, LOADING, OR CONDUCTOR MATERIAL ARE USED, VERIFY THAT THE VOLTAGE DROP IS ACCEPTABLE.
- UNLESS OTHERWISE NOTED, CONDUCTORS HAVE NOT BEEN DERATED FOR BUNDLING OF CONDUCTORS, OR SIZED FOR MULTIPLE CIRCUITS. IF MULTIPLE CIRCUITS ARE INSTALLED IN A SINGLE RACEWAY, DERATE THE CONDUCTOR AMPACITY IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, AND PROVIDE THE CORRECT CONDUCTOR AND CONDUIT SIZES.
- SEALING FITTINGS AND SEALING COMPOUND SHALL BE UL LISTED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. SEAL CONDUIT PENETRATIONS OF FIRE RATED-WALLS WITH AN APPROVED FIRE STOPPING MATERIAL WHICH HAS BEEN APPROVED FOR USE IN FIRE RATED ASSEMBLIES.
- THE CONSTRUCTION CODE REQUIREMENTS OF STATE, COUNTY, OR OTHER POLITICAL SUBDIVISION WHICH EXCEED THE REQUIREMENTS OF NATIONAL CODES, STANDARDS, AND APPROVING BODIES SHALL BE MET AND COMPLIED WITH.
- THE INSTALLATION OF ALL EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, REQUIREMENTS, AND GUIDELINES AND SHALL CONFORM TO THE PARTICULAR APPLICATION INVOLVED, IN ACCORDANCE WITH DETAILS SHOWN ON THE DRAWINGS. INSTALLATION OF EQUIPMENT CONNECTIONS TO EQUIPMENT SHALL BE COMPLETE IN EVERY DETAIL IN ACCORDANCE WITH APPLICABLE AND ACCEPTED INDUSTRY STANDARDS AND PRACTICES. PRIOR TO ACCEPTANCE OF ALL OR ANY PART OF THE WORK, THE CONTRACTOR SHALL TEST EACH PIECE OF EQUIPMENT AND SUBMIT WRITTEN CERTIFICATION THAT IT HAS BEEN INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND IS READY TO BEGIN OPERATION.
- ALL EQUIPMENT SHALL BE FURNISHED BY MANUFACTURERS WHO HAVE AT LEAST THREE YEARS' EXPERIENCE IN THE DESIGN, PRODUCTION, ASSEMBLY, AND FIELD SERVICE OF EQUIPMENT OF LIKE TYPE AND SIZE. PRODUCTS SHALL HAVE BEEN IN SATISFACTORY COMMERCIAL OR INDUSTRIAL USE FOR TWO YEARS PRIOR TO BID OPENING. THE TWO-YEAR PERIOD SHALL INCLUDE APPLICATIONS OF EQUIPMENT AND MATERIALS UNDER SIMILAR CIRCUMSTANCES AND OF SIMILAR SIZE. THE PRODUCT SHALL HAVE BEEN ON SALE ON THE COMMERCIAL MARKET THROUGH ADVERTISEMENTS, MANUFACTURER'S CATALOGS, OR BROCHURES DURING THE TWO-YEAR PERIOD. PRODUCTS HAVING LESS THAN A TWO-YEAR FIELD SERVICE RECORD WILL BE ACCEPTABLE IF A CERTIFIED RECORD OF SATISFACTORY FIELD OPERATION FOR NOT LESS THAN 6,000 HOURS, EXCLUSIVE OF THE MANUFACTURER'S FACTORY OR LABORATORY TESTS, IS FURNISHED.
- UNLESS OTHERWISE SPECIFIED, EQUIPMENT OR MATERIAL OF THE SAME TYPE OF CLASSIFICATION, USED FOR THE SAME PURPOSE SHALL BE THE PRODUCT OF THE SAME MANUFACTURER. ALL MATERIAL SHALL BE NEW AND OF THE CURRENT DESIGN OF THE MANUFACTURER PROVIDING EQUIPMENT OR MATERIAL.
- EQUIPMENT AND ACCESSORIES NOT SPECIFICALLY DESCRIBED OR IDENTIFIED BY MANUFACTURER'S CATALOG NUMBERS SHALL BE DESIGNED IN CONFORMITY WITH NEMA, INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, OR OTHER APPLICABLE TECHNICAL STANDARDS AND SHALL HAVE A NEAT AND FINISHED APPEARANCE.
- ERECT EQUIPMENT IN A NEAT AND WORKMANLIKE MANNER; ALIGN, LEVEL, AND ADJUST FOR SATISFACTORY OPERATION. INSTALL EQUIPMENT SO THAT PARTS ARE EASILY ACCESSIBLE FOR INSPECTION, OPERATION, MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE INDICATED ARRANGEMENTS MAY BE MADE, BUT ONLY AFTER OBTAINING APPROVAL FROM THE ENGINEER.
- MAINTAIN A MINIMUM 1 FOOT VERTICAL SEPARATION BETWEEN ELECTRICAL CONDUIT AND UNDERLYING UTILITIES WHERE CONDUIT MUST CROSS EXISTING SUBSURFACE UTILITIES.

LEGEND - PLANS & DETAILS

DESCRIPTION	SYMBOL
CONDUIT EXPOSED	---
CONDUIT CONCEALED	---
CONDUIT DOWN	---
CONDUIT UP	---
CONDUIT CONTINUATION / BREAK LINE	---
CONDUIT BODY	---
JUNCTION BOX	J
GROUND GRID	---
GROUND ROD	---
GROUND TEST WELL	---
UNDERGROUND DUCT BANK	---
HEAT TRACE CABLE	---
MOTOR	---
SOLENOID VALVE	S
LIQUID LEVEL SENSOR	FS
LEVEL ELEMENT	LE
PRESSURE SENSOR	PE
VACUUM SENSOR	VE
LIMIT SWITCH	ZS
TERMINAL BOX	TB
DISCONNECT SWITCH - NON-FUSED	---
DISCONNECT SWITCH - FUSED	F
ELECTRIC MANHOLE	E
ELECTRIC HANDHOLE	EH
ELECTRIC PULL BOX	EB
ELECTRIC METER	---
ELECTRIC OVHD LINE	---
ELECTRIC UGND LINE	---
EQUIPMENT TO BE REMOVED	---
CODED NOTE	?
GROUP OF ITEMS	---
HOME RUN TO PANELBOARD	LPH# OR PPH#

LEGEND - DIAGRAMS & ELEMENTARIES

DESCRIPTION	SYMBOL
CIRCUIT CONNECTION	---
CIRCUIT LUG / SCREW CONNECTION	---
CIRCUIT CONTINUATION / BREAK LINE	---
CIRCUIT BREAKER	---
FUSE	---
GROUND	---
OVERLOAD	---
RELAY CONTACT	---
SINGLE SWITCH	---
MOMENTARY PUSHBUTTON	---
LIMIT SWITCH	---
PRESSURE SWITCH	---
FLOAT SWITCH	---
TEMPERATURE SWITCH	---
TIMING RELAY	---
RELAY COIL	---
INDICATING LIGHT	---
INDICATING LIGHT - PUSH-TO-TEST	---
REMOTE CONTACT	---
REMOTE INSTRUMENTATION SIGNAL	---

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
AF	AMPS FRAME
AI	ANALOG INPUT
AL	ALUMINUM
AO	ANALOG OUTPUT
APPROX.	APPROXIMATELY
AT	AMPS TRIP
AST	ABOVEGROUND STORAGE TANK
AWG	AMERICAN WIRE GAGE
BLDG.	BUILDING
CB	CIRCUIT BREAKER
C.E.P.	CONCRETE EQUIPMENT PAD

CFR	CODE OF FEDERAL REGULATIONS
CKT, CIR.	CIRCUIT
C.P. C.P.	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
DC	DIRECT CURRENT
DI	DIGITAL INPUT
DIA	DIAMETER
DO	DIGITAL OUTPUT
D.S.	DISCONNECT SWITCH
DWG	DRAWING
ELEC	ELECTRICAL
ENCL.	ENCLOSURE
EX., EXIST	EXISTING
G	GREEN OR GROUNDING CONDUCTOR

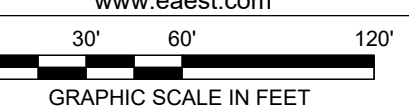
GRD	GROUND
HOA	HAND-OFF-AUTOMATIC
HZ	HERTZ
J.B., J.B.-I	JUNCTION BOX OR JUNCTION BOX WITH DESIGNATION
KCMIL	KILO (THOUSAND) CIRCULAR MILS
KVA	KILOVOLT AMPERE
KW	KILOWATT
LP	LIGHTING PANELBOARD
M-I	MOTOR STARTER COIL WITH DESIGNATION
MAX	MAXIMUM
MCM	THOUSAND CIRCULAR MILS
MIN.	MINIMUM
MTG	MOUNTING

NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NFSS	NON-FUSED SAFETY SWITCH
NO.	NUMBER
NTS	NOT TO SCALE
OL	OVERLOAD
PF-I	POWER FEEDER WITH SOURCE DESIGNATION AND CIRCUIT DESIGNATION
PH	PHASE
PP-I	POTENTIAL TRANSFORMER
PT	POTENTIAL TRANSFORMER
P-I	PUMP WITH DESIGNATION

QTY	QUANTITY
SDBC	SOFT DRAWN BARE COPPER
S.E.	SERVICE ENTRANCE
SH	SHIELDED
SP	SURGE PROTECTOR
S.S.	STAINLESS STEEL
SYS.	SYSTEM
T-I	TRANSFORMER WITH DESIGNATION
TB-I	TERMINAL BOX WITH DESIGNATION
TSP	TWISTED SHIELDED PAIR
TYP.	TYPICAL
UST	UNDERGROUND STORAGE TANK
UTIL.	UTILITY
V	VOLT

VAC	VOLTS ALTERNATING CURRENT
VFD	VARIABLE FREQUENCY DRIVE
W/	WITH
XFM	TRANSFORMER

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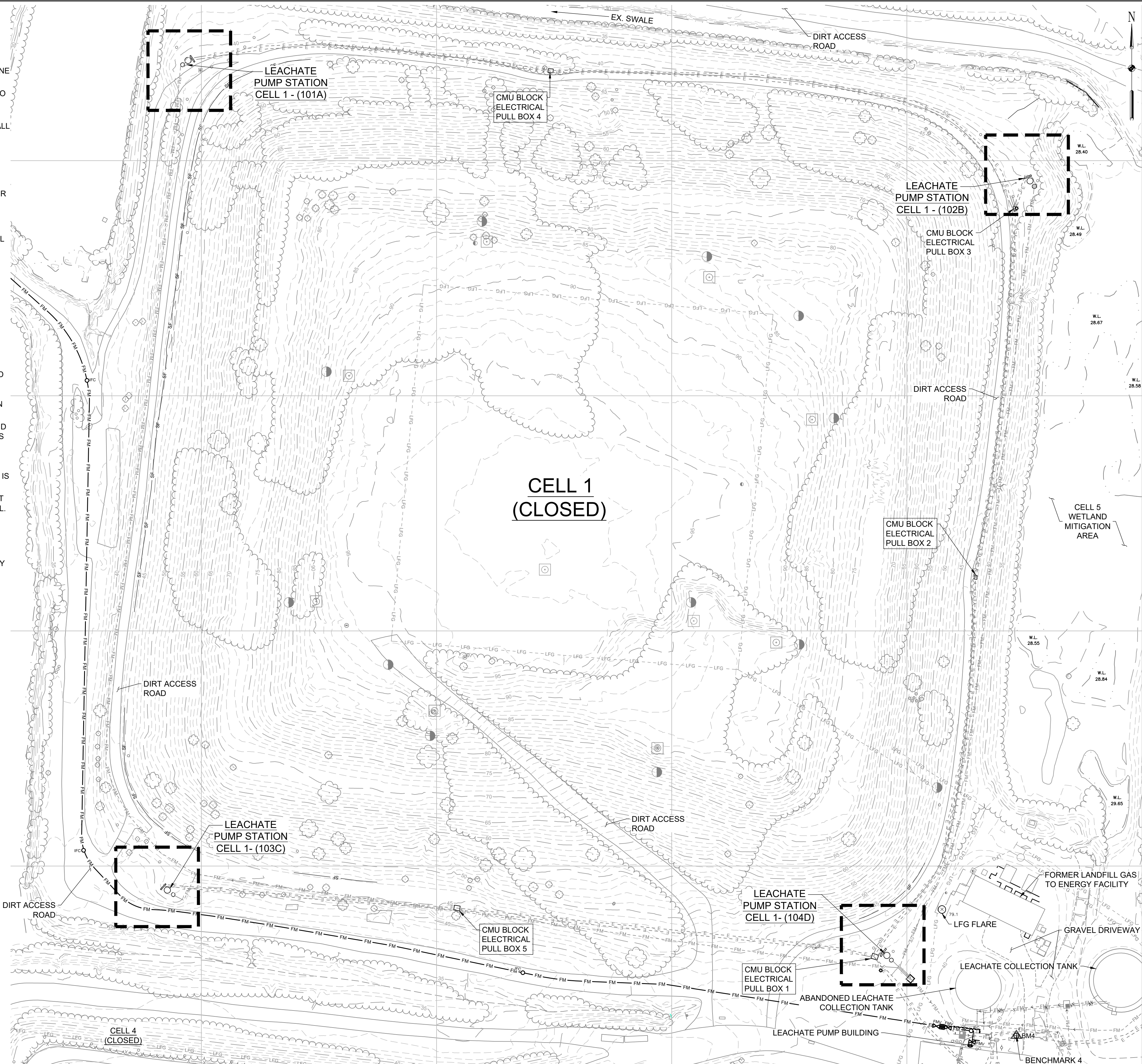


FULL SIZE PLOT: 24" x 36"

DATE: MARCH 2024

PROJECT NUMBER: 61060951

E-1
SHEET: 14 OF 19



SITE PLAN
SCALE: 1" = 60'

REVISIONS	DESCRIPTION
NO.	DATE
BY	

DESIGN INFORMATION	DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJECT MANAGER:
	DY/NWH	NWH	DY	DOK

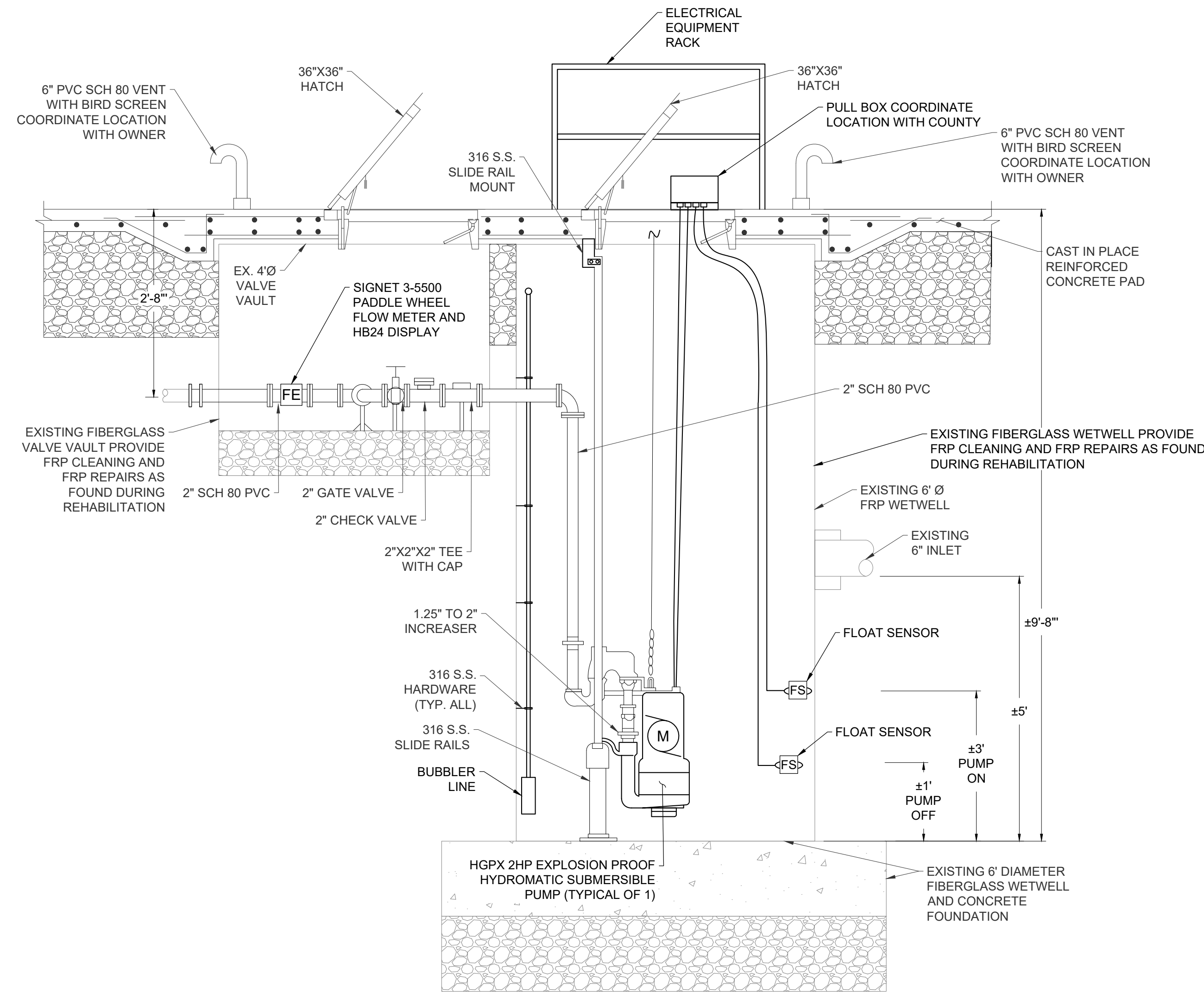
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20812, EXPIRATION DATE: APRIL 24, 2025.

WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATION
& LEACHATE FORCEMAIN UPGRADES

WORCESTER COUNTY, MARYLAND

NOTES, ABBREVIATIONS, AND LEGEND

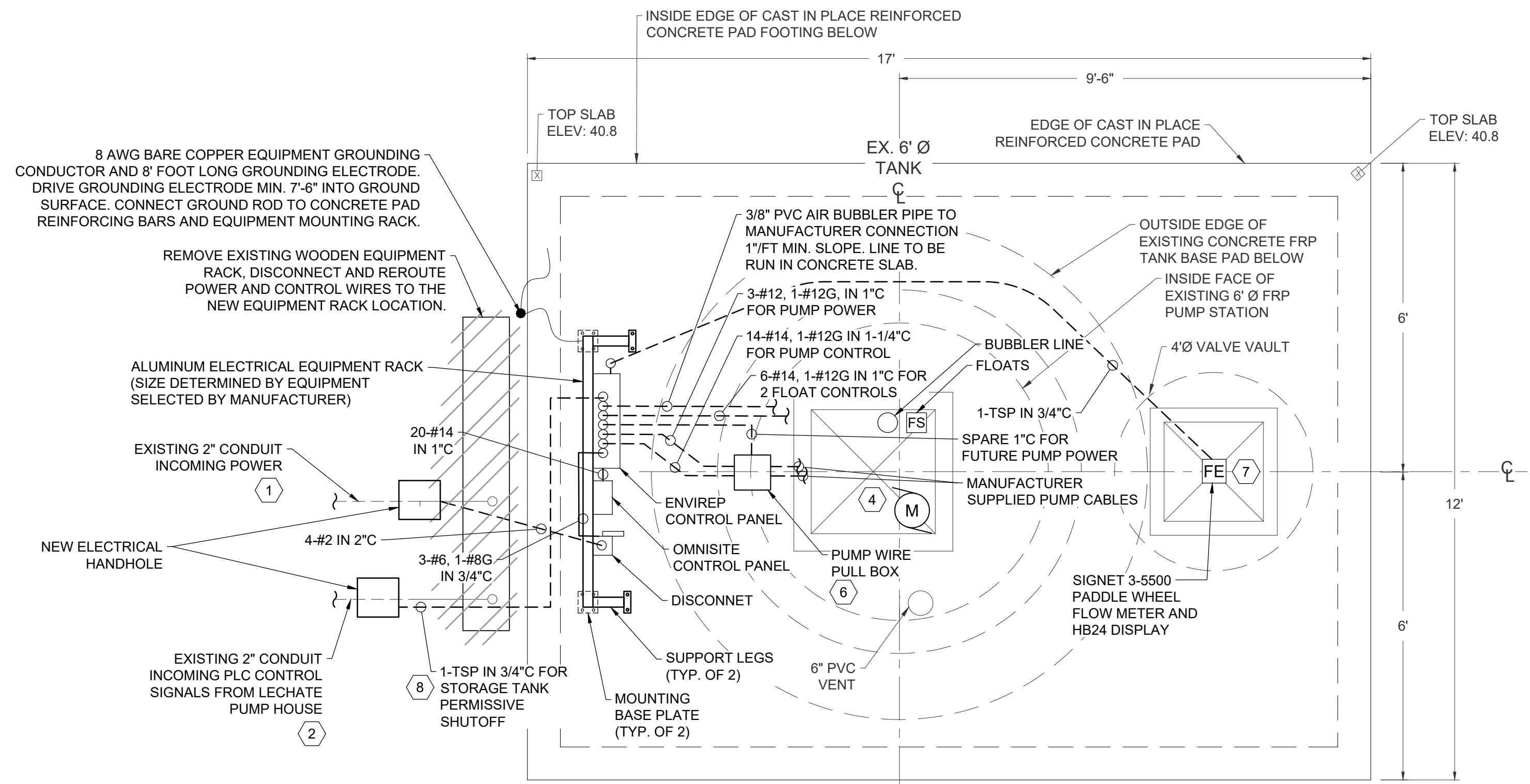
100% PLANS - FOR CONSTRUCTION



TYPICAL PUMP STATION SECTION OF CELL No. 1 PUMP STATIONS
(TYPICAL OF FOUR LOCATIONS)
NOT TO SCALE

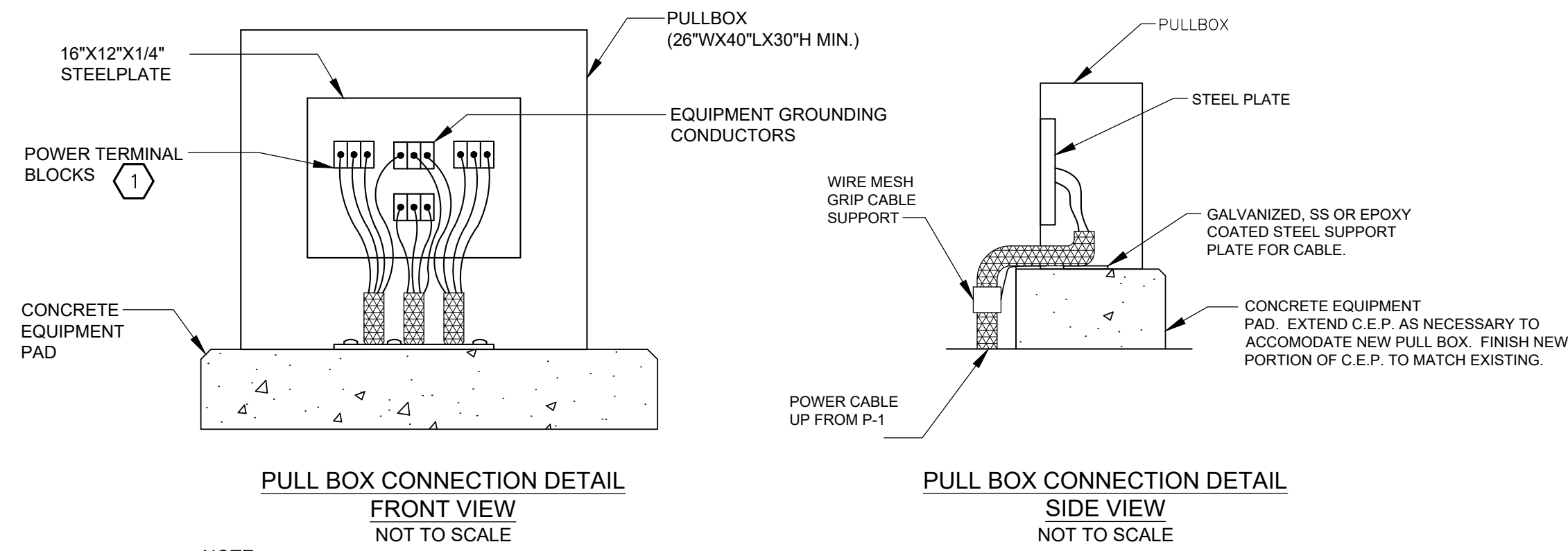
NOTE:

1. BASIS FOR PROPOSED SECTION WAS OBTAINED FROM THE CELL No. 1 DESIGN DRAWINGS DATED 1988 FOR EXISTING WETWELL AND VALVE VAULT.



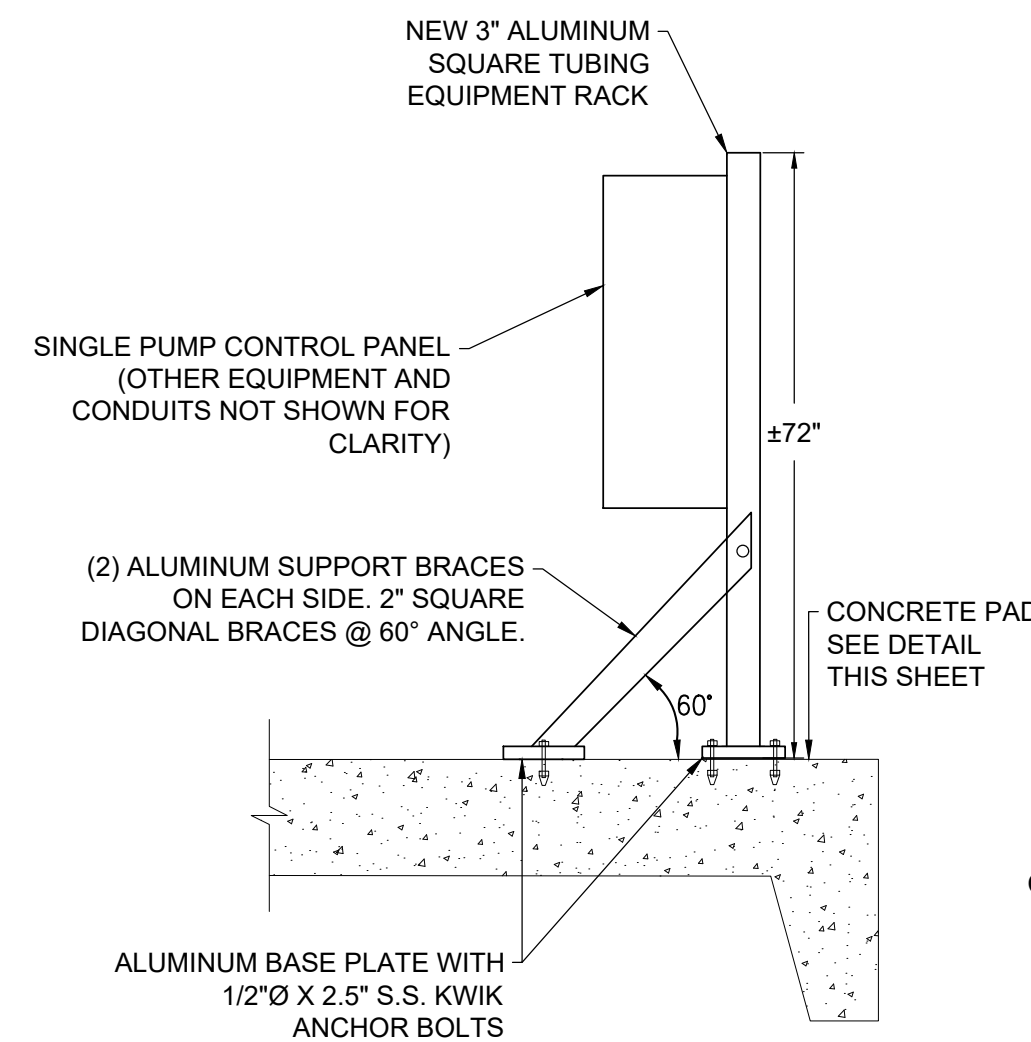
CODED NOTES:

1. LOCATE EXISTING POWER CONDUIT. INSTALL NEW HANDHOLE, AND INSTALL NEW CONDUIT. EXTEND CONDUCTORS FROM THE HANDHOLE TO THE LOCATION OF THE NEW DISCONNECT (SPICE AS NECESSARY). COORDINATE ANY DEFICIENCIES WITH OWNER, ENGINEER, AND MANUFACTURER. DISCONNECT EXISTING PUMP STATION EQUIPMENT AND RECONNECT TO THE NEW EQUIPMENT.
2. LOCATE EXISTING SIGNAL CONDUIT. INSTALL NEW HANDHOLE AND CAP SIGNAL WIRES FOR ABANDONMENT OR FUTURE USE.
3. COORDINATE INSTALLATION WITH THE PUMP MANUFACTURER.
4. DETAIL TYPICAL FOR PUMP STATION 101A AND 103C. MIRRORRED INSTALLATION FOR PUMP STATION 102B AND 104C.
5. UTILIZE EXISTING POWER CONDUCTORS AND SIGNAL WIRES THAT ARE ROUTED TO THE LEACHATE PUMP HOUSE. DISCONNECT EXISTING PUMP STATION EQUIPMENT AND RECONNECT TO THE NEW EQUIPMENT.
6. COORDINATE WITH OWNER FOR EXACT LOCATION OF PUMP WIRE ELECTRICAL PULL BOX.
7. COORDINATE HATCH SWING ORIENTATION WITH THE OWNER PRIOR TO CASTING IN PLACE.
8. CONNECT TO AN EXISTING TSP AT NEW HANDHOLE LOCATION. HANDHOLE WILL BE UTILIZED TO ABANDON IN PLACE THE EXISTING TSP SIGNAL CONDUCTORS. CONTRACTOR SHALL CONNECT TO ONE OF THE EXISTING SIGNAL WIRES THAT ROUTES BACK TO THE PLC. CONNECT TO PLC FOR STORAGE TANK PERMISSION SHUT OFF IF TANK IS FULL. COORDINATE ANY PROGRAMMING NEEDED WITHIN EXISTING PLC.

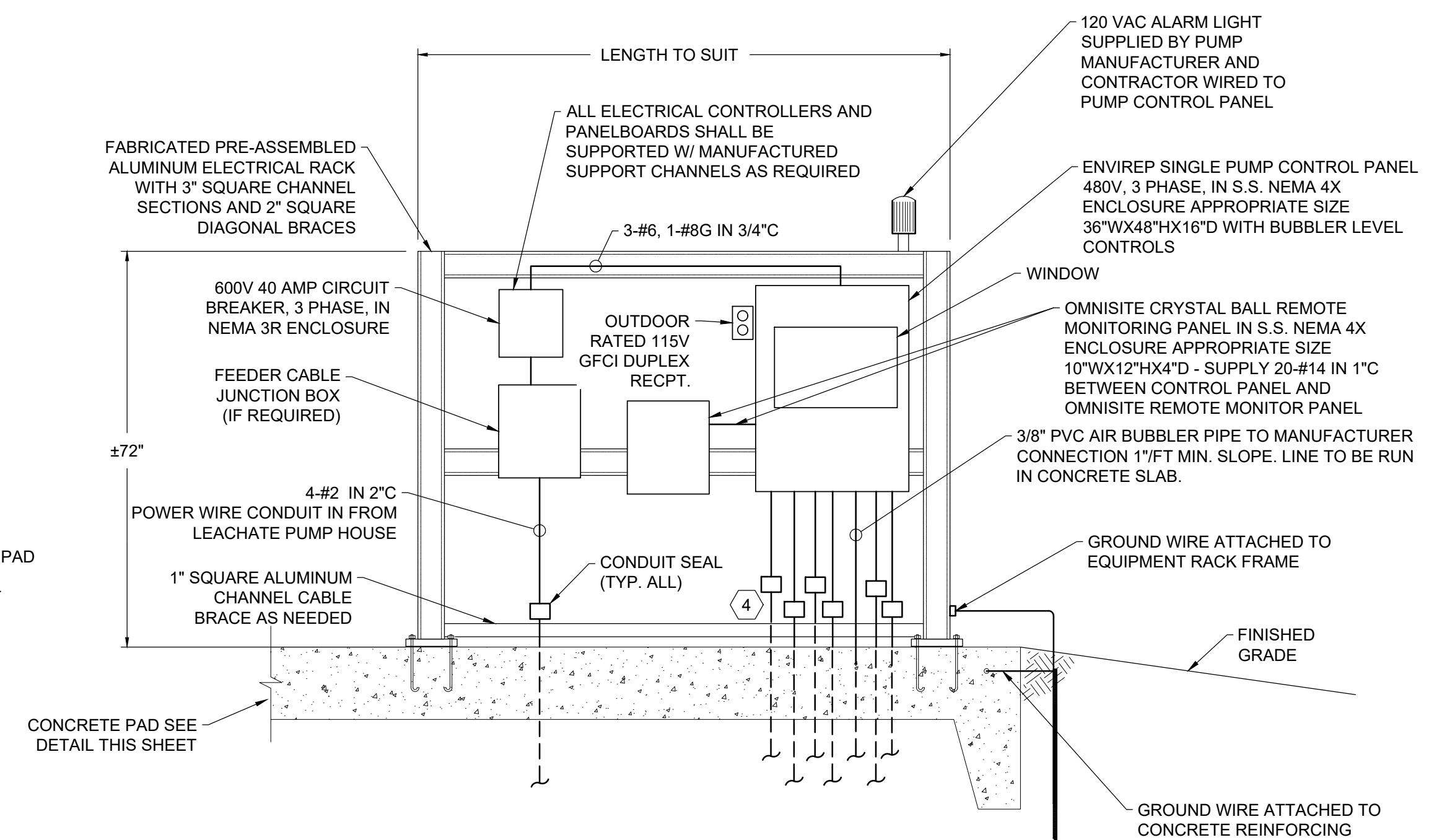


PULL BOX CONNECTION DETAIL FRONT VIEW
NOT TO SCALE

PULL BOX CONNECTION DETAIL SIDE VIEW
NOT TO SCALE



EQUIPMENT RACK BRACE DETAIL
NOT TO SCALE



STATION ELECTRICAL RACK ELEVATION
NOT TO SCALE

DETAIL NOTES

1. PUMP CONTROL PANEL SHALL BE CONFIGURED TO CONTROL TWO PUMPS IN LEAD-BACKUP CONFIGURATION. PROVIDED INTERLOCKS TO PREVENT PUMPS FROM OPERATING SIMULTANEOUSLY.
2. SEAL OFF'S SHALL BE PROVIDED FOR ALL CONDUITS.
3. CONDUITS SHALL BE PVC COATED STEEL.
4. CONDUITS ENTERING OR EXITING CLASSIFIED AREAS SHALL BE INSTALLED WITH CONDUIT SEAL-OFF FITTINGS IN ACCORDANCE WITH ARTICLE 500 THE NATIONAL ELECTRIC CODE.

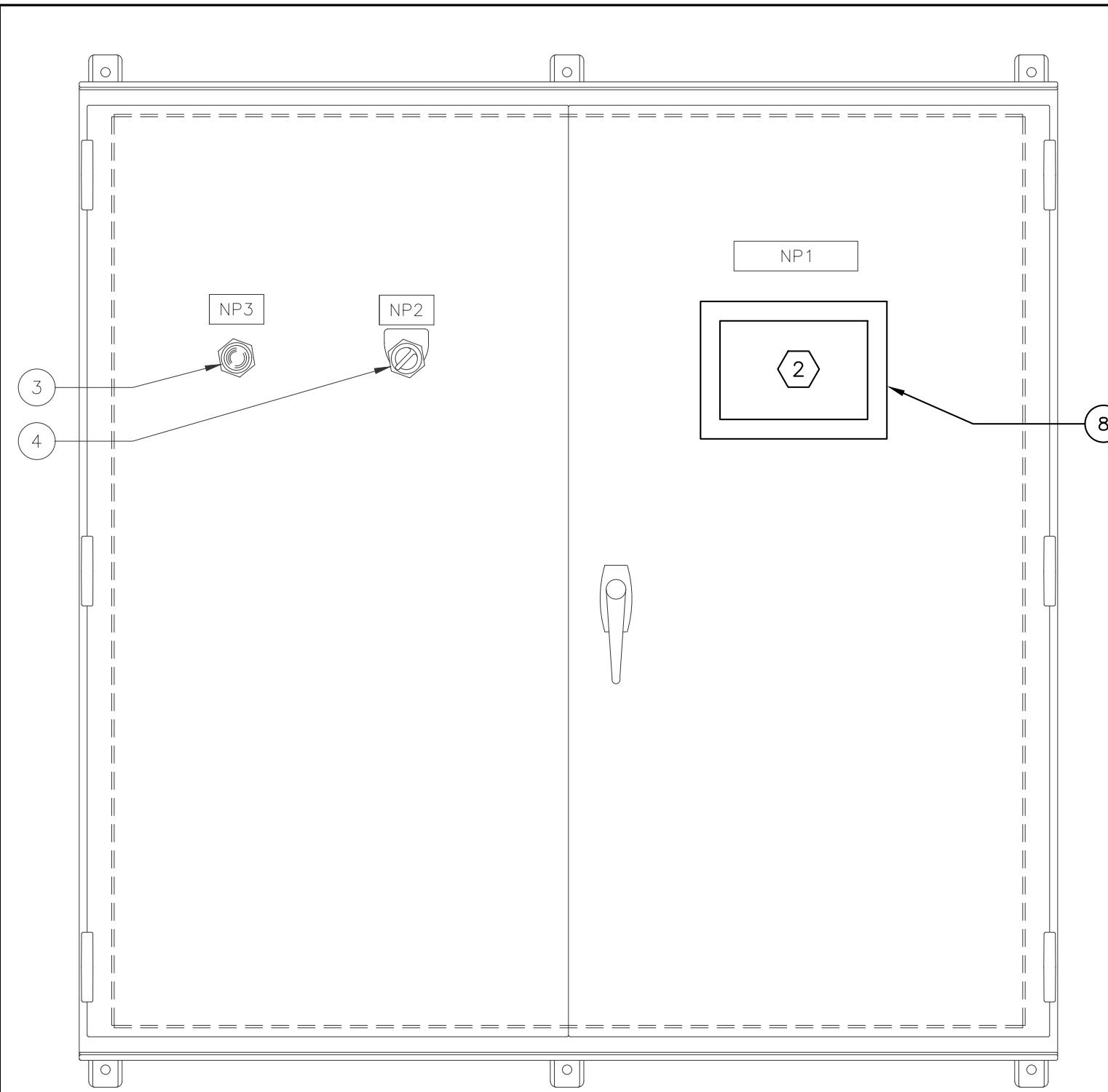
WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATION
& LEACHATE FORCEMAIN UPGRADES

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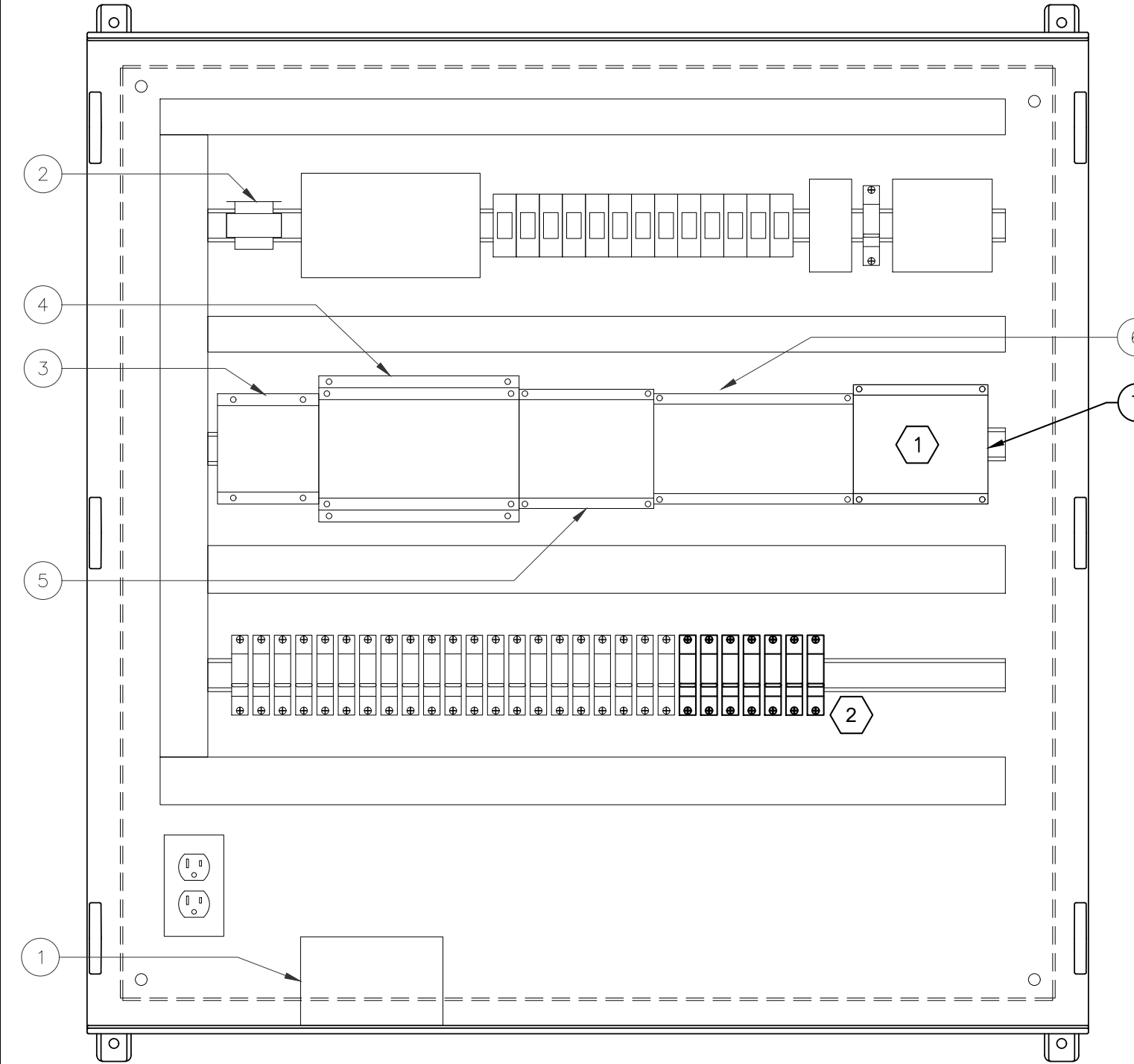
FULL SIZE PLOT: 24" x 36"
DATE: MARCH 2024
PROJECT NUMBER: 61060951

E-2
SHEET: 15 OF 19

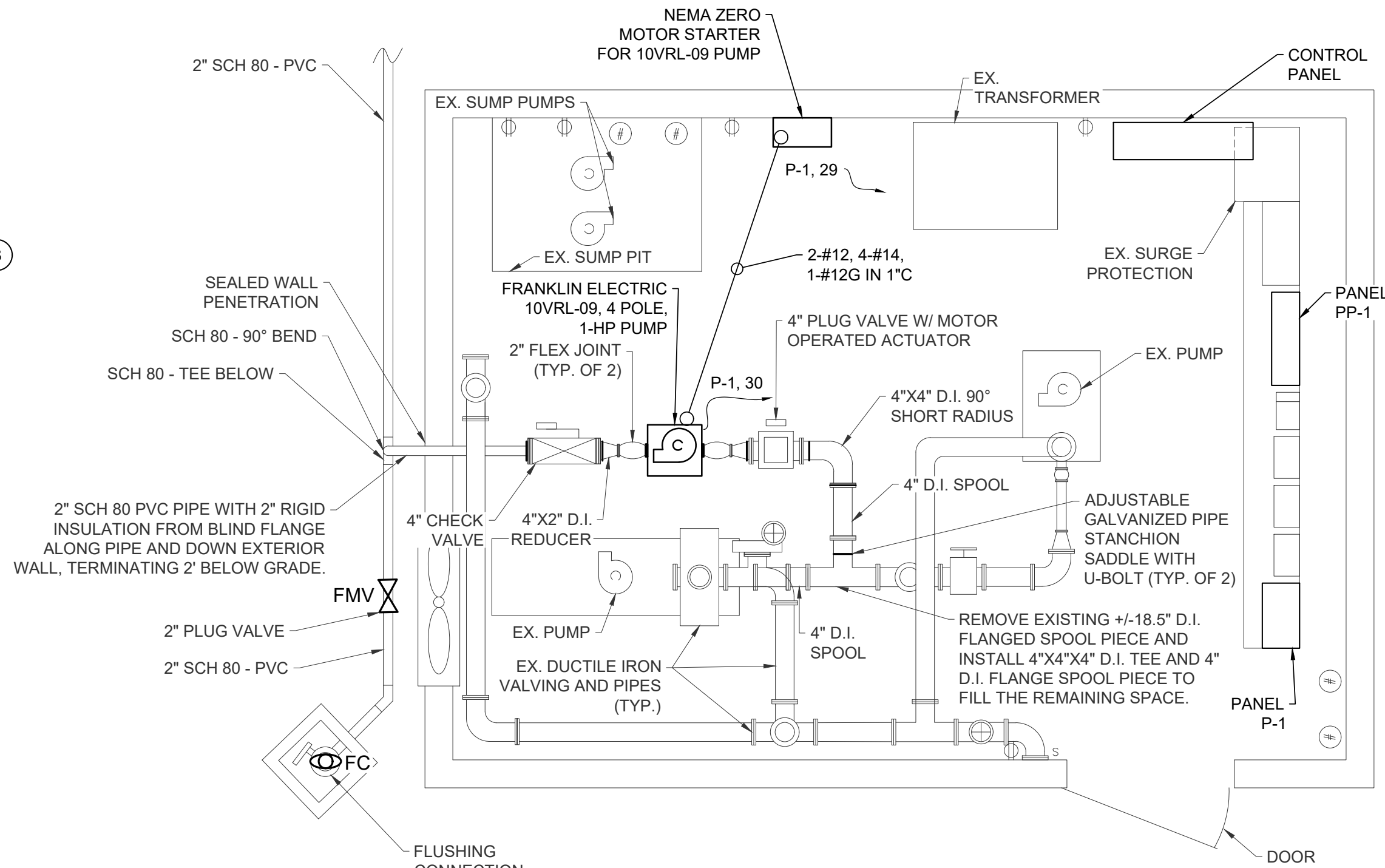
100% PLANS - FOR CONSTRUCTION



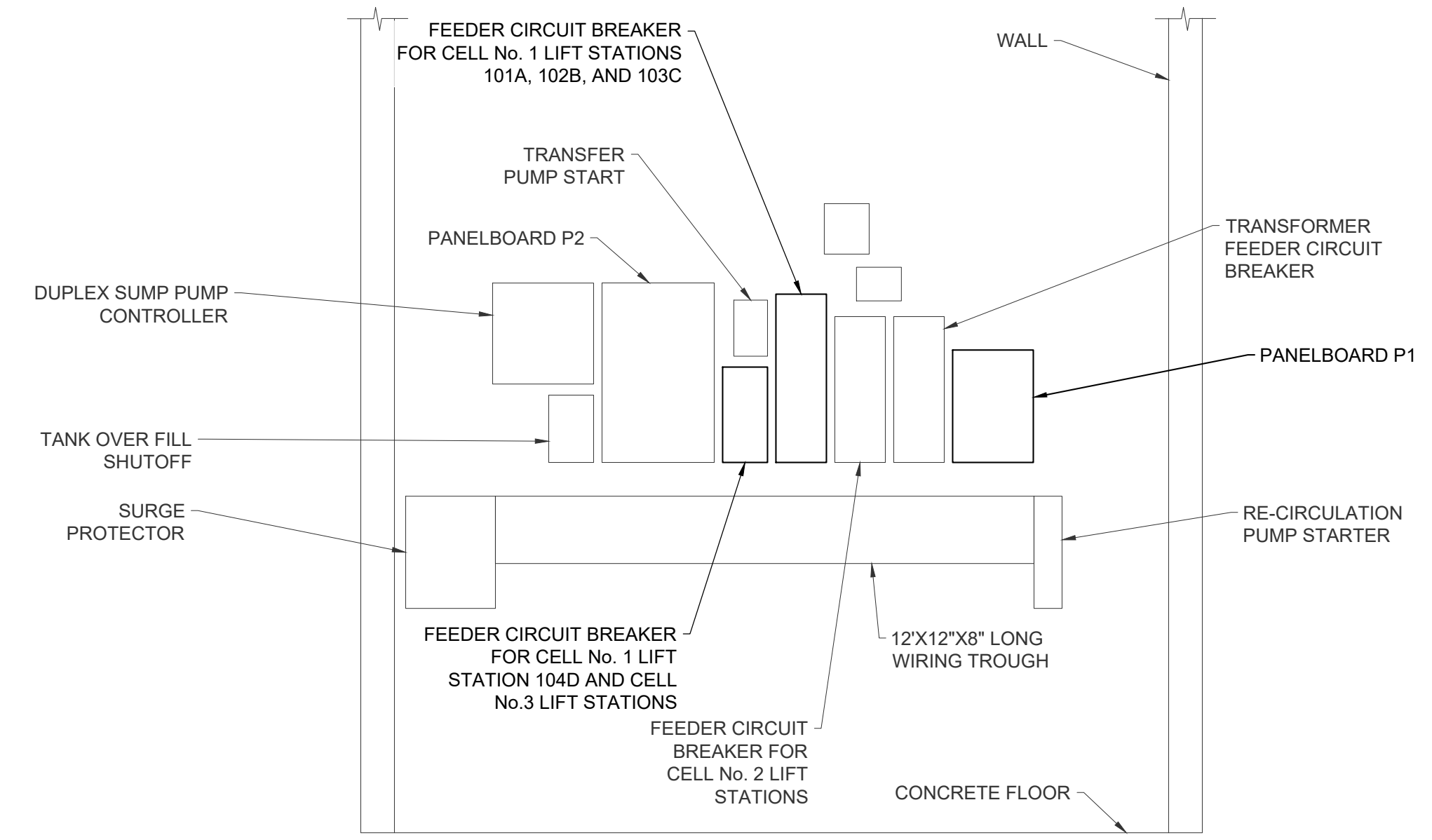
MODIFIED CONTROL PANEL - ELEVATION
NOT TO SCALE



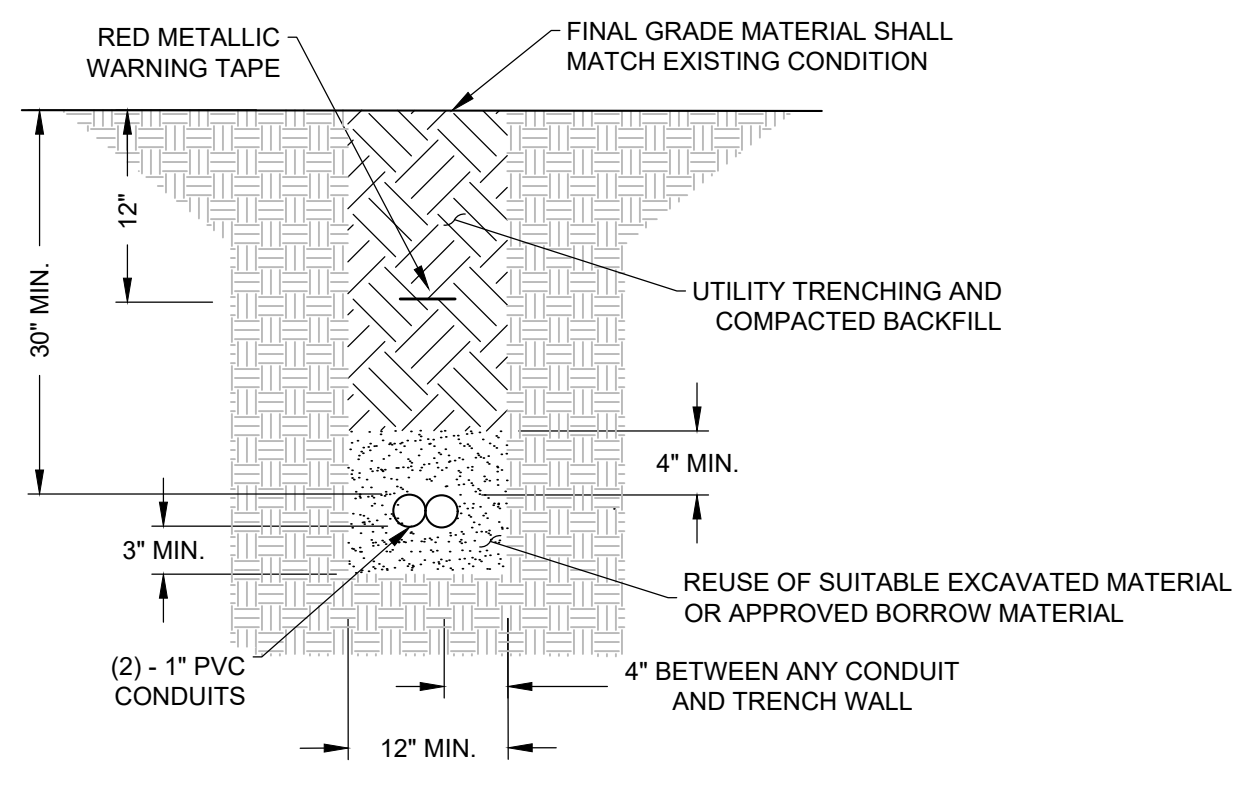
MODIFIED CONTROL PANEL - SUB-PANEL LAYOUT
NOT TO SCALE



LEACHATE PUMP BUILDING ELECTRICAL INSET PLAN
SCALE: 1" = 2'

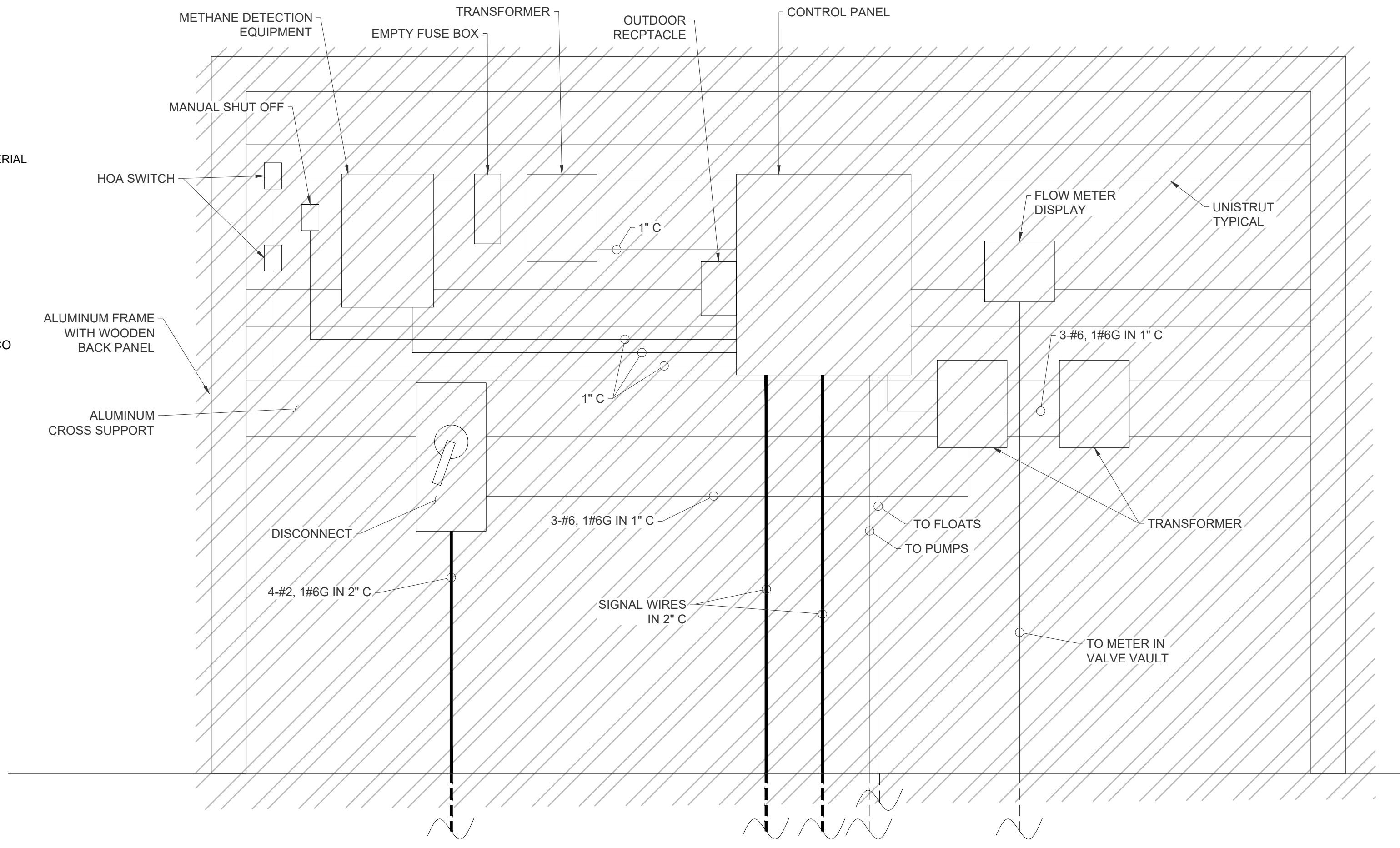


LEACHATE PUMP HOUSE EAST WALL ELEVATION
NOT TO SCALE



ELECTRICAL TRENCH DETAIL
NOT TO SCALE

- NOTES:**
- CONTRACTOR TO PROVIDE SHEETING, SHORING AND BRACING IN CONFORMANCE WITH OSHA REQUIREMENTS.
 - CONDUIT SIZE, CONDUCTOR, AND COVER REQUIREMENTS SHALL BE IN ACCORDANCE WITH PECO STANDARDS.
 - CONTRACTOR SHALL REUSE EXCAVATED MATERIAL AROUND THE CONDUIT DEEMED ACCEPTABLE BY THE ENGINEER. AREAS WHERE THE EXCAVATED MATERIAL IS DEEMED UNSUITABLE FOR BACKFILL AROUND THE CONDUIT, APPROVED OFFSITE BORROW MATERIAL SHALL BE USED.



DEMOLITION OF EXISTING ELECTRICAL AND CONTROL PANEL EQUIPMENT ELEVATION
NOT TO SCALE

- NOTE:**
- ALL COMPONENTS OF ELECTRICAL AND CONTROL PANEL SHALL BE DEMOLISHED AND REMOVED. COORDINATE WITH WORCESTER COUNTY TO DETERMINE WHICH COMPONENTS OF THE EXISTING EQUIPMENT THEY WOULD LIKE TO KEEP.
 - ALUMINUM FRAMES, UNISTRUTS, AND WOODEN BACKBOARD SHALL BE DEMOLISHED AND REMOVED.
 - CAFEBULLY DEMOLISH AND REMOVE EXISTING CONCRETE SONNA TUBE PEIRS. (TYP. OF 4)
 - COORDINATE WITH C-302 ON WHERE TO CONNECT TO EXITING POWER AND SIGNAL CONDUITS BELOW GRAVE FOR PROPOSED WORK.

SCADA CONTROL PANEL PARTIAL PARTS LIST				
ITEM #	QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION
1	1	CONTROL MICROSYSTEMS	294034	MODEL 1206 12V 6AH BATTERY
2	1	CONTROL MICROSYSTEMS	294000	MODEL ACS-24 120:24VAC, 40VA TRANSFORMER
3	1	CONTROL MICROSYSTEMS	5103	UNINTERRUPTIBLE POWER SUPPLY
4	1	CONTROL MICROSYSTEMS	P1-130-01-1-1	SCADA PACK, 16 BIT CONTROLLER 3 RS-232 COMMUNICATIONS PORTS MODBUS PROTOCOL WITH TELEPACE LADDER LOGIC 8 ANALOG INPUTS, 16 120 VAC INPUTS 12 DRY CONTACT DIGITAL OUTPUTS, 2-4-20 mA OUTPUTS
5	1	CONTROL MICROSYSTEMS	-	5405-120 32 POINT DIGITAL INPUT MODULE (120VAC)
6	1	CONTROL MICROSYSTEMS	-	5401 CONFIGURABLE DIGITAL INPUT/OUTPUT MODULE (120VAC) (8 CHANNEL)
7	1	CONTROL MICROSYSTEMS	-	DIAL UP MODEM (TO BE REMOVED)
8	1	KEP (KESSLER-ELLIS PRODUCTS)	MMI8056	OIT GRAPHIC INTERFACE, 256 COLOR LCD DISPLAY AND TOUCH SCREEN

- NOTE:**
- INSTALL 8 CHANNEL CONFIGURABLE DIGITAL INPUT/OUTPUT MODULE AS NEEDED FOR THE CELL 1 PUMP STATION UPGRADES PROJECT. CONNECT INDICATED HIGH LEVEL TANK ALARM SIGNAL WIRES TO EACH OF THE NEW PUMP STATIONS. MODIFY THE PLC AND TOUCH SCREEN PROGRAM AS NECESSARY.
 - INSTALL ADDITIONAL INTERPOSING RELAYS TO ACCOMMODATE ADDITIONAL ADDED DIGITAL INPUTS.

REVISIONS

NO.	DATE	BY	DESCRIPTION

DESIGNED BY: DYN/MSH
 DRAWN BY: NWH
 CHECKED BY: DY
 PROJECT MANAGER: DOK

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20812 EXPIRATION DATE: APRIL 24, 2025

WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
 CENTRAL LANDFILL CELL 1 PUMP STATION
 & LEACHATE FORCEMAIN UPGRADES
 WORCESTER COUNTY, MARYLAND

ELEVATIONS AND MODIFIED SCADA CONTROL PANEL

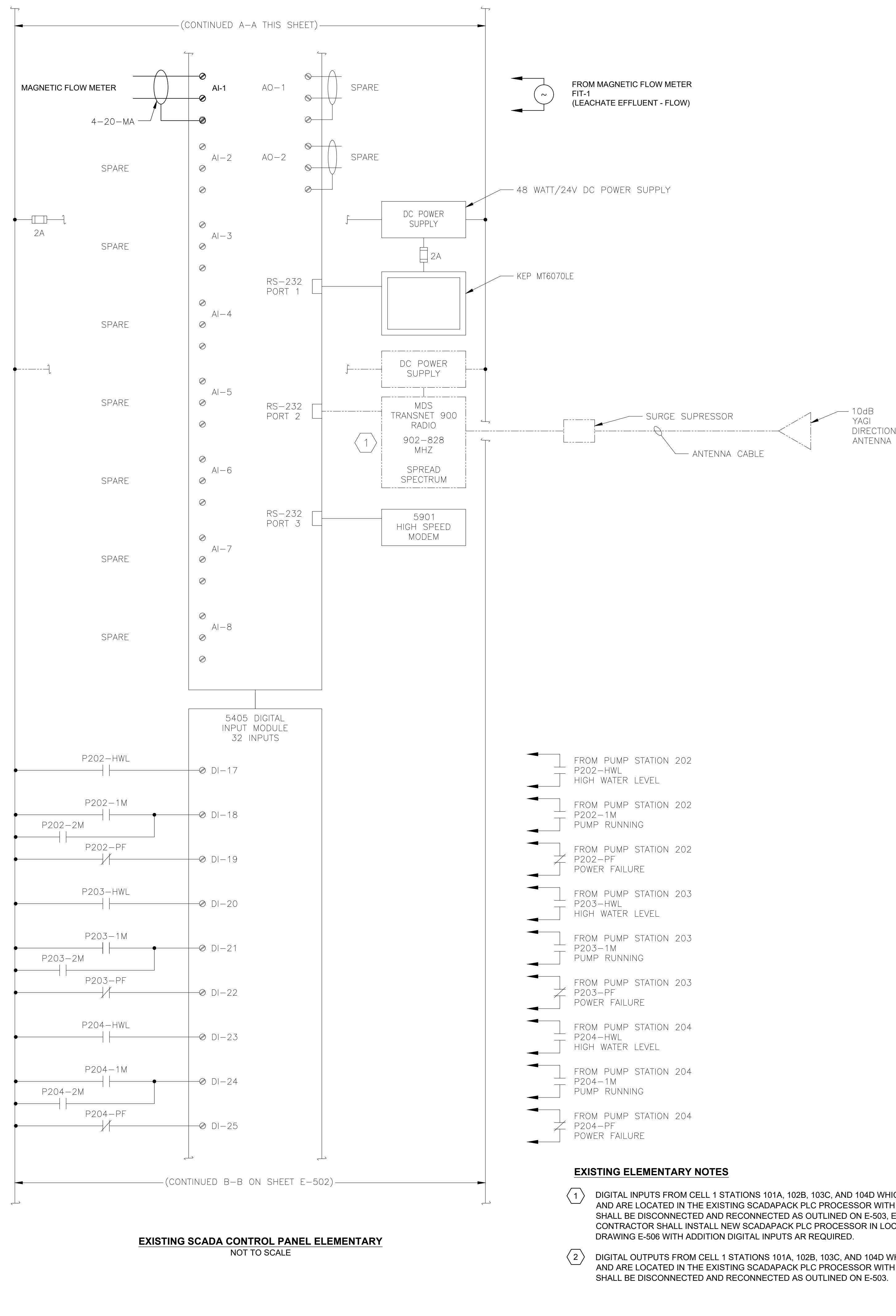
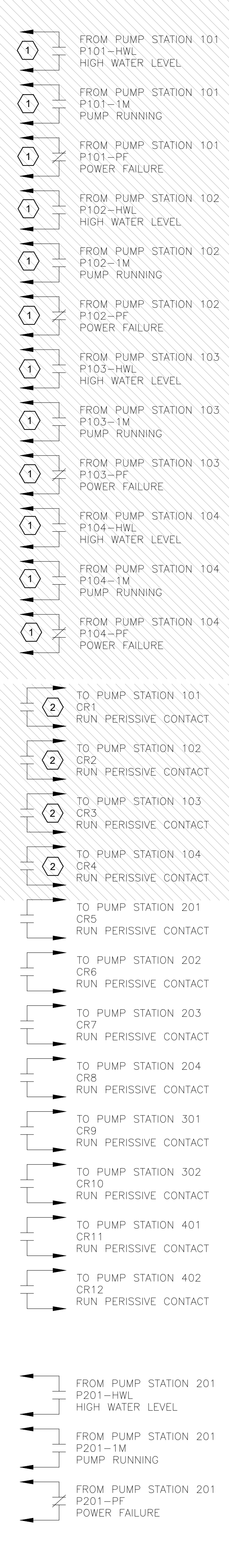
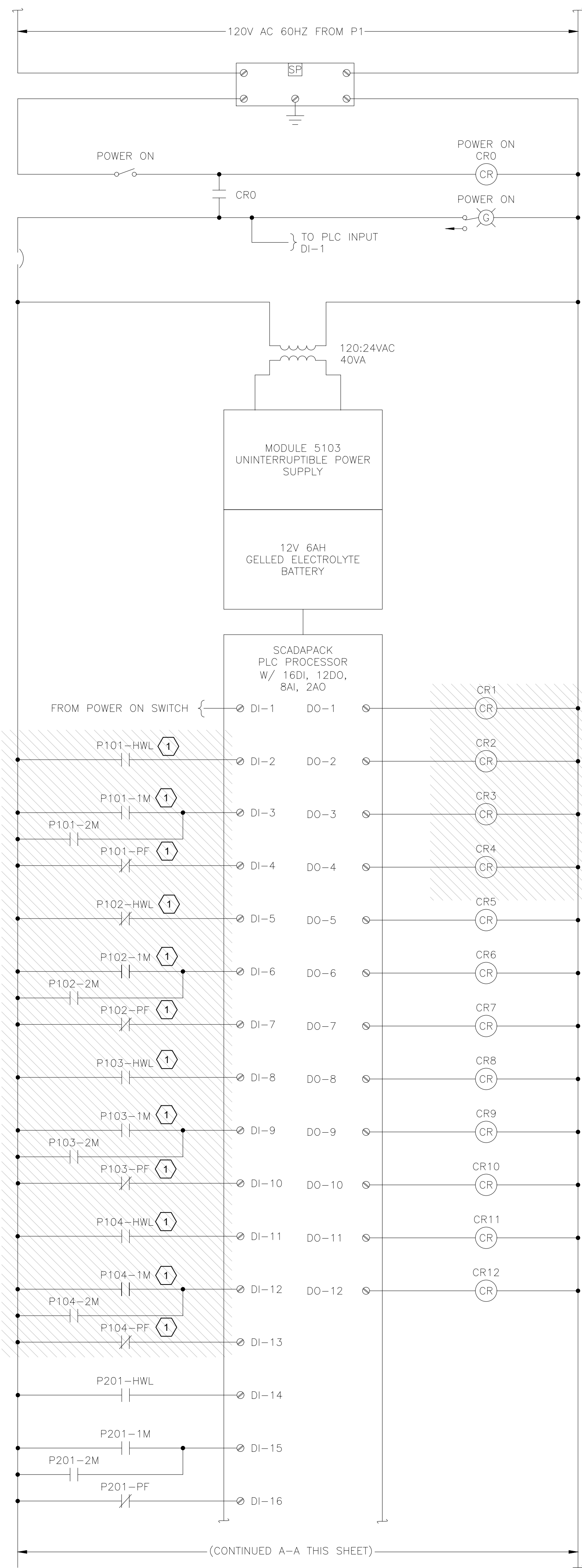
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FULL SIZE PLOT: 24" x 36"
 DATE: MARCH 2024
 PROJECT NUMBER: 61060951

E-3
 SHEET: 16 OF 19


100% PLANS - FOR CONSTRUCTION

FILE PATH: \\C:\ADMIN\PROJECTS\WORCESTER COUNTY\6106951 - CELL 1 PUMP STATION UPGRADES\SCADAPACK\CONSTRUCTION\SET 601 ELECTRICAL\DWG (E-4) HOLLOWELL_NEB_3/2024_207.PLM



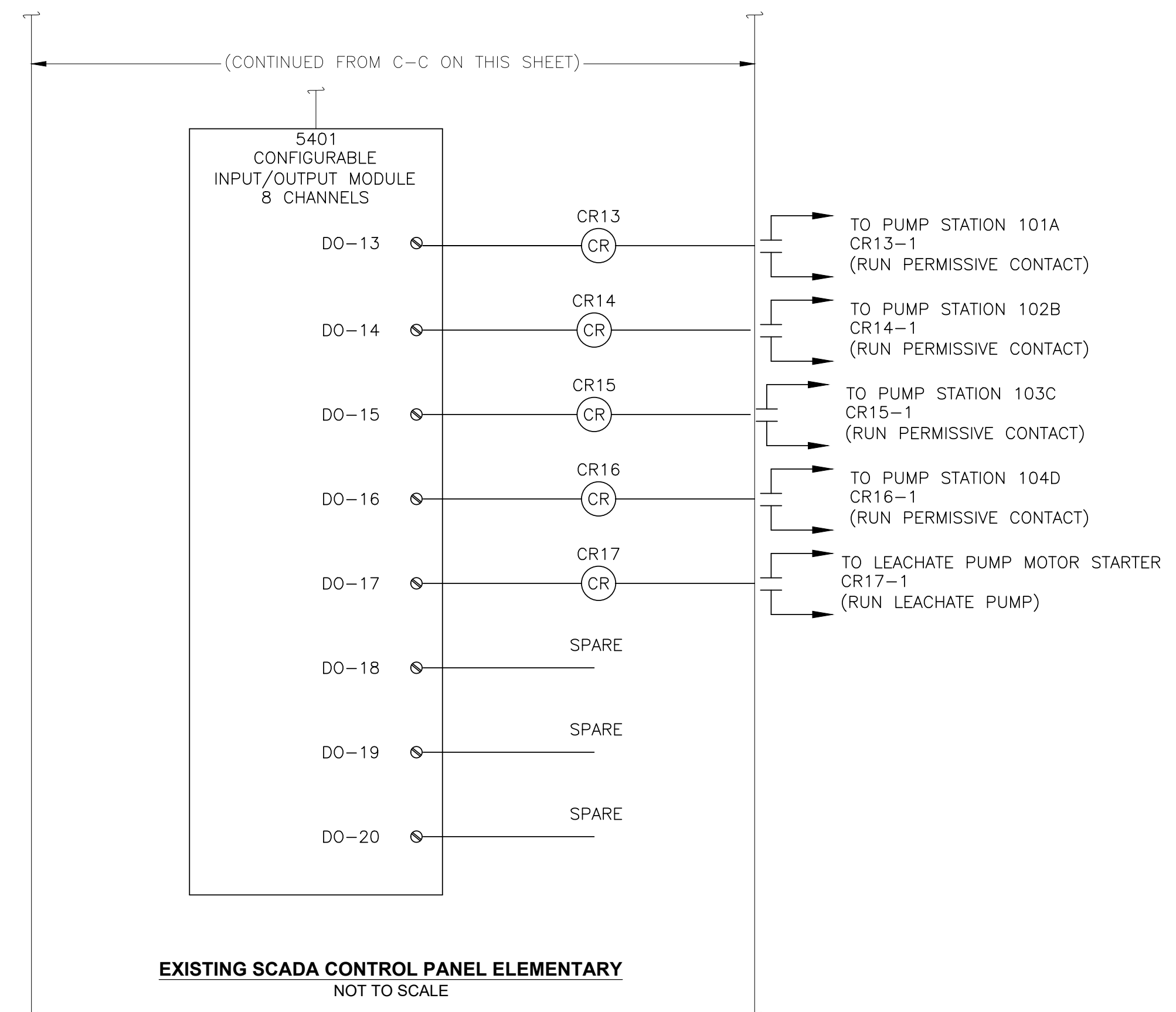
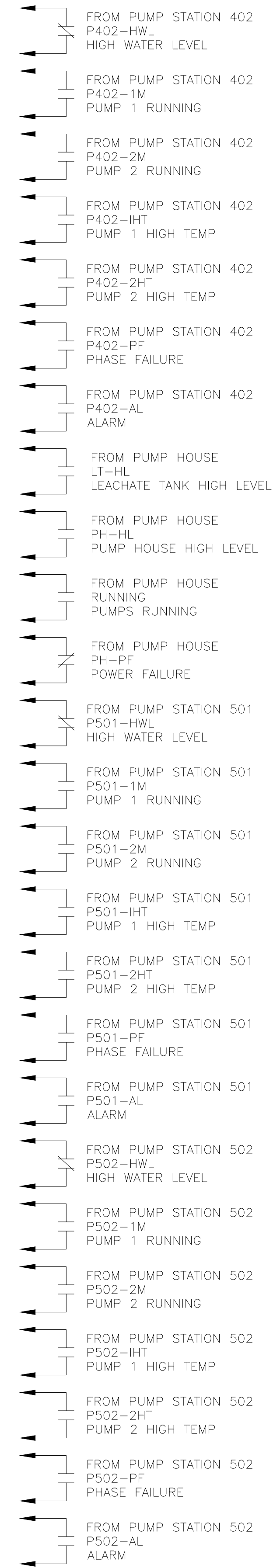
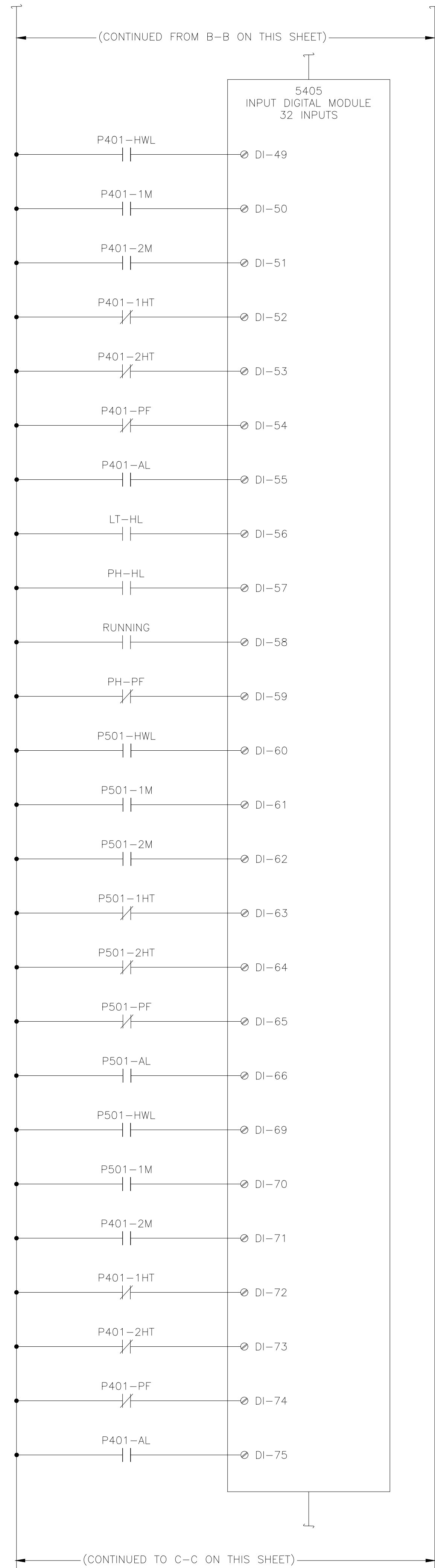
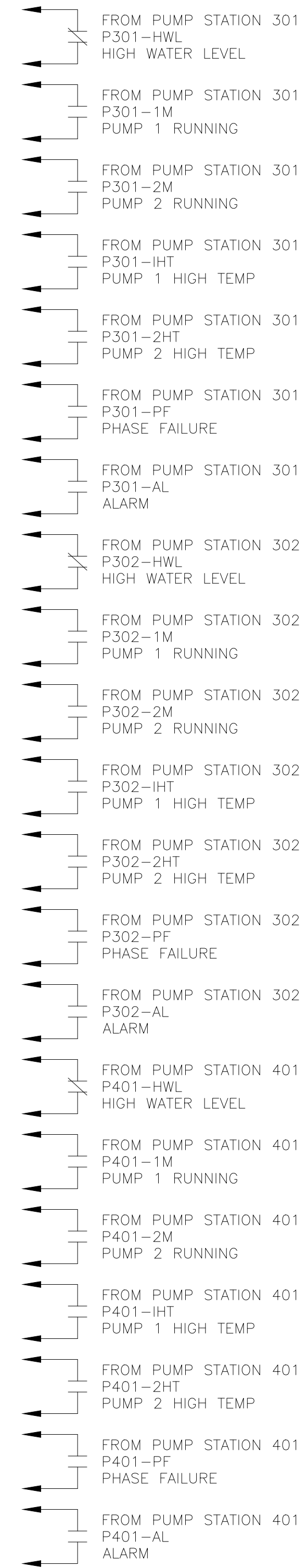
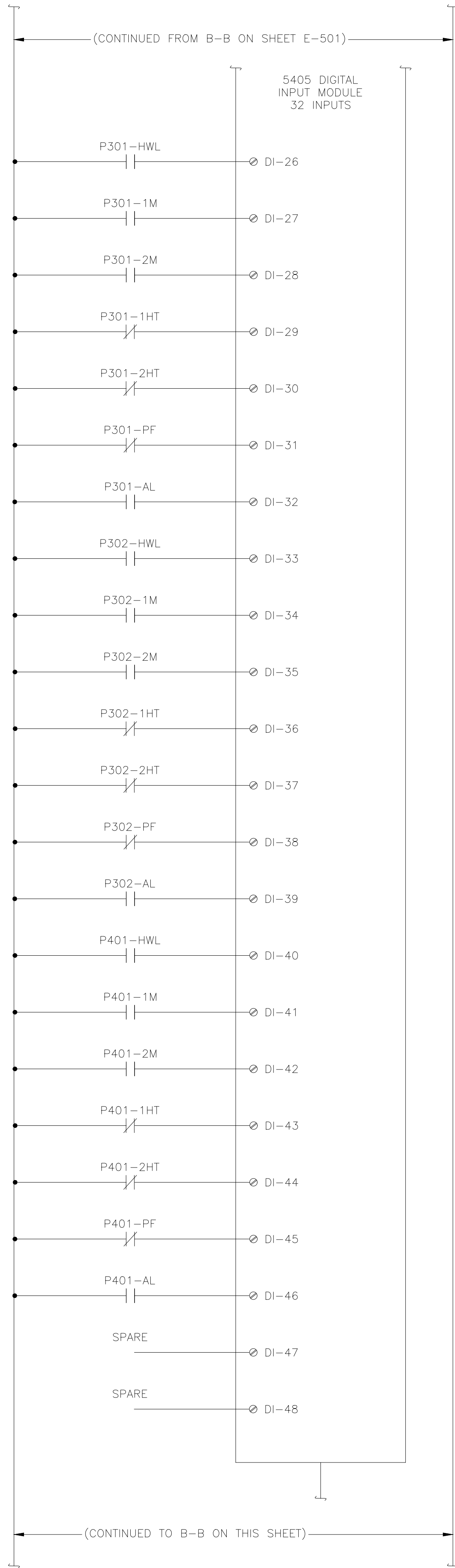
EXISTING SCADA CONTROL PANEL ELEMENTARY
NOT TO SCALE

- EXISTING ELEMENTARY NOTES**
- ① DIGITAL INPUTS FROM CELL 1 STATIONS 101A, 102B, 103C, AND 104D WHICH OCCUPY DI-2 TO DI-13 AND ARE LOCATED IN THE EXISTING SCADAPACK PLC PROCESSOR WITH 16 DI, 12 DO, 8AI, AND 2 AO SHALL BE DISCONNECTED AND RECONNECTED AS OUTLINED ON E-503, E-504, AND E-505. CONTRACTOR SHALL INSTALL NEW SCADAPACK PLC PROCESSOR IN LOCATION IDENTIFIED ON DRAWING E-506 WITH ADDITIONAL DIGITAL INPUTS AS REQUIRED.
 - ② DIGITAL OUTPUTS FROM CELL 1 STATIONS 101A, 102B, 103C, AND 104D WHICH OCCUPY DO-1 TO DO-4 AND ARE LOCATED IN THE EXISTING SCADAPACK PLC PROCESSOR WITH 16 DI, 12 DO, 8AI, AND 2 AO SHALL BE DISCONNECTED AND RECONNECTED AS OUTLINED ON E-503.

<p>WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS CENTRAL LANDFILL CELL 1 PUMP STATION & LEACHATE FORCEMAIN UPGRADES</p>	
<p>WORCESTER COUNTY, MARYLAND EXISTING SCADA CONTROL PANEL ELEMENTARY I</p>	
	
<p>EA Engineering, Science, and Technology, Inc., PBC 11200 Racetrack Road, Unit A101 Ocean Pines, Maryland 21811 (410) 641-5341 www.eaest.com</p>	
<p>FULL SIZE PLOT: 24" x 36" DATE: MARCH 2024 PROJECT NUMBER: 6106951</p>	
<p>E-4 SHEET: 17 OF 19</p>	

100% PLANS - FOR CONSTRUCTION

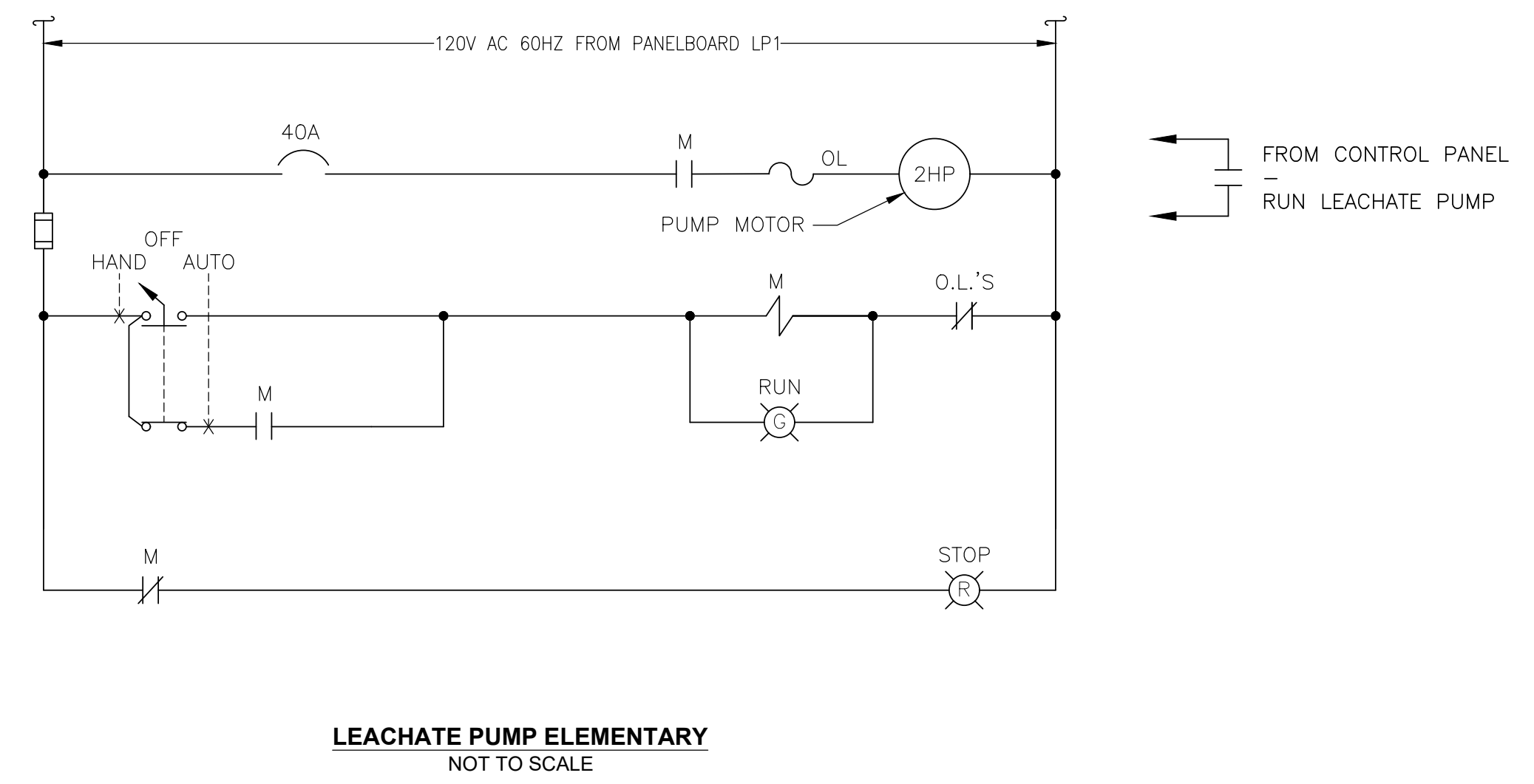
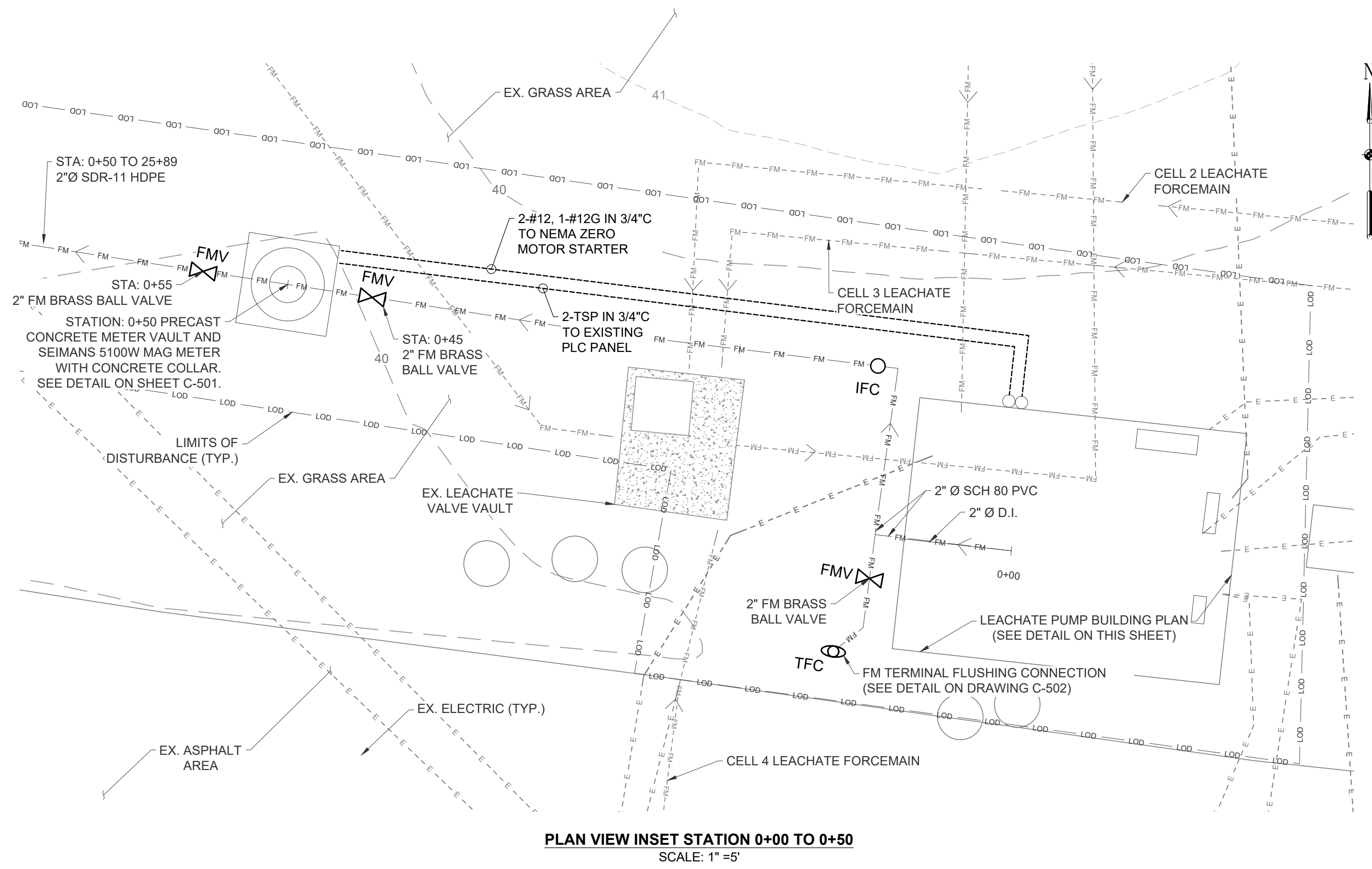
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REVISIONS		DESCRIPTION	
NO.	DATE	BY	
DESIGN INFORMATION			
DESIGNED BY:	DY/NWH	DRAWN BY:	NWH
CHECKED BY:	DY	PROJECT MANAGER:	DOK
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20812 EXPIRATION DATE: APRIL 24, 2025			
		<p>WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS CENTRAL LANDFILL CELL 1 PUMP STATION & LEACHATE FORCEMAIN UPGRADES</p> <p>WORCESTER COUNTY, MARYLAND</p> <p>EXISTING SCADA CONTROL PANEL ELEMENTARY II</p>	
FULL SIZE PLOT: 24" x 36"			
DATE: MARCH 2024			
PROJECT NUMBER: 61060951			
E-5			
SHEET: 18 OF 19			

100% PLANS - FOR CONSTRUCTION


FILE PATH: \\C:\ADMIN\PROJECTS\WORCESTER COUNTY\61060951 - CELL 1 PUMP STATION UPGRADES\CONSTRUCTION\DESIGN SET\E-61 ELECTRICAL.DWG (E:\HALLOWELL_NEL_3/20/2024_10/17/24)



REVISIONS		DESCRIPTION
NO.	DATE	BY

DESIGN INFORMATION	
DESIGNED BY:	DYN/NWH
DRAWN BY:	NWH
CHECKED BY:	DY
PROJECT MANAGER:	DOK

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20812 EXPIRATION DATE: APRIL 24, 2025



WORCESTER COUNTY DEPARTMENT OF PUBLIC WORKS
CENTRAL LANDFILL CELL 1 PUMP STATION
& LEACHATE FORCEMAIN UPGRADES

WORCESTER COUNTY, MARYLAND

LEACHATE PUMP INSET PLAN AND ELEMENTARY



EA
Engineering, Science,
and Technology, Inc., PBC

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Ocean Pines, Maryland 21811
(410) 641-5341
www.eaest.com

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DATE: MARCH 2024
PROJECT NUMBER: 61060951

100% PLANS - FOR CONSTRUCTION