

DELAWARE COUNTY, OHIO DIVISION OF ENVIRONMENTAL SERVICES REGIONAL SEWER DISTRICT

OLENTANGY ENVIRONMENTAL CONTROL CENTER (OECC) NORTH PLANT MOTOR CONTROL CENTERS (MCCs) UPGRADE

COUNTY STAFF

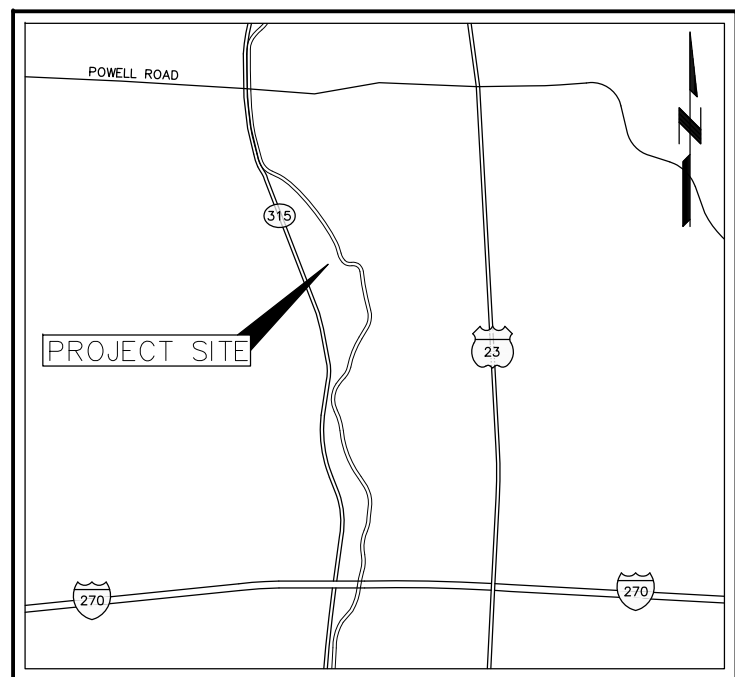
TIM HANSLEY	COUNTY ADMINISTRATOR
TIFFANY JENKINS	DIRECTOR OF ENVIRONMENTAL SERVICES
KEN ROSENBAUM	PLANT SUPERINTENDENT

RECORD DOCUMENTS

BOARD OF COUNTY COMMISSIONERS

_____	DATE
KEN O'BRIEN PRESIDENT	
_____	DATE
DENNIS STAPLETON VICE PRESIDENT	
_____	DATE
GARY MERRELL	

NOTE: THESE DOCUMENTS ARE THE RECORD DOCUMENTS. THEY HAVE BEEN AMENDED TO INCORPORATE AVAILABLE CONSTRUCTION INFORMATION FOLLOWING THE FINAL CONSTRUCTION. THEY ARE AN UNOFFICIAL SET OF DOCUMENTS AND ARE INTENDED FOR THE DCRSD'S INTERNAL USE ONLY.



VICINITY MAP

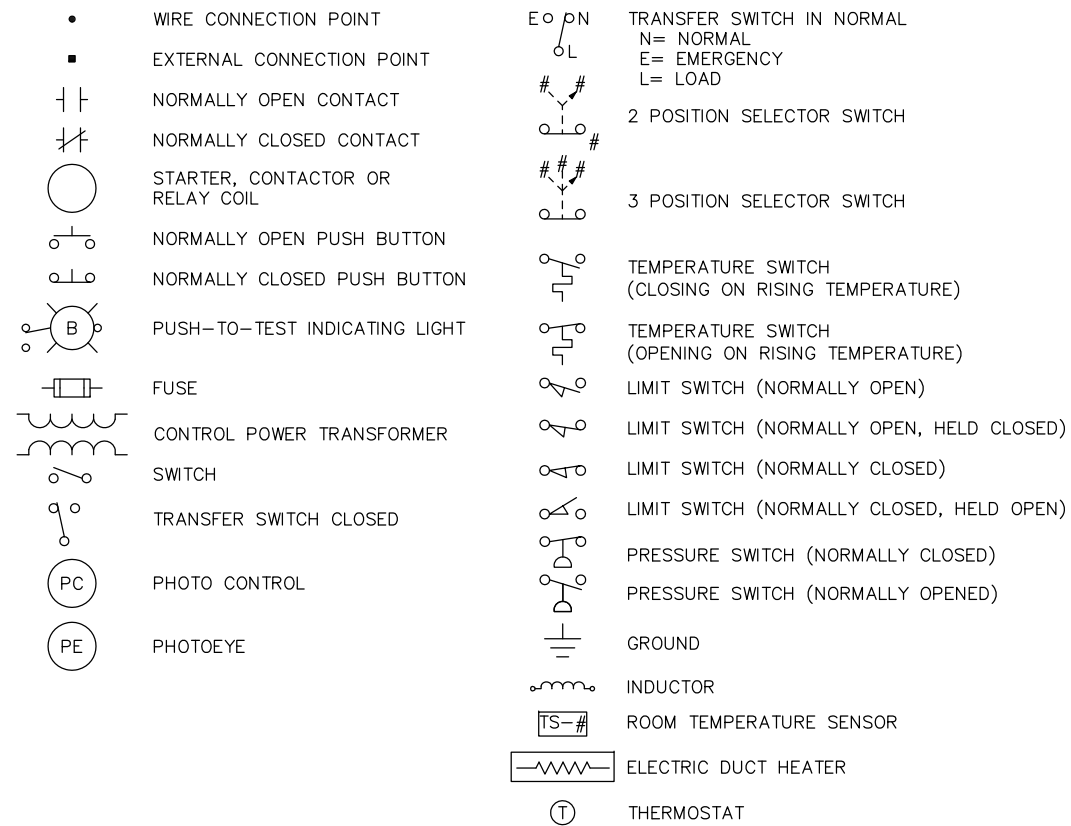
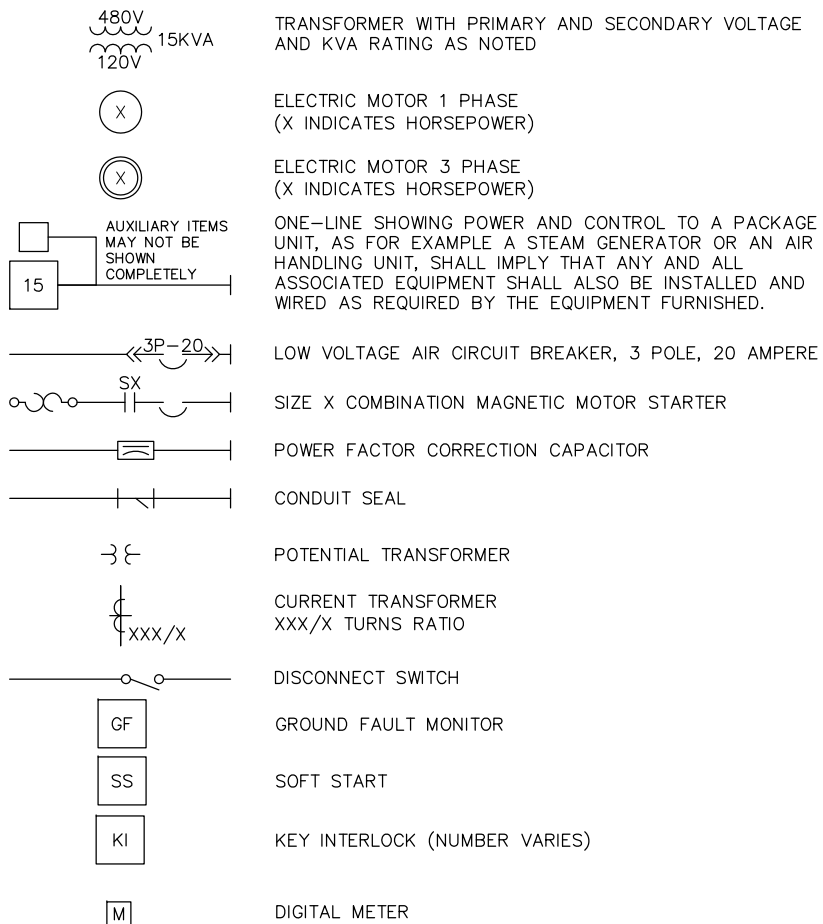
NOT TO SCALE

APPROVED: _____ DATE _____
TIFFANY JENKINS
DIRECTOR OF ENVIRONMENTAL SERVICES

 RIBWAY ENGINEERING GROUP, INC. 300 E. BROAD ST., SUITE 500 COLUMBUS, OHIO 43215 PH. NO. (614) 221-6009 FAX NO. (614) 221-9089	NO.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE	DELAWARE COUNTY, OHIO REGIONAL SEWER DISTRICT 	OLENTANGY ENVIRONMENTAL CONTROL CENTER OECC MOTOR CONTROL CENTERS UPGRADE	SCALE NOT TO SCALE	GENERAL TITLE SHEET	ISSUED STATUS: REC
	Int.	Mo./Dy./Yr.	Remarks	Initials	Mo./Dy./Yr.	1					
					DES. RW	02/17/14					SHEET
					DWN. JS	02/17/14					DATE ISSUED: 03/17/17
					CKD. AE	02/17/14					Mo./Dy./Yr.

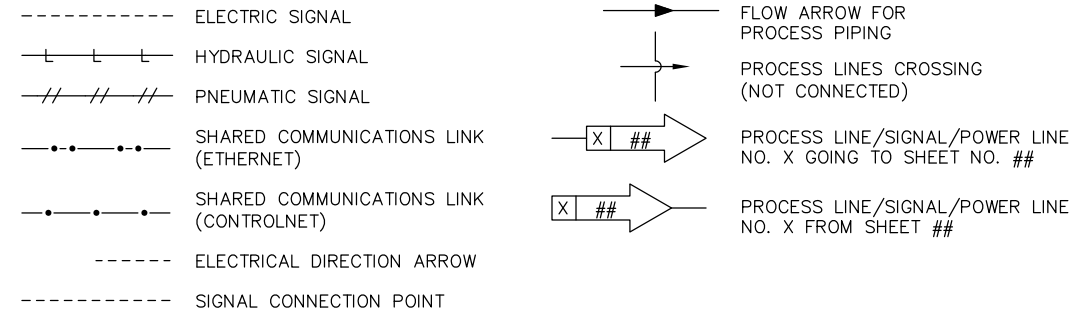
ONE-LINE DIAGRAM LEGEND

ELECTRICAL SCHEMATIC SYMBOLS



SHEET NO.	SHEET TITLE
1	TITLE SHEET
2	INDEX OF DRAWINGS, ABBREVIATIONS, AND LEGENDS AND SYMBOLS
3	GENERAL NOTES
4	STRUCTURAL NOTES
5	GENERAL SITE PLAN
6	SITE DEMOLITION PLAN
7	SITE PAVING, GRADING, PIPING, AND ELECTRICAL PLAN
8	SITE PAVING - CURVE DATA
9	SITE PAVING - CROSS SECTIONS
10	SITE SECTION AND DETAILS
11	SITE DETAILS - SHEET 1 OF 2
12	SITE DETAILS - SHEET 2 OF 2
13	GENERATOR - PLAN AND SECTIONS
14	NORTH BLOWER BUILDING - DEMOLITION - PLANS AT EL. 761.00± AND 778.00±
15	NORTH BLOWER BUILDING - MODIFICATIONS - PLAN AT EL. 778.00±
16	NORTH BLOWER BUILDING - MS-1 AND DS-2 - ONE-LINE AND ELEVATION
17	NORTH BLOWER BUILDING - MCC-NB-1 - ONE-LINE AND ELEVATION
18	NORTH BLOWER BUILDING - MCC-NB-1 - ONE-LINE AND ELEVATION
19	NORTH BLOWER BUILDING - CONTROL SCHEMATICS
20	NORTH BLOWER BUILDING - SCHEDULES
21	CONCENTRATOR BUILDING - DEMOLITION AND MODIFICATIONS - PLANS AT EL. 770.00±
22	CONCENTRATOR BUILDING - ONE-LINE, ELEVATION, CONTROL SCHEMATICS, AND PANEL SCHEDULES
23	EFFLUENT BUILDING - DEMOLITION AND MODIFICATIONS - PLANS AT EL. 770.00±
24	EFFLUENT BUILDING - MCC-EF-1 - ONE-LINE AND ELEVATION
25	EFFLUENT BUILDING - MCC-EF-1 - CONTROL SCHEMATICS
26	EFFLUENT BUILDING - PANEL SCHEDULES
27	ELECTRICAL DETAILS
28	DUCT BANK CONDUIT AND WIRE ARRANGEMENT
29	DETAILS NETWORK DIAGRAM

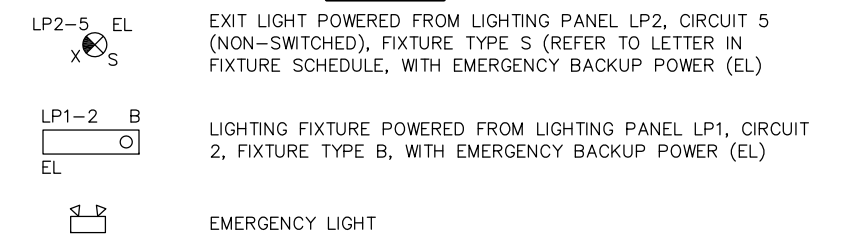
POWER AND SIGNAL LINE SYMBOLS



ABBREVIATIONS

AFD	ADJUSTABLE FREQUENCY DRIVE	NG	NATURAL GAS
ATI	AERATION TANK INFLUENT	NPW	NON POTABLE WATER
DS	DISTRIBUTION SWITCHBOARD	PW	POTABLE WATER
GV	GAS VALVE	RCP	REINFORCED CONCRETE PIPE
MCC	MOTOR CONTROL CENTER	WV	WATER VALVE
MS	MAIN SWITCHBOARD		

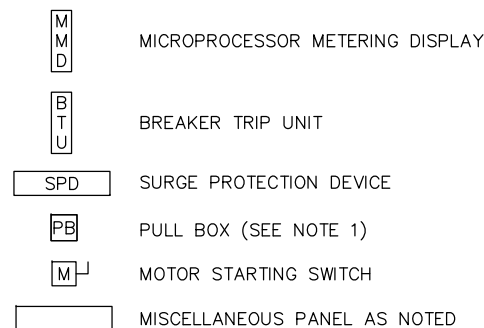
LIGHTING



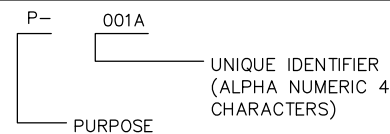
DIGITAL SYSTEMS INTERFACE SYMBOLS



MISCELLANEOUS ELECTRICAL SYMBOLS



CONDUIT NAMING CONVENTION



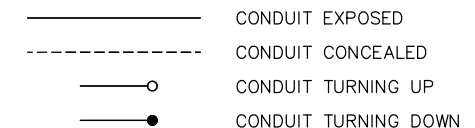
CONDUIT PURPOSE CODES

- M MEDIUM VOLTAGE POWER
- P 480V POWER
- L 120V POWER
- C CONTROL (120V)
- S STATUS
- A INSTRUMENTATION (4-20ma)
- H LOW VOLTAGE CONTROL (24v)
- K COMMUNICATIONS (PLC, LAN TELEPHONE)

NOTES:

1. CODES MAY BE COMBINED WHERE CONDUITS CONTAIN WIRES FROM MULTIPLE CLASSIFICATIONS SUCH AS "PC" FOR 480V POWER AND 120V CONTROL IN THE SAME CONDUIT.

CONDUIT AND WIRING INSTALLATION LEGEND



GENERAL NOTES:

- A. JUNCTION AND PULL BOXES SHOWN IN PLANS AND ONE-LINE DIAGRAMS DEPICT MINIMUM REQUIREMENTS. PROVIDE ADDITIONAL SUCH BOXES AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC), AND LIMIT TOTAL WIRE PULLING BENDS TO 270°.
- B. ALL SYMBOLS, ABBREVIATIONS, ETC. SHOWN ON THIS SHEET MAY NOT BE USED IN THIS PROJECT.

<p>RIBWAY ENGINEERING GROUP, INC. 300 E. BROAD ST. SUITE 500 COLUMBUS, OHIO 43215 PH. NO. (614) 221-6009 FAX NO. (614) 221-9089</p>	<table border="1"> <thead> <tr> <th rowspan="2">NO.</th> <th rowspan="2">BY</th> <th rowspan="2">DATE</th> <th colspan="2">REVISIONS</th> </tr> <tr> <th>Int.</th> <th>Mo./Dy./Yr.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DDW</td> <td>03/17/17</td> <td>RECORD DOCUMENTS</td> <td></td> </tr> </tbody> </table>	NO.	BY	DATE	REVISIONS		Int.	Mo./Dy./Yr.	1	DDW	03/17/17	RECORD DOCUMENTS		<table border="1"> <thead> <tr> <th rowspan="2">PROJ. PERSONNEL</th> <th rowspan="2">DATE</th> <th rowspan="2">REMARKS</th> </tr> <tr> <th>Initials</th> <th>Mo./Dy./Yr.</th> </tr> </thead> <tbody> <tr> <td>DES. RW</td> <td>02/17/14</td> <td></td> </tr> <tr> <td>DWN. JS</td> <td>02/17/14</td> <td></td> </tr> <tr> <td>CKD. TW/JB</td> <td>02/17/14</td> <td></td> </tr> </tbody> </table>	PROJ. PERSONNEL	DATE	REMARKS	Initials	Mo./Dy./Yr.	DES. RW	02/17/14		DWN. JS	02/17/14		CKD. TW/JB	02/17/14		<p>This document was originally issued by ANDREW O. ERIBO on 02/2014. This document is not considered a sealed document.</p>	<p>DELAWARE COUNTY, OHIO REGIONAL SEWER DISTRICT</p>	<p>OLENTANGY ENVIRONMENTAL CONTROL CENTER</p> <p>OECC MOTOR CONTROL CENTERS UPGRADE</p>	<p>SCALE</p> <p>NOT TO SCALE</p>	<p>GENERAL INDEX OF DRAWINGS, ABBREVIATIONS, AND LEGENDS AND SYMBOLS</p>	<p>ISSUED STATUS: REC (See User's Guide for Explanation)</p> <p>2</p> <p>SHEET</p> <p>DATE ISSUED: 03/17/17 Mo./Dy./Yr.</p>
	NO.				BY	DATE	REVISIONS																											
Int.		Mo./Dy./Yr.																																
1	DDW	03/17/17	RECORD DOCUMENTS																															
PROJ. PERSONNEL	DATE	REMARKS																																
			Initials	Mo./Dy./Yr.																														
DES. RW	02/17/14																																	
DWN. JS	02/17/14																																	
CKD. TW/JB	02/17/14																																	

GENERAL NOTES

GENERAL SITE:

- CONTRACTOR LAYDOWN AND PARKING AREA HAS BEEN RESERVED FOR THIS CONTRACT. REFER TO SHEET 5 FOR LOCATION. REFER TO SECTION 01 50 00, TEMPORARY FACILITIES, OF THE CONTRACT SPECIFICATIONS FOR DETAILS. CONTRACTOR SHALL UTILIZE THE DESIGNATED LAYDOWN AREAS FOR LAYDOWN, STORAGE, AND LOCATION OF ALL TRAILERS REQUIRED FOR THE CONTRACTOR. CONTRACTOR SHALL SUBMIT A GENERAL SITE PLAN LAYOUT TO THE ENGINEER FOR REVIEW.
- REFER TO SHEET 7 FOR WORK LIMITS. PARKING WITHIN THE WORK LIMITS SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER. CONTRACTOR SHALL DIRECT ALL STAFF TO PARK IN DESIGNATED AREAS OUTSIDE OF THE WORK LIMITS AND SHALL PROVIDE TRANSPORTATION TO AND FROM PARKING LOCATION FOR ITS EMPLOYEES. CONTRACTOR SHALL MAINTAIN AND CLEAN PARKING AREA UNTIL COMPLETION OF THE PROJECT AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- CONSTRUCTION TRAFFIC FOR THIS PROJECT SHALL BE RESTRICTED TO THE MAIN PLANT ENTRANCE. USE OF THE OTHER PLANT ENTRANCE IS NOT PERMITTED FOR CONSTRUCTION TRAFFIC ON THIS PROJECT. SEE SHEET 5 FOR LOCATION OF THE MAIN PLANT ENTRANCE.
- CONTRACTOR SHALL MAINTAIN STOCKPILE AND STORAGE AREAS WITHIN THE WORK LIMITS AND LAYDOWN AREAS AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK. REFER TO DIVISION 1 OF THE CONTRACT SPECIFICATION FOR DETAILS.
- THE WORK LIMITS AND LAYDOWN AREAS SHOWN ARE INTENDED TO IDENTIFY GENERAL USAGE OF THE SITE BY THE CONTRACTOR. THE CONTRACTOR WILL SHARE THE SITE AND COORDINATE WITH THE WORK OF OTHER CONTRACTORS WORKING ON ANY ONGOING PROJECTS.
- EXISTING UTILITIES MAY BE LOCATED WITHIN THE DESIGNATED CONTRACT LAYDOWN, TRAILER, AND PARKING AREAS. THE LOCATION OF EXISTING UTILITIES ARE BASED UPON BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROTECT THE UTILITIES AT ALL TIMES AND PROVIDE SAFE ACCESS TO EXPOSED STRUCTURES (INCLUDING MANHOLES, CATCH BASINS, ETC.) FOR PLANT PERSONNEL.
- CONTRACTOR SHALL PROVIDE MEASURES TO SECURE THE CONTRACTOR AREA AND PROJECT SITE AT ALL TIMES. REFER TO THE CONTRACT SPECIFICATIONS FOR DETAILED REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE WORK AREA AND ALL DISTURBED VEGETATED AREAS WITHIN THE WORK LIMITS AS INDICATED ON THE DRAWINGS TO THEIR ORIGINAL CONDITION OR BETTER WITH GENERAL BACKFILL, TOPSOIL, AND SEED AS SPECIFIED UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL SUBMIT A WRITTEN NOTICE TO THE ENGINEER AT LEAST 14 DAYS PRIOR TO THE START OF ANY SITE CLEARING OR GRADING WORK.
- CONTRACTOR SHALL REFER TO SECTION 01 11 00, SUMMARY OF WORK, OF THE TECHNICAL SPECIFICATIONS FOR INFORMATION REGARDING THE SUMMARY OF WORK AND OTHER REQUIREMENTS.
- CONTRACTOR SHALL KEEP ALL PLANT DRIVES CLEAR OF DEBRIS FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL BE REQUIRED TO CLEAN CONSTRUCTION DEBRIS AND SOILS FROM CONSTRUCTION EQUIPMENT FROM THE DRIVES WITH STREET VACUUM SWEEPING EQUIPMENT AT LEAST ONCE A WEEK OR AS DIRECTED BY THE ENGINEER.
- SURVEY INFORMATION FOR THIS PROJECT IS BASED ON AN ASSUMED BENCHMARK ELEVATION 100.00 (NOTCH IN THE FINISHED FLOOR AT THE ENTRANCE TO THE NORTH BLOWER BUILDING). THE CONTRACTOR SHALL NOT DISTURB CONTROL POINTS OR BENCHMARKS DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ANY NEEDS FOR THE BASIS OF HORIZONTAL AND VERTICAL DESIGN WITH THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING HIS/HER EQUIPMENT AND ALL WORK FROM FLOODING. THE OLENTANGY RIVER IS EAST OF THE PLANT SITE AND THE ESTIMATED 100-YR FLOOD ELEVATION IS 89.00 (SITE).

TRAFFIC:

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC PLAN (MOT) ON THE PROJECT SITE. THE CONTRACTOR SHALL SUBMIT A MOT PLAN TO THE ENGINEER AND OWNER FOR APPROVAL.
- CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE ENGINEER.
- ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CONSTRUCTION AND MAINTENANCE OPERATIONS (LATEST EDITION). ALL DEVICES SHALL MEET FR-85 REFLECTANCE STANDARDS AND BE IN FULL COMPLIANCE WITH "QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES" PUBLISHED BY AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA).
- ACCESS FOR EMERGENCY, PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL FACILITIES MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- STEADY-BURNING TYPE C LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT.
- CONTRACTOR SHALL USE ONLY RUBBER TIERED VEHICLES ON ALL ASPHALT PAVED SURFACES.

SITE DEMOLITION AND PIPING:

- CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, PIPING, AND APPURTENANCES IN THE AREA THAT ARE NOT DESIGNATED FOR REMOVAL DURING ALL PHASES OF DEMOLITION AND CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING DEMOLITION AND RELOCATION WORK FOR ALL ITEMS THAT ARE IDENTIFIED AS INTERFERING OR HAVE THE POSSIBILITY OF INTERFERING WITH THE SITE WORK AS SHOWN ON THE DRAWINGS.
- INFORMATION ON THE DEPTH OF EXISTING UTILITIES AND PIPING IS BASED UPON AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES AND PIPING PRIOR TO START OF CONSTRUCTION AND NOTIFY ENGINEER OF ANY CONFLICTS. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES AND PIPING PRIOR TO CONSTRUCTION AND RELOCATE INTERFERING UTILITIES AND PIPING PER THE DIRECTION OF THE ENGINEER. THE COST OF RELOCATION SHALL BE PAID BY THE OWNER FROM THE BURIED PIPING RELOCATION ALLOWANCE FOR ITEMS DESIGNATED AS INTERFERING WITH THE WORK.
- CONTRACTOR SHALL SEAL THE ENDS OF ALL ABANDONED PIPING WITH CAPS, MECHANICAL PLUGS, BLIND FLANGES OR CONCRETE/NON-SHRINK GROUT REGARDLESS OF IT BEING SHOWN ON THE DRAWINGS. THE EXISTING PIPING MATERIAL SHALL BE VERIFIED PRIOR TO THE INSTALLATION OF THE SEAL. UNLESS OTHERWISE NOTED, THE SEAL SHALL BE LOCATED WITHIN 1' OF THE EXTERIOR FACE OF THE WALL OR WITHIN 3" OF THE INTERIOR FACE OF THE WALL. IF THERE IS NO EXISTING PIPE JOINT WITHIN THE STATED LIMITS, THE CONTRACTOR SHALL CUT THE PIPING AND SEAL WITH CONCRETE OR NON-SHRINK GROUT AS SHOWN IN THE DETAIL ON SHEET 12. IF THERE IS AN EXISTING PIPE JOINT WITHIN THE STATED LIMITS, INSTALL PIPE CAP, PLUG, OR BLIND FLANGE AT JOINT.
- UNLESS OTHERWISE NOTED, ALL BURIED ABANDONED IN PLACE PIPING SHALL BE SEALED WITH CONCRETE OR NON-SHRINK GROUT PER DETAIL ON SHEET 12. ALL ABANDONED PIPING UNDERNEATH PAVED AREAS OR STRUCTURES SHALL BE FILLED WITH FILLABLE CONTROLLED DENSITY FILL.
- CONTRACTOR SHALL PROVIDE PERMANENT WATERTIGHT PLUGS FOR ELECTRICAL UNDERGROUND CONDUITS ABANDONED IN PLACE PER REQUIREMENTS IN SECTION 02 41 00, DEMOLITION, OF THE CONTRACT SPECIFICATIONS.
- ALL ELECTRICAL EQUIPMENT IS NOT SHOWN. CONTRACTOR SHALL COORDINATE THE DE-ENERGIZING AND DISCONNECTION OF ALL ELECTRICAL EQUIPMENT AND THE ELECTRICAL CONTRACTOR SHALL PERFORM THE DE-ENERGIZING AND DISCONNECTION WORK. AFTER ALL EQUIPMENT HAS BEEN DE-ENERGIZED AND DISCONNECTED, THE CONTRACTOR SHALL DEMOLISH ALL ELECTRICAL EQUIPMENT PRIOR TO PROCEEDING WITH ANY DEMOLITION WORK. FOR MORE INFORMATION ON THE EXTENT OF ELECTRICAL EQUIPMENT TO BE REMOVED, SEE SECTION 02 41 00, DEMOLITION, OF THE TECHNICAL SPECIFICATIONS.
- PROVIDE CONCRETE BLOCKING BEHIND ALL ABANDONED PLUGGED WATER PIPING UNDER PRESSURE. SEE SHEET 12 FOR DETAILS.
- GAS LINES EXIST IN THE PROJECT AREA. CONTRACTOR SHALL TAKE EXTRA PRECAUTION WHEN EXCAVATING IN THE PROJECT AREA.

SITE GRADING:

- THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR THE DESIGN, SUBMITTAL AND APPROVAL OF A STORM WATER POLLUTION PREVENTION (SWPPP) PLAN. THE PLAN SHALL BE REVIEWED BY THE OWNER AND REGULATORY AGENCIES. THE CONTRACTOR SHALL ADHERE TO THE APPROVED PLAN FOR THE DURATION OF THE PROJECT.
- SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DESIGNED TO PROTECT STOCKPILED MATERIAL AS WELL AS LOCAL SEWERS AND WATERWAYS.
- CONTRACTOR SHALL STOCKPILE EXCAVATED MATERIAL FOR REUSE IN BACKFILLING ON SITE IN A DESIGNATED AREA. CONTRACTOR SHALL SEQUENCE OPERATIONS TO MAXIMIZE AREAS DESIGNATED ON SITE FOR LAYDOWN AND STOCKPILING. EXCAVATED MATERIAL FOR REUSE SHALL NOT CONTAIN, TOPSOIL, DEBRIS, ORGANICALLY CONTAMINATED MATERIALS OR FAT CLAY.
- EXISTING FAT CLAY SOILS AND UNSUITABLE MATERIAL SHALL BE REMOVED UNDERNEATH NEW STRUCTURES AND PAVEMENTS TO A MINIMUM DEPTH OF 2 FEET.
- SOILS USED FOR BACKFILLING UNDER PAVEMENT AND RAISING GRADE SHALL BE CLEAN CLAY SOILS MEETING ODOT ITEM 203 AND LIQUID LIMIT <50 OR ITEM 304.
- PROVIDE MINIMUM 4" OF TOPSOIL IN ALL DISTURBED LAYDOWN AREAS.

STANDARD EROSION CONTROL:

- SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
- ALL CATCH BASINS AND DRAIN AREAS SHALL BE PROTECTED WITH SILT FENCING OR STRAW BALE DIKES DURING EXCAVATION AND CONSTRUCTION.
- IF ANY CATCH BASINS OR DRAINS BECOME CLOGGED AS A RESULT OF DEMOLITION, EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR CLEANING.
- ANY STOCKPILING, REGARDLESS OF LOCATION, SHALL BE STABILIZED AND COVERED WITH PLASTIC OR CANVAS, AFTER ITS ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.
- AFTER DEMOLITION, IF APPLICABLE, PLACE GROUND COVER, SUCH AS SEED, SOD, PAVING, BRICKBAT OR MULCH, ETC., TO PREVENT EROSION AND SEDIMENT RUNOFF FROM OCCURRING.
- THE SITE'S APPROVED STORM WATER POLLUTION PREVENTION PLAN SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY THE ENGINEER AT ALL TIMES.
- TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF THE ENGINEER, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORM WATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
- VEGETATION STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EPA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. REFER TO APPROPRIATE SPECIFICATIONS FOR TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, SODDING AND GROUND COVERS.
- SEDIMENT REMOVED FROM TRAPS AND CATCH BASINS SHALL BE PLACED AND STABILIZED IN APPROVED AREAS. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS ARE BEING PUMPED OUT.
- WHEN DEEMED APPROPRIATE BY THE ENGINEER, SEDIMENT BASIN AND TRAPS SHALL BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE SHALL CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE CONTRACTOR SHALL CHECK WITH LOCAL BUILDING OFFICIALS AND APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD: THE SAFETY FENCE SHALL BE MADE OF WELDED WIRE AND AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THAN 2 INCHES IN WIDTH AND 4 INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE SHALL BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.

EROSION CONTROL MEASURES AND SEQUENCE:

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING.
- NO DISTURBED AREA SHALL BE DENUDE FOR MORE THAN 7 CALENDAR DAYS. INSTALL THE NECESSARY TEMPORARY OR PERMANENT VEGETATIVE STABILIZATION MEASURES TO ACHIEVE ADEQUATE EROSION AND SEDIMENT CONTROL.
- ALL CONSTRUCTION SHALL BE INSPECTED DAILY BY THE CONTRACTOR, AND ANY DAMAGED SILTATION OR EROSION CONTROL DEVICES OR MEASURES SHALL BE REPAIRED AT THE END OF THE WORK DAY.
- ALL SILT FENCE SHALL BE MAINTAINED IN WORKING CONDITION.
- CONTROLS MAY BE REMOVED AFTER THEIR CONTRIBUTING BASINS HAVE BEEN PERMANENTLY STABILIZED, AND APPROVAL OF THE ENGINEER IS OBTAINED.
- DISCHARGE OF CONCRETE-LADEN FLOWS TO STREAMS IS PROHIBITED.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY Int.	DATE Mo./Dy./Yr.	REVISIONS	
			Remarks	

PROJ. PERSONNEL	DATE
Initials	Mo./Dy./Yr.
DES. RW/LI	02/17/14
DWN. JS	02/17/14
CKD. AE/TW	02/17/14

This document was originally issued by ANDREW O. ERIBO on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
NOT TO SCALE

GENERAL
GENERAL NOTES

ISSUED STATUS: REC
(See User's Guide for Explanation)
3
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.

STRUCTURAL NOTES

GENERAL:

- THE STRUCTURE IS TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED, IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE AND TO ENSURE THE STABILITY OF THE STRUCTURE AND ITS COMPONENT PARTS, AND THE ADEQUACY OF TEMPORARY OR INCOMPLETE CONNECTIONS, DURING ERECTION. THIS INCLUDES THE ADDITION OF ANY SHORING, SHEETING, TEMPORARY GUYS, BRACING OR TIEDOWNS THAT MIGHT BE NECESSARY. SUCH MATERIAL IS NOT SHOWN ON THE DRAWINGS. IF APPLIED, THEY SHALL BE REMOVED AS CONDITIONS PERMIT, AND SHALL REMAIN THE CONTRACTOR'S PROPERTY. THE ENGINEER TAKES NO RESPONSIBILITY FOR CONSTRUCTION MEANS AND METHODS OR JOB SITE SAFETY DURING CONSTRUCTION PROCESSING AND/OR APPROVING SUBMITTALS MADE BY THE CONTRACTOR WHICH MAY CONTAIN INFORMATION RELATED TO CONSTRUCTION METHODS OR SAFETY ISSUES, OR PARTICIPATION IN MEETINGS WHERE SUCH ISSUES MIGHT BE DISCUSSED, SHALL NOT BE CONSTRUED AS VOLUNTARY ASSUMPTION BY THE ENGINEER OF ANY RESPONSIBILITY FOR SAFETY PROCEDURES.
- IT IS SOLELY THE RESPONSIBILITY OF EACH SUB-CONTRACTOR TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION. THE ENGINEER IS NOT ENGAGED IN, AND DOES NOT SUPERVISE CONSTRUCTION.
- SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS OR SPECIFICATIONS CONFLICT WITH THESE STRUCTURAL NOTES, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
- SHOP DRAWINGS SHALL BE DEVELOPED BY THE CONTRACTOR FOR THE FABRICATION, INSTALLATION AND CONSTRUCTION OF ALL STRUCTURAL ELEMENTS. ALL SHOP DRAWINGS USED BY THE CONTRACTOR OR HIS SUB-CONTRACTORS FOR THE FABRICATION AND INSTALLATION OF STRUCTURAL ELEMENTS AND THEIR COMPONENTS SHALL BE REVIEWED BY THE ENGINEER AND APPROPRIATE RELEASE OBTAINED PRIOR TO COMMENCEMENT OR RELEVANT FABRICATION AND INSTALLATION.
- THE APPLICABLE BUILDING CODE IS THE 2011 OHIO BUILDING CODE (OBC).
- THE REQUIREMENTS INDICATED ON THIS SHEET ARE INTENDED AS A BASIC SUMMARY OF THE MATERIAL AND CONSTRUCTION REQUIREMENTS FOR THE PROJECT. ADDITIONAL, MORE STRINGENT REQUIREMENTS ARE GIVEN IN THE PROJECT SPECIFICATIONS.
- ALL STRUCTURAL RELATED SHOP DRAWINGS SHALL BE REVIEWED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.
- PROVIDE BEARING PAD TO MINIMIZE VIBRATION EFFECT ON THE CONCRETE PAD.

CAST-IN-PLACE CONCRETE:

- THE LOCATION OF ALL CONSTRUCTION JOINTS AND OTHER TYPES OF JOINTS, OTHER THAN SPECIFIED OR SHOWN ON THE PLANS, SHALL BE ACCEPTABLE TO THE ENGINEER PRIOR TO PLACING CONCRETE.
- CONCRETE SHALL BE DISCHARGED AT THE SITE WITHIN 60 MINUTES AFTER WATER HAS BEEN ADDED TO THE MIX.
- ALL REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH CRSI RECOMMENDED PRACTICE.
- CONCRETE FOR ALL WORK INCLUDING GENERATOR PAD SHALL DEVELOP A COMPRESSIVE STRENGTH OF 4500 PSI IN 28 DAYS. CONCRETE EXPOSED TO WEATHERING SHALL BE AIR-ENTRAINED. CONCRETE SHALL HAVE PROPERLY GRADED AGGREGATE FOR ITS USE IN ACCORDANCE WITH THE PUBLICATIONS BELOW ALL CONCRETE MATERIAL AND WORK SHALL COMPLY WITH THE LATEST VERSION OF ACI 301, ACI 313, ACI 318 AND THE APPLICABLE SECTIONS OF THE GOVERNING BUILDING CODE.
- SUBMIT EACH INDIVIDUAL CONCRETE MIX FOR ACCEPTANCE IN ACCORDANCE WITH ACI 301 AND THE SPECIFICATIONS OF THIS PROJECT.
- NO CALCIUM CHLORIDE OR MATERIALS CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED IN MASONRY MORTAR MASONRY GROUT, CONCRETE MIXES.
- PROVISIONS OF ACI 306 AND ACI 305 SHALL BE FOLLOWED IN COLD AND HOT WEATHER CONCRETING, RESPECTIVELY.
- POST ANCHOR HOLES SHALL NOT BE DRILLED UNTIL CONCRETE MATURES TO 85% OF ITS 28 DAY SPECIFIED STRENGTH.

REINFORCING STEEL:

- ALL REINFORCING BAR SHALL BE ASTM A706, GRADE 60, DEFORMED. WHERE EPOXY COATED BARS ARE INDICATED, PROVIDE EPOXY COATING PER ASTM A775.
- DIMENSIONS TO REINFORCING BARS ARE TO BAR CENTERLINES, UNLESS NOTED OTHERWISE. BAR COVER IS THE CLEAR DISTANCE BETWEEN THE BAR AND THE CONCRETE SURFACE.
- NO WELDING OF REINFORCING BARS SHALL BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.
- WHEN BARS OF DIFFERENT SIZE LAP TO EACH OTHER, THE SPLICE SHALL BE AS PER OHIO DOT CMS ITEM 509.

STAINLESS STEEL:

- STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM F593, ALLOY GROUP 1 OR 2, UNLESS NOTED OTHERWISE.
- STAINLESS STEEL PLATES SHALL CONFORM TO ASTM A240, TYPE 316L.
- STAINLESS STEEL STRUCTURAL SHAPES SHALL CONFORM TO ASTM A1069 OR ASTMA276, TYPE 316L.

POST-INSTALLED ANCHORS:

- POST-INSTALLED ANCHORS SHALL INCLUDE ADHESIVE ANCHORS (THREADED RODS, BOLTS OR REINFORCING BARS), EXPANSION ANCHORS, AND UNDERCUT ANCHORS INSTALLED INTO HARDENED CONCRETE OR MASONRY. SEE THE ANCHORAGE IN CONCRETE AND MASONRY SPECIFICATION SECTION FOR ADDITIONAL REQUIREMENTS.
- UNLESS OTHERWISE NOTED, EPOXY ADHESIVE ANCHORS ARE ONLY TO BE USED FOR INTERIOR APPLICATIONS. ACRYLIC ADHESIVE ANCHORS ARE SUITABLE FOR ALL APPLICATIONS UNLESS OTHERWISE NOTED.
- POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE INDICATED ON THE DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
- CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING STEEL WHEN DRILLING HOLES. HOLES SHALL BE DRILLED AND CLEANED PER THE PRODUCT MANUFACTURER'S INSTRUCTIONS. ANCHORS SHALL BE INSTALLED PER THE PRODUCT MANUFACTURER'S INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCES AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE.
- SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED IN THE SPECIFICATION OR INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. PRODUCT ICC-ESR EVALUATION REPORTS SHALL BE INCLUDED WITH THE SUBMITTAL PACKAGE. IF REQUESTED, CALCULATIONS PREPARED BY A REGISTERED PROFESSIONAL ENGINEER USING METHODS AND PROCEDURES REQUIRED BY THE BUILDING CODE MAY BE REQUIRED AS PART OF THE SUBMITTAL PACKAGE.
- UNLESS NOTED OTHERWISE, THE MINIMUM EMBEDMENT PROVIDED FOR ADHESIVE ANCHORED REINFORCING BARS SHALL DEVELOP THE FULL TENSILE STRENGTH OF THE BAR.
- SPECIAL INSPECTION WILL BE PROVIDED FOR ALL POST-INSTALLED ANCHORS.

STRUCTURAL STEEL:

- UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE GOVERNED BY THE AISC 13TH EDITION STEEL CONSTRUCTION MANUAL AND:
 - ALSO SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS INCLUDING COMMENTARY.
 - ALSO CODE OF STANDARD PRACTICE.
 - AWG STANDARD WELDING SYMBOLS.
 - STRUCTURAL WELDING CODE AWS D1.1 OF THE AMERICAN WELDING SOCIETY. WELDING SHALL BE PERFORMED ONLY BY OPERATORS QUALIFIED, BY THE AWG STANDARD QUALIFICATION PROCEDURE, TO PERFORM THE PARTICIPAL TYPE OF WORK REQUIRED.
- TESTING OF STRUCTURAL STEEL:
 - WELDS: NON-DESTRUCTIVE TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY ON ALL CRITICAL WELDS AND ON 25% OF NON-CRITICAL WELDS. INADEQUATE WELDS SHALL BE STRENGTHENED OR CUT OUT AND REPLACED AS DIRECTED. CRITICAL WELDS SHALL BE DEFINED AS ALL FULL PENETRATION WELDS, ALL WELDS IN MOMENT CONNECTIONS AND AS NOTED AS CRITICAL WELDS ON THE STRUCTURAL DETAILS.
 - STRUCTURAL STEEL: PROVIDE MILL REPORTS FOR PROPERLY IDENTIFIED MATERIALS.
 - A325 BOLTS: PROVIDE BOLT INSPECTION AS DETAILED IN SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS.
- STRUCTURAL STEEL PAINT AND PROTECTION:
 - PRIME COAT, TOUCH UP AFTER ERECTION: FINISH COAT(S) AS APPLICABLE CONFIRM MANUFACTURER'S STANDARD SHOP PRIMER IS COMPATIBLE WITH FINISH PAINT SYSTEM. IF NOT, USE A PRIMER THAT IS COMPATIBLE WITH FINISH PAINT SYSTEM.
 - MEMBERS EXPOSED TO WEATHER IN FINISHED STRUCTURE: GALVANIZE AFTER FABRICATION.
 - MEMBERS IN FIRE-RATED AREAS TO BE PAINTED WITH A COATING SYSTEM THAT ACCOMMODATES APPLICABLE FIRE RATING.
- STRUCTURAL STEEL SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE.
- STRUCTURAL STEEL FIELD CONNECTIONS SHALL BE BOLTED (3/4" DIAMETER, SHEAR/BEARING TYPE) OR WELDED UNLESS NOTED OTHERWISE. BOLTS SHALL BE FULLY TENSIONED U.N.O.
- ASSEMBLY OF ASTM A-325 BOLTS SHALL CONFORM TO SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS APPROVED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS, LATEST EDITION.
- ROLLED WIDE FLANGE SHAPES SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI; CHANNELS, PLATES, AND ANGLES A MINIMUM OF 36 KSI; STRUCTURAL PIPES A MINIMUM OF 35 KSI; AND STRUCTURAL TUBES A MINIMUM IF 42 KSI.
- WELDING SHALL BE DONE WITH A FILTER MATERIAL HAVING A MINIMUM TENSILE STRENGTH OF 70 KSI.
- BOLTED CONNECTIONS SHALL USE 5/8" DIA ASTM A325 BOLTS WITH THE THREADS EXCLUDED FROM THE SHEAR PLANE, UNLESS NOTED OTHERWISE.

ONLY SSLT MAY BE ACCEPTABLE AT DIFFICULT CONNECTIONS.

- ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 36.
- HOLES FOR ANCHOR BOLTS IN COLUMN BASE PLATES SHALL BE AS FOLLOWS:
BOLT 3/4" TO 1" - 5/16" OVERSIZE

AT THE CONTRACTOR'S OPTION, OVERSIZE HOLES LARGER THAN THOSE LISTED ABOVE MAY BE USED, PROVIDED THAT 3/8" PLATE WASHER ARE ALSO USED AND FIELD WELDED WITH A 5/16" FILLET TO THE BASE PLATE ALONG A MIN OF 3 SIDES.

12. STEEL LEGEND

- INDICATES TWO BOLT ATTACHMENT OF HORIZONTAL BRACING TO UNDERSIDE OF BEAM. SHIM AS REQUIRED. BOLTS TO BE 3/4" DIAMETER A325.
 - INDICATES ANGLE OR PLATE TO BE WELDED ON THREE SIDES
 - INDICATES HORIZONTAL OR VERTICAL BRACING CONNECTION DETAIL
 - INDICATES MOMENT CONNECTION
- VERTICAL BRACING IS SHOWN ON PLANS THUS:
- EXTENDING UP FROM THE ELEVATION INDICATED.
 - EXTENDING DOWN FROM THE ELEVATION INDICATED.
 - EXTENDING UP AND DOWN FROM THE ELEVATION INDICATED.

MASONRY:

- ALL MASONRY WORK SHALL COMPLY WITH THE LATEST VERSION OF ACI 530 AND THE APPLICABLE SECTIONS OF THE GOVERNING BUILDING CODE.
- CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90. THE TOTAL MASONRY ASSEMBLAGE SHALL HAVE A COMPRESSIVE STRENGTH EQUAL TO 1500 PSI AT 28 DAYS.
- MASONRY MORTAR SHALL CONFORM TO ASTM C270, TYPE S.
- ALL BOND BEAMS AND ANY BLOCK CELLS CONTAINING EMBEDMENTS, REINFORCING STEEL, ANCHORS, ETC., SHALL BE FILLED WITH GROUT FILL MEETING THE REQUIREMENTS OF ASTM C476.
- BOND BEAM REINF. SHALL BE CONTINUOUS AT CORNERS AND INTERSECTIONS.
- DOOR, WINDOW AND LOUVER OPENING DIMENSIONS SHOWN ARE NOMINAL DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR ACTUAL ROUGH OPENING DIMENSIONS.

SOIL AND FOUNDATIONS:

- FOUNDATION CONSTRUCTION SHALL NOT BEGIN UNTIL ANY REQUIRED SPECIAL INSPECTION HAS BEEN COMPLETED AND THE CONTRACTOR NOTIFIED TO PROCEED.
- TO FACILITATE SCHEDULING, AT LEAST 48 HOURS ADVANCE NOTICE SHALL BE GIVEN TO THE ENGINEER PRIOR TO THE REQUIRED INSPECTIONS.
- FOUNDATION FOR GENERATOR PAD REQUIRES OVER EXCAVATION BY 2'-3" AND BACKFILL OF 2'-0" USING ENGINEERED GRANULAR - ODOT ITEM 304 OR SIMILAR APPROVED FILL AND COMPACTED TO MAXIMUM DENSITY. PROVIDE 3" BLINDING CONCRETE TO PREVENT MOISTURE LOSS AND USE AS FORM.
- REMOVE ANY EXISTING "FAT" CLAY SOILS UNDER SLAB AND REPLACE WITH 2 FEET MINIMUM LAYER OF SOILS MATERIAL MEETING ODOT ITEM 203 WITH LIQUID LIMIT <50, OR ODOT ITEM 304.
- UNLESS NOTED OTHERWISE, BACKFILL SHALL NOT BE PLACED AGAINST WALLS WHICH SUPPORT A CONCRETE SLAB OR WALKWAY UNTIL THE TOP SLAB OR WALKWAY HAS BEEN PLACED IN IT'S ENTIRELY AND ALL CONCRETE HAS REACHED ITS DESIGN STRENGTH.

EXISTING STRUCTURES:

- THE DRAWINGS DEPICT WORK AT EXISTING STRUCTURES. ALL DIMENSIONS AND ALL DEPICTIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS, STARTING FABRICATION, OR STARTING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE, REPAIRS OR STRUCTURAL MODIFICATIONS THAT ARE REQUIRED DUE TO DEMOLITION BEYOND THE LIMITS IDENTIFIED ON THE DRAWINGS. THE CONTRACT SHALL PROVIDE NECESSARY TEMPORARY SUPPORT DURING EXISTING CONCRETE/MASONRY WALLS DEMOLITION TO AVOID ANY CRACKING OR DAMAGE TO EXISTING CONCRETE WALLS AND FLOORS IN THE BUILDINGS.
- WHERE THE DRAWINGS REQUIRE FIELD VERIFICATION OF EXISTING CONCRETE OR MASONRY REINFORCING, VERIFICATION SHALL BE COMPLETED USING NON-DESTRUCTIVE METHODS. REINFORCING STRANDS IN EXISTING PRESTRESSED CONCRETE SHALL NOT BE CUT, UNLESS INDICATED ON THE DRAWINGS OR OTHERWISE AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE, REPAIRS OR STRUCTURAL MODIFICATIONS THAT ARE REQUIRED DUE TO DAMAGE OF CONCRETE, MASONRY OR REINFORCEMENT THAT HAS BEEN IDENTIFIED ON

THE DRAWINGS TO REQUIRE FIELD VERIFICATION.

- EXPOSED CONCRETE SURFACES THAT REMAIN AFTER DEMOLITION SHALL BE REPAIRED TO MATCH ADJACENT CONCRETE SURFACES. CONCRETE THAT HAS BEEN REMOVED IN ORDER TO INSTALL NEW STRUCTURAL STEEL CONNECTIONS TO EXISTING STRUCTURAL STEEL SHALL BE REPLACED TO ORIGINAL OUTLINE.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, EXPOSED CONCRETE SURFACES WITH REINFORCEMENT, ANCHOR BOLTS, OR OTHER EXPOSED METAL EMBEDMENTS SHALL BE REPAIRED BY CUTTING OFF THE METAL AT THE FACE OF THE CONCRETE, GRINDING SMOOTH, AND COATING WITH A COAL TAR EPOXY. COATING SHALL EXTEND A MINIMUM OF 1" BEYOND THE EDGE OF ANY EXPOSED METAL.

LOADING CRITERIA:

- DEAD LOAD.....CALCULATED
- LIVE LOADS:
OPERATING AND FLOORS..... 150 PSF
ELECTRICAL AND CONTROL ROOM FLOORS..... 250 PSF
ALL FLOORS NOT INDICATED.....100 PSF
- LATERAL EARTH PRESSURE (EFP) ACTIVE AT-REST
NON-SATURATED GRANULAR.....33 PSF/FT 63 PSF/FT
SATURATED GRANULAR.....79 PSF/FT 94 PSF/FT
- LATERAL SURCHARGE.....EQUIVALENT TO 2' OF SOIL WHERE ADJACENT TO A ROADWAY
- COMPACTIVE SURCHARGE LOAD.....400 PSF AT FINISH GRADE
ELEVATION DECREASING LINEARLY AT SAME RATE AS BACKFILL LOAD INCREASES. FOR WALLS 8' OR LESS IN HEIGHT, USE CRITERIA 4 ABOVE AS COMPACTIVE SURCHARGE.
- HYDROSTATIC FLUID PRESSURE.....63 PSF/FT
- WIND LOAD:
BASIC WIND SPEED..... 90 MPH
EXPOSURE..... C
IMPORTANCE FACTOR..... 1.15
INTERNAL PRESSURE COEFFICIENT..... ±0.18
COMPONENTS AND CLADDING:
DESIGN WIND PRESSURE..... 40 PSF FOR EWA=10 FT²
35 PSF FOR EWA=48 FT²
- SEISMIC LOAD:
OCCUPANCY CATEGORY..... III
IMPORTANCE FACTOR..... 1.25
SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS (Sds)..... 0.253g
SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD (Sd1)..... 0.135g
SITE CLASS..... D
SEISMIC DESIGN CATEGORY..... C
BUILDING:
SEISMIC FORCE-RESISTING SYSTEM..... STEEL FRAME
DESIGN BASE SHEAR..... LATERAL ANALYSIS PROCEDURE..... EQUIV. LATERAL FORCE PROCEDURE
- SNOW LOAD:
GROUND SNOW LOAD (PG).....20 PSF
FLAT-ROOF SNOW LOAD.....22 PSF
SNOW EXPOSURE FACTOR.....0.9
IMPORTANCE FACTOR.....1.1
THERMAL FACTOR.....1.0
- 100 YEAR FLOOD ELEVATION.....EL. 768.60 USGS (89.60 SITE)

SPECIAL INSPECTIONS:

- SPECIAL INSPECTION IS NOT THE RESPONSIBILITY OF THE CONTRACTOR, BUT IS PRESENTED HERE FOR THE BENEFIT OF THE CONTRACTOR AND THE CODE OFFICIAL.
- SPECIAL INSPECTION WILL BE REQUIRED AND PERFORMED IN ACCORDANCE WITH CHAPTER 17 OF THE OBC.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	BH	11/17/14	DESIGN CLARIFICATION 1	

PROJ.	PERSONNEL	DATE	REMARKS
DES.	PA/LI	02/17/14	
DWN.	MM	02/17/14	
CKD.	AE/GM	02/17/14	

This document was originally issued by PANCHADASARAM ARUMUGASAMY on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
NOT TO SCALE

GENERAL
STRUCTURAL NOTES

ISSUED STATUS: REC
(See User's Guide for Explanation)
4
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



SITE (AERIAL) PLAN

- CODED NOTES:**
- ① DESIGNATED PRIMARY AREA FOR CONTRACTOR LAYDOWN, PARKING, AND TEMPORARY GENERATOR.
 - ② ADDITIONAL AREA FOR CONTRACTOR LAYDOWN.
 - ③ AREA FOR CONTRACTOR PARKING.

REB
RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY		DATE	REVISIONS
	Int.	Mo./Dy./Yr.		

PROJ.	PERSONNEL	DATE
Initials	Mo./Dy./Yr.	
DES. PA/LI	02/17/14	
DWN. JS	02/17/14	
CKD. AE/GM	02/17/14	

This document was originally issued by ANDREW O. ERIBO on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

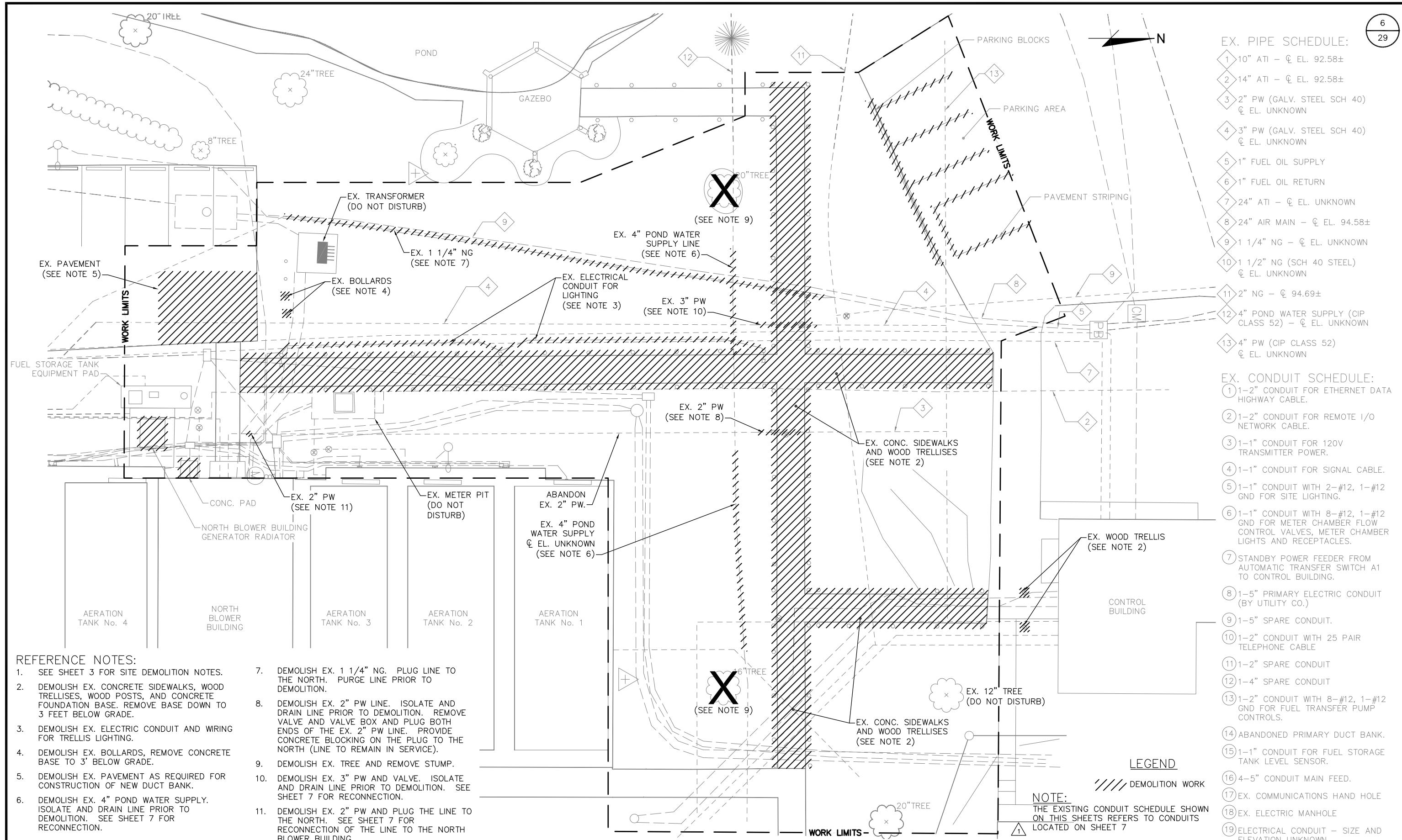


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
NOT TO SCALE

GENERAL
GENERAL SITE PLAN

ISSUED STATUS: REC
(See User's Guide for Explanation)
5
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



- EX. PIPE SCHEDULE:**
- 1 10" ATI - \varnothing EL. 92.58±
 - 2 14" ATI - \varnothing EL. 92.58±
 - 3 2" PW (GALV. STEEL SCH 40) \varnothing EL. UNKNOWN
 - 4 3" PW (GALV. STEEL SCH 40) \varnothing EL. UNKNOWN
 - 5 1" FUEL OIL SUPPLY
 - 6 1" FUEL OIL RETURN
 - 7 24" ATI - \varnothing EL. UNKNOWN
 - 8 24" AIR MAIN - \varnothing EL. 94.58±
 - 9 1 1/4" NG - \varnothing EL. UNKNOWN
 - 10 1 1/2" NG (SCH 40 STEEL) \varnothing EL. UNKNOWN
 - 11 2" NG - \varnothing 94.69±
 - 12 4" POND WATER SUPPLY (CIP CLASS 52) - \varnothing EL. UNKNOWN
 - 13 4" PW (CIP CLASS 52) \varnothing EL. UNKNOWN

- EX. CONDUIT SCHEDULE:**
- 1 1-2" CONDUIT FOR ETHERNET DATA HIGHWAY CABLE.
 - 2 1-2" CONDUIT FOR REMOTE I/O NETWORK CABLE.
 - 3 1-1" CONDUIT FOR 120V TRANSMITTER POWER.
 - 4 1-1" CONDUIT FOR SIGNAL CABLE.
 - 5 1-1" CONDUIT WITH 2-#12, 1-#12 GND FOR SITE LIGHTING.
 - 6 1-1" CONDUIT WITH 8-#12, 1-#12 GND FOR METER CHAMBER FLOW CONTROL VALVES, METER CHAMBER LIGHTS AND RECEPTACLES.
 - 7 STANDBY POWER FEEDER FROM AUTOMATIC TRANSFER SWITCH A1 TO CONTROL BUILDING.
 - 8 1-5" PRIMARY ELECTRIC CONDUIT (BY UTILITY CO.)
 - 9 1-5" SPARE CONDUIT.
 - 10 1-2" CONDUIT WITH 25 PAIR TELEPHONE CABLE
 - 11 1-2" SPARE CONDUIT
 - 12 1-4" SPARE CONDUIT
 - 13 1-2" CONDUIT WITH 8-#12, 1-#12 GND FOR FUEL TRANSFER PUMP CONTROLS.
 - 14 ABANDONED PRIMARY DUCT BANK.
 - 15 1-1" CONDUIT FOR FUEL STORAGE TANK LEVEL SENSOR.
 - 16 4-5" CONDUIT MAIN FEED.
 - 17 EX. COMMUNICATIONS HAND HOLE
 - 18 EX. ELECTRIC MANHOLE
 - 19 ELECTRICAL CONDUIT - SIZE AND ELEVATION UNKNOWN

REFERENCE NOTES:

1. SEE SHEET 3 FOR SITE DEMOLITION NOTES.
2. DEMOLISH EX. CONCRETE SIDEWALKS, WOOD TRELLISES, WOOD POSTS, AND CONCRETE FOUNDATION BASE. REMOVE BASE DOWN TO 3 FEET BELOW GRADE.
3. DEMOLISH EX. ELECTRIC CONDUIT AND WIRING FOR TRELLIS LIGHTING.
4. DEMOLISH EX. BOLLARDS, REMOVE CONCRETE BASE TO 3' BELOW GRADE.
5. DEMOLISH EX. PAVEMENT AS REQUIRED FOR CONSTRUCTION OF NEW DUCT BANK.
6. DEMOLISH EX. 4" POND WATER SUPPLY. ISOLATE AND DRAIN LINE PRIOR TO DEMOLITION. SEE SHEET 7 FOR RECONNECTION.
7. DEMOLISH EX. 1 1/4" NG. PLUG LINE TO THE NORTH. PURGE LINE PRIOR TO DEMOLITION.
8. DEMOLISH EX. 2" PW LINE. ISOLATE AND DRAIN LINE PRIOR TO DEMOLITION. REMOVE VALVE AND VALVE BOX AND PLUG BOTH ENDS OF THE EX. 2" PW LINE. PROVIDE CONCRETE BLOCKING ON THE PLUG TO THE NORTH (LINE TO REMAIN IN SERVICE).
9. DEMOLISH EX. TREE AND REMOVE STUMP.
10. DEMOLISH EX. 3" PW AND VALVE. ISOLATE AND DRAIN LINE PRIOR TO DEMOLITION. SEE SHEET 7 FOR RECONNECTION.
11. DEMOLISH EX. 2" PW AND PLUG THE LINE TO THE NORTH. SEE SHEET 7 FOR RECONNECTION OF THE LINE TO THE NORTH BLOWER BUILDING.

NOTE:
THE EXISTING CONDUIT SCHEDULE SHOWN ON THIS SHEETS REFERS TO CONDUITS LOCATED ON SHEET 7

LEGEND
 DEMOLITION WORK

RIBWAY ENGINEERING GROUP, INC.
 300 E. BROAD ST. SUITE 500
 COLUMBUS, OHIO 43215
 PH. NO. (614) 221-6009
 FAX NO. (614) 221-9089

No.	BY	DATE	REVISIONS	
			Remarks	
1	RLA	11/17/14	DESIGN CLARIFICATION 1	

PROJ. PERSONNEL	DATE
DES. PA/LI	02/17/14
DWN. MM	02/17/14
CKD. AE/GM	02/17/14

This document was originally issued by ANDREW O. ERIBO on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
 REGIONAL SEWER DISTRICT



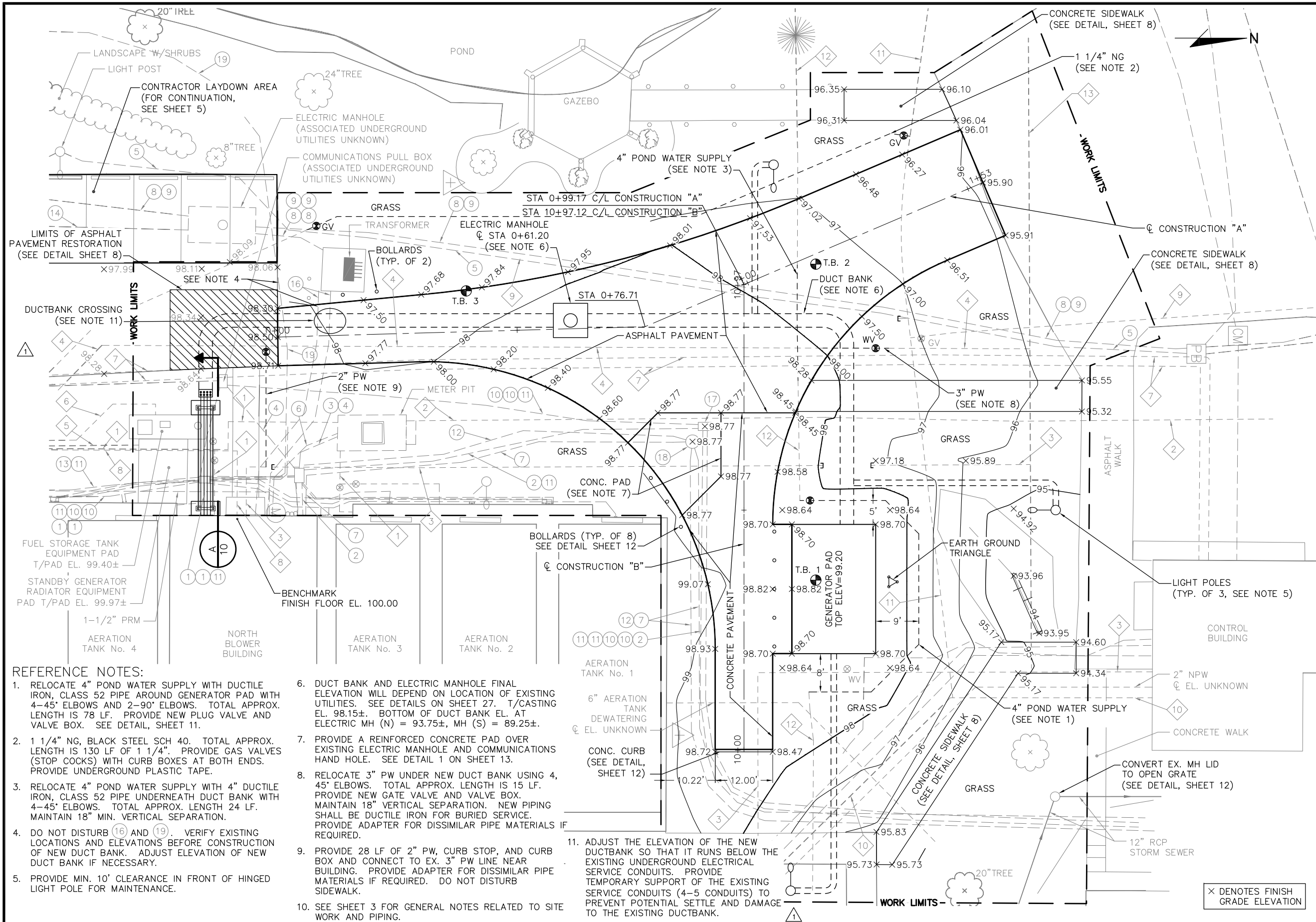
OLENTANGY ENVIRONMENTAL CONTROL CENTER
 OECC MOTOR CONTROL CENTERS UPGRADE

SCALE

 0 2 4 6 8 10
 FEET

GENERAL
SITE DEMOLITION PLAN

ISSUED STATUS: REC
 (See User's Guide for Explanation)
6
 SHEET
 DATE ISSUED: 03/17/17
 Mo./Dy./Yr.



- EX. PIPE SCHEDULE:**
- 1 10" ATI - ϕ EL. 92.58±
 - 2 14" ATI - ϕ EL. 92.58±
 - 3 2" PW (GALV. STEEL SCH 40, ABANDONED) ϕ EL. UNKNOWN
 - 4 3" PW COPPER - ϕ EL. UNKNOWN
 - 5 1" FUEL OIL SUPPLY
 - 6 1" FUEL OIL RETURN
 - 7 24" ATI - ϕ EL. UNKNOWN
 - 8 24" AIR MAIN - ϕ EL. 94.58±
 - 9 1 1/4" NG - ϕ EL. UNKNOWN
 - 10 1 1/2" NG (SCH 40 STEEL) ϕ EL. UNKNOWN
 - 11 2" NG - ϕ EL. 94.69±
 - 12 4" POND WATER SUPPLY (C.I.P. CLASS 52) ϕ EL. UNKNOWN
 - 13 4" PW (CIP CLASS 52) ϕ EL. UNKNOWN
- EX. CONDUIT SCHEDULE:**
- 1 1-2" CONDUIT FOR ETHERNET DATA HIGHWAY CABLE.
 - 2 1-2" CONDUIT FOR REMOTE I/O NETWORK CABLE.
 - 3 1-1" CONDUIT FOR 120V TRANSMITTER POWER.
 - 4 1-1" CONDUIT FOR SIGNAL CABLE.
 - 5 1-1" CONDUIT WITH 2-#12, 1-#12 GND FOR SITE LIGHTING.
 - 6 1-1" CONDUIT WITH 8-#12, 1-#12 GND FOR METER CHAMBER FLOW CONTROL VALVES, METER CHAMBER LIGHTS AND RECEPTACLES.
 - 7 STANDBY POWER FEEDER FROM AUTOMATIC TRANSFER SWITCH A1 TO CONTROL BUILDING.
 - 8 1-5" PRIMARY ELECTRIC CONDUIT (BY UTILITY CO.)
 - 9 1-5" SPARE CONDUIT.
 - 10 1-2" CONDUIT WITH 25 PAIR TELEPHONE CABLE
 - 11 1-2" SPARE CONDUIT
 - 12 1-4" SPARE CONDUIT
 - 13 1-2" CONDUIT WITH 8-#12, 1-#12 GND FOR FUEL TRANSFER PUMP CONTROLS.
 - 14 ABANDONED PRIMARY DUCT BANK.
 - 15 1-1" CONDUIT FOR FUEL STORAGE TANK LEVEL SENSOR.
 - 16 4-5" CONDUIT MAIN FEED.
 - 17 EX. COMMUNICATIONS HAND HOLE
 - 18 EX. ELECTRIC MANHOLE
 - 19 ELECTRICAL CONDUIT - SIZE AND ELEVATION UNKNOWN

REFERENCE NOTES:

1. RELOCATE 4" POND WATER SUPPLY WITH DUCTILE IRON, CLASS 52 PIPE AROUND GENERATOR PAD WITH 4-45' ELBOWS AND 2-90' ELBOWS. TOTAL APPROX. LENGTH IS 78 LF. PROVIDE NEW PLUG VALVE AND VALVE BOX. SEE DETAIL, SHEET 11.
2. 1 1/4" NG, BLACK STEEL SCH 40. TOTAL APPROX. LENGTH IS 130 LF OF 1 1/4". PROVIDE GAS VALVES (STOP COCKS) WITH CURB BOXES AT BOTH ENDS. PROVIDE UNDERGROUND PLASTIC TAPE.
3. RELOCATE 4" POND WATER SUPPLY WITH 4" DUCTILE IRON, CLASS 52 PIPE UNDERNEATH DUCT BANK WITH 4-45' ELBOWS. TOTAL APPROX. LENGTH 24 LF. MAINTAIN 18" MIN. VERTICAL SEPARATION.
4. DO NOT DISTURB (16) AND (19). VERIFY EXISTING LOCATIONS AND ELEVATIONS BEFORE CONSTRUCTION OF NEW DUCT BANK. ADJUST ELEVATION OF NEW DUCT BANK IF NECESSARY.
5. PROVIDE MIN. 10' CLEARANCE IN FRONT OF HINGED LIGHT POLE FOR MAINTENANCE.
6. DUCT BANK AND ELECTRIC MANHOLE FINAL ELEVATION WILL DEPEND ON LOCATION OF EXISTING UTILITIES. SEE DETAILS ON SHEET 27. T/CASTING EL. 98.15±. BOTTOM OF DUCT BANK EL. AT ELECTRIC MH (N) = 93.75±, MH (S) = 89.25±.
7. PROVIDE A REINFORCED CONCRETE PAD OVER EXISTING ELECTRIC MANHOLE AND COMMUNICATIONS HAND HOLE. SEE DETAIL 1 ON SHEET 13.
8. RELOCATE 3" PW UNDER NEW DUCT BANK USING 4, 45' ELBOWS. TOTAL APPROX. LENGTH IS 15 LF. PROVIDE NEW GATE VALVE AND VALVE BOX. MAINTAIN 18" VERTICAL SEPARATION. NEW PIPING SHALL BE DUCTILE IRON FOR BURIED SERVICE. PROVIDE ADAPTER FOR DISSIMILAR PIPE MATERIALS IF REQUIRED.
9. PROVIDE 28 LF OF 2" PW, CURB STOP, AND CURB BOX AND CONNECT TO EX. 3" PW LINE NEAR BUILDING. PROVIDE ADAPTER FOR DISSIMILAR PIPE MATERIALS IF REQUIRED. DO NOT DISTURB SIDEWALK.
10. SEE SHEET 3 FOR GENERAL NOTES RELATED TO SITE WORK AND PIPING.
11. ADJUST THE ELEVATION OF THE NEW DUCTBANK SO THAT IT RUNS BELOW THE EXISTING UNDERGROUND ELECTRICAL SERVICE CONDUITS. PROVIDE TEMPORARY SUPPORT OF THE EXISTING SERVICE CONDUITS (4-5 CONDUITS) TO PREVENT POTENTIAL SETTLE AND DAMAGE TO THE EXISTING DUCTBANK.

RIBWAY ENGINEERING GROUP, INC.
 300 E. BROAD ST., SUITE 500
 COLUMBUS, OHIO 43215
 PH. NO. (614) 221-6009
 FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Remarks	
1	RLA	11/17/14	DESIGN CLARIFICATION 1	

PROJ. PERSONNEL	DATE
DES. PA/LI	02/17/14
DWN. MM	02/17/14
CKD. AE/GM	02/17/14

This document was originally issued by **ANDREW O. ERIBO** on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
 REGIONAL SEWER DISTRICT

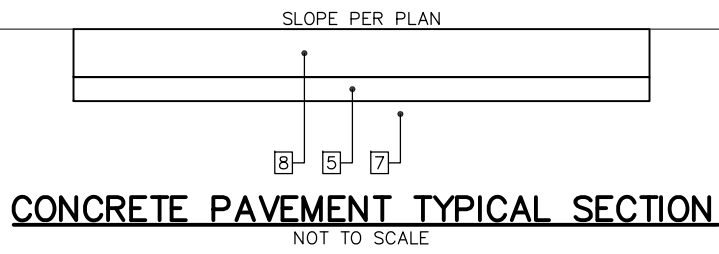
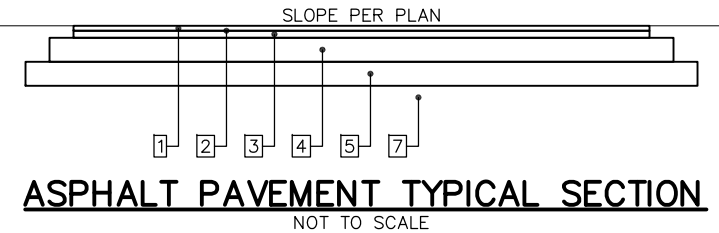
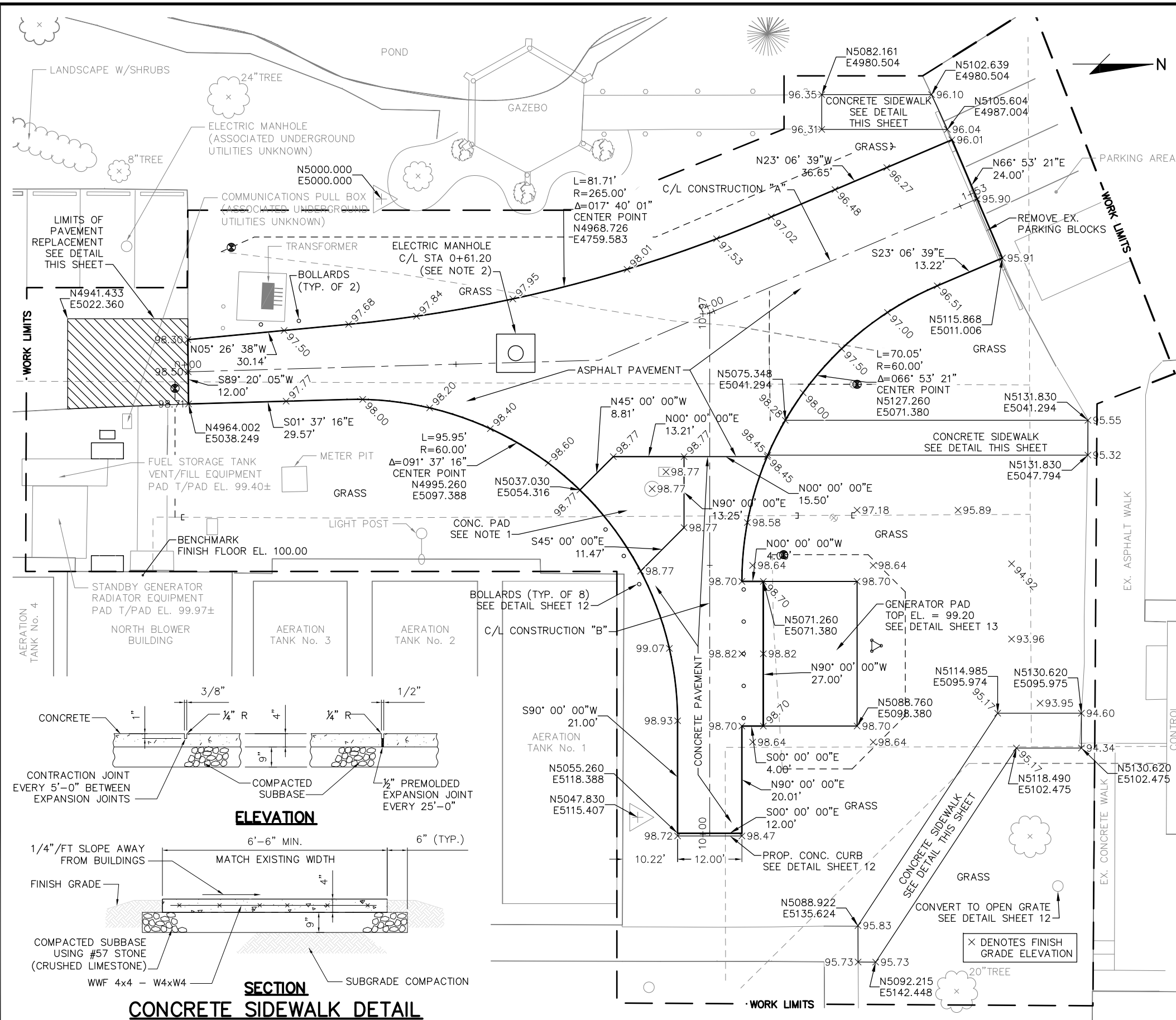


OLENTANGY ENVIRONMENTAL CONTROL CENTER
 OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
 0 2 4 6 8 10
 FEET

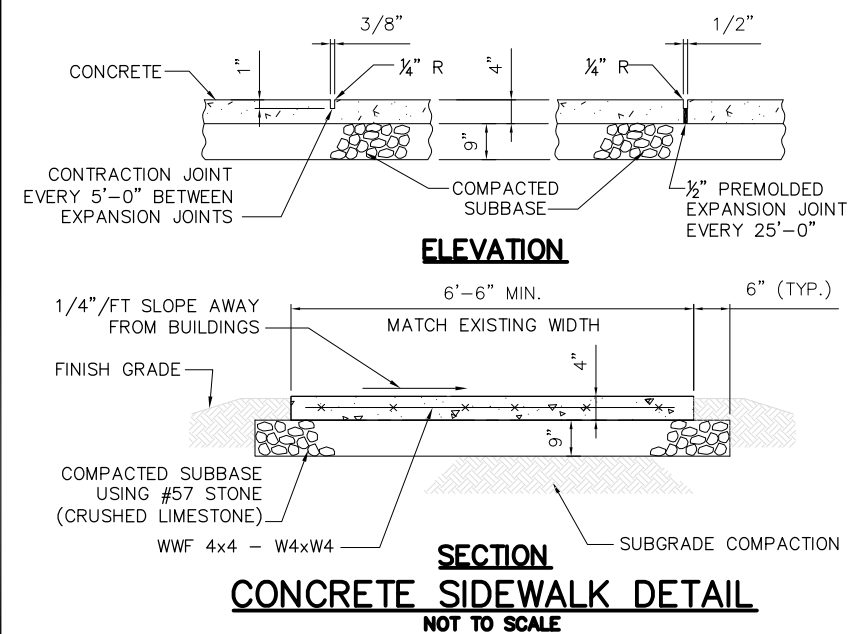
GENERAL SITE PAVING, GRADING, PIPING, AND ELECTRICAL PLAN

ISSUED STATUS: REC
 (See User's Guide for Explanation)
 SHEET **7**
 DATE ISSUED: 03/17/17
 Mo./Dy./Yr.



- NOTES:**
- 1 1/4" OF ODOT ITEM 448 ASPHALT CONCRETE – SURFACE COURSE
 - ODOT ITEM 407 TACK COAT (0.075 GAL/SQ. YD.)
 - 1 3/4" OF ODOT ITEM 448 ASPHALT CONCRETE – INTERMEDIATE COURSE
 - 6" OF ODOT ITEM 301 ASPHALT CONCRETE BASE
 - 6" OF ODOT ITEM 304 AGGREGATE BASE
 - 8" OF ODOT ITEM 304 AGGREGATE BASE
 - ODOT ITEM 204, SUBGRADE COMPACTION
 - 12" OF ODOT ITEM 452 NON-REINFORCED CONCRETE PAVEMENT

- REFERENCE NOTES:**
1. PROVIDE A REINFORCED CONCRETE PAD OVER EXISTING ELECTRIC MANHOLE AND COMMUNICATIONS HAND HOLE. SEE DETAIL 1 ON SHEET 13.
 2. ELECTRIC MANHOLE AND DUCT BANK (NOT SHOWN) FINAL ELEVATION WILL DEPEND ON LOCATION OF EXISTING UTILITIES. SEE DETAILS SHEETS 10, 27, AND 28. T/CASTING EL. 98.15±. BOTTOM OF DUCT BANK EL. AT ELECTRIC MH (N) = 93.75±, MH (S) = 89.25±.



RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST., SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6099
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS
	Int.	Mo./Dy./Yr.	Remarks

PROJ.	PERSONNEL	DATE
	Initials	Mo./Dy./Yr.
DES.	PA/LI	02/17/14
DWN.	MM	02/17/14
CKD.	AE/GM	02/17/14

This document was originally issued by ANDREW O. ERIBO on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

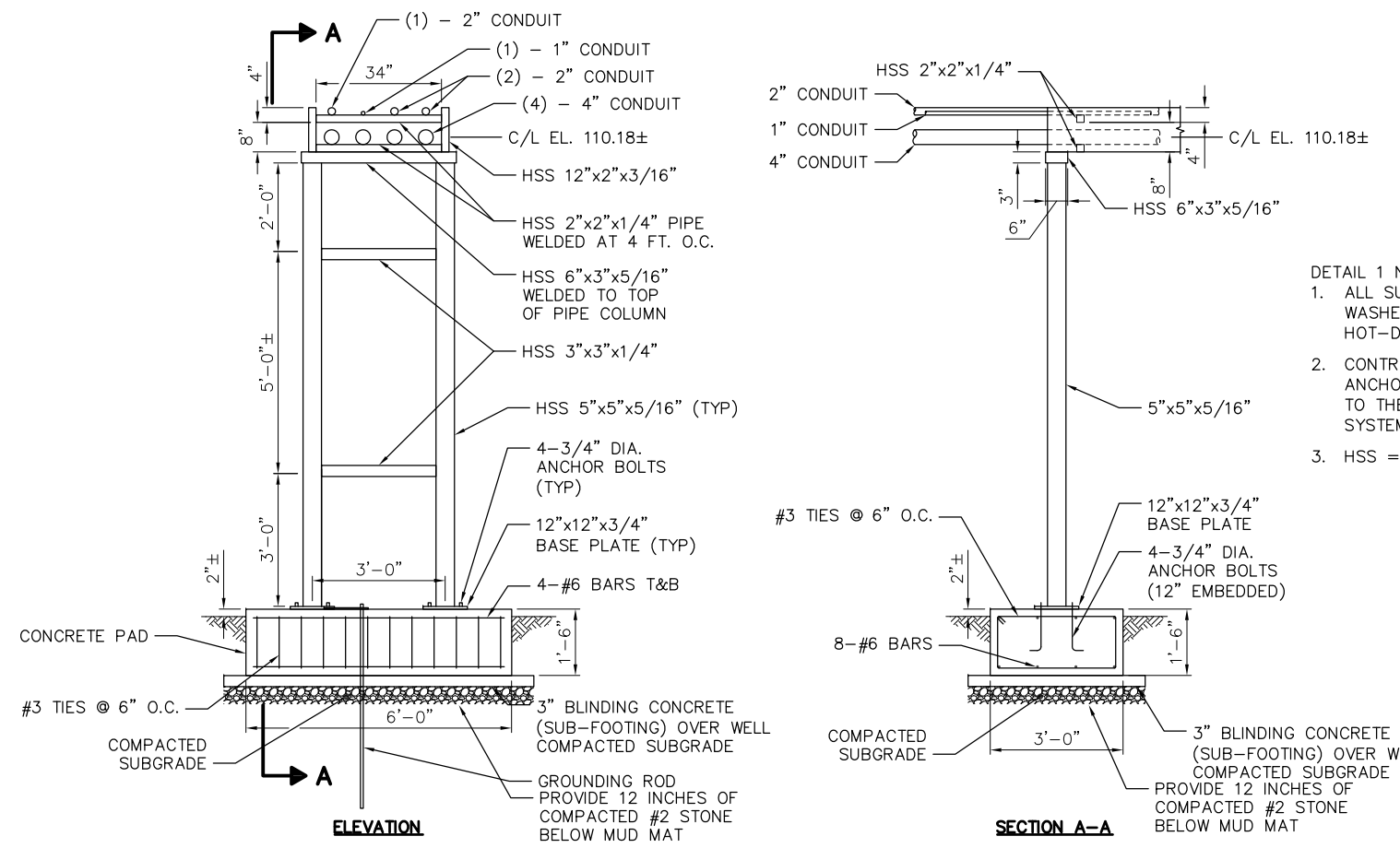


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
0 2 4 6 8 10
FEET

GENERAL SITE PAVING CURVE DATA

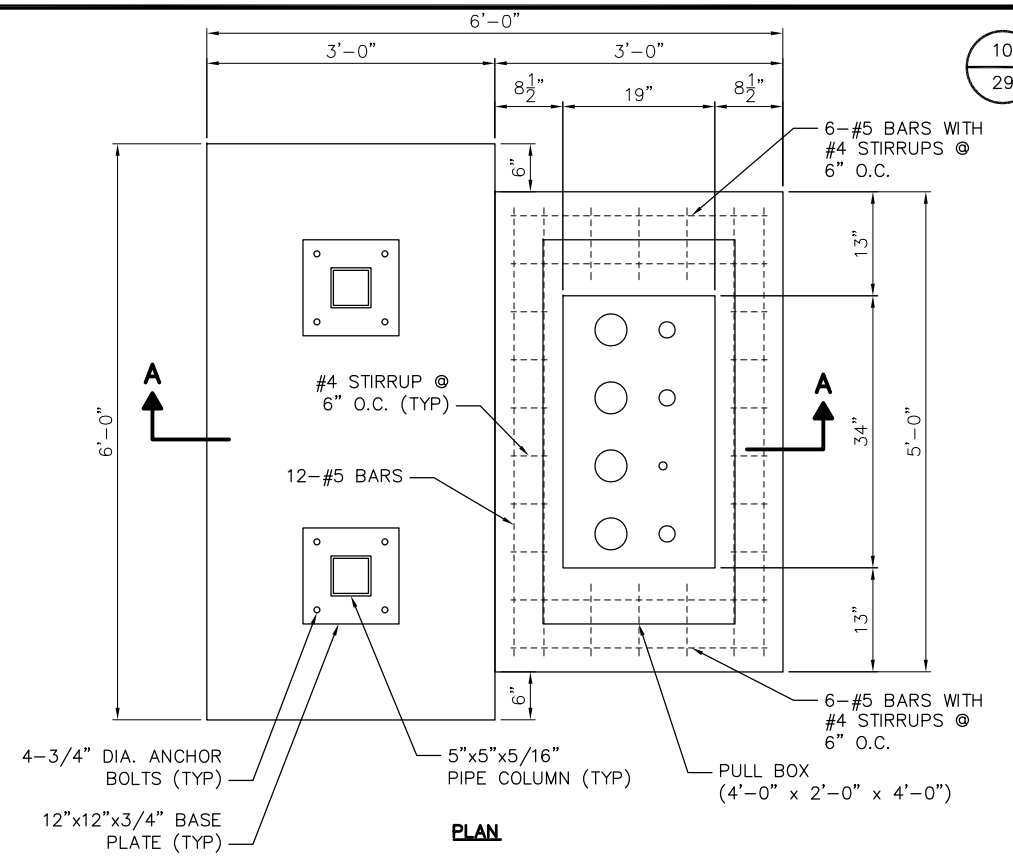
ISSUED STATUS: REC
(See User's Guide for Explanation)
8
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



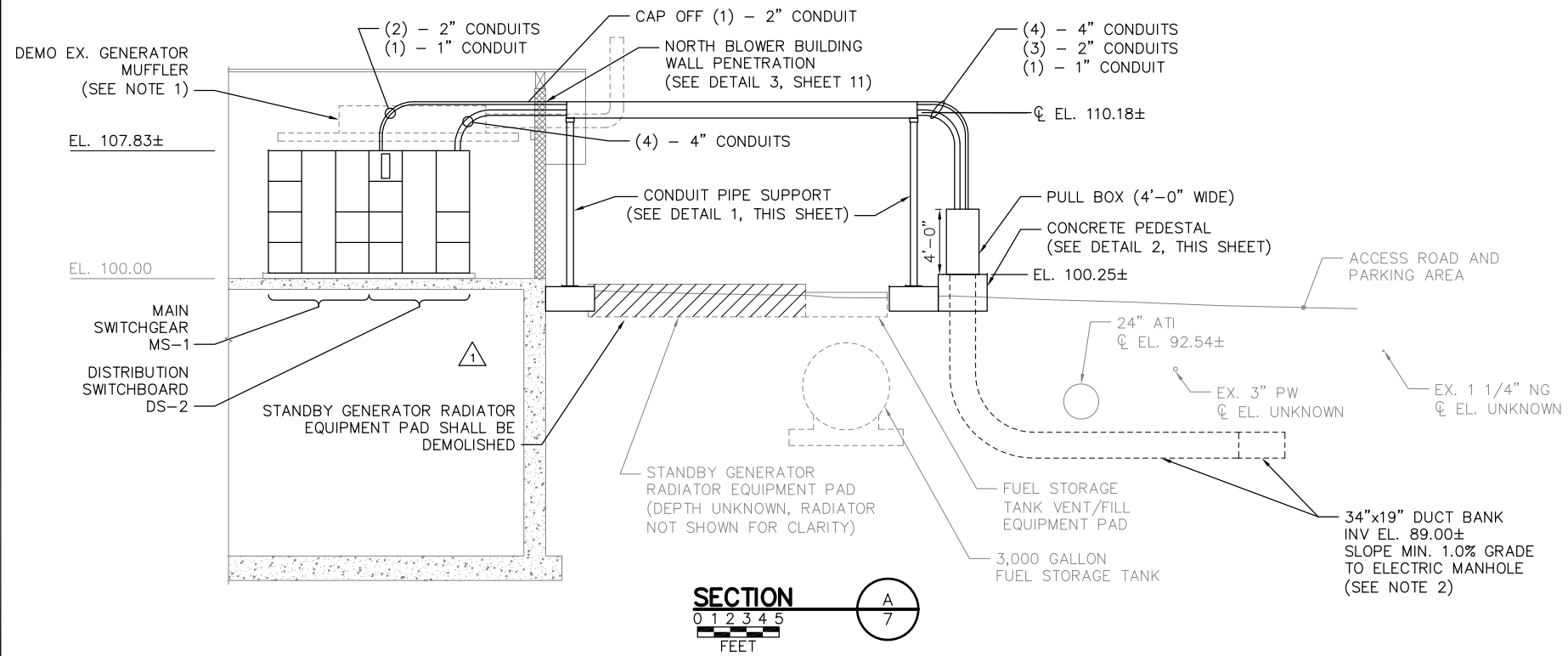
DETAIL 1 NOTES:

- ALL SUPPORT STEEL, PLATES, BOLTS, WASHERS, ANCHORS, ETC SHALL BE HOT-DIPPED GALVANIZED.
- CONTRACTOR SHALL PROVIDE ANCHORING SYSTEM FOR CONDUITS TO THE CONDUIT PIPE SUPPORT SYSTEM.
- HSS = HOLLOW STRUCTURAL STEEL

CONDUIT PIPE SUPPORT
DETAIL 1
0 1 2 3 4 5
FEET



CONCRETE PEDESTAL
DETAIL 2
0 1 2 3 4 5
FEET



SECTION A-A
0 1 2 3 4 5
FEET

REFERENCE NOTES:

- EXISTING STANDBY GENERATOR, MUFFLER, MUFFLER SUPPORT, ETC. SHALL BE REMOVED PRIOR TO CONSTRUCTION OF THE NEW DISTRIBUTION SWITCHBOARD DS-2. SEE THE SPECIFICATIONS FOR THE SUGGESTED CONSTRUCTION SEQUENCE.
- VERIFY ELEVATION OF 24" ATI AND MAIN FEED FROM TRANSFORMER TO NORTH BLOWER BUILDING PRIOR TO CONSTRUCTION OF DUCT BANK AND ELECTRIC MANHOLE. FINAL ELEVATION OF DUCT BANK MAY BE ADJUSTED DEPENDING ON ELEVATION OF EXISTING UTILITIES. MAINTAIN MIN. 12" CLEARANCE.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	BH	11/17/14	DESIGN CLARIFICATION 1	

PROJ. PERSONNEL	DATE
DES. PA/LI	02/17/14
DWN. MM	02/17/14
CKD. AE/GM	02/17/14

This document was originally issued by PANCHADASARAM ARUMUGASAMY on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

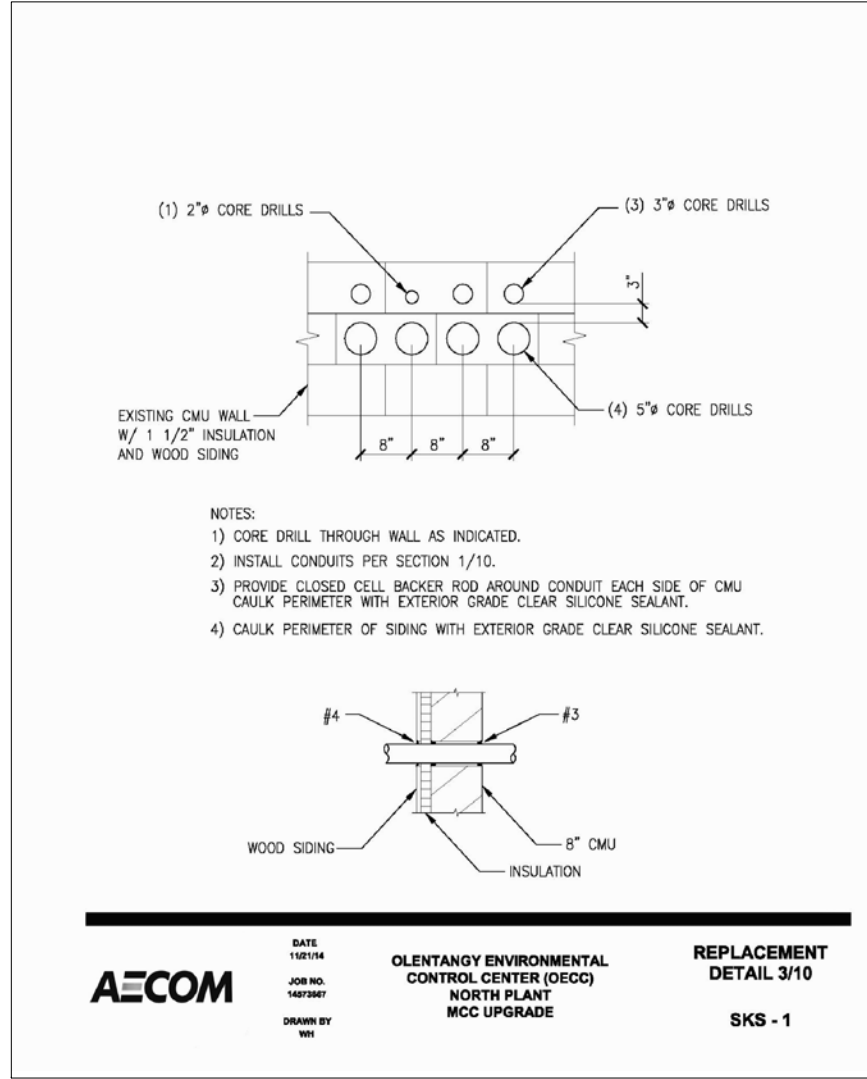


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
AS NOTED

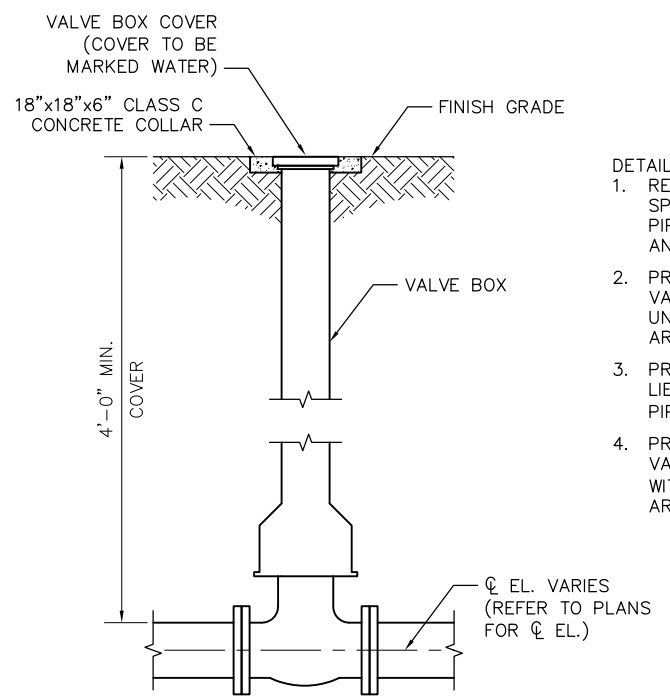
GENERAL
SITE SECTION AND DETAILS

ISSUED STATUS: REC
(See User's Guide for Explanation)
10
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



NORTH BLOWER BUILDING SOUTH WALL PENETRATION

DETAIL 3
AS NOTED 10



- DETAIL 4 NOTES:
1. REFER TO PLANS AND SPECIFICATIONS FOR PIPING AND VALVE TYPE AND FITTINGS.
 2. PROVIDE HEAVY DUTY VALVE AND CURB BOX UNDERNEATH ALL PAVED AREAS.
 3. PROVIDE CURB BOX IN LIEU OF VALVE BOX FOR PIPING 2" AND SMALLER.
 4. PROVIDE HEAVY DUTY VALVE AND CURB BOXES WITHIN 10' OF PAVED AREAS.

VALVE BOX DETAIL

DETAIL 4
7



RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE		REVISIONS
		Int.	Mo./Dy./Yr.	
1	BH	11/17/14		DESIGN CLARIFICATION 1

PROJ. PERSONNEL	DATE
Initials	Mo./Dy./Yr.
DES. PA/LI	02/17/14
DWN. MM	02/17/14
CKD. AE/GM	02/17/14

This document was originally issued by PANCHADASARAM ARUMUGASAMY on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
AS NOTED

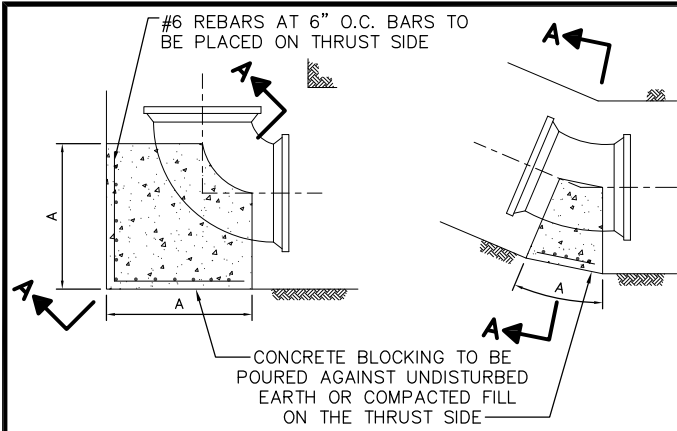
GENERAL SITE DETAILS
SHEET 1 OF 2

ISSUED STATUS: **REC**
(See User's Guide for Explanation)

11

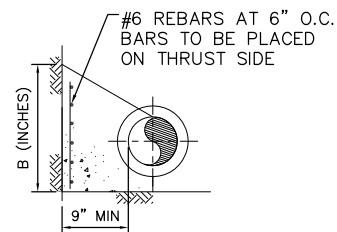
SHEET

DATE ISSUED: 03/17/17
Mo./Dy./Yr.



90° BENDS

BENDS LESS THAN 90°



SECTION A-A

TABLE OF DIMENSIONS

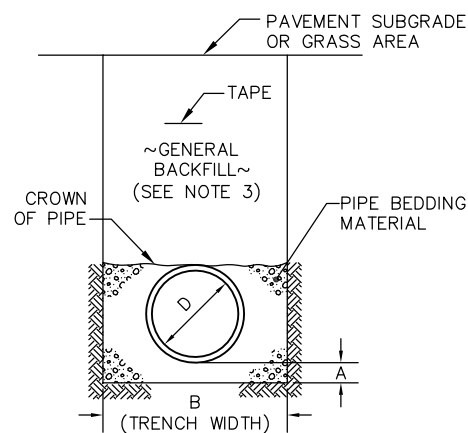
SIZE OF PIPE	DEGREE OF BEND							
	11 1/4°		22 1/2°		45°		90°	
	A"	B"	A"	B"	A"	B"	A"	B"
3"	12	12	12	12	12	12	12	12
4"	18	18	18	18	18	18	21	18
6"	18	18	18	18	24	18	24	21
8"	18	21	18	21	30	24	30	24
10"	18	21	24	24	36	30	42	36
12"	18	24	30	30	42	42	48	42
16"	24	30	36	42	48	60	60	48
20"	36	30	48	48	72	60	72	60

* BASED ON 150 PSI TEST PRESSURE

- CONCRETE BACKING HORIZONTAL NOTES:
1. BACKING DESIGNED FOR 3000 POUNDS PER SQUARE FOOT SOIL BEARING AND 150 POUNDS PER SQUARE INCH INTERNAL PRESSURE.
 2. PROVIDE CONCRETE REINFORCEMENT AS DIRECTED BY THE ENGINEER.
 3. THESE SAME DIMENSIONS WILL BE USED FOR SHORT BODY FITTINGS.

CONCRETE BACKING AND DIMENSIONS FOR HORIZONTAL BLOCKING 150 PSI INTERNAL PRESSURE

NOT TO SCALE



TYPE II		
D	A	B
1"-4"	6"	OD + 24"
6"-36"	6"	OD + 24"

TYPE II BEDDING DETAIL

PIPE BEDDING

NOT TO SCALE

PIPE BEDDING NOTES:

1. WIDTH OF TRENCH IS MEASURED ONE FOOT ABOVE TOP OF PIPE, TRENCH MAY BE WIDER ABOVE THIS POINT.
2. ALL TRENCH WIDTHS SHOWN ARE MAXIMUM DIMENSIONS.
3. REFER TO SECTIONS 33 05 00 AND 31 23 16 OF THE TECHNICAL SPECIFICATIONS FOR PIPE BEDDING AND GENERAL FILL MATERIAL. USE COMPACTED GRANULAR FILL IN LIEU OF GENERAL FILL UNDER ALL ROADWAYS AND WHERE THE EDGE OF PAVEMENT IS WITHIN 5' OF THE TRENCH LIMITS. COMPACTED GRANULAR FILL SHALL BE AS SPECIFIED IN SECTION 31 23 16, UNLESS OTHERWISE NOTED.

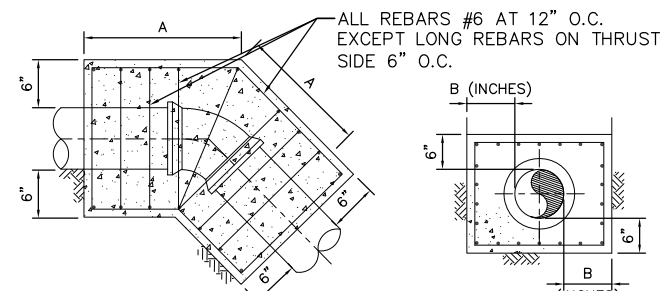
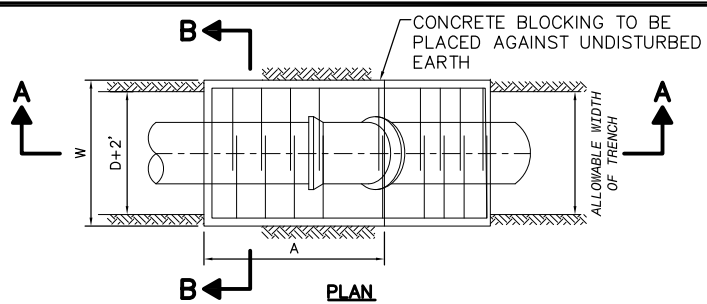


TABLE OF DIMENSIONS

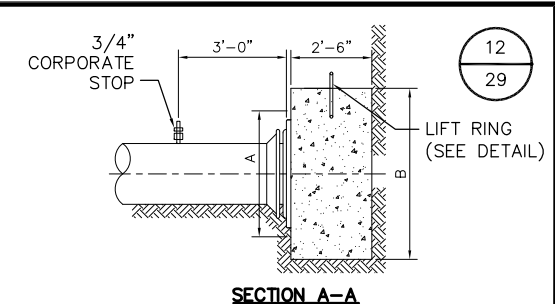
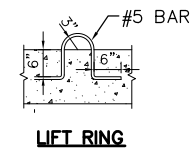
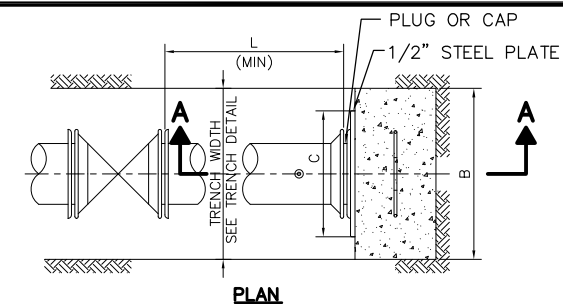
SIZE OF PIPE	DEGREE OF BEND							
	11 1/4°		22 1/2°		45°		90°	
	A"	B"	A"	B"	A"	B"	A"	B"
3"	12	9	15	9	18	12	24	18
4"	12	9	18	9	24	12	30	18
6"	18	9	24	9	36	12	48	18
8"	18	9	30	12	60	12	72	24
10"	24	9	36	12	84	12	96	24
12"	24	9	48	12	96	12	102	24
16"	24	12	78	12	102	18	108	24

* BASED ON 150 PSI TEST PRESSURE

- CONCRETE BACKING VERTICAL NOTES:
1. BACKING DESIGNED FOR 3000 POUNDS PER SQUARE FOOT SOIL BEARING AND 150 POUNDS PSI INTERNAL PRESSURE.
 2. CENTER BACKING ON BEND.
 3. THESE SAME DIMENSIONS WILL BE USED FOR SHORT BODY FITTINGS.

CONCRETE BACKING AND DIMENSIONS FOR VERTICAL BLOCKING 150 PSI INTERNAL PRESSURE

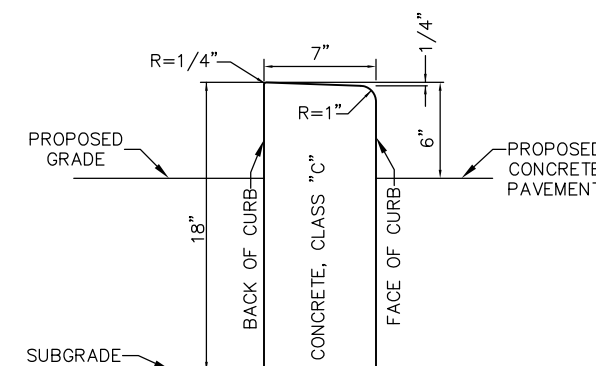
NOT TO SCALE



SIZE OF PIPE	A	B	C
3"	0'-8"	0'-8"	1'-3"
4"	0'-10"	0'-10"	1'-4"
6"	1'-0"	1'-0"	1'-6"
8"	1'-2"	1'-2"	1'-8"
10"	1'-4"	1'-6"	1'-10"
12"	1'-6"	2'-0"	2'-0"
16"	2'-0"	3'-2"	2'-4"
20"	2'-4"	4'-4"	2'-8"

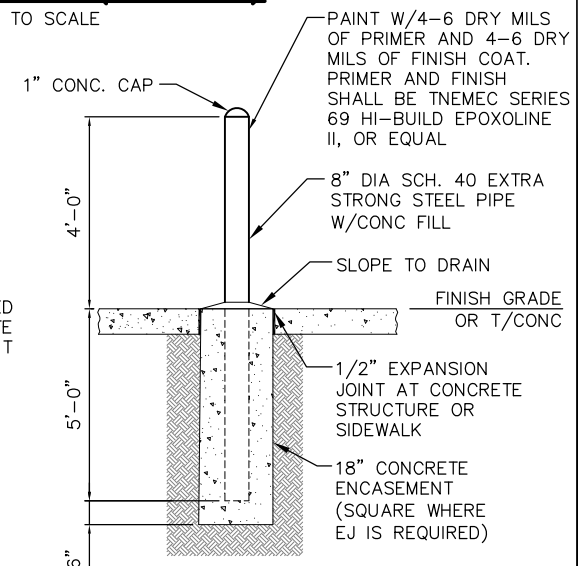
THRUST BLOCKING (DEAD END)

NOT TO SCALE



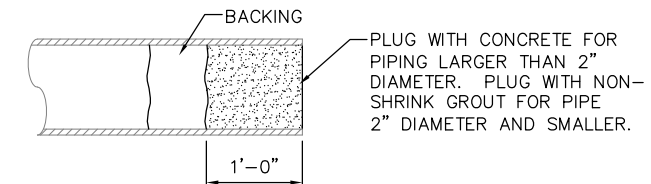
STANDARD CONCRETE CURB CIRCULAR TYPE S-2

NOT TO SCALE



TYPE A BOLLARD

NOT TO SCALE

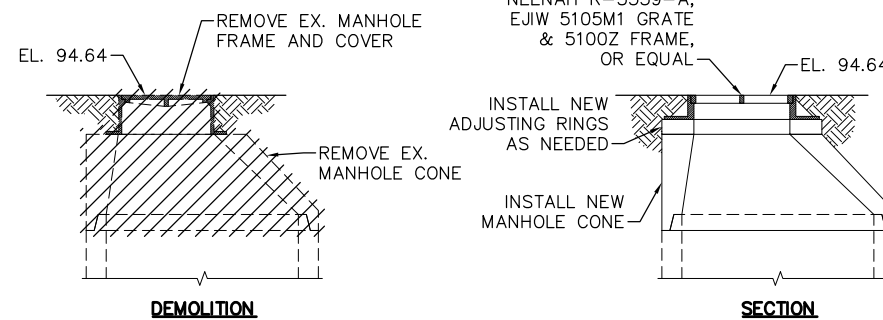


PIPE SEALING

NOT TO SCALE

PIPE SEALING NOTES:

1. COORDINATE SEALING WITH THE ENGINEER.
2. CONTRACTOR SHALL EXCAVATE AND FIELD VERIFY THE ELEVATION OF ALL THE EXISTING PIPING AND CONDUITS TO BE ABANDONED, PLUGGED, OR CONNECTED TO NEW PIPING AND STRUCTURES. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT AND MATERIALS TO MAKE THE CONNECTION INCLUDING CUT-IN PIECES, SLEEVES, ETC. THE CONTRACTOR SHALL SUBMIT A DETAILED WORK SCHEDULE TO THE ENGINEER AND OWNER FOR APPROVAL A MINIMUM OF 72 HOURS PRIOR TO THE START OF THE WORK. THE CONTRACTOR SHALL PROCEED AND WORK CONTINUOUSLY UNTIL THE WORK IS COMPLETE.
3. FILL ALL ABANDONED PIPING, REGARDLESS OF SIZE, UNDERNEATH PAVED AREAS WITH FLOWABLE CONTROLLED DENSITY FILL.



CONVERT TO OPEN GRATE

NOT TO SCALE

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Remarks	

PROJ. PERSONNEL	DATE	REVISIONS
DES. PA/LI	02/17/14	
DWN. MM	02/17/14	
CKD. AE/GM	02/17/14	

This document was originally issued by ANDREW O. ERIBO on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL
CONTROL CENTER

OECC MOTOR CONTROL CENTERS UPGRADE

SCALE

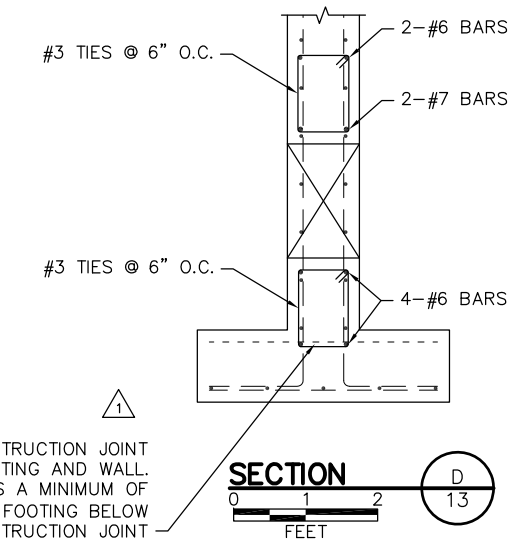
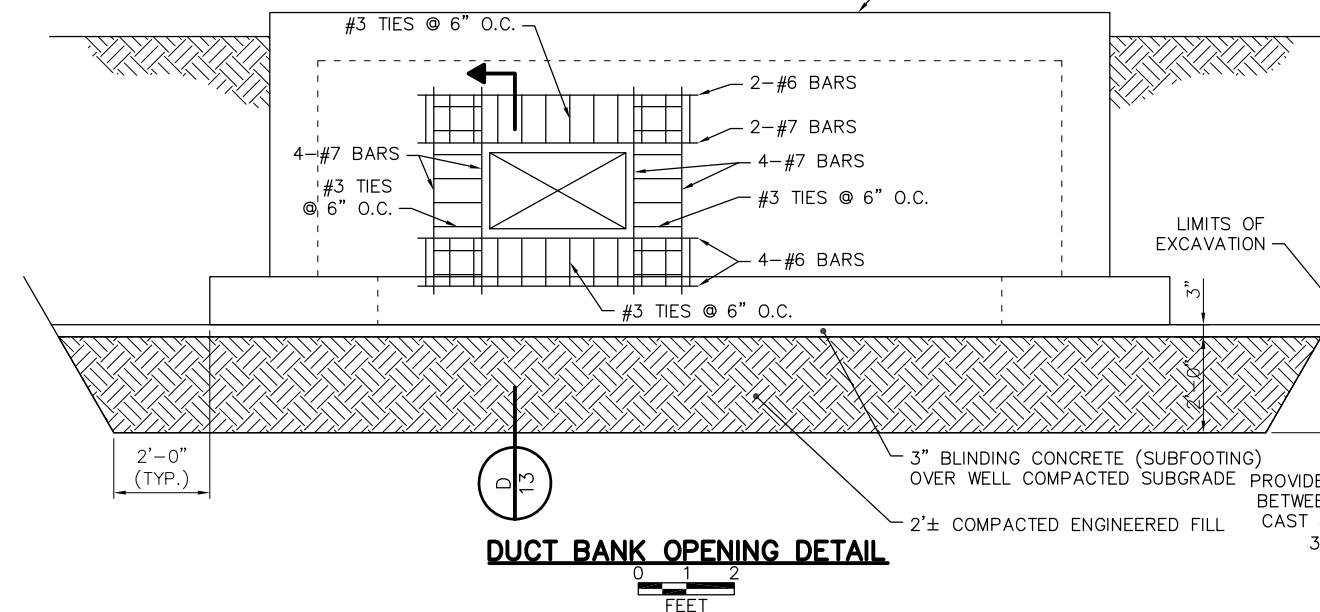
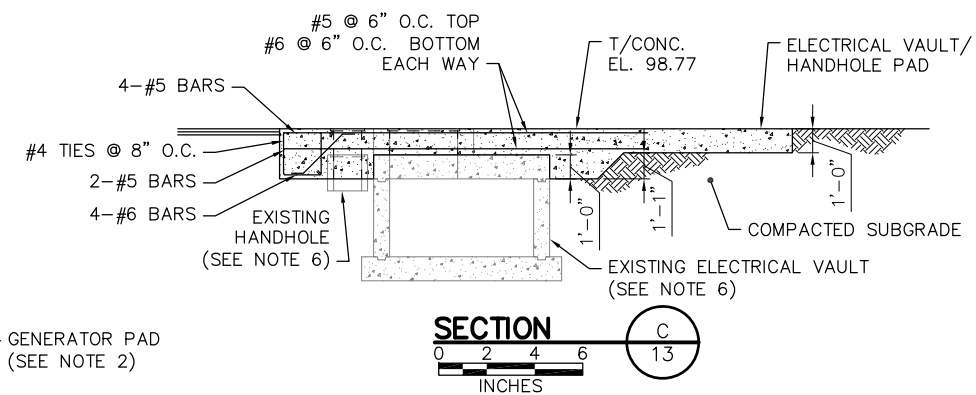
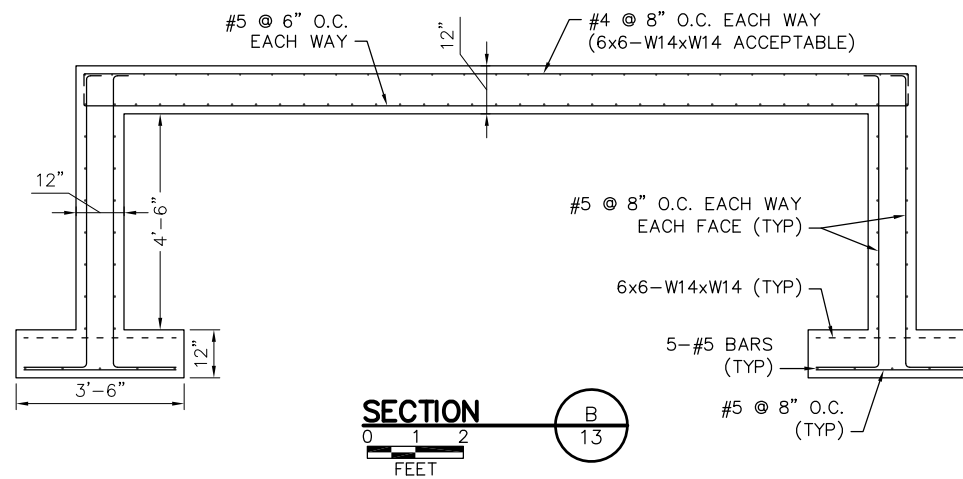
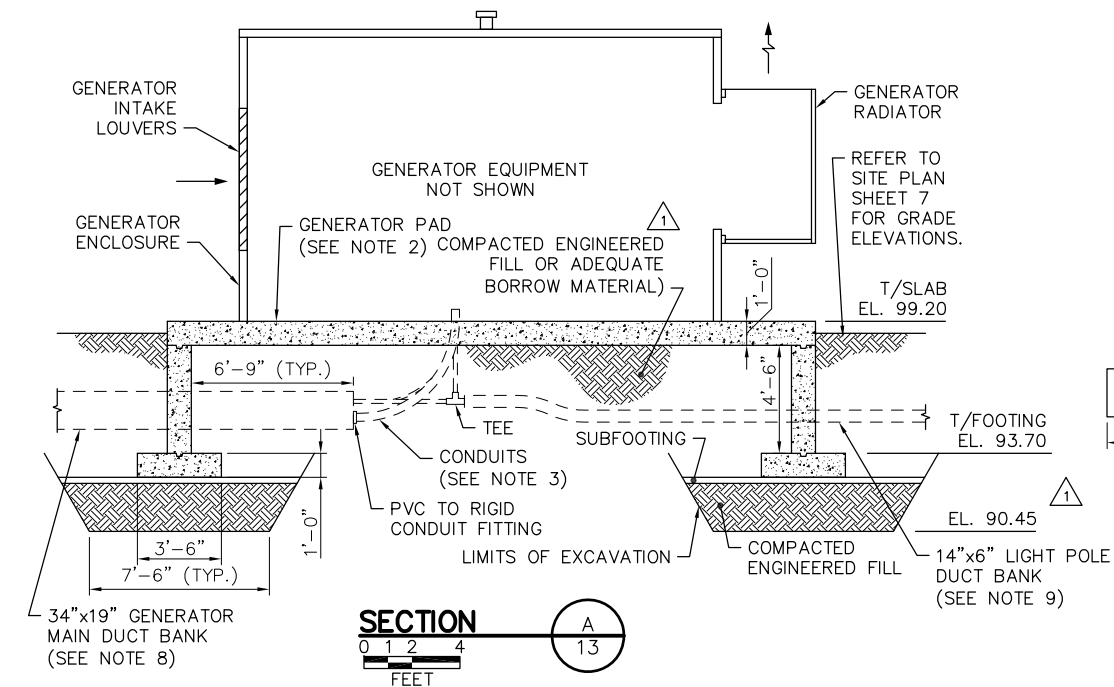
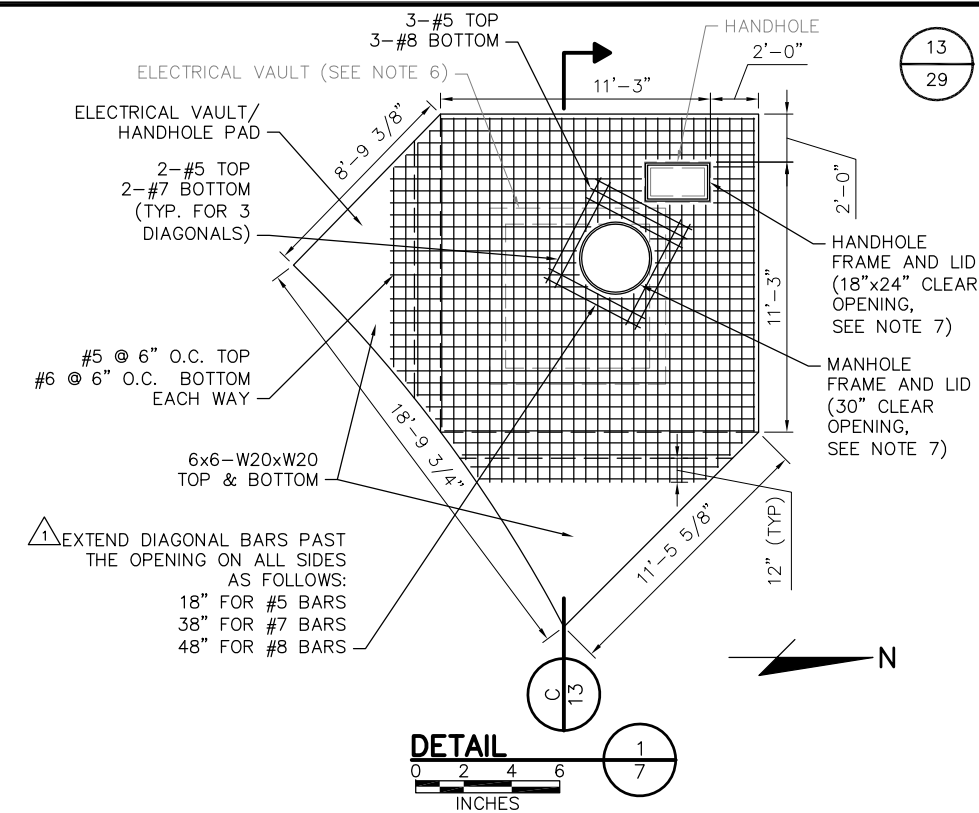
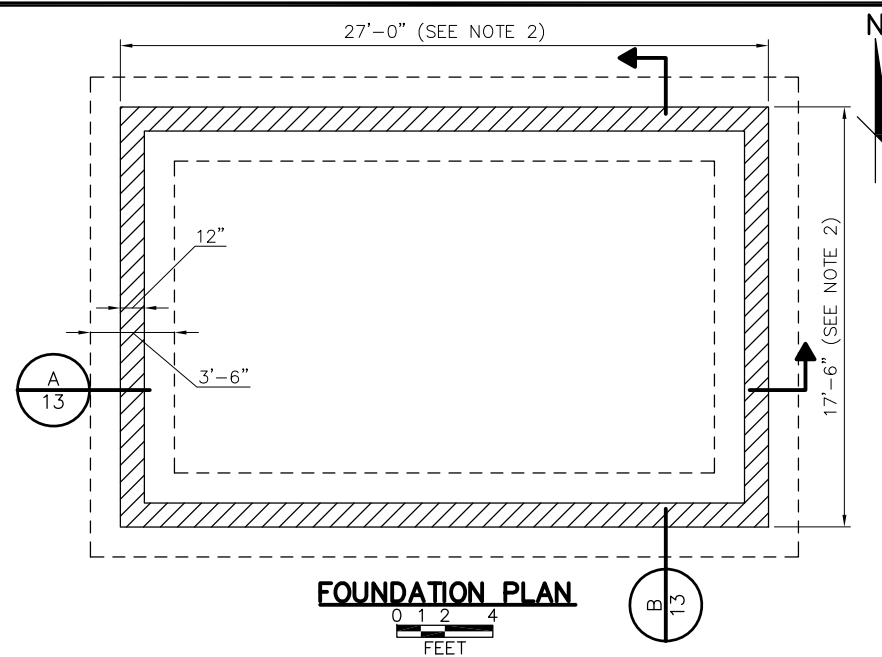
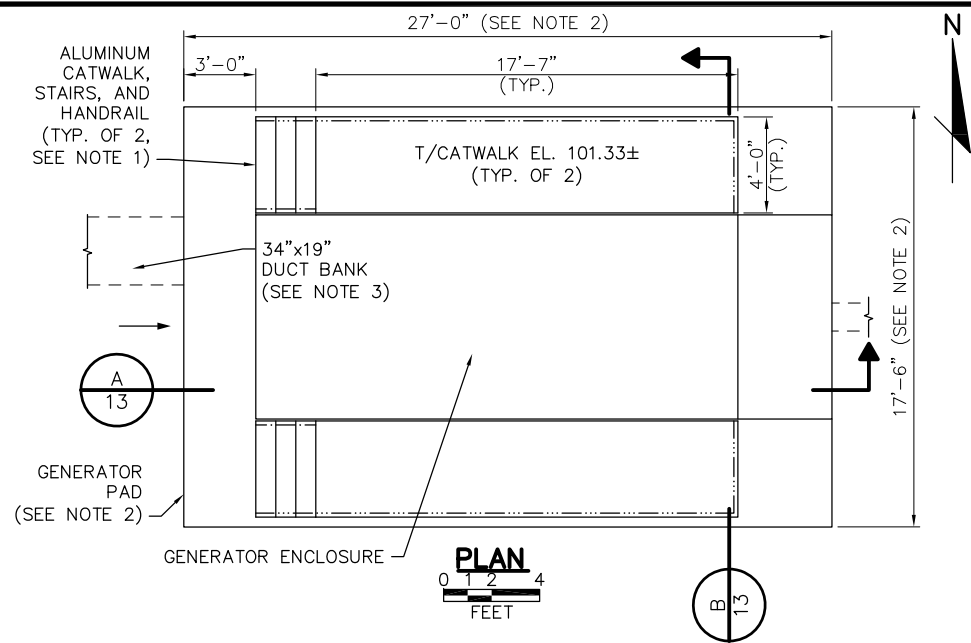
AS NOTED

GENERAL
SITE DETAILS
SHEET 2 OF 2

ISSUED STATUS: REC
(See User's Guide for Explanation)

SHEET 12

DATE ISSUED: 03/17/17
Mo./Dy./Yr.



REFERENCE NOTES:

- ALUMINUM CATWALK, STAIRS, AND HANDRAIL SHALL BE PROVIDED BY GENERATOR MANUFACTURER.
- GENERATOR SHALL BE PURCHASED BY OWNER. CONTRACTOR SHALL NOT CONSTRUCT PAD UNTIL THE GENERATOR SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER. FINAL DIMENSIONS OF THE PAD SHALL DEPEND ON THE FINAL GENERATOR SIZE.
- THE LOCATION OF THE DUCT BANK AND CONDUITS THROUGH THE TOP SLAB SHALL BE COORDINATED WITH THE GENERATOR MANUFACTURER.
- 7/8" DIA. ANCHOR BOLTS ARE TO BE INSTALLED. THE LOCATIONS ARE DETERMINED BASED ON THE GENERATOR FRAME HOLES FOR POST DRILLED ANCHORS.
- SIMPSON ACRYLIC ADHESIVE ANCHORS SHALL BE EMBEDDED TO 9 INCHES IN CONCRETE IN 1 IN. DIA. HOLES.
- EXISTING CONDUIT IN VAULT AND HANDHOLE NOT SHOWN. CONTRACTOR SHALL VERIFY DIMENSIONS OF THE EXISTING VAULT AND HANDHOLE, AND NOTIFY THE ENGINEER PRIOR TO POURING THE REINFORCED CONCRETE PAD.
- PROVIDE NEW FRAME AND LID RATED FOR HS-20 LOADING. VERIFY SIZE OF OPENING PRIOR TO ORDERING CASTING.
- SEE SHEETS 10, 27, AND 28 FOR DETAILS. BOTTOM OF DUCT BANK EL. 94.70. SLOPE DUCT BANK DOWN AT MIN. 1.0% GRADE TO ELECTRIC MANHOLE. MAINTAIN 18" MIN. COVER.
- SEE SHEETS 27 AND 28 FOR DETAILS. BOTTOM OF DUCT BANK EL. 95.00. SLOPE DUCT BANK DOWN AT MIN. 1.0% GRADE TO LIGHT POLE. MAINTAIN 18" MIN. COVER.
- SEE SOILS AND FOUNDATION STRUCTURAL NOTES ON SHEET 4.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6099
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Remarks	
1	BH	11/17/14	DESIGN CLARIFICATION 1	

PROJ. PERSONNEL	DATE
DES. PA/LI	02/17/14
DWN. MM	02/17/14
CKD. AE/GM	02/17/14

This document was originally issued by PANCHADASARAM ARUMUGASAMY on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

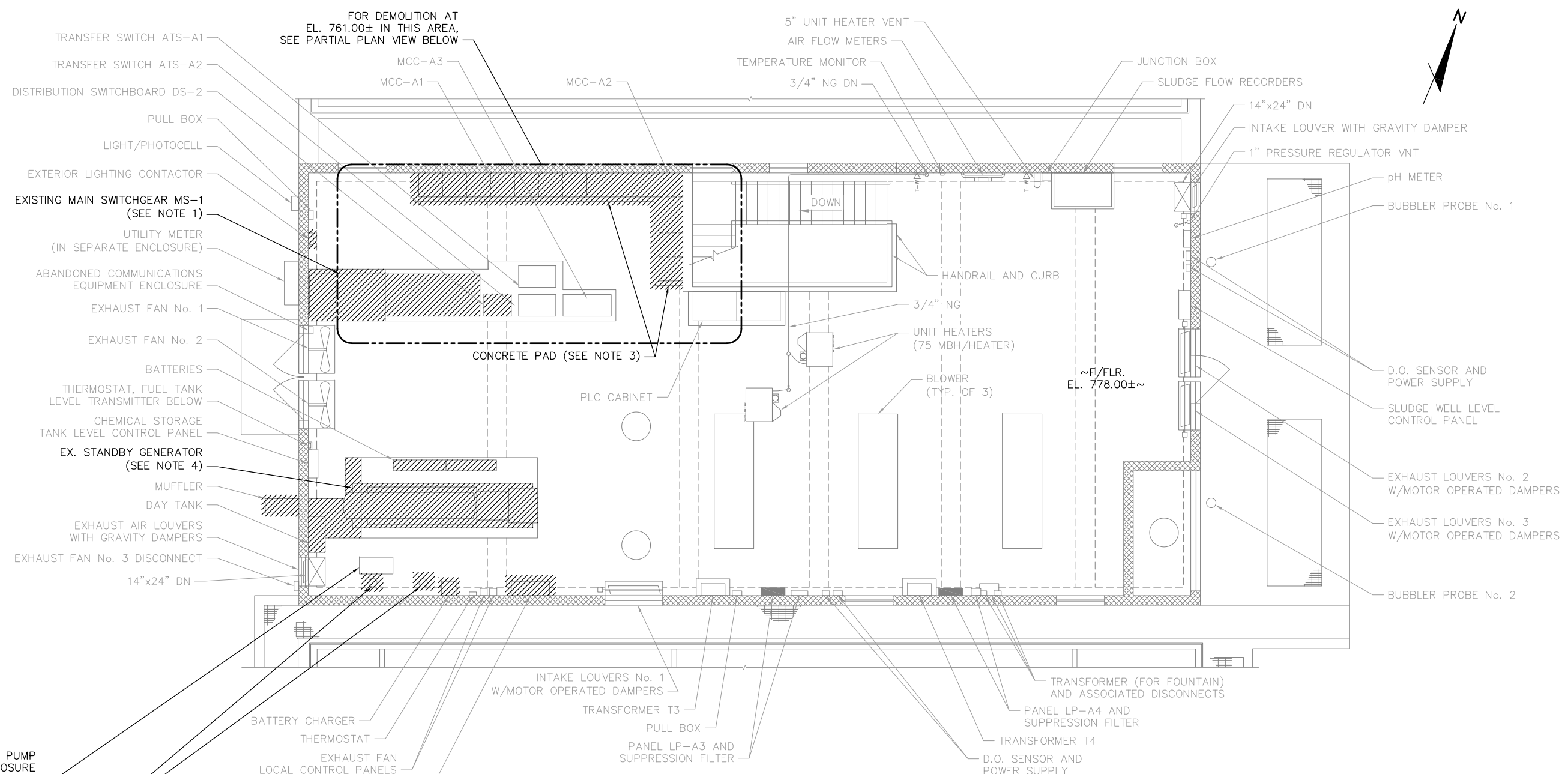
SCALE
AS NOTED

GENERAL GENERATOR PLAN AND SECTIONS

ISSUED STATUS: REC
(See User's Guide for Explanation)

SHEET **13**

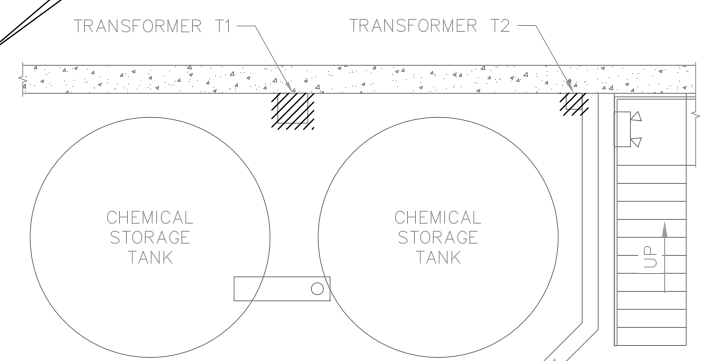
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



**NORTH BLOWER BUILDING - DEMOLITION
PLAN AT EL. 778.00±**

EXISTING FUEL OIL PUMP AND ENCLOSURE (SEE NOTE 2)

EXISTING NON-POTABLE WATER LINES. DEMO WATER LINES BACK TO REMAINING VALVE. CAP VALVE AS REQUIRED.



**NORTH BLOWER BUILDING - DEMOLITION
PARTIAL PLAN AT EL. 761.00±**

GENERAL NOTES:

- A. REFER TO THE SUGGESTED CONSTRUCTION SEQUENCE IN THE SPECIFICATIONS.
- B. CONDUIT 3" AND LARGER SHALL BE CAREFULLY DEMOLISHED AND RETURNED TO THE OWNER.
- C. ALL EXISTING CONDUIT IN THE BUILDING IS NOT SHOWN. CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING CONDUIT AND EQUIPMENT PRIOR TO CONSTRUCTION. DEMOLISH AND REMOVE ALL CONDUIT AND WIRING FROM THE EXISTING MCCs TO THE NEAREST PULL BOX FOR EXISTING LOADS TO BE RECONNECTED.
- D. CONTRACTOR SHALL PROVIDE NEW CONDUIT AND WIRING FOR NEW ELECTRICAL EQUIPMENT AND CONNECTION TO EXISTING LOADS, UNLESS OTHERWISE NOTED.

REFERENCE NOTES:

- 1. RETAIN AEP CTs IN EXISTING MS-1. CTs WILL BE REUSED IN THE PROPOSED UTILITY CT CABINET. SEE SHEET 15 FOR THE LOCATION OF THE PROPOSED UTILITY CT CABINET.
- 2. THE FUEL OIL PIPING FROM THE EXISTING FUEL OIL PUMP ENCLOSURE TO THE EXISTING DAY TANK IN THE NORTH BLOWER BUILDING SHALL BE DEMOLISHED AND CAPPED AT THE THE FUEL OIL PUMP ENCLOSURE. FUEL PUMP TO REMAIN.
- 3. DEMOLITION AND REMOVAL OF CONCRETE PAD TO BE CARRIED OUT WITHOUT DAMAGING OR CUTTING OF STEEL REBAR IN THE FLOOR. CONCRETE PATCHING SHALL BE MADE TO PROVIDE ADEQUATE COVER AND TO BE LEVEL WITH FINISH FLOOR ELEVATION. REFER TO SPECIFICATIONS FOR CONCRETE REPAIR.
- 4. CONTRACTOR MAY BE REQUIRED TO REMOVE SECTIONS OF THE DOUBLE DOOR OR WEST WALL IN ORDER TO REMOVE THE EXISTING STANDBY GENERATOR AND ELECTRICAL EQUIPMENT. IF REQUIRED, CONTRACTOR SHALL DO SO AT HIS/HER OWN COST AND BEAR FULL RESPONSIBILITY FOR RETURNING THE CONDITION OF THE WALL OR DOORS TO ORIGINAL CONDITION.

REB
RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Remarks
1	DDW	05/26/16	FO-02	

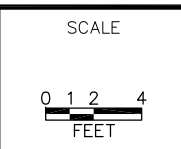
PROJ.	PERSONNEL	DATE	REVISIONS
DES.	RW	02/17/14	
DWN.	JS	02/17/14	
CKD.	TW/JB	02/17/14	

This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL
CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE



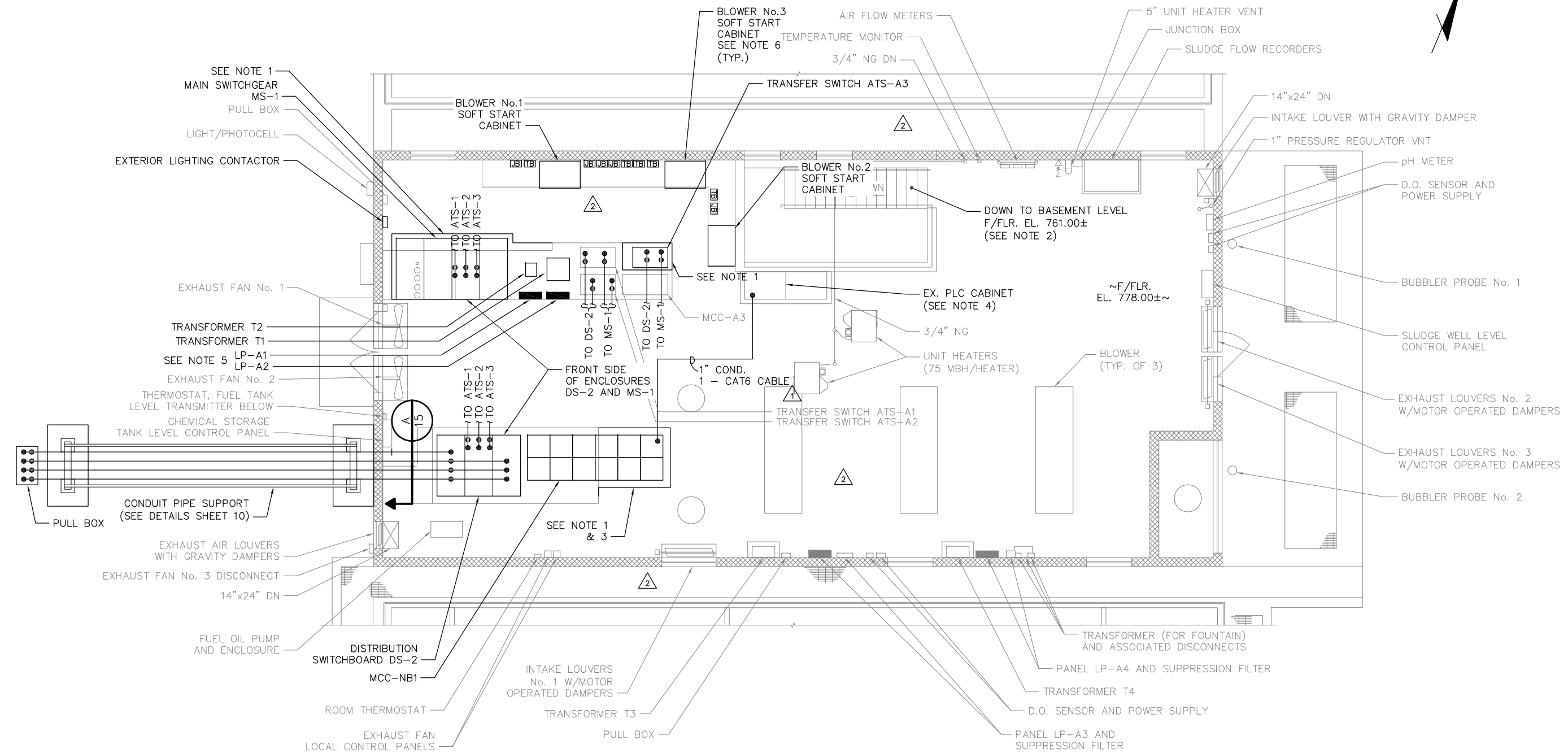
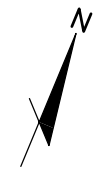
**NORTH BLOWER BUILDING
DEMOLITION
PLANS AT EL. 761.00±
AND 778.00±**

ISSUED STATUS: REC
(See User's Guide for Explanation)

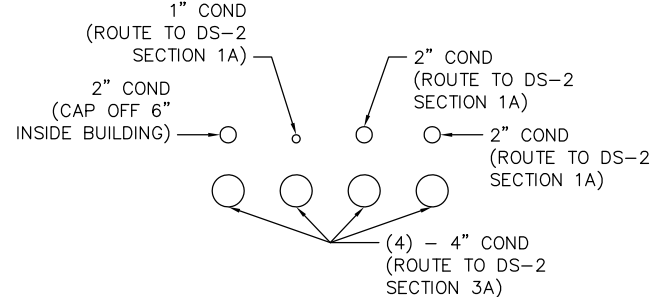
14

SHEET

DATE ISSUED: 03/17/17
Mo./Dy./Yr.



**NORTH BLOWER BUILDING – MODIFICATIONS
PLAN AT EL. 778.00±**



SECTION A
NOT TO SCALE

GENERAL NOTES:

- A. REFER TO THE SUGGESTED CONSTRUCTION SEQUENCE IN THE SPECIFICATIONS, SECTION 01 12 16.
- B. CONTRACTOR SHALL PROVIDE NEW CONDUIT AND WIRING FOR NEW ELECTRICAL EQUIPMENT AND CONNECTION TO EXISTING LOADS, UNLESS OTHERWISE NOTED.
- C. ALL NEW CONDUIT IN THE BUILDING IS NOT SHOWN. ONLY MAJOR CONDUITS ARE SHOWN. SEE SHEETS 16, 17, AND 18 FOR CONDUIT SIZES. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING THE ROUTING OF ALL CONDUIT TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- D. MAINTAIN MIN. 3 FT. CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT AND CABINETS.
- E. NEW CONDUIT SHALL BE LOCATED TO AVOID INTERFERENCE WITH THE CLEAR PATH FROM THE DOUBLE DOORS TO THE BLOWERS. THIS PATH IS ALSO USED FOR MOVING EQUIPMENT INTO AND OUT OF THE BUILDING.

REFERENCE NOTES:

- 1. EXISTING CONCRETE PADS SHALL BE MODIFIED AS SHOWN. CONTRACTOR SHALL REFER TO DETAIL 2, SHEET 27 FOR THE EXTENSIONS OF THE CONCRETE PADS.
- 2. BASEMENT LEVEL (EL. 761.00±) IS A CORROSIVE AND CLASS 1 DIV 2 ENVIRONMENT.
- 3. FINAL DIMENSIONS SHALL BE DEPENDENT ON EQUIPMENT SIZE. EXTEND MIN. 4" BEYOND EQUIPMENT BASE.
- 4. CONTRACTOR SHALL USE SPARE PLC INPUT FOR THE NEW TRANSFER SWITCH.
- 5. PANELBOARDS LP-A1 AND LP-A2 SHALL BE MOUNTED TO AN EQUIPMENT RACK.
- 6. PROVIDE CAT 6 CABLE IN 1" C. FROM EACH BLOWER TO EXISTING PLC.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST., SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Remarks	
1	RLA	11/17/14	DESIGN CLARIFICATION 1	
2	DDW	01/14/16	RFP-02	
3	DDW	03/17/17	RECORD DOCUMENTS	

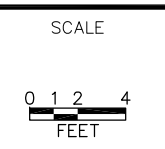
PROJ. PERSONNEL	DATE
DES. RW	02/17/14
DWN. JS	02/17/14
CKD. TW/JB	02/17/14

This document was originally issued by **RAYMOND R. WHITE** on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



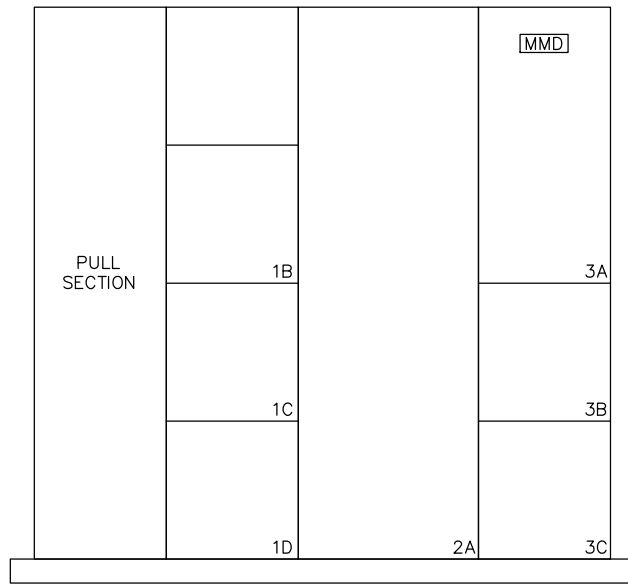
OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE



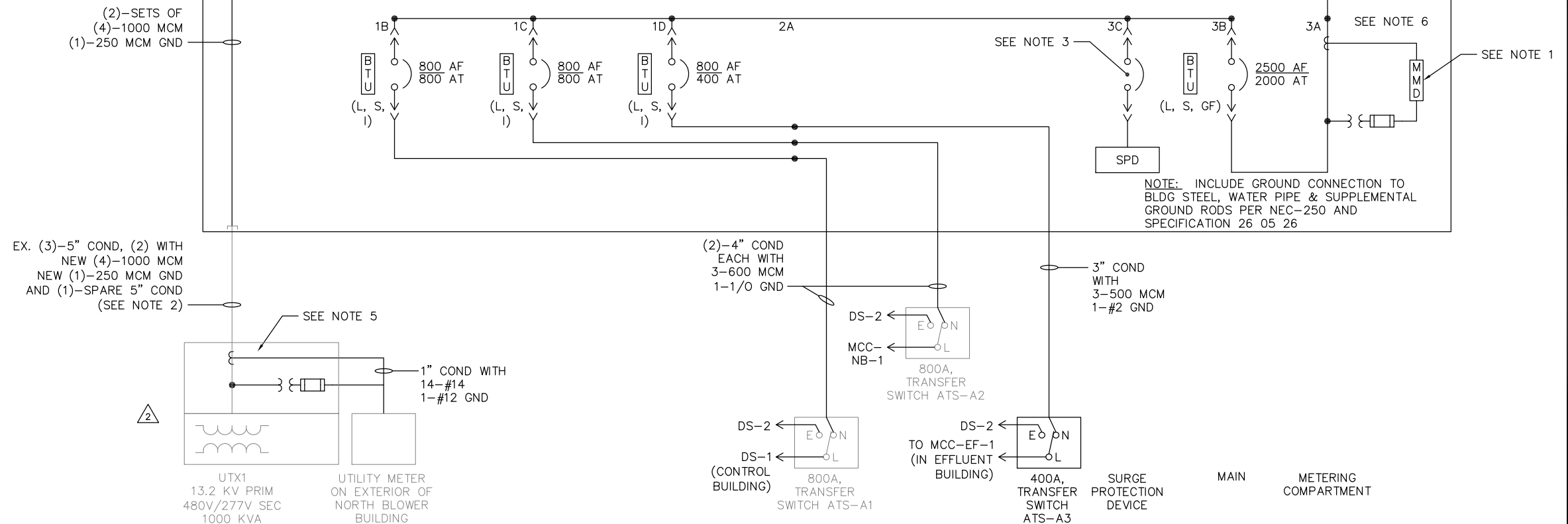
**NORTH BLOWER BUILDING MODIFICATIONS
PLAN AT EL. 778.00±**

ISSUED STATUS: **REC**
(See User's Guide for Explanation)
15
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.

MAIN SWITCHBOARD MS-1
2000 AMP, 480V 3Ø 4W, 100,000 AMP BRACING

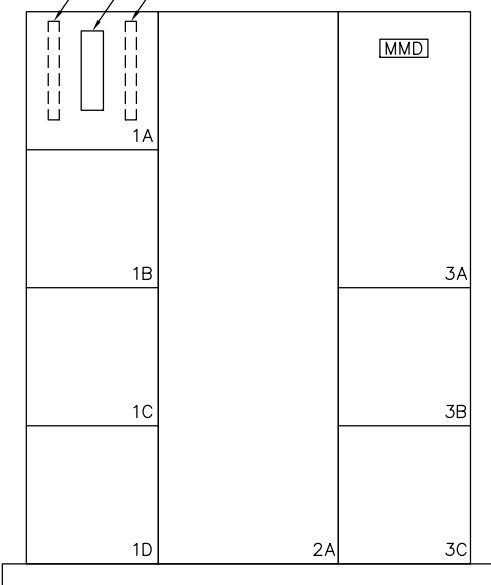


MS-1 ELEVATION

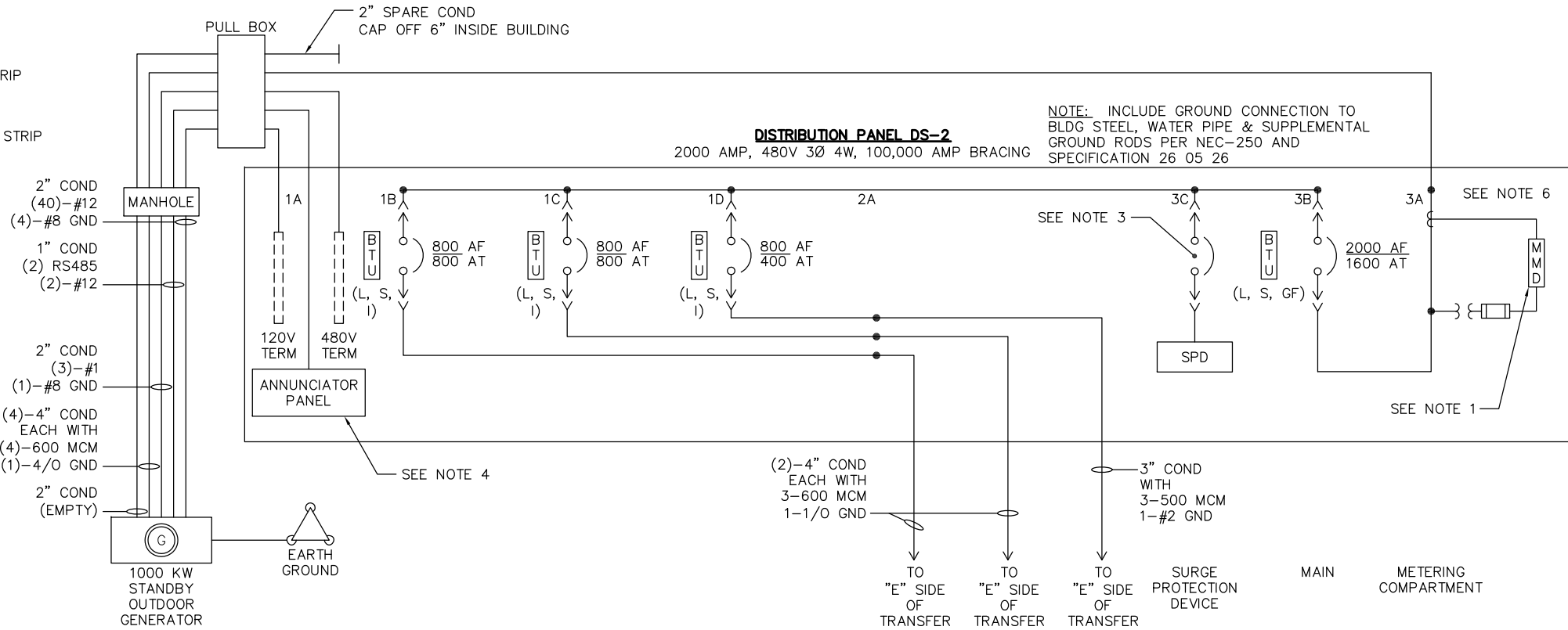


MS-1 ONE-LINE

- (50) TERMINAL, 120 VAC, TERMINAL STRIP
- GENERATOR REMOTE ANNUNCIATOR
- (20) TERMINAL, 480 VAC, TERMINAL STRIP



DS-2 ELEVATION



DS-2 ONE-LINE

- GENERAL NOTES:**
- A. BREAKER TRIP UNIT SETTING DESIGNATIONS ARE AS FOLLOWS:
L = LONG TIME TRIP SETTING
S = SHORT CIRCUIT TRIP SETTING
I = INSTANTANEOUS TRIP SETTING
GF = GROUND FAULT TRIP SETTING
 - B. ALL DEMOLISHED CONDUITS 3" AND LARGER SHALL BE RETURNED TO THE OWNER UNLESS OTHERWISE NOTED.

- REFERENCE NOTES:**
1. METER TO DISPLAY 3Ø VOLTS, 3Ø AMPS, KVA AND POWER FACTOR.
 2. REUSE EXISTING 5" CONDUITS. PROVIDE NEW SERVICE CONDUCTORS FROM EXISTING UTILITY TRANSFORMER TO MS-1.
 3. CONTRACTOR TO SIZE BREAKER PER SPD MANUFACTURER'S RECOMMENDATIONS.
 4. GENERATOR SUPPLIER TO PROVIDE ANNUNCIATOR PANEL. CONTRACTOR TO INSTALL ANNUNCIATOR PANEL.
 5. CONTRACTOR TO RELOCATE CURRENT TRANSFORMERS (CTs) AND POTENTIAL TRANSFORMERS (PTs) FROM EXISTING MS-1 TO UTILITY TRANSFORMER SECONDARY CABINET.
 6. CONTRACTOR TO BOND TOGETHER THE NEUTRALS IN MS-1 AND DS-2.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST., SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	RLA	11/17/14	DESIGN CLARIFICATION 1	
	DDW	07/21/15	RFI-01	
	DDW	09/03/15	RFI-10	
	DDW	01/14/16	RFP-02	

PROJ.	PERSONNEL	DATE	REMARKS
DES.	RW	02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.
DWN.	JS	02/17/14	
CKD.	TW/JB	02/17/14	

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

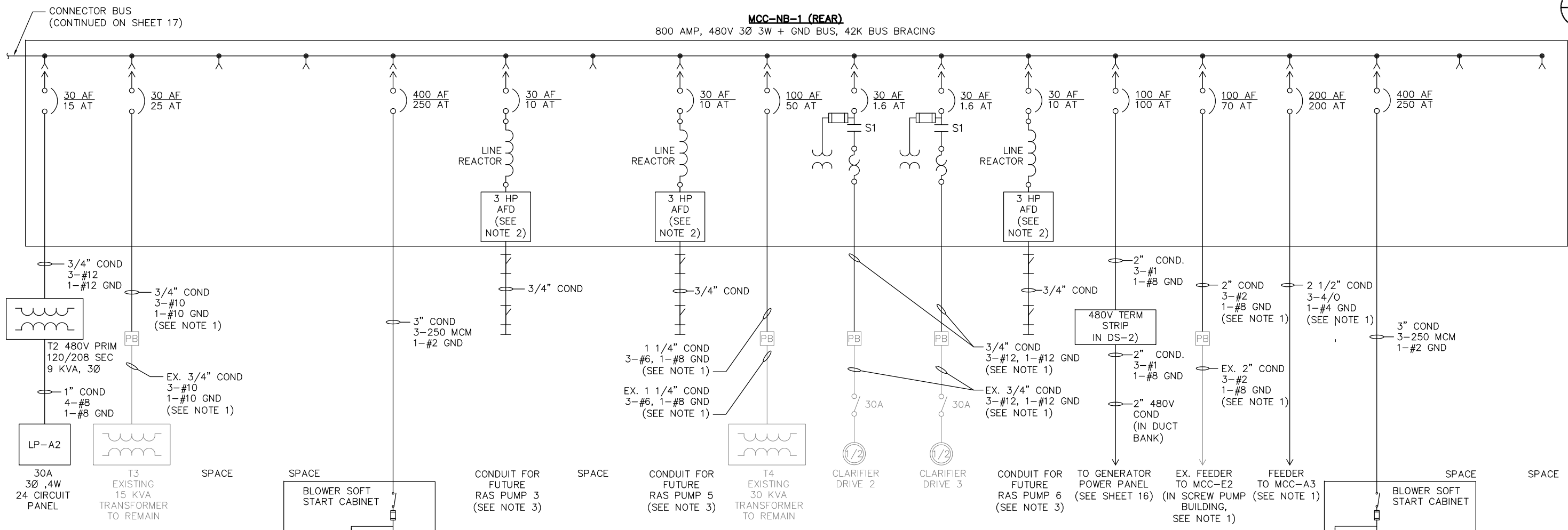


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
NOT TO SCALE

NORTH BLOWER BUILDING MS-1 AND DS-2 ONE-LINE AND ELEVATION

ISSUED STATUS: REC
(See User's Guide for Explanation)
16
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



MCC-NB-1 ONE-LINE

				14A		
11A	12A	13A		15A	16A	
			14C		16D	
			14E	15F		
			14G	15G	16E	
			14J			
11D	12D	13D	14L	15J	16J	

- BUCKET SCHEDULE:**
- 11A - MCC-A3
 - 11D - RAS PUMP 3
 - 12A - ETHERNET PS
 - 12D - RAS PUMP 5
 - 13A - CLARIFIER 2
 - 13D - RAS PUMP 6
 - 14A - SPACE
 - 14C - XFMR T2
 - 14E - SPARE
 - 14G - XFMR T4
 - 14J - XFMR T3
 - 14L - MCC-E2
 - 15A - CLARIFIER 3
 - 15D - GEN SET PANELBOARD
 - 15F - SPACE
 - 15G - SPACE
 - 15J - BLOWER 1
 - 16A - ETHERNET PS
 - 16D - SPACE
 - 16E - BLOWER 2
 - 16J - BLOWER 3

MCC-NB-1 (REAR) ELEVATION

- REFERENCE NOTES:**
1. CONTRACTOR SHALL REMOVE EXISTING CONDUIT AND WIRING TO THE NEAREST PULL BOX FOLLOWING DEMOLITION OF THE EXISTING MCCs, THEN INSTALL NEW CONDUIT AND WIRING FROM THE EXISTING PULL BOX TO MCC-NB-1. INSTALL CONDUIT SEAL AT BOTTOM OF MCC (ABOVE FLOOR LEVEL) PER DETAIL 7 ON SHEET 27.
 2. THE AFD SHALL BE SET TO RUN AT A FIXED SPEED UNDER THIS CONTRACT. VARIABLE SPEED SHALL BE SET UNDER A FUTURE CONTRACT.
 3. SEE SHEET 17 FOR RAS PUMPS EMPTY CONDUIT ARRANGEMENT.
 4. CONTRACTOR SHALL REMOVE EXISTING CONDUIT TO THE BLOWER PULL BOX FOLLOWING DEMOLITION OF THE EXISTING MCCs. WIRING SHALL BE REMOVED TO THE BLOWER JUNCTION BOX. INSTALL NEW CONDUIT FROM PULL BOX TO MCC-NB-1 AND NEW WIRING FROM JUNCTION BOX TO MCC-NB-1. INSTALL CONDUIT SEAL BETWEEN FLOOR AND PULL BOX PER DETAIL 7 ON SHEET 27.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	RLA	11/17/14	DESIGN CLARIFICATION 1	
2	DDW	01/14/16	RFP-02	
3	DDW	03/17/17	RECORD DOCUMENTS	

PROJ. PERSONNEL	DATE
DES. RW	02/17/14
DWN. JS	02/17/14
CKD. TW/JB	02/17/14

This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

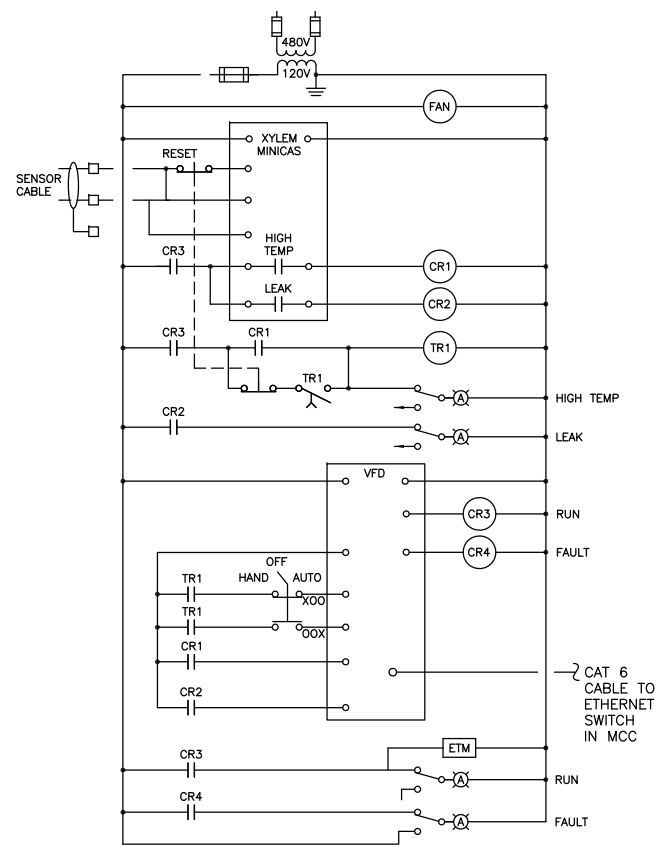


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

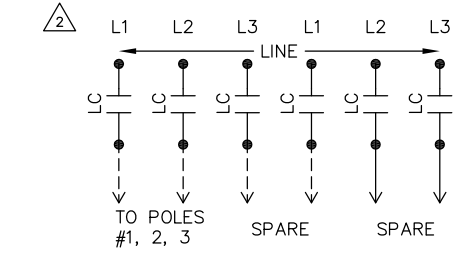
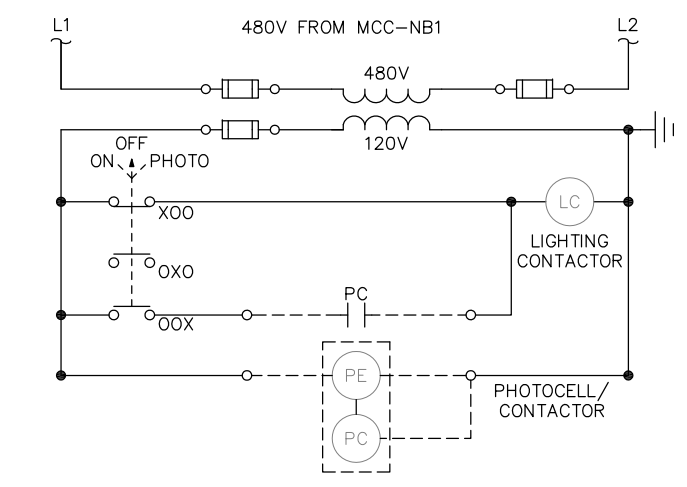
SCALE
NOT TO SCALE

NORTH BLOWER BUILDING
MCC-NB-1
ONE-LINE AND ELEVATION
SHEET 2 OF 2

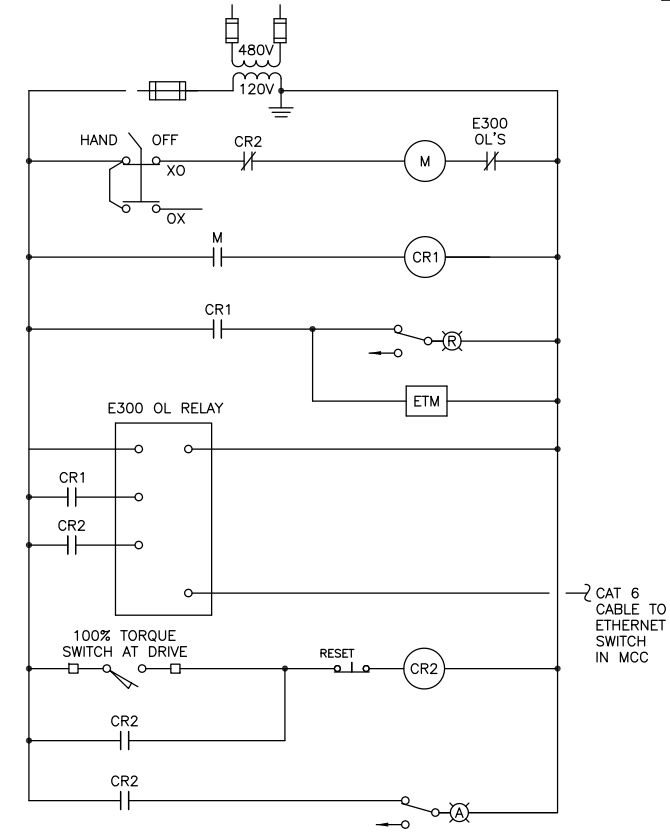
ISSUED STATUS: REC
(See User's Guide for Explanation)
18
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



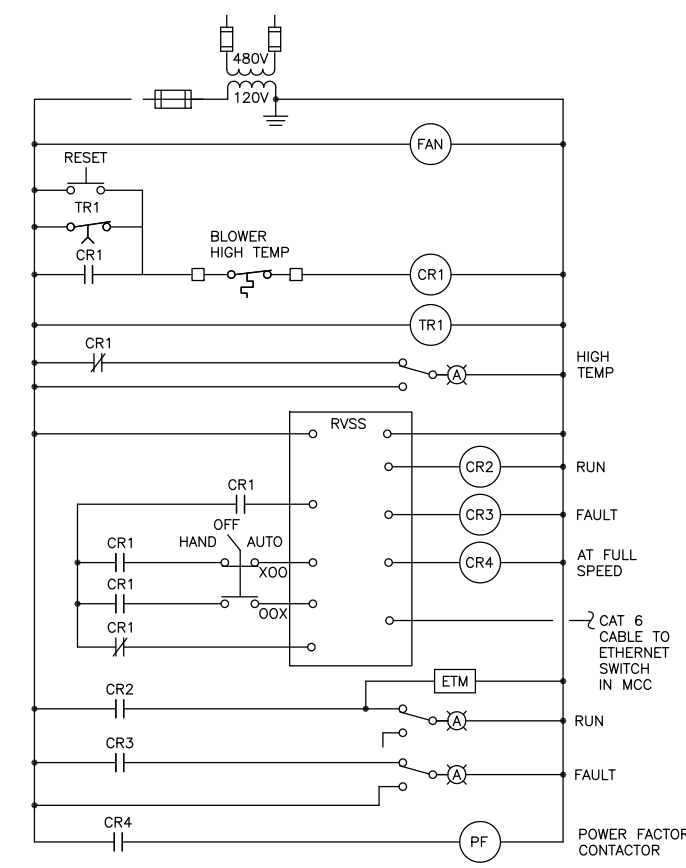
**RAS PUMP Nos. 1 THRU 6
TYPICAL CONTROL SCHEMATIC**



NEW EXTERIOR LIGHTING CONTACTOR SCHEMATIC
(SEE NOTE 1)



**CLARIFIER DRIVE Nos. 1 THRU 4
TYPICAL CONTROL SCHEMATIC**



**BLOWER Nos. 1 THRU 3 TYPICAL
CONTROL SCHEMATIC**

REFERENCE NOTES:
1. ALL COMPONENTS ARE IN NB-1 EXCEPT PHOTOEYE.



1

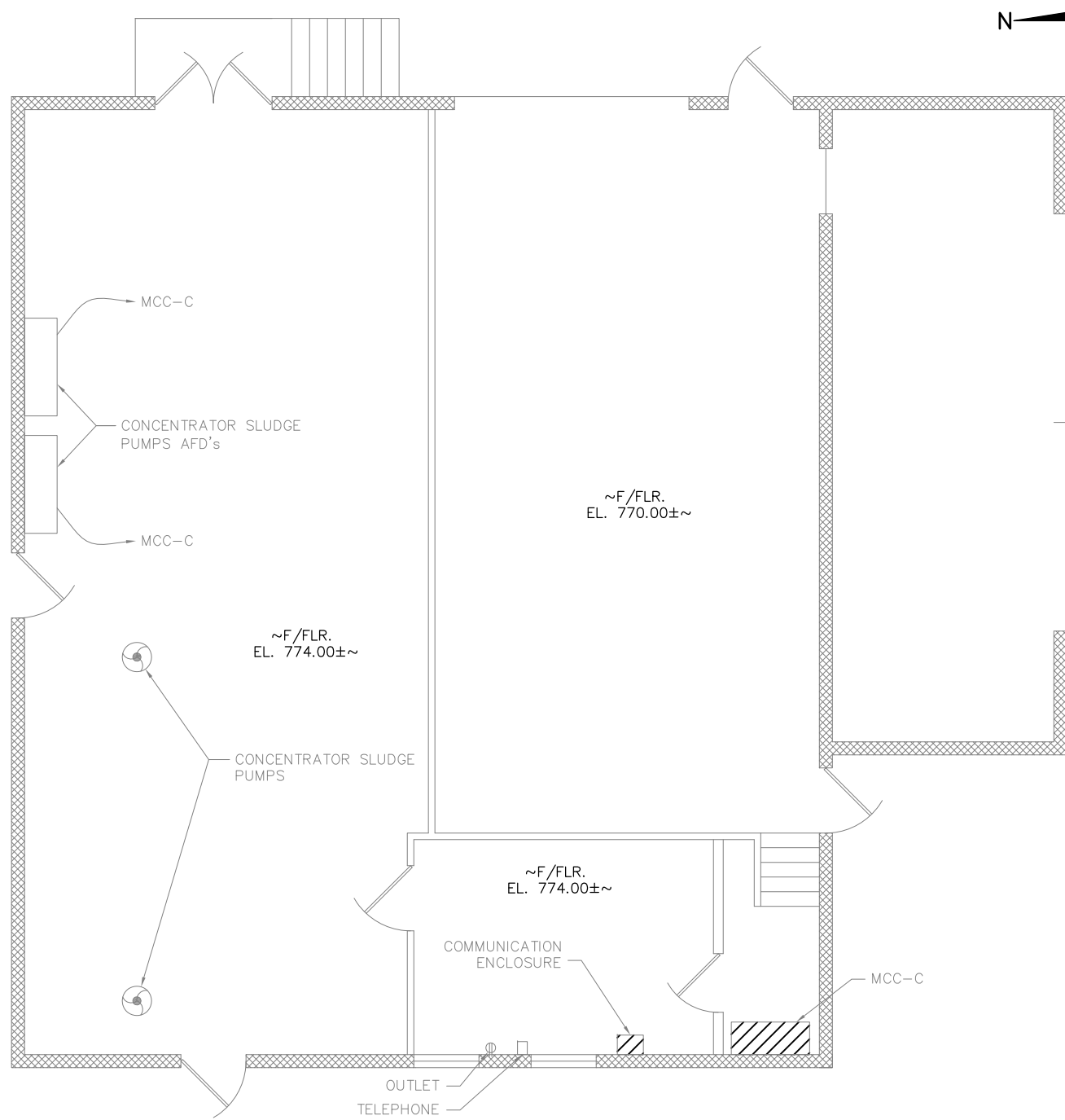
<p>RIBWAY ENGINEERING GROUP, INC. 300 E. BROAD ST., SUITE 500 COLUMBUS, OHIO 43215 PH. NO. (614) 221-6009 FAX NO. (614) 221-9089</p>	<table border="1"> <thead> <tr> <th rowspan="2">NO.</th> <th rowspan="2">BY</th> <th rowspan="2">DATE</th> <th colspan="2">REVISIONS</th> </tr> <tr> <th>Int.</th> <th>Mo./Dy./Yr.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>RLA</td> <td>11/17/14</td> <td>DESIGN CLARIFICATION 1</td> <td></td> </tr> <tr> <td>2</td> <td>DDW</td> <td>08/28/15</td> <td>RFI-10</td> <td></td> </tr> </tbody> </table>	NO.	BY	DATE	REVISIONS		Int.	Mo./Dy./Yr.	1	RLA	11/17/14	DESIGN CLARIFICATION 1		2	DDW	08/28/15	RFI-10		<table border="1"> <thead> <tr> <th rowspan="2">PROJ. PERSONNEL</th> <th rowspan="2">DATE</th> <th rowspan="2">REMARKS</th> </tr> <tr> <th>Initials</th> <th>Mo./Dy./Yr.</th> </tr> </thead> <tbody> <tr> <td>DES. RW</td> <td>02/17/14</td> <td>This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.</td> </tr> <tr> <td>DWN. JS</td> <td>02/17/14</td> <td></td> </tr> <tr> <td>CKD. TW/JB</td> <td>02/17/14</td> <td></td> </tr> </tbody> </table>	PROJ. PERSONNEL	DATE	REMARKS	Initials	Mo./Dy./Yr.	DES. RW	02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.	DWN. JS	02/17/14		CKD. TW/JB	02/17/14		<p>DELAWARE COUNTY 1908</p> <p>DELAWARE COUNTY, OHIO REGIONAL SEWER DISTRICT</p>	<p>OLENTANGY ENVIRONMENTAL CONTROL CENTER</p> <p>OECC MOTOR CONTROL CENTERS UPGRADE</p>	<p>SCALE</p> <p>NOT TO SCALE</p>	<p>NORTH BLOWER BUILDING</p> <p>CONTROL SCHEMATICS</p>	<p>ISSUED STATUS: REC (See User's Guide for Explanation)</p> <p>19</p> <p>SHEET</p> <p>DATE ISSUED: 03/17/17 Mo./Dy./Yr.</p>
	NO.				BY	DATE	REVISIONS																															
Int.		Mo./Dy./Yr.																																				
1	RLA	11/17/14	DESIGN CLARIFICATION 1																																			
2	DDW	08/28/15	RFI-10																																			
PROJ. PERSONNEL	DATE	REMARKS																																				
			Initials	Mo./Dy./Yr.																																		
DES. RW	02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.																																				
DWN. JS	02/17/14																																					
CKD. TW/JB	02/17/14																																					

PANEL LP-A1												
NO	TRIP	DESCRIPTION	AMPS	KVA	A	B	C	KVA	AMPS	DESCRIPTION	TRIP	NO
1	20	UPPER LEVEL RECEPTACLES 1	15		18				3	CENTER & OUTSIDE LIGHTS	20	2
3	20	LOWER LEVEL RECEPTACLES	15			18			3	CENTER LIGHTS	20	4
5	20	LOWER LEVEL LIGHTS	10				15		5	OUTSIDE LIGHTS & RECEPTACLE	20	6
7	20	UPPER LEVEL RECEPTACLES 2	15		20				5	LOWER LEVEL LIGHTS	20	8
9	20	PH CIRCULATING PUMP	12			24			12	PHOSPHATE REMOVAL PUMP	20	10
11	20	PH CIRCULATING PUMPS	12				24		12	EXHAUST FAN 1 (SEE NOTE 1)	20	12
13	15	CLARIFIER POST RECEPTACLE	15		15					SPARE	20	14
15	15	CLARIFIER POST LIGHTS	5			6			1	WATER SEAL SOL	20	16
17	20						10					
19	2P	SPARE			10				10	FOUNTAIN UNIT GFI	15	18
21	20	SUMP PUMP 1	12			20			8	CHEMICAL TANK ALARM PANEL	20	22
23	20	SUMP PUMP 2	12				12			SPARE	15	24
25	20	SPARE			3					SPARE Δ	20	26
27	20	SPARE										28
29	20	SPARE					12			EXHAUST FAN 2 (SEE NOTE 1)		30
31	20	SPARE										32
33												34
35												36
37												38
39	*											40
41	3P	SPD										42
TOTAL KVA PER PHASE												
TOTAL KVA CONNECTED												
TOTAL CONNECTED AMPS PER PHASE					66	68	73					
										* PER MANUFACTURER'S REQUIREMENTS		
RATING: 125 AMP 120/208 3 PHASE 4 WIRE										MAIN CB: 125A, 3 PHASE, 208V		
BUS: PHASE, GROUND AND NEUTRAL - TIN PLATED COPPER										LOCATION: NORTH BLOWER BUILDING WALL		
BREAKER RATING: 10,000 AIC Δ										ENCLOSURE: NEMA 12		
										FED FROM: MCC-NB-1/T1		

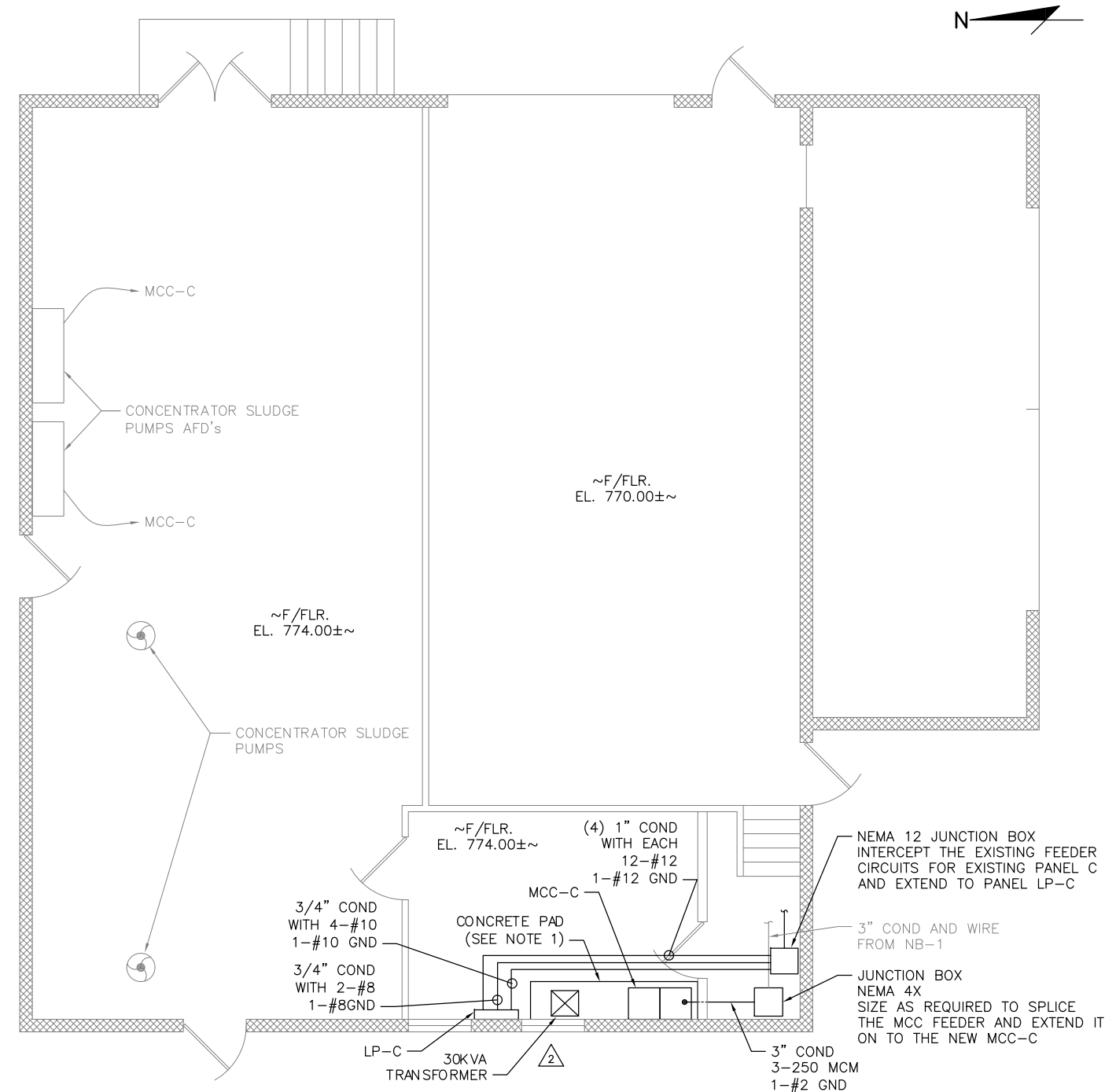
PANEL LP-A2												
NO	TRIP	DESCRIPTION	AMPS	KVA	A	B	C	KVA	AMPS	DESCRIPTION	TRIP	NO
1	20	LIGHTS	3		8				5	UPPER LEVEL UNIT HEATER 1	20	2
3	20	SLUDGE WELL LEVEL CONTROL	3			8			5	#2 FURNACE	20	4
5	20	CLARIFIER ALARM	3				3			SPARE	20	6
7	20				10				5	DAY TANK PUMP/EXHAUST FAN 3	20	8
9	2P	FLOWMETER PANEL	5							(SEE NOTE 1)		
11	20					10			5	PH SAMPLE PUMP	15	10
13	2P	SPARE					5		5	UPPER LEVEL UNIT HEATER 2	20	12
15										SPARE	20	14
17										SPARE	20	16
19	*											20
21	3P	SPD										22
TOTAL KVA PER PHASE												
TOTAL KVA CONNECTED												
TOTAL CONNECTED AMPS PER PHASE					18	18	8					
										* PER MANUFACTURER'S REQUIREMENTS		
RATING: 30 AMP 120/208 3 PHASE 4 WIRE										MAIN CB: 30A, 3 PHASE, 208V		
BUS: PHASE, GROUND AND NEUTRAL - TIN PLATED COPPER										LOCATION: NORTH BLOWER BUILDING WALL		
BREAKER RATING: 10,000 AIC Δ										ENCLOSURE: NEMA 12		
										FED FROM: MCC-NB-1/T2		

REFERENCE NOTES:
1. EXISTING EQUIPMENT IS NOT FUNCTIONING. OWNER SHALL REPAIR PRIOR TO CONSTRUCTION OF THIS PROJECT.

 RIBWAY ENGINEERING GROUP, INC. 300 E. BROAD ST. SUITE 500 COLUMBUS, OHIO 43215 PH. NO. (614) 221-6009 FAX NO. (614) 221-9089	NO. 1 BY RLA DATE 11/17/14 REVISIONS DESIGN CLARIFICATION 1 Remarks RFI-10	PROJ. PERSONNEL Initials Mo./Dy./Yr. DES. RW 02/17/14 DWN. JS 02/17/14 CKD. TW/JB 02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.	DELAWARE COUNTY 1908 DELAWARE COUNTY, OHIO REGIONAL SEWER DISTRICT	 OLENTANGY ENVIRONMENTAL CONTROL CENTER OECC MOTOR CONTROL CENTERS UPGRADE	SCALE NOT TO SCALE	NORTH BLOWER BUILDING SCHEDULES	ISSUED STATUS: REC (See User's Guide for Explanation) SHEET 20 DATE ISSUED: 03/17/17 Mo./Dy./Yr.
--	--	--	--	--	--	-----------------------	------------------------------------	--



**CONCENTRATOR BUILDING
DEMOLITION PLAN AT EL. 770.00±**



**CONCENTRATOR BUILDING
PROPOSED PLAN AT EL. 770.00±**

GENERAL NOTES:

- A. EXISTING MCC-C PAD AND COMMUNICATION ENCLOSURE ARE TO BE DEMOLISHED AFTER THE PROPOSED MCC-C IS INSTALLED AND LOADS AND POWER FEEDS HAVE BEEN TRANSFERRED.
- B. DEMOLITION SHALL BE PERFORMED WITH CARE. ALL SURFACES SHALL BE PATCHED OR RESURFACED TO MATCH THE CONDITION OF THE ADJACENT SURFACE.
- C. PROVIDE NEW CONCRETE PAD WHERE NOTED FOR NEW EQUIPMENT. SEE DETAIL 2 SHEET 27 FOR DETAILS.
- D. ALL EXISTING CONDUITS IN THE BUILDING ARE NOT SHOWN. CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTING CONDUITS AND EQUIPMENT PRIOR TO CONSTRUCTION.
- E. NEW CONDUITS AND ROUTING ARE NOT SHOWN. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING PROPOSED ROUTING OF THE CONDUITS TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

REFERENCE NOTES:

- 1. FINAL DIMENSIONS SHALL BE DEPENDENT ON EQUIPMENT SIZE. EXTEND 4" MIN. BEYOND EQUIPMENT BASE.



RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	RLA	11/17/14	DESIGN CLARIFICATION 1	
2	DDW	03/17/17	RECORD DOCUMENTS	

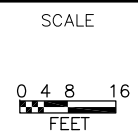
PROJ. PERSONNEL	DATE	REMARKS
DES. RW	02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.
DWN. JS	02/17/14	
CKD. TW/JB	02/17/14	

This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

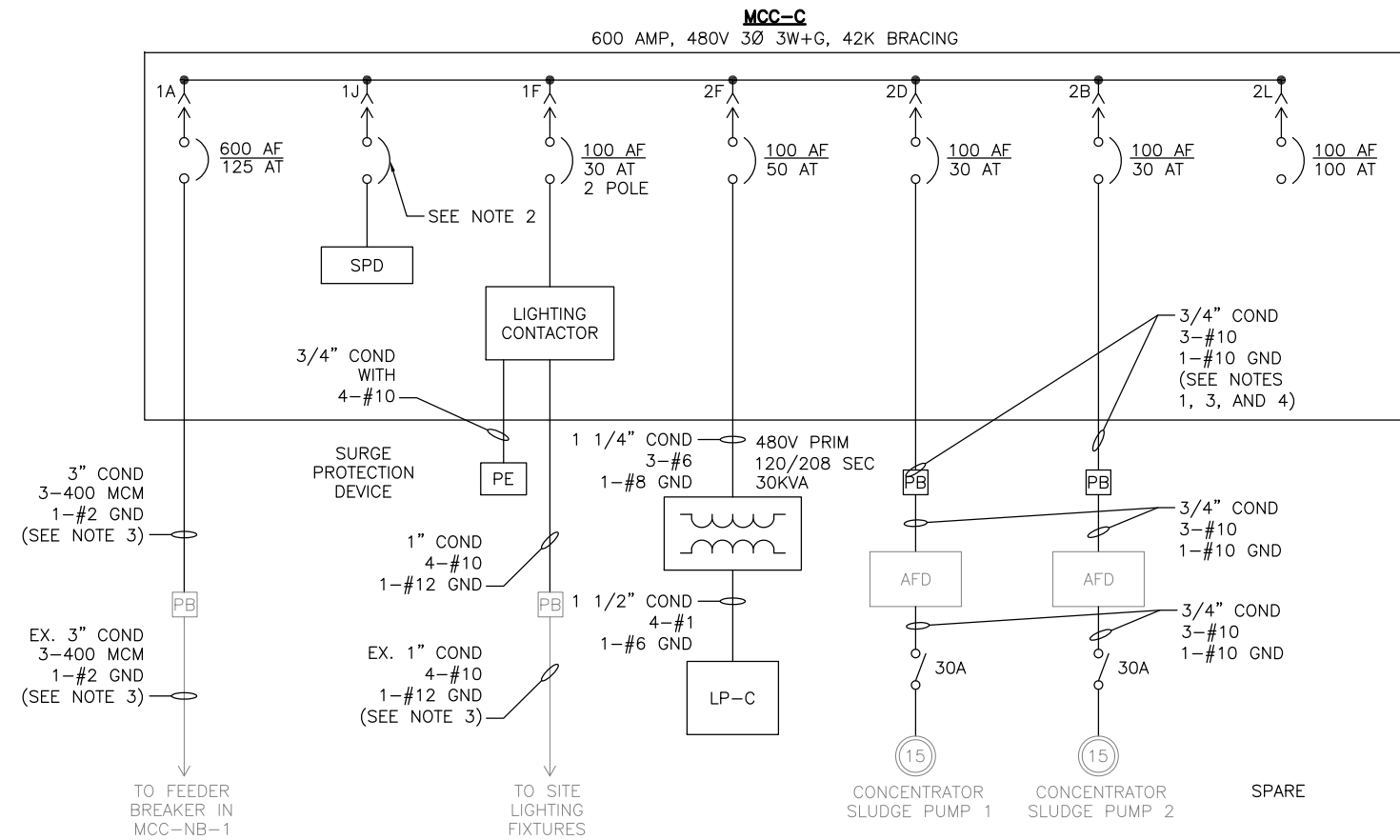


**OLENTANGY ENVIRONMENTAL
CONTROL CENTER**
OECC MOTOR CONTROL CENTERS UPGRADE

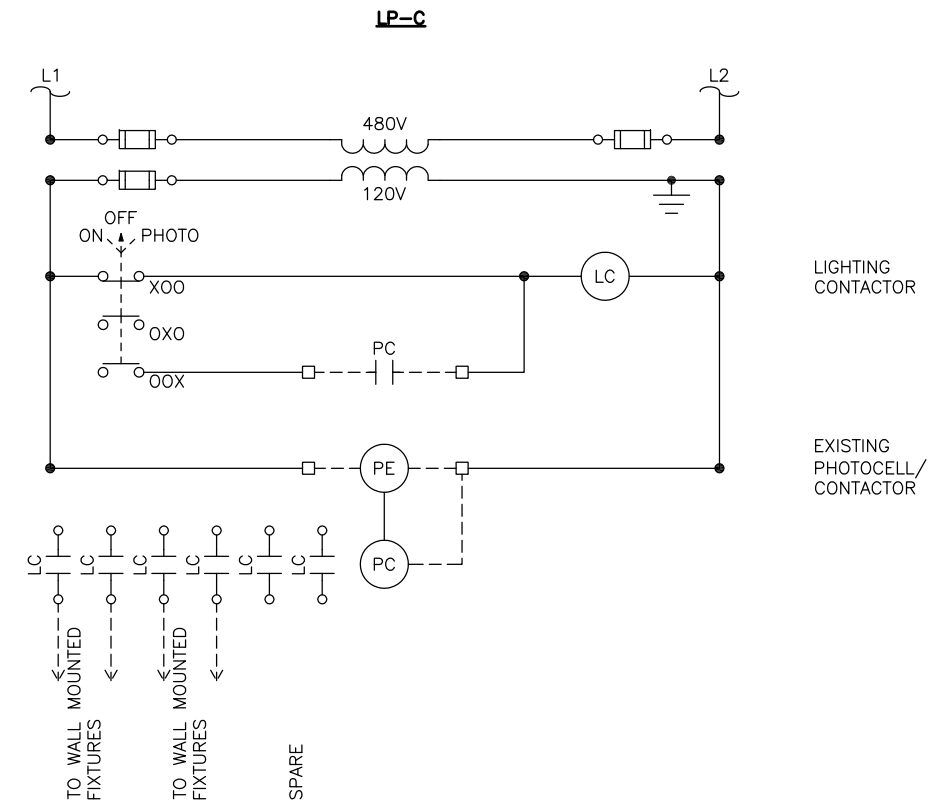


**CONCENTRATOR BUILDING
DEMOLITION AND MODIFICATIONS
PLANS AT EL. 770.00±**

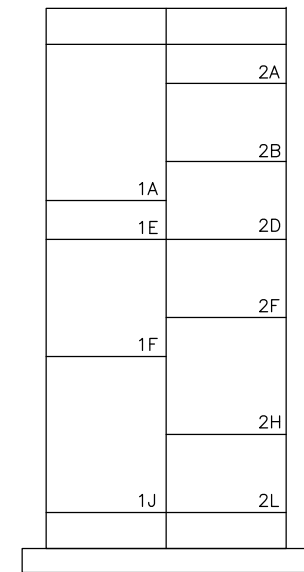
ISSUED STATUS: <u>REC</u> (See User's Guide for Explanation)
21
SHEET
DATE ISSUED: <u>03/17/17</u> Mo./Dy./Yr.



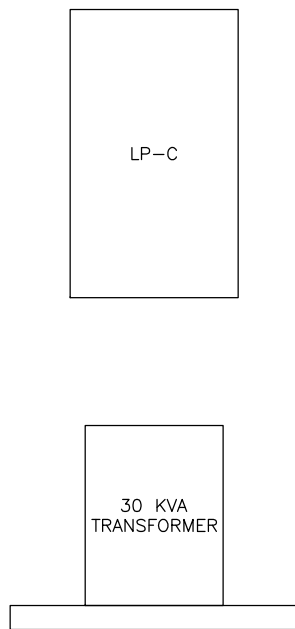
MCC-C ONE-LINE



SITE LIGHTING CONTROL SCHEMATICS



MCC-C ELEVATION



TRANSFORMER & LIGHTING PANEL ELEVATION

PANEL LP-C													
NO	TRIP	DESCRIPTION	AMPS	KVA	A	B	C	KVA	AMPS	DESCRIPTION	TRIP	NO	
1	20	WEST LIGHTS	3		6				3	STORAGE ROOM LIGHTS	20	2	
3	20	OUTSIDE/CRAWLSPACE LIGHTS	3			10			7	SUMP PUMP/RECEPTACLES	20	4	
5	20	RECEPTACLES	5				17					6	
7	30	FILTER PRESS	7		19				12	EXHAUST FAN	20	8	
9	30	FILTER PRESS	7			19					3P	10	
11	30	HEATER TANK ROOM	12		32		32		20	WATER HEATER	40	12	
13	2P												
15	15	POLYETHYLENE MIXER-DRY	3			15			12	OFFICE AC	20	16	
17		POLYETHYLENE MIXER-LOW LEVEL	3				3			SPARE	20	18	
19	20	POLYETHYLENE MIXER	8		13				5	OFFICE SOUTH RECEPTACLE	20	20	
21	20	SPARE				5			5	OFFICE NORTH RECEPTACLE	20	22	
23	20	SPARE					10		10	OFFICE HEATER	20	24	
25	20	WEST LIGHTS	3		6				3	NORTH POLE LIGHT	20	26	
27	20	CENTRAL EXHAUST				8			8	UNIT HEATER	15	28	
29	30	SPARE					10		10	POLE LIGHT & RECEPTACLE	20	30	
31	30	SPARE								SPARE	20	32	
33	30	SPARE				10			10	OVERHEAD DOOR OPERATOR	20	34	
35	2P	SPARE								SPARE	20	36	
37		SPARE								SPARE	20	38	
39	* 3P	SPD								WELDING OUTLET	30	40	
41											2P	42	
TOTAL KVA PER PHASE													
TOTAL KVA CONNECTED													
TOTAL CONNECTED AMPS PER PHASE					76	67	72			* PER MANUFACTURER'S REQUIREMENTS			
RATING: 100 AMP 120/208 3 PHASE 4 WIRE													
BUS: PHASE, GROUND AND NEUTRAL - TIN PLATED COPPER													
BREAKER RATING: 10,000 AIC													
MAIN CB: 100A, 3 PHASE, 208V													
LOCATION: CONCENTRATOR BUILDING MCC-C													
ENCLOSURE: NEMA 12													
FED FROM: MCC-C													

REFERENCE NOTES:

1. SIZED BY CONTRACTOR.
2. CONTRACTOR SHALL REMOVE EXISTING CONDUIT AND WIRING TO THE NEAREST PULL BOX FOLLOWING DEMOLITION OF EXISTING MCC-C, THEN INSTALL NEW CONDUIT AND WIRING FROM THE EXISTING PULL BOX TO THE NEW MCC-C.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST. SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	RLA	11/17/14	DESIGN CLARIFICATION 1	
2	DDW	03/17/17	RECORD DOCUMENTS	

PROJ. PERSONNEL	DATE
DES. RW	02/17/14
DWN. JS	02/17/14
CKD. TW/JB	02/17/14

This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT

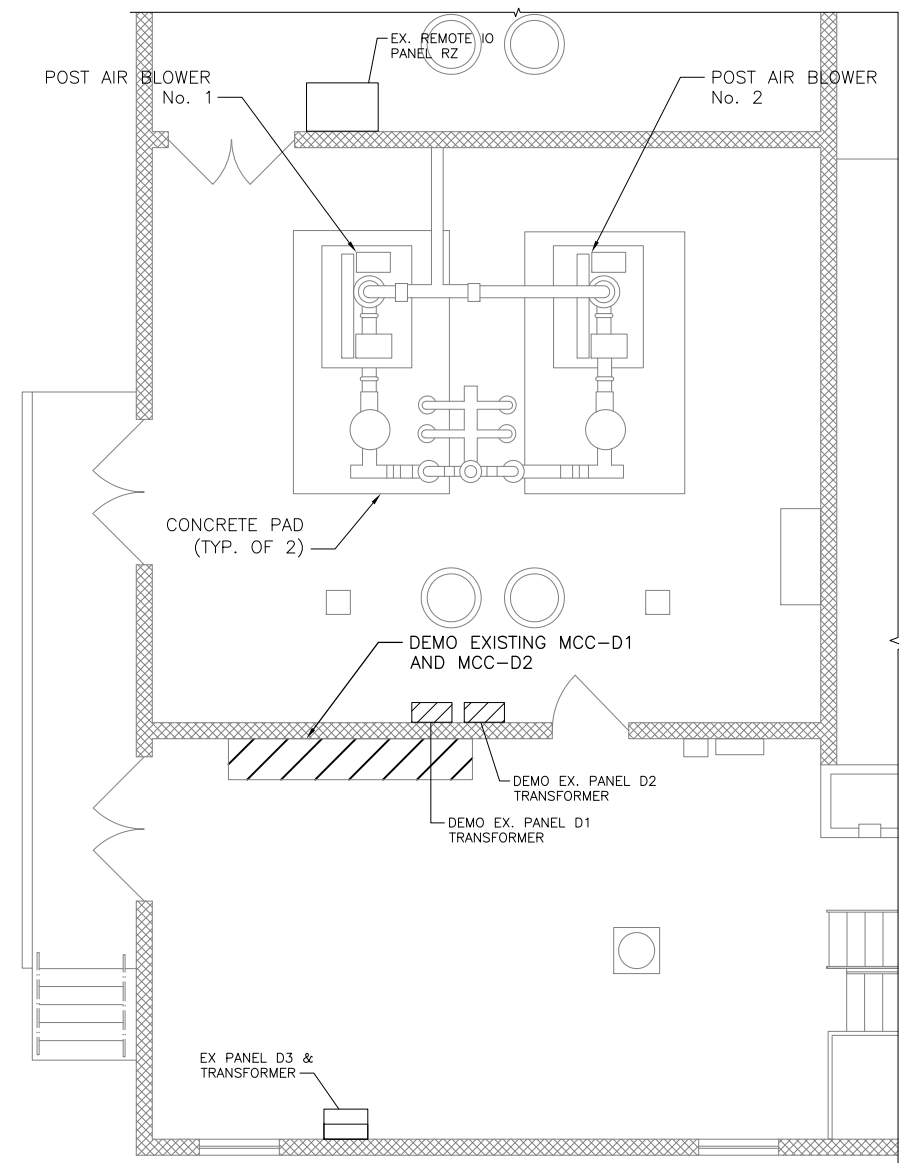


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

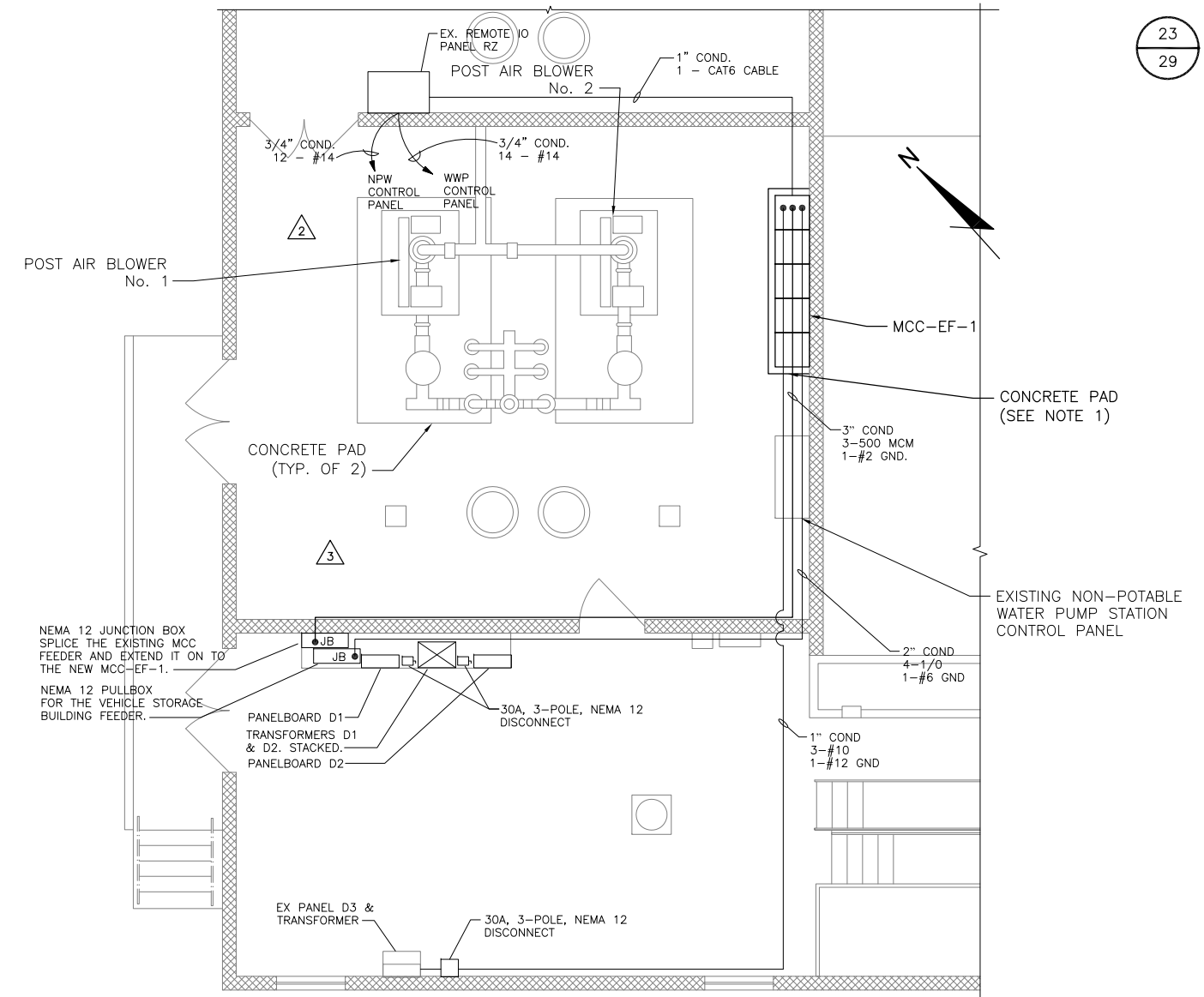
SCALE
NOT TO SCALE

CONCENTRATOR BUILDING ONE-LINE, ELEVATION, CONTROL SCHEMATICS, AND PANEL SCHEDULES

ISSUED STATUS: REC
(See User's Guide for Explanation)
22
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



**EFFLUENT BUILDING
DEMOLITION PLAN AT EL. 770.00±**



**EFFLUENT BUILDING
PROPOSED PLAN AT EL. 770.00±**

GENERAL NOTES:

- A. EXISTING MCC-D1 AND MCC-D2 ARE TO BE DEMOLISHED AFTER NEW MCC-EF-1 IS INSTALLED AND LOADS AND POWER FEEDS HAVE BEEN TRANSFERRED.
- B. DEMOLITION SHALL BE PERFORMED WITH CARE. ALL SURFACES SHALL BE PATCHED OR RESURFACED TO MATCH THE CONDITION OF THE ADJACENT SURFACE.
- C. ALL EXISTING CONDUITS IN THE BUILDING ARE NOT SHOWN. CONTRACTOR SHALL LOCATE AND VERIFY THE EXISTING CONDUITS AND EQUIPMENT PRIOR TO CONSTRUCTION. DEMOLISH AND REMOVE ALL CONDUIT AND WIRING FROM THE EXISTING MCC TO EXISTING LOADS, UNLESS OTHERWISE NOTED.
- D. NEW CONDUITS AND WIRING ARE NOT SHOWN. IN THIS BUILDING CONTRACTOR SHALL PROVIDE NEW CONDUIT AND WIRING FOR CONNECTION OF ALL EXISTING LOADS TO THE NEW MCC. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING PROPOSED ROUTING OF ALL CONDUIT TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

REFERENCE NOTES:

- A. FINAL DIMENSIONS SHALL BE DEPENDENT ON EQUIPMENT SIZE. EXTEND A MIN. OF 4" BEYOND EQUIPMENT BASE.

1

REVISIONS

No.	BY	DATE	REVISIONS
	Int.	Mo./Dy./Yr.	Remarks
1	RLA	11/17/14	DESIGN CLARIFICATION 1
2	DDW	05/26/16	FO-02
3	DDW	03/17/17	RECORD DOCUMENTS

NO.	BY	DATE	REVISIONS
	Int.	Mo./Dy./Yr.	Remarks
1	RLA	11/17/14	DESIGN CLARIFICATION 1
2	DDW	05/26/16	FO-02
3	DDW	03/17/17	RECORD DOCUMENTS

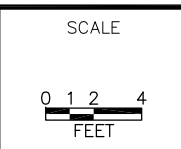
PROJ. PERSONNEL	DATE
Initials	Mo./Dy./Yr.
DES. RW	02/17/14
DWN. JS	02/17/14
CKD. TW/JB	02/17/14

This document was originally issued by **RAYMOND R. WHITE** on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



**OLENTANGY ENVIRONMENTAL
CONTROL CENTER**
OECC MOTOR CONTROL CENTERS UPGRADE

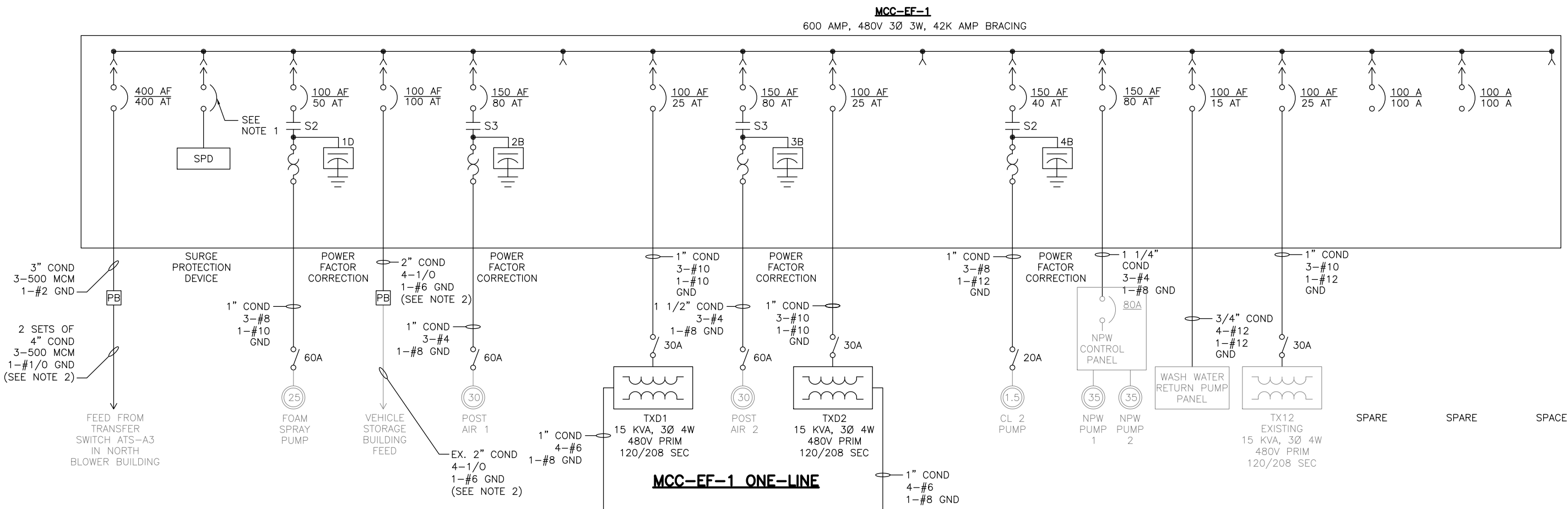


**EFFLUENT BUILDING
DEMOLITION AND MODIFICATIONS
PLANS AT EL. 770.00±**

ISSUED STATUS: REC
(See User's Guide for Explanation)

SHEET **23**

DATE ISSUED: 03/17/17
Mo./Dy./Yr.



MCC-EF-1 ONE-LINE

		2A	3A	4A	5A
1A	2C	3C		5C	
	2E		4C	5E	
1E	2G	3E	4G	5G	
1J	2J				
1L	2L	3L	4L	5L	

- BUCKET SCHEDULE:**
- 1A - MAIN
 - 1E - SPD
 - 1J - SPARE
 - 1L - SPARE
 - 2A - VEH STRG BLDG
 - 2C - XFMR 15KVA
 - 2E - XFMR 15KVA
 - 2G - NPW CP
 - 2J - SPACE
 - 2L - SPACE
 - 3A - XFMR
 - 3C - SPACE
 - 3E - ETHERNET PS
 - 3H - POST AIR 1
 - 3L - SPACE
 - 4A - WW PUMP
 - 4C - FOAM PUMP
 - 4G - SPACE
 - 4H - POST AIR 2
 - 4L - SPACE
 - 5A - SPACE
 - 5C - SPACE
 - 5E - SPACE
 - 5G - SPACE
 - 5H - CL2 PUMP

MCC-EF-1 ELEVATION

GENERAL NOTES:
 A. IN THIS BUILDING, REMOVE ALL WIRING AND CONDUIT FROM EXISTING MCC TO THE LOADS AND REPLACE WITH NEW WIRING AND CONDUIT, UNLESS OTHERWISE NOTED.

REFERENCE NOTES:
 1. SIZED BY CONTRACTOR.
 2. MCC-EF-1 IS RATED AT 400A AND WILL ONLY REQUIRE ONE SET OF 500MCM CABLES FOR THE FEEDER FROM THE BLOWER BUILDING. TERMINATE THE SECOND EXISTING SET OF 500MCM CABLES IN THE NEW JUNCTION BOX AND LEAVE AS SPARE

RIBWAY ENGINEERING GROUP, INC.
 300 E. BROAD ST. SUITE 500
 COLUMBUS, OHIO 43215
 PH. NO. (614) 221-6009
 FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	RLA	11/17/14	DESIGN CLARIFICATION 1	
2	DDW	03/17/17	RECORD DOCUMENTS	

PROJ. PERSONNEL	DATE
DES. RW	02/17/14
DWN. JS	02/17/14
CKD. TW/JB	02/17/14

This document was originally issued by **RAYMOND R. WHITE** on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
 REGIONAL SEWER DISTRICT

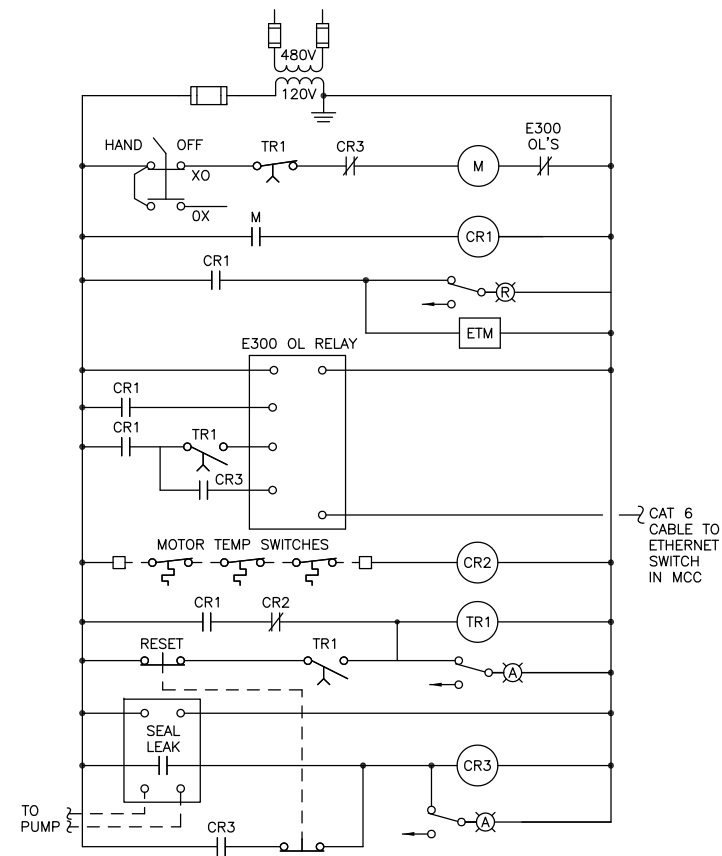


OLENTANGY ENVIRONMENTAL CONTROL CENTER
 OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
 NOT TO SCALE

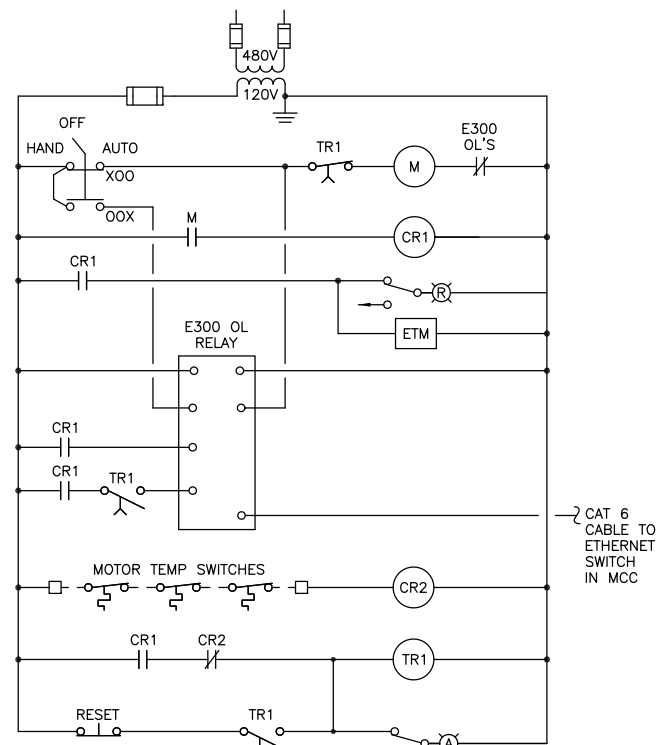
**EFFLUENT BUILDING
 MCC-EF-1
 ONE-LINE AND ELEVATION**

ISSUED STATUS: REC
 (See User's Guide for Explanation)
24
 SHEET
 DATE ISSUED: 03/17/17
 Mo./Dy./Yr.



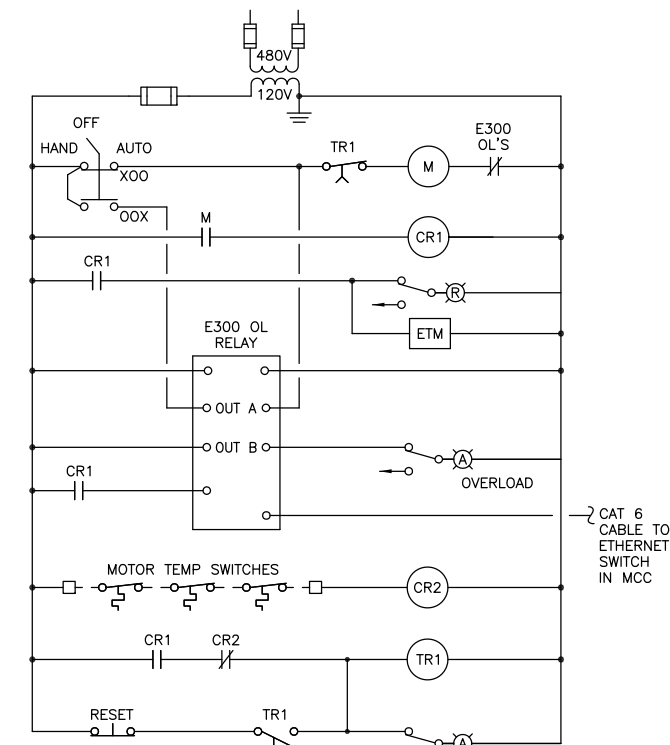
FOAM SPRAY PUMP CONTROL SCHEMATIC

THE FOAM SPRAY PUMP - PUMP CONTROL SCHEMATIC IDENTIFIES CONTROL WIRING BETWEEN THE PUMP/MOTOR AND THE STARTER FOR MOTOR OVERTEMP AND SEAL LEAK. PROVIDE 3/4" CONDUIT FOR THESE SIGNALS BACK TO MCC-EF-1.



POST AERATION BLOWER NO. 1 CONTROL SCHEMATIC

THE POST AERATION BLOWER NO. 1 CONTROL SCHEMATIC IDENTIFIES CONTROL WIRING BETWEEN THE BLOWER/MOTOR AND THE STARTER FOR MOTOR OVERTEMP. PROVIDE 3/4" CONDUIT FOR THIS SIGNAL BACK TO MCC-EF-1.



CL2 PUMP CONTROL SCHEMATIC

CLS=2 PUMP - PUMP CONTROL SCHEMATIC IDENTIFIES CONTROL WIRING BETWEEN THE PUMP/MOTOR AND THE STARTER FOR MOTOR OVERTEMP AND SEAL LEAK. PROVIDE 3/4" CONDUIT FOR THESE SIGNALS BACK TO MCC-EF-1.



<p>RIBWAY ENGINEERING GROUP, INC. 300 E. BROAD ST., SUITE 500 COLUMBUS, OHIO 43215 PH. NO. (614) 221-6009 FAX NO. (614) 221-9089</p>	<table border="1"> <thead> <tr> <th rowspan="2">NO.</th> <th rowspan="2">BY</th> <th rowspan="2">DATE</th> <th colspan="2">REVISIONS</th> </tr> <tr> <th>Int.</th> <th>Mo./Dy./Yr.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>RLA</td> <td>11/17/14</td> <td>DESIGN CLARIFICATION 1</td> <td></td> </tr> </tbody> </table>	NO.	BY	DATE	REVISIONS		Int.	Mo./Dy./Yr.	1	RLA	11/17/14	DESIGN CLARIFICATION 1		<table border="1"> <thead> <tr> <th rowspan="2">PROJ. PERSONNEL</th> <th rowspan="2">DATE</th> <th rowspan="2">REMARKS</th> </tr> <tr> <th>Initials</th> <th>Mo./Dy./Yr.</th> </tr> </thead> <tbody> <tr> <td>DES. RW</td> <td>02/17/14</td> <td rowspan="3">This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.</td> </tr> <tr> <td>DWN. JS</td> <td>02/17/14</td> </tr> <tr> <td>CKD. TW/JB</td> <td>02/17/14</td> </tr> </tbody> </table>	PROJ. PERSONNEL	DATE	REMARKS	Initials	Mo./Dy./Yr.	DES. RW	02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.	DWN. JS	02/17/14	CKD. TW/JB	02/17/14	<p>DELAWARE COUNTY, OHIO REGIONAL SEWER DISTRICT</p>	<p>OLENTANGY ENVIRONMENTAL CONTROL CENTER</p> <p>OECC MOTOR CONTROL CENTERS UPGRADE</p>	<p>SCALE</p> <p>NOT TO SCALE</p>	<p>EFFLUENT BUILDING MCC-EF-1 CONTROL SCHEMATICS</p>	<p>ISSUED STATUS: REC (See User's Guide for Explanation)</p> <p>25</p> <p>SHEET</p> <p>DATE ISSUED: 03/17/17 Mo./Dy./Yr.</p>
	NO.				BY	DATE	REVISIONS																								
Int.		Mo./Dy./Yr.																													
1	RLA	11/17/14	DESIGN CLARIFICATION 1																												
PROJ. PERSONNEL	DATE	REMARKS																													
			Initials	Mo./Dy./Yr.																											
DES. RW	02/17/14	This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.																													
DWN. JS	02/17/14																														
CKD. TW/JB	02/17/14																														

PANEL LP-D1													
NO	TRIP	DESCRIPTION	AMPS	KVA	A	B	C	KVA	AMPS	DESCRIPTION	TRIP	NO	
1	20	LIGHTS	3		6				3	LIGHTS	20	2	
3	20	LIGHTS	3			13			10	EXHAUST FANS 1 & 2	20	4	
5	20	COMPRESSOR TRESCON	12				17		5	RECEPTACLES	20	6	
7	20	LIQUID LEVEL CENTRAL PANEL	5		10				5	FILTER INFLUENT LEVEL CONTROL	20	8	
9	20	NPW CENTRAL PANEL	5			15			10	SUMP PUMP CONTROL	20	10	
11	20	PROPOSED SAMPLE PUMP	12				22		10		3P	12	
13	20	UNIT HEATER	10		15				5	RECEPTACLES	20	14	
15	20	RECEPTACLES	5			15			10	FILTER PUMP WELL HEATER	20	16	
17	20	SPARE					3		3	FILTER CONTROL PANEL	20	18	
19	20	FILTER INFLUENT FLOW METER	3		3					SPARE	30	20	
21	20	TURBIARY METER	3			3				SPARE	20	22	
23	20	SPARE								SPARE	20	24	
25	*	TVSS								SPACE		26	
27	3P										SPACE		28
29											SPACE		30
TOTAL KVA PER PHASE										* PER MANUFACTURER'S REQUIREMENTS			
TOTAL KVA CONNECTED													
TOTAL CONNECTED AMPS PER PHASE					34	46	42						

RATING: 60 AMP 120/208 3 PHASE 4 WIRE
 BUS: PHASE, GROUND AND NEUTRAL - TIN PLATED COPPER
 BREAKER RATING: 10,000 AIC Δ
 LOCATION: EFFLUENT BUILDING MCC-EF-1
 ENCLOSURE: NEMA 12
 FED FROM: MCC-EF-1

PANEL LP-D2													
NO	TRIP	DESCRIPTION	AMPS	KVA	A	B	C	KVA	AMPS	DESCRIPTION	TRIP	NO	
1	20	LIGHTS	3		6				3	LIGHTS	20	2	
3	20	LIGHTS	3			3				SPARE	20	4	
5	20	LIGHTS	3				3			SPARE	20	6	
7	20	SPARE			12				12	UNIT HEATER	20	8	
9	30	SPARE								SPARE	30	10	
11	20	SPARE					5		5	RECEPTACLES	20	12	
13	20	SPARE								SPARE	20	14	
15	20	EXHAUST FAN 3	12			12				SPARE	20	16	
17	20	SPARE					12		12	EXHAUST FAN 4	20	18	
19	*	TVSS								SPACE		20	
21	3P										SPACE		22
23											SPACE		24
TOTAL KVA PER PHASE										* PER MANUFACTURER'S REQUIREMENTS			
TOTAL KVA CONNECTED													
TOTAL CONNECTED AMPS PER PHASE					18	15	20						

RATING: 60 AMP 120/208 3 PHASE 4 WIRE
 BUS: PHASE, GROUND AND NEUTRAL - TIN PLATED COPPER
 BREAKER RATING: 10,000 AIC Δ
 LOCATION: EFFLUENT BUILDING MCC-EF-1
 ENCLOSURE: NEMA 12
 FED FROM: MCC-EF-1

RIBWAY ENGINEERING GROUP, INC.
 300 E. BROAD ST. SUITE 500
 COLUMBUS, OHIO 43215
 PH. NO. (614) 221-6009
 FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	BH	11/17/14	DESIGN CLARIFICATION 1	Remarks

PROJ. PERSONNEL	DATE	Initials	Mo./Dy./Yr.	Remarks
DWN.	JS	02/17/14		
CKD.	TW/JB	02/17/14		

This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
 REGIONAL SEWER DISTRICT

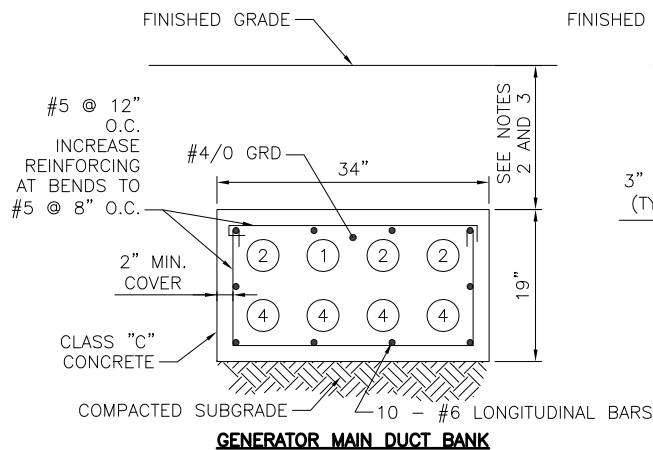


OLENTANGY ENVIRONMENTAL CONTROL CENTER
 OECC MOTOR CONTROL CENTERS UPGRADE

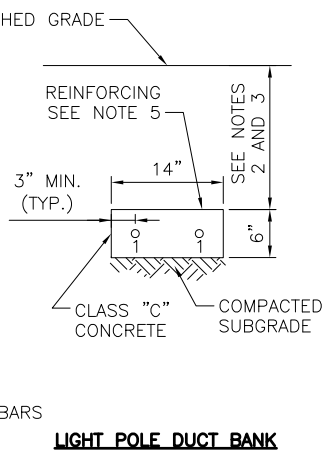
SCALE
 NOT TO SCALE

EFFLUENT BUILDING
 PANEL SCHEDULES

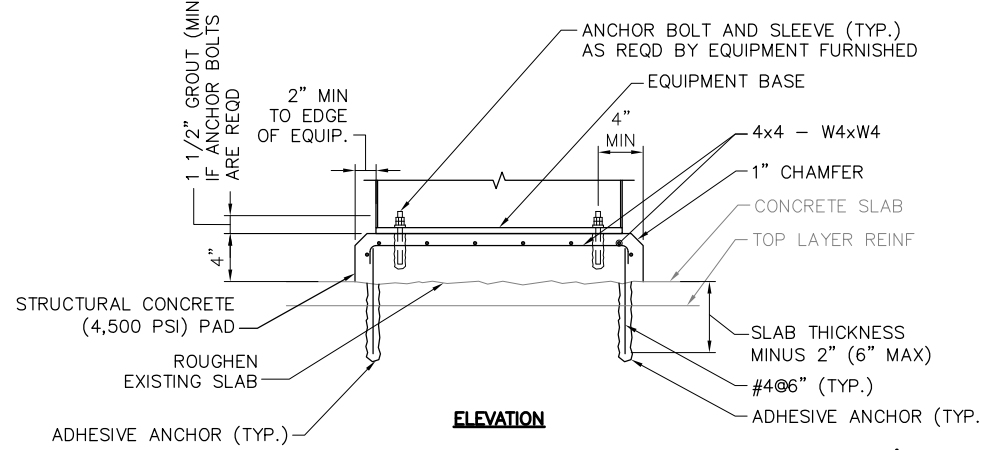
ISSUED STATUS: REC
 (See User's Guide for Explanation)
 SHEET **26**
 DATE ISSUED: 03/17/17
 Mo./Dy./Yr.



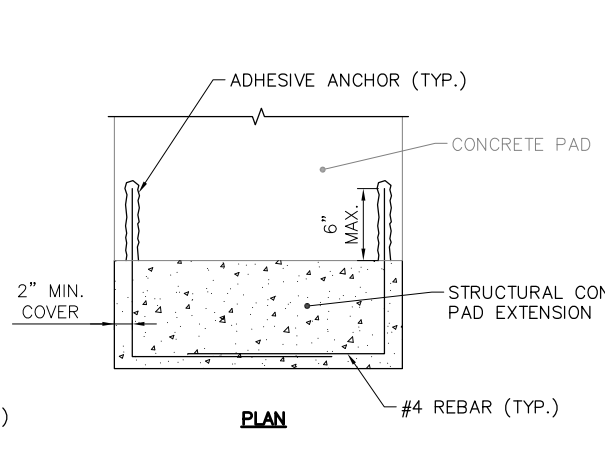
GENERATOR MAIN DUCT BANK



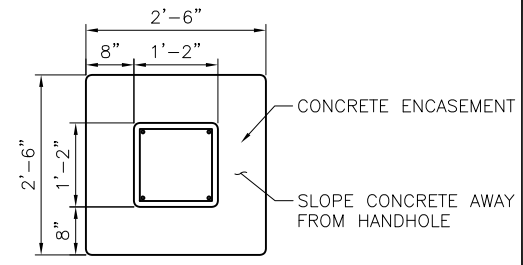
LIGHT POLE DUCT BANK



EQUIPMENT PAD / PAD EXTENSION



PLAN

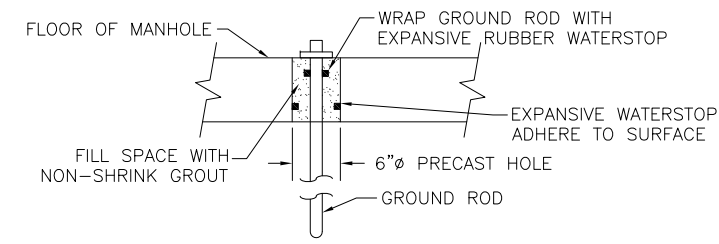


PLAN

- NOTES:**
1. SIZE OF CONDUIT IS INDICATED IN INCHES.
 2. PROVIDE 18" MIN. COVER UNDER LAWN AREA AND 24" MIN. COVER UNDER PAVEMENT.
 3. PROVIDE COMPACTED GRANULAR MATERIAL BETWEEN DUCT BANK AND PAVED SURFACES.
 4. REINFORCING FOR GENERATOR MAIN DUCT BANK SHALL BE REQUIRED FOR THE ENTIRE LENGTH.
 5. PROVIDE REINFORCING SIMILAR TO GENERATOR MAIN DUCT BANK FOR SECTION OF LIGHT POLE DUCT BANK UNDER ROADWAY AND 5' BEYOND PAVEMENT LIMITS.

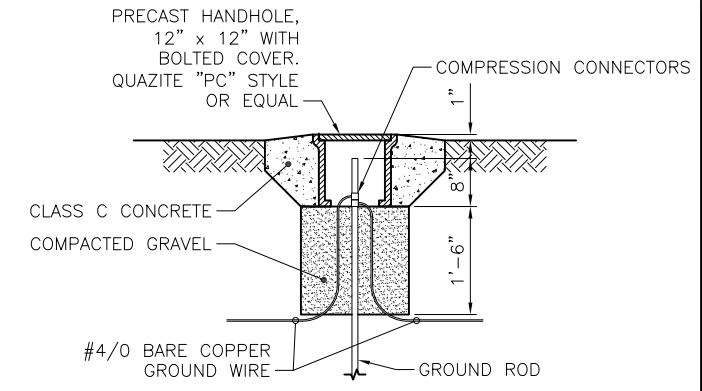
DUCT BANKS

DETAIL 1
27



GROUND ROD PENETRATION AND SEALING

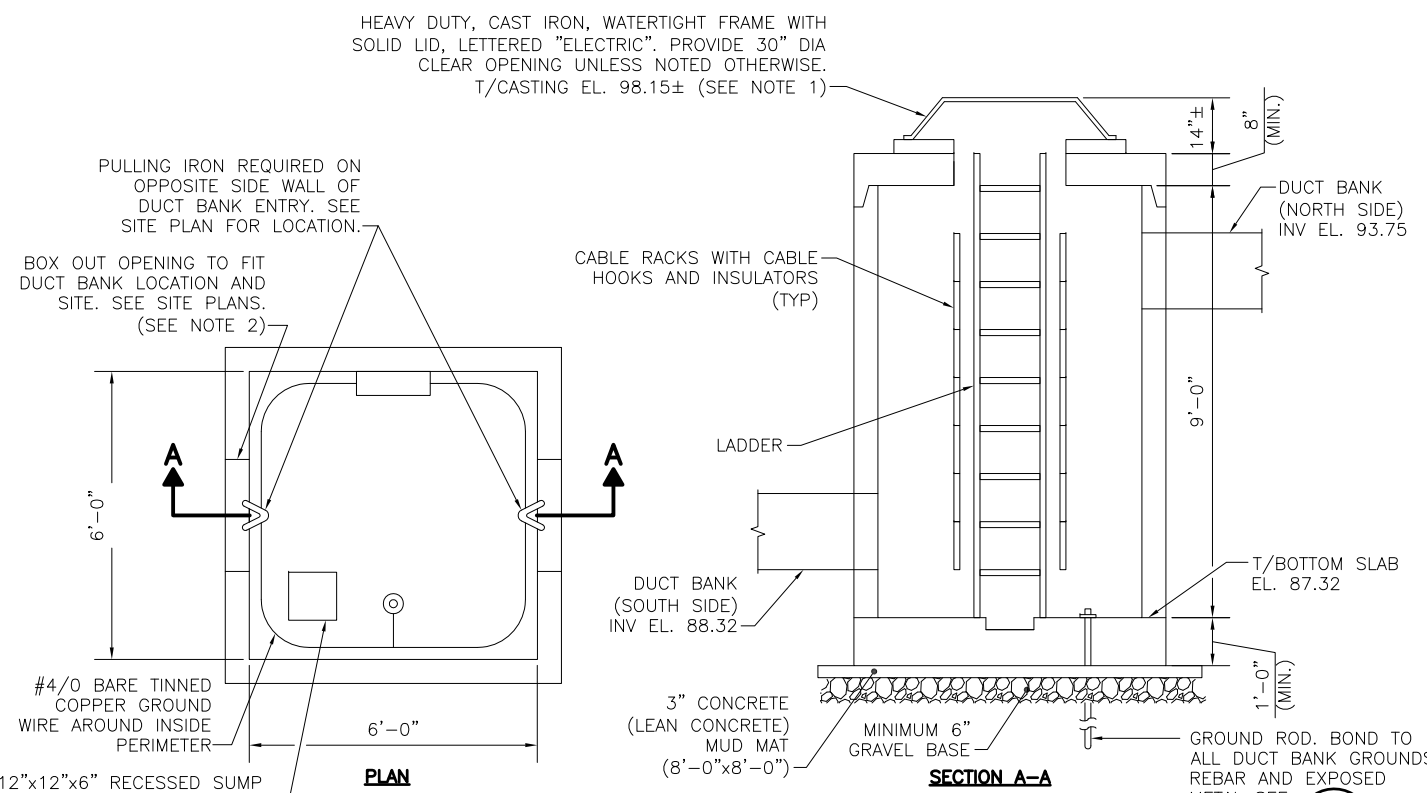
DETAIL 4
27



SECTION

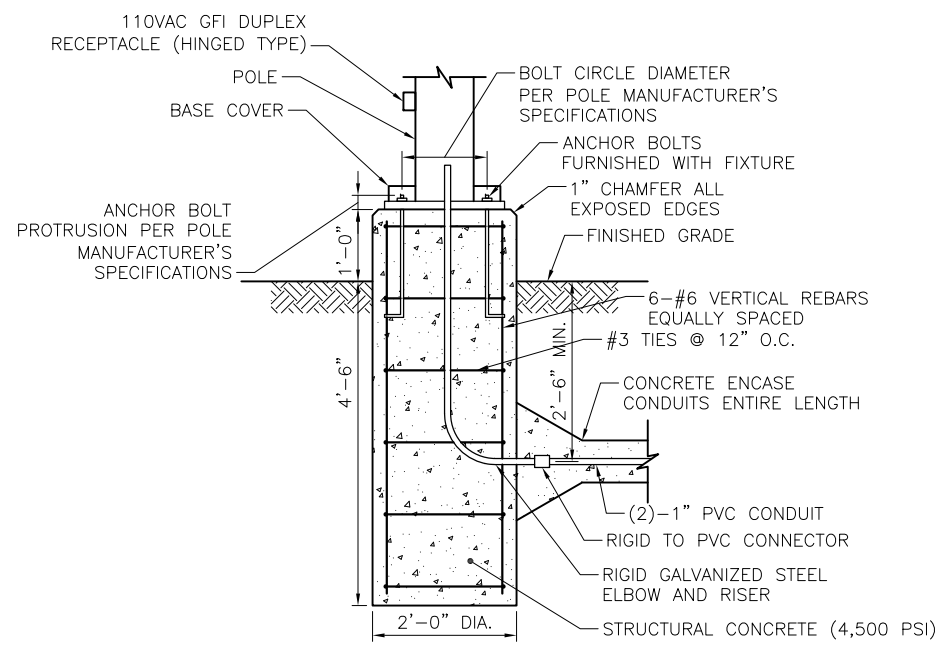
GENERATOR EARTH GROUND ROD DETAIL (TYP. OF 3)

DETAIL 6
27



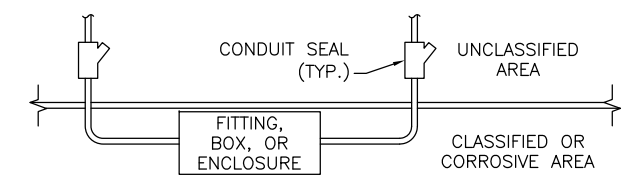
ELECTRIC MANHOLE

DETAIL 3
7



HIGH MAST LIGHT POLE FOUNDATION

DETAIL 5
27



TYPICAL CONDUIT RUN THROUGH CORROSIVE OR CLASSIFIED AREA

DETAIL 7
27

- REFERENCE NOTES:**
1. PROVIDE CONCRETE COLLAR (GRADE RINGS) BETWEEN THE ROOF OF THE VAULT AND PAVED SURFACE ELEVATION.
 2. DUCT BANK WALL PENETRATIONS SHALL BE CENTERED ON VAULT WALL IN THE HORIZONTAL DIRECTION.

RIBWAY ENGINEERING GROUP, INC.
300 E. BROAD ST., SUITE 500
COLUMBUS, OHIO 43215
PH. NO. (614) 221-6009
FAX NO. (614) 221-9089

NO.	BY		DATE		REVISIONS
	Int.	Mo./Dy./Yr.	Mo./Dy./Yr.	Remarks	

PROJ. PERSONNEL
Initials Date
DES. RW 02/17/14
DWN. JS 02/17/14
CKD. TW/JB 02/17/14

This document was originally issued by RAYMOND R. WHITE on 02/2014. This document is not considered a sealed document.

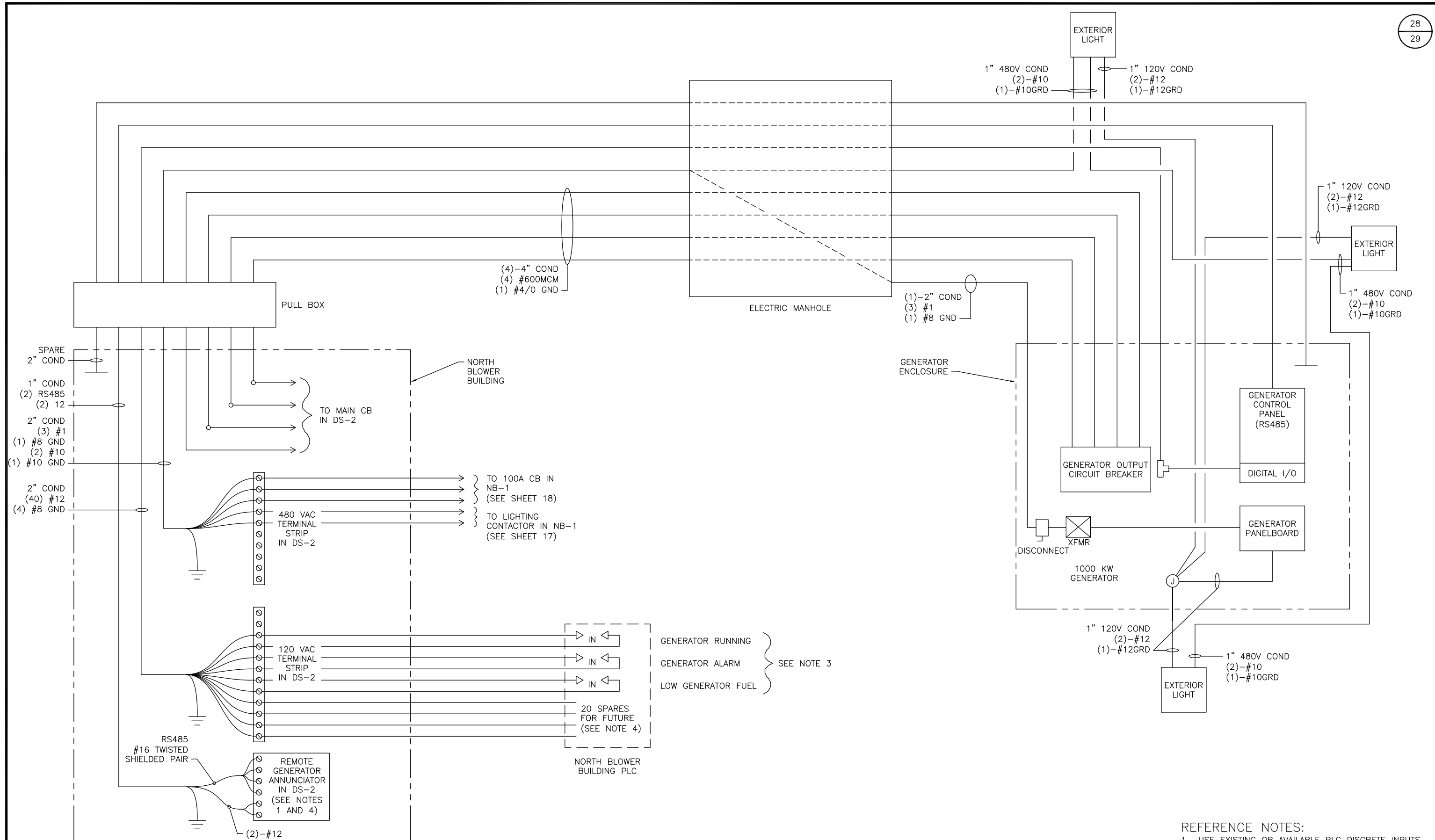


OLENTANGY ENVIRONMENTAL CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
NOT TO SCALE

DETAILS
ELECTRICAL DETAILS

ISSUED STATUS: REC
(See User's Guide for Explanation)
SHEET 27
DATE ISSUED: 03/17/17
Mo./Dy./Yr.



REFERENCE NOTES:
 1. USE EXISTING OR AVAILABLE PLC DISCRETE INPUTS.
 2. ALL SPARE WIRES NOT SHOWN.

RIBWAY ENGINEERING GROUP, INC.
 300 E. BROAD ST. SUITE 500
 COLUMBUS, OHIO 43215
 PH. NO. (614) 221-6009
 FAX NO. (614) 221-9089

NO.	BY	DATE	REVISIONS	
			Int.	Remarks
1	DDW	09/03/15	RFI-10	

PROJ. PERSONNEL	DATE
DES. RW	02/17/14
DWN. JS	02/17/14
CKD. TW/JB	02/17/14

This document was originally issued by **RAYMOND R. WHITE** on 02/2014. This document is not considered a sealed document.

DELAWARE COUNTY, OHIO
 REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL CONTROL CENTER
 OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
 NOT TO SCALE

DETAILS
DUCT BANK
CONDUIT AND WIRE
ARRANGEMENT

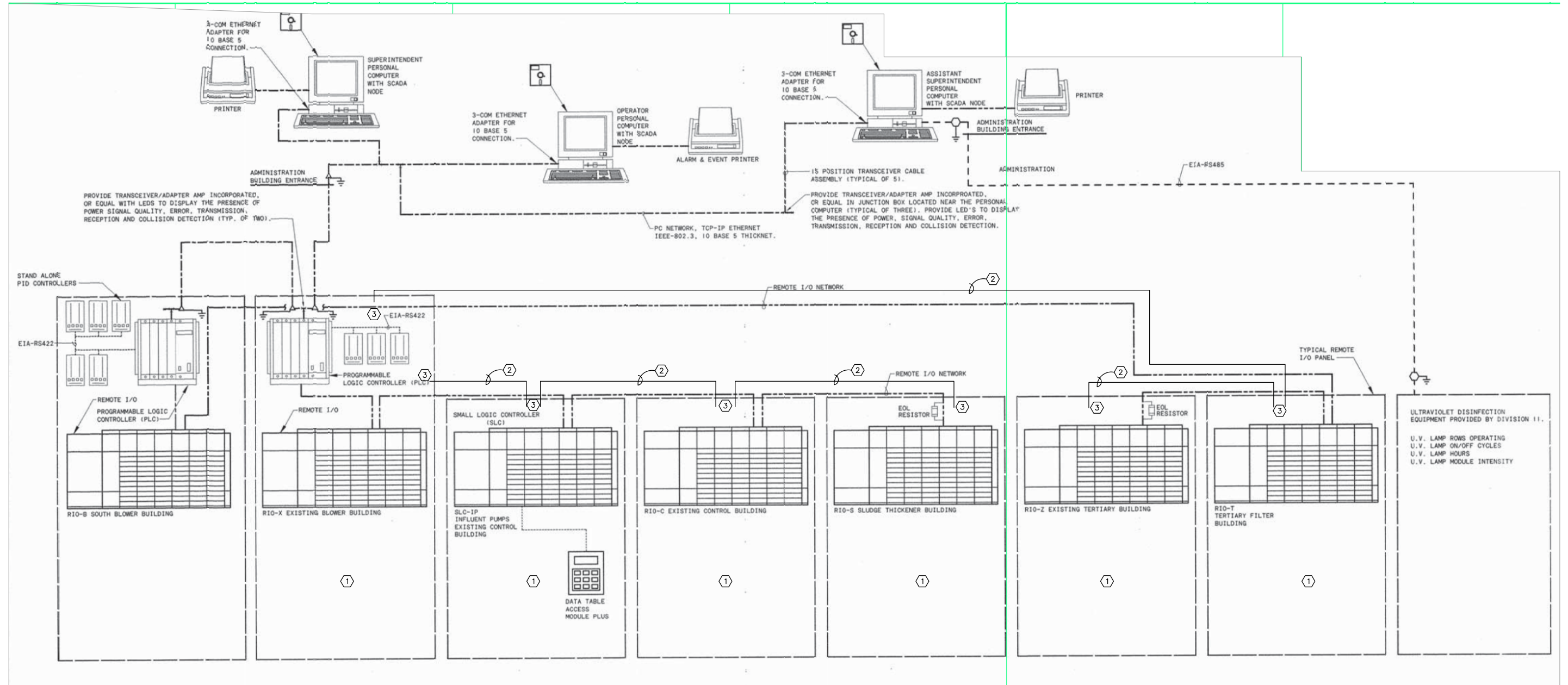
ISSUED STATUS: **REC**
 (See User's Guide for Explanation)
28
 SHEET
 DATE ISSUED: 03/17/17
 Mo./Dy./Yr.

NOTES:

1. BACKGROUND PLAN IS AN EXCERPT FROM CONTRACT DRAWING SET 'S94-2' AND IS PROVIDED AS A REFERENCE.

CODED NOTES:

- 1 SCI TO PROVIDE NEW FIBER OPTIC PATCH PANEL WITHIN EXISTING PLC PANELS FOR JUNCTION OF FIBER OPTIC CABLE AND FIBER OPTIC JUMPERS TO MEDIA CONVERTERS. SCI TO PROVIDE FIBER OPTIC JUMPERS WITH ST CONNECTORS TO MEDIA CONVERTERS. SCI TO PROVIDE MEDIA CONVERTERS.
- 2 12 STRAND MULTIMODE 62.5/125UM BELDEN FIBER CABLE. ROUTE FIBER CABLE IN EXISTING RACEWAY ALONG SIDE OF EXISTING REMOTE I/O CABLE.
- 3 PROVIDE AND INSTALL A 12 STRAND FIBER FAN OUT KIT WITH INTEGRAL ST CONNECTORS. MAKE FINAL CONNECTION TO FIBER OPTIC PATCH PANEL. TEST FIBER CABLES.



No.	BY	DATE	REVISIONS	
			Int.	Mo./Dy./Yr.
1	DDW	5/26/16	FO-02	NEW SHEET

PROJ. PERSONNEL	DATE
DES.	
DWN.	
CKD.	

DELAWARE COUNTY, OHIO
REGIONAL SEWER DISTRICT



OLENTANGY ENVIRONMENTAL
CONTROL CENTER
OECC MOTOR CONTROL CENTERS UPGRADE

SCALE
NONE

DETAILS
NETWORK
DIAGRAM

ISSUED STATUS: REC
(See User's Guide for Explanation)
29
SHEET
DATE ISSUED: 03/17/17
Mo./Dy./Yr.