

GENERAL NOTES	GENERAL NOTES	DEMOLITION GENERAL NOTES	DEFINITIONS
<ol style="list-style-type: none"> <li>INSTALLATION OF ELECTRICAL WORK MUST CONFORM TO THE AHJ'S LATEST ACCEPTED EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) AND ALL APPLICABLE LOCAL CODES AND QUALITY WORKMANSHIP STANDARDS.</li> <li>DRAWINGS ARE DIAGRAMMATIC. FINAL EQUIPMENT LOCATIONS MUST BE COORDINATED IN THE FIELD AND FIT INTO THE AVAILABLE SPACE IN ACCORDANCE WITH GIVEN WORK SPACE REQUIRED BY CODE AND MAINTENANCE REQUIRED BY THE MANUFACTURER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE EQUIPMENT THAT MEETS THE ABOVE REQUIREMENTS AND NOTIFY THE OWNER/ENGINEER WHEN THE REQUIREMENTS ARE NOT MET.</li> <li>PROVIDE A CONSTRUCTION SCHEDULE, SEQUENCE OF CONSTRUCTION, OUTAGE REQUESTS, AND AREA ACCESS REQUESTS FOR APPROVAL BY THE OWNER. WORK IN CERTAIN AREAS IS RESTRICTED AND GOVERNED BY EXISTING SECURITY REGULATIONS AND FACILITY OPERATION. ACCESS INTO THESE AREAS REQUIRE APPROVAL. WORK MUST ALLOW FOR DAILY OPERATION OF THE FACILITY WITHOUT INTERRUPTION. WHEN TEMPORARY POWER IS REQUIRED, THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS. CONTRACTOR MUST OBTAIN WRITTEN PERMISSION FROM THE OWNER TO DE-ENERGIZE ANY BUILDING EQUIPMENT OR DISRUPT ANY COMMUNICATION LINE.</li> <li>THE ELECTRICAL CONTRACTOR MUST PROVIDE THE NECESSARY COORDINATION, INSTRUCTIONS AND SUPERVISION NEEDED WHEN WORKING WITH OTHER TRADES.</li> <li>PRIOR TO STARTING DEMOLITION AND/OR NEW WORK, COORDINATE A SITE VISIT TO EXAMINE AND EVALUATE THE EXISTING CONDITIONS AFFECTING THE EXECUTION OF THIS PROJECT. REPORT ANY CONCERNS TO THE OWNER/ENGINEER AT THAT TIME.</li> <li>THE DEMOLITION AND NEW WORK MUST BE EXECUTED IN ACCORDANCE WITH AN APPROVED WORK PLAN, SEQUENCE OF CONSTRUCTION, AND WORK SCHEDULE.</li> <li>DEMOLITION AND NEW WORK SHOWN ON THE DRAWINGS USE DARK THICK-WEIGHTED LINES. EXISTING EQUIPMENT NOT AFFECTED BY THE CONTRACT DRAWINGS ARE NOT SHOWN.</li> <li>COORDINATE WORK RELATED TO THE ELECTRICAL SERVICE DIRECTLY WITH THE UTILITY COMPANY AND OBTAIN APPROVAL BEFORE INSTALLATION.</li> <li>SUBMIT A LIST OF MAJOR EQUIPMENT INCLUDING LIGHT FIXTURES TO THE ENGINEER FOR REVIEW AND APPROVAL. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT THE PERMISSION OF THE OWNER/ENGINEER IN WRITING. EQUIPMENT MUST BE NEW AND INCLUDE THE MANUFACTURER'S NAME, TRADE NAME AND UL CERTIFICATION.</li> <li>ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT ARE BASED ON EQUIPMENT SPECIFIED. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL SHOP DRAWINGS PRIOR TO ORDERING AND INSTALLING EQUIPMENT.</li> <li>VFDS ARE FURNISHED UNDER DIVISION 26 UNLESS OTHERWISE NOTED.</li> <li>ELECTRICAL EQUIPMENT INSTALLED AGAINST CONCRETE OR MASONRY WALLS MUST BE INSTALLED WITHIN A 1/4" SPACE BETWEEN THE EQUIPMENT AND THE MOUNTING SURFACE. SPACERS MUST BE STAINLESS STEEL, PVC OR NYLON.</li> <li>PROVIDE NECESSARY COMPONENTS REQUIRED FOR MAKING FINAL CONNECTIONS OF EQUIPMENT INSTALLED AS PART OF THIS CONTRACT.</li> <li>SERIES-RATED CIRCUIT BREAKERS ARE NOT ALLOWED UNLESS SPECIFICALLY INDICATED ON CONTRACT DRAWINGS.</li> <li>CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR BALANCING LOADS AND CORRECTLY PHASING THE CIRCUITS IN PANELBOARDS.</li> <li>MINIMUM CONDUIT AND WIRE SIZE IS 3/4" AND #12 AWG.</li> <li>DO NOT INSTALL MORE THAN THREE CIRCUITS IN ONE HOMERUN UON.</li> <li>120V CIRCUITS AND 277V CIRCUITS MUST HAVE SEPARATE NEUTRALS.</li> <li>PROVIDE #10 AWG OR LARGER WIRES TO 120 VOLT RECEPTACLE CIRCUITS WHERE THE LAST RECEPTACLE IS LOCATED 100 FEET OR MORE FROM THE PANELBOARD .</li> <li>PROVIDE PULL STRINGS IN EMPTY CONDUIT TO FACILITATE PULLING OF CABLES IN FUTURE.</li> <li>CONTRACTOR MUST VERIFY DOOR SWINGS BEFORE SETTING SWITCHES. INSTALL SWITCHES ON THE LOCK SIDE OF DOORS 4 FEET AFF, UNLESS OTHERWISE NOTED.</li> <li>TRANSFORMERS WINDINGS AND PANEL BUSSES MUST BE COPPER UON.</li> <li>OPENINGS AND PASSAGES FOR CONDUITS OR WIREWAYS THROUGH FLOOR SLABS, FIRE-RATED WALLS, OR PARTITIONS MUST BE PROVIDED WITH UL</li> </ol>	<p>LISTED FIRE-RATED SLEEVING SYSTEMS.</p> <ol style="list-style-type: none"> <li>CONDUIT ROUTING, WHEN SHOWN, IS DIAGRAMMATIC AND MUST BE INSTALLED IN A MANNER TO PREVENT CONFLICTS WITH EQUIPMENT AND STRUCTURAL CONDITIONS. INTERIOR CONDUITS INCLUDING THOSE EXPOSED, ABOVE SUSPENDED CEILINGS, AND CONCEALED WITHIN FURRED WALLS MUST BE INSTALLED PARALLEL TO BEAMS AND WALLS. CONDUITS INSTALLED IN FINISHED AREAS MUST BE CONCEALED.</li> <li>PROVIDE PULL BOXES AND JUNCTION BOXES, WHEN REQUIRED, IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS THOUGH THESE BOXES MAY NOT BE SHOWN ON THE DRAWINGS. JUNCTION AND PULL BOXES, ASSOCIATED WITH FEEDERS AND BRANCH CIRCUITS, MUST BE LABELED SHOWING THE PANEL AND CIRCUIT NUMBERS ROUTED THROUGH THEM.</li> <li>PROVIDE JUNCTION BOXES WITH NUMBERED TERMINAL STRIPS AND RING TYPE COMPRESSION CONNECTORS WHEN SPLICING CONTROL AND SIGNAL WIRING.</li> <li>THE WIRING DIAGRAMS, QUANTITY AND SIZE OF WIRES AND CONDUITS ARE BASED UPON SELECTED STANDARD COMPONENTS OF ELECTRICAL EQUIPMENT. MODIFICATIONS, APPROVED BY THE ENGINEER, MAY BE MADE BY THE CONTRACTOR AT THEIR EXPENSE TO ACCOMMODATE EQUIPMENT ACTUALLY PURCHASED.</li> <li>NUMBERS ADJACENT TO EQUIPMENT AND DEVICES INDICATE THE PANEL AND CIRCUIT SERVING THAT EQUIPMENT OR DEVICE. PROVIDE COMPLETE WIRING IN CONDUIT.</li> <li>RECEPTACLES AND SWITCHES INDICATED AS FREE STANDING MUST BE INSTALLED ON CHANNELS. RECEPTACLES LOCATED IN MECHANICAL/PUMP ROOMS, ELECTRICAL ROOMS, MUST BE GFI TYPE UON.</li> <li>ELECTRICAL EQUIPMENT LOCATED OUTDOORS MUST HAVE NEMA 4X ENCLOSURE UON.</li> <li>OUTDOOR UNDERGROUND CONCRETE ENCASED CONDUITS SHALL BE PVC SCHEDULE 40 UON.</li> <li>DIRECT-BURIED UNDERGROUND CONDUITS MUST BE SCHEDULE 80 UON.</li> <li>INTERIOR - THHN / THWN-2, UON</li> <li>EXTERIOR - XHHN / XHWN-2, UON</li> <li>PROVIDE SYSTEM GROUNDING CONDUCTORS AND EQUIPMENT GROUNDING CONDUCTORS IN ACCORDANCE WITH NEC-250, UON.</li> </ol>	<ol style="list-style-type: none"> <li>REMOVE EXISTING ELECTRICAL WORK UNLESS SHOWN OTHERWISE OR INDICATED AS EXISTING TO REMAIN.</li> <li>REMOVE LIGHTING FIXTURES AND ASSOCIATED JUNCTION BOXES, EXPOSED WIRING BACK TO PANEL BOARD.</li> <li>REMOVE EXISTING RECEPTACLES AND ASSOCIATED JUNCTION BOXES, EXPOSED WIRING BACK TO PANEL.</li> <li>REMOVE EXISTING LIGHT SWITCHES AND ASSOCIATED JUNCTION BOXES, EXPOSED WIRING BACK TO PANEL.</li> <li>REMOVE EXISTING TELEPHONE DATA OUTLETS AND ALL ASSOCIATED EXPOSED WIRING BACK TO SOURCE.</li> <li>REMOVE EXISTING ELECTRICAL EQUIPMENT, DEVICES AND WIRES AND DISPOSE AS DIRECTED BY THE OWNER.</li> <li>REMOVE EXPOSED CONDUITS UNLESS OTHERWISE NOTED.</li> <li>ABANDON ALL CONDUITS CONCEALED IN SLAB OR WALL. CUT CONDUITS FLUSH WITH WALL OR SLAB. IDENTIFY CONDUITS AS EMPTY IN CONSPICUOUS PLACE. SEAL EMPTY FLOOR PENETRATIONS CAUSED BY REMOVED CONDUITS.</li> <li>REMOVE CONDUCTORS FROM POWER AND CONTROL CONDUITS.</li> <li>COORDINATE REMOVAL OF ELECTRICAL DEVICES AND WIRING RELATED TO MECHANICAL EQUIPMENT WITH REMOVAL OF MECHANICAL EQUIPMENT.</li> <li>REMOVE EXISTING MOTOR STARTERS AND ASSOCIATED MECHANICAL EQUIPMENT INDICATED OR NOTED TO BE REMOVED ON MECHANICAL DRAWINGS WHETHER OR NOT THEY ARE INDICATED ON ELECTRICAL DRAWINGS. REMOVE ALL ASSOCIATED EXPOSED CONDUITS AND WIRES BACK TO SOURCE.</li> <li>COORDINATE THE REMOVAL OF ANY UTILITY-OWNED EQUIPMENT DIRECTLY WITH THE UTILITY COMPANY AS INDICATED OR REQUIRED.</li> <li>REMOVE TEMPORARY EQUIPMENT AFTER INSTALLATION OF PERMANENT EQUIPMENT UNLESS SHOWN AS EXISTING TO BE REUSED.</li> <li>COORDINATE THE ELECTRICAL FEEDER OR BRANCH CIRCUIT INSTALLATION WITH THE INSTALLATION OF MECHANICAL EQUIPMENT, INCLUDING TEMPORARY POWER.</li> </ol>	<p>FURNISH: SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING UNPACKING, INSTALLATION, AND SIMILAR OPERATIONS.</p> <p>INSTALL: UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN AND SIMILAR OPERATIONS AT PROJECT SITE.</p> <p>PROVIDE: FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.</p> <p>WIRING: CONDUIT AND WIRES / CONDUCTORS.</p> <p>EXISTING TO REMAIN: LEAVE EXISTING ITEMS THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE SALVAGED OR REINSTALLED.</p> <p>REMOVE / DEMOLISH: DETACH ITEMS FROM EXISTING CONSTRUCTION AND DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE SALVAGED OR REINSTALLED.</p> <p>REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE AND DELIVER TO OWNER FOR REUSE.</p> <p>REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION, IN A MANNER TO PREVENT DAMAGE, PREPARE FOR REUSE, AND REINSTALL WHERE INDICATED.</p>



**WESTERN VIRGINIA WATER AUTHORITY**  
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DES: <b>EJB</b>	SCALE: <b>NOT TO SCALE</b>
DRAWN: <b>EJB</b>	HORIZ: <b>N/A</b>
CHECK: <b>IHK</b>	VERT: <b>N/A</b>
DATE: <b>1/24/20</b>	

**CRYSTAL SPRING  
 PUMP STATION RELOCATION**

**ELECTRICAL GENERAL NOTES AND DEFINITIONS**

REV	DATE	DESCRIPTION

DRAWING	SHEET
<b>E0.02</b>	<b>52</b>

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