# CHERRY HILL WATER SYSTEM WATER TREATMENT FACILITY-REBID CULPEPER COUNTY, VIRGINIA

## SITE DATA

OWNER INFORMATION: NAME: CONTACT: ADDRESS:

CULPEPER COUNTY PAUL HOWARD JR., DIRECTOR OF ENVIRONMENTAL SERVICES 118 W DAVIS ST. SUITE 101 CULPEPER, VA 22701 (540) 727-3409

**TELEPHONE:** 

ENGINEER INFORMATION: NAME: CONTACT: ADDRESS:

**TELEPHONE:** E-MAIL:

TOWN, STATE:

CULPEPER COUNTY, VA

FOREST, VA 24551

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WW ASSOCIATES, INC.

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110 VISTA CENTRE DRIVE, SUITE 1

# UTILITY CONTACTS

MISS UTILITY DESIGN TICKET NO.	A621700579-00A
GAS:	COLUMBIA GAS TRANSMISSION – (CGT909) LOCATOR OR UTILITY OPERATOR MUST CONTACT EXCAVATOR AND MUST BE PRESENT DURING EXCAVATION FIELD CONTACT: TERRY COLE (304) 357–3468 IN THE EVENT OF DAMAGE TO A FACILITY CALL: (800) 835–7191
ELECTRICITY:	DOMINION VA POWER ELEC DI – (DOM710) FIELD CONTACT: S & N (804) 608–5640 IN THE EVENT OF DAMAGE TO A FACILITY CALL: (888) 667–3000
	RAPPAHANNOCK ELECTRIC – (REC502) FIELD CONTACT: UTILIQUEST (703) 754–2116 IN THE EVENT OF DAMAGE TO A FACILITY CALL: (540) 891–5945
TELEPHONE/FIBER OTIC:	VERIZON – (VZN) FIELD CONTACT: UTILIQUEST (703) 754–2116 AND DAVE RUSSELL – VERIZON ENGINEERING TELEPHONE: (540) 368–8176 E-MAIL: DAVID.A.RUSSELL@VERIZON.COM IN THE EVENT OF DAMAGE TO A FACILITY CALL: MIKE JOHNSON – VERIZON CONSTRUCTION TELEPHONE: (540) 270–0581 E-MAIL: MICHAEL.DAVID.JOHNSON@VERIZON.COM
CABLE:	COMCAST – (502)

CABLE:

SHEET REVISION

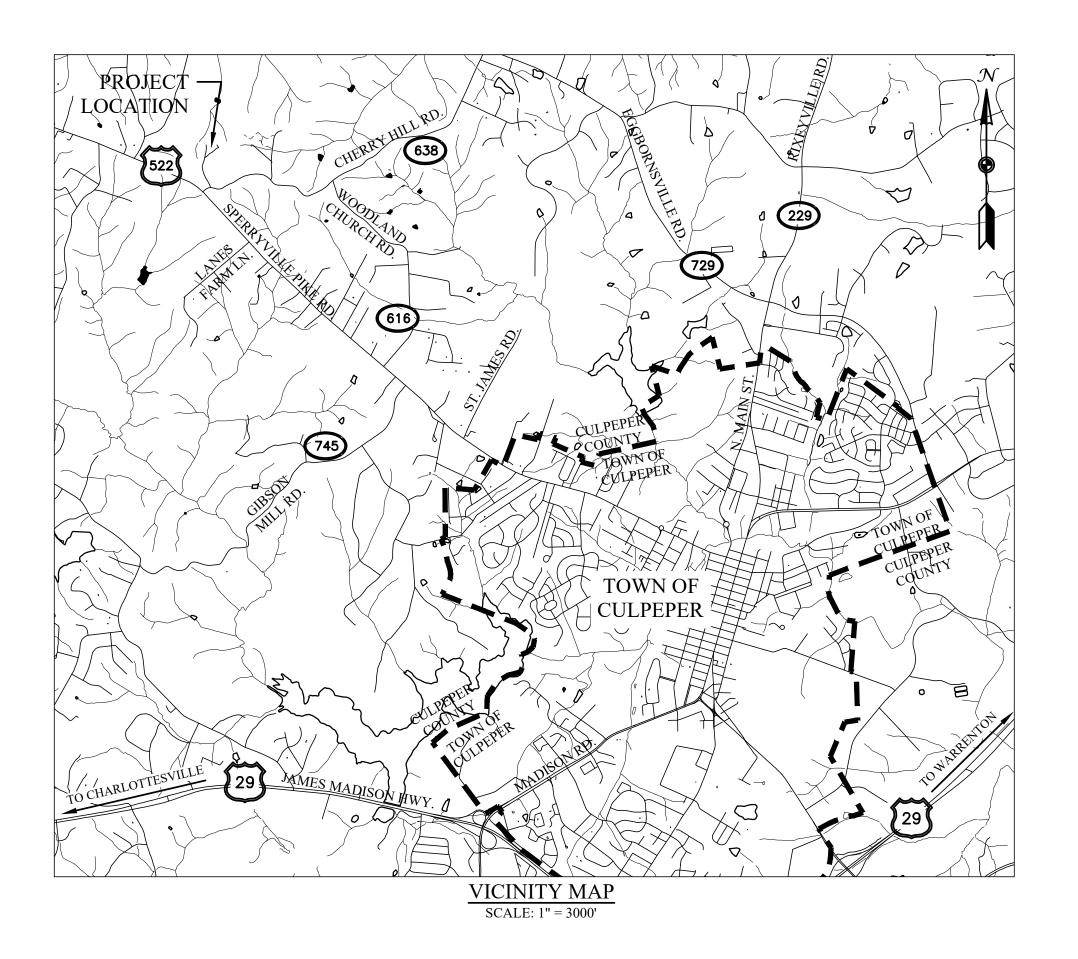
COMCAST – (502) FIELD CONTACT: CABLE PROTECTION SERVICES (804) 562–3861 IN THE EVENT OF DAMAGE TO A FACILITY CALL: (800) 441–6917 EXT. OPT. 1

DATE

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PART A

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		DETAILS AND CONTROL SCHEMATICS
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19 OF 19	E-4	SCHEDULES AND DETAILS

ABBREVIATIONS							
ABOVE FINISHED FLOOR AIR RELEASE VALVE BACK OF CURB BENCH MARK BACK BALL VALVE CURB & GUTTER CAST IRON PIPE CENTER LINE CHAIN LINK CORRUGATED METAL PIPE CLEAN OUT CONCRETE CONTROL POINT CUBIC YARDS DUCTILE IRON DIAMETER DUCTILE IRON PIPE ELEVATION ELECTRIC EDGE OF PAVEMENT	ABE FC GALV GE GV HB HDPE HP ID INV IPS IPF LAT LF LP MH NTS O.C. PE PED PROP PVC PVMT	BREVIATIONS         FACE OF CURB         GALVANIZED         GROUND ELEVATION         GATE VALVE         HORIZONTAL BEND         HIGH DENSITY POLYETHELENE         HIGH PRESSURE         INNER DIAMETER         INVERT         IRON PIN SET         IRON PIN FOUND         LATERAL         LINEAR FEET         LOW PRESSURE         MANHOLE         NOT TO SCALE         ON CENTER         POLYETHYLENE         PEDESTRIAN         PROPOSED         POLYVINYL CHLORIDE         PAVEMENT	R/W SAN SD SQ S.S. SSMH STA STD SW TBA TC TYP UG UON VB WL WM WT WWF YD YDS	RIGHT OF WAY SANITARY SEWER STORM DRAIN SQUARE STAINLESS STEEL SANITARY SEWER MANHOLE STATION STANDARD SIDEWALK TO BE ABANDONED TOP OF CURB TYPICAL UNDERGROUND UNLESS OTHERWISE NOTED VERTICAL BEND WATER LINE WATER METER WATERTIGHT WOVEN WIRE FABRIC YARD DRAIN YARDS			
FINISHED FLOOR FIRE HYDRANT	RCP REQ'D	REINFORCED CONCRETE PIPE REQUIRED					

NOTES: 1. ALL ABBREVIATIONS SHOWN MAY NOT BE USED.

Engineers Surveyors	DESIGNED BY: SAR/JAC DRAWN BY: SAR/DJC	PROJECT: CHERR` WATER TR CULPE	SET REV. NO. — DRAWING NUMBER:			
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Dlympia Drive, Suite 1 arlottesville, VA 22911 ione: 434.984.2700 ates.net	WWA NUMBER: 216038.02	FILE NAME: 603802C_CS-1.dwg	DISCIPLINE: <b>CIVIL</b>	SCALE: H: <b>AS NOTED</b> V: <b>N/A</b>	DATE: <b>1/30/23</b>	sheet number: 1 of 19

<u>GEN</u>	IERAL NOTES		MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS AS PUBLISHED BY THE U.S. DEPT. OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, THE VIRGINIA SUPPLEMENT TO MUTCD, AND
1.	THESE DRAWINGS PRESENT WATER TREATMENT FACILITY IMPROVEMENTS FOR THE CHERRY HILL WATER SYSTEM LOCATED IN CULPEPER COUNTY, VA.		THE VIRGINIA WORK AREA PROTECTION MANUAL VDOT MAINTAINS THE RIGHT TO ADJUST WORK HOURS IF NECESSARY FOR ANY WORK WITHIN VDOT RIGHT-OF-WAY.
2.	BASE MAPPING FOR THESE DRAWINGS IS FROM A FIELD SURVEY PERFORMED BY WW ASSOCIATES DATED 2016. HORIZONTAL DATUM: NAD-83	30.	WITH THE EROSION AND SEDIMENT CONTROL PLAN AND THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
3.	VERTICAL DATUM: NAVD 88 CONTRACTOR SHALL INSPECT THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS AND THE	31.	VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONSTRUCTED AND MAINTAINED FOR ALL DISTURBED AREAS IN ACCORDANCE WITH ALL LOCAL REQUIREMENTS AND THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. ALL EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE INSTALLED AS A FIRST STEP IN CONSTRUCTION AND BEFORE EXCAVATION BEGINS.
4.	CONSTRUCTION OF THE NEW IMPROVEMENTS SHOWN ON THIS PLAN. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE CONTRACT DRAWINGS, PROJECT MANUAL, SUBMITTALS, AND SHOP DRAWINGS AT THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.		SILT FENCE, CULVERT INLET PROTECTION, INLET PROTECTION, AND OTHER EROSION AND ACCORDANCE WITH SPEC. SECTION 02200. NO MORE THAN 100 LINEAR FEET OR TRENCH SHALL BE OPEN AT ONE TIME. CONTRACTOR SHALL PROVIDE SEEDING AND MULCH RESTORATION OPERATIONS DURING THE PIPE INSTALLATION
5.	BASED ON GRAPHIC DETERMINATION, THE PROPERTY DESCRIBED HEREON LIES WITHIN FLOOD ZONE "X", AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS DETERMINED BY THE UNITED STATES FEDERAL EMERGENCY MANAGEMENT AGENCY, AND AS SHOWN ON THE FLOOD INSURANCE RATE MAP (FIRM),	32.	
6.	COMMUNITY 51047C, PANEL NUMBER 0125-C WITH AN EFFECTIVE DATE OF JUNE 18, 2007. THE LOCATION, DIMENSIONS, AND ELEVATIONS OF EXISTING STRUCTURES, PIPING, AND UTILITIES SHOWN ARE	33.	CONSTRUCTION. ALL TRENCHWORK SHALL BE BACKFILLED AT THE END OF EACH DAY. ALL PAVED AREAS OR SIDEWALKS SHALL BE MAINTAINED FREE OF ROCK AND DEBRIS.
	BASED ON THE BEST AVAILABLE DATA AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL DATA IN THE FIELD PRIOR TO CONSTRUCTION TO HIS OWN SATISFACTION. THE DIAMETERS OF EXISTING PIPING ARE APPROXIMATE AND SHALL BE VERIFIED PRIOR TO PERFORMING FINAL CONNECTIONS. CONTACT MISS UTILITY (TELEPHONE NO. 811) 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION TO HAVE UNDERGROUND UTILITIES MARKED. THE CONTRACTOR SHALL PERFORM NON-DESTRUCTIVE, AIR VACUUM POTHOLE WORK EVERY 50 FEET AND AT THE DISCRETION OF CULPEPER COUNTY AND PROVIDE LOCATION SERVICE AT NO ADDITIONAL COST TO THE OWNER AS REQUIRED TO AVOID CONFLICTS WITH EXISTING UTILITIES OR STRUCTURES.	34.	
7.	CONTRACTOR SHALL NOTIFY MISS UTILITY (TELEPHONE No. 1–800–552–7001) 72 HOURS PRIOR TO CONSTRUCTION START UP FOR EXACT LOCATION OF EXISTING UNDERGROUND UTILITIES.		REMOVE UNSUITABLE MATERIAL AND PROVIDE NEW SOIL MATERIAL AS SPECIFIED IN THE PROJECT MANUAL AT NO ADDITIONAL COST TO THE OWNER.
8.	ALL DIMENSIONS INDICATED SHALL BE VERIFIED EITHER BY FIELD MEASUREMENTS FOR EXISTING STRUCTURES OR BY SHOP DRAWINGS FOR EQUIPMENT FURNISHED. STRUCTURAL DIMENSIONS NOT SHOWN BUT CONTROLLED BY OR RELATED TO EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR WITH THE MANUFACTURER PRIOR TO CONSTRUCTION.	35.	SUBSURFACE DRAINAGE: CONSIDER SITE SURFACE AND SUBSURFACE CONDITIONS, AVAILABLE SOIL, AND HYDROLOGICAL DATA. REMOVE WATER BY BENCHING, SUMP PUMPING, DEEP WELL PUMPING, OR OTHER METHODS TO PREVENT SOFTENING OF SURFACES EXPOSED BY EXCAVATION. USE FILTERS ON DEWATERING DEVICES TO PREVENT REMOVAL OF FINES FROM SOIL. PROVIDE EROSION CONTROL AT OUTLET OR PIPING TO PREVENT EROSION. OPERATE DEWATERING SYSTEM CONTINUOUSLY UNTIL CONSTRUCTION WORK BELOW EXISTING WATER LEVELS IS COMPLETE.
9.	THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING INFORMATION IN THE FIELD AS REQUIRED FOR NEW WORK. THE CONTRACTOR SHALL VERIFY ALL UTILITY INFORMATION PRIOR TO CONSTRUCTION TO INCLUDE TYPE AND SIZE OF PIPE AND SERVICES TO HIS OWN SATISFACTION.	36.	CONSTRUCTION LIMITS ARE AS SHOWN. SEE SPEC. SECTION 02200 FOR ADDITIONAL INFORMATION. ALL TREES TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
10.	CHANGES IN NEW PIPING FROM THAT SHOWN ON THE DRAWINGS, TO AVOID CONFLICTS WITH EXISTING ELECTRICAL SYSTEMS, MECHANICAL SYSTEMS, EQUIPMENT, STRUCTURES, OR EXISTING PIPING, SHALL BE THE	37.	ALL AREAS DISTURBED TO INSTALL NEW IMPROVEMENTS, ACCESS ROUTES AND STAGING AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR ORIGINAL CONDITION AND SHALL BE GRADED TO DRAIN.
	RESPONSIBILITY OF THE CONTRACTOR. LIKEWISE, ALTERATIONS TO EXISTING ELECTRICAL SYSTEMS, MECHANICAL SYSTEMS, EQUIPMENT, OR EXISTING PIPING TO ACCOMMODATE NEW PIPING AND EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL SUCH CHANGES MUST BE	38.	ALL FINISHED GRADING, SEEDING AND SODDING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER ON THE SITE, PARTICULARLY ADJACENT TO THE BUILDING.
11.	APPROVED BY THE OWNER AND THE ENGINEER. PROPOSED MANHOLE/STRUCTURE TOP ELEVATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL CONFIRM ACTUAL GRADE ELEVATIONS AND ADJUST RISERS TO SET TOPS FLUSH WITH	39.	ALL SLOPES AND DISTURBED AREAS ARE TO BE FERTILIZED, SEEDED AND MULCHED. THE MAXIMUM ALLOWABLE SLOPE IS 2:1 (HORIZONTAL:VERTICAL). WHERE REASONABLY OBTAINABLE, LESSER SLOPES OF 3:1 OR BETTER ARE TO BE ACHIEVED.
	FINISHED GRADE OR INLINE WITH ADJACENT CURBING AS APPLICABLE. REGRADE AREAS AS REQUIRED TO ACHIEVE THIS UNLESS OTHERWISE NOTED. MANHOLES NOT IN PAVEMENT SHALL BE LOCATED ABOVE THE DRAINAGE WAY OF DITCHES AND SHALL NOT ALLOW INTRUSION OF STORM WATER INTO MANHOLE COVERS.	40.	THE CONTRACTOR SHALL BE FULLY LIABLE FOR REPAIR OF ANY DAMAGES ON PUBLIC OR PRIVATE PROPERTY CAUSED BY HIS CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REPAIR AND REPLACE ALL DAMAGED PROPERTY IN KIND, INCLUDING PAVEMENT, STONE, DITCHES, STORM CULVERTS, FENCING, ETC. CONTRACTOR
12. 13.	ALL UNDERGROUND PIPING SHALL MAINTAIN A MINIMUM COVER OF 3.5 FEET UNLESS OTHERWISE INDICATED. A POSITIVE GRADE SHALL BE MAINTAINED FOR THE VERTICAL ALIGNMENT OF ALL FORCE MAIN AND PRESSURE		SHALL REPLACE ROADSIDE SHOULDERS, DITCHES, FILL SLOPES/CUTS TO STABILIZED PRECONSTRUCTION CONDITIONS. TREES SHALL BE PROTECTED AS MUCH AS POSSIBLE. IF TREES ARE DAMAGED, THEY SHALL BE TRIMMED OR REPAIRED TO PRESERVE THEIR LIFE. ROAD CULVERTS IMPACTED BY THE PROJECT SHALL BE
14.	PIPING TO ELIMINATE THE FORMATION OF AIR POCKETS. PROVIDE RESTRAINING DEVICES FOR BURIED PRESSURE PIPING AT ALL PIPE JOINTS, VALVES, FITTINGS, AND DEAD ENDS. INSTALLATION OF MECHANICAL RESTRAINING DEVICES SHALL BE PERFORMED IN ACCORDANCE WITH THE		SUPPORTED PROPERLY DURING WATER LINE CONSTRUCTION. CULVERTS SHALL BE BACKFILLED AND PROPERLY COMPACTED PER VDOT SPECIFICATION. CULVERT ENDS SHALL BE GRADED WITH POSITIVE DRAINAGE WITH SUFFICIENT EROSION AND SEDIMENT CONTROL MEASURES INSTALLED. PRIVATE ENTRANCE CULVERTS SHALL BE MAINTAINED FOR POSITIVE ROADSIDE DRAINAGE.
15.	MANUFACTURER'S WRITTEN RECOMMENDATIONS. PROVIDE A MINIMUM OF 18 INCHES CLEARANCE BETWEEN PIPING AND FOOTINGS, STRUCTURES, AND OTHER	41.	ANY FENCING DISTURBED BY CONSTRUCTION SHALL BE IMMEDIATELY REPLACED OR SUPPLEMENTED BY TEMPORARY FENCING SUITABLE FOR INTENDED PURPOSE OR EXISTING FENCING. THE CONTRACTOR SHALL REPAIR
16.	PIPING UNLESS OTHERWISE NOTED. VERTICAL PIPE FITTINGS ARE NOT SHOWN ON THE DRAWINGS FOR CLARITY. THE CONTRACTOR SHALL PROVIDE VERTICAL PIPE FITTINGS AS REQUIRED FOR COMPLETE AND OPERABLE PIPE INSTALLATIONS.	42.	AND/OR REPLACE DISTURBED FENCING TO ORIGINAL CONDITION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE DRAWINGS, THE LATEST EDITION OF THE VIRGINIA DEPARTMENT OF HEALTH (VDH) WATERWORKS REGULATIONS, AND THE VIRGINIA SEWAGE COLLECTION AND
17.	PROVIDE ALL CONNECTING PIECES AND TRANSITION PIECES REQUIRED TO MAKE FINAL PIPING CONNECTIONS.	47	TREATMENT (SCAT) REGULATIONS.
18. 19.	CONTRACTOR SHALL COMPLY WITH NO LEAD REGULATIONS FOR WATER INFRASTRUCTURE.	43.	ALL WORK WITHIN PUBLIC ROAD RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS (LATEST REVISIONS), AND THE VIRGINIA WORK AREA PROTECTION MANUAL.
	CODE. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CONFINED SPACE ENTRY REGULATIONS.	44.	THE CONTRACTOR SHALL PROTECT EXISTING PAVED SURFACES. ANY DAMAGED PAVEMENT SHALL BE REPAIRED TO MATCH EXISTING. TRACKED EQUIPMENT WILL NOT BE ALLOWED ON PAVED SURFACES. ANY PAVEMENT MARKINGS DAMAGED BY CONSTRUCTION SHALL BE REPLACED IN KIND BY A PAVEMENT MARKING CONTRACTOR FROM THE
21.	CONTRACTOR SHALL BE INFORMED AND COMPLY WITH THE VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT. ALL COSTS TO COVER LINES, FLAG LINES, OR DISCONNECT SERVICE SHALL BE AT THE CONTRACTORS EXPENSE.	45.	
22.	MAINTAIN AND PROTECT ALL OVERHEAD AND UNDERGROUND ELECTRICAL, TELEPHONE, CABLE TV, WATER, GAS, SEWER, AND ALL OTHER UTILITIES DURING ENTIRE CONSTRUCTION PERIOD. SEPTIC SYSTEM AND WATER SERVICE INTERRUPTIONS AND OTHER UTILITY OUTAGES WILL NOT BE ALLOWED.	46.	BY A LAND SURVEYOR LICENSED BY THE COMMONWEALTH OF VIRGINIA AT NO ADDITIONAL COST TO THE OWNER. AIR RELEASE VALVE LOCATIONS ARE APPROXIMATE. LOCATE AIR RELEASE VALVES AT HIGH POINTS IN THE PIPING AS APPROVED BY WW ASSOCIATES.
23.	CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL SITE AND LABOR SAFETY AND SANITARY PROVISIONS ON SITE. LOCATION OF SANITARY PROVISIONS SHALL BE IN A DISCRETE LOCATION. COORDINATE WITH THE OWNER.	47.	CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED FOR THE CONSTRUCTION OF THESE PLANS INCLUDING BUT NOT LIMITED TO: CULPEPER COUNTY BUSINESS LICENSE, AND BUILDING PERMIT. THE
24.	CONSTRUCT EXCAVATION SUPPORT SYSTEMS AS REQUIRED BY OSHA AND U.S. ARMY CORPS OF ENGINEERS SAFETY & HEALTH REQUIREMENTS MANUAL EM 385-1-1, SECTION 25, AND WHERE INDICATED ON THE DRAWINGS TO ADEQUATELY SUPPORT EXISTING SOIL AND ADJACENT STRUCTURES DURING EXCAVATION ACTIVITIES.	<u>۸</u> ۶	CONTRACTOR SHALL PROVIDE ALL NECESSARY FORMS AND FEES FOR OBTAINING THE PERMITS, INCLUDING APPLICATION FEES AND BONDING COSTS. PROPOSED RAW AND FINISHED WATER LINE IMPROVEMENTS SHOWN IN THESE DRAWINGS FOR THE WATER
25.	STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURE. DURING CONSTRUCTION, THE STRUCTURES SHALL BE PROTECTED BY BRACING AND TEMPORARY SUPPORTS WHEREVER EXCESSIVE CONSTRUCTION LOADS MAY OCCUR. OVERSTRESSING OF ANY STRUCTURAL ELEMENT IS PROHIBITED.	<b>⊤</b> ∪.	TREATMENT FACILITY, WATER STORAGE TANK, AND WELL SITES ARE BASED ON WWA DESIGN DRAWINGS ENTITLED "CULPEPER COUNTY – CHERRY HILL WATER SYSTEM" AND ARE APPROXIMATE. THESE IMPROVEMENTS ARE BEING CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR
26.	NO BACKFILL SHALL BE PLACED AGAINST ANY SUBSTRUCTURE WALLS UNLESS ALL ADJACENT SUPPORTING ELEMENTS HAVE ACHIEVED DESIGN STRENGTH, OR WALLS HAVE BEEN PROPERLY BRACED, AND IN ANY CASE NOT SOONER THAN 28 DAYS AFTER THE PLACING OF CONCRETE UNLESS APPROVED BY THE ENGINEER. SUPPORTING ELEMENTS SHALL INCLUDE ADJACENT WALLS, SLABS, BEAMS AND COLUMNS.		DISINFECTION AND PRESSURE/LEAKAGE TESTING OF PIPING IN THEIR RESPECTIVE SCOPES. CONNECTION POINTS TO THE WATER LINE PROJECT ARE SHOWN ON THE CONTRACT DRAWINGS FOR REFERENCE. COORDINATE FINAL PIPING LOCATIONS AND DEPTHS AT THESE POINTS WITH THE WATER LINE CONTRACTOR TO PREVENT CONSTRUCTION CONFLICTS.
27.	LEAKAGE TESTING OF HYDRAULIC STRUCTURES SHALL NOT BEGIN UNTIL ALL STRUCTURAL ELEMENTS HAVE REACHED THE SPECIFIED MINIMUM CONCRETE STRENGTH. BACKFILL SHALL NOT BE PLACED AROUND ANY HYDRAULIC STRUCTURE UNTIL THE LEAKAGE TEST HAS BEEN COMPLETED.		
28.	MAINTAIN ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES DURING CONSTRUCTION UNLESS WRITTEN PERMISSION IS OBTAINED.		
29.	WHENEVER CONSTRUCTION IS IN OR ADJACENT TO STREETS, THE CONTRACTOR SHALL PROVIDE SIGNS, DRUMS, AND TRAFFIC CONTROL DEVICES. ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE CURRENT		
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			JASON A. CLARK Lic. No. 33605
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	ALL NECESSARY	FORMS AND FEES FOR OBTAININ			TRAVERSE UTILITY MARKER POST	
		PROVEMENTS SHOWN IN THESE	DRAWINGS FOR THE WATER		UTILITY POLE	ц С
EATMENT FACILITY, WATER ST	FORAGE TANK, AN	ND WELL SITES ARE BASED ON	WWA DESIGN DRAWINGS ENTITLED THESE IMPROVEMENTS ARE BEING	$\bigcirc$	VENT PIPE	0
NSTRUCTED BY OTHERS UNI	DER SEPARATE C	CONTRACT. EACH CONTRACTOR S		$(\mathbb{W})$	WATER MAN HOLE	(W)
THE WATER LINE PROJECT	ARE SHOWN ON		REFERENCE. COORDINATE FINAL	WATER	WATER METER	
INSTRUCTION CONFLICTS.		ATS WITH THE WATER LINE CON		WV	WATER SURFACE ELEVATION	
				$\bowtie$	WATER VALVE WELL	$\boxtimes$
					YARD GRATE	
					<u>ES:</u> HE SIZE OF THE SYMBOLS MAY V LL SYMBOLS AND ABBREVIATIONS	
		Som Jan G. Clark			W	Engi
		S Jan C. Clad Z				SURV PLAN
		Lic. No. 33605	PART A		Asso	<u>)</u> <u>)</u> OCIA
		ESSI CHURCH			PO Box 4119 Lynchburg, VA 245 Phone: 434.316.60	968 Olympia 1 02 Charlottesvill 80 Phone: 434
В	Y DATE	CONAL DIA			www.	wwassociates.net

SYMBOL LEGEND

AIR RELEASE VALVE

EX

₽<sup>R</sup>∠

NEW

### EXISTING

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# LINETYPE LEGEND BUILDING OVERHEAD ADJACENT PROPERTY LINE ADJACENT RIGHT-OF-WAY BOUNDARY PROPERTY LINE BOUNDARY RIGHT-OF-WAY BUILDING SETBACK BUSH LINE CATV OVERHEAD CATV UNDER GROUND DRAIN TELEPHONE OVERHEAD TELEPHONE UNDER GROUND DITCH CENTER LINE EASEMENT - CONSTRUCTION AND GRADING EASEMENT – SLOPE EASEMENT – SANITARY SEWER EASEMENT - STORM EASEMENT - STORMWATER MANAGEMENT EASEMENT – UTILITIES EASEMENT – WATER EFFLUENT OUTFALL ELECTRIC OVERHEAD ELECTRIC UNDER GROUND FENCE BARBED WIRE FENCE CHAIN LINK FENCE WOOD FENCE WOVEN WIRE GAS UNDER GROUND GRAVEL GUARD RAIL PAVEMENT ASPHALT PLANT FLOW RAILROAD CENTERLINE RETURN ACTIVATED SLUDGE ROAD CENTERLINE SANITARY FORCEMAIN SANITARY SEWER SLUDGE STORM SEWER STREAM CENTERLINE TOP OF BANK TOPO MAJOR CONTOUR TOPO MINOR CONTOUR TREELINE UTILITY OVERHEAD UTILITY UNDER GROUND WASTE ACTIVATED SLUDGE WATER LINE WATER LINE – BACKWASH WATER LINE - COLD WATER LINE – DRAIN WATER LINE - FILTER BACKWASH WASTE WATER LINE – FILTER EFFLUENT WATER LINE – FINISHED WATER LINE – HOT WATER LINE - NON-POTABLE WATER LINE – PRIVATE WATER LINE – RAW WATER LINE – REVISED WETLAND LIMITS

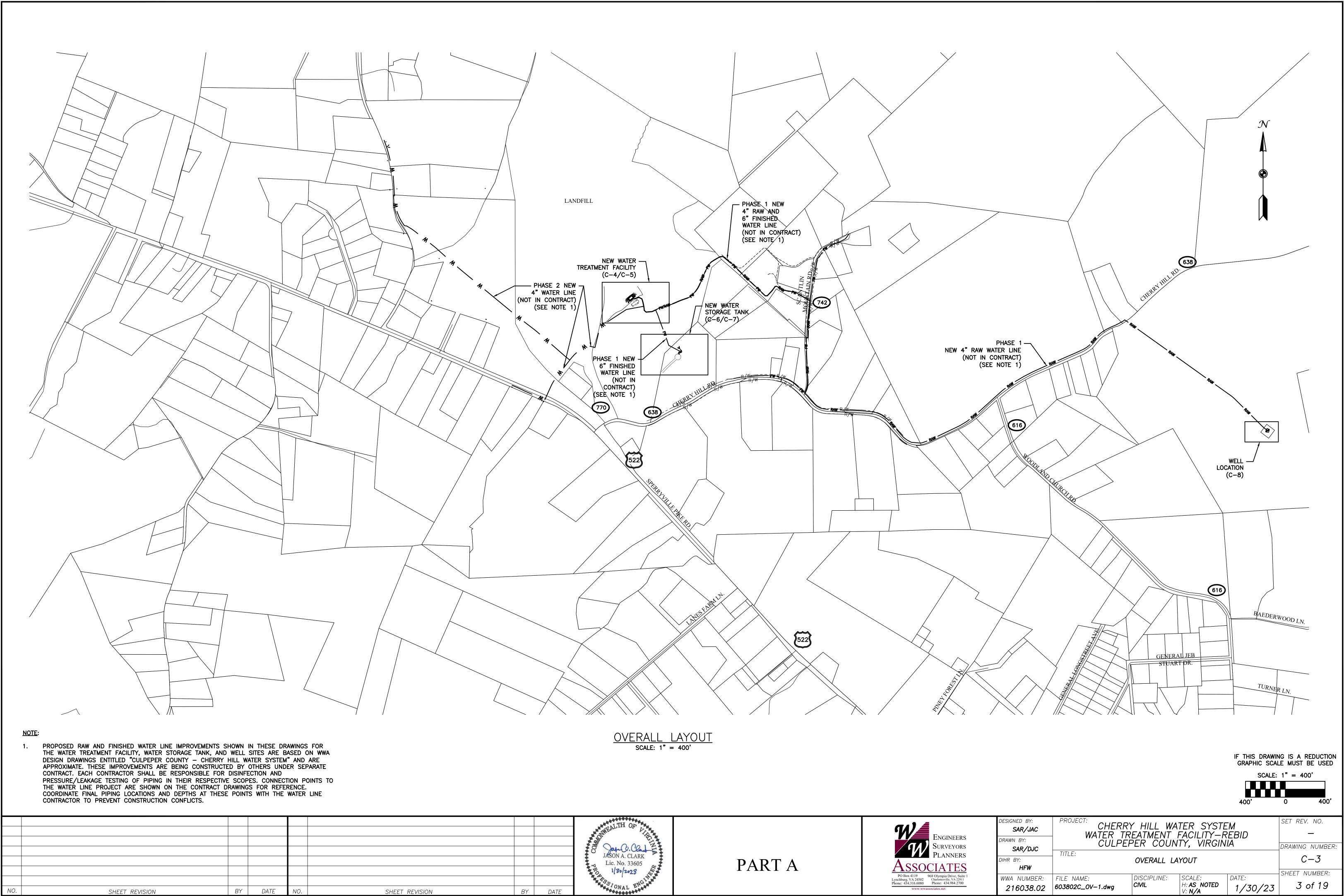
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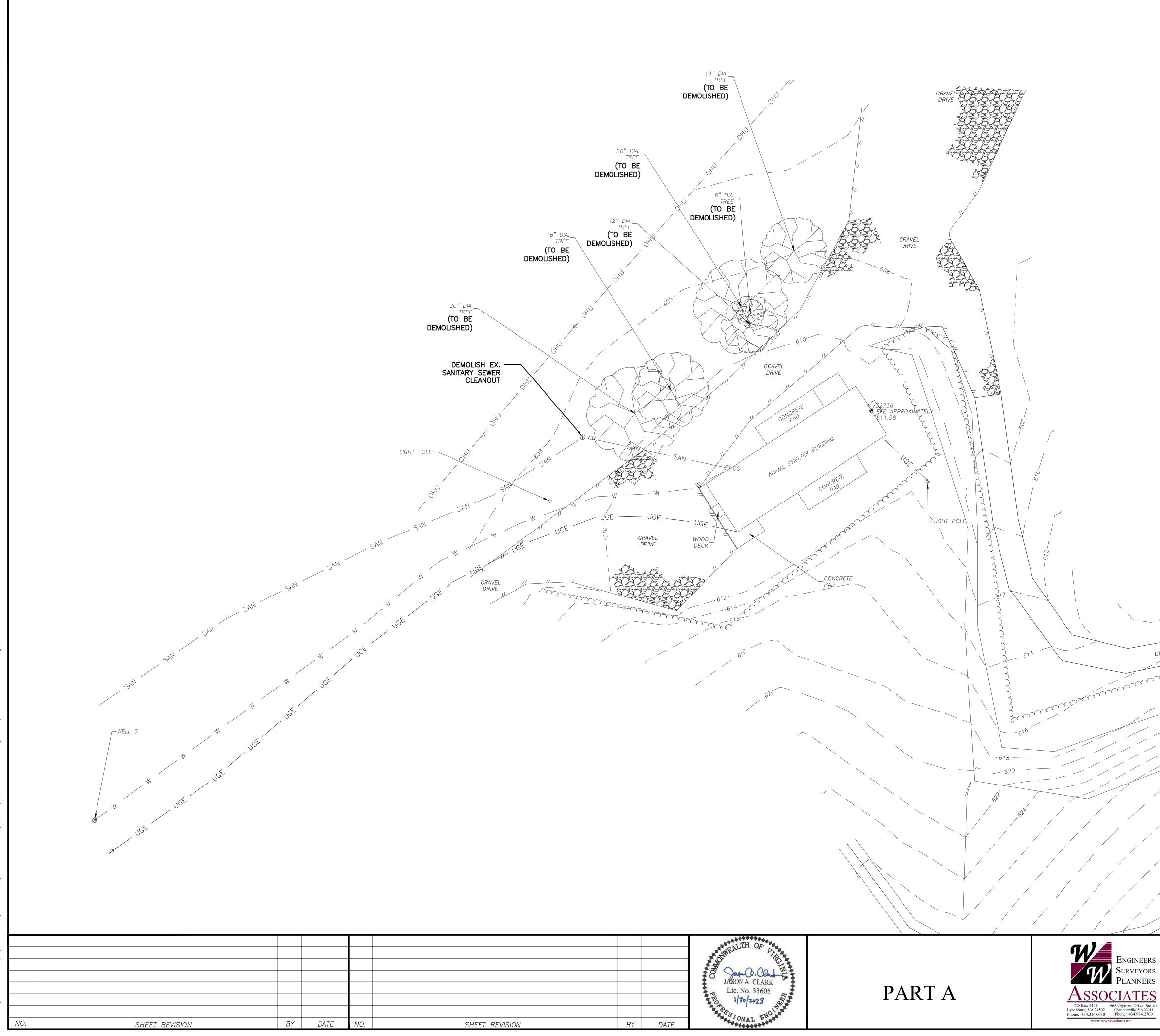
RWL

#### ARY FROM THOSE SHOWN. SHOWN MAY NOT BE USED.

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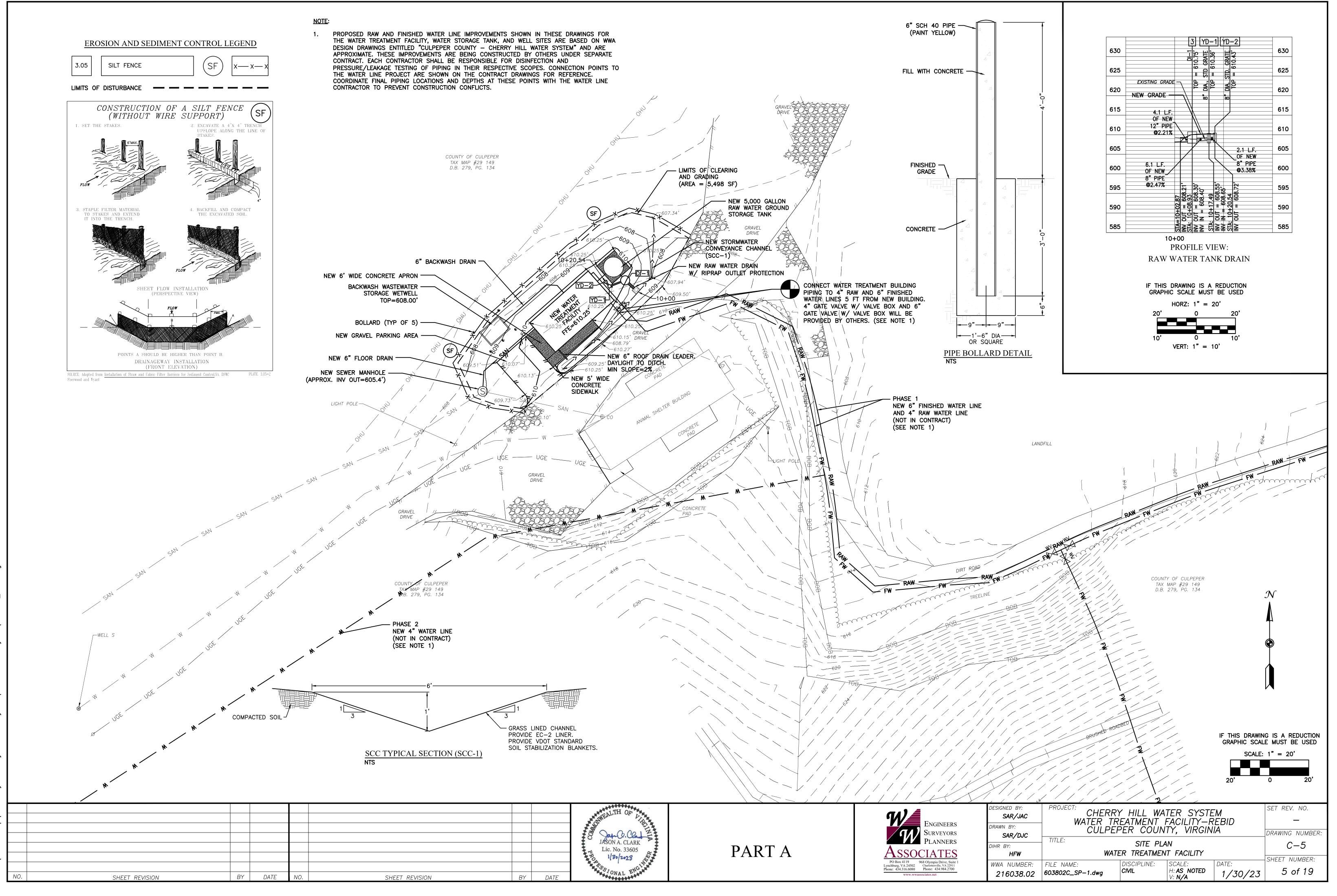
DESIGNED BY: PROJECT: OLIEDOX LULL MATED OVOTEM	EV. NO.
SAR/JAC CHERRY HILL WATER SYSTEM	
Engineers WATER TREATMENT FACILITY-REBID	_
SURVEYORS DMP/DJC CULPEPER COUNTY, VIRGINIA DRAWIN	IG NUMBER:
PLANNERS TITLE:	C-2
	6-2
IATES HFW SHEET	NUMBER:
WWA NUMBER: FILE NAME: DISCIPLINE: SCALE: DATE:	
$\frac{1}{34.984.2700}$ $216038.02  603802C_ND-1.dwg  CIVIL  H: AS NOTED \\ V: N/A  1/30/23  2$	of 19



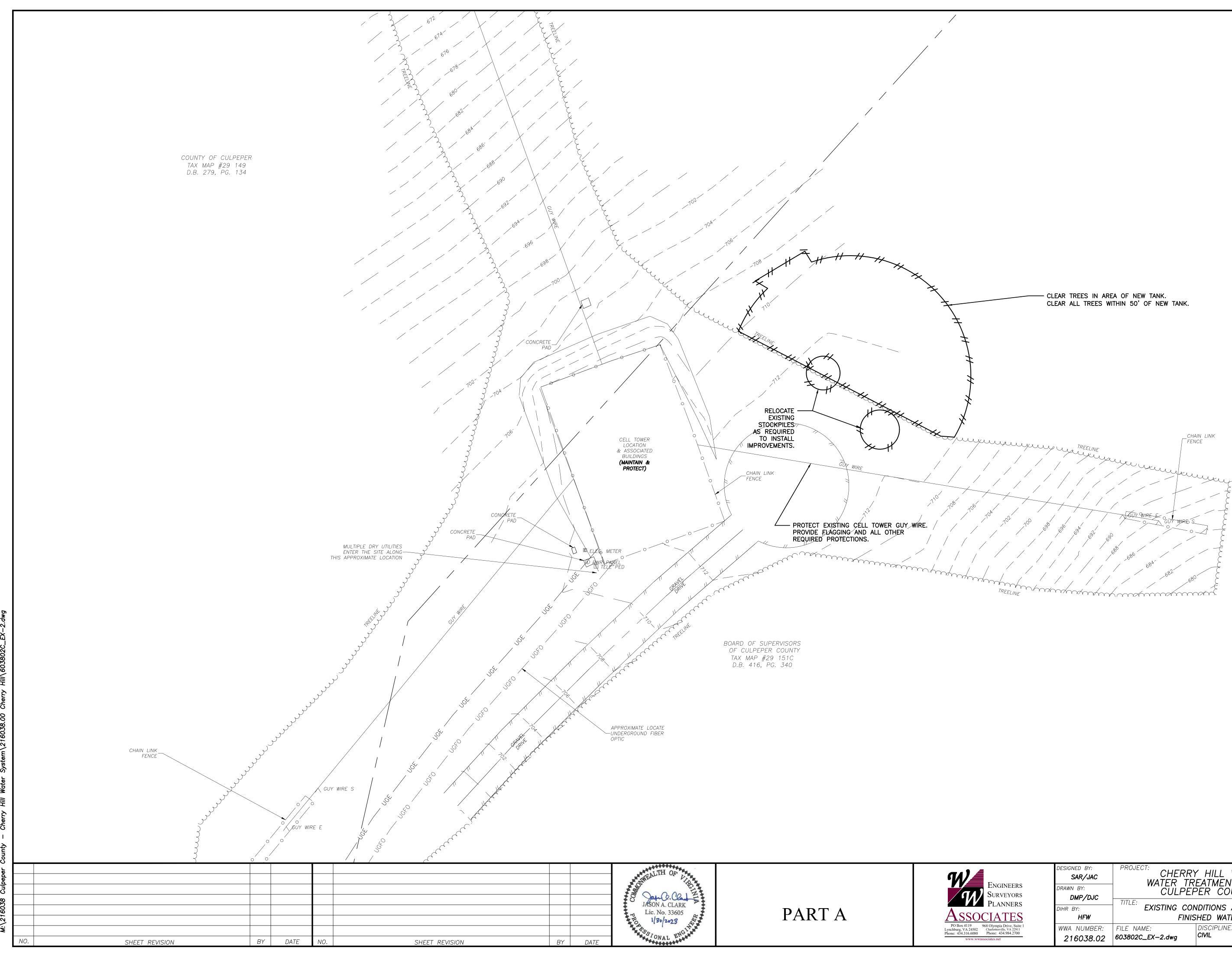


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			/				1" = 20'
			/ /	/ /	/	20'	0 20'
	DESIGNED BY:	PROJECT:	CHERRY	r HILL WAT	TER SYSTE	EM	SET REV. NO.
Engineers	SAR/JAC	WA		EATMENT PER COUN	FACILITY-F	REBID	_
Surveyors Planners	DMP/DJC			DITIONS AND			DRAWING NUMBER:
IATES	DIHR BY: <b>HFW</b>			TREATMENT			C-4
Olympia Drive, Suite 1 aarlottesville, VA 22911 none: 434.984.2700	WWA NUMBER:	FILE NAME:	1 due	DISCIPLINE: <b>CIVIL</b>	SCALE: H: <b>AS_NOTED</b>	DATE:	SHEET NUMBER: 4 of 19
ates.net	216038.02	603802C_EX-	ı.uwg		V: N/A	1/30/23	70113



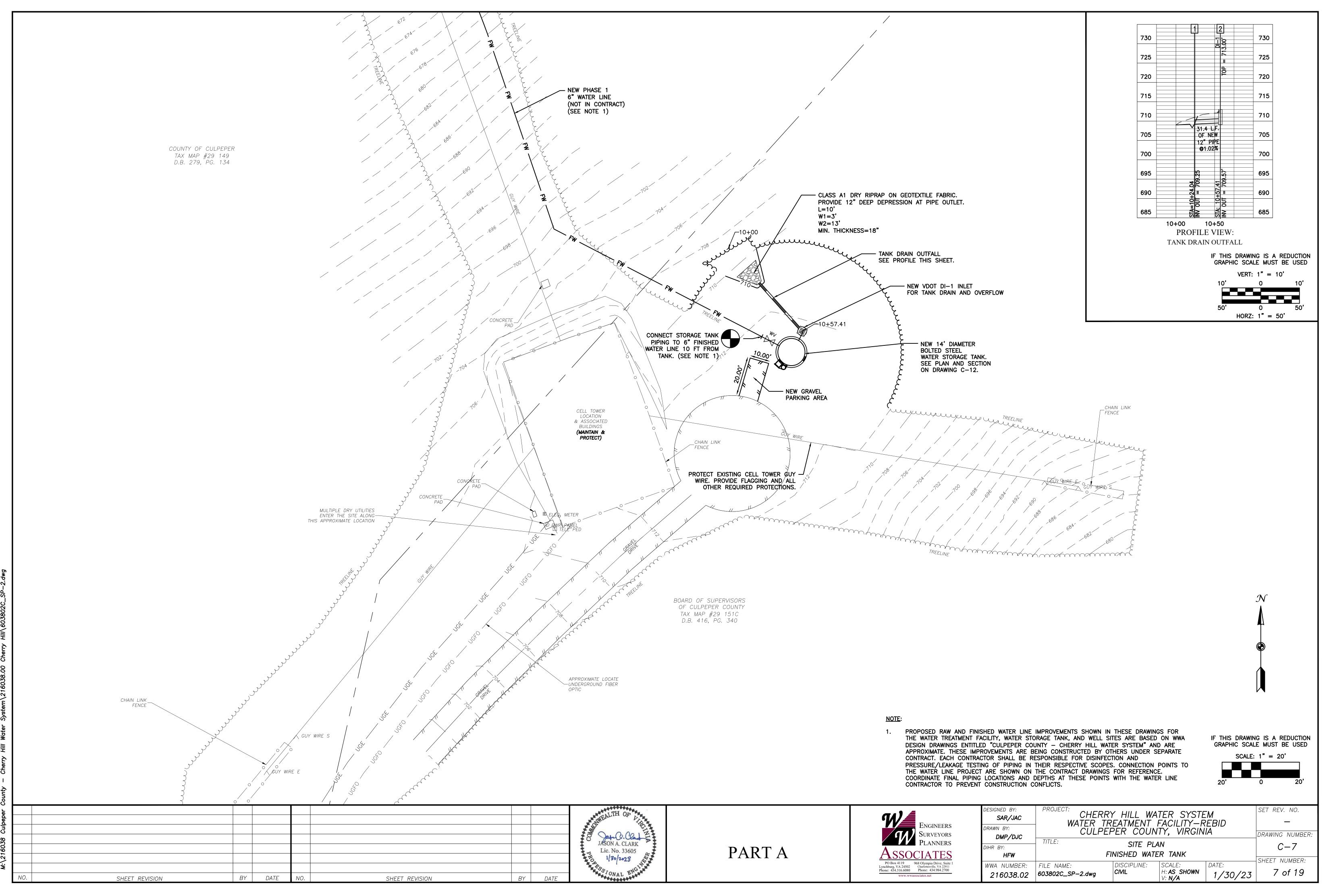
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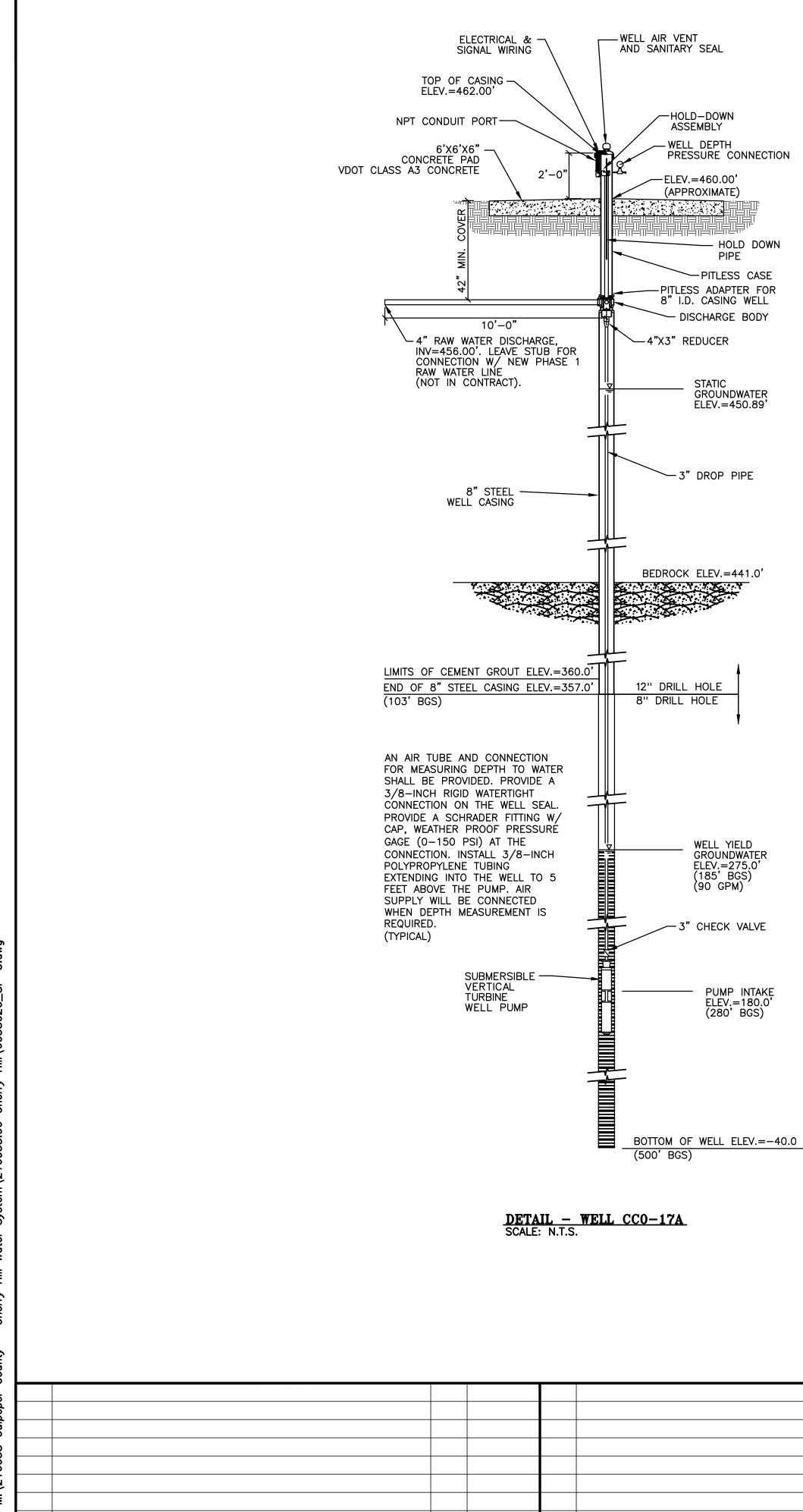


/21 S

102 100 698 696 694 692 TREELINE	68 <sup>8</sup> 68 <sup>6</sup> 68 <sup>4</sup> 68 <sup>2</sup> 68 <sup>3</sup> 68 <sup>3</sup>			
			GRAPHIC SCAI	NG IS A REDUCTION LE MUST BE USED 1" = 20' 0 20'
IGINEERS RVEYORS ANNERS Main Drive, Suite 1 :: 434.984.2700 DESIGNED BY: DRAWN BY: DRAWN BY: DMP/DJC DIHR BY: HFW WWA NUMBER: 216038.02	WATER TR CULPER TITLE: EXISTING CON FINIS FILE NAME:	Y HILL WATER SYS REATMENT FACILITY- PER COUNTY, VIRGI NDITIONS AND DEMOLITIC SHED WATER TANK SITE DISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: DISCIPLINE: CIVIL BISCIPLINE: CIVIL BISCIPLINE: DISCIPLINE: CIVIL BISCIPLINE: DISCIPLINE: DISCIPLINE: DISCIPLINE: CIVIL BISCIPLINE: DISCIPLINE: DISCIPLINE: DISCIPLINE: CIVIL BISCIPLINE: DISCIPLINE: DISCIPLINE: CIVIL BISCIPLINE: DISC	-REBID INIA	SET REV. NO. — DRAWING NUMBER: C—6 SHEET NUMBER: 6 of 19

- CLEAR TREES IN AREA OF NEW TANK. CLEAR ALL TREES WITHIN 50' OF NEW TANK.



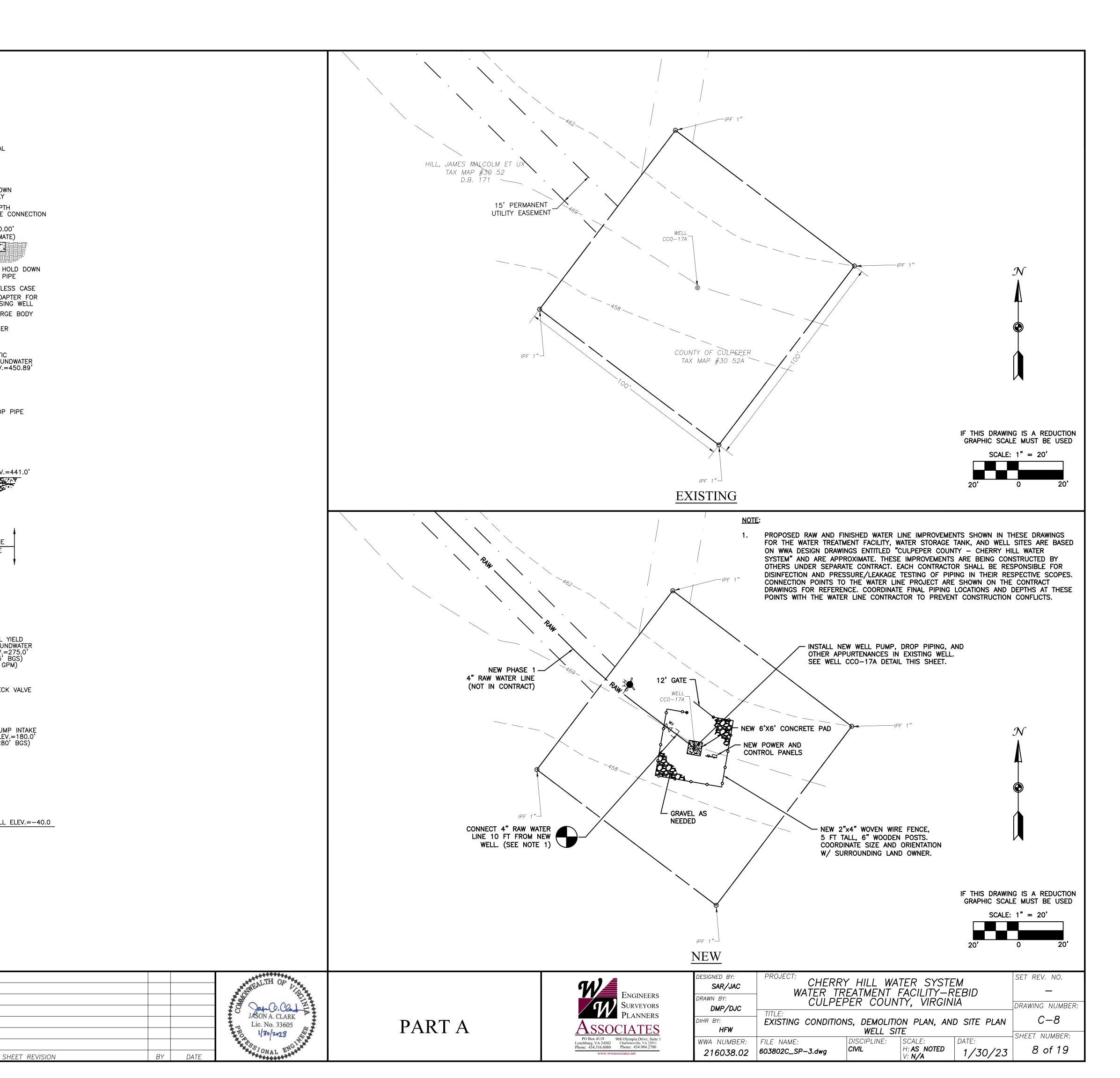


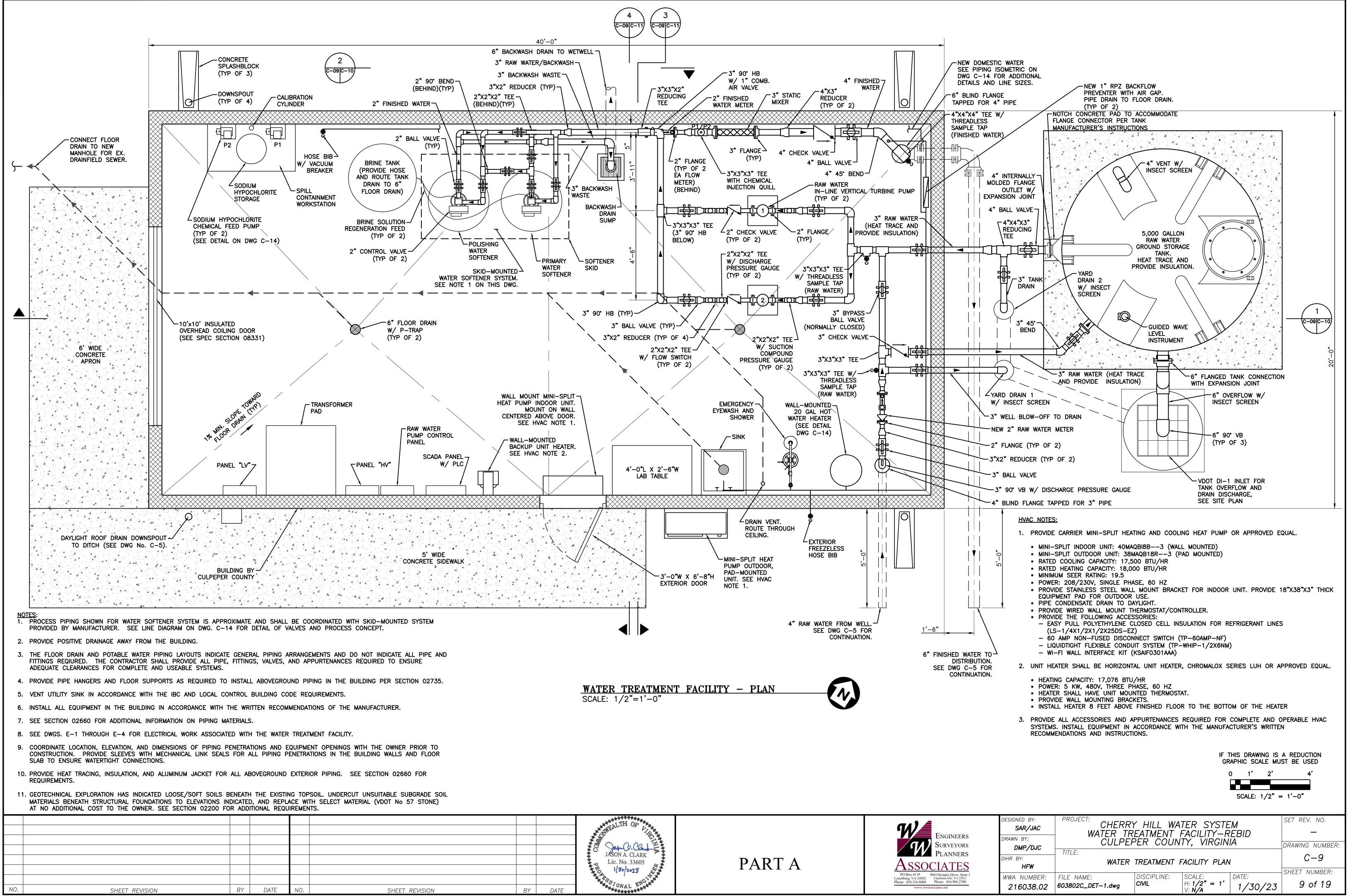
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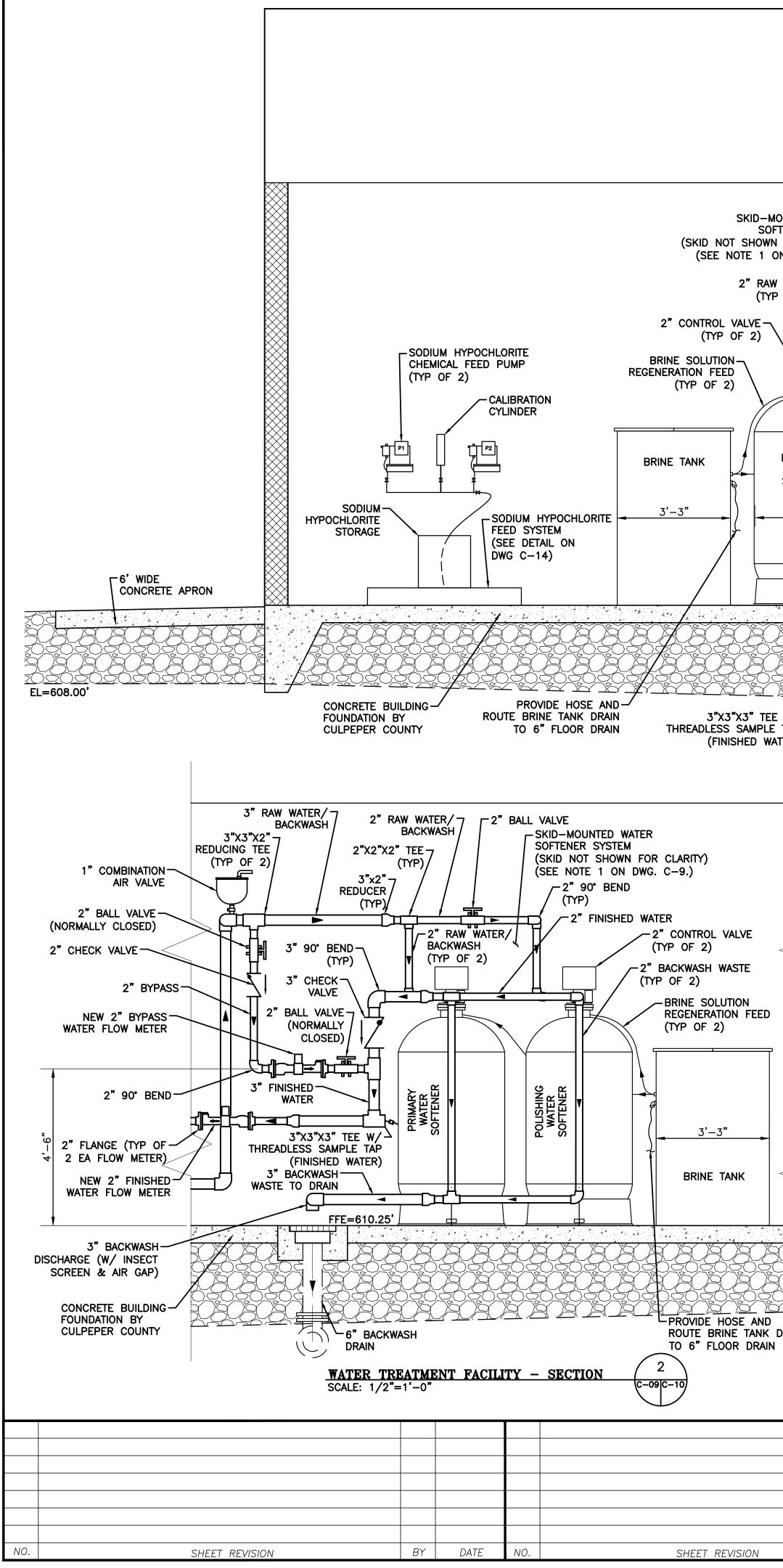
BY

SHEET REVISION

216038 Culpeper County — Cherry Hill Water System\216038.00 Cherry Hill\603802C\_SP-3

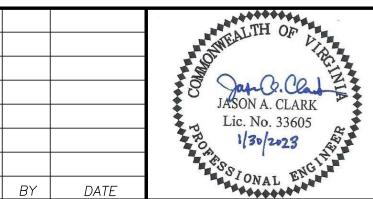




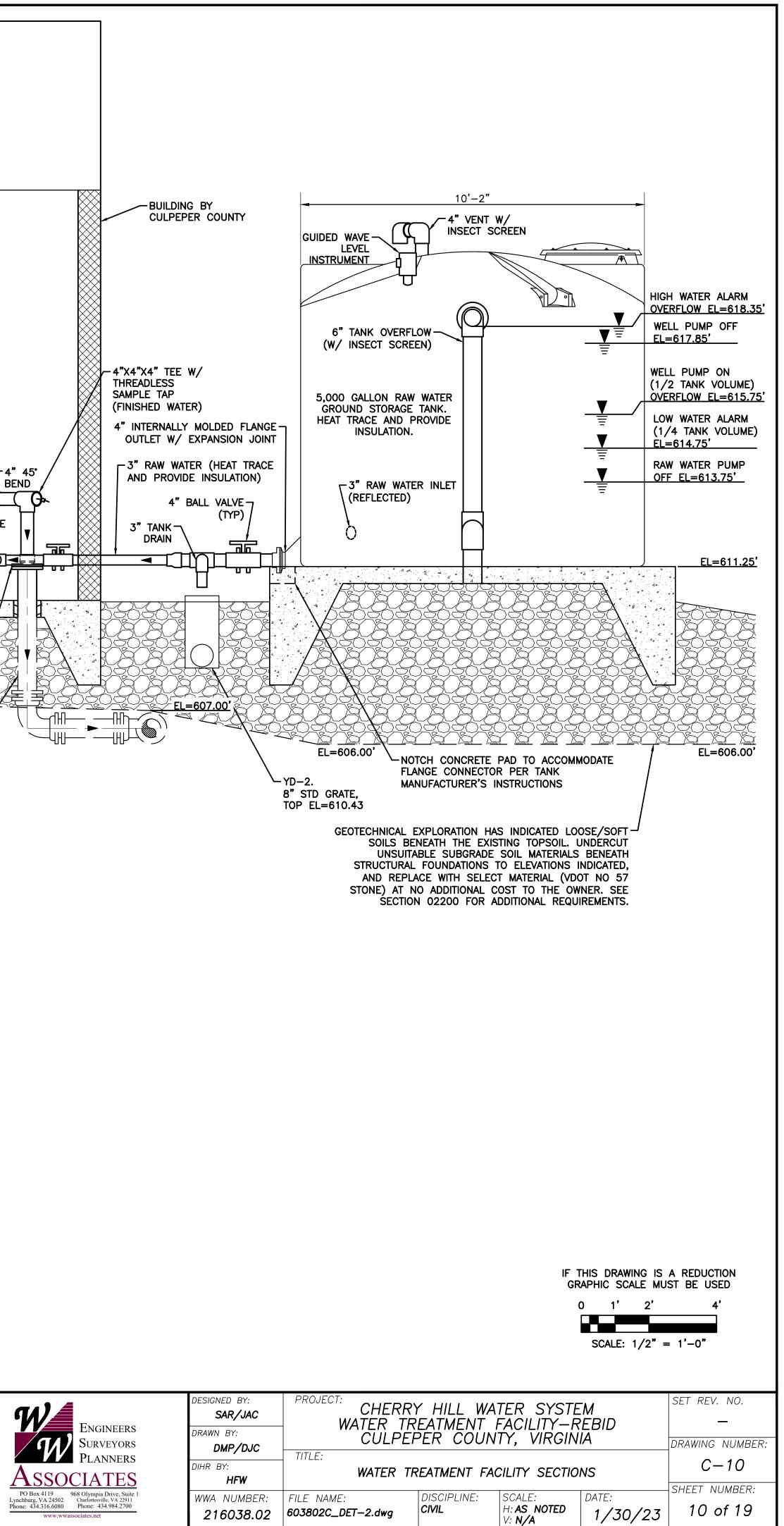


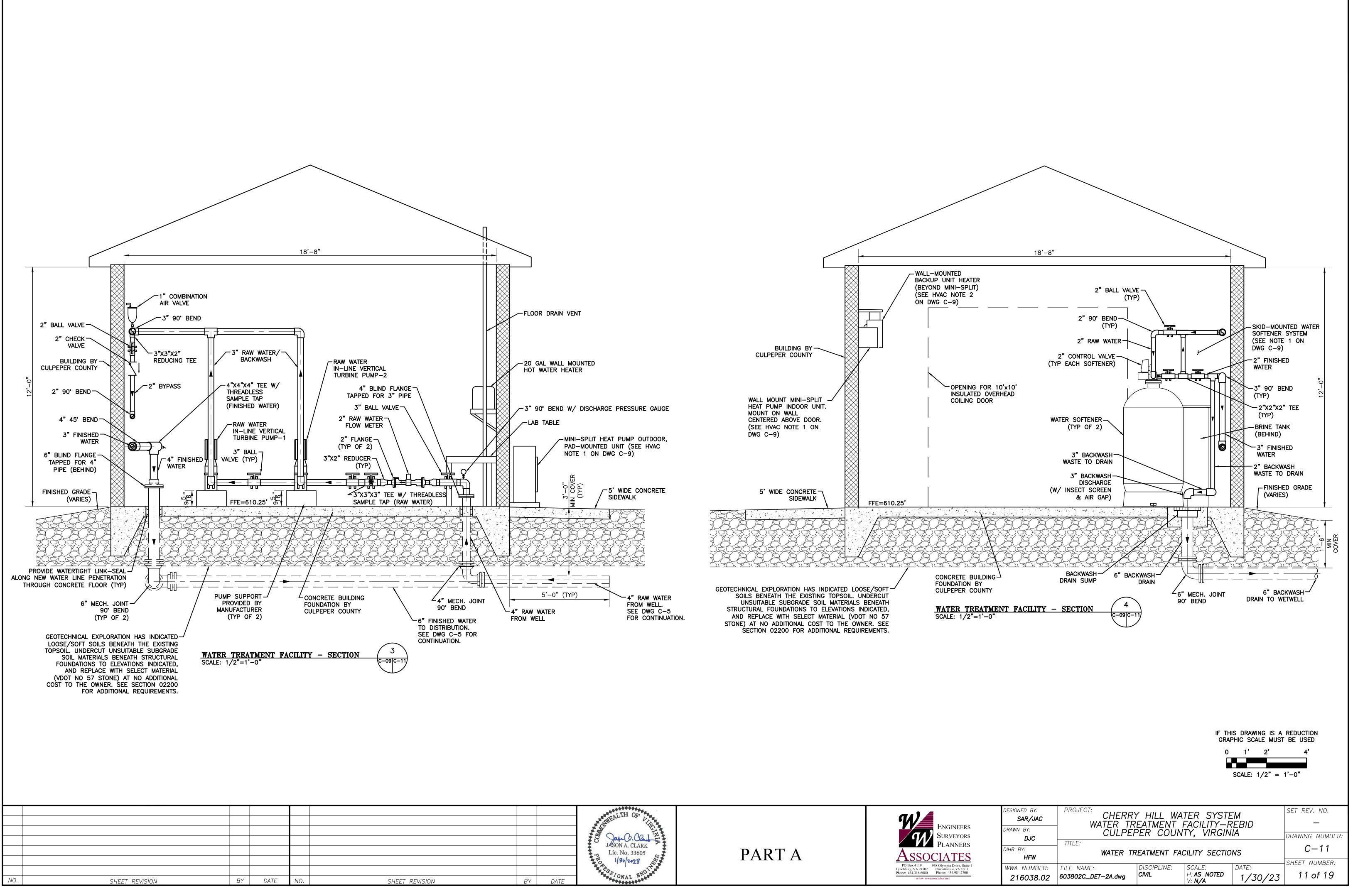


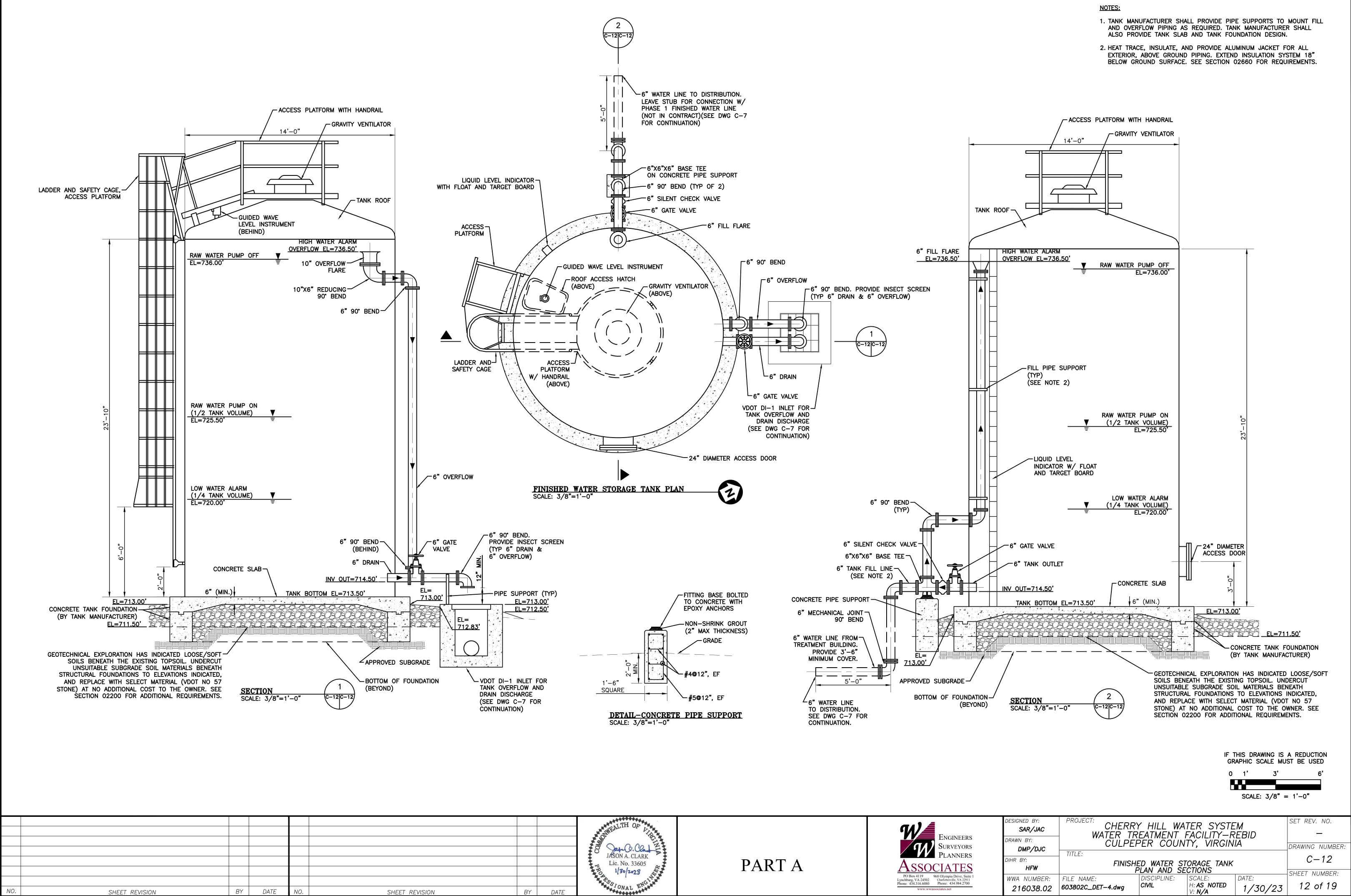
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WATER 3"x2" 3" RAW WATER 1" COMBINATION	
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(NORMALLY CLOSED)	×
WATER 2" CHECK VALVE	
3" CHECK 2" BYPASS 2" BYPA	Ŕ
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2"X2"X2" TEE 2"X2"X2" TEE 3"X3"X3" TEE W/7	
THREADLESS SAMPLE TAP W/ FLOW SWITCH THREADLESS SAMPLE TAP	
A A A A A A A A A A A A A A A A A A A	
W/- 3" BACKWASH - 6" BACKWASH - ( ) 2 X2 X2 TEE - / 6" BLIND FLANGE TAPPED - ( ) W/ DISCHARGE / PUMP SUPPORT - 6" BLIND FLANGE TAPPED - (	
& AIR GAP) 2" CHECK VALVE -/ (TYP OF 2) 6" FINISHED WATER -/ (TYP OF 2) TO DISTRIBUTION	
L 2"X2"X2" TEE W/ SUCTION COMPOUND	
PRESSURE GAUGE	
WATER TREATMENT FACILITY - SECTION	
GEOTECHNICAL EXPLORATION HAS INDICATED LOOSE/SOFT SOILS BENEATH THE EXISTING TOPSOIL. UNDERCUT	
Mana UNSUITABLE SUBGRADE SOIL MATERIALS BENEATH	
STRUCTURAL FOUNDATIONS TO ELEVATIONS INDICATED, AND REPLACE WITH SELECT MATERIAL (VDOT NO 57	
STONE) AT NO ADDITIONAL COST TO THE OWNER. SEE DRAIN SECTION 02200 FOR ADDITIONAL REQUIREMENTS.	

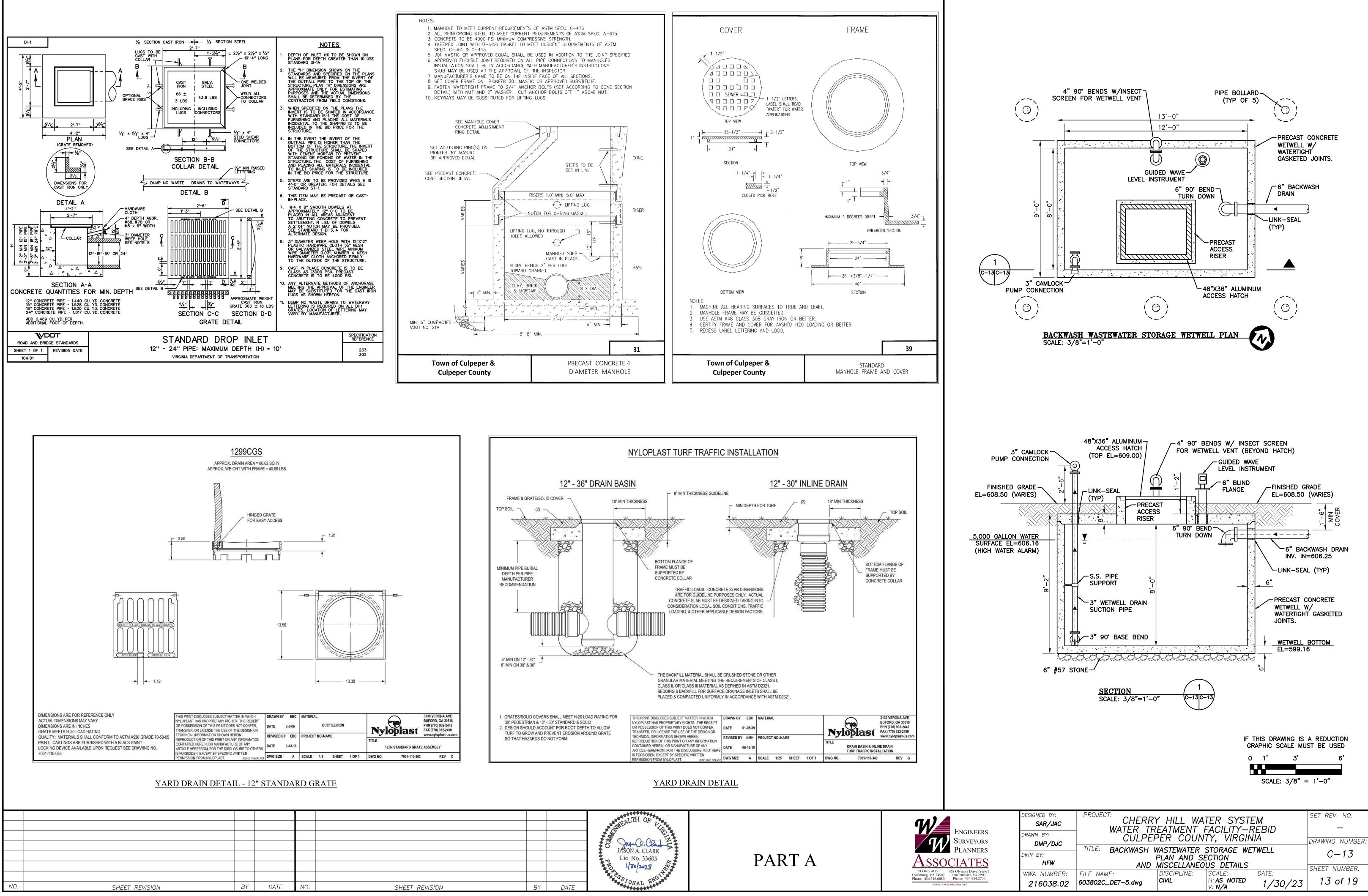




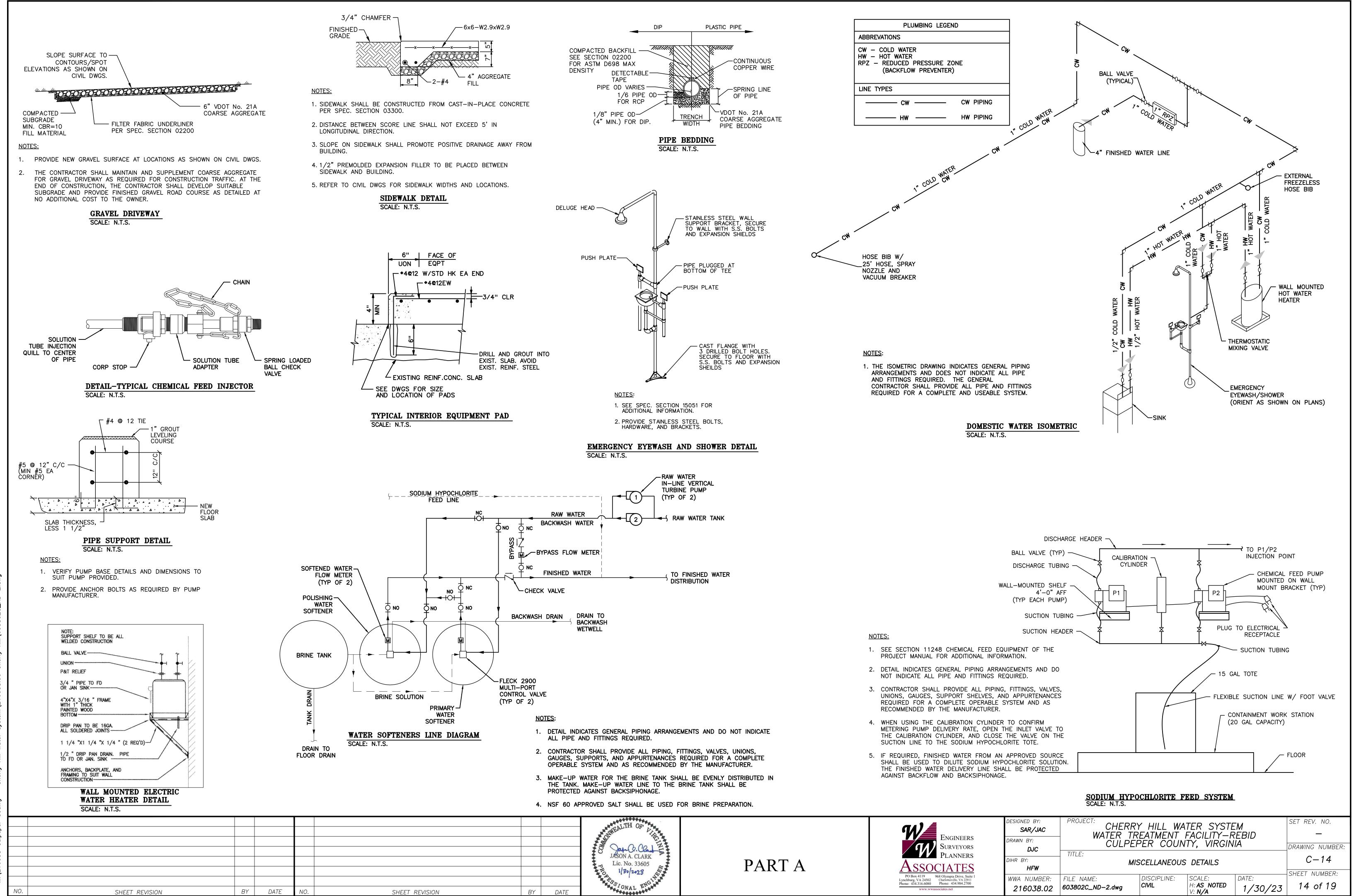


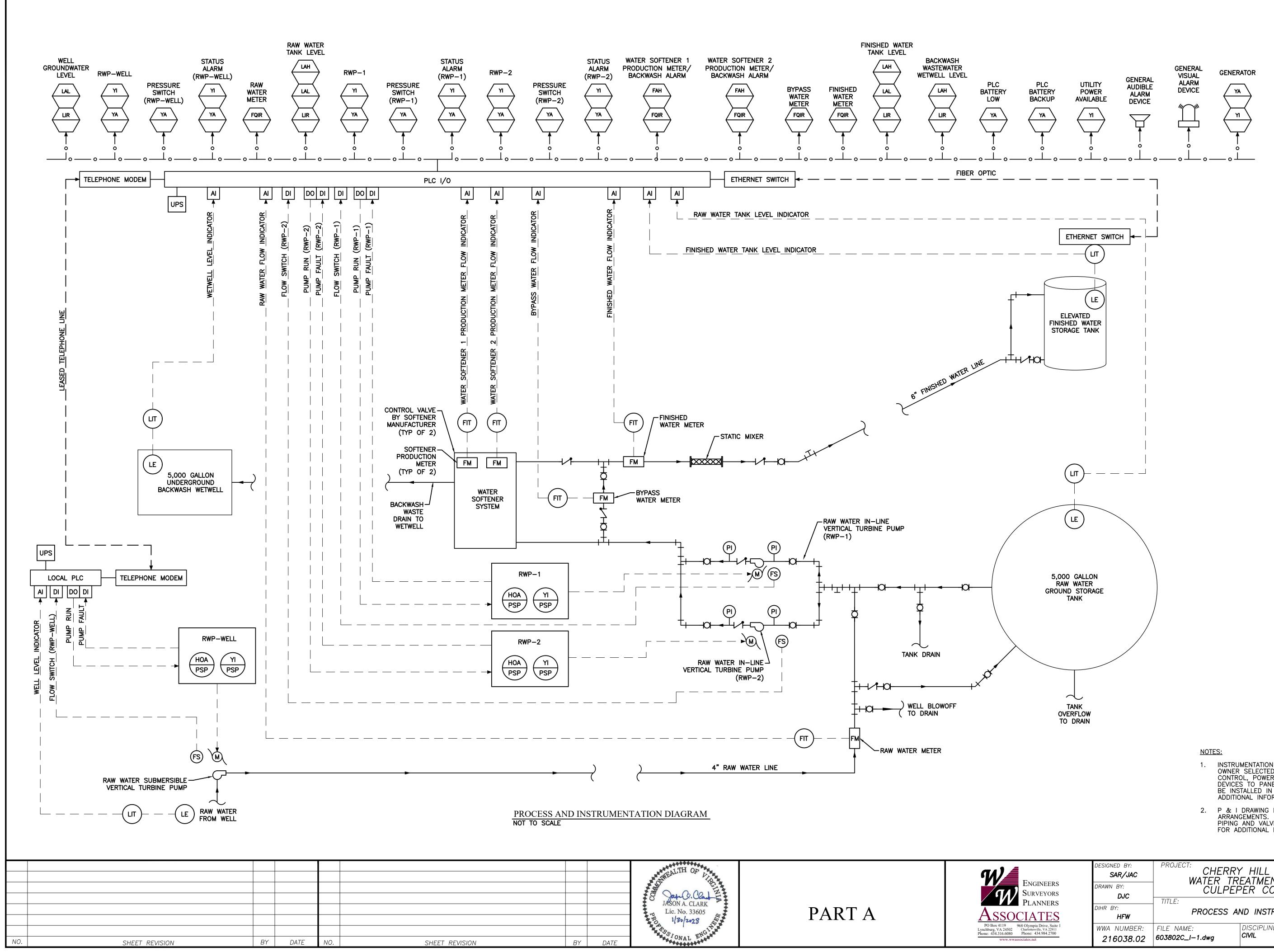






							A REDUCTION ST BE USED
				C	) 1'	3'	6'
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						578 -	1 –0
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	DESIGNED BY:	PROJECT: CHERRY	' HILL WA	TER SYST			SET REV. NO.
EERS	SAR/JAC	U CHERRY		FACILITY-I	EM REBID		
	SAR/JAC	U CHERRY		FACILITY-I	EM REBID		SET REV. NO.
EERS YORS VERS	SAR/JAC DRAWN BY: DMP/DJC	CHERRY WATER TRE CULPEP	EATMENT I ER COUN ASTEWATER	FACILITY—I TY, VIRGIN STORAGE WE	EM REBID NA		SET REV. NO.  DRAWING NUMBE
YORS	SAR/JAC	CHERRY WATER TRE CULPEP TITLE: BACKWASH W, P	EATMENT I ER COUN ASTEWATER PLAN AND SE	FACILITY—I TY, VIRGIN STORAGE WE SCTION	EM REBID NA	-	SET REV. NO. — DRAWING NUMBE C—13
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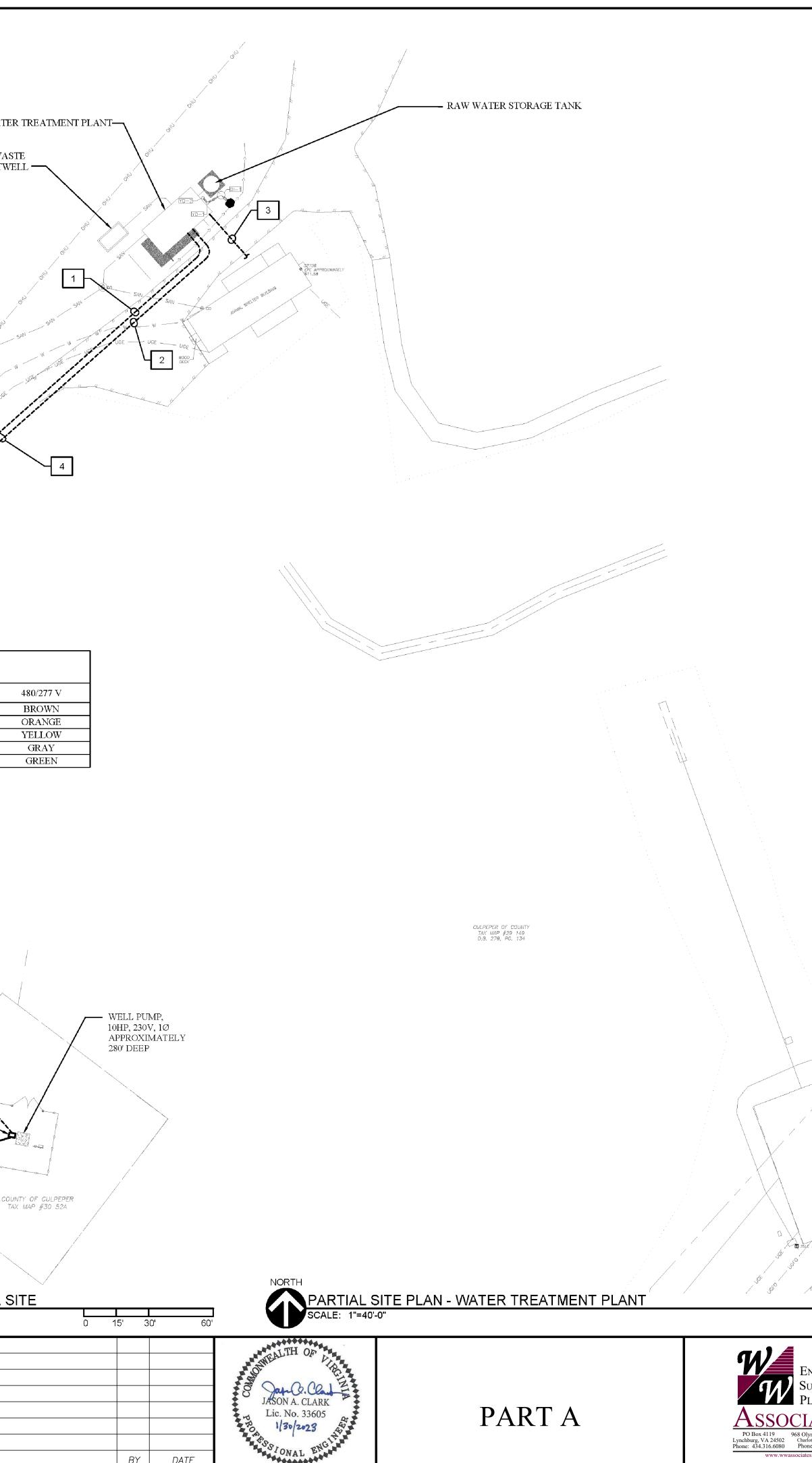
ABBRE	<u> EVIATIONS – P &amp; I DIAGRAM</u>
AI	ANALOG INPUT
AO ARV	ANALOG OUTPUT AIR RELEASE VALVE
DI	DISCRETE INPUT
DO FAH	DISCRETE OUTPUT FLOW ALARM HIGH
FE FIR	FLOW ELEMENT FLOW INDICATING RECORDER
FIR	FLOW INDICATING RECORDER
FQIR FM	FLOW TOTALIZING INDICATOR/RECORDER FLOW METER
FO	FIBER OPTIC
FS HOA	FLOW SWITCH HAND/OFF/AUTO
LAH	LEVEL ALARM HIGH
LAL LE	LEVEL ALARM LOW LEVEL ELEMENT
LI LIR	LEVEL INDICATOR LEVEL INDICATOR RECORDER
LIK	LEVEL INDICATOR TRANSMITTER
LS LSH	LEVEL SWITCH LEVEL SWITCH HIGH
LSL	LEVEL SWITCH LOW
LY PE	LEVEL RELAY PRESSURE TRANSDUCER
PI	PRESSURE INDICATOR
PIT PLC	PRESSURE INDICATOR TRANSMITTER PROGRAMMABLE LOGIC CONTROLLER
PSC PSP	PUMP SPEED CONTROLLER PUMP STARTER PANEL
UPS	UNINTERRUPTIBLE POWER SUPPLY
VFD YA	VARIABLE FREQUENCY DRIVE STATUS ALARM
ΥI	STATUS INDICATION (ON/OFF)
<u>LEGEN</u>	ID – P & I DIAGRAM
XXX YYY	FIELD MOUNTED INSTRUMENT XXX INDICATES TYPE OF INSTRUMENT
XXX YYY	FRONT-OF-PANEL MOUNTED INSTRUMENT - NORMALLY ACCESIBLE TO OPERATOR
$\bigcirc$	VIRTUAL DEVICE (INTERNAL TO PLC)
$\bigcirc$	COMPUTER INSTRUMENTATION FUNCTION (VIRTUAL INSTRUMENT – ACCESSIBLE TO OPERATOR AT REMOTE COMPUTER)
XX	PLC I/O POINT - XX INDICATES I/O TYPE
FM	FLOW METER
PI	PRESSURE GAUGE
$\square$	AUDIBLE ALARM DEVICE
	ELECTRICAL SIGNAL
	TELEPHONE/FIBER OPTIC LINE
<u> </u>	SIGNAL INTERNAL TO COMPUTER OR PLC
~~~~	UNGUIDED ELECTROMAGNETIC OR SONIC SIGNAL
-101-	BALL VALVE
┥┥⊢	BUTTERFLY VALVE
-1001-	CONTROL VALVE
	GATE VALVE
	CHECK VALVE
$\bigcirc$	PUMP
	PIPING OR EQUIPMENT – PART OF PROCESS FLOW
	STATIC MIXER

INSTRUMENTATION AND CONTROLS (IC) WORK WILL BE PERFORMED BY OWNER SELECTED IC CONTRACTOR. CONTRACTOR SHALL PROVIDE ALL CONTROL, POWER AND STATUS WIRING AS INDICATED FROM FIELD DEVICES TO PANEL MOUNTED DEVICES AND PLC. ALL WIRING SHALL BE INSTALLED IN CONDUIT. SEE SPEC. SECTION 13700 FOR ADDITIONAL INFORMATION ON CONTRACTOR RESPONSIBILITIES.

2. P & I DRAWING DOES NOT INDICATE ALL PIPING AND VALVE ARRANGEMENTS. SEE DETAILED CIVIL DRAWINGS FOR ACTUAL PIPING AND VALVE ARRANGEMENTS. SEE SPEC. SECTION 13709 FOR ADDITIONAL INFORMATION ON SEQUENCE OF OPERATION.

	DESIGNED BY: <b>SAR/JAC</b>		WATER TREATMENT FACILITY-REBID								
GINEERS	DRAWN BY:			TY, VIRGIN							
RVEYORS	DJC			II, VINGIN		DRAWING NUMBER:					
ANNERS ATES	DIHR BY: <b>HFW</b>		TITLE: PROCESS AND INSTRUMENTATION DIAGRAM								
pia Drive, Suite 1 swille, VA 22911 434.984.2700 tet	WWA NUMBER: 216038.02	FILE NAME: 603802C_I-1.dwg	DISCIPLINE: CIVIL	SCALE: H: AS_NOTED	DATE: <b>1/30/23</b>	SHEET NUMBER: 15 of 19					
	210000.02			V: <b>N/A</b>	1/00/20						

LEGEND	HOMERUN TO POWER PANEL	_			
-					
	CONDUIT RUN				
	- GROUND CONDUCTOR				WATEF
0					*****
ອ	CONDUIT TURNING DOWN			BACKWASI STORAGE V	
S	SINGLE POLE SWITCH				
<b>P</b>	GFI DUPLEX RECEPTACLE, NEMA 5-20				
<b>†</b>	QUAD RECEPTACLES (2) NEMA 5-20				
φ	SIMPLEX RECEPTACLE, NEMA L6-20				
Q	JUNCTION BOX				
	MOTOR				EP
D	SAFETY SWITCH, NONFUSIBLE			/	SAN
<b></b>	MOLDED CASE CIRCUIT BREAKER	OF (E) 480V	ATE LOCATION SERVICE (NEAR DLLECTION SITE)	SAN SAN	, W
۲	COPPER CLAD 3/4" DIAMETER X 10' LONG GROUND ROD		SAN SAN	Sm W W USE	JOE
1	GROUND		5AN	W the star	K
Ē	LED LIGHTING FIXTURE SEE LIGHT FIXTURE SCHEDULE	5141	W	58	
<u>—</u>	LED LIGHTING FIXTURE, WALL MOUNTED		W JEE		
·□ 墜	COMBINATION EGRESS LED LIGHT FIXTURE, WALL MOUNTED	W	WE WE MAN		
± ©S	DUAL TECHNOLOGY OCCUPANCY SENSOR	USE -			
	480/277 VOLT PANELBOARD	A.			
	208/120 VOLT PANELBOARD				
<u>ABBREVIA</u>	TIONS				
A,AMP	AMPERE	CONDUC	TOR COLO	R CODE	
AFF AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GROUND	CONDUCTOR	120/240 V	208/120 V	
ATS BCSD	AUTOMATIC TRANSFER SWITCH BARE COPPER SOFT DRAWN	φA	BLACK	BLACK	
BKR	BREAKER	φB φC	RED	RED BLUE	
C CKT	CONDUIT CIRCUIT	NEUTRAL	WHITE	WHITE	
CONC	CONCRETE	GROUND	GREEN	GREEN	1
DWG (E)	DRAWING EXISTING				
ECB EGC	ENCLOSED CIRCUIT BREAKER EQUIPMENT GROUNDING CONDUCTOR				
FVNR	FULL VOLTAGE NON-REVERSING				
G GEN	GROUND GENERATOR				
GFI HP	GROUND FAULT INDICATOR HORSEPOWER				
HZ	HERTZ				
kcmil kVA	THOUSAND CIRCULAR MILS KILOVOLT AMPERE				
kW MCB	KILOWATT MAIN CIRCUIT BREAKER				1
MIN	MINIMUM		<b>x</b>	ر ح	
MISC MTD	MISCELLANEOUS MOUNTED				$\sim$
NEC NEMA	NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION		<b>S</b>		
N, NEUT	NEUTRAL	HILL, JAMES TAX M D.	MALCOLM ET UX MP #30 52 .B. 171		
PH PSKVA	PHASE PEAK STARTING KILOVOLT AMPERES	U.			
PVC RMS	POLYVINYL CHLORIDE CONDUIT ROOT MEAN SQUARE		WELL SITE ELECTRICA		
RTM	RUN TIME METER		ELECTRICA SERVICE RA		•
SCH SYM	SCHEDULE SYMMETRICAL				Y.
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION		/	B	$\rightarrow$
TWSP TYP	TWISTED SHIELDED PAIR TYPICAL		$\leq$		la
UGC V	UNDERGROUND CONDUIT VOLTS				
VFD	VARIABLE FREQUENCY DRIVE				COUI TA
W WP	WIRE WEATHERPROOF				
WTP XFMR	WATER TREATMENT PLANT TRANSFORMER				
		NORTH	I		
				E PLAN - WE	LL S
			SCALE: 1"=30'-0"		
	SHEET REVISION BY	DATE NO.		SHEET REVISION	



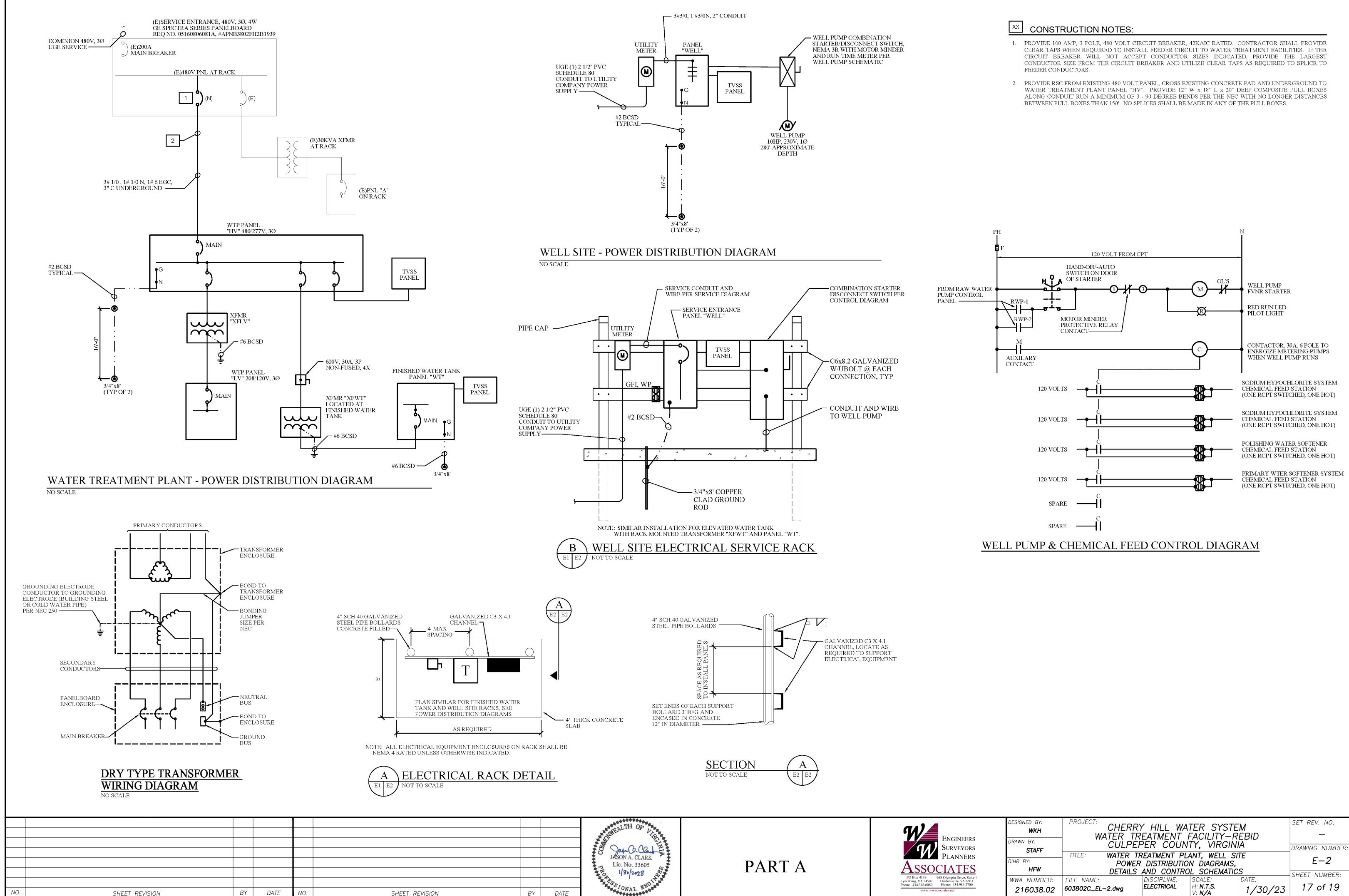
# GENERAL NOTES:

- 1. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND INDICATE THE GENERAL AND APPROXIMATE LOCATION OF EQUIPMENT AND CONSTRUCTION. FIELD-VERIFY ALL DIMENSIONS AND LOCATIONS. INDICATED UNDERGROUND OBSTRUCTIONS WERE DEVELOPED FROM EXISTING RECORDS AND ABOVE-GROUND INSPECTION. ACCURACY OR COMPLETENESS OF LOCATION AND DEPTH OF UNDERGROUND UTILITIES AND STRUCTURES CANNOT BE GUARANTEED. VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND FACILITIES BEFORE STARTING WORK.
- 2. THESE DRAWINGS DO NOT INDICATE ALL FITTINGS, PARTS AND ACCESSORIES THAT ARE REQUIRED FOR A COMPLETE AND FUNCTIONAL SYSTEM. NO EXCLUSION FROM OR LIMITATION IN THE SYMBOLISM USED ON THE DRAWINGS FOR THE WORK, OR THE LANGUAGE USED IN THE SPECIFICATIONS FOR THE WORK SHALL BE INTERPRETED AS A REASON FOR OMITTING THE APPURTENANCES OR ACCESSORIES NECESSARY TO COMPLETE AND REQUIRED WORK, SYSTEM, OR ITEM OF EQUIPMENT.
- 3. ALL ELECTRICAL WORK ON THIS PROJECT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2012 VIRGINIA UNIFORM STATEWIDE BUILDING CODE AND THE NFPA 70-2014 (NATIONAL ELECTRICAL CODE).
- 4. COORDINATE ARRANGEMENT, MOUNTING, AND SUPPORT OF ELECTRICAL EQUIPMENT TO AVOID INTERFERENCES WITH ELECTRICAL AND OTHER TRADES. COORDINATE WORK WITH SITE FEATURES, AND OTHER CONSTRUCTION WHETHER OR NOT SUCH IS SHOWN ON THE DRAWINGS. SET SLEEVES IN CAST-IN-PLACE CONCRETE, AS THEY ARE CONSTRUCTED. COORDINATE AMPACITY, VOLTAGE, PHASING, OVERCURRENT PROTECTION, AND LOCAL DISCONNECT REQUIREMENTS WITH ACTUAL EQUIPMENT PROVIDED.
- 5. MAINTAIN A SET OF AS-BUILT RED-LINE MARKUPS INDICATING ACTUAL INSTALLATION. DELIVER TO OWNER AT CONCLUSION OF PROJECT.
- 6. CONTRACTOR SHALL ADVISE ENGINEER IMMEDIATELY OF DISCREPANCIES WITHIN DRAWINGS. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO AVOID MINOR CONFLICTS. WHERE MAJOR CONFLICTS ARE ENCOUNTERED, THE AFFECTED WORK SHALL NOT BE INSTALLED UNTIL THE CONFLICT HAS BEEN RESOLVED. THE ENGINEER IS NOT RESPONSIBLE FOR THE CONSEQUENCES OF PROCEEDING WITH WORK BASED ON CONTRACTOR INTERPRETATION OR ON DIRECTION FROM OTHER PARTIES.
- 7. SEE SPECIFICATIONS FOR COMPLETE DETAILS ON EQUIPMENT TO BE PROVIDED.

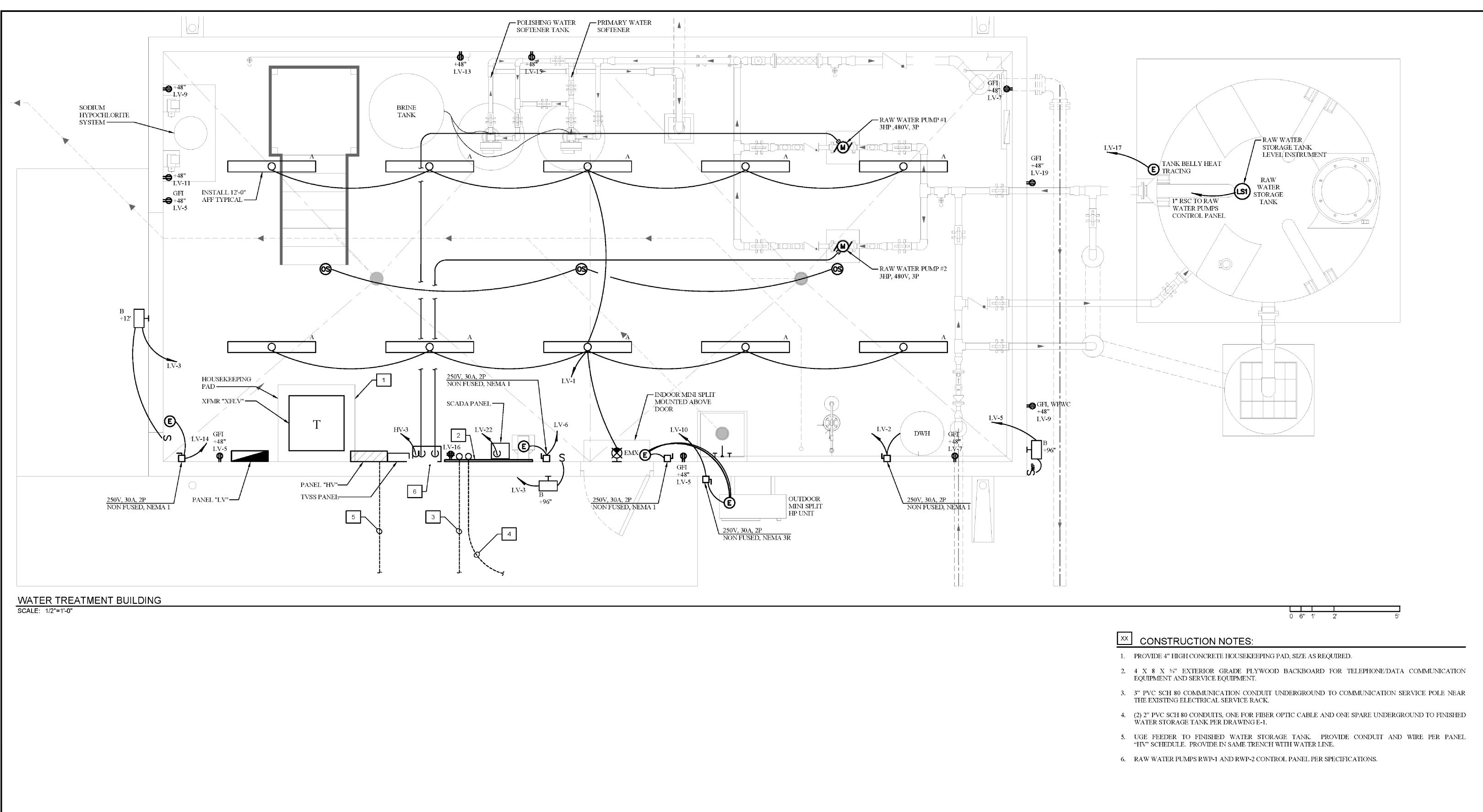
# CONSTRUCTION NOTES:

- 1. UNDERGROUND ELECTRICAL SERVICE CONDUIT FROM EXISTING 200 AMP, 480 VOLT, 3 PHASE SERVICE PANEL. PROVIDE CONDUIT AND WIRE PER WATER TREATMENT PLANT ELECTRICAL SERVICE DIAGRAM.
- 2. UNDERGROUND TELEPHONE/DATA SERVICE CONDUIT FROM EXISTING SERVICE RACK. PROVIDE 3" PVC SCHEDULE 80 CONDUIT FROM SERVICE POLE TO WATER TREATMENT PLANT EQUIPMENT BACKBOARD.
- 3. (2) 2" PVC SCH 80 CONDUITS (ONE FOR POWER AND ONE FOR COMMUNICATIONS) FROM THE WATER TREATMENT PLANT UNDERGROUND TO THE FINISHED WATER STORAGE TANK, ELECTRICAL SERVICE RACK. PROVIDE FEEDER CONDUCTORS FROM PANEL "HV" TO RACK PER PANEL SCHEDULE. PROVIDE A 20 x 20 x 10" DEEP NEMA 4 ENCLOSURE ON ELECTRICAL RACK FOR COMMUNICATION EQUIPMENT. ENCLOSURE SHALL HAVE A HINGED DOOR AND RATED FOR EXTERIOR INSTALLATION.
- 4. PROVIDE PULL BOXES ALONG POWER AND TELEPHONE/COMMUNICATION CONDUITS AT A MAXIMUM OF 150' SPACING FROM EXISTING 480 VOLT ELECTRICAL SERVICE RACK NEAR THE REFUSE COLLECTION SITE TO THE WATER TREATMENT FACILITY. INSTALL PULL BOXES SEPARATE FOR POWER AND COMMUNICATIONS PER DETAIL ON DRAWING E-4.
- 5. PROVIDE (2) 2 1/2" PVC SCH 80 CONDUITS (1) FOR UNDERGROUND ELECTRIC SERVICE FROM WELL PUMP ELECTRIC SERVICE RACK TO UTILITY SERVICE POLE AND (1) FOR UNDERGROUND TELEPHONE/DATA CABLES FROM COMMUNICATION UTILITY.

	/3	WATER STORAGE TANK POWER PANEL "WT"				
			TED FINISH WATE BE TANK	R		
TOWER LOCATION & ASSOCIATED BUILDINGS				-E		
E PED THE WAY	All and a second s	L I 0 20'		30'		
UNGINEERS URVEYORS LANNERS ATES Jympia Drive, Suite 1 diotesville, VA 22911 one: 434,984,2700	DESIGNED BY: WKH DRAWN BY: STAFF DIHR BY: HFW WWA NUMBER:	WATER TR CULPEF TITLE: LEGENDS, AL AND FILE NAME:		FACILITY—R TY, VIRGIN , general n <u>fe plans</u>  scale:	PEBID IA IOTES DATE:	SET REV. NO. — DRAWING NUMBER: E—1 SHEET NUMBER: 16 -6 10
tes.net	216038.02	603802C_EL-1.dwg	ELECTRICAL	H: <b>N.T.S.</b> V: <b>N/A</b>	1/30/23	16 of 19



	DESIGNED BY: <b>WKH</b>	PROJECT: CHERRY		TER SYSTE FACILITY—R		SET REV. NO.					
ÈNGINEERS URVEYORS	DRAWN BY: <b>STAFF</b>			TY, VIRGINI	1	DRAWING NUMBER:					
	DIHR BY:										
IATES Nympia Drive, Suite 1 rlottesville, VA 22911	<b>HFW</b> WWA NUMBER:		AND CONTRO	L SCHEMATIC SCALE:	<b>S</b> DATE:	SHEET NUMBER:					
rlottesville, VA 22911 one: 434.984.2700 tes.net	216038.02	603802C_EL-2.dwg		H: <b>N.T.S.</b> V: <b>N/A</b>	1/30/23	17 of 19					





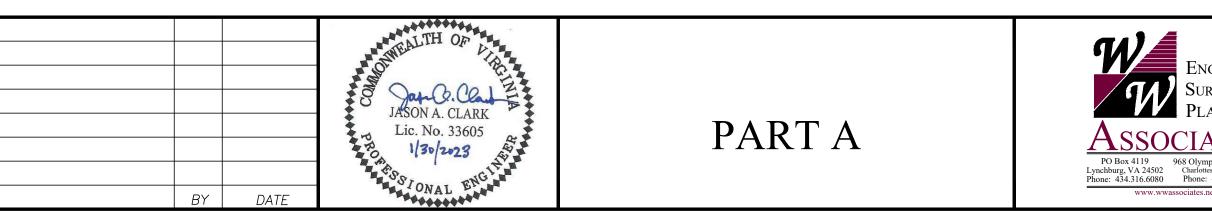
SHEET REVISION

DATE

NO

BY

SHEET REVISION



SET REV. NO.
—
DRAWING NUMBER:
E-3
SHEET NUMBER:
18 of 19

	PANEL	"HV"	SCHEDULE
--	-------	------	----------

PANELBOARD CHARACTERISTICS:

PHASE TO PHASE VOLTS:480PHASE TO NEUT. VOLTS:277

	1111111	Borne ennereredities.			TIMIOL	TOTILO	I. JOLIC		211				
		3: 480/277											
	PHA SE						CIRCUIT						
	WIRES				MINIMUM SHORT CIRCUIT RATING: 42,000 RMS SYM AMPS NEMA 1 RATED, DOOR -IN-DOOR CONSTRUCTION								
	SOLID	NEUTRAL, GROUND BAR			NEMA :	1 RA TEL	, DOOR -	IN-DC	OOR CO	NSTRUCT	ION		
CKT.				CONN.	CONN. AMPS						& WIRE	COND.	
NO.	NO.	DESCRIPTION	TYPE	KVA	A	B	C	Р	AT	PHASE	NEUT.	GND	SIZE
	1				9.6			, in the second s		10			
3	3	RAW WATER PUMP #1 & #2	E	8.0		9.6		3	30	10	-	10	1"
	5	PUMP CONTROL PANEL					9.6			10			
	7												
9	9	SPARE						3	20				
	11												
	13												
15	15	SPARE						3	15				
	17												
	19												
21	21	SPARE						3	20				
	23												
	25												
27	27	SPARE						3	30				
21	29							U					
	2				36.1					6			
4	4	TRANSFORMER "XFLV"	Е	30.0	50.1	36.1		3	45	6	-	10	1"
	6	FINISHED WA TER TREA TMENT PLANT	2	50.0		50.1	36.1	2	15	6		10	1
	8				18.0		50.1			1			
10	10	TRANSFORMER "XFWT"	Е	15	10.0	18.0		3	25	1	_	3	2"
10	10	ELEVA TED WATER TANK FEED	L	15		10.0	18.0	5	25	1		5	<i>2</i> ,
	14				0.1		10.0			6			
16	16	TVSS	Е	0.1	0.1	0.1		3	60	6	6	6	1/1/2"
10	18		L	0.1		0.1	0.1	2	00	6	U	U	1/1/2
20	20	SPACE					V.1	1	<u> </u>	0			
20	20	SPACE						1					
24	24	SPACE						1					
24	24	SPACE						1					
28	28	SPACE	+					1					
30	30	SPACE	+					1					
50	30	TOTALS		53.1	63.9	63.9	63.9	1					
		TUTALS		33.1	03.9	03.9	03.9						

	IA	NEL "LV" SCHEDULE			PHASE	TO PHA	SE VOLT	5:	208				
	PANEL	BOARD CHARACTERISTICS:			PHASE	TO NEU	T. VOLTS	S:	120				
	VOLTS	: 120/208											
	PHA SE	S: 3			100 A M	P MAIN	CIRCUIT	BREA	KER				
	WIRES							UIT R	A TING:	14,000 RI	MS SYM	AMPS	
	SOLID	NEUTRAL, GROUND BAR			NEMA								- 21
CKT.	POLE			CONN.	CO	NN. AN	ALC: NO ALC: NO	BRF	AKER		& WIRE		CON
NO.	NO.	DESCRIPTION	TYPE	KVA	A	B	C	P	AT	PHASE	NEUT.	GND	
1	1952	INTERIOIR LIGHTING	L	1.0	8.3			1	20	12	12	12	3/4'
3	3	EXTERIOR LIGHTING	L	1.0		8.3		1	20	12	12		
5	5	RECEPTACLES	R	0.6			5.0	1	20	12	12	12	3/4"
7	7	RECEPTACLES	R	0.6	5.0			1	20	12	12		
9	9	SODIUM HYPOCHLORITE FEED RECEPTA CLE	R	0.5		4.2		1	20	12	12	12	3/4'
11	11	SODIUM HYPOCHLORITE FEED RECEPTA CLE	R	0.5			4.2	1	20	12	12		
13	13	POLISHING WATER SOFTNER FEED RECEPTACLE	R	0.5	4.2			1	20	12	12	12	3/4'
15	15	PRIMARY WATER SOFTENER FEED RECEPTACLE	R	0.5		4.2		1	20	12	12		
17	17	RAW WATER TANK, BELLY HEAT TRACING	E	1.6			13.3	1	20	12	12	12	3/4'
19	19	EXTERIOR RECEPTACLE AT RAW WATER TANK	R	0.2	1.7			1	20	12	12		
21	21	SPARE						1	20				
23	23	SPARE						1	20				
25	25	SPARE						1	20				
27	27	SPARE						1	20				
29	29	SPARE						1	20				
2	2	DOMESTIC WATER HEATER	M	4.5	21.6			2	30	10	-	10	3/4'
	4					21.6				10	1		
6	6	SPARE						2	30				
	8										1		
10	10	MINI-SPLIT UNIT	M	2.0		9.6		2	15	12	12	12	3/4'
	12						9.6			12	1		
14	14	ROLL UP DOOR	E	1.6	13.3			1	25	10	10	10	3/4"
16	16	COMMUNICA TION BA CKBOA RD RCPT	E	0.6		5.0		1	20	12	12	12	3/4'
18	18	SPARE						2	20				
	20										1		
22	22	DA TA/COMMUNICATION PANEL	E	0.5		4.2		1	20	12	12	12	3/4"
24	24	SPA CE						1					
26	26	SPACE						1					1
28	28	SPA CE						1				1	<u> </u>
30	30	SPACE						1					<u> </u>
		TOTALS	•		54.1	57.1	32.1				•		

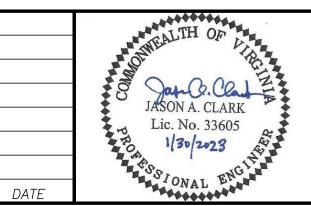
				•	
10.	SHEET REVISION	BY	DATE	NO.	SHEET REVISION

	PA	NEL "WELL" SCHEDUL	Æ		PHASETO	) PHA SE VO	)LTS:	240				
	PANEI	BOARD CHARACTERISTICS:			PHASE TO	D NEUT. VO	LTS:	120				
	VOLTS	: 120/240										
	PHASE	S: 1			200 MAIN CIRCUIT BREAKER							
	WIRES					A SHORT C					PS	
	SOLID NEUTRAL, GROUND BAR					RENCLOSU	-					
CKT.	POLE					AMPS		AKER		& WIRE S		COND.
NO.	NO.	DESCRIPTION	TYPE	KVA	A	В	Р	AT	PHASE	NEUT.	GND	SIZE
1	1	WELL PUMP	E	13.2	55.0		2	100	1	Ξ.	6	1 1/2"
	3	10HP PUMP, APPROX 280' BELOW GRADE				55.0			1			
5	5	SPARE					2	30				
	7											
9	9	PLC MODEM	E	0.1	0.8		1	20	12	12	12	3/4"
11	11	SPACE					1					
13	13	SPACE					1					
15	15	SPACE					1					
17	17	SPACE					1					
19	19	SPARE					1					
2	2	HEAT TRACING	E	1.0	8.3		1	20	12	12	12	3/4"
4	4	HEAT TRACING	E	1.0		8.3	1	20	12	12		
6	6	TVSS PANEL	E	0.1	0.4		2	60	6	6	6	1 1/4"
	8					0.4			6			
10		SPARE					1	20				
12	12	SPARE					1	20				
14	14	SPARE					1	20				
16	16	SPARE					1	20				
18	18	SPARE					1	20				
20	20	SPARE					1	20				
		TOTALS		15.4	64.6	63.8						

	PA	NEL "WT" SCHEDULE			PHASE	TO PHA	SE VOLT	S:	208				
	PANEL	BOARD CHARA CTERISTICS:		PHASE TO NEUT. VOLTS: 12			120	120					
	VOLTS	: 120/208											
	PHASE	S: 3		60 AMP MAIN CIRCUIT BREAKER									
	WIRES	: 4			MINIM	UM SHO	RT CIRC	UIT RA	TING:	14,000 RM	MS SYM	AMPS	
	SOLID	D NEUTRAL, GROUND BAR NEMA 3R ENCLOSURE, LOCATED AT FINISHED WATER TANK										X	
CKT.	POLE		LOAD	CONN.	. CONN. AMPS			BREAKER NO. & WIRE SIZE			COND.		
NO.	NO.	DESCRIPTION	TYPE	KVA	Α	B	С	Р	AT	PHA SE	NEUT.	GND	SIZE
1	1	HEAT TRACING	M	1.0	8.3			1	20	12	12	12	3/4"
3	3	HEAT TRACING	M	1.0		8.3		1	20	12	12		
5	5	RECEPTACLE	R	0.2			1.7	1	20	12	12	12	3/4"
7	7	SPARE						1	20				
9	9	SPARE						1	20				
11	11	SPARE						1	20				
2	2	PLC/ETHERNET SWITCH	E	0.2	1.7			1	20	12	12	12	3/4"
4	4	TVSS PANEL	E	0.1		0.5		2	60	6	6	6	1 1/4"
	6						0.5			6			
8		SPACE						1					
10	10	SPACE						1					
12		SPACE						1					
		TOTALS			10.0	<mark>8.8</mark>	2.1						

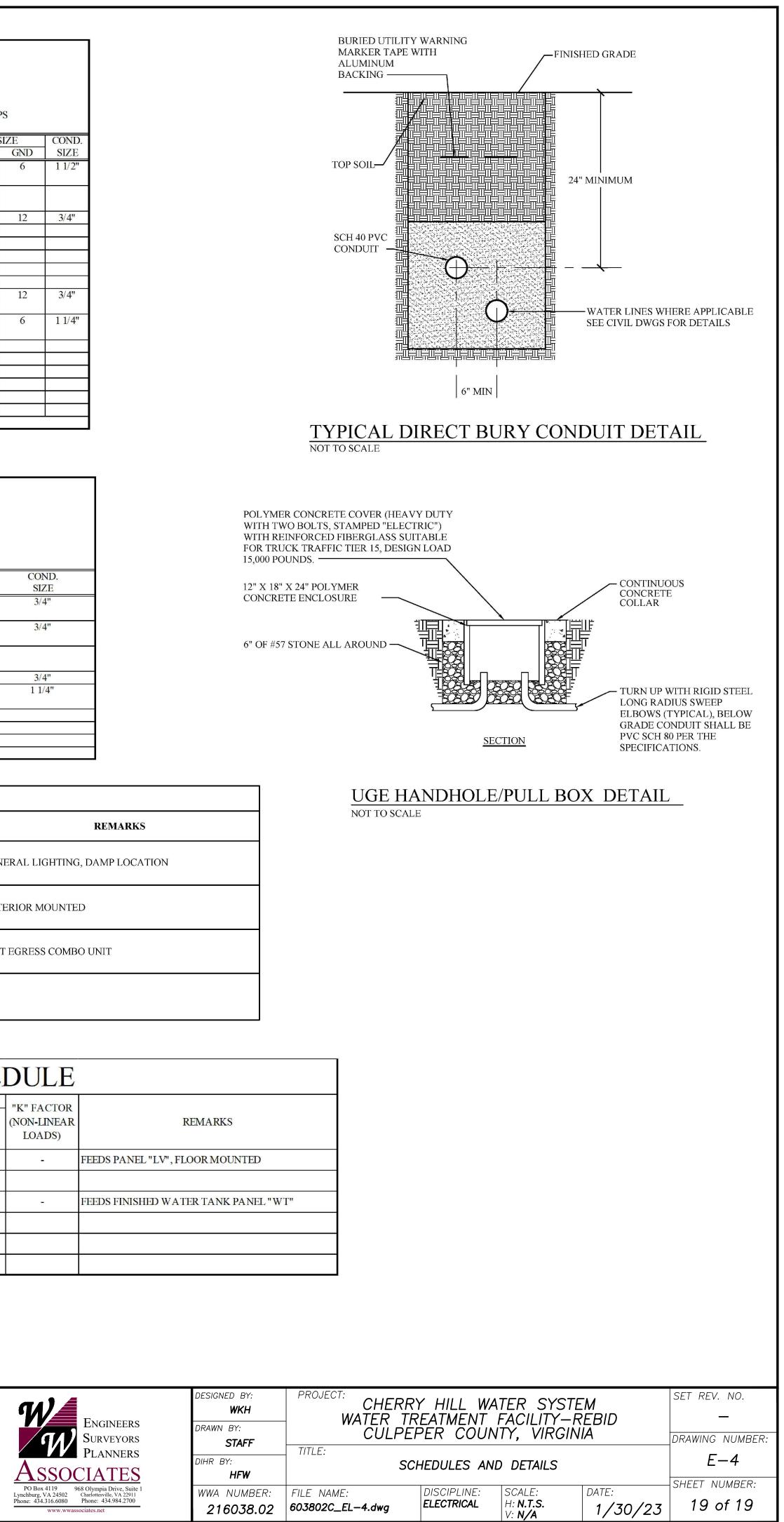
LIG	LIGHTING FIXTURE SCHEDULE									
SYM	BASIS OF DESIGN	VOLTS	VOLT-AMP S	MOUNTING	LAM	IPS	RE			
5110	MANUFACTURER AND MODEL	VOLIS		Moentinto	LUMENS	TYPE				
А	LITHONIA FEM L48 8000LM LPACL MD MVOLT 50K 90CRI WLFEND2	120	69	SURFACE	8000	LED'S	GENERAL LIGHTING, DAM			
В	LITHONIA TWR1-LED-P4-50K-MVOLT-DDBTXD	120	51	WALL	5550	LED'S	EXTERIOR MOUNTED			
EMX	LITHONIA LHQM-LED-R-HO	120	0.04	WALL	-	LED'S	EXIT EGRESS COMBO UNI			
NOTES:	•									

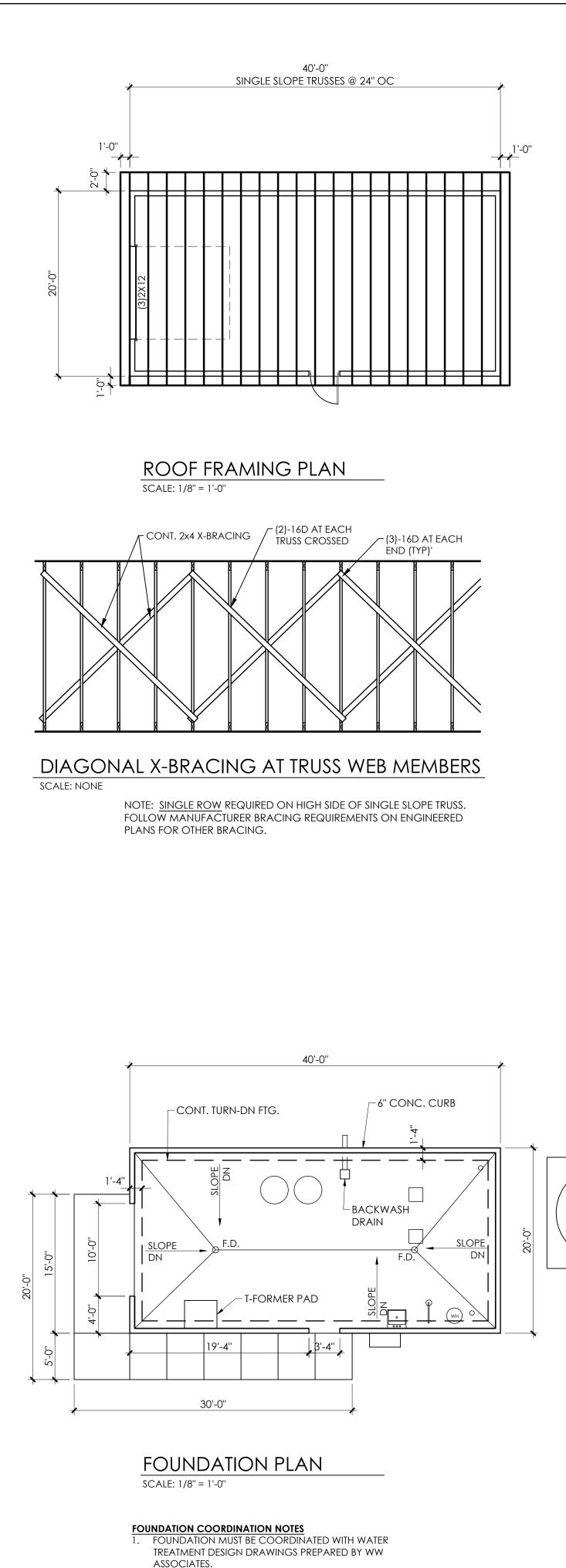
· <u> </u>				ž		÷						
	POWER TRANSFORMER SCHEDULE											
DESIGNATION	TYPE	NUMBER PHA SES	KVA	MINIMUM IMPEDENCE IN %	VOLTA GE		LOAD CIRCUIT DAT. WIRE NUMBER & SIZE			A CONDUIT	"K" FACTOR (NON-LINEAR	
DESIGNATION					PRIMARY	SECONDARY	PHA SE	NEUTRAL	EGC	NO. & SIZE	LOADS)	
"TRLV"	DRY	3	30	4.50%	480	208/120	#6	-	#10	1"	-	FEED
"TRWT"	DRY	3	15	3.00%	480	208/120	#4	-	<mark>#8</mark>	2"	-	FEEI



ΒY







2. ALL UNDER SLAB PLUMBING AND ELECTRICAL CONDUIT WITH PULL STRINGS ARE IN THIS CONTRACT.

**ROOF FRAMING NOTES** 

2. CONTRACTOR TO PROVIDE ALL BLOCK'G, BRACING & OTHER FRAMING NECESSARY TO FRAME ALL CEILINGS, SOFFITS, CHASES & SKYLIGHTS.

3. CONTRACTOR TO PROVIDE WALK SURFACES & PLATFORMS TO ACCESS & MAINTAIN HVAC EQUIPMENT LOCATED IN ATTIC SPACE. EQUIPMENT ACCESS AND SERVICE SPACE SHALL COMPLY WITH 2015 VIRGINIA MECHANICAL CODE.

4. TRUSSES MAY BE NOT BE SUBSTITUTED BY CONVENTIONAL FRAMING UNLESS APPROVAL IS REQUESTED BY THE GENERAL CONTRACTOR AND OBTAINED FROM THE COUNTY & ARCHITECT.

5. COORDINATE EXACT EQUIPMENT LOCATIONS, WEIGHT AND DUCT ROUTING WITH TRUSS MFG.

6. COORDINATE FRESH AIR INTAKE LOUVERS & END WALL OPENINGS WITH TRUSS MFG.

6. TRUSSES TO BE DESIGNED BY MFG. ENGINEERED DRAWINGS ARE REQUIRED TO HAVE VIRGINIA PROFESSIONAL SEAL.

## FOUNDATION NOTES

1. ALL FOOTINGS ARE DESIGNED TO REST ON UNDISTRUBED NATURAL SOIL OR CONTROLLED COMPACTED FILL HAVING A MINIMUM SAFE BEARING CAPACITY OF 2,000 PSF. ELEVATIONS SHOWN ARE FOR BIDDING PURPOSES ONLY. IF SOIL OF THE DESIGNED CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS SHOWN, THE FOOTING SHALL BE LOWERED OR THE SIZE AND REINFORCEMENT ADJUSTED AS DIRECTED BY THE ARCHITECT. OBTAIN INSPECTION AND APPROVAL OF FINAL

FOOTING EXCAVATIONS BY THE OWNER'S REGISTERED GEOTECHNICAL PROFESSIONAL ENGINEER BEFORE PLACING FOUNDATION CONCRETE 2. THE TOP ELEVATIONS OF FOOTINGS ARE INDICATED THUS -T.O.F.=000.00'. FIELD VERIFY FLOOR ELEVATION.

GRADES AND 2'-6" BELOW FINAL GRADES. 4. UNLESS OTHERWISE INDICATED, WALL FOOTINGS SHALL BE CENTERED

5. UNLESS OTHERWISE SHOWN, BOT. OF FOOTINGS FOR ALL INTERIOR MASONRY WALLS ARE 8" BELOW TOP OF SLAB-ON-GRADE. FOOTINGS SHALL BE DROPPED AS REQUIRED TO ALLOW UNDERGROUND PIPE TO GO OVER FOOTING

6. STEPS IN WALL FOOTINGS SHALL HAVE A MIN. SPACING OF DOUBLE THE CHANGE IN ELEVATION.

7. BACKFILL AGAINST WALLS SPANNING VERTICALLY BETWEEN FLOORS SHALL NOT BE PLACED UNTIL BOTH FLOORS ARE IN PLACE AND ALL CONCRETE HAS REACHED ITS 28 DAY STRENGTH.

8. UNLESS OTHERWISE NOTED, ALL SLABS-ON-GRADE SHALL BE 4" THICK SLABS TO HAVE ONE LAYER OF 6x6 - W 1.4 x W 1.4 W.W.F.

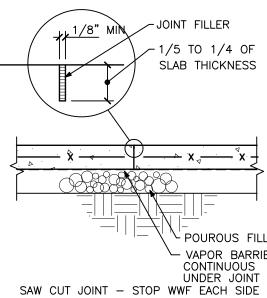
PLACE WELDED WIRE FABRIC 2 INCHES BELOW TOP OF SLAB.

9. PROTECT ALL FOOTINGS FROM PHYSICAL DAMAGE OR REDUCED STRENGTH CAUSED BY FROST HEAVE OR FREEZING ACTIONS.

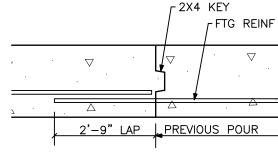
## FOUNDATION EXCAVATION NOTES:

1. WHERE SOIL IS OVER EXCAVATED UNDER FOOTINGS BELOW DESIGN ELEVATIONS FOR CONTRACTOR CONVIENINCE OR DUE TO TYPE OF EQUIPMENT UTILIZED, CONTRACTOR TO PLACE EITHER CONCRETE FLOWABLE FILL OR COMPACTED STONE TO BRING BOTTOM OF FOOTING UP TO DESIGN ELEVATION. 2. CONTRACTOR TO PROVIDE ALL SHORING AND BARRICADES NECESSARY TO CREATE SAFE WORKING CONDITIONS WITHIN AND AROUND EXCAVATIONS. 3. WHERE VERTICAL REINFORCING BARS ARE EXPOSED FOR AN

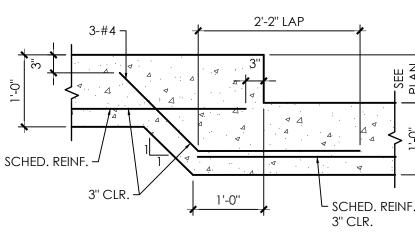
EXTENDED PERIOD BELOW WALKING SURFACES, PROVIDE PROTECTION AGAINST FALL IMPALEMENT.



CONTROL JOINT DETAIL SCALE: 3/4" = 1'-0"



FOOTING CONSTRUCTION JOINT SCALE: 3/4" = 1'-0"



FOOTING STEP DETAIL SCALE: 3/4" = 1'-0"

#### 1. ALL TRUSSES @ 24" OC UNLESS NOTED OTHERWISE.

3. BOTTOM OF ALL FOOTINGS SHALL BE A MIN. OF 1'-0" BELOW EXIST.

ON WALLS; COLUMN FOOTINGS SHALL BE CENTERED ON COLUMNS.

JOINT FILLER -1/5 TO 1/4 OF

SLAB THICKNESS

- POUROUS FILL - VAPOR BARRIER CONTINUOUS UNDER JOINT

FTG REINF

\_\_\_\_`

CODE INFORMATION - (2015 VCC)

#### **PROJECT DESCRIPTION**

#### SCOPE OF PROJECT INCLUDES A NEW 720 SF (1) STORY FRAME WATER TREATMENT UTILITY BUILDING. SCOPE OF THIS PERMIT INCLUDES BUILDING CONSTRUCTION IN FULL COORDINATION WITH THE WATER TREATMENT SYSTEM DESIGN DOCUMENTS PREPARED BY WW ASSOCIATES, DATED 8/21/19.

BASIC BUILDING PLANNING USE GROUP: U - WATER TREATMENT EQUIPMENT

CONSTRUCTION TYPE : VB, NO SPRINKLER

BUILDING LIMITATIONS (TABLES 504.3, 504.4 & 506.2): U USE: 40 FT, 1 STORY, 5,500 SF

PROJECT ACTUAL HEIGHT & AREA: 17'-0" HEIGHT, (1) STORY, 720 SF

COMBUSTIBLE CONSTRUCTION - (0) RATING FOR BUILDING ELEMENTS (TABLE 601 & 602)

FIRE SEPARATION ASSEMBLIES: NONE

NO AUTOMATIC SPRINKLER SYSTEM

FIRE EXTINGUISHERS - (1) TYPE 2-A REQUIRED

INTERIOR FINISHES: INTERIOR WALLS, CEILINGS, & FLOORS SHALL COMPLY WITH IBC CHAPTER 8.

MEANS OF EGRESS OCCUPANCY LOAD: 4

NUMBER OF EXITS REQUIRED / PROVIDED:

1 / 1 FROM EACH SPACE

MINIMUM PLUMBING FXITURES NO PLUMBING FIXTURES ARE PROVIDED IN THE UN-OCCUPIED STRUCTURE

ASSUMED MINIMUM SOIL BEARING CAPACITY - 2,000 PSF

# **PROJECT SPECIFICATIONS**

. ALL ITEMS & SYSTEMS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER AND IN CONFORMANCE WITH APPLICABLE BUILDING CODES, LAWS AND REGULATIONS.

2. UNLESS "NO SUBSTITUTIONS" IS SPECIFICALLY INDICATED, IT IS NOT THE INTENT OF THESE SPECIFICATIONS TO EXCLUDE MANUFACTURERS THAT PRODUCE EQUAL PRODUCTS OR SYSTEMS. CONTRACTOR IS ENCOURAGED TO SUBMIT ALTERNATE PRODUCT OR SYSTEM MANUFACTURERS FOR CONSIDERATION BY ARCHITECT PRIOR TO BID.

3. CONTRACTORS SHALL DAILY REMOVE ALL DEBRIS FROM SITE AND KEEP WORK AREA CLEAN. REMOVE EXCESS MATERIALS FROM SITE.

4. FOLLOWING CONTRACT AWARD, SUBMIT PROPOSED COLOR CHARTS & SAMPLES FOR ALL REQUIRED COLOR SELECTIONS TO ARCHITECT / OWNER FOR SELECTION & SCHEDULE.

5. SUBMITTAL INFORMATION REQUIRED FOR ALL SECTIONS NOTED THUS \*\*

6. CONTRACTOR SHALL SUBMIT AND OBTAIN ALL PERMITS REQUIRED FOR THE EXECUTION OF THIS WORK. U.N.O. ALL PERMIT FEES WILL BE PAID BY THE CONTRACTOR. SPECIAL INSPECTIONS REQUIRED BY THE CODE SHALL BE PAID FOR BY THE OWNER. THE OWNER WILL PAY FOR ALL OTHER QUALITY CONTROL INSPECTIONS. UTILITY CONNECTION FEES WILL BE PAID BY THE OWNER.

02000 - SITE WORK

- 1. OWNER WILL REVIEW EXTENT OF NEW SITE WORK INCLUDED IN CONTRACT AT PRE-BID MFFTING.
- 2. REPAIR ANY EXISTING SITE FEATURES DAMAGED DURING CONSTRUCTION. 3. ALL LAWN AREAS DISTURBED DURING CONSTRUCTION TO BE FINE GRADED WITH TOP SOIL AND RE-SEEDED.
- 4. PROTECT EXISTING TREES TO REMAIN. 5. CONTRACTOR SHALL VERIFY EXTENT OF GRADING REQUIRED AND PROVIDE FILL MATERIALS NEEDED OR REMOVE EXCESS MATERIALS FROM THE SITE.

#### 02500 - BUILDLING UTILITIES

1. CONTRACTOR SHALL EXTEND AND COMPLETE BUILDING UTILITY SERVICES IN COORDINATION WITH WORK PERFORMED BY OTHERS.

2. PROTECT ALL EXIST. SERVICES & UNDERGROUND UTILITIES IN PLACE. ADVISE OWNER OF EXCAVATION ACTIVITIES WHICH MAY DISCOVER OR DISRUPT UNDERGROUND UTILITIES. 3. AT PRE-CONSTRUCTION MEETING, CONTRACTOR SHALL PRESENT THE OWNER WITH A SCHEDULE FOR HAVING THE OWNER PROVIDED UTILITIES COMPLETE.

4. ANY TEMPORARY UTILITY SERVICES REQUIRED FOR CONSTRUCTION WILL BE DISCUSSED AT THE PRE-BID MEETING.

02361 - TERMITE CONTROL 1. COORDINATE SOIL TREATMENT WITH EXCAVATION, FILLING, GRADING AND CONCRETE WORK

2. SPECIAL WARRANTY: WRITTEN WARRANTY, SIGNED BY APPLICATOR AND CONTRACTOR CERTIFYING THAT TERMITE CONTROL WORK WILL PREVENT INFESTATION OF SUBTERRANEAN TERMITES FOR (5) YEARS FROM DATE OF SUBSTANTIAL COMPLETION.

3. PROVIDE AN EPA - REGISTERED TERMITICIDE THAT IS NOT HARMFUL TO PLANTS. APPLY AS

RECOMMENDED BY THE PRODUCT'S EPA-REGISTERED LABEL.

4. POST WARNING SIGNS IN THE APPLICATION AREA. 5. RE-APPLY SOIL TREATMENT TO AREAS SUBSEQUENTLY DISTURBED BY CONSTRUCTION

ACTIVITIES. 6. APPLY TO AREAS UNDER SLABS ON GRADE AND FOUNDATIONS AND MASONRY VOIDS.

02800 - LANDSCAPING (BY OTHERS)

03300 CAST-IN-PLACE CONCRETE

1. FLOOR SLABS & FOOTINGS - 3,500 PSI WITH FIBER MESH FOR FINISHED INTERIOR & EXTERIOR SLABS. ALL CONCRETE EXPOSED TO EXTERIOR TO BE AIR ENTRAINED 4.5% TO 6%.

2. CONCRETE WORK SHALL CONFORM TO THE CURRENT VERSION OF: ACI 318 - STANDARD BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS ACI 302 - RECOMMENDED PRACTICE FOR CONCRETE FLOOR & SLAB CONSTRUCTION ASTM E1155 - STANDARD TEST FOR FLOOR FLATNESS AND LEVELNESS

3. PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED FOR 3" COVER AT

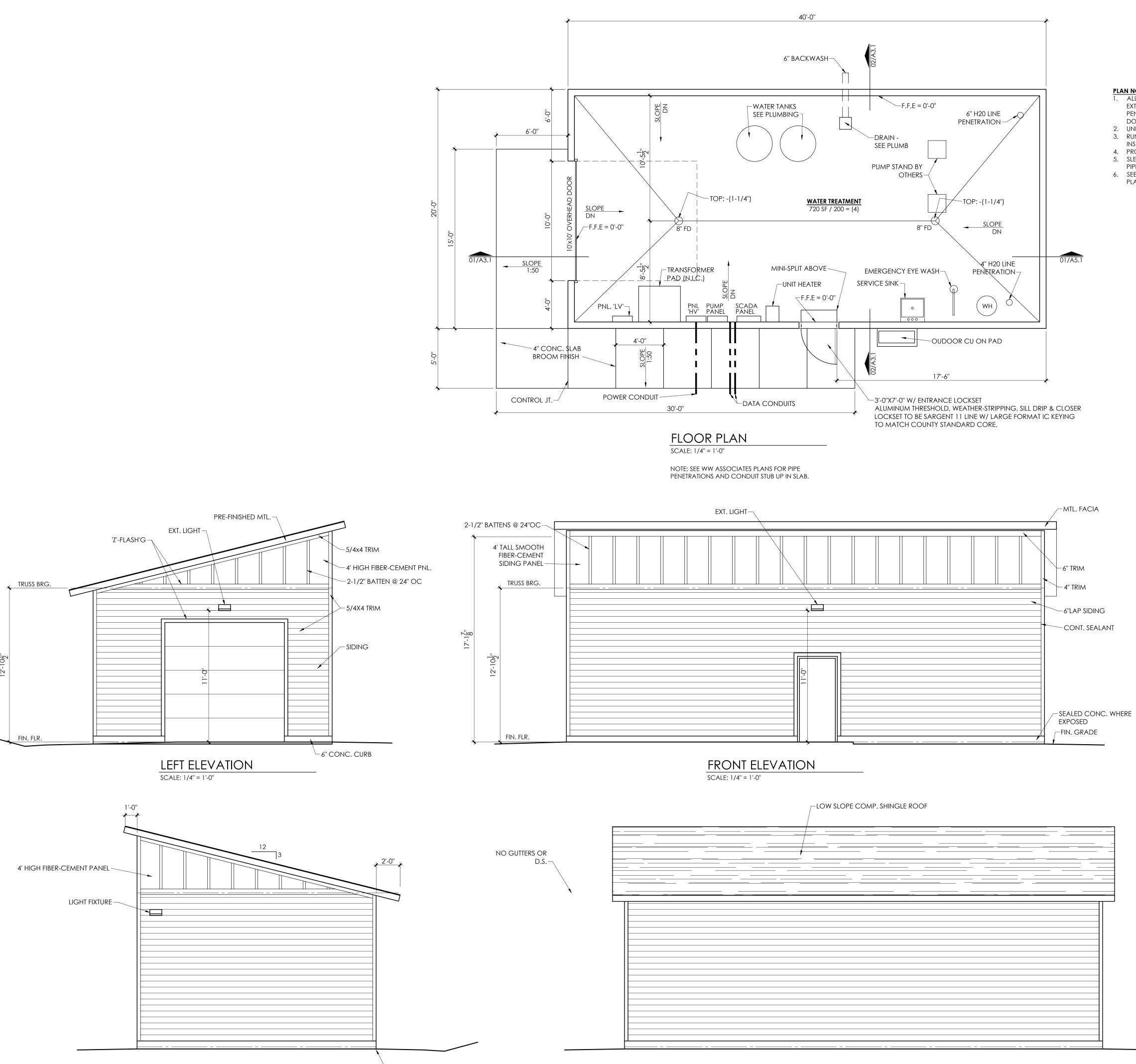
- FOUNDATIONS AND 2" COVER AT FORMED WALLS AND ELEVATED SLABS.
- 4. CONTRACTOR SHALL CAREFULLY MONITOR CONCRETE PLACEMENT ACTIVITIES TO MINIMIZE SPILLAGE & CLEAN BOTH INTERIOR AND EXTERIOR AREAS WHERE CONCRETE SPLATTERS OR DRIPS .
- NO DUMPING OF EXCESS CONCRETE OR TRUCK CLEAN UP TO OCCUR ON SITE UNLESS APPROVED IN ADVANCE BY OWNER. REINFORCING BARS: ASTM A615, GRADE 60. WELDED WIRE FABRIC: ASTM A185.
- MINIMUM LAP SLICE TO BE 48 BAR DIAMETERS. WATERSTOPS: RUBBER OR PVC
- 8. VAPOR BARRIER: 6 MIL MINIMUM POLYETHYLENE SHEETS SEAL ALL EDGES. PROVIDE UNDER ALL INTERIOR SLABS
- 9. JOINT FILLER STRIPS: ASPHALT-SATUARATED CELLULOSIC FIBER.

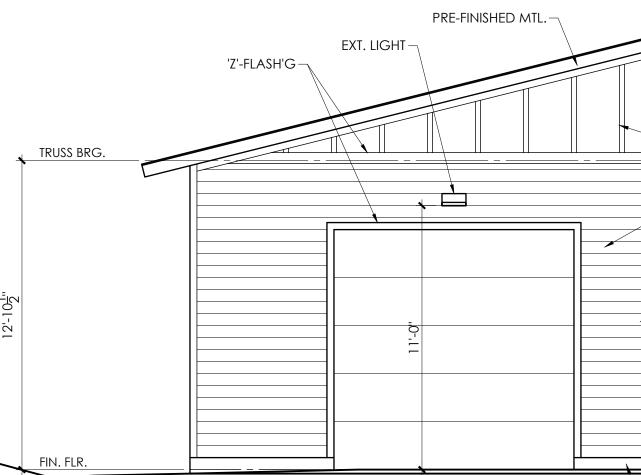
#### **MEP COORDINATION NOTE**

#### SPECIFICATIONS (CONT.)

	CODE INFORMATION (CONTINUED)		
	SPECIAL INSPECTIONS (NOT REQUIRED - 1704.2 EXCEPTION 2.1)	PROJECT CONTACTS	
ME N	DESIGN LOADS BUILDING RISK CATEGORY - II (TABLE 1604.5)	OWNER	
IN	LIVE LOADS 1ST FLOOR = 150 PSF ROOF = 30 PSF ATTIC = 12 PSF (NO STORAGE - VERIFY EQUIPMENT WEIGHT)	COUNTY OF CULPEPER JOE KOONTZ 540.718.1706	
	SNOW LOADS	540.716.1706	
	PG = 30 PSF GROUND SNOW $Ce = 1.0 SNOW EXPOSURE FACTOR$ $Ct = 1.0 THERMAL FACTOR$ $Is = 1.0 IMPORTANCE FACTOR$	<b>ARCHITECT</b> SANDERS ARCHITECTURE, PC	
	Pf = 25 FOR SLOPED ROOFS WIND LOADS	DEX SANDERS dsanders@sanders-pc.com	
	Vult= 115 MPH Vasd = 89 MPH EXPOSURE B Kd = 0.85	540.829.2590	
	Kzt = 1.0 GCPI = 0.18±	CIVIL ENGINEER	
	ASCE 7-10	W W ASSOCIATES	RU
IALL	SEISMIC LOADS le = 1.0 SEISMIC SITE CLASS = D (ASSUMED) SEISMIC DESIGN CATEGORY = B	GENERAL CONTRACTOR CULPEPER COUNTY	ONSTRUCTION
	BASIC STRUCTURAL SYSTEM = BEARING WALL SYSTEMS SEE DRAWINGS FOR BUILDING ENVELOPE & STRUCTURAL SYSTEMS & MATERIALS	JOE KOONTZ	
	MEP COORDINATION NOTE	540.727.3409	2 2 2 2 2 2
D	PLUMBING, ELECTRICAL, & HVAC SYSTEMS ARE TO BE CONSTRUCTED AS COMPLETE, COORDINATED DESIGN / BUILD SYSTEMS. AS A MINIMUM THEY SHALL MEET APPLICABLE BUILDING AND LIFE SAFETY CODES UNDER VA USBC 2015 & ANSI A117.1-2003. EACH SYSTEM DESIGNER/INSTALLER <u>MUST</u> COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER PROJECT SUB-CONTRACTORS.		Q
	MEP SUB-CONTRACTORS WILL PULL INDIVIDUAL MEP PERMITS.		
	CONDUIT W/ WATER SYSTEM DESIGN DOCUMENTS BY OTHERS.		
		SPECIFICATIONS (CONT.)	
_	PECIFICATIONS (CONT.) 04200 UNIT MASONRY_ (NOT USED)	09200 <u>GYPSUM BOARD ASSEMBLIES</u>	
	05000 <u>METALS</u> (NOT USED)	<ol> <li>PROVIDE COMPLETE GYPSUM BOARD ASSEMBLIES AS INDICATED FOR NEW WORK.</li> <li>INSTALL</li> <li>FINISH GYPSUM BOARD SO THAT SEAMS, DENTS, OVERSPRAY &amp; SCREW LOCATIONS ARE</li> </ol>	
C 1	06000 <u>WOOD AND PLASTIC</u> ** . MINIMUM WOOD GRADE SHALL BE EQ. TO SYP #2 - UNLESS NOTED OTHERWISE,	NOT VISIBLE AFTER PAINT FINISH IS APPLIED. 3. WHERE GYPSUM BOARD MEETS CMU WALLS, JAMBS, FRAMES, TRIM OR OTHER STRUCTURE, PROVIDE A CONT. J-BEAD EDGE WITH A FLEXIBLE SEALANT FILLER.	SANDERS ARCHITECTURE PC
A	GROUND CONTACT PRESERVATIVE TREATED WHERE INDICATED AND REQUIRED BY CODE. ALL WOOD IN CONTACT WITH SLABS ON GRADE OR EXTERIOR MASONRY WALLS TO BE PRESERVATIVE TREATED. ALL FASTENERS IN CONTACT WITH PRESERVATIVE TREATED WOOD	09650 <u>RESILIENT BASE &amp; FLOORING</u> (NOT USED)	16125 RACCOON FORD RD CULPEPER, VIRGINIA 22701
2	DR MASONRY TO BE STAINLESS STEEL OR HOT DIPPED GALVANIZED ONLY. 2. SHEATHING: THICKNESS AS INDICATED ON WALL SECTIONS. APA RATED EXPOSURE 1, VALLS 7/16" MIN., ROOF 19/32" MIN. WITH H-CLIPS. PROVIDE 8D NAILS & ADHESIVE FOR ALL	09900 <u>PAINTING</u> 1. PREPARE ALL SURFACES FOR COATINGS & APPLY COATINGS AS RECOMMENDED BY THE	(∨)540-829-2590
S	HEATHING. NAILING PATTERN FOR WALL SHEATHING TO BE 6" OC AT EDGES AND 8" OC CENTER. NAILING PATTERN FOR ROOF SHEATHING TO BE 6" OC AT EDGES AND 12" OC IN	MFG. SPECIFICATIONS BELOW BASED ON SHERWIN-WILLIAMS (BENJAMIN-MOORE APPROVED EQUAL). NOTE THAT EXPOSED ALUM., BRASS, CHROME, STAINLESS STEEL, ETC. TO BE LEFT UNFINSHED. DO NOT PAINT OVER TAGS & LABELS.	
3	HE CENTER. B. CONTRACTOR TO PROVIDE ALL NECESSARY BLOCKING, FASTENERS AND CONNECTORS TO ERECT FRAME STRUCTURE. PROVIDE ALL TEMPORARY AND PERMANENT	2. NO SPRAY APPLICATION OF PAINT WITHOUT PRIOR APPROVAL FROM OWNER. IF SPRAY APPLICATION IS USED, TURN OFF HVAC SYSTEM & PROTECT EQUIPMENT & ADJACENT SURFACES FROM OVERSPRAY.	
4	RACING TO STABILIZE STRUCTURE AT ALL TIMES. SUBMIT ENGINEERED TRUSSES & WOOD PRODUCTS FOR REVIEW. ENGINEERED RUSSES DESIGNS SHALL HAVE A VIRGINIA PROFESSIONAL SEAL. CROOKED WALLS & STUDS SHALL BE STRAIGHTENED OR REPLACED.	3. EXTENT OF COATING IN CONTRACT INCLUDES: ALL EXTERIOR SURFACES THAT ARE NOT PRE-FINISHED & SEALING EXTERIOR CMU. PAINT INTERIOR FERROUS METALS - INCLUDING METAL DOORS, FRAMES & RAILS, 4. PRIOR TO APPLICATION OF ANY COATING, PAINTING CONTRACTOR WILL EXAMINE THE SUBSTRATE TO BE COATED. APPLICATION OF PAINT	
C 1	07210 <u>BUILDING INSULATION</u> . PERIMETER FOUNDATION INSULATION TO BE EXTRUDED POLYSTYRENE	DEMONSTRATES PAINTING CONTRACTOR'S ACCEPTANCE OF SUBSTRATE.	-L ACE
	2. EXTERIOR FRAME WALL INSULATION TO BE FOIL FACED FIBERGLASS BATT INSULATION BY OWENS CORNING OR EQ. IN MINIMUM R-VALUE INDICATED. EXPOSED INSULATION TO IMEET COMMERCIAL SMOKE DEVELOPED / FLAME SPREAD REQUIREMENTS.	EXTERIOR FERROURS METAL: shall be painted in accordance with the Steel Structural Painting Council Specification (SSPC) "Alkyd Paint System No. 2.04 with Zinc Chromate Iron Oxide	HIL HIL EY PLA
3	SEAL GAPS, PENETRATIONS AND WHERE PLATES MEET SLAB. PROVIDE NECESSARY CLIPS & FASTENERS TO SUPPORT & FASTEN INSULATION TO SURROUNDING CONSTRUCTION.	Primer" as follows: a. The surface shall be cleaned as specified in SSPCSP 663 "Commercial Blast Cleaning". b. Pretreament of the steel shall not be required.	RY H AEN Valley Valley
Ν	AIN. INSULATION SCHEDULE:	<ul> <li>c. All paint, shall be applied in accordance with SSPCPA 164, "Field and Maintenance Painting".</li> <li>d. A minimum of three coats of paint shall be applied.</li> </ul>	HERRY EATME "LAUREL VAI ULPEPER, VA
۷	PERIMETER         R-10           VALLS         R-19           POOF         R-38	e. After cleaning, the steel shall be primed with one coat of paint conforming with Federal Specification TTP57b, "Zinc Yellow Iron Oxide Base, Ready Mixed". f. Touch up field painting shall be performed in accordance with specification SSPCPA 164.	CHER IREAT 4017 LAURE CULPEPE
C 1	)7400 <u>SIDING PANELS</u> ** . CEMENT-FIBER TRIM & PANELS TO BE EQUAL TO JAMES HARDIE PRIMED CEDAR FACED.	g. The second paint coat shall be SW A100 Exterior Latex Gloss. h. The finish coat of paint shall be SW A100 Exterior Latex Gloss.	
P T P	AINTED TRIM BOARDS TO BE FIBER-CEMENT OR BORAL 1" THICKNESS. TRIM TO BE FACTORY RIMED OR PRE-FINISHED IN COLOR AS SELECTED BY OWNER W/ CUT JOINTS PRIMED & EALED AS RECOMMENDED BY SIDING MANUFACTURER. SOFFIT PANELS TO BE VINYL -	i. The dry film thickness of the paint at any point shall not be less than the following: for the primer 1.5 mils; for the three coat paint system 3.5 mils. In the event the required paint film thickness is not achieved as specified, additional coats shall be applied until the required thickness is obtained.	ATE
V 2	/ENTED WHERE INDICATED. 2. FOLLOW MANUFACTURE'S INSTALLATION AND FINAL COATING PREPARATION RECOMMENDATIONS.	EXPOSED CONCRETE BUILDING FOUNDATION / WALLS: (DO NOT COAT UNTIL DRY BUT COAT AS SOON AS DRY)	3
3	SEE ELEVATION SHEET FOR ADDITIONAL INFORMATION.	1ST Coat: H&C SX-7 SILOXANE WATER REPELLANT - CLEAR. 2nd Coat: H&C SX-7 SILOXANE WATER REPELLANT - CLEAR	
1 1 3	<ul> <li>METAL ROOFING **</li> <li>METAL ROOFING TO BE EQ. TO PETERSON ALUMINUM COORPORATION SNAP-CLAD,</li> <li>OC, 24 GA. STEEL W/ KYNAR 500 PRE-FINISHED COATING /W SNAP-CLAD CLIP SPACED</li> <li>OC MAX.</li> <li>PROVIDE ALL ELASHINGS, CLIPS &amp; EASTENERS FOR A COMPLETE INSTALLATION</li> </ul>	INTERIOR FERROUS METALS: All other interior metal not prefinished and in particular: Steel columns, railings, door jambs, steel doors and frames, etc.	NNEALTH OF
	<ul> <li>PROVIDE ALL FLASHINGS, CLIPS &amp; FASTENERS FOR A COMPLETE INSTALLATION.</li> <li>07500 <u>COMPOSITION SHINGLES</u> (NOT USED)</li> </ul>	Primer: Factory primer or SW Kem Bond HS Universal Primer 2nd Coat: SW Pro-Mar 200 Alkyd Semi-Gloss 3rd Coat: SW Pro-Mar 200 Alkyd Semi-Gloss.	DEX A. SANDERS Lic. No. 8814
1	07900 <u>CAULKING &amp; SEALANTS</u> . PRODUCTS SHALL BE DOW CORNING - 790 OR GE SILICONE SILPRUF 2000	EXTERIOR FIBER-CEMENT (FACTORY PRIMED)	11-27-19
2 F	VEATHERING SEALANT. 2. TYPICALLY, SEALANT COLOR TO MATCH ADJACENT MATERIAL. CONSULT ARCHITECT OR SPECIFIC COLOR SELECTIONS FROM FULL RANGE OF MANUFACTURER'S STANDARD	FIELD PRIME: PRIMEPLUS 1ST COAT: SW DURATION EXTERIOR LATEX SATIN	ARCHITEC'S
	COLOR. B. PROVIDE MILDEW RESISTANT SILICONE SEALANT IN AREAS SUBJECT TO HIGH HUMIDITY.	2ND COAT: SW DURATION EXTERIOR LATEX SATIN	REVISIONS:
	08000 <u>WINDOWS</u> (NOT USED) 08110 DOORS & FRAMES **	1ST COAT: SW PREPRITE CLASSIC LATEX PRIMER 2ND COAT: SW PRO-MAR 200 LATEX SEMI-GLOSS 3RD COAT: SW PRO-MAR 200 LATEX SEMI-GLOSS	
1 F	. STEEL FRAMES TO BE SHOP PRIMED 18 GA. STEEL WITH HARDWARE FACTORY CUT & ULLY WELDED SEAMS WITH ALL WELDS GROUND SMOOTH. PROVIDE (3) JAMB ANCHORS	ALL INTERIOR CONCRETE FLOORS: Clear Concrete Sealer - Waterproof, low VOC	
2	<ul> <li>PER JAMB &amp; ANCHOR TO FLOOR. PROVIDE CONT. HEADER ABOVE DOORS.</li> <li>PIELD VERIFY WALL THICKNESSES AND MASONRY OPENINGS.</li> <li>PROVIDE DOOR SILENCERS AT INTERIOR JAMBS.</li> </ul>		DRAWN: DAS CHECKED: SCALE: NOTED
4	STEEL DOORS - 18 GA INSULATED W/ FULLY WELDED SEAMS EQ. TO STEEL CRAFT. INSTALL DOOR & FRAME SQUARE, PLUMB & LEVEL SO DOORS OPEN AND CLOSE WITH EASE.		SCALE:         NOTED           DATE:         11-27-19           PROJECT #:         1808
)	NDICATED. COLOR TO BE WHITE. PROVIDE MANUAL PULL CHAIN OPERATION		FND / ROOF FRAMING PLAN
		PART B	A1.1







SLOPE GRADE

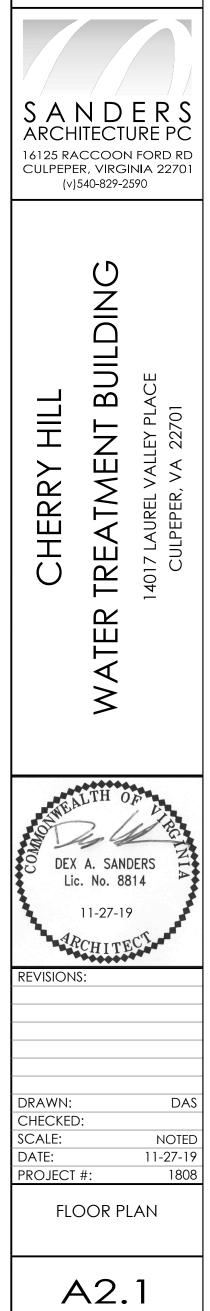
**REAR ELEVATION** SCALE: 1/4" = 1'-0"

## PLAN NOTES 1. ALL UNDERSLAB PLUMBING IS IN THE CONTRACT. EXTEND 5'-0" OUTSIDE BUILDING. COORDINATE ALL SLAB PENETRATIONS WITH WW ASSOCIATES DESIGN

- DOCUMENTS. 2. UNDERSLAB WATER LINES TO BE SCHEDULE 80 PVC.
- 3. RUN DOMESTIC WATER FOR SERVICE SINK & SHOWER INSIDE INSULATED SPACE.
- 4. PROVIDE SLEEVES FOR ELECTRIC SERVICE AND FEEDS. 5. SLEEVE WALL & SEAL W/ FOAM AROUND ALL WALL
- PIPING PENETRATIONS.
- 6. SEE WW ASSOCIATES PLANS FOR LIGHTING / CEILING PLAN.

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PART B

