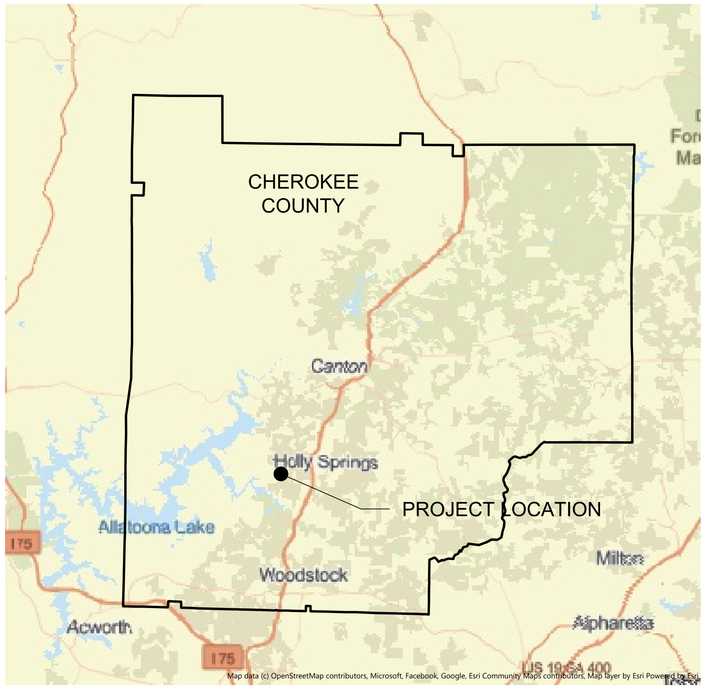
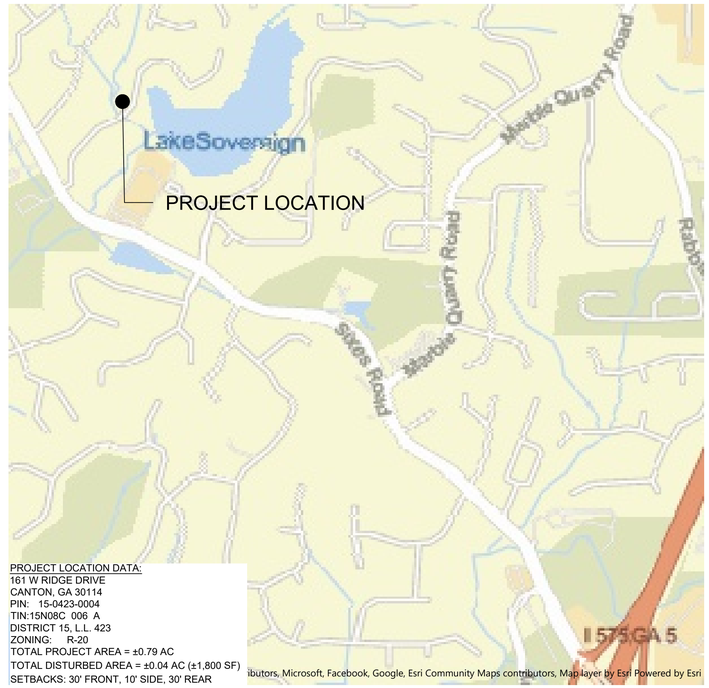
CONSTRUCTION PLANS FOR:

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY





PROJECT LOCATION DATA:
161 W RIDGE DRIVE
CANTON, GA 30114
PIN: 15-0423-0004
TIN:15N08C 006 A
DISTRICT 15, L.L. 423
ZONING: R-20
TOTAL PROJECT AREA = ±0.79 AC
TOTAL DISTURBED AREA = ±0.04 AC (±1,800 SF)
SETBACKS: 30' FRONT, 10' SIDE, 30' REAR

PROJECT:

BLANKETS CREEK PS ELECTRICAL UPGRADE

PROJECT No: 24-20081

BOARD OF DIRECTORS	
ERIC WILMARTH	CHAIR PERSON, POST 1
BARRY MANSELL	VICE CHAIR PERSON, AT LARGE
LISA WOODRUFF	SECRETARY, POST 2
BECKY DABBS	CITY REPRESENTATIVE
HARRY JOHNSTON	COMMISSION EX OFFICIO
NANCY MARTIN	POST 3
JOHN WORKMAN	POST 4
DWAYNE FOWLER	GENERAL MANAGER

GEORGIA
REGISTERED
11/17/2025
No. 25248
PROFESSIONAL
ENGINEER
SCOTT HENNESSEE

CONSULTING ENGINEER:

ESI
ENGINEERING STRATEGIES, INC.
Phone: (770) 429-0001

NOVEMBER 2025

24-HOUR CONTACT
COREY GHORLEY
(770) 479-1813

1. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE FEDERAL REGULATORY AGENCY FOR APPROVAL PRIOR TO UNDERTAKING ANY LAND DISTURBANCE WITHIN WETLANDS AREAS.
2. FINAL GRADING OF LOTS IS NOT TO ALTER NATURAL DRAINAGE PATTERN. FLOW SHALL ENTER AND EXIT SITE AS EXISTING CONDITIONS UNLESS WRITTEN APPROVAL IS OBTAINED FROM LOT OWNER AND ALL DOWNSTREAM AFFECTED PROPERTIES.
3. ALL IRRIGATION METERS MUST HAVE RAIN SENSORS PER STATE LAW.
4. CHANGES IN THE CONSTRUCTION PLANS OF STORM DRAINAGE FACILITIES CAUSED BY FIELD CONDITIONS SHALL BE MADE IN COMPLIANCE WITH SECTION 3.02-G OF THE CHEROKEE COUNTY DEVELOPMENT ORDINANCE.
5. THIS PROJECT LIES WITHIN ZONE "A" AS SHOWN ON FEMA FIRM PANEL 13057C0241E, DATED JUNE 7, 2019. ZONE "A" REPRESENTS AREA WITHIN THE 100-YR FLOOD PLAIN BUT DOES NOT HAVE BASE FLOOD ELEVATIONS.
6. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES THAT MAY IMPACT ANY FEDERALLY-LISTED THREATENED OR ENDANGERED SPECIES OR PROTECTED BY THE ENDANGERED SPECIES ACT. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE US FISH AND WILDLIFE SERVICE FOR APPROVAL PRIOR TO UNDERTAKING ANY LAND DISTURBANCE ACTIVITY

GENERAL NOTES

1. THE BLANKETS CREEK PUMP STATION MUST REMAIN IN SERVICE AT ALL TIMES. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY POWER, AS REQUIRED, TO ENSURE THAT PUMP STATION REMAINS IN SERVICE DURING THE REPLACEMENT OF THE ELECTRICAL EQUIPMENT. ALL COSTS FOR PROVIDING, FUELING, AND MAINTAINING A TEMPORARY GENERATOR SHALL BE INCLUDED IN THE LUMP SUM PRICE.

2. CONTRACTOR SHALL MAKE EVERY EFFORT TO PRESERVE PROPERTY CORNERS, BENCH MARKS, ORIGINAL AND DESIGN SURVEY MONUMENTS, WHICH EXIST ON THE PROJECT AT THE TIME OF CONTRACT AWARD. THE CONTRACTOR SHALL FURNISH PERSONNEL FULLY QUALIFIED AND CAPABLE OF STAKING CORNERS OF STRUCTURES AND CENTERLINES OF PIPELINES SHOWN ON THE PLANS. ANY PROPERTY CORNERS OR R/W MONUMENTS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

3. EXISTING UTILITIES SHOWN ON THESE DRAWINGS WERE TAKEN FROM BEST AVAILABLE INFORMATION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE HORIZONTAL OR VERTICAL ACCURACY OF SAID UTILITIES OR THE POSSIBILITY THAT UNDERGROUND UTILITIES OTHER THAN THE ONES SHOWN MAY EXISTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION AND SIZE OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR MUST CONTACT THE UTILITIES PROTECTION CENTER AT 811 AT LEAST 72 HOURS PRIOR TO BEGINNING EXCAVATION ON THE PROJECT.

4. TRAFFIC CONTROL SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. IN LOCATIONS WHERE THE ROAD IS NOT SPECIFIED TO BE CLOSED, AT LEAST ONE LANE OF TRAFFIC SHALL REMAIN OPEN IN ORDER TO ALLOW TRAFFIC TO MOVE THROUGH THE CONSTRUCTION SITE. ALL FLAG-MEN, WARNING SIGNS, BARRICADES, AND LIGHTS NECESSARY TO CONTROL THE TRAFFIC AND PROTECT THE PUBLIC SHALL BE FURNISHED BY THE CONTRACTOR WITHOUT COST TO THE OWNER. TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."

5. CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AND SCHOOL BUS SERVICE AT ALL TIMES DURING CONSTRUCTION.

6. ANY SIGNS REMOVED MUST BE REINSTALLED TO CHEROKEE COUNTY DOT STANDARDS.

7. ANY DEVIATIONS FROM THE PLANS MUST BE APPROVED IN WRITING PRIOR TO WORK BEGINNING.

8. PUMP STATION SHALL BE SECURED AT ALL TIMES WITH EITHER PERMANENT OR TEMPORARY FENCING. CONTRACTOR IS RESPONSIBLE FOR THE SECURITY AND SAFETY OF THE SITE THROUGHOUT CONSTRUCTION. MAINTAIN ACCESS TO SITE FOR CCWSA AT ALL TIMES.

9. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF DISCREPANCIES ON THE PLANS.

10. DRAINAGE SYSTEMS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR WILL NOT BE COMPENSATED FOR DRAINAGE STRUCTURES DAMAGED OR REMOVED AND REPLACED UNLESS SPECIFICALLY SHOWN TO BE PAID.

PROJECT DATA

1. PROJECT NAME: BLANKETS CREEK PUMP STATION IMPROVEMENTS

2. PROJECT LOCATION: BLANKETS CREEK PUMP STATION: DISTRICT 15, LAND LOT 0423, PARCEL 0004

3. PROJECT ADDRESS: 161 W RIDGE DRIVE, CANTON, GA 30114

4. OWNER: CHEROKEE COUNTY WATER AND SEWERAGE AUTHORITY
140 WEST MAIN STREET
CANTON, GA 30115
(770) 479-1813
COREYGHORELY@CCWSA.COM

5. ENGINEER: ENGINEERING STRATEGIES, INC.
W. SCOTT HENNESSEY, P.E.
3855 SHALLOWFORD RD., SUITE 525
MARIETTA, GA 30062
(770) 429-0001
SHENNESSEY@ESI-GA.COM

6. ZONING: R20

TREE PRESERVATION

1. WHEN DIGGING NEAR TREES, CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS 1-INCH IN DIAMETER OR LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.

2. CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON SITE EXCEPT AS NOTED ON THE PLANS OR APPROVED BY THE ENGINEER AND/OR CCWSA.

3. PROTECT THE TRUNKS OF ANY TREES BEING PRESERVED WITH STRAPPED ON PLANKING OR SIMILAR PROTECTIVE DEVICES.

4. TREE PROTECTION DEVICES MUST BE INSTALLED AND INSPECTED PRIOR TO ANY CLEARING, GRUBBING, OR GRADING.

5. DO NOT PLACE FILL AGAINST TREE TRUNKS.

6. PRUNING OF TREE LIMBS TO PROVIDE CLEARANCE FOR EQUIPMENT AND MATERIALS SHALL BE DONE IN ACCORDANCE WITH STANDARD ARBORICULTURAL PRACTICE (ANSI A300).

SHEET INDEX

GEORGIA REGISTERED 11/17/2025 No. 25248 PROFESSIONAL ENGINEER W. SCOTT HENNESSEY

EDEC
4120 CHATTAHOOCHEE TRACE
SUITE 105
DULUTH, GA 30097
(770) 493-8885

ESI ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD
SUITE 525
MARIETTA, GA 30060
(770) 429-0001

PROJECT NUMBER: 24-20081
PROJECT DATE: NOVEMBER 2025

REVISION	DATE
1	

DESIGNED BY:
DRAWN BY:
REVIEWED BY:

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

GENERAL NOTES

G-1

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C1

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

EXISTING SITE PLAN

DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	

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PROJECT NUMBER: 24-20081

PROJECT DATE: NOVEMBER 2025

△	REVISION	DATE

ESI
ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD, SUITE 525
MARIETTA, GA 30060
(770) 429-0001

GEORGIA REGISTERED
SCOTT HENNESSEY
No. 25348
PROFESSIONAL ENGINEER

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C2

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

EXISTING SITE DEMOLITION PLAN

DESIGNED BY:	
DRAWN BY:	
REVIEWED BY:	

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0 1"

PROJECT NUMBER: 24-20081

PROJECT DATE: NOVEMBER 2025

△	REVISION	DATE

ESI
ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD, SUITE 525
MARIETTA, GA 30060
(770) 429-0001

GEORGIA REGISTERED SCOTT HENNESSEY No. 25348 PROFESSIONAL ENGINEER

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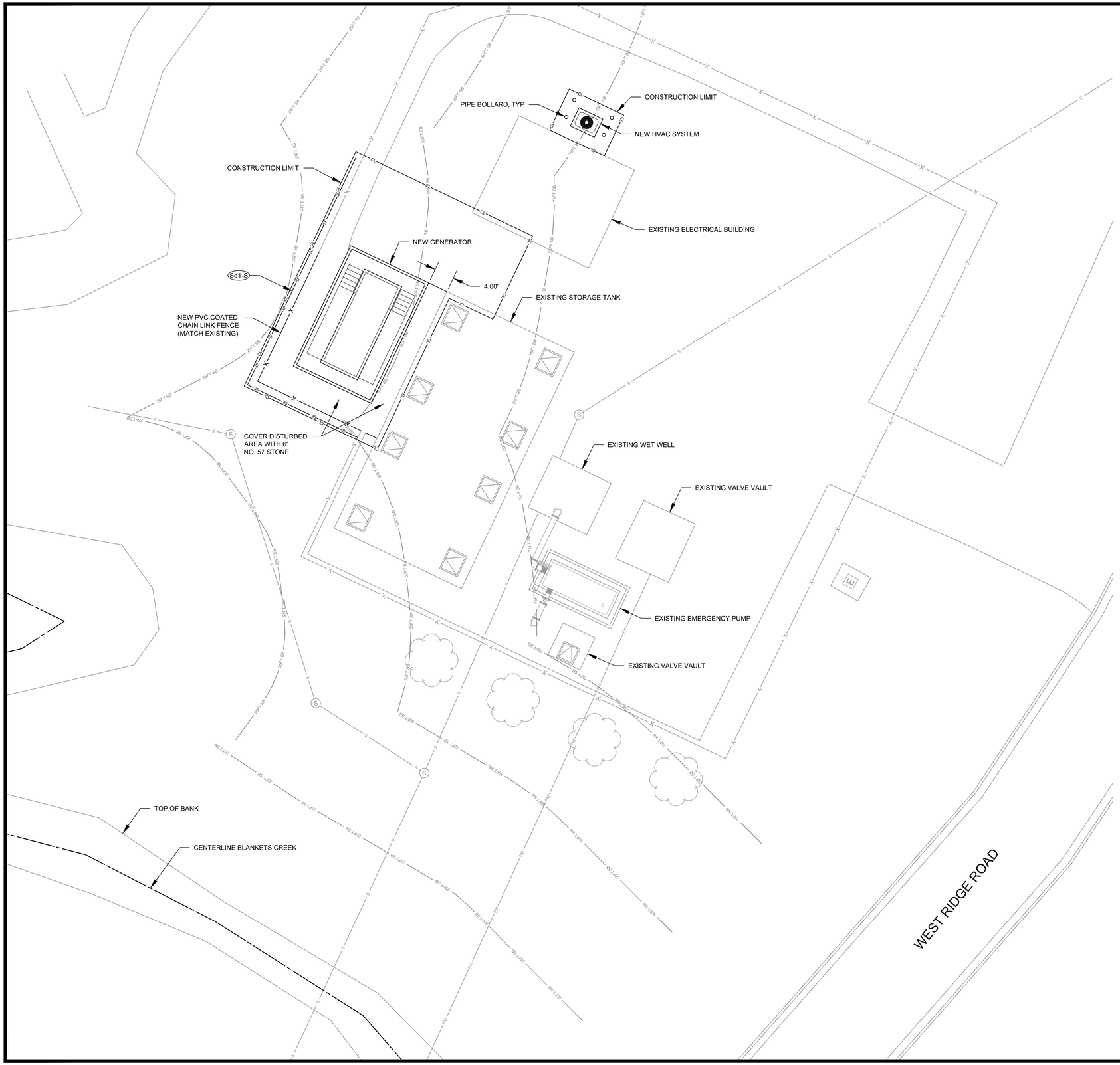
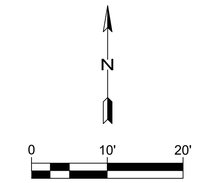
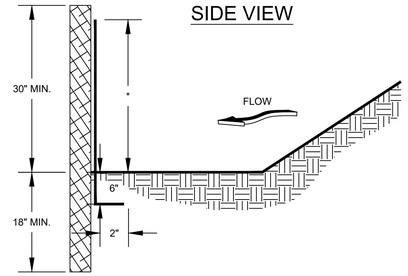
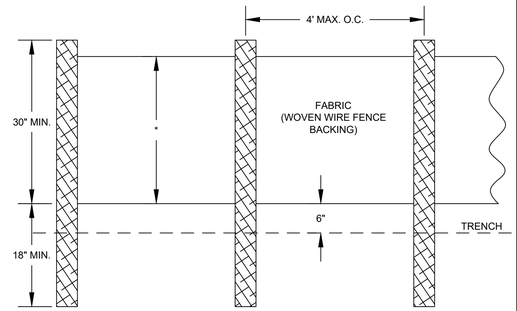




SIDE VIEW

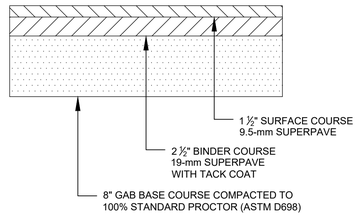


FRONT VIEW



NOTES:
1. USE STEEL POSTS AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

SILT FENCE - TYPE SENSITIVE
Sd1-S



NOTES:

1. SUB-GRADE SHALL BE PREPARED IN ACCORDANCE WITH GDOT STANDARDS.
2. IN AREAS WHERE THE EXISTING PAVEMENT IS REMOVED FOR INSTALLATION OF MATERIALS, THE OPEN TRENCH SHALL BE REPAIRED USING THIS DETAIL. ADDITIONALLY, THE EXISTING ASPHALT SHALL BE MILLED 1½" A MINIMUM OF 10-FEET BEYOND ALL LIMITS OF THE REMOVED AREA AND RESURFACED WITH A 1½" SURFACE COURSE.
3. ALL PAVED AREAS THAT ARE DAMAGED BY CONSTRUCTION SHALL BE REPAIRED USING THIS DETAIL. ALL DAMAGED ASPHALT SHALL BE COMPLETELY REMOVED AND REPLACED. ADDITIONALLY, THE EXISTING ASPHALT SHALL BE MILLED 1½" A MINIMUM OF 20-FEET BEYOND ALL LIMITS OF THE DAMAGED AREA AND RESURFACED WITH A 1½" SURFACE COURSE.
4. THE EDGES OF ALL DAMAGED AREAS THAT ARE TO BE REPLACED SHALL BE SAW-CUT WITH TRUE-STRAIGHT LINES.
5. ALL SURFACES WHERE NEW ASPHALT WILL CONTACT EXISTING ASPHALT SHALL BE COATED WITH TACK COAT.

ASPHALT PAVEMENT DETAIL
SCALE: N.T.S.

GEORGIA REGISTERED 11/17/2025 No. 25248 PROFESSIONAL ENGINEER SCOTT HENNESSEY

ESI
ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD, SUITE 525
MARIETTA, GA 30060
(770) 429-0001

PROJECT NUMBER: 24-20081
PROJECT DATE: NOVEMBER 2025

REVISION	DATE

DESIGNED BY:
DRAWN BY:
REVIEWED BY:

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY!

0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

PROPOSED SITE PLAN

C3

L:\Cherokee County WSA\Blankets Creek PS Elec\DwgSheets\CS-Site Plan.dwg - 11/3/2025 5:21 PM BY: SCOTTHENNESSEY

GEORGIA
UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

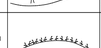
STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Co	CONSTRUCTION EXIT		 (LABEL)	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE		 (LABEL)	A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE		 (LABEL)	A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE		 (LABEL)	Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL		 (LABEL)	A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.
Rt	RETRO FITTING		 (LABEL)	A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER		 (INDICATE	A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN		 (LABEL)	A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER		 (LABEL)	A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM		 (LABEL)	Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING		 (LABEL)	A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING		 (SHOW STRIPING AND STORAGE AREAS)	The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION		 (DENOTE TREE CENTERS)	To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE		 (LABEL)	Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)			Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)			Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)			Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM SEEDING)			Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)			A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS			Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Co	FLOCCULANTS AND COAGULANTS			Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM VEGETATION)			The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION			A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS			Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GaSWCC (Amended - 2013)

CONSTRUCTION SCHEDULE

ACTIVITY	MONTHS 1	2	3	4	5	6	7	8	9	10	11	12
INSTALLATION OF EROSION CONTROL	■											
MAINTENANCE OF EROSION CONTROL		■	■	■	■	■	■	■	■	■	■	■
INSTALLATION OF GENERATOR AND ELECTRICAL MODIFICATIONS			■	■	■	■	■	■	■	■	■	■
RESTORATION OF PUMP STATION SITE											■	■
CLEAN-UP												■

CONSTRUCTION ACTIVITIES ARE EXPECTED TO BEGIN IN OCTOBER, 2025

STORM WATER AND EROSION CONTROL NOTES

1. THIS PROJECT LIES WITHIN ZONE "A" AS SHOWN ON FEMA FIRM PANEL 13057C0241E, DATED JUNE 7, 2019. ZONE "A" REPRESENTS AREA WITHIN THE 100-YR FLOOD PLAIN BUT DOES NOT HAVE BASE FLOOD ELEVATIONS.
2. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25- OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS. A 50-FOOT UNDISTURBED BUFFER AND A 75-FOOT IMPERVIOUS SETBACK SHALL BE MAINTAINED ADJACENT TO ALL STREAMS.
3. ALL ON-SITE WETLANDS AND ALL STATE WATERS LOCATED WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN DELINEATED.
4. THERE IS NO STORM WATER MANAGEMENT BEING PROVIDED FOR THIS PROJECT.
5. SOURCE OF TOPOGRAPHY IS TAKEN FROM A GROUND RUN SURVEY PROVIDED BY HB&P SURVEYING, DATED AUGUST 2018.
6. CHEROKEE COUNTY ASSUMES NO RESPONSIBILITY FOR OVERFLOW OR EROSION OF NATURAL OR ARTIFICIAL DRAINS BEYOND THE EXTENT OF THE STREET RIGHT-OF-WAY, OR FOR THE EXTENSION OF CULVERTS BEYOND THE POINT SHOWN ON THE APPROVED AND RECORDED PLAN. CHEROKEE COUNTY DOES NOT ASSUME THE RESPONSIBILITY FOR THE MAINTENANCE OF PIPES IN DRAINAGE EASEMENTS BEYOND THE COUNTY RIGHT-OF-WAY.
7. THE EXISTING AND PROPOSED LANDUSE FOR THE PROJECT SITE IS TO ACCOMODATE SANITARY SEWER GRAVITY AND FORCE MAIN IN WOODED LAND WITH PERMANENT UTILITY EASEMENT ADJACENT TO NORTHWEST RAILROAD RIGHT-OF-WAY.
8. EROSION AND SEDIMENT CONTROL DEVICES SHOWN ARE THE MINIMUM REQUIRED. ADDITIONAL DEVICES MAY BE REQUIRED AS NECESSARY.
9. TEMPORARY GRASSING OR MULCHING IS REQUIRED EVERY SEVEN (7) DAYS.
10. A TEMPORARY COVER OF HEAVY MULCH OR MULCH WITH TEMPORARY SEEDING SHALL BE PLACED ON ALL AREAS WHERE PERMANENT COVER CAN NOT BE ESTABLISHED IMMEDIATELY DUE TO SEASONAL LIMITATIONS.
11. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION AND SEDIMENT CONTROL DEVICES IN GOOD WORKING CONDITION AND CLEANING OUT THE DEVICES BEFORE THEY ARE HALF-FULL OF SEDIMENT.
12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT UNDER NO CIRCUMSTANCES ANY SEDIMENT, TRASH, OR DEBRIS BE ALLOWED ONTO ADJACENT PROPERTIES, PUBLIC LANDS, OR OUTSIDE OF THE CONSTRUCTION LIMITS.
13. CONTRACTOR SHALL BUILD, MAINTAIN, AND USE A CONSTRUCTION EXIT AT ALL SITE ENTRY/EXIT LOCATIONS ADJACENT TO PAVED ROADS.
14. PRE AND POST CONSTRUCTION RUNOFF COEFFICIENT ESTIMATES ARE 0.30 FOR WOODED AREAS WITH LIGHT UNDERBRUSH. FINAL GRADING OF TRENCH BACKFILL WILL MATCH THE FLOW REGIME OF PRE-CONSTRUCTION CONDITIONS.
15. ALL EROSION AND SEDIMENT CONTROL DEVICES TO BE USED ARE DETAILED ON THE EROSION CONTROL PLAN OR EROSION CONTROL DETAILS.
16. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL MEET THE MINIMUM REQUIREMENTS OF THE SPECIFICATIONS AND ALL LOCAL, STATE, AND FEDERAL LAWS AS APPLICABLE TO THIS PROJECT. ALL DEVICES SHALL BE PROPERLY INSTALLED AND BE OF SUITABLE MATERIALS. ANY DEVICES JUDGED TO BE INADEQUATE IN MATERIAL AND/OR CONSTRUCTION WILL IMMEDIATELY BE REPLACED WITH NEW OR ADDITIONAL DEVICES TO ENSURE PROPER CONTROL.
17. TEMPORARY SILT CONTROL FENCE, TYPE 'S' SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL INSPECT FENCE DAILY AND AFTER EVERY RAIN. ACCUMULATED SILT SHALL BE REMOVED AS SOON AS PRACTICAL, BUT NO LATER THAN WHEN FENCE IS HALF FULL. CONTRACTOR SHALL REMOVE THE SILT FENCE WHEN PERMANENT GRASSING HAS BEEN ESTABLISHED.
18. ALL EROSION CONTROL DEVICES, THAT ARE NOT DIRECTLY SPECIFIED AS TO INSTALLATION AND MATERIALS, SHALL MEET THE REQUIREMENTS OF THE GA. DEPT. OF TRANSPORTATION, SPECIFICATIONS FOR THE CONSTRUCTION OF ROADS AND BRIDGES, CURRENT EDITION, AND LATEST SUPPLEMENT IN EFFECT AT THE TIME OF BID OPENING OR THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, 2016 EDITION.
19. CONSTRUCTION EXITS (Co) SHALL BE REQUIRED AT ALL OTHER LOCATIONS USED FOR INGRESS/EGRESS FROM THE CONSTRUCTION AREA. CONSTRUCTION MATERIAL STORAGE AREAS WILL REQUIRE THE INSTALLATION OF A CONSTRUCTION EXIT TO REDUCE OR ELIMINATE THE TRANSPORT OF MUD FROM THE AREA. SILT FENCE SHALL ALSO BE INSTALLED TO PREVENT SEDIMENT FROM LEAVING THE MATERIAL STORAGE AREA. AFTER DEMOBILIZATION, THE MATERIAL STORAGE AREA SHALL BE SEEDED AND MULCHED, AND THE SILT FENCE SHALL REMAIN UNTIL THE AREA IS PERMANENTLY STABILIZED.
20. MAXIMUM SLOPE FOR CUT OR FILL IS 2H:1V EXCEPT EARTHEN DAM EMBANKMENTS SHALL BE 3H:1V.
21. THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS HEREON, CERTIFIES THE FOLLOWING: 1) THE NATIONAL WETLANDS INVENTORY MAPS HAVE BEEN CONSULTED; AND 2) THE APPROPRIATE PLAN SHEET DOES NOT INDICATE AREAS OF UNITED STATES ARMY CORPS OF ENGINEERS JURISDICTIONAL WETLANDS AS SHOWN ON THE MAPS; AND 3) IF WETLANDS ARE INDICATED, THE LAND OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE FEDERAL WETLANDS ALTERATION PERMIT HAS BEEN OBTAINED.
22. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.
23. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION AND SEDIMENT CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
24. SEDIMENT STORAGE MAINTENANCE INDICATORS MUST BE INSTALLED IN SEDIMENT STORAGE STRUCTURES, INDICATING THE $\frac{1}{3}$ FULL VOLUME.
25. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE PROPERTY OWNER.
26. WASTE MATERIALS SHALL NOT BE DISCHARGED IN WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.
27. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 7 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
28. ALL FILL SLOPES SHALL HAVE SILT FENCE PLACED AT THE TOE OF THE SLOPE.
29. CONCENTRATED FLOW AREAS AND ALL SLOPES STEEPER THAN 2.5:1 WITH A HEIGHT OF TEN FEET OR GREATER SHALL BE STABILIZED WITH THE APPROPRIATE EROSION CONTROL MATTING BLANKET.
30. THE PROFESSIONAL WHO SEALS THIS PLAN CERTIFIES UNDER PENALTY OF LAW THAT THIS PLAN WAS PREPARED AFTER A SITE VISIT TO THE LOCATION DESCRIBED HEREIN BY MYSELF OR MY AUTHORIZED AGENT, UNDER MY DIRECT SUPERVISION.
31. UPON NOTIFICATION AND AUTHORIZATION OF THE OWNER, THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS RESPONSIBLE FOR INSPECTING THE INSTALLATION OF THE BMP'S WITHIN 7 DAYS AFTER INITIAL CONSTRUCTION ACTIVITIES BEGIN.
32. TOTAL WETLAND AREA ON THE SITE IS 0.0 ACRES.
33. THE RECEIVING WATERS FOR THIS PROJECT IS BLANKETS CREEK. THIS PROJECT IS NOT LOCATED WITHIN 1 MILE UPSTREAM OF AN IMPAIRED STREAM SEGMENT.
34. THE ESTIMATE OF THE PRE-CONSTRUCTION RUNOFF COEFFICIENT IS C = 0.71. THE ESTIMATE OF THE POST CONSTRUCTION RUNOFF COEFFICIENT IS C = 0.71.
35. OWNER/DEVELOPER:
    CHEROKEE COUNTY WATER AND SEWERAGE AUTHORITY
    140 W. MAIN STREET
    CANTON, GA 30114
    (770) 479-1813 - COREY GHORLEY
36. 24-HOUR CONTACT: COREY GHORLEY (770) 479-1813.
37. TOTAL PROJECT AREA: ±0.79 ACRES
    TOTAL DISTURBED AREA: ±0.04 ACRES (±1,800 SF)

    PROJECT LOCATION: N34°09'54" W84°32'07"

CHEROKEE COUNTY EROSION CONTROL NOTES

1. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES WITHIN WETLAND AREAS. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY WETLAND AREA DISTURBANCE.
2. APPROVAL OF THESE PLANS DOES NOT CONSTITUTE APPROVAL BY CHEROKEE COUNTY OF ANY LAND DISTURBING ACTIVITIES THAT MAY IMPACT ANY ENDANGERED SPECIES. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO CONTACT THE APPROPRIATE REGULATORY AGENCY FOR APPROVAL OF ANY DISTURBANCE WHICH MAY THIS EFFECT.
3. BURY PITS ARE NOT PERMITTED TO BE USED ON THIS PROJECT.

TREE PRESERVATION/PROTECTION PLANTING NOTES

1. ALL TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO CLEARING.
2. UNDISTURBED BUFFERS SHALL BE PLANTED TO BUFFER STANDARDS WHERE SPARSELY VEGETATED IN ACCORDANCE WITH ARTICLE 10 OF CHEROKEE COUNTY ZONING ORDINANCE. ALL REPLANTING MUST BE PRE APPROVED BY BOTH THE COUNTY ARBORIST AND THE PLANNING AND ZONING DEPARTMENT. (SECTION 10.6-3)
3. CONTACT THE COUNTY ARBORIST FOR A SITE INSPECTION UPON COMPLETION OF LANDSCAPE INSTALLATION PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY OR FINAL PLAT.
4. ALL LIMITS OF CONSTRUCTION AS INDICATED ON THE DRAWINGS SHALL BE CLEARLY IDENTIFIED BY ORANGE SAFETY FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE EXCEPT THOSE OPERATIONS NEEDED TO INSTALL EROSION CONTROL FACILITIES. ENGINEER SHALL INSPECT SAFETY FENCING PRIOR TO LAND DISTURBANCE.
5. THE CONTRACTOR SHALL PROTECT ALL TREES AND VEGETATION ON THE SITE EXCEPT AS NOTED ON THE PLANS OR APPROVED BY CHEROKEE COUNTY ENGINEER OR INSPECTOR.
6. ORANGE SAFETY FENCING SHALL BE INSTALLED ALONG THE OUTER EDGE OF AND COMPLETELY SURROUNDING THE CRITICAL ROOT ZONES OF ALL SPECIMEN TREES OR STANDS OF TREES, OR OTHERWISE DESIGNATED TREE PROTECTION ZONES PRIOR TO ANY LAND DISTURBANCE. SPECIMEN TREES AND TREE PROTECTION ZONES SHALL BE FLAGGED BY CHEROKEE COUNTY PRIOR TO NOTICE TO PROCEED.
7. ALL TREE PROTECTION ZONES SHALL BE DESIGNATED WITH "TREE SAVE AREA" SIGNS.
8. WHEN DIGGING NEAR TREES, THE CONTRACTOR SHALL PRUNE ALL EXPOSED ROOTS ONE (1) INCH IN DIAMETER AND LARGER ON THE SIDE OF THE TRENCH ADJACENT TO THE TREES. PRUNING SHALL CONSIST OF MAKING A CLEAN CUT FLUSH WITH THE SIDE OF THE TRENCH TO PROMOTE NEW ROOT GROWTH.
9. PRUNING OF TREE LIMBS TO PROVIDE CLEARANCE FOR EQUIPMENT AND MATERIALS SHALL BE DONE ACCORDING TO STANDARD ARBORICULTURAL PRACTICES.
10. ALL BUFFERS AND TREE SAVE AREAS ARE TO BE CLEARLY IDENTIFIED WITH PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.

EROSION CONTROL PROJECT NARRATIVE

THE PROPOSED PROJECT CONSISTS OF THE INSTALLATION OF AN EMERGENCY STORAGE TANK AND DIESEL DRIVEN EMERGENCY PUMP AT THE BLANKETS CREEK PUMP STATION IN CHEROKEE COUNTY, GEORGIA. THE TOTAL PROJECT AREA IS 0.79 ACRES AND THE DISTURBED AREA IS 0.45± ACRES.

FIVE (5) TYPES OF EROSION CONTROL MEASURES WILL BE UTILIZED IN THE CONSTRUCTION OF THE PROJECT.
1. SILT FENCE (Sd1) SHALL BE INSTALLED AT APPROPRIATE LOCATIONS TO PREVENT SEDIMENT FROM BEING WASHED OFF OF THE SITE.
2. MULCHING, TEMPORARY AND PERMANENT GRASSING (Ds1, Ds2 & Ds3) SHALL BE USED TO RE-ESTABLISH VEGETATION ON THE DISTURBED AREAS AS CONSTRUCTION PROCEEDS.
3. HAYBALE CHECKDAMS (Cd) SHALL BE PLACED IN THE DITCHES AND CHANNELS SHOWN TO PREVENT SEDIMENT FROM BEING WASHED OFF OF THE SITE.
4. CONSTRUCTION EXITS (Co) WILL BE INSTALLED TO PREVENT THE ESCAPE OF SEDIMENT FROM THE SITE WHERE EQUIPMENT EXITS THE SITE.
5. ALL DISTURBED AREAS WILL BE STABILIZED WITH EITHER TEMPORARY OR PERMANENT MEASURES WITHIN 48 HOURS OR PRIOR TO ANY EXPECTED RAINFALL EVENT.

THE CONTRACTOR SHALL ESTABLISH A STRONG STAND OF GRASS BEFORE BEING RELEASED FROM HIS CONTRACTUAL OBLIGATIONS AND SHALL BE HELD RESPONSIBLE, FOR A PERIOD OF TWELVE MONTHS AFTER ACCEPTANCE OF THE PROJECT, TO REPAIR ANY WASHOUT AREAS, ETC.

GEORGIA REGISTERED 11/17/2025 No. 25248 PROFESSIONAL ENGINEER SCOTT HENNESSEY

ESI
ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD, SUITE 525
MARIETTA, GA 30060
(770) 426-0001

PROJECT NUMBER: 24-20081
PROJECT DATE: NOVEMBER 2025

REVISION	DATE

DESIGNED BY:
DRAWN BY:
REVIEWED BY:

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

EROSION CONTROL NOTES

C4

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N

SCALE: ½" = 1'-0"

NOTES:

1. REMOVE EXISTING GENERATOR AND EXISTING FUEL TANK AND DELIVER TO OWNER'S STORAGE FACILITY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOADING, TRANSPORTING, UNLOADING, AND STORING THE EQUIPMENT AND THE OWNER'S FACILITY. IN ADDITION TO REMOVING THE GENERATOR AND FUEL TANK, CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL PIPING, ELECTRICAL COMPONENTS, HARDWARE, AND APPURTENANCES ASSOCIATED WITH THE EQUIPMENT. ALL PENETRATIONS, PIPE OPENINGS, ETC. LEFT BY THE REMOVAL OF THE APPURTENANCES SHALL BE REPAIRED (PLUGGED, PATCHED, ETC.) AND PAINTED.

2. ALL EXPOSED REINFORCING BARS OR ANCHORS REMAINING AFTER REMOVAL OF MATERIALS SHALL BE CUT AND GRINDED BACK TO A DEPTH OF ½" BELOW THE EXISTING CONCRETE SURFACE. GROUND BACK AREA SHALL BE COATED WITH A HEAVY COAT OF SIKA ARMATEC 110 EPOCEM BONDING AGENT AND FILLED WITH SIKA 123 PLUS REPAIR MORTAR.

GEORGIA REGISTERED 11/17/2025 No. 25248 PROFESSIONAL ENGINEER SCOTT HENNESSEY

ESI
ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD, SUITE 525
MARIETTA, GA 30060
(770) 429-0001

L:\Cherokee County WSA\Blankets Creek PS Elec\Dwg\Sheets\MS-Ex Electrical Building-Demo.dwg - 11/3/2025 12:57 PM BY: SHENNESSEY

PROJECT NUMBER: 24-20081
PROJECT DATE: NOVEMBER 2025

REVISION	DATE

DESIGNED BY:
DRAWN BY:
REVIEWED BY:

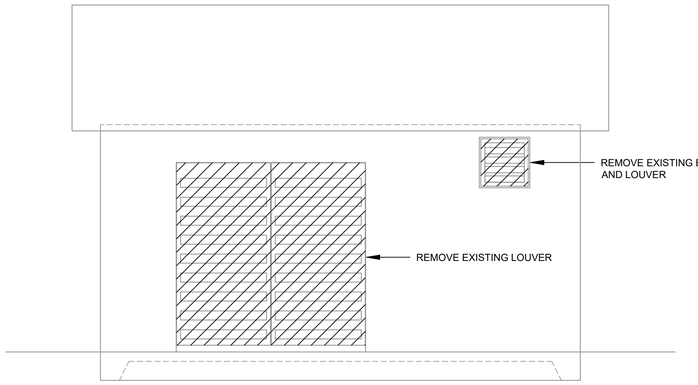
BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

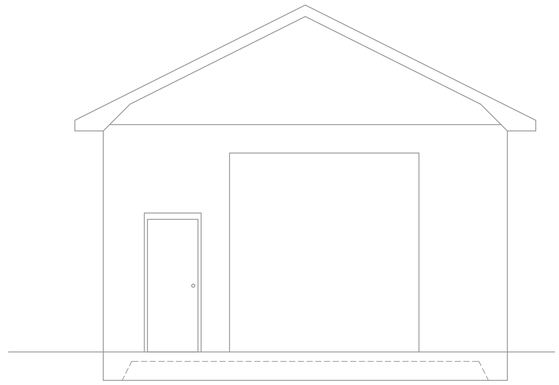
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL BUILDING DEMOLITION PLAN 1

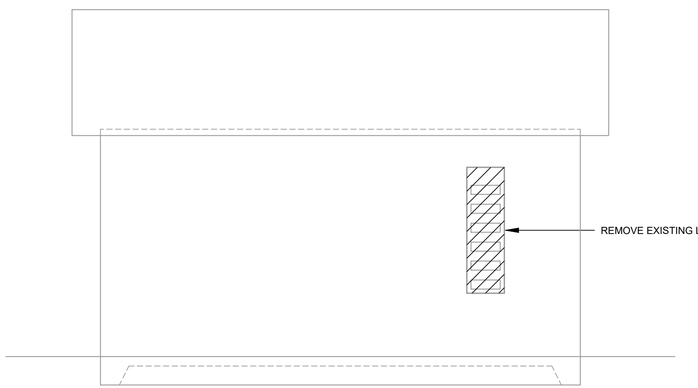
M1



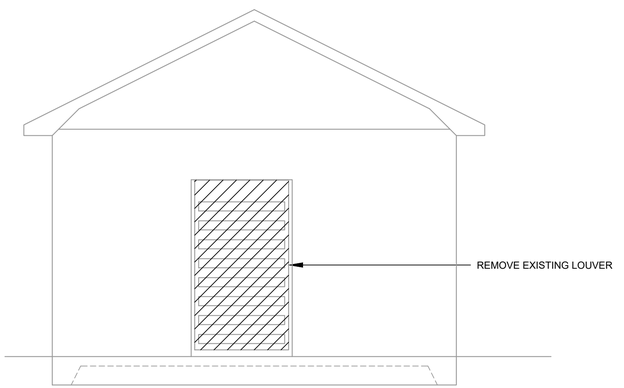
NORTH ELEVATION
1/4" = 1'-0"



EAST ELEVATION
1/4" = 1'-0"



SOUTH ELEVATION
1/4" = 1'-0"



WEST ELEVATION
1/4" = 1'-0"

GEORGIA REGISTERED 11/17/2025 No. 25248 PROFESSIONAL ENGINEER SCOTT HENNESSEY

ESI
ENGINEERING STRATEGIES, INC.
3855 SHALLOWFORD ROAD, SUITE 525
MARIETTA, GA 30060
(770) 429-0001

PROJECT NUMBER: 24-20081
PROJECT DATE: NOVEMBER 2025

	REVISION	DATE
1		

DESIGNED BY:
DRAWN BY:
REVIEWED BY:

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

1" 0

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL BUILDING DEMOLITION PLAN 2

M2

L:\Cherokee County WSA\Blankets Creek PS Elec\Dwg\Sheets\MS-Ex Electrical Building-Demo.dwg - 11/3/2025 12:57 PM BY: SHENNESSEY

GENERAL STRUCTURAL NOTES

GENERAL CONDITIONS

1. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE MECHANICAL, ELECTRICAL, AND SHOP DRAWINGS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL REVIEW AND VERIFY DIMENSIONS SHOWN IN ALL PLANS AND REVIEW ALL FIELD CONDITIONS THAT MAY AFFECT THE WORK DEPICTED ON THE DRAWINGS. SHOULD DISCREPANCIES APPEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING TO OBTAIN ENGINEER'S CLARIFICATION BEFORE COMMENCING WITH THE WORK.
3. FOR ALL ITEMS EMBEDDED IN OR PASSING THROUGH CONCRETE, THE CONTRACTOR SHALL INITIALLY REFER TO MECHANICAL/PROCESS DRAWINGS FOR TYPE, SIZE, LOCATION, AND SPECIAL INSTALLATION REQUIREMENTS FOR THESE ITEMS.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT EXISTING STRUCTURES FROM DAMAGE WHEN WORKING IN AND AROUND EXISTING STRUCTURES WHILE PERFORMING WORK SUCH AS DEMOLITION, FOUNDATION EXCAVATIONS, AND OTHERS.
5. SIZE AND LOCATION OF EQUIPMENT PADS AND ANCHOR BOLTS SHALL BE PER EQUIPMENT MANUFACTURER'S REQUIREMENTS.
6. ANY EQUIPMENT THAT MAY INDUCE VIBRATION TO THE STRUCTURE SHALL BE ADEQUATELY ISOLATED FROM THE STRUCTURE.
7. ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE ON THE PROJECT, EXCEPT WHERE A DIFFERENT DETAIL IS SHOWN.

DESIGN CRITERIA

BUILDING CODES AND REFERENCES:

1. 2018 INTERNATIONAL BUILDING CODE WITH GEORGIA AMENDMENTS
2. REINFORCED CONCRETE:

   WATER RETAINING ENVIRONMENTAL STRUCTURES: ACI 350-20 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES"

5. WIND DESIGN CRITERIA:

RISK CATEGORY	III
ULTIMATE DESIGN WIND SPEED, V_{ULT}	113 MPH
NOMINAL DESIGN WIND SPEED, V_{ASD}	88 MPH
EXPOSURE CATEGORY	C

6. SNOW LOAD:

BASIC GROUND SNOW LOAD	28 PSF

7. SEISMIC DESIGN CRITERIA:

SITE CLASS	D
SEISMIC IMPORTANCE FACTOR, I_e	1.25
SHORT PERIOD MCE SPECTRAL RESPONSE ACCELERATION, S_S	0.33
1-SECOND PERIOD MCE SPECTRAL RESPONSE ACCELERATIONS, S_1	0.10
SEISMIC DESIGN CATEGORY	C
DESIGN SHORT PERIOD MCE SPECTRAL RESPONSE ACCELERATION, S_{DS}	0.26
DESIGN 1-SECOND PERIOD MCE SPECTRAL RESPONSE ACCELERATION, S_{D1}	0.15

STAINLESS STEEL

1. STAINLESS STEEL MATERIALS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
   a. EXTERIOR AND SUBMERGED USE: TYPE 316; TYPE 316L (WHERE WELDED)
2. ALL WELDING OF STRUCTURAL STAINLESS STEEL SHALL CONFORM TO "STRUCTURAL WELDING CODE - STAINLESS STEEL", AWS D1.6, LATEST EDITION. ELECTRODES SHALL BE E-318 316L STAINLESS STEEL.
3. STAINLESS STEEL PLATES, SHEETS AND WASHERS SHALL BE IN ACCORDANCE TO ASTM A240.
4. STAINLESS STEEL W SHAPES, CHANNELS AND ANGLES SHALL BE IN ACCORDANCE TO ASTM A276.
5. ALL BUILT-UP ASSEMBLIES SHALL BE FUSED BY LASER IN ACCORDANCE WITH ASTM A1069 FOR NON TUBULAR SHAPES OR WELDED IN ACCORDANCE WITH ASTM A554 FOR TUBULAR SHAPES.
6. STAINLESS STEEL BOLTS AND THREADED RODS SHALL BE TYPE 316 IN ACCORDANCE TO ASTM F593 UNLESS NOTED OTHERWISE.
7. STAINLESS STEEL NUTS SHALL BE TYPE 316 IN ACCORDANCE TO ASTM F594 UNLESS NOTED OTHERWISE.

CONCRETE (CAST-IN-PLACE)

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318 REQUIREMENTS.
2. ALL CONCRETE SHALL BE AIR-ENTRAINED WITH A MINIMUM OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS UNLESS OTHERWISE NOTED.
3. WATER REDUCING AGENT SHALL BE IN ACCORDANCE WITH ASTM C494.
4. ALL CONCRETE SURFACES EXPOSED TO AIR, UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS, SHALL BE TREATED WITH AN APPROPRIATE CURING METHOD AS SOON AS FINISHING IS COMPLETED OR FORMS ARE REMOVED.
5. ALL EXPOSED CORNERS SHALL HAVE A MINIMUM CHAMFER OF 3/4" UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL OBTAIN ENGINEER'S APPROVAL FOR THE LOCATIONS OF CONSTRUCTION JOINTS THAT ARE NOT SHOWN ON THE DRAWINGS.

REINFORCING STEEL

1. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 REQUIREMENTS. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064 REQUIREMENTS. ALL ACCESSORIES SHALL BE IN CONFORMANCE WITH ACI 315 REQUIREMENTS.
2. REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR COVER UNLESS OTHERWISE NOTED:
   a. CONCRETE CAST AGAINST EARTH — 3"
   b. FORMED SURFACE IN CONTACT WITH SOIL, SEWAGE, WATER OR EXPOSED TO WEATHER — 2"
3. LAP SPLICES SHALL BE AS SHOWN ON THE DRAWINGS. FOR LAP SPLICES NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN ENGINEERS APPROVAL.
4. THE CONTRACTOR SHALL PREPARE PLACING DRAWINGS AND SCHEDULES IN CONFORMANCE WITH ACI 315 REQUIREMENTS.

MASONRY

1. MASONRY DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, f'_M = 2,000 PSI MINIMUM.
2. MATERIALS:
   a. BLOCK : CONFORM TO ASTM C90 - LOAD BEARING, NORMAL WEIGHT TWO-CELL, 8"x8"x16", 12"x8"x16".
   b. MORTAR : CONFORM TO ASTM C270, TYPE S, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 1800 PSI. UTILIZE TYPE II CEMENT AND TYPE S LIME, MASONRY CEMENT WILL NOT BE CONSIDERED.
   c. GROUT : CONFORM TO ASTM C476, COURSE GROUT, MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 2500 PSI.
3. CONSTRUCTION:
   a. THE GROUT FOR FILLED CELLS SHALL BE RODDED OR PUDDLED DURING PLACEMENT TO INSURE COMPLETE FILLING TO THE BLOCK CORE.
4. b. PROVIDE CLEAN OUT AND INSPECTION BLOCK OUT IN CELLS CONTAINING REINFORCEMENT FOR GROUT LIFTS EXCEEDING 5'-4".

STRUCTURAL ABBREVIATIONS

&	AND	EMBED	EMBEDMENT	OD	OUTSIDE DIAMETER
@	AT	EQ	EQUAL	OPNG	OPENING
#	NUMBER	EW	EACH WAY	PSF	POUNDS PER SQUARE FOOT
ADDTL	ADDITIONAL	EXIST	EXISTING	PSI	POUNDS PER SQUARE INCH
ALUM	ALUMINUM	EXP	EXPANSION	R	RADIUS
ALT	ALTERNATE	FG	FINISHED GRADE	REINF	REINFORCING
APROX	APPROXIMATE(LY)	FT	FOOT	SIM	SIMILAR
BLD	BUILDING	GALV	GALVANIZED	SJ	SAWCUT JOINT
BM	BEAM	HORIZ	HORIZONTAL	SPECS	SPECIFICATIONS
BOT	BOTTOM	HP	HIGH POINT	SQ	SQUARE
CL	CENTER LINE	ID	INSIDE DIAMETER	SS	STAINLESS STEEL
CLR	CLEAR	JT	JOINT	STD	STANDARD
CMU	CONCRETE MASONRY UNIT	LB(S)	POUND(S)	STL	STEEL
COL	COLUMN	LONG	LONGITUDINAL	T/	TOP OF
CONC	CONCRETE	LP	LOW POINT	TB	TIE BEAM
CONN	CONNECTION	MANUF	MANUFACTURER	T&B	TOP AND BOTTOM
CONST JT	CONSTRUCTION JOINT	MATL	MATERIAL	THK	THICK
CONT	CONTINUOUS	MAX	MAXIMUM	THRU	THROUGH
DIA	DIAMETER	MECH	MECHANICAL	TOC	TOP OF CONCRETE
DWL	DOWEL(S)	MFR	MANUFACTURER	TOS	TOP OF STEEL
(E)	EXISTING	MIN	MINIMUM	TYP	TYPICAL
EA	EACH	MISC	MISCELLANEOUS	UNO	UNLESS NOTED OTHERWISE
EF	EACH FACE	MO	MASONRY OPENING	VERT	VERTICAL
EL	ELEVATION	NO	NUMBER	WT	WEIGHT
ELEC	ELECTRICAL	NTS	NOT TO SCALE		
		OC	ON CENTER		

LEGEND

STRUCTURAL LEGEND APPLIES TO "S" SHEETS ONLY

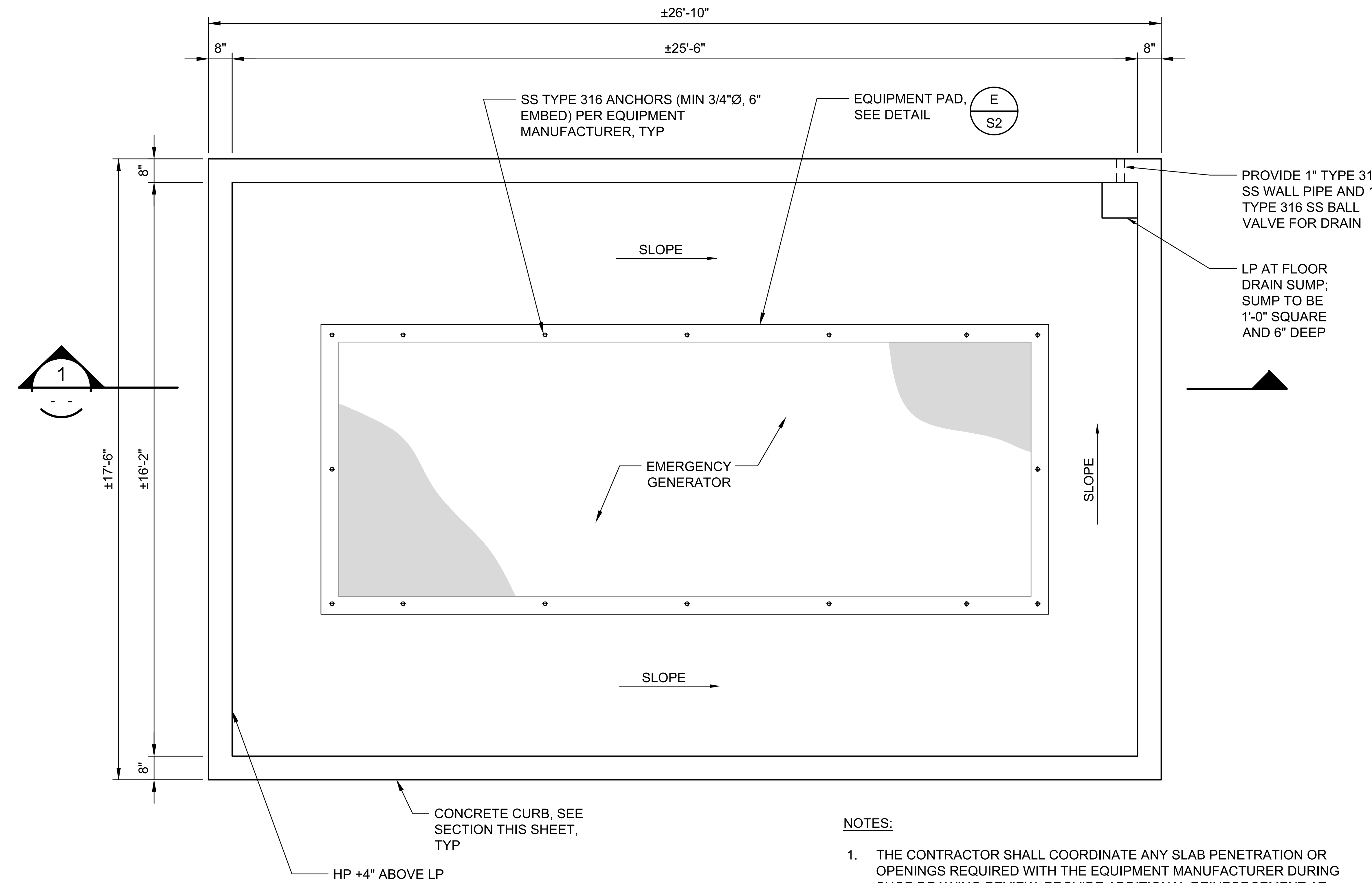
- EARTH FILL
- UNDISTURBED EARTH
- COMPACTED GRANULAR FILL
- GROUT OR SAND (AS NOTED)
- GRATING
- CONCRETE
- EXISTING CONCRETE
- DEMOLITION
- STEEL
- PRECAST CONCRETE

SYMBOLS

SYMBOLS APPLY TO "S" SHEETS ONLY

- 1 — COLUMN OR WALL LINE TAG
- T/SLAB EL.0.00 — ELEVATION TAG
- 00 / S00 — SECTION NO.; BUILDING SECTION INDICATOR; DWG. NO. OF SECTION VIEW
- A / S00 — DETAIL NO.; DETAIL INDICATOR; DWG. NO; INDICATES DETAIL SECTION CUT (WHERE SHOWN)

WEKIVA ENGINEERING
1320 WILFRED DRIVE
ORLANDO, FL 32803
P: 407.219.4454
WEKIVA PROJECT #24-345



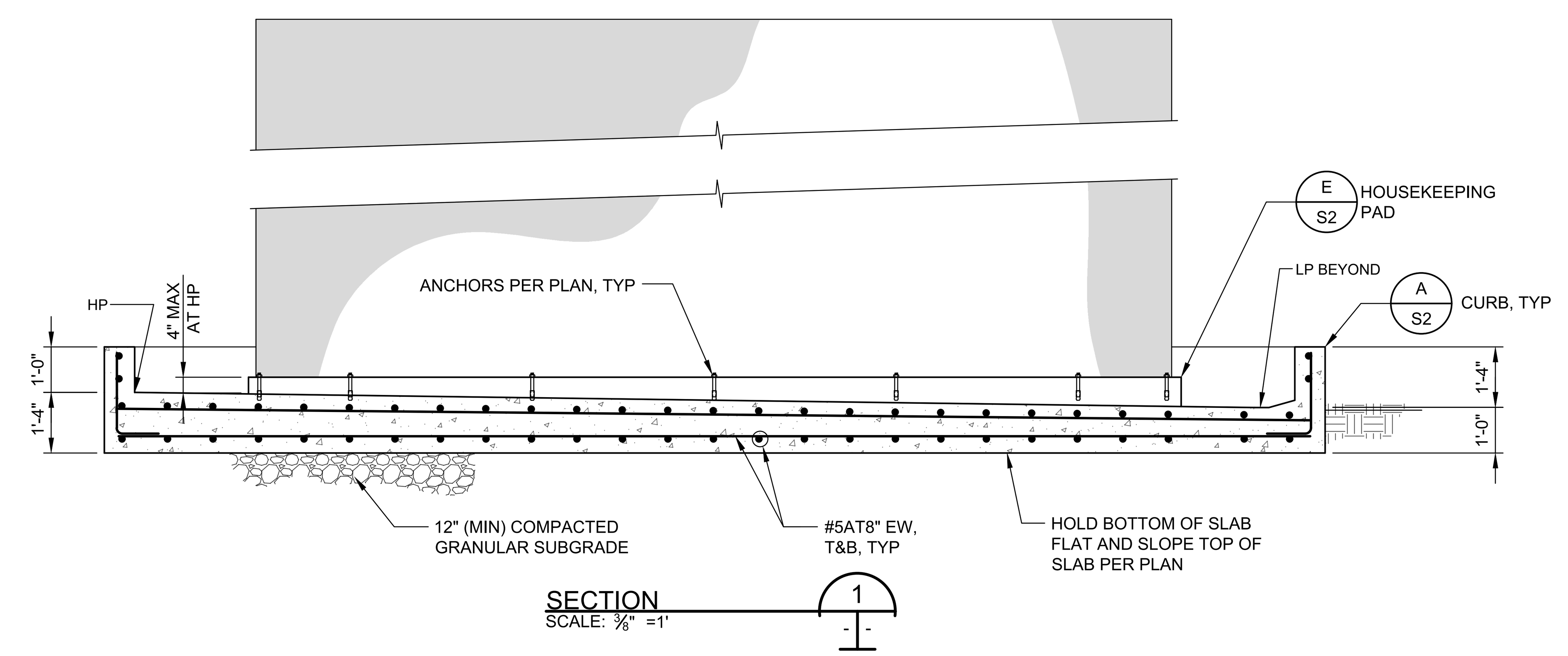
GENERATOR FOUNDATION

PLAN

3/8"=1'-0"

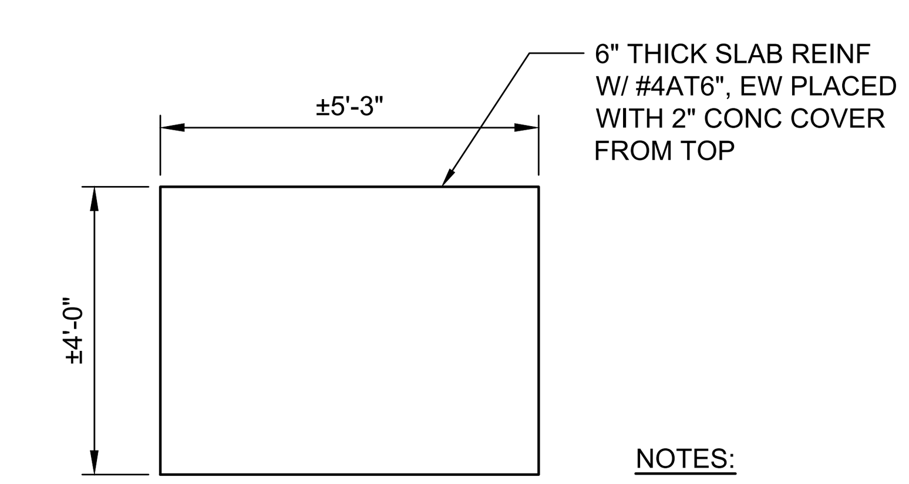
NOTES:

1. THE CONTRACTOR SHALL COORDINATE ANY SLAB PENETRATION OR OPENINGS REQUIRED WITH THE EQUIPMENT MANUFACTURER DURING SHOP DRAWING REVIEW. PROVIDE ADDITIONAL REINFORCEMENT AT PENETRATIONS OR OPENINGS IN ACCORDANCE WITH THE PROJECT STANDARD DETAILS.
2. COORDINATE OVERALL DIMENSIONS WITH THE PROPOSED GENERATOR MANUFACTURER IN ORDER TO ACCOMMODATE THE PROPOSED ANCHORAGE, ACCESS STAIRS AND PLATFORMS, ETC.



SECTION 1

SCALE: 3/8" =1'



HVAC FOUNDATION

PLAN

3/8"=1'-0"

NOTES:

1. COORDINATE OVERALL DIMENSIONS WITH THE PROPOSED HVAC EQUIPMENT WITH THE MANUFACTURER IN ORDER TO ACCOMMODATE THE PROPOSED ANCHORAGE. MODIFY THE PAD SIZE AS NEEDED.

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 41721 JOHN SOBCZAK 7-31-25

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PROJECT NUMBER: 24-20081

PROJECT DATE: JULY 2025

REVISION	DATE

DESIGNED BY:	DSM
DRAWN BY:	JAM
REVIEWED BY:	JVS

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

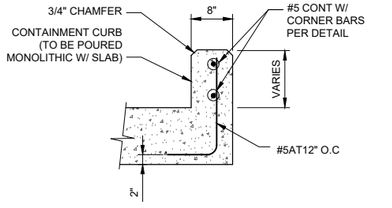
0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

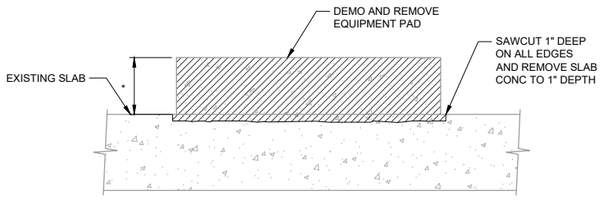
GENERAL NOTES AND GENERATOR CONTAINMENT SLAB PLAN AND SECTION

S1



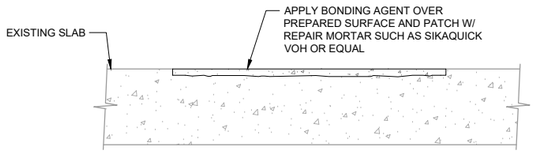
CONCRETE CURB

DETAIL A
NTS S1



DEMOLITION

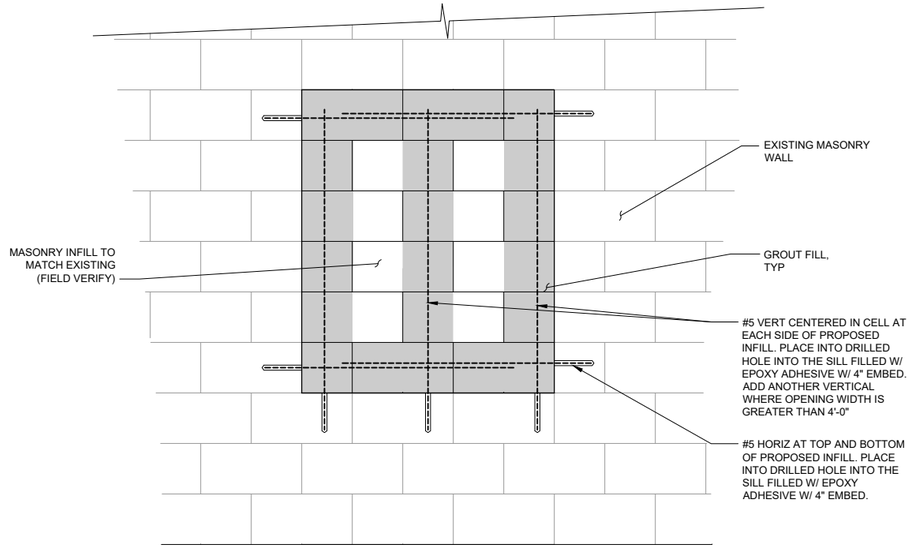
* FIELD VERIFY EXISTING PAD DEPTH



REPAIR

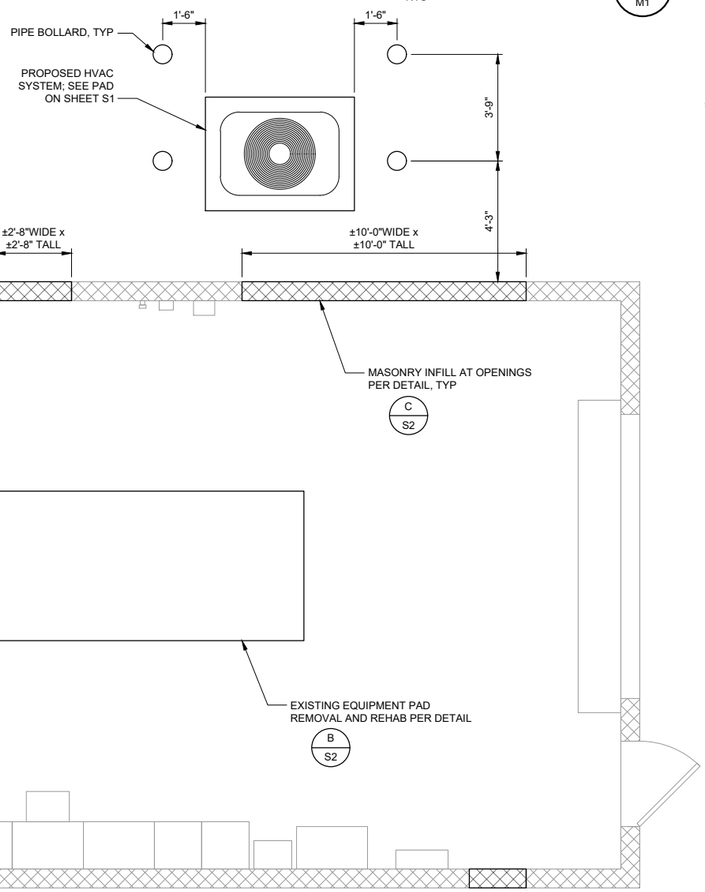
PAD DEMOLITION

DETAIL B
NTS M1



MASONRY INFILL

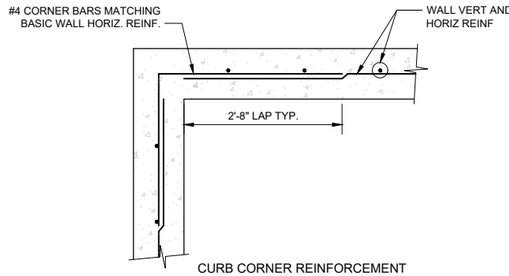
DETAIL C
NTS M3



ELECTRICAL BUILDING - IMPROVEMENTS

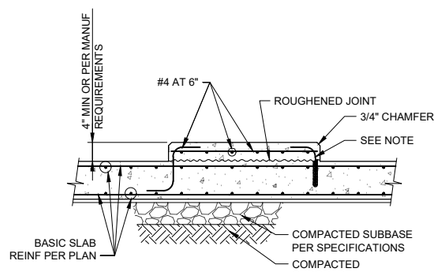
PLAN

3/8"=1'-0"



CURB CORNER REINFORCEMENT

DETAIL D
NTS S1



NOTE:
1. FOR EXISTING CONCRETE SLAB DRILL AND EPOXY #5AT12" AROUND PERIMETER W/ 6" MIN EMBEDMENT.

EQUIPMENT PAD

DETAIL E
NTS S1

ANCHORS

1. ALL POST-INSTALLED REINFORCEMENT TO BE INSTALLED WITH HILTI HY 200-A ADHESIVE OR APPROVED EQUAL. REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS INCLUDING THE LOCATION OF THE REINFORCEMENT RELATIVE TO AN EXISTING MORTAR JOINT. WHERE THE CMU IS NOT GROUT FILLED THEN USE HILTI HY 270 ADHESIVE SYSTEM WITH SIEVE SLEEVE.

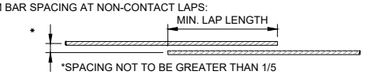
REBAR MINIMUM TENSION DEVELOPMENT & LAP LENGTHS

CONCRETE STRENGTH f'c= 4,000 PSI OR GREATER

BAR SIZE	DEVELOPMENT LENGTH, ld		LAP LENGTH (CLASS B SPLICE)		BAR SIZE
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	
#3	1'-7"	1'-3"	2'-0"	1'-7"	#3
#4	2'-1"	1'-7"	2'-8"	2'-0"	#4
#5	2'-7"	2'-0"	3'-4"	2'-7"	#5
#6	3'-1"	2'-4"	4'-0"	3'-1"	#6

NOTES:
1. GRADE 60 UNCOATED REINFORCEMENT
2. SPLICE LENGTHS GIVEN ABOVE ARE TO BE USED UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS.
3. "TOP BARS" INCLUDE ALL TOP BARS IN SLABS AND ALL WALL HORIZONTALS.

MAXIMUM BAR SPACING AT NON-CONTACT LAPS:

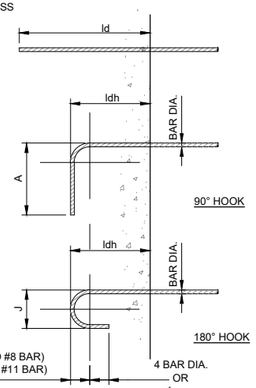


*SPACING NOT TO BE GREATER THAN 1/5 LAP LENGTH OR 6IN. WHICH EVER IS LESS

STANDARD HOOK DEVELOPMENT LENGTH

BAR SIZE	90° STD HOOK "A"	180° STD HOOK "J"	DEVELOPMENT LENGTH, ldh
#3	6"	3"	6"
#4	8"	4"	7"
#5	10"	5"	9"
#6	1'-0"	6"	10"

*FOR STD HOOK BAR GEOMETRY NOT SHOWN REFER TO MINIMUM ACI REQUIREMENTS



STANDARD REINFORCEMENT DETAILS

DETAIL F
NTS -

NOTES:

1. ALL PROPOSED MORTAR AND MASONRY SHALL MATCH EXISTING. PAINT ENTIRE INTERIOR AND EXTERIOR OF ALL WALL SURFACES. THE EXISTING EXTERIOR OF THE WALLS HAS A PAINTED STUCCO FINISH. THE EXTERIOR OF THE PROPOSED AREAS AND THOSE AFFECTED BY CONSTRUCTION SHALL RECEIVE A STUCCO FINISH TO MATCH THE EXISTING. PROVIDE PVC CONTROL JOINTS WHERE NEEDED.

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WEKIVA PROJECT #24-345

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DATE	REVISION

PROJECT NUMBER: 24-20081
PROJECT DATE: JULY 2025

DESIGNED BY: DSM
DRAWN BY: JAM
REVIEWED BY: JVS

BAR BELOW IS 1" LONG FOR SCALE SHOWN ON THIS SHEET. IF NOT 1"LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL BUILDING PROPOSED PLAN AND MISCELLANEOUS DETAILS

S2

HVAC SYMBOLS AND ABBREVIATIONS

	SUPPLY AIR DUCT UP/DOWN	CHWR	CHILLED WATER RETURN
	RETURN/EXHAUST AIR DUCT UP/DOWN	CHWS	CHILLED WATER SUPPLY
	NEW DUCTWORK	CU–*	CONDENSING UNIT
	FLEXIBLE DUCT	DIA.	DIAMETER
	VOLUME DAMPER	EF–*	EXHAUST FAN
	SUPPLY DIFFUSER	ES	EQUAL SPLIT
	RETURN OR EXHAUST GRILLE	FIL–*	FILTER
T	THERMOSTAT	F–*	FURNACE
P	PRESSURE SENSOR	GA	GAUGE
S	SMOKE DETECTER	OA	OUTSIDE AIR
	FIRE DAMPER	OE	OPEN ENDED DUCT
	FIRE/SMOKE DAMPER	SD	SPLITTER DAMPER
	PIPE TURNED DOWN	U/G	UNDERGROUND
	PIPE TURNED UP	UH–*	UNIT HEATER
S	BRANCH PIPE OFF MAIN	VD	VOLUME DAMPER
CFM	CUBIC FEET PER MINUTE	A/C–*	AIR CONDITIONING SYSTEM
M	MOTOR OPERATOR	AFF	ABOVE FINISHED FLOOR
		AHU–*	AIR HANDLING UNIT

HEAT PUMP SCHEDULE

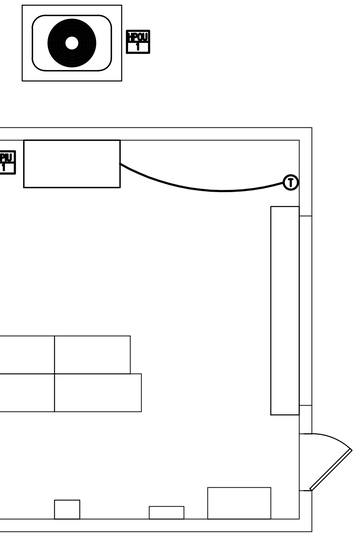
HPOU TAG	BASIS OF DESIGN	CAPACITY	I.E.E.R	VOLTS – PH	REMARKS
HPOU–1	TRANE TWA090K4DA	7.5 TON	14.1	460/3	DUAL CIRCUIT SYSTEM

1. DUAL CIRCUIT SYSTEM
2. OR EQUAL BY CARRIER, YORK

FAN COIL UNIT SCHEDULE

HPIU TAG	BASIS OF DESIGN	CAPACITY	CFM	O.A.	E.S.P.	TYPE	VOLTS – PH	AUX. EL. HT.	REMARKS
HPIU–1	TRANE TWE090K4BA	7.5 TON	3,000	N/A	0.50"	HP	460/3	15 KW 460/3	1, 2, 3, 4, 5, 6

1. DUAL CIRCUIT SYSTEM
2. RUBBER VIBRATION ISOLATORS
3. DISCHARGE PLENUM AND GRILLE
4. SUBBASE
5. RETURN AIR GRILLE
6. 2" MERV 13 FILTER
7. OR EQUAL BY CARRIER, YORK



1 ELECTRICAL BUILDING HVAC PLAN

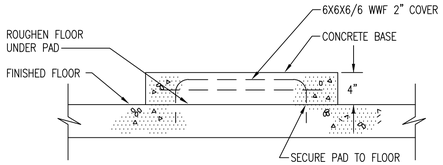
SCALE: 1/4" = 1'-0"

GRAPHIC SCALE

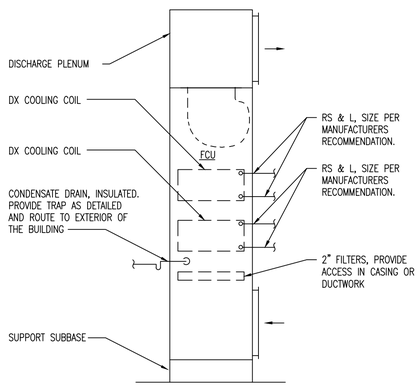
4 0 2 4 8 16

(IN FEET)
1/4 inch = 1 ft.

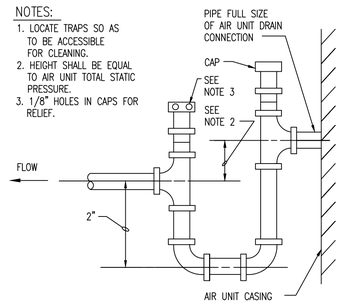
NOTE:
CONCRETE BASE SHALL BE 4" LARGER THAN THE ENTIRE BASE OF THE EQUIPMENT BEING SUPPORTED. 4" HIGH BASE SHALL BE PROVIDED FOR THE FOLLOWING EQUIPMENT:



4" HIGH CONCRETE BASE



VERTICAL FAN COIL UNIT



CONDENSATE DRAIN TRAP

1. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY CONFLICTS OF WORK PRIOR TO PURCHASE OF EQUIPMENT OR COMMENCEMENT OF WORK. CONTRACTOR SHALL NOT FABRICATE WORK WITHOUT COORDINATING WITH OTHER DISCIPLINES AND VERIFYING CLEARANCE FOR THE WORK.
2. CONTRACTOR SHALL VISIT THE JOB SITE AND HAVE A GOOD WORKING KNOWLEDGE AND ACQUAINTANCE OF THE EXISTING JOB SITE AS WELL AS THE CONDITIONS OF THE JOB SITE.
3. DEVIATIONS FROM MATERIAL, METHODS, AND PROCEDURES SET FORTH HEREIN MUST BE APPROVED IN WRITING WITH EQUIPMENT AND INSTALLATION SUBMITTALS.
4. CONTRACTOR SHALL REVIEW STRUCTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS BEFORE FABRICATING OR INSTALLING DUCTWORK OR EQUIPMENT TO AVOID ANY CONFLICTS.
5. REQUEST FOR PAYMENT FOR ADDITIONAL COST DUE TO SITE CONDITIONS WILL NOT BE ALLOWED.
6. ALL DUCT DIMENSIONS ARE INSIDE CLEAR.
7. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY EVERY APPLICABLE JURISDICTION FOR THE PERFORMANCE OF THE WORK.
8. ALL WORK SHALL MEET THE LOCAL AND STATE, HEATING AND AIR–CONDITIONING, AND ENERGY CODES.
9. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH EQUIPMENT WITH ELECTRICAL CONTRACTOR BEFORE ORDERING.
10. SYSTEM SHALL BE AIR BALANCED.
11. PROVIDE OPERATIONS AND MAINTENANCE MANUALS FOR ALL EQUIPMENT.
12. ALL REQUIRED LOW VOLTAGE (24 VOLTS AND BELOW) CONTROL AND INTERLOCK WIRING SHALL BE INCLUDED FOR A FULLY OPERATIONAL SYSTEM.
13. RUN COPPER CONDENSATE DRAIN FROM UNIT TO A LOCATION OUTSIDE THE BUILDING THAT IS NOT IN A VEHICLE OR FOOT TRAFFIC AREA.
14. AIR–CONDITIONING UNITS SHALL HAVE FACTORY INSTALLED VIBRATION (INTERNAL) ISOLATORS.
15. CONTRACTOR SHALL COORDINATE WITH OTHER DISCIPLINES AND CHECK CLEARANCES TO PREVENT ANY CONFLICTS.
16. MOUNT ALL THERMOSTATS AT 4'–6" AFF.(TOP)
17. PROVIDE SEVEN–DAY (5–1–1) DAY PROGRAMMABLE THERMOSTATS SINGLE STAGE HEAT–OFF–COOL–AUTO OR AS APPROVED BY ENGINEER. CONTRACTOR SHALL MAKE SURE THAT THESE THERMOSTAT ARE COMPATIBLE WITH THE HEAT PUMP PROVIDED.
18. ALL CONDENSING UNITS SHALL BE MOUNTED ON 4" HIGH CONCRETE PAD AND PROVIDE CLEARANCE AROUND AND THE UNITS AS RECOMMENDED BY THE MANUFACTURER.
19. MINIMUM SEER(@ SEASONAL RATING) \ EER (@ STANDARD RATING) FOR AIR–CONDITIONING UNITS SHALL BE 10.0 \ 9.5
20. MINIMUM COP @ 17 F DB AND 15 F WB FOR ELECTRIC HEAT PUMP SHALL BE 2.0 AND 6.8 HSPH(@ SEASONAL RATING AND SINGLE PHASE SPLIT SYSTEM). 6.6 HSPF(@ SEASONAL RATING AND SINGLE PHASE SINGLE PACKAGE SYSTEM).
21. AIR SHALL BE BALANCED BY A CERTIFIED INDEPENDENT BALANCING CONTRACTOR. CONTRACTOR SHALL PROVIDE SIX COPIES OF CERTIFIED BALANCING REPORT TO THE OWNER.
22. FRESH AIR INTAKES SHALL NOT BE TAKEN FROM A LOCATION CLOSER THAN 10'–0" FROM ANY SANITARY SEWER VENT OUTLET OR FLUE OR ANY EXHAUST AIR OUTLET, UNLESS SUCH OUTLET IS NOT LESS THAN 24 INCH ABOVE THE FRESH AIR INLET AND SHALL COMPLY LOCAL AND STANDARD MECHANICAL CODE.
23. DRAWINGS INDICATE LOCATIONS OF FIXTURES, APPARATUS, DUCTWORK AND PIPING; AND WHILE THESE ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE, IF IT IS NECESSARY TO CHANGE THE LOCATION OF SAME TO ACCOMMODATE BUILDING CONDITIONS, MAKE CHANGES WITHOUT ADDITIONAL COST TO THE OWNER AND AS APPROVED BY THE ARCHITECT.
24. PROVIDE ACCESS TO EQUIPMENT AND APPARATUS REQUIRING OPERATION SERVICE OR MAINTENANCE WITHIN THE LIFE OF THE SYSTEM.
25. DO NOT RUN PIPING OR LOCATE EQUIPMENT (WITH RESPECT TO SWITCHBOARDS, PANEL BOARDS, POWER PANELS, MOTOR CONTROL CENTERS OR DRY TYPE TRANSFORMERS WITHIN 42" IN FRONT OF EQUIPMENT, OVER EQUIPMENT, OR WITHIN 36" HORIZONTALLY OF SAME SPACE.
26. ALL MATERIALS AND EQUIPMENT SHALL FIT THE SPACE AVAILABLE, WITH MANUFACTURER'S RECOMMENDED CLEARANCE FOR ACCESS.
27. SCHEDULED FAN STATIC PRESSURES ARE ESTIMATED. PROVIDE AND ADJUST DRIVES TO DELIVER SCHEDULED AIR QUANTITIES AGAINST ACTUAL SYSTEM RESISTANCE. CONTRACTOR SHALL MAKE CHANGES TO SHEAVES, BELTS, VALVES, AND DAMPERS OR PROVIDE ADDITIONAL DAMPERS REQUIRED TO PROVIDE AIR QUANTITIES SHOWN ON THE DRAWINGS.
28. PROVIDE LABELS FOR EACH EQUIPMENT. LABELS TO BE ENGRAVED LAMINATED BAKELITE NAMEPLATES WITH 1/4" HIGH WHITE CUT LETTERS; SECURE TO EQUIPMENT.
29. DIMENSIONS, CONNECTIONS, AND INSTALLATION DETAILS OF EQUIPMENT SUPPLIED BY SEVERAL ACCEPTABLE MANUFACTURERS MAY VARY. CONTRACTOR SHALL BE FULLY RESPONSIBLE OF COMPLIANCE WITH REQUIREMENTS OF PLANS AND SPECIFICATION FOR ANY SUBSTITUTE EQUIPMENT.
30. CONTRACTOR SHALL SUBMIT EQUIPMENT DATA FOR APPROVAL.
31. CONTRACTOR SHALL PROVIDE A ONE–YEAR WARRANTY ON EQUIPMENT AND INSTALLATION. WARRANTY SHALL BEGIN FROM THE DATE OF THE ENTIRE PROJECT'S COMPLETION.
32. THE USE OF BRAND NAME IS FOR THE SOLE PURPOSE OF DESCRIBING THE STANDARD OF QUALITY, PERFORMANCE AND CHARACTERISTICS DESIRED AND IS NOT INTENDED TO LIMIT OR RESTRICT COMPETITION. WHENEVER MATERIAL IS DESCRIBED BY USE OF A PRODUCT OR BRAND NAME, OR BY USING THE NAME OF A MANUFACTURER OR VENDOR, THE USE OF SAME IS FOR INFORMATION PURPOSES ONLY, AND THE TERM "OR EQUAL" IF NOT INSERTED, IS IMPLIED.

J. B. Cobb
Mechan

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PROJECT NUMBER:
PROJECT DATE: JUNE 2025

	REVISION	DATE
A	ISSUED FOR BID	9/30/2025

DESIGNED BY: A.Z.
DRAWN BY: I.S.
REVIEWED BY: D.V.

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL BUILDING HVAC PLAN

H-001

SCHEMATIC DIAGRAM SYMBOLS

- CONDUCTORS CONNECTED
- CONDUCTORS NOT CONNECTED
- CONNECTION POINT
- XX — TERMINAL POINT FOR OUTGOING CONDUCTORS, WITH IDENTIFICATION. "XX" DENOTES CONTRACTOR ASSIGNED.
- MCPXXX–XX / XXA — MAGNETIC–ONLY CIRCUIT BREAKER (MCP), WITH CURRENT RATING
- CBXXX–XX / XXA — CIRCUIT BREAKER, THERMAL–MAGNETIC UNLESS OTHERWISE NOTED, WITH FRAME SIZE AND TRIP RATING
- FUXXX–XX / XXA — FUSE WITH SIZE AND OPTIONAL IDENTIFICATION.
- DSXXX–XX / XXXA — DISCONNECT SWITCH. RATING OPTIONAL. 30 AMP, 600V RATED MINIMUM UNLESS OTHERWISE NOTED.
- FUXXX–XX / XXA — FUSE DISCONNECT SWITCH. RATING OPTIONAL. 30 AMP, 600V MINIMUM UNLESS OTHERWISE NOTED.
- XX M–XXX — MOTOR (HP AS SHOWN, PHASES AS REQUIRED)
- MSR–XXX / XX XX — MOTOR STARTER COIL
- OL–XXX — THERMAL MOTOR OVERLOAD
- M–XXX — MOTOR CONTACT
- LSXXX–XX / LSXXX–XX — LIMIT SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- PSXXX–XX / PSXXX–XX — PRESSURE SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- TSXXX–XX / TSXXX–XX — TEMPERATURE SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- FSXXX–XX / FSXXX–XX — FLOW SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- FLTXXX–XX / FLTXXX–XX — LEVEL SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- PRSXXX–XX / PRSXXX–XX — PROXIMITY SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- PCSXXX–XX / PCSXXX–XX — PULLCORD SWITCH NORMALLY CLOSED AND NORMALLY OPEN
- SVXXX–XX — SOLENOID VALVE
- PBXXX–XX / PBXXX–XX — MOMENTARY PUSHBUTTON NORMALLY CLOSED AND NORMALLY OPEN
- SSXXX–XX / SSXXX–XX — SELECTOR SWITCH NORMALLY NORMALLY CLOSED AND NORMALLY OPEN
- LTXXX–XX / X — PILOT LIGHT X = LENS COLOR (A = AMBER, B = BLUE, G = GREEN, R = RED, W = WHITE)
- CRXXX–XX — CONTROL RELAY
- CRXXX–XX / CRXXX–XX — CONTROL RELAY CONTACT NORMALLY CLOSED AND NORMALLY OPEN
- ALXXX–XX — ALARM LIGHT
- AHXXX–XX — ALARM HORN
- H1 H2 / TFRXXX–XX / X1 X2 — CONTROL POWER TRANSFORMER, PRIMARY AND SECONDARY VOLTAGE SHOWN. SIZE AS SHOWN OR SPECIFIED.
- C.T. CTXXX–XX — CURRENT TRANSFORMER. PRIMARY/SECONDARY TURNS RATIO AS SHOWN.

FIRE ALARM SYMBOLS

- S — SMOKE DETECTOR, 120VAC RATED

ONE LINE DIAGRAM SYMBOLS

- CB–XXX — LOW VOLTAGE POWER CIRCUIT AND BREAKER DRAWOUT TYPE, FRAME TRIP SHOWN
- CB–XXX — MOLDED CASE CIRCUIT BREAKER, FRAME AND TRIP ID SHOWN
- LIGHTNING ARRESTOR AND GROUND
- DS–XXX — DISCONNECT OR ISOLATING SWITCH: CONTINUOUS RATING SHOWN
- MCP–XXX — MAGNETIC–ONLY CIRCUIT BREAKER (MCP), DRAWOUT TYPE, WITH CURRENT RATING
- FS–XXX — FUSED SWITCH: FUSE AND SWITCH CONTINUOUS RATINGS SHOWN
- TFR–XXX — POWER TRANSFORMER: PRIMARY & SECONDARY VOLTAGES, %Z, SIZE SHOWN
- XS — CURRENT TRANSFORMER: RATIO SHOWN (3 INDICATES NO. OF CT'S)
  METER SWITCH, xS:
  AS – AMMETER SWITCH
  VS – VOLTMETER SWITCH
  FS – FREQUENCY SWITCH
- PT — POTENTIAL TRANSFORMER PRIMARY & SECONDARY VOLTAGES & WINDINGS SHOWN. (x) UNITS
- METER — METER:
  A – AMMETER
  W – WATTMETER
  KWH – WATT–HOUR METER
  F – FREQUENCY METER
  VAR – VAR METER
  V – VOLTMETER
- FVNR SIZE X — FULL VOLTAGE, NON–REVERSING MAGNETIC MOTOR STARTER. NEMA SIZE INDICATED
- FVR SIZE X — FULL VOLTAGE, REVERSING MAGNETIC MOTOR STARTER. NEMA SIZE INDICATED
- XXHP VFD–XXX — VARIABLE FREQUENCY DRIVE. NEMA SIZE INDICATED
- XXHP RVSS–XXX — REDUCED VOLTAGE SOLID STATE DRIVE (SOFT START). NEMA SIZE INDICATED
- XX M–XXX — MOTOR (HP AS SHOWN, PHASES AS REQUIRED)
- GENERATOR RECEPTACLE
- N E MTS–XXX — MANUAL TRANSFER SWITCH
- P–XXX–X — CABLE TAG:
  P – POWER CABLE
  C – CONTROL CABLE
  S – SHIELDED SIGNAL CABLE
- Gx — GENERATOR TAG:
  G – EQUIPMENT TO RUN OFF GENERATOR
  X – STEP NUMBER FOR EQUIPMENT STARTING OFF THE GENERATOR

CIRCUIT AND RACEWAY SYMBOLS

- RACEWAY OR WIRING SYSTEM ABOVE FLOOR LEVEL BELOW CEILING, EXPOSED. (UNLESS OTHERWISE NOTED)
- RACEWAY OR WIRING SYSTEM BELOW FLOOR LEVEL, ABOVE CEILING, HIDDEN, OR EXISTING CABLE/CONDUIT. (UNLESS OTHERWISE NOTED)
- SCHEMATIC DIAGRAM FIELD WIRING. (UNLESS OTHERWISE NOTED)
- ONE LINE DIAGRAM EQUIPMENT ENCLOSURE. (UNLESS OTHERWISE NOTED)
- PBD A–1,3,5 — HOME RUN – SEE PANELBOARD SCHEDULE FOR CIRCUIT INFORMATION
  EXAMPLE: HOME TO PANELBOARD PBD A, CIRCUITS 1, 3, AND 5

GENERAL ABBREVIATIONS

AR	ALARM RELAY
AS	AMMETER SELECTOR SWITCH
A, AMP	AMP(S), AMPERE(S)
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AHAP	AS HIGH AS POSSIBLE
AIC	AMPS INTERRUPTING CAPACITY, SYMM.
AL	ALUMINUM
AT	AMPERE TRIP
AF	AMPERE FRAME
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER CONDUCTOR
BKR	BREAKER
C	CONDUCTOR/CONTACTOR
CB	CIRCUIT BREAKER
CJB	CIRCUIT JUNCTION BOX
CKT	CIRCUIT
CLG	CEILING
CR	CONTROL RELAY
CND	CONDUIT
CONC	CONCRETE
CS	CONTROL SWITCH
CONT	CONTROL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
D	DIAMETER
DB	DUCT BANK
DC	DIRECT CURRENT
DET	DETAIL
DIAG	DIAGRAM
DPSH	DIFFERENTIAL PRESSURE SWITCH
DS	DISCONNECT SWITCH
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
ENCL	ENCLOSURE/ENCLOSED
EP	EXPLOSION PROOF EQUIP.
EX, E	EXISTING
FCP	FURNISHED WITH EQUIPMENT PANEL
FDR	FEEDER
FLA	FULL LOAD AMPS
FPP	FIBER OPTIC DISTRIBUTION PANEL
FS	FLOW SWITCH
FU	FUSE
FUT	FUTURE
FVNR	FULL VOLTAGE NON–REVERSING
FVR	FULL VOLTAGE REVERSING
GALV	GALVANIZED
GEN	GENERATOR
GFR	GROUND FAULT RELAY
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
H	HIGH
HCWA	HENRY COUNTY WATER AUTHORITY
HGT	HEIGHT
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HS	HAND STATION (SWITCH)
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HZ	HERTZ (CYCLES PER SECOND)
HOA	HAND/OFF/AUTO
HOR	HAND/OFF/REVERSE
HMH	HIGH VOLTAGE MANHOLE
ID	INSIDE DIAMETER
IMC	INDIVIDUAL MOTOR CONTROLLER
INTLK	INTERLOCK
INST	INSTANTANEOUS
INSTR	INSTRUMENT
I/O	INPUT–OUTPUT
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT–AMPERE
KVAR	KILOVOLT–AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT–HOUR
KAIC	KILO AMPERE INTERRUPTING CURRENT
L–O–R	LOCAL–OFF–REMOTE
L	LONG
LC	LIGHTING CONTACTOR
LCP	LOCAL CONTROL PANEL
LP	LIGHTING PANEL
LOS	LOCK–OUT STOP
LSIG	LONG, SHORT, INSTANTANEOUS TRIP SETTING AND GROUND FAULT PROTECTION
LSL	LEVEL SWITCH LOW
LSO	LIMIT SWITCH OPEN
LSC	LIMIT SWITCH CLOSED
LTG	LIGHTING
LV	LOW VOLTAGE
LSH	LEVEL SWITCH HIGH
M	MOTOR CONTACTOR
mA	MILLIAMPERE
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CONTROL PANEL/MOTOR CIRCUIT PROTECTOR
MECH	MECHANICAL
MFR	MANUFACTURE(R)
MH	MANHOLE
MIC	MICROPHONE
MIN	MINIMUM
MISC	MISCELLANEOUS
mM	MILLIMETER
mV	MILLIVOLT
MCM	MILLI CIRCULAR MILLS
MOP	MOTOR OPERATOR PANEL
MPR	MOTOR PROTECTION RELAY
MCB	MAIN CIRCUIT BREAKER
MTR	MOTOR
MVS	MEDIUM VOLTAGE STARTER
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEUT,N	NEUTRAL
NF	NON–FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NP	NAMEPLATE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL's	OVERLOADS
OT	OIL TIGHT
P	POLE
PA	PUBLIC ADDRESS
PB	PUSHBUTTON, PULLBOX
PE	PHOTO ELECTRIC CELL
PF	POWER FACTOR
PH	PHASE
PJB	POWER JUNCTION BOX
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PP	POWER PANEL
PR	PAIR
PRI	PRIMARY
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
PWR	POWER
QSH	SHEAR PIN LIMIT SWITCH
RCPT	RECEPTACLE
RCT	REACTOR
REF	REFERENCE REQ'D REQUIRED
RMS	ROOT MEAN SQUARE
RTD	RESISTANCE TEMPERATURE DETECTOR
SCH	SCHEDULE
RVAT	REDUCED VOLTAGE AUTO TRANSFORMER TYPE STARTER
SE	SPEED SENSOR
SEC	SECONDARY
SEL	SELECTOR
SER	SERVICE ENTRANCE RATED
SPDT	SINGLE POLE DOUBLE THROW
SPEC	SPECIFICATION
SPHTR	MOTOR SPACE HEATER
SPKR	SPEAKER
SS	STAINLESS STEEL
SSL	SPEED SWITCH
SUB	SUBSTATION
SW	SWITCH
SYMM	SYMMETRICAL
SYS	SYSTEM
SV	SOLENOID OPERATED VALVE
SPB	SIGNAL PULL BOX
TB	TERMINAL BOX
TEL	TELEPHONE
TEMP	TEMPERATURE
TFR	TRANSFORMER
TH	THERMOSTAT
TJB	TERMINAL JUNCTION BOX
TSH	TEMPERATURE SWITCH HIGH
TV	TELEVISION
TYP	TYPICAL
TR	TIMING RELAY
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TSP	TWISTED SHIELDED PAIR
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT AMPERE
VAR	VOLT AMPERE REACTIVE
VFD	VARIABLE FREQUENCY DRIVE
VSH	VIBRATION SWITCH
W	WATT, WIRE, WIDE
W/	WITH
W/O	WITHOUT
WE	WEIGHT LOAD CELL
WIT	WEIGHT INDICATING TRANSMITTER
WP	WEATHERPROOF
XL	WARNING HORN/LIGHT
XT	ANEMOMETER
ZS	POSITION (LIMIT) SWITCH
ZSO	POSITION (LIMIT) SWITCH OPEN
ZSC	POSITION (LIMIT) SWITCH CLOSED
ZT	POSITION TRANSMITTER

GROUNDING SYMBOLS

- GROUND ROD, 3/4" x 10'–0", COPPERCLAD (UNLESS OTHERWISE NOTED)
- GROUND ROD AND TEST WELL
- COMPRESSION TYPE GROUNDING BOND TO MOTOR CASING OR EQUIPMENT
- EXOTHERMIC TYPE GROUNDING BOND TO CABLE OR CONCRETE REBAR OR RISER
- G G — GROUNDING CONDUCTOR (CONCEALED), #4/0 AWG BARE COPPER (UNLESS OTHERWISE NOTED)
- GG GG GG — GROUNDING CONDUCTOR (EXPOSED), #4/0 AWG INSULATED COPPER (UNLESS OTHERWISE NOTED)

GENERAL NOTES:

1. SCOPE:
   A. FURNISH ALL LABOR, MATERIAL, EQUIPMENT AND TOOLS REQUIRED TO COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM INCLUDING BUT NOT LIMITED TO WIRING, BOXES, LIGHT FIXTURES, PANELS, SWITCHES, RECEPTACLES, DISCONNECTS, STARTERS, AND ALL OTHER WORK INDICATED ON THE DRAWINGS OR AS SPECIFIED HEREIN.
   B. OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATE OF APPROVAL TO THE GENERAL CONTRACTOR. ALL ASSOCIATED FEES SHALL BE PAID BY THE CONTRACTOR.
   C. ALL MATERIALS AND EQUIPMENT OF THE ELECTRICAL SYSTEM NECESSARY FOR ITS PROPER AND SAFE OPERATION OR OTHERWISE REQUIRED BY CODE, BUT NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, SHALL BE FURNISHED AND INSTALLED WITHOUT ADDITIONAL CHARGE.
   D. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE, THE LATEST STANDARD BUILDING CODE, NFPA 820, ANY OTHER LOCALLY ADOPTED CODES AND LOCAL AUTHORITIES HAVING JURISDICTION.
2. ALL SUBSTITUTIONS FOR EQUIPMENT AND MATERIAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO PURCHASING.
3. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. AND COORDINATED THE INSTALLATION ACCORDINGLY. THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.
4. THE CONTRACTOR SHALL CONFIRM ALL DIMENSIONS AND DISTANCES IN THE FIELD. IN CASE OF DISCREPANCY, CONTRACTOR SHALL INCLUDE A MORE EXPENSIVE OPTION.
5. ALL CONDUITS SHALL BE AS PER THE MATERIALS SELECTION SCHEDULE SHOWN ON DWG. E–002, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

PLAN DRAWING SYMBOLS

- MOTOR CONNECTION
- MOTOR STARTER, INDIVIDUAL –– NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY
- COMBINATION MOTOR STARTER/DISCONNECT INDIVIDUAL –– NOT LOCATED IN AN MCC OR SIMILAR GROUP ASSEMBLY
- DISCONNECT SWITCH. DISCONNECT SWITCHES ARE HEAVY DUTY, SINGLE THROW, WITH NEMA 4X ENCLOSURE UNLESS OTHERWISE NOTED. MOUNT AT 4'–8" TO CENTER OF DISCONNECT.
- FUSED DISCONNECT, NON–FUSED. PROVISION FOR CLASS R FUSES.
- FIELD INSTRUMENT CONNECTION
- START/STOP HAND STATION MOUNTED TO HANDRAIL (NEMA 4X UNLESS OTHERWISE NOTED)
- 120V, 20A, 1P TOGGLE SWITCH
- DUPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 6" ABOVE COUNTER, DESK, OR CABINET.
- GFCI DUPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 6" ABOVE COUNTER, DESK, OR CABINET.
- QUADRAPLEX 120V RECEPTACLE, 120V, 20A, 1P. MOUNT 6" ABOVE COUNTER, DESK, OR CABINET.
- TELEPHONE BOX. MOUNT 18" A.F.F., INSTALL A 1/2" CONDUIT FROM BOX TO 6" ABOVE CEILING. PROVIDE PULL CORD FOR FUTURE CONNECTIONS AS REQUIRED.
- ETHERNET CAT–6 BOX. MOUNT 18" A.F.F., INSTALL A 1/2" CONDUIT FROM BOX TO 6" ABOVE CEILING. PROVIDE PULL CORD FOR FUTURE CONNECTIONS AS REQUIRED.
- JUNCTION BOX
- RECESSED FLOOR JUNCTION BOX
- 60A, 480V, 3PH WELDING RECEPTACLE WITH INTERLOCKED 60A (NEMA 4X FUSED DISCONNECT SWITCH UNLESS OTHERWISE NOTED)
- EXHAUST FAN
- CCTV CAMERA

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CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL LEGEN AND NOTES

E-001

ELECTRICAL EQUIPMENT MATERIALS RATING					
NO.	EQUIPMENT	INSTALLATION AREA AND DESIGN CRITERIA			
		INDOOR NON-PROCESS; EXPOSED INSTALLATION (ELECTRICAL & CONTROL ROOMS, OFFICES, LAB, UNDER RAISED FLOORS, ETC.) ENVIRONMENT: NON-CORROSIVE; DRY	INDOOR NON-PROCESS, CONCEALED INSTALLATION (AREAS WITH RECESSED CEILING AND STUD WALLS) ENVIRONMENT: NON-CORROSIVE; DRY	OUTDOOR GENERAL AREAS ENVIRONMENT: CORROSIVE; WET	UNDERGROUND AND DIRECT BURIED ENVIRONMENT: CORROSIVE; WET
1	RIGID CONDUITS	RMC – GALVANIZED STEEL	NO CONDUIT REQUIRED, USE METAL CLAD CABLE (MC)	RMC – GALVANIZED STEEL	DIRECT BURIED – PVC 40; CONCRETE ENCASED – PVC 40.
2	FLEXIBLE CONDUITS	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)	NO CONDUIT REQUIRED, USE METAL CLAD CABLE (MC)	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC)	N/A
3	CABLE TRAYS	LADDER TYPE – GALVANIZED STEEL	N/A	LADDER TYPE – GALVANIZED STEEL	N/A
4	JUNCTION BOXES	STEEL – NEMA 1	STEEL – NEMA 1	STEEL – NEMA 3R	POLYMER CONCRETE
5	PULL BOXES	STEEL – NEMA 1	STEEL – NEMA 1	STEEL – NEMA 3R	POLYMER CONCRETE
6	EQUIPMENT RACKS/SUPPORTS/HARDWARE	HOT-DIPPED GALVANIZED	HOT-DIPPED GALVANIZED	HOT-DIPPED GALVANIZED	STAINLESS STEEL 304
7	FASTENERS	GALVANIZED STEEL	GALVANIZED STEEL	GALVANIZED STEEL	STAINLESS STEEL 304
8	SWITCHGEAR	NEMA 1	N/A	NEMA 3R	N/A
9	SWITCHBOARD	NEMA 1	N/A	NEMA 3R	N/A
10	MOTOR CONTROL CENTER	NEMA 1	N/A	NEMA 3R	N/A
11	PANELBOARDS	NEMA 1	N/A	NEMA 3R	N/A
12	DRY TYPE TRANSFORMERS	NEMA 2	N/A	NEMA 3R	N/A
13	DISCONNECT SWITCHES	NEMA 1	N/A	NEMA 3R	N/A
14	MOTOR STARTERS	NEMA 1	N/A	NEMA 3R	N/A
15	CONTACTORS	NEMA 1	N/A	NEMA 3R	N/A
16	CONTROL PANELS	NEMA 1	N/A	NEMA 3R	N/A
17	MOTOR HOUSING MINIMUM PROTECTION RATING	ODP	ODP	TEFC	N/A
18	INSTRUMENTATION MINIMUM PROTECTION RATING	NEMA 1	NEMA 1	NEMA 4	NEMA 6P
19	VALVE ACTUATORS	N/A	N/A	NEMA 4	N/A
20	WIRING DEVICE BOXES	GALVANIZED STEEL; NON-WEATHERPROOF	GALVANIZED STEEL; NON-WEATHERPROOF	CAST IRON HOT DIP GALVANIZED; WEATHERPROOF	N/A
21	DEVICES COVER PLATES	STAINLESS STEEL; NON-WEATHERPROOF (WITH GASKET)	STAINLESS STEEL; NON-WEATHERPROOF (WITH GASKET)	DIE-CAST ALUMINUM; WEATHERPROOF (WITH GASKET)	N/A
22	OUTLET BOX HOODS	N/A	N/A	ALUMINUM; WEATHERPROOF (WHILE-IN-USE COVER) (WITH GASKET)	N/A

CABLE TYPES REQUIREMENTS						
	MATERIAL	SERVICE ENTRANCE	VFD MOTOR FEEDERS	POWER	CONTROL	SIGNAL
CABLE TYPES	COPPER, UNLESS NOTED OTHERWISE	XHHW, 600V	SHIELDED VFD CABLES, 1000V	THWN-2, 600V	THWN-2, 600V	SHIELDED TWISTED TYPE, 600V

NOTES:

1. POWER CABLES REQUIREMENTS:
   1.1. MINIMUM ALLOWED WIRE GAUGE: #12 AWG.
   1.2. MAXIMUM ALLOWED WIRE GAUGE: 600KCMIL.
   1.3. MAXIMUM MULTICONDUCTOR CABLES SIZE: #1 AWG.
   1.4. MAXIMUM SOLID CORE CABLES SIZE: #10 AWG.
2. CONTROL CABLES REQUIREMENTS:
   2.1. CABLES CONSTRUCTION TYPE: SINGLE CONDUCTOR.
   2.2. MINIMUM ALLOWED WIRE GAUGE: #14 AWG.
3. SIGNAL CABLES REQUIREMENTS:
   3.1. CABLES CONSTRUCTION TYPE: MULTICONDUCTOR CONDUCTOR WITH OVERALL SHIELD AND DRAIN WIRE.
   3.2. MINIMUM ALLOWED WIRE GAUGE: #16 AWG.
   3.3. MAXIMUM NUMBER OF PAIRS/TRIADS IN MULTI-PAIR/TRID CABLE: 2.

INSTALLATION REQUIREMENTS:

GENERAL:

1. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE UL LISTED.
2. ALL ELECTRICAL EQUIPMENT AND MATERIALS INSTALLED OUTDOORS SHALL BE UV RESISTANT.
3. ALL ELECTRICAL EQUIPMENT AND MATERIALS OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER AND MODEL LINE.
4. ALL FREESTANDING EQUIPMENT SHALL BE INSTALLED ON 4" HOUSEKEEPING PAD, ELEVATED ABOVE THE SURROUNDING SURFACE.
5. ALL ELECTRICAL, INSTRUMENTATION AND CONTROL SYSTEM COMPONENTS LOCATIONS SHALL BE ADJUSTED TO PROVIDE NEC REQUIRED WORKING CLEARANCES.
6. ALL ELECTRICAL EQUIPMENT INSTALLED OUTDOORS SHALL HAVE CONCRETE PADS EXTENDING 3'-0" IN FRONT OF THE EQUIPMENT.
7. THE CONTRACTOR SHALL ADJUST CIRCUIT BREAKER SIZES, CABLES AND CONDUITS FOR ELECTRICAL EQUIPMENT AT NO ADDITIONAL COST BASED ON THE ACTUAL ACCEPTED SHOP DRAWINGS.
8. THE CONTRACTOR SHALL CONFIRM ELECTRICAL EQUIPMENT DIMENSIONS PRIOR TO RELEASING FOR FABRICATION LOCATED IN THE AREAS WITH LIMITED AVAILABLE SPACE TO ENSURE PROPER EQUIPMENT INSTALLATION PROVIDING NEC REQUIRED WORKING CLEARANCES.
9. FOR NEW CONSTRUCTION, INSTALLATION AND/OR DEMOLITION THAT INTERRUPTS ANY POWER, CONTROL OR SIGNAL WIRING TO EXISTING EQUIPMENT OR DEVICES THAT SHALL REMAIN IN OPERATION. CONTRACTOR SHALL INCLUDE ALL REQUIRED BREAKERS, CABLES/CONDUITS AND/OR ANY OTHER EQUIPMENT AS REQUIRED TO KEEP THE EXISTING SYSTEM FUNCTIONAL.
10. ALL MOTORS USED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED TYPE.
11. ALL OUTDOOR ENCLOSURES CABLES ENTRY POINTS SHALL BE IN THE BOTTOM OF THE ENCLOSURE. IN CASE OF INABILITY TO MAKE BOTTOM PENETRATION, SIDE CONNECTION WOULD BE ACCEPTABLE. ENCLOSURES TOP ENTRY ARE NOT ALLOWED.
12. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY HARDWARE FOR EQUIPMENT MOUNTING, INCLUDING, BUT NOT LIMITED TO, EQUIPMENT RACKS, SUPPORT CHANNELS, ANCHORS, FASTENERS, AND ANY OTHER REQUIRED COMPONENTS TO ENSURE A SECURE AND STABLE INSTALLATION.

POWER DISTRIBUTION AND CONDUITS INSTALLATION REQUIREMENTS:

1. ALL POWER DISTRIBUTION EQUIPMENT SHALL BE BY THE FOLLOWING MANUFACTURES: SCHNEIDER ELECTRIC OR ABB.
2. ALL MOTOR STARTERS, VFD'S, RVSS'S SHALL BE BY THE FOLLOWING MANUFACTURES: SCHNEIDER ELECTRIC OR ABB.
3. ALL CONDUITS ENDS SHALL BE FREE OF METAL SHAVINGS AND BE PROVIDED WITH FITTINGS WITH INSULATED BUSHING.
4. ALL EXPOSED CONDUITS SHALL BE MINIMUM OF 3/4". ALL BURIED CONDUIT SHALL BE MINIMUM OF 1".
5. ALL UNDERGROUND CONDUITS SHALL HAVE RIGID STEEL ELBOWS.
6. ALL METAL CONDUITS SHALL BE PROTECTED WITH A BITUMINOUS COATING WHEN INSTALLED UNDERGROUND OR WHEN IN CONTACT WITH CONCRETE.
7. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CABLES AND EQUIPMENT LUG SIZES. IN CASE THE CABLE IS OF A LARGER SIZE THAN THE EQUIPMENT LUG, CONTRACTOR SHALL PROVIDE THE REQUIRED CONNECTOR AT NO ADDITIONAL CHARGE TO OWNER.
8. THE CONTRACTOR SHALL PROVIDE PULL STRING AND PERMANENTLY ATTACHED IDENTIFICATION LABELS AT EACH CONDUIT END FOR ALL SPARE CONDUITS. EACH TAG SHALL INCLUDE CONDUIT NUMBER, SIZE AND DESTINATION POINT.
9. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED PULL BOXES AND/OR CONDULETS TO MEET NEC ARTICLE 314 FOR CABLE PULLS.
10. ALL CABLES INSTALLED IN CABLE TRAYS SHALL BE TC RATED.
11. CONDUIT FITTING CONNECTION TYPES SHALL BE AS FOLLOWS:
    11.1. FOR RMC AND IMC CONDUITS – THREADED TYPE;
    11.2. FOR EMT CONDUITS – COMPRESSION TYPE.
12. RIGID CONDUIT CONNECTIONS TO ENCLOSURES SHALL BE MADE WITH MYERS HUBS.
13. ALL OPEN CONDUIT ENDS (INSIDE THE EQUIPMENT ENCLOSURES) SHALL BE PROTECTED FROM ELEMENTS PENETRATION TO THE INSIDE THE CONDUIT WITH DUCT SEAL.
14. EQUIPMENT ENCLOSURES THAT ARE NOT SUITABLE FOR RIGID OR FLEXIBLE CONDUIT CONNECTION, THE CONTRACTOR SHALL PROVIDE A CORD GRIP AT THE CONDUIT END TO PROTECT FROM ELEMENTS PENETRATION TO THE INSIDE THE CONDUIT.
15. THE CONTRACTOR SHALL INSTALL EXPANSION COUPLINGS AS REQUIRED TO PREVENT CONDUIT DAMAGE DUE TO LONGITUDAL MOVEMENT AND/OR THERMAL EXPANSION.
16. THE CONTRACTOR SHALL INSTALL DEFLECTION COUPLINGS FOR CONDUITS RUNS THAT ARE SUBJECT TO ANGULAR AND PARALLEL MISALIGNMENT.
17. THE CONTRACTOR SHALL INSTALL DRAIN FITTING IN VERTICAL CONDUIT RUNS AT LOW POINTS IN CONDUIT SYSTEM TO PREVENT ACCUMULATION OF CONDENSATE ABOVE SEAL-OFF FITTINGS.
18. THE CONTRACTOR SHALL INSTALL DRAIN FITTINGS AT LOW POINTS OF CONDUIT RUN TO DRAIN ACCUMULATED CONDENSATE AND TO PROVIDE VENTILATION TO MINIMIZE CONDENSATION.
19. FOR OVERHEAD SERVICES THE CONTRACTOR SHALL INSTALL WEATHERED FITTINGS AS REQUIRED, FOR SERVICE CABLE INSTALLATION THROUGH THE ROOF, USE SERVICE ENTRANCE MAST KITS.
20. THE CONTRACTOR SHALL INSTALL GROUNDING BUSHING AS REQUIRED BY NEC, AS WELL AS FOR THE FOLLOWING CONDITIONS:
    20.1. FOR METALLIC RACEWAYS CONTAINING SERVICE CONDUCTORS;
    20.2. FOR METALLIC RACEWAYS TERMINATED AT NON-METALLIC ENCLOSURES;
    20.3. FOR METALLIC RACEWAYS TERMINATED ON RING KNOKOUTS REMAINING AND THE CIRCUIT EXCEEDING 250V TO GROUND NOMINAL;
    20.4. FOR METALLIC RACEWAYS NOT TERMINATED AT ENCLOSURE.

INSTRUMENTATION AND CONTROLS:

1. ALL FIELD MOUNTED INDICATING TRANSMITTERS SHALL BE PROVIDED WITH SUN/RAIN HOOD.
2. ALL CONTROL CABINETS INSTALLED OUTDOORS HOUSING VFD's, SOFT STARTERS, OR PLC's SHALL BE EQUIPPED WITH SUN PROTECTION COVERS TO PREVENT DIRECT SUNLIGHT EXPOSURE.
3. ALL OUTDOOR CONTROL CABINETS WITH HMI SCREENS OR OTHER TYPES OF DISPLAYS SHALL BE EQUIPPED WITH PROTECTIVE COVERS TO SHIELD THE DISPLAYS FROM SUNLIGHT EXPOSURE AND PREVENT DETERIORATION.
4. ALL INSTRUMENT SHALL BE PROVIDED WITH STAINLESS STEEL TAGS ATTACHED USING STAINLESS STEEL TAGGING WIRE.

GROUNDING:

1. MAXIMUM DISTANCE BETWEEN DRIVEN GROUND RODS IS NOT TO EXCEED 50' UNLESS OTHERWISE NOTED.
2. ALL GROUNDING CONDUCTORS TO BE BARE, STRANDED, SOFT DRAWN, COPPER, SIZED AS INDICATED ON THE DESIGN DRAWINGS.
3. MAIN RING GROUND WIRE TO BE MAXIMUM 3'-0" OUTSIDE FOUNDATIONS AND 2'-6" BELOW FINISH GRADE.
4. THE CONTRACTOR TO DETERMINE ACTUAL LOCATION OF ANY EQUIPMENT UTILIZING BONDS TO GROUNDING TAILS. CONTRACTOR TO LOCATE 1" PVC GROUNDING STUB-UPS IN ACCORDANCE WITH EQUIPMENT VENDOR INFORMATION OR DRAWING REQUIREMENTS.
5. FOR COMPRESSION APPLICATIONS, APPLY A COAT OF "NO-OXIDE" COMPOUND ONTO COPPER CABLE AND COMPRESSION CONNECTORS PRIOR TO CRIMPING CONNECTION OR USE PRE-FILLED CONNECTORS.
6. ALL GROUND CABLES STUBBING UP THROUGH CONCRETE SHALL STUB UP THRU PVC CONDUIT, SIZED PER PLAN DRAWINGS. PVC CONDUIT SHALL EXTEND A MINIMUM OF 6" ABOVE AND 6" BELOW THE CONCRETE.
7. PIGTAILS SHOULD BE INSTALLED THRU 1" PVC CONDUIT, 10'-0" LONG U.N.O.
8. EXOTHERMIC WELDS SHALL BE UTILIZED IN UNDERGROUND INSTALLATIONS ONLY. ALL SUCH WELDS SHALL BE INSPECTED BY THE SITE ENGINEER REPRESENTATIVE PRIOR TO COVER.
9. ALL ABOVE GROUND GROUNDING CONNECTIONS SHALL EMPLOY PROPERLY RATED COMPRESSION CONNECTORS.
10. THE MAIN GROUNDING RING CONDUCTOR SHALL BE RUN AS MECHANICALLY CONTINUOUS AS POSSIBLE WITH A MINIMUM OF CUTS AND SPLICES.

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	REVISION	DATE
A	ISSUED FOR BID	9/30/2025

PROJECT NUMBER:
PROJECT DATE: JUNE 2025

DESIGNED BY:	A.Z.
DRAWN BY:	I.S.
REVIEWED BY:	D.V.

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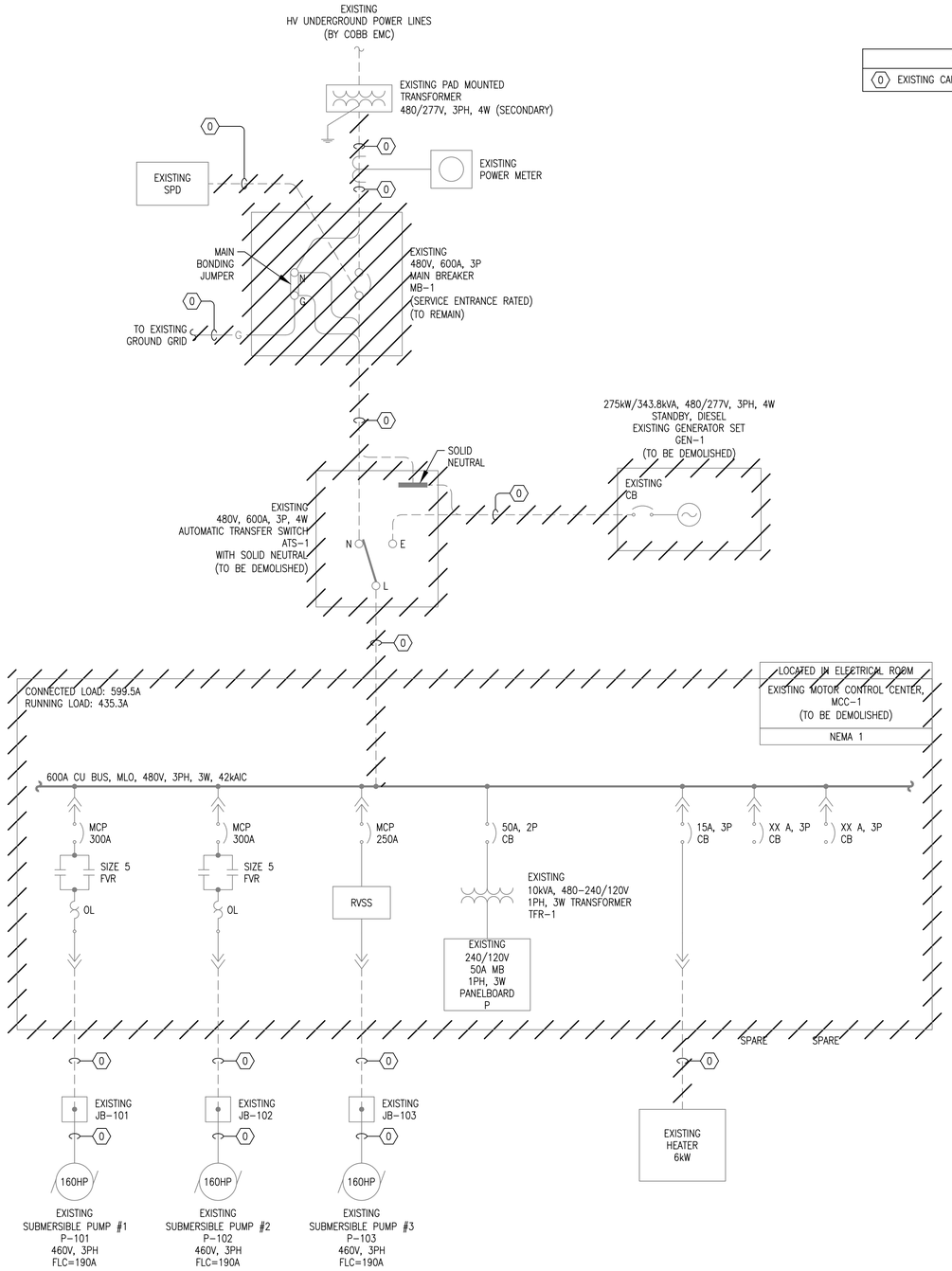
0" 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL MATERIALS SCHEDULE

E-002



1 ONE LINE DIAGRAM (DEMOLITION)

CONDUCTOR/CONDUIT SCHEDULE
0 EXISTING CABLES/CONDUITS

NOTES:

1. THE CONTRACTOR SHALL SAFELY DISCONNECT AND DEMOLISH ALL EXISTING ELECTRICAL EQUIPMENT AS NOTED AND ALL ASSOCIATED INSTALLATION HARDWARE, CABLES AND CONDUITS. ALL DEMOLISHED ELECTRICAL EQUIPMENT SHALL BE COORDINATED WITH THE OWNER FOR RE-USE OR DISPOSAL.

LEGEND:

- EQUIPMENT TO BE DEMOLISHED

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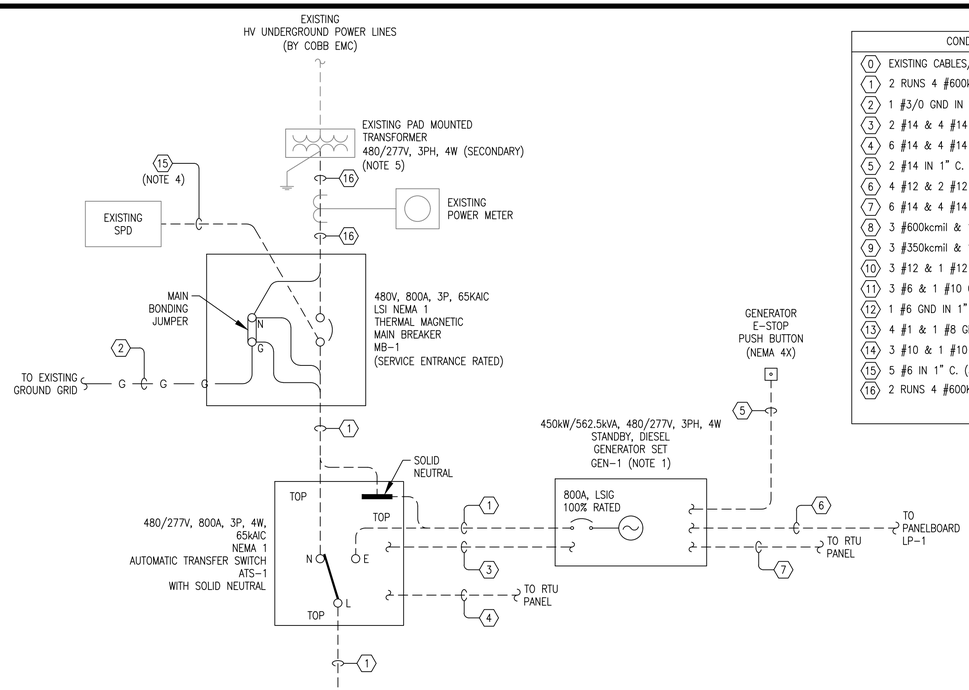
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

ONE LINE DIAGRAM
(DEMOLITION)

E-101



CONDUCTOR/CONDUIT SCHEDULE
(0) EXISTING CABLES/CONDUITS
(1) 2 RUNS 4 #600kcmil & 1 #1/0 GND IN 4" C. EACH
(2) 1 #3/0 GND IN 1" C.
(3) 2 #14 & 4 #14 SPARE IN 1" C.
(4) 6 #14 & 4 #14 SPARE IN 1" C.
(5) 2 #14 IN 1" C.
(6) 4 #12 & 2 #12 GND IN 1.25" C.
(7) 6 #14 & 4 #14 SPARE IN 1" C.
(8) 3 #600kcmil & 1 #3 GND IN 4" C.
(9) 3 #350kcmil & 1 #4 GND IN 3.5" C. (VFD SHIELDED)
(10) 3 #12 & 1 #12 GND IN 1" C.
(11) 3 #6 & 1 #10 GND IN 0.75" C.
(12) 1 #6 GND IN 1" C.
(13) 4 #1 & 1 #8 GND IN 1.5" C.
(14) 3 #10 & 1 #10 GND IN 1" C.
(15) 5 #6 IN 1" C. (3'-0" MAX.)
(16) 2 RUNS 4 #600KCMIL IN 4" C. EACH

NOTES:

1. THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE 450kW/562.5kVA, 480/277V, 3PH STANDBY DIESEL GENERATOR SET. THE GENERATOR SET SHALL INCLUDE: GENERATOR; GENERATOR CONTROL PANEL; MAIN CIRCUIT BREAKER; GENERATOR PAD; 72HR RATED, BUT SHALL NOT EXCEED 1,000 U.S. GALLONS FUEL TANK AND AUTOMATIC TRANSFER SWITCH IN NEMA 1 ENCLOSURE. THE CONTRACTOR SHALL INCLUDE A SET OF ALUMINUM STEPS FOR ACCESS IN CASE OF CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE GENERATOR MAIN CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, IS MORE THAN 6'-7". THE CONTRACTOR SHALL INCLUDE ALUMINUM SERVICE PLATFORM ON THE SIDE OF THE GENERATOR AS SHOWN ON THE DESIGN DRAWINGS.
   THE GENERATOR HOUSING SHALL BE WEATHERPROOF (73 DBA AT 23 FT). SEE GENERATOR SPEC 26 32 13 FOR ADDITIONAL INFORMATION. VOLTAGE DIP AND FREQUENCY DIP SHOULD NOT EXCEED 25% AND 10% ACCORDINGLY. THE GENERATOR SUPPLIER SHALL CONFIRM THE GENERATOR CALCULATIONS PRIOR TO BID, BASED ON SPECIFIED LOADS. IF A LARGER GENERATOR IS REQUIRED TO RUN THE LOADS, THEN CONTRACTOR SHALL INCLUDE A LARGER GENERATOR AND UPSIZE CABLES/CONDUITS AS REQUIRED. A LETTER OF GUARANTEE SHALL BE PROVIDED INCLUDING LOAD CALCULATIONS TO VERIFY THE GENERATOR SELECTION. THE CONTRACTOR SHALL VERIFY GENERATOR BREAKER SIZE AND ADJUST CABLE SIZE PER NEC 310.16 AS REQUIRED.
   THE GENERATOR SHALL INCLUDE 120VAC, 2A RATED CONTACTS:
   - GENERATOR RUNNING;
   - GENERATOR EXERCISE;
   - GENERATOR COMMON FAULT (TO INCLUDE LOW FUEL ALARM).

   AUTOMATIC TRANSFER SWITCH SHALL INCLUDE 120VAC, 2A RATED CONTACTS:
   - ATS IN NORMAL POSITION;
   - ATS IN EMERGENCY POSITION;
   - ATS NORMAL POWER LOSS.

   GENERATOR STEPS:
   STEP 1:
   - 15kVA TFR-1;
   - 14kW HEAT PUMP UNIT.

   STEP 2:
   - ONE (1) 160HP PUMP #1 (VFD).

   STEP 3:
   - ONE (1) 160HP PUMP #2 (VFD).

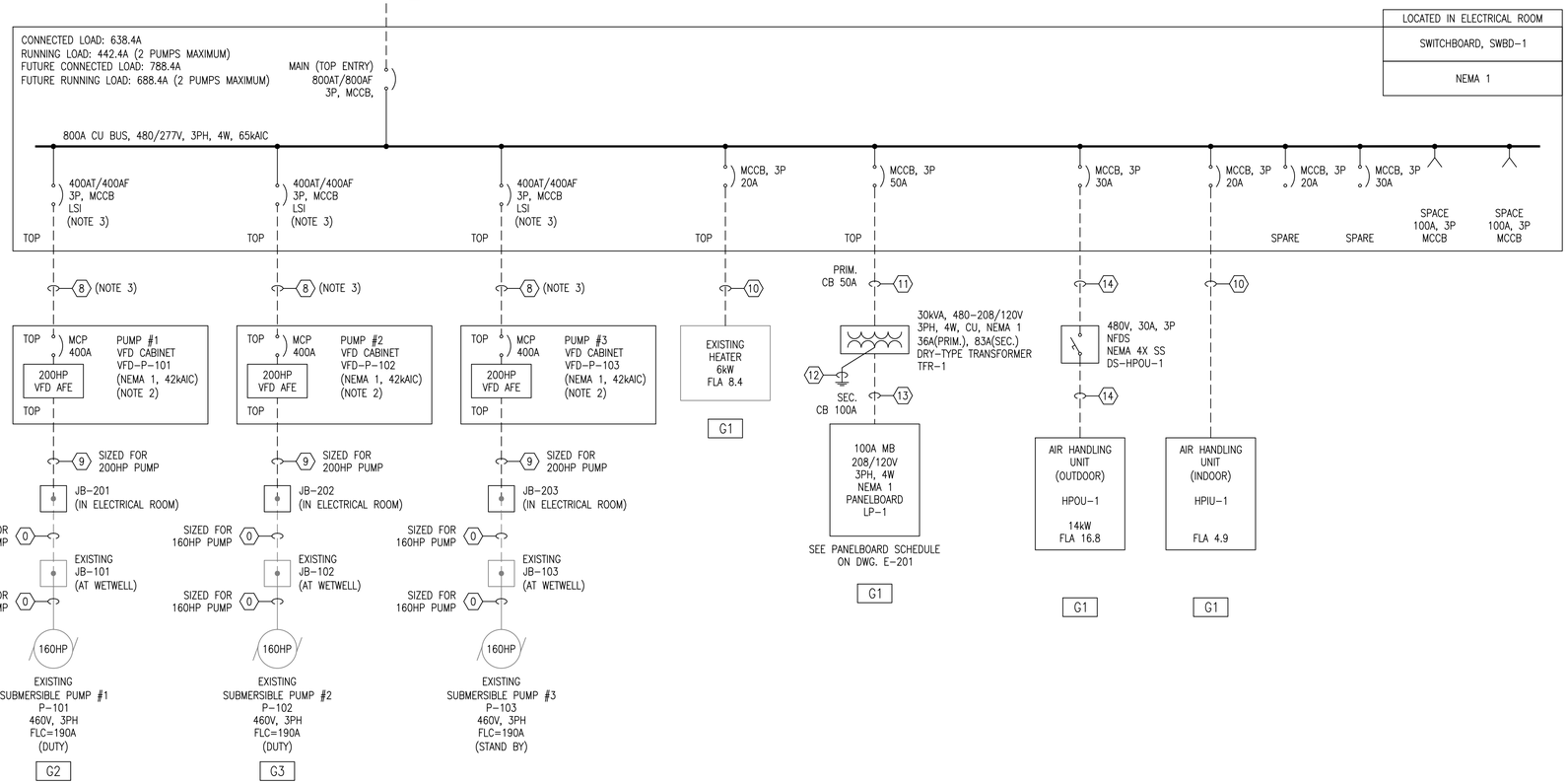
   THE CONTRACTOR SHALL COORDINATE THE EQUIPMENT STARTING SEQUENCE AND DELAYS WITH THE SYSTEM INTEGRATOR AND EQUIPMENT SUPPLIERS (SUPPLYING PLC CONTROL PANELS) TO ENSURE PROPER LOAD STAGGERING DURING POWER OUTAGE AND GENERATOR OPERATION.

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL TOTAL OF THREE (3) 200HP RATED, AFE TYPE VFD CABINETS IN NEMA 1 ENCLOSURE. THE ACCEPTABLE VFD's ARE BY SCHNEIDER ELECTRIC OR ABB. REFER TO DWG. E-601 FOR VFD DETAILS. THE VFD MANUFACTURER SHALL CONFIRM THAT THE PROPOSED VFD IS PROPERLY SELECTED BASED ON THE REQUIRED TORQUE.

3. PUMP FEEDER CIRCUIT BREAKERS IN THE SWITCHBOARD, VFD CABLES AS SHOWN ON ONE LINE DIAGRAM, ARE SIZED FOR A FUTURE 200 HP SUBMERSIBLE PUMPS UPGRADE.

4. THE CONTRACTOR SHALL REUSE THE EXISTING EXTERNAL SPD AND RECONNECT IT TO THE NEW MAIN CIRCUIT BREAKER.

5. CONTRACTOR SHALL COORDINATE WITH COBB EMC THE ADDITIONAL LOADS TO THE SITE. COBB EMC SHALL ADVISE IF FUTURE 200HP PUMPS UPGRADE REQUIRES EXISTING TRANSFORMER REPLACEMENT.



LOCATED IN ELECTRICAL ROOM
SWITCHBOARD, SWBD-1
NEMA 1

LEGEND:

G X – DENOTES EQUIPMENT TO BE BACKED UP BY GENERATOR
- GENERATOR STEP NUMBER
- GENERATOR LOAD

1 ONE LINE DIAGRAM

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	DATE
REVISION	
ISSUED FOR BID	9/30/2025

PROJECT NUMBER:
PROJECT DATE: JUNE 2025

DESIGNED BY:	A.Z.
DRAWN BY:	I.S.
REVIEWED BY:	D.V.

BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

ONE LINE DIAGRAM

E-151

PANELBOARD		LP–1		(LOCATED IN ELECTRICAL ROOM)
VOLTAGE (L–N):	120V	ENCLOSURE TYPE:	NEMA 1	
VOLTAGE (L–L):	208V	MOUNTING:	SURFACE	
PHASE, WIRES:	3 ϕ, 4 W	AIC RATING (A):	18,000 AIC	
MINIMUM BUS CAPACITY (A):	100A CU	NOTES:		
MAIN O.C. DEVICE (A):	100A, 3P MAIN BREAKER			

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (AMP) A		PHASE LOADS (AMP) B		PHASE LOADS (AMP) C		POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	SPARE	20	1	0.0	0.0					1	20	AREA LIGHTING (EX.)	2
3	EXTERIOR DOOR LIGHT (EX.)	20	1			0.0	0.0			1	20	AREA LIGHTING (EX.)	4
5	VENTOLATOR VF1 & VALVE PIT LIGHTS (EX.)	20	1					0.0	0.0	1	20	ELECTRICAL BUILDING RECEPTACLES (EX.)	6
7	HEAT TAPE (EX.)	20*	1	0.0	0.0					1	20	ELECTRICAL BUILDING LIGHTING (EX.)	8
9	EMERGENCY PUMP (EX.)	20	1			0.0	0.0			1	20	AUTO DIALER (EX.)	10
11	PUMP CONTROL PANEL LCP–1	30	1					7.0	0.0	1	20	VENTOLATOR VF2 & WET WELL LIGHTS (EX.)	12
13	SPARE	20	1	0.0	5.0					1	20	GENERATOR BATTERY CHARGER	14
15	SPARE	20	1			0.0	10.0			2	20	GENERATOR BLOCK HEATER	16
17	SPARE	20	1					0.0	10.0	↓	↓	↓	18
19	SPARE	20	1	0.0	0.0					1	20	SPARE	20
21	SPARE	20	1			0.0	0.0			1	20	SPARE	22
23	SPARE	20	1					0.0	0.0	1	20	SPARE	24
25	SPARE	20	1	0.0	0.0					1	20	SPARE	26
27	SPARE	20	1			0.0	0.0			1	20	SPARE	28
29	SPARE	20	1					0.0	0.0	1	20	SPARE	30
31	SPACE			0.0	0.0							SPACE	32
33	SPACE					0.0	0.0					SPACE	34
35	SPACE							0.0	0.0			SPACE	36
37	SPACE			0.0	0.0							SPACE	38
39	SPACE					0.0	0.0					SPACE	40
41	SPACE							0.0	0.0			SPACE	42

USE THE FOLLOWING CONDUCTORS FOR PANELBOARD CIRCUITS:
20A – #12AWG; 30A – #10AWG; 40A – #8AWG; 50A – #6AWG; 60A – #4AWG

CONNECTED LOAD PHASE TOTALS (AMP)		
5.0	10.0	17.0

(*) – 30mA, EGFP CIRCUIT BREAKER
(EX.) – EXISTING LOADS (TO BE REWIRED)

2 LP–1 – PANELBOARD SCHEDULE

NOTES:

1. THE EXISTING 120V LOADS ARE CONNECTED TO THE 120V PANELBOARD INSTALLED INSIDE THE EXISTING MCC. CONTRACTOR SHALL REWIRE THE EXISTING 120V LOADS FROM THE EXISTING MCC PANELBOARD TO THE NEW PANELBOARD LP–1. PROVIDE ALL REQUIRED CABLES AND CONDUITS TO THE EXISTING LOADS.

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0 1"

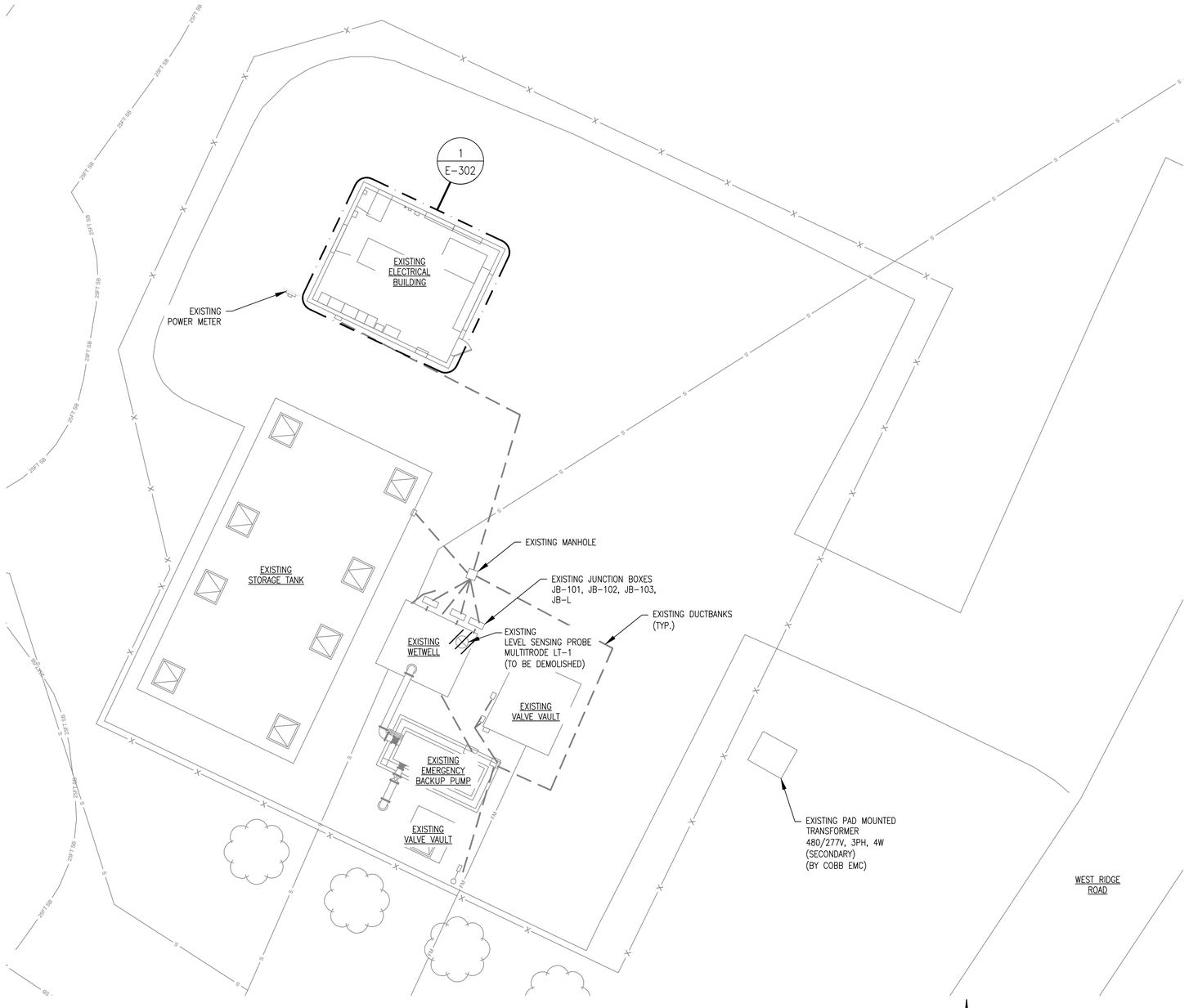
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

PANELBOARD SCHEDULES

E-201

NOTES:

1. THE CONTRACTOR SHALL SAFELY DISCONNECT AND REMOVE ALL EXISTING EQUIPMENT AS SHOWN. COORDINATE DISPOSAL OR STORAGE OF THE DEMOLISHED EQUIPMENT WITH THE OWNER. REFER TO MECHANICAL AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE REQUIRED DEMOLITION SCOPE.



1 OVERALL ELECTRICAL SITE PLAN (DEMOLITION)
SCALE: 1" = 10'-0"

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

LEGEND:

– EQUIPMENT TO BE DEMOLISHED

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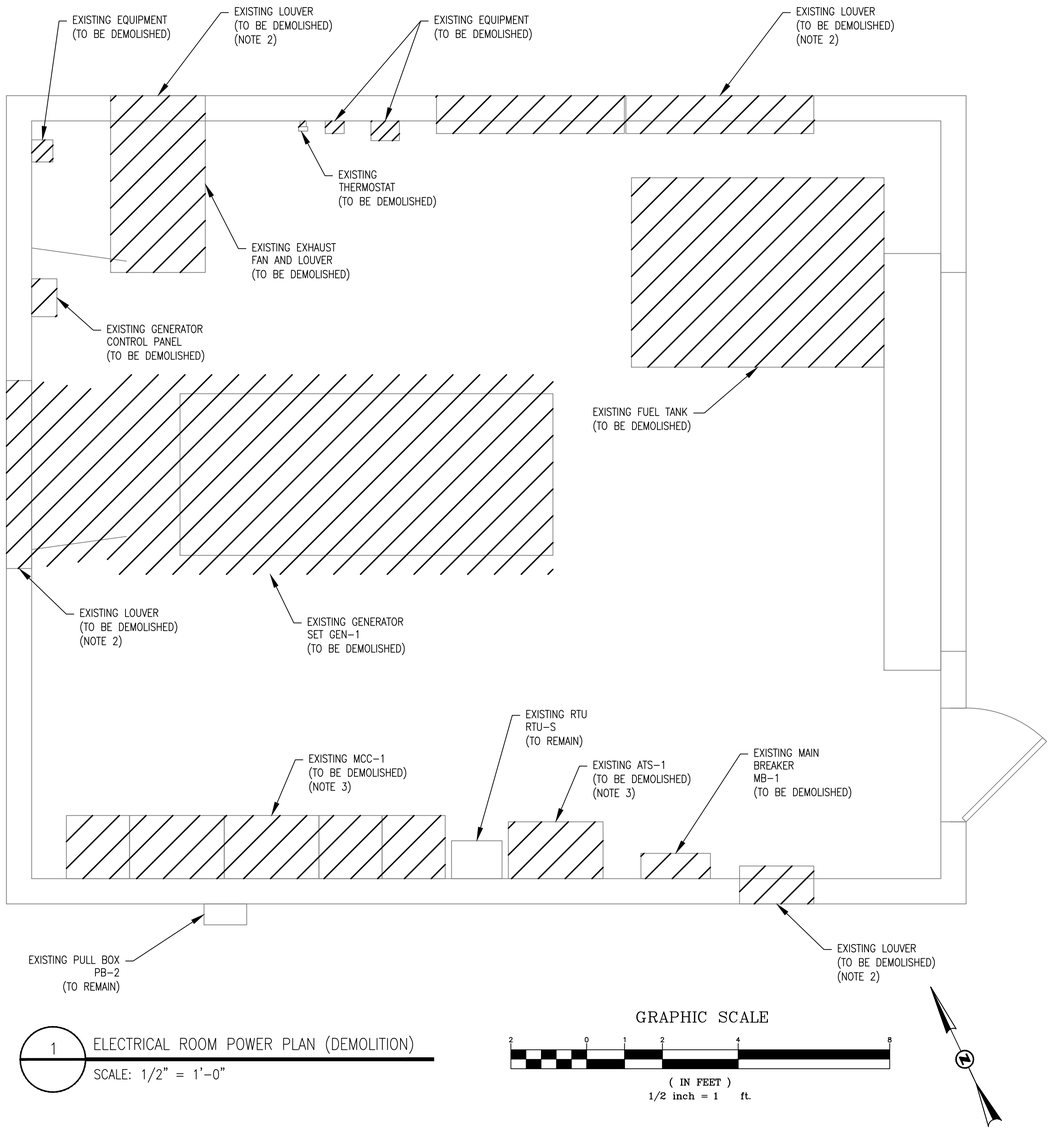
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

OVERALL ELECTRICAL SITE PLAN
(DEMOLITION)

E-301



1 ELECTRICAL ROOM POWER PLAN (DEMOLITION)

SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

2 0 1 2 4 8

(IN FEET)

1/2 inch = 1 ft.

LEGEND:

– EQUIPMENT TO BE DEMOLISHED

NOTES:

1. THE CONTRACTOR SHALL SAFELY DISCONNECT AND REMOVE ALL EXISTING EQUIPMENT AS SHOWN. COORDINATE DISPOSAL OR STORAGE OF THE DEMOLISHED EQUIPMENT WITH THE OWNER. REFER TO MECHANICAL AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE REQUIRED DEMOLITION SCOPE.

2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLOSING THE WALL OPENINGS LEFT BY THE DEMOLISHED EQUIPMENT.

3. IT IS CRITICAL TO MINIMIZE THE PUMP STATION SHUTDOWN TIME DURING THE ELECTRICAL WORK. THE EXISTING MOTOR CONTROL CENTER MCC-1, AUTOMATIC TRANSFER SWITCH ATS-1 AND MAIN BREAKER MB-1 SHALL STAY IN PLACE UNTIL PROPOSED EQUIPMENT WILL BE INSTALLED TO AVOID LOSS OF POWER TO THE PUMPS FOR MORE THAN 8 HOURS.
PROPOSED CONSTRUCTION SEQUENCE:
   1) PROVIDE A TEMPORARY PORTABLE GENERATOR CONNECTED TO THE EXISTING ATS FOR ANY POWER OUTAGES REQUIRED FOR POWER DISTRIBUTION SYSTEM UPGRADE.
   2) INSTALL, WIRE AND TEST THE PROPOSED STATIONARY 450kW/562.5kVA DIESEL GENERATOR OUTSIDE THE BUILDING.
   3) DISCONNECT AND REMOVE THE EXISTING GENERATOR AND DIESEL TANK FROM INSIDE THE BUILDING.
   4) REMOVE, COVER, AND WATERPROOF EXISTING GENERATOR EXHAUST LOUVERS ON THE WEST WALL.
   5) REMOVE, COVER, AND WATERPROOF THE EXISTING GENERATOR INTAKE AIR LOUVERS ON THE NORTH WALL.
   6) INSTALL THE PROPOSED SWITCHBOARD SWBD-1
   7) INSTALL PROPOSED VFD CABINETS VFD-P-1, VFD-P-2, AND VFD-P-3.
   8) INSTALL THE PROPOSED PUMP CONTROL PANEL LCP-1.
   9) INSTALL THE PROPOSED DRY-TYPE TRANSFORMER TFR-1 AND PANELBOARD LP-1.
   10) INSTALL THE PROPOSED HVAC SYSTEM.
   11) REMOVE, COVER, AND WATERPROOF EXISTING LOUVERS IN THE SOUTH WALL TO PROVIDE FLOOR/WALL SPACE FOR NEW ATS INSTALLATION.
   12) INSTALL THE PROPOSED AUTOMATIC TRANSFER SWITCH ATS-1.
   13) INSTALL PROPOSED JUNCTION BOX JB-ER-1 (ABOVE EXISTING MOTOR CONTROL CENTER MCC-1).
   6) DEMOLISH EXISTING MAIN BREAKER MB-1 AND INSTALL THE NEW MAIN BREAKER MB-1 IN ITS PLACE.
   7) INSTALL ALL INTERCONNECTION CABLES/CONDUITS BETWEEN THE PROPOSED AND EXISTING (TO REMAIN) EQUIPMENT.
   8) CRITICAL PATH TO BE PERFORMED AS FAST AS POSSIBLE:
      – DISCONNECT UTILITY POWER FROM THE EXISTING MAIN BREAKER AND REMOVE EXISTING CABLES/CONDUITS, INSTALL/CONNECT THE NEW CABLES TO THE NEW MAIN BREAKER AND NEW ATS.
      – DISCONNECT THE EXISTING PUMP POWER AND CONTROL CABLES FROM THE EXISTING MCC, REMOVE MCC SECTIONS, PROVIDE POWER WALL MOUNTED JUNCTION BOX FOR EACH PUMP AT THE BOTTOM OF EACH SECTION, AND TERMINATE EXISTING POWER CABLES FOR EACH PUMP. EXTEND EACH POWER CABLE TO THE ASSOCIATED VFD.

THE ABOVE CONSTRUCTION SEQUENCE IS A RECOMMENDATION ONLY. THE CONTRACTOR SHALL CREATE A DEMOLITION/INSTALLATION SEQUENCE IN ORDER TO MEET THE MAXIMUM SHUTDOWN TIME REQUIREMENT.

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PROJECT NUMBER:		
PROJECT DATE: JUNE 2025		
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DESIGNED BY: A.Z.
DRAWN BY: I.S.
REVIEWED BY: D.V.

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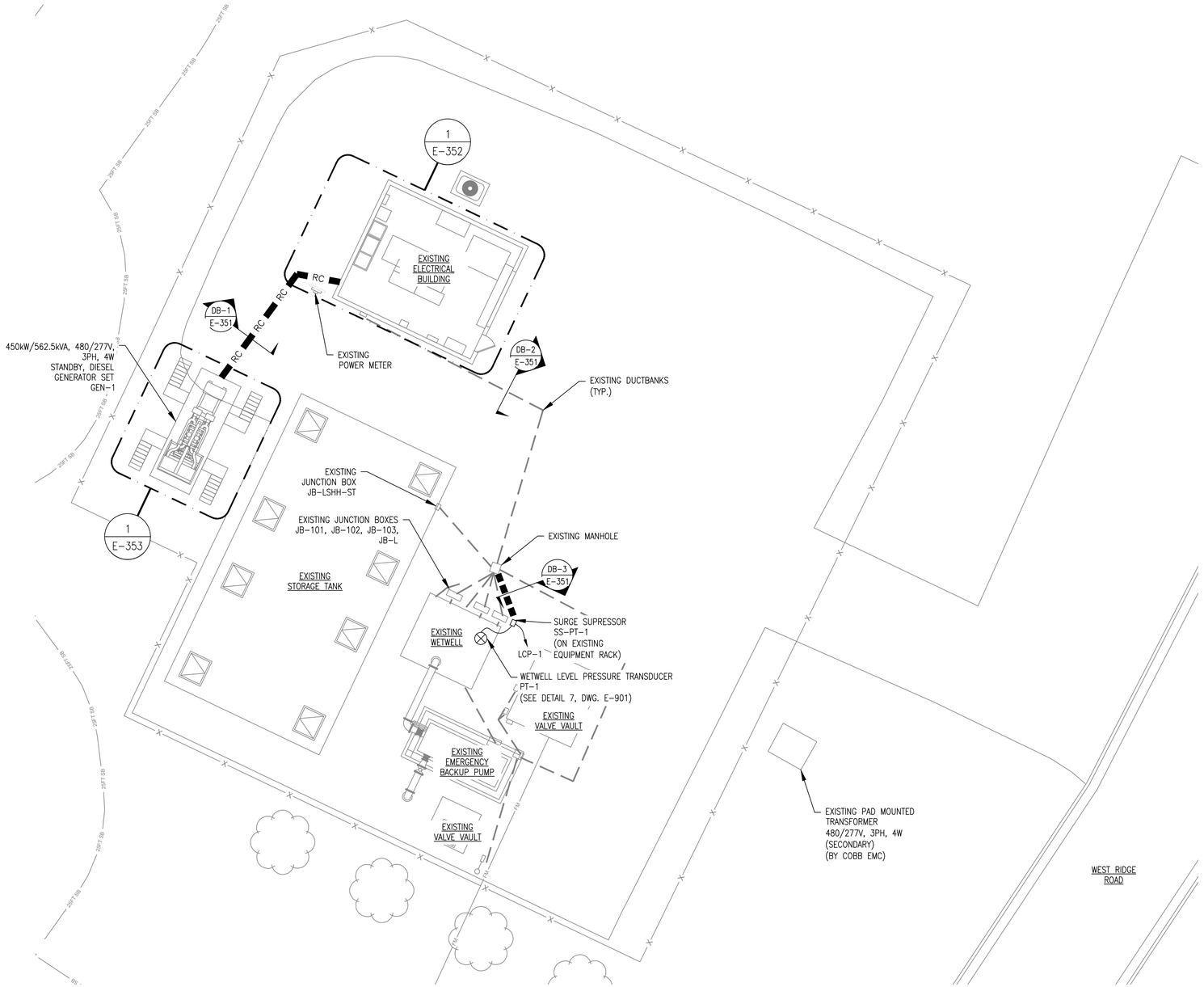
0" 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL ROOM POWER PLAN (DEMOLITION)

E-302



1 OVELALL ELECTRICAL SITE PLAN

SCALE: 1" = 10'-0"

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

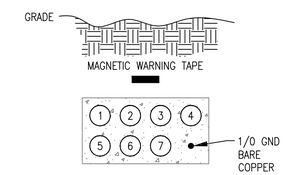
LEGEND:

- DIRECT BURIED UNDERGROUND DUCTBANK
- C C – CONCRETE ENCASED UNDERGROUND DUCTBANK
- RC RC – REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

NOTES:

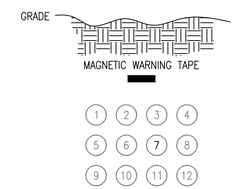
1. THE CONTRACTOR SHALL COORDINATE ALL UNDERGROUND CONDUIT RUNS WITH OTHER UNDERGROUND UTILITIES. DUCTBANKS UNDER THE ROAD AND UTILITY TRANSFORMER DUCTBANK SHALL BE CONCRETE ENCASED WITH STEEL REINFORCEMENT. SEE DETAIL 1, DWG. E-901.
2. COORDINATE THE EXACT ELECTRICAL EQUIPMENT LOCATION IN THE FIELD TO PROVIDE NEC REQUIRED WORKING CLEARANCES.
3. THE CONTRACTOR SHALL TERMINATE THE GROUNDING CONDUCTORS AT BOTH ENDS TO THE GROUNDING SYSTEM OR EQUIPMENT WHERE SPECIFIED TO BE INCLUDED WITH UNDERGROUND DUCTBANK.
4. THERE IS POTENTIALLY CONSTRUCTION SHORING AND OTHER CONSTRUCTION DEBRIS WITHIN THE ROUTE OF THE DUCTBANK DB-1. THE CONTRACTOR SHALL REMOVE ANY MATERIALS ENCOUNTERED IN THE EXCAVATION OR ROUTE THE DUCTBANK AROUND THE MATERIALS AT NO ADDITIONAL COST TO THE OWNER.

UNDERGROUND DUCTBANKS:



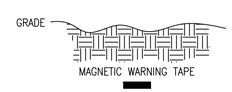
DB-1

1) 4" C. (480/277V POWER FROM GENERATOR TO ATS)
2) 4" C. (480/277V POWER FROM GENERATOR TO ATS)
3) 4" C. (SPARE)
4) 1.25" C. (208/120V POWER FROM LP-1 TO GENERATOR)
5) 1" C. (CONTROLS TO GENERATOR)
6) 1" C. (CONTROLS TO SCADA)
7) 1" C. (SPARE)



EXISTING DB-2

1) EXISTING 3" C. (480V POWER TO P-101)
2) EXISTING 3" C. (480V POWER TO P-102)
3) EXISTING 3" C. (480V POWER TO P-103)
4) EXISTING 1.5" C. (120V POWER TO BACKUP PUMP SKID)
5) EXISTING 1.5" C. (120V POWER TO DS-F1, JB-HT)
6) EXISTING 1.5" C. (120V POWER TO SECURITY LIGHT AND WETWELL LIGHT)
7) EXISTING 1.5" C. (USE THIS SPARE CONDUIT FOR WETWELL LEVEL TRANSDUCER 4-20mA SIGNAL TO PANEL LCP-1)
8) EXISTING 1.5" C. (120V POWER TO BACKUP PUMP HEAT TRACE)
9) EXISTING 3" C. (CONTROLS TO JB-101, JB-102, JB-103, JB-L, JB-LSHH-ST)
10) EXISTING 1.5" C. (SPARE)
11) EXISTING 1.5" C. (SPARE)
12) EXISTING 1.5" C. (CONTROL TO RTU-S FROM LCP-BP)



DB-3

1) 1" C. (SIGNALS TO LCP-1 FROM PT-1)

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		REVISION	DATE
	A	ISSUED FOR BID	9/30/2025

PROJECT NUMBER:
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DESIGNED BY:	A.Z.
DRAWN BY:	I.S.
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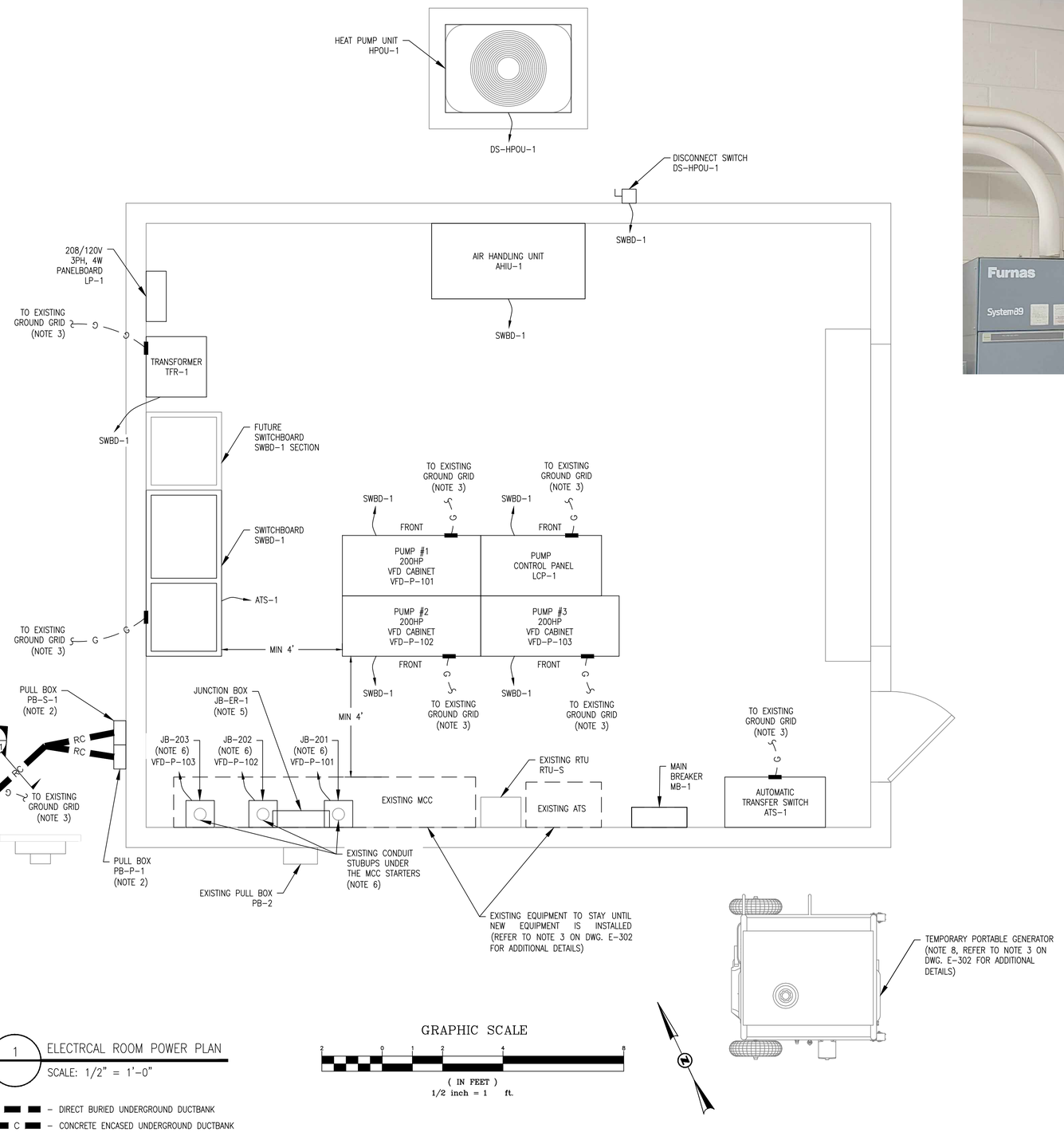
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

OVELALL ELECTRICAL SITE PLAN

E-351



1 ELECTRCAL ROOM POWER PLAN

SCALE: 1/2" = 1'-0"

GRAPHIC SCALE

2 0 1 2 4 8

(IN FEET)
1/2 inch = 1 ft.

LEGEND:

- – DIRECT BURIED UNDERGROUND DUCTBANK
- C C – CONCRETE ENCASED UNDERGROUND DUCTBANK
- RC RC – REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

A JB-EB-1 DETAIL

NOTES:

1. SEE DETAIL "DB-1" ON DWG. E-351 FOR DUCTBANKS SECTIONS.
2. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEMA 4X SS PULL BOX ADEQUATELY SIZED FOR ASSOCIATED CABLES/CONDUITS PER NED 314.28, MOUNTED ON THE STRUCTURE'S WALL AT 9'-0" ABOVE GRADE. CONTRACTOR SHALL PROVIDE AND INSTALL SEPARATE PULL BOXES FOR POWER AND CONTROLS (PB-P-1) AND SIGNAL (PB-S-1) CABLES/CONDUITS. CONTRACTOR SHALL PROPERLY SEAL ALL WALL PENETRATIONS TO BE WATER TIGHT AND 2-HOUR FIRE RATED.
3. THE CONTRACTOR SHALL PROVIDE AND INSTALL #1/0 AWG BARE COPPER GROUND WIRE FOR CONNECTION TO EXISTING GROUNDING SYSTEM.
4. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH ALL OTHER TRADES. IT IS THE RESPONSIBILITY OF CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. AND COORDINATE THE INSTALLATION ACCORDINGLY. THE EQUIPMENT WIRING SHALL INCLUDE ALL NECESSARY CABLES AND CONDUIT REQUIRED FOR THE PROPER AND SAFE EQUIPMENT OPERATION.
5. THE CONTRACTOR SHALL PROVIDE AND INSTALL NEMA 1 JUNCTION BOX ADEQUATELY SIZED FOR ASSOCIATED CABLES/CONDUITS PER NED 314.28, MOUNTED ON THE STRUCTURE'S WALL (SEE DETAIL A).
6. THE CONTRACTOR SHALL DISCONNECT THE EXISTING PUMP POWER CABLES FROM THE EXISTING MCC, REMOVE MCC SECTIONS, PROVIDE POWER WALL MOUNTED JUNCTION BOX FOR EACH PUMP (JB-201, JB-202, AND JB-203) AT THE BOTTOM OF EACH SECTION, AND TERMINATE EXISTING POWER CABLES FOR EACH PUMP. EXTEND EACH POWER CABLE FROM THE JUNCTION BOXES TO THE ASSOCIATED VFD.
7. THE CONTRACTOR MAY USE THE EXISTING CONDUITS WHERE POSSIBLE IF NEC CONDUIT FILL REQUIREMENTS ARE MET. OTHERWISE, NEW CONDUITS OF THE SAME MATERIAL AS THE EXISTING CONDUITS SHALL BE PROVIDED AND INSTALLED.
8. THE CONTRACTOR SHALL PROVIDE A TEMPORARY GENERATOR TO SUPPORT THE EXISTING LOADS DURING NEW EQUIPMENT INSTALLATION.

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A.Z. DESIGNED BY:
I.S. DRAWN BY:
D.V. REVIEWED BY:

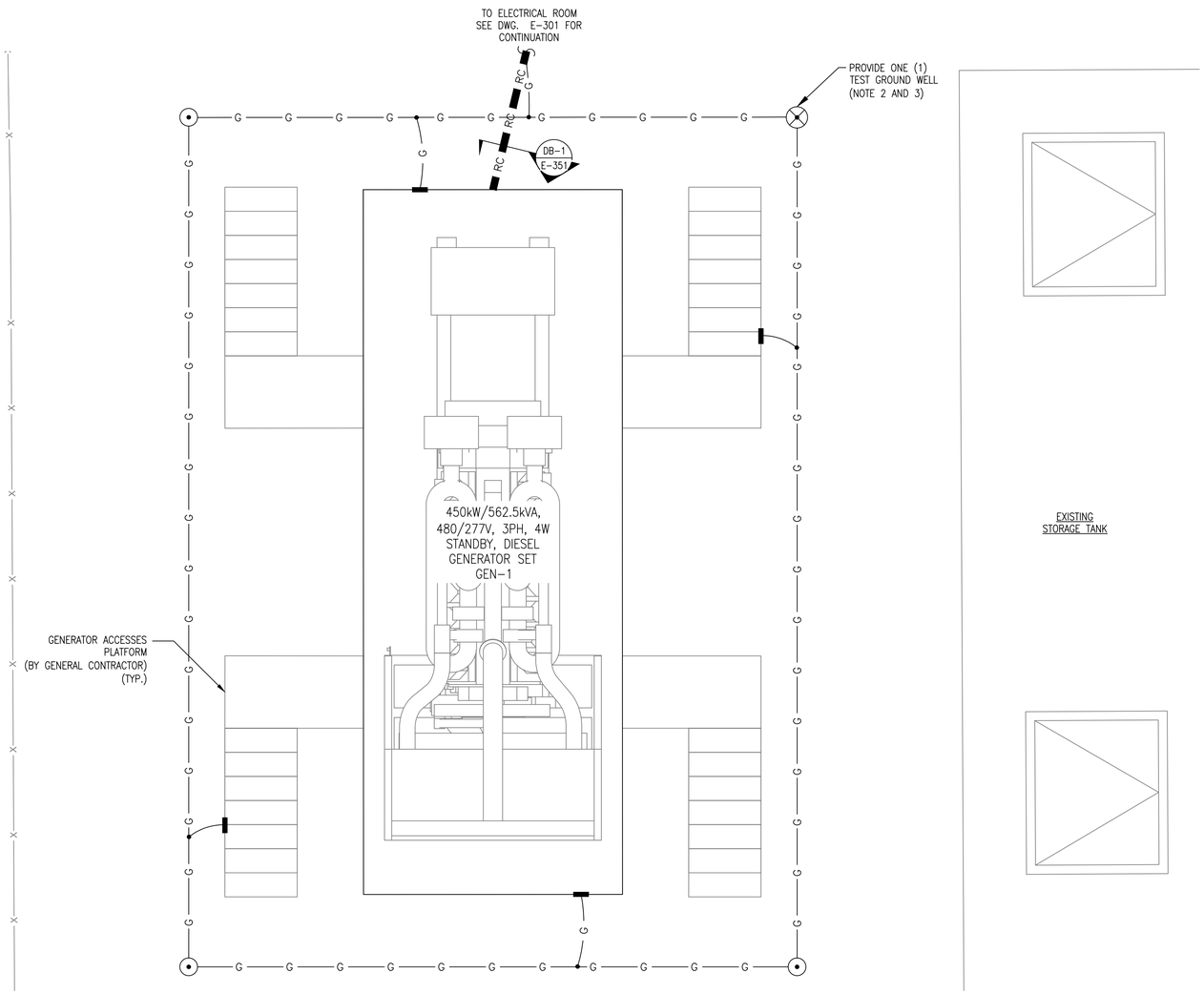
BAR BELOW IS 1" LONG FOR SCALES SHOWN ON THIS SHEET. IF NOT 1" LONG ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

1" 0

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRCAL ROOM POWER PLAN

E-352



1 GENERATOR POWER AND GROUNDING PLAN
SCALE: 1/2" = 1'-0"

GRAPHIC SCALE
2 0 1 2 4 8
(IN FEET)
1/2 inch = 1 ft.

NOTES:

1. SEE DETAIL "1" ON DWG. E-351 FOR DUCTBANKS SECTIONS.
2. THE CONTRACTOR SHALL PROVIDE A GROUND GRID CONSISTING OF 3/4" DIA. x 10'-0" LONG COPPER CLAD GROUND RODS. THE RODS SHALL BE DRIVEN IN GROUND CONNECTED TOGETHER WITH #1/0 AWG BARE STRANDED COPPER CONDUCTORS. PROVIDE A GROUND WELL FOR ONE ROD. SEE DETAIL "2" AND "3" ON DWG. E-901 FOR GROUND WELL INSTALLATION DETAILS.
3. THE CONTRACTOR SHALL PROVIDE AND INSTALL #1/0 BARE COPPER GROUND WIRE TO CONNECT NEW GROUND RING AROUND GENERATOR SET TO THE PUMP STATION EXISTING GROUND GRID.
4. THE CONTRACTOR SHALL HAVE THE PROPOSED GENERATOR PLATFORM AND STAIRS DRAWINGS DESIGNED AND STAMPED BY REGISTERED STRUCTURAL PROFESSIONAL ENGINEER. THE DESIGN SHALL BE SUBMITTED TO THE PROJECT ENGINEERS FOR REVIEW AND APPROVAL.

LEGEND:

- – DIRECT BURIED UNDERGROUND DUCTBANK
- C C – CONCRETE ENCASED UNDERGROUND DUCTBANK
- RC RC – REINFORCED CONCRETE ENCASED UNDERGROUND DUCTBANK

GEORGIA REGISTERED ENGINEER ALEC ZAYCHIK

EDEC
4120 CHATTAHOOCHEE TRACE
SUITE 155
DULUTH, GA 30097
(770) 493-8885

ESI
ENGINEERING SYNTACTICS, INC.
3855 SHALLOWFORD ROAD
SUITE 155
MARIETTA, GA 30060
(770) 429-0001

PROJECT NUMBER:
PROJECT DATE: JUNE 2025

	REVISION	DATE
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DRAWN BY: I.S.
REVIEWED BY: D.V.

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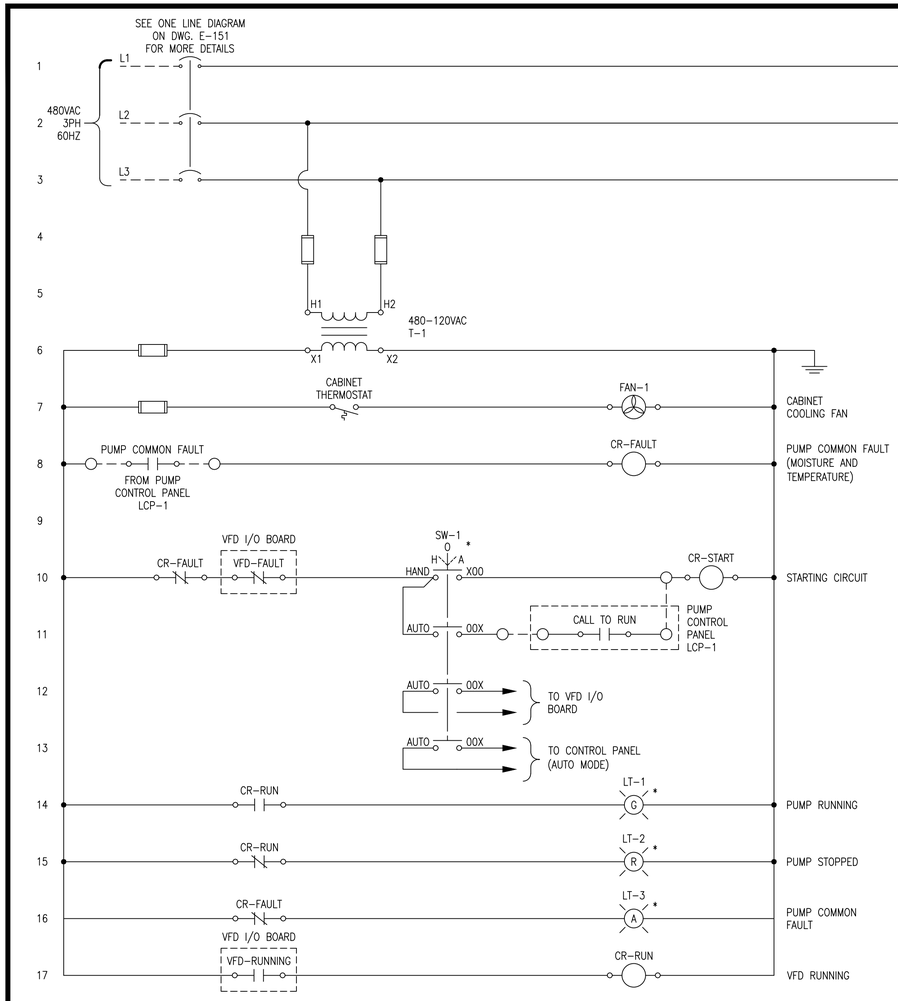
0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY
BLANKETS CREEK PS ELECTRICAL UPGRADE

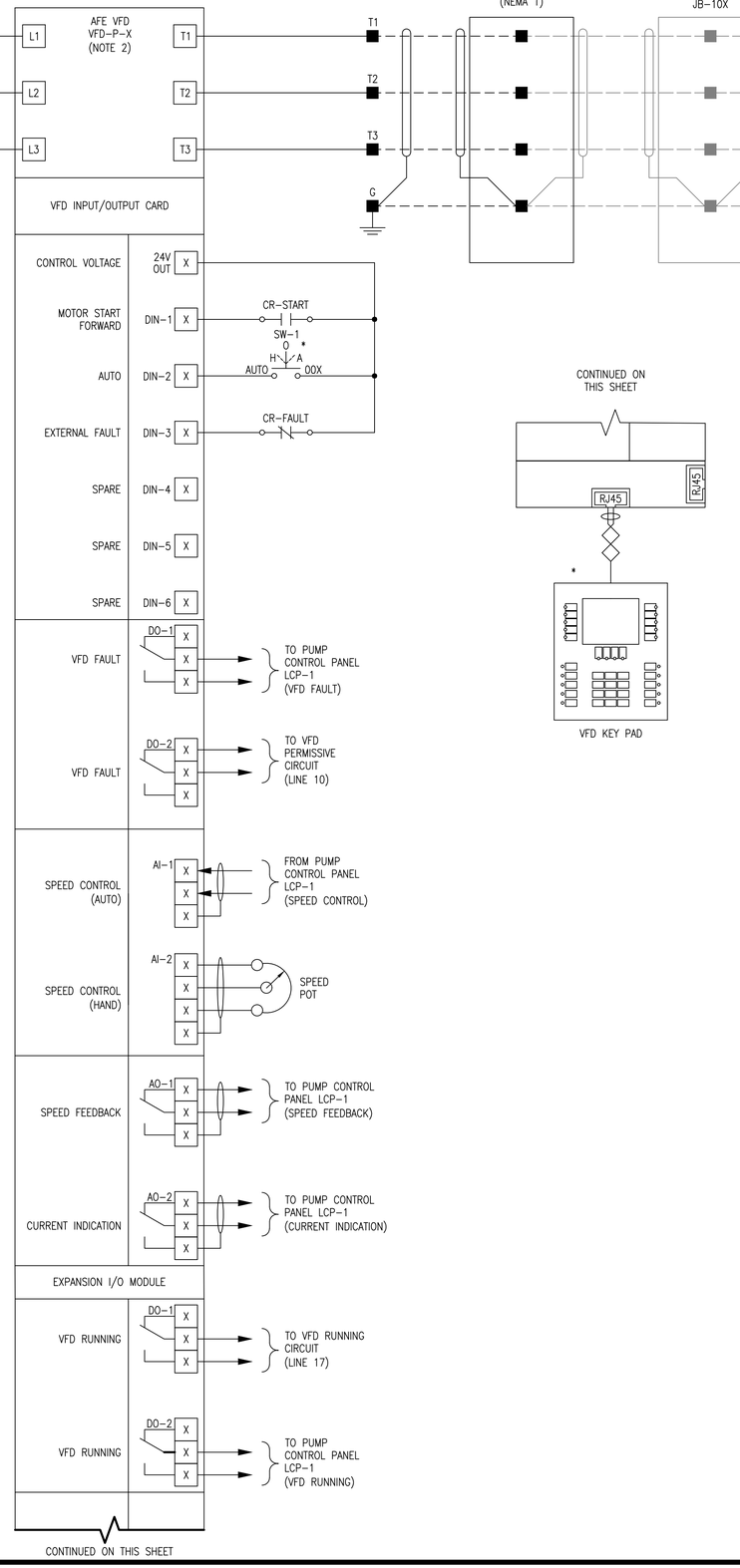
GENERATOR SET POWER PLAN

E-353



1 SEWAGE PUMP VFD SCHEMATIC WIRING DIAGRAM

#	DESCRIPTION	P-X	JB-10X	JB-20X	VFD-P-X
1	PUMP #1	P-101	JB-101	JB-201	VFD-P-101
2	PUMP #2	P-102	JB-102	JB-202	VFD-P-102
2	PUMP #3	P-103	JB-103	JB-203	VFD-P-103



NOTES:

1. THE SCHEMATIC WIRING DIAGRAM IS CONCEPTUAL IN NATURE. THE CONTRACTOR SHALL ADJUST THE FIELD WIRING BASED ON APPROVED VENDOR DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.

2. THE EQUIPMENT VENDOR SHALL FURNISH AND CONTRACTOR SHALL INSTALL VFD CABINET WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

   A. CABINET SCCR SHALL BE 65kAIC MINIMUM.
   B. ENCLOSURE: NEMA 1.
   C. MAIN DEVICE: MOTOR CIRCUIT PROTECTOR 300A, 480V, 3P WITH LOCKABLE DISCONNECT HANDLE.
   D. VARIABLE FREQUENCY DRIVE (VFD):
      D.A. CONSTANT TORQUE DRIVE;
      D.B. AFE RATED FOR 160 HP MOTOR;
   E. 480-120V CONTROL POWER TRANSFORMER (CPT) SIZED TO ACCOMMODATE ALL REQUIRED 120V LOADS.
   F. FAN & THERMOSTAT.
   G. OPERATOR INTERFACE DEVICES:
      G.A. VFD KEY PAD MOUNTED ON THE FRONT DOOR;
      G.A. HOA SWITCH;
      G.B. SPEED POTENTIOMETER FOR HAND MODE.
   H. INDICATING LIGHTS FOR:
      H.A. PUMP RUNNING (GREEN);
      H.B. PUMP STOPPED (RED);
      H.C. PUMP COMMON FAULT (AMBER).
   I. MEANS OF I/O'S COMMUNICATION:
      I.1. 120V, 5A RATED DRY CONTACTS, PREWIRED TO FIELD TERMINALS:
         I.1.A. PUMP RUNNING;
         I.1.B. AUTO MODE;
         I.1.C. VFD FAULT;
         I.1.D. PUMP COMMON FAULT.
      I.2. HARDWIRED SIGNALS PREWIRED TO FIELD TERMINALS:
         I.2.A. SPEED CONTROL 4-20mA;
         I.2.B. SPEED FEEDBACK 4-20mA;
         I.2.C. CURRENT FEEDBACK 4-20mA.
   J. CABINET SHALL INCLUDE ALL NECESSARY COMPONENTS FOR EQUIPMENT SAFE AND RELIABLE OPERATION.

THE CABINET SHALL BE MANUFACTURED BY SCHNEIDER ELECTRIC OR ABB. THE CABINET SHALL BE UL LISTED AND LABELED. THE CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.

LEGEND:

- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ⊘ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT
- * – DOOR MOUNTED

GEORGIA REGISTERED ENGINEER ALEC ZAYCHIK
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3855 SHALLOWFORD ROAD
SUITE 705
MARIETTA, GA 30060
(770) 429-0001

		REVISION	DATE
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PROJECT DATE: JUNE 2025			

DESIGNED BY:	A.Z.
DRAWN BY:	I.S.
REVIEWED BY:	D.V.

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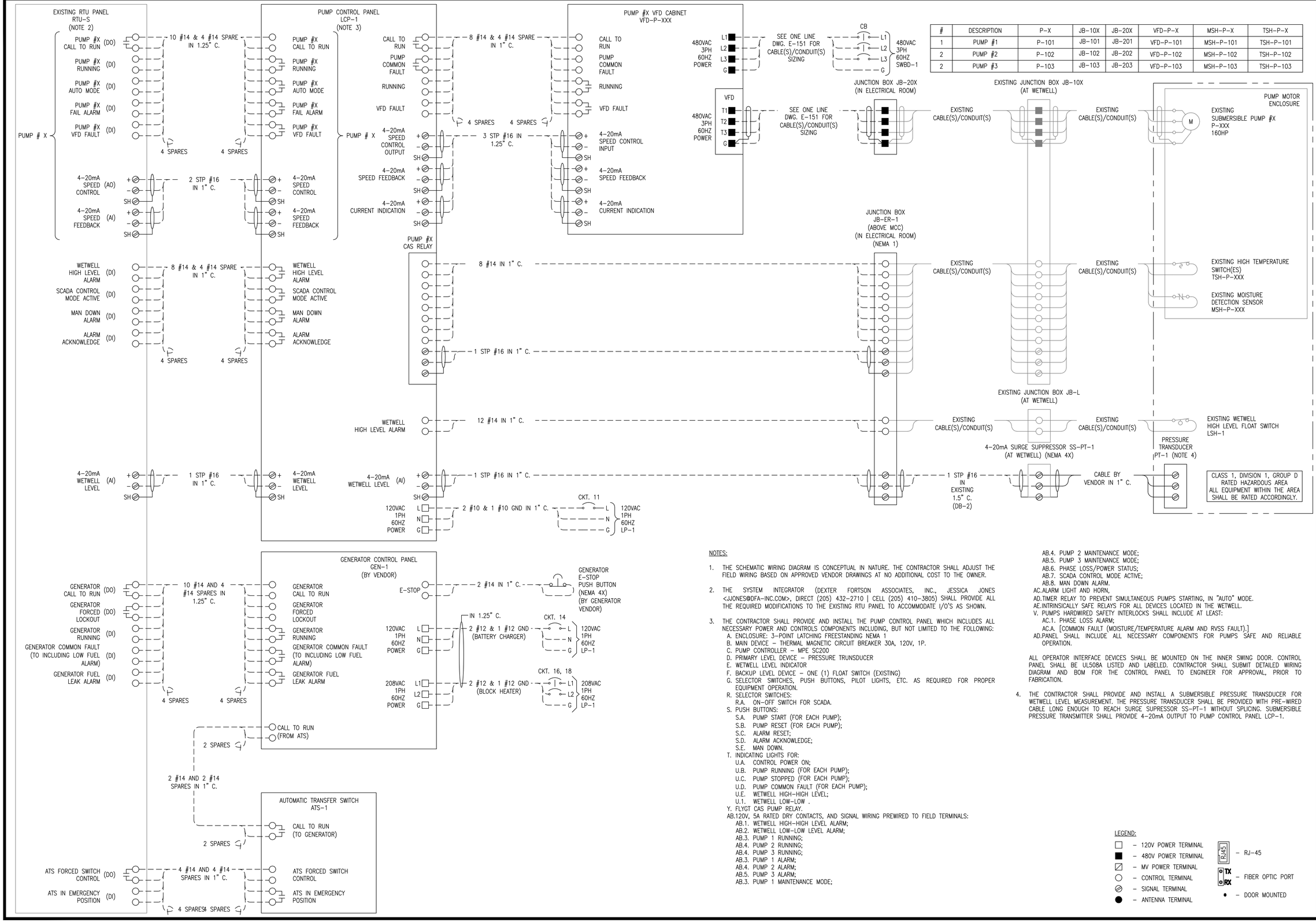
CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

SCHEMATIC WIRING DIAGRAM

E-601



#	DESCRIPTION	P-X	JB-10X	JB-20X	VFD-P-X	MSH-P-X	TSH-P-X
1	PUMP #1	P-101	JB-101	JB-201	VFD-P-101	MSH-P-101	TSH-P-101
2	PUMP #2	P-102	JB-102	JB-202	VFD-P-102	MSH-P-102	TSH-P-102
2	PUMP #3	P-103	JB-103	JB-203	VFD-P-103	MSH-P-103	TSH-P-103

NOTES:

1. THE SCHEMATIC WIRING DIAGRAM IS CONCEPTUAL IN NATURE. THE CONTRACTOR SHALL ADJUST THE FIELD WIRING BASED ON APPROVED VENDOR DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
2. THE SYSTEM INTEGRATOR (DEXTER FORTSON ASSOCIATES, INC., JESSICA JONES <JJONES@DFA-INC.COM>, DIRECT (205) 432-2710 | CELL (205) 410-3805) SHALL PROVIDE ALL THE REQUIRED MODIFICATIONS TO THE EXISTING RTU PANEL TO ACCOMMODATE I/O'S AS SHOWN.
3. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE PUMP CONTROL PANEL WHICH INCLUDES ALL NECESSARY POWER AND CONTROLS COMPONENTS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
   - A. ENCLOSURE: 3-POINT LATCHING FREESTANDING NEMA 1
   - B. MAIN DEVICE – THERMAL MAGNETIC CIRCUIT BREAKER 30A, 120V, 1P.
   - C. PUMP CONTROLLER – MPE SC200
   - D. PRIMARY LEVEL DEVICE – PRESSURE TRUNSDUCER
   - E. WETWELL LEVEL INDICATOR
   - F. BACKUP LEVEL DEVICE – ONE (1) FLOAT SWITCH (EXISTING)
   - G. SELECTOR SWITCHES, PUSH BUTTONS, PILOT LIGHTS, ETC. AS REQUIRED FOR PROPER EQUIPMENT OPERATION.
   - R. SELECTOR SWITCHES:
     - R.A. ON-OFF SWITCH FOR SCADA.
   - S. PUSH BUTTONS:
     - S.A. PUMP START (FOR EACH PUMP);
     - S.B. PUMP RESET (FOR EACH PUMP);
     - S.C. ALARM RESET;
     - S.D. ALARM ACKNOWLEDGE;
     - S.E. MAN DOWN.
   - T. INDICATING LIGHTS FOR:
     - U.A. CONTROL POWER ON;
     - U.B. PUMP RUNNING (FOR EACH PUMP);
     - U.C. PUMP STOPPED (FOR EACH PUMP);
     - U.D. PUMP COMMON FAULT (FOR EACH PUMP);
     - U.E. WETWELL HIGH-HIGH LEVEL;
     - U.1. WETWELL LOW-LOW .
   - Y. FLYGT CAS PUMP RELAY.
   - AB.120V, 5A RATED DRY CONTACTS, AND SIGNAL WIRING PREWIRED TO FIELD TERMINALS:
     - AB.1. WETWELL HIGH-HIGH LEVEL ALARM;
     - AB.2. WETWELL LOW-LOW LEVEL ALARM;
     - AB.3. PUMP 1 RUNNING;
     - AB.4. PUMP 2 RUNNING;
     - AB.4. PUMP 3 RUNNING;
     - AB.3. PUMP 1 ALARM;
     - AB.4. PUMP 2 ALARM;
     - AB.5. PUMP 3 ALARM;
     - AB.3. PUMP 1 MAINTENANCE MODE;
     - AB.4. PUMP 2 MAINTENANCE MODE;
     - AB.5. PUMP 3 MAINTENANCE MODE;
     - AB.6. PHASE LOSS/POWER STATUS;
     - AB.7. SCADA CONTROL MODE ACTIVE;
     - AB.8. MAN DOWN ALARM.
   - AC.ALARM LIGHT AND HORN,
   - AD.TIMER RELAY TO PREVENT SIMULTANEOUS PUMPS STARTING, IN "AUTO" MODE.
   - AE.INTRINSICALLY SAFE RELAYS FOR ALL DEVICES LOCATED IN THE WETWELL.
   - V. PUMPS HARDWIRED SAFETY INTERLOCKS SHALL INCLUDE AT LEAST:
     - AC.1. PHASE LOSS ALARM;
     - AC.A. [COMMON FAULT (MOISTURE/TEMPERATURE ALARM AND RVSS FAULT).]
   - AD.PANEL SHALL INCLUDE ALL NECESSARY COMPONENTS FOR PUMPS SAFE AND RELIABLE OPERATION.

   ALL OPERATOR INTERFACE DEVICES SHALL BE MOUNTED ON THE INNER SWING DOOR. CONTROL PANEL SHALL BE UL508A LISTED AND LABELED. CONTRACTOR SHALL SUBMIT DETAILED WIRING DIAGRAM AND BOM FOR THE CONTROL PANEL TO ENGINEER FOR APPROVAL, PRIOR TO FABRICATION.
4. THE CONTRACTOR SHALL PROVIDE AND INSTALL A SUBMERSIBLE PRESSURE TRANSDUCER FOR WETWELL LEVEL MEASUREMENT. THE PRESSURE TRANSDUCER SHALL BE PROVIDED WITH PRE-WIRED CABLE LONG ENOUGH TO REACH SURGE SUPRESSOR SS-PT-1 WITHOUT SPLICING. SUBMERSIBLE PRESSURE TRANSMITTER SHALL PROVIDE 4-20mA OUTPUT TO PUMP CONTROL PANEL LCP-1.

LEGEND:

- □ – 120V POWER TERMINAL
- ■ – 480V POWER TERMINAL
- ▨ – MV POWER TERMINAL
- ○ – CONTROL TERMINAL
- ⊘ – SIGNAL TERMINAL
- ● – ANTENNA TERMINAL
- RJ45 – RJ-45
- TX / RX – FIBER OPTIC PORT
- • – DOOR MOUNTED

GEORGIA REGISTERED ENGINEER ALEC ZAYCHIK
EDEC 4120 CHATTAHOOCHEE TRACE DULUTH, GA 30097 (770) 493-8685
ESI ENGINEERING DYNAMICS, INC. 3855 SHALLOWFORD ROAD SUITE 555 MARIETTA, GA 30060 (770) 429-0001

	REVISION	DATE
A	ISSUED FOR BID	9/30/2025

PROJECT NUMBER:
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I.S.	
D.V.	

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REVIEWED BY:

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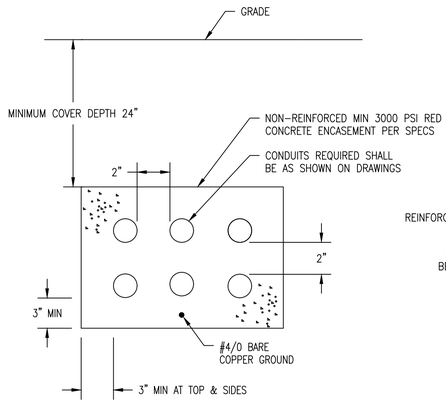
0 1"

CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

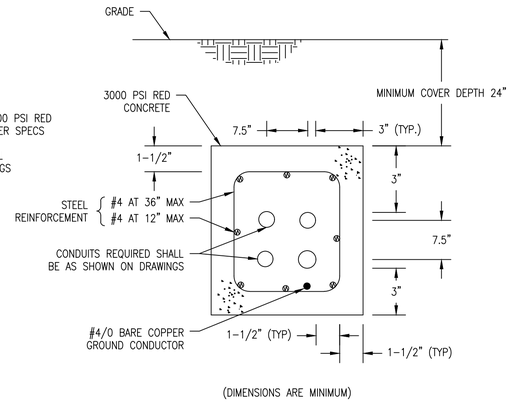
BLANKETS CREEK PS ELECTRICAL UPGRADE

INTERCONNECTION WIRING DIAGRAM

E-602



NON-REINFORCED DUCT BANK



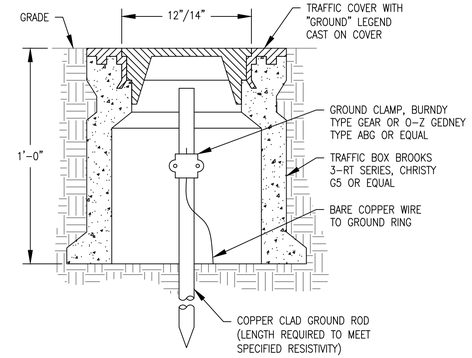
(DIMENSIONS ARE MINIMUM)

REINFORCED DUCT BANK

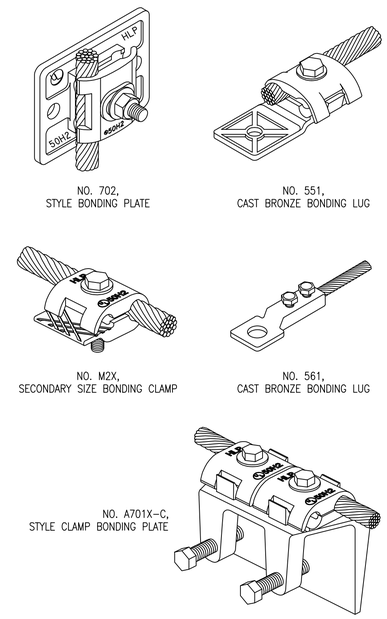
DUCT BANK NOTES:

1. ALL DUCT BANKS SHALL BE CONCRETE ENCASED. ALL DUCT BANKS CROSSING ROADS OR HEAVY TRAFFIC AREAS SHALL BE REINFORCED WITHIN 5 (FIVE) FEET OF TRAFFIC AREAS.
2. CONTRACTOR SHALL FIELD COORDINATE EXACT DUCT BANK ROUTING WITH PROCESS PIPING.

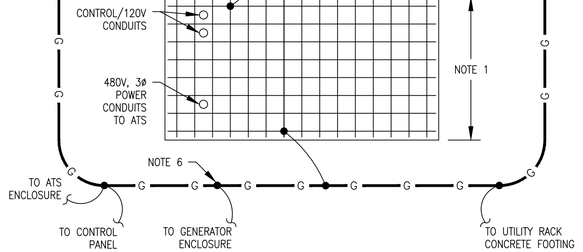
1 DUCT BANK INSTALLATION DETAILS



2 GROUND TEST WELL



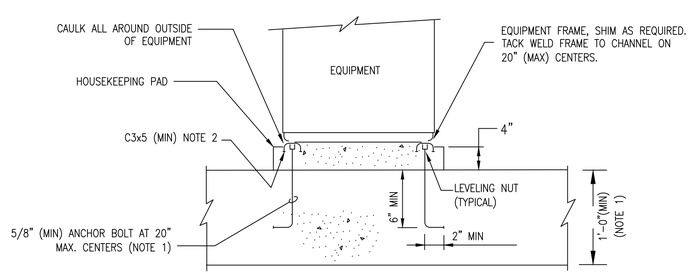
3 BONDING LUGS AND PLATES



NOTES:

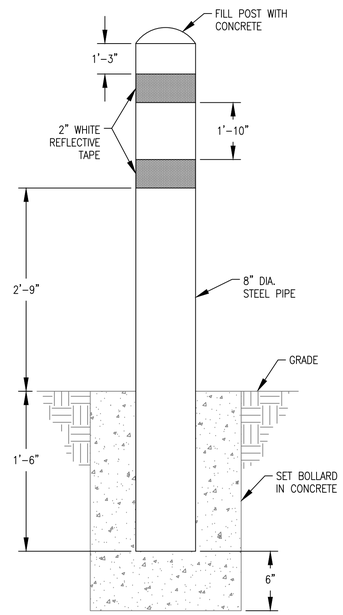
1. REFER TO STRUCTURAL SHEETS FOR GENERATOR PAD DETAIL AND REINFORCING.
2. GENERATOR HOUSING SHALL BE GROUNDED, NOT THE NEUTRAL.
3. VERIFY CONDUIT PENETRATIONS WITH GENERATOR MANUFACTURER.
4. PROVIDE FOUR (4) 10' x 3/8" COPPER CLAD STEEL GROUND RODS AS SHOWN WITH #1/0 BARE COPPER GROUND WIRE AROUND THE GENERATOR PAD. CONNECT GROUND WIRE TO THE GENERATOR ENCLOSURE.
5. EXACT GENERATOR PAD SIZE SHALL BE DETERMINED BY THE GENERATOR MANUFACTURER's SHOP DRAWING PRIOR TO INSTALLATION.

4 GENERATOR GROUNDING

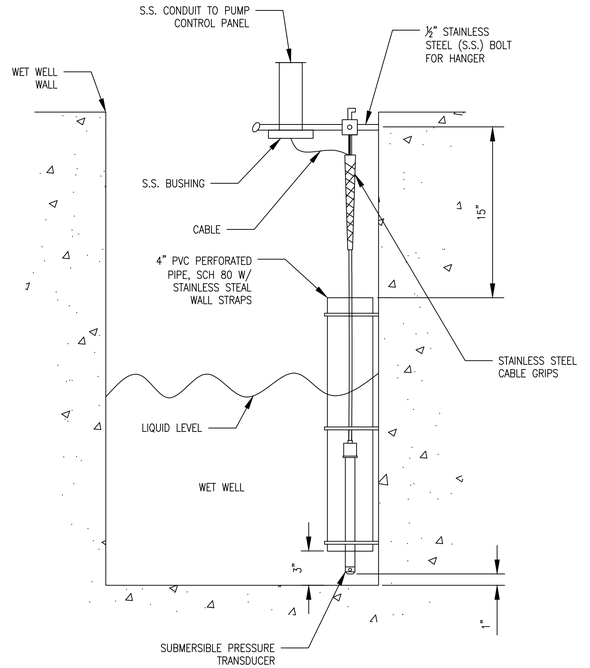


NOTES:
1. IF SLAB IS LESS THAN 12" THICK, ANCHOR BOLTS SHALL EXTEND THROUGH SLAB AND BE BACKED UP WITH 4" X 3/16" (MIN) SQUARE WASHERS.
2. CHANNELS SHALL BE LEVELED AT TIME CONCRETE IS CAST.

5 TYPICAL FLOOR MOUNTING EQUIPMENT



6 CONCRETE BOLLARD



7 SUBMERSIBLE PRESSURE TRANSDUCER INSTALLATION DETAIL

GEORGIA REGISTERED ENGINEER ALEC ZAYCHIK

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4120 CHATTAHOOCHEE TRACE
SUITE 125
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3855 SHALLOWFORD ROAD
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MARIETTA, GA 30060
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CHEROKEE COUNTY WATER & SEWERAGE AUTHORITY

BLANKETS CREEK PS ELECTRICAL UPGRADE

ELECTRICAL INSTALLATION DETAILS

E-901