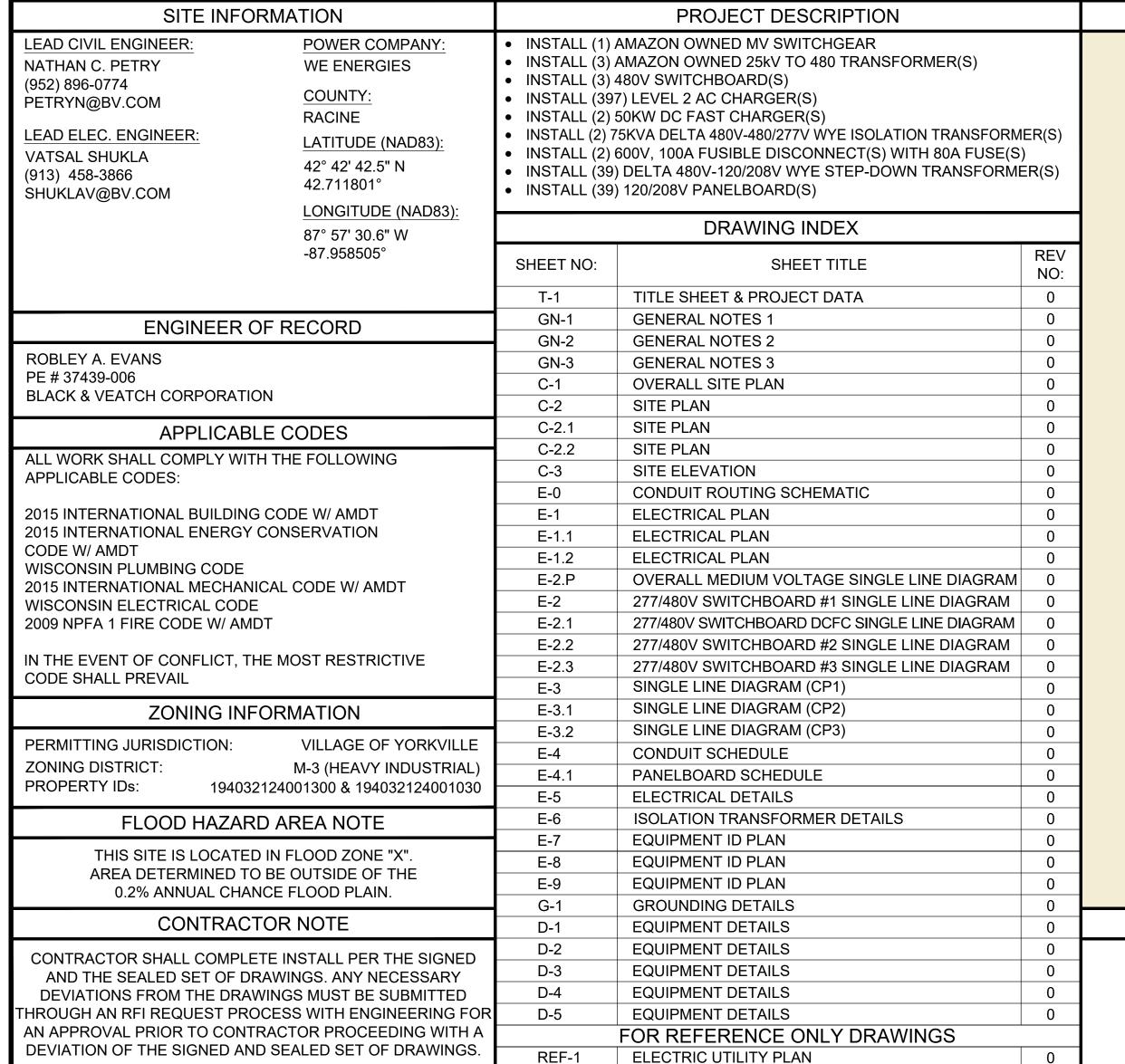
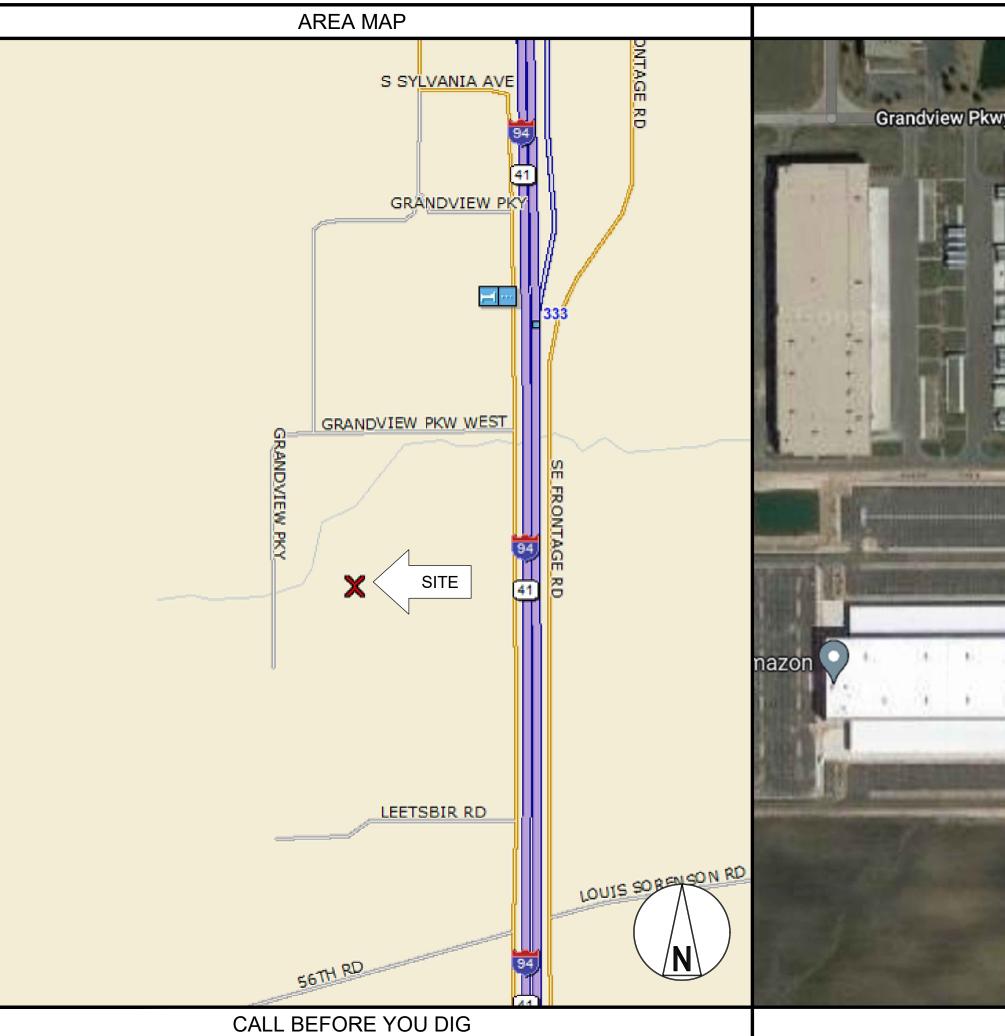


## DML8\_R2 INSTALLATION OF ELECTRIC VEHICLE CHARGING EQUIPMENT YORKVILLE 1925 GRANDVIEW PKWY YORKVILLE, WI 53177



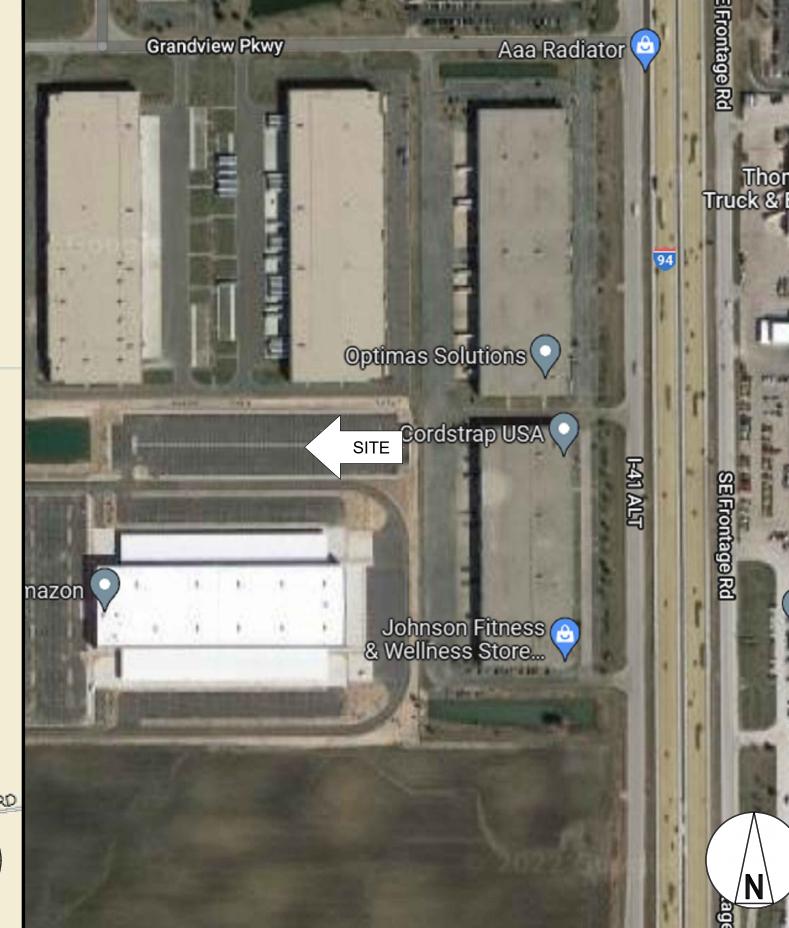


**UNDERGROUND SERVICE ALERT** 

UTILITY NOTIFICATION CENTER OF WISCONSIN

811 OR 1-800-242-8511

3 WORKING DAYS UTILITY NOTIFICATION PRIOR TO CONSTRUCTION



**LOCATION MAP** 



CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

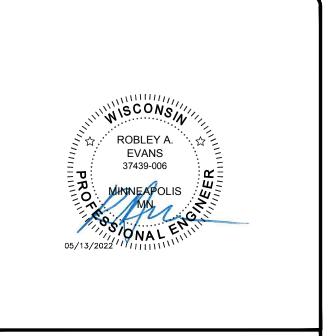
11"x17" PLOT WILL BE HALF SCALE UNLESS NOTED





409106
GJS
NMB

0	05/12/22	ISSUED FOR CONSTRUCTION
REV	DATE	DESCRIPTION



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DML8 R2 YORKVILLE 1925 GRANDVIEW PKWY YORKVILLE, WI 53177

> TITLE SHEET & PROJECT DATA

SHEET TITLE

SHEET NUMBER

**T-1** 

## **GENERAL CONSTRUCTION NOTES**

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY GENERAL CONTRACTOR: OVERLAND CONTRACTING INC. (BLACK & VEATCH) CONTRACTOR: (CONSTRUCTION) OWNER: AMAZON
- 2. ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS
- 3. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK
- 4. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- 5. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES, AND APPLICABLE REGULATIONS.
- 6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 7. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- 8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 9. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE ENGINEER PRIOR TO PROCEEDING.
- 10. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA, ADJACENT AREAS AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA REQUIREMENTS AND THE LOCAL JURISDICTION.
- 11. THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- 12. CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
- 13. WORK PREVIOUSLY COMPLETED IS REPRESENTED BY LIGHT SHADED LINES AND NOTES. THE SCOPE OF WORK FOR THIS PROJECT IS REPRESENTED BY DARK SHADED LINES AND NOTES. CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.
- 14. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- 15. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 16. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 17. THE GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- 18. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION.
- 19. THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- 20. THE CONTRACTOR SHALL PROVIDE PORTABLE FIRE EXTINGUISHERS WITH A RATING OF NOT LESS THAN 2-A:10-B:C AND SHALL BE WITHIN 25 FEET OF TRAVEL DISTANCE TO ALL PORTIONS OF WHERE THE WORK IS BEING COMPLETED DURING CONSTRUCTION.
- 21. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.

## GENERAL CONSTRUCTION NOTES CONT

- 22. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- 23. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- 24. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE FEDERAL AND LOCAL JURISDICTION FOR EROSION AND SEDIMENT CONTROL
- 25. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS. SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- 26. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- 27. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- 28. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- 29. THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE GENERAL CONTRACTOR UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- 30. THE CONTRACTOR SHALL LEAVE PREMISES IN A CLEAN CONDITION.
- 31. THE PROPOSED FACILITY WILL BE UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE, AND IS NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
- 32. NO OUTDOOR STORAGE OR SOLID WASTE CONTAINERS ARE PROPOSED
- 33. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR IMMEDIATELY.
- 34. THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.
- 35. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED FROM SITE VISITS AND/OR DRAWINGS PROVIDED BY THE SITE OWNER. CONTRACTORS SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

## STRUCTURAL STEEL NOTES

 STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS, UNLESS NOTED OTHERWISE: WIDE FLANGE SHAPE: A992. 50ksi

> ANGLE AND CHANNEL SHAPE: ASTM A36, 36 ksi PLATE: ASTM A36, 36ksi PIPE: ASTM A53 GRADE B, 35 ksi HSS: ASTM A500 GRADE B. 46ksi

- 2. HIGH-STRENGTH BOLTS SHALL CONFORM TO ASTM A325: ONE HIGH-STRENGTH BOLT ASSEMBLY SHALL CONSIST OF A HEAVY HEX STRUCTURAL BOLT, A HEAVY NUT, A HARDENED WASHER CONFORMING TO ASTM F436. THE HARDENED WASHER SHALL BE INSTALLED AGAINST ELEMENT TURNED IN TIGHTENING. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS.
- 3. WELDING ELECTRODES SHALL COMPLY WITH AWS D1.1 USING A5.1 OR A5.5 E70XX AND SHALL BE COMPATIBLE WITH THE WELDING PROCESS SELECTED. WELDERS SHALL BE QUALIFIED AS PRESCRIBED IN AWS D1.1.
- 4. UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 36, WITH HEAVY HEXAGONAL NUT.
- 5. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION.
- 6. ALL EXPOSED STRUCTURAL STEEL, BOLTS, AND HARDWARE SHALL BE HOT DIP GALVANIZED PER ASTM A123.
- 7. SUBMIT FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND TOP STEEL ELEVATIONS FOR APPROVAL. THE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE TO THE CONTRACT DRAWINGS. SUCH APPROVAL SHALL NOT RELIEVE THE FABRICATOR/CONTRACTOR OF THE RESPONSIBILITY FOR EITHER THE ACCURACY OF THE DETAILED DIMENSIONS IN THE SHOP AND ERECTION DRAWINGS OR THE GENERAL FIT-UP OF PARTS THAT ARE TO BE ASSEMBLED IN THE FIELD.
- 8. PRIMER SHALL BE RED OXIDE-CHROMATE PRIME COMPLYING WITH STEEL STRUCTURES PAINTING COUNCIL (SSPC) PAINT SPECIFICATION NUMBER 11

## **CONCRETE MASONRY NOTES**

- 1. CONCRETE MASONRY UNITS SHALL BE MEDIUM WEIGHT UNITS CONFORMING TO ASTM C90, GRADE N-1, (F'M=1,500 PSI). MEDIUM WEIGHT. (115 PCF)
- 2. MORTAR SHALL BE TYPE "S" ABOVE GRADE, TYPE "M" BELOW GRADE CONFORMING TO ASTM C270. (MINIMUM 2,000 PSI AT 28 DAYS)
- 3. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS CONFORMING TO ASTM C476.
- 4. ALL CELLS CONTAINING REINFORCING STEEL OR EMBEDDED ITEMS, ALL CELLS IN RETAINING WALLS, AND WALLS BELOW GRADE SHALL BE SOLID GROUTED.
- 5. ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM OR LINTEL BEAM UNITS.
- 6. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW TOP OF THE UPPERMOST UNIT.
- 7. ALL BOND BEAM BLOCK SHALL BE "DEEP CUT" UNITS.
- 8. PROVIDE INSPECTION AND CLEAN-OUT HOLES AT BASE OF VERTICAL CELLS HAVING GROUT LIFTS IN EXCESS OF 4'-0" OF HEIGHT.
- 9. ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR.
- 10. CEMENT SHALL BE AS SPECIFIED FOR CONCRETE.
- 11. REINFORCING BARS SEE NOTES UNDER "REINFORCED CONCRETE NOTES" FOR REQUIREMENTS. REINFORCEMENT SHALL BE PLACED PRIOR TO GROUTING. LAP SPLICES SHALL BE 48 BAR DIAMETERS, MINIMUM.
- 12. PROVIDE ONE BAR DIAMETER (A MINIMUM OF 1/2") GROUT BETWEEN MAIN REINFORCING AND MASONRY UNITS.
- 13. LOW LIFT CONSTRUCTION, MAXIMUM GROUT POUR HEIGHT IS 4 FEET
- 14. HIGH LIFT GROUTED CONSTRUCTION MAY BE USED IN CONFORMANCE WITH PROJECT SPECIFICATIONS AND SECTION 2104 OF IBC.
- 15. ALL CELLS IN CONCRETE BLOCKS SHALL BE FILLED SOLID WITH GROUT, EXCEPT AS NOTED IN THE DRAWINGS OR SPECIFICATIONS.
- 16. CELLS SHALL BE IN VERTICAL ALIGNMENT, DOWELS IN FOOTINGS SHALL BE SET TO ALIGN WITH CELLS CONTAINING REINFORCING STEEL.
- 17. REFER TO DRAWINGS FOR SURFACE AND HEIGHT OF UNITS, LAYING PATTERN AND JOINT TYPE.
- 18. SAND SHALL BE CLEAN, SHARP AND WELL GRADED, FREE FROM INJURIOUS AMOUNTS OF DUST, LUMPS, SHALE, ALKALI OR ORGANIC MATERIAL.
- 19. ALL MORTAR FIN OBSTRUCTIONS AND DEBRIS SHALL BE CLEANED FROM INSIDE OF CELLS PRIOR TO GROUTING.

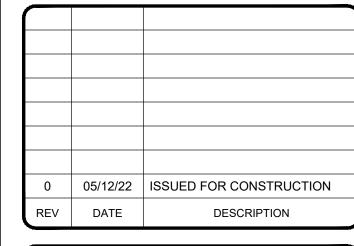
## REINFORCED CONCRETE NOTES

- CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS UNLESS OTHERWISE NOTED' CONTINUOUS INSPECTION IS NOT REQUIRED. SLUMP: 4" MIN / 6" MAX. AIR ENTRAINMENT: 4 1/2% - 7% BY VOLUME
- 2. REINFORCEMENT SHALL BE A NEW BILLET STEEL DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 GRADE 60, MAXIMUM COARSE AGGREGATE SIZE SHALL BE 3/4".
- 3. REINFORCEMENT SHALL COMPLY WITH THE LATEST EDITION OF ACI 318 FOR MINIMUM CLEARANCES.
- 4. ALL EMBEDDED ITEMS SHALL BE SECURELY HELD IN POSITION PRIOR TO PLACEMENT OF CONCRETE. ALL CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94.
- 5. MAINTAIN TEMPERATURE OF CAST IN PLACE CONCRETE BETWEEN 50 DEGREES AND 90 DEGREES FAHRENHEIT.
- 6. DO NOT USE RETEMPERED CONCRETE, OR ADD WATER TO READY-MIX CONCRETE AT THE JOB SITE.
- 7. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- 8. EXCEPT AS DETAILED OR AUTHORIZED, MAKE BARS CONTINUOUS AROUND CORNERS WHERE PERMITTED, SPLICES MADE BY CONTACT LAPS SHALL BE CLASS "B" TENSION LAPS UNLESS NOTED OTHERWISE.
- DETAIL BARS IN ACCORDANCE WITH "ACI DETAILING MANUAL", PUBLICATION SP-66 AND " BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318.
- 10. PROVIDE ACCESSORIES NECESSARY TO PROPERLY SUPPORT REINFORCING.
- 11. EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS WHERE THE CONCRETE PAD ABUTS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES, AND AS SHOWN ON APPROVED PLANS. EXPANSION JOINTS SHALL BE FORMED WITH ONE-HALF INCH PRE-FABRICATED NON-EXTRUDING FILLER AND SHALL EXTEND THE FULL DEPTH OF THE SLAB





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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

DML8\_R2 YORKVILLE 1925 GRANDVIEW PKWY YORKVILLE, WI 53177

SHEET TITLE

GENERAL NOTE1

GN-1

## ANCHORAGE INSTALLATION NOTES

- 1. DRILLING THROUGH EXISTING SLAB REBAR DURING POST-INSTALLED ANCHOR BOLTS INSTALLATION IS NOT PERMITTED.
- 2. POST-INSTALLED ANCHOR BOLT INSTALLATION SHALL BE PERFORMED BY PERSONNEL TRAINED TO INSTALL THE SYSTEM PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING.
- 3. EXPANSION AND ADHESIVE ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS USING STANDARD EMBEDMENTS AND EDGE DISTANCES UNLESS NOTED OTHERWISE ON THE DRAWINGS.

## CONCRETE SIDEWALK CONSTRUCTION REQUIREMENTS

## I. PLACING AND FINISHING CONCRETE

THE CONTRACTOR SHALL PROVIDE ADEQUATE TOOLS AND EQUIPMENT TO PRODUCE QUALITY WORKMANSHIP IN PLACING AND FINISHING CONCRETE. THE SIDEWALK AND RAMPS SHALL BE FINISHED TO THE TOP OF THE FORMS AND THE SURFACE FINISHED WITH A WOOD OR STEEL FLOAT AND SURFACE TEXTURE SHALL BE A COURSE BROOM FINISH TRANSVERSE TO THE SLOPE OF THE SIDEWALK OR RAMP. NO "PLASTERING" OF THE SURFACE SHALL BE PERMITTED.

## 2. CONTRACTION JOINTS

THE SIDEWALK SURFACE SHALL BE MARKED OFF INTO NOMINAL SQUARES OF DIMENSION TO THE WIDTH OF THE SIDEWALK WITH A MAXIMUM DISTANCE BETWEEN JOINTS OF SEVEN FEET SAWING JOINTS, THE CONTRACTOR SHALL BEGIN AS SOON AS THE CONCRETE HARDENS SUFFICIENTLY TO PREVENT EXCESSIVE RAVELING ALONG THE SAW CUT AND SHALL FINISH BEFORE CONDITIONS INDUCE UNCONTROLLED CRACKS, REGARDLESS OF THE TIME OR WEATHER.

## 3. EXPANSION JOINTS

EXPANSION JOINTS SHALL BE CONSTRUCTED AT LOCATIONS WHERE THE SIDEWALK ABUTS EXISTING CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES, AND EVERY TWO HUNDRED FIFTY FEET AND AS SHOWN ON APPROVED PLANS. EXPANSION JOINTS SHALL BE FORMED WITH ONE-HALF INCH PREFABRICATED NON-EXTRUDING FILLER AND SHALL EXTEND THE FULL DEPTH OF THE SLAB.

## **GENERAL SITE WORK NOTES**

PART 1 - GENERAL

CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.

## 1.1 REFERENCES:

- A. DOT (STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION-CURRENT EDITION).
- B. ASTM (AMERICAN SOCIETY FOR TESTING AND MATERIALS).
- C. OSHA (OCCUPATION SAFETY AND HEALTH ADMINISTRATION).
- 1.2 INSPECTION AND TESTING:
- A. GENERAL CONTRACTOR SHALL PERFORM ALL WORK IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS. PERFORM INSPECTIONS BEFORE CONCEALING WORK WITH FOLLOW-ON ACTIVITIES (BACKFILL, CONCRETE POUR, ETC).
- 1.3 SITE MAINTENANCE AND PROTECTION:
- A. PROVIDE ALL NECESSARY JOB SITE MAINTENANCE FROM COMMENCEMENT OF WORK UNTIL COMPLETION OF THE CONTRACT.
- B. AVOID DAMAGE TO THE SITE AND TO EXISTING FACILITIES, STRUCTURES, TREES, AND SHRUBS DESIGNATED TO REMAIN. TAKE PROTECTIVE MEASURES TO PREVENT EXISTING FACILITIES THAT ARE NOT DESIGNATED FOR REMOVAL FROM BEING DAMAGED BY THE WORK.
- C. KEEP SITE FREE OF ALL PONDING WATER.
- D. PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH STATE DOT, LOCAL PERMITTING AGENCY AND EPA REQUIREMENTS.
- E. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- F. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE CONSTRUCTION MANAGER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- G. PROVIDE A MINIMUM 48-HOUR NOTICE TO THE CONSTRUCTION MANAGER AND RECEIVE WRITTEN NOTICE TO PROCEED BEFORE INTERRUPTING ANY UTILITY SERVICE.
- H. SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST.

  DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE

  MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH

  BEFORE THE FIRST FROST. USE STRAW UNTIL SOD CAN BE INSTALLED.

## GENERAL SITE WORK NOTES CONT.

## PART 2 - PRODUCTS

- 2.1 SUITABLE MATERIAL SUITABLE MATERIAL ARE USED FOR GRADING AND BACKFILL. SUITABLE MATERIALS ARE ON SITE SOILS REMOVED FROM EXCAVATIONS THAT EXCLUDE FROZEN SOIL, ROOTS OR ORGANIC MATERIAL, DEBRIS, TRASH, REFUSE, OR PARTICLES SIZE GREATER THAN 3-INCH. SUITABLE SOILS HAVE MOISTURE CONTENTS THAT ALLOW THEM TO BE COMPACTED TO THE SAME DENSITY AS THE NATIVE SOILS.
- 2.2 UNSUITABLE MATERIAL SOILS THAT ARE FROZEN, CONTAIN ROOTS OR ORGANIC MATERIAL, DEBRIS, TRASH, REFUSE, OR PARTICLES SIZES GREATER THAN 3-INCH. SOILS THAT ARE TOO WET OR TOO DRY TO BE COMPACTED TO THE SAME DENSITY AS THE NATIVE SOILS ARE UNSUITABLE.
- 2.3 GRANULAR BACKFILL SHALL MEET THE FOLLOWING GRADATION

SIEVE SIZE	TOTAL PERCENT PASSING
1 1/2 INCH (37.5 MM)	100
NO. 4 (4.75 MM)	30 TO 60
NO 200 (0.075 MM)	3 TO 15

- 2.4 GRANULAR BEDDING WELL-GRADED SAND MEETING THE GRADATION REQUIREMENT OF ASTM C 33 FINE AGGREGATE.
- 2.5 CONTROLLED LOW STRENGTH MATERIAL (CLSM)— A SELF LEVELING AND SELF COMPACTING CEMENTITIOUS MATERIAL COMPOSED OF SAND, COARSE AGGREGATE, CEMENT, FLY ASH, WATER AND ADMIXTURES. CLSM SHALL BE EXCAVATABLE AND SHALL HAVE A DESIGNED UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 50 TO 100 PSI.
- 2.6 BACKFILL PRODUCTS MEETING THE REQUIREMENTS OF SUITABLE MATERIAL, GRANULAR BEDDING, GRANULAR BACKFILL OR CLSM.
- 2.7 TOPSOIL SOIL WITH AN ORGANIC CONTENT SUFFICIENT TO ALLOW VEGETATIVE GROWTH.

## PART 3 - EXECUTION

## 3.1 GENERAL:

- A. BEFORE STARTING GENERAL SITE PREPARATION ACTIVITIES, INSTALL EROSION AND SEDIMENT CONTROL MEASURES. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ALL TIMES.
- B. BEFORE ALL SURVEY, LAYOUT, STAKING, AND MARKING, ESTABLISH AND MAINTAIN ALL LINES, GRADES, ELEVATIONS AND BENCHMARKS NEEDED FOR EXECUTION OF THE WORK. CONDUCT UTILITY LOCATE IN ACCORDANCE WITH THE ONE-CALL NOTIFICATION
- C. CLEAR AND GRUB THE AREA WITHIN THE LIMITS OF THE SITE. REMOVE TREES, BRUSH, STUMPS, RUBBISH AND OTHER DEBRIS AND VEGETATION RESTING ON OR PROTRUDING THROUGH THE SURFACE OF THE SITE AREA TO BE CLEARED.
- D. REMOVE THE FOLLOWING MATERIALS TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE ORIGINAL GROUND SURFACE: ROOTS, STUMPS, AND OTHER DEBRIS, BRUSH, AND REFUSE EMBEDDED IN OR PROTRUDING THROUGH THE GROUND SURFACE, RAKE, DISK OR PLOW THE AREA TO A DEPTH OF NO LESS THAN 6 INCHES, AND REMOVE TO A DEPTH OF 12 INCHES ALL ROOTS AND OTHER DEBRIS THEREBY EXPOSED.
- E. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS. SUFFICIENT TOPSOIL MAY BE STOCKPILED ON SITE FOR USE DURING FINAL SITE GRADING.
- F. EXCEPT WHERE EXCAVATION TO GREATER DEPTH IS INDICATED, FILL DEPRESSIONS RESULTING FROM CLEARING, GRUBBING AND DEMOLITION WORK COMPLETELY WITH SUITABLE MATERIAL.
- G. REMOVE FROM THE SITE AND DISPOSE IN AN AUTHORIZED LANDFILL ALL DEBRIS RESULTING FROM CLEARING AND GRUBBING OPERATIONS. BURNING WILL NOT BE PERMITTED.
- H. PRIOR TO EXCAVATING, THOROUGHLY EXAMINE THE AREA TO BE EXCAVATED AND/OR TRENCHED TO VERIFY THE LOCATIONS OF FEATURES INDICATED ON THE DRAWINGS AND TO ASCERTAIN THE EXISTENCE AND LOCATION OF ANY STRUCTURE, UNDERGROUND STRUCTURE, OR OTHER ITEM NOT SHOWN THAT MIGHT INTERFERE WITH THE PROPOSED CONSTRUCTION. NOTIFY THE CONSTRUCTION MANAGER OF ANY OBSTRUCTIONS THAT WILL PREVENT ACCOMPLISHMENT OF THE WORK AS INDICATED ON THE DRAWINGS.
- . SEPARATE AND STOCK PILE ALL EXCAVATED MATERIALS SUITABLE FOR BACKFILL. ALL EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF OFF-SITE IN A LEGAL MANNER.
- J. DURING EXCAVATION, THE CONTRACTOR SHALL PROVIDE SHORING, SHEETING, AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF EXCAVATION.

## 3.2 BACKFILL:

A. AS SOON AS PRACTICAL, AFTER COMPLETING CONSTRUCTION OF THE RELATED STRUCTURE, INCLUDING EXPIRATION OF THE SPECIFIED MINIMUM CURING PERIOD FOR CAST-IN-PLACE CONCRETE, BACKFILL THE EXCAVATION WITH APPROVED MATERIAL TO RESTORE THE REQUIRED FINISHED GRADE.

## GENERAL SITE WORK NOTES CONT.

- B. PRIOR TO PLACING BACKFILL AROUND STRUCTURES, ALL FORMS SHALL BE REMOVED AND THE EXCAVATION CLEANED OF ALL TRASH, DEBRIS, AND UNSUITABLE MATERIALS.
- C. DO NOT PLACE FROZEN MATERIAL IN AS BACKFILL.
- D. PLACE BACKFILL MATERIAL OR SELECT GRANULAR BACKFILL MATERIAL WHEN REQUIRED IN UNIFORM HORIZONTAL LAYERS OF NO GREATER THAN 8-INCHES LOOSE THICKNESS AND COMPACT TO THE SAME DENSITY AS NATIVE SOIL. WHERE HAND OPERATED COMPACTORS ARE USED, THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 4 INCHES IN LOOSE DEPTH AND COMPACTED.
- E. WHENEVER TESTING INDICATES THAT THE CONTRACTOR HAS NOT OBTAINED THE SPECIFIED DENSITY, THE SUCCEEDING LAYER SHALL NOT BE PLACED UNTIL THE REQUIREMENTS ARE MET UNLESS OTHERWISE AUTHORIZED BY THE CONSTRUCTION MANAGER. THE CONTRACTOR SHALL TAKE WHATEVER APPROPRIATE ACTION IS NECESSARY, SUCH AS DRYING, ADDING WATER, OR INCREASING THE COMPACTIVE EFFORT TO MEET THE COMPACTION REQUIREMENTS.

## 3.3 TRENCH EXCAVATION:

- A. UTILITY TRENCHES SHALL BE EXCAVATED TO THE LINES AND GRADES SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE GENERAL CONTRACTOR. PROVIDE SHORING, SHEETING AND BRACING AS REQUIRED TO PREVENT CAVING OR SLOUGHING OF THE TRENCH WALLS.
- B. EXTEND THE TRENCH WIDTH A MINIMUM OF 6 INCHES BEYOND THE OUTSIDE EDGE OF THE OUTERMOST CONDUIT.
- C. WHEN SOFT YIELDING, OR OTHERWISE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, EXCAVATE THE REQUIRED TRENCH TO A DEPTH OF NO LESS THAN 12 INCHES BELOW THE REQUIRED ELEVATION THEN BACKFILL WITH 12" OF GRANULAR BEDDING MATERIAL.

## 3.4 TRENCH BACKFILL

- A. PROVIDE GRANULAR BEDDING MATERIAL OR FLOWABLE FILL IN ACCORDANCE WITH THE DRAWINGS AND THE UTILITY REQUIREMENTS.
- B. NOTIFY THE GENERAL CONTRACTOR 24 HOURS IN ADVANCE OF BACKFILLING.
- C. CONDUCT UTILITY CHECK TESTS BEFORE BACKFILLING. BACKFILL AND COMPACT TRENCH BEFORE ACCEPTANCE TESTING.
- D. PLACE GRANULAR TRENCH BACKFILL UNIFORMLY ON BOTH SIDES OF THE CONDUITS IN 6-INCH UNCOMPACTED LIFTS UNTIL 12 INCHES OVER THE CONDUITS. SOLIDLY RAM AND TAMP BACKFILL INTO SPACE AROUND CONDUITS.
- E. PROTECT CONDUIT FROM LATERAL MOVEMENT, IMPACT DAMAGE, OR UNBALANCED LOADING.
- F. ABOVE THE CONDUIT EMBEDMENT ZONE, PLACE AND COMPACT SATISFACTORY BACKFILL MATERIAL IN 8-INCH MAXIMUM LOOSE THICKNESS LIFTS TO RESTORE THE REQUIRED FINISHED SURFACE GRADE
- G. COMPACT FINAL TRENCH BACKFILL TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE EXISTING UNDISTURBED MATERIAL IMMEDIATELY ADJACENT TO THE TRENCH

## 3.5 FINISH GRADING:

- A. PERFORM ALL GRADING TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND SMOOTH, EVEN SURFACE DRAINAGE OF THE ENTIRE AREA WITHIN THE LIMITS OF CONSTRUCTION. GRADING SHALL BE COMPATIBLE WITH ALL SURROUNDING TOPOGRAPHY AND STRUCTURES.
- B. UTILIZE SATISFACTORY FILL MATERIAL RESULTING FROM THE EXCAVATION WORK IN THE CONSTRUCTION OF FILLS, EMBANKMENTS AND FOR REPLACEMENT OF REMOVED UNSUITABLE MATERIALS.
- C. REPAIR ALL ACCESS ROADS AND SURROUNDING AREAS USED DURING THE COURSE OF THIS WORK TO THEIR ORIGINAL CONDITION.

## 3.6 ASPHALT PAVING ROAD:

## WISCONSIN STANDARD SPECIFICATION

## PART 4 - WISCONSIN DEPARTMENT OF TRANSPORTATION PAVEMENT

A. CONTRACTOR RESPONSIBLE FOR RE-STRIPING AND APPLYING SEALCOATING, ON EXISTING ASPHALT DISTURBED DURING CONSTRUCTION, UNLESS OTHERWISE SPECIFIED.



AMAZON 410 TERRY AVE. NORTH SEATTLE, WA 98109 (206) 266-1000



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DML8\_R2
YORKVILLE
1925 GRANDVIEW PKWY
YORKVILLE, WI 53177

SHEET TITLE

GENERAL NOTE 2

SHEET NUMBER

GN-2

## **ELECTRICAL NOTES**

- 1. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ANY/ALL ELECTRICAL WORK INDICATED. ANY/ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND ANY/ALL APPLICABLE SPECIFICATIONS. IF ANY PROBLEMS ARE ENCOUNTERED BY COMPLYING WITH THESE REQUIREMENTS, CONTRACTOR SHALL NOTIFY 'CONSTRUCTION MANAGER' AS SOON AS POSSIBLE, AFTER THE DISCOVERY OF THE PROBLEMS, AND SHALL NOT PROCEED WITH THAT PORTION OF WORK, UNTIL THE 'CONSTRUCTION MANAGER' HAS DIRECTED THE CORRECTIVE ACTIONS TO BE TAKEN.
- 2. THE ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH ANY/ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATION INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. THE CONDITION OF EXISTING ELECTRICAL EQUIP., LIGHT FIXTURES, ETC., THAT ARE PART OF THE FINAL SYSTEM, SHALL BE VERIFIED BY THE CONTRACTOR, PRIOR TO THE SUBMITTAL OF HIS BID. FAILURE TO COMPLY WITH THIS PARAGRAPH WILL IN NO WAY RELIEVE CONTRACTOR OF PERFORMING ALL WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM.
- 3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC AND ALL CODES AND LOCAL ORDINANCES OF THE LOCAL POWER COMPANIES HAVING JURISDICTION AND SHALL INCLUDE BUT NOT BE LIMITED TO:

A. UL - UNDERWRITERS LABORATORIES B. NEC - NATIONAL ELECTRICAL CODE C. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOC. D. OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT E. SBC - STANDARD BUILDING CODE F. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

- DO NOT SCALE ELECTRICAL DRAWINGS, REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT, BUT CONFIRM WITH 'CONSTRUCTION MANAGER' ANY SIZES AND LOCATIONS WHEN NEEDED.
- 5. EXISTING SERVICES: THE CONTRACTOR SHALL NOT INTERRUPT EXISTING SERVICES WITHOUT WRITTEN PERMISSION OF THE OWNER.
- 6. THE CONTRACTOR SHALL PAY FOR ANY/ALL PERMITS, FEES, INSPECTIONS AND TESTING. THE CONTRACTOR IS TO OBTAIN PERMITS AND APPROVED SUBMITTALS PRIOR TO THE WORK BEGINNING OR ORDERING THE EQUIPMENT.
- 7. THE TERM "PROVIDE" USED IN CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL.
- 8. THE CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER, PRIOR TO BEGINNING ANY WORK.
- CONDUCTORS: CONTRACTOR SHALL USE 98% CONDUCTIVITY COPPER OR ALUMINUM WITH TYPE (THWN-2) INSULATION, 600 VOLT, COLOR CODED UNLESS SPECIFIED DIFFERENTLY ON DRAWINGS.
- 10. ALL WIRING INSTALLATIONS SHALL BE COMPLIANT WITH NEC ARTICLE 310.10 AND TO FOLLOW MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 11. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- 12. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF THE CONSTRUCTION. CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER. CONTRACTOR IS TO PROVIDE ALL ELECTRICAL EQUIPMENT UNLESS OTHERWISE DIRECTED.
- 13. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS, WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIONAL AND SUBJECT TO REGULATORY INSPECTION AND APPROVAL BY CONSTRUCTION MANAGER.
- 14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- 15. CONTRACTOR SHALL GUARANTEE ANY/ALL MATERIALS AND WORK FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
- 16. THE CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ANY ADDITIONAL CHARGE AND SHALL INCLUDE THE REPLACEMENT OR THE REPAIR OF ANY OTHER PHASE OF THE INSTALLATION. WHICH MAY HAVE BEEN DAMAGED THEREIN.
- 17. ADEQUATE AND REQUIRED LIABILITY INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF WORK.
- 18. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES AND DEVICES FOR ALL OUTLETS AS INDICATED.
- 19. TRENCHING AND BACKFILL: THE CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND COMPACTION. REFER TO GENERAL SITE WORK NOTES.
- 20. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SHALL APPEAR ON THE LIST OF U.L. APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE NEC, NEMA AND IEEE.
- 21. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OR MANUFACTURES CATALOG INFORMATION OF ANY/ALL LIGHTING FIXTURES, SWITCHES AND ALL OTHER ELECTRICAL ITEMS FOR APPROVAL BY THE CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
- 22. ANY CUTTING OR PATCHING DEEMED NECESSARY FOR ELECTRICAL WORK IS THE ELECTRICAL

## ELECTRICAL NOTES CONT.

CONTRACTORS RESPONSIBILITY AND SHALL BE INCLUDED IN THE COST FOR WORK AND PERFORMED TO THE SATISFACTION OF THE 'CONSTRUCTION MANAGER' UPON FINAL ACCEPTANCE.

- 23. THE ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS WITH ONLY TYPEWRITTEN
- 24. DISCONNECT SWITCHES SHALL BE H.P. RATED HEAVY-DUTY, QUICK-MAKE AND QUICK-BREAK ENCLOSURES. AS REQUIRED BY EXPOSURE TYPE.
- 25. ALL CONNECTIONS EXCEPT THE EV CHARGE CABLE TERMINATION IN THE CHARGE POST SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NOALOX" BY IDEAL INDUSTRIAL INC., COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED ALUMINUM & COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.
- 26. ALL EXTERIOR AND INTERIOR ABOVE GROUND CONDUIT SHALL BE RIGID UNLESS SPECIFIED OTHERWISE. ALL BURIED CONDUITS SHALL BE SCH 40 PVC UNLESS SPECIFIED OTHERWISE.
- 27. RACEWAYS: CONDUIT SHALL BE SCHEDULE 40 PVC, MEETING OR EXCEEDING NEMA TC2 2013. THE CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. ALL CONDUIT BENDS SHALL NOT BE LESS THAN SHOWN IN TABLE 2 CHAPTER 9 OF THE NEC. RGS CONDUITS WHEN SPECIFIED. SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'GOLD GALV'.
- 28. SUPPORT OF ALL ELECTRICAL WORK SHALL BE AS REQUIRED BY NEC.
- 29. CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.
- 30. THE CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL SERVICE CONDUITS. CAUTION TAPE TO READ "CAUTION BURIED ELECTRIC".
- 31. WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.
- 32. ALL BOLTS SHALL BE STAINLESS STEEL.
- 33. ALL MATERIALS AND EQUIPMENT SUPPLIED AND INSTALLED BY THE CONTRACTOR SHOULD BE NEW AND UNUSED.

## **GROUNDING NOTES**

- 1. ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- 2. FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- 3. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS).
- 4. ALL BELOW GRADE BONDS TO BE EXOTHERMIC WELDS OR IRREVERSIBLE COMPRESSION TYPE CONNECTIONS LISTED FOR USE IN THE APPLICATION WHICH THEY ARE INSTALLED.

## **LEGEND**

CLEARANCE - EQUIP CLEARANCE XFMR DCFC (P) - UTILIZE EXISTING CONDUITS TO RUN WIRE THRU DCFC (N)(P) - PROPOSED CONDUITS THAT NEED TO BE INSTALLED CP1 BOX CP1 CONFIG CONDUIT - UTILIZE EXISTING CONDUITS TO RUN WIRE THRU ——— CP1(N) ———— CP1 CONFIG CONDUIT (NEW) - PROPOSED CONDUITS THAT NEED TO BE INSTALLED CP2 BOX CP2 CONFIG CONDUIT (NEW) - PROPOSED CONDUITS THAT NEED TO BE INSTALLED CP3 BOX —— CP3 ——— CP3 CONFIG CONDUIT - UTILIZE EXISTING CONDUITS TO RUN WIRE THRU CP3 CONFIG CONDUIT (NEW) - PROPOSED CONDUITS THAT NEED TO BE INSTALLED —— P——— POWER (E) POWER (P) - UTILIZE EXISTING CONDUITS TO RUN WIRE THRU P(N) POWER (N)(P) - PROPOSED CONDUITS THAT NEED TO BE INSTALLED POWER JBOX (E) POWER JBOX (P) ——— SWBD1 ———— SWITCHBOARD 1 TO PULLBOX (P) ———— SWBD2 ————— SWITCHBOARD 2 TO PULLBOX (P) SWITCHBOARD 3 TO PULLBOX (P) SWBD4 ———— SWITCHBOARD 4 TO PULLBOX (P) SWITCHBOARD 5 TO PULLBOX (P) ———— SWBD6 ————— SWITCHBOARD 6 TO PULLBOX (P) ———— SWBD7 ————— SWITCHBOARD 7 TO PULLBOX (P) ——— SWBD8 ———— SWITCHBOARD 8 TO PULLBOX (P) SWBD9 SWITCHBOARD 9 TO PULLBOX (P) ——— SWBD10 ———— SWITCHBOARD 10 TO PULLBOX (P)

TELCO JBOX (E)

TELCO JBOX (P)

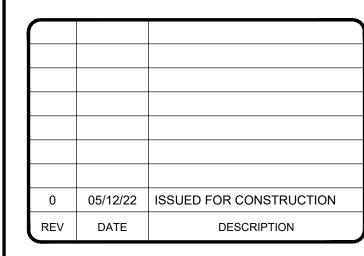
— ∪ — ∪ UTILITY POWER (P)



410 TERRY AVE. NORTH SEATTLE, WA 98109



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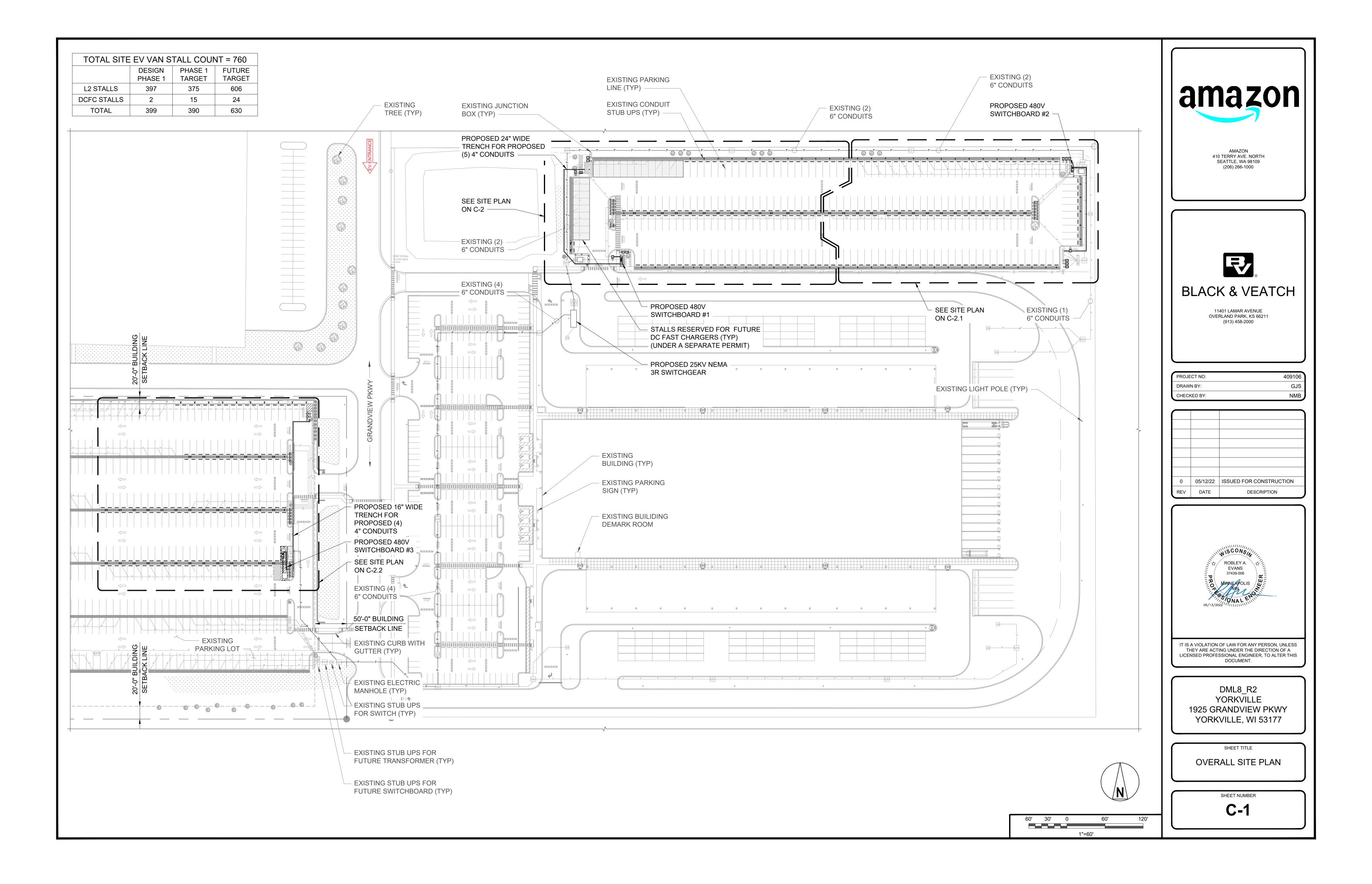
DML8 R2 YORKVILLE 1925 GRANDVIEW PKWY YORKVILLE, WI 53177

SHEET TITLE

**GENERAL NOTES 3** 

SHEET NUMBER

GN-3



## NOTES

- 1. SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST. DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH BEFORE THE FIRST FROST, USE STRAW UNTIL SOD CAN BE INSTALLED.
- 2. THE CONTRACTOR SHALL RETURN SIDEWALKS, LANDSCAPING, PLANTERS, IRRIGATION SYSTEMS, AND ANY OTHER FACILITIES DISTURBED BY THE WORK TO THE SAME OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF THE WORK.
- 3. HAND DIG TRENCH IN THIS LOCATION TO AVOID EXISTING UNDERGROUND ELECTRIC LINE. CONTACT ENGINEER IF UNDERGROUND ELECTRIC LINE CONFLICTS WITH PROPOSED INSTALLATION.
- 4. EXISTING UNDERGROUND CONDUITS ASSUMED PER CLIENT-PROVIDED SITE DESIGN. ALL EXISTING STRUCTURES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION. CONTACT ENGINEERING IF EXISTING FIELD VERIFIED STRUCTURES INTERFERE WITH DESIGN SHOWN ON APPROVED PLANS.
- 5. CONTRACTOR TO REMOVE EXISTING HANDHOLES AS NEEDED TO ALLOW FOR PLACEMENT OF TRANSFORMERS AND PANEL BOARDS.

IMPACTED STALLS	
QTY OF STALLS WITH REDUCED DIMENSIONS	0
QTY OF STALLS OCCUPIED BY EQUIPMENT	4
EV EQUIPMENT INSTALLED IN LANDSCAPED AREAS?	YES

<u>LEGEND</u>	
EXISTING JUNCTION BOX WITH 2" CONDUITS	AX
EXISTING JUNCTION BOX WITH 4" CONDUITS	PX

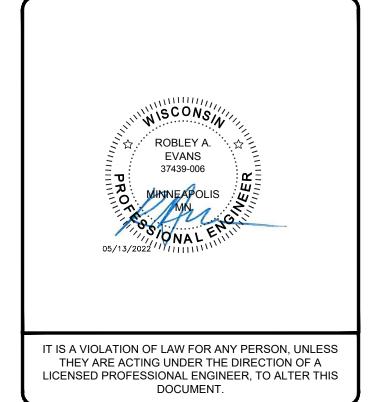
PROPOSED CHARGERS			
SIEMENS LE	VEL 2 CHARGERS	397	
	DUAL POSTS		
SINGLE POST		7	
SIEMENS DC FAST CHARGERS		2	
TOTAL EV CHARGERS 399			





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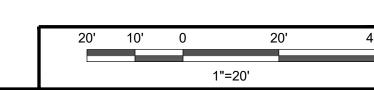
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SITE PLAN

SHEET NUMBER **C-2** 

AREA RESERVED FOR FUTURE ISOLATION TRANSFORMER (TYP)	PROPOSED 120/208V A PANELBOARD (TYP) D-3		
PROPOSED DELTA 480V-120/208V WYE STEP-DOWN TRANSFORMER ON CONCRETE PAD (TYP)		PROPOSED WHEEL F STOP (TYP)	
B PROPOSED 24" WIDE TRENCH FOR PROPOSED (5) 4" CONDUITS		P P P P P P P P P P P P P P P P P P P	PPPPPP
EXISTING DITCH TO BE PRESERVED FREE OF EQUIPMENT		5'-6"   TYP)	
PROPOSED ISOLATION TRANSFORMER ON CONCRETE PAD (TYP)	SEE NOTE 5  1'-9" AND H-FRAME BOLT DOWN BOLLARD (TYP)  PROPOSED DUAL POST LEVEL 2 CHARGER (TYP)  D-1  D-1	EXISTING CONDUIT STUB UPS (TYP)  PROPOSED DOUBLE DUAL POST LEVEL 2 CHARGER (TYP)  PROPOSED	
STALLS RESERVED FOR FUTURE DC FAST CHARGERS (TYP)		JUNCTION BOX (TYP)  (TYP)	
A PROPOSED 50KW DC FAST CHARGER (TYP)	EXISTING 11' (TYP)		
MH SW MT ©	10'-7"  PROPOSED WARNING F BOLLARD (TYP)  D-2		
PROPOSED 480V PAD MOUNTED AMAZON OWNED TRANSFORMER #1	PROPOSED SINGLE POST LEVEL 2 CHARGER (TYP)		EXISTING LIGHT POLE (TYP)
C PROPOSED IMPACT BOLLARD (TYP)	EXISTING JUNCTION BOX (TYP)		PROPOSED DUAL POST B LEVEL 2 CHARGER (TYP) D-1
	PROPOSED 480V SWITCHBOARD #1 ON CONCRETE PAD  E D-3		





## NOTES 1. SOD PLANTED IN THE FALL MUST ESTABLISH ITS ROOTS BEFORE THE FIRST WINTER FROST. DETERMINE WHEN THE FIRST FROST USUALLY OCCURS, AND PLANT THE SOD NO LATER THAN ONE MONTH BEFORE THE FIRST FROST. IF THE CONSTRUCTION IS FINISHED LATER THAN ONE MONTH BEFORE THE FIRST FROST, USE STRAW UNTIL SOD CAN BE INSTALLED. 2. THE CONTRACTOR SHALL RETURN SIDEWALKS, LANDSCAPING, PLANTERS, IRRIGATION SYSTEMS, AND ANY OTHER FACILITIES DISTURBED BY THE WORK TO THE SAME OR BETTER CONDITION THAN EXISTED PRIOR TO THE COMMENCEMENT OF THE WORK. 3. HAND DIG TRENCH IN THIS LOCATION TO AVOID EXISTING UNDERGROUND ELECTRIC LINE. CONTACT ENGINEER IF UNDERGROUND ELECTRIC LINE CONFLICTS WITH PROPOSED INSTALLATION. 4. EXISTING UNDERGROUND CONDUITS ASSUMED PER CLIENT-PROVIDED SITE DESIGN, ALL EXISTING STRUCTURES TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION. CONTACT ENGINEERING IF EXISTING FIELD VERIFIED STRUCTURES INTERFERE WITH DESIGN SHOWN ON APPROVED PLANS. 5. CONTRACTOR TO REMOVE EXISTING HANDHOLES AS NEEDED TO ALLOW FOR PLACEMENT OF TRANSFORMERS AND PANEL BOARD PROPOSED DUAL POST

IMPACTED STALLS	
QTY OF STALLS WITH REDUCED DIMENSIONS	0
QTY OF STALLS OCCUPIED BY EQUIPMENT	4
EV EQUIPMENT INSTALLED IN LANDSCAPED AREAS?	YES

LEGEND	
EXISTING JUNCTION BOX WITH 2" CONDUITS	AX
EXISTING JUNCTION BOX WITH 4" CONDUITS	PX
EXICTING CONCINCTION BOX WITH 4 CONDOING	1 /

PROPOSED CHARGERS			
SIEMENS LEVEL 2 CHARGERS 397			
	DUAL POSTS	195	
	SINGLE POST	7	
SIEMENS DO	2		
TOTAL EV CHARGERS 399			

16' 12' 8' 4' 0

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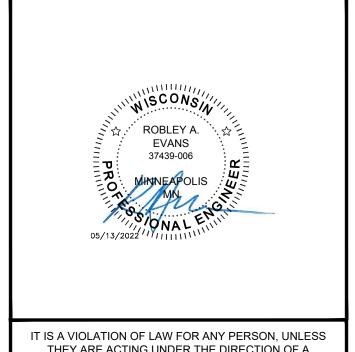
1/16"=1'-0"





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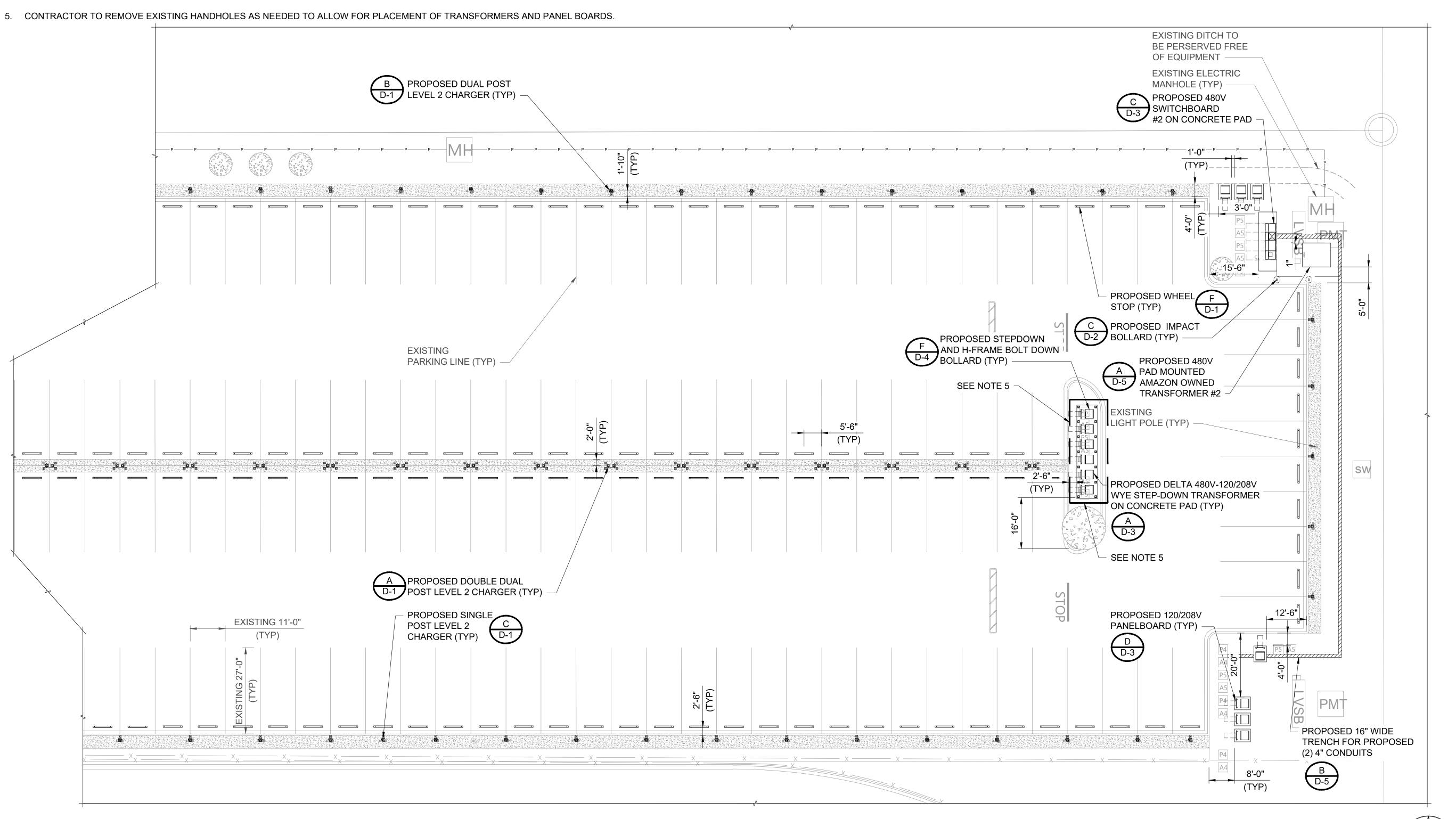
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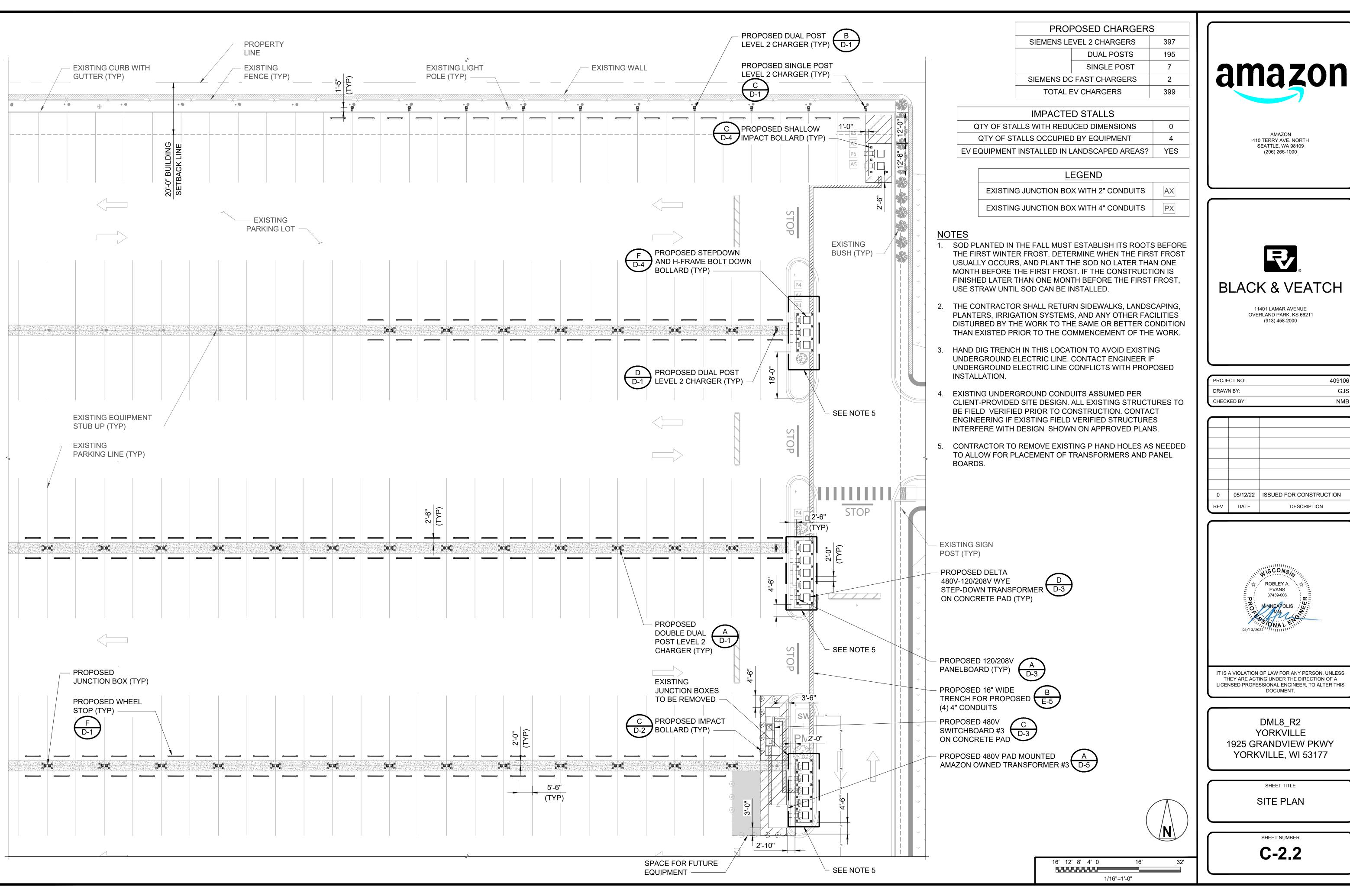
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SHEET TITLE

SITE PLAN

C-2.1





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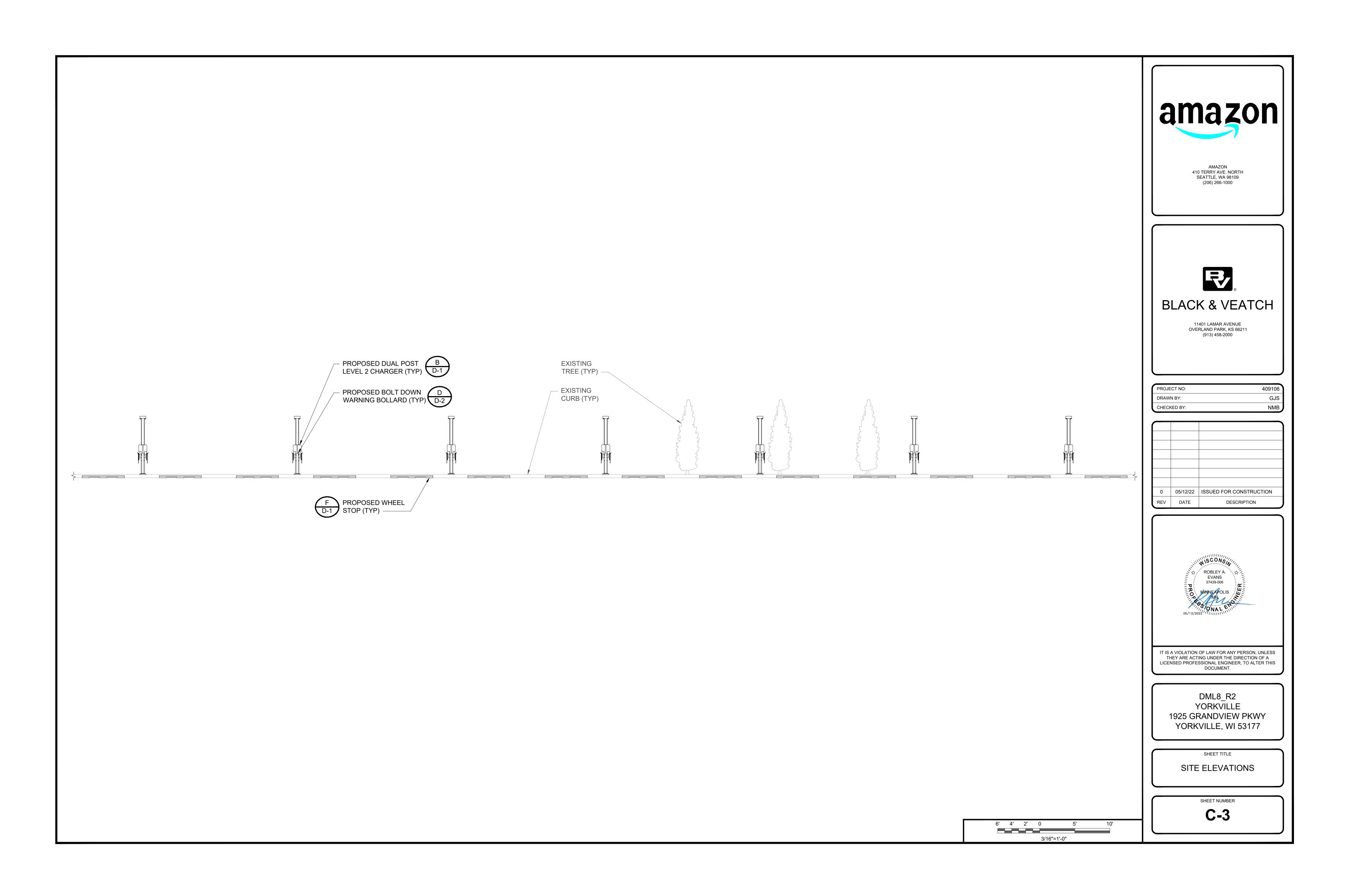
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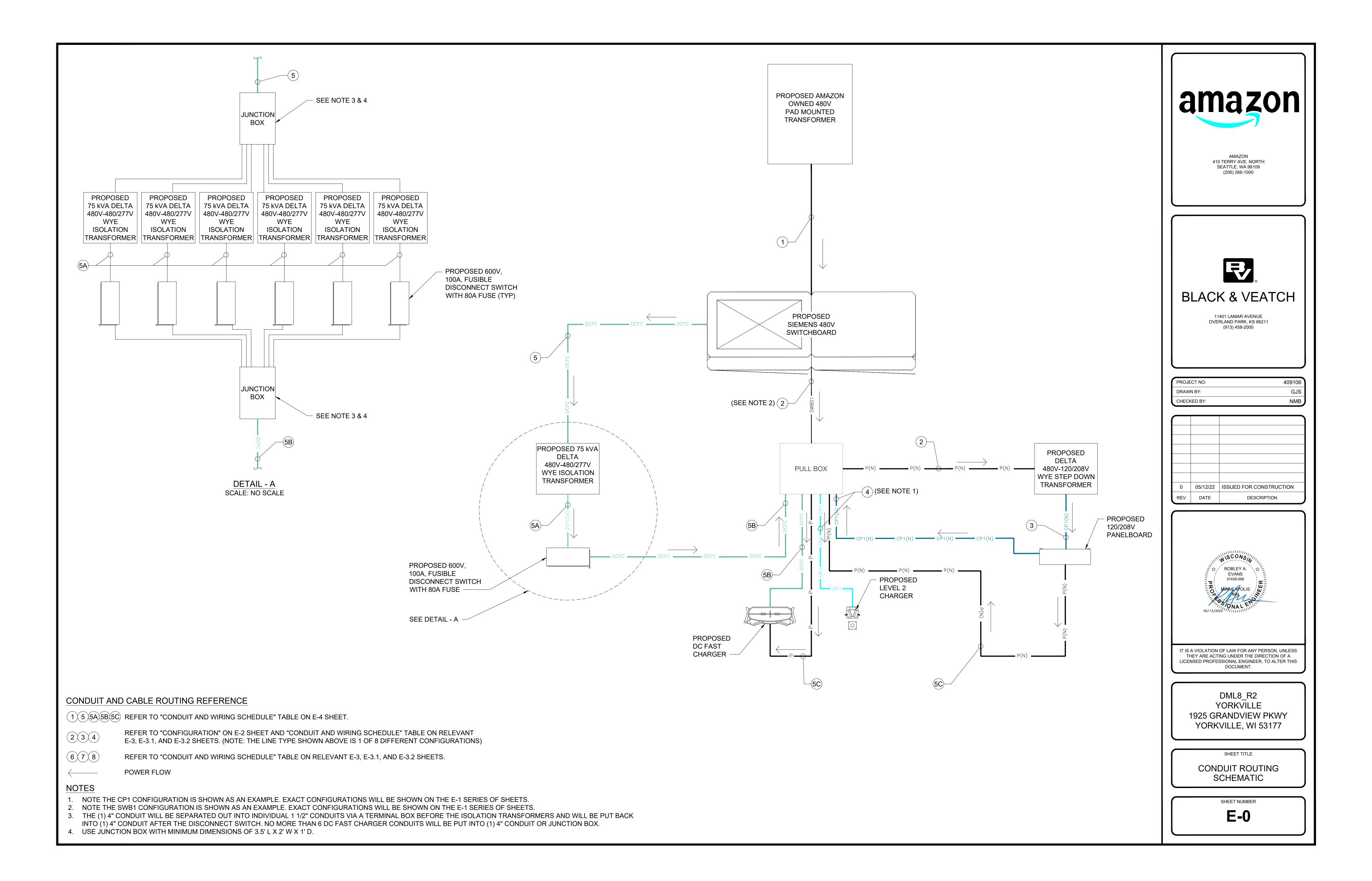
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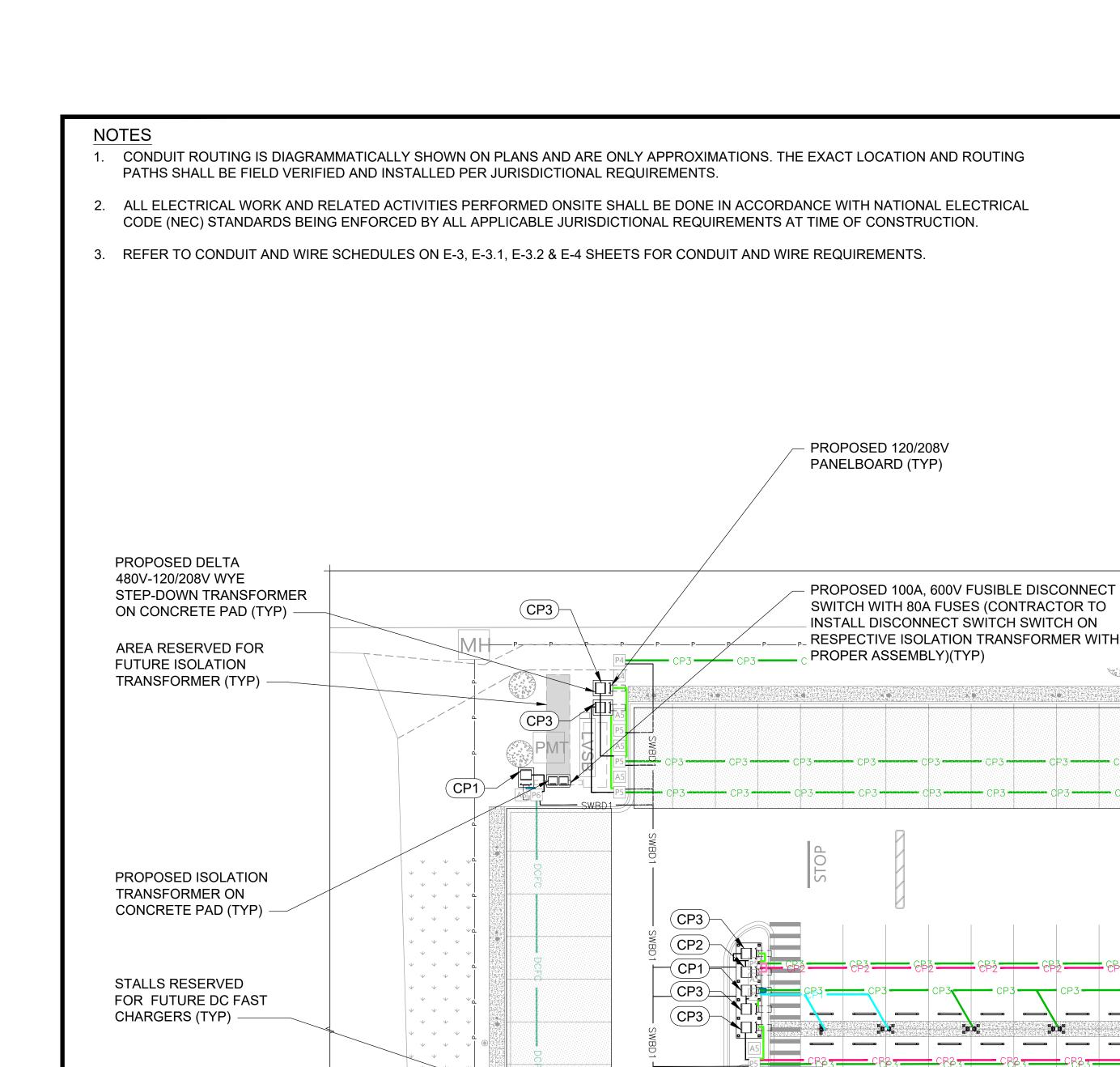
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SHEET NUMBER

C-2.2







PROPOSED SINGLE

EXISTING JUNCTION

PROPOSED 480V

CONCRETE PAD

SWITCHBOARD #1 ON

POST LEVEL 2

BOX (TYP)

CHARGER (TYP)

PROPOSED 50KW DC FAST CHARGER (TYP) -

EXISTING BUSH

PROPOSED 480V PAD MOUNTED

AMAZON OWNED

TRANSFORMER #1

PROPOSED CHARGERS		
SIEMENS LEVEL 2 CHARGERS		397
	DUAL POSTS	195
	SINGLE POST	7
SIEMENS DC FAST CHARGERS		2
TOTAL EV CHARGERS		399
TOTAL EV CHARGERS 399		399

PROPOSED BOLT DOWN WARNING BOLLARD (TYP)

 PROPOSED DUAL POST LEVEL 2 CHARGER (TYP)

PROPOSED WHEEL

EXISTING CONDUIT STUB UPS (TYP)

- PROPOSED DOUBLE

DUAL POST LEVEL 2

JUNCTION BOX (TYP) -

PARKING LINE (TYP)

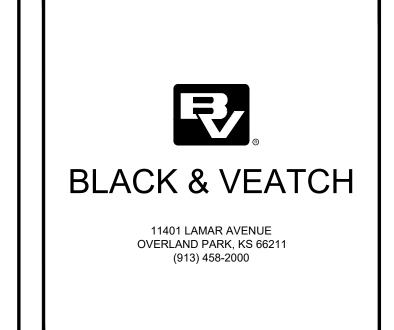
CHARGER (TYP)

PROPOSED

STOP (TYP)



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DML8\_R2 YORKVILLE 1925 GRANDVIEW PKWY YORKVILLE, WI 53177

ELECTRICAL PLAN

SHEET TITLE

SHEET NUMBER

0 20' 40' 1"=20'

**EXISTING LIGHT** 

POLE (TYP) ——

# NOTES 1. CONDUIT ROUTING IS DIAGRAMMATICALLY SHOWN ON PLANS AND ARE ONLY APPROXIMATIONS. THE EXACT LOCATION AND ROUTING PATHS SHALL BE FIELD VERIFIED AND INSTALLED PER JURISDICTIONAL REQUIREMENTS. 2. ALL ELECTRICAL WORK AND RELATED ACTIVITIES PERFORMED ONSITE SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC) STANDARDS BEING ENFORCED BY ALL APPLICABLE JURISDICTIONAL REQUIREMENTS AT TIME OF CONSTRUCTION. 3. REFER TO CONDUIT AND WIRE SCHEDULES ON E-3, E-3.1, E-3.2 & E-4 SHEETS FOR CONDUIT AND WIRE REQUIREMENTS. PROPOSED DUAL POST LEVEL 2 CHARGER (TYP)

**EXISTING** 

PARKING LINE (TYP)

PROPOSED DOUBLE DUAL

PROPOSED SINGLE

POST LEVEL 2 CHARGER (TYP)

POST LEVEL 2 CHARGER (TYP)

PROPOSED CHARGERS		
SIEMENS LEVEL 2 CHARGERS 397		
	DUAL POSTS	195
	SINGLE POST	7
SIEMENS DC FAST CHARGERS 2		2
TOTAL EV CHARGERS 399		

EXISTING ELECTRIC

#2 ON CONCRETE PAD -

(CP3)-

MANHOLE (TYP)

PROPOSED 480V SWITCHBOARD

- PROPOSED WHEEL

PROPOSED WARNING

STOP (TYP)

CP3

CP2

BOLLARD (TYP)

PROPOSED 480V

PAD MOUNTED AMAZON OWNED TRANSFORMER #2

LIGHT POLE (TYP)

PROPOSED DELTA 480V-120/208V WYE STEP-DOWN TRANSFORMER

ON CONCRETE PAD (TYP)

- PROPOSED BOLT DOWN

PROPOSED 120/208V PANELBOARD (TYP) -

WARNING BOLLARD (TYP)

CP2)/BD2—

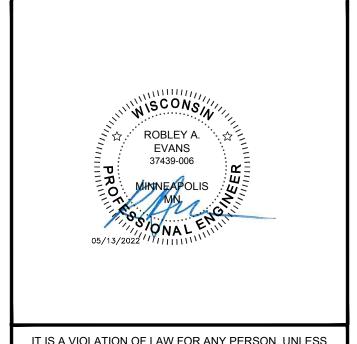
(CP3)





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SHEET TITLE

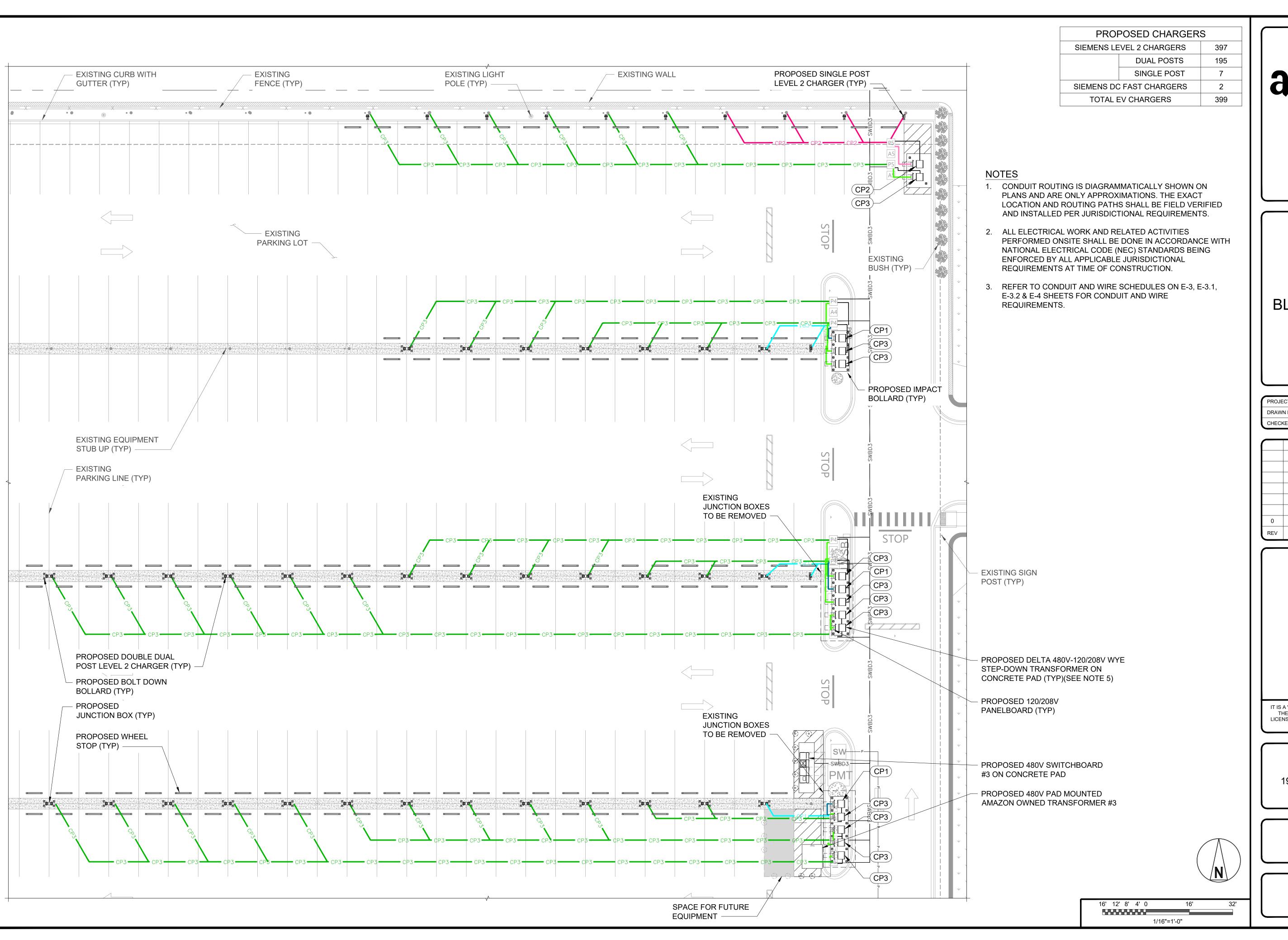
ELECTRICAL PLAN

SHEET NUMBER

E-1.1

16' 12' 8' 4' 0 16' 32' 1/16"=1'-0"

SW



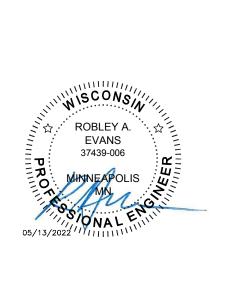






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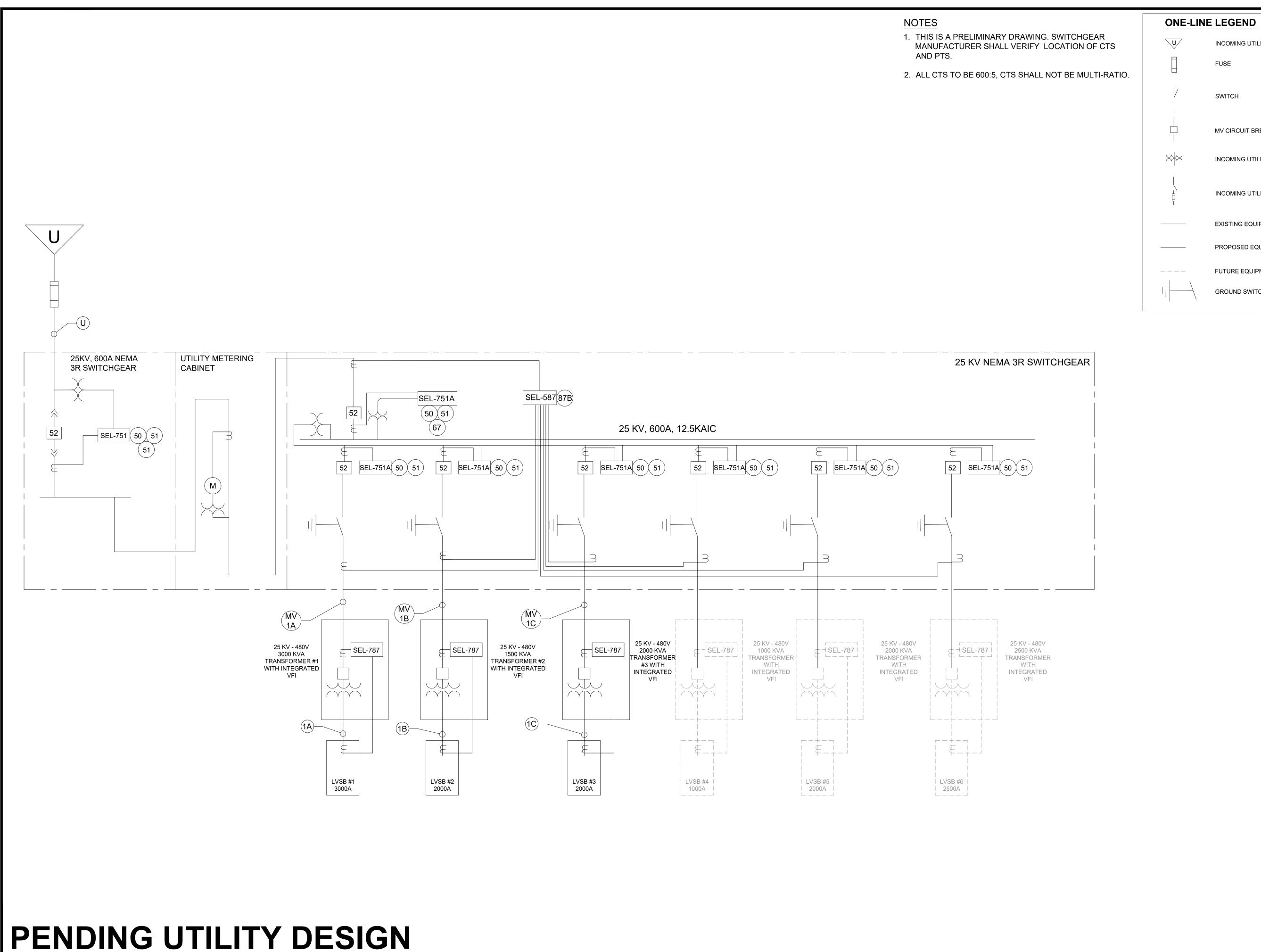
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ELECTRICAL PLAN

SHEET TITLE

SHEET NUMBER

E-1.2



## INCOMING UTILITY FEED

FUSE SWITCH MV CIRCUIT BREAKER INCOMING UTILITY FEED INCOMING UTILITY FEED

EXISTING EQUIPMENT

PROPOSED EQUIPMENT

**FUTURE EQUIPMENT** 

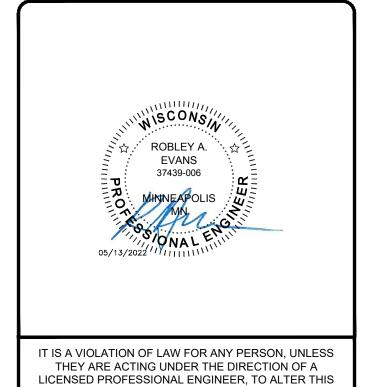
GROUND SWITCH





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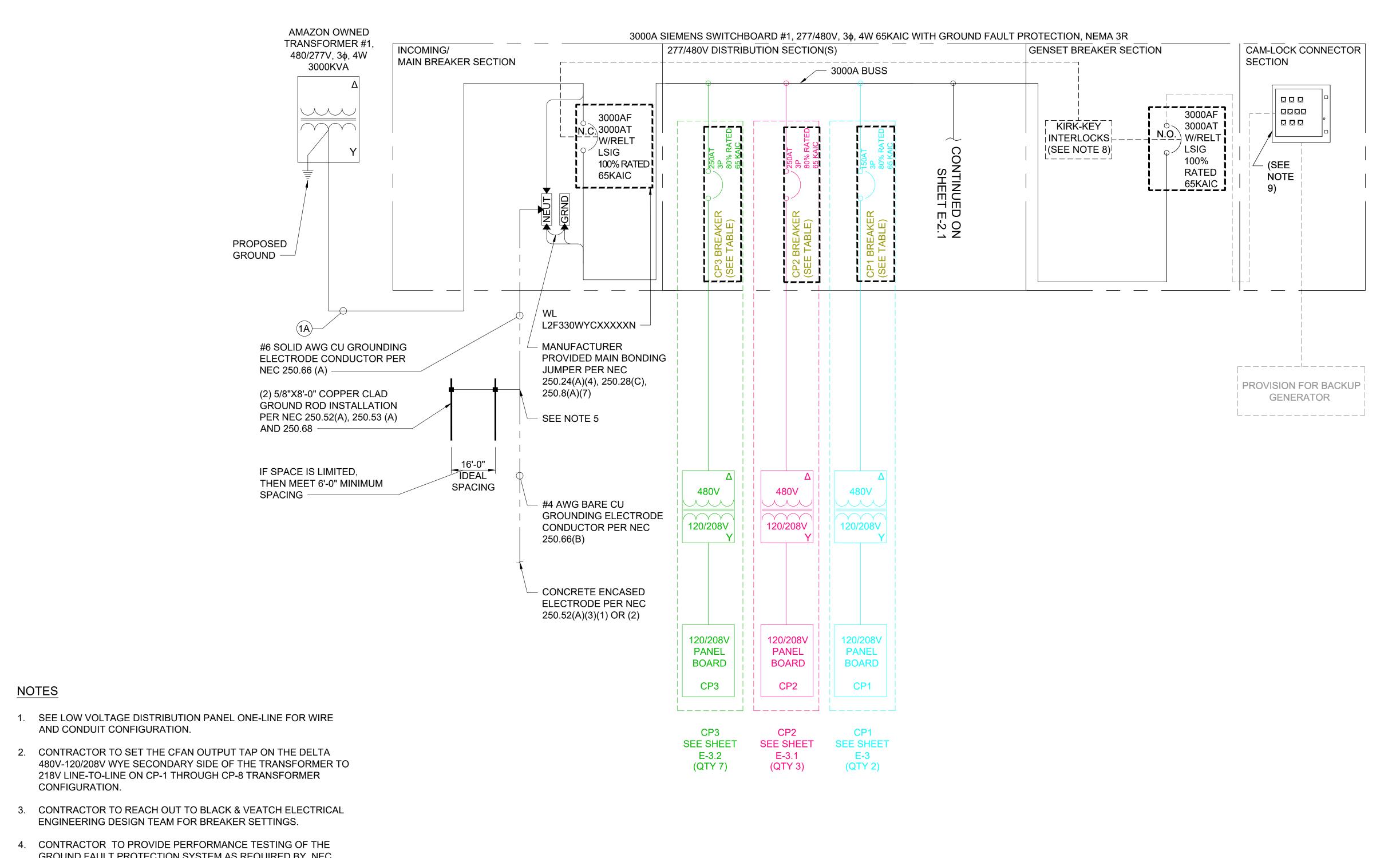


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**OVERALL MEDIUM VOLTAGE** 

**E-2.P** 

SINGLE LINE DIAGRAM



CP BREAKER TABLE				
CP CONFIGURATION	BREAKER FRAME	BREAKER CATALOG NUMBER		
CP1 BREAKER	3VA61-HDAE	3VA6115-6HN31-0AA0		
CP2 BREAKER	3VA62-HFAE	3VA6225-6HN31-0AA0		
CP3 BREAKER	3VA62-HFAE	3VA6225-6JP31-0AA0		

SWITCHBOARD #1 SIEMENS EV CHARGING LOAD SUMMARY (@480V)					
FLA QTY TOTAL FLA					
LEVEL 2 CHARGER	12.59	111	1397.49		
DC FAST CHARGER	63	2	126		
DC FAST CHARGER FUTURE (SEE NOTE 7)	63	22	1386		
TOTAL LOAD - 2000 40 A					

CONFIGURATION ID#	# OF LEVEL 2 CHARGERS	SINGLE POST, DUAL POST, QUAD POST CONFIGURATION	MAX CHARGERS PER XFMR/PANEL
CP1	4	CP1 = (1) 75 KVA TRANSFORMER WITH 400A PANEL	6 EXISTING* PROPOSED**
CP2	8	CP2 = (1) 112.5 KVA TRANSFORMER WITH 400A PANEL	9 EXISTING* PROPOSED**
CP3	12	CP3 = (1) 150 KVA TRANSFORMER WITH 600A PANEL	12 EXISTING* PROPOSED**

EXISTING\* = EXISTING CONDUIT TO BE USED
PROPOSED\*\* = NEW CONDUIT WILL NEED TO BE INSTALLED

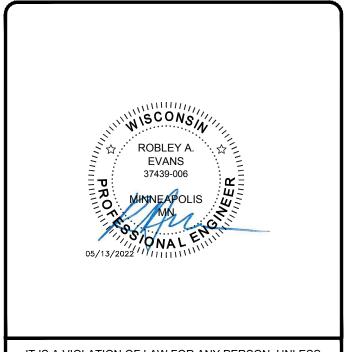
SEE NOTE 4





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277/480V SWITCHBOARD #1
SINGLE LINE DIAGRAM

SHEET NUMBER

**E-2** 

	230.95 (C) ON SERVICE SWITCHBOARD(S) MAIN BREAKER WHICH CONTAIN GROUND FAULT PROTECTION OF EQUIPMENT.
5.	CONTRACTOR TO INSTALL CONCRETE ENCASED ELECTRODE WITH A MINIMUM #4 AWG CU GEC IN LIEU OF GROUND RODS IF THERE IS A MINIMUM OF 20' OF REINFORCING BARS IN THE CONCRETE PAD WITH NO VAPOR BARRIER OR INSULATION SEPARATING THE CONCRETE FROM THE EARTH.
6.	BREAKERS ARE 80% RATED UNLESS STATED OTHERWISE.
7.	FUTURE LOAD WILL BE INSTALLED UNDER A SEPARATE PERMIT.
8.	ONLY ONE BREAKER "ON" AT A TIME. KIRK-KEY INTERLOCKING IS PROVIDED BETWEEN THE MAIN BREAKER AND A GENSET BREAKER TO PREVENT INADVERTENTLY HAVING BOTH

BREAKERS IN THE CLOSED POSITION AT THE SAME TIME.

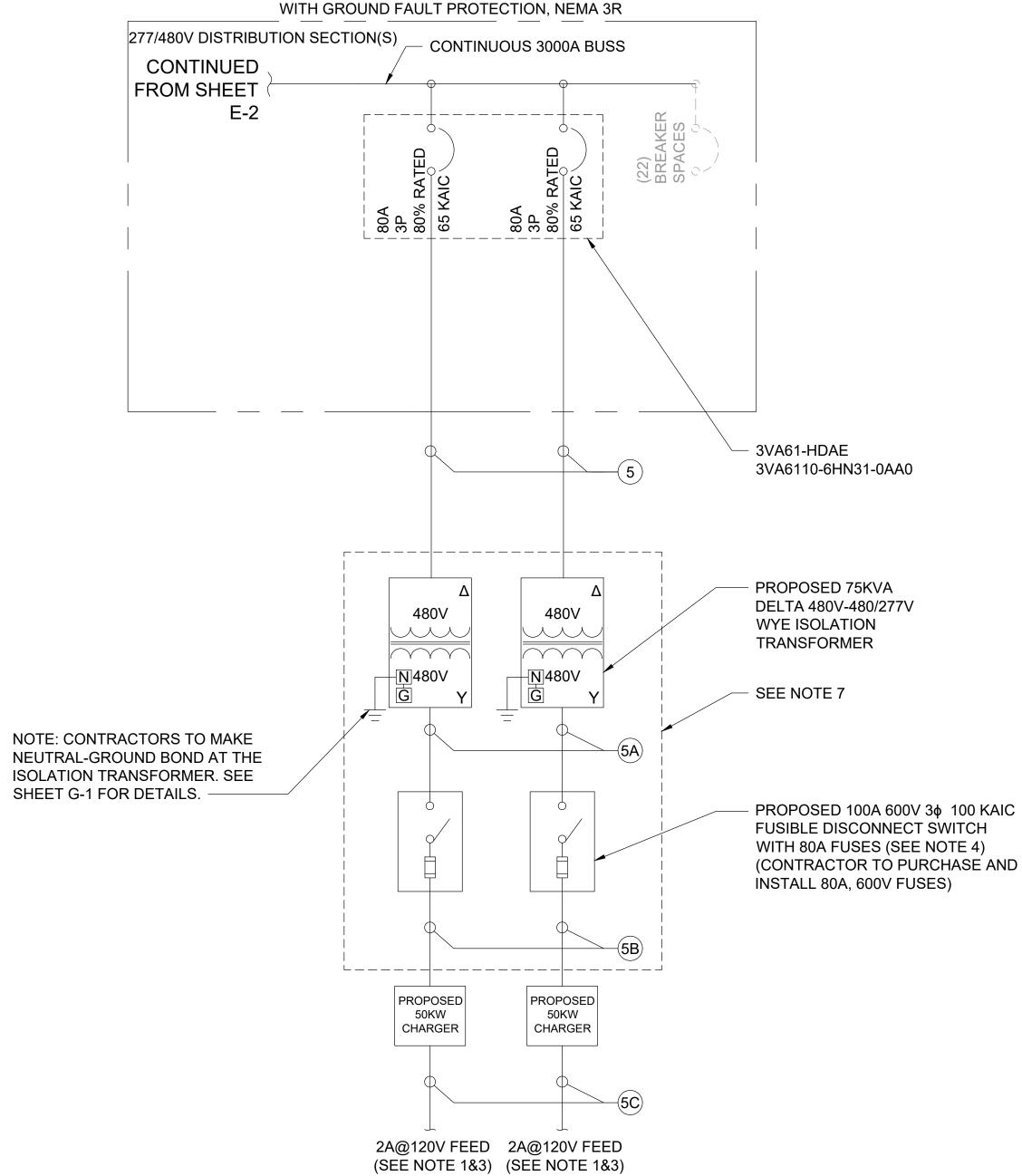
9. COLOR CODED CAMLOCK CONNECTORS ARE PROVIDED TO

SUPPLIER.

CONNECT GENERATOR FOR BACKUP POWER. CONTRACTORS TO

FOLLOW INSTALLATION MANUAL PROVIDED BY THE GENERATOR

## 3000A SIEMENS SWITCHBOARD #1, 277/480V, 3\(\phi\), 4W 65KAIC



## NOTES

- CONTRACTOR TO PROVIDE (1) 15A 1P BREAKER IN NEAREST 120/208V DISTRIBUTION PANEL TO SUPPLY 2A 120V AUXILIARY POWER TO EACH SIEMENS DCFC USING #12 AWG CU (THWN-2) + #12 AWG CU (THWN-2) NEUTRAL + #12 AWG CU (THWN-2) EGC IN EXISTING 4" CONDUIT.
- 2. CONTRACTOR TO MOUNT 100A, 600V, 3Φ FUSIBLE DISCONNECT SWITCH WITH 80A FUSES ON 75KVA 480V-480/277V ISOLATION TRANSFORMER ENCLOSURE WITH PROPER ASSEMBLY.
- 3. CONTRACTORS TO VERIFY IF THERE IS ENOUGH SPACE FOR BREAKERS ON PANELBOARDS IN CP3 CONFIGURATION FOR SIEMENS DC FAST CHARGERS AUXILIARY POWER LOADS. CONTRACTORS TO FIND ALTERNATIVE PANELBOARD NEARBY IN SUCH CASES.
- 4. CONTRACTOR TO REACH OUT TO BLACK & VEATCH ELECTRICAL ENGINEERING DESIGN TEAM FOR BREAKER SETTINGS.
- 5. THE (1) 4" CONDUIT WILL BE SEPARATED OUT INTO INDIVIDUAL 1 1/2" CONDUITS VIA A TERMINAL BOX BEFORE THE ISOLATION TRANSFORMERS AND WILL BE PUT BACK INTO (1) 4" CONDUIT AFTER THE DISCONNECT SWITCH. NO MORE THAN 6 DC FAST CHARGER CONDUITS WILL BE PUT INTO (1) 4" CONDUIT OR JUNCTION BOX.
- 6. DC FAST CHARGER CONDUCTOR LENGTH NOT TO EXCEED 690FT.

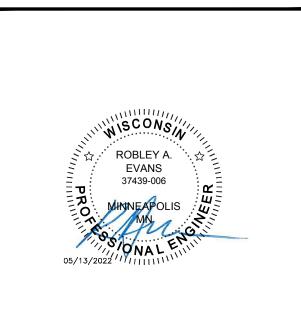


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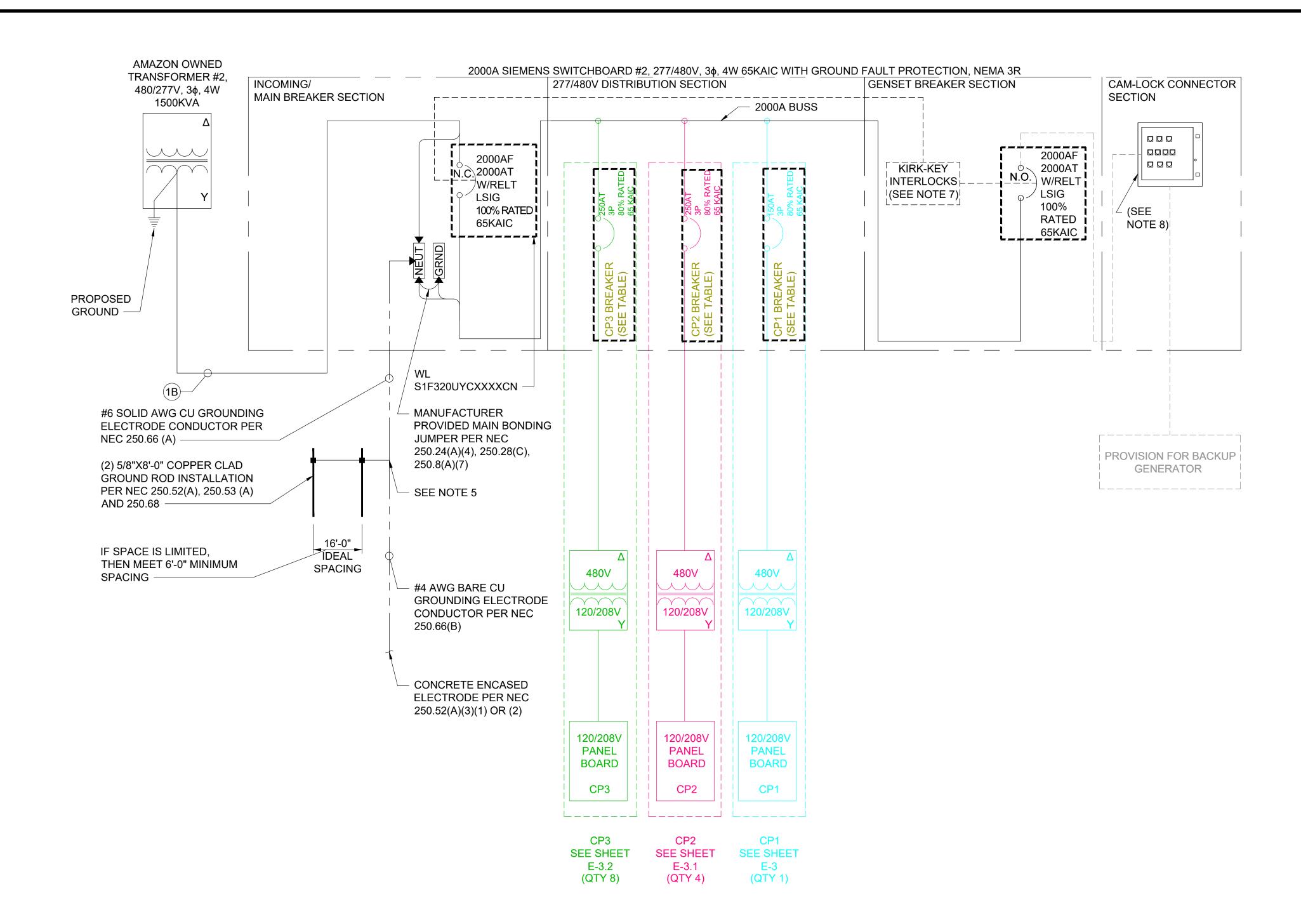
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SHEET TITLE

277/480V SWITCHBOARD DCFC SINGLE LINE DIAGRAM

SHEET NUMBER

E-2.1



## NOTES

- 1. SEE LOW VOLTAGE DISTRIBUTION PANEL ONE-LINE FOR WIRE AND CONDUIT CONFIGURATION.
- 2. CONTRACTOR TO SET THE CFAN OUTPUT TAP ON THE DELTA 480V-120/208V WYE SECONDARY SIDE OF THE TRANSFORMER TO 218V LINE-TO-LINE ON CP-1 THROUGH CP-8 TRANSFORMER CONFIGURATION.
- 3. CONTRACTOR TO REACH OUT TO BLACK & VEATCH ELECTRICAL ENGINEERING DESIGN TEAM FOR BREAKER SETTINGS.
- 4. CONTRACTOR TO PROVIDE PERFORMANCE TESTING OF THE GROUND FAULT PROTECTION SYSTEM AS REQUIRED BY NEC 230.95 (C) ON SERVICE SWITCHBOARD(S) MAIN BREAKER WHICH CONTAIN GROUND FAULT PROTECTION OF EQUIPMENT.
- 5. CONTRACTOR TO INSTALL CONCRETE ENCASED ELECTRODE WITH A MINIMUM #4 AWG CU GEC IN LIEU OF GROUND RODS IF THERE IS A MINIMUM OF 20' OF REINFORCING BARS IN THE CONCRETE PAD WITH NO VAPOR BARRIER OR INSULATION SEPARATING THE CONCRETE FROM THE EARTH.
- 6. BREAKERS ARE 80% RATED UNLESS STATED OTHERWISE.
- 7. ONLY ONE BREAKER "ON" AT A TIME. KIRK-KEY INTERLOCKING IS PROVIDED BETWEEN THE MAIN BREAKER AND A GENSET BREAKER TO PREVENT INADVERTENTLY HAVING BOTH BREAKERS IN THE CLOSED POSITION AT THE SAME TIME.
- 8. COLOR CODED CAMLOCK CONNECTORS ARE PROVIDED TO CONNECT GENERATOR FOR BACKUP POWER. CONTRACTORS TO FOLLOW INSTALLATION MANUAL PROVIDED BY THE GENERATOR SUPPLIER.

	CP BREAKER TABLE			
CP CONFIGURATION	BREAKER FRAME	BREAKER CATALOG NUMBER		
CP1 BREAKER	3VA61-HDAE	3VA6115-6HN31-0AA0		
CP2 BREAKER	3VA62-HFAE	3VA6225-6HN31-0AA0		
CP3 BREAKER	3VA62-HFAE	3VA6225-6JP31-0AA0		
SEE NOTE 4				

SWITCHBOARD #2 SIEMENS EV CHARGING LOAD SUMMARY (@480V)			
FLA QTY TOTAL FLA			
LEVEL 2 CHARGER	12.59	132	1661.88
	•	TOTAL LO	AD = 1661.88 A

CONFIGURATION ID#	# OF LEVEL 2 CHARGERS	SINGLE POST, DUAL POST, QUAD POST CONFIGURATION	MAX CHARGERS PER XFMR/PANEL
CP1	4	CP1 = (1) 75 KVA TRANSFORMER WITH 400A PANEL	6 CP1 EXISTING* PROPOSED**
CP2	8	CP2 = (1) 112.5 KVA TRANSFORMER WITH 400A PANEL	9 CP2 EXISTING* PROPOSED**
CP3	12	CP3 = (1) 150 KVA TRANSFORMER WITH 600A PANEL	12 EXISTING* PROPOSED**

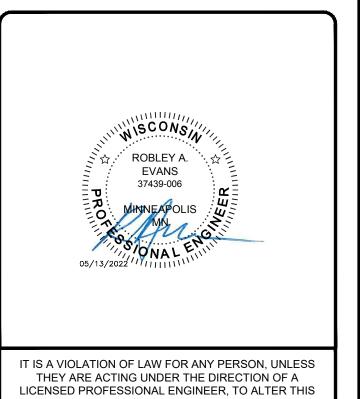
EXISTING\* = EXISTING CONDUIT TO BE USED
PROPOSED\*\* = NEW CONDUIT WILL NEED TO BE INSTALLED





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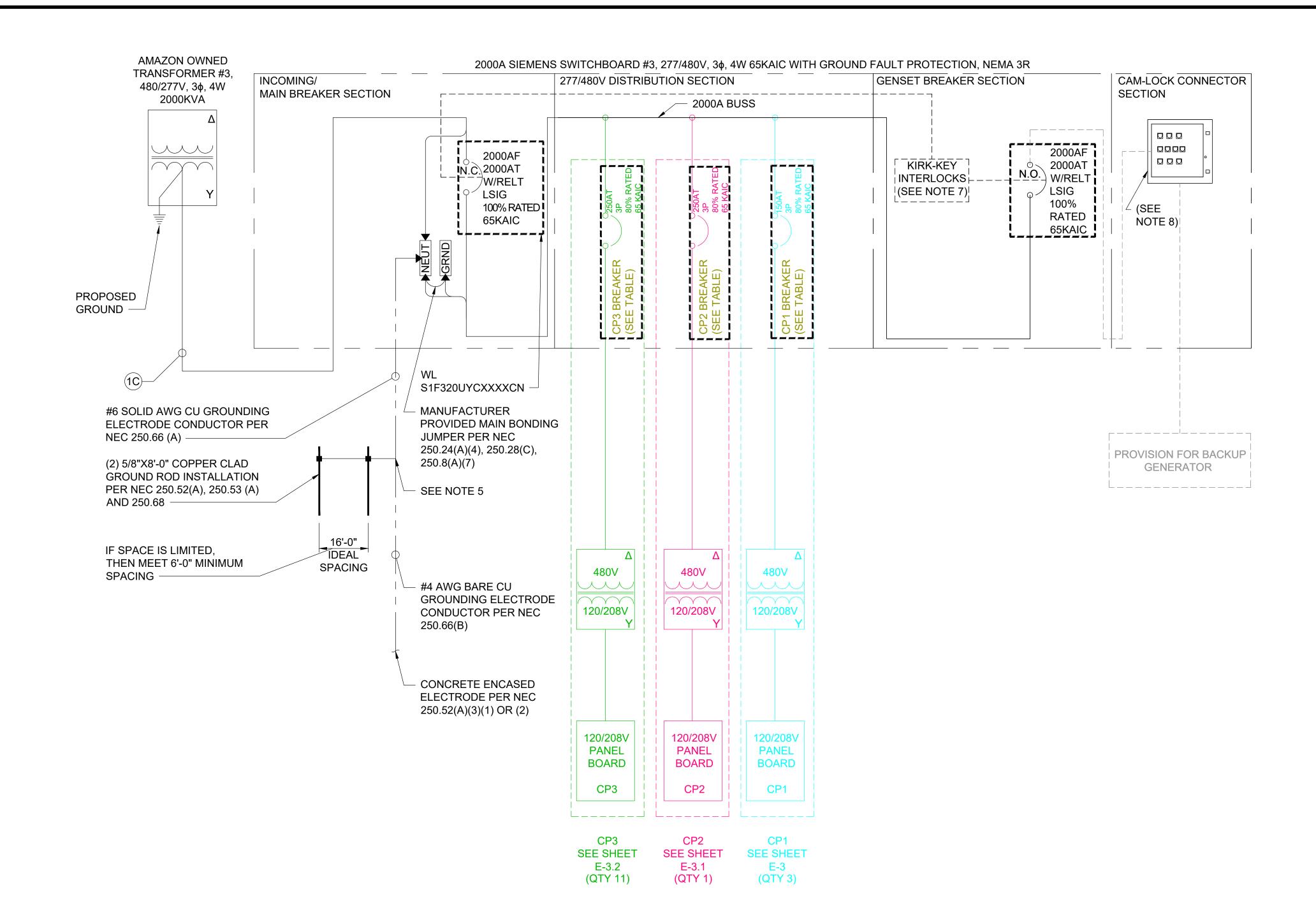
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DOCUMENT.

277/480V SWITCHBOARD #2 SINGLE LINE DIAGRAM

SHEET NUMBER

E-2.2



## 3. CONTRACTOR TO REACH OUT TO BLACK & VEATCH ELECTRICAL ENGINEERING DESIGN TEAM FOR BREAKER SETTINGS.

218V LINE-TO-LINE ON CP-1 THROUGH CP-8 TRANSFORMER

1. SEE LOW VOLTAGE DISTRIBUTION PANEL ONE-LINE FOR WIRE

2. CONTRACTOR TO SET THE CFAN OUTPUT TAP ON THE DELTA

480V-120/208V WYE SECONDARY SIDE OF THE TRANSFORMER TO

AND CONDUIT CONFIGURATION.

CONFIGURATION.

NOTES

- 4. CONTRACTOR TO PROVIDE PERFORMANCE TESTING OF THE GROUND FAULT PROTECTION SYSTEM AS REQUIRED BY NEC 230.95 (C) ON SERVICE SWITCHBOARD(S) MAIN BREAKER WHICH CONTAIN GROUND FAULT PROTECTION OF EQUIPMENT.
- 5. CONTRACTOR TO INSTALL CONCRETE ENCASED ELECTRODE WITH A MINIMUM #4 AWG CU GEC IN LIEU OF GROUND RODS IF THERE IS A MINIMUM OF 20' OF REINFORCING BARS IN THE CONCRETE PAD WITH NO VAPOR BARRIER OR INSULATION SEPARATING THE CONCRETE FROM THE EARTH.
- 6. BREAKERS ARE 80% RATED UNLESS STATED OTHERWISE.
- 7. ONLY ONE BREAKER "ON" AT A TIME. KIRK-KEY INTERLOCKING IS PROVIDED BETWEEN THE MAIN BREAKER AND A GENSET BREAKER TO PREVENT INADVERTENTLY HAVING BOTH BREAKERS IN THE CLOSED POSITION AT THE SAME TIME.
- 8. COLOR CODED CAMLOCK CONNECTORS ARE PROVIDED TO CONNECT GENERATOR FOR BACKUP POWER. CONTRACTORS TO FOLLOW INSTALLATION MANUAL PROVIDED BY THE GENERATOR SUPPLIER.

CP BREAKER TABLE			
CP CONFIGURATION	BREAKER FRAME	BREAKER CATALOG NUMBER	
CP1 BREAKER	3VA61-HDAE	3VA6115-6HN31-0AA0	
CP2 BREAKER	3VA62-HFAE	3VA6225-6HN31-0AA0	
CP3 BREAKER	3VA62-HFAE	3VA6225-6JP31-0AA0	

SWITCHBOARD #3 SIEMENS EV CHARGING LOAD SUMMARY (@480V)				
	FLA	QTY	TOTAL FLA	
LEVEL 2 CHARGER	12.59	154	1938.86	
		TOTAL LO	AD = 1938.86 A	

SEE	NOTE 4

CONFIGURATION ID#	# OF LEVEL 2 CHARGERS	SINGLE POST, DUAL POST, QUAD POST CONFIGURATION	MAX CHARGERS PER XFMR/PANEL
CP1	4	CP1 = (1) 75 KVA TRANSFORMER WITH 400A PANEL	6 CP1 EXISTING* PROPOSED**
CP2	8	CP2 = (1) 112.5 KVA TRANSFORMER WITH 400A PANEL	9 CP2 EXISTING* PROPOSED**
CP3	12	CP3 = (1) 150 KVA TRANSFORMER WITH 600A PANEL	12 — CP3 — EXISTING* PROPOSED**

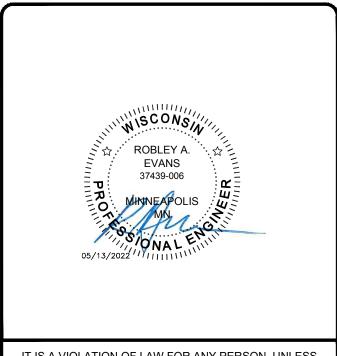
EXISTING\* = EXISTING CONDUIT TO BE USED
PROPOSED\*\* = NEW CONDUIT WILL NEED TO BE INSTALLED





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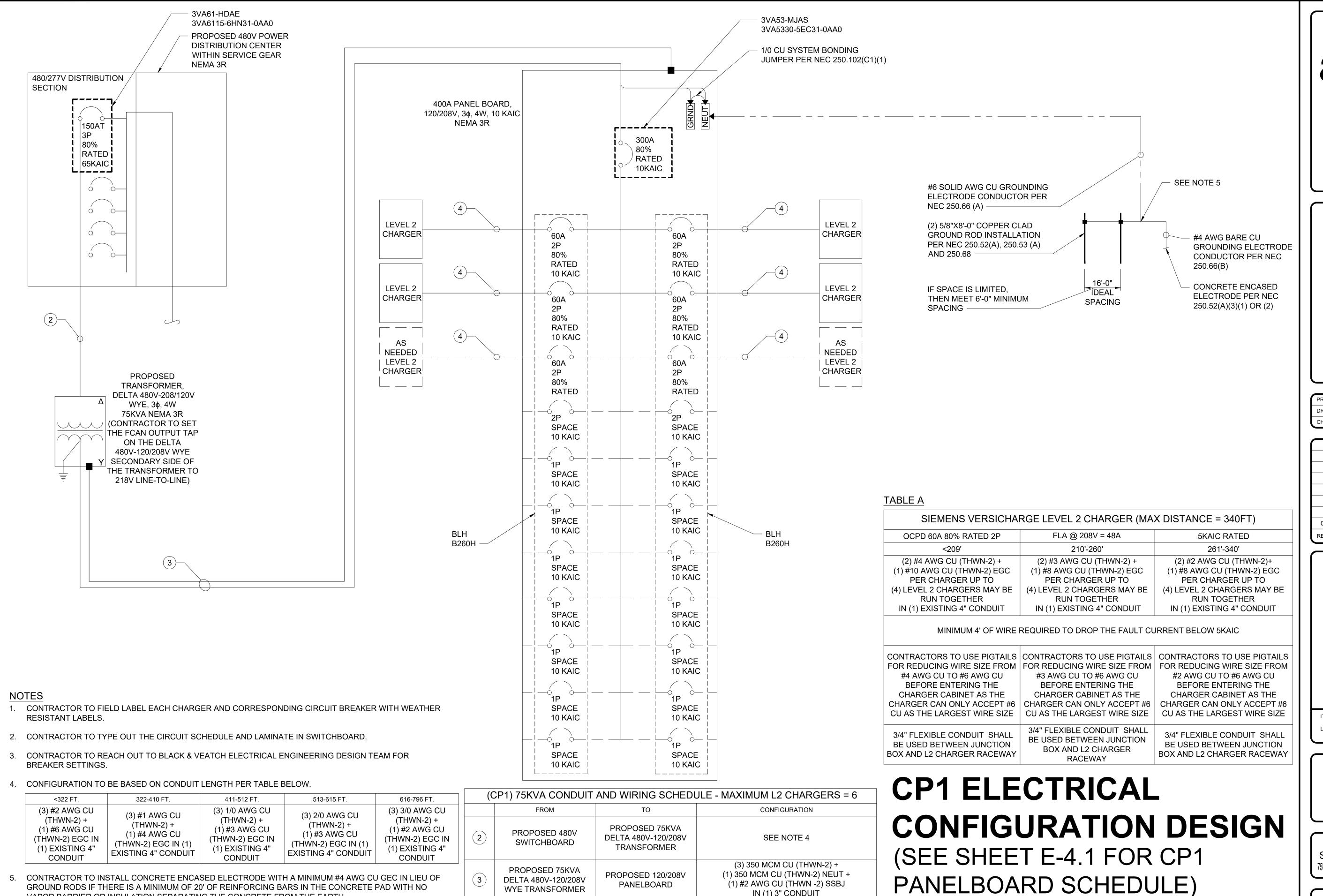
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277/480V SWITCHBOARD #3
SINGLE LINE DIAGRAM

SHEET NUMBER

E-2.3



PROPOSED LEVEL 2

CHARGER

PROPOSED 120/208V

PANELBOARD

VAPOR BARRIER OR INSULATION SEPARATING THE CONCRETE FROM THE EARTH

IN (1) 3" CONDUIT

SEE TABLE A FOR BRANCH BREAKER SIZE

AND VOLTAGE DROP CONSIDERATIONS DUE

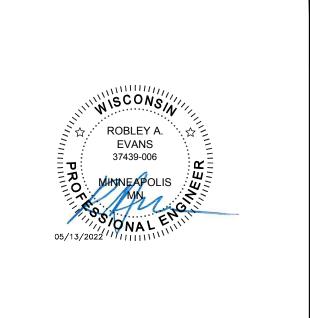
TO CONDUCTOR LENGTH





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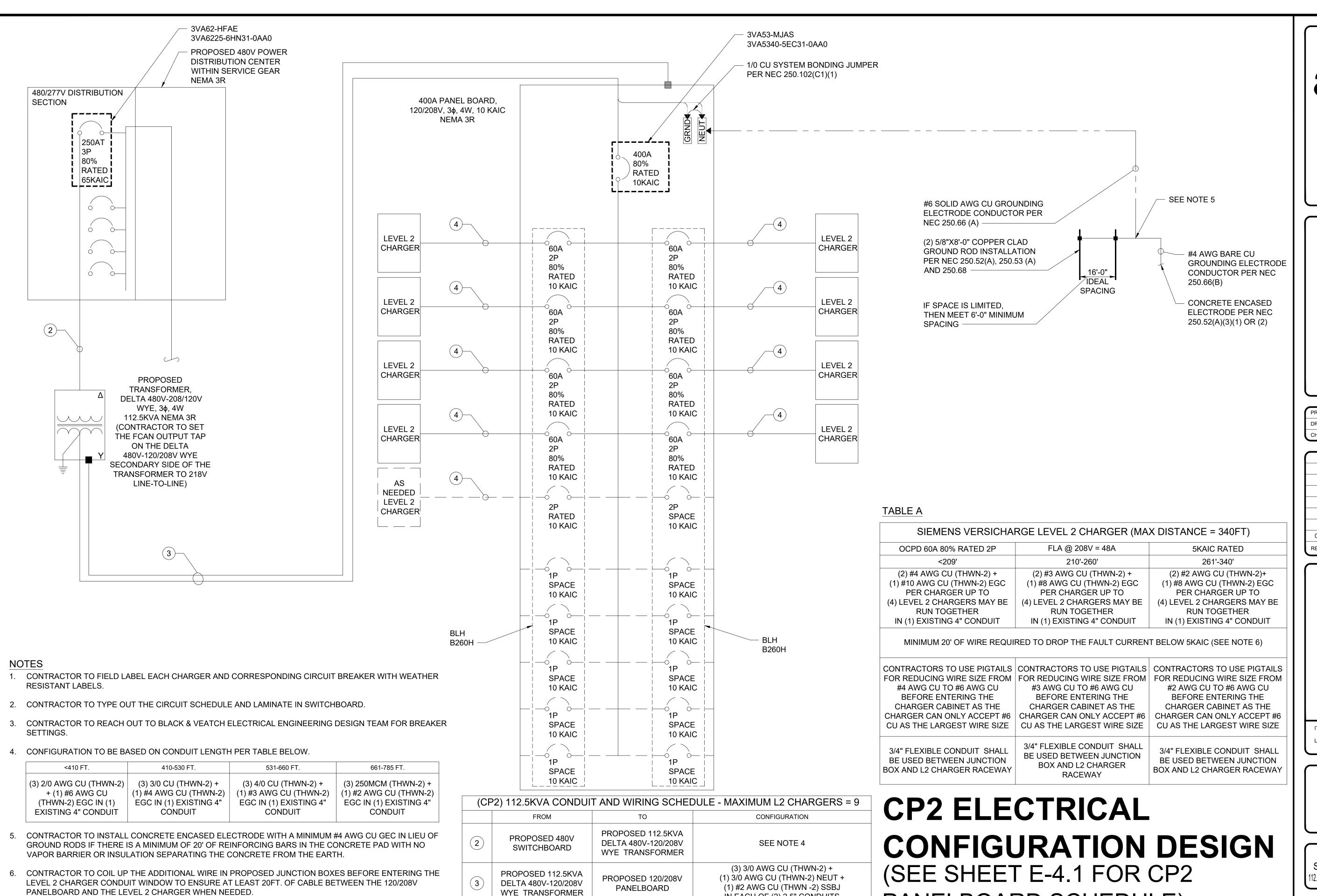
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SHEET TITLE

SINGLE LINE DIAGRAM (CP1) 75KVA TRANSFORMER AND LOW VOLTAGE DISTRIBUTION PANEL

SHEET NUMBER

**E-3** 



PROPOSED LEVEL 2

CHARGER

PROPOSED 120/208V

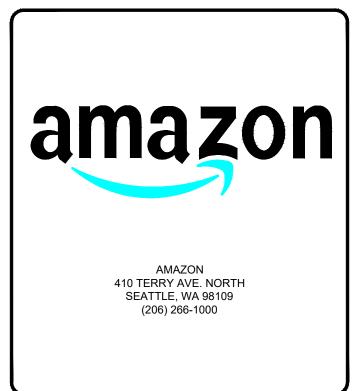
PANELBOARD

IN EACH OF (2) 2.5" CONDUITS

SEE TABLE A FOR BRANCH BREAKER SIZE

TO CONDUCTOR LENGTH

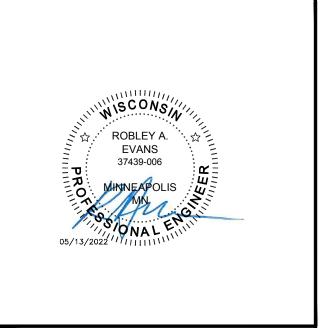
AND VOLTAGE DROP CONSIDERATIONS DUE





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SHEET TITLE

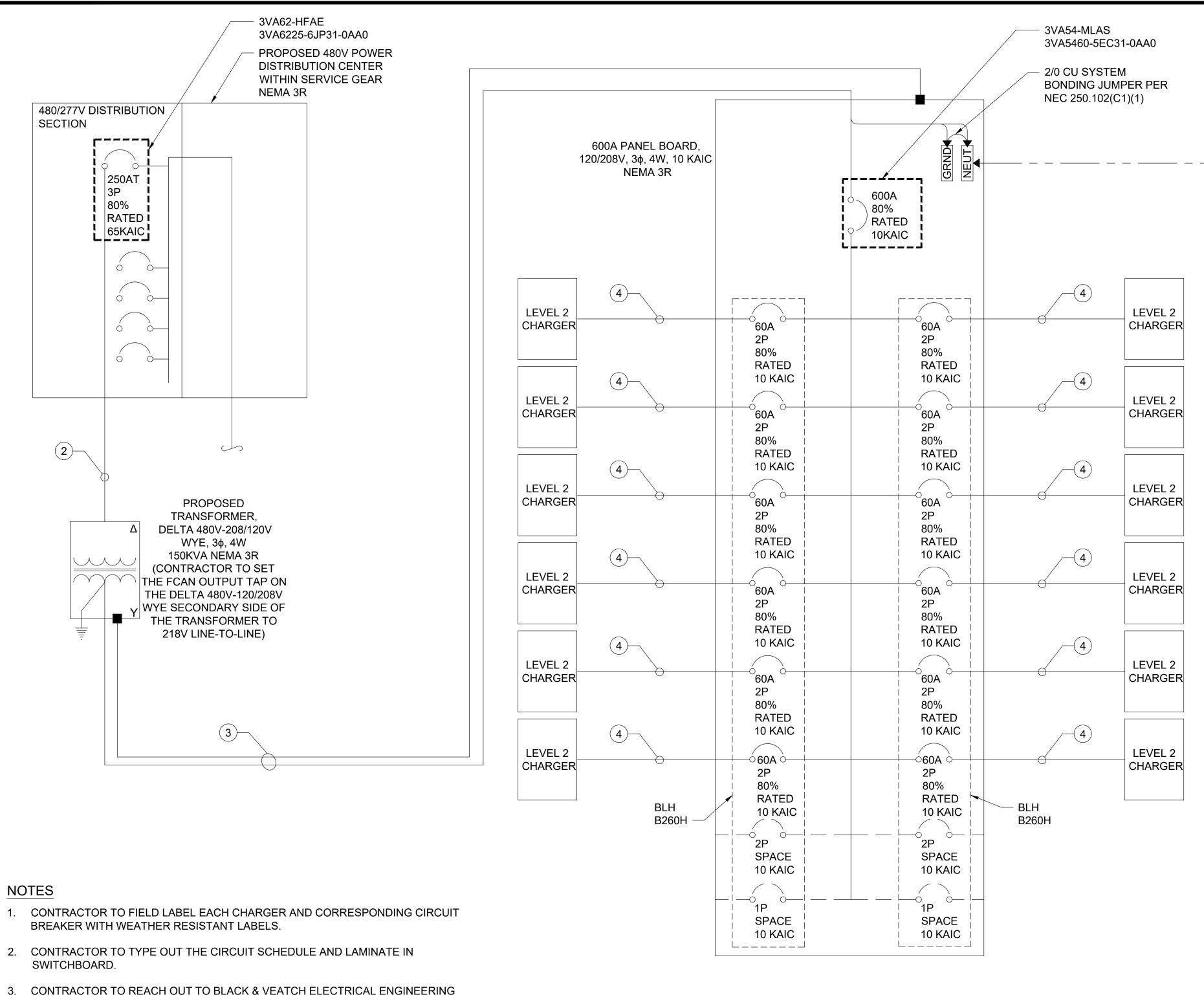
SINGLE LINE DIAGRAM (CP2)

112.5KVA TRANSFORMER AND LOW VOLTAGE DISTRIBUTION PANEL

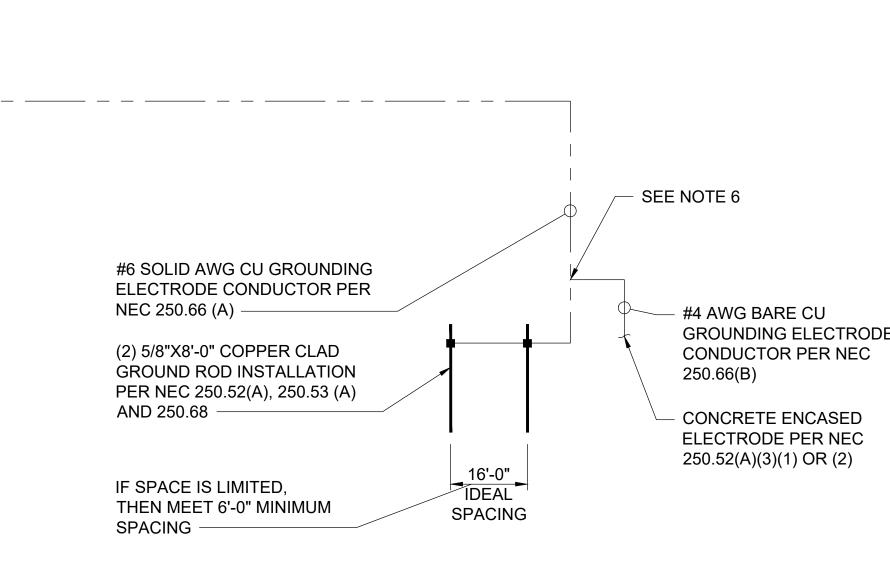
SHEET NUMBER

PANELBOARD SCHEDULE)

E-3.1



(CP3) 150KVA CONDUIT AND WIRING SCHEDULE - MAXIMUM L2 CHARGERS = 12				
	FROM	ТО	CONFIGURATION	
2	PROPOSED 480V SWITCHBOARD	PROPOSED 150KVA DELTA 480V-120/208V WYETRANSFORMER	(SEE NOTE 4)	
3	PROPOSED 150KVA DELTA 480V-120/208V WYE TRANSFORMER	PROPOSED 120/208V PANELBOARD	(3) 350 MCM CU (THWN-2) + (1) 350 MCM CU (THWN-2) NEUT + (1) #2 AWG CU (THWN -2) SSBJ IN EACH OF (2) 3" CONDUITS	
4	PROPOSED 120/208V PANELBOARD	PROPOSED LEVEL 2 CHARGER	SEE TABLE A FOR BRANCH BREAKER SIZE AND VOLTAGE DROP CONSIDERATIONS DUE TO CONDUCTOR LENGTH	





OIEMENTO VERTORIA MACE LE VEE E OF MATCHER (MINUS BIOTANTOE O TOTA)				
OCPD 60A 80% RATED 2P	FLA @ 208V = 48A	5KAIC RATED		
<209'	210'-260'	261'-340'		
(2) #4 AWG CU (THWN-2) +	(2) #3 AWG CU (THWN-2) +	(2) #2 AWG CU (THWN-2)+		
(1) #10 AWG CU (THWN-2) EGC	(1) #8 AWG CU (THWN-2) EGC	(1) #8 AWG CU (THWN-2) EGC		
PER CHARGER UP TO	PER CHARGER UP TO	PER CHARGER UP TO		
(4) LEVEL 2 CHARGERS MAY BE	(4) LEVEL 2 CHARGERS MAY BE	(4) LEVEL 2 CHARGERS MAY BE		
RUN TOGETHER	RUN TOGETHER	RUN TOGETHER		
IN (1) EXISTING 4" CONDUIT	IN (1) EXISTING 4" CONDUIT	IN (1) EXISTING 4" CONDUIT		
CONTRACTORS TO USE PIGTAILS FOR REDUCING WIRE SIZE FROM	CONTRACTORS TO USE PIGTAILS FOR REDUCING WIRE SIZE FROM	CONTRACTORS TO USE PIGTAIL FOR REDUCING WIRE SIZE FROI		
00117740707070701074110	00117040707070704105	20170407000 70 1105 0107411		
#4 AWG CU TO #6 AWG CU	#3 AWG CU TO #6 AWG CU	#2 AWG CU TO #6 AWG CU		
BEFORE ENTERING THE CHARGER CABINET AS THE	BEFORE ENTERING THE CHARGER CABINET AS THE	BEFORE ENTERING THE CHARGER CABINET AS THE		
CHARGER CABINET AS THE CHARGER CAN ONLY ACCEPT #6	CHARGER CABINET AS THE	CHARGER CABINET AS THE CHARGER CAN ONLY ACCEPT #		
CU AS THE LARGEST WIRE SIZE	CU AS THE LARGEST WIRE SIZE	CU AS THE LARGEST WIRE SIZE		
OO NO THE ENROLOT WINE GIZE	CO AC THE EARCEST WINE SIZE	OO NO THE EXINGEOT WINE OIZE		
	0/41 51 57/151 5 00N51 HT 01/41			
3/4" FLEXIBLE CONDUIT SHALL	3/4" FLEXIBLE CONDUIT SHALL	3/4" FLEXIBLE CONDUIT SHALL		
BE USED BETWEEN JUNCTION	BE USED BETWEEN JUNCTION BOX AND L2 CHARGER	BE USED BETWEEN JUNCTION		
BOX AND L2 CHARGER RACEWAY	RACEWAY	BOX AND L2 CHARGER RACEWA		
	INACEVVAT			

SIEMENS VERSICHARGE LEVEL 2 CHARGER (MAX DISTANCE = 340FT)

## **CP3 ELECTRICAL CONFIGURATION DESIGN**

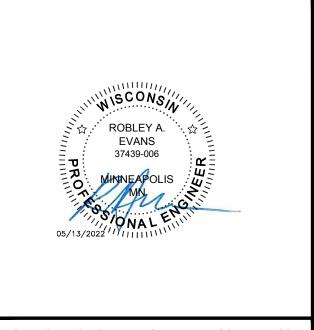
(SEE SHEET E-4.1 FOR CP3 PANELBOARD SCHEDULE)





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SHEET TITLE

SINGLE LINE DIAGRAM (CP3) 150KVA TRANSFORMER AND LOW VOLTAGE DISTRIBUTION PANEL

E-3.2



- 3. CONTRACTOR TO REACH OUT TO BLACK & VEATCH ELECTRICAL ENGINEERING DESIGN TEAM FOR BREAKER SETTINGS.
- 4. CONFIGURATION TO BE BASED ON CONDUIT LENGTH PER TABLE BELOW

<495 FT.	495-590 FT.	591-698 FT.
(3) 4/0 (THWN-2) + (1) #4 AWG CU (THWN-2) EGC IN (1) EXISTING 4" CONDUIT	(3) 250MCM (THWN-2) + (1) #2 AWG CU (THWN-2) EGC IN (1) EXISTING 4" CONDUIT	(3) 300MCM (THWN-2) + (1) #2 AWG CU (THWN-2) EGC IN (1) EXISTING 4" CONDUIT

- CONTRACTOR TO COIL UP THE ADDITIONAL WIRE IN PROPOSED JUNCTION BOXES BEFORE ENTERING THE LEVEL 2 CHARGER CONDUIT WINDOW TO ENSURE AT LEAST 50 FT. OF CABLE BETWEEN THE 120/208V PANELBOARD AND THE LEVEL 2 CHARGER WHEN NEEDED.
- CONTRACTOR TO INSTALL CONCRETE ENCASED ELECTRODE WITH A MINIMUM #4 AWG CU GEC IN LIEU OF GROUND RODS IF THERE IS A MINIMUM OF 20' OF REINFORCING BARS IN THE CONCRETE PAD WITH NO VAPOR BARRIER OR INSULATION SEPARATING THE CONCRETE FROM THE EARTH

SIEMENS CONDUIT AND WIRING SCHEDULE				
	FROM	ТО	CONFIGURATION	
U	PROPOSED UTILTY POLE	PROPOSED 25kV SWITCHGEAR	TBD (PER UTILITY)	
MV 1A	PROPOSED 25kV SWITCHGEAR	PROPOSED 3000kVA TRANSFORMER #1	(3) #1 AWG CU (MV-105) IN (1) 6" EXISTING CONDUIT (SEE NOTE 4)	
MV 1B	PROPOSED 25kV SWITCHGEAR	PROPOSED 1500kVA TRANSFORMER #2	(3) #1 AWG CU (MV-105) IN (1) 6" EXISTING CONDUIT (SEE NOTE 4)	
MV 1C	PROPOSED 25kV SWITCHGEAR	PROPOSED 2000kVA TRANSFORMER #3	(3) #1 AWG CU (MV-105) IN (1) 6" EXISTING CONDUIT (SEE NOTE 4)	
(1A)	PROPOSED 480V PAD MOUNTED AMAZON OWNED TRANSFORMER #1	PROPOSED 480V SWITCHBOARD #1	(3) 500MCM CU (THWN-2) + (1) 500MCM CU (THWN-2) NEUT IN EACH OF (8) 3.5" CONDUITS	
(1B)	PROPOSED 480V PAD MOUNTED AMAZON OWNED TRANSFORMER #2	PROPOSED 480V SWITCHBOARD #2	(3) 600MCM CU (THWN-2) + (1) 600MCM CU (THWN-2) NEUT IN EACH OF (5) 3.5" CONDUITS	
(1C)	PROPOSED 480V PAD MOUNTED AMAZON OWNED TRANSFORMER #3	PROPOSED 480V SWITCHBOARD #3	(3) 600MCM CU (THWN-2) + (1) 600MCM CU (THWN-2) NEUT IN EACH OF (5) 3.5" CONDUITS	
5	PROPOSED 480V SWITCHBOARD	PROPOSED 75 KVA DELTA 480V-480/277V WYE ISOLATION TRANSFORMER	(3) #2 AWG CU (THWN-2) + (1) #6 AWG CU (THWN -2) EGC IN (1) 4" CONDUIT (SEE NOTE 2)	
(5A)	PROPOSED 75KVA DELTA 480V-480/277V WYE ISOLATION TRANSFORMER	PROPOSED 100A 600V 3¢ FUSIBLE DISCONNECT SWITCH WITH 80A FUSES	(3) #2 AWG CU (THWN-2) + (1) #6 AWG CU (THWN-2) EGC IN (1) 1 1/2" CONDUIT	
(5B)	PROPOSED 100A 600V 3¢ FUSIBLE DISCONNECT SWITCH WITH 80A FUSES	PROPOSED DC FAST CHARGER (POWER)	(3) #2 CU (THWN-2) + (1) #6 CU (THWN-2) EGC IN (1) 4" EXISTING CONDUIT (SEE NOTE 2)	
(5C)	NEAR BY 120/208V PANEL (SEE SHEET E-3, E-3.1 AND E-3.2)	PROPOSED DC FAST CHARGER (120V AUXILIARY POWER SUPPLY) (MAX DISTANCE = 450FT)	(1) #12 AWG CU (THWN-2) + (1) #12 AWG CU (THWN-2) NEUT+ (1) #12 AWG CU (THWN-2) EGC IN (1) 4" EXISTING CONDUIT	

- 1. CONTRACTOR TO USE PIGTAILS FOR REDUCING WIRE SIZE FROM #2 AWG CU TO #4 AWG CU BEFORE ENTERING THE CHARGER CABINET AS THE CHARGER CAN ONLY ACCEPT #4 CU AS THE LARGEST WIRE SIZE.
- 2. THE (1) 4" CONDUIT WILL BE SEPARATED OUT INTO INDIVIDUAL 1 1/2" CONDUITS VIA A TERMINAL BOX BEFORE THE ISOLATION TRANSFORMERS AND WILL BE PUT BACK INTO (1) 4" CONDUIT AFTER THE DISCONNECT SWITCH. NO MORE THAN 6 DC FAST CHARGER CONDUITS WILL BE PUT INTO (1) 4" CONDUIT OR JUNCTION BOX.
- 3. DC FAST CHARGER CONDUCTOR LENGTH NOT TO EXCEED 690 FT.
- 4. CONTRACTOR TO USE OKONITE 25kV CABLES (CATALOG #115-23-3480) OR SIMILAR. CABLE SIZES TO BE FINALIZED AFTER POWER SYSTEM STUDY IS COMPLETED.

SIEMENS CHARGERS - AVAILABLE FAULT CURRENT TABLE			
LOCATION	AVAILABLE FAULT CURRENT	RESULT	
SIEMENS LEVEL 2 CHARGERS	< 5 KA	5 KA OR LOWER - NO ISOLATION TRANSFORMERS REQUIRED	
SIEMENS DC FAST CHARGERS	> 6 KA	6 KA OR HIGHER - 75KVA ISOLATION TRANSFORMERS REQUIRED	

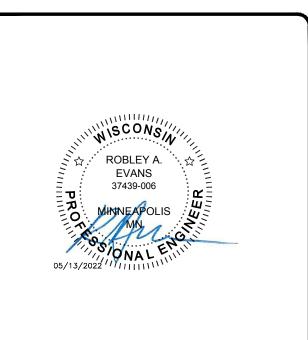
TOTAL SIEMENS EV CHARGING LOAD SUMMARY (@480V)								
	FLA	QTY	TOTAL FLA					
LEVEL 2 CHARGER	12.59	397	4998.23					
DC FAST CHARGER	63	2	126.00					
TOTAL LOAD = 5124.23								





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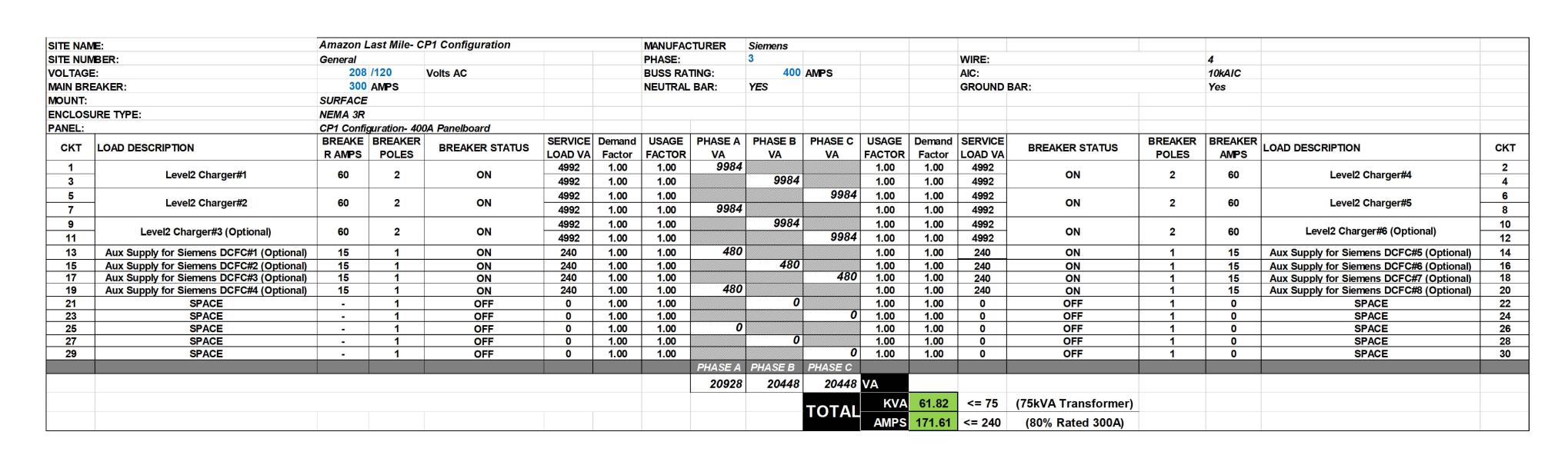
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REV	DATE	DESCRIPTION



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CONDUIT SCHEDULE



## CP1 PANELBOARD SCHEDULE



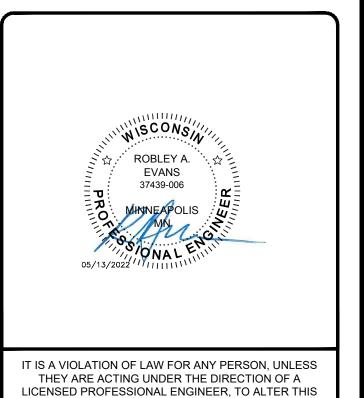






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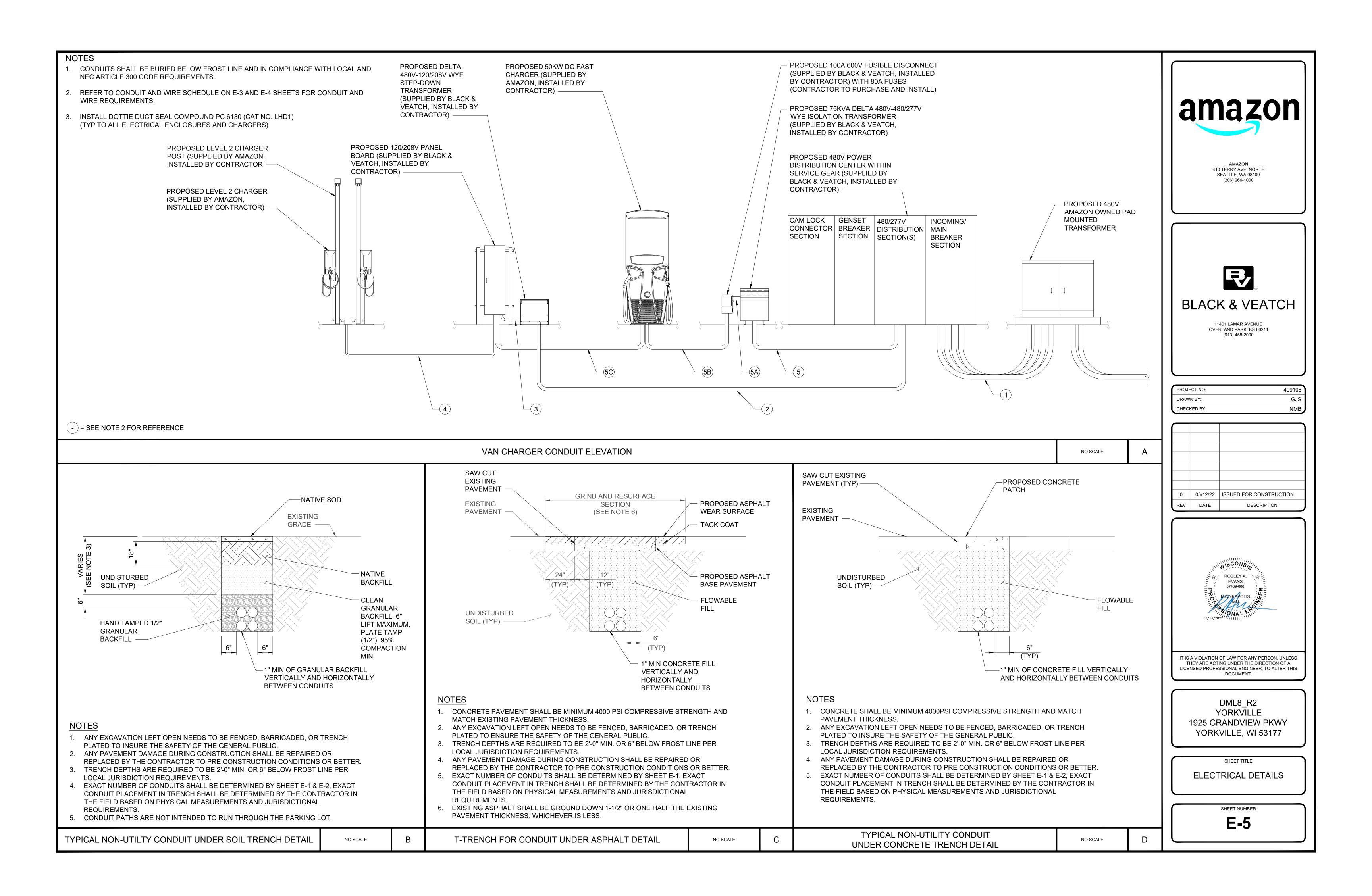
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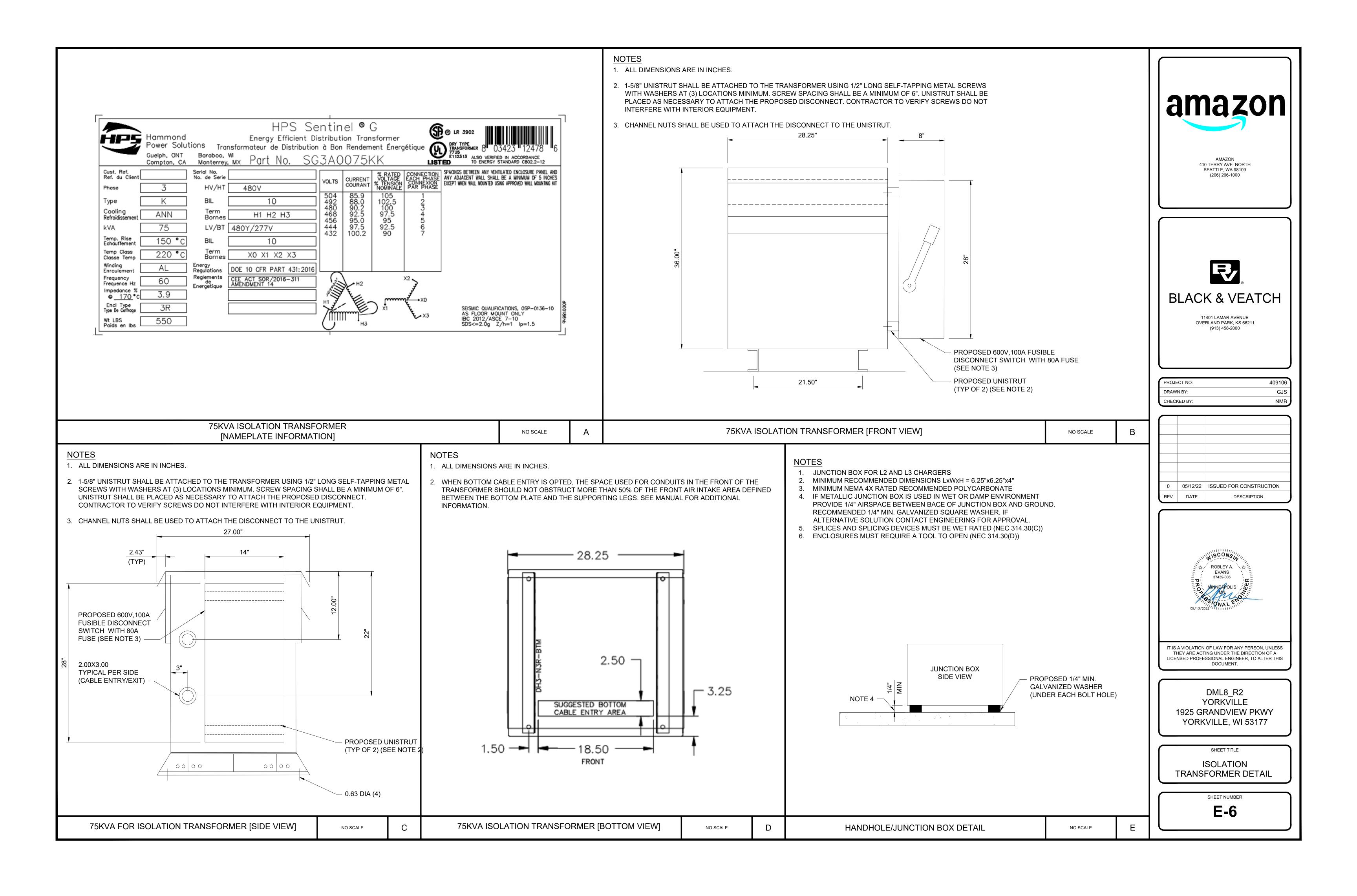
CONDUIT SCHEDULE

E-4.1

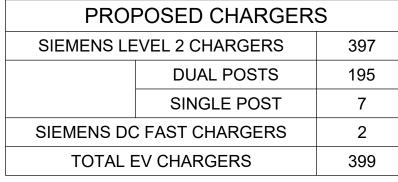
SITE NAME	:	Amazon L	Last Mile- (	CP2 Configuration			MANUFAC	TURER	Siemens									
SITE NUME	ER:	General					PHASE:		3				WIRE:			4		
/OLTAGE:		208	/120	Volts AC			BUSS RAT	TING:	400	AMPS			AIC:			10kAIC		
MAIN BRE	KER:	400	AMPS				NEUTRAL	BAR:	YES				GROUND B	AR:		YES		
OUNT:		SURFACE	•															Г
NCLOSU	RE TYPE:	NEMA 3R																
ANEL:		CP2 Confi	guration- 40	00A Panelboard														
СКТ	OAD DESCRIPTION	BREAKE R AMPS	BREAKER POLES	BREAKER STATUS	SERVICE LOAD VA		USAGE FACTOR	PHASE A VA	PHASE B VA		USAGE FACTOR	Demand Factor	SERVICE LOAD VA	BREAKER STATUS	BREAKER POLES	BREAKER AMPS	LOAD DESCRIPTION	
1					4992	1.00	1.00	9984			1.00	1.00	4992					T
3	Level2 Charger#1	60	2	ON	4992	1.00	1.00		9984		1.00	1.00	4992	ON	2	60	Level2 Charger#5	r
5					4992	1.00	1.00			9984	1.00	1.00	4992				1 10 01 110	T
7	Level2 Charger#2	60	2	ON	4992	1.00	1.00	9984			1.00	1.00	4992	ON	2	60	Level2 Charger#6	r
9			_		4992	1.00	1.00		9984		1.00	1.00	4992		_			1
11	Level2 Charger#3	60	2	ON	4992	1.00	1.00			9984	1.00	1.00	4992	ON	2	60	Level2 Charger#7	
13	10.01			611	4992	1.00	1.00	9984			1.00	1.00	4992	<b>0</b> 11			1 10 01 1/0	t
15	Level2 Charger#4	60	2	ON	4992	1.00	1.00		9984		1.00	1.00	4992	ON	2	60	Level2 Charger#8	İ
17	Level2 Charger#9 (Optional)	60	2	ON	4992	1.00	1.00			5232	1.00	1.00	240	ON	1	15	Aux Supply for Siemens DCFC#2 (Optional)	Ī
19	Levelz Charger#9 (Optional)	60		ON	4992	1.00	1.00	5232			1.00	1.00	240	ON	1	15	Aux Supply for Siemens DCFC#3 (Optional)	
21	Aux Supply for Siemens DCFC#1 (Optional)	-	1	ON	240	1.00	1.00		480		1.00	1.00	240	ON	1	15	Aux Supply for Siemens DCFC#4 (Optional)	
23	SPACE	-	1	OFF	0	1.00	1.00			240		1.00	240	ON	1	15	Aux Supply for Siemens DCFC#5 (Optional)	
25	SPACE	-	1	OFF	0	1.00	1.00	240			1.00	1.00	240	ON	1	15	Aux Supply for Siemens DCFC#6 (Optional)	J
27	SPACE	.=	1	OFF	0	1.00	1.00		240		1.00	1.00	240	ON	1	15	Aux Supply for Siemens DCFC#7 (Optional)	1
29	SPACE	-	1	OFF	0	1.00	1.00			240	1.00	1.00	240	ON	1	15	Aux Supply for Siemens DCFC#8 (Optional)	1
								PHASE A	PHASE B	PHASE C								I
								35424	30672	25680	VA							
										TOTAL	KVA	91.78	<= 112.5	(112.5 kVA Transformer)				
										IOIAL	<b>AMPS</b>	254.74	<= 320	(80% Rated 400A)				

## SITE NAME: Amazon Last Mile- CP3 Configuration MANUFACTURER Siemens SITE NUMBER: General VOLTAGE: 208 /120 **BUSS RATING:** MAIN BREAKER: 600 AMPS **NEUTRAL BAR: GROUND BAR:** MOUNT: SURFACE **ENCLOSURE TYPE:** PANEL: CP3 Configuration- 600A Panelboard BREAKER BREAKER LOAD DESCRIPTION BREAKE BREAKER SERVICE Demand USAGE PHASE A PHASE B PHASE C USAGE Demand SERVICE CKT LOAD DESCRIPTION **BREAKER STATUS** R AMPS POLES LOAD VA Factor FACTOR FACTOR Factor LOAD VA 4992 1.00 1.00 Level2 Charger#1 Level2 Charger#7 1.00 1.00 1.00 1.00 1.00 1.00 **9984** 1.00 Level2 Charger#2 ON Level2 Charger#8 Level2 Charger#3 2 ON Level2 Charger#9 9984 1.00 1.00 1.00 1.00 Level2 Charger#4 Level2 Charger#10 Level2 Charger#5 2 Level2 Charger#11 1.00 1.00 1.00 ON Level2 Charger#6 Level2 Charger#12 Aux supply for Siemens DCFC#1 (Optional) 1.00 Aux supply for Siemens DCFC#4 (Optional) Aux supply for Siemens DCFC#2 (Optional) 1.00 Aux supply for Siemens DCFC#5 (Optional) **480** 1.00 1.00 240 29 Aux supply for Siemens DCFC#3 (Optional) 240 1.00 1.00 15 Aux supply for Siemens DCFC#6 (Optional) ON 40416 40416 40416 VA **KVA** 121.25 <= 150 (150 kVA Transformer) (80% Rated 600A)





PROF	PROPOSED CHARGERS					
SIEMENS LE	EVEL 2 CHARGERS	397				
	DUAL POSTS	195				
	SINGLE POST	7				
SIEMENS DO	FAST CHARGERS	2				
TOTAL E	EV CHARGERS	399				

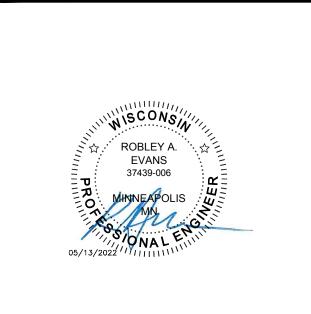






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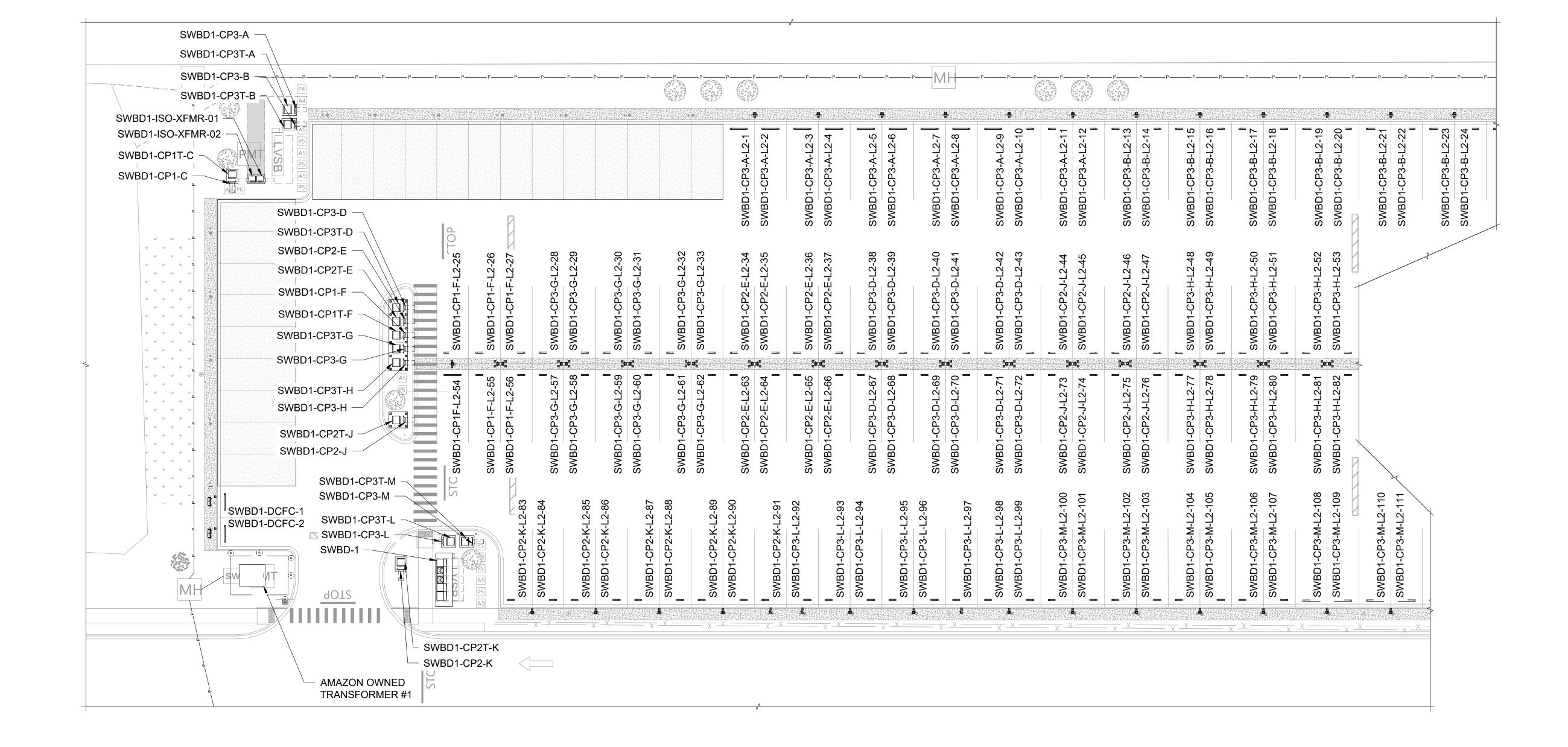


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SHEET TITLE **EQUIPMENT ID PLAN** 

> SHEET NUMBER **E-7**





1"=20'

PROPOSED CHARGERS				
SIEMENS LEVEL 2 CHARGERS 397				
	DUAL POSTS	195		
	SINGLE POST	7		
SIEMENS DO	2			
TOTAL E	EV CHARGERS	399		

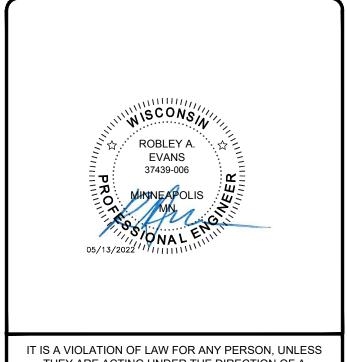
1/16"=1'-0"





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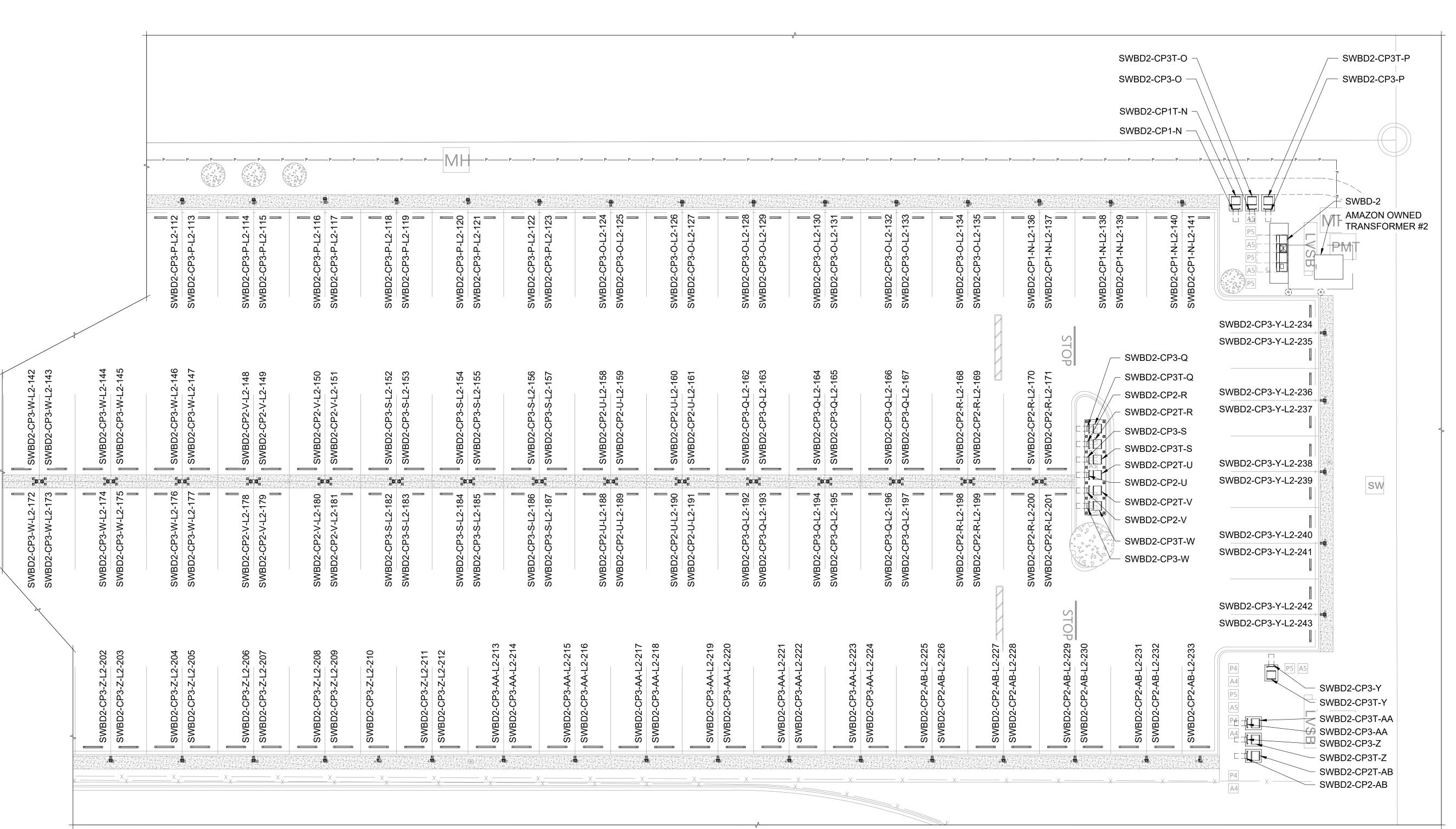
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EQUIPMENT ID PLAN

SHEET TITLE

E-8



				_									SWBD3-CP2T-AC — SWBD3-CP2-AC —
					SWBD3-CP3-AD-L2-244	-CP3-AD-L2-		SWBD3-CP3-AD-L2-250	CP3-AD-L2-	SWBD3-CP3-AD-L2-254	CP2-AC-L2-	SWBD3-CP2-AC-L2-258	SWBD3-CP2-AC-L2-260 SWBD3-CP2-AC-L2-262 SWBD3-CP2-AC-L2-262
						SWBD3-CP3-AG-L2-263	SWBD3-CP3-AG-L2-265   SWBD3-CP3-AG-L2-266	SWBD3-CP3-AG-L2-267	SWBD3-CP3-AF-L2-269   SWBD3-CP3-AF-L2-270	SWBD3-CP3-AF-L2-271		SWBD3-CP1-AE-L2-275  SWBD3-CP1-AE-L2-276  SWBD3-CP1-AE-L2-277	SWBD3-CP3T-AD  SWBD3-CP1-AE  SWBD3-CP1T-AE  SWBD3-CP3-AF
						SWBD3-CP3-AG-L2-278 SWBD3-CP3-AG-L2-279	453 Capt 10 Pro	SWBD3-CP3-AG-L2-282 SWBD3-CP3-AG-L2-283 SWBD3-CP3-AG-L2-285 SWBD3-CP3-AG-L2-285 SWBD3-CP3-AG-L2-285 SWBD3-	Carlotte and the carlot	SWBD3-CP3-AF-L2-286 SWBD3-CP3-AF-L2-287	CP3-AF-L2-288 CP3-AF-L2-289	SWBD3-CP1-AE-L2-290 SWBD3-CP1-AE-L2-291  SWBD3-CP1-AE-L2-292	SWBD3-CP3T-AF SWBD3-CP3T-AG SWBD3-CP3-AG
SWBD3-CP3-AM-L2-293	SWBD3-CP3-AM-L2-295   SWBD3-CP3-AM-L2-296	SWBD3-CP3-AM-L2-297	SWBD3-CP3-AL-L2-299	SWBD3-CP3-AL-L2-301   SWBD3-CP3-AL-L2-302	SWBD3-CP3-AL-L2-303	SWBD3-CP3-AK-L2-305   SWBD3-CP3-AK-L2-306 	SWBD3-CP3-AK-L2-307	SWBD3-CP3-AK-L2-309	SWBD3-CP3-AH-L2-311   SWBD3-CP3-AH-L2-312	SWBD3-CP3-AH-L2-313	SWBD3-CP3-AH-L2-315   SWBD3-CP3-AH-L2-316	SWBD3-CP1-AJ-L2-317 SWBD3-CP1-AJ-L2-318 SWBD3-CP1-AJ-L2-319	SWBD3-CP3-AH SWBD3-CP3T-AH SWBD3-CP1-AJ
SWBD3-CP3-AM-L2-320 SWBD3-CP3-AM-L2-321 SWBD3-CP3-AM-L2-321	SWBD3-CP3-AM-L2-322 SWBD3-CP3-AM-L2-323 SWBD3-CP3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L	SWBD3-CP3-AM-L2-324 swbD3-CP3-AM-L2-325 swbD3-CP3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L2-3-AM-L	SWBD3-CP3-AL-L2-326 SWBD3-CP3-AL-L2-327	SWBD3-CP3-AL-L2-328 SWBD3-CP3-AL-L2-329	SWBD3-CP3-AL-L2-330 SWBD3-CP3-AL-L2-331	SWBD3-CP3-AK-L2-332 SWBD3-CP3-AK-L2-333	SWBD3-CP3-AK-L2-334 SWBD3-CP3-AK-L2-335	SWBD3-CP3-AK-L2-336 SWBD3-CP3-AK-L2-337 SWBD3-CP3-AK-L2-357 SWBD3-CP3-CP3-CP3-CP3-CP3-CP3-CP3-CP3-CP3-CP	SWBD3-CP3-AH-L2-338 SWBD3-CP3-AH-L2-339 SWBD3-CP3-AH-L2-339	SWBD3-CP3-AH-L2-340 swBD3-CP3-AH-L2-341	-CP3-AH-L2-342 -CP3-AH-L2-343	SWBD3-CP1-AJ-L2-344  SWBD3-CP1-AJ-L2-346  SWBD3-CP1-AJ-L2-346	SWBD3-CP3T-AK SWBD3-CP3-AK SWBD3-CP3T-AL SWBD3-CP3-AL SWBD3-CP3-AM SWBD3-CP3-AM
SWBD3-CP3-AR-L2-347 SWBD3-CP3-AR-L2-348	SWBD3-CP3-AR-L2-349   SWBD3-CP3-AR-L2-350	SWBD3-CP3-AR-L2-351 SWBD3-CP3-AR-L2-352	SWBD3-CP3-AQ-L2-353 SWBD3-CP3-AQ-L2-354	SWBD3-CP3-AQ-L2-355    SWBD3-CP3-AQ-L2-356 	SWBD3-CP3-AQ-L2-357 SWBD3-CP3-AQ-L2-358	SWBD3-CP3-AP-L2-359 SWBD3-CP3-AP-L2-360		SWBD3-CP3-AP-L2-363 SWBD3-CP3-AP-L2-364	SWBD3-CP3-AO-L2-365 SWBD3-CP3-AO-L2-366	SWBD3-CP3-AO-L2-367 SWBD3-CP3-AO-L2-368		SWBD3-CP1-AN-L2-371 SWBD3-CP1-AN-L2-372	SWBD-3 SWBD3-CP1-AN SWBD3-CP1T-AN SWBD3-CP3-AO
SWBD3-CP3-AR-L2-373	SWBD3-CP3-AR-L2-375	SWBD3-CP3-AR-L2-377	SWBD3-CP3-AQ-L2-379 SWBD3-CP3-AQ-L2-380	SWBD3-CP3-AQ-L2-381	SWBD3-CP3-AQ-L2-383	SWBD3-CP3-AP-L2-385 SE SWBD3-CP3-AP-L2-386 SE	SWBD3-CP3-AP-L2-387 ST SWBD3-CP3-AP-L2-388 ST	SWBD3-CP3-AP-L2-389 SWBD3-CP3-AP-L2-390 SWBD3-AP-L2-390 SWBD3-CP3-AP-L2-390 SWBD3-CP3-AP-L2-390 SWBD3-CP3-AP-L2-390 SWBD3-CP3-AP-L2-390 SWBD3-CP3-AP-L2-390 SWBD3-CP3-AP-L2-390 SWBD3-AP-L2-390 SWBD3-AP-L2-39	SWBD3-CP3-AO-L2-391	SWBD3-CP3-AO-L2-393	SWBD3-CP3-AO-L2-395	SWBD3-CP1-AN-L2-397	SWBD3-CP3T-AP SWBD3-CP3-AP SWBD3-CP3T-AQ SWBD3-CP3-AQ SWBD3-CP3-AR SWBD3-CP3T-AR SWBD3-CP3-AR

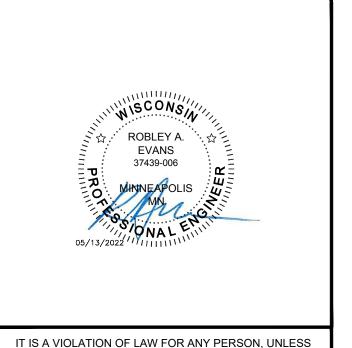
PROPOSED CHARGERS				
SIEMENS LEVEL 2 CHARGERS 397				
	DUAL POSTS	195		
	SINGLE POST	7		
SIEMENS DO	2			
TOTAL E	399			





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EQUIPMENT ID PLAN

SHEET NUMBER

**E-9** 

16' 12' 8' 4' 0 16' 32'

1/16"=1'-0"

TRANSFORMER #3

