

Kenosha County Center Generator Installation

19600 75th Street Bristol, WI 53104

+ 100.0 Existing Contours + 100.0 New or Required Contours Grid Lines **Detail Section** Interior Elevation Exterior Elevation **CONSULTANTS** ARCHITECT **Kueny Architects** 10505 Corporate Drive, Suite 100 (262) 857-8101 Pleasant Prairie, Wisconsin 53158 Architect of Record - Jon P. Wallenkamp ELECTRICAL Root Engineering Services 10411 Corporate Drive, Suite 108 (847) 249-8398 Pleasant Prairie, Wisconsin 53158 Engineer of Record - Richard Root **SHEET INDEX** 01 Title Sheet ARCHITECTURAL A100 Site Plan - Demo Plan **ELECTRICAL** E1 Electrical Site Plan E2 Electrical Plans E3 Electrical Schedules, Notes and Details E4 Electrical Schedules, Notes and Details **Kenosha County Center Generator Installation** May 31, 2023

GENERAL NOTES

Verify all dimensions, access, utilities and working conditions in the field.

Notify Architect immediately if work cannot proceed as shown on Drawings

Conform to all applicable codes, ordinances and safety standards.

All Contractor's to co-operate with all trades, Owner's and Architect's

11. These Drawings contain no provisions or procedures for on-site safety.

12. The locations of existing underground utilities, shown on these Drawings, are shown in an approximate way only and have not been independently verified by the Owner or its representatives. The Contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occassioned by the Contractor's failure to exactly locate and preserve any

. Each Prime and Sub-contractor is responsible for having read each page of

Each Contractor and their employees are responsible to follow all laws and ordinances and provide their own engineering to provide a safe work place.

consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in this area under similar budget and

MATERIAL INDICATIONS

Sand Fill

Concrete

Stone Fill

Plywood

DRAWING LEGEND

Finished Wood

Batt Insulation

Detail Number Page Number

All concrete to test 4000 psi in 28 days.

or as described in the Specifications.

and all underground utilities.

+ 100.0 New or Required Point Elevation

+ 100.0 Existing Point Elevation

representatives.

Earth Backfill

Rigid Insulation

Concrete Block

.umber (Rough)

Aluminum

Obtain and pay for all required permits and fees.

Leave site clean, neat and free of debris at all times.

10. Guard against interfering with Owner's operations.

No concrete to be poured without Architect's prior review.

the Specifications, Drawings, Addenda and Change Orders.

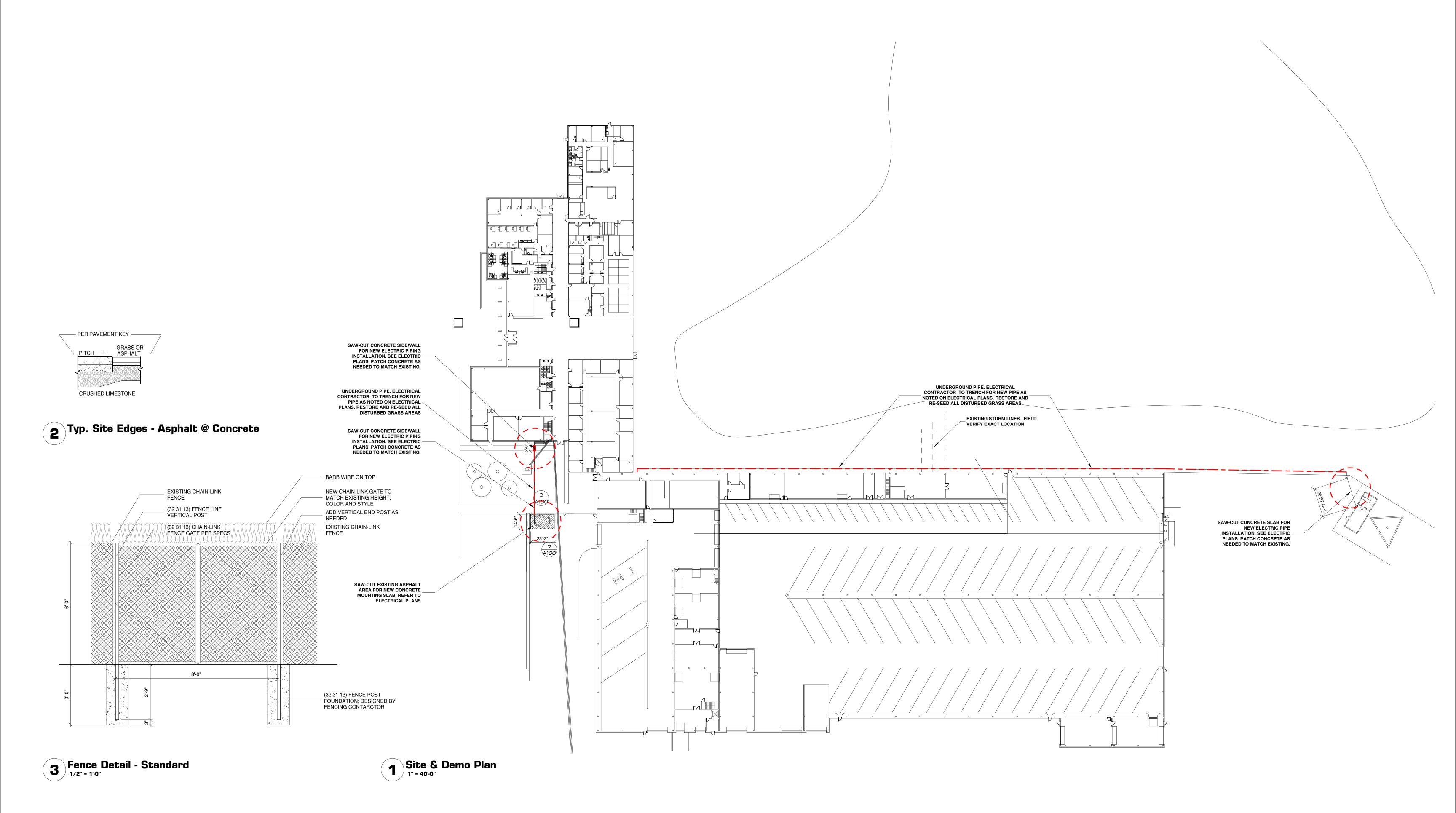
13. Services perform for this project have been conducted in a manner

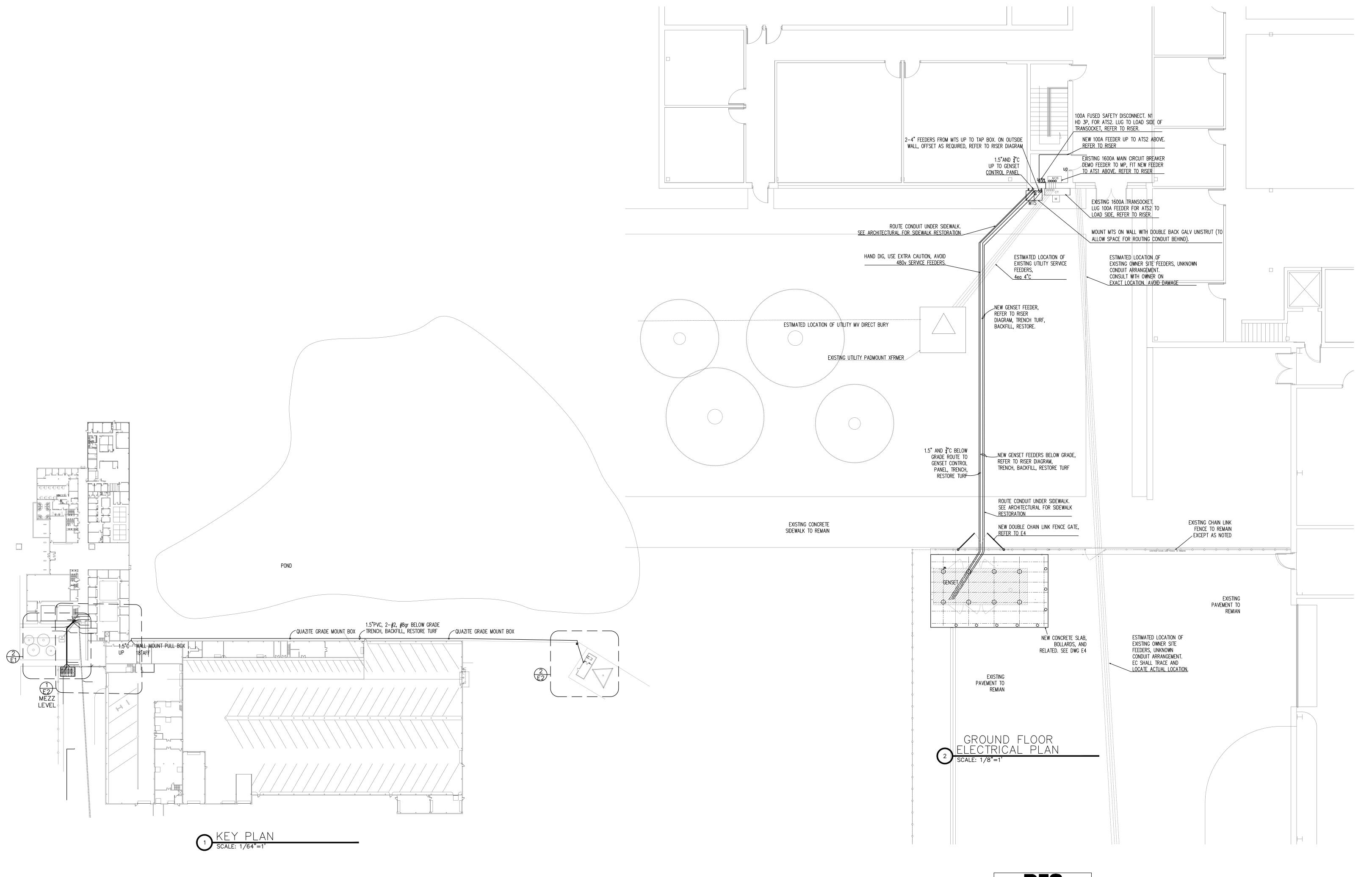
time constraints. No warranty, expressed or implied, is made.

KUENY ARCHITECTS, LLC

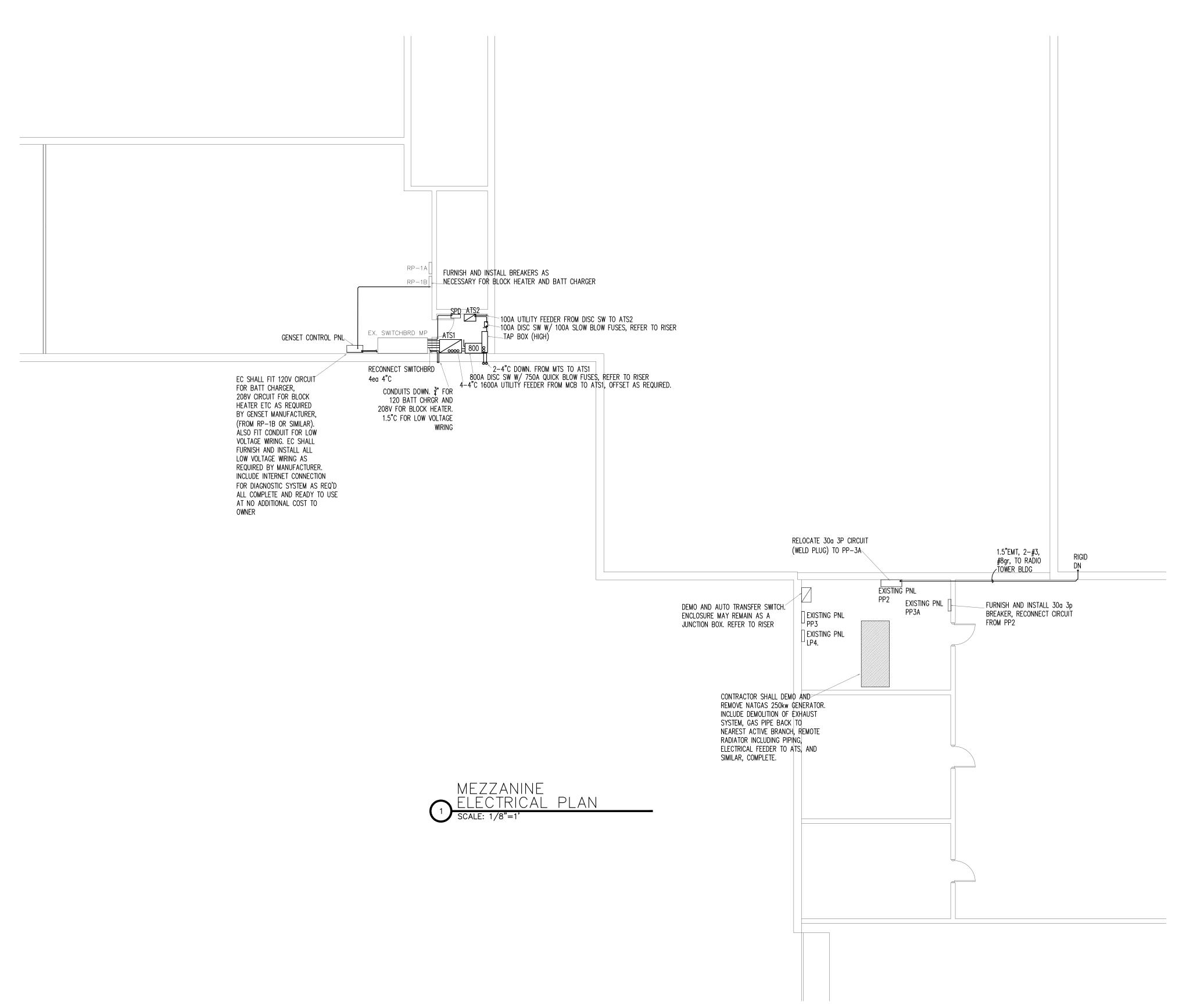
10505 CORPORATE DRIVE - SUITE 100 PLEASANT PRAIRIE, WI 53158

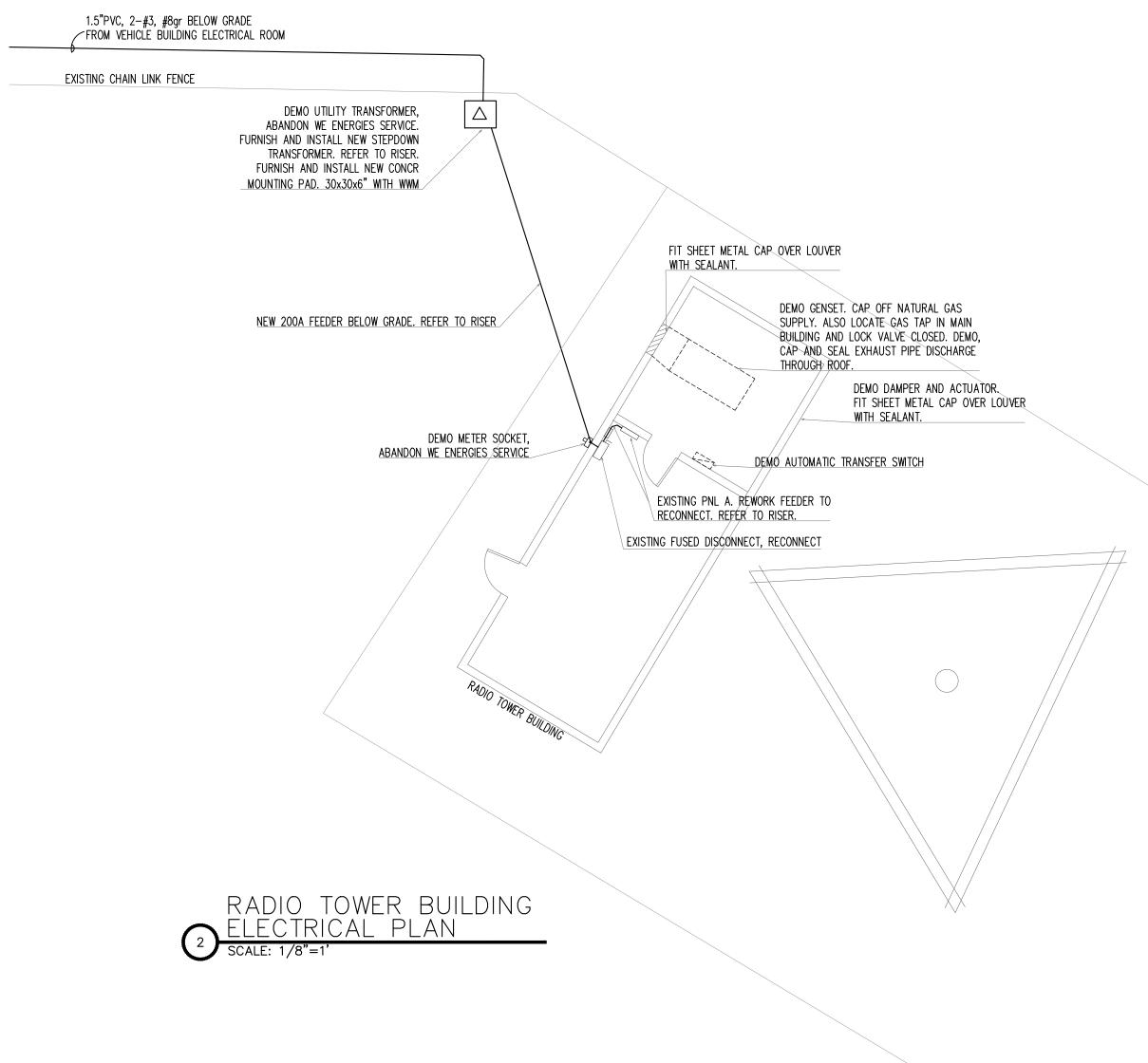
PHONE (262) 857-8101 FAX (262) 857 8103





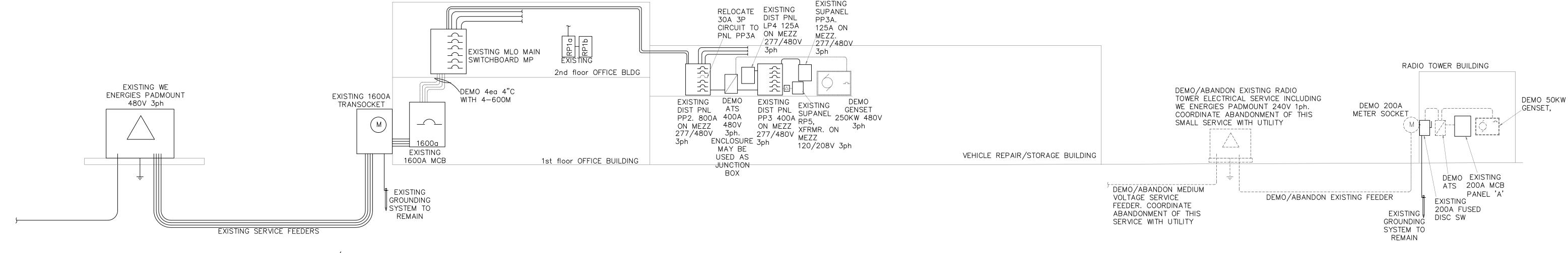




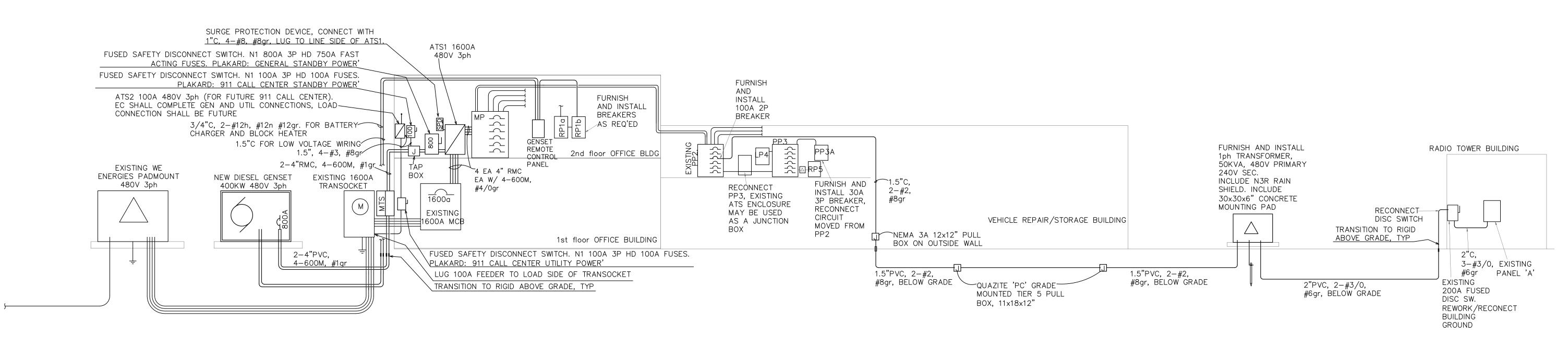








RISER DIAGRAM DEMO/EXISTING SCALE: NTS



RISER DIAGRAM, NEW SCALE: NTS

GENERATOR, TRANSFER SWITCH SCHEDULE GENSET. 450KW RATED STANDBY. SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. ENGINE: DIESEL ENGINE LIQUID COOLED FOUR CYCLE INDUSTRIAL. EPA TIER 2 RATING: 450 KW STANDBY (563 KVA). 277/480V 3ph 4w. UL LISTED. INCLUDE COMPLIANT INTEGRAL BASE DAY TANK (850gal). INTEGRAL RADIATOR, FAN. ENCLOSURE: STEEL OUTDOOR WEATHER LEVEL 2 ATTENUATING CUMMMINS F202. SKID BASE. RESIDENTIAL GRADE MUFFLER. ELECTRONIC CONTROLS FOR START/STOP, FREQUENCY AND VOLTAGE REGULATION, ALARMS, AND AUTO SHUTDOWNS. ALSO INCLUDE BATTERY, BATTERY CHARGER, BLOCK HEATER, AND 120V CONVENIENCE RECEPTACLE; CONNECT ALL COMPLETE AND READY TO USE PER MANUFACTURERS INSTRUCTIONS. INCLUDE POWER COMMAND DIGITAL SYSTEM CONTROLLER, INCLUDING PC500 WIFI COMMUN ICATION, REMOTE CONTROL PANEL WITH BAR GRAPH AC ANALOG METERS, DISPLAYS OF KVA, FREQ, 3ph VOLTAGE, 3ph CURRENT. CONNECT/SETUP ALL PER MANUF DIRECTION. ELECTRICAL: 277/480V 3 PHASE 4W. BREAKERS: 800A 3P. BASE BID: CUMMINS DFEJ. BASE BID WARRANTY: FACTORY TWO YEARS.

- BASE BID WARRANTY: FACTORY TWO YEARS.

 ALTERNATE BID WARRANTY: COMPREHENSIVE FIVE YEARS INCLUDING PARTS AND LABOR
 ALTERNATE BID: EQUIV FROM KOHLER, MTU, CATERPILLAR. REFER TO BIDDING INSTRUCTIONS

 INCLUDE CONCRETE MOUNTING PAD, SEE DETAIL ON E4. EC TO WIRE AND INSTALL
 PER MANUFACTURERS DIRECTIONS. COMPLETE AND READY TO USE. INCLUDE FULL
 MANUFACTURERS STARTUP AND OWNER TRAINING, INCLUDE A FULL TANK OF FUEL
- TRANSFER SWITCHES

 ATS1: AUTOMATIC OPEN TRANSFER SWITCH. INCLUDE PROGRAMMABLE EXERCISE

 TIMER, BATTERY CHARGERS. NEMA 1 ENCLOSURE. VOLTAGE AND RATING: 480V 3p
- 1600A. LABEL FOR GENERAL STANDBY POWER. REFERENCE CUMMINS POWER COMMAND 80 ATS2: AUTOMATIC OPEN TRANSFER SWITCH.
 480V 3P 100A. LABEL 'FUTURE 911 CENTER STANDBY POWER'. REFERENCE CUMMINS OTEC MTS: DUAL PURPOSE QUICK CONNECT POWER PANEL AND MANUAL TRANSFER SWITCH.
 TWO COMPARTMENT OUTDOOR N3R ENCLOSURE; ONE SIDE WITH TWO SETS OF CAMLOCK FITTINGS FOR PORTABLE TEMPORARY GENERATOR CONNECTION, SECOND SIDE WITH MANUAL TRANSFER SWITCH WHICH SELECTS STATIONARY GENSET OR TEMPORARY GENERATOR.
- 277/480V 3P 800A, WALL MOUNT. ASCO SERIES 300 DUAL PURPOSE QUICK CONNECT.

 CONTRACTOR SHALL CONFIGURE, WIRE AND INTEGRATE THIS GENSET AND ATS'S WITH THE OWNER'S EXISTING POWER COMMAND SYSTEM. INCLUDE ALL NECESSARY CONTROLLERS, WIRING AND PROGRAMMING, COMPLETE AND READY TO USE.
- INCLUDE COMPLETE INSTALLATION AND STARTUP ALL IN ACCORDANCE WITH MANUFACTURERS WRITTEN DIRECTIONS. INCLUDE 1.5" CONDUIT FOR LOW VOLTAGE /REMOTE PANEL. EC SHALL WIRE AND CONNECT ALL ACCESSORIES INCLUDE BLOCK HEATER, RECEPT, BATT CHARGER, LOW VOLTAGE WIRING ALL COMPLETE & READY TO USE.

SURGE PROTECTOR SCHEDULE

SPD: SQUARE D TYPE EMA. 240KA SURGE CURRENT 277/480V 3ph 4w MCDV 320V SCCR 200KA. STATUS LED'S. INCLUDE SWITCH DISCONNECTOR OPTION, SURGE COUNTER OPTION. NEMA 1 SURFACE MOUNT ENCLOSURE.

GENERAL ELECTRICAL NOTES DESIGN BASED ON 2017 NEC

- THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE A COMPLETE AND USABLE SYSTEM WITHIN THE INTENT AND SPIRIT OF THAT INDICATED BY THESE DRAWINGS. WORK OR MATERIALS NOT SHOWN BY THE DRAWINGS, BUT NECESSARY TO COMPLETE THE SYSTEM SHALL BE INCLUDED AT NO ADDITIONAL COST. THE ELECTRICAL SUBCONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL SYSTEM REQUIREMENTS INCLUDING FIRE ALARM DEVICES, SWITCHES, RACEWAY, DEVICES, CONDUCTOR, SPECIALTIES, CUTTING AND PATCHING, ETC.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, MAKE ADJUSTMENTS TO AVOID CONFLICT. NOTIFY THE ENGINEER IN WRITING OF SIGNIFICANT CONSTRUCTABILITY ISSUES.
- TELEPHONE/DATA OUTLETS, UNLESS NOTED, SHALL BE CIRCUITED BY OTHERS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A CONDUIT TO AN ACCESSIBLE SPACE.

 THE ELECTRICAL SUBCONTRACTOR SHALL VERIFY PLACEMENT OF ALL RECEPTACLES, WIRING DEVICES, SWITCHES. AND DISCONNECTS WITH ARCHITECTURAL, MECHANICAL AND PLUMBING DRAWINGS AND
- TRADES BEFORE ROUGHING IN.

 5 WIRING MEANS AND METHODS SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL SUBCONTRACTOR. THE ELECTRICAL SUBCONTRACTOR SHALL VERIFY CEILING TYPE WITH FIXTURE SELECTION BEFORE
- ORDERING.

 PANEL BOARDS SHALL BE SQUARE D NQOD OR EQUAL FROM CUTLER HAMMER, OR GE. BREAKERS SHALL BE BOLT—IN TYPE QOB OR EQUAL. 10kgic MINIMUM.
- 7 CONDUCTOR SHALL BE THW, THWN, OR THHN. CONDUIT SHALL BE GALV. EMT, IMC OR RIGID.

 8 POWER RECEPS, WALL SWITCHES, COVER PLATES, ETC. SHALL BE COMMERCIAL GRADE 20 RATED
- MATCHING THE STYLE AND APPEARANCE OF THE EXISTING DEVICES.

 9 EQUIPMENT SIZES ARE AS DESIGNED. CIRCUIT BREAKERS, CONDUIT, JUNCTION BOXES, DISC. SWITCHES, CONDUCTOR SIZES, DEVICE LOCATIONS, ETC., SHALL BE ADJUSTED TO THE EQUIPMENT SUBMITTED AND APPROVED FOR INSTALLATION ON THIS PROJECT
- THE ELECT SUBCONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION BETWEEN THE ELECTRICAL AND MECHANICAL TRADES TO PROVIDE CLEARANCES ABOVE CEILING BETWEEN RECESSED LIGHT FIXTURES AND THERMAL INSULATION OR COMBUSTIBLE MATERIALS IN ACCORD WITH N.E.C. PARAGRAPH 410-65 & 66.

- THE ELECTRICAL SUBCONTRACTOR SHALL PREPARE A SUBMITTAL PACKAGE WHICH DETAILS PROPOSED EQUIPMENT (FIVE COPIES). AT MINIMUM THE SUBMITTAL PACKAGE WILL CONTAIN DETAILED DATA ON LIGHTING FIXTURES, PANELBOARDS, AND ACCESSORIES. EQUAL EQUIPMENT TO THAT SPECIFIED WILL BE CONSIDERED IF PERFORMANCE, APPEARANCE, SERVICEABILITY AND QUALITY ARE JUDGED BY THE ENGINEER AND/OR ARCHITECT TO BE EQUAL.
- ALL WORK SHALL COMPLY WITH COGNIZANT CODES, REGULATIONS, LAWS AND THE DETERMINATIONS OF THE LOCAL BUILDING OFFICIAL AT NO EXTRA COST. THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY CONFLICT BETWEEN THE PLANS AND APPLICABLE CODES.
- 13 ALL MATERIALS WILL BE NEW AND IN NEW CONDITION.
- ALL ELECTRICAL CONNECTIONS 120V OR HIGHER SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL SUBCONTRACTOR. MECHANICAL SHALL FURNISH DUCT SMOKE DETECTORS AS REQUIRED TO ELECTRICAL FOR FIRE ALARM INSTALLATION. MECHANICAL SHALL PROVIDE HVAC CONTROL WIRING. ELECTRICAL SHALL COORDINATE EQUIPMENT CONNECTION WITH MECHANICAL AND PLUMBING.
- WHEN SYSTEMS ARE COMPLETE AND OPERATIONAL, A 'PUNCH LIST' INSPECTION SHALL BE REQUESTED BY THE CONTRACTOR. SUCH AN INSPECTION SHALL NOT BE CONDUCTED ON INCOMPLETE OR NON-OPERATIONAL SYSTEMS.
- UPON COMPLETION OF WORK, SUBMIT FOUR COPIES OF OPERATION AND MAINTENANCE MANUALS, AS BUILT DRAWINGS, GUARANTIES AND WARRANTIES. AT MINIMUM, THE CONTRACTOR WILL WARRANTY ALL WORK, EQUIPMENT AND MATERIALS FOR ONE YEAR PAST BENEFICIAL OCCUPANCY.
- ALL RECEPS, LOCATED IN AREAS SUBJECT TO MOISTURE, OR ON THE EXTERIOR OF THE BUILDING SHALL BE G.F.I. TYPE, IN WEATHERPROOF, TYPE—FS, BOX WITH WEATHERPROOF COVER.
- NO RECEP. OR DEVICE SHALL BE LOCATED WITHIN 4'-0" OF SINKS. OUTLETS NEAR SINKS, OR IN LOCATIONS SUBJECT TO MOISTURE SHALL BE G.F.I. TYPE.
- ALL ELECTRICAL WIRING IN OR ON THE BUILDING SHALL BE IN IMC, RMC, OR EMT, IN ACCORDANCE WITH LOCAL CODE AMENDMENT. ALL EXTERIOR WIRING SHALL BE BURIED IN CONDUIT APPROVED FOR THE ENVIRONMENT IN ACCORDANCE WITH LOCAL CODE AMENDMENT.



ELECTRICAL SCHEDULES
NOTES AND DETAILS

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May 31, 2023

