

**BUTLER
ROWLAND
MAYS**
ARCHITECTS, LLP

57 West High Street
Ballston Spa
New York 12020

PH: 518 • 885 • 1255
FAX: 518 • 885 • 1266
www.brmaarchitects.com

CONSULTANT

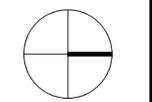
STAND-BY
GENERATOR
PROJECT
at the
**Nanuet
Public
Library**

149 Church Street
Nanuet, NY 10954

NYSID Control No.
50010803-6005-006-23-0059



EXPIRATION DATE: 12-31-23



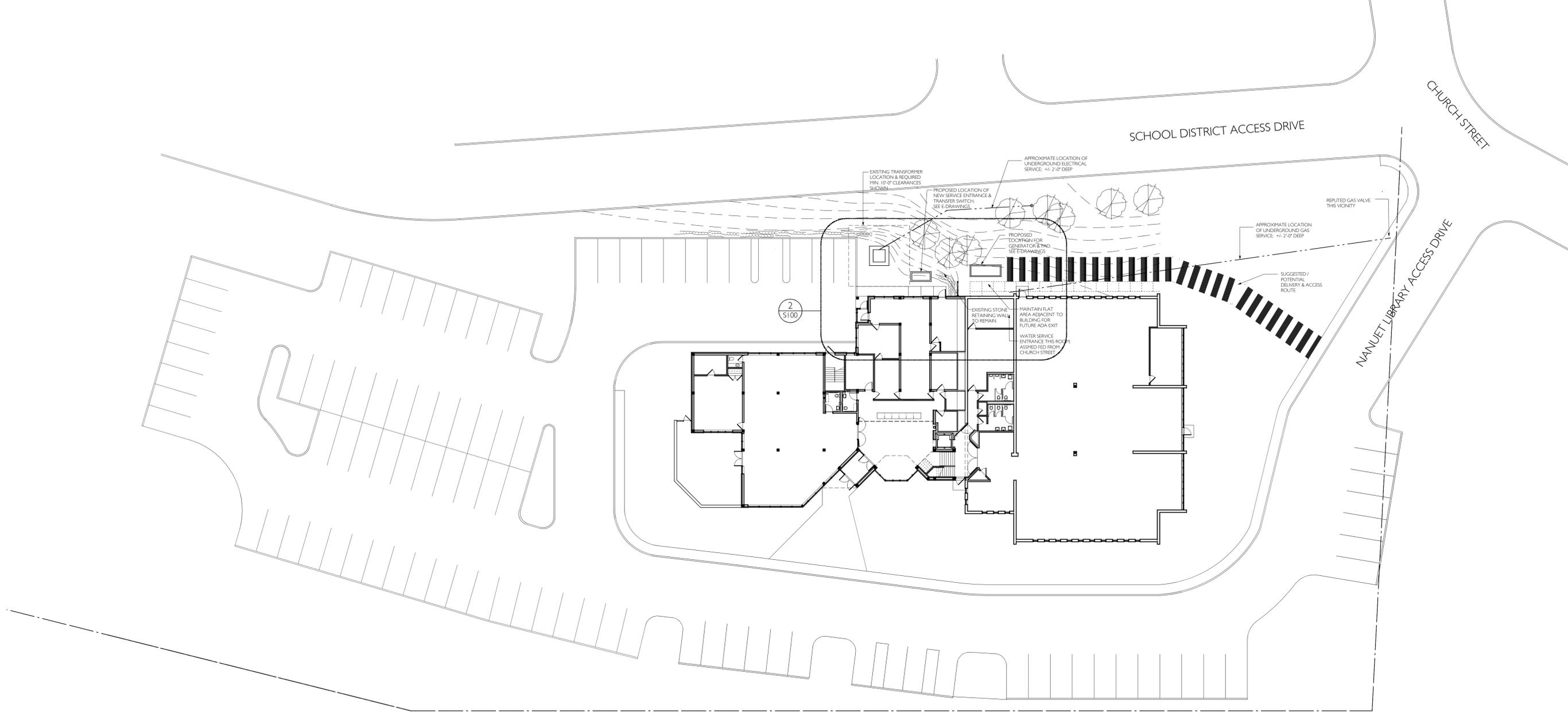
CALLLED NORTH

DWN. BY: LMH
SCALE: 1" = 20'-0"
JOB NO.: 21.44.04
DATE: 06.18.2023

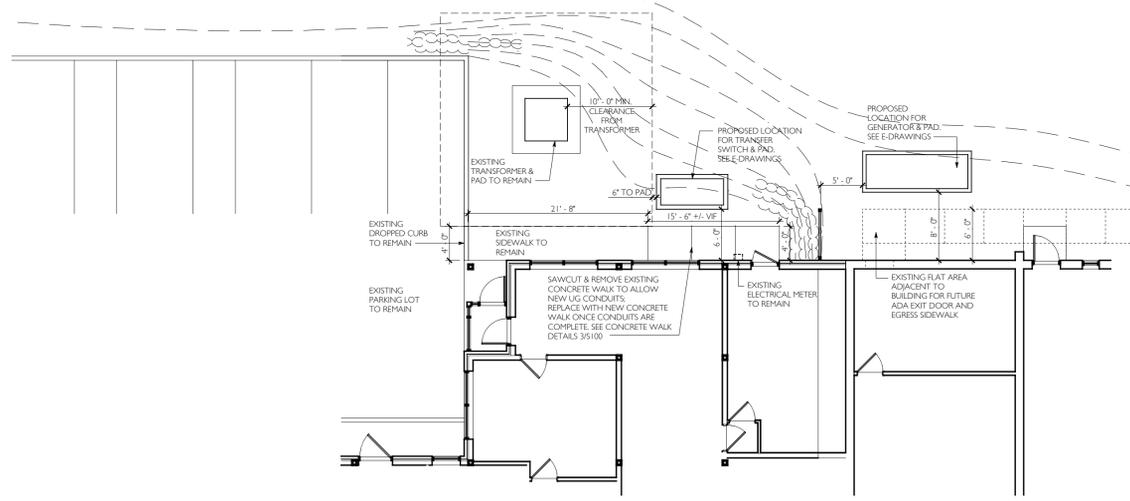
SITE PLAN

TITLE

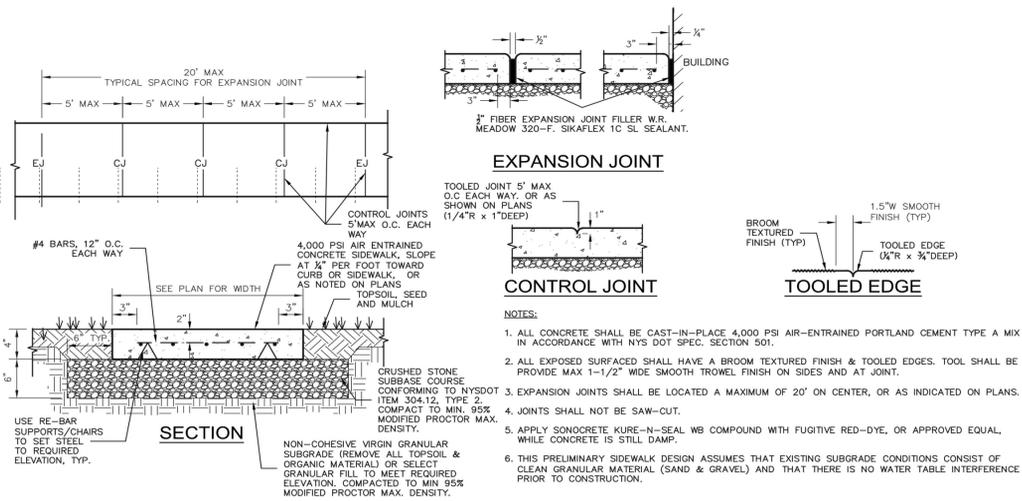
S-100
DWG. NO.



1 SITE PLAN - PROPOSED GENERATOR & TRANSFER SWITCH LAYOUT
S100 SCALE: 1" = 20'-0"



2 ENLARGED PLAN - GENERATOR & TRANSFER SWITCH LAYOUT / DIMENSIONS
S100 SCALE: 1" = 10'-0"



3 SIDEWALK DETAILS
S100 NOT TO SCALE

EXPANSION JOINT

TOOLED JOINT 5' MAX
O.C. EACH WAY, OR AS
SHOWN ON PLANS
(1/4" R x 1" DEEP)

CONTROL JOINT

TOOLED EDGE

- NOTES:
- ALL CONCRETE SHALL BE CAST-IN-PLACE 4,000 PSI AIR-ENTRAINED PORTLAND CEMENT TYPE A MIX IN ACCORDANCE WITH NYS DOT SPEC. SECTION 501.
 - ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL BE PROVIDE MAX 1-1/2" WIDE SMOOTH TROWEL FINISH ON SIDES AND AT JOINT.
 - EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
 - JOINTS SHALL NOT BE SAW-CUT.
 - APPLY SONOCONCRETE KURE-N-SEAL WB COMPOUND WITH FUGITIVE RED-DYE, OR APPROVED EQUAL, WHILE CONCRETE IS STILL DAMP.
 - THIS PRELIMINARY SIDEWALK DESIGN ASSUMES THAT EXISTING SUBGRADE CONDITIONS CONSIST OF CLEAN GRANULAR MATERIAL (SAND & GRAVEL) AND THAT THERE IS NO WATER TABLE INTERFERENCE PRIOR TO CONSTRUCTION.



ME ENGINEERING
Mechanical/Electrical Engineering Consultants

Buffalo | Rochester | Syracuse | Capital District
60 LAKEFRONT BLVD., SUITE 320 BUFFALO, NY 14202 716.845.5092 www.meengineering.com

NANUET LIBRARY - PROPOSED GENERATOR
149 CHURCH ST, NANUET, NY 10954



Reg. Exp: 05/31/2024
Cert. of Auth: 0018443

THESE DOCUMENTS AND ALL THE IDEAS, ARRANGEMENTS, DESIGNS AND PLANS INDICATED THEREON OR REPRESENTED THEREBY ARE OWNED BY AND REMAIN THE PROPERTY OF ME ENGINEERING AND NO PART THEREOF SHALL BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER EXCEPT WITH THE SPECIFIC WRITTEN PERMISSION
2023 © ME ENGINEERING, P.C.

REVISIONS

No.	Date	By	Description

DRAWING TITLE

ELECTRICAL
LEGEND &
ABBREVIATIONS

DRAWING NO.

Drawn By: KML
Checked By: SZE
Project Mgr: BAB
Project No: 233072

ISSUE DATE

09/11/2023

Issued for Bidding and Construction

POWER DISTRIBUTION AND CONTROL

SYMBOL	DESCRIPTION
PP-XX	208/120 VOLT PANELBOARD
	DISCONNECT SWITCH AMP RATING AS INDICATED
SPD	SURGE PROTECTIVE DEVICE

BASIC MATERIALS AND METHODS

SYMBOL	DESCRIPTION
	JUNCTION BOX
E	EMERGENCY GENERATOR SHUTDOWN PUSH BUTTON
	DUPLEX RECEPTACLE, SUBSCRIPTS INDICATE TYPE: G - GROUND FAULT CIRCUIT INTERRUPTER
(E)	EXISTING TO REMAIN - INDICATES EXISTING ITEM SHALL REMAIN. MAINTAIN EXISTING ELECTRICAL CONNECTIONS UNLESS OTHERWISE NOTED.
(ER)	EXISTING TO BE RELOCATED - INDICATES EXISTING ITEM SHALL BE RELOCATED. DISCONNECT AND REMOVE, REINSTALL AT NEW LOCATION AND RECONNECT ITEM AS REQUIRED.
X	REFERENCE TO DRAWING NOTE
X	REFERENCE TO DEMOLITION NOTE
	EXISTING ELECTRICAL OR EQUIPMENT OR DEVICE, DASHED LIGHT LINE WEIGHT IS EXISTING TO BE REMOVED.
	EXISTING WIRING OR EQUIPMENT, SOLID LIGHT LINE WEIGHT IS EXISTING.
	HEAVY SOLID LINE WEIGHT IS NEW

ONE LINE DIAGRAM

SYMBOL	DESCRIPTION
	THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER
	CURRENT TRANSFORMER
M	UTILITY METER
GRA	GENERATOR REMOTE ANNUNCIATION SPECIFICATION
PM	POWER METER
G	GENERATOR SET
	AUTOMATIC TRANSFER SWITCH, RATING AS INDICATED.
	GROUND CONNECTION
NAME	PANELBOARD

ABBREVIATIONS

ABBREV.	DESCRIPTION
A	AMPERE
AIC	AMPERE INTERRUPTING CURRENT
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CU	COPPER
DN	DOWN
EA	EACH
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRIC
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING
FA	FIRE ALARM
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
G/GND	GROUND
HH	HAND HOLE
JB	JUNCTION BOX
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUG ONLY
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OH	OVERHEAD
PNL	PANEL
PH	PHASE
P	POLE
PB	PULL BOX
RMC	RIGID METAL CONDUIT
SP	SPACE
SPD	SURGE PROTECTIVE DEVICE
SPEC	SPECIFICATION
SW	SWITCH
TYP	TYPICAL
UE	UNDERGROUND ELECTRICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
V	VOLT
W	WIRE OR WATT
WP	WEATHERPROOF

GENERAL REMOVAL NOTES (APPLY TO ALL DRAWINGS):

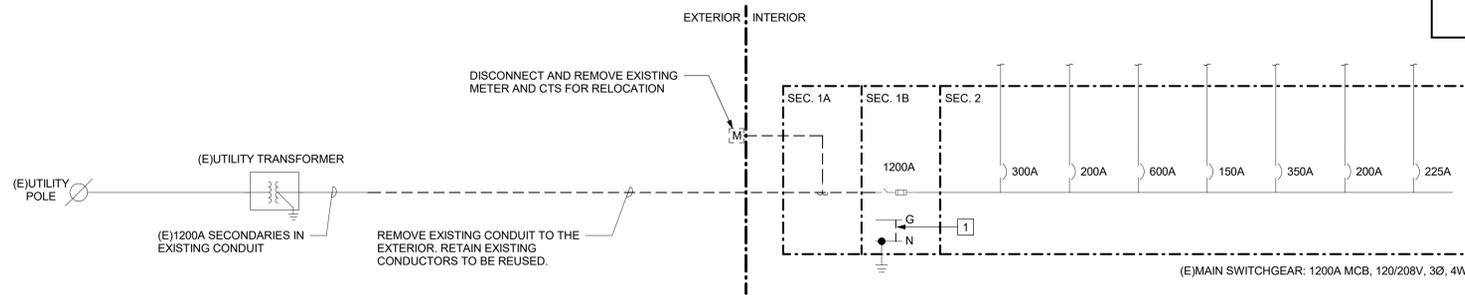
- A. DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL EQUIPMENT SHOWN TO BE REMOVED, OR REQUIRED TO BE REMOVED AS A RESULT OF EQUIPMENT/BUILDING DEMOLITION WORK. REMOVE ALL ASSOCIATED BRANCH CIRCUIT AND CONTROL WIRING AND RACEWAYS. WHERE EXISTING DEVICES ARE NOT BEING REUSED, THEY AND THEIR ASSOCIATED WIRING SHALL BE COMPLETELY REMOVED BACK TO THEIR SOURCES (UNLESS OTHERWISE NOTED). DISCONNECT AND REMOVE ALL EMPTY AND ABANDONED RACEWAYS. CUT FLUSH WITH FLOOR OR WALL WHERE APPLICABLE AND PLUG CONDUIT WATERTIGHT. SEE FRONT END SPECS FOR "HOT WORK PERMIT" REQUIREMENTS.
- B. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS WHEN AVAILABLE AND ARE NOT GUARANTEED ACCURATE. EC SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID.
- C. COORDINATE ALL WORK WITH OTHER TRADES.
- D. CUTTING, PATCHING AND FIRESTOPPING OF EXISTING BUILDING FINISHES AND ELEMENTS TO FACILITATE ELECTRICAL REMOVAL WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- E. PROVIDE A TEST PRIOR TO THE BEGINNING ELECTRICAL REMOVAL WORK, OF EACH AND EVERY SYSTEM AFFECTED BY THE WORK TO ASCERTAIN AND DOCUMENT PRE-CONSTRUCTION CONDITIONS OF EACH INDIVIDUAL DEVICE ON EACH SYSTEM. SYSTEMS AND DEVICES WHICH ARE UNTESTED WILL BE ASSUMED TO BE IN PERFECT WORKING ORDER PRIOR TO THE BEGINNING OF CONSTRUCTION. TEST THESE AND NEW DEVICES AND SYSTEMS AFTER CONSTRUCTION TO INDICATE AND DOCUMENT POST-CONSTRUCTION CONDITIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RETURNING ALL EXISTING SYSTEMS AND DEVICES TO PRE-CONSTRUCTION CONDITION OR BETTER. OBTAIN THE SERVICES OF A CERTIFIED TESTING ORGANIZATION TO TEST AND DOCUMENT EACH SYSTEM, BOTH PRE AND POST CONSTRUCTION. SUCH SYSTEMS SHALL INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO: ELECTRICAL DISTRIBUTION SYSTEM. SUBMIT TEST RESULTS TO OWNER AND ENGINEER FOR REVIEW AND APPROVAL.

ELECTRICAL & GAS SERVICE ORDERS:

ORANGE & ROCKLAND
ELEC = 20230510248-98832
GAS = 20230510152-98723

GENERAL NOTES (APPLY TO ALL DRAWINGS):

- A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES TO PERFORM ALL OPERATIONS REQUIRED FOR THE COMPLETE INSTALLATION AND RELATED WORK AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN. ELECTRIC EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER.
- B. PROVIDE ALL ELECTRICAL EQUIPMENT CONNECTIONS.
- C. PROVIDE ALL REQUIRED SUPPORTS AND ACCESSORIES.
- D. PROVIDE ALL WORK IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND THE LATEST EDITION OF THE:
 - 1. BUILDING CODE OF NEW YORK STATE
 - 2. ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE
 - 3. OSHA REQUIREMENTS
 - 4. LOCAL MUNICIPAL ORDINANCES AND CODES
 - 5. AUTHORITY HAVING JURISDICTION (AHJ)
 - 6. SERVING UTILITY COMPANIES
- E. PROVIDE ELECTRICAL INSPECTION CERTIFICATE FROM INSPECTION AGENCY RECOGNIZED AS ACCEPTABLE FROM THE AHJ.
- F. REPAIR OR REPLACE ALL DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN ONE YEAR OF CONSTRUCTION CLOSE OUT DATE AT NO ADDITIONAL COST TO THE OWNER.
- G. PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE SYSTEM TEST. PRIOR TO CLOSE OUT DATE SUBMIT ALL SATISFACTORY SYSTEM TEST RESULTS FOR RECORD.
- H. SUBMITTALS:
 - 1. ALL ITEMS OF EQUIPMENT AND MATERIALS PROVIDED SHALL BE SUBMITTED FOR ENGINEERING REVIEW.
 - 2. SUBMIT A MINIMUM OF THREE COPIES OF SHOP DRAWINGS/PRODUCT DATA INFORMATION.
- I. CONTRACTOR IS HEREBY CAUTIONED THAT ELECTRIC POWER CHARACTERISTICS (VOLTAGE, PHASE, HORSEPOWER, AMPERAGE, ETC.) OF EQUIPMENT IS BASED ON AVAILABLE INFORMATION AT THE TIME OF PROJECT DESIGN. CONTRACTOR MUST VERIFY CHARACTERISTICS FOR EACH PIECE OF NEW EQUIPMENT PRIOR TO ORDERING ELECTRICAL EQUIPMENT. INDICATE VERIFICATION ON SUBMITTALS.
- J. CONTRACTOR SHALL REVIEW ALL TRADES' CONTRACT DOCUMENTS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT. COORDINATE EXACT MOUNTING LOCATIONS WITH THE ARCHITECT AND OTHER CONTRACTORS. COORDINATE WITH LOCATIONS OF ELECTRICAL DEVICES AND OUTLETS
- K. PROVIDE CONDUIT/WIRING (CIRCUITING) AND REQUIRED CONNECTIONS TO ALL DEVICES/ EQUIPMENT. CONNECT TO CIRCUIT(S) AS INDICATED.
- L. COORDINATE ALL WORK WITH OTHER TRADES; REFER TO ARCHITECTURAL DRAWINGS FOR COORDINATING LOCATIONS.
- M. SLEEVE AND SEAL ALL WALL AND FLOOR PENETRATIONS. PROVIDE APPROPRIATE FIRE STOPPING FOR ALL PENETRATIONS.
- N. MAINTAIN SERVICE CLEARANCES OF ALL EQUIPMENT. ADVISE OTHER TRADES OF SERVICE CLEARANCES AND ENSURE NO SERVICES OR TRADES RUN THROUGH SERVICE AREA.
- O. ALL WIRING INDICATED ON PLANS IS TO BE COPPER WIRING UNLESS OTHERWISE NOTED.
- P. REFER TO ONE-LINE DIAGRAM. RATINGS TO MATCH THE RATING OF THE WALL/CEILING. UTILIZE FIRE RATED PUDDY PADS IN THESE LOCATIONS.
- Q. THE CONTRACTOR MUST FOLLOW FEDERAL AND STATE ELECTRICAL SAFETY PRACTICE INCLUDING LOCK OUT TAG OUT (LOTO). THE CONTRACTOR MUST AFFIX THEIR COMPANY'S INDIVIDUAL LOTO LOCKS AND TAGS TO CONTROL HAZARDOUS ENERGIES AND TO PREVENT INJURIES.

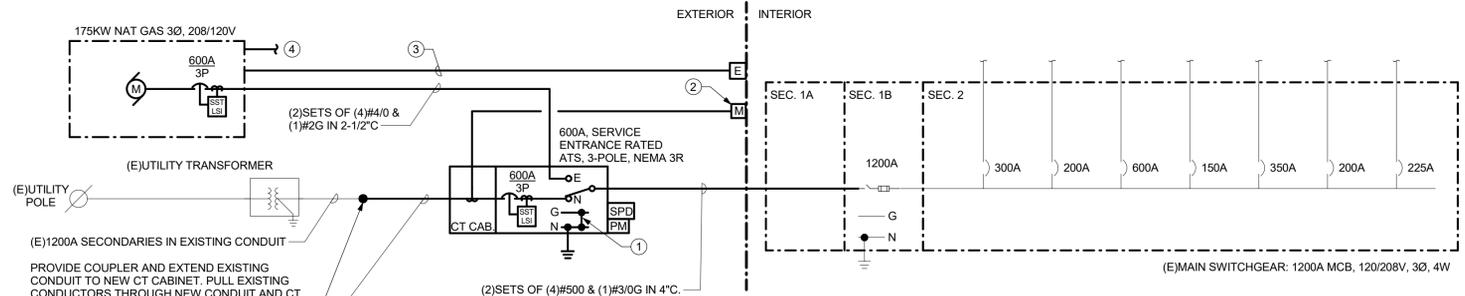


DETAIL SPECIFIC REMOVAL NOTES:

- 1 REMOVE EXISTING MAIN SYSTEM BONDING JUMPER.

REMOVALS ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE



DETAIL SPECIFIC NOTES:

- 1 PROVIDE MAIN SYSTEM BONDING JUMPER AT SERVICE DISCONNECT. PROVIDE NEW #4/0 GROUNDING ELECTRODE CONDUCTOR TO EXISTING GROUND ELECTRODE(S).
- 2 PROVIDE 1" UNDERGROUND CONDUIT AND METER SOCKET FOR C.T. CONDUCTORS AND UTILITY METER.
- 3 PROVIDE 1" CONDUIT TO GENERATOR EMERGENCY SHUTOFF BUTTON OUTSIDE OF MAIN ELECTRICAL ROOM. PROVIDE SHUTOFF BUTTON AND ALL ASSOCIATED WIRING AND PROGRAMMING. PROVIDE WEATHERPROOF LAMACOID LABEL AT SHUTOFF BUTTON.
- 4 PROVIDE REQUIRED CIRCUITS FOR GENERATOR BATTERY CHARGER, ENGINE BLOCK HEATER, AND BATTERY WARMER, IN A SINGLE 2" CONDUIT. PROVIDE CIRCUITS FROM EXISTING MAIN SWITCHGEAR.

ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE

	UTILITY DEMAND (KW)	UTILITY DEMAND (A)	GENERATOR UTILIZATION (%)
SERVICE VOLTAGE:	120/208V, 3Ø, 4W		
EXISTING SERVICE SIZE:	1200 AMPS		
NEW SERVICE SIZE:	600 AMPS		
GENERATOR PLANT:	(1)175KW		
BASE PROJECT:	89	247	50
FUTURE EV CHARGERS:	27	75	14
FUTURE EXPANSION:	29	81	16
TOTAL:	145	403	80

- NOTES: 1. DEMAND CALCS. UTILIZE A 50% DIVERSITY FACTOR.
- 2. SERVICE DISCONNECT SWITCH IS 100% RATED.
- 3. MAXIMUM GENERATOR UTILIZATION IS RECOMMENDED TO BE 80% TO PROVIDE OPTIMAL PERFORMANCE AND EQUIPMENT LIFESPAN.



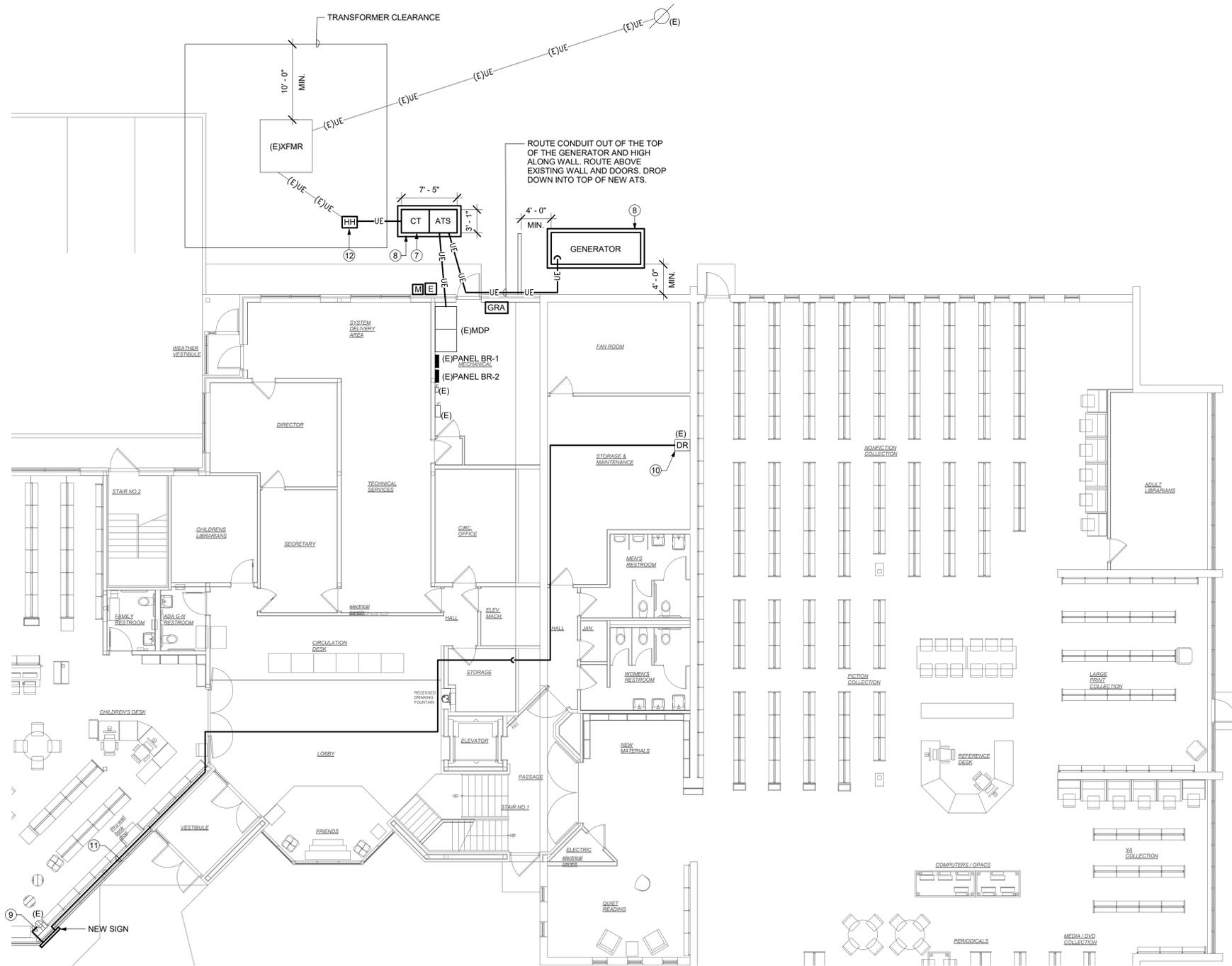
ME ENGINEERING
Mechanical/Electrical Engineering Consultants

Buffalo | Rochester | Syracuse | Capital District
60 LAKEFRONT BLVD., SUITE 320 BUFFALO, NY 14202 716.845.5092 www.meengineering.com

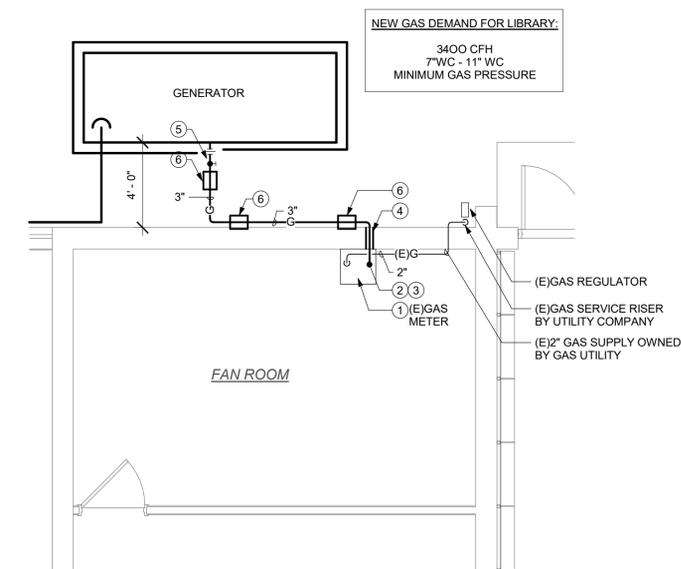
NANUET LIBRARY - PROPOSED GENERATOR
149 CHURCH ST, NANUET, NY 10954

E100 DRAWING NOTES

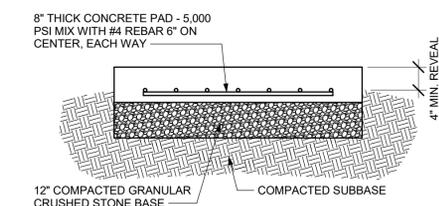
- EXISTING GAS METER (800 CFH) TO BE UPGRADED BY ORANGE AND ROCKLAND COUNTY UTILITIES. NEW GAS METER CAPACITY WILL BE MINIMUM 3500 CFH. COORDINATE AND SCHEDULE GAS METER UPGRADE WITH ORANGE AND ROCKLAND UTILITIES.
- DISCONNECT (E)3" GAS RISER AT GAS METER. CONNECT/ADD NEW 3" TEE FOR NEW GAS FEED TO GENERATOR.
- RECONNECT (E)3" GAS RISER TO NEW GAS METER. COORDINATE WITH INSTALLATION OF LARGER GAS METER BY UTILITY.
- 3" GAS THRU WALL. PROVIDE 4" GAS SLEEVE AND SEAL ANNULAR SPACE.
- 3" GAS SUPPLY TO GENERATOR. COORDINATE FINAL CONNECTION POINT. PROVIDE 3" GAS VALVE, 3" FLEX CONNECTOR, AND DRIP LEG AT CONNECTION POINT.
- PROVIDE A MINIMUM OF (3) THREE PIPE SUPPORT STANDS.
- PROVIDE PAD MOUNTED, NEMA 3R SERVICE ENTRANCE RATED ATS WITH UTILITY CT CABINET SECTION; REFER TO ONE-LINE DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. PROVIDE WEATHERPROOF, LAMACOID SIGN AT TRANSFER SWITCH THAT SAYS "WARNING: SHOCKING HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE IS ENERGIZED.
- PROVIDE CONCRETE EQUIPMENT PAD; REFER TO CONCRETE PAD DETAIL.
- PROVIDE SURFACE MOUNTED OUTLET BOX (DESIGN MAKE: WIREMOLD BW3) TO BE INSTALLED OVER EXISTING FLUSH MOUNTED BOX. RECONNECT EXISTING RECEPTACLE AND PROVIDE NEW FACEPLATE. PROVIDE SURFACE METAL RACEWAY (DESIGN MAKE: WIREMOLD 700 SERIES) TO SPLICE AND EXTEND EXISTING 120V BRANCH CIRCUIT TO NEW ELECTRONIC SIGN. CORE DRILL EXISTING WALL AND PROVIDE WATERPROOFING SEALS AS NECESSARY.
- PROVIDE (1) PLENUM-RATED CAT6 CABLE FROM EXISTING DATA RACK TO NEW EXTERIOR SIGN. CABLE SHALL BE INSTALLED IN MIN 3/4" CONDUIT WHERE CABLE IS EXPOSED OR CONCEALED BEHIND GYPSUM CEILINGS. WHERE CONCEALED ABOVE LAY-IN CEILINGS, CABLE MAY BE SUPPORT WITH J-HOOKS FROM THE DECK.
- PROVIDE SURFACE METAL RACEWAY (DESIGN MAKE: WIREMOLD 700 SERIES) TO ROUTE CAT6 CABLE ON TOP OF WINDOW SILL IN THE CHILDREN'S AREA. PAINT TO MATCH EXISTING WINDOW SILL FINISH.
- PROVIDE HANDHOLE AND INTERCEPT EXISTING SECONDARY SERVICE CONDUCTORS. SPLICE AND EXTEND AS INDICATED.



1 FIRST FLOOR POWER PLAN
1/8" = 1'-0"



2 FIRST FLOOR PLUMBING PLAN - NATURAL GAS
1/4" = 1'-0"



DETAIL GENERAL NOTE:

- CONCRETE PAD SHALL EXTEND A MINIMUM OF 6" BEYOND THE PERIMETER OF ASSOCIATED ENCLOSURE ON ALL SIDES.

3 CONCRETE PAD DETAIL
NOT TO SCALE



Reg. Exp: 05/31/2024
Cert. of Auth: 0018443

THESE DOCUMENTS AND ALL THE IDEAS, ARRANGEMENTS, DESIGNS AND PLANS INDICATED THEREON OR REPRESENTED THEREBY ARE OWNED BY AND REMAIN THE PROPERTY OF ME ENGINEERING AND NO PART THEREOF SHALL BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION FOR ANY PURPOSE WHATSOEVER EXCEPT WITH THE SPECIFIC WRITTEN PERMISSION

2023 © ME ENGINEERING, P.C.

REVISIONS

No.	Date	By	Description

DRAWING TITLE

ELECTRICAL SITE PLAN

DRAWING NO.

E100
 Drawn By: KML
 Checked By: SZE
 Project Mgr: BAB
 Project No: 233072

ISSUE DATE

09/11/2023

Issued for Bidding and Construction