TOWN OF UNION PUMP HOUSE GENERATOR

101 OAKDALE ROAD JOHNSON CITY, NY DELTA PROJECT NO. 2020.013.001 2020.09.18 100% CONSTRUCTION DOCUMENTS

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02 MAIN FLOOR RENOVATION PLAN



ARCHITECT/ENGINEER



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PROJECT LOCATION



PROJECT LOCATION

OWNER

TOWN OF UNION
3111 EAST MAIN STREET
ENDWELL, NY

G-001

GENERAL CODE AND STANDARDS APPLICABLE TO THE STRUCTURAL DESIGN: BUILDING CODE OF NEW YORK STATE (NYSBC) 2020 ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES. AISC 360-16 SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS. ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH OTHER TRADE DRAWINGS OF THIS CONTRACT. THE CONTRACTOR SHALL COORDINATE THE WORK OF OTHER TRADES SUCH AS REQUIREMENTS FOR SLEEVES, INSERTS, HOLES, HANGERS, ANCHORS, ETC. DISCREPANCIES IN DIMENSIONS BETWEEN DIFFERENT DRAWINGS SHALL BE REPORTED TO THE PROJECT ARCHITECT AND ENGINEER OF RECORD (EOR) PRIOR TO THE BEGINNING OF WORK IN AREAS AFFECTED BY THE DETAILS TITLED OR NOTED AS "TYPICAL" SHALL APPLY NOT ONLY WHERE THEY'RE SPECIFICALLY INDICATED OR REFERENCED, BUT ALSO IN OTHER CASES WHERE THE NATURE OF THE CONSTRUCTION REQUIRES THEIR USE. APPLICATION OF TYPICAL DETAILS SHALL BE DETERMINED FROM THE DESCRIPTION TITLES OR FROM THE SIMILARITY OF A CONSTRUCTION CONDITION(S) OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING OF THE STRUCTURE AND COMPONENTS AS NECESSARY UNTIL COMPONENTS ARE ERECTED, AND CONNECTIONS ARE MADE TO ENSURE STABILITY DURING CONSTRUCTION. THE CONTRACTOR SHALL BRACE WALLS DURING CONSTRUCTION AGAINST WIND AND/OR CONSTRUCTION SAFETY MEASURES, MEANS AND METHODS, AND THE COMPLIANCE WITH OSHA LAWS AND REGULATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR AS SPELLED OUT IN THE CONDITIONS OF THE (OWNER/CONTRACTOR) CONTRACT. THE PROJECT SHALL BE CONSTRUCTED FROM APPROVED SUBMITTALS. SUBMITTALS INCLUDE, BUT ARE NOT LIMITED TO: DATA SHEETS, MIX DESIGNS, CUT SHEETS, SHOP DRAWINGS, ETC. DELIVER SUBMITTALS TO THE ARCHITECT/ENGINEER OF RECORD (EOR) FOR REVIEW AND/OR APPROVAL. REPRODUCTION OF THE CONTRACT DRAWINGS SHALL NOT BE USED OR SUBMITTED IN THE SUBMITTAL. LOADS USED IN DESIGN PLATFORM DEAD = 20 PSF PLATFORM LIVE = 40 PSF SNOW: GROUND SNOW LOAD, (Pg) = 40 PSF BALANCED-ROOF SNOW LOAD, (Pf) 33.6 = PSF SNOW EXPOSURE FACTOR, (Ce) = 1.0 SNOW IMPORTANCE FACTOR, (Is) = 1.0 THERMAL FACTOR, (Ct) = 1.2 DRIFT SURCHARGE LOAD(S), (Pd) = 80 PSF WIDTH OF SNOW DRIFT, (w) 9 FT DESIGN FOR UNBALANCED SNOW AND DRIFT LOADS PER CODE. SEISMIC: RISK CATEGORY II; IMPORTANCE FACTOR, (Ie) = 1.0 SEISMIC DESIGN CATEGORY B; SITE CLASS D (ASSUMED) ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE PROCEDURE (1617.4) BASIC SEISMIC-FORCE-RESISTING SYSTEM - STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC SPECTRAL RESPONSE COEFF - SDS=0.136; SD1=0.091 DESIGN BASE SHEAR = 0.31 KIPS WIND: BASIC WIND SPEED (3-SECOND GUST) = 115 MPH WIND EXPOSURE B PRESSURE = 29.53 PSF SOILS INFORMATION ALLOWABLE SOIL BEARING PRESSURE USED IN DESIGN = 1500 PSF (ASSUMED). A FACTOR FOR THE COEFFICIENT OF FRICTION USED IN DESIGN IS 0.30 (ASSUMED) TO RESIST SLIDING. PASSIVE EARTH PRESSURE USED IN DESIGN = 200 PCF (ASSUMED). THE FOUNDATION SYSTEM SHALL CONSIST OF ROUND PIERS AND CONVENTIONAL SPREAD FOOTING SUPPORTING REINFORCED GRADE BEAM/STEM WALLS CARE MUST BE TAKEN IN PREPARING THE SUBGRADE AND PROTECTING THE SUBGRADE FROM DISTURBANCE DURING THE COURSE OF SETTING THE FORMS, REINFORCING ETC. FOOTINGS SHALL BEAR ON UNDISTURBED VIRGIN SOIL AND ANY AREA OF FILL ENCOUNTERED SHALL BE REMOVED AND REPLACED WITH IMPORTED GRANULAR STRUCTURAL FILL COMPACTED TO 95% AS TESTED BY THE MODIFIED PROCTOR TEST METHOD (ASTM D-1557). A REPRESENTATIVE OF THE SOILS ENGINEER SHALL BE PRESENT TO OBSERVE AREAS INCLUDING, BUT NOT LIMITED TO, SOIL SUPPORTING FOOTINGS PRIOR TO POURING OF CONCRETE, AND WHERE FILL OR OTHER OBJECTS HAVE BEEN REMOVED IN DETERMINING SUITABLE CONDITIONS. TESTING OF COMPACTION OF STRUCTURAL FILL AND BACKFILLS SHALL BE IN ACCORDANCE WITH SECTION BC1705.6 "SOILS" OF THE BCNYS 2020. 4. CAST-IN-PLACE CONCRETE MINIMUM ULTIMATE COMPRESSIVE STRENGTH, F'c = 4,500 PSI AT 28 DAYS TYPE I / II CEMENT MAY BE USED FOR ALL CONCRETE. ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINED. ALL ADDITIVES SHALL NOT BE USED WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. BACKFILL SHALL BE PLACED AGAINST BOTH SIDES OF STEM WALLS SIMULTANEOUSLY WHERE APPLICABLE. TESTING OF CONCRETE SHALL BE IN ACCORDANCE WITH SECTION BC1903 OF THE BCNYS 2020 AND ACI 318 CH. 26. BITUMINOUS ASPHALT PAVING PAVING COURSES SHALL CONSIST OF THE FOLLOWING: 12" SUBBASE STONE - NYSDOT TYPE 4 3" BINDER COURSE - NYSDOT TYPE 3 1 1/2" TOP COURSE - NYSDOT TYPE 7 SUBBASE SHALL BE COMPACTED TO 95% AS TESTED BY THE MODIFIED PROCTOR TEST METHOD (ASTM D-1557). ASPHALT SHALL BE COMPACTED TO A RANGE BETWEEN 91% AND 96% COMPACTION OF MAXIMUM DENSITY. 6. REINFORCING ALL REINFORCING FOR CAST-IN-PLACE CONCRETE SHALL BE ASTM A615 BILLET BARS, GRADE 60. LAP REINFORCING BARS AT SPLICES IN CONCRETE PER ACI 318. DETAIL REINFORCING IN ACCORDANCE WITH THE ACI DETAILING MANUAL. WHEN REQUIRED, PROVIDE SPECIAL INSPECTION OF IN PLACE REINFORCING IN ACCORDANCE WITH SECTION BC1705.3 "CONCRETE CONSTRUCTION" OF THE BCNYS 2020. STRUCTURAL STEEL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE. STRUCTURAL STEEL, WIDE FLANGE SECTIONS (W) SHALL BE ASTM A992, Fy=50 KSI. STRUCTURAL STEEL, CHANNELS, ANGLES AND PLATES SHALL BE ASTM A36, Fy=36 KSI. STRUCTURAL TUBING (HSS) SHALL BE ASTM A500, GRADE B, Fy=46 KSI-RECTANGULAR, Fy=42 KSI-ROUND. STEEL PIPE SHALL BE ASTM A53, TYPE E OR S, GRADE B, Fy=35 KSI. HIGH STRENGTH BOLTS SHALL BE ASTM A325N. BOLTS SHALL BE 3/4" UNLESS NOTED OTHERWISE. PROVIDE HARDENED WASHERS UNDER NUT OR BOLT HEAD WHERE SLOTTED HOLES OCCUR IN EXPOSED PLY. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS AND SHALL CONFORM TO THE A.W.S. CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION, LATEST EDITION. CONNECTIONS NOT DETAILED SHALL BE IN ACCORDANCE WITH PARTS 7 THROUGH 10 OF THE AISC MANUAL OF STEEL CONSTRUCTION, 15TH EDITION. PROVIDE 1/2" CAP PLATE WITH (4)-3/4" DIAMETER BOLTS AT ALL COLUMN TO BEAM CONNECTIONS, UNLESS NOTED 8. DIMENSIONS OF EXISTING CONSTRUCTION a. ALL DIMENSIONS PERTAINING TO THE EXISTING CONSTRUCTION SHALL BE FIELD VERIFIED PRIOR TO FABRICATION OF MATERIALS AFFECTED BY THESE DIMENSIONS.

GENERAL NOTES

	OTTOOTOT (ILT		
&	AND	INCH	INCH
+/-	PLUS OR MINUS	INTERIOR	INTERIOR
@	AT	INV	INVERT
AB	ANCHOR BOLT	JST	JOIST
ACI	AMERICAN CONCRETE INSTITUTE	JT	JOINT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	K	KIP (1000) LBS)
AISI	AMERICAN IRON AND STEEL INSTITUTE	KSI	KIPS PER SQUARE INCH
APPROX	APPROXIMATELY	L	ANGLE
ARCH	ARCHITECT / ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	LLV	LONG LEG VERTICAL
ASD	ALLOWABLE STRESS DESIGN	LONG	LONGITUDINAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS		LOW POINT
AWS	AMERICAN WELDING SOCIETY	LRFD	LOAD AND RESISTANCE FACTOR DESIGN
BLDG	BUILDING	LW	LIGHT WEIGHT
BLK	BLOCK	MANUF	MANUFACTURER
BM	BEAM	MAS	MASONRY
BOF	BOTTOM OF FOOTING / FOUNDATION	MAX	MAXIMUM
BOT	ВОТТОМ	MEP	MECHANICAL, ELECTRICAL, AND PLUMBING
BRG	BEARING	MIN	MINIMUM
BS	BOTH SIDES	MTL	METAL
CFMF	COLD FORMED METAL FRAMING	NDS	NATIONAL DESIGN SPEC FOR WOOD CONST
CIP	CAST IN PLACE	NF	
			NEAR FACE
CJ	CONTROL JOINT	NIC	NOT IN CONTRACT
CL	CENTERLINE	NTS	NOT TO SCALE
CLR	CLEAR	OC	ON CENTER
CLSM	CONTROLLED LOW STRENGTH MATERIAL	OD	OUTSIDE DIAMETER
CMU	CONCRETE MASONRY UNIT	OF	OUTSIDE FACE
COL	COLUMN	OPNG	OPENING
CONC	CONCRETE	PC	PILE CAP
CONN(S)	CONNECTION(S)	PCF	POUNDS PER CUBIC FOOT
CONST	CONSTRUCTION	PL	PLATE
CONT	CONTINUOUS	PSF	POUNDS PER SQUARE FOOT
CRSI	CONCRETE REINFORCED STEEL INSTITUTE	PSI	POUNDS PER SQUARE INCH
DEPR	DEPRESSED	PT	POINT
DET	DETAIL	PVC	POLYVINYL CHLORIDE
DIA	DIAMETER	R	RADIUS
DIM	DIMENSION	REINF	REINFORCED / REINFORCING / REINFORCEMENT
DIR	DIRECTION	REQD	REQUIRED
DWG(S)	DRAWING(S)	RET	RETURN
DWL(S)	DOWEL(S)	RETG, RTG	RETAINING
EA	EACH	SC	SHEAR CONNECTOR
EF	EACH FACE	SDI	STEEL DECK INSTITUTE
EIFS	EXTERIOR INSULATION FINISHING SYSTEM	SECT	SECTION
EL .	ELEVATION	SF	SQUARE FOOT
ELEV	ELEVATOR	SIM	SIMILAR
EOD	EDGE OF DECK	SL	SPLICE LENGTH
EQ	EQUAL	SOG	SLAB-ON-GRADE
EW	EACH WAY	SPC(S)	SPACED/SPACES
EXIST	EXISTING	SPEC(S)	SPECIFICATION(S)
EXP BOLT	EXPANSION BOLT	SQ	SQUARE
EXP JT	EXPANSION JOINT	SS	STAINLESS STEEL
EXT	EXTERIOR	STD	STANDARD
FDN	FOUNDATION	STIFF	STIFFENER
FF	FAR FACE	STL	STEEL
FFE	FINISH FLOOR ELEVATION	STRUCT	STRUCTURAL
FIN	FINISH	SUP	SUPPORT
FL	FLOOR	SYM	SYMMETRIC / SYMMETRICAL
FT	FEET / FOOT	T&B	TOP AND BOTTOM
FTG	FOOTING	TH/THK	THICK OR THICKNESS
GA	GAUGE	THRD	THREADED
GALV	GALVANIZED	TOC	TOP OF CONCRETE
GB	GRADE BEAM	TOF	TOP OF FOOTING
GP	GUSSET PLATE	TOS	TOP OF STEEL
GR	GRADE	TOW	TOP OF WALL
HDG	HOT DIPPED GALVANIZED	TRANS	TRANSVERSE
HEF	HORIZONTAL EACH FACE	TYP	TYPICAL
HGT	HEIGHT	UNO	UNLESS NOTED OTHERWISE
	HORIZONTAL	VEF	VERTICAL EACH FACE
HORIZ	HIGH POINT	VERT	VERTICAL
	ILIGUEOUNI		
HP		VIF	VERIEY IN FIELD
HS	HIGH STRENGTH	VIF	VERIFY IN FIELD
HP HS IBC	HIGH STRENGTH INTERNATIONAL BUILDING CODE	W/	WITH
HP HS IBC ID	HIGH STRENGTH INTERNATIONAL BUILDING CODE INSIDE DIAMETER	W/ W/O	WITH WITHOUT
HP HS IBC	HIGH STRENGTH INTERNATIONAL BUILDING CODE	W/	WITH

STRUCTURAL ABBREVIATIONS

. Revision Date

TOWN OF UNION

PUMP HOUSE GENERATOR

JOHNSON CITY, NY

Project Name



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AS SHOWN
oject No.

2020.013.001

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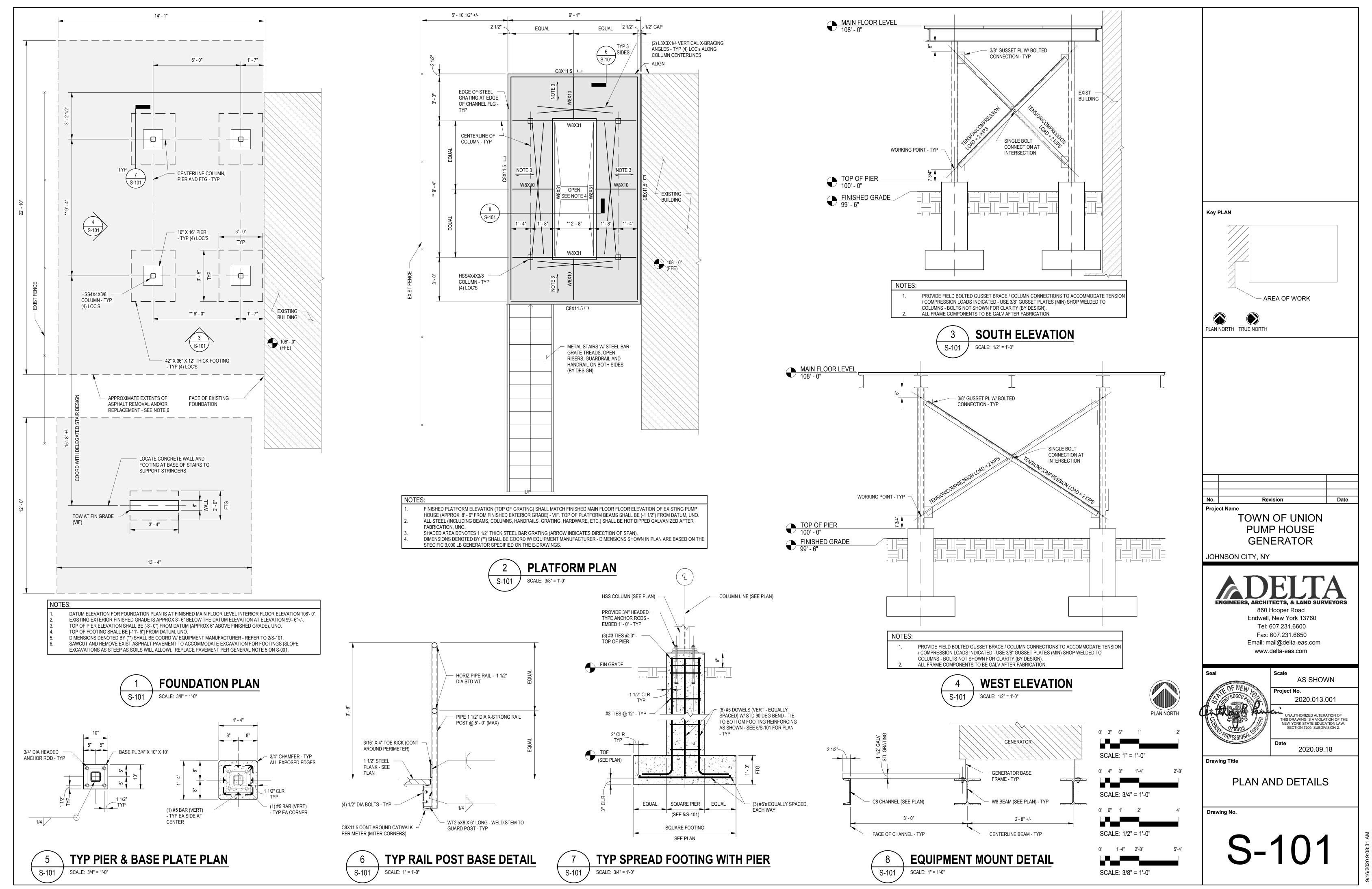
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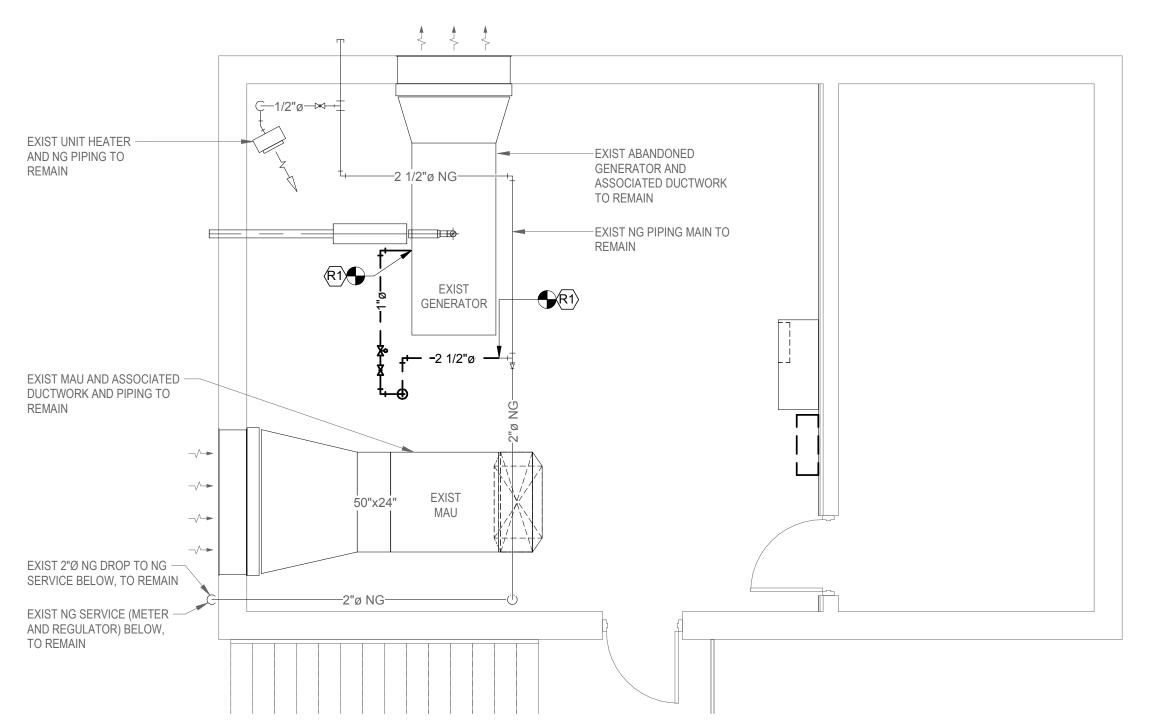
Drawing Title

GENERAL NOTES AND SCHEDULES

Drawing No.

S-001





UPPER LEVEL REMOVAL FLOOR PLAN M-101 SCALE: 1/4" = 1'-0"

> (R#) DEMOLITION/REMOVAL KEY NOTES R1 DISCONNECT AND REMOVE EXISTING NATURAL GAS PIPING, REGULATOR (LOCAL AT GENERATOR), VALVES, TRIM AND SUPPORTS FROM THE EXISTING GENERATOR TO THE POINT OF DISCONNECT SHOWN, AND CAP. EXISTING GENERATOR, FLUE EXHAUST PIPING AND RADIATOR EXHAUST DUCTWORK SHALL REMAIN.

─2"Ø NG -2-1/2"Ø NG ----2-1/2"Ø NG--EXIST UH-1 50 CFH -----1/2"Ø NG--2"Ø NG VENT EXIST NG METER, 3000 CFH NG REGULATOR, -CAPACITY 3.5 - 6.5 IN WC OUTPUT PRESSURE **EXIST GENERATOR** 115 kW, 160 BHP, 1800 RPM 1,392 CFH EXIST NG -—3/4"Ø NG VENT REGULATOR, 14 IN TO OUTDOORS WC OUTPUT PRESSURE EXIST MAU-1 1,127 CFH EXIST 1-1/2"Ø NG ---GRADE SERVICE TO BLDG GAS TRAIN, W/

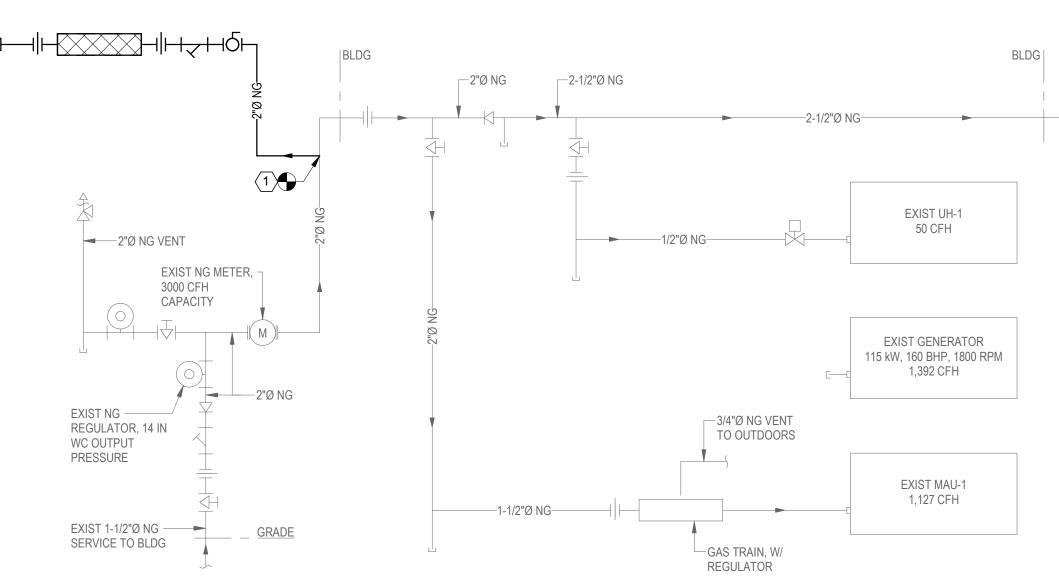
NATURAL GAS REMOVAL SCHEMATIC M-101 SCALE: N.T.S.

	HVAC ABBREVIATIONS
BHP	BRAKE HORSE POWER
BLDG	BUILDING
CFH	CUBIC FEET PER HOUR
EXIST	EXISTING
IN WC	INCHES WATER COLUMN
kW	KILO-WATTS
MAU	MAKE-UP AIR UNIT
MBH	THOUSANDS OF BTU
NG	NATURAL GAS
NGV	NATURAL GAS VENT
NTS	NOT TO SCALE
RPM	REVOLUTIONS PER MINUTE
UH	UNIT HEATER
W/	WITH

REGULATOR

	HVAC SYMBOLS
SYMBOL	DESCRIPTION
•	POINT OF CONNECTION/DISCONNECTION
161	BALL VALVE
ıŢı	PLUG VALVE
Å	RELIEF VALVE
及	TWO WAY VALVE
\rightarrow	STRAINER
S	SOLENOID ACTUATOR
G	PIPE DOWN, ELBOW FITTING
O	PIPE UP, ELBOW FITTING
٥	PIPE CAP
1 1	PIPE UNION
── ₩	PIPE REDUCER FITTING, CONCENTRIC
	DIRECTION OF FLOW, PIPING
— \/-	DIRECTION OF FLOW, DUCTWORK
	FLEX PIPE

EXIST NG PIPING EXIST GENERATOR EXIST MAU 1 —2"ø NG− -EXIST 2"Ø NG DROP TO NG SERVICE (METER AND REGULATOR) BELOW **UPPER LEVEL RENOVATION FLOOR PLAN** SCALE: 1/4" = 1'-0" M-101 **#** RENOVATION KEY NOTES PROVIDE NATURAL GAS PIPING, AND SUPPORTS FROM THE 130 kW GENERATOR TO THE POINT OF CONNECTION SHOWN. ROUTE PIPING TIGHT TO EXTERIOR WALL AND PROVIDE PIPE DROP AT GENERATOR WITH A SHUT-OFF PLUG VALVE. 11-14 IN WC GAS PRESSURE ⊢2"Ø NG ---2-1/2"Ø NG



NATURAL GAS RENOVATION SCHEMATIC M-101 SCALE: N.T.S.

PLATFORM AND GENERATOR PROVIDED BY ELECTRICAL

Ç—1/2"ø—⋙

-2 1/2"ø NG-

CONTRACTOR

GENERATOR

130kW

GENERATOR 130 kW 1,786 CFH

1786 CFH

EXIST UNIT HEATER-

	HVAC LINETYPES
SYMBOL	DESCRIPTION
<u> </u>	LINE WEIGHT OF EXISTING EQUIPMENT, DUCTWORK AND PIPING
	LINE WEIGHT OF EQUIPMENT, DUCTWORK AND PIPING TO BE PROVIDED
	LINE WEIGHT OF EQUIPMENT, DUCTWORK AND PIPING TO BE REMOVED
NG	NATURAL GAS
NGV	NATURAL GAS VENT

GENERAL NOTES:

EXISTING DOMESTIC COLD WATER SERVICE AND DISTRIBUTION PIPING WITHIN BUILDING SHALL REMAIN.

PROVIDE PIPE SUPPORTS AT INTERVALS NOT EXCEEDING 12 FT HORIZONTALLY, AND 15 FT VERTICALLY. ALL SUPPORTS SHALL BE GALVANIZED STEEL.

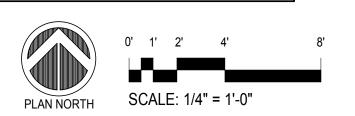
ALL NATURAL GAS PIPING SHALL BE STEEL, SCHEDULE 40, GRADE A, ASTM A53, TYPE E OR S, WITH THREADED OR WELDED JOINTS, MALLEABLE IRON OR STEEL FITTINGS.

ALL SHUTOFF VALVES SHALL BE 1 PIECE, FULL PORT, BRONZE BALL VALVE WITH BRONZE TRIM.

PROVIDE MANUFACTURER RECOMMENDED REGULATOR AT 130 kW GENERATOR.

COORDINATE INSTALLATION OF NATURAL GAS PIPING WITH GENERATOR INSTALLATION.

130 kW GENERATOR TO HAVE SOLENOID SHUT-OFF VALVE INTEGRAL TO



Key PLAN - AREA OF WORK PLAN NORTH TRUE NORTH

Date Revision **Project Name**

> TOWN OF UNION PUMP HOUSE **GENERATOR**

JOHNSON CITY, NY



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2020.09.18

Drawing Title

MECHANICAL FLOOR PLAN

Drawing No.

SPECIFICATIONS

- GENERAL ELECTRICAL WORK: THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND PERFORM ALL WORK SHOWN ON THE CONTRACT DOCUMENTS OR MENTIONED IN THESE SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION, NATIONAL ELECTRICAL CODE, NEW YORK STATE BUILDING CODE AND THE LOCAL AUTHORITY HAVING JURISDICTION.
- CONDUITS: ALL CONDUIT SHALL BE IN ACCORDANCE WITH THE SIZES SPECIFIED AND SHOWN ON CONTRACT DOCUMENTS. CONDUIT SHALL BE SURFACE MOUNTED AS SHOWN IN STRAIGHT LINES, RIGHT ANGLES OR PARALLEL WITH BEAMS. CONDUIT WHICH CAN BE MOVED OR ROTATED BY MANUAL PRESSURE SHALL NOT BE ACCEPTED. RIGID STEEL CONDUIT SHALL BE PROVIDED WHEN EXPOSED TO WEATHER OR FEEDERS TO PANELBOARDS. EMT MAY BE USED IN DRY LOCATIONS FOR ABOVE
- WIRES AND CABLES: ALL WIRING SHALL BE IN ACCORDANCE WITH SIZES SPECIFIED. ALL CONDUCTORS SHALL BE MADE OF COPPER OF NOT LESS THAN 98% CONDUCTIVITY. TYPE THHN SHALL BE USED FOR INDOOR FEEDERS AND BRANCH CIRCUITS, SINGLE CONDUCTOR, STANDED COPPER, 600V INSULATION, HEAT RESISTANT THERMOPLASTIC APPROVED BY NEC FOR OPERATING TEMPERATURE OF 90-DEGREES CELSIUS AND FOR INSTALLATION IN DRY LOCATIONS. NM (ROMEX) CABLE SHALL BE USED INSIDE APARTMENT UNITS FOR BRANCH CIRCUITRY. ALL OTHER SPACES SHALL USE MC FOR BRANCH CIRCUITRY. POWER FEEDS TO EQUIPMENT AND UNIT PANELS SHALL BE CONDUIT AND WIRE. TYPE FEPB SHALL BE USED FOR ALL WIRING TO ALL CONTROLS. TYPE XHHW SHALL BE USED FOR FEEDERS AND BRANCH CIRCUITS TO ALL OUTDOOR AND WET LOCATIONS. MOISTURE AND HEAT RESISTANT THERMOPLASTIC APPROVED FOR OPERATING TEMPERATURE OF 75-DEGREES CELSIUS. COLOR CODING SHALL BE AS FOLLOWS: PHASE A - BLACK, PHASE B - RED, PHASE C - BLUE, NEUTRAL - WHITE, GROUND - GREEN OR BARE.
- PULL AND JUNCTION BOXES: JUNCTION AND PULL BOXES SHALL BE PROVIDED WHERE REQUIRED TO FACILIATE PULLING OF WIRES AND CABLES. ALL BOXES FOR CONCEALED WORK SHALL BE CONSTRUCTED OF 12-GUAGE USS GALVANIZED SHEET STEEL MINIMUM. ALL BOXES SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND NATIONAL ELECTRICAL SAFETY CODE.
- WIRING DEVICES: ALL WIRING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE (NEC). WIRING DEVICES SHALL BE DELIVERED TO JOB IN FACTORY PACKAGING WITH MANUFACTURER'S NAME, TYPE AND PART NUMBER. CONVENIENCE OUTLETS SHALL BE SPECIFICATION GRADE, DUPLEX, RATED 20A AT 125-VOLTS, AC/DC, 3-WIRE, GROUNDING TYPE, SURFACE MOUNTED. LIGHT SWITCHES SHALL BE SPECIFICATION GRADE, TOGGLE TYPE, RATED 20A AT 125-VOLTS AND COMPLETELY ENCLOSED BAKELITE BASE. FACEPLATES SHALL BE USED FOR ALL SWITCHES AND RECEPTACLES. MANUFACTURER SHALL BE HUBBELL, P&S OR LEVITON. DEVICE SHALL BE INSTALLED LEVEL AND PLUMB. SWITCHES SHALL BE INSTALLED WITH OFF POSITION DOWN. RECEPTACLES SHALL BE INSTALLED WITH GROUNDING POLE ON TOP. WALL SWITCHES SHALL BE MOUNTED AT 48" AFF AND RECEPTACLES SHALLBE MOUNTED AT 16" AFF UNLESS NOTED OTHERWISE.
- GROUNDING: THE ENTIRE ELECTRICAL SYSTEM SHALL BE MAINTAINED AT A REASONABLE GROUND LEVEL TO PROTECT AGAINST A BUILD UP OF STATIC ELECTRICAL CHARGES. ALL ELECTRICAL EQUIPMENT SHALL BE INDIVIDUALLY GROUNDED WITH WIRE OF APPROPRIATE SIZE. EQUIPMENT GROUND CONDUCTORS SHALL BE CONNECTED TO THE GROUND BUS. GROUND WIRES SHALL BE BARE. GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE NEC.
- PANELBOARDS: THE AC POWER PANELBOARD SHALL BE MOUNTED IN AN ENCLOSING CABINET CONSISTING OF A SHEET STEEL BOX WITH TRIM AND DOOR. PANELS SHALL BE CONSTRUCTED IN ACCORDANCE WITH UNDERWRITER'S LABORATORIES, INC. SPECIFICATIONS. PANEL SHALL BE EQUIPPED AS SHOWN ON THE PANEL SCHEDULES AND ONE-LINE RISER DIAGRAM. PANEL SHALL HAVE SHORT CIRCUIT CURRENT RATING AS NOTED ON PANEL SCHEDULES AND ONE-LINE RISER DIAGRAM. POWER PANELS SHALL BE EQUIPPED WITH MOLDED CASE CIRCUIT BREAKERS, HAVING COMMON THERMAL MAGNETIC TRIP ELEMENTS, QUICK-MAKE, QUICK-BREAK TOGGLE MECHANISM AND ARC CHUTES. MANUFACTURER SHALL BE SQUARE D, CLASS 1170, 1640 OR 2110.

		ELECTRICAL ABBREVIATIONS
1	##AF	ARC FAULT CIRCUIT BREAKER. ## INDICATES BREAKER SIZE
	AFF	ABOVE FINISHED FLOOR
	AL	ALUMINUM
	AMP	AMPERAGE
	ATS	AUTOMATIC TRANSFER SWITCH
	AUX	AUXILIARY
	AWG	AMERICAN WIRE GUAGE
	BKR	BREAKER
	СВ	CIRCUIT BREAKER
	cd	CANDELA
	CKT	CIRCUIT
	CU	CONDENSING UNIT
	CUH	CABINET UNIT HEATER
	DDC	TEMPERATURE CONTROLS
	DIA	DIAMETER
	DISC	DISCONNECT
	DM	DIMMER
	EF	EXHAUST FAN
	EM	EMERGENCY BALLAST
	EMER	EMERGENCY
	EMT	ELECTRICAL METALLIC TUBING
	ENC	ENCLOSURE
	FA	FIRE ALARM
	GFI	GROUND FAULT CIRCUIT INTERRUPTER
	GND	GROUND
	GRC	GALVANIZED RIGID CONDUIT
	J-BOX	JUNCTION BOX
	LB	CONDULETTE
	LV	LOW VOLTAGE
	MCB	MAIN CIRCUIT BREAKER
	MFR	MANUFACTURER
	MH	METAL HALIDE
	MLO	MAIN LUG ONLY
	NIC	NOT IN CONTRACT
	NL	NIGHT LIGHT
	OS	OCCUPANCY SENSOR
	PIV	POST INDICATOR VALVE
	QUAD	QUADRAPLEX
	RECPTS	RECEPTACLES
	SPEC	SPECIFICATION
	SR	SURFACE RACEWAY
	SW	SWITCH
	TELCO	TELECOMMUNICATIONS
	TSP	TWISTED, SHIELDED PAIR
	TYP	TYPICAL
	UC	UNDER COUNTER
	UE	UNDERGROUND ELECTRIC
1	UF	UNDERGROUND FIBER
	UH	UNIT HEATER
	UNO	UNLESS NOTED OTHERWISE
	WP	WEATHERPROOF
	XFMR	TRANSFORMER
-	Ø	ELECTRICAL PHASE

GENERAL REMOVAL NOTES

- ELECTRICAL EQUIPMENT SHOWN DASHED ON REMOVAL DRAWINGS, INCLUDING ASSOCIATED ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER APPURTENANCES NOT SHOWN, SHALL BE DISCONNECTED AND REMOVED. REMOVE ASSOCIATED BRANCH CIRCUITRY TO SOURCE.
- EXISTING RACEWAYS AND DEVICE BACKBOXES NOT INTERFERING WITH NEW WORK SHALL BE REUSED WHERE POSSIBLE.
- PROVIDE REQUIRED JUNCTION BOXES, RACEWAY AND WIRING TO MODIFY/EXTEND EXISTING SYSTEMS AND CIRCUITS FED DOWNSTREAM OF ELECTRICAL EQUIPMENT SHOWN TO BE DEMOLISHED.
- CUT ABANDONED CONDUITS INSTALLED THRU WALLS AND FLOORS FLUSH WITH SURFACE AND PATCH PENETRATIONS (FIRESTOP IF LOCATED ON A FIRE RATED SURFACE). PATCH AND PAINT SURFACES IN EXPOSED AREAS TO MATCH SURROUNDING MATERIALS, FINISHES AND COLORS.
- PROVIDE BLANK COVERPLATES ON UNUSED BACKBOXES REMAINING FROM REMOVALS NOT SPECIFIED TO BE INFILLED.
- EXISTING EQUIPMENT SHOWN TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
- REPLACE CEILING TILES AFFECTED BY DEVICE REMOVALS. MATCH CEILING TILES IN MATERIAL, FINISH AND COLOR.

	POWER LEGEND
SYMBOL	DESCRIPTION
Щ	NON-FUSED SAFETY SWITCH
└ □	FUSED SAFETY SWITCH
ЦСВ	ENCLOSED CIRCUIT BREAKER
\boxtimes	MOTOR STARTER
•	HARDWIRED EQUIPMENT CONNECTION
J	JUNCTION BOX
9	SPECIAL RECEPTACLE
Ψ	DUPLEX RECEPTACLE
φ	SIMPLEX RECEPTACLE
•	GROUND FAULT DUPLEX RECEPTACLE
₩	DUPLEX RECEPTACLE (INSTALLED ABOVE CASEWORK)
•	GROUND FAULT DUPLEX RECEPTACLE (INSTALLED ABOVE CASEWORK)
<u>_</u>	BONDING CONNECTION
 3	CONDUIT SLEEVE
\$ ^M	MANUAL SWITCH
	PANELBOARD

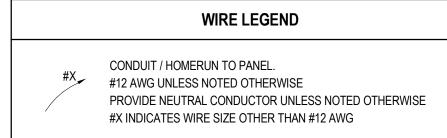
POWER GENERAL NOTES

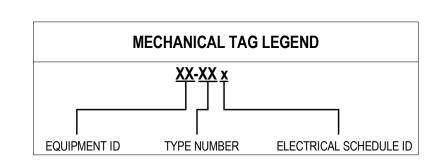
- ELECTRICAL PLANS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO DEPICT ALL OF THE ARCHITECTURAL DETAIL OR SPECIFIC ROUTING OF CONDUITS, WIRING, ETC. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ROUTING ONSITE WITH ACTUAL CONDITIONS.
- ALL EQUIPMENT AND MATERIALS SHALL SHOW EVIDENCE OF LISTING OR LABELLING BY AN AGENCY ACCEPTABLE TO THE BUILDING CODE OF NEW YORK STATE.
- PROVIDE ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER APPURTENANCES NOT INDICATED ON THE DRAWINGS BUT REQUIRED FOR A COMPLETE SYSTEM.
 - INSTALL ALL BRANCH CIRCUITRY WITHIN RACEWAY UNLESS NOTED OTHERWISE. MINIMUM DIAMETER OF RACEWAY IS: 3/4-IN.
- ALL CONDUIT SHALL BE SUPPORTED BY PIPE STRAPS, SUITABLE CLAMPS OR HANGERS ATTACHED TO THE BUILDING STRUCTURE. CONDUIT SHALL NOT BE SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READY REMOVAL OF OTHER EQUIPMENT FOR REPAIRS.
- CONDUCTORS #10 AND SMALLER SHALL BE SOLID COPPER TYPE XHHW, THHN OR THWN. CONDUCTORS #8 AND LARGER SHALL BE STRANDED COPPER TYPE XHHW, THHN OR THWN. CONDUCTORS INSTALLED IN DAMP OR WET LOCATIONS SHALL BE TYPE XHHW.
- IDENTIFY ALL CONDUCTORS AT BOTH ENDS AND WITHIN CABINETS AND JUNCTION BOXES WITH PREMARKED, SELF-ADHESIVE, WRAPAROUND TYPE LABELS.
- PROVIDE A SEPARATE NEUTRAL CONDUCTOR WITH EACH BRANCH CIRCUIT. SHARED NEUTRAL CONDUCTORS ARE NOT PERMITTED.
- GROUNDING CONDUCTORS ARE GENERALLY NOT SHOWN. GROUND AND BOND ALL EQUIPMENT, RACEWAYS, MOTORS, PANELBOARDS, SWITCHBOARDS, ETC. IN ACCORDANCE WITH NEC ARTICLE 250.
- CONDUIT SYSTEMS SHALL BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES OR ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. WHERE REDUCING WASHERS ARE USED AND WHERE CONCENTRIC OR ECCENTRIC
- KNOCKOUTS ARE NOT COMPLETELY REMOVED BONDING BUSHINGS ARE REQUIRED. SIZE ALL MOTOR OVERLOADS OR FUSES WITH THE ACTUAL EQUIPMENT NAMEPLATE. FUSES FOR MOTOR AND TRANSFORMER CIRCUITS SHALL BE DUAL ELEMENT. FUSES FOR OTHER "NON-INRUSH" EQUIPMENT SHALL BE FAST ACTING. ALL FUSES SHALL BE
- CURRENT LIMITING CLASS RK5 OR CLASS L UNLESS OTHERWISE NOTED. CONNECTIONS TO MECHANICAL EQUIPMENT SHALL BE MADE WITH A MINIMUM OF
- 24-IN. FLEXIBLE CONDUIT TO PREVENT SOUND AND VIBRATION TRANSMISSION. CORE DRILL OPENINGS IN FLOOR SLABS/WALLS/FOUNDATIONS AS REQUIRED TO INSTALL CONDUITS.
- PROVIDE THROUGH AND MEMBRANE FIRESTOPPING AT ALL PENETRATIONS THROUGH FIRE RATED CONSTRUCTION. REFER TO CODE COMPLIANCE PLANS FOR LOCATIONS OF FIRE RATED CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS PERTAINING TO RATED FLOOR, CEILING AND PARTITION TYPES INCLUDING THE RELEVANT UL DESIGN NUMBER AND FIRE RATING IN HOURS. REFER TO
- SPECIFICATION SECTION 078400 FOR ADDITIONAL FIRESTOPPING REQUIREMENTS. SEAL ALL PENETRATIONS THROUGH NON-FIRE RATED CONSTRUCTION WITH MORTAR. COORDINATE LOCATION OF ELECTRIC WATER COOLER (EWC) DUPLEX RECEPTACLE
- WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN. COORDINATE MOUNTING HEIGHT AND LOCATION OF EQUIPMENT INSTALLED ABOVE CASEWORK AND FURNITURE WITH APPROVED SHOP DRAWINGS AND CASEWORK
- INSTALLER PRIOR TO ROUGH-IN. MAINTAIN NEC MANDATED MINIMUM WORKING AND DEDICATED EQUIPMENT SPACE AT
- ALL PANELBOARDS, SWITCHBOARDS AND MOTOR CONTROL CENTERS. PROVIDE ADEQUATE SPACE AROUND EQUIPMENT THAT REQUIRES MAINTENANCE OR
- ADJUSTMENT. PROVIDE PULLSTRING IN ALL RACEWAYS.

INDICATING THE PANEL NAME AND CIRCUIT NUMBER.

- LABEL ALL JUNCTION BOX COVERS INDICATING THE PANEL NAME AND CIRCUIT
- NUMBER CONTAINED WITHIN. PROVIDE CLEAR LABELS ON ALL RECEPTACLE AND LIGHT SWITCH COVERPLATES
 - LINETYPE LEGEND EXISTING TO REMAIN REMOVED EQUIPMENT/ EQUIPMENT TO BE RELOCATED ITEM TO BE PROVIDED UNDERGROUND ELECTRIC UNDERGROUND TELCO

——UT—— UNDERGROUND LIGHTING ——ОЕ—— OVERHEAD ELECTRIC <u>----</u>ОТ----





Date Revision

Project Name TOWN OF UNION PUMP HOUSE

JOHNSON CITY, NY



GENERATOR

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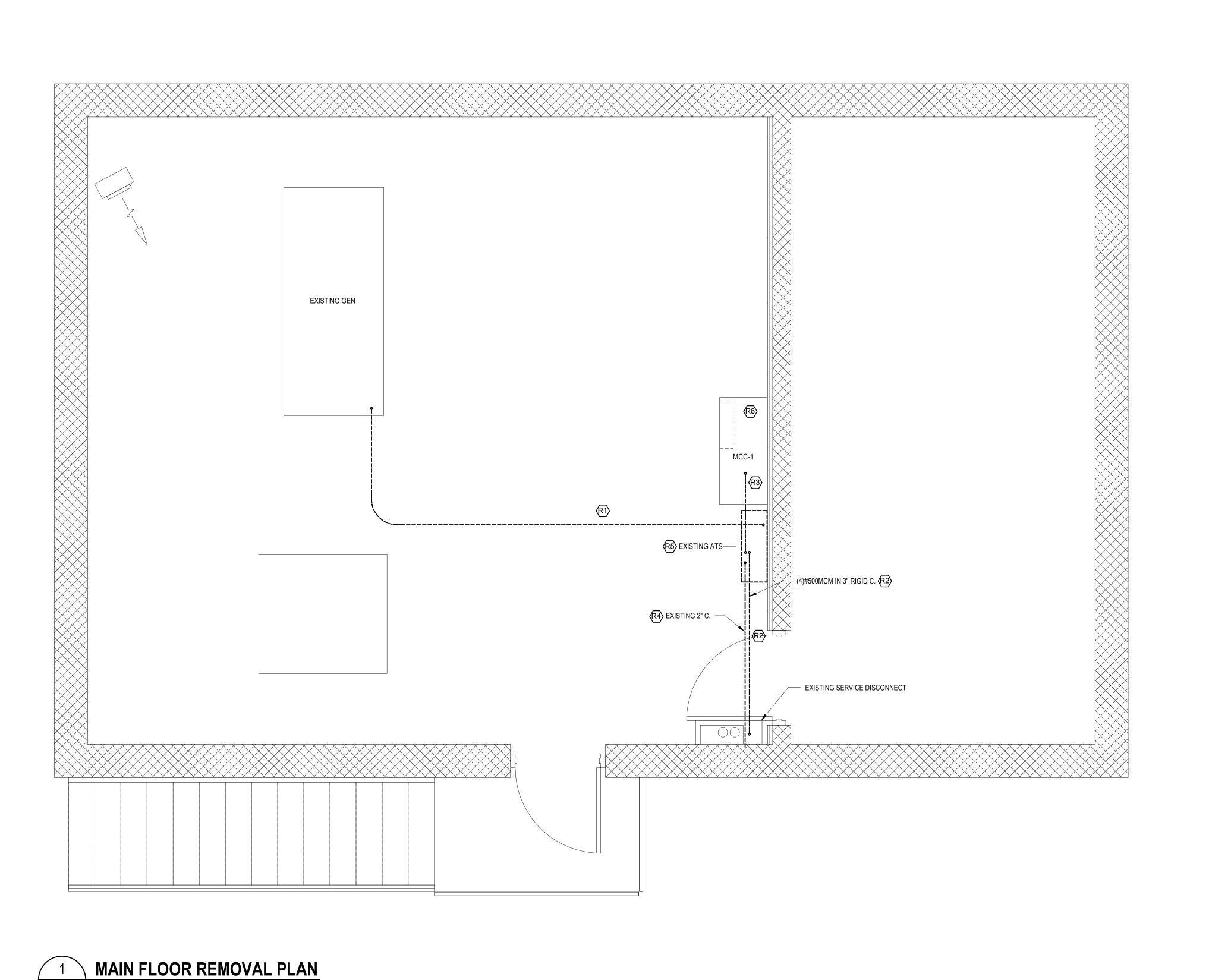
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Drawing Title

SCHEDULES, LEGENDS AND NOTES

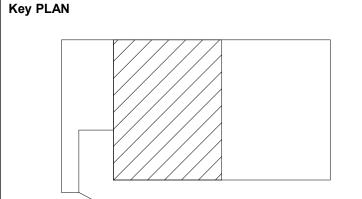


SCALE: 1/2" = 1'-0"

R# E-101 REMOVAL KEY NOTES

- R1 DISCONNECT 2" CONDUIT FROM EXISTING GENERATOR AND EXISTING ATS, REMOVE EXISTING CONDUCTORS AND CONDUIT SHOWN MARKED FOR REMOVAL.
- R2 DISCONNECT AND REMOVE EXISTING 3" CONDUIT BETWEEN SERVICE DISCONNECT AND EXISTING ATS AS SHOWN. PULL CONDUCTORS BACK TO SERVICE DISCONNECT, COIL AND SAVE FOR REUSE.
- R3 DISCONNECT AND REMOVE EXISTING CONDUIT AND CONDUCTORS CONNECTING EXISTING ATS AND MCC-1.
- R4 REMOVE TEMPORARY GENERATOR CONNECTION IN ITS ENTIRETY.
- R5 DISCONNECT AND REMOVE ALL EXISTING CONDUIT AND CONDUCTORS CONNECTED TO ATS. DISCONNECT AND REMOVE ATS.
- R6 DISCONNECT AND REMOVE ALL CONNECTIONS TO GENERATOR BATTERY

CHARGER. REMOVE GENERATOR BATTERY CHARGER.



AREA OF WORK



o. Revision Date

TOWN OF UNION PUMP HOUSE GENERATOR

JOHNSON CITY, NY

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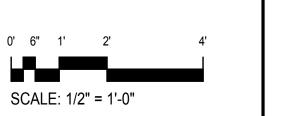
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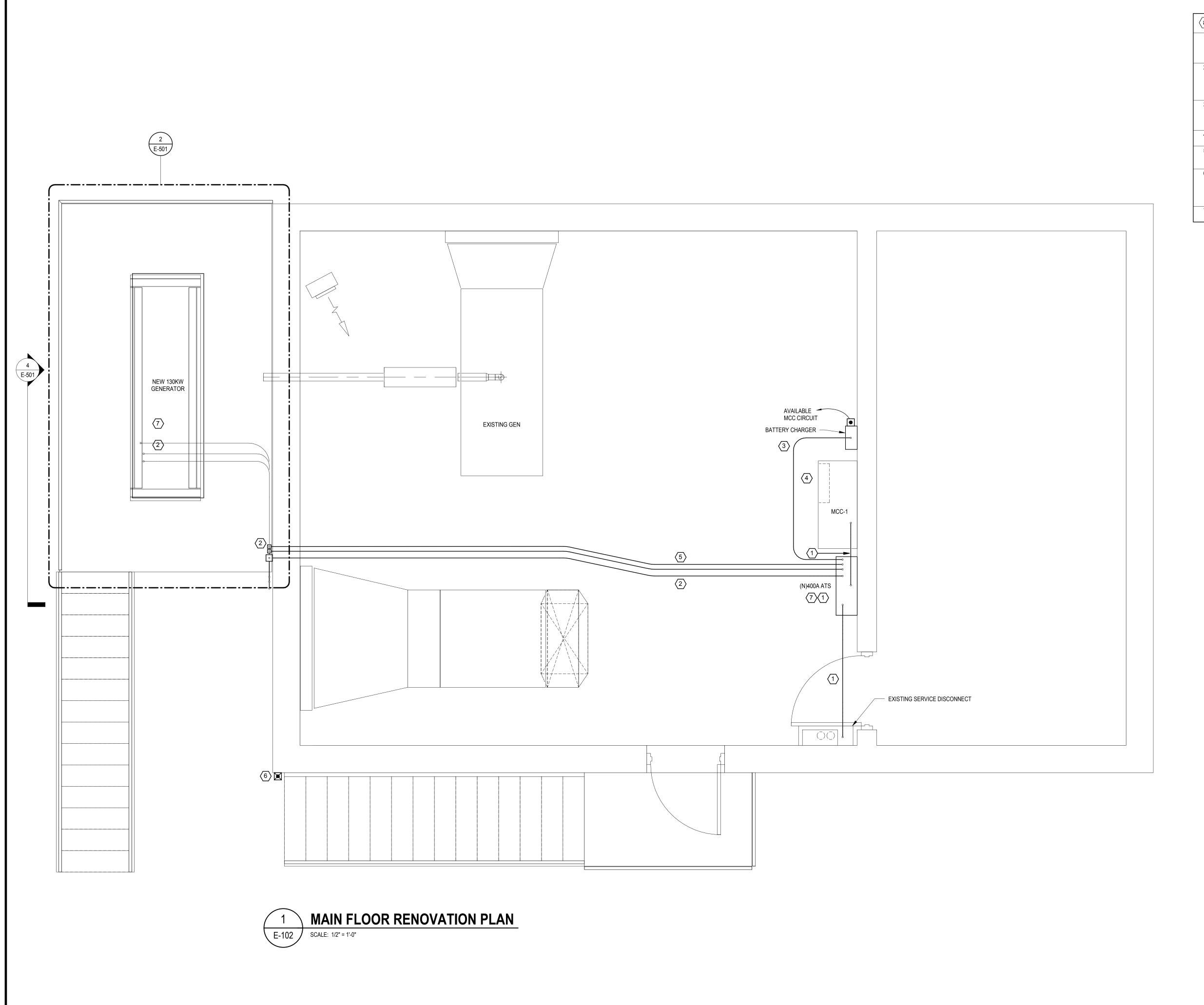
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Drawing Title

REMOVAL FLOOR PLAN

Drawing No.





E-102 RENOVATION KEY NOTES

1 PROVIDE 400A ATS IN LOCATION SHOWN. MAKE CONNECTIONS TO SERVICE DISCONNECT AND EXISTING MOTOR CONTROL CENTER AS REQUIRED. PROVIDE (4)#500 KCMIL + (1)#3 GND IN 4" CONDUIT TO CONNECT SERVICE DISCONNECT TO ATS, AND TO CONNECT ATS TO MCC.

2 CONNECT NEW 400A ATS TO PLATFORM MOUNTED GENERATOR. PROVIDE (4)#4/0 + (1)#4 GND IN 2" CONDUIT FROM THE ATS, ROUTED ALONG CEILING AND THROUGH BUILDING WALL. ROUTE DOWN BUILDING WALL AND AROUND TO BOTTOM OF PLATFORM AND COME UP THROUGH STUB-UP AREA. REFER TO DETAILS ON

PLATFORM AND COME UP THROUGH STUB-UP AREA. REFER TO DETAILS ON DRAWING E-501 FOR ADDITIONAL INFORMATION.

PROVIDE GENERATOR BATTERY CHARGER IN LOCATION SHOWN. MAKE ALL REQUIRED CONNECTIONS. ROUTE TO ATS AND THEN TO GENERATOR ALONG

SAME ROUTE AS 2" CONDUIT REFERENCED IN KEY NOTE 2 AS SHOWN. REFER TO DETAILS ON DRAWING E-501 FOR ADDITIONAL INFORMATION.

4 PROVIDE CIRCUIT FOR BATTERY CHARGER AND BATTERY HEATER FROM PANEL

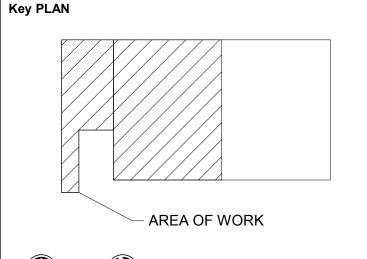
BOARD IN MCC.

5 PROVIDE (2)#12 + GENERATOR COMMUNICATION CABLING IN 1" CONDUIT AND ROUTE SIMILAR TO 2" CONDUIT BETWEEN ATS AND GENERATOR. REFER TO

DRAWING E-501 FOR ADDITIONAL INFORMATION.

6 PROVIDE GENERATOR EMERGENCY STOP PUSH-BUTTON ON EXTERIOR OF BUILDING IN LOCATION SHOWN. PUSH BUTTON SHALL BE MOUNTED TO WALL IN NEMA 3R WEATHERPROOF ENCLOSURE. PROVIDE CONDUIT AND WIRE FROM PUSH BUTTON TO GENERATOR. WIRING SHALL BE PER MANUFACTURER'S REQUIREMENTS.

PROVIDE: GENERAC QT130 GENERATOR, GENERAC EXTREME COLD WEATHER KIT G005620-0, AND GENERAC AUTOMATIC TRANSFER SWITCH RTSN400G3.



PLAN NORTH TRUE NORTH

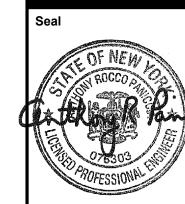
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TOWN OF UNION
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GENERATOR

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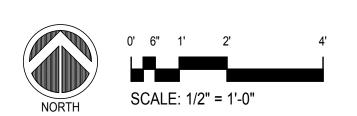
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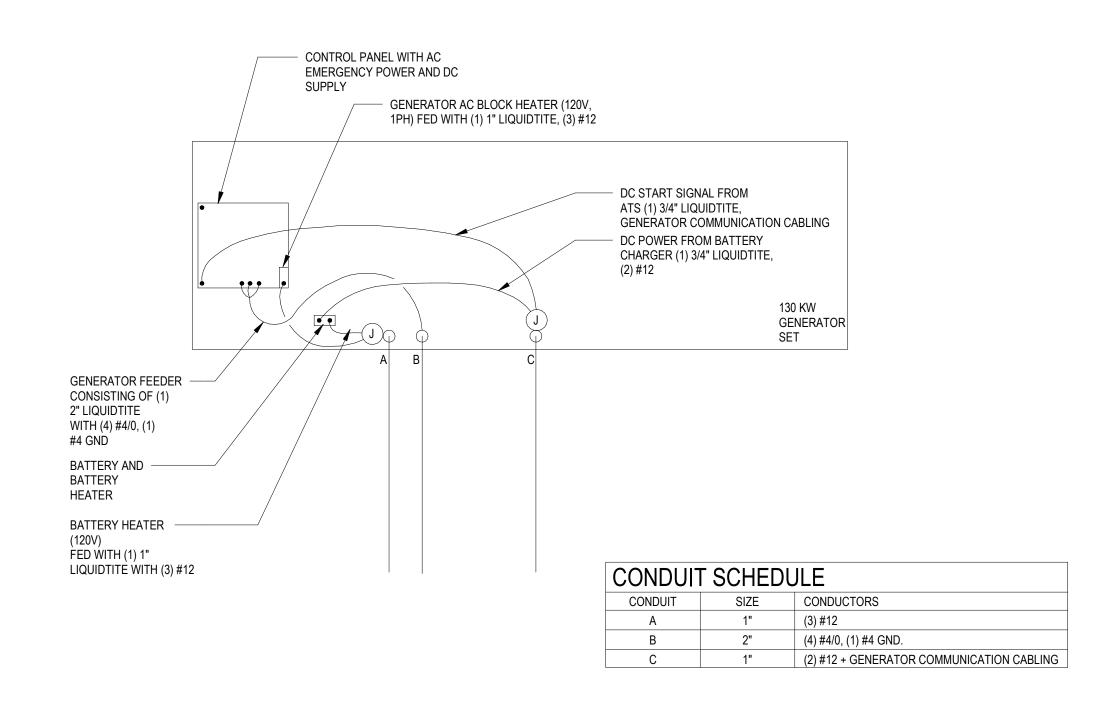
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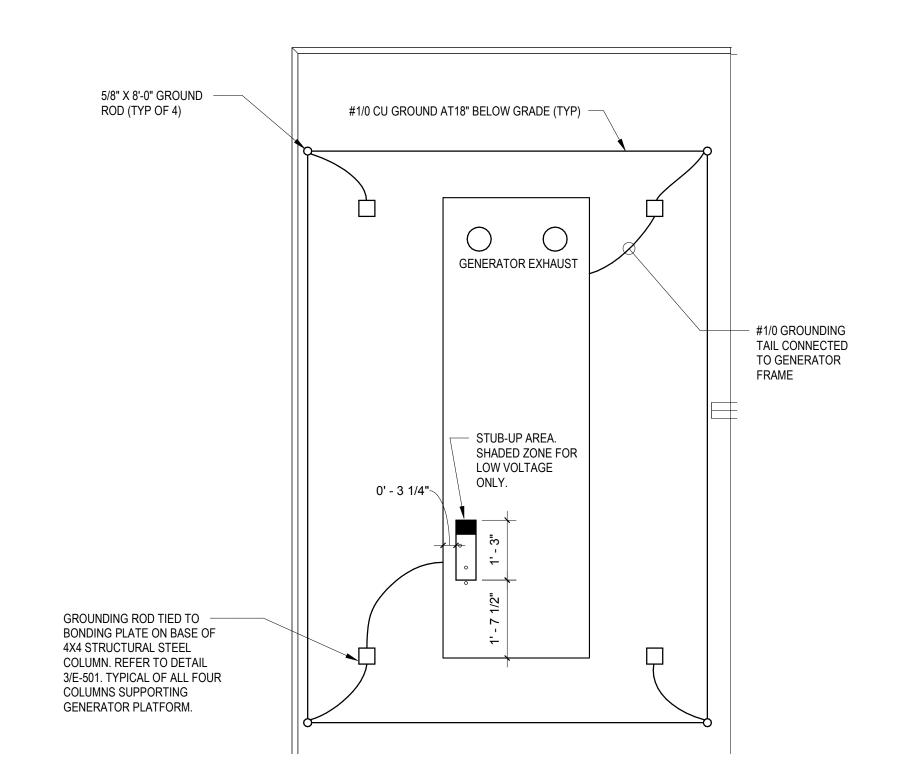
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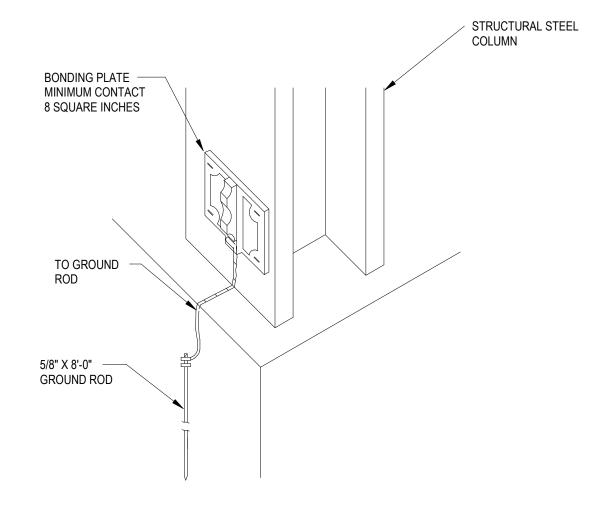
MAIN FLOOR RENOVATION PLAN

Drawing No.





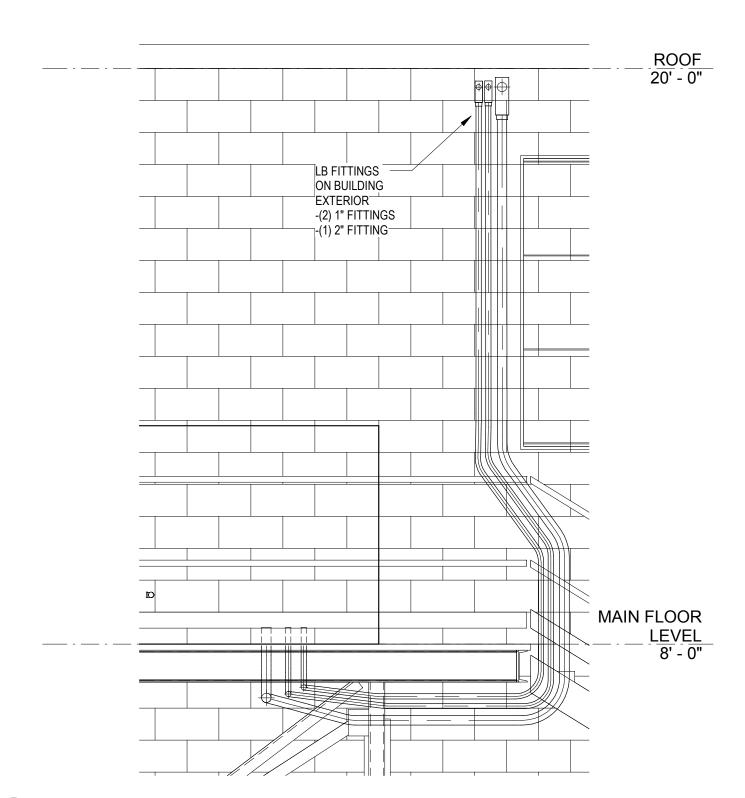




3 BONDING PLATE DETAIL
E-501 SCALE: N.T.S.

2 GENERATOR PLATFORM GROUNDING & STUB-UP DETAIL

E-501 SCALE: N.T.S.



GENERATOR WIRING DETAIL

SCALE: N.T.S.

4 GENERATOR PLATFORM CONDUIT ROUTING SECTION VIEW

SCALE: N.T.S.

PUMP HOUSE GENERATOR

JOHNSON CITY, NY

Revision

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DETAILS

Drawing No