

Abbreviations

ACT	ACOUSTICAL TILE	INFO	INFORMATION
ADJ	ADJACENT, ADJUSTABLE	INSUL	INSULATION
A.F.F.	ABOVE FINISH FLOOR	INT	INTERIOR
BLKG	BLOCKING	JST	JOIST
BM	BEAM	LAM	LAMINATE
B.O.	BOTTOM OF	LAND	LANDSCAPE
CLG	CEILING	L/L	LEASLINE TO LEASLINE
C.L.	CENTERLINE	L.O.D.	LEASE OUTLINE DRAWING
CLR	CLEARANCE(S)	LIGHT	LIGHTWEIGHT
CMU	CONCRETE MASONRY UNIT	MT	METER(S)
CNTR	COUNTER	MDF	MEDIUM DENSITY FIBERBOARD
COL	COLUMN	MAX	MAXIMUM
CONT	CONTINUOUS	MECH	MECHANICAL
CPT	CERAMIC TILE	MFG	MANUFACTURE(ER)
CT	CENTR	MIN	MINIMUM
CTR	CENTER	MTL	METAL
DBL	DOUBLE	NA	NOT APPLICABLE
DEMO	DEMOLITION	NIC	NOT IN CONTRACT
DF	DRINKING FOUNTAIN	NTS	NOT TO SCALE
DIA	DIAMETER	OC	ON CENTER
DMI	DIMENSION	OD	OUTSIDE DIAMETER
DN	DOWN	PL	PLATE
DR	DOWN SPOUT	P-LAM	PLASTIC LAMINATE
DS	DOWN	PHL	PANEL
EJ	EXPANSION JOINT	PR	PAIR
ELEC	ELECTRICAL	PWD	PLYWOOD
ELEV	ELEVATION	R	RADIUS, RISE(R)
EM	EMERGENCY	RA	RETURN AIR
EQ	EQUAL	RD	ROOF DRAIN
EQUIP	EQUIPMENT	REF	REFRIGERATOR
EMC	ELECTRIC WATER COOLER	REFG	REQUIRED
EXH	EXHAUST	REO	REQUIRED
EXIST	EXISTING	RH	RIGHT HAND
EXT	EXTERIOR	RM	ROOM
FD	FLOOR DRAIN	RO	ROUGH OPENING
FEB	FIRE EXTINGUISHER	SA	SUPPLY AIR
FHC	FIRE HOSE CABINET	SC	SOLID CORE
FIN	FINISH	SCHED	SCHEDULE
FLR	FLOOR	SECT	SECTION
FRG	FIBERGLASS REINFORCED GYPSUM	SM	SIMILAR
FRP	FIBERGLASS REINFORCED PANEL	SPEC	SPECIFICATION(S)
FUR(G)	FURRING	SS	STAINLESS STEEL
FVA	FIELD VERIFIED AREA	STL	SANITARY SEWER
GA	GAGE, GAUGE	STO	STEEL
CWB	GYPSUM WALL BOARD	STRUC	STRUCTURE(AL)
GYP	GYPSUM	SUSP	SUSPENDED
HC	HOLLOW CORE, HANDICAP	TELE	TELEPHONE
HD	HEAVY DUTY	TEMP	TEMPERED
HDCP	HANDICAPPED	THK	THICK(NESS)
HWD	HARDWOOD	TYP	TYPICAL
HM	HOLLOW METAL	TAB	TOP & BOTTOM
HORIZ	HORIZONTAL	UN	UNLESS OTHERWISE NOTED
HR	HOUR	VCT	VINYL COMPOSITE TILE
HT	HEIGHT	WC	WATER CLOSET
HVAC	HEATING/VENTILATING	WD	WOOD
	AIR CONDITIONING	WH	WATER HEATER
HW	HOT WATER	WP	WATERPROOFING
ID	INSIDE DIAMETER	WT	WEIGHT
IN	INCH	XTMR	TRANSFORMER

General Notes

- ALL CONSTRUCTION SHALL MEET ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES LATEST EDITIONS.
- DO NOT SCALE FROM PLANS
- CALL OKIE 1-800-522-6543 FOR EXACT LOCATIONS OF ALL UTILITIES PRIOR TO START OF CONSTRUCTION
- BUILDING PERMIT SHALL BE OBTAINED BY ARCHITECT AND PAID FOR BY THE OWNER. TRADE PERMITS SHALL BE OBTAINED AND PAID FOR BY THE SUBCONTRACTORS.
- ANY CHANGES IN THE CONSTRUCTION FROM THE ORIGINAL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY ARCHITECT AND OWNER, NOTED AND INITIALED IN RED PENCIL ON A SET LOCATED IN THE CONSTRUCTION OFFICE. ALL MAJOR SUBCONTRACTORS SHALL ALSO DOCUMENT CHANGES IN RED PENCIL AND SUBMIT TO THE ARCHITECT AT THE COMPLETION OF THE WORK.
- ANY DISCREPANCIES OR INCONGRUITIES IN THESE CONSTRUCTION PLANS OR BETWEEN THE PLANS AND SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT IN WRITING PRIOR TO COMMENCING WITH THAT PORTION OF WORK.
- CONTRACTOR TO PROVIDE NECESSARY SAFETY BARRICADES AND ANY/ALL SAFETY DEVICES NEEDED TO PROTECT ALL BYSTANDERS FROM ENTERING CONSTRUCTION SITE DURING ALL CONSTRUCTION PHASES.
- ALL SUBCONTRACTORS SHALL EXAMINE THE AREAS, CONDITIONS, AND SUBSTRATES UNDER WHICH HIS WORK IS TO BE INSTALLED AND SHALL NOTIFY THE CONTRACTOR OF UNSATISFACTORY CONDITIONS. UNSATISFACTORY CONDITIONS SHALL BE CORRECTED IN A MANNER ACCEPTABLE TO THE OWNER.
- ALL APPROVED PLANS MUST BE AVAILABLE AT THE CONSTRUCTION SITE FOR INSPECTION PROCESS.
- CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT CONSTRUCTION DEBRIS IS SECURED AND DISPOSED OF PROPERLY. THE JOBSITE MUST BE CLEANED AFTER EACH DAY OF CONSTRUCTION.

Code Review

LOCAL MUNICIPALITY:	CITY OF NORMAN, CLEVELAND COUNTY, OKLAHOMA
APPLICABLE BUILDING CODE:	2018 IEBC, 2018 IBC
MECH & PLUMBING CODE:	2018 IMC / 2018 IPC
ELECTRICAL CODE:	NEC 2020
ENERGY CODE:	IECC 2006
ACCESSIBILITY CODE:	2009 ICC ANSI A117.1
CONSTRUCTION TYPE:	IIB - FULLY SPRINKLERED
ZONING:	CCFB - CITY CENTER FORM BASED CODE
FIRE RESISTANCE OF BUILDING ELEMENTS:	STRUCTURAL ELEMENT RATING
PER TABLE 601	Structural frame 0 hr.
	Bearing walls - Exterior 0 hr.
	Bearing walls - Interior 0 hr.
	Nonbearing walls and partitions - Exterior 0 hr.
	Nonbearing walls and partitions - Interior 0 hr.
	Floor construction 0 hr.
	Roof construction 0 hr.
CLASSIFICATION OF WORK:	ALTERATION - LEVEL 1
PER IEBC SECTION 505	

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A2.0	SITE PLAN - NORMAN STREET FACILITY - ADD ALTERNATE #01
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Symbols Legend

	Elevation - AFF (Above Finished Floor)
	Property Line
	Center Line
	Number Sheet Number Building Section Reference
	Number Sheet Number Detail Reference
	Number Sheet Number Wall Section Reference
	Number Sheet Number Building Elevation Reference
	XXX - Door Number
	X - Window Number
	1 - Finish Keynotes
	X/AX.X - Interior Elevation

Materials Legend:

	EARTH		PLASTER / STUCCO
	SAND		SUSP. ACOUSTIC CLG.
	CONCRETE		BATT INSULATION
	WOOD FRAMING		WOOD
	WOOD BLOCKING		PLYWOOD
	STEEL		GYPSUM WALL BD
	BRICK		CMU

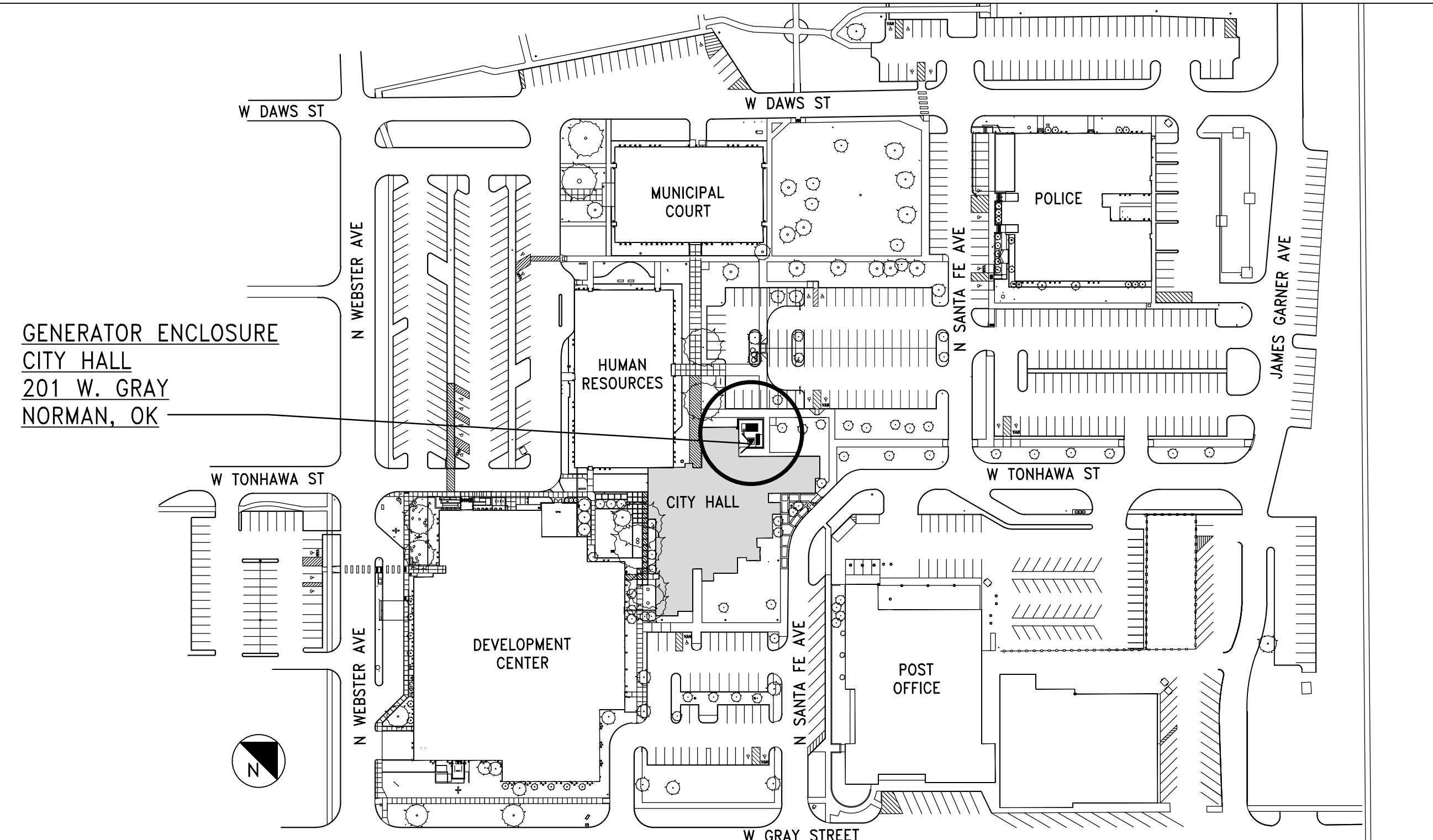
Description of Scope

REMOVE CURRENT 60 KW GENERATOR, CONCRETE PAD AND ATS. RETURN GENERATOR AND ATS TO OWNER.

NEW 200KW GENERATOR, CONCRETE PAD AND NEW 600A THREE PHASE SERVICE ENTRANCE AUTOMATIC TRANSFER SWITCH W/ OVERCURRENT PROTECTION AND OVERLAPPING NEUTRAL. NEW ATS TO FEED THE ENTIRE BUILDING.

ADD ALTERNATE #01 - RELOCATE EXISTING 60 KW GENERATOR & EXISTING ATS TO STREET MAINTENANCE FACILITY LOCATED AT 668 E. LINSEY STREET, NORMAN, OK 73069

Site Plan



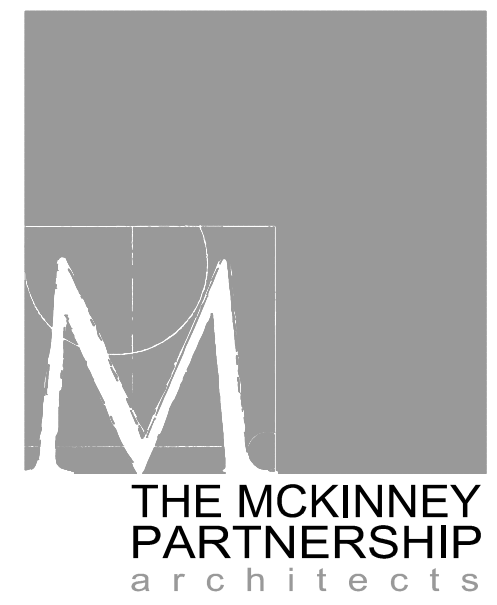
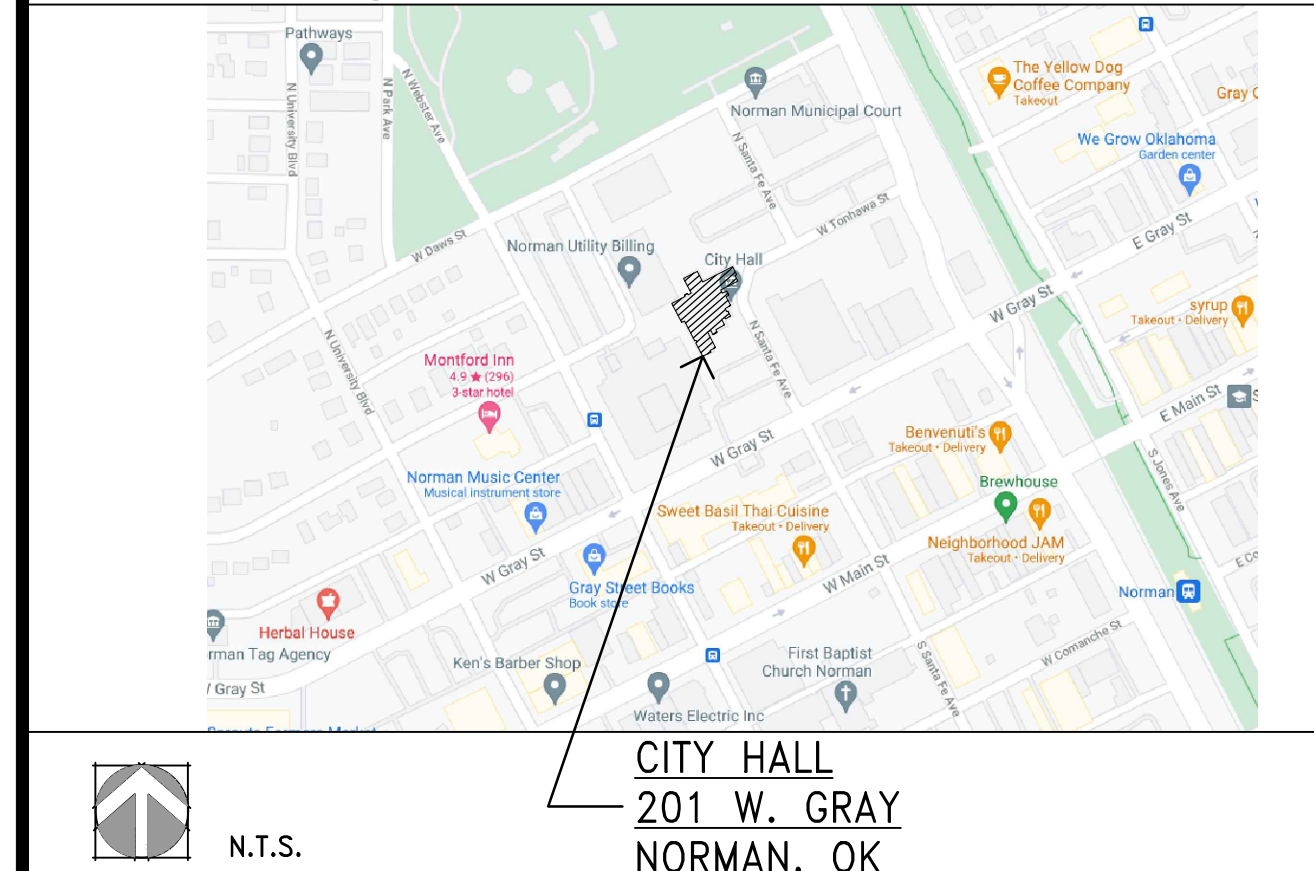
Contacts:

OWNER THE CITY OF NORMAN P.O. BOX 370 NORMAN, OK 73070 405-366-5405 ATTN: BRENDA HALL, CITY CLERK Brenda.Hall@NormanOK.gov	ARCHITECT The McKinney Partnership Architects 3600 West Main, Suite 200 Norman, OK, 73072 405/360-1400 405/364-8287 FAX Attn: GREG WARD, AIA gward@mparch.com
PROGRAM MANAGER ADG 920 W. MAIN ST. OKLAHOMA CITY, OK 73106 405-323-5700 ATTN: RANDY W. HILL rhill@adgokc.com	MEP ENGINEERING HP ENGINEERING 520 W. BROADWAY, SUITE 101 BROKEN ARROW, OK 74012 918-895-6510 ATTN: DANIEL RIZIK, PE (ELECTRICAL) drizik@hpengineering.com
STRUCTURAL KFC ENGINEERING 525 CENTRAL PARK DR., SUITE 202 OKLAHOMA CITY, OK 73105 405-528-4596 ATTN: JEFF SEARS, PE jsears@kfcengr.com	

Legal Description

LOT ONE (1), BLOCK SEVENTY THREE (73), NORMAN OLD TOWNE DISTRICT

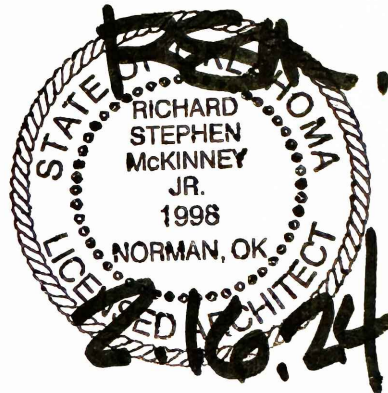
Vicinity Map



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Seal:



Project:

**City of Norman
City Hall
Generator Replacement**
201 W. Gray
Norman, OK

Issue Date:
02/16/2024 - Issued for Bidding

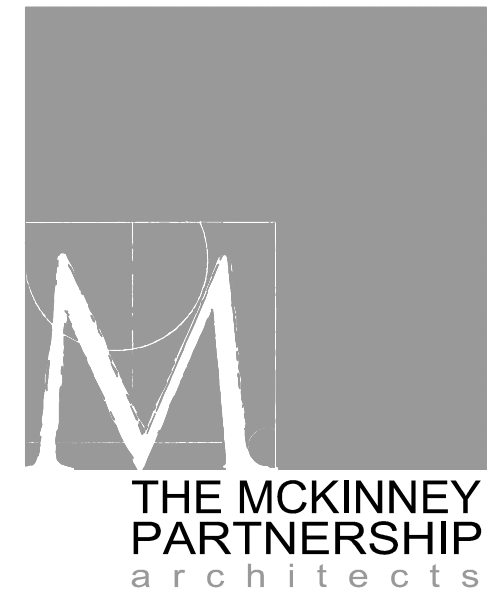
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CM094823

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GENERAL INFORMATION

Sheet Number:

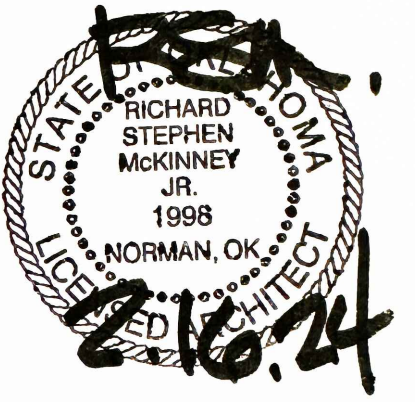
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City of Norman City Hall Generator Replacement 201 W. Gray Norman, OK

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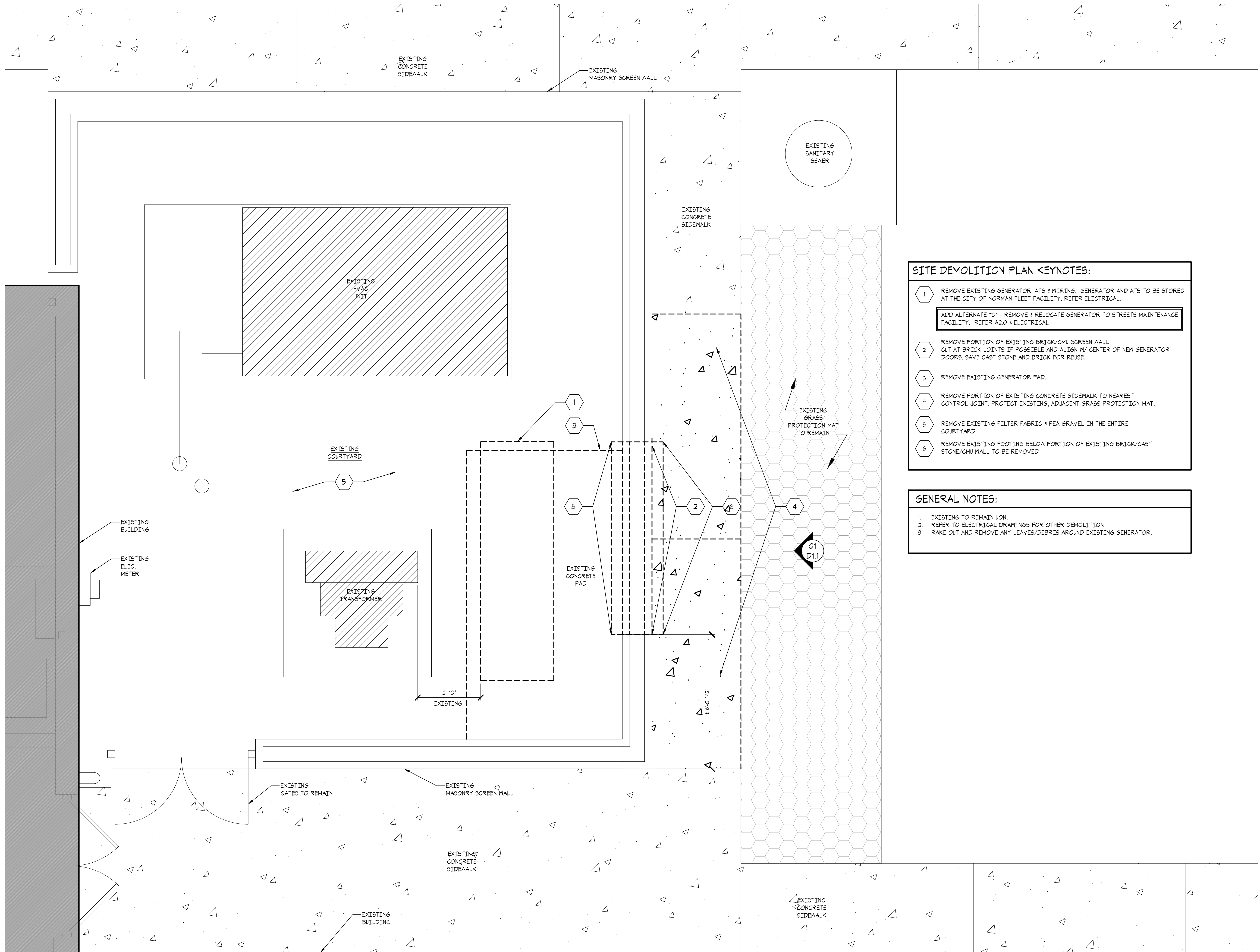
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Project Number:
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Sheet Title:
DEMOLITION
ENLARGED SITE PLAN

Sheet Number:

D1.0

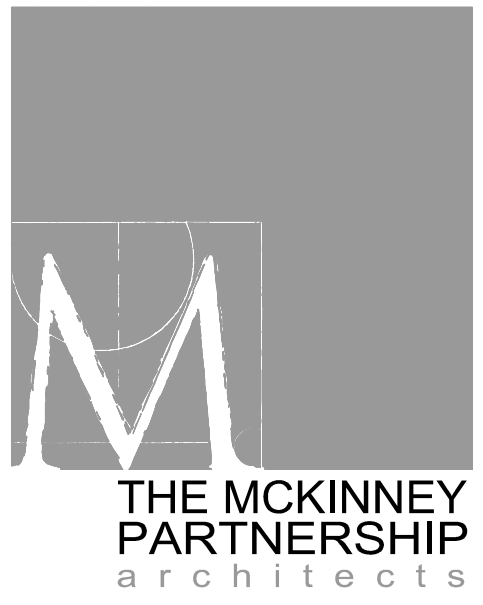


- SITE DEMOLITION PLAN KEYNOTES:**
- 1 REMOVE EXISTING GENERATOR, ATS & WIRING. GENERATOR AND ATS TO BE STORED AT THE CITY OF NORMAN FLEET FACILITY. REFER ELECTRICAL.
ADD ALTERNATE #01 - REMOVE & RELOCATE GENERATOR TO STREET'S MAINTENANCE FACILITY. REFER A2.0 & ELECTRICAL.
 - 2 REMOVE PORTION OF EXISTING BRICK/GMU SCREEN WALL. CUT AT BRICK JOINTS IF POSSIBLE AND ALIGN W/ CENTER OF NEW GENERATOR DOORS. SAVE CAST STONE AND BRICK FOR REUSE.
 - 3 REMOVE EXISTING GENERATOR PAD.
 - 4 REMOVE PORTION OF EXISTING CONCRETE SIDEWALK TO NEAREST CONTROL JOINT. PROTECT EXISTING, ADJACENT GRASS PROTECTION MAT.
 - 5 REMOVE EXISTING FILTER FABRIC & PEA GRAVEL IN THE ENTIRE COURTYARD.
 - 6 REMOVE EXISTING FOOTING BELOW PORTION OF EXISTING BRICK/CAST STONE/GMU WALL TO BE REMOVED

- GENERAL NOTES:**
- 1. EXISTING TO REMAIN UNON.
 - 2. REFER TO ELECTRICAL DRAWINGS FOR OTHER DEMOLITION.
 - 3. RAKE OUT AND REMOVE ANY LEAVES/DEBRIS AROUND EXISTING GENERATOR.

01 DEMOLITION - ENLARGED SITE PLAN
SCALE: 1/2" = 1'-0"

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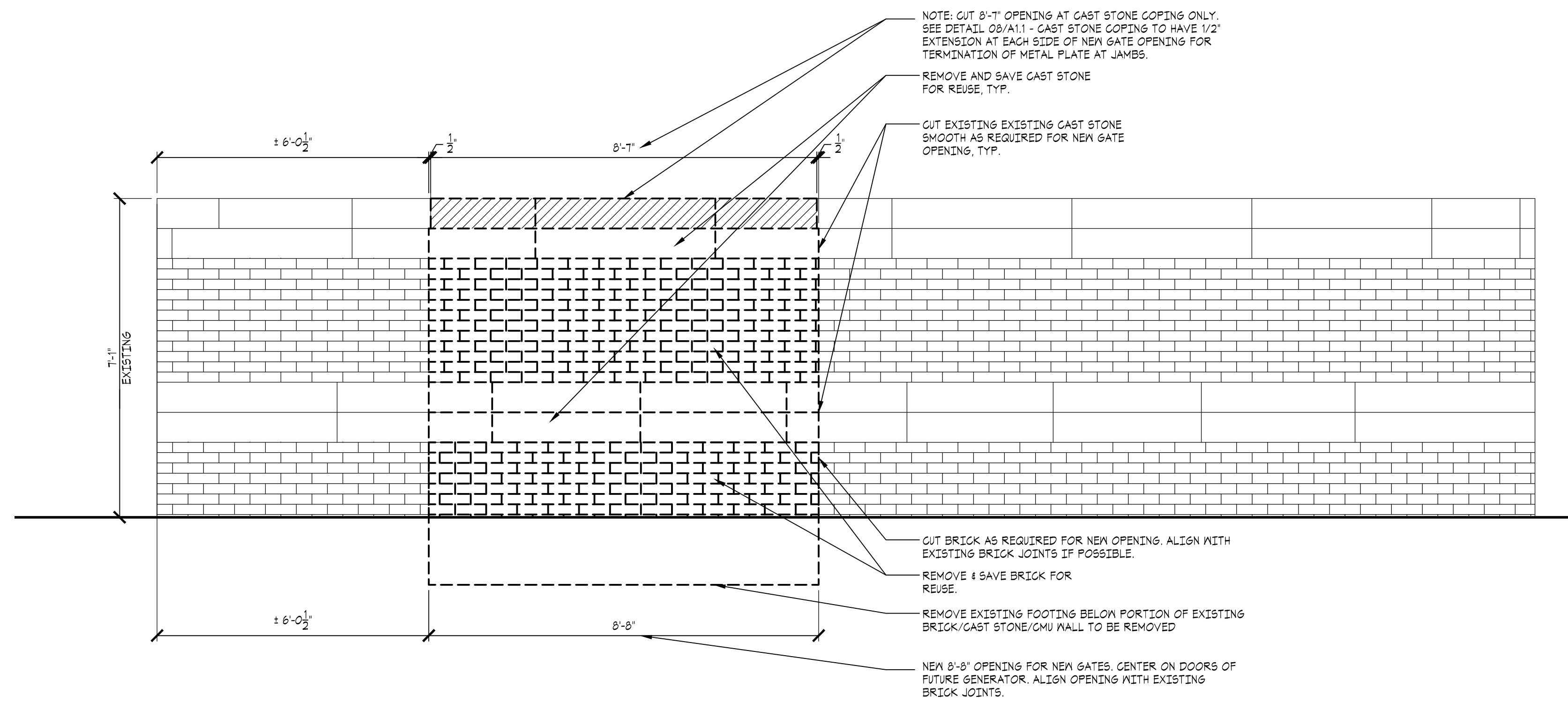
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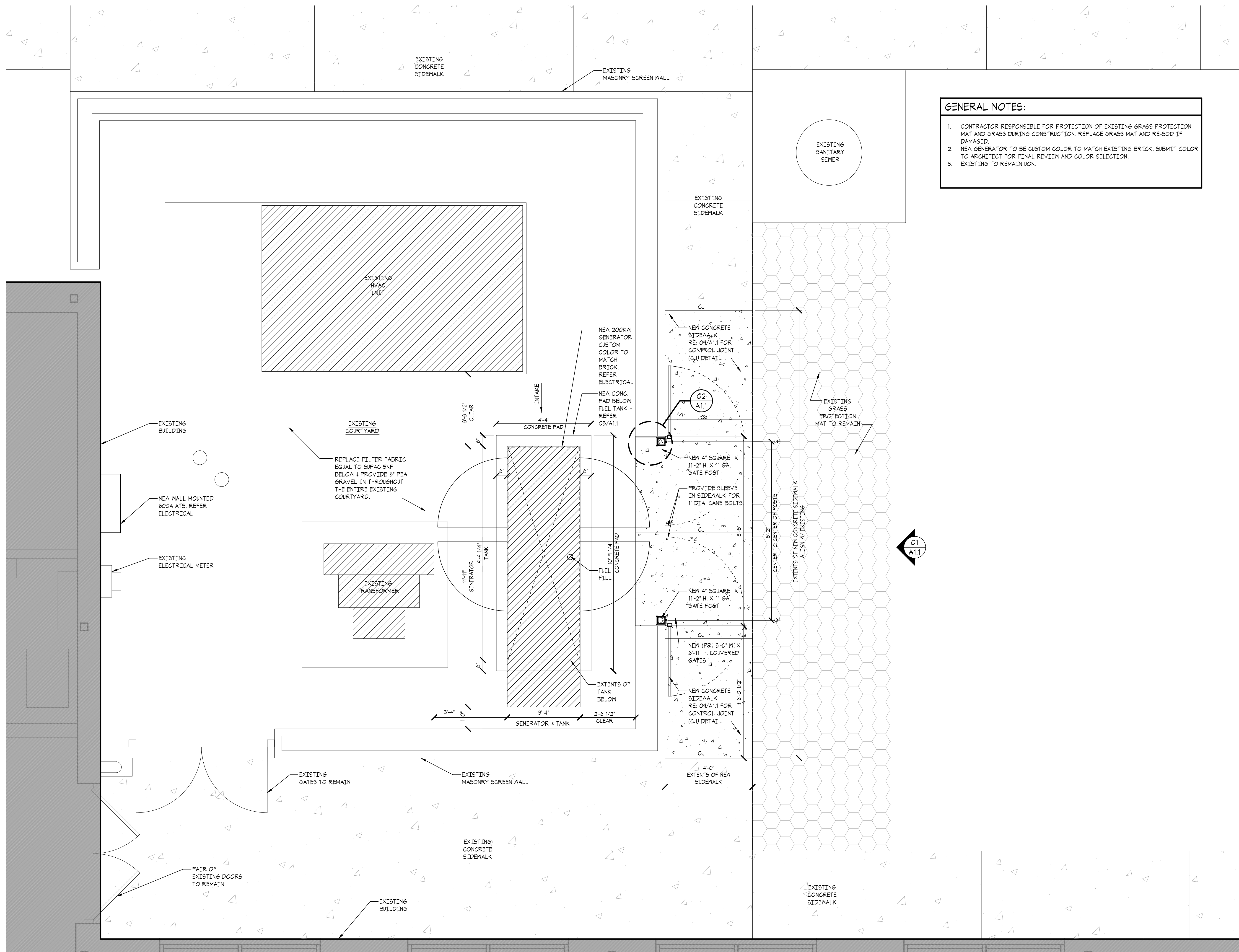
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DEMOLITION ELEVATION

Sheet Number:

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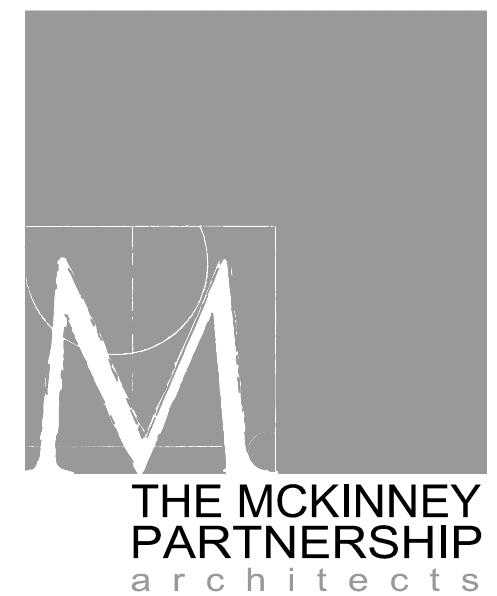


01 DEMOLITION - ELEVATION
SCALE: 1/2" = 1'-0"

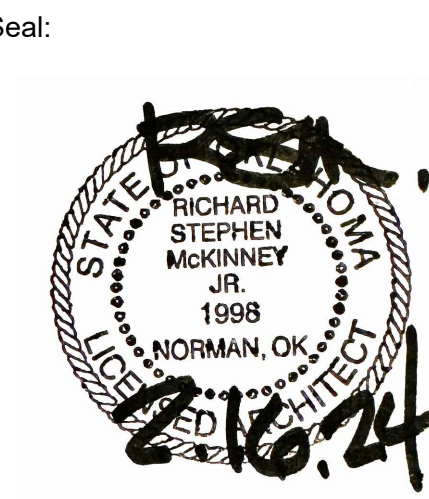


GENERAL NOTES:

1. CONTRACTOR RESPONSIBLE FOR PROTECTION OF EXISTING GRASS PROTECTION MAT AND GRASS DURING CONSTRUCTION. REPLACE GRASS MAT AND RE-SOD IF DAMAGED.
2. NEW GENERATOR TO BE CUSTOM COLOR TO MATCH EXISTING BRICK. SUBMIT COLOR TO ARCHITECT FOR FINAL REVIEW AND COLOR SELECTION.
3. EXISTING TO REMAIN UN.



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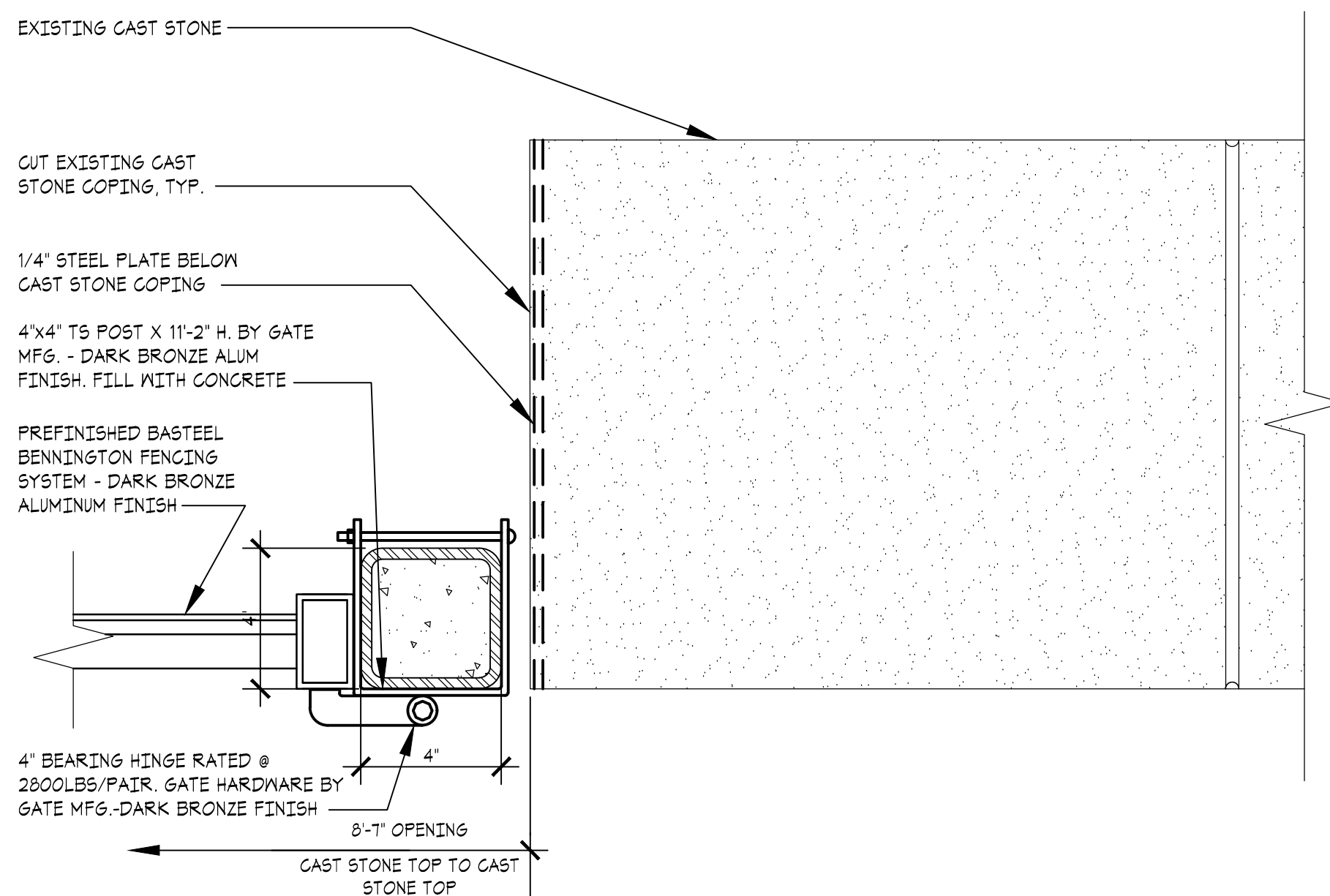
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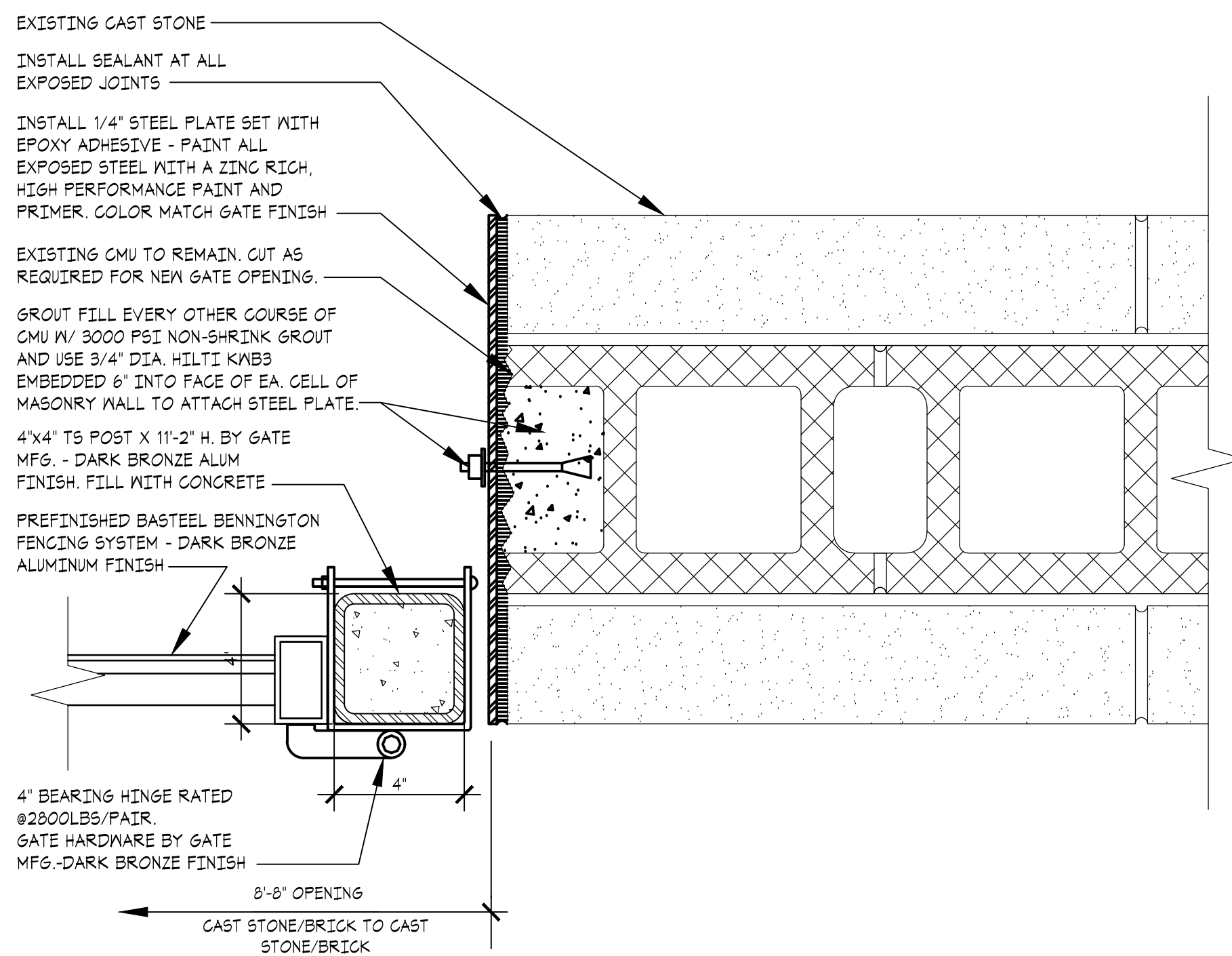
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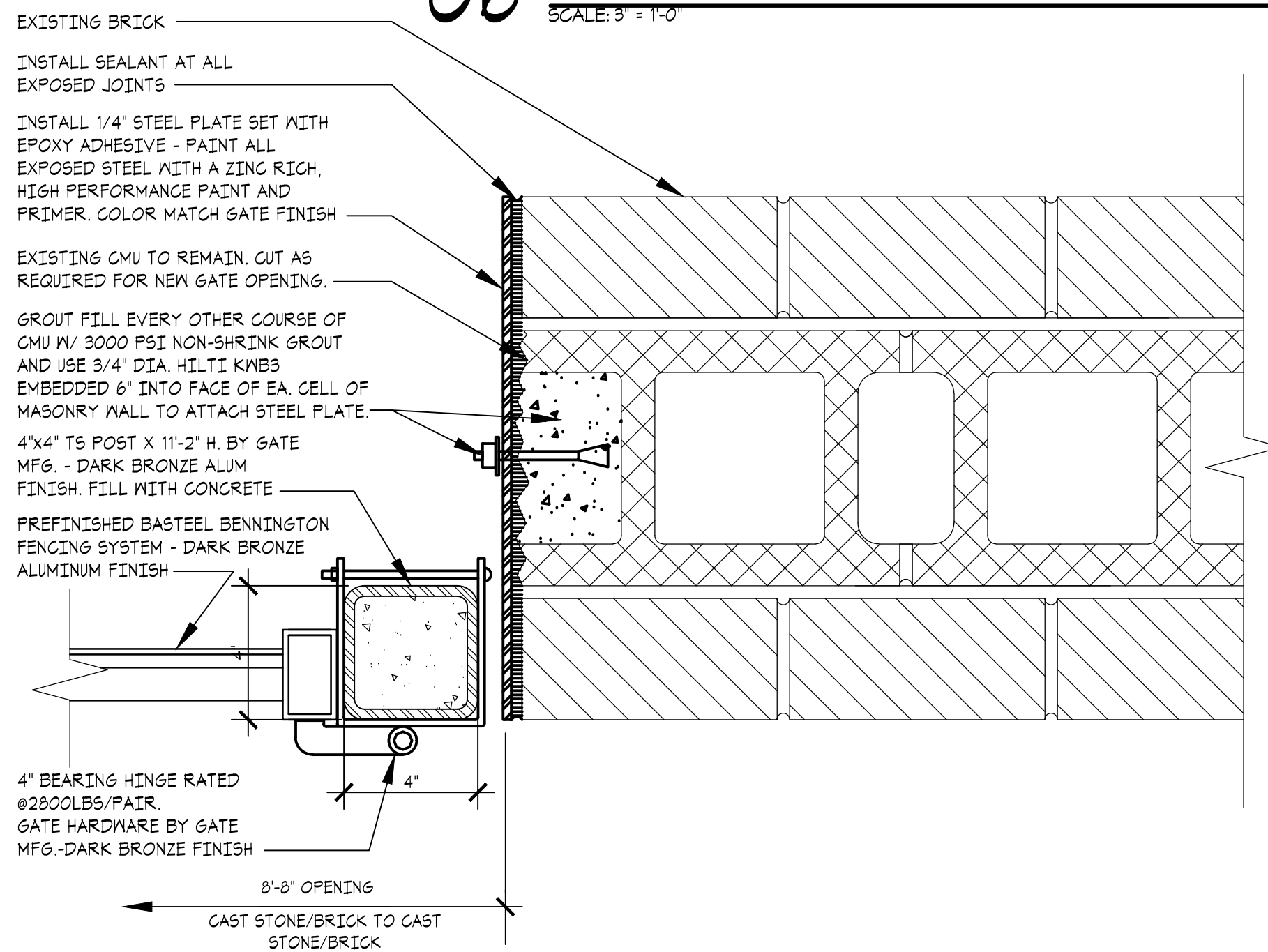
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SCALE: 1/2" = 1'-0"



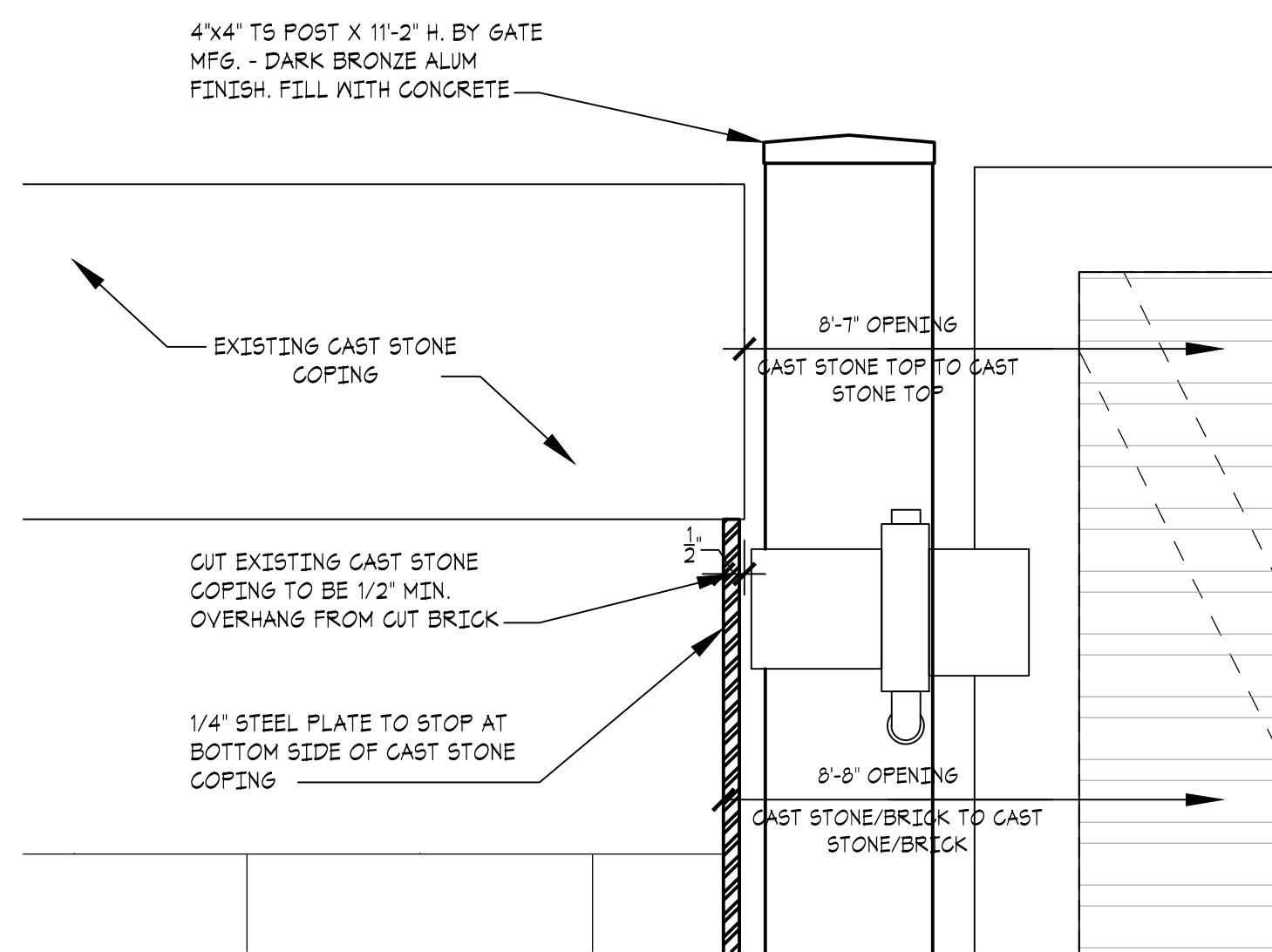
07 ENLARGED GATE DETAIL AT CAST STONE TOP
SCALE: 3/8" = 1'-0"



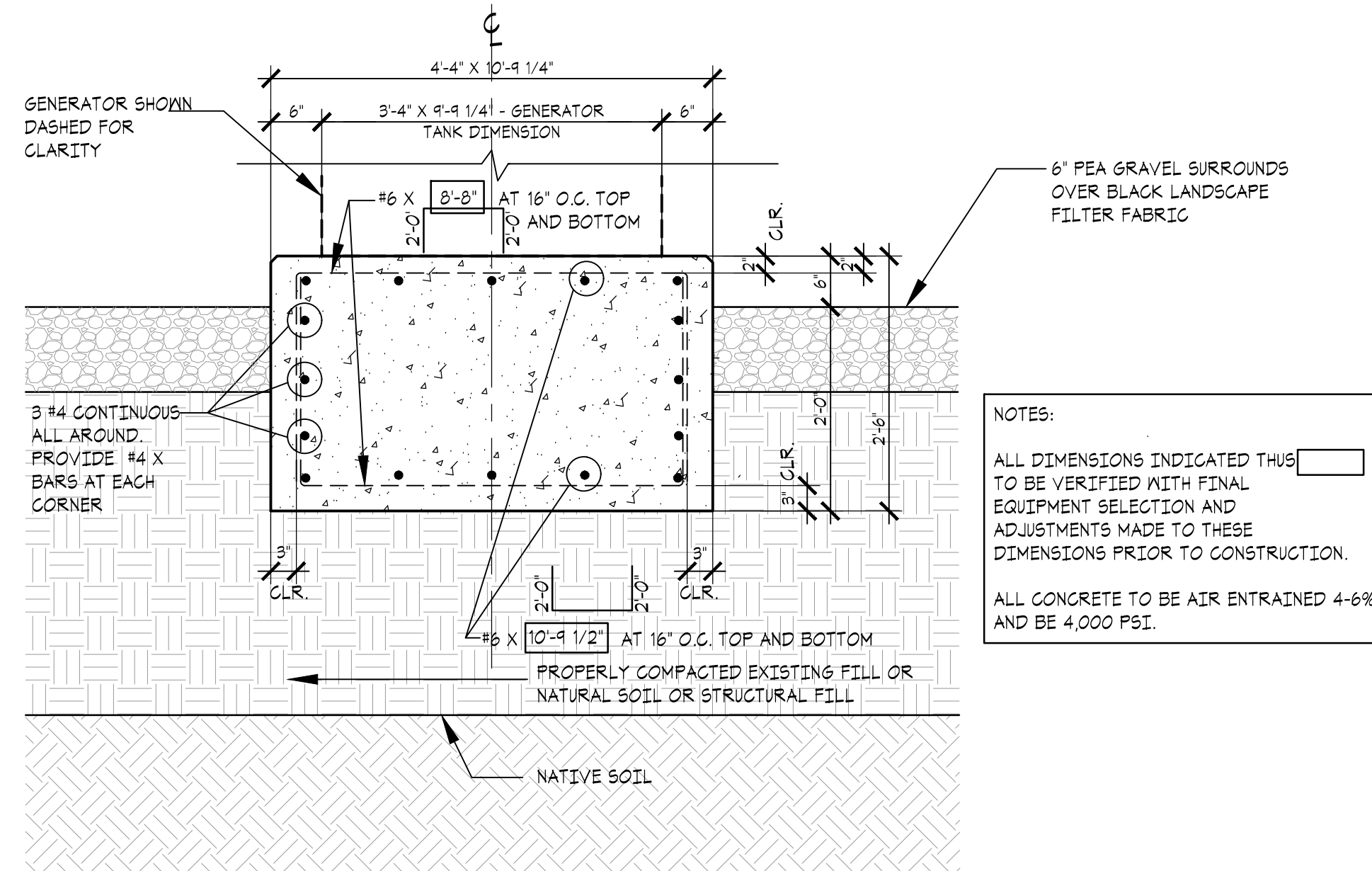
06 ENLARGED GATE DETAIL AT CAST STONE
SCALE: 3/8" = 1'-0"



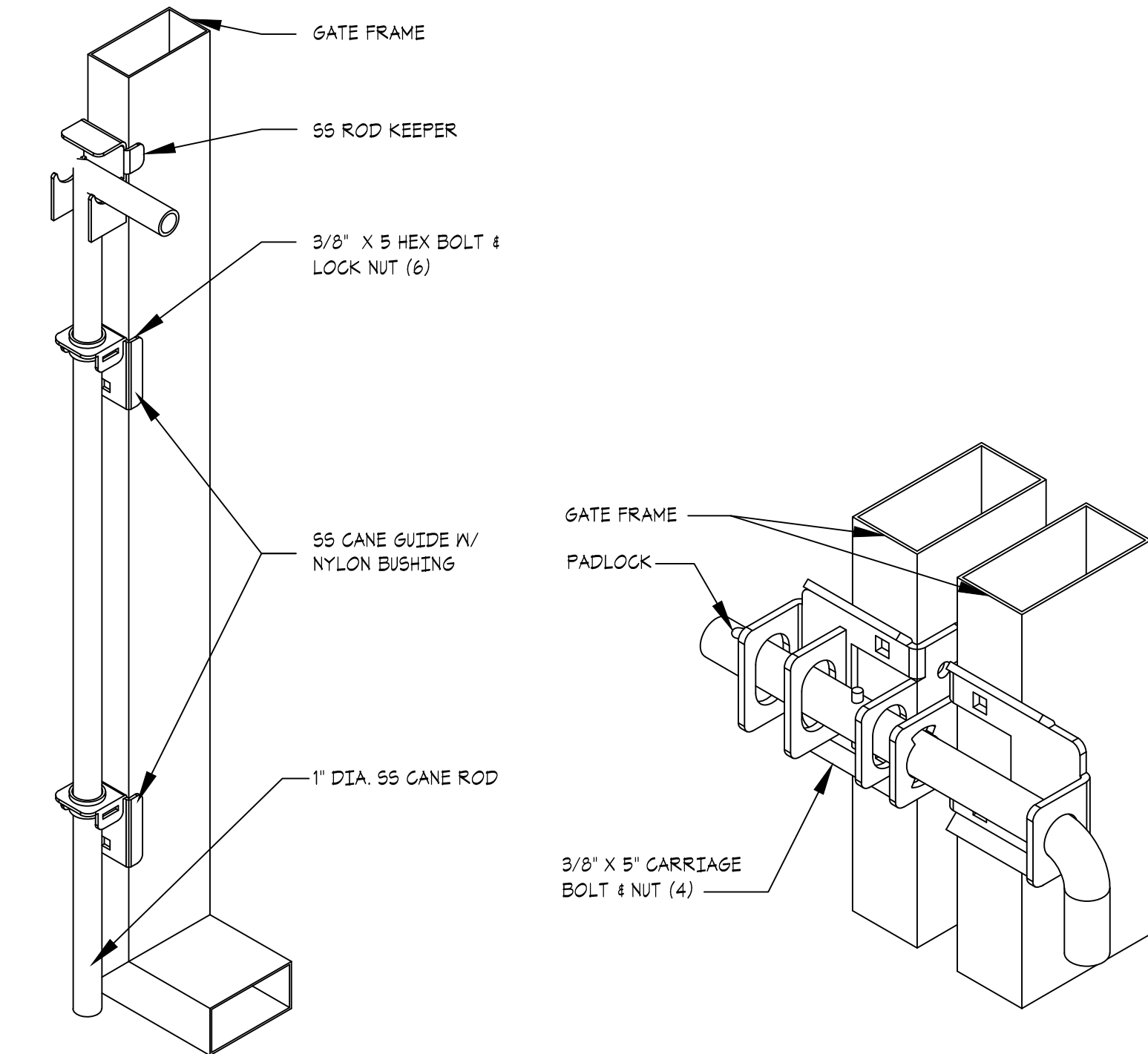
02 ENLARGED GATE DETAIL AT BRICK
SCALE: 3/8" = 1'-0"



08 ENLARGED STONE COPING CAP DETAIL
SCALE: 3/8" = 1'-0"

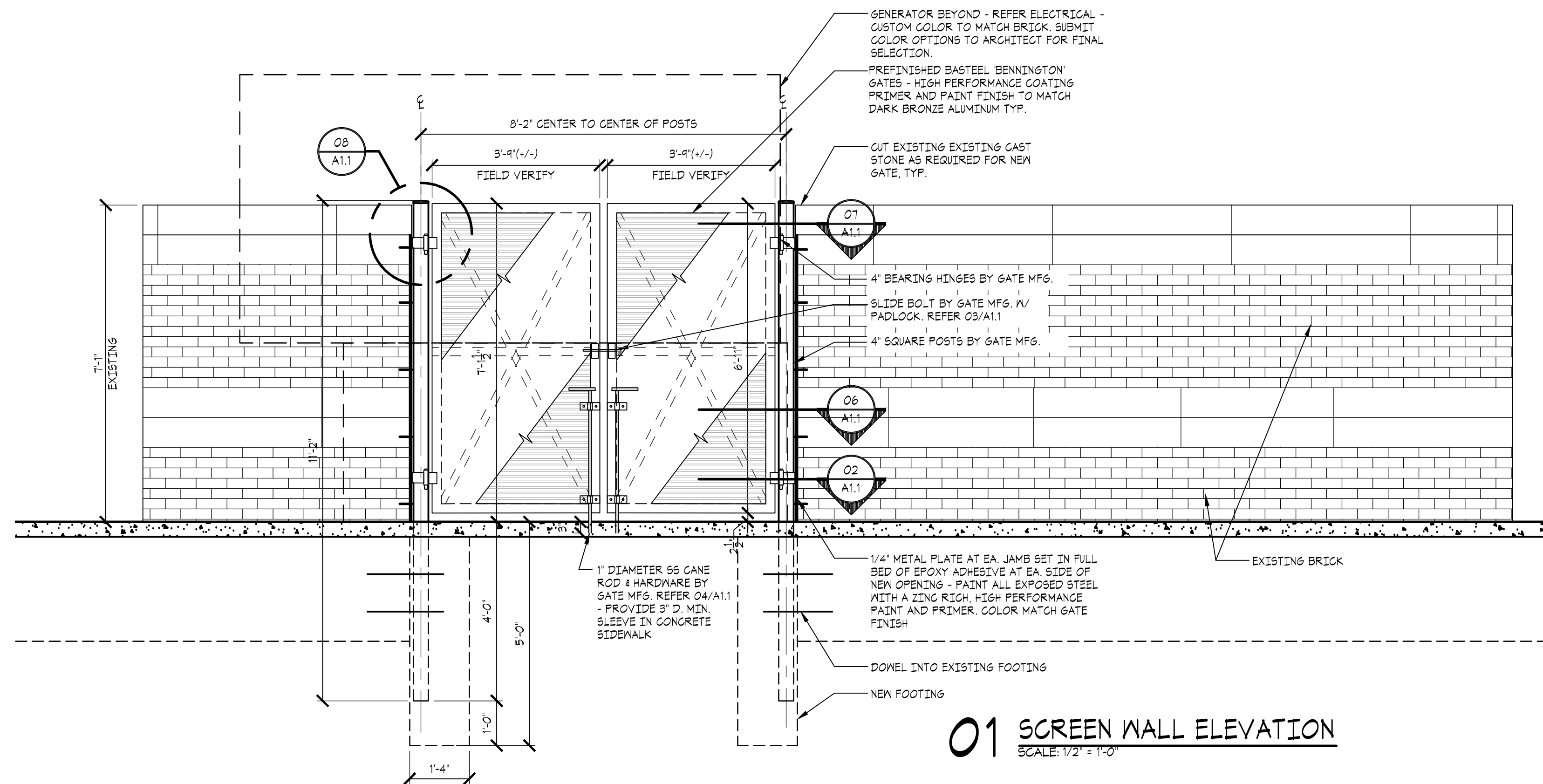


05 GENERATOR PAD
SCALE: N.T.S.



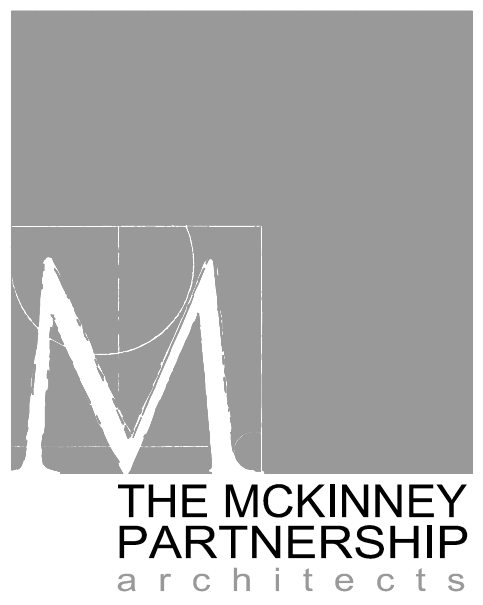
04 CANE ROD
SCALE: N.T.S.

03 SS SLIDE BOLT LATCH
SCALE: N.T.S.

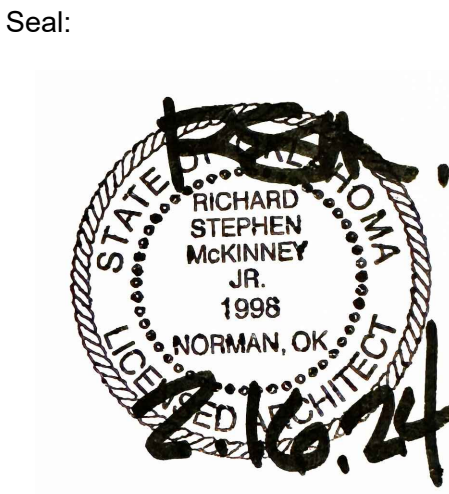


01 SCREEN WALL ELEVATION
SCALE: 1/2" = 1'-0"

09 CONTROL JOINT DETAIL
SCALE: 3/8" = 1'-0"



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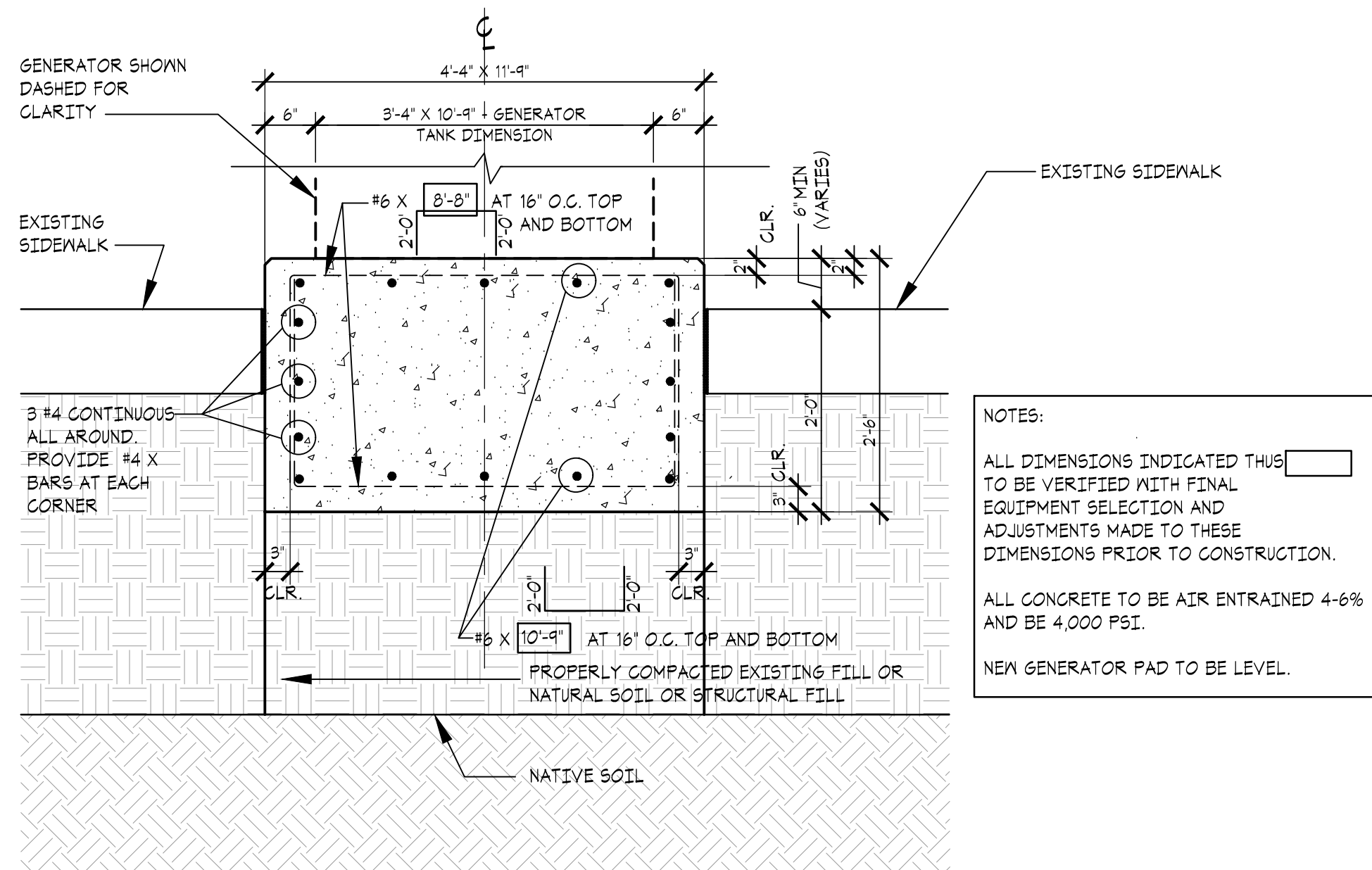
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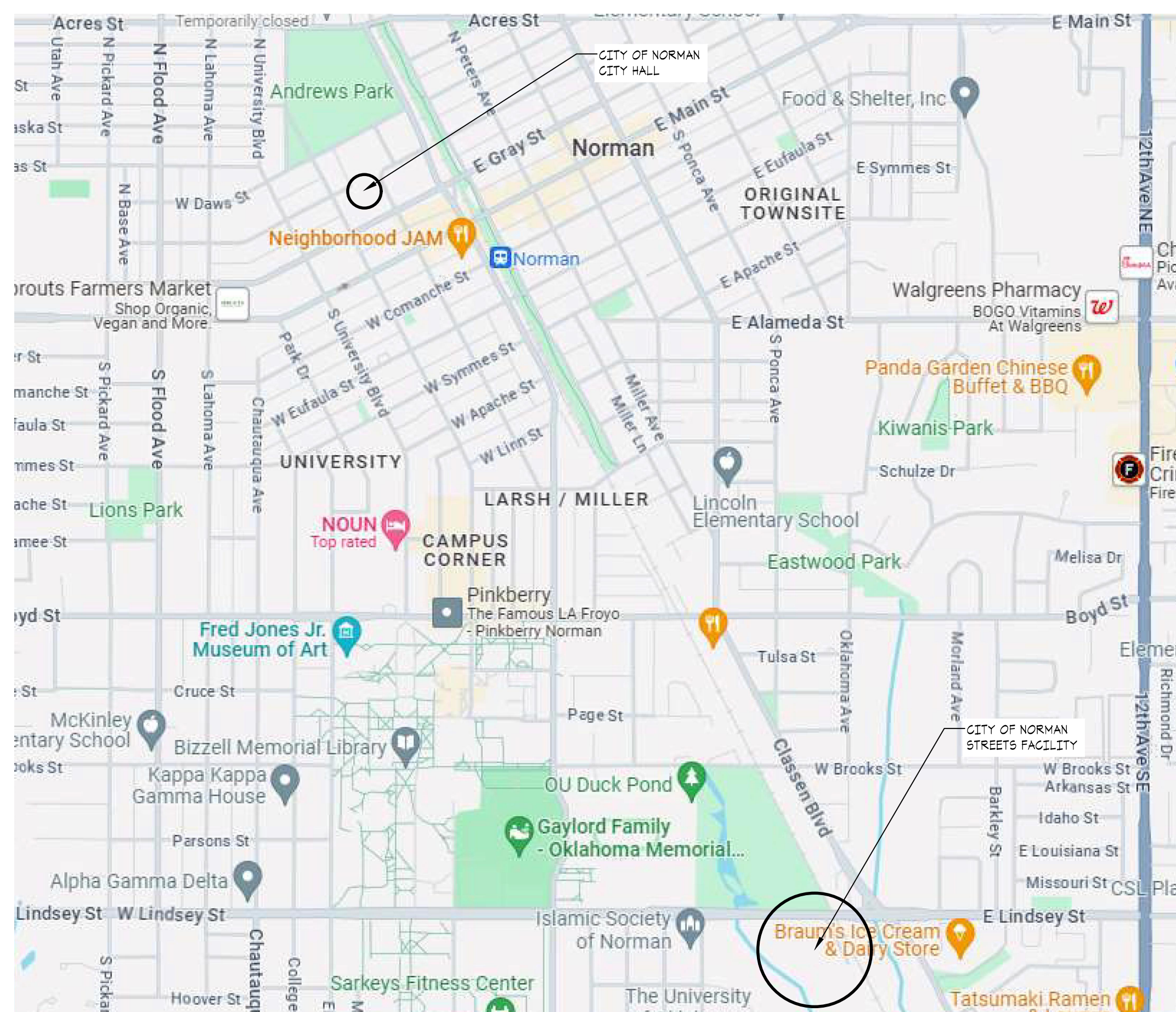
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Sheet Title:
SITE PLAN DETAILS

Sheet Number:
A1.1



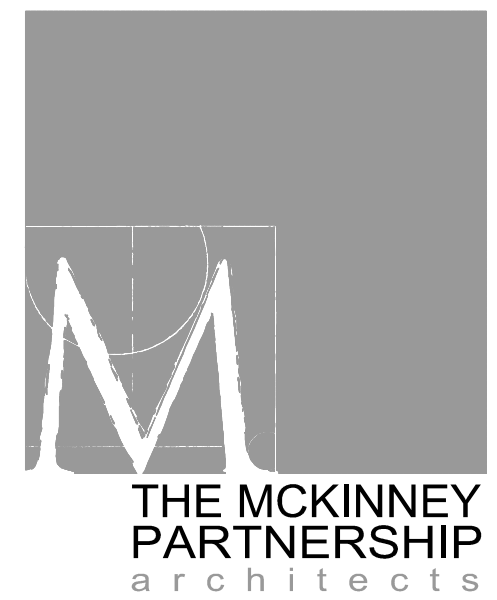
02 ADD ALTERNATE #01 - GENERATOR PAD DETAIL
SCALE: 3/4" = 1'-0"



02 VICINITY MAP
SCALE: N.T.S.

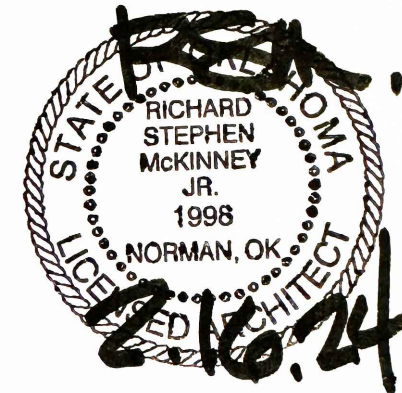


01 ADD ALTERNATE #01 - NORMAN STREET MAINTENANCE FACILITY - SITE PLAN
SCALE: 1'-0" = 30'-0"



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Sheet Title:
SITE PLAN - NORMAN STREET FACILITY - ADD ALTERNATE #01

Sheet Number:

A2.0

EXISTING ELECTRICAL AND DEMOLITION NOTES

1	PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE FACILITY AND RELATED SITE. REVIEW THE GENERAL NOTES AND ALL OTHER TRADE DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OWNER, AS SPECIFIED, OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.
2	ANY EXISTING CONDITIONS REFLECTED WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY ALL EXISTING CONDITIONS AND CAREFULLY COORDINATE NEW WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES AND EXISTING CONDITIONS.
3	PROVIDE ALL DEMOLITION OF EXISTING ELECTRICAL SYSTEMS AND NEW ELECTRICAL SYSTEM MODIFICATIONS REQUIRED BECAUSE OF BUILDING REMODELING, AS NOTED ON THE DRAWINGS, OR NECESSARY FOR PROPER OPERATION AND NEW CONSTRUCTION. REMOVE ALL ABANDONED CABLES AND WIRING ABOVE ACCESSIBLE CEILINGS AND VENTILATION SHAFTS.
4	COORDINATE INTERRUPTION OF ALL BUILDING SERVICES INCLUDING BUT NOT LIMITED TO BRANCH CIRCUITS, DATA, TELEPHONE, ETC WITH BUILDING OWNER PRIOR TO INTERRUPTION. PROVIDE LABOR AND MATERIALS AS REQUIRED TO REDUCE INTERRUPTIONS IN ORDER TO MAINTAIN EXISTING OPERATION.
5	PAY SPECIAL ATTENTION NOT TO DAMAGE OF EXISTING WALLS AND CONSTRUCTION THAT ARE TO REMAIN WHEN REMOVING OR REPLACING ELECTRICAL DEVICES. REPAIR ANY DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
6	RELOCATE ALL EXISTING ELECTRICAL SYSTEMS REQUIRED TO BE IN OPERATION AT SUBSTANTIAL COMPLETION OF THE CONTRACT, IF REQUIRED, AS A RESULT OF WORK INCLUDED UNDER THIS CONTRACT, EVEN IF NOT SPECIFICALLY INDICATED IN THE DRAWINGS OR SPECIFICATIONS.
7	SEAL ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS, AND ROOF WHERE ELECTRICAL COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS OR AS DIRECTED BY THE OWNER.
8	UNLESS NOTED OTHERWISE, ABANDONED CONDUIT ASSEMBLIES SERVING DEMOLISHED DEVICES SHALL BE REMOVED BACK TO NEAREST JUNCTION BOX OUTSIDE OF AREA OF DEMOLITION AND LABELED AS REQUIRED FOR FUTURE USE. ASSOCIATED WIRING SHALL BE REMOVED BACK TO SERVING PANELBOARD, UPDATE PANELBOARD CIRCUIT DIRECTORY AS REQUIRED TO INDICATE RELATED CIRCUIT(S) AS "SPARE".
9	ANY PANELBOARD CIRCUIT DISRPTIONS SHOWN AS "existing" OR IN OTHER LOWER CASE LETTERING IS INTENDED TO REFLECT AN EXISTING CIRCUIT TO REMAIN UNLESS OTHERWISE IDENTIFIED DIFFERENTLY THRU THE COURSE OF CONSTRUCTION.
10	ALL CIRCUIT BREAKERS SERVING BRANCH CIRCUITS TO BE REMOVED SHALL REMAIN IN RESPECTIVE PANELBOARD FOR FUTURE USE UNLESS NOTED OTHERWISE.
11	EXISTING DEVICES ARE SHOWN LIGHT. NEW DEVICES ARE SHOWN BOLD.

GENERAL ELECTRICAL NOTES

1	DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW ALL GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS.
2	INSTALL EQUIPMENT IN A MANNER TO REMAIN ACCESSIBLE WITH REASONABLE MEANS BY THE OWNER FOLLOWING COMPLETION OF WORK.
3	FIELD VERIFY LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT, INCLUDING POWER POLES, TELEPHONE PEDESTALS, OVERHEAD AND UNDERGROUND FEEDERS, METERS, PANELS, DEVICES, ETC. PROVIDE FOR COORDINATION WITH EXISTING EQUIPMENT.
4	ROOM NAMES/NUMBERS SHOWN IN PANELBOARD SCHEDULES ARE PER ARCHITECTURAL FLOOR PLANS. CONTRACTOR SHALL PROVIDE FINALIZED PANELBOARD SCHEDULES AT COMPLETION OF PROJECT WITH OWNER PROVIDED ROOM NAMES/NUMBERS.
5	CONDUCTORS FOR BRANCH CIRCUITS AS DEFINED IN ARTICLE 100, SHALL BE SIZED TO PREVENT A VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST LOAD, AND WHERE THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST LOAD DOES NOT EXCEED 5%.
6	ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE, STATE LAWS, ALL AUTHORITIES HAVING JURISDICTION, AND ALL OTHER REGULATIONS GOVERNING WORK OF THIS NATURE.
7	THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIAL, AND LABOR TO SATISFY A COMPLETE AND WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
8	CONTRACTOR TO CONFIRM EXACT LOCATION OF EXISTING AND NEW EQUIPMENT.
9	THE CONTRACTOR SHALL FURNISH AND INSTALL ALL GROUNDING SYSTEMS (AS REQUIRED) IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.
10	ALL ELECTRIC MATERIALS AND EQUIPMENT FOR THE PROJECT SHALL BE NEW AND U.L. OR EQUALLY LISTED.
11	SUBMIT TO THE OWNER CERTIFICATES OF INSPECTIONS IN DUPLICATE FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION.
12	THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES AS REQUIRED.
13	THE CONTRACTOR SHALL FURNISH ALL INSTRUMENTS AND QUALIFIED PERSONNEL OR FIRM TO PERFORM ALL REQUIRED TESTS.
14	NO EQUIPMENT SHALL BE ENERGIZED UNTIL ALL TEST AND ADJUSTMENTS HAVE BEEN MADE. THREE COPIES OF ALL TEST RESULTS SHALL BE DELIVERED TO THE OWNER.
15	ALL WIRING DEVICE COVERPLATES SHALL INDICATE PANELBOARD AND CIRCUIT SERVING THE DEVICE. UTILIZE CLEAR VINYL (BLACK LETTERING) IDENTIFICATION LABELS MANUFACTURED BY 3M COMPANY (OR APPROVED EQUIVALENT).
16	THE TYPE OF CONDUIT SHALL BE AS FOLLOWS FOR ALL FEEDERS AND DISTRIBUTION CIRCUITS, UNLESS OTHERWISE SPECIFIED. APPLICATION - TYPE OF CONDUIT BURIED IN CONCRETE OR OUTDOORS - PVC WITH RIGID GALVANIZED STEEL ELBOWS SERVICE ENTRANCE - GALVANIZED RIGID STEEL OR SERVICE UTILITY SPECIFICATIONS.
17	UNLESS NOTED OTHERWISE PROVIDE MINIMUM #8 AWG CONDUCTORS IN 1" CONDUIT(S) FOR ALL UNDERGROUND SITE POWER AND LIGHTING CIRCUITS. INCREASE CONDUCTOR AND RELATED CONDUIT SIZE AS NOTED OR OTHERWISE REQUIRED TO LIMIT VOLTAGE DROP TO LESS THAN 5% FOR THE ENTIRE LENGTH OF SYSTEM.
18	DESIGNATED SPARE CIRCUIT BREAKERS SHALL BE PLACED IN THE OFF POSITION.
19	COORDINATE ALL POWER, OUTLETS/DEVICES AND EQUIPMENT WITH OWNER AND OWNER'S REPRESENTATIVE PRIOR TO ROUGH-IN OR FINAL INSTALLATION.




ABBREVIATIONS

AC	ABOVE COUNTER	IG	ISOLATED GROUND
AFF	ABOVE FINISHED FLOOR	MCC	MOTOR CONTROL CENTER
CB	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
E	EXISTING	NEMA	NATIONAL ELECTRICAL
EC	ELECTRICAL CONTRACTOR		MANUFACTURERS ASSOC.
EP	EXPLOSION PROOF	NIC	NOT IN CONTRACT
GFI	GROUND FAULT CIRCUIT INTERRUPTER	NL	NIGHT LIGHT
GR	GROUND	UG	UNDERGROUND
HP	HORSE POWER	UON	UNLESS OTHERWISE NOTED
		WP	WEATHERPROOF
		WR	WEATHER RESISTANT

SWITCHES

S*	SWITCH MOUNTED AT +48" SINGLE POLE UON. LOWER CASE LETTER, WHEN PRESENT, INDICATES FIXTURES CONTROLLED.
* ABBREVIATIONS FOR SWITCH	
2	DOUBLE POLE SWITCH
3	3-WAY SWITCH
4	4-WAY SWITCH
D	DIMMER SWITCH (SHALL BE COMPATABLE WITH FIXTURE BEING DIMMED)
F	FAN SWITCH- DUAL OPERATION WITH DIMMER
K	KEYED SWITCH
M	MOTOR RATED SWITCH
OS	DUAL TECHNOLOGY OCCUPANCY SENSOR
V	VOLUME CONTROL SWITCH
OSD	OCCUPANCY SENSOR/DIMMER COMBO

PANELS AND MISC.

	LIGHT OR POWER PANEL
	4x4 JUNCTION BOX.
	EQUIPMENT DISCONNECT: INTERIOR DISCONNECTS SHALL BE NEMA 1 TYPE. EXTERIOR DISCONNECTS SHALL BE NEMA 3R TYPE. SIZE AS INDICATED IN THE PLANS AND PER NAMEPLATE RATING.

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E1.3	ELECTRICAL SITE PLAN - NORMAN STREET FACILITY - ADD ALTERNATE #01
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E2.3	ELECTRICAL PANEL SCHEDULES



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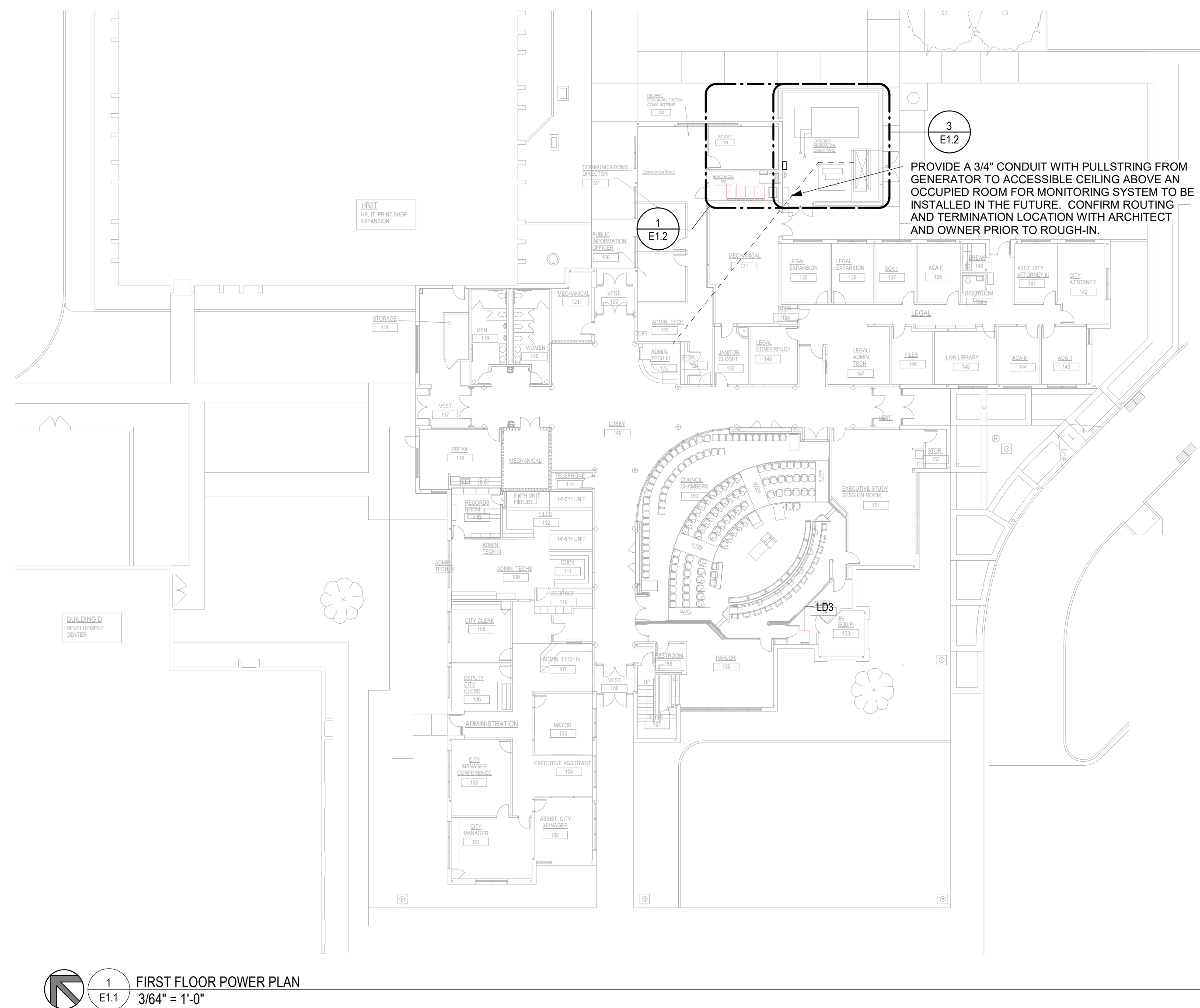
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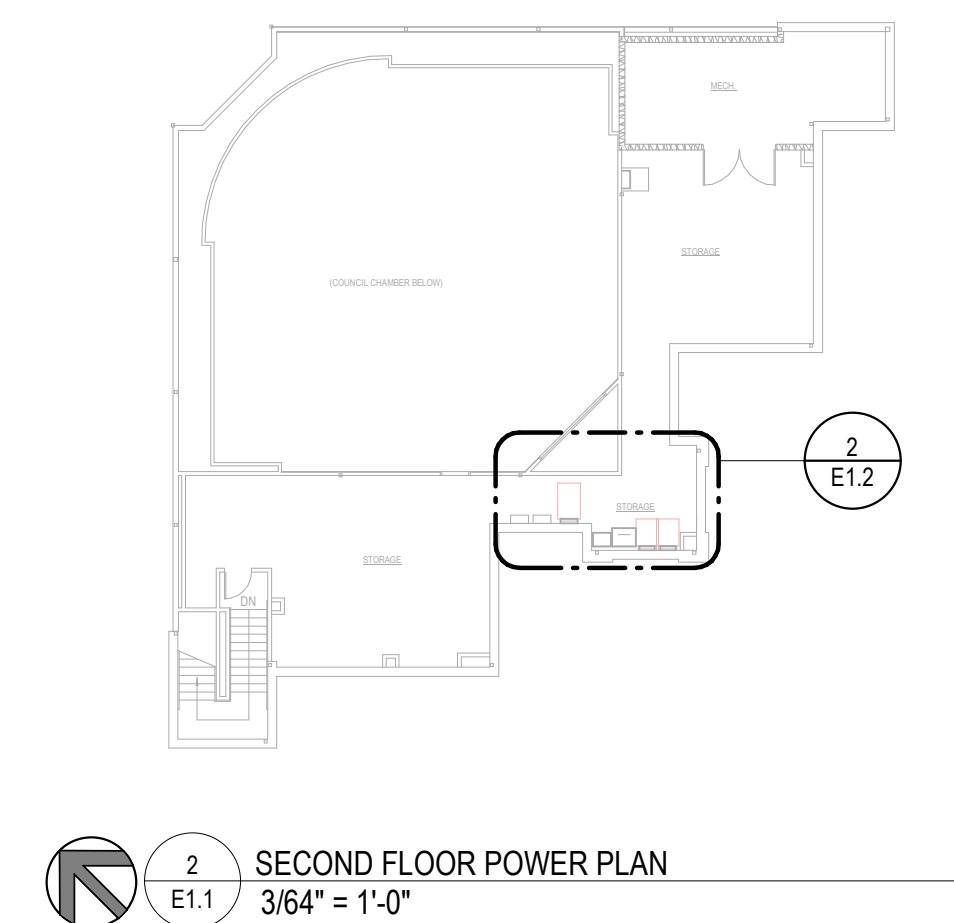
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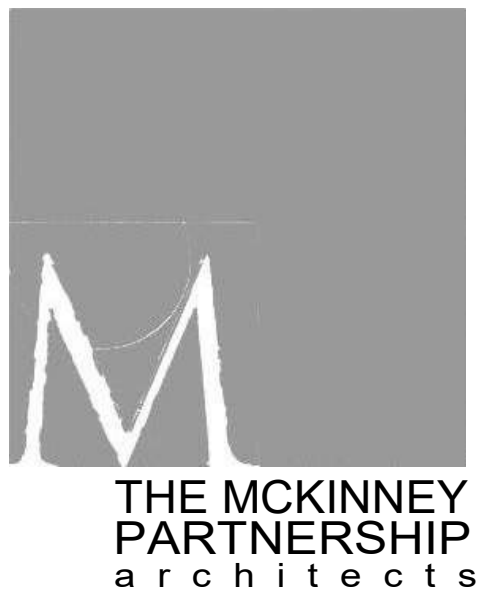




1
E1.1
FIRST FLOOR POWER PLAN
3/64" = 1'-0"



2
E1.1
SECOND FLOOR POWER PLAN
3/64" = 1'-0"



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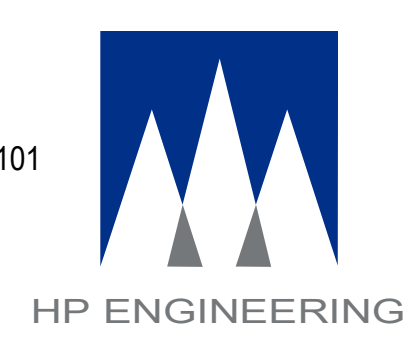
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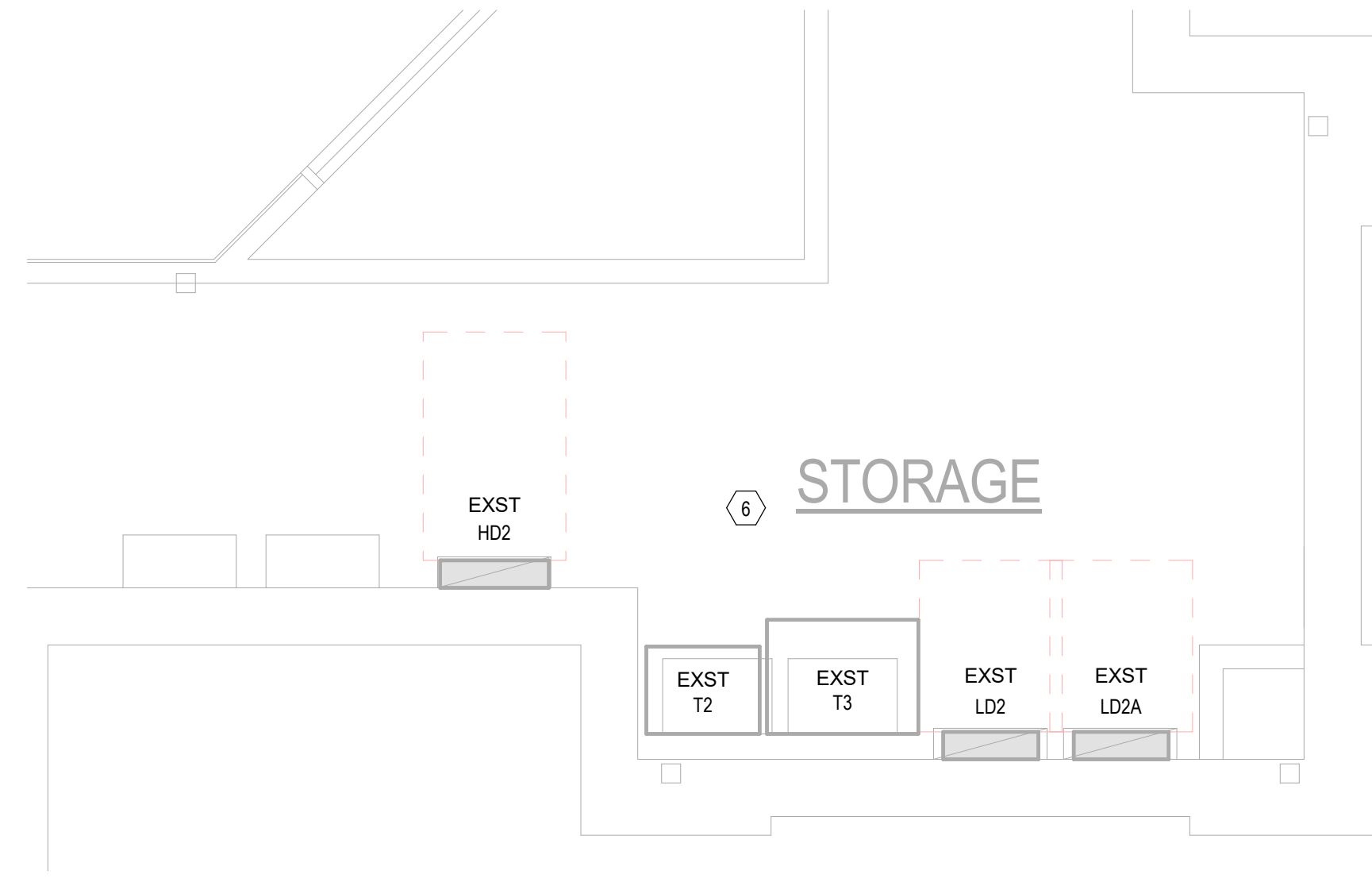
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ELECTRICAL POWER PLAN

Sheet Number:
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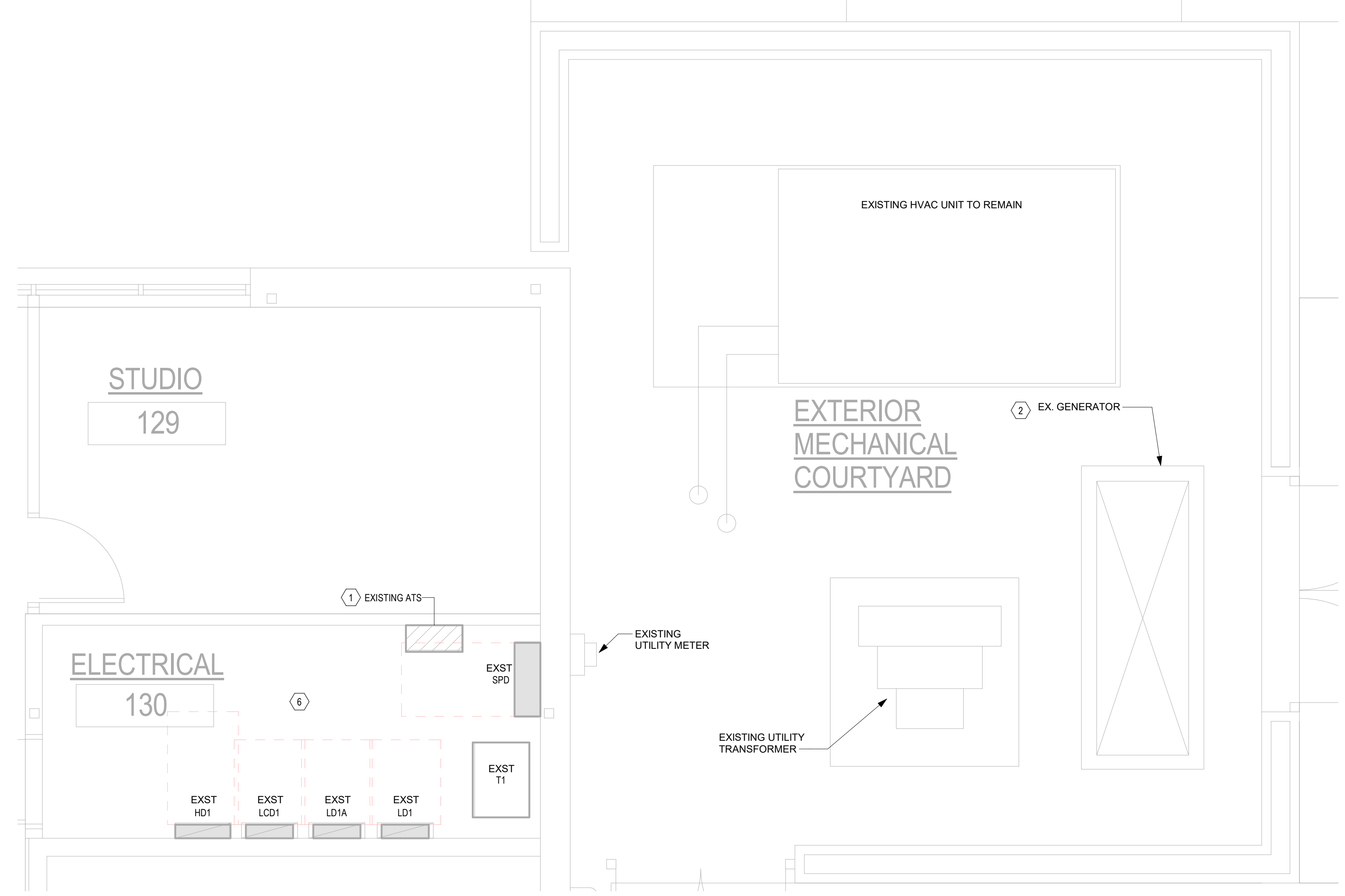
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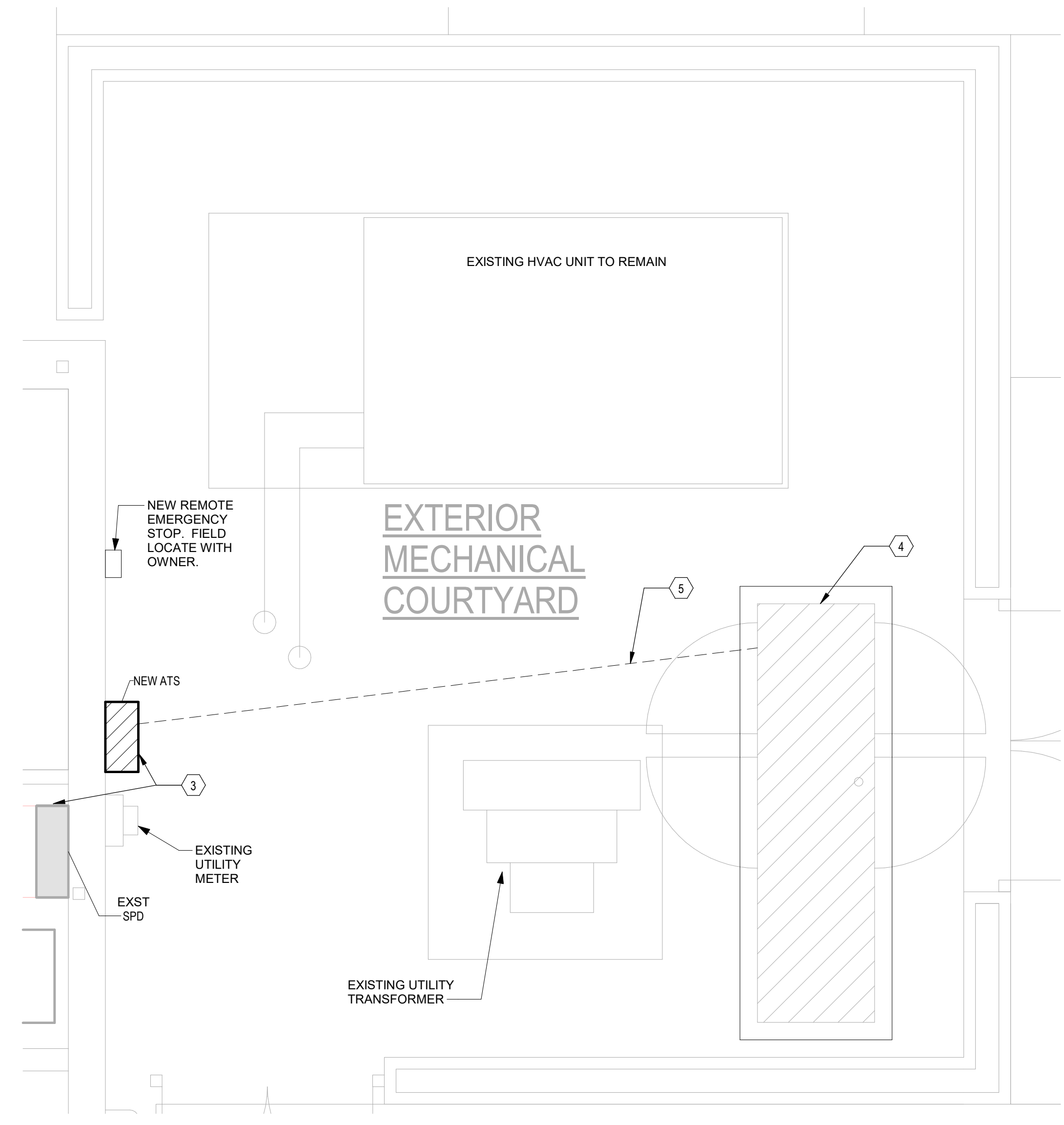




2
E1.2
EXISTING SECOND FLOOR ENLARGED POWER PLAN
3/8" = 1'-0"



1
E1.2
EXISTING FIRST FLOOR ENLARGED POWER PLAN
3/8" = 1'-0"



3
E1.2
NEW FIRST FLOOR ENLARGED POWER PLAN
3/8" = 1'-0"

KEYNOTES	
1	CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING WIRE & CONDUIT BACK TO PANEL SPD. REMOVE AT'S AND RETURN TO OWNER.
2	CONTRACTOR SHALL REMOVE EXISTING GENERATOR AND ALL ASSOCIATED RELATED EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDUITS, WIRING, CONTROLS, ETC. STORE AND RETURN ALL PARTS TO THE OWNER FOR FUTURE USE. INCLUDE ALL REMOVAL AND STORING IN BID.
3	CONTRACTOR TO PROVIDE NEW APPROPRIATELY SIZED CONDUIT AND WIRE FROM NEW AT'S TO EXISTING PANEL SPD. REFER TO RISER DIAGRAM ON SHEET E2.1.
4	NEW GENERATOR WITH FUEL TANK BELOW. REFER TO RISER DIAGRAM ON SHEET E2.1 AND ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
5	CONTRACTOR TO PROVIDE NEW APPROPRIATELY SIZED CONDUIT AND WIRE TO NEW AT'S. REFER TO RISER DIAGRAM ON SHEET E2.1 FOR MORE INFORMATION.
6	EXISTING EQUIPMENT TO REMAIN.



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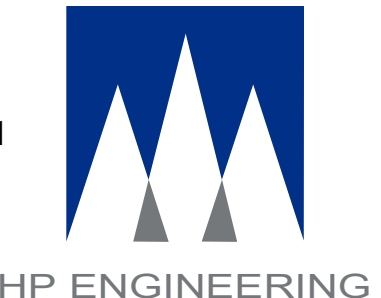
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Sheet Title:
ELECTRICAL ENLARGED POWER PLAN

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PANELBOARD NOTES (#)

1. TERMINATE GROUND ON ISOLATED GROUND BUS.
2. INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-OFF FOR MAINTENANCE).
3. INSTALL LOCKING DEVICE FURNISHED WITH PANELBOARD (LOCK-ON FOR CRITICAL LOAD).
4. GFI BREAKER FOR PERSONNEL PROTECTION (5mA).
5. GFI BREAKER FOR EQUIPMENT PROTECTION (30mA).
6. CONDUCTOR SIZE SHOWN IN PANEL SCHEDULE HAS BEEN INCREASED FOR VOLTAGE DROP. SIZE EQUIPMENT GROUND PROPORTIONALLY PER NEC.
7. REFERENCE GROUND WIRE SIZING CHART REFER TO FAULT CURRENT SCHEDULE FOR AVAILABLE FAULT CURRENT FOR INTERRUPT RATINGS.
8. REFER TO ONE-LINE DIAGRAM FOR WIRE SIZES.
9. FACTORY WIRING TO LOAD.
10. THRU CONTROLLER, REFER TO LIGHTING CONTROLLER DETAIL.
11. ADD NEW CIRCUIT BREAKER TO EXISTING PANEL. NEW CIRCUIT BREAKER SHALL MATCH AIC RATING, MANUFACTURER, AND TYPE OF EXISTING CIRCUIT BREAKERS.
12. MATCH AIC RATING OF SERVICING DEVICE.

EQUIPMENT GROUNDING CONDUCTOR SIZING CHART

BRKR AMPS	PHASE GROUND	WIRE SIZE				
15-20	PHASE GROUND	12	10	8	6	4
25-30	PHASE GROUND	10	8	6	4	3
35-50	PHASE GROUND	8	6	4	3	2
60	PHASE GROUND	6	4	3	2	1
70	PHASE GROUND	6	4	3	2	1
80-90	PHASE GROUND	4	3	2	1	1/0
100	PHASE GROUND	3	2	1	1/0	2/0

PER NEC 250.122(B)

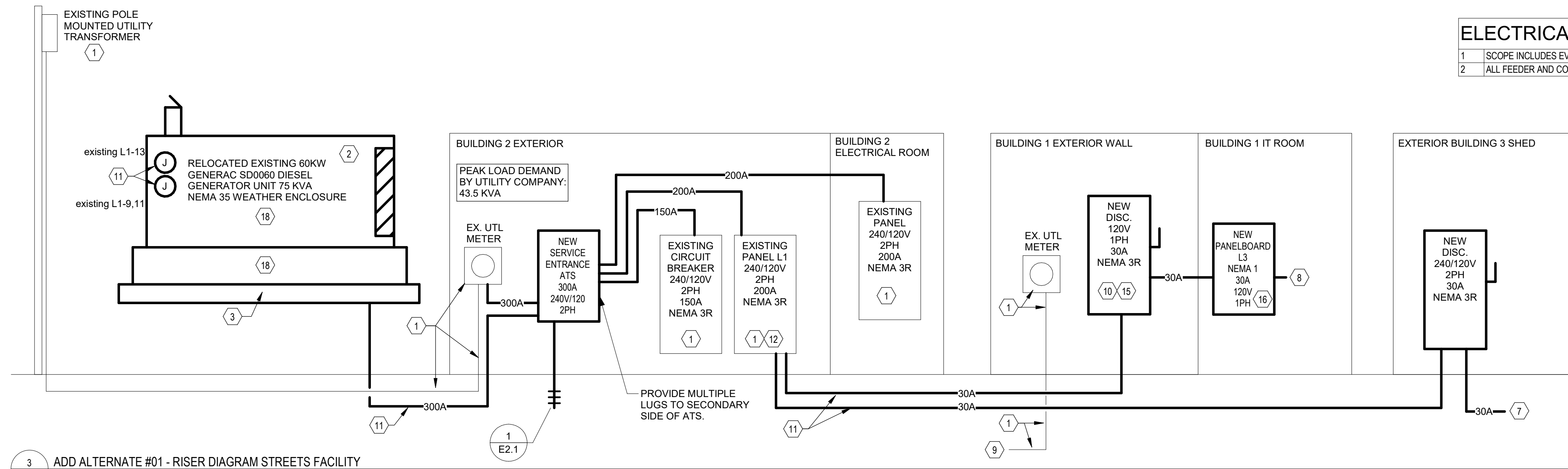
CIRCUIT DESCRIPTIONS SHOWN AS "existing" OR IN LOWER CASE LETTERS INDICATE AN EXISTING CIRCUIT BREAKER TO REMAIN AND IS BASED ON ORIGINAL BUILDING PLANS, PANEL SCHEDULES AND BREAKER ARRANGEMENTS AT THE TIME OF THE SITE VISIT.

LOAD CLASSIFICATION IDENTIFICATION

- C - CONTINUOUS
- H - HVAC
- K - KITCHEN
- L - LIGHTING
- M - MOTOR
- P - NON-CONTINUOUS GENERAL POWER
- R - RECEPTACLE

ELECTRICAL ADD ALTERNATE #01 NOTES

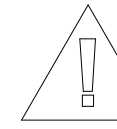
- 1 SCOPE INCLUDES EVERYTHING ON SHEET E1.3
- 2 ALL FEEDER AND CONDUIT SIZES REFERENCE SHEET E2.1



3 ADD ALTERNATE #01 - RISER DIAGRAM STREETS FACILITY NTS

SWITCHGEAR LABEL

THE MAIN SWITCHBOARD SHALL HAVE A LABEL APPLIED TO WARN OF POTENTIAL SHOCK HAZARDS



WARNING

SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.

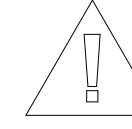
NOTES:

A. THE MAIN SWITCHBOARD SHALL HAVE A COMMERCIAL PRODUCED PERMANENT LABEL APPLIED, SIMILAR TO THE ABOVE, TO WARN OF POTENTIAL SHOCK HAZARDS, IN ACCORDANCE WITH NEC 702.7 AND NFPA 70E.

B. LABELING MAY BE COMPLETED BY EQUIPMENT MANUFACTURER, EQUIPMENT VENDOR/SUPPLIER, OR THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT ALL SWITCHBOARDS AND PANELBOARDS ARE PROPERLY LABELED IN THE FIELD.

EQUIPMENT LABELS

ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A LABEL APPLIED TO WARN OF POTENTIAL ARC FLASH HAZARDS



WARNING

ARC FLASH AND SHOCK HAZARD. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED.

NOTES:

A. ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A COMMERCIAL PRODUCED PERMANENT LABEL APPLIED, SIMILAR TO THE ABOVE, TO WARN OF POTENTIAL ARC FLASH HAZARDS, IN ACCORDANCE WITH NEC 110.16 AND NFPA 70E.

B. LABELING MAY BE COMPLETED BY EQUIPMENT MANUFACTURER, EQUIPMENT VENDOR/SUPPLIER, OR THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT ALL SWITCHBOARDS AND PANELBOARDS ARE PROPERLY LABELED IN THE FIELD.

KEYNOTES

- 1 EXISTING TO REMAIN.
- 2 EXISTING 12-LEAD ALTERNATOR TO BE RECONFIGURED FOR 120/240V SERVICE. INCLUDE EQUIPMENT SERVICE IN ADD ALTERNATE #01 BID.
- 3 NEW CONCRETE PAD. REFER TO ARCHITECTURAL DRAWINGS.
- 4 REMOVE AND RETURN METER TO UTILITY.
- 5 DEMOLISH SERVICE ENTRANCE CONDUIT AND CONDUCTORS FROM METER BASE TO SERVICE ENTRANCE PANELBOARD.
- 6 EXISTING UTILITY METER TO REMAIN.
- 7 RECONNECT TO EXISTING PANELBOARD PREVIOUSLY FED FROM UTILITY METER.
- 8 RECONNECT EXISTING IT/TELECOM HOMERUN CIRCUIT TO NEW IT PANELBOARD.
- 9 TO EXISTING UTILITY SERVICE
- 10 INCLUDE NEUTRAL FEED FROM BUILDING 2
- 11 E.C. TO ROUTE CONDUIT AND PULL STRING TO CONNECTION POINT AS REQUIRED. E.C. TO PROVIDE TRENCHING, BACKFILL AND COMPACTION. INCLUDE ALL COSTS IN ADD ALTERNATE #01 BID.
- 12 UTILIZE AVAILABLE SPACES IN PANELBOARD FOR NEW ADDITIONAL FEEDERS.
- 13 REFERENCE RISER AND FEEDER SCHEDULE FOR SIZE.
- 14 DEMOLISH IT/TELECOM ROOM HOMERUN CABLE FROM EXISTING PANELBOARD TO NEAREST JUNCTION BOX. EXISTING RECEPTACLES AND INTERCONNECT WIRING AND CONDUIT TO REMAIN AND BE REUSED WITH NEW HOMERUN CONDUIT AND CABLE.
- 15 INCLUDE EXTERIOR RATED LABELING INDICATING THE DISCONNECT IS FED FROM SEPERATE BUILDING.
- 16 INCLUDE LED INDICATOR LIGHT WIRED TO FEED THROUGH BUS. MOUNT TO FRONT OF PANEL AND LOCATION VISIBLE.
- 17 PROVIDE A 3/4" CONDUIT WITH PULL STRING FROM GENERATOR TO ACCESSIBLE CEILING ABOVE AN OCCUPIED ROOM IN BUILDING 2 FOR MONITORING SYSTEM TO BE INSTALLED IN THE FUTURE. CONFIRM ROUTING AND TERMINATION LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
- 18 EXISTING TO BE RELOCATED.

PANELBOARD: NEW L3

LOCATION: ADMIN, BLDG 1
MOUNTING: SURFACE NEMA 1
MAIN DEVICE: 30.0 A MAIN CB
BUS AMPS: 30 AMPS

VOLTAGE: 120/240 V, 1 ø 3 W.
A.I.C. RATING: 10K AMPS SYMMETRICAL
SPECIAL: MCB

LOAD DESCRIPTION	BKR	POLES	CKT	A	B	CKT	POLES	BKR	LOAD DESCRIPTION		
IT/TELECOM ROOM...	20.0 A	1	1	900...	0 VA			2	1	20.0 A	SPARE
SPACE	20.0 A	1	3		0 VA	0 VA	4	1	20.0 A	SPACE	
SPACE	--	1	5	--	--			6	1	--	SPACE
SPACE	--	1	7	--	--			8	1	--	SPACE
SPACE	--	1	9	--	--			10	1	--	SPACE
SPACE	--	1	11	--	--			12	1	--	SPACE
TOTAL LOAD:				1 kVA	0 kVA						
TOTAL AMPS:				8 A	0.0 A						
LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS							
Power	900 VA	100.00%	900 VA					CONNECTED LOAD: 900 VA			
								ESTIMATED DEMAND: 900 VA			
								CONNECTED CURRENT: 3.8 A			
								EST. DEMAND CURRENT: 3.8 A			

NOTES:

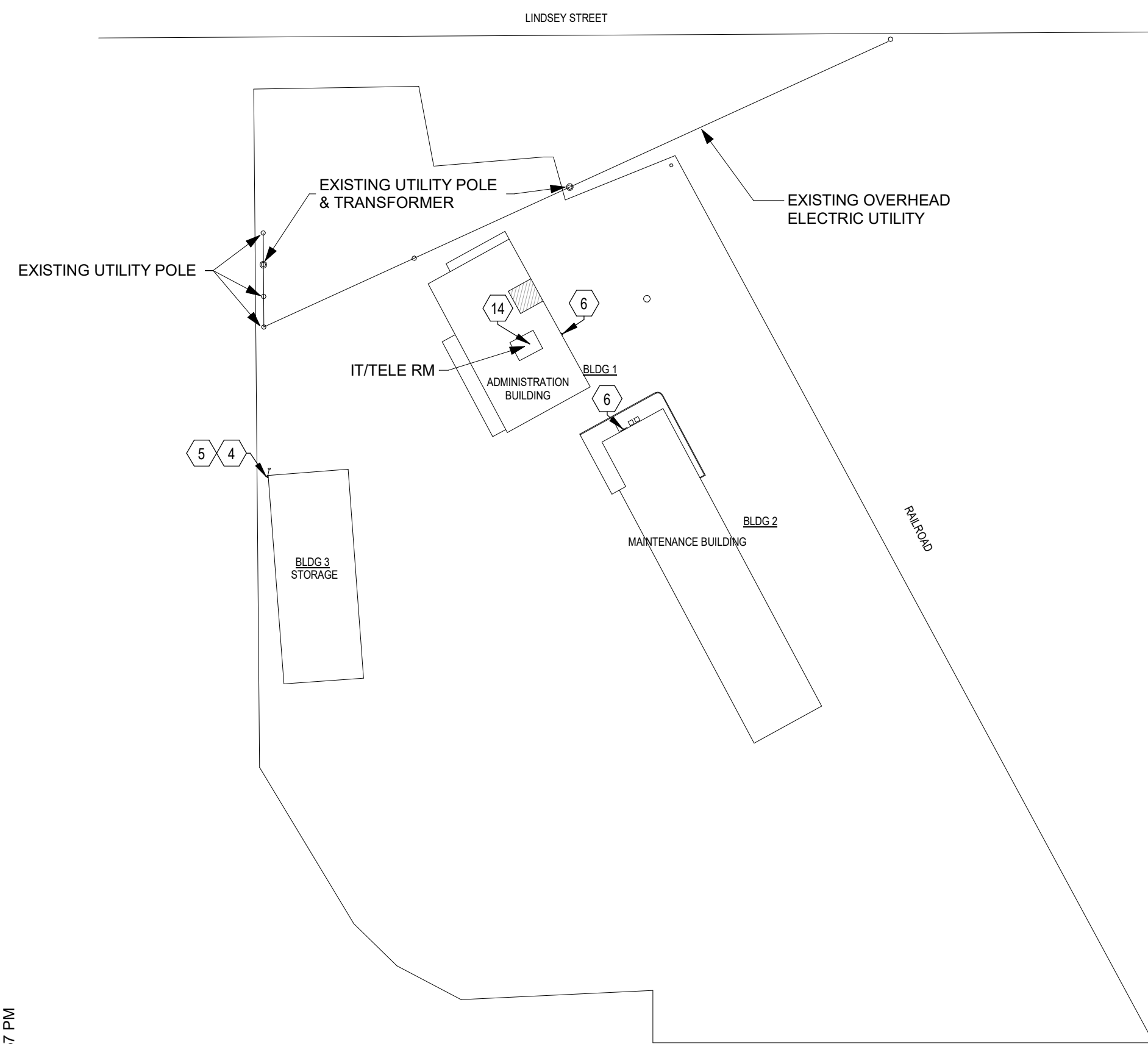
PANELBOARD: existing L1

LOCATION: MAINTENANCE, BLDG 2
MOUNTING: SURFACE NEMA 1
MAIN DEVICE: 200.0 A MAIN CB
BUS AMPS: 200 AMPS

VOLTAGE: 120/240 V, 1 ø 3 W.
A.I.C. RATING: existing
SPECIAL: MCB

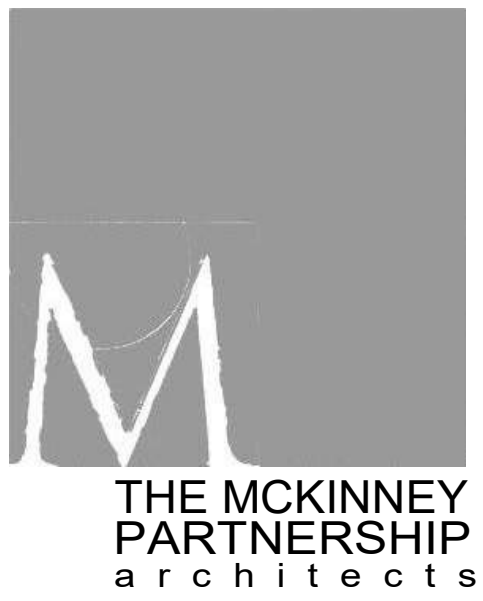
LOAD DESCRIPTION	BKR	POLES	CKT	A	B	CKT	POLES	BKR	LOAD DESCRIPTION		
existing E-AC	40.0 A	2	1	140...	100...			2	100.0 A	existing WASH BAY PANEL	
existing RECEPTACLE	20.0 A	1	5	180...	140...			6			
existing RV	20.0 A	1	7		500...	140...		8	2	40.0 A	existing W-AC
GEN BLOCK HEATER	30.0 A	2	9	150...	140...			10	2	30.0 A	FEEDER BUILDING 3 SHED
GEN BATTERY CHARGER	20.0 A	1	13	500...	120...			14	1	30.0 A	FEEDER BUILDING 1 IT RM
SPACE	--	1	15	--	--			16	1	--	SPACE
SPACE	--	1	17	--	--			18	1	--	SPACE
SPACE	--	1	19	--	--			20	1	--	SPACE
SPACE	--	1	21	--	--			22	1	--	SPACE
SPACE	--	1	23	--	--			24	1	--	SPACE
TOTAL LOAD:				18 kVA	16 kVA						
TOTAL AMPS:				147 A	135.0 A						
LOAD CLASSIFICATION	CONNECTED	DEMAND	ESTIMATED	PANEL TOTALS							
Power	7500 VA	100.00%	7500 VA					CONNECTED LOAD: 33780 VA			
EXISTING	26280 VA	100.00%	26280 VA					ESTIMATED DEMAND: 33780 VA			
								CONNECTED CURRENT: 140.8 A			
								EST. DEMAND CURRENT: 140.8 A			

NOTES:



2 ADD ALTERNATE #01 - ELECTRICAL SITE PLAN 1" = 20'-0"

1 ADD ALTERNATE #01 - ELECTRICAL DEMO PLAN 1" = 20'-0"



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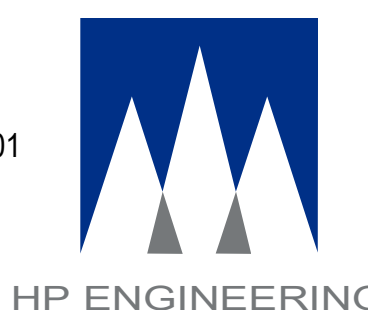
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STREET FACILITY - ADD
ALTERNATE #01

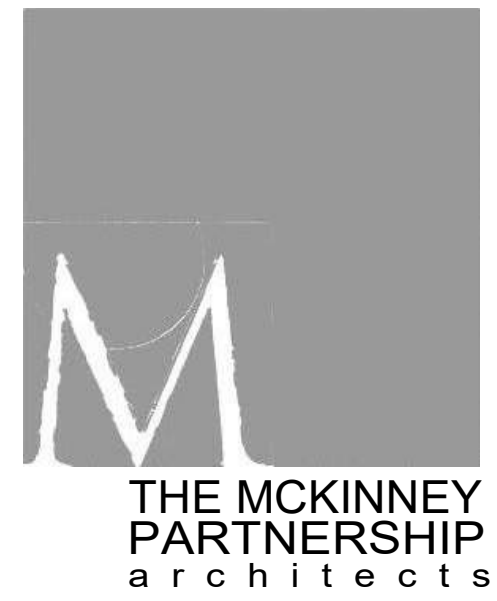
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ELECTRICAL SCHEDULES AND RISER

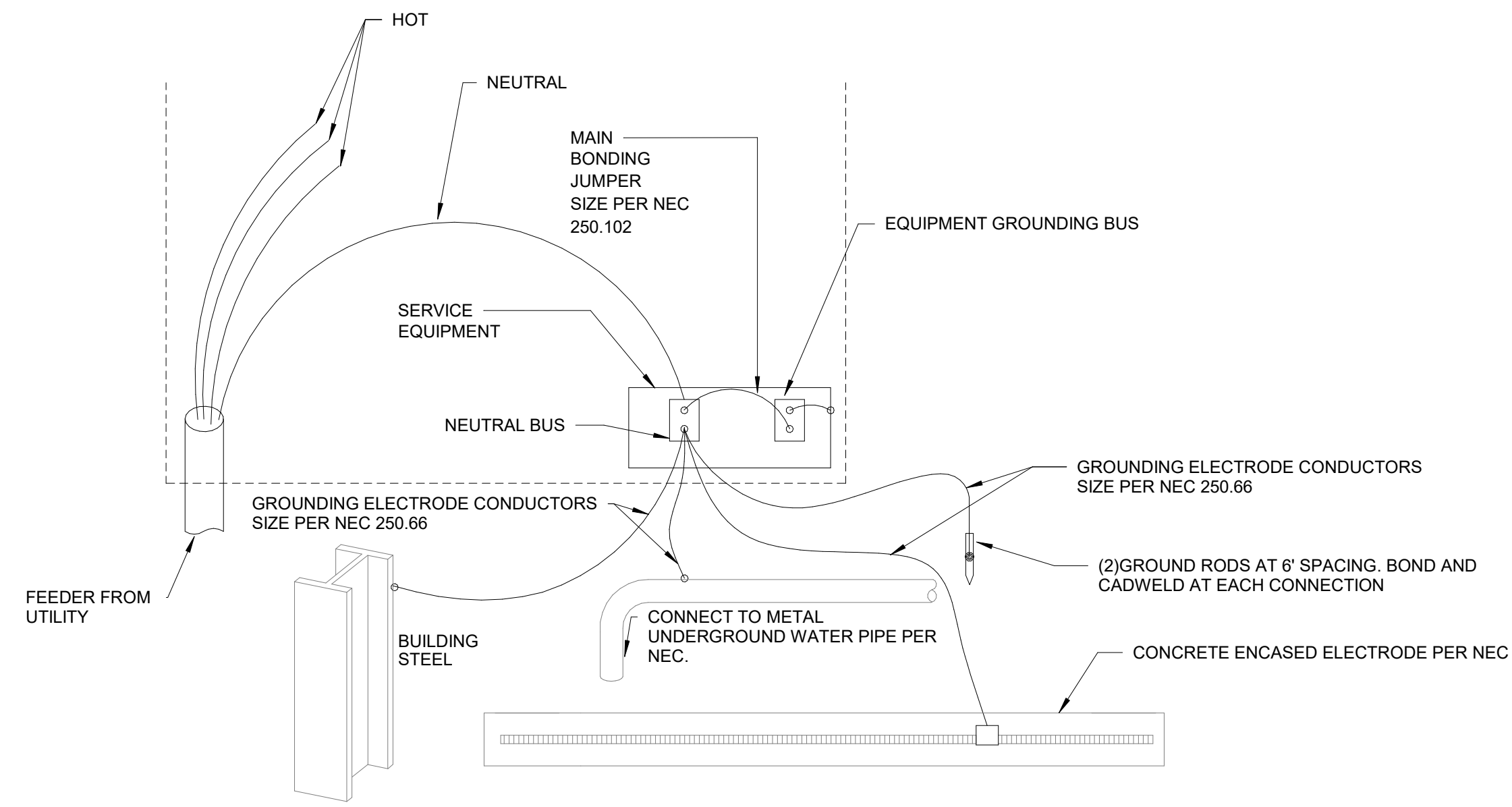
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FEEDER SCHEDULE

AMPERAGE	SETS OF CONDUIT	CONDUIT SIZE	CONDUCTOR QTY/SIZE	SELECT ONE		AMPERAGE	SETS OF CONDUIT	CONDUIT SIZE	CONDUCTOR QTY/SIZE	SELECT ONE	
				EQUIPMENT GROUND QTY/SIZE	USE RATED GROUND QTY/SIZE					EQUIPMENT GROUND QTY/SIZE	USE RATED GROUND QTY/SIZE
15A	(1)	3/4"	(4) #12	(1) #12	(1) #8	225A	(1)	2 1/2"	(4) #4/0	(1) #4	(1) #2
20A	(1)	3/4"	(4) #12	(1) #12	(1) #8	250A	(1)	3"	(4) #250 KCMIL	(1) #4	(1) #2
25A	(1)	3/4"	(4) #10	(1) #10	(1) #8	300A	(2)	2"	(4) #1/0	(1) #4	(1) #2
30A	(1)	3/4"	(4) #10	(1) #10	(1) #8	400A	(2)	2 1/2"	(4) #3/0	(1) #3	(1) #1/0
40A	(1)	3/4"	(4) #8	(1) #10	(1) #8	450A	(2)	2 1/2"	(4) #4/0	(1) #2	(1) #2/0
45A	(1)	1"	(4) #6	(1) #10	(1) #8	500A	(2)	3"	(4) #250 KCMIL	(1) #2	(1) #2/0
50A	(1)	1"	(4) #6	(1) #10	(1) #8	600A	(2)	3"	(4) #350 KCMIL	(1) #1	(1) #3/0
60A	(1)	1 1/4"	(4) #4	(1) #10	(1) #8	800A	(3)	3"	(4) #300 KCMIL	(1) #1/0	(1) #3/0
70A	(1)	1 1/4"	(4) #4	(1) #8	(1) #8	1000A	(3)	3 1/2"	(4) #400 KCMIL	(1) #2/0	(1) #3/0
80A	(1)	1 1/2"	(4) #3	(1) #8	(1) #8	1200A	(4)	3 1/2"	(4) #350 KCMIL	(1) #3/0	(1) #3/0
90A	(1)	1 1/2"	(4) #2	(1) #8	(1) #8	1600A	(5)	3 1/2"	(4) #400 KCMIL	(1) #4/0	(1) #3/0
100A	(1)	2"	(4) #1	(1) #8	(1) #6	2000A	(6)	3 1/2"	(4) #400 KCMIL	(1) #250 KCMIL	(1) #3/0
125A	(1)	2"	(4) #1	(1) #6	(1) #6	2500A	(7)	3 1/2"	(4) #500 KCMIL	(1) #350 KCMIL	(1) #3/0
150A	(1)	2"	(4) #1/0	(1) #6	(1) #6	3000A	(8)	3 1/2"	(4) #500 KCMIL	(1) #400 KCMIL	(1) #3/0
175A	(1)	2"	(4) #2/0	(1) #6	(1) #4	3500A	(10)	3 1/2"	(4) #500 KCMIL	(1) #500 KCMIL	(1) #3/0
200A	(1)	2 1/2"	(4) #3/0	(1) #6	(1) #4	4000A	(10)	4"	(4) #600 KCMIL	(1) #500 KCMIL	(1) #3/0

FEEDER SIZE GENERAL NOTES:

- CONDUCTOR QUANTITY BASED ON 3-PHASE, 4-WIRE, FOR EQUIPMENT THAT DOES NOT REQUIRE A NEUTRAL OR IS SINGLE PHASE DEDUCT FROM QUANTITY AS REQUIRED.
- CONDUCTOR SIZES BASED ON NEC TABLE 310.16 - COPPER 60°C UP TO 100A, 75°C GREATER THAN 100A.
- GROUND SIZES: EQUIPMENT GROUND BASED ON NEC TABLE 250.122 - COPPER, USE RATED GROUND BASED ON NEC TABLE 250.66 - COPPER
- CONDUIT FILL BASED ON NEC ANNEX C - THW CONDUCTOR INSULATION



1
E2.1
TYPICAL GROUNDING DETAIL
NTS

SWITCHGEAR LABEL

THE MAIN SWITCHBOARD SHALL HAVE A LABEL APPLIED TO WARN OF POTENTIAL SHOCK HAZARDS

WARNING

SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.

NOTES:

A. THE MAIN SWITCHBOARD SHALL HAVE A COMMERCIALY PRODUCED PERMANENT LABEL APPLIED, SIMILAR TO THE ABOVE, TO WARN OF POTENTIAL SHOCK HAZARDS, IN ACCORDANCE WITH NEC 702.7 AND NFPA 70E.

B. LABELING MAY BE COMPLETED BY EQUIPMENT MANUFACTURER, EQUIPMENT VENDOR/SUPPLIER, OR THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT ALL SWITCHBOARDS AND PANELBOARDS ARE PROPERLY LABELED IN THE FIELD.

EQUIPMENT LABELS

ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A LABEL APPLIED TO WARN OF POTENTIAL ARC FLASH HAZARDS

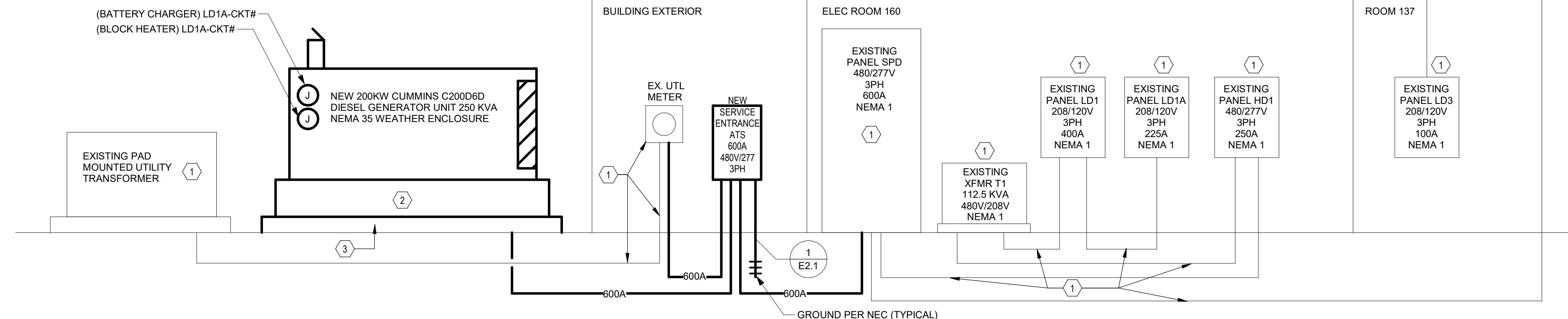
WARNING

ARC FLASH AND SHOCK HAZARD. APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED.

NOTES:

A. ALL SWITCHBOARDS AND PANELBOARDS SHALL HAVE A COMMERCIALY PRODUCED PERMANENT LABEL APPLIED, SIMILAR TO THE ABOVE, TO WARN OF POTENTIAL ARC FLASH HAZARDS, IN ACCORDANCE WITH NEC 110.16 AND NFPA 70E.

B. LABELING MAY BE COMPLETED BY EQUIPMENT MANUFACTURER, EQUIPMENT VENDOR/SUPPLIER, OR THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THAT ALL SWITCHBOARDS AND PANELBOARDS ARE PROPERLY LABELED IN THE FIELD.



2
E2.1
RISER DIAGRAM
NTS

KEYNOTES

1	EXISTING TO REMAIN.
2	NEW GENERATOR FUEL TANK.
3	NEW CONCRETE PAD. REFER TO ARCHITECTURAL DRAWINGS.

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