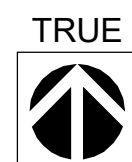
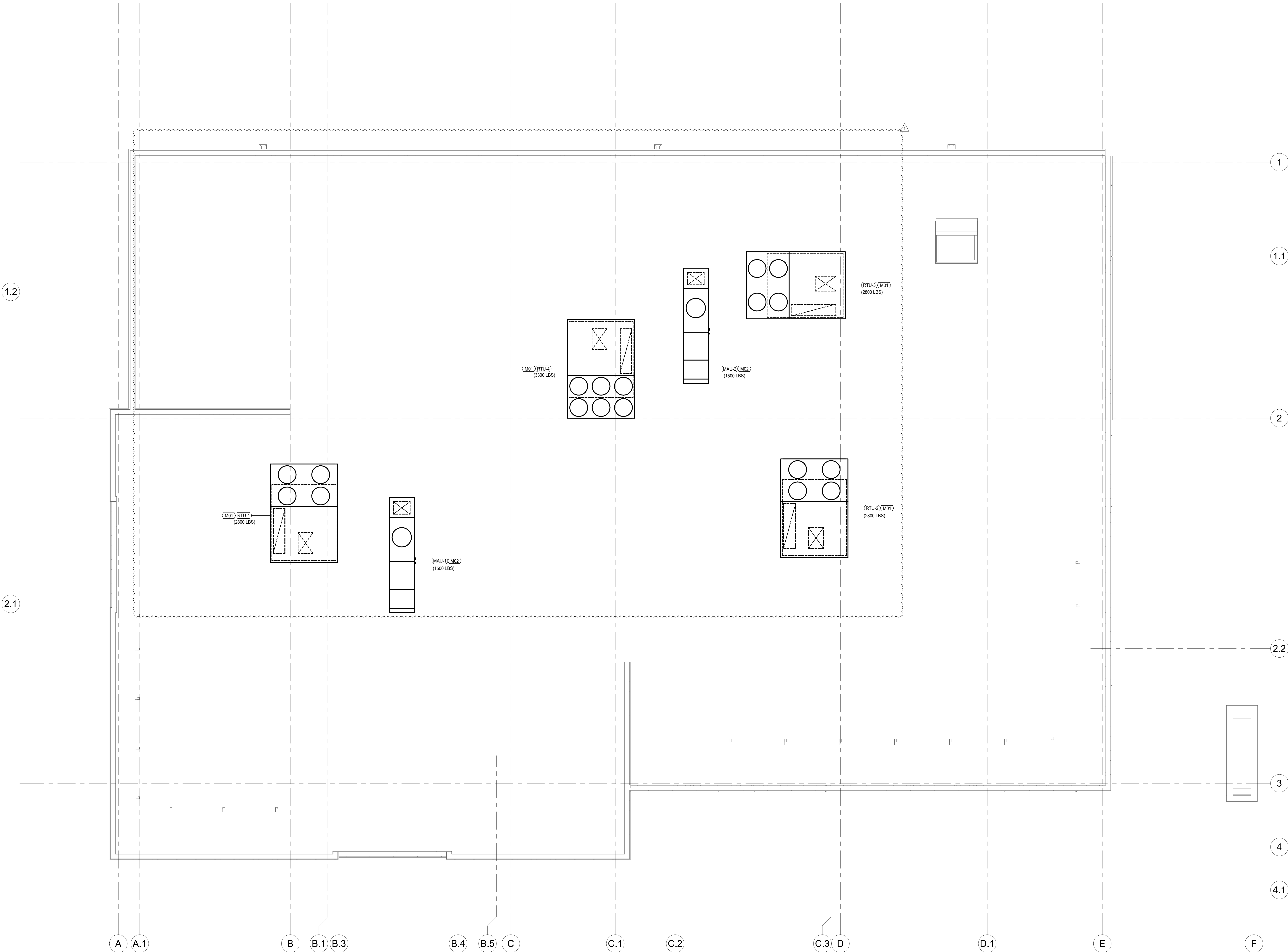


6/20/2025 12:11:23 PM



ROOF PLAN - MECHANICAL

SCALE: 1/4" = 1'-0"



FLOOR PLAN NOTES

- M01 PROVIDE ROOFTOP UNIT AND ROOF CURB. INSTALL UNIT ON CURB PER THE MANUFACTURER'S REQUIREMENTS. PROVIDE FLEXIBLE DUCT CONNECTIONS AND CONDENSATE TRAP PER DETAIL.
- M02 PROVIDE MAKE-UP AIR UNIT AND ROOF CURB. INSTALL UNIT ON CURB PER THE MANUFACTURER'S REQUIREMENTS. PROVIDE FLEXIBLE DUCT CONNECTIONS AND CONDENSATE TRAP PER DETAIL.

ARCHITECT OF RECORD



BRR ARCHITECTURE INC.
810 MICHAEL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-283-9895
FAX: 913-283-9894

CONSULTANT



CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER	62910099
PROJECT MANAGER	AVM
DRAWN BY	EDG
CHECKED BY	

PROFESSIONAL SEAL



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT OF RECORD. ANY REPRODUCTION OR COPIING OF THIS DRAWING FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT OF RECORD IS A VIOLATION OF THE ARCHITECT'S PROFESSIONAL ETHICS AND MAY BE CONSIDERED A VIOLATION OF THE LAW.

BRR DOES NOT GUARANTEE THAT CALCULATIONS ARE SUFFICIENT OR APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

ISSUES AND REVISIONS

NUMBER	DATE	DESCRIPTION
1	06/20/25	ADDENDUM 1

SHEET NAME

ROOF PLAN - MECHANICAL

SHEET NUMBER

M200

BRR ORIGINAL PRINTED ON RECYCLED PAPER

PART 3 - EXECUTION

3.1 POWER SYSTEM DATA

- A. Obtain all data necessary for conduct of the study.
- B. Gather and tabulate the required input data to support the study. Record data on a Record Document copy of one-line diagram. Comply with recommendations in IEEE 591 as to the amount of detail that is required to be acquired in the field. Field data gathering shall be under direct supervision and control of the engineer in charge of performing the study, who shall be by the engineer or its representative who holds NETA ETT-Certified Technician Level II or NICET Electrical Power Testing Level III certification.
- 3.2 SHORT-CIRCUIT STUDY
- A. Perform study following the general study procedures contained in IEEE 399.
- B. Calculate short-circuit currents according to IEEE 551.
- C. Base study on device characteristics supplied by device manufacturer.
- D. Extent of electrical power system to be studied is indicated on Drawings.
- E. Begin short-circuit current analysis at the service, extending down to system overcurrent protective devices to where fault current is 10 kA or less.
- F. Study electrical distribution system from normal and alternate power sources throughout electrical distribution system for Project. Study all cases of system-switching configurations and alternate operations that could result in maximum fault conditions.
- G. Include the ac fault-current decay from induction motors, synchronous motors, and asynchronous generators and apply to low- and medium-voltage, three-phase ac systems. Also account for the fault-current dc decrement to address asymmetrical requirements of interrupting equipment.
- H. Calculate short-circuit momentary and interrupting duties for a three-phase bolted fault and a single line-to-ground fault at each equipment indicated on one-line diagram.
- I. Include in the report identification of any protective device applied outside its capacity.

3.3 COORDINATION STUDY

- A. Comply with IEEE 242 for calculating short-circuit currents and determining coordination time intervals.
- B. Comply with IEEE 399 for general study procedures.
- C. Base study on device characteristics supplied by device manufacturer.
- D. Extent of electrical power system to be studied is indicated on Drawings.
- E. Begin analysis at the service, extending down to system overcurrent protective devices where fault current is 10 kA or less.
- F. Study electrical distribution system from normal and alternate power sources throughout electrical distribution system for Project. Study all cases of system-switching configurations and alternate operations that could result in maximum fault conditions.
- G. Transformer Primary Overcurrent Protective Devices:
- H. Motor Protection: Select protection for low-voltage motors according to IEEE 242 and NFPA 70.
- I. Conductor Protection: Protect cables against damage from fault currents according to ICEA P-30-382, ICEA P-45-482, and protection recommendations in IEEE 242. Demonstrate that equipment withstands the maximum short-circuit current for a time equivalent to the tripping time of the primary relay protection or total clearing time of the fuse. To determine temperatures that damage insulation, use curves from cable manufacturers or from listed standards indicating conductor size and short-circuit current.
- J. Generator Protection: Select protection according to manufacturer's written instructions and to IEEE 242.
- K. Include the ac fault-current decay from induction motors, synchronous motors, and asynchronous generators and apply to low- and medium-voltage, three-phase ac systems. Also account for fault-current dc decrement, to address asymmetrical requirements of interrupting equipment.
- L. Calculate short-circuit momentary and interrupting duties for a three-phase bolted fault and a single line-to-ground fault at each equipment indicated on one-line diagram.
- M. Protective Device Evaluation: Evaluate equipment and protective devices and compare to short-circuit ratings; Adequacy of equipment bus bars to withstand short-circuit stresses; Any application of series-rated devices shall be rechecked, complying with requirements in NFPA 70; Include in the report identification of any protective device applied outside its capacity.

3.4 ARC-FLASH HAZARD ANALYSIS

- A. Comply with NFPA 70E and its Annex D for hazard analysis study.
- B. Preparatory Studies: Perform the Short-Circuit and Protective Device Coordination studies prior to starting the Arc-Flash Hazard Analysis.
- C. Calculate maximum and minimum contributions of fault-current size.
- D. Calculate the arc-flash protection boundary and incident energy at locations in electrical distribution system where personnel could perform work on energized parts.
- E. Calculate the limited, restricted, and prohibited approach boundaries for each location.
- F. Incident energy calculations shall consider the accumulation of energy over time when performing arc-flash calculations on buses with multiple sources. Iterative calculations shall take into account the changing current contributions, as the sources are interrupted or decremented with time.
- G. Arc-flash energy shall generally be reported for the maximum of line or load side of a circuit breaker.
- H. Base arc-flash calculations on actual overcurrent protective device clearing time. Cap maximum clearing time at two seconds based on IEEE 1584, Section B.1.2.

3.5 FIELD ADJUSTING

- A. Adjust relay and protective device settings according to recommended settings provided by the coordination study.
- B. Make minor modifications to equipment as required to accomplish compliance with short-circuit and protective device coordination studies.
- C. Testing and adjusting shall be by a full-time employee of the Field Adjusting Agency, who holds NETA ETT-Certified Technician Level II or NICET Electrical Power Testing Level III certification. Perform each visual and mechanical inspection and electrical test stated in NETA ATS. Certify compliance with test parameters. Perform NETA tests and inspections for all adjustable overcurrent protective devices.

3.6 ARC FLASH LABELING

- A. Apply arc-flash label on the front cover and on side or rear covers with accessible live parts and hinged doors or removable plates for each equipment included in the study. Base arc-flash label data on highest values calculated at each location.
- B. Each piece of equipment listed below shall have an arc-flash label applied to it: Motor-control center; Low-voltage switchboard; Switchgear; Low voltage transformers; Panelboards; Safety switches; Control panel; Automatic Transfer Switch; Generator.
- C. Note on record Drawings the location of equipment where the personnel could be exposed to arc-flash hazard during their work. Indicate arc-flash energy. Indicate protection level required.

3.7 APPLICATION OF WARNING LABELS

- A. Install arc-flash warning labels under the direct supervision and control of Power System Analysis Specialist.

3.8 DEMONSTRATION

- A. Engage Power Systems Analysis Specialist to train Owner's maintenance personnel.
- B. Acquaint personnel in fundamentals of operating the power system in normal and emergency modes.
- C. Hand-out and explain the coordination study objectives, study descriptions, purpose, basis, and scope. Include case descriptions, definition of terms, and guide for interpreting time-current coordination curves.
- D. For Owner's maintenance staff certified as NETA ETT-Certified Technicians Level II or NICET Electrical Power Testing Level III Technicians, teach how to adjust, operate, and maintain overcurrent protective device settings.
- E. Inform of the potential arc-flash hazards associated with working on energized equipment and the significance of arc-flash warning labels.

END OF SECTION

ARCHITECT OF RECORD



BRR ARCHITECTURE INC.
810 MEDICAL AVENUE
SUITE 100
OAKLAND PARK, FL 33064
WWW.BRRARCH.COM
TEL: 915-283-9899
FAX: 915-283-8844

CONSULTANT



1750 Walnut Street 810.221.1411
Kansas City, Missouri 64108 Fax 816.221.1420
CONSULTANT'S USE ONLY
EIT/Professional No. 277674-00

CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER

62910099

PROJECT MANAGER

AVM

DRAWN BY

EDG

CHECKED BY

PROFESSIONAL SEAL



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. CONTAINING INFORMATION WITH ITS BLUE DATE AND IT IS NOT AVAILABLE FOR USE ON A DIFFERENT PROJECT SITE OR FOR A LATER REUSE OF THE INFORMATION. ANY REUSE OF THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF BRR ARCHITECTURE INC. VIOLATES THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

BRR DOES NOT GUARANTEE THAT CALCULATIONS ARE SUFFICIENT OR APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

ISSUES AND REVISIONS

NUMBER	DATE	DESCRIPTION
1	REVISION	ORIGINAL ISSUE

SHEET NAME

SPECIFICATIONS

SHEET NUMBER

MEP102

MARK NO.	MANUFACTURER	MODEL	AIRFLOW CFM	MIN OA CFM	EXT. S.P. (IN W.G.)	FAN HP	FAN DRIVE TYPE	RPM	COOLING					HEATING-GAS					NOTES	ELECTRICAL											
									AMB. (F)	EDB (F)	EWB (F)	LDB (F)	TOTAL MBH	SENS. MBH	STAGES	EER OR SEER	INPUT TMBH	OUTPUT MBH		STAGES	VOLT	PHASE	HZ	FLA	MCA	MOCP	DISCONNECT	CIRCUIT TO PANEL	BRANCH CIRCUIT TAG / SIZE	NOTES	
RTU-1	LENNOX	LGM180JSM	6000	1800	0.8	5	BELT	868	95	80	67	58.2	55.6	191.8	132.7	3	12 EER	360	292	2	1-8	480	3	60	35.8	37	40	INTEGRAL	HDP	3/4" C, (4) #8, (1) #10 G.	-
RTU-2	LENNOX	LGM156JSM	5000	1500	0.8	3	BELT	788	95	80	67	57	56.3	159.9	116.8	3	12 EER	260	211	2	1-8	480	3	60	30.7	31	35	INTEGRAL	HDP	3/4" C, (4) #8, (1) #10 G.	-
RTU-3	LENNOX	LGM150JSM	5000	1500	0.8	3	BELT	788	95	80	67	57	56.3	159.9	116.8	3	12 EER	260	211	2	1-8	480	3	60	30.7	31	35	INTEGRAL	HDP	3/4" C, (4) #8, (1) #10 G.	-
RTU-4	LENNOX	LGM240JSM	8000	2400	0.8	7.5	BELT	1015	95	80	67	57.9	56.6	249	179.3	4	12 EER	360	292	2	1-8	480	3	60	47.9	50	60	INTEGRAL	HDP	3/4" C, (4) #4, (1) #10 G.	-

NOTES:

1. PROVIDE WITH WALL MOUNTED 240" PROGRAMMABLE THERMOSTAT WITH HUMIDITY CONTROL, AND REMOTE TEMPERATURE/HUMIDITY SENSOR. COTTONWOOD FILTERS SUCH AS AIR SOLUTION COMPANY MEDIUM DUTY COMMERCIAL GRADE FILTERS, HINGED ACCESS PANELS, DISCONNECT SWITCH, CONDENSATE DRAIN TRAP, AND DRAIN PAN OVERFLOW SWITCH TO SHUT DOWN UNIT IF DRAIN CLOGGING CLOSED.
2. PROVIDE WITH HOT GAS REHEAT.
3. PROVIDE WITH ECONOMIZER WITH DIFFERENTIAL ENTHALPY CONTROL. INCLUDE WITH BAROMETRIC RELIEF DAMPER UNLESS NOT REQUIRED FOR UNITS EQUIPPED WITH POWERED EXHAUST.
4. PROVIDE WITH POWERED EXHAUST.
5. PROVIDE WITH MULTI-SPEED SUPPLY FAN TO VARY FAN SPEED WITH COMPRESSOR STAGING ON UNITS WITH 2 STAGES OF COOLING. ADJUST OUTSIDE AIR DAMPER MINIMUM POSITION FOR HIGH AND LOW FAN SPEEDS.
6. PROVIDE WITH UNIT MOUNTED GFCI OUTLET WITH WEATHERPROOF COVER. OUTLET TO BE FIELD POWERED/WIRED FROM BUILDING POWER.
7. PROVIDE WITH ROOF CURB OF HEIGHT REQUIRED TO HAVE THE TOP OF THE CURB A MINIMUM OF 8" ABOVE THE TOP OF THE ROOF SURFACE, OR MINIMUM CURB HEIGHT OF 18", WHICHEVER IS GREATER.
8. UNIT TO BE CONFIGURED FOR DOWNFLOW DISCHARGE.

NOTES: A.

MARK NO.	MANUFACTURER	MODEL	AIRFLOW CFM	EXT. S.P. (IN W.G.)	FAN HP	RPM	COOLING					HEATING-GAS					NOTES	ELECTRICAL										
							AMB. (°F)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOTAL MBH	SENS. MBH	STAGES	INPUT MBH	OUTPUT MBH		STAGES	VOLT	PHASE	HZ	FLA	MCA	MOCP	DISCONNECT	CIRCUIT TO PANEL	BRANCH CIRCUIT TAG / SIZE	NOTES
MAU-1	ACCUREX	XDGX-P116H12MF-10	4400	0.5	3	2008	100	99.1	90	72.9	72.9	127.7	113.3	1	335.2	308.4	VARIABLE	1,2	480	3	60	20.2	25.2	40	INTEGRAL	HDP	3/4" C (4) #8, 1" #10 G.	-
MAU-2	ACCUREX	XDGX-P116H12MF-10	4400	0.5	3	2008	100	99.1	90	72.9	72.9	127.7	113.3	1	335.2	308.4	VARIABLE	1,2	480	3	60	20.2	25.2	40	INTEGRAL	HDP	3/4" C (4) #8, 1" #10 G.	-

NOTES:

1. PROVIDE WITH DISCONNECT SWITCH.
2. PROVIDE WITH ROOF CURB OF HEIGHT REQUIRED TO HAVE THE TOP OF THE CURB A MINIMUM OF 8" ABOVE THE TOP OF THE ROOF SURFACE, OR MINIMUM CURB HEIGHT OF 18", WHICHEVER IS GREATER.

NOTES: A.

MARK	MANUFACTURER	MODEL	HEATING (NATURAL GAS)	CLEARANCE TO COMBUSTIBLES			NOTES	ELECTRICAL								NOTES	
			INPUT (MBH)	ENDS (IN)	ABOVE (IN)	BELOW (IN)		VOLT	PHASE	HZ	FLA	MCA	MOPP	DISCONNECT	CIRCUIT TO PANEL		BRANCH CIRCUIT TAG / SIZE
GEH-1	SUNSTAR	SLG50-N7	50	14	17	48	12,3	120	1	60	0.4	1	15	20A/1P TOGGLE	P1	2 #12, 1/202, 3/4"	-
GEH-2	SUNSTAR	SLG50-N7	50	14	17	48	12,3	120	1	60	0.4	1	15	20A/1P TOGGLE	P1	2 #12, 1/202, 3/4"	-
GEH-3	SUNSTAR	SLG50-N7	50	14	17	48	12,3	120	1	60	0.4	1	15	20A/1P TOGGLE	P1	2 #12, 1/202, 3/4"	-
GEH-4	SUNSTAR	SLG50-N7	50	14	17	48	12,3	120	1	60	0.4	1	15	20A/1P TOGGLE	P1	2 #12, 1/202, 3/4"	-
GEH-5	SUNSTAR	SLG50-N7	50	14	17	48	12,3	120	1	60	0.4	1	15	20A/1P TOGGLE	P1	2 #12, 1/202, 3/4"	-

NOTES:

1. PROVIDE WITH MANUFACTURER'S MASTER CONTROLLER WITH 60 MINUTE TIMER AND ILLUMINATED 3 POSITION FLUSH-MOUNT SWITCH.
2. PROVIDE WITH HEAT SHIELD FOR REDUCED CLEARANCE REQUIREMENTS.
3. PROVIDE WALL / CEILING TELESCOPIC ADJUSTABLE MOUNTING BRACKET KIT.

NOTES: A.

MARK NO.	MANUFACTURER	MODEL	TYPE	AIRFLOW (CFM)	HEATING (ELEC.)		NOTES	ELECTRICAL								NOTES	
					OUTPUT (MBH)	INPUT (KW)		VOLT	PHASE	HZ	FLA	MCA	MOCP	DISCONNECT	CIRCUIT TO PANEL		BRANCH CIRCUIT TAG / SIZE
UH-1	BERKO	HJUAAS27	HORIZONTAL	350	17	5	1.2,3	277	1	60	18.0	22.6	25	INTEGRAL	L	3/4" C. (4) #10. (1) #10 G.	-
UH-2	BERKO	HJUAAS27	HORIZONTAL	350	17	5	1.2,3	277	1	60	18.0	22.6	25	INTEGRAL	L	3/4" C. (4) #10. (1) #10 G.	-
UH-3	BERKO	HJUAAS27	HORIZONTAL	350	17	5	1.2,3	277	1	60	18.0	22.6	25	INTEGRAL	L	3/4" C. (4) #10. (1) #10 G.	-
NOTES:	1. PROVIDE WITH DISCONNECT SWITCH. 2. PROVIDE WITH INTEGRAL THERMOSTAT. 3. PROVIDE WITH WALL HANGING KIT.							NOTES: A.									
*HEATING KW IS NET CAPACITY AT VOLTAGE AND PHASE INDICATED.																	

P01 PROVIDE NEW 2" BPP BACKFLOW PREVENTER. WATTS LF009 OR EQUAL. ROUTE WASTE
FROM AIR-GAP FITTING TO FLOOR DRAIN AND INDICATE WASTE.

P02 PROVIDE NEW 1" DOUBLE CHECK BPP. WATTS LF007 OR EQUAL. VALVE AND CAP FOR
FUTURE CONNECTION TO IRRIGATION SYSTEM.

P03 VALVE AND CAP FOR COULF FLOW METER CONNECTION.

P06 NEW GAS METER BY UTILITY. PROVIDE ALL FITTINGS AND ACCESSORIES REQUIRED FOR
COMPLETE INSTALLATION/CONNECTION PER UTILITY STANDARDS. COORDINATE FINAL GAS
LOAD WITH UTILITY PRIOR TO CONSTRUCTION.

P08 GAS LOADS PIPING DOWN BELOW GRADE.

P09 PROVIDE GAS PRESSURE REGULATOR (INLET: .25PSI, OUTLET: 5W.C.

P10 CONNECT TO FIREPLACE WITH GAS COOK, DIRT LEG, AND UNION AND APPLIANCE
CONNECTOR IN ACCESSIBLE LOCATION. PROVIDE ELECTRONIC SLOMOLEND VALVE
INTERLOCKED WITH EMERGENCY STOP BUTTON. RE-ELECTRICAL SHEETS FOR LOCATION
OF GAS PIPING ON FIRST FLOOR. PROVIDE GAS COOK, DIRT LEG WITH GAS COOK, DIRT
LEG, AND UNION AND APPLIANCE CONNECTOR IN ACCESSIBLE LOCATION.



P100

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

P04	CONNECT TO MECHANICAL EQUIPMENT WITH GAS COCK, DIRT LEG, AND UNION. PROVIDE PRESSURE REGULATOR (INLET: 2PSI, OUTLET: 14" WC) WITHIN 10'-0" OF UNIT CONNECTION.
P05	VALVE AND CAP NATURAL GAS PIPING ON ROOF FOR FUTURE CONNECTION TO EQUIPMENT.



ROOF PLAN - PLUMBING

PLUMBING FIXTURE SCHEDULE

MARK NO.	FIXTURE TYPE	MANUFACTURER	MODEL NO.	DESCRIPTION	MINIMUM CONNECTION SIZE			
					CW	HW	WASTE	VENT
EFD-1	EQUIPMENT FLOOR DRAIN	J.R. SMITH	2210Y	MEDIUM CAPACITY, MEDIUM DUTY DUCO CAST IRON BODY, SEDIMENT BUCKET AND GRATE- NO HUB OUTLET. PROVIDE WITH 6" X 4" OVAL FUNNEL WHERE DRAIN RECEIVES INDIRECT WASTE [AND TRAP PRIMER CONNECTION].	-	-	3"	2"
WH-1	WALL HYDRANT	WOODFORD	67	EXPOSED, FREEZELESS WALL HYDRANT, CHROME PLATED BRASS, 3/4" INLET AND HOSE CONNECTION, INTEGRAL ASSE DOUBLE CHECK BACKFLOW PREVENTER, LOOSE KEY, STEM LENGTH AS REQUIRED.	3/4"	-	-	-
RH-1	ROOF HYDRANT	WOODFORD	SRH-MS	DRAINABLE, FREEZELESS BRASS ROOF HYDRANT, 3/4" INLET AND 3/4" HOSE CONNECTION, ASSE DOUBLE CHECK BACKFLOW PREVENTER, DIVERTER, AUTOMATIC DRAINING, PAIL HOOK, LEVER ACTUATOR WITH GALVANIZED STEEL ROD AND ONE PIECE PLUNGER, CAST IRON MOUNTING SUPPORT AND UNDER DECK FLANGE WITH WEATHER PROOF BOOT ASSEMBLY.	3/4"	-	-	-

GREASE INTERCEPTOR SCHEDULE

MARK NO.	MANUFACTURER	MODEL NO.	MATERIAL	INSTALLATION	LIQUID CAPACITY (GAL)	GREASE CAPACITY (LBS)	FLOW RATE (GPM)	INLET/ OUTLET SIZE	COVER TYPE	MAX OPERATING TEMP (°F)	NOTES
GI-1	SCHIER	GB-500	ENGINEERED POLYETHYLENE	BELOW GRADE	510	3.048	100	4"	GAS/WATER TIGHT	140	1,2,3
NOTES: 1. PROVIDE WITH EXTENSION OR RISERS AS REQUIRED TO MEET GRADE/SLAB. 2. PROVIDE HIGH-WATER ANCHOR KIT WHERE INTERCEPTOR IS INSTALLED IN AREA SUSCEPTIBLE TO HIGH WATER TABLE. 3. VENT INTERCEPTOR PER AHJ REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS.											

NATURAL GAS SCHEDULE

TAG	FIXTURE	CONNECTED LOAD (MBH)
MECHANICAL EQUIPMENT		
RTU-1	ROOF TOP UNIT	360
RTU-2	ROOF TOP UNIT	260
RTU-3	ROOF TOP UNIT	260
RTU-4	ROOF TOP UNIT	360
MAU-1	MAKEUP AIR UNIT	336
MAU-2	MAKEUP AIR UNIT	336
GEH-1	RADIANT HEATER	50
GEH-2	RADIANT HEATER	50
GEH-3	RADIANT HEATER	50
GEH-4	RADIANT HEATER	50
GEH-5	RADIANT HEATER	50
MECHANICAL EQUIPMENT TOTAL:		2162
PLUMBING EQUIPMENT		
-	(FUTURE) WATER HEATER	199
-	(FUTURE) WATER HEATER	199
PLUMBING EQUIPMENT TOTAL:		398
KITCHEN EQUIPMENT		
-	FUTURE	1500
KITCHEN EQUIPMENT TOTAL:		1500
MISC EQUIPMENT		
-	FIRE TABLE	80
-	FIREPLACE	230
MISC EQUIPMENT TOTAL:		310
TOTAL GAS LOAD		4370
NOTES: INTERIOR GAS PIPING SIZED PER TABLE 402.4(5) WITH A TOTAL DEVELOPED LENGTH OF 150'-0" AND A SERVICE PRESSURE OF 2 PSI. SET PRESSURE REGULATORS TO 8" W.C. OR AS REQUIRED BY EQMT MANUFACTURER.		

GENERAL NOTES (TYPICAL ALL SHEETS)

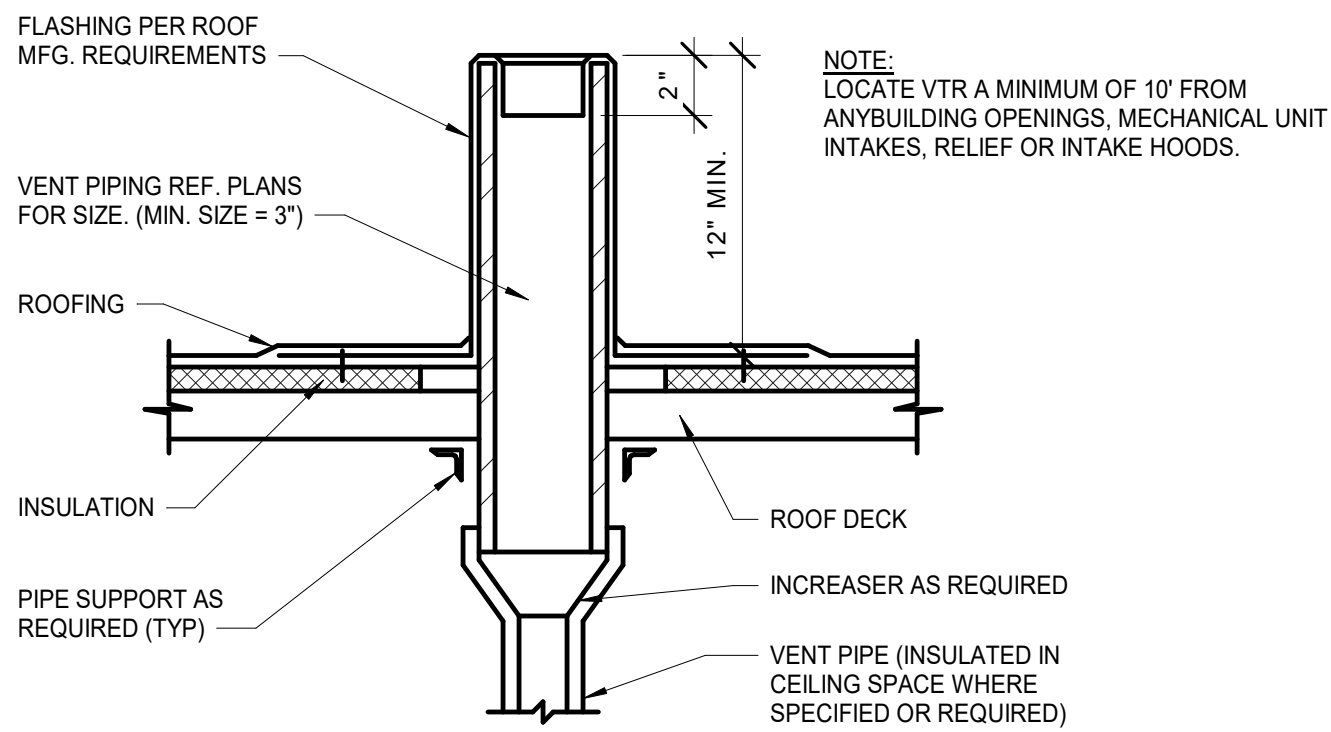
- PLUMBING CONTRACTOR IS RESPONSIBLE TO SEE THAT WORK MEETS AND IS IN ACCORDANCE WITH ALL REQUIREMENTS OF FEDERAL, STATE, AND LOCAL LAWS AND CODES AND/OR REQUIREMENTS, INCLUDING HEALTH CODES AND BUILDING OWNER.
- COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID ROUTING CONFLICTS.
- INSTALL ELASTOMERIC JOINT SEALER AROUND ALL PIPES PASSING THRU INTERIOR NON-RATED CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS. FOR FIRE RATED INTERIOR CONCRETE AND MASONRY WALLS, GYPSUM-BOARD PARTITIONS, AND CONCRETE FLOOR/ROOF SLABS SEAL ALL PIPES. INSTALL FIRESTOP MATERIALS IN ALL GAPS PRIOR TO SEALANT APPLICATION. INSTALL SEALER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
- PLUMBING CONTRACTOR SHALL MAKE FINAL CONNECTION TO ALL EQUIPMENT BY OTHERS. VERIFY CONNECTIONS SIZES AND REQUIREMENTS.
- PLUMBING CONTRACTOR SHALL PROVIDE PRO-SYSTEMS TRAP GUARD IN ALL FLOOR DRAIN TRAPS WITHIN PROJECT SCOPE OF WORK.
- PLUMBING CONTRACTOR SHALL VERIFY WALL THICKNESS WITH ARCHITECT PRIOR TO ORDERING FREEZE PROOF WALL HYDRANTS.
- UPON REQUEST FOR ELECTRONIC FILES, CONTRACTOR SHALL FILL OUT, SIGN AND RETURN ELECTRONIC MEDIA RELEASE FORM FROM ENGINEER AND PROVIDE PAYMENT FOR FEES STIPULATED ON ELECTRONIC MEDIA RELEASE FORM. UPON RECEIPT OF COMPLETED RELEASE FORM AND PAYMENT, ELECTRONIC FILES WILL BE RELEASED.
- ALL CABLE TIES FOR LOW VOLTAGE SYSTEMS LOCATED IN PLenums UTILIZED FOR AIR MOVEMENT THAT ARE NOT INSTALLED IN CONDUIT SHALL BE 2550 FLAME AND SMOKE RATED, HELLERMANN TYTON T50 R2C2UL OR EQUIVALENT.

FIRE STOPPING REQUIREMENTS

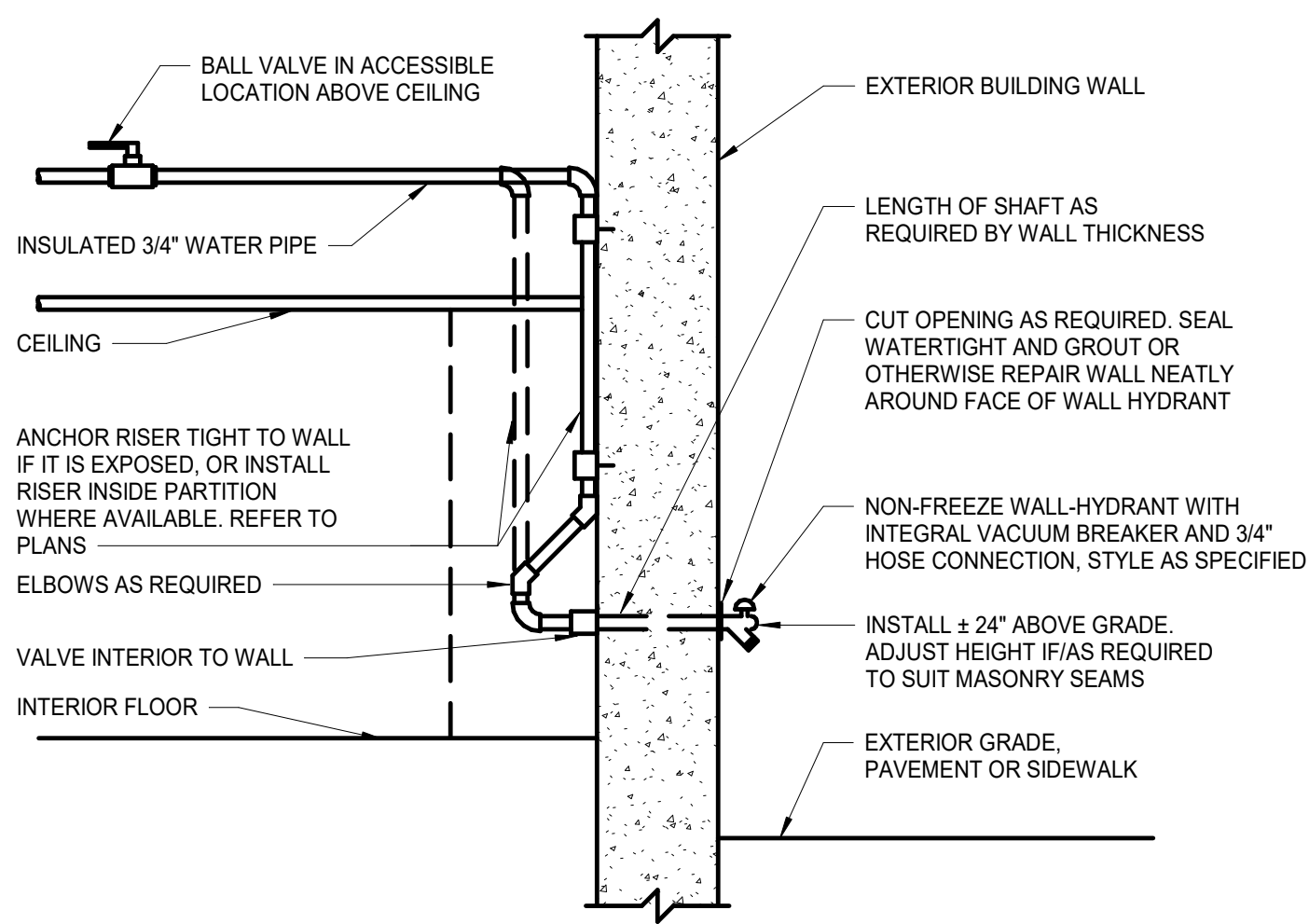
CONTRACTOR TO PROVIDE FIRESTOPPING AT ALL FIRE RATED ASSEMBLIES MEETING THE MANUFACTURER'S FIRESTOPPING U.L. LISTED DETAILS AND INSTRUCTIONS PER LOCAL CODES AND JURISDICTIONS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATIONS WITH ARCHITECTURAL FIRE RATINGS ON PLANS OR AS REQUIRED.

PLUMBING SYMBOLS

- EXISTING TO REMAIN
- NEW PIPING
 - CW - COLD WATER
 - NG - NATURAL GAS
 - V - SANITARY VENT ABOVE GRD.FLOOR ABOVE
 - V - SANITARY VENT BELOW GROUND
 - W - SANITARY WASTE BELOW GROUND
 - GW - GREASE WASTE ABOVE GRD.FLOOR ABOVE
 - GW - GREASE WASTE BELOW GROUND
 - GAS SHUT-OFF COCK
 - SHUT-OFF VALVE
 - PRESSURE REGULATOR
 - FLOOR DRAIN
 - PIPE DROP/PIPE RISE
 - BOTTOM OUTLET TEE
 - TOP OUTLET TEE
 - WALL HYDRANT
 - FLOOR CLEANOUT
 - FFCO
 - FINISHED FLOOR CLEANOUT
 - VTR
 - VENT THROUGH ROOF
 - EQUIPMENT TYPE AND DESIGNATION
 - PLUMBING FIXTURE TYPE AND DESIGNATION

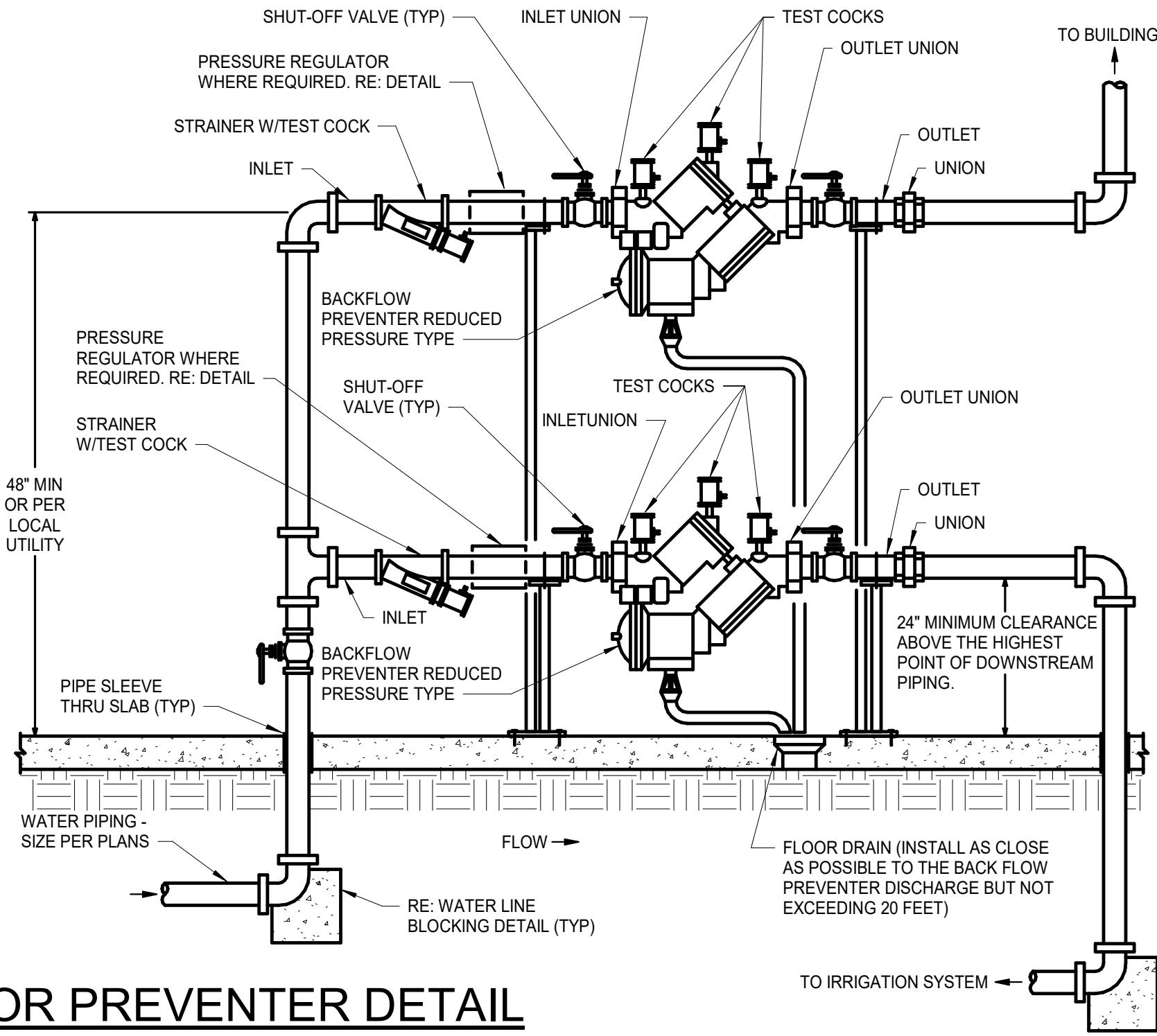


VENT THRU ROOF DETAIL
NOT TO SCALE



NON-FREEZE WALL HYDRANT DETAIL
NOT TO SCALE

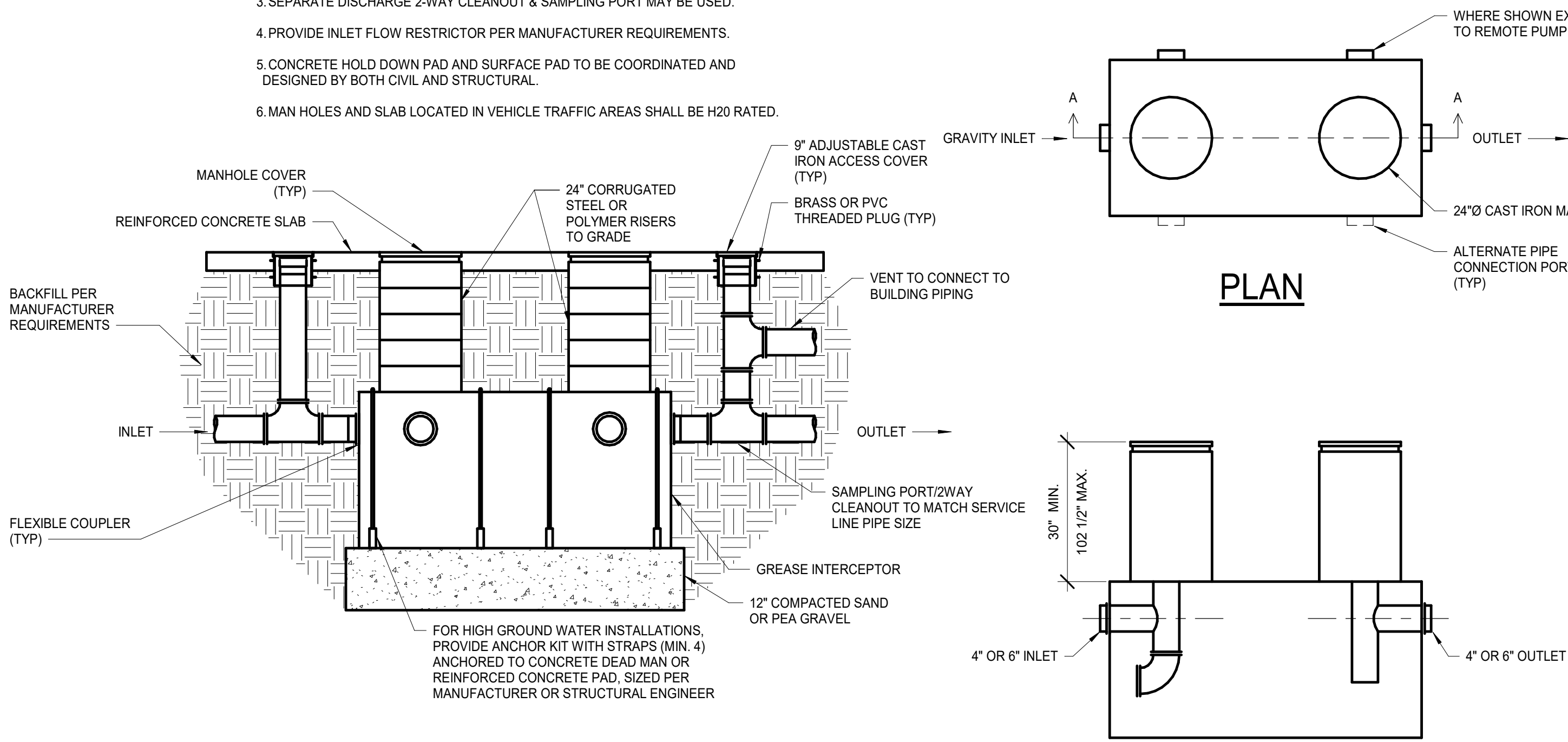
- NOTES:
- PROVIDE PRESSURE REGULATOR, SET TO 75 PSI WHERE SOURCE PRESSURE EXCEEDS 80 PSI. INSTALL DOWNSTREAM OF BACKFLOW PREVENTER OUTLET. RE: DETAIL.
 - ARRANGEMENT SHOWN IS SCHEMATIC. MODIFY TO SUIT CONDITIONS. INSTALL SO BFP CAN BE SERVICED AND TESTED IN ACCORDANCE W/ ALL RULES & REGULATIONS OF LOCAL AUTHORITIES.
 - ROUTE DRAIN AS INDICATED ON PLANS.
 - SUPPORT AS REQUIRED FROM SLAB.



INTERIOR BACKFLOR PREVENTER DETAIL
NOT TO SCALE

GENERAL NOTES:

- INSTALLATION SHALL BE IN ACCORDANCE WITH ALL REQUIREMENTS OF AUTHORITY HAVING JURISDICTION AND MANUFACTURER.
- PROVIDE INTERCEPTOR COMPLETE WITH ALL ACCESSORIES AS SPECIFIED & AS NECESSARY FOR A COMPLETE WORKING SYSTEM.
- SEPARATE DISCHARGE 2-WAY CLEANOUT & SAMPLING PORT MAY BE USED.
- PROVIDE INLET FLOW RESTRICTOR PER MANUFACTURER REQUIREMENTS.
- CONCRETE HOLD DOWN PAD AND SURFACE PAD TO BE COORDINATED AND DESIGNED BY BOTH CIVIL AND STRUCTURAL.
- MAN HOLES AND SLAB LOCATED IN VEHICLE TRAFFIC AREAS SHALL BE H20 RATED.



POLYETHYLENE UNDERGROUND GREASE INTERCEPTOR DETAIL
NOT TO SCALE

ARCHITECT OF RECORD

brr
BRR ARCHITECTURE INC.
810 WENDALL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-253-9895
FAX: 913-253-9844

CONSULTANT

Lankford + Fendler
+ associates
1730 Walnut Street
Kansas City, Missouri 64108
Tel: 816.221.1411
Fax: 816.221.1420
www.lankford-fendler.com
E: LF via Project No. 27-7674-00

CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER			62910099
PROJECT MANAGER	DRAWN BY	CHECKED BY	
Approver	Author		
PROFESSIONAL SEAL			



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. CONTINGENT UPON THE DATE AND IT IS NOT BE AVAILABLE FOR USE ON A DIFFERENT PROJECT SITE OR FOR A LATER DATE. THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

BRR DOES NOT GUARANTEE THAT CAD FILES ARE SUFFICIENT FOR APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

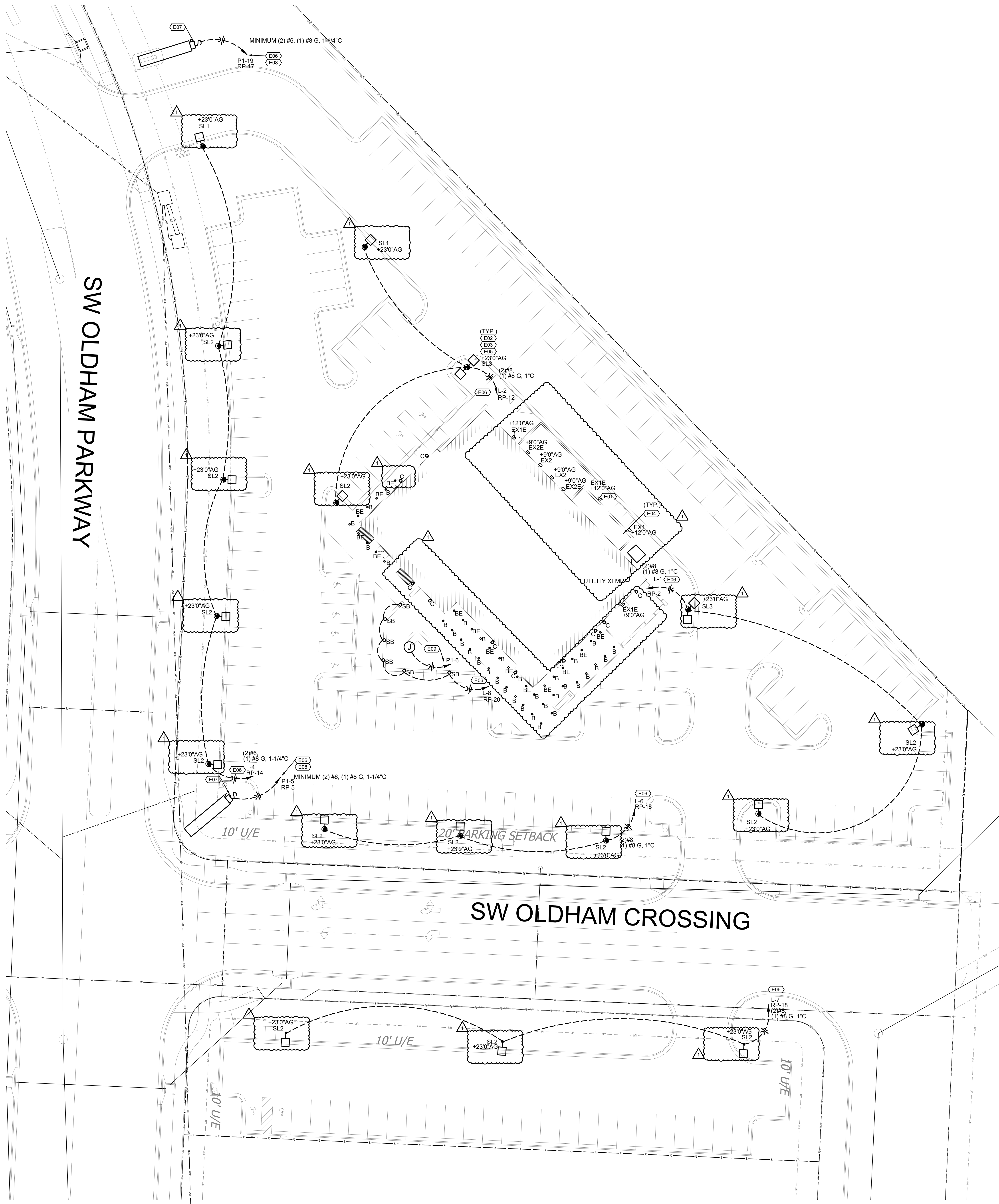
ISSUES AND REVISIONS

NUMBER	DATE	DESCRIPTION
1	06/20/25	ORIGINAL ISSUE
2		ADDENDUM 1
3		
4		
5		
6		
7		
8		
9		
10		

SHEET NAME

PLUMBING
SCHEDULES, GEN.
NOTES, & SYMBOLS

SHEET NUMBER



SITE PLAN-ELECTRICAL
SCALE: 1" = 20'-0"

SITE PLAN NOTES

- REFERENCE RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- REFERENCE MANUFACTURER SPECIFICATIONS PRIOR TO INSTALLATION OF POLE MOUNTED LIGHT FIXTURE. REFERENCE LIGHT POLE BASE ON SHEET E003. CONFIRM FINISH COLOR WITH OWNER PRIOR TO ORDERING.
- LIGHT FIXTURES SHALL BE INSTALLED IN GENERAL LOCATION SHOWN. COORDINATE WITH OTHER TRADES PRIOR TO INSTALL.
- REFERENCE SHEET E200 FOR CIRCUITING OF BUILDING MOUNTED FIXTURES.
- REFERENCE LIGHT FIXTURE SCHEDULE FOR ADDITIONAL INFORMATION.
- ROUTE HOMERUN THROUGH LIGHTING CONTROL RELAY PANEL AS INDICATED. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION.
- PROVIDE NEMA 3R TOGGLE DISCONNECT SWITCH FOR MONUMENT SIGN. VERIFY EXACT LOCATION AND POWER REQUIREMENTS WITH SIGNAGE VENDOR PRIOR TO INSTALL.
- VERIFY MONUMENT SIGN POWER REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN. CALCULATE PROPER CONDUCTOR SIZE REQUIRED TAKING VOLTAGE DROP INTO CONSIDERATION.
- PROVIDE POWER CONNECTION TO FIRE PIT. PROVIDE EPO AND CONTROL WIRING AS REQUIRED.

ARCHITECT OF RECORD

brr

BRR ARCHITECTURE INC.
818 MIDCOURT AVENUE
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-262-5885
FAX: 913-551-9844

CONSULTANT

Lankford + Fendler
+ associates
1750 Walnut Street
Kansas City, Missouri 64108
Telephone: 816-234-0000
Fax: 816-231-1411
E-Mail: info@lankfordfendler.com
L.F. is a Project No. 23-0040

CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER			6291009
PROJECT MANAGER	DRAWN BY	CHECKED BY	
Approver	Author		
PROFESSIONAL SEAL			



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. IT IS THE PROPERTY OF BRR ARCHITECTURE INC. AND IS NOT TO BE REPRODUCED OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF BRR ARCHITECTURE INC. ANY REPRODUCTION OR USE OF THIS DRAWING FOR ANY OTHER PROJECT IS UNAUTHORIZED AND MAY BE CONSIDERED A VIOLATION OF THE LAW.

BRR DOES NOT GUARANTEE THAT THE USE OF THIS DRAWING IS APPROPRIATE FOR YOUR PROJECT. BRR ARCHITECTURE INC. IS NOT RESPONSIBLE FOR ANY DAMAGE OR LOSS OF ANY KIND, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF REVENUE, OR ANY OTHER ECONOMIC LOSS, ARISING FROM THE USE OF THIS DRAWING.

REVISIONS AND REVISIONS

NUMBER	DATE	REVISION	DESCRIPTION
1	06/20/25	ADDENDUM 1	

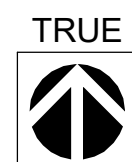
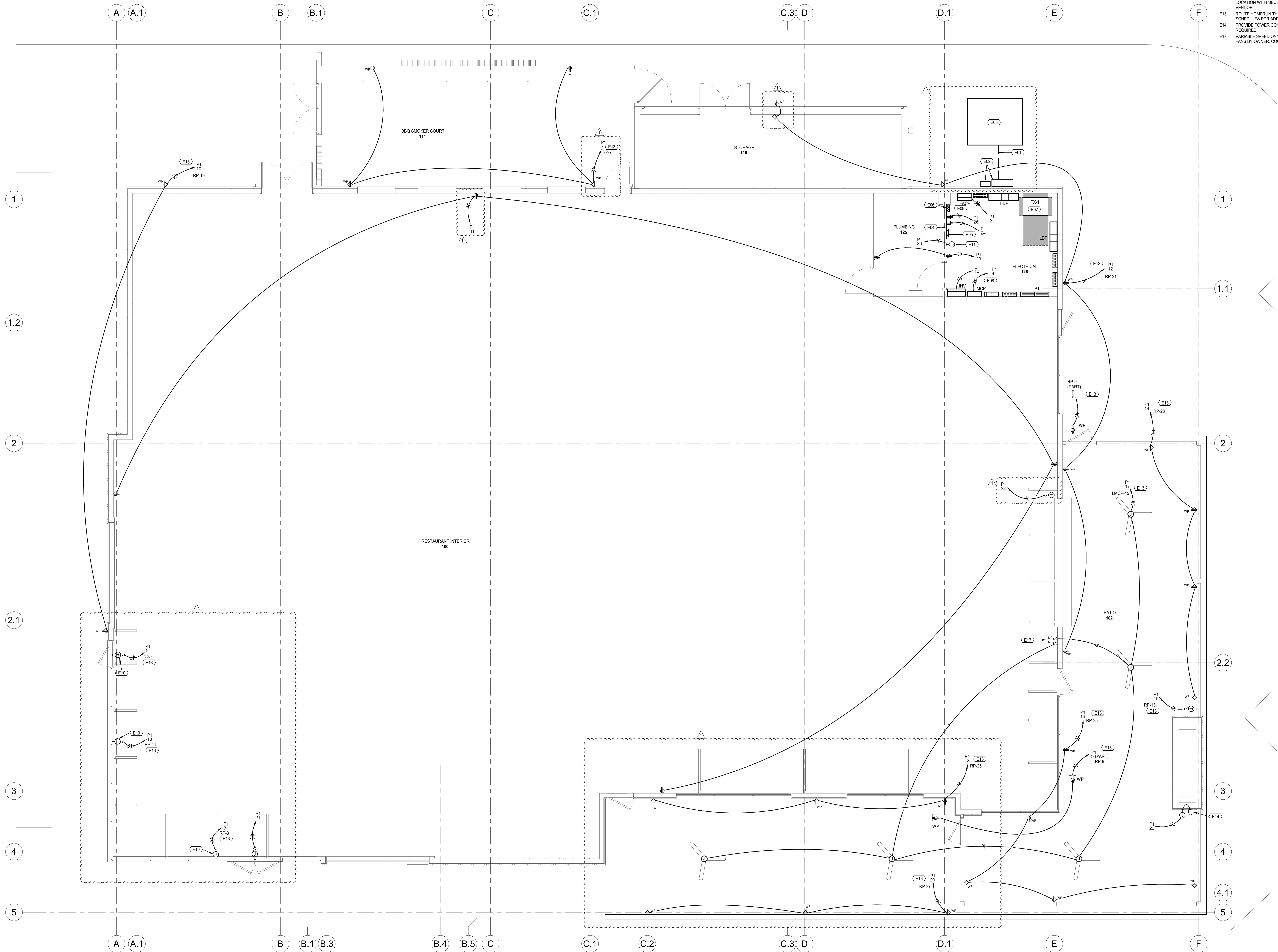
SHEET NAME

SITE PLAN - ELECTRICAL

SHEET NUMBER

E001

6/20/2025 12:11:30 PM



FLOOR PLAN - POWER

SCALE: 1/4" = 1'-0"

FLOOR PLAN NOTES

- E01 PROVIDE TRANSFORMER SECONDARY FEEDERS REFER TO RISER DIAGRAM AND FEEDER SCHEDULE FOR MORE INFORMATION.
- E02 PROVIDE UTILITY METER BASE AND CT CABINET PER UTILITY STANDARDS. PROVIDE GROUND PER UTILITY STANDARDS. ROUTE CONDUIT TO ELECTRICAL SERVICE ENTRANCE EQUIPMENT.
- E03 UTILITY TRANSFORMER PROVIDED BY THE UTILITY COMPANY. PROVIDE CONCRETE PAD PER UTILITY COMPANY STANDARDS. COORDINATE EXACT LOCATION OF PAD WITH ARCHITECTURAL AND CIVIL PLANS. ENSURE THAT UTILITY REQUIRED CLEARANCES ARE MAINTAINED.
- E04 PROVIDE 4" X 8" X 3/4" FIRE TREATED PLYWOOD BACKBOARDS, PAINTED ON ALL SIDES WITH TWO COATS OF WHITE FIRE RETARDANT PAINT.
- E05 PROVIDE MAIN TELECOMMUNICATIONS GROUND BAR. PROVIDE WITH STAND-OFF ISOLATORS AND GROUND WIRE BACK TO BUILDING MAIN GROUNDING ELECTRODE SYSTEM.
- E06 PROVIDE (3) 3" CONDUITS WITH PULL STRING TO PROPERTY LINE FOR CONNECTION TO SERVICE PROVIDERS. COORDINATE LOCATION AND TERMINATION WITH SERVICE PROVIDERS. STUB UP TO 12" AFF WITH DEMARC ROOM.
- E07 FLOOR-MOUNT TRANSFORMER ON CONCRETE HOUSEKEEPING PAD. SIZE PAD TO BE 4" WIDER ON ALL SIDES RE: RISER DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- E08 PROVIDE WATTS TOPPER LMCP-10V LIGHTING CONTROL PANEL. WITH EMERGENCY RELAY CAPABILITY OR APPROVED EQUAL.
- E09 PROVIDE SILENT KNIGHT FIRE ALARM CONTROL PANEL OR APPROVED EQUAL.
- E10 PROVIDE J-BOX WITH TOGGLE SWITCH DISCONNECT FOR SIGNAGE. COORDINATE LOCATION WITH OWNER PRIOR TO INSTALL.
- E11 PROVIDE POWER TO SECURITY ACCESS CONTROL PANEL. VERIFY EXACT ROUGH-IN LOCATION WITH SECURITY VENDOR.
- E13 ROUTE HOMERUN THROUGH LIGHTING CONTROL RELAY PANEL AS INDICATED. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION.
- E14 PROVIDE POWER CONNECTION TO FIREPLACE. PROVIDE EPO AND CONTROL WIRING AS REQUIRED.
- E17 VARIABLE SPEED ON/OFF WALL CONTROL SWITCH FOR OUTDOOR FANS PROVIDED WITH FANS BY OWNER. COORDINATE INSTALLATION WITH ARCHITECT.

ARCHITECT OF RECORD



CONSULTANT

CLIENT

PROJECT TITLE

Q39 (SHELL) LEE'S SUMMIT, MO OLDHAM VILLAGE

PROJECT NUMBER			62910099
PROJECT MANAGER	DRAWN BY	CHECKED BY	
Approver	Author		
PROFESSIONAL SEAL			



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. CONTINGENT UPON THE SITE BEING AVAILABLE AND IT IS NOT AVAILABLE FOR USE ON A DIFFERENT PROJECT SITE OR FOR A LATER RE-USE OF THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR ANY OTHER PROJECT IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

BRR DOES NOT GUARANTEE THAT CONDITIONS ARE SUFFICIENT OR APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

ISSUES AND REVISIONS

NUMBER	DATE	DESCRIPTION
1	06/20/25	ORIGINAL ISSUE
2		ADDENDUM 1
3		
4		
5		
6		
7		
8		
9		
10		

SHEET NAME

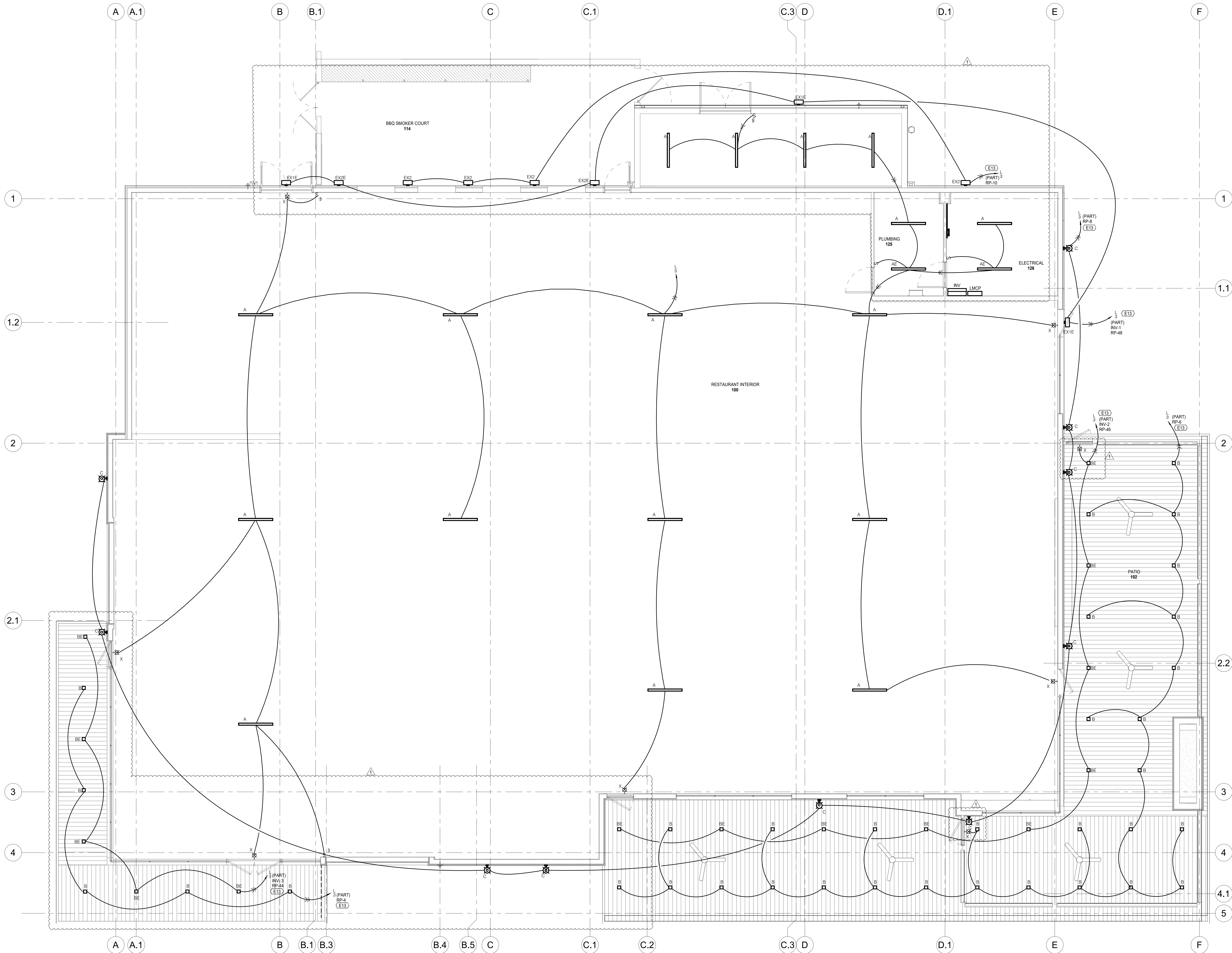
FLOOR PLAN - POWER

SHEET NUMBER

E100

BRR ORIGINAL PRINTED ON RECYCLED PAPER

6/20/2025 12:11:32 PM



TRUE
FLOOR PLAN - LIGHTING
SCALE: 1/4" = 1'-0"

FLOOR PLAN NOTES

E13 ROUTE HOMERUN THROUGH LIGHTING CONTROL RELAY PANEL AS INDICATED. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION.

ARCHITECT OF RECORD

brr
BRR ARCHITECTURE INC.
810 MEDICAL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-283-9999
FAX: 913-283-9944

CONSULTANT

Lankford + Fendler
+ associates
1750 Walnut Street
Kansas City, Missouri 64108
Tel: 816.221.1411
Fax: 816.221.1420
www.lankfordfendler.com
E117a Project No. 23-7674-00

CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER		62910099
PROJECT MANAGER	DRAWN BY	CHECKED BY
Approver	Author	
PROFESSIONAL SEAL		

PROFESSIONAL SEAL



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT OF RECORD. THE ARCHITECT OF RECORD ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING. THE SERVICES OF PROFESSIONAL ARCHITECTS AND ENGINEERS ARE NOT AUTHORIZED TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT OF RECORD.

BRR ARCHITECTURE INC. ASSUMES NO LIABILITY FOR ANY ERRORS OR OMISSIONS IN THIS DRAWING. THE SERVICES OF PROFESSIONAL ARCHITECTS AND ENGINEERS ARE NOT AUTHORIZED TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE ARCHITECT OF RECORD.

APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

ISSUES AND REVISIONS

NUMBER	DATE	ORIGINAL ISSUE	DESCRIPTION
1	06/20/25	ADDENDUM 1	

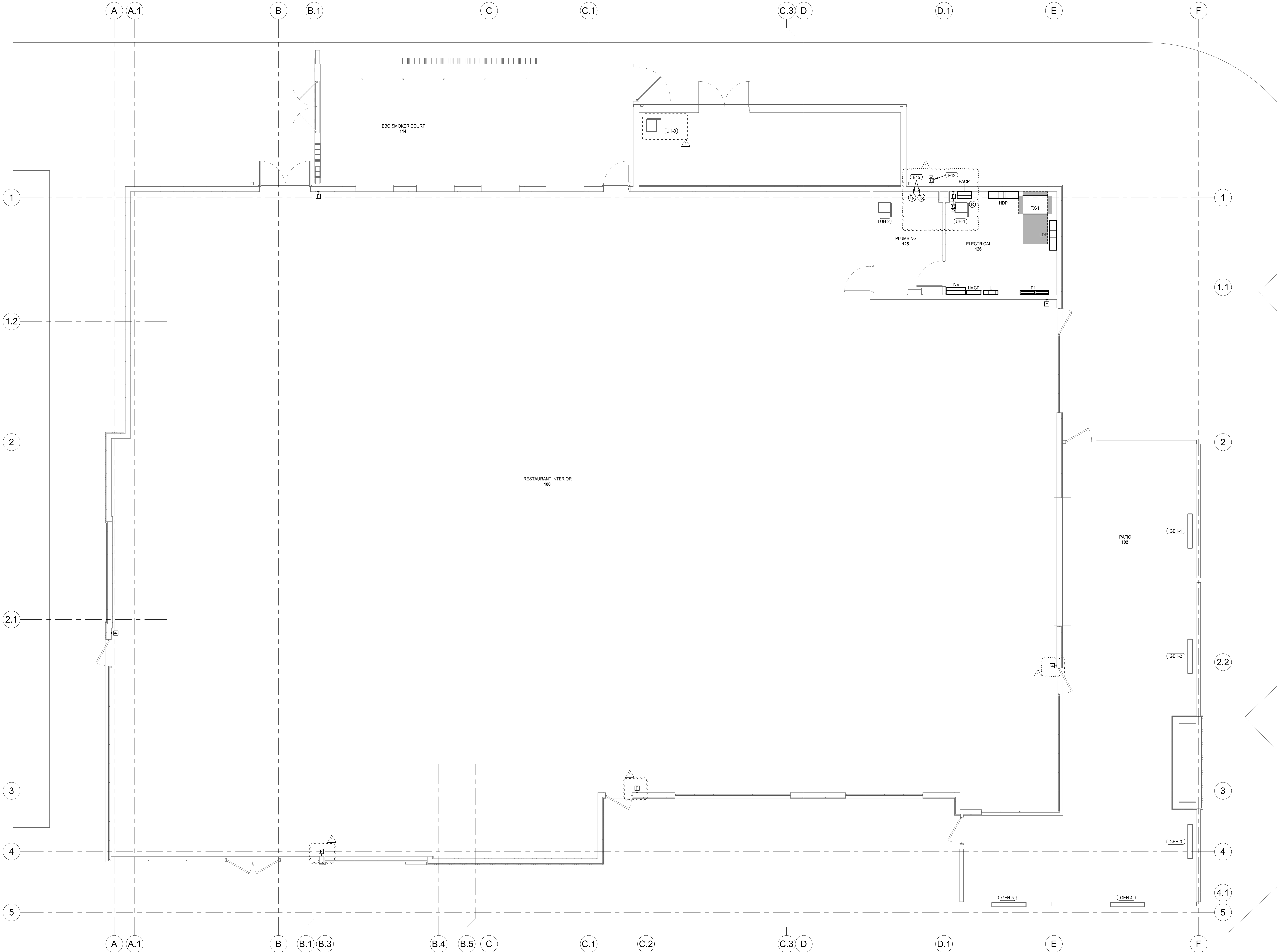
SHEET NAME

FLOOR PLAN - LIGHTING
SHEET NUMBER

E200

BRR ORIGINAL PRINTED ON RECYCLED PAPER

6/20/2025 12:11:35 PM



FLOOR PLAN NOTES

- E12 PROVIDE WEATHERPROOF HORNSTROBE DEVICE ABOVE SIAMESE FIRE DEPARTMENT CONNECTION.
E15 PROVIDE FIRE ALARM RELAY AND CONNECTIONS TO FIRE SPRINKLER FLOW AND TAMPER SWITCHES AS REQUIRED. COORDINATE QUANTITY AND LOCATIONS WITH FIRE SPRINKLER CONTRACTOR.

ARCHITECT OF RECORD



BRR ARCHITECTURE INC.
818 MEDICAL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-283-9895
FAX: 913-283-9844

CONSULTANT



CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER		62910099
PROJECT MANAGER	DRAWN BY	CHECKED BY
Approver	Author	
PROFESSIONAL SEAL		

PROFESSIONAL SEAL



COPYRIGHT NOTICE
THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. CONTINUATION OF THIS DRAWING IS NOT PERMITTED. ANY REUSE OF THIS DRAWING FOR ANY OTHER PROJECT OR FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF BRR ARCHITECTURE INC. IS PROHIBITED. THE SERVICES OF BRR ARCHITECTURE INC. ARE NOT GUARANTEED BY THIS DRAWING FOR REUSE ON ANY OTHER PROJECT. BRR ARCHITECTURE INC. IS NOT RESPONSIBLE FOR ANY DAMAGE OR LOSS OF ANY KIND, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, LOSS OF REVENUE, OR ANY OTHER ECONOMIC LOSS, ARISING FROM THE USE OF THIS DRAWING.

NUMBER	DATE	ORIGINAL ISSUE	DESCRIPTION
1	06/20/25	ADDENDUM 1	

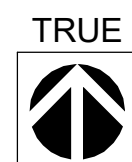
SHEET NAME

FLOOR PLAN -
SYSTEMS

SHEET NUMBER

E300

6/20/2025 12:11:34 PM



ROOF PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"

FLOOR PLAN NOTES

E16 PROVIDE DUCT DETECTORS IN SUPPLY AND RETURN DUCTS OF ROOFTOP HVAC EQUIPMENT. CONNECT TO FIRE ALARM SYSTEM AND PROVIDE CONTROL WIRING AS REQUIRED FOR EQUIPMENT SHUTDOWN.

ARCHITECT OF RECORD



BRR ARCHITECTURE INC.
818 MEDICAL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-283-9895
FAX: 913-283-9894

CONSULTANT



CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER			62910099		
PROJECT MANAGER		DRAWN BY		CHECKED BY	
Approver		Author			
PROFESSIONAL SEAL					

PROFESSIONAL SEAL



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. CONTINGENT UPON THE SITE BEING AS SHOWN AND IT IS NOT BE AVAILABLE FOR USE ON A DIFFERENT PROJECT SITE OR FOR A LATER RE-USE OF THE PROJECT. THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR OTHER PROJECTS IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

BRR DOES NOT GUARANTEE THAT QUALITIES ARE SUFFICIENT OR APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

ISSUES AND REVISIONS

NUMBER	DATE	ORIGINAL	DESCRIPTION
1	06/20/25	ADDENDUM 1	

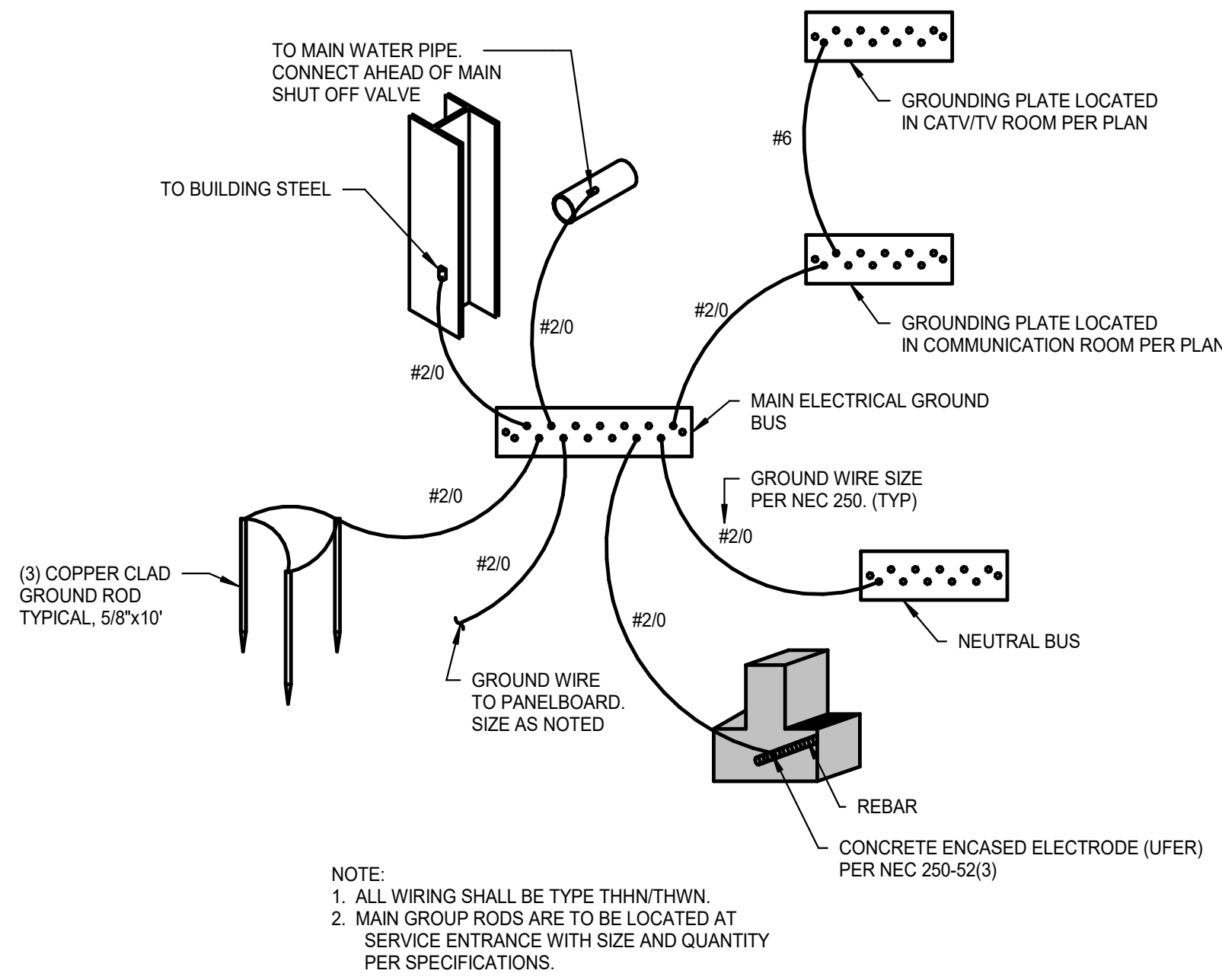
SHEET NAME

ROOF PLAN - ELECTRICAL

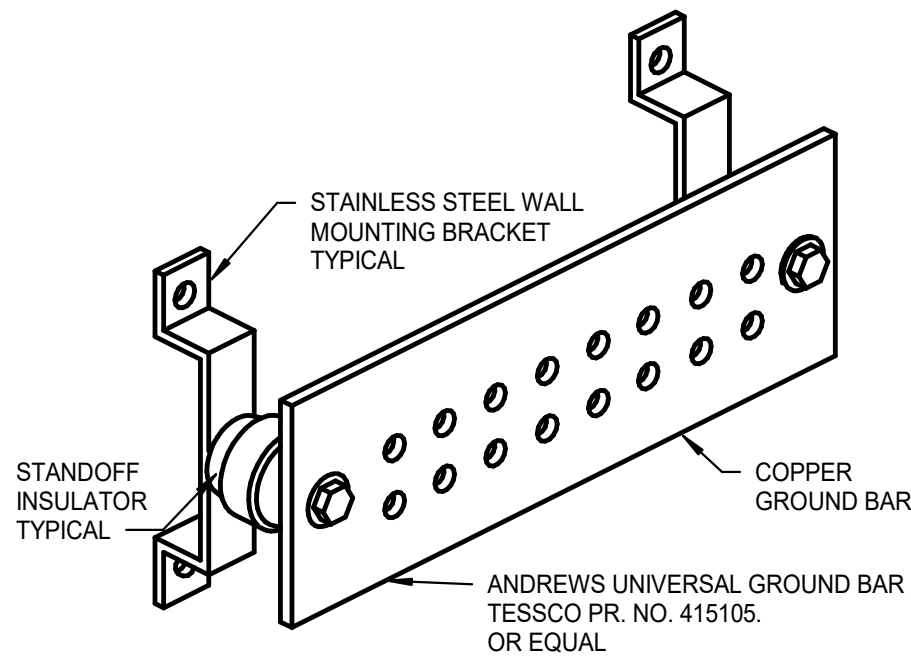
SHEET NUMBER

E400

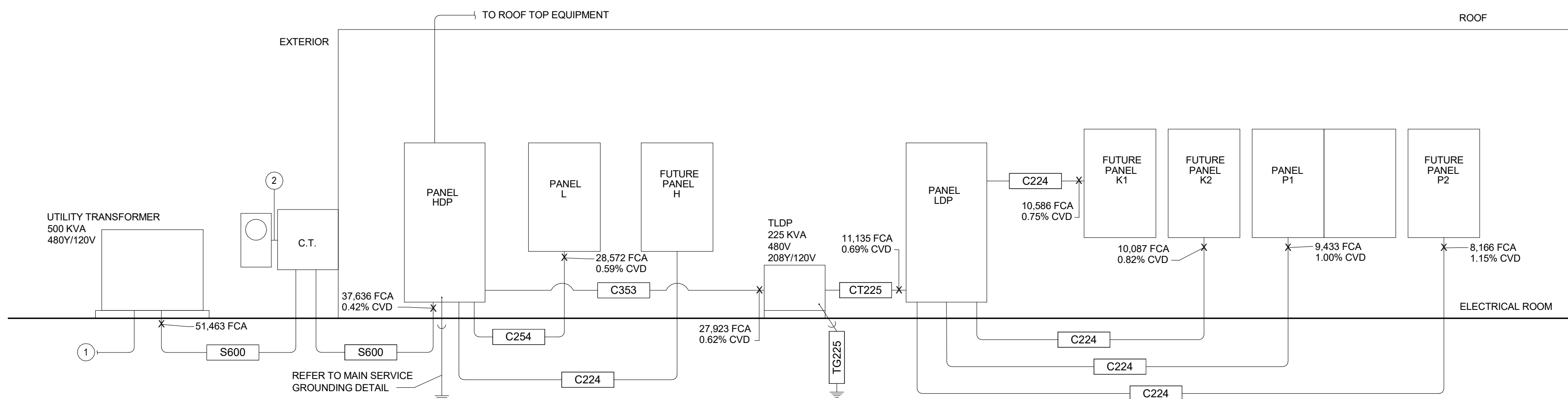
BRR ORIGINAL PRINTED ON RECYCLED PAPER



MAIN SERVICE ENTRANCE GROUNDING DETAIL
NOT TO SCALE



MAIN TELECOMMUNICATIONS GROUND BAR DETAIL
NOT TO SCALE



ELECTRICAL RISER DIAGRAM
NOT TO SCALE

⊗ RISER NOTES

1. PROVIDE 4" CONDUIT(S) FOR UTILITY PRIMARY AS REQUIRED BY THE UTILITY COMPANY.
PRIMARY CONDUCTORS PROVIDED BY UTILITY. COORDINATE EXACT ROUTING WITH
CIVIL AND UTILITY COMPANY.
2. 1-1/4" CONDUIT.

FEEDER SCHEDULE - COPPER																			
CIRCUIT AMPS	TAG NAME	NUMBER SETS	3-WIRE W/GROUND			EQUIPMENT GROUND	CONDUIT SIZE	NEC SIZE EMT/PVC/RGS		TAG NAME	NUMBER SETS	4-WIRE W/GROUND			EQUIPMENT GROUND	CONDUIT SIZE	NEC SIZE EMT/PVC/RGS		
			PHASE / NEUTRAL CONDUCTORS									PHASE / NEUTRAL CONDUCTORS							
225	C223	1	3 #4/0	#4	2"	2 1/2" x 2"	C224	1	4 #4/0	C24	1	4 #4/0	#4	2.5"	2 5/8" x 2.5"	2 5/8" x 2.5"			
250	C253	1	3 #250	#4	2.5"	2 1/2" x 2"	C254	1	4 #250	#4	2.5"	4 #250	#4	2.5"	2 5/8" x 2.5"	2 5/8" x 2.5"			
350	C353	1	3 #500	#3	3.5"	2 5/8" x 3"	C354	1	4 #500	#3	3.5"	4 #500	#3	3.5"	3 1/8" x 3"	3 1/8" x 3"			
TRANSFORMER SECONDARY FEEDERS																			
700	CT225	3	4 #250	#20	3"	2 5/8" x 2.5"													
SERVICE ENTRANCE CONDUCTORS																			
600	S600	2	4 #350	-	4"	2 5/8" x 3"													
MISC FEEDER DESCRIPTIONS																			
	IG225	1	N/A	#20	0.75"	0.75" x 0.75"	TRANSFORMER GROUND												

- NOTES:
1. SIZE BRANCH FEEDER AND CIRCUITS ACCORDING TO THE CIRCUIT BREAKER / FUSE SIZE AND THIS SCHEDULE.
TAG NAME MAY BE USED AS AN ADDITIONAL REFERENCE.
 2. REFER TO THE SPECIFICATIONS AND GENERAL NOTES FOR MINIMUM CONDUIT SIZE REQUIREMENTS.
MINIMUM SIZE REQUIRED MAY BE LARGER THAN SHOWN IN THIS SCHEDULE.
 3. CONDUCTOR SIZES ARE BASED UPON TYPE THHN/THWN CONDUCTORS WITH EMT OR SCHEDULE 40 PVC CONDUIT.
VERIFY AND ADJUST CONDUIT SIZE AS REQUIRED FOR OTHER TYPES OF CONDUIT.
 4. CONDUCTOR SIZES ARE BASED UPON 100 FEET OR LESS IN LENGTH. IF ONE WAY CIRCUIT IS OVER 100 FEET,
INCREASE FEEDER SIZES AS REQUIRED FOR VOLTAGE DROP.
 5. APPLY AMBIENT TEMPERATURE CORRECTION FACTORS AS REQUIRED BY THE NEC AND MODIFY FEEDER
SIZES ACCORDINGLY.
 6. APPLY DERATING FACTORS FOR MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY AS REQUIRED
BY THE NEC AND MODIFY FEEDER SIZES ACCORDINGLY.

ELECTRICAL RISER DIAGRAM NOTE

UTILITY TRANSFORMER DESIGN CRITERIA: 500 KVA, PAD MOUNT.
UTILITY TRANSFORMER SECONDARY VOLTAGE: 480V/277V, 3-PHASE, 4-WIRE
UTILITY TRANSFORMER IMPEDANCE: 1.30% Z.

MAXIMUM AVAILABLE FAULT CURRENT AT UTILITY TRANSFORMER SECONDARY IS
51,403 AMPS. FAULT CURRENT WAS OBTAINED BASED ON THE MAXIMUM LET
THROUGH CURRENT OF A TRANSFORMER WITH THE ABOVE CRITERIA.

ARCHITECT OF RECORD

brr

BRR ARCHITECTURE INC.
818 MEDICAL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-283-9899
FAX: 913-283-9844

CONSULTANT

Lankford + Fendler
+ associates
1750 Walnut Street
Kansas City, Missouri 64108
Telephone: 816-486-0000
Fax: 816-221-1411
E-Mail: Project No. 23-7674-00

CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER			62910099
PROJECT MANAGER	DRAWN BY	CHECKED BY	
Approver	Author		
PROFESSIONAL SEAL			



COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE.
CONTINGENT UPON THE SITE BEING AS SHOWN AND IT IS NOT TO BE USED FOR
USE ON ANY OTHER SITE OR FOR ANY OTHER PURPOSE. THE USER OF THIS
DRAWING SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND
THE SERVICES OF PROPERLY LICENSED ARCHITECTS AND ENGINEERS.
REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT
AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

BRR DOES NOT GUARANTEE THAT CAD FILES ARE SUFFICIENT OR
APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES
AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY
ARISING FROM USER'S USE.

ISSUES AND REVISIONS

NUMBER	DATE	REVISION	DESCRIPTION
1			

SHEET NAME

ELECTRICAL
DETAILS

SHEET NUMBER

E500

PANELBOARD L									
BUS AMPS: 250A				SCOR: 42A		FULLY RATED		TYPE: BRANCH CRUIT PANELBOARD	
MAIN BKT TYPE: MLO				NEUA TYPE: 1		MANUFACTURER: EQUATOR		BROUGHT	
VOLTSPHASE: 480/277V, 3PH, 4W				MOUNTING: SURFACE		MFG MODEL: NF		OPTIONS: 50	
OUT #	CIRCUIT DESCRIPTION	AMPS	P	LOAD	A	B	C	LOAD	AMPS
				VA	VA	VA	VA	VA	
1	L1TG - SITE POLES	20	1	688	1,376			688	1
2	L1TG - BRNRY/CAVITY/BOXES	20	1	1,429		2,289		860	1
3	L1TG - 100' RIGID TIE	20	1	440			1,011	716	1
7	L1TG - SITE POLES	20	1	516	696			180	1
8	RELAY PANEL "N"	20	1	500		500		0	1
11	UN-1	25	1	5,000			5,000	0	1
12	UN-2	25	1	5,000			5,000	0	1
13	UN-3	25	1	5,000			5,000	0	1
19	SPARE	20	1	0	0	0	0	0	1
20	SPARE	20	1	0	0	0	0	0	1
21	SPARE	20	1	0	0	0	0	0	1
22	SPARE	20	1	0	0	0	0	0	1
23	SPARE	20	1	0	0	0	0	0	1
24	SPARE ONLY	0	0	0	0	0	0	0	1
27	SPARE ONLY	0	0	0	0	0	0	0	1
28	SPARE ONLY	0	0	0	0	0	0	0	1
31	SPARE ONLY	0	0	0	0	0	0	0	1
32	SPARE ONLY	0	0	0	0	0	0	0	1
33	SPARE ONLY	0	0	0	0	0	0	0	1
34	SPARE ONLY	0	0	0	0	0	0	0	1
35	SPARE ONLY	0	0	0	0	0	0	0	1
36	SPARE ONLY	0	0	0	0	0	0	0	1
41	SPARE ONLY	0	0	0	0	0	0	0	1
				PER PHASE CONNECTED - VA	7,072	8,239	6,611	TOTAL CONNECTED - VA	21,322
				PER PHASE CONNECTED - AMPS	26	30	22	TOTAL CONNECTED - AMPS	78
NOTES:								TOTAL DEMAND - VA	20,435
R#4 = CIRCUIT LIGHTING CIRCUIT WITH RELAY PANEL AS INDICATED								TOTAL DEMAND - AMPS	67.47
S#0 = SURGE PROTECTIVE DEVICE									

BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING CHART						
OVERCURRENT PROTECTION DEVICE RATING (AMPS)	REQUIRED CONDUCTOR SIZE	EQUIPMENT GROUNDING CONDUCTOR SIZE	SINGLE PHASE 2 WIRE + GND CONDUIT SIZE	SINGLE PHASE 3 WIRE + GND CONDUIT SIZE	THREE PHASE 3 WIRE + GND CONDUIT SIZE	THREE PHASE 4 WIRE + GND CONDUIT SIZE
15	12 AWG	12 AWG	3/4"	3/4"	3/4"	3/4"
20	12 AWG	12 AWG	3/4"	3/4"	3/4"	3/4"
25	10 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
30	10 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
35	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
40	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
45	8 AWG	10 AWG	3/4"	3/4"	3/4"	3/4"
50	8 AWG	10 AWG	3/4"	3/4"	3/4"	1"
60	4 AWG	10 AWG	1"	1"	1"	1-1/4"
70	4 AWG	8 AWG	1"	1"	1"	1-1/4"
80	3 AWG	8 AWG	1"	1-1/4"	1-1/4"	1-1/4"
90	2 AWG	8 AWG	1"	1-1/4"	1-1/4"	1-1/4"
100	1 AWG	8 AWG	1-1/4"	1-1/2"	1-1/2"	1-1/2"

- = UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- = UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL BRANCH CIRCUITS AND FEEDERS TO BE PROVIDED WITH A NEUTRAL WIRE.
- ALL CONDUCTORS SIZED ON THE POWER RISER DIAGRAM OR IN BRANCH CIRCUIT CONDUCTOR TABLE ARE BASED ON 3 CURRENT CARRYING CONDUCTORS IN A RACEWAY OR CABLE. CONDUCTORS SHALL BE DERATED IN ACCORDANCE WITH THE NEC IF 4 OR MORE CONDUCTORS ARE PLACED IN A RACEWAY OR CABLE.

- A. REFER TO ARCHITECTURAL DETAILS AND ELEVATIONS FOR COORDINATION OF LOCATION OF ALL WIRING DEVICES BEFORE ROUGH-IN & JOBS.
- B. REFER TO ARCHITECTURAL PLANS FOR DETAIL OF ALL CONDUIT THRU ROOF PENETRATIONS.
- C. PROVIDE UPDATED TYPEWRITTEN PANELBOARD DIRECTORY FOR EACH PANELBOARD WHICH CIRCUITS HAVE BEEN ADDED TO OR MODIFIED.
- D. CONTRACTOR TO REFERENCE BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING CHART FOR SIZES OF BRANCH CIRCUITS AND (4) FEEDERS AT OR BELOW VOLTAGE.
- E. SUPPORT ALL LIGHT FIXTURES WITH A MINIMUM OF 1/4" X 4" HANGER WIRES TO STRUCTURE ABOVE.
- F. CONNECT EAT AND EMERGENCY LIGHTS TO HOT LEG, NOT SWITCH LEG.
- G. DISCONNECTS FOR MECHANICAL EQUIPMENT ARE PROVIDED BY OTHERS. UNLESS NOTED OTHERWISE.
- H. THE FOLLOWING FACTORS SHALL BE USED TO DETERMINE PANELBOARD CAPACITY: 100% LIGHTING (NO MOTOR LOADS), 100% OF (1) 10,000 TO 50% THEREAFTER FOR ALL OTHER LOADS.
- I. LIGHTING INDICATED ABOVE EXIST DISCHARGE DOOR IS FOR MEANS OF EGRESS ILLUMINATION PER BC 106.1.
- J. CONDUIT SHALL BE USED FOR CONDUCTORS WHERE REQUIRED BY E.C.
- K. OUTLETS INSTALLED IN FIRE RATED ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM DISTANCE OF 18" OR LESS THAN 24".
- L. CONTRACTOR SHALL PROVIDE FIRE RATED ENCLOSURES AROUND ALL ROUGH-IN BOXES, PANELS ETC. THAT ARE LOCATED IN FIRE RATED WALLS AND SHALL FIRE CALK ALL PENETRATIONS IN ASSEMBLIES PER MANUFACTURERS' RECOMMENDATIONS PER FIRE RATED ASSEMBLIES.
- M. PROVIDE HOUSE KEEPING PAD FOR ALL FLOOR MOUNTED EQUIPMENT.
- N. INSTALL FIRE ALARM DEVICES THAT COMPLY WITH APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO THE NFPA, UL, ADA, BC OR ANY OTHER AUTHORITIES HAVING JURISDICTION.
- O. CONTRACTOR MAY WIRE SO FIRST GFI OUTLET PROTECTS ALL DOWN STREAM OUTLETS.
- P. WHERE THE DRAWINGS INDICATE DETACHED CIRCUIT SHALL NOT HAVE SHARED NEUTRALS.
- Q. CONTRACTOR SHALL NOT DETACH MULTI-WIRE BRANCH CIRCUITS WITH A COMMON NEUTRAL.
- R. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR REQUIREMENTS AND LOCATION OF METER. CONTRACTOR SHALL BE DESIGNED TO TAKE ADVANTAGE OF UTILITY COMPANY'S REBATE PROGRAM.

CONTRACTOR TO PROVIDE FIRESTOPPING AT ALL FIRE RATED ASSEMBLIES MEETING THE MANUFACTURER'S FIRESTOPPING U.L. LISTED DETAILS AND INSTRUCTIONS PER LOCAL CODES AND JURISDICTIONS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING LOCATIONS WITH ARCHITECTURAL FIRE RATINGS ON PLANS OR AS REQUIRED.

POWER RATING (VA/W): 750
INPUT VOLTAGE (V): 277
OUTPUT VOLTAGE (V): 277

MANUFACTURER / MODEL: MULE - CEPS-M
APPROVED EQUIVALENT: MYERS - ILLUMINATOR LV

LOCATION: ELECTRICAL ROOM
NORMAL POWER SOURCE: L-20

CRCT #	LOAD DESCRIPTION	LOAD TYPE	CB AMP	P	LOAD VA	NOTES
1	LTG- WALL PAGES	NORMALLY ON	10	1	244	
2	LTG- PATH GANGLY	NORMALLY ON	10	1	200	
3	LTG- FRONT GANGLY	NORMALLY ON	10	1	100	
4	SPARE	NORMALLY ON	10	1		
5	SPARE	NORMALLY ON	10	1		
6	SPARE	NORMALLY ON	10	1		
TOTAL CONNECTED LOAD					524	VA
SPARE CAPACITY					250	VA
SPARE %					30	%

GENERAL:

- 18, 10A LISTED
- NP/UF FUSE AND BATTERY FUSE PROTECTION
- FIELD SELECTABLE 150 PAGE
- 90 MINUTE RUNTIME
- STANDARD WARRANTY 3 YEARS
- SELF TEST AND DIAGNOSTICS
- WALL MOUNTED CABINET
- MANUFACTURERS STARTUP AND TRAINING
- OUTPUT CIRCUIT BREAKERS

NOTES:

REFER TO THE BRANCH CIRCUIT COPPER CONDUCTOR AND CONDUIT SIZING CHART FOR SIZING BRANCH CIRCUITS

[illegible]

SUBMITTAL NOTES

THE LIGHTING DESIGN FOR THIS PROJECT IS BASED UPON THE MANUFACTURERS SPECIFIED, IF AN ADDITIONAL SUBSTITUTION IS DESIRED BY THE CONTRACTOR, A SUBSTITUTION REQUEST SUBMITTAL MUST BE PROVIDED AS FOLLOWS:

- 1) SUBSTITUTION REQUEST MUST BE RECEIVED BY THE ENGINEER IN WRITING 15 DAYS PRIOR TO BID. FAILURE TO SUBMIT CONSTITUTES A GUARANTEE TO SUPPLY THE SPECIFIED FIXTURES.
- 2) INFORMATION IS TO BE PROVIDED COMPARED PHOTOGRAPHY (WITH FLOOR PLAN INDICATING POINT OF FIXTURE CALCULATIONS).
- 3) PROVIDE ADDITIONAL INFORMATION REGARDING THE PROPOSED SUBSTITUTION, INCLUDING BUT NOT LIMITED TO: MANUFACTURER, SAMPLES ARE TO BE PROVIDED UPON REQUEST.
- 4) GREAT CARE AND THE EXPENSE USUALLY INCURRED TO PROVIDE OUR CLIENT WITH THE LIGHTING AND CONTROL SYSTEM.

THEREFORE, FOR EACH AND EVERY TYPE OF FIXTURE OFFERED AS AN UNSOLICITED ALTERNATE, A \$50.00 FEE WILL BE CHARGED TO THE CONTRACTOR FOR REVIEW OF THE ALTERNATE FIXTURE. THE CHARGE IS IN NO WAY A GUARANTEE OF APPROVAL, BUT IS SOLELY TO COMPENSATE THE ENGINEER FOR THE TIME AND EXPENSE INVOLVED IN THE REVIEW OF THE PROPOSED SUBSTITUTION. THE FEE WILL BE REIMBURSED TO THE CONTRACTOR BY THE ENGINEER PRIOR TO ANY REVIEW COMMENCEMENT.

- 5) FLOORING OF LIGHT FIXTURES MUST NOT BE CONSIDERED OR ASSUMED.
- 6) MANUFACTURERS REPRESENTATIVE AGENTS SHALL BE ALLOWED TO OFFER ANY TYPE OF PRICING FOR SPECIFIC LIGHTING FIXTURES.
- 7) LIGHTING CONTRACT PRICING SHALL BE COMPLETELY SEPARATE IF ANY LIGHT FIXTURE PRICING, ANY LIGHTING CONTRACTS PRICING THAT IS NOT THE SAME PRICING AS THE PRICING OFFERED ON (A) (1) WILL BE IMMEDIATELY REJECTED IN ITS ENTIRETY.

GENERAL NOTE:

G1. ELECTRICAL CONTRACTOR SHALL VERIFY CEILING TYPE PRIOR TO ORDERING ANY LIGHT FIXTURES.

G2. ELECTRICAL CONTRACTOR SHALL COORDINATE DIMMING DRIVERS/BALLASTS WITH DIMMING SWITCHES/SYSTEMS AND SHALL INCLUDE ALL R

RELAY PANEL: RP

LOCATION: EPC

MANUFACTURER: WATTSOPPER

MODEL: LMCP

#	SOURCE	LOAD	CONTROL	CONTROL	LOAD	VOLTAGE	P	P	VOLTAGE	DIMMING	LOAD TYPE	CONTROL	LOAD DESCRIPTION	SOURCE	#
	PANEL_OKT		POWER SOURCE	SCHEDULE	TYPE							SCHEDULE		PANEL_OKT	
1	P1-1	PWR - WEST DOOR SIGN	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SITE POLES	L-1	2
2	P1-3	PWR - S. ENTRANCE SIGN	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	f	L1G - CANOPY ENTRANCE	L-3	4
3	P1-5	PWR - MONUMENT SIGN SOUTH	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - CANOPY PATIO	L-3	6
4	P1-7	RCPT - POWER CONV.	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SCISSORS	L-3	8
9	P1-9	RCPT - EXTERIOR CAFE LIGHTS	c	NORMAL	NO	120	1	1	227	0-10V	NORMAL	f	L1G - WALL PADS	L-3	10
11	P1-11	PWR - W. WALL SIGN	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SITE POLES	L-3	12
13	P1-15	PWR - FIRE PLACE SIGN	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SITE POLES	L-4	14
15	P1-17	RCPT - PATIO FANS	d	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SITE POLES	L-6	16
17	P1-19	PWR - MONUMENT SIGN NORTH	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SITE POLES	L-7	18
19	P1-10	RCPT - BUILDING CONV.	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	L1G - SITE BOLLARDS	L-8	20
21	P1-12	RCPT - BL. DOOR CONV.	a	NORMAL	NO	120	1	1	227	0-10V	NORMAL	b	SPACE ONLY	L-9	22
23	P1-14	RCPT - PATIO CONV. 1	e	NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	24
25	P1-16	RCPT - PATIO CONV. 2	e	NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	26
27	P1-18	RCPT - PATIO CONV. 3	e	NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	28
29	P1-20	RCPT - PATIO CONV. 4	e	NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	30
31		SPACE ONLY		NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	32
33		SPACE ONLY		NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	34
35		SPACE ONLY		NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	36
37		SPACE ONLY		NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	38
39		SPACE ONLY		NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	40
41		SPACE ONLY		NORMAL	NO	120	1	1	227	NO	NORMAL	b	SPACE ONLY	L-9	42
43		SPACE ONLY		NORMAL	NO	120	1	1	227	0-10V	EMERGENCY	f	L1G - CANOPY ENTRANCE	L-3	44
45		SPACE ONLY		NORMAL	NO	120	1	1	227	0-10V	EMERGENCY	b	L1G - PATIO	L-3	46
47		SPACE ONLY		NORMAL	NO	120	1	1	227	0-10V	EMERGENCY	b	L1G - WALL PADS	L-3	48

GENERAL:

GRAPHIC DISPLAY WITH BACKLIGHT, BUTTON INTERFACE, USB INTERFACE, TIME OF DAY CLOCK AND ASTRONOMICAL CLOCK, BUILT-IN NETWORK INTERFACE

PROGRAMMABLE SCHEDULE PER RELAY OR CUSTOMIZABLE GROUPS, LOCAL OR NETWORK MANAGEMENT, LOCAL MANUAL ON/OFF OVERRIDE WITH POSITION INDICATION, PHYSICALLY SEPARATED LOW VOLTAGE COMPARTMENT, DIMMING PROTOCOLS AS CLICK

IS/NO LISTED EMERGENCY CONTROL (BYPASS) CONTACTS CONTRIBUTING AT A EMERGENCY GENERATOR SOURCE "ON"

FIRE ALARM SYSTEM CONTACTS TO FORCE LIGHTING CONTROL SYSTEM INTO EMERGENCY LIGHTING MODE

NOTES:

V8 - PROVIDE VOLTAGE BARRIER BETWEEN NORMAL AND EMERGENCY POWER CIRCUITS

PC - LOAD CONTROLLED VIA PROTOCOL

TC - LOAD CONTROLLED VIA TIME CLOCK

CONTROL SCHEDULE & EXTERIOR SIGNAGE

EXTERIOR - SITE LIGHTING

EXTERIOR - CAFE LIGHTS

EXTERIOR - PATIO FANS

EXTERIOR - CONV.

EXTERIOR - CANOPY ENTRANCE

EXTERIOR - CANOPY PATIO

EXTERIOR - SCISSORS

EXTERIOR - WALL PADS

TOPIC

TOPIC: PROGRAM CIRCUIT SUCH THAT FIXTURES DIM TO 30% OR TURN OFF 1 HOUR AFTER BUSINESS CLOSURES. CONFIRM WITH OWNER

TOPIC: PROGRAM CIRCUIT SUCH THAT FIXTURES TURN OFF 1 HOUR AFTER BUSINESS CLOSURES.

TC

TOPIC: PROGRAM CIRCUIT SUCH THAT FIXTURES DIM TO 30% 1 HOUR AFTER BUSINESS CLOSURES.

TOPIC: PROGRAM CIRCUIT SUCH THAT FIXTURES DIM TO 30% 1 HOUR AFTER BUSINESS CLOSURES.

TOPIC: PROGRAM CIRCUIT SUCH THAT FIXTURES TURN OFF 1 HOUR AFTER BUSINESS CLOSURES.

TOPIC: PROGRAM CIRCUIT SUCH THAT FIXTURES DIM TO 30% 1 HOUR AFTER BUSINESS CLOSURES.

*

CONTROL SCHEDULES ARE FOR REFERENCE ONLY. CONFIRM CONTROL SCHEDULES FOR EACH RELAY WITH OWNER PRIOR TO PROGRAMMING. EXTERIOR LIGHTING CONTACTS SHALL BE PROGRAMMED PER EPC 2015 AS REQUIRED

PROJECT NUMBER			6291009
PROJECT MANAGER	DRAWN BY	CHECKED BY	
Approver	Author		

PROFESSIONAL SEAL

06.20.2025

COPYRIGHT NOTICE

THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE CONTEMPORANEOUSLY WITH ITS ISSUE DATE AND IT IS NOT SUITABLE FOR USE ON A DIFFERENT PROJECT SITE OR AT A LATER TIME. USE OF THIS DRAWING FOR REFERENCE OR EXAMPLE ON ANOTHER PROJECT REQUIRES

THE SERVICES OF PROPRIETARY LICENSED ARCHITECTS AND ENGINEERS.
REPRODUCTION OF THIS DRAWING FOR REUSE ON ANOTHER PROJECT IS NOT
AUTHORIZED AND MAY BE CONTRARY TO THE LAW.

BRR DOES NOT GUARANTEE THAT CAD FILES ARE SUFFICIENT OR
APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT
USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY
ARISING FROM USER'S USE.

DETAILS AND EXPLANATIONS

NUMBER	DATE	DESCRIPTION
0	05/01/25	ORIGINAL ISSUE
1	06/28/25	ADDENDUM 1

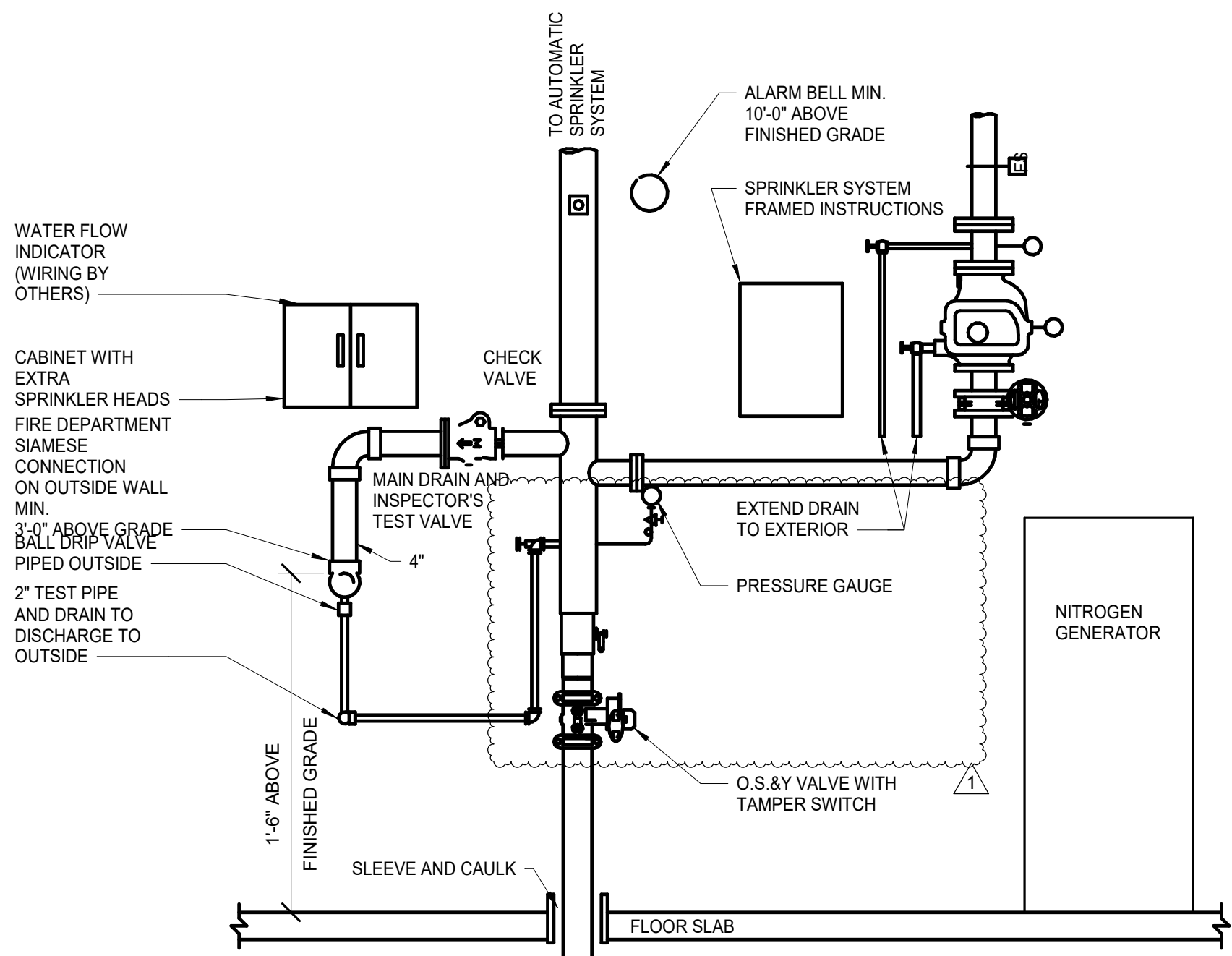
SHEET NAME

ELECTRICAL
SCHEDULES GEN

SCHEDULES, GEN. NOTES, & SYMBOLS

SHEET NUMBER

E600



FIRE PROTECTION SERVICE DETAIL
NOT TO SCALE

FIRE PROTECTION DESIGN CRITERIA

- A. PROVIDED A WET TYPE SPRINKLER SYSTEM THROUGHOUT BUILDING IN COMPLIANCE WITH THE RULES AND REGULATIONS OF APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES AND ORDINANCES, THE OWNER'S INSURANCE COMPANY AND NFPA 13.
- B. FURNISH ALL MATERIALS, LABOR, TOOLS, TRANSPORTATION, INCIDENTALS AND APPURTENANCES TO COMPLETE IN EVERY DETAIL AND LEAVE IN WORKING ORDER ALL ITEMS OF WORK REQUIRED FOR STRICT COMPLIANCE WITH CODES AND STANDARDS.
- C. PROVIDE SCHEDULE 40 FOR 2" AND SMALLER WITH THREADED ENDS AND SCHEDULE 10 FOR 1-1/2" AND LARGER WITH ROLL-GROOVED ENDS AND GROOVED JOINTS. ALL PIPING IN AREAS WITH CEILINGS SHALL BE RUN CONCEALED WITH NO EXCEPTIONS UNLESS COORDINATED WITH ARCHITECT AND ENGINEER. PIPE SIZES SHOWN ON PLANS FOR INFORMATION ONLY. VERIFY BY HYDRAULIC CALCULATIONS.
- D. ALL SPRINKLERS IN LAY-IN CEILINGS ARE TO BE CENTERED ±1/2" IN 2X2 PORTION OF TILE. ALL SPRINKLERS IN DRY-ROCK CEILINGS ARE TO BE CENTERED ±1/2" WITH LIGHT FIXTURES AND ALIGNED WITH ALL OTHER DEVICES IN CEILING IN BOTH DIRECTIONS. COORDINATE WITH ARCHITECT.
- E. FIRE PROTECTION CONTRACTOR SHALL PREPARE DETAILED AND COORDINATED SHOP DRAWINGS SO AS TO AVOID CONFLICTS IN THE FIELD. CONTRACTOR SHALL COORDINATE WITH REFLECTED CEILING PLAN, DUCTWORK LAYOUT AND LIGHTING LAYOUT. ALL COORDINATION SHALL TAKE PLACE PRIOR TO INSTALLATION.

- F. CONTRACTOR SHALL FILE ALL DRAWINGS, PAY ALL FEES AND OBTAIN PERMITS AND CERTIFICATES OF INSPECTIONS RELATIVE TO THIS WORK.
- G. CONTRACTOR SHALL OBTAIN CURRENT FIRE HYDRANT FLOW TEST DATA AND USE FOR SYSTEM HYDRAULIC CALCULATIONS. USE DATA TO DESIGN SYSTEMS ACCORDINGLY BASED ON AVERAGE NUMBERS PLUS 10% SAFETY.
- H. PREPARE AND SUBMIT SHOP DRAWINGS, PRODUCT DATA AND HYDRAULIC CALCULATIONS AS REQUIRED. ALL INFORMATION SHOWN ON FIRE PROTECTION DRAWINGS SHALL BE INCLUDED ON THE SHOP DRAWINGS.
- I. CONTRACTOR TO BE RESPONSIBLE FOR MAKING FINAL COORDINATION WITH STRUCTURE AND ALL OTHER TRADES PRIOR TO SUBMITTING SHOP DRAWINGS. ALL ELEVATIONS OF PIPE MUST BE SHOWN ON SHOP DRAWINGS.
- J. ALL SPRINKLERS AND PIPING SHALL BE PROTECTED FROM FREEZING. USE DRY SIDEWALL SPRINKLERS OR DRY PIPE SYSTEM FOR VESTIBULES, ALCOVES, TRASH ENCLOSURES, CANOPIES, AND PORCHES.
- K. NFPA 13 - 2016 ED - 7.1.1 A SINGLE AIR VENT WITH A CONNECTION SHALL BE PROVIDED ON EACH WET PIPE SYSTEM. THE AIR VENT SHALL BE LOCATED NEAR A HIGH POINT IN THE SYSTEM TO ALLOW AIR TO BE REMOVED FROM THAT PORTION OF THE SYSTEM BY ONE OF THE FOLLOWING METHODS: MANUAL VALVE, MINIMUM 1/2" (12MM) SIZE, OR AUTOMATIC AIR VENT.

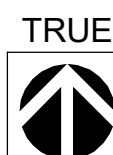
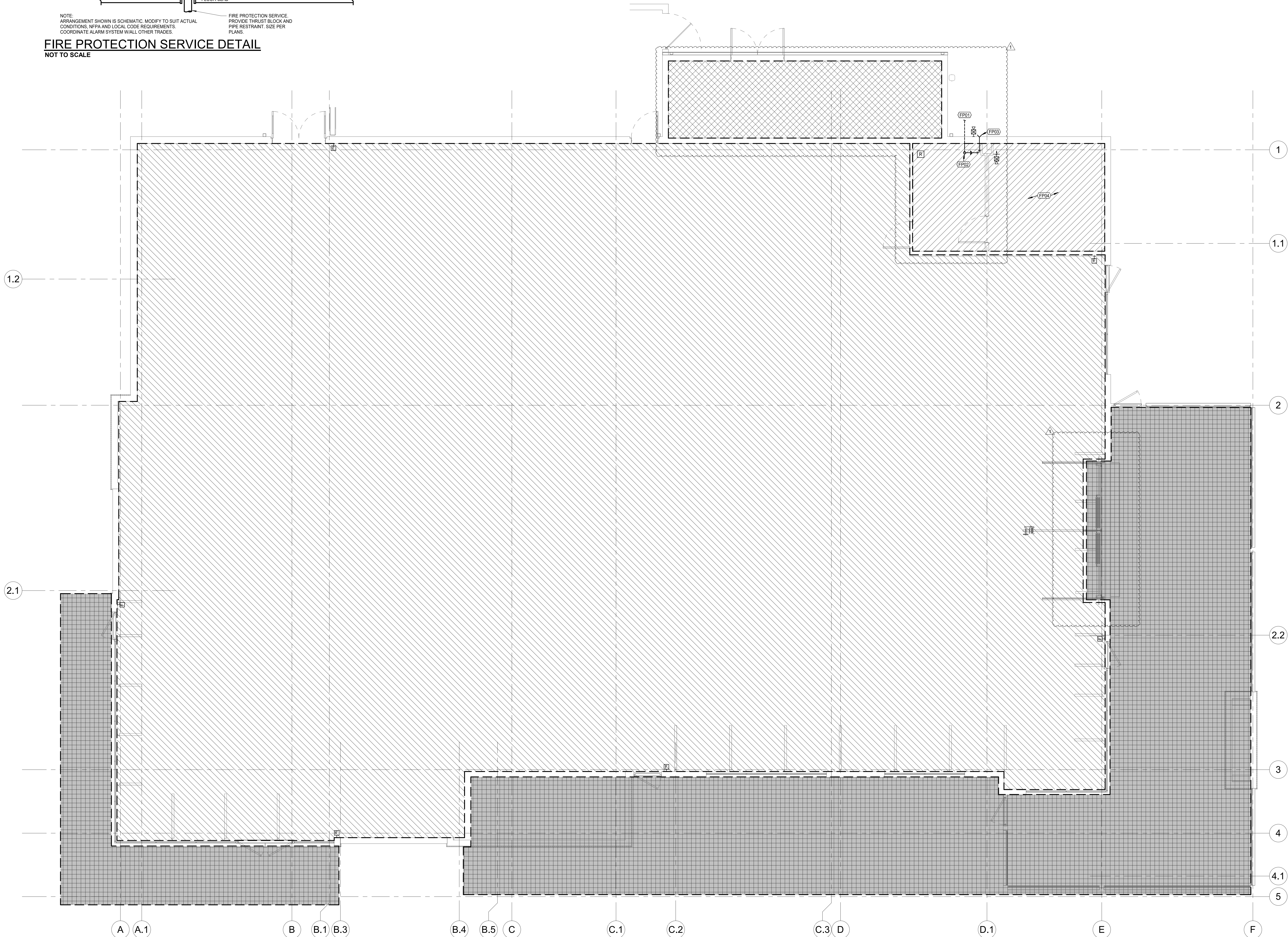
- L. PROVIDE AUXILIARY DRAINS AS REQUIRED BY NFPA 13. COORDINATE LOCATIONS WITH OWNER. AUXILIARY DRAINS MUST BE SHOWN ON SHOP DRAWINGS.
- M. PROVIDE AUXILIARY DRAINS AS REQUIRED BY NFPA 13. COORDINATE LOCATIONS WITH OWNER. AUXILIARY DRAINS MUST BE SHOWN ON SHOP DRAWINGS.
- N. SPRINKLER SYSTEM SHALL BE TESTED AND DRAINED PER NFPA STANDARDS AND LOCAL AND STATE AUTHORITY HAVING JURISDICTION. COMPLETED CONTRACTOR MATERIAL TEST CERTIFICATES SHALL BE FORWARDED TO OWNER.
- O. FIRE SPRINKLER CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH FIRE ALARM PANEL AND SUPERVISION OF NEW SPRINKLER TAMPERS AND FLOW SWITCHES.
- P. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- Q. SPRINKLER HEAD PLACEMENT SHALL BE OUT OF THE SWING AREA OF DOORS TO AVOID CONFLICT WITH TALL DOORS.

FIRE PROTECTION LEGEND

- PROVIDE PROPER COVERAGE PER NFPA 13 AND LOCAL AUTHORITIES, REFER TO REFLECTED CEILING PLANS FOR COORDINATION WITH LIGHTS, DIFFUSERS, EXIT SIGNS, ETC.
- LIGHT HAZARD - PROVIDE PROPER COVERAGE PER NFPA 13 (0.1 GPM PER 1500 SF) PLUS 100 GPM HOSE STREAM ALLOWANCE.
- ORDINARY HAZARD GROUP 1 - PROVIDE PROPER COVERAGE PER NFPA 13 (0.15 GPM PER 1500 SF) PLUS 250 GPM HOSE STREAM ALLOWANCE.
- ORDINARY HAZARD GROUP 2 - PROVIDE PROPER COVERAGE PER NFPA 13 (0.2 GPM PER 1500 SF) PLUS 250 GPM HOSE STREAM ALLOWANCE.
- ORDINARY HAZARD GROUP 3 - PROVIDE DRY PENDENT SPRINKLERS FOR ALL WALK-IN COOLERS AND FREEZERS.
- LIGHT HAZARD - PROVIDE PROPER COVERAGE PER NFPA 13 (0.1 GPM PER 1500 SF) PLUS 100 GPM HOSE STREAM ALLOWANCE. PROVIDE DRY PENDENT CONSOLE-TYPE SPRINKLERS FROM DRY PIPE SYSTEM WITH NITROGEN GENERATOR.

FLOOR PLAN NOTES

- FP01 6" UNDERGROUND FIRE LINE TO BUILDING. CONNECT FIVE FEET FROM BUILDING EXTERIOR WALL. SLEEVE EXTERIOR WALL AND PROVIDE THRUST PROTECTION PER NFPA 13.
- FP02 8" INCH SPRINKLER RISER, FLOW AND TAMPER SWITCHES, 2 INCH MAIN DRAIN EXTENDED TO OUTSIDE.
- FP03 SIAMSE FIRE DEPARTMENT CONNECTION, PROVIDE HORNSTROBE ABOVE.
- FP04 DO NOT RUN SPRINKLER PIPING OVER ELECTRICAL EQUIPMENT. MAINTAIN 3' CLEARANCE IN FRONT OF PANELS.



FLOOR PLAN - FIRE PROTECTION
SCALE: 1/4" = 1'-0"

ARCHITECT OF RECORD

brr
BRR ARCHITECTURE INC.
810 MEDICAL AVENUE
SUITE 100
OVERLAND PARK, KS 66204
WWW.BRRARCH.COM
TEL: 913-283-9899
FAX: 913-283-9844

CONSULTANT

Lankford + Associates
1730 Walnut Street
Kansas City, Missouri 64108
Tel: 816.221.1411
Fax: 816.221.1420
www.lankfordassociates.com
E: If you Project No. 23-704-00

CLIENT

PROJECT TITLE

Q39 (SHELL)
LEE'S SUMMIT, MO
OLDHAM VILLAGE

PROJECT NUMBER			62910099
PROJECT MANAGER	DRAWN BY	CHECKED BY	
Approver	Author		
PROFESSIONAL SEAL			



COPYRIGHT NOTICE
THIS DRAWING WAS PREPARED FOR USE ON A SPECIFIC SITE. CONTRACTOR/OWNER/USER WITH THIS DATE AND IT IS NOT AVAILABLE FOR REUSE OR REPRODUCTION WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE SERVICES OF PROFESSIONAL ARCHITECTS AND ENGINEERS. REPRODUCTION OF THIS DRAWING FOR OTHER PROJECTS IS NOT AUTHORIZED AND MAY BE CONTRARY TO THE LAW.
BRR DOES NOT GUARANTEE THAT CONDITIONS ARE SUFFICIENT OR APPROPRIATE FOR USER'S PURPOSES. USER USES OR ALTERS THESE FILES AT USER'S SOLE RISK AND AGREES TO INDEMNIFY BRR FROM LIABILITY ARISING FROM USER'S USE.

NUMBER	DATE	DESCRIPTION
1	06/20/25	ORIGINAL ISSUE
2		ADDENDUM 1
3		
4		
5		
6		
7		
8		
9		
10		

SHEET NAME

FLOOR PLAN - FIRE PROTECTION

SHEET NUMBER

FP100

BRR ORIGINAL PRINTED ON RECYCLED PAPER