LEE'S SUMMIT
MISSOURI

DEVELOPMENT SERVICES

PLAN REVIEW CONDITIONS

February 25, 2022

Babcock Design
52 Exchange Place
Salt Lake City, UT 84111

Permit No: PRCOM20220590
Project Title: MO' BETTAHS
Project Address: 520 NW CHIPMAN RD, LEES SUMMIT, MO 64086
Parcel Number: 241167
Location / Legal Description: SUMMIT ORCHARD LOT 4C-1 4C-2 AND 4C-3 CORRECTED SUMMIT ORCHARD LOTS 4A-4E --- LOT 4C-2
Type of Work: NEW COMMERCIAL
Occupancy Group: ASSEMBLY FOR FOOD AND DRINK INC BARS, RESTAURANTS, BANQUET HALLS
Description: NEW RESTAURANT WITH DRIVE-THRU

Revisions Required

One or more departments have not approved the permit and the following is a list of requirements from the City of Lee's Summit that have not been satisfactorily addressed in the plans and specifications. Please address the comments as requested and provide three (3) copies of any revised sheets and/or additional information. Please contact the appropriate department regarding clarification of comments.

Development Services Department (816) 969-1200 Fire Department (816) 969-1300

Licensed Contractors **Reviewed By: Joe Frogge** **Rejected**

1. Lee's Summit Code of Ordinance, Section7-130.4 - Business License. (excerpt)
No person, other than a licensed contractor or employees of a licensed contractor, shall engage in electrical, plumbing or mechanical business, construction, installation or maintenance unless duly licensed in accordance with this section.

Action required: MEP subcontractors are required to be listed on permit. Provide company names of licensed MEP contractors.

Response: Understood, owner and contractor to follow up on this item.

2. Lee's Summit Code of Ordinance, Section7-130.10 - Business License. It shall be unlawful for any person to engage in the construction contracting business without first obtaining a business license as required under the applicable provisions of Chapter 28 of the Lee's Summit Code of Ordinances.

Action required: Either a Class A or Class B license is required. Provide the name of the licensed general contractor and an email address for the on-site contact which is where inspection reports will be sent.

Response: Understood, owner and contractor to follow up on this item.

Building Plan Review **Reviewed By: Joe Frogge** **Rejected**

1. For the Health Department review contact Deb Sees with the Jackson County Public Works Department, Environmental Services Division, at (816) 847-7070. Health Department approval is required prior to receiving any type of building permit from the City of Lee's Summit.

Action required: Comment is for informational purposes.

Response: Understood, owner and contractor to follow up on this item.

2. For the Health Department inspection contact Deb Sees with the Jackson County Public Works Department, Environmental Health Division at (816) 847-7070. Health Department approval is required prior to receiving any type of Occupancy from the City of Lee's Summit.

Action required: Comment is for informational purposes.

Response: Understood, owner and contractor to follow up on this item.

3. Copies of the engineered truss package were not provided at the time of permit application.

Action required: Provide truss package or request deferral.

Response: Truss package added to deferred submittal on sheet G001.

4. 2018 IMC 507.2.6 Clearances for Type I hood. A Type I hood shall be installed with a clearance to combustibles of not less than 18".
Exceptions:

1. Clearance shall not be required from gypsum wallboard or ½ inch or thicker cementitious wallboard attached to noncombustible structures provided that a smooth, cleanable, nonabsorbent and noncombustible material is installed between the hood and the gypsum or cementitious wallboard over an area extending not less than 18 inches in all directions from the hood.
2. Type I hoods listed and labeled for clearances less than 18 inches in accordance with UL 710 shall be installed with the clearances specified by such listings.

Action required: Walls adjacent to and within 18" of Type I hood must be non-combustible. (Including exterior wall at side of hood) Modify design to comply.

Response: See updated sheet A112 with Gyp bd. added to walls as non-combustible material within 18" of both hoods.

5. 2018 IBC 1803.1 General. Geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the building official or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a registered design professional.

Action required: Provide soils report to justify design assumption of soil bearing capacity of 2,500psf.

Response: Geotech report included along with specifications (page 60-86). Understood, owner and contractor to follow up on this item.

Also available via the link below:

https://babcockdesigarchitecture-my.sharepoint.com/:f:/g/personal/jamin_babcockdesign_com/ElrU_Vmi0cFNvA2KQE4voO8BUB9Rgf-4hl7icgGVaeHl0Q?e=bObkqL

6. Grease interceptor design not found.

Action required: Provide complete design for grease interceptor. (location shown on civil plans but refers to this architectural set for design)

Response: Grease Interceptor called on sheet C6.3. Following revisions made to plumbing sheets.

PE601 – removed previous grease interceptor sizing requirements as they were for a gravity grease interceptor. Moved sizing requirements to sheet PL103 (for a hydro-mechanical grease interceptor as will be installed).

PL103 – Added sizing requirements for hydro-mechanical grease interceptor. Revised associated keynote for grease waste line to space (G.I. shown on civil plans).

7. 2017 NEC Article 210.63 Heating, Air-Conditioning, and Refrigeration Equipment Outlet. A 125-volt, single-phase, 15- or 20-ampere-rated receptacle outlet shall be installed at an accessible location for the servicing of heating, air-conditioning, and refrigeration equipment. The receptacle shall be located on the same level and within 25 feet of the heating, air-conditioning, and refrigeration equipment. The receptacle outlet shall not be connected to the load side of the equipment disconnecting means.

Action required: Provide additional receptacle(s) on roof so all equipment is within 25' of connection.

Response: See updated EP102 showing revised locations of receptacles.

8. 2017 NEC Article 250.50 Grounding Electrode System. All Grounding electrodes as described in 250.52(A)(1) through (A)(7) that are present at each building or structure served shall be bonded together to form the grounding electrodes system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used. (see code section for exception)

Action required: Provide complete diagram for grounding scenario at service disconnect.

Response: See updated sheet EP601 showing the revised one-line diagram with the ground bus connections.

Fire Plan Review **Reviewed By: Ben Hicks** **Approved with Conditions**

1. 2018 IFC 901.5- Installation acceptance testing. Fire detection and alarm systems, fire-extinguishing systems, fire hydrant systems, fire standpipe systems, fire pump systems, private fire service mains and all other fire protection systems and appurtenances thereto shall be subject to acceptance tests as contained in the installation standards and as approved by the fire code official. The fire code official shall be notified before any required acceptance testing. The fire code official shall be notified 48 hours before any required acceptance test.
(Informational purposes)
(Call 816-969-1300 to schedule hood trip test)

Response: Understood, owner and contractor to follow up on this item.

2. 2018 IFC 1008.3.1 & 3.2 Emergency power for illumination.
The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.
In the event of power supply failure, an emergency electrical
system shall automatically illuminate all of the following:

1. Aisles and unenclosed egress stairways in rooms and spaces that require two or mor means of egress.
Response: Understood, and 'Noted'

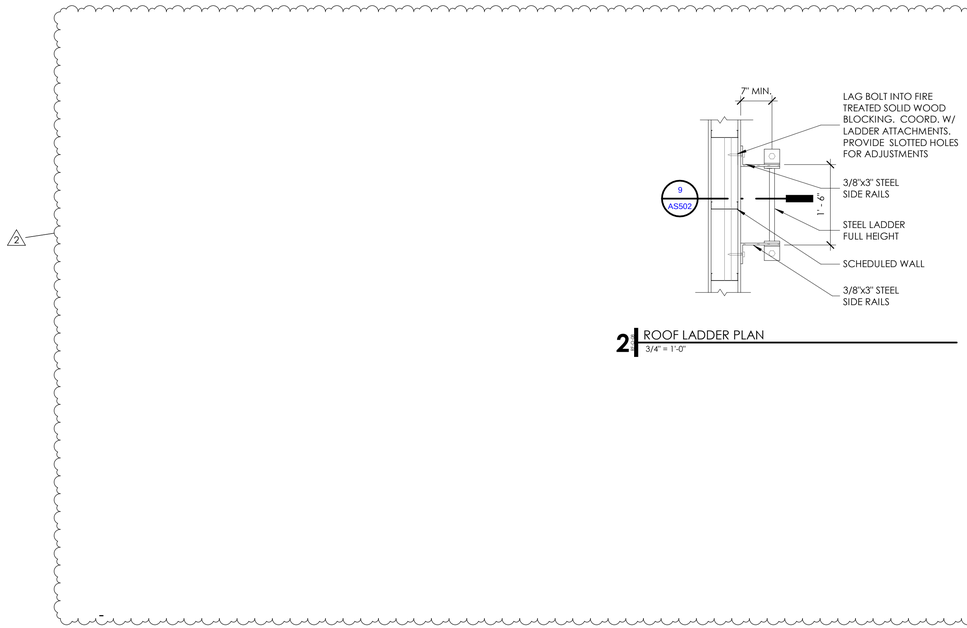
2. Corridors, interior exit stairways and ramps and exit passageways in buildings required to have two or more exits.
Response: Understood, and 'Noted'

3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.
Response: Understood, and 'Noted'

(Verified at inspection)
(Provide External illumination at all exits)

Response: See updated sheet ES101 with exterior emergency lighting fixtures added to both exits. Specified option has been added to lighting fixture schedule EL601.

The review conducted by the City of Lee's Summit Development Services Department shall not be construed as a structural review of the project.



2 ROOF LADDER PLAN
3/4" = 1'-0"

1 KEYNOTES

1. WALL MOUNTED CLASS "K" FIRE EXTINGUISHER; COORDINATE WITH EQUIPMENT SHEETS,CONFIRM LOCATION WITH FIRE MARSHALL.
2. MOP SINK; COORDINATE WITH PLUMBING DRAWINGS AND EQUIPMENT SHEETS
3. 2A10BC FIRE EXTINGUISHER IN SEMI-RECESSED CABINET; COORDINATE WITH EQUIPMENT SHEETS; SEE DETAIL. CONFIRM LOCATION WITH FIRE MARSHALL, CONTINUE RATING BEHIND CABINET PER DETAIL 5/A501
4. 4" VERTICAL CONDUIT FROM UNDERSLAB STUBBED OUT IN FRONT OF WALL (WITHIN BASE CABINET) COORDINATE WITH PLUMBING; CONDUITS SHALL NOT RUN THRU CONCRETE FOUNDATION WALLS. COORDINATE WITH SAVORY CONSTRUCTION MANAGER PRIOR TO WORK.
5. LIGHTING CONTROL PANEL; COORDINATE WITH ELECTRICAL
6. ELECTRICAL CONTROL PANELS; COORDINATE WITH ELECTRICAL
7. CLEAR -HOLD TO -DIMENSION TO INTERIOR FACE OF PONY WALL
8. WATER SOFTENER; RAISED PLATFORM, SEE DETAIL ON SHEET A111 COORDINATE WITH EQUIPMENT SHEETS AND PLUMBING COORDINATE WITH PLUMBING & ELECTRICAL
9. WATER HEATER; COORDINATE WITH EQUIPMENT SHEETS; SEE PLUMBING
10. BULK CO2 TANK; COORDINATE WITH EQUIPMENT SHEETS AND PLUMBING
11. SYRUP RACK (BIB "BAG IN BOX"); COORDINATE WITH EQUIPMENT, PLUMBING AND ELECTRICAL
12. WATER FILTER; COORDINATE WITH EQUIPMENT, PLUMBING AND ELECTRICAL
13. A/V RACK ABOVE LOCKERS; COORDINATE WITH ELECTRICAL
14. WALL MOUNTED TV; COORDINATE WITH ELECTRICAL; PROVIDE MIN 3'-0" W X 3'-0" BLOCKING, CENTERED ON TV; BOTTOM OF TV MOUNTED AT 84" A.F.F.
15. CO2 FILL BOX; COORDINATE WITH OWNER
16. PROVIDE BLOCKING IN WALL AS REQUIRED FOR RESTROOM GRAB BARS (INDICATED WITH DASHED LINE)
17. PROPOSED GAS METER LOCATION - COORDINATE WITH UTILITY PROVIDER & PLUMBING DRAWINGS
18. ELECTRICAL EQUIPMENT - COORDINATE WITH ELECTRICAL DRAWINGS
19. AREA OF ROOF DRAINS; HOLD FURRING STUDS AS TIGHT AS POSSIBLE
20. EXTERIOR METAL CANOPY; COORDINATE WITH STRUCTURAL AND AS112
21. INTERIOR WALL TO BE USED FOR SHEAR; SEE STRUCTURAL

DIMENSION NOTES

1. ALL PLAN DIMENSIONS, UNLESS OTHERWISE NOTED, ARE TO:
   A. COLUMN GRID ON CENTERLINES.
   B. FACE OF GYP. BD. OR SHEATHING
   C. FACE OF CONCRETE.
2. DOOR LOCATIONS NOT DIMENSIONED ARE:
   A. JAMB FACE 4" FROM FACE OF STUD.
   B. CENTERLINE OF DOOR ON CENTERLINE OF ROOM OR CORRIDOR.
3. NOTED DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE DIMENSIONS; DETAILS OVER SMALLER SCALE DRAWINGS.
4. "FINISH FLOOR" REFERS TO TOP OF CONCRETE SLABS, FOR DEPRESSED FLOORS AND CURBS, SEE STRUCTURAL DRAWINGS.
5. VERIFY ALL ROUGH-IN, CONCRETE PAD, OR PLATFORM DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS PROJECT, OR BY OTHERS.
6. FINISHED FLOOR ELEVATIONS ARE TO TOP OF CONCRETE OR GYPCRETE, UNLESS NOTED OTHERWISE.
7. CEILING HEIGHT DIMENSIONS ARE TO FINISHED SURFACES, UNLESS NOTED OTHERWISE.

FIRE RATING LEGEND

NON RATED

1 HR FIRE BARRIER

FLOOR PLAN GENERAL NOTES:

A. GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ARCHITECT.
B. PROVIDE 18" MINIMUM CLEAR FLOOR SPACE AT PULL SIDE OF ALL DOORS. PROVIDE 12" MINIMUM CLEAR FLOOR SPACE AT PUSH SIDE OF ALL DOORS
C. CONCRETE FOUNDATION WALLS RETAINING EARTH TO RECEIVE TWO COATS OF BITUMINOUS DAMP PROOFING MATERIAL.
D. SEE MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.
E. ALL COLORS SELECTIONS AND FINISH MATERIALS AND STYLES SHALL BE COORDINATED WITH OWNER.
F. SEE INTERIOR ELEVATIONS ON A400 SERIES SHEETS AND MILLWORK DETAILS ON A550 SERIES SHEETS FOR FINISHES OF MILLWORK BASES, AND COUNTERTOPS.
G. FOR REFLECTED CEILING PLAN SEE A113
H. FOR FINISH INFORMATION SEE SHEET A621 FOR DOOR AND WINDOW INFORMATION.
I. SEE CUT SHEETS IN SUBMITTAL BOOK FOR ADDITIONAL INFORMATION.
J. COORDINATE WITH G000 SERIES SHEETS FOR LEGENDS, SYMBOLS, ABBREVIATIONS AND OTHER ARCHITECTURAL GENERAL INFORMATION.
K. SEE SHEET A611 FOR WALL TYPES.
L. DO NOT SCALE DRAWINGS.
M. SEE SHEET A115 FOR FURNITURE PLAN.
N. SEE KITCHEN SHEETS FOR EQUIPMENT PLAN
O. PROVIDE BLOCKING IN WALLS FOR WALL MOUNTED EQUIPMENT/ACCESSORIES (SHOWN WITH DASHED LINE)
P. IN ACCORDANCE WITH IFC 607.4, PROVIDE CABLE TO RESTRAIN GAS-FIRED COOKING APPLIANCES FROM DAMAGING THE GAS CONNECTOR; COORDINATE WITH MECHANICAL DRAWINGS AND THE CONNECTOR/APPLIANCE MANUFACTURER'S INSTRUCTIONS.
Q. DATA AND POWER UNDER ALL CABINETS TO STUB OUT IN TOE KICKS AND BE SURFACE MOUNTED TO BACK OF CABINET; COORDINATE WITH ELECTRICAL.
R. GAS UNDER HOODS TO STUB OUT AT 18" A.F.F.
S. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING, IE. 3M BRAND CAULK, PUTTY, STRIP AND SHEET FORMS, DOW CORNING 3-6548 SILICONE RTV FOAM.

WALL TAG

X#m
ABC

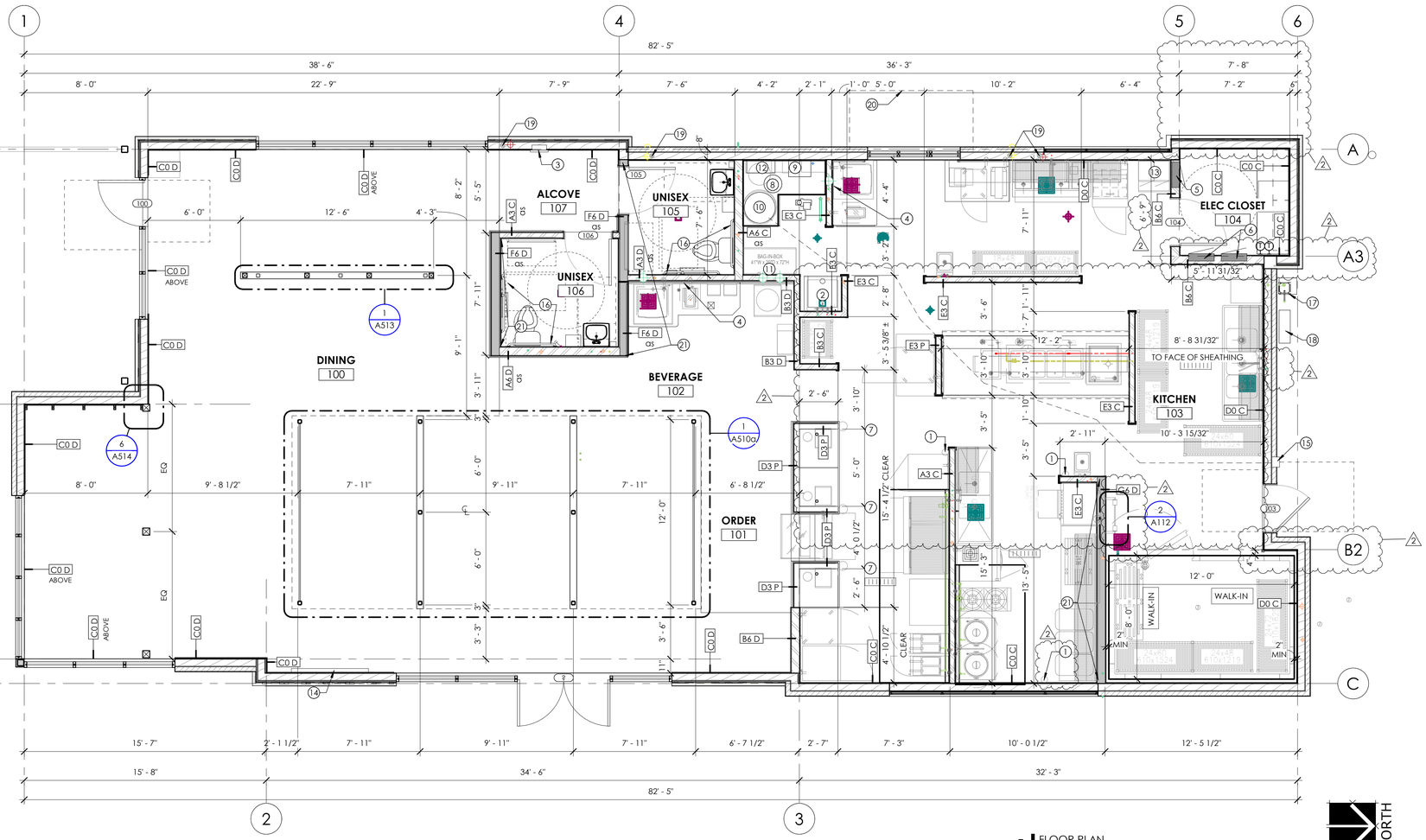
PARTITION TYPE
CORE WIDTH
TOP OF WALL CONDITION
PARTITION MODIFIER(S)

DOOR AND WINDOW TAGS

101 — DOOR NUMBER
1 — WINDOW TYPE

AT WALKING SURFACE OR CIRCULATION ROUTE NO SUSPENDED LIGHT FIXTURE, DECORATIVE ITEM OR SIMILAR DECORATIVE ITEMS SHALL BE INSTALLED LOWER THAN 80" A.F.F.

NO DEVICE OR DECORATIVE OBJECT LESS THAN 80" A.F.F. SHALL PROJECT MORE THAN 4" FROM ANY WALL IN ANY CIRCULATION PATH OR ACCESSIBLE ROUTE



1 FLOOR PLAN
1/4" = 1'-0"

NORTH

THIS SHEET DESCRIBES INTERIOR IMPROVEMENTS FOR THIS PROJECT; COORDINATE WITH SHEET AS112 AS FOR THE CORE AND SHELL

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sheet information

revisions: 1

num.	description	date
1	REVISION 01	03-11-22
2	REVISION 02	04-06-22

date: 1-23-2022

project number: MO-53LEE

project status: ISSUED FOR PERMIT

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STATE OF MISSOURI
JOSEPH NOWLAND WINGERT
NUMBER 2016038459
ARCHITECT

sheet number:

MOBETTAHS (TI) for LEE'S SUMMIT

520 NW Chipman Rd
Lee's Summit, MO 64086

sheet title: FLOOR PLAN

sheet number:

A112

WATER HAMMER ARRESTER SCHEDULE

SYMBOL	INLET SIZE (INCHES)	PDI SYMBOL	CAPACITY (DFU)	BASIS OF DESIGN MANUFACTURER & MODEL
WHA-A	3/4	A	1-11	J.R. SMITH 5005
WHA-B	1	B	12-32	J.R. SMITH 5010
WHA-C	1	C	33-60	J.R. SMITH 5020
WHA-D	1	D	61-113	J.R. SMITH 5030
WHA-E	1	E	114-154	J.R. SMITH 5040
WHA-F	1	F	155-330	J.R. SMITH 5050

ACCEPTABLE MANUFACTURERS	NOTES / REMARKS
SIOUX CHIEF "HYDRA-ARRESTER" MIFAB "MWH" J.R. SMITH "50XX" WATTS LF02	(1) ANSI / ASSE 1010 LISTED (2) LEAD FREE CONSTRUCTION (3) COPPER TUBE BODY; POLY PISTON, EPDM O-RING (4) MIP THREADED INLET

NOTES:

1. WATER HAMMER ARRESTOR SHALL BE SIZED AND INSTALLED PER PLUMBING AND DRAINAGE INSTITUTE (STANDARD PDI-WH 201) REQUIREMENTS IN ACCESSIBLE LOCATIONS ON THE COLD WATER AND HOT WATER PIPING AND WHERE FLUSH VALVES AND ANY OTHER QUICK CLOSING VALVES ARE USED.

VALVE SCHEDULE

SERVICE	VALVE TYPE	PIPE SIZE	DESCRIPTION
DOMESTIC WATER SERVICE	BALL VALVE	2" & SMALLER	COPPER ALLOY, 2-PIECE, STANDARD PORT, CHROME PLATED BALL, TFE SEAT, LEVER HANDLE, 400 PSIG WOG, MSS SP-110, SOLDERED OR THREADED END
	CHECK VALVE	2" & SMALLER	BRONZE BODY, SPRING TYPE, TFE SEAT, BRONZE DISC, SOLDERED OR THREADED ENDS, MSS SP-80
	UNION	2" & SMALLER	ASTM B16.39, CLASS 150, MALLEABLE IRON, HEXANGONAL STOCK BODY, BRONZE-TO-BRONZE SEAT
NATURAL GAS	BALL VALVE	2" & SMALLER	COPPER ALLOY, 2-PIECE, STANDARD PORT, CHROME PLATED BALL, TFE SEAT, LEVER HANDLE, 400 PSIG WOG, MSS SP-110, AGA APPROVED, ASME B26.33, THREADED END
	UNION	2" & SMALLER	ASTM B16.39, CLASS 150, MALLEABLE IRON, HEXANGONAL STOCK BODY, BRONZE-TO-BRONZE SEAT

GAS PRESSURE REGULATOR SCHEDULE

SYMBOL	LOCATION	MANUFACTURER	MODEL NO.	REGULATOR SIZE (INCHES)	CAPACITY (CFH)	NOTES
GPR	INDOOR/OUTDOOR	PF REGULATOR	F30051	1/2	928	(1)(2)(3)(4)(5)
			F30052	3/4	1115	
			F30053	1	1501	
			F3013	1-1/4	7894	

ACCEPTABLE MANUFACTURERS	NOTES:
PIETRO FIORENTINI MAXITROL	(1) 2.0 PSIG INLET PRESSURE , 850 BTU PER CF (2) 4 OZ (7" W.C.) OUTLET PRESSURE (3) DIE CAST ALUMINNUM BODY, NITRILE DIAPHRAGM (4) NPT THREADED INLET & OUTLET (5) BALL CHECK AUTOMATIC VENT LIMITING DEVICE

DOMESTIC WATER DEMAND

EQUIPMENT	TYPE OF SUPPLY CONTROL	QUANTITY	**COLD** WATER SUPPLY FIXTURE UNITS PER FIXTURE (WSFU)	**HOT** WATER SUPPLY FIXTURE UNITS PER FIXTURE (WSFU)	**TOTAL** WATER SUPPLY FIXTURE UNITS PER FIXTURE (WSFU)	TOTAL WATER SUPPLY FIXTURE UNITS (WSFU)
LAVATORY	FAUCET	2	1.50	1.50	2.00	4.00
WATER CLOSET (1.28 GPF)	FLUSH TANK	2	2.20	0	2.20	4.40
KITCHEN SINK	FAUCET	2	3.00	3.00	4.00	8.00
SERVICE SINK	FAUCET	1	2.25	2.25	3.00	3.00
HAND WASHING SINK	FAUCET	2	1.50	1.50	2.00	4.00
BEVERAGE DISPENSER	⅜" VALVE	2	0.25	0	0.25	0.50
HOSE BIBB - HOT WATER	VALVE	3	0	2.50	2.50	7.50
HOSE BIBB - COLD WATER	VALVE	2	2.50	0	2.50	5.00
OTHER KITCHEN FAUCETS	FAUCET	2	0.00	1.50	2.00	4.00
			TOTAL COLD (WSFU)	TOTAL HOT (WSFU)		
			24.15	24.75		
					TOTAL (WSFU):	40.4
					2018 INTERNATIONAL PLUMBING CODE - TABLE E103.3(3) ESTIMATED PEAK DEMAND (GPM):	26.5
					PIPE SIZE (COLD WATER SUPPLY TO BUILDING):	1-1/4"
					2018 INTERNATIONAL PLUMBING CODE - FIGURE E103.3(4) PIPE FRICTION (PSI / 100 FT): PIPE VELOCITY (FEET / SECOND):	6.0 7.0

TANKLESS WATER HEATER (GAS)

LABEL	LOCATION	TYPE	FLOW RATE AT 45° F (GPM)	FLOW RATE AT 67° F (GPM)	FLOW RATE AT 90° F (GPM)	HIGH GAS INPUT(BTUH)	LOW GAS INPUT(BTUH)	DESIGN PRESSURE	VOLTS	PHASE	AMPS	FULL WEIGHT (LBS)	MANUFACTURER	MODEL	REMARKS
WH-1	KITCHEN	TANKLESS, GAS-FIRED	8.7	5.6	4.4	199000.0	19900	100.00 psi	120	1	4	125	NAVIEN	NPE-240S	1,2,3,4

1. PROVIDE WITH CONCENTRIC VENT KIT.
2. ELECTRICAL OUTLET TO BE PROVIDED ON ELECTRICAL PLANS.
3. PROVIDE WITH EXPANSION TANK THERM-X-TROL ST-12.
4. ACCEPTABLE MANUFACTURERS: HTP, RINNAI OR APPROVED EQUAL.

WATER SOFTENER SCHEDULE

LABEL	MANUFACTURER & MODEL NUMBER	NOMINAL SYSTEM FLOW	MAXIMUM SYSTEM FLOW	BACKWASH/ RINSE FLOW	OPERATING TEMPERATURE RANGE	OPERATING PRESSURE RANGE	INLET / OUTLET PIPE CONNECTION	BRINE TANK SIZE	MEDIA TANK SIZE	MEDIA TANK CAPACITY	MEDIA VOLUME	MEDIA QUANTITY	SALT CAPACITY	OPERATING WEIGHT	REMARKS
WS-1	SENTRY II SERIES A952SM-60-2441	23 GPM	31 GPM	2.7 GPM	40°F-100°F	30-120 PSI	1" / 1"	24"X41"	12"X52"	60,000 GRAINS	2.0 CU. FT.	1	670 LBS	1110 LBS	PROVIDED AND INSTALLED BY CONTRACTOR

1. REQUIRES 120V OUTLET WITHIN 12'.

WATER FILTER SCHEDULE

LABEL	EQUIPMENT TYPE	INCOMING WATER LINE SIZE	INCOMING WATER TEMPERATURE	APPROXIMATE MAXIMUM GPM	MODEL	REMARKS
WF-1	WATER FILTER	3/4"	40°F - 70°F	ECOLAB	SPLIT TWIN HEAD - FILTERS SELECTED BY OWNER	PROVIDED BY OWNER, INSTALLED BY CONTRACTOR

RECIRCULATION PUMP SCHEDULE

LABEL	MANUFACTURER & MODEL NUMBER	PUMP TYPE	SYSTEM SERVED	LIQUID TYPE	GPM	FT. HD.	TEMP RANGE (F)	V/PH/HZ	WATTS	AMPS	ACCESSORIES & REMARKS
RCP-1	BELL & GOSSETT ECOCIRC 19-16	CIRCULATOR, INLINE	SOFTENED DHW	WATER	1	3	36-203	115/1/60	60	.5	6 FT. LINE CORD WITH PLUG. OUTLET PROVIDED ON ELECTRICAL PLANS.

1. RUN IN CONSTANT PRESSURE MODE IN CONJUNCTION WITH CALEFFI MODEL 116 THERMAL BALANCING VALVES TO ALLOW PUMP TO RUN AT LOWER SPEED WHEN HOT WATER IS RUNNING.

PLUMBING FIXTURE SCHEDULE

LABEL	DESCRIPTION	WASTE	VENT	CW	HW	MANUFACTURER	MODEL	REMARKS
DS-1	PRIMARY RAINWATER DOWNSPOUT	4"	0"	0"	0"	ZURN	Z199	SIZE TO MATCH RAINWATER PIPE SIZE.
DS-2	SECONDARY RAINWATER DOWNSPOUT	4"	0"	0"	0"	ZURN	Z199	SIZE TO MATCH RAINWATER PIPE SIZE.
FD-1	FLOOR DRAIN	2"	1 1/4"	0"	0"	ZURN	FD-2322	PROVIDE TRAP GUARD, PRO-SET OR APPROVED EQUAL. FLOOR DRAIN SIZE TO MATCH PIPE SIZE SHOWN ON PLANS.
FD-2	FLOOR DRAIN	3"	1 1/2"	0"	0"	WATTS	FD-100A (8")	PROVIDE TRAP GUARD, PRO-SET OR APPROVED EQUAL
FS-1	FLOOR SINK	3"	1 1/2"	0"	0"	JAY R. SMITH	3150Y	PROVIDE DOME STRAINER AND HALF GRATE COVER ON ALL FLOOR SINKS. PROVIDE TRAP GUARD, PRO-SET OR APPROVED EQUAL.
HB-1	HOSE BIB - INTERIOR	0"	0"	0"	1/2"	JAY R. SMITH	5670-H	PROVIDE WITH VACUUM BREAKER
HB-2	HOSE BIB - EXTERIOR	0"	0"	3/4"	0"	JAY R. SMITH	5509QT	RECESSED BOX TYPE, NON-FREEZE, INTEGRAL VACUUM BREAKER, "T" HANDLE KEY
LAV-1	LAVATORY - WALL MOUNTED - ADA	2"	1 1/4"	1/2"	1/2"	KOHLER & CHICAGO FAUCETS	K-2032 & 420-E2805ABCP	MOUNT AT ADA HEIGHT. PROVIDE ADA FAUCET. OWNER PROVIDED.
PRD-1	PRIMARY ROOF DRAIN	4"	0"	0"	0"	ZURN	Z100	
SRD-1	SECONDARY ROOF DRAIN	4"	0"	0"	0"	ZURN	Z100	PROVIDE WITH 2" DAM.
TD-1	TRENCH DRAIN - SLOPED	3"	1 1/2"	0"	0"	WATTS	DEAD LEVEL	PROVIDE STAINLESS STEEL GRATES. PROVIDE TRAP GUARD, PRO-SET OR APPROVED EQUAL.
WC-1	WATER CLOSET - TANK TYPE - ADA	4"	2"	3/4"	0"	KOHLER	K-3999-U HIGHLINE	PROVIDE WITH ELONGATED "NO SLAM" TOILET SEAT

MINIMUM PIPE INSULATION THICKNESS FOR WATER AND REFRIGERANT SYSTEMS

FIELD OPERATING TEMP RANGE (F)	INSULATION CONDUCTIVITY		INSULATION THICKNESS (INCHES) BASED ON NOMINAL PIPE SIZE				
	CONDUCTIVITY BTU*IN/(H*T^2*F)	MEAN RAITING TEMPERATURE, F	LESS THAN 1" DIA.	1"-1 1/2" DIA.	1 1/2"-4" DIA	4"-8" DIA.	8" DIA. AND ABOVE
>350	0.32-0.34	250	4.5	5.0	5.0	5.0	5.0
251-350	0.29-0.32	200	3.0	4.0	4.5	4.5	4.5
201-250	0.27-0.30	150	2.5	2.5	2.5	3.0	3.0
141-200	0.25-0.29	125	1.5	1.5	2.0	2.0	2.0
105-140	0.22-0.28	100	1.0	1.0	1.5	1.5	1.5
40-60	0.27-0.30	75	0.5	0.5	1.0	1.0	1.0
<40	0.20-0.26	50	0.5	1.0	1.0	1.0	1.5

NATURAL GAS REQUIREMENTS

EQUIPMENT	QUANTITY	SEA LEVEL FUEL GAS INPUT CAPACITY (BTUH)	JOB SITE FUEL GAS REQUIREMENTS (CFH)	TOTAL FUEL GAS CAPACITY (CFH)	BRANCH PIPE SIZES - EACH PIECE OF EQUIP. (INCHES)	
					2 PSIG @ 150 FT.	4 OZ @ 10 FT.
WATER HEATER (WH-1)	1	199,000	209	209	½"	¾"
MAKEUP AIR UNIT (MAU-1)	1	349,000	367	367	½"	1"
RICE COOKER	2	35,000	36	72	½"	½"
RADIANT CHARBROILER	1	195,000	205	205	½"	¾"
GAS RANGE	1	180,000	189	189	½"	¾"
FRYER	2	105,000	111	222	½"	½"
RTU-1	1	200,000	211	211	½"	¾"
RTU-2	1	200,000	211	211	½"	¾"
TOTAL		1,602,000	----	1,687	1⅛"	----

BASIS OF DESIGN		NOTES:
2018 INTERNATIONAL FUEL GAS CODE		(1) PROVIDE GAS SHUT-OFF VALVE AND PRESSURE REGULATOR AT EACH PIECE OF EQUIPMENT. INSTALL IN AN ACCESSIBLE LOCATION ROUGHLY 10 FT FROM EQUIPMENT.
HEAT CONTENT OF GAS (BTUH/CU. FT):	950.0	
GAS PRESSSURE AT METER (LB):	2.0	
DISTANCE FROM GAS METER TO MOST REMOTE GAS REG. (FEET):	150.0	
DISTANCE FROM GAS PRES. REG. TO APPLIANCE (FEET):	10.0	

SANITARY SEWER DEMAND

EQUIPMENT	MINIMUM TRAP AND TRAP ARM	QUANTITY	INDIVIDUAL DRAINAGE FIXTURE UNIT	TOTAL DRAINAGE FIXTURE UNITS
WATER CLOSET, FLUSH TANK (PUBLIC 1.6 GPF)	4"	2	4.0	8.00
LAVATORY	1-1/4"	2	1.0	2.00
FLOOR DRAIN	2"	2	2.0	4.00
FLOOR SINK	3"	4	2.0	8.00
HAND WASHING SINK	1-1/2"	2	2.0	4.00
GREASE WASTE	4"	1	26.0	26.00
			TOTAL (DFU):	52.00
BASIS FOR DESIGN:				
2018 INTERNATIONAL PLUMBING CODE CHAPTER 7, TABLE 710.1(2) - PIPE SIZE:				4"

GREASE WASTE DEMAND

EQUIPMENT	MINIMUM TRAP AND TRAP ARM	QUANTITY	INDIVIDUAL DRAINAGE FIXTURE UNIT	TOTAL DRAINAGE FIXTURE UNITS
FLOOR DRAIN	2"	4	2.0	8.00
FLOOR SINK	3"	4	4.0	16.00
SERVICE SINK	1-1/2"	1	2.0	2.00
			TOTAL (DFU):	26.00

1

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1	IFP_ADD-01	03.11.22

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sheet title:
PLUMBING SCHEDULES

sheet number:
PE601

GREASE INTERCEPTOR CALCULATIONS

Reviewed by: Andy

Reference No. 36333 — Project Name: MoBettahs Lee's Summit MO

Step 1: Flow rate to grease interceptor

Fixture flow rate: (cu in / 231) = gal x 0.75 / 2 min = 2 min flow rate

NAME	TYPE	DIMENSIONS	QTY	CU IN	FLOW RATE
3 comp sink	3 Compartment Sink	21" x 21" x 14" (3)	1	18,522	30 GPM
Floor Drain	Floor Drain	N/A	4	N/A	N/A
Hot Food Wells - (4 wells)	Warming Table (with drain)	N/A	2	N/A	1 GPM
Mop Sink	Mop Basin	24" x 24" x 10"	1	5,760	9.35 GPM
Two comp sink	2 Compartment Sink	21" x 21" x 14" (2)	1	12,348	20 GPM
Total					**60.35 GPM**

Step 2: Grease Production

Number of Seats x 4 turns per seat x Grease Production Value x Days between pump-out = Grease output

Number of seats in facility: 70
Grease production value: 0.035 lbs per serving (BBQ: High / No flatware)
Days between pump-outs: 90 days

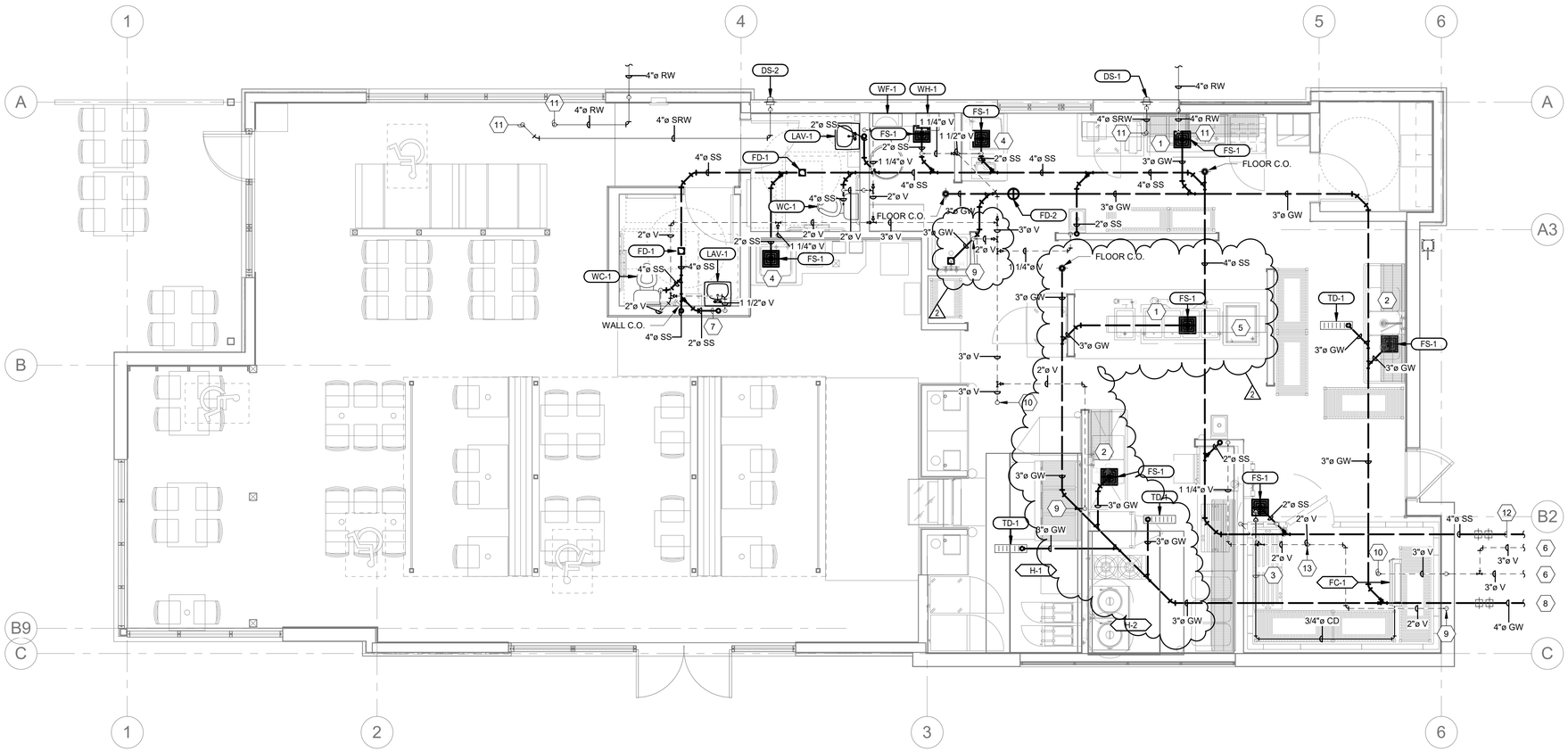
70 x 4 x 0.035 x 90 = 882 lbs of FOG

SCHIER MODEL	
GB-250	**Description:** Polyethylene Grease Interceptor **Dimensions:** Length: 87", Width: 33", Height: 44" **Flow Rates/Grease Capacities:** 100 GPM / 1895.0 lbs **Liquid Capacity:** 277 gal

**GREASE INTERCEPTOR SHOWN ON CIVIL UTILITIES PLAN. CALACULATIONS SHOWN HERE FOR SIZING REQUIREMENTS ONLY.

SUB-ROUGH PLUMBING
REFERENCE ARCHITECTURAL PLANS FOR PLUMBING ROUGH-IN DIMENSIONS

PLUMBING BLOCKOUTS
ALL FLOOR DRAINS AND FLOOR SINKS SHALL RECEIVE BLOCKOUTS IN THE FINISHED SLAB, AND SHALL BE POURED BACK SEPARATELY.



1 PLUMBING PLAN - DWV
1/4" = 1'-0"

NORTH

GENERAL SHEET NOTES

1. FLOOR SINKS SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION. WHERE POSSIBLE INSTALL FLOOR SINKS TIGHT TO WALLS.
2. ALL EMERGENCY FLOOR SINKS / FLOOR DRAINS ARE TO HAVE PROVENT - TRAP GUARDS (WHERE APPROVED BY AHJ). ANY DRAIN THAT IS USED TO COLLECT CONDENSATESHALL NOT REQUIRE TRAP PROTECTION.
3. PLUMBING CONTRACTOR SHALL PROVIDE / INSTALL DRANE COOLERS FOR ALL DISH, PAN, AND UTENSIL WAHSERS. TEMPERED WATER TO BE LESS THAN 140°F.
4. PLUMBING CONTRACTOR SHALL ROUTE INDIRECT DRAINS FROM KITCHEN EQUIPMENT TO NEAREST FLOOR SINK. TERMINATE WITH AN AIR GAP.
5. ALL INDIRECT WASTE PIPING THAT EXCEED 30" IN DEVELOPED LENGTH MEASURED HORIZONTALLY OR 54" IN TOTAL DEVELOPED LENGTH SHALL BE TRAPPED.
6. PROVIDE A SAND BED WITH SIX (6") INCHES MINIMUM COVERAGE AROUND ALL BELOW GRADE PIPES. PROVIDE BACKFILL FREE OF BOULDERS LARGER THAN TWO (2") INCHES. COMPACT AND TEST ALL BACKFILL ACCORDING TO ASTM COMPACTION STANDARDS OR PROVIDE PEA GRAVEL BACKFILL. PROVIDE MINIMUM TRENCH WIDTH OF NOT LESS THAN 1.5 TIMES THE PIPE OUTSIDE DIAMETER PLUS 12 INCHES.
7. ALL PIPING THROUGH A FOUNDATION WALL OR UNDER A FOOTING TO BE PROVIDED WITH PIPE SLEEVE 2 PIPE SIZES LARGER THAN PIPE PASSING THROUGH WALL OR UNDER FOOTING. SEAL WITH CAULK OR FOAM. PIPE SLEEVE UNDER FOOTING TO BE A MINIMUM OF 2" BELOW FOOTING. PIPE TO BE IRON AND EXTEND BEYOND THE WIDTH OF THE FOOTING AT A 45 DEGREE ON BOTH SIDES OF FOOTING.
8. TEST WASTE AND VENT PIPING FOR LEAKAGE. AFTER PLUMBING FIXTURES HAVE BEEN SET AND TRAPS FILLED WITH WATER, TEST CONNECTIONS AND PROVE THEY ARE GASTIGHT AND WATERTIGHT. PLUG VENT-STACK OPENINGS ON ROOF AND BUILDING DRAINS WHERE THEY LEAVE BUILDING. INTRODUCE AIR INTO PIPING SYSTEM EQUAL TO PRESSURE OF 1-INCH WG. USE U-TUBE OR MANOMETER INSERTED IN TRAP OF WATER CLOSET TO MEASURE THIS PRESSURE. AIR PRESSURE MUST REMAIN CONSTANT WITHOUT INTRODUCING ADDITIONAL AIR THROUGHOUT PERIOD OF INSPECTION. INSPECT PLUMBING FIXTURE CONNECTIONS FOR GAS AND WATER LEAKS. REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST PIPING, OR PORTION THEREOF, UNTIL SATISFACTORY RESULTS ARE OBTAINED. PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.
9. COORDINATE NECESSARY SAW CUTTING, BACKFILL, AND NEW CONCRETE WITH GENERAL.
10. PIPING SHALL NOT BE SUPPORTED FROM THE ROOF DECK, JOIST BRIDGING OR OTHER PIPES. HANG PIPES FROM BEAMS, JOIST OR SUPPLEMENTARY STRUCTURAL MEMBERS. WHERE POSSIBLE INSTALL ALL PIPING WITHIN 12" FROM SUPPORTING STRUCTURE.
11. CONTRACTOR SHALL FIELD VERIFY ALL PLUMBING ITEMS PRIOR TO STARTING NEW WORK. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH EXISTING SITE CONDITIONS.
12. DUCTWORK AND PIPE ROUTING AS SHOWN ON DRAWINGS IS DIAGRAMMATIC AND IS NOT TO BE SCALED. WHERE ALTERNATE ROUTING, OFFSETS AND TRANSITIONS ARE REQUIRED FOR COORDINATION OF WORK, THIS CONTRACTOR SHALL MAKE CHANGES WITHOUT ADDITIONAL COSTS.
13. THIS CONTRACTOR SHALL CLOSELY COORDINATE MECHANICAL AND PLUMBING WITH KITCHEN EQUIPMENT, ELECTRICAL, ARCHITECTURAL AND BUILDING STRUCTURE.
14. INSULATE PIPING WITH FIBERGLASS PIPE COVERING WITH ALL SERVICE JACKET AND SELF-CAP SEAL. FITTINGS SHALL BE MITERED PIPING COVERING OF GLASS FIBER MOLDED FITTINGS FOR USE IN A RETURN AIR PLENUM. THERMAL CONDUCTIVITY SHALL BE A MAXIMUM OF .25/INCH THICKNESS AT 75°F.
15. P.C. MUST PROVIDE AND INSTALL ALL ACCESS DOORS FOR VALVES, FLOW METERS, ETC. COORDINATE LOCATION WITH GENERAL CONTRACTOR. ACCESS PANELS SHALL NOT BE VISIBLE TO CUSTOMERS AND SHALL BE PAINTED TO MATCH THE WALL IN WHICH THEY ARE INSTALLED.
16. ALL PIPING EXPOSED TO THE OUTDOORS IS TO BE INSULATED AND WEATHERPROOFED.
17. ALL INVERT ELEVATIONS SHOWN ON PLANS ARE BASED OFF OF FINISHED FLOOR ELEVATION AT 100.0'. CONTRACTOR TO COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS FOR EXACT INVERT ELEVATIONS OF ALL LEVELS.
18. ALL GAS REGULATORS ARE TO BE VENTED TO THE OUTSIDE OF THE BUILDING BY THE MECHANICAL CONTRACTOR OR PROVIDE / INSTALL VENTLESS REGULATORS IF ALLOWED BY THE LOCAL JURISDICTION. NONE OF THE VENT PIPING OFF THE REGULATORS ARE SHOWN ON THE PLANS. SIZE VENTS PER MANUFACTURER'S RECOMMENDATION FOR THE GIVEN DISTANCE.
19. WHERE THE JURISDICTION REQUIRES, CONTRACTOR IS RESPONSIBLE FOR PROVIDING SEISMIC RESTRAINT AND SUPPORT ENGINEERED BY A LICENSED STRUCTURAL ENGINEER. PROVIDE DESIGN DRAWINGS TO AUTHORITY HAVING JURISDICTION AND MECHANICAL ENGINEER FOR REVIEW.
20. ALL WASTE AND VENT PIPING SHALL BE SCHEDULE 40 PVC OR SDR26.

SHEET KEYNOTES

1 ROUTE WASTE LINE FOR HOT FOOD WELLS PER DETAIL 3 ON SHEET PE501.

2 ROUTE WASTE LINE FOR COMPARTMENT SINK PER DETAIL 1 ON SHEET PE501.

3 ROUTE 3/4" COPPER CONDENSATE LINE FROM WALK-IN COOLER FAN COIL TO FLOOR SINK. DRAIN PIPING INDIRECTLY AT FLOOR SINK WITH AIR GAP.

4 ICE MACHINE MOUNTED ON BEVERAGE DISPENSER. ROUTE 3/4" COPPER DRAIN LINE FROM ICE MACHINE TO FLOOR SINK. TERMINATE DRAIN WITH AIR GAP ABOVE FLOOR SINK.

5 USE PVC TO HARD PIPE THE PREP SINK DRAIN TO FLOOR SINK (DO NOT USE SOFT TUBING INCLUDED WITH SINK).

6 VENT LINE CONTINUED UNDERGROUND TO GREASE INTERCEPTOR ON CIVIL PLANS.

7 WET VENT FOR RESTROOM FLOOR DRAINS.

8 GREASE WASTE LINE CONTINUED UNDERGROUND ON CIVIL PLANS TO GREASE INTERCEPTOR.

9 DRY VENT (COMBINATION WASTE & VENT METHOD) FOR FLOOR DRAINS AND FLOOR SINKS. FIXTURE DRAINS CONNECTING TO THIS COMBINATION WASTE & VENT PIPE MUST NOT EXCEED THE LENGTHS LISTED IN IPC TABLE 909.1 (12 FT FOR 3" DRAINS, 8 FT FOR 2" DRAINS). MINIMUM SLOPE FOR 2-1/2" PIPES AND SMALLER IS 1/4" PER FT. MINIMUM SLOPE FOR 3"-6" PIPES IS 1/8" PER FT. MAXIMUM SLOPE FOR HORIZONTAL COMBINATION WASTE & VENT PIPE IS 1/2" PER FT.

10 3" VENT UP THROUGH ROOF. COORDINATE EXACT ROOFTOP PENETRATION LOCATION WITH ROOFTOP EQUIPMENT. MAINTAIN 10' MINIMUM CLEARANCE TO ALL FRESH AIR INTAKES.

11 RAINWATER PIPE RISER DOWN THROUGH ROOF FROM ROOF DRAIN ABOVE. SLOPE AT A MINIMUM OF 1/8" PER FOOT. IF SLOPED AT A MINIMUM OF 1/4" PER FOOT (OR GREATER), THIS ROOF DRAIN BRANCH MAY BE DOWNSIZED TO 3"Ø. SLOPE MUST CONTINUE ALL THE WAY TO TERMINATION AT DOWNSPOUT OR CONNECTION TO STORM SEWER MAIN.

12 SANITARY SEWER LINE CONTINUED UNDERGROUND ON CIVIL PLANS.

13 2" VENT UP THROUGH ROOF. COORDINATE EXACT ROOFTOP PENETRATION LOCATION WITH ROOFTOP EQUIPMENT. MAINTAIN 10' MINIMUM CLEARANCE TO ALL FRESH AIR INTAKES.

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STATE OF MISSOURI — RYAN BOOGAARD — NUMBER PE-2010019272 — PROFESSIONAL ENGINEER

04-15-2022

project information:

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sheet title: PLUMBING PLAN - DWV

sheet number:

PL103

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	B	11	Liton Lighting Inc	WD2340B-L15-BD45-BU45UE-DUN	4" ROUND 2-DIRECTION WALL MOUNT (IP64) - 2 X 1500LM		1	WD2340B-L15-BD45-BU45UE-DUN.ies	3827	0.8	37.42
	A	6	Lithonia Lighting	DSX0 LED P4 40K BLC MVOLT	DSX0 LED P4 40K BLC MVOLT	LED	1	DSX0_LED_P4_40K_BLC_MVOLT.ies	8656	0.9	92
	C	1	Lithonia Lighting	DSX0 LED P4 40K T5S MVOLT	DSX0 LED P4 40K T5S MVOLT	LED	1	DSX0_LED_P4_40K_T5S_MVOLT.ies	10989	0.9	92

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
DRIVE AISLE	+	1.8 fc	4.1 fc	0.5 fc	8.2:1	3.6:1

SHEET KEYNOTES

1 MENU BOARD. 1" CONDUIT. COORDINATE WITH OWNER AND INSTALLER FOR EXACT REQUIREMENTS.

2 SPEAKER POST. 3/4" CONDUIT. COORDINATE WITH OWNER AND INSTALLER FOR EXACT REQUIREMENTS.

3 PROVIDE 1" CONDUIT TO SIGN. COORDINATE WITH OWNER AND INSTALLER FOR EXACT REQUIREMENTS.

GENERAL SHEET NOTES

1 THE ELECTRICAL CONTRACTOR SHALL MEET WITH AND COORDINATE WITH ALL SERVICE PROVIDERS (POWER, COMMUNICATION, CABLE/SATELLITE, ETC.) TO THE FACILITY ON SITE PRIOR TO ANY WORK BEING PERFORMED. CONFIRM WITH EACH SERVICE PROVIDER EXACT LOCATIONS EQUIPMENT AND ROUTING. COMPLY WITH ALL SERVICE PROVIDER'S CURRENT STANDARDS AND REQUIREMENTS. PROVIDE THE REQUIRED EQUIPMENT, RACEWAYS, BOXES, CABLE, ETC. AS REQUIRED BY THE SERVICE PROVIDER WETHER SHOWN ON THE DRAWINGS OR NOT.

2 FOR ALL LIGHT FIXTURES, POLE LIGHTS, AND ALL OTHER ELECTRICAL DEVICES THE CONTRACTOR SHALL COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS WITH ARCHITECT, OWNER, ENGINEER, AND ALL OF THE CONTRACT DOCUMENTS PRIOR TO ROUGH IN AND TRENCHING.

3 CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, AND COMPACTION ASSOCIATED TO ALL ELECTRICAL UNDERGROUND RACEWAYS AND CABLES COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS. SEE UNDERGROUND RACEWAY DETAILS FOR REQUIREMENTS FOR EACH TRENCH..

4 CONTRACTOR SHALL INSTALL POLE MOUNTED LIGHTS IN STRAIGHT LINES, SQUARE, AND PLUMB. COORDINATE WITH ARCHITECT AND CIVIL DRAWINGS.

5 THE ELECTRICAL CONTRACTOR SHALL HAVE ANY AND ALL CONCRETE POLE BASES AND SLABS REVIEWED BY A STRUCTURAL ENGINEER AND SHALL MODIFY DESIGN PER STRUCTURAL ENGINEER'S AND/OR AHJ'S RECOMMENDATIONS.

6 PROVIDE WITH UL 942 LISTED EMERGENCY BATTERY BACKUP ALL EXTERIOR FIXTURES ADJACENT TO EGRESS DOORS.

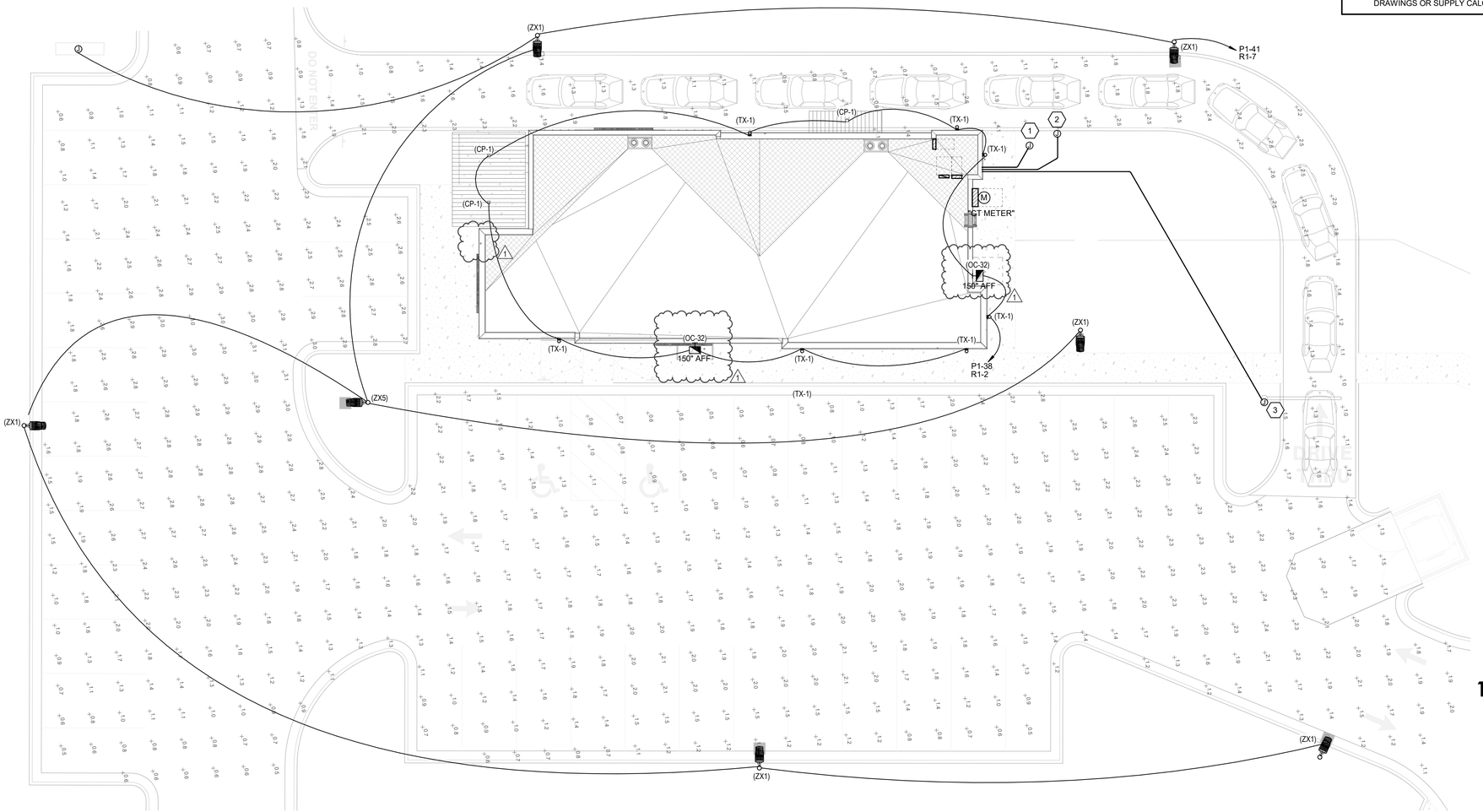
7 ALL EXTERIOR RECEPTACLES SHOWN SHALL BE NEMA 5-20R GFCI "WEATHER RESISTANT" RECEPTACLE WITH "WEATHER PROOF IN-USE COVER."

8 THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONCRETE/ASPHALT CUTTING AND REPLACEMENT OF CONCRETE/ASPHALT TO MATCH EXISTING ASSOCIATED WITH UNDERGROUND RACEWAYS PROVIDED AS PART OF THIS PROJECT.

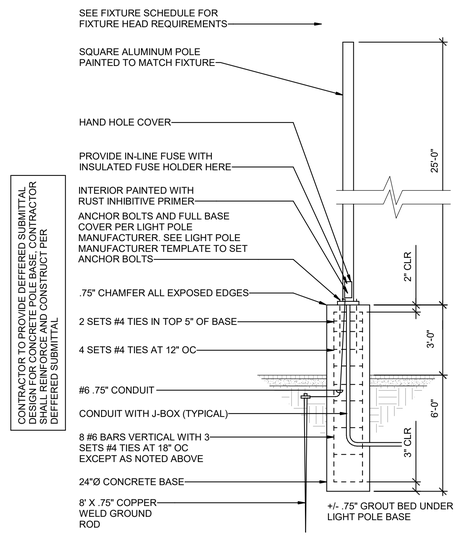
9 REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.

10 PROVIDE SERVICE RATED EQUIPMENT AT EACH SERVICE ENTRANCE.

11 SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL INSTALLATION OCCUR. PLEASE INCLUDE NOTES IN THE ELECTRICAL DRAWINGS OR SUPPLY CALCULATIONS WHERE APPLICABLE SEE NEC 110.24.(B)



2 SITE ELECTRICAL PLAN
1" = 10'-0"



1 PARKING LOT LIGHT POLE BASE DETAIL
NOT TO SCALE

NORTH

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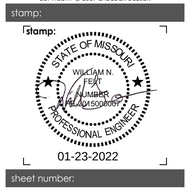


01-23-2022

sheet number:

MOBETTAHS (TI) for:
LEE'S SUMMIT
520 NW Chipman Rd
Lee's Summit, MO 64086

SAVORY MANAGEMENT

sheet title:
ELECTRICAL SITE PLAN

sheet number:
ES101

SHEET KEYNOTES

1 EXHAUST FAN TIED TO HOOD CONTROLS CONNECTED BY ELECTRICAL CONTRACTOR.

2 EXHAUST FAN RUN THROUGH RELAY PANEL "RP1". EXHAUST FAN TO RUN CONTINUOUSLY DURING BUSINESS HOURS.

3 120V POWER MOUNTED ABOVE FINISHED CEILING THROUGH CONTROL PANEL (SEE EL601).

4 PROVIDE 1" CONDUIT(S) TO ROOF WITH WEATHERHEAD(S) FOR TELECOM CONNECTIONS. COORDINATE WITH OWNER FOR EXACT LOCATION(S).

5 COORDINATE WITH OWNER/SIGN INSTALLER/ARCHITECT FOR EXACT LOCATION.

6 COORDINATE WALK-IN COOLER WITH OWNER AND ARCHITECT.

GENERAL SHEET NOTES

1 PROVIDE TYPEWRITTEN PANEL SCHEDULES AT THE COMPLETION OF THE PROJECT.

2 ALL KITCHEN AND FOOD PREP AREA OUTLETS SHALL BE GFCI PROTECTED.

3 PROVIDE DEDICATED NEUTRAL FOR ALL BRANCH CIRCUITS.

4 VERIFY ALL EQUIPMENT LOCATION AND REQUIREMENTS PRIOR TO ROUGH-IN. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO PROVIDE FINAL CONNECTIONS FOR OWNER SUPPLIED EQUIPMENT. VERIFY OUTLETS ARE NOT PLACED BEHIND LEG OF TABLE OR EQUIPMENT.

5 ALL OUTLETS UNMARKED ARE +18"AFF.

6 SEE KITCHEN DRAWINGS FOR EXACT LOCATION AND HEIGHT OF ALL KITCHEN EQUIPMENT.

7 CONTRACTOR IS RESPONSIBLE TO PROVIDE AND INSTALL CORD AND PLUG FOR EQUIPMENT THAT DOES NOT COME WITH CORD AND PLUG.

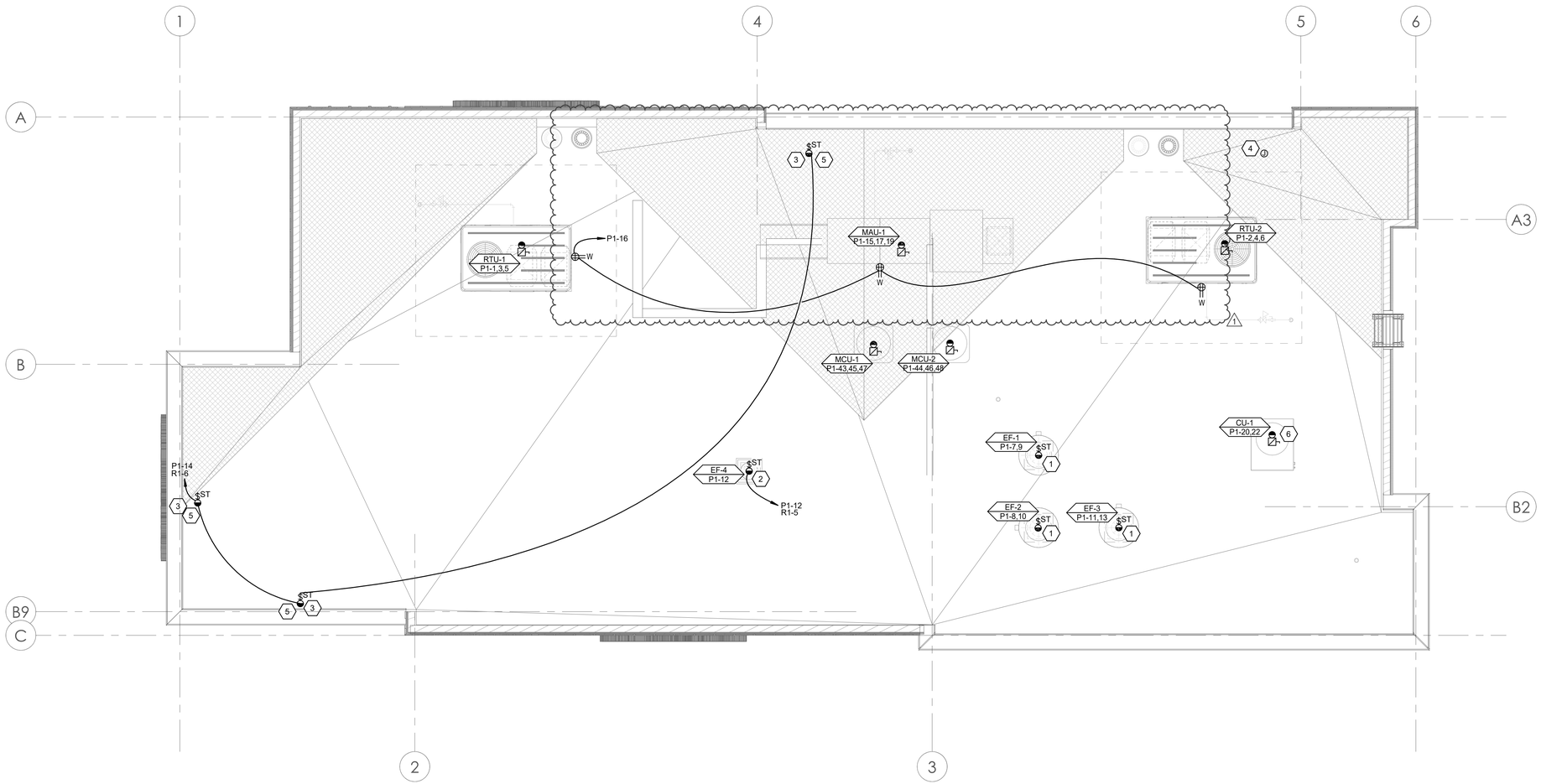
8 RECEPTACLES TO BE COORDINATED WITH FINAL FURNITURE AND EQUIPMENT PLAN. DINING CONVENIENCE OUTLETS ARE TO BE ACCESSIBLE AND CENTERED BETWEEN FURNITURE WHERE POSSIBLE.

9 ALL EQUIPMENT UNDER HOOD ARE TO BE SUPPLIED WITH SHUNT-TRIP CIRCUIT BREAKERS CONNECTED TO ANSUL SYSTEM.

10 COORDINATE WITH ARCHITECT AND OWNER TO DESIGNATE OUTLET AND PLATE COVER COLORS. (WHITE IN KITCHEN AND BLACK EVERYWHERE ELSE.)

11 PROVIDE BLACK OUTLETS IN ALL SERVICE AND DINING AREAS.

12 ALL RECEPTACLES IN THE DINING AREA, 5'-6" AND BELOW SHALL BE TAMPER-RESISTANT.



1 ROOF POWER PLAN
1/4" = 1'-0"

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SAVORY MANAGEMENT

sheet title: ROOF POWER PLAN

sheet number:

EP102

ALUMINUM CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.) 5 IG

SYM	AMP	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG	SE	NOTES
1A								
2A								
3A								
4A								
5A								
6A								
7A								
8A								
9A								
10A								
11A								
12A								
13A								
14A								
15A								
16A								
17A								
18A								
19A								
20A								
21A	130	2	3	2/0	4	1/0	4	2,7
22A	130	2	4	2/0	4	1/0	4	2,7
23A	150	2	3	3/0	4	1/0	4	2,7
24A	150	2	4	3/0	4	1/0	4	2,7
25A	175	2	3	4/0	4	1/0	2	2,7
26A	175	2.50	4	4/0	4	1/0	2	2,7
27A	200	2.50	3	250	4	1/0	2	2,7
28A	200	3	4	250	4	1/0	2	2,7
29A	230	2.50	3	300	2	1/0	1/0	2,7
30A	230	3	4	300	2	1/0	1/0	2,7
31A	250	3	3	350	2	2/0	1/0	2,7
32A	250	3	4	350	2	2/0	1/0	2,7
33A	310	3	3	500	1	3/0	1/0	2,7
34A	310	4	4	500	1	3/0	1/0	2,7
35A	380	2 EA 2.50	3	250	1	4/0	3/0	2,7
36A	380	2 EA 3	4	250	1	4/0	3/0	2,7
37A	400	2 EA 2.50	3	250	1/0	4/0	3/0	2,7
38A	400	2 EA 2.50	4	250	1/0	4/0	3/0	2,7
39A	500	2 EA 3	3	350	1/0	300	3/0	2,4,7
40A	500	2 EA 3	4	350	1/0	300	3/0	2,4,7
41A	620	2 EA 3	3	500	3/0	300	3/0	2,4,7
42A	620	2 EA 4	4	500	3/0	300	3/0	2,4,7
43A	750	3 EA 3	3	350	3/0	300	4/0	2,4,7
44A	750	3 EA 3	4	350	3/0	300	4/0	2,4,7
45A	810	3 EA 3	3	400	4/0	300	250	2,4,7
46A	810	3 EA 4	4	400	4/0	300	250	2,4,7
47A	1000	4 EA 3	3	350	4/0	300	250	4,7
48A	1000	4 EA 3	4	350	4/0	300	250	4,7
49A	1140	4 EA 4	3	500	250	300	250	4,7
50A	1140	4 EA 4	4	500	250	300	250	4,7
51A	1240	4 EA 4	3	500	350	300	250	4,7
52A	1240	4 EA 4	4	500	350	300	250	4,7
53A	1620	6 EA 4	4	400	400	350	250	4,7
54A	2170	7 EA 4	4	500	400	500	250	4,7
55A	2695	7 EA 4	4	750	600	750	750	4,7
56A	3080	8 EA 4	4	750	600	750	750	4,7
57A	4235	11 EA 4	4	750	800	750	750	4,7
58A	-	5 EA 4	-	-	-	-	-	6
59A	-	5	-	-	-	-	-	6
60A	-	10 EA 4	-	-	-	-	-	6

CONDUIT AND CONDUCTOR SCHEDULE NOTES

1 CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2 PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3 PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4 GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5 SYMBOL SUBSCRIPTS:
"2N": INCLUDE TWO NEUTRAL CONDUCTORS, SIZED AS SCHEDULED FOR PHASED AND NEUTRAL CONDUCTORS.
"FG" FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE SAME SIZE AS THE PHASE CONDUCTORS.
"HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC "NONLINEAR" LOADS. CURRENT CARRYING CONDUCTORS DERATED ACCORDINGLY.
"IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OF EQUIPMENT GROUND CONDUCTOR.
"SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.
6 RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.
7 ALUMINUM CONDUCTORS NOT TO BE USED FOR CONNECTION TO MOTORS OR MOTOR DRIVEN EQUIPMENT.

COPPER CONDUCTOR AND CONDUIT SCHEDULE

SCHEDULE NUMBER
SUBSCRIPT (NOTE 5)
(E.G.) 5 IG

SYM	AMP	HH AMPS	CONDUIT SIZE	CONDUCTOR (NOTE 1) QTY	SIZE	G	IG/HH	SE	NOTES
1	20	-	.75	2	12	12	12	8	2
2	20	-	.75	3	12	12	12	8	2,3
3	20	24	.75	4	12	12	12	8	2,3
4	30	-	.75	2	10	10	10	8	2
5	30	-	.75	3	10	10	10	8	2
6	30	32	.75	4	10	10	10	8	2
7	40	-	1	2	8	10	8	6	2
8	40	-	1	3	8	10	8	6	2
9	40	44	1	4	8	10	8	6	2
10	55	-	1	2	6	10	8	4	2
11	55	-	1	3	6	10	8	4	2
12	55	60	1.25	4	6	10	8	4	2
13	70	-	1	2	4	8	4	2	2
14	70	-	1.25	3	4	8	4	2	2
15	70	76	1.25	4	4	8	4	2	2
16	85	-	1.25	2	3	8	3	2	2
17	85	-	1.25	3	3	8	3	2	2
18	85	92	1.25	4	3	8	3	2	2
19	95	-	1.25	3	2	8	2	2	2
20	95	104	1.50	4	2	8	2	2	2
21	130	-	1.50	3	1	6	2	2	2
22	130	116	1.50	4	1	6	2	2	2
23	150	-	2	3	1/0	6	2	1/0	2
24	150	136	2	4	1/0	6	2	1/0	2
25	175	-	2	3	2/0	6	2	2/0	2
26	175	156	2	4	2/0	6	2	2/0	2
27	200	-	2	3	3/0	6	2	2/0	2
28	200	180	2.50	4	3/0	6	2	2/0	2
29	230	-	2.50	3	4/0	4	2	2/0	2
30	230	208	2.50	4	4/0	4	2	2/0	2
31	255	-	2.50	3	250	4	1	2/0	2
32	255	232	2.50	4	250	4	1	2/0	2
33	310	-	3	3	350	3	1/0	3/0	2
34	310	280	3	4	350	3	1/0	3/0	2
35	380	-	3.50	3	500	3	3/0	3/0	2
36	380	344	4	4	500	3	3/0	3/0	2
37	400	-	2 EA 2	3	3/0	3	3/0	3/0	2
38	400	360	2 EA 2.50	4	3/0	3	3/0	3/0	2
39	510	-	2 EA 2.50	3	250	1	4/0	3/0	2
40	510	464	2 EA 3	4	250	1	4/0	3/0	2
41	620	-	2 EA 3	3	350	1/0	4/0	3/0	2,4
42	620	560	2 EA 3	4	350	1/0	4/0	3/0	2,4
43	760	-	2 EA 3.50	3	500	1/0	4/0	3/0	2,4
44	760	688	2 EA 4	4	500	1/0	4/0	3/0	2,4
45	855	-	3 EA 3	3	300	2/0	4/0	3/0	2,4
46	855	768	3 EA 3	4	300	2/0	4/0	3/0	2,4
47	1000	-	3 EA 3.50	3	400	2/0	4/0	3/0	4
48	1000	912	3 EA 3.50	4	400	2/0	4/0	3/0	4
49	1140	-	3 EA 4	3	500	3/0	4/0	3/0	4
50	1140	1032	3 EA 4	4	500	3/0	4/0	3/0	4
51	1240	-	4 EA 3	3	350	3/0	4/0	3/0	4
52	1240	1120	4 EA 3	4	350	3/0	4/0	3/0	4
53	1675	1520	5 EA 4	4	400	4/0	4/0	4/0	4
54	2010	1824	6 EA 4	4	400	250	250	250	4
55	2660	2408	7 EA 4	4	500	350	350	350	4
56	3040	2752	8 EA 4	4	500	500	500	500	4
57	4180	3784	11 EA 4	4	500	500	500	500	4
58	-	-	5 EA 4	-	-	-	-	-	6
59	-	-	5	-	-	-	-	-	6
60	-	-	10 EA 4	-	-	-	-	-	6

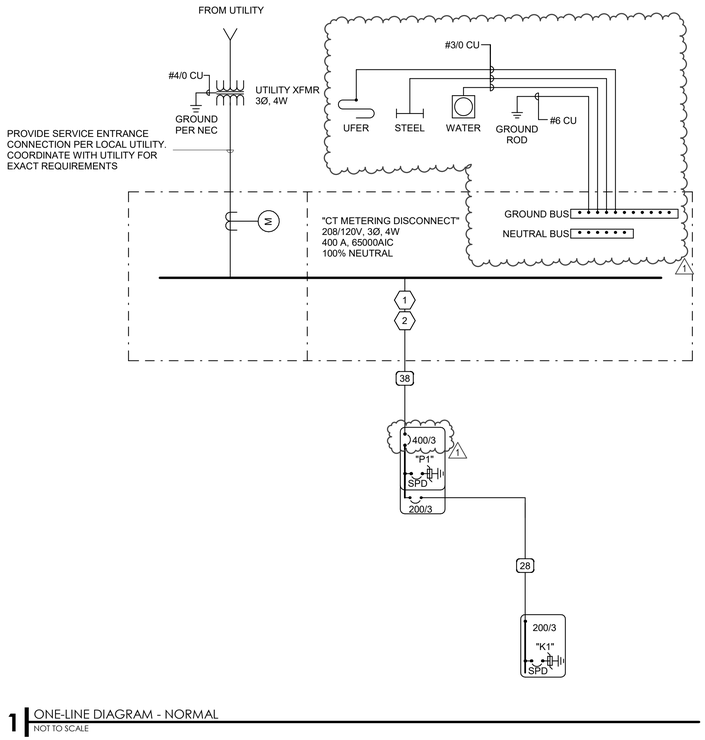
CONDUIT AND CONDUCTOR SCHEDULE NOTES

1. CONDUCTORS SHOWN ARE SHOWN FOR EACH CONDUIT WITH MODIFICATIONS AS NOTED IN NOTE 5. ALL CONDUCTORS SHOWN ARE THWN UNLESS OTHERWISE NOTED.
2. PROVIDE EQUIPMENT GROUND CONDUCTORS PER TABLE 250-122 WHEN CIRCUIT BREAKERS ARE SIZED GREATER THAN AMPERE RATING SHOWN IN TABLE.
3. PROVIDE #10 NEUTRALS FOR MULTIWIRE BRANCH CIRCUITS SERVING COMPUTERS.
4. GROUND (G) CONDUCTOR MAY BE DELETED ON SERVICE ENTRANCE CONDUCTORS.
5. SYMBOL SUBSCRIPTS:
"2N": INCLUDE TWO NEUTRAL CONDUCTORS SIZED AS SCHEDULED FOR PHASE AND NEUTRAL CONDUCTORS WHERE THE CONDUCTOR IS #1/0 OR LARGER. INCLUDE A SINGLE 200% RATED CONDUCTOR THAT IS TWICE THE AMPACITY OF THE SCHEDULED PHASE AND NEUTRAL CONDUCTOR WHERE THE CONDCUTOR IS BELOW #1/0 IN SIZE.
"FG" FULL SIZE GROUND, SIZE EQUIPMENT GROUNDING CONDUCTOR TO BE SAME SIZE AS THE PHASE CONDUCTORS.
"HH": NEUTRAL CURRENTS EXIST DUE TO HIGH HARMONIC "NONLINEAR" LOADS. CURRENT CARRYING CONDUCTORS DERATED ACCORDINGLY. PROVIDE THE IG/HH SIZE FOR THE EQUIPMENT GROUNDING CONDUCTOR.
"IG": INCLUDE IG (INSULATED/ISOLATED GROUND CONDUCTOR) SCHEDULED ALONG WITH THE GROUND OF EQUIPMENT GROUND CONDUCTOR.
"SE": SUBSTITUTE "SE" CONDUCTOR FOR "G" CONDUCTOR SHOWN, WHICH IS SIZED FOR THE GROUNDING OF THE SECONDARY OF THE SEPARATELY DERIVED SYSTEM.
6. RACEWAY ONLY. CONDUCTORS PROVIDED BY UTILITY.

FAULT CURRENT TABLE

PROVIDE FULLY RATED CIRCUIT BREAKERS IN PANELBOARDS FOR THE FAULT CURRENT SHOWN. SERIES RATINGS WITH NEXT LEVEL UPSTREAM OVERCURRENT PROTECTIVE DEVICES ARE PERMITTED SUBJECT TO FACTORY UL DOCUMENTATION OF SERIES RATING SUBMITTED TO ENGINEER. IF DEVICE OR EQUIPMENT FAULT CURRENT RATING IS NOT SHOWN, ASSUME 100,000 AIC.

BUS	FAULT CURRENT	BUS	FAULT CURRENT
CT METER			
K1	29355		
P1	32564		



1 ONE-LINE DIAGRAM - NORMAL
NOT TO SCALE

GENERAL SHEET NOTES

1 PROVIDE NEMA 3R ENCLOSURES FOR EQUIPMENT LOCATED OUTDOORS. REFER TO PLANS FOR EQUIPMENT LOCATIONS.

2 REFER TO PLANS FOR CONSTRAINTS ON PHYSICAL DIMENSIONS AND CLEARANCE REQUIREMENTS OF EQUIPMENT. PROVIDE EQUIPMENT DIMENSIONS THAT FALL WITHIN THE CONSTRAINTS OF EACH SPECIFIC LOCATION.

3 ALL EQUIPMENT SHALL BE CONSTRUCTED AND BRACED FOR THE SEISMIC CONDITIONS OF THE PROJECT. REFER TO ELECTRICAL SPECIFICATIONS FOR REQUIREMENTS.

4 PROVIDE PERFORMANCE TESTING FOR GROUND-FAULT PROTECTION SYSTEMS ON SITE WITH A WRITTEN RECORD OF THIS TEST SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PER NEC 230.95(C).

5 SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE MAXIMUM AVAILABLE FAULT CURRENT. VERIFY OR RE-CALCULATE THE AVAILABLE FAULT CURRENT AT THE SERVICE WHERE MODIFICATIONS TO THE ELECTRICAL EQUIPMENT OCCUR. THE MARKING SHALL BE DURABLE AND MUST INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED NEC 110.24(A). PLEASE INCLUDE NOTES IN ELECTRICAL DRAWINGS OR SUPPLY CALCULATIONS WHERE APPICABLE. SEE NEC 110.24(A), (B)

6 THE OVERCURRENT PROTECTION DEVICES SHALL BE RATED THE SAME FAULT CURRENT RATING AS THE RATING OF THE PANEL OR SWITCHGEAR THEY ARE LOCATED WITHIN.

7 PROVIDE GROUNDING AND BONDING PER NEC 250.

8 EXISTING ONE-LINE ELECTRICAL DATA WAS DETERMINED USING PHOTOS WITH NO ELECTRICAL DATA IDENTIFICATION. CONTRACTOR TO FIELD VERIFY EXISITNG CONDITIONS AND NOTIFY ENGINEER OF ANY DISCREPENCIES IN ONE-LINE INFOMRMATION.

9 CONTRACTOR MAY UTILIZE EXISTING ELECTRICAL GEAR AS APROVED BY SAVORY.

SHEET KEYNOTES

1 UNLESS NOTED ON DRAWINGS, DISCONNECT EXISTING PANEL FROM CT DISCONNECT AND DEMO EXISTING CONDUIT, CONDUCTORS AND PANEL(S).

2 PROVIDE NEW FUSED DISCONNECT, CT METER PANEL (PER LOCAL UTILITY REQUIREMENTS), CONDUCTORS AND CONDUIT BETWEEN EXISTING BUSWAY AND PANEL LOCATION SHOWN ON DRAWINGS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ENGINEER OF ANY DIFFERENCES FROM ONE-LINE DIAGRAM.

EQUIPMENT NAMEPLATE SCHEDULE

EQUIPMENT ID SCHEME	FIRST DIGIT - BUILDING LEVEL (0, 1, 2, ETC) SECOND DIGIT - PANEL TYPE M - MECHANICAL H - (277/480) L - (120/208) E - EMERGENCY S - STANDBY Q - EQUIPMENT U - UPS K - KITCHEN (120/208) THIRD DIGIT - BUILDING AREA (A, B, C, ETC) FOURTH DIGIT - SEQUENCE # (1,2,3,...)
LABEL FORMAT	[NAME] [SYSTEM] [VOLTAGE] [FED FROM] [SOURSE(S)]
LABEL EXAMPLE	PANEL "4LA1" STANDBY POWER 120/208V FED FROM BUS-A / XFMR 4TA
BUSWAY	LABEL BUSWAY EVERY 6' WHERE EXPOSED TO VIEW AND EVERY 15' WHERE NOT EXPOSED TO VIEW
OTHER	

COLOR SCHEME

SYSTEM	EQUIPMENT	NAMEPLATE COLOR TEXT	BACKGROUND
NORMAL POWER	ALL GEAR NOT INCLUDED BELOW	WHITE	BLACK
STANDBY POWER	MDPS1 AND ALL DOWNSTREAM GEAR, EXCEPT UPS GEAR AS NOTED	WHITE	ORANGE
EMERGENCY POWER	GDP1, GDP2, ATS-E AND ALL DOWNSTREAM GEAR	WHITE	RED
LEGALLY-REQUIRED STANDBY POWER	ATS-S AND ALL DOWNSTREAM GEAR	RED	WHITE
UPS "A" POWER	UPSA AND ALL DOWNSTREAM GEAR	WHITE	BLUE
UPS "B" POWER	UPSB AND ALL DOWNSTREAM GEAR	BLACK	YELLOW

BRANCH CIRCUIT CONDUCTOR AND CONDUIT SIZING TABLE

CIRCUIT AMPACITY/VOLTAGE	CIRCUIT LENGTH	CONDUCTOR SIZE (PHASE, NEUTRAL AND GR)	CONDUIT SIZE
20A/120V	0' - 60'	#12 AWG	0.75" Ø
20A/120V	60' - 95'	#10 AWG	0.75" Ø
20A/120V	95' - 150'	#8 AWG	1" Ø
20A/120V	150' - 240'	#6 AWG	1.25" Ø
20A/277V	0' - 140'	#12 AWG	0.75" Ø
20A/277V	140' - 220'	#10 AWG	0.75" Ø
20A/277V	220' - 350'	#8 AWG	1" Ø
20A/277V	350' - 550'	#6 AWG	1.25" Ø

NOTES:

1. WIRE SIZING IS BASED ON COPPER CONDUCTORS SUPPLYING A 20A, 120V CIRCUIT AT THE INDICATED VOLTAGE, ASSUMED TO BE 80% LOADED (16A), WITH MAXIMUM VOLTAGE DROP OF 3% AT THE LOAD.
2. DOWN-SIZED WIRE AT DEVICE/LOAD AS REQUIRED AND TERMINATE CONDUCTORS IN A SAFE AND CODE COMPLIANT MANNER.
3. CONDUIT SIZE IS BASED ON A MAXIMUM OF 3 CIRCUITS PER CONDUIT, EACH WITH A SEPARATE NEUTRAL CONDUCTOR.

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WILLIAM N. FEAT
NUMBER A-2010035007
PROFESSIONAL ENGINEER
01-23-2022

sheet number:

MOBETTAHS (TI) for:
LEE'S SUMMIT
520 NW Chipman Rd
Lee's Summit, MO 64086

SAVORY MANAGEMENT

sheet title: ONE-LINE DIAGRAM

sheet number:

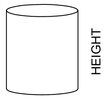
EP601

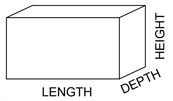
LIGHTING FIXTURE SCHEDULE

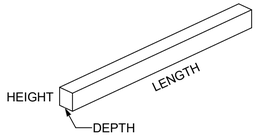
ABBREVIATIONS

MOUNTING

B	-	BASE
C	-	CEILING
F	-	FLANGE
G	-	GRID
P	-	PENDANT
PL		POLE
R	-	RECESSED
S	-	SURFACE
W	-	WALL







LUMINAIRE OPTIONS

ARHR	-	AIR RETURN AND HEAT REJECTION
DL	-	DAMP LOCATION
EQC	-	EARTHQUAKE CLIPS
F	-	FUSING
HLD	-	HINGED AND LATCHED DOOR
HS	-	HOUSE SIDE SHIELD
PS	-	PHOTOCELL SWITCH
QRS	-	QUARTZ RESTRIKE
ST	-	STATIC
WG	-	WIRE GUARD
WL	-	WET LOCATION

FINISH

MW	-	MATTE WHITE
BL	-	BLACK
SL	-	SILVER
GL	-	GOLD
CL	-	CLEAR
PW	-	PAINTED WHITE
EA	-	EXTRUDED ALUMINUM
S	-	STEEL
GS	-	GALVANIZED STEEL
C	-	CAST
CBA	-	COLOR BY ARCHITECT
SCBA	-	STANDARD COLOR BY ARCHITECT
CCA	-	CUSTOM COLOR BY ARCHITECT
FS 209D	-	MEETS FEDERAL STANDARD 209D
TP	-	THERMALLY PROTECTED
FL	-	FLUSH
R	-	REGRESS
M	-	MITERED

1

DIFFUSER/LENS

#A	-	ACRYLIC #THICK
#OA	-	ACRYLIC #THICK (OPAL)
GC	-	GLASS (CLEAR)
GO	-	GLASS (OPAL)
GF	-	GLASS (FROSTED)
SGL	-	SOFT GLOW LENS
HPL	-	HIGH PERFORMANCE LENS
DO	-	DROP OPAL
CGL	-	CONVEX GLASS LENS
S	-	SATIN LENS

REFLECTOR

OP	-	NONE/OPEN
SP	-	SPECULAR
SS	-	SEMI-SPECULAR
D	-	DIFFUSE (WHITE ENAMEL)
SC	-	SPECULAR (COLORED)
PR	-	PRISMATIC
FDR	-	FULL DEPTH REFLECTOR
DS	-	DIFFUSE (SEMI SPECULAR) SILVER
LI	-	LOW IRIDESCENT
IR	-	IRIDESCENT
SL	-	SILVER
GL	-	GOLD
CA	-	CLEAR ALZAK

NOTES

GENERAL NOTES

1. PROVIDE UNIT PRICES AND FIXTURE BRAND SELECTED FOR ADD/DELETE CHANGES FOR EACH FIXTURE TYPES SHOWN WITHIN 48 BUSINESS HOURS OF THE BID DATE. FAILURE TO COMPLY WITH THIS REQUIREMENT MAY DISQUALIFY THE PRODUCTS AND EMPOWER THE ENGINEER TO DETERMINE FAIR VALUE FOR FIXTURE AND INSTALLATION CHANGES, WITHOUT FURTHER INPUT FROM THE CONTRACTOR OR INSTALLER.
2. CONTRACTOR ALLOWANCE PRICES ARE ACCURATE WHEN THIS JOB WAS SPECIFIED, CONTRACTOR AND ELECTRICAL DISTRIBUTOR SHALL VERIFY THIS ALLOWANCE AND REPORT ANY PROBLEMS TO THE ENGINEER BEFORE THE BID. ALLOWANCE PRICE MAY OR MAY NOT INCLUDE LAMP(S) OR FREIGHT AS NOTED, AND DO NOT INCLUDE ANY TAXES.
3. SUBSTITUTIONS AND/OR EQUAL FIXTURES MUST RECEIVE APPROVAL PRIOR TO BIDDING, THEY MUST BE SUBMITTED TO THE ENGINEER NO LESS THAN 2 WEEKS PRIOR TO BID OPENING.
4. SAMPLES MUST BE PROVIDED FOR ANY AND ALL FIXTURES UPON A/E REQUEST PRIOR TO RELEASING FIXTURES.
5. ALL FIXTURES SHALL BE LISTED AND APPROVED FOR THEIR INTENDED USE AND LOCATION.
6. VERIFY THE PROPER MOUNTING KITS OR ACCESSORIES TO FACILITATE INSTALLATION AS SHOWN AT EACH LOCATION ON THE DRAWINGS.
7. COMPLY WITH THE "INTERIOR LIGHTING" SECTION OF THE SPECIFICATIONS.
8. REFER TO SPECIFICATIONS FOR IMPORTANT TECHNICAL REQUIREMENTS FOR LIGHTING FIXTURES, DRIVERS, AND LAMPS.
9. ALL LIGHT FIXTURES TO BE EITHER "DLC" OR "LIGHTING FACTS" LISTED OR TO BE APPROVED BY ARCHITECT/ENGINEER AND OWNER.

ID	DESCRIPTION	COLOR TEMP	VOLTAGE	WATTS	FINISH	FIXTURE LUMENS	MANUFACTURER (CATALOG SERIES) OPTION 1	OPTION 2	OPTION 3
(CP-1)	CANOPY LUMINAIR	4000K	120/277	27	MATCH CEILING	3500	LITHONIA (CNY LED P0-40K)	OR APPROVED EQUAL	
(DX-1)	LED DOWNLIGHT, 0-10V DIMMABLE, SELF FLANG; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP AS INDICATED ON DRAWINGS. MAXIMUM RECESS DEPTH 7"	3000K	120/277	10	WHITE	1500	LITHONIA (LDN6 30/10 LO6WR MVOLT GZ10)		
(DX-2)	ILLUMINATION CYLINDER PENDANT; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP AS INDICATED ON DRAWINGS.	3000K	120/277	18	WHITE	1500	LITHONIA (LDN4CYL 30/15 LO4WR MVOLT GZ10)		
(DX-3)	LED LAMP, TYPE A19, 3000K, 1575 LUMENS	3000K	120/277	0		1575			
(EX-1)	COMBO EMERGENCY DIE-CAST ALUMINUM LED EXIT SIGN, WITH 2 LED LAMPS, SINGLE FACE, RED LETTERS, BLACK BACKGROUND BRUSHED ALUMINUM FINISH, NICKEL-CDMIUM BATTERY, CEILING/BACK MOUNTING		120/277	26	BLACK	0	LITHONIA (LHQM-LED-B-R-M6)		
(GS-2A)	2x2 LED RECESSED LENSED TROFFER, 0.125" THICK PATTERN #12 ACRYLIC LENS, FLUSH STEEL DOOR WITH MITERED CORNERS; MAXIMUM 3-1/4" FIXTURE DEPTH; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP AS INDICATED ON DRAWINGS.	3000K	120/277	28	MATCH CEILING	620	LITHONIA (CPANL 2X2 24/33/44 LM 35K M2)		
(GS-2B)	2x2 LED RECESSED INDIRECT FIXTURE, BI-DIRECTIONAL DISTRIBUTION, MAXIMUM 3-1/4" FIXTURE DEPTH; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP AS INDICATED ON DRAWINGS.	3500K	120/277	39	MATCH CEILING	620	FOCAL POINT FEQL-22-B-LL3-L35-120-G-WH		
(GS-4A)	2x4 LED RECESSED LENSED TROFFER, 0.125" THICK PATTERN #12 ACRYLIC LENS, FLUSH STEEL DOOR WITH MITERED CORNERS; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP AS INDICATED ON DRAWINGS; MAXIMUM 3-1/4" FIXTURE DEPTH	3500K	120/277	45	MATCH CEILING	620	LITHONIA (CPANL 2X4 40/50/60 LM 35K M2)		
(GS-4B)	2x4 LED RECESSED INDIRECT FIXTURE, BI-DIRECTIONAL DISTRIBUTION, MAXIMUM 3-1/4" FIXTURE DEPTH; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP AS INDICATED ON DRAWINGS.	3500K	120/277	52	MATCH CEILING	620	FOCAL POINT FEQL-24-B-LL3-L35-120-G-WH		
(OC-32)	TRAPEZOID EXTERIOR WALL PACK; TYPE III OPTICS; B1-U0-G1; PROVIDE WITH UL 924 LISTED EMERGENCY BATTERY BACKUP	4000K	120/277	20	TBD	2115	LITHONIA (DSXW1 SERIES)		
(SA-2)	LED STRIP, VAPOR TIGHT; COORDINATE WITH WALK-IN INSTALLER. SCBA	3500K	120/277	41		5000	LITHONIA (CSVT L48 5000LM MVOLT 35K 80CRI SCBA)	OR APPROVED EQUAL	
(SL-1)	LED FESTOON LIGHTING, 12" LAMP SPACING, CLEAR GLOBE, BLACK CABLE; PROVIDE WITH G25 BULBS	2700K		216	BLACK	300	TARGETTI DURACLED CABLE LIGHT (DLD-CL-MD-12-BK-G25)		
(TH-7)	LED TRACK HEAD, ELV DIMMING; WIDE FLOOD OPTICS, 0-10V DIMMING	3000K	120/277	15	WHITE	0	JUNO (T381L-30K-80CRI-PDIM-FL-WH)	HALO L65X-MB-LC901CB120	CONTECH LT-X-B / LA-23-RN-B / REG1-B
(TX-1)	ROUND 2-DIRECTIONAL WALL MOUNT LED FIXTURE; IP64 RATED;	3500K	120/277	45	BLACK	1500	LITON (WD2340-B-L15-BD45-BUWW-UE-DUN-T35		
(TX-A)	10" DIAMETER METAL PENDANT, PROVIDE WITH 12 WATT CLEAR BULB		120	12	YELLOW	0	CDS LIGHTING (DODSON-B-YW-BLANK-USV)		
(TX-D)	18" DIAMETER PEDANT LAMP, PROVIDE WITH 60 WATT CLEAR BULB		120	60	NATURAL	0	KOUBOO (WICKER BALL PENDANT LAMP)		
(TX-E)	11.5" DIAMETER PENDANT LAMP, PROVIDE WITH 60 WATT CLEAR BULB		120	60	NATURAL	0	KOUBOO (WICKER POD PENDANT LAMP)		
(TX-F)	18" DIAMETER PENDANT LAMP, PROVIDE WITH 60 WATT CLEAR BULB		120	60	NATURAL	0	KOUBOO (WICKER PEAR-SHAPED PENDANT LAMP)		
(WP-1)	12" DIAMETER ALUMINUM DECORATIVE BARN LIGHT, PROVIDE WITH 75 WATT BULB		120	75	BLACK	0	GENERATION LIGHTING (8637401-12: MEDIUM ONE LIGHT OUTDOOR WALL LANTERN)		
(ZX1)	MODERN STYLE, LED POLE LIGHT, CUTOFF SINGLE HEAD	4000K	120/277	125	SCBA	14182	LITHONIA (DSXO-P4-40K-BLC)	BEACON (VP-L)	COOPER LIGHTING (GALLEON LED)
(ZX5)	MODERN STYLE, LED POLE LIGHT, CUTOFF SINGLE HEAD	4000K	120/277	125	SCBA	14182	LITHONIA (DSX1-P4-40K-T4M)	BEACON (VP-L)	COOPER LIGHTING (GALLEON LED)

2

COMcheck Software Version 4.1.5.2

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Mobettahs Lee's Summit, MO
Project Type: New Construction

Construction Site:
520 NW Chipman Rd
Lee's Summit, MO 64086

Owner/Agent:
BABCOCK DESIGN
52 EXCHANGE PLACE
SALT LAKE CITY, UT 84111
801.531.1144
babcockdesign.com

Designer/Contractor:
Michael Fackrell
Spectrum Engineers
324 S State Street
Salt Lake City, UT 84111
801.328.5151

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Reduced Lighting Power, 1.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Dining: Family	2750	0.70	1930
		Total Allowed Watts =	1931

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Dining: Family				
LED 1: (DX-1): DOWNLIGHT: LED A Lamp 2.5W:	1	8	10	83
LED 2: (DX-2): PENDANT DOWNLIGHT: LED A Lamp 2.5W:	1	36	18	630
LED 3: (DX-3): HOOD DOWNLIGHT: LED A Lamp 9W:	1	14	10	140
LED 4: (GS-4A): 2X4 TROFFER: LED Panel 19W:	1	3	45	135
LED 5: (GS-2B): 2X2 TROFFER: LED Panel 19W:	1	2	39	78
LED 6: (GS-4B): 2X4 TROFFER: LED Panel 19W:	1	8	52	416
LED 7: (GS-2A): 2x2 TROFFER: LED Panel 19W:	1	2	45	90
Track lighting 1: (TH-7): TRACK LIGHTING: Wattage based on low-voltage transformer capacity	0	0	30	30
LED 8: (TX-A): METAL PENDANT: LED A Lamp 12W:	1	6	12	72
LED 9: (TX-D): PENDANT LAMP: LED A Lamp 12W:	1	4	10	40
LED 10: (TX-E): PENDANT LAMP: LED A Lamp 12W:	1	2	10	20
LED 11: (TX-F): PENDANT LAMP: LED A Lamp 12W:	1	2	10	20
LED 12: (WS-1): PENDANT LAMP: LED A Lamp 12W:	1	2	12	25
LED 13: (SL-1): FESTOONR LIGHTING: Other:	1	3	36	108
		Total Proposed Watts =		1667

Interior Lighting PASSES: Design 2% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.2 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MICHAEL FACKRELL - PROJECT MANAGER — Name - Title
Signature
01/24/2022 — Date

COMcheck Software Version 4.1.5.2

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: Mobettahs Lee's Summit, MO
Project Type: New Construction
Exterior Lighting Zone 2 (Residential mixed use area (LZ2))

Construction Site:
520 NW Chipman Rd
Lee's Summit, MO 64086

Owner/Agent:
BABCOCK DESIGN
52 EXCHANGE PLACE
SALT LAKE CITY, UT 84111
801.531.1144
babcockdesign.com

Designer/Contractor:
Michael Fackrell
Spectrum Engineers
324 S State Street
Salt Lake City, UT 84111
801.328.5151

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Parking area	23000 ft2	0.04	Yes	920
			Total Tradable Watts (a) =	920
			Total Allowed Watts =	920
			Total Allowed Supplemental Watts (b) =	400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Parking area (23000 ft2), Tradable Wattage				
LED 1: (TX-1): ROUND 2-DIRECTIONAL WALL MOUNT: Other:	1	8	45	360
LED 2: (CP-1): CANOPY LUMINAIRE: Other:	1	3	27	81
LED 3: (ZX1): DSXO LED P1 40K BLC MVOLT: Other:	1	6	125	750
LED 4: (ZX5): DSXO LED P1 40K T4M MVOLT: Other:	1	1	125	125
			Total Tradable Proposed Watts =	1316

Exterior Lighting PASSES: Design 0.3% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.2 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

MICHAEL FACKRELL - PROJECT MANAGER — Name - Title
Signature
01/24/2022 — Date

RELAY PANEL: R1

(RELAY PANEL TO HAVE INTERNET BASE REMOTE CAPABILITY WITH A SUPPORTED WEB BASE CONTROL INTERFACE WITH ASSOCIATED ANDROID & APPLE APPLICATIONS)

LOCATION: UTILITY ROOM

CONTROL SCHEDULE

UL 1008 RELAY PANEL

RELAY#	DESCRIPTION	LOCATION	BRANCH CIRCUIT	LOAD (WATTS)	CNTL SWITCH	OCC SENSOR	TIME CLOCK GROUP	PHOTOCELL
1	SERVICE AREA	KITCHEN	P1-30	700	CS1		2B	
2	MOUNTED BUILDING LIGHTING	EXTERIOR BUILDING	P1-38	750			1	
3	OPEN / CLOSE SIGN	DINING ROOM	P1-23	1400			1	
4	OPEN / CLOSE SIGN	DINING ROOM	P1-24	1400			1	
5	EF-4	ROOF (SERVES RESTROOMS)	P1-12	100			1	
6	BUILDING SIGNAGE	EXTERIOR	P1-14	500			3	
7	SITE LIGHTING	EXTERIOR	P1-41	1400			3	
8	DINING LIGHTING ZONES	DINING ROOOM AREA	P1-31	450	CS1		2B	
(a)	DINING	DINING ROOOM AREA	P1-31	400	CS1		2B	
(b)	DINING EXHIBITS	DINING ROOOM AREA	P1-31	20	CS1		2B	
(c)	DINING ROOM CANOPY	DINING ROOOM AREA	P1-31	30	CS1		2B	

NOTES: 1. TIME CLOCK GROUPS -
1 - TIME CLOCK OR MANUAL ON, TIME CLOCK OFF (Mon-Sat): ON 10:30am/OFF 9:00pm, (Sunday): OFF
2 - MANUAL ON, TIME CLOCK OFF (Everyday): MANUAL ON (AUTO ON Disabled)/OFF 10:00pm; PHOTOCELL DIMMABLE
2B - MANUAL ON, TIME CLOCK OFF (Everyday): MANUAL ON (AUTO ON Disabled)/OFF 10:00pm
3 - TIE TO BUILDING SHELL CONTROL PANEL, IF ONE DOESN'T EXIST: EVERY DAY ON AT 15 MIN PRIOR TO SUNSET, OFF AT 15 MIN PRIOR TO SUNRISE.
4 - PHOTOCELL ON/PHOTOCELL OFF

2. TIME CLOCK SETTINGS SHALL BE VERIFIED BY OWNER PRIOR TO COMMISSIONING, PROGRAMMING MUST BE COMPLETED BY A TECHNICIAN APPROVED BY THE MANUFACTURER, ELECTRICIAN IS RESPONSIBLE FOR SCHEDULING ON-SITE MEETING.
3. REFER TO DRAWINGS FOR LOCATIONS AND QUANTITIES OF MASTER SWITCHES.
4. PROVIDE DIMMING CARDS FOR DIMMABLE CIRCUITS

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sheet information

revisions: 1

num.	description	date
1	IFP_ADD-01	03-11-22
2	REVISION 02	04.06.22

date:	1-23-2022
project number:	MO-53LEE
project status:	ISSUED FOR PERMIT

original drawing is 24" x 36"
current as of: 4/18/2022 3:35:02 PM

stamp:

stamp:

sheet number:

MOBETTAHS (TI) for:
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SAVORY MANAGEMENT

sheet title:
LIGHTING FIXTURE SCHEDULE

sheet number:
EL601