A TENANT IMPROVEMENT IN AN EXISTING BUILDING.

FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

RESPONSIBILITY SCHEDULE

NOTE: THE DIVISION SYSTEM OF THE RESPONSIBILITY SCHEDULE DOES NOT CONTROL THE DIVISION OF WORK AMONG TRADES NOR THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE. THE G.C. IS RESPONSIBLE FOR ALL WORK UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS.

NOTE: REFER TO SHEET A0.1 FOR LANDLORD'S SCOPE OF WORK

ITEM	SUPPLIED BY EQUIP. VENDOR	INSTALLED BY EQUIP. VENDOR	SUPPLIED BY SIGN/GRAPHICS VENDOR	INSTALLED BY SIGN/GRAPHICS VENDOR	SUPPLIED BY G.C.	INSTALLED BY G.C.
DIVISION 06 - WOOD & PLASTICS						
STRUCTURAL FRAMING, MISC. BLOCKING					●	●
FINISH CARPENTRY NOT INCLUDING MILLWORK					●	●
CUSTOM MILLWORK (U.N.O.)	●	●				
MILLWORK: ELECTRICAL & BLOCKING REQUIREMENTS					●	●
SHELVING (MILLWORK)	●	●				
DIVISION 07 - THERMAL & MOISTURE PROTECTION						
INSULATION: BATT, SOUND BATT, & E.I.F.S.					●	●
DIVISION 08 - DOORS & WINDOWS						
WOOD DOORS/ WINDOWS					●	●
ALUMINUM DOORS/ WINDOWS					●	●
DIVISION 09 - FINISHES						
GYPSUM BOARD, CEILING, WALLS, ETC, AND REQUIRED FRAMING AND BLOCKING					●	●
DIVISION 10 - SPECIALTIES						
SIGNS (U.N.O.)			●	●		
GRAPHICS (P.O.S.)			●			●
DIVISION 11 - EQUIPMENT						
KITCHEN EQUIPMENT	●	●				
METAL SHELVING (WALL MTD.)	●	●				
DIVISION 12 - FURNISHINGS	●					●
DIVISION 15 - MECHANICAL						
HVAC WORK					●	●
PLUMBING WORK					●	●
FIRE SPRINKLER WORK					●	●
DIVISION 16 - ELECTRICAL						
DATA & PHONE CONDUIT, BOX, AND PULL STRING					●	●
DATA & PHONE CABLING AND HOOKUP					●	●
LIGHT FIXTURES (WITH LAMPS)					●	●
EXIT LIGHTS, EMERGENCY LIGHTS, ETC.					●	●
SIGNS (ELECTRICAL REQUIREMENTS)					●	●

THOMAS F. TEDROW, ARCHITECT OF RECORD, IS NOT RESPONSIBLE FOR INTERPRETING THE INTENT OF THE CONSTRUCTION DOCUMENTS, INCLUDING MAKING MODIFICATIONS AS MAY BE NECESSARY DURING THE CONSTRUCTION PHASE. THE ARCHITECT OF RECORD IS NO LONGER LIABLE FOR WORK WHERE CHANGES TO THESE DOCUMENTS HAVE BEEN MADE.

PROJECT/CODE SUMMARY

CODE DATA:
2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL FUEL GAS CODE
2018 INTERNATIONAL FIRE CODE
2017 NATIONAL ELECTRICAL CODE
ICC/ANSI A117.1-2009, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

PROJECT SUMMARY DATA:
OCCUPANCY: A-2 ASSEMBLY

CONSTRUCTION TYPE: TYPE II-B, SPRINKLERED (BUILDING IS PROTECTED WITH A FIRE ALARM SYSTEM - NFPA 70 & NFPA 72)

EGRESS DATA:
TOTAL FLOOR AREA: 3100 SQ. FT

OCCUPANT LOAD :
SEATING (1314 SQ. FT. TOTAL)
LESS CONCENTRATED W/O FIXED SEATING: 1200 SQ. FT. / 15 = 80
BOOTH/BENCH SEATING: 48 LINEAR FEET / 2 = 24
OUTDOOR SEATING = 28

KITCHEN/PRODUCTION: 1185 SQ. FT. / 100 = 12
COOLER/FREEZER: 201 SQ. FT. / 200 = SIMULTANEOUS USE / NON HABITABLE
OTHER (HALLS/RESTROOM): 200 SQ. FT. SIMULTANEOUS USE

TOTAL OCCUPANT LOAD: 116

EXITS:

OCCUPANT LOAD > 50
TRAVEL DISTANCE TO EXIT < 75'-0"
NUMBER OF EXITS REQUIRED: 2
NUMBER OF EXITS PROVIDED: 3

ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	GALV	GALVANIZED	RAD	RADIUS
ATC	ACOUSTIC TILE CEILING	GC	GENERAL CONTRACTOR	REF	REFERENCE
A/C	AIR CONDITIONING	GB	GRAB BAR	RET	RETURN
ALUM	ALUMINUM	GPF	GALLONS PER FLUSH	RA	RETURN AIR
		GWB	GYPSUM WALL BOARD	RM	ROOM
BD	BOARD				
BO	BOTTOM OF	HDW	HARDWARE	STR	STRUCTURAL
BLDG	BUILDING	HTG	HEATING	SU	STUB UP
		HVAC	HEATING/VENTILATION/ AIR CONDITIONING	SUP	SUPPLY
CLG	CEILING			SA	SUPPLY AIR
CM	CEILING MOUNTED	HT	HEIGHT	SCH	SCHEDULE
CT	CERAMIC TILE	HM	HOLLOW METAL	SEC	SECTION
CO	CLEAN OUT	HORZ	HORIZONTAL	SEL	SELECT
CW	COLD WATER	HW	HOT WATER	SHT	SHEET
COL	COLUMN			SIM	SIMILAR
CONC	CONCRETE	IN	INCH	SCW	SOLID CORE WOOD
CMU	CONCRETE MASONRY UNIT	ID	INDIRECT DRAIN	SPK	SPEAKER
				SPEC	SPECIFICATIONS
		JT	JOINT	SQ	SQUARE
DC	DATA/TELEPHONE CONTRACTOR			STD	STANDARD
		LAM	LAMINATE (ED)	STL	STEEL
DET	DETAIL	LV	LAVATORY	ST	STORAGE
DIM	DIMENSION				
DD	DIRECT DRAIN	MAT'L	MATERIAL	TEL	TELEPHONE
DR	DOOR	MC	MECHANICAL CONTRACTOR	THK	THICK (NESS)
DB	DRAIN BOARDS	MECH	MECHANICAL	TL	TILE
DWG	DRAWING	MFR	MANUFACTURE (ER)	TO	TOP OF
		MIN	MINIMUM	TOS	TOP OF SLAB
EA	EACH	MR	MINIMUM	TYP	TYPICAL
EC	ELECTRICAL CONTRACTOR	MISC	MIRROR MISCELLANEOUS	UNO	UNLESS NOTED OTHERWISE
ELEC	ELECTRICAL				
EL	ELEVATION	NIC	NOT IN CONTRACT	UR	URINAL
EQ	EQUAL	NTS	NOT TO SCALE		
EXG	EXISTING	NO	NUMBER	VIF	VERIFY IN FIELD
EXP	EXPANSION			VT	VENT
EXT	EXTERIOR	OC	ON CENTER	VTR	VENT THRU ROOF
		OP	OPENING	VERT	VERTICAL
FOF	FACE OF FINISH			VB	VINYL BASE
FOS	FACE OF STUDS	PC	PLUMBING CONTRACTOR		
FT	FEET	PNL	PANEL	WC	WATER CLOSET
FRP	FIBERGLASS REINFORCED PLASTIC	PR	PAIR	WP	WATERPROOF
		PLAM	PLASTIC LAMINATE	W	WIDTH
FIN	FINISH	PWD	PLYWOOD	WIN	WINDOW
FLR	FLOOR			W/	WITH
FD	FLOOR DRAIN	QTY	QUANTITY	W/O	WITHOUT
FS	FLOOR SINK			WD	WOOD
FTR	FIRE TREATED/FIRE RETARDANT				

REF. SYMBOLS

DRAWING TITLE — 1 / A100 — FLOOR PLAN — 1/4" = 1' 0"

VERTICAL ELEVATION — 1 / A100

DETAIL — 1 / A7.1

SECTION — 1 / A100

ROOM NAME/ NUMBER — MANAGER'S OFFICE 123

REVISION SYMBOL — 1

PARTITION TYPE — A

DOOR NUMBER — 100

WINDOW NUMBER DESIGNATION W/LETTER — A

KEYNOTE DESIGNATION W/NUMBER — 1

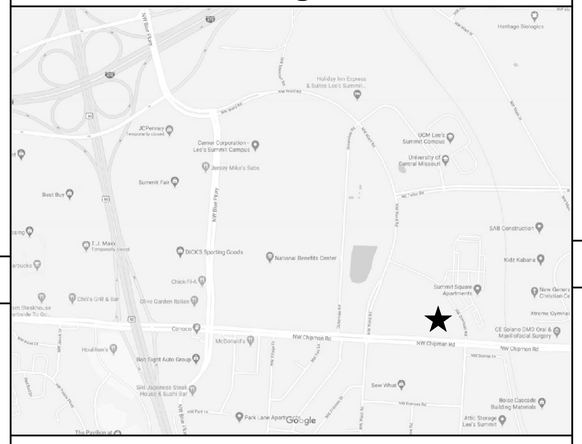
EQUIPMENT TAG — 20

MILLWORK TAG — C3

VICINITY MAP

N

★ INDICATES SITE LOCATION



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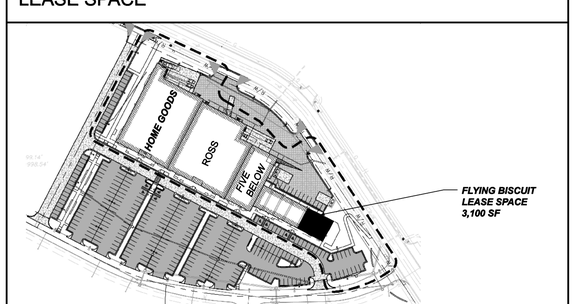

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ALL POTENTIAL BIDDERS TO CONTACT THE OWNER REGARDING THE BID PROCESS. BIDDERS WITH PLAN QUESTIONS ONLY MAY CONTACT THE ARCHITECT, PROJECT DESIGNER, OR ENGINEERS

GENERAL NOTES

1. ALL CONSTRUCTION MUST COMPLY WITH ALL GOVERNING CODES.

2. ADA ISSUES WILL COMPLY TO THE ACCESSIBILITY CODES AS ESTABLISHED BY THE STATE LOCAL CODES.

3. ALL CONTRACTOR AND SUBCONTRACTORS WILL THOROUGHLY FAMILIARIZE THEMSELVES WITH THESE CONSTRUCTION DOCUMENTS AND WILL VERIFY EXISTING SITE AND BUILDING CONDITIONS PRIOR TO SUBMITTING A BID.

4. SUBCONTRACTORS, BEFORE STARTING THEIR WORK WILL CHECK AND VERIFY THEIR PARTICULAR RELATED REQUIREMENTS FOR COMPLIANCE ALONG WITH MEASUREMENTS, SURFACE LEVELS, AND SURFACE CONDITIONS NEAR AND ABOUT THEIR WORK. IT WILL BE CONCLUDED THAT EACH BIDDER UNDERSTANDS AND KNOWS EXACTLY WHAT WILL BE REQUIRED.

5. THIS ARCHITECT AND HIS PROFESSIONAL CONSULTANTS WILL NOT HAVE CONTROL OF AND WILL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES, OR FOR SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK ON THIS PROJECT OR FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK ON THIS SITE.

6. ALL CONTRACTORS WILL PROVIDE ADEQUATE BRACING AND OR SHORING TO INSURE STRUCTURAL STABILITY OF THE BUILDING AND ALL RELATED BUILDING COMPONENTS, I.E. STRUCTURAL WALLS, INTERIOR WALL ASSEMBLIES ETC. DURING THE CONSTRUCTION PHASE OF THIS PROJECT.

7. ALL WORK WILL BE COORDINATED WITH OTHER TRADES IN ORDER TO AVOID INTERFERENCE AND PRESERVE MAXIMUM HEADROOM AND AVOID OMISSIONS. EACH CONTRACTOR WILL INCLUDE ALL MISCELLANEOUS ITEMS REQUIRED BY CODE AND NEEDED TO COMPLETE THIS WORK.

8. ALL MATERIALS USED WILL BE NEW AND BEAR U.I. LABELS WHERE REQUIRED AND MEET APPROPRIATE N.E.M.A. STANDARDS.

9. LAYOUT ALL PARTITIONS BEFORE BEGINNING CONSTRUCTION TO PREVENT ERRORS BY DISCREPANCY, ALL DRYWALL PARTITIONS WILL BE INSTALLED AS NOTED ON THE DRAWINGS. DO NOT SCALE DRAWINGS.

10. VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO ORDERING CUTTING AND/OR INSTALLING MATERIAL, PRODUCT OR EQUIPMENT. IN THE EVENT OF ANY DISCREPANCIES, CONTACT THE ARCHITECT BEFORE PROCEDING WITH THAT WORK.

11. ALL SUBCONTRACTORS WILL PROVIDE A CERTIFICATE OF INSURANCE TO THE OWNER AND LANDLORD PRIOR TO STARTING ANY WORK ON THIS PROJECT. CERTIFICATE OF INSURANCE CANNOT BE TERMINATED OR CANCELLED WITHOUT 10 DAYS PRIOR WRITTEN NOTICE TO THE OWNER.

12. NO SUBSTITUTIONS OF ANY KIND FOR MATERIALS SPECIFIED ON THESE CONSTRUCTION DOCUMENTS IS ALLOWED. NO "EQUIVALENT" SUBSTITUTIONS WILL BE MADE, UNLESS APPROVED IN WRITING BY THE ARCHITECT AND APPROVED BY THE OWNER DUE TO THE LACK OF AVAILABILITY OF ORIGINAL.

13. EACH CONTRACTOR IS RESPONSIBLE FOR FIRST CLASS WORKMANSHIP AND WILL ASSUME ALL RESPONSIBILITY FOR THE CARE AND PROTECTION OF HIS OWN WORK AND MATERIALS FROM DAMAGE. HE WILL MAKE GOOD ANY DAMAGE TO HIS OWN OR OTHER WORK CAUSED BY HIMSELF OR WORKMEN EMPLOYED BY HIM.

14. EACH CONTRACTOR WILL ABIDE BY LOCAL AREA STANDARDS AND RELATED OSHA STANDARDS FOR THE SAFETY OF THEIR EMPLOYEES ON SITE. THIS ARCHITECT AND HIS PROFESSIONAL CONSULTANTS WILL BE HELD HARMLESS BY THE OWNER, GC AND RELATED AWARDED TRADES, ON THIS PROJECT FOR ACCIDENTS OF INJURIES CAUSED OR ACCRUED ON THIS PROPERTY DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

15. LIENS: ALL SUBCONTRACTORS AND GENERAL CONTRACTOR WILL DELIVER TO THE LANLORD A COMPLETE RELEASE OF ALL ITEMS ARISING OUT OF THIS CONTRACT AND/OR RECEIPTS IN FULL LIEU THEREOF TOWARDS THEIR PARTIAL OR FINAL PAYMENT FOR WORK IN PLACE FOR THE OWNER.

16. GENERAL CONTRACTOR TO PAY FOR ALL SCAVENGER SERVICES, AND WILL BE RESPONSIBLE FOR REMOVAL OF DEBRIS ACCUMULATED BY EACH TRADE. HOWEVER, EACH TRADE WILL KEEP THE JOB SITE CLEAN AND SAFE AT ALL TIMES, ALONG WITH A BROOM FINISH AT THE END OF EACH WORKING DAY.

17. CONSTRUCTION CLEAN-UP: AFTER ALL OTHER WORK IS COMPLETED AND JUST PRIOR TO TURNING THE SPACE OVER TO THE OWNER, THE CONSTRUCTION MANAGER WILL EMPLOY THE SERVICES OF A PROFESSIONAL CLEANING SERVICES TO CLEAN AND WASH DOWN ALL INSTALLED EQUIPMENT, SERVICE AREAS, ALONG WITH THE CLEANING OF ALL GLASS WINDOW/DOOR SURFACES PRIOR TO OCCUPANCY.

18. FIRE ALARM AND SPRINKLER DRAWINGS TO BE SUBMITTED UNDER SEPARATE SUBMITTAL BY SPRINKLER ENGINEER.

SHEET INDEX

T1.1 TITLE SHEET

ARCHITECTURAL:
A0.1 SPECIFICATIONS
A0.0 FLOOR PLAN
A1.0 LIFE SAFETY PLAN
A1.1 EQUIPMENT & FURNITURE PLAN
A1.2 EQUIPMENT SCHEDULE
A1.3 FLOOR FINISH PLAN
A1.4 REFLECTED CEILING PLAN
A2.0 RESTROOM #1 & RESTROOM #2 DETAILS
A2.1 DOOR & FINISH SCHEDULES & DETAILS
A3.0 INTERIOR ELEVATIONS
A3.1 INTERIOR ELEVATIONS
A3.2 MILLWORK DETAILS
A3.3 MILLWORK DETAILS & SECTIONS
A4.0 FIRESTOP DETAILS

MECHANICAL/PLUMBING:
MP0.1 MECHANICA-PLUMBING SPECS
M1.0 MECHANICAL FLOOR PLAN
M1.1 MECHANICAL ROOF PLAN
M2.0 MECHANICAL SCHEDULES & NOTES
M3.0 MECHANICAL DETAILS

HOOD DRAWINGS:
MH1.0 MECHANICAL HOOD PLANS
MH1.1 MECHANICAL HOOD PLANS
MH1.2 MECHANICAL HOOD PLANS
MH1.3 MECHANICAL HOOD PLANS
MH1.4 MECHANICAL HOOD PLANS
MH1.5 MECHANICAL HOOD PLANS

PLUMBING:
P1.0 WASTE AND VENT FLOOR PLAN
P1.1 DOMESTIC FLOOR PLAN
P2.0 PLUMBING DETAILS

ELECTRICAL:
E0.1 ELECTRICAL NOTES & LEGEND.
E1.0 ELECTRICAL LIGHTING PLAN
E2.0 ELECTRICAL POWER FLOOR PLAN
E2.1 KITCHEN SCHEDULE
E2.2 DATA FLOOR PLAN
E3.0 ELECTRICAL FLOOR PLAN
E4.0 SCHEDULES AND ONE-LINE

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5/15/20

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REVISIONS	DATE	DESCRIPTION
1	5/27/20	OWNER COMMENTS

PROJECT NO.: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

TITLE SHEET

T1.1

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SECTION 01005: ADMINISTRATIVE PROVISIONS

WORK OF THE CONTRACT INCLUDES THE FURNISHING OF ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, TRANSPORTATION, INSURANCE, SALES TAXES, PERMITS, LICENSES, SUPERINTENDENT AND MISCELLANEOUS SERVICES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT AS REQUIRED BY THE PLANS AND SPECIFICATIONS.

CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL FACILITIES FOR TEMPORARY LIGHT AND POWER WITHIN THE CONSTRUCTION AREA DURING THE ENTIRE BUILDING PERIOD.

ALL EXISTING AREAS TO REMAIN AND EXISTING AREAS AFFECTED BY DEMOLITION OR NEW CONSTRUCTION WORK SHOWN ON THE DRAWINGS SHALL BE PATCHED AS REQUIRED TO MATCH IMMEDIATE ADJACENT AREAS IN CONSTRUCTION, MATERIAL, FIRE RATING, FINISH AND COLOR, UNLESS OTHERWISE NOTED.

ALL WORK DONE UNDER THIS CONTRACT SHALL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND GOVERNMENT REGULATIONS HAVING JURISDICTION OVER THE WORK.

ALL MATERIALS DELIVERED TO THE JOB SITE SHALL BE PROPERLY STORED WITHIN THE LEASE SPACE PREMISES OR A LOCATION DESIGNATED BY BUILDING OWNER. DELIVERY, HANDLING AND STORAGE OF PRODUCTS SHALL BE IN A MANNER TO PREVENT DAMAGE, DETERIORATION, LOSS OR THEFT.

CONTRACTOR SHALL MAINTAIN SITE IN A STATE OF CLEANLINESS THROUGHOUT CONSTRUCTION PERIOD, PROVIDING ADEQUATE TEMPORARY STORAGE FOR WASTE MATERIAL WITHIN THE LEASE SPACE PREMISES OR A LOCATION DESIGNATED BY BUILDING OWNER, OBSERVING REQUIREMENTS FOR SAFETY AND FIRE PROTECTION, AND REMOVAL AND LEGAL DISPOSAL OF WASTE MATERIAL AS OFTEN AS REQUIRED.

UPON SUBSTANTIAL COMPLETION, THE CONTRACTOR SHALL PROVIDE FINAL CLEANING FOR EACH AREA WHICH WILL RESULT IN A LEVEL OF CLEANLINESS GENERALLY PROVIDED BY COMMERCIAL BUILDING AS REQUIRED BY PRODUCT MANUFACTURER. CLEANING SHALL INCLUDE, BUT IS NOT LIMITED TO: GLASS, CARPET, PLASTIC LAMINATE, LIGHT FIXTURES AND REMOVAL OF LABELS (NOT REQUIRED TO BE PERMANENT BY CODE). CONTRACTOR SHALL SCHEDULE FINAL CLEANING SO OWNER MAY OCCUPY COMPLETELY CLEAN PROJECT.

PROTECT ADJACENT AREA AND SURFACES FROM DAMAGE DURING PROGRESS OF THE WORK. PARTITION OFF WORK AREA WITH BARRIER WALL FOR DURATION OF WORK PERIOD. IF PERMITTED BY RETAILER, CLEAR PLASTIC OR VISQUEEN MAY BE USED AS A BARRIER. COSTS OF REPLACEMENT AND/OR CORRECTION OF DAMAGED SURFACES SHALL BE BORNE BY THE SUBCONTRACTOR RESPONSIBLE FOR SAID DAMAGE. PROTECTION OF THE PROJECT FIXTURES AND FINISHES IS THE RESPONSIBILITY OF THE CONTRACTOR. COVER SURFACES AS NECESSARY TO PROTECT AGAINST DAMAGE.

GENERAL CONTRACTOR SHALL MAINTAIN A JOB SUPERINTEDENT ON SITE DURING ENTIRE CONSTRUCTION PHASE AND DURING ALL PERIODS OF WORK.

SECTION 06100: ROUGH AND FINISH CARPENTRY

INTERIOR BLOCKING SHALL BE CONSTRUCTION GRADE PINE, FIR OR CEDAR, STRAIGHT AND SOLID. WHERE REQUIRED BY CODE, BLOCKING SHALL BE FIRE RESISTANT TREATED AND AND BEAR THE APPROPRIATE MARKING INDICATING COMPLIANCE. BLOCKING MAY ALSO BE ROLL FORMED FROM 18 GAUGE STEEL.

PROVIDE BLOCKING BETWEEN STUDS WHEREVER FINISH MILLWORK, WALL CABINETS OR GRAPHIC PANELS OR ACCESSORIES MAY BE ATTACHED TO WALLS. BLOCKING SHALL BE SET PLUMB AND TRUE AND WITH SQUARE CORNERS.

INSTALLATION OF WOOD DOORS:
A. VERIFY THAT THE DOOR IS IN SOUND CONDITION, UNBLEMISHED, WITHOUT WARP, TWIST, BOW OR OTHER ATTRIBUTES CAUSING IT TO BE REJECTED UPON INSTALLATION.
B. TRIM WOOD DOORS AS NECESSARY TO PROVIDE A UNIFORM CLEARANCE OF 1/8 " AT JAMBS AND HEAD, AND A UNIFORM CLEARANCE AT THE THRESHOLD OR FLOOR TO PROPERLY CLEAR THE FLOOR COVERING DESCRIBED ON THE FINISH SCHEDULE.

INSTALLATION OF CASEWORK:
A. LAYOUT AND INSTALL CASEWORK ACCURATELY AND NEATLY AS DETAILED USING SKILLED WORKMEN THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS.
B. ANCHOR ALL ITEMS FIRMLY INTO POSITION.
C. COMPLETED INSTALLATION SHALL BE PLUMB AND LEVEL WITH ALL JOINTS ACCURATELY AND CLEANLY MATCHED AND TIGHT.
E. COMPLETE INSTALLATION SHALL BE ACCURATELY SCRIBED TO ADJACENT CONSTRUCTION TO AVOID GAPS AND OTHER DEFECTS.
D. UPON COMPLETION OF THE INSTALLATION, VISUALLY INSPECT EACH INSTALLED ITEM, REPAIR ALL DEFECTS SO THAT NONE ARE VISIBLE, THOROUGHLY CLEAN ALL EXPOSED AND SEMI-EXPOSED COMPONENTS FOR OPTIMUM OPERATION.

INSTALLATION OF WALL-MOUNTED ADJUSTABLE SHELVING:
A. STANDARDS: KNAPE AND VOGT #85 - 4'-0"L
B. BRACKETS: KNAPE AND VOGT #185 (SEE PLANS FOR SIZES)
C. STANDARDS TO BE ATTACHED TO PARTITIONS AT 32" O.C. MAXIMUM AND SECURED TO INTERIOR STUDS OR BLOCKING.

GROMMETS TO BE FIELD INSTALLED BY CONTRACTOR AT LOCATIONS AS SPECIFIED BY OWNER. GROMMETS TO BE AS FOLLOWS (OR EQUIVALENT): EDP SERIES, 2 1/2 " HOLES, 3" O.D., BLACK, BY DOUG MOCKETT CO., INC.

WALL PROTECTION AT DOORS TO BE AS FOLLOWS (OR EQUAL) AND INSTALLED AT LOCATIONS AS INDICATED ON DRAWINGS: WALL STOPS: HAGER #237W CONCAVE WALL STOP. DOME STOPS: HAGER #241F.

SECTION 06400: ARCHITECTURAL WOODWORK:

WOODWORK TO BE CUSTOM GRADE AS DEFINED IN THE LATEST EDITION OF THE ARCHITECTURAL WOODWORK INSTITUTE "QUALITY STANDARDS."

PARTICLEBOARD USED IN THE FABRICATION OF THE CASEWORK SHALL BE 3/4 " WHITE DENSITY TYPE 1, GRADE B, CLASS 2, MEETING ASTM D1037 SPECIFICATIONS. EXPOSED EDGES SHALL BE EDGE BANDED.

ALL EXPOSED SURFACES SHALL BE PLASTIC LAMINATE COVERED, EXCEPT THOSE SPECIFICALLY INDICATED AS EXPOSED HARDWOOD, SOLID SURFACING, ETC. ON THE DRAWINGS.

CASEWORK HARDWARE SHALL BE FURNISHED AND INSTALLED BY THE CASEWORK MANUFACTURER. HARDWARE SHALL BE AS FOLLOWS, AND EQUIVALENT SPECIFICATIONS MAY BE SUBSTITUTED.
A: DRAWER SLIDES: ACCURIDE #3832
B: FULL EXTENSION DRAWER SLIDES: ACCURIDE #4034
C: HINGES: BLUM INSERTA 125 DEGREE AND 170 DEGREE.
D: AVANTE 4" WIRE PULLS
E: CAMLOCKS: NATIONAL #8055

ARCHITECTURAL WOODWORK DELIVERED TO JOBSITE SHALL BE PROPERLY LOADED, PROTECTED AND SECURED IN TRUCK IN SUCH A MANNER AS TO PREVENT DAMAGES DURING TRANSPORT.

WOODWORK SHALL BE PROPERLY SECURED AND PROTECTED AT ALL TIMES AND CONTRACTOR SHALL HAVE DELIVERY SCHEDULED TO COINCIDE WITH INSTALLATION DATES IN ORDER TO MINIMIZE STORAGE AT SITE. CONTRACTOR TO PROVIDE STORAGE CONTAINER AT SITE.

SECTION 07920: SEALANTS AND CAULKING:

INSTALL AT ALL JOINTS BETWEEN DISSIMILAR MATERIALS.

CAULKING AT INTERIOR DRY AREAS SHALL BE LATEX CAULK.

CAULKING AT MILLWORK SHALL BE ACRYLIC LATEX CAULK TO MATCH EXACTLY THE LAMINATE COLOR.

SEALANTS AND CAULKING SHALL BE INSTALLED IN FULL ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR THE INTENDED USE AND IN SUCH A MANNER AS TO PROVIDE MOVEMENT IN 2 AXES.

AREAS TO BE CAULKED SHALL BE CLEAN AND DRY.

CAULK ALL JOINTS BETWEEN MILLWORK AND OTHER CONSTRUCTION.

SECTION 08110: HOLLOW METAL FRAMES:

HOLLOW METAL FRAMES SHALL CONFORM TO A.N.S.I. SDI 100 AND SHALL BE FABRICATED OF A366 STEEL, 16 GA. COMPLETE WITH HARDWARE REINFORCEMENT.

INSTALLATION SHALL BE IN ACCORDANCE WITH DOOR AND HARDWARE INSTITUTE PUBLICATION "THE INSTALLATION OF COMMERCIAL DOORS AND STEEL FRAMES, INSULATED STEEL DOORS IN WOOD FRAMES, AND BUILDERS HARDWARE."

SECTION 08400: ENTRANCES AND STOREFRONTS:

FRAMES: FLUSH GLAZED SYSTEM, 1 3/4 " X 4 1/2 " PROFILE. GLAZING GASKETS SHALL BE ELASTOMERIC EXTRUSIONS, COLOR TO MATCH ALUMINUM DOOR FRAMES AS SPECIFIED ON DOOR SCHEDULE.

GLASS/ALUMINUM SWINGING DOORS: NARROW STILE PREPARED FOR ATTACHMENT OF HARDWARE W/ SINGLE-ACTING OPERATION AS SHOWN. 1/4 " THICK TEMPERED GLASS, PIVOT HINGES AND LOCKSETS AS SPECIFIED ON DOOR SCHEDULE. BOTTOM RAIL SHALL BE A MINIMUM OF 12" HIGH TO MEET HANDICAP STANDARDS.

GLASS/ALUMINUM SLIDING DOORS: SLIDING OPERATION AS SCHEDULED WITH ONE FIXED PANEL, 1/4 " THICK TEMPERED GLASS, FLUSH PULLS EACH SIDE WITH HOOK BOLT LOCK AND MORTISE CYLINDER. BOTTOM RAIL SHALL BE A MINIMUM OF 10" IN HEIGHT TO MEET HANDICAP STANDARDS.

HARDWARE: MANUFACTURER'S HARDWARE AS SELECTED OR SCHEDULED. INCLUDE PUSH BARS OR HANDLES, ADJUSTABLE DOOR CLOSERS (TO MEET ADA REQUIREMENTS) AND SILENCERS.

PROVIDE BREAK METAL CORNER GUARDS WHERE FRAME ABUTTS WALLS OF GREATER WIDTH. FINISH TO MATCH ALUMINUM STOREFRONT FINISH.

CHECK ACTUAL DOOR AND WINDOW OPENINGS IN CONSTRUCTION WORK BY ACCURATE FIELD MEASUREMENTS BEFORE FABRICATION. COORDINATE FABRICATION SCHEDULE WITH CONSTRUCTION PROGRESS AS DIRECTED BY CONTRACTOR TO AVOID DELAY OF WORK.

USE ANCHORAGE DEVICES TO SECURELY ATTACH FRAME ASSEMBLY TO STRUCTURE. ALIGN PLUMB AND LEVEL, FREE OF WARP OR TWIST.

CAULKING REQUIRED IN CONJUNCTION WITH ALUMINUM AND GLASS WORK SHALL BE ACCOMPLISHED BY ALUMINUM AND GLASS INSTALLER.

SECTION 08700: FINISH HARDWARE:

HARDWARE SHALL BE THE PRODUCT OF A NATIONALLY RECOGNIZED MANUFACTURER AND AS INDICATED ON THE DRAWINGS.

ALL LOCKSETS SHALL BE ADA RATED, LEVER TYPE HARDWARE AND NOTED IN THE SCHEDULE.

RE-KEYING OF THE RETAIL SPACE SHALL BE THE RESPONSIBILITY OF THE FRANCHISEE. THE LOCKS SHALL BE PROVIDED WITH CONSTRUCTION CORES AND KEYS THROUGHOUT THE CONSTRUCTION PERIOD.

INSTALLATION SHALL BE IN COMPLIANCE WITH THE STANDARDS OF THE DOOR AND HARDWARE INSTITUTE. ALL HARDWARE SHALL OPERATE FREELY AND IN THE MANNER FOR WHICH IT WAS INTENDED.

FURNISH AND INSTALL GRAY RESILIENT SILENCERS FOR HOLLOW METAL DOOR FRAMES AT THE RATE OF THREE FOR EACH SINGLE DOOR.

SECTION 08800: GLAZING: BY OTHERS

CONFORM TO FLAT GLASS MARKETING ASSOCIATION (FGMA) "GLAZING MANUAL" FOR GLAZING INSTALLATION METHODS, EXCEPT WHERE THERE ARE MORE STRINGENT REQUIREMENTS FROM LOCAL CODE AGENCIES.

ALL GLASS UNLESS OTHERWISE NOTED SHALL BE CLEAR FLOAT GLASS.

STOREFRONT GLASS;" CLEAR

DOORS: 1/4 " CLEAR TEMPERED (LAMINATED SAFETY GLASS WHERE REQUIRED BY LOCAL CODE AUTHORITY).

STOREFRONTS WITHIN 4'-0" OF DOORS OR 24" OF FLOOR: 1/4 " CLEAR TEMPERED.

SECTION 09250: GYPSUM WALLBOARD:

METAL STUDS: PROVIDE CHANNEL TYPE STUDS AND RUNNERS, ROLL FORMED FROM 20 GAUGE STEEL, MADE FOR SCREW ATTACHMENT OF GYPSUM WALLBOARD. SIZE AS INDICATED ON SCHEDULES.

GYPSUM WALLBOARDS: USE 5/8" THICK, TYPE "X", REGULAR TAPERED EDGE, 48" WIDE, LENGTHS AS REQUIRED, COMPLYING WITH ASTM C36 SPECIFICATIONS.

FASTENERS: USE SCREW TYPE AS RECOMMENDED BY FRAMING AND WALLBOARD MANUFACTURERS COMPLYING WITH ASTM C636.

METAL CASING BEAD: USG 200-A, 200-B, OR 200-C AS REQ. (OR EQUAL).

METAL CORNER BEAD: USG DUR-A-BEAD #800 (OR EQUAL).

ADHESIVES: USG DURABOND 210 OR 90 (OR EQUAL).

JOINT SYSTEM MATERIALS: COMPLY WITH ASTM C475 SPECIFICATIONS. MIX AND APPLY AS RECOMMENDED BY THE MANUFACTURER.

SECTION 09510: SUSPENDED ACOUSTICAL CEILINGS

INSTALL SUSPENSION SYSTEM ACCORDING TO ASTM C636 "RECOMMENDED PRACTICE FOR INSTALLATION OF METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND LAY-IN PANELS.

INSTALL MAIN RUNNERS 48" ON CENTER, SUSPENDED BY NOT LESS THAN #10 GAUGE STEEL WIRE SPACED NO MORE THAN 36" O.C. FOR 24" GRID, OR AT EACH CORNER FOR CONCENTRATED LOADS, ALONG THE MAIN RUNNERS. WRAP WIRE HANGERS TIGHTLY AT LEAST THREE FULL TIMES.

DO NOT HANG SUSPENDED CEILING HANGERS FROM DUCTS, MECHANICAL ITEMS, CONDUITS OR PIPES, AND/OR THE ROOF. HANG WIRES FREE OF ALL SUCH ITEMS. HANG FROM STRUCTURAL MEMBERS ONLY.

INSTALL CROSS TEES TO OBTAIN A 24" X 24" EXPOSED GRID IN MAIN AREAS, AS INDICATED ON THE DRAWINGS.

INSTALL ACOUSTICAL PANELS ACORDING TO MANUFACTURER'S RECOMMENDATIONS.

INSTALLATION SHALL BE TRUE AND PLUMB WITHIN," WITHIN 10'-0".

AFTER COMPLETION OF INSTALLATION, REMOVE AND REPLACE DAMAGED OR OTHERWISE IMPROPERLY INSTALLED PANELS AND COMPONENTS.

GRID SHALL BE STANDARD STYLE, BAKED ENAMEL FINISH AND MEETING REQUIREMENTS OF A.S.T.M. C635.

SECTION 09660: RESILIENT TILE FLOORING AND BASE

REMOVE GREASE, DIRT, AND OTHER SUBSTANCES FROM SUBSTRATES. INSPECT SUBSTRATES FOR HOLES, CRACKS AND SMOOTHNESS. DO NOT PROCEED WITH LAYING OF TILE UNTIL UNTIL SUBSTRATES ARE SMOOTH AND HOLES AND CRACKS ARE FILLED.

INSTALL TILE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED SPECIFICATIONS, USING ONLY EXPERIENCED WORKMEN. LAY FLOORING WITH JOINTS TIGHT AND IN TRUE ALIGNMENT, USING MANUFACTURER'S RECOMMENDED ADHESIVES AND PROCEDURES.

INSTALL RUBBER OR VINYL BASE STRAIGHT AND TRUE AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, USING RECOMMENDED ADHESIVES AND PROCEDURES.

THOROUGHLY CLEAN ALL FINISH FLOORING USING A NEUTRAL SOAP OR CLEANER ATER THE FLOORING HAS BEEN BONDED TO SUBSTRATE.

PRIOR TO SCHEDULED COMPLETION DATE APPLY TWO COATS OF WAX, RECOMMENDED BY THE MANUFACTURER, TO ALL VINYL COMPOSITION TILE. BUFF THE LAST COAT AND LEAVE THE FLOOR CLEAR AND CLEAN.

INSTALL REDUCER OR TRANSITION STRIPS WHERE TILE ENDS AGAINST CONCRETE OR OTHER FINISH FLOORING MATERIALS OF DIFFERING HEIGHT.

SECTION 09680: CARPETING

INSTALLATION ADHESIVE: USE WATER RESISTANT, NON-STAINING TYPE AS RECOMMENDED BY CARPET MANUFACTURER WHICH COMPLIES WITH THE FLAMMABILITY REQUIREMENTS FOR INSTALLED CARPET.

EXAMINE SUBSTRATE FOR MOISTURE CONTENT AND OTHER CONDITIONS UNDER WHICH CARPETING IS TO BE INSTALLED. REPAIR MINOR HOLES, CRACKS, DEPRESSIONS OR ROUGH AREAS USING MATERIAL RECOMMENDED BY CARPET OR ADHESIVE MANUFACTURER.

THE FLOOR MUST BE FREE OF ALL FOREIGN MATTER, GREASE, OIL, PAINT, DIRT, OLD OR NON-COMPATIBLE ADHESIVES ETC. ALL HOLES, CRACKS AND DEPRESSIONS MUST BE FILLED WITH A LATEX FLASHING COMPOUND AND ANY PROTRUSIONS MUST BE ELIMINATED.

SWEEP OR VACUUM THE FLOOR USING A SWEEPING COMPOUND WITHOUT AN OIL OR WAX BASE.

SEAL ALL CONCRETE FLOOR TO PREVENT DUSTING OR POWDERING WHICH WOULD BE DETRIMENTAL TO BONDING USING A SEALER RECOMMENDED BY ADHESIVE MANUFACTURER.

COMPLY WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS FOR DIRECTION OF CARPET; MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY OF PILE. AT DOORS, CENTER SEAMS UNDER DOORS.

EXTEND CARPET UNDER OPEN-BOTTOMED OBSTRUCTIONS AND UNDER REMOVABLE FLANGES AND FURNISHINGS.

EXPANSION JOINTS: DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CONTINUOUS CARPETING, PROVIDE FOR MOVEMENT.

FIT SECTIONS OF CARPET IN EACH SPACE PRIOR TO APPLICATION OF ADHESIVE. TRIM EDGES AND APPLY SEAMING CEMENT.

APPLY ADHESIVE UNIFORMLY TO SUBSTRATE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. BUTT CARPET EDGES TIGHTLY TOGETHER TO FORM SEAMS WITHOUT GAPS. ROLL ENTIRE CARPET AREA LIGHTLY TO ELIMINATE AIR POCKETS AND ENSURE UNIFORM BOND. REMOVE ADHESIVE PROMPTLY FROM FACE OF CARPET.

PERFORM EDGE TRIMMING AS REQUIRED.

INSTALL CARPET EDGE GUARD WHERE CARPET IS EXPOSED; ANCHOR GUARDS TO SUBSTRATE.

VACUUM CARPET USING COMMERCIAL MACHINE WITH FACE-BEATER ELEMENT. REMOVE SPOTS AND REPLACE CARPET WHERE SPOTS CANNOT BE REMOVED. REMOVE ANY PROTRUDING FACE YARN WITH SCISSORS.

SECTION 09900: PAINTING

FURNISH AND LAY DROP CLOTHS IN ALL AREAS WHERE PAINTING IS BEING DONE TO PROTECT FLOORS AND OTHER WORK FROM DAMAGE.

MAKE SURE FLOORS AND ADJACENT SURFACES AS WELL AS SURFACES TO BE PAINTED ARE CLEAN BEFORE PAINTING.

PAINT SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER AND SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE SPECIFIC USE, MATERIAL, AND CONDITION OF THE SURFACE TO BE PAINTED.

ALL GYPSUM FINISHES SHALL RECEIVE ONE COAT LATEX WALL PRIMER AND TWO COATS LATEX WALL PAINT. SATIN FINISH UNLESS OTHERWISE NOTED.

ALL WOOD AND METAL FINISHES SHALL RECEIVE ONE COAT PRIMER AND TWO COATS SEMI-GLOSS ALKYD ENAMEL.

NATURAL OR STAINED WOOD SHALL RECEIVE TWO COATS OF CLEAR POLYURETHANE.

APPLY MATERIALS UNDER ADEQUATE ILLUMINATION. APPLY MATERIALS EVENLY AND SMOOTHLY WITHOUT RUNS OR SAGS.

ALLOW SUFFICIENT DRYING TIME BETWEEN COATS AS RECOMMENDED BY THE MATERIAL MANUFACTURER.

THE MINIMUM DRY FILM THICKNESS SHALL BE AS RECOMMENDED BY THE MANUFACTURER FOR THE SPECIFIC CONDITION, BUT IN NO CASE LESS THAN 5 MILLS.

AT COMPLETION OF THE WORK, CLEAN OFF PAINT SPOTS, OIL AND STAINS FROM FLOORS, WALLS, GLASS, HARDWARE ETC.

SECTION 09950: WALLCOVERING

EXAMINE ALL SURFACES TO RECEIVE WALLCOVERING BEFORE BEGINNING WORK TO DETERMINE THAT THEY ARE SOUND, DRY, CLEAN AND READY TO RECEIVE FINAL FINISH.

FOR NEW DRYWALL CONSTRUCTION, A COAT OF MANUFACTURER'S RECOMMENDED PRIMER SHALL BE APPLIED TO THE SURFACE BEFORE APPLICATION OF WALLCOVERING, FOR EASE OF SUBSEQUENT REMOVAL.

FOLLOW MANUFACTURER'S DIRECTIONS FOR MIXING AND APPLYING ADHESIVE AND PRIMER.

MIX PASTE THOROUGHLY. APPLY PASTE ON BACK OF MATERIAL WITH BRUSH OR ROLLER IN A THIN, EVEN COAT OVER ENTIRE PANEL.

USE PANELS IN EXACT ORDER AS THEY ARE CUT FROM THE ROLL.

INSTALL PANELS ON THE HANGING SURFACE, REVERSING EVERY OTHER PANEL OF NON-MATCH PATTERNS UNLESS OTHERWISE INSTRUCTED BY MANUFACTURER.

FILL IN OVER DOORS AND WINDOWS WITH PANELS CUT IN CONSECUITVE ORDER FROM THE ROLL.

SMOOTH FABRIC TO HANGING SURFACE WITH STIFF-BRISTLED SWEEP BRUSH OR A FLEXIBLE BROAD KNIFE TO ELIMINATE BUBBLES AND ENSURE ADHESION.

VERTICAL JOINTS SHALL NOT OCCUR LESS THAN SIX INCHES FROM OUTSIDE OR INSIDE CORNERS.

WHERE APPLICABLE, INSTALL WALLCOVERING BEFORE INSTALLATION OF CASING, BASES, CABINETS ETC.

ANY VARIATION IN COLOR AND/OR PATTERN MATCH SHOULD BE IMMEDIATELY COMMUNICATED TO THE MANUFACTURER'S REPRESENTATIVE FOR HIS INSPECTION BEFORE PROCEEDING WITH FURTHER INSTALLATION.

SECTION 10400: SIGNAGE:

THE SIGN CONTRACTOR SHALL IDENTIFY AND SHALL COMPLY WITH ALL LOCAL GOVERNMENT SIGNAGE CODES, ORDINANCES, AND RESTRICTIONS, ALL STORE RESTRICTIONS, AND ALL BUILDING OR DEVELOPMENT RESTRICTIONS, AND SHALL OBTAIN ALL REQUIRED APPROVALS AND PERMITS, AND PERMISSION OF THE BUILDING OWNER.

SIGNAGE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE IBT PROJECT MANAGER ACCORDING TO THE SCHEDULE PROVIDED HIM, SHOWING LOCATION, CONSTRUCTION, ANCHORAGE, MATERIALS, AND ELECTRICAL REQUIREMENTS. FABRICATION OF SIGN SHALL NOT START WITHOUT APPROVAL.

ALL ELECTRICAL COMPONENTS SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, AND ALL APPLICABLE STATE AND LOCAL CODES AND UTILITY SUPPLIER REQUIREMENTS.

ASSEMBLIES SHALL BE SECURELY ANCHORED USING ANCHORS AND METHODS MOST APPROPRIATE TO THE SUPPORTING ELEMENTS, PLUMB, LEVEL, OR SQUARE WITH ADJACENT CONSTRUCTION.

IN NO CASE SHALL SIGN IMPOSE A STRUCTURAL LOAD IN EXCESS OF THE CALCULATED CAPACITY OF SUPPORTING ELEMENTS.

SIGNS SHALL BE WATERPROOF OR PROVIDE FOR WEEPING OF MOISTURE.

INSTALLATION SHALL BE COMPLETE AND OPERATIONAL AT TIME OF DELIVERY WITH ALL METERING, SERVICES, SWITCHES, BALLASTS, LAMPS, TRANSFORMERS AND TRIM AND ACCESSORIES NECESSARY FOR PROPER OPERATION AND APPEARANCE. ELECTRICAL SERVICE TO THE SIGNAGE WILL BE PROVIDED BY ELECTRICAL CONTRACTOR.

FOAM BACKED SIGNS SHALL BE FURNISHED WITH TAPE ON BACK AND SET WITH DABS OF SILICONE.

EXHIBIT C

Work Agreement

A. PREMISE: Suite G of Lot 2 - A one story building without basement, approximately 3,100 square feet of Premises area, with the Premises dimensions extending to the exterior faces of all walls, or to the center line of those walls separating the Premises from other premises in the building.

B. STRUCTURE:

1. Structural Frame: The building structure shall, at Landlord's option, be of steel frame, reinforced concrete or bearing wall construction. Applicable governing building codes shall apply.

2. Exterior Walls: Shall be of either of concrete or metal studs with sheathing or such other material or materials selected by Landlord in Landlord's sole discretion.

3. Roof: Shall be an EPDM/PVC membrane or built–up roof or such other materials selected by Landlord, in Landlord's sole discretion.

4. Demising Walls: Walls separating the Premises from other tenant spaces shall be constructed with metal studs at Landlord's option. Firewalls will be provided in accordance with applicable codes. Additional fire rating required as part of Tenant's use shall be installed by Tenant at Tenant's sole cost and expense.

5. Any modifications to the structure, shafts and roofs (including weight loads), and/or exterior skin shall require approval by the Landlord's architects/engineers and envelope consultants. All associated costs for reviews and inspections shall be the responsibility of the Tenant.

C. STORE FRONT:

1. Landlord shall provide the Premises storefront in accordance with the architectural theme of Landlord's master plans and the Lee Summit, Missouri zoning codes. Landlord shall provide a minimum of one (1) EA 3'0"x7'0" glass storefront door. Storefront shall be designed with a standard size aluminum storefront framing and insulated glass as required to meet local building code.

D. AWNING SYSTEM/ARCHITECTURAL ELEMENT:

1. Any awning and/or exterior architectural element provided by Tenant shall be subject to Landlord's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed, and shall be installed by Tenant at Tenant's sole cost and expense.

E. INTERIOR:

1. Landlord shall provide an approximate 18" concrete ribbon slab in the Premises. The remaining concrete slab shall be unsealed, exposed concrete which shall be placed by Tenant. Floor covering shall be furnished and installed by Tenant, at Tenant's sole cost and expense, which floor covering shall attach to the concrete slab and become and remain the property of Landlord.

2. Wall partitions, and cornices, where required, shall be entirely furnished and installed by Tenant at Tenant's sole cost and expense.

3. Rear Door: Landlord shall install one (1) 3'0" x 7'0" hollow metal rear door or other material as specified by Landlord in Landlord's sole discretion (location per Landlord's master plans) with weather-strip and standard hardware. Tenant shall paint rear door at Tenants sole cost and expense.

4. Interior height of the Premises will be a minimum of approximately twelve feet (12'0") clear measured from the underside of the steel structure to the concrete floor slab. Tenant shall be responsible at Tenant's sole cost and expense for furnishing and installing any and all required ceiling systems, lighting, and any modifications to the fire sprinkler system provided by Landlord in H(1) of this Exhibit C.

5. All painting and decorating shall be furnished and installed by Tenant and at Tenant's sole cost and expense, including painting of exposed steel structure and roof deck.

6. Tenant shall be solely responsible for all permit fees, access fees, tap fees, hookup fees and impact fees associated with Tenant's use of the Premises.

F. TOILET ROOM:

1. All toilet rooms shall be provided by Tenant at Tenant's sole cost and expense. Landlord shall provide a 4" sanitary sewer stub into the Premises (into the slab leave out for ground floor and to a location under the second level floor) per Landlord's master plans for Tenant's connection and extension into the toilet room location. Tenant shall be required to construct the number of toilet rooms dictated by the permitting authority based on Tenant's size, occupancy and intended use of the Premises.

2. Venting for bathrooms shall be constructed by Tenant at Tenant's sole cost and expense to locations specified by Landlord's master plans.

3. Tenant provided toilet rooms shall comply with all applicable ADA requirements (e.g. size, toilet room accessories, etc.)

G. PLUMBING:

1. Landlord shall stub a one and one half (1-1/2") inch domestic water line served from a minimum sized one (1") inch water meter to the interior of the Premises and provide access to one four (4") inch sanitary line for Tenant's connection to Tenant's fixtures. Landlord will provide private sub-metering for Tenant's Premises. Roughing in and installation of all Tenant's equipment shall be by Tenant at Tenant's sole cost and expense.

2. Landlord shall furnish and install a dedicated underground grease trap as required by code but in no instance greater than 1,500 gallon grease trap. Landlord shall extend a four (4") inch grease waste line from the grease trap to the Premises per Landlord's master plans. Tenant shall be responsible for providing any additional grease interceptors, grease traps or other appurtenances mandated as a result of Tenant's specific use or occupancy requirements, at Tenant's sole cost and expense.

3. Tenant shall be required at Tenant's sole cost and expense to furnish water coolers as required by the local permitting authority.

4. Landlord shall stub a gas service to the exterior wall of the Premises in a location as set forth on Landlord's master plans and Tenant shall, at Tenant's sole cost and expense, extend and connect gas service to Tenant's Premises.

H. FIRE SPRINKLER SYSTEM / FIRE EXTINGUISHERS / FIRE ALARM

1. Landlord shall furnish and install a fire sprinkler system riser in a common mechanical room and shall extend a fire sprinkler main and sprinkler system distribution to the Premises to code minimum requirements. A minimum number and spacing of sprinkler heads will be provided by the Landlord turned in the upward position as required for an exposed ceiling condition. Any modifications to the sprinkler heads or system required as a result of Tenant's construction (e.g. the installation of a ceiling, interior demising walls, etc.) shall be completed by Tenant at Tenant's expense.

2. Tenant shall furnish, install and maintain at Tenant's sole cost and expense fire extinguishers and smoke alarms in strict accordance with Landlord's insurance underwriter's requirements, local, state and national codes; and N.F.P.A. requirements and in strict accordance with any future such requirements.

3. Tenant shall furnish and install at Tenant's sole cost and expense smoke detectors, pull stations, strobes, horns, duct detectors, etc. for a fully code compliant fire alarm system. Tenant shall provide battery back-up for strobes. System shall tie into Landlord's system through a connection point furnished by Landlord. All work shall be completed by Landlord's required contractor.

I. HEATING, VENTILATING & AIR CONDITIONING:

1. Landlord shall furnish and install heating and cooling unit(s) sized to one (1) ton of HVAC per one hundred twenty-five (125) square feet of enclosed Premises area and obtain a warranty for the HVAC. Landlord will provide equipment installed on the roof per Landlord's Master Plans. Final connections of the controls, power, gas lines and start up are the responsibility of the Tenant. Upon start up, the HVAC Warranty will be assigned to the Tenant. Tenant shall furnish and install all remaining components of the HVAC system, including but not limited to ductwork, diffusers, economizers, and thermostats at Tenant's sole cost and expense.

J. ELECTRICAL:

1. Landlord shall provide 200 amp 277/480V, 3 phase service and panel inside the Premises at the back wall area. Any step-down transformer required will Tenant's responsibility to provide. Tenant is limited to a design load in accordance with NEC 220.88 or 220.56.

2. Final electrical connections to Tenant's equipment or trade fixtures shall be furnished and installed by Tenant at Tenant's sole cost and expense.

3. Landlord shall provide a one (1") inch telephone conduit with pull-string, stubbed into the Premises per Landlord's master plans. Tenant shall be responsible at Tenant's sole cost and expense for any alterations to the telephone conduit.

4. Landlord shall provide a one (1") inch CATV conduit with pull-string, stubbed into the Premises per Landlord's master plans. Tenant shall be responsible at Tenant's sole cost and expense for any alterations to the CATV conduit.

5. Lighting – All lighting fixtures, conduit and wiring shall be furnished and installed by Tenant at Tenant's sole cost and expense.

K. GAS:

One gas meter bank shall be provided. Natural gas services shall be extended by the utility company to exterior of building with Tenant's gas meter. Tenant shall make all necessary arrangements for the extension of a secondary gas services line and the installation of a meter to serve the Premises. Landlord's acceptance of all routing and details is required and said design must be accurately delineated and referenced in Tenant's Plans. Tenant's design and construction shall comply with all applicable design standards and codes.

L. SIGNAGE:

1. All exterior Tenant related signs are the responsibility of Tenant to include:

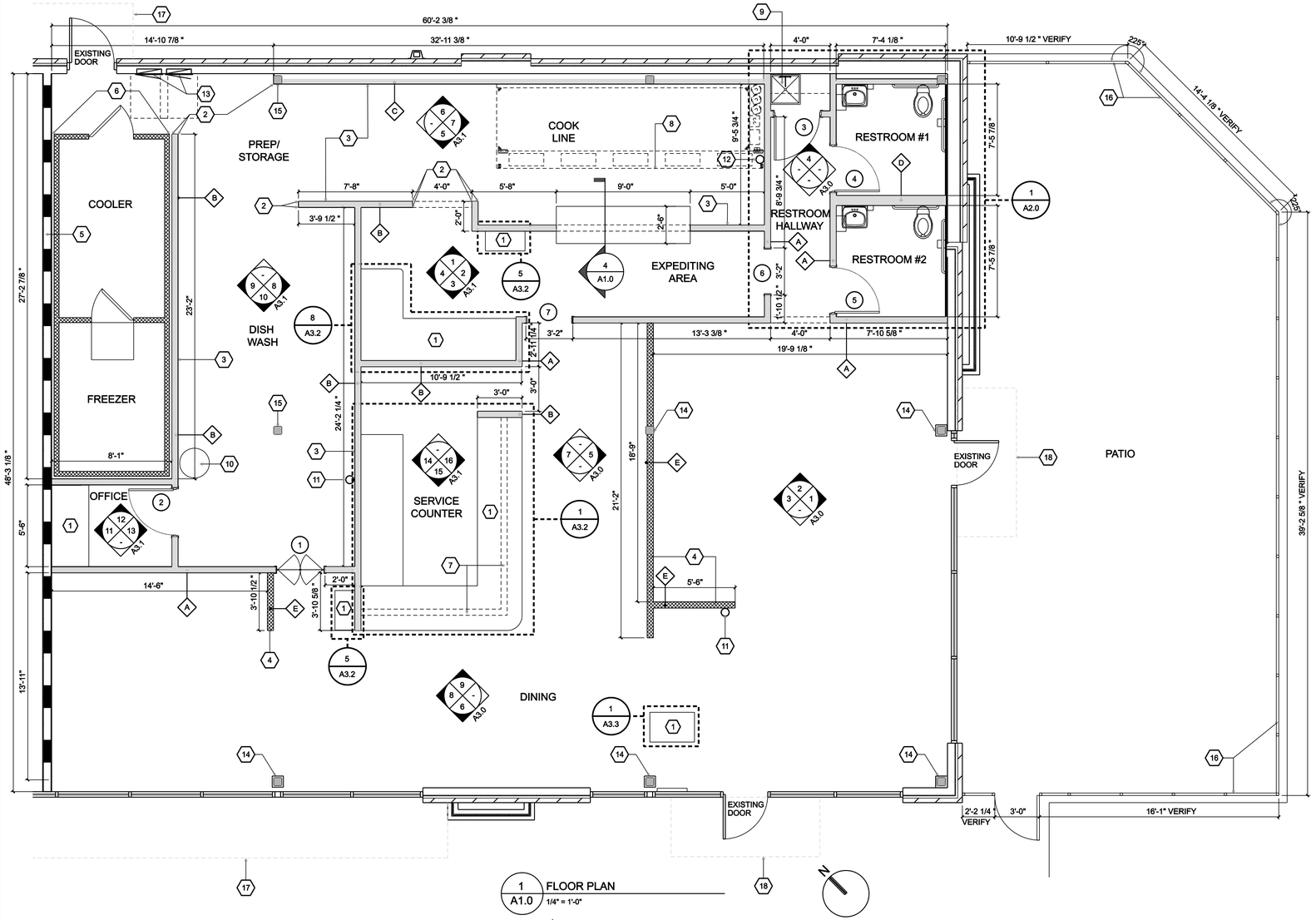
   (a) Landlord Approvals (which not be unreasonably withheld, conditioned or delayed)
   (b) Shop Drawings including attachment details
   (c) Submission to the City of Lee's Summit, Missouri to confirm compliance with applicable zoning requirements
   (d) Compliance with the Landlord's Comprehensive Sign Criteria
   (e) Permits
   (f) Fabrication & Installation costs
   (g) Structural engineering costs by the Landlord's engineer or the Tenant's engineer
   (h) Electrical wiring & conduit from the Tenant electrical panel to the exterior sign
   (i) Waterproofing required due to sign installation

2. Landlord will be responsible for building address numerals.

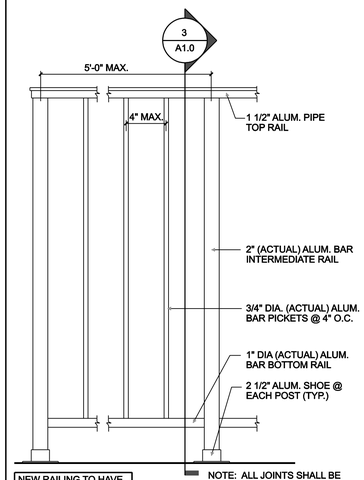
3. Tenant will be responsible for the cost of any applied graphics, permits and county approvals and to obtain Landlord approval in advance.

M. ACOUSTIC/VIBRATION REQUIREMENT:

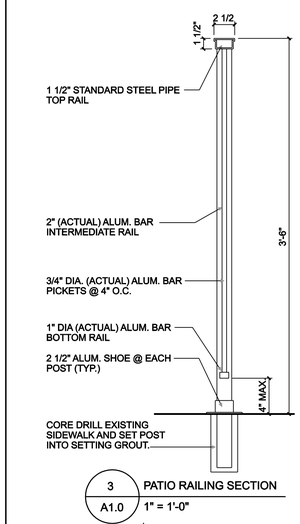
1. If there is any element of Landlord's Work which requires Tenant to provide information or a particular location as set forth herein, Tenant shall provide the same within three (3) business days after Landlord's request therefor.



1 A1.0 FLOOR PLAN 1/4" = 1'-0"



2 A1.0 PATIO RAILING ELEVATION 1" = 1'-0"



3 A1.0 PATIO RAILING SECTION 1" = 1'-0"

WALL HATCH LEGEND

- EXISTING 1-HR. RATED WALL TO REMAIN
- NEW FULL HEIGHT WALLS : 20 GA. STEEL STUDS @ 16"O.C. EXTEND 6" ABOVE HIGHEST ADJACENT CEILING & BRACE TO STRUCTURE ABOVE. SEE PLAN FOR REQ'D. DEPTHS.
- NEW HALF HEIGHT WALL RE: WALL PARTITION "E" FOR DETAILS

SHEET NOTES

A. DIMENSION LINES ARE FROM FACE OF FINISHED WALL UNLESS NOTEDOTHERWISE (U.N.O.)

B. GENERAL CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO KITCHEN EQUIPMENT INCLUDING BUT NOT LIMITED TO PLUMBING/PIPING, ELECTRICAL, GAS, DUCTING, ETC.

C. CONTRACTOR TO COORDINATE ALL HARDWARE WITH OWNER REQUIREMENTS, AND SHALL MATCH LANDLORD/DEVELOPER REQUIREMENTS WHERE POSSIBLE.

D. CONTRACTOR SHALL VERIFY THAT ALL EXISTING MATERIALS, FINISHES, FIXTURES AND EQUIPMENT SCHEDULED FOR RE-USE COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.

E. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ALL LOCAL AND STATE ADA, AND BUILDING CODE'S RESTRICTIONS AND REQUIREMENTS.

F. ALL INTERIOR PARTITIONS SHALL RECEIVE TWO COATS OF THE SCHEDULED PAINT.

G. ALL HORIZONTAL GYP. BOARD SURFACES SHALL BE PRIMED A FLAT WHITE FINISH.

H. ALL WOOD BLOCKING TO BE FIRE RETARDANT TREATED.

I. REFER TO ELEVATION SHEETS A3.0 AND A3.1 FOR FINISH SCHEDULE.

J. EXTEND WALL FINISHES TO UNDERSIDE OF DECK WHEN CEILING IS "OPEN TO STRUCTURE".

K. REFER TO REFLECTED CEILING PLAN, SHEET A1.4, FOR CEILING HEIGHT AND TYPE.

KEY NOTES

1. CASEWORK / MILLWORK.
2. 18. GA. STAINLESS STEEL CORNER GUARDS, SEE DETAIL 6/A3.3
3. INSTALL 1/2" PLYWOOD BACKING, FOR SHELVING / EQUIPMENT, FROM 3'-6" A.F.F. TO 7'-6" A.F.F. ALONG WALL
4. 4"x4" PRESSURE TREATED POSTS @24" ON CENTERLINE OF WALL, AT CORNERS, END CAPS . CORE DRILL HOLE 24" DEEP BELOW GRADE, SET AND GROUT SOLID.
5. EXISTING 1HOUR UL RATED DEMISING WALL. CONTRACTOR TO MAINTAIN INTEGRITY OF FIRE RATING AS REQUIRED. CONTRACTOR SHALL ALSO PREPARE WALL TO RECEIVE NEW FINISH.
6. MINIMUM 2" SPACE BETWEEN WALL AND PREFAB COOLER WALLS FOR AIR CIRCULATION.
7. OVERHEAD CABINETS
8. EXHAUST HOOD. REFER TO MECHANICAL DRAWINGS FOR DETAILS.
9. MOP SINK. REFER TO DETAIL 7/A3.3 & PLUMBING DRAWINGS.
10. WATER HEATER. REFER TO PLUMBING DRAWINGS FOR DETAILS.
11. FIRE EXTINGUISHERS W/ CLASS 2A-10BC RATING (BY G.C.), COORDINATE EXACT LOCATION WITH LOCAL FIRE OFFICIALS. PROVIDE PER NFPA 10. TRAVEL DISTANCE TO AN EXTINGUISHER SHALL NOT EXCEED 75'.
12. FIRE EXTINGUISHERS W/ CLASS K RATING (BY G.C.), COORDINATE EXACT LOCATION WITH LOCAL FIRE OFFICIALS.
13. ELECTRICAL PANELS. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.
14. EXISTING COLUMN. GC TO FINISH WITH(1) LAYER 5/8" GYP. BD.
15. EXISTING COLUMN
16. NEW PATIO RAILING. REFER TO DETAILS 2/A1.0 & 3/A1.0.
17. EXISTING AWNING TO REMAIN.
18. NEW AWNING (BY TENANT, CONFIRM WITH LANDLORD).

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STATE OF MISSOURI · THOMAS F. TEDROW · NUMBER A-2016014478 · ARCHITECT

5/15/20

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460 NW DONOVAN RD.
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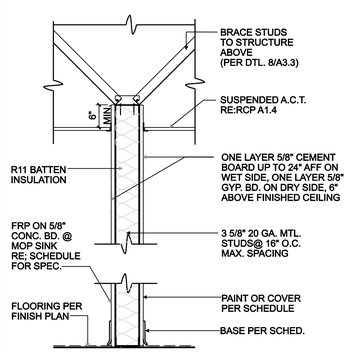
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

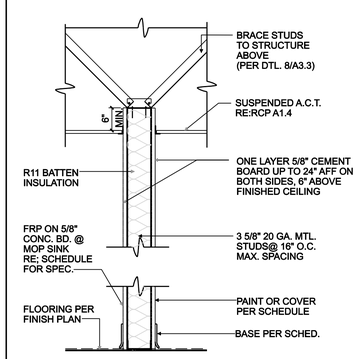
PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

FLOOR PLAN

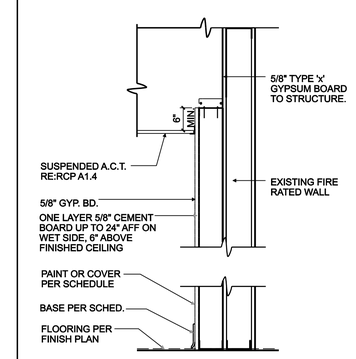
A1.0



WALL PARTITION A



WALL PARTITION B



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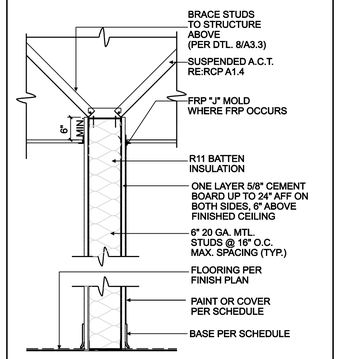
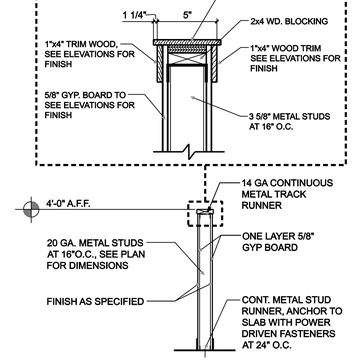
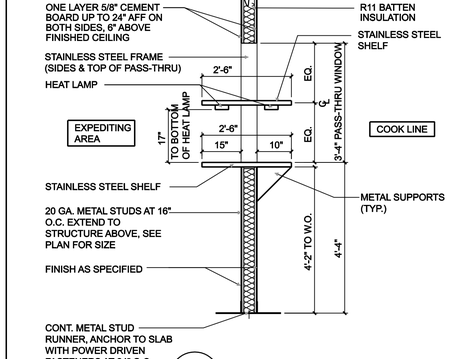


WALL PARTITION D



WALL PARTITION E



4 A1.0 PASS THRU WINDOW NTS=1'-0"

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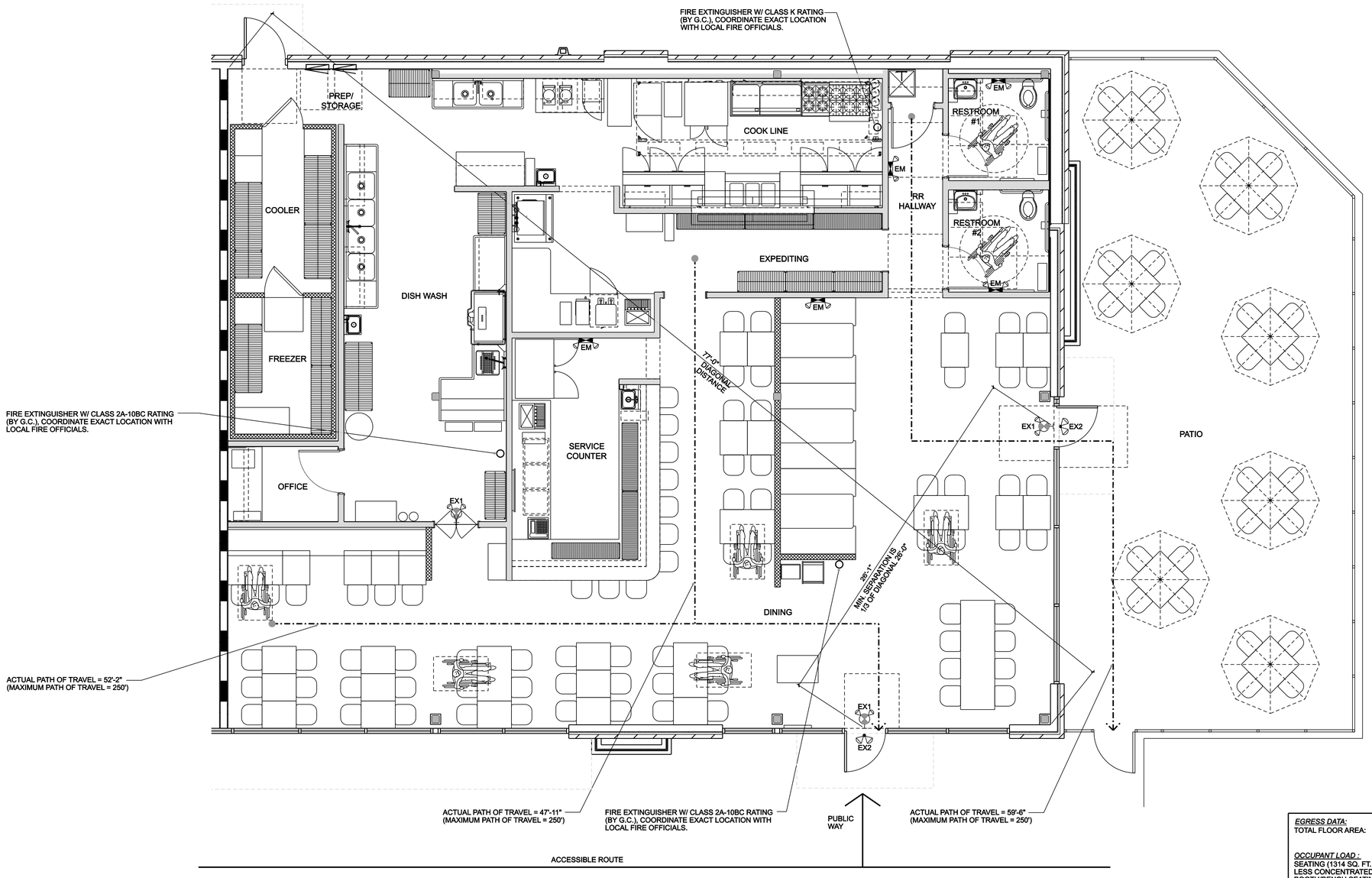

1 / A1.0a LIFE SAFETY PLAN
1/4" = 1'-0"

N

EGRESS DATA:
TOTAL FLOOR AREA: 3100 SQ. FT

OCCUPANT LOAD :
SEATING (1314 SQ. FT. TOTAL)
LESS CONCENTRATED W/O FIXED SEATING: 1200 SQ. FT. / 15 = 80
BOOTH/BENCH SEATING: 48 LINEAR FEET / 2 = 24
OUTDOOR SEATING = 28

KITCHEN/PRODUCTION: 1185 SQ. FT. / 100 = 12
COOLER/FREEZER: 201 SQ. FT. / 200 = SIMULTANEOUS USE / NON HABITABLE
OTHER (HALLS/RESTROOM): 200 SQ. FT. SIMULTANEOUS USE

TOTAL OCCUPANT LOAD: 116

EXITS:

OCCUPANT LOAD > 50
TRAVEL DISTANCE TO EXIT < 75'-0"
NUMBER OF EXITS REQUIRED: 2
NUMBER OF EXITS PROVIDED: 3

ELECTRICAL LIGHTING LEGEND

EX1 — EMERGENCY EXIT LIGHT

EM — EMERGENCY LIGHT

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STATE OF MISSOURI
THOMAS F. TEDROW
NUMBER A-2016014478
ARCHITECT
5/15/20

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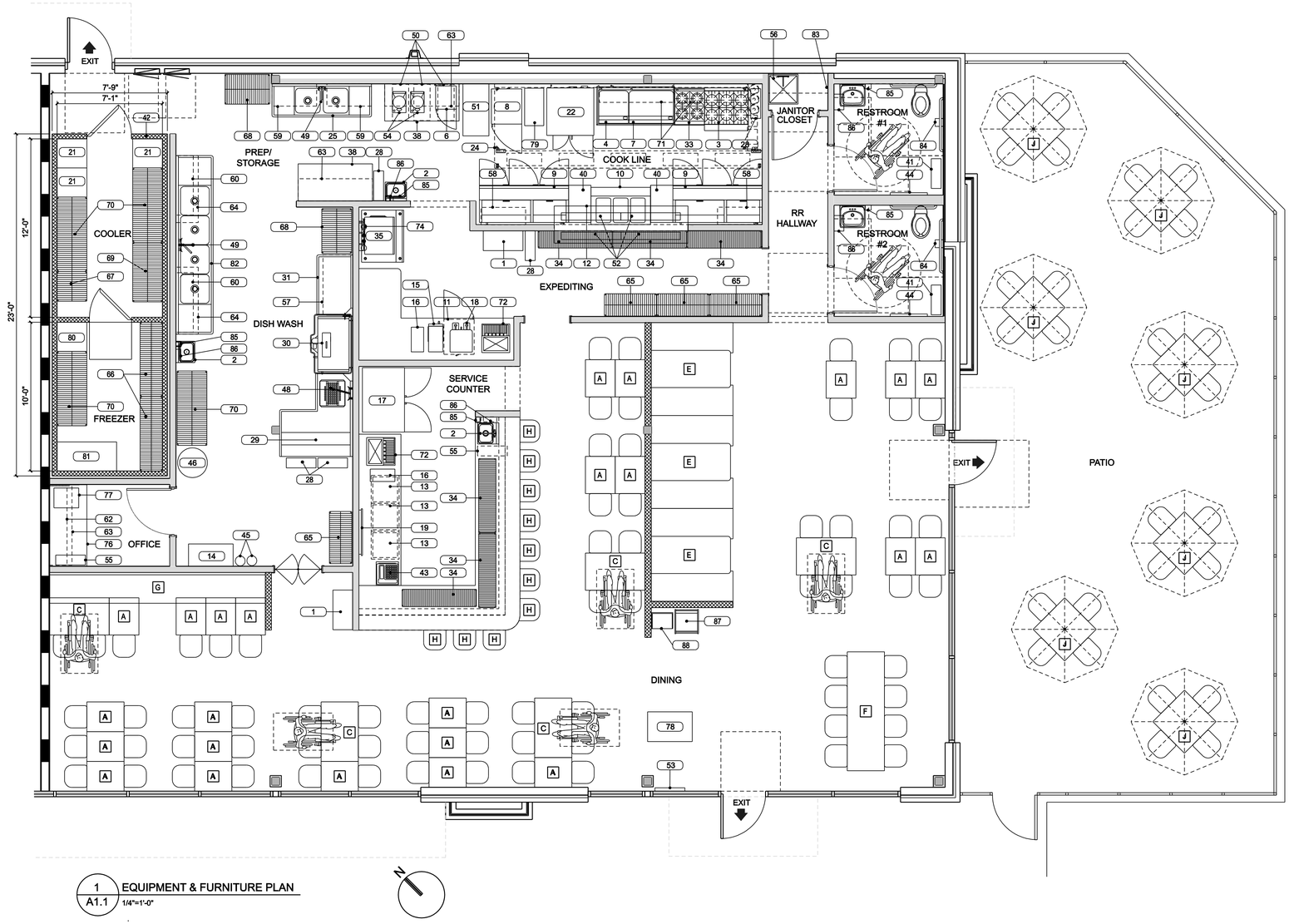
FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

DESCRIPTION	DATE	REVISIONS

PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

LIFE SAFETY PLAN

A1.0a



1 A1.1 EQUIPMENT & FURNITURE PLAN
1/4"=1'-0"

N

KITCHEN EQUIPMENT SCHEDULE

NO.	ITEM						
1	WALL MOUNTED POS SYSTEM	23	DISHWASHING MACHINE (NOT USED)	45	CO2 TANK	67	24"X24" 5 TIER EPOXY WIRE DRY STORAGE SHELVING
2	WALL MOUNTED HAND SINK WITH SPLASH GUARDS	24	18'-0" HOOD	46	WATER HEATER	68	24"X36" 5 TIER EPOXY WIRE DRY STORAGE SHELVING
3	6 EYE BURNER	25	2 COMPARTMENT SINK	47	PRE-RINSE FAUCET ASSEMBLY	69	24"X48" 5 TIER EPOXY WIRE DRY STORAGE SHELVING
4	24" FLAT TOP GRIDDLE	26	NOT USED	48	PRE-RINSE FAUCET	70	24"X60" 5 TIER EPOXY WIRE DRY STORAGE SHELVING
5	UNDER BAR REFRIGERATION (NOT USED)	27	UNDERBAR SINK	49	12" SWING NOZZLE FAUCET	71	18"X60" SOLID STAINLESS STEEL WALL SHELF
6	MICROWAVE - ON COUNTERTOP	28	TRASH CAN (ADD AREA MAGNETS FOR TRASH CANS IN DISH WASH)	50	INGREDIENT BIN	72	SODA/ICE COMBO MACHINE
7	36" FLAT TOP GRIDDLE	29	DIRTY DISH TABLE W/ UNDER SHELF & DOUBLE SIDED RACK	51	BREADING STATION	73	COKE BAR GUN (NOT USED)
8	HOT HOLDING CABINET	30	DISH MACHINE	52	48" HEAT LAMP	74	WATER FILTER
9	REFRIGERATED SALAD TOP	31	CLEAN DISH TABLE	53	WALL MOUNTED MENU HOLDER	75	38" DUNNAGE RACK
10	3 WELL HOT FOOD TABLE	32	COCKTAIL STATION (NOT USED)	54	WAFFLE IRON	76	OFFICE DESK
11	UNDERCOUNTER REFRIGERATOR	33	4 EYE BURNER	55	24"H TRASH CAN	77	FLOOR MOUNTED SAFE
12	PASS THRU WINDOW	34	14"X60" 3 TIER CHROME WIRE SHELVING	56	MOP SINK	78	HOSTESS STAND
13	RACK DOLLY	35	ICE MACHINE WITH BIN	57	24"X48" STAINLESS STEEL SLANTED DISH RACK	79	FRYER
14	BAG IN THE BOX	36	30"X42" STAINLESS STEEL WORK TABLE W/UNDERSHELF	58	14"X36" WALL MOUNTED S.S. SHELF W/ BRACKETS	80	24" DUNNAGE RACK
15	TEA BREWER	37	30"X60" STAINLESS STEEL WORK TABLE W/UNDERSHELF	59	18"X36" WALL MOUNTED S.S SHELF W/ BRACKETS	81	48" DUNNAGE RACK
16	COFFEE BREWER	38	30"X60" STAINLESS STEEL WORK TABLE	60	14"X48 WALL MOUNTED S.S. SHELF W/ BRACKETS	82	3 COMPARTMENT SINK
17	2 GLASS DOOR REACH IN REFRIGERATOR	39	GLASS RACK (NOT USED)	61	18"X48" WALL MOUNTED S.S. SHELF W/ BRACKETS	83	CHEMICAL STORAGE RACK
18	ESPRESSO MACHINE	40	30"X18" STAINLESS STEEL WORK TABLE W/UNDERSHELF	62	14"X60" WALL MOUNTED S.S. SHELF W/ BRACKETS	84	TOILET PAPER DISPENSER
19	50" TV	41	TRASH CAN W/LID	63	18"X60" WALL MOUNTED S.S. SHELF W/ BRACKETS	85	SOAP DISPENSER
20	NOT USED	42	8'-6"H WALK-IN FREEZER/COOLER	64	24"X60" WALL MOUNTED S.S. SHELF W/ BRACKETS	86	PAPER TOWEL DISPENSER
21	PAN RACK	43	COUNTER TOP POS SYSTEM	65	18"X42" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	87	HIGH CHAIRS
22	STACKED CONVECTION OVENS	44	BABY CHANGING STATION	66	18"X60" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	88	BOOSTER SEATS

RESPONSIBILITY SCHEDULE

VENDOR SUPPLIED CONTRACTOR INSTALLED	VENDOR SUPPLIED VENDOR INSTALLED	CONTRACTOR SUPPLIED CONTRACTOR INSTALLED	VENDOR SUPPLIED OWNER INSTALLED	PER OWNER	OWNER PROVIDED CONTRACTOR INSTALLED	DESCRIPTION	MAKE / MODEL
FURNITURE							
				●		FRONT SERVICE COUNTER	-
	●					BANQUETTE SEAT	-
	●					36"x36" TABLE TOP	-
	●					TABLE BASE	-
	●					CHAIR	-
	●					24"x30" TABLE TOP	-
	●					TABLE BASE	-
	●					SERVICE COUNTER STOOLS	-
FIXTURES REFER TO EQUIPMENT SCHEDULE FOR ALL KITCHEN SINKS							
		●				WALL HUNG LAV	-
MISCELLANEOUS ITEMS							
●						MENU BOARD	-
●						ART WORK	-
				●		MILLWORK	-
					●	TOILET PAPER HOLDERS	-
					●	SOAP DISPENSERS	-
					●	PAPER TOWEL DISPENSERS	-
●						WALL PAPER AND CUSTOM CEILING TILES	
ADDITIONAL ITEMS							
				●		OFFICE FURNITURE	-
				●		PHONE	-
		●				FIRE EXTINGUISHER	-
	●					AWNING / SIGNS	-
	●					AWNING HEATERS (PER PLANS)	-

SEATING SUMMARY

SEAT COUNT

TYPES	PARTIES	SEATS	SIZE	HEIGHT	KEY
2 TOP TABLE	24	44	24"x30"	30"	A
4 TOP TABLE	0	0	36"x36"	30"	B
4 TOP TABLE	5	18	48"x30"	30"	C
4 PERSON BOOTH	0	0	30"x46"	30"	D
6 PERSON BOOTH	3	18	30"x69"	30"	E
COMMUNAL	1	8	36"x126"	30"	F
BANQUETTE	1	6	-	-	G
STOOLS	10	10	18"	30"	H
OUTDOOR - 2 TOP TABLE	0	0	24"x30"	30"	I
OUTDOOR - 4 TOP TABLE	7	28	36"x36"	30"	J
TOTAL	51	132			

DINING COUNT

DINING AREA	PARTIES	SEATS
INTERIOR DINING	44	104
PATIO DINING	7	28
TOTAL	51	132

SHEET NOTES

A. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ALL LOCAL AND STATE ADA, AND BUILDING CODE'S RESTRICTIONS AND REQUIREMENTS.

B. REFER TO INTERIOR ELEVATIONS FOR RESTROOM FIXTURES / EQUIPMENT.

C. GC TO COORDINATE DELIVERY OF OWNER SUPPLIED MATERIALS WITH SUPPLIER.

D. REFER TO SHEET A1.2 FOR EQUIPMENT SCHEDULE.

E. EQUIPMENT START UP BY EQUIPMENT VENDOR

F. LOCATION OF FIRE EXTINGUISHERS TO BE DETERMINED BY FIRE MARSHAL.

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THOMAS F. TEDROW
NUMBER A-2016014478
ARCHITECT
5/15/20

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FLYING BISCUIT
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SUITE 4B
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

EQUIPMENT & FURNITURE PLAN

A1.1

KITCHEN EQUIPMENT SCHEDULE

	EQUIPMENT						PLUMBING						ELECTRICAL								REMARKS
							WATER		WASTE		GAS		LOAD					DEVICE			
NO.	ITEM	MANUFACTURER	MODEL NUMBER	FURN. BY	INST. BY	FINAL CONNECT	HW	CW	DIR.	INDIR.	SIZE	BTU/HR	VOLTS	HZ	PHASE	AMPS	HP/WATT	OUTLET	DISC.	HEIGHT	**ALL GAS REGULATORS PROVIDED WITH EQUIPMENT FROM KES WILL WILL REQUIRE SUPPLEMENTAL REGULATORS ON GAS LINES OVER 1/2 PSI**
1	WALL MOUNTED POS SYSTEM	MICROSS	BY VENDOR	VENDOR	VEND	VEND	-	-	-	-	-	-	-	-	-	-	-	*	-	-	COORDINATE WITH MICROSS FOR INSTALLATION
2	WALL MOUNTED HAND SINK WITH SPLASH GUARDS	ADVANCE TABCO	7-PS-40	KES	KES	GC	1/2"	1/2"	1 1/2"	-	-	-	-	-	-	-	-		-	-	-
3	6 EYE BURNER	SOUTHBEND	HDO-36	KES	KES	GC	-			-	3/4"	198,000	-	-	-	-	-		-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
4	24" FLAT TOP GRIDDLE	SOUTHBEND	HDG-24	KES	KES	GC	-	-	-	-	3/4"	120,000	-	-	-	-	-		-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
5	UNDER BAR REFRIGERATION (NOT USED)	TRUE	TBB-24-48G-HC-LD	KES	KES	GC	-	-	-	-	-	-	115	60	1	2.1	-	-	-	-	NEMA 5-15 PLUG
6	MICROWAVE (ON COUNTERTOP)	AMANA	HDC18SD2	KES	KES	GC	-	-	-	-	-	-	208	60	1	20	3000W	*	-	60"	NEMA 6-20 PLUG (MICROWAVE ON WORK TABLE)
7	36" FLAT TOP GRIDDLE	SOUTHBEND	HDG-36	KES	KES	GC	-	-	-	-	3/4"	60,000	-	-	-	-	-	-	-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
8	HOT HOLDING CABINET	CATER-HOFFMAN	HL1-18	KES	KES	GC	-	-	-	-	-	-	120	60	1	15	1750W	*	-	18"	NEMA 5-20 PLUG
9	REFRIGERATED SALAD TOP	HOSHIZAKI	CRMR72-18	KES	KES	GC	-	-	-	-	-	-	115	60	1	6.41	1/3 HP	*	-	18"	NEMA 5-15 PLUG
10	3 WELL HOT FOOD TABLE	EAGLE GROUP DIMEN.	SHT3-120	KES	KES	GC	-	-	-	-	-	-	120	60-1PH	1	18.8	2250W	*	-	18"	NEMA 5-30 PLUG
11	UNDER COUNTER REFRIGERATOR	ATOSA	MGF9401GR	KES	KES	GC															
12	PASS THRU WINDOW	KLINES WELDING	CUSTOM	KES	KES	GC	-	-	-				-	-	-	-	-			-	SEE SHEET A3.1 DETAIL 10 FOR DETAILS
13	RACK DOLLY	CARLISLE	C223614	KES	KES	GC	-	-	-				-	-	-	-	-			-	-
14	BAG IN THE BOX	COCA COLA	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH COCA COLA FOR INSTALLATION
15	TEA BREWER	BUNN	TB-6	VENDOR	VEND	GC	-	3/8"	-	-	-	-	120	-	-	14.4	1730W	*	-	44"	COORDINATE WITH ROYAL CUP FOR INSTALLATION
16	COFFEE BREWER	BUNN	ICB-DV TALL	VENDOR	VEND	GC	-	3/8"					208			20		*		44"	L14-30 NEMA PLUG
17	2 GLASS DOOR REACH IN REFRIGERATOR	TRUE	GDN-43-HC-TSL01	KES	KES	GC	-						115	60	1	6.5	1/2HP	*		18"	NEMA 5-15 PLUG
18	ESPRESSO MACHINE	VKI	ECCELLENZA	VENDOR	VEND	GC	-	3/4"					120	60	-	1300	-	*		44"	COORDINATE WITH MANUFACTURE FOR PLUG
19	50" TV	BY OWNER	BY OWNER	OWNER	GC	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GC TO PROVIDE BLOCKING IN WALL FOR TV MOUNTING
20	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*	-	-	-
21	PAN RACK	KELMAX	SPG INTERNATIONAL	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
22	STACKED CONVECTION OVENS	BLODGET	ZEPH-100-GDBL	KES	KES	GC	-	-	-	-	3/4"	100,000	115	60	1	8	1/2HP	*	-	-	2 WIRE WITH GROUND CORD AND PLUG
23	DISHWASHING MACHINE (NOT USED)	CHAMPION	UH130B	KES	KES	GC	1/2"	-	5/8"	-	-	-	208	60	1	-	-		-		-
24	18'-0" HOOD	CAPTIVE AIRE	CUSTOM	KES	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REFER TO ENGINEERING DRAWINGS FOR HOOD DETAILS
25	2 COMPARTMENT SINK	CLINES WELDING	CUSTOM	KES	KES	GC	1/2"	1/2"	1 1/2"	-	-	-	-	-	-	-	-		-	-	-
26	NOT USED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*		-	
27	UNDERBAR SINK	ADVANCE TABCO	CRB-32L	KES	KES	GC		-	-	-	-		-	-	-	-	-		-	-	-
28	TRASH CAN (ADD AREA MAGNETS FOR TRASH CANS IN DISH WASH)	BY VENDOR	BY VENDOR	VENDOR	VEND	GC							-	-	-	-					INCLUDED IN SMALL WARES PACKAGE
29	DIRTY DISH TABLE W/ UNDER SHELF & DOUBLE SIDED RACK	CLINES WELDING	CUSTOM	KES	KES	GC	-				-		-	-	-	-					COORDINATE WITH ECOLAB FOR INSTALLATION
30	DISH MACHINE	ECOLAB	BY VENDOR	VENDOR	VEND	GC	1/2"	-	2"	-	-	-	115	60	1	-	-	*	-	18"	COORDINATE WITH ECOLAB FOR INSTALLATION
31	CLEAN DISH TABLE	CLINES WELDING	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH ECOLAB FOR INSTALLATION
32	COCKTAIL STATION (NOT USED)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
33	4 EYE BURNER	SOUTH BEND	HDO-24	KES	KES	GC	-	-	-	-	3/4"	132,000	-	-	-	-	-	*	-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
34	14"X60" 3 TIER CHROME WIRE SHELVING	ADVANCE TABCO	EG-14-60	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-			-	REQUIRES 4 38" POSTS
35	ICE MACHINE WITH BIN	SCOTSMAN	C1030MA-32	KES	KES	GC	-	3/8"	-	3/4"	-	-	208	60	1	16.0	1 1/2 HP	*		18"	GC TO CHECK FINAL CONNECTIONS.
36	30"X42" STAINLESS STEEL WORK TABLE W/UNDERSHELF	KLINGER'S	BSG3042	KES	KES	GC	-	-	-	-	-	-				-	-	*	-	-	-
37	30"X60" STAINLESS STEEL WORK TABLE W/ UNDER SHELF	KLINGER'S	BSG3060	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
38	30"X60" STAINLESS STEEL WORK TABLE	KLINGER'S	NSBG3060	KES	KES	GC	-	-	-	-			-	-	-	-	-		-	-	
39	GLASS RACK (NOT USED)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
40	30"X18" STAINLESS STEEL WORK TABLE W/ UNDERSHELF	KLINGER'S	BSG3018	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
41	TRASH CAN W/LID	BY VENDOR	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	INCLUDED IN SMALL WARES PACKAGE
42	8'-6" HIGH WALK-IN FREEZER/COOLER	KOLPACK	LOT	KES	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	GC TO COORDINATE WITH KES AND SUPPLIER FOR INSTALLATION
43	COUNTER TOP POS SYSTEM	MICROSS	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH MICROSS FOR INSTALLATION
44	BABY CHANGING STATION	KOALA	KB100-00	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
45	CO2 TANK	NUCO	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH NUCO FOR INSTALLATION
46	WATER HEATER	BY GC	BY GC	GC	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REFER TO ENGINEERING PLANS FOR WATER HEATER SPECIFICATIONS
47	PRE RINSE FAUCET ASSEMBLY	T&S BRASS	B-0313-CR-B	KES	KES	GC	1/2"	1/2"	-	-	-	-	-	-	-	-	-		-	-	-
48	PRE-RINSE FAUCET	T&S BRASS	B-0113	KES	KES	GC	1/2"	1/2"	-	-	-	-	-	-	-	-	-		-	-	-
49	12" SWING NOZZLE FAUCET	T&S BRASS	B-0231	KES	KES	GC	1/2"	1/2"	-	-	-	-	-	-	-	-	-		-	-	-
50	INGREDIENT BIN (13 1/8"Wx29-1/4"Dx28"H, 3" EXTRA WIDE CASTERS)	RUBBERMAID	PROSAVE 27088	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
51	BREADING STATION	AYRKING	BBS-U-4221	KES	KES	GC	-	-	-	-	-	-	115	60	1	1.6	184W		-	-	
52	48" HEAT LAMP	HATCO	GRAH-48	KES	KES	GC	-	-	-	-	-	-	208	60	1	-	1100W	*	-	-	MOUNT ABOVE FIRST SHELF IN PASS THRU WINDOW, HARD WIRED.
53	WALL MOUNTED MENU HOLDER	BY OWNER	CUSTOM	VENDOR	GC	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
54	WAFFLE IRON	WARING	WW200	KES	KES	GC	-	-	-	-	-	-	120	-	-	11.6W	1400W				
55	24"H TRASH CAN	BY VENDOR	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	INCLUDED IN SMALL WARES PACKAGE
56	MOP SINK	BY GC	BY GC	GC	GC	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PROVIDE SUNK-IN MOP SINK WERE AVALIBLE
57	24"X48" STAINLESS STEEL SLANTED DISH RACK	KLINES WELDING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
58	14"X36" WALL MOUNTED S.S SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
59	18"X36" WALL MOUNTED S.S SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
60	14"X48 WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
61	18"X48" WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
62	14"X60" WALL MOUNTED S.S SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
63	18"X60" WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
64	18"X54" WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
65	14"X42" 2 TEIR CHROME WIRE SHELVING	ADVANCE TABCO	EG-14-36	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-			-	REQUIRES 4 38" POSTS
66	18"X60" 5 TEIR EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-1860	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
67	24"X24" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2424	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
68	24"X48" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2442	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
69	24"X48" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2448	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
70	24"X60" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2460	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
71	18"X60" SOLID STAINLESS STEEL WALL SHELF	KLINES WELDING	WS18-60	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
72	SODA/ICE COMBO MACHINE	COCA COLA	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	120	60	-	2.25	-		-	-	COORDINATE WITH COCA COLA FOR INSTALL. FILTERED WATER 50PSI MIN.
73	COKE BAR GUN (NOT USED)																				
74	WATER FILTER	PENTAIRE EVERPURE	EV9328-06	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
75	36" DUNNAGE RACK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
76	OFFICE DESK	BY OWNER	BY OWNER	OWNER	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	GC TO COORDINATE WITH OWNER FOR INSTALLATION
77	FLOOR MOUNTED SAFE	KES	KES	KES	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
78	HOSTESS STAND	BY GC	BY GC	GC	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REFER TO SHEET A5.1 FOR DETAILS
79	FRYER	PROCORE	TF3-N	KES	KES	GC	-	-	-	-	3/4"	90,000	-	-	-	-	-		-	-	
80	24" DUNNAGE RACK																				
81	48" DUNNAGE RACK																				
82	4 COMPARTMENT SINK	ADVANCE TABCO	FC-4-2424-24RL	KES	KES	GC	1/2"	1/2"	1 1/2"	-	-	-	-	-	-	-	-		-	-	-
83	CHEMICAL STORAGE RACK			VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
84	TOILET PAPER DISPENSER	TORK ELEVATION	473208	VENDOR	GC		-	-	-	-	-	-	-	-	-	-	-		-	-	
85	SOAP DISPENSER	ARRAY	517493	VENDOR	GC	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
86	PAPER TOWEL DISPENSER	GP enMOTION	59462A	VENDOR	GC	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
87	HIGH CHAIRS	-	-	VENDOR	VEND	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
88	BOOSTER SEATS	-	-	VENDOR	VEND	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

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5/15/20

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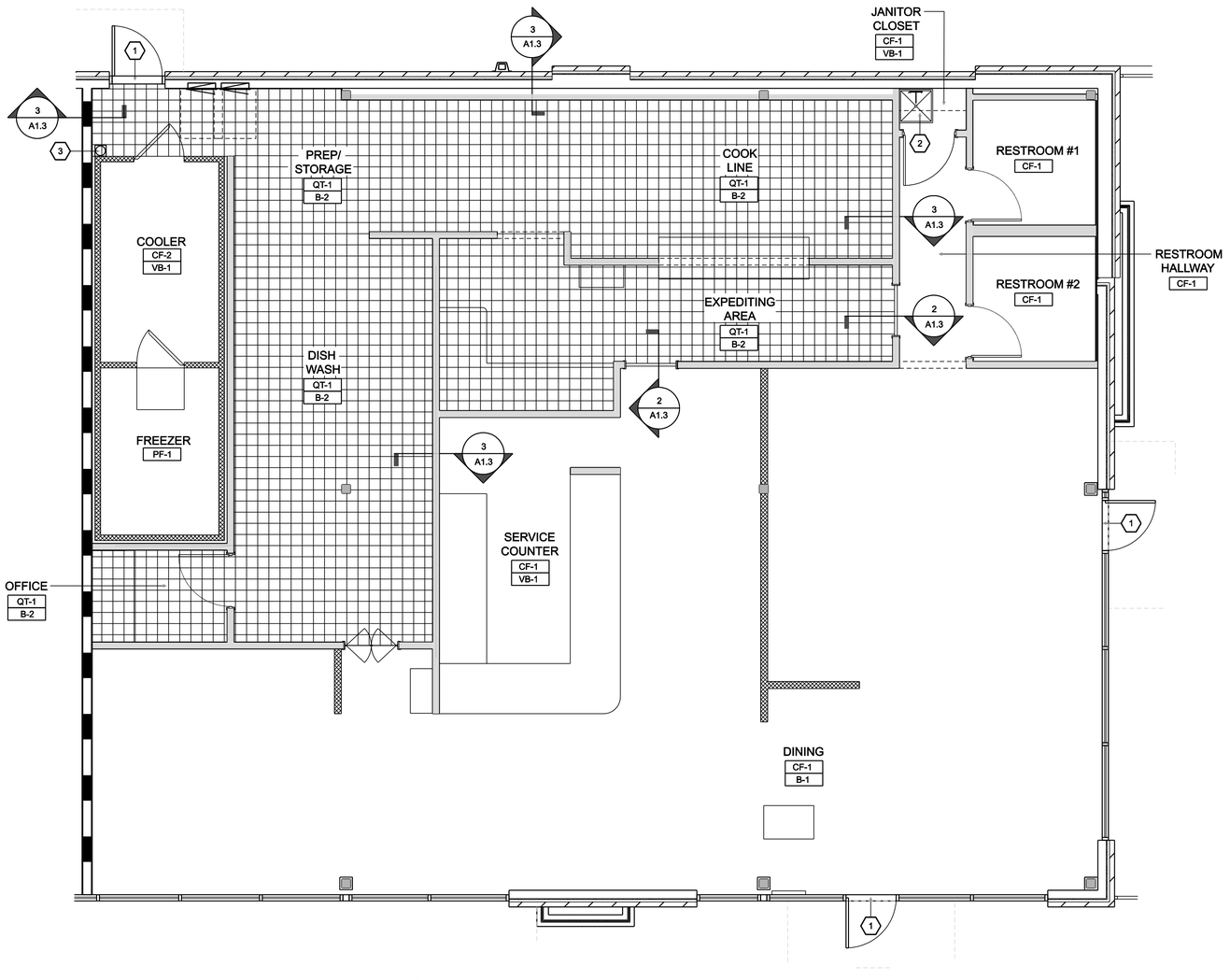
FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

EQUIPMENT SCHEDULE

A1.2



1 A1.3 FLOOR FINISH FLOOR
1/4"=1'-0"

SHEET NOTES

A. FLOOR TRANSITIONS SHALL OCCUR AT THE CENTERLINE OF THRESHOLD

B. CENTER TILES IN ROOM U.N.O.

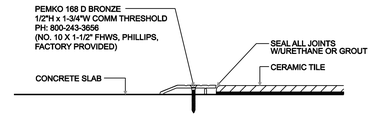
C. FLOOR FINISHES ON BOTH SIDES OF A DOOR SHALL BE LEVEL FOR A DISTANCE OF 5'-0".

D. ALL TILE TO BE IN MINIMUM 6" WIDE PIECES WERE CUTTING IS REQUIRED.

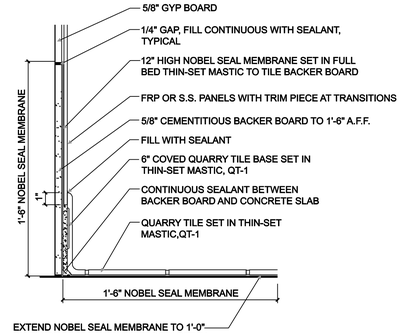
E. REFER TO 15/A3.1 FOR WATER PROOFING MEMBRANE REQUIRED AT ALL QUARRY TILE WALL AND BASE CONDITIONS.

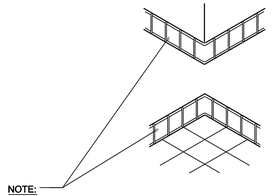
KEY NOTES

1. EXISTING ALUMINUM THRESHOLD.
2. MOP SINK. REFER DETAIL 7/A3.3 & TO PLUMBING DRAWINGS.
3. 8" CONDENSATE DRAIN, COORDINATE WITH PLUMBING SHEETS FOR DETAILS.



2 A1.3 TILE TRANSITION DETAIL
NTS=1'-0"





3 A1.3 WET WALL BASE DETAIL
NTS=1'-0"

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SUITE 4B
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REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBMO-104
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CHECKED BY: TFT
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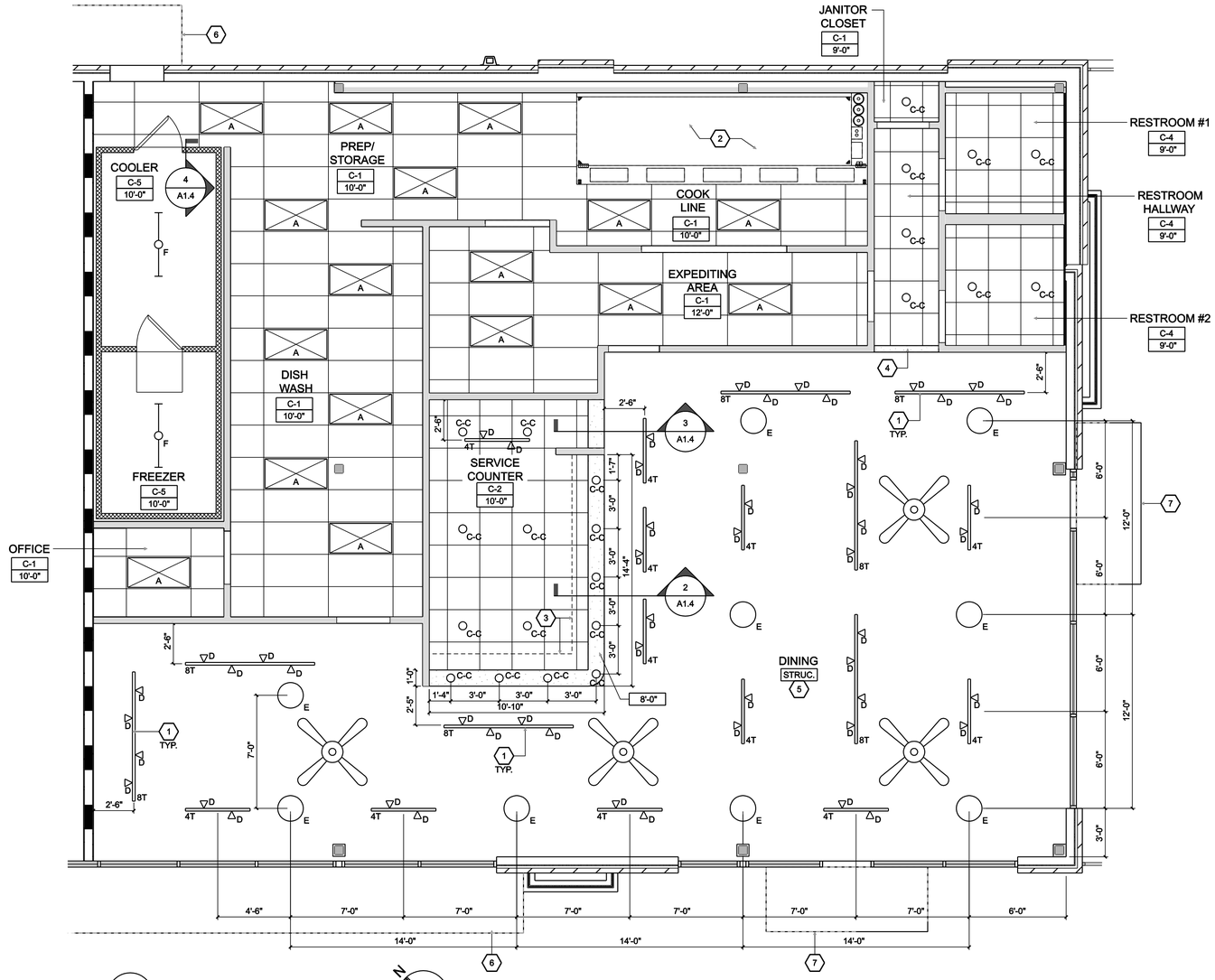
FLOOR FINISH PLAN

A1.3



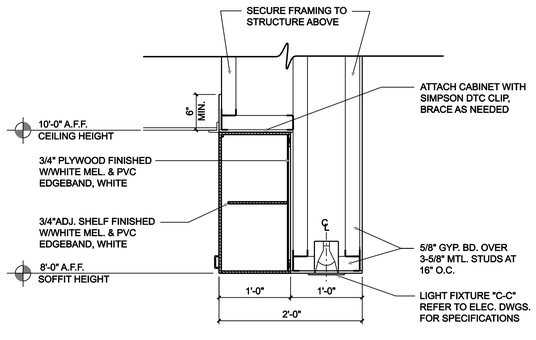
1 A1.4 REFLECTED CEILING PLAN
1/4" = 1'-0"

MOUNTING HEIGHT GUIDE FOR HANGING LIGHT FIXTURES:

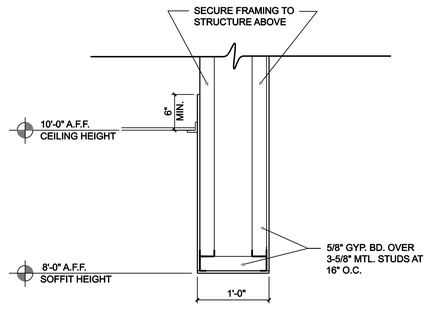
TYPE 2T, 4T, 8T & D @ 9'-0" AFF.

TYPE E @ 9'-0" AFF.

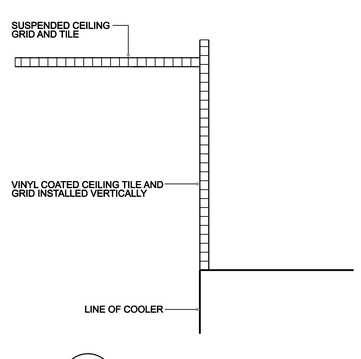
TYPE G @ 9'-0" AFF.



2 A1.4 DINING/SERVICE SOFFIT
1" = 1'-0"



3 A1.4 DINING/SERVICE SOFFIT
1" = 1'-0"



4 A1.4 SOFFIT DETAIL AT COOLER
NTS=1'-0"

SHEET NOTES

A. G.C. TO VERIFY EXISTING STRUCTURE AND REVIEW CEILING HEIGHTS WITH OWNER

KEY NOTES

1. ART WORK AND WALL WASHING LIGHTS TO BE MOUNTED 30" FROM TARGET U.N.O.
2. HOOD, SEE MECHANICAL SHEET FOR DETAILS.
3. LINE OF WALL HUNG CABINETS.
4. GYP. BOARD HEADER @ 8'-0" AFF.
5. G.C. TO PAINT OPEN CEILING & JOISTS P-5 FIN.
6. EXISTING AWNING TO REMAIN.
7. NEW AWNING (BY TENANT, CONFIRM WITH LANDLORD).

LIGHTING SCHEDULE

SYMBOL	DESCRIPTION
A	2x4 LIGHT, INVERTED LENS IN COOKING/ SERVING AREA
B	2x2 LIGHT, INVERTED LENS IN COOKING/ SERVING AREA
C-B	RECESSED CAN LIGHTS W/BLACK TRIM IN CLOSED DINING CEILING
C-C	RECESSED CAN LIGHTS W/CHROME TRIM IN BAR/SOFFIT/RR HALLWAY - SHATTERPROOF LENS
D	TRACK HEAD, BLACK FLARED STEP CYLINDER
2T	2' TRACK, BLACK
4T	4' TRACK, BLACK
8T	8' TRACK, BLACK
E	PENDANT LIGHT, SUSPENDED THROUGHOUT DINING
F	SURFACE MOUNTED COOLER FLUORESCENT LIGHT, PROVIDED W/COOLER/FREEZER
G	PENDANT LIGHT, SUSPENDED THROUGHOUT DINING
EM/EX	EXIT/EMERGENCY COMBO, BLACK HOUSING
EM	2 HEAD EMERGENCY UNIT, BLACK HOUSING
EX1	LED EXIT SIGN, BLACK, RED LETTERS W/ BATTERY BACK UP
EX2	EXTERIOR REMOTE EMERGENCY HEAD
	52" INDOOR BLACK CEILING FAN - (NO LIGHT) - HOME DEPOT, KITTERIDGE MODEL # 34777-HBUB (PROVIDED & INSTALLED BY GC)

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DESCRIPTION	DATE	REVISIONS

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REFLECTED CEILING PLAN

A1.4

RESTROOM ACCESSORIES SCHEDULE

MARK	ITEM	MANUFACTURER	MODEL NO.#	MOUNTING HEIGHTS
A	GRAB BARS	BOBRICK (OR EQUAL)	B-6806	3'-0" A.F.F. OR AS SPECIFIED ON SHEET A2.0
B	MIRROR	BOBRICK (OR EQUAL)	B-165-1836	3'-4" A.F.F. TO REFLECTIVE SURFACE
C	PAPER TOWEL DISP.	GP enMOTION	59462A	4'-0" A.F.F. TO DISPENSER CONTROLS
D	SOAP DISPENSER	ARRAY	517493	34"-48" A.F.F. TO DISPENSER CONTROLS
E	TOILET PAPER HOLDER	TORK ELEVATION	473208	1'-6" TO DISPENSER
F	BABY CHANGING STATION	KOALA CORPORATION	HORIZONAL UNIT	4'-2 1/2" AFF. TO TOP
G	TRASH CAN W/LID	BY VENDOR		

CLEAR FLOOR AREA

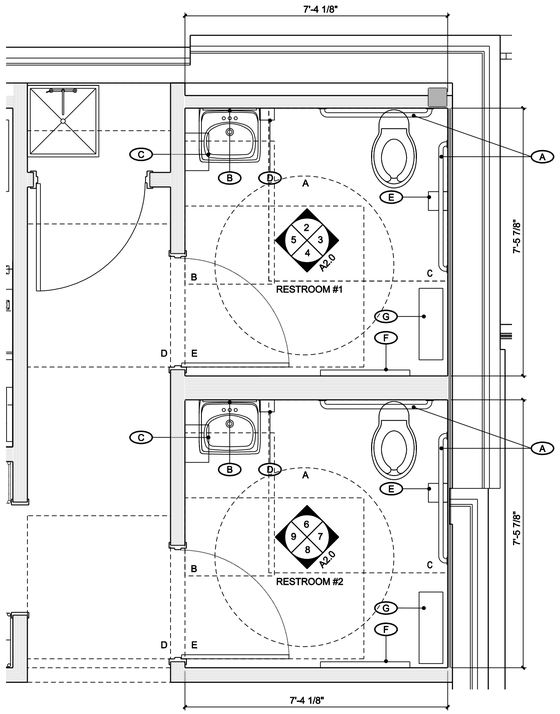
A	5' DIA. TURNING RADIUS
B	LAVATORY - 30" x 48"
C	TOILET - 60" x 60"
D	DOOR - 48" x 48" - PUSH SIDE
E	DOOR - 60" x 54" - PULL SIDE

ACCESSORY NOTES

1. G.C. SHALL INSTALL TOILET ACCESSORIES. SEE ACCESSORIES SCHEDULE.
2. PROVIDE WOOD BLOCKING AT ALL WALL-HUNG ITEMS.
3. ALL ACCESSORIES MUST BE ADA COMPLIANT.
4. VERIFY MOUNTING HEIGHT OF TOILET TISSUE HOLDER PRIOR TO MOUNTING. HEIGHT MAY VARY DEPENDING ON UNIT FURNISHED.
5. G.C. TO INSTALL BABY CHANGING STATION.

GENERAL NOTES

1. G.C. SHALL PROVIDE HANDICAP CODE COMPLIANT MEN'S & WOMEN'S DOOR SIGNAGE. SIGNS SHALL BE MOUNTED ON EXTERIOR SIDE (AS SHOWN ON INTERIOR ELEVATIONS) AND SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
2. FLUSH AND FAUCETS CONTROLS SHALL BE OPERABLE W/ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING OR TWISTING OF WRIST. THE FORCE TO ACTIVATE THESE CONTROLS SHALL NOT EXCEED 5 LBS.
3. FLUSH CONTROLS FOR TOILETS (AND URINALS WHEN APPLICABLE) SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET NO HIGHER THAN 44" A.F.F.
4. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS AND SHALL BE INSTALLED TO WITHSTAND A LOAD OF 250 LBS. OR GREATER.
5. G.C. TO PROVIDE AND INSTALL 18" VERTICAL GRAB BAR IN BOTH RESTROOMS AS PER 2009 ANSI A117.1, SEC. 604.5.



1 A2.0 ENLARGED RESTROOM 1/2" = 1'-0"

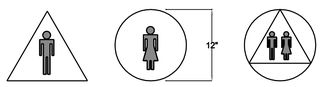
ACCESSIBILITY NOTES

1. GRAB BARS
   - A. GRAB BARDS SHALL BE LOCATED ON BACK AND SIDE WALL OF WATER CLOSET.
   - B. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
   - C. GRAB BARS & THE ADJACENT SURFACES SHALL HAVE ROUNDED EDGES FROM SHARP OR ABRASIVE ELEMENTS WITH A 18" MIN. RADIUS.
   - D. THE GRAB BAR AND SUPPORTING STRUCTURE SHALL ALLOW FOR A VERTICAL & HORIZONTAL BENDING STRESS, SHEAR & TENSILE FORCE OF 250 LBS
   - E. GRAB BARS SHALL HAVE AN OUTSIDE DIA. OF 1 1/4" TO 1-1/2" NOMINAL MAX.
   - F. THE SPACE BETWEEN THE GRAB BAR AND ANY OBJECT OR WALL SHALL BE 1-1/2" IN CLEAR.
2. LAVATORIES (LAV.)
   - A. PROVIDE A 30"X52" LEVEL CLEAR SPACE IN FRONT OF LAVATORY.
   - B. CLEAR FLOOR SPACE HAS ONE FULL UNOBSTRUCTED SIDE ADJOINING OR OVERLAPPING AN ACCESSIBLE ROUTE OR ANOTHER CLEAR FLOOR SPACE.
   - C. ALL DRAIN & HOT WATER PIPES UNDER THE LAVATORY SHALL BE INSULATED OR COVERED WITH A BOOT OR SHIELD TO PREVENT CONTACT.
   - D. DOORS SHALL NOT SWING INTO THE REQUIRED CLEAR SPACE .
3. FAUCETS
   - A. FAUCETS SHALL BE OPERATED WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
   - B. THE FORCE TO OPERATE THE FAUCET AND ANY CONTROLS SHALL BE 5 LB MAX.
   - C. SELF-CLOSING VALVES SHALL REMAIN OPEN 10 SECONDS MIN.
4. WATER CLOSETS (WC)
   - A. TOILETS SHALL BE LOCATED 18" FROM THE SIDE WALL TO ITS CENTERLINE.
   - B. FLUSH VALVE SHALL BE LOCATED ON WIDE SIDE OF THE TOILET @ 44" MIN A.F.F.
   - C. FLUSH VALVE SHALL REQUIRE 5 LB MAX FORCE TO OPERATE & SHALL BE OPERABLE WITH ONE HAND & SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST.
   - D. TOP OF SEAT SHALL BE 17" TO 19" MAX. A.F.F.
   - E. SEAT HEIGHT SHALL BE 2" MAX.
   - F. SEAT SHALL NOT AUTOMATICALLY SPRING TO THE OPEN POSITION.
   - G. WATER CLOSET SHALL REQUIRE 60" MIN. WIDE CLEAR FLOOR SPACE BY 56" MIN. DEEP. NO OTHER FIXTURES SHALL BE LOCATED IN THIS SPACE.
   - H. IN ACCESSIBLE COMPARTMENTS WATER CLOSET REQUIRES 56" DEEP CLEAR SPACE FOR WALL HUNG AND 59" DEEP FOR FLOOR MOUNTED.
5. RESTROOM ACCESSORIES AND DISPENSERS (WHERE PROVIDED)
   - A. TOILET PAPER DISPENSER SHALL BE 15" MIN. HEIGHT A.F.F. & MOUNTED BELOW GRAB BAR.
   - B. TOILET PAPER DISPENSER SHALL BE LOCATED 7" MIN. TO 9" MAX FROM FRONT OF THE WATER CLOSET TO THE CENTERLINE OF THE DISPENSER, WITHIN 12" FROM THE FRONT EDGE OF THE WATER CLOSET TO THE FAR END OF THE DISPENSER & 36" FROM THE REAR WALL TO THE OUTSIDE EDGE OF THE DISPENSER.
   - C. TOILET PAPER DISPENSER SHALL ALLOW FOR CONTINUOUS PAPER FLOW AND NOT CONTROL DELIVERY.
   - D. EACH TYPE OF PROVIDED ACCESSORY SHALL HAVE 1 MIN. ACCESSIBLE
   - E. A 30"X52" CLEAR FLOOR SPACE SHALL BE PROVIDED AT EACH ACCESSIBLE ACCESSORY.
   - F. DOORS SHALL NOT SWING INTO CLEAR SPACE IN FRONT OF ACCESSIBLE ACCESSORY.
   - G. ALL CONTROLS INCLUDING COIN SLOTS SHALL BE WITHIN COMPLIANT RANGES AND SHALL BE OPERABLE WITH ONE HAND NOT REQUIRING TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.
   - H. FORCE TO OPERATE OR ACTIVATE CONTROLS SHALL BE 5 LBS MAX.
   - I. SOAP OR OTHER DISPENSERS LOCATED ON THE BACK WALL OF THE LAVATORY SHALL BE 40" MAX A.F.F.
   - J. SEAT COVER DISPENSERS SHALL NOT BE LOCATED ON THE BACK WALL BEHIND A WATER CLOSET.
   - K. BOTTOM OF MIRROR TO BE 40" MAX. ABOVE THE FINISHED FLOOR. ADD BLOCKING AT UPPER PORTION BEHIND MIRROR AND PAINT TO MATCH WALL COLOR.

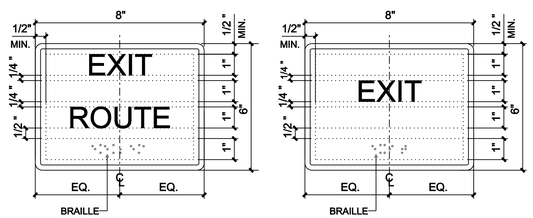
INTERNATIONAL SYMBOL OF ACCESSIBILITY:

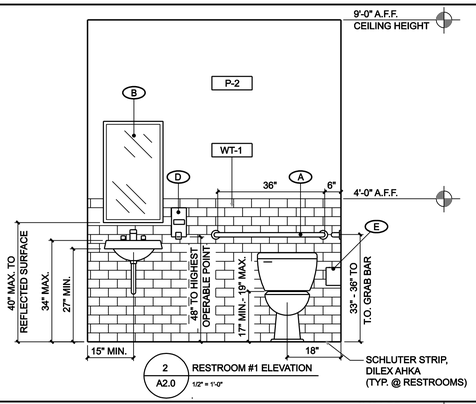
(a) SYMBOL PROPORTIONS (b) DISPLAY CONDITIONS

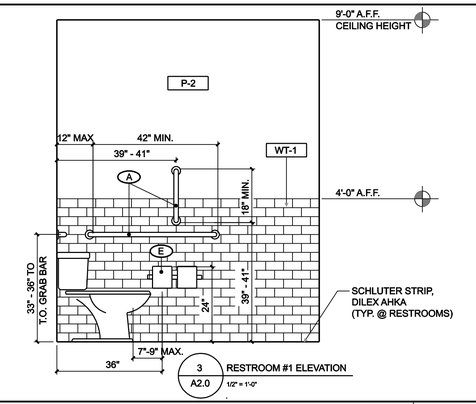
RESTROOM SIGNS:

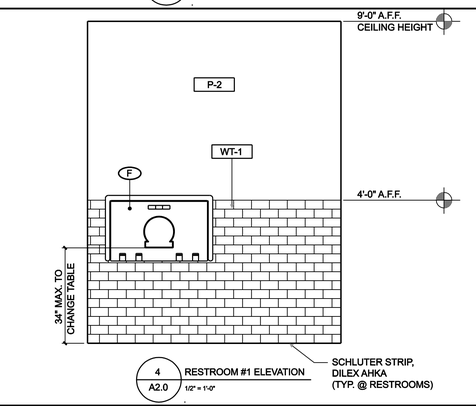


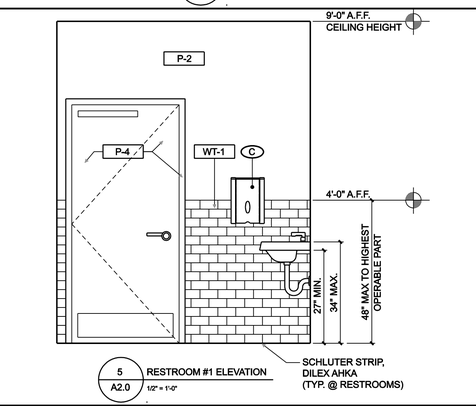
TACTILE EXIT SIGNAGE:
COMPLY WITH A117B.5.1

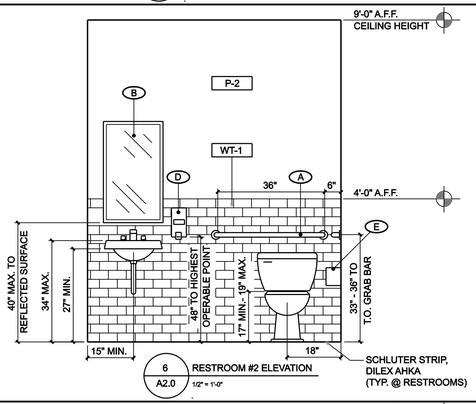


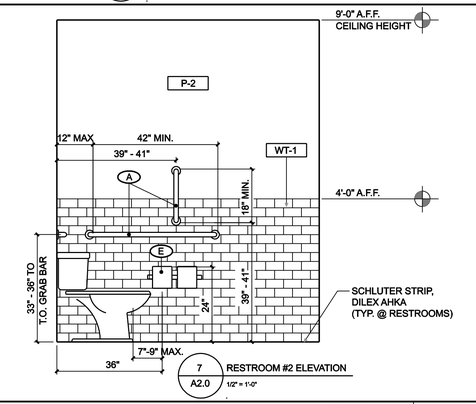


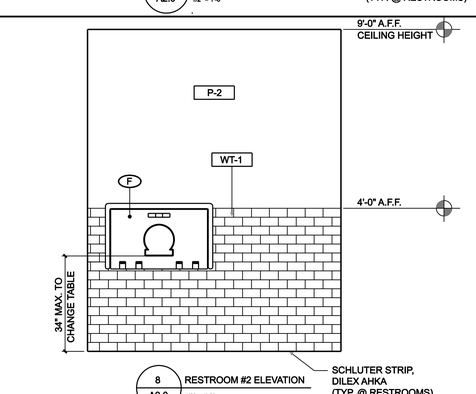


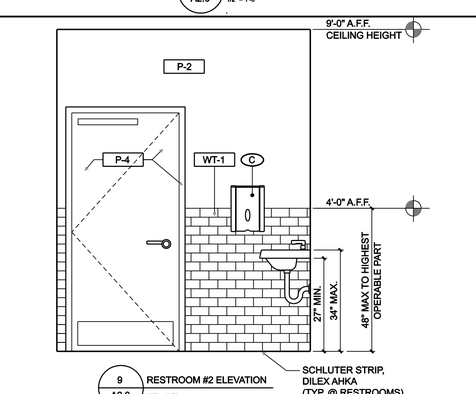












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ARCHITECT
5/15/20

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FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

DESCRIPTION	DATE	REVISIONS

PROJECT NO.: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

RESTROOM #1 & #2 DETAILS

A2.0

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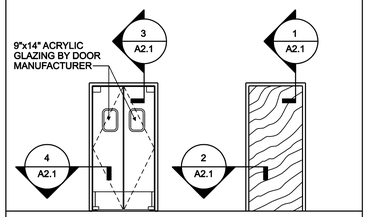
DOOR SCHEDULE

MARK	TYPE	LOCATION	DOOR SIZE	DOOR MATERIAL	DOOR GLASS	FRAME MATERIAL	FRAME TYPE	DETAILS HEAD/JAMB/THRE.			FINISHES INSIDE/OUTSIDE		HDWR. SET	REMARKS
1	A	FOOD PREP/ PROD.	(PR.) 1'-8" x 6'-8"	ALUMINUM	9" x 14" ACRYLIC	HOLLOW MTL.	5 7/8" KNOCK-DOWN	3/A2.1	4/A2.1	-	PREFINISHED	PREFINISHED	A	REFER TO GENERAL DOOR NOTES
2	B	OFFICE	3'-0" x 7'-0" x 1 3/4"	S.C. WOOD - P-4	NONE	HOLLOW MTL.	5 7/8" KNOCK-DOWN	1/A2.1	2/A2.1	-	TRIM P-4	TRIM P-4	B	REFER TO GENERAL DOOR NOTES
3	B	JANITOR'S CLOSET	3'-0" x 7'-0" x 1 3/4"	S.C. WOOD - P-4	NONE	HOLLOW MTL.	5 7/8" KNOCK-DOWN	1/A2.1	2/A2.1	-	TRIM P-4	TRIM P-4	D	REFER TO GENERAL DOOR NOTES
4	B	RESTROOM #1	3'-0" x 7'-0" x 1 3/4"	S.C. WOOD - P-4	NONE	HOLLOW MTL.	5 7/8" KNOCK-DOWN	1/A2.1	2/A2.1	-	TRIM P-4	TRIM P-4	C	REFER TO GENERAL DOOR NOTES
5	B	RESTROOM #2	3'-0" x 7'-0" x 1 3/4"	S.C. WOOD - P-4	NONE	HOLLOW MTL.	5 7/8" KNOCK-DOWN	1/A2.1	2/A2.1	-	TRIM P-4	TRIM P-4	C	REFER TO GENERAL DOOR NOTES
6	C	EXPEDITING	NONE	NONE	NONE	HOLLOW MTL.	5 7/8" KNOCK-DOWN	5/A2.1	6/A2.1	-	TRIM P-4	TRIM P-4	NONE	REFER TO GENERAL DOOR NOTES
7	C	EXPEDITING	NONE	NONE	NONE	HOLLOW MTL.	5 7/8" KNOCK-DOWN	5/A2.1	6/A2.1	-	TRIM P-4	TRIM P-4	NONE	REFER TO GENERAL DOOR NOTES
8														
9														

DOOR TYPES



HARDWARE SETS

SET A: ELIASON

ALL HARDWARE PROVIDED BY DOOR MANUFACTURER

SET B - OFFICE:

3 EA.	HINGES	F179 4 1/2" X 4 1/2" X US26D	STANLEY
1 EA.	LOCKSET	A-SERIES LEVON A8PD US26D	SCHLAGE
1 EA.	CLOSER	1600 SERIES X DA X TRI-STYLE	NORTON
1 EA.	WALL STOP	408	ROCKWOOD
1 EA.	THRESHOLD	424-36"	NATIONAL GUARD
2 EA.	DOOR SWEEP	200 NA X 36"	NATIONAL GUARD
2 EA.	SILENCERS	608	ROCKWOOD
2 EA.	KICKPLATE	10" X 34" US26D	ROCKWOOD

SET C - RESTROOM:

3 EA.	HINGES	FBB179 4 1/2" X 4 1/2" X US26D	STANLEY
1 EA.	LOCKSET	A-SERIES LEVON A30D US26D	SCHLAGE
1 EA.	CLOSER	1600 SERIES X PA X DA X TRI-STYLE	NORTON
1 EA.	WALL STOP	408	ROCKWOOD
2 EA.	SILENCERS	608	ROCKWOOD
2 EA.	KICKPLATE	10" X 34" US26D	ROCKWOOD

SET D - JANITOR'S CLOSET:

3 EA.	HINGES	FBB179 4 1/2" X 4 1/2" X US26D	STANLEY
1 EA.	LATCH	PASSAGE SET #D10S W/NEPTUNE LEVER HANDLE	SCHLAGE
1 EA.	CLOSER	1600 SERIES X PA X DA X TRI-STYLE	NORTON
1 EA.	WALL STOP	408	ROCKWOOD
2 EA.	SILENCERS	608	ROCKWOOD
2 EA.	KICKPLATE	10" X 34" US26D	ROCKWOOD

GENERAL DOOR NOTES

1. ALL HARDWARE SHALL BE FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR UNLESS NOTED OTHERWISE.

2. SEE HARDWARE SETS FOR REQ'D. FINISHES.

3. ALL DOORS TO BE KEYED ALIKE.

4. HOLLOW METAL FRAMES SHALL BE 16 GA. STEEL.

5. ALL DOORS SHALL HAVE ADA APPROVED TYPE HARDWARE (VERIFY IN FIELD).

6. EXIT HARDWARE SHALL COMPLY WITH ALL APPLICABLE CODES.

7. THE MAXIMUM DIMENSION FROM THE TOP OF THE THRESHOLD TO THE EXTERIOR LANDING @ EXTERIOR DOORS SHALL NOT EXCEED 1/2". (VERIFY IN FIELD)

8. ALL GLAZING IN DOORS AND WITHIN A 24" ARC OF THE SIDES OF EGRESS DOORS SHALL BE OF AN APPROVED SAFETY TYPE. (VERIFY IN FIELD)

9. PAINT HOLLOW METAL FRAMES & DOORS WHERE SCHEDULED w/2 FINISH COATS OF HIGH-GLOSS ACRYLIC ENAMEL. SEE ELEVATIONS & FINISH SCHEDULE.

10. PROVIDE SIGNS @ DINING ROOM EXIT DOORS TO READ, "THIS EXIT MUST REMAIN UNLOCKED WHEN THIS BUILDING IS OCCUPIED. LETTERS SHALL BE 1" TALL & MOUNTED ON CONTRASTING BACKGROUND.

11. ADJUST CLOSERS SUCH THAT SWEEP PERIOD FROM AN OPEN POSITION OF 70 DEGREES, THE DOORS SHALL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF DOOR. MAXIMUM OPENING FORCE OF DOORS SHALL BE 5 LBF.

12. DOOR DETAILS DO NOT DEPICT ALL INTERIOR FINISHES. REFER TO INTERIOR ELEVATIONS & FINISH MATERIAL SCHEDULE FOR REQUIRED FINISHES.

13. STOREFRONT DOORS & FRAMES ARE SCHEDULED AROUND KAWNEER PRODUCTS. FIELD VERIFY EXISTING STOREFRONT SYSTEM & MATCH EXISTING. CROSS REFERENCE SPECIFIED PRODUCTS TO EQUIVALENT EXISTING STOREFRONT MANUFACTURER'S PRODUCTS.

14. HARDWARE FINISHES AT NEW STOREFRONT DOORS SHALL MATCH THE EXISTING STOREFRONT COLOR/FINISH. FIELD VERIFY.

15. ALL EXISTING EGRESS DOORS SHOULD BE EQUIPPED WITH PANIC HARDWARE. G.C. TO UPDATE HARDWARE IF NOT EXISTING.

FINISH SCHEDULE

WALL

- P-1 — SHERWIN WILLIAMS, OAKMOSS #SW6180, SEMI GLOSS FINISH (BEAD BOARD)
- P-2 — SHERWIN WILLIAMS, BLISSFUL BLUE #SW6527, EGG SHELL FINISH (WALLS)
- P-3 — SHERWIN WILLIAMS, MORNING SUN #SW6672, EGG SHELL FINISH (WALLS)
- P-4 — SHERWIN WILLIAMS, MAJESTIC PURPLE #SW6545, SEMI GLOSS FINISH (DOORS & FRAMES)
- P-5 — SHERWIN WILLIAMS, TRICORN BLACK #SW6545 (DINING CEILING TILE, DUCTS, AIR GRILLES)
- WC-1 — CUSTOM "SUNFLOWER" WALLCOVERING, CONTACT: COLORSPOT, KERA FONGER AT 678-385-2188 FOR ORDERING. SUPPLIED BY VENDOR, INSTALLED BY GC
- WC-2 — CUSTOM "FLYING BISCUIT" WALLCOVERING, CONTACT: COLORSPOT, KERA FONGER AT 678-385-2188 FOR ORDERING. SUPPLIED BY VENDOR, INSTALLED BY GC
- WC-3 — ARACUOPLY, BEAD BOARD PANELING, 4'x8', 11/32", W GROOVE, 2" OC
- WC-4 — EAST COAST MOULDINGS, 1"x4" CHAIR RAIL
- SS-1 — STAINLESS STEEL - 20 GA.
- FRP-1 — MARLITE, WHITE, FRP P-100
- WT-1 — FLOOR & DECOR, FESTIVAL BRIGHT WHITE ICE 3"x6" SUBWAY TILE
- WT-2 — SHAW, COVENANT #CS89W, OCEAN #00159 (8"x48" TILES)
- G-1 — CUSTOM BUILDING PRODUCTS, PRISM #386 OYSTER GRAY

SOLID SURFACE

- SLD-1 — STARON - OCEAN VIEW #VO171

PLASTIC LAMINATE

- PL-1 — FORMICA, BLACK #840-58
- PL-2 — FORMICA, GREEN SLATE BIRCHPLY #8911-NG

FLOOR

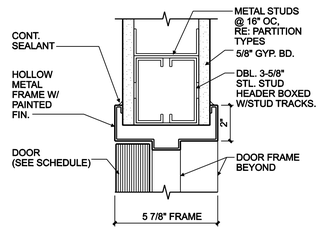
- CF-1 — KEMIKO, "VINTAGE UMBER", E-100 ACID STAIN, APPLY ONE COAT OF POLYURETAHNE SEALER
- CF-2 — SEALED CONCRETE
- QT-1 — METROPOLITAN CERAMICS, QUARRY BASICS, PLAZA GRAY #505 (8"x8")
- G-2 — MAPEI, KERAPOXY CQ, #9 GRAY
- PF-1 — PREFABRICATED FLOOR, PROVIDED BY COOLER/FREEZER MANUFACTURER

BASE

- B-1 — EAST COAST MOULDINGS, 1"x6" BASE BOARD
- B-2 — METROPOLITAN CERAMICS, QUARRY BASICS, PLAZA GRAY #505 (6"H)
- VB-1 — JOHNSONITE, GREY #48

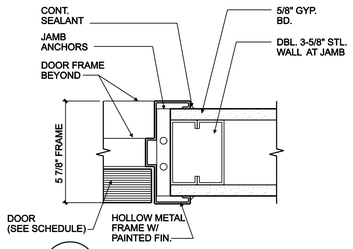
CEILING

- C-1 — NATIONAL GYPSUM, GRIDSTONE 2'x4' VINYL CEILING TILE
- C-2 — NATIONAL GYPSUM, GRIDSTONE 2'x2' VINYL CEILING TILE
- C-3 — 2'x2' ACOUSTICAL CEILING TILE PAINTED P-5
- C-4 — 2'x2' CUSTOM "FLYING BISCUIT" ACOUSTICAL CEILING TILE - CONTACT IMAGING TECHNOLOGIES AT 404-870-6672 FOR ORDERING, SUPPLIED BY VENDOR, INSTALLED BY GC
- C-5 — PREFAB STAINLESS STEEL CEILING PER COOLER MANUFACTURER



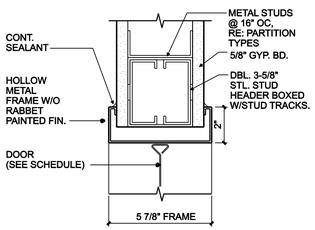
1 A2.1 DOOR HEAD DETAIL - H.M.

3" = 1'-0"



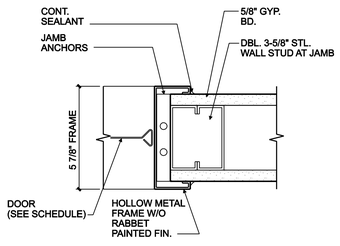
2 A2.1 DOOR JAMB DETAIL - H.M.

3" = 1'-0"



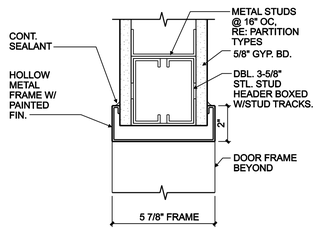
3 A2.1 DOOR HEAD DETAIL - SWINGING

3" = 1'-0"



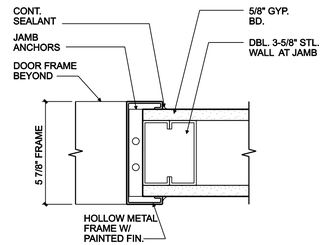
4 A2.1 DOOR JAMB DETAIL - SWINGING

3" = 1'-0"



5 A2.1 DOOR HEAD DETAIL - H.M.

3" = 1'-0"



6 A2.1 DOOR JAMB DETAIL - H.M.

3" = 1'-0"

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FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

DESCRIPTION	DATE	REVISIONS

PROJECT NO.: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

DOOR & FINISH SCHEDULES/DETAILS

A2.1

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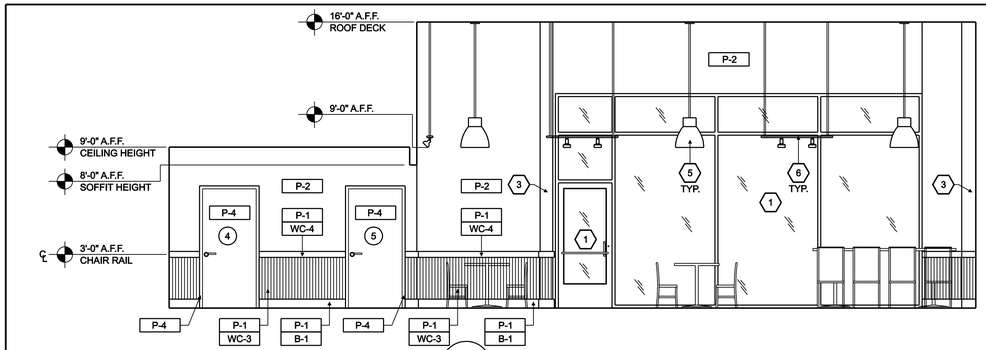
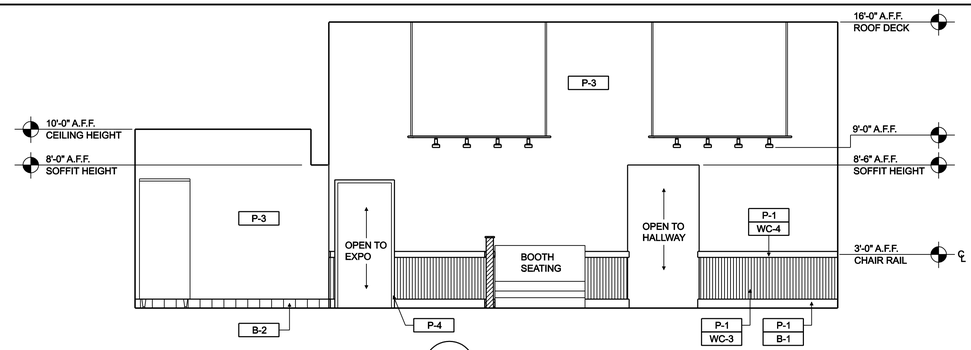


1 A3.0 HALLWAY/DINING ELEVATION
1/4"=1'-0"



2 A3.0 DINING ELEVATION
1/4"=1'-0"

SHEET NOTES

A. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ALL LOCAL AND STATE ADA, AND BUILDING CODES RESTRICTIONS AND REQUIREMENTS.

B. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION ON WALL AND DOOR FINISHES

KEY NOTES

1. EXISTING STOREFRONT DOORS & WINDOWS TO REMAIN.
2. POS COUNTER @ 40" A.F.F.
3. EXISTING COLUMN. GC TO FINISH WITH (1) LAYER 5/8" GYP. BD.
4. MOBILE HOSTESS STAND.
5. LIGHT FIXTURE "E" @ 9'-0"AFF.
6. LIGHT FIXTURE "D" @ 9'-0" AFF.

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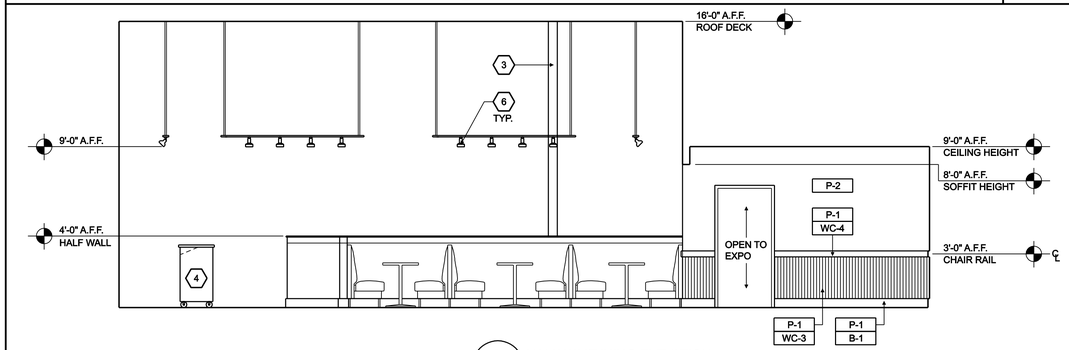
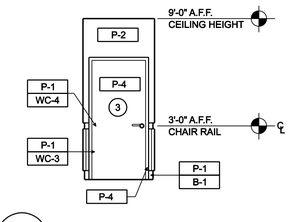
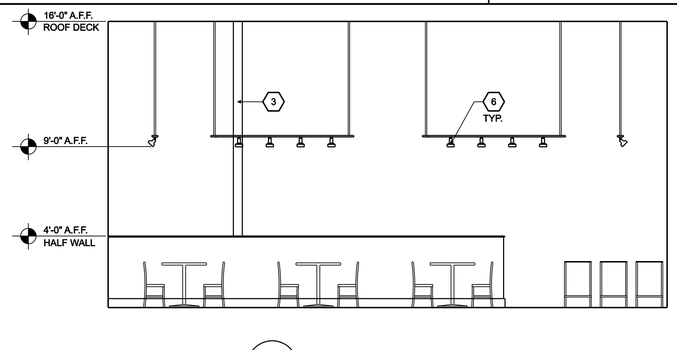


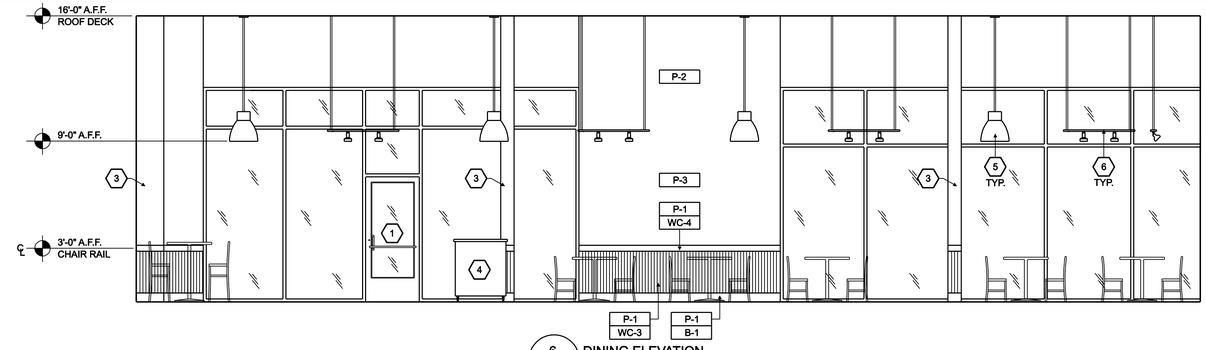
3 A3.0 HALLWAY/DINING ELEVATION
1/4"=1'-0"



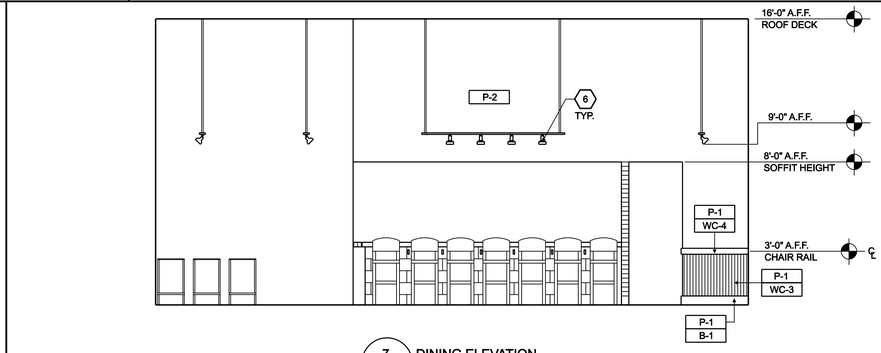
4 A3.0 HALLWAY ELEVATION
1/4"=1'-0"



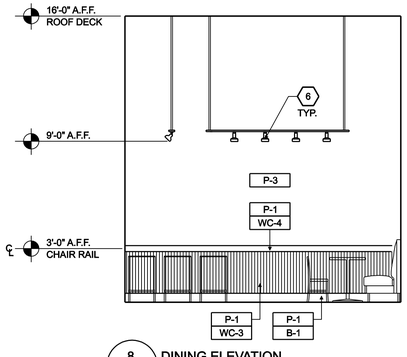
5 A3.0 HALLWAY ELEVATION
1/4"=1'-0"



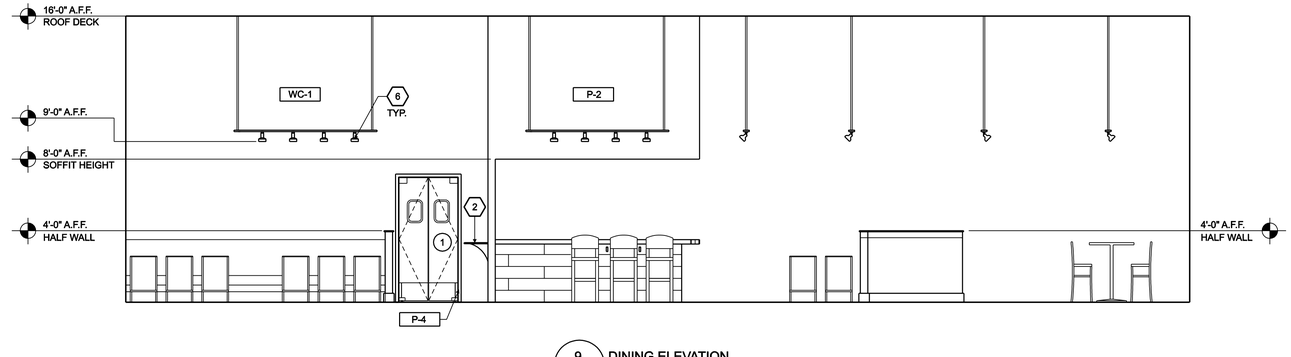
6 A3.0 DINING ELEVATION
1/4"=1'-0"



7 A3.0 DINING ELEVATION
1/4"=1'-0"



8 A3.0 DINING ELEVATION
1/4"=1'-0"



9 A3.0 DINING ELEVATION
1/4"=1'-0"

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBMO-104
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DRAWN BY: TV
CHECKED BY: TFT
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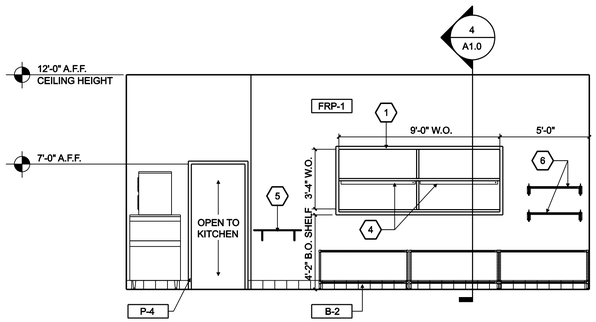
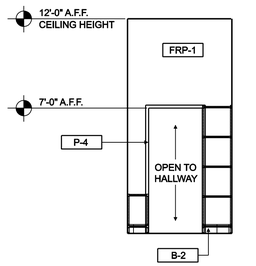
INTERIOR ELEVATIONS

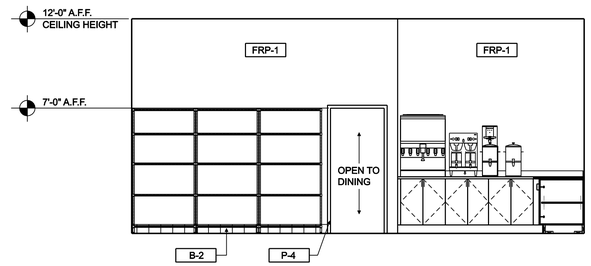
A3.0



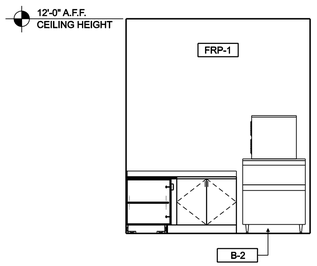
1 A3.1 EXPO ELEVATION 1/4"=1'-0"



2 A3.1 EXPO ELEVATION 1/4"=1'-0"



3 A3.1 EXPO ELEVATION 1/4"=1'-0"



4 A3.1 EXPO ELEVATION 1/4"=1'-0"

SHEET NOTES

A. ALL MOUNTING HEIGHTS SHALL COMPLY WITH ALL LOCAL AND STATE ADA, AND BUILDING CODE'S RESTRICTIONS AND REQUIREMENTS.

B. ALL UNUSED PAINT SHALL BE CLEARLY LABELED AND ADEQUATELY PACKAGED FOR STORAGE. CONTRACTOR SHALL DELIVER ALL UNUSED PAINT AND FINISH MATERIAL TO OWNER.

C. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION ON WALL AND DOOR FINISHES

D. ALL FRP SHALL BE INSTALLED WITH STANDARD TRIM PIECES.

KEY NOTES

1. PASS THRU WINDOW.
2. EXHAUST HOOD.
3. WALK-IN COOLER/FREEZER.
4. 48" HEAT LAMP.
5. POS COUNTER @ 40" A.F.F.
6. PLYWOOD BACKING TO BE PROVIDED IN WALL FOR SHELVING AND OTHER EQUIPMENT THAT IS WALL MOUNTED.
7. 50" FLAT PANEL TV (BY OWNER)
8. G.C. TO INSTALL 2' X 8' PRESSURE WHITE PINE SHELVES & 1" GAS PIPING FOR DECORATIVE BAR SHELVING. STAIN SHELVES W/VARATHANE WOOD STAIN RED MAHOGANY.
9. RECESSED ELECTRICAL PANEL

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STATE OF MISSOURI
THOMAS F. TEDROW
NUMBER A-2016014478
ARCHITECT

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460 NW DONOVAN RD.
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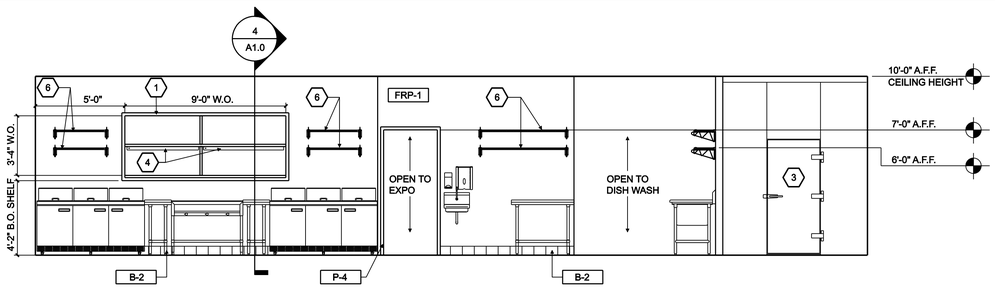
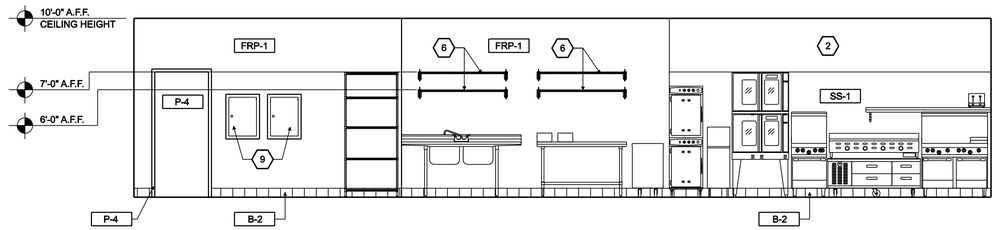
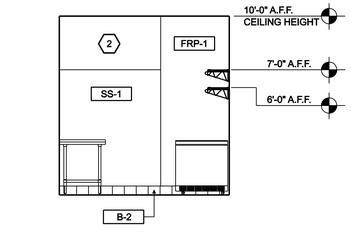


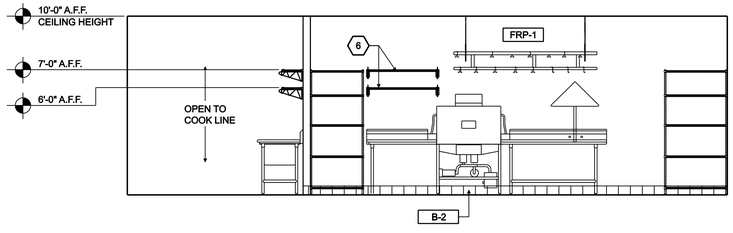
5 A3.1 COOK LINE ELEVATION 1/4"=1'-0"



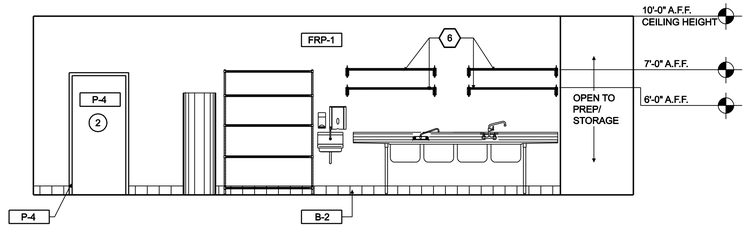
6 A3.1 COOK LINE ELEVATION 1/4"=1'-0"



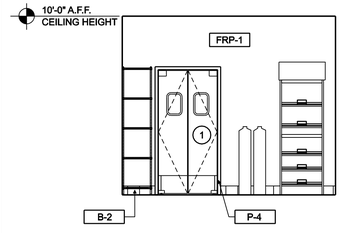
7 A3.1 COOK LINE ELEVATION 1/4"=1'-0"



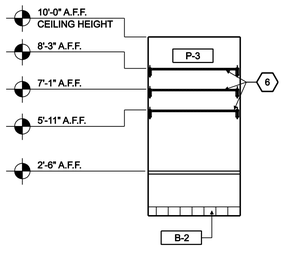
8 A3.1 DISH WASH ELEVATION 1/4"=1'-0"



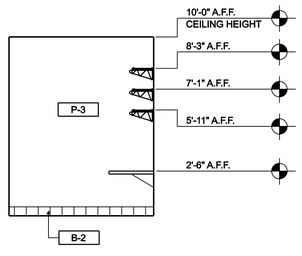
9 A3.1 DISH WASH ELEVATION 1/4"=1'-0"



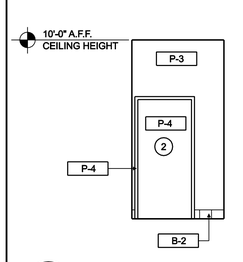
10 A3.1 DISH WASH ELEVATION 1/4"=1'-0"



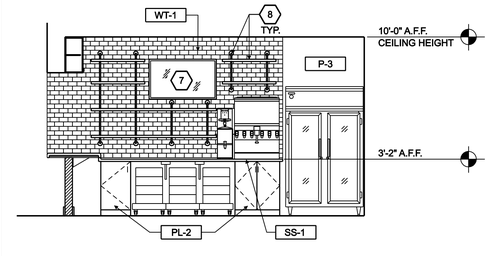
11 A3.1 OFFICE ELEVATION 1/4"=1'-0"



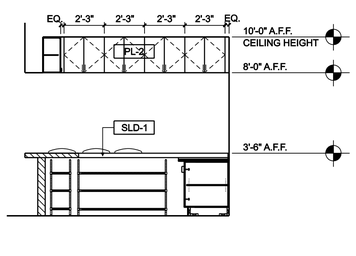
12 A3.1 OFFICE ELEVATION 1/4"=1'-0"



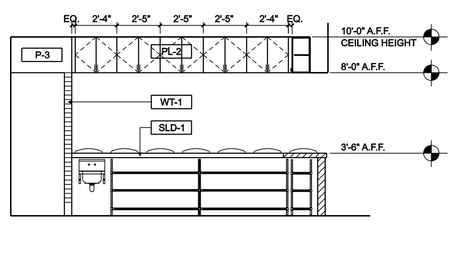
13 A3.1 OFFICE ELEVATION 1/4"=1'-0"



14 A3.1 SERVICE COUNTER ELEVATION 1/4"=1'-0"



15 A3.1 SERVICE COUNTER ELEVATION 1/4"=1'-0"



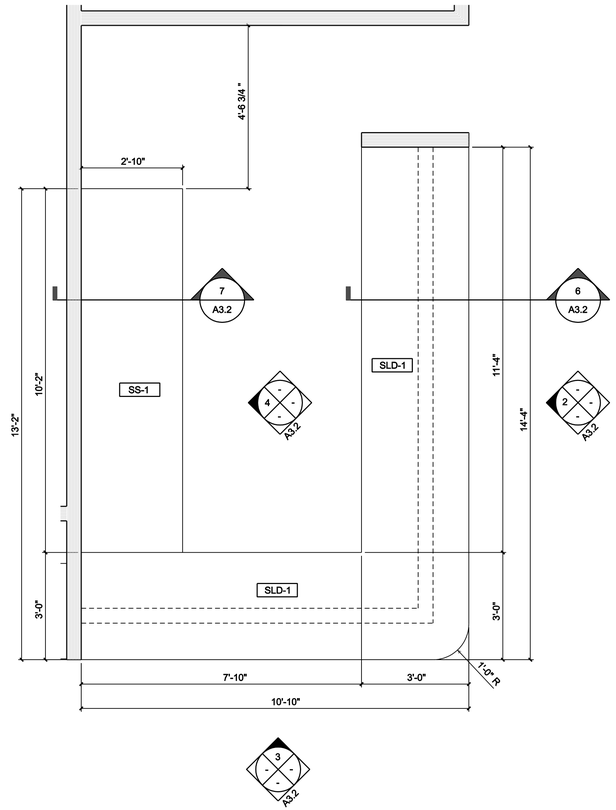
16 A3.1 SERVICE COUNTER ELEVATION 1/4"=1'-0"

REVISIONS	DATE	DESCRIPTION

PROJECT NO.: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

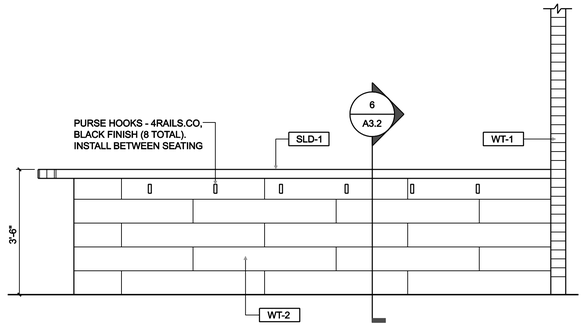
INTERIOR ELEVATIONS

A3.1

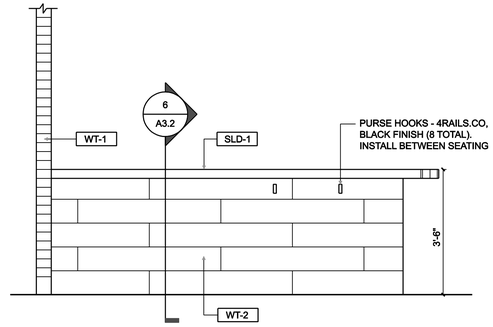


1 A3.2 SERVICE COUNTER PLAN
1/2"=1'-0"

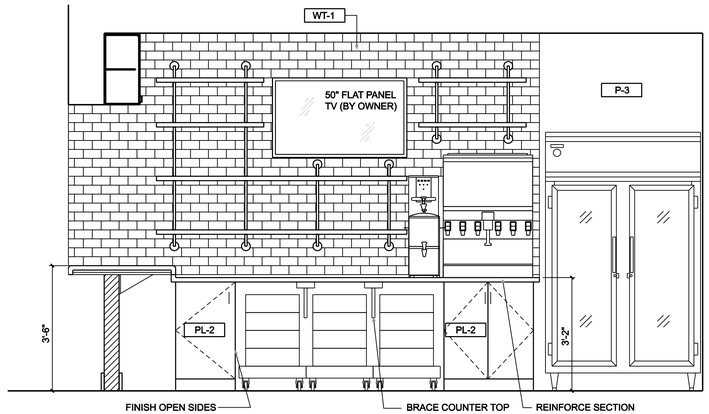
NOTE: REFER TO SHEET A3.0 FOR COMPLETE ELEVATIONS



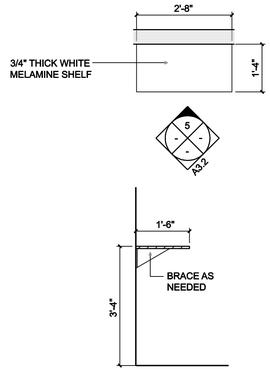
2 A3.2 SERVICE COUNTER ELEVATION
1/2"=1'-0"



3 A3.2 SERVICE COUNTER ELEVATION
1/2"=1'-0"



4 A3.2 SERVICE COUNTER PLAN
1/2"=1'-0"

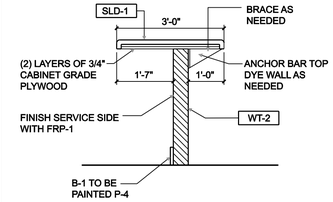


5 A3.2 WALL MOUNT POS SHELF DETAILS
1/2"=1'-0"

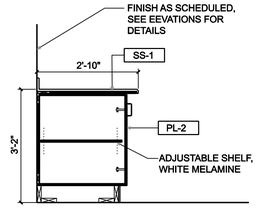
2 TOTAL

SHEET NOTES:

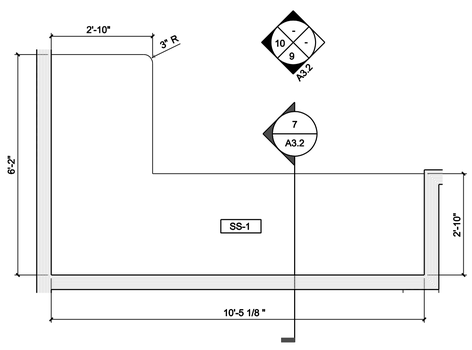
A. ALL CASEWORK TO HAVE INTERIOR FINISHED WITH WHITE MELAMINE.
B. LAMINATE (OR PAINT) ALL EDGES, THERE SHALL BE NO EXPOSED WOOD ON ANY EDGES.
C. ALL INTERIOR VERTICAL BRACING WILL HAVE TWO 3" FINISHED CUT OUTS FOR PLUMBING AND ELECTRICAL CONNECTIONS.
D. NO DOORS SHOULD BE FLUSHED MOUNTED. ALL DOORS WILL BE OVERLAY MOUNTED WITH FINGERPULLS.
E. TOE KICKS MUST MEET NEATLY AT ALL CORNERS. USE BLOCKING IF NEEDED TO FORCE 90 DEGREE ANGLE.
F. ALL TOE KICKS TO FLIP UP ON A HINGE TO ACCESS FOR CLEANING.
G. COUNTERTOPS WILL HAVE A MINIMUM 3/4" OVERHANG, UNLESS FLUSH TO WALL.
H. SEE ELEVATIONS FOR DETAILS ON FINISHES.



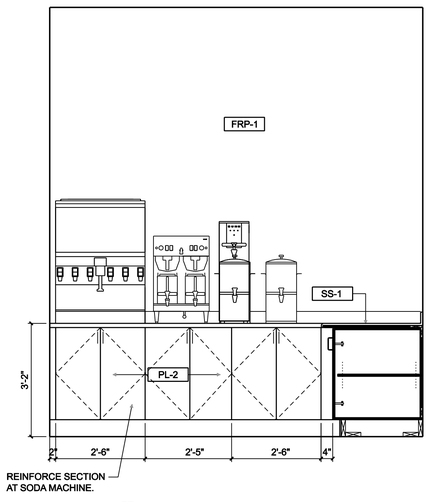
6 A3.2 SERVICE COUNTER SECTION
1/2"=1'-0"



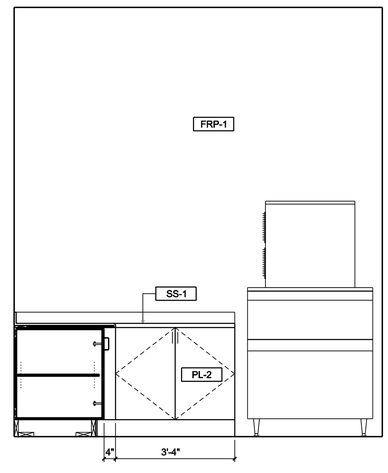
7 A3.2 SERVICE COUNTER SECTION
1/2"=1'-0"



8 A3.2 WAIT COUNTER PLAN
1/2"=1'-0"



9 A3.2 WAIT COUNTER ELEVATION
1/2"=1'-0"



10 A3.2 WAIT COUNTER ELEVATION
1/2"=1'-0"

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NUMBER A-2016014478
ARCHITECT
5/15/20

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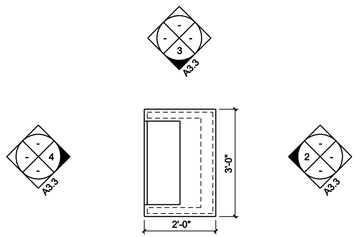
FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

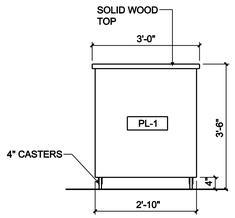
PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

MILLWORK DETAILS

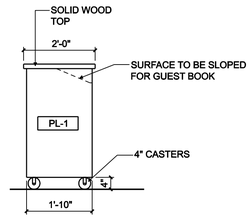
A3.2



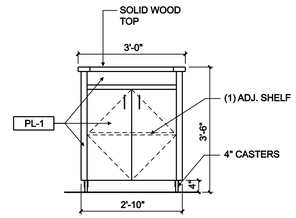
1 A3.3 MOBILE HOSTESS STAND PLAN
1/2"=1'-0"



2 A3.3 MOBILE HOSTESS STAND ELEV.
1/2"=1'-0"



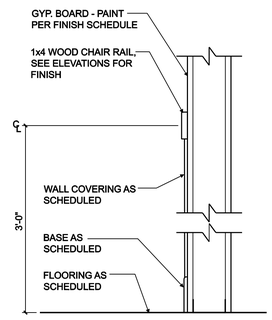
3 A3.3 MOBILE HOSTESS STAND ELEV.
1/2"=1'-0"



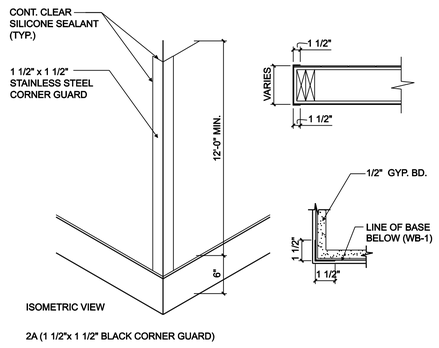
4 A3.3 MOBILE HOSTESS STAND ELEV.
1/2"=1'-0"

SHEET NOTES

A. ALL CASEWORK TO HAVE INTERIOR FINISHED WITH WHITE MELAMINE.
B. LAMINATE (OR PAINT) ALL EDGES, THERE SHALL BE NO EXPOSED WOOD ON ANY EDGES.
C. ALL INTERIOR VERTICAL BRACING WILL HAVE TWO 3" FINISHED CUT OUTS FOR PLUMBING AND ELECTRICAL CONNECTIONS.
D. NO DOORS SHOULD BE FLUSHED MOUNTED. ALL DOORS WILL BE OVERLAY MOUNTED WITH FINGERPULLS.
E. TOE KICKS MUST MEET NEATLY AT ALL CORNERS. USE BLOCKING IF NEEDED TO FORCE 90 DEGREE ANGLE.
F. COUNTERTOPS WILL HAVE A MINIMUM 3/4" OVERHANG, UNLESS FLUSH TO WALL.

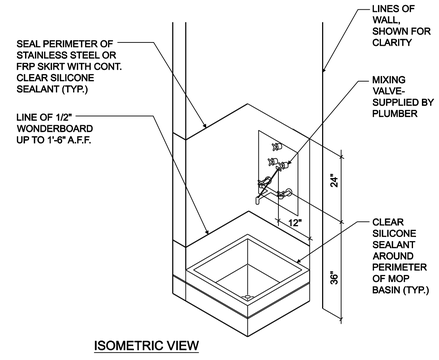


5 A3.3 CHAIR RAIL DETAIL
NTS=1'-0"



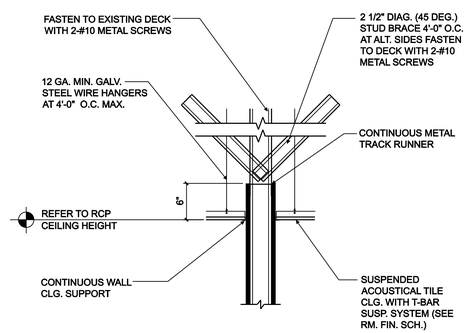
2A (1 1/2"x 1 1/2" BLACK CORNER GUARD)

6 A3.3 CORNER GUARD DETAIL
NTS=1'-0"



ISOMETRIC VIEW

7 A3.3 MOP SINK DETAIL
NTS=1'-0"



8 A3.3 WALL BRACING DETAIL
NTS=1'-0"

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FLYING BISCUIT
SUMMIT ORCHARDS
460 NW DONOVAN RD.
SUITE 4B
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

MILLWORK DETAILS & SECTIONS

A3.3

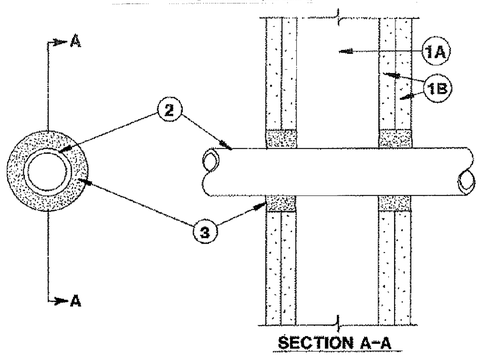
System No. W-L-2038

June 23, 2000

(Formerly System No. G14)

F Rating — 1 and 2 Hr (See Item 1)

T Rating — 1 and 2 Hr (See Item 1)



1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

B. **Gypsum Board*** — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series design in the UL Fire Resistance Directory. Max diameter of opening is 4-3/8 in.

The hourly F and T ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Through Penetrants** — One nonmetallic pipe, conduit or tubing to be centered within the firestop system. The max diam of the through penetrant and annular space within the firestop system is dependent upon the type of fill material (Item 3). Pipe, conduit or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes, conduits or tubing may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 2 in. diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) piping systems.

C. **Rigid Nonmetallic Conduit+** — Nom 2 in. diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

D. **Electrical Nonmetallic Tubing (ENT)+** — Nom 1 in. diam (or smaller) PVC tubing installed in accordance with Article 331 of the National Electrical Code (NFPA No. 70).

3. **Fill, Void or Cavity Material*** — Sealant — In 2 hr fire rated assemblies, min 1-1/4 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. In 1 hr fire rated assemblies, min 5/8 in. thickness of fill material applied within the annulus, on both surfaces of wall. Additional fill material to be installed such that a min 5/8 in. thick crown is formed around the penetrating item and lapping a min 1 in. beyond the periphery of the opening.

The max diam of the through penetrant and annular space within the firestop system is dependent upon the type of fill material as tabulated below:

Max Diam of Through Penetrant In.	Nom Annular Space In.	Fill Mtl Type
1	1/2	FSP 1100 Putty
2	1	FS 1900 Sealant

W R GRACE & CO - CONN — FSP 1100 Putty or FS 1900 Sealant.

+Bearing the UL Listing Mark

*Bearing the UL Classification Marking

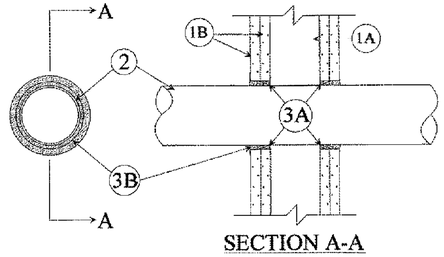
1 & 2 HOUR FIRESTOP FOR METALLIC PIPE THROUGH RATED ASSEMBLY

System No. W-L-1089

June 23, 2000

F Ratings — 1 and 2 Hr (See Item 1)

T Rating — 0 Hr



1. **Wall Assembly** — The fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing in all four sides.

B. **Gypsum Board*** — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 24-5/8 in. for steel stud walls. Max diam of opening is 14-1/2 in. for wood stud walls.

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Through Penetrant** — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and the periphery of opening shall be min 1/8 in. to max 1/2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe** — Nom 24 in diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** — Nom 24 in. diam (or smaller) cast or ductile iron pipe.

C. **Conduit** — Nom 4 in. diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.

D. **Copper Tubing** — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe** — Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — In 2 hr fire-rated assemblies, min 2 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form on both sides of wall. Packing material to be recessed from both surfaces of the wall as required to accommodate the required thickness of fill material. In 1 hr fire-rated assemblies, min 3-3/4 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be flush with both surfaces of the wall.

B. **Fill, Void or Cavity Material*** — **Sealant** — In 2 hr fire-rated assemblies, 1/4 in. thickness of fill material applied within the annulus on both surfaces of wall. Additional fill material to be installed such that a min 1-1/4 in. thick crown is formed around the penetrating item and lapping a min 1/4 in. beyond the periphery of the opening. In 1 hr fire-rated assemblies, a min 1/2 in. thick crown is formed around the penetrating item and lapping a min 1/2 in. beyond the periphery of the opening on both surfaces of wall.

W R GRACE & CO - CONN — FS 1900 Sealant

*Bearing the UL Classification Mark

1 & 2 HOUR FIRESTOP FOR 2" OR SMALLER METALLIC PIPE THROUGH RATED ASSEMBLY

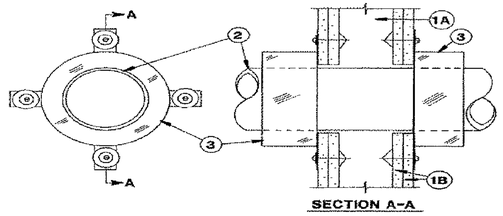
System No. W-L-2037

June 23, 2000

Formerly System No. 612

F Rating — 1, 1-1/2 and 2 Hr (See Item 2)

T Rating — 3/4 and 1-1/2 Hr (See Item 2)



1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.

B. **Gypsum Board*** — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 9-3/8 in.

2. **Through-Penetrants** — One nonmetallic pipe or conduit to be centered within the firestop system. The annular space between pipe or conduit and periphery of opening shall be a min 0 in. (point contact) to max 1/16 in. Pipe or conduit to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes and conduit may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 8 in. diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Rigid Nonmetallic Conduit (RNC)+** — Nom 4 in. diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 4 in. diam (or smaller) SDR 17 CPVC pipe for use in closed (process or supply) piping systems.

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 4 in. diam (or smaller) Schedule 40 cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. **Flame Retardant Polypropylene (FRPP) Pipe** — Nom 4 in. diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

The F and T ratings of the firestop system are dependent upon the hourly rating of the wall assembly and type and size of through-penetrant as tabulated below:

Type of Through Penetrant	Max Diam of Through Penetrant In.	Rating of Wall Hr	F Rating Hr	T Rating Hr
PVC Pipe	4	2	2	1-1/2
PVC Pipe	8	1	1	3/4
PVC Pipe	8	2	1-1/2	1-1/2
RNC	4	2	2	1 1/2
RNC	4	1	1	3/4
CPVC Pipe	4	2	2	1-1/2
CPVC Pipe	4	1	1	3/4
ABS Pipe	4	2	1-1/2	1-1/2
FRPP Pipe	4	2	1-1/2	1-1/2

3. **Firestop Device*** — Galv steel collar lined with an intumescent material sized to fit the specific diam of the through-penetrant. Device shall be installed around through-penetrant in accordance with accompanying installation instructions. Device incorporates four anchor tabs for securement to each surface of wall assembly by means of 1/8 in. diam by 3 in. long toggle bolts in conjunction with 1/8 in. diam by 3/4 in. and 1/4 in. diam by 1-1/4 in. steel fender washers.

W R GRACE & CO - CONN — FSD Device

+Bearing the UL Listing Mark

*Bearing the UL Classification Marking

1 & 2 HOUR FIRESTOP FOR 2" OR SMALLER NON-METALLIC PIPE THROUGH RATED ASSEMBLY

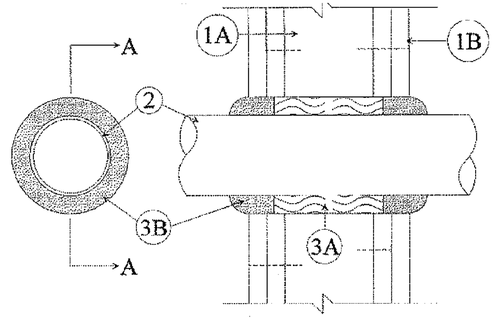
System No. W-L-1007

June 23, 2000

(Formerly System No. 236)

F Rating — 1 and 2 Hr (See Item 1)

T Ratings — 0, 1/2 and 1-1/2 Hr (See Item 2)



1. **Wall Assembly** — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs — Wall** framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. In 2 hr fire-rated assemblies, steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC. In 1 hr fire-rated assemblies, steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC.

B. **Gypsum Board*** — 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 5 in.

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Through Penetrant** — One metallic pipe or conduit to be centered within the firestop system. A nom annular space of 1/4 in. is required within the firestop system. Pipe or conduit to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:

A. **Steel Pipe** — Nom 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Conduit** — Nom 4 in. diam (or smaller) steel electrical metallic tubing or 4 in. diam steel conduit.

The T Rating of the firestop system is dependent upon the max diam of the through-penetrant and hourly rating of the wall assembly as shown in the table below:

Max Diam of Through Penetrant	Rating of Wall Hr	T Rating Hr
1/2	2	1-1/2
1/2	1	1
2	2	1/2
2	1	1/2
4	2	0
4	1	0

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material*** — In 2 hr fire-rated assemblies, min 3 in. thickness of min 4 pcf mineral wool insulation firmly packed into opening as a permanent form. In 1 hr fire-rated assemblies, min 2-7/8 in. thickness of min 4 pcf mineral wool insulation firmly packed into opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material* — Sealant** — In 2 hr fire-rated assemblies, min 1 in. thickness of fill material applied within annulus, flush with both surfaces of wall. Additional fill material to be installed such that a min 1/2 in. thick crown is formed around the penetrating item. In 1 hr fire-rated assemblies, min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall. Additional fill material to be installed such that a min 1 in. thick crown is formed around the penetrating item.

W R GRACE & CO - CONN — FS900, FS901, FS903, FS903CG, FS905, FS905CG, FS929, FST901, FST903 and FST905 Sealant.

1 & 2 HOUR RATED FIRESTOP FOR METALLIC PIPE THROUGH RATED ASSEMBLY

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LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBMO-104
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 5/15/20

FIRESTOP DETAILS

A4.0

I. GENERAL PROVISIONS

A. OVERVIEW

1. ALL WORK DONE UNDER THIS CONTRACT SHALL COMPLY WITH ALL STATE AND LOCAL CODES HAVING JURISDICTION AND WITH THE REQUIREMENTS OF THE UTILITY COMPANIES WHOSE SERVICES MAY BE USED. ALL MODIFICATIONS REQUIRED BY THESE CODES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGES. WHERE CODE REQUIREMENTS ARE LESS THAN THOSE SHOWN ON THE PLANS OR IN THE SPECIFICATIONS, THE PLANS AND SPECIFICATIONS SHALL BE FOLLOWED. WHERE APPLICABLE, NFPA REQUIREMENTS SHALL BE MET.
2. IN CASE OF ANY CONFLICTS BETWEEN CONTRACT DOCUMENTS, THE STRICTER/MORE STRINGENT SHALL GOVERN.
3. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, INSPECTIONS, AND APPROVALS AS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION AND DELIVER CERTIFICATES OF APPROVAL TO THE ENGINEER. ALL FEES AND COSTS OF ANY NATURE WHATSOEVER INCIDENTAL TO THESE PERMITS, INSPECTIONS AND APPROVALS MUST BE ASSUMED AND PAID BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF O.S.H.A.
5. THE WORKMANSHIP AND MATERIALS COVERED BY THESE SPECIFICATIONS SHALL CONFORM TO ALL ORDINANCES AND REGULATIONS OF THE CITY, COUNTY AND/OR OTHER AUTHORITIES HAVING JURISDICTION.
6. CONTRACTOR SHALL VISIT THE SITE AND EXAMINE EXISTING CONDITIONS BEFORE SUBMITTING BID. NO ALLOWANCE WILL BE MADE FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS WHEN SUCH CONDITIONS CAN BE DETERMINED BY OBSERVATION.
7. PRIOR TO SUBMITTING DATA FOR OR PURCHASING EQUIPMENT REQUIRING ELECTRICAL SERVICE, THE CONTRACTOR SHALL VERIFY THAT ELECTRICAL CHARACTERISTICS OF EQUIPMENT SUBMITTALS COMPLY WITH ELECTRICAL SERVICE PROVIDED FOR THE SPECIFIED ITEMS OF EQUIPMENT.
8. UPON RECEIPT OF THE CONTRACTOR OF REVIEWED SUBMITTALS FOR EQUIPMENT PROVIDED UNDER THIS DIVISION, THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL SERVICE REQUIREMENTS, I.E., MOTOR HORSEPOWER AND FULL LOAD AMPS, ELECTRICAL SERVICE CHARACTERISTICS (VOLTAGE AND PHASE), AND NUMBER OF SERVICES FOR EACH ITEM OF EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS WITH THE ELECTRICAL DRAWINGS AND SPECIFICATIONS.
9. ITEMS ON OR PROJECTING THROUGH THE CEILING SHALL BE COORDINATED WITH OTHER TRADES.
10. EQUIPMENT MODEL NUMBERS ARE PROVIDED FOR GENERAL GUIDANCE, CONTRACTOR SHALL PROVIDE EQUIPMENT THAT MEETS THE PHYSICAL CAPACITIES AS SCHEDULED AND GENERAL ARRANGEMENT AS INDICATED IN THE DRAWING SET. CONTRACTOR SHALL VERIFY EXACT, CURRENT MODEL NUMBERS WITH THE MANUFACTURERS.

B. OPERATION AND MAINTENANCE INSTRUCTIONS

1. THE CONTRACTOR SHALL PROVIDE TWO OPERATION AND MAINTENANCE MANUALS. THE MANUALS SHALL BE COMPILED IN HARD BACK, THREE RING NOTEBOOKS. O&M MANUALS SHALL HAVE PERMANENT LABELS ON FRONT AND SIDE. THE FOLLOWING INFORMATION SHALL APPEAR IN EACH MANUAL:
2. PROVIDE MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, ROUTINE AND NORMAL OPERATING INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUTDOWN AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS. PROVIDE MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.

C. INSTRUCTIONS OF OWNER PERSONNEL

1. BEFORE FINAL INSPECTION, AT A TIME DESIGNATED BY THE DESIGNER, PROVIDE A COMPETENT REPRESENTATIVE TO INSTRUCT OWNER'S DESIGNATED PERSONNEL IN OPERATION, ADJUSTMENT AND MAINTENANCE OF PRODUCTS, EQUIPMENT AND SYSTEMS UNDER THIS DIVISION OF THE SPECIFICATIONS. FOR EQUIPMENT REQUIRING SEASONAL OPERATIONS, PERFORM INSTRUCTIONS FOR OTHER SEASONS WITHIN SIX MONTHS UNLESS REQUESTED OTHERWISE.

D. COORDINATION

1. THE PRODUCTS OF PARTICULAR MANUFACTURERS HAVE BEEN USED AS THE BASIS OF DESIGN IN PREPARATION OF THESE DOCUMENTS. ANY MODIFICATIONS TO THE MECHANICAL SYSTEMS AND THEIR COMPONENTS, THE ELECTRICAL SYSTEMS, THE BUILDING STRUCTURE AND ARCHITECTURE, OR ANY OTHER PORTION OF THE BUILDING THAT RESULT FROM THE USE OF ANY OTHER THAN THAT BASIS OF DESIGN EQUIPMENT SHALL BE COORDINATED WITH ALL OTHER TRADES. SUCH COORDINATION SHALL OCCUR BEFORE PURCHASE OR DELIVERY OF PRODUCTS FROM THE MANUFACTURER DRAWINGS OR INSTALLED ACCORDINGLY. ANY RELATED MODIFICATIONS SHALL BE PERFORMED WITHOUT ANY ADDITIONAL COST TO THE CONTRACT.
2. RESIDENTIAL GRADE HVAC COMPONENTS SHALL NOT BE PERMITTED WITHOUT SPECIFIC OWNER INSTRUCTION AND ENGINEER APPROVAL.

E. EXECUTION

1. THE PLANS DO NOT GIVE EXACT ELEVATIONS OR LOCATIONS OF LINES, NOR DO THEY SHOW ALL THE OFFSETS, CONTROL LINES, OR OTHER INSTALLATION DETAILS. THE CONTRACTOR SHALL CAREFULLY LAY OUT HIS WORK AT THE SITE TO CONFORM TO THE STRUCTURAL CONDITIONS, TO PROVIDE PROPER GRADING OF LINES, TO AVOID ALL OBSTRUCTIONS, TO CONFORM TO DETAILS OF INSTALLATION SUPPLIED BY THE MANUFACTURERS OF THE EQUIPMENT TO BE INSTALLED, AND TO THEREBY PROVIDE AN INTEGRATED, COORDINATED AND SATISFACTORY OPERATING INSTALLATION. DO NOT SCALE DRAWINGS.
2. IF THE CONTRACTOR PROPOSES TO INSTALL EQUIPMENT, INCLUDING PIPING AND DUCTWORK, REQUIRING SPACE CONDITIONS OTHER THAN THOSE SHOWN, OR TO REARRANGE THE EQUIPMENT, HE SHALL ASSUME FULL RESPONSIBILITY FOR THE REARRANGEMENT OF THE SPACE AND CONNECT ARRANGEMENT AT NO ADDITIONAL COST TO THE OWNER, AND SHALL HAVE THE ENGINEER REVIEW THE CHANGE BEFORE PROCEEDING WITH THE WORK. THE REQUEST FOR SUCH CHANGES SHALL BE ACCOMPLISHED BY SHOP DRAWINGS OF THE SPACE IN QUESTION.
3. TEMPORARY FILTERS SHALL BE PROVIDED FOR FANS THAT ARE USED DURING CONSTRUCTION. AT THE TIME OF STARTING THE BALANCING OF THE AIR DISTRIBUTION SYSTEM, NEW FILTERS SHALL BE INSTALLED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER LOCATION AND SIZE OF ALL SLOT, HOLES OR OPENINGS IN THE BUILDING STRUCTURE PERTAINING TO HIS WORK, AND FOR THE CORRECT LOCATION OF SLEEVES, INSERTS, CORES, ETC.
5. THE CONTRACTOR SHALL SO COORDINATE THE WORK OF THE SEVERAL VARIOUS TRADES THAT IT MAY BE INSTALLED IN THE MOST DIRECT AND WORKMANLIKE MANNER WITHOUT HINDERING OR HANDICAPPING THE OTHER TRADES. PIPING INTERFERENCES SHALL BE HANDLED BY GIVING PRECEDENCE TO PIPE LINES WHICH REQUIRE A STATED GRADE FOR PROPER OPERATION. FOR EXAMPLE SEWER LINES AND CONDENSATE PIPING SHALL TAKE PRECEDENCE OVER WATER LINES IN DETERMINATION OF ELEVATIONS. WHERE THERE IS INTERFERENCE BETWEEN SEWER LINES AND CONDENSATE LINES, THE SEWER LINES SHALL HAVE PRECEDENCE AND THE PROVISIONS SHALL BE MADE IN THE CONDENSATE LINES FOR LOOPING THEM AROUND THE SEWER LINES. IN ALL CASES, LINES REQUIRING A STATED GRADE FOR THEIR PROPER OPERATION SHALL HAVE PRECEDENCE OVER ELECTRICAL CONDUIT AND DUCTWORK.
6. ALL PIPING AND DUCTWORK IN FINISHED AREAS- EXCEPT WHERE NOTED TO THE CONTRARY- SHALL BE INSTALLED AS IN A CHASE, FURRED SPACE, OR ABOVE CEILINGS, ETC. IN ALL CASES, PIPES AND DUCTS SHALL BE INSTALLED AS HIGH AS POSSIBLE. RUNS OF PIPING SHALL BE GROUPED WHENEVER IT IS FEASIBLE TO DO SO.
7. PIPING SHALL BE INSTALLED SO AS TO PERMIT INSPECTION BY THE DEPARTMENT HAVING JURISDICTION, STATE AND FEDERAL AUTHORITIES AND INSURANCE COMPANY HAVING JURISDICTION. ANY CHANGES OR ADDITIONS WHICH MAY BE NECESSARY TO OBTAIN SUCH INSPECTIONS AND APPROVAL SHALL BE MADE BY THE CONTRACTOR AS PART OF THIS CONTRACT AND WITHOUT ADDITIONAL COST TO THE OWNER.
8. PIPING, DUCTWORK OR EQUIPMENT SHALL NOT BE INSTALLED IN ELECTRICAL EQUIPMENT ROOMS OR ELEVATOR MACHINE ROOMS EXCEPT AS SERVING ONLY THOSE ROOMS. OUTSIDE OF ELECTRICAL EQUIPMENT ROOMS, DO NOT RUN PIPING OR DUCTWORK OR LOCATE EQUIPMENT, WITH RESPECT TO SWITCHBOARDS, PANEL BOARDS, POWER PANELS, MOTOR CONTROL CENTERS, DRY TYPE TRANSFORMERS OR ROOF TOP AIR CONDITIONING UNIT ELECTRICAL PANELS.
9. PROVIDE ACCESS TO EQUIPMENT AND APPARATUS REQUIRING OPERATION, SERVICE OR MAINTENANCE WITHIN THE LIFE OF THE SYSTEM. INCLUDING, BUT NOT LIMITED TO, MOTORS, VALVES, FILTERS, DAMPERS, SHOCK ABSORBERS, ETC. EQUIPMENT LOCATED ABOVE LAY-IN TYPE CEILINGS IS CONSIDERED ACCESSIBLE.
10. DAMAGED EQUIPMENT SHALL BE REPAIRED OR REPLACED AT THE OPTION OF THE ARCHITECT.

F. ELECTRICAL WORK

1. ALL ELECTRICAL EQUIPMENT PROVIDED UNDER THIS DIVISION SHALL COMPLY WITH THE ELECTRICAL SYSTEM CHARACTERISTICS INDICATED ON THE ELECTRICAL DRAWINGS AND SPECIFIED IN DIVISION 16.
2. EQUIPMENT UNIT MOTOR SPEED CONTROLS, STARTERS, SYSTEM CONTROLS, PILOT LIGHTS, PUSH-BUTTONS, ETC., SHALL BE FURNISHED COMPLETE AS A PART OF THE MOTOR APPARATUS WHICH IT OPERATES. ALL COMPONENTS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND DIVISION 16. ALL MOTOR STARTERS SHALL BE PROVIDED WITH AN H-O-A SWITCH AND CONTROL TRANSFORMER. ALL STARTERS AND DISCONNECT SWITCHES SHALL BE ELECTRICALLY INTERLOCKED UNDER DIVISION 15. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR PRIOR TO HIS WIRING OF EQUIPMENT.
3. CONTROL WIRING (120V AND LESS) SHALL BE PROVIDED UNDER DIVISION 15 AND EXTENDED FROM THE STARTERS, CONTROL TRANSFORMERS OR LOW VOLTAGE POWER SOURCES INDICATED ON THE ELECTRICAL DRAWINGS. ALL WIRING FOR 120 VOLTS SHALL BE DONE BY A LICENSED ELECTRICIAN.
4. ALL ELECTRICAL CHARACTERISTICS SHALL BE TAKEN FROM THE ELECTRICAL DRAWINGS AND SPECIFICATIONS AND COORDINATED BEFORE EQUIPMENT IS ORDERED OR PURCHASED.

G. CUTTING AND PATCHING

1. THE CONTRACTOR SHALL ASSUME ALL COST OF, AND BE RESPONSIBLE FOR, ARRANGING FOR ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE INSTALLATION OF HIS PORTION OF THE WORK. ALL CUTTING SHALL BE CAREFULLY AND NEATLY DONE SO AS NOT TO DAMAGE OR CUT AWAY MORE THAN IS NECESSARY OF ANY EXISTING PORTIONS OF THE STRUCTURE.
2. ALL SURFACES SHALL BE PATCHED TO THE CONDITION OF THE ADJACENT SURFACES.
3. THE CONTRACTOR SHALL MAKE SUITABLE PROVISIONS FOR ADEQUATELY WATERPROOFING AT HIS FLOOR PENETRATIONS OF WATER PROOF MEMBRANE FLOORS. THIS SHALL INCLUDE BUT NOT BE LIMITED TO FLOOR DRAINS, OPEN SIGHT DRAINS, HUB DRAINS, CLEANOUTS, AND SLEEVES FOR THE VARIOUS PIPING. THIS ALSO APPLIES TO MEMBRANE ROOFING SYSTEMS.
4. ALL PENETRATIONS AND WATER PROOFING OF PENETRATIONS IN MEMBRANE ROOFING SYSTEMS SHALL BE COORDINATED WITH AND PERFORMED BY THE MANUFACTURER/INSTALLER.
5. THE CONTRACTOR SHALL INSTALL, AS REQUIRED, IN CONCRETE, CARPENTRY OR MASONRY CONSTRUCTION, ALL NECESSARY HANGERS, SLEEVES, EXPANSION BOLTS, INSERTS AND OTHER FIXTURES AND APPURTENANCES NECESSARY FOR THE SUPPORT OF PIPE, DUCT, EQUIPMENT AND DEVICES FURNISHED UNDER EACH SECTION OF THE SPECIFICATION.
6. FOR WALLS BETWEEN INTERIOR AND BELOW GRADE AREA, THE LINK-SEAL SYSTEM AS MANUFACTURED BY THUNDERLINE CORPORATION SHALL BE USED TO SEAL PIPE TO WALL PENETRATIONS. INSTALL SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
7. ESCUTCHEONS SHALL BE INSTALLED ON ALL PIPES WHERE THEY PASS THROUGH FLOORS, CEILINGS, WALLS OR PARTITIONS IN FINISHED AREAS WHERE EXPOSED TO VIEW.
8. WHERE AND HVAC OR PLUMBING REPLACEMENT SCOPE IS INDICATED, MECHANICAL CONTRACTOR SHALL PROVIDE FOR THE DEMOLITION OF EXISTING SYSTEMS THAT ARE BEING REPLACED OR ABANDONED

H. ACCESS DOORS

1. FURNISH AND INSTALL ACCESS DOORS AT EACH POINT REQUIRED TO PROVIDE ACCESS TO CONCEALED VALVES, CLEANOUTS AND OTHER DEVICES REQUIRING OPERATION, ADJUSTMENT OR MAINTENANCE. ACCESS DOORS SHALL BE 16 GAUGE STEEL, PRIME COAT FINISH, WITH MOUNTING STRAPS, CONCEALED HINGES AND SCREWDRIVER LOCKS, DESIGNED FOR THE DOORS TO OPEN 180 DEGREES.
2. ACCESS DOORS INSTALLED IN FIRE WALLS OR PARTITIONS SHALL BE UL LABELED TO MAINTAIN THE FIRE RATING OF THE WALL OR PARTITION.

I. FLAME SPREAD AND SMOKE DEVELOPED PROPERTIES OF MATERIALS

1. MATERIALS AND ADHESIVES USED THROUGHOUT THE MECHANICAL AND ELECTRICAL SYSTEMS FOR INSULATION, AND JACKETS OR COVERINGS OF ANY KIND, OR FOR PIPING OR CONDUIT SYSTEM COMPONENTS, SHALL HAVE A FLAME SPREAD RATING NOT OVER 25 WITHOUT EVIDENCE OF CONTINUED COMBUSTION AND WITH A SMOKE DEVELOPED RATING NOT HIGHER THAN 50. IF SUCH MATERIALS ARE TO BE APPLIED WITH ADHESIVES, THEY SHALL BE TESTED AS APPLIED WITH SUCH ADHESIVES, OR THE ADHESIVES USED SHALL HAVE A FLAME SPREAD RATING NOT OVER 25 AND A SMOKE DEVELOPED RATING NOT HIGHER THAN 50.

II. INSULATION

A. GENERAL PIPE INSULATION

1. FIBERGLASS SHALL BE ACCEPTABLE FOR INDOOR HOT & COLD DOMESTIC; HYDRONIC PIPING; AND INSULATED DRAINAGE PIPING. PROVIDE PREFABRICATED FITTINGS FOR ELBOWS AND TEE'S. PROVIDE PREFAB PVC FITTINGS OR WHITE ALL SERVICE (INTEGRAL TO PREFAB PIPING ELBOW) PIPING ELBOW JACKETING. PROVIDE PIPE LABELING FOR ALL INSULATED, JACKETED INDOOR PIPING. PVC JACKETING SHALL NOT BE PERMITTED IN RETURN PLENUM AREAS. ALL JACKEING SEAMS SHALL BE SEALED AIR-TIGHT FOR CONTINUOUS VAPOR BARRIER.
2. FITTINGS AND VALVES SHALL BE INSULATED WITH PRE-FORMED FITTINGS, FABRICATED SECTIONS OF PIPE INSULATION, TANK INSULATION, BLANKET INSULATION, OR INSULATING CEMENT. THICKNESS SHALL BE EQUAL TO ADJACENT PIPE INSULATION. FINISH SHALL BE WITH PRE-FORMED PVC FITTING COVERS OR AS OTHERWISE SPECIFIED ON CONTRACT DRAWINGS.
3. FLANGES, CUPLINGS AND VALVE BONNETS SHALL BE COVERED WITH AN OVERSIZED PIPE INSULATION SECTION SIZED TO PROVIDE THE SAME INSULATION THICKNESS AS ON THE MAIN PIPE SECTION. AN OVERSIZED INSULATION SECTION SHALL BE USED TO FORM A COLLAR BETWEEN THE TWO INSULATION SECTIONS WITH LOW-DENSITY BLANKET INSULATION BEING USED TO FILL GAPS. JACKETING SHALL MATCH THAT USED ON STRAIGHT PIPE SECTIONS. ROUGH CUT ENDS SHALL BE COATED WITH SUITABLE WATER VAPOR RESISTANT MASTIC AS DICTATED BY THE SYSTEM LOCATION AND SERVICE. ON HOT SYSTEMS WHERE FITTINGS ARE TO BE LEFT EXPOSED, INSULATION ENDS SHOULD BE BEVELED AWAY FROM BOLTS FOR EASY ACCESS.

B. INSULATION THICKNESS

1. DOMESTIC COLD WATER INSULATION SHALL BE 1" MINIMUM OR AS REQUIRED BY LOCAL ENERGY CODES.
2. FOR MEDIA BELOW 60 DEGREES INSULATION SHALL BE 1" UP TO 1-¼" PIPE SIZE; 1.5" THICK UP TO 3" PIPE SIZE; AND 2" THICK BEYOND 3" PIPE SIZE.
3. CHILLED WATER PIPING INSULATION SHALL BE 1" UP TO 1-1/4" PIPE SIZE, 1.5" UP TO 3".

C. FIBERGLASS PIPE INSULATION

1. ONE PIECE FIBROUS GLASS PIPE INSULATION WITH FACTORY APPLIED ALUMINUM FOIL AND WHITE KRAFT PAPER FLAME RETARDANT VAPOR BARRIER JACKET.
2. PROVIDE SELF_SEALING LONGITUDINAL JACKET LAPS AND BUTT STRIPS. AVERAGE THERMAL CONDUCTIVITY: 0.23 BTU/H. PER SQUARE FOOT PER DEGREES F PER HOUR AT 75 DEGREES F MEAN TEMPERATURE.
3. PROVIDE INSULATION CEMENT, FIBERGLASS REINFORCEMENT FABRIC, VAPOR BARRIER COATING, FOR CONTINUOUS, AIR-TIGHT INSULATION WITH VAPOR BARRIER.

D. FOAMGLASS PIPE INSULATION

1. FOAM GLASS TYPE PIPE INSULATION SHALL HAVE MAXIMUM K_FACTOR OF 0.38 AT 50 DEGREES F MEAN TEMPERATURE. MINIMUM DENSITY SHALL BE 8 LB/CU. FT., 1 1/2" THICK MINIMUM. PROVIDE MASTIC, FIBERGLASS REINFORCED STRAPPING TAPE TO ASSURE AIR-TIGHT MOISTURE-PROOF INSULATION. PROVIDE WITH ALUMINUM JACKETING THAT SHALL BE 0.016" THICK WITH FITTING COVERS 0.024" THICK. PROVIDE WITH 5 WATT/FT HEAT TRACING BELOW INSULATION FOR OUTDOOR, ABOVE-GROUND INSTALLATION.
2. PROVIDE FOAM GLASS INSERTS AT PIPE HANGERS, CLAMPS, OR OTHER SUPPORTS IN FIBERGLASS OR ELASTOMERIC PIPE INSULATION INSTALLATIONS INSERTS SHALL BE SAME THICKNESS AS ADJOINING PIPE INSULATION. VAPOR SEAL SHALL BE AS HEREINBEFORE SPECIFIED. ALUMINUM JACKETING SHALL NOT BE REQUIRED FOR INDOOR INSERTS (PVC OR WHITE ALL-SERVICE FOIL/KRAFT/JACKETING MEDIA SHALL BE USED).

E. ELASTOMERIC (CLOSED CELL FOAM) PIPE INSULATION

1. ELASTOMERIC SHALL BE PROVIDED FOR ALL REFRIGERANT PIPING AND OUTDOOR INSULATED PIPING AND MAY BE USED FOR INDOOR DOMESTIC OR CONDENSATE PIPING. PIPING WILL REQUIRE JACKETING- ALUMINUM FOR OUTDOOR PIPING OR FOIL/WHITE KRAFT MEDIA OR PVC FOR INDOOR PIPING. PROVIDE WITH FULL ADHESIVE ADHERING SEAMS AND JOINTS FOR CONTINUOUS VAPOR BARRIER. ELBOWS SHALL BE FURNISHED BY FACTORY SEGMENTS AT 30 DEGREE ANGLES (3 SEGMENTS AT EACH 90 DEGREE BEND) WITH MASTIC AT ALL SEAMS. PROVIDE PREFORMED JACKETING ELBOWS AT ALL PIPING ELBOWS.

F. FIBERGLASS BLANKET INSULATION FOR DUCTWORK (INDOOR DUCT ONLY)

1. INSULATION SHALL BE BLANKET TYPE FIBERGLASS INSULATION WITH AVERAGE THERMAL CONDUCTIVITY NOT EXCEEDING 0.29 BTU_IN. PER SQUARE FEET PER DEGREES F PER HOUR AT MEAN TEMPERATURE OF 75 DEGREES F. WITH A MINIMUM DENSITY OF 1 LB/CU. FT., 2" THICK MINIMUM AND FOIL INSULATION FACE. PROVIDE FIRE RETARDANT ADHESIVE OR FOIL REINFORCED KRAFT TAPE, 3" WIDE AT ALL SEAMS. SECURE INSULATION TO DUCT WITH 18 GAUGE TIE-WIRE OR 1/2" X 0.015" GALVANIZED STEEL STRAPS. PROVIDE COMPLETE AIR-TIGHT VAPOR BARRIER FOR ALL DUCTWORK. STAPLES SHALL NOT BE PERMITTED FOR ANY INSULATION ATTACHMENT. PROVIDE GRAY SEALER FOR SEALING JOINTS, PENETRATION AND PUNCTURES.
2. CONTINUE INSULATION THROUGH WALL AND CEILING OPENINGS AND SLEEVES, EXCEPT TERMINATE DUCT INSULATION AT FIRE DAMPERS AND AT FLEXIBLE DUCT CONNECTIONS AT AIR HANDLING UNITS.
3. PROTECT INSULATION FROM PHYSICAL DAMAGE AT POINTS OF SUPPORT WHERE INSULATION MUST CARRY LOAD IMPOSED BY SUPPORT. COORDINATE THIS REQUIREMENT WITH TYPES OF HANGER AND SUPPORT USED. HANGERS THAT PENETRATE INSULATION SHALL BE SEALED WITH MASTIC TO PRESERVE CONTINUOUS VAPOR BARRIER.

G. ELASTOMERIC (CLOSED CELL FOAM) DUCT LINER

1. INSTALL INSIDE OF DUCT WITH FULL ADHESIVE COVERAGE ATTACHMENT TO THE SURFACE TO WHICH IT IS APPLIED; 1" FOR INDOOR AND 1-1/2" FOR OUTDOOR. R VALUES SHALL BE R-4.2 FOR 1" AND R-6.2 FOR 1-1/2". FIBERGLASS DUCT LINER SHALL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES. PROVIDE WITH ANTIMICROBIAL PROTECTION. PROVIDE MASTIC AND FOIL INTERIOR SEMS FOR CONTINUOUS VAPOR BARRIER. PROVIDE DUCT LINER AT FIRST FIVE FEET OF SUPPLY DUCT FOR REFRIGERATION/COOLING AIR HANDLING EQUIPMENT, UPSIZING INDICATED DUCT SIZE TO ACCOUNT FOR INSULATION THICKNESS. FIBERGLASS DUCT LINER OR DUCT BOARD SHALL NOT BE PERMITTED.

III. VIBRATION ISOLATION

A. ALL MOTORIZED AIR MOVING AND FLUID MOVING EQUIPMENT PIECE SHALL BE PROVIDED WITH VIBRATION ISOLATION MOUNTING OR SUPPORTS.

B. PAD-TYPE ISOLATORS SHALL BE NEOPRENE IN-SHEAR ISOLATION PADS WITH CROSSED DOUBLE RIBS. A STEEL SHIM PLATE SHALL BE PROVIDED BETWEEN THE TWO LAYERS. PADS SHALL BE MOLDED USING OIL RESISTANT 25,000 PSI TENSILE STRENGTH NEOPRENE.

C. HANGING ISOLATORS FOR ITEMS 300 LBS OR LESS SHALL BE BRIDGE-BEARING NEOPRENE MOUNTINGS AND SHALL HAVE A MINIMUM STATIC DEFLECTION OF 0.2" AND ALL DIRECTIONAL SEISMIC CAPABILITY. THE ELEMENTS SHALL PREVENT THE CENTRAL THREADED SLEEVE AND ATTACHMENT BOLT FROM CONTACTING THE CASTING DURING NORMAL OPERATION. THE SHOCK ABSORBING NEOPRENE MATERIALS SHALL BE COMPOUNDED TO BRIDGE-BEARING SPECIFICATIONS. MASON HD, KINETICS

D. HANGING ISOLATORS FOR EQUIPMENT ABOVE 300 LBS SHALL BE STEEL SPRING-TYPE INCORPORATING STEEL HOUSING, NEOPRENE OR LOS RUBBER SPRING CUP SIZED FOR 1" DEFLECTION. INSTALL SPRING IN PLUMB CONFIGURATION WITH MAXIMUM 1" DEFLECTION FROM ANY HORIZONTAL DISTORTION. THE ELEMENTS SHALL PREVENT THE CENTRAL THREADED SLEEVE AND ATTACHMENT BOLT FROM CONTACTING THE CASTING DURING NORMAL OPERATION. CONTRACTOR SHALL SELECT SPRING COLOR/RATING BASED ON EQUIPMENT WEIGHT. AMBER BOOTH SH, KINETICS SH, MASON 30 OR EQUIVALENT.

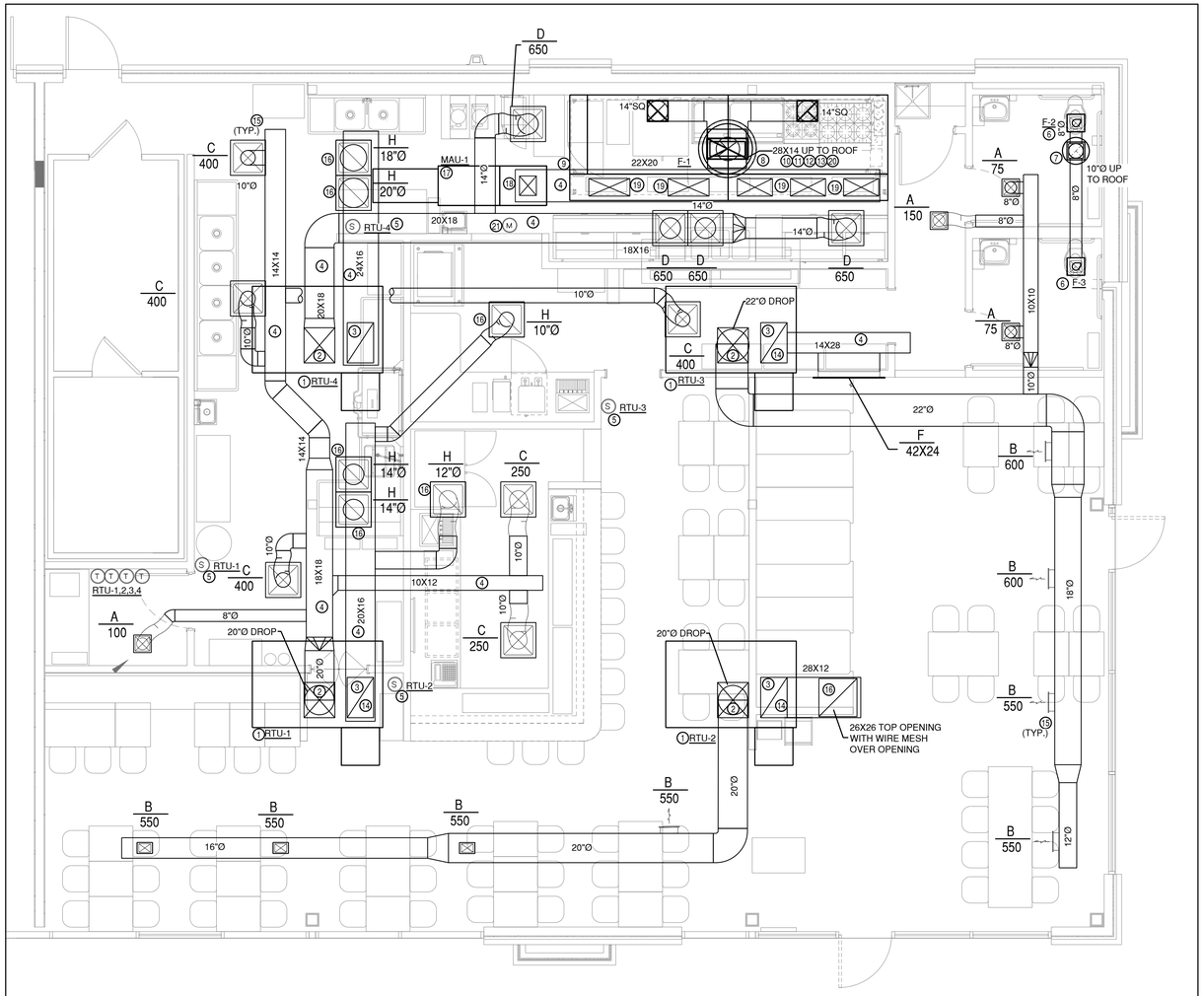
IV. DUCTWORK AND FITTINGS

A. MATERIAL AND TYPE

1. DUCT CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE SMACNA HVAC DUCT CONSTRUCTION MANUAL. DUCTBOARD SHALL NOT BE PERMITTED.
2. RIGID, SQUARE DUCTWORK SHALL BE CONSTRUCTED OF LOCK FORMING QUALITY GALVANIZED STEEL SHEETS PER ASTM A527. GALVANIZED COATING SHALL BE NOT LESS THAN 1.25 OUNCES (TOTAL FOR BOTH SIDES) PER SQUARE FOOT OF SHEET. DUCTWORK SHALL BE CLASSIFIED AND CONSTRUCTED SMACNA PRESSURE CLASSES: +2 FOR SUPPLY AND -2 FOR RETURN AND EXHAUST. DUCTWORK GAUGE SHALL BE 26 GAUGE UP TO 30" AND 22 GAUGE ABOVE 30" IN CROSS SECTIONAL HEIGHT, WIDTH, OR DIAMETER.
3. CONCEALED ROUND DUCTS UP TO 12" IN DIAMETER IN PRESSURE CLASSES 2" AND LOWER SHALL BE LONGITUDINAL SEAM CONSTRUCTION.
4. EXPOSED ROUND DUCTWORK OR ROUND ABOVE 12" SHALL BE SPIRAL LOCK_SEAM CONSTRUCTION. ROUND FITTINGS SHALL BE FUSION WELDED BUT SEAM TYPE WITH ALL WELDS CONTINUOUS ALONG SEAMS. ALL DIVIDED FLOW FITTINGS SHALL BE MANUFACTURED AS SEPARATE FITTINGS. TAP-IN SADDLES OR TAPS IN ANY DUCT SECTIONS WILL NOT BE PERMITTED. ALL DIVIDED FLOW FITTINGS 12" IN DIAMETER AND SMALLER SHALL HAVE RADIUSED ENTRANCE PRODUCED BY MACHINE OR PRESS FORMING; ALL DIVIDED FLOW FITTINGS 14" AND LARGER SHALL HAVE CONICAL ENTRANCE PRODUCED BY MACHINE OR PRESS FORMING. ALL DIVIDED FLOW ENTRANCES SHALL BE FREE OF WELD BUILD_UP, BURRS AND IRREGULARITIES. FITTINGS SHALL BE OF THE SAME MANUFACTURER AS THE DUCTWORK.
5. DUCT SEALANT SHALL BE POLYMERIC RUBBER BASE MASTIC, MINERAL IMPREGNATED WOVEN FIBER TAPE WITH ADHESIVE, OR HEAT_SHRINK WITH ADHESIVE. TAPE THICKNESS UP TO 10" = 2"; UP TO 20" = 3"; OVER 20" = 4"
6. INSULATED FLEXIBLE DUCT SHALL BE CLASS 1 AIR DUCT IN ACCORDANCE WITH UL 181 AND SHALL COMPLY WITH NFPA 90A AND 90B. INSULATED FLEXIBLE DUCT SHALL CONSIST OF AN INNER FILM LAYER FOR MINIMUM WORKING PRESSURE OF 6" WATER GAUGE BONDED TO A STEEL OR ALUMINUM SPRING WIRE HELIX, FIBERGLASS INSULATION, AND A VAPOR BARRIER JACKET. INSULATION SHALL HAVE A MAXIMUM U_VALVE OF .23 BTU/HR/SQFT/DEG F AT 75 DEGREES F MEAN TEMPERATURE. VAPOR BARRIER JACKET SHALL HAVE A MAXIMUM VAPOR TRANSMISSION RATE OF 0.1 GRAINS/SQ. FT./HR/INCH HG (PERM). THE ASSEMBLY SHALL HAVE A FLAME SPREAD AND SMOKE RATING OF 25/50 PER ASTM E84 AND NFPA 255. FLEXIBLE DUCTS SHALL BE INSTALLED IN AN EXTENDED CONDITION FREE OF SAGS AND KINKS, USING ONLY THE MINIMUM LENGTH REQUIRED TO MAKE THE CONNECTION. ABRUPT BENDS AND TURNS THAT CHUMP THE DUCT AND RESTRICT AIR FLOW SHALL NOT BE PERMITTED. HORIZONTAL SUPPORTS SHALL BE 3/4" WIDE, 22 GAUGE FLAT GALVANIZED STEEL SHEET BANDING MATERIAL. FLEXIBLE DUCTS SHALL BE SUPPORTED ON 36" CENTERS. MAXIMUM LENGTH OF FLEXIBLE DUCT IN PRESSURE CLASS 2" AND BELOW SHALL BE 12 FEET. FLEXIBLE DUCT SHALL NOT BE USED ABOVE INACCESSIBLE CEILINGS.
7. GREASE DUCT SERVING TYPE I HOODS SHALL BE 16 GAUGE BLACK IRON OR 18 GAUGE STAINLESS STEEL WELDED WITH AIR TIGHT SEAM. PROVIDE DUCT CLEANOUTS AT ALL CHANGES OF DIRECTION. FOR INSTALLATIONS THAT WILL RESULT IN A DUCT OR SECTION OF DUCT WITHIN 18" OF COMBUSTIBLE MATERIAL, PROVIDE FIRE-RATED INSULATION AS REQUIRED FOR A ZERO INCH CLEARANCE TO COMBUSTIBLE INSTALLED PER MANUFACTURER'S AND/OR RATING AGENCY REQUIREMENTS COMPLETE WITH ALL REQUIRED PENETRATION TREATMENTS, NUMBER IF INSULATING LAYERS AND APPROVED PREFABRICATED, RATED ACCESS PANELS. DO NOT PROVIDE VENTED ROOF GREASE FLUE FOR WRAPPED GREASE EXHAUST DUCTS.
8. DISHWASHER EXHAUST DUCT SHALL BE STAINLESS STEEL.

B. DAMPERS

1. DAMPERS SHALL BE SINGLE BLADE BUTTERFLY TYPE IN DUCTS UP TO AND INCLUDING 18" X 12" SIZE; FOR DUCTS LARGER THAN 18" X 12", IN EITHER OR BOTH DIMENSIONS, THE DAMPERS SHALL BE THE MULTI_BLADE TYPE. SINGLE BLADE BUTTERFLY DAMPER SHALL BE CONSTRUCTED OF NOT LESS THAN 16. GAUGE GALVANIZED STEEL BLADE MOUNTED IN A GALVANIZED STEEL FRAME. FOR RECTANGULAR DAMPERS, THE TOP AND BOTTOM EDGES OF THE BLADE SHALL BE CRIMPED TO STIFFEN THE BLADE. DAMPER SHALL BE PROVIDED WITH AN EXTENDED ROD TO PERMIT INSTALLATION OF A DAMPER REGULATOR.
2. MULTI_BLADE DAMPERS SHALL BE THE OPPOSED BLADE TYPE, CONSTRUCTED OF NOT THAN 16_GAUGE GALVANIZED STEEL BLADES MOUNTED IN GALVANIZED STEEL CHANNEL FRAME. BLADE SPACING SHALL NOT EXCEED 6 INCHES AND THE TOP AND BOTTOM EDGES OF THE BLADES SHALL BE CRIMPED TO STIFFEN THE BLADES. DAMPER BLADES SHALL BE INTERCONNECTED BY RODS AND LINKAGES TO PROVIDE SIMULTANEOUS OPERATION OF ALL BLADES. DAMPERS SHALL BE PROVIDED WITH EXTENDED RODS TO PERMIT INSTALLATION OF DAMPER OPERATORS.
3. DUCT MOUNTED DIAL REGULATORS WITH OPERATING HANDLE SHALL BE PROVIDED OR DAMPERS WHICH ARE LOCATED ABOVE HARD CEILINGS OR INACCESSIBLE LOCATIONS. CONCEALED CEILING MOUNTED DIAL REGULATORS SHALL BE PROVIDED ON VOLUME CONTROL DAMPERS WHICH ARE LOCATED ABOVE HARD CEILINGS. CONCEALED REGULATORS SHALL BE PROVIDED WITHIN DIFFUSER FACE WITH SCREW ADJUSTMENT.
4. PROVIDE DAMPERS AT ALL SUPPLY AND RETURN DUCT RUN OUTS TO EACH AIR DISTRIBUTION



MECHANICAL FLOOR PLAN

1/4" = 1'-0"

CONTRACTOR TO VERIFY ALL ITEMS SHOWN AS EXISTING. ANY CHANGES REQUIRED DUE TO VARIATION IN THE FIELD SHALL BE INCLUDED IN CONTRACTOR SCOPE.

LEGEND

- DUCT (SINGLE LINE)
- EXISTING DUCT/PIPE
- LINED DUCT (SINGLE LINE)
- LINED DUCT
- EXPOSED SPIRAL W/ PAINT GRIP
- SUPPLY/VENTILATION DROP
- RETURN DROP
- EXHAUST DROP
- SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE
- CAP
- VOLUME DAMPER
- FIRE DAMPER
- MOTORIZED DAMPER
- SMOKE DETECTOR
- DUCT ELBOW WITH VANES -SINGLE LINE (EXCLUDE VANES IN GREASE EXHAUST)
- DUCT ELBOW WITH VANES (EXCLUDE VANES IN GREASE EXHAUST)
- RADIUS ELBOW
- FLEX DUCT RUN OUT
- FLEXIBLE CONNECTION
- INLINE CABINET FAN
- CEILING CABINET FAN
- HORIZ. UNIT HEATER
- CEILING UNIT HEATER
- INTAKE/VENT HOOD
- EXHAUST/FLUE VENT HOOD
- ROOF FAN
- THERMOSTAT
- REMOTE SENSOR
- HUMIDISTAT
- HOOD ANSUL SYSTEM PULL STATION
- OVERFLOW NOZZLE
- PIPE DROP
- ROOF DRAIN
- BALL VALVE
- STRAINER
- PRV
- CHECK VALVE
- METER
- NAT GAS REGULATOR
- 3 WAY VALVE
- 2 WAY VALVE
- BUTTERFLY VALVE
- CIRCUIT SETTER
- FLOW CONTROL VALVE
- GAGE
- THERMOMETER
- PT PLUG
- PUMP
- DOUBLE CHECK VALVE
- RPZ CHECK
- FLEX PIPE/CONNECTION
- AUTO AIR VENT
- FROSTAT
- UNION
- GGAS — GAS PIPING
- CW PIPING
- HW PIPING
- HOT WATER RECIRCULATION PIPING
- VENT PIPING
- SANITARY PIPING (LONG DASH)
- GREASE WASTE (SHORT DASH)

MECH. PLAN KEY NOTES

1. ROOFTOP UNIT BY LANDLORD PER SHELL PLANS AND LEASE AGREEMENT. REFER TO MECHANICAL ROOF PLAN.
2. SUPPLY AIR DROP FROM UNIT ON ROOF. PROVIDE FULL SIZE DROP TO DUCT SIZE INDICATED.
3. RETURN AIR DROP FROM UNIT ON ROOF. PROVIDE FULL SIZE DROP TO DUCT SIZE INDICATED.
4. DUCTWORK LOCATED ABOVE CEILING BETWEEN TRUSSES. AND THROUGH JOIST WEBBING COORDINATE W/ STRUCTURE.
5. THERMOSTAT REMOTE SENSOR FOR UNIT DESIGNATED. MOUNT ON WALL @ 48" AFF. COORDINATE LOCATION AROUND ELECTRICAL PANELS AND OFFICE FURNITURE WHERE REQUIRED.
6. RESTROOM EXHAUST FAN ON ROOF, COORDINATE CONTROL WITH ELECTRICAL PLANS. CONTROLS BY ELECTRICAL CONTRACTOR. REFER TO MECHANICAL ROOF PLAN. FAN TIED INTO TIMECLOCK
7. EXHAUST AIR DUCT UP TO FAN ON ROOF. COORDINATE W/ STRUCTURE.
8. EXHAUST FAN, ON ROOF, FOR TYPE I KITCHEN EXHAUST HOOD. EXTEND FAN CURB HEIGHT TO BE 2' ABOVE HVAC INTAKE UNIT HEIGHT. REFER TO MECHANICAL ROOF PLAN.
9. TYPE I EXHAUST HOOD, FURNISHED BY OWNER, INSTALLED BY MECHANICAL CONTRACTOR. REFER TO HOOD DRAWINGS & HOOD HANGING DETAIL 1/M1.0
10. PROVIDE 16 GA. EXTERNALLY WELDED LIQUID TIGHT KITCHEN HOOD EXHAUST DUCT. EXTEND UP TO FAN ON ROOF & DOWN TO HOOD CONNECTION. ENCAPSULATE PER DETAIL 12/M3.0.
11. GREASE DUCT SHALL BE FIRE WRAPPED WHEN WITHIN 18" TO COMBUSTIBLES
12. HORIZONTAL GREASE DUCT RUNS MUST SLOPE 2% DOWN TO HOOD
13. WELD DUCT TO HOOD COLLAR.
14. PROVIDE FIELD INSTALLED SMOKE DETECTOR.
15. PROVIDE MANUAL VOLUME CONTROL DAMPER, TYPICAL.
16. PROVIDE INSULATED PLENUM ABOVE AIR DEVICE. TYPICAL FOR THIS TYPE OF DEVICE.
17. MAKE-UP AIR UNIT ON ROOF, REFER TO MECHANICAL ROOF PLAN. INTERLOCK WITH HOOD CONTROLS.
18. MAKE-UP AIR/SUPPLY AIR DUCT FROM UNIT ON ROOF.
19. MAKE-UP AIR CONNECTION TO SUPPLY AIR PLENUM IN FRONT OF HOOD. REFER TO HOOD DRAWING SHEET H-1.
20. PROVIDE CLEANOUT IN EXHAUST DUCT PER NFPA 96.
21. MANUAL HOOD PULL FOR ANSUL SYSTEM. REFER TO HOOD PLANS

ABREVIATIONS

AC	ABOVE CEILING	HR	HOUR
ACC	ACCESS	HW	HOT WATER
ACU	AIR CONDITIONING UNIT	HZ	HERTZ
AFF	ABOVE FIN ISHED FLOOR	IE	INVERT ELEVATION
AHU	AIR HANDLING UNIT	LAT	LEAVING AIR TEMPERATURE
AP	ACCESS PANEL	LBS	POUNDS
ARCH	ARCHITECT	LOB	LEAVING DRY BULB
BDD	BACKDRAFT DAMPER	LWB	LEAVING WET BULB
BTUH	BTU PER HOUR	LWT	LEAVING WATER TEMP.
CC	COOLING COIL	MAX	MAXIMUM
CCP	CENTRAL CONTROL PANEL	MBH	THOUSAND BTU PER HOUR
CD	CEILIING DIFFUSER	EVAP	EVAPORATOR
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CG	CEILING GRID	MOD	MOTORIZED DAMPER
CONC.	CONCRETE	MTD	MOUNTED
CR	CEILING REGISTER	N.C.	MORMALLY CLOSED
CV	CONTROL VALVE	NIC	NOT IN CONTRACT
D	DROP	N.O.	NORMALLY OPENED
DB	DRY BULB	NO.	NUMBER
DIA.	DIAMETER	NPSH	NET POSITIVE SUCTION HEAD
DN	DOWN	NTS	NOT TO SCALE
DWG	DRAWING	OA	OUTSIDE AIR
EA	EXHAUST AIR	OD	OUTSIDE DIAMETER
EAT	ENTERING AIR TEMP	OS&Y	OUTSIDE SCREW AND YOKE
EDB	ENTERING DRY BULB	PD	PRESSURE DROP
EF	EXHAUST FAN	PSI	POUNDS PER SQUARE INCH
ELEV	ELEVATION	RA	RETURN AIR
ELEC	ELECTRIC	RM	ROOM
EWB	ENTERING WET BULB	RPM	REVOLUTION PER MINUTE
EWT	ENTERING WATER TEMP	SD	SMOKE DAMPER
ESP	EXTERNAL STATIC PRESSURE	SF	SUPPLY FAN
SP	STATIC PRESSURE	SF	SUPPLY FAN
EXH	EXHAUST	SP	STATIC PRESSURE
EXT	EXTERNAL	SPEC	SPECIFICATIONS
F	DEGREES FAHRENHET	SR	SUPPLY REGISTER
FC	FLEXIBLE CONNECTION	SS	STAINLESS STEEL
FCU	FAN COIL UNIT	TDH	TOTAL DYNAMIC HEAD
FD	FIRE DAMPER	TEMP	TEMPERATURE
AFG	ABOVE FINISHED GRADE	TG	TRANSFER GRILLE
FLD	FLOOR DRAIN	TV	TURNING VANES
FPI	FINS PER INCH	TYP.	TYPICAL
FPM	FEET PER MINUTE	UH	UNIT HEATER
FT	FEET	UC	3/4" UNDERCUT
GV	GATE VALVE	V	VOLTS
G	GAUGE	VAV	VARIABLE AIR VOLUME
GAL	GALLON	VEL	VELOCITY
GPH	GALLONS PER HOUR	VERT.	VERTICAL
GPM	GALLONS PER MINUTE	W	WIDTH
HP	HORSE POWER	W/	WITHOUT
HT	HEIGHT	W/O	WITHOUT
H20	WATER	WB	WET BULB
HORIZ.	HORIZONTAL	W.C.	WATER COLUMN

JUSTIN R. HARDY
NUMBER PE-2009002089
PROFESSIONAL ENGINEER
05/01/20

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FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

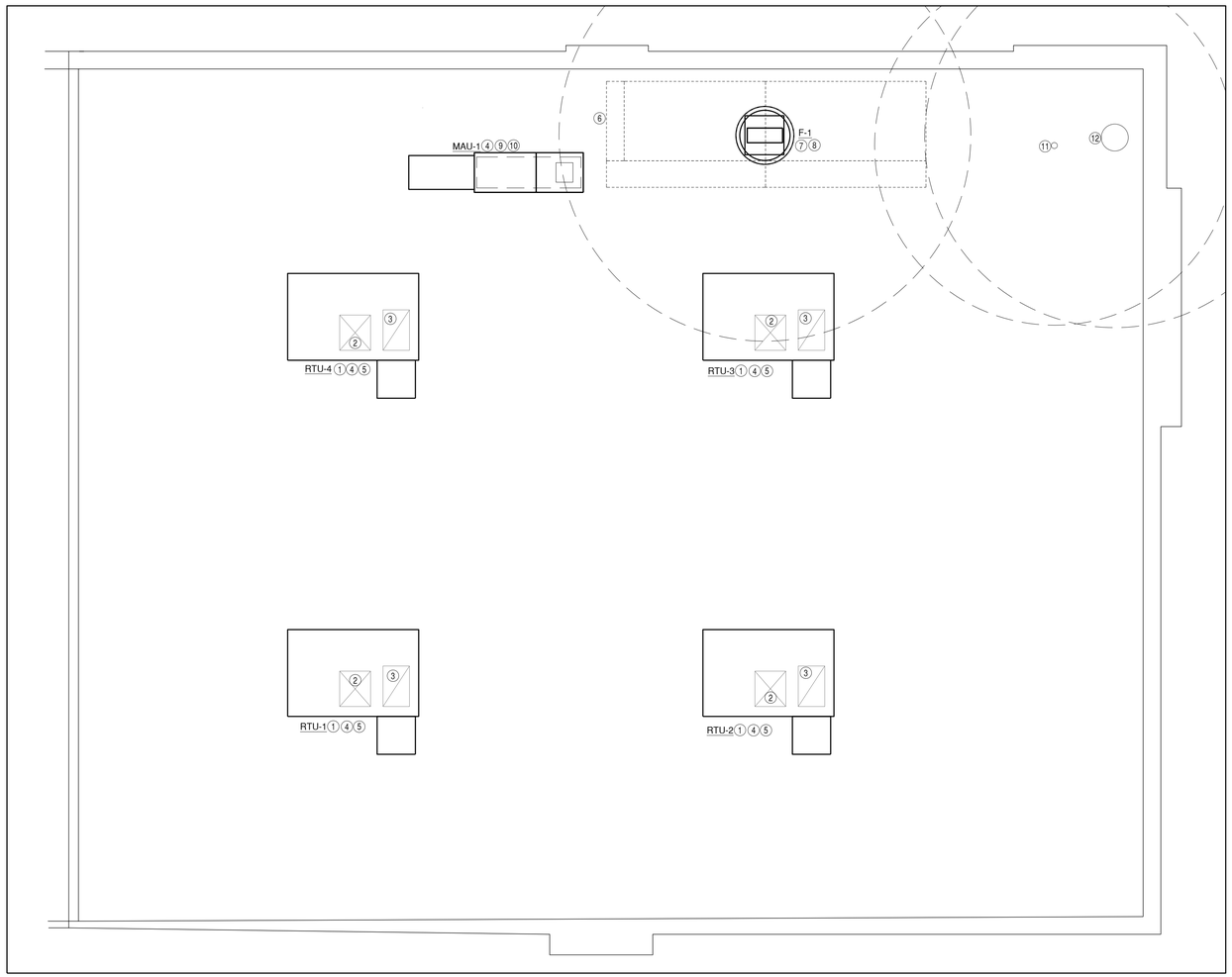
PROJECT NO. FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

MECHANICAL FLOOR PLANS

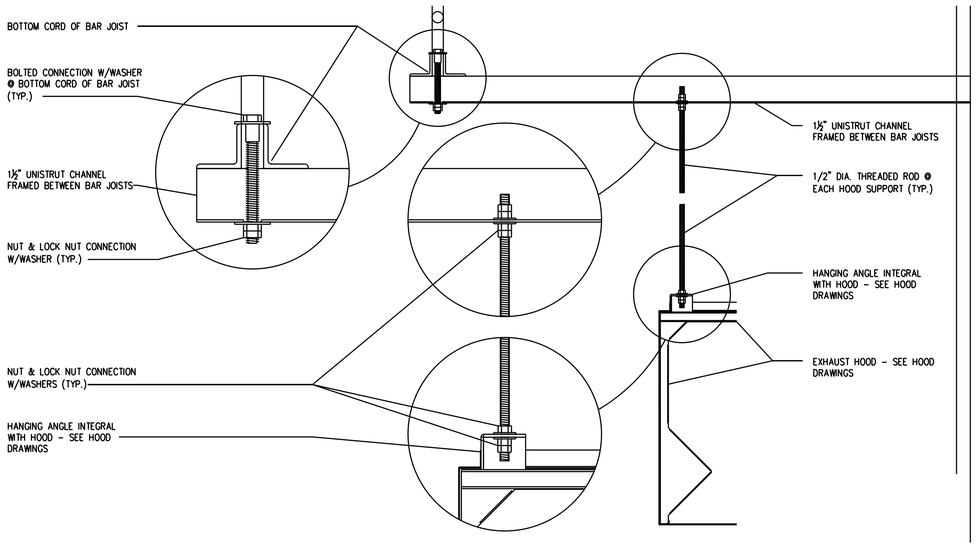
M1.0

MECH. ROOF KEY NOTES (#)

1. ROOFTOP UNIT BY LL. MOUNT ON FULL PERIMETER ROOF CURB. COORDINATE W/ ROOF STRUCTURE. COORDINATE ROOF OPENING AND FLASHING W/ THE GENERAL CONTRACTOR. REFER TO SCOPE CHART ON M2.0 FOR PROVIDER/INSTALLER INSTALLED BY MECHANICAL CONTRACTOR. REFER TO SPECIAL NOTE ON SHEET M3.0.
2. PROVIDE SUPPLY AIR DUCT DOWN THROUGH ROOF.
3. PROVIDE RETURN AIR DUCT DOWN THROUGH ROOF.
4. PROVIDE GAS CONNECTION TO ROOFTOP UNIT WITH GAS VALVE, UNION AND DIRT LEG. REFER TO PLUMBING DRAWINGS, (THROUGH BASE GAS).
5. PROVIDE TRAPPED CONDENSATE DRAIN FROM ROOFTOP UNIT, SPILL TO SPLASH PAD, REFER TO DETAIL ON 3/M3.0.
6. KITCHEN HOOD BELOW.
7. KITCHEN HOOD EXHAUST FAN, MOUNT ON FULL PERIMETER ROOF CURB. COORDINATE W/ ROOF STRUCTURE. FAN & CURB SHALL FURNISHED BY OWNER, INSTALLED BY MECHANICAL CONTRACTOR. INTERLOCK W/ HOOD CONTROLS. INSTALL SUCH THAT FAN TERMINATES 2' ABOVE FRESH AIR INTAKES.
8. HOOD EXHAUST DUCT DOWN THROUGH ROOF. REFER TO MECHANICAL PLAN.
9. MAKE-UP AIR DUCT DOWN THROUGH ROOF, REFER TO MECHANICAL PLAN FOR CONTINUATION.
10. MAKE-UP AIR UNIT ON FULL PERIMETER ROOF CURB, FURNISHED WITH KITCHEN HOOD, INSTALLED BY MECHANICAL CONTRACTOR. COORDINATE LOCATION WITH STRUCTURE. COORDINATE ROOF OPENING AND FLASHING WITH GENERAL CONTRACTOR.
11. 3" VTR. MAINTAIN 10" CLEARANCE.
12. 10"ø ROOF CAP FROM RESTROOM EXHAUST. MAINTAIN 10" CLEARANCE.



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



GENERAL HOOD HANGER/SUPPORT DETAIL

STATE OF MISSOURI
JUSTIN R. HARDY
NUMBER PE-2009002089
PROFESSIONAL ENGINEER
05/01/20

MEP CONTACT:JUSTIN R. HARDY, PE
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FLYING BISCUIT
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MECHANICAL ROOF PLAN

M1.1

FAN SCHEDULE

MARK	MANUFACTURER	MODEL NUMBER	CFM	STATIC PRESSURE	RPM	HP OR WATTS	VOLTAGE/PHASE	FLA	CURB SIZE	NOTES	WEIGHT
F-1	CAPTIVE AIRE	SEE HOOD PLANS									
F-2	COOK	GC	150	0.375"	1200	50W	120V/ 1ø		--	9 & 14	
F-3	COOK	GC	150	0.375"	1200	50W	120V/ 1ø		--	9 & 14	
MUA-1	CAPTIVE AIRE	SEE HOOD PLANS									

NOTES
1. UP-BLAST CENTRIFUGAL.
2. 20 GA. VENTED ROOF CURB.
3. UL 762.
4. VARIABLE SPEED CONTROL.
5. DIRECT DRIVE.
6. WEATHER PROOF DISCONNECT SWITCH.
7. HINGED FAN.
8. FAN & CURB FURNISHED W/ KITCHEN HOOD.
9. DOWN BLAST, DIRECT DRIVE, CENTRIFUGAL.
10. UL 705.
11. DISCONNECT.
12. EVAPROATIVE COOLER MODEL.
13. BY TRANE.
14. INTERLOCK TO TIMELCOCK TO OPERATE DURING OCCUPIED HOURS. REFER TO ELEC.

OUTDOOR AIR VENTILATION CALCULATION
ASHRAE 62.1 2004

DIN	72 SEATS 1450 SF		72 X 7.5 /.8 = 675 CFM 1450 X .18/.8 = 330 CFM
CORRIDOR	90 SF		90 X .06/.8 = 7 CFM
			TOTAL OA REQUIRED = 1012 CFM
			OA PROVIDED THROUGH RTU-1 = 1100 CFM
KITCHEN	815 SF / 1000	X 20 = 16 PEOPLE	16 x 10/.8 = 200 CFM
			TOTAL OA REQUIRED = 200 CFM
			OA PROVIDED THROUGH RTU-2 = 200 CFM

AIR DEVICE SCHEDULE

MARK	* TITUS MODEL NO.	MODULE SIZE	FACE SIZE	NECK SIZE	FLEX SIZE	TYPE	NOTES
A	TMSA-3	12"x12"	-	6"ø	6"ø	SUPPLY	1,3,5,10,11,
C	TMSA-AA-3	24"x24"	-	SEE PLAN	SEE PLAN	SUPPLY	1,2,3,4,6,11
D	PAR-AA-3	24"x24"	-	12"ø	12"ø	SUPPLY	2,3,4,6,7,11
F	300S	-	42"x24"	SEE PLAN	-	EXHAUST	3,5,6,9,11,
H	50F-1	-	14"x14"	8"ø	-	EXHAUST	3,5,6,9,11,

NOTES
1. 4-WAY THROW PATTERN UNLESS NOTED OTHERWISE
2. FRAME SHALL FIT LAY-IN CEILING MODULE
3. PROVIDE AND INSTALL MANUAL VOLUME DAMPER
4. DAMPER LOCATED IN DUCTWORK.
5. FRAME SHALL BE FOR DRYWALL INSTALLATION.
6. ALUMINUM CONSTRUCTION.
7. PERFORATED SUPPLY GRILLE, PROVIDE INSULATED PLENUM ABOVE W/ SIDE ENTRY.
8. HINGED FILTER TYPE GRILLE.
9. EGGCRATE GRILLE
10. PROVIDED WITH A TRM RAPID MOUNT PLASTER FRAME.
11. BLACK FINISH IN DINING AREA AND RR CORRIDOR. WHITE IN FOOD PREP-HOOD-RR AREAS ONLY. DO NOT PROVIDE WHITE AIR DEVICES IN DINING AREAS.
13. DOUBLE DEFLECTION, FRONT BLADES PARALLEL TO LONG DIMENSION- 3/4" SPACING.
14. DIRECT SPIRAL DUCT-MOUNTED REGISTER, AIR SCOOP DAMPER.
15. 35° DEG FIXED DEFLECTION DUCT MOUNTED.

* OR APPROVED EQUAL

HVAC UNIT SPECIFICATIONS

HVAC UNITS INSTALLED BY MECHANICAL CONTRACTOR SHALL BE PER SCHEDULE OR APPROVE ALTERNATE. ALL UNITS SHALL BE SINGLE PACKAGE TYPE, HEAT TYPE PER SCHEDULE . EACH UNIT SHALL BE MOUNTED ON A FULL PERIMETER ROOF CURB. FILTERS IN ALL HVAC UNITS SHALL BE 2" THICK PLEATED TYPE. FURNISH W/ ECONOMIZER (WHERE CODE REQUIRES)/ BAROMETRIC RELIEF. UNITS SHALL BE INSTALLED ON MOUNTING CURB WITH ALL DUCTWORK PENETRATING INSIDE PERIMETER OF CURB. UNITS SHALL ALSO BE FURNISHED WITH AUTOMATIC ELECTRIC IGNITION SYSTEM FOR GAS UNITS. UNITS SHALL BE FURNISHED WITH INTEGRAL STARTERS.

SEQUENCE OF OPERATION

THE MECHANICAL CONTRACTOR SHALL INSTALL ALL REQUIRED COMPONENTS FOR THE FOLLOWING SEQUENCES OF OPERATION FOR EACH HVAC UNIT. DISCONNECTS SHALL BE FURNISHED AND INSTALLED BY THE UNIT MANUFACTURER.

A. UNIT SHALL BE STARTED AND STOPPED THROUGH ITS RESPECTIVE THERMOSTAT/HUMIDISTAT (WHERE DEHUMIDIFICATION IS SPECIFIED).

B. ROOM THERMOSTATS SHALL ENERGIZE COOLING AND HEATING SYSTEMS TO MAINTAIN DESIRED SPACE TEMPERATURE. COOLING SHALL BE 2-STAGE FOR UNITS WITH TWO COOLING CIRCUITS.

C. M.C. SHALL HOLD (3) TRAINING SESSIONS (SUMMER & WINTER) WITH STORE MANAGER TO INSURE THEIR KNOWLEDGE OF PROPERLY USING THE CONTROLS.

CONTROLS

A PROVIDE PROGRAMMABLE THERMOSTAT W/ REMOTE SENSOR. THERMOSTAT SHALL PROVIDE TWO STAGE HEATING AND TWO STAGE COOLING.

B THERMOSTATS SHALL PROVIDE CONSTANT FAN DURING OCCUPIED PERIODS AND INTERMITTENT FAN DURING UNOCCUPIED PERIODS.

C ALL POWER WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR. ALL CONTROL WIRING BY M.C..

D PROVIDE PHENOLIC LABEL ON ALL T-STATS & REMOTE SENSORS.

E THE KITCHEN HOOD EXHAUST FAN & ROOFTOP UNITS SHALL BE INTERLOCKED WITH HOOD CONTROLS BY AN ELECTRICAL INTERLOCK SWITCH. TEMPERATURE SENSOR ON HOOD SHALL AUTOMATICALLY ENERGIZE EXHAUST FANS, MAKE-UP AIR UNIT & ROOFTOP UNIT FANS.

MECHANICAL GENERAL NOTES

1. ALL RECTANGULAR, ROUND AND FLEXIBLE DUCTS SHALL BE SIZED AS SHOWN ON THESE DRAWINGS. MINIMUM INTERNAL DIMENSIONS ARE GIVEN.
2. ALL SUPPLY, RETURN & OUTSIDE AIR DUCTS ARE SIZED FOR AIR VOLUME AND STATIC PRESSURE DROP WITHOUT INTERIOR INSULATION. SHOULD INTERIOR INSULATION BE USED, THE CONTRACTOR SHALL INCREASE THE DUCT SIZE ACCORDINGLY.
3. ALL SUPPLY, RETURN AND OUTSIDE AIR DUCTS SHALL BE INSULATED. EXTERIOR INSULATION SHALL BE USED. INSULATION SHALL BE 2" THICK/ 1 POUND PER CUBIC FOOT DENSITY R = 6.0 INSTALLED OR APPROVED EQUAL. ALL EXPOSED DUCTWORK SHALL BE INTERNALLY INSULATED UNLESS NOTED OTHERWISE.
4. FLEXIBLE DUCTWORK SHALL BE SIMILAR TO ATCO UPC #036 UL CLASS/ FIBERGLASS SCRIM REINFORCED METALIZED POLYESTER OUTER JACKET. DOUBLE LAMINATION OF POLYESTER W/ STEEL HELIX, DOUBLE LAYER CORE. R=6.0 INSTALLED.
5. ALL FLEXIBLE DUCTS SHALL BE CONNECTED TO TRUNK OR BRANCH DUCTS WITH A MINIMUM OF THREE SHEET METAL SCREWS AT EACH CONNECTION AND TAPED TO PROVIDE AN AIR TIGHT SEAL.
6. FLEX DUCT HANGER STRIPS SHALL BE 10" WIDE x 16 GAUGE MINIMUM.
7. THE MAXIMUM ALLOWABLE LENGTH OF FLEXIBLE DUCT SHALL BE 6'-0".
8. INSTALL TURNING VANES IN ALL 90 ° DUCT ELBOWS AND AT ALL DUCT "TEES".
9. INSTALL ADJUSTABLE AIR VOLUME EXTRACTORS AT ALL BRANCH TO MAIN DUCT CONNECTIONS.
10. PROVIDE PAINTED (3" H.) IDENTIFICATION ON ALL RTU'S, FANS & CONDENSING UNITS. IDENTIFICATION SHALL INCLUDE DEVICE NUMBER & AREA SERVED (ie: RTU-1/ DINING).
11. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED ACCORDING TO THE MOST RECENTLY PUBLISHED ASHRAE AND SMACNA STANDARDS.
12. RECTANGULAR METAL DUCT SHALL BE MILD GALVANIZED STEEL.
13. MANUFACTURERS MINIMUM CLEARANCE RECOMMENDATIONS SHALL BE MAINTAINED ON ALL EQUIPMENT AND DUCTWORK.
14. THE CONTRACTOR SHALL CAREFULLY COORDINATE THE LOCATION OF ALL DUCTS, GRILLES, DIFFUSERS, ETC. WITH THE CEILING GRIDS AND THE PLUMBING AND FRAMING CONTRACTORS.
15. ALL KITCHEN RETURN AIR GRILLES SHALL BE EASILY REMOVABLE FOR CLEANING.
16. ALL CONTROL WIRING SHALL BE BY THE HVAC CONTRACTOR. CONTROL WIRING SHALL BE SHIELDED CABLE TO PREVENT ANY ELECTRICAL INTERFERENCE.
17. ALL POWER WIRING SHALL BE BY THE ELECTRICAL CONTRACTOR.
18. EXHAUST FANS SHALL BE FURNISHED WITH BIRD SCREENS, BACKDRAFT DAMPERS AND DISCONNECTS WHERE APPLICABLE AND ACCORDING TO THE SCHEDULE.
19. CONTRACTOR SHALL PROVIDE A THIRD PARTY AIR BALANCING CONTRACTOR FOR SYSTEM BALANCING. BALANCING CONTRACTOR SHALL BE CERTIFIED NEBB OR AABC.
20. THE CONTRACTOR SHALL CAREFULLY COORDINATE ALL THERMOSTAT LOCATIONS WITH INTERIOR FINISHES.
21. THE CONTRACTOR SHALL COORDINATE FULLY WITH ALL OTHER TRADES.
22. THE CONTRACTOR SHALL SUPPLY FOR APPROVAL SIX (6) COPIES OF SHOP DRAWINGS TO COMPLETELY IDENTIFY THE QUALITY OF MATERIALS AND/OR EQUIPMENT INTENDED FOR INSTALLATION. THERE WILL BE NO DRAW UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED AND REVIEWED BY ARCHITECT/ENGINEER.
23. THE SUBMISSION OF A BID OR PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND/OR LABOR DUE TO DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, UNLESS THESE DIFFICULTIES COULD NOT HAVE BEEN FORESEEN EVEN THOUGH PROPER EXAMINATION HAD BEEN MADE.
24. ALL ROUND TAKE-OFFS FROM RECTANGULAR DUCTS SHALL BE A DAMPERS EXPRESS COMMERCIAL AIR TITE SPIN IN MODEL ATCSI-2 W/ DAMPER OR APPROVED EQUAL.
25. ROOFTOP AIR CONDITIONING UNITS SHALL BE INSTALLED ON FULL PERIMETER ROOF CURBS FURNISHED BY THE GENERAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR. GENERAL CONTRACTOR SHALL PROVIDE CURB INSULATION.
26. ALL CONDENSATE DRAIN LINES SHALL BE SLOPED MINIMUM 1/8" PER LINEAR FOOT OF RUN. ALL DRAIN EXITS FROM A/C UNITS SHALL INCLUDE A TRAP AND CLEAN-OUT PLUG. REFER TO DETAIL 3/ M3.0.
27. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL GAS PIPING AND CONDENSATE DRAINS. ALL GAS LINES SHALL BE SCHEDULE 40 BLACK IRON AND INSTALLED I.A.W. THE LATEST EDITION OF N.F.P.A. 30-77 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE), FIRE PREVENTION CODE AND ANY APPLICABLE STATE OR LOCAL CODES. CONDENSATE LINES SHALL BE INSTALLED USING GALVANIZED PIPE, P.V.C. OR A.B.S.
28. ALL ROOF CURBS FOR FANS, ETC. SHALL BE A MINIMUM OF 12" HIGH. KITCHEN HOOD FAN CURBS MAY NEED TO BE HIGHER TO MAINTAIN CORRECT DISCHARGE HEIGHT OF FAN PER N.F.P.A. #96.
29. SHEAVE & PULLEY COMBINATION FOR ALL R.T.U'S SHALL BE SIZED FOR DESIGN FAN R.P.M.
30. ALL KITCHEN HOOD EXHAUST DUCTWORK WELDS SHALL COMPLY WITH THE LATEST APPLICABLE AWS STANDARDS.
31. PROPERLY SECURE ALL FANS TO CURBS & DUCTWORK. PROVIDE NECESSARY GASKET ON CURBS TO PREVENT WATER PREVENTION.

TEST AND BALANCE

THE GENERAL CONTRACTOR SHALL SUBCONTRACT TO AN AIR TEST AND BALANCE CONTRACTOR THE TESTING, ADJUSTING AND BALANCING OF ALL ENVIRONMENTAL SYSTEMS SHOWN OR SPECIFIED ON THE CONTRACT DOCUMENTS. THE WORK SHALL BE PERFORMED BY A FIRM CERTIFIED BY EITHER AABC OR NEBB, AND FOUR (4) COPIES OF THE FINAL REPORT, SUBMITTED ON CERTIFYING AGENCY FORMS, SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL. THE REPORT SHALL BEAR THE CERTIFICATION SEAL OF THE TAB SUPERVISOR IN CHARGE. REPORTS SHALL CONTAIN ALL AIR SIDE BALANCING DATA, INSTRUMENTS USED AND THEIR LATEST CALIBRATION DATES, PERSON(S) PERFORMING THE WORK AND A WRITTEN GUARANTEE THAT ALL TAB WORK WAS PERFORMED IN ACCORDANCE WITH THE CERTIFYING AGENCY STANDARDS AND PROCEDURES. AN INDEPENDENT AIR BALANCING CONTRACTOR MAY PERFORM THIS WORK ONLY UPON WRITTEN SUBMISSION OF QUALIFICATIONS AND SUBSEQUENT APPROVAL BY THE PROJECT ENGINEER.

EXISTING RTU DETAILS FROM SHELL PLANS

ROOFTOP UNIT SCHEDULE - GAS HEAT					
DESIGNATION		RTU-1	RTU-2	RTU-3	RTU-4
MANUFACTURER		YORK	YORK	YORK	YORK
MODEL NO.		ZJ078	ZJ078	ZJ078	ZJ078
NOMINAL TONNAGE		6.5	6.5	6.5	6.5
CAPACITY	CFM	2600	2600	2600	2600
	TOTAL COOLING CAPACITY (MBH)	80.4	80.4	80.4	80.4
	SENSIBLE COOLING CAPACITY (MBH)	58.8	58.8	58.8	58.8
	ENT. AIR (DB/WB)	80/67	80/67	80/67	80/67
	LVG. AIR (DB/WB)	59.1/57.2	59.1/57.2	59.1/57.2	59.1/57.2
	MINIMUM E.E.R.	11.8	11.8	11.8	11.8
	HEATING INPUT (MBH)	120	120	120	120
	HEATING OUTPUT (MBH)	96	96	96	96
	STAGES OF HEATING	2	2	2	2
	EFFICIENCY	80%	80%	80%	80%
UNIT DATA	OUTSIDE AIR CFM	SET BY TENANT	SET BY TENANT	SET BY TENANT	SET BY TENANT
	TOTAL S.P. (IN. W.C.)	1.0	1.0	1.0	1.0
	FAN BRAKE HP	1.97	1.97	1.97	1.97
	FAN MOTOR HP	2.0	2.0	2.0	2.0
	NO. OF COMPRESSORS	2	2	2	2
	STAGES OF COOLING	2	2	2	2
	SMOKE DETECTORS	YES, NOTE 3	YES, NOTE 3	YES, NOTE 3	YES, NOTE 3
	RECEPTACLE	NOTE 4	NOTE 4	NOTE 4	NOTE 4
	RELIEF	BAROMETRIC	BAROMETRIC	BAROMETRIC	BAROMETRIC
	ECONOMIZER	DIFF. ENTHALPY	DIFF. ENTHALPY	DIFF. ENTHALPY	DIFF. ENTHALPY
FILTER	TYPE	2"	2"	2"	2"
	EFFICIENCY	MERV 8	MERV 8	MERV 8	MERV 8
ELECT./CONT.	VOLTAGE/PHASE	208/3	208/3	208/3	208/3
	MINIMUM CIRCUIT AMPACITY	36.2	36.2	36.2	36.2
	MAXIMUM OVERCURRENT PROTECTION	45	45	45	45
	PANEL & CIRCUIT	EL-2,4,6	EL-8,10,12	EL-14,16,18	EL-20,22,24
	WIRE & CONDUIT	(3)#8,#10G.,3/4"C.	(3)#8,#10G.,3/4"C.	(3)#8,#10G.,3/4"C.	(3)#8,#10G.,3/4"C.
	OVERCURRENT DEVICE	45A/3P CB	45A/3P CB	45A/3P CB	45A/3P CB
	DISCONNECT	60A-3P NF NEMA 3R	60A-3P NF NEMA 3R	60A-3P NF NEMA 3R	60A-3P NF NEMA 3R
	CONTROL SEQUENCE	NOTE 5	NOTE 5	NOTE 5	NOTE 5
REFERENCE DRAWING/DETAIL		ME401	ME401	ME401	ME401
REMARKS		NOTE 1, 2	NOTE 1, 2	NOTE 1, 2	NOTE 1, 2

NOTES:
1: FURNISH WITH ALUMINIZED FURNACE, INTELLISPEED FAN, STANDARD DRAIN PAN, ROOF CURB, AND HAIL GUARD KIT. PROVIDE MODULATING OUTDOOR AIR DAMPER CAPABLE OF DEMAND CONTROL VENTILATION WITH CO2 SENSOR LOCATED IN UNIT OR DUCTWORK.

2: ROUTE DUCTWORK DOWN FROM UNIT TO THE BOTTOM OF STRUCTURE. REFER TO DETAIL AND INSULATION/LINER REQUIREMENTS.

3: FURNISH WITH FACTORY INSTALLED SMOKE DETECTOR IN RETURN AIR DUCT SECTION. FIRE ALARM CONTRACTOR TO CONNECT TO FIRE ALARM CONTROL PANEL AS REQUIRED.

4: FACTORY PROVIDED GFI / WP RECEPTACLE, UNPOWERED. CONTRACTOR TO FIELD WIRE PER PLANS.

5: PROVIDE FACTORY CONTROLLER FOR STAND-ALONE OPERATION. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT IN LOCKBOX. TEMPORARILY MOUNT IN SPACE, TENANT TO RELOCATE TO ITS FINAL LOCATION.

JUSTIN R. HARDY
NUMBER PE-20090020889
PROFESSIONAL ENGINEER
05/01/20

MEP CONTACT:JUSTIN R. HARDY, PE
5014 KINGSBRIDGE PASS
POWDER SPRINGS, GA
Phone: (678) 234-8156

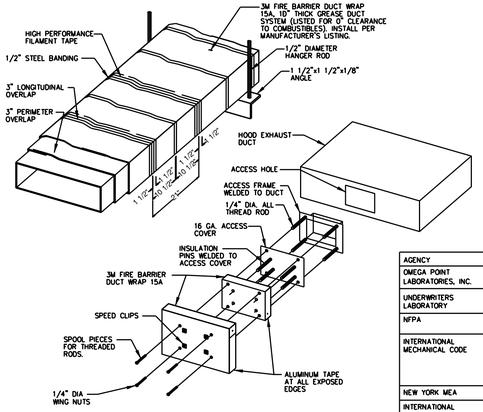
FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

MECHANICAL SCHEDULES & NOTES

M2.0



3M FIRE PROTECTION PRODUCTS
3M CENTER, BLDG. 225-4S-08
ST. PAUL MN. 55144
(800) 328-1687

3M INFORMATION
PERFORMANCE
3M BARRIER DUCT WRAP 20A HAS BEEN TESTED IN ACCORDANCE WITH THE FOLLOWING:

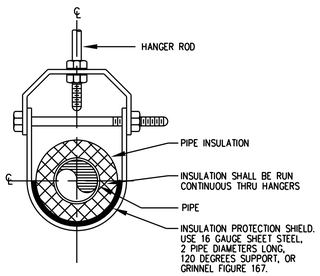
ASTM C 411 ASTM E 119
ASTM C 518 ASTM E 136
ASTM E 84 ASTM E 814
ICBO AC101 INTERNAL

OMEGA POINT LABORATORIES
NFPA 96, IMC, UMC

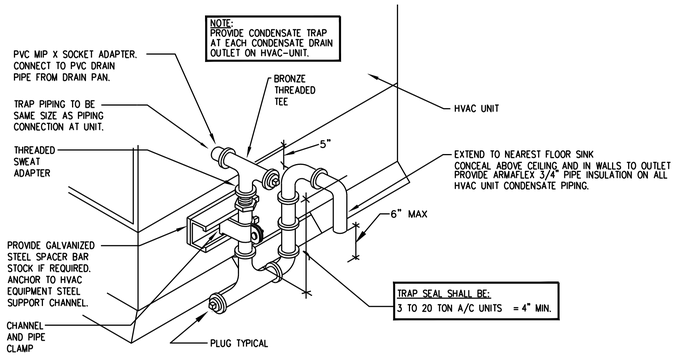
ALTERNATIVE MANUFACTURER/PRODUCT:
THERMAL CERAMICS FIREMASTER FASTWRAP
THERMAL CERAMICS AMERICAS
2102 OLD SAVANNAH RD.
AUGUSTA, GEORGIA 30906
T: 706 796 4300
F: 706 796 4328
WEB SITE: WWW.THERMALCERAMICS.COM

AGENCY	REF. STANDARD FILE NO
OMEGA POINT LABORATORIES, INC.	LISTING #11660-3, FS 587F, GD 544F
UNDERWRITERS LABORATORY	GREASE DUCT ENCLOSURES (YYET); R14229 HNKT G-14
NFPA	COMPLIES WITH NFPA 96, 2001 EDITION
INTERNATIONAL MECHANICAL CODE	SECTION 506 COMMERCIAL KITCHEN GREASE DUCTS & EXHAUST EQUIPMENT, SECTION 507 COMMERCIAL KITCHEN HOODS, 2000 EDITION
NEW YORK MEA	412-02-M, 413-02-M
INTERNATIONAL CODE COUNCIL	SBCCI LEGACY REPORT NO. 9424E BOCA LEGACY REPORT NO. 22.25

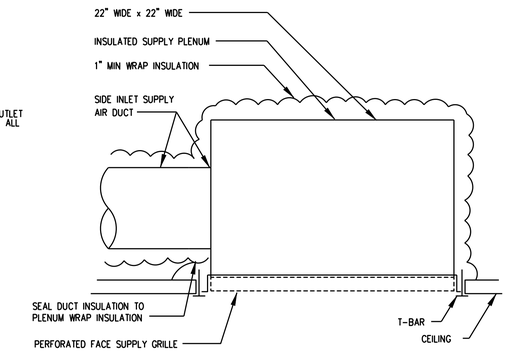
FIRE WRAP GREASE DUCT CLEANOUT DETAIL



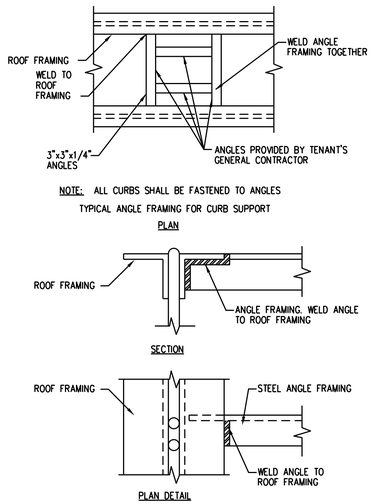
PIPE HANGER DETAIL



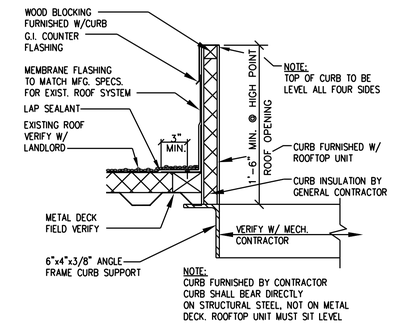
CONDENSATE PIPING DETAIL



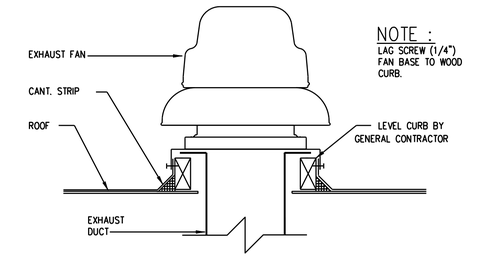
RETURN DUCT DETAIL



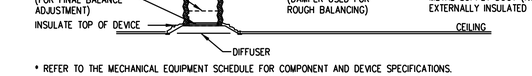
TYPICAL RTU FRAMING DETAIL



ROOF CURB SECTION DETAIL

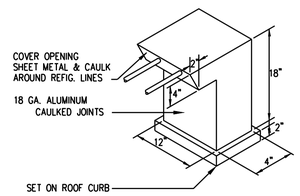


ROOF MOUNTED FAN DETAIL

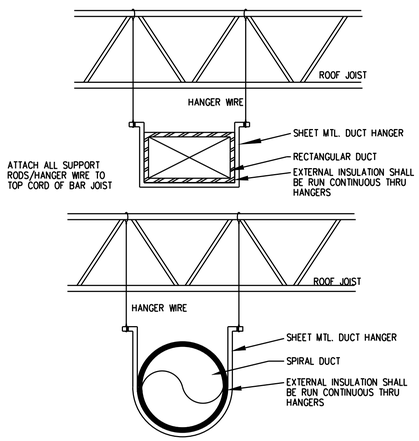


* REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR COMPONENT AND DEVICE SPECIFICATIONS.

DIFFUSER INSTALLATION DETAIL

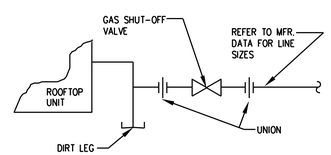


ROOF CURB SECTION DETAIL



DUCT HANGER DETAIL

NO DETAILS ARE DRAWN TO SCALE UNLESS OTHERWISE NOTED



ROOF CURB SECTION DETAIL

MEP CONTACT: JUSTIN R. HARDY, PE
5014 KINGSBRIDGE PASS
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JUSTIN R. HARDY
NUMBER PE-2009002089
PROFESSIONAL ENGINEER
05/01/20

FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

MECHANICAL DETAILS

M3.0

1/2" DIA. ALL THREAD ROD CONNECTED TO ROOF JOIST THROUGH ANOTHER HANGING ANGLE

1/2" DIA. HEAVY DUTY NUT ONE ABOVE AND ONE BELOW HANGING ANGLE

* ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR HANGING ANGLE IS PRE-PUNCHED AT FACTORY

ND-2 HANGING ANGLE DETAIL

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24"H)	DIM FROM FRONT (30"H)
CANOPY ND2	4.166"	2.246"	2.246"
ND2-PSP-F	4.166"	2.246"	2.246"
BACKSHELF 2847BD	2.00"	14.25"	–
VHB/VHB-G	36"X36"	42"X42"	48"X48"
FRONT/BACK DIMS BY SIZE	2.246"	2.246"	2.246"

HANGING ANGLE LOCATIONS

EXHAUST CFM=LENGTH OF HOOD x CFM/LN.FT. (LOAD)

SUPPLY CFM=EXHAUST CFM x PERCENTAGE REQUIRED

TOTAL DUCT AREA=144 x $\frac{\text{CFM}}{\text{FPM(*)}}$

DUCT LENGTH= $\frac{\text{TOTAL DUCT AREA}}{\text{DUCT DEPTH}}$

* CAPTIVE-AIRE VENTILATOR DUCT SIZES ARE CALCULATED USING AN EXHAUST VELOCITY OF 1500-1800 FPM AND A SUPPLY VELOCITY OF 1000 FPM.

CALCULATIONS UTILIZED

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

ETL LISTED — STANDARD 710 — intertek — BUILT IN ACCORDANCE WITH NFPA No 96

3054804-001
3054804-002

Listed under ETL File number 3054804-001/002

BUILDING CODES

CAPTIVE-AIRE HOODS HAVE OPTIONAL CLEARANCE REDUCTION SYSTEMS AVAILABLE AS FOLLOWS:

MATERIAL	CLEARANCE REDUCTION SYSTEM
NON-COMBUSTIBLE	NONE REQUIRED
LIMITED-COMBUSTIBLE	3" UNINSULATED STANDOFF
COMBUSTIBLE	1" INSULATED STANDOFF

CLEARANCE TO COMBUSTIBLES

INSTALLATION

1. ALL ELECTRICAL "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY ELECTRICAL CONTRACTORS.
2. ALL PLUMBING "FIELD" CONNECTIONS AND RELATED INTERCONNECTIONS BY PLUMBING CONTRACTORS.
3. HANGING BRACKETS LOCATED AND WELDED AS SHOWN ON PLANS. ALL OTHER HANGER MATERIALS PROVIDED BY INSTALLING CONTRACTORS.
4. ALL CONNECTIONS FROM CAPTIVE-AIRE DUCT PER MECHANICAL CONTRACTOR'S PLANS.
5. COOKING EQUIPMENT TO SHUTOFF IN EVENT OF FIRE.
6. EXHAUST FANS TO TURN ON IN EVENT OF FIRE.
7. ALL LIGHTS FIXTURE SHOWN INSTALLED BY CAPTIVE-AIRE ARE FACTORY PREWIRED. INTERCONNECTIONS BETWEEN HOODS AND TO SWITCHES BY ELECTRICAL CONTRACTORS.
8. LAMPS FOR LIGHT FIXTURES BY INSTALING CONTRACTORS.
9. SEISMIC RESTAINTS ARE RESPONSIBILITY OF INSTALLING CONTRACTOR.
10. INSTALLING CONTRACTORS ASSUME ALL RELATED REPONSIBILITY FOR VERIFICATION OF DIMENSIONAL DATA CONTAINED ON THESE DOCUMENTS FOR ACCURACY, INTEGRATION, AND ADMINISTRATION OF CODE REQUIREMENTS IN EFFECT PRIOR TO ANY RELEASE FOR PRODUCTION OF EQUIPMENT SHOWN.

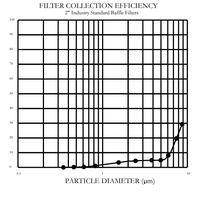
BALANCE

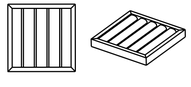
11. KITCHEN HOODS MUST BE BALANCED WITH KITCHEN.
12. KITCHEN SHALL BE NEGATIVE WITH RESPECT TO DINING AREA.
13. RESTAURANT SHALL BE POSITIVE WITH RESPECT TO AMBIENT PRESSURE

ADDITIONAL

14. WRITTEN HOOD DIMENSIONS HAVE PRECEDENCE OVER SCALE.
15. SIGNED AND "APPROVED" COPIES OF THIS DOCUMENT MUST BE RECEIVED BY THE FACTORY PRIOR TO COMMENCEMENT OF FABRICATION.

GENERAL NOTES





Kleen Guard UL Listed
Grease Extracting Filters
Made From 430 Stainless Steel

FILTER DETAIL

HOOD INFORMATION – Job#4340844

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	TYPE	APPLIANCE DUTY	DESIGN CFM/ft	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S) WIDTH	LENG.	HEIGHT	DIA.	CFM	VEL.	S.P.	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	ROW
1		5424 PK-ND-2 Q-SB-F	8' 0"	600 Deg.	I	Heavy	250	2000			4"	14"	2000	1871	-0.431"	1515	430 SS Where Exposed	LEFT	ALONE
2		5424 PK-ND-2 Q-SB-F	9' 0"	600 Deg.	I	Heavy	250	2250			4"	14"	2250	2105	-0.521"	1890	430 SS Where Exposed	RIGHT	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S) TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	LIGHT(S) QTY.	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	SIZE	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WGHT
1		SS Baffle with Handles	5	20"	16"	30%	3	L55 Series E26	NO	Left	12"x54"x24"	Ansul R102	3.0/3.0	SC-311110FP	1 Light 1 Fan	YES	591 LBS
2		SS Baffle with Handles	6	20"	16"	30%	3	L55 Series E26	NO							YES	484 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1		FIELD WRAPPER 17.00" High Front
		BACKSPLASH 80.00" High X 217.00" Long 430 SS Vertical
		BACKSPLASH 120.00" High X 18.00" Long 430 SS Vertical
		BACKSPLASH 120.00" High X 18.00" Long 430 SS Vertical
		RISER SENSOR INSTALL 3IN DBL
2		FIELD WRAPPER 17.00" High Front, Right
		RIGHT SIDESPLASH 80.00" High X 54.00" Long 430 SS Vertical
		RIGHT END STANDOFF (FINISHED) 1" Wide 54" Long Insulated
		RISER SENSOR INSTALL 3IN DBL
		RIGHT WALL AS END PANEL

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG.	DIA.	CFM	S.P.
1		Front	108"	18"	6"	MUA	12"	28"		757	0.185"
						MUA	12"	28"		757	0.185"
2		Front	109"	18"	6"	MUA	12"	24"		630	0.177"
						MUA	12"	24"		630	0.177"
						MUA	12"	24"		630	0.177"

PATENT NUMBERS

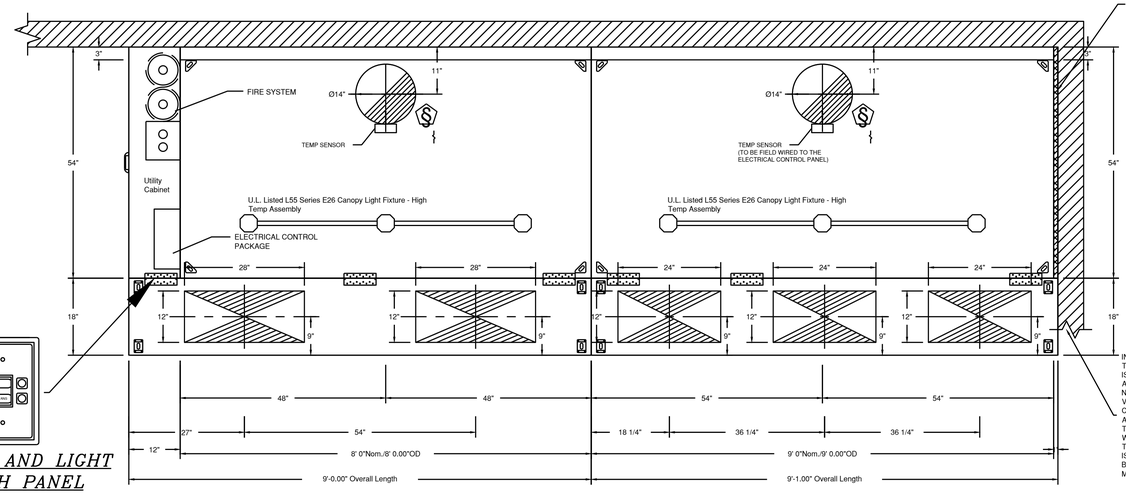
AC-PSP (United States) - US Patent 7963830 B2
AC-PSP Wall (Canada) - CA Patent 2820509
AC-PSP Island (Canada) - CA Patent 2520330

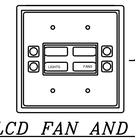
System Design Verification (SDV)

If ordered, CAS Service will perform a System Design Verification (SDV) once all equipment has had a complete start up per the Operation and Installation Manual. Typically, the SDV will be performed after all inspections are complete.

Any field related discrepancies that are discovered during the SDV will be brought to the attention of the general contractor and corresponding trades on site. These issues will be documented and forwarded to the appropriate sales office. If CAS Service has to resolve a discrepancy that is a field issue, the general contractor will be notified and billed for the work. Should a return trip be required due to any field related discrepancy that cannot be resolved during the SDV, there will be additional trip charges.

During the SDV, CAS Service will address any discrepancy that is the fault of the manufacturer. Should a return trip be required, the general contractor and appropriate sales office will be notified. There will be no additional charges for manufacturer discrepancies.

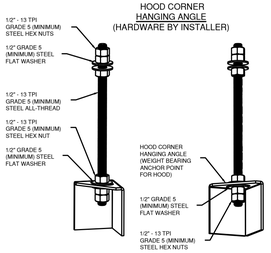




LCD FAN AND LIGHT SWITCH PANEL

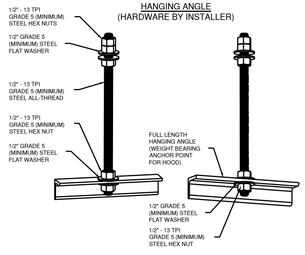
PLAN VIEW – Hood #1
8' 0.00" LONG 5424PK-ND-2 Q-SB-F

PLAN VIEW – Hood #2
9' 0.00" LONG 5424PK-ND-2 Q-SB-F



ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



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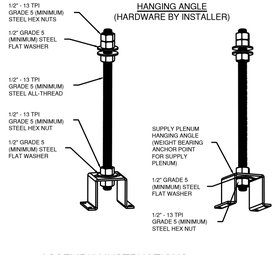

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STATE OF GEORGIA
JUSTIN R. HARDY
NUMBER PE-23009002089
PROFESSIONAL ENGINEER

05/01/20

MEP CONTACT:JUSTIN R. HARDY, PE
5014 KINGSBRIDGE PASS
POWDER SPRINGS, GA
Phone: (678) 234-8156

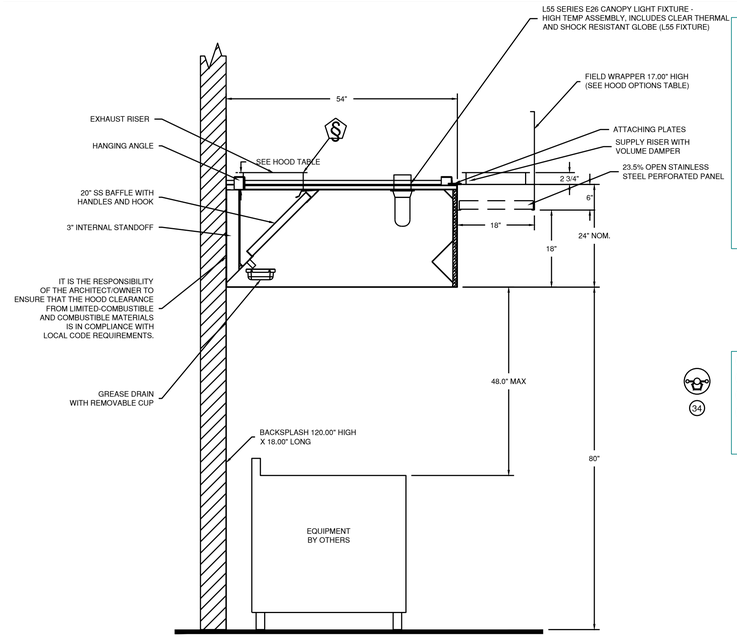
FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

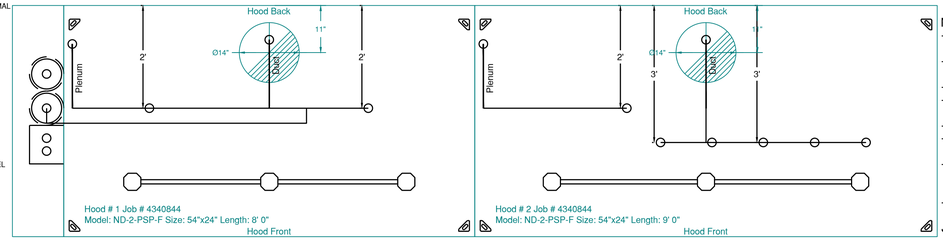
PROJECT NO: FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

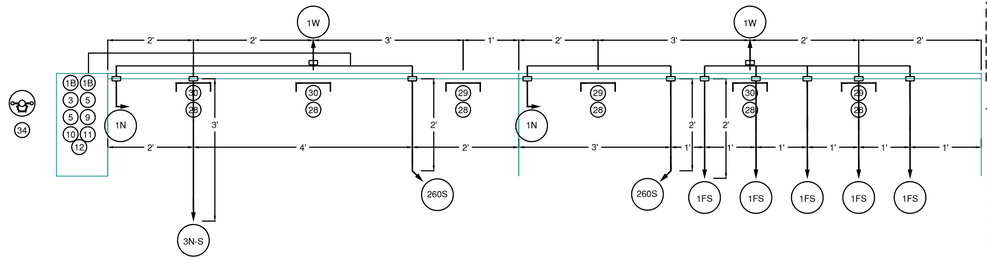
MECHANICAL HOOD PLANS

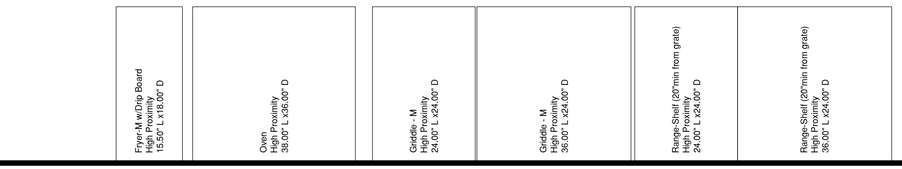
MH1.0



SECTION VIEW - MODEL 5424PK-ND-2 Q-SB-F HOOD - #1







NOTES
- FIELD PIPE DROPS AS SHOWN
  SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS
- RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
- MAXIMUM 9 ELBOWS IN SUPPLY LINE.
- MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
- IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
- FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.

- APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.

- THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS

Job #: 4340844
Job Name: Flying Biscuit - Lee's Summit MO

System Size: ANSUL-3.0/3.0 Total FP required: 16
Hood # 1 8' 0.00" Long x 54" Wide x 24" High
Riser # 1 Size: 14" Dia.
Hood # 1 Metal Blow-Off Caps included.
Hood # 2 9' 0.00" Long x 54" Wide x 24" High
Riser # 1 Size: 14" Dia.
Hood # 2 Metal Blow-Off Caps included.

LEGEND - FIRE CABINET ANSUL SYSTEM

1A	1.5 GALLON TANK
1B	3 GALLON TANK
2	OEM AUTOMAN RELEASE
3	OEM REGULATED RELEASE
4	OEM REGULATED ACTUATOR
5	ANSULEX LIQUID AGENT (3 GAL.)
6	ANSULEX LIQUID AGENT (1.5 GAL.)
7	CARTRIDGE (101-20)
8	CARTRIDGE (101-10)
9	CARTRIDGE (101-30)
9A	CARTRIDGE (LT-A-101-30)
9B	DOUBLE TANK CARTRIDGE
10	TEST LINK
11	DOUBLE MICROSWITCH
12	HOSE ASSEMBLY
1100	DUCT NOZZLE (430913)
2W	DUCT NOZZLE (419337)
1W	NOZZLE ASSEMBLY (419336)
1F	NOZZLE ASSEMBLY (419333)
1N	NOZZLE ASSEMBLY (419335)
1/2N	NOZZLE ASSEMBLY (419334)
3N	NOZZLE ASSEMBLY (419338)
245	NOZZLE ASSEMBLY (419340)
230	NOZZLE ASSEMBLY (419339)
2120	NOZZLE ASSEMBLY (419343)
290	NOZZLE ASSEMBLY (419342)
260	NOZZLE ASSEMBLY (419341)
28	DETECTOR BRACKET
29	LOW TEMP FUSIBLE LINK
30	HIGH TEMP FUSIBLE LINK
MGV	MECHANICAL GAS VALVE
EGV	ELECTRICAL GAS VALVE
34	REMOTE MANUAL PULL STATION
S	SWIVEL ADAPTOR

Fire System Information - Job#4340844

FIRE SYSTEM NO.	Tag	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		Ansul R102	3.0/3.0	16	Fire Cabinet Left	Left

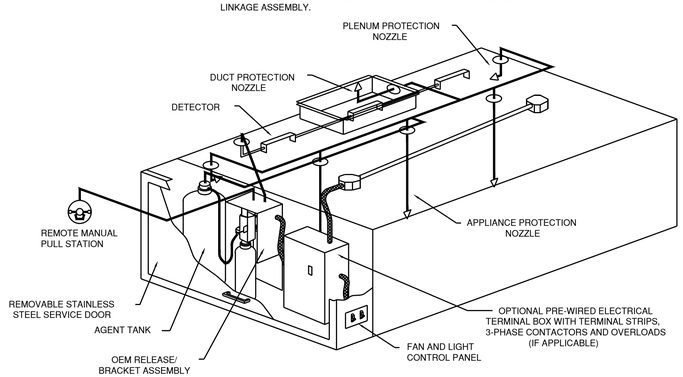
SPECIFICATIONS

THE RESTAURANT FIRE SUPPRESSION SYSTEM SHALL BE THE PRE-ENGINEERED TYPE WITH A FIXED NOZZLE AGENT DISTRIBUTION NETWORK. IT SHALL BE LISTED WITH UNDERWRITERS LABORATORIES, INC. (UL)

THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC DETECTION AND ACTUATION WITH LOCAL OR REMOTE MANUAL ACTUATION. ACCESSORIES SHALL BE AVAILABLE FOR MECHANICAL OR ELECTRICAL GAS LINE SHUT-OFF APPLICATIONS.

THE EXTINGUISHING AGENT SHALL BE A POTASSIUM CARBONATE, POTASSIUM ACETATE-BASED FORMULATION DESIGNED FOR FLAME KNOCKDOWN AND SECUREMENT OF GREASE RELATED FIRES. IT SHALL BE AVAILABLE IN PLASTIC CONTAINERS WITH INSTRUCTIONS FOR LIQUID AGENT HANDLING AND USAGE.

THE REGULATED RELEASE MECHANISM SHALL BE COMPATIBLE WITH A FUSIBLE LINK DETECTION SYSTEM. THE FUSIBLE LINK SHALL BE SELECTED AND INSTALLED ACCORDING TO THE OPERATING TEMPERATURE IN THE VENTILATING SYSTEM. THE FUSIBLE LINK SHALL BE SUPPORTED BY A DETECTOR BRACKET/ LINKAGE ASSEMBLY.



TYPICAL ANSUL R-102 SYSTEM LAYOUT

MEP CONTACT:JUSTIN R. HARDY, PE
5014 KINGSBRIDGE PASS
POWDER SPRINGS, GA
Phone: (678) 234-8156

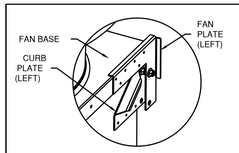
FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

DESCRIPTION	DATE	REVISIONS

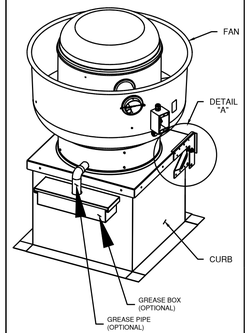
PROJECT NO. FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

MECHANICAL HOOD PLANS

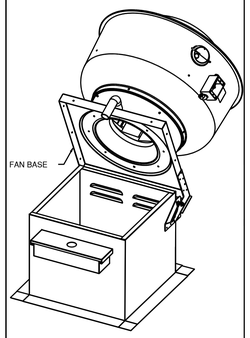
MH1.1



HINGE KIT DETAIL

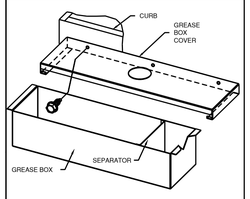


FAN IN CLOSED POSITION

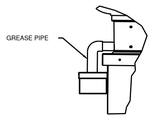


ATTENTION: INSTALLER SHOULD SUPPLY ENOUGH ELECTRICAL CORD TO LET FAN MAKE COMPLETE SWING.

FAN IN OPEN POSITION



ATTACH GREASE BOX COVER TO THE CURB 3" BELOW TOP EDGE OF CURB.
USING (3) LONG (3/4" LG.) SCREWS AS SHOWN.
INSTALL GREASE PIPE AS SHOWN.



GREASE BOX INSTALLATION

1. A PRE-WIRED ELECTRICAL CONTROL PACKAGE SHALL BE PROVIDED TO OPERATE THE HOOD LIGHTS AND FANS.
2. PACKAGE SHALL CONSIST OF SWITCH PANEL WITH LIGHT SWITCH(ES) AND RED-LIGHTED FAN SWITCH(ES), STARTER/ OVERLOAD ASSEMBLY FOR EACH FAN(OPTIONAL), NUMBERED INPUT/OUTPUT TERMINAL STRIPS, AND A TERMINAL FOR DOUBLE-DUAL FIRE SYSTEM MICROSWITCH CONNECTION.
3. ONE RELAY IS WIRED TO MICROSWITCH (IN FIRE SYSTEM) FOR SUPPLY FAN SHUTDOWN AND OTHER RELAY FOR ADDITIONAL FIRE SYSTEM ACTIVATED DRY CONTACTS.
4. ELECTRICAL CONDUIT DROPS FROM THE FAN(S) SHALL BE CONNECTED TO THE NUMBERED TERMINAL STRIP. CONDUIT BETWEEN THE PRE-WIRE PACKAGE AND FAN(S) SHALL BE SUPPLIED BY THE ELECTRICAL CONTRACTOR.

ELECTRICAL PACKAGE NOTES

EXHAUST FAN INFORMATION – Job#4340844

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	MOTOR ENCL.	H.P.	B.H.P.	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS.)	SONES
1	KEF-1	BDU24HPK	4250	1.000	899	ODP	2.000	1.2660	3	208	5.9	966 FPM	246	17.5

MUA FAN INFORMATION – Job#4340844

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP.	RPM	MOTOR ENCL.	H.P.	B.H.P.	Ø	VOLT	FLA	MCA	MOCP	WEIGHT (LBS.)	SONES
2		K-A2-D.500-G15	G15-PB	A2-D.500	2000	3405	0.500	837	ODP	2.000	1.4680	3	208	5.9	7.4A	15A	664	13.3

GAS FIRED MAKE-UP AIR UNIT(S)

FAN UNIT NO.	TAG	INPUT BTUs	OUTPUT BTUs	TEMP. RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2		247993	228154	65 deg F	7 in. w.c. - 14 in. w.c.	Natural	92

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. - Descr.)
1	KEF-1	1 - Grease Box
2		1 - AC Interlock Relay - 24VAC Coil
		1 - Motorized Backdraft Damper for A2-D Housing
		1 - Low Fire Start
		1 - Inlet Pressure Gauge, 0-35"
		1 - Manifold Pressure Gauge, -5 to 15" wc
		1 - Separate 120V Wiring Package (Required and used only for DCV or Prewire with VFD) - Three Phase Only
		1 - Size 2 Direct Fired Heater Low CFM Profile Package. Used on Heaters under 2500 cfm.

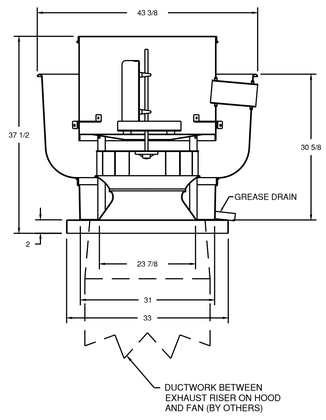
FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1	KEF-1	YES						
2							YES	

CURB ASSEMBLIES

NO.	ON FAN	TAG	WEIGHT	ITEM	SIZE
1	# 1	KEF-1	48 LBS	Curb	31.500"W x 31.500"L x 20.000"H Vented Hinged
2	# 2		80 LBS	Curb	31.000"W x 79.000"L x 20.000"H Insulated

FAN #1 BDU24HPK - EXHAUST FAN (KEF-1)



FEATURES:

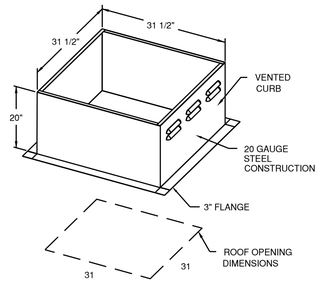
- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762 AND ULC-S645
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

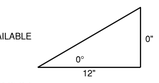
OPTIONS

GREASE BOX.



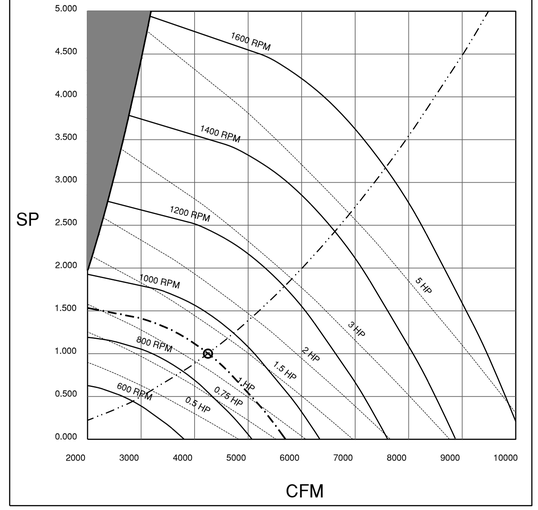
PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

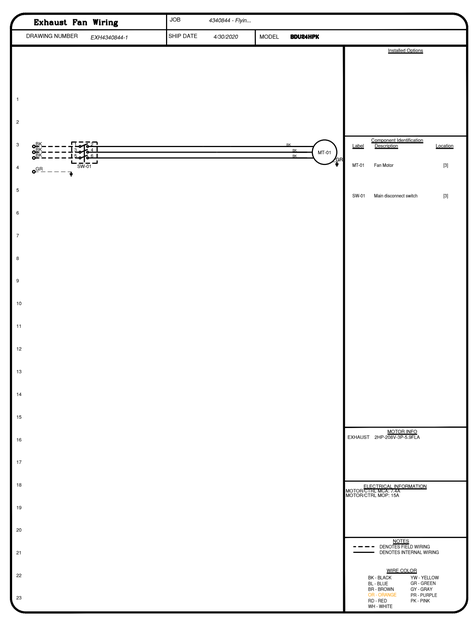
SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE



FAN#1 (KEF-1) - EXHAUST PERFORMANCE CURVES.

4250 CFM, 1 SP @ 899 RPM and 1.266 BHP at 938 feet and 70 deg F
* Please note that these curves were adjusted for job specific temperature and altitude.





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STATE OF GEORGIA
JUSTIN R. HARDY
NUMBER PE-23099002089
PROFESSIONAL ENGINEER
05/01/20

FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBGA-100
ACAD FILE#:
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MECHANICAL HOOD PLANS

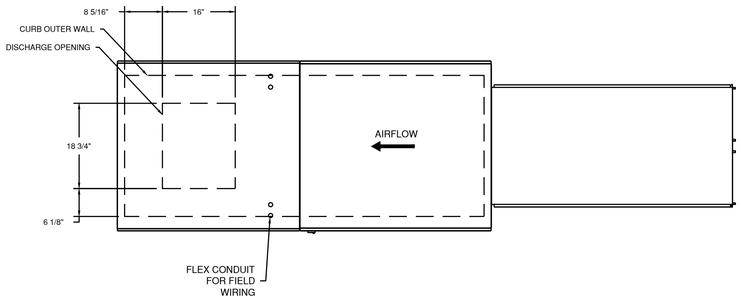
MH1.2

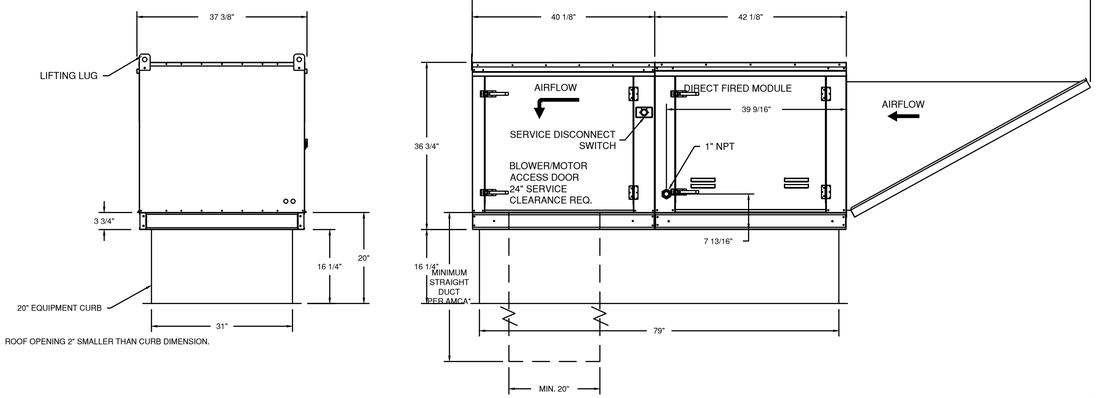
FAN #2 K-A2-D.500-G15 - HEATER
1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" BLOWER
2. INTAKE HOOD WITH EZ FILTERS
3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT
4. COOLING INTERLOCK RELAY, 24VAC COIL. 120V CONTACTS. LOCKS OUT BURNER CIRCUIT WHEN AC IS ENERGIZED.
5. MOTORIZED BACK DRAFT DAMPER 22.75" X 24" FOR SIZE 2 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LOW LEAKAGE, LF120S ACTUATOR INCLUDED
6. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
7. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE
8. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC., 2.5" DIAMETER, 1/4" THREAD SIZE
9. SEPARATE 120VAC WIRING PACKAGE FOR MAKE-UP AIR UNITS. OPTION MUST BE SELECTED WHEN MOUNTING VFD IN PREWIRE PANEL OR WITH DCV PACKAGE. PROVIDES SEPARATE 120VAC INPUT TO SUPPLY FAN. THIS 120V SIGNAL MUST BE RUN BY ELECTRICIAN FROM DCV TO MUA SWITCH.
10. PROFILE PLATE CONFIGURATION FOR SIZE 2 DIRECT FIRED UNIT FOR LOW CFM APPLICATIONS.

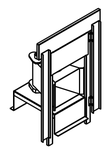
*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20"

SUPPLY SIDE HEATER INFORMATION:

WINTER TEMPERATURE = 10°F. TEMP. RISE = 65°F.
BTUs CALCULATED OFF ACTUAL AIR DENSITY
OUTPUT BTUs AT ALTITUDE OF 0.0 ft. = 256450
INPUT BTUs AT ALTITUDE OF 0.0 ft. = 257011
OUTPUT BTUs AT ALTITUDE OF 985 ft. = 228154
INPUT BTUs AT ALTITUDE OF 985 ft. = 247994







Direct Fired (DF) Profile Plate Assembly

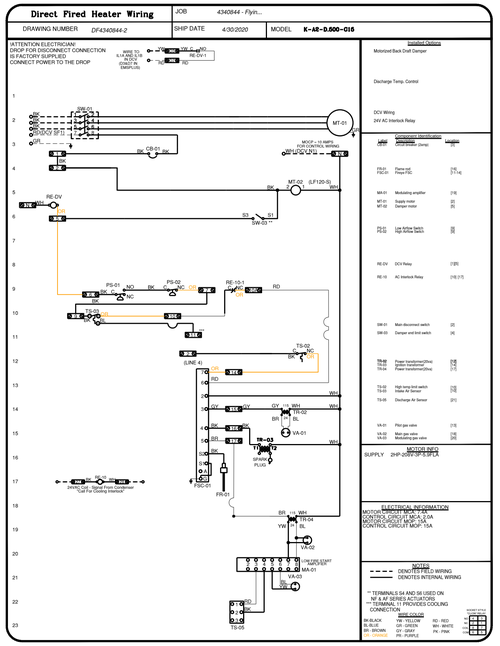
Direct Fired Profile Plate Specifications:
Description:
Direct fired burners shall have patented (US Patent No.: US6629523B2), self-adjusting profile plates designed to ensure proper air velocity and pressure drop across the burner. Profile plates shall allow burners to achieve clean combustion by limiting by-product levels to a maximum of 5ppm of carbon monoxide (CO), and 0.5ppm of nitrogen dioxide (NO2). units shall be configured with the blower mounted downstream of the burner. This arrangement will ensure a consistent airflow, regardless of inlet air temperature.

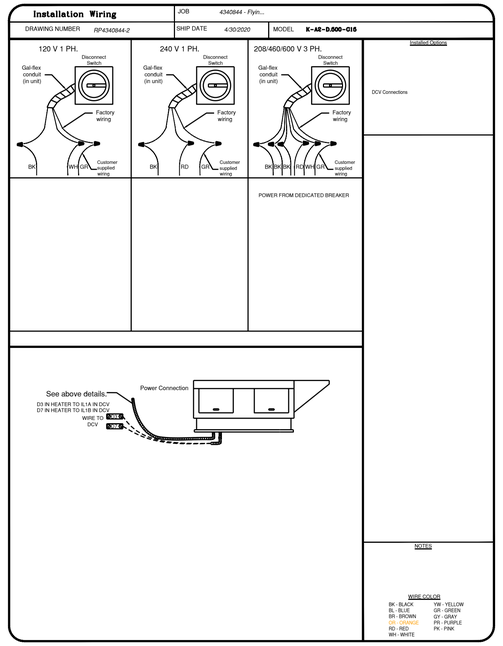
Application:
Spring loaded burner profile plates are engineered to automatically react to the momentum of a fresh air stream, without the need for any motors or actuators to mechanically adjust them. With this feature, all DF units are designed for demand control ventilation (DCV) requirements.

Certifications:
All profile plate assemblies shall be included in the DF unit's ETL listing and comply with combined safety standards ANSI Z83.4 and CSA 3.7 (non-recirculating DF heaters) and ANSI Z83.18 (recirculating DF heaters).

General Construction:
-Profile plates shall be formed from G90 galvanized steel.
-Profile plates shall vary in size per unit.
-Profile plates shall be mounted along the same plane as the discharge of the burner.
-Design shall incorporate properly torqued, permanently mounted spring hinges.
-Spring hinges shall be made from plated steel.

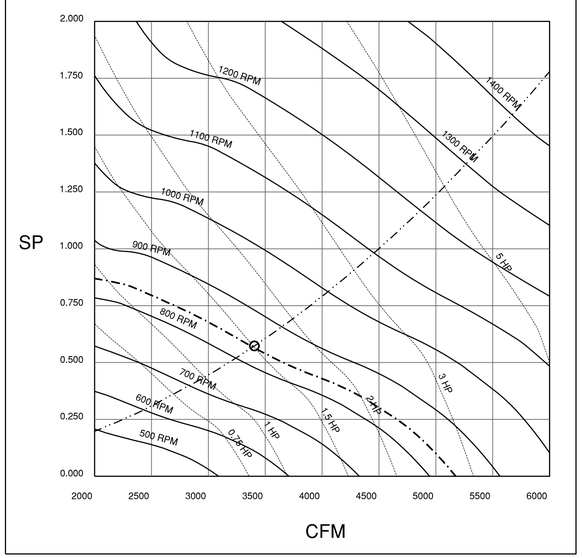
Direct Fired





FAN#2 - HEATER PERFORMANCE CURVES.

3405 CFM, 0.573 SP @ 837 RPM and 1.468 BHP at 985 feet and 75 deg F
* Please note that these curves were adjusted for job specific temperature and altitude.



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05/01/20

FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

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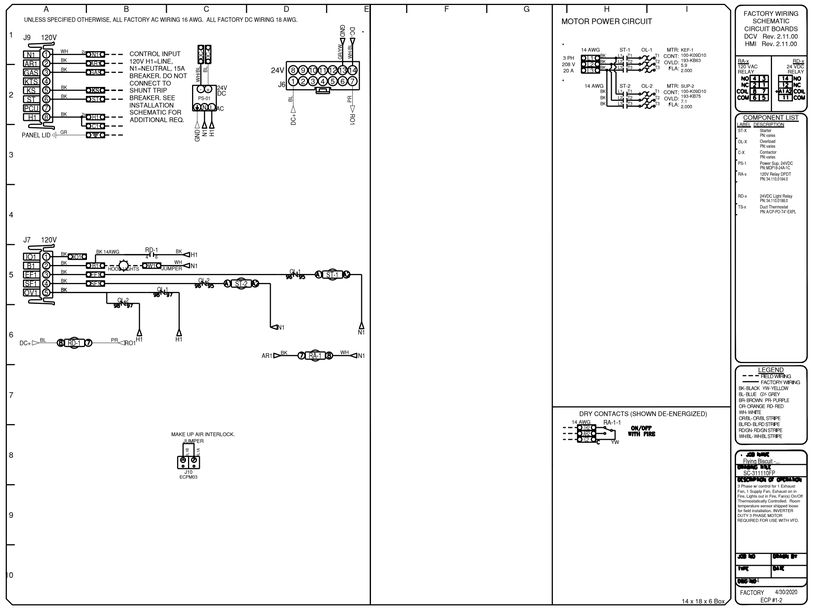
MECHANICAL HOOD PLANS

MH1.3

ELECTRICAL PACKAGE – Job#4340844

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED					
				LOCATION	QUANTITY		FAN TAG	TYPE	Φ	H.P.	VOLT	FLA
1		SC-311110FP	Utility Cabinet Left	03 - Utility Cabinet Left	1 Light	Smart Controls Thermostatic Control	KEF-1	Exhaust	3	2.000	208	5.9
				Hood # 1	1 Fan			Supply	3	2.000	208	5.9

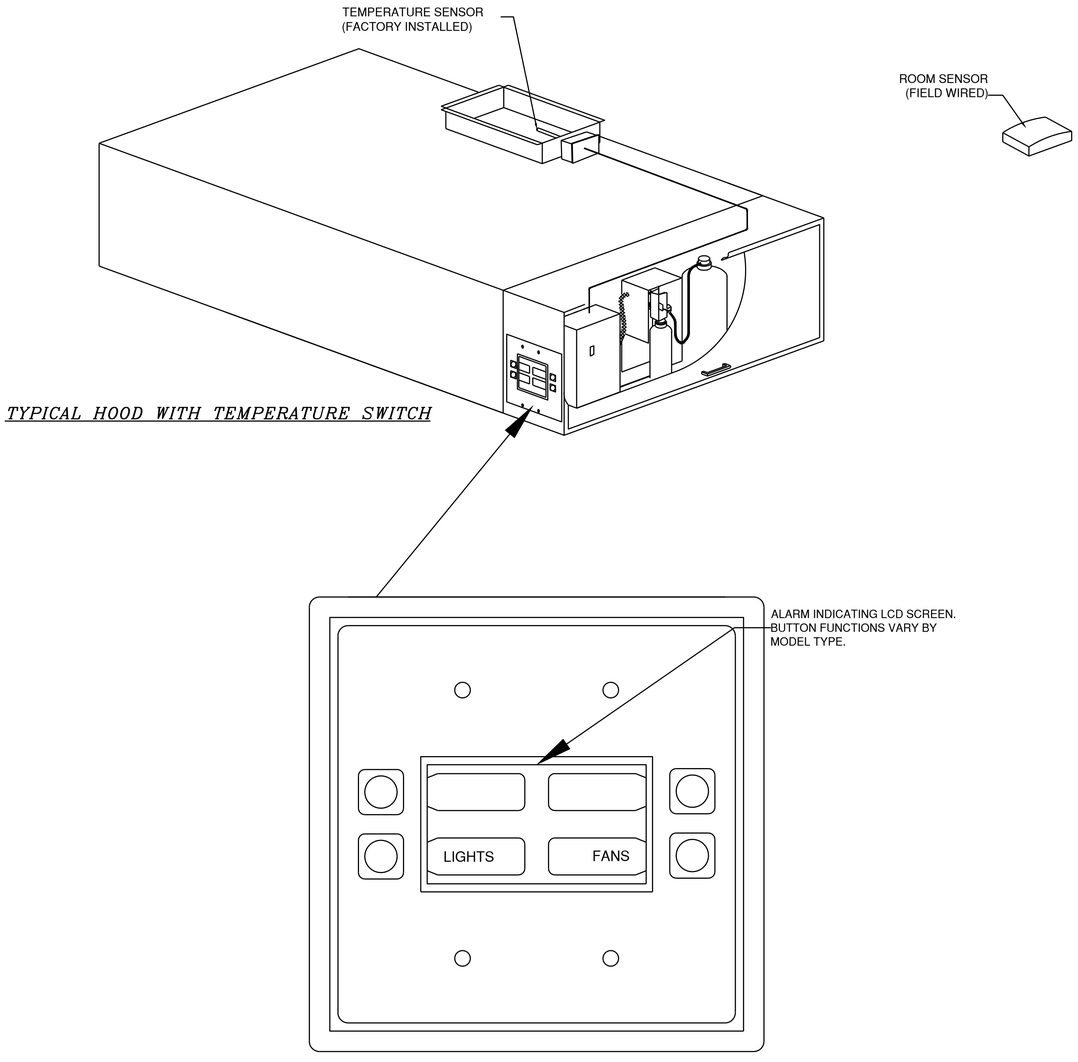


ELECTRICIAN NOTES :

All Hood/Fan/EMS/UDS/PCU electrical connections and interconnections to be provided and installed by Electrician. Electrician to provide, install, and land wiring between hood lights, hood temp sensors, remote Ansul system microswitches, and any other component requiring an electrical connection to the Captive-Aire electrical package.
Failure by the Electrician to make ALL required electrical connections and interconnections will result in the electrical controls not working properly. Any loss or failed test as a result of electrical controls not working properly is the responsibility of the Electrician.
Light bulbs for kitchen hoods to be provided and installed by electrician.

TEMPERATURE SENSOR INTERLOCK

The Temperature Sensor Interlock option complies with IMC 2006 507.2.1.1 and NFPA 96 11.1.1 by interlocking with cooking appliances through means of a heat sensor to automatically activate exhaust fans during cooking operations.



TYPICAL HOOD WITH TEMPERATURE SWITCH

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MECHANICAL HOOD PLANS

MH1.4

JOB NO	MODEL NUMBER	DRAWN BY	SCHEMATIC TYPE
4340844	SC-311110FP		INSTALL
	JOB NAME Flying Biscuit - Lee's Summit...	DATE 4/30/2020	DWG NO ECP #1-1

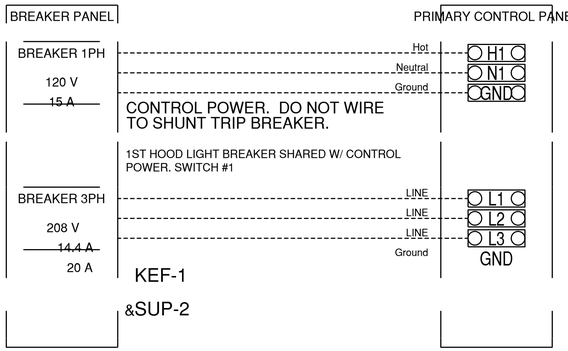
DESCRIPTION OF OPERATION:

3 Phase w/ control for 1 Exhaust Fan, 1 Supply Fan, Exhaust on in Fire, Lights out in Fire, Fan(s) On/Off Thermostatically Controlled. Room temperature sensor shipped loose for field installation. INVERTER DUTY 3 PHASE MOTOR REQUIRED FOR USE WITH VFD.

BREAKER PANEL TO PRIMARY CONTROL PANEL

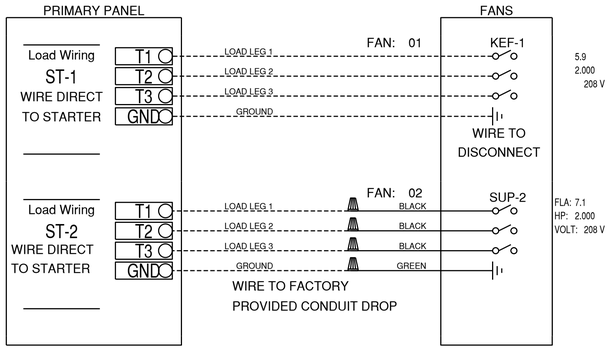
Responsibility: Electrician

BREAKER SIZE SHOWN IS THE MAXIMUM ALLOWED



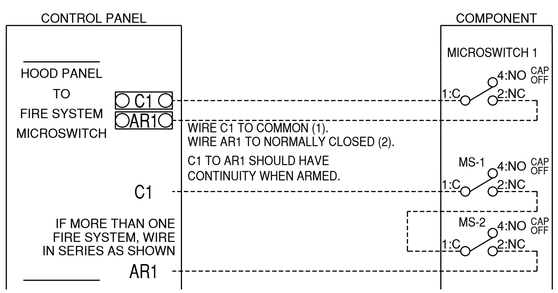
CONTROL PANEL TO FANS

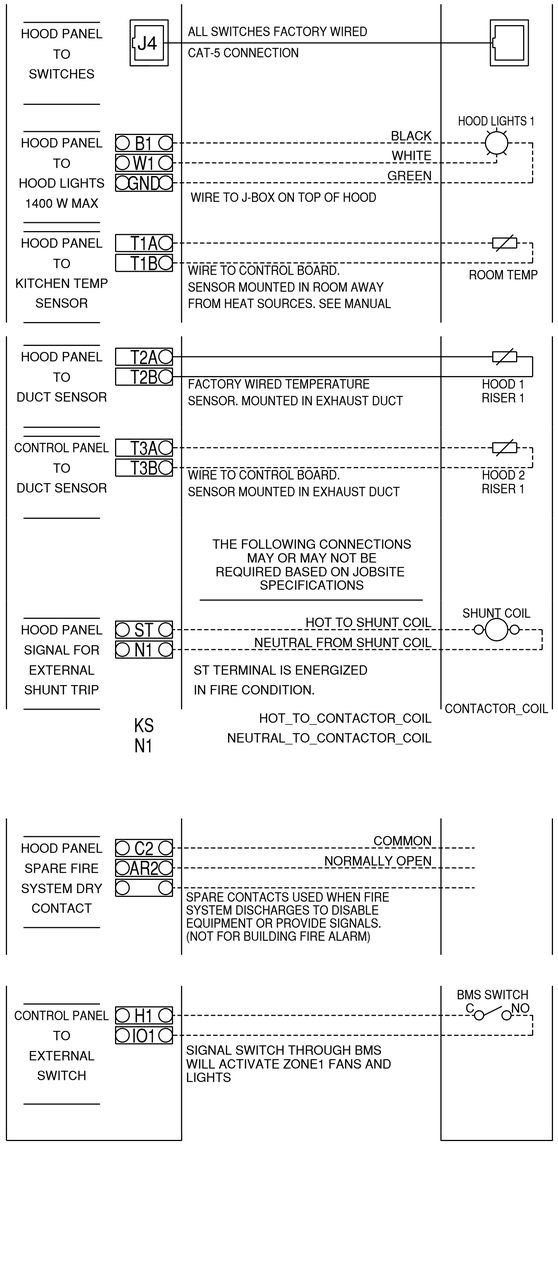
Responsibility: Electrician



CONTROL PANEL TO ACCESSORY ITEMS

Responsibility: Electrician





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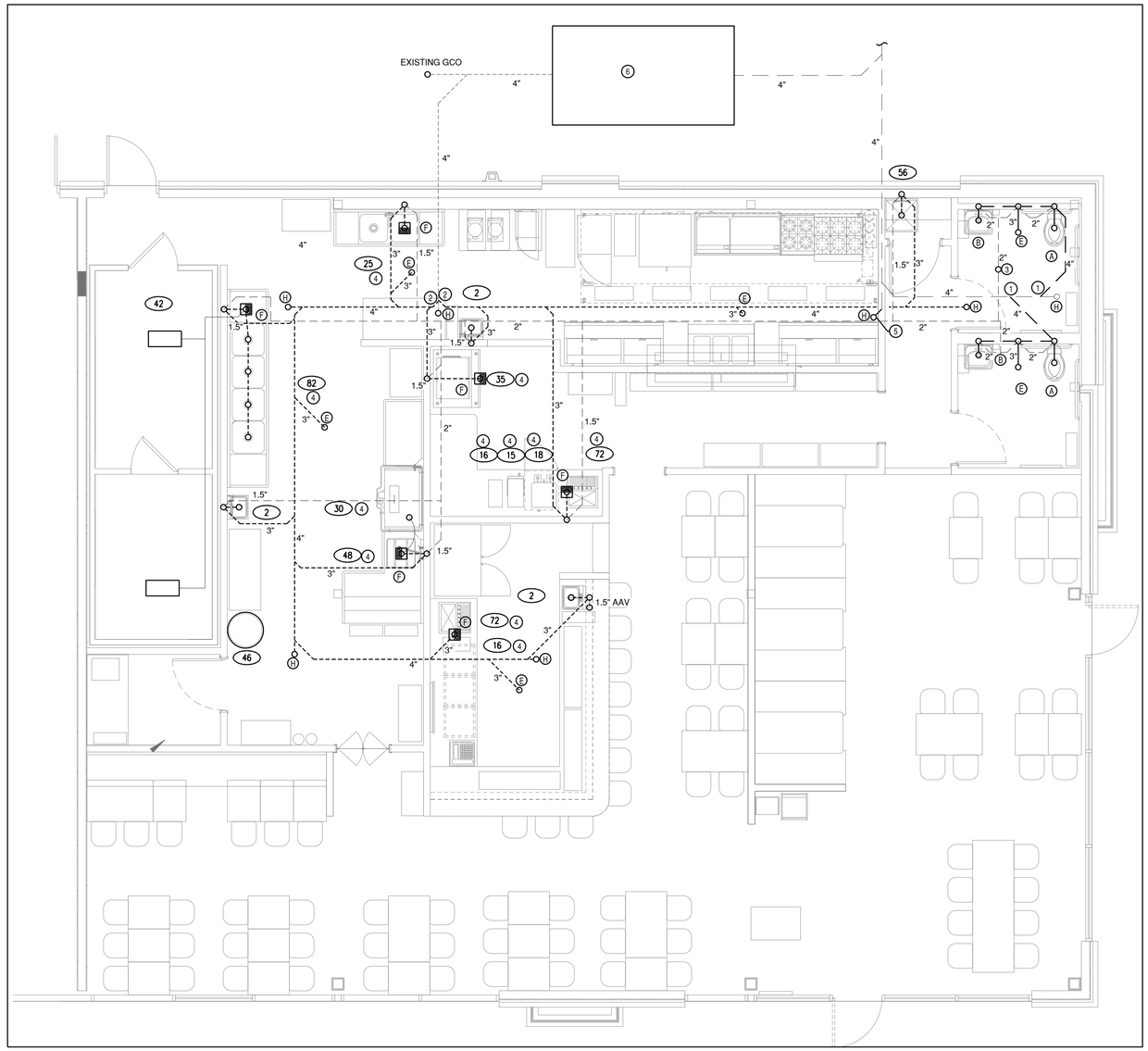
MECHANICAL HOOD PLANS

MH1.5



SANITARY WASTE AND VENT FLOOR PLAN

1/4" = 1'-0"

KEYED NOTES (SYMBOL ①, ② , ETC.)

1. CONNECT TO EXISTING 4" SANITARY LINE PROVIDED BY LANDLORD.
2. CONNECT TO EXISTING 4" GREASE WASTE LINE PROVIDED BY LANDLORD TO LANDLORD PROVIDED 1500 GALLON GREASE TRAP.
3. 3" VENT THROUGH ROOF. MAINTAIN 10'-0" CLEARANCE FROM ALL FRESH AIR INTAKES.
4. INDIRECT WASTE LINE FROM ALL NEARBY EQUIPMENT OVER TO FLOOR SINK (TYP).
5. SHIFT EXISTING CLEAN OUT TO NEW LOCATION AS SHOWN.
6. EXISTING 1500 GALLON GREASE TRAP PROVIDED BY LANDLORD.

DFU VALUES

MARK	DESCRIPTION	QTY	DFU	TOTAL
(E) (K)	FLOOR DRAIN	7	0	0
(F)	FLOOR SINK (3" TRAP)	5	5	25
(F) (G)	FLOOR SINK (4" TRAP)	3	6	18
133 303	HAND SINK – KITCHEN AREAS	2	2	4
801 (J)	UTILITY WASH SINK	1	5	5
(A)	WATER CLOSET	2	4	8
(B)	LAVATORY	2	1	2
306	4-COMPARTMENT WITH GREASE TRAP	1	6	6
		TOTAL		68

SPECIAL NOTES

ALL INDIRECT WASTE OR WASTE PIPING RECEIVING THE DISCHARGE FROM A 4-COMP. SINK, STEAMER OR SIMILAR PIECE OF EQUIPMENT WHICH PRODUCES WATER AT A TEMPERATURE HIGHER THAN 125ºF SHALL BE DWV COPPER OR CAST IRON 10'-0" (MIN) DOWNSTREAM FROM THE FROM THE OUTLET PRODUCING SUCH DISCHARGE. COORDINATE WITH EQUIPMENT SUPPLIER.

NOTE:
FOR PIPE SIZE INFORMATION.
SEE PIPING DIAGRAM, SHEET P2.0

PLUMBING GENERAL NOTES

1. THE EQUIPMENT ROUGH-IN ITEMS AND THEIR DIMENSIONED LOCATIONS FOR ALL CONNECTIONS ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. IN SOME INSTANCES THE OWNER OR SUPPLIER MAY MAKE SUBSTITUTIONS OR THE EQUIPMENT ITEMS MAY VARY FROM WHAT IS SHOWN. THEREFORE, THESE ITEMS AND DIMENSIONS SHALL BE VERIFIED WITH THE EQUIPMENT SUPPLIER, OWNER AND/OR EQUIPMENT ROUGH-IN DRAWINGS. THE ARCHITECT/ENGINEER SHALL BE IMMEDIATELY NOTIFIED, PRIOR TO CONSTRUCTION, OF ANY DEVIATIONS FROM WHAT IS SHOWN OR IMPLIED ON THESE DRAWINGS. FAILURE OF THE APPROPRIATE CONTRACTOR TO VERIFY ROUGH-INS OR THEIR LOCATIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION AND/OR ADDITIONAL ROUGH-INS DIRECTLY UPON THE CONTRACTOR.
2. CONTRACTOR SHALL SUPPLY TO THE ARCHITECT SIX COPIES OF SHOP DRAWINGS FOR APPROVAL SO THE QUALITY OF INTENDED MATERIALS OR EQUIPMENT CAN BE REVIEWED BEFORE INSTALLATION. THERE WILL BE NO DRAW UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED AND REVIEWED BY ARCHITECT/ENGINEER.
3. DO NOT SCALE THIS DRAWING. REFER TO ARCHITECTURAL FLOOR PLANS FOR BUILDING DIMENSIONS.
4. THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED, IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.
5. VERIFY SERVICE POINTS AND METERING LOCATIONS FOR PROJECT WITH LOCAL UTILITIES AND/OR LANDLORD (DOMESTIC WATER, SANITARY SEWER, GAS, ETC.)
6. THE CONTRACTOR SHALL COOPERATE FULLY AMONG THE TRADES.
7. ALL ROOF PENETRATIONS FOR ROOF DRAINS AND PLUMBING/GAS/ REFRIGERANT PIPING SHALL BE MADE IN ACCORDANCE WITH ROOF SYSTEM MANUFACTURER'S GUIDELINES. COORDINATE WITH ARCHITECTURAL DETAILS AND/OR LANDLORD FOR ROOF SYSTEM USED.
8. PLUMBING CONTRACTOR SHALL VERIFY WITH THE LOCAL HEALTH DEPARTMENT AND/OR WATER COMPANY AS TO THE METER AND VALVING ARRANGEMENT OF THE DOMESTIC WATER SERVICE LINE WHICH ENTERS THE BUILDING. SHOULD A BACKFLOW PREVENTER ASSEMBLY AND/OR PRESSURE REDUCING VALVE ASSEMBLY BE REQUIRED, THE PLUMBER SHALL FURNISH AND INSTALL SAME PER LOCAL AND STATE REQUIREMENTS. THE BACKFLOW ASSEMBLY SHALL BE A "WATTS" SERIES #909 OR APPROVED EQUAL MEETING ASSE STANDARDS 1013, 1015 AND 1020. IF BACKFLOW PREVENTER IS INSTALLED, PROVIDE PROPERLY SIZED THERMAL EXPANSION TANK IN SUPPLY PIPING OF WATER HEATER. IF WATER PRESSURE IS 65 PSI OR GREATER, A PRESSURE REDUCING VALVE ASSEMBLY SHALL BE A "WATTS" SERIES #25AUB-Z3 OR APPROVED EQUAL SET AT 50 LBS. DELIVERY PRESSURE UNLESS OTHERWISE NOTED.
9. THE WATER PIPING SYSTEM SHALL BE FLUSHED AND STERILIZED IN ACCORDANCE WITH LOCAL REGULATIONS.
10. THE POTABLE WATER SUPPLY SHALL BE PROTECTED AGAINST BACKFLOW AND SIPHONAGE BOTH NATURAL AND INDUCED. ALL EQUIPMENT CONNECTED TO THE POTABLE WATER SYSTEM BEING CAPABLE OF POLLUTING OR CONTAMINATING THE POTABLE WATER DISTRIBUTION SYSTEM OR ANY PART THEREOF BY MEANS OF A REVERSAL OF FLOW, PRESSURE DROP, PRESSURE LOSS, INDUCED VACUUM OR BY INJECTION BECAUSE OF ANY PRIMARY OR AUXILIARY PUMPING SYSTEM CONNECTED THERETO MUST BE ISOLATED AND CONTAINED BY MEANS OF APPROVED BACKFLOW DEVICES, CHECK VALVES, AIR GAPS OR VACUUM BREAKERS. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL THESE DEVICES PER LOCAL CODE REQUIREMENTS.
11. THE HOT AND COLD WATER SUPPLY BRANCHES FOR ALL EQUIPMENT HAVING QUICK CLOSING VALVES OF ANY TYPE SHALL HAVE WATER HAMMER ARRESTORS INSTALLED AT THE HIGH POINT ON THE END OF EACH BRANCH.
12. FURNISH AND INSTALL SHUTOFF OR BALL VALVE AND DIELECTRIC UNION ON ALL EQUIPMENT HOT AND COLD WATER LINES. PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. COORDINATE WITH EQUIPMENT SUPPLIER FOR EXACT REQUIREMENTS.
13. FURNISH & INSTALL 1/2" (MIN.) FIBERGLASS INSULATION WITH ALL-SERVICE JACKET ON ALL HOT, COLD, RECIRCULATING WATER LINES ABOVE SLAB AND ALL CONDENSATE FROM MECHANICAL UNITS.
14. WATER PIPE AND FITTINGS SHALL BE COPPER OR BRASS PER CODE. ABOVE GROUND SHALL BE TYPE L RIGID COPPER. BELOW GROUND SHALL BE TYPE K SOFT COPPER WITH NO JOINTS PERMITTED BELOW GROUND. ALL JOINTS SHALL BE MADE WITH 95-5 SOLDER OR EQUAL.
15. BARRIER FREE LAVATORY P-TRAP AND ANGLE STOP ASSEMBLIES SHALL BE INSULATED WITH TRAP WRAP PROTECTIVE KIT 500R BY BROCAR (1-800-827-1207) OR EQUAL. ABRASION RESISTANT EXTERIOR COVER SHALL BE SMOOTH AND HAVE 1/8" MIN. WALL OVER CUSHIONED FOAM INSERT. FASTENERS SHALL REMAIN SUBSTANTIALLY OUT OF SIGHT.
16. VERIFY MOUNTING HEIGHTS OF ALL BARRIER FREE FIXTURES WITH ARCH. PLANS
17. INSTALL 1" FIBERGLASS INSULATION W/ALL-SERVICE JACKET ON ALL ROOF LEADERS ABOVE CEILING.
18. FURNISH AND INSTALL CONDENSATE LINES FROM ANY MECHANICAL EQUIPMENT AS REQUIRED. ANY CONDENSATE LINE RUN ABOVE THE CEILING OR IN A LOCATION WHERE THE PIPE'S SWEATING COULD CAUSE DAMAGE, SHALL BE INSULATED. RUN FULL SIZE TO DRAIN OR AS INDICATED ON PLANS. TURN DOWN WITH REQUIRED AIR GAP.
19. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL COPPER INDIRECT WASTE PIPING REQUIRED FROM EQUIPMENT TO FLOOR DRAINS, OPEN RECEPTACLES, OR FLOOR SINKS. PIPING SHALL COMPLY WITH STATE AND LOCAL CODES. COORDINATE WITH ALL EQUIPMENT SUPPLIERS AND SIZE AS REQUIRED BY PIECE OF EQUIPMENT SERVED. HOLD PIPING TIGHT TO WALL WHERE APPLICABLE. PROPERLY SECURE AS REQUIRED. COORDINATE WITH CASEWORK SUPPLIER FOR MAXIMUM CLEARANCE UNDER CABINETS.
20. ALL EXPOSED GAS PIPING SHALL BE PAINTED TO MATCH ADJACENT WALL.
21. ALL VENT PIPE TO BE COMPATIBLE WITH STRUCTURE, MECHANICAL EQUIPMENT AND DUCTWORK, ELECTRICAL EQUIPMENT AND LIGHTING.
22. THE NATURAL GAS TO THE EQUIPMENT SHALL BE LOW PRESSURE. THE REGULATOR OUTLET PRESSURE SHALL BE 7" WATER COLUMN. IF THE GAS COMPANY IS UNABLE TO PROVIDE THIS PRESSURE, IMMEDIATELY CONTACT THE A/E OR OWNER FOR INSTRUCTIONS. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL, U.O.N.
23. PROVIDE CHROME PLATED ESCUTCHEONS AT ALL WALL PENETRATIONS.
24. WASTE AND VENT PIPING SHALL BE CAST IRON. CONTRACTOR MAY USE SCHEDULE 40 OR 80, TYPE 1, GRADE 1, POLYVINYL CHLORIDE COMPOUNDS AS DEFINED AND DESCRIBED IN TENTATIVE SPECIFICATIONS FOR RIGID
25. WASTE AND VENT PIPING SHALL BE CAST IRON. CONTRACTOR MAY USE SCHEDULE 40 OR 80, TYPE 1, GRADE 1, POLYVINYL CHLORIDE COMPOUNDS AS DEFINED AND DESCRIBED IN TENTATIVE SPECIFICATIONS FOR RIGID PVC (ASTM DESIGNATION: D 2665, D 2949, F891 OR SCHEDULE 40 OR 30 ACRYLONITRILE-BUTADIENE-STYRENE COMPOUND AS DEFINED AND DESCRIBED IN STANDARD SPECIFICATIONS FOR ABS (ASTM DESIGNATION: D2661 OR F 628) IN LIEU OF CAST IRON WASTE AND VENT PIPING IF PERMITTED BY CODE. INSTALL PVC OR ABS PIPING PER CODE. PLUMBING CONTRACTOR SHALL INSTALL 4" SOIL, WASTE AND GREASE WASTE PIPING WITH A MINIMUM SLOPE OF 1/8" PER FOOT OR AS REQUIRED BY CODE.
26. ALL FLOOR SINKS AND TRENCH DRAINS SHALL HAVE MEMBRANE CLAMPS. SEE ARCH. SHEETS FOR FLOOR SLOPES AROUND DRAINS. (IF REQ'D)
27. ALL NEW V.T.R'S SHALL BE EXTENDED TO A MINIMUM OF 12" ABOVE PARAPET HEIGHT AND MAINTAINED 10'-0" MINIMUM FROM ALL OUTSIDE AIR INTAKES.
28. MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SHALL MEET ALL PERTINENT REQUIREMENTS OF NATIONALLY RECOGNIZED TESTING ORGANIZATION SUCH AS THE UL, ASTM, ASSE, AWWA, AGA AND NFPA AS WELL AS THE MOST CURRENT VERSION OF THE STATE CODE AND LOCAL AMENDMENTS.
29. ALL INSTALLED SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED IN PLACE ON SITE PER LOCAL CODE REQUIREMENTS. REPLACE ANY AND ALL CONTRACTOR SUPPLIED DEFECTIVE DEVICES, ITEMS OR SYSTEMS AT CONTRACTOR'S OWN EXPENSE BEFORE COMPLETION OF PROJECT.
30. WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OR NATURE OF THE WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE OWNER.
31. ALL EQUIPMENT, FIXTURES AND MATERIALS SHALL BE NEW AND UNUSED, AND INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S RECOMMENDATIONS (U.O.N.). PROVIDE COMPLETE WITH ALL TRIM, STOPS, HANGERS, CARRIERS, SUPPORTS, ETC. INCLUDING PROVISIONS FOR BARRIER FREE USE, IF REQUIRED. WHERE FIXTURES ARE ACCESSIBLE, THEY MUST COMPLY WITH ALL FEDERAL A.D.A. REGULATIONS.
32. CONTRACTOR SHALL GUARANTEE ALL WORK FOR WHICH MATERIALS ARE FURNISHED, FABRICATED OR FIELD ERECTED, ALL FACTORY ASSEMBLED EQUIPMENT FOR WHICH NO SPECIFIC MANUFACTURER'S GUARANTEE IS FURNISHED AND ALL WORK IN CONNECTION WITH THE INSTALLATION OF MANUFACTURER'S GUARANTEED EQUIPMENT. THIS CONTRACTOR'S GUARANTEE SHALL EXIST FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL OWNER ACCEPTANCE OF THE WORK AND SHALL APPLY TO ALL DEFECTS IN MATERIALS AND/OR WORKMANSHIP OF ANY KIND.
33. BIDDERS SHALL BE LICENSED CONTRACTORS IN ACCORDANCE WITH LOCAL AND AND STATE LAWS.
34. ALL PERMITS AND FEES REQUIRED FOR THE WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR AND INCLUDED IN THE BID PRICE.
35. ALL PLUMBING FIXTURES AND PIPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF STATE AND/OR LOCAL CODES. COOPERATE AS REQUIRED WITH ALL AUTHORITIES HAVING JURISDICTION TO INSURE THAT PROPER MATERIALS AND WORKMANSHIP ARE USED. REQUIREMENTS OF STATE AND LOCAL CODES AND AUTHORITIES TAKE PRECEDENCE OVER ANY INFORMATION WHICH IS INDICATED OR IMPLIED ON THESE DRAWINGS.
36. THIS SYMBOL INDICATES ITEM TO BE FURNISHED BY OWNER OR KITCHEN EQUIPMENT SUPPLIER. COORDINATE INSTALLATION AND FINAL CONNECTION REQUIREMENTS WITH SUPPLIER. FIELD VERIFY SIZES AND LOCATIONS OF ALL SUPPLIER. FIELD VERIFY SIZES AND LOCATIONS OF ALL WATER, WASTE, INDIRECT WASTE, GAS AND/OR ELECTRICAL CONNECTIONS PRIOR TO INSTALLATION (TYPICAL ALL PLUMBING EQUIPMENT).
37. SEE PLUMBING ROUGH-IN DRAWINGS PROVIDED BY KITCHEN EQUIPMENT SUPPLIER FOR MORE INFORMATION.
38. ALL INDIRECT WASTE, WASTE PIPING OR FIXTURE WHICH RECEIVES THE DISCHARGE FROM A DISHWASHER, STEAMER OR SIMILAR PIECE OF EQUIPMENT WHICH PRODUCES SIMILAR PIECE OF EQUIPMENT WHICH PRODUCES WATER AT A TEMPERATURE HIGHER THAN 125°F SHALL BE DWV COPPER OR CAST IRON A MINIMUM OF 10'-0" DOWNSTREAM FROM THE OUTLET PRODUCING SUCH DISCHARGE. COORDINATE WITH KES.
39. ALL INDIRECT WASTE PIPING FROM EQUIPMENT TO ABOVE FLOOR RECEPTOR SHALL BE 1" (MIN.) COPPER UNLESS LARGER SIZE IS INDICATED BY EQUIPMENT OPENING OR KES.

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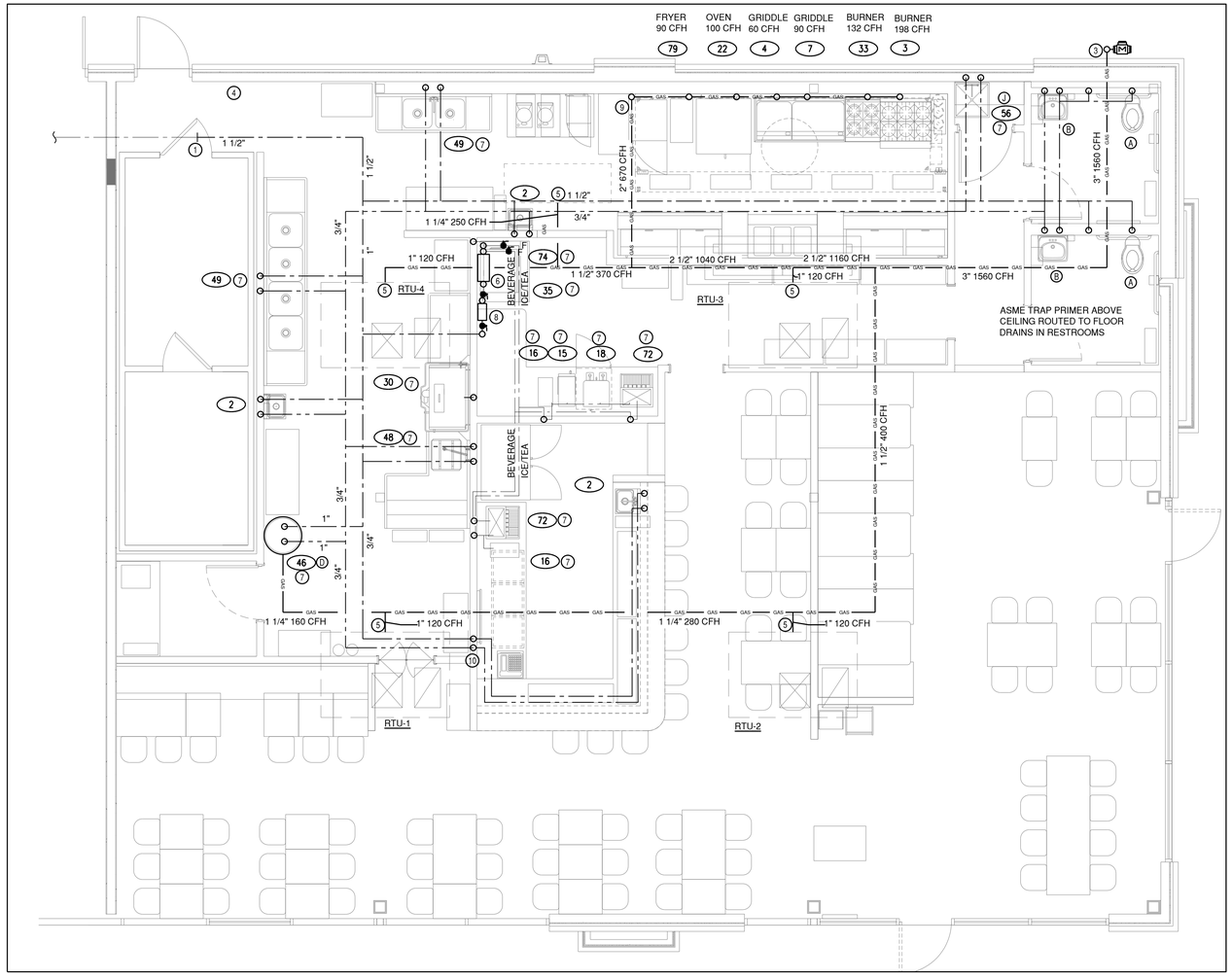
WASTE AND VENT FLOOR PLAN

P1.0



DOMESTIC WATER AND GAS FLOOR PLAN

1/4" = 1'-0"

KEYED NOTES (SYMBOL ①, ② , ETC.)

1. CONNECT TO 1 1/2" WATER LINE STUB-IN AND 1" METER BY LANDLORD. TENANT CONTRACTOR TO PROCURE/PROVIDE/INSTALL BACKFLOW PREVENTOR AND SERVICE ACTIVATION PER LANDLORD AND UTILITY CO. REQUIREMENTS. CONTRACTOR TO VERIFY AVAILABLE TIE IN LOCATION. PROVIDE BALL TYPE SHUT-OFF VALVE.
2. NEW 3" GAS LINE AND METER (1560 CFH). RUN LINE INTO BUILDING ABOVE CEILING LINE. HOLD TIGHT TO STRUCTURE. DEVELOPED LENGTH NOT TO EXCEED 150'. COORDINATE REQUIREMENTS WITH LOCAL JURISDICTION, UTILITY COMPANY AND BUILDING DEPARTMENT.
3. COORDINATE ALL UTILITY STUB-INS WITH LANDLORD.
4. ELECTRICAL PANEL LOCATION. ALL PIPING TO BE ROUTED AROUND PANELS. DO NOT CROSS OVER PANELS.
5. GAS UP THROUGH ROOF TO ROOF MOUNTED EQUIPMENT.
6. WATER FILTER SYSTEM. SEE ARCH PLANS.
7. PROVIDE CODE-APPROVED BACK-FLOW PREVENTER.
8. NEW WATER BOOSTER SYSTEM INSTALLED UPSTREAM OF FILTERS BY CONTRACTOR, FURNISHED BY SODA EQUIPMENT VENDOR. COORDINATE WITH SODA VENDOR FOR EXACT LOCATION. VERIFY 40 PSI IS AVAILABLE AND NOTIFY SODA VENDOR IF 40 PSI NOT AVAILABLE.
9. GAS PIPING DOWN THROUGH CEILING WITH AUTOMATIC GAS SHUT-OFF BENEATH CEILING. REFER TO DETAIL. HOLD GAS TIGHT TO WALL AT UNDER HOOD.
10. DROP 1/2" HW AND CW DOWN IN WALL AND RUN UNDER COUNTER TO FIXTURES.

GAS PIPING NOTES

1. GAS PIPING SIZED FOR THE TOTAL CONNECTED LOAD ±100' FROM METER TO FARTHEST CONNECTION, 7" WATER COLUMN 0.6 SPECIFIC GRAVITY, 0.5" PRESSURE LOSS.
2. GAS PIPING SHALL BE BLACK STEEL OR AS PERMITTED BY CODE.
3. GAS PIPING CONNECTIONS SHALL BE THREADED UNLESS OTHERWISE REQUIRED BY CODE.
4. EXTERIOR GAS PIPING SHALL RECEIVE ONE COAT EACH OF A RUST AND WEATHER RESISTANT PRIMER AND TOP COAT. COORDINATE WITH ARCHITECT FOR COLOR.
5. ALL GAS BURNING EQUIPMENT SHALL BE INSTALLED PER NFPA #58, NFPA #54 (L.P.G.) OR NFPA #96 (COMMERCIAL COOKING EQUIPMENT).
6. GAS PIPE SIZES 2-1/2" AND GREATER SHALL BE WELDED, IF REQUIRED BY CODE.
7. GAS CONNECTIONS PER ANSI Z21.69
8. ALL VALVES AND FITTINGS SHALL BE LINE SIZE. GAS PIPING BRANCHES SHALL NOT BE REDUCED IN SIZE UNTIL THE POINT OF FINAL CONNECTION TO THE EQUIPMENT BEING SERVED.
9. ALL GAS PIPING LOCATED IN CONCEALED SPACES SHALL BE SLEAVED AND VENTED TO TO THE ATMOSPHERE.
10. KITCHEN EQUIPMENT PROVIDER TO PROVIDE NATURAL GAS REGULATORS FOR GAS POWERED KITCHEN EQUIPMENT. PLUMBING CONTRACTOR TO INSTALL REGULATORS.

CONNECTED GAS LOAD SCHEDULE

MARK	ITEM	CONN. SIZE	INPUT CFH EACH	QTY.	SUBTOTAL CFH
RTU-1	ROOFTOP UNIT	1"	120	1	120
RTU-2	ROOFTOP UNIT	1"	120	1	120
RTU-3	ROOFTOP UNIT	1"	120	1	120
RTU-4	ROOFTOP UNIT	1"	120	1	120
MAU-1	ROOFTOP UNIT	1"	250	1	250
			MECHANICAL EQUIPMENT CFH:		750
	8 EYE BURNER	3/4"	198	1	198
	36" GRIDDLE	3/4"	90	1	90
	24" GRIDDLE	3/4"	60	1	60
	4 EYE BURNER	3/4"	132	1	132
	OVEN	3/4"	100	1	100
	FRYER	3/4"	90	1	90
			COOKING EQUIPMENT CFH:		670
	WATER HEATER	1"	160	1	160
			WATER HEATER CFH:		160
				TOTAL CFH:	1560

DOMESTIC WATER NOTE:

THE WATER SUPPLY CONNECTION TO CARBONATED BEVERAGE DISPENSERS SHALL BE PROTECTED AGAINST BACKFLOW BY A DUAL CHECK VALVE W/ATMOSPH. VENT CONFORMING TO NSF STD. NO. 25 (OR AS REQD BY CODE).
THE VALVE AND THE PIPING DOWNSTREAM THEREFROM SHALL NOT BE AFFECTED BY CARBON DIOXIDE GAS.

WATER HAMMER ARRESTOR SCHEDULE

PDI UNITS	A	B	C	D
FIXTURE UNITS	1-11	12-32	33-60	61-113

SPECIAL NOTES

ALL INDIRECT WASTE OR WASTE PIPING RECEIVING THE DISCHARGE FROM A 4-COMP. SINK, STEAMER OR SIMILAR PIECE OF EQUIPMENT WHICH PRODUCES WATER AT A TEMPERATURE HIGHER THAN 125°F SHALL BE DWV COPPER OR CAST IRON 10'-0" (MIN) DOWNSTREAM FROM THE FROM THE OUTLET PRODUCING SUCH DISCHARGE. COORDINATE WITH EQUIPMENT SUPPLIER.

PLUMBING FIXTURE SCHEDULE

						COLD	HOT	TEMP.	
Ⓐ	ADA COMPLIANT	ZURN	Z5665-BWL	WHITE	4"	1"	--	--	ECOVANTAGE FLUSH VALVE, 1.28 GPF, ELONGATED FLOOR MOUNTED, TOP SPUD TOILET, HARD WIRED - NO WALL PLUG.
Ⓑ	ADA LAVATORY	ZURN	Z5344	WHITE	1-1/2"	1/2"	--	1/2"	20"x18" VITREOUS CHINA WALL-MOUNTED LAVATORY WITH 4" CENTER FAUCET HOLES. PROVIDED WITH HANGER PLATE AND HOLES FOR CONCEALED ARM CARRIER SYSTEMS. ZURN #Z6955-XL-S-LL, BATTERY POWERED, LEAD FREE FAUCET ON 4" CTRS, 0.5 GPM VANDAL-RESISTANT PRESSURE COMPENSATING MALE AERATOR. ADA COMPLIANT.
Ⓒ	WALL HYDRANT	ZURN	Z1321-C-06	--	--	1/2"	--	--	ANTI-SIPHON, AUTOMATIC DRAINING NON FREEZE WALL HYDRANT COMPLETE WITH INTEGRAL BACKFLOW PREVENTER, COPPER CASING, ALL BRONZE INTERIOR PARTS, NON TURNING OPERATING ROD WITH FREE-FLOATING COMPRESSION CLOSURE VALVE, AND COMBINATION 3/4 FEMALE SOLDER AND 3/4 MALE PIPE THREAD INLET CONNECTION STANDARD.
Ⓓ	WATER HEATER	RHEEM TANK	HE-55-160	--	--	3/4"	3/4"	--	PROVIDE CONCENTRIC DIRECT VENT, SEALED COMBUSTION; 90% EFFICIENT WITH PVC VENTS
Ⓔ	FLOOR DRAIN	ZURN	ZB415-3NH	--	3",4"	--	--	--	FLOOR DRAIN, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND "TYPE B" POLISHED BRONZE, LIGHT-DUTY STRAINER.
Ⓕ	FLOOR SINK	ZURN	Z1910-3NH	--	3",4"	--	--	--	8" SQ. TOP, 6" DEEP, DOME STRAINER. HALF, 3/4 OR NO GRATE AS INDICATED ON PLANS
Ⓗ	FLOOR CLEANOUT	ZURN	ZB1400-3NH	--	SIZE	--	--	--	8" SQ. TOP, 6" DEEP, ROUND, POLISHED BRONZE TOP.
Ⓙ	MOP BASIN	ZURN	Z1996-24	--	3"	1/2"	1/2"	--	FAUCET JP1996-SF W/VACUUM BREAKER, INTEGRAL STOPS, JP1996-HH HOSE AND BRACKET & JP1996-WH MOP HANGER BRACKET.
Ⓛ	GREASE TRAP	--	--		4"	--	--	--	1500 GALLON IN GROUND GREASE INTERCEPTOR BY LANDLORD.
Ⓜ	WALL CLEANOUT	ZURN	ZB1446-3	--	LINE SIZE	--	--	--	ROUND, POLISHED BRONZE TOP.
Ⓝ	FLOOR SINK (OUTSIDE OF KITCHEN)	ZURN	ZN1910	--	3",4"	--	--	--	8-1/2" SQ. TOP, 6" DEEP, DOME STRAINER. HALF, 3/4 OR NO GRATE AS INDICATED ON PLANS

1. CONTRACTOR SHALL PROVIDE AND INSTALL A WALL CARRIER FOR EACH FIXTURE WHICH IS WALL HUNG, UNLESS OTHERWISE NOTED. PROVIDE APPROPRIATE CARRIER PER FIXTURE TYPE AND REQUIREMENTS.
2. CONTRACTOR SHALL PROVIDE AND INSTALL ZURN, WATTS, P.P.P.INC. (OR EQUAL) TRAP PRIMERS TO SERVE ALL FLOOR DRAINS REQUIRING PROTECTION PER CODE.
3. CONTRACTOR SHALL PROVIDE AND INSTALL SHOCK ARRESTORS FOR BRANCH PIPING SERVING FIXTURES WITH QUICK CLOSING VALVES. SHOCK ARRESTORS SHALL BE BY P.P.P., ZURN OR EQUAL, SIZED PER PDI REQUIREMENTS.
4. ACCEPTABLE ALTERNATE MANUFACTURERS FOR ITEMS INCLUDING BUT NOT LIMITED TO:
   - 4.a. WATER CLOSETS: AMERICAN STANDARD, KOHLER, ELJER, CRANE, MANSFIELD
   - 4.b. LAVATORIES: AMERICAN STANDARD, KOHLER, ELJER, CRANE, MANSFIELD
   - 4.c. URINALS: AMERICAN STANDARD, KOHLER, ELJER, CRANE, MANSFIELD
   - 4.d. FLOOR SINKS, FLOOR DRAINS AND CLEANOUTS: ZURN, WADE, J.R. SMITH. (VERIFY MEMBRANE CLAMPS ARE AVAILABLE WHERE SPECIFIED IN SCHEDULE)
   - 4.e. WATER HEATERS: RINNAI, PALOMA.
   - 4.f. HOSE BIBBS/WALL HYDRANTS: ZURN, CHICAGO FAUCET, T&S BRASS, WOODFORD.
5. ENCLOSE ALL SUPPLIES AND P-TRAPS OF BARRIER FREE LAVATORIES WITH A PROTECTIVE INSULATING MATERIAL AND A SMOOTH JACKET (TRAP WRAP OR EQUAL).
6. WHEN INSTALLING ALTRO SHEET VINYL, IT IS CRITICAL THAT THE CLEANOUTS, FLOOR SINKS,AND TRENCH DRAINS BE A SURFACE MEMBRANE CLAMPING TYPE. USE CERTIFIED ALTRO INSTALLER AND FOLLOW ALL ALTRO DETAILS.

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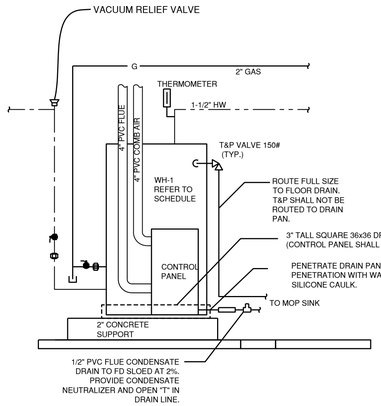
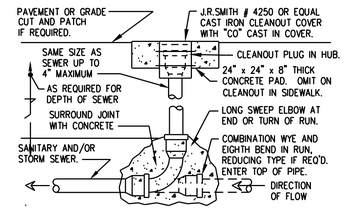
DOMESTIC FLOOR PLAN

P1.1



NOTES:
1) WATER HEATER (SET AT 140° F) SHALL MEET ALL LATEST LOCAL & NATIONAL ENERGY CONSERVATION STANDARDS.
2) INSTALL WATER HEATER PER MANUFACTURERS REQUIREMENTS.
3) FLUE AND AIR INTAKE SHALL BE 3" PVC, INSTALL THROUGH THE THE BACK WALL OF THE BUILDING. TOTAL EQUIVALENT LENGTH OF INTAKE AND EXHAUST TO NOT EXCEED 50'.
4) ALL WATER PIPING SHALL BE INSULATED. SEE SPECIFICATIONS.
5) PLUMBER SHALL PROVIDE COMBUSTION ANALYSIS TO VERIFY ACCEPTABLE CO AND CO2 FLUE GAS LEVELS. REFER TO INSTALLATION MANUAL. RESULTS OF ANALYSIS SHALL BE DELIVERD TO THE ENGINEER FOR APPROVAL PRIOR TO TURN-OVER.
6) CONDENSATE LINE MUST BE PITCHED AT LEAST 1/4" PER FOOT (0.64 cm per 0.3 m)TO PROPERLY DRAIN. IF THIS CANNOT BE DONE OR A VERY LONG LENGTH OF CONDENSATE HOSE IS USED - INCREASE THE CONDENSATE LINE TO A MINIMUM OF 1" (2.5 CM) ID AND PLACE A TEE IN THE LINE AFTER THE CONDENSATE NEUTRALIZER TO PROPERLY REDUCE VACUUM LOCK IN THE DRAIN LINE.
7) PLASTIC PIPE SHOULD BE THE ONLY MATERIAL USED FOR THE CONDENSATE LINE. STEEL, BRASS, COPPER OR OTHERS WILL BE SUBJECT TO CORROSION OR DETERIORATION.
11. PRECHARGE EXPANSION TANK AIR CHAMBER TO MATCH THE INLET WATER PRESSURE AT THE WATER HEATER SUPPLY.
12. GRUNDFOS UP 15-18 RECIRC PUMP. 2 GPM@12' HEAD.

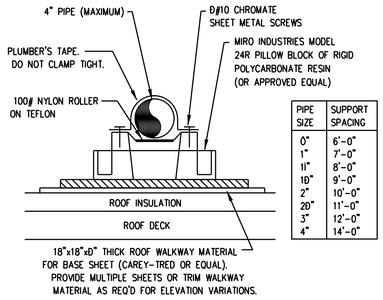
COMMERCIAL NATURAL GAS WATER HEATER DETAIL



LOCATE EXTERIOR CLEANOUTS AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THAN 45 DEGREES, AT MAXIMUM 100' INTERVALS ON STRAIGHT RUNS, AND WHERE SHOWN ON PLANS. VERIFY SOIL/ROCK CONDITIONS WITH GEOTECHNICAL REPORT OR SITE EXAMINATION. USE SCHEDULE-40 POLYVINYLCHLORIDE (PVC) PIPE & FITTINGS WITH SOLVENT WELD JOINTS. BACKFILL WITH CRUSHED ROCK TO COVER PIPE MINIMUM 6". PROVIDE EARTH BACKFILL & COMPACTION PER ARCHITECTURAL SPECS. REPAIR ANY SOD AND/OR PAVEMENT TO MATCH EXISTING.

EXTERIOR CLEANOUT

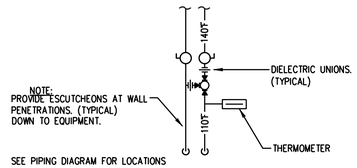
NO SCALE



PIPE SIZE	SUPPORT SPACING
0"	6'-0"
1"	7'-0"
1"	8'-0"
1D"	9'-0"
2"	10'-0"
2D"	11'-0"
3"	12'-0"
4"	14'-0"

11 ROOFTOP PIPING SUPPORT DETAIL

SCALE: NONE



NOTE: PROVIDE ESCUTCHEONS AT WALL PENETRATIONS. (TYPICAL) DOWN TO EQUIPMENT.

SEE PIPING DIAGRAM FOR LOCATIONS AND SUPPLY PIPE SIZES.

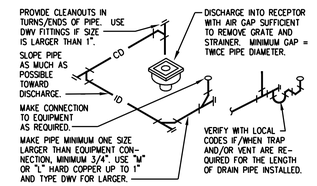
[1] SYMMONS THERMIXER MODEL 5-110-CK (OR EQUAL) FOR SINGLE SINK APPLICATIONS.

[2] SYMMONS THERMIXER MODEL 5-120-CKX (OR EQUAL) FOR WALL HYDRANTS, 2, 3 OR 4 SINK APPLICATIONS.

SUPPLIED WITH REMOVABLE PISTON AND THERMAL MOTOR, SEPARATE CHECK STOPS, ROUGH BRONZE FINISH. INSTALL IN SUPPLY PIPING BELOW ABOVE CEILING. SET TEMPERATURE AT 110°F.

MIXING VALVE PIPING SCHEMATIC

NO SCALE

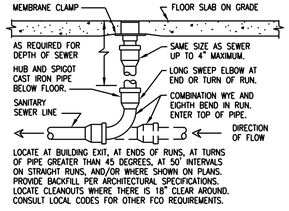


ROUTE PIPE INCONSPICUOUSLY AND UNOBTRUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WHEN INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

INDIRECT/CONDENSATE DRAIN

NO SCALE

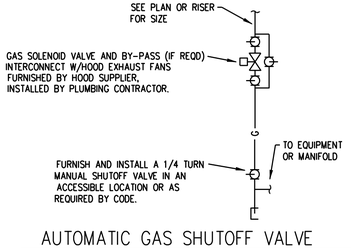
ROUND SECURED GASKETED NICKEL BRONZE ADJUSTABLE TOP WITH "CO" CAST IN COVER. PROVIDE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED FOR UNFINISHED FLOORS). PROVIDE GASKETED PLASTIC PLUG IN CAST IRON BODY. USE TEFLON JOINT COMPOUND ON PLUG THREADS. CLEAN THE TOP OF EXPOSED FCO AFTER INSTALLATION.



LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THAN 45 DEGREES, AT 50' INTERVALS ON STRAIGHT RUNS, AND/OR WHERE SHOWN ON PLANS. PROVIDE BACKFILL PER ARCHITECTURAL SPECIFICATIONS. LOCATE CLEANOUTS WHERE THERE IS 18" CLEAR AROUND. CONSULT LOCAL CODES FOR OTHER FCO REQUIREMENTS.

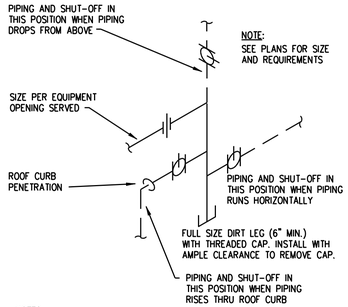
FLOOR CLEANOUT

NOT TO SCALE



AUTOMATIC GAS SHUTOFF VALVE

NOT TO SCALE

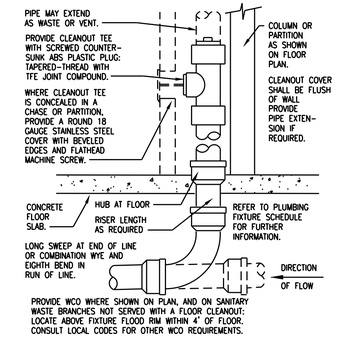


NOTES:
LOCATIONS OF VALVES AND PIPING ARE DIAGRAMMATIC AND MAY VARY PER UNIT SUPPLIED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

CONTRACTOR SHALL USE DIELECTRIC UNIONS FOR ALL PIPE CONNECTIONS BETWEEN DISSIMILAR METALS.

DIRT LEG DETAIL

NO SCALE



WALL CLEANOUT

NOT TO SCALE

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PLUMBING DETAILS

P2.0

ELECTRICAL LEGEND

	FLUORESCENT TROFFER, TYPE AS NOTED		DUPLEX RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	FLUORESCENT TROFFER, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST	WP	WEATHER PROOF DUPLEX RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	FLUORESCENT TROFFER, TYPE AS NOTED	USB	WEATHER PROOF DUPLEX RECEPTACLE AFF AS NOTED, NEMA 5-20R W/ USB CHARGER
	FLUORESCENT TROFFER, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST		DUPLEX RECEPTACLE ABOVE COUNTER OR AS NOTED, NEMA 5-20R
	RECESSED CAN FIXTURE, TYPE AS NOTED		QUAD RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	RECESSED CAN FIXTURE, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST	IG	DUPLEX RECEPTACLE 18" AFF OR AS NOTED, NEMA 5-20R
	FLUORESCENT STRIP FIXTURE		SPECIAL PURPOSE RECEPTACLE 18" AFF OR AS NOTED, SEE SCHEDULE
	WALL MOUNTED FIXTURE, TYPE AS NOTED		WALL / CEILING MOUNTED JUNCTION BOX
	PENDANT FIXTURE, TYPE AS NOTED	60/3/1	UNFUSED DISCONNECT SWITCH RATING/POLES/NEMA RATING
	PENDANT FIXTURE, TYPE AS NOTED PROVIDE WITH EMERGENCY BALLAST	60/3/3R/40	FUSED DISCONNECT SWITCH RATING/POLES/NEMA RATING/FUSE SIZE
	TRACK LIGHT FIXTURE, TYPE AS NOTED		MOTOR
	EMERGENCY LIGHT		GROUND
	EXIT/EMERGENCY LIGHT COMBINATION		TRANSFORMER
	CEILING MOUNTED EXIT SIGN	M	UTILITY GRADE METER
	WALL MOUNTED EXIT SIGN	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
$	SINGLE POLE SWITCH, 44" AFF		TELEPHONE OUTLET, PROVIDE 4" BOX SINGLE GANG PLASTER RING, 3/4" C ABOVE CEILING
$$	TWO SINGLE POLE SWITCHES GANGED TOGETHER FOR INNER/OUTER CONTROL OF LAMPS, 44" AFF		DATA OUTLET, PROVIDE 4" BOX SINGLE GANG PLASTER RING, 3/4" C ABOVE CEILING
$$$	THREE SINGLE POLE SWITCHES GANGED TOGETHER 44" AFF	TV	TELEVISION/CABLE OUTLET
$3	THREE WAY SWITCH, 44" AFF		TELEPHONE OUTLET, PROVIDE 4" BOX FLUSH IN FLOOR, 3/4" C ABOVE CEILING
$3 $3	TWO THREE WAY SWITCHES GANGED TOGETHER FOR INNER/OUTER CONTROL OF LAMPS, 44" AFF		DATA OUTLET, PROVIDE 4" BOX FLUSH IN FLOOR, 3/4" C ABOVE CEILING
$4	FOUR WAY SWITCH, 44" AFF		DOOR HOLD-OPEN DEVICE
$D	WALL BOX DIMMER 1000W UNLESS NOTED DIFFERENTLY 44" AFF	T	TRANSFORMER, SEE ONE LINE
$WP	WEATHER PROOF SWITCH, 44" AFF	S	SPEAKER STROBE
$M	MOTOR RATED SWITCH, 44" AFF OR AS NOTED	H	HORN
$OS	COMBINATION SWITCH AND OCCUPANCY SENSOR, 44" AFF TYPE WSD OR EQUAL	P	PULL STATION
$T	DIGITAL TIMER SWITCH, 44" AFF		FIRE ALARM STROBE, MIN 75 CANDELA CEILING / WALL MOUNT
OS	CEILING MOUNTED OCCUPANCY SENSOR		DUCT MOUNTED SMOKE DETECTOR
OS	WALL MOUNTED OCCUPANCY SENSOR, 44" AFF	S	SMOKE DETECTOR
TC	TIME CLOCK	H	HEAT DETECTOR
LC	LIGHTING CONTACTOR	TS	TAMPER SWITCH
PC	PHOTO CELL	FS	FLOW SWITCH
	8" CONE SPEAKER IN CEILING EC TO PROVIDE BLACK SPEAKER		RACEWAY CONCEALED IN WALL OR ABOVE CEILING
S	8" CONE SPEAKER IN WALL EC TO PROVIDE BLACK SPEAKER		RACEWAY EXPOSED
V	VOLUME CONTROL		RACEWAY CONCEALED IN FLOOR SLAB, BELOW SLAB OR GRADE BELOW SLAB OR GRADE, OR UNDER RAISED ACCESS FLOOR
	PLYWOOD EQUIPMENT BACKBOARD 4'X8' UNLESS NOTED OTHERWISE		DENOTES CONDUIT TURNING UP IN PLAN VIEW
CCTV	CLOSED CIRCUIT TELEVISION CAMERA		DENOTES CONDUIT TURNING DOWN IN PLAN VIEW
XXXX	SHORT CIRCUIT AVAILABLE CURRENT		STUB UP

(NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS AND ARE USED AS APPLICABLE TO THIS PROJECT)

ABBREVIATIONS

A, AMPS	AMPERES
A/C	AIR CONDITIONER
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BKBD	BACKBOARD
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CU	COPPER
DIST	DISTRIBUTION
DN	DOWN
DP	DISTRIBUTION PANEL
DWG	DRAWING
EB	ENCASED BURIAL
EC	EMPTY CONDUIT
EEW	ENERGIZED ELECTRICAL WORK
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELR	END-OF-LINE RESISTOR
EWC	ELECTRIC WATER COOLER
<E>	EXISTING
<ER>	EXISTING TO REMAIN
<EX>	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPERES
GND	GROUND
GALV	GALVANIZED
GRS	GALVANIZED RIGID STEEL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
HD	HEAT DETECTOR
HP	HORSEPOWER
IMC	INTERMEDIATE METAL CONDUIT
ISC	INTERRUPTING SHORT CIRCUIT
IG	ISOLATED GROUND
INST	INSTANTANEOUS
JB	JUNCTION BOX
KAIC	KILO (THOUSAND) AMPERES INTERRUPTING CAPACITY
KCMIL	KILO (THOUSAND) CIRCULAR MILS
KV	KILO (THOUSAND) VOLTS
KVA	KILO (THOUSAND) VOLT-AMPERES
KW	KILO (THOUSAND) WATTS
KWH	KILO (THOUSAND) WATT-HOURS
LFMC	LIQUID-TIGHT FLEXIBLE METAL CONDUIT
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MCCB	MOLDED CASE
MLO	MAIN LUGS ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN, NUMBER
NTS	NOT TO SCALE
PNL	PANELBOARD
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL CONDUIT
RMC	RIGID METALLIC CONDUIT (GALVANIZED)
RMS	ROOT-MEAN-SQUARE
RNC	RIGID NON-METALLIC CONDUIT
SCA	SHORT CIRCUIT AVAILABLE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TBD	TO BE DETERMINED
TCP	TEMPERATURE CONTROL PANEL
TD	TIME DELAY
TEL	TELEPHONE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE UNDERGROUND PULLBOX
V	VOLTS
VA	VOLT-AMPERES
VFD	VARIABLE FREQUENCY DRIVE
WH	WATER HEATER
WP	WEATHERPROOF
WT	WATERTIGHT
XFMR	TRANSFORMER

ELECTRICAL SPECIFICATIONS

A. DEFINITIONS:

1. "PROVIDE": FURNISH AND INSTALL, COMPLETE AND READY FOR OPERATION.
2. "INSTALL": RECEIVE, MOUNT, AND CONNECT, COMPLETE AND READY FOR OPERATION.
3. "FURNISH": SUPPLY, DELIVER TO JOB SITE, PROTECT AND STORE.

B. WORK INCLUDED: PROVIDE ALL LABOR, TOOLS, MATERIAL, EXCAVATION, BACKFILL, CUTTING, PATCHING, TESTING, ADJUSTING, AND TRADE COORDINATION REQUIRED FOR A COMPLETE AND FULLY OPERATIONAL INSTALLATION, AS DESCRIBED ON THE DRAWINGS OR IN THE SPECIFICATIONS.

C. CODES, RULES, AND REGULATIONS: COMPLY WITH ALL CODES ENFORCED BY THE LOCAL INSPECTION AUTHORITY, THE EDITION OF THE NATIONAL ELECTRICAL CODE BEING ENFORCED FOR THIS PROJECT BY THE LOCAL INSPECTION AUTHORITY, ALL APPLICABLE LAWS AND ORDINANCE, NFPA FIRE CODES, STANDARD BUILDING CODE. GIVE ALL NECESSARY NOTICES, OBTAIN ALL REQUIRED PERMITS, AND PAY ALL INSPECTION AND OTHER FEES REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THE WORK.

D. MATERIALS: ALL MATERIAL SHALL BE NEW, AND SHALL COMPLY WITH THE INDICATED STANDARDS. ALL MATERIAL SHALL BE U/L LABELED OR U/L LISTED. ALL MATERIAL SHALL BE OF A SUITABLE TYPE AND RATING FOR THE INTENDED USE, AND SHALL BE INSTALLED IN CONFORMANCE WITH THE INSTRUCTIONS AND RECOMMENDATIONS OF THE MANUFACTURER.

E. DRAWINGS

1. THE DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT SHOW ALL OF THE REQUIRED DETAILS OF THE WORK. ALL MATERIALS CUSTOMARILY CONSIDERED TO BE A PART OF THE ELECTRICAL WORK AND REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION SHALL BE PROVIDED WITHOUT ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR SHALL REFER ALSO TO THE ARCHITECTURAL DRAWINGS AND TO THE DRAWINGS OF ALL OTHER TRADES TO COORDINATE THE ELECTRICAL INSTALLATION. WHERE ELECTRICAL EQUIPMENT IS SHOWN ON ARCHITECTURAL DRAWINGS OR DETAILS, THE EQUIPMENT SHALL BE INSTALLED AS SHOWN ON THE ARCHITECTURAL DRAWINGS.
3. EQUIPMENT OF OTHER TRADES IS SHOWN SCHEMATICALLY ON THE ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS OF THE TRADE PROVIDING THE EQUIPMENT BEFORE ROUGHING IN THE CONNECTIONS FOR IT. THE CONTRACTOR SHALL CONNECT THE EQUIPMENT WHERE ACTUALLY INSTALLED, INCLUDING WIRING THROUGH ANY LINE VOLTAGE CONTROLLERS, WITHOUT ANY ADDITIONAL COST TO THE OWNER.
4. PRIOR TO ROUGHING IN CIRCUITS FOR EQUIPMENT FURNISHED BY OTHER TRADES, AND PRIOR TO RELEASING FOR MANUFACTURE PANELBOARDS, STARTERS OR MOTOR CONTROL CENTERS FEEDING SUCH EQUIPMENT, THE CONTRACTOR SHALL COORDINATE THE ELECTRICAL PROVISIONS BEING PLANNED WITH THE TRADE PROVIDING THE EQUIPMENT AND SUBMIT ANY CONFLICTS IN WRITING TO THE ARCHITECT.
5. THE ARCHITECT MAY DIRECT THE RELOCATION OF ANY ELECTRICAL OUTLET, FIXTURE, OR OTHER EQUIPMENT TO A LOCATION WITHIN 10 FEET OF THE LOCATION SHOWN ON THE DRAWINGS AT NO ADDITIONAL COST TO THE OWNER PROVIDED SUCH RELOCATION IS DIRECTED PRIOR TO THE INSTALLATION OF THE OUTLET, FIXTURE OR EQUIPMENT BEING RELOCATED.

D. SUBMITTAL DOCUMENTS: PRODUCT DATA AND SHOP DRAWINGS SHALL BE SUBMITTED IN SIX COPIES TO THE ARCHITECT FOR REVIEW PRIOR TO THE RELEASE OF THE MATERIAL FOR MANUFACTURE. REVIEW OF SUBMITTALS BY THE ARCHITECT WILL BE ONLY FOR GENERAL CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. REVIEW WILL BE MADE ONLY OF INFORMATION CLEARLY AND SPECIFICALLY INDICATED IN THE SUBMITTAL, AND DOES NOT IMPLY THE ACCEPTABILITY OF DETAILS WHICH ARE NOT SO DESCRIBED IN THE SUBMITTAL. REVIEW OF THE SUBMITTAL DOCUMENTS BY THE ARCHITECT DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO COMPLY WITH ALL REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. SUBMITTAL IS REQUIRED FOR PANELBOARDS AND LOADCENTERS, LIGHT FIXTURES, WIRING DEVICES, FIRE ALARM DEVICES, AND SURFACE ALUMINUM RACEWAY.

G. AS-BUILT DRAWINGS: AS-BUILT DRAWINGS SHALL BE MAINTAINED AT THE JOBSITE, AND SHALL BE AVAILABLE FOR REVIEW DURING CONSTRUCTION. AS-BUILT DRAWINGS SHALL BE KEPT CURRENT DURING THE COURSE OF CONSTRUCTION OF THE WORK. SUBMIT AS-BUILT DRAWINGS TO THE ARCHITECT AT THE COMPLETION OF THE PROJECT.

H. TESTING: TEST ALL PARTS OF THE WORK TO VERIFY COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS. VERIFY TIGHTNESS OF ALL MECHANICAL AND ELECTRICAL CONNECTIONS. VERIFY INTEGRITY OF ALL WIRING SYSTEMS TO ASSURE CONTINUITY, ABSENCE OF UNINTENTIONAL GROUNDS, AND INTEGRITY OF REQUIRED GROUNDS.

I. CHANGE REQUEST (CHANGE ORDER) APPROVAL: CHANGE REQUESTS WILL NOT BE CONSIDERED UNLESS THE CONTRACTOR'S DETAILED LABOR AND MATERIAL ESTIMATE DESCRIBING THE CHANGE IS SUBMITTED TO THE ARCHITECT ALONG WITH THE CHANGE REQUEST, WITH MATERIAL PRICES AND LABOR UNITS ASSIGNED TO EACH LINE ITEM OF THE ESTIMATE. MATERIAL PRICES SHALL BE THE ACTUAL PRICE PAID BY THE CONTRACTOR FOR MATERIAL PURCHASED OR THE ACTUAL PRICE QUOTED TO THE CONTRACTOR BY THE MATERIAL VENDOR PROPOSED BY THE CONTRACTOR.

J. COORDINATION WITH THE WORK OF OTHERS: COORDINATE WITH EACH TRADE FURNISHING EQUIPMENT REQUIRING ELECTRICAL SERVICE TO INSURE THAT THE CHARACTERISTICS SHOWN ON THE DRAWINGS FOR THE CIRCUIT SERVING THE EQUIPMENT ARE COMPATIBLE WITH THE REQUIREMENTS OF THE EQUIPMENT BEING FURNISHED. CIRCUIT BREAKERS, FUSES, DISCONNECT SWITCHES AND ASSOCIATED BRANCH CIRCUITS SHOWN ON THE DRAWINGS TO FEED HVAC EQUIPMENT, KITCHEN EQUIPMENT, ELEVATOR MOTORS, AND OTHER EQUIPMENT HAVE BEEN SELECTED BASED UPON THE CHARACTERISTICS OF EQUIPMENT BY ONE MANUFACTURER AND MAY NOT BE CORRECT FOR THE EQUIPMENT BEING PROVIDED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE OPERATING CHARACTERISTICS OF THE EQUIPMENT ACTUALLY BEING PROVIDED AND SHALL PROVIDE AT NO ADDITIONAL COST TO THE OWNER CIRCUIT BREAKERS, FUSES, DISCONNECT SWITCHES AND BRANCH CIRCUITS AS REQUIRED BY THAT EQUIPMENT.

K. EXISTING WORK: THE EXISTING ELECTRICAL INSTALLATION SHALL REMAIN AS-IS AND IN OPERATION EXCEPT WHERE OTHERWISE REQUIRED. GIVE WRITTEN NOTICE OF ANY UNFORESEEN EXISTING CONDITIONS WHICH MAY AFFECT THE WORK. WORK INVOLVING EXISTING SYSTEMS OR EXISTING SPACES SHALL BE ACCOMPLISHED WITH MINIMUM INCONVENIENCE TO THE OWNER, AND SHALL BE DONE IN A MANNER AND TIME APPROVED BY THE OWNER. ANY INTERRUPTIONS SHALL BE DURING TIMES DESIGNATED BY THE OWNER.

L. DEMOLITION: IN THE AREA SHOWN ON THE ARCHITECTURAL DRAWINGS TO BE DEMOLISHED REMOVE ALL EXISTING CONDUITS, CONDUCTORS, BOXES, FIXTURES, SERVICE ENTRANCE CONDUCTORS, DISTRIBUTION EQUIPMENT, AND ALL OTHER ELECTRICAL EQUIPMENT NOT SHOWN TO REMAIN. UNLESS OTHERWISE INDICATED, MATERIAL BEING REMOVED INCLUDING WIRE, CONDUIT, AND HANGING MATERIALS BEING REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. EQUIPMENT NOTED TO REMAIN THE PROPERTY OF THE OWNER SHALL BE STORED ON SITE AS DIRECTED BY THE ARCHITECT. COORDINATE WITH OTHER TRADES AND DISCONNECT MOTORS, HEATERS, OR OTHER EQUIPMENT AS REQUIRED FOR THE DEMOLITION OF OTHER TRADES WORK. CUT OFF ALL IN FLOOR CONDUITS, GRIND SMOOTH WITH FLOOR AND PREPARE FOR PATCHING BY OTHERS. REMOVE CONDUCTORS AND DEVICES FROM WALL AND CEILING OUTLETS AND PREPARE OUTLET FOR PATCHING BY OTHERS. CONTRACTOR SHALL DENOTE ALL DEMOLISHED CIRCUITS ON EXISTING PANEL DIRECTORIES AND NOTE ALL SPARE BREAKERS.

M. BASIC MATERIALS AND METHODS:

1. ALL WORK SHALL BE SUPPORTED FROM STRUCTURAL ELEMENTS OF THE BUILDING, EXCEPT CEILING MOUNTED EQUIPMENT SUCH AS LIGHT FIXTURES, DETECTORS, REMOTE LAMPS, ETC. CEILING MOUNTED EQUIPMENT SHALL BE SUPPORTED FROM CEILING STRUCTURAL MEMBERS, INDEPENDENT OF CEILING TILES. SIZE AND SPACING OF SUPPORTS SHALL BE DETERMINED BY THE LOAD TO BE SUPPORTED SUCH THAT THE WORKING LOAD OF SUPPORTS WILL NOT EXCEED A SAFETY FACTOR OF 4:1. PLASTIC ANCHORS ARE NOT ACCEPTABLE. ELECTRICAL WORK SHALL NOT BE SUPPORTED FROM PIPING, DUCTS, OR WORK OF OTHER TRADES.
2. PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS, STARTERS, DISCONNECTS, PRIMARY SELECTOR SWITCHES, AND TRANSFORMERS. INDICATE EQUIPMENT NAME, CIRCUIT SOURCE AND NUMBER, CIRCUIT SIZE, AMPERE RATING, VOLTAGE AND PHASE. NAMEPLATES SHALL BE BLACK MICARTA WITH 0.25" WHITE LETTERS.
3. ALL PENETRATIONS OF FIRE RATED WALLS, SLABS, PARTITIONS, AND CEILINGS SHALL BE FIREPROOFED WITH A U.L. LISTED SYSTEM THAT WILL MAINTAIN THE ORIGINAL FIRE RATING OF THE PENETRATED STRUCTURE. ALL FIREPROOFING MATERIALS APPLIED AT ANY ONE PENETRATION SHALL BE THE PRODUCT OF ONE MANUFACTURER AND SHALL BE APPLIED AS DESCRIBED BY THE U.L. FIREPROOFING SYSTEM BEING CONSTRUCTED. FIREPROOFING OF SLEEVES, CABLE TRAYS, TROUGHS, AND NIPPLES TO BE USED FOR LOW VOLTAGE CABLES SHALL BE INDEFINITELY NON-HARDENING AND REMOVABLE WITH COMMON HAND TOOLS.
4. BACKBOARDS SHALL BE 8 FT. HIGH BY LENGTH SHOWN ON THE DRAWINGS AND SHALL BE U/L LABELED FIRE TREATED PLYWOOD.
5. PROVIDE ALL POWER WIRING AND CONNECTIONS FOR ALL ELECTRICALLY OPERATED EQUIPMENT. POWER WIRING INCLUDES WIRING THROUGH ANY LINE VOLTAGE CONTROL DEVICES, SUCH AS THERMOSTATS AND MANUAL STARTERS. INSTALL ALL STARTERS AND CONTACTORS EXCEPT THOSE FURNISHED AS AN INTEGRAL PART OF THE EQUIPMENT.
6. CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER VIBRATING EQUIPMENT NOT INSTALLED IN A PLENUM SPACE SHALL BE MADE WITH A SHORT LENGTH OF LIQUIDTIGHT FLEXIBLE CONDUIT, MINIMUM 18", INSTALLED IN A MANNER TO PERMIT MOVEMENT OF EQUIPMENT.
7. PERFORM ALL EXCAVATING, BACKFILLING, CUTTING AND REPAIRING REQUIRED FOR INSTALLATION OF ELECTRICAL WORK.
8. CONTRACTOR SHALL X-RAY FLOOR SLABS PRIOR TO ALL CORE DRILLINGS.

N. CONDUIT: FEEDERS AND BRANCH CIRCUIT HOME RUNS SHALL BE CONSTRUCTED OF EMT WITH ALL STEEL SET-SCREW FITTINGS. CONNECTORS SHALL BE INSULATED THROAT TYPE. PROVIDE METALLIC BUSHINGS WITH PLASTIC INSERTS FOR 3" OR LARGER. CONDUITS FEEDING OR CONNECTING TO EQUIPMENT PROVIDED BY OTHER TRADES SHALL NOT BE INSTALLED UNTIL SUCH EQUIPMENT IS INSTALLED OR UNTIL SPECIFIC ROUGH-IN INSTRUCTIONS ARE PROVIDED BY THE TRADE PROVIDING THE EQUIPMENT. UNLESS OTHERWISE INDICATED, CONDUITS SHALL BE CONCEALED. RACEWAYS INSTALLED IN OR UNDER SLABS, ON GRADE, OR AS EXTERIOR DUCT BANKS SHALL BE PVC COATED RMC. RUN EXPOSED CONDUITS PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. TWO OR MORE RACEWAYS RUN TOGETHER SHALL BE INSTALLED ON GANG TRAPEZE TYPE HANGERS. SUCH RACEWAYS ASSEMBLIES SHALL BE RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. CONDUITS EMBEDDED IN SLABS SHALL HAVE A MINIMUM OF 1" COVER OF CONCRETE ON ALL SIDES. OUTSIDE DIAMETER OF CONDUIT SHALL NOT EXCEED 1/3 OF THE SLAB THICKNESS, AND SHALL NOT BE LARGER THAN 1 1/4". PROVIDE 0.25" NYLON PULL TAPE IN ALL EMPTY CONDUITS. BRANCH CIRCUITS MAY UTILIZE TYPE MC ARMORED CABLE ASSEMBLY WITH COPPER CONDUCTORS AND FULL SIZE EQUIPMENT GROUNDING CONDUCTORS FOR INDIVIDUAL DROPS TO DEVICES. TYPE MC CABLE SHALL BE SUPPORTED A 48" INTERVALS AND SHALL NOT LAY ON THE CEILING GRID OR INTERFERE WITH THE REMOVAL OF CEILING SIZE EQUIPMENT GROUNDING CONDUCTORS.

O. CONDUCTORS: ALL BUILDING WIRE SHALL BE 600 VOLT RATED THHN OR THWN COPPER, STRANDED FOR SIZES $8AWG AND LARGER, SOLID FOR SIZES 10 AND SMALLER UNLESS APPLIED FOR CONTROL. ALL BUILDING WIRE AND SPECIAL CABLES FOR SYSTEMS SHALL BE INSTALLED IN A RACEWAY. ALL WIRE AND CABLE SHALL BE DELIVERED TO THE JOBSITE IN ORIGINAL UNBROKEN PACKAGES, CARTONS OR REELS, WITH THE MANUFACTURERS NAME, UL LABEL, AND CHARACTERISTICS OF THE PRODUCT PLAINLY VISIBLE. ALL WIRE AND CABLE SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA. WIRES SHALL BE COLOR CODED AS FOLLOWS (A,B,C,N,G): 120/208-BLACK, RED, BLUE, WHITE, GREEN; 480/277 - BROWN, ORANGE, YELLOW, GRAY, GREEN. SPLICES SHALL BE COMPRESSION TYPE. CONTROL CONDUCTORS SHALL BE TERMINATED WITH INSULATED CONNECTORS, T&B STAKON. 120 VOLT CIRCUITS WITH HOMERUN LENGTH OVER 100 FEET AND 277 VOLT CIRCUITS WITH A HOMERUN LENGTH OVER 200 FEET SHALL HAVE #10 MINIMUM HOMERUN CONDUCTORS. ALL THREE PHASE BRANCH CIRCUITS WITH A COMMON NEUTRAL SHALL HAVE #10 MINIMUM NEUTRAL.

P. BOXES: OUTLET BOXES SHALL BE SHEET STEEL, MINIMUM 4" SQUARE, MINIMUM 1.5" DEEP, WITH PLASTER RING IN PLASTER OR BRICK CONSTRUCTION. OUTLETS BOXES IN POURED CONCRETE SHALL BE CONCRETE RINGS. MASONRY BOXES SHALL BE USED IN MASONRY OR TILE CONSTRUCTION. OUTLET BOXES FOR SURFACE ALUMINUM RACEWAY SHALL BE 4-11/16 WITH PLASTER RINGS ORIENTED HORIZONTALLY. BOXES SHALL BE SECURELY ANCHORED IN PLACE, AND SHALL BE SUPPORTED INDEPENDENT OF THE RACEWAY SYSTEM. PULL BOXES SHALL BE GALVANIZED SHEET STEEL, MINIMUM 12 GAUGE, WITH SCREW COVERS, AND WELDED CONSTRUCTION. WELDS SHALL BE COLD GALVANIZED. USING PERMANENT WATER PROOF WIDE BLACK MARKER, CLEARLY LABEL COVER OF ALL BRANCH CIRCUIT JUNCTION AND PULL BOXES WITH PANEL AND CIRCUIT NUMBER OF CIRCUITS CONTAINED IN OR PASSING THROUGH THE BOX. BRANCH CIRCUIT AND FEEDER JUNCTION AND PULL BOXES USED WITH EMERGENCY FEEDERS AND CIRCUITS SHALL BE PAINTED RED. PROVIDE ENGRAVED LAMINATED PLASTIC LABEL ON COVER OF EACH FEEDER PULL OR JUNCTION BOX INDICATING FEEDER DESIGNATION, SOURCE, LOAD, AND VOLTAGE.

Q. WIRING DEVICES: SWITCHES FOR LIGHTING CIRCUITS SHALL BE 120/277 VOLT, 20 AMP, A.C. ONLY, QUIET TYPE, WITH GROUND BONDING SCREW, SPECIFICATION GRADE. MOMENTARY CONTACT SWITCHES SHALL BE SINGLE POLL DOUBLE THROW, CENTER OFF GE #5935 OR EQUAL. DUPLEX RECEPTACLES SHALL BE 15 AMP HUBBELL 5262 OR EQUAL. DEDICATED DUPLEX RECEPTACLES SHALL BE 20AMP HUBBELL IG5362 OR EQUAL. SPECIAL RECEPTACLES SHALL BE OF SIMILAR CONSTRUCTION. FACE PLATES SHALL BE SMOOTH NYLON OR THERMOSET PLASTIC. ADJACENT OUTLETS SHALL BE INSTALLED IN MULTI-GANG BOXES WITH A SINGLE MULTI-GANG FACE PLATE. RECEPTACLES CONNECTED TO AN EMERGENCY CIRCUIT SHALL BE RED. COORDINATE COLOR OF DEVICES AND FACEPLATE WITH ARCHITECT.

R. GROUNDING: ALL FEEDERS AND BRANCH CIRCUITS SHALL BE PROVIDED WITH INSULATED GREEN EQUIPMENT GROUNDING CONDUCTOR.

S. LIGHTING: SPARE FLUORESCENT LAMPS SHALL MATCH BUILDING STANDARD UNLESS NOTED OTHERWISE. INCANDESCENT LAMPS SHALL BE 130VOLT. NEW BALLASTS SHALL BE SOILD STATE ELECTRONIC. EXIT FIXTURES SHALL MATCH BUILDING STANDARD. FIXTURE LOCATIONS SHALL BE AS SHOWN ON THE REFLECTED CEILING PLAN. PROVIDE LAY-IN FIXTURES WITH TWO REMOVABLE CLIPS ATTACHING FIXTURE TO CEILING GRID. FLANGED FIXTURES SHOWN TO BE INSTALLED IN CONTINUOUS ROWS SHALL NOT HAVE INTERMEDIATE FLANGES. ALL PENDANT FIXTURES SHALL BE MOUNTED TO STRUCTURE. SEISMIC SUPPORT WIRES AND/OR COMPRESSION STRUTS FOR LAY-IN FIXTURES SHALL BE SUBJECT TO LOCAL AHJ LATEST REQUIREMENTS.

T. FIRE ALARM DEVICES: NEW FIRE ALARM DEVICES SHALL BE COMPATIBLE WITH EXISTING BUILDING ADDRESSABLE FIRE ALARM SYSTEM. INSTALL NEW DEVICES AND CONNECT TO NEAREST SIGNALING OR NOTIFICATION DEVICE CIRCUIT WITHIN THE AREA. CONTRACTOR SHALL VERIFY CIRCUIT HAS CAPACITY FOR ADDED LOAD. SYSTEM SHALL BE CERTIFIED BY FIRE ALARM VENDOR AFTER COMPLETION OF WORK.

U. PANELBOARDS: DEAD FRONT PANEL CONSTRUCTION WITH SEPARATELY MOUNTED INTERIOR TRIM. MAIN AND BRANCH DEVICES SHALL BE BOLT-ON. MULTI-POLE BREAKERS SHALL BE COMMON TRIP. WIDTH SHALL NOT EXCEED 22" FOR PANELBOARD AND ENCLOSURE SHALL MATCH BUILDING STANDARD. PROVIDE GROUND BUS IN PANELBOARD AND PROVIDE DEVICE MOUNTING HARDWARE WHERE A SPACE IS SCHEDULED. PANEL AND OCPD SHORT CIRCUIT RATINGS SHALL BE AT LEAST 10% GREATER THAN AVAILABLE SHORT CIRCUIT CURRENT AT PANELBOARD.

V. DRY-TYPE TRANSFORMERS: TRANSFORMERS SHALL BE DRY-TYPE, ENCLOSED, SELF-COOLED, VENTILATED TYPE, DEAD-FRONT DRIP PROOF. PRIMARY AND SECONDARY TAPS SHALL BE ACCESSIBLE FROM THE FRONT. TRANSFORMERS SHALL MEET OR EXCEED BUILDING STANDARD TRANSFORMERS SPECIFICATIONS. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN THE PRIMARY FEED TO THE TRANSFORMER, SUPPLEMENTAL GROUND TO NEAREST ACCESSIBLE PRIMARY STRUCTURAL MEMBER OR EQUIPMENT ROOM GROUND BUS BAR. SIZE PER NEC AND RUN IN CONDUIT WITH BOND BUSHING AT EACH END. NEUTRAL AND GROUNDING CONDUCTOR SHALL BE BONDED TO ENCLOSURE.

GUIDO INOA ALVAREZ NUMBER PE-2012000154
PROFESSIONAL ENGINEER
05/01/20

MEP CONTACT: JUSTIN R. HARDY, PE
5014 KINGSBRIDGE PASS
POWDER SPRINGS, GA
Phone: (678) 234-8156

FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

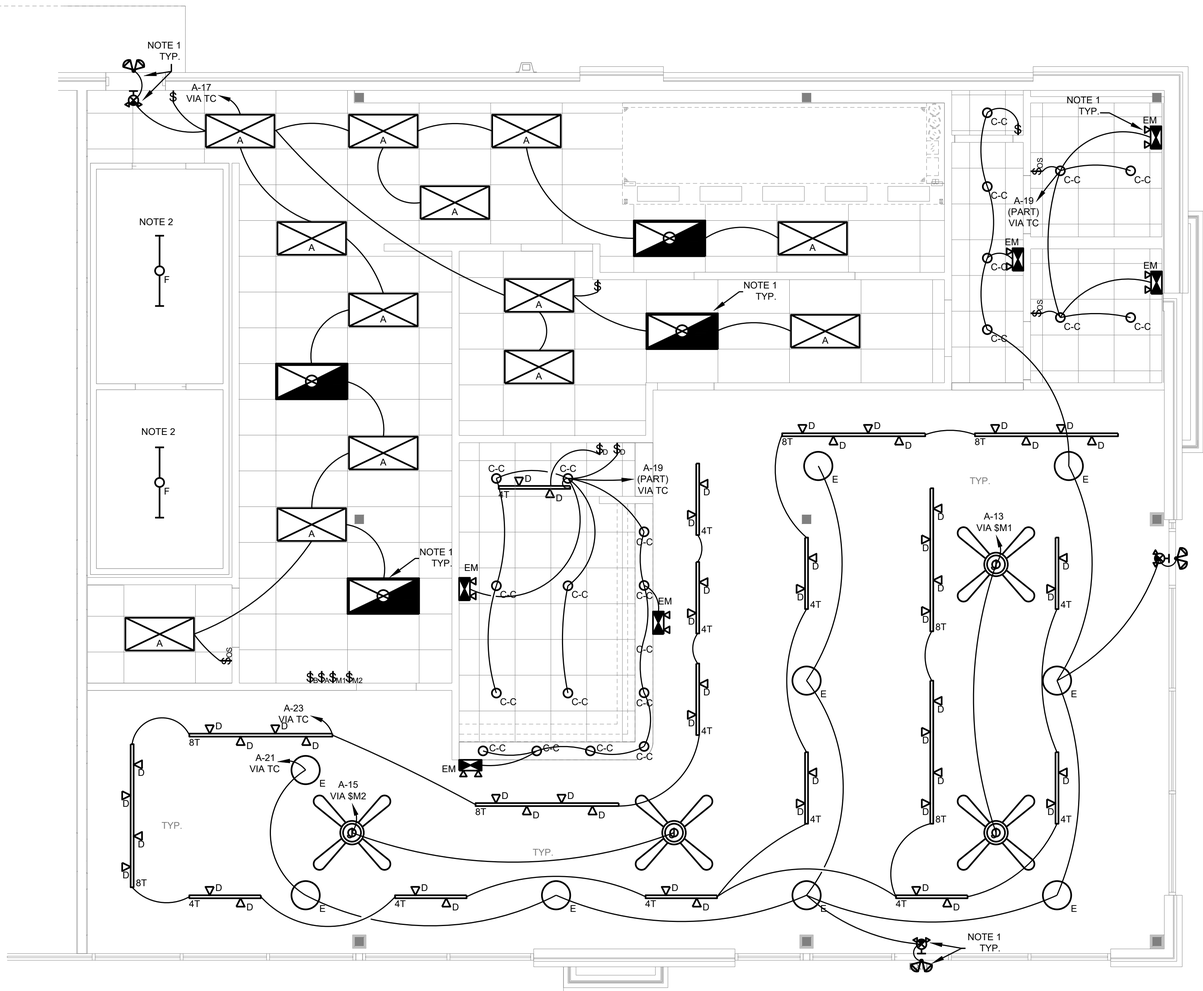
REVISIONS	DATE	DESCRIPTION

PROJECT NO. FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT

ISSUE DATE: 05/01/20

NOTES & LEGEND

E0.1



LIGHTING FLOOR PLAN

1/4" = 1'-0"

LIGHTING NOTES:

1. PROVIDE NON-CONTACTED, NON-SWITCHED HOT CONDUCTOR OF SAME CIRCUIT TO EACH EMERGENCY LIGHTING FIXTURE, EXIT SIGN AND NIGHT LIGHT. LABEL CIRCUITS IN PANELBOARD AS "EMERGENCY LIGHTING CIRCUIT".
2. FIXTURE PROVIDED WITH WALK-IN COOLER. CONTRACTOR TO PROVIDE POWER TO COOLER AS SPECIFIED IN KITCHEN EQUIPMENT SCHEDULE.
3. PROVIDE SWITCHBANK FOR LIGHTING. PROVIDE DIMMERS FOR DINING FIXTURES AND A MOTOR RATED SWITCH FOR THE FANS.
4. INTERLOCK EXHAUST FANS WITH LIGHTS.

(DIMMER SWITCHBANK)
LUTRON MODEL #NT-600 DIMMER SWITCHES

(M1) FAN	(M2) FAN	(D) SEATING DL	(E) PENDANT DL

SWITCHBANK

$ (A) KITCHEN 2X4

SWITCH BANK DETAIL

N.T.S.

LIGHTING SCHEDULE

SYMBOL	MFG	CATOLOG #	LAMP	DESCRIPTION
A	LITHONIA	2GTL	50W LED MVOLT	2x4 LIGHT, INVERTED LENS IN COOKING/ SERVING AREA
C-C	HUBBELL, PRESCOLITE	LBP6-6LBP11L35KAZ	12W 11L MVOLT	RECESSED CAN LIGHTS W/CHROME TRIM IN BAR/SOFFIT/RR HALLWAY - SHATTERPROOF LENS
D	JUNO	R600L G2 30K 80CRI PDIM UNF BL	10W LED	TRACK HEAD, BLACK FLARED STEP CYLINDER
4T	JUNO, TRAC MASTER	T 4FT BL / T21 BL	N/A	4' TRACK, BLACK
8T	JUNO, TRAC MASTER	T 8FT BL / T21 BL	N/A	8' TRACK, BLACK
E	IKEA	HEKTAR, 19" DIA. DARK GREY	9.5W LED E26 600 LUMEN GLOBE OPAL WHITE	PENDANT LIGHT, SUSPENDED THROUGHOUT DINING
F	LITHONIA	DMW-232 120/ 277V SEAL TITE	(2) F32T8/ TL735	SURFACE MOUNTED COOLER FLUORESCENT LIGHT, PROVIDED W/COOLER/FREEZER
EM/EX	MULE	SQC-LED-1-R-BB-REM	INCLUDED	EXIT/EMERGENCY COMBO, BLACK HOUSING
EM	MULE	SQ-LED-B	INCLUDED	2 HEAD EMERGENCY UNIT, BLACK HOUSING
EX1	MULE	MX-B-R-BL	INCLUDED	LED EXIT SIGN, BLACK, RED LETTERS W/ BATTERY BACK UP
EX2	MULE	ASRLED-1-WP	INCLUDED	EXTERIOR REMOTE EMERGENCY HEAD

COMcheck Software Version 4.1.2.1

Interior Lighting Compliance Certificate

Project Information

Energy Code: 90.1 (2007) Standard
Project Title: FLYING BISCUIT
Project Type: New Construction

Construction Site: SUMMIT ORCHARDS NW CHIPMAN RD & WARD RD LEE'S SUMMIT, MO 64086
Owner/Agent:
Designer/Contractor:

Allowed Interior Lighting Power

A. Area Category	B. Floor Area (ft2)	C. Allowed Watts / ft2	D. Allowed Watts (B X C)
1-Dining: Cafeteria/Fast Food	2906	1.43	4068
		Total Allowed Watts =	4068

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: Cafeteria/Fast Food				
LED 1: A: LED Panel 54W	1	17	50	850
LED 2: C-C: LED A Lamp 12W	1	22	12	264
Track lighting 1: D: Wattage based on current limiting device capacity	0	0	500	500
LED 3: E: LED A Lamp 9W	1	9	10	86
		Total Proposed Watts =		1700

Interior Lighting PASSES: Design 58% 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 90.1 (2007) Standard requirements in COMcheck Version 4.1.2.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Orlando Inoa Alvarez — 4/30/20
Name - Title — Signature — Date

Project Title: FLYING BISCUIT — Report date: 04/30/20
Data filename: P:\2020\20\1045-TT-Frying-Biscuit\Lee Summit, Missouri\Drawings\FB BISCUIT LEES.ckt — Page 1 of 5

GUIDO INOA ALVAREZ NUMBER PE-2012000154
05/01/20

MEP CONTACT: JUSTIN R. HARDY, PE
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FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

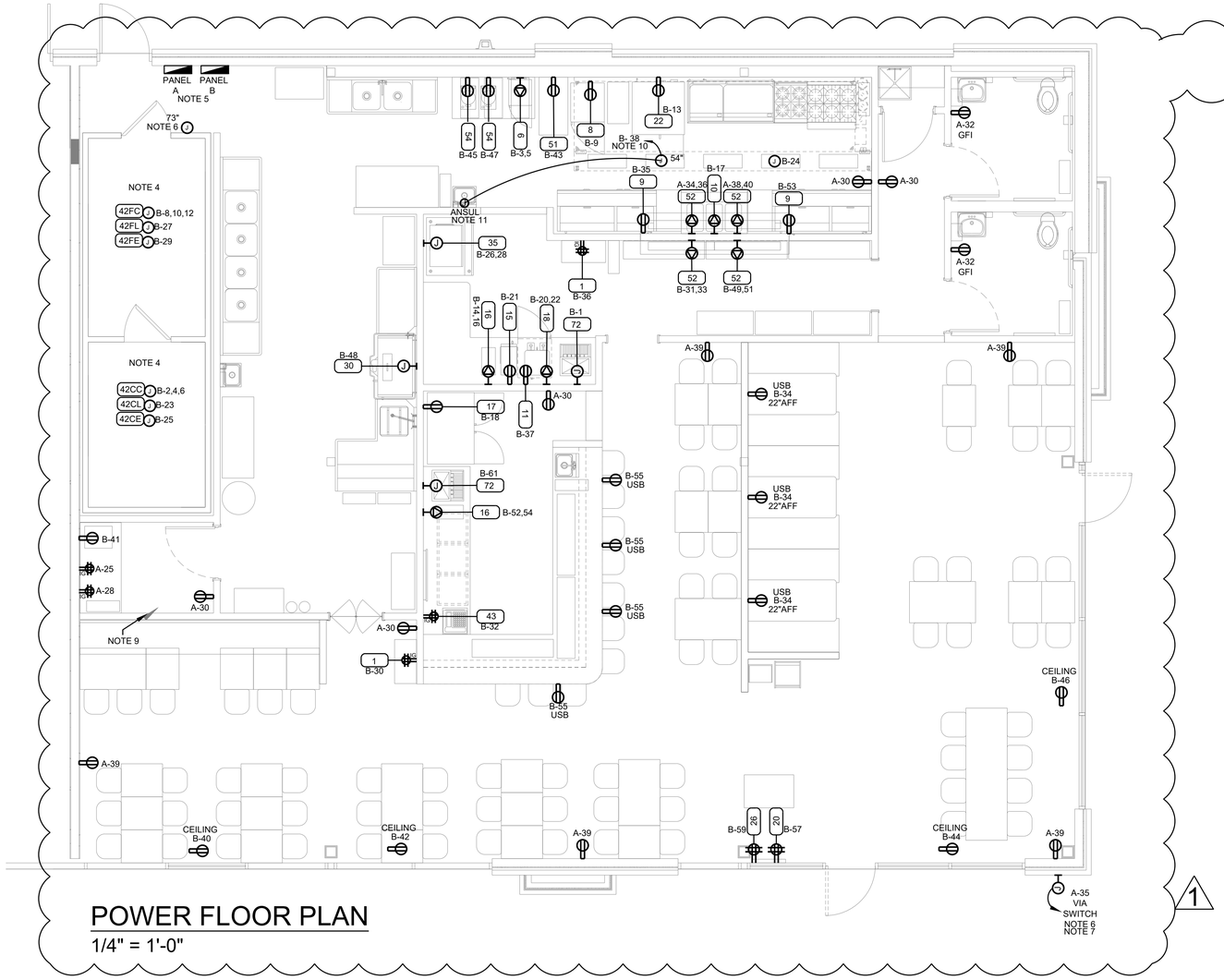
DESCRIPTION	DATE	REVISIONS

PROJECT NO. FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT

ISSUE DATE: 05/01/20

LIGHTING FLOOR PLAN

E1.0



POWER FLOOR PLAN

1/4" = 1'-0"

POWER PLAN KEY NOTES

1. NOT USED.

2. NOT USED.

3. NOT USED.

4. PROVIDE J-BOX AND CONDUIT THROUGH SEALED OPENING FOR WIRING TO CONDENSERS ON CONTROL ROOF.

5. PROVIDE WORKING CLEARANCE IN FRONT OF PANELS PER N.E.C.

6. PROVIDE JUNCTION BOXES AND FEEDER SHOWN FOR SIGNS. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION. PROVIDE NEW ASTRONOMICAL TIMECLOCK FOR ALL EXTERIOR SIGNS.

7. ELECTRICAL CONTRACTOR SHALL INSTALL DISCONNECT SWITCH SIGNAGE CIRCUIT(S) AS REQUIRED BY N.E.C. 600. REFER TO PLANS FOR NUMBER OF CIRCUITS REQUIRED. ROUTE CIRCUIT THRU FOR LIGHTING CONTACTOR.

8. THE SOUND SYSTEM REQUIRES A 110 VOLT SEPARATE, DEDICATED CIRCUIT AND A SINGLE GANG J-BOX AT 64" A.F.F. WITH 3/4" CONDUIT STUBBED ABOVE CEILING. SPEAKERS TO BE LOCATED AND INSTALLED BY MUZAK. GC TO PROVIDE PITCH PORT OUT THRU THE ROOF IF REQUIRED BY VENDOR. COORDINATE LOCATION WITH VENDOR AND OWNER PRIOR INSTALLATION.

9. LIGHTING CONTACTOR. / TIME CLOCK ENCLOSURE.

10. PROVIDE J-BOX FOR CONNECTION TO ANSUL FIRE SUPPRESSION SYSTEM. MAKE FINAL CONNECTION AS REQUIRED.

11. J-BOX FOR ANSUL SYSTEM PULL STATION. MAKE CONNECTIONS AS REQUIRED.

13. COORDINATE HEIGHT OF TELEVISION POWER AND SIGNAL BOX WITH ARCHITECTURAL DRAWINGS. RECESS INTO CEILING WHEN TV IS NOT ADJACENT TO WALL.

GENERAL NOTES

1. THE G.C. IS RESPONSIBLE FOR ALL TEMPORARY POWER AS NECESSARY.

2. THE G.C. IS RESPONSIBLE FOR TELEPHONE EQUIPMENT WIRING AND RECEPTACLES. THE G.C. SHALL FURNISH A SITE TELEPHONE OPERATING THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD (CELLULAR OR PORTABLE PHONES DO NOT SATISFY THIS REQUIREMENT.).

3. CONVENIENCE OUTLETS MOUNTED AS REQUIRED BY LOCAL CODES UNLESS OTHERWISE INDICATED. CONVENIENCE OUTLETS TO MATCH ADJACENT WALL COLOR AS REQUIRED, WHITE IN THE DINING ROOM & RR AND WHITE IN THE KITCHEN. OUTLETS TO BE LOCATED SO AS TO BE AS INCONSPICUOUS AS POSSIBLE.

4. THE G.C. IS RESPONSIBLE FOR ALL FLOOR AND WALL PENETRATIONS FOR ELECTRICAL AND MECHANICAL WORK. ALL SUCH OPENINGS SHALL BE FRAMED AND REINFORCED.

5. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL EQUIPMENT NEUTRAL AND GROUND WIRING AS REQUIRED.

6. ELECTRICAL CONTRACTOR TO VERIFY ALL CONTROL WIRING WITH MECHANICAL CONTRACTOR TO ENSURE INTERLOCKING OF ALL EQUIPMENT.

7. ELECTRICAL CONTRACTOR TO PROVIDE ALL EQUIPMENT DISCONNECT SWITCHING AS REQUIRED.

8. ELECTRICAL CONTRACTOR TO VERIFY KITCHEN EQUIPMENT ROUGH-IN LOCATIONS WITH KITCHEN EQUIPMENT SUPPLIER.

9. ANY ELECTRICAL OUTLETS WITHIN 6'-0" OF A SINK SHALL BE GFI PROTECTED. UNLESS 2014 NEC IS BEING ENFORCED THAN THE FOLLOWING SHALL APPLY: ALL 15 & 20 AMP, 125 VOLT ELECTRICAL OUTLETS SHALL COMPLY W/ 2014 NEC 210.8 (3) WHICH WILL REQUIRE RESTROOMS, ROOFS, MECH. ROOMS & KITCHEN TO BE GFCI PROTECTED. PROVIDE EITHER INDIVIDUAL GFI DEVICES OR GFI CIRCUIT, BREAKERS, UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OR SCHEDULES.

10. GC SHALL VERIFY ALL OUTLET HEIGHT DIMENSIONS WITH KITCHEN COORDINATOR PRIOR BIDDING.

11. POS RECEPTACLE (QUAD AND DUPLEX) TO BE INSTALLED AT 46" AFF.

1

GUIDO INOA ALVAREZ
LICENSED PROFESSIONAL ENGINEER
PE - 2012000154
05/01/20

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FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION
1	05/27/20	OWNER COMMENTS

PROJECT NO: FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

POWER FLOOR PLAN

E2.0

KITCHEN EQUIPMENT SCHEDULE

	EQUIPMENT						PLUMBING						ELECTRICAL								REMARKS
							WATER		WASTE		GAS		LOAD					DEVICE			
NO.	ITEM	MANUFACTURER	MODEL NUMBER	FURN. BY	INST. BY	FINAL CONNECT	HW	CW	DIR.	INDIR.	SIZE	BTU/HR	VOLTS	HZ	PHASE	AMPS	HP/WATT	OUTLET	DISC.	HEIGHT	**ALL GAS REGULATORS PROVIDED WITH EQUIPMENT FROM KES WILL WILL REQUIRE SUPPLEMENTAL REGULATORS ON GAS LINES OVER 1/2 PSI**
1	WALL MOUNTED POS SYSTEM	MICROSS	BY VENDOR	VENDOR	VEND	VEND	-	-	-	-	-	-	-	-	-	-	-	*	-	-	COORDINATE WITH MICROSS FOR INSTALLATION
2	WALL MOUNTED HAND SINK WITH SPLASH GUARDS	ADVANCE TABCO	7-PS-40	KES	KES	GC	1/2"	1/2"	1 1/2"	-	-	-	-	-	-	-	-		-	-	-
3	6 EYE BURNER	SOUTHBEND	HDO-36	KES	KES	GC	-			-	3/4"	198,000	-	-	-	-	-		-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
4	24" FLAT TOP GRIDDLE	SOUTHBEND	HDG-24	KES	KES	GC	-	-	-	-	3/4"	120,000	-	-	-	-	-		-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
5	UNDER BAR REFRIGERATION (NOT USED)	TRUE	TBB-24-48G-HC-LD	KES	KES	GC	-	-	-	-	-	-	115	60	1	2.1	-	-	-	-	NEMA 5-15 PLUG
6	MICROWAVE (ON COUNTERTOP)	AMANA	HDC18SD2	KES	KES	GC	-	-	-	-	-	-	208	60	1	20	3000W	*	-	60"	NEMA 6-20 PLUG (MICROWAVE ON WORK TABLE)
7	36" FLAT TOP GRIDDLE	SOUTHBEND	HDG-36	KES	KES	GC	-	-	-	-	3/4"	60,000	-	-	-	-	-	-	-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
8	HOT HOLDING CABINET	CATER-HOFFMAN	HL1-18	KES	KES	GC	-	-	-	-	-	-	120	60	1	15	1750W	*	-	18"	NEMA 5-20 PLUG
9	REFRIGERATED SALAD TOP	HOSHIZAKI	CRMR72-18	KES	KES	GC	-	-	-	-	-	-	115	60	1	6.41	1/3 HP	*	-	18"	NEMA 5-15 PLUG
10	3 WELL HOT FOOD TABLE	EAGLE GROUP DIMEN.	SHT3-120	KES	KES	GC	-	-	-	-	-	-	120	60-1PH	1	18.8	2250W	*	-	18"	NEMA 5-30 PLUG
11	UNDER COUNTER REFRIGERATOR	ATOSA	MGF8401GR	KES	KES	GC															
12	PASS THRU WINDOW	KLINES WELDING	CUSTOM	KES	KES	GC	-	-	-				-	-	-	-	-			-	SEE SHEET A3.1 DETAIL 10 FOR DETAILS
13	RACK DOLLY	CARLISLE	C223614	KES	KES	GC	-	-	-				-	-	-	-	-			-	-
14	BAG IN THE BOX	COCA COLA	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH COCA COLA FOR INSTALLATION
15	TEA BREWER	BUNN	TB-6	VENDOR	VEND	GC	-	3/8"	-	-	-	-	120	-	-	14.4	1730W	*	-	44"	COORDINATE WITH ROYAL CUP FOR INSTALLATION
16	COFFEE BREWER	BUNN	ICB-DV TALL	VENDOR	VEND	GC	-	3/8"					208			20		*		44"	L14-30 NEMA PLUG
17	2 GLASS DOOR REACH IN REFRIGERATOR	TRUE	GDN-43-HC-TSL01	KES	KES	GC	-						115	60	1	6.5	1/2HP	*		18"	NEMA 5-15 PLUG
18	ESPRESSO MACHINE	VKI	ECCELLENZA	VENDOR	VEND	GC	-	3/4"					120	60	-	1300	-	*		44"	COORDINATE WITH MANUFACTURE FOR PLUG
19	50" TV	BY OWNER	BY OWNER	OWNER	GC	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	GC TO PROVIDE BLOCKING IN WALL FOR TV MOUNTING
20	PAGER SYSTEM	CONTINENTAL	1R	OWNER	OWNER	OWNER	-	-	-	-	-	-	115	60	1		6.9	*	-	18"	NEMA 5-15 PLUG
21	PAN RACK	KELMAX	SPG INTERNATIONAL	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
22	STACKED CONVECTION OVENS	BLODGET	ZEPH-100-GDBL	KES	KES	GC	-	-	-	-	3/4"	100,000	115	60	1	8	1/2HP	*	-	-	2 WIRE WITH GROUND CORD AND PLUG
23	DISHWASHING MACHINE (NOT USED)	CHAMPION	UH130B	KES	KES	GC	1/2"	-	5/8"	-	-	-	208	60	1	-	-		-		-
24	18'-0" HOOD	CAPTIVE AIRE	CUSTOM	KES	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REFER TO ENGINEERING DRAWINGS FOR HOOD DETAILS
25	2 COMPARTMENT SINK	CLINES WELDING	CUSTOM	KES	KES	GC	1/2"	1/2"	1 1/2"	-	-	-	-	-	-	-	-		-	-	-
26	BUZZER STAND	-	-	OWNER	OWNER	OWNER	-	-	-	-	-	-	115	60	1	2.4	1/8HP	*		72"	NEMA 5-15 PLUG, REQUIRES PLYWOOD BACKING FOR MOUNTING
27	UNDERBAR SINK	ADVANCE TABCO	CRB-32L	KES	KES	GC		-	-	-	-		-	-	-	-	-		-	-	-
28	TRASH CAN (ADD AREA MAGNETS FOR TRASH CANS IN DISH WASH)	BY VENDOR	BY VENDOR	VENDOR	VEND	GC							-	-	-	-					INCLUDED IN SMALL WARES PACKAGE
29	DIRTY DISH TABLE W/ UNDER SHELF & DOUBLE SIDED RACK	CLINES WELDING	CUSTOM	KES	KES	GC	-						-	-	-	-					COORDINATE WITH ECOLAB FOR INSTALLATION
30	DISH MACHINE	ECOLAB	BY VENDOR	VENDOR	VEND	GC	1/2"	-	2"	-	-	-	115	60	1	-	-	*	-	18"	COORDINATE WITH ECOLAB FOR INSTALLATION
31	CLEAN DISH TABLE	CLINES WELDING	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH ECOLAB FOR INSTALLATION
32	COCKTAIL STATION (NOT USED)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
33	4 EYE BURNER	SOUTH BEND	HDO-24	KES	KES	GC	-	-	-	-	3/4"	132,000	-	-	-	-	-	*	-	-	REQUIRES DORMONT 1675KIT-48 QUICK DISCONNECT HOSE
34	14"X60" 3 TIER CHROME WIRE SHELVING	ADVANCE TABCO	EG-14-60	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-			-	REQUIRES 4 38" POSTS
35	ICE MACHINE WITH BIN	SCOTSMAN	C1030MA-32	KES	KES	GC	-	3/8"	-	3/4"	-	-	208	60	1	16.0	1 1/2 HP	*		18"	GC TO CHECK FINAL CONNECTIONS.
36	30"X42" STAINLESS STEEL WORK TABLE W/UNDERSHELF	KLINGER'S	BSG3042	KES	KES	GC	-	-	-	-	-	-				-	-	*	-	-	-
37	30"X60" STAINLESS STEEL WORK TABLE W/ UNDER SHELF	KLINGER'S	BSG3060	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
38	30"X60" STAINLESS STEEL WORK TABLE	KLINGER'S	NSBG3060	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
39	GLASS RACK (NOT USED)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
40	30"X18" STAINLESS STEEL WORK TABLE W/ UNDERSHELF	KLINGER'S	BSG3018	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
41	TRASH CAN W/LID	BY VENDOR	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	INCLUDED IN SMALL WARES PACKAGE
42	8'-6" HIGH WALK-IN FREEZER/COOLER	KOLPACK	LOT	KES	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	GC TO COORDINATE WITH KES AND SUPPLIER FOR INSTALLATION
43	COUNTER TOP POS SYSTEM	MICROSS	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH MICROSS FOR INSTALLATION
44	BABY CHANGING STATION	KOALA	KB100-00	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
45	CO2 TANK	NUCO	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	COORDINATE WITH NUCO FOR INSTALLATION
46	WATER HEATER	BY GC	BY GC	GC	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REFER TO ENGINEERING PLANS FOR WATER HEATER SPECIFICATIONS
47	PRE RINSE FAUCET ASSEMBLY	T&S BRASS	B-0313-CR-B	KES	KES	GC	1/2"	1/2"	-	-	-	-	-	-	-	-	-		-	-	-
48	PRE-RINSE FAUCET	T&S BRASS	B-0113	KES	KES	GC	1/2"	1/2"	-	-	-	-	-	-	-	-	-		-	-	-
49	12" SWING NOZZLE FAUCET	T&S BRASS	B-0231	KES	KES	GC	1/2"	1/2"	-	-	-	-	-	-	-	-	-		-	-	-
50	INGREDIENT BIN (13 1/8"Wx29-1/4"Dx28"H, 3" EXTRA WIDE CASTERS)	RUBBERMAID	PROSAVE 27088	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
51	BREADING STATION	AYRKING	BBS-U-4221	KES	KES	GC	-	-	-	-	-	-	115	60	1	1.6	184W				
52	48" HEAT LAMP	HATCO	GRAH-48	KES	KES	GC	-	-	-	-	-	-	208	60	1	-	1100W	*	-	-	MOUNT ABOVE FIRST SHELF IN PASS THRU WINDOW, HARD WIRED.
53	WALL MOUNTED MENU HOLDER	BY OWNER	CUSTOM	VENDOR	GC	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
54	WAFFLE IRON	WARING	WW200	KES	KES	GC	-	-	-	-	-	-	120	-	-	11.6W	1400W				
55	24"H TRASH CAN	BY VENDOR	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	INCLUDED IN SMALL WARES PACKAGE
56	MOP SINK	BY GC	BY GC	GC	GC	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PROVIDE SUNK-IN MOP SINK WERE AVALIBLE
57	24"X48" STAINLESS STEEL SLANTED DISH RACK	KLINES WELDING	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
58	14"X36" WALL MOUNTED S.S SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
59	18"X36" WALL MOUNTED S.S SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
60	14"X48 WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
61	18"X48" WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
62	14"X60" WALL MOUNTED S.S SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
63	18"X60" WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
64	18"X54" WALL MOUNTED S.S. SHELF W/ BRACKETS	KLINES WELDING	-	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
65	14"X42" 2 TEIR CHROME WIRE SHELVING	ADVANCE TABCO	EG-14-36	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-			-	REQUIRES 4 38" POSTS
66	18"X60" 5 TEIR EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-1860	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
67	24"X24" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2424	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
68	24"X**48" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2442	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
69	24"X48" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2448	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
70	24"X60" 5 TIER EPOXY WIRE DRY STORAGE SHELVING	ADVANCE TABCO	EG-2460	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REQUIRES 4 86" POSTS
71	18"X60" SOLID STAINLESS STEEL WALL SHELF	KLINES WELDING	WS18-60	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
72	SODA/ICE COMBO MACHINE	COCA COLA	BY VENDOR	VENDOR	VEND	GC	-	-	-	-	-	-	120	60	-	2.25	-		-	-	COORDINATE WITH COCA COLA FOR INSTALL. FILTERED WATER 50PSI MIN.
73	COKE BAR GUN (NOT USED)																				
74	WATER FILTER	PENTAIRE EVERPURE	EV9328-06	KES	KES	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
75	36" DUNNAGE RACK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-
76	OFFICE DESK	BY OWNER	BY OWNER	OWNER	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	GC TO COORDINATE WITH OWNER FOR INSTALLATION
77	FLOOR MOUNTED SAFE	KES	KES	KES	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	-
78	HOSTESS STAND	BY GC	BY GC	GC	GC	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	REFER TO SHEET A5.1 FOR DETAILS
79	FRYER	PROCORE	TF3-N	KES	KES	GC	-	-	-	-	3/4"	90,000	-	-	-	-	-		-	-	
80	24" DUNNAGE RACK																				
81	48" DUNNAGE RACK																				
82	4 COMPARTMENT SINK	ADVANCE TABCO	FC-4-2424-24RL	KES	KES	GC	1/2"	1/2"	1 1/2"	-	-	-	-	-	-	-	-		-	-	-
83	CHEMICAL STORAGE RACK			VENDOR	VEND	GC	-	-	-	-	-	-	-	-	-	-	-		-	-	SHELVING REQUIRES PLYWOOD BACKING IN WALL FOR MOUNTING
84	TOILET PAPER DISPENSER	TORK ELEVATION	473208	VENDOR	GC		-	-	-	-	-	-	-	-	-	-	-		-	-	
85	SOAP DISPENSER	ARRAY	517493	VENDOR	GC	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
86	PAPER TOWEL DISPENSER	GP enMOTION	59462A	VENDOR	GC	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
87	HIGH CHAIRS	-	-	VENDOR	VEND	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
88	BOOSTER SEATS	-	-	VENDOR	VEND	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

GUIDO INOA ALVAREZ
LICENSED PROFESSIONAL ENGINEER
PE-2012000154
05/01/20

MEP CONTACT: JUSTIN R. HARDY, PE
5014 KINGSBRIDGE PASS
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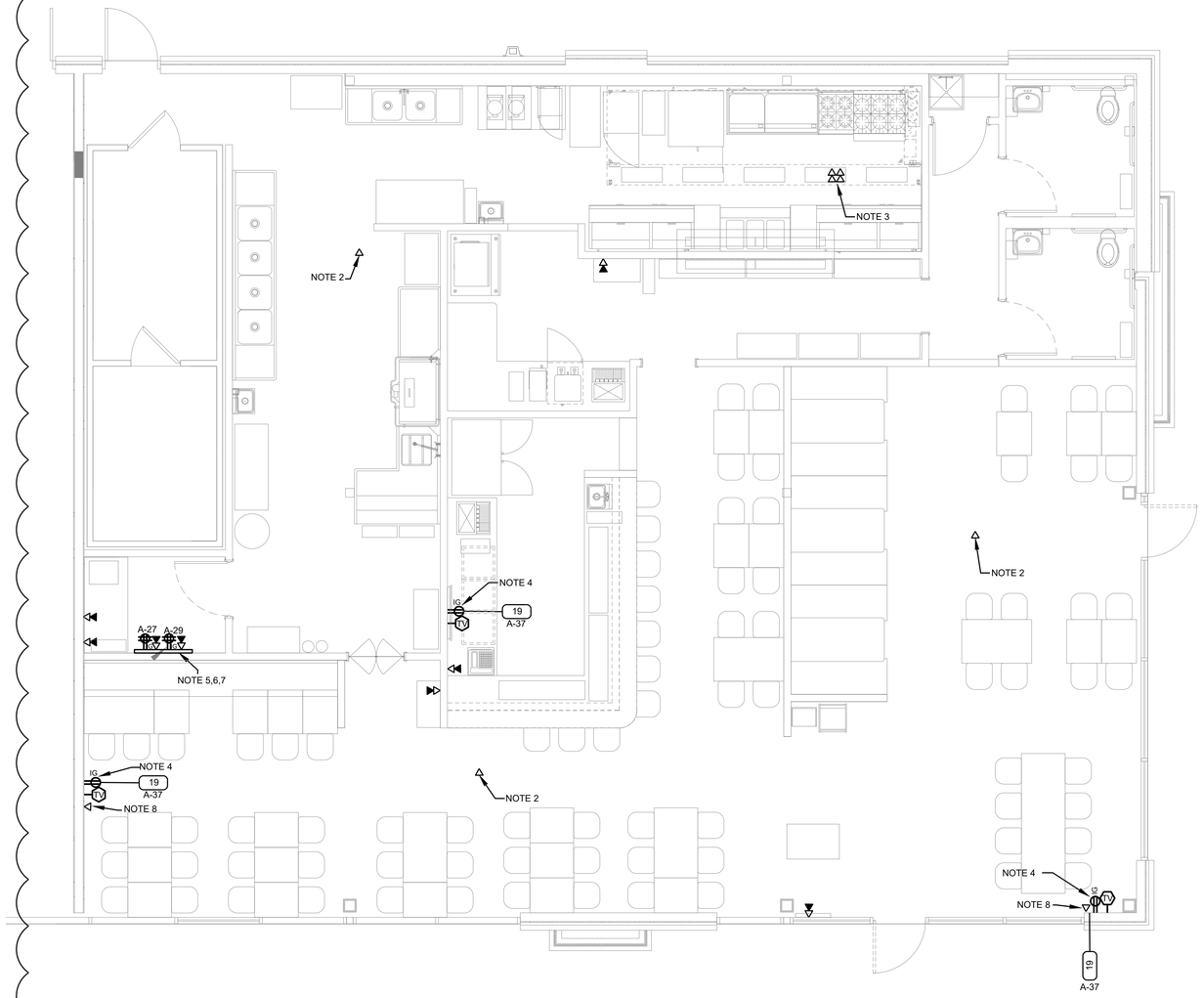
FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION

PROJECT NO: FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

KITCHEN SCHEDULE

E2.1



DATA PLAN KEY NOTES

1. COORDINATE ALL DATA FINAL LOCATION WITH OWNER PRIOR ROUGH THRU.

2. CEILING MOUNTED. EC SHALL INSTALL ¾ INCH CONDUIT AND BOX. COORDINATE FINAL REQUIREMENTS WITH OWNER PRIOR BIDDING.

3. DROPS ONLINE. EC SHALL INSTALL BOX AND PULL STRING. COORDINATE FINAL REQUIREMENTS WITH OWNER PRIOR BIDDING.

4. COORDINATE HEIGHT OF TELEVISION POWER AND SIGNAL BOX WITH ARCHITECTURAL DRAWINGS. RECESS INTO CEILING WHEN TV IS NOT ADJACENT TO WALL.

5. ALARM SYSTEM CONTROL PANEL FINAL CONNECTION BY CONTRACTOR. STACK ALARM PANEL ABOVE TELEPHONE PANEL. ALARM COORDINATE OUTLET MOUNTING HEIGHT. VERIFY FINAL LOCATION PRIOR TO INSTALLATION.

6. PROVIDE 3'X4'X3/4" PLYWOOD BACKBOARD FOR TELEPHONE CONNECT #6 AWG COPPER GROUND WIRE FROM TELEPHONE SYSTEM TO GROUND BUS AT WIREWAY. VERIFY FINAL LOCATION PRIOR TO INSTALLATION.

7. ROUTE 1/2" CONDUIT WITH PULL WIRE TO ACCESSIBLE SPACE. ALARM J-BOX LOCATIONS WITH SECURITY COORDINATE CONTRACTOR.

8. CEILING MOUNTED DATA.

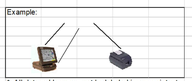
micros **Data Cabling/Power Requirements**

RES 3700 WORKSTATION	Qty	2	X 2 Cable Runs	=	4	Cables	
			X 1 Power Outlets	=	2	Outlets	
e7 WORKSTATION	Qty		X 2 Cable Runs	=		Cables	
			X 1 Power Outlets	=		Outlets	
REMOTE PRINTER or KDS	Qty	1	X 1 Cable Run	=	1	Cables	
			X 1 Power Outlet	=	1	Outlets	
MICROS 3700 Server	Qty	1	X 2 Power Outlets	=	4	Outlets	
			TOTALS:		5	**Cable Runs**	
					7	**Power Outlets**	

General Notes:

* Each hardware item requires its own cable run, which is a "home run" from the hardware location to the patch panel (installed and located in back-office).

Example:



* All data cable runs must be labeled in a consistent pattern from the termination location to the patch panel (i.e. a printer location labeled as "P1" must also be labeled "P1" at the patch panel location).

*Terminations can be completed using either "A" or "B" side of the 8-pin jack - be sure to use the same side for both hardware and patch panel terminations.

* Data cable terminations and patch panel installation are not included with the MICROS system.

* MICROS is not liable for any damages, claims, issues, or expense arising from, related to, or caused by data cabling or power related issues.

* Any modifications to cabinets, counters or desktops (including holes) are the responsibility of the customer and must be completed prior to installation.

Patch Panel	The patch panel must be installed in your **back-office** (near the placement of the MICROS PC) with all data cables **terminated** and **labeled** in a clear and consise manner.
Data Cabling	**Cat-5e shielded cable** is required and all cable runs must be terminated at each location with a **standard 8-pin Cat-5 jack** in a **single gang box with faceplates**.
Power Outlets	**PREFERRED BUT NOT MANDATORY - LINE CONDITIONS PROVIDED IN THE COST OF THE SYSTEMS SERVER TO ISOLATE EQUIPMENT.** MICROS devices should be on a **dedicated power circuit** with **isolated grounded outlets** (usually signified by an orange socket).

Note: The patch panel and all data cabling costs are not included with your MICROS system

1

STATE OF MISSOURI
GUIDO INOA ALVAREZ
NUMBER PE-2012000154
PROFESSIONAL ENGINEER
05/01/20

MEP CONTACT: JUSTIN R. HARDY, PE
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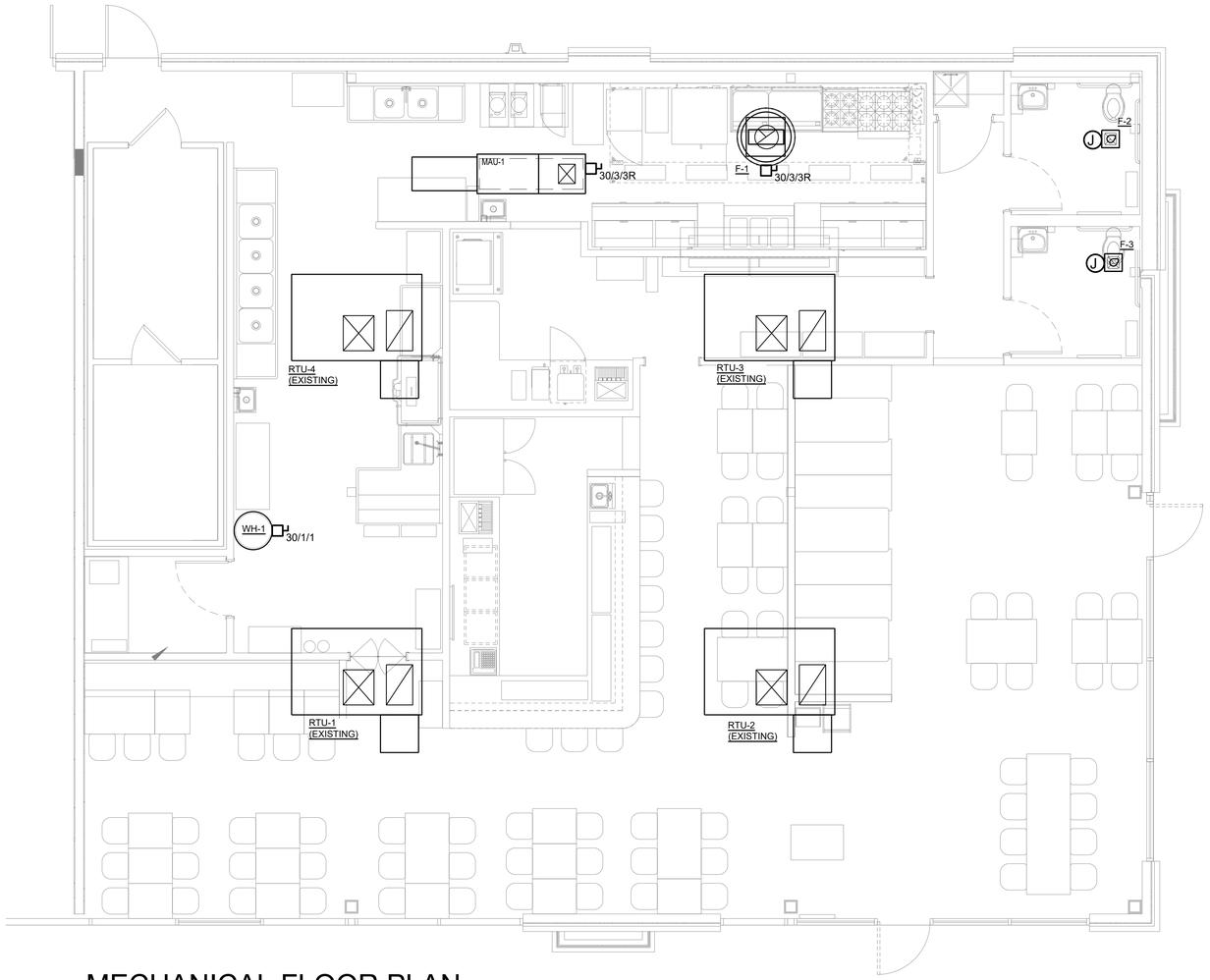
FLYING BISCUIT
SUMMIT ORCHARDS
NW CHIPMAN RD & WARD RD
LEE'S SUMMIT, MO 64086

REVISIONS	DATE	DESCRIPTION
1	05/27/20	OWNER COMMENTS

PROJECT NO: FBGA-100
ACAD FILE#:
DRAWN BY: TV
CHECKED BY: TFT
ISSUE DATE: 05/01/20

DATA FLOOR PLAN

E2.2



MECHANICAL FLOOR PLAN

1/4" = 1'-0"

MECHANICAL NOTES:

1. ALL EQUIPMENT AND OTHER ELECTRICAL MATERIALS/WORK SHOWN AS EXISTING IN THIS SHEET SHALL BE VERIFIED BY ELECTRICAL CONTRACTOR TO BE EXISTING AND IN GOOD WORKING CONDITION. WHERE THE WIRING, DISCONNECT, OR OTHER COMPONENTS OF THE TENANT DO NOT EXIST OR DO NOT COMPLY WITH NEC AND LOCAL CODE, THE ELECTRICAL CONTRACTOR SHALL FIX, REPLACE, OR/AND PROVIDE.
2. PROVIDE JUNCTION BOX AND CONDUIT THROUGH SEALED OPENING FOR CONTROL WIRING/POWER WIRING TO MECHANICAL UNITS ON THE ROOF. COORDINATE EXACT EQUIPMENT LOCATIONS WITH MECHANICAL DRAWINGS PRIOR TO INSTALLATION.
3. EXTERIOR RECEPTACLE SHALL BE "WEATHER RESISTANT" TYPE AND LABELED ACCORDINGLY BY THE MANUFACTURER. WEATHER PROOF COVER SHALL BE PROVIDED THAT IS WEATHER PROOF WHILE IN USE. THE RECEPTACLE SHALL BE GFI TYPE.
4. WATER HEATER IS GAS. PROVIDE CIRCUIT SHOWN FOR CONTROLS.

MECHANICAL EQUIPMENT SCHEDULE

EQUIPMENT NAME	VOLTAGE	PHASE	HP	KW	KW / POLE	FLA	MCA	MOCP	BREAKER AMPACITY	PANEL	FEEDER	DISCONNECT (NOTE 1) SIZE	POLES	FUSE SIZE	ENCLOSURE	CONTROL
RTU-1 (EXISTING)	208	3			4.34	36.2	45.0	45	45	A-2,4,6	3 # 6 ,1# 10 G- 1 "C.	60	3	NF	NEMA 3R	BY DIVISON 23
RTU-2 (EXISTING)	208	3			4.34	36.2	45.0	45	45	A-8,10,12	3 # 6 ,1# 10 G- 1 "C.	60	3	NF	NEMA 3R	BY DIVISON 23
RTU-3 (EXISTING)	208	3			4.34	36.2	45.0	45	45	A-14,16,18	3 # 6 ,1# 10 G- 1 "C.	60	3	NF	NEMA 3R	BY DIVISON 23
RTU-4 (EXISTING)	208	3			4.34	36.2	45.0	45	45	A-20,22,24	3 # 6 ,1# 10 G- 1 "C.	60	3	NF	NEMA 3R	BY DIVISON 23
MAU-1	208	3	2.00		0.94	7.8	9.4	20	20	A-13,15,17	3 # 12 ,1# 12 G- 1/2 "C.	30	3	NF	NEMA 3R	BY DIVISON 23
F-1	208	3	2.00		0.94	7.8	9.4	20	20	A-19,21,23	3 # 12 ,1# 12 G- 1/2 "C.	30	3	NF	NEMA 3R	BY DIVISON 23
F-2/F-3	120	1	0.25		0.05	0.4	20.0	20	20	A-42	2 # 12 ,1# 12 G- 1/2 "C.	MOTOR RATED SWITCH				BY DIVISON 26
WH-1	120	1			0.60	5.0	20.0	20	20	A-41	2 # 12 ,1# 12 G- 1/2 "C.	30	1	NF	NEMA 1	BY DIVISON 26

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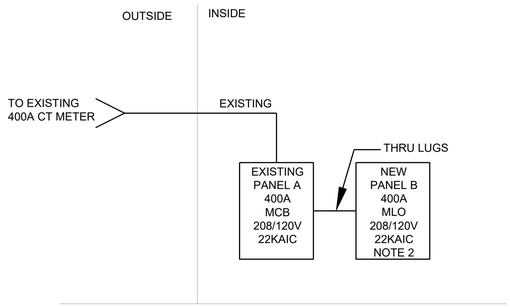
MECHANICAL FLOOR PLAN

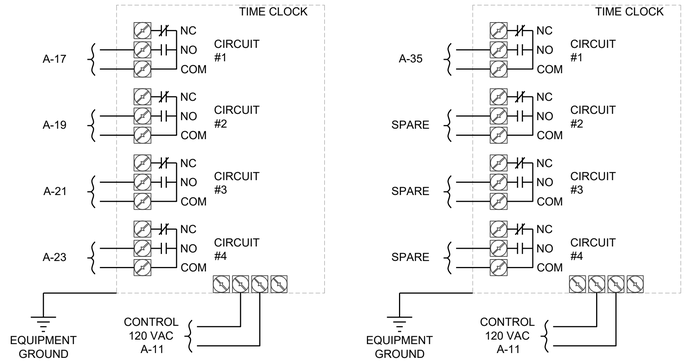
E3.0



RISER DIAGRAM
N.T.S.

RISER DIAGRAM NOTES:

1. ALL EQUIPMENT AND OTHER ELECTRICAL MATERIALS/WORK SHOWN AS EXISTING IN THE RISER DIAGRAM SHALL BE VERIFIED BY ELECTRICAL CONTRACTOR TO BE EXISTING AND IN GOOD WORKING CONDITION. WHERE THE METER, DISCONNECT, FEEDER OR OTHER COMPONENTS OF THE TENANT FEEDER DO NOT EXIST AS SHOWN, THE ELECTRICAL CONTRACTOR SHALL PROVIDE.
2. GC/EC SHALL REPLACE EXISTING PANEL B FROM 42 CKTS TO NEW 66 CRTS.



TIME CLOCK
N.T.S.

LOAD SUMMARY

VOLTAGE: 208 Y/ 120V

CIRCUIT DESCRIPTION	PANEL A	PANEL B	CONNECTED	DEMAND
LIGHTING	4.2	0.0	4.20	5.25
RECEPTACLE	15.0	15.2	30.20	20.10
MOTOR	3.7	0.0	3.70	8.88
HEATING	0.0	0.0	0.00	52.1
COOLING	52.1	0.0	52.10	
KITCHEN	0.0	43.0	43.00	27.95
MISCELLANEOUS	2.2	2.2	4.40	4.40
		NEW TOTAL DIVERSIFIED KVA		119
		NEW TOTAL DIVERSIFIED AMPS		229

PANEL NAME: A — LOCATION: ELECTRICAL ROOM — VOLTAGE: 208 Y/ 120V 3 PHASE — 400A MCB — MOUNTING / ENCLOSURE: SURFACE / NEMA 1 — EXISTING

AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	CKT	A	B	C	CKT	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS
20	1		SPARE		1	4.34			2	4.34		AC		
20	1		SPARE		3		4.34		4	4.34	RTU-1 (EXISTING)	AC	3	45*
20	1		SPARE		5			4.34	6	4.34		AC		
20	1		SPARE		7	4.34			8	4.34		AC		
20	1		SPARE		9		4.34		10	4.34	RTU-2 (EXISTING)	AC	3	45*
20	1	R	TV	0.60	11			4.94	12	4.34		AC		
20	1	M	FAN	1.80	13	6.14			14	4.34		AC		
20	1	M	FAN	1.80	15		6.14		16	4.34	RTU-3 (EXISTING)	AC	3	45*
20	1	L	LIGHTING - KITCHEN	0.85	17			5.19	18	4.34		AC		
20	1	L	LIGHTING - COUNTER/BATHROOMS	0.74	19	5.08			20	4.34		AC		
20	1	L	LIGHTING - PENDANT	0.46	21		4.80		22	4.34	RTU-4 (EXISTING)	AC	3	45*
20	1	L	LIGHTING - TRACK	0.98	23			5.32	24	4.34		AC		
20	1	R	OFFICE DATA	1.20	25	3.00			26	1.80	ROOF RECEPTACLE (EXISTING)	R	1	20
20**	1	R	TELEPHONE BACKBOARD	1.20	27		2.40		28	1.20	OFFICE DATA	R	1	20
20**	1	R	TELEPHONE BACKBOARD	1.20	29			3.00	30	1.80	RECEPTACLE GENERAL	R	1	20
20	1		SPARE		31	1.20			32	1.20	BATHROOM RECEPTACLE	R	1	20
20	1	R	TIME CLOCK CONTROL	0.60	33		1.15		34	0.55				
20	1	L	SIGN	1.20	35			1.75	36	0.55	HEAT LAMP (52)		2	20
20	1	R	TV	1.80	37	2.35			38	0.55				
20	1	R	GENERAL RECEP	1.80	39		2.35		40	0.55	HEAT LAMP (52)		2	20
20	1	R	WH-1	0.60	41			0.70	42	0.10	E-23'-3	M	1	20
			PHASE TOTAL	26.5			25.5	25.2	KVA					

TOTAL CONNECTED LOAD	77 KVA	214 A
TOTAL DEMAND LOAD	76 KVA	212 A

**PROVIDE ISOLATED GROUND
*PROVIDE HACR TYPE CIRCUIT BREAKER

L	LIGHTING	4.2	5.3
R	RECEPTACLE	15.0	12.5
M	MOTOR	3.7	2.4 4.3
H	HEATING	0.0	52.1
AC	AC	52.1	
K	KITCHEN	0.0	65% 0.0
	MISCELLANEOUS	2.2	2.2
T	TRANSFORMED OR SUB PANEL	0.0	0.0

TELL IN KVA OF LARGEST MOTOR
AND DIVERSITY FACTOR FOR KITCHEN

PANEL NAME: B — LOCATION: BACK OF HOUSE — VOLTAGE: 208 Y/ 120V 3 PHASE — 400A MLO — MOUNTING / ENCLOSURE: SURFACE / NEMA 1 — NEW

AMPS	POLES	TYPE	CIRCUIT DESCRIPTION	KVA	CKT	A	B	C	CKT	KVA	CIRCUIT DESCRIPTION	TYPE	POLES	AMPS
20	1	K	SODA MACHINE (52)	0.96	1	1.86			2	0.90		K		
20	2	K	MICROWAVE (6)	1.50	3		2.40		4	0.90	WALK-IN COOLER CONDENSER (42C	K	3	20
				1.50	5			2.40	6	0.90		K		
20	1		SPARE		7	0.90			8	0.90		K		
20	1	K	HOLDING CABINET (8)	1.75	9		2.65		10	0.90	WALK-IN FREEZER CONDENSER (42F	K	3	20
20	1		SHUNT TRIP		11			0.90	12	0.90		K		
20	1	K	CONVECTION OVEN (22)	0.96	13	2.52			14	1.56		K		
20	1		SHUNT TRIP		15		1.56		16	1.56	COFFEE BREWER (16)	K	2	20
30	1	K	3 WELL HOT FOOD (10)	2.25	17			3.88	18	1.63	2 GLASS DOOR REACH-IN REFRIG (17	K	1	20
20	1		SPARE		19	1.20			20	1.20		K		
20	1	K	TEA BREWER (15)	1.73	21		2.93		22	1.20	ESPRESSO MACHINE (18)	K	2	20
20	1	K	WALK-IN COOLER LIGHTS (42CL)	0.36	23			0.86	24	0.50	HOOD CONTROL SYSTEM (24)	K	1	20
20	1	K	WALK-IN COOLER EVAP (42CE)	0.22	25	1.92			26	1.70	ICE MACHINE (35)	K	2	20
20	1	K	WALK-IN FREEZER LIGHTS (42FL)	0.36	27		2.06		28	1.70		K		
20	1	K	WALK-IN FREEZER EVAP (42FE)	0.22	29			2.02	30	1.80	POS (11)	K	1	20**
20	2		HEAT LAMP (52)	0.55	31	2.35			32	1.80	POS (43)	K	1	20**
				0.55	33		2.35		34	1.80	BOOTH RECEPTACLES	R	1	20
20	1	K	REFRIGERATED SALAD TOP (9)	0.77	35			2.57	36	1.80	POS (11)	K	1	20**
20	1	K	UC FRIDGE (11)	0.28	37	0.64			38	0.36	ANSUL	K	1	20
20	1		SPARE		39		1.20		40	1.20	SERVE WINDOW	R	1	20
20	1	R	SOUND SYSTEM	1.20	41			2.40	42	1.20	SERVE WINDOW	R	1	20
20	1	K	BREADING STATION (31)	0.30	43	1.50			44	1.20	SERVE WINDOW	R	1	20
20	1	K	WAFFLE IRON (54)	1.40	45		2.60		46	1.20	SERVE WINDOW	R	1	20
20	1	K	WAFFLE IRON (54)	1.40	47			3.20	48	1.80	DISH MACHINE (30)	R	1	20
				0.55	49	0.55			50		SPARE		1	20
20	2		HEAT LAMP (52)	0.55	51		2.11		52	1.56				
20	1	K	REFRIGERATED SALAD TOP (9)	0.77	53			2.33	54	1.56	COFFEE BREWER (16)	K	2	20
20	1	R	RECEPTACLE BOOTHS	1.80	55	1.80			56		SPARE		1	20
20	1	R	PAGE SYSTEM (20)	1.00	57		1.00		58		SPARE		1	20
20	1	R	FREEZER STAND (26)	1.00	59			1.00	60		SPARE		1	20
20	1	K	SODA MACHINE (72)	0.96	61	0.96			62		SPARE		1	20
20	1	K	ALARM	1.80	63		1.80		64		SPARE		1	20
20	1	R	SPARE		65				66		SPARE		1	20
			PHASE TOTAL	16.2		22.7	21.6		KVA					

TOTAL CONNECTED LOAD	60 KVA	168 A
TOTAL DEMAND LOAD	43 KVA	119 A

**PROVIDE ISOLATED GROUND
*PROVIDE SHUNT TRIP TYPE BREAKER

L	LIGHTING	0.0	0.0
R	RECEPTACLE	15.2	12.6
M	MOTOR	0.0	2.4 0.0
H	HEATING	0.0	0.0
AC	AC	0.0	
K	KITCHEN	43.0	65% 28.0
	MISCELLANEOUS	2.2	2.2
T	TRANSFORMED FROM SUB PANEL	0.0	0.0

TELL IN KVA OF LARGEST MOTOR
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REVISIONS	DATE	DESCRIPTION

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SCHEDULES AND ONE-LINE

E4.0