David Eskov Lee's Summit, Missouri Architect 08/19/2024

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Drawings and/or Specifications

are original proprietary work and

property of the Architect intended

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best information available to

Architect. Field verification of

actual elements, conditions, and

dimensions is required.

DAVID L ESKOV

NUMBER

A - 2021003214

DATE SIGNED 07/19/2024

the facility as indicated is in compliance with the Americans with Disabilities Act, including the current ADA Title III Design Guidelines.

**ADA Compliance** 

Certification

David Eskov

PERMIT

JULY 19, 2024

Revisions

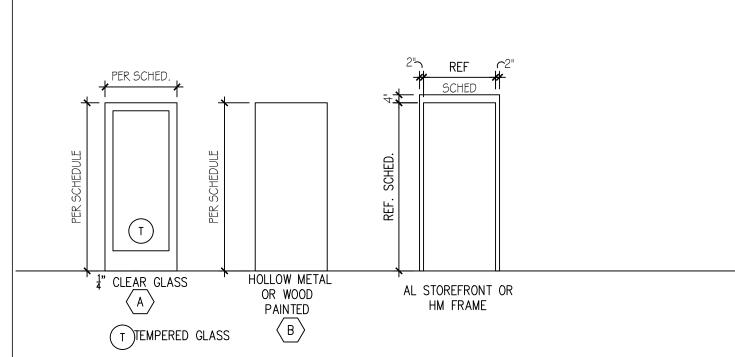
NOTE: FIELD VERIFY ALL ROUGH OPENING DIMENSIONS PRIOR TO FINAL FABRICATION
-ALL NEW LOCKS TO BE BEST OR FALCON NOTE 1: MEDIUM STILE ALUM STOREFRONT DOOR W/ 2 TEMPERED GLASS RE: ELEVATIONS AND SECTIONS FOR REMAINDER OF INFORMATION NOTE 2: FOR ALL DOOR THRESHOLDS, SEAL WATER TIGHT FOR NO MOISTURE PENETRATION. SET IN FULL SEALANT BED. NOTE 3: ALUMINUM FRAME COLOR: MATCH EXISTING

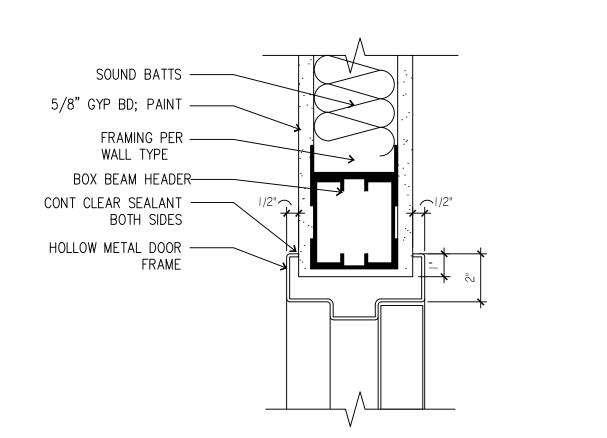
SET #1
ALUMINUM STOREFRONT DOOR: CONTINUOUS HINGE (FINISH TO MATCH DOORS) PANIC DEVICES (PUSH-PAD-NOT BAR TYPE) BOTH W/ CYLINDER 1 KEYED TO EXTERIOR FOR ENTRY
3 CYLINDERS (VERFIY TYPE- 1 @ DOOR - 2 FOR PANIC DOGGING) 1 SETS 1" DIA TUBULAR S/S PULL SET (KAWNEER #CO-9/CP-II OR EQUAL) W/ 9" H OFFSET PULL (OUTSIDE) & HORIZ PUSH BAR (INSIDE) 1 CLOSER W/ CAST-IRON CYLINDER & STOP (LCN 4040 OR EQUAL) 1 DOOR BOTTOM SWEEP

1/2" MAX THRESHOLD W/ DOOR SEAL PEMKO 2005AV OR EQ

WEATHERSTRIPPING ALL AROUND FRAME

3 - BUTTS, TA 2714 1 - LEVER LOCK SET PASSAGE FUNCTION 1 - WALL STOP 3 - SILENCER, GLYNN-JOHNSON, GJ64





## **REMODELING NOTES:**

MAINTAIN EXISTING EXITS, EXIT ACCESS AND PROVIDE APPROPRIATE FIRE PREVENTION PROCEDURES DURING

PROTECT EXISTING CONSTRUCTION FROM DAMAGE AND REPAIR DAMAGE DUE TO CONSTRUCTION OPERATIONS AT NO COST TO OWNER.

VERIFY LOCATIONS OF EXISTING UTILITY SERVICE CONNECTIONS AND MAKE ALL CONNECTIONS REQUIRED. LOCATIONS OF EXISTING UTILITIES INDICATED IN THE DRAWINGS ARE APPROXIMATE, ARE BASED ON INFORMATION PROVIDED. PROVIDE CONNECTIONS AS REQUIRED BY ACTUAL UTILITY CONNECTION POINTS AT NO ADDITIONAL COST TO THE OWNER.

PROVIDE ALL CUTTING AND PATCHING OF EXISTING CONSTRUCTION TO ACCOMMODATE NEW CONSTRUCTION

ALIGN NEW FINISHES WITH EXISTING FINISHES EXCEPT AS OTHERWISE INDICATED.

PATCH ALL EXISTING WALL PENETRATIONS AND REFINISH TO MATCH ADJACENT SURFACES TYPICALLY.

PHASE CONSTRUCTION AT PARKING AREAS SO THAT ADEQUATE PARKING WILL BE AVAILABLE AT ALL TIMES.

REFER TO OTHER SHEETS IN THIS SET FOR ADDITIONAL DEMOLITION REQUIREMENTS, WHICH SHALL BE BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE.

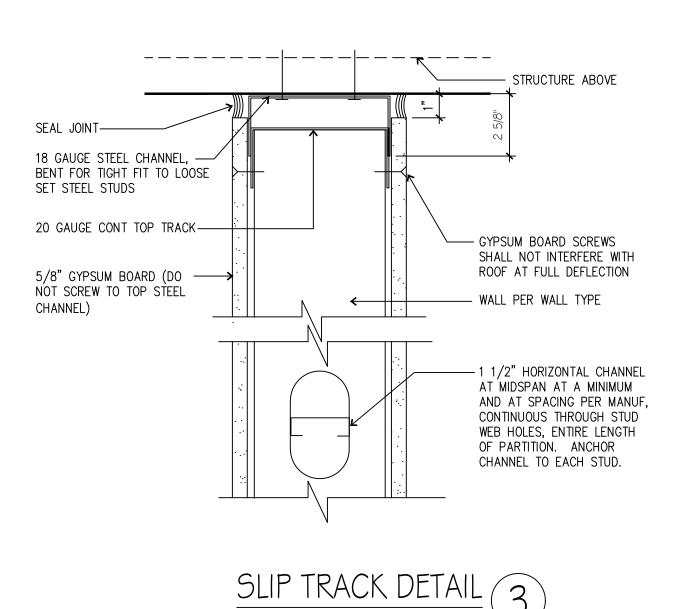
REMOVE UNUSED UTILITIES NOT REUSED, CAPPED BELOW FINAL FINISH SURFACES.

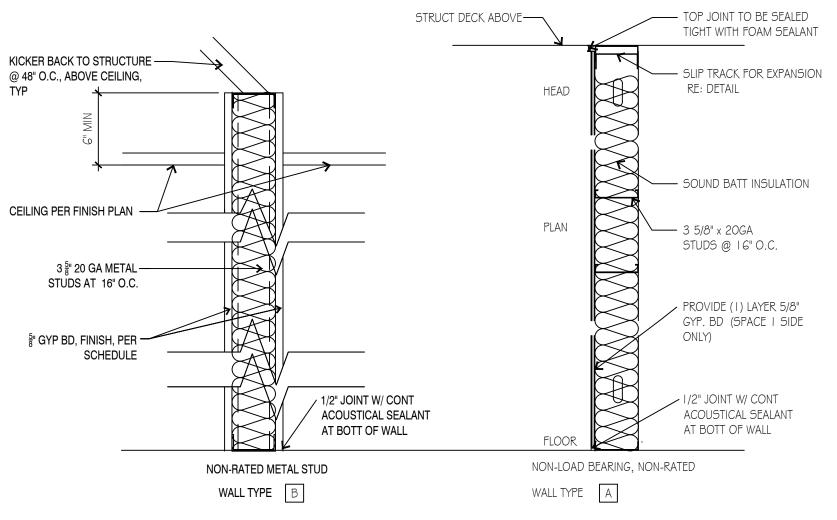
REMOVE ALL EXISTING ELEMENTS WHICH CONFLICT WITH THE NEW WORK, WHETHER OR NOT SHOWN ON THE DRAWINGS.

DEMOLITION PLAN SHOWS APPROXIMATE LAYOUT OF EXISTING BUILDING AND IS NOT INTENDED TO REPRESENT "AS-BUILT" CONDITIONS. VISIT SITE AND OTHERWISE BECOME FAMILIAR WITH ACTUAL CONDITIONS WHEN BIDDING THE WORK

WALLS, PARTITIONS, DOORS, FRAMES, AND OTHER ITEMS TO BE REMOVED ARE SHOWN DASHED. SERVICES WITHIN WALLS AND PARTITIONS SHALL ALSO BE REMOVED. EDGES OF WALLS SHOWN TO REMAIN SHALL BE CLEANLY CUT TO ACCEPT NEW CONSTRUCTION. REPAIR AND PATCH EXISTING WALLS SHOWN TO REMAIN WHERE INTERSECTING WALLS, DOORS, FRAMES, ETC. ARE SHOWN TO BE REMOVED AND WHERE EXISTING CONSTRUCTION WILL NOW BE EXPOSED IN THE NEW CONSTRUCTION.

PROVIDE TEMPORARY WEATHER PROTECTION AND SECURITY DEVICES DURING INTERVAL BETWEEN DEMOLITION AND REMOVAL OF EXISTING CONSTRUCTION ON EXTERIOR SURFACES AND INSTALLATION OF NEW CONSTRUCTION TO ENSURE THAT NO WATER LEAKAGE OR DAMAGE OCCURS TO STRUCTURE OR INTERIOR AREAS OF EXISTING BUILDING





# CODE DATA:

APPLICABLE CODES: ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS AND DRAWINGS, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS OF ALL GOVERNING BODIES INVOLVED. ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR INVOLVED. APPLICABLE CODES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

**BUILDING CODE** 2018 International Building Code ELECTRICAL CODE 2017 NATIONAL ELECTRICAL CODE MECHANICAL CODE 2018 INTERNATIONAL MECHANICAL CODE PLUMBING CODE 2018 INTERNATIONAL PLUMBING CODE FIRE PROTECTION 2018 INTERNATIONAL FIRE CODE . NFPA 13

2010 AMERICANS WITH DISABILITIES ACT . DESIGN GUIDELINES ACCESSIBILITY

OCCUPANCY TYPE: B - BUISNESS

**CONSTRUCTION TYPE:** TYPE V-B NON-COMBUSTIBLE (SPRINKLED)

OCCUPANT LOAD:

BUILDING GROSS AREA: EXISTING= 11,204 SF

OFFICE SPACE | OCCUPANT LOAD: OFFICE SPACE | = 1,692 SF/150 = 12 OCC

OFFICE SPACE | EXIT CALCULATION: OCC. LOAD 12 = 1 REQ'D. EXIT

PROVIDED = 34 INCHES

PROVIDED= | EXITS 12 OCCUPANTS X .2 = 2.4 INCHES

PLUMBING FIXTURE CALCS:

**RESTROOM FIXTURES** (Table 2902.1) Required - 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50. Restroom Fixtrues

Required  $12 \ occ = 1 \ water \ closets$ Provided I water closets

Drinking fountain and mop sink are not

required for occupant loads under 15 To best of my professional knowledge,

# **DRAWING INDEX**

## ARCHITECTURAL:

A1.0 FLOOR PLAN, WALL TYPE, AND DOOR SCHEDULE A2.0 ENLARGED RESTROOM, RESTROOM RCP, AND INTERIOR ELEVATIONS

MP1.0 MECHANICAL AND PLUMBING FLOOR PLAN

# VICINITY MAP:

OFFICE SPACE

USE GROUP - B

# E0.0 ELECTRICAL SPECIFICATIONS E1.0 ELECTRICAL PLAN - PROJECT LOCATION TENANT SPACE TILITY ROOM USE GROUP - B \_\_\_\_\_\_ \_\_\_\_\_

# **FLOOR PLAN KEYNOTES**

| EXTEND EXISTING WALLS TO DECK PER WALL TYPE

MODIFY EXISTING STOREFRONT AS REQUIRED TO ACCOMMODATE NEW STOREFRONT DOOR

3 NEW 5' WIDE SIDEWALK, 4" CONCRETE OVER 4" DRAINAGE FILL. MAX 2% CROSS SLOPE AND SLOPE 5' OUT FROM DOOR. PROVIDE (2) 12" L #4 DOWELS ANCHORED INTO EXISTING FOOTING A MIN OF 5"

4 VACANT TENANT SPACE, FINAL BUILD OUT DRAWINGS

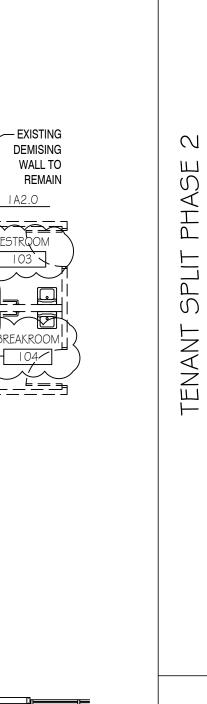
UNDER SEPARATE PERMIT BY TENANT 5 INFILL CEILING AND RELOCATE LIGHTS AS REQUIRED TO MATCH EXISTING CEILING LAYOUT AFTER REMOVAL OF

PATCH WALL AS REQUIRED TO MATCH EXISTING CONDITIONS, TYP

7 INSTALL NEW CARPET, 4" RUBBER BASE, AND PAINT ALL WALLS THIS SPACE ONLY. COORDINATE FINISHES W/

NOTE: MODIFY EXISTING CEILING AS REQUIRED TO ACCOMMODATE NEW WALL, REINSTALL CEILING ON

TENANT SPACE 1 SIDE.



sheet

FLOOR PLAN, WALL

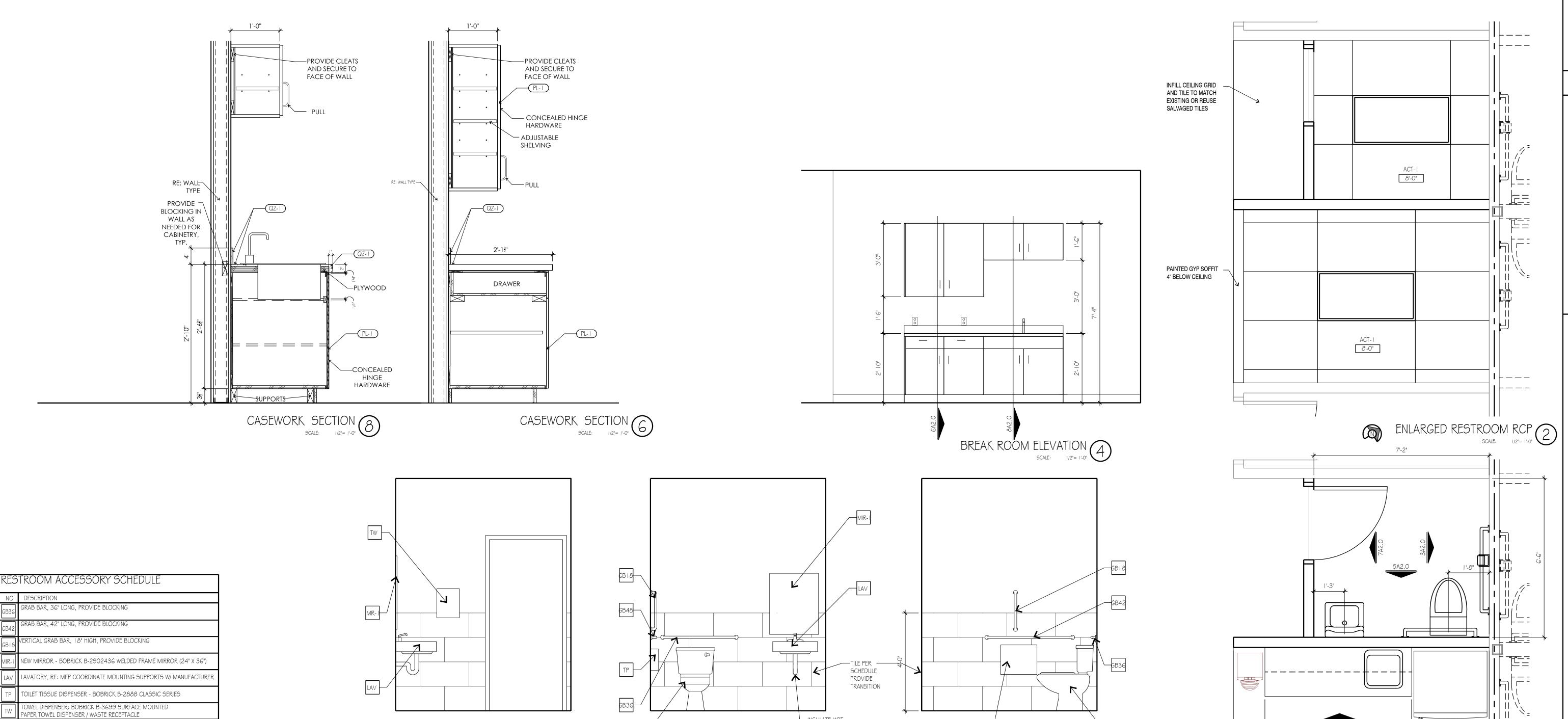
TYPE, AND DOOR

SCHEDULE

	FINISH	LEGEND	
TAG	MATERIAL	MANUFACTURE	STYLE & COLOR
P-1	PAINT	TBD	TBD
T-1	WALL TILE	TBD	TBD (PROVIDE MATERIAL ALLOWANCE)
PL-1	PLASTIC LAMINATE	TBD	TBD
QZ-1	QUARTZ COUNTER	TBD	TBD (PROVIDE MATERIAL ALLOWANCE)
LVT-1	LUXURY VINYL TILE	TBD	TBD (PROVIDE MATERIAL ALLOWANCE)
CT-1	CARPET TILE	TBD	TBD (PROVIDE MATERIAL ALLOWANCE)
RB-1	4" RUBBER BASE	TBD	TBD
ACT-1	ACOUSTICAL TILE (2x2)	TBD	TBD (PROVIDE MATERIAL ALLOWANCE)

### finish notes:

- All surfaces shall be cleaned and conditioned to receive new finish as required by finish product manufacturer. Surfaces shall be smooth, free from depressions,
- All patterned flooring shall be centered in both directions and generated from center of
- room outward toward partitions, unless otherwise noted.
- All walls shall receive a level 4 finish.
- Install base at all casework where exposed unless noted otherwise.
- Paint to be eggshell on walls typ. Use epoxy paint in wet areas (utiltiy rooms, restrooms, etc)
- semi-gloss enamel at metal doors/frames, flat at exposed ceilings, ductworks, etc.
- verify existing floor RH prior to purchasing flooring materials and verify meets manufacture required remove adhesive/old finish and prep floor for polished concrete, typ

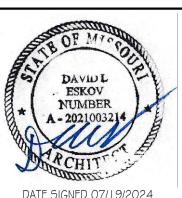


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DATE SIGNED 07/19/2024

**ADA Compliance** Certification

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PERMIT JULY 19, 2024

Revisions

AKES SPLIT

ENLARGED RESTROOM, & INTERIOR **ELEVATIONS** 

DIMENSIONS ARE TO FACE OF FINISH

LAVATORY TO BE INSTALLED PRIOR TO PARTITIONS.

REFER TO AGII \$ AG21 FOR WALL AND DOOR TYPES

PROVIDE COAT HOOKS ON THE INSIDE OF ALL PARTITION DOORS

REQUIRED FOR SUPPORT.

INSTALL BLOCKING IN WALLS FOR GRAB BARS, PARTITIONS, ACCESSORIES AS

REFER TO SHEET A003 FOR CLEAR FLOOR SPACE INFORMATION AND FIXTURE MOUNTING HEIGHTS, E.G. GRAB BARS, TOILET FIXTURES, AND ACCESSORIES. ---INSULATE HOT WATER SUPPLY \$

DRAIN LINES

# GENERAL DEMOLITION NOTES:

1. DO NOT REMOVE STRUCTURAL MEMBERS UNLESS NOTED OTHERWISE.

2. PROTECT ALL ELEMENTS OF EXISTING CONSTRUCTION WHICH ARE TO REMAIN.

3. PERFORM ALL DEMOLITION WORK IN ACCORDANCE WITH THE LANDLORD'S CRITERIA. COORDINATE DEMOLITION WITH LANDLORD'S REPRESENTATIVE AND CONTACT LANDLORD IN ADVANCE OF ANY WORK INVOLVING CONNECTION TO LANDLORD'S BUILDING SYSTEMS OR REQUIRING TEMPORARY SHUT DOWN OF UTILITIES.

4. REMOVE UNUSED UTILITIES NOT REUSED, CAPPED BELOW FINAL CONSTRUCTION. FINISH SURFACES.

5. MAINTAIN SAFE EXITING AND FIRE SAFETY DURING ALL DEMOLITION AND CONSTRUCTION OPERATIONS.

6. REMOVE ALL EXISTING EQUIPMENT NOT REUSED. COORDINATE WITH OWNER FOR SALVAGE REQUIREMENTS.

7. WHERE INDICATED REMOVE EXISTING PARTITIONS, CEILINGS, SOFFITS AND ASSOCIATED FRAMING AND BRACING BACK TO STRUCTURE. PROTECT EXISTING STRUCTURAL ELEMENTS NECESSARY FOR THE BUILDING SHELL

8. REMOVE ALL EXISTING FLOORING TO SUBFLOOR U.N.O., PREPARE TO RECEIVE NEW FINISH

9. DISPOSE OF ALL DEMOLITION DEBRIS LEGALLY.

10. CONTRACTOR SHALL DESIGN AND PROVIDE SHORING TO SAFELY SUPPORT EXISTING CONSTRUCTION TO REMAIN DURING DEMOLITION OPERATIONS.

11. SAFETY DURING DEMOLITION OPERATIONS SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY.

12 DEMOLITION PLAN SHOWS APPROXIMATE LAYOUT OF EXISTING BUILDING AND IS NOT INTENDED TO REPRESENT "AS-BUILT" CONDITIONS. VISIT SITE AND OTHERWISE BECOME FAMILIAR WITH ACTUAL CONDITIONS WHEN BIDDING THE WORK.

13. WALLS, PARTITIONS, DOORS, FRAMES, AND OTHER ITEMS TO BE REMOVED ARE SHOWN DASHED. SERVICES WITHIN WALLS AND PARTITIONS SHALL ALSO BE REMOVED. EDGES OF WALLS SHOWN TO REMAIN SHALL BE SAWCUT OR CLEANLY TOOTHED TO ACCEPT NEW CONSTRUCTION. REPAIR AND PATCH EXISTING WALLS SHOWN TO REMAIN WHERE INTERSECTING WALLS, DOORS, FRAMES, ETC. ARE SHOWN TO BE REMOVED AND WHERE EXISTING CONSTRUCTION WILL NOW BE EXPOSED IN THE NEW

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DEMO PLAN KEYNOTES

REMOVE EXISTING FLOOR FINISH, PREP FOR NEW CARPET, TYP

2 REMOVE EXISTING DOOR & FRAME, SALVAGE AS REQUIRED FOR

REMOVE EXISTING WALL AS REQUIRED TO ACCOMMODATE NEW WORK, PATCH WALL TO REMAIN, RELOCATE LIGHT SWITCHES, OUTLETS, POWER, ETC AS REQUIRED

REMOVE PORTION OF EXISTING STOREFRONT TO ACCOMMODATE NEW DOOR

5 EXISTING TO REMAIN

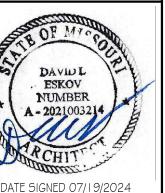
© REMOVE EXISTING CEILING AND LIGHTS, THIS ROOM, SALVAGE AND REUSE IF POSSIBLE.

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**DEMOLITION PLAN** 

sheet

TENANT SPLIT

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE

B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.

C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE (NEC), AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.

D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.

E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL

F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY

G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.

H. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRICAL COMPONENTS.

2. OPERATION AND MAINTENANCE MANUALS:

A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.

B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.

C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE COLLATED AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC CONTRACTORS, ETC. DOCUMENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.

3. MANUFACTURERS:

A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE

4. TESTING, AND BALANCING:

A. ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTING TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADING BETWEEN PHASES.

B. POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.

C. ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.

A. CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCREW SET FITTINGS.

B. CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.

C. UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE, UNDER LOAD AT 264 PSI, OF 78 DEGREES C, AND A TENSILE STRENGTH OF 5,200 PSI. JOINTS SHALL BE FLUSH SOLVENT WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARL ON POWER AND COMMUNICATIONS DUCT TYPE DB (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PRODUCED BY THE SAME MANUFACTURER.

D. FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".

A. WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRE SHALL BE INSTALLED IN CONDUIT, WIREWAYS, OR OTHER PROTECTIVE COVER SANCTIONED BY CODES.

B. CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 A.W.G., 600 VOLT.

C. NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.

D. NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.

E. SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS, NO. 3 GAUGE AND LARGER SHALL BE TYPE XHHW-2 (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.

F. ALUMINUM SERVICE WIRE MAY BE USED FOR SERVICE ENTRANCE CONDUCTORS AND/OR PANEL FEEDERS ONLY. ALL OTHER WIRING SHALL BE COPPER CONDUCTORS AS HEREINBEFORE SPECIFIED.

G. ALUMINUM CONDUCTORS SHALL BE TYPE 'XHHW-2', ALCAN, "STABILOY" TYPE ALLOY CONDUCTORS UTILIZING

H. ALL ALUMINUM CONDUCTORS SHALL BE TERMINATED IN CONNECTIONS OR LUGS WHICH ARE DUAL RATED

(AL7CU OR AL9CU) AND ARE LISTED BY UL FOR USE WITH ALUMINUM OR COPPER CONDUCTORS AND SHALL BE SIZED TO ACCEPT ALUMINUM CONDUCTORS OF THE AMPACITY SPECIFIED.

A. MC CABLE SHALL CONSIST OF INTERLOCK ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID (#8 AWG AND LARGER MAY BE STRANDED) COPPER CONDUCTORS RATED 90°C FOR DRY LOCATIONS, WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 83 THE THREE CONDUCTORS SHALL BE TWISTED TOGETHER WITH THE COPPER GROUNDING CONDUCTOR, SUITABLE FILLERS, AND WRAPPED IN BINDER TAPE. THE ASSEMBLY SHALL BE ARMORED WITH SPIRALLY WRAPPED INTERLOCKED ARMOR OF ALUMINUM OR GALVANIZED

"AA-8030" ALUMINUM ALLOY. CONDUCTORS SHALL BE UL LISTED.

B. CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1569 FOR TYPE MC CABLE AND RATED AT 600 VOLTS, 90 DEG. C FOR DRY LOCATIONS AND 75 DEG. C FOR WET LOCATIONS.

A. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.

1) SINGLE POLE: HUBBELL #CS1221-X, OR EQUAL 2) THREE WAY: HUBBELL #CS1223-X, OR EQUAL

3) AS SPECIFIED ON PLANS

B. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #CR5352-X, OR EQUAL.

C. GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #GF20-XL. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED

D. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR5352IG, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.

E. RECEPTACLES OUTSIDE BUILDING AND WHERE NOTED AS WEATHERPROOF, SHALL BE LISTED "WEATHER-RESISTANT' HUBBEL #GFTR20-X OR EQUAL AND SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMATIC #WP1010MXD OR #WP1010HMXD DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.

F. VERIFY DEVICES AND DEVICE COVERPLATES COLOR AND STYLE WITH ARCHITECT.

9. BOXES:

A. HOT DIPPED GALVANIZED STEEL BOXES. PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.

B. ALL BOXES SHALL BE FLUSH MOUNTED. UNLESS INDICATED OTHERWISE

10. PANELBOARDS:

A. FURNISH AND INSTALL CIRCUIT BREAKER PANELBOARDS AS SHOWN ON THE DRAWINGS. PANELBOARDS SHALL BE LISTED BY UL AND SO LABELED. AND SHALL BE FULLY RATED FOR THE VOLTAGE AND CURRENT CAPACITY INDICATED ON THE PANEL SCHEDULE. PANELBOARDS SHALL BE EQUAL TO SQUARE D TYPE NQ OR NF WITH BOLT IN TYPE BREAKERS. PANELBOARD LUGS SHALL BE RATED AT 75°C.

1) CIRCUIT BREAKER INTERRUPTING CAPACITIES SHALL MEET OR EXCEED THE AVAILABLE RMS SYMMETRICAL FAULT CURRENTS INDICATED AND AS REQUIRED TO MEET OR EXCEED THE AVAILABLE FAULT CURRENT FROM LOCAL UTILITY.

B. CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA AB-L. CIRCUIT BREAKERS SHALL BE BOLT-ON GROUP MOUNTED AMBIENT MAGNETIC WITH COMMON TRIP UL RATED TO CARRY 80% OF NAMEPLATE RATING CONTINUOUSLY IN FREE AIR AT 40° C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING AND FULLY INTERCHANGEABLE WITHOUT DISTURBING ADJACENT UNITS. WIRE ERMINALS SHALL BE RATED 75 DEGREES C. THE OPERATING MECHANISM SHALL BE TRIP-FREE SO THAT CONTACTS CANNOT BE HELD CLOSED AGAINST ANY ABNORMAL OVERCURRENT OR SHORT CIRCUIT

a) BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.

C. PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING GUTTER SPACE IN ACCORDANCE WITH NEC. FRONTS SHALL BE OF SHEET STEEL PAINTED LIGHT GREY OVER A SUITABLE RUST INHIBITOR PRIMER. PANELBOARDS SHALL BE EQUIPPED WITH ONE PIECE DOOR, CYLINDER TUMBLER TYPE LOCK, DIRECTORY CARD-HOLDER AND QUARTER-TURN ADJUSTABLE TRIM CLAMPS.

D. PANELBOARD INTERIORS SHALL CONSIST OF REINFORCED GALVANIZED SHEET STEEL FRAMES WITH ALUMINUM BUS BARS AND CIRCUIT BREAKERS. PROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BREAKAGE IN HANDLING. BUS BARS SHALL BE SEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL SIZED SOLID

E. BUS BAR BRACING SHALL BE UL LISTED AS INDICATED ON DRAWINGS. ADDITIONAL BRACING SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT

F. DIRECTORY CARDS SHALL BE COMPLETELY FILLED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND LOAD SERVED, INCLUDING EXISTING CIRCUITS. CIRCUIT BREAKERS SHALL BE IDENTIFIED BY CIRCUIT NUMBER LABELS AS HEREINBEFORE SPECIFIED.

A. DISCONNECTS SHALL BE EXTERNALLY OPERATED, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS FOR PAD LOCKING. FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL BE PROVIDED AS INDICATED.

B. INDOOR SWITCHES SHALL BE NEMA I AND OUTDOOR SWITCHES SHALL BE NEMA 3R, UNLESS INDICATED OTHERWISE.

12. FUSES:

A. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING U.L. CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.

B. ALL OTHER FUSES SHALL BE U.L. CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS AT 500% RATING. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.

13. LIGHT FIXTURES:

A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES. ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.

B FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE

C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS.

A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.

B. INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.

C. ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.

A. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ANY LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT

B. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).

16. REMODELING WORK:

A. DEMOLITION: DISCONNECT, DEMOLISH AND REMOVE ABANDONED ELECTRICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.

B. EQUIPMENT TO BE SALVAGED:

1) DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE

2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.

C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.

D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.

E. PROVIDE ALL ALTERATIONS AND REWORK INDICATED AND/OR REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF ALL EXISTING ELECTRICAL SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. LOCATE, IDENTIFY, AND PROTECT ELECTRICAL SERVICES PASSING THROUGH REMODELING AREA AND SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR

1) ABANDONED CONDUIT SHALL HAVE WIRE REMOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN WALLS OR PARTITIONS SHALL HAVE DEVICES AND WIRE REMOVED, AND SHALL BE COVERED.

2) WHERE EXISTING CONDUITS TERMINATE AT AN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR TO BE REMOVED, DISCONNECT AND REMOVE DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE CUT BACK AND CAPPED (BELOW THE FLOOR OR ABOVE THE CEILING) SO NOT TO CREATE AN OBSTRUCTION. PATCH FLOOR TO MATCH EXISTING.

3) WHERE EXISTING CIRCUITS EXTEND BEYOND THE OUTLET IN THE EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, FURNISH AND INSTALL NEW CONDUIT AND WIRE TO EITHER REPOUTE THE CIRCUIT OR FEED THE REMAINING OUTLET(S) FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH A MANNER AS NOT TO REVISE THE CIRCUIT. ALL REROUTED CONDUIT SHALL BE APPROVED BY THE

4) WHERE EXISTING OUTLETS IN A WALL, CEILING, OR FLOOR TO BE REMOVED ARE ESSENTIAL TO MAINTAIN OPERATION OF OTHER REMAINING OUTLETS, RELOCATE THE OUTLET TO A NEW CONVENIENT LOCATION. EXISTING WIRING DEVICES SHALL NOT BE REUSED, UNLESS OTHERWISE INDICATED.

5) WHERE LIGHTING FIXTURES ARE INDICATED TO BE DEMOLISHED, REMOVE ALL WIRE AND MODIFY THE EXISTING CONDUIT (IF APPLICABLE) FOR THE NEW LIGHTING. ALL UNUSED CONDUIT SHALL BE

6) WHERE A TELEPHONE CIRCUIT EXTENDS BEYOND AN OUTLET IN AN EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED. PROVIDE NECESSARY EMPTY CONDUIT AND NOTIFY THE OWNER WHO WILL REQUEST THE OWNER TO ARRANGE WITH THE TELEPHONE COMPANY FOR NEW WIRING TO OUTLETS THAT

7) WHERE EXISTING CONDUIT AND WIRE RUNS ARE LOCATED IN OR ATTACHED TO AN EXISTING WALL, CEILING OR FLOOR TO BE REMOVED, THEY SHALL BE REROUTED IN EITHER NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF CIRCUITS UNLESS OTHERWISE INDICATED.

8) CONDUIT SHALL BE CONCEALED WITHIN THE EXISTING BUILDING CONSTRUCTION WHEREVER 9) EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE

17. BOXES IN FIRE RATED ASSEMBLIES:

A. OUTLET BOXES THAT DO NOT EXCEED 16 SQUARE INCHES AND INSTALLED IN FIRE RATED WALLS SHALL NOT BE INSTALLED CLOSER THAN 24" HORIZONTAL INCHES TO OTHER OUTLET BOXES.

B. IF BOXES MUST BE INSTALLED WITHIN 24" OF EACH OTHER THAN BOTH OUTLET BOXES SHALL BE PROTECTED WITH LISTED PUTTY PADS, 3M FIRE BARRIER MOLDABLE PUTTY + OR EQUAL.

**ELECTRICAL SYMBOLS LIST** 

**CIRCUITING & NOTES** 

+46" SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)

GROUND FAULT CIRCUIT INTERRUPTER DEVICE

EXISTING DEVICE TO REMAIN

RELOCATE EXISTING LIGHT FIXTURE TO NEW CEILING GRID

(X) ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION

CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED

#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR

**LIGHTING** 

SPECIFICATION

EMERGENCY TWIN HEAD LIGHT FIXTURE

EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED

RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION

POWER DEVICES

DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE

DEVICE MOUNTED ABOVE COUNTER AND/OR SPLASH GUARD

PANEL BOARD, TOP OF BOX 6'-0" AFF JUNCTION BOX

NON-FUSED DISCONNECT SWITCH

FUSED DISCONNECT SWITCH MOTOR WITH DESIGNATION

S SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF

OCCUPANCY SENSORS

WALL MOUNTED DUAL-TECHNOLOGY OCCUPANCY SENSOR, ACUITY SENSORSWITCH #WSX-PDT-SA OR EQUAL, TOP OF BOX AT 48" AFF. SENSORS SHALL BE PROGRAMMED FOR MANUAL-ON OPERATION.

**COMMUNICATIONS** 

DATA/TELEPHONE OUTLET WITH MINIMUM 3/4" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING

FIRE ALARM

DD DUCT MOUNT SMOKE DETECTOR

**ELECTRICAL GENERAL NOTES** 

COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT

2. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.

3. ALL EXPOSED RACEWAYS SHALL BE EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.

4. ELECTRICAL CONTRACTOR SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT, FIXTURES, SYSTEMS, CONDUIT AND WIRE, ETC. NOT BEING REUSED. DO NOT JUST ABANDON.

5. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL

ALL ELECTRICAL DEVICES ARE EXISTING AND TO REMAIN UNLESS NOTED OTHERWISE OR CONFLICT WITH NEW CONSTRUCTION. MAINTAIN PROPER OPERATION OF ALL EXISTING ELECTRICAL.

7. ALL MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

8. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.

9. PLANS INDICATE MINIMUM WIRE SIZES PER NEC. ALL BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.

10. WHEREVER POSSIBLE, CONDUIT SHALL BE RUN CONCEALED WITHIN WALLS, CEILINGS, SOFFITS, ETC. SURFACE MOUNTED CONDUIT IN FINISHED SPACES MUST BE APPROVED BY THE ENGINEER OR ARCHITECT PRIOR TO INSTALLATION. EXTERIOR CONDUIT SHALL NOT BE RUN EXPOSED IN PUBLICLY VISIBLE AREAS WITHOUT APPROVAL OF THE ARCHITECT OR ENGINEER.

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Daviderssummit, Miss

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8/12/2024

PERMIT JULY 25, 2024

Revisions

AUGUST 13, 2024

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EXECUTIVE TENANT SPLIT

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**ELECTRICAL PANEL** SCHEDULES

E	XIST PANEL: L1	VOLTS:		120/208V	PH:	: 3Ø	WIRE:	4W	LOCATION:		OFFICE		MOL	JNTING: SURFACE			PANEL: L3	VOLTS:	12	0/208V	PH:	: 3Ø	WIRE:	4W	LOCATION:		TENANT C	PEN OFFIC	CE N	IOUNTING: SURFACE	
	BUS: 400A	MAIN:	400A	MLO									FEE	DER: SEE RISER DIAGRAM			BUS: 225A	MAIN:	200A	MLO	IC:	: 10	0,000	RMS SYM A	MPS				F	EEDER: SEE RISER D	AGRAM
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	CKT NO	СКТ	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION	C
1															2	1					4,800			2,250			8	2	35	WATER HEATER	
3	SPARE	50	3									3	50	SPARE	4	3	RTU 3	50	3	6		4,800			2,250						
5															6	5							4,800					1	20	SPARE	
7								3,360							8	7	LIGHTING	20	1	12	192							1	20	SPARE	
9	SPARE	50	3						3,360		8	3	35	EXIST RTU-4	10	9	LIGHTING	20	1	12		288			768		12	1	20	LIGHTING	1
11										3,360					12	11	LIGHTING	20	1	12			1,104			576	12	1	20	LIGHTING	1
13	SPARE	20	1					990			12	1	20	LIGHTING	14	13	COVE LIGHTING	20	1	12	146							1	20	SPARE	1
15	SPARE	20	1						1,056		12	1	20	LIGHTING	16	15	SPARE	20	1						180		12	1	20	TV RECEPTACLES	1
17	SPARE	20	1							180	12	1	20	REC - RESTROOM	18	17	FLOOR BOX	20	1	12			1,000			1,000	12	1	20	FLOOR BOX	1
19	SPARE	20	1									1	20	SPARE	20	19	SPARE	20	1					720			12	1	20	IT ROOM	2
21	SPARE	20	1									1	20	SPARE	22	21	SPARE	20	1						720		12	1	20	IT ROOM	2
23	SPARE	20	1									1	20	SPARE	24	23	OFFICE RECEPTACLES	20	1	12			720			180	12	1	20	CUBE RECEPTACLE	
25	SPARE	20	1									1	20	SPARE	26	25	SPARE	20	1				1				-	1	20	SPARE	2
27	SPARE	20	1									1	20	SPARE	28	27	SPARE	20	1						180		12	1	20	OFFICE RECEPTACL	
29	SPARE	20	1									1	20	SPARE	30	29	SPARE	20	1						100			1	20	SPARE	3
31	SPARE	20	1									1	20	SPARE	32	31	OFFICE RECEPTACLES	20	1	12	900			540			12	1	20	OFFICE RECEPTACLI	
33	SPARE	20	1									1	20	SPARE	34	33	RTU RECEPTACLE	20	1	12	000	180		0.0			"-	1	20	SPARE	3
35	SPARE	20	1									1	20	SPARE	36	35	SPARE	20	1	12		100						1	20	SPARE	3
37	SPARE	20	1									1	20	SPARE	38	37	SPARE	20	1									1	20	SPARE	3
39	SPARE	20	1									1	20	SPARE	40	39	SPARE	20	1									1	20	SPARE	4
41	SPARE	20	1									1	20	SPARE	42	41	SPARE	20	1									1	20	SPARE	
41	STARE	20	!				CE.	CTION 2				'	20	SPARE	42	NOTES:	SFARE	20	ı		6,038	5,268	7,624	3,510	4,098	1,756		'	20	SPARE	
43	SPARE	20	1				JL.	CHON 2				1	20	SPARE	44	NOTES.						548		,366		880	_	7	TOTAL CON	NECTED LOAD:	28,294 VA
45	SPARE	20	1									1	20	SPARE	46						3,	J40	3	,500	3,0			'		DEMAND LOAD:	30,188 VA
47	SPARE	20	1									1	20	SPARE	48												DEMAND	AMPS @			83.79
49	SPARE	20	1									1	20	SPARE	50												DLIVIAND	AIVII O W	200 V	OL1739.	03.79
51	SPARE	20	1									1		SPARE	52																
	SPARE		1									1	20	SPARE	54																
53		20	1	40	700			540			40	1	20							ICL	4T I	EIY	THE	RE S	SCH	IED		F			
55	EXIST OFFICE RECEPTACLES	20	1	12	720	4.000		540	1,440		12	1	20	EXIST OFFICE RECEPTACLES	56					ı			101				UL				
57	EXIST OFFICE RECEPTACLES	20	1	12		1,080	200		1,440	4.000	12	1	20	OFFICE RECEPTACLES	58																
59	RECEPTS - KITCHENETTE	20	1	12	1 000		360	400		1,080	12	1	20	OFFICE RECEPTACLES	60	MARK N0.	MANUFACTURER & CATALOG NUMBER		VOL WAT		LIGI SOUF					DESCRI	PTION				IVALENT ACTURERS
61	REFRIGERATOR [GF]	20	1	12	1,200			180			12	1		RECEPT - WATER DISPENSER [GF]	62																
63	EXIST RTU RECEPTACLE	20	1	12		360	0.500					2	35	SPARE	64		DUAL-LITE EVC-U-R-W		120 3		INC	CL		NATION EN							E-LITES HONIA
65	WATER HEATER HWH	30	1	10			2,500							0015-	66	₩			J					, UNIVERS							EQUAL
67	SPARE	20	1									1	20	SPARE	68			<b>~</b>	<b>~~</b>		<b>√</b>	$\sim$		<b>~~</b>		<b>~~</b>	<del>~~</del>	<b>~</b>	~~		<b>~~</b>
69	SPARE	20	1									1	20	SPARE	70	\	DUAL-LITE EVC II P.W. D4	-	12 5		INC	CL	COMBI	NATION E	MERGENC	Y/EXIT LI	GHT WIT	H LED L	AMPS, R	ED SUR	E-LITES HONIA
71	SPARE	20	1									1	20	SPARE	72		EVC-U-R-W-D4 WITH EVO-D-X		5				HEADS	RS ON WH , UNIVERS	SAL MOUN	T, HIGH C	CAPACITY	Y BATTE	RY BACI		HONIA EQUAL
73	SPARE	20	1									1	20	SPARE	74	\\			^		<u> </u>	_ ^		EMOTE TW							
75	SPARE	20	1									1	20	SPARE	76																
77	SPARE	20	1									1	20	SPARE	78																
79	SPARE	20	1									1	20	SPARE	80																
-	SPARE													SPARE																	

SPARE

21,766 VA 22,903 VA

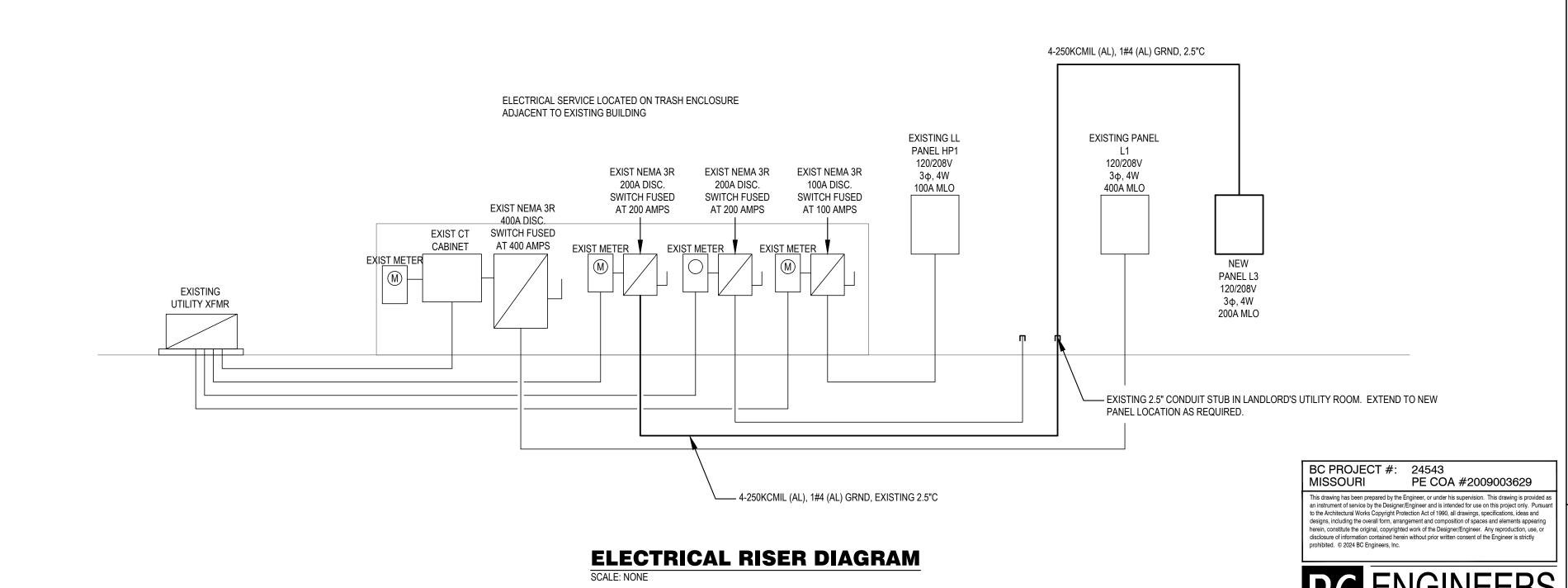
63.57 A

TOTAL CONNECTED LOAD:

DEMAND AMPS @ 208 VOLT / 3Ø:

NEC DEMAND LOAD:

[GF]-GFCI BRKR 5mA



F LOCATE IDENTIFY AND PROTECT MECHANICAL SERVICES PASSING THROUGH REMODELING AREA AND

F. REMOVE ALL PIPING TO BE DEMOLISHED BACK TO PIPE MAIN OR EDGE OF PROJECT AREA, AND CAP

G. PIPING AND DUCTS EMBEDDED IN FLOORS, WALLS, AND CEILINGS MAY REMAIN IF SUCH MATERIALS DO

ARCHITECT. REMOVE MATERIALS ABOVE ACCESSIBLE CEILINGS. DRAIN AND CAP PIPING AND DUCTS

H. PIPE AND DUCT SHALL BE CONCEALED WITH NEW OR EXISTING CONSTRUCTION WHENEVER POSSIBLE,

REMODELING LIMITS. WHERE MECHANICAL SERVICES ARE LOCATED IN A WALL, ETC. TO BE

NOTED. PATCH FLOOR TO MATCH EXISTING.

UNLESS INDICATED OTHERWISE.

SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE

DEMOLISHED, REROUTE PIPING TO NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF THE

SYSTEM. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS

NOT INTERFERE WITH NEW INSTALLATIONS. PIPING AND DUCTS TO REMAIN SHALL BE APPROVED BY THE

ALLOWED TO REMAIN ABOVE CEILING OR BELOW FLOOR, CONCEALED FROM VIEW, EXCEPT AS OTHERWISE

Olathe, KS 66061

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eskovarch@outlook.com 913-284-3660

7/26/24

PERMIT JULY 25, 2024

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**SPECIFICATIONS** 

SPLIT

Revisions

BC PROJECT #: 24543 PE COA #2009003629

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MECHANICAL AND PLUMBING SPECIFICATIONS (CONTINUED) MECHANICAL AND PLUMBING SPECIFICATIONS 4) PROTECTION AGAINST CONTACT: METALLIC PIPING, EXCEPT FOR CAST IRON, DUCTILE IRON AND GALVANIZED 1. GENERAL PROVISIONS: STEEL SHALL NOT BE PLACED IN DIRECT CONTACT WITH STEEL FRAMING MEMBERS, CONCRETE, OR CINDER WALLS A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE AND FLOORS OR OTHER MASONRY. METALLIC PIPING SHALL NOT BE PLACED IN DIRECT CONTACT WITH CORROSIVE PLUMBING AND MECHANICAL SYSTEMS OUTLINED SOIL. SHEATHING USED TO PREVENT DIRECT CONTACT SHALL HAVE A THICKNESS OF GREATER THAN .008: AND THE B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR SHEATHING SHALL BE MADE OF PLASTIC. ANY PIPE THAT PASSES THROUGH A FOUNDATION WALL OR FOOTING SHALL APPROVAL AS REQUIRED BY THE AUTHORITIES. RE PROVIDED WITH A RELIEVING ARCH. OR A PIPE SLEEVE SHALL BE BUILT INTO THE FOUNDATION WALL. THE SLEEVE C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS. CODES AND REGULATIONS SHALL BE TWO SIZES GREATER THAN THE PIPE PASSING THOUGH THE WALL OR FOOTING. OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE. 5) PLUMBING VENTS: FLASH ROOF VENT INTO ROOFING SYSTEM AS REQUIRED BY THE ROOFING D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK. CONTRACTOR TO MAINTAIN EXISTING ROOF WARRANTY. ALL PLUMBING VENT TERMINALS SHALL TERMINATE A MINIMUM OF 12" ABOVE ROOF OR EQUAL TO HEIGHT OF PARAPET, WHICHEVER IS GREATER. E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, I. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS. OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL 8. WATER HEATERS A. COMMERCIAL, LIGHT-DUTY, STORAGE, ELECTRIC, DOMESTIC-WATER HEATERS: F PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS FLOORS CEILINGS AND ROOFS AS . STANDARD: UL 174 NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING 2. STORAGE-TANK CONSTRUCTION: STEEL, VERTICAL ARRANGEMENT. WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE a. PRESSURE RATING. 130 PSIG.
b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING LINING MATERIAL INTO TAPPINGS. G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE 3. FACTORY-INSTALLED, STORAGE-TANK APPURTENANCES: a. ANODE ROD: REPLACEABLE MAGNESIUM.
b. DIP TUBE: REQUIRED UNLESS COLD-WATER INLET IS NEAR BOTTOM OF TANK. 2. OPERATION AND MAINTENANCE MANUALS: A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING c. DRAIN VALVE: CORROSION-RESISTANT METAL WITH HOSE-END CONNECTION. DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, d. INSULATION: COMPLY WITH ASHRAE/IES 90.1 ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT. e. JACKET: STEEL WITH ENAMELED FINISH OR HIGH-IMPACT COMPOSITE MATERIAL. B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION f. HEAT-TRAP FITTINGS: INLET TYPE IN COLD-WATER INLET AND OUTLET TYPE IN HOT-WATER OUTLET. IN THE OPERATION AND MAINTENANCE MANUALS. g. HEATING ELEMENTS: ELECTRIC, SCREW-IN IMMERSION TYPE. C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A h. TEMPERATURE CONTROL: ADJUSTABLE THERMOSTAT. 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, SAFETY CONTROL: HIGH-TEMPERATURE-LIMIT CUTOFF DEVICE OR SYSTEM. CONTRACTORS, ETC. RELIEF VALVE: ASME RATED AND STAMPED FOR COMBINATION TEMPERATURE-AND-PRESSURE RELIEF VALVES. INCLUDE RELIEVING CAPACITY AT LEAST AS GREAT AS HEAT INPUT, AND INCLUDE PRESSURE SETTING LESS THAN WORKING-PRESSURE RATING OF DOMESTIC-WATER HEATER. SELECT RELIEF VALVE A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE WITH SENSING ELEMENT THAT EXTENDS INTO STORAGE TANK INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS B DOMESTIC-WATER EXPANSION TANKS: LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL 1. DESCRIPTION: STEEL. PRESSURE-RATED TANK CONSTRUCTED WITH WELDED JOINTS AND BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN. FACTORY-INSTALLED, BUTYL-RUBBER DIAPHRAGM. INCLUDE AIR PRECHARGE TO MINIMUM UNLESS NOTED OTHERWISE SYSTEM-OPERATING PRESSURE AT TANK. 4. MOTORS: 2. CONSTRUCTION: A. PROVIDE THERMAL OVERLOAD PROTECTION FOR EACH MOTOR PROVIDED BY THIS WORK. a. TAPPINGS: FACTORY-FABRICATED STEEL, WELDED TO TANK BEFORE TESTING AND LABELING. INCLUDE ASME B1.20.1 PIPE THREAD. 5. TESTING, BALANCING, AND CLEANING b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR TANK LININGS, INCLUDING EXTENDING FINISH INTO AND THROUGH TANK FITTINGS AND OUTLETS. COVERED WITH INSULATION. c. AIR-CHARGING VALVE: FACTORY INSTALLED. B. SEWER AND VENT PIPING SHALL BE HYDROSTATICALLY TESTED WITH NO LESS THAN 10 FEET OF HEAD 3. CAPACITY AND CHARACTERISTICS: FOR A PERIOD OF NOT LESS THAN 15 MINUTES, PER THE LOCAL PLUMBING CODE, WITH NO LEAKS. a. WORKING-PRESSURE RATING: 150 PSIG . C. DOMESTIC WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF NOT LESS THAN 1-1/2 9. INSULATION AND DUCT LINING: TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 60 PSI, FOR A PERIOD OF NOT LESS THAN 2 A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME HOURS WITH NO LEAKS SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE D. NATURAL GAS PIPING SHALL BE PNEUMATICALLY TESTED AT A PRESSURE OF NOT LESS THAN 1-1/2 EVELOPED RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA. TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 50 PSI, FOR A PERIOD OF NOT LESS THAN 2 B. PIPE INSULATION - ABOVE GRADE HOURS, WITH NO LEAKS. 1) THE PIPING INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 Btu PER in/hr\*sqft\*F° OR LESS. 2) FIBERGLASS INSULATION WITH FACTORY APPLIED VAPOR BARRIER, ASJ JACKET, FACTORY APPLIED E. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED BALANCING PERSONNEL WHO HAVE PREVIOUS PRESSURE SEALING LONGITUDE LAP JOINT, NO STAPLES, ZESTON PREMOLDED PVC FITTING EXPERIENCE WITH BALANCING PROCEDURES COVERS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3) FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE 1) BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION OF PERFORMANCE OF ALL SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO ARMSTRONG AP EQUIPMENT AND AUTOMATIC CONTROLS. ARMAFLEX OR ARMAFLEX 2000. 2) WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST 4) FOR NON CIRCULATING SYSTEMS, THE FIRST 8 FEET OF INLET AND OUTLET PIPING BETWEEN THE AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE REPORTS SHALL BE CERTIFIED PROOF THAT THE SYSTEMS HAVE BEEN TESTED, ADJUSTED, AND TANK AND THE HEAT TRAP (INCLUDING THE HEAT TRAP) MUST BE INSULATED. 5) FOR CIRCULATING SYSTEMS, ALL HOT WATER PIPING IN THE CIRCULATION LOOP MUST BE INSULATED BALANCED IN ACCORDANCE WITH THE REFERENCED STANDARDS; ARE AN ACCURATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING. REPORTS SHALL BE BOUND IN AS SPECIFIED BELOW. 6) INSULATION SCHEDULE A VINYL BINDER AND THE BINDER LABELED OR MAY BE AN ELECTRONIC PDF SUBMITTAL. a) DOMESTIC COLD WATER 6. PLUMBING: 1" FOR PIPING UP TO 1-1/4"Ø, & 1-1/2" FOR PIPING 1-1/2"Ø AND LARGER b) DOMESTIC HOT WATER A. PROVIDE AN APPROVED WATER HAMMER ARRESTOR FOR EACH PLUMBING FIXTURE SUPPLY AS C. EQUIPMENT INSULATION: REQUIRED BY FIXTURE MANUFACTURER. B. ALL EXPOSED WASTE PIPE SHALL BE CHROME PLATED BRASS PIPE. NO FERROUS PIPE. 1) FLEXIBLE FIBERGLASS: GLASS FIBER INSULATION, ASTM C 553, TYPE 1, CLASS B-4, SEMI-RIGID BOARD, WITH FACTORY LAMINATED KRAFT ALUMINUM FOIL (ALL SERVICE JACKET), VAPOR BARRIER, C. PROVIDE CLEANOUTS AT EACH CHANGE OF DIRECTION AND AT 100 FOOT INTERVALS IN STRAIGHT RUNS. OWENS/CORNING PIPE AND TANK INSULATION. D. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND TRAPS. D. DUCTWORK: THERMAL INSULATION. F CLEANOUTS: DUCT COVERING: 3/4 LB/CF, FIBERGLASS BLANKET WITH FACTORY APPLIED VAPOR BARRIER AND 1) VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL. FACING, THICKNESS AS SCHEDULED, INSTALLATION IN ACCORDANCE WITH MANUFACTURERS 2) QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL RECOMMENDATIONS. 3) CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL a) DUCT COVERING SCHEDULE: MINIMUM R-6 4) UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL (1) ROUND SUPPLY DUCT 5) WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR. F. PROVIDE DIELECTRIC UNIONS WITH APPROPRIATE END CONNECTIONS TO MATCH THE PIPE SYSTEM IN A. ALL DUCTWORK, UNLESS OTHERWISE INDICATED, SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL WHICH INSTALLED (SCREWED, SOLDERED, OR FLANGED). PROVIDE DIELECTRIC UNIONS ON ALL PIPING COMPLYING WITH ASTM A 653, LOCKFORMING QUALITY, WITH G 90 ZINC COATING IN ACCORDANCE WITH CONNECTIONS TO HOT WATER HEATERS AND EXPANSION TANKS. ASTM A 924: AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS. G. WATER HEATERS: B. WHERE DIJCTWORK IS INDICATED TO BE EXPOSED TO VIEW IN OCCUPIED SPACES, PROVIDE MATERIALS 1) EVERY WATER HEATER SHALL HAVE AN APPROVED MEANS INSTALLED ON THE COLD WATER WHICH ARE FREE FROM VISUAL IMPERFECTIONS INCLUDING PITTING, SEAM MARKS, ROLLER MARKS, SUPPLY LINE ABOVE THE EQUIPMENT TO PREVENT SIPHONING OF A STORAGE WATER HEATER OR TANK. STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, INCLUDING THOSE WHICH WOULD IMPAIR 2) BOTTOM FED WATER HEATERS AND TANKS CONNECT TO WATER HEATERS SHALL HAVE A VACCUM C. DUCTWORK, METAL GAUGES, REINFORCING, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA RELIEF VALVE INSTALLED. ANSI Z21.22. 3) STORAGE HEATERS OPERATING ABOVE ATMOSPHERIC PRESSURE SHALL HAVE AN APPROVED "HVAC DUCT CONSTRUCTION STANDARDS." LATEST EDITION FOR A 2 INCH WATER GAUGE STATIC PRESSURE RELIEF VALVE AND/OR TEMPERATURE RELIEF VALVE. H. ALL SEWER PIPING LOCATED INSIDE THE BUILDING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES. a) ELBOWS, UNLESS INDICATED OTHERWISE SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF 1) INSTALL 2-1/2" AND SMALLER PIPE AT 1/4" PER FOOT FALI NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOW WITH DOUBLE WALL STREAMLINE VANES. 2) INSTALL 3" AND LARGER PIPE AT 1/8" PER FOOT FALL. b) RETURN AIR ACOUSTICAL ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES. c) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3. A. DOMESTIC COLD AND HOT WATER (ABOVE GROUND) 2) ROUND AND OVAL SPIRAL SEAM DUCT: TYPE L HARD DRAWN COPPER TÜBING. ASTM B-88. a) PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15 a) WROUGHT COPPER SOLDERED FITTINGS, ASTM B75 ALLOY C12200. ANSI B16.22. MSS SP-104. DEGREE CHANGE OF DIRECTION PER SECTION. UNL b) MECHANICAL PRESS COPPER FITTINGS FOR USE IN PLUMBING OR MECHANICAL APPLICATIONS. ASME B16.2 USE 45 DEGREE LATERALS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEGREE BRANCHES ASME B16.51, or ASME B16.18. MECHANICAL PRESS COPPER FITTINGS SHALL CONFORM TO IAPMO PS-117 OF ARE INDICATED PROVIDE CONICAL TYPE TEES. b) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3. 2) PEX, HIGH-DENSITY CROSS-LINKED POLYETHYLENE TUBING SHALL BE MANUFACTURED TO THE c) AS AN OPTION, PROVIDE FACTORY-FABRICATED DUCT AND FITTINGS, IN LIEU OF SHOP-REQUIREMENTS OF ASTM F876 AND MEET THE STANDARD GRADE HYDROSTATIC PRESSURE FABRICATED DUCT AND FITTINGS. RATINGS FROM PLASTIC PIPE INSTITUTE IN ACCORDANCE WITH TR-4/03. (MUST BE INSTALLED PER THE MANUFACTURERS REQUIREMENTS FOR PLENUM USE) (1) ELBOWS: ONE PIECE CONSTRUCTION FOR 90 DEGREES AND 45 DEGREE ELBOW 14" AND SMALLER. PROVIDE MULTIPLE GORE CONSTRUCTION FOR LARGER DIAMETERS WITH a) PEX-A AND PEX-B MEETING ANSI/NSF61 AND ANSI/NSF372 STANDARDS FOR POTABLE WATER SAFETY AND LEAD-FREE STANDARDS AND MUST BE MARKED WITH "PW-G", "NSF-61-G" OR OTHER NSF-APPROVED STANDING SEAM CIRCUMFERENTIAL JOINT (2) DIVIDED FLOW FITTINGS: 90 DEGREE TEES, CONSTRUCTED WITH SADDLE TAP SPOT MARKING, ASTM F2023 FOR USE WITH CHLORINATED WATER. (MUST BE INSTALLED PER THE MANUFACTURERS REQUIREMENTS FOR PLENUM USE) WELDED AND BONDED TO DUCT FITTING BODY. b) PEX MECHANICAL, CRIMP/INSERT OR EXPANSION FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S d) ROUND LONGITUDINAL SEAM DUCT. USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT INSTRUCTIONS. PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE, IN CONCEALED LOCATIONS FOR EXTENSION TO FLEX FOR DIFFUSERS, UNLESS OTHERWISE INCREASE PEX PIPING SIZE TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER FOR SUPPLY MAINS. (MUST BE INSTALLED PER THE MANUFACTURERS REQUIREMENTS FOR PLENUM USE) D. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEETMETAL SIZES, ALLOWANCE FOR DUCT LINER HAS BEEN MADE WHERE APPLICABLE. E INSTALLATION OF METAL DUCTWORK a) TO BE INSTALLED ON THE FIXTURE SUPPLY TO EACH PLUMBING FIXTURE. 1) GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY b) TO BE INSTALLED ON THE WATER SUPPLY SIDE TO EACH APPLIANCE OR MECHANICAL EQUIPMENT. PRACTICES WHICH WILL ACHIEVE AIR-TIGHT SYSTEMS (MAXIMUM 5% LEAKAGE), WITH NO OBJECTIONABLE NOISE, AND CAPABLE OF PERFORMING INDICATED SERVICE. INSTALL EACH RUN 1. GATE VALVE: JOMAR T/S-301G OR EQUAL. LEAD-FREE NSF 61, ANSI B1.20.1. 2. GLOBE VALVE: JOMAR TGG OR EQUAL. WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY WITH INTERNAL SURFACES 3. BALL VALVE: JOMAR JP100PxP OR EQUAL COMPACT LEAD FREE BRASS BALL VALVE. SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE STRAPS, BRACES, HANGERS AND ANCHORS IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" LATEST EDITION. DUC UL842, CSA 3371-12 & 3371-92, FM, CALIFORNIA CODE AB1953, NSF61 ANNEX G APPROVED. HANGERS SHALL BE OF THE TYPE WHICH WILL HOLD DUCTS TRUE-TO-SHAPE AND TO PREVENT 4. BALL VALVE: JOMAR T-100NE OR EQUAL. UL842, FM, CSA, NSF 61-8, MSS SP-110 BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.

2) AUXILIARY STEEL: PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK. B. LEAD CONTENT OF WATER SUPPLY PIPE AND FITTINGS: 1) PIPE AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, UTILIZED IN THE WATER SUPPLY SYSTEM SHALL NOT HAVE MORE THAN 8% LEAD 3) ROUTING: LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. LOCATE RUNS AS INDICATED BY 2) PIPE, PIPE FITTINGS, JOINTS, VALVES, FAUCETS, AND FIXTURE FITINGS UTILIZED TO SUPPLY WATER FOR DRINKING OR COOKING PURPOSES DIAGRAMS. DETAILS AND NOTATIONS OR. IF NOT OTHERWISE INDICATED. RUN DUCTWORK IN SHALL COMPLY WITH NSF 372 AND SHALL HAVE A WEIGHTED AVERAGE LEAD CONTENT OF 0.25% OR LESS. SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, (UNDERGROUND, INTERIOR TO THE BUILDING COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. WHEREVER ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14. "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS." FOR POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW, BY LOCATING IN PLASTIC PIPING COMPONENTS, INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS. DO NOT PIPING. SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS. ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS. EXCEPT AS SPECIFICALLY SHOWN. COORDINATE LAYOUT WITH SUSPENDED CEILING AND LIGHTING LAYOUTS AND SIMILAR FINISHED WORK. PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR 4) DO NOT ROUTE DUCTWORK THROUGH ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES, UNLESS PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT 5) PENETRATIONS: a) WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS OR EXTERIOR WALLS, AND ARE EXPOSED PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564. HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL TO VIEW, CONCEAL SPACE BETWEEN OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-CONFORM TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® 1/2". FASTEN TO DUCT AND WALL. HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON b) WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE AND SHALL CONFORM TO ASTM A 74. FIRESTOPPING BETWEEN DUCT AND WALL. 6) COORDINATION: COORDINATE DUCT INSTALLATIONS WITH INSTALLATION OF ACCESSORIES

DAMPERS, COIL FRAMES, EQUIPMENT, CONTROLS, AND OTHER ASSOCIATED WORK OF THE DUCTWORK

7) INSTALLATION: INSTALL METAL DUCTWORK IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", LATEST EDITION.

F. EQUIPMENT CONNECTIONS: 1) CONNECT METAL DUCTWORK TO EQUIPMENT AS INDICATED, PROVIDE FLEXIBLE CONNECTION FOR EACH

DUCTWORK CONNECTION TO EQUIPMENT MOUNTED ON VIBRATION ISOLATORS, AND/OR EQUIPMENT CONTAINING ROTATING MACHINERY. PROVIDE ACCESS DOORS AS REQUIRED. G. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASE CAULKING AND GLAZING COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW.

1) UNCONDITIONED SPACES CLASS B CLASS A CLASS C CLASS B 2) CONDITIONED SPACES (PLENUM) CLASS C CLASS B CLASS B CLASS C SUPPLY < 2" W.C. SUPPLY > 2" W.C. EXHAUST/DRYER RETURN

A. CENTRIFUGAL CEILING EXHAUSTERS SHALL BE ELECTRICALLY POWERED CENTRIFUGAL TYPE FAN SUITABLE

FOR MOUNTING IN THE CEILING WITH A PERFORATED OFF-WHITE METAL GRILLE WITH A THUMBSCREW

HOUSING LINED WITH ACOUSTICAL INSULATION AND SHALL INCLUDE AN INTEGRAL BACKDRAFT DAMPER

LUBRICATED, WITH THERMAL OVERLOAD PROTECTION. PROVIDE DISCONNECT SWITCH OR OTHER MEANS

A. DEMOLITION: DISCONNECT, DEMOLISH, AND REMOVE ABANDONED MECHANICAL MATERIALS AND EQUIPMENT

1) DISCONNECT AND REMOVE, EXISTING MECHANICAL EQUIPMENT INDICATED TO BE REMOVED AND

SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE.

2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY

"LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR

REMOVED, AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO

REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED.

ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION

C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND

ATTACHMENT FOR EASY ACCESS TO FAN HOUSING. UNIT SHALL CONSIST OF A GALVANIZED STEEL

ON FAN DISCHARGE. MOTOR SHALL BE A PERMANENT SPLIT-CAPACITOR TYPE MOTOR. PERMANENTLY

E. CONDENSATE DRAINS & INDIRECT WASTE (ABOVEGROUND). A. ATCO #086 (R-6), OR EQUAL. B. FACTORY APPLIED INSULATION AND VAPOR BARRIER. 12. EXHAUST FANS:

(ABOVE GROUND, INTERIOR TO THE BUILDING).
ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR PLASTIC

SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. CELLULAR-CORE ABS PIPE: ASTM F 628, SCHEDULE 40.ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D

2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564.

HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM

PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING.

PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS," FOR

TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® INTERNATIONAL.

4) HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND

PLASTIC PIPING COMPONENTS. INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN. WASTE. AND VENT PIPING AND "NSF-SEWER" FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, CELLULAR-CORE PVC PIPE: ASTM F 891, SCHEDULE 40. WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D

1) POLYVINYLCHLORIDE (PVC) DWV PIPE, SCHEDULE 40, SOLVENT JOINT (INDIRECT WASTE). F. NATURAL GAS.

3311, DRAIN, WASTE, AND VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235.

1) BLACK STEEL PIPE, SCHEDULE 40, ASTM A53, a) PIPE 3" AND SMALLER; 150 LB. MALLEABLE IRON, THREADED FITTINGS.

SHALL CONFORM TO ASTM A 74.

(NOT FOR USE IN A RETURN AIR PLENUM)

b) PIPE 4" AND SMALLER; VIEGA MEGAPRESS G FOR WATER AND GAS. CSA LC4, TSSA/ASME B31 FOR USE WITH ASTM A53 SCHEDULE 40 BLACK IRON PIPE.

c) PIPE 2-1/2" AND LARGER, WELDED. d) PLUG VALVE: ROCKWELL NORDSTROM FIGURE NO. 142 OR 143.

e) BALL VALVE: JOMAR T-100NE. APPROVALS- UL842, FM, CSA, NSF 61-8, MSS SP-110 2) GAS PIPING PAINTING:

a) ALL BLACK STEEL GAS PIPING LOCATED EXTERIOR TO THE BUILDING SHALL BE PRIMED AND PAINTED TO EITHER MATCH ADJACENT EXTERIOR WHERE LOCATED ON OR NEAR EXTERIOR WALL AND PAINTED SAFETY YELLOW WHERE

LOCATED ON THE ROOF. G. ALL PIPE HANGERS AND SUPPORTS SHALL BE STANDARD PRODUCTS OF GRINNELL, FEE AND MASON, OR

ELCEN. HANGER SPACING SHALL BE IN ACCORDANCE WITH MSS-SP-69. 1) PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK. ALL SLEEVES

SHALL BE OF SUFFICIENT SIZE TO PERMIT PIPE MOVEMENT DUE TO EXPANSION AND CONTRACTION AND TO ACCOMMODATE PIPE INSULATION.

2) INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN PIPE AND SLEEVE WITH FIRE

SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT. 3) ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WATERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY

QUIPMENT NOT INDICATED TO BE SALVAGED. D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.

ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.

INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.

OF DISCONNECT AT MOTOR IN FAN HOUSING.

13 REMODELING WORKS

B. EQUIPMENT TO BE SALVAGED:

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PLUMBING PLAN NOTES:

4 NO WORK TO OCCUR IN THIS AREA.

PRIOR TO INSTALLATION OF ANY PIPING.

1) CONNECT WASTE TO EXISTING 4" SANITARY SEWER AS REQUIRED. VERIFY EXACT LOCATION AND ELEVATION

LOCATION OF 3" VTR. VERIFY 10' CLEARANCE FROM ALL OUTDOOR AIR INTAKES. SEAL PENETRATION

VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.

5 PROVIDE RELIEF DRAIN FROM WATER HEATER TO HUB DRAIN WITH INDIRECT DRAIN.

CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING

OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY.

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7/26/24

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Revisions

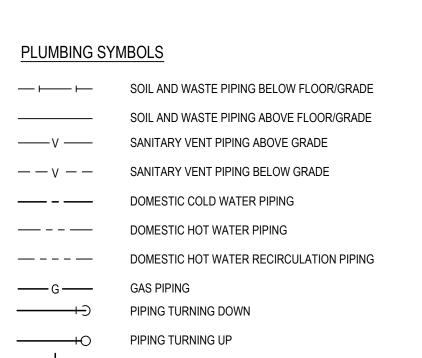
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VENT FLOOR PLAN 5720 Reeder Shawnee, KS 66203 (913)262-1772



TEE TOP CONNECTION **---**|**---**-UNION BACKFLOW PREVENTER - $\times$ 22 $\times$ -FD ⊘ FLOOR DRAIN FCO 🔘 FLOOR CLEAN OUT WALL CLEAN OUT GRADE CLEAN OUT CONNECT TO EXISTING INVERT ELEVATION OF PIPE

MATCH MARKS ON PLUMBING RISER

DIAGRAM

ĖX. 4" WASTE



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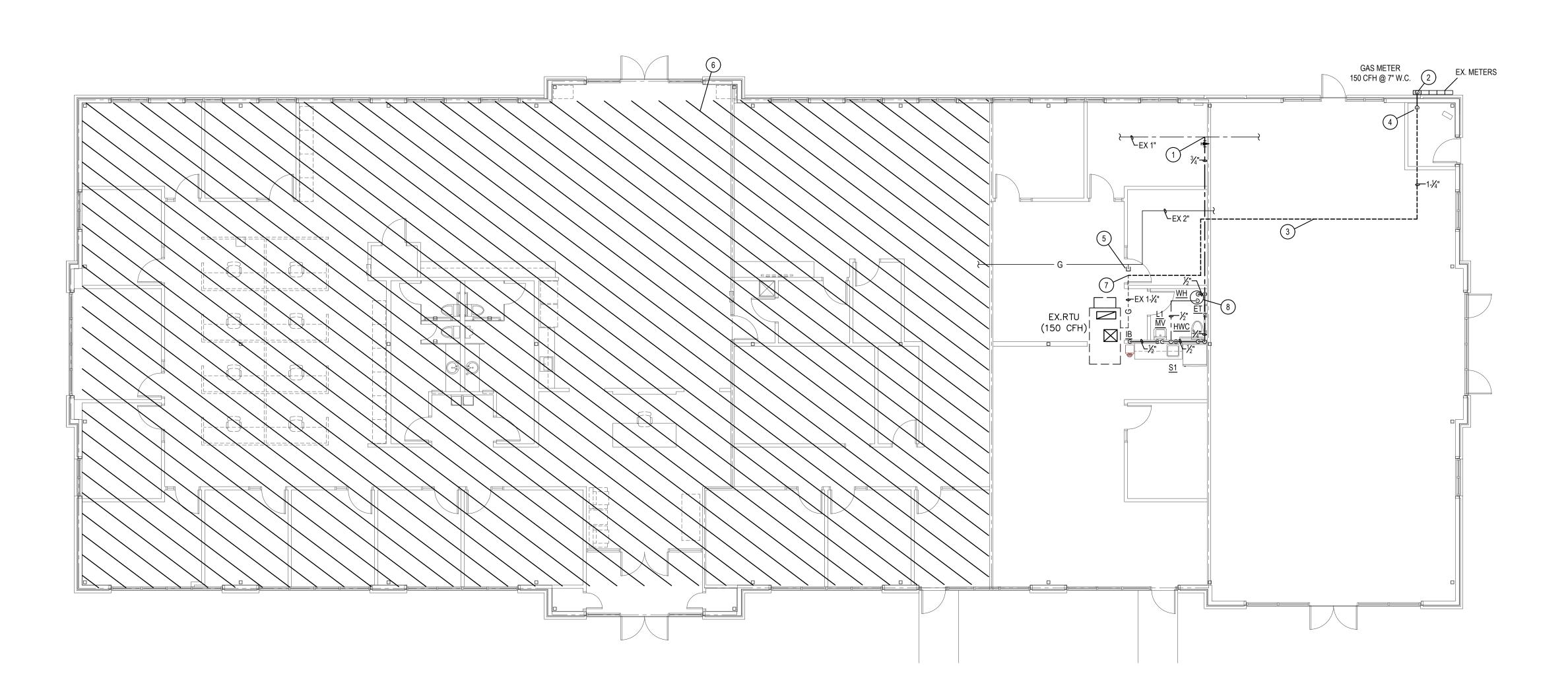
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PLUMBING PLAN NOTES:

- CONNECT 3/4" CW TO EXISTING DOMESTIC CW WITH SHUT OFF VALVE. VERIFY EXACT LOCATION AND SIZE OF
- EXISTING WATER LINE PRIOR TO INSTALLATION OF ANY PIPING.
- COORDINATE WITH GAS COMPANY FOR INSTALLATION OF A METER WITH CAPACITY FOR 150 CFH @ 7"W.C.. ROUTE PIPING UP INSIDE THE MECHANICAL ROOM AND PENETRATE ONTO ROOF SIMILAR TO EXISTING. ALL CONCEALED JOINTS ARE TO BE WELDED OR USE FITTINGS APPROVED FOR CONCEALED USE. VERIFY ALL EQUIPMENT GAS CAPACITIES AND OPERATING PRESSURES PRIOR TO INSTALLATION OF ANY PIPING. SEAL WALL PENETRATION WEATHER TIGHT.
- 3 GAS PIPING ON ROOF. SUPPORT AS REQUIRED AND AS DETAILED.
- CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.
- SEPARATE BRANCH PIPING FROM GAS PIPING MAIN AND CAP MAIN AS REQUIRED.
- NO WORK TO OCCUR IN THIS AREA.
- CONNECT TO EXISTING GAS PIPING AS REQUIRED.
- SUPPORT WATER HEATER FROM STRUCTURE ABOVE CEILING AS REQUIRED. SEE RISER DIAGRAM FOR WATER HEATER PIPING DIAGRAM. REFER TO MANUFACTURER'S INSTRUCTIONS FOR EXACT REQUIREMENTS. PROVIDE THERMAL EXPANSION TANK. INSTALL HIGH ENOUGH TO ALLOW T&P AND DRAIN PAN TO DRAIN INTO HUB DRAIN IN CEILING.





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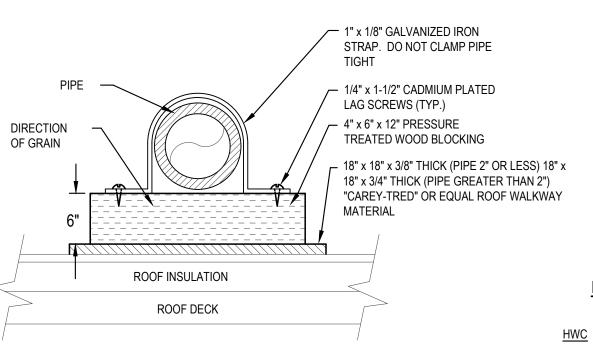
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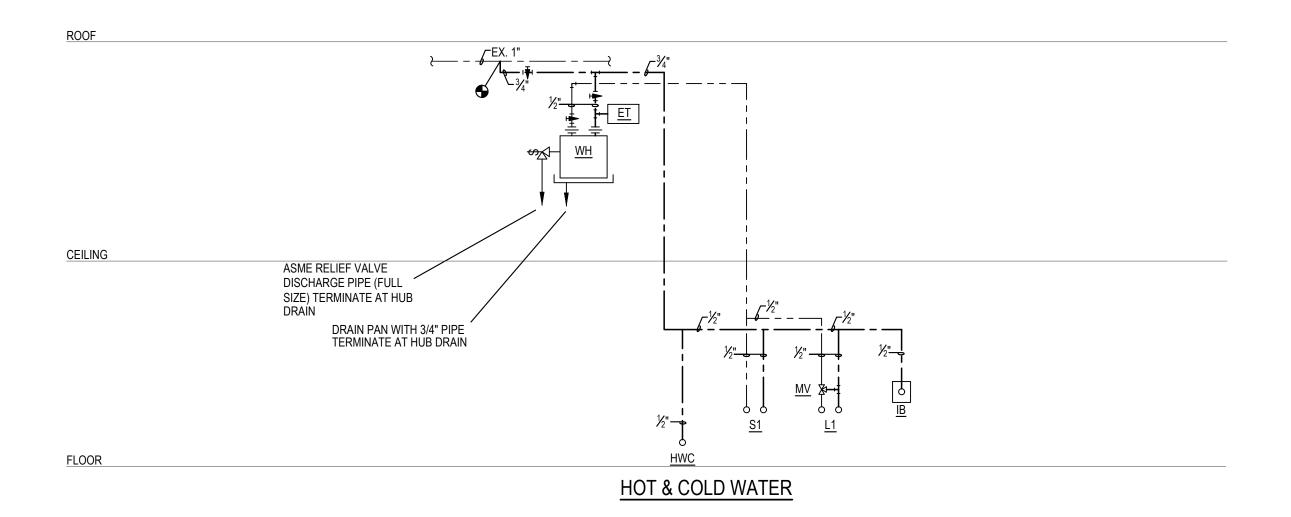
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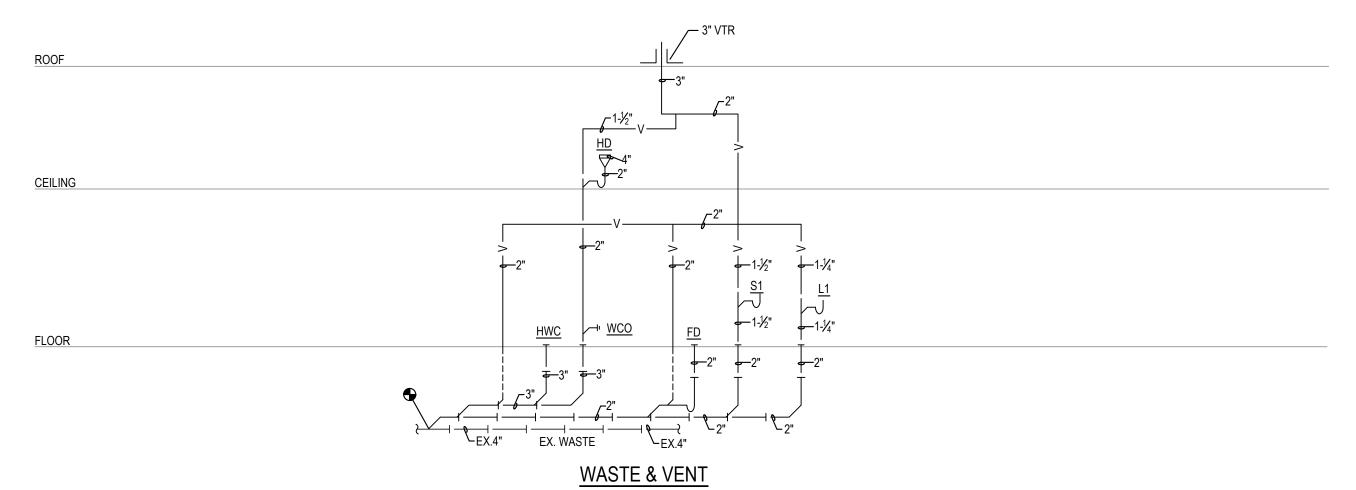




ROOF PIPE SUPPORT DETAIL

SCALE: NONE





# PLUMBING RISER DIAGRAMS

## PLUMBING FIXTURE SCHEDULE:

- HANDICAP WATER CLOSET: TOTO, #CST744SL, "DRAKE CLOSE COUPLED TOILET", 1.6 GALLON FLUSH, 16-1/2" HIGH ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, #SC534 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER. HANDLE ON
- HANDICAP LAVATORY, WALL HUNG: TOTO #LT307, 20"x 18", VITREOUS CHINA, FRONT OVERFLOW, DELTA #501 FAUCET WITH SINGLE METAL LEVER FAUCET, OFFSET GRID ELBOW DRAIN AND 1-1/4" TAILPIECE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT (MOUNTED PARALLEL WITH WALL), CHROME PLATED LOOSE KEY ANGLE STOPS AND RISERS, FLOOR MOUNTED CONCEALED ARM LAVATORY SUPPORT, INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- FLOOR DRAIN: SIOUX CHIEF, #842, PVC FLOOR DRAIN WITH ADJUSTABLE TOP AND CAST BRASS STRAINER.
- SINK: ELKAY, #LRAD-2222, 19"x16"x 6-1/2" DEEP BOWL,21-3/8"x 21-3/8" CUT-OUT, ADA COMPLIANT, SINGLE COMPARTMENT, SELF-RIMMING STAINLESS STEEL SINK WITH SATIN FINISH AND SOUND DAMPENING UNDERCOATING, #LK-1000CR FAUCET, SWING SPOUT, AERATOR, SINGLE LEVER HANDLE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS.
- WATER HEATER: AO SMITH #DEL-10, 10 GALLON STORAGE, 120 VOLT, 2500 WATT ELEMENT, ASME TEMPERATURE AND
- MIXING VALVE: WATTS, #LFUSG-B, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH BRASS SHUTTLE, STAINLESSSTEEL SPRINGS, INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. (SET TO 110°F).
- HOT WATER EXPANSION TANK: AMTROL, #ST-5, 2 GALLON EXPANSION TANK WITH DIAPHRAGM.
- ICE BOX. SIOUX CHIEF, #696-G1000. ICE BOX WITH 1/2" INLET, CONNECTION AND 1/4-TURN SHUT-OFF VALVE.
- HUB DRAIN: SIOUX CHIEF, #832, PVC WASTE DRAIN, TRAP SEAL.

P	LUMBIN	<b>IG FIXT</b>	<b>URE C</b>	ALCUL	ATIONS				
PLUMBING FIXTURE	QUANTITY	CW WSFU	CW WSFU TOTAL	HW WSFU	HW WSFU TOTAL	COMBINED WSFU	COMBINED WSFU TOTAL	DFU	DFU TOTAL
WATER CLOSET (FLUSH TANK)	1	5	5	0	0	5	5	4	4
LAVATORY	1	1.5	1.5	1.5	1.5	2.0	2.0	1.0	1.0
SINK	1	3.0	3.0	3	3	4	4	2.0	2.0
FLOOR DRAIN	1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
HUB DRAIN	1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
WATER COOLER SUPPLY BOX	1	0.5	0.5	0.0	0.0	0.5	0.5	0.0	0.0
TOTAL			10.0		4.5		11.5		11.0

PIPE HANG	ER SCHEDUL	E
PIPE MATERIAL	MAXIMUM HANGER SPACING	HANGER ROD DIAMETER
ABS (All sizes)	4'	3/8"
PVC (All Sizes)	4'	3/8"
CPVC, 1 inch and smaller	3'	1/2"
CPVC, $1-1/4$ inches and larger	4'	1/2"
Cast Iron (All Sizes)	5'	5/8"
Cast Iron (All Sizes) with 10 foot length of pipe	10'	5/8"
Copper Tube, 1—1/4 inches and smaller	6'	1/2"
Copper Tube, 1-1/2 inches and larger	10'	1/2"
Steel, 3 inches and smaller	12'	1/2"
Steel, 4 inches and larger	12'	5/8"
Pex, 1" and below without support channel	32"	3/8"
Pex, 1-1/4" and above without support channel	48"	3/8"
Pex ¾" and below with support channel	6'	3/8"
Pex 1" and above with support channel	8'	3/8"

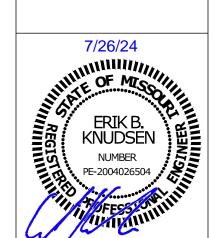
PLUMBING FIXTURE BRANCH PIPING SCHEDULE											
FIXTURE	V	NASTE	VENT	CW	HW						
WATER CLOSET (TANK TYPE)		3"	2"	1/2"							
LAVATORY		1-1/4"	1-1/4"	1/2"	1/2"						
SINK		1-1/2"	1-1/2"	1/2"	1/2"						
FLOOR DRAIN		2"	2"								
HUB DRAIN		2"	1-1/2"								
SUPPLY BOX				1/2"							

NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAMS HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

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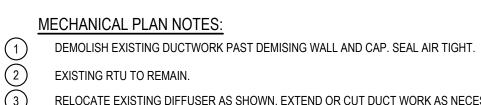
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TENANT SPLIT

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RELOCATE EXISTING DIFFUSER AS SHOWN. EXTEND OR CUT DUCT WORK AS NECESSARY. 4 SUPPORT EXHAUST FAN FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.

CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK. ROUTE 6" DIAMETER EXHAUST DUCT UP THROUGH ROOF TO WEATHER-HEAD WITH A BACK DRAFT DAMPER. MAINTAIN 10'

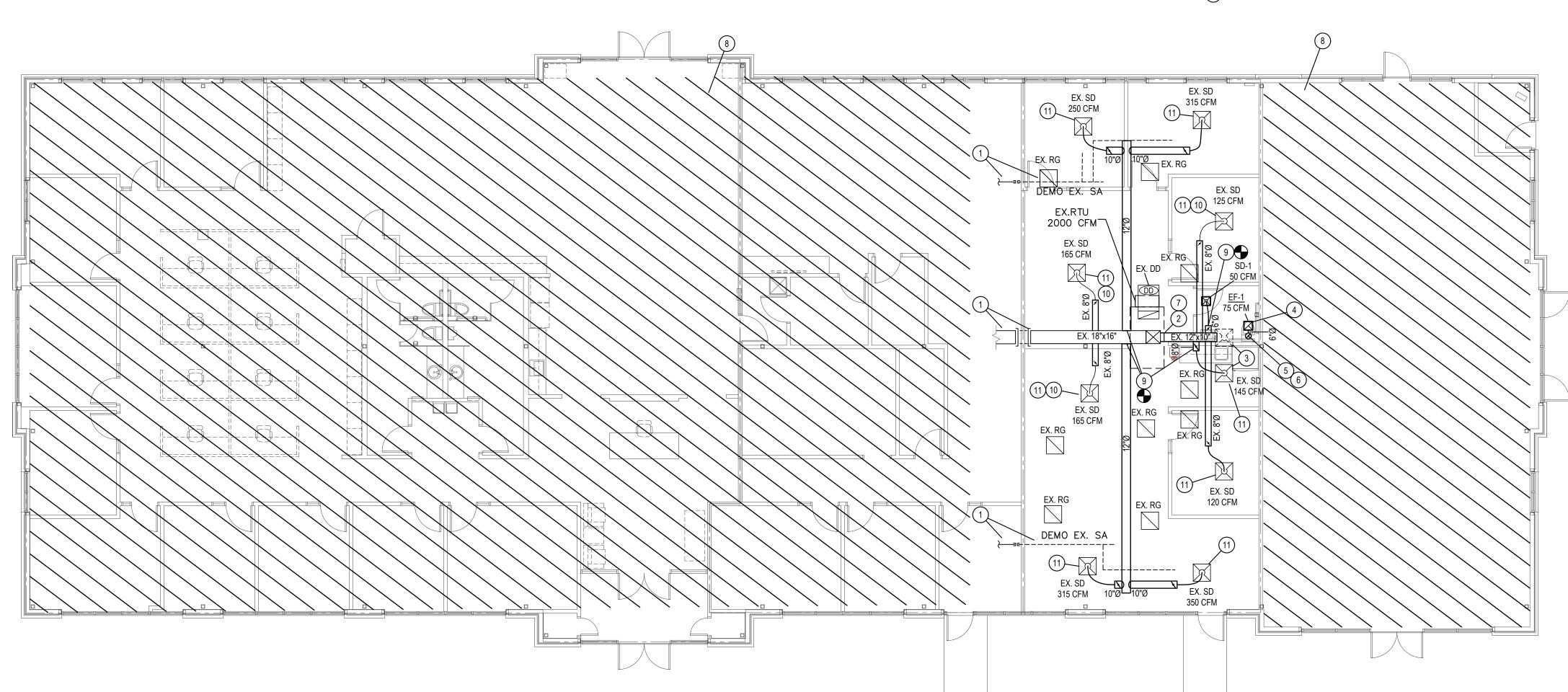
CLEARANCE FROM ALL OUTDOOR AIR INTAKES. BALANCE EX. RTU OUTSIDE AIR TO 400 CFM AS REQUIRED. FIELD VERIFY RTU INTAKES, PROVIDE AND INSTALL IF NONE FOUND TO BE EXISTING.

8 NO WORK TO OCCUR IN THIS AREA.

9 CONNECT DUCT TO EXISTING SUPPLY DUCTWORK AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY

REBALANCE DIFFUSER TO LISTED CFM.

CLEAN DIFFUSER/GRILLE TO "LIKE NEW" CONDITION AS REQUIRED.





MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

EXHAUST GRILLE/FAN DUCT-MOUNTED SMOKE DETECTOR NEW DUCTWORK SIZE OF RECTANGULAR DUCT SIZE OF ROUND DUCT

NEW SUPPLY DIFFUSER

NEW RETURN AIR GRILLE

MECHANICAL SYMBOLS

FLEXIBLE DUCTWORK FLEXIBLE CONNECTION TO FAN

FLOOR PLAN NOTE DESIGNATION S.A. SUPPLY AIR RETURN AIR

TRANSITION IN DUCT SIZE

ELBOW WITH TURNING VANES MANUAL VOLUME DAMPER MANUAL VOLUME DAMPER

> MOTORIZED CONTROL DAMPER FIRE DAMPER SPLITTER DAMPER WITH

HORIZONTAL REGULATOR SUPPLY AIR DUCT UP/DOWN RETURN AIR DUCT UP/DOWN

EXHAUST AIR DUCT UP/DOWN CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW

SCHEDULED MECHANICAL EQUIPMENT EXIST'G DUCT TO REMAIN

EXIST'G DUCT TO BE REMOVED EXISTING FLEXIBLE DUCTWORK

SIZE OF EXISTING DUCT EXISTING SUPPLY DIFFUSER CONNECT TO EXISTING

**→** UP -

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ALL EXISTING HVAC UNITS SHOULD HAVE A PREVENTATIVE MAINTENANCE CHECK-UP TO INCLUDE THE FOLLOWING CRITERIA

CHANGE ALL FILTERS.

CLEAN ALL CONDENSATE DRAIN PANS AND FLUSH ALL CONDENSATE DRAIN LINES.

CLEAN ALL EVAPORATOR AND CONDENSER COILS WITH A NON-ACID CLEANER. 4. CHECK REFRIGERANT CHARGE (GUAGES OR RETURN/SUPPLY TEMPERATURE VARIANCE).

5. PROVIDE COMPLETE LUBRICATION OF ALL SHAFTS AND BEARINGS THAT HAVE LUBRICATION ZERKS.

6. THE REPLACEMENT OF ALL BELTS, HOSES AND FABRIC/RUBBER COATED ITEMS THAT ARE SUBJECT TO WEAR.

CHECK AMPS OF THE INDOOR, OUTDOOR MOTORS, AND COMPRESSORS 8. TURN UNIT POWER OFF - TIGHTEN ALL ELECTRICAL CONNECTIONS, CONTACTORS, ETC.

9. EXAMINE AND REPAIR ALL ELECTRICAL WIRING, CONTROLS, STARTERS, RELAYS, CAPACITORS AND LIKE ITEMS THAT TEND TO DETERIORATE OVER TIME OR BECOME NON-OPERATIONAL. THIS INCLUDES SMOKE DETECTORS.

10. GREASE ALL FITTINGS

11. CHECK DUCTWORK CONNECTIONS AND REPAIR AS NEEDED.

12. NOTIFY GENERAL CONTRACTOR OF ANY REQUIRED PARTS OR REPAIRS NOT INCLUDED IN THIS LIST. ALL UNITS SHALL BE FUNCTIONING AND COOLING PROPERLY AT

COMPLETION OF JOB. 13. CHECK THE ECONOMIZER FOR PROPER FUNCTION AND CORRECT OPERATION OF THE SYSTEM WHEN A CALL FOR COOLING

COMES FROM THE THERMOSTAT. REPAIR AND ADJUST AS NEEDED. 14. VERIFY ANY WORK REQUIRED BY THE LANDLORD PRIOR TO BID.

15. ALL FINDINGS AND VALUES TO BE NOTED AND PROVIDED TO TENANT'S CONSTRUCTION MANAGER & OR TENANT'S MAINTENANCE DIRECTOR.

	DIFFUSER SCHEDULE											
MARK	MFGR	MODEL	BORDER TYPE	NECK SIZE	FACE SIZE	FINISH	DAMPER	ACCESSORIES	NOTES			
SD-1	TITUS	PAS/3	3	6"Ø	12"x12"	WHITE	-		-			

	EXHAUST FAN SCHEDULE											
				EXTERNAL		ELECTRICA	AL.		CONTROLS			
MARK	MFGR	MODEL	CFM	STATIC P. IN. WG.	RPM	VOLT/Ø/HZ	PWR	FAN TYPE	CONTROLS	NOTES		
EF-1	соок	GC-128	75	0.1	750	120/1/60	29 W	CEILING EXH.	SWITCH	1		

NOTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), FACTORY MEANS OF DISCONNECT AND WEATHER

# 2018 IMC

		OUTDOOR	AIR CALCU	LATIO	VS.				
UNIT	Area (sqft)	OCCUPANCY CLASSIFICATION	Occupant Density #/1000 sqft	People outdoor airflow rate in breathing zone, (Rp) cfm/person	Area outdoor airflow rate in breathing zone, (Ra) cfm/sqft	Exhaust airflow rate cfm/sqft	Breathing zone outdoor airflow (Vbz)	Zone air distribution effectivene ss (Ez)	Zone outdoor airflow (cfm)
	426	Office spaces	5	5	0.06		36	0.8	45
	75	Break Room	25	5	0.06		14	0.8	17
	68	Toilet rooms public	0	0	0	50/70	0	0.8	0
	1036	Martial Arts	10	20	0.06		269	0.8	337
								Total	399

